



Full wwPDB EM Validation Report ⓘ

Mar 5, 2026 – 10:37 PM UTC

PDB ID : 4V6I / pdb_00004v6i
EMDB ID : EMD-1669
Title : Localization of the small subunit ribosomal proteins into a 6.1 Å cryo-EM map of *Saccharomyces cerevisiae* translating 80S ribosome
Authors : Armache, J.-P.; Jarasch, A.; Anger, A.M.; Villa, E.; Becker, T.; Bhushan, S.; Jossinet, F.; Habeck, M.; Dindar, G.; Franckenberg, S.; Marquez, V.; Mielke, T.; Thomm, M.; Berninghausen, O.; Beatrix, B.; Soeding, J.; Westhof, E.; Wilson, D.N.; Beckmann, R.
Deposited on : 2010-10-12
Resolution : 8.80 Å(reported)

This is a Full wwPDB EM Validation Report for a publicly released PDB entry.

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

The following versions of software and data (see [references ⓘ](#)) were used in the production of this report:

EMDB validation analysis : 0.0.1.dev132
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.49

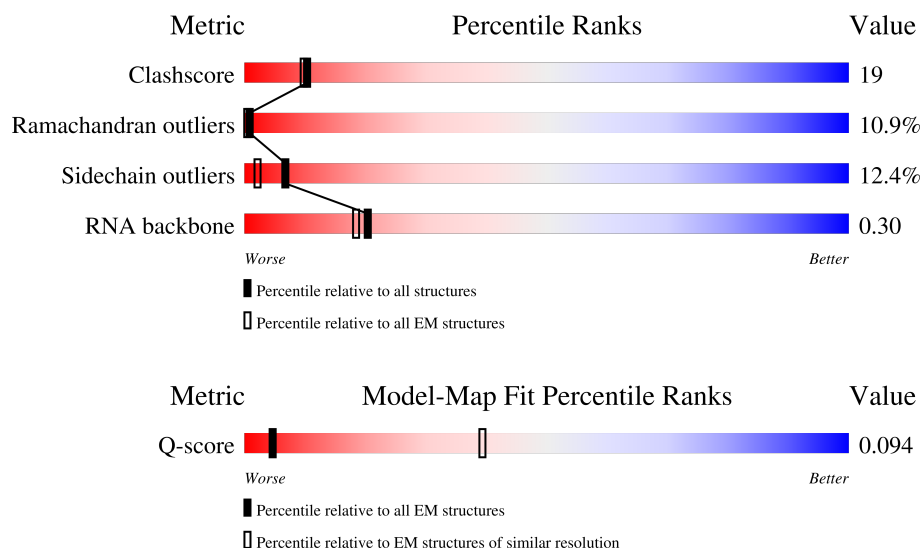
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 8.80 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
RNA backbone	8273	3508	-
Q-score	-	25397	265 (8.30 - 9.30)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion $< 40\%$). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	Aa	319	47% (upper red bar), 41% (green), 43% (yellow), 13% (orange), . (red)
2	AA	252	27% (upper red bar), 37% (green), 37% (yellow), 17% (orange), 9% (red)
3	AB	240	41% (upper red bar), 30% (green), 35% (yellow), 16% (orange), . (red), 15% (grey)

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
4	AD	261	
5	AC	197	
6	AE	254	
7	AG	144	
8	AF	225	
9	AH	130	
10	AI	143	
11	AJ	121	
12	AK	137	
13	AL	145	
14	AM	146	
15	AN	56	
16	AO	151	
17	AQ	136	
18	AP	156	
19	AR	142	
20	AS	144	
21	AT	87	
22	AV	108	
23	AW	93	
24	AX	82	
25	AY	67	
26	AZ	63	
27	Ab	37	
28	Ac	26	

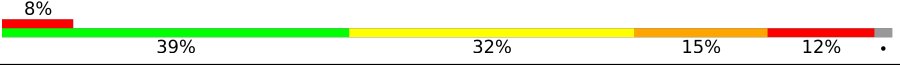
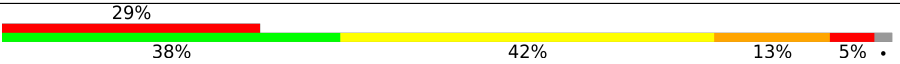
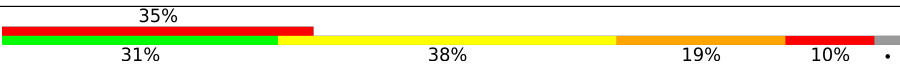
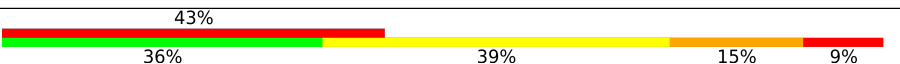
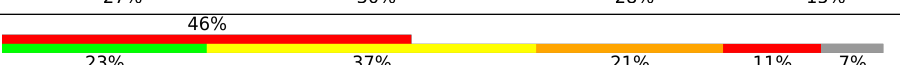
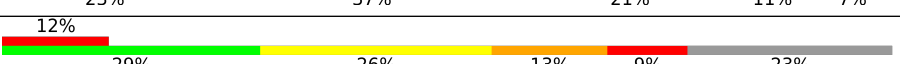
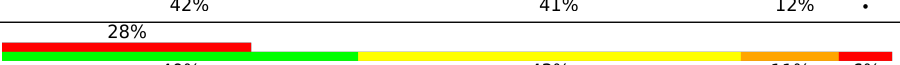
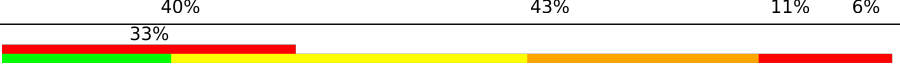
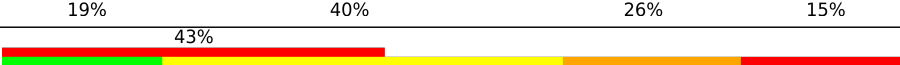
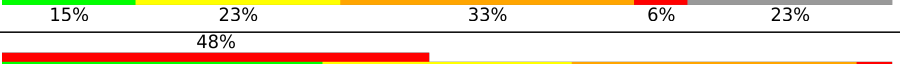
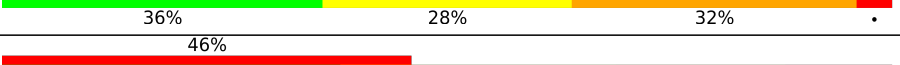
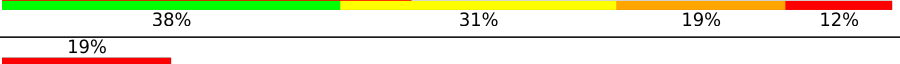
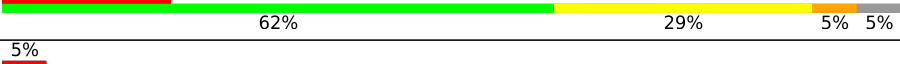
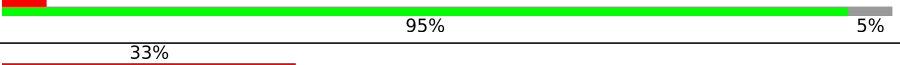
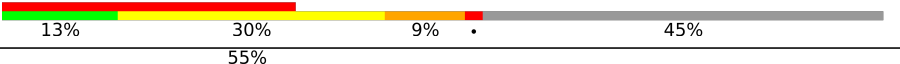
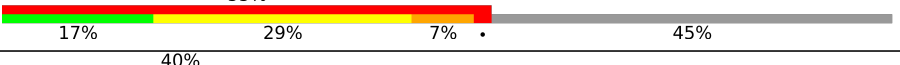
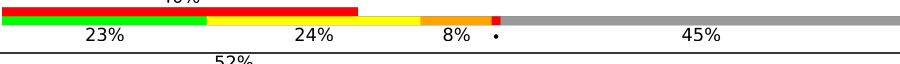
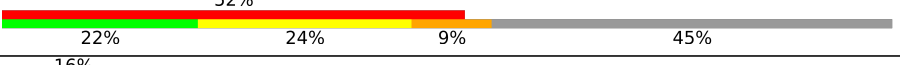
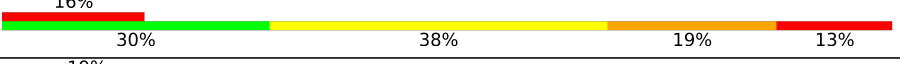
Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
29	AU	135	
30	BA	217	
31	BB	254	
32	BC	388	
33	BD	362	
34	BE	174	
35	BG	176	
36	BF	191	
37	BH	256	
38	Bs	312	
39	BJ	165	
40	BK	199	
41	BN	138	
42	BM	137	
43	BP	204	
44	BO	149	
45	BR	186	
46	BT	189	
47	BU	160	
48	BW	121	
49	BV	170	
50	BX	142	
51	BZ	155	
52	BY	123	
53	Ba	136	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
54	Bd	59	
55	Bc	120	
56	Bf	105	
57	Be	244	
58	Bg	113	
59	Bh	130	
60	Bi	118	
61	Bj	107	
62	Bk	100	
63	Bm	92	
64	Bl	88	
65	Bn	78	
66	Bo	51	
67	Bp	52	
68	Bq	25	
69	Br	106	
70	Bx	21	
70	By	21	
71	Bz	15	
72	Bt	106	
72	Bu	106	
73	Bv	106	
73	Bw	106	
74	BQ	297	
75	BL	170	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
76	BS	167	
77	BI	221	
78	CA	1800	
79	CB	75	
80	CC	11	
81	DA	3396	
82	DB	158	
83	DC	118	

2 Entry composition

There are 83 unique types of molecules in this entry. The entry contains 191627 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a protein called 40S ribosomal protein RACK1 (RACK1).

Mol	Chain	Residues	Atoms					AltConf	Trace
1	Aa	319	Total	C	N	O	S	0	0
			2442	1544	420	469	9		

- Molecule 2 is a protein called 40S ribosomal protein rpS0 (S2p).

Mol	Chain	Residues	Atoms					AltConf	Trace
2	AA	252	Total	C	N	O	S	0	0
			1922	1204	336	380	2		

- Molecule 3 is a protein called 40S ribosomal protein rpS3 (S3p).

Mol	Chain	Residues	Atoms					AltConf	Trace
3	AB	204	Total	C	N	O	S	0	0
			1511	945	282	278	6		

- Molecule 4 is a protein called 40S ribosomal protein rpS4 (S4e).

Mol	Chain	Residues	Atoms					AltConf	Trace
4	AD	200	Total	C	N	O	S	0	0
			1591	1018	288	283	2		

- Molecule 5 is a protein called 40S ribosomal protein rpS9 (S4p).

Mol	Chain	Residues	Atoms					AltConf	Trace
5	AC	197	Total	C	N	O	S	0	0
			1521	951	298	270	2		

- Molecule 6 is a protein called 40S ribosomal protein rpS2 (S5p).

Mol	Chain	Residues	Atoms					AltConf	Trace
6	AE	254	Total	C	N	O	S	0	0
			1936	1224	360	349	3		

- Molecule 7 is a protein called 40S ribosomal protein rpS7 (S7e).

Mol	Chain	Residues	Atoms				AltConf	Trace
7	AG	143	Total	C	N	O	0	0
			716	429	143	144		

- Molecule 8 is a protein called 40S ribosomal protein rpS5 (S7p).

Mol	Chain	Residues	Atoms					AltConf	Trace
8	AF	199	Total	C	N	O	S	0	0
			1543	958	293	289	3		

- Molecule 9 is a protein called 40S ribosomal protein rpS22 (S8p).

Mol	Chain	Residues	Atoms					AltConf	Trace
9	AH	130	Total	C	N	O	S	0	0
			1030	655	189	182	4		

- Molecule 10 is a protein called 40S ribosomal protein rpS16 (S9p).

Mol	Chain	Residues	Atoms				AltConf	Trace
10	AI	126	Total	C	N	O	0	0
			998	639	184	175		

- Molecule 11 is a protein called 40S ribosomal protein rpS20 (S10p).

Mol	Chain	Residues	Atoms					AltConf	Trace
11	AJ	113	Total	C	N	O	S	0	0
			849	528	158	162	1		

- Molecule 12 is a protein called 40S ribosomal protein rpS14 (S11p).

Mol	Chain	Residues	Atoms					AltConf	Trace
12	AK	119	Total	C	N	O	S	0	0
			833	508	157	165	3		

- Molecule 13 is a protein called 40S ribosomal protein rpS23 (S12p).

Mol	Chain	Residues	Atoms					AltConf	Trace
13	AL	145	Total	C	N	O	S	0	0
			978	588	203	184	3		

- Molecule 14 is a protein called 40S ribosomal protein rpS18 (S13p).

Mol	Chain	Residues	Atoms					AltConf	Trace
14	AM	140	Total	C	N	O	S	0	0
			1156	719	231	204	2		

- Molecule 15 is a protein called 40S ribosomal protein rpS29 (S14p).

Mol	Chain	Residues	Atoms					AltConf	Trace
15	AN	48	Total	C	N	O	S	0	0
			353	209	79	61	4		

- Molecule 16 is a protein called 40S ribosomal protein rpS13 (S15p).

Mol	Chain	Residues	Atoms					AltConf	Trace
16	AO	121	Total	C	N	O	S	0	0
			978	624	183	170	1		

- Molecule 17 is a protein called 40S ribosomal protein rpS17 (S17e).

Mol	Chain	Residues	Atoms					AltConf	Trace
17	AQ	136	Total	C	N	O	S	0	0
			1098	682	213	201	2		

- Molecule 18 is a protein called 40S ribosomal protein rpS11 (S17p).

Mol	Chain	Residues	Atoms					AltConf	Trace
18	AP	85	Total	C	N	O	S	0	0
			631	402	124	104	1		

- Molecule 19 is a protein called 40S ribosomal protein rpS15 (S19p).

Mol	Chain	Residues	Atoms					AltConf	Trace
19	AR	88	Total	C	N	O	S	0	0
			676	429	123	118	6		

- Molecule 20 is a protein called 40S ribosomal protein rpS19 (S19e).

Mol	Chain	Residues	Atoms					AltConf	Trace
20	AS	144	Total	C	N	O	S	0	0
			1120	699	209	209	3		

- Molecule 21 is a protein called 40S ribosomal protein rpS21 (S21e).

Mol	Chain	Residues	Atoms					AltConf	Trace
21	AT	87	Total	C	N	O	S	0	0
			685	420	125	138	2		

- Molecule 22 is a protein called 40S ribosomal protein rpS25 (S25e).

Mol	Chain	Residues	Atoms					AltConf	Trace
22	AV	85	Total	C	N	O	S	0	0
			688	437	128	122	1		

- Molecule 23 is a protein called 40S ribosomal protein rpS26 (S26e).

Mol	Chain	Residues	Atoms				AltConf	Trace
23	AW	92	Total	C	N	O	0	0
			461	276	92	93		

- Molecule 24 is a protein called 40S ribosomal protein rpS27 (S27e).

Mol	Chain	Residues	Atoms					AltConf	Trace
24	AX	50	Total	C	N	O	S	0	0
			366	229	60	72	5		

- Molecule 25 is a protein called 40S ribosomal protein rpS28 (S28e).

Mol	Chain	Residues	Atoms					AltConf	Trace
25	AY	60	Total	C	N	O	S	0	0
			445	276	80	87	2		

- Molecule 26 is a protein called 40S ribosomal protein rpS30 (S30e).

Mol	Chain	Residues	Atoms					AltConf	Trace
26	AZ	63	Total	C	N	O	S	0	0
			492	307	102	81	2		

- Molecule 27 is a protein called Unknown 40S ribosomal protein XS1.

Mol	Chain	Residues	Atoms				AltConf	Trace
27	Ab	36	Total	C	N	O	0	0
			181	108	36	37		

- Molecule 28 is a protein called Unknown 40S ribosomal protein XS2.

Mol	Chain	Residues	Atoms				AltConf	Trace
28	Ac	25	Total	C	N	O	0	0
			126	75	25	26		

- Molecule 29 is a protein called 40S ribosomal protein S24.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	AU	96	Total	C	N	O	S	0	0
			714	450	134	129	1		

- Molecule 30 is a protein called 60S ribosomal protein rpL1 (L1p).

Mol	Chain	Residues	Atoms					AltConf	Trace
30	BA	217	Total	C	N	O	S	0	0
			1718	1097	299	312	10		

- Molecule 31 is a protein called 60S ribosomal protein rpL2 (L2p).

Mol	Chain	Residues	Atoms					AltConf	Trace
31	BB	254	Total	C	N	O	S	0	0
			1904	1183	385	334	2		

- Molecule 32 is a protein called 60S ribosomal protein rpL3 (L3p).

Mol	Chain	Residues	Atoms					AltConf	Trace
32	BC	388	Total	C	N	O	S	0	0
			3055	1933	579	534	9		

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
BC	388	GLY	-	expression tag	UNP P14126

- Molecule 33 is a protein called 60S ribosomal protein rpL4 (L4p).

Mol	Chain	Residues	Atoms					AltConf	Trace
33	BD	329	Total	C	N	O	S	0	0
			2486	1564	480	438	4		

- Molecule 34 is a protein called 60S ribosomal protein rpL11 (L5p).

Mol	Chain	Residues	Atoms					AltConf	Trace
34	BE	168	Total	C	N	O	S	0	0
			1341	839	252	245	5		

- Molecule 35 is a protein called 60S ribosomal protein rpL6 (L6e).

Mol	Chain	Residues	Atoms					AltConf	Trace
35	BG	176	Total	C	N	O	S	0	0
			1409	907	252	248	2		

- Molecule 36 is a protein called 60S ribosomal protein rpL9 (L6p).

Mol	Chain	Residues	Atoms					AltConf	Trace
36	BF	191	Total	C	N	O	S	0	0
			1516	961	274	277	4		

- Molecule 37 is a protein called 60S ribosomal protein rpL8 (L7ae).

Mol	Chain	Residues	Atoms					AltConf	Trace
37	BH	197	Total	C	N	O	S	0	0
			1505	959	269	274	3		

- Molecule 38 is a protein called 60S acidic ribosomal protein rpP0 (L10P).

Mol	Chain	Residues	Atoms					AltConf	Trace
38	Bs	257	Total	C	N	O	S	0	0
			1976	1269	334	368	5		

- Molecule 39 is a protein called 60S ribosomal protein rpL12 (L11p).

Mol	Chain	Residues	Atoms					AltConf	Trace
39	BJ	127	Total	C	N	O	S	0	0
			954	601	174	178	1		

- Molecule 40 is a protein called 60S ribosomal protein rpL16 (L13p).

Mol	Chain	Residues	Atoms					AltConf	Trace
40	BK	199	Total	C	N	O	S	0	0
			1570	1011	291	266	2		

- Molecule 41 is a protein called 60S ribosomal protein rpL14 (L14e).

Mol	Chain	Residues	Atoms					AltConf	Trace
41	BN	138	Total	C	N	O	S	0	0
			1068	683	201	181	3		

- Molecule 42 is a protein called 60S ribosomal protein rpL23 (L14p).

Mol	Chain	Residues	Atoms					AltConf	Trace
42	BM	131	Total	C	N	O	S	0	0
			972	611	182	172	7		

- Molecule 43 is a protein called 60S ribosomal protein rpL15 (L15e).

Mol	Chain	Residues	Atoms					AltConf	Trace
43	BP	193	Total	C	N	O	S	0	0
			1625	1016	341	266	2		

- Molecule 44 is a protein called 60S ribosomal protein rpL28 (L15p).

Mol	Chain	Residues	Atoms					AltConf	Trace
44	BO	149	Total	C	N	O	S	0	0
			1182	754	232	192	4		

- Molecule 45 is a protein called 60S ribosomal protein rpL18 (L18e).

Mol	Chain	Residues	Atoms					AltConf	Trace
45	BR	161	Total	C	N	O	S	0	0
			1243	786	242	212	3		

- Molecule 46 is a protein called 60S ribosomal protein rpL19 (L19e).

Mol	Chain	Residues	Atoms					AltConf	Trace
46	BT	189	Total	C	N	O	S	0	0
			1530	940	327	262	1		

- Molecule 47 is a protein called 60S ribosomal protein rpL21 (L21e).

Mol	Chain	Residues	Atoms					AltConf	Trace
47	BU	160	Total	C	N	O	S	0	0
			1261	793	242	222	4		

- Molecule 48 is a protein called 60S ribosomal protein rpL22 (L22e).

Mol	Chain	Residues	Atoms				AltConf	Trace
48	BW	105	Total	C	N	O	0	0
			830	535	140	155		

- Molecule 49 is a protein called 60S ribosomal protein rpL17 (L22p).

Mol	Chain	Residues	Atoms				AltConf	Trace
49	BV	170	Total	C	N	O	S	0
			1312	814	254	243	1	0

- Molecule 50 is a protein called 60S ribosomal protein rpL25 (L23p).

Mol	Chain	Residues	Atoms				AltConf	Trace
50	BX	122	Total	C	N	O	S	0
			978	629	172	175	2	0

- Molecule 51 is a protein called 60S ribosomal protein rpL24 (L24e).

Mol	Chain	Residues	Atoms				AltConf	Trace
51	BZ	73	Total	C	N	O		0
			579	366	115	98		0

- Molecule 52 is a protein called 60S ribosomal protein rpL26 (L24p).

Mol	Chain	Residues	Atoms				AltConf	Trace
52	BY	123	Total	C	N	O	S	0
			972	611	188	172	1	0

- Molecule 53 is a protein called 60S ribosomal protein rpL27 (L27e).

Mol	Chain	Residues	Atoms				AltConf	Trace
53	Ba	95	Total	C	N	O		0
			708	455	134	119		0

- Molecule 54 is a protein called 60S ribosomal protein rpL29 (L29e).

Mol	Chain	Residues	Atoms				AltConf	Trace
54	Bd	22	Total	C	N	O	0	0
			174	109	40	25		

- Molecule 55 is a protein called 60S ribosomal protein rpL35 (L29p).

Mol	Chain	Residues	Atoms					AltConf	Trace
55	Bc	118	Total	C	N	O	S	0	0
			965	612	185	167	1		

- Molecule 56 is a protein called 60S ribosomal protein rpL30 (L30e).

Mol	Chain	Residues	Atoms					AltConf	Trace
56	Bf	105	Total	C	N	O	S	0	0
			785	501	133	150	1		

- Molecule 57 is a protein called 60S ribosomal protein rpL7 (L30p).

Mol	Chain	Residues	Atoms					AltConf	Trace
57	Be	239	Total	C	N	O	S	0	0
			1919	1235	348	335	1		

- Molecule 58 is a protein called 60S ribosomal protein rpL31 (L31e).

Mol	Chain	Residues	Atoms					AltConf	Trace
58	Bg	110	Total	C	N	O	S	0	0
			873	552	169	150	2		

- Molecule 59 is a protein called 60S ribosomal protein pL32 (L32e).

Mol	Chain	Residues	Atoms					AltConf	Trace
59	Bh	130	Total	C	N	O	S	0	0
			1043	660	208	173	2		

- Molecule 60 is a protein called 60S ribosomal protein rpL34 (L34e).

Mol	Chain	Residues	Atoms					AltConf	Trace
60	Bi	118	Total	C	N	O	S	0	0
			926	572	188	161	5		

- Molecule 61 is a protein called 60S ribosomal protein rpL33 (L35ae).

Mol	Chain	Residues	Atoms					AltConf	Trace
61	Bj	100	Total	C	N	O	S	0	0
			738	461	147	128	2		

- Molecule 62 is a protein called 60S ribosomal protein rpL36 (L36e).

Mol	Chain	Residues	Atoms					AltConf	Trace
62	Bk	77	Total	C	N	O	S	0	0
			619	384	129	105	1		

- Molecule 63 is a protein called 60S ribosomal protein rpL43 (L37ae).

Mol	Chain	Residues	Atoms					AltConf	Trace
63	Bm	92	Total	C	N	O	S	0	0
			703	434	139	123	7		

- Molecule 64 is a protein called 60S ribosomal protein rpL37 (L37e).

Mol	Chain	Residues	Atoms					AltConf	Trace
64	Bl	88	Total	C	N	O	S	0	0
			678	410	148	114	6		

- Molecule 65 is a protein called 60S ribosomal protein rpL38 (L38e).

Mol	Chain	Residues	Atoms				AltConf	Trace
65	Bn	78	Total	C	N	O	0	0
			604	385	113	106		

- Molecule 66 is a protein called 60S ribosomal protein rpL39 (L39e).

Mol	Chain	Residues	Atoms					AltConf	Trace
66	Bo	51	Total	C	N	O	S	0	0
			445	277	98	67	3		

- Molecule 67 is a protein called 60S ribosomal protein rpL40 (L40e).

Mol	Chain	Residues	Atoms					AltConf	Trace
67	Bp	40	Total	C	N	O	S	0	0
			330	201	72	52	5		

- Molecule 68 is a protein called 60S ribosomal protein rpL41 (L41e).

Mol	Chain	Residues	Atoms					AltConf	Trace
68	Bq	25	Total	C	N	O	S	0	0
			234	142	63	28	1		

- Molecule 69 is a protein called 60S ribosomal protein rpL42 (L44e).

Mol	Chain	Residues	Atoms					AltConf	Trace
69	Br	106	Total	C	N	O	S	0	0
			834	521	169	138	6		

- Molecule 70 is a protein called Unknown protein.

Mol	Chain	Residues	Atoms				AltConf	Trace
70	Bx	20	Total	C	N	O	0	0
			100	60	20	20		
70	By	20	Total	C	N	O	0	0
			100	60	20	20		

- Molecule 71 is a protein called Unknown protein.

Mol	Chain	Residues	Atoms				AltConf	Trace
71	Bz	14	Total	C	N	O	0	0
			70	42	14	14		

- Molecule 72 is a protein called 60S acidic ribosomal protein rpP11 (P1).

Mol	Chain	Residues	Atoms				AltConf	Trace
72	Bt	58	Total	C	N	O	0	0
			440	281	68	91		
72	Bu	58	Total	C	N	O	0	0
			440	281	68	91		

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
Bt	37	ASP	VAL	conflict	UNP P05318
Bu	37	ASP	VAL	conflict	UNP P05318

- Molecule 73 is a protein called 60S acidic ribosomal protein (P2).

Mol	Chain	Residues	Atoms					AltConf	Trace
73	Bv	58	Total	C	N	O	S	0	0
			429	271	66	91	1		
73	Bw	58	Total	C	N	O	S	0	0
			429	271	66	91	1		

- Molecule 74 is a protein called 60S ribosomal protein rpL5 (L18p).

Mol	Chain	Residues	Atoms					AltConf	Trace
74	BQ	297	Total	C	N	O	S	0	0
			2356	1485	414	454	3		

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
BQ	112	ARG	LYS	conflict	UNP P26321

- Molecule 75 is a protein called 60S ribosomal protein rpL13 (L13e).

Mol	Chain	Residues	Atoms					AltConf	Trace
75	BL	169	Total	C	N	O		0	0
			845	507	169	169			

- Molecule 76 is a protein called 60S ribosomal protein rpL20 (L18ae).

Mol	Chain	Residues	Atoms					AltConf	Trace
76	BS	167	Total	C	N	O	S	0	0
			1420	916	263	234	7		

- Molecule 77 is a protein called 60S ribosomal protein rpL10 (L10e).

Mol	Chain	Residues	Atoms					AltConf	Trace
77	BI	181	Total	C	N	O	S	0	0
			1444	907	281	248	8		

- Molecule 78 is a RNA chain called 18S rRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
78	CA	1721	Total	C	N	O	P	0	10
			33643	14904	5670	11348	1721		

- Molecule 79 is a RNA chain called P-SITE TRNA ASP.

Mol	Chain	Residues	Atoms					AltConf	Trace
79	CB	75	Total	C	N	O	P	0	0
			1599	712	280	532	75		

- Molecule 80 is a RNA chain called MRNA, RNA (5'-R(P*AP*AP*AP*AP*GP*AP*CP*U P*UP*CP*A)-3').

Mol	Chain	Residues	Atoms					AltConf	Trace
80	CC	11	Total	C	N	O	P	0	0
			236	106	45	74	11		

- Molecule 81 is a RNA chain called 25S rRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
81	DA	3354	Total	C	N	O	P	0	75
			68830	30640	12220	22616	3354		

- Molecule 82 is a RNA chain called 5.8S rRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
82	DB	157	Total	C	N	O	P	0	0
			3129	1391	523	1058	157		

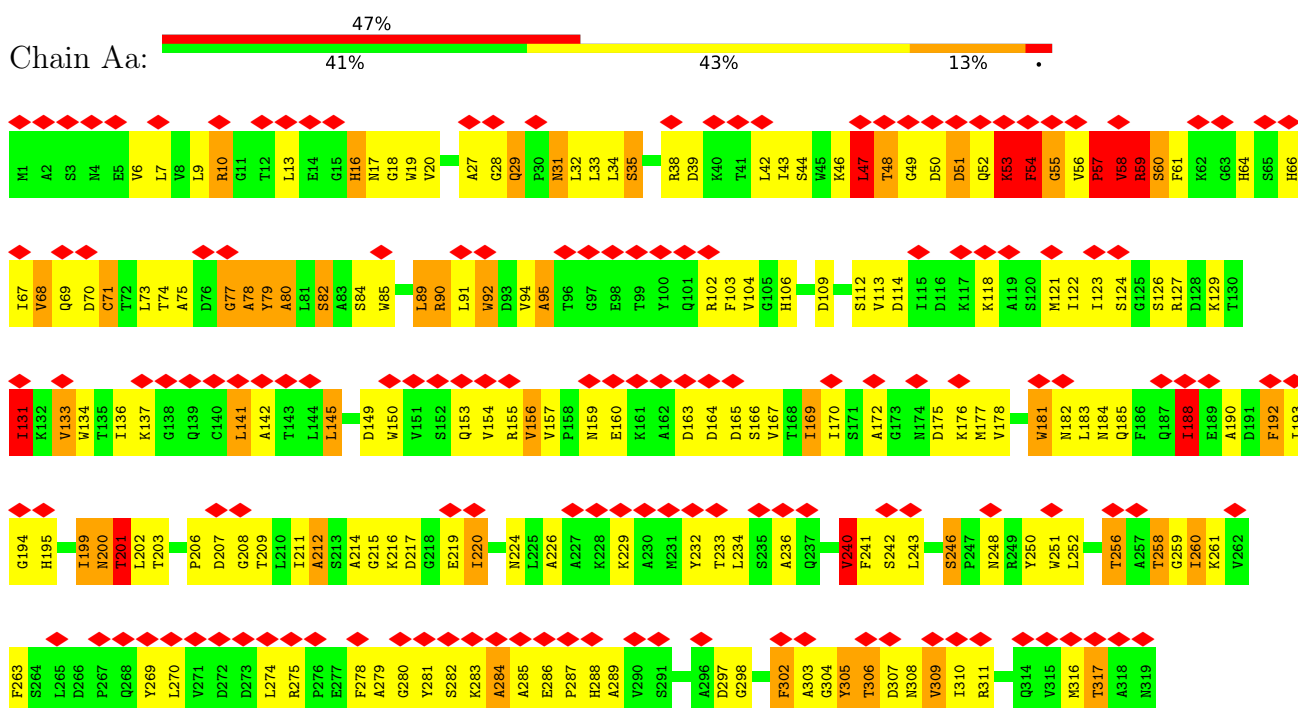
- Molecule 83 is a RNA chain called 5S rRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
83	DC	118	Total	C	N	O	P	0	0
			2513	1122	446	827	118		

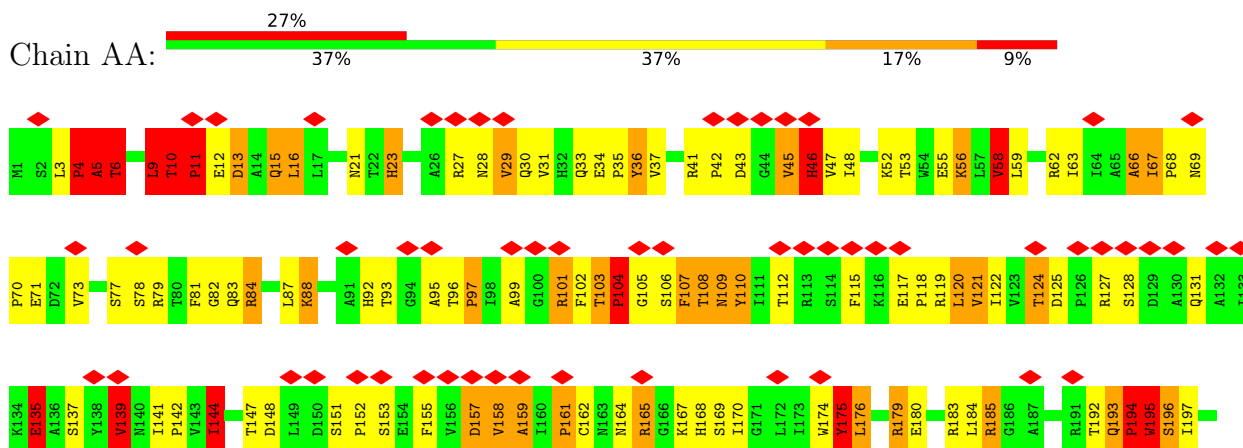
3 Residue-property plots

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

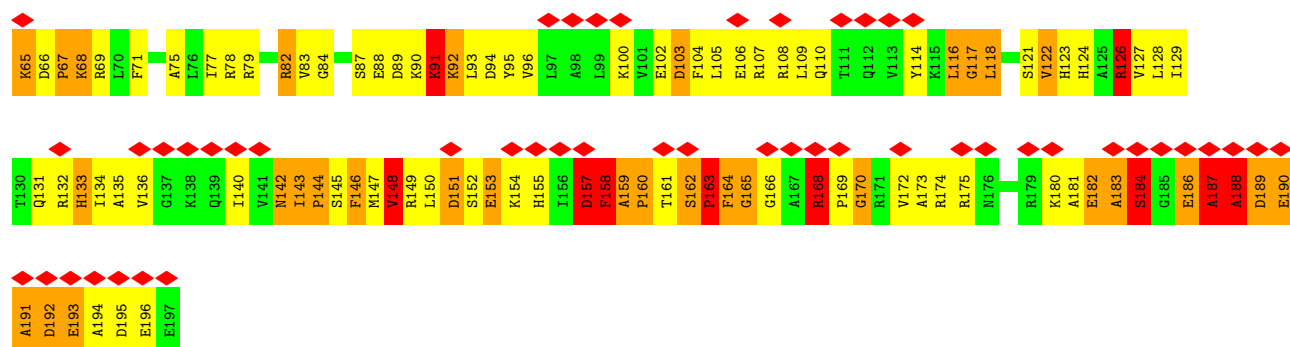
• Molecule 1: 40S ribosomal protein RACK1 (RACK1)



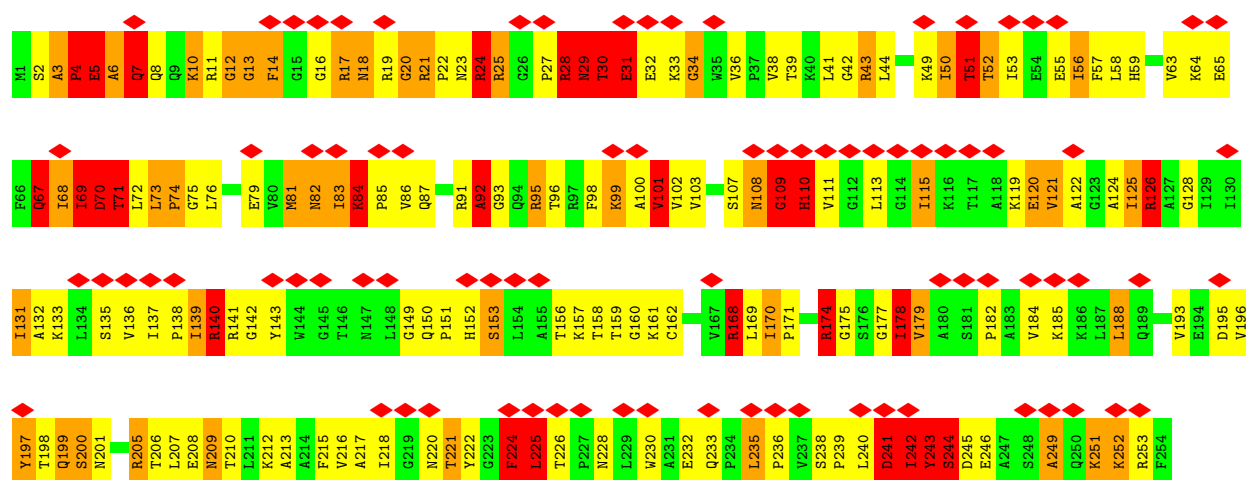
• Molecule 2: 40S ribosomal protein rpS0 (S2p)



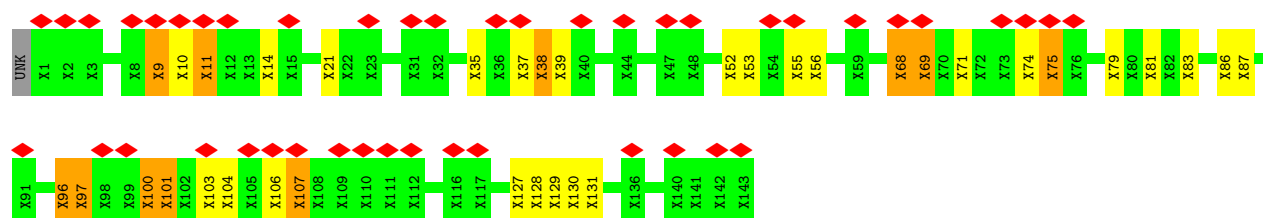
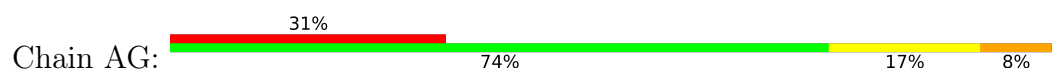




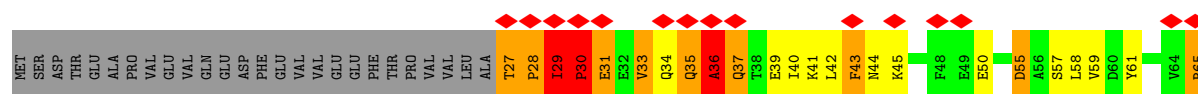
• Molecule 6: 40S ribosomal protein rpS2 (S5p)

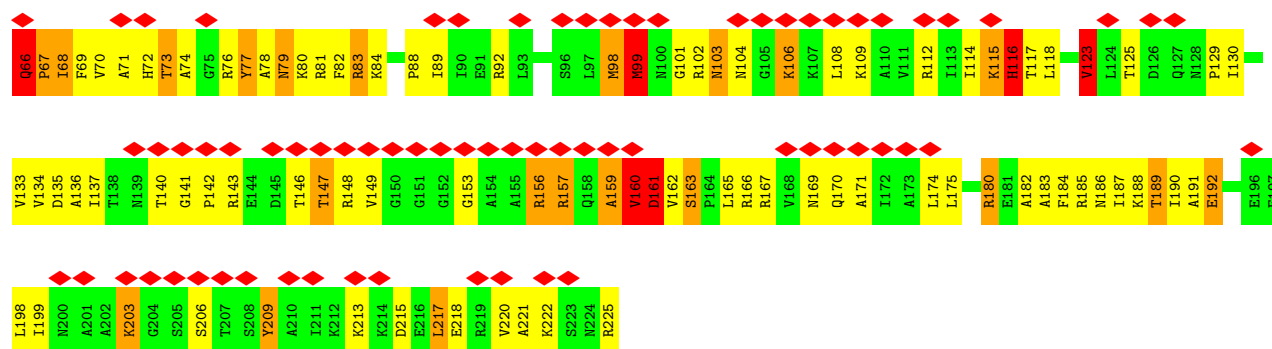


• Molecule 7: 40S ribosomal protein rpS7 (S7e)

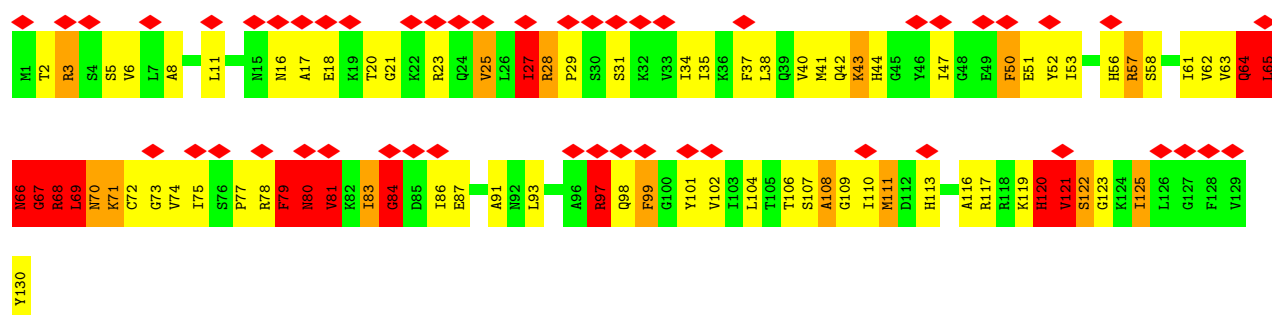
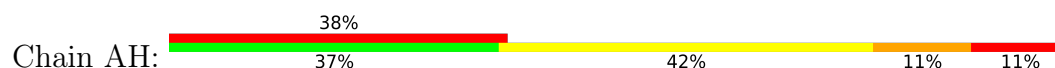


• Molecule 8: 40S ribosomal protein rpS5 (S7p)

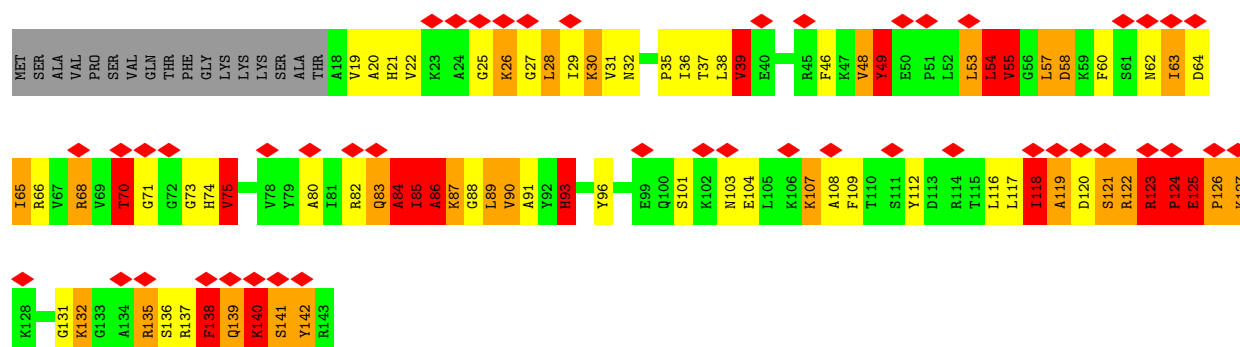




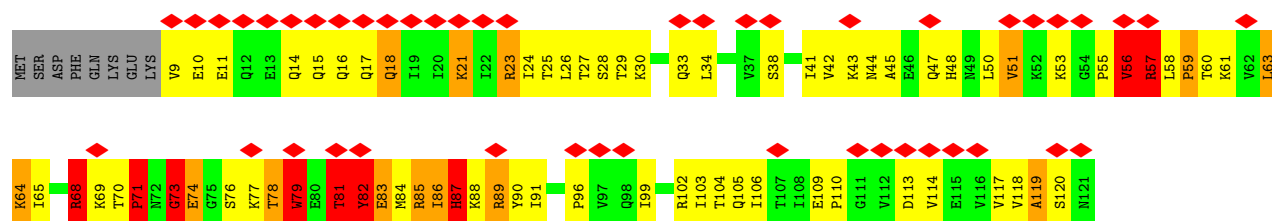
• Molecule 9: 40S ribosomal protein rpS22 (S8p)



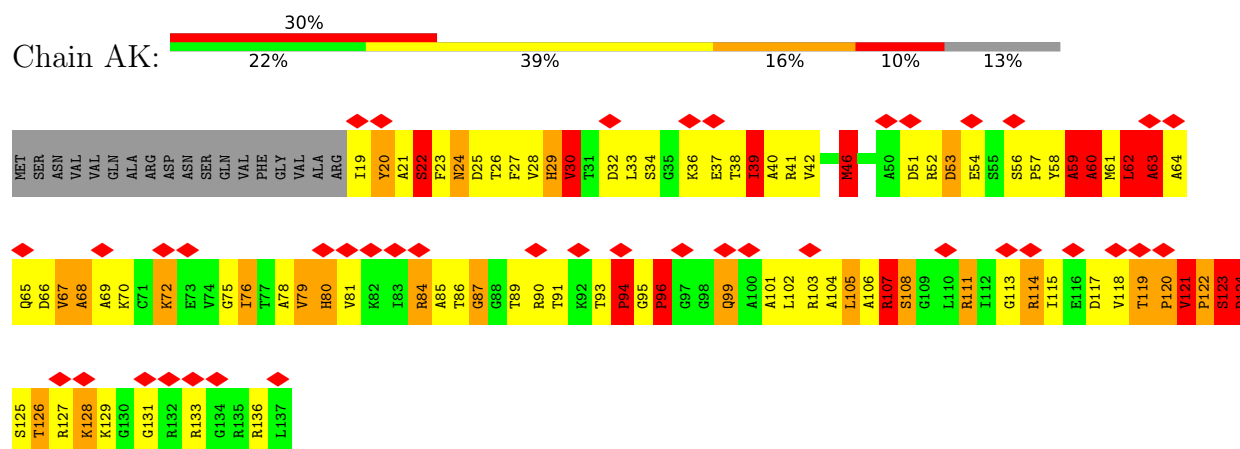
• Molecule 10: 40S ribosomal protein rpS16 (S9p)



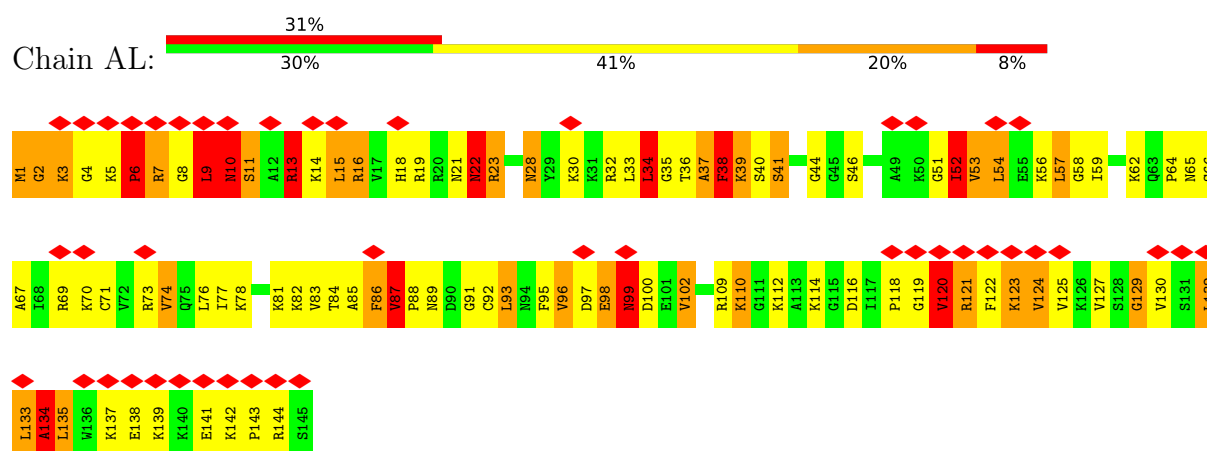
• Molecule 11: 40S ribosomal protein rpS20 (S10p)



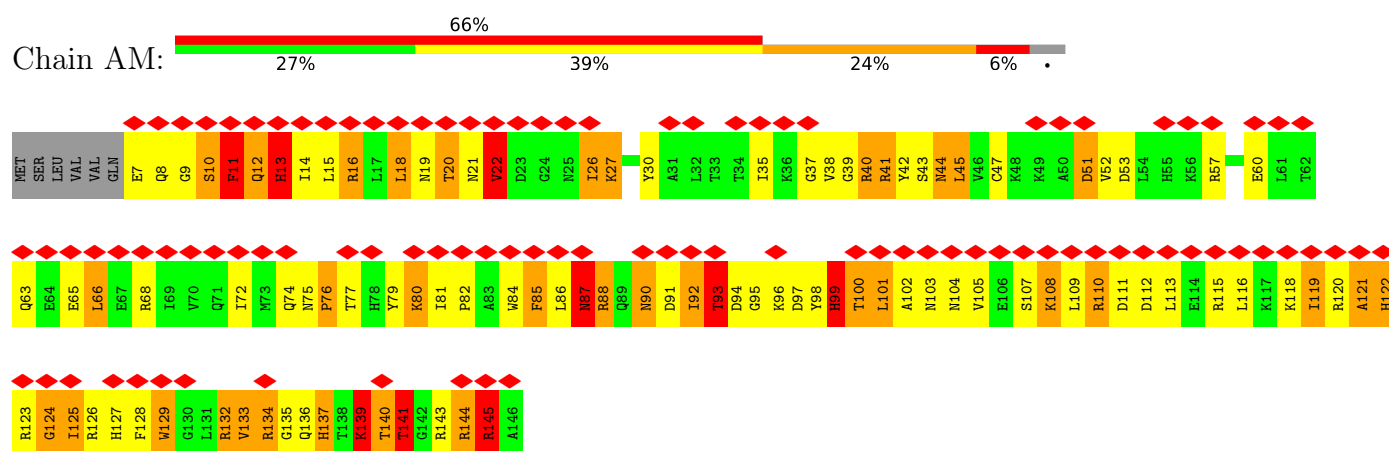
- Molecule 12: 40S ribosomal protein rpS14 (S11p)



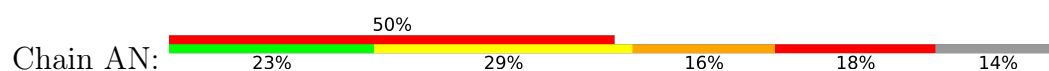
- Molecule 13: 40S ribosomal protein rpS23 (S12p)

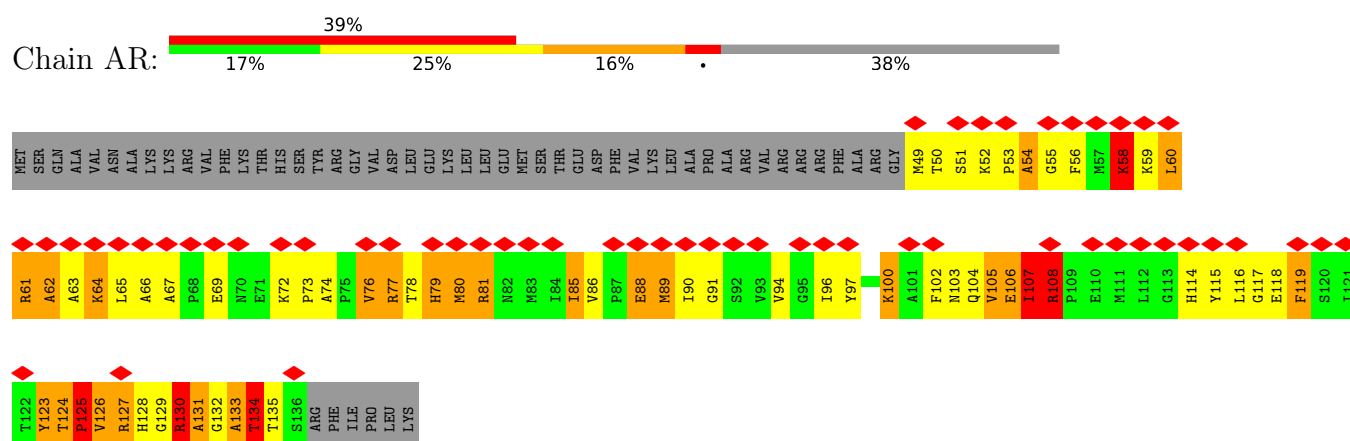


- Molecule 14: 40S ribosomal protein rpS18 (S13p)

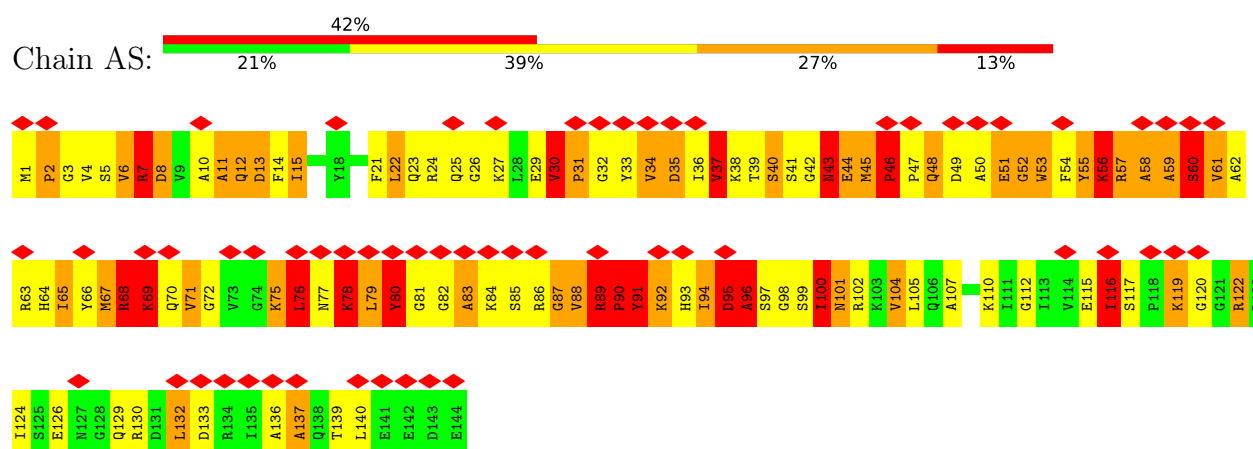


- Molecule 15: 40S ribosomal protein rpS29 (S14p)

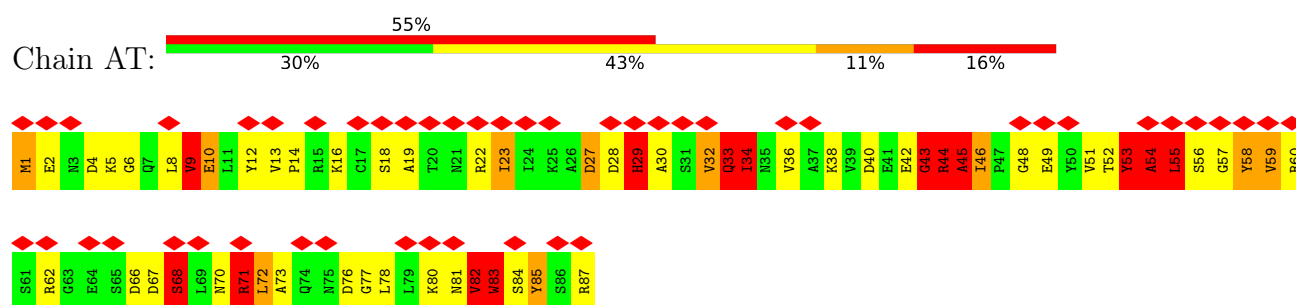




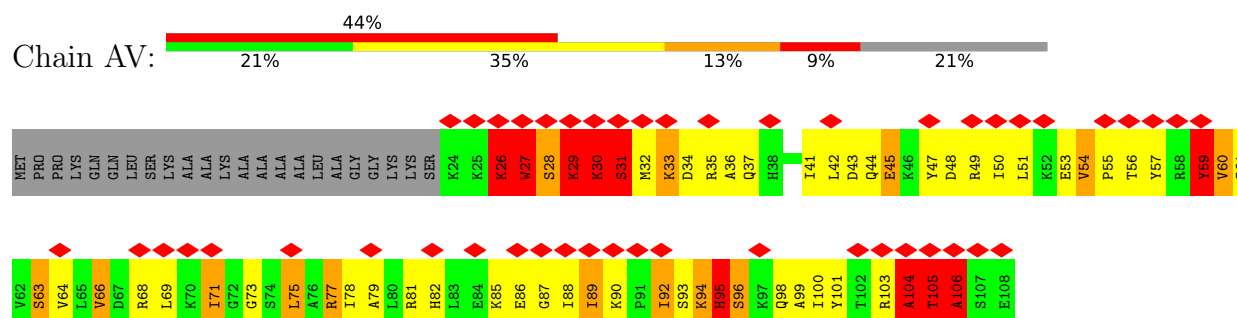
- Molecule 20: 40S ribosomal protein rpS19 (S19e)



- Molecule 21: 40S ribosomal protein rpS21 (S21e)



- Molecule 22: 40S ribosomal protein rpS25 (S25e)

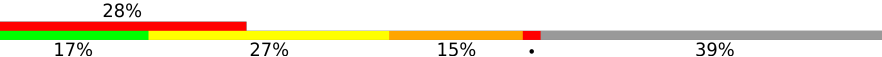


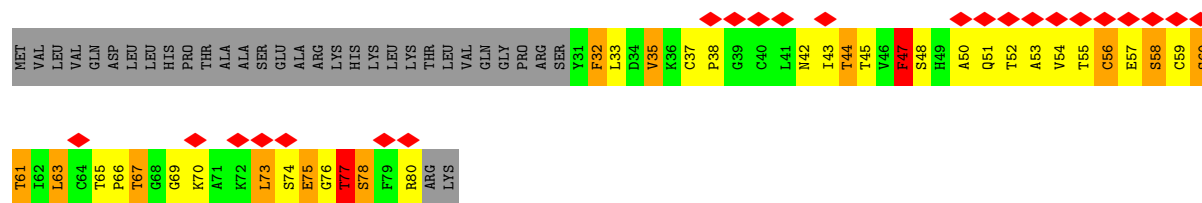
- Molecule 23: 40S ribosomal protein rpS26 (S26e)

Chain AW: 



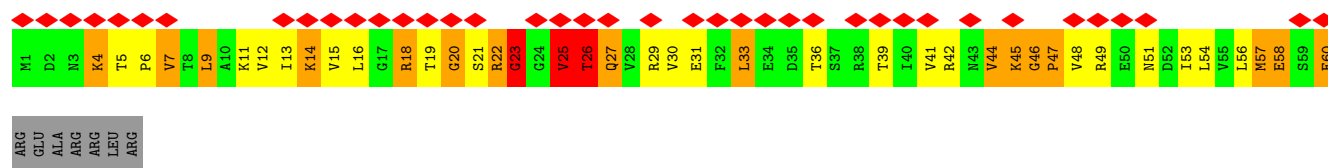
- Molecule 24: 40S ribosomal protein rpS27 (S27e)

Chain AX: 

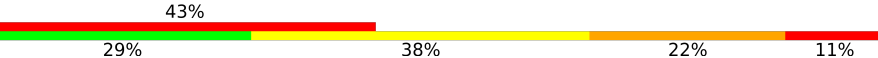


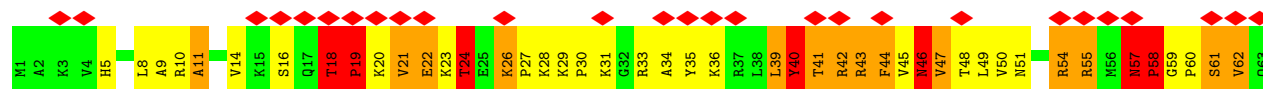
- Molecule 25: 40S ribosomal protein rpS28 (S28e)

Chain AY: 



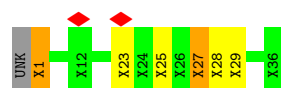
- Molecule 26: 40S ribosomal protein rpS30 (S30e)

Chain AZ: 

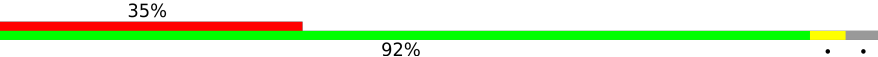


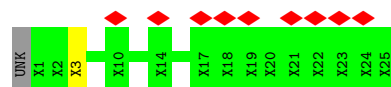
- Molecule 27: Unknown 40S ribosomal protein XS1

Chain Ab: 

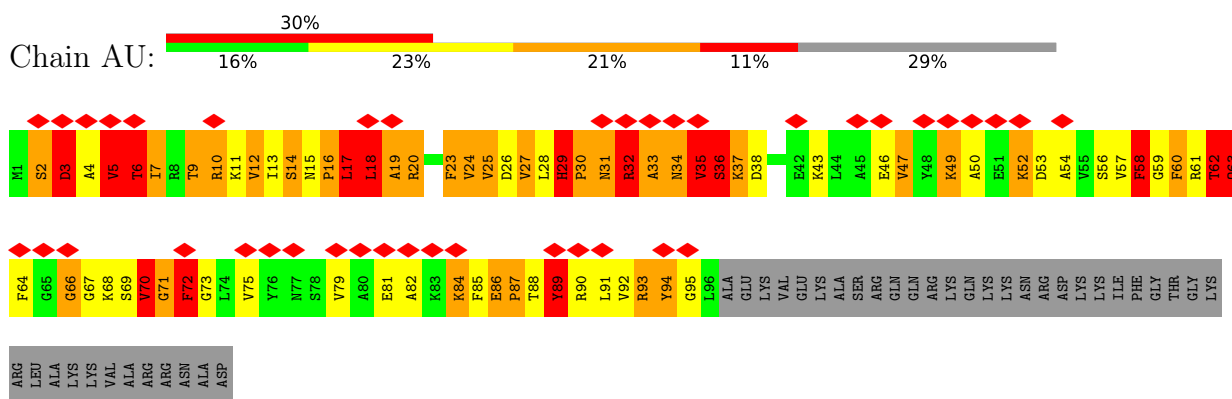


- Molecule 28: Unknown 40S ribosomal protein XS2

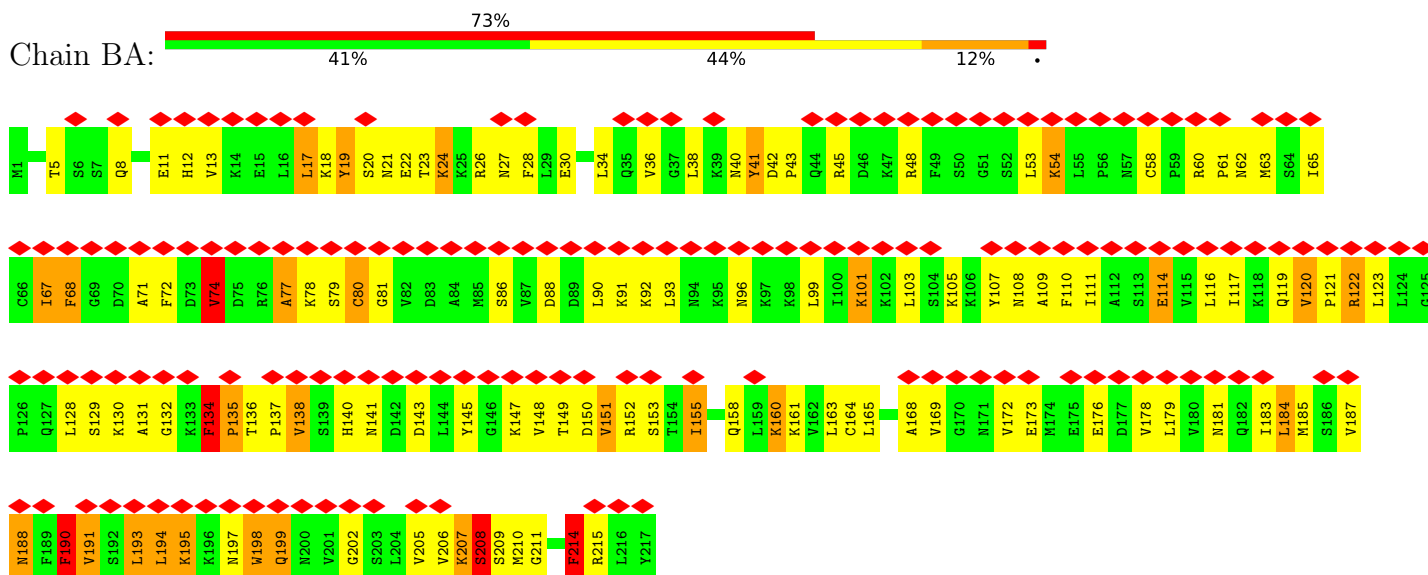
Chain Ac: 



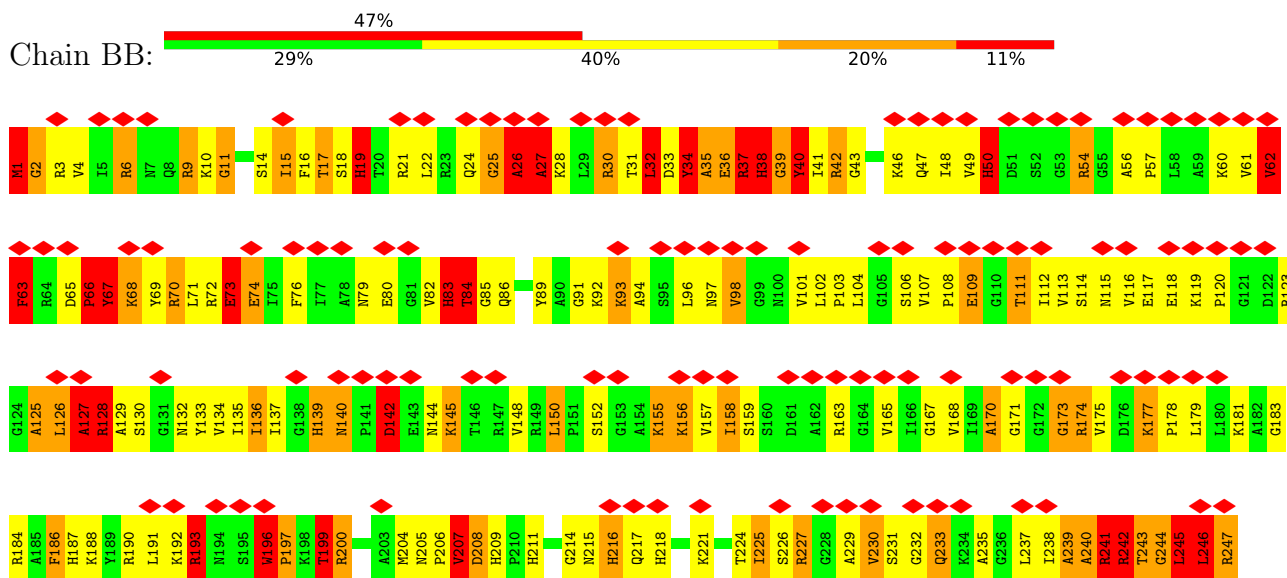
- Molecule 29: 40S ribosomal protein S24



• Molecule 30: 60S ribosomal protein rpL1 (L1p)

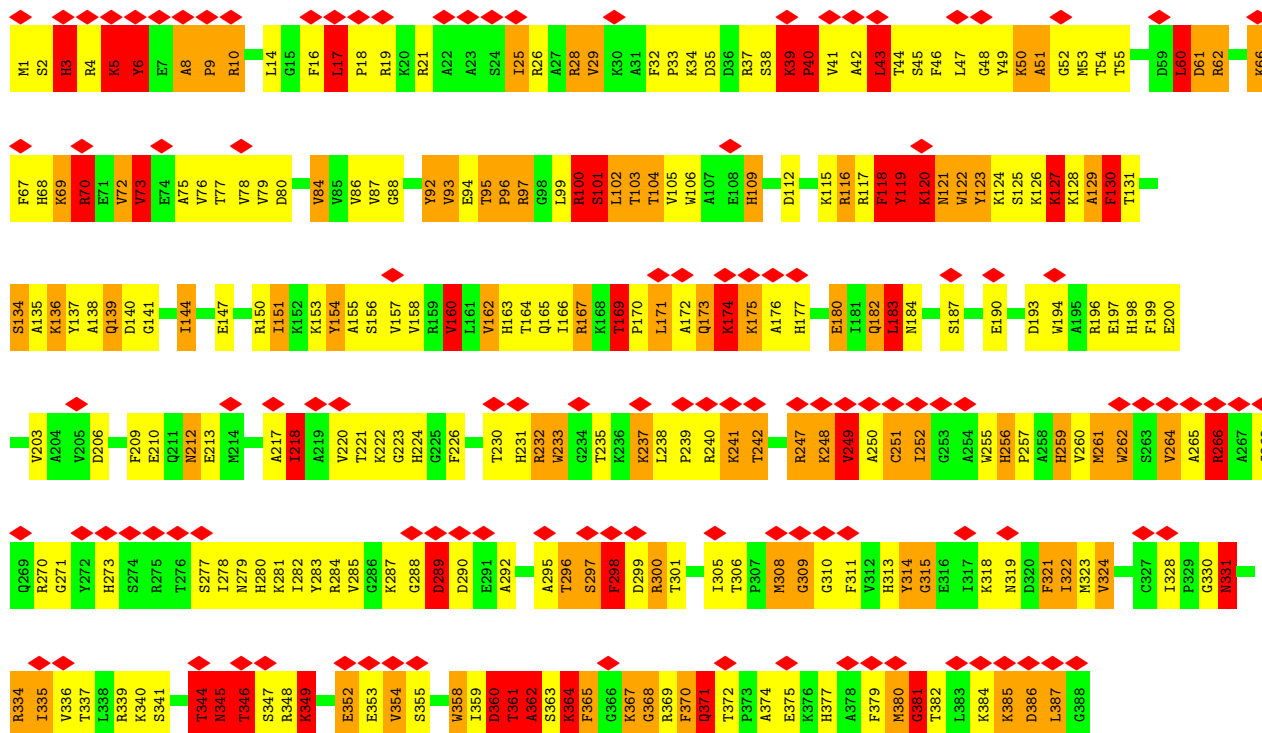


• Molecule 31: 60S ribosomal protein rpL2 (L2p)

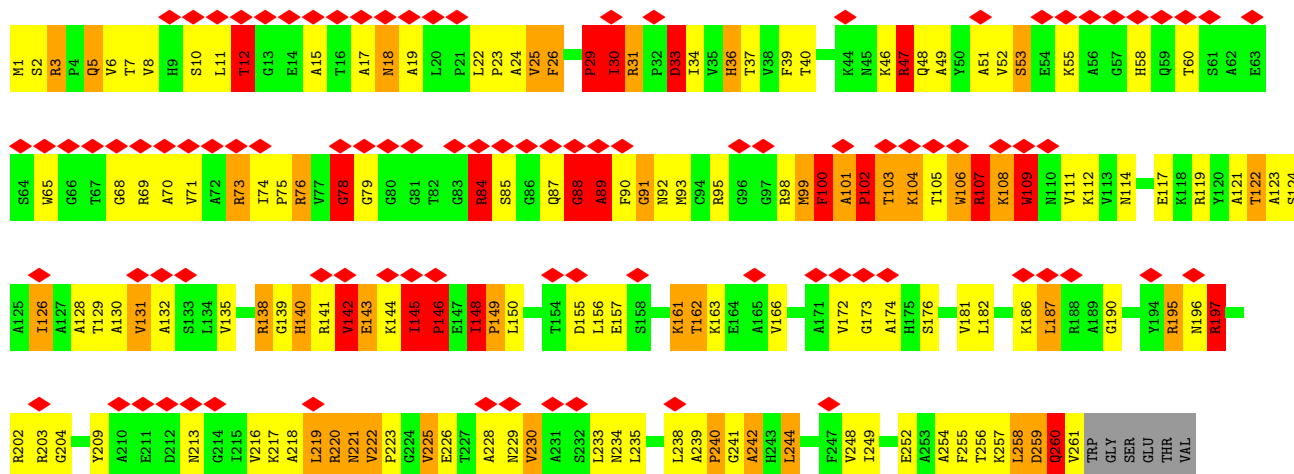


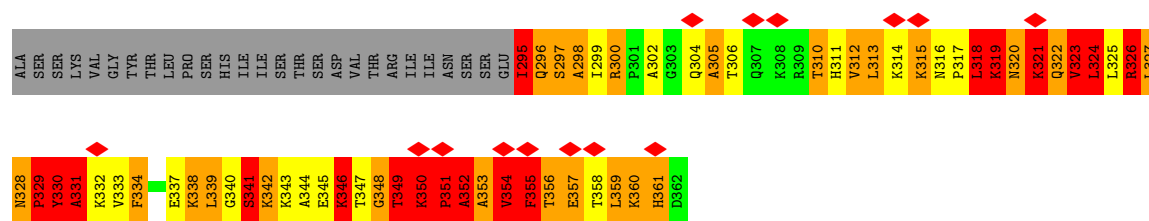


• Molecule 32: 60S ribosomal protein rpL3 (L3p)

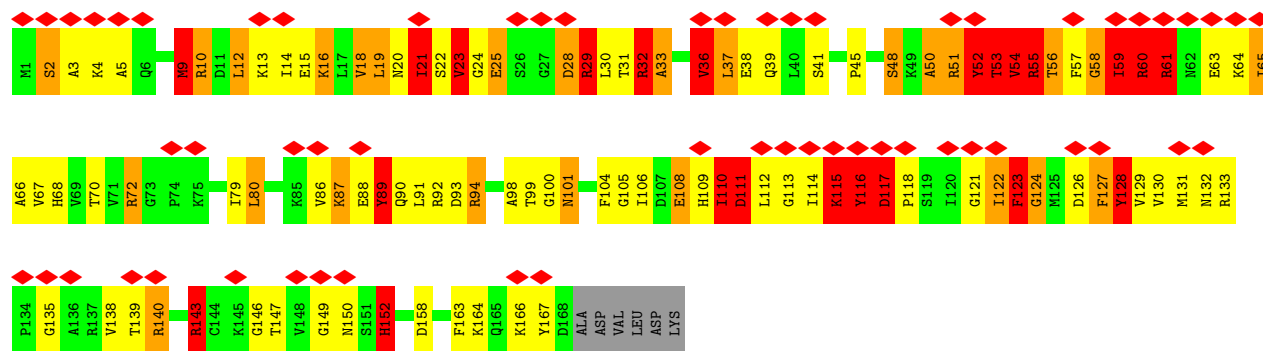


• Molecule 33: 60S ribosomal protein rpL4 (L4p)

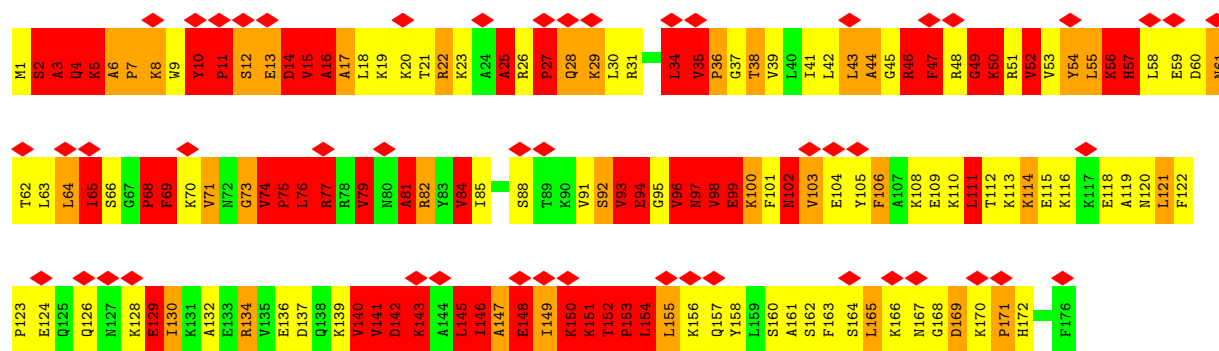




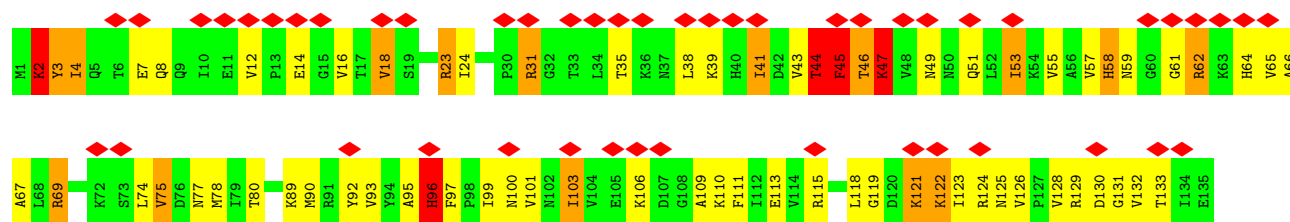
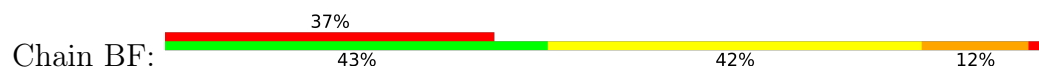
• Molecule 34: 60S ribosomal protein rpL11 (L5p)

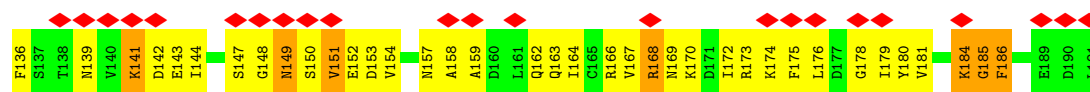


• Molecule 35: 60S ribosomal protein rpL6 (L6e)

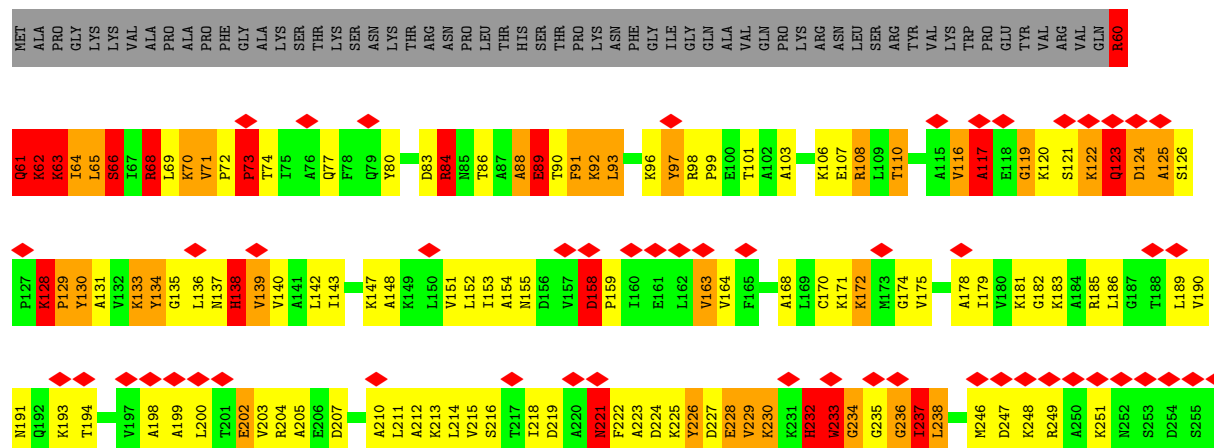
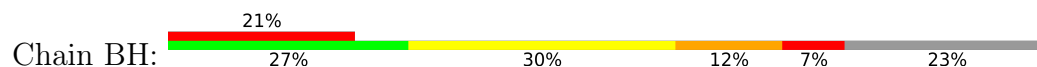


• Molecule 36: 60S ribosomal protein rpL9 (L6p)

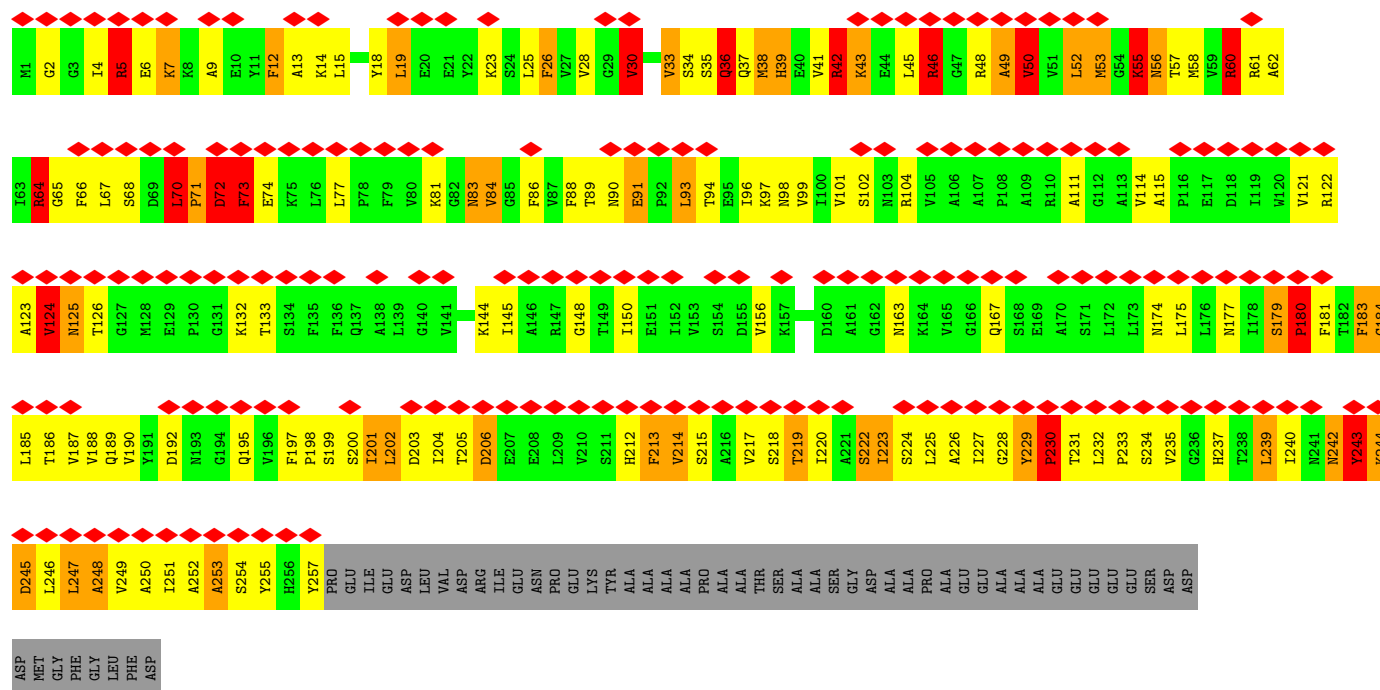




• Molecule 37: 60S ribosomal protein rpL8 (L7ae)

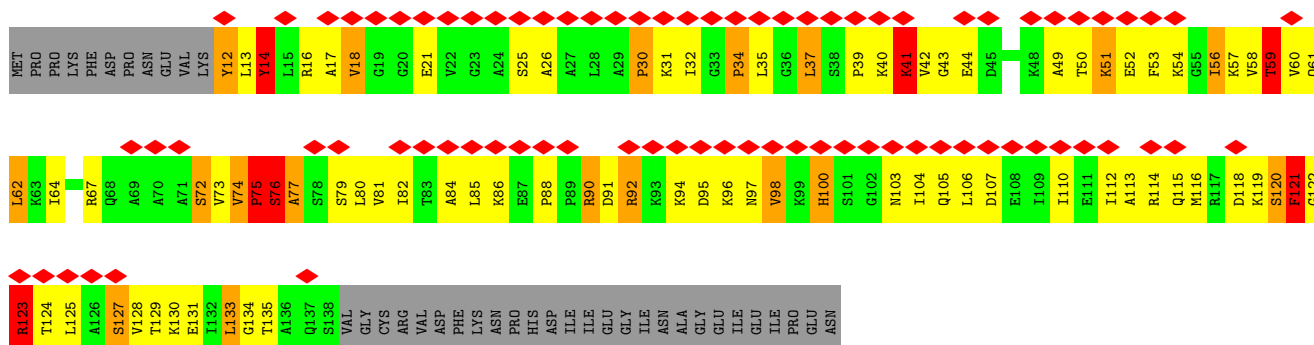


• Molecule 38: 60S acidic ribosomal protein rpP0 (L10P)

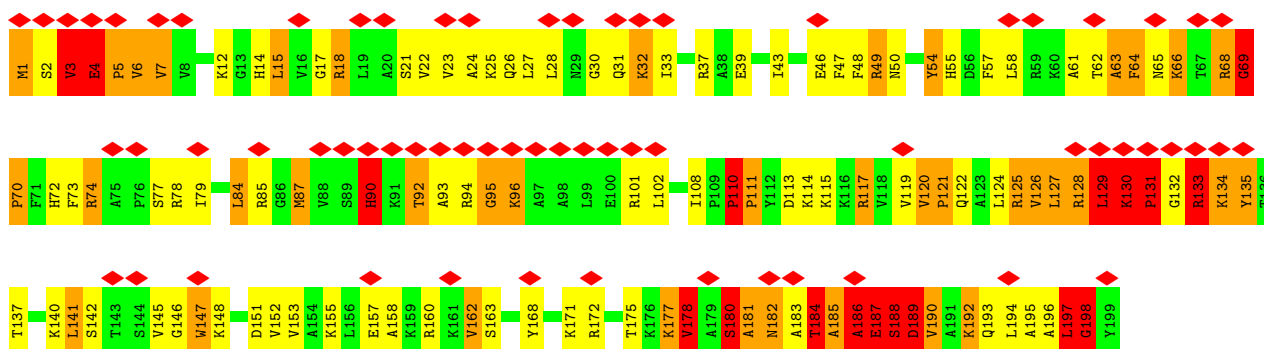


• Molecule 39: 60S ribosomal protein rpL12 (L11p)

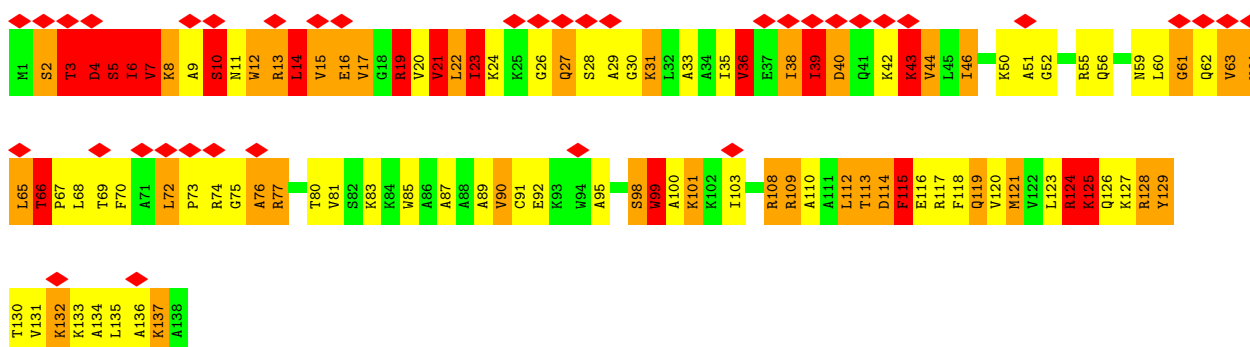
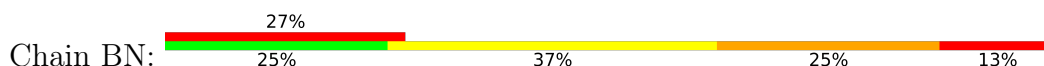




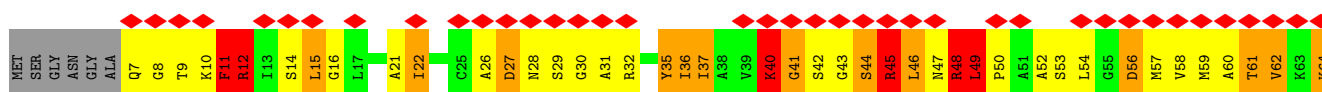
• Molecule 40: 60S ribosomal protein rpL16 (L13p)

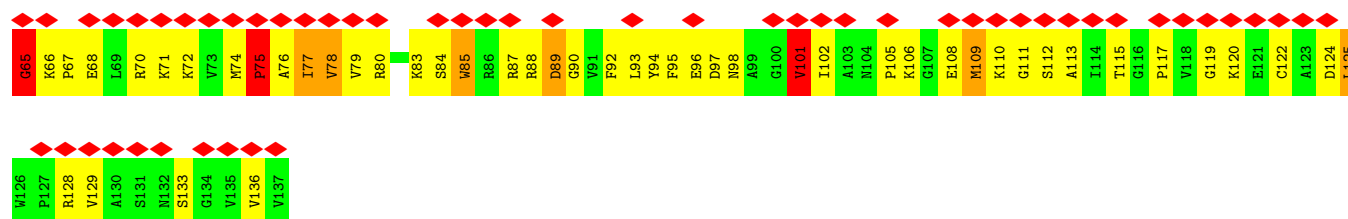


• Molecule 41: 60S ribosomal protein rpL14 (L14e)

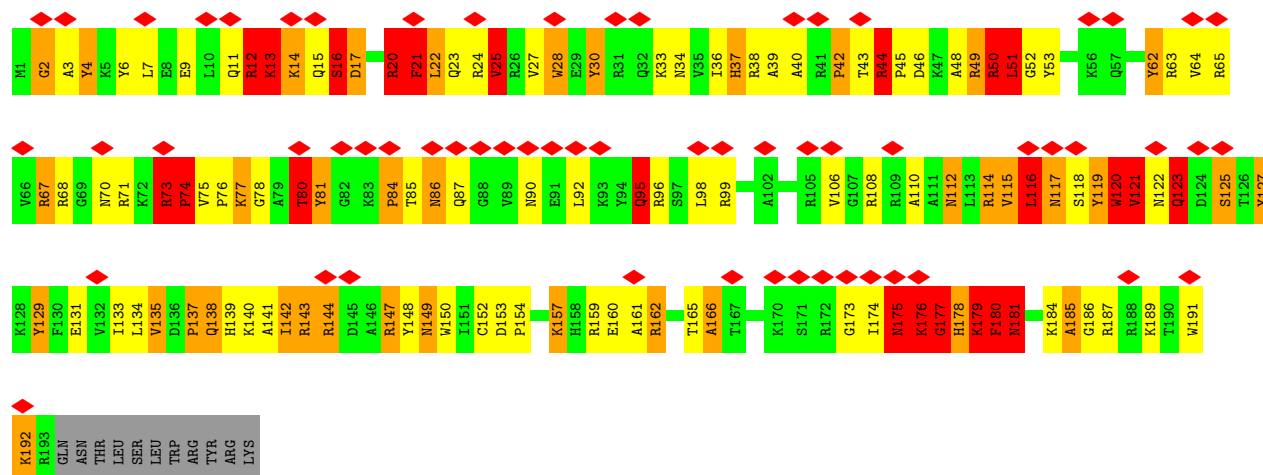


• Molecule 42: 60S ribosomal protein rpL23 (L14p)

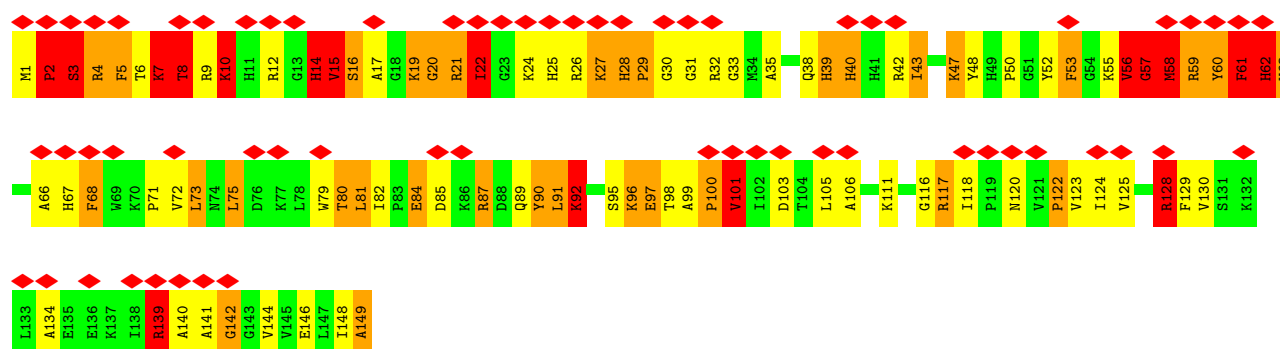




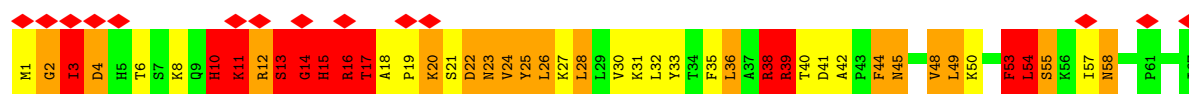
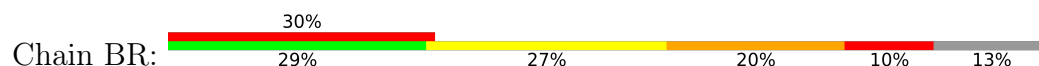
• Molecule 43: 60S ribosomal protein rpL15 (L15e)

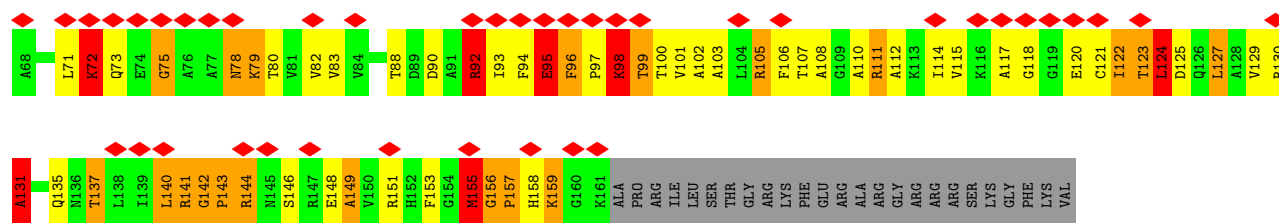


• Molecule 44: 60S ribosomal protein rpL28 (L15p)

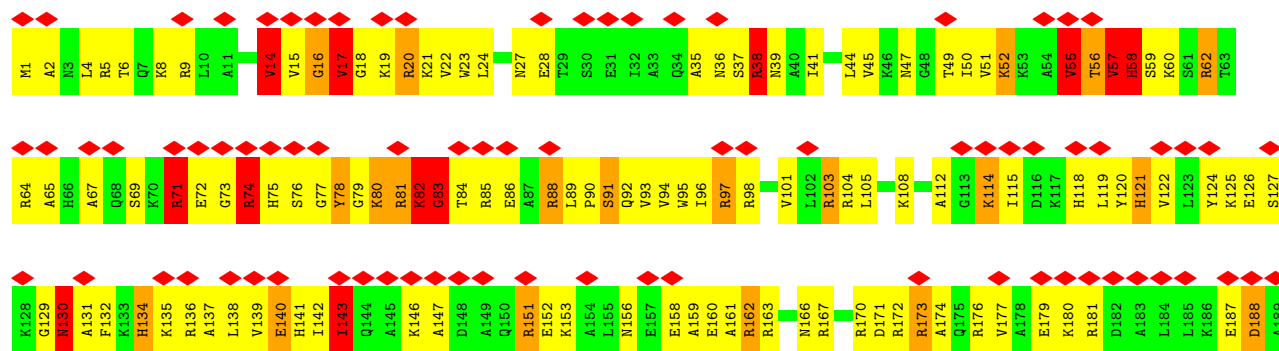


• Molecule 45: 60S ribosomal protein rpL18 (L18e)

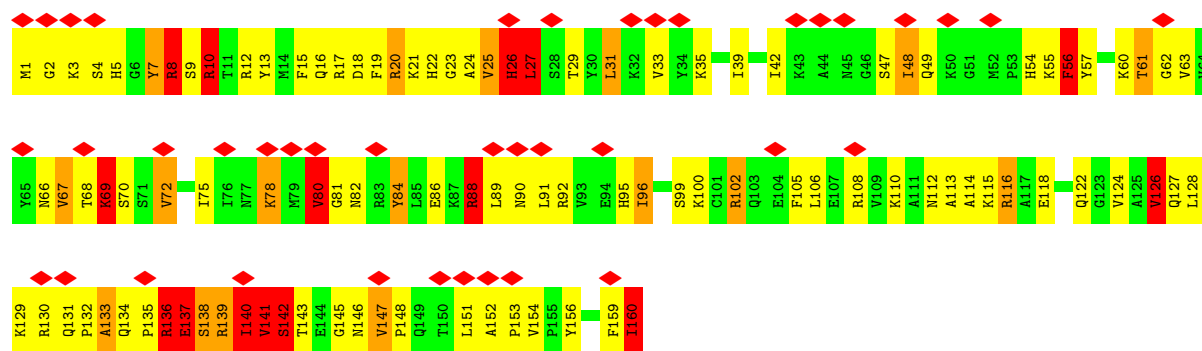




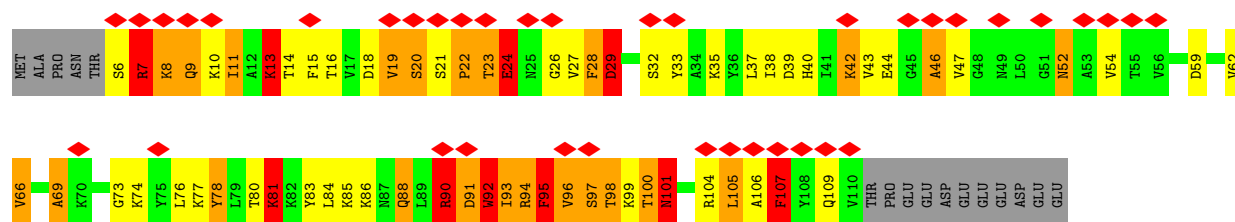
- Molecule 46: 60S ribosomal protein rpL19 (L19e)



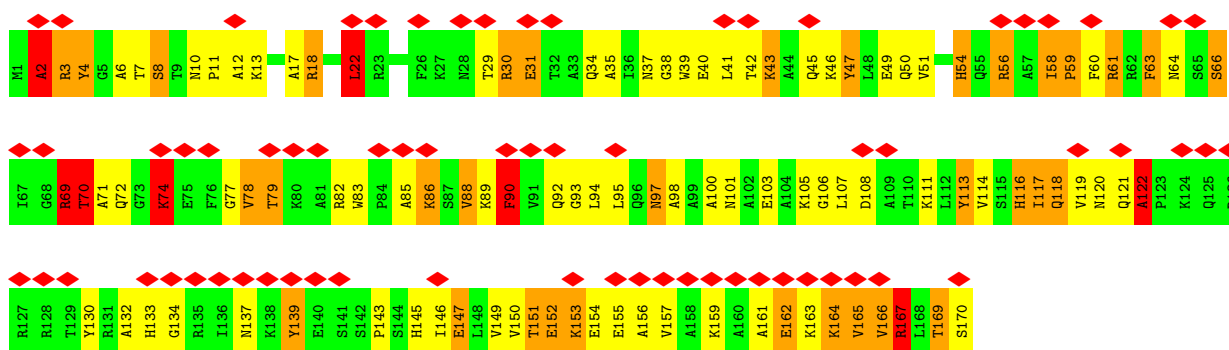
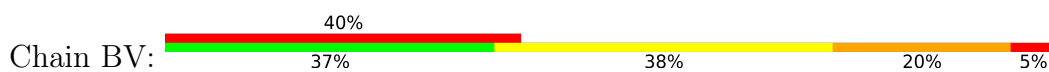
- Molecule 47: 60S ribosomal protein rpL21 (L21e)



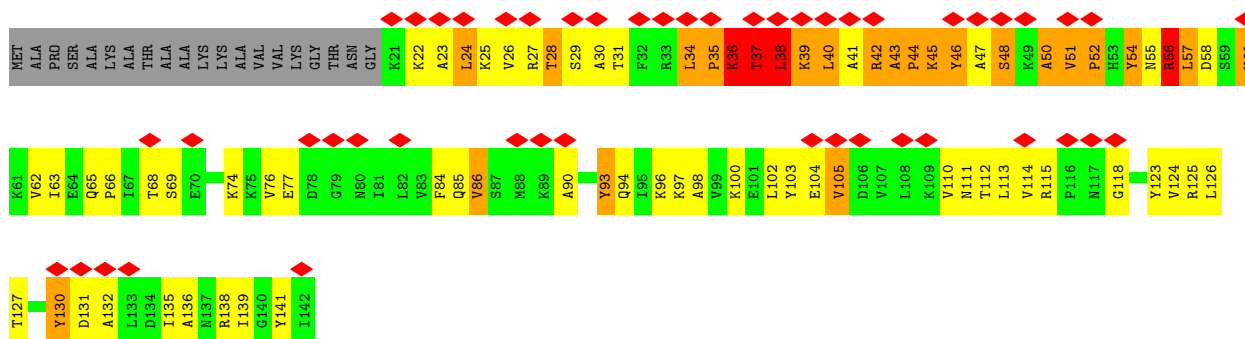
- Molecule 48: 60S ribosomal protein rpL22 (L22e)



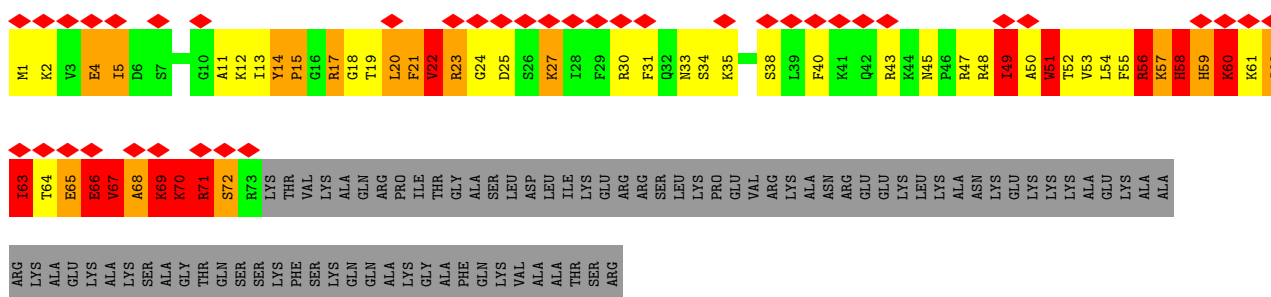
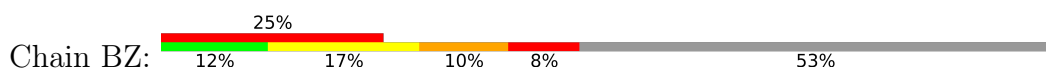
- Molecule 49: 60S ribosomal protein rpL17 (L22p)



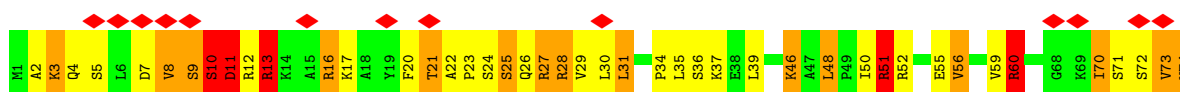
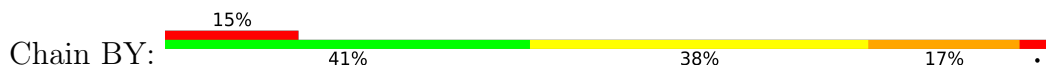
• Molecule 50: 60S ribosomal protein rpL25 (L23p)

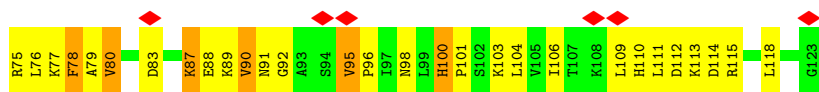


• Molecule 51: 60S ribosomal protein rpL24 (L24e)

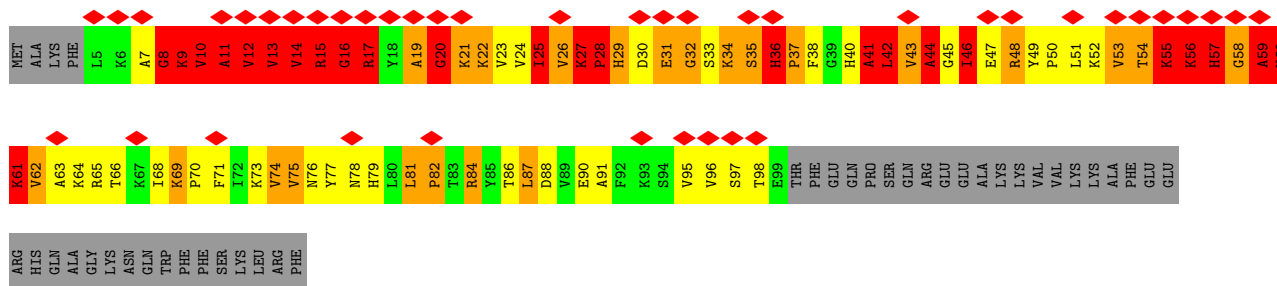
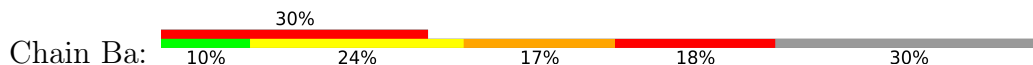


• Molecule 52: 60S ribosomal protein rpL26 (L24p)

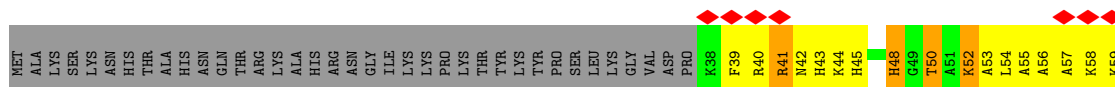




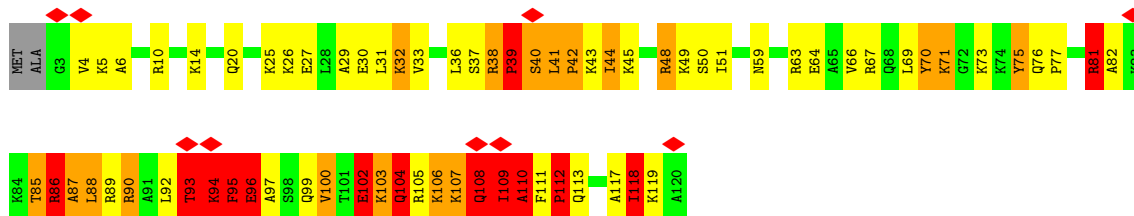
- Molecule 53: 60S ribosomal protein rpL27 (L27e)



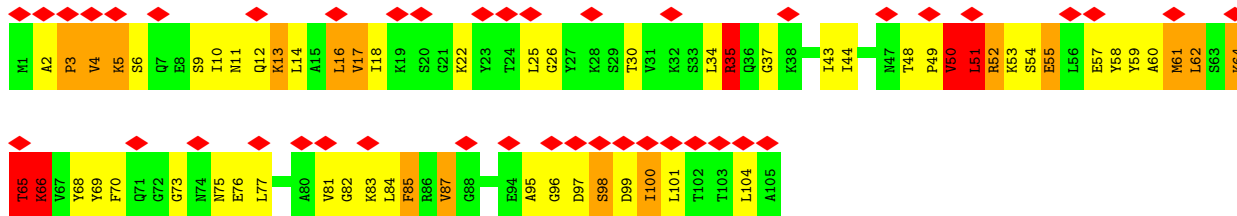
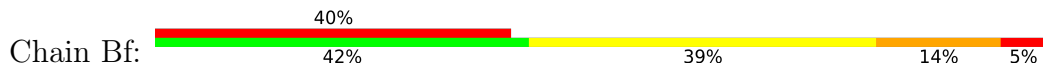
- Molecule 54: 60S ribosomal protein rpL29 (L29e)



- Molecule 55: 60S ribosomal protein rpL35 (L29p)

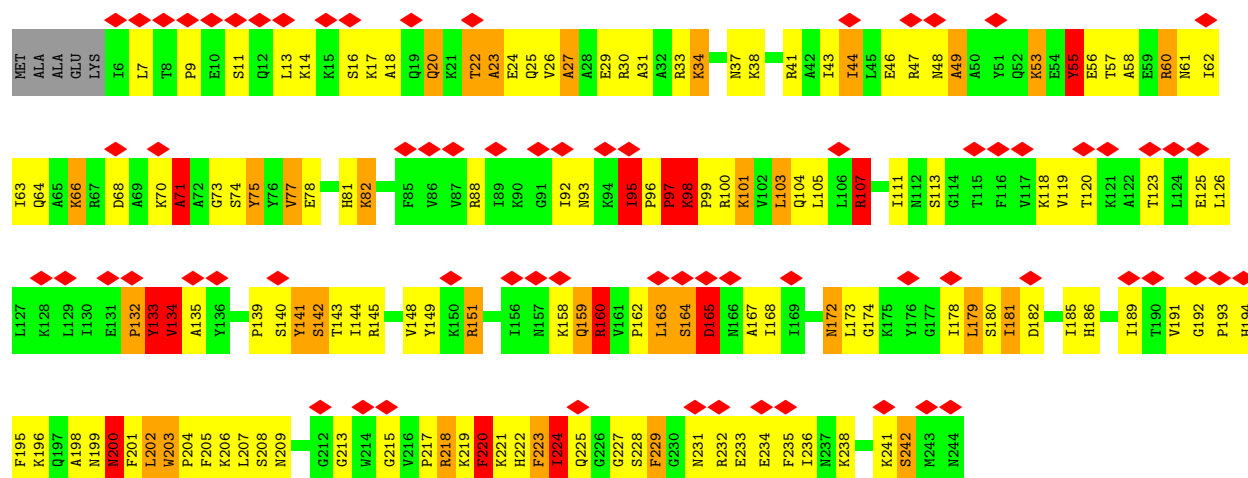


- Molecule 56: 60S ribosomal protein rpL30 (L30e)

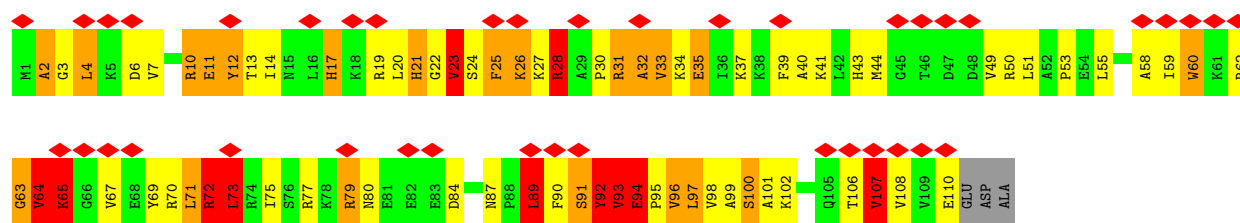


- Molecule 57: 60S ribosomal protein rpL7 (L30p)

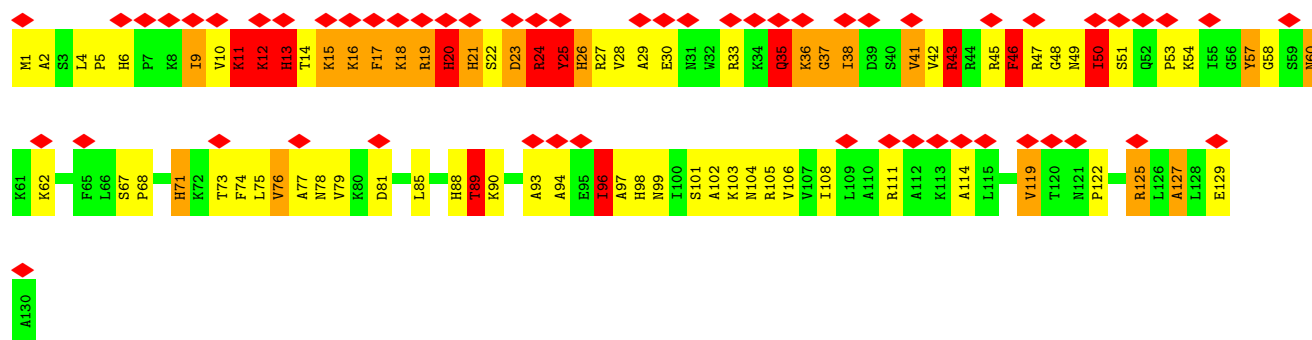




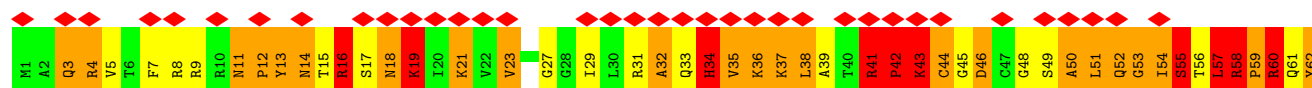
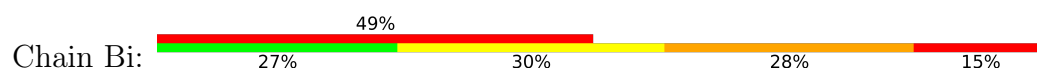
• Molecule 58: 60S ribosomal protein rpL31 (L31e)

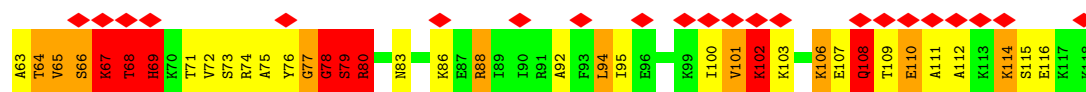


• Molecule 59: 60S ribosomal protein pL32 (L32e)

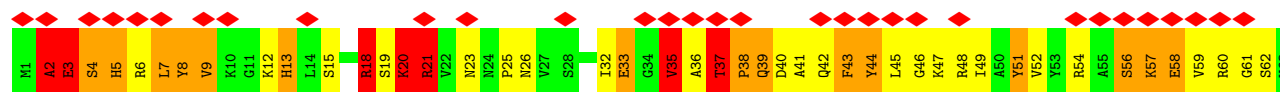
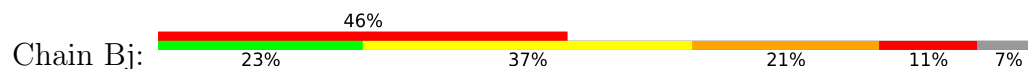


• Molecule 60: 60S ribosomal protein rpL34 (L34e)

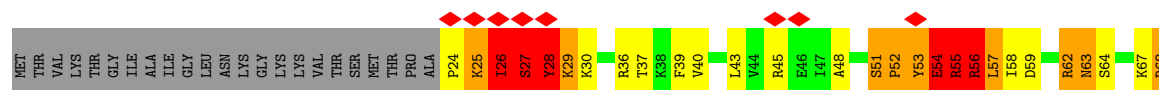
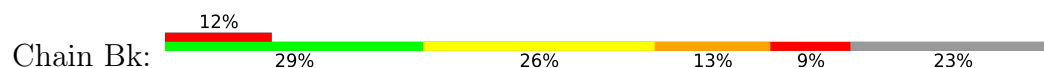




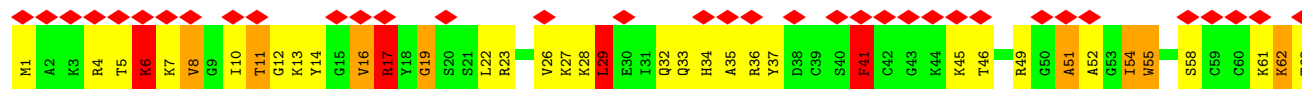
- Molecule 61: 60S ribosomal protein rpL33 (L35ae)



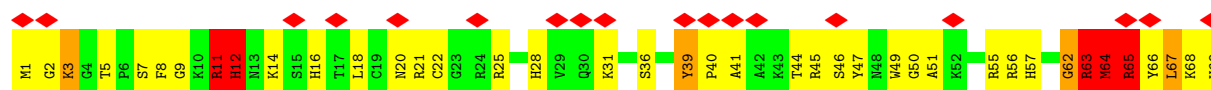
- Molecule 62: 60S ribosomal protein rpL36 (L36e)



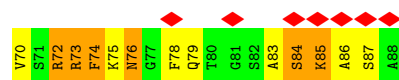
- Molecule 63: 60S ribosomal protein rpL43 (L37ae)

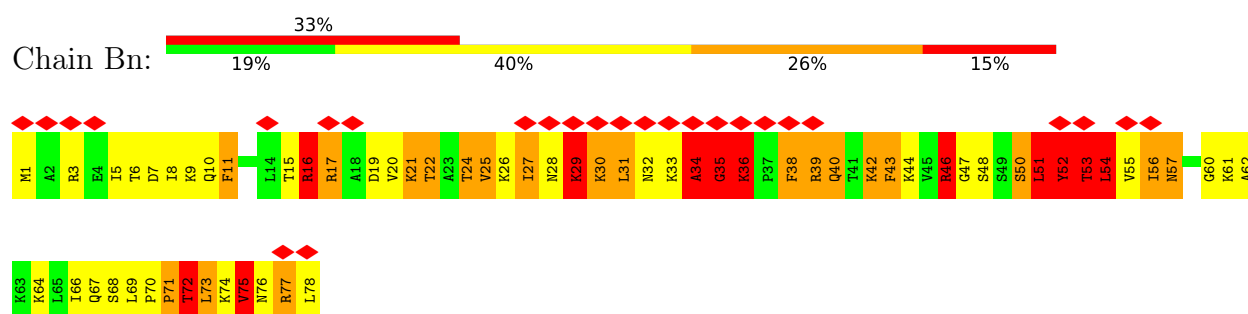


- Molecule 64: 60S ribosomal protein rpL37 (L37e)

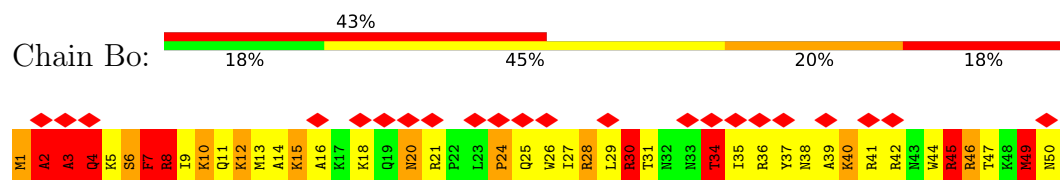


- Molecule 65: 60S ribosomal protein rpL38 (L38e)

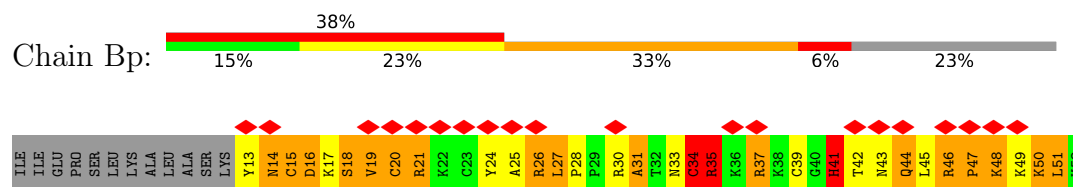




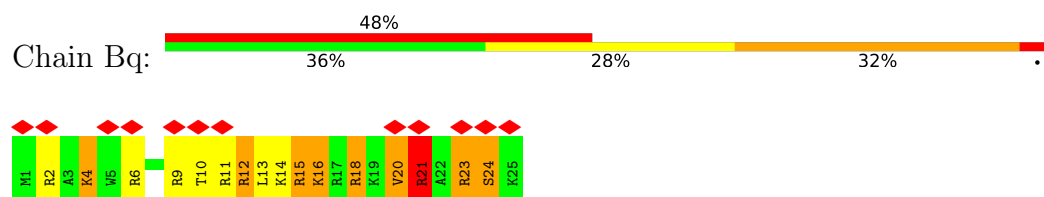
- Molecule 66: 60S ribosomal protein rpL39 (L39e)



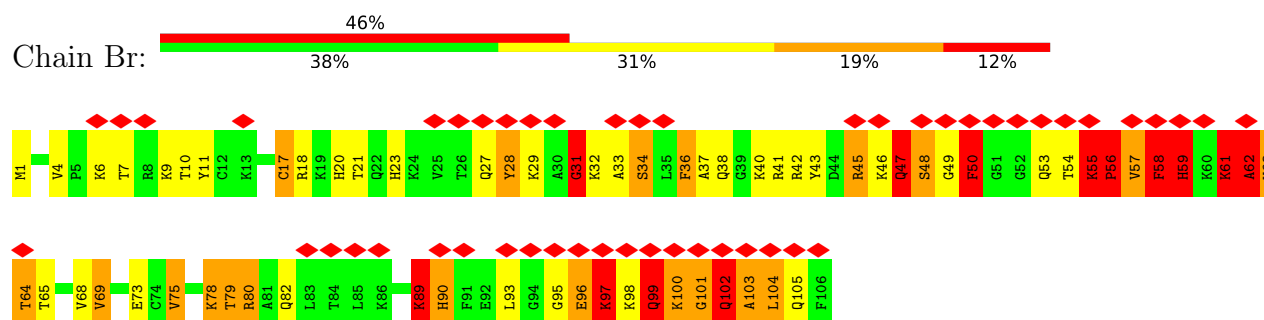
- Molecule 67: 60S ribosomal protein rpL40 (L40e)



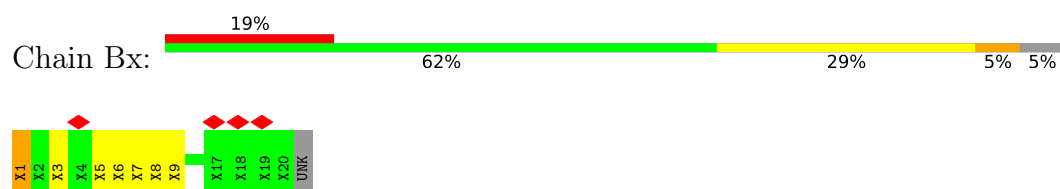
- Molecule 68: 60S ribosomal protein rpL41 (L41e)



- Molecule 69: 60S ribosomal protein rpL42 (L44e)



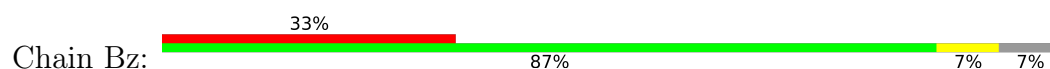
- Molecule 70: Unknown protein



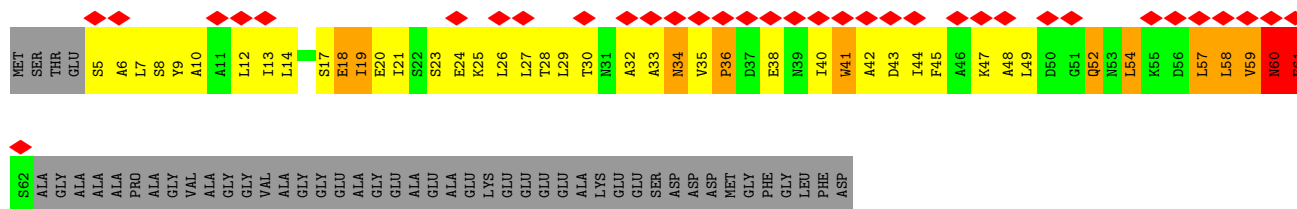
- Molecule 70: Unknown protein



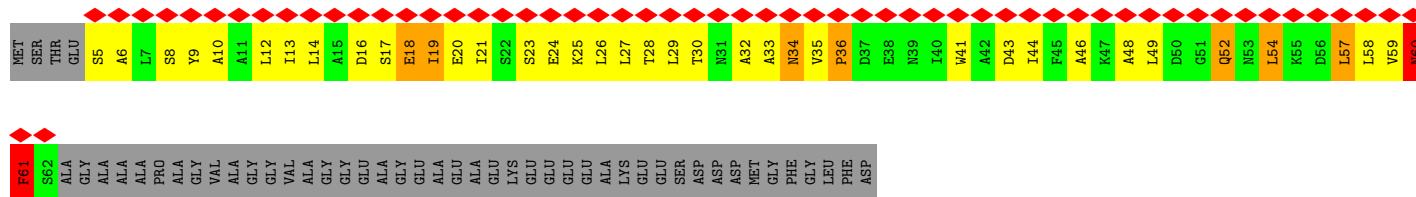
- Molecule 71: Unknown protein



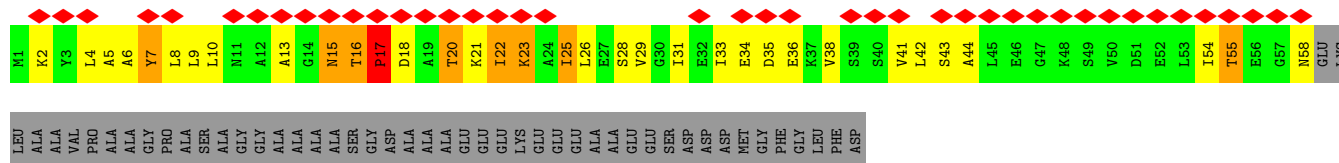
- Molecule 72: 60S acidic ribosomal protein rpP11 (P1)



- Molecule 72: 60S acidic ribosomal protein rpP11 (P1)

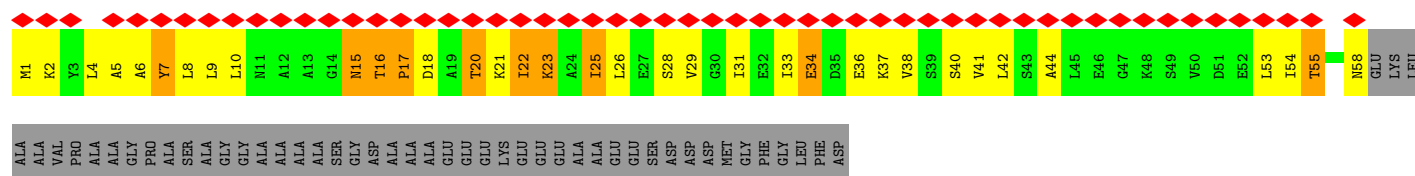


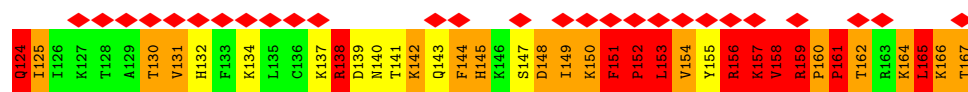
- Molecule 73: 60S acidic ribosomal protein (P2)



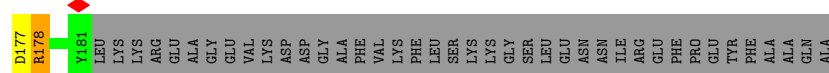
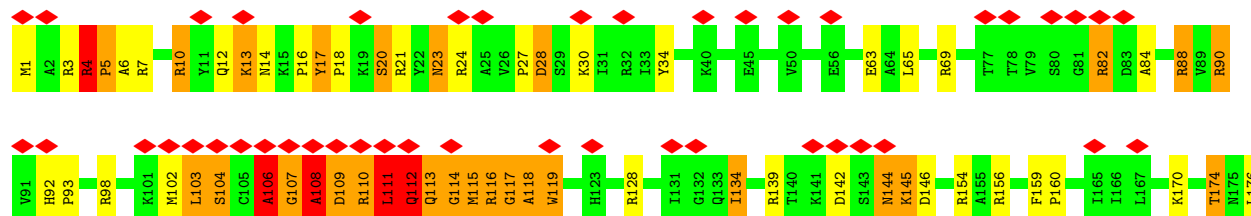
- Molecule 73: 60S acidic ribosomal protein (P2)



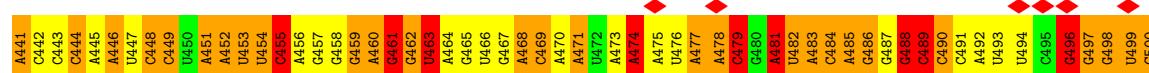
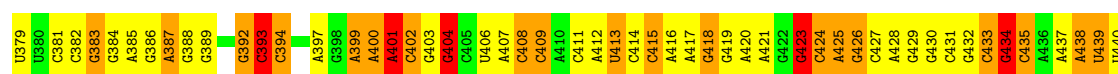
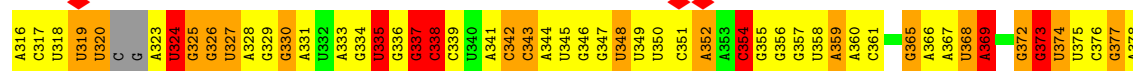
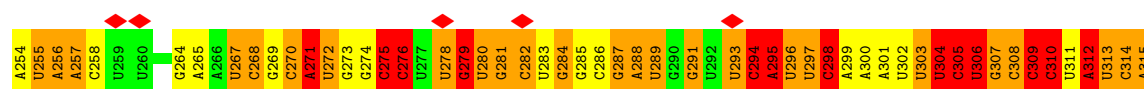
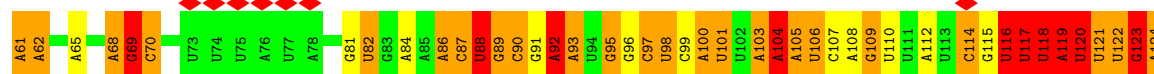
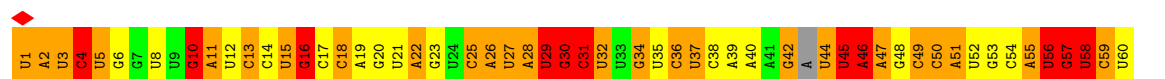




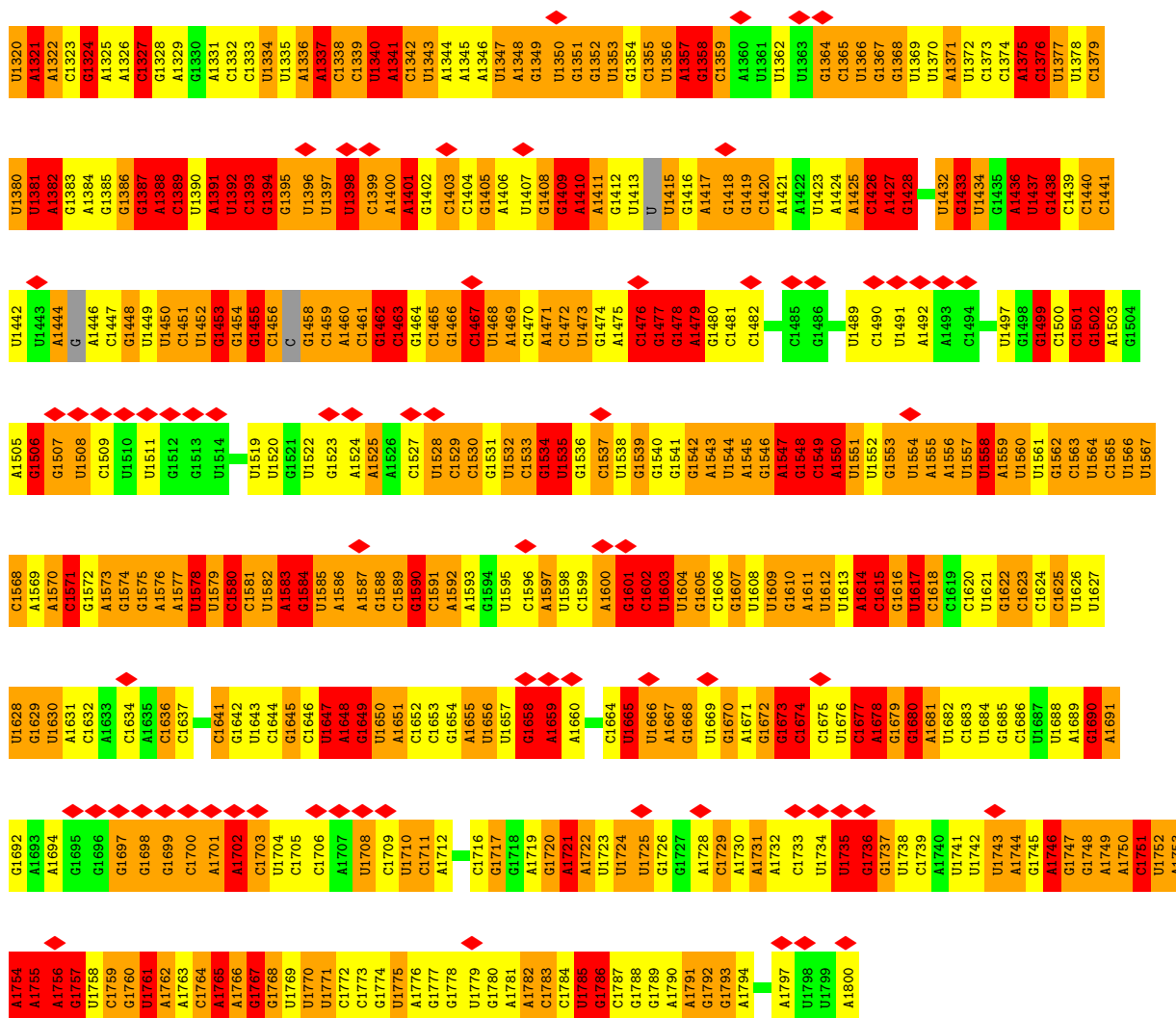
• Molecule 77: 60S ribosomal protein rpL10 (L10e)



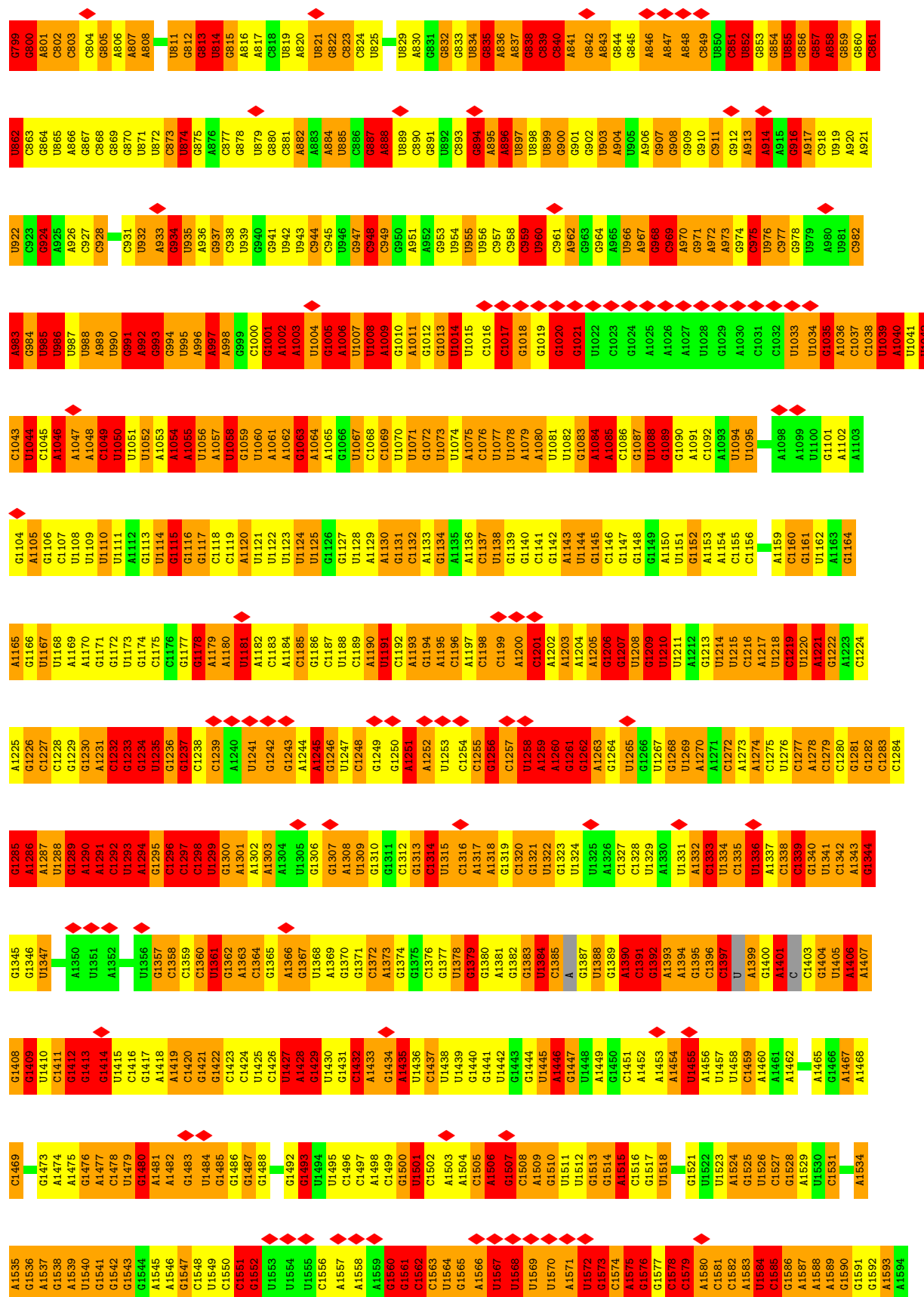
• Molecule 78: 18S rRNA



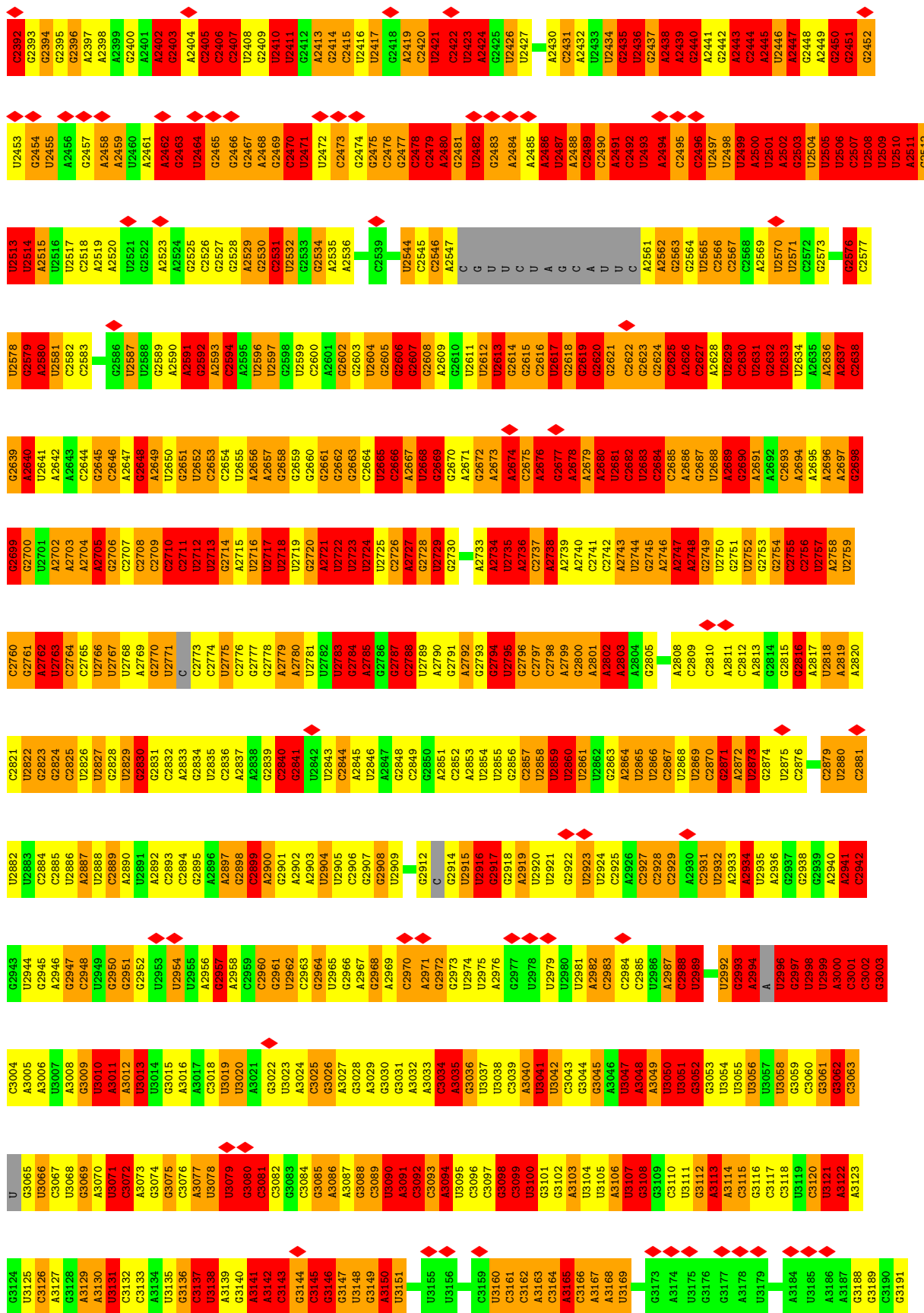


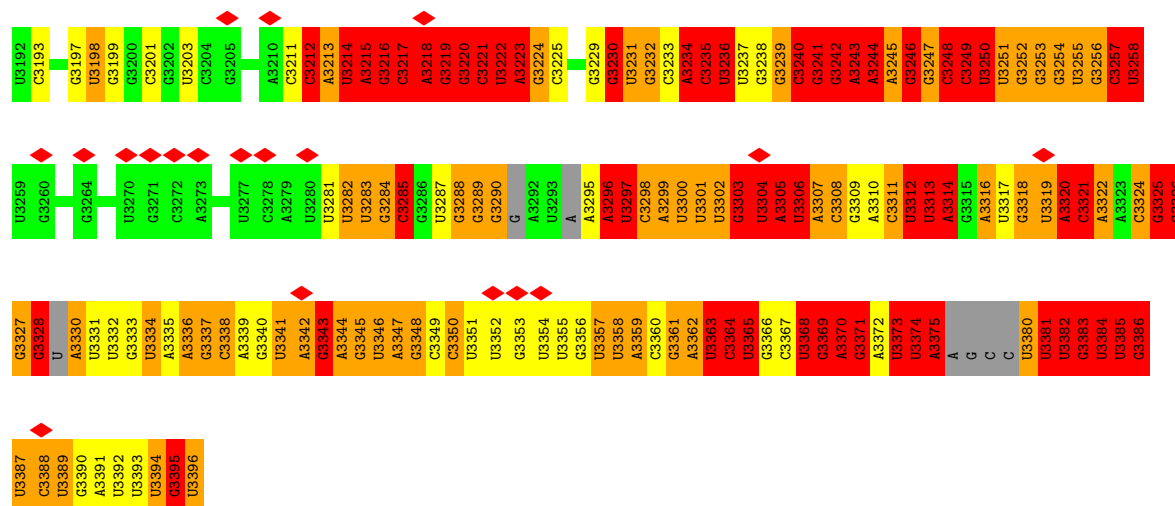




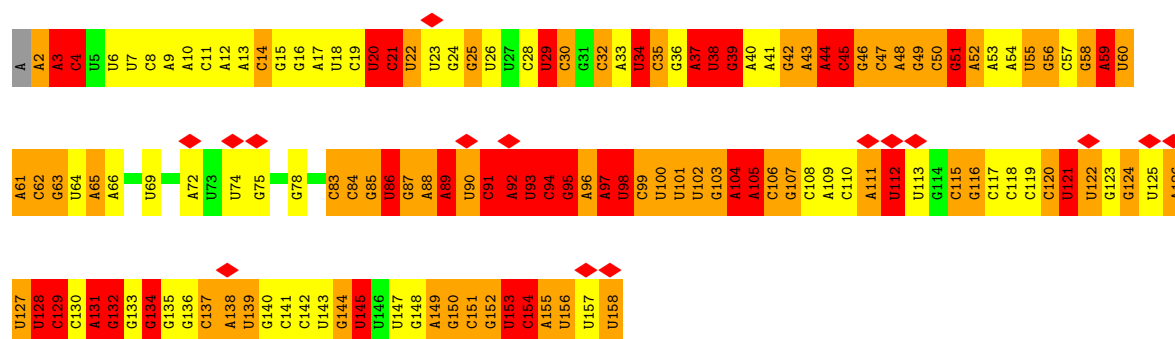




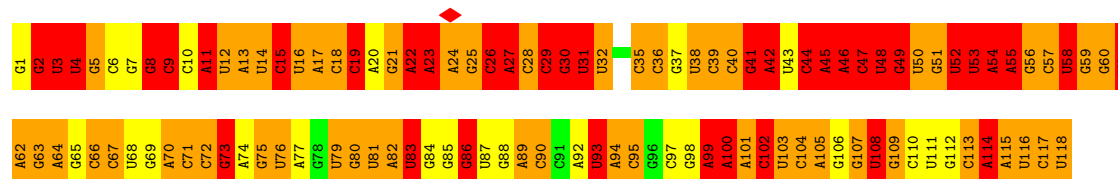




• Molecule 82: 5.8S rRNA



• Molecule 83: 5S rRNA



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	20400	Depositor
Resolution determination method	Not provided	
CTF correction method	Not provided	
Microscope	FEI POLARA 300	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	25	Depositor
Minimum defocus (nm)	1200	Depositor
Maximum defocus (nm)	4500	Depositor
Magnification	39000	Depositor
Image detector	KODAK SO-163 FILM	Depositor
Maximum map value	7.747	Depositor
Minimum map value	-3.672	Depositor
Average map value	0.049	Depositor
Map value standard deviation	0.609	Depositor
Recommended contour level	1.75	Depositor
Map size ($\text{\AA}$)	455.4, 455.4, 455.4	wwPDB
Map dimensions	368, 368, 368	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing ($\text{\AA}$)	1.2375, 1.2375, 1.2375	Depositor

5 Model quality ⓘ

5.1 Standard geometry ⓘ

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	Aa	2.28	79/2495 (3.2%)	2.57	164/3391 (4.8%)
2	AA	2.82	69/1962 (3.5%)	3.50	210/2674 (7.9%)
3	AB	2.62	56/1530 (3.7%)	3.25	131/2049 (6.4%)
4	AD	2.72	71/1620 (4.4%)	3.76	181/2182 (8.3%)
5	AC	2.87	78/1544 (5.1%)	3.74	193/2059 (9.4%)
6	AE	2.54	66/1971 (3.3%)	3.28	202/2664 (7.6%)
8	AF	2.29	48/1561 (3.1%)	2.54	119/2103 (5.7%)
9	AH	2.55	45/1047 (4.3%)	3.01	87/1405 (6.2%)
10	AI	2.77	30/1016 (3.0%)	3.21	121/1362 (8.9%)
11	AJ	2.90	43/857 (5.0%)	3.67	110/1148 (9.6%)
12	AK	2.79	47/843 (5.6%)	3.00	105/1134 (9.3%)
13	AL	3.27	55/990 (5.6%)	4.25	127/1304 (9.7%)
14	AM	2.56	55/1175 (4.7%)	3.22	111/1577 (7.0%)
15	AN	2.41	11/358 (3.1%)	3.97	54/469 (11.5%)
16	AO	2.53	39/994 (3.9%)	3.41	136/1339 (10.2%)
17	AQ	2.96	51/1109 (4.6%)	4.07	126/1483 (8.5%)
18	AP	3.30	32/646 (5.0%)	4.88	72/867 (8.3%)
19	AR	2.19	28/691 (4.1%)	2.69	59/931 (6.3%)
20	AS	2.48	57/1138 (5.0%)	3.42	155/1527 (10.2%)
21	AT	2.88	34/694 (4.9%)	3.63	83/935 (8.9%)
22	AV	2.77	37/698 (5.3%)	3.57	95/932 (10.2%)
24	AX	2.27	18/372 (4.8%)	2.57	31/504 (6.2%)
25	AY	2.49	19/447 (4.3%)	2.78	48/601 (8.0%)
26	AZ	3.81	26/499 (5.2%)	5.03	61/660 (9.2%)
29	AU	2.58	27/725 (3.7%)	3.49	114/969 (11.8%)
30	BA	1.95	38/1745 (2.2%)	2.52	129/2342 (5.5%)
31	BB	3.05	96/1938 (5.0%)	4.03	208/2600 (8.0%)
32	BC	3.18	140/3124 (4.5%)	4.39	292/4196 (7.0%)
33	BD	3.04	127/2531 (5.0%)	3.92	286/3414 (8.4%)
34	BE	2.82	60/1362 (4.4%)	4.11	127/1824 (7.0%)
35	BG	3.70	80/1433 (5.6%)	5.07	250/1922 (13.0%)
36	BF	2.28	41/1537 (2.7%)	2.78	90/2068 (4.4%)
37	BH	3.06	66/1527 (4.3%)	3.53	152/2052 (7.4%)
38	Bs	2.48	69/2013 (3.4%)	3.19	181/2731 (6.6%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
39	BJ	2.69	62/964 (6.4%)	3.32	101/1295 (7.8%)
40	BK	2.61	52/1600 (3.2%)	3.74	181/2146 (8.4%)
41	BN	2.64	52/1083 (4.8%)	2.94	128/1456 (8.8%)
42	BM	2.30	40/987 (4.1%)	2.80	110/1326 (8.3%)
43	BP	2.85	71/1659 (4.3%)	3.39	170/2221 (7.7%)
44	BO	3.66	59/1213 (4.9%)	4.20	139/1623 (8.6%)
45	BR	3.42	59/1264 (4.7%)	4.09	137/1701 (8.1%)
46	BT	2.51	56/1547 (3.6%)	3.09	151/2060 (7.3%)
47	BU	2.47	53/1285 (4.1%)	3.49	118/1720 (6.9%)
48	BW	2.87	39/846 (4.6%)	3.74	86/1142 (7.5%)
49	BV	2.33	50/1335 (3.7%)	2.66	103/1794 (5.7%)
50	BX	2.07	24/993 (2.4%)	2.74	103/1336 (7.7%)
51	BZ	3.34	33/590 (5.6%)	3.63	68/783 (8.7%)
52	BY	2.19	30/983 (3.1%)	2.62	89/1312 (6.8%)
53	Ba	3.37	49/722 (6.8%)	4.49	144/967 (14.9%)
54	Bd	2.27	9/177 (5.1%)	3.15	24/231 (10.4%)
55	Bc	2.92	40/974 (4.1%)	3.63	127/1294 (9.8%)
56	Bf	2.14	22/793 (2.8%)	2.52	66/1062 (6.2%)
57	Be	2.53	64/1957 (3.3%)	3.04	175/2631 (6.7%)
58	Bg	2.51	39/887 (4.4%)	3.28	103/1185 (8.7%)
59	Bh	2.57	48/1064 (4.5%)	3.17	107/1423 (7.5%)
60	Bi	3.48	47/935 (5.0%)	4.81	121/1242 (9.7%)
61	Bj	3.17	47/751 (6.3%)	3.89	109/1004 (10.9%)
62	Bk	3.48	34/625 (5.4%)	5.19	84/826 (10.2%)
63	Bm	2.21	23/710 (3.2%)	2.56	59/944 (6.2%)
64	Bl	2.81	31/693 (4.5%)	3.85	65/915 (7.1%)
65	Bn	3.20	30/610 (4.9%)	4.27	78/813 (9.6%)
66	Bo	2.39	20/452 (4.4%)	3.00	49/598 (8.2%)
67	Bp	2.06	11/335 (3.3%)	2.81	35/442 (7.9%)
68	Bq	2.55	15/235 (6.4%)	2.69	22/300 (7.3%)
69	Br	2.84	37/846 (4.4%)	3.60	79/1113 (7.1%)
72	Bt	1.03	2/445 (0.4%)	2.02	22/606 (3.6%)
72	Bu	1.23	1/445 (0.2%)	2.20	27/606 (4.5%)
73	Bv	1.44	3/431 (0.7%)	2.03	19/582 (3.3%)
73	Bw	1.43	3/431 (0.7%)	2.04	19/582 (3.3%)
74	BQ	3.12	107/2404 (4.5%)	4.40	259/3236 (8.0%)
76	BS	2.59	68/1458 (4.7%)	3.35	184/1957 (9.4%)
77	BI	1.21	4/1473 (0.3%)	2.05	49/1976 (2.5%)
78	CA	2.07	1272/37406 (3.4%)	2.24	2554/57948 (4.4%)
79	CB	2.13	57/1785 (3.2%)	2.16	111/2779 (4.0%)
80	CC	2.68	10/264 (3.8%)	2.70	17/407 (4.2%)
81	DA	2.16	3026/76832 (3.9%)	2.36	6031/119578 (5.0%)
82	DB	2.11	131/3480 (3.8%)	2.28	273/5395 (5.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
83	DC	2.31	123/2808 (4.4%)	2.69	299/4372 (6.8%)
All	All	2.39	7891/202969 (3.9%)	2.82	17605/298347 (5.9%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
1	Aa	0	18
2	AA	1	30
3	AB	0	29
4	AD	0	36
5	AC	2	40
6	AE	3	29
7	AG	0	52
8	AF	0	14
9	AH	0	15
10	AI	0	14
11	AJ	0	17
12	AK	1	15
13	AL	0	14
14	AM	0	12
15	AN	0	12
16	AO	2	15
17	AQ	0	29
18	AP	0	15
19	AR	0	8
20	AS	0	19
21	AT	0	15
22	AV	0	12
23	AW	0	20
24	AX	0	2
25	AY	0	4
26	AZ	0	25
27	Ab	0	3
28	Ac	0	1
29	AU	2	12
30	BA	0	8
31	BB	2	45
32	BC	2	56
33	BD	2	53

Continued on next page...

Continued from previous page...

Mol	Chain	#Chirality outliers	#Planarity outliers
34	BE	2	25
35	BG	2	57
36	BF	0	10
37	BH	0	36
38	Bs	0	18
39	BJ	1	10
40	BK	0	29
41	BN	1	13
42	BM	0	11
43	BP	4	44
44	BO	1	28
45	BR	0	31
46	BT	0	17
47	BU	1	16
48	BW	0	12
49	BV	0	20
50	BX	0	13
51	BZ	0	18
52	BY	0	8
53	Ba	0	25
54	Bd	0	1
55	Bc	0	16
56	Bf	0	6
57	Be	1	14
58	Bg	0	13
59	Bh	0	14
60	Bi	0	25
61	Bj	1	26
62	Bk	1	15
63	Bm	1	5
64	Bl	0	13
65	Bn	0	15
66	Bo	0	15
67	Bp	0	8
68	Bq	0	4
69	Br	0	23
70	Bx	0	7
71	Bz	0	1
72	Bt	0	3
72	Bu	0	3
73	Bv	0	1
73	Bw	0	1

Continued on next page...

Continued from previous page...

Mol	Chain	#Chirality outliers	#Planarity outliers
74	BQ	0	48
75	BL	0	5
76	BS	1	41
77	BI	2	24
78	CA	10	22
79	CB	1	0
80	CC	1	0
81	DA	32	15
82	DB	5	0
All	All	85	1514

All (7891) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	BO	20	GLY	C-N	-57.42	0.61	1.33
35	BG	148	GLU	C-O	-51.98	0.82	1.23
32	BC	17	LEU	C-O	-46.69	0.76	1.24
38	Bs	72	ASP	C-O	-41.86	0.93	1.24
37	BH	158	ASP	C-O	-41.73	0.84	1.24
57	Be	202	LEU	C-O	-41.47	0.76	1.24
62	Bk	25	LYS	C-O	-40.89	0.73	1.23
79	CB	55	C	C2'-C1'	-40.41	0.92	1.53
45	BR	140	LEU	C-O	-39.39	0.78	1.23
78	CA	1190	C	O5'-C5'	-39.12	0.65	1.43
40	BK	184	THR	C-O	-38.93	0.74	1.24
74	BQ	39	GLN	C-N	38.89	1.90	1.33
64	Bl	39	TYR	C-O	-38.11	0.74	1.24
32	BC	297	SER	C-O	-37.72	0.80	1.23
34	BE	123	PHE	C-O	-36.94	0.78	1.24
74	BQ	123	GLU	C-O	-36.61	0.80	1.24
53	Ba	8	GLY	C-O	-36.39	0.89	1.23
11	AJ	81	THR	C-O	-36.28	0.83	1.24
44	BO	21	ARG	C-N	36.07	1.82	1.33
2	AA	229	LYS	C-O	-35.95	0.84	1.23
32	BC	360	ASP	C-O	-35.79	0.89	1.23
32	BC	289	ASP	C-O	-35.62	0.77	1.23
31	BB	196	TRP	C-O	-35.51	0.80	1.24
9	AH	66	ASN	C-O	-35.39	0.79	1.24
74	BQ	237	GLU	C-O	-35.24	0.79	1.23
13	AL	22	ASN	C-O	-35.22	0.80	1.24
33	BD	84	ARG	C-O	-35.11	0.79	1.24
51	BZ	51	TRP	C-O	-35.10	0.87	1.23

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	AB	78	LYS	C-O	-34.34	0.80	1.24
21	AT	9	VAL	C-O	-34.16	0.83	1.24
48	BW	93	ILE	C-O	-34.11	0.83	1.24
55	Bc	104	GLN	C-O	-34.06	0.81	1.24
44	BO	73	LEU	C-O	33.90	1.63	1.24
26	AZ	44	PHE	C-O	-33.89	0.77	1.23
51	BZ	70	LYS	C-O	-33.84	0.81	1.24
60	Bi	108	GLN	C-O	-33.82	0.81	1.23
35	BG	152	THR	C-O	-33.59	0.81	1.24
33	BD	148	ILE	C-O	-33.30	0.82	1.24
6	AE	7	GLN	C-O	-33.01	0.82	1.24
38	Bs	5	ARG	C-O	-32.80	0.84	1.23
35	BG	2	SER	C-O	-32.79	0.82	1.24
35	BG	15	VAL	C-O	-32.70	0.85	1.24
4	AD	90	ILE	C-O	-32.68	0.88	1.23
81	DA	1261	G	C2'-C1'	32.53	2.18	1.53
32	BC	256	HIS	C-O	-32.48	0.80	1.23
18	AP	122	ILE	C-O	-32.29	0.81	1.24
13	AL	87	VAL	C-O	-32.24	0.83	1.24
45	BR	157	PRO	C-O	-32.23	0.82	1.24
10	AI	140	LYS	C-O	-32.13	0.83	1.24
43	BP	74	PRO	C-O	-32.05	0.82	1.24
37	BH	73	PRO	C-O	-31.99	0.82	1.24
2	AA	11	PRO	C-O	-31.98	0.82	1.24
17	AQ	26	LEU	C-O	-31.88	0.83	1.24
18	AP	40	LEU	C-O	-31.87	0.87	1.23
32	BC	381	GLY	C-O	-31.80	0.81	1.23
32	BC	362	ALA	C-O	-31.69	0.84	1.24
74	BQ	238	ASP	C-O	-31.51	0.84	1.24
45	BR	13	SER	C-O	31.45	1.56	1.24
81	DA	1209	G	C2'-C1'	31.44	2.00	1.53
74	BQ	201	GLY	C-O	-31.43	0.85	1.23
60	Bi	16	ARG	C-O	-31.34	0.88	1.24
34	BE	89	TYR	C-O	-31.34	0.84	1.24
33	BD	78	GLY	C-O	-31.33	0.81	1.23
36	BF	2	LYS	C-O	-31.31	0.82	1.23
48	BW	90	ARG	C-O	-31.28	0.83	1.23
35	BG	5	LYS	C-O	-31.25	0.84	1.24
81	DA	2989	U	O4'-C1'	31.22	2.04	1.41
32	BC	368	GLY	C-O	-31.20	0.84	1.23
65	Bn	35	GLY	C-O	-31.19	0.81	1.23
6	AE	92	ALA	C-O	-31.08	0.85	1.23

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
65	Bn	34	ALA	C-O	-30.94	0.84	1.24
6	AE	4	PRO	C-O	-30.93	0.83	1.24
80	CC	18	C	O3'-P	30.90	2.07	1.61
74	BQ	197	SER	C-O	-30.83	0.85	1.24
31	BB	252	THR	C-O	-30.74	0.87	1.23
43	BP	80	THR	C-O	-30.68	0.87	1.23
45	BR	95	GLU	C-O	-30.65	0.85	1.24
40	BK	63	ALA	C-O	-30.63	0.85	1.23
17	AQ	81	LYS	C-O	-30.60	0.86	1.23
59	Bh	12	LYS	C-O	-30.50	0.85	1.24
43	BP	16	SER	C-O	-30.49	0.89	1.23
81	DA	636	C	O4'-C1'	30.47	1.87	1.41
3	AB	205	ALA	C-O	-30.44	0.85	1.24
55	Bc	102	GLU	C-O	-30.43	0.85	1.24
46	BT	82	LYS	C-O	-30.28	0.85	1.24
35	BG	8	LYS	C-O	-30.20	0.85	1.24
18	AP	57	LYS	C-O	-30.14	0.86	1.23
31	BB	249	SER	C-O	-30.01	0.86	1.24
78	CA	636	A	C2'-C1'	29.89	2.13	1.53
40	BK	69	GLY	C-O	-29.86	0.83	1.24
26	AZ	40	TYR	C-O	-29.75	0.86	1.24
31	BB	62	VAL	C-O	-29.69	0.90	1.24
37	BH	228	GLU	C-O	-29.68	0.85	1.23
5	AC	162	SER	C-O	-29.66	0.86	1.24
13	AL	34	LEU	C-O	-29.60	0.86	1.24
31	BB	73	GLU	C-O	-29.47	0.86	1.24
53	Ba	13	VAL	C-O	-29.47	0.89	1.24
11	AJ	119	ALA	C-O	-29.45	0.90	1.24
22	AV	26	LYS	C-O	-29.41	0.86	1.24
69	Br	58	PHE	C-O	-29.29	0.87	1.24
60	Bi	79	SER	C-O	-29.22	0.87	1.24
1	Aa	53	LYS	C-O	-29.20	0.85	1.23
14	AM	99	HIS	C-O	-29.19	0.88	1.23
44	BO	3	SER	C-O	-28.87	0.87	1.24
2	AA	10	THR	C-O	-28.85	0.87	1.24
43	BP	116	LEU	C-O	-28.57	0.91	1.24
20	AS	90	PRO	C-O	-28.53	0.86	1.24
31	BB	127	ALA	C-O	-28.47	0.88	1.24
60	Bi	77	GLY	C-O	-28.37	0.85	1.23
33	BD	89	ALA	C-O	-28.34	0.88	1.24
57	Be	98	LYS	N-CA	-28.27	1.06	1.46
78	CA	123	G	O4'-C1'	28.26	1.84	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	Bk	83	ALA	C-O	-28.23	0.83	1.24
74	BQ	128	GLU	C-O	-28.23	0.89	1.23
61	Bj	66	VAL	CA-CB	-28.17	1.19	1.54
32	BC	3	HIS	C-O	-27.98	0.89	1.23
32	BC	5	LYS	C-O	-27.91	0.88	1.24
12	AK	123	SER	C-O	-27.87	0.88	1.24
45	BR	3	ILE	C-O	-27.79	0.91	1.24
58	Bg	107	VAL	C-O	-27.77	0.91	1.24
33	BD	331	ALA	C-O	-27.74	0.89	1.24
62	Bk	81	THR	C-O	-27.66	0.84	1.23
81	DA	3215	A	O4'-C1'	27.49	1.96	1.41
45	BR	98	LYS	C-O	-27.43	0.89	1.24
2	AA	251	GLU	C-O	-27.35	0.91	1.23
65	Bn	71	PRO	C-O	-27.23	0.88	1.24
26	AZ	39	LEU	C-O	-27.18	0.89	1.24
60	Bi	68	THR	C-O	-27.04	0.90	1.24
81	DA	3215	A	C2'-C1'	-27.03	0.99	1.53
81	DA	2934	A	C2'-C1'	27.03	1.93	1.53
29	AU	36	SER	C-O	-26.57	0.90	1.24
2	AA	195	TRP	C-O	-26.54	0.90	1.24
47	BU	126	VAL	C-O	-26.53	0.94	1.24
74	BQ	190	ILE	C-O	-26.36	0.92	1.24
5	AC	157	ASP	C-O	-26.35	0.90	1.23
16	AO	67	THR	C-O	-26.28	0.90	1.24
17	AQ	63	LYS	C-O	-26.10	0.88	1.23
81	DA	2648	G	C2'-C1'	26.04	1.92	1.53
76	BS	123	ILE	C-O	-26.03	0.93	1.24
53	Ba	60	LYS	C-O	-26.00	0.94	1.23
37	BH	89	GLU	C-O	-25.98	0.91	1.24
55	Bc	94	LYS	C-O	-25.93	0.91	1.24
37	BH	236	GLY	C-O	-25.91	0.89	1.23
10	AI	119	ALA	C-O	-25.86	0.91	1.24
81	DA	1207	G	O4'-C1'	25.42	1.92	1.41
45	BR	142	GLY	C-O	-25.42	0.89	1.24
5	AC	164	PHE	C-O	-25.40	0.92	1.24
81	DA	3221	C	O4'-C1'	25.35	1.92	1.41
2	AA	250	VAL	C-O	-25.34	0.94	1.24
35	BG	38	THR	C-O	-25.21	0.93	1.24
26	AZ	18	THR	C-O	-25.14	0.92	1.24
69	Br	47	GLN	C-O	-25.08	0.93	1.23
61	Bj	8	TYR	C-O	-25.04	0.92	1.24
33	BD	323	VAL	C-O	-24.88	0.94	1.24

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
46	BT	71	ARG	C-O	-24.82	0.92	1.24
39	BJ	76	SER	C-O	-24.82	0.92	1.24
81	DA	1221	A	O4'-C1'	-24.73	1.04	1.41
44	BO	142	GLY	C-O	-24.73	0.90	1.23
8	AF	35	GLN	C-O	-24.55	0.90	1.23
12	AK	22	SER	C-O	-24.49	0.93	1.24
78	CA	1190	C	C5'-C4'	24.48	2.00	1.51
33	BD	145	ILE	C-O	-24.45	0.93	1.24
60	Bi	55	SER	C-O	-24.44	0.93	1.24
35	BG	27	PRO	C-O	-24.39	0.92	1.24
78	CA	295	A	O4'-C1'	-24.34	1.05	1.41
4	AD	93	ASP	C-O	-24.34	0.90	1.23
78	CA	46	A	O4'-C1'	-24.21	1.05	1.41
33	BD	12	THR	C-O	-24.20	0.93	1.24
81	DA	2166	A	O4'-C1'	24.18	1.77	1.41
32	BC	130	PHE	C-O	-24.18	0.93	1.24
78	CA	45	U	C2'-C1'	24.14	1.89	1.53
81	DA	1802	C	O4'-C1'	24.11	1.77	1.41
44	BO	7	LYS	C-O	-24.01	0.93	1.24
78	CA	1583	A	O4'-C1'	23.98	1.77	1.41
69	Br	89	LYS	C-O	-23.91	0.93	1.24
74	BQ	121	GLY	C-O	-23.86	0.93	1.24
44	BO	40	HIS	C-O	-23.68	0.86	1.23
81	DA	1314	C	C2'-C1'	-23.52	1.18	1.53
43	BP	13	LYS	C-O	-23.38	0.97	1.24
33	BD	321	LYS	C-O	-23.32	0.94	1.24
4	AD	153	ASN	C-O	-23.31	0.93	1.23
41	BN	77	ARG	N-CA	-23.28	1.15	1.46
78	CA	591	A	O4'-C1'	23.20	1.76	1.41
78	CA	1602	C	O4'-C1'	23.02	1.76	1.41
81	DA	2607	G	C2'-C1'	-22.99	1.18	1.53
81	DA	3092	C	O4'-C1'	22.99	1.76	1.41
81	DA	2174	G	C2'-C1'	-22.96	1.18	1.53
81	DA	3212	C	O4'-C1'	22.94	1.76	1.41
78	CA	172	C	O4'-C1'	22.61	1.75	1.41
78	CA	1190	C	P-OP1	-22.51	1.03	1.49
78	CA	1583	A	C2'-C1'	-22.45	1.19	1.53
35	BG	3	ALA	C-O	-22.43	0.93	1.23
44	BO	73	LEU	C-N	-22.39	1.03	1.34
81	DA	3034	C	O4'-C1'	22.34	1.75	1.41
78	CA	1255	G	O3'-P	22.32	1.94	1.61
78	CA	305	C	O4'-C1'	22.30	1.75	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	2788	C	O4'-C1'	22.23	1.75	1.41
78	CA	900	A	C4'-O4'	-22.22	1.12	1.45
81	DA	2757	U	O4'-C1'	22.16	1.74	1.41
31	BB	62	VAL	CA-CB	22.10	1.77	1.53
44	BO	8	THR	C-O	-22.07	0.96	1.24
81	DA	1401	A	C2'-C1'	22.05	1.86	1.53
81	DA	3131	U	O4'-C1'	21.96	1.74	1.41
81	DA	3241	G	O4'-C1'	21.80	1.74	1.41
76	BS	15	GLY	C-O	-21.75	0.94	1.23
5	AC	18	PRO	C-O	-21.71	0.95	1.24
78	CA	1690	G	O4'-C1'	21.70	1.74	1.41
81	DA	1298	C	C2'-C1'	-21.69	1.20	1.53
78	CA	1393	C	C2'-C1'	21.69	1.85	1.53
78	CA	1546	G	C2'-C1'	-21.69	1.20	1.53
83	DC	26	C	C2'-C1'	-21.63	1.21	1.53
83	DC	102	C	O4'-C1'	21.43	1.73	1.41
81	DA	671	U	O4'-C1'	-21.39	1.09	1.41
74	BQ	129	TYR	C-O	-21.29	0.97	1.24
74	BQ	129	TYR	N-CA	21.21	1.73	1.46
10	AI	54	LEU	C-O	-21.17	0.96	1.23
35	BG	148	GLU	N-CA	-21.17	1.32	1.46
35	BG	99	GLU	CA-CB	21.14	1.89	1.53
13	AL	7	ARG	CZ-NH1	-21.10	1.03	1.32
1	Aa	54	PHE	C-O	-21.09	0.90	1.23
81	DA	1820	U	O4'-C1'	21.06	1.73	1.41
81	DA	2440	G	O4'-C1'	21.06	1.73	1.41
81	DA	1298	C	O4'-C1'	21.04	1.73	1.41
81	DA	677	A	C2'-C1'	21.02	1.84	1.53
33	BD	296	GLN	N-CA	21.02	1.73	1.46
59	Bh	20	HIS	C-O	-20.95	0.97	1.24
74	BQ	115	LEU	C-O	-20.93	0.90	1.24
78	CA	469	C	O4'-C1'	20.90	1.73	1.41
82	DB	154	C	O4'-C1'	20.89	1.73	1.41
81	DA	1975	C	O4'-C1'	20.81	1.72	1.41
81	DA	3304	U	C4'-C3'	20.81	1.83	1.52
49	BV	152	GLU	C-O	-20.75	0.97	1.24
81	DA	1314	C	O4'-C1'	20.71	1.72	1.41
81	DA	2440	G	C2'-C1'	-20.70	1.22	1.53
83	DC	46	A	C2'-C1'	20.68	1.84	1.53
78	CA	306	U	C2'-C1'	20.55	1.84	1.53
78	CA	874	C	O4'-C1'	20.47	1.72	1.41
37	BH	158	ASP	CA-CB	20.47	1.74	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	71	A	O4'-C1'	20.45	1.72	1.42
33	BD	349	THR	C-O	-20.41	0.98	1.24
81	DA	2880	U	C2'-C1'	-20.39	1.22	1.53
81	DA	638	C	O4'-C1'	20.37	1.72	1.41
74	BQ	111	GLN	C-O	-20.26	0.98	1.24
41	BN	76	ALA	C-N	20.15	1.59	1.33
13	AL	135	LEU	N-CA	20.14	1.70	1.46
78	CA	631	G	C2'-C1'	20.10	1.83	1.53
78	CA	196	G	C2'-C1'	-20.05	1.23	1.53
81	DA	1821	U	O4'-C1'	19.90	1.71	1.41
81	DA	1688	U	O4'-C1'	19.88	1.71	1.41
39	BJ	75	PRO	C-O	-19.87	0.98	1.24
81	DA	636	C	C2'-C1'	-19.83	1.23	1.53
78	CA	1394	G	O4'-C1'	-19.80	1.11	1.41
79	CB	55	C	O4'-C1'	19.76	1.71	1.41
51	BZ	60	LYS	C-O	-19.74	0.99	1.24
61	Bj	20	LYS	C-O	-19.72	1.01	1.24
81	DA	702	C	O4'-C1'	19.66	1.71	1.41
81	DA	2770	G	O4'-C1'	19.66	1.71	1.41
10	AI	141	SER	N-CA	-19.62	1.26	1.46
81	DA	71	A	C2'-C1'	-19.56	1.23	1.53
81	DA	173	G	C2'-C1'	-19.50	1.24	1.53
78	CA	609	U	O4'-C1'	19.49	1.71	1.42
81	DA	1055	A	C2'-C1'	19.42	1.82	1.53
34	BE	9	MET	C-O	-19.41	0.99	1.24
81	DA	1866	C	O4'-C1'	19.41	1.70	1.41
60	Bi	79	SER	N-CA	19.37	1.71	1.46
78	CA	990	C	C2'-C1'	-19.36	1.24	1.53
81	DA	2187	G	C2'-C1'	19.33	1.82	1.53
57	Be	98	LYS	CA-C	19.29	1.77	1.52
33	BD	323	VAL	N-CA	19.28	1.70	1.46
78	CA	1541	G	C2'-C1'	-19.27	1.24	1.53
57	Be	132	PRO	C-O	-19.23	0.98	1.24
45	BR	143	PRO	C-O	-19.22	0.84	1.23
81	DA	338	A	O4'-C1'	19.22	1.70	1.41
81	DA	2625	C	O4'-C1'	19.19	1.70	1.42
81	DA	3142	A	C2'-C1'	19.12	1.81	1.53
81	DA	1971	C	O4'-C1'	19.11	1.70	1.41
81	DA	427	C	O4'-C1'	19.06	1.70	1.41
81	DA	7	C	O4'-C1'	19.01	1.70	1.41
78	CA	1200	G	O4'-C1'	18.98	1.70	1.41
78	CA	294	C	O4'-C1'	18.95	1.70	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	AD	96	ASN	C-O	-18.93	1.00	1.24
81	DA	1685	C	O4'-C1'	18.91	1.70	1.42
81	DA	242	C	C2'-C1'	-18.91	1.25	1.53
61	Bj	33	GLU	CG-CD	18.89	1.99	1.52
78	CA	46	A	C2'-C1'	18.89	1.81	1.53
26	AZ	44	PHE	C-N	18.82	1.51	1.33
83	DC	17	A	O4'-C1'	18.75	1.69	1.41
21	AT	10	GLU	N-CA	18.67	1.69	1.46
81	DA	745	C	C2'-C1'	-18.67	1.25	1.53
81	DA	124	U	O4'-C1'	18.65	1.69	1.41
3	AB	199	PRO	C-O	-18.64	0.99	1.24
44	BO	7	LYS	N-CA	-18.61	1.22	1.46
78	CA	573	C	C2'-O2'	-18.58	1.14	1.42
35	BG	69	PHE	CD1-CE1	18.58	1.94	1.38
37	BH	229	VAL	N-CA	-18.57	1.26	1.46
81	DA	427	C	C2'-C1'	-18.55	1.25	1.53
81	DA	2157	G	O4'-C1'	18.50	1.69	1.42
81	DA	2899	C	O4'-C1'	18.49	1.69	1.41
81	DA	1429	G	C2'-C1'	-18.48	1.25	1.53
81	DA	2721	A	O4'-C1'	18.46	1.69	1.41
81	DA	2630	C	O4'-C1'	18.39	1.69	1.41
78	CA	1201	G	O4'-C1'	18.32	1.69	1.42
78	CA	610	G	O4'-C1'	-18.27	1.14	1.41
32	BC	17	LEU	CA-CB	-18.17	1.31	1.54
32	BC	266	ARG	CD-NE	18.16	1.71	1.46
78	CA	228	G	C2'-C1'	18.12	1.80	1.53
78	CA	140	A	C2'-C1'	18.10	1.80	1.53
81	DA	1316	C	O4'-C1'	18.05	1.68	1.41
81	DA	1572	U	O4'-C1'	18.05	1.68	1.41
81	DA	798	G	O4'-C1'	-17.96	1.14	1.41
15	AN	54	LYS	N-CA	17.94	1.71	1.45
81	DA	1579	C	O4'-C1'	17.94	1.68	1.41
81	DA	3224	G	O4'-C1'	-17.91	1.14	1.41
81	DA	1285	G	C2'-C1'	17.91	1.79	1.53
78	CA	1081	A	C2'-C1'	17.91	1.80	1.53
78	CA	1615	C	O4'-C1'	17.89	1.68	1.41
81	DA	2948	C	O4'-C1'	17.89	1.68	1.41
81	DA	1947	G	O4'-C1'	-17.79	1.15	1.41
78	CA	897	C	O4'-C1'	17.78	1.68	1.42
78	CA	1386	G	O4'-C1'	-17.77	1.15	1.41
81	DA	1316	C	C2'-C1'	-17.71	1.26	1.53
81	DA	1871	U	C5'-C4'	-17.71	1.24	1.51

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	3003	G	O4'-C1'	-17.66	1.15	1.41
78	CA	295	A	C2'-C1'	17.61	1.79	1.53
78	CA	856	A	C2'-C1'	17.58	1.79	1.53
81	DA	1623	G	C2'-C1'	-17.57	1.26	1.53
78	CA	1546	G	C3'-O3'	-17.56	1.15	1.42
14	AM	13	HIS	N-CA	-17.53	1.23	1.46
78	CA	990	C	O4'-C1'	17.52	1.68	1.41
34	BE	89	TYR	CA-CB	17.45	1.82	1.53
3	AB	200	LYS	N-CA	-17.42	1.24	1.46
82	DB	105	A	C2'-C1'	-17.42	1.26	1.53
78	CA	635	A	O4'-C1'	17.42	1.67	1.41
78	CA	1348	A	C2'-C1'	-17.37	1.27	1.53
60	Bi	78	GLY	C-O	-17.36	0.88	1.23
44	BO	63	LYS	N-CA	-17.36	1.23	1.46
81	DA	2264	U	O4'-C1'	17.34	1.67	1.41
81	DA	672	A	P-O5'	-17.34	1.33	1.59
65	Bn	34	ALA	N-CA	-17.32	1.23	1.46
3	AB	205	ALA	N-CA	17.31	1.68	1.46
78	CA	296	U	O4'-C1'	17.30	1.67	1.41
81	DA	331	G	C2'-C1'	17.26	1.79	1.53
81	DA	1396	C	O4'-C1'	17.22	1.67	1.41
78	CA	1580	C	O4'-C1'	17.18	1.67	1.41
81	DA	2720	G	O4'-C1'	17.15	1.67	1.41
81	DA	1115	G	O4'-C1'	17.15	1.67	1.41
37	BH	158	ASP	N-CA	-17.08	1.30	1.46
81	DA	70	A	O4'-C1'	17.07	1.67	1.41
82	DB	35	C	O4'-C1'	17.06	1.67	1.41
81	DA	3147	G	C2'-C1'	-17.03	1.27	1.53
81	DA	1333	C	O4'-C1'	16.99	1.67	1.41
6	AE	92	ALA	CA-CB	16.98	1.79	1.53
25	AY	57	MET	N-CA	-16.97	1.26	1.46
81	DA	675	C	O4'-C1'	16.97	1.67	1.41
82	DB	45	C	O4'-C1'	16.95	1.67	1.41
78	CA	1141	G	C2'-C1'	-16.95	1.27	1.53
81	DA	2439	A	O4'-C1'	16.91	1.67	1.41
62	Bk	82	ARG	C-O	-16.89	1.01	1.24
81	DA	1582	C	O4'-C1'	16.89	1.67	1.41
81	DA	2638	C	O4'-C1'	16.87	1.67	1.41
81	DA	2869	U	C2'-C1'	16.85	1.78	1.53
81	DA	1747	G	O4'-C1'	16.79	1.66	1.41
83	DC	53	U	O4'-C1'	16.78	1.66	1.41
81	DA	1076	C	C2'-C1'	-16.77	1.28	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	3004	C	C2'-C1'	-16.76	1.28	1.53
81	DA	2880	U	O4'-C1'	16.75	1.66	1.41
81	DA	2770	G	C2'-C1'	-16.61	1.28	1.53
78	CA	374	U	C2'-C1'	-16.61	1.28	1.53
37	BH	89	GLU	N-CA	16.59	1.67	1.46
81	DA	1620	U	C2'-C1'	-16.58	1.28	1.53
78	CA	174	U	O4'-C1'	16.57	1.66	1.42
81	DA	1054	A	C2'-C1'	16.56	1.78	1.53
81	DA	3298	C	O4'-C1'	16.54	1.66	1.41
78	CA	393	C	O4'-C1'	16.49	1.66	1.41
78	CA	1755	A	O4'-C1'	-16.48	1.17	1.41
32	BC	298	PHE	C-O	-16.47	0.90	1.23
81	DA	3253	G	C2'-C1'	-16.47	1.28	1.53
1	Aa	58	VAL	C-N	16.43	1.53	1.33
21	AT	9	VAL	CA-CB	-16.43	1.32	1.54
82	DB	32	C	O4'-C1'	16.41	1.66	1.41
4	AD	93	ASP	CA-CB	16.39	1.76	1.53
81	DA	518	G	O4'-C1'	16.36	1.66	1.41
81	DA	3239	G	C2'-C1'	-16.36	1.28	1.53
81	DA	597	G	C2'-C1'	-16.34	1.28	1.53
78	CA	1565	C	O4'-C1'	16.33	1.66	1.41
81	DA	3306	U	C2'-C1'	-16.31	1.28	1.53
82	DB	3	A	C2'-C1'	-16.25	1.28	1.53
31	BB	37	ARG	C-O	-16.25	1.05	1.24
78	CA	1201	G	C2'-C1'	-16.22	1.28	1.53
81	DA	3217	C	C2'-C1'	16.20	1.77	1.53
81	DA	1551	C	O4'-C1'	16.19	1.66	1.41
65	Bn	71	PRO	CA-CB	-16.19	1.30	1.53
81	DA	608	A	O4'-C1'	16.18	1.66	1.42
81	DA	1585	C	O4'-C1'	16.16	1.65	1.41
81	DA	70	A	C2'-C1'	-16.14	1.29	1.53
81	DA	2438	A	O4'-C1'	16.13	1.65	1.41
78	CA	1096	C	O4'-C1'	16.12	1.65	1.41
81	DA	1297	C	O4'-C1'	16.09	1.65	1.41
81	DA	2231	C	O4'-C1'	16.08	1.65	1.41
81	DA	594	U	O4'-C1'	16.07	1.65	1.41
81	DA	1379	G	C2'-C1'	-16.06	1.29	1.53
81	DA	1859	A	C2'-C1'	16.05	1.77	1.53
81	DA	242	C	O4'-C1'	15.97	1.65	1.41
79	CB	41	G	C2'-C1'	-15.96	1.29	1.53
61	Bj	8	TYR	N-CA	15.95	1.66	1.46
81	DA	209	A	C2'-C1'	15.95	1.77	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	280	U	O4'-C1'	15.94	1.65	1.41
81	DA	665	A	O4'-C1'	15.94	1.65	1.41
4	AD	94	ALA	C-O	-15.92	0.91	1.23
81	DA	2634	U	C2'-C1'	-15.92	1.29	1.53
81	DA	3115	C	O4'-C1'	15.88	1.65	1.42
81	DA	3304	U	C3'-C2'	15.85	1.76	1.52
81	DA	699	A	O4'-C1'	15.83	1.65	1.41
78	CA	1091	A	C2'-C1'	15.82	1.76	1.53
81	DA	2363	A	C2'-C1'	15.80	1.77	1.53
4	AD	153	ASN	CA-CB	15.80	1.79	1.53
81	DA	3245	A	C2'-C1'	-15.78	1.29	1.53
81	DA	169	U	C2'-C1'	15.75	1.76	1.53
81	DA	1682	U	C2'-C1'	15.74	1.76	1.53
81	DA	2916	U	O4'-C1'	15.71	1.65	1.41
83	DC	42	A	O4'-C1'	15.71	1.65	1.41
81	DA	2756	C	O4'-C1'	15.68	1.65	1.41
51	BZ	51	TRP	N-CA	15.59	1.63	1.46
81	DA	3002	C	O4'-C1'	15.59	1.65	1.41
61	Bj	33	GLU	CD-OE2	-15.58	0.95	1.25
78	CA	589	C	O4'-C1'	15.58	1.65	1.41
80	CC	18	C	O4'-C1'	15.58	1.65	1.42
8	AF	35	GLN	N-CA	-15.53	1.26	1.46
78	CA	853	G	C2'-C1'	15.52	1.76	1.53
78	CA	1702	A	C2'-C1'	15.52	1.76	1.53
81	DA	1014	U	C2'-C1'	-15.51	1.30	1.53
83	DC	49	G	O4'-C1'	15.51	1.65	1.41
81	DA	1871	U	C4'-O4'	-15.50	1.22	1.45
81	DA	2606	G	O4'-C1'	-15.50	1.18	1.42
81	DA	2108	C	O4'-C1'	15.50	1.64	1.41
78	CA	1674	C	O4'-C1'	15.49	1.64	1.41
81	DA	2760	C	C2'-C1'	-15.49	1.30	1.53
78	CA	668	C	O4'-C1'	15.46	1.64	1.41
82	DB	46	G	C2'-C1'	-15.46	1.30	1.53
83	DC	54	A	O4'-C1'	15.46	1.64	1.41
81	DA	1260	A	O4'-C1'	-15.45	1.18	1.41
81	DA	1678	G	O4'-C1'	-15.43	1.18	1.41
78	CA	1086	A	O4'-C1'	15.43	1.64	1.41
81	DA	1747	G	C2'-C1'	-15.42	1.30	1.53
78	CA	1436	A	C2'-C1'	-15.42	1.30	1.53
74	BQ	40	HIS	C-N	15.39	1.54	1.33
81	DA	386	A	O4'-C1'	15.36	1.64	1.41
81	DA	3249	C	O4'-C1'	15.36	1.64	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1866	C	C2'-C1'	-15.36	1.30	1.53
81	DA	672	A	C2'-C1'	-15.36	1.30	1.53
81	DA	2407	C	O4'-C1'	15.36	1.64	1.41
81	DA	607	A	O4'-C1'	-15.34	1.18	1.41
81	DA	2685	C	C2'-C1'	-15.34	1.30	1.53
81	DA	745	C	O4'-C1'	15.34	1.64	1.41
81	DA	1397	C	O4'-C1'	15.33	1.64	1.41
26	AZ	40	TYR	N-CA	15.32	1.66	1.46
81	DA	2001	U	C2'-C1'	15.32	1.76	1.53
81	DA	1808	G	C2'-C1'	-15.32	1.30	1.53
81	DA	2362	C	C2'-C1'	15.30	1.76	1.53
81	DA	2175	U	P-O5'	-15.30	1.36	1.59
81	DA	9	U	C2'-C1'	-15.27	1.30	1.53
81	DA	3006	A	C2'-C1'	-15.27	1.30	1.53
81	DA	1561	G	C2'-C1'	-15.27	1.30	1.53
81	DA	1821	U	C2'-C1'	-15.27	1.30	1.53
78	CA	672	U	O4'-C1'	15.23	1.64	1.41
78	CA	1180	C	O4'-C1'	15.22	1.64	1.41
43	BP	74	PRO	CA-CB	15.20	1.75	1.53
81	DA	2623	G	O4'-C1'	-15.20	1.18	1.41
58	Bg	108	VAL	N-CA	15.18	1.66	1.46
78	CA	1161	C	O4'-C1'	15.16	1.64	1.41
83	DC	27	A	O4'-C1'	15.15	1.64	1.41
83	DC	118	U	C2'-C1'	-15.14	1.30	1.53
81	DA	3249	C	C2'-C1'	-15.13	1.30	1.53
81	DA	2637	A	C2'-C1'	15.12	1.76	1.53
78	CA	1570	A	O4'-C1'	15.11	1.64	1.41
26	AZ	44	PHE	CA-CB	-15.11	1.31	1.53
13	AL	34	LEU	N-CA	15.10	1.65	1.46
81	DA	3094	A	O4'-C1'	15.09	1.64	1.41
76	BS	123	ILE	N-CA	15.09	1.65	1.46
81	DA	2699	G	C2'-C1'	-15.08	1.30	1.53
81	DA	752	C	O4'-C1'	15.08	1.64	1.41
78	CA	1791	A	O4'-C1'	15.06	1.64	1.42
78	CA	368	U	C2'-C1'	-15.06	1.30	1.53
81	DA	656	A	C2'-C1'	-15.05	1.30	1.53
48	BW	93	ILE	CA-CB	15.05	1.72	1.53
81	DA	2619	G	C2'-C1'	-15.05	1.30	1.53
81	DA	577	C	O4'-C1'	15.03	1.64	1.42
36	BF	46	THR	CA-C	15.01	1.74	1.53
78	CA	206	A	O4'-C1'	15.01	1.64	1.41
31	BB	252	THR	N-CA	15.00	1.64	1.46

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1688	U	C2'-C1'	-15.00	1.30	1.53
33	BD	12	THR	N-CA	14.99	1.65	1.46
47	BU	126	VAL	N-CA	-14.99	1.29	1.46
78	CA	471	A	O4'-C1'	14.99	1.64	1.41
81	DA	2623	G	C2'-C1'	14.99	1.75	1.53
81	DA	1633	C	O4'-C1'	14.98	1.64	1.41
81	DA	422	A	C2'-C1'	14.97	1.75	1.53
81	DA	573	C	O4'-C1'	14.95	1.64	1.41
81	DA	2674	A	C2'-C1'	-14.95	1.30	1.53
26	AZ	39	LEU	N-CA	-14.94	1.26	1.46
78	CA	354	C	O4'-C1'	14.94	1.64	1.41
83	DC	45	A	O4'-C1'	14.93	1.64	1.41
78	CA	960	U	C2'-C1'	14.92	1.75	1.53
10	AI	54	LEU	N-CA	-14.92	1.28	1.46
81	DA	2756	C	C2'-C1'	-14.90	1.30	1.53
78	CA	1336	A	O4'-C1'	14.87	1.64	1.41
81	DA	1552	G	O4'-C1'	14.87	1.64	1.41
81	DA	2653	C	O4'-C1'	14.87	1.64	1.41
81	DA	1174	G	C2'-C1'	-14.86	1.31	1.53
81	DA	2689	A	C2'-C1'	-14.86	1.30	1.53
41	BN	108	ARG	CD-NE	14.85	1.67	1.46
45	BR	13	SER	CA-C	14.85	1.71	1.52
78	CA	686	C	O4'-C1'	14.83	1.63	1.41
81	DA	3350	C	O4'-C1'	14.83	1.63	1.41
81	DA	2339	C	C2'-C1'	14.82	1.75	1.53
18	AP	40	LEU	CA-CB	-14.82	1.32	1.53
81	DA	1085	A	O4'-C1'	14.82	1.63	1.41
81	DA	247	C	O4'-C1'	14.81	1.63	1.41
81	DA	647	A	C2'-C1'	-14.80	1.30	1.53
78	CA	955	A	C2'-C1'	14.79	1.75	1.53
76	BS	15	GLY	N-CA	-14.78	1.24	1.45
78	CA	591	A	C2'-C1'	-14.76	1.31	1.53
5	AC	157	ASP	CA-CB	14.75	1.77	1.53
81	DA	1059	G	C2'-C1'	-14.74	1.31	1.53
81	DA	3103	A	O4'-C1'	14.72	1.63	1.41
81	DA	576	C	O4'-C1'	14.72	1.63	1.41
35	BG	38	THR	CA-CB	14.71	1.74	1.53
81	DA	3330	A	C2'-C1'	-14.71	1.31	1.53
82	DB	62	C	C2'-C1'	-14.70	1.30	1.53
81	DA	2966	G	C2'-C1'	-14.69	1.31	1.53
78	CA	948	G	C2'-C1'	-14.69	1.31	1.53
37	BH	237	ILE	N-CA	-14.68	1.28	1.46

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	1254	U	O3'-P	14.65	1.83	1.61
13	AL	93	LEU	N-CA	-14.64	1.28	1.46
74	BQ	158	ARG	NE-CZ	14.63	1.49	1.33
81	DA	2496	C	C2'-C1'	-14.63	1.31	1.53
32	BC	360	ASP	N-CA	-14.62	1.27	1.47
78	CA	1614	A	O4'-C1'	14.62	1.63	1.41
78	CA	433	C	O4'-C1'	14.61	1.63	1.41
81	DA	993	G	C2'-C1'	-14.61	1.31	1.53
81	DA	498	A	O4'-C1'	14.60	1.63	1.41
81	DA	2899	C	C2'-C1'	-14.57	1.31	1.53
18	AP	111	VAL	CA-C	-14.56	1.40	1.53
78	CA	298	C	O4'-C1'	14.56	1.63	1.41
81	DA	2942	C	O4'-C1'	14.55	1.63	1.41
78	CA	652	G	C2'-C1'	-14.54	1.31	1.53
81	DA	238	A	O4'-C1'	14.51	1.63	1.41
81	DA	3243	A	C2'-C1'	-14.51	1.31	1.53
83	DC	25	G	O4'-C1'	-14.51	1.19	1.41
78	CA	894	U	O4'-C1'	14.50	1.63	1.41
81	DA	2173	U	C2'-C1'	-14.50	1.31	1.53
10	AI	120	ASP	N-CA	-14.48	1.27	1.46
60	Bi	68	THR	CA-CB	14.47	1.77	1.53
48	BW	98	THR	CA-C	-14.46	1.34	1.52
81	DA	1884	A	C2'-C1'	-14.46	1.31	1.53
53	Ba	57	HIS	CB-CG	-14.45	1.29	1.50
78	CA	154	G	O4'-C1'	14.44	1.63	1.41
81	DA	2316	G	C2'-C1'	-14.43	1.31	1.53
81	DA	1432	C	O4'-C1'	-14.43	1.20	1.42
81	DA	2630	C	C2'-C1'	-14.40	1.31	1.53
82	DB	32	C	C2'-C1'	-14.40	1.31	1.53
33	BD	89	ALA	CA-CB	14.38	1.77	1.53
81	DA	2628	A	O4'-C1'	14.38	1.63	1.41
83	DC	37	G	O4'-C1'	14.37	1.63	1.41
81	DA	3149	G	C2'-C1'	14.37	1.75	1.53
12	AK	124	ASP	N-CA	-14.37	1.27	1.46
81	DA	2697	A	O4'-C1'	14.36	1.63	1.41
45	BR	14	GLY	N-CA	-14.36	1.24	1.45
78	CA	847	A	C2'-C1'	-14.35	1.31	1.53
81	DA	2392	C	O4'-C1'	14.35	1.63	1.41
2	AA	11	PRO	N-CD	14.33	1.67	1.47
31	BB	62	VAL	N-CA	-14.33	1.30	1.46
43	BP	80	THR	CA-CB	14.33	1.75	1.53
81	DA	1842	A	O4'-C1'	14.31	1.63	1.42

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	3306	U	O4'-C1'	14.31	1.63	1.41
81	DA	3244	A	C2'-C1'	-14.29	1.31	1.53
55	Bc	108	GLN	C-O	-14.29	1.06	1.23
81	DA	251	G	C2'-C1'	-14.29	1.31	1.53
81	DA	599	C	O4'-C1'	14.29	1.63	1.41
32	BC	3	HIS	CA-CB	14.28	1.77	1.53
81	DA	1786	G	O4'-C1'	-14.27	1.20	1.41
81	DA	907	G	C2'-C1'	-14.26	1.31	1.53
81	DA	2508	U	O4'-C1'	14.24	1.63	1.41
78	CA	1420	C	O4'-C1'	14.22	1.62	1.41
60	Bi	56	THR	N-CA	-14.22	1.29	1.45
76	BS	124	GLN	N-CA	-14.21	1.27	1.46
81	DA	727	G	O4'-C1'	14.21	1.62	1.41
78	CA	1452	U	C2'-C1'	-14.21	1.32	1.53
81	DA	3361	G	O4'-C1'	14.21	1.63	1.42
81	DA	2487	U	C2'-C1'	14.19	1.74	1.53
81	DA	2376	G	O4'-C1'	14.17	1.62	1.41
81	DA	665	A	C2'-C1'	-14.15	1.32	1.53
81	DA	1128	U	C2'-C1'	-14.14	1.32	1.53
69	Br	89	LYS	N-CA	14.14	1.64	1.46
81	DA	2741	C	O4'-C1'	14.13	1.62	1.41
81	DA	2308	C	O4'-C1'	14.13	1.62	1.41
81	DA	2509	U	C2'-C1'	-14.13	1.32	1.53
81	DA	2948	C	C2'-C1'	-14.13	1.32	1.53
53	Ba	60	LYS	N-CA	14.12	1.63	1.46
78	CA	1652	C	O4'-C1'	14.12	1.62	1.41
81	DA	2788	C	C2'-C1'	-14.11	1.32	1.53
81	DA	1295	G	C2'-C1'	-14.11	1.32	1.53
82	DB	50	C	C2'-C1'	14.11	1.74	1.53
83	DC	26	C	O4'-C1'	14.09	1.62	1.41
74	BQ	190	ILE	CA-CB	-14.08	1.35	1.54
78	CA	29	U	O4'-C1'	14.08	1.62	1.41
41	BN	76	ALA	C-O	-14.07	1.05	1.23
60	Bi	16	ARG	CA-CB	14.07	1.74	1.53
81	DA	3382	U	O4'-C1'	14.06	1.62	1.41
81	DA	201	A	C2'-C1'	-14.06	1.32	1.53
81	DA	180	C	O4'-C1'	14.05	1.62	1.41
43	BP	17	ASP	N-CA	-14.05	1.29	1.46
81	DA	1713	G	C2'-C1'	-14.05	1.32	1.53
78	CA	1564	U	O4'-C1'	14.04	1.62	1.41
81	DA	2231	C	C2'-C1'	-14.04	1.32	1.53
74	BQ	128	GLU	CA-CB	14.03	1.78	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
59	Bh	20	HIS	CA-CB	14.02	1.77	1.53
33	BD	349	THR	N-CA	14.01	1.64	1.46
81	DA	517	G	C2'-C1'	-14.01	1.32	1.53
2	AA	12	GLU	N-CA	14.01	1.64	1.46
5	AC	23	ARG	CZ-NH2	-14.01	1.15	1.33
81	DA	3052	G	C2'-C1'	-14.01	1.32	1.53
81	DA	203	G	C2'-C1'	-14.00	1.32	1.53
34	BE	123	PHE	N-CA	13.98	1.62	1.46
81	DA	1199	C	O4'-C1'	13.96	1.62	1.41
46	BT	82	LYS	N-CA	13.96	1.64	1.46
78	CA	1375	A	O4'-C1'	13.95	1.62	1.41
78	CA	1022	C	O4'-C1'	13.95	1.62	1.41
81	DA	2074	C	O4'-C1'	13.94	1.62	1.41
78	CA	1209	C	O4'-C1'	13.94	1.62	1.41
81	DA	1978	A	O4'-C1'	13.93	1.62	1.41
81	DA	3236	U	C2'-C1'	-13.93	1.32	1.53
81	DA	671	U	C2'-C1'	13.92	1.74	1.53
81	DA	1789	G	C2'-C1'	-13.92	1.32	1.53
32	BC	362	ALA	CA-CB	13.91	1.72	1.53
78	CA	1192	C	O4'-C1'	13.90	1.62	1.41
81	DA	2506	U	O4'-C1'	13.90	1.62	1.41
34	BE	115	LYS	CA-CB	-13.90	1.30	1.53
4	AD	91	THR	N-CA	-13.90	1.29	1.46
78	CA	174	U	C2'-C1'	-13.89	1.32	1.53
81	DA	531	G	O4'-C1'	13.88	1.62	1.41
45	BR	4	ASP	N-CA	-13.88	1.28	1.46
81	DA	3001	C	O4'-C1'	13.88	1.62	1.41
45	BR	98	LYS	N-CA	13.87	1.64	1.46
78	CA	427	C	O4'-C1'	13.87	1.62	1.41
81	DA	514	G	C2'-C1'	-13.87	1.32	1.53
74	BQ	201	GLY	N-CA	-13.86	1.28	1.45
78	CA	1112	G	C2'-C1'	-13.86	1.32	1.53
2	AA	10	THR	N-CA	-13.86	1.26	1.46
32	BC	130	PHE	N-CA	13.86	1.64	1.46
81	DA	2160	G	C2'-C1'	-13.86	1.32	1.53
37	BH	129	PRO	N-CA	-13.85	1.29	1.47
81	DA	2760	C	O4'-C1'	13.84	1.62	1.41
45	BR	140	LEU	N-CA	-13.84	1.27	1.46
81	DA	27	C	O4'-C1'	13.84	1.62	1.41
81	DA	2816	G	C2'-C1'	-13.84	1.32	1.53
39	BJ	76	SER	N-CA	13.83	1.64	1.46
81	DA	1160	C	O4'-C1'	13.83	1.62	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1329	U	O4'-C1'	13.82	1.62	1.41
81	DA	962	A	O4'-C1'	-13.81	1.21	1.42
16	AO	67	THR	N-CA	-13.81	1.28	1.46
83	DC	31	U	C2'-C1'	13.80	1.74	1.53
81	DA	1160	C	C2'-C1'	-13.79	1.32	1.53
78	CA	1541	G	O4'-C1'	13.79	1.62	1.41
82	DB	154	C	C2'-C1'	-13.78	1.32	1.53
48	BW	90	ARG	CA-CB	13.76	1.75	1.53
83	DC	71	C	O4'-C1'	13.74	1.62	1.41
78	CA	1007	C	O4'-C1'	13.74	1.62	1.41
13	AL	87	VAL	N-CA	13.74	1.63	1.46
78	CA	1108	G	O4'-C1'	-13.74	1.21	1.41
35	BG	152	THR	N-CA	13.73	1.65	1.46
81	DA	1203	A	C2'-C1'	-13.73	1.32	1.53
81	DA	3241	G	C2'-C1'	-13.73	1.32	1.53
81	DA	1076	C	O4'-C1'	13.73	1.62	1.41
81	DA	3285	C	O4'-C1'	13.73	1.62	1.41
69	Br	48	SER	N-CA	-13.72	1.28	1.46
81	DA	924	G	C2'-C1'	-13.72	1.32	1.53
78	CA	312	A	O4'-C1'	13.71	1.62	1.42
78	CA	1793	G	C2'-C1'	-13.71	1.32	1.53
81	DA	1802	C	C2'-C1'	-13.70	1.32	1.53
81	DA	2476	C	O4'-C1'	13.70	1.62	1.41
81	DA	873	C	O4'-C1'	13.69	1.62	1.41
81	DA	2755	C	C2'-C1'	-13.66	1.32	1.53
81	DA	3223	A	O4'-C1'	13.66	1.62	1.41
81	DA	3018	C	O4'-C1'	13.66	1.62	1.41
81	DA	2685	C	O4'-C1'	13.65	1.62	1.41
33	BD	148	ILE	CA-CB	-13.65	1.36	1.54
81	DA	1563	C	O4'-C1'	13.61	1.62	1.41
81	DA	560	G	C2'-C1'	13.61	1.73	1.53
81	DA	1319	G	C2'-C1'	-13.56	1.33	1.53
81	DA	179	C	O4'-C1'	13.56	1.61	1.41
81	DA	1177	G	C2'-C1'	-13.54	1.32	1.53
81	DA	2746	A	C2'-C1'	-13.52	1.33	1.53
81	DA	3004	C	O4'-C1'	13.50	1.61	1.41
78	CA	874	C	C2'-C1'	-13.48	1.33	1.53
81	DA	1704	A	O4'-C1'	-13.47	1.21	1.41
81	DA	3000	A	C2'-C1'	-13.47	1.33	1.53
78	CA	87	C	O4'-C1'	13.47	1.61	1.41
78	CA	1086	A	C2'-C1'	-13.47	1.33	1.53
81	DA	415	G	C2'-C1'	-13.47	1.33	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	295	A	O4'-C1'	13.47	1.61	1.41
81	DA	1014	U	O4'-C1'	13.47	1.61	1.41
81	DA	777	U	C2'-C1'	-13.46	1.33	1.53
78	CA	1189	A	O3'-P	13.45	1.81	1.61
78	CA	1475	A	O4'-C1'	13.44	1.61	1.41
81	DA	1743	G	C2'-C1'	-13.44	1.32	1.53
78	CA	310	C	O4'-C1'	13.43	1.61	1.41
81	DA	2507	C	O4'-C1'	13.43	1.61	1.41
1	Aa	59	ARG	N-CA	13.42	1.62	1.46
78	CA	1392	U	C2'-C1'	13.42	1.73	1.53
81	DA	2431	C	O4'-C1'	13.41	1.61	1.41
78	CA	444	C	O4'-C1'	13.40	1.62	1.42
81	DA	855	U	C2'-C1'	-13.39	1.33	1.53
81	DA	2829	U	C2'-C1'	-13.39	1.33	1.53
45	BR	13	SER	CA-CB	13.39	1.74	1.53
81	DA	1879	A	O4'-C1'	13.39	1.62	1.42
40	BK	184	THR	N-CA	13.38	1.63	1.46
81	DA	2197	C	O4'-C1'	13.37	1.62	1.42
81	DA	3245	A	O4'-C1'	13.37	1.61	1.41
81	DA	185	C	C2'-C1'	-13.37	1.33	1.53
81	DA	2916	U	C2'-C1'	-13.37	1.33	1.53
78	CA	1793	G	O4'-C1'	13.36	1.61	1.41
81	DA	2420	C	O4'-C1'	13.36	1.61	1.41
81	DA	1701	C	C2'-C1'	-13.35	1.33	1.53
81	DA	1591	G	C2'-C1'	-13.35	1.33	1.53
81	DA	2063	U	O4'-C1'	13.35	1.61	1.41
78	CA	571	G	O4'-C1'	13.34	1.61	1.41
81	DA	1366	A	O4'-C1'	13.34	1.61	1.41
81	DA	1552	G	C2'-C1'	-13.34	1.33	1.53
81	DA	2628	A	C2'-C1'	-13.34	1.33	1.53
81	DA	1625	A	O4'-C1'	13.33	1.61	1.41
78	CA	630	A	C2'-C1'	13.33	1.73	1.53
22	AV	26	LYS	C-N	13.32	1.52	1.33
81	DA	2248	C	O4'-C1'	13.32	1.61	1.41
81	DA	531	G	C2'-C1'	-13.31	1.33	1.53
81	DA	1263	A	C2'-C1'	-13.30	1.33	1.53
45	BR	157	PRO	CA-CB	-13.28	1.34	1.53
78	CA	1156	C	O4'-C1'	13.28	1.61	1.41
81	DA	1432	C	C2'-C1'	13.28	1.73	1.53
78	CA	1123	C	O4'-C1'	13.27	1.61	1.41
81	DA	3333	G	C2'-C1'	-13.25	1.33	1.53
32	BC	381	GLY	N-CA	13.25	1.64	1.45

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	203	U	C2'-C1'	-13.23	1.33	1.53
81	DA	751	A	C2'-C1'	-13.23	1.33	1.53
32	BC	17	LEU	N-CA	13.22	1.56	1.45
81	DA	462	C	O4'-C1'	13.22	1.61	1.41
81	DA	374	A	O4'-C1'	-13.21	1.22	1.42
82	DB	115	C	O4'-C1'	13.21	1.61	1.41
17	AQ	82	ASP	C-O	-13.20	0.97	1.23
81	DA	959	C	O4'-C1'	13.20	1.61	1.41
81	DA	1128	U	O4'-C1'	13.20	1.61	1.41
81	DA	1711	C	O4'-C1'	13.20	1.61	1.41
81	DA	910	G	C2'-C1'	-13.19	1.33	1.53
81	DA	9	U	O4'-C1'	13.19	1.61	1.41
78	CA	1384	A	O4'-C1'	13.19	1.61	1.41
81	DA	2316	G	O4'-C1'	13.17	1.61	1.41
81	DA	1260	A	C2'-C1'	13.15	1.73	1.53
81	DA	2042	G	O4'-C1'	13.15	1.61	1.41
81	DA	517	G	O4'-C1'	13.15	1.61	1.41
81	DA	1943	C	O4'-C1'	13.14	1.61	1.41
78	CA	169	A	C2'-C1'	13.13	1.73	1.53
81	DA	317	A	C2'-C1'	-13.13	1.33	1.53
81	DA	2844	C	O4'-C1'	13.13	1.61	1.41
81	DA	409	A	O4'-C1'	13.12	1.61	1.41
81	DA	80	G	C2'-C1'	-13.12	1.33	1.53
81	DA	694	C	O4'-C1'	13.12	1.61	1.41
2	AA	104	PRO	CA-CB	-13.11	1.37	1.53
81	DA	2403	G	C2'-C1'	13.10	1.72	1.53
81	DA	3220	G	C2'-C1'	-13.10	1.33	1.53
78	CA	1107	G	O4'-C1'	13.10	1.61	1.41
81	DA	491	C	O4'-C1'	13.10	1.61	1.41
81	DA	1682	U	O4'-C1'	13.10	1.61	1.41
81	DA	2637	A	O4'-C1'	-13.09	1.22	1.41
81	DA	3382	U	C2'-C1'	-13.09	1.33	1.53
13	AL	87	VAL	CA-CB	-13.08	1.37	1.54
81	DA	576	C	C2'-C1'	-13.08	1.33	1.53
26	AZ	18	THR	N-CA	13.08	1.64	1.46
81	DA	1506	A	C2'-C1'	13.08	1.72	1.53
81	DA	2709	C	O4'-C1'	13.07	1.61	1.41
81	DA	1637	A	C2'-C1'	-13.06	1.33	1.53
82	DB	103	G	C2'-C1'	-13.06	1.33	1.53
78	CA	1200	G	C2'-C1'	-13.06	1.33	1.53
78	CA	280	U	C2'-C1'	-13.05	1.33	1.53
1	Aa	58	VAL	CA-C	13.05	1.69	1.52

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	Bk	25	LYS	C-N	13.05	1.51	1.33
81	DA	2646	C	O4'-C1'	13.05	1.61	1.41
81	DA	2758	A	O4'-C1'	-13.04	1.22	1.41
78	CA	1624	C	O4'-C1'	13.03	1.61	1.41
60	Bi	108	GLN	C-N	13.03	1.45	1.33
81	DA	2172	A	O3'-P	-13.03	1.41	1.61
81	DA	1256	G	C2'-C1'	-13.03	1.33	1.53
78	CA	219	A	C2'-C1'	13.03	1.72	1.53
81	DA	2165	G	O4'-C1'	-13.01	1.22	1.41
81	DA	2408	U	C2'-C1'	-13.01	1.33	1.53
78	CA	1158	C	O4'-C1'	12.98	1.61	1.42
81	DA	1665	C	O4'-C1'	12.97	1.61	1.41
83	DC	35	C	O4'-C1'	12.97	1.61	1.41
47	BU	141	VAL	N-CA	12.97	1.58	1.46
81	DA	2182	A	C2'-C1'	-12.96	1.33	1.53
81	DA	2887	A	C2'-C1'	-12.95	1.33	1.53
81	DA	560	G	O4'-C1'	-12.94	1.22	1.41
5	AC	142	ASN	CG-OD1	12.94	1.48	1.23
81	DA	1513	G	C2'-C1'	-12.93	1.33	1.53
78	CA	651	G	C2'-C1'	-12.92	1.33	1.53
78	CA	1602	C	C2'-C1'	-12.92	1.33	1.53
17	AQ	63	LYS	N-CA	-12.91	1.27	1.46
81	DA	1889	G	C2'-C1'	-12.91	1.33	1.53
81	DA	3240	C	C2'-C1'	-12.90	1.34	1.53
81	DA	774	G	C2'-C1'	-12.89	1.34	1.53
81	DA	2844	C	C2'-C1'	-12.89	1.34	1.53
78	CA	1162	C	O4'-C1'	12.88	1.60	1.41
81	DA	2776	C	O4'-C1'	12.87	1.60	1.41
82	DB	28	C	O4'-C1'	12.85	1.60	1.41
81	DA	3304	U	C4'-O4'	12.85	1.64	1.45
81	DA	2785	A	O4'-C1'	12.84	1.60	1.41
81	DA	3081	C	C2'-C1'	-12.84	1.34	1.53
78	CA	943	C	O4'-C1'	12.83	1.60	1.41
81	DA	2617	U	C2'-C1'	12.82	1.72	1.53
78	CA	1332	C	O4'-C1'	12.82	1.60	1.41
81	DA	846	A	O4'-C1'	12.81	1.60	1.41
81	DA	1265	U	C2'-C1'	-12.81	1.34	1.53
37	BH	129	PRO	N-CD	12.80	1.65	1.47
81	DA	2682	C	O4'-C1'	12.79	1.60	1.41
61	Bj	20	LYS	C-N	12.79	1.51	1.33
81	DA	1947	G	C2'-C1'	12.79	1.72	1.53
78	CA	256	A	O4'-C1'	12.78	1.60	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	658	C	C4'-O4'	-12.77	1.26	1.45
81	DA	1295	G	O4'-C1'	12.77	1.60	1.41
81	DA	1424	C	O4'-C1'	12.75	1.60	1.41
81	DA	2971	A	C2'-C1'	12.74	1.72	1.53
81	DA	1939	G	C2'-C1'	-12.73	1.34	1.53
17	AQ	81	LYS	N-CA	-12.73	1.28	1.46
81	DA	1429	G	O4'-C1'	12.73	1.61	1.42
78	CA	1548	G	O4'-C1'	-12.71	1.22	1.41
78	CA	172	C	C2'-C1'	-12.71	1.34	1.53
78	CA	1762	A	O4'-C1'	12.70	1.60	1.41
8	AF	36	ALA	N-CA	-12.70	1.29	1.46
53	Ba	14	VAL	N-CA	12.68	1.62	1.46
78	CA	1149	G	C2'-C1'	-12.68	1.34	1.53
81	DA	788	C	O4'-C1'	12.67	1.60	1.41
81	DA	193	C	O4'-C1'	12.67	1.60	1.41
62	Bk	81	THR	CA-CB	12.66	1.70	1.53
81	DA	836	A	O4'-C1'	12.66	1.60	1.41
81	DA	877	C	O4'-C1'	12.66	1.60	1.41
81	DA	2489	C	O4'-C1'	12.66	1.60	1.41
11	AJ	120	SER	N-CA	12.66	1.61	1.46
81	DA	2827	U	C2'-C1'	12.65	1.72	1.53
81	DA	3050	U	O4'-C1'	12.65	1.60	1.41
31	BB	196	TRP	CA-CB	12.63	1.75	1.53
82	DB	108	C	O4'-C1'	12.63	1.60	1.41
81	DA	3296	A	O4'-C1'	12.63	1.60	1.41
81	DA	2013	C	O4'-C1'	12.62	1.60	1.41
5	AC	164	PHE	N-CA	12.62	1.62	1.46
81	DA	1535	A	C2'-C1'	12.62	1.72	1.53
81	DA	1725	C	O4'-C1'	12.62	1.60	1.41
29	AU	37	LYS	N-CA	-12.61	1.28	1.46
81	DA	562	C	O4'-C1'	12.61	1.60	1.41
81	DA	2632	G	C2'-C1'	-12.61	1.34	1.53
32	BC	289	ASP	CA-CB	12.61	1.74	1.53
81	DA	104	G	O4'-C1'	-12.60	1.22	1.41
78	CA	369	A	C2'-C1'	12.59	1.72	1.53
81	DA	2187	G	O4'-C1'	-12.59	1.22	1.41
81	DA	1811	G	C2'-C1'	12.59	1.72	1.53
78	CA	988	A	O4'-C1'	12.58	1.60	1.41
81	DA	229	G	C2'-C1'	-12.58	1.34	1.53
82	DB	21	C	O4'-C1'	12.58	1.60	1.41
81	DA	233	C	C2'-C1'	12.56	1.72	1.53
14	AM	99	HIS	N-CA	12.56	1.62	1.46

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	1783	C	O4'-C1'	12.56	1.60	1.41
81	DA	2438	A	C2'-C1'	-12.56	1.34	1.53
81	DA	2684	C	O4'-C1'	12.54	1.60	1.41
78	CA	1751	C	O4'-C1'	12.53	1.60	1.41
33	BD	321	LYS	CA-CB	12.52	1.74	1.53
53	Ba	13	VAL	C-N	12.52	1.50	1.33
81	DA	3099	C	O4'-C1'	12.52	1.60	1.41
78	CA	123	G	C2'-C1'	-12.51	1.34	1.53
81	DA	1531	C	O4'-C1'	12.51	1.60	1.41
78	CA	218	A	C2'-C1'	-12.50	1.34	1.53
74	BQ	137	ASP	N-CA	-12.50	1.30	1.46
2	AA	11	PRO	CA-CB	-12.49	1.36	1.53
4	AD	96	ASN	N-CA	12.49	1.62	1.46
22	AV	105	THR	CA-CB	12.49	1.74	1.53
78	CA	890	C	O4'-C1'	12.48	1.60	1.41
78	CA	1586	A	O3'-P	-12.48	1.42	1.61
79	CB	36	C	O4'-C1'	12.47	1.60	1.41
81	DA	2100	A	C2'-C1'	-12.47	1.34	1.53
81	DA	3031	G	C2'-C1'	-12.47	1.34	1.53
81	DA	2514	U	C2'-C1'	12.47	1.71	1.53
81	DA	3089	C	O4'-C1'	12.47	1.60	1.41
66	Bo	4	GLN	N-CA	12.46	1.62	1.46
78	CA	572	C	O4'-C1'	12.46	1.60	1.41
78	CA	297	U	O4'-C1'	12.45	1.60	1.41
32	BC	5	LYS	N-CA	12.44	1.62	1.46
81	DA	2724	U	C2'-C1'	-12.43	1.34	1.53
81	DA	114	A	C2'-C1'	12.43	1.72	1.53
81	DA	110	G	C2'-C1'	-12.42	1.34	1.53
78	CA	1562	G	C2'-C1'	12.42	1.72	1.53
81	DA	1687	U	C2'-C1'	-12.42	1.34	1.53
82	DB	98	U	C2'-C1'	-12.42	1.34	1.53
78	CA	849	C	O4'-C1'	12.41	1.60	1.41
44	BO	40	HIS	CA-CB	-12.40	1.34	1.53
81	DA	722	G	C2'-C1'	-12.39	1.34	1.53
78	CA	1405	G	C2'-C1'	12.39	1.72	1.53
83	DC	14	U	O4'-C1'	12.39	1.60	1.41
81	DA	1000	C	O4'-C1'	12.39	1.60	1.41
83	DC	60	G	C2'-C1'	-12.38	1.34	1.53
81	DA	3110	C	C2'-C1'	-12.37	1.34	1.53
78	CA	1355	C	O4'-C1'	12.37	1.60	1.41
78	CA	1613	U	C2'-C1'	12.36	1.71	1.53
82	DB	52	A	O4'-C1'	12.36	1.60	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	554	C	O4'-C1'	12.36	1.60	1.42
81	DA	656	A	O4'-C1'	12.35	1.60	1.41
81	DA	3165	A	O4'-C1'	12.35	1.60	1.41
81	DA	1871	U	C3'-C2'	-12.34	1.34	1.52
34	BE	52	TYR	CA-CB	12.34	1.74	1.53
78	CA	650	U	C2'-C1'	12.34	1.71	1.53
83	DC	2	G	C2'-C1'	12.32	1.71	1.53
81	DA	1870	C	C3'-O3'	12.32	1.60	1.42
57	Be	133	TYR	N-CA	-12.32	1.30	1.46
81	DA	841	A	C2'-C1'	-12.31	1.34	1.53
81	DA	2073	A	O4'-C1'	12.31	1.60	1.41
81	DA	1618	G	C2'-C1'	-12.31	1.34	1.53
81	DA	3094	A	C2'-C1'	-12.31	1.34	1.53
78	CA	1028	C	O4'-C1'	12.31	1.60	1.42
81	DA	2235	C	O4'-C1'	12.31	1.60	1.41
2	AA	251	GLU	C-N	12.30	1.50	1.33
81	DA	2059	U	C2'-C1'	-12.30	1.34	1.53
81	DA	3254	G	O4'-C1'	12.30	1.60	1.41
78	CA	1607	G	O4'-C1'	12.29	1.60	1.41
81	DA	1896	A	O4'-C1'	12.29	1.60	1.41
81	DA	2100	A	O4'-C1'	12.29	1.60	1.42
10	AI	32	ASN	C-N	12.29	1.39	1.33
81	DA	1162	U	O4'-C1'	12.28	1.60	1.41
78	CA	1238	A	C2'-C1'	12.28	1.71	1.53
81	DA	1783	U	C2'-C1'	-12.28	1.34	1.53
32	BC	360	ASP	CA-CB	12.28	1.72	1.52
78	CA	314	C	O4'-C1'	12.28	1.60	1.41
78	CA	942	G	C2'-C1'	-12.28	1.34	1.53
43	BP	117	ASN	N-CA	-12.27	1.31	1.46
81	DA	1742	U	O4'-C1'	12.27	1.60	1.41
81	DA	638	C	C2'-C1'	-12.25	1.34	1.53
81	DA	521	A	O4'-C1'	-12.25	1.23	1.41
81	DA	1639	C	O4'-C1'	12.25	1.60	1.41
81	DA	2308	C	C2'-C1'	-12.25	1.34	1.53
83	DC	48	U	C2'-C1'	-12.25	1.34	1.53
81	DA	2363	A	O4'-C1'	-12.24	1.23	1.41
30	BA	120	VAL	CA-CB	-12.24	1.47	1.54
78	CA	1179	G	C2'-C1'	-12.24	1.34	1.53
81	DA	1292	C	O4'-C1'	12.24	1.60	1.41
61	Bj	33	GLU	CB-CG	-12.23	1.15	1.52
17	AQ	82	ASP	CA-CB	12.22	1.77	1.53
81	DA	2724	U	O4'-C1'	12.22	1.59	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	2141	U	O4'-C1'	12.21	1.59	1.41
81	DA	924	G	O4'-C1'	12.20	1.60	1.42
81	DA	3282	U	O4'-C1'	12.20	1.59	1.41
37	BH	228	GLU	CA-CB	12.19	1.73	1.53
81	DA	2634	U	O4'-C1'	12.19	1.59	1.41
32	BC	256	HIS	CA-CB	-12.19	1.35	1.53
81	DA	2693	C	O4'-C1'	12.19	1.59	1.41
81	DA	3350	C	C2'-C1'	-12.18	1.35	1.53
81	DA	2251	G	C2'-C1'	-12.17	1.35	1.53
79	CB	72	G	O4'-C1'	-12.17	1.23	1.41
81	DA	198	A	O4'-C1'	12.17	1.59	1.41
81	DA	2172	A	C2'-C1'	-12.17	1.35	1.53
1	Aa	57	PRO	CA-C	12.16	1.69	1.52
81	DA	3255	U	C2'-C1'	-12.16	1.35	1.53
78	CA	850	A	C2'-C1'	-12.16	1.35	1.53
82	DB	44	A	C2'-C1'	-12.16	1.35	1.53
53	Ba	57	HIS	CA-C	-12.15	1.38	1.52
81	DA	1585	C	C2'-C1'	-12.14	1.35	1.53
81	DA	332	C	O4'-C1'	12.14	1.59	1.41
31	BB	249	SER	N-CA	-12.14	1.30	1.46
78	CA	120	U	C3'-C2'	12.14	1.71	1.52
81	DA	3131	U	C2'-C1'	-12.14	1.35	1.53
81	DA	1277	C	C2'-C1'	-12.13	1.35	1.53
81	DA	436	A	O4'-C1'	12.13	1.59	1.41
81	DA	2737	C	O4'-C1'	12.13	1.59	1.41
2	AA	195	TRP	N-CA	12.12	1.61	1.46
78	CA	1476	C	O3'-P	-12.12	1.43	1.61
2	AA	11	PRO	N-CA	-12.11	1.31	1.47
5	AC	162	SER	N-CA	-12.11	1.29	1.46
81	DA	1055	A	O4'-C1'	12.11	1.59	1.41
78	CA	615	A	O4'-C1'	12.11	1.59	1.41
81	DA	774	G	O4'-C1'	12.10	1.59	1.41
78	CA	1764	C	O4'-C1'	12.09	1.59	1.41
81	DA	3240	C	O4'-C1'	12.09	1.59	1.41
78	CA	1607	G	C2'-C1'	-12.09	1.35	1.53
34	BE	54	VAL	C-N	-12.08	1.16	1.33
81	DA	3000	A	O4'-C1'	12.08	1.59	1.41
74	BQ	239	ILE	N-CA	12.08	1.61	1.46
81	DA	1515	A	C2'-C1'	-12.08	1.35	1.53
81	DA	1007	U	C2'-C1'	-12.07	1.35	1.53
81	DA	147	U	P-O5'	-12.07	1.35	1.59
81	DA	1694	U	C2'-C1'	12.07	1.71	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	AJ	85	ARG	CD-NE	12.07	1.63	1.46
69	Br	47	GLN	CA-CB	12.06	1.74	1.53
81	DA	1908	A	C2'-C1'	-12.05	1.35	1.53
81	DA	2378	C	O4'-C1'	12.05	1.59	1.41
78	CA	346	G	O4'-C1'	12.05	1.59	1.41
78	CA	1441	C	O4'-C1'	12.05	1.59	1.41
81	DA	3036	G	O4'-C1'	12.05	1.59	1.41
81	DA	1977	C	O4'-C1'	12.04	1.59	1.41
78	CA	386	G	C2'-C1'	-12.03	1.35	1.53
81	DA	2372	A	O4'-C1'	12.03	1.59	1.41
78	CA	1090	C	O4'-C1'	12.03	1.59	1.41
81	DA	2735	U	C2'-C1'	-12.02	1.35	1.53
81	DA	3030	G	C2'-C1'	-12.02	1.35	1.53
78	CA	989	U	C2'-C1'	-12.02	1.35	1.53
81	DA	3365	U	O4'-C1'	12.02	1.59	1.41
81	DA	2131	A	C2'-C1'	-12.01	1.35	1.53
78	CA	1185	U	C2'-C1'	-12.00	1.35	1.53
78	CA	338	C	C2'-C1'	-12.00	1.35	1.53
78	CA	1417	A	O4'-C1'	12.00	1.59	1.41
81	DA	1420	C	O4'-C1'	12.00	1.59	1.41
81	DA	2277	C	C2'-C1'	-12.00	1.35	1.53
81	DA	220	G	C2'-C1'	12.00	1.71	1.53
81	DA	384	A	C2'-C1'	-11.99	1.35	1.53
78	CA	394	C	O4'-C1'	11.98	1.59	1.41
81	DA	1207	G	C2'-C1'	-11.97	1.29	1.53
26	AZ	39	LEU	CA-CB	11.97	1.73	1.53
78	CA	1210	C	O4'-C1'	11.96	1.59	1.41
78	CA	435	C	O4'-C1'	11.95	1.59	1.41
81	DA	2873	U	C2'-C1'	-11.94	1.35	1.53
78	CA	204	G	C2'-C1'	-11.94	1.35	1.53
5	AC	18	PRO	CA-CB	-11.93	1.36	1.53
78	CA	668	C	C2'-C1'	-11.93	1.35	1.53
78	CA	888	U	C2'-C1'	-11.93	1.35	1.53
82	DB	40	A	C2'-C1'	-11.93	1.35	1.53
78	CA	233	C	O4'-C1'	11.93	1.59	1.41
78	CA	1282	U	C2'-C1'	-11.92	1.35	1.53
81	DA	2131	A	O4'-C1'	11.92	1.59	1.41
81	DA	1060	U	O4'-C1'	11.91	1.59	1.41
83	DC	30	G	C2'-C1'	-11.91	1.35	1.53
81	DA	761	A	O4'-C1'	11.91	1.59	1.41
81	DA	2233	A	C2'-C1'	11.90	1.71	1.53
81	DA	1508	C	O4'-C1'	11.90	1.59	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
20	AS	52	GLY	C-N	11.90	1.50	1.33
81	DA	3313	U	O3'-P	-11.88	1.43	1.61
81	DA	2101	C	C2'-C1'	-11.88	1.35	1.53
81	DA	103	G	O4'-C1'	11.87	1.59	1.41
55	Bc	94	LYS	C-N	11.87	1.49	1.33
78	CA	1746	A	O4'-C1'	11.87	1.59	1.41
78	CA	1705	C	O4'-C1'	11.87	1.59	1.41
81	DA	742	G	C2'-C1'	11.86	1.71	1.53
81	DA	2254	U	C2'-C1'	11.86	1.71	1.53
81	DA	2721	A	C2'-C1'	-11.85	1.35	1.53
81	DA	2873	U	O4'-C1'	11.85	1.59	1.42
78	CA	1733	C	O4'-C1'	11.85	1.59	1.41
78	CA	1452	U	O4'-C1'	11.85	1.59	1.41
81	DA	1679	A	O4'-C1'	11.84	1.59	1.41
81	DA	251	G	O4'-C1'	11.84	1.59	1.41
83	DC	3	U	C2'-C1'	11.84	1.71	1.53
78	CA	120	U	O3'-P	11.84	1.78	1.61
78	CA	1111	G	C2'-C1'	-11.84	1.35	1.53
81	DA	1896	A	C2'-C1'	-11.83	1.35	1.53
81	DA	1895	A	C2'-C1'	11.82	1.71	1.53
81	DA	2297	U	C2'-C1'	-11.82	1.35	1.53
81	DA	3244	A	O4'-C1'	11.82	1.59	1.41
32	BC	382	THR	N-CA	11.81	1.61	1.46
81	DA	2710	C	O4'-C1'	11.81	1.59	1.41
51	BZ	60	LYS	N-CA	11.81	1.61	1.46
78	CA	160	C	O4'-C1'	11.81	1.59	1.41
78	CA	1237	G	O4'-C1'	11.81	1.59	1.41
60	Bi	108	GLN	CA-CB	11.80	1.75	1.53
10	AI	55	VAL	N-CA	11.79	1.61	1.46
81	DA	3072	C	O4'-C1'	11.79	1.59	1.41
81	DA	580	C	O4'-C1'	11.78	1.59	1.41
57	Be	203	TRP	N-CA	11.78	1.62	1.46
78	CA	1386	G	C2'-C1'	11.77	1.71	1.53
81	DA	2711	C	O4'-C1'	11.77	1.59	1.41
16	AO	68	GLY	N-CA	11.77	1.62	1.45
81	DA	1711	C	C2'-C1'	-11.77	1.35	1.53
81	DA	2677	G	C2'-C1'	11.76	1.70	1.53
81	DA	3391	A	O4'-C1'	11.76	1.59	1.41
78	CA	1589	C	O4'-C1'	11.75	1.59	1.41
81	DA	109	A	C2'-C1'	-11.74	1.35	1.53
18	AP	122	ILE	C-N	11.74	1.49	1.33
81	DA	2904	U	O4'-C1'	11.74	1.59	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	818	C	O4'-C1'	11.73	1.59	1.41
40	BK	184	THR	C-N	11.73	1.50	1.33
81	DA	2050	C	O4'-C1'	11.73	1.59	1.41
78	CA	662	U	O4'-C1'	11.73	1.59	1.41
81	DA	948	C	O4'-C1'	11.71	1.59	1.41
81	DA	1403	C	O4'-C1'	11.71	1.59	1.41
83	DC	113	C	O4'-C1'	11.71	1.59	1.41
78	CA	1625	C	O4'-C1'	11.71	1.59	1.41
81	DA	3299	A	O4'-C1'	-11.71	1.24	1.41
81	DA	2475	G	O4'-C1'	11.71	1.59	1.41
81	DA	109	A	O4'-C1'	11.70	1.59	1.42
78	CA	1478	G	O4'-C1'	-11.70	1.24	1.41
81	DA	2118	C	O4'-C1'	11.70	1.59	1.41
40	BK	70	PRO	N-CA	11.69	1.62	1.47
81	DA	957	C	O4'-C1'	11.69	1.59	1.41
82	DB	106	C	O4'-C1'	11.68	1.59	1.42
81	DA	259	C	O4'-C1'	11.67	1.59	1.41
81	DA	2394	G	C2'-C1'	-11.67	1.35	1.53
81	DA	2952	G	C2'-C1'	-11.67	1.35	1.53
81	DA	2957	G	C2'-C1'	-11.66	1.35	1.53
78	CA	1379	C	O4'-C1'	11.65	1.59	1.41
81	DA	2491	A	O4'-C1'	11.65	1.59	1.41
81	DA	2491	A	C2'-C1'	-11.65	1.35	1.53
81	DA	1040	A	O4'-C1'	11.64	1.59	1.41
78	CA	1120	U	O4'-C1'	11.64	1.59	1.41
45	BR	3	ILE	CA-CB	11.64	1.70	1.54
81	DA	2462	A	O4'-C1'	11.63	1.59	1.41
34	BE	124	GLY	CA-C	-11.63	1.35	1.51
81	DA	1869	C	O4'-C1'	11.63	1.59	1.41
81	DA	1496	C	O4'-C1'	11.63	1.59	1.41
82	DB	94	C	O4'-C1'	11.63	1.59	1.42
78	CA	1458	G	C2'-C1'	-11.62	1.35	1.53
81	DA	3099	C	C2'-C1'	-11.62	1.35	1.53
78	CA	1580	C	C2'-C1'	-11.62	1.35	1.53
78	CA	1666	U	C2'-C1'	11.62	1.70	1.53
81	DA	1943	C	C2'-C1'	-11.62	1.35	1.53
5	AC	157	ASP	C-N	11.62	1.50	1.33
79	CB	22	G	C2'-C1'	-11.62	1.35	1.53
78	CA	1280	C	O4'-C1'	11.62	1.59	1.41
81	DA	172	G	C2'-C1'	-11.62	1.35	1.53
81	DA	2657	A	O4'-C1'	11.61	1.59	1.42
78	CA	1623	C	O4'-C1'	11.61	1.59	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
60	Bi	16	ARG	N-CA	-11.60	1.32	1.46
81	DA	1660	C	O4'-C1'	11.60	1.59	1.41
81	DA	1358	C	O4'-C1'	11.60	1.59	1.41
81	DA	3082	C	O4'-C1'	11.60	1.59	1.41
31	BB	74	GLU	N-CA	11.60	1.61	1.46
81	DA	160	G	C2'-C1'	-11.59	1.35	1.53
81	DA	2146	C	O4'-C1'	11.59	1.59	1.41
78	CA	1586	A	C2'-C1'	-11.58	1.35	1.53
32	BC	297	SER	CA-CB	11.57	1.70	1.53
78	CA	1677	C	O4'-C1'	11.57	1.59	1.41
35	BG	99	GLU	N-CA	11.57	1.61	1.46
81	DA	1624	G	O4'-C1'	11.57	1.59	1.41
81	DA	454	C	O4'-C1'	11.57	1.59	1.41
33	BD	332	LYS	N-CA	11.57	1.60	1.45
78	CA	1374	C	O4'-C1'	11.57	1.58	1.41
78	CA	1300	A	C2'-C1'	11.56	1.70	1.53
78	CA	617	U	O4'-C1'	11.55	1.58	1.41
78	CA	1752	U	C2'-C1'	-11.55	1.36	1.53
81	DA	2881	C	O4'-C1'	11.55	1.58	1.41
78	CA	1473	U	C2'-C1'	11.55	1.70	1.53
81	DA	1916	U	O4'-C1'	11.55	1.58	1.41
81	DA	175	C	O4'-C1'	11.54	1.58	1.41
78	CA	1436	A	O4'-C1'	11.54	1.58	1.41
80	CC	17	A	O4'-C1'	11.54	1.58	1.41
82	DB	45	C	C2'-C1'	-11.54	1.36	1.53
31	BB	73	GLU	CA-CB	11.53	1.73	1.53
81	DA	1366	A	C2'-C1'	-11.53	1.36	1.53
81	DA	1689	U	O4'-C1'	-11.53	1.24	1.41
81	DA	2744	U	C2'-C1'	-11.53	1.36	1.53
14	AM	12	GLN	C-N	-11.52	1.17	1.33
81	DA	3002	C	C2'-C1'	-11.52	1.36	1.53
78	CA	1702	A	O4'-C1'	-11.50	1.24	1.41
81	DA	1525	G	O4'-C1'	11.50	1.58	1.41
81	DA	2801	A	O4'-C1'	-11.50	1.24	1.42
81	DA	2922	G	C2'-C1'	-11.50	1.36	1.53
81	DA	15	C	O4'-C1'	11.49	1.58	1.41
78	CA	181	A	O4'-C1'	11.49	1.58	1.41
81	DA	928	C	C2'-C1'	-11.49	1.36	1.53
45	BR	118	GLY	CA-C	-11.48	1.40	1.51
78	CA	338	C	O4'-C1'	11.48	1.58	1.41
81	DA	2749	G	C2'-C1'	-11.48	1.36	1.53
76	BS	70	ASN	CA-CB	11.47	1.71	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	361	C	O4'-C1'	11.47	1.58	1.41
81	DA	2885	C	C2'-C1'	-11.47	1.36	1.53
78	CA	105	A	C2'-C1'	-11.47	1.35	1.53
78	CA	138	A	O4'-C1'	-11.46	1.24	1.41
81	DA	863	C	O4'-C1'	11.46	1.58	1.41
35	BG	8	LYS	C-N	11.45	1.49	1.33
78	CA	1772	C	C2'-C1'	-11.45	1.36	1.53
82	DB	118	C	O4'-C1'	11.45	1.58	1.41
81	DA	848	A	C2'-C1'	-11.44	1.36	1.53
81	DA	2337	C	O4'-C1'	11.44	1.58	1.41
81	DA	406	G	C2'-C1'	11.44	1.70	1.53
78	CA	830	U	O4'-C1'	11.44	1.58	1.41
1	Aa	61	PHE	N-CA	-11.43	1.31	1.46
81	DA	2662	G	C2'-C1'	-11.43	1.36	1.53
81	DA	2798	C	O4'-C1'	11.43	1.58	1.41
78	CA	1627	U	O4'-C1'	11.42	1.58	1.41
81	DA	3236	U	O4'-C1'	11.42	1.58	1.41
51	BZ	61	LYS	N-CA	-11.42	1.30	1.45
81	DA	419	G	O4'-C1'	-11.42	1.24	1.41
81	DA	2821	C	O4'-C1'	11.42	1.58	1.41
81	DA	2099	A	O3'-P	-11.42	1.44	1.61
78	CA	1585	U	C2'-C1'	11.42	1.70	1.53
81	DA	182	U	C2'-C1'	11.41	1.70	1.53
83	DC	67	C	O4'-C1'	11.41	1.58	1.41
78	CA	632	U	O4'-C1'	11.41	1.58	1.41
78	CA	1721	A	O4'-C1'	11.41	1.58	1.41
81	DA	1917	C	O4'-C1'	11.40	1.58	1.41
81	DA	2616	C	O4'-C1'	11.40	1.58	1.41
78	CA	287	G	C2'-C1'	-11.39	1.36	1.53
81	DA	220	G	O4'-C1'	-11.39	1.24	1.42
35	BG	153	PRO	N-CD	-11.39	1.31	1.47
78	CA	1348	A	O4'-C1'	11.38	1.58	1.41
1	Aa	55	GLY	N-CA	-11.38	1.28	1.45
81	DA	3234	A	C2'-C1'	11.38	1.70	1.53
81	DA	2272	G	O4'-C1'	-11.37	1.25	1.42
78	CA	956	C	O4'-C1'	11.36	1.58	1.41
81	DA	2624	G	C2'-C1'	-11.36	1.36	1.53
81	DA	260	C	O4'-C1'	11.36	1.58	1.41
81	DA	386	A	C2'-C1'	-11.36	1.36	1.53
81	DA	2755	C	O4'-C1'	11.36	1.58	1.42
81	DA	1301	A	C2'-C1'	-11.35	1.36	1.53
81	DA	317	A	O4'-C1'	11.35	1.58	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	658	C	C3'-C2'	-11.35	1.35	1.52
81	DA	881	C	O4'-C1'	11.35	1.58	1.41
78	CA	93	A	C2'-C1'	-11.34	1.36	1.53
81	DA	1976	G	O4'-C1'	-11.33	1.24	1.41
81	DA	2507	C	C2'-C1'	-11.33	1.36	1.53
41	BN	6	ILE	N-CA	11.32	1.60	1.46
81	DA	2180	G	C2'-C1'	-11.32	1.36	1.53
78	CA	1616	G	C2'-C1'	-11.32	1.36	1.53
81	DA	113	C	O4'-C1'	11.32	1.58	1.41
82	DB	56	G	O4'-C1'	11.32	1.58	1.41
81	DA	2136	C	O4'-C1'	11.31	1.58	1.41
81	DA	608	A	C2'-C1'	-11.30	1.36	1.53
81	DA	1192	C	O4'-C1'	11.29	1.58	1.41
78	CA	583	C	O4'-C1'	11.29	1.58	1.41
81	DA	2857	C	O4'-C1'	11.28	1.58	1.41
81	DA	3312	U	O4'-C1'	11.27	1.58	1.41
78	CA	1536	G	C2'-C1'	-11.27	1.36	1.53
78	CA	276	C	O4'-C1'	11.27	1.58	1.41
81	DA	1069	C	O4'-C1'	11.27	1.58	1.41
78	CA	1678	A	C2'-C1'	-11.26	1.36	1.53
81	DA	2465	G	C2'-C1'	-11.26	1.36	1.53
78	CA	1771	U	C2'-C1'	-11.26	1.36	1.53
22	AV	104	ALA	CA-C	-11.26	1.37	1.53
35	BG	8	LYS	N-CA	-11.26	1.31	1.46
81	DA	2072	G	O4'-C1'	-11.24	1.24	1.41
81	DA	2074	C	C2'-C1'	-11.24	1.36	1.53
81	DA	1991	G	O4'-C1'	-11.24	1.24	1.41
78	CA	415	C	C2'-C1'	11.24	1.70	1.53
81	DA	1455	U	C2'-C1'	11.23	1.70	1.53
81	DA	1685	C	C2'-C1'	-11.23	1.36	1.53
81	DA	3305	A	O3'-P	-11.23	1.44	1.61
78	CA	51	A	O4'-C1'	11.22	1.58	1.41
81	DA	306	A	C2'-C1'	11.22	1.70	1.53
81	DA	949	C	O4'-C1'	11.22	1.58	1.41
81	DA	1940	G	O4'-C1'	11.22	1.58	1.41
78	CA	61	A	O4'-C1'	11.22	1.58	1.41
78	CA	1209	C	C2'-C1'	-11.21	1.36	1.53
79	CB	25	U	C2'-C1'	-11.21	1.36	1.53
3	AB	79	TYR	CA-C	-11.20	1.39	1.52
81	DA	877	C	C2'-C1'	-11.20	1.36	1.53
78	CA	1606	C	O4'-C1'	11.20	1.58	1.41
81	DA	1825	G	C2'-C1'	-11.19	1.36	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	352	A	C2'-C1'	11.19	1.69	1.53
82	DB	117	C	O4'-C1'	11.19	1.58	1.41
78	CA	826	U	O4'-C1'	11.18	1.58	1.41
81	DA	2496	C	O4'-C1'	11.18	1.58	1.41
82	DB	95	G	O4'-C1'	11.18	1.58	1.41
81	DA	3326	G	O4'-C1'	11.18	1.58	1.41
62	Bk	83	ALA	N-CA	-11.17	1.32	1.46
81	DA	881	C	C2'-C1'	-11.17	1.36	1.53
78	CA	589	C	C2'-C1'	-11.17	1.36	1.53
81	DA	1831	U	C2'-C1'	11.16	1.70	1.53
83	DC	103	U	O4'-C1'	11.15	1.58	1.41
81	DA	435	C	O4'-C1'	11.15	1.58	1.41
31	BB	250	GLN	N-CA	11.14	1.58	1.45
78	CA	268	C	O4'-C1'	11.14	1.58	1.41
81	DA	634	C	C2'-C1'	-11.13	1.36	1.53
32	BC	9	PRO	CA-C	-11.13	1.39	1.52
81	DA	2353	G	C2'-C1'	-11.13	1.36	1.53
81	DA	3096	C	O4'-C1'	11.13	1.58	1.41
78	CA	1282	U	O4'-C1'	11.13	1.58	1.41
10	AI	140	LYS	CA-CB	11.12	1.72	1.53
81	DA	1827	C	O4'-C1'	11.12	1.58	1.41
78	CA	196	G	O4'-C1'	11.12	1.58	1.41
78	CA	1632	C	O4'-C1'	11.12	1.58	1.41
81	DA	845	G	O4'-C1'	-11.12	1.25	1.41
81	DA	2825	C	O4'-C1'	11.11	1.58	1.41
55	Bc	104	GLN	N-CA	11.10	1.60	1.46
78	CA	831	U	C2'-C1'	11.10	1.69	1.53
82	DB	61	A	C2'-C1'	-11.10	1.36	1.53
78	CA	1549	C	O4'-C1'	11.09	1.58	1.41
81	DA	1701	C	O4'-C1'	11.09	1.58	1.41
81	DA	2893	C	O4'-C1'	11.09	1.58	1.41
81	DA	1728	G	C2'-C1'	-11.09	1.36	1.53
81	DA	851	C	O4'-C1'	11.09	1.58	1.41
78	CA	1787	C	O4'-C1'	11.08	1.58	1.41
33	BD	331	ALA	N-CA	11.08	1.60	1.46
82	DB	38	U	O4'-C1'	11.08	1.58	1.42
78	CA	449	C	O4'-C1'	11.07	1.58	1.41
78	CA	1034	C	O4'-C1'	11.07	1.58	1.41
81	DA	2681	U	O4'-C1'	11.07	1.58	1.41
81	DA	3148	U	O4'-C1'	11.07	1.58	1.41
35	BG	27	PRO	N-CA	11.06	1.61	1.47
81	DA	3052	G	O4'-C1'	11.06	1.58	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	412	G	C2'-C1'	-11.06	1.36	1.53
81	DA	2606	G	C2'-C1'	11.05	1.69	1.53
81	DA	1653	G	C2'-C1'	-11.05	1.36	1.53
78	CA	1192	C	C2'-C1'	-11.05	1.36	1.53
78	CA	190	C	O4'-C1'	11.05	1.58	1.41
81	DA	21	G	O4'-C1'	-11.05	1.25	1.42
81	DA	93	C	O4'-C1'	11.04	1.58	1.42
81	DA	2059	U	O4'-C1'	11.03	1.58	1.41
83	DC	117	C	O4'-C1'	11.03	1.58	1.41
81	DA	1049	C	O4'-C1'	11.02	1.58	1.41
78	CA	110	U	O4'-C1'	11.02	1.58	1.41
55	Bc	103	LYS	N-CA	-11.02	1.31	1.46
74	BQ	238	ASP	C-N	11.01	1.48	1.33
78	CA	943	C	C2'-C1'	-11.00	1.36	1.53
35	BG	5	LYS	N-CA	11.00	1.60	1.46
81	DA	1059	G	O4'-C1'	11.00	1.58	1.41
81	DA	1086	C	O4'-C1'	11.00	1.58	1.41
78	CA	1148	C	O4'-C1'	10.99	1.58	1.41
81	DA	1571	A	C2'-C1'	10.99	1.69	1.53
81	DA	2648	G	O4'-C1'	-10.99	1.25	1.41
81	DA	2840	C	C2'-C1'	10.99	1.69	1.53
82	DB	119	C	O4'-C1'	10.99	1.58	1.41
81	DA	1017	C	O4'-C1'	10.99	1.58	1.41
78	CA	99	C	O4'-C1'	10.98	1.58	1.42
81	DA	2277	C	O4'-C1'	10.98	1.58	1.41
32	BC	298	PHE	CA-CB	10.98	1.75	1.53
78	CA	323	A	C2'-C1'	10.98	1.69	1.53
81	DA	1257	C	C2'-C1'	-10.97	1.36	1.53
81	DA	1209	G	O4'-C1'	-10.97	1.25	1.41
81	DA	2303	A	C2'-C1'	10.96	1.69	1.53
78	CA	1149	G	O4'-C1'	10.96	1.58	1.41
81	DA	1191	U	O4'-C1'	10.96	1.58	1.42
81	DA	496	C	O4'-C1'	10.96	1.58	1.41
78	CA	1164	G	O4'-C1'	-10.95	1.25	1.41
81	DA	751	A	O4'-C1'	10.95	1.58	1.41
78	CA	1281	G	C2'-C1'	-10.95	1.36	1.53
81	DA	2837	A	C2'-C1'	10.95	1.69	1.53
78	CA	1477	G	C2'-C1'	-10.94	1.36	1.53
79	CB	61	C	O4'-C1'	10.94	1.58	1.41
78	CA	368	U	O4'-C1'	10.93	1.58	1.41
79	CB	41	G	O4'-C1'	10.93	1.58	1.41
81	DA	1201	C	O4'-C1'	10.93	1.58	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
76	BS	154	VAL	CA-CB	-10.93	1.39	1.54
78	CA	834	G	O4'-C1'	10.92	1.58	1.41
81	DA	648	C	O4'-C1'	10.92	1.58	1.42
82	DB	130	C	O4'-C1'	10.92	1.58	1.41
81	DA	63	A	O4'-C1'	-10.91	1.25	1.41
79	CB	43	C	O4'-C1'	10.90	1.58	1.41
81	DA	482	C	O4'-C1'	10.90	1.57	1.41
81	DA	1335	C	O4'-C1'	10.88	1.57	1.41
17	AQ	63	LYS	CA-CB	10.88	1.70	1.53
81	DA	55	G	C2'-C1'	-10.88	1.37	1.53
81	DA	1665	C	C2'-C1'	-10.88	1.37	1.53
81	DA	457	C	O4'-C1'	10.87	1.57	1.41
81	DA	634	C	O4'-C1'	10.87	1.57	1.41
78	CA	308	C	O4'-C1'	10.87	1.57	1.41
81	DA	1334	U	O4'-C1'	10.87	1.57	1.41
81	DA	684	G	O4'-C1'	10.86	1.57	1.41
78	CA	443	C	O4'-C1'	10.86	1.57	1.41
61	Bj	33	GLU	CD-OE1	10.86	1.46	1.25
78	CA	1336	A	C2'-C1'	-10.85	1.37	1.53
33	BD	78	GLY	N-CA	10.85	1.61	1.45
81	DA	808	A	O4'-C1'	10.85	1.57	1.41
81	DA	1627	U	C2'-C1'	10.84	1.69	1.53
81	DA	3334	U	C2'-C1'	10.84	1.69	1.53
81	DA	2018	C	O4'-C1'	10.84	1.57	1.41
78	CA	1679	G	C2'-C1'	-10.84	1.37	1.53
81	DA	3347	A	O4'-C1'	10.84	1.57	1.41
78	CA	151	G	C2'-C1'	-10.83	1.37	1.53
81	DA	1038	C	O4'-C1'	10.82	1.57	1.41
41	BN	75	GLY	C-N	10.82	1.48	1.33
78	CA	979	A	O4'-C1'	10.82	1.57	1.41
81	DA	1640	G	C2'-C1'	-10.82	1.37	1.53
81	DA	2876	C	O4'-C1'	10.82	1.57	1.41
81	DA	1455	U	O4'-C1'	-10.81	1.25	1.42
81	DA	2108	C	C2'-C1'	-10.81	1.37	1.53
81	DA	1663	C	C2'-C1'	-10.81	1.37	1.53
78	CA	317	C	O4'-C1'	10.80	1.57	1.41
81	DA	1681	U	O4'-C1'	10.80	1.57	1.41
81	DA	2257	C	O4'-C1'	-10.80	1.25	1.41
81	DA	406	G	O4'-C1'	-10.80	1.25	1.41
81	DA	1203	A	O4'-C1'	10.80	1.57	1.41
78	CA	583	C	C2'-C1'	-10.80	1.37	1.53
81	DA	871	U	C2'-C1'	-10.79	1.37	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	2798	C	C2'-C1'	-10.79	1.37	1.53
81	DA	2726	C	O4'-C1'	10.78	1.58	1.42
46	BT	16	GLY	C-N	10.77	1.39	1.33
81	DA	3257	C	O4'-C1'	10.77	1.57	1.41
78	CA	1375	A	C2'-C1'	-10.77	1.37	1.53
81	DA	2149	A	C2'-C1'	10.76	1.69	1.53
81	DA	3048	A	O4'-C1'	10.76	1.58	1.42
81	DA	3041	U	C2'-C1'	-10.76	1.37	1.53
81	DA	1667	A	O4'-C1'	10.76	1.57	1.41
78	CA	404	G	C2'-C1'	-10.75	1.37	1.53
78	CA	107	C	O4'-C1'	10.75	1.57	1.41
81	DA	2422	C	C2'-C1'	-10.75	1.37	1.53
78	CA	1310	U	C3'-C2'	-10.75	1.36	1.52
81	DA	972	A	C2'-C1'	-10.75	1.37	1.53
82	DB	91	C	C2'-C1'	10.74	1.69	1.53
81	DA	360	G	O4'-C1'	10.74	1.57	1.41
74	BQ	197	SER	CA-CB	-10.73	1.35	1.53
31	BB	127	ALA	N-CA	10.73	1.60	1.46
78	CA	1476	C	O4'-C1'	10.73	1.57	1.41
83	DC	13	A	O4'-C1'	10.73	1.57	1.41
78	CA	386	G	O4'-C1'	10.73	1.57	1.41
81	DA	202	G	C2'-C1'	-10.73	1.37	1.53
81	DA	3084	C	O4'-C1'	10.72	1.57	1.41
76	BS	84	GLN	C-N	-10.72	1.20	1.33
81	DA	1653	G	O4'-C1'	10.72	1.57	1.41
78	CA	39	A	C2'-C1'	-10.71	1.37	1.53
81	DA	756	U	O4'-C1'	10.72	1.57	1.41
33	BD	355	PHE	CA-CB	10.71	1.71	1.53
78	CA	832	U	C2'-C1'	-10.71	1.37	1.53
81	DA	1426	C	O3'-P	-10.71	1.45	1.61
81	DA	2594	C	O4'-C1'	10.71	1.57	1.41
81	DA	1422	G	C2'-C1'	-10.71	1.37	1.53
5	AC	168	ARG	CA-CB	10.70	1.70	1.53
20	AS	53	TRP	C-N	-10.70	1.18	1.33
81	DA	1364	C	O4'-C1'	10.70	1.57	1.41
81	DA	3005	A	C2'-C1'	10.70	1.69	1.53
78	CA	1528	U	C2'-C1'	10.69	1.69	1.53
81	DA	1077	U	O4'-C1'	10.68	1.57	1.41
81	DA	2332	A	C2'-C1'	-10.68	1.37	1.53
78	CA	230	C	O4'-C1'	10.68	1.57	1.41
81	DA	384	A	O4'-C1'	10.68	1.57	1.41
81	DA	2582	C	O4'-C1'	10.68	1.57	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	3162	C	O4'-C1'	10.68	1.57	1.41
36	BF	2	LYS	C-N	10.67	1.48	1.33
81	DA	1673	G	C2'-C1'	-10.67	1.37	1.53
81	DA	3388	C	O4'-C1'	10.66	1.57	1.41
78	CA	97	C	O4'-C1'	10.66	1.57	1.41
81	DA	1951	C	O4'-C1'	10.66	1.57	1.41
81	DA	2445	A	O4'-C1'	10.66	1.57	1.41
81	DA	286	U	O4'-C1'	10.66	1.57	1.41
81	DA	105	C	O4'-C1'	10.65	1.57	1.41
81	DA	725	G	C2'-C1'	-10.65	1.37	1.53
81	DA	3076	C	O4'-C1'	10.65	1.57	1.41
43	BP	16	SER	N-CA	-10.65	1.33	1.46
81	DA	724	U	O4'-C1'	10.63	1.57	1.41
64	Bl	39	TYR	C-N	10.63	1.47	1.33
78	CA	1228	G	C2'-C1'	-10.63	1.37	1.53
82	DB	128	U	O4'-C1'	10.63	1.57	1.41
57	Be	202	LEU	N-CA	10.63	1.58	1.46
81	DA	2764	C	O4'-C1'	10.62	1.57	1.41
2	AA	251	GLU	N-CA	10.62	1.61	1.46
46	BT	82	LYS	CA-CB	-10.62	1.35	1.53
81	DA	2893	C	C2'-C1'	-10.61	1.37	1.53
81	DA	3258	U	C2'-C1'	10.61	1.69	1.53
81	DA	1396	C	C2'-C1'	-10.61	1.37	1.53
13	AL	38	PHE	C-N	10.61	1.47	1.33
3	AB	78	LYS	C-N	10.61	1.46	1.33
78	CA	571	G	C2'-C1'	-10.59	1.37	1.53
61	Bj	20	LYS	N-CA	10.59	1.62	1.46
81	DA	1623	G	O4'-C1'	10.59	1.57	1.41
32	BC	297	SER	N-CA	-10.59	1.31	1.46
81	DA	1196	C	O4'-C1'	10.59	1.57	1.41
78	CA	872	G	O4'-C1'	10.58	1.57	1.41
81	DA	33	G	C2'-C1'	-10.58	1.37	1.53
82	DB	56	G	C2'-C1'	-10.58	1.37	1.53
81	DA	2204	C	O4'-C1'	10.58	1.57	1.41
81	DA	1423	C	O4'-C1'	10.58	1.57	1.41
81	DA	2242	A	O4'-C1'	10.58	1.57	1.41
78	CA	826	U	C2'-C1'	-10.57	1.37	1.53
81	DA	3162	C	C2'-C1'	-10.57	1.37	1.53
82	DB	105	A	O4'-C1'	10.57	1.57	1.42
81	DA	2708	C	O4'-C1'	10.56	1.57	1.41
81	DA	1306	G	O4'-C1'	10.56	1.57	1.42
81	DA	2774	C	O4'-C1'	10.55	1.57	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	573	C	O4'-C1'	10.55	1.57	1.41
81	DA	111	C	C2'-C1'	-10.55	1.37	1.53
45	BR	158	HIS	CA-C	-10.55	1.41	1.53
78	CA	1341	A	C2'-C1'	10.55	1.69	1.53
81	DA	350	C	O4'-C1'	10.55	1.57	1.42
81	DA	2857	C	C2'-C1'	-10.54	1.37	1.53
74	BQ	112	ARG	N-CA	-10.54	1.32	1.46
81	DA	658	G	C2'-C1'	-10.54	1.37	1.53
81	DA	2644	C	C2'-C1'	10.54	1.68	1.53
81	DA	838	G	O4'-C1'	-10.53	1.26	1.42
78	CA	162	A	O4'-C1'	10.52	1.57	1.41
81	DA	2619	G	O4'-C1'	10.52	1.57	1.41
18	AP	57	LYS	C-N	10.51	1.48	1.33
81	DA	2963	C	C2'-C1'	-10.51	1.37	1.53
44	BO	58	MET	N-CA	10.51	1.59	1.46
78	CA	1520	U	C5'-C4'	-10.51	1.30	1.51
1	Aa	58	VAL	CA-CB	-10.51	1.40	1.54
78	CA	651	G	O4'-C1'	10.50	1.57	1.41
81	DA	74	G	C2'-C1'	-10.50	1.37	1.53
81	DA	671	U	C4'-C3'	10.50	1.68	1.52
81	DA	2094	C	O4'-C1'	10.50	1.57	1.41
78	CA	1674	C	C2'-C1'	-10.49	1.37	1.53
81	DA	961	C	O4'-C1'	10.49	1.57	1.41
81	DA	3090	U	O4'-C1'	10.48	1.57	1.41
83	DC	107	G	C2'-C1'	10.48	1.69	1.53
74	BQ	115	LEU	N-CA	-10.48	1.31	1.46
81	DA	2049	A	O4'-C1'	10.47	1.57	1.41
81	DA	641	C	O4'-C1'	10.47	1.57	1.41
81	DA	2048	G	O4'-C1'	10.47	1.57	1.41
81	DA	202	G	O4'-C1'	10.47	1.57	1.41
78	CA	146	U	O4'-C1'	10.47	1.57	1.41
81	DA	750	G	C2'-C1'	-10.46	1.37	1.53
81	DA	1674	G	C2'-C1'	-10.46	1.37	1.53
78	CA	949	C	O4'-C1'	10.45	1.57	1.41
81	DA	2746	A	O4'-C1'	10.45	1.57	1.41
81	DA	1095	U	C4'-C3'	10.44	1.73	1.52
81	DA	1904	C	O4'-C1'	10.44	1.57	1.41
81	DA	208	C	O4'-C1'	10.44	1.57	1.41
81	DA	47	C	O4'-C1'	10.43	1.57	1.41
81	DA	226	C	O4'-C1'	10.43	1.57	1.41
81	DA	3248	C	O4'-C1'	10.43	1.57	1.42
44	BO	57	GLY	C-O	-10.43	1.09	1.23

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1142	G	C2'-C1'	-10.42	1.37	1.53
81	DA	2885	C	O4'-C1'	10.42	1.57	1.41
22	AV	95	HIS	ND1-CE1	10.41	1.43	1.32
43	BP	116	LEU	N-CA	10.41	1.58	1.46
81	DA	2244	A	O4'-C1'	-10.41	1.26	1.41
81	DA	1397	C	C2'-C1'	-10.41	1.37	1.53
61	Bj	9	VAL	N-CA	10.40	1.59	1.46
81	DA	1871	U	P-O5'	-10.40	1.44	1.59
47	BU	126	VAL	CA-CB	10.40	1.66	1.54
81	DA	2385	G	C2'-C1'	-10.40	1.37	1.53
81	DA	132	C	O4'-C1'	10.40	1.57	1.41
81	DA	515	C	O4'-C1'	10.40	1.57	1.41
81	DA	3093	C	O4'-C1'	10.40	1.57	1.42
81	DA	1433	A	O4'-C1'	10.40	1.57	1.42
81	DA	2177	G	C2'-C1'	-10.39	1.37	1.53
81	DA	49	A	C2'-C1'	10.39	1.68	1.53
78	CA	268	C	C2'-C1'	-10.39	1.37	1.53
78	CA	1584	G	O4'-C1'	-10.38	1.26	1.42
78	CA	885	G	O4'-C1'	10.38	1.57	1.41
81	DA	598	A	C2'-C1'	-10.38	1.37	1.53
81	DA	1251	A	O4'-C1'	10.38	1.57	1.42
78	CA	1226	A	O4'-C1'	10.37	1.57	1.41
81	DA	2884	C	O4'-C1'	10.37	1.57	1.41
81	DA	131	C	O4'-C1'	10.37	1.57	1.41
76	BS	52	LYS	CA-CB	10.37	1.71	1.53
81	DA	3384	U	C2'-C1'	-10.36	1.37	1.53
43	BP	14	LYS	N-CA	-10.36	1.32	1.46
82	DB	107	G	C2'-C1'	-10.36	1.37	1.53
81	DA	928	C	O4'-C1'	10.35	1.57	1.41
81	DA	2728	G	C2'-C1'	-10.35	1.37	1.53
81	DA	1227	C	O4'-C1'	10.35	1.57	1.41
81	DA	1808	G	O4'-C1'	10.35	1.57	1.41
39	BJ	57	LYS	CA-C	-10.35	1.39	1.52
31	BB	63	PHE	N-CA	10.35	1.59	1.46
13	AL	23	ARG	N-CA	-10.35	1.32	1.46
81	DA	2038	C	O4'-C1'	10.35	1.57	1.41
81	DA	2345	A	C2'-C1'	-10.34	1.37	1.53
78	CA	235	G	O4'-C1'	10.34	1.57	1.41
78	CA	297	U	C2'-C1'	-10.34	1.37	1.53
81	DA	2042	G	C2'-C1'	-10.34	1.37	1.53
78	CA	621	A	C2'-C1'	10.33	1.68	1.53
81	DA	678	G	C2'-C1'	-10.33	1.37	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	DC	104	C	C2'-C1'	-10.33	1.37	1.53
81	DA	2892	A	O4'-C1'	10.33	1.57	1.41
78	CA	1144	U	O4'-C1'	10.32	1.57	1.41
81	DA	606	C	O4'-C1'	10.32	1.57	1.41
81	DA	2173	U	O4'-C1'	10.32	1.57	1.41
17	AQ	82	ASP	N-CA	-10.32	1.26	1.46
81	DA	526	C	O4'-C1'	10.32	1.57	1.41
81	DA	147	U	C4'-C3'	-10.31	1.31	1.52
81	DA	1811	G	O4'-C1'	-10.31	1.26	1.41
81	DA	2730	G	C2'-C1'	-10.31	1.37	1.53
78	CA	252	U	C2'-C1'	10.31	1.68	1.53
79	CB	2	C	O4'-C1'	10.30	1.57	1.41
81	DA	2267	C	O4'-C1'	10.30	1.57	1.41
81	DA	3120	C	O4'-C1'	10.30	1.57	1.41
33	BD	84	ARG	NE-CZ	10.30	1.44	1.33
78	CA	1384	A	C2'-C1'	-10.30	1.38	1.53
81	DA	2008	G	O4'-C1'	10.30	1.57	1.41
81	DA	299	G	C2'-C1'	-10.29	1.38	1.53
38	Bs	72	ASP	N-CA	10.29	1.62	1.46
81	DA	2346	C	O4'-C1'	10.29	1.57	1.41
81	DA	1713	G	O4'-C1'	10.29	1.57	1.41
1	Aa	54	PHE	CA-CB	-10.29	1.37	1.53
78	CA	1406	A	C2'-C1'	-10.28	1.38	1.53
81	DA	637	C	C2'-C1'	-10.28	1.38	1.53
38	Bs	242	ASN	CB-CG	-10.27	1.26	1.52
78	CA	235	G	C2'-C1'	-10.27	1.38	1.53
81	DA	2495	C	O4'-C1'	10.27	1.57	1.41
81	DA	385	A	O4'-C1'	10.27	1.57	1.41
81	DA	2023	C	O4'-C1'	10.26	1.57	1.41
81	DA	484	C	O4'-C1'	10.26	1.57	1.41
2	AA	229	LYS	CA-CB	10.26	1.71	1.53
81	DA	265	A	O4'-C1'	-10.25	1.26	1.42
81	DA	1478	C	O4'-C1'	10.25	1.57	1.41
81	DA	3013	U	C2'-C1'	-10.24	1.38	1.53
4	AD	93	ASP	C-N	10.24	1.47	1.33
79	CB	28	G	C2'-C1'	-10.24	1.38	1.53
65	Bn	72	THR	N-CA	10.24	1.59	1.46
79	CB	48	C	O4'-C1'	10.23	1.57	1.41
81	DA	415	G	O4'-C1'	10.23	1.57	1.41
81	DA	909	G	O4'-C1'	10.23	1.56	1.41
81	DA	1287	A	O4'-C1'	10.23	1.56	1.41
81	DA	529	A	O4'-C1'	10.23	1.56	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	1078	C	O4'-C1'	10.23	1.56	1.41
76	BS	153	LEU	CA-C	-10.22	1.39	1.52
78	CA	950	C	O4'-C1'	10.22	1.56	1.41
78	CA	442	C	O4'-C1'	10.22	1.56	1.41
78	CA	1531	G	O4'-C1'	10.22	1.56	1.41
82	DB	39	G	C2'-C1'	10.22	1.68	1.53
81	DA	2490	C	O4'-C1'	10.21	1.56	1.41
81	DA	1169	A	C2'-C1'	-10.21	1.38	1.53
81	DA	3072	C	C2'-C1'	-10.21	1.38	1.53
81	DA	3311	C	C2'-C1'	-10.21	1.38	1.53
41	BN	108	ARG	CA-CB	10.20	1.69	1.53
62	Bk	82	ARG	N-CA	10.20	1.57	1.46
22	AV	27	TRP	N-CA	10.20	1.59	1.46
48	BW	93	ILE	N-CA	-10.20	1.31	1.46
3	AB	206	VAL	N-CA	10.19	1.57	1.46
81	DA	2876	C	C2'-C1'	-10.19	1.38	1.53
81	DA	3352	U	C2'-C1'	-10.19	1.38	1.53
78	CA	1470	C	O4'-C1'	10.19	1.56	1.41
34	BE	55	ARG	C-O	10.19	1.36	1.24
55	Bc	104	GLN	C-N	10.18	1.48	1.33
78	CA	314	C	C2'-C1'	-10.17	1.38	1.53
81	DA	3036	G	C2'-C1'	-10.17	1.38	1.53
81	DA	720	A	C2'-C1'	10.17	1.68	1.53
81	DA	989	A	C2'-C1'	10.17	1.68	1.53
81	DA	1004	U	O4'-C1'	10.17	1.56	1.41
81	DA	2478	C	O4'-C1'	10.17	1.56	1.41
78	CA	36	C	O4'-C1'	10.16	1.56	1.41
81	DA	1332	A	O4'-C1'	10.16	1.56	1.41
81	DA	2665	U	C2'-C1'	10.16	1.68	1.53
47	BU	140	ILE	C-O	10.15	1.36	1.24
82	DB	142	C	O4'-C1'	10.15	1.56	1.41
81	DA	2511	A	C2'-C1'	-10.15	1.38	1.53
81	DA	2863	G	C2'-C1'	-10.15	1.38	1.53
81	DA	2366	C	O4'-C1'	10.14	1.56	1.41
78	CA	105	A	O4'-C1'	10.14	1.57	1.42
78	CA	1188	G	C2'-C1'	-10.14	1.38	1.53
78	CA	1215	C	O4'-C1'	10.14	1.56	1.41
81	DA	2230	C	O4'-C1'	10.14	1.56	1.41
81	DA	3312	U	C2'-C1'	-10.14	1.38	1.53
83	DC	40	C	O4'-C1'	10.14	1.56	1.41
83	DC	97	C	O4'-C1'	10.14	1.56	1.41
81	DA	1879	A	C2'-C1'	-10.13	1.37	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1919	G	C2'-C1'	-10.13	1.38	1.53
81	DA	1738	C	O4'-C1'	10.13	1.56	1.41
81	DA	183	G	C2'-C1'	-10.13	1.38	1.53
81	DA	192	C	O4'-C1'	10.13	1.56	1.41
57	Be	120	THR	CA-CB	-10.12	1.36	1.53
81	DA	2966	G	O4'-C1'	10.12	1.56	1.41
78	CA	1205	C	O4'-C1'	10.11	1.56	1.41
81	DA	1483	G	C2'-C1'	10.11	1.68	1.53
81	DA	1562	C	O4'-C1'	10.11	1.56	1.41
81	DA	3063	C	O4'-C1'	10.11	1.57	1.42
78	CA	1735	U	O4'-C1'	10.11	1.56	1.41
18	AP	122	ILE	N-CA	10.10	1.58	1.46
81	DA	1413	G	O4'-C1'	10.10	1.56	1.41
81	DA	3110	C	O4'-C1'	10.10	1.56	1.41
78	CA	1664	C	O4'-C1'	10.10	1.56	1.41
81	DA	2650	U	O4'-C1'	10.10	1.56	1.41
81	DA	874	U	C2'-C1'	-10.09	1.38	1.53
81	DA	548	G	C2'-C1'	-10.09	1.38	1.53
81	DA	702	C	C2'-C1'	-10.08	1.38	1.53
81	DA	1597	C	O4'-C1'	10.07	1.56	1.41
81	DA	2528	G	O4'-C1'	-10.07	1.26	1.41
81	DA	2708	C	C2'-C1'	-10.07	1.38	1.53
81	DA	2971	A	O4'-C1'	-10.07	1.26	1.42
78	CA	402	C	O4'-C1'	10.07	1.56	1.41
81	DA	1984	C	O4'-C1'	10.07	1.56	1.41
82	DB	148	G	C2'-C1'	-10.07	1.38	1.53
4	AD	217	THR	CA-C	-10.07	1.40	1.52
78	CA	1391	A	C2'-C1'	-10.07	1.38	1.53
81	DA	2744	U	O4'-C1'	10.06	1.56	1.41
35	BG	3	ALA	N-CA	-10.06	1.32	1.45
81	DA	54	C	C2'-C1'	-10.06	1.38	1.53
33	BD	323	VAL	CA-CB	-10.05	1.40	1.54
81	DA	2416	U	C2'-C1'	-10.05	1.38	1.53
46	BT	71	ARG	N-CA	10.04	1.59	1.46
81	DA	1916	U	C2'-C1'	-10.04	1.38	1.53
34	BE	52	TYR	CA-C	10.04	1.66	1.52
78	CA	269	G	C2'-C1'	-10.04	1.38	1.53
78	CA	969	C	O4'-C1'	10.04	1.56	1.41
81	DA	1633	C	C2'-C1'	-10.04	1.38	1.53
78	CA	1467	C	O4'-C1'	10.04	1.56	1.41
78	CA	681	U	C2'-C1'	10.03	1.68	1.53
81	DA	2965	U	O4'-C1'	10.03	1.56	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	AD	191	ARG	NE-CZ	10.03	1.44	1.33
78	CA	1709	C	O4'-C1'	10.03	1.56	1.41
81	DA	1663	C	O4'-C1'	10.03	1.56	1.41
78	CA	175	G	C2'-C1'	-10.02	1.38	1.53
81	DA	31	C	O4'-C1'	10.02	1.56	1.41
81	DA	274	G	C2'-C1'	-10.02	1.38	1.53
81	DA	862	U	C2'-C1'	-10.02	1.38	1.53
81	DA	1037	C	O4'-C1'	10.02	1.56	1.41
81	DA	1225	A	O4'-C1'	10.02	1.56	1.41
81	DA	624	G	C2'-C1'	-10.02	1.38	1.53
79	CB	36	C	C2'-C1'	-10.02	1.38	1.53
83	DC	46	A	O3'-P	-10.02	1.46	1.61
81	DA	1227	C	C2'-C1'	-10.01	1.38	1.53
78	CA	184	C	O4'-C1'	10.01	1.56	1.41
82	DB	102	U	C2'-C1'	-10.01	1.38	1.53
41	BN	76	ALA	CA-C	10.00	1.65	1.52
79	CB	45	G	C2'-C1'	-10.00	1.38	1.53
81	DA	1385	C	O4'-C1'	10.00	1.56	1.41
81	DA	2421	U	O4'-C1'	10.00	1.56	1.41
47	BU	139	ARG	CA-C	10.00	1.66	1.52
78	CA	320	U	O4'-C1'	9.99	1.56	1.41
78	CA	1786	G	O4'-C1'	9.99	1.56	1.41
5	AC	163	PRO	N-CD	-9.99	1.33	1.47
81	DA	536	U	O4'-C1'	9.99	1.56	1.41
39	BJ	97	ASN	N-CA	-9.99	1.34	1.46
81	DA	2209	U	C2'-C1'	-9.99	1.38	1.53
81	DA	2705	A	O4'-C1'	-9.98	1.26	1.42
17	AQ	26	LEU	C-N	9.98	1.47	1.33
78	CA	1563	C	C2'-C1'	-9.98	1.38	1.53
81	DA	682	U	O4'-C1'	9.98	1.56	1.41
55	Bc	94	LYS	N-CA	-9.98	1.33	1.46
81	DA	1145	G	C2'-C1'	-9.98	1.38	1.53
78	CA	1643	U	C2'-C1'	9.97	1.68	1.53
81	DA	1978	A	C2'-C1'	-9.97	1.38	1.53
22	AV	26	LYS	CA-CB	-9.97	1.36	1.53
81	DA	1261	G	O4'-C1'	-9.97	1.21	1.41
57	Be	224	ILE	CA-CB	-9.97	1.42	1.54
78	CA	1752	U	O4'-C1'	9.97	1.56	1.41
81	DA	2778	G	O4'-C1'	9.97	1.56	1.41
12	AK	125	SER	CA-CB	-9.97	1.36	1.53
81	DA	2998	U	O4'-C1'	-9.97	1.26	1.41
83	DC	47	C	O3'-P	-9.96	1.46	1.61

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
9	AH	66	ASN	CA-CB	-9.96	1.36	1.53
81	DA	2279	A	C2'-C1'	-9.95	1.38	1.53
78	CA	158	U	O4'-C1'	9.95	1.56	1.41
81	DA	2774	C	C2'-C1'	-9.95	1.38	1.53
17	AQ	60	ARG	CA-C	-9.94	1.40	1.52
78	CA	1267	G	C2'-C1'	-9.94	1.38	1.53
17	AQ	26	LEU	CA-CB	-9.94	1.36	1.53
78	CA	68	A	C2'-C1'	-9.94	1.38	1.53
78	CA	690	G	C2'-C1'	-9.93	1.38	1.53
78	CA	1447	C	O4'-C1'	9.93	1.56	1.41
81	DA	1251	A	C2'-C1'	-9.93	1.38	1.53
81	DA	1574	C	O4'-C1'	9.93	1.56	1.41
2	AA	10	THR	CA-CB	9.92	1.69	1.53
32	BC	290	ASP	CA-C	-9.92	1.39	1.52
81	DA	3146	G	C2'-C1'	-9.92	1.38	1.53
81	DA	2963	C	O4'-C1'	9.92	1.56	1.41
51	BZ	70	LYS	C-N	9.91	1.47	1.33
78	CA	679	U	C2'-C1'	9.91	1.68	1.53
81	DA	339	C	O4'-C1'	9.91	1.56	1.41
81	DA	2675	C	O4'-C1'	9.91	1.56	1.41
81	DA	1847	A	C2'-C1'	9.91	1.68	1.53
81	DA	2163	C	O4'-C1'	9.90	1.56	1.41
78	CA	888	U	O4'-C1'	9.90	1.56	1.41
81	DA	3117	C	O4'-C1'	9.90	1.56	1.41
12	AK	22	SER	N-CA	9.90	1.58	1.46
44	BO	58	MET	CA-CB	9.90	1.70	1.53
78	CA	1569	A	C2'-C1'	-9.90	1.38	1.53
81	DA	290	G	C2'-C1'	-9.89	1.38	1.53
81	DA	2988	C	O4'-C1'	9.89	1.56	1.41
83	DC	22	A	O4'-C1'	-9.89	1.26	1.41
81	DA	1208	U	C2'-C1'	9.88	1.68	1.53
81	DA	2520	A	C2'-C1'	9.88	1.68	1.53
78	CA	597	G	C2'-C1'	-9.88	1.38	1.53
81	DA	514	G	O4'-C1'	9.88	1.56	1.41
81	DA	558	U	O4'-C1'	9.88	1.56	1.41
78	CA	682	C	O4'-C1'	9.88	1.56	1.41
81	DA	752	C	C2'-C1'	-9.88	1.38	1.53
81	DA	1690	C	C2'-C1'	-9.87	1.38	1.53
81	DA	2901	G	C2'-C1'	-9.87	1.38	1.53
81	DA	3121	U	O4'-C1'	9.87	1.56	1.42
35	BG	100	LYS	N-CA	-9.87	1.33	1.46
81	DA	2809	C	C2'-C1'	-9.86	1.38	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	1675	C	O4'-C1'	9.86	1.56	1.41
51	BZ	71	ARG	N-CA	-9.85	1.33	1.46
78	CA	434	G	C2'-C1'	9.85	1.68	1.53
81	DA	1416	C	O4'-C1'	9.85	1.56	1.41
81	DA	1578	C	O4'-C1'	9.85	1.56	1.41
32	BC	368	GLY	C-N	9.85	1.47	1.33
31	BB	245	LEU	C-O	-9.85	1.12	1.23
81	DA	2646	C	C2'-C1'	-9.85	1.38	1.53
81	DA	1332	A	C2'-C1'	-9.84	1.38	1.53
78	CA	623	A	C2'-C1'	9.84	1.67	1.53
78	CA	1007	C	C2'-C1'	-9.84	1.38	1.53
81	DA	2295	A	C2'-C1'	-9.84	1.38	1.53
81	DA	3113	A	O4'-C1'	9.84	1.56	1.41
78	CA	203	U	O4'-C1'	9.83	1.56	1.41
81	DA	2700	G	C2'-C1'	-9.83	1.38	1.53
81	DA	237	G	O4'-C1'	9.83	1.56	1.41
81	DA	3022	G	C2'-C1'	-9.83	1.38	1.53
78	CA	346	G	C2'-C1'	-9.83	1.38	1.53
81	DA	3149	G	O4'-C1'	-9.83	1.26	1.41
81	DA	3337	G	C2'-C1'	-9.83	1.38	1.53
81	DA	578	A	O4'-C1'	9.82	1.56	1.41
81	DA	2225	U	O4'-C1'	9.82	1.56	1.41
81	DA	2462	A	C2'-C1'	-9.82	1.38	1.53
81	DA	2754	G	O4'-C1'	-9.82	1.26	1.41
81	DA	753	C	O4'-C1'	9.82	1.56	1.41
81	DA	1660	C	C2'-C1'	-9.82	1.38	1.53
81	DA	3298	C	C2'-C1'	-9.81	1.38	1.53
78	CA	1407	U	O4'-C1'	9.81	1.56	1.41
81	DA	506	U	O4'-C1'	9.81	1.56	1.41
81	DA	1664	G	C2'-C1'	-9.81	1.38	1.53
81	DA	1848	G	O4'-C1'	9.81	1.56	1.42
81	DA	1927	G	O4'-C1'	-9.81	1.26	1.41
33	BD	313	LEU	CA-C	-9.80	1.39	1.52
81	DA	3285	C	C2'-C1'	-9.80	1.38	1.53
12	AK	23	PHE	N-CA	-9.80	1.34	1.46
81	DA	3256	G	C2'-C1'	-9.80	1.38	1.53
81	DA	1401	A	O4'-C1'	-9.80	1.26	1.41
81	DA	2874	G	C2'-C1'	-9.80	1.38	1.53
38	Bs	5	ARG	C-N	9.79	1.47	1.33
49	BV	153	LYS	N-CA	-9.79	1.33	1.46
81	DA	1210	U	O4'-C1'	9.80	1.56	1.41
81	DA	1551	C	C2'-C1'	-9.80	1.38	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
74	BQ	123	GLU	C-N	9.79	1.47	1.33
10	AI	54	LEU	C-N	9.79	1.47	1.33
57	Be	123	THR	CA-C	-9.79	1.40	1.52
81	DA	1104	G	O4'-C1'	-9.79	1.26	1.41
83	DC	43	U	O4'-C1'	9.79	1.56	1.41
81	DA	291	C	O4'-C1'	9.79	1.56	1.41
81	DA	1015	U	C2'-C1'	9.79	1.68	1.53
78	CA	32	U	C2'-C1'	9.79	1.68	1.53
78	CA	164	A	C2'-C1'	-9.79	1.38	1.53
74	BQ	237	GLU	C-N	9.78	1.47	1.33
78	CA	1472	C	O4'-C1'	9.78	1.56	1.42
81	DA	3239	G	O4'-C1'	9.78	1.56	1.41
2	AA	252	TRP	CA-CB	9.78	1.73	1.53
78	CA	1137	A	O4'-C1'	9.78	1.56	1.42
81	DA	2348	A	O4'-C1'	9.78	1.56	1.41
81	DA	405	U	C2'-C1'	-9.78	1.38	1.53
81	DA	2128	C	O4'-C1'	9.78	1.56	1.41
81	DA	2455	U	O4'-C1'	9.78	1.56	1.41
60	Bi	55	SER	C-N	9.77	1.46	1.33
81	DA	360	G	C2'-C1'	-9.77	1.38	1.53
11	AJ	82	TYR	N-CA	-9.77	1.34	1.46
81	DA	1085	A	C2'-C1'	-9.77	1.38	1.53
78	CA	431	C	O4'-C1'	9.76	1.56	1.41
81	DA	962	A	C2'-C1'	9.76	1.67	1.53
81	DA	3018	C	C2'-C1'	-9.76	1.38	1.53
32	BC	26	ARG	CD-NE	9.76	1.59	1.46
81	DA	2763	U	C2'-C1'	9.76	1.68	1.53
81	DA	908	G	O4'-C1'	9.76	1.56	1.42
81	DA	3118	C	O4'-C1'	9.76	1.56	1.41
59	Bh	12	LYS	CA-CB	9.76	1.70	1.53
72	Bu	61	PHE	CA-CB	9.76	1.70	1.53
81	DA	3025	C	O4'-C1'	9.76	1.56	1.41
81	DA	1221	A	C2'-C1'	9.76	1.68	1.53
82	DB	11	C	O4'-C1'	9.76	1.56	1.41
14	AM	119	ILE	CA-CB	9.75	1.66	1.54
32	BC	297	SER	C-N	9.75	1.47	1.33
81	DA	3371	G	C2'-C1'	-9.75	1.38	1.53
45	BR	13	SER	N-CA	9.75	1.57	1.46
78	CA	931	C	O4'-C1'	9.75	1.56	1.41
81	DA	2858	U	O4'-C1'	9.75	1.56	1.41
83	DC	47	C	P-O5'	-9.75	1.45	1.59
78	CA	1610	G	C2'-C1'	-9.74	1.38	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1539	A	O4'-C1'	9.74	1.56	1.41
81	DA	1907	C	O4'-C1'	9.74	1.56	1.41
81	DA	1139	G	C2'-C1'	-9.74	1.38	1.53
81	DA	1581	C	O4'-C1'	9.74	1.56	1.42
81	DA	1646	G	O4'-C1'	9.73	1.56	1.41
31	BB	155	LYS	N-CA	-9.73	1.34	1.46
45	BR	54	LEU	CA-CB	-9.73	1.36	1.53
81	DA	861	C	O4'-C1'	9.73	1.56	1.41
81	DA	566	G	C2'-C1'	-9.72	1.38	1.53
18	AP	57	LYS	N-CA	9.72	1.58	1.45
78	CA	1564	U	C2'-C1'	-9.72	1.38	1.53
81	DA	2960	C	O4'-C1'	9.72	1.56	1.41
32	BC	240	ARG	CA-C	-9.71	1.41	1.52
81	DA	3056	U	O4'-C1'	9.71	1.56	1.41
78	CA	889	U	O4'-C1'	9.71	1.56	1.41
79	CB	64	G	C2'-C1'	-9.71	1.38	1.53
81	DA	452	G	O4'-C1'	9.71	1.56	1.41
81	DA	2284	C	O4'-C1'	9.71	1.56	1.41
32	BC	370	PHE	C-N	9.71	1.47	1.33
78	CA	1772	C	O4'-C1'	9.71	1.56	1.41
81	DA	556	U	C2'-C1'	-9.71	1.38	1.53
81	DA	973	A	C2'-C1'	-9.71	1.38	1.53
79	CB	71	A	O4'-C1'	9.71	1.56	1.41
81	DA	2984	C	O4'-C1'	9.70	1.56	1.41
81	DA	945	C	O4'-C1'	9.69	1.56	1.41
78	CA	851	U	O4'-C1'	9.68	1.56	1.41
81	DA	2252	A	O4'-C1'	9.68	1.56	1.41
81	DA	1944	U	O4'-C1'	9.68	1.56	1.41
81	DA	2393	G	O4'-C1'	-9.68	1.27	1.42
81	DA	982	C	O4'-C1'	9.68	1.56	1.41
81	DA	1199	C	C2'-C1'	-9.67	1.38	1.53
4	AD	112	HIS	CB-CG	9.67	1.63	1.50
41	BN	30	GLY	C-N	9.67	1.41	1.33
78	CA	374	U	O4'-C1'	9.67	1.56	1.41
81	DA	2743	A	O4'-C1'	9.67	1.56	1.41
81	DA	513	G	C2'-C1'	-9.67	1.38	1.53
57	Be	234	GLU	N-CA	-9.66	1.34	1.46
81	DA	2031	U	C2'-C1'	-9.66	1.38	1.53
5	AC	19	TYR	N-CA	-9.66	1.33	1.46
17	AQ	63	LYS	C-N	9.66	1.46	1.33
81	DA	142	C	O4'-C1'	9.66	1.56	1.41
81	DA	1572	U	C2'-C1'	-9.65	1.38	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	3233	C	O4'-C1'	9.65	1.56	1.41
5	AC	165	GLY	N-CA	-9.65	1.31	1.45
81	DA	968	G	C2'-C1'	-9.65	1.38	1.53
81	DA	1679	A	C2'-C1'	-9.65	1.38	1.53
81	DA	1706	C	O4'-C1'	9.65	1.56	1.41
4	AD	241	GLY	CA-C	-9.65	1.38	1.51
5	AC	168	ARG	C-O	-9.65	1.11	1.24
78	CA	1364	G	O4'-C1'	9.65	1.56	1.41
59	Bh	20	HIS	N-CA	-9.64	1.33	1.46
78	CA	191	C	O4'-C1'	9.64	1.56	1.41
81	DA	1677	G	O4'-C1'	-9.64	1.27	1.41
81	DA	1238	C	O4'-C1'	9.64	1.56	1.41
83	DC	15	C	O4'-C1'	9.64	1.56	1.41
33	BD	260	GLN	C-N	9.63	1.46	1.33
81	DA	1054	A	O4'-C1'	-9.63	1.27	1.41
32	BC	73	VAL	CA-C	-9.63	1.40	1.52
81	DA	2638	C	C2'-C1'	-9.63	1.39	1.53
81	DA	2331	C	O4'-C1'	9.62	1.56	1.41
78	CA	287	G	O4'-C1'	9.62	1.56	1.41
81	DA	829	U	O4'-C1'	9.62	1.56	1.41
78	CA	1463	C	O4'-C1'	9.61	1.56	1.41
81	DA	526	C	C2'-C1'	-9.62	1.39	1.53
81	DA	180	C	C2'-C1'	-9.61	1.39	1.53
47	BU	82	ASN	CA-C	-9.61	1.40	1.52
79	CB	43	C	C2'-C1'	-9.61	1.39	1.53
81	DA	50	U	O4'-C1'	9.61	1.56	1.41
82	DB	113	U	C2'-C1'	-9.61	1.39	1.53
81	DA	2008	G	C2'-C1'	-9.61	1.39	1.53
78	CA	1659	A	O4'-C1'	9.60	1.56	1.41
81	DA	2439	A	C2'-C1'	-9.60	1.39	1.53
52	BY	74	TYR	N-CA	-9.60	1.34	1.46
81	DA	3295	A	C2'-C1'	-9.60	1.39	1.53
81	DA	49	A	O4'-C1'	-9.60	1.27	1.42
81	DA	1178	G	O4'-C1'	9.60	1.56	1.41
53	Ba	74	VAL	CA-CB	-9.60	1.42	1.54
81	DA	2130	G	C2'-C1'	9.59	1.67	1.53
78	CA	1571	C	O4'-C1'	9.59	1.56	1.41
81	DA	327	A	O4'-C1'	9.59	1.56	1.41
74	BQ	128	GLU	C-N	9.59	1.47	1.33
81	DA	2009	C	O4'-C1'	9.58	1.56	1.41
81	DA	3393	U	C2'-C1'	-9.58	1.39	1.53
81	DA	2864	A	C2'-C1'	-9.57	1.39	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	726	G	C2'-C1'	-9.57	1.39	1.53
81	DA	3143	C	O4'-C1'	9.57	1.56	1.42
74	BQ	158	ARG	CZ-NH2	9.56	1.45	1.33
78	CA	1326	A	O4'-C1'	9.56	1.55	1.41
78	CA	291	G	C2'-C1'	-9.56	1.39	1.53
81	DA	419	G	C2'-C1'	9.56	1.67	1.53
81	DA	600	G	O4'-C1'	9.56	1.55	1.41
78	CA	1238	A	O4'-C1'	-9.55	1.27	1.41
81	DA	1649	U	C2'-C1'	9.55	1.67	1.53
81	DA	775	A	C2'-C1'	-9.55	1.39	1.53
74	BQ	237	GLU	CA-CB	-9.55	1.36	1.53
81	DA	571	U	C2'-C1'	-9.54	1.39	1.53
81	DA	692	A	O4'-C1'	9.54	1.55	1.41
11	AJ	81	THR	N-CA	-9.54	1.34	1.46
82	DB	63	G	O4'-C1'	9.54	1.55	1.41
79	CB	75	A	C2'-C1'	9.54	1.67	1.53
81	DA	744	A	O4'-C1'	9.54	1.55	1.41
17	AQ	82	ASP	C-N	9.53	1.46	1.33
78	CA	342	C	O4'-C1'	9.53	1.55	1.41
78	CA	1412	G	O4'-C1'	9.52	1.56	1.42
41	BN	108	ARG	NE-CZ	9.52	1.43	1.33
81	DA	1078	U	C2'-C1'	9.52	1.67	1.53
81	DA	2608	G	C2'-C1'	-9.51	1.39	1.53
10	AI	54	LEU	CA-CB	9.51	1.66	1.53
81	DA	2207	A	O4'-C1'	-9.51	1.27	1.42
81	DA	2841	G	O4'-C1'	9.51	1.55	1.41
81	DA	2699	G	O4'-C1'	9.51	1.55	1.41
81	DA	3330	A	O4'-C1'	9.51	1.55	1.41
81	DA	2594	C	C2'-C1'	-9.50	1.39	1.53
78	CA	596	C	O4'-C1'	9.50	1.55	1.41
78	CA	980	G	O4'-C1'	9.50	1.55	1.41
78	CA	143	G	C2'-C1'	-9.49	1.39	1.53
81	DA	261	U	C2'-C1'	-9.49	1.39	1.53
78	CA	1433	G	O4'-C1'	9.49	1.55	1.41
81	DA	2236	G	C2'-C1'	-9.49	1.39	1.53
78	CA	560	U	O4'-C1'	9.49	1.55	1.41
78	CA	922	G	C2'-C1'	-9.49	1.39	1.53
78	CA	980	G	C2'-C1'	-9.48	1.39	1.53
81	DA	1515	A	O4'-C1'	9.48	1.55	1.41
81	DA	2035	G	C2'-C1'	-9.48	1.39	1.53
82	DB	9	A	C2'-C1'	-9.48	1.39	1.53
33	BD	146	PRO	N-CA	9.48	1.59	1.47

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	512	U	O4'-C1'	9.48	1.56	1.42
82	DB	59	A	C2'-C1'	-9.47	1.38	1.53
10	AI	119	ALA	N-CA	9.46	1.58	1.46
33	BD	149	PRO	N-CD	-9.47	1.34	1.47
78	CA	606	A	C2'-C1'	-9.46	1.38	1.53
81	DA	808	A	C2'-C1'	-9.46	1.39	1.53
81	DA	637	C	O4'-C1'	9.46	1.55	1.41
1	Aa	59	ARG	CA-C	9.45	1.64	1.52
16	AO	64	ARG	N-CA	-9.45	1.34	1.46
45	BR	39	ARG	C-N	9.45	1.41	1.33
81	DA	2852	C	O4'-C1'	9.45	1.55	1.41
78	CA	614	C	O4'-C1'	9.44	1.55	1.41
78	CA	1178	G	O4'-C1'	9.43	1.55	1.41
78	CA	1048	G	C2'-C1'	-9.43	1.39	1.53
81	DA	2858	U	C2'-C1'	-9.43	1.39	1.53
81	DA	1233	G	O4'-C1'	-9.43	1.27	1.41
81	DA	1686	U	O4'-C1'	9.43	1.55	1.41
81	DA	1839	A	C2'-C1'	-9.43	1.39	1.53
78	CA	890	C	C2'-C1'	-9.42	1.39	1.53
81	DA	2417	U	C2'-C1'	-9.42	1.39	1.53
81	DA	2832	C	O4'-C1'	9.42	1.55	1.41
82	DB	54	A	O4'-C1'	9.42	1.55	1.41
81	DA	3229	G	C2'-C1'	-9.42	1.39	1.53
33	BD	346	LYS	CA-CB	9.41	1.68	1.53
45	BR	140	LEU	C-N	9.41	1.46	1.33
78	CA	1207	C	O4'-C1'	9.41	1.56	1.42
81	DA	489	C	O4'-C1'	9.41	1.55	1.41
78	CA	1545	A	C4'-O4'	-9.41	1.31	1.45
81	DA	2531	C	O4'-C1'	-9.41	1.27	1.41
74	BQ	123	GLU	N-CA	-9.41	1.34	1.46
81	DA	3223	A	C2'-C1'	-9.40	1.39	1.53
81	DA	3132	C	O4'-C1'	9.40	1.55	1.41
81	DA	2676	A	O4'-C1'	9.40	1.56	1.42
81	DA	2245	C	O4'-C1'	9.40	1.55	1.41
3	AB	79	TYR	N-CA	9.39	1.57	1.46
81	DA	558	U	C2'-C1'	-9.39	1.39	1.53
81	DA	2295	A	O4'-C1'	9.39	1.55	1.41
81	DA	2720	G	C2'-C1'	-9.39	1.39	1.53
59	Bh	21	HIS	N-CA	-9.38	1.32	1.46
74	BQ	137	ASP	CA-C	9.38	1.65	1.52
78	CA	179	A	C2'-C1'	9.38	1.67	1.53
81	DA	2212	C	O4'-C1'	9.38	1.55	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1414	G	C2'-C1'	9.38	1.67	1.53
74	BQ	123	GLU	CA-CB	9.38	1.70	1.53
79	CB	23	A	C2'-C1'	-9.38	1.39	1.53
78	CA	448	C	O4'-C1'	9.37	1.55	1.41
81	DA	799	G	C2'-C1'	-9.37	1.39	1.53
78	CA	31	C	O4'-C1'	9.37	1.55	1.41
81	DA	1340	G	C2'-C1'	-9.37	1.39	1.53
81	DA	1832	C	C2'-C1'	-9.37	1.39	1.53
81	DA	1897	G	C2'-C1'	-9.37	1.39	1.53
81	DA	3091	A	O4'-C1'	9.37	1.56	1.42
40	BK	63	ALA	CA-CB	9.36	1.71	1.54
81	DA	1376	C	O4'-C1'	9.37	1.55	1.41
81	DA	2118	C	C2'-C1'	-9.36	1.39	1.53
69	Br	97	LYS	CA-C	-9.36	1.40	1.52
19	AR	124	THR	C-N	-9.35	1.25	1.34
78	CA	965	U	O4'-C1'	9.35	1.55	1.41
78	CA	15	U	O4'-C1'	9.34	1.55	1.41
83	DC	3	U	O4'-C1'	9.34	1.55	1.41
13	AL	6	PRO	N-CD	-9.34	1.34	1.47
81	DA	298	U	O4'-C1'	9.34	1.55	1.42
81	DA	337	G	C2'-C1'	9.34	1.67	1.53
81	DA	3303	G	C2'-C1'	-9.34	1.39	1.53
35	BG	148	GLU	C-N	9.34	1.45	1.33
78	CA	877	G	C2'-C1'	-9.34	1.39	1.53
81	DA	2417	U	O4'-C1'	9.34	1.55	1.41
81	DA	535	G	C2'-C1'	-9.34	1.39	1.53
78	CA	1203	A	O4'-C1'	9.33	1.55	1.41
81	DA	2067	U	C2'-C1'	9.33	1.67	1.53
81	DA	2950	G	O4'-C1'	-9.33	1.27	1.42
81	DA	887	G	C2'-C1'	-9.33	1.39	1.53
81	DA	2149	A	O4'-C1'	-9.33	1.27	1.41
81	DA	2466	G	C2'-C1'	-9.33	1.39	1.53
81	DA	2499	U	O4'-C1'	9.33	1.55	1.41
81	DA	111	C	O4'-C1'	9.33	1.55	1.41
81	DA	847	A	C2'-C1'	-9.33	1.39	1.53
81	DA	1809	A	O4'-C1'	9.33	1.55	1.41
53	Ba	56	LYS	N-CA	-9.32	1.33	1.45
81	DA	900	G	C2'-C1'	-9.32	1.39	1.53
81	DA	1791	C	C2'-C1'	-9.32	1.39	1.53
55	Bc	104	GLN	CA-CB	-9.32	1.37	1.53
79	CB	66	C	O4'-C1'	9.32	1.55	1.41
82	DB	6	U	O4'-C1'	9.32	1.55	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	125	C	O4'-C1'	9.32	1.55	1.41
81	DA	882	A	O4'-C1'	9.31	1.55	1.41
6	AE	4	PRO	N-CA	9.31	1.59	1.47
81	DA	959	C	C2'-C1'	-9.31	1.39	1.53
81	DA	2515	A	O4'-C1'	9.31	1.55	1.41
39	BJ	77	ALA	N-CA	9.30	1.58	1.46
81	DA	1277	C	O4'-C1'	9.30	1.55	1.41
81	DA	1480	G	O4'-C1'	-9.30	1.27	1.42
35	BG	8	LYS	CA-CB	9.30	1.69	1.53
78	CA	1739	C	O4'-C1'	9.30	1.55	1.41
81	DA	1870	C	C3'-C2'	-9.30	1.38	1.52
74	BQ	7	ALA	CA-C	-9.30	1.40	1.52
78	CA	457	G	C2'-C1'	-9.30	1.39	1.53
81	DA	1446	A	C2'-C1'	9.29	1.67	1.53
81	DA	1650	G	C2'-C1'	-9.28	1.39	1.53
81	DA	2032	U	C2'-C1'	-9.28	1.39	1.53
81	DA	2182	A	O4'-C1'	9.28	1.55	1.41
13	AL	34	LEU	C-N	9.28	1.46	1.33
78	CA	872	G	C2'-C1'	-9.28	1.39	1.53
81	DA	1146	C	O4'-C1'	9.27	1.55	1.41
81	DA	2970	C	O4'-C1'	9.27	1.55	1.41
83	DC	114	A	C2'-C1'	-9.27	1.39	1.53
35	BG	113	LYS	N-CA	-9.27	1.35	1.46
81	DA	1827	C	C2'-C1'	-9.26	1.39	1.53
20	AS	12	GLN	CA-CB	-9.26	1.38	1.53
55	Bc	94	LYS	CA-CB	9.26	1.69	1.53
78	CA	1765	A	O4'-C1'	9.26	1.55	1.42
80	CC	12	A	O4'-C1'	-9.26	1.27	1.41
81	DA	520	U	O4'-C1'	9.26	1.55	1.41
81	DA	2469	G	O4'-C1'	9.26	1.55	1.41
78	CA	202	A	O4'-C1'	9.25	1.55	1.41
81	DA	2444	C	O4'-C1'	9.25	1.55	1.41
81	DA	2664	C	O4'-C1'	9.25	1.55	1.41
81	DA	2669	G	O4'-C1'	-9.25	1.27	1.41
81	DA	200	C	O4'-C1'	9.24	1.55	1.42
81	DA	13	A	O4'-C1'	9.24	1.55	1.41
83	DC	54	A	C2'-C1'	-9.24	1.39	1.53
81	DA	3077	A	O4'-C1'	9.24	1.55	1.41
35	BG	98	VAL	C-N	9.23	1.46	1.33
81	DA	3063	C	C2'-C1'	-9.23	1.39	1.53
78	CA	1147	A	O4'-C1'	9.23	1.55	1.41
42	BM	78	VAL	CA-CB	-9.23	1.43	1.54

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1068	C	O4'-C1'	9.23	1.55	1.41
78	CA	1573	A	C2'-C1'	9.22	1.66	1.53
81	DA	650	C	O4'-C1'	9.22	1.55	1.41
81	DA	2296	A	C2'-C1'	9.22	1.67	1.53
81	DA	433	A	O4'-C1'	9.22	1.55	1.41
81	DA	580	C	C2'-C1'	-9.22	1.39	1.53
81	DA	633	C	O4'-C1'	9.22	1.55	1.41
81	DA	3089	C	C2'-C1'	-9.22	1.39	1.53
81	DA	1119	C	O4'-C1'	9.21	1.55	1.41
81	DA	3255	U	O4'-C1'	9.21	1.55	1.41
81	DA	1691	U	O4'-C1'	9.21	1.55	1.41
78	CA	1461	C	O4'-C1'	9.21	1.55	1.41
81	DA	2972	G	C2'-C1'	-9.21	1.39	1.53
78	CA	989	U	O4'-C1'	9.21	1.55	1.41
81	DA	2723	U	O4'-C1'	9.21	1.55	1.41
81	DA	3042	U	O4'-C1'	9.21	1.55	1.41
31	BB	245	LEU	CA-CB	9.20	1.62	1.53
19	AR	108	ARG	NE-CZ	9.19	1.43	1.33
81	DA	379	C	O4'-C1'	9.19	1.55	1.41
81	DA	3108	G	C2'-C1'	-9.19	1.39	1.53
3	AB	78	LYS	N-CA	9.19	1.58	1.46
78	CA	1546	G	O3'-P	-9.19	1.47	1.61
5	AC	163	PRO	N-CA	9.18	1.59	1.47
81	DA	1560	G	O4'-C1'	9.18	1.55	1.41
42	BM	41	GLY	N-CA	9.18	1.59	1.45
81	DA	2293	C	O4'-C1'	9.18	1.55	1.41
81	DA	3335	A	C2'-C1'	-9.18	1.39	1.53
78	CA	1128	C	O4'-C1'	9.18	1.55	1.41
81	DA	2886	U	O4'-C1'	-9.18	1.28	1.42
81	DA	2607	G	O4'-C1'	9.17	1.55	1.41
81	DA	2918	G	C2'-C1'	-9.17	1.39	1.53
21	AT	9	VAL	C-N	9.17	1.46	1.33
76	BS	74	ILE	N-CA	-9.17	1.34	1.46
81	DA	2039	C	O4'-C1'	9.17	1.55	1.41
81	DA	824	C	O4'-C1'	9.17	1.55	1.41
81	DA	2450	G	O4'-C1'	-9.17	1.27	1.41
38	Bs	5	ARG	CA-CB	-9.17	1.38	1.53
82	DB	100	U	C2'-C1'	-9.17	1.39	1.53
81	DA	1140	G	C2'-C1'	-9.17	1.39	1.53
81	DA	436	A	C2'-C1'	-9.16	1.39	1.53
81	DA	654	C	O4'-C1'	9.16	1.55	1.41
81	DA	1328	C	C2'-C1'	-9.16	1.39	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1592	G	C2'-C1'	-9.16	1.39	1.53
78	CA	169	A	O4'-C1'	-9.16	1.27	1.41
22	AV	27	TRP	CA-C	-9.15	1.40	1.52
64	Bl	39	TYR	N-CA	9.15	1.56	1.45
81	DA	2459	A	C2'-C1'	-9.15	1.39	1.53
83	DC	102	C	C2'-C1'	-9.15	1.39	1.53
78	CA	549	G	C2'-C1'	-9.15	1.39	1.53
11	AJ	14	GLN	CD-OE1	9.15	1.41	1.23
78	CA	1456	C	O4'-C1'	9.15	1.55	1.41
81	DA	1405	U	C2'-C1'	-9.15	1.39	1.53
78	CA	1571	C	C2'-C1'	-9.14	1.39	1.53
81	DA	699	A	C2'-C1'	9.14	1.67	1.53
81	DA	840	C	O4'-C1'	9.14	1.55	1.41
81	DA	2863	G	O4'-C1'	9.14	1.55	1.41
78	CA	1656	U	O4'-C1'	9.14	1.55	1.41
81	DA	2506	U	C2'-C1'	-9.14	1.39	1.53
57	Be	202	LEU	CA-C	9.13	1.63	1.52
62	Bk	84	LYS	N-CA	9.14	1.57	1.46
81	DA	1669	C	O4'-C1'	9.14	1.55	1.41
83	DC	20	A	C2'-C1'	-9.14	1.39	1.53
81	DA	3028	G	C2'-C1'	-9.13	1.39	1.53
78	CA	852	C	O4'-C1'	9.13	1.55	1.41
81	DA	2434	U	O4'-C1'	9.13	1.55	1.42
21	AT	57	GLY	N-CA	-9.13	1.34	1.45
78	CA	406	U	C2'-C1'	-9.13	1.39	1.53
78	CA	851	U	C2'-C1'	-9.13	1.39	1.53
81	DA	1264	G	O4'-C1'	9.12	1.55	1.42
81	DA	2944	U	O4'-C1'	9.12	1.55	1.41
29	AU	70	VAL	C-O	-9.12	1.14	1.24
41	BN	38	ILE	CA-C	-9.12	1.40	1.52
81	DA	1092	C	O4'-C1'	9.12	1.55	1.41
81	DA	8	C	O4'-C1'	9.12	1.55	1.41
81	DA	283	G	C2'-C1'	-9.12	1.39	1.53
81	DA	1336	U	C2'-C1'	-9.12	1.39	1.53
81	DA	3242	G	C2'-C1'	9.12	1.67	1.53
81	DA	2437	G	C2'-C1'	9.12	1.66	1.53
81	DA	3039	C	O4'-C1'	9.12	1.55	1.41
35	BG	28	GLN	N-CA	9.11	1.57	1.46
78	CA	1199	G	O4'-C1'	-9.10	1.28	1.42
34	BE	9	MET	CA-CB	9.09	1.68	1.53
60	Bi	78	GLY	N-CA	-9.09	1.31	1.45
81	DA	1204	A	C2'-C1'	-9.09	1.39	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	DC	11	A	C2'-C1'	-9.09	1.39	1.53
78	CA	142	G	O4'-C1'	9.09	1.55	1.41
78	CA	326	G	C4'-C3'	-9.09	1.39	1.52
35	BG	3	ALA	CA-CB	9.09	1.68	1.53
78	CA	1476	C	C3'-O3'	-9.09	1.28	1.42
83	DC	115	A	O4'-C1'	-9.09	1.28	1.41
82	DB	37	A	C2'-C1'	9.08	1.66	1.53
38	Bs	55	LYS	CA-CB	9.08	1.68	1.53
78	CA	548	G	O4'-C1'	9.08	1.55	1.41
78	CA	1455	G	C2'-C1'	-9.08	1.39	1.53
81	DA	868	C	O4'-C1'	9.08	1.55	1.41
81	DA	2179	C	O4'-C1'	9.07	1.55	1.42
78	CA	273	G	O4'-C1'	9.07	1.55	1.41
81	DA	344	A	O4'-C1'	9.06	1.55	1.41
81	DA	2662	G	O4'-C1'	9.06	1.55	1.41
78	CA	1279	C	O4'-C1'	9.06	1.55	1.41
81	DA	3375	A	O4'-C1'	9.06	1.55	1.41
41	BN	40	ASP	CA-C	-9.06	1.41	1.53
81	DA	3308	C	O4'-C1'	9.06	1.55	1.41
44	BO	3	SER	CA-CB	-9.05	1.38	1.53
62	Bk	25	LYS	CA-CB	-9.05	1.39	1.53
78	CA	430	G	C2'-C1'	-9.05	1.39	1.53
81	DA	2519	A	C2'-C1'	-9.05	1.39	1.53
81	DA	1712	G	C2'-C1'	-9.05	1.39	1.53
78	CA	913	G	C2'-C1'	-9.05	1.39	1.53
81	DA	1499	C	O4'-C1'	9.05	1.55	1.41
43	BP	74	PRO	C-N	9.05	1.43	1.33
81	DA	263	C	O4'-C1'	9.04	1.55	1.41
83	DC	43	U	C2'-C1'	-9.04	1.39	1.53
78	CA	1180	C	C2'-C1'	-9.04	1.39	1.53
44	BO	62	HIS	C-N	-9.04	1.21	1.33
78	CA	1759	C	C2'-C1'	-9.04	1.39	1.53
81	DA	3253	G	O4'-C1'	9.03	1.55	1.41
78	CA	1228	G	O4'-C1'	9.03	1.55	1.41
81	DA	1478	C	C2'-C1'	-9.03	1.39	1.53
2	AA	11	PRO	C-N	9.03	1.47	1.33
6	AE	7	GLN	C-N	9.03	1.46	1.33
78	CA	849	C	C2'-C1'	-9.03	1.39	1.53
13	AL	35	GLY	CA-C	-9.02	1.35	1.52
35	BG	153	PRO	CA-C	-9.02	1.39	1.52
81	DA	3006	A	O4'-C1'	9.02	1.55	1.41
32	BC	289	ASP	C-N	9.02	1.46	1.33

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	2020	A	O4'-C1'	9.02	1.55	1.41
81	DA	863	C	C2'-C1'	-9.02	1.39	1.53
32	BC	381	GLY	C-N	9.01	1.46	1.33
37	BH	210	ALA	N-CA	-9.01	1.35	1.46
78	CA	38	C	O4'-C1'	9.01	1.55	1.41
81	DA	586	C	O4'-C1'	9.01	1.55	1.41
78	CA	1340	U	C2'-C1'	9.01	1.66	1.53
81	DA	424	G	O4'-C1'	9.01	1.55	1.41
81	DA	878	G	C2'-C1'	-9.01	1.39	1.53
81	DA	2671	A	O4'-C1'	9.01	1.55	1.41
81	DA	793	C	O4'-C1'	9.00	1.55	1.41
32	BC	371	GLN	C-N	-9.00	1.15	1.33
43	BP	180	PHE	N-CA	9.00	1.57	1.46
36	BF	2	LYS	CA-CB	8.99	1.68	1.53
78	CA	1599	C	O4'-C1'	8.99	1.55	1.41
38	Bs	184	GLY	C-N	8.99	1.45	1.33
81	DA	2420	C	C2'-C1'	-8.99	1.39	1.53
78	CA	1134	C	O4'-C1'	8.99	1.55	1.41
81	DA	977	C	O4'-C1'	8.99	1.55	1.41
81	DA	2217	U	C2'-C1'	-8.99	1.39	1.53
78	CA	39	A	O4'-C1'	8.99	1.55	1.41
78	CA	1376	C	O4'-C1'	8.99	1.55	1.41
82	DB	41	A	C2'-C1'	-8.99	1.39	1.53
44	BO	40	HIS	C-N	8.98	1.46	1.33
81	DA	1846	C	O4'-C1'	8.98	1.55	1.41
81	DA	1141	C	O4'-C1'	8.98	1.55	1.41
5	AC	162	SER	CA-CB	8.98	1.67	1.53
81	DA	254	A	O4'-C1'	8.98	1.55	1.41
53	Ba	75	VAL	N-CA	-8.98	1.34	1.46
78	CA	401	A	O4'-C1'	8.98	1.55	1.42
81	DA	1671	C	O4'-C1'	8.98	1.55	1.41
45	BR	95	GLU	CA-CB	-8.97	1.38	1.53
31	BB	137	ILE	CA-C	-8.97	1.41	1.52
78	CA	1365	C	O4'-C1'	8.97	1.55	1.41
78	CA	1195	C	O4'-C1'	8.97	1.55	1.41
81	DA	1117	G	C2'-C1'	-8.97	1.39	1.53
74	BQ	197	SER	N-CA	8.96	1.57	1.46
78	CA	1202	A	O4'-C1'	-8.96	1.28	1.41
81	DA	1745	C	O4'-C1'	8.96	1.55	1.41
81	DA	2750	U	O4'-C1'	8.96	1.55	1.41
78	CA	1327	C	O4'-C1'	8.96	1.55	1.41
33	BD	31	ARG	CA-CB	8.96	1.64	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	1586	A	C3'-C2'	-8.96	1.39	1.52
81	DA	849	C	O4'-C1'	8.96	1.55	1.41
26	AZ	19	PRO	N-CA	8.95	1.58	1.47
81	DA	82	C	O4'-C1'	8.95	1.55	1.41
81	DA	2051	G	O4'-C1'	8.95	1.55	1.41
81	DA	413	U	O4'-C1'	8.95	1.55	1.41
81	DA	1224	C	O4'-C1'	8.95	1.55	1.41
20	AS	95	ASP	C-O	-8.95	1.12	1.23
81	DA	2626	A	C2'-C1'	-8.94	1.40	1.53
81	DA	460	C	O4'-C1'	8.94	1.55	1.41
81	DA	1118	C	O4'-C1'	8.94	1.55	1.41
81	DA	3111	U	C2'-C1'	8.94	1.66	1.53
83	DC	9	C	O4'-C1'	8.94	1.55	1.41
81	DA	1547	G	O4'-C1'	8.94	1.55	1.41
31	BB	62	VAL	C-N	8.94	1.46	1.33
81	DA	760	G	C2'-C1'	-8.93	1.40	1.53
81	DA	512	U	C2'-C1'	-8.93	1.39	1.53
22	AV	81	ARG	CD-NE	8.92	1.58	1.46
29	AU	11	LYS	CA-C	-8.92	1.41	1.52
35	BG	5	LYS	CA-CB	-8.92	1.38	1.53
81	DA	3031	G	O4'-C1'	8.92	1.55	1.41
78	CA	326	G	C2'-C1'	-8.92	1.40	1.53
74	BQ	201	GLY	C-N	8.92	1.45	1.33
81	DA	2104	A	O4'-C1'	8.91	1.55	1.41
78	CA	146	U	C2'-C1'	-8.91	1.40	1.53
78	CA	282	C	O4'-C1'	8.91	1.55	1.41
78	CA	1593	A	O4'-C1'	8.91	1.55	1.41
81	DA	1016	C	O4'-C1'	8.91	1.55	1.41
78	CA	847	A	O4'-C1'	8.91	1.55	1.41
81	DA	3060	C	O4'-C1'	8.91	1.55	1.41
20	AS	97	SER	CA-C	-8.91	1.40	1.52
81	DA	1548	C	O4'-C1'	8.90	1.55	1.41
81	DA	3321	C	O4'-C1'	8.90	1.55	1.41
60	Bi	55	SER	CA-CB	-8.90	1.38	1.53
81	DA	562	C	C2'-C1'	-8.90	1.40	1.53
81	DA	3032	A	O4'-C1'	8.90	1.55	1.41
81	DA	2139	A	C2'-C1'	-8.90	1.39	1.53
82	DB	100	U	O4'-C1'	8.89	1.54	1.41
33	BD	349	THR	CA-CB	-8.89	1.38	1.53
72	Bt	61	PHE	CA-CB	8.89	1.68	1.53
78	CA	300	A	O4'-C1'	8.89	1.54	1.41
81	DA	1193	A	C2'-C1'	8.89	1.66	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	2442	G	O4'-C1'	8.89	1.54	1.41
81	DA	3384	U	O4'-C1'	8.89	1.54	1.41
81	DA	333	G	C2'-C1'	-8.89	1.40	1.53
48	BW	91	ASP	CA-C	-8.89	1.41	1.52
69	Br	89	LYS	CA-CB	-8.88	1.38	1.53
81	DA	1265	U	O4'-C1'	8.88	1.54	1.41
20	AS	91	TYR	N-CA	8.88	1.57	1.46
37	BH	216	SER	N-CA	-8.88	1.35	1.46
81	DA	1	G	C2'-C1'	8.88	1.66	1.53
81	DA	321	C	O4'-C1'	8.88	1.54	1.41
81	DA	1341	U	O4'-C1'	8.88	1.54	1.41
1	Aa	53	LYS	CA-CB	8.88	1.74	1.53
81	DA	912	G	C2'-C1'	-8.88	1.40	1.53
81	DA	816	A	O4'-C1'	8.88	1.55	1.42
35	BG	9	TRP	N-CA	8.88	1.57	1.46
11	AJ	57	ARG	C-N	8.87	1.44	1.33
33	BD	84	ARG	C-N	8.87	1.47	1.33
81	DA	1696	A	C2'-C1'	-8.87	1.40	1.53
81	DA	2501	U	C2'-C1'	-8.87	1.40	1.53
79	CB	45	G	O4'-C1'	8.87	1.55	1.42
81	DA	1894	U	O4'-C1'	8.87	1.54	1.41
81	DA	2172	A	C3'-O3'	-8.87	1.28	1.42
81	DA	3005	A	O4'-C1'	-8.87	1.28	1.42
33	BD	354	VAL	C-O	-8.86	1.13	1.24
76	BS	162	THR	N-CA	-8.87	1.35	1.46
83	DC	110	C	O4'-C1'	8.86	1.54	1.41
6	AE	4	PRO	CA-CB	-8.86	1.41	1.53
34	BE	52	TYR	CB-CG	8.86	1.71	1.51
29	AU	34	ASN	C-N	8.85	1.44	1.33
81	DA	1452	A	O4'-C1'	8.85	1.54	1.41
16	AO	65	VAL	CA-C	-8.85	1.41	1.52
81	DA	1437	C	O4'-C1'	8.85	1.54	1.41
38	Bs	5	ARG	N-CA	8.85	1.57	1.46
78	CA	1291	G	C2'-C1'	-8.85	1.40	1.53
78	CA	1440	C	O4'-C1'	8.85	1.54	1.41
81	DA	646	A	C2'-C1'	-8.85	1.40	1.53
78	CA	1474	G	C2'-C1'	-8.84	1.40	1.53
81	DA	2486	A	C2'-C1'	-8.84	1.39	1.53
49	BV	58	ILE	N-CA	-8.84	1.38	1.46
55	Bc	40	SER	CA-C	-8.84	1.41	1.52
78	CA	1371	A	O4'-C1'	8.84	1.54	1.41
81	DA	1778	G	O4'-C1'	8.84	1.54	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	672	U	C2'-C1'	-8.83	1.40	1.53
81	DA	1541	G	O4'-C1'	8.83	1.54	1.41
81	DA	3304	U	C5'-C4'	8.83	1.64	1.51
74	BQ	197	SER	C-N	8.83	1.46	1.33
78	CA	267	U	C2'-C1'	8.83	1.66	1.53
78	CA	1539	G	C2'-C1'	8.82	1.66	1.53
31	BB	183	GLY	CA-C	-8.82	1.42	1.52
33	BD	324	LEU	N-CA	8.82	1.57	1.46
81	DA	1980	C	O4'-C1'	8.81	1.54	1.41
81	DA	1646	G	C2'-C1'	-8.81	1.40	1.53
81	DA	701	G	C2'-C1'	-8.81	1.40	1.53
6	AE	7	GLN	CA-CB	-8.81	1.38	1.53
8	AF	35	GLN	C-N	8.81	1.46	1.33
32	BC	256	HIS	N-CA	8.81	1.60	1.45
81	DA	2809	C	O4'-C1'	8.81	1.54	1.41
78	CA	1478	G	P-O5'	-8.80	1.46	1.59
78	CA	1683	C	O4'-C1'	8.81	1.54	1.41
81	DA	1289	G	C2'-C1'	-8.80	1.40	1.53
81	DA	2722	U	O3'-P	-8.80	1.48	1.61
81	DA	2998	U	C2'-C1'	8.81	1.66	1.53
81	DA	539	C	O4'-C1'	8.80	1.54	1.41
81	DA	2422	C	O4'-C1'	8.80	1.54	1.41
81	DA	2627	C	O4'-C1'	8.80	1.55	1.42
53	Ba	14	VAL	CA-C	-8.80	1.41	1.52
81	DA	1483	G	O4'-C1'	-8.79	1.28	1.41
81	DA	2898	G	O4'-C1'	8.79	1.54	1.41
81	DA	2929	C	O4'-C1'	8.79	1.54	1.41
74	BQ	122	VAL	CA-C	-8.79	1.41	1.52
81	DA	2656	A	C2'-C1'	-8.79	1.39	1.53
82	DB	10	A	O4'-C1'	8.79	1.54	1.41
79	CB	29	C	O4'-C1'	8.79	1.54	1.41
81	DA	2278	C	O4'-C1'	8.79	1.54	1.41
81	DA	2025	G	O4'-C1'	-8.78	1.28	1.41
78	CA	195	G	O4'-C1'	8.78	1.54	1.41
81	DA	890	C	O4'-C1'	8.78	1.54	1.41
81	DA	2895	G	C2'-C1'	-8.78	1.40	1.53
81	DA	2204	C	C2'-C1'	-8.78	1.40	1.53
81	DA	3301	U	O4'-C1'	8.78	1.54	1.41
81	DA	2829	U	O4'-C1'	8.78	1.54	1.41
82	DB	96	A	C2'-C1'	8.78	1.66	1.53
47	BU	126	VAL	C-N	8.77	1.46	1.33
78	CA	880	C	O4'-C1'	8.77	1.54	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1222	G	C2'-C1'	8.77	1.66	1.53
50	BX	136	ALA	CA-C	-8.77	1.41	1.52
78	CA	1299	G	C2'-C1'	-8.77	1.40	1.53
78	CA	1439	C	O4'-C1'	8.77	1.54	1.41
78	CA	1679	G	O4'-C1'	8.77	1.54	1.41
83	DC	37	G	C2'-C1'	-8.77	1.40	1.53
35	BG	152	THR	CA-CB	-8.77	1.39	1.53
33	BD	85	SER	N-CA	8.77	1.56	1.45
74	BQ	121	GLY	N-CA	-8.77	1.31	1.45
78	CA	424	C	C2'-C1'	-8.76	1.40	1.53
81	DA	2015	C	O4'-C1'	8.76	1.54	1.41
18	AP	115	PHE	CA-CB	8.76	1.64	1.52
9	AH	71	LYS	N-CA	-8.76	1.34	1.46
78	CA	1299	G	O4'-C1'	8.76	1.54	1.41
83	DC	51	G	O4'-C1'	-8.76	1.28	1.41
78	CA	623	A	O4'-C1'	-8.75	1.28	1.42
78	CA	1686	C	O4'-C1'	8.75	1.54	1.41
81	DA	787	G	C2'-C1'	-8.75	1.40	1.53
81	DA	901	G	C2'-C1'	-8.75	1.40	1.53
81	DA	2047	A	O4'-C1'	8.75	1.54	1.41
78	CA	151	G	O4'-C1'	8.75	1.54	1.41
21	AT	5	LYS	C-N	8.74	1.44	1.33
81	DA	1996	C	O4'-C1'	8.74	1.54	1.41
81	DA	2589	G	C2'-C1'	-8.74	1.40	1.53
14	AM	77	THR	C-N	8.73	1.46	1.33
81	DA	2917	G	O4'-C1'	-8.73	1.28	1.41
83	DC	98	G	C2'-C1'	-8.73	1.40	1.53
81	DA	2452	G	O4'-C1'	8.73	1.55	1.42
78	CA	833	U	O4'-C1'	-8.72	1.28	1.41
78	CA	1197	C	O4'-C1'	8.72	1.54	1.41
78	CA	1653	C	O4'-C1'	8.72	1.54	1.41
81	DA	15	C	C2'-C1'	-8.72	1.40	1.53
81	DA	281	G	C2'-C1'	-8.72	1.40	1.53
81	DA	964	G	C2'-C1'	-8.72	1.40	1.53
81	DA	1509	A	C2'-C1'	-8.72	1.40	1.53
81	DA	2927	C	O4'-C1'	8.72	1.54	1.41
82	DB	98	U	P-O5'	-8.72	1.46	1.59
78	CA	1644	C	O4'-C1'	8.72	1.54	1.41
81	DA	2735	U	O4'-C1'	8.72	1.54	1.41
78	CA	119	A	O4'-C1'	8.71	1.54	1.41
78	CA	1373	C	O4'-C1'	8.72	1.55	1.42
81	DA	2416	U	O3'-P	-8.71	1.48	1.61

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	2816	G	O4'-C1'	8.71	1.55	1.42
82	DB	145	U	O4'-C1'	8.71	1.54	1.41
61	Bj	82	ARG	CA-C	-8.70	1.41	1.52
45	BR	141	ARG	CA-C	-8.70	1.41	1.52
81	DA	201	A	O4'-C1'	8.70	1.54	1.41
44	BO	96	LYS	C-N	-8.69	1.21	1.33
81	DA	81	C	O4'-C1'	8.69	1.54	1.41
81	DA	2436	U	C2'-C1'	-8.69	1.40	1.53
82	DB	10	A	C2'-C1'	-8.69	1.40	1.53
16	AO	76	LYS	CA-C	-8.69	1.41	1.52
78	CA	1146	G	C2'-C1'	-8.69	1.40	1.53
82	DB	18	U	O4'-C1'	8.69	1.54	1.41
78	CA	858	G	C2'-C1'	8.68	1.66	1.53
81	DA	2934	A	O4'-C1'	-8.68	1.28	1.41
81	DA	1363	A	C2'-C1'	-8.68	1.40	1.53
81	DA	1645	U	O4'-C1'	8.68	1.54	1.41
16	AO	124	ARG	CD-NE	8.67	1.58	1.46
78	CA	393	C	C2'-C1'	-8.67	1.40	1.53
81	DA	68	C	C2'-C1'	-8.67	1.40	1.53
81	DA	2769	A	C2'-C1'	-8.67	1.40	1.53
81	DA	244	G	O4'-C1'	8.66	1.54	1.41
81	DA	918	C	O4'-C1'	8.66	1.54	1.41
81	DA	1270	A	O4'-C1'	-8.66	1.28	1.41
81	DA	3081	C	O4'-C1'	8.66	1.54	1.41
82	DB	89	A	C2'-C1'	-8.66	1.40	1.53
6	AE	122	ALA	C-N	8.65	1.38	1.33
81	DA	1155	C	O4'-C1'	8.65	1.54	1.41
81	DA	2136	C	C2'-C1'	-8.65	1.40	1.53
81	DA	2950	G	C2'-C1'	8.65	1.66	1.53
11	AJ	120	SER	CA-C	-8.65	1.42	1.52
29	AU	36	SER	N-CA	-8.65	1.40	1.46
81	DA	2812	C	O4'-C1'	8.65	1.54	1.41
34	BE	115	LYS	CB-CG	8.64	1.78	1.52
76	BS	159	ARG	NE-CZ	8.64	1.42	1.33
49	BV	100	ALA	C-N	8.64	1.45	1.33
52	BY	7	ASP	N-CA	-8.64	1.36	1.46
79	CB	62	C	O4'-C1'	8.64	1.54	1.41
31	BB	246	LEU	CA-CB	8.64	1.68	1.53
78	CA	663	U	O4'-C1'	8.64	1.54	1.41
14	AM	39	GLY	CA-C	-8.63	1.42	1.52
78	CA	977	A	O4'-C1'	8.63	1.54	1.41
81	DA	515	C	C2'-C1'	-8.63	1.40	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	2886	U	C2'-C1'	8.63	1.66	1.53
32	BC	18	PRO	CA-CB	-8.63	1.42	1.53
81	DA	640	U	O4'-C1'	8.63	1.54	1.41
81	DA	765	C	C2'-C1'	-8.63	1.40	1.53
32	BC	242	THR	N-CA	-8.63	1.35	1.45
81	DA	2155	G	C2'-C1'	-8.63	1.40	1.53
81	DA	559	A	C2'-C1'	-8.63	1.40	1.53
81	DA	507	U	O4'-C1'	8.62	1.54	1.41
81	DA	2310	U	O4'-C1'	8.62	1.54	1.41
81	DA	1526	U	C2'-C1'	-8.62	1.40	1.53
81	DA	1621	A	C2'-C1'	-8.62	1.40	1.53
78	CA	1337	A	C2'-C1'	8.62	1.66	1.53
81	DA	2247	G	C2'-C1'	-8.61	1.40	1.53
82	DB	8	C	O4'-C1'	8.62	1.54	1.41
78	CA	112	A	O4'-C1'	8.61	1.54	1.41
81	DA	2317	A	O4'-C1'	8.61	1.54	1.41
78	CA	220	A	O4'-C1'	8.61	1.54	1.41
81	DA	1564	U	C2'-C1'	-8.61	1.40	1.53
58	Bg	94	GLU	C-N	8.60	1.45	1.33
78	CA	1370	U	O4'-C1'	8.60	1.54	1.41
81	DA	847	A	O4'-C1'	8.60	1.54	1.41
81	DA	996	A	C2'-C1'	8.60	1.66	1.53
81	DA	1779	C	O4'-C1'	8.60	1.54	1.41
78	CA	1288	G	C2'-C1'	-8.60	1.40	1.53
34	BE	123	PHE	C-N	8.60	1.46	1.33
81	DA	543	C	O4'-C1'	8.60	1.54	1.41
81	DA	1791	C	O4'-C1'	8.60	1.54	1.41
81	DA	2830	G	O4'-C1'	8.60	1.54	1.41
83	DC	29	C	C2'-C1'	-8.60	1.40	1.53
81	DA	3331	U	C2'-C1'	8.59	1.66	1.53
78	CA	1531	G	C2'-C1'	-8.59	1.40	1.53
78	CA	1214	U	C2'-C1'	8.58	1.66	1.53
81	DA	2561	A	P-OP2	8.58	1.66	1.49
82	DB	103	G	O4'-C1'	8.58	1.54	1.41
61	Bj	21	ARG	CA-C	-8.57	1.41	1.52
48	BW	94	ARG	CA-C	-8.57	1.34	1.52
81	DA	178	U	O4'-C1'	8.57	1.54	1.41
32	BC	382	THR	CA-C	-8.56	1.41	1.52
81	DA	872	U	O4'-C1'	8.56	1.54	1.41
3	AB	205	ALA	C-N	8.56	1.45	1.33
12	AK	124	ASP	CG-OD1	-8.56	1.09	1.25
81	DA	265	A	C2'-C1'	8.56	1.65	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	2942	C	C2'-C1'	-8.56	1.40	1.53
81	DA	1445	U	O4'-C1'	8.56	1.54	1.41
81	DA	2311	G	O4'-C1'	8.56	1.54	1.41
78	CA	1636	C	O4'-C1'	8.55	1.54	1.42
81	DA	2306	C	O4'-C1'	8.55	1.54	1.41
81	DA	2445	A	C2'-C1'	-8.55	1.40	1.53
14	AM	139	LYS	N-CA	-8.55	1.36	1.46
78	CA	1169	G	C2'-C1'	-8.55	1.40	1.53
81	DA	2390	A	O4'-C1'	8.55	1.54	1.41
81	DA	1363	A	O4'-C1'	8.55	1.54	1.41
81	DA	1904	C	C2'-C1'	-8.55	1.40	1.53
78	CA	1579	U	O4'-C1'	8.55	1.54	1.41
81	DA	743	C	C2'-C1'	-8.55	1.40	1.53
57	Be	220	PHE	CB-CG	-8.54	1.31	1.50
81	DA	3352	U	O4'-C1'	8.54	1.54	1.41
26	AZ	18	THR	CA-CB	-8.54	1.40	1.53
39	BJ	75	PRO	CA-CB	-8.54	1.41	1.53
76	BS	70	ASN	N-CA	8.54	1.58	1.46
81	DA	323	A	C2'-C1'	-8.54	1.40	1.53
83	DC	39	C	O4'-C1'	8.54	1.54	1.41
1	Aa	259	GLY	CA-C	-8.53	1.43	1.52
81	DA	2673	A	O4'-C1'	8.53	1.54	1.41
82	DB	38	U	C2'-C1'	-8.53	1.40	1.53
79	CB	26	G	C2'-C1'	-8.52	1.40	1.53
79	CB	73	C	O4'-C1'	8.52	1.54	1.41
81	DA	2818	U	C2'-C1'	8.52	1.65	1.53
81	DA	3147	G	O4'-C1'	8.52	1.54	1.41
81	DA	1333	C	C2'-C1'	-8.52	1.40	1.53
78	CA	271	A	O4'-C1'	8.52	1.54	1.41
81	DA	535	G	O4'-C1'	8.52	1.54	1.41
35	BG	75	PRO	C-O	-8.52	1.12	1.24
78	CA	1705	C	C2'-C1'	-8.52	1.40	1.53
81	DA	1336	U	O4'-C1'	8.52	1.54	1.41
81	DA	2377	G	C2'-C1'	-8.52	1.40	1.53
81	DA	2609	A	O4'-C1'	8.51	1.54	1.41
21	AT	87	ARG	CD-NE	8.51	1.58	1.46
78	CA	554	C	C2'-C1'	-8.51	1.40	1.53
81	DA	2452	G	C2'-C1'	8.51	1.65	1.53
78	CA	337	G	O4'-C1'	-8.50	1.28	1.41
81	DA	743	C	O4'-C1'	8.50	1.54	1.41
81	DA	2813	A	O4'-C1'	8.50	1.54	1.41
81	DA	2355	G	C2'-C1'	-8.50	1.40	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
79	CB	2	C	C2'-C1'	-8.49	1.40	1.53
81	DA	2583	C	O4'-C1'	8.49	1.54	1.41
43	BP	16	SER	CA-CB	8.49	1.67	1.53
81	DA	1132	C	O4'-C1'	8.49	1.54	1.41
22	AV	26	LYS	N-CA	8.49	1.57	1.46
81	DA	2329	C	O4'-C1'	8.49	1.54	1.41
43	BP	16	SER	C-N	8.48	1.45	1.33
78	CA	641	G	C2'-C1'	-8.48	1.40	1.53
78	CA	1353	U	O4'-C1'	8.48	1.54	1.41
31	BB	42	ARG	CD-NE	8.48	1.58	1.46
78	CA	846	G	C2'-C1'	-8.48	1.40	1.53
81	DA	1211	U	C2'-C1'	-8.48	1.40	1.53
81	DA	2684	C	C2'-C1'	-8.48	1.40	1.53
78	CA	1543	A	C2'-C1'	-8.47	1.40	1.53
81	DA	2717	U	O4'-C1'	8.47	1.54	1.41
81	DA	1406	A	O4'-C1'	8.47	1.54	1.41
78	CA	81	G	C2'-C1'	-8.47	1.40	1.53
35	BG	149	ILE	N-CA	8.47	1.56	1.46
76	BS	15	GLY	C-N	8.47	1.45	1.33
81	DA	2046	U	O3'-P	-8.47	1.48	1.61
82	DB	35	C	C2'-C1'	-8.47	1.40	1.53
81	DA	1718	G	C2'-C1'	-8.46	1.40	1.53
3	AB	212	LYS	C-O	-8.46	1.14	1.23
53	Ba	9	LYS	N-CA	-8.46	1.34	1.47
78	CA	1576	A	C2'-C1'	8.46	1.66	1.53
78	CA	1088	A	C2'-C1'	8.46	1.66	1.53
81	DA	1632	A	C2'-C1'	-8.46	1.40	1.53
81	DA	1867	A	O4'-C1'	-8.46	1.28	1.41
78	CA	164	A	C4'-C3'	-8.45	1.39	1.52
78	CA	254	A	C2'-C1'	8.45	1.66	1.53
81	DA	2041	U	C2'-C1'	8.45	1.66	1.53
81	DA	2330	C	O4'-C1'	8.45	1.54	1.41
42	BM	60	ALA	CA-C	-8.45	1.42	1.52
81	DA	1279	C	O4'-C1'	8.45	1.54	1.41
81	DA	43	A	O4'-C1'	-8.44	1.29	1.42
81	DA	1863	G	O4'-C1'	8.44	1.54	1.41
78	CA	1339	C	C2'-C1'	-8.44	1.40	1.53
81	DA	1312	C	O4'-C1'	8.44	1.54	1.41
78	CA	333	A	C2'-C1'	-8.44	1.40	1.53
81	DA	1631	C	O4'-C1'	8.44	1.54	1.41
81	DA	1650	G	O4'-C1'	8.44	1.54	1.41
81	DA	2489	C	C2'-C1'	-8.43	1.40	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	1120	U	C2'-C1'	-8.43	1.40	1.53
81	DA	704	U	O3'-P	-8.43	1.48	1.61
82	DB	86	U	C2'-C1'	8.43	1.65	1.53
69	Br	59	HIS	N-CA	8.43	1.57	1.46
81	DA	776	U	C2'-C1'	-8.43	1.40	1.53
81	DA	1618	G	O4'-C1'	8.42	1.54	1.41
81	DA	2031	U	O4'-C1'	8.42	1.54	1.41
81	DA	2275	A	C2'-C1'	-8.42	1.40	1.53
83	DC	17	A	C2'-C1'	-8.42	1.40	1.53
83	DC	28	C	C2'-C1'	-8.42	1.40	1.53
78	CA	669	G	C2'-C1'	-8.41	1.40	1.53
80	CC	17	A	C2'-C1'	-8.41	1.40	1.53
81	DA	1690	C	O4'-C1'	8.41	1.54	1.41
81	DA	1259	A	O4'-C1'	-8.41	1.29	1.41
78	CA	197	A	O4'-C1'	8.41	1.54	1.41
59	Bh	23	ASP	C-O	-8.41	1.13	1.24
81	DA	1187	C	C2'-C1'	-8.41	1.40	1.53
79	CB	65	U	C2'-C1'	-8.41	1.40	1.53
81	DA	1479	U	C2'-C1'	-8.41	1.40	1.53
78	CA	1309	C	O4'-C1'	8.40	1.54	1.41
81	DA	1376	C	C2'-C1'	-8.40	1.40	1.53
81	DA	2682	C	C2'-C1'	-8.40	1.40	1.53
36	BF	159	ALA	C-N	8.40	1.45	1.33
81	DA	2830	G	C2'-C1'	-8.40	1.40	1.53
81	DA	2449	A	O4'-C1'	8.40	1.54	1.41
81	DA	3365	U	C2'-C1'	-8.40	1.40	1.53
81	DA	747	A	C2'-C1'	-8.40	1.40	1.53
33	BD	85	SER	CA-C	-8.39	1.42	1.53
78	CA	383	G	C2'-C1'	-8.39	1.40	1.53
49	BV	145	HIS	CA-C	-8.39	1.42	1.52
81	DA	1365	G	C2'-C1'	-8.39	1.40	1.53
81	DA	727	G	C2'-C1'	-8.39	1.40	1.53
81	DA	2217	U	O4'-C1'	8.38	1.54	1.41
81	DA	2414	G	C2'-C1'	-8.38	1.40	1.53
81	DA	2605	G	C2'-C1'	-8.38	1.40	1.53
81	DA	1132	C	C2'-C1'	-8.38	1.40	1.53
83	DC	57	C	O4'-C1'	8.38	1.54	1.41
78	CA	1370	U	C2'-C1'	-8.37	1.40	1.53
2	AA	84	ARG	NE-CZ	8.37	1.42	1.33
39	BJ	76	SER	CA-CB	-8.37	1.39	1.53
78	CA	1405	G	O4'-C1'	-8.37	1.29	1.41
81	DA	679	U	C2'-C1'	-8.37	1.40	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
74	BQ	158	ARG	CZ-NH1	-8.37	1.21	1.32
78	CA	1210	C	C2'-C1'	-8.37	1.40	1.53
81	DA	249	U	O4'-C1'	8.36	1.54	1.41
81	DA	2167	A	C2'-C1'	-8.36	1.40	1.53
81	DA	3117	C	C2'-C1'	-8.36	1.40	1.53
81	DA	1089	G	C2'-C1'	-8.36	1.40	1.53
78	CA	408	C	O4'-C1'	8.36	1.54	1.41
81	DA	781	G	C2'-C1'	-8.35	1.40	1.53
81	DA	2841	G	C2'-C1'	-8.35	1.40	1.53
83	DC	46	A	O4'-C1'	-8.35	1.29	1.41
78	CA	615	A	C2'-C1'	-8.35	1.40	1.53
81	DA	3224	G	C2'-C1'	8.35	1.65	1.53
81	DA	3067	C	O4'-C1'	8.35	1.54	1.41
74	BQ	56	THR	CA-C	-8.35	1.41	1.52
78	CA	267	U	O4'-C1'	8.35	1.54	1.41
78	CA	856	A	O4'-C1'	-8.35	1.29	1.41
78	CA	1174	C	O4'-C1'	8.35	1.54	1.41
6	AE	56	ILE	CA-CB	-8.34	1.44	1.54
81	DA	1331	U	O4'-C1'	8.34	1.54	1.42
81	DA	2961	G	C2'-C1'	-8.34	1.40	1.53
81	DA	812	G	C2'-C1'	-8.34	1.40	1.53
81	DA	3138	U	C2'-C1'	-8.34	1.40	1.53
81	DA	3146	G	O4'-C1'	8.34	1.54	1.41
81	DA	1787	A	O4'-C1'	8.33	1.54	1.41
78	CA	294	C	C2'-C1'	-8.33	1.40	1.53
81	DA	2592	G	O4'-C1'	8.33	1.54	1.41
33	BD	321	LYS	N-CA	-8.33	1.35	1.46
81	DA	1017	C	C2'-C1'	-8.33	1.40	1.53
81	DA	2796	G	C2'-C1'	8.33	1.65	1.53
81	DA	1560	G	C2'-C1'	-8.33	1.40	1.53
83	DC	5	G	C2'-C1'	-8.33	1.40	1.53
81	DA	1424	C	C2'-C1'	-8.32	1.40	1.53
32	BC	62	ARG	CD-NE	8.32	1.57	1.46
47	BU	141	VAL	C-O	-8.32	1.12	1.23
79	CB	63	C	O4'-C1'	8.32	1.54	1.41
78	CA	1716	C	O4'-C1'	8.31	1.54	1.41
81	DA	1048	A	O4'-C1'	8.31	1.54	1.41
81	DA	1990	U	O4'-C1'	8.31	1.54	1.41
81	DA	2228	A	O4'-C1'	-8.31	1.29	1.41
83	DC	99	A	O4'-C1'	8.31	1.54	1.41
8	AF	35	GLN	CA-CB	8.31	1.63	1.52
78	CA	1378	U	O4'-C1'	8.31	1.54	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1912	U	C2'-C1'	-8.31	1.40	1.53
45	BR	143	PRO	CA-CB	8.31	1.68	1.53
78	CA	448	C	C2'-C1'	-8.30	1.40	1.53
81	DA	3126	C	C2'-C1'	-8.31	1.40	1.53
81	DA	927	C	O4'-C1'	8.30	1.54	1.41
81	DA	2492	C	C2'-C1'	-8.30	1.41	1.53
81	DA	2044	U	O4'-C1'	8.30	1.54	1.41
53	Ba	10	VAL	N-CA	8.30	1.56	1.46
81	DA	1510	G	C2'-C1'	-8.30	1.41	1.53
81	DA	20	A	C2'-C1'	-8.30	1.41	1.53
38	Bs	73	PHE	N-CA	8.29	1.56	1.46
81	DA	1101	G	C2'-C1'	-8.29	1.41	1.53
81	DA	1790	G	C2'-C1'	-8.29	1.41	1.53
55	Bc	96	GLU	C-O	-8.29	1.13	1.24
78	CA	1135	U	C2'-C1'	-8.29	1.41	1.53
81	DA	1805	C	O4'-C1'	8.29	1.54	1.41
62	Bk	25	LYS	N-CA	8.29	1.56	1.45
81	DA	2618	G	C2'-C1'	8.29	1.65	1.53
81	DA	2297	U	O4'-C1'	8.28	1.54	1.41
12	AK	123	SER	C-N	8.28	1.45	1.33
3	AB	209	ILE	C-O	-8.28	1.14	1.24
81	DA	956	U	C2'-C1'	-8.28	1.41	1.53
78	CA	1181	U	C2'-C1'	-8.28	1.41	1.53
43	BP	75	VAL	CA-C	-8.27	1.44	1.52
81	DA	102	C	O4'-C1'	8.27	1.54	1.41
3	AB	209	ILE	CA-C	-8.27	1.42	1.52
49	BV	170	SER	C-OXT	-8.27	1.07	1.23
78	CA	1177	C	O4'-C1'	8.27	1.54	1.41
81	DA	1175	C	O4'-C1'	8.27	1.54	1.41
78	CA	1203	A	C2'-C1'	-8.27	1.41	1.53
81	DA	1609	C	O4'-C1'	8.27	1.54	1.41
78	CA	1678	A	O4'-C1'	8.27	1.54	1.41
81	DA	184	U	O4'-C1'	8.27	1.54	1.41
82	DB	65	A	C2'-C1'	-8.27	1.41	1.53
4	AD	95	THR	N-CA	8.27	1.56	1.46
16	AO	123	HIS	ND1-CE1	8.27	1.40	1.32
78	CA	1286	U	O4'-C1'	8.27	1.54	1.41
32	BC	10	ARG	NE-CZ	8.26	1.42	1.33
63	Bm	77	ALA	CA-C	8.26	1.63	1.52
81	DA	135	C	C2'-C1'	8.26	1.65	1.53
82	DB	98	U	C5'-C4'	8.26	1.63	1.51
18	AP	56	LYS	N-CA	8.26	1.56	1.46

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	303	U	O4'-C1'	8.26	1.54	1.41
20	AS	45	MET	CA-C	-8.26	1.42	1.52
81	DA	2174	G	C5'-C4'	8.26	1.63	1.51
39	BJ	123	ARG	CA-C	-8.26	1.42	1.52
81	DA	3355	U	C2'-C1'	8.26	1.65	1.53
78	CA	382	C	O4'-C1'	8.25	1.54	1.41
81	DA	46	U	C2'-C1'	-8.25	1.41	1.53
81	DA	2726	C	C2'-C1'	-8.25	1.40	1.53
37	BH	222	PHE	CA-CB	8.25	1.63	1.52
11	AJ	17	GLN	C-N	8.24	1.45	1.33
82	DB	147	U	O4'-C1'	8.24	1.54	1.41
81	DA	866	A	O4'-C1'	8.24	1.54	1.41
81	DA	1608	C	C2'-C1'	-8.24	1.41	1.53
17	AQ	81	LYS	C-N	8.24	1.44	1.33
60	Bi	80	ARG	N-CA	8.24	1.56	1.46
81	DA	216	G	C2'-C1'	-8.24	1.41	1.53
81	DA	2407	C	C2'-C1'	-8.24	1.41	1.53
35	BG	76	LEU	N-CA	8.23	1.56	1.46
67	Bp	34	CYS	CA-CB	8.23	1.64	1.53
78	CA	1651	A	O4'-C1'	8.23	1.53	1.41
81	DA	244	G	C2'-C1'	-8.23	1.41	1.53
81	DA	407	A	C2'-C1'	-8.23	1.41	1.53
81	DA	2856	G	C2'-C1'	-8.23	1.41	1.53
29	AU	19	ALA	N-CA	-8.23	1.35	1.46
81	DA	785	G	O4'-C1'	-8.23	1.29	1.42
81	DA	3096	C	C2'-C1'	-8.23	1.41	1.53
61	Bj	66	VAL	CB-CG2	8.22	1.79	1.52
81	DA	3019	U	O4'-C1'	8.22	1.53	1.41
34	BE	127	PHE	CA-CB	8.22	1.64	1.53
76	BS	113	ALA	CA-C	-8.22	1.42	1.52
78	CA	443	C	C2'-C1'	-8.22	1.41	1.53
81	DA	302	U	O4'-C1'	8.22	1.53	1.41
81	DA	1525	G	C2'-C1'	-8.22	1.41	1.53
81	DA	1225	A	C2'-C1'	-8.22	1.41	1.53
81	DA	841	A	O4'-C1'	8.22	1.53	1.41
83	DC	118	U	O4'-C1'	8.21	1.53	1.41
78	CA	666	U	O4'-C1'	8.21	1.53	1.41
81	DA	2383	C	O4'-C1'	8.21	1.53	1.41
81	DA	2398	A	O4'-C1'	8.21	1.53	1.41
74	BQ	198	TYR	N-CA	8.21	1.56	1.46
81	DA	1272	C	O4'-C1'	8.21	1.53	1.41
81	DA	2305	G	C2'-C1'	-8.21	1.41	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	2383	C	C2'-C1'	-8.21	1.41	1.53
2	AA	99	ALA	CA-C	-8.21	1.42	1.52
32	BC	344	THR	CA-C	-8.21	1.41	1.52
37	BH	73	PRO	C-N	8.21	1.45	1.33
78	CA	1393	C	O4'-C1'	8.21	1.53	1.41
81	DA	1306	G	C2'-C1'	-8.21	1.40	1.53
78	CA	1668	G	C2'-C1'	-8.20	1.41	1.53
81	DA	1638	A	C2'-C1'	-8.21	1.41	1.53
81	DA	2097	U	O4'-C1'	8.21	1.53	1.41
81	DA	2206	G	C2'-C1'	8.20	1.65	1.53
78	CA	1649	G	C2'-C1'	8.20	1.65	1.53
74	BQ	252	ALA	CA-C	-8.20	1.42	1.52
78	CA	286	C	O4'-C1'	8.20	1.53	1.41
78	CA	310	C	C2'-C1'	-8.20	1.41	1.53
81	DA	105	C	C2'-C1'	-8.20	1.41	1.53
81	DA	1034	U	O4'-C1'	8.20	1.53	1.41
81	DA	1614	C	O4'-C1'	8.20	1.53	1.41
81	DA	1872	C	O4'-C1'	8.20	1.53	1.41
82	DB	118	C	C2'-C1'	-8.19	1.41	1.53
82	DB	142	C	C2'-C1'	-8.19	1.41	1.53
43	BP	80	THR	C-N	8.19	1.44	1.33
81	DA	894	G	O4'-C1'	-8.19	1.29	1.42
81	DA	2115	G	C2'-C1'	-8.19	1.41	1.53
78	CA	1125	A	O4'-C1'	8.19	1.53	1.41
44	BO	62	HIS	ND1-CE1	8.19	1.40	1.32
81	DA	2861	U	O4'-C1'	8.19	1.53	1.41
81	DA	2867	C	O4'-C1'	8.19	1.53	1.41
82	DB	110	C	O4'-C1'	8.19	1.53	1.41
78	CA	447	U	C2'-C1'	-8.18	1.41	1.53
81	DA	3105	U	O4'-C1'	8.18	1.53	1.41
81	DA	2053	C	O4'-C1'	8.18	1.53	1.41
81	DA	1496	C	C2'-C1'	-8.18	1.41	1.53
78	CA	16	G	C2'-C1'	8.18	1.65	1.53
81	DA	794	U	O4'-C1'	8.18	1.53	1.41
81	DA	1608	C	O4'-C1'	8.17	1.53	1.41
78	CA	1648	A	C2'-C1'	-8.17	1.41	1.53
81	DA	1796	G	O4'-C1'	8.17	1.53	1.41
10	AI	83	GLN	C-N	8.17	1.45	1.33
29	AU	70	VAL	CB-CG1	8.17	1.79	1.52
78	CA	637	C	C2'-C1'	8.16	1.65	1.53
78	CA	1773	C	O4'-C1'	8.16	1.53	1.41
81	DA	1420	C	C2'-C1'	-8.16	1.41	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	2205	U	O4'-C1'	8.16	1.53	1.41
81	DA	2343	C	O4'-C1'	8.16	1.53	1.41
81	DA	2670	G	C2'-C1'	-8.16	1.41	1.53
78	CA	394	C	C2'-C1'	-8.16	1.41	1.53
83	DC	35	C	C2'-C1'	-8.16	1.41	1.53
78	CA	1598	U	O4'-C1'	8.16	1.53	1.41
78	CA	202	A	C2'-C1'	-8.16	1.41	1.53
81	DA	1254	C	O4'-C1'	8.16	1.53	1.41
58	Bg	94	GLU	N-CA	-8.15	1.34	1.46
81	DA	264	G	O4'-C1'	8.15	1.53	1.41
74	BQ	248	ARG	N-CA	-8.15	1.35	1.46
36	BF	46	THR	C-N	8.15	1.47	1.33
58	Bg	77	ARG	NE-CZ	8.15	1.42	1.33
76	BS	39	ALA	CA-C	-8.14	1.42	1.52
81	DA	250	U	C5'-C4'	8.14	1.63	1.51
81	DA	403	C	O4'-C1'	8.14	1.53	1.41
81	DA	804	C	O4'-C1'	8.14	1.53	1.41
33	BD	84	ARG	CA-CB	-8.14	1.39	1.53
74	BQ	111	GLN	N-CA	-8.14	1.35	1.46
33	BD	98	ARG	NE-CZ	8.14	1.42	1.33
78	CA	38	C	C2'-C1'	-8.14	1.41	1.53
32	BC	362	ALA	N-CA	-8.14	1.36	1.46
78	CA	1215	C	C2'-C1'	-8.14	1.41	1.53
81	DA	81	C	C2'-C1'	-8.14	1.41	1.53
81	DA	458	U	O4'-C1'	8.13	1.53	1.41
81	DA	2884	C	C2'-C1'	-8.13	1.41	1.53
82	DB	83	C	O4'-C1'	-8.13	1.29	1.41
81	DA	340	C	O4'-C1'	8.13	1.53	1.41
81	DA	1381	A	O4'-C1'	8.13	1.53	1.41
33	BD	260	GLN	CA-CB	8.12	1.66	1.53
78	CA	1281	G	O4'-C1'	8.12	1.53	1.41
81	DA	614	C	O4'-C1'	8.12	1.53	1.41
65	Bn	71	PRO	C-N	8.12	1.45	1.33
44	BO	28	HIS	ND1-CE1	8.12	1.40	1.32
62	Bk	78	GLY	CA-C	-8.12	1.43	1.52
62	Bk	81	THR	CA-C	8.12	1.63	1.53
78	CA	1314	U	C2'-C1'	-8.12	1.41	1.53
78	CA	1380	U	C2'-C1'	-8.12	1.41	1.53
68	Bq	13	LEU	CA-C	-8.11	1.42	1.52
81	DA	2791	G	O4'-C1'	-8.11	1.29	1.41
78	CA	868	G	O4'-C1'	-8.11	1.29	1.41
81	DA	1654	A	C2'-C1'	-8.11	1.41	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	DC	107	G	O4'-C1'	-8.11	1.29	1.41
78	CA	1291	G	O4'-C1'	8.11	1.53	1.41
78	CA	1742	U	O4'-C1'	8.11	1.53	1.41
31	BB	245	LEU	CA-C	-8.11	1.43	1.53
33	BD	78	GLY	C-N	8.11	1.44	1.33
78	CA	14	C	O4'-C1'	8.11	1.53	1.41
81	DA	1933	A	C2'-C1'	8.10	1.65	1.53
81	DA	2239	G	C2'-C1'	-8.10	1.41	1.53
12	AK	22	SER	C-N	8.10	1.43	1.33
20	AS	96	ALA	N-CA	8.10	1.56	1.46
31	BB	106	SER	C-N	8.10	1.42	1.33
59	Bh	12	LYS	N-CA	8.10	1.56	1.46
79	CB	38	C	O4'-C1'	8.10	1.53	1.41
81	DA	1615	C	C2'-C1'	-8.10	1.41	1.53
81	DA	3088	G	O4'-C1'	8.10	1.53	1.41
47	BU	12	ARG	NE-CZ	8.10	1.42	1.33
78	CA	1108	G	C2'-C1'	8.10	1.65	1.53
81	DA	766	U	C4'-C3'	8.10	1.64	1.52
82	DB	3	A	O4'-C1'	8.10	1.53	1.41
81	DA	185	C	O4'-C1'	8.09	1.53	1.41
81	DA	454	C	C2'-C1'	-8.09	1.41	1.53
81	DA	237	G	C2'-C1'	-8.09	1.41	1.53
81	DA	2745	G	C2'-C1'	8.09	1.65	1.53
78	CA	1162	C	C2'-C1'	-8.09	1.41	1.53
78	CA	1399	C	O4'-C1'	8.09	1.53	1.41
78	CA	1212	G	O4'-C1'	8.08	1.53	1.41
74	BQ	266	ALA	CA-C	-8.08	1.44	1.53
82	DB	137	C	O4'-C1'	8.08	1.53	1.41
6	AE	4	PRO	C-N	8.08	1.45	1.33
53	Ba	13	VAL	CA-CB	-8.08	1.43	1.54
78	CA	216	U	O4'-C1'	8.08	1.53	1.41
81	DA	240	U	O4'-C1'	8.08	1.53	1.41
81	DA	2144	A	O4'-C1'	-8.07	1.29	1.42
69	Br	79	THR	C-N	8.07	1.42	1.33
81	DA	1882	G	C2'-C1'	-8.07	1.41	1.53
31	BB	139	HIS	ND1-CE1	8.07	1.40	1.32
53	Ba	27	LYS	CA-C	8.07	1.62	1.52
38	Bs	72	ASP	C-N	8.07	1.45	1.33
64	Bl	39	TYR	CA-CB	-8.07	1.42	1.54
33	BD	89	ALA	C-N	8.06	1.44	1.33
78	CA	10	G	C2'-C1'	-8.06	1.41	1.53
81	DA	627	U	C2'-C1'	-8.06	1.41	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	AT	29	HIS	N-CA	8.06	1.56	1.46
60	Bi	77	GLY	C-N	8.06	1.44	1.33
81	DA	2678	A	C2'-C1'	-8.06	1.41	1.53
78	CA	1711	C	O4'-C1'	8.06	1.53	1.41
81	DA	546	C	O4'-C1'	8.06	1.53	1.41
81	DA	874	U	O4'-C1'	8.06	1.53	1.41
81	DA	1273	A	O4'-C1'	8.06	1.53	1.41
81	DA	1394	A	O4'-C1'	8.06	1.53	1.41
31	BB	252	THR	C-N	8.05	1.45	1.33
46	BT	5	ARG	NE-CZ	8.06	1.42	1.33
81	DA	1820	U	C2'-C1'	-8.05	1.41	1.53
76	BS	11	VAL	CA-C	-8.05	1.43	1.52
81	DA	3305	A	O4'-C1'	8.05	1.53	1.41
4	AD	90	ILE	CA-CB	8.05	1.68	1.54
81	DA	321	C	C2'-C1'	-8.05	1.41	1.53
81	DA	1567	U	O4'-C1'	8.05	1.53	1.41
81	DA	3341	U	O4'-C1'	8.05	1.53	1.41
79	CB	71	A	C2'-C1'	-8.05	1.41	1.53
81	DA	2270	A	O4'-C1'	8.04	1.53	1.41
38	Bs	46	ARG	CA-C	-8.04	1.42	1.52
81	DA	1516	C	C2'-C1'	-8.04	1.41	1.53
81	DA	2437	G	O4'-C1'	-8.04	1.29	1.42
24	AX	54	VAL	CA-C	-8.04	1.42	1.52
81	DA	2785	A	C2'-C1'	-8.04	1.41	1.53
26	AZ	62	VAL	CA-C	-8.04	1.42	1.52
81	DA	497	C	O4'-C1'	8.04	1.53	1.41
81	DA	1645	U	C2'-C1'	-8.04	1.41	1.53
81	DA	2402	A	C2'-C1'	8.04	1.65	1.53
13	AL	22	ASN	C-N	8.03	1.44	1.33
81	DA	2110	G	C2'-C1'	-8.03	1.41	1.53
3	AB	188	ILE	C-N	8.03	1.45	1.33
81	DA	2714	G	C2'-C1'	-8.03	1.41	1.53
78	CA	1380	U	O4'-C1'	8.03	1.53	1.41
14	AM	99	HIS	C-N	8.02	1.45	1.33
78	CA	157	A	O4'-C1'	8.02	1.53	1.41
81	DA	466	G	C2'-C1'	-8.02	1.41	1.53
81	DA	1264	G	C2'-C1'	-8.02	1.41	1.53
13	AL	39	LYS	C-O	-8.02	1.15	1.24
78	CA	275	C	O4'-C1'	8.02	1.53	1.41
81	DA	1707	A	O4'-C1'	8.02	1.53	1.41
81	DA	3296	A	C2'-C1'	-8.02	1.41	1.53
81	DA	1704	A	C2'-C1'	8.02	1.65	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	DC	113	C	C2'-C1'	-8.02	1.41	1.53
78	CA	414	C	O4'-C1'	8.02	1.53	1.41
32	BC	362	ALA	C-N	8.02	1.45	1.33
79	CB	37	G	C2'-C1'	-8.02	1.41	1.53
41	BN	108	ARG	N-CA	-8.01	1.36	1.46
81	DA	1927	G	C2'-C1'	8.01	1.65	1.53
82	DB	65	A	O4'-C1'	8.01	1.53	1.41
81	DA	2034	C	O4'-C1'	8.01	1.53	1.41
81	DA	867	G	C2'-C1'	-8.00	1.41	1.53
81	DA	2424	A	O4'-C1'	-8.00	1.29	1.41
81	DA	500	C	O4'-C1'	8.00	1.53	1.41
20	AS	63	ARG	NE-CZ	8.00	1.41	1.33
81	DA	561	C	O4'-C1'	8.00	1.53	1.41
81	DA	3395	G	O4'-C1'	8.00	1.53	1.42
51	BZ	51	TRP	CA-CB	-7.99	1.43	1.53
79	CB	72	G	C2'-C1'	7.99	1.65	1.53
81	DA	426	G	O4'-C1'	7.99	1.53	1.42
81	DA	2075	C	O4'-C1'	7.99	1.53	1.41
78	CA	1199	G	C2'-C1'	7.99	1.65	1.53
78	CA	48	G	C2'-C1'	-7.99	1.41	1.53
78	CA	1148	C	C2'-C1'	-7.99	1.41	1.53
81	DA	241	G	C2'-C1'	-7.99	1.41	1.53
34	BE	123	PHE	CA-CB	-7.99	1.39	1.53
22	AV	106	ALA	CA-CB	7.99	1.67	1.53
33	BD	341	SER	CA-C	-7.99	1.42	1.52
60	Bi	68	THR	N-CA	-7.99	1.35	1.46
81	DA	1283	C	O4'-C1'	7.99	1.53	1.41
81	DA	428	A	C2'-C1'	-7.98	1.41	1.53
81	DA	754	G	O4'-C1'	7.98	1.53	1.41
81	DA	1320	C	O4'-C1'	7.98	1.53	1.41
81	DA	1836	C	O4'-C1'	7.98	1.53	1.41
82	DB	151	C	O4'-C1'	7.98	1.53	1.41
81	DA	2590	A	C2'-C1'	-7.98	1.41	1.53
78	CA	1334	U	O4'-C1'	7.98	1.53	1.41
78	CA	546	U	O4'-C1'	7.97	1.53	1.41
81	DA	1999	C	O4'-C1'	7.97	1.53	1.41
81	DA	8	C	C2'-C1'	-7.97	1.41	1.53
8	AF	156	ARG	CD-NE	7.97	1.57	1.46
33	BD	297	SER	N-CA	7.97	1.55	1.46
81	DA	2707	C	C2'-C1'	-7.97	1.41	1.53
47	BU	21	LYS	C-N	7.97	1.44	1.33
81	DA	3140	G	C2'-C1'	7.97	1.65	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	713	U	C2'-C1'	-7.96	1.41	1.53
81	DA	2808	A	O4'-C1'	-7.96	1.30	1.42
78	CA	1006	C	O4'-C1'	7.96	1.53	1.41
35	BG	97	ASN	C-N	7.96	1.44	1.33
81	DA	1697	A	O4'-C1'	7.96	1.53	1.41
81	DA	1973	G	O4'-C1'	7.96	1.53	1.41
81	DA	1250	G	C2'-C1'	7.96	1.65	1.53
81	DA	3138	U	O4'-C1'	7.96	1.53	1.41
81	DA	226	C	C2'-C1'	-7.96	1.41	1.53
81	DA	309	U	O4'-C1'	7.96	1.53	1.41
61	Bj	70	LYS	N-CA	-7.95	1.36	1.46
78	CA	1453	G	O4'-C1'	7.95	1.53	1.41
78	CA	1479	A	O4'-C1'	-7.95	1.29	1.41
81	DA	2312	A	C2'-C1'	-7.95	1.41	1.53
51	BZ	60	LYS	C-N	7.95	1.43	1.33
78	CA	1003	A	O4'-C1'	-7.95	1.30	1.42
11	AJ	85	ARG	CA-CB	7.95	1.64	1.53
53	Ba	45	GLY	CA-C	-7.95	1.44	1.52
78	CA	597	G	O4'-C1'	7.95	1.53	1.41
81	DA	1395	G	C2'-C1'	-7.94	1.41	1.53
32	BC	4	ARG	CA-C	-7.94	1.42	1.52
81	DA	833	G	C2'-C1'	-7.94	1.41	1.53
78	CA	299	A	C2'-C1'	7.94	1.65	1.53
81	DA	2318	U	O4'-C1'	7.94	1.53	1.41
81	DA	2645	G	O4'-C1'	-7.94	1.29	1.41
81	DA	1963	G	O4'-C1'	-7.94	1.29	1.41
78	CA	15	U	C2'-C1'	-7.94	1.41	1.53
78	CA	1178	G	C2'-C1'	-7.94	1.41	1.53
81	DA	674	G	O4'-C1'	7.94	1.53	1.41
38	Bs	81	LYS	CA-C	-7.93	1.42	1.52
39	BJ	75	PRO	C-N	7.93	1.44	1.33
81	DA	2653	C	C2'-C1'	-7.93	1.41	1.53
81	DA	3313	U	C2'-C1'	-7.93	1.41	1.53
81	DA	36	C	O4'-C1'	7.93	1.53	1.41
81	DA	654	C	C2'-C1'	-7.93	1.41	1.53
81	DA	2288	G	C2'-C1'	-7.93	1.41	1.53
78	CA	1532	U	O4'-C1'	7.93	1.53	1.41
81	DA	1185	C	O4'-C1'	7.93	1.53	1.41
15	AN	54	LYS	C-O	-7.93	1.13	1.24
81	DA	1626	U	C2'-C1'	-7.93	1.41	1.53
81	DA	1960	A	O4'-C1'	7.93	1.53	1.41
78	CA	1700	C	O4'-C1'	7.93	1.53	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	1569	A	O4'-C1'	7.93	1.53	1.41
3	AB	78	LYS	CA-CB	-7.92	1.40	1.53
78	CA	1706	C	O4'-C1'	7.92	1.53	1.41
81	DA	1080	A	O4'-C1'	-7.92	1.30	1.42
2	AA	205	ARG	CA-C	-7.92	1.42	1.52
81	DA	255	A	C2'-C1'	7.92	1.65	1.53
81	DA	1021	G	C2'-C1'	-7.92	1.41	1.53
45	BR	19	PRO	CA-C	-7.91	1.43	1.52
49	BV	39	TRP	NE1-CE2	7.91	1.46	1.37
78	CA	949	C	C2'-C1'	-7.91	1.41	1.53
16	AO	117	LEU	CA-C	-7.91	1.42	1.52
81	DA	824	C	C2'-C1'	-7.90	1.41	1.53
81	DA	1783	U	O4'-C1'	7.90	1.53	1.41
15	AN	53	ASN	CA-C	-7.90	1.42	1.52
47	BU	92	ARG	CD-NE	7.90	1.57	1.46
81	DA	1095	U	O3'-P	-7.89	1.49	1.61
81	DA	3133	C	O4'-C1'	7.89	1.53	1.41
79	CB	68	C	O4'-C1'	7.89	1.53	1.41
81	DA	1863	G	C2'-C1'	-7.89	1.41	1.53
81	DA	2832	C	C2'-C1'	-7.89	1.41	1.53
81	DA	998	A	O4'-C1'	7.89	1.53	1.41
81	DA	1854	C	O4'-C1'	7.89	1.53	1.41
81	DA	2484	A	O4'-C1'	-7.89	1.29	1.41
78	CA	683	C	O4'-C1'	7.89	1.53	1.41
81	DA	2250	G	O4'-C1'	7.89	1.53	1.41
82	DB	112	U	C2'-C1'	7.89	1.65	1.53
16	AO	67	THR	CA-CB	7.88	1.66	1.53
5	AC	62	ARG	NE-CZ	7.88	1.41	1.33
81	DA	2679	A	C2'-C1'	-7.88	1.41	1.53
81	DA	1268	G	O4'-C1'	7.88	1.53	1.41
81	DA	1709	C	O4'-C1'	7.88	1.53	1.41
43	BP	116	LEU	C-N	7.88	1.43	1.33
81	DA	1588	A	O4'-C1'	-7.88	1.30	1.42
78	CA	120	U	C5'-C4'	7.88	1.63	1.51
81	DA	1616	U	C2'-C1'	-7.87	1.41	1.53
78	CA	1759	C	O4'-C1'	7.87	1.53	1.41
81	DA	623	U	O4'-C1'	7.87	1.53	1.41
76	BS	138	ARG	CD-NE	7.87	1.57	1.46
81	DA	839	C	O4'-C1'	7.87	1.53	1.41
81	DA	2688	U	O4'-C1'	7.87	1.53	1.42
81	DA	2510	U	O4'-C1'	7.87	1.53	1.41
2	AA	229	LYS	N-CA	-7.86	1.36	1.46

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
49	BV	146	ILE	CA-C	-7.86	1.43	1.52
81	DA	1467	A	O4'-C1'	7.86	1.53	1.42
81	DA	1574	C	C2'-C1'	-7.86	1.41	1.53
12	AK	41	ARG	NE-CZ	7.86	1.41	1.33
78	CA	108	A	C2'-C1'	-7.86	1.41	1.53
81	DA	1721	U	C2'-C1'	-7.86	1.41	1.53
5	AC	18	PRO	C-N	7.86	1.44	1.33
57	Be	219	LYS	C-N	-7.86	1.23	1.34
78	CA	178	U	O3'-P	-7.86	1.49	1.61
81	DA	1141	C	C2'-C1'	-7.86	1.41	1.53
83	DC	15	C	C2'-C1'	-7.86	1.41	1.53
33	BD	355	PHE	N-CA	7.85	1.56	1.46
81	DA	1296	C	O4'-C1'	7.85	1.53	1.41
78	CA	1332	C	C2'-C1'	-7.85	1.41	1.53
45	BR	73	GLN	CA-C	-7.85	1.44	1.53
78	CA	923	A	O4'-C1'	7.85	1.53	1.41
78	CA	1234	A	O4'-C1'	-7.85	1.29	1.41
81	DA	1190	A	C2'-C1'	-7.85	1.41	1.53
78	CA	1284	C	O4'-C1'	7.85	1.53	1.42
81	DA	1832	C	O4'-C1'	7.84	1.53	1.41
12	AK	30	VAL	N-CA	-7.84	1.36	1.46
78	CA	960	U	O4'-C1'	7.84	1.53	1.41
81	DA	1917	C	C2'-C1'	-7.84	1.41	1.53
2	AA	229	LYS	C-N	7.84	1.44	1.33
78	CA	1412	G	C2'-C1'	-7.83	1.41	1.53
78	CA	469	C	C2'-C1'	7.83	1.65	1.53
52	BY	77	LYS	CA-C	-7.83	1.43	1.52
78	CA	447	U	O4'-C1'	7.83	1.53	1.41
78	CA	1301	U	O4'-C1'	7.83	1.53	1.41
78	CA	1547	A	O5'-C5'	7.83	1.54	1.42
33	BD	148	ILE	C-N	7.82	1.43	1.33
81	DA	1169	A	O4'-C1'	7.82	1.53	1.41
81	DA	2332	A	O4'-C1'	7.82	1.53	1.41
37	BH	89	GLU	CA-CB	-7.82	1.40	1.53
81	DA	2080	C	O4'-C1'	7.82	1.53	1.41
4	AD	153	ASN	C-N	7.82	1.44	1.33
81	DA	224	C	O4'-C1'	7.82	1.53	1.41
81	DA	2224	A	C2'-C1'	-7.82	1.41	1.53
82	DB	4	C	C2'-C1'	-7.82	1.41	1.53
83	DC	6	C	O4'-C1'	7.82	1.53	1.41
11	AJ	81	THR	C-N	7.82	1.44	1.33
34	BE	20	ASN	CA-C	-7.82	1.43	1.52

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	618	C	O4'-C1'	7.81	1.53	1.41
81	DA	2139	A	O4'-C1'	7.81	1.53	1.42
64	Bl	5	THR	N-CA	7.81	1.53	1.46
81	DA	2348	A	C2'-C1'	-7.81	1.41	1.53
81	DA	2828	G	C2'-C1'	-7.81	1.41	1.53
69	Br	58	PHE	C-N	7.81	1.44	1.33
81	DA	615	U	C2'-C1'	-7.81	1.41	1.53
81	DA	956	U	O4'-C1'	7.81	1.53	1.41
45	BR	125	ASP	CA-C	-7.81	1.42	1.52
83	DC	76	U	O4'-C1'	7.81	1.53	1.41
33	BD	296	GLN	CA-C	7.80	1.61	1.53
81	DA	887	G	O4'-C1'	7.80	1.53	1.41
41	BN	21	VAL	N-CA	-7.80	1.37	1.46
81	DA	2983	C	O4'-C1'	7.80	1.53	1.42
5	AC	102	GLU	CA-C	-7.80	1.43	1.52
81	DA	2436	U	O4'-C1'	7.80	1.53	1.41
37	BH	236	GLY	C-N	7.80	1.44	1.33
45	BR	41	ASP	CA-C	-7.79	1.41	1.52
81	DA	1730	G	O4'-C1'	-7.79	1.29	1.41
14	AM	115	ARG	NE-CZ	7.79	1.41	1.33
43	BP	137	PRO	CA-C	-7.79	1.41	1.52
81	DA	678	G	O4'-C1'	-7.79	1.29	1.41
81	DA	2917	G	C2'-C1'	-7.79	1.41	1.53
14	AM	103	ASN	CA-C	-7.79	1.42	1.52
17	AQ	81	LYS	CA-CB	7.79	1.73	1.53
78	CA	1455	G	O4'-C1'	7.79	1.53	1.41
15	AN	54	LYS	C-N	-7.79	1.22	1.33
25	AY	57	MET	C-N	-7.79	1.23	1.33
32	BC	360	ASP	C-N	7.79	1.44	1.33
38	Bs	188	VAL	C-N	7.79	1.43	1.33
48	BW	29	ASP	CA-CB	7.79	1.65	1.53
81	DA	2191	U	C2'-C1'	-7.79	1.41	1.53
81	DA	2882	U	O4'-C1'	7.79	1.53	1.41
81	DA	73	C	C2'-C1'	7.78	1.64	1.53
33	BD	141	ARG	NE-CZ	7.78	1.41	1.33
81	DA	518	G	C2'-C1'	-7.78	1.41	1.53
79	CB	74	C	O4'-C1'	7.78	1.53	1.41
81	DA	1708	C	O4'-C1'	7.78	1.53	1.41
78	CA	1562	G	O4'-C1'	7.78	1.53	1.41
83	DC	53	U	C2'-C1'	-7.78	1.41	1.53
81	DA	1814	A	C2'-C1'	7.77	1.64	1.53
47	BU	154	VAL	CA-CB	-7.77	1.48	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
66	Bo	27	ILE	CA-CB	-7.77	1.43	1.54
74	BQ	272	TYR	CA-CB	7.77	1.65	1.53
81	DA	2805	G	C2'-C1'	-7.77	1.41	1.53
5	AC	108	ARG	NE-CZ	7.76	1.41	1.33
78	CA	1204	A	O4'-C1'	7.76	1.53	1.41
81	DA	2066	C	O4'-C1'	7.76	1.53	1.41
81	DA	1658	G	C2'-C1'	-7.76	1.41	1.53
81	DA	2835	U	C2'-C1'	-7.76	1.41	1.53
32	BC	17	LEU	C-N	7.76	1.44	1.33
78	CA	25	C	O4'-C1'	7.76	1.53	1.41
78	CA	1581	C	C2'-C1'	-7.76	1.41	1.53
60	Bi	80	ARG	CA-C	-7.75	1.42	1.52
81	DA	412	G	O4'-C1'	7.75	1.53	1.41
81	DA	1341	U	C2'-C1'	-7.75	1.41	1.53
78	CA	1774	G	O4'-C1'	7.75	1.53	1.41
81	DA	272	G	C2'-C1'	-7.75	1.41	1.53
81	DA	2207	A	C2'-C1'	7.75	1.64	1.53
81	DA	2360	C	C2'-C1'	-7.75	1.41	1.53
78	CA	1765	A	C2'-C1'	-7.74	1.41	1.53
81	DA	2145	A	O4'-C1'	7.74	1.53	1.41
81	DA	1259	A	C2'-C1'	7.74	1.65	1.53
78	CA	1267	G	O4'-C1'	7.74	1.53	1.41
34	BE	52	TYR	N-CA	7.73	1.56	1.46
66	Bo	44	TRP	CA-C	-7.73	1.43	1.52
81	DA	2335	G	O4'-C1'	-7.73	1.30	1.42
81	DA	2672	G	C2'-C1'	-7.73	1.41	1.53
81	DA	1615	C	O4'-C1'	7.73	1.53	1.41
81	DA	2778	G	C2'-C1'	-7.73	1.41	1.53
42	BM	40	LYS	C-N	-7.73	1.24	1.33
81	DA	2775	U	C2'-C1'	7.72	1.65	1.53
13	AL	13	ARG	CG-CD	-7.72	1.29	1.52
5	AC	16	LYS	CA-CB	7.72	1.66	1.53
39	BJ	75	PRO	N-CA	7.72	1.57	1.47
61	Bj	93	THR	CA-CB	-7.72	1.42	1.53
56	Bf	35	ARG	CD-NE	7.72	1.57	1.46
81	DA	455	C	O4'-C1'	7.72	1.53	1.41
81	DA	1147	G	O4'-C1'	-7.72	1.30	1.41
81	DA	2354	C	O4'-C1'	7.72	1.53	1.41
81	DA	3297	U	O4'-C1'	7.72	1.53	1.41
78	CA	994	G	O4'-C1'	-7.71	1.30	1.41
81	DA	2561	A	C5'-C4'	7.71	1.62	1.51
78	CA	312	A	C2'-C1'	-7.71	1.41	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	625	C	O4'-C1'	7.71	1.53	1.41
81	DA	992	A	C2'-C1'	7.71	1.65	1.53
78	CA	899	G	C2'-C1'	-7.71	1.41	1.53
81	DA	815	G	C2'-C1'	-7.71	1.41	1.53
78	CA	1408	G	C2'-C1'	7.71	1.65	1.53
33	BD	148	ILE	N-CA	7.71	1.56	1.46
64	Bl	64	MET	N-CA	-7.71	1.36	1.46
80	CC	18	C	C2'-C1'	-7.70	1.41	1.53
81	DA	235	A	C4'-O4'	-7.70	1.33	1.45
82	DB	129	C	O4'-C1'	7.70	1.53	1.41
44	BO	142	GLY	C-N	7.70	1.44	1.33
81	DA	84	U	C2'-C1'	-7.70	1.41	1.53
81	DA	11	A	O4'-C1'	7.70	1.53	1.41
81	DA	1995	A	O4'-C1'	7.70	1.53	1.41
44	BO	8	THR	CA-CB	7.69	1.66	1.53
53	Ba	9	LYS	CA-C	7.69	1.65	1.53
78	CA	1080	U	O3'-P	-7.69	1.49	1.61
81	DA	435	C	C2'-C1'	-7.69	1.41	1.53
81	DA	1362	G	C2'-C1'	-7.69	1.41	1.53
81	DA	606	C	C2'-C1'	-7.69	1.41	1.53
81	DA	1790	G	P-O5'	-7.69	1.48	1.59
55	Bc	4	VAL	N-CA	-7.69	1.37	1.46
78	CA	204	G	O4'-C1'	7.69	1.53	1.41
16	AO	67	THR	C-N	7.69	1.44	1.33
81	DA	2651	G	C2'-C1'	-7.69	1.41	1.53
78	CA	1629	G	C2'-C1'	-7.69	1.41	1.53
81	DA	1616	U	O4'-C1'	7.68	1.53	1.41
83	DC	28	C	O4'-C1'	7.68	1.53	1.41
31	BB	21	ARG	CA-C	-7.68	1.42	1.52
81	DA	2159	U	O4'-C1'	-7.68	1.30	1.42
81	DA	2781	U	O4'-C1'	-7.68	1.30	1.41
9	AH	69	LEU	CA-C	-7.68	1.42	1.52
66	Bo	41	ARG	N-CA	-7.68	1.36	1.46
14	AM	88	ARG	CZ-NH1	7.68	1.43	1.32
4	AD	83	PRO	C-N	7.68	1.44	1.33
32	BC	18	PRO	N-CA	7.67	1.56	1.47
81	DA	2202	C	C2'-C1'	-7.67	1.41	1.53
81	DA	3091	A	C5'-C4'	7.67	1.62	1.51
81	DA	1036	A	C2'-C1'	7.67	1.64	1.53
57	Be	218	ARG	CZ-NH1	7.67	1.43	1.32
31	BB	237	LEU	CA-CB	7.67	1.62	1.53
32	BC	239	PRO	N-CA	-7.67	1.38	1.47

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1187	C	O4'-C1'	7.67	1.53	1.41
81	DA	2208	A	C2'-C1'	7.67	1.64	1.53
81	DA	2289	U	O4'-C1'	7.67	1.53	1.41
81	DA	1084	A	C2'-C1'	-7.67	1.41	1.53
81	DA	1531	C	C2'-C1'	-7.67	1.41	1.53
5	AC	106	GLU	C-N	7.67	1.44	1.33
39	BJ	73	VAL	CA-C	-7.66	1.43	1.52
12	AK	59	ALA	C-O	-7.66	1.14	1.24
50	BX	131	ASP	N-CA	-7.66	1.36	1.46
57	Be	132	PRO	N-CA	-7.66	1.37	1.47
81	DA	312	C	O4'-C1'	7.66	1.53	1.41
81	DA	2175	U	O5'-C5'	-7.66	1.30	1.42
81	DA	2750	U	C2'-C1'	-7.66	1.41	1.53
78	CA	1550	A	O4'-C1'	7.65	1.53	1.41
81	DA	1675	G	O4'-C1'	-7.65	1.30	1.42
49	BV	137	ASN	CA-C	-7.65	1.43	1.52
81	DA	2668	U	O4'-C1'	7.65	1.53	1.41
16	AO	101	HIS	ND1-CE1	7.65	1.40	1.32
78	CA	1242	A	O4'-C1'	7.65	1.53	1.41
81	DA	2174	G	C4'-C3'	-7.65	1.41	1.53
81	DA	3340	G	C2'-C1'	-7.65	1.41	1.53
78	CA	1233	G	C2'-C1'	7.65	1.64	1.53
81	DA	584	G	C2'-C1'	-7.64	1.41	1.53
81	DA	2819	A	C2'-C1'	-7.64	1.41	1.53
81	DA	1873	U	C2'-C1'	-7.64	1.41	1.53
29	AU	84	LYS	N-CA	-7.64	1.37	1.46
81	DA	673	U	P-O5'	-7.64	1.48	1.59
43	BP	140	LYS	C-N	7.64	1.43	1.33
78	CA	28	A	C2'-C1'	-7.64	1.41	1.53
81	DA	2365	C	O4'-C1'	7.64	1.53	1.41
81	DA	796	U	O4'-C1'	7.64	1.53	1.41
53	Ba	9	LYS	C-N	7.63	1.44	1.33
81	DA	1190	A	O4'-C1'	7.63	1.53	1.41
81	DA	786	A	C2'-C1'	7.63	1.64	1.53
81	DA	615	U	O4'-C1'	7.63	1.53	1.41
81	DA	2390	A	C2'-C1'	-7.63	1.42	1.53
56	Bf	34	LEU	CA-C	-7.63	1.43	1.52
35	BG	152	THR	CA-C	7.63	1.62	1.52
78	CA	430	G	O4'-C1'	7.63	1.53	1.41
81	DA	2364	G	C2'-C1'	-7.63	1.42	1.53
81	DA	1796	G	C2'-C1'	-7.62	1.42	1.53
46	BT	172	ARG	NE-CZ	7.62	1.41	1.33

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1586	G	C2'-C1'	-7.62	1.42	1.53
60	Bi	55	SER	N-CA	7.62	1.56	1.46
81	DA	1195	A	O4'-C1'	-7.62	1.30	1.42
81	DA	2087	C	O3'-P	7.62	1.72	1.61
81	DA	547	G	C2'-C1'	-7.62	1.42	1.53
81	DA	2618	G	O4'-C1'	-7.62	1.30	1.42
37	BH	159	PRO	CA-CB	-7.61	1.45	1.54
81	DA	393	U	C2'-C1'	-7.61	1.42	1.53
33	BD	98	ARG	CA-CB	7.61	1.64	1.53
81	DA	993	G	O4'-C1'	7.60	1.53	1.41
11	AJ	119	ALA	C-N	7.60	1.44	1.33
33	BD	331	ALA	C-N	7.60	1.44	1.33
78	CA	899	G	O4'-C1'	-7.60	1.30	1.41
81	DA	193	C	C2'-C1'	-7.60	1.42	1.53
78	CA	124	A	O4'-C1'	7.60	1.53	1.41
78	CA	330	G	C2'-C1'	-7.60	1.42	1.53
81	DA	208	C	C2'-C1'	-7.60	1.42	1.53
81	DA	2285	C	O4'-C1'	7.59	1.53	1.41
32	BC	241	LYS	CA-C	-7.59	1.43	1.52
20	AS	95	ASP	CA-CB	7.59	1.63	1.53
81	DA	408	A	C2'-C1'	-7.59	1.42	1.53
38	Bs	102	SER	CA-C	-7.59	1.43	1.52
78	CA	45	U	O4'-C1'	-7.59	1.30	1.41
81	DA	695	C	O4'-C1'	7.58	1.53	1.41
4	AD	236	ILE	CA-CB	7.58	1.64	1.54
81	DA	2190	U	O4'-C1'	7.58	1.53	1.41
78	CA	1734	U	O4'-C1'	7.58	1.53	1.41
81	DA	679	U	O4'-C1'	7.58	1.53	1.41
25	AY	23	GLY	CA-C	-7.58	1.41	1.51
81	DA	141	C	C2'-C1'	-7.58	1.42	1.53
81	DA	2800	G	C2'-C1'	7.58	1.64	1.53
78	CA	1090	C	C2'-C1'	-7.57	1.42	1.53
78	CA	1794	A	C2'-C1'	7.57	1.64	1.53
81	DA	407	A	O4'-C1'	7.57	1.53	1.41
81	DA	1383	G	C2'-C1'	-7.57	1.42	1.53
3	AB	90	ARG	C-N	7.57	1.42	1.33
47	BU	134	GLN	CA-C	7.57	1.61	1.52
79	CB	18	G	C2'-C1'	-7.57	1.41	1.53
1	Aa	53	LYS	C-N	7.57	1.43	1.33
39	BJ	56	ILE	CA-C	-7.57	1.44	1.52
29	AU	4	ALA	N-CA	7.57	1.55	1.45
81	DA	2177	G	O4'-C1'	7.57	1.52	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
82	DB	127	U	O4'-C1'	7.56	1.52	1.41
74	BQ	130	GLU	CA-CB	7.56	1.66	1.53
81	DA	2738	A	C2'-C1'	-7.56	1.42	1.53
74	BQ	115	LEU	C-N	7.56	1.44	1.33
37	BH	90	THR	CA-C	-7.56	1.42	1.52
3	AB	171	ALA	CA-C	-7.56	1.44	1.53
4	AD	138	TYR	CA-C	-7.56	1.43	1.52
60	Bi	68	THR	C-N	7.56	1.44	1.33
78	CA	553	G	C2'-C1'	-7.56	1.42	1.53
81	DA	3001	C	C2'-C1'	-7.56	1.42	1.53
81	DA	1039	U	O4'-C1'	7.56	1.52	1.41
74	BQ	190	ILE	C-N	7.55	1.45	1.33
78	CA	1465	C	O4'-C1'	7.55	1.52	1.41
81	DA	2794	G	C2'-C1'	-7.55	1.42	1.53
82	DB	29	U	O4'-C1'	7.55	1.52	1.41
81	DA	2367	A	O4'-C1'	7.55	1.52	1.41
81	DA	171	G	C2'-C1'	-7.55	1.42	1.53
81	DA	1086	C	C2'-C1'	-7.54	1.42	1.53
81	DA	1431	G	O4'-C1'	7.54	1.53	1.42
81	DA	1423	C	C2'-C1'	-7.54	1.42	1.53
33	BD	260	GLN	N-CA	-7.54	1.36	1.46
78	CA	1758	U	C2'-C1'	-7.54	1.42	1.53
59	Bh	16	LYS	CA-C	-7.54	1.42	1.52
26	AZ	40	TYR	CA-C	7.53	1.62	1.52
81	DA	2642	A	O4'-C1'	7.53	1.52	1.41
20	AS	96	ALA	C-O	-7.53	1.14	1.24
13	AL	100	ASP	CA-C	7.53	1.62	1.52
78	CA	573	C	C2'-C1'	-7.53	1.42	1.53
78	CA	616	G	C2'-C1'	-7.53	1.42	1.53
81	DA	2716	U	O4'-C1'	7.53	1.52	1.41
1	Aa	54	PHE	N-CA	-7.53	1.35	1.45
78	CA	1439	C	C2'-C1'	-7.53	1.42	1.53
81	DA	882	A	C2'-C1'	-7.53	1.42	1.53
81	DA	2331	C	C2'-C1'	-7.53	1.42	1.53
56	Bf	85	PHE	CA-C	7.52	1.62	1.52
78	CA	1297	G	O4'-C1'	-7.52	1.30	1.41
81	DA	3061	G	C2'-C1'	-7.52	1.42	1.53
53	Ba	60	LYS	C-N	7.52	1.42	1.33
78	CA	1543	A	O4'-C1'	7.52	1.52	1.41
81	DA	712	G	C2'-C1'	-7.52	1.42	1.53
81	DA	2339	C	O4'-C1'	7.52	1.53	1.42
83	DC	104	C	O4'-C1'	7.52	1.52	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	2861	U	C2'-C1'	-7.52	1.42	1.53
42	BM	66	LYS	CA-C	7.51	1.62	1.53
20	AS	46	PRO	N-CD	-7.51	1.37	1.47
81	DA	582	G	C2'-C1'	-7.51	1.42	1.53
81	DA	2266	U	C2'-C1'	-7.51	1.41	1.53
81	DA	2531	C	P-O5'	-7.50	1.48	1.59
31	BB	38	HIS	CA-C	7.50	1.62	1.52
81	DA	856	G	O4'-C1'	7.50	1.52	1.41
81	DA	2156	C	O4'-C1'	7.50	1.52	1.41
78	CA	1423	U	O4'-C1'	7.50	1.52	1.41
81	DA	3076	C	C2'-C1'	-7.50	1.42	1.53
81	DA	3322	A	O4'-C1'	7.50	1.52	1.41
1	Aa	155	ARG	CD-NE	7.49	1.56	1.46
79	CB	65	U	O4'-C1'	7.49	1.52	1.41
81	DA	2526	C	O4'-C1'	7.49	1.52	1.41
78	CA	1529	C	C2'-C1'	-7.49	1.42	1.53
78	CA	333	A	O4'-C1'	7.49	1.52	1.41
83	DC	27	A	C2'-C1'	-7.49	1.42	1.53
8	AF	69	PHE	N-CA	-7.49	1.37	1.46
81	DA	2475	G	C2'-C1'	7.49	1.64	1.53
78	CA	621	A	O4'-C1'	-7.49	1.30	1.41
81	DA	311	C	O4'-C1'	7.49	1.52	1.41
16	AO	38	VAL	CA-CB	-7.48	1.44	1.54
78	CA	109	G	C2'-C1'	-7.48	1.42	1.53
33	BD	326	ARG	NE-CZ	7.48	1.41	1.33
44	BO	56	VAL	C-N	7.48	1.44	1.33
81	DA	1503	A	C2'-C1'	-7.48	1.42	1.53
81	DA	3220	G	O4'-C1'	7.48	1.52	1.41
81	DA	3339	A	C2'-C1'	-7.48	1.42	1.53
20	AS	11	ALA	CA-C	-7.48	1.43	1.52
82	DB	19	C	O4'-C1'	7.48	1.52	1.41
81	DA	745	C	O3'-P	-7.48	1.50	1.61
81	DA	326	U	O4'-C1'	7.48	1.52	1.41
81	DA	2463	G	O4'-C1'	-7.48	1.30	1.41
17	AQ	89	SER	CA-C	-7.47	1.43	1.52
78	CA	855	A	C2'-C1'	-7.47	1.42	1.53
81	DA	1392	G	O4'-C1'	7.47	1.52	1.41
82	DB	119	C	C2'-C1'	-7.47	1.42	1.53
81	DA	319	A	C2'-C1'	-7.47	1.42	1.53
78	CA	222	A	O4'-C1'	-7.47	1.30	1.41
81	DA	2430	A	O4'-C1'	7.47	1.52	1.41
81	DA	3102	G	C2'-C1'	-7.47	1.42	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	652	G	C2'-C1'	-7.47	1.42	1.53
81	DA	2151	C	O4'-C1'	7.47	1.52	1.41
81	DA	2391	G	O4'-C1'	7.47	1.52	1.41
83	DC	25	G	C2'-C1'	7.47	1.64	1.53
78	CA	470	A	O4'-C1'	7.46	1.52	1.41
81	DA	2834	G	C2'-C1'	-7.46	1.42	1.53
76	BS	85	SER	C-N	7.46	1.44	1.33
81	DA	27	C	C2'-C1'	-7.46	1.42	1.53
5	AC	191	ALA	C-N	7.46	1.44	1.33
19	AR	128	HIS	ND1-CE1	7.46	1.40	1.32
38	Bs	33	VAL	CA-C	-7.46	1.43	1.52
81	DA	1726	C	O4'-C1'	7.46	1.52	1.41
81	DA	1850	A	C2'-C1'	7.46	1.64	1.53
78	CA	587	C	C2'-C1'	-7.46	1.42	1.53
78	CA	1367	G	C2'-C1'	-7.46	1.42	1.53
81	DA	1880	U	O4'-C1'	7.46	1.52	1.41
21	AT	80	LYS	CA-C	-7.46	1.42	1.52
38	Bs	192	ASP	N-CA	-7.46	1.37	1.46
81	DA	2512	C	O4'-C1'	7.45	1.52	1.41
81	DA	140	C	O4'-C1'	7.45	1.52	1.41
81	DA	1479	U	O4'-C1'	7.45	1.52	1.41
73	Bw	15	ASN	C-N	7.45	1.42	1.33
78	CA	418	G	C2'-C1'	-7.45	1.42	1.53
81	DA	3314	A	C2'-C1'	-7.45	1.42	1.53
81	DA	627	U	O4'-C1'	7.45	1.52	1.41
81	DA	1951	C	C2'-C1'	-7.45	1.42	1.53
76	BS	28	ARG	N-CA	-7.45	1.36	1.46
81	DA	802	C	C2'-C1'	-7.45	1.42	1.53
8	AF	112	ARG	CD-NE	7.44	1.56	1.46
14	AM	37	GLY	CA-C	-7.44	1.41	1.51
56	Bf	87	VAL	CA-C	-7.44	1.43	1.52
60	Bi	16	ARG	C-N	7.44	1.43	1.33
3	AB	150	MET	CA-C	-7.44	1.43	1.52
49	BV	56	ARG	CA-C	-7.44	1.43	1.52
81	DA	3341	U	C2'-C1'	-7.44	1.42	1.53
78	CA	166	C	O4'-C1'	7.44	1.52	1.41
81	DA	2153	U	C2'-C1'	-7.44	1.42	1.53
62	Bk	25	LYS	CA-C	7.44	1.62	1.52
78	CA	366	A	O4'-C1'	7.44	1.52	1.41
81	DA	1346	G	O4'-C1'	-7.44	1.30	1.41
35	BG	169	ASP	CA-C	-7.43	1.43	1.53
81	DA	1702	U	O4'-C1'	-7.43	1.30	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1239	C	C2'-C1'	-7.43	1.42	1.53
37	BH	158	ASP	C-N	7.43	1.42	1.33
78	CA	1418	G	C2'-C1'	-7.42	1.42	1.53
48	BW	98	THR	CA-CB	7.42	1.65	1.53
81	DA	3015	G	C2'-C1'	-7.42	1.42	1.53
1	Aa	54	PHE	C-N	7.42	1.44	1.33
41	BN	108	ARG	CZ-NH1	7.42	1.43	1.32
32	BC	177	HIS	CA-C	-7.42	1.43	1.52
49	BV	72	GLN	N-CA	-7.42	1.36	1.46
78	CA	1682	U	O4'-C1'	7.42	1.52	1.41
41	BN	16	GLU	N-CA	-7.41	1.38	1.46
81	DA	2698	G	C2'-C1'	-7.41	1.42	1.53
81	DA	3082	C	C2'-C1'	-7.41	1.42	1.53
81	DA	453	C	O4'-C1'	7.41	1.52	1.41
82	DB	106	C	C2'-C1'	-7.41	1.42	1.53
24	AX	78	SER	CA-CB	7.41	1.64	1.54
78	CA	889	U	C2'-C1'	-7.41	1.42	1.53
78	CA	1591	C	O4'-C1'	7.41	1.52	1.41
81	DA	75	G	C2'-C1'	-7.41	1.42	1.53
12	AK	94	PRO	C-N	7.41	1.44	1.33
49	BV	54	HIS	ND1-CE1	7.41	1.40	1.32
81	DA	2230	C	C2'-C1'	-7.40	1.42	1.53
81	DA	2306	C	C2'-C1'	-7.40	1.42	1.53
44	BO	120	ASN	C-N	7.40	1.41	1.33
78	CA	1581	C	O4'-C1'	7.40	1.52	1.41
81	DA	458	U	C2'-C1'	-7.40	1.42	1.53
81	DA	472	A	O4'-C1'	7.40	1.52	1.41
81	DA	1000	C	C2'-C1'	-7.40	1.42	1.53
78	CA	392	G	O4'-C1'	7.40	1.52	1.41
81	DA	1867	A	C2'-C1'	7.40	1.64	1.53
31	BB	37	ARG	CA-C	-7.40	1.42	1.52
17	AQ	71	PHE	CA-CB	7.40	1.66	1.53
78	CA	108	A	O4'-C1'	7.40	1.52	1.41
81	DA	2218	G	C2'-C1'	-7.40	1.42	1.53
81	DA	3151	U	C2'-C1'	7.40	1.64	1.53
4	AD	241	GLY	N-CA	7.39	1.56	1.45
47	BU	63	VAL	C-N	7.39	1.40	1.33
82	DB	53	A	O4'-C1'	7.39	1.52	1.41
78	CA	424	C	O4'-C1'	7.39	1.52	1.41
81	DA	554	A	O4'-C1'	7.39	1.52	1.41
81	DA	3101	G	C2'-C1'	-7.39	1.42	1.53
83	DC	70	A	O4'-C1'	7.39	1.52	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	1139	A	O4'-C1'	7.39	1.52	1.41
78	CA	1735	U	C5'-C4'	7.39	1.62	1.51
81	DA	2213	A	O4'-C1'	7.39	1.52	1.41
81	DA	613	G	C2'-C1'	-7.39	1.42	1.53
81	DA	3304	U	C3'-O3'	7.39	1.53	1.42
39	BJ	77	ALA	CA-C	7.39	1.62	1.52
81	DA	995	U	O4'-C1'	7.39	1.52	1.41
9	AH	83	ILE	CA-C	-7.38	1.43	1.52
78	CA	685	A	C2'-C1'	-7.38	1.42	1.53
81	DA	1695	U	C2'-C1'	7.38	1.64	1.53
78	CA	1560	U	O4'-C1'	7.38	1.52	1.41
81	DA	649	A	O4'-C1'	7.38	1.52	1.41
81	DA	2696	A	C2'-C1'	-7.38	1.42	1.53
39	BJ	119	LYS	N-CA	-7.38	1.37	1.46
78	CA	1575	G	C2'-C1'	-7.38	1.42	1.53
81	DA	346	C	O4'-C1'	7.38	1.52	1.41
81	DA	871	U	O4'-C1'	7.38	1.52	1.41
43	BP	80	THR	N-CA	-7.38	1.37	1.46
78	CA	411	C	C2'-C1'	7.37	1.64	1.53
78	CA	1389	C	O4'-C1'	-7.37	1.30	1.42
81	DA	893	C	O4'-C1'	7.37	1.52	1.41
81	DA	2051	G	C2'-C1'	-7.37	1.42	1.53
81	DA	2517	U	O4'-C1'	7.37	1.52	1.41
81	DA	3039	C	C2'-C1'	-7.37	1.42	1.53
11	AJ	89	ARG	CD-NE	7.37	1.56	1.46
34	BE	89	TYR	C-N	7.37	1.45	1.33
81	DA	2800	G	O4'-C1'	7.37	1.52	1.41
78	CA	1470	C	C2'-C1'	-7.37	1.42	1.53
9	AH	20	THR	C-N	7.37	1.40	1.33
49	BV	59	PRO	N-CA	-7.37	1.38	1.47
78	CA	628	G	O4'-C1'	7.36	1.52	1.41
78	CA	839	U	C2'-C1'	7.36	1.64	1.53
81	DA	162	G	O4'-C1'	-7.36	1.30	1.41
81	DA	2210	G	C2'-C1'	-7.36	1.42	1.53
13	AL	93	LEU	C-N	-7.36	1.23	1.33
53	Ba	8	GLY	CA-C	7.36	1.60	1.52
81	DA	3137	C	O4'-C1'	7.36	1.52	1.41
81	DA	159	A	C2'-C1'	7.36	1.64	1.53
81	DA	312	C	C2'-C1'	-7.36	1.42	1.53
81	DA	550	A	C2'-C1'	7.36	1.64	1.53
81	DA	1177	G	O4'-C1'	7.36	1.52	1.42
13	AL	18	HIS	ND1-CE1	7.36	1.40	1.32

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	570	A	O4'-C1'	-7.36	1.30	1.41
78	CA	1719	A	C2'-C1'	-7.35	1.42	1.53
81	DA	603	A	O4'-C1'	7.35	1.52	1.41
3	AB	154	ASP	CA-C	-7.35	1.43	1.52
34	BE	55	ARG	CA-C	7.35	1.62	1.52
74	BQ	243	ALA	CA-CB	7.35	1.65	1.53
78	CA	1329	A	O4'-C1'	7.35	1.52	1.41
81	DA	951	A	O4'-C1'	7.35	1.52	1.41
81	DA	2359	C	O4'-C1'	7.35	1.52	1.41
82	DB	54	A	C2'-C1'	-7.35	1.42	1.53
78	CA	834	G	C2'-C1'	-7.35	1.42	1.53
81	DA	2713	U	O4'-C1'	7.35	1.52	1.42
47	BU	49	GLN	CA-C	-7.34	1.43	1.52
78	CA	652	G	O4'-C1'	7.34	1.52	1.41
78	CA	1241	G	C2'-C1'	7.34	1.64	1.53
81	DA	322	U	O4'-C1'	7.34	1.52	1.41
78	CA	1323	C	O4'-C1'	7.34	1.52	1.41
31	BB	94	ALA	C-N	7.34	1.43	1.33
81	DA	3053	G	C2'-C1'	-7.34	1.42	1.53
81	DA	3335	A	O4'-C1'	7.34	1.52	1.41
17	AQ	6	THR	N-CA	7.33	1.55	1.46
78	CA	1174	C	C2'-C1'	-7.33	1.42	1.53
59	Bh	27	ARG	CD-NE	7.33	1.56	1.46
81	DA	938	C	O4'-C1'	7.33	1.52	1.41
19	AR	115	TYR	CA-C	-7.33	1.43	1.52
81	DA	2486	A	O4'-C1'	7.33	1.52	1.42
81	DA	823	C	O4'-C1'	7.33	1.52	1.41
2	AA	183	ARG	NE-CZ	7.33	1.41	1.33
5	AC	69	ARG	CD-NE	7.33	1.56	1.46
34	BE	48	SER	CA-C	-7.33	1.43	1.52
81	DA	670	C	O4'-C1'	7.33	1.52	1.41
4	AD	112	HIS	ND1-CE1	7.32	1.39	1.32
9	AH	21	GLY	CA-C	-7.32	1.44	1.52
19	AR	114	HIS	CB-CG	7.32	1.60	1.50
78	CA	30	G	C4'-O4'	-7.32	1.34	1.45
81	DA	2175	U	C4'-C3'	-7.32	1.41	1.52
12	AK	111	ARG	CD-NE	7.32	1.56	1.46
17	AQ	101	ASN	N-CA	-7.32	1.36	1.46
22	AV	68	ARG	CD-NE	7.32	1.56	1.46
37	BH	228	GLU	C-N	7.32	1.42	1.33
81	DA	45	A	O4'-C1'	7.32	1.52	1.41
81	DA	759	U	C2'-C1'	-7.32	1.42	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	2228	A	C2'-C1'	7.32	1.64	1.53
82	DB	47	C	O4'-C1'	7.32	1.52	1.41
8	AF	149	VAL	CA-C	-7.31	1.43	1.52
29	AU	35	VAL	C-N	7.31	1.39	1.33
81	DA	2376	G	C2'-C1'	-7.31	1.42	1.53
45	BR	95	GLU	C-N	7.31	1.43	1.33
81	DA	320	G	C2'-C1'	-7.31	1.42	1.53
78	CA	555	A	C5'-C4'	-7.31	1.40	1.51
81	DA	302	U	C2'-C1'	-7.31	1.42	1.53
81	DA	667	C	O4'-C1'	7.31	1.52	1.41
81	DA	976	U	C2'-C1'	7.30	1.64	1.53
81	DA	2729	U	O4'-C1'	7.30	1.52	1.41
81	DA	3126	C	O4'-C1'	7.30	1.52	1.41
78	CA	1124	A	C2'-C1'	7.30	1.64	1.53
1	Aa	58	VAL	C-O	-7.30	1.15	1.24
78	CA	1478	G	C2'-C1'	-7.30	1.42	1.53
81	DA	2087	C	O4'-C1'	7.30	1.52	1.41
48	BW	66	VAL	N-CA	-7.29	1.37	1.46
69	Br	58	PHE	CA-CB	-7.29	1.41	1.53
40	BK	18	ARG	CZ-NH1	7.29	1.43	1.32
81	DA	643	U	C2'-C1'	-7.29	1.42	1.53
81	DA	1699	A	C2'-C1'	7.29	1.64	1.53
82	DB	53	A	C2'-C1'	-7.29	1.42	1.53
81	DA	1590	G	C2'-C1'	-7.29	1.42	1.53
39	BJ	18	VAL	N-CA	-7.29	1.37	1.46
45	BR	14	GLY	CA-C	-7.29	1.41	1.51
62	Bk	83	ALA	C-N	7.28	1.43	1.33
81	DA	3062	G	O4'-C1'	-7.28	1.30	1.41
78	CA	1767	G	O4'-C1'	7.28	1.52	1.42
83	DC	32	U	C2'-C1'	-7.28	1.42	1.53
9	AH	69	LEU	CA-CB	7.28	1.65	1.53
78	CA	392	G	C2'-C1'	-7.28	1.42	1.53
78	CA	585	A	O4'-C1'	7.28	1.52	1.41
81	DA	2515	A	C2'-C1'	-7.28	1.42	1.53
81	DA	16	A	O4'-C1'	7.28	1.52	1.41
81	DA	1237	G	C2'-C1'	-7.28	1.42	1.53
36	BF	45	PHE	C-N	7.28	1.43	1.33
38	Bs	253	ALA	C-N	7.28	1.43	1.33
78	CA	305	C	C2'-C1'	-7.28	1.42	1.53
81	DA	614	C	C2'-C1'	-7.27	1.42	1.53
81	DA	1162	U	C2'-C1'	-7.27	1.42	1.53
78	CA	1788	G	C2'-C1'	-7.27	1.42	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	172	G	O4'-C1'	7.27	1.52	1.41
81	DA	1428	A	O4'-C1'	7.27	1.52	1.42
47	BU	57	TYR	C-N	7.27	1.43	1.33
47	BU	88	ARG	C-O	-7.27	1.15	1.24
81	DA	650	C	C2'-C1'	-7.27	1.42	1.53
81	DA	673	U	O3'-P	-7.27	1.50	1.61
81	DA	1211	U	O4'-C1'	7.27	1.52	1.41
81	DA	3025	C	C2'-C1'	-7.27	1.42	1.53
81	DA	20	A	O4'-C1'	7.27	1.52	1.41
6	AE	168	ARG	CD-NE	7.26	1.56	1.46
81	DA	2748	A	C2'-C1'	7.26	1.64	1.53
81	DA	3216	G	O4'-C1'	-7.26	1.31	1.42
30	BA	172	VAL	C-N	7.26	1.43	1.33
45	BR	3	ILE	N-CA	-7.26	1.37	1.46
78	CA	1536	G	O4'-C1'	7.26	1.52	1.41
81	DA	3243	A	O4'-C1'	7.26	1.52	1.41
46	BT	151	ARG	CD-NE	7.26	1.56	1.46
61	Bj	48	ARG	CZ-NH2	7.26	1.42	1.33
81	DA	888	A	O4'-C1'	7.26	1.52	1.41
81	DA	1610	G	C2'-C1'	-7.26	1.42	1.53
81	DA	2846	U	O4'-C1'	7.26	1.52	1.41
12	AK	28	VAL	N-CA	-7.26	1.37	1.46
81	DA	3343	G	C2'-C1'	-7.26	1.42	1.53
81	DA	2652	U	C2'-C1'	-7.25	1.42	1.53
38	Bs	72	ASP	CA-CB	7.25	1.63	1.54
55	Bc	5	LYS	N-CA	-7.25	1.36	1.45
81	DA	2739	A	C2'-C1'	-7.25	1.42	1.53
81	DA	179	C	C2'-C1'	-7.25	1.42	1.53
81	DA	2400	G	C2'-C1'	-7.25	1.42	1.53
81	DA	2600	C	O4'-C1'	7.25	1.52	1.41
82	DB	104	A	O4'-C1'	7.25	1.52	1.41
81	DA	2827	U	O4'-C1'	-7.25	1.31	1.42
57	Be	202	LEU	C-N	7.25	1.48	1.33
79	CB	69	G	C2'-C1'	-7.25	1.42	1.53
26	AZ	45	VAL	CA-CB	7.25	1.63	1.54
78	CA	950	C	C2'-C1'	-7.25	1.42	1.53
81	DA	1421	G	O4'-C1'	7.25	1.52	1.41
81	DA	1814	A	O4'-C1'	-7.25	1.31	1.42
81	DA	2476	C	C2'-C1'	-7.25	1.42	1.53
81	DA	2849	C	O4'-C1'	7.25	1.52	1.41
38	Bs	42	ARG	C-N	7.24	1.43	1.33
40	BK	186	ALA	C-N	7.24	1.43	1.33

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	271	A	C2'-C1'	-7.24	1.42	1.53
81	DA	3304	U	O3'-P	7.24	1.72	1.61
11	AJ	38	SER	N-CA	-7.24	1.37	1.46
13	AL	85	ALA	C-N	7.24	1.43	1.33
81	DA	1752	A	O4'-C1'	7.24	1.52	1.41
4	AD	154	ILE	CA-C	-7.24	1.43	1.52
78	CA	444	C	C2'-C1'	-7.24	1.42	1.53
2	AA	29	VAL	CA-C	7.23	1.60	1.52
31	BB	38	HIS	CB-CG	7.23	1.60	1.50
64	Bl	73	ARG	NE-CZ	7.23	1.41	1.33
81	DA	668	G	C2'-C1'	-7.23	1.42	1.53
81	DA	1247	U	C2'-C1'	7.23	1.64	1.53
51	BZ	21	PHE	CA-CB	7.23	1.63	1.53
73	Bv	15	ASN	C-N	7.23	1.42	1.33
78	CA	435	C	C2'-C1'	-7.23	1.42	1.53
78	CA	1667	A	O4'-C1'	7.23	1.52	1.41
78	CA	1726	G	O4'-C1'	7.23	1.52	1.41
81	DA	1977	C	C2'-C1'	-7.23	1.42	1.53
78	CA	1139	A	C2'-C1'	-7.23	1.42	1.53
78	CA	1476	C	C2'-C1'	7.23	1.64	1.53
81	DA	1735	G	C2'-C1'	-7.23	1.42	1.53
64	Bl	40	PRO	N-CA	7.22	1.55	1.47
78	CA	42	G	O4'-C1'	7.22	1.52	1.42
81	DA	776	U	O4'-C1'	7.22	1.52	1.41
81	DA	1589	A	C2'-C1'	-7.22	1.42	1.53
78	CA	306	U	O4'-C1'	7.22	1.52	1.41
78	CA	82	U	O4'-C1'	7.22	1.52	1.41
81	DA	2736	A	O4'-C1'	-7.22	1.30	1.41
2	AA	103	THR	C-N	-7.22	1.24	1.33
81	DA	750	G	O4'-C1'	7.22	1.52	1.41
81	DA	1144	U	O4'-C1'	7.22	1.52	1.41
33	BD	234	ASN	C-N	7.21	1.43	1.33
78	CA	117	U	O4'-C1'	7.21	1.52	1.41
81	DA	2027	C	O4'-C1'	7.21	1.52	1.41
81	DA	2907	G	O4'-C1'	-7.21	1.30	1.41
5	AC	114	TYR	CA-C	-7.21	1.44	1.53
81	DA	1105	A	C2'-C1'	7.21	1.64	1.53
78	CA	1624	C	C2'-C1'	-7.21	1.42	1.53
81	DA	1201	C	C2'-C1'	-7.21	1.42	1.53
81	DA	2871	G	O4'-C1'	7.21	1.52	1.41
14	AM	84	TRP	CA-C	-7.21	1.43	1.52
37	BH	73	PRO	CA-CB	7.20	1.64	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1824	U	O4'-C1'	7.20	1.52	1.41
42	BM	32	ARG	NE-CZ	7.20	1.41	1.33
78	CA	628	G	C2'-C1'	-7.20	1.42	1.53
81	DA	3097	C	O4'-C1'	7.20	1.52	1.41
81	DA	1274	A	O4'-C1'	7.20	1.52	1.41
81	DA	2370	G	C2'-C1'	-7.20	1.42	1.53
81	DA	2264	U	C2'-C1'	-7.20	1.42	1.53
83	DC	59	G	C2'-C1'	-7.20	1.42	1.53
57	Be	55	TYR	CA-C	-7.19	1.43	1.52
78	CA	993	A	O4'-C1'	7.19	1.52	1.41
83	DC	87	U	C2'-C1'	-7.19	1.42	1.53
78	CA	1726	G	C2'-C1'	-7.19	1.42	1.53
22	AV	61	SER	CA-C	-7.19	1.43	1.52
76	BS	154	VAL	C-O	-7.19	1.15	1.24
81	DA	2179	C	C2'-C1'	-7.19	1.42	1.53
46	BT	167	ARG	NE-CZ	7.19	1.41	1.33
78	CA	1105	C	O4'-C1'	7.19	1.52	1.41
81	DA	1151	U	O4'-C1'	7.19	1.52	1.41
78	CA	344	A	O4'-C1'	7.18	1.52	1.41
81	DA	2274	U	O4'-C1'	7.18	1.52	1.41
78	CA	559	C	O4'-C1'	7.18	1.52	1.41
81	DA	788	C	C2'-C1'	-7.18	1.42	1.53
20	AS	100	ILE	CA-C	-7.18	1.43	1.52
55	Bc	48	ARG	NE-CZ	7.18	1.41	1.33
45	BR	143	PRO	C-N	7.18	1.43	1.33
59	Bh	12	LYS	C-N	7.18	1.43	1.33
12	AK	70	LYS	C-N	7.17	1.43	1.33
78	CA	1646	C	O4'-C1'	7.17	1.52	1.41
78	CA	1692	G	C2'-C1'	-7.17	1.42	1.53
81	DA	2673	A	P-O5'	-7.17	1.49	1.59
13	AL	13	ARG	CZ-NH2	-7.17	1.24	1.33
48	BW	40	HIS	ND1-CE1	7.17	1.39	1.32
78	CA	1774	G	C2'-C1'	-7.17	1.42	1.53
26	AZ	41	THR	N-CA	7.17	1.55	1.46
40	BK	101	ARG	CD-NE	7.17	1.56	1.46
81	DA	2101	C	O4'-C1'	7.17	1.52	1.41
2	AA	36	TYR	CA-C	-7.17	1.44	1.53
78	CA	223	U	C2'-C1'	7.17	1.64	1.53
78	CA	1359	C	O4'-C1'	7.17	1.52	1.41
78	CA	868	G	C2'-C1'	-7.17	1.42	1.53
78	CA	584	C	C2'-C1'	-7.16	1.42	1.53
81	DA	1392	G	C2'-C1'	-7.16	1.42	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1545	A	C2'-C1'	-7.16	1.42	1.53
81	DA	3338	C	O4'-C1'	7.16	1.52	1.41
39	BJ	92	ARG	N-CA	-7.16	1.37	1.46
43	BP	90	ASN	CA-C	-7.16	1.42	1.52
81	DA	693	A	C2'-C1'	7.16	1.64	1.53
81	DA	1983	G	C2'-C1'	-7.16	1.42	1.53
81	DA	3055	U	C2'-C1'	7.15	1.64	1.53
81	DA	2719	U	O4'-C1'	7.15	1.52	1.41
81	DA	1301	A	O4'-C1'	7.15	1.52	1.42
21	AT	72	LEU	CA-C	-7.15	1.43	1.52
78	CA	145	A	O4'-C1'	-7.15	1.31	1.42
78	CA	409	C	O4'-C1'	7.15	1.52	1.41
81	DA	555	U	O4'-C1'	-7.15	1.31	1.42
76	BS	120	PHE	CA-C	-7.14	1.43	1.52
40	BK	178	VAL	C-O	-7.14	1.15	1.24
78	CA	1358	G	C2'-C1'	-7.14	1.42	1.53
81	DA	1067	U	O4'-C1'	7.14	1.52	1.41
81	DA	519	A	O4'-C1'	-7.14	1.30	1.41
81	DA	2079	G	O3'-P	-7.14	1.50	1.61
81	DA	3322	A	C2'-C1'	-7.14	1.42	1.53
44	BO	3	SER	C-N	7.14	1.43	1.33
81	DA	1246	G	C2'-C1'	-7.14	1.42	1.53
81	DA	1445	U	C2'-C1'	-7.14	1.42	1.53
81	DA	2527	G	O4'-C1'	-7.14	1.30	1.41
81	DA	450	G	O4'-C1'	7.13	1.52	1.41
2	AA	62	ARG	CD-NE	7.13	1.56	1.46
64	Bl	40	PRO	CA-CB	-7.13	1.44	1.53
6	AE	133	LYS	CA-C	-7.13	1.44	1.52
81	DA	1179	A	C2'-C1'	7.13	1.64	1.53
57	Be	232	ARG	CA-CB	7.13	1.65	1.53
81	DA	1695	U	O4'-C1'	-7.13	1.30	1.41
81	DA	2590	A	O4'-C1'	7.13	1.52	1.41
39	BJ	17	ALA	CA-C	-7.13	1.44	1.52
53	Ba	8	GLY	C-N	7.13	1.47	1.34
74	BQ	203	HIS	CD2-NE2	-7.13	1.30	1.37
78	CA	916	U	O4'-C1'	7.13	1.52	1.41
1	Aa	69	GLN	CA-C	-7.12	1.45	1.53
81	DA	1476	G	C2'-C1'	-7.12	1.42	1.53
82	DB	89	A	O4'-C1'	7.12	1.52	1.42
45	BR	55	SER	CB-OG	-7.12	1.27	1.42
81	DA	1293	U	O4'-C1'	7.12	1.52	1.41
81	DA	1381	A	C2'-C1'	-7.12	1.42	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
24	AX	74	SER	N-CA	-7.12	1.37	1.46
81	DA	2711	C	C2'-C1'	-7.12	1.42	1.53
2	AA	101	ARG	NE-CZ	7.12	1.40	1.33
31	BB	82	VAL	CA-C	-7.12	1.44	1.52
34	BE	152	HIS	CB-CG	7.12	1.60	1.50
78	CA	1225	U	O4'-C1'	7.12	1.52	1.41
81	DA	63	A	C2'-C1'	7.12	1.64	1.53
81	DA	2167	A	O4'-C1'	7.12	1.52	1.41
46	BT	127	SER	CA-CB	7.12	1.64	1.53
81	DA	1154	A	C2'-C1'	7.12	1.64	1.53
47	BU	102	ARG	CD-NE	7.12	1.56	1.46
78	CA	1418	G	O4'-C1'	7.11	1.52	1.41
81	DA	2811	A	O4'-C1'	7.11	1.52	1.41
6	AE	28	ARG	CA-C	-7.11	1.43	1.52
26	AZ	44	PHE	N-CA	7.11	1.56	1.46
81	DA	1431	G	C2'-C1'	-7.11	1.42	1.53
81	DA	1693	C	C2'-C1'	-7.11	1.42	1.53
20	AS	52	GLY	CA-C	-7.11	1.41	1.51
40	BK	184	THR	CA-C	7.11	1.62	1.52
81	DA	972	A	O4'-C1'	7.11	1.52	1.41
9	AH	61	ILE	N-CA	-7.10	1.37	1.46
83	DC	1	G	O4'-C1'	7.10	1.52	1.41
39	BJ	90	ARG	CD-NE	7.10	1.56	1.46
5	AC	123	HIS	CA-C	-7.10	1.44	1.53
78	CA	1596	C	O4'-C1'	7.10	1.52	1.41
81	DA	2480	A	O3'-P	-7.10	1.50	1.61
81	DA	1575	A	C2'-C1'	7.10	1.64	1.53
81	DA	2327	U	O4'-C1'	7.09	1.52	1.41
78	CA	1339	C	O4'-C1'	7.09	1.52	1.41
81	DA	814	U	C2'-C1'	-7.09	1.42	1.53
16	AO	65	VAL	C-N	-7.09	1.24	1.33
81	DA	1528	G	O4'-C1'	-7.09	1.31	1.41
42	BM	106	LYS	N-CA	-7.08	1.37	1.46
81	DA	2443	A	O4'-C1'	7.08	1.52	1.41
6	AE	69	ILE	C-N	7.08	1.43	1.33
21	AT	6	GLY	C-N	-7.08	1.24	1.33
78	CA	1113	A	O4'-C1'	-7.08	1.31	1.42
83	DC	65	G	O4'-C1'	7.08	1.52	1.41
32	BC	116	ARG	NE-CZ	7.08	1.40	1.33
54	Bd	40	ARG	CD-NE	7.08	1.56	1.46
78	CA	30	G	C2'-C1'	-7.08	1.42	1.53
78	CA	1545	A	O4'-C1'	-7.08	1.31	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	1021	C	O4'-C1'	7.08	1.52	1.41
47	BU	20	ARG	NE-CZ	7.08	1.40	1.33
6	AE	115	ILE	CA-CB	-7.07	1.46	1.54
6	AE	149	GLY	C-N	7.07	1.41	1.33
81	DA	520	U	C2'-C1'	-7.07	1.42	1.53
34	BE	143	ARG	CA-C	-7.07	1.43	1.52
59	Bh	104	ASN	CA-C	-7.07	1.43	1.52
78	CA	1412	G	C4'-O4'	-7.07	1.35	1.45
81	DA	566	G	O4'-C1'	7.07	1.52	1.41
5	AC	129	ILE	CA-CB	-7.07	1.45	1.54
81	DA	192	C	C2'-C1'	-7.07	1.42	1.53
81	DA	3151	U	O4'-C1'	-7.07	1.31	1.42
40	BK	63	ALA	C-N	7.07	1.43	1.33
81	DA	463	C	O4'-C1'	7.07	1.52	1.41
81	DA	1072	G	C2'-C1'	-7.07	1.42	1.53
1	Aa	19	TRP	C-N	7.06	1.41	1.33
31	BB	60	LYS	C-O	-7.06	1.15	1.24
74	BQ	111	GLN	C-N	7.06	1.43	1.33
81	DA	159	A	O4'-C1'	7.06	1.52	1.41
81	DA	2071	A	O3'-P	-7.06	1.50	1.61
81	DA	1101	G	O4'-C1'	7.06	1.52	1.41
69	Br	47	GLN	N-CA	-7.06	1.37	1.46
56	Bf	65	THR	CA-C	-7.05	1.43	1.52
81	DA	3054	U	O4'-C1'	7.05	1.52	1.41
81	DA	3344	A	C2'-C1'	7.05	1.64	1.53
78	CA	339	C	O4'-C1'	7.05	1.52	1.41
81	DA	1327	C	O4'-C1'	7.05	1.52	1.41
81	DA	2478	C	C2'-C1'	-7.05	1.42	1.53
31	BB	9	ARG	C-N	7.05	1.42	1.33
55	Bc	102	GLU	CA-C	7.05	1.62	1.52
81	DA	556	U	O4'-C1'	7.05	1.52	1.41
81	DA	1183	C	O4'-C1'	7.05	1.52	1.41
81	DA	2797	C	O4'-C1'	7.05	1.52	1.41
81	DA	2298	U	O4'-C1'	7.04	1.52	1.42
5	AC	66	ASP	CA-C	-7.04	1.44	1.52
9	AH	66	ASN	C-N	7.04	1.43	1.33
81	DA	1503	A	O4'-C1'	7.04	1.52	1.41
43	BP	123	GLN	C-N	7.04	1.42	1.33
81	DA	2647	A	O4'-C1'	-7.04	1.31	1.41
81	DA	2982	A	C2'-C1'	-7.04	1.42	1.53
6	AE	141	ARG	CD-NE	7.04	1.56	1.46
78	CA	181	A	C2'-C1'	-7.04	1.42	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	416	A	O4'-C1'	7.04	1.52	1.41
81	DA	2368	A	C2'-C1'	-7.04	1.42	1.53
78	CA	1033	C	O4'-C1'	7.04	1.52	1.41
81	DA	914	A	C2'-C1'	7.04	1.63	1.53
33	BD	187	LEU	CA-CB	7.04	1.61	1.52
81	DA	288	C	O4'-C1'	7.04	1.52	1.41
82	DB	122	U	C2'-C1'	7.04	1.64	1.53
78	CA	840	U	C2'-C1'	7.03	1.63	1.53
81	DA	297	G	O4'-C1'	-7.03	1.31	1.42
78	CA	1480	G	C2'-C1'	7.03	1.63	1.53
81	DA	771	A	O4'-C1'	7.03	1.52	1.41
81	DA	1730	G	C2'-C1'	7.03	1.63	1.53
11	AJ	57	ARG	NE-CZ	7.03	1.40	1.33
81	DA	3130	A	O4'-C1'	-7.03	1.31	1.41
40	BK	119	VAL	C-N	7.03	1.41	1.33
78	CA	1003	A	C2'-C1'	7.03	1.63	1.53
81	DA	3314	A	O4'-C1'	7.03	1.52	1.41
81	DA	1451	C	O4'-C1'	7.03	1.52	1.41
81	DA	1964	C	O4'-C1'	7.02	1.52	1.41
81	DA	3248	C	C2'-C1'	-7.02	1.42	1.53
82	DB	108	C	C2'-C1'	-7.02	1.42	1.53
45	BR	112	ALA	CA-C	-7.02	1.44	1.52
52	BY	83	ASP	C-N	7.02	1.42	1.33
57	Be	30	ARG	CD-NE	7.02	1.56	1.46
81	DA	1394	A	C2'-C1'	-7.02	1.42	1.53
81	DA	2304	C	C2'-C1'	-7.02	1.42	1.53
42	BM	48	ARG	CD-NE	7.02	1.56	1.46
78	CA	1141	G	O4'-C1'	7.02	1.52	1.41
81	DA	1948	G	C2'-C1'	-7.02	1.42	1.53
81	DA	2144	A	C2'-C1'	-7.02	1.42	1.53
81	DA	2908	G	C2'-C1'	-7.02	1.42	1.53
4	AD	235	TYR	C-O	-7.02	1.14	1.23
47	BU	67	VAL	CA-C	-7.02	1.44	1.52
76	BS	23	HIS	N-CA	-7.02	1.36	1.46
78	CA	667	U	C2'-C1'	7.02	1.63	1.53
81	DA	2447	A	C2'-C1'	-7.02	1.42	1.53
78	CA	1545	A	C2'-C1'	7.01	1.63	1.53
66	Bo	11	GLN	N-CA	-7.01	1.37	1.46
78	CA	1032	G	O4'-C1'	7.01	1.52	1.41
81	DA	1229	G	O4'-C1'	-7.01	1.31	1.41
81	DA	714	G	C2'-C1'	-7.01	1.42	1.53
8	AF	27	THR	N-CA	-7.01	1.32	1.46

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
76	BS	160	PRO	C-N	-7.01	1.27	1.33
81	DA	1517	G	C2'-C1'	-7.01	1.42	1.53
8	AF	76	ARG	CD-NE	7.01	1.56	1.46
46	BT	176	ARG	CD-NE	7.01	1.56	1.46
78	CA	1441	C	C2'-C1'	-7.01	1.42	1.53
79	CB	75	A	O4'-C1'	-7.01	1.31	1.42
66	Bo	31	THR	N-CA	-7.00	1.36	1.45
81	DA	205	C	O4'-C1'	7.00	1.52	1.41
81	DA	2614	G	O4'-C1'	-7.00	1.31	1.41
78	CA	609	U	C2'-C1'	-7.00	1.42	1.53
78	CA	1	U	P-O5'	-7.00	1.49	1.59
78	CA	1749	A	C2'-C1'	7.00	1.63	1.53
81	DA	232	G	C2'-C1'	-7.00	1.42	1.53
81	DA	1500	G	C2'-C1'	-7.00	1.42	1.53
8	AF	148	ARG	CD-NE	7.00	1.56	1.46
81	DA	2366	C	C2'-C1'	-7.00	1.42	1.53
12	AK	107	ARG	CD-NE	7.00	1.56	1.46
34	BE	36	VAL	CA-CB	7.00	1.63	1.54
78	CA	1648	A	C5'-C4'	7.00	1.61	1.51
81	DA	1047	A	C2'-C1'	7.00	1.63	1.53
81	DA	1828	A	C2'-C1'	-7.00	1.42	1.53
78	CA	956	C	C2'-C1'	-7.00	1.42	1.53
81	DA	1119	C	C2'-C1'	-6.99	1.42	1.53
81	DA	2443	A	C2'-C1'	-6.99	1.42	1.53
81	DA	2482	U	C2'-C1'	-6.99	1.42	1.53
81	DA	3354	U	C2'-C1'	6.99	1.63	1.53
20	AS	58	ALA	N-CA	-6.99	1.37	1.46
33	BD	186	LYS	CA-CB	6.99	1.63	1.53
78	CA	1558	U	C5'-C4'	-6.99	1.40	1.51
81	DA	288	C	C2'-C1'	-6.99	1.42	1.53
81	DA	2263	C	O4'-C1'	6.99	1.52	1.41
81	DA	1844	C	C2'-C1'	-6.99	1.42	1.53
78	CA	818	C	P-OP2	6.99	1.62	1.49
78	CA	1342	C	O4'-C1'	6.99	1.52	1.41
81	DA	926	A	C2'-C1'	-6.99	1.42	1.53
36	BF	163	GLN	CA-C	-6.98	1.43	1.52
56	Bf	84	LEU	CA-C	-6.98	1.43	1.52
81	DA	2676	A	C2'-C1'	-6.98	1.42	1.53
81	DA	2839	G	C2'-C1'	-6.98	1.42	1.53
26	AZ	9	ALA	CA-C	-6.98	1.43	1.52
78	CA	1584	G	C2'-C1'	-6.98	1.42	1.53
81	DA	1328	C	O4'-C1'	6.98	1.52	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	AE	199	GLN	N-CA	-6.98	1.36	1.45
10	AI	119	ALA	C-N	6.98	1.43	1.33
44	BO	139	ARG	NE-CZ	6.98	1.40	1.33
78	CA	18	C	O4'-C1'	6.98	1.52	1.41
52	BY	114	ASP	N-CA	-6.98	1.37	1.46
49	BV	31	GLU	CA-C	-6.97	1.44	1.52
35	BG	22	ARG	CA-C	-6.97	1.43	1.52
81	DA	812	G	O4'-C1'	6.97	1.52	1.41
81	DA	3304	U	O4'-C1'	6.97	1.52	1.41
81	DA	5	G	C2'-C1'	-6.97	1.42	1.53
81	DA	584	G	O4'-C1'	6.97	1.52	1.41
1	Aa	306	THR	CA-C	-6.97	1.43	1.52
36	BF	12	VAL	N-CA	-6.97	1.38	1.46
78	CA	70	C	O4'-C1'	6.97	1.52	1.41
81	DA	919	U	O4'-C1'	6.97	1.52	1.41
81	DA	1297	C	C2'-C1'	-6.97	1.43	1.53
13	AL	21	ASN	CA-C	-6.96	1.43	1.52
31	BB	117	GLU	C-N	6.96	1.43	1.33
78	CA	249	U	C5'-C4'	6.96	1.65	1.51
78	CA	1585	U	O4'-C1'	6.96	1.52	1.41
81	DA	2987	A	O4'-C1'	6.96	1.52	1.41
81	DA	2742	C	O4'-C1'	6.96	1.52	1.41
83	DC	85	G	O4'-C1'	-6.96	1.31	1.41
78	CA	638	U	C2'-C1'	-6.96	1.43	1.53
81	DA	2387	A	O4'-C1'	6.96	1.52	1.41
78	CA	163	G	O3'-P	-6.96	1.50	1.61
81	DA	270	U	C2'-C1'	6.96	1.63	1.53
81	DA	2860	U	O4'-C1'	6.95	1.52	1.41
8	AF	183	ALA	CA-C	-6.95	1.43	1.52
81	DA	2294	U	C2'-C1'	6.95	1.63	1.53
78	CA	273	G	C2'-C1'	-6.95	1.43	1.53
78	CA	1198	G	C2'-C1'	-6.95	1.43	1.53
81	DA	2465	G	O4'-C1'	6.95	1.52	1.41
20	AS	102	ARG	CZ-NH2	-6.94	1.24	1.33
78	CA	1119	G	C2'-C1'	-6.94	1.43	1.53
81	DA	927	C	C2'-C1'	-6.94	1.43	1.53
81	DA	1462	A	O4'-C1'	6.94	1.52	1.41
38	Bs	177	ASN	CA-C	-6.94	1.43	1.52
81	DA	790	U	C2'-C1'	-6.94	1.43	1.53
44	BO	61	PHE	C-N	-6.94	1.23	1.33
58	Bg	28	ARG	CZ-NH1	6.94	1.42	1.32
76	BS	156	ARG	CA-C	-6.94	1.43	1.52

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	510	G	C2'-C1'	-6.94	1.43	1.53
43	BP	67	ARG	CA-C	-6.94	1.43	1.52
78	CA	1645	G	C2'-C1'	-6.94	1.43	1.53
81	DA	1258	U	P-O5'	-6.94	1.49	1.59
30	BA	101	LYS	CA-CB	6.93	1.61	1.53
81	DA	38	U	C2'-C1'	-6.93	1.43	1.53
81	DA	510	G	O4'-C1'	6.93	1.52	1.41
25	AY	44	VAL	CA-C	-6.93	1.45	1.52
78	CA	1547	A	P-O5'	6.93	1.70	1.59
81	DA	99	A	O4'-C1'	6.93	1.52	1.41
81	DA	187	A	O4'-C1'	6.93	1.52	1.41
81	DA	3369	G	O4'-C1'	6.93	1.52	1.41
3	AB	132	LYS	CA-C	-6.93	1.43	1.52
76	BS	160	PRO	C-O	-6.93	1.16	1.24
81	DA	3037	U	O4'-C1'	6.93	1.52	1.41
81	DA	1784	G	C2'-C1'	-6.93	1.43	1.53
30	BA	43	PRO	N-CA	-6.93	1.38	1.47
81	DA	629	U	O4'-C1'	6.93	1.52	1.41
78	CA	274	G	O4'-C1'	6.92	1.52	1.41
81	DA	1409	G	C2'-C1'	-6.92	1.43	1.53
66	Bo	36	ARG	NE-CZ	6.92	1.40	1.33
81	DA	3387	U	C2'-C1'	6.92	1.63	1.53
25	AY	39	THR	N-CA	-6.92	1.37	1.46
44	BO	7	LYS	CA-CB	6.92	1.65	1.53
46	BT	64	ARG	NE-CZ	6.92	1.40	1.33
81	DA	664	U	C2'-C1'	-6.92	1.43	1.53
2	AA	196	SER	CA-C	-6.92	1.43	1.52
65	Bn	6	THR	CA-C	-6.92	1.43	1.52
78	CA	425	A	O4'-C1'	6.92	1.52	1.41
78	CA	648	G	C2'-C1'	-6.92	1.43	1.53
81	DA	1549	U	O4'-C1'	6.92	1.52	1.41
81	DA	3250	U	C2'-C1'	-6.92	1.43	1.53
58	Bg	17	HIS	ND1-CE1	6.92	1.39	1.32
81	DA	1361	U	C2'-C1'	6.92	1.63	1.53
81	DA	1568	U	O4'-C1'	6.92	1.52	1.41
81	DA	2968	G	C2'-C1'	6.92	1.63	1.53
32	BC	177	HIS	ND1-CE1	6.91	1.39	1.32
62	Bk	82	ARG	CA-C	-6.91	1.43	1.52
78	CA	1703	C	O4'-C1'	6.91	1.52	1.41
81	DA	2099	A	O4'-C1'	6.91	1.52	1.41
78	CA	1544	U	C3'-O3'	-6.91	1.31	1.42
81	DA	224	C	C2'-C1'	-6.91	1.43	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1148	G	C2'-C1'	-6.91	1.43	1.53
78	CA	1001	A	O4'-C1'	6.91	1.52	1.41
81	DA	759	U	C5'-C4'	6.91	1.61	1.51
81	DA	2736	A	C2'-C1'	6.91	1.63	1.53
81	DA	2954	U	O4'-C1'	6.91	1.52	1.42
31	BB	14	SER	C-N	6.91	1.43	1.33
78	CA	1188	G	O4'-C1'	6.91	1.52	1.41
25	AY	45	LYS	C-O	-6.90	1.15	1.24
78	CA	357	G	C2'-C1'	-6.90	1.43	1.53
81	DA	68	C	O4'-C1'	6.90	1.52	1.41
81	DA	713	U	O4'-C1'	6.90	1.52	1.41
41	BN	108	ARG	C-O	-6.90	1.16	1.24
81	DA	2323	G	C2'-C1'	6.90	1.63	1.53
82	DB	141	C	O4'-C1'	6.90	1.51	1.41
81	DA	1521	G	C2'-C1'	-6.89	1.43	1.53
40	BK	12	LYS	C-N	6.89	1.42	1.33
63	Bm	87	ARG	NE-CZ	6.89	1.40	1.33
81	DA	1248	C	O4'-C1'	6.89	1.51	1.41
81	DA	2200	U	C2'-C1'	-6.89	1.43	1.53
47	BU	26	HIS	CA-C	-6.89	1.44	1.52
78	CA	1371	A	C2'-C1'	-6.89	1.43	1.53
81	DA	647	A	O4'-C1'	6.89	1.52	1.42
57	Be	62	ILE	CA-CB	6.89	1.62	1.54
81	DA	990	U	O3'-P	-6.89	1.50	1.61
81	DA	2415	C	C2'-C1'	-6.89	1.43	1.53
4	AD	93	ASP	N-CA	6.89	1.55	1.45
78	CA	42	G	C2'-C1'	-6.89	1.42	1.53
81	DA	1805	C	C2'-C1'	-6.89	1.43	1.53
81	DA	2602	G	C2'-C1'	-6.89	1.43	1.53
81	DA	3338	C	C2'-C1'	-6.89	1.43	1.53
60	Bi	60	ARG	CZ-NH2	6.88	1.42	1.33
81	DA	195	U	C2'-C1'	-6.88	1.43	1.53
81	DA	1415	U	C2'-C1'	-6.88	1.43	1.53
81	DA	1790	G	O4'-C1'	-6.88	1.31	1.41
81	DA	1447	G	O4'-C1'	6.88	1.52	1.42
81	DA	3364	C	O4'-C1'	6.88	1.51	1.41
46	BT	134	HIS	ND1-CE1	6.88	1.39	1.32
78	CA	671	G	C2'-C1'	-6.88	1.43	1.53
31	BB	3	ARG	CA-C	-6.88	1.44	1.52
2	AA	35	PRO	CA-C	-6.88	1.41	1.52
4	AD	238	LEU	CA-CB	6.88	1.64	1.53
78	CA	547	U	O4'-C1'	6.88	1.51	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
60	Bi	116	GLU	N-CA	-6.88	1.37	1.46
81	DA	3002	C	O3'-P	-6.87	1.50	1.61
16	AO	143	SER	CA-C	-6.87	1.44	1.52
78	CA	1083	G	P-OP2	6.87	1.62	1.49
81	DA	1202	A	C2'-C1'	-6.87	1.43	1.53
81	DA	1535	A	O4'-C1'	-6.87	1.31	1.41
78	CA	954	G	C2'-C1'	-6.87	1.43	1.53
81	DA	78	U	O4'-C1'	6.87	1.51	1.41
13	AL	21	ASN	C-N	6.87	1.43	1.34
78	CA	48	G	O4'-C1'	6.87	1.51	1.41
81	DA	811	U	O4'-C1'	6.87	1.51	1.41
81	DA	2253	G	O4'-C1'	-6.87	1.31	1.41
41	BN	128	ARG	NE-CZ	6.87	1.40	1.33
49	BV	56	ARG	NE-CZ	6.87	1.40	1.33
81	DA	166	C	O4'-C1'	6.87	1.51	1.41
45	BR	141	ARG	N-CA	6.86	1.55	1.46
46	BT	82	LYS	C-N	6.86	1.43	1.33
32	BC	289	ASP	CA-C	6.86	1.61	1.52
34	BE	80	LEU	CA-CB	6.86	1.64	1.53
81	DA	1497	C	O4'-C1'	6.86	1.51	1.41
78	CA	125	U	O4'-C1'	6.86	1.51	1.41
32	BC	334	ARG	NE-CZ	6.86	1.40	1.33
81	DA	985	U	C5'-C4'	6.86	1.61	1.51
81	DA	3161	C	O4'-C1'	6.86	1.51	1.41
4	AD	97	GLU	N-CA	-6.86	1.33	1.46
6	AE	4	PRO	CA-C	6.86	1.62	1.52
35	BG	27	PRO	C-N	6.86	1.43	1.33
51	BZ	47	ARG	CZ-NH1	6.86	1.42	1.32
58	Bg	79	ARG	CD-NE	6.86	1.55	1.46
78	CA	1133	A	C2'-C1'	-6.85	1.43	1.53
81	DA	1918	C	O4'-C1'	6.85	1.51	1.41
78	CA	848	C	O4'-C1'	6.85	1.51	1.41
78	CA	1071	U	C2'-C1'	-6.84	1.43	1.53
19	AR	104	GLN	CA-C	-6.84	1.44	1.52
78	CA	1454	G	C2'-C1'	-6.84	1.43	1.53
81	DA	767	U	O4'-C1'	6.84	1.51	1.41
1	Aa	136	ILE	N-CA	-6.84	1.38	1.46
30	BA	5	THR	C-N	6.84	1.42	1.33
81	DA	379	C	C2'-C1'	-6.84	1.43	1.53
6	AE	139	ILE	CA-C	-6.84	1.44	1.52
22	AV	105	THR	CA-C	-6.84	1.43	1.52
81	DA	1836	C	C2'-C1'	-6.84	1.43	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	2658	G	C2'-C1'	-6.84	1.43	1.53
65	Bn	77	ARG	NE-CZ	6.83	1.40	1.33
81	DA	293	C	O4'-C1'	6.83	1.51	1.41
81	DA	2663	G	O4'-C1'	-6.83	1.31	1.41
81	DA	335	G	O4'-C1'	6.83	1.51	1.41
53	Ba	24	VAL	CA-C	6.83	1.60	1.52
21	AT	38	LYS	N-CA	-6.83	1.37	1.46
30	BA	26	ARG	NE-CZ	6.83	1.40	1.33
5	AC	82	ARG	NE-CZ	6.83	1.40	1.33
9	AH	123	GLY	N-CA	-6.83	1.38	1.45
57	Be	73	GLY	C-N	6.83	1.42	1.33
37	BH	139	VAL	C-N	6.82	1.42	1.33
58	Bg	19	ARG	CZ-NH2	6.82	1.42	1.33
63	Bm	23	ARG	NE-CZ	6.82	1.40	1.33
78	CA	47	A	O5'-C5'	-6.82	1.32	1.42
81	DA	2906	C	O4'-C1'	6.82	1.51	1.41
35	BG	153	PRO	N-CA	6.82	1.56	1.47
78	CA	1194	A	O4'-C1'	6.82	1.51	1.41
45	BR	101	VAL	N-CA	-6.82	1.38	1.46
78	CA	438	A	O4'-C1'	6.82	1.52	1.42
81	DA	1416	C	C2'-C1'	-6.82	1.43	1.53
58	Bg	96	VAL	CA-CB	6.82	1.61	1.53
77	BI	108	ALA	CA-C	-6.82	1.43	1.52
81	DA	162	G	C2'-C1'	6.82	1.63	1.53
81	DA	853	G	C2'-C1'	-6.82	1.43	1.53
47	BU	118	GLU	CA-C	-6.81	1.44	1.52
34	BE	14	ILE	CA-C	-6.81	1.44	1.52
81	DA	760	G	O4'-C1'	6.81	1.51	1.41
81	DA	1239	C	O4'-C1'	6.81	1.51	1.41
81	DA	2518	C	O4'-C1'	6.81	1.51	1.41
78	CA	1163	A	O4'-C1'	6.81	1.51	1.41
81	DA	547	G	O4'-C1'	6.81	1.51	1.41
37	BH	233	TRP	CA-C	6.81	1.61	1.52
42	BM	61	THR	N-CA	-6.81	1.37	1.45
59	Bh	29	ALA	N-CA	-6.81	1.36	1.45
78	CA	1586	A	O4'-C1'	6.81	1.51	1.41
81	DA	2298	U	C2'-C1'	-6.81	1.42	1.53
48	BW	97	SER	C-N	6.81	1.42	1.33
78	CA	1296	A	O4'-C1'	6.81	1.51	1.41
81	DA	1078	U	O4'-C1'	6.81	1.51	1.41
81	DA	1454	A	C2'-C1'	-6.81	1.42	1.53
78	CA	22	A	O4'-C1'	6.81	1.51	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1820	U	C5'-C4'	6.81	1.61	1.51
33	BD	24	ALA	C-N	6.80	1.42	1.34
48	BW	91	ASP	N-CA	6.80	1.54	1.46
78	CA	427	C	C2'-C1'	-6.80	1.43	1.53
81	DA	2730	G	O4'-C1'	6.80	1.51	1.41
38	Bs	156	VAL	CA-CB	6.80	1.62	1.55
81	DA	1949	G	C2'-C1'	-6.80	1.43	1.53
78	CA	1243	G	O4'-C1'	6.80	1.51	1.41
81	DA	2831	G	C2'-C1'	-6.80	1.43	1.53
4	AD	221	ARG	NE-CZ	6.80	1.40	1.33
81	DA	1852	G	C2'-C1'	-6.80	1.43	1.53
53	Ba	81	LEU	N-CA	-6.80	1.40	1.46
32	BC	88	GLY	CA-C	-6.80	1.44	1.51
78	CA	307	G	C2'-C1'	-6.80	1.43	1.53
78	CA	361	C	C2'-C1'	-6.80	1.43	1.53
81	DA	297	G	C2'-C1'	6.79	1.63	1.53
81	DA	3212	C	C2'-C1'	-6.79	1.43	1.53
6	AE	38	VAL	C-N	6.79	1.42	1.33
31	BB	246	LEU	CA-C	-6.79	1.43	1.52
35	BG	96	VAL	CA-CB	6.79	1.63	1.54
66	Bo	30	ARG	CD-NE	6.79	1.55	1.46
78	CA	1035	G	C2'-C1'	-6.79	1.43	1.53
78	CA	1127	G	C2'-C1'	-6.79	1.43	1.53
78	CA	1233	G	O4'-C1'	-6.79	1.31	1.41
40	BK	55	HIS	ND1-CE1	6.79	1.39	1.32
20	AS	57	ARG	CD-NE	6.79	1.55	1.46
76	BS	62	ALA	CA-C	-6.79	1.44	1.52
33	BD	315	LYS	N-CA	-6.79	1.37	1.46
34	BE	139	THR	C-N	6.79	1.43	1.33
53	Ba	70	PRO	N-CD	-6.79	1.38	1.47
81	DA	295	A	C2'-C1'	-6.79	1.43	1.53
81	DA	127	G	C2'-C1'	-6.78	1.43	1.53
81	DA	143	G	C2'-C1'	-6.78	1.43	1.53
78	CA	1083	G	O4'-C1'	6.78	1.51	1.41
78	CA	1263	G	O4'-C1'	-6.78	1.31	1.41
81	DA	2624	G	O4'-C1'	6.78	1.51	1.41
81	DA	3027	A	C2'-C1'	-6.78	1.43	1.53
81	DA	2605	G	O4'-C1'	6.78	1.51	1.41
55	Bc	43	LYS	C-N	6.78	1.42	1.33
81	DA	311	C	C2'-C1'	-6.78	1.43	1.53
78	CA	29	U	C2'-C1'	-6.78	1.43	1.53
81	DA	861	C	C2'-C1'	-6.78	1.43	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	AV	27	TRP	CA-CB	6.77	1.65	1.53
39	BJ	76	SER	C-N	6.77	1.43	1.33
78	CA	55	A	O4'-C1'	6.77	1.51	1.41
81	DA	357	A	C2'-C1'	-6.77	1.43	1.53
81	DA	405	U	O4'-C1'	6.77	1.51	1.41
81	DA	998	A	C2'-C1'	-6.77	1.43	1.53
81	DA	2654	C	O4'-C1'	6.77	1.51	1.41
81	DA	2781	U	C2'-C1'	6.77	1.63	1.53
35	BG	79	VAL	CA-C	-6.77	1.44	1.52
81	DA	16	A	C2'-C1'	-6.77	1.43	1.53
78	CA	1243	G	C5'-C4'	6.77	1.61	1.51
81	DA	2032	U	O4'-C1'	6.77	1.51	1.41
10	AI	138	PHE	CA-CB	6.76	1.65	1.53
81	DA	1137	C	O4'-C1'	6.76	1.51	1.41
12	AK	125	SER	CB-OG	-6.76	1.28	1.42
30	BA	41	TYR	CA-CB	6.76	1.62	1.53
48	BW	7	ARG	NE-CZ	6.76	1.40	1.33
61	Bj	90	PRO	CA-C	6.76	1.62	1.52
66	Bo	50	ASN	CA-C	-6.76	1.43	1.52
68	Bq	9	ARG	N-CA	-6.76	1.38	1.46
78	CA	560	U	C2'-C1'	-6.76	1.43	1.53
81	DA	997	A	O4'-C1'	-6.76	1.31	1.41
83	DC	46	A	C3'-C2'	-6.76	1.42	1.52
69	Br	82	GLN	CA-CB	6.76	1.64	1.53
74	BQ	267	ALA	N-CA	-6.76	1.38	1.46
78	CA	1146	G	O4'-C1'	6.76	1.51	1.41
82	DB	57	C	C2'-C1'	-6.76	1.43	1.53
33	BD	31	ARG	CD-NE	6.75	1.55	1.46
81	DA	1985	G	C2'-C1'	-6.75	1.43	1.53
81	DA	2338	C	C2'-C1'	-6.75	1.43	1.53
19	AR	77	ARG	NE-CZ	6.75	1.40	1.33
81	DA	3230	G	C2'-C1'	-6.75	1.43	1.53
83	DC	108	U	O4'-C1'	6.75	1.51	1.41
1	Aa	155	ARG	CZ-NH1	6.75	1.42	1.32
51	BZ	23	ARG	CA-C	6.75	1.60	1.52
63	Bm	62	LYS	CA-C	-6.75	1.43	1.52
81	DA	1282	G	C2'-C1'	-6.75	1.43	1.53
81	DA	3360	C	O4'-C1'	6.75	1.51	1.41
58	Bg	70	ARG	CD-NE	6.75	1.55	1.46
38	Bs	248	ALA	N-CA	-6.75	1.38	1.46
16	AO	109	LYS	N-CA	-6.75	1.37	1.46
81	DA	799	G	C2'-O2'	-6.75	1.32	1.42

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1174	G	O4'-C1'	6.75	1.51	1.41
35	BG	5	LYS	C-N	6.75	1.47	1.33
81	DA	1678	G	C2'-C1'	6.74	1.63	1.53
81	DA	2279	A	O3'-P	-6.74	1.51	1.61
81	DA	649	A	C2'-C1'	-6.74	1.43	1.53
81	DA	1516	C	O4'-C1'	6.74	1.51	1.41
81	DA	1710	C	C2'-C1'	6.74	1.63	1.53
81	DA	3348	G	O4'-C1'	-6.74	1.31	1.41
47	BU	66	ASN	N-CA	-6.74	1.38	1.46
51	BZ	58	HIS	ND1-CE1	6.74	1.39	1.32
78	CA	819	G	C2'-C1'	-6.74	1.43	1.53
81	DA	2871	G	C2'-C1'	-6.74	1.43	1.53
2	AA	195	TRP	C-N	6.74	1.43	1.33
50	BX	68	THR	N-CA	-6.74	1.38	1.46
78	CA	255	U	C5'-C4'	6.73	1.61	1.51
11	AJ	102	ARG	NE-CZ	6.73	1.40	1.33
81	DA	798	G	C4'-C3'	-6.73	1.42	1.52
44	BO	33	GLY	C-N	6.73	1.43	1.33
59	Bh	15	LYS	N-CA	-6.73	1.38	1.46
74	BQ	242	SER	C-O	-6.73	1.15	1.24
81	DA	672	A	O5'-C5'	-6.73	1.32	1.42
81	DA	359	U	C2'-C1'	-6.73	1.43	1.53
81	DA	2940	A	O4'-C1'	6.73	1.51	1.41
81	DA	3027	A	O4'-C1'	6.73	1.51	1.41
54	Bd	43	HIS	N-CA	-6.73	1.38	1.46
32	BC	3	HIS	C-N	6.72	1.42	1.33
58	Bg	4	LEU	N-CA	-6.72	1.37	1.46
81	DA	596	C	C2'-C1'	-6.72	1.43	1.53
38	Bs	62	ALA	C-N	6.72	1.42	1.33
38	Bs	104	ARG	NE-CZ	6.72	1.40	1.33
78	CA	1739	C	C2'-C1'	-6.72	1.43	1.53
81	DA	633	C	C2'-C1'	-6.72	1.43	1.53
81	DA	2446	U	O4'-C1'	6.72	1.51	1.41
19	AR	104	GLN	N-CA	-6.72	1.37	1.45
57	Be	60	ARG	CD-NE	6.72	1.55	1.46
81	DA	1121	U	O4'-C1'	6.72	1.51	1.41
81	DA	1180	A	O4'-C1'	-6.72	1.31	1.42
78	CA	617	U	C2'-C1'	-6.72	1.43	1.53
4	AD	154	ILE	N-CA	6.72	1.54	1.46
41	BN	120	VAL	CA-CB	-6.72	1.46	1.54
43	BP	153	ASP	CA-C	-6.71	1.46	1.53
81	DA	904	A	C2'-C1'	-6.71	1.43	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
20	AS	29	GLU	C-N	6.71	1.41	1.33
81	DA	1571	A	O4'-C1'	-6.71	1.31	1.41
81	DA	2135	U	O4'-C1'	6.71	1.51	1.41
83	DC	10	C	O4'-C1'	6.71	1.51	1.41
52	BY	51	ARG	NE-CZ	6.71	1.40	1.33
6	AE	71	THR	N-CA	6.71	1.54	1.46
31	BB	25	GLY	CA-C	-6.71	1.45	1.52
35	BG	31	ARG	CD-NE	6.71	1.55	1.46
39	BJ	100	HIS	ND1-CE1	6.71	1.39	1.32
78	CA	154	G	C2'-C1'	-6.71	1.43	1.53
78	CA	226	A	C3'-C2'	-6.71	1.42	1.52
34	BE	126	ASP	N-CA	-6.71	1.37	1.46
78	CA	1668	G	O4'-C1'	6.71	1.51	1.41
24	AX	45	THR	N-CA	-6.71	1.38	1.46
81	DA	1547	G	C2'-C1'	-6.71	1.43	1.53
31	BB	249	SER	C-N	6.70	1.42	1.33
78	CA	92	A	C4'-C3'	-6.70	1.42	1.52
5	AC	3	ARG	CD-NE	6.70	1.55	1.46
55	Bc	118	ILE	CA-CB	-6.70	1.45	1.54
81	DA	778	U	C2'-C1'	-6.70	1.43	1.53
1	Aa	20	VAL	CA-CB	-6.70	1.46	1.53
78	CA	1646	C	C2'-C1'	-6.70	1.43	1.53
4	AD	164	LEU	CA-CB	6.70	1.64	1.53
5	AC	149	ARG	CA-C	-6.70	1.47	1.52
81	DA	1599	G	C2'-C1'	-6.70	1.43	1.53
81	DA	2404	A	O4'-C1'	6.70	1.51	1.41
6	AE	110	HIS	CA-C	-6.69	1.43	1.52
49	BV	71	ALA	CA-C	-6.69	1.44	1.52
78	CA	47	A	P-O5'	-6.69	1.49	1.59
81	DA	2773	C	O4'-C1'	6.69	1.51	1.41
81	DA	3145	C	P-O5'	-6.69	1.49	1.59
9	AH	77	PRO	CA-C	-6.69	1.45	1.52
61	Bj	52	VAL	N-CA	-6.69	1.38	1.46
78	CA	1010	C	O4'-C1'	6.69	1.51	1.41
81	DA	1914	G	O4'-C1'	6.69	1.51	1.41
6	AE	52	THR	N-CA	-6.69	1.38	1.46
35	BG	23	LYS	N-CA	-6.69	1.37	1.46
78	CA	584	C	O4'-C1'	6.69	1.51	1.41
78	CA	177	U	O4'-C1'	6.69	1.51	1.42
81	DA	1511	U	O4'-C1'	6.69	1.51	1.42
17	AQ	40	THR	CA-C	-6.68	1.43	1.52
81	DA	1612	A	C2'-C1'	6.68	1.63	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	3029	A	C2'-C1'	-6.68	1.43	1.53
33	BD	323	VAL	C-N	6.68	1.43	1.33
78	CA	978	A	C2'-C1'	-6.68	1.43	1.53
78	CA	1169	G	O4'-C1'	6.68	1.51	1.41
1	Aa	109	ASP	CA-CB	6.68	1.64	1.53
81	DA	452	G	C2'-C1'	-6.68	1.43	1.53
82	DB	101	U	O4'-C1'	6.68	1.51	1.41
38	Bs	48	ARG	CA-C	6.67	1.61	1.52
12	AK	59	ALA	N-CA	6.67	1.54	1.46
30	BA	74	VAL	N-CA	6.67	1.54	1.46
47	BU	127	GLN	N-CA	6.67	1.55	1.46
74	BQ	121	GLY	C-N	6.67	1.42	1.33
78	CA	426	G	C2'-C1'	-6.67	1.43	1.53
78	CA	634	G	O4'-C1'	-6.67	1.31	1.42
78	CA	1400	A	O4'-C1'	6.67	1.51	1.41
78	CA	1620	C	C2'-C1'	-6.67	1.43	1.53
81	DA	1839	A	O4'-C1'	6.67	1.51	1.41
81	DA	2666	C	C2'-C1'	-6.67	1.43	1.53
81	DA	1908	A	O4'-C1'	6.67	1.51	1.41
17	AQ	55	THR	CA-C	-6.67	1.44	1.52
78	CA	326	G	O4'-C1'	6.67	1.51	1.41
78	CA	1550	A	C2'-C1'	-6.67	1.43	1.53
81	DA	2352	A	O4'-C1'	6.67	1.51	1.41
81	DA	2940	A	C2'-C1'	-6.67	1.43	1.53
81	DA	430	U	O4'-C1'	6.67	1.51	1.41
81	DA	1538	G	C2'-C1'	-6.67	1.43	1.53
36	BF	124	ARG	CA-C	6.67	1.60	1.52
24	AX	73	LEU	N-CA	-6.66	1.38	1.46
31	BB	241	ARG	CD-NE	6.66	1.55	1.46
81	DA	3331	U	O4'-C1'	-6.66	1.31	1.41
2	AA	251	GLU	CA-CB	6.66	1.65	1.54
57	Be	220	PHE	N-CA	-6.66	1.37	1.46
31	BB	159	SER	CA-C	-6.66	1.44	1.52
81	DA	3305	A	C3'-O3'	-6.66	1.32	1.42
81	DA	2278	C	C2'-C1'	-6.66	1.43	1.53
81	DA	1165	A	O4'-C1'	6.66	1.51	1.41
83	DC	88	G	C2'-C1'	-6.66	1.43	1.53
17	AQ	92	ASP	C-N	6.66	1.42	1.33
81	DA	1057	A	C2'-C1'	6.66	1.63	1.53
81	DA	1334	U	C2'-C1'	-6.66	1.43	1.53
6	AE	17	ARG	NE-CZ	6.65	1.40	1.33
57	Be	98	LYS	CA-CB	6.65	1.64	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
40	BK	188	SER	CA-C	6.65	1.61	1.52
81	DA	779	G	C2'-C1'	-6.65	1.43	1.53
81	DA	1001	G	C2'-C1'	-6.65	1.43	1.53
42	BM	65	GLY	N-CA	6.65	1.55	1.45
81	DA	1582	C	C2'-C1'	-6.65	1.43	1.53
22	AV	101	TYR	N-CA	-6.64	1.38	1.46
78	CA	368	U	O3'-P	-6.64	1.51	1.61
81	DA	1234	G	C2'-C1'	-6.64	1.43	1.53
61	Bj	37	THR	C-O	-6.64	1.15	1.24
78	CA	1101	G	C2'-C1'	-6.64	1.43	1.53
81	DA	848	A	O4'-C1'	6.64	1.51	1.41
78	CA	1438	G	O4'-C1'	6.64	1.51	1.41
79	CB	21	A	O4'-C1'	6.64	1.51	1.41
83	DC	63	G	C2'-C1'	-6.64	1.43	1.53
4	AD	138	TYR	CA-CB	6.64	1.62	1.53
18	AP	41	GLY	CA-C	-6.64	1.42	1.51
40	BK	125	ARG	CA-CB	6.64	1.62	1.53
78	CA	1471	A	C2'-C1'	6.64	1.63	1.53
78	CA	1480	G	O4'-C1'	-6.64	1.31	1.41
8	AF	165	LEU	CA-C	-6.64	1.44	1.52
81	DA	1318	A	C2'-C1'	-6.64	1.43	1.53
8	AF	28	PRO	CA-C	-6.64	1.43	1.52
11	AJ	51	VAL	CA-C	-6.64	1.44	1.52
14	AM	88	ARG	CD-NE	6.64	1.55	1.46
81	DA	54	C	O4'-C1'	6.64	1.51	1.41
81	DA	1512	U	C2'-C1'	-6.64	1.43	1.53
81	DA	2864	A	O4'-C1'	6.64	1.51	1.41
57	Be	29	GLU	CA-CB	6.63	1.63	1.53
78	CA	1288	G	O4'-C1'	6.63	1.51	1.41
81	DA	2386	A	C2'-C1'	-6.63	1.43	1.53
81	DA	1327	C	C2'-C1'	-6.63	1.43	1.53
41	BN	115	PHE	N-CA	-6.63	1.37	1.46
81	DA	3391	A	C2'-C1'	-6.63	1.43	1.53
78	CA	1751	C	C2'-C1'	-6.63	1.43	1.53
81	DA	2064	C	O3'-P	-6.63	1.51	1.61
32	BC	247	ARG	CZ-NH1	6.63	1.42	1.32
30	BA	116	LEU	N-CA	-6.62	1.38	1.46
65	Bn	34	ALA	CA-CB	6.62	1.64	1.53
81	DA	1914	G	C2'-C1'	-6.62	1.43	1.53
6	AE	91	ARG	CD-NE	6.62	1.55	1.46
26	AZ	40	TYR	CA-CB	-6.62	1.42	1.53
81	DA	910	G	O3'-P	-6.62	1.51	1.61

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
65	Bn	39	ARG	NE-CZ	6.62	1.40	1.33
78	CA	274	G	C2'-C1'	-6.62	1.43	1.53
78	CA	1075	C	O4'-C1'	6.62	1.51	1.41
81	DA	1082	U	O4'-C1'	6.62	1.51	1.41
81	DA	1173	U	O4'-C1'	6.62	1.51	1.41
35	BG	31	ARG	C-N	6.62	1.42	1.33
38	Bs	244	LYS	CA-CB	6.62	1.63	1.53
78	CA	1173	C	O4'-C1'	6.62	1.51	1.41
81	DA	2702	A	C2'-C1'	-6.62	1.43	1.53
81	DA	1972	A	O4'-C1'	-6.61	1.31	1.41
38	Bs	33	VAL	C-N	6.61	1.42	1.33
78	CA	158	U	C2'-C1'	-6.61	1.43	1.53
78	CA	1632	C	C2'-C1'	-6.61	1.43	1.53
81	DA	691	A	C2'-C1'	6.61	1.63	1.53
38	Bs	83	ASN	N-CA	-6.61	1.37	1.46
42	BM	128	ARG	CD-NE	6.61	1.55	1.46
81	DA	602	A	O4'-C1'	6.61	1.51	1.41
63	Bm	81	SER	C-N	6.61	1.43	1.33
78	CA	645	C	C2'-C1'	6.61	1.63	1.53
81	DA	757	C	O4'-C1'	6.61	1.51	1.41
81	DA	1018	G	O4'-C1'	6.61	1.51	1.41
81	DA	2859	U	C2'-C1'	6.61	1.62	1.53
81	DA	2933	A	O4'-C1'	6.60	1.51	1.41
81	DA	3247	G	O4'-C1'	6.60	1.51	1.41
78	CA	1376	C	C2'-C1'	-6.60	1.43	1.53
81	DA	3345	G	C2'-C1'	6.60	1.63	1.53
33	BD	145	ILE	CA-C	6.60	1.59	1.52
81	DA	544	C	O4'-C1'	6.60	1.51	1.41
83	DC	94	A	C2'-C1'	-6.60	1.43	1.53
34	BE	16	LYS	CA-C	-6.60	1.44	1.52
78	CA	1211	A	C2'-C1'	-6.60	1.43	1.53
81	DA	385	A	C2'-C1'	-6.60	1.43	1.53
81	DA	1510	G	O4'-C1'	6.60	1.51	1.41
81	DA	2181	C	C2'-C1'	-6.60	1.43	1.53
40	BK	37	ARG	NE-CZ	6.59	1.40	1.33
81	DA	1955	U	C2'-C1'	6.59	1.63	1.53
81	DA	2965	U	C2'-C1'	-6.59	1.43	1.53
21	AT	56	SER	CA-C	-6.59	1.44	1.52
33	BD	242	ALA	N-CA	-6.59	1.37	1.46
38	Bs	93	LEU	CA-C	-6.59	1.44	1.52
38	Bs	148	GLY	C-N	6.59	1.42	1.33
81	DA	1784	G	O4'-C1'	6.59	1.51	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	DC	66	C	O4'-C1'	6.59	1.51	1.41
35	BG	116	LYS	N-CA	-6.59	1.38	1.46
81	DA	851	C	C2'-C1'	-6.59	1.43	1.53
81	DA	840	C	C2'-C1'	-6.59	1.43	1.53
81	DA	906	A	O4'-C1'	-6.59	1.32	1.42
81	DA	1362	G	O4'-C1'	-6.59	1.31	1.41
5	AC	53	ARG	CD-NE	6.59	1.55	1.46
81	DA	323	A	O4'-C1'	6.59	1.51	1.41
81	DA	1576	G	O4'-C1'	6.59	1.51	1.41
81	DA	1303	A	O4'-C1'	-6.58	1.32	1.42
12	AK	84	ARG	CZ-NH1	6.58	1.42	1.32
24	AX	58	SER	N-CA	6.58	1.54	1.46
44	BO	40	HIS	N-CA	6.58	1.55	1.45
69	Br	69	VAL	CA-CB	6.58	1.63	1.54
74	BQ	50	ARG	NE-CZ	6.58	1.40	1.33
81	DA	77	A	C2'-C1'	-6.58	1.43	1.53
52	BY	109	LEU	C-N	6.58	1.43	1.33
78	CA	56	U	C3'-O3'	6.58	1.53	1.43
78	CA	1467	C	C2'-C1'	-6.58	1.43	1.53
17	AQ	92	ASP	CA-C	-6.58	1.44	1.52
81	DA	1367	G	C2'-C1'	-6.58	1.43	1.53
44	BO	2	PRO	C-N	-6.58	1.24	1.33
76	BS	53	VAL	C-N	6.58	1.42	1.33
8	AF	149	VAL	C-N	6.58	1.38	1.33
37	BH	204	ARG	CA-CB	6.58	1.64	1.53
74	BQ	123	GLU	CA-C	6.58	1.60	1.52
81	DA	2395	G	C2'-C1'	-6.58	1.43	1.53
57	Be	234	GLU	CA-C	-6.57	1.44	1.52
78	CA	1756	A	O4'-C1'	-6.57	1.31	1.41
81	DA	858	A	O3'-P	-6.57	1.51	1.61
3	AB	76	ARG	CD-NE	6.57	1.55	1.46
1	Aa	51	ASP	CA-CB	6.57	1.64	1.53
1	Aa	307	ASP	C-N	6.57	1.42	1.33
17	AQ	49	LYS	C-N	6.57	1.42	1.33
35	BG	44	ALA	CA-C	-6.57	1.44	1.53
39	BJ	135	THR	C-N	6.57	1.42	1.33
39	BJ	122	GLY	C-N	6.57	1.42	1.33
44	BO	14	HIS	CG-ND1	-6.57	1.31	1.38
18	AP	86	ILE	CA-CB	-6.57	1.46	1.54
78	CA	1240	U	O4'-C1'	6.57	1.51	1.41
81	DA	1236	G	O4'-C1'	-6.57	1.32	1.42
81	DA	1542	G	C2'-C1'	-6.57	1.43	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
82	DB	138	A	O4'-C1'	6.57	1.51	1.41
81	DA	167	U	O4'-C1'	-6.57	1.31	1.41
81	DA	256	G	O4'-C1'	6.57	1.51	1.41
81	DA	2154	U	O4'-C1'	6.56	1.51	1.41
14	AM	13	HIS	CA-C	-6.56	1.44	1.52
18	AP	67	ARG	CD-NE	6.56	1.55	1.46
52	BY	75	ARG	NE-CZ	6.56	1.40	1.33
81	DA	2385	G	O4'-C1'	6.56	1.51	1.41
81	DA	3086	A	O4'-C1'	6.56	1.51	1.41
81	DA	3301	U	C2'-C1'	-6.56	1.43	1.53
76	BS	83	TYR	CA-C	-6.56	1.44	1.52
81	DA	904	A	O4'-C1'	6.56	1.51	1.41
81	DA	2764	C	C2'-C1'	-6.56	1.43	1.53
41	BN	55	ARG	CD-NE	6.56	1.55	1.46
42	BM	62	VAL	N-CA	-6.56	1.38	1.46
81	DA	1637	A	O4'-C1'	6.56	1.51	1.41
36	BF	136	PHE	CA-CB	6.56	1.62	1.53
43	BP	63	ARG	CA-C	-6.56	1.44	1.52
78	CA	1080	U	O4'-C1'	6.56	1.51	1.41
57	Be	142	SER	CA-CB	-6.55	1.42	1.53
81	DA	516	A	O4'-C1'	6.55	1.51	1.41
81	DA	1614	C	C2'-C1'	-6.55	1.43	1.53
81	DA	1687	U	O4'-C1'	6.55	1.51	1.41
81	DA	2391	G	C2'-C1'	-6.55	1.43	1.53
81	DA	3034	C	C2'-C1'	-6.55	1.43	1.53
83	DC	46	A	C3'-O3'	-6.55	1.32	1.42
78	CA	404	G	O4'-C1'	6.55	1.51	1.41
78	CA	1398	U	O4'-C1'	-6.55	1.32	1.42
81	DA	2757	U	O3'-P	-6.55	1.51	1.61
82	DB	134	G	C2'-C1'	6.55	1.63	1.53
81	DA	529	A	C2'-C1'	-6.55	1.43	1.53
81	DA	983	A	O4'-C1'	-6.55	1.31	1.41
81	DA	3085	G	C2'-C1'	-6.55	1.43	1.53
32	BC	6	TYR	N-CA	6.55	1.56	1.46
81	DA	1669	C	C2'-C1'	-6.55	1.43	1.53
81	DA	3220	G	C3'-C2'	6.55	1.62	1.52
1	Aa	212	ALA	CA-C	-6.54	1.44	1.52
9	AH	78	ARG	CD-NE	6.54	1.55	1.46
32	BC	345	ASN	N-CA	6.54	1.54	1.46
36	BF	46	THR	N-CA	6.54	1.53	1.45
37	BH	194	THR	N-CA	-6.54	1.36	1.46
61	Bj	37	THR	CA-C	-6.54	1.44	1.52

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	32	U	C2'-C1'	-6.54	1.43	1.53
81	DA	791	A	O3'-P	-6.54	1.51	1.61
13	AL	129	GLY	C-N	6.54	1.42	1.33
46	BT	162	ARG	CD-NE	6.54	1.55	1.46
53	Ba	51	LEU	CA-C	-6.54	1.45	1.53
53	Ba	78	ASN	CA-C	-6.54	1.44	1.52
81	DA	163	C	O4'-C1'	6.54	1.51	1.41
6	AE	175	GLY	CA-C	-6.54	1.42	1.51
78	CA	193	U	O4'-C1'	6.54	1.51	1.41
80	CC	16	G	C2'-C1'	6.54	1.63	1.53
81	DA	444	U	O4'-C1'	6.54	1.51	1.41
78	CA	459	G	O4'-C1'	6.54	1.51	1.42
32	BC	109	HIS	CE1-NE2	6.53	1.39	1.32
78	CA	301	A	O4'-C1'	6.53	1.51	1.41
81	DA	2758	A	C2'-C1'	6.53	1.63	1.53
55	Bc	48	ARG	CA-C	-6.53	1.44	1.52
78	CA	1179	G	O4'-C1'	6.53	1.51	1.41
34	BE	50	ALA	CA-C	-6.53	1.45	1.52
74	BQ	128	GLU	N-CA	-6.53	1.37	1.45
19	AR	54	ALA	CA-C	-6.53	1.44	1.52
78	CA	153	G	C2'-C1'	-6.53	1.43	1.53
78	CA	1421	A	O4'-C1'	-6.53	1.31	1.41
81	DA	3349	C	O4'-C1'	6.53	1.51	1.41
81	DA	902	G	C2'-C1'	-6.52	1.43	1.53
81	DA	823	C	C2'-C1'	-6.52	1.43	1.53
81	DA	947	G	C2'-C1'	-6.52	1.43	1.53
81	DA	1864	A	C2'-C1'	6.52	1.62	1.53
81	DA	3211	C	O4'-C1'	6.52	1.51	1.41
78	CA	1736	G	C2'-C1'	-6.52	1.43	1.53
12	AK	34	SER	CA-C	-6.52	1.44	1.52
81	DA	174	C	O4'-C1'	6.52	1.51	1.41
81	DA	1564	U	O4'-C1'	6.52	1.51	1.41
38	Bs	222	SER	N-CA	-6.52	1.38	1.46
57	Be	160	ARG	C-N	6.52	1.40	1.33
81	DA	1012	G	O4'-C1'	6.52	1.51	1.41
81	DA	2823	G	C2'-C1'	-6.52	1.43	1.53
29	AU	3	ASP	C-N	6.52	1.42	1.33
76	BS	122	CYS	C-N	6.52	1.42	1.33
78	CA	1563	C	O4'-C1'	6.52	1.51	1.41
1	Aa	156	VAL	C-N	6.51	1.39	1.32
31	BB	197	PRO	CA-CB	-6.51	1.44	1.53
44	BO	62	HIS	C-O	-6.51	1.15	1.23

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	323	A	O4'-C1'	-6.51	1.32	1.42
81	DA	1509	A	O4'-C1'	6.51	1.51	1.41
81	DA	2509	U	O3'-P	-6.51	1.51	1.61
49	BV	22	LEU	CA-C	-6.51	1.44	1.52
81	DA	855	U	O4'-C1'	6.51	1.51	1.41
1	Aa	124	SER	CA-C	-6.51	1.44	1.52
81	DA	1434	G	C2'-C1'	-6.51	1.43	1.53
3	AB	157	LEU	CA-C	-6.51	1.44	1.52
12	AK	19	ILE	C-N	6.51	1.42	1.33
78	CA	1410	A	O4'-C1'	6.51	1.51	1.41
81	DA	855	U	O3'-P	-6.51	1.51	1.61
78	CA	4	C	O4'-C1'	6.51	1.51	1.41
46	BT	60	LYS	C-N	6.51	1.42	1.33
78	CA	1127	G	O4'-C1'	6.51	1.51	1.41
81	DA	1942	U	O4'-C1'	6.51	1.51	1.41
81	DA	1743	G	O4'-C1'	6.50	1.51	1.42
81	DA	398	A	O4'-C1'	6.50	1.51	1.41
81	DA	587	U	O4'-C1'	6.50	1.51	1.41
81	DA	61	A	C2'-C1'	-6.50	1.43	1.53
81	DA	1958	U	O4'-C1'	6.50	1.51	1.41
81	DA	2813	A	C2'-C1'	-6.50	1.43	1.53
16	AO	74	ILE	C-N	6.50	1.42	1.33
81	DA	2128	C	C2'-C1'	-6.50	1.43	1.53
81	DA	3100	U	O4'-C1'	6.50	1.51	1.41
56	Bf	57	GLU	N-CA	-6.50	1.38	1.46
18	AP	99	ARG	NE-CZ	6.49	1.40	1.33
81	DA	1060	U	C2'-C1'	-6.49	1.43	1.53
17	AQ	19	ARG	NE-CZ	6.49	1.40	1.33
81	DA	2582	C	C2'-C1'	-6.49	1.43	1.53
2	AA	37	VAL	N-CA	-6.49	1.39	1.46
81	DA	170	G	O4'-C1'	6.49	1.51	1.41
81	DA	803	C	O4'-C1'	6.49	1.51	1.41
81	DA	2109	U	O4'-C1'	6.49	1.51	1.41
81	DA	1197	A	O4'-C1'	6.49	1.51	1.41
81	DA	1791	C	O3'-P	-6.49	1.51	1.61
81	DA	2196	C	O4'-C1'	6.49	1.51	1.41
81	DA	2755	C	O3'-P	-6.49	1.51	1.61
49	BV	165	VAL	C-O	-6.48	1.16	1.24
78	CA	288	A	O3'-P	-6.48	1.51	1.61
35	BG	31	ARG	NE-CZ	6.48	1.40	1.33
81	DA	1928	G	C2'-C1'	-6.48	1.43	1.53
81	DA	3388	C	C2'-C1'	-6.48	1.43	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
47	BU	35	LYS	C-N	6.48	1.41	1.33
78	CA	1012	U	O4'-C1'	6.48	1.51	1.41
57	Be	227	GLY	C-N	6.48	1.42	1.33
65	Bn	42	LYS	N-CA	-6.48	1.38	1.46
79	CB	42	C	O4'-C1'	6.48	1.51	1.41
81	DA	2649	A	C2'-C1'	-6.48	1.43	1.53
21	AT	66	ASP	CA-CB	6.48	1.64	1.53
81	DA	62	A	O4'-C1'	6.48	1.51	1.41
5	AC	78	ARG	CZ-NH2	6.47	1.41	1.33
6	AE	208	GLU	CA-CB	6.47	1.63	1.53
24	AX	57	GLU	C-N	6.47	1.42	1.33
78	CA	232	U	C4'-O4'	-6.47	1.35	1.45
78	CA	471	A	C2'-C1'	-6.47	1.43	1.53
81	DA	64	G	C2'-C1'	-6.47	1.43	1.53
46	BT	38	ARG	NE-CZ	6.47	1.40	1.33
53	Ba	13	VAL	N-CA	-6.47	1.38	1.46
81	DA	724	U	C2'-C1'	-6.47	1.43	1.53
81	DA	1243	G	C2'-C1'	-6.47	1.43	1.53
81	DA	3325	G	O4'-C1'	-6.47	1.31	1.41
81	DA	801	A	C3'-C2'	-6.47	1.43	1.52
81	DA	2905	U	O4'-C1'	6.47	1.51	1.41
81	DA	2887	A	O4'-C1'	6.47	1.51	1.42
81	DA	1058	U	O4'-C1'	6.47	1.51	1.41
78	CA	1367	G	O4'-C1'	6.46	1.51	1.41
81	DA	1167	U	O4'-C1'	6.46	1.51	1.41
14	AM	35	ILE	CA-C	-6.46	1.44	1.52
78	CA	1556	A	P-O5'	-6.46	1.50	1.59
81	DA	2825	C	C2'-C1'	-6.46	1.43	1.53
81	DA	2989	U	C2'-C1'	6.46	1.66	1.53
1	Aa	305	TYR	CA-C	-6.46	1.44	1.52
33	BD	91	GLY	CA-C	-6.46	1.44	1.51
69	Br	4	VAL	C-N	6.46	1.41	1.33
81	DA	2849	C	C2'-C1'	-6.46	1.43	1.53
47	BU	137	GLU	N-CA	-6.46	1.37	1.46
74	BQ	288	ALA	CA-CB	6.46	1.63	1.53
81	DA	284	A	C2'-C1'	-6.46	1.43	1.53
81	DA	1338	C	C3'-C2'	6.46	1.62	1.52
48	BW	52	ASN	C-O	6.46	1.30	1.23
78	CA	1771	U	O4'-C1'	6.46	1.51	1.41
81	DA	791	A	C2'-C1'	-6.46	1.43	1.53
81	DA	2233	A	O4'-C1'	-6.46	1.31	1.41
31	BB	232	GLY	C-N	6.45	1.43	1.33

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	818	C	C2'-C1'	-6.45	1.43	1.53
78	CA	1710	U	O4'-C1'	6.45	1.51	1.41
81	DA	3222	U	O3'-P	-6.45	1.51	1.61
49	BV	45	GLN	C-N	6.45	1.42	1.33
65	Bn	17	ARG	NE-CZ	6.45	1.40	1.33
78	CA	1685	G	C2'-C1'	-6.45	1.43	1.53
81	DA	637	C	C5'-C4'	-6.45	1.41	1.51
81	DA	1950	U	O4'-C1'	6.45	1.51	1.41
39	BJ	17	ALA	N-CA	-6.45	1.38	1.46
78	CA	399	A	O4'-C1'	-6.45	1.32	1.42
76	BS	123	ILE	CA-C	6.45	1.60	1.52
82	DB	113	U	O4'-C1'	6.45	1.51	1.41
33	BD	228	ALA	CA-C	-6.44	1.44	1.52
81	DA	694	C	C2'-C1'	-6.44	1.43	1.53
11	AJ	16	GLN	CA-C	-6.44	1.44	1.52
20	AS	95	ASP	N-CA	-6.44	1.38	1.46
78	CA	413	U	O4'-C1'	6.44	1.51	1.41
78	CA	1550	A	C3'-O3'	6.44	1.51	1.42
78	CA	1789	G	C2'-C1'	-6.44	1.43	1.53
81	DA	2836	C	O4'-C1'	6.44	1.51	1.41
81	DA	1307	G	C2'-C1'	-6.43	1.43	1.53
17	AQ	2	GLY	CA-C	-6.43	1.44	1.51
16	AO	40	TYR	C-N	6.43	1.41	1.33
40	BK	94	ARG	NE-CZ	6.43	1.40	1.33
81	DA	2683	U	O3'-P	-6.43	1.51	1.61
12	AK	86	THR	C-N	6.43	1.39	1.33
69	Br	98	LYS	N-CA	-6.43	1.37	1.46
78	CA	1306	C	C3'-C2'	6.43	1.62	1.52
82	DB	30	C	O4'-C1'	6.43	1.51	1.41
33	BD	261	VAL	N-CA	6.43	1.58	1.46
46	BT	92	GLN	N-CA	-6.43	1.38	1.46
81	DA	1657	C	C2'-C1'	6.43	1.62	1.53
20	AS	100	ILE	N-CA	-6.42	1.38	1.46
78	CA	283	U	O4'-C1'	6.42	1.51	1.41
81	DA	450	G	C2'-C1'	-6.42	1.43	1.53
45	BR	157	PRO	C-N	6.42	1.46	1.34
81	DA	141	C	O4'-C1'	6.42	1.51	1.41
20	AS	26	GLY	C-N	6.42	1.42	1.33
30	BA	197	ASN	CA-CB	6.42	1.62	1.53
48	BW	99	LYS	N-CA	-6.42	1.37	1.45
81	DA	759	U	O4'-C1'	6.42	1.51	1.41
81	DA	10	C	O4'-C1'	6.42	1.51	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	2209	U	O4'-C1'	6.42	1.51	1.41
9	AH	78	ARG	N-CA	-6.42	1.39	1.47
81	DA	2435	G	C2'-C1'	6.42	1.62	1.53
81	DA	3040	A	C2'-C1'	-6.42	1.43	1.53
83	DC	115	A	C2'-C1'	6.42	1.62	1.53
13	AL	38	PHE	C-O	-6.42	1.16	1.24
37	BH	178	ALA	CA-C	-6.42	1.45	1.52
81	DA	1549	U	C2'-C1'	-6.42	1.43	1.53
81	DA	3137	C	C2'-C1'	-6.42	1.43	1.53
9	AH	47	ILE	CA-C	-6.41	1.44	1.52
32	BC	299	ASP	N-CA	6.41	1.54	1.46
9	AH	78	ARG	CA-CB	6.41	1.61	1.53
48	BW	90	ARG	C-N	6.41	1.42	1.33
50	BX	69	SER	CA-C	-6.41	1.44	1.52
51	BZ	48	ARG	NE-CZ	6.41	1.40	1.33
78	CA	1749	A	O4'-C1'	6.41	1.51	1.41
82	DB	44	A	O3'-P	-6.41	1.51	1.61
36	BF	121	LYS	CA-CB	6.41	1.63	1.53
40	BK	122	GLN	N-CA	-6.41	1.38	1.46
78	CA	683	C	C2'-C1'	6.41	1.62	1.53
78	CA	837	G	O3'-P	-6.41	1.51	1.61
78	CA	1356	U	O4'-C1'	6.41	1.51	1.41
81	DA	616	G	C2'-C1'	-6.41	1.43	1.53
32	BC	281	LYS	C-N	6.41	1.41	1.33
8	AF	29	ILE	N-CA	-6.41	1.38	1.46
26	AZ	55	ARG	NE-CZ	6.41	1.40	1.33
39	BJ	25	SER	CA-CB	6.41	1.63	1.53
41	BN	15	VAL	CA-CB	-6.41	1.46	1.54
81	DA	2171	G	O4'-C1'	6.41	1.51	1.41
81	DA	559	A	O4'-C1'	6.40	1.51	1.41
14	AM	120	ARG	CA-CB	6.40	1.64	1.53
37	BH	168	ALA	C-N	6.40	1.42	1.33
46	BT	71	ARG	CA-CB	-6.40	1.42	1.53
58	Bg	98	VAL	CA-CB	-6.40	1.46	1.54
19	AR	69	GLU	C-O	-6.40	1.16	1.24
33	BD	355	PHE	CA-C	-6.40	1.44	1.52
78	CA	687	G	O4'-C1'	6.40	1.51	1.42
81	DA	1371	G	C2'-C1'	-6.40	1.43	1.53
49	BV	2	ALA	C-N	6.40	1.42	1.33
61	Bj	54	ARG	CA-C	-6.40	1.44	1.52
78	CA	1147	A	C2'-C1'	-6.40	1.43	1.53
81	DA	1488	G	C2'-C1'	-6.40	1.43	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1079	A	C2'-C1'	6.40	1.62	1.53
81	DA	3043	C	O4'-C1'	6.40	1.51	1.41
35	BG	6	ALA	N-CA	6.39	1.55	1.46
81	DA	2202	C	O4'-C1'	6.39	1.51	1.41
13	AL	2	GLY	N-CA	-6.39	1.36	1.45
14	AM	126	ARG	CA-C	-6.39	1.44	1.52
38	Bs	132	LYS	C-N	6.39	1.42	1.34
78	CA	1540	G	C2'-C1'	-6.39	1.43	1.53
81	DA	2162	U	O3'-P	-6.39	1.51	1.61
9	AH	91	ALA	CA-C	-6.39	1.44	1.52
39	BJ	131	GLU	C-O	-6.39	1.16	1.24
78	CA	922	G	O4'-C1'	6.39	1.51	1.41
14	AM	43	SER	CA-C	-6.39	1.44	1.52
16	AO	106	ARG	NE-CZ	6.39	1.40	1.33
39	BJ	16	ARG	C-N	6.39	1.41	1.33
18	AP	56	LYS	CA-C	-6.39	1.44	1.52
47	BU	139	ARG	N-CA	-6.39	1.38	1.46
50	BX	57	LEU	C-N	6.38	1.42	1.33
51	BZ	40	PHE	CA-CB	6.38	1.63	1.53
47	BU	142	SER	CA-C	-6.38	1.44	1.52
49	BV	118	GLN	CA-C	-6.38	1.44	1.52
33	BD	84	ARG	CA-C	6.38	1.61	1.52
44	BO	89	GLN	C-N	6.38	1.39	1.32
81	DA	941	G	C2'-C1'	-6.38	1.43	1.53
81	DA	2723	U	C2'-C1'	-6.38	1.43	1.53
4	AD	200	ARG	CD-NE	6.38	1.55	1.46
33	BD	52	VAL	CA-C	-6.38	1.45	1.52
60	Bi	4	ARG	NE-CZ	6.38	1.40	1.33
53	Ba	44	ALA	CA-C	-6.38	1.44	1.52
78	CA	337	G	C2'-C1'	6.38	1.62	1.53
81	DA	673	U	C2'-C1'	-6.38	1.43	1.53
81	DA	5	G	O4'-C1'	6.38	1.51	1.41
81	DA	1228	C	O4'-C1'	6.38	1.51	1.41
81	DA	1269	U	O4'-C1'	6.38	1.51	1.41
33	BD	1	MET	C-N	6.38	1.42	1.33
81	DA	1421	G	C2'-C1'	-6.37	1.43	1.53
81	DA	1738	C	C2'-C1'	-6.37	1.43	1.53
69	Br	80	ARG	C-N	6.37	1.42	1.33
81	DA	228	U	O3'-P	-6.37	1.51	1.61
81	DA	2265	C	C2'-C1'	-6.37	1.43	1.53
13	AL	134	ALA	C-N	-6.37	1.25	1.33
81	DA	1292	C	C2'-C1'	-6.37	1.43	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
82	DB	28	C	C2'-C1'	-6.37	1.43	1.53
79	CB	17	G	O4'-C1'	6.37	1.51	1.42
81	DA	2621	G	C2'-C1'	-6.37	1.43	1.53
78	CA	288	A	C2'-C1'	6.36	1.62	1.53
78	CA	613	G	C2'-C1'	6.36	1.62	1.53
29	AU	4	ALA	C-O	-6.36	1.15	1.23
82	DB	97	A	O3'-P	-6.36	1.51	1.61
46	BT	121	HIS	C-O	-6.36	1.16	1.24
81	DA	176	G	C2'-C1'	-6.36	1.43	1.53
6	AE	188	LEU	CA-C	-6.36	1.44	1.52
11	AJ	83	GLU	C-N	6.36	1.42	1.33
33	BD	297	SER	C-N	6.36	1.42	1.33
38	Bs	243	TYR	CA-CB	6.36	1.63	1.53
81	DA	1291	A	C2'-C1'	6.36	1.62	1.53
81	DA	3386	G	O4'-C1'	6.36	1.51	1.41
60	Bi	19	LYS	C-N	6.35	1.42	1.33
81	DA	700	C	O4'-C1'	6.35	1.51	1.41
18	AP	66	ILE	N-CA	-6.35	1.39	1.46
78	CA	324	U	C2'-C1'	-6.35	1.43	1.53
81	DA	261	U	O4'-C1'	6.35	1.51	1.41
81	DA	643	U	O4'-C1'	6.35	1.51	1.41
81	DA	1250	G	O4'-C1'	-6.35	1.32	1.41
65	Bn	67	GLN	N-CA	-6.35	1.38	1.46
81	DA	1886	A	O4'-C1'	6.35	1.51	1.41
5	AC	135	ALA	CA-C	-6.35	1.44	1.52
12	AK	59	ALA	CA-C	-6.35	1.44	1.52
13	AL	44	GLY	CA-C	-6.35	1.46	1.52
44	BO	12	ARG	NE-CZ	6.35	1.40	1.33
78	CA	407	A	C2'-C1'	6.35	1.62	1.53
83	DC	98	G	O4'-C1'	6.35	1.51	1.41
13	AL	124	VAL	N-CA	6.35	1.54	1.46
14	AM	137	HIS	CB-CG	6.35	1.59	1.50
33	BD	95	ARG	CZ-NH1	6.35	1.41	1.32
47	BU	130	ARG	N-CA	6.35	1.54	1.46
47	BU	145	GLY	CA-C	-6.35	1.43	1.51
55	Bc	102	GLU	C-N	6.35	1.42	1.33
81	DA	604	G	C2'-C1'	6.35	1.62	1.53
81	DA	1848	G	C2'-C1'	-6.35	1.43	1.53
81	DA	2822	U	O4'-C1'	6.35	1.51	1.41
40	BK	2	SER	C-N	6.34	1.42	1.33
48	BW	93	ILE	C-N	6.34	1.42	1.33
51	BZ	56	ARG	NE-CZ	6.34	1.40	1.33

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1900	A	C2'-C1'	-6.34	1.43	1.53
81	DA	3141	A	P-O5'	-6.34	1.50	1.59
83	DC	114	A	O4'-C1'	-6.34	1.32	1.41
59	Bh	81	ASP	CA-C	-6.34	1.43	1.52
2	AA	179	ARG	CA-CB	6.34	1.63	1.53
4	AD	129	VAL	N-CA	-6.34	1.39	1.46
59	Bh	125	ARG	NE-CZ	6.34	1.40	1.33
58	Bg	63	GLY	CA-C	-6.34	1.44	1.51
18	AP	111	VAL	CA-CB	-6.34	1.46	1.53
24	AX	60	SER	C-N	6.34	1.42	1.33
58	Bg	72	ARG	CD-NE	6.34	1.55	1.46
78	CA	664	U	C2'-C1'	-6.34	1.43	1.53
10	AI	84	ALA	CA-CB	6.33	1.64	1.53
33	BD	138	ARG	CA-C	-6.33	1.43	1.52
81	DA	425	G	C2'-C1'	-6.33	1.43	1.53
81	DA	1262	G	C2'-C1'	-6.33	1.43	1.53
81	DA	1937	U	O4'-C1'	6.33	1.51	1.41
81	DA	2364	G	O4'-C1'	6.33	1.51	1.41
58	Bg	10	ARG	CA-C	6.33	1.60	1.52
63	Bm	70	THR	C-N	6.33	1.41	1.34
81	DA	1502	C	O4'-C1'	6.33	1.51	1.42
81	DA	2257	C	C2'-C1'	6.33	1.62	1.53
49	BV	90	PHE	CA-C	-6.33	1.44	1.52
78	CA	1379	C	C2'-C1'	-6.33	1.43	1.53
16	AO	114	ARG	CA-C	-6.33	1.44	1.52
81	DA	579	G	O4'-C1'	-6.33	1.32	1.41
73	Bv	16	THR	N-CA	6.33	1.52	1.46
76	BS	69	LYS	CA-CB	6.33	1.61	1.53
78	CA	1748	G	C2'-C1'	-6.33	1.43	1.53
81	DA	2154	U	C2'-C1'	-6.33	1.43	1.53
41	BN	16	GLU	CA-CB	6.33	1.63	1.53
78	CA	1310	U	C4'-O4'	-6.33	1.36	1.45
81	DA	3358	U	O4'-C1'	6.33	1.51	1.41
4	AD	130	GLN	CA-C	-6.32	1.45	1.52
30	BA	24	LYS	CA-C	-6.32	1.43	1.52
33	BD	142	VAL	CA-C	-6.32	1.44	1.52
78	CA	659	C	O4'-C1'	6.32	1.51	1.41
81	DA	666	A	O4'-C1'	-6.32	1.32	1.41
81	DA	2994	A	C2'-C1'	6.32	1.62	1.53
6	AE	92	ALA	C-N	6.32	1.43	1.33
33	BD	145	ILE	CA-CB	6.32	1.62	1.54
81	DA	541	U	C2'-C1'	6.32	1.62	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
42	BM	84	SER	CA-CB	6.32	1.64	1.53
47	BU	39	ILE	CA-CB	-6.32	1.46	1.54
78	CA	183	U	O4'-C1'	6.32	1.51	1.41
79	CB	16	U	O4'-C1'	6.32	1.51	1.41
81	DA	3008	A	O4'-C1'	6.32	1.51	1.41
48	BW	92	TRP	N-CA	-6.32	1.41	1.47
81	DA	245	U	O4'-C1'	6.32	1.51	1.41
78	CA	1364	G	C2'-C1'	-6.32	1.43	1.53
81	DA	2138	A	C2'-C1'	6.32	1.62	1.53
46	BT	98	ARG	NE-CZ	6.32	1.40	1.33
48	BW	6	SER	N-CA	6.32	1.58	1.46
78	CA	222	A	P-O5'	6.32	1.69	1.59
10	AI	87	LYS	CA-C	6.31	1.61	1.52
78	CA	1135	U	O4'-C1'	6.31	1.51	1.41
4	AD	197	HIS	ND1-CE1	6.31	1.38	1.32
32	BC	256	HIS	ND1-CE1	6.31	1.38	1.32
54	Bd	45	HIS	CA-C	-6.31	1.44	1.52
81	DA	503	C	O4'-C1'	6.31	1.51	1.41
81	DA	2282	U	O4'-C1'	6.31	1.51	1.42
33	BD	10	SER	C-O	-6.31	1.15	1.23
81	DA	2	U	C2'-C1'	6.31	1.62	1.53
81	DA	1611	G	C2'-C1'	-6.31	1.43	1.53
82	DB	92	A	C2'-C1'	-6.31	1.43	1.53
5	AC	54	ARG	NE-CZ	6.31	1.40	1.33
37	BH	101	THR	N-CA	-6.31	1.38	1.46
78	CA	1547	A	O4'-C1'	6.31	1.51	1.41
81	DA	1580	A	C2'-C1'	-6.31	1.43	1.53
9	AH	75	ILE	CA-CB	-6.30	1.45	1.53
74	BQ	295	GLY	CA-C	-6.30	1.45	1.51
78	CA	892	A	O4'-C1'	6.30	1.51	1.41
35	BG	51	ARG	C-N	6.30	1.41	1.33
78	CA	1246	C	C2'-C1'	-6.30	1.43	1.53
60	Bi	17	SER	CA-C	-6.30	1.39	1.52
79	CB	27	G	C2'-C1'	-6.30	1.44	1.53
78	CA	833	U	C2'-C1'	6.30	1.62	1.53
34	BE	105	GLY	CA-C	-6.30	1.46	1.51
57	Be	34	LYS	N-CA	-6.30	1.38	1.46
81	DA	2198	A	O4'-C1'	6.30	1.51	1.41
81	DA	2423	U	O4'-C1'	6.30	1.51	1.41
1	Aa	181	TRP	CA-C	-6.29	1.45	1.52
42	BM	52	ALA	CA-C	-6.29	1.45	1.52
19	AR	64	LYS	N-CA	-6.29	1.38	1.46

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
43	BP	179	LYS	C-N	6.29	1.42	1.33
81	DA	273	A	C2'-C1'	-6.29	1.44	1.53
81	DA	1111	U	O4'-C1'	6.29	1.51	1.41
5	AC	75	ALA	C-N	6.29	1.42	1.34
11	AJ	89	ARG	C-O	-6.29	1.16	1.24
78	CA	406	U	O4'-C1'	6.29	1.51	1.41
40	BK	160	ARG	NE-CZ	6.29	1.40	1.33
78	CA	288	A	O4'-C1'	6.29	1.51	1.41
78	CA	626	U	C2'-C1'	-6.29	1.44	1.53
18	AP	57	LYS	CA-C	6.29	1.61	1.52
30	BA	54	LYS	CA-C	-6.29	1.44	1.52
32	BC	167	ARG	CD-NE	6.29	1.55	1.46
78	CA	1134	C	C2'-C1'	-6.29	1.44	1.53
81	DA	1050	U	C2'-C1'	6.29	1.62	1.53
5	AC	21	SER	CA-C	-6.28	1.45	1.52
32	BC	328	ILE	C-N	6.28	1.41	1.33
56	Bf	17	VAL	CA-C	-6.28	1.44	1.52
78	CA	554	C	O3'-P	-6.28	1.51	1.61
81	DA	3069	G	C2'-C1'	-6.28	1.44	1.53
81	DA	1988	C	O4'-C1'	6.28	1.51	1.41
81	DA	2851	A	O4'-C1'	6.28	1.51	1.41
1	Aa	66	HIS	CA-C	-6.28	1.44	1.53
31	BB	245	LEU	N-CA	-6.28	1.37	1.46
81	DA	672	A	O3'-P	-6.28	1.51	1.61
81	DA	2199	G	C2'-C1'	-6.28	1.44	1.53
77	BI	119	TRP	NE1-CE2	6.28	1.44	1.37
81	DA	954	U	O4'-C1'	6.28	1.51	1.41
14	AM	39	GLY	N-CA	-6.28	1.39	1.44
43	BP	90	ASN	C-N	6.28	1.41	1.33
81	DA	1783	U	C4'-C3'	6.28	1.61	1.52
32	BC	5	LYS	CA-CB	-6.28	1.42	1.53
54	Bd	39	PHE	CA-C	-6.28	1.44	1.52
81	DA	1318	A	O4'-C1'	6.28	1.51	1.42
81	DA	2197	C	C2'-C1'	6.27	1.62	1.53
82	DB	7	U	O4'-C1'	6.27	1.51	1.41
22	AV	30	LYS	CA-CB	6.27	1.64	1.53
33	BD	359	LEU	N-CA	-6.27	1.38	1.46
53	Ba	7	ALA	C-N	6.27	1.42	1.33
59	Bh	4	LEU	C-O	-6.27	1.18	1.24
1	Aa	275	ARG	CD-NE	6.27	1.55	1.46
33	BD	299	ILE	CA-C	-6.27	1.44	1.52
40	BK	120	VAL	CA-C	6.27	1.59	1.52

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	331	A	O4'-C1'	6.27	1.51	1.41
81	DA	1774	C	O4'-C1'	6.27	1.51	1.41
81	DA	3392	U	O4'-C1'	6.27	1.51	1.41
2	AA	230	GLU	N-CA	6.27	1.54	1.46
49	BV	88	VAL	C-N	6.27	1.42	1.33
81	DA	90	C	O4'-C1'	6.27	1.51	1.41
3	AB	94	ARG	NE-CZ	6.26	1.40	1.33
21	AT	82	VAL	CA-C	-6.26	1.44	1.52
51	BZ	57	LYS	C-N	6.26	1.42	1.33
57	Be	118	LYS	C-N	6.26	1.41	1.33
81	DA	1587	A	C2'-C1'	6.26	1.62	1.53
3	AB	87	TYR	CA-C	-6.26	1.44	1.52
4	AD	90	ILE	C-N	6.26	1.41	1.33
5	AC	64	GLU	CA-CB	6.26	1.63	1.53
81	DA	1145	G	O4'-C1'	6.26	1.51	1.41
81	DA	2837	A	O4'-C1'	-6.26	1.32	1.42
82	DB	93	U	C2'-C1'	6.26	1.62	1.53
46	BT	21	LYS	N-CA	-6.26	1.37	1.45
81	DA	3008	A	C2'-C1'	-6.26	1.44	1.53
45	BR	80	THR	CA-C	-6.26	1.45	1.52
78	CA	610	G	C2'-C1'	6.26	1.62	1.53
81	DA	2835	U	O4'-C1'	6.26	1.51	1.41
35	BG	25	ALA	CA-C	-6.26	1.44	1.52
35	BG	43	LEU	CA-CB	6.26	1.63	1.53
81	DA	1626	U	O4'-C1'	6.26	1.51	1.41
81	DA	2737	C	C2'-C1'	-6.26	1.44	1.53
2	AA	52	LYS	CA-CB	6.25	1.63	1.53
32	BC	121	ASN	N-CA	-6.25	1.38	1.46
55	Bc	96	GLU	CA-C	-6.25	1.44	1.52
78	CA	563	U	O4'-C1'	6.25	1.51	1.41
78	CA	1776	A	O4'-C1'	6.25	1.51	1.41
30	BA	91	LYS	C-N	6.25	1.42	1.33
38	Bs	132	LYS	N-CA	-6.25	1.38	1.46
81	DA	1043	C	O4'-C1'	6.25	1.51	1.41
36	BF	24	ILE	CA-C	-6.25	1.45	1.52
78	CA	62	A	O4'-C1'	6.25	1.51	1.41
81	DA	1602	A	O4'-C1'	6.25	1.51	1.41
38	Bs	198	PRO	CA-C	-6.25	1.47	1.53
64	Bl	28	HIS	C-N	6.25	1.41	1.33
11	AJ	23	ARG	NE-CZ	6.25	1.40	1.33
49	BV	152	GLU	N-CA	-6.25	1.38	1.46
76	BS	56	SER	CA-C	-6.25	1.44	1.52

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1178	G	C2'-C1'	-6.25	1.44	1.53
81	DA	3328	G	O4'-C1'	-6.25	1.32	1.41
1	Aa	287	PRO	CA-C	6.25	1.59	1.53
3	AB	16	VAL	CA-CB	6.25	1.62	1.54
81	DA	524	U	C2'-C1'	6.25	1.62	1.53
81	DA	2343	C	C2'-C1'	-6.25	1.44	1.53
81	DA	498	A	C2'-C1'	-6.25	1.44	1.53
6	AE	74	PRO	C-N	6.24	1.42	1.33
47	BU	62	GLY	CA-C	-6.24	1.46	1.52
81	DA	1587	A	O4'-C1'	-6.24	1.32	1.42
81	DA	3143	C	C2'-C1'	-6.24	1.43	1.53
78	CA	219	A	C5'-C4'	6.24	1.60	1.51
81	DA	982	C	C2'-C1'	6.24	1.62	1.53
1	Aa	167	VAL	CA-CB	-6.24	1.47	1.54
78	CA	855	A	C5'-C4'	6.24	1.60	1.51
78	CA	1349	G	O4'-C1'	6.24	1.51	1.41
81	DA	1806	A	C2'-C1'	-6.24	1.44	1.53
82	DB	151	C	C5'-C4'	6.24	1.60	1.51
37	BH	68	ARG	CD-NE	6.24	1.54	1.46
38	Bs	213	PHE	CA-C	-6.24	1.44	1.52
81	DA	1674	G	O4'-C1'	6.24	1.51	1.41
81	DA	641	C	C2'-C1'	-6.24	1.44	1.53
33	BD	106	TRP	CA-C	-6.24	1.44	1.52
46	BT	162	ARG	NE-CZ	6.24	1.40	1.33
64	Bl	65	ARG	NE-CZ	6.24	1.40	1.33
74	BQ	244	HIS	ND1-CE1	6.24	1.38	1.32
57	Be	132	PRO	CA-CB	6.23	1.62	1.53
21	AT	84	SER	C-N	6.23	1.42	1.33
80	CC	20	U	C1'-N1	6.23	1.56	1.47
81	DA	422	A	O4'-C1'	-6.23	1.32	1.41
81	DA	832	G	O4'-C1'	-6.23	1.32	1.41
81	DA	1961	G	C2'-C1'	-6.23	1.44	1.53
9	AH	104	LEU	CA-C	-6.23	1.45	1.52
81	DA	2680	A	C2'-C1'	-6.23	1.44	1.53
3	AB	158	ILE	CA-C	-6.23	1.44	1.52
78	CA	588	U	C5'-C4'	-6.23	1.42	1.51
6	AE	220	ASN	CA-CB	6.22	1.61	1.53
25	AY	18	ARG	CA-C	-6.22	1.44	1.52
42	BM	10	LYS	CA-C	-6.22	1.44	1.52
81	DA	1652	G	C2'-C1'	-6.22	1.44	1.53
81	DA	2142	A	O4'-C1'	6.22	1.51	1.42
64	Bl	18	LEU	C-N	6.22	1.42	1.33

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	BC	167	ARG	NE-CZ	6.22	1.39	1.33
60	Bi	16	ARG	CD-NE	6.22	1.54	1.46
81	DA	555	U	C2'-C1'	6.22	1.62	1.53
81	DA	2680	A	O4'-C1'	6.22	1.50	1.41
45	BR	108	ALA	CA-C	-6.22	1.44	1.52
48	BW	29	ASP	N-CA	-6.22	1.37	1.46
81	DA	310	U	O4'-C1'	6.22	1.50	1.41
32	BC	160	VAL	N-CA	-6.21	1.38	1.46
33	BD	60	THR	C-N	6.21	1.42	1.33
59	Bh	20	HIS	C-N	6.21	1.42	1.33
81	DA	2238	G	C2'-C1'	-6.21	1.44	1.53
40	BK	111	PRO	CA-C	-6.21	1.43	1.52
50	BX	35	PRO	N-CA	6.21	1.55	1.47
63	Bm	26	VAL	CA-CB	-6.21	1.45	1.54
66	Bo	15	LYS	CA-C	-6.21	1.44	1.52
78	CA	1157	A	O4'-C1'	6.21	1.50	1.41
81	DA	744	A	C2'-O2'	-6.21	1.33	1.42
77	BI	111	LEU	CA-CB	6.21	1.63	1.53
78	CA	425	A	C2'-C1'	-6.21	1.44	1.53
78	CA	671	G	O4'-C1'	6.21	1.50	1.41
81	DA	767	U	C2'-C1'	-6.21	1.44	1.53
81	DA	1382	G	C2'-C1'	-6.21	1.44	1.53
13	AL	71	CYS	C-N	6.21	1.41	1.33
44	BO	62	HIS	CA-C	6.21	1.61	1.53
81	DA	2728	G	O4'-C1'	6.21	1.50	1.41
22	AV	86	GLU	CA-C	-6.21	1.44	1.52
33	BD	203	ARG	NE-CZ	6.21	1.39	1.33
73	Bw	16	THR	CA-C	6.21	1.60	1.52
49	BV	108	ASP	CA-CB	-6.20	1.43	1.53
78	CA	951	A	O4'-C1'	-6.20	1.32	1.41
81	DA	2792	A	O4'-C1'	-6.20	1.32	1.41
81	DA	161	G	O3'-P	-6.20	1.51	1.61
78	CA	387	A	C2'-C1'	6.20	1.62	1.53
81	DA	655	C	O4'-C1'	6.20	1.50	1.41
5	AC	78	ARG	NE-CZ	6.20	1.39	1.33
20	AS	80	TYR	N-CA	-6.20	1.38	1.46
81	DA	2617	U	O4'-C1'	-6.20	1.32	1.42
11	AJ	110	PRO	CA-C	-6.20	1.46	1.52
78	CA	233	C	C2'-C1'	-6.20	1.44	1.53
78	CA	356	G	C2'-C1'	-6.20	1.44	1.53
81	DA	675	C	C2'-C1'	6.20	1.62	1.53
81	DA	1360	C	O4'-C1'	6.20	1.50	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	3034	C	O3'-P	-6.20	1.51	1.61
78	CA	1609	U	O4'-C1'	6.19	1.50	1.41
81	DA	2743	A	C2'-C1'	-6.19	1.44	1.53
5	AC	44	ARG	NE-CZ	6.19	1.39	1.33
32	BC	345	ASN	CA-C	-6.19	1.44	1.52
78	CA	1574	G	O4'-C1'	6.19	1.50	1.41
81	DA	268	A	C2'-C1'	6.19	1.62	1.53
81	DA	917	A	C2'-C1'	-6.19	1.44	1.53
6	AE	69	ILE	CA-C	-6.19	1.44	1.52
6	AE	249	ALA	CA-C	-6.19	1.45	1.52
81	DA	178	U	O3'-P	-6.19	1.51	1.61
45	BR	158	HIS	N-CA	6.19	1.57	1.46
58	Bg	26	LYS	CA-CB	6.19	1.62	1.53
40	BK	185	ALA	CA-CB	6.18	1.64	1.53
81	DA	171	G	O4'-C1'	6.18	1.50	1.41
42	BM	16	GLY	CA-C	-6.18	1.43	1.51
46	BT	58	HIS	CB-CG	-6.18	1.41	1.50
78	CA	970	A	C2'-C1'	6.18	1.62	1.53
78	CA	1072	C	O4'-C1'	6.18	1.50	1.41
81	DA	2490	C	C2'-C1'	-6.18	1.44	1.53
14	AM	101	LEU	CG-CD2	-6.18	1.32	1.52
81	DA	1508	C	C2'-C1'	-6.18	1.44	1.53
3	AB	27	ARG	NE-CZ	6.18	1.39	1.33
8	AF	116	HIS	ND1-CE1	6.18	1.38	1.32
9	AH	70	ASN	N-CA	-6.18	1.38	1.46
11	AJ	99	ILE	CA-CB	-6.18	1.47	1.54
19	AR	135	THR	N-CA	-6.18	1.38	1.45
34	BE	53	THR	CA-C	6.18	1.61	1.52
81	DA	1075	A	O4'-C1'	6.18	1.50	1.41
81	DA	1782	U	O4'-C1'	6.18	1.50	1.41
81	DA	3367	C	O4'-C1'	6.18	1.50	1.41
6	AE	70	ASP	C-O	-6.17	1.16	1.24
81	DA	1241	U	O4'-C1'	6.17	1.50	1.41
81	DA	1364	C	C2'-C1'	-6.17	1.44	1.53
81	DA	1372	C	O4'-C1'	6.17	1.50	1.41
81	DA	2599	U	O4'-C1'	6.17	1.50	1.41
81	DA	1337	A	O4'-C1'	6.17	1.50	1.41
82	DB	98	U	O4'-C1'	6.17	1.50	1.41
61	Bj	9	VAL	CA-CB	6.17	1.62	1.54
78	CA	866	G	P-OP2	6.17	1.61	1.49
14	AM	119	ILE	N-CA	6.17	1.53	1.46
21	AT	83	TRP	C-N	6.17	1.41	1.33

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	AY	57	MET	CA-CB	6.17	1.63	1.53
73	Bw	16	THR	N-CA	6.17	1.52	1.46
76	BS	12	VAL	CA-CB	-6.17	1.47	1.54
81	DA	1405	U	O4'-C1'	6.17	1.50	1.41
52	BY	39	LEU	CA-CB	6.17	1.62	1.53
78	CA	1279	C	C2'-C1'	-6.17	1.44	1.53
13	AL	122	PHE	N-CA	-6.16	1.38	1.46
24	AX	32	PHE	N-CA	6.16	1.53	1.46
44	BO	71	PRO	CA-CB	-6.16	1.45	1.53
64	Bl	55	ARG	NE-CZ	6.16	1.39	1.33
78	CA	1202	A	C2'-C1'	6.16	1.62	1.53
20	AS	12	GLN	N-CA	-6.16	1.39	1.46
45	BR	10	HIS	ND1-CE1	6.16	1.38	1.32
26	AZ	55	ARG	C-N	6.16	1.41	1.33
31	BB	229	ALA	CA-C	-6.16	1.45	1.52
76	BS	27	TYR	C-N	6.16	1.42	1.33
78	CA	189	C	O4'-C1'	6.16	1.50	1.41
81	DA	1703	U	O4'-C1'	6.16	1.50	1.41
14	AM	16	ARG	CA-C	-6.16	1.44	1.52
32	BC	331	ASN	CA-C	-6.16	1.44	1.52
81	DA	381	U	C2'-C1'	-6.16	1.44	1.53
81	DA	1953	G	O3'-P	-6.16	1.51	1.61
52	BY	77	LYS	CA-CB	6.16	1.61	1.53
55	Bc	109	ILE	N-CA	6.16	1.54	1.46
81	DA	1117	G	O4'-C1'	6.16	1.50	1.41
37	BH	249	ARG	NE-CZ	6.15	1.39	1.33
39	BJ	84	ALA	C-N	6.15	1.42	1.33
78	CA	947	U	O4'-C1'	6.15	1.50	1.41
78	CA	1754	A	C2'-C1'	-6.15	1.44	1.53
41	BN	76	ALA	N-CA	-6.15	1.37	1.45
81	DA	2985	C	O4'-C1'	6.15	1.50	1.41
81	DA	38	U	O4'-C1'	6.15	1.50	1.41
8	AF	55	ASP	C-O	-6.15	1.16	1.24
31	BB	246	LEU	N-CA	6.15	1.54	1.46
81	DA	605	U	O4'-C1'	6.15	1.50	1.41
81	DA	1778	G	C2'-C1'	-6.15	1.44	1.53
81	DA	1812	G	C2'-C1'	-6.15	1.44	1.53
78	CA	114	C	C2'-C1'	6.15	1.62	1.53
81	DA	2030	C	O4'-C1'	6.15	1.50	1.41
20	AS	95	ASP	CA-C	-6.14	1.45	1.53
33	BD	202	ARG	NE-CZ	6.14	1.39	1.33
78	CA	1368	G	C2'-C1'	-6.14	1.44	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	696	C	O4'-C1'	6.14	1.50	1.41
81	DA	843	A	C2'-C1'	6.14	1.62	1.53
81	DA	1232	C	O4'-C1'	6.14	1.50	1.41
83	DC	86	G	O4'-C1'	6.14	1.50	1.41
81	DA	1689	U	C5'-C4'	-6.14	1.42	1.51
33	BD	12	THR	C-N	6.14	1.42	1.33
49	BV	152	GLU	C-N	6.14	1.42	1.33
81	DA	1268	G	C2'-C1'	-6.14	1.44	1.53
81	DA	2315	G	C2'-C1'	-6.14	1.44	1.53
63	Bm	84	ARG	NE-CZ	6.14	1.39	1.33
33	BD	121	ALA	CA-C	-6.14	1.44	1.52
78	CA	1648	A	O4'-C1'	6.14	1.50	1.41
81	DA	267	G	O4'-C1'	6.14	1.51	1.42
82	DB	136	G	C2'-C1'	-6.14	1.44	1.53
33	BD	23	PRO	CA-C	-6.13	1.44	1.52
43	BP	23	GLN	N-CA	-6.13	1.39	1.46
81	DA	2671	A	C2'-C1'	-6.13	1.44	1.53
78	CA	1163	A	C2'-C1'	-6.13	1.44	1.53
81	DA	3313	U	C3'-O3'	-6.13	1.32	1.42
32	BC	86	VAL	CA-C	-6.13	1.47	1.53
33	BD	213	ASN	C-N	6.13	1.40	1.32
78	CA	347	G	C2'-C1'	-6.13	1.44	1.53
78	CA	1473	U	O4'-C1'	-6.13	1.32	1.42
81	DA	722	G	O4'-C1'	6.13	1.50	1.41
20	AS	57	ARG	NE-CZ	6.13	1.39	1.33
81	DA	2248	C	C2'-C1'	-6.13	1.44	1.53
32	BC	217	ALA	CA-C	-6.13	1.45	1.52
35	BG	3	ALA	C-N	6.13	1.42	1.33
53	Ba	98	THR	CA-C	6.13	1.57	1.53
78	CA	367	A	O4'-C1'	-6.13	1.32	1.41
78	CA	1037	C	C2'-C1'	-6.13	1.44	1.53
82	DB	61	A	O4'-C1'	6.13	1.50	1.41
9	AH	67	GLY	C-N	-6.12	1.26	1.33
3	AB	117	ARG	CD-NE	6.12	1.54	1.46
49	BV	47	TYR	N-CA	-6.12	1.39	1.46
78	CA	1592	A	C2'-C1'	-6.12	1.44	1.53
83	DC	14	U	C2'-C1'	-6.12	1.44	1.53
14	AM	13	HIS	ND1-CE1	6.12	1.38	1.32
39	BJ	67	ARG	CD-NE	6.12	1.54	1.46
81	DA	416	A	O4'-C1'	6.12	1.50	1.41
78	CA	1631	A	O4'-C1'	6.12	1.51	1.42
1	Aa	166	SER	C-N	6.12	1.39	1.33

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
10	AI	135	ARG	CZ-NH1	6.11	1.41	1.32
13	AL	38	PHE	N-CA	-6.11	1.38	1.46
14	AM	68	ARG	CD-NE	6.11	1.54	1.46
20	AS	100	ILE	CA-CB	-6.11	1.46	1.54
81	DA	1676	A	O4'-C1'	6.11	1.50	1.41
55	Bc	96	GLU	N-CA	-6.11	1.38	1.46
1	Aa	298	GLY	N-CA	-6.11	1.36	1.45
38	Bs	104	ARG	CD-NE	6.11	1.54	1.46
68	Bq	2	ARG	CD-NE	6.11	1.54	1.46
68	Bq	23	ARG	CD-NE	6.11	1.54	1.46
39	BJ	44	GLU	C-N	6.11	1.42	1.33
48	BW	16	THR	N-CA	-6.11	1.38	1.45
3	AB	51	ARG	N-CA	-6.10	1.39	1.46
17	AQ	63	LYS	CA-C	6.10	1.61	1.53
74	BQ	198	TYR	CA-CB	6.10	1.63	1.53
15	AN	30	LEU	C-N	6.10	1.41	1.33
33	BD	338	LYS	CA-CB	6.10	1.61	1.52
78	CA	684	A	O4'-C1'	6.10	1.50	1.41
1	Aa	275	ARG	NE-CZ	6.10	1.39	1.33
12	AK	90	ARG	N-CA	-6.10	1.38	1.46
31	BB	56	ALA	N-CA	-6.10	1.40	1.46
34	BE	143	ARG	NE-CZ	6.10	1.39	1.33
34	BE	152	HIS	CA-CB	6.10	1.63	1.53
39	BJ	120	SER	CA-C	-6.10	1.44	1.53
81	DA	3132	C	C2'-C1'	-6.10	1.44	1.53
21	AT	44	ARG	N-CA	-6.10	1.39	1.46
53	Ba	10	VAL	CA-CB	6.10	1.62	1.54
81	DA	2492	C	O4'-C1'	6.10	1.50	1.41
51	BZ	43	ARG	CD-NE	6.09	1.54	1.46
81	DA	938	C	C2'-C1'	-6.09	1.44	1.53
31	BB	240	ALA	CA-C	-6.09	1.44	1.52
32	BC	157	VAL	N-CA	-6.09	1.38	1.46
35	BG	98	VAL	C-O	-6.09	1.16	1.24
39	BJ	133	LEU	CB-CG	6.09	1.65	1.53
30	BA	179	LEU	N-CA	-6.09	1.39	1.46
78	CA	56	U	O3'-P	6.09	1.70	1.61
52	BY	37	LYS	N-CA	-6.09	1.39	1.46
78	CA	202	A	C3'-O3'	6.09	1.51	1.42
9	AH	61	ILE	CA-CB	-6.09	1.47	1.54
81	DA	1133	A	C2'-C1'	-6.09	1.44	1.53
81	DA	2038	C	C2'-C1'	-6.09	1.44	1.53
81	DA	3058	U	C2'-C1'	-6.09	1.44	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	3289	G	C2'-C1'	-6.09	1.44	1.53
62	Bk	57	LEU	CA-C	-6.08	1.44	1.52
42	BM	90	GLY	C-N	6.08	1.41	1.33
78	CA	1112	G	O4'-C1'	6.08	1.50	1.41
81	DA	1034	U	C2'-C1'	-6.08	1.44	1.53
57	Be	191	VAL	CA-C	-6.08	1.45	1.52
78	CA	636	A	O4'-C1'	-6.08	1.29	1.41
78	CA	967	A	C2'-C1'	6.08	1.62	1.53
78	CA	1792	G	O4'-C1'	-6.08	1.32	1.42
81	DA	783	A	C2'-C1'	-6.08	1.44	1.53
16	AO	64	ARG	NE-CZ	6.08	1.39	1.33
78	CA	919	A	O4'-C1'	6.08	1.50	1.41
31	BB	73	GLU	C-N	6.08	1.42	1.33
46	BT	17	VAL	CA-CB	-6.08	1.51	1.55
78	CA	1128	C	C2'-C1'	-6.08	1.44	1.53
81	DA	1506	A	O4'-C1'	-6.08	1.32	1.42
81	DA	1753	G	O4'-C1'	6.08	1.50	1.41
81	DA	166	C	C2'-C1'	-6.08	1.44	1.53
57	Be	47	ARG	CZ-NH1	6.08	1.41	1.32
4	AD	219	VAL	CA-CB	6.07	1.65	1.55
31	BB	37	ARG	C-N	-6.07	1.25	1.33
10	AI	131	GLY	CA-C	-6.07	1.46	1.52
48	BW	39	ASP	N-CA	-6.07	1.38	1.46
81	DA	829	U	C2'-C1'	-6.07	1.44	1.53
33	BD	76	ARG	CZ-NH1	6.07	1.41	1.32
58	Bg	72	ARG	NE-CZ	6.07	1.39	1.33
82	DB	62	C	O4'-C1'	6.07	1.51	1.42
81	DA	780	A	O4'-C1'	6.07	1.50	1.41
42	BM	41	GLY	CA-C	-6.07	1.42	1.51
83	DC	47	C	O4'-C1'	6.07	1.50	1.41
6	AE	76	LEU	CA-C	-6.07	1.44	1.52
14	AM	41	ARG	C-N	6.07	1.42	1.33
43	BP	116	LEU	CA-C	6.07	1.60	1.52
81	DA	499	G	C2'-C1'	-6.07	1.44	1.53
47	BU	54	HIS	ND1-CE1	6.06	1.38	1.32
57	Be	66	LYS	C-N	6.06	1.42	1.33
59	Bh	21	HIS	ND1-CE1	6.06	1.38	1.32
82	DB	21	C	C2'-C1'	-6.06	1.44	1.53
32	BC	301	THR	C-N	6.06	1.41	1.33
37	BH	225	LYS	CA-CB	6.06	1.62	1.53
63	Bm	58	SER	N-CA	-6.06	1.39	1.46
81	DA	2279	A	O4'-C1'	-6.06	1.32	1.42

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	2712	U	C2'-C1'	6.06	1.62	1.53
78	CA	1047	G	C2'-C1'	-6.06	1.44	1.53
81	DA	103	G	C2'-C1'	6.06	1.62	1.53
56	Bf	66	LYS	N-CA	-6.06	1.38	1.45
78	CA	318	U	O4'-C1'	6.06	1.50	1.41
4	AD	192	ILE	C-O	-6.06	1.17	1.23
78	CA	974	A	O4'-C1'	6.06	1.50	1.41
81	DA	911	C	C2'-C1'	-6.06	1.44	1.53
81	DA	2957	G	O4'-C1'	6.06	1.50	1.41
60	Bi	36	LYS	C-N	6.05	1.42	1.33
61	Bj	3	GLU	CA-CB	6.05	1.63	1.53
81	DA	1150	A	O4'-C1'	6.05	1.50	1.41
78	CA	121	U	P-O5'	6.05	1.68	1.59
6	AE	70	ASP	N-CA	6.05	1.53	1.46
30	BA	12	HIS	ND1-CE1	6.05	1.38	1.32
41	BN	117	ARG	NE-CZ	6.05	1.39	1.33
81	DA	1968	G	C2'-C1'	-6.05	1.44	1.53
78	CA	968	U	O4'-C1'	6.05	1.50	1.41
78	CA	1315	U	C2'-C1'	-6.05	1.44	1.53
81	DA	251	G	O5'-C5'	6.05	1.51	1.42
40	BK	172	ARG	CZ-NH1	6.05	1.41	1.32
78	CA	1341	A	O4'-C1'	-6.05	1.32	1.41
44	BO	12	ARG	CA-CB	6.04	1.63	1.53
81	DA	1395	G	O4'-C1'	6.04	1.50	1.41
9	AH	80	ASN	N-CA	6.04	1.53	1.46
12	AK	25	ASP	C-O	-6.04	1.16	1.23
43	BP	70	ASN	C-N	6.04	1.41	1.33
50	BX	131	ASP	CA-C	-6.04	1.45	1.52
83	DC	69	G	C2'-C1'	-6.04	1.44	1.53
59	Bh	125	ARG	CD-NE	6.04	1.54	1.46
81	DA	1378	U	O4'-C1'	6.04	1.50	1.41
81	DA	1721	U	O4'-C1'	6.04	1.50	1.41
81	DA	2696	A	O4'-C1'	6.04	1.50	1.41
6	AE	5	GLU	CA-C	-6.04	1.44	1.53
21	AT	27	ASP	C-N	6.04	1.42	1.33
81	DA	2222	A	O4'-C1'	6.04	1.50	1.41
26	AZ	47	VAL	CA-C	-6.04	1.45	1.52
45	BR	21	SER	C-N	6.04	1.41	1.33
50	BX	30	ALA	CA-C	-6.04	1.45	1.52
58	Bg	89	LEU	CA-C	-6.04	1.45	1.52
81	DA	782	U	C2'-C1'	6.04	1.62	1.53
81	DA	3340	G	O4'-C1'	6.04	1.50	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	AB	82	GLY	CA-C	-6.03	1.44	1.51
5	AC	41	GLU	C-O	-6.03	1.17	1.24
11	AJ	51	VAL	CA-CB	6.03	1.62	1.54
31	BB	128	ARG	CA-CB	6.03	1.63	1.53
33	BD	36	HIS	ND1-CE1	6.03	1.38	1.32
64	Bl	66	TYR	CA-CB	6.03	1.63	1.53
14	AM	115	ARG	CD-NE	6.03	1.54	1.46
81	DA	1389	G	O4'-C1'	6.03	1.50	1.41
81	DA	2666	C	O4'-C1'	6.03	1.50	1.41
44	BO	85	ASP	C-N	6.03	1.41	1.33
78	CA	1733	C	C2'-C1'	-6.03	1.44	1.53
81	DA	3370	A	C2'-C1'	-6.03	1.44	1.53
19	AR	51	SER	CA-C	-6.03	1.45	1.52
34	BE	94	ARG	CZ-NH1	6.03	1.41	1.32
42	BM	88	ARG	CD-NE	6.03	1.54	1.46
47	BU	100	LYS	CA-C	-6.03	1.45	1.52
68	Bq	9	ARG	CD-NE	6.03	1.54	1.46
78	CA	596	C	C2'-C1'	-6.03	1.44	1.53
78	CA	1212	G	C2'-C1'	-6.03	1.44	1.53
83	DC	103	U	C2'-C1'	-6.03	1.44	1.53
38	Bs	248	ALA	CA-CB	-6.03	1.44	1.53
57	Be	218	ARG	CD-NE	6.03	1.54	1.46
81	DA	3118	C	C2'-C1'	-6.03	1.44	1.53
2	AA	110	TYR	N-CA	-6.02	1.38	1.46
50	BX	125	ARG	CD-NE	6.02	1.54	1.46
81	DA	628	A	C2'-C1'	6.02	1.62	1.53
3	AB	124	ARG	CD-NE	6.02	1.54	1.46
81	DA	1469	C	C2'-C1'	-6.02	1.44	1.53
14	AM	126	ARG	NE-CZ	6.02	1.39	1.33
61	Bj	82	ARG	CD-NE	6.02	1.54	1.46
65	Bn	36	LYS	CA-CB	6.02	1.62	1.53
47	BU	122	GLN	C-N	6.02	1.40	1.32
81	DA	785	G	C2'-C1'	6.02	1.62	1.53
58	Bg	102	LYS	C-N	6.02	1.41	1.33
78	CA	381	C	O4'-C1'	6.02	1.50	1.41
78	CA	465	G	O4'-C1'	-6.02	1.32	1.41
78	CA	1647	U	C2'-C1'	-6.02	1.44	1.53
81	DA	1438	U	O4'-C1'	6.02	1.50	1.41
81	DA	3133	C	C2'-C1'	-6.02	1.44	1.53
25	AY	29	ARG	CZ-NH2	6.01	1.41	1.33
81	DA	1021	G	O4'-C1'	6.01	1.50	1.41
83	DC	60	G	O3'-P	-6.01	1.52	1.61

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	DC	97	C	C2'-C1'	-6.01	1.44	1.53
68	Bq	12	ARG	CZ-NH1	6.01	1.41	1.32
81	DA	185	C	C4'-O4'	6.01	1.54	1.45
39	BJ	50	THR	C-N	6.01	1.42	1.33
81	DA	1011	A	O4'-C1'	6.01	1.50	1.41
81	DA	1184	A	O4'-C1'	6.01	1.50	1.41
81	DA	3047	U	O4'-C1'	6.01	1.50	1.41
81	DA	2171	G	C2'-C1'	-6.01	1.44	1.53
82	DB	30	C	C2'-C1'	-6.01	1.44	1.53
9	AH	80	ASN	C-N	6.01	1.41	1.33
78	CA	513	U	O3'-P	-6.01	1.52	1.61
32	BC	47	LEU	C-N	6.00	1.39	1.33
81	DA	1575	A	O4'-C1'	-6.00	1.32	1.41
81	DA	3088	G	C2'-C1'	-6.00	1.44	1.53
20	AS	24	ARG	CZ-NH1	6.00	1.41	1.32
37	BH	211	LEU	CA-C	-6.00	1.45	1.52
78	CA	551	G	C2'-C1'	-6.00	1.44	1.53
78	CA	1756	A	C2'-C1'	6.00	1.62	1.53
81	DA	306	A	O4'-C1'	-6.00	1.32	1.41
81	DA	709	A	O4'-C1'	6.00	1.50	1.41
81	DA	3054	U	C2'-C1'	-6.00	1.44	1.53
5	AC	67	PRO	C-N	6.00	1.41	1.33
14	AM	41	ARG	CD-NE	6.00	1.54	1.46
14	AM	113	LEU	CA-CB	6.00	1.62	1.53
21	AT	32	VAL	CA-CB	6.00	1.62	1.54
43	BP	78	GLY	CA-C	-6.00	1.43	1.51
61	Bj	62	SER	N-CA	-6.00	1.39	1.46
78	CA	2	A	O4'-C1'	-6.00	1.32	1.41
81	DA	2833	A	C2'-C1'	-6.00	1.44	1.53
4	AD	62	LYS	CA-CB	6.00	1.63	1.53
47	BU	96	ILE	N-CA	-6.00	1.39	1.46
60	Bi	112	ALA	CA-C	-6.00	1.45	1.52
81	DA	1801	U	O4'-C1'	6.00	1.50	1.41
81	DA	2006	G	C2'-C1'	-6.00	1.44	1.53
1	Aa	259	GLY	N-CA	-6.00	1.38	1.44
49	BV	134	GLY	CA-C	6.00	1.58	1.51
61	Bj	85	PHE	C-N	6.00	1.41	1.33
81	DA	2685	C	O3'-P	-6.00	1.52	1.61
1	Aa	127	ARG	CD-NE	5.99	1.54	1.46
5	AC	127	VAL	CA-CB	-5.99	1.46	1.54
52	BY	87	LYS	C-N	5.99	1.41	1.33
64	Bl	65	ARG	CD-NE	5.99	1.54	1.46

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	975	C	C2'-C1'	5.99	1.62	1.53
81	DA	2317	A	C2'-C1'	-5.99	1.44	1.53
20	AS	66	TYR	C-N	5.99	1.41	1.33
34	BE	2	SER	CA-C	-5.99	1.45	1.52
78	CA	1368	G	O4'-C1'	5.99	1.50	1.41
58	Bg	30	PRO	CA-C	-5.99	1.42	1.52
81	DA	538	G	C2'-C1'	-5.99	1.44	1.53
6	AE	140	ARG	NE-CZ	5.99	1.39	1.33
81	DA	3257	C	C2'-C1'	-5.99	1.44	1.53
78	CA	1419	G	C2'-C1'	-5.99	1.44	1.53
1	Aa	7	LEU	CA-C	-5.99	1.45	1.52
81	DA	197	G	C2'-C1'	-5.99	1.44	1.53
81	DA	1485	G	O4'-C1'	5.99	1.50	1.41
50	BX	98	ALA	CA-C	-5.98	1.45	1.52
22	AV	48	ASP	CA-C	-5.98	1.45	1.52
37	BH	232	HIS	CB-CG	5.98	1.58	1.50
56	Bf	75	ASN	CA-CB	5.98	1.62	1.53
65	Bn	62	ALA	N-CA	-5.98	1.39	1.46
81	DA	777	U	C3'-O3'	5.98	1.51	1.42
81	DA	869	G	C2'-C1'	-5.98	1.44	1.53
81	DA	1956	A	C2'-C1'	5.98	1.62	1.53
3	AB	90	ARG	CA-C	5.98	1.60	1.52
6	AE	160	GLY	CA-C	-5.98	1.45	1.52
31	BB	73	GLU	N-CA	-5.98	1.38	1.46
83	DC	61	U	C2'-C1'	5.98	1.62	1.53
41	BN	5	SER	C-N	5.98	1.41	1.33
78	CA	120	U	C3'-O3'	5.98	1.51	1.42
11	AJ	109	GLU	CA-C	-5.98	1.48	1.52
38	Bs	56	ASN	N-CA	-5.98	1.38	1.46
81	DA	375	A	C2'-C1'	5.98	1.62	1.53
81	DA	659	G	O4'-C1'	5.98	1.50	1.41
81	DA	801	A	C3'-O3'	5.98	1.52	1.43
31	BB	239	ALA	CA-C	-5.97	1.45	1.53
38	Bs	42	ARG	N-CA	-5.97	1.39	1.46
65	Bn	35	GLY	N-CA	-5.97	1.36	1.45
74	BQ	74	VAL	CA-C	-5.97	1.45	1.52
81	DA	1075	A	C2'-C1'	-5.97	1.44	1.53
76	BS	65	GLU	C-N	5.97	1.41	1.33
78	CA	1725	U	O4'-C1'	5.97	1.50	1.41
81	DA	1406	A	C2'-C1'	-5.97	1.44	1.53
83	DC	77	A	O4'-C1'	5.97	1.50	1.41
33	BD	87	GLN	CA-C	-5.97	1.46	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	BO	125	VAL	N-CA	-5.97	1.39	1.46
78	CA	389	G	C2'-C1'	-5.97	1.44	1.53
81	DA	1404	G	O3'-P	5.97	1.70	1.61
81	DA	2989	U	C5'-C4'	5.97	1.62	1.51
81	DA	3148	U	O3'-P	-5.97	1.52	1.61
57	Be	192	GLY	C-N	5.97	1.40	1.33
31	BB	127	ALA	C-N	5.97	1.42	1.33
81	DA	1129	A	C2'-C1'	-5.97	1.44	1.53
39	BJ	90	ARG	NE-CZ	5.96	1.39	1.33
81	DA	1984	C	C2'-C1'	-5.96	1.44	1.53
81	DA	3078	U	O4'-C1'	5.96	1.50	1.42
56	Bf	81	VAL	C-N	5.96	1.39	1.33
81	DA	532	A	C2'-C1'	-5.96	1.44	1.53
1	Aa	250	TYR	CA-C	-5.96	1.45	1.52
1	Aa	304	GLY	CA-C	-5.96	1.46	1.51
16	AO	55	ARG	C-N	5.96	1.41	1.33
58	Bg	73	LEU	N-CA	-5.96	1.38	1.46
78	CA	352	A	C2'-C1'	5.96	1.61	1.53
78	CA	1125	A	C2'-C1'	-5.96	1.44	1.53
81	DA	974	G	C3'-O3'	5.96	1.51	1.42
83	DC	17	A	C5'-C4'	5.96	1.60	1.51
15	AN	13	ARG	CZ-NH1	5.96	1.41	1.32
56	Bf	101	LEU	CA-C	-5.96	1.45	1.52
78	CA	47	A	C4'-O4'	-5.96	1.36	1.45
78	CA	49	C	O4'-C1'	5.96	1.50	1.41
81	DA	2644	C	O4'-C1'	-5.96	1.33	1.42
14	AM	100	THR	N-CA	5.96	1.53	1.46
49	BV	133	HIS	C-N	5.96	1.39	1.33
55	Bc	38	ARG	CZ-NH1	5.96	1.41	1.32
78	CA	687	G	C4'-O4'	-5.96	1.36	1.45
81	DA	264	G	C2'-C1'	-5.96	1.44	1.53
81	DA	2646	C	C3'-C2'	-5.96	1.43	1.52
81	DA	2915	U	O3'-P	-5.96	1.52	1.61
81	DA	3099	C	C5'-C4'	5.96	1.60	1.51
82	DB	20	U	O4'-C1'	5.96	1.50	1.41
20	AS	94	ILE	CA-C	-5.96	1.45	1.52
76	BS	53	VAL	CA-C	-5.96	1.45	1.52
81	DA	2174	G	O4'-C1'	-5.96	1.33	1.42
49	BV	165	VAL	CA-C	-5.95	1.45	1.52
78	CA	689	G	C2'-C1'	-5.95	1.44	1.53
81	DA	2337	C	C2'-C1'	-5.95	1.44	1.53
81	DA	186	U	C2'-C1'	5.95	1.62	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	424	G	C2'-C1'	-5.95	1.44	1.53
5	AC	190	GLU	C-N	5.95	1.42	1.33
50	BX	27	ARG	CD-NE	5.95	1.54	1.46
6	AE	7	GLN	CA-C	5.95	1.60	1.52
62	Bk	36	ARG	NE-CZ	5.95	1.39	1.33
81	DA	489	C	C2'-C1'	-5.95	1.44	1.53
48	BW	52	ASN	N-CA	-5.94	1.39	1.46
81	DA	3085	G	O4'-C1'	-5.94	1.32	1.41
34	BE	138	VAL	C-N	5.94	1.42	1.33
40	BK	79	ILE	CA-C	-5.94	1.45	1.52
62	Bk	40	VAL	C-N	5.94	1.42	1.33
78	CA	40	A	O4'-C1'	5.94	1.50	1.41
78	CA	1329	A	C2'-C1'	-5.94	1.44	1.53
80	CC	14	A	O4'-C1'	5.94	1.50	1.41
48	BW	96	VAL	CA-C	-5.94	1.45	1.52
49	BV	46	LYS	C-N	5.94	1.41	1.33
65	Bn	43	PHE	CA-CB	5.94	1.60	1.52
65	Bn	77	ARG	C-N	5.94	1.41	1.33
78	CA	688	G	C2'-C1'	-5.94	1.44	1.53
78	CA	1566	U	O4'-C1'	-5.94	1.32	1.41
5	AC	6	ARG	CA-C	5.94	1.60	1.52
2	AA	222	GLU	CA-CB	5.94	1.62	1.53
32	BC	324	VAL	CA-C	-5.94	1.45	1.52
33	BD	100	PHE	CA-CB	5.94	1.63	1.53
78	CA	250	C	O3'-P	-5.94	1.52	1.61
81	DA	381	U	O4'-C1'	5.94	1.50	1.41
81	DA	755	A	C2'-C1'	-5.94	1.44	1.53
41	BN	23	ILE	CA-CB	-5.94	1.47	1.54
61	Bj	42	GLN	CA-C	-5.94	1.45	1.52
81	DA	1589	A	O4'-C1'	5.94	1.50	1.42
14	AM	10	SER	CA-CB	5.93	1.62	1.53
60	Bi	109	THR	CA-C	-5.93	1.46	1.53
69	Br	40	LYS	CA-C	-5.93	1.45	1.52
81	DA	1164	G	C2'-C1'	-5.93	1.44	1.53
81	DA	1873	U	O4'-C1'	5.93	1.50	1.41
35	BG	47	PHE	N-CA	-5.93	1.38	1.46
38	Bs	5	ARG	CA-C	5.93	1.60	1.52
53	Ba	78	ASN	C-O	-5.93	1.17	1.24
79	CB	67	G	C2'-C1'	-5.93	1.44	1.53
67	Bp	47	PRO	N-CA	-5.93	1.40	1.47
78	CA	1534	G	P-O5'	-5.93	1.50	1.59
37	BH	163	VAL	N-CA	-5.93	1.38	1.46

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	223	U	C3'-C2'	-5.93	1.43	1.52
81	DA	1907	C	C2'-C1'	-5.93	1.44	1.53
82	DB	94	C	C2'-C1'	-5.93	1.44	1.53
81	DA	432	G	C2'-C1'	-5.93	1.44	1.53
3	AB	187	LYS	CA-C	-5.93	1.45	1.52
8	AF	130	ILE	CA-CB	-5.93	1.46	1.54
42	BM	45	ARG	C-N	5.93	1.41	1.33
74	BQ	81	HIS	ND1-CE1	5.93	1.38	1.32
74	BQ	189	GLU	C-N	5.93	1.41	1.33
78	CA	1356	U	C2'-C1'	-5.93	1.44	1.53
32	BC	119	TYR	C-N	5.92	1.41	1.33
34	BE	152	HIS	C-N	5.92	1.41	1.33
59	Bh	122	PRO	CA-CB	5.92	1.62	1.53
81	DA	1285	G	C3'-C2'	-5.92	1.44	1.52
81	DA	1288	U	O4'-C1'	5.92	1.50	1.41
78	CA	1381	U	O3'-P	-5.92	1.52	1.61
43	BP	20	ARG	C-N	5.92	1.41	1.33
9	AH	73	GLY	C-N	5.92	1.40	1.33
36	BF	74	LEU	CA-C	-5.92	1.45	1.52
81	DA	1120	A	C2'-C1'	-5.92	1.44	1.53
81	DA	1175	C	C2'-C1'	-5.92	1.44	1.53
24	AX	77	THR	C-N	5.92	1.38	1.33
46	BT	71	ARG	C-N	5.92	1.42	1.33
78	CA	1535	U	O4'-C1'	-5.92	1.33	1.42
81	DA	235	A	O4'-C1'	5.92	1.50	1.41
81	DA	680	G	O4'-C1'	-5.92	1.32	1.41
81	DA	1083	G	O4'-C1'	-5.92	1.32	1.41
81	DA	1596	C	C2'-C1'	-5.92	1.44	1.53
81	DA	2389	C	O4'-C1'	5.92	1.50	1.41
39	BJ	25	SER	CA-C	-5.92	1.45	1.52
52	BY	88	GLU	CA-C	-5.91	1.45	1.52
69	Br	47	GLN	C-N	5.91	1.42	1.33
78	CA	918	U	O4'-C1'	5.91	1.50	1.41
78	CA	1071	U	O4'-C1'	5.91	1.50	1.41
3	AB	215	GLU	N-CA	5.91	1.57	1.46
69	Br	95	GLY	CA-C	-5.91	1.43	1.51
78	CA	1769	U	O4'-C1'	5.91	1.50	1.42
59	Bh	27	ARG	CA-C	-5.91	1.45	1.52
11	AJ	42	VAL	C-N	5.91	1.41	1.33
35	BG	114	LYS	CA-C	-5.91	1.45	1.52
61	Bj	8	TYR	C-N	5.91	1.41	1.33
78	CA	1669	U	O4'-C1'	5.91	1.50	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	AE	71	THR	CA-C	5.90	1.60	1.52
17	AQ	122	ILE	CA-C	-5.90	1.45	1.52
56	Bf	50	VAL	N-CA	-5.90	1.39	1.46
78	CA	635	A	C2'-C1'	-5.90	1.44	1.53
17	AQ	11	ARG	CD-NE	5.90	1.54	1.46
38	Bs	123	ALA	C-N	5.90	1.41	1.33
78	CA	1081	A	O4'-C1'	-5.90	1.32	1.41
81	DA	937	G	C2'-C1'	-5.90	1.44	1.53
59	Bh	5	PRO	C-N	5.90	1.41	1.33
78	CA	234	G	C2'-C1'	5.90	1.62	1.53
39	BJ	130	LYS	CA-C	-5.90	1.45	1.52
40	BK	117	ARG	NE-CZ	5.90	1.39	1.33
81	DA	1413	G	C2'-C1'	-5.90	1.44	1.53
81	DA	2787	G	C2'-C1'	-5.90	1.44	1.53
4	AD	96	ASN	C-N	5.90	1.41	1.33
1	Aa	80	ALA	CA-C	-5.89	1.45	1.52
33	BD	346	LYS	N-CA	-5.89	1.38	1.46
41	BN	75	GLY	CA-C	-5.89	1.43	1.51
1	Aa	252	LEU	N-CA	-5.89	1.38	1.46
46	BT	65	ALA	CA-C	-5.89	1.44	1.52
81	DA	256	G	C2'-C1'	-5.89	1.44	1.53
81	DA	626	U	O4'-C1'	5.89	1.50	1.41
83	DC	19	C	O4'-C1'	5.89	1.50	1.41
46	BT	75	HIS	ND1-CE1	5.89	1.38	1.32
74	BQ	140	ARG	CA-C	5.89	1.60	1.52
78	CA	1185	U	O4'-C1'	5.89	1.50	1.42
81	DA	1108	U	O4'-C1'	5.89	1.50	1.41
2	AA	147	THR	C-O	-5.89	1.16	1.23
61	Bj	58	GLU	N-CA	-5.89	1.38	1.46
81	DA	2464	U	C2'-C1'	-5.89	1.44	1.53
38	Bs	244	LYS	CA-C	-5.89	1.45	1.52
6	AE	221	THR	CA-CB	5.89	1.62	1.53
31	BB	174	ARG	CZ-NH1	5.89	1.41	1.32
83	DC	11	A	O4'-C1'	5.89	1.50	1.41
5	AC	39	LYS	CA-C	-5.88	1.44	1.52
40	BK	185	ALA	CA-C	-5.88	1.44	1.52
49	BV	6	ALA	CA-CB	5.88	1.60	1.52
78	CA	1342	C	C2'-C1'	-5.88	1.44	1.53
81	DA	1779	C	C2'-C1'	5.88	1.62	1.53
83	DC	36	C	O4'-C1'	5.88	1.50	1.41
1	Aa	73	LEU	CA-C	-5.88	1.45	1.52
22	AV	30	LYS	N-CA	5.88	1.53	1.46

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	BC	172	ALA	C-N	5.88	1.41	1.33
81	DA	931	C	O4'-C1'	5.88	1.50	1.41
61	Bj	20	LYS	CA-C	5.88	1.60	1.53
78	CA	1107	G	C2'-C1'	-5.88	1.44	1.53
81	DA	720	A	P-OP2	5.88	1.60	1.49
81	DA	1181	U	C2'-C1'	5.88	1.61	1.53
81	DA	1982	G	C2'-C1'	-5.88	1.44	1.53
47	BU	75	ILE	C-N	5.88	1.41	1.33
81	DA	2742	C	C2'-C1'	-5.88	1.44	1.53
5	AC	163	PRO	CA-C	-5.88	1.44	1.52
17	AQ	94	SER	CA-CB	5.88	1.63	1.53
67	Bp	45	LEU	CA-C	-5.88	1.45	1.52
78	CA	1453	G	C2'-C1'	5.88	1.62	1.53
81	DA	934	G	O4'-C1'	5.88	1.50	1.41
1	Aa	170	ILE	CA-C	5.87	1.59	1.52
57	Be	119	VAL	CA-CB	-5.87	1.47	1.53
78	CA	1409	G	C2'-C1'	5.87	1.61	1.53
81	DA	1	G	O4'-C1'	-5.87	1.32	1.41
81	DA	1042	U	O4'-C1'	5.87	1.50	1.41
83	DC	82	A	O4'-C1'	5.87	1.50	1.41
40	BK	92	THR	N-CA	-5.87	1.39	1.45
81	DA	2251	G	O4'-C1'	5.87	1.50	1.41
81	DA	2365	C	C2'-C1'	-5.87	1.44	1.53
81	DA	3386	G	C2'-C1'	-5.87	1.44	1.53
81	DA	3016	A	C2'-C1'	-5.87	1.44	1.53
5	AC	126	ARG	NE-CZ	5.87	1.39	1.33
22	AV	100	ILE	N-CA	-5.87	1.39	1.46
43	BP	49	ARG	CD-NE	5.87	1.54	1.46
43	BP	153	ASP	CA-CB	5.87	1.61	1.53
78	CA	670	U	O4'-C1'	5.87	1.50	1.41
78	CA	1383	G	C2'-C1'	-5.87	1.44	1.53
81	DA	90	C	C2'-C1'	-5.87	1.44	1.53
81	DA	1512	U	O4'-C1'	5.87	1.50	1.41
81	DA	2415	C	O4'-C1'	5.87	1.50	1.41
3	AB	17	PHE	CA-CB	5.87	1.62	1.53
81	DA	2621	G	O4'-C1'	5.87	1.50	1.41
33	BD	322	GLN	C-N	5.87	1.41	1.33
81	DA	1654	A	O4'-C1'	5.87	1.50	1.41
38	Bs	48	ARG	CD-NE	5.86	1.54	1.46
52	BY	92	GLY	C-N	5.86	1.41	1.33
81	DA	1507	G	O4'-C1'	-5.86	1.33	1.42
81	DA	2923	U	C2'-C1'	-5.86	1.44	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
20	AS	86	ARG	NE-CZ	5.86	1.39	1.33
81	DA	1322	U	O4'-C1'	5.86	1.50	1.41
2	AA	183	ARG	CA-C	-5.86	1.45	1.52
63	Bm	85	ARG	CZ-NH2	5.86	1.41	1.33
74	BQ	135	VAL	N-CA	-5.86	1.39	1.46
81	DA	563	U	O4'-C1'	5.86	1.50	1.41
24	AX	63	LEU	CA-C	-5.86	1.45	1.52
42	BM	133	SER	C-N	5.86	1.41	1.33
63	Bm	83	ILE	N-CA	5.86	1.53	1.46
74	BQ	122	VAL	N-CA	5.86	1.53	1.46
31	BB	57	PRO	N-CA	-5.85	1.40	1.46
40	BK	184	THR	CA-CB	-5.85	1.43	1.53
57	Be	62	ILE	N-CA	-5.85	1.39	1.46
78	CA	1087	A	O4'-C1'	5.85	1.50	1.41
81	DA	765	C	O4'-C1'	5.85	1.50	1.41
81	DA	1252	A	O4'-C1'	5.85	1.50	1.41
81	DA	1415	U	O4'-C1'	5.85	1.50	1.41
81	DA	2033	G	C2'-C1'	-5.85	1.44	1.53
81	DA	247	C	C5'-C4'	5.85	1.60	1.51
18	AP	109	VAL	CA-C	-5.85	1.46	1.52
41	BN	87	ALA	C-N	5.85	1.41	1.33
48	BW	8	LYS	CA-CB	5.85	1.63	1.53
81	DA	2085	U	O4'-C1'	5.85	1.50	1.41
62	Bk	77	LEU	N-CA	-5.85	1.39	1.46
69	Br	101	GLY	CA-C	-5.85	1.43	1.51
78	CA	139	C	O4'-C1'	5.85	1.50	1.41
81	DA	3091	A	P-O5'	5.85	1.68	1.59
81	DA	3127	A	C2'-C1'	-5.85	1.44	1.53
81	DA	1473	G	C2'-C1'	-5.85	1.44	1.53
81	DA	3242	G	P-O5'	-5.85	1.50	1.59
46	BT	153	LYS	C-O	-5.84	1.17	1.24
62	Bk	82	ARG	CA-CB	5.84	1.61	1.53
78	CA	184	C	C2'-C1'	-5.84	1.44	1.53
32	BC	285	VAL	N-CA	-5.84	1.39	1.46
81	DA	279	U	O4'-C1'	5.84	1.50	1.41
81	DA	1883	A	C2'-C1'	5.84	1.62	1.53
32	BC	240	ARG	N-CA	-5.84	1.39	1.46
35	BG	94	GLU	CA-C	-5.84	1.47	1.53
43	BP	73	ARG	CD-NE	5.84	1.54	1.46
48	BW	100	THR	N-CA	-5.84	1.39	1.46
81	DA	138	U	O4'-C1'	5.84	1.50	1.41
81	DA	2338	C	O3'-P	-5.84	1.52	1.61

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	AE	29	ASN	CA-CB	5.84	1.62	1.53
14	AM	63	GLN	N-CA	-5.84	1.39	1.46
78	CA	978	A	O4'-C1'	5.84	1.50	1.41
81	DA	170	G	C2'-C1'	5.84	1.62	1.53
81	DA	1374	G	C2'-C1'	-5.84	1.44	1.53
78	CA	217	A	C3'-C2'	5.84	1.61	1.52
81	DA	233	C	O4'-C1'	5.84	1.50	1.41
81	DA	393	U	O4'-C1'	5.84	1.50	1.41
81	DA	2622	C	O4'-C1'	5.84	1.50	1.41
83	DC	65	G	C2'-C1'	-5.84	1.44	1.53
81	DA	1518	U	O4'-C1'	5.83	1.50	1.41
42	BM	88	ARG	CA-C	-5.83	1.45	1.52
43	BP	119	TYR	N-CA	5.83	1.53	1.46
30	BA	150	ASP	C-O	-5.83	1.17	1.24
32	BC	171	LEU	CA-C	-5.83	1.45	1.52
51	BZ	20	LEU	N-CA	-5.83	1.39	1.46
51	BZ	25	ASP	CA-CB	5.83	1.63	1.53
81	DA	792	G	O4'-C1'	5.83	1.50	1.41
81	DA	2138	A	O4'-C1'	-5.83	1.33	1.42
2	AA	216	GLU	CA-C	-5.83	1.45	1.52
68	Bq	10	THR	CA-C	-5.83	1.45	1.52
78	CA	977	A	C2'-C1'	-5.83	1.44	1.53
81	DA	183	G	O3'-P	-5.83	1.52	1.61
81	DA	1206	G	O4'-C1'	-5.83	1.32	1.41
33	BD	225	VAL	CA-C	-5.83	1.47	1.53
68	Bq	15	ARG	CZ-NH1	5.83	1.41	1.32
74	BQ	149	GLY	C-N	5.83	1.42	1.33
74	BQ	237	GLU	CA-C	5.83	1.59	1.52
78	CA	344	A	C2'-C1'	-5.83	1.44	1.53
81	DA	128	G	C2'-C1'	-5.83	1.44	1.53
81	DA	2194	G	O4'-C1'	-5.83	1.32	1.41
22	AV	89	ILE	CA-C	-5.83	1.45	1.52
33	BD	30	ILE	N-CA	-5.83	1.39	1.46
78	CA	684	A	C2'-C1'	-5.83	1.44	1.53
81	DA	420	G	C2'-C1'	5.83	1.62	1.53
47	BU	96	ILE	CA-C	-5.83	1.45	1.52
53	Ba	86	THR	C-O	-5.83	1.17	1.24
58	Bg	75	ILE	CA-CB	-5.83	1.46	1.54
81	DA	2377	G	P-O5'	-5.83	1.51	1.59
81	DA	2922	G	O4'-C1'	5.83	1.50	1.41
81	DA	3380	U	P-OP2	5.83	1.60	1.49
40	BK	7	VAL	N-CA	5.82	1.53	1.46

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
49	BV	89	LYS	N-CA	-5.82	1.39	1.46
57	Be	186	HIS	CA-C	-5.82	1.45	1.52
81	DA	357	A	O4'-C1'	5.82	1.50	1.41
81	DA	3311	C	O4'-C1'	5.82	1.50	1.41
44	BO	29	PRO	N-CD	-5.82	1.39	1.47
18	AP	115	PHE	C-N	5.82	1.41	1.33
37	BH	62	LYS	CA-C	-5.82	1.45	1.52
49	BV	151	THR	C-N	5.82	1.41	1.33
64	Bl	12	HIS	CA-CB	5.82	1.63	1.53
76	BS	73	THR	C-N	-5.82	1.25	1.33
78	CA	177	U	C2'-C1'	-5.82	1.44	1.53
37	BH	227	ASP	CA-C	-5.82	1.45	1.53
37	BH	247	ASP	C-N	5.82	1.41	1.33
44	BO	58	MET	CA-C	-5.82	1.45	1.52
78	CA	1446	A	O4'-C1'	5.82	1.50	1.41
81	DA	248	U	C2'-C1'	5.82	1.62	1.53
81	DA	783	A	O4'-C1'	-5.82	1.33	1.42
81	DA	2374	C	O4'-C1'	5.82	1.50	1.42
1	Aa	16	HIS	CA-C	-5.82	1.45	1.52
8	AF	159	ALA	CA-C	-5.82	1.45	1.52
40	BK	188	SER	N-CA	5.82	1.53	1.46
81	DA	2235	C	C2'-C1'	-5.82	1.44	1.53
12	AK	120	PRO	CA-C	5.81	1.60	1.52
81	DA	2287	C	O4'-C1'	5.81	1.50	1.42
1	Aa	270	LEU	CA-CB	5.81	1.60	1.53
33	BD	261	VAL	CA-C	5.81	1.65	1.52
36	BF	162	GLN	CA-CB	5.81	1.62	1.53
36	BF	164	ILE	CA-C	-5.81	1.45	1.52
78	CA	1440	C	C2'-C1'	-5.81	1.44	1.53
78	CA	1747	G	P-O5'	-5.81	1.51	1.59
81	DA	1634	G	C2'-C1'	-5.81	1.44	1.53
82	DB	83	C	C2'-C1'	5.81	1.62	1.53
41	BN	99	TRP	C-N	5.81	1.41	1.33
31	BB	230	VAL	CA-CB	-5.81	1.46	1.54
59	Bh	93	ALA	CA-C	-5.81	1.46	1.52
8	AF	115	LYS	CA-C	-5.81	1.45	1.52
13	AL	125	VAL	CA-C	-5.81	1.46	1.52
78	CA	1542	G	C2'-C1'	5.81	1.61	1.53
81	DA	997	A	C2'-C1'	5.81	1.62	1.53
81	DA	1670	C	O4'-C1'	5.81	1.50	1.41
81	DA	2054	C	O4'-C1'	5.81	1.50	1.41
2	AA	165	ARG	C-N	5.80	1.42	1.33

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	1777	G	C2'-C1'	-5.80	1.44	1.53
81	DA	3250	U	O4'-C1'	5.80	1.50	1.41
12	AK	46	MET	CA-C	-5.80	1.45	1.52
31	BB	197	PRO	N-CD	-5.80	1.39	1.47
78	CA	1205	C	C2'-C1'	-5.80	1.44	1.53
78	CA	1717	G	C2'-C1'	-5.80	1.44	1.53
81	DA	3050	U	O3'-P	-5.80	1.52	1.61
78	CA	432	G	C2'-C1'	-5.80	1.44	1.53
78	CA	1110	G	C2'-C1'	-5.80	1.44	1.53
81	DA	599	C	C2'-C1'	-5.80	1.44	1.53
81	DA	945	C	C2'-C1'	-5.80	1.44	1.53
81	DA	3029	A	O4'-C1'	5.80	1.50	1.41
81	DA	1620	U	O4'-C1'	5.80	1.50	1.41
16	AO	124	ARG	NE-CZ	5.80	1.39	1.33
18	AP	122	ILE	CA-C	5.80	1.59	1.52
33	BD	119	ARG	CA-C	-5.80	1.45	1.52
35	BG	57	HIS	N-CA	-5.80	1.39	1.46
37	BH	89	GLU	C-N	5.80	1.41	1.33
81	DA	1696	A	O4'-C1'	5.80	1.50	1.41
78	CA	240	U	C5'-C4'	5.79	1.62	1.51
81	DA	83	U	C2'-C1'	-5.79	1.44	1.53
78	CA	98	U	O4'-C1'	5.79	1.50	1.41
81	DA	700	C	C4'-C3'	5.79	1.61	1.52
14	AM	10	SER	C-O	5.79	1.31	1.23
14	AM	134	ARG	CD-NE	5.79	1.54	1.46
78	CA	1708	U	O4'-C1'	5.79	1.50	1.41
78	CA	1757	G	C2'-C1'	-5.79	1.44	1.53
8	AF	70	VAL	CA-C	-5.79	1.45	1.52
35	BG	170	LYS	N-CA	-5.79	1.40	1.46
78	CA	218	A	O4'-C1'	5.79	1.50	1.41
11	AJ	89	ARG	C-N	5.79	1.41	1.33
78	CA	1474	G	O4'-C1'	5.79	1.50	1.41
15	AN	55	PHE	N-CA	-5.78	1.38	1.46
32	BC	256	HIS	CA-C	5.78	1.60	1.52
45	BR	140	LEU	CA-CB	5.78	1.72	1.53
68	Bq	21	ARG	NE-CZ	5.78	1.39	1.33
76	BS	7	HIS	ND1-CE1	5.78	1.38	1.32
81	DA	2642	A	C2'-C1'	-5.78	1.44	1.53
81	DA	3011	A	O4'-C1'	5.78	1.50	1.42
21	AT	62	ARG	NE-CZ	5.78	1.39	1.33
25	AY	57	MET	CA-C	5.78	1.60	1.52
42	BM	62	VAL	CA-C	-5.78	1.45	1.52

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
57	Be	62	ILE	CA-C	-5.78	1.45	1.52
78	CA	837	G	C5'-C4'	5.78	1.59	1.51
81	DA	790	U	C4'-C3'	-5.78	1.43	1.52
81	DA	1196	C	C2'-C1'	-5.78	1.44	1.53
13	AL	66	SER	N-CA	-5.78	1.39	1.46
13	AL	87	VAL	CA-C	5.78	1.58	1.52
29	AU	90	ARG	CD-NE	5.78	1.54	1.46
37	BH	74	THR	N-CA	5.78	1.53	1.46
41	BN	77	ARG	NE-CZ	5.78	1.39	1.33
78	CA	1087	A	P-O5'	-5.78	1.51	1.59
81	DA	30	G	P-OP2	5.78	1.60	1.49
81	DA	1620	U	P-OP2	5.78	1.60	1.49
16	AO	31	GLU	C-N	5.77	1.41	1.33
38	Bs	122	ARG	CA-C	-5.77	1.44	1.53
34	BE	110	ILE	CA-CB	-5.77	1.47	1.54
44	BO	26	ARG	NE-CZ	5.77	1.39	1.33
78	CA	1191	U	O4'-C1'	-5.77	1.32	1.41
81	DA	33	G	O4'-C1'	5.77	1.50	1.41
81	DA	2354	C	C2'-C1'	-5.77	1.44	1.53
1	Aa	201	THR	CA-C	-5.77	1.45	1.52
4	AD	173	ILE	CA-CB	-5.77	1.46	1.53
49	BV	41	LEU	C-N	5.77	1.41	1.33
3	AB	158	ILE	N-CA	-5.77	1.39	1.46
34	BE	10	ARG	CA-C	-5.77	1.45	1.52
57	Be	149	TYR	CA-CB	5.77	1.62	1.53
81	DA	3385	U	C2'-C1'	-5.77	1.44	1.53
1	Aa	215	GLY	CA-C	-5.77	1.47	1.52
18	AP	87	ARG	NE-CZ	5.77	1.39	1.33
38	Bs	183	PHE	N-CA	-5.77	1.38	1.45
40	BK	25	LYS	N-CA	-5.77	1.39	1.46
57	Be	196	LYS	N-CA	-5.77	1.39	1.46
63	Bm	16	VAL	CA-C	-5.77	1.45	1.52
83	DC	47	C	O5'-C5'	-5.77	1.33	1.42
2	AA	127	ARG	CZ-NH1	5.76	1.40	1.32
12	AK	68	ALA	C-N	5.76	1.41	1.33
32	BC	26	ARG	N-CA	-5.76	1.39	1.46
33	BD	241	GLY	C-N	5.76	1.41	1.33
37	BH	171	LYS	CA-C	-5.76	1.44	1.52
49	BV	35	ALA	C-N	5.76	1.41	1.33
81	DA	397	A	C2'-C1'	5.76	1.61	1.53
81	DA	859	G	O4'-C1'	5.76	1.50	1.42
81	DA	866	A	C2'-C1'	-5.76	1.44	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	991	G	O4'-C1'	5.76	1.50	1.41
81	DA	2909	U	O4'-C1'	5.76	1.50	1.41
32	BC	273	HIS	CA-C	-5.76	1.45	1.52
78	CA	1778	G	O4'-C1'	5.76	1.50	1.41
48	BW	98	THR	N-CA	5.76	1.52	1.46
79	CB	64	G	O4'-C1'	5.76	1.50	1.41
79	CB	68	C	C2'-C1'	-5.76	1.44	1.53
81	DA	791	A	O4'-C1'	5.76	1.50	1.41
81	DA	2811	A	C2'-C1'	-5.76	1.44	1.53
81	DA	2979	U	O4'-C1'	5.76	1.50	1.42
11	AJ	82	TYR	C-N	5.76	1.40	1.33
69	Br	89	LYS	C-N	5.76	1.41	1.33
78	CA	1448	G	O4'-C1'	5.76	1.50	1.41
81	DA	184	U	O3'-P	-5.76	1.52	1.61
30	BA	215	ARG	NE-CZ	5.76	1.39	1.33
35	BG	48	ARG	CD-NE	5.76	1.54	1.46
47	BU	139	ARG	C-N	-5.76	1.25	1.33
59	Bh	88	HIS	ND1-CE1	5.76	1.38	1.32
74	BQ	243	ALA	N-CA	5.76	1.53	1.46
78	CA	1469	A	O4'-C1'	5.76	1.50	1.41
81	DA	1	G	P-OP2	5.76	1.60	1.49
1	Aa	10	ARG	CZ-NH2	5.76	1.41	1.33
9	AH	65	LEU	CA-C	-5.76	1.45	1.52
32	BC	297	SER	CA-C	5.76	1.60	1.53
37	BH	135	GLY	N-CA	-5.76	1.37	1.45
67	Bp	19	VAL	N-CA	-5.76	1.39	1.46
78	CA	51	A	C2'-C1'	-5.76	1.44	1.53
78	CA	853	G	O4'-C1'	-5.75	1.33	1.41
31	BB	242	ARG	NE-CZ	5.75	1.39	1.33
52	BY	28	ARG	CA-C	-5.75	1.45	1.52
68	Bq	18	ARG	NE-CZ	5.75	1.39	1.33
76	BS	67	PHE	C-N	5.75	1.41	1.33
78	CA	106	U	C2'-C1'	-5.75	1.44	1.53
13	AL	92	CYS	C-N	-5.75	1.26	1.33
32	BC	156	SER	CA-C	-5.75	1.45	1.53
39	BJ	62	LEU	N-CA	-5.75	1.39	1.46
41	BN	119	GLN	CA-C	-5.75	1.45	1.52
42	BM	106	LYS	CA-CB	5.75	1.62	1.53
57	Be	103	LEU	CA-C	-5.75	1.45	1.52
62	Bk	51	SER	CA-C	5.75	1.60	1.52
83	DC	75	G	C2'-C1'	-5.75	1.44	1.53
11	AJ	57	ARG	CD-NE	5.75	1.54	1.46

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AA	200	ASP	CA-C	-5.75	1.45	1.52
44	BO	148	ILE	C-O	-5.75	1.17	1.23
48	BW	46	ALA	C-N	5.75	1.41	1.33
81	DA	1457	U	O4'-C1'	5.75	1.50	1.41
20	AS	69	LYS	N-CA	-5.75	1.38	1.46
78	CA	928	U	C2'-C1'	5.75	1.61	1.53
35	BG	38	THR	N-CA	-5.75	1.38	1.46
13	AL	144	ARG	N-CA	-5.74	1.39	1.46
34	BE	51	ARG	NE-CZ	5.74	1.39	1.33
35	BG	76	LEU	CA-CB	5.74	1.63	1.53
78	CA	1264	G	O4'-C1'	5.74	1.50	1.41
81	DA	1400	G	C3'-O3'	-5.74	1.33	1.42
33	BD	345	GLU	CA-C	-5.74	1.44	1.52
78	CA	1240	U	C5'-C4'	5.74	1.59	1.51
81	DA	1407	A	O4'-C1'	5.74	1.50	1.41
81	DA	2458	A	O4'-C1'	5.74	1.50	1.41
78	CA	599	A	O4'-C1'	5.74	1.50	1.41
81	DA	258	G	C5'-C4'	5.74	1.59	1.51
81	DA	1213	G	C2'-C1'	-5.74	1.44	1.53
81	DA	1216	C	O4'-C1'	5.74	1.50	1.41
81	DA	1403	C	C2'-C1'	-5.74	1.44	1.53
81	DA	2120	A	O4'-C1'	5.74	1.50	1.41
81	DA	2201	G	C2'-C1'	-5.74	1.44	1.53
81	DA	3238	G	C2'-C1'	-5.74	1.44	1.53
81	DA	3284	G	C2'-C1'	-5.74	1.44	1.53
13	AL	69	ARG	C-N	5.74	1.41	1.33
31	BB	174	ARG	CD-NE	5.74	1.54	1.46
37	BH	62	LYS	CA-CB	5.74	1.63	1.53
81	DA	316	U	C2'-C1'	5.74	1.61	1.53
81	DA	932	U	O4'-C1'	5.74	1.50	1.42
81	DA	1453	A	C2'-C1'	5.74	1.61	1.53
81	DA	162	G	O3'-P	-5.74	1.52	1.61
13	AL	56	LYS	N-CA	-5.74	1.42	1.46
69	Br	80	ARG	CD-NE	5.74	1.54	1.46
81	DA	704	U	C3'-O3'	-5.74	1.33	1.42
81	DA	1074	U	O4'-C1'	5.74	1.50	1.41
81	DA	1124	U	O4'-C1'	5.74	1.50	1.41
31	BB	54	ARG	CZ-NH1	5.73	1.40	1.32
38	Bs	175	LEU	CB-CG	5.73	1.65	1.53
60	Bi	71	THR	CA-C	-5.73	1.45	1.52
78	CA	1655	A	O4'-C1'	5.73	1.50	1.41
81	DA	973	A	O5'-C5'	5.73	1.51	1.42

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	3246	G	C2'-C1'	-5.73	1.44	1.53
56	Bf	52	ARG	CD-NE	5.73	1.54	1.46
59	Bh	105	ARG	NE-CZ	5.73	1.39	1.33
81	DA	673	U	O4'-C1'	5.73	1.50	1.41
83	DC	48	U	O3'-P	-5.73	1.52	1.61
17	AQ	19	ARG	N-CA	-5.73	1.38	1.46
33	BD	356	THR	CA-C	5.73	1.60	1.52
44	BO	31	GLY	CA-C	5.73	1.59	1.51
60	Bi	103	LYS	N-CA	-5.73	1.39	1.46
81	DA	1754	G	C5'-C4'	5.73	1.59	1.51
81	DA	2479	C	C2'-C1'	-5.73	1.44	1.53
81	DA	3136	G	O4'-C1'	-5.73	1.33	1.41
78	CA	97	C	C2'-C1'	-5.73	1.44	1.53
22	AV	92	ILE	C-N	5.72	1.41	1.33
78	CA	149	C	O4'-C1'	5.72	1.50	1.41
8	AF	186	ASN	C-N	5.72	1.38	1.33
78	CA	1028	C	C2'-C1'	-5.72	1.44	1.53
25	AY	58	GLU	C-N	5.72	1.41	1.33
58	Bg	28	ARG	CA-C	-5.72	1.45	1.52
78	CA	156	A	C2'-C1'	5.72	1.61	1.53
81	DA	822	G	C2'-C1'	-5.72	1.44	1.53
81	DA	1451	C	C2'-C1'	-5.72	1.44	1.53
13	AL	9	LEU	CA-CB	5.72	1.63	1.53
31	BB	22	LEU	C-N	5.72	1.41	1.33
37	BH	216	SER	CA-CB	5.72	1.62	1.53
52	BY	13	ARG	CZ-NH1	5.72	1.40	1.32
63	Bm	36	ARG	CD-NE	5.72	1.54	1.46
73	Bv	16	THR	CA-C	5.72	1.59	1.52
81	DA	3061	G	O4'-C1'	5.72	1.50	1.41
17	AQ	65	PRO	C-N	5.71	1.40	1.33
19	AR	106	GLU	N-CA	-5.71	1.39	1.46
48	BW	73	GLY	C-N	5.71	1.41	1.34
69	Br	80	ARG	C-O	-5.71	1.17	1.23
81	DA	1550	C	O4'-C1'	5.71	1.50	1.41
63	Bm	91	GLU	C-N	5.71	1.41	1.33
78	CA	1026	A	O4'-C1'	5.71	1.50	1.42
12	AK	133	ARG	C-O	-5.71	1.17	1.24
41	BN	38	ILE	CA-CB	-5.71	1.47	1.54
78	CA	442	C	C2'-C1'	-5.71	1.44	1.53
44	BO	14	HIS	N-CA	-5.71	1.38	1.45
46	BT	181	ARG	CA-CB	5.71	1.62	1.53
47	BU	78	LYS	CA-C	5.71	1.60	1.52

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
13	AL	46	SER	C-N	5.71	1.41	1.33
18	AP	107	VAL	C-N	5.71	1.47	1.33
49	BV	159	LYS	C-N	5.71	1.41	1.33
55	Bc	66	VAL	N-CA	-5.71	1.39	1.46
63	Bm	89	MET	N-CA	-5.71	1.39	1.46
78	CA	52	U	O4'-C1'	5.71	1.50	1.41
81	DA	254	A	C2'-C1'	-5.71	1.44	1.53
13	AL	135	LEU	CA-C	-5.71	1.45	1.52
17	AQ	38	ILE	CA-C	-5.71	1.45	1.52
78	CA	127	G	C3'-C2'	-5.71	1.44	1.52
81	DA	2625	C	C2'-C1'	-5.71	1.44	1.53
50	BX	97	LYS	C-O	-5.71	1.17	1.24
78	CA	618	U	O4'-C1'	5.71	1.50	1.41
78	CA	998	A	O4'-C1'	5.71	1.50	1.41
33	BD	69	ARG	CZ-NH2	5.70	1.40	1.33
81	DA	1681	U	C2'-C1'	-5.70	1.44	1.53
81	DA	2996	U	P-OP2	5.70	1.60	1.49
81	DA	3035	A	O4'-C1'	5.70	1.50	1.41
81	DA	2314	U	O4'-C1'	5.70	1.50	1.41
33	BD	19	ALA	CA-C	-5.70	1.45	1.52
45	BR	3	ILE	C-N	5.70	1.41	1.33
74	BQ	275	THR	C-N	5.70	1.41	1.33
81	DA	2604	U	C2'-C1'	-5.70	1.44	1.53
13	AL	58	GLY	N-CA	-5.70	1.37	1.45
78	CA	838	G	O4'-C1'	5.70	1.50	1.41
81	DA	3394	U	O4'-C1'	5.70	1.50	1.41
5	AC	168	ARG	C-N	-5.70	1.27	1.33
59	Bh	51	SER	CA-C	-5.70	1.45	1.52
81	DA	329	U	O4'-C1'	-5.70	1.33	1.41
81	DA	2393	G	P-O5'	-5.70	1.51	1.59
6	AE	82	ASN	CA-C	-5.70	1.45	1.52
65	Bn	19	ASP	C-N	5.70	1.41	1.33
81	DA	701	G	O3'-P	-5.70	1.52	1.61
81	DA	2342	U	O4'-C1'	5.70	1.50	1.41
6	AE	25	ARG	CD-NE	5.69	1.54	1.46
55	Bc	45	LYS	CA-C	-5.69	1.45	1.52
57	Be	225	GLN	C-N	5.69	1.41	1.33
78	CA	900	A	C3'-C2'	-5.69	1.44	1.52
81	DA	2362	C	C3'-C2'	-5.69	1.44	1.52
19	AR	53	PRO	CA-C	-5.69	1.44	1.52
74	BQ	235	SER	CA-C	-5.69	1.45	1.52
81	DA	430	U	C2'-C1'	-5.69	1.44	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	3114	A	O4'-C1'	5.69	1.50	1.41
19	AR	61	ARG	CZ-NH1	5.69	1.40	1.32
35	BG	46	ARG	CA-C	-5.69	1.45	1.52
78	CA	270	C	C2'-C1'	-5.69	1.44	1.53
2	AA	244	GLU	CA-C	-5.69	1.45	1.52
78	CA	178	U	C2'-C1'	-5.69	1.44	1.53
81	DA	1633	C	O3'-P	-5.69	1.52	1.61
2	AA	250	VAL	N-CA	5.69	1.53	1.46
59	Bh	46	PHE	CA-C	-5.69	1.45	1.53
37	BH	93	LEU	CA-CB	5.69	1.63	1.53
78	CA	1077	C	C2'-C1'	-5.69	1.44	1.53
11	AJ	84	MET	N-CA	5.68	1.53	1.46
19	AR	127	ARG	NE-CZ	5.68	1.39	1.33
51	BZ	48	ARG	N-CA	-5.68	1.39	1.46
59	Bh	99	ASN	N-CA	-5.68	1.39	1.46
81	DA	2290	C	O4'-C1'	5.68	1.50	1.41
3	AB	64	ARG	CZ-NH2	5.68	1.40	1.33
20	AS	11	ALA	C-N	-5.68	1.26	1.33
20	AS	86	ARG	CZ-NH2	5.68	1.40	1.33
44	BO	87	ARG	NE-CZ	5.68	1.39	1.33
78	CA	929	A	C2'-C1'	-5.68	1.44	1.53
81	DA	1823	A	P-OP2	5.68	1.60	1.49
82	DB	7	U	C2'-C1'	-5.68	1.44	1.53
47	BU	23	GLY	CA-C	-5.68	1.46	1.52
81	DA	538	G	O4'-C1'	5.68	1.50	1.41
81	DA	2312	A	O4'-C1'	5.68	1.50	1.41
2	AA	206	ASP	N-CA	5.68	1.54	1.46
13	AL	141	GLU	CA-C	-5.68	1.45	1.52
58	Bg	62	ARG	CZ-NH2	5.68	1.40	1.33
78	CA	1720	G	O4'-C1'	-5.68	1.33	1.41
81	DA	2765	C	C2'-C1'	-5.68	1.44	1.53
20	AS	98	GLY	C-N	5.68	1.41	1.33
58	Bg	98	VAL	CA-C	-5.68	1.45	1.52
78	CA	177	U	P-OP2	5.68	1.60	1.49
78	CA	223	U	C5'-C4'	5.68	1.59	1.51
78	CA	1788	G	O4'-C1'	5.68	1.50	1.41
81	DA	25	U	O4'-C1'	5.68	1.50	1.41
81	DA	1449	A	O4'-C1'	5.68	1.50	1.41
37	BH	133	LYS	C-N	5.67	1.41	1.33
31	BB	135	ILE	CA-C	-5.67	1.45	1.52
81	DA	2142	A	C2'-C1'	5.67	1.61	1.53
11	AJ	53	LYS	CA-C	-5.67	1.45	1.52

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
59	Bh	81	ASP	C-N	5.67	1.41	1.34
78	CA	233	C	O5'-C5'	-5.67	1.33	1.42
78	CA	1667	A	C2'-C1'	-5.67	1.44	1.53
83	DC	5	G	O4'-C1'	5.67	1.50	1.41
83	DC	117	C	C2'-C1'	-5.67	1.44	1.53
40	BK	85	ARG	CZ-NH2	5.67	1.40	1.33
81	DA	2674	A	O4'-C1'	5.67	1.50	1.41
81	DA	2848	G	C2'-C1'	-5.67	1.44	1.53
10	AI	119	ALA	CA-CB	-5.67	1.43	1.53
25	AY	42	ARG	CD-NE	5.67	1.54	1.46
32	BC	259	HIS	ND1-CE1	5.67	1.38	1.32
43	BP	13	LYS	CA-CB	-5.67	1.44	1.53
74	BQ	292	ALA	C-N	5.67	1.41	1.33
81	DA	565	U	O4'-C1'	5.67	1.50	1.41
81	DA	697	A	O4'-C1'	5.67	1.50	1.41
22	AV	78	ILE	N-CA	5.67	1.53	1.46
34	BE	118	PRO	CA-C	-5.67	1.47	1.52
81	DA	2227	C	O4'-C1'	5.67	1.50	1.41
1	Aa	156	VAL	CA-C	-5.67	1.46	1.52
50	BX	86	VAL	N-CA	-5.67	1.39	1.46
81	DA	1369	A	O4'-C1'	5.67	1.50	1.41
39	BJ	54	LYS	C-N	5.66	1.40	1.33
64	Bl	63	ARG	CD-NE	5.66	1.54	1.46
13	AL	34	LEU	CA-C	5.66	1.60	1.52
59	Bh	27	ARG	CA-CB	5.66	1.62	1.53
81	DA	543	C	C2'-C1'	-5.66	1.44	1.53
81	DA	3363	U	C2'-C1'	5.66	1.61	1.53
14	AM	52	VAL	CA-C	-5.66	1.45	1.52
18	AP	40	LEU	C-N	5.66	1.41	1.33
22	AV	30	LYS	CA-C	-5.66	1.45	1.52
40	BK	186	ALA	CA-C	-5.66	1.45	1.52
45	BR	127	LEU	CA-C	-5.66	1.45	1.52
81	DA	30	G	O4'-C1'	-5.66	1.33	1.41
81	DA	1343	A	O4'-C1'	-5.66	1.33	1.41
81	DA	1426	C	C4'-C3'	-5.66	1.44	1.52
81	DA	2471	U	C2'-C1'	5.66	1.61	1.53
39	BJ	123	ARG	NE-CZ	5.66	1.39	1.33
61	Bj	65	ARG	CA-C	-5.66	1.45	1.53
79	CB	29	C	C2'-C1'	-5.66	1.44	1.53
32	BC	182	GLN	C-N	5.66	1.40	1.33
51	BZ	17	ARG	CA-C	-5.66	1.45	1.52
81	DA	1469	C	O4'-C1'	5.66	1.50	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1593	A	O4'-C1'	5.66	1.50	1.41
81	DA	1621	A	O4'-C1'	5.66	1.50	1.41
74	BQ	36	LEU	CA-C	5.65	1.59	1.52
52	BY	5	SER	CA-CB	5.65	1.61	1.53
62	Bk	26	ILE	N-CA	5.65	1.53	1.46
74	BQ	285	ARG	NE-CZ	5.65	1.39	1.33
81	DA	834	U	O3'-P	-5.65	1.52	1.61
81	DA	1042	U	C2'-C1'	-5.65	1.44	1.53
81	DA	1727	G	O4'-C1'	5.65	1.50	1.41
81	DA	1912	U	O4'-C1'	5.65	1.50	1.41
2	AA	31	VAL	CA-CB	-5.65	1.47	1.54
9	AH	97	ARG	NE-CZ	5.65	1.39	1.33
37	BH	137	ASN	N-CA	-5.65	1.39	1.46
38	Bs	13	ALA	CA-C	-5.65	1.45	1.52
69	Br	11	TYR	CA-CB	5.65	1.62	1.53
78	CA	1730	A	O4'-C1'	5.65	1.50	1.41
5	AC	192	ASP	C-N	5.65	1.41	1.33
8	AF	170	GLN	C-N	5.65	1.41	1.33
61	Bj	48	ARG	NE-CZ	5.65	1.39	1.33
76	BS	114	SER	N-CA	-5.65	1.39	1.46
12	AK	69	ALA	CA-C	-5.65	1.45	1.52
81	DA	399	A	O4'-C1'	5.65	1.50	1.41
6	AE	152	HIS	N-CA	-5.64	1.39	1.46
81	DA	87	U	O4'-C1'	5.64	1.50	1.41
1	Aa	16	HIS	ND1-CE1	5.64	1.38	1.32
3	AB	197	THR	CA-C	5.64	1.60	1.52
4	AD	62	LYS	C-N	5.64	1.41	1.33
81	DA	2408	U	O4'-C1'	5.64	1.50	1.41
31	BB	242	ARG	CA-C	-5.64	1.46	1.52
81	DA	953	G	C2'-C1'	-5.64	1.44	1.53
5	AC	100	LYS	CA-CB	5.64	1.62	1.53
32	BC	298	PHE	C-N	5.64	1.41	1.33
34	BE	12	LEU	N-CA	-5.64	1.39	1.45
48	BW	66	VAL	CA-C	-5.64	1.45	1.52
51	BZ	67	VAL	C-O	-5.64	1.17	1.24
53	Ba	88	ASP	C-N	5.64	1.41	1.33
55	Bc	6	ALA	C-N	5.64	1.41	1.33
55	Bc	102	GLU	N-CA	5.64	1.53	1.46
68	Bq	18	ARG	N-CA	-5.64	1.39	1.46
78	CA	983	A	O4'-C1'	5.64	1.50	1.41
61	Bj	21	ARG	N-CA	5.64	1.53	1.46
81	DA	1051	U	O4'-C1'	5.64	1.50	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	AD	94	ALA	N-CA	5.64	1.56	1.46
78	CA	163	G	C4'-C3'	-5.64	1.44	1.52
81	DA	80	G	O4'-C1'	5.64	1.50	1.41
81	DA	1208	U	O4'-C1'	-5.64	1.33	1.41
5	AC	116	LEU	CA-CB	5.63	1.62	1.53
6	AE	111	VAL	N-CA	-5.63	1.40	1.46
19	AR	77	ARG	CD-NE	5.63	1.54	1.46
39	BJ	14	TYR	CA-C	-5.63	1.46	1.52
81	DA	1726	C	C2'-C1'	-5.63	1.44	1.53
81	DA	3305	A	C2'-C1'	-5.63	1.44	1.53
83	DC	76	U	C2'-C1'	5.63	1.61	1.53
74	BQ	65	ILE	CA-C	-5.63	1.46	1.52
81	DA	2272	G	C2'-C1'	5.63	1.61	1.53
53	Ba	12	VAL	N-CA	-5.63	1.39	1.46
78	CA	1048	G	O4'-C1'	5.63	1.50	1.41
78	CA	1566	U	C2'-C1'	5.63	1.61	1.53
82	DB	120	C	O4'-C1'	5.63	1.50	1.41
53	Ba	61	LYS	C-N	5.63	1.40	1.33
74	BQ	108	ARG	CD-NE	5.63	1.54	1.46
81	DA	2271	A	C2'-C1'	5.63	1.61	1.53
81	DA	2341	A	O4'-C1'	5.63	1.50	1.41
8	AF	83	ARG	NE-CZ	5.63	1.39	1.33
37	BH	251	LYS	CA-C	-5.63	1.45	1.52
62	Bk	70	ARG	NE-CZ	5.63	1.39	1.33
62	Bk	71	LYS	CA-CB	5.63	1.62	1.53
78	CA	348	U	O4'-C1'	5.63	1.50	1.41
81	DA	2530	G	O4'-C1'	5.63	1.50	1.41
53	Ba	69	LYS	CA-C	5.63	1.59	1.52
78	CA	106	U	O4'-C1'	5.63	1.50	1.41
81	DA	3363	U	O4'-C1'	5.63	1.50	1.41
17	AQ	11	ARG	CZ-NH1	5.62	1.40	1.32
39	BJ	106	LEU	C-O	-5.62	1.17	1.24
57	Be	145	ARG	CD-NE	5.62	1.54	1.46
69	Br	20	HIS	N-CA	-5.62	1.39	1.46
4	AD	120	SER	C-N	5.62	1.41	1.33
34	BE	90	GLN	CA-C	-5.62	1.45	1.52
81	DA	990	U	C5'-C4'	5.62	1.59	1.51
82	DB	2	A	P-OP2	5.62	1.60	1.49
19	AR	118	GLU	CA-CB	-5.62	1.44	1.53
30	BA	185	MET	CA-C	-5.62	1.45	1.52
31	BB	9	ARG	NE-CZ	5.62	1.39	1.33
48	BW	69	ALA	C-N	5.62	1.40	1.33

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	375	A	O4'-C1'	5.62	1.50	1.41
12	AK	22	SER	CA-C	5.62	1.60	1.52
34	BE	21	ILE	CA-C	-5.62	1.45	1.52
78	CA	434	G	O4'-C1'	-5.62	1.33	1.41
81	DA	1465	A	C2'-C1'	-5.62	1.45	1.53
81	DA	3086	A	C2'-C1'	5.62	1.61	1.53
41	BN	13	ARG	NE-CZ	5.62	1.39	1.33
62	Bk	62	ARG	CD-NE	5.62	1.54	1.46
81	DA	1598	G	O4'-C1'	-5.62	1.33	1.41
81	DA	2667	A	C2'-C1'	-5.61	1.45	1.53
6	AE	157	LYS	C-O	-5.61	1.17	1.24
44	BO	55	LYS	C-N	5.61	1.41	1.33
81	DA	2007	G	C2'-C1'	-5.61	1.45	1.53
5	AC	117	GLY	CA-C	-5.61	1.44	1.51
10	AI	122	ARG	NE-CZ	5.61	1.39	1.33
47	BU	88	ARG	CD-NE	5.61	1.54	1.46
50	BX	56	ARG	NE-CZ	5.61	1.39	1.33
81	DA	95	A	C2'-C1'	-5.61	1.45	1.53
81	DA	2795	U	C2'-C1'	5.61	1.61	1.53
39	BJ	72	SER	CA-C	-5.61	1.45	1.52
78	CA	1738	U	O4'-C1'	5.61	1.50	1.41
81	DA	1389	G	C2'-C1'	-5.61	1.45	1.53
13	AL	39	LYS	CB-CG	5.61	1.69	1.52
22	AV	96	SER	CA-CB	5.61	1.62	1.53
81	DA	3392	U	C2'-C1'	-5.61	1.45	1.53
8	AF	102	ARG	CD-NE	5.61	1.54	1.46
11	AJ	59	PRO	C-N	5.61	1.41	1.33
20	AS	24	ARG	CA-CB	5.61	1.62	1.53
33	BD	217	LYS	CA-C	-5.61	1.45	1.52
81	DA	185	C	O3'-P	-5.61	1.52	1.61
81	DA	2773	C	P-OP2	5.61	1.60	1.49
74	BQ	237	GLU	N-CA	5.60	1.52	1.45
43	BP	70	ASN	CA-C	-5.60	1.45	1.52
46	BT	62	ARG	CD-NE	5.60	1.54	1.46
58	Bg	3	GLY	N-CA	-5.60	1.37	1.45
76	BS	156	ARG	C-O	-5.60	1.17	1.24
11	AJ	10	GLU	N-CA	-5.60	1.39	1.46
33	BD	235	LEU	CA-C	-5.60	1.45	1.52
29	AU	82	ALA	N-CA	-5.60	1.39	1.46
35	BG	109	GLU	CA-C	-5.60	1.45	1.52
29	AU	62	THR	CA-C	-5.59	1.45	1.52
65	Bn	8	ILE	CA-C	-5.59	1.45	1.52

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	959	U	O4'-C1'	-5.59	1.33	1.42
78	CA	1323	C	C2'-C1'	-5.59	1.45	1.53
81	DA	144	A	O4'-C1'	5.59	1.50	1.41
81	DA	1267	U	C2'-C1'	5.59	1.61	1.53
14	AM	145	ARG	CZ-NH2	5.59	1.40	1.33
32	BC	240	ARG	NE-CZ	5.59	1.39	1.33
74	BQ	15	ARG	NE-CZ	5.59	1.39	1.33
16	AO	86	GLU	N-CA	-5.59	1.39	1.46
31	BB	155	LYS	CA-C	-5.59	1.46	1.52
36	BF	111	PHE	CA-CB	5.59	1.62	1.53
49	BV	103	GLU	CA-C	-5.59	1.45	1.52
51	BZ	47	ARG	CA-C	5.59	1.60	1.52
81	DA	942	U	O4'-C1'	5.59	1.50	1.41
81	DA	2704	A	C2'-C1'	5.59	1.61	1.53
2	AA	83	GLN	CA-CB	5.59	1.62	1.53
18	AP	104	HIS	C-N	5.59	1.40	1.33
46	BT	4	LEU	C-N	5.59	1.41	1.33
52	BY	26	GLN	N-CA	-5.59	1.39	1.46
83	DC	29	C	C3'-O3'	5.59	1.50	1.42
17	AQ	110	VAL	C-O	-5.58	1.17	1.24
2	AA	83	GLN	CA-C	-5.58	1.46	1.52
8	AF	217	LEU	CA-CB	5.58	1.62	1.53
30	BA	140	HIS	ND1-CE1	5.58	1.38	1.32
38	Bs	64	ARG	NE-CZ	5.58	1.39	1.33
61	Bj	7	LEU	CA-C	-5.58	1.45	1.52
80	CC	12	A	P-OP2	5.58	1.60	1.49
8	AF	99	MET	N-CA	-5.58	1.39	1.46
21	AT	16	LYS	CA-CB	5.58	1.62	1.53
32	BC	50	LYS	N-CA	-5.58	1.39	1.46
36	BF	100	ASN	N-CA	-5.58	1.39	1.46
37	BH	103	ALA	CA-C	-5.58	1.45	1.52
46	BT	47	ASN	CA-C	-5.58	1.45	1.52
78	CA	343	C	O4'-C1'	5.58	1.50	1.41
78	CA	1045	C	O4'-C1'	5.58	1.50	1.41
78	CA	1461	C	C2'-C1'	-5.58	1.45	1.53
10	AI	103	ASN	CA-CB	5.58	1.62	1.53
81	DA	1546	A	C2'-C1'	-5.58	1.45	1.53
14	AM	139	LYS	C-O	5.58	1.30	1.24
33	BD	203	ARG	CD-NE	5.58	1.54	1.46
52	BY	95	VAL	N-CA	-5.58	1.41	1.46
1	Aa	190	ALA	C-N	5.58	1.41	1.33
68	Bq	14	LYS	C-N	5.58	1.41	1.33

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	926	A	O4'-C1'	5.58	1.50	1.41
81	DA	1737	U	P-OP2	5.58	1.60	1.49
8	AF	74	ALA	CA-C	-5.58	1.45	1.52
45	BR	98	LYS	C-N	5.58	1.41	1.33
81	DA	1114	U	C2'-C1'	-5.58	1.45	1.53
20	AS	76	LEU	CA-C	-5.57	1.45	1.52
25	AY	11	LYS	C-N	5.57	1.39	1.33
36	BF	103	ILE	N-CA	-5.57	1.39	1.46
36	BF	166	ARG	NE-CZ	5.57	1.39	1.33
57	Be	193	PRO	N-CA	-5.57	1.40	1.47
65	Bn	16	ARG	CZ-NH1	5.57	1.40	1.32
69	Br	18	ARG	CD-NE	5.57	1.54	1.46
82	DB	24	G	C2'-C1'	-5.57	1.45	1.53
20	AS	68	ARG	N-CA	-5.57	1.39	1.46
41	BN	46	ILE	C-N	5.57	1.41	1.33
46	BT	9	ARG	CZ-NH1	5.57	1.40	1.32
65	Bn	9	LYS	C-N	5.57	1.41	1.33
78	CA	1758	U	O4'-C1'	5.57	1.50	1.41
81	DA	2780	A	C2'-C1'	-5.57	1.45	1.53
21	AT	30	ALA	C-N	5.57	1.41	1.33
78	CA	412	A	C2'-C1'	5.57	1.61	1.53
46	BT	19	LYS	C-N	5.57	1.41	1.33
78	CA	323	A	P-OP2	5.57	1.60	1.49
81	DA	1692	U	O4'-C1'	-5.57	1.33	1.42
2	AA	106	SER	CA-C	-5.57	1.46	1.52
32	BC	128	LYS	CA-CB	5.57	1.62	1.53
33	BD	321	LYS	C-N	5.57	1.41	1.33
58	Bg	34	LYS	CA-CB	5.57	1.62	1.53
59	Bh	26	HIS	N-CA	-5.57	1.39	1.46
67	Bp	30	ARG	NE-CZ	5.57	1.39	1.33
78	CA	605	A	C2'-C1'	-5.57	1.45	1.53
78	CA	1787	C	C2'-C1'	-5.57	1.45	1.53
81	DA	45	A	C2'-C1'	-5.57	1.45	1.53
81	DA	2919	A	O4'-C1'	5.57	1.50	1.41
1	Aa	137	LYS	N-CA	-5.56	1.39	1.46
20	AS	30	VAL	CA-C	5.56	1.58	1.52
78	CA	1126	G	C2'-C1'	-5.56	1.45	1.53
81	DA	1307	G	O4'-C1'	5.56	1.50	1.41
81	DA	2902	A	C2'-C1'	-5.56	1.45	1.53
25	AY	53	ILE	N-CA	-5.56	1.39	1.46
40	BK	180	SER	N-CA	-5.56	1.38	1.45
43	BP	144	ARG	CZ-NH1	5.56	1.40	1.32

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	373	A	O4'-C1'	5.56	1.50	1.41
81	DA	968	G	O4'-C1'	5.56	1.50	1.41
81	DA	1040	A	C2'-C1'	-5.56	1.45	1.53
81	DA	1403	C	P-OP2	5.56	1.60	1.49
17	AQ	20	TYR	N-CA	-5.56	1.39	1.46
61	Bj	18	ARG	CZ-NH2	5.56	1.40	1.33
81	DA	2422	C	O3'-P	-5.56	1.52	1.61
42	BM	14	SER	N-CA	-5.56	1.39	1.46
59	Bh	33	ARG	NE-CZ	5.56	1.39	1.33
78	CA	171	A	C2'-C1'	5.56	1.61	1.53
78	CA	208	U	C4'-C3'	5.56	1.63	1.52
78	CA	822	U	C4'-O4'	5.56	1.53	1.45
10	AI	71	GLY	C-N	5.56	1.41	1.33
78	CA	1627	U	C2'-C1'	-5.56	1.45	1.53
78	CA	1712	A	C2'-C1'	5.56	1.61	1.53
81	DA	1837	U	O4'-C1'	5.56	1.50	1.41
44	BO	27	LYS	CA-C	-5.55	1.45	1.52
81	DA	1856	C	O4'-C1'	5.55	1.50	1.41
8	AF	118	LEU	CA-C	-5.55	1.45	1.52
18	AP	77	SER	C-N	5.55	1.41	1.33
31	BB	156	LYS	CA-C	-5.55	1.46	1.52
37	BH	207	ASP	N-CA	-5.55	1.39	1.46
39	BJ	86	LYS	C-N	5.55	1.40	1.33
62	Bk	37	THR	N-CA	5.55	1.53	1.46
81	DA	299	G	O4'-C1'	-5.55	1.33	1.41
9	AH	68	ARG	NE-CZ	5.55	1.39	1.33
78	CA	964	U	C2'-C1'	5.55	1.61	1.53
78	CA	1554	U	C2'-C1'	5.55	1.61	1.53
79	CB	1	U	P-OP2	5.55	1.60	1.49
40	BK	181	ALA	CA-C	-5.55	1.46	1.53
60	Bi	79	SER	C-N	5.55	1.41	1.33
81	DA	2156	C	C2'-C1'	-5.55	1.45	1.53
2	AA	184	LEU	N-CA	-5.55	1.39	1.46
8	AF	166	ARG	NE-CZ	5.55	1.39	1.33
32	BC	282	ILE	CA-C	-5.55	1.47	1.53
36	BF	173	ARG	CZ-NH2	5.55	1.40	1.33
78	CA	1747	G	C2'-C1'	-5.55	1.45	1.53
81	DA	227	G	C2'-C1'	-5.55	1.45	1.53
13	AL	82	LYS	C-N	5.54	1.39	1.33
78	CA	1383	G	O4'-C1'	5.54	1.50	1.41
81	DA	344	A	C2'-C1'	-5.54	1.45	1.53
81	DA	1458	U	O4'-C1'	5.54	1.50	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	2084	C	O4'-C1'	5.54	1.50	1.41
81	DA	637	C	C4'-O4'	5.54	1.53	1.45
81	DA	1806	A	O4'-C1'	5.54	1.50	1.41
43	BP	108	ARG	NE-CZ	5.54	1.39	1.33
49	BV	50	GLN	N-CA	-5.54	1.39	1.46
64	Bl	63	ARG	CA-CB	5.54	1.62	1.53
66	Bo	37	TYR	N-CA	-5.54	1.38	1.46
78	CA	17	C	O4'-C1'	5.54	1.50	1.41
78	CA	141	U	O3'-P	-5.54	1.52	1.61
81	DA	161	G	C4'-O4'	-5.54	1.37	1.45
81	DA	537	A	O4'-C1'	5.54	1.50	1.41
81	DA	1161	G	O4'-C1'	5.54	1.50	1.41
82	DB	44	A	O4'-C1'	5.54	1.50	1.41
81	DA	223	U	O4'-C1'	5.54	1.50	1.41
81	DA	1165	A	C2'-C1'	-5.54	1.45	1.53
81	DA	1996	C	C2'-C1'	5.54	1.61	1.53
14	AM	104	ASN	C-N	5.54	1.40	1.33
32	BC	210	GLU	N-CA	-5.54	1.39	1.45
59	Bh	21	HIS	CA-CB	5.54	1.61	1.53
63	Bm	61	LYS	CA-C	-5.54	1.46	1.52
78	CA	1466	G	C2'-C1'	-5.54	1.45	1.53
81	DA	770	G	O4'-C1'	5.54	1.50	1.41
81	DA	2706	G	C2'-C1'	-5.54	1.45	1.53
43	BP	2	GLY	C-N	5.54	1.41	1.33
81	DA	418	A	C2'-C1'	5.54	1.61	1.53
81	DA	1399	A	P-OP2	5.54	1.60	1.49
81	DA	2707	C	O4'-C1'	5.54	1.50	1.41
4	AD	162	ILE	N-CA	-5.53	1.39	1.46
32	BC	37	ARG	CZ-NH1	5.53	1.40	1.32
81	DA	721	G	C2'-C1'	5.53	1.61	1.53
81	DA	3092	C	C2'-C1'	5.53	1.61	1.53
66	Bo	26	TRP	CA-CB	5.53	1.61	1.53
12	AK	76	ILE	CA-CB	-5.53	1.47	1.54
46	BT	91	SER	CA-C	-5.53	1.45	1.52
82	DB	18	U	C2'-C1'	-5.53	1.45	1.53
26	AZ	40	TYR	C-N	5.53	1.41	1.33
41	BN	28	SER	CA-C	-5.53	1.46	1.53
42	BM	79	VAL	CA-C	5.53	1.60	1.52
78	CA	478	A	O4'-C1'	-5.53	1.33	1.41
81	DA	3374	U	C2'-C1'	-5.53	1.44	1.53
64	Bl	72	ARG	NE-CZ	5.53	1.39	1.33
69	Br	18	ARG	C-N	5.53	1.40	1.33

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	215	A	O4'-C1'	5.53	1.50	1.41
78	CA	1016	C	C2'-C1'	-5.53	1.45	1.53
81	DA	284	A	O4'-C1'	5.53	1.50	1.42
81	DA	1567	U	C2'-C1'	-5.53	1.45	1.53
81	DA	1690	C	O3'-P	-5.53	1.52	1.61
1	Aa	192	PHE	CA-C	-5.53	1.46	1.52
3	AB	137	VAL	CA-C	-5.53	1.45	1.52
15	AN	37	ASN	CA-C	-5.53	1.47	1.53
45	BR	130	ARG	CD-NE	5.53	1.53	1.46
59	Bh	73	THR	CA-C	-5.53	1.45	1.52
81	DA	197	G	O4'-C1'	5.53	1.50	1.41
81	DA	2262	A	O4'-C1'	5.53	1.50	1.41
33	BD	296	GLN	CA-CB	5.52	1.60	1.52
25	AY	54	LEU	CA-C	-5.52	1.45	1.52
38	Bs	122	ARG	NE-CZ	5.52	1.39	1.33
81	DA	2292	U	O4'-C1'	5.52	1.50	1.41
81	DA	2421	U	O3'-P	-5.52	1.52	1.61
5	AC	128	LEU	C-O	-5.52	1.17	1.24
14	AM	9	GLY	C-N	5.52	1.41	1.33
32	BC	38	SER	CA-CB	5.52	1.62	1.53
32	BC	196	ARG	NE-CZ	5.52	1.39	1.33
36	BF	186	PHE	CA-CB	5.52	1.64	1.53
38	Bs	68	SER	CA-C	-5.52	1.46	1.53
32	BC	295	ALA	CA-C	-5.52	1.45	1.52
78	CA	999	U	O4'-C1'	5.52	1.50	1.41
81	DA	169	U	C5'-C4'	5.52	1.59	1.51
81	DA	1390	A	O4'-C1'	-5.52	1.33	1.42
3	AB	90	ARG	C-O	-5.52	1.17	1.24
42	BM	30	GLY	CA-C	-5.52	1.43	1.51
81	DA	2505	U	O3'-P	-5.52	1.52	1.61
81	DA	3090	U	C4'-C3'	5.52	1.60	1.52
2	AA	196	SER	N-CA	5.52	1.53	1.46
33	BD	24	ALA	N-CA	-5.52	1.39	1.46
81	DA	1113	G	O4'-C1'	-5.52	1.33	1.41
81	DA	3308	C	C2'-C1'	-5.52	1.45	1.53
8	AF	76	ARG	NE-CZ	5.51	1.39	1.33
9	AH	34	ILE	C-N	5.51	1.40	1.34
31	BB	109	GLU	C-N	5.51	1.40	1.33
35	BG	53	VAL	CA-C	-5.51	1.46	1.52
43	BP	46	ASP	N-CA	-5.51	1.39	1.46
74	BQ	35	ARG	C-N	5.51	1.41	1.33
81	DA	820	A	O4'-C1'	5.51	1.50	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	2244	A	C2'-C1'	5.51	1.61	1.53
81	DA	2346	C	C2'-C1'	-5.51	1.45	1.53
10	AI	82	ARG	CA-C	-5.51	1.46	1.52
22	AV	66	VAL	CA-C	-5.51	1.46	1.52
41	BN	36	VAL	N-CA	-5.51	1.40	1.46
59	Bh	129	GLU	CA-C	-5.51	1.45	1.52
81	DA	1838	G	O4'-C1'	5.51	1.50	1.41
8	AF	116	HIS	N-CA	-5.51	1.39	1.46
17	AQ	26	LEU	CA-C	5.51	1.60	1.52
22	AV	48	ASP	C-O	-5.51	1.17	1.24
81	DA	497	C	C2'-C1'	-5.51	1.45	1.53
29	AU	72	PHE	N-CA	5.51	1.53	1.46
56	Bf	49	PRO	CA-C	-5.51	1.45	1.52
57	Be	221	LYS	CA-CB	5.51	1.62	1.53
81	DA	2043	U	O4'-C1'	5.50	1.50	1.41
16	AO	67	THR	CA-C	5.50	1.60	1.52
32	BC	242	THR	CA-C	-5.50	1.45	1.52
59	Bh	98	HIS	CA-CB	5.50	1.62	1.53
78	CA	44	U	P-OP2	5.50	1.59	1.49
81	DA	636	C	P-O5'	-5.50	1.51	1.59
81	DA	1254	C	C2'-C1'	-5.50	1.45	1.53
81	DA	2914	G	P-OP2	5.50	1.59	1.49
81	DA	3375	A	C2'-C1'	-5.50	1.45	1.53
18	AP	73	GLY	CA-C	-5.50	1.44	1.51
26	AZ	54	ARG	CZ-NH2	5.50	1.40	1.33
59	Bh	25	TYR	CA-C	-5.50	1.46	1.52
81	DA	726	G	C5'-C4'	5.50	1.59	1.51
81	DA	784	A	O4'-C1'	-5.50	1.33	1.42
19	AR	81	ARG	C-N	5.50	1.40	1.33
74	BQ	21	ARG	CD-NE	5.50	1.53	1.46
76	BS	142	LYS	CA-C	-5.50	1.45	1.52
81	DA	939	U	O4'-C1'	5.50	1.49	1.41
81	DA	1468	A	O4'-C1'	5.50	1.49	1.41
11	AJ	18	GLN	C-N	5.50	1.41	1.33
78	CA	478	A	C2'-C1'	5.50	1.61	1.53
83	DC	93	U	C2'-C1'	-5.50	1.45	1.53
41	BN	62	GLN	CA-CB	5.50	1.61	1.52
58	Bg	107	VAL	CA-C	5.50	1.59	1.52
78	CA	205	U	C2'-C1'	-5.50	1.45	1.53
81	DA	89	A	O4'-C1'	5.50	1.49	1.41
81	DA	891	G	C2'-C1'	-5.50	1.45	1.53
82	DB	97	A	C2'-C1'	-5.50	1.45	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
39	BJ	115	GLN	CA-CB	5.50	1.62	1.53
47	BU	13	TYR	C-N	5.50	1.41	1.33
31	BB	98	VAL	N-CA	-5.49	1.39	1.46
33	BD	70	ALA	CA-C	-5.49	1.45	1.52
35	BG	6	ALA	CA-C	-5.49	1.46	1.52
45	BR	111	ARG	NE-CZ	5.49	1.39	1.33
59	Bh	74	PHE	CA-C	-5.49	1.45	1.52
65	Bn	35	GLY	C-N	5.49	1.45	1.33
76	BS	150	LYS	N-CA	-5.49	1.39	1.46
78	CA	1092	A	O4'-C1'	-5.49	1.33	1.42
78	CA	1266	U	O4'-C1'	5.49	1.49	1.41
78	CA	1446	A	P-OP2	5.49	1.59	1.49
81	DA	114	A	O4'-C1'	-5.49	1.33	1.41
81	DA	794	U	C2'-C1'	-5.49	1.45	1.53
30	BA	48	ARG	CD-NE	5.49	1.53	1.46
15	AN	12	ARG	NE-CZ	5.49	1.39	1.33
78	CA	1130	G	C4'-O4'	-5.49	1.37	1.45
78	CA	1234	A	C2'-C1'	5.49	1.61	1.53
78	CA	1415	U	P-OP2	5.49	1.59	1.49
32	BC	48	GLY	CA-C	-5.49	1.45	1.51
36	BF	144	ILE	N-CA	5.49	1.52	1.46
64	Bl	87	SER	CA-C	-5.49	1.45	1.52
78	CA	1306	C	C2'-C1'	-5.49	1.45	1.53
78	CA	1528	U	O4'-C1'	-5.49	1.33	1.41
81	DA	1898	G	O3'-P	-5.49	1.52	1.61
58	Bg	11	GLU	CA-C	-5.49	1.46	1.52
81	DA	3150	A	O4'-C1'	-5.49	1.33	1.41
4	AD	195	ILE	C-N	5.49	1.40	1.33
32	BC	251	CYS	N-CA	-5.49	1.39	1.46
78	CA	37	U	C2'-C1'	5.49	1.61	1.53
78	CA	653	C	O4'-C1'	5.49	1.49	1.41
81	DA	1884	A	O4'-C1'	5.48	1.49	1.41
81	DA	2694	A	O4'-C1'	5.48	1.49	1.41
31	BB	184	ARG	CZ-NH1	5.48	1.40	1.32
49	BV	97	ASN	CA-CB	5.48	1.61	1.53
78	CA	163	G	C2'-C1'	-5.48	1.45	1.53
81	DA	327	A	C2'-C1'	-5.48	1.45	1.53
81	DA	1772	U	O4'-C1'	5.48	1.50	1.42
16	AO	95	ALA	CA-C	-5.48	1.45	1.52
21	AT	80	LYS	N-CA	-5.48	1.39	1.46
34	BE	18	VAL	CA-C	-5.48	1.45	1.52
74	BQ	107	ARG	CZ-NH2	5.48	1.40	1.33

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	1168	U	O4'-C1'	5.48	1.49	1.41
79	CB	63	C	C2'-C1'	-5.48	1.45	1.53
81	DA	2046	U	C3'-O3'	-5.48	1.33	1.42
81	DA	2289	U	C2'-C1'	-5.48	1.45	1.53
5	AC	133	HIS	ND1-CE1	5.48	1.38	1.32
34	BE	105	GLY	C-N	5.48	1.41	1.33
78	CA	1176	G	C2'-C1'	-5.48	1.45	1.53
81	DA	3107	U	C2'-C1'	5.48	1.61	1.53
47	BU	19	PHE	CA-CB	5.48	1.61	1.53
81	DA	1400	G	O3'-P	-5.48	1.52	1.61
18	AP	76	VAL	CA-CB	-5.47	1.47	1.54
44	BO	8	THR	C-N	5.47	1.41	1.33
78	CA	1032	G	C2'-C1'	-5.47	1.45	1.53
78	CA	1043	A	C2'-C1'	5.47	1.61	1.53
81	DA	857	G	C2'-C1'	-5.47	1.45	1.53
81	DA	922	U	C2'-C1'	5.47	1.61	1.53
81	DA	1016	C	C2'-C1'	-5.47	1.45	1.53
74	BQ	187	THR	C-N	5.47	1.41	1.33
78	CA	1340	U	P-O5'	-5.47	1.51	1.59
26	AZ	39	LEU	C-N	5.47	1.41	1.33
49	BV	49	GLU	C-O	-5.47	1.17	1.24
50	BX	50	ALA	C-O	-5.47	1.17	1.24
53	Ba	66	THR	N-CA	-5.47	1.39	1.46
64	Bl	22	CYS	C-N	5.47	1.40	1.33
32	BC	346	THR	CA-CB	5.47	1.62	1.53
45	BR	144	ARG	CA-CB	-5.47	1.44	1.53
50	BX	29	SER	CA-C	-5.47	1.45	1.52
78	CA	1544	U	O3'-P	-5.47	1.52	1.61
81	DA	1717	U	O3'-P	-5.47	1.52	1.61
81	DA	2396	G	C2'-C1'	-5.47	1.45	1.53
57	Be	30	ARG	N-CA	-5.47	1.39	1.46
81	DA	1205	A	O4'-C1'	5.47	1.49	1.41
81	DA	1671	C	C2'-C1'	-5.47	1.45	1.53
5	AC	103	ASP	C-N	5.47	1.41	1.33
35	BG	34	LEU	C-N	5.47	1.39	1.33
43	BP	37	HIS	N-CA	-5.47	1.40	1.46
74	BQ	107	ARG	NE-CZ	5.47	1.39	1.33
76	BS	159	ARG	CD-NE	5.47	1.53	1.46
78	CA	1339	C	O3'-P	-5.47	1.52	1.61
78	CA	1719	A	O4'-C1'	5.47	1.49	1.41
81	DA	1120	A	O4'-C1'	5.47	1.49	1.41
4	AD	104	ASP	CA-C	-5.46	1.46	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
20	AS	59	ALA	C-N	-5.46	1.26	1.33
31	BB	133	TYR	CA-C	-5.46	1.45	1.52
45	BR	23	ASN	CA-CB	5.46	1.61	1.53
47	BU	102	ARG	CZ-NH1	5.46	1.40	1.32
81	DA	2394	G	O4'-C1'	5.46	1.49	1.41
74	BQ	241	THR	C-N	5.46	1.41	1.33
1	Aa	164	ASP	CA-C	-5.46	1.47	1.53
6	AE	185	LYS	CA-C	-5.46	1.46	1.52
20	AS	132	LEU	CA-C	-5.46	1.45	1.52
63	Bm	8	VAL	C-N	5.46	1.41	1.33
81	DA	2501	U	O4'-C1'	5.46	1.49	1.41
82	DB	6	U	C2'-C1'	-5.46	1.45	1.53
4	AD	139	VAL	CA-CB	-5.46	1.47	1.54
78	CA	433	C	C2'-C1'	-5.46	1.45	1.53
81	DA	868	C	C2'-C1'	-5.46	1.45	1.53
81	DA	2927	C	C2'-C1'	-5.46	1.45	1.53
4	AD	239	PRO	CA-CB	-5.46	1.44	1.53
36	BF	154	VAL	CA-C	-5.46	1.46	1.52
56	Bf	61	MET	N-CA	-5.46	1.39	1.46
59	Bh	127	ALA	N-CA	-5.46	1.39	1.46
65	Bn	71	PRO	N-CA	5.46	1.54	1.47
81	DA	3256	G	O4'-C1'	5.46	1.49	1.41
6	AE	20	GLY	C-O	-5.46	1.17	1.23
31	BB	200	ARG	CA-C	-5.46	1.45	1.52
34	BE	128	TYR	N-CA	-5.46	1.39	1.46
81	DA	916	G	C2'-C1'	5.46	1.61	1.53
81	DA	2087	C	C2'-C1'	-5.46	1.45	1.53
34	BE	61	ARG	CA-CB	5.46	1.62	1.53
30	BA	11	GLU	CA-CB	5.45	1.60	1.53
78	CA	1657	U	O4'-C1'	5.45	1.49	1.41
30	BA	205	VAL	C-N	5.45	1.41	1.33
81	DA	749	C	O4'-C1'	5.45	1.49	1.41
81	DA	1339	C	O4'-C1'	5.45	1.49	1.41
81	DA	2237	C	O4'-C1'	5.45	1.49	1.41
2	AA	151	SER	CA-C	-5.45	1.47	1.52
8	AF	78	ALA	C-N	5.45	1.41	1.33
45	BR	103	ALA	CA-C	-5.45	1.46	1.52
66	Bo	37	TYR	C-N	5.45	1.41	1.33
81	DA	2628	A	O3'-P	-5.45	1.52	1.61
53	Ba	84	ARG	NE-CZ	5.45	1.39	1.33
81	DA	2697	A	C2'-C1'	-5.45	1.45	1.53
8	AF	65	ARG	CA-CB	5.45	1.59	1.52

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
47	BU	61	THR	CA-C	-5.45	1.46	1.52
78	CA	634	G	C2'-C1'	5.45	1.61	1.53
81	DA	1069	C	C2'-C1'	-5.45	1.45	1.53
81	DA	1797	A	O4'-C1'	5.45	1.49	1.41
81	DA	3325	G	C2'-C1'	5.45	1.61	1.53
82	DB	2	A	C2'-C1'	5.45	1.61	1.53
5	AC	91	LYS	CA-C	-5.44	1.45	1.52
61	Bj	65	ARG	CD-NE	5.44	1.53	1.46
78	CA	616	G	O4'-C1'	5.44	1.49	1.41
81	DA	2416	U	C3'-O3'	-5.44	1.33	1.42
81	DA	2898	G	C2'-C1'	-5.44	1.45	1.53
33	BD	26	PHE	CA-CB	5.44	1.62	1.53
42	BM	8	GLY	C-N	5.44	1.41	1.34
57	Be	68	ASP	CA-C	5.44	1.59	1.52
81	DA	79	U	O4'-C1'	5.44	1.49	1.41
81	DA	1534	A	C2'-C1'	5.44	1.61	1.53
5	AC	62	ARG	CA-C	-5.44	1.46	1.52
12	AK	70	LYS	CA-C	-5.44	1.45	1.52
81	DA	554	A	C2'-C1'	-5.44	1.45	1.53
81	DA	1009	A	C5'-C4'	5.44	1.59	1.51
37	BH	84	ARG	NE-CZ	5.44	1.39	1.33
78	CA	1763	A	O4'-C1'	5.44	1.49	1.41
22	AV	41	ILE	CA-C	-5.44	1.45	1.52
30	BA	163	LEU	CA-C	-5.44	1.45	1.52
32	BC	257	PRO	N-CD	-5.44	1.40	1.47
42	BM	50	PRO	N-CD	-5.44	1.40	1.47
78	CA	36	C	C2'-C1'	-5.44	1.45	1.53
81	DA	2469	G	C2'-C1'	-5.44	1.45	1.53
78	CA	155	U	C2'-C1'	5.44	1.61	1.53
81	DA	1121	U	C2'-C1'	-5.44	1.45	1.53
44	BO	17	ALA	CA-C	-5.43	1.46	1.53
55	Bc	42	PRO	C-N	5.43	1.41	1.33
64	Bl	72	ARG	CD-NE	5.43	1.53	1.46
78	CA	145	A	P-OP2	5.43	1.59	1.49
78	CA	409	C	C2'-C1'	-5.43	1.45	1.53
78	CA	1349	G	C2'-C1'	-5.43	1.45	1.53
5	AC	191	ALA	CA-C	5.43	1.60	1.52
19	AR	119	PHE	CA-C	-5.43	1.45	1.52
35	BG	114	LYS	CA-CB	5.43	1.61	1.53
52	BY	98	ASN	C-N	5.43	1.42	1.33
81	DA	113	C	C2'-C1'	-5.43	1.45	1.53
81	DA	693	A	O4'-C1'	5.43	1.49	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
63	Bm	80	ARG	NE-CZ	5.43	1.39	1.33
78	CA	50	C	O4'-C1'	5.43	1.49	1.41
3	AB	90	ARG	CZ-NH1	5.43	1.40	1.32
74	BQ	271	LYS	C-N	5.43	1.41	1.33
78	CA	230	C	C4'-C3'	5.43	1.60	1.52
81	DA	625	G	C2'-C1'	-5.43	1.45	1.53
81	DA	653	A	C2'-C1'	-5.43	1.45	1.53
19	AR	107	ILE	CA-C	-5.43	1.45	1.52
81	DA	368	G	C2'-C1'	-5.43	1.45	1.53
78	CA	1239	U	C2'-C1'	-5.43	1.45	1.53
78	CA	1475	A	C2'-C1'	-5.43	1.45	1.53
81	DA	2518	C	C2'-C1'	-5.43	1.45	1.53
81	DA	2737	C	O3'-P	-5.43	1.53	1.61
12	AK	101	ALA	CA-C	-5.42	1.45	1.52
53	Ba	84	ARG	CA-C	-5.42	1.46	1.52
69	Br	97	LYS	CA-CB	5.42	1.62	1.53
78	CA	27	U	C2'-C1'	5.42	1.61	1.53
81	DA	894	G	C2'-C1'	5.42	1.61	1.53
81	DA	1267	U	O4'-C1'	5.42	1.49	1.41
76	BS	148	ASP	N-CA	-5.42	1.39	1.46
1	Aa	256	THR	CA-C	-5.42	1.45	1.52
33	BD	139	GLY	C-N	5.42	1.41	1.33
38	Bs	219	THR	CA-C	-5.42	1.45	1.52
42	BM	77	ILE	CA-C	-5.42	1.46	1.52
44	BO	8	THR	N-CA	5.42	1.53	1.46
57	Be	61	ASN	CA-CB	5.42	1.62	1.53
69	Br	18	ARG	NE-CZ	5.42	1.39	1.33
82	DB	109	A	C2'-C1'	-5.42	1.45	1.53
74	BQ	273	ARG	C-N	5.42	1.41	1.33
81	DA	1628	C	C2'-C1'	-5.42	1.45	1.53
5	AC	133	HIS	CD2-NE2	5.42	1.43	1.37
81	DA	1379	G	O4'-C1'	5.42	1.49	1.41
41	BN	121	MET	CG-SD	5.42	1.94	1.80
54	Bd	40	ARG	CZ-NH2	5.42	1.40	1.33
61	Bj	86	ARG	CA-C	-5.42	1.45	1.52
81	DA	1560	G	O3'-P	-5.42	1.53	1.61
81	DA	2243	A	C2'-C1'	5.42	1.61	1.53
21	AT	22	ARG	NE-CZ	5.42	1.39	1.33
52	BY	113	LYS	CA-C	-5.42	1.45	1.52
81	DA	3074	G	O4'-C1'	5.42	1.49	1.41
38	Bs	102	SER	CA-CB	5.41	1.61	1.53
78	CA	1544	U	C2'-C1'	-5.41	1.45	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1107	C	O4'-C1'	5.41	1.49	1.41
5	AC	129	ILE	CA-C	-5.41	1.45	1.52
17	AQ	5	ARG	C-N	5.41	1.41	1.33
64	Bl	69	HIS	N-CA	-5.41	1.40	1.46
78	CA	1615	C	C4'-C3'	-5.41	1.44	1.52
81	DA	1215	U	O4'-C1'	5.41	1.49	1.41
17	AQ	55	THR	C-N	5.41	1.40	1.33
17	AQ	89	SER	CA-CB	5.41	1.61	1.53
74	BQ	24	ARG	NE-CZ	5.41	1.39	1.33
43	BP	120	TRP	C-N	5.41	1.40	1.33
46	BT	74	ARG	CD-NE	5.41	1.53	1.46
8	AF	136	ALA	N-CA	-5.41	1.40	1.46
35	BG	143	LYS	CA-C	-5.41	1.45	1.52
43	BP	65	ARG	NE-CZ	5.41	1.39	1.33
81	DA	238	A	C2'-C1'	-5.41	1.45	1.53
81	DA	527	A	C2'-C1'	5.41	1.61	1.53
8	AF	189	THR	C-N	5.40	1.40	1.34
33	BD	132	ALA	N-CA	-5.40	1.39	1.46
2	AA	238	GLU	N-CA	-5.40	1.39	1.46
4	AD	53	LYS	CA-CB	5.40	1.62	1.53
21	AT	87	ARG	NE-CZ	5.40	1.39	1.33
20	AS	64	HIS	N-CA	-5.40	1.40	1.46
43	BP	39	ALA	CA-C	-5.40	1.46	1.52
81	DA	1437	C	C2'-C1'	5.40	1.61	1.53
44	BO	21	ARG	CD-NE	5.40	1.53	1.46
81	DA	1286	A	O4'-C1'	5.40	1.50	1.42
20	AS	89	ARG	CD-NE	5.40	1.53	1.46
30	BA	111	ILE	C-N	5.40	1.41	1.34
44	BO	80	THR	CA-CB	5.40	1.61	1.53
60	Bi	19	LYS	N-CA	-5.40	1.39	1.46
78	CA	1546	G	C3'-C2'	-5.40	1.44	1.52
81	DA	433	A	C2'-C1'	-5.40	1.45	1.53
81	DA	1658	G	O4'-C1'	5.40	1.49	1.41
2	AA	180	GLU	CA-CB	5.39	1.61	1.53
4	AD	54	TYR	C-O	-5.39	1.18	1.24
19	AR	79	HIS	CG-CD2	5.39	1.41	1.35
78	CA	651	G	C4'-O4'	-5.39	1.37	1.45
81	DA	146	U	C5'-C4'	5.39	1.61	1.51
32	BC	21	ARG	NE-CZ	5.39	1.39	1.33
46	BT	94	VAL	CA-C	-5.39	1.45	1.52
57	Be	24	GLU	CA-CB	5.39	1.61	1.53
60	Bi	58	ARG	NE-CZ	5.39	1.39	1.33

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	319	U	O4'-C1'	5.39	1.50	1.42
8	AF	31	GLU	CA-C	-5.39	1.46	1.52
8	AF	45	LYS	C-N	5.39	1.40	1.33
31	BB	211	HIS	ND1-CE1	5.39	1.38	1.32
81	DA	2738	A	O4'-C1'	5.39	1.49	1.41
11	AJ	79	TRP	N-CA	-5.39	1.39	1.46
17	AQ	51	ALA	N-CA	-5.39	1.39	1.46
78	CA	1331	A	O4'-C1'	5.39	1.49	1.41
81	DA	28	C	O4'-C1'	5.39	1.49	1.41
81	DA	770	G	C5'-C4'	5.39	1.59	1.51
34	BE	9	MET	C-N	5.39	1.41	1.33
81	DA	1166	G	O4'-C1'	5.39	1.49	1.41
4	AD	125	LYS	C-N	5.39	1.38	1.33
38	Bs	122	ARG	CD-NE	5.39	1.53	1.46
46	BT	152	GLU	CA-CB	-5.39	1.45	1.53
49	BV	77	GLY	C-N	5.39	1.38	1.33
59	Bh	18	LYS	N-CA	-5.39	1.39	1.45
76	BS	155	TYR	C-N	5.39	1.41	1.33
81	DA	609	G	O4'-C1'	-5.39	1.33	1.41
81	DA	3166	C	O4'-C1'	5.39	1.49	1.41
32	BC	120	LYS	CA-C	-5.38	1.45	1.52
35	BG	113	LYS	C-O	-5.38	1.18	1.24
37	BH	73	PRO	CA-C	5.38	1.60	1.52
38	Bs	237	HIS	ND1-CE1	5.38	1.38	1.32
55	Bc	109	ILE	C-N	5.38	1.40	1.33
74	BQ	16	PHE	CA-CB	-5.38	1.45	1.53
43	BP	134	LEU	N-CA	-5.38	1.39	1.46
83	DC	80	G	C2'-C1'	-5.38	1.45	1.53
16	AO	148	ALA	CA-C	-5.38	1.46	1.52
24	AX	47	PHE	CG-CD1	5.38	1.50	1.38
49	BV	134	GLY	C-N	5.38	1.40	1.33
57	Be	81	HIS	ND1-CE1	5.38	1.38	1.32
78	CA	1690	G	C2'-C1'	-5.38	1.45	1.53
81	DA	3091	A	O5'-C5'	5.38	1.50	1.42
38	Bs	67	LEU	N-CA	-5.38	1.39	1.46
66	Bo	46	ARG	CD-NE	5.38	1.53	1.46
1	Aa	220	ILE	CA-CB	-5.38	1.47	1.54
32	BC	97	ARG	NE-CZ	5.38	1.39	1.33
33	BD	220	ARG	CD-NE	5.38	1.53	1.46
81	DA	672	A	O4'-C1'	5.38	1.49	1.41
81	DA	1440	G	C2'-C1'	-5.38	1.45	1.53
81	DA	2976	A	O4'-C1'	5.38	1.49	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	AD	166	SER	C-N	5.38	1.41	1.33
20	AS	35	ASP	N-CA	-5.38	1.39	1.46
20	AS	60	SER	CA-CB	5.38	1.61	1.53
49	BV	69	ARG	CZ-NH2	5.38	1.40	1.33
2	AA	147	THR	CA-C	-5.38	1.46	1.52
4	AD	49	ARG	CD-NE	5.38	1.53	1.46
38	Bs	42	ARG	CD-NE	5.38	1.53	1.46
30	BA	153	SER	C-N	5.37	1.40	1.33
31	BB	167	GLY	CA-C	-5.37	1.46	1.52
54	Bd	52	LYS	C-N	5.37	1.41	1.33
2	AA	11	PRO	CA-C	5.37	1.60	1.52
3	AB	90	ARG	NE-CZ	5.37	1.39	1.33
35	BG	70	LYS	CA-C	-5.37	1.45	1.52
57	Be	132	PRO	N-CD	5.37	1.55	1.47
74	BQ	34	LYS	CA-C	-5.37	1.45	1.52
78	CA	138	A	P-OP2	5.37	1.59	1.49
78	CA	620	A	C2'-C1'	5.37	1.61	1.53
78	CA	642	G	C4'-O4'	-5.37	1.37	1.45
78	CA	1551	U	P-O5'	5.37	1.67	1.59
56	Bf	4	VAL	C-N	5.37	1.41	1.33
78	CA	351	C	C2'-C1'	5.37	1.61	1.53
78	CA	1540	G	O4'-C1'	5.37	1.49	1.41
81	DA	2095	G	C2'-C1'	-5.37	1.45	1.53
16	AO	89	TYR	CA-C	-5.37	1.45	1.52
32	BC	321	PHE	C-N	5.37	1.40	1.33
81	DA	1751	G	O4'-C1'	5.37	1.49	1.41
81	DA	1989	U	O3'-P	-5.37	1.53	1.61
76	BS	28	ARG	NE-CZ	5.37	1.39	1.33
81	DA	2956	A	O3'-P	-5.37	1.53	1.61
81	DA	3160	U	O4'-C1'	5.37	1.49	1.41
12	AK	41	ARG	C-N	5.37	1.40	1.33
64	Bl	47	TYR	CA-C	5.37	1.58	1.52
78	CA	57	G	C4'-O4'	-5.37	1.37	1.45
81	DA	2242	A	C2'-C1'	-5.37	1.45	1.53
3	AB	67	ASN	CA-C	-5.36	1.45	1.52
43	BP	112	ASN	CA-C	-5.36	1.45	1.52
65	Bn	11	PHE	CA-CB	5.36	1.61	1.53
76	BS	147	SER	CA-C	-5.36	1.45	1.52
78	CA	973	A	O4'-C1'	5.36	1.49	1.41
68	Bq	6	ARG	CA-C	5.36	1.59	1.52
10	AI	66	ARG	NE-CZ	5.36	1.39	1.33
32	BC	130	PHE	CA-CB	5.36	1.62	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BE	104	PHE	CG-CD1	5.36	1.50	1.38
36	BF	43	VAL	CA-C	-5.36	1.46	1.52
42	BM	119	GLY	CA-C	-5.36	1.45	1.52
77	BI	108	ALA	N-CA	-5.36	1.39	1.46
40	BK	7	VAL	C-N	5.36	1.40	1.33
53	Ba	26	VAL	CA-CB	-5.36	1.47	1.54
57	Be	113	SER	CA-CB	5.36	1.62	1.53
78	CA	29	U	O3'-P	-5.36	1.53	1.61
81	DA	772	U	C2'-C1'	-5.36	1.45	1.53
11	AJ	55	PRO	CA-C	-5.36	1.47	1.52
13	AL	73	ARG	CD-NE	5.36	1.53	1.46
24	AX	75	GLU	C-N	5.36	1.39	1.33
39	BJ	18	VAL	C-O	-5.36	1.18	1.24
41	BN	118	PHE	CA-C	-5.36	1.45	1.52
78	CA	463	U	C2'-C1'	-5.36	1.45	1.53
10	AI	65	ILE	CA-C	-5.36	1.46	1.52
34	BE	63	GLU	C-O	-5.36	1.18	1.23
66	Bo	45	ARG	CD-NE	5.36	1.53	1.46
78	CA	554	C	C3'-C2'	-5.36	1.45	1.52
78	CA	1566	U	C5'-C4'	5.36	1.59	1.51
79	CB	40	U	C2'-C1'	5.36	1.61	1.53
81	DA	683	U	O4'-C1'	5.36	1.49	1.41
81	DA	1202	A	O4'-C1'	5.36	1.49	1.41
81	DA	1637	A	P-OP2	5.36	1.59	1.49
25	AY	11	LYS	CA-C	-5.35	1.46	1.52
43	BP	134	LEU	CA-C	-5.35	1.46	1.52
32	BC	242	THR	CA-CB	-5.35	1.44	1.53
42	BM	109	MET	C-N	5.35	1.41	1.33
76	BS	38	ARG	CD-NE	5.35	1.53	1.46
81	DA	2240	G	C2'-C1'	-5.35	1.45	1.53
83	DC	9	C	O3'-P	-5.35	1.53	1.61
14	AM	10	SER	C-N	5.35	1.40	1.33
2	AA	127	ARG	CD-NE	5.35	1.53	1.46
37	BH	237	ILE	CA-C	-5.35	1.46	1.52
39	BJ	75	PRO	N-CD	-5.35	1.40	1.47
46	BT	120	TYR	CA-CB	5.35	1.61	1.53
67	Bp	46	ARG	CA-C	-5.35	1.48	1.52
81	DA	1847	A	O4'-C1'	-5.35	1.33	1.42
1	Aa	47	LEU	C-N	5.35	1.40	1.33
8	AF	148	ARG	NE-CZ	5.35	1.39	1.33
19	AR	80	MET	C-N	5.35	1.41	1.33
21	AT	87	ARG	CZ-NH2	5.35	1.40	1.33

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
49	BV	145	HIS	ND1-CE1	5.35	1.37	1.32
78	CA	658	C	O4'-C1'	5.35	1.49	1.41
81	DA	781	G	O4'-C1'	5.35	1.49	1.41
81	DA	1622	U	O4'-C1'	5.35	1.49	1.41
81	DA	2112	U	O4'-C1'	5.35	1.49	1.41
5	AC	159	ALA	N-CA	-5.34	1.38	1.46
29	AU	24	VAL	N-CA	-5.34	1.39	1.46
78	CA	612	U	O4'-C1'	5.34	1.49	1.41
78	CA	935	U	O4'-C1'	5.34	1.49	1.41
81	DA	2087	C	C3'-C2'	5.34	1.60	1.52
81	DA	2209	U	C5'-C4'	5.34	1.59	1.51
81	DA	2881	C	C2'-C1'	-5.34	1.45	1.53
78	CA	1145	U	O4'-C1'	5.34	1.49	1.41
81	DA	231	G	C3'-O3'	5.34	1.50	1.42
81	DA	766	U	C2'-C1'	5.34	1.61	1.53
81	DA	2583	C	C2'-C1'	-5.34	1.45	1.53
49	BV	3	ARG	CA-C	-5.34	1.45	1.52
61	Bj	59	VAL	C-N	5.34	1.40	1.33
81	DA	1871	U	O3'-P	5.34	1.69	1.61
1	Aa	64	HIS	ND1-CE1	5.34	1.37	1.32
20	AS	119	LYS	C-N	5.34	1.40	1.33
78	CA	257	A	C5'-C4'	5.34	1.59	1.51
78	CA	944	A	O4'-C1'	-5.34	1.33	1.42
31	BB	47	GLN	C-N	5.34	1.40	1.33
81	DA	248	U	P-O5'	-5.34	1.51	1.59
81	DA	2981	U	O4'-C1'	5.34	1.49	1.41
1	Aa	269	TYR	N-CA	5.34	1.52	1.45
4	AD	65	LEU	N-CA	-5.34	1.40	1.46
41	BN	13	ARG	CD-NE	5.34	1.53	1.46
55	Bc	51	ILE	CA-CB	-5.34	1.47	1.54
74	BQ	24	ARG	C-O	-5.33	1.17	1.24
78	CA	1543	A	O3'-P	-5.33	1.53	1.61
14	AM	72	ILE	CA-C	-5.33	1.46	1.52
33	BD	117	GLU	CA-CB	5.33	1.61	1.53
41	BN	69	THR	N-CA	-5.33	1.39	1.45
42	BM	43	GLY	C-N	5.33	1.39	1.33
78	CA	169	A	C4'-O4'	-5.33	1.37	1.45
81	DA	7	C	C2'-C1'	-5.33	1.45	1.53
81	DA	909	G	C2'-C1'	-5.33	1.45	1.53
81	DA	252	U	C2'-C1'	-5.33	1.45	1.53
81	DA	790	U	C5'-C4'	-5.33	1.43	1.51
41	BN	119	GLN	CA-CB	-5.33	1.45	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	Bk	93	ILE	CA-CB	-5.33	1.47	1.54
81	DA	1474	A	O4'-C1'	5.33	1.49	1.41
81	DA	1807	G	C2'-C1'	-5.33	1.45	1.53
81	DA	2234	G	C2'-C1'	-5.33	1.45	1.53
81	DA	2865	U	O3'-P	-5.33	1.53	1.61
1	Aa	102	ARG	CA-CB	5.33	1.59	1.52
16	AO	76	LYS	CA-CB	5.33	1.61	1.53
31	BB	253	GLN	N-CA	5.33	1.53	1.46
32	BC	295	ALA	N-CA	-5.33	1.40	1.46
39	BJ	92	ARG	NE-CZ	5.33	1.39	1.33
55	Bc	73	LYS	CA-C	-5.33	1.46	1.53
59	Bh	57	TYR	CA-CB	5.33	1.62	1.53
81	DA	55	G	O4'-C1'	5.33	1.49	1.41
83	DC	1	G	P-OP2	5.33	1.59	1.49
5	AC	109	LEU	CA-CB	5.32	1.61	1.53
24	AX	44	THR	CA-CB	5.32	1.63	1.53
36	BF	31	ARG	NE-CZ	5.32	1.39	1.33
61	Bj	43	PHE	N-CA	5.32	1.53	1.46
65	Bn	66	ILE	C-N	5.32	1.40	1.33
81	DA	1131	G	O4'-C1'	5.32	1.50	1.42
52	BY	90	VAL	CA-CB	5.32	1.61	1.54
54	Bd	57	ALA	C-N	5.32	1.41	1.33
1	Aa	311	ARG	CZ-NH2	5.32	1.40	1.33
16	AO	108	ASP	CA-C	-5.32	1.46	1.53
32	BC	153	LYS	CA-C	-5.32	1.45	1.52
35	BG	48	ARG	C-N	5.32	1.41	1.33
41	BN	59	ASN	N-CA	-5.32	1.39	1.46
50	BX	44	PRO	N-CD	-5.32	1.40	1.47
61	Bj	86	ARG	CA-CB	5.32	1.61	1.53
78	CA	1477	G	C3'-C2'	-5.32	1.44	1.52
81	DA	2406	C	O4'-C1'	5.32	1.49	1.41
35	BG	25	ALA	CA-CB	-5.32	1.45	1.53
78	CA	548	G	C2'-C1'	-5.32	1.45	1.53
81	DA	1142	G	O4'-C1'	5.32	1.49	1.41
81	DA	2201	G	O4'-C1'	5.32	1.49	1.41
31	BB	181	LYS	CA-C	-5.32	1.46	1.52
81	DA	339	C	C2'-C1'	-5.32	1.45	1.53
38	Bs	174	ASN	C-N	5.32	1.41	1.33
43	BP	45	PRO	C-N	5.32	1.40	1.33
81	DA	1380	G	C2'-C1'	-5.32	1.45	1.53
12	AK	54	GLU	C-N	5.31	1.41	1.33
32	BC	130	PHE	C-N	5.31	1.42	1.33

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BF	18	VAL	N-CA	-5.31	1.40	1.46
74	BQ	138	GLY	C-N	5.31	1.40	1.34
76	BS	98	ASP	CA-C	-5.31	1.46	1.52
9	AH	116	ALA	CA-C	-5.31	1.45	1.52
33	BD	176	SER	CA-CB	5.31	1.61	1.53
54	Bd	41	ARG	NE-CZ	5.31	1.38	1.33
81	DA	944	C	O4'-C1'	5.31	1.49	1.41
1	Aa	311	ARG	N-CA	-5.31	1.39	1.45
17	AQ	23	LYS	N-CA	-5.31	1.39	1.46
19	AR	62	ALA	CA-C	-5.31	1.45	1.52
52	BY	114	ASP	CA-C	-5.31	1.46	1.52
61	Bj	89	LEU	C-O	-5.31	1.16	1.24
78	CA	1403	C	O4'-C1'	5.31	1.49	1.41
81	DA	1079	A	O4'-C1'	5.31	1.50	1.42
81	DA	2667	A	O4'-C1'	5.31	1.49	1.41
81	DA	3065	G	P-OP2	5.31	1.59	1.49
81	DA	3305	A	C3'-C2'	-5.31	1.44	1.52
20	AS	49	ASP	C-N	5.31	1.40	1.33
43	BP	53	TYR	CA-CB	5.31	1.62	1.53
57	Be	142	SER	N-CA	-5.31	1.39	1.46
6	AE	131	ILE	CA-CB	5.31	1.61	1.54
29	AU	29	HIS	CA-CB	5.31	1.61	1.53
81	DA	1004	U	C2'-C1'	-5.31	1.45	1.53
81	DA	3012	A	C2'-C1'	-5.31	1.45	1.53
51	BZ	33	ASN	C-N	5.30	1.41	1.33
51	BZ	66	GLU	CA-C	-5.30	1.45	1.52
81	DA	223	U	C2'-C1'	-5.30	1.45	1.53
81	DA	1133	A	O4'-C1'	5.30	1.49	1.41
81	DA	1462	A	C2'-C1'	-5.30	1.45	1.53
78	CA	98	U	C2'-C1'	-5.30	1.45	1.53
81	DA	773	G	C2'-C1'	-5.30	1.45	1.53
34	BE	92	ARG	NE-CZ	5.30	1.38	1.33
81	DA	500	C	C2'-C1'	-5.30	1.45	1.53
81	DA	2099	A	C4'-O4'	-5.30	1.37	1.45
81	DA	3079	U	C2'-C1'	-5.30	1.45	1.53
4	AD	48	LEU	CB-CG	5.30	1.64	1.53
4	AD	148	ARG	CZ-NH2	5.30	1.40	1.33
9	AH	108	ALA	N-CA	-5.30	1.39	1.46
12	AK	32	ASP	CA-CB	5.30	1.62	1.53
38	Bs	52	LEU	C-N	5.30	1.41	1.33
39	BJ	107	ASP	CA-CB	5.30	1.61	1.53
58	Bg	107	VAL	C-N	5.30	1.40	1.33

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	619	A	O3'-P	-5.30	1.53	1.61
81	DA	777	U	O4'-C1'	5.30	1.49	1.41
81	DA	1454	A	O4'-C1'	5.30	1.49	1.42
9	AH	44	HIS	ND1-CE1	5.30	1.37	1.32
31	BB	192	LYS	C-N	5.30	1.40	1.33
10	AI	140	LYS	CA-C	5.30	1.59	1.52
30	BA	119	GLN	N-CA	-5.30	1.39	1.46
31	BB	35	ALA	CA-C	-5.30	1.45	1.52
55	Bc	71	LYS	C-N	5.30	1.40	1.33
63	Bm	85	ARG	CA-C	-5.30	1.45	1.52
81	DA	1068	C	C2'-C1'	-5.30	1.45	1.53
81	DA	1183	C	C2'-C1'	-5.30	1.45	1.53
41	BN	31	LYS	N-CA	-5.29	1.41	1.46
43	BP	48	ALA	N-CA	5.29	1.52	1.46
81	DA	3382	U	O3'-P	-5.29	1.53	1.61
4	AD	239	PRO	N-CA	5.29	1.56	1.47
30	BA	215	ARG	CD-NE	5.29	1.53	1.46
31	BB	230	VAL	CA-C	5.29	1.58	1.53
37	BH	235	GLY	C-N	-5.29	1.25	1.33
81	DA	304	G	O4'-C1'	-5.29	1.34	1.42
83	DC	87	U	O4'-C1'	5.29	1.49	1.41
6	AE	50	ILE	N-CA	5.29	1.52	1.46
16	AO	84	ILE	CA-CB	5.29	1.60	1.54
21	AT	67	ASP	CA-C	-5.29	1.45	1.52
33	BD	347	THR	CA-C	-5.29	1.46	1.52
39	BJ	104	ILE	CA-C	-5.29	1.46	1.52
78	CA	178	U	C3'-O3'	-5.29	1.34	1.42
81	DA	1143	A	C2'-C1'	-5.29	1.45	1.53
81	DA	1797	A	C2'-C1'	-5.29	1.45	1.53
81	DA	1837	U	C2'-C1'	-5.29	1.45	1.53
66	Bo	8	ARG	CZ-NH1	5.29	1.40	1.32
81	DA	2665	U	O4'-C1'	-5.29	1.34	1.42
47	BU	136	ARG	CA-CB	5.29	1.60	1.53
74	BQ	19	PRO	CA-C	-5.29	1.47	1.53
81	DA	335	G	C2'-C1'	-5.29	1.45	1.53
81	DA	416	A	C2'-C1'	-5.29	1.45	1.53
81	DA	1936	A	C2'-C1'	-5.29	1.45	1.53
81	DA	2457	G	C2'-C1'	-5.29	1.45	1.53
81	DA	2672	G	O3'-P	-5.29	1.53	1.61
34	BE	116	TYR	CE1-CZ	-5.29	1.25	1.38
81	DA	2185	G	O4'-C1'	-5.29	1.33	1.41
81	DA	2723	U	C3'-O3'	5.29	1.50	1.42

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AA	78	SER	CA-CB	5.29	1.61	1.53
21	AT	87	ARG	CA-CB	5.29	1.64	1.53
43	BP	142	ILE	CA-CB	-5.29	1.47	1.54
78	CA	1458	G	P-OP2	5.29	1.59	1.49
82	DB	152	G	C2'-C1'	5.29	1.61	1.53
83	DC	94	A	O4'-C1'	5.29	1.49	1.41
10	AI	118	ILE	C-N	5.28	1.41	1.33
22	AV	105	THR	C-O	-5.28	1.17	1.24
30	BA	190	PHE	N-CA	-5.28	1.40	1.46
32	BC	271	GLY	N-CA	-5.28	1.39	1.45
37	BH	74	THR	CA-CB	-5.28	1.45	1.53
50	BX	50	ALA	C-N	5.28	1.39	1.33
60	Bi	14	ASN	CA-C	-5.28	1.46	1.52
78	CA	1547	A	C2'-C1'	-5.28	1.45	1.53
81	DA	1200	A	O4'-C1'	5.28	1.49	1.41
81	DA	2379	U	O4'-C1'	5.28	1.49	1.41
83	DC	16	U	C2'-C1'	5.28	1.61	1.53
19	AR	91	GLY	C-N	5.28	1.40	1.33
33	BD	31	ARG	CZ-NH2	5.28	1.40	1.33
38	Bs	56	ASN	C-N	5.28	1.41	1.34
42	BM	109	MET	CA-CB	5.28	1.61	1.53
59	Bh	18	LYS	CA-C	-5.28	1.46	1.52
78	CA	1556	A	C3'-C2'	-5.28	1.45	1.52
81	DA	2319	U	O4'-C1'	-5.28	1.33	1.41
31	BB	92	LYS	N-CA	-5.28	1.40	1.46
48	BW	18	ASP	C-N	5.28	1.39	1.33
51	BZ	18	GLY	N-CA	-5.28	1.39	1.45
41	BN	103	ILE	CA-C	-5.28	1.46	1.52
66	Bo	45	ARG	NE-CZ	5.28	1.38	1.33
5	AC	50	SER	C-N	5.28	1.40	1.33
39	BJ	73	VAL	CA-CB	5.28	1.61	1.54
56	Bf	43	ILE	CA-CB	-5.28	1.48	1.54
78	CA	899	G	C4'-O4'	-5.28	1.37	1.45
78	CA	1307	U	O4'-C1'	5.28	1.49	1.41
81	DA	960	U	C2'-C1'	-5.28	1.45	1.53
81	DA	2178	A	C2'-C1'	-5.28	1.45	1.53
18	AP	104	HIS	ND1-CE1	5.27	1.37	1.32
51	BZ	70	LYS	CA-CB	5.27	1.62	1.53
1	Aa	43	ILE	C-N	5.27	1.40	1.33
5	AC	6	ARG	NE-CZ	5.27	1.38	1.33
79	CB	61	C	C2'-C1'	-5.27	1.45	1.53
81	DA	3351	U	C2'-C1'	5.27	1.61	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
60	Bi	42	PRO	C-O	-5.27	1.17	1.24
78	CA	1242	A	C5'-C4'	5.27	1.59	1.51
81	DA	1902	G	O4'-C1'	-5.27	1.33	1.41
82	DB	34	U	O4'-C1'	5.27	1.49	1.41
32	BC	232	ARG	NE-CZ	5.27	1.38	1.33
59	Bh	33	ARG	CA-CB	5.27	1.63	1.53
64	Bl	39	TYR	CA-C	5.27	1.57	1.52
9	AH	11	LEU	C-N	5.27	1.41	1.33
78	CA	101	U	O4'-C1'	5.27	1.49	1.41
81	DA	125	C	C2'-C1'	-5.27	1.45	1.53
81	DA	326	U	C2'-C1'	-5.27	1.45	1.53
81	DA	2765	C	O4'-C1'	5.27	1.49	1.41
4	AD	44	LEU	CA-C	-5.27	1.45	1.52
43	BP	162	ARG	CZ-NH1	5.27	1.40	1.32
62	Bk	68	ARG	CZ-NH1	5.27	1.40	1.32
81	DA	2431	C	C2'-C1'	-5.27	1.45	1.53
1	Aa	82	SER	CA-CB	5.26	1.62	1.53
5	AC	27	GLU	CA-C	5.26	1.59	1.52
9	AH	121	VAL	CA-C	-5.26	1.46	1.52
32	BC	313	HIS	CA-CB	5.26	1.61	1.53
43	BP	21	PHE	CA-CB	5.26	1.61	1.53
46	BT	62	ARG	CZ-NH1	5.26	1.40	1.32
57	Be	236	ILE	CA-CB	-5.26	1.47	1.54
58	Bg	96	VAL	C-N	5.26	1.41	1.33
81	DA	3318	G	O4'-C1'	5.26	1.49	1.41
3	AB	37	VAL	CA-CB	-5.26	1.47	1.54
40	BK	78	ARG	CD-NE	5.26	1.53	1.46
60	Bi	48	GLY	N-CA	-5.26	1.38	1.45
81	DA	637	C	O3'-P	-5.26	1.53	1.61
40	BK	158	ALA	N-CA	5.26	1.52	1.46
45	BR	49	LEU	C-N	5.26	1.40	1.33
78	CA	21	U	O4'-C1'	5.26	1.49	1.41
81	DA	178	U	P-O5'	-5.26	1.51	1.59
9	AH	78	ARG	C-O	-5.26	1.19	1.23
39	BJ	67	ARG	NE-CZ	5.26	1.38	1.33
61	Bj	2	ALA	C-O	-5.26	1.17	1.24
74	BQ	157	ALA	C-N	5.26	1.41	1.33
78	CA	173	A	O4'-C1'	-5.26	1.33	1.41
78	CA	852	C	O3'-P	-5.26	1.53	1.61
81	DA	2329	C	C2'-C1'	-5.26	1.45	1.53
5	AC	92	LYS	CA-C	-5.26	1.45	1.52
8	AF	102	ARG	CZ-NH1	5.26	1.40	1.32

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
12	AK	34	SER	C-N	5.26	1.41	1.33
14	AM	51	ASP	CA-CB	5.26	1.61	1.53
81	DA	870	G	C2'-C1'	-5.26	1.45	1.53
81	DA	2169	G	P-OP2	5.26	1.59	1.49
36	BF	148	GLY	CA-C	-5.25	1.45	1.51
81	DA	3129	A	C2'-C1'	-5.25	1.45	1.53
1	Aa	141	LEU	CA-CB	5.25	1.60	1.53
40	BK	151	ASP	C-N	5.25	1.40	1.33
43	BP	71	ARG	CZ-NH1	5.25	1.40	1.32
57	Be	215	GLY	C-N	5.25	1.39	1.33
76	BS	105	VAL	CA-C	-5.25	1.46	1.52
81	DA	1387	G	P-OP2	5.25	1.59	1.49
82	DB	42	G	O4'-C1'	-5.25	1.33	1.41
14	AM	108	LYS	C-O	-5.25	1.18	1.24
14	AM	132	ARG	CD-NE	5.25	1.53	1.46
41	BN	11	ASN	CA-CB	5.25	1.61	1.53
49	BV	61	ARG	CG-CD	5.25	1.68	1.52
81	DA	2099	A	C2'-C1'	-5.25	1.45	1.53
32	BC	5	LYS	C-N	5.25	1.40	1.33
72	Bt	61	PHE	N-CA	5.25	1.52	1.46
4	AD	202	ASP	C-N	5.25	1.41	1.33
9	AH	120	HIS	ND1-CE1	5.25	1.37	1.32
40	BK	117	ARG	CA-C	-5.25	1.46	1.52
60	Bi	15	THR	N-CA	-5.25	1.40	1.46
62	Bk	26	ILE	CA-C	5.25	1.59	1.52
78	CA	1165	G	C2'-C1'	-5.25	1.45	1.53
78	CA	1606	C	C2'-C1'	-5.25	1.45	1.53
81	DA	3368	U	O4'-C1'	5.25	1.49	1.41
8	AF	156	ARG	C-N	5.25	1.40	1.33
9	AH	72	CYS	C-N	5.25	1.40	1.33
63	Bm	87	ARG	C-N	5.25	1.40	1.33
64	Bl	36	SER	CA-C	-5.25	1.45	1.52
81	DA	2222	A	C2'-C1'	-5.25	1.45	1.53
14	AM	16	ARG	CZ-NH2	5.25	1.40	1.33
43	BP	63	ARG	NE-CZ	5.25	1.38	1.33
78	CA	1170	G	O4'-C1'	5.25	1.49	1.41
3	AB	125	TYR	C-N	5.24	1.40	1.34
78	CA	225	A	C5'-C4'	5.24	1.59	1.51
78	CA	228	G	P-O5'	5.24	1.67	1.59
78	CA	1090	C	C4'-O4'	-5.24	1.37	1.45
78	CA	1092	A	C3'-C2'	-5.24	1.45	1.52
16	AO	108	ASP	N-CA	-5.24	1.38	1.45

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
20	AS	61	VAL	CA-CB	-5.24	1.47	1.54
25	AY	7	VAL	C-N	5.24	1.40	1.33
52	BY	52	ARG	NE-CZ	5.24	1.38	1.33
78	CA	257	A	C4'-C3'	5.24	1.60	1.52
78	CA	1390	U	C2'-C1'	-5.24	1.45	1.53
81	DA	313	A	O4'-C1'	-5.24	1.33	1.41
81	DA	2616	C	C2'-C1'	-5.24	1.45	1.53
81	DA	3383	G	O4'-C1'	-5.24	1.33	1.41
5	AC	188	ALA	CA-C	-5.24	1.45	1.52
42	BM	113	ALA	C-N	5.24	1.38	1.33
49	BV	74	LYS	N-CA	-5.24	1.39	1.46
61	Bj	64	ILE	C-N	5.24	1.41	1.33
74	BQ	190	ILE	CA-C	5.24	1.59	1.52
12	AK	114	ARG	NE-CZ	5.24	1.38	1.33
81	DA	536	U	C2'-C1'	-5.24	1.45	1.53
14	AM	140	THR	N-CA	-5.24	1.39	1.46
29	AU	86	GLU	CA-CB	5.24	1.61	1.53
64	Bl	21	ARG	NE-CZ	5.24	1.38	1.33
81	DA	1679	A	O3'-P	-5.24	1.53	1.61
81	DA	974	G	C2'-C1'	-5.23	1.45	1.53
81	DA	2924	U	C2'-C1'	-5.23	1.45	1.53
40	BK	87	MET	CA-C	-5.23	1.46	1.52
69	Br	37	ALA	N-CA	-5.23	1.39	1.46
78	CA	1698	G	C2'-C1'	-5.23	1.45	1.53
81	DA	2194	G	O3'-P	-5.23	1.53	1.61
81	DA	2356	A	C2'-C1'	-5.23	1.45	1.53
41	BN	80	THR	N-CA	-5.23	1.40	1.46
59	Bh	12	LYS	CA-C	5.23	1.59	1.52
76	BS	125	ILE	C-N	5.23	1.40	1.33
78	CA	1016	C	O4'-C1'	5.23	1.49	1.41
81	DA	279	U	C2'-C1'	-5.23	1.45	1.53
81	DA	1538	G	O3'-P	-5.23	1.53	1.61
81	DA	2672	G	O4'-C1'	5.23	1.49	1.41
3	AB	67	ASN	N-CA	-5.23	1.40	1.46
4	AD	61	VAL	CA-C	-5.23	1.46	1.52
30	BA	77	ALA	CA-C	-5.23	1.46	1.52
32	BC	277	SER	CA-CB	5.23	1.61	1.53
32	BC	280	HIS	C-N	5.23	1.41	1.33
40	BK	187	GLU	C-O	-5.23	1.17	1.24
76	BS	23	HIS	CA-CB	5.23	1.61	1.53
81	DA	2054	C	C2'-C1'	-5.23	1.45	1.53
3	AB	54	ARG	NE-CZ	5.22	1.38	1.33

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
17	AQ	99	VAL	C-N	5.22	1.38	1.33
32	BC	206	ASP	CA-C	-5.22	1.45	1.52
50	BX	103	TYR	C-N	5.22	1.41	1.33
30	BA	110	PHE	CA-CB	5.22	1.61	1.53
38	Bs	189	GLN	C-N	5.22	1.41	1.33
81	DA	724	U	O3'-P	-5.22	1.53	1.61
81	DA	922	U	O4'-C1'	5.22	1.49	1.41
81	DA	1573	G	O4'-C1'	5.22	1.49	1.41
81	DA	1656	A	O4'-C1'	5.22	1.49	1.42
33	BD	3	ARG	NE-CZ	5.22	1.38	1.33
11	AJ	105	GLN	CA-C	5.22	1.59	1.52
22	AV	64	VAL	CA-C	-5.22	1.46	1.52
49	BV	117	ILE	CA-C	-5.22	1.46	1.52
78	CA	1018	U	O4'-C1'	5.22	1.49	1.41
78	CA	1189	A	O4'-C1'	5.22	1.49	1.41
78	CA	1750	A	O4'-C1'	5.22	1.49	1.42
81	DA	1578	C	C2'-C1'	-5.22	1.45	1.53
81	DA	2812	C	C2'-C1'	-5.22	1.45	1.53
16	AO	121	ARG	CD-NE	5.22	1.53	1.46
66	Bo	28	ARG	CD-NE	5.22	1.53	1.46
3	AB	212	LYS	CA-C	-5.21	1.46	1.52
8	AF	180	ARG	CD-NE	5.21	1.53	1.46
14	AM	85	PHE	N-CA	-5.21	1.39	1.46
33	BD	204	GLY	C-N	5.21	1.40	1.33
67	Bp	44	GLN	CA-CB	5.21	1.62	1.53
81	DA	673	U	O5'-C5'	-5.21	1.34	1.42
81	DA	2706	G	O4'-C1'	5.21	1.49	1.41
5	AC	134	ILE	CA-CB	-5.21	1.48	1.54
41	BN	124	ARG	CD-NE	5.21	1.53	1.46
60	Bi	11	ASN	CA-CB	5.21	1.61	1.53
76	BS	22	GLU	CA-CB	5.21	1.62	1.53
2	AA	118	PRO	CA-C	-5.21	1.46	1.52
6	AE	12	GLY	C-N	5.21	1.41	1.33
12	AK	80	HIS	CA-CB	5.21	1.62	1.53
35	BG	96	VAL	CA-C	-5.21	1.46	1.52
36	BF	35	THR	C-N	5.21	1.40	1.33
36	BF	173	ARG	NE-CZ	5.21	1.38	1.33
57	Be	148	VAL	CA-C	-5.21	1.46	1.52
31	BB	217	GLN	CA-C	-5.21	1.46	1.52
81	DA	181	U	O4'-C1'	5.21	1.49	1.41
81	DA	1793	C	C3'-C2'	-5.21	1.45	1.52
20	AS	122	ARG	NE-CZ	5.21	1.38	1.33

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	AV	82	HIS	CA-C	-5.21	1.46	1.52
43	BP	161	ALA	CA-C	-5.21	1.46	1.52
66	Bo	50	ASN	C-N	5.21	1.40	1.33
76	BS	67	PHE	N-CA	5.21	1.51	1.45
40	BK	131	PRO	CA-CB	5.21	1.61	1.53
78	CA	941	A	O4'-C1'	5.21	1.49	1.41
81	DA	2719	U	O3'-P	-5.21	1.53	1.61
5	AC	150	LEU	C-O	-5.20	1.18	1.24
14	AM	68	ARG	NE-CZ	5.20	1.38	1.33
36	BF	7	GLU	CA-CB	5.20	1.61	1.53
81	DA	271	C	O4'-C1'	5.20	1.49	1.41
81	DA	294	U	C2'-C1'	-5.20	1.45	1.53
12	AK	103	ARG	NE-CZ	5.20	1.38	1.33
81	DA	1405	U	O5'-C5'	5.20	1.50	1.42
1	Aa	258	THR	CA-C	-5.20	1.46	1.52
3	AB	16	VAL	CA-C	-5.20	1.46	1.52
45	BR	24	VAL	C-N	-5.20	1.27	1.33
55	Bc	89	ARG	NE-CZ	5.20	1.38	1.33
58	Bg	14	ILE	N-CA	-5.20	1.39	1.46
76	BS	82	ARG	C-N	5.20	1.41	1.33
81	DA	2821	C	C2'-C1'	-5.20	1.45	1.53
5	AC	2	PRO	CA-C	5.20	1.59	1.52
17	AQ	61	ILE	N-CA	-5.20	1.39	1.46
30	BA	198	TRP	C-N	5.20	1.41	1.33
35	BG	9	TRP	CA-C	5.20	1.59	1.52
78	CA	880	C	C2'-O2'	-5.20	1.34	1.42
81	DA	2961	G	O4'-C1'	5.20	1.49	1.41
4	AD	191	ARG	N-CA	-5.20	1.39	1.45
51	BZ	62	GLY	C-N	5.20	1.40	1.33
62	Bk	87	VAL	N-CA	-5.20	1.40	1.46
1	Aa	59	ARG	NE-CZ	5.20	1.38	1.33
36	BF	14	GLU	C-N	5.20	1.40	1.33
78	CA	1	U	C5'-C4'	-5.20	1.43	1.51
78	CA	1553	G	C2'-C1'	-5.20	1.45	1.53
1	Aa	233	THR	CA-C	-5.19	1.46	1.52
46	BT	170	ARG	CZ-NH1	5.19	1.40	1.32
81	DA	199	A	O4'-C1'	-5.19	1.34	1.42
81	DA	1208	U	O3'-P	-5.19	1.53	1.61
81	DA	1791	C	C3'-O3'	-5.19	1.34	1.42
15	AN	22	ARG	NE-CZ	5.19	1.38	1.33
29	AU	69	SER	C-O	-5.19	1.18	1.24
31	BB	125	ALA	N-CA	-5.19	1.40	1.46

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
43	BP	185	ALA	C-N	5.19	1.40	1.33
45	BR	16	ARG	CA-C	-5.19	1.45	1.52
46	BT	118	HIS	C-N	5.19	1.40	1.33
82	DB	14	C	O4'-C1'	5.19	1.49	1.41
2	AA	162	CYS	CA-C	-5.19	1.45	1.52
22	AV	82	HIS	N-CA	-5.19	1.40	1.46
32	BC	101	SER	N-CA	-5.19	1.39	1.46
45	BR	137	THR	CA-C	-5.19	1.46	1.52
46	BT	20	ARG	CD-NE	5.19	1.53	1.46
78	CA	1377	U	O4'-C1'	5.19	1.49	1.41
81	DA	545	U	C2'-C1'	5.19	1.60	1.53
81	DA	1640	G	O3'-P	-5.19	1.53	1.61
6	AE	69	ILE	N-CA	-5.19	1.40	1.46
4	AD	54	TYR	N-CA	-5.19	1.40	1.46
15	AN	55	PHE	CA-C	5.19	1.59	1.52
20	AS	23	GLN	N-CA	-5.19	1.39	1.46
30	BA	128	LEU	C-N	5.19	1.40	1.33
78	CA	1762	A	C2'-C1'	-5.19	1.45	1.53
81	DA	969	C	C2'-C1'	5.19	1.61	1.53
48	BW	104	ARG	CZ-NH1	5.18	1.40	1.32
60	Bi	27	GLY	CA-C	-5.18	1.44	1.51
21	AT	49	GLU	C-N	5.18	1.40	1.33
46	BT	104	ARG	NE-CZ	5.18	1.38	1.33
78	CA	1244	A	O4'-C1'	5.18	1.49	1.41
81	DA	234	G	C3'-O3'	5.18	1.50	1.42
3	AB	213	GLU	N-CA	5.18	1.52	1.46
78	CA	17	C	C2'-C1'	-5.18	1.45	1.53
20	AS	48	GLN	N-CA	-5.18	1.39	1.46
37	BH	60	ARG	C-N	5.18	1.41	1.33
47	BU	2	GLY	CA-C	-5.18	1.46	1.51
40	BK	133	ARG	NE-CZ	5.18	1.38	1.33
79	CB	14	A	O4'-C1'	5.18	1.49	1.41
25	AY	49	ARG	CA-C	-5.18	1.46	1.52
39	BJ	56	ILE	N-CA	-5.18	1.40	1.46
76	BS	67	PHE	CA-CB	5.18	1.61	1.53
78	CA	1024	U	O4'-C1'	5.18	1.49	1.41
78	CA	1207	C	C2'-C1'	-5.18	1.45	1.53
81	DA	69	C	C2'-C1'	-5.18	1.45	1.53
9	AH	68	ARG	CD-NE	5.17	1.53	1.46
31	BB	17	THR	CA-C	-5.17	1.46	1.53
32	BC	358	TRP	N-CA	-5.17	1.39	1.45
33	BD	124	SER	CA-CB	5.17	1.61	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
56	Bf	51	LEU	C-O	-5.17	1.18	1.24
78	CA	910	C	O4'-C1'	5.17	1.49	1.41
32	BC	308	MET	CA-C	-5.17	1.46	1.52
51	BZ	5	ILE	N-CA	5.17	1.52	1.46
81	DA	2517	U	C2'-C1'	-5.17	1.45	1.53
81	DA	2925	C	C2'-C1'	-5.17	1.45	1.53
2	AA	174	TRP	NE1-CE2	5.17	1.43	1.37
16	AO	91	LEU	CA-CB	5.17	1.61	1.53
30	BA	129	SER	CA-CB	5.17	1.61	1.53
44	BO	122	PRO	CA-CB	-5.17	1.46	1.53
78	CA	832	U	O4'-C1'	5.17	1.49	1.41
81	DA	2310	U	C2'-C1'	-5.17	1.45	1.53
37	BH	214	LEU	C-O	-5.17	1.17	1.24
33	BD	329	PRO	CA-C	5.17	1.59	1.52
53	Ba	50	PRO	N-CA	-5.17	1.40	1.47
74	BQ	264	GLN	N-CA	-5.17	1.39	1.46
78	CA	438	A	C2'-C1'	-5.17	1.45	1.53
81	DA	1623	G	C5'-C4'	5.17	1.59	1.51
81	DA	2600	C	C2'-C1'	-5.17	1.45	1.53
20	AS	81	GLY	C-O	-5.17	1.17	1.23
31	BB	27	ALA	N-CA	-5.17	1.39	1.46
33	BD	106	TRP	C-O	-5.17	1.17	1.24
43	BP	14	LYS	CA-CB	5.17	1.62	1.53
81	DA	834	U	C2'-C1'	-5.17	1.45	1.53
81	DA	2322	C	O4'-C1'	5.17	1.49	1.41
81	DA	2361	A	O3'-P	-5.17	1.53	1.61
81	DA	2859	U	O4'-C1'	-5.17	1.34	1.42
29	AU	89	TYR	CA-CB	5.17	1.61	1.53
36	BF	101	VAL	C-N	5.17	1.40	1.33
46	BT	173	ARG	CD-NE	5.17	1.53	1.46
78	CA	1143	A	O4'-C1'	5.17	1.49	1.41
32	BC	198	HIS	N-CA	-5.16	1.39	1.46
37	BH	64	ILE	CA-C	-5.16	1.46	1.52
62	Bk	48	ALA	CA-C	-5.16	1.45	1.52
81	DA	332	C	C2'-C1'	-5.16	1.45	1.53
22	AV	56	THR	C-N	5.16	1.40	1.33
68	Bq	23	ARG	NE-CZ	5.16	1.38	1.33
78	CA	646	C	O3'-P	-5.16	1.53	1.61
78	CA	1374	C	C2'-C1'	-5.16	1.45	1.53
24	AX	50	ALA	N-CA	-5.16	1.39	1.45
81	DA	875	G	O4'-C1'	5.16	1.49	1.41
81	DA	1372	C	C2'-C1'	-5.16	1.45	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1541	G	C2'-C1'	-5.16	1.45	1.53
19	AR	133	ALA	N-CA	-5.16	1.39	1.46
56	Bf	35	ARG	CZ-NH1	5.16	1.40	1.32
59	Bh	28	VAL	CA-CB	-5.16	1.48	1.54
81	DA	1384	U	O4'-C1'	-5.16	1.33	1.41
48	BW	9	GLN	N-CA	-5.16	1.39	1.46
64	Bl	8	PHE	CA-C	-5.16	1.46	1.52
81	DA	46	U	O4'-C1'	5.16	1.49	1.41
1	Aa	38	ARG	C-O	-5.16	1.17	1.24
9	AH	23	ARG	NE-CZ	5.16	1.38	1.33
32	BC	100	ARG	NE-CZ	5.16	1.38	1.33
32	BC	384	LYS	N-CA	-5.16	1.39	1.46
63	Bm	58	SER	CA-C	5.16	1.59	1.52
64	Bl	66	TYR	CA-C	-5.16	1.46	1.52
69	Br	18	ARG	N-CA	-5.16	1.38	1.46
78	CA	885	G	C4'-C3'	-5.16	1.44	1.52
81	DA	257	U	O4'-C1'	5.16	1.49	1.41
82	DB	26	U	C2'-C1'	-5.16	1.45	1.53
31	BB	196	TRP	CA-C	5.15	1.58	1.52
42	BM	9	THR	N-CA	5.15	1.52	1.46
74	BQ	131	LEU	CA-C	-5.15	1.46	1.52
81	DA	2620	G	O4'-C1'	-5.15	1.33	1.41
6	AE	140	ARG	N-CA	-5.15	1.39	1.46
33	BD	51	ALA	CA-C	-5.15	1.46	1.52
39	BJ	39	PRO	CA-C	-5.15	1.46	1.52
78	CA	689	G	O3'-P	-5.15	1.53	1.61
81	DA	1966	U	O4'-C1'	5.15	1.49	1.41
37	BH	106	LYS	C-N	5.15	1.40	1.33
41	BN	16	GLU	CA-C	-5.15	1.47	1.53
46	BT	151	ARG	CZ-NH2	5.15	1.40	1.33
78	CA	1616	G	O4'-C1'	5.15	1.49	1.41
6	AE	151	PRO	CA-C	-5.15	1.44	1.52
17	AQ	133	ARG	NE-CZ	5.15	1.38	1.33
24	AX	33	LEU	C-N	5.15	1.40	1.33
25	AY	30	VAL	N-CA	-5.15	1.40	1.46
31	BB	168	VAL	CA-C	-5.15	1.46	1.52
46	BT	20	ARG	CA-C	-5.15	1.46	1.52
55	Bc	90	ARG	CA-C	-5.15	1.46	1.52
62	Bk	64	SER	CA-CB	5.15	1.61	1.53
74	BQ	51	LEU	C-N	5.15	1.40	1.33
78	CA	120	U	P-O5'	5.15	1.67	1.59
81	DA	374	A	C2'-C1'	5.15	1.60	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1136	A	C2'-C1'	-5.15	1.45	1.53
81	DA	1716	U	O4'-C1'	5.15	1.49	1.41
10	AI	135	ARG	N-CA	-5.15	1.39	1.46
30	BA	11	GLU	N-CA	-5.15	1.39	1.46
78	CA	1104	U	C2'-C1'	-5.15	1.45	1.53
81	DA	1741	A	C2'-C1'	-5.15	1.45	1.53
3	AB	143	ARG	NE-CZ	5.14	1.38	1.33
57	Be	167	ALA	CA-C	-5.14	1.45	1.52
78	CA	233	C	C4'-C3'	5.14	1.60	1.52
17	AQ	5	ARG	NE-CZ	5.14	1.38	1.33
34	BE	41	SER	C-N	5.14	1.42	1.33
43	BP	22	LEU	CA-C	-5.14	1.46	1.52
76	BS	156	ARG	NE-CZ	5.14	1.38	1.33
78	CA	329	G	O4'-C1'	5.14	1.49	1.41
81	DA	2349	U	O4'-C1'	5.14	1.49	1.41
47	BU	35	LYS	N-CA	-5.14	1.39	1.45
81	DA	2223	A	C2'-C1'	-5.14	1.45	1.53
4	AD	57	ASN	C-N	5.14	1.41	1.33
9	AH	69	LEU	CB-CG	5.14	1.63	1.53
17	AQ	133	ARG	CZ-NH1	5.14	1.40	1.32
46	BT	135	LYS	CA-C	-5.14	1.46	1.52
78	CA	23	G	C2'-C1'	-5.14	1.45	1.53
82	DB	95	G	C2'-C1'	-5.14	1.45	1.53
17	AQ	47	ARG	N-CA	-5.14	1.40	1.46
32	BC	361	THR	CA-CB	-5.14	1.48	1.54
38	Bs	125	ASN	CA-CB	5.14	1.60	1.53
68	Bq	6	ARG	CA-CB	5.14	1.61	1.53
81	DA	2017	G	C2'-C1'	-5.14	1.45	1.53
9	AH	87	GLU	C-N	5.14	1.40	1.33
13	AL	89	ASN	CA-CB	5.14	1.59	1.53
33	BD	92	ASN	N-CA	-5.14	1.39	1.46
36	BF	80	THR	N-CA	-5.14	1.40	1.46
53	Ba	11	ALA	CA-CB	-5.14	1.44	1.53
81	DA	3295	A	P-OP2	5.14	1.59	1.49
4	AD	235	TYR	N-CA	5.13	1.52	1.45
31	BB	123	ARG	CD-NE	5.13	1.53	1.46
81	DA	494	G	C2'-C1'	-5.13	1.45	1.53
10	AI	140	LYS	C-N	5.13	1.43	1.34
78	CA	846	G	O5'-C5'	5.13	1.50	1.42
81	DA	2117	A	O4'-C1'	5.13	1.49	1.41
81	DA	3395	G	C2'-C1'	-5.13	1.45	1.53
13	AL	41	SER	CA-CB	5.13	1.60	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
42	BM	113	ALA	N-CA	-5.13	1.39	1.45
43	BP	74	PRO	N-CA	-5.13	1.40	1.47
52	BY	71	SER	C-N	5.13	1.40	1.33
53	Ba	57	HIS	CG-ND1	-5.13	1.32	1.38
65	Bn	60	GLY	C-O	-5.13	1.17	1.23
78	CA	614	C	C2'-C1'	-5.13	1.45	1.53
81	DA	69	C	O4'-C1'	5.13	1.49	1.41
81	DA	681	U	O4'-C1'	5.13	1.49	1.42
1	Aa	126	SER	CA-C	-5.13	1.45	1.52
20	AS	53	TRP	CA-CB	5.13	1.62	1.53
2	AA	128	SER	CA-C	5.13	1.59	1.52
38	Bs	240	ILE	C-O	-5.13	1.17	1.24
43	BP	38	ARG	NE-CZ	5.13	1.38	1.33
52	BY	50	ILE	CA-C	-5.13	1.46	1.53
57	Be	151	ARG	CD-NE	5.13	1.53	1.46
58	Bg	97	LEU	CA-C	-5.13	1.45	1.52
67	Bp	25	ALA	C-N	5.13	1.40	1.33
81	DA	638	C	C4'-C3'	-5.13	1.44	1.52
81	DA	660	A	C2'-C1'	-5.13	1.45	1.53
81	DA	2473	C	C2'-C1'	5.13	1.61	1.53
2	AA	164	ASN	C-N	5.13	1.40	1.33
33	BD	300	ARG	CD-NE	5.13	1.53	1.46
36	BF	143	GLU	CA-C	-5.13	1.46	1.52
78	CA	1080	U	C3'-O3'	-5.13	1.34	1.42
81	DA	142	C	C2'-C1'	-5.13	1.45	1.53
32	BC	26	ARG	CZ-NH1	5.12	1.40	1.32
32	BC	324	VAL	CA-CB	-5.12	1.48	1.54
53	Ba	88	ASP	CA-CB	5.12	1.61	1.53
81	DA	504	A	O4'-C1'	5.12	1.49	1.41
55	Bc	27	GLU	C-O	-5.12	1.18	1.24
59	Bh	74	PHE	C-N	5.12	1.40	1.33
61	Bj	92	LYS	C-N	5.12	1.40	1.33
64	Bl	55	ARG	CZ-NH2	5.12	1.40	1.33
78	CA	1009	U	C2'-C1'	-5.12	1.45	1.53
81	DA	723	U	O5'-C5'	5.12	1.50	1.42
52	BY	23	PRO	CA-C	5.12	1.58	1.52
76	BS	86	ARG	CZ-NH2	5.12	1.40	1.33
78	CA	221	A	C2'-C1'	5.12	1.61	1.53
78	CA	255	U	C2'-C1'	-5.12	1.45	1.53
55	Bc	64	GLU	CA-C	-5.12	1.46	1.52
12	AK	105	LEU	C-N	5.12	1.40	1.34
32	BC	381	GLY	CA-C	5.12	1.59	1.51

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
39	BJ	114	ARG	CZ-NH2	5.12	1.40	1.33
48	BW	7	ARG	CD-NE	5.12	1.53	1.46
76	BS	41	SER	CA-C	-5.12	1.46	1.52
78	CA	1234	A	C4'-C3'	-5.12	1.44	1.52
81	DA	242	C	C5'-C4'	5.12	1.58	1.51
32	BC	209	PHE	CA-C	-5.12	1.46	1.52
81	DA	203	G	O4'-C1'	5.12	1.49	1.41
6	AE	24	ARG	C-N	5.12	1.40	1.33
29	AU	14	SER	C-N	5.12	1.39	1.33
49	BV	83	TRP	N-CA	-5.12	1.41	1.46
69	Br	27	GLN	C-N	5.12	1.40	1.33
78	CA	1689	A	O4'-C1'	5.12	1.49	1.41
81	DA	13	A	C2'-C1'	-5.12	1.45	1.53
3	AB	40	ARG	CZ-NH2	5.11	1.40	1.33
4	AD	70	VAL	N-CA	-5.11	1.40	1.46
4	AD	200	ARG	CA-C	-5.11	1.46	1.52
16	AO	130	ARG	CD-NE	5.11	1.53	1.46
18	AP	119	VAL	N-CA	5.11	1.52	1.46
21	AT	53	TYR	CA-C	-5.11	1.47	1.52
39	BJ	52	GLU	CA-CB	5.11	1.60	1.53
48	BW	105	LEU	CA-CB	5.11	1.60	1.53
57	Be	60	ARG	C-N	5.11	1.41	1.34
78	CA	1369	U	O4'-C1'	5.11	1.49	1.41
81	DA	1492	G	C2'-C1'	-5.11	1.45	1.53
82	DB	117	C	C2'-C1'	-5.11	1.45	1.53
5	AC	149	ARG	CZ-NH1	5.11	1.40	1.32
37	BH	225	LYS	CA-C	-5.11	1.46	1.53
44	BO	29	PRO	C-N	5.11	1.40	1.33
44	BO	97	GLU	C-N	-5.11	1.26	1.33
74	BQ	112	ARG	CD-NE	5.11	1.53	1.46
76	BS	91	ASN	C-N	5.11	1.40	1.33
78	CA	1164	G	C2'-C1'	5.11	1.61	1.53
81	DA	653	A	O4'-C1'	5.11	1.49	1.41
81	DA	1285	G	O4'-C1'	5.11	1.49	1.42
74	BQ	258	LYS	N-CA	-5.11	1.39	1.46
81	DA	936	A	O4'-C1'	5.11	1.49	1.41
81	DA	1346	G	C2'-C1'	5.11	1.61	1.53
81	DA	2400	G	O4'-C1'	5.11	1.49	1.41
12	AK	117	ASP	N-CA	-5.11	1.39	1.46
13	AL	139	LYS	N-CA	-5.11	1.40	1.46
22	AV	77	ARG	CD-NE	5.11	1.53	1.46
37	BH	77	GLN	C-N	5.11	1.40	1.34

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
40	BK	47	PHE	CA-CB	5.11	1.61	1.53
67	Bp	46	ARG	NE-CZ	5.11	1.38	1.33
81	DA	534	U	C2'-C1'	5.11	1.61	1.53
81	DA	1370	G	C2'-C1'	-5.11	1.45	1.53
81	DA	1373	A	C2'-C1'	-5.11	1.45	1.53
81	DA	1988	C	O3'-P	-5.11	1.53	1.61
81	DA	2175	U	C3'-C2'	-5.11	1.45	1.52
81	DA	2652	U	O4'-C1'	5.11	1.49	1.41
11	AJ	118	VAL	CA-C	-5.11	1.47	1.52
17	AQ	95	ARG	N-CA	-5.11	1.39	1.46
41	BN	114	ASP	CA-CB	5.11	1.60	1.53
50	BX	39	LYS	CA-C	-5.11	1.46	1.52
58	Bg	43	HIS	CG-ND1	5.11	1.43	1.38
78	CA	1753	A	C2'-C1'	-5.11	1.45	1.53
33	BD	55	LYS	N-CA	-5.10	1.40	1.46
36	BF	110	LYS	N-CA	-5.10	1.39	1.46
79	CB	31	C	C2'-C1'	-5.10	1.45	1.53
81	DA	1921	A	O4'-C1'	5.10	1.49	1.41
81	DA	2682	C	O3'-P	-5.10	1.53	1.61
12	AK	58	TYR	C-N	5.10	1.40	1.33
78	CA	640	U	O4'-C1'	5.10	1.49	1.41
6	AE	179	VAL	CA-CB	-5.10	1.48	1.54
33	BD	300	ARG	CZ-NH2	5.10	1.40	1.33
37	BH	174	GLY	CA-C	-5.10	1.44	1.51
74	BQ	273	ARG	NE-CZ	5.10	1.38	1.33
78	CA	460	A	C4'-C3'	-5.10	1.45	1.52
81	DA	2925	C	O4'-C1'	5.10	1.49	1.41
81	DA	3078	U	C2'-C1'	-5.10	1.45	1.53
81	DA	3353	G	C2'-C1'	-5.10	1.45	1.53
4	AD	108	ARG	C-N	5.10	1.40	1.33
31	BB	79	ASN	C-N	5.10	1.40	1.33
42	BM	29	SER	C-N	5.10	1.39	1.33
46	BT	62	ARG	CA-C	-5.10	1.46	1.52
78	CA	918	U	C4'-C3'	-5.10	1.45	1.52
81	DA	2659	G	C2'-C1'	-5.10	1.45	1.53
6	AE	140	ARG	CD-NE	5.10	1.53	1.46
30	BA	110	PHE	C-O	-5.10	1.18	1.24
38	Bs	36	GLN	CA-CB	5.10	1.61	1.53
16	AO	73	ARG	NE-CZ	5.09	1.38	1.33
19	AR	126	VAL	CA-C	-5.09	1.46	1.52
67	Bp	16	ASP	CA-C	-5.09	1.46	1.53
81	DA	170	G	C5'-C4'	5.09	1.58	1.51

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	440	A	O4'-C1'	5.09	1.49	1.41
81	DA	862	U	O4'-C1'	5.09	1.49	1.41
22	AV	50	ILE	CA-C	5.09	1.59	1.52
39	BJ	90	ARG	CA-C	-5.09	1.46	1.52
76	BS	149	ILE	CA-CB	-5.09	1.47	1.54
81	DA	2256	A	C2'-C1'	5.09	1.60	1.53
13	AL	28	ASN	C-N	5.09	1.40	1.33
78	CA	1171	A	C2'-C1'	-5.09	1.45	1.53
81	DA	1368	U	O4'-C1'	5.09	1.49	1.41
83	DC	13	A	C2'-C1'	-5.09	1.45	1.53
14	AM	92	ILE	CA-C	-5.09	1.42	1.52
32	BC	364	LYS	CA-CB	-5.09	1.48	1.54
37	BH	230	LYS	CA-C	-5.09	1.46	1.52
50	BX	135	ILE	CA-CB	-5.09	1.48	1.54
51	BZ	30	ARG	CZ-NH1	5.09	1.39	1.32
61	Bj	88	ASN	N-CA	-5.09	1.40	1.46
78	CA	873	U	O4'-C1'	5.09	1.49	1.41
78	CA	908	U	O4'-C1'	5.09	1.49	1.41
78	CA	1306	C	O4'-C1'	5.09	1.49	1.41
81	DA	232	G	O5'-C5'	5.09	1.50	1.42
81	DA	429	U	C2'-C1'	5.09	1.60	1.53
81	DA	2163	C	C2'-C1'	5.09	1.60	1.53
1	Aa	102	ARG	CD-NE	5.09	1.53	1.46
14	AM	68	ARG	CZ-NH1	5.09	1.39	1.32
20	AS	51	GLU	C-N	5.09	1.41	1.33
78	CA	1334	U	C2'-C1'	-5.09	1.45	1.53
8	AF	187	ILE	CA-C	5.08	1.57	1.52
12	AK	108	SER	C-N	5.08	1.40	1.33
39	BJ	21	GLU	N-CA	-5.08	1.39	1.45
78	CA	923	A	C2'-C1'	-5.08	1.45	1.53
78	CA	1766	A	O4'-C1'	5.08	1.49	1.42
81	DA	984	G	C2'-C1'	5.08	1.60	1.53
30	BA	160	LYS	C-N	5.08	1.40	1.33
44	BO	67	HIS	N-CA	-5.08	1.40	1.46
56	Bf	69	TYR	C-N	5.08	1.40	1.33
57	Be	33	ARG	CZ-NH2	5.08	1.40	1.33
60	Bi	23	VAL	CA-C	-5.08	1.46	1.52
81	DA	1122	U	O4'-C1'	5.08	1.49	1.41
81	DA	1380	G	O4'-C1'	5.08	1.49	1.41
81	DA	1849	C	O4'-C1'	5.08	1.49	1.42
18	AP	87	ARG	CA-CB	5.08	1.60	1.53
58	Bg	72	ARG	N-CA	-5.08	1.39	1.46

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
66	Bo	41	ARG	C-O	5.08	1.30	1.24
78	CA	625	C	C2'-C1'	-5.08	1.45	1.53
81	DA	36	C	C2'-C1'	-5.08	1.45	1.53
3	AB	23	GLU	CA-C	-5.08	1.46	1.52
5	AC	49	LEU	CA-CB	5.08	1.61	1.53
22	AV	106	ALA	N-CA	5.08	1.52	1.46
47	BU	70	SER	CA-C	-5.08	1.46	1.52
53	Ba	65	ARG	NE-CZ	5.08	1.38	1.33
53	Ba	75	VAL	CA-CB	-5.08	1.47	1.54
63	Bm	80	ARG	CZ-NH1	5.08	1.39	1.32
78	CA	927	C	C2'-C1'	-5.08	1.45	1.53
74	BQ	23	ARG	C-N	5.08	1.40	1.33
16	AO	94	LYS	CA-C	-5.08	1.46	1.52
35	BG	54	TYR	CA-C	-5.08	1.46	1.52
43	BP	147	ARG	CZ-NH2	5.08	1.40	1.33
52	BY	28	ARG	CD-NE	5.08	1.53	1.46
69	Br	10	THR	C-N	5.08	1.40	1.33
11	AJ	73	GLY	C-N	5.07	1.40	1.33
69	Br	45	ARG	CZ-NH1	5.07	1.39	1.32
76	BS	41	SER	CA-CB	5.07	1.61	1.53
78	CA	1601	G	C2'-C1'	-5.07	1.45	1.53
81	DA	107	A	O4'-C1'	5.07	1.49	1.41
81	DA	1441	G	C2'-C1'	-5.07	1.45	1.53
81	DA	3235	C	O4'-C1'	5.07	1.49	1.41
36	BF	166	ARG	CD-NE	5.07	1.53	1.46
46	BT	180	LYS	N-CA	-5.07	1.39	1.46
78	CA	114	C	O4'-C1'	5.07	1.49	1.41
81	DA	330	G	O4'-C1'	5.07	1.49	1.42
4	AD	87	MET	C-N	5.07	1.40	1.33
5	AC	143	ILE	CA-C	-5.07	1.42	1.52
6	AE	143	TYR	CA-C	-5.07	1.46	1.52
14	AM	72	ILE	N-CA	-5.07	1.40	1.46
24	AX	80	ARG	CD-NE	5.07	1.53	1.46
39	BJ	118	ASP	CA-CB	5.07	1.61	1.53
43	BP	37	HIS	ND1-CE1	5.07	1.37	1.32
48	BW	54	VAL	C-N	5.07	1.40	1.33
51	BZ	11	ALA	CA-C	-5.07	1.46	1.53
78	CA	1744	A	O4'-C1'	5.07	1.49	1.41
81	DA	2099	A	C3'-C2'	-5.07	1.45	1.52
81	DA	2191	U	O4'-C1'	5.07	1.49	1.41
9	AH	75	ILE	CA-C	-5.07	1.46	1.52
78	CA	858	G	C3'-C2'	-5.07	1.45	1.52

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AA	161	PRO	CA-C	-5.07	1.46	1.52
33	BD	114	ASN	CA-C	-5.07	1.46	1.52
39	BJ	16	ARG	CZ-NH1	5.07	1.39	1.32
40	BK	128	ARG	CA-C	-5.07	1.48	1.52
43	BP	73	ARG	NE-CZ	5.07	1.38	1.33
43	BP	115	VAL	CA-C	-5.07	1.47	1.52
78	CA	255	U	C3'-C2'	5.07	1.60	1.52
78	CA	886	U	O3'-P	5.07	1.68	1.61
81	DA	3332	U	C2'-C1'	5.07	1.60	1.53
29	AU	62	THR	C-O	-5.07	1.17	1.24
43	BP	189	LYS	CA-CB	5.07	1.61	1.53
46	BT	23	TRP	CA-C	5.07	1.58	1.52
78	CA	100	A	C2'-C1'	5.07	1.60	1.53
78	CA	1550	A	C4'-O4'	-5.07	1.38	1.45
78	CA	1773	C	C2'-C1'	-5.07	1.45	1.53
81	DA	2192	C	C2'-C1'	-5.07	1.45	1.53
1	Aa	263	PHE	CA-C	-5.06	1.46	1.52
21	AT	44	ARG	CA-C	-5.06	1.47	1.52
45	BR	12	ARG	N-CA	-5.06	1.40	1.46
79	CB	70	G	C2'-C1'	-5.06	1.45	1.53
81	DA	2282	U	C2'-C1'	-5.06	1.45	1.53
81	DA	2668	U	O3'-P	-5.06	1.53	1.61
1	Aa	153	GLN	CA-C	-5.06	1.46	1.52
42	BM	125	LEU	CA-C	-5.06	1.46	1.52
59	Bh	79	VAL	C-N	5.06	1.40	1.33
65	Bn	17	ARG	CD-NE	5.06	1.53	1.46
78	CA	896	U	O4'-C1'	5.06	1.49	1.41
81	DA	2164	A	C2'-C1'	-5.06	1.45	1.53
81	DA	2351	U	C2'-C1'	-5.06	1.45	1.53
6	AE	221	THR	C-N	5.06	1.40	1.33
8	AF	157	ARG	C-N	5.06	1.40	1.33
38	Bs	48	ARG	CZ-NH2	5.06	1.40	1.33
67	Bp	34	CYS	C-O	-5.06	1.17	1.24
78	CA	59	C	O4'-C1'	5.06	1.49	1.41
81	DA	3283	U	O4'-C1'	5.06	1.49	1.41
4	AD	187	ARG	NE-CZ	5.06	1.38	1.33
29	AU	9	THR	CA-CB	-5.06	1.46	1.52
81	DA	2058	G	C2'-C1'	-5.06	1.45	1.53
81	DA	2252	A	C2'-C1'	-5.06	1.45	1.53
81	DA	2727	A	C2'-C1'	-5.06	1.45	1.53
43	BP	40	ALA	CA-C	-5.06	1.46	1.52
78	CA	1314	U	O4'-C1'	5.06	1.49	1.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	AB	185	LYS	CA-C	-5.06	1.47	1.53
21	AT	62	ARG	N-CA	-5.06	1.40	1.46
74	BQ	229	ASP	CA-CB	5.06	1.61	1.53
83	DC	81	U	O4'-C1'	5.06	1.49	1.41
20	AS	61	VAL	N-CA	5.05	1.52	1.46
36	BF	152	GLU	C-O	-5.05	1.18	1.24
78	CA	307	G	C3'-C2'	-5.05	1.45	1.52
78	CA	1010	C	C2'-C1'	-5.05	1.45	1.53
78	CA	1156	C	C2'-C1'	-5.05	1.45	1.53
81	DA	2430	A	C2'-C1'	-5.05	1.45	1.53
81	DA	1218	U	O4'-C1'	5.05	1.49	1.41
9	AH	56	HIS	ND1-CE1	5.05	1.37	1.32
29	AU	89	TYR	CA-C	-5.05	1.46	1.52
38	Bs	248	ALA	C-N	-5.05	1.27	1.34
58	Bg	71	LEU	CA-CB	-5.05	1.45	1.53
60	Bi	110	GLU	N-CA	-5.05	1.42	1.46
74	BQ	294	ALA	CA-C	-5.05	1.46	1.52
78	CA	883	C	C2'-C1'	-5.05	1.45	1.53
78	CA	1226	A	C2'-C1'	-5.05	1.45	1.53
78	CA	1321	A	C3'-C2'	-5.05	1.45	1.52
81	DA	1901	A	C2'-C1'	-5.05	1.45	1.53
39	BJ	30	PRO	C-N	5.05	1.41	1.33
42	BM	46	LEU	CA-C	5.05	1.59	1.52
52	BY	27	ARG	CA-C	5.05	1.59	1.52
58	Bg	93	VAL	CA-CB	5.05	1.61	1.54
78	CA	414	C	C2'-C1'	-5.05	1.45	1.53
34	BE	15	GLU	N-CA	-5.05	1.40	1.46
36	BF	150	SER	CA-CB	5.05	1.60	1.53
53	Ba	24	VAL	C-N	5.05	1.39	1.33
64	Bl	68	LYS	C-O	-5.05	1.18	1.24
78	CA	639	U	O4'-C1'	5.05	1.49	1.41
4	AD	59	ARG	CZ-NH2	5.05	1.40	1.33
8	AF	199	ILE	CA-C	-5.05	1.46	1.52
33	BD	326	ARG	CZ-NH2	5.05	1.40	1.33
35	BG	75	PRO	CA-C	-5.05	1.45	1.52
36	BF	142	ASP	C-N	5.05	1.40	1.33
78	CA	379	U	O4'-C1'	5.05	1.49	1.41
16	AO	105	ASN	N-CA	-5.04	1.39	1.46
32	BC	50	LYS	CA-C	-5.04	1.46	1.52
34	BE	93	ASP	CA-CB	5.04	1.61	1.53
35	BG	26	ARG	NE-CZ	5.04	1.38	1.33
41	BN	134	ALA	N-CA	-5.04	1.40	1.46

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
50	BX	66	PRO	C-N	5.04	1.40	1.33
81	DA	2344	U	O4'-C1'	5.04	1.49	1.41
32	BC	311	PHE	CA-CB	5.04	1.61	1.53
38	Bs	50	VAL	C-N	5.04	1.40	1.33
62	Bk	55	ARG	CZ-NH1	5.04	1.39	1.32
74	BQ	280	GLU	N-CA	-5.04	1.40	1.46
76	BS	48	ARG	CA-CB	5.04	1.61	1.53
81	DA	992	A	O4'-C1'	-5.04	1.34	1.41
81	DA	1129	A	O4'-C1'	5.04	1.49	1.41
81	DA	1498	A	C2'-C1'	-5.04	1.45	1.53
81	DA	3306	U	P-O5'	-5.04	1.52	1.59
20	AS	90	PRO	N-CA	-5.04	1.40	1.47
81	DA	1288	U	O3'-P	-5.04	1.53	1.61
81	DA	2687	G	C2'-C1'	-5.04	1.45	1.53
11	AJ	48	HIS	CD2-NE2	5.04	1.43	1.37
26	AZ	49	LEU	N-CA	-5.04	1.40	1.46
46	BT	2	ALA	C-N	5.04	1.41	1.33
50	BX	46	TYR	C-N	5.04	1.40	1.33
14	AM	79	TYR	N-CA	-5.04	1.40	1.45
29	AU	75	VAL	C-N	5.04	1.40	1.33
31	BB	170	ALA	N-CA	-5.04	1.39	1.45
47	BU	135	PRO	CA-C	-5.04	1.43	1.52
55	Bc	94	LYS	CA-C	5.04	1.59	1.52
78	CA	1641	C	O4'-C1'	5.04	1.49	1.41
40	BK	172	ARG	CA-CB	5.04	1.61	1.53
78	CA	253	A	O3'-P	-5.04	1.53	1.61
78	CA	1671	A	O4'-C1'	5.04	1.49	1.41
81	DA	283	G	O4'-C1'	5.04	1.49	1.41
81	DA	2985	C	C2'-C1'	-5.04	1.45	1.53
40	BK	185	ALA	N-CA	5.04	1.52	1.46
45	BR	28	LEU	C-N	5.04	1.40	1.33
47	BU	8	ARG	NE-CZ	5.04	1.38	1.33
63	Bm	19	GLY	CA-C	-5.04	1.47	1.52
78	CA	82	U	C2'-C1'	-5.04	1.45	1.53
81	DA	52	A	O4'-C1'	5.04	1.49	1.41
81	DA	540	U	O4'-C1'	5.04	1.49	1.41
81	DA	806	A	C2'-C1'	5.04	1.60	1.53
81	DA	1895	A	O4'-C1'	-5.04	1.34	1.41
81	DA	2061	G	O4'-C1'	-5.04	1.34	1.41
81	DA	2974	U	O4'-C1'	5.04	1.49	1.41
12	AK	96	PRO	CA-C	-5.03	1.45	1.52
76	BS	154	VAL	N-CA	-5.03	1.40	1.46

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	1000	C	C2'-C1'	5.03	1.60	1.53
79	CB	49	G	C2'-C1'	-5.03	1.45	1.53
81	DA	378	A	O4'-C1'	5.03	1.49	1.41
83	DC	77	A	C2'-C1'	5.03	1.60	1.53
3	AB	146	ARG	CA-C	-5.03	1.50	1.53
11	AJ	28	SER	CA-CB	5.03	1.61	1.53
17	AQ	121	VAL	N-CA	-5.03	1.40	1.46
78	CA	238	U	O3'-P	-5.03	1.53	1.61
78	CA	1260	U	O4'-C1'	5.03	1.49	1.41
81	DA	2200	U	O4'-C1'	5.03	1.49	1.41
81	DA	2373	A	O4'-C1'	5.03	1.49	1.42
81	DA	2477	G	O4'-C1'	5.03	1.49	1.41
1	Aa	194	GLY	N-CA	-5.03	1.40	1.45
5	AC	149	ARG	CD-NE	5.03	1.53	1.46
24	AX	80	ARG	CZ-NH1	5.03	1.39	1.32
30	BA	48	ARG	CZ-NH1	5.03	1.39	1.32
34	BE	60	ARG	C-N	5.03	1.40	1.33
39	BJ	91	ASP	C-N	5.03	1.40	1.33
74	BQ	195	LEU	CA-CB	5.03	1.61	1.53
78	CA	324	U	O4'-C1'	5.03	1.49	1.41
78	CA	1785	U	C2'-C1'	-5.03	1.45	1.53
81	DA	1342	C	C2'-C1'	-5.03	1.45	1.53
81	DA	2928	C	O3'-P	-5.03	1.53	1.61
81	DA	2932	U	P-O5'	-5.03	1.52	1.59
78	CA	441	A	O4'-C1'	5.03	1.49	1.41
81	DA	1245	A	C2'-C1'	5.03	1.60	1.53
2	AA	110	TYR	C-N	5.03	1.40	1.34
30	BA	8	GLN	N-CA	-5.03	1.40	1.46
58	Bg	25	PHE	N-CA	-5.03	1.40	1.46
78	CA	1126	G	O4'-C1'	5.03	1.49	1.41
78	CA	1769	U	C2'-C1'	-5.03	1.45	1.53
79	CB	23	A	O4'-C1'	5.03	1.49	1.41
56	Bf	82	GLY	CA-C	-5.03	1.48	1.52
81	DA	35	A	C2'-C1'	-5.03	1.45	1.53
81	DA	1748	G	O3'-P	-5.03	1.53	1.61
32	BC	53	MET	CA-C	-5.02	1.46	1.52
65	Bn	1	MET	C-N	5.02	1.40	1.33
78	CA	600	U	O4'-C1'	5.02	1.49	1.41
78	CA	1468	U	O4'-C1'	5.02	1.49	1.41
81	DA	2923	U	O4'-C1'	5.02	1.49	1.41
9	AH	16	ASN	C-O	5.02	1.30	1.24
13	AL	97	ASP	CA-CB	5.02	1.61	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
45	BR	79	LYS	N-CA	-5.02	1.39	1.46
78	CA	190	C	C2'-C1'	-5.02	1.45	1.53
78	CA	1656	U	C2'-C1'	-5.02	1.45	1.53
81	DA	1484	U	O4'-C1'	5.02	1.49	1.42
81	DA	1819	U	C2'-C1'	5.02	1.60	1.53
50	BX	139	ILE	C-N	5.02	1.40	1.33
55	Bc	42	PRO	CA-C	5.02	1.59	1.52
61	Bj	37	THR	CA-CB	5.02	1.61	1.53
78	CA	1136	U	O4'-C1'	5.02	1.49	1.41
46	BT	14	VAL	C-N	5.02	1.39	1.34
54	Bd	45	HIS	ND1-CE1	5.02	1.37	1.32
78	CA	1697	G	C2'-C1'	-5.02	1.45	1.53
81	DA	1435	A	O4'-C1'	5.02	1.49	1.41
5	AC	6	ARG	C-N	5.02	1.40	1.33
31	BB	214	GLY	N-CA	-5.02	1.38	1.45
69	Br	75	VAL	C-O	-5.02	1.18	1.24
78	CA	1263	G	C2'-C1'	5.02	1.60	1.53
83	DC	67	C	C2'-C1'	-5.02	1.45	1.53
21	AT	27	ASP	CA-C	5.02	1.59	1.52
46	BT	103	ARG	NE-CZ	5.02	1.38	1.33
60	Bi	17	SER	N-CA	-5.02	1.36	1.46
11	AJ	89	ARG	CZ-NH1	5.01	1.39	1.32
81	DA	898	U	O4'-C1'	5.01	1.49	1.41
81	DA	1795	U	C4'-O4'	-5.01	1.38	1.45
34	BE	60	ARG	CA-C	-5.01	1.46	1.52
82	DB	26	U	O4'-C1'	5.01	1.49	1.41
81	DA	2853	A	C2'-C1'	-5.01	1.45	1.53
6	AE	171	PRO	C-O	-5.01	1.18	1.23
8	AF	186	ASN	CA-C	-5.01	1.46	1.52
78	CA	428	A	C2'-C1'	5.01	1.60	1.53
81	DA	988	U	C3'-O3'	-5.01	1.34	1.42
81	DA	2789	U	O4'-C1'	5.01	1.49	1.41
76	BS	28	ARG	CA-C	-5.01	1.46	1.52
81	DA	2360	C	O4'-C1'	5.01	1.49	1.41
78	CA	586	G	C3'-C2'	-5.01	1.45	1.52
81	DA	225	C	O4'-C1'	5.01	1.49	1.41
81	DA	629	U	C2'-C1'	-5.01	1.45	1.53
81	DA	3217	C	O4'-C1'	-5.01	1.34	1.42
38	Bs	226	ALA	N-CA	-5.00	1.40	1.46
52	BY	34	PRO	N-CD	-5.00	1.40	1.47
81	DA	2045	G	O4'-C1'	5.00	1.49	1.41
9	AH	120	HIS	CG-CD2	-5.00	1.30	1.35

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
13	AL	109	ARG	NE-CZ	5.00	1.38	1.33
39	BJ	31	LYS	C-N	5.00	1.40	1.33
78	CA	1337	A	C4'-O4'	5.00	1.53	1.45
81	DA	1565	G	C2'-C1'	-5.00	1.45	1.53
83	DC	90	C	O4'-C1'	5.00	1.49	1.41
6	AE	71	THR	C-N	5.00	1.40	1.33
6	AE	243	TYR	CA-C	-5.00	1.46	1.52
37	BH	235	GLY	C-O	-5.00	1.20	1.24
81	DA	2902	A	O4'-C1'	5.00	1.49	1.41

All (17605) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	BC	17	LEU	O-C-N	-68.52	68.11	121.55
64	Bl	39	TYR	O-C-N	-67.86	63.45	121.80
35	BG	148	GLU	O-C-N	-62.46	76.43	122.03
35	BG	148	GLU	CA-C-O	-62.34	62.61	119.34
32	BC	368	GLY	CA-C-O	-61.90	68.39	122.24
37	BH	158	ASP	O-C-N	-58.91	72.55	121.44
31	BB	62	VAL	O-C-N	-56.86	65.44	122.30
62	Bk	83	ALA	CA-C-O	-56.73	57.50	119.34
34	BE	123	PHE	CA-C-O	-55.90	61.46	120.71
32	BC	17	LEU	CA-C-O	-55.30	65.89	120.64
47	BU	126	VAL	CA-C-O	-55.02	62.85	121.17
62	Bk	25	LYS	O-C-N	-54.75	61.74	123.06
32	BC	360	ASP	O-C-N	-54.50	73.36	123.50
32	BC	289	ASP	CA-C-O	-53.37	57.46	120.43
62	Bk	81	THR	CA-C-O	-52.92	55.56	120.65
57	Be	202	LEU	O-C-N	-52.73	62.10	123.27
74	BQ	123	GLU	CA-C-O	-52.19	64.00	120.36
18	AP	57	LYS	O-C-N	-52.15	64.66	123.06
32	BC	256	HIS	CA-C-O	-51.75	67.33	120.63
60	Bi	108	GLN	CA-C-O	-51.75	66.08	121.45
31	BB	196	TRP	CA-C-O	-51.52	64.89	119.50
74	BQ	201	GLY	CA-C-O	-51.43	63.73	120.30
38	Bs	72	ASP	CA-C-O	-51.25	70.85	120.56
74	BQ	201	GLY	O-C-N	-50.10	67.67	122.28
4	AD	93	ASP	CA-C-O	-49.83	69.69	122.01
48	BW	90	ARG	CA-C-O	-49.23	63.63	121.72
32	BC	368	GLY	O-C-N	-49.21	65.97	122.56
74	BQ	237	GLU	CA-C-O	-49.21	68.80	121.45
32	BC	297	SER	CA-C-O	-49.20	64.61	120.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BB	196	TRP	O-C-N	-48.85	72.23	122.06
57	Be	202	LEU	CA-C-O	-48.81	68.08	120.30
62	Bk	25	LYS	CA-C-O	-48.68	62.95	121.36
4	AD	153	ASN	O-C-N	-48.59	72.06	123.56
40	BK	69	GLY	O-C-N	-48.29	73.48	121.77
32	BC	360	ASP	CA-C-O	-48.26	69.95	120.63
36	BF	2	LYS	CA-C-O	-48.18	65.52	121.89
44	BO	40	HIS	O-C-N	-48.03	66.01	122.68
14	AM	99	HIS	O-C-N	-47.96	69.20	123.40
64	Bl	39	TYR	CA-C-O	-47.93	66.30	120.46
2	AA	229	LYS	O-C-N	-47.84	65.00	123.36
33	BD	148	ILE	O-C-N	-47.62	66.81	121.10
47	BU	126	VAL	O-C-N	-47.48	75.38	121.91
43	BP	80	THR	CA-C-O	-47.38	66.32	120.81
60	Bi	16	ARG	CA-C-O	-47.36	70.67	120.40
35	BG	3	ALA	CA-C-O	-47.28	67.02	121.87
74	BQ	128	GLU	CA-C-O	-46.99	68.36	120.99
18	AP	40	LEU	CA-C-O	-46.89	69.00	121.98
32	BC	3	HIS	CA-C-O	-46.83	69.38	120.89
40	BK	63	ALA	CA-C-O	-46.81	68.51	121.40
74	BQ	123	GLU	O-C-N	-46.79	67.62	123.30
17	AQ	63	LYS	O-C-N	-46.60	65.55	122.86
21	AT	9	VAL	O-C-N	-46.45	64.50	122.57
11	AJ	119	ALA	CA-C-O	-46.44	66.52	121.32
44	BO	40	HIS	CA-C-O	-46.43	69.56	122.03
74	BQ	237	GLU	O-C-N	-46.40	69.75	123.10
58	Bg	107	VAL	CA-C-O	-46.21	63.02	120.78
36	BF	2	LYS	O-C-N	-45.99	68.88	122.68
13	AL	87	VAL	O-C-N	-45.97	68.70	121.10
5	AC	157	ASP	O-C-N	-45.70	71.75	122.94
10	AI	54	LEU	O-C-N	-45.61	63.82	122.20
32	BC	3	HIS	O-C-N	-45.54	72.48	123.48
45	BR	142	GLY	O-C-N	-45.48	76.29	121.77
18	AP	122	ILE	O-C-N	-45.48	66.65	122.59
51	BZ	51	TRP	O-C-N	-45.30	68.66	122.11
55	Bc	104	GLN	O-C-N	-45.17	62.51	122.59
11	AJ	14	GLN	CG-CD-OE1	-44.84	31.12	120.80
32	BC	362	ALA	O-C-N	-44.80	71.60	123.13
18	AP	57	LYS	CA-C-O	-44.66	67.77	121.36
35	BG	5	LYS	O-C-N	-44.58	63.30	122.59
35	BG	38	THR	O-C-N	-44.52	72.47	123.22
17	AQ	81	LYS	O-C-N	-44.33	69.64	122.84

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
74	BQ	115	LEU	CA-C-O	-44.29	68.06	120.32
6	AE	92	ALA	CA-C-O	-44.26	68.25	121.36
38	Bs	5	ARG	O-C-N	-44.23	66.21	122.82
74	BQ	197	SER	O-C-N	-44.19	63.82	122.59
22	AV	26	LYS	O-C-N	-44.18	63.83	122.59
18	AP	122	ILE	CA-C-O	-43.96	67.91	121.54
40	BK	184	THR	O-C-N	-43.88	64.23	122.59
21	AT	9	VAL	CA-C-O	-43.86	65.96	120.78
74	BQ	121	GLY	CA-C-O	-43.80	65.69	119.13
5	AC	162	SER	CA-C-O	-43.65	60.36	120.16
38	Bs	5	ARG	CA-C-O	-43.65	74.30	121.44
37	BH	158	ASP	CA-C-O	-43.63	70.61	120.34
60	Bi	16	ARG	O-C-N	-43.60	65.56	123.12
6	AE	92	ALA	O-C-N	-43.51	74.32	123.06
32	BC	362	ALA	CA-C-O	-43.49	71.72	120.43
35	BG	152	THR	CA-C-O	-43.45	60.64	120.16
13	AL	34	LEU	O-C-N	-43.38	64.89	122.59
5	AC	157	ASP	CA-C-O	-43.35	70.56	121.72
65	Bn	71	PRO	O-C-N	-43.35	64.12	122.64
17	AQ	63	LYS	CA-C-O	-43.28	68.47	122.14
5	AC	142	ASN	CB-CG-OD1	-43.16	34.48	120.80
26	AZ	44	PHE	CA-C-O	-43.08	71.52	121.49
74	BQ	128	GLU	O-C-N	-42.95	74.80	123.33
48	BW	93	ILE	O-C-N	-42.94	70.27	122.66
34	BE	123	PHE	O-C-N	-42.91	68.71	123.21
40	BK	63	ALA	O-C-N	-42.89	71.27	123.17
45	BR	157	PRO	O-C-N	-42.70	65.00	122.64
53	Ba	13	VAL	CA-C-O	-42.62	67.50	120.78
38	Bs	72	ASP	O-C-N	-42.59	73.90	122.88
31	BB	252	THR	O-C-N	-42.49	71.92	123.33
32	BC	289	ASP	O-C-N	-42.30	75.25	123.48
32	BC	381	GLY	O-C-N	-42.30	67.71	122.70
3	AB	78	LYS	O-C-N	-42.22	66.44	122.59
48	BW	90	ARG	O-C-N	-42.12	75.76	122.94
44	BO	3	SER	O-C-N	-41.99	66.75	122.59
76	BS	15	GLY	O-C-N	-41.95	68.17	122.70
33	BD	78	GLY	O-C-N	-41.83	68.32	122.70
6	AE	7	GLN	O-C-N	-41.79	67.00	122.59
48	BW	93	ILE	CA-C-O	-41.76	66.40	120.69
4	AD	153	ASN	CA-C-O	-41.69	74.06	120.75
15	AN	54	LYS	CA-C-O	-41.65	74.66	120.89
51	BZ	51	TRP	CA-C-O	-41.63	77.18	120.89

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
53	Ba	13	VAL	O-C-N	-41.37	70.86	122.57
60	Bi	108	GLN	O-C-N	-41.35	75.55	123.10
2	AA	229	LYS	CA-C-O	-41.01	69.84	120.28
5	AC	162	SER	O-C-N	-40.94	74.24	121.32
35	BG	38	THR	CA-C-O	-40.92	74.30	120.54
35	BG	3	ALA	O-C-N	-40.66	76.43	122.79
31	BB	62	VAL	CA-C-O	-40.62	78.04	121.09
17	AQ	26	LEU	O-C-N	-40.46	68.78	122.59
74	BQ	190	ILE	CA-C-O	-40.46	70.21	120.78
74	BQ	238	ASP	O-C-N	-40.36	68.91	122.59
14	AM	99	HIS	CA-C-O	-40.35	70.23	120.27
3	AB	205	ALA	CA-C-O	-40.29	62.89	120.51
26	AZ	44	PHE	O-C-N	-40.22	67.23	122.74
40	BK	184	THR	CA-C-O	-40.18	63.05	120.51
2	AA	11	PRO	O-C-N	-40.17	68.42	122.64
18	AP	40	LEU	O-C-N	-40.14	72.02	121.79
9	AH	66	ASN	O-C-N	-40.12	69.23	122.59
60	Bi	77	GLY	O-C-N	-40.00	70.70	122.70
40	BK	69	GLY	CA-C-O	-39.89	64.47	121.52
33	BD	331	ALA	O-C-N	-39.82	69.63	122.59
81	DA	3305	A	P-O3'-C3'	39.74	179.82	120.20
17	AQ	81	LYS	CA-C-O	-39.72	72.26	121.11
55	Bc	94	LYS	CA-C-O	-39.59	63.90	120.51
33	BD	84	ARG	CA-C-O	-39.58	63.91	120.51
10	AI	54	LEU	CA-C-O	-39.56	72.68	120.55
44	BO	7	LYS	O-C-N	-39.30	70.32	122.59
43	BP	80	THR	O-C-N	-39.20	74.71	122.93
46	BT	82	LYS	O-C-N	-39.17	70.50	122.59
61	Bj	20	LYS	CA-C-O	-39.15	75.12	121.32
65	Bn	35	GLY	O-C-N	-39.14	71.82	122.70
34	BE	89	TYR	CA-C-O	-39.02	64.71	120.51
31	BB	73	GLU	CA-C-O	-38.95	64.81	120.51
69	Br	58	PHE	O-C-N	-38.90	70.85	122.59
32	BC	297	SER	O-C-N	-38.89	72.45	123.01
26	AZ	18	THR	O-C-N	-38.85	76.64	121.32
2	AA	250	VAL	CA-C-O	-38.77	72.32	120.78
16	AO	67	THR	CA-C-O	-38.68	65.20	120.51
26	AZ	40	TYR	O-C-N	-38.68	71.15	122.59
45	BR	95	GLU	CA-C-O	-38.67	65.21	120.51
31	BB	252	THR	CA-C-O	-38.64	74.23	120.60
4	AD	96	ASN	O-C-N	-38.62	71.23	122.59
74	BQ	121	GLY	O-C-N	-38.56	74.21	122.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Aa	59	ARG	N-CA-C	38.48	167.67	108.79
13	AL	134	ALA	O-C-N	-38.40	71.52	122.59
45	BR	140	LEU	O-C-N	-38.18	66.36	122.87
45	BR	95	GLU	O-C-N	-38.16	71.84	122.59
32	BC	266	ARG	NE-CZ-NH1	-38.12	83.38	121.50
60	Bi	68	THR	O-C-N	-38.09	71.93	122.59
33	BD	323	VAL	O-C-N	-38.02	75.04	122.57
2	AA	250	VAL	O-C-N	-37.98	75.09	122.57
33	BD	89	ALA	CA-C-O	-37.89	66.33	120.51
44	BO	142	GLY	O-C-N	-37.86	73.48	122.70
31	BB	249	SER	O-C-N	-37.84	72.26	122.59
17	AQ	26	LEU	CA-C-O	-37.83	66.41	120.51
81	DA	3047	U	P-O3'-C3'	37.76	176.83	120.20
33	BD	84	ARG	O-C-N	-37.75	72.38	122.59
81	DA	2046	U	P-O3'-C3'	37.47	176.40	120.20
9	AH	66	ASN	CA-C-O	-37.41	67.02	120.51
31	BB	249	SER	CA-C-O	-37.39	67.04	120.51
33	BD	323	VAL	CA-C-O	-37.37	74.07	120.78
39	BJ	76	SER	CA-C-O	-37.35	67.09	120.51
35	BG	27	PRO	O-C-N	-37.27	72.32	122.64
33	BD	89	ALA	O-C-N	-37.20	73.11	122.59
59	Bh	12	LYS	CA-C-O	-37.17	67.36	120.51
61	Bj	8	TYR	O-C-N	-37.15	73.18	122.59
61	Bj	8	TYR	CA-C-O	-37.02	67.58	120.51
3	AB	205	ALA	O-C-N	-36.92	73.48	122.59
65	Bn	34	ALA	O-C-N	-36.85	73.58	122.59
44	BO	8	THR	CA-C-O	-36.84	67.82	120.51
13	AL	87	VAL	CA-C-O	-36.84	70.59	119.95
58	Bg	107	VAL	O-C-N	-36.76	76.62	122.57
44	BO	8	THR	O-C-N	-36.70	73.78	122.59
81	DA	2071	A	P-O3'-C3'	36.62	175.13	120.20
32	BC	130	PHE	O-C-N	-36.62	73.89	122.59
74	BQ	190	ILE	O-C-N	-36.62	76.80	122.57
16	AO	67	THR	O-C-N	-36.38	74.20	122.59
29	AU	36	SER	CA-C-O	-36.34	96.86	117.94
44	BO	7	LYS	CA-C-O	-36.30	68.60	120.51
33	BD	321	LYS	O-C-N	-36.30	74.32	122.59
65	Bn	34	ALA	CA-C-O	-36.26	68.67	120.51
69	Br	89	LYS	O-C-N	-36.23	74.40	122.59
26	AZ	39	LEU	O-C-N	-36.14	74.52	122.59
34	BE	9	MET	O-C-N	-36.12	74.55	122.59
46	BT	71	ARG	O-C-N	-36.06	74.63	122.59

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
53	Ba	60	LYS	CA-C-O	-36.03	70.43	120.52
32	BC	5	LYS	CA-C-O	-35.92	69.15	120.51
59	Bh	12	LYS	O-C-N	-35.88	74.87	122.59
69	Br	58	PHE	CA-C-O	-35.87	69.22	120.51
45	BR	142	GLY	CA-C-O	-35.82	70.29	121.52
62	Bk	83	ALA	O-C-N	-35.81	77.07	122.20
20	AS	90	PRO	O-C-N	-35.77	74.34	122.64
34	BE	89	TYR	O-C-N	-35.74	75.05	122.59
2	AA	195	TRP	CA-C-O	-35.70	69.45	120.51
60	Bi	79	SER	CA-C-O	-35.68	69.48	120.51
81	DA	2079	G	P-O3'-C3'	35.64	173.66	120.20
45	BR	98	LYS	O-C-N	-35.61	75.23	122.59
33	BD	145	ILE	CA-C-O	-35.54	72.33	119.95
35	BG	152	THR	O-C-N	-35.44	80.57	121.32
60	Bi	79	SER	O-C-N	-35.42	75.47	122.59
33	BD	12	THR	CA-C-O	-35.42	69.86	120.51
74	BQ	238	ASP	CA-C-O	-35.40	69.89	120.51
74	BQ	129	TYR	O-C-N	-35.09	75.93	122.59
78	CA	1677	C	P-O3'-C3'	35.03	172.74	120.20
37	BH	89	GLU	CA-C-O	-35.00	70.46	120.51
6	AE	7	GLN	CA-C-O	-34.99	70.47	120.51
4	AD	93	ASP	O-C-N	-34.98	75.49	122.36
6	AE	4	PRO	O-C-N	-34.95	75.46	122.64
69	Br	89	LYS	CA-C-O	-34.95	70.53	120.51
35	BG	8	LYS	CA-C-O	-34.90	70.60	120.51
32	BC	5	LYS	O-C-N	-34.85	76.23	122.59
43	BP	74	PRO	O-C-N	-34.85	75.59	122.64
35	BG	8	LYS	O-C-N	-34.76	76.36	122.59
33	BD	12	THR	O-C-N	-34.60	76.58	122.59
3	AB	78	LYS	CA-C-O	-34.52	71.15	120.51
26	AZ	39	LEU	CA-C-O	-34.45	71.25	120.51
37	BH	89	GLU	O-C-N	-34.43	76.80	122.59
81	DA	2480	A	P-O3'-C3'	34.31	171.66	120.20
74	BQ	197	SER	CA-C-O	-34.30	71.45	120.51
13	AL	34	LEU	CA-C-O	-34.27	71.50	120.51
26	AZ	40	TYR	CA-C-O	-34.19	71.61	120.51
46	BT	82	LYS	CA-C-O	-34.11	71.73	120.51
60	Bi	68	THR	CA-C-O	-34.11	71.74	120.51
31	BB	127	ALA	CA-C-O	-33.97	71.94	120.51
33	BD	148	ILE	CA-C-O	-33.96	74.45	119.95
26	AZ	18	THR	CA-C-O	-33.33	74.50	120.16
37	BH	73	PRO	CA-C-O	-33.31	59.97	120.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BB	73	GLU	O-C-N	-33.22	78.41	122.59
2	AA	195	TRP	O-C-N	-33.19	78.45	122.59
45	BR	98	LYS	CA-C-O	-33.14	73.12	120.51
37	BH	73	PRO	O-C-N	-33.05	78.03	122.64
45	BR	140	LEU	CA-C-O	-32.94	65.85	120.85
81	DA	2915	U	P-O3'-C3'	32.91	169.57	120.20
44	BO	3	SER	CA-C-O	-32.90	73.46	120.51
65	Bn	35	GLY	CA-C-O	-32.87	63.37	120.57
81	DA	1990	U	P-O5'-C5'	32.73	169.99	120.90
31	BB	127	ALA	O-C-N	-32.67	79.14	122.59
55	Bc	104	GLN	CA-C-O	-32.52	74.00	120.51
34	BE	9	MET	CA-C-O	-32.45	74.10	120.51
11	AJ	119	ALA	O-C-N	-32.45	71.67	122.61
74	BQ	129	TYR	CA-C-O	-32.45	74.11	120.51
17	AQ	82	ASP	CA-C-O	-32.41	65.70	120.80
55	Bc	94	LYS	O-C-N	-32.24	79.71	122.59
20	AS	96	ALA	O-C-N	-32.23	79.73	122.59
43	BP	74	PRO	CA-C-O	-31.87	62.60	120.60
62	Bk	81	THR	O-C-N	-31.81	79.57	122.20
33	BD	321	LYS	CA-C-O	-31.77	75.08	120.51
33	BD	145	ILE	O-C-N	-31.60	85.08	121.10
32	BC	130	PHE	CA-C-O	-31.54	75.41	120.51
32	BC	298	PHE	O-C-N	-31.52	72.57	123.00
81	DA	2870	C	P-O3'-C3'	31.48	167.42	120.20
78	CA	29	U	P-O3'-C3'	31.47	167.40	120.20
2	AA	11	PRO	CA-C-O	-31.34	63.56	120.60
17	AQ	82	ASP	O-C-N	-31.24	73.01	123.00
4	AD	94	ALA	O-C-N	-31.13	73.19	123.00
78	CA	1551	U	O5'-C5'-C4'	31.03	158.05	111.50
39	BJ	75	PRO	O-C-N	-30.99	80.81	122.64
32	BC	298	PHE	CA-C-O	-30.82	68.41	120.80
34	BE	54	VAL	O-C-N	-30.78	84.09	122.57
81	DA	2208	A	P-O3'-C3'	30.78	166.37	120.20
6	AE	4	PRO	CA-C-O	-30.67	64.78	120.60
80	CC	18	C	O3'-P-O5'	-30.66	58.01	104.00
60	Bi	77	GLY	CA-C-O	-30.65	67.24	120.57
35	BG	5	LYS	CA-C-O	-30.46	76.96	120.51
33	BD	331	ALA	CA-C-O	-30.45	76.97	120.51
4	AD	96	ASN	CA-C-O	-30.40	77.04	120.51
60	Bi	78	GLY	O-C-N	-30.34	74.46	123.00
3	AB	212	LYS	CA-C-O	-30.11	90.13	121.14
47	BU	126	VAL	N-CA-C	30.03	139.25	110.42

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	BD	78	GLY	CA-C-O	-29.98	68.41	120.57
32	BC	381	GLY	CA-C-O	-29.87	68.59	120.57
81	DA	1755	C	P-O3'-C3'	29.85	164.98	120.20
34	BE	54	VAL	CA-C-N	-29.81	64.60	121.54
34	BE	54	VAL	C-N-CA	-29.81	64.60	121.54
81	DA	636	C	P-O5'-C5'	29.61	165.32	120.90
81	DA	3222	U	P-O3'-C3'	29.59	164.59	120.20
81	DA	3215	A	N9-C1'-C2'	29.55	171.49	112.40
22	AV	26	LYS	CA-C-O	-29.42	78.44	120.51
20	AS	95	ASP	CA-C-O	-29.38	85.00	120.55
81	DA	1602	A	O3'-P-O5'	-29.36	59.95	104.00
46	BT	71	ARG	CA-C-O	-29.27	78.65	120.51
53	Ba	60	LYS	O-C-N	-29.08	78.79	122.99
81	DA	855	U	P-O3'-C3'	29.07	163.81	120.20
44	BO	142	GLY	CA-C-O	-29.00	70.11	120.57
81	DA	2279	A	P-O3'-C3'	28.62	163.12	120.20
81	DA	1771	C	P-O3'-C3'	28.39	162.78	120.20
39	BJ	76	SER	O-C-N	-28.37	84.86	122.59
45	BR	157	PRO	CA-C-O	-28.34	69.03	120.60
81	DA	858	A	P-O3'-C3'	28.17	162.45	120.20
76	BS	15	GLY	CA-C-O	-28.10	71.68	120.57
74	BQ	115	LEU	O-C-N	-28.01	70.83	122.09
83	DC	48	U	P-O3'-C3'	27.80	161.90	120.20
81	DA	834	U	P-O3'-C3'	27.59	161.58	120.20
4	AD	94	ALA	CA-C-O	-27.41	74.20	120.80
20	AS	90	PRO	CA-C-O	-27.28	70.95	120.60
81	DA	671	U	P-O3'-C3'	27.07	160.81	120.20
81	DA	3382	U	P-O3'-C3'	26.82	160.43	120.20
45	BR	13	SER	CA-C-O	-26.77	92.07	121.25
78	CA	1551	U	P-O5'-C5'	26.68	160.91	120.90
81	DA	2174	G	P-O3'-C3'	26.42	159.83	120.20
81	DA	704	U	P-O3'-C3'	26.13	159.40	120.20
78	CA	1676	U	P-O3'-C3'	26.13	159.39	120.20
45	BR	143	PRO	O-C-N	-26.06	71.59	121.10
79	CB	55	C	N1-C1'-C2'	25.83	150.75	112.00
81	DA	1633	C	P-O3'-C3'	25.76	158.84	120.20
60	Bi	78	GLY	CA-C-O	-25.68	66.88	120.80
81	DA	2509	U	P-O3'-C3'	25.29	158.14	120.20
65	Bn	71	PRO	CA-C-O	-25.26	74.63	120.60
32	BC	256	HIS	O-C-N	-25.13	71.57	121.59
81	DA	3041	U	O3'-P-O5'	-25.12	66.33	104.00
81	DA	1256	G	P-O3'-C3'	25.10	157.85	120.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1841	A	P-O3'-C3'	25.09	157.83	120.20
81	DA	2628	A	O3'-P-O5'	-25.04	66.43	104.00
81	DA	3313	U	P-O3'-C3'	25.04	157.76	120.20
81	DA	2668	U	P-O3'-C3'	24.91	157.57	120.20
81	DA	2030	C	P-O3'-C3'	24.91	157.56	120.20
81	DA	1989	U	P-O3'-C3'	24.83	157.44	120.20
81	DA	2865	U	P-O3'-C3'	24.76	157.34	120.20
81	DA	3341	U	P-O3'-C3'	24.68	157.22	120.20
78	CA	141	U	P-O3'-C3'	24.67	157.21	120.20
81	DA	594	U	P-O3'-C3'	24.50	156.95	120.20
81	DA	2899	C	P-O3'-C3'	24.49	156.93	120.20
78	CA	178	U	P-O3'-C3'	24.37	156.76	120.20
81	DA	3041	U	P-O3'-C3'	24.32	156.69	120.20
34	BE	55	ARG	O-C-N	-24.30	90.27	122.59
81	DA	1560	G	P-O3'-C3'	24.29	156.63	120.20
35	BG	99	GLU	N-CA-CB	23.98	151.03	110.49
81	DA	2673	A	P-O5'-C5'	23.97	156.85	120.90
78	CA	1546	G	C3'-C2'-C1'	-23.93	77.37	101.30
45	BR	143	PRO	CA-C-O	-23.88	62.89	120.20
16	AO	64	ARG	N-CA-CB	-23.74	75.02	110.16
39	BJ	75	PRO	CA-C-O	-23.63	77.60	120.60
82	DB	98	U	O5'-C5'-C4'	23.59	146.88	111.50
78	CA	1302	U	P-O3'-C3'	23.52	155.48	120.20
81	DA	636	C	P-O3'-C3'	23.50	155.46	120.20
81	DA	1221	A	O4'-C1'-N9	23.33	143.49	108.50
82	DB	44	A	P-O3'-C3'	23.30	155.15	120.20
78	CA	1340	U	P-O5'-C5'	23.29	155.84	120.90
81	DA	2737	C	P-O3'-C3'	23.27	155.11	120.20
47	BU	140	ILE	CA-C-N	-23.13	95.52	122.36
47	BU	140	ILE	C-N-CA	-23.13	95.52	122.36
81	DA	2956	A	P-O3'-C3'	23.02	154.72	120.20
1	Aa	58	VAL	CA-C-O	-22.98	92.06	120.78
81	DA	791	A	P-O3'-C3'	22.95	154.63	120.20
31	BB	37	ARG	O-C-N	-22.94	94.06	122.96
14	AM	12	GLN	CA-C-N	22.93	165.34	121.54
14	AM	12	GLN	C-N-CA	22.93	165.34	121.54
78	CA	1437	U	P-O3'-C3'	22.90	154.56	120.20
78	CA	1080	U	P-O3'-C3'	22.87	154.50	120.20
81	DA	3080	G	P-O3'-C3'	22.84	154.46	120.20
83	DC	101	A	P-O5'-C5'	22.84	155.15	120.90
83	DC	28	C	P-O3'-C3'	22.69	154.23	120.20
35	BG	27	PRO	CA-C-O	-22.62	79.42	120.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	837	G	P-O3'-C3'	22.56	154.04	120.20
81	DA	2468	A	P-O3'-C3'	22.49	153.94	120.20
81	DA	2362	C	O4'-C1'-N1	22.46	142.19	108.50
78	CA	368	U	P-O3'-C3'	22.41	153.82	120.20
81	DA	3141	A	P-O5'-C5'	22.25	154.27	120.90
81	DA	3345	G	P-O3'-C3'	22.14	153.41	120.20
81	DA	2689	A	P-O3'-C3'	22.12	153.38	120.20
78	CA	469	C	O4'-C1'-C2'	-22.10	85.50	107.60
81	DA	2735	U	P-O3'-C3'	22.04	153.26	120.20
81	DA	637	C	P-O3'-C3'	21.97	153.15	120.20
78	CA	1441	C	P-O5'-C5'	21.89	153.73	120.90
34	BE	52	TYR	N-CA-C	21.80	157.22	110.80
81	DA	2783	U	P-O3'-C3'	21.61	152.61	120.20
81	DA	1055	A	O4'-C1'-C2'	-21.59	86.01	107.60
31	BB	245	LEU	CA-C-O	-21.54	101.64	121.67
78	CA	164	A	P-O5'-C5'	21.54	153.21	120.90
34	BE	55	ARG	CA-C-O	-21.53	89.73	120.51
78	CA	46	A	O4'-C1'-N9	21.49	140.74	108.50
81	DA	1688	U	O3'-P-O5'	-21.48	71.77	104.00
81	DA	2497	U	P-O3'-C3'	21.47	152.41	120.20
82	DB	132	G	P-O3'-C3'	21.36	152.24	120.20
83	DC	48	U	O3'-P-O5'	21.34	136.01	104.00
81	DA	607	A	C5'-C4'-C3'	21.28	147.92	116.00
82	DB	96	A	P-O3'-C3'	21.22	152.02	120.20
81	DA	45	A	P-O5'-C5'	21.14	152.62	120.90
34	BE	55	ARG	CA-C-N	21.00	161.65	121.54
34	BE	55	ARG	C-N-CA	21.00	161.65	121.54
81	DA	71	A	N9-C1'-C2'	20.96	145.44	114.00
74	BQ	158	ARG	O-C-N	-20.95	94.73	122.59
81	DA	2093	A	P-O3'-C3'	20.93	151.60	120.20
78	CA	1337	A	P-O5'-C5'	20.93	152.29	120.90
29	AU	36	SER	N-CA-C	20.93	125.94	108.78
78	CA	1534	G	P-O5'-C5'	20.93	152.29	120.90
81	DA	1688	U	P-O5'-C5'	20.89	152.24	120.90
81	DA	2064	C	P-O3'-C3'	20.89	151.54	120.20
78	CA	960	U	O4'-C1'-C2'	-20.83	86.77	107.60
40	BK	185	ALA	N-CA-CB	-20.82	75.30	110.49
78	CA	119	A	O3'-P-O5'	20.79	135.18	104.00
74	BQ	242	SER	CA-C-O	-20.70	90.91	120.51
78	CA	306	U	O4'-C1'-C2'	-20.59	87.01	107.60
13	AL	5	LYS	CA-C-N	20.59	141.28	119.87
13	AL	5	LYS	C-N-CA	20.59	141.28	119.87

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
61	Bj	20	LYS	O-C-N	-20.55	90.34	122.61
83	DC	8	G	P-O3'-C3'	20.53	150.99	120.20
78	CA	337	G	P-O3'-C3'	20.48	150.93	120.20
78	CA	1529	C	P-O3'-C3'	20.45	150.88	120.20
81	DA	2046	U	O3'-P-O5'	-20.39	73.41	104.00
81	DA	1209	G	C1'-O4'-C4'	20.38	130.28	109.90
74	BQ	137	ASP	N-CA-C	20.35	135.95	111.33
78	CA	529	A	P-O3'-C3'	20.34	150.70	120.20
34	BE	60	ARG	O-C-N	-20.22	95.70	122.59
81	DA	2100	A	N9-C1'-C2'	20.21	144.32	114.00
81	DA	3252	G	P-O3'-C3'	20.21	150.51	120.20
33	BD	354	VAL	O-C-N	-20.19	97.33	122.57
81	DA	1756	C	P-O5'-C5'	20.13	151.09	120.90
81	DA	1571	A	P-O3'-C3'	20.08	150.32	120.20
78	CA	174	U	N1-C1'-C2'	20.07	144.11	114.00
81	DA	537	A	P-O3'-C3'	20.00	150.20	120.20
81	DA	1207	G	N9-C1'-C2'	19.95	152.30	112.40
81	DA	1075	A	P-O3'-C3'	19.95	150.12	120.20
81	DA	636	C	N1-C1'-C2'	19.93	141.90	112.00
81	DA	1432	C	O4'-C1'-N1	19.92	138.08	108.20
81	DA	2114	C	P-O3'-C3'	19.91	150.06	120.20
81	DA	673	U	P-O3'-C3'	19.83	149.95	120.20
78	CA	501	U	P-O3'-C3'	19.82	149.92	120.20
78	CA	295	A	O4'-C1'-N9	19.80	138.20	108.50
76	BS	160	PRO	O-C-N	-19.78	98.12	121.46
55	Bc	108	GLN	O-C-N	-19.77	98.49	122.81
81	DA	2499	U	P-O5'-C5'	19.74	150.51	120.90
81	DA	663	C	P-O5'-C5'	19.73	150.49	120.90
81	DA	2530	G	O3'-P-O5'	-19.71	74.44	104.00
81	DA	383	G	P-O3'-C3'	19.69	149.74	120.20
38	Bs	248	ALA	N-CA-C	19.64	132.09	111.07
14	AM	12	GLN	O-C-N	-19.63	96.48	122.59
81	DA	699	A	O4'-C1'-C2'	-19.63	87.97	107.60
81	DA	2760	C	P-O3'-C3'	19.62	149.64	120.20
81	DA	1701	C	N1-C1'-C2'	19.58	141.37	112.00
81	DA	736	A	P-O3'-C3'	19.51	149.47	120.20
81	DA	520	U	P-O5'-C5'	19.49	150.14	120.90
81	DA	995	U	P-O3'-C3'	19.46	149.40	120.20
81	DA	1401	A	N9-C1'-C2'	-19.41	82.88	112.00
81	DA	3242	G	P-O5'-C5'	19.33	149.90	120.90
81	DA	1288	U	P-O3'-C3'	19.30	149.16	120.20
81	DA	2244	A	P-O3'-C3'	19.24	149.05	120.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2757	U	O4'-C1'-C2'	-19.16	88.44	107.60
43	BP	2	GLY	N-CA-C	19.15	158.56	113.18
81	DA	2423	U	P-O3'-C3'	19.14	148.90	120.20
81	DA	1623	G	P-O3'-C3'	19.13	148.89	120.20
83	DC	49	G	P-O5'-C5'	19.08	149.52	120.90
81	DA	2614	G	P-O3'-C3'	19.07	148.81	120.20
34	BE	115	LYS	CB-CA-C	-19.03	71.55	110.38
53	Ba	10	VAL	CA-CB-CG2	19.03	142.75	110.40
81	DA	3099	C	C5'-C4'-C3'	19.02	144.54	116.00
80	CC	18	C	OP2-P-O3'	19.02	165.06	108.00
81	DA	674	G	P-O3'-C3'	18.98	148.66	120.20
78	CA	303	U	P-O3'-C3'	18.97	148.66	120.20
83	DC	46	A	P-O3'-C3'	18.97	148.65	120.20
81	DA	3092	C	O4'-C1'-C2'	-18.94	88.66	107.60
78	CA	348	U	P-O5'-C5'	18.89	149.24	120.90
81	DA	1640	G	P-O3'-C3'	18.88	148.52	120.20
1	Aa	59	ARG	CB-CA-C	-18.86	75.54	110.62
81	DA	3221	C	P-O3'-C3'	18.86	148.49	120.20
34	BE	60	ARG	CA-C-N	-18.83	85.58	121.54
34	BE	60	ARG	C-N-CA	-18.83	85.58	121.54
81	DA	1770	G	P-O3'-C3'	18.79	148.38	120.20
81	DA	1682	U	O4'-C1'-C2'	-18.75	88.85	107.60
81	DA	2445	A	P-O5'-C5'	18.69	148.93	120.90
81	DA	2858	U	P-O3'-C3'	18.68	148.22	120.20
78	CA	1393	C	O4'-C1'-C2'	-18.64	88.96	107.60
17	AQ	63	LYS	N-CA-C	18.63	136.95	111.24
78	CA	173	A	P-O5'-C5'	18.55	148.73	120.90
4	AD	235	TYR	CA-C-O	-18.52	99.42	121.82
78	CA	1340	U	P-O3'-C3'	18.51	147.97	120.20
81	DA	2712	U	P-O3'-C3'	18.51	147.96	120.20
78	CA	1702	A	O4'-C1'-N9	18.49	136.24	108.50
81	DA	3145	C	P-O3'-C3'	18.49	147.94	120.20
81	DA	2988	C	O4'-C1'-C2'	-18.47	89.13	107.60
43	BP	13	LYS	CA-C-O	-18.45	101.62	121.00
81	DA	228	U	P-O3'-C3'	18.45	147.88	120.20
81	DA	2304	C	P-O3'-C3'	18.44	147.86	120.20
81	DA	1209	G	O4'-C1'-C2'	-18.37	89.23	107.60
83	DC	9	C	P-O3'-C3'	18.33	147.70	120.20
81	DA	2439	A	P-O3'-C3'	18.30	147.64	120.20
81	DA	2421	U	P-O3'-C3'	18.25	147.58	120.20
81	DA	1717	U	P-O3'-C3'	18.24	147.56	120.20
81	DA	2619	G	P-O3'-C3'	18.24	147.56	120.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
74	BQ	158	ARG	NH1-CZ-NH2	-18.22	95.61	119.30
78	CA	57	G	O3'-P-O5'	-18.22	76.67	104.00
81	DA	701	G	P-O3'-C3'	18.16	147.44	120.20
35	BG	98	VAL	CA-C-N	18.15	156.22	121.54
35	BG	98	VAL	C-N-CA	18.15	156.22	121.54
81	DA	2480	A	O3'-P-O5'	-18.13	76.81	104.00
78	CA	191	C	P-O3'-C3'	18.13	147.39	120.20
81	DA	8	C	P-O3'-C3'	18.10	147.35	120.20
13	AL	134	ALA	CA-C-N	-18.08	96.05	120.28
13	AL	134	ALA	C-N-CA	-18.08	96.05	120.28
78	CA	1173	C	P-O3'-C3'	18.08	147.31	120.20
43	BP	178	HIS	CA-CB-CG	18.06	131.86	113.80
83	DC	3	U	O4'-C1'-C2'	-18.04	89.56	107.60
5	AC	168	ARG	O-C-N	-18.03	100.58	121.32
61	Bj	37	THR	CA-C-O	-18.02	95.47	120.16
81	DA	1217	A	P-O5'-C5'	18.02	147.92	120.90
61	Bj	20	LYS	N-CA-C	-17.91	84.88	108.34
29	AU	62	THR	CA-C-O	-17.90	94.91	120.51
43	BP	116	LEU	CA-C-O	-17.90	102.26	120.70
79	CB	73	C	P-O3'-C3'	17.88	147.02	120.20
82	DB	3	A	N9-C1'-C2'	17.87	138.81	112.00
34	BE	51	ARG	O-C-N	-17.82	98.89	122.59
78	CA	636	A	N9-C1'-C2'	-17.77	76.87	112.40
78	CA	1355	C	P-O3'-C3'	17.74	146.81	120.20
81	DA	311	C	C5'-C4'-C3'	17.73	142.59	116.00
81	DA	3368	U	P-O3'-C3'	17.71	146.77	120.20
81	DA	1686	U	O4'-C1'-C2'	-17.65	89.95	107.60
81	DA	2988	C	P-O3'-C3'	17.62	146.63	120.20
81	DA	1871	U	O5'-C5'-C4'	17.62	137.93	111.50
81	DA	1320	C	P-O3'-C3'	17.59	146.58	120.20
81	DA	1753	G	P-O3'-C3'	17.59	146.58	120.20
5	AC	23	ARG	NH1-CZ-NH2	17.58	142.15	119.30
81	DA	2637	A	O4'-C1'-N9	17.57	134.86	108.50
78	CA	631	G	O4'-C1'-C2'	-17.55	90.05	107.60
81	DA	2507	C	P-O3'-C3'	17.55	146.52	120.20
81	DA	310	U	P-O3'-C3'	17.54	146.51	120.20
78	CA	46	A	O3'-P-O5'	-17.52	77.72	104.00
81	DA	651	G	P-O3'-C3'	17.50	146.45	120.20
81	DA	3246	G	P-O3'-C3'	17.49	146.43	120.20
81	DA	1620	U	P-O3'-C3'	17.48	146.42	120.20
81	DA	3245	A	N9-C1'-C2'	17.46	138.19	112.00
81	DA	2393	G	P-O5'-C5'	17.45	147.08	120.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1975	C	O4'-C1'-C2'	-17.45	90.15	107.60
81	DA	861	C	P-O3'-C3'	17.42	146.33	120.20
35	BG	99	GLU	N-CA-C	-17.42	73.69	110.80
81	DA	2638	C	N1-C1'-C2'	17.41	138.11	112.00
83	DC	41	G	P-O3'-C3'	17.39	146.28	120.20
78	CA	1528	U	P-O5'-C5'	17.39	146.98	120.90
81	DA	1427	U	P-O3'-C3'	17.38	146.28	120.20
81	DA	3002	C	P-O3'-C3'	17.34	146.21	120.20
81	DA	1397	C	P-O5'-C5'	17.34	146.91	120.90
81	DA	2362	C	N1-C1'-C2'	-17.32	86.02	112.00
40	BK	185	ALA	N-CA-C	17.30	147.64	110.80
81	DA	3296	A	P-O3'-C3'	17.26	146.09	120.20
81	DA	1538	G	P-O3'-C3'	17.25	146.07	120.20
34	BE	55	ARG	N-CA-C	17.25	147.53	110.80
40	BK	130	LYS	CA-C-N	-17.24	98.30	119.84
40	BK	130	LYS	C-N-CA	-17.24	98.30	119.84
81	DA	1391	C	C5'-C4'-C3'	17.23	141.04	115.20
57	Be	220	PHE	N-CA-CB	-17.22	83.59	110.28
81	DA	2257	C	O4'-C1'-N1	17.21	134.32	108.50
78	CA	894	U	O3'-P-O5'	-17.21	78.19	104.00
83	DC	50	U	P-O3'-C3'	17.21	146.01	120.20
76	BS	73	THR	O-C-N	-17.20	99.72	122.59
78	CA	1200	G	N9-C1'-C2'	17.20	137.79	112.00
79	CB	12	U	P-O3'-C3'	17.20	146.00	120.20
78	CA	1397	U	P-O5'-C5'	17.19	146.69	120.90
81	DA	2734	A	P-O3'-C3'	17.19	145.98	120.20
78	CA	661	A	P-O3'-C3'	17.18	145.97	120.20
78	CA	713	A	O3'-P-O5'	-17.17	78.25	104.00
81	DA	2025	G	P-O5'-C5'	17.14	146.61	120.90
81	DA	2267	C	P-O3'-C3'	17.12	145.89	120.20
31	BB	252	THR	N-CA-C	-17.12	79.96	109.06
81	DA	1657	C	P-O3'-C3'	17.11	145.86	120.20
59	Bh	20	HIS	CA-C-N	17.09	147.20	122.08
59	Bh	20	HIS	C-N-CA	17.09	147.20	122.08
32	BC	344	THR	CA-C-O	-17.08	96.09	120.51
81	DA	996	A	P-O3'-C3'	17.05	145.77	120.20
81	DA	1401	A	O4'-C1'-C2'	-17.03	90.57	107.60
81	DA	2500	A	P-O3'-C3'	17.02	145.74	120.20
53	Ba	8	GLY	CA-C-O	-17.00	105.43	122.26
11	AJ	14	GLN	OE1-CD-NE2	16.96	139.56	122.60
81	DA	2462	A	P-O3'-C3'	16.96	145.63	120.20
78	CA	45	U	C1'-O4'-C4'	16.94	126.84	109.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
13	AL	135	LEU	CA-C-N	16.93	144.34	120.29
13	AL	135	LEU	C-N-CA	16.93	144.34	120.29
69	Br	104	LEU	CA-C-N	16.93	152.18	121.70
69	Br	104	LEU	C-N-CA	16.93	152.18	121.70
78	CA	1479	A	P-O3'-C3'	16.91	145.57	120.20
44	BO	21	ARG	O-C-N	-16.91	105.50	123.26
16	AO	63	ALA	CA-C-N	16.86	144.23	120.29
16	AO	63	ALA	C-N-CA	16.86	144.23	120.29
81	DA	2506	U	C3'-C2'-C1'	16.85	118.15	101.30
81	DA	2648	G	O4'-C1'-N9	16.84	133.77	108.50
13	AL	135	LEU	N-CA-C	16.84	129.64	111.28
81	DA	3304	U	C5'-C4'-C3'	-16.77	90.84	116.00
78	CA	689	G	P-O3'-C3'	16.77	145.35	120.20
78	CA	123	G	O3'-P-O5'	-16.75	78.88	104.00
57	Be	98	LYS	CA-C-O	16.73	143.08	120.16
35	BG	169	ASP	CA-CB-CG	-16.73	95.87	112.60
78	CA	178	U	O3'-P-O5'	-16.72	78.92	104.00
81	DA	1690	C	P-O3'-C3'	16.72	145.28	120.20
78	CA	1550	A	P-O3'-C3'	16.71	145.27	120.20
78	CA	1476	C	O4'-C1'-C2'	-16.70	90.89	107.60
81	DA	2755	C	P-O3'-C3'	16.70	145.25	120.20
79	CB	55	C	C1'-O4'-C4'	-16.67	93.23	109.90
81	DA	63	A	P-O3'-C3'	16.65	145.18	120.20
39	BJ	76	SER	CB-CA-C	16.59	143.44	110.42
81	DA	1060	U	N1-C1'-C2'	16.59	136.88	112.00
81	DA	1536	G	P-O3'-C3'	16.58	145.07	120.20
22	AV	53	GLU	CA-C-N	16.57	130.68	120.24
22	AV	53	GLU	C-N-CA	16.57	130.68	120.24
81	DA	2487	U	O4'-C1'-C2'	-16.57	91.03	107.60
81	DA	1078	U	O4'-C1'-C2'	-16.56	91.04	107.60
81	DA	2784	G	P-O3'-C3'	16.55	145.03	120.20
81	DA	1020	G	P-O3'-C3'	16.55	145.03	120.20
81	DA	419	G	P-O3'-C3'	16.53	144.99	120.20
81	DA	636	C	O4'-C1'-C2'	-16.51	91.09	107.60
81	DA	2757	U	P-O3'-C3'	16.50	144.96	120.20
8	AF	35	GLN	CA-C-O	-16.50	103.10	121.58
78	CA	1584	G	P-O5'-C5'	16.48	145.62	120.90
78	CA	294	C	N1-C1'-C2'	16.48	136.71	112.00
9	AH	69	LEU	N-CA-CB	16.47	138.32	110.49
78	CA	990	C	N1-C1'-C2'	16.45	136.68	112.00
81	DA	1233	G	O4'-C1'-N9	16.43	133.14	108.50
81	DA	2491	A	C4'-C3'-C2'	16.42	119.02	102.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1546	G	O4'-C1'-C2'	16.42	124.02	107.60
81	DA	1823	A	P-O3'-C3'	16.41	144.81	120.20
78	CA	650	U	P-O3'-C3'	16.41	144.81	120.20
81	DA	2369	G	P-O3'-C3'	16.39	144.78	120.20
81	DA	1215	U	P-O3'-C3'	16.38	144.77	120.20
78	CA	45	U	N1-C1'-C2'	-16.38	87.44	112.00
65	Bn	40	GLN	N-CA-C	16.34	133.22	109.69
78	CA	174	U	P-O5'-C5'	16.34	145.41	120.90
81	DA	2175	U	C5'-C4'-C3'	-16.32	91.52	116.00
81	DA	1791	C	O3'-P-O5'	-16.32	79.52	104.00
76	BS	70	ASN	CA-CB-CG	16.31	128.91	112.60
81	DA	1625	A	P-O5'-C5'	16.31	145.37	120.90
18	AP	57	LYS	N-CA-C	-16.31	84.38	110.32
78	CA	474	A	P-O3'-C3'	16.31	144.66	120.20
81	DA	860	G	P-O3'-C3'	16.30	144.64	120.20
81	DA	2489	C	P-O3'-C3'	16.29	144.64	120.20
81	DA	2531	C	C5'-C4'-C3'	16.28	140.43	116.00
83	DC	113	C	P-O5'-C5'	16.28	145.32	120.90
81	DA	2041	U	P-O3'-C3'	16.28	144.62	120.20
76	BS	53	VAL	N-CA-C	16.22	125.67	110.42
81	DA	1801	U	P-O3'-C3'	16.21	144.52	120.20
81	DA	263	C	P-O3'-C3'	16.20	144.51	120.20
81	DA	2648	G	O4'-C1'-C2'	-16.20	91.40	107.60
81	DA	655	C	P-O3'-C3'	16.20	144.50	120.20
81	DA	1400	G	P-O3'-C3'	16.18	144.48	120.20
81	DA	671	U	O4'-C1'-N1	16.14	132.71	108.50
81	DA	1401	A	O4'-C1'-N9	16.13	132.70	108.50
61	Bj	89	LEU	CA-C-O	-16.13	106.08	120.60
4	AD	218	PHE	CA-C-N	16.11	145.57	122.69
4	AD	218	PHE	C-N-CA	16.11	145.57	122.69
81	DA	2174	G	O3'-P-O5'	-16.11	79.83	104.00
81	DA	1896	A	N9-C1'-C2'	16.10	136.15	112.00
81	DA	993	G	N9-C1'-C2'	16.09	136.14	112.00
81	DA	2880	U	N1-C1'-C2'	16.08	136.12	112.00
81	DA	1965	C	P-O3'-C3'	16.07	144.31	120.20
35	BG	15	VAL	CA-C-O	-16.06	100.70	120.78
81	DA	3107	U	O4'-C1'-C2'	-16.04	91.56	107.60
81	DA	1766	G	P-O3'-C3'	16.03	144.25	120.20
16	AO	65	VAL	CG1-CB-CG2	16.00	146.01	110.80
81	DA	675	C	O4'-C1'-C2'	-15.99	91.61	107.60
81	DA	2166	A	O4'-C1'-C2'	-15.99	91.61	107.60
78	CA	1476	C	P-O3'-C3'	15.97	144.16	120.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1754	G	P-O3'-C3'	15.97	144.16	120.20
81	DA	1791	C	P-O3'-C3'	15.97	144.15	120.20
81	DA	677	A	O4'-C1'-C2'	-15.97	89.83	105.80
78	CA	1339	C	P-O3'-C3'	15.94	144.10	120.20
81	DA	1366	A	N9-C1'-C2'	15.94	135.90	112.00
81	DA	3149	G	O4'-C1'-N9	15.94	132.40	108.50
44	BO	57	GLY	CA-C-O	-15.93	92.85	120.57
81	DA	3199	G	P-O3'-C3'	15.93	144.09	120.20
37	BH	221	ASN	CA-CB-CG	15.91	128.51	112.60
81	DA	2434	U	P-O3'-C3'	15.90	144.06	120.20
81	DA	220	G	O4'-C1'-N9	15.89	132.04	108.20
83	DC	29	C	P-O3'-C3'	15.89	144.04	120.20
81	DA	1378	U	P-O3'-C3'	15.88	144.03	120.20
39	BJ	76	SER	N-CA-C	-15.88	76.97	110.80
78	CA	894	U	O4'-C1'-C2'	-15.88	91.72	107.60
53	Ba	10	VAL	CA-C-N	15.88	151.86	121.54
53	Ba	10	VAL	C-N-CA	15.88	151.86	121.54
83	DC	15	C	P-O3'-C3'	15.87	144.00	120.20
81	DA	969	C	O4'-C1'-N1	15.86	132.29	108.50
66	Bo	41	ARG	CA-C-O	-15.85	102.68	120.43
57	Be	120	THR	CA-CB-CG2	-15.84	83.57	110.50
49	BV	165	VAL	CA-C-O	-15.82	101.00	120.78
81	DA	2672	G	O3'-P-O5'	-15.82	80.26	104.00
83	DC	92	A	P-O3'-C3'	15.80	143.90	120.20
40	BK	130	LYS	CA-C-O	-15.79	98.53	120.16
35	BG	75	PRO	CA-C-O	-15.78	91.88	120.60
81	DA	2416	U	P-O3'-C3'	15.76	143.83	120.20
49	BV	162	GLU	O-C-N	-15.71	102.32	121.64
81	DA	517	G	N9-C1'-C2'	15.70	135.55	112.00
77	BI	107	GLY	CA-C-N	15.70	151.53	121.54
77	BI	107	GLY	C-N-CA	15.70	151.53	121.54
5	AC	142	ASN	OD1-CG-ND2	15.69	138.29	122.60
44	BO	21	ARG	CA-C-N	15.69	150.22	121.97
44	BO	21	ARG	C-N-CA	15.69	150.22	121.97
81	DA	2483	G	P-O3'-C3'	15.67	143.70	120.20
78	CA	1386	G	O4'-C1'-N9	15.66	131.99	108.50
81	DA	2377	G	P-O5'-C5'	15.65	144.38	120.90
32	BC	130	PHE	N-CA-C	-15.64	77.49	110.80
81	DA	1270	A	O4'-C1'-N9	15.64	131.96	108.50
79	CB	72	G	O4'-C1'-N9	15.61	131.91	108.50
15	AN	54	LYS	O-C-N	15.58	139.34	122.20
78	CA	540	G	P-O3'-C3'	15.58	143.57	120.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	DC	53	U	P-O3'-C3'	15.57	143.56	120.20
81	DA	2899	C	N1-C1'-C2'	15.57	135.36	112.00
81	DA	1528	G	P-O3'-C3'	15.57	143.56	120.20
81	DA	2206	G	O4'-C1'-C2'	-15.55	92.05	107.60
81	DA	1333	C	P-O3'-C3'	15.50	143.46	120.20
53	Ba	44	ALA	CA-C-N	-15.50	105.39	121.35
53	Ba	44	ALA	C-N-CA	-15.50	105.39	121.35
81	DA	2648	G	N9-C1'-C2'	-15.48	88.77	112.00
21	AT	54	ALA	O-C-N	-15.47	102.01	122.59
78	CA	1546	G	C1'-C2'-O2'	15.45	131.58	108.40
44	BO	73	LEU	CA-C-O	-15.45	102.66	120.58
16	AO	64	ARG	CB-CA-C	15.45	137.11	110.85
78	CA	1322	A	O5'-C5'-C4'	15.44	134.66	111.50
81	DA	2166	A	C3'-C2'-C1'	15.44	116.74	101.30
78	CA	1690	G	O4'-C1'-C2'	-15.43	92.17	107.60
81	DA	1947	G	O4'-C1'-N9	15.43	131.65	108.50
81	DA	2758	A	O4'-C1'-N9	15.43	131.65	108.50
22	AV	104	ALA	CA-C-O	-15.43	103.12	121.32
78	CA	1673	G	P-O3'-C3'	15.42	143.33	120.20
4	AD	82	TYR	N-CA-C	15.41	129.22	109.64
81	DA	2708	C	P-O5'-C5'	15.41	144.02	120.90
81	DA	2204	C	P-O3'-C3'	15.39	143.29	120.20
78	CA	462	G	P-O3'-C3'	15.38	143.27	120.20
81	DA	3241	G	N9-C1'-C2'	15.37	135.06	112.00
20	AS	60	SER	CB-CA-C	15.36	136.97	110.85
81	DA	2436	U	O3'-P-O5'	-15.36	80.96	104.00
81	DA	2503	G	P-O3'-C3'	15.35	143.23	120.20
81	DA	1115	G	O4'-C1'-C2'	-15.33	92.27	107.60
78	CA	1648	A	O5'-C5'-C4'	15.33	134.49	111.50
78	CA	1541	G	N9-C1'-C2'	15.31	134.97	112.00
78	CA	1614	A	O4'-C1'-C2'	-15.29	92.31	107.60
48	BW	93	ILE	CB-CA-C	-15.28	92.83	111.32
40	BK	185	ALA	CB-CA-C	-15.27	80.03	110.42
78	CA	662	U	P-O5'-C5'	15.26	143.79	120.90
81	DA	1656	A	P-O3'-C3'	15.26	143.08	120.20
81	DA	2043	U	P-O3'-C3'	15.26	143.08	120.20
2	AA	11	PRO	N-CA-CB	15.25	119.27	103.25
74	BQ	136	GLU	CA-C-N	-15.25	99.49	120.38
74	BQ	136	GLU	C-N-CA	-15.25	99.49	120.38
35	BG	75	PRO	N-CA-C	15.24	143.87	112.47
81	DA	2175	U	O5'-C5'-C4'	-15.24	88.64	111.50
30	BA	22	GLU	N-CA-C	15.24	127.59	111.14

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	622	A	P-O3'-C3'	15.23	143.04	120.20
81	DA	276	U	P-O5'-C5'	15.22	143.74	120.90
78	CA	104	A	P-O3'-C3'	15.22	143.02	120.20
78	CA	117	U	P-O5'-C5'	15.21	143.72	120.90
81	DA	310	U	O3'-P-O5'	-15.21	81.18	104.00
81	DA	338	A	O4'-C1'-C2'	-15.20	92.40	107.60
83	DC	51	G	P-O3'-C3'	15.19	142.99	120.20
43	BP	180	PHE	CA-CB-CG	15.18	128.98	113.80
13	AL	5	LYS	O-C-N	-15.16	101.02	121.64
83	DC	46	A	O5'-C5'-C4'	15.16	134.24	111.50
49	BV	162	GLU	CA-C-N	15.15	150.48	121.54
49	BV	162	GLU	C-N-CA	15.15	150.48	121.54
81	DA	2934	A	C1'-O4'-C4'	15.15	125.05	109.90
18	AP	110	HIS	CA-C-N	15.15	137.35	122.96
18	AP	110	HIS	C-N-CA	15.15	137.35	122.96
81	DA	1883	A	P-O3'-C3'	15.14	142.91	120.20
81	DA	124	U	O4'-C1'-C2'	-15.14	92.46	107.60
81	DA	728	G	P-O3'-C3'	15.14	142.91	120.20
78	CA	1321	A	O4'-C1'-N9	15.13	130.89	108.20
78	CA	1436	A	N9-C1'-C2'	15.11	134.67	112.00
81	DA	2666	C	P-O3'-C3'	15.11	142.87	120.20
39	BJ	77	ALA	CA-C-N	15.11	140.52	120.28
39	BJ	77	ALA	C-N-CA	15.11	140.52	120.28
81	DA	2279	A	O3'-P-O5'	-15.09	81.36	104.00
81	DA	331	G	O4'-C1'-C2'	-15.08	92.52	107.60
47	BU	139	ARG	CA-C-N	15.08	149.11	121.97
47	BU	139	ARG	C-N-CA	15.08	149.11	121.97
13	AL	93	LEU	N-CA-CB	-15.07	87.86	110.16
78	CA	295	A	N9-C1'-C2'	-15.06	89.40	112.00
81	DA	1259	A	O4'-C1'-N9	15.06	131.09	108.50
81	DA	1021	G	P-O3'-C3'	15.03	142.74	120.20
81	DA	265	A	P-O5'-C5'	15.03	143.44	120.90
81	DA	1876	U	P-O3'-C3'	15.03	142.74	120.20
78	CA	1690	G	C5'-C4'-C3'	15.02	138.53	116.00
53	Ba	55	LYS	CA-C-N	15.01	152.85	121.32
53	Ba	55	LYS	C-N-CA	15.01	152.85	121.32
74	BQ	136	GLU	O-C-N	15.00	142.44	122.33
78	CA	297	U	P-O3'-C3'	15.00	142.69	120.20
78	CA	1367	G	P-O5'-C5'	14.99	143.38	120.90
78	CA	1453	G	O4'-C1'-C2'	-14.98	92.62	107.60
81	DA	148	G	P-O3'-C3'	14.98	142.66	120.20
81	DA	1685	C	N1-C1'-C2'	14.96	136.43	114.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1535	A	P-O3'-C3'	14.93	142.59	120.20
74	BQ	40	HIS	CA-C-N	-14.93	98.84	122.87
74	BQ	40	HIS	C-N-CA	-14.93	98.84	122.87
78	CA	1235	C	O4'-C1'-N1	14.91	130.87	108.50
20	AS	102	ARG	NE-CZ-NH2	-14.91	105.78	119.20
35	BG	69	PHE	CD1-CE1-CZ	-14.91	93.16	120.00
53	Ba	9	LYS	N-CA-C	14.90	138.81	107.67
40	BK	128	ARG	O-C-N	-14.90	107.19	121.79
57	Be	132	PRO	CA-C-N	14.89	142.69	121.24
57	Be	132	PRO	C-N-CA	14.89	142.69	121.24
35	BG	153	PRO	N-CA-CB	-14.89	87.61	103.25
31	BB	84	THR	CA-C-N	14.88	145.87	122.20
31	BB	84	THR	C-N-CA	14.88	145.87	122.20
21	AT	9	VAL	CA-C-N	-14.88	100.34	120.28
21	AT	9	VAL	C-N-CA	-14.88	100.34	120.28
40	BK	178	VAL	CA-C-O	-14.87	104.66	120.57
57	Be	98	LYS	N-CA-CB	14.87	136.83	110.37
66	Bo	7	PHE	CA-C-N	14.87	139.77	120.44
66	Bo	7	PHE	C-N-CA	14.87	139.77	120.44
81	DA	1435	A	P-O3'-C3'	14.87	142.50	120.20
81	DA	2451	G	P-O5'-C5'	14.87	143.20	120.90
81	DA	1251	A	N9-C1'-C2'	14.86	136.29	114.00
81	DA	2475	G	O4'-C1'-C2'	-14.86	92.74	107.60
81	DA	3034	C	O4'-C1'-C2'	-14.84	92.76	107.60
83	DC	26	C	N1-C1'-C2'	14.83	134.25	112.00
78	CA	179	A	O4'-C1'-N9	14.82	130.74	108.50
1	Aa	54	PHE	CA-C-N	14.82	150.46	121.41
1	Aa	54	PHE	C-N-CA	14.82	150.46	121.41
81	DA	1757	A	O5'-C5'-C4'	14.82	133.72	111.50
81	DA	109	A	N9-C1'-C2'	14.80	136.20	114.00
78	CA	1338	C	C5'-C4'-C3'	14.80	138.20	116.00
81	DA	2624	G	P-O3'-C3'	14.79	142.38	120.20
78	CA	1546	G	C5'-C4'-C3'	-14.78	93.83	116.00
78	CA	1586	A	O3'-P-O5'	14.77	126.15	104.00
61	Bj	21	ARG	CA-C-O	-14.76	99.40	120.51
81	DA	3240	C	P-O3'-C3'	14.76	142.33	120.20
22	AV	105	THR	CA-C-O	-14.75	99.42	120.51
62	Bk	82	ARG	CA-C-O	-14.75	101.13	120.15
81	DA	2617	U	P-O3'-C3'	14.74	142.31	120.20
78	CA	1367	G	P-O3'-C3'	14.74	142.31	120.20
47	BU	140	ILE	O-C-N	-14.72	104.17	122.57
81	DA	1343	A	P-O3'-C3'	14.71	142.27	120.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
74	BQ	243	ALA	N-CA-CB	14.71	135.35	110.49
78	CA	1453	G	P-O5'-C5'	14.70	142.95	120.90
81	DA	2208	A	O4'-C1'-C2'	-14.70	92.90	107.60
78	CA	1338	C	O5'-C5'-C4'	14.69	133.53	111.50
78	CA	173	A	O4'-C1'-N9	14.68	130.51	108.50
81	DA	1870	C	C5'-C4'-C3'	14.68	138.01	116.00
81	DA	2787	G	P-O3'-C3'	14.68	142.21	120.20
81	DA	1055	A	P-O5'-C5'	14.66	142.90	120.90
34	BE	53	THR	N-CA-C	14.66	142.03	110.80
81	DA	104	G	P-O3'-C3'	14.66	142.19	120.20
31	BB	38	HIS	N-CA-CB	-14.65	85.73	110.49
78	CA	1562	G	O4'-C1'-C2'	-14.65	92.95	107.60
78	CA	825	U	P-O3'-C3'	14.64	142.17	120.20
78	CA	1546	G	C1'-O4'-C4'	-14.64	95.26	109.90
81	DA	1623	G	C5'-C4'-C3'	14.64	137.96	116.00
45	BR	3	ILE	CA-C-O	-14.64	102.48	120.78
81	DA	1063	G	P-O3'-C3'	14.63	142.14	120.20
81	DA	1390	A	P-O3'-C3'	14.63	142.14	120.20
81	DA	1774	C	P-O3'-C3'	14.62	142.13	120.20
81	DA	1209	G	N9-C1'-C2'	-14.61	90.08	112.00
81	DA	2450	G	P-O3'-C3'	14.61	142.11	120.20
78	CA	1528	U	P-O3'-C3'	14.60	142.09	120.20
78	CA	1310	U	C5'-C4'-C3'	-14.59	94.11	116.00
81	DA	1260	A	O4'-C1'-N9	14.59	130.39	108.50
44	BO	56	VAL	CA-C-O	-14.59	102.54	120.78
62	Bk	84	LYS	N-CA-C	14.58	128.61	111.11
81	DA	2469	G	C5'-C4'-C3'	14.57	137.86	116.00
81	DA	2163	C	O4'-C1'-C2'	-14.57	93.03	107.60
51	BZ	70	LYS	CA-C-O	-14.54	99.72	120.51
81	DA	677	A	C1'-O4'-C4'	14.54	124.24	109.70
34	BE	61	ARG	N-CA-CB	-14.53	85.93	110.49
82	DB	106	C	P-O3'-C3'	14.53	141.99	120.20
32	BC	365	PHE	CA-CB-CG	14.52	128.32	113.80
81	DA	1826	C	P-O3'-C3'	14.52	141.98	120.20
78	CA	886	U	O4'-C1'-N1	14.51	130.27	108.50
33	BD	355	PHE	N-CA-CB	14.51	135.00	110.49
81	DA	178	U	P-O3'-C3'	14.51	141.96	120.20
78	CA	163	G	P-O3'-C3'	14.50	141.95	120.20
81	DA	2187	G	O4'-C1'-N9	14.50	130.25	108.50
2	AA	252	TRP	CA-CB-CG	14.49	141.14	113.60
83	DC	40	C	P-O3'-C3'	14.49	141.94	120.20
78	CA	1087	A	O3'-P-O5'	-14.49	82.26	104.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	AD	90	ILE	CA-C-O	-14.49	106.46	121.67
78	CA	267	U	O4'-C1'-C2'	-14.49	93.11	107.60
81	DA	2755	C	O3'-P-O5'	-14.49	82.27	104.00
78	CA	139	C	P-O3'-C3'	14.48	141.92	120.20
78	CA	838	G	O4'-C1'-C2'	-14.46	93.14	107.60
81	DA	2648	G	C1'-O4'-C4'	14.45	124.35	109.90
4	AD	154	ILE	N-CA-CB	14.45	135.07	111.23
81	DA	3131	U	N1-C1'-C2'	14.45	133.67	112.00
40	BK	180	SER	CA-C-N	-14.44	102.15	122.95
40	BK	180	SER	C-N-CA	-14.44	102.15	122.95
34	BE	61	ARG	CB-CA-C	-14.44	81.68	110.42
81	DA	2376	G	P-O3'-C3'	14.44	141.86	120.20
78	CA	123	G	O4'-C1'-C2'	-14.43	93.17	107.60
78	CA	1491	U	P-O3'-C3'	14.43	141.84	120.20
79	CB	67	G	P-O3'-C3'	14.41	141.82	120.20
53	Ba	57	HIS	CB-CG-CD2	-14.41	112.47	131.20
81	DA	1014	U	N1-C1'-C2'	14.40	133.61	112.00
81	DA	2322	C	P-O3'-C3'	14.40	141.81	120.20
81	DA	1870	C	C4'-C3'-O3'	14.40	134.60	113.00
82	DB	150	G	P-O3'-C3'	14.39	141.79	120.20
37	BH	158	ASP	CB-CA-C	-14.39	91.15	111.01
81	DA	858	A	O3'-P-O5'	-14.39	82.42	104.00
78	CA	118	U	P-O3'-C3'	14.38	141.78	120.20
81	DA	1675	G	P-O3'-C3'	14.38	141.77	120.20
78	CA	452	A	O4'-C1'-N9	14.35	129.73	108.20
81	DA	1820	U	O4'-C1'-C2'	-14.35	93.25	107.60
78	CA	1583	A	C3'-C2'-C1'	14.34	115.64	101.30
81	DA	1233	G	P-O3'-C3'	14.34	141.71	120.20
60	Bi	55	SER	CA-C-O	-14.33	100.01	120.51
69	Br	103	ALA	N-CA-C	14.33	129.52	108.60
81	DA	1500	G	P-O3'-C3'	14.33	141.70	120.20
55	Bc	110	ALA	N-CA-C	14.32	128.08	107.88
13	AL	10	ASN	O-C-N	-14.32	105.14	123.32
81	DA	3306	U	N1-C1'-C2'	14.32	133.48	112.00
78	CA	1755	A	O4'-C1'-N9	14.31	129.97	108.50
81	DA	7	C	P-O3'-C3'	14.31	141.66	120.20
81	DA	2001	U	O4'-C1'-C2'	-14.30	93.30	107.60
55	Bc	41	LEU	CD1-CG-CD2	14.29	142.24	110.80
81	DA	1741	A	P-O3'-C3'	14.28	141.62	120.20
81	DA	3050	U	P-O3'-C3'	14.28	141.61	120.20
81	DA	2509	U	O3'-P-O5'	-14.27	82.60	104.00
81	DA	2197	C	O4'-C1'-C2'	-14.26	91.54	105.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	AY	57	MET	N-CA-C	14.26	126.52	110.97
55	Bc	109	ILE	N-CA-CB	14.26	134.76	111.23
79	CB	27	G	P-O3'-C3'	14.26	141.59	120.20
81	DA	1871	U	C4'-C3'-O3'	14.26	134.38	113.00
33	BD	145	ILE	N-CA-CB	-14.25	91.26	111.21
81	DA	1261	G	N9-C1'-C2'	-14.24	83.92	112.40
2	AA	241	GLU	N-CA-CB	14.23	131.04	110.12
78	CA	1285	U	P-O3'-C3'	14.23	141.54	120.20
78	CA	1387	G	P-O5'-C5'	14.22	142.22	120.90
32	BC	118	PHE	CA-CB-CG	14.21	128.01	113.80
81	DA	3142	A	C1'-O4'-C4'	14.21	123.91	109.70
78	CA	1735	U	P-O3'-C3'	14.21	141.51	120.20
38	Bs	180	PRO	CB-CA-C	-14.20	88.13	111.56
81	DA	1991	G	O4'-C1'-N9	14.20	129.80	108.50
81	DA	1869	C	O3'-P-O5'	14.19	125.29	104.00
34	BE	123	PHE	N-CA-C	-14.15	86.81	109.59
78	CA	1433	G	O4'-C1'-C2'	-14.14	93.45	107.60
81	DA	3149	G	N9-C1'-C2'	-14.13	90.81	112.00
81	DA	3004	C	N1-C1'-C2'	14.12	133.18	112.00
81	DA	1409	G	O3'-P-O5'	-14.11	82.83	104.00
32	BC	344	THR	N-CA-CB	14.11	134.33	110.49
17	AQ	94	SER	N-CA-CB	14.10	134.32	110.49
81	DA	2493	U	P-O5'-C5'	14.10	142.04	120.90
81	DA	2998	U	O4'-C1'-N1	14.08	129.62	108.50
58	Bg	107	VAL	CA-C-N	-14.08	98.53	121.34
58	Bg	107	VAL	C-N-CA	-14.08	98.53	121.34
78	CA	1478	G	O4'-C1'-C2'	14.08	121.68	107.60
81	DA	3137	C	P-O3'-C3'	14.07	141.31	120.20
35	BG	14	ASP	CA-C-N	14.07	147.30	121.97
35	BG	14	ASP	C-N-CA	14.07	147.30	121.97
81	DA	780	A	P-O3'-C3'	14.07	141.30	120.20
83	DC	60	G	O4'-C1'-C2'	14.06	121.66	107.60
78	CA	1301	U	O3'-P-O5'	-14.05	82.92	104.00
78	CA	1388	A	P-O3'-C3'	14.05	141.28	120.20
81	DA	70	A	N9-C1'-C2'	14.05	133.07	112.00
81	DA	2390	A	P-O5'-C5'	14.05	141.97	120.90
83	DC	45	A	O4'-C1'-C2'	-14.05	93.55	107.60
2	AA	10	THR	CA-C-N	14.04	137.39	119.84
2	AA	10	THR	C-N-CA	14.04	137.39	119.84
78	CA	1356	U	P-O5'-C5'	14.04	141.96	120.90
81	DA	982	C	O4'-C1'-C2'	-14.04	93.56	107.60
78	CA	965	U	N1-C1'-C2'	14.04	133.05	112.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
76	BS	161	PRO	CA-C-N	14.02	139.59	120.38
76	BS	161	PRO	C-N-CA	14.02	139.59	120.38
81	DA	1056	U	P-O5'-C5'	14.02	141.93	120.90
81	DA	2934	A	O4'-C1'-C2'	-14.02	93.58	107.60
81	DA	2510	U	O4'-C1'-N1	14.02	129.52	108.50
83	DC	44	C	P-O3'-C3'	14.02	141.22	120.20
35	BG	69	PHE	CE1-CZ-CE2	14.01	145.22	120.00
78	CA	1191	U	O4'-C1'-N1	14.01	129.51	108.50
40	BK	108	ILE	N-CA-C	-14.00	97.71	109.19
34	BE	52	TYR	CA-C-N	14.00	148.27	121.54
34	BE	52	TYR	C-N-CA	14.00	148.27	121.54
81	DA	3212	C	O4'-C1'-C2'	-13.99	93.61	107.60
81	DA	2254	U	O4'-C1'-C2'	-13.99	93.61	107.60
64	Bl	63	ARG	CB-CG-CD	13.99	143.47	111.30
81	DA	1203	A	N9-C1'-C2'	13.97	132.96	112.00
78	CA	1579	U	P-O5'-C5'	13.97	141.85	120.90
81	DA	3107	U	C3'-C2'-C1'	13.97	115.27	101.30
81	DA	338	A	C3'-C2'-C1'	13.96	115.26	101.30
61	Bj	2	ALA	CA-C-O	-13.96	100.55	120.51
81	DA	1679	A	C5'-C4'-C3'	13.96	136.94	116.00
81	DA	2078	C	P-O3'-C3'	13.96	141.14	120.20
81	DA	2840	C	O4'-C1'-C2'	-13.96	93.64	107.60
31	BB	66	PRO	CA-C-N	13.95	148.19	121.54
31	BB	66	PRO	C-N-CA	13.95	148.19	121.54
78	CA	219	A	P-O3'-C3'	13.96	141.13	120.20
78	CA	1233	G	P-O3'-C3'	13.95	141.12	120.20
81	DA	518	G	P-O3'-C3'	13.95	141.12	120.20
81	DA	1859	A	O4'-C1'-C2'	-13.95	91.85	105.80
43	BP	17	ASP	N-CA-C	13.94	128.20	111.33
81	DA	857	G	P-O3'-C3'	13.94	141.11	120.20
14	AM	22	VAL	N-CA-CB	13.94	129.94	112.10
43	BP	16	SER	CA-C-O	-13.93	103.21	120.20
81	DA	1832	C	P-O3'-C3'	13.93	141.09	120.20
81	DA	2392	C	O3'-P-O5'	-13.92	83.12	104.00
81	DA	2869	U	O4'-C1'-C2'	-13.91	93.69	107.60
81	DA	2047	A	C5'-C4'-O4'	13.90	130.66	109.80
81	DA	2763	U	O4'-C1'-C2'	-13.90	93.70	107.60
81	DA	385	A	P-O3'-C3'	13.90	141.05	120.20
81	DA	2231	C	N1-C1'-C2'	13.90	132.85	112.00
15	AN	53	ASN	CA-C-N	-13.88	93.40	122.82
15	AN	53	ASN	C-N-CA	-13.88	93.40	122.82
43	BP	13	LYS	CB-CA-C	13.87	132.31	110.96

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	140	A	O4'-C1'-C2'	-13.86	93.74	107.60
78	CA	891	A	P-O3'-C3'	13.86	140.99	120.20
81	DA	3300	U	P-O3'-C3'	13.85	140.97	120.20
62	Bk	82	ARG	CA-C-N	13.85	144.09	122.08
62	Bk	82	ARG	C-N-CA	13.85	144.09	122.08
81	DA	1579	C	O4'-C1'-C2'	-13.84	93.76	107.60
2	AA	11	PRO	CA-N-CD	-13.83	92.63	112.00
78	CA	1108	G	O4'-C1'-N9	13.83	129.25	108.50
78	CA	507	U	P-O3'-C3'	13.82	140.94	120.20
78	CA	632	U	O4'-C1'-C2'	-13.82	93.78	107.60
80	CC	18	C	OP1-P-O3'	-13.82	66.54	108.00
81	DA	2319	U	O4'-C1'-N1	13.82	129.23	108.50
81	DA	3051	U	C5'-C4'-C3'	13.82	136.73	116.00
81	DA	406	G	O4'-C1'-N9	13.82	129.22	108.50
59	Bh	21	HIS	CA-CB-CG	13.81	127.61	113.80
81	DA	521	A	O4'-C1'-N9	13.80	129.20	108.50
81	DA	3001	C	P-O3'-C3'	13.80	140.90	120.20
78	CA	1478	G	P-O5'-C5'	13.79	141.59	120.90
81	DA	419	G	O4'-C1'-N9	13.79	129.18	108.50
81	DA	1292	C	P-O3'-C3'	13.79	140.88	120.20
78	CA	1305	U	O3'-P-O5'	13.78	124.67	104.00
81	DA	3304	U	O4'-C4'-C3'	-13.78	90.22	104.00
78	CA	1356	U	P-O3'-C3'	13.77	140.85	120.20
53	Ba	16	GLY	O-C-N	-13.76	104.81	122.70
83	DC	46	A	O4'-C1'-C2'	-13.76	93.84	107.60
81	DA	1832	C	P-O5'-C5'	13.76	141.54	120.90
81	DA	1144	U	P-O3'-C3'	13.76	140.84	120.20
60	Bi	46	ASP	N-CA-C	13.76	126.00	111.14
78	CA	138	A	O4'-C1'-N9	13.75	129.12	108.50
81	DA	3201	C	P-O3'-C3'	13.73	140.80	120.20
4	AD	153	ASN	CB-CA-C	-13.71	87.92	109.99
81	DA	3018	C	O3'-P-O5'	-13.69	83.47	104.00
13	AL	135	LEU	CA-C-O	13.67	135.04	120.55
81	DA	2685	C	P-O3'-C3'	13.67	140.71	120.20
1	Aa	54	PHE	CA-C-O	-13.66	106.60	122.03
6	AE	70	ASP	O-C-N	-13.65	104.43	122.59
81	DA	2971	A	O4'-C1'-N9	13.65	128.68	108.20
78	CA	1748	G	P-O3'-C3'	13.65	140.68	120.20
78	CA	960	U	C1'-O4'-C4'	13.64	123.55	109.90
78	CA	1677	C	O5'-C5'-C4'	13.64	131.97	111.50
81	DA	675	C	C3'-C2'-C1'	13.64	114.94	101.30
81	DA	962	A	O4'-C1'-N9	13.64	128.66	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	AN	53	ASN	N-CA-C	-13.63	87.81	108.52
81	DA	1221	A	C1'-C2'-O2'	13.62	128.83	108.40
78	CA	1584	G	O4'-C1'-C2'	13.62	119.42	105.80
18	AP	108	PRO	CA-C-N	13.60	143.38	121.62
18	AP	108	PRO	C-N-CA	13.60	143.38	121.62
22	AV	54	VAL	N-CA-CB	13.60	119.07	110.50
81	DA	2283	G	C2'-C3'-O3'	13.60	129.90	109.50
78	CA	438	A	P-O3'-C3'	13.59	140.59	120.20
81	DA	456	U	P-O3'-C3'	13.59	140.59	120.20
81	DA	1208	U	C5'-C4'-C3'	13.59	136.38	116.00
78	CA	1452	U	O3'-P-O5'	-13.58	83.63	104.00
81	DA	9	U	O3'-P-O5'	-13.58	83.63	104.00
81	DA	1164	G	P-O3'-C3'	13.58	140.56	120.20
13	AL	1	MET	CA-C-N	13.57	148.00	121.41
13	AL	1	MET	C-N-CA	13.57	148.00	121.41
81	DA	1755	C	O3'-P-O5'	-13.56	83.66	104.00
78	CA	1570	A	O4'-C1'-C2'	-13.54	94.06	107.60
81	DA	1009	A	O5'-C5'-C4'	13.52	131.78	111.50
6	AE	92	ALA	CB-CA-C	-13.52	86.39	109.51
56	Bf	85	PHE	CA-CB-CG	13.52	127.31	113.80
81	DA	2989	U	N1-C1'-C2'	13.51	152.94	112.40
81	DA	2566	C	P-O3'-C3'	13.51	140.47	120.20
81	DA	3224	G	O4'-C1'-N9	13.50	128.75	108.50
78	CA	1281	G	P-O3'-C3'	13.50	140.45	120.20
77	BI	106	ALA	N-CA-C	13.49	139.54	110.80
32	BC	156	SER	N-CA-CB	13.49	129.55	110.26
81	DA	1971	C	O4'-C1'-C2'	-13.49	94.11	107.60
78	CA	773	C	P-O3'-C3'	13.48	140.42	120.20
82	DB	128	U	O4'-C1'-C2'	-13.48	94.12	107.60
83	DC	54	A	N9-C1'-C2'	13.47	132.21	112.00
40	BK	128	ARG	CA-C-N	13.46	145.94	121.70
40	BK	128	ARG	C-N-CA	13.46	145.94	121.70
78	CA	610	G	O4'-C1'-N9	13.46	128.69	108.50
15	AN	47	ALA	CA-C-N	13.46	145.92	121.70
15	AN	47	ALA	C-N-CA	13.46	145.92	121.70
78	CA	1547	A	P-O3'-C3'	13.45	140.38	120.20
69	Br	104	LEU	O-C-N	-13.45	104.70	122.59
81	DA	1633	C	O3'-P-O5'	-13.45	83.83	104.00
41	BN	108	ARG	CB-CG-CD	13.45	142.22	111.30
37	BH	236	GLY	CA-C-O	-13.44	97.18	120.57
62	Bk	81	THR	CB-CA-C	-13.44	90.04	111.28
78	CA	1473	U	O4'-C1'-N1	13.44	128.36	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1788	C	P-O3'-C3'	13.43	140.34	120.20
78	CA	838	G	C3'-C2'-C1'	13.43	114.73	101.30
13	AL	23	ARG	CB-CA-C	13.42	130.77	109.03
81	DA	1413	G	P-O3'-C3'	13.42	140.33	120.20
67	Bp	41	HIS	CA-CB-CG	13.40	127.20	113.80
76	BS	52	LYS	CB-CA-C	-13.40	83.75	110.42
43	BP	122	ASN	N-CA-C	13.40	134.62	107.69
78	CA	959	U	O4'-C1'-N1	13.40	128.29	108.20
78	CA	1702	A	C1'-O4'-C4'	13.39	123.30	109.90
81	DA	1208	U	P-O3'-C3'	13.39	140.29	120.20
78	CA	1698	G	P-O3'-C3'	13.39	140.29	120.20
51	BZ	67	VAL	CA-C-O	-13.39	104.04	120.78
34	BE	61	ARG	N-CA-C	13.38	139.31	110.80
60	Bi	79	SER	N-CA-C	-13.38	82.30	110.80
78	CA	1585	U	O4'-C1'-C2'	-13.38	94.22	107.60
81	DA	3387	U	O4'-C1'-C2'	-13.38	94.22	107.60
78	CA	326	G	C1'-O4'-C4'	-13.38	96.52	109.90
78	CA	45	U	O4'-C1'-N1	13.37	128.56	108.50
81	DA	947	G	P-O3'-C3'	13.37	140.25	120.20
81	DA	1437	C	O4'-C1'-C2'	-13.36	94.24	107.60
78	CA	326	G	O4'-C4'-C3'	13.35	117.35	104.00
78	CA	296	U	O4'-C1'-C2'	-13.34	94.26	107.60
81	DA	2648	G	P-O3'-C3'	13.32	140.18	120.20
31	BB	62	VAL	CB-CA-C	-13.31	97.79	111.23
78	CA	1398	U	O4'-C1'-C2'	13.31	119.11	105.80
81	DA	2720	G	C3'-C2'-C1'	13.31	114.61	101.30
78	CA	141	U	O4'-C1'-N1	13.31	128.46	108.50
81	DA	160	G	O4'-C1'-C2'	13.30	120.90	107.60
81	DA	1578	C	P-O3'-C3'	13.30	140.15	120.20
81	DA	2916	U	C5'-C4'-C3'	13.30	135.95	116.00
82	DB	39	G	O4'-C1'-C2'	-13.30	94.30	107.60
81	DA	1268	G	P-O3'-C3'	13.29	140.13	120.20
82	DB	3	A	C1'-O4'-C4'	-13.28	96.62	109.90
78	CA	288	A	O4'-C1'-C2'	-13.28	94.32	107.60
78	CA	374	U	N1-C1'-C2'	13.28	131.92	112.00
1	Aa	53	LYS	CA-C-N	13.27	144.57	120.95
1	Aa	53	LYS	C-N-CA	13.27	144.57	120.95
81	DA	486	U	O3'-P-O5'	13.27	123.90	104.00
78	CA	1057	U	P-O3'-C3'	13.26	140.09	120.20
44	BO	62	HIS	CA-C-O	-13.25	106.70	121.94
78	CA	899	G	C3'-C2'-C1'	-13.24	88.06	101.30
81	DA	1194	G	P-O3'-C3'	13.23	140.04	120.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2073	A	P-O3'-C3'	13.22	140.04	120.20
81	DA	2367	A	P-O3'-C3'	13.22	140.04	120.20
81	DA	3062	G	P-O3'-C3'	13.21	140.02	120.20
78	CA	1601	G	P-O3'-C3'	13.21	140.01	120.20
81	DA	896	A	P-O3'-C3'	13.19	139.99	120.20
81	DA	2470	C	P-O3'-C3'	13.19	139.98	120.20
78	CA	1477	G	C1'-O4'-C4'	-13.19	96.71	109.90
13	AL	86	PHE	CA-CB-CG	13.18	126.98	113.80
81	DA	103	G	O4'-C1'-C2'	-13.18	94.42	107.60
81	DA	1871	U	C5'-C4'-O4'	-13.17	90.04	109.80
78	CA	947	U	O4'-C1'-C2'	-13.17	94.43	107.60
81	DA	2065	U	P-O3'-C3'	13.15	139.93	120.20
78	CA	1563	C	N1-C1'-C2'	13.15	131.73	112.00
81	DA	670	C	P-O3'-C3'	13.15	139.93	120.20
81	DA	2075	C	P-O3'-C3'	13.14	139.91	120.20
78	CA	306	U	C1'-O4'-C4'	13.13	123.03	109.90
81	DA	2159	U	O4'-C1'-N1	13.13	127.89	108.20
81	DA	2041	U	O4'-C1'-C2'	-13.13	94.47	107.60
78	CA	1477	G	C3'-C2'-C1'	-13.12	88.18	101.30
78	CA	897	C	O4'-C1'-C2'	-13.12	92.68	105.80
81	DA	2476	C	N1-C1'-C2'	13.11	131.67	112.00
79	CB	72	G	P-O3'-C3'	13.11	139.86	120.20
81	DA	3099	C	O3'-P-O5'	-13.11	84.34	104.00
81	DA	672	A	O5'-C5'-C4'	-13.10	91.85	111.50
1	Aa	48	THR	CA-C-N	-13.10	101.60	121.51
1	Aa	48	THR	C-N-CA	-13.10	101.60	121.51
78	CA	989	U	N1-C1'-C2'	13.09	131.63	112.00
82	DB	38	U	N1-C1'-C2'	13.09	133.63	114.00
81	DA	1871	U	P-O5'-C5'	13.08	140.52	120.90
82	DB	89	A	P-O3'-C3'	13.08	139.82	120.20
78	CA	1068	C	P-O3'-C3'	13.08	139.82	120.20
78	CA	1199	G	O4'-C1'-N9	13.07	127.81	108.20
78	CA	1080	U	O3'-P-O5'	-13.07	84.40	104.00
78	CA	1210	C	N1-C1'-C2'	13.07	131.60	112.00
81	DA	2844	C	N1-C1'-C2'	13.07	131.60	112.00
33	BD	354	VAL	CA-C-O	-13.07	104.45	120.78
78	CA	163	G	O3'-P-O5'	-13.07	84.40	104.00
83	DC	108	U	P-O5'-C5'	13.06	140.49	120.90
78	CA	1310	U	O5'-C5'-C4'	13.05	131.08	111.50
81	DA	2510	U	P-O5'-C5'	13.04	140.47	120.90
81	DA	1639	C	P-O3'-C3'	13.04	139.76	120.20
81	DA	1789	G	O4'-C1'-C2'	13.03	120.63	107.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
82	DB	2	A	P-O3'-C3'	13.03	139.75	120.20
32	BC	362	ALA	CB-CA-C	-13.03	88.47	110.22
81	DA	2187	G	N9-C1'-C2'	-13.03	92.46	112.00
3	AB	72	LEU	O-C-N	-13.02	108.31	122.12
81	DA	851	C	P-O3'-C3'	13.02	139.73	120.20
81	DA	2367	A	N9-C1'-C2'	13.02	131.53	112.00
78	CA	1341	A	O4'-C1'-N9	13.01	128.02	108.50
78	CA	45	U	O4'-C1'-C2'	-13.01	94.59	107.60
81	DA	1640	G	O3'-P-O5'	-13.01	84.48	104.00
78	CA	652	G	N9-C1'-C2'	13.01	131.51	112.00
81	DA	2174	G	C4'-C3'-O3'	13.01	128.91	109.40
81	DA	594	U	O4'-C1'-C2'	-13.00	94.60	107.60
81	DA	671	U	O3'-P-O5'	-13.00	84.50	104.00
81	DA	838	G	O4'-C1'-N9	13.00	127.70	108.20
81	DA	2628	A	P-O3'-C3'	13.00	139.71	120.20
78	CA	245	U	P-O3'-C3'	13.00	139.70	120.20
78	CA	103	A	P-O3'-C3'	12.99	139.69	120.20
78	CA	304	U	P-O3'-C3'	12.98	139.67	120.20
81	DA	855	U	O3'-P-O5'	-12.98	84.53	104.00
81	DA	2446	U	P-O3'-C3'	12.98	139.67	120.20
81	DA	2627	C	C5'-C4'-C3'	-12.98	95.74	115.20
81	DA	3138	U	P-O3'-C3'	12.98	139.67	120.20
78	CA	1419	G	C5'-C4'-C3'	12.97	135.46	116.00
81	DA	1615	C	P-O3'-C3'	12.97	139.66	120.20
78	CA	150	U	P-O3'-C3'	12.97	139.65	120.20
81	DA	2633	U	P-O5'-C5'	12.96	140.35	120.90
78	CA	309	C	P-O3'-C3'	12.96	139.64	120.20
29	AU	35	VAL	CA-C-N	-12.96	109.05	123.04
29	AU	35	VAL	C-N-CA	-12.96	109.05	123.04
81	DA	678	G	O4'-C1'-C2'	12.96	120.56	107.60
81	DA	136	G	C5'-C4'-C3'	12.95	135.43	116.00
81	DA	409	A	O4'-C1'-C2'	-12.95	94.65	107.60
81	DA	834	U	O3'-P-O5'	-12.95	84.58	104.00
78	CA	636	A	C1'-O4'-C4'	12.95	135.89	110.00
78	CA	1791	A	O4'-C1'-C2'	-12.94	92.86	105.80
81	DA	2672	G	P-O3'-C3'	12.94	139.60	120.20
81	DA	468	G	P-O3'-C3'	12.93	139.60	120.20
38	Bs	247	LEU	CA-C-N	12.93	137.25	120.44
38	Bs	247	LEU	C-N-CA	12.93	137.25	120.44
83	DC	2	G	O4'-C1'-C2'	-12.93	94.67	107.60
78	CA	178	U	O4'-C4'-C3'	-12.92	91.08	104.00
81	DA	1771	C	O3'-P-O5'	-12.92	84.63	104.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
43	BP	117	ASN	N-CA-C	12.91	129.50	108.32
49	BV	152	GLU	O-C-N	-12.91	105.42	122.59
78	CA	585	A	P-O3'-C3'	12.90	139.55	120.20
33	BD	74	ILE	N-CA-C	-12.89	94.44	109.01
51	BZ	60	LYS	CA-C-O	-12.89	102.07	120.51
78	CA	542	A	P-O3'-C3'	12.89	139.53	120.20
81	DA	512	U	N1-C1'-C2'	12.89	133.33	114.00
81	DA	2511	A	P-O5'-C5'	12.89	140.23	120.90
29	AU	5	VAL	N-CA-CB	12.88	132.49	111.23
69	Br	47	GLN	CA-C-N	12.88	146.15	121.54
69	Br	47	GLN	C-N-CA	12.88	146.15	121.54
81	DA	1401	A	C1'-O4'-C4'	12.88	122.78	109.90
81	DA	2514	U	O4'-C1'-C2'	-12.88	92.92	105.80
78	CA	631	G	C1'-O4'-C4'	12.88	122.78	109.90
81	DA	1988	C	P-O3'-C3'	12.88	139.52	120.20
8	AF	27	THR	CB-CA-C	12.87	137.41	109.10
81	DA	2719	U	P-O3'-C3'	12.86	139.48	120.20
78	CA	931	C	P-O5'-C5'	12.85	140.17	120.90
78	CA	558	U	N1-C1'-C2'	12.84	131.26	112.00
81	DA	2596	U	P-O3'-C3'	12.84	139.46	120.20
78	CA	368	U	N1-C1'-C2'	12.84	131.26	112.00
38	Bs	72	ASP	N-CA-C	-12.81	90.55	108.23
78	CA	713	A	P-O3'-C3'	12.81	139.42	120.20
81	DA	9	U	P-O3'-C3'	12.80	139.40	120.20
35	BG	3	ALA	N-CA-CB	-12.80	92.06	110.36
43	BP	13	LYS	CA-C-N	12.80	145.98	121.54
43	BP	13	LYS	C-N-CA	12.80	145.98	121.54
81	DA	2049	A	O4'-C1'-C2'	-12.78	94.82	107.60
78	CA	630	A	O4'-C1'-N9	12.78	127.66	108.50
81	DA	2403	G	O4'-C1'-C2'	-12.78	93.03	105.80
74	BQ	252	ALA	CB-CA-C	-12.77	89.14	110.85
78	CA	529	A	P-O5'-C5'	-12.77	100.84	120.00
78	CA	1437	U	O4'-C1'-N1	12.77	127.66	108.50
83	DC	16	U	O3'-P-O5'	12.77	123.16	104.00
5	AC	162	SER	N-CA-C	12.77	138.03	109.81
81	DA	3372	A	P-O3'-C3'	12.77	139.35	120.20
81	DA	3090	U	C3'-C2'-C1'	12.76	114.06	101.30
3	AB	18	TYR	CA-C-N	12.76	137.38	120.28
3	AB	18	TYR	C-N-CA	12.76	137.38	120.28
58	Bg	93	VAL	N-CA-CB	12.76	132.28	111.23
78	CA	1794	A	O4'-C1'-C2'	-12.76	94.84	107.60
43	BP	123	GLN	N-CA-C	12.75	137.96	110.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	234	G	P-O3'-C3'	12.75	139.33	120.20
81	DA	1687	U	N1-C1'-C2'	12.75	131.13	112.00
81	DA	1297	C	O4'-C1'-C2'	-12.75	94.85	107.60
78	CA	714	G	P-O3'-C3'	12.75	139.32	120.20
81	DA	2770	G	N9-C1'-C2'	12.75	131.12	112.00
81	DA	2228	A	O4'-C1'-N9	12.74	127.61	108.50
81	DA	1974	A	P-O3'-C3'	12.73	139.30	120.20
42	BM	64	LYS	N-CA-C	-12.73	90.33	109.81
81	DA	1226	G	P-O3'-C3'	12.73	139.29	120.20
81	DA	3361	G	O4'-C1'-C2'	-12.73	93.07	105.80
20	AS	8	ASP	CA-CB-CG	12.72	125.33	112.60
2	AA	251	GLU	CA-C-O	-12.72	102.53	118.43
78	CA	590	C	P-O3'-C3'	12.71	139.27	120.20
81	DA	2581	U	P-O3'-C3'	12.71	139.27	120.20
81	DA	1990	U	O3'-P-O5'	-12.71	84.93	104.00
1	Aa	53	LYS	CA-C-O	-12.71	106.75	121.11
81	DA	1942	U	P-O3'-C3'	12.71	139.26	120.20
81	DA	2677	G	O4'-C1'-C2'	-12.71	93.09	105.80
81	DA	1617	G	P-O3'-C3'	12.71	139.26	120.20
81	DA	2071	A	C2'-C3'-O3'	-12.70	94.65	113.70
16	AO	75	LEU	N-CA-CB	12.70	128.42	110.01
46	BT	21	LYS	N-CA-C	-12.70	97.93	114.31
78	CA	894	U	P-O3'-C3'	12.69	139.24	120.20
4	AD	219	VAL	CB-CA-C	12.68	131.73	110.30
82	DB	103	G	N9-C1'-C2'	12.68	131.02	112.00
81	DA	531	G	N9-C1'-C2'	12.67	131.01	112.00
81	DA	2362	C	C1'-O4'-C4'	12.67	122.57	109.90
74	BQ	158	ARG	NE-CZ-NH2	12.66	130.60	119.20
81	DA	2928	C	P-O3'-C3'	12.66	139.20	120.20
43	BP	121	VAL	N-CA-C	12.66	130.10	112.50
81	DA	3355	U	O4'-C1'-C2'	-12.66	94.94	107.60
81	DA	1684	U	P-O3'-C3'	12.66	139.19	120.20
81	DA	1627	U	O4'-C1'-C2'	-12.65	94.95	107.60
35	BG	76	LEU	CD1-CG-CD2	12.64	138.62	110.80
78	CA	631	G	N9-C1'-C2'	-12.64	93.04	112.00
81	DA	2760	C	C5'-C4'-C3'	12.64	134.96	116.00
81	DA	3091	A	O4'-C1'-C2'	-12.63	93.17	105.80
78	CA	573	C	C3'-C2'-O2'	-12.63	91.76	110.70
81	DA	1699	A	O4'-C1'-C2'	-12.62	94.98	107.60
78	CA	1584	G	C3'-C2'-C1'	-12.62	88.88	101.50
81	DA	2228	A	P-O3'-C3'	12.62	139.13	120.20
2	AA	195	TRP	N-CA-C	-12.62	83.92	110.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3282	U	N1-C1'-C2'	12.62	130.92	112.00
5	AC	23	ARG	NE-CZ-NH1	-12.61	108.89	121.50
41	BN	5	SER	CA-C-O	-12.60	105.31	120.56
35	BG	38	THR	CB-CA-C	-12.60	89.14	109.80
74	BQ	158	ARG	CA-C-N	12.60	144.64	121.97
74	BQ	158	ARG	C-N-CA	12.60	144.64	121.97
81	DA	2647	A	O4'-C1'-N9	12.59	127.38	108.50
50	BX	34	LEU	CA-C-O	-12.58	108.23	120.94
81	DA	424	G	P-O3'-C3'	12.58	139.07	120.20
81	DA	2531	C	C5'-C4'-O4'	-12.58	90.93	109.80
20	AS	95	ASP	CA-CB-CG	-12.57	100.03	112.60
78	CA	1351	G	P-O3'-C3'	12.57	139.06	120.20
78	CA	944	A	O4'-C1'-N9	12.57	127.05	108.20
62	Bk	48	ALA	CA-C-N	12.57	133.82	120.00
62	Bk	48	ALA	C-N-CA	12.57	133.82	120.00
5	AC	183	ALA	N-CA-CB	-12.56	92.08	110.17
81	DA	1298	C	P-O5'-C5'	12.56	139.74	120.90
64	Bl	3	LYS	N-CA-C	-12.55	95.30	112.12
81	DA	2508	U	C3'-C2'-C1'	12.55	113.85	101.30
34	BE	53	THR	CA-C-O	-12.55	102.56	120.51
81	DA	1842	A	O4'-C1'-C2'	-12.55	93.25	105.80
81	DA	3054	U	O3'-P-O5'	-12.55	85.18	104.00
78	CA	591	A	N9-C1'-C2'	12.54	130.82	112.00
81	DA	518	G	P-O5'-C5'	12.54	139.72	120.90
81	DA	2757	U	N1-C1'-C2'	12.54	130.81	112.00
81	DA	638	C	P-O5'-C5'	12.54	139.70	120.90
15	AN	53	ASN	O-C-N	-12.53	110.28	123.56
81	DA	2934	A	N9-C1'-C2'	-12.52	93.22	112.00
12	AK	123	SER	CA-C-O	-12.52	102.61	120.51
78	CA	1606	C	P-O5'-C5'	12.51	139.66	120.90
81	DA	2364	G	P-O3'-C3'	12.51	138.97	120.20
5	AC	194	ALA	CA-C-N	12.51	145.43	121.54
5	AC	194	ALA	C-N-CA	12.51	145.43	121.54
81	DA	1686	U	P-O5'-C5'	12.49	139.64	120.90
81	DA	3240	C	P-O5'-C5'	12.49	139.64	120.90
81	DA	1002	A	P-O5'-C5'	12.49	139.63	120.90
81	DA	1332	A	N9-C1'-C2'	12.48	130.73	112.00
16	AO	65	VAL	CB-CA-C	-12.48	90.82	111.29
81	DA	1624	G	O4'-C1'-C2'	-12.47	95.13	107.60
74	BQ	72	ASP	CA-CB-CG	-12.46	100.14	112.60
81	DA	1517	G	P-O3'-C3'	12.46	138.89	120.20
81	DA	745	C	N1-C1'-C2'	12.45	130.68	112.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
40	BK	46	GLU	N-CA-CB	12.45	128.27	109.97
78	CA	1190	C	O5'-P-OP1	12.45	148.05	110.70
4	AD	93	ASP	N-CA-CB	-12.45	93.33	110.25
78	CA	218	A	P-O3'-C3'	12.45	138.87	120.20
81	DA	1790	G	O4'-C1'-C2'	12.43	120.03	107.60
11	AJ	85	ARG	NH1-CZ-NH2	-12.43	103.15	119.30
43	BP	42	PRO	O-C-N	-12.42	110.89	122.93
78	CA	305	C	O4'-C1'-C2'	-12.41	95.19	107.60
81	DA	1054	A	O4'-C1'-N9	12.41	127.11	108.50
32	BC	256	HIS	N-CA-C	-12.40	94.27	110.39
78	CA	1754	A	P-O3'-C3'	12.40	138.80	120.20
81	DA	1947	G	P-O3'-C3'	12.40	138.80	120.20
81	DA	1261	G	C1'-O4'-C4'	12.40	134.80	110.00
76	BS	161	PRO	CB-CA-C	12.40	128.36	110.88
31	BB	196	TRP	CB-CA-C	-12.39	91.48	109.45
13	AL	34	LEU	N-CA-C	-12.39	84.41	110.80
33	BD	318	LEU	CA-C-N	12.39	145.20	121.54
33	BD	318	LEU	C-N-CA	12.39	145.20	121.54
78	CA	1580	C	N1-C1'-C2'	12.38	130.58	112.00
61	Bj	9	VAL	N-CA-CB	12.36	131.62	111.23
1	Aa	56	VAL	O-C-N	-12.36	107.01	121.10
72	Bt	60	ASN	CA-C-O	-12.35	106.65	121.60
81	DA	1579	C	C3'-C2'-C1'	12.35	113.65	101.30
78	CA	1420	C	O4'-C1'-C2'	-12.35	95.25	107.60
81	DA	1750	A	P-O3'-C3'	12.35	138.72	120.20
78	CA	650	U	O4'-C1'-C2'	-12.34	95.26	107.60
81	DA	2970	C	P-O3'-C3'	12.34	138.71	120.20
81	DA	2315	G	P-O3'-C3'	12.34	138.71	120.20
81	DA	3363	U	O4'-C1'-C2'	-12.34	95.26	107.60
81	DA	583	G	O4'-C1'-N9	12.34	127.00	108.50
81	DA	3051	U	P-O3'-C3'	12.33	138.70	120.20
53	Ba	9	LYS	N-CA-CB	-12.33	88.21	110.90
52	BY	3	LYS	N-CA-CB	12.33	129.25	111.62
21	AT	53	TYR	N-CA-C	-12.33	86.04	107.49
81	DA	166	C	P-O3'-C3'	12.32	138.69	120.20
33	BD	313	LEU	N-CA-C	12.32	125.88	111.71
81	DA	1115	G	C3'-C2'-C1'	12.32	113.62	101.30
78	CA	1081	A	O4'-C1'-N9	12.32	126.98	108.50
38	Bs	243	TYR	CB-CA-C	-12.32	90.35	110.79
81	DA	2637	A	N9-C1'-C2'	-12.32	93.53	112.00
78	CA	1548	G	C3'-C2'-C1'	-12.31	88.99	101.30
60	Bi	55	SER	CA-C-N	12.30	144.57	122.92

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
60	Bi	55	SER	C-N-CA	12.30	144.57	122.92
81	DA	2060	A	P-O3'-C3'	12.30	138.65	120.20
81	DA	1232	C	P-O3'-C3'	12.29	138.64	120.20
81	DA	1632	A	P-O5'-C5'	12.29	139.33	120.90
48	BW	98	THR	CA-CB-CG2	12.28	131.37	110.50
72	Bu	60	ASN	CA-C-O	-12.28	106.75	121.60
81	DA	2160	G	N9-C1'-C2'	12.28	130.42	112.00
81	DA	2757	U	C4'-C3'-C2'	-12.28	90.32	102.60
83	DC	48	U	C2'-C3'-O3'	-12.28	95.29	113.70
4	AD	207	LEU	CA-C-N	12.27	139.21	123.14
4	AD	207	LEU	C-N-CA	12.27	139.21	123.14
78	CA	885	G	N9-C1'-C2'	12.26	130.39	112.00
81	DA	73	C	P-O3'-C3'	12.26	138.59	120.20
81	DA	1261	G	O4'-C1'-N9	12.26	133.02	108.50
10	AI	119	ALA	CA-C-O	-12.26	102.98	120.51
53	Ba	57	HIS	N-CA-CB	12.26	132.16	111.57
79	CB	64	G	P-O3'-C3'	12.26	138.58	120.20
81	DA	1338	C	C2'-C3'-O3'	-12.25	95.32	113.70
81	DA	3054	U	P-O3'-C3'	12.25	138.58	120.20
78	CA	1348	A	N9-C1'-C2'	12.25	130.38	112.00
33	BD	258	LEU	CA-C-N	12.24	137.15	120.38
33	BD	258	LEU	C-N-CA	12.24	137.15	120.38
81	DA	1567	U	P-O3'-C3'	12.24	138.57	120.20
81	DA	2452	G	O4'-C1'-C2'	-12.24	93.56	105.80
81	DA	2736	A	O4'-C1'-N9	12.24	126.86	108.50
82	DB	52	A	O4'-C1'-C2'	-12.24	95.36	107.60
81	DA	2176	U	N1-C1'-C2'	12.23	130.35	112.00
78	CA	1735	U	O4'-C1'-C2'	-12.23	95.37	107.60
30	BA	190	PHE	CB-CA-C	12.23	131.09	110.79
81	DA	1748	G	P-O3'-C3'	12.23	138.55	120.20
81	DA	2530	G	P-O3'-C3'	12.23	138.54	120.20
81	DA	1195	A	O4'-C1'-N9	12.22	126.54	108.20
81	DA	1870	C	P-O3'-C3'	12.22	138.53	120.20
53	Ba	47	GLU	N-CA-C	12.21	124.33	111.14
81	DA	1395	G	P-O3'-C3'	12.21	138.51	120.20
81	DA	1972	A	P-O3'-C3'	12.21	138.51	120.20
78	CA	874	C	N1-C1'-C2'	12.20	130.29	112.00
81	DA	2969	A	P-O3'-C3'	12.20	138.50	120.20
81	DA	672	A	O3'-P-O5'	-12.19	85.72	104.00
81	DA	2348	A	N9-C1'-C2'	12.19	130.28	112.00
54	Bd	56	ALA	N-CA-C	12.19	124.64	111.36
78	CA	651	G	N9-C1'-C2'	12.19	130.28	112.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3107	U	N1-C1'-C2'	12.19	130.28	112.00
81	DA	1316	C	N1-C1'-C2'	12.18	130.27	112.00
81	DA	1698	C	O4'-C1'-C2'	-12.18	95.42	107.60
81	DA	2708	C	P-O3'-C3'	12.18	138.46	120.20
57	Be	23	ALA	CA-C-N	12.17	136.59	120.28
57	Be	23	ALA	C-N-CA	12.17	136.59	120.28
81	DA	1483	G	P-O3'-C3'	12.17	138.46	120.20
81	DA	1678	G	O4'-C1'-N9	12.17	126.76	108.50
78	CA	508	U	P-O5'-C5'	12.16	139.14	120.90
82	DB	93	U	P-O3'-C3'	12.15	138.42	120.20
83	DC	49	G	O4'-C1'-C2'	-12.15	95.45	107.60
78	CA	497	G	P-O5'-C5'	12.14	139.11	120.90
81	DA	425	G	P-O3'-C3'	12.14	138.41	120.20
82	DB	91	C	O4'-C1'-C2'	-12.14	93.66	105.80
81	DA	328	U	P-O3'-C3'	12.13	138.40	120.20
16	AO	113	PHE	CA-CB-CG	12.13	125.93	113.80
81	DA	2272	G	O4'-C1'-N9	12.13	126.39	108.20
81	DA	634	C	N1-C1'-C2'	12.12	130.19	112.00
45	BR	96	PHE	N-CA-CB	-12.11	89.91	110.50
81	DA	1191	U	O4'-C1'-C2'	-12.10	93.70	105.80
81	DA	2510	U	O4'-C1'-C2'	-12.10	95.50	107.60
81	DA	959	C	P-O3'-C3'	12.09	138.33	120.20
37	BH	228	GLU	CA-C-O	-12.08	107.46	121.72
78	CA	583	C	N1-C1'-C2'	12.07	130.11	112.00
57	Be	142	SER	N-CA-C	12.07	124.52	111.36
78	CA	1601	G	C1'-O4'-C4'	-12.07	97.63	109.70
81	DA	3389	U	C5'-C4'-C3'	12.07	134.10	116.00
81	DA	3296	A	C5'-C4'-C3'	12.06	134.10	116.00
32	BC	360	ASP	CB-CA-C	-12.06	94.87	111.51
78	CA	387	A	O4'-C1'-N9	12.06	126.29	108.20
81	DA	1256	G	O3'-P-O5'	-12.05	85.92	104.00
81	DA	1686	U	C3'-C2'-C1'	12.05	113.36	101.30
11	AJ	84	MET	CB-CA-C	-12.05	90.16	110.16
59	Bh	104	ASN	CA-CB-CG	-12.05	100.55	112.60
78	CA	1081	A	O4'-C1'-C2'	-12.05	95.55	107.60
81	DA	2915	U	O3'-P-O5'	12.04	122.07	104.00
78	CA	1419	G	O3'-P-O5'	-12.04	85.94	104.00
64	Bl	39	TYR	N-CA-C	-12.03	89.97	109.58
81	DA	2362	C	O4'-C1'-C2'	-12.03	95.57	107.60
78	CA	1086	A	N9-C1'-C2'	12.02	130.03	112.00
26	AZ	18	THR	CB-CA-C	12.02	133.85	110.17
11	AJ	85	ARG	CD-NE-CZ	12.02	141.22	124.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1338	C	O4'-C1'-N1	12.02	126.52	108.50
81	DA	374	A	P-O3'-C3'	12.01	138.22	120.20
78	CA	1447	C	O4'-C1'-C2'	-12.01	95.59	107.60
81	DA	1339	C	P-O5'-C5'	12.01	138.91	120.90
81	DA	1943	C	P-O3'-C3'	12.01	138.22	120.20
30	BA	120	VAL	N-CA-CB	12.01	119.81	110.45
33	BD	140	HIS	CA-CB-CG	-12.01	101.79	113.80
78	CA	928	U	O4'-C1'-N1	12.01	126.21	108.20
81	DA	299	G	P-O5'-C5'	12.00	138.91	120.90
78	CA	1615	C	C3'-C2'-C1'	11.99	113.29	101.30
67	Bp	31	ALA	N-CA-CB	11.99	127.71	109.85
81	DA	3242	G	O4'-C1'-C2'	-11.99	95.61	107.60
81	DA	1996	C	O4'-C1'-C2'	-11.98	95.62	107.60
81	DA	2229	A	O4'-C1'-N9	11.98	126.47	108.50
78	CA	32	U	O4'-C1'-C2'	-11.97	95.63	107.60
81	DA	1811	G	O4'-C1'-N9	11.97	126.45	108.50
81	DA	3374	U	P-O3'-C3'	11.96	138.14	120.20
69	Br	47	GLN	CA-C-O	-11.96	105.83	120.54
78	CA	1472	C	P-O3'-C3'	11.95	138.13	120.20
81	DA	2157	G	O4'-C1'-C2'	-11.95	93.85	105.80
83	DC	114	A	O4'-C1'-C2'	11.95	119.55	107.60
81	DA	437	G	P-O3'-C3'	11.95	138.12	120.20
81	DA	1080	A	O4'-C1'-N9	11.94	126.11	108.20
82	DB	32	C	N1-C1'-C2'	11.94	129.91	112.00
78	CA	630	A	O4'-C1'-C2'	-11.94	95.66	107.60
78	CA	1221	A	P-O5'-C5'	11.93	138.80	120.90
81	DA	169	U	O4'-C1'-C2'	-11.93	95.67	107.60
78	CA	635	A	O4'-C1'-C2'	-11.92	95.68	107.60
81	DA	1261	G	O4'-C1'-C2'	-11.92	83.56	107.40
81	DA	3313	U	C5'-C4'-C3'	-11.92	98.12	116.00
81	DA	169	U	N1-C1'-C2'	-11.91	94.13	112.00
81	DA	602	A	P-O3'-C3'	11.91	138.07	120.20
81	DA	1298	C	N1-C1'-C2'	11.90	129.85	112.00
76	BS	75	LYS	CA-C-N	11.89	139.65	122.05
76	BS	75	LYS	C-N-CA	11.89	139.65	122.05
79	CB	40	U	P-O3'-C3'	11.89	138.04	120.20
81	DA	2066	C	P-O3'-C3'	11.89	138.04	120.20
20	AS	12	GLN	OE1-CD-NE2	11.89	134.49	122.60
81	DA	1455	U	O4'-C1'-N1	11.89	126.03	108.20
34	BE	116	TYR	CG-CD1-CE1	-11.88	103.38	121.20
17	AQ	92	ASP	N-CA-C	-11.88	91.08	109.25
53	Ba	10	VAL	N-CA-C	11.87	134.04	109.34

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	161	U	P-O3'-C3'	11.87	138.01	120.20
76	BS	70	ASN	N-CA-CB	11.87	131.50	110.37
16	AO	123	HIS	CA-C-N	11.86	137.14	120.29
16	AO	123	HIS	C-N-CA	11.86	137.14	120.29
81	DA	2484	A	O4'-C1'-N9	11.85	126.28	108.50
81	DA	1506	A	O4'-C1'-N9	11.85	125.97	108.20
81	DA	3386	G	P-O3'-C3'	11.85	137.97	120.20
31	BB	16	PHE	CA-CB-CG	-11.84	101.96	113.80
78	CA	610	G	C3'-C2'-C1'	-11.84	89.46	101.30
81	DA	2354	C	P-O3'-C3'	-11.84	102.44	120.20
19	AR	126	VAL	N-CA-C	-11.84	99.40	110.53
81	DA	2374	C	O4'-C1'-C2'	-11.84	93.96	105.80
35	BG	147	ALA	CA-C-N	11.84	138.65	121.84
35	BG	147	ALA	C-N-CA	11.84	138.65	121.84
67	Bp	34	CYS	O-C-N	-11.83	109.73	123.22
67	Bp	34	CYS	CB-CA-C	-11.82	91.03	110.19
78	CA	1	U	O5'-P-OP2	11.82	143.45	108.00
35	BG	106	PHE	N-CA-C	11.81	125.62	111.33
32	BC	17	LEU	CB-CA-C	11.81	127.17	109.22
35	BG	47	PHE	CA-CB-CG	-11.81	101.99	113.80
81	DA	635	G	C5'-C4'-C3'	-11.81	98.28	116.00
81	DA	2623	G	N9-C1'-C2'	-11.81	94.28	112.00
4	AD	81	THR	CA-C-N	11.81	136.81	120.39
4	AD	81	THR	C-N-CA	11.81	136.81	120.39
81	DA	673	U	P-O5'-C5'	11.81	138.61	120.90
78	CA	1507	G	P-O3'-C3'	11.80	137.90	120.20
81	DA	618	C	P-O3'-C3'	11.80	137.90	120.20
78	CA	1337	A	O4'-C1'-N9	11.80	126.19	108.50
81	DA	647	A	N9-C1'-C2'	11.80	131.70	114.00
81	DA	2063	U	O4'-C1'-C2'	-11.79	95.81	107.60
81	DA	2266	U	P-O3'-C3'	11.79	137.89	120.20
74	BQ	16	PHE	CA-CB-CG	11.79	125.59	113.80
81	DA	21	G	O4'-C1'-N9	11.79	125.88	108.20
81	DA	2763	U	O4'-C1'-N1	11.79	126.18	108.50
78	CA	672	U	O3'-P-O5'	-11.78	86.33	104.00
81	DA	3222	U	O3'-P-O5'	-11.78	86.33	104.00
78	CA	1096	C	O4'-C1'-C2'	-11.77	95.83	107.60
78	CA	1583	A	O4'-C1'-N9	-11.77	90.84	108.50
16	AO	112	LYS	N-CA-CB	-11.77	90.61	110.49
12	AK	22	SER	CA-C-O	-11.76	103.69	120.51
81	DA	1273	A	P-O3'-C3'	11.76	137.84	120.20
83	DC	55	A	O4'-C1'-C2'	-11.76	95.84	107.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
60	Bi	41	ARG	O-C-N	-11.76	106.06	121.34
76	BS	166	LYS	CB-CA-C	-11.76	87.02	110.42
81	DA	1	G	P-O3'-C3'	11.75	137.82	120.20
81	DA	1786	G	O4'-C1'-N9	11.75	126.12	108.50
81	DA	3167	A	P-O5'-C5'	11.75	138.52	120.90
78	CA	636	A	O4'-C1'-C2'	-11.74	83.91	107.40
81	DA	3243	A	P-O5'-C5'	11.74	138.51	120.90
65	Bn	34	ALA	N-CA-CB	11.74	130.32	110.49
50	BX	111	ASN	CA-CB-CG	-11.73	100.86	112.60
78	CA	1189	A	P-O3'-C3'	11.73	137.80	120.20
78	CA	1078	C	N1-C1'-C2'	11.73	129.60	112.00
81	DA	2114	C	O3'-P-O5'	11.73	121.60	104.00
32	BC	17	LEU	N-CA-C	-11.72	88.69	109.09
78	CA	1647	U	P-O3'-C3'	11.72	137.78	120.20
81	DA	899	U	P-O3'-C3'	11.72	137.78	120.20
81	DA	2508	U	O4'-C1'-C2'	-11.72	95.88	107.60
78	CA	839	U	O4'-C1'-C2'	-11.72	95.88	107.60
81	DA	1551	C	N1-C1'-C2'	11.72	129.58	112.00
81	DA	2869	U	C1'-O4'-C4'	11.71	121.61	109.90
83	DC	83	U	P-O3'-C3'	11.71	137.77	120.20
78	CA	1381	U	P-O3'-C3'	11.71	137.76	120.20
29	AU	70	VAL	CA-CB-CG1	-11.70	90.50	110.40
81	DA	1198	C	P-O3'-C3'	11.70	137.75	120.20
81	DA	1579	C	P-O3'-C3'	11.70	137.75	120.20
13	AL	39	LYS	N-CA-CB	11.70	129.14	110.77
81	DA	3003	G	C3'-C2'-C1'	-11.70	89.60	101.30
38	Bs	55	LYS	CA-CB-CG	11.70	137.49	114.10
78	CA	1768	G	P-O5'-C5'	11.69	138.44	120.90
81	DA	3048	A	O5'-C5'-C4'	11.70	129.24	111.70
81	DA	434	U	P-O3'-C3'	-11.69	102.66	120.20
81	DA	1293	U	P-O3'-C3'	11.69	137.74	120.20
81	DA	3244	A	N9-C1'-C2'	11.69	129.53	112.00
81	DA	1291	A	P-O3'-C3'	11.69	137.73	120.20
78	CA	252	U	O4'-C1'-C2'	-11.68	95.92	107.60
81	DA	2303	A	C5'-C4'-C3'	11.68	133.52	116.00
31	BB	50	HIS	CB-CG-CD2	-11.68	116.02	131.20
31	BB	38	HIS	N-CA-C	11.68	135.67	110.80
81	DA	2501	U	P-O3'-C3'	11.67	137.71	120.20
47	BU	134	GLN	CA-C-N	11.66	131.46	119.56
47	BU	134	GLN	C-N-CA	11.66	131.46	119.56
78	CA	46	A	P-O5'-C5'	11.66	138.39	120.90
81	DA	186	U	O4'-C1'-N1	11.66	125.99	108.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	331	G	C1'-O4'-C4'	11.66	121.56	109.90
53	Ba	29	HIS	CA-CB-CG	11.65	125.45	113.80
81	DA	887	G	P-O3'-C3'	11.65	137.68	120.20
81	DA	1004	U	N1-C1'-C2'	11.65	129.48	112.00
81	DA	2889	C	P-O3'-C3'	11.65	137.68	120.20
44	BO	58	MET	N-CA-CB	11.65	130.18	110.49
40	BK	133	ARG	NE-CZ-NH2	11.65	129.68	119.20
81	DA	1405	U	N1-C1'-C2'	11.65	129.47	112.00
81	DA	933	A	P-O3'-C3'	11.65	137.67	120.20
39	BJ	76	SER	N-CA-CB	11.64	130.16	110.49
43	BP	74	PRO	CB-CA-C	-11.64	92.36	111.56
78	CA	646	C	P-O3'-C3'	11.63	137.65	120.20
78	CA	92	A	C5'-C4'-C3'	11.63	133.44	116.00
81	DA	2578	U	P-O3'-C3'	11.63	137.64	120.20
47	BU	147	VAL	CA-C-O	-11.63	110.90	118.69
3	AB	75	LYS	CB-CA-C	-11.62	91.50	110.79
40	BK	184	THR	N-CA-C	-11.62	86.06	110.80
78	CA	571	G	N9-C1'-C2'	11.61	129.42	112.00
81	DA	2303	A	N9-C1'-C2'	-11.62	94.58	112.00
81	DA	658	G	O4'-C1'-C2'	11.61	119.21	107.60
83	DC	107	G	O4'-C1'-N9	11.61	125.91	108.50
56	Bf	50	VAL	CB-CA-C	11.60	127.24	112.04
81	DA	1506	A	N9-C1'-C2'	-11.60	96.59	114.00
78	CA	1602	C	C3'-C2'-C1'	11.60	112.90	101.30
78	CA	900	A	O4'-C4'-C3'	11.60	115.60	104.00
78	CA	265	A	P-O3'-C3'	11.60	137.59	120.20
81	DA	699	A	C3'-C2'-C1'	11.59	112.89	101.30
81	DA	2682	C	O4'-C1'-C2'	-11.59	96.01	107.60
81	DA	636	C	C3'-C2'-C1'	11.59	112.89	101.30
81	DA	2339	C	O4'-C1'-C2'	-11.58	94.22	105.80
81	DA	1288	U	O3'-P-O5'	-11.58	86.63	104.00
22	AV	90	LYS	O-C-N	-11.58	110.27	121.38
81	DA	1400	G	O3'-P-O5'	-11.58	86.64	104.00
81	DA	2988	C	O3'-P-O5'	11.57	121.36	104.00
81	DA	1825	G	P-O3'-C3'	11.57	137.55	120.20
78	CA	856	A	O4'-C1'-N9	11.56	125.85	108.50
81	DA	2445	A	P-O3'-C3'	11.56	137.53	120.20
81	DA	3142	A	O4'-C1'-C2'	-11.56	94.24	105.80
82	DB	137	C	P-O3'-C3'	11.56	137.54	120.20
83	DC	49	G	C3'-C2'-C1'	11.56	112.86	101.30
81	DA	1826	C	O4'-C1'-N1	11.55	125.83	108.50
81	DA	2173	U	N1-C1'-C2'	11.55	129.33	112.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
20	AS	56	LYS	CB-CA-C	11.55	129.96	110.79
81	DA	1527	C	P-O3'-C3'	11.55	137.52	120.20
81	DA	2463	G	P-O3'-C3'	11.55	137.52	120.20
48	BW	92	TRP	N-CA-C	-11.54	97.05	113.21
53	Ba	8	GLY	CA-C-N	11.54	141.02	123.24
53	Ba	8	GLY	C-N-CA	11.54	141.02	123.24
81	DA	1483	G	O4'-C1'-N9	11.54	125.81	108.50
81	DA	2683	U	P-O3'-C3'	11.54	137.51	120.20
3	AB	21	LEU	N-CA-C	11.54	123.94	111.36
20	AS	45	MET	O-C-N	-11.54	108.05	121.32
33	BD	58	HIS	CA-CB-CG	11.54	125.34	113.80
12	AK	104	ALA	N-CA-C	11.54	123.86	111.28
33	BD	12	THR	N-CA-C	-11.54	86.23	110.80
53	Ba	24	VAL	CA-C-N	11.54	136.97	122.43
53	Ba	24	VAL	C-N-CA	11.54	136.97	122.43
78	CA	1478	G	O3'-P-O5'	11.54	121.30	104.00
78	CA	1357	A	P-O3'-C3'	11.53	137.50	120.20
5	AC	23	ARG	NE-CZ-NH2	-11.53	108.83	119.20
81	DA	2186	U	P-O3'-C3'	11.52	137.48	120.20
78	CA	666	U	N1-C1'-C2'	11.51	129.27	112.00
81	DA	2824	G	P-O3'-C3'	11.51	137.47	120.20
81	DA	409	A	C3'-C2'-C1'	11.51	112.81	101.30
81	DA	3051	U	O4'-C4'-C3'	-11.51	92.49	104.00
78	CA	1409	G	P-O3'-C3'	11.51	137.46	120.20
82	DB	50	C	O4'-C1'-C2'	-11.51	96.09	107.60
81	DA	2513	U	P-O3'-C3'	11.50	137.45	120.20
78	CA	1475	A	P-O3'-C3'	-11.50	102.96	120.20
81	DA	1263	A	N9-C1'-C2'	11.50	131.25	114.00
78	CA	1546	G	O4'-C4'-C3'	-11.49	92.51	104.00
81	DA	1831	U	N1-C1'-C2'	-11.49	94.76	112.00
15	AN	31	ILE	N-CA-CB	11.49	125.27	110.57
78	CA	515	A	P-O3'-C3'	11.49	137.43	120.20
81	DA	2989	U	O4'-C1'-C2'	-11.49	72.94	107.40
81	DA	472	A	P-O3'-C3'	11.49	137.43	120.20
81	DA	1681	U	P-O5'-C5'	11.49	138.13	120.90
32	BC	345	ASN	N-CA-CB	11.48	129.90	110.49
81	DA	2544	U	P-O3'-C3'	11.48	137.42	120.20
29	AU	72	PHE	CA-C-N	11.48	133.11	122.20
29	AU	72	PHE	C-N-CA	11.48	133.11	122.20
81	DA	3231	U	P-O3'-C3'	11.48	137.42	120.20
3	AB	72	LEU	N-CA-CB	11.47	126.99	110.12
81	DA	338	A	P-O3'-C3'	11.47	137.41	120.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1570	A	C3'-C2'-C1'	11.47	112.77	101.30
81	DA	1287	A	O4'-C1'-C2'	-11.46	96.14	107.60
81	DA	3382	U	N1-C1'-C2'	11.46	129.19	112.00
81	DA	3214	U	P-O3'-C3'	11.46	137.39	120.20
33	BD	354	VAL	CA-C-N	-11.46	99.66	121.54
33	BD	354	VAL	C-N-CA	-11.46	99.66	121.54
81	DA	42	C	O3'-P-O5'	-11.45	86.82	104.00
78	CA	281	G	P-O3'-C3'	11.45	137.38	120.20
81	DA	2080	C	P-O3'-C3'	11.45	137.38	120.20
81	DA	2710	C	P-O3'-C3'	11.45	137.38	120.20
83	DC	29	C	P-O5'-C5'	11.45	138.07	120.90
81	DA	914	A	O4'-C1'-N9	11.44	125.37	108.20
81	DA	573	C	P-O5'-C5'	11.44	138.05	120.90
78	CA	1355	C	O3'-P-O5'	-11.43	86.85	104.00
81	DA	1689	U	O4'-C1'-N1	11.43	125.65	108.50
78	CA	1401	A	P-O3'-C3'	11.43	137.35	120.20
53	Ba	9	LYS	CA-C-N	11.43	142.54	121.97
53	Ba	9	LYS	C-N-CA	11.43	142.54	121.97
81	DA	326	U	P-O3'-C3'	11.43	137.34	120.20
79	CB	56	A	P-O5'-C5'	11.43	138.04	120.90
81	DA	729	C	P-O3'-C3'	11.43	137.34	120.20
81	DA	2886	U	O4'-C1'-N1	11.42	125.34	108.20
5	AC	164	PHE	CA-C-N	11.42	143.79	121.41
5	AC	164	PHE	C-N-CA	11.42	143.79	121.41
81	DA	2339	C	C1'-O4'-C4'	11.42	121.12	109.70
78	CA	336	G	P-O3'-C3'	-11.42	103.08	120.20
81	DA	1221	A	O4'-C1'-C2'	11.42	119.02	107.60
78	CA	10	G	C5'-C4'-C3'	-11.41	98.88	116.00
78	CA	630	A	N9-C1'-C2'	-11.41	94.88	112.00
81	DA	1054	A	N9-C1'-C2'	-11.41	94.88	112.00
81	DA	2593	A	P-O3'-C3'	11.41	137.32	120.20
83	DC	71	C	O4'-C1'-C2'	-11.41	96.19	107.60
81	DA	2698	G	P-O3'-C3'	11.41	137.31	120.20
81	DA	2491	A	O4'-C4'-C3'	-11.40	92.59	104.00
81	DA	63	A	O4'-C1'-N9	11.40	125.60	108.50
81	DA	1426	C	C4'-C3'-O3'	-11.40	95.90	113.00
81	DA	1802	C	O4'-C1'-C2'	-11.40	96.20	107.60
81	DA	2619	G	N9-C1'-C2'	11.40	129.09	112.00
78	CA	955	A	O4'-C1'-C2'	-11.39	96.21	107.60
81	DA	2283	G	P-O3'-C3'	11.39	137.29	120.20
81	DA	1055	A	N9-C1'-C2'	-11.39	94.92	112.00
81	DA	2416	U	P-O5'-C5'	11.39	137.98	120.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2625	C	C3'-C2'-C1'	11.39	112.89	101.50
43	BP	180	PHE	O-C-N	-11.38	107.45	122.59
81	DA	2487	U	P-O5'-C5'	11.38	137.98	120.90
6	AE	81	MET	CB-CA-C	-11.38	89.45	110.62
81	DA	2808	A	O4'-C1'-N9	11.38	125.27	108.20
81	DA	352	A	O4'-C1'-C2'	-11.38	94.42	105.80
12	AK	59	ALA	CA-C-O	-11.38	104.24	120.51
43	BP	16	SER	CB-CA-C	-11.37	92.63	110.14
78	CA	190	C	P-O3'-C3'	11.37	137.26	120.20
81	DA	2194	G	P-O3'-C3'	11.37	137.26	120.20
81	DA	3241	G	O3'-P-O5'	-11.37	86.94	104.00
10	AI	107	LYS	CG-CD-CE	11.37	137.45	111.30
81	DA	1572	U	C3'-C2'-C1'	11.37	112.67	101.30
81	DA	720	A	O4'-C1'-N9	11.37	125.55	108.50
59	Bh	20	HIS	CA-C-O	-11.36	104.26	120.51
16	AO	67	THR	N-CA-C	11.36	135.00	110.80
17	AQ	59	LYS	CB-CA-C	11.36	131.65	110.63
78	CA	646	C	O3'-P-O5'	11.36	121.04	104.00
81	DA	1296	C	P-O5'-C5'	11.36	137.94	120.90
81	DA	1438	U	O3'-P-O5'	-11.36	86.96	104.00
1	Aa	57	PRO	CB-CA-C	11.35	130.29	111.56
81	DA	1768	U	P-O3'-C3'	11.35	137.23	120.20
11	AJ	85	ARG	CB-CA-C	-11.35	92.29	110.79
78	CA	504	U	P-O3'-C3'	11.35	137.22	120.20
78	CA	1725	U	P-O5'-C5'	11.35	137.92	120.90
81	DA	1820	U	O4'-C4'-C3'	-11.35	92.65	104.00
81	DA	1692	U	P-O3'-C3'	11.35	137.22	120.20
62	Bk	56	ARG	N-CA-C	11.34	123.21	111.07
80	CC	18	C	C3'-C2'-C1'	11.34	112.84	101.50
81	DA	1694	U	O4'-C1'-N1	11.33	125.50	108.50
81	DA	2130	G	O4'-C1'-C2'	-11.33	96.27	107.60
61	Bj	42	GLN	N-CA-C	11.32	123.19	111.07
81	DA	2788	C	O3'-P-O5'	-11.32	87.02	104.00
78	CA	1544	U	C3'-C2'-C1'	-11.32	89.98	101.30
78	CA	1162	C	N1-C1'-C2'	11.32	128.98	112.00
81	DA	3006	A	N9-C1'-C2'	11.32	128.98	112.00
52	BY	25	SER	N-CA-C	11.32	123.61	111.28
78	CA	1565	C	O4'-C1'-C2'	-11.32	96.28	107.60
81	DA	1206	G	O4'-C1'-N9	11.32	125.47	108.50
81	DA	2546	C	P-O3'-C3'	11.32	137.17	120.20
81	DA	1076	C	P-O3'-C3'	11.31	137.17	120.20
81	DA	2860	U	P-O3'-C3'	11.31	137.17	120.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
61	Bj	8	TYR	N-CA-C	-11.31	86.71	110.80
81	DA	2726	C	P-O3'-C3'	11.31	137.16	120.20
81	DA	185	C	P-O3'-C3'	11.31	137.16	120.20
81	DA	3050	U	C3'-C2'-C1'	11.31	112.61	101.30
35	BG	15	VAL	N-CA-CB	-11.30	92.59	111.23
81	DA	2681	U	O3'-P-O5'	-11.29	87.06	104.00
81	DA	608	A	N9-C1'-C2'	11.29	130.94	114.00
81	DA	2699	G	P-O5'-C5'	11.29	137.84	120.90
42	BM	64	LYS	O-C-N	-11.29	106.80	122.94
81	DA	1704	A	O4'-C1'-N9	11.29	125.43	108.50
41	BN	40	ASP	N-CA-C	-11.28	93.34	108.24
81	DA	2720	G	N9-C1'-C2'	11.29	128.93	112.00
78	CA	1615	C	O4'-C1'-C2'	-11.28	96.32	107.60
41	BN	125	LYS	N-CA-CB	11.28	126.70	110.12
81	DA	2652	U	N1-C1'-C2'	11.27	128.91	112.00
81	DA	2466	G	O5'-C5'-C4'	11.27	128.40	111.50
81	DA	2759	U	C5'-C4'-C3'	11.27	132.90	116.00
74	BQ	47	PRO	CB-CA-C	11.27	124.29	111.11
78	CA	1066	C	P-O5'-C5'	11.26	137.79	120.90
31	BB	66	PRO	O-C-N	11.26	137.84	122.64
78	CA	2	A	O4'-C1'-N9	11.26	125.39	108.50
81	DA	752	C	P-O3'-C3'	11.26	137.09	120.20
74	BQ	238	ASP	N-CA-CB	11.26	129.51	110.49
81	DA	638	C	C5'-C4'-O4'	11.25	126.67	109.80
81	DA	3103	A	O4'-C1'-C2'	-11.25	96.35	107.60
81	DA	1585	C	P-O3'-C3'	11.24	137.07	120.20
81	DA	1778	G	P-O3'-C3'	11.24	137.07	120.20
81	DA	2350	C	P-O3'-C3'	11.24	137.06	120.20
81	DA	1602	A	OP1-P-O3'	11.24	141.72	108.00
30	BA	151	VAL	N-CA-CB	11.24	129.77	111.23
81	DA	1704	A	P-O3'-C3'	11.24	137.06	120.20
78	CA	1141	G	C1'-O4'-C4'	-11.23	98.67	109.90
81	DA	796	U	P-O3'-C3'	11.23	137.05	120.20
78	CA	1022	C	C3'-C2'-C1'	11.23	112.53	101.30
81	DA	1262	G	P-O3'-C3'	11.22	137.03	120.20
78	CA	1398	U	C1'-O4'-C4'	-11.22	98.48	109.70
81	DA	1390	A	C5'-C4'-C3'	11.22	132.03	115.20
81	DA	3233	C	P-O5'-C5'	11.22	137.73	120.90
81	DA	1622	U	P-O3'-C3'	11.21	137.02	120.20
81	DA	671	U	C5'-C4'-C3'	11.21	132.82	116.00
81	DA	1890	U	P-O5'-C5'	11.21	137.72	120.90
81	DA	1621	A	O3'-P-O5'	-11.21	87.19	104.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1359	C	P-O3'-C3'	11.21	137.01	120.20
81	DA	3361	G	C2'-C3'-O3'	11.20	126.31	109.50
38	Bs	242	ASN	CB-CG-OD1	11.20	143.20	120.80
78	CA	29	U	N1-C1'-C2'	11.20	128.80	112.00
81	DA	1821	U	N1-C1'-C2'	11.20	128.80	112.00
81	DA	3253	G	P-O5'-C5'	11.20	137.70	120.90
29	AU	35	VAL	O-C-N	-11.20	111.21	122.97
81	DA	273	A	O3'-P-O5'	-11.19	87.21	104.00
81	DA	2375	G	O4'-C1'-C2'	-11.19	94.61	105.80
81	DA	2279	A	O4'-C1'-C2'	11.19	116.99	105.80
79	CB	41	G	N9-C1'-C2'	11.18	128.77	112.00
81	DA	282	G	P-O3'-C3'	11.18	136.97	120.20
81	DA	2187	G	C1'-O4'-C4'	11.18	121.08	109.90
3	AB	22	ASN	N-CA-CB	11.18	126.70	110.16
13	AL	87	VAL	CB-CA-C	11.18	131.70	111.36
78	CA	120	U	O5'-C5'-C4'	11.17	128.26	111.50
81	DA	1706	C	P-O3'-C3'	11.17	136.95	120.20
81	DA	798	G	P-O3'-C3'	11.17	136.95	120.20
78	CA	235	G	N9-C1'-C2'	11.17	128.75	112.00
78	CA	1092	A	O4'-C1'-N9	11.16	124.95	108.20
81	DA	1872	C	O4'-C1'-N1	-11.16	91.76	108.50
78	CA	54	C	P-O5'-C5'	11.16	137.64	120.90
78	CA	297	U	N1-C1'-C2'	11.16	128.74	112.00
47	BU	142	SER	N-CA-CB	11.16	129.35	110.49
81	DA	1991	G	C3'-C2'-C1'	-11.16	90.14	101.30
47	BU	116	ARG	NE-CZ-NH1	-11.15	110.35	121.50
81	DA	1582	C	N1-C1'-C2'	11.15	128.73	112.00
2	AA	10	THR	CA-C-O	-11.15	104.89	120.16
81	DA	1627	U	N1-C1'-C2'	-11.14	95.28	112.00
81	DA	2376	G	P-O5'-C5'	11.14	137.62	120.90
32	BC	256	HIS	CB-CA-C	11.14	125.66	108.61
78	CA	228	G	C1'-O4'-C4'	11.13	121.03	109.90
81	DA	1552	G	N9-C1'-C2'	11.14	128.70	112.00
34	BE	59	ILE	N-CA-C	11.13	132.49	109.34
78	CA	1161	C	O4'-C1'-C2'	-11.13	96.47	107.60
35	BG	141	VAL	O-C-N	-11.13	108.66	122.57
77	BI	115	MET	CA-C-N	11.13	138.62	122.82
77	BI	115	MET	C-N-CA	11.13	138.62	122.82
78	CA	295	A	C3'-C2'-C1'	-11.12	90.17	101.30
81	DA	580	C	N1-C1'-C2'	11.12	128.68	112.00
78	CA	1541	G	C1'-O4'-C4'	-11.12	98.78	109.90
81	DA	2866	U	O4'-C1'-N1	11.11	124.87	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
13	AL	38	PHE	CB-CG-CD2	-11.10	101.83	120.70
78	CA	140	A	N9-C1'-C2'	-11.10	95.34	112.00
78	CA	587	C	O3'-P-O5'	11.10	120.65	104.00
78	CA	1583	A	N9-C1'-C2'	11.10	128.65	112.00
42	BM	66	LYS	O-C-N	-11.10	109.01	121.66
50	BX	28	THR	N-CA-C	11.10	123.12	111.14
78	CA	172	C	P-O3'-C3'	11.10	136.85	120.20
81	DA	1916	U	P-O5'-C5'	11.09	137.54	120.90
35	BG	17	ALA	N-CA-C	11.09	127.52	113.88
61	Bj	89	LEU	CB-CA-C	-11.09	92.89	108.86
81	DA	2410	U	P-O3'-C3'	11.09	136.83	120.20
81	DA	2469	G	O3'-P-O5'	-11.09	87.37	104.00
81	DA	2209	U	P-O3'-C3'	11.08	136.82	120.20
81	DA	3010	U	O4'-C1'-C2'	-11.08	96.52	107.60
81	DA	786	A	O4'-C1'-C2'	-11.08	96.52	107.60
81	DA	518	G	O3'-P-O5'	-11.08	87.39	104.00
81	DA	2172	A	C3'-C2'-C1'	-11.07	90.22	101.30
78	CA	205	U	P-O3'-C3'	11.07	136.80	120.20
78	CA	500	C	P-O3'-C3'	11.07	136.80	120.20
81	DA	1789	G	C1'-O4'-C4'	-11.06	98.83	109.90
81	DA	1755	C	C4'-C3'-O3'	11.06	129.59	113.00
4	AD	239	PRO	CB-CA-C	11.05	139.64	112.00
81	DA	298	U	P-O3'-C3'	11.05	136.78	120.20
29	AU	62	THR	N-CA-CB	11.04	129.15	110.49
81	DA	2047	A	O4'-C1'-N9	11.04	125.06	108.50
81	DA	1534	A	P-O3'-C3'	11.04	136.76	120.20
81	DA	2466	G	N9-C1'-C2'	11.04	128.56	112.00
81	DA	3151	U	O4'-C1'-N1	11.04	124.76	108.20
78	CA	898	A	P-O3'-C3'	11.04	136.75	120.20
81	DA	2486	A	C2'-C3'-O3'	11.04	126.05	109.50
78	CA	278	U	P-O3'-C3'	11.03	136.75	120.20
81	DA	3050	U	N1-C1'-C2'	11.03	128.55	112.00
47	BU	56	PHE	CA-CB-CG	11.03	124.83	113.80
81	DA	1641	U	P-O5'-C5'	11.03	137.44	120.90
81	DA	3212	C	C3'-C2'-C1'	11.02	112.32	101.30
81	DA	671	U	C4'-C3'-O3'	11.02	129.53	113.00
83	DC	50	U	P-O5'-C5'	11.02	137.42	120.90
18	AP	111	VAL	N-CA-CB	11.01	123.66	112.65
78	CA	1339	C	O3'-P-O5'	-11.01	87.48	104.00
81	DA	2757	U	C5'-C4'-O4'	11.01	126.32	109.80
81	DA	233	C	O4'-C1'-C2'	-11.00	96.60	107.60
60	Bi	43	LYS	N-CA-CB	11.00	129.07	110.49

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2493	U	O4'-C1'-N1	11.00	124.70	108.20
2	AA	10	THR	N-CA-CB	10.99	129.94	110.37
78	CA	1724	U	C2'-C3'-O3'	-10.99	97.21	113.70
34	BE	116	TYR	CD1-CE1-CZ	10.99	139.38	119.60
81	DA	1074	U	P-O5'-C5'	10.99	137.38	120.90
81	DA	1088	U	P-O3'-C3'	10.99	136.68	120.20
81	DA	1535	A	O4'-C1'-N9	10.99	124.98	108.50
82	DB	122	U	P-O5'-C5'	10.99	137.38	120.90
82	DB	151	C	O5'-C5'-C4'	10.99	127.98	111.50
13	AL	1	MET	N-CA-CB	-10.98	91.83	110.50
81	DA	1859	A	N9-C1'-C2'	-10.98	97.53	114.00
81	DA	2157	G	C3'-C2'-C1'	10.98	112.48	101.50
53	Ba	9	LYS	CB-CA-C	-10.98	96.39	112.09
81	DA	2099	A	O3'-P-O5'	10.98	120.47	104.00
82	DB	63	G	P-O3'-C3'	10.97	136.66	120.20
81	DA	1528	G	O4'-C1'-N9	10.97	124.96	108.50
81	DA	845	G	O4'-C1'-N9	10.97	124.95	108.50
78	CA	1721	A	O4'-C1'-C2'	-10.97	96.63	107.60
78	CA	1761	U	P-O3'-C3'	10.96	136.65	120.20
43	BP	175	ASN	O-C-N	-10.96	110.08	123.01
81	DA	1966	U	P-O3'-C3'	10.96	136.64	120.20
18	AP	81	HIS	CA-CB-CG	10.96	124.76	113.80
39	BJ	14	TYR	CB-CA-C	10.96	129.43	109.71
83	DC	48	U	O4'-C1'-N1	10.96	124.93	108.50
20	AS	97	SER	N-CA-C	-10.95	97.68	112.03
79	CB	75	A	O4'-C1'-N9	10.95	124.63	108.20
45	BR	3	ILE	CA-C-N	10.95	142.45	121.54
45	BR	3	ILE	C-N-CA	10.95	142.45	121.54
81	DA	303	G	P-O3'-C3'	10.95	136.62	120.20
81	DA	1039	U	O4'-C1'-C2'	-10.95	96.65	107.60
78	CA	172	C	N1-C1'-C2'	10.94	128.42	112.00
79	CB	29	C	O3'-P-O5'	-10.94	87.59	104.00
78	CA	1392	U	O4'-C1'-C2'	-10.94	96.66	107.60
4	AD	216	ASN	CA-C-N	10.94	137.60	121.31
4	AD	216	ASN	C-N-CA	10.94	137.60	121.31
78	CA	15	U	N1-C1'-C2'	10.93	128.40	112.00
81	DA	1694	U	O4'-C1'-C2'	-10.93	96.67	107.60
81	DA	3035	A	O4'-C1'-C2'	-10.93	96.67	107.60
78	CA	1	U	OP1-P-OP2	-10.93	86.82	119.60
81	DA	132	C	O4'-C1'-C2'	-10.93	96.67	107.60
82	DB	3	A	P-O3'-C3'	10.93	136.59	120.20
81	DA	220	G	C1'-O4'-C4'	10.92	120.62	109.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1666	U	O4'-C1'-C2'	-10.92	96.68	107.60
35	BG	99	GLU	CA-CB-CG	10.92	135.93	114.10
34	BE	58	GLY	O-C-N	-10.91	108.51	122.70
81	DA	927	C	P-O3'-C3'	10.91	136.57	120.20
81	DA	2136	C	N1-C1'-C2'	10.91	128.37	112.00
81	DA	943	U	P-O3'-C3'	10.91	136.56	120.20
82	DB	46	G	C1'-O4'-C4'	-10.91	98.99	109.90
81	DA	1644	C	P-O3'-C3'	10.91	136.56	120.20
72	Bt	60	ASN	O-C-N	-10.90	107.33	122.81
81	DA	1662	G	P-O3'-C3'	10.90	136.56	120.20
78	CA	1337	A	N9-C1'-C2'	-10.90	95.65	112.00
81	DA	1263	A	O4'-C1'-C2'	10.90	116.70	105.80
2	AA	101	ARG	CB-CA-C	10.90	127.32	109.89
81	DA	571	U	N1-C1'-C2'	10.90	128.35	112.00
81	DA	1095	U	P-O3'-C3'	10.90	136.55	120.20
78	CA	1375	A	N9-C1'-C2'	10.90	128.34	112.00
35	BG	100	LYS	N-CA-CB	-10.89	90.66	110.82
81	DA	1208	U	O4'-C1'-N1	10.89	124.84	108.50
81	DA	3304	U	C5'-C4'-O4'	-10.89	93.46	109.80
78	CA	900	A	O5'-C5'-C4'	10.89	127.83	111.50
81	DA	1285	G	O4'-C1'-C2'	-10.89	94.91	105.80
81	DA	1685	C	P-O3'-C3'	10.89	136.53	120.20
81	DA	187	A	P-O5'-C5'	10.89	137.23	120.90
12	AK	67	VAL	CB-CA-C	10.88	125.90	111.97
14	AM	120	ARG	N-CA-CB	10.88	128.88	110.49
78	CA	70	C	P-O3'-C3'	10.88	136.53	120.20
81	DA	3092	C	O4'-C1'-N1	-10.88	92.17	108.50
81	DA	1634	G	P-O3'-C3'	10.88	136.53	120.20
81	DA	2607	G	N9-C1'-C2'	10.88	128.32	112.00
78	CA	1441	C	O3'-P-O5'	-10.88	87.68	104.00
81	DA	1914	G	N9-C1'-C2'	10.88	128.32	112.00
46	BT	47	ASN	CA-CB-CG	-10.88	101.72	112.60
81	DA	1703	U	O4'-C1'-C2'	-10.88	96.72	107.60
81	DA	2175	U	C3'-C2'-C1'	10.87	112.17	101.30
81	DA	2368	A	O3'-P-O5'	-10.87	87.69	104.00
81	DA	1237	G	P-O3'-C3'	10.87	136.50	120.20
81	DA	3041	U	OP1-P-O3'	10.87	140.61	108.00
81	DA	1064	A	P-O3'-C3'	10.86	136.49	120.20
81	DA	3255	U	N1-C1'-C2'	10.86	128.29	112.00
81	DA	3242	G	N9-C1'-C2'	-10.86	95.72	112.00
81	DA	198	A	O4'-C1'-C2'	-10.85	96.75	107.60
81	DA	519	A	O4'-C1'-N9	10.85	124.78	108.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2153	U	P-O5'-C5'	10.85	137.18	120.90
4	AD	130	GLN	CA-C-O	10.85	132.67	119.98
81	DA	598	A	C4'-C3'-C2'	-10.85	91.75	102.60
81	DA	2408	U	N1-C1'-C2'	10.85	128.28	112.00
3	AB	70	THR	CA-C-N	10.85	135.90	120.28
3	AB	70	THR	C-N-CA	10.85	135.90	120.28
9	AH	67	GLY	CA-C-N	-10.85	106.33	120.65
9	AH	67	GLY	C-N-CA	-10.85	106.33	120.65
64	BI	67	LEU	CA-C-N	10.85	135.69	120.29
64	BI	67	LEU	C-N-CA	10.85	135.69	120.29
78	CA	36	C	P-O3'-C3'	10.85	136.47	120.20
81	DA	1948	G	C5'-C4'-C3'	10.84	132.26	116.00
78	CA	1438	G	O5'-C5'-C4'	10.84	127.76	111.50
81	DA	2280	A	P-O5'-C5'	10.84	137.16	120.90
13	AL	124	VAL	N-CA-C	10.83	124.59	111.05
31	BB	137	ILE	N-CA-C	-10.83	100.31	110.82
78	CA	831	U	C3'-C2'-C1'	-10.83	90.67	101.50
81	DA	74	G	C5'-C4'-C3'	10.83	132.24	116.00
81	DA	2244	A	O4'-C1'-N9	10.83	124.74	108.50
79	CB	36	C	N1-C1'-C2'	10.82	128.23	112.00
33	BD	342	LYS	CA-C-O	-10.81	107.53	119.97
51	BZ	67	VAL	N-CA-CB	10.81	129.07	111.23
81	DA	783	A	O4'-C1'-N9	10.81	124.42	108.20
81	DA	2440	G	N9-C1'-C2'	10.81	128.22	112.00
78	CA	839	U	C1'-O4'-C4'	10.81	120.71	109.90
22	AV	105	THR	CB-CA-C	-10.81	88.91	110.42
81	DA	531	G	C3'-C2'-C1'	10.80	112.10	101.30
78	CA	662	U	O4'-C1'-C2'	-10.80	96.80	107.60
81	DA	160	G	C1'-O4'-C4'	-10.79	99.11	109.90
81	DA	2177	G	C3'-C2'-C1'	10.79	112.09	101.30
78	CA	1702	A	N9-C1'-C2'	-10.79	95.81	112.00
83	DC	31	U	O4'-C1'-C2'	-10.79	96.81	107.60
81	DA	639	G	P-O3'-C3'	10.79	136.38	120.20
81	DA	375	A	O4'-C1'-C2'	-10.78	96.82	107.60
82	DB	134	G	P-O3'-C3'	10.78	136.38	120.20
81	DA	2801	A	O4'-C1'-C2'	10.78	116.58	105.80
81	DA	1257	C	C4'-C3'-C2'	-10.78	91.82	102.60
81	DA	1414	G	O4'-C1'-C2'	-10.78	96.82	107.60
81	DA	2681	U	O4'-C1'-C2'	-10.77	96.83	107.60
74	BQ	242	SER	CA-C-N	-10.77	100.97	121.54
74	BQ	242	SER	C-N-CA	-10.77	100.97	121.54
78	CA	1405	G	N9-C1'-C2'	-10.77	95.84	112.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	DC	45	A	P-O3'-C3'	-10.77	104.04	120.20
78	CA	591	A	O4'-C1'-C2'	-10.77	96.83	107.60
78	CA	1702	A	O4'-C1'-C2'	-10.77	96.83	107.60
81	DA	2392	C	O4'-C1'-C2'	-10.77	96.83	107.60
78	CA	959	U	P-O3'-C3'	10.76	136.34	120.20
81	DA	72	C	P-O3'-C3'	10.76	136.34	120.20
81	DA	151	A	P-O3'-C3'	10.76	136.34	120.20
8	AF	29	ILE	CB-CA-C	10.76	130.94	111.36
78	CA	354	C	O4'-C1'-C2'	-10.76	96.84	107.60
47	BU	140	ILE	N-CA-C	-10.75	86.97	109.34
61	Bj	21	ARG	CA-C-N	-10.75	102.62	121.97
61	Bj	21	ARG	C-N-CA	-10.75	102.62	121.97
65	Bn	51	LEU	N-CA-C	10.75	124.28	111.82
81	DA	3241	G	O4'-C1'-C2'	-10.75	96.85	107.60
78	CA	123	G	N9-C1'-C2'	10.74	128.11	112.00
78	CA	1489	U	P-O3'-C3'	10.74	136.31	120.20
78	CA	1393	C	N1-C1'-C2'	-10.74	95.89	112.00
81	DA	229	G	P-O3'-C3'	10.74	136.31	120.20
81	DA	1185	C	P-O3'-C3'	10.74	136.31	120.20
17	AQ	82	ASP	N-CA-CB	10.74	128.75	110.50
78	CA	228	G	O4'-C1'-C2'	-10.73	96.87	107.60
78	CA	435	C	N1-C1'-C2'	10.73	128.10	112.00
78	CA	346	G	N9-C1'-C2'	10.73	128.09	112.00
81	DA	1831	U	O4'-C1'-C2'	-10.73	96.87	107.60
81	DA	1955	U	O4'-C1'-N1	10.73	124.60	108.50
78	CA	1305	U	P-O3'-C3'	10.73	136.29	120.20
81	DA	2693	C	O4'-C1'-C2'	-10.72	96.88	107.60
83	DC	47	C	C4'-C3'-O3'	-10.72	96.92	113.00
35	BG	49	GLY	N-CA-C	10.72	138.58	113.18
81	DA	2757	U	P-O5'-C5'	10.72	136.98	120.90
78	CA	1421	A	O4'-C1'-N9	10.72	124.57	108.50
32	BC	67	PHE	CA-CB-CG	-10.71	103.09	113.80
81	DA	734	C	P-O3'-C3'	10.71	136.26	120.20
78	CA	191	C	O4'-C1'-C2'	-10.70	96.90	107.60
78	CA	1550	A	O3'-P-O5'	-10.70	87.95	104.00
2	AA	252	TRP	N-CA-CB	10.70	128.69	110.50
81	DA	1649	U	O4'-C1'-C2'	-10.70	96.90	107.60
38	Bs	84	VAL	CA-C-N	10.69	131.99	122.47
38	Bs	84	VAL	C-N-CA	10.69	131.99	122.47
78	CA	53	G	P-O3'-C3'	10.70	136.24	120.20
25	AY	25	VAL	N-CA-C	-10.69	93.20	108.17
81	DA	2727	A	O4'-C1'-N9	10.69	124.23	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	69	G	P-O3'-C3'	10.69	136.23	120.20
81	DA	209	A	O4'-C1'-C2'	-10.68	96.92	107.60
81	DA	2491	A	C5'-C4'-C3'	10.68	132.02	116.00
81	DA	3055	U	O4'-C1'-C2'	-10.68	96.92	107.60
78	CA	1141	G	N9-C1'-C2'	10.68	128.01	112.00
81	DA	1	G	O4'-C1'-N9	10.68	124.52	108.50
81	DA	1314	C	N1-C1'-C2'	10.68	128.01	112.00
81	DA	1585	C	N1-C1'-C2'	10.68	128.01	112.00
38	Bs	222	SER	CA-CB-OG	10.67	132.44	111.10
47	BU	139	ARG	N-CA-C	-10.67	88.07	110.80
78	CA	1756	A	O4'-C1'-N9	10.67	124.51	108.50
78	CA	1230	A	P-O5'-C5'	10.67	136.00	120.00
76	BS	120	PHE	N-CA-CB	10.67	129.36	110.37
78	CA	169	A	C1'-O4'-C4'	10.67	120.57	109.90
78	CA	400	A	O4'-C1'-N9	10.67	124.50	108.50
81	DA	993	G	C1'-O4'-C4'	-10.67	99.23	109.90
81	DA	2993	G	P-O3'-C3'	10.67	136.20	120.20
78	CA	683	C	O4'-C1'-C2'	-10.66	96.94	107.60
62	Bk	98	ARG	N-CA-C	-10.66	100.77	113.88
82	DB	132	G	C5'-C4'-C3'	10.66	131.98	116.00
74	BQ	55	PHE	CA-C-N	10.65	141.89	121.54
74	BQ	55	PHE	C-N-CA	10.65	141.89	121.54
81	DA	3242	G	O4'-C1'-N9	10.65	124.48	108.50
33	BD	358	THR	CA-C-N	10.65	135.41	120.29
33	BD	358	THR	C-N-CA	10.65	135.41	120.29
78	CA	37	U	O4'-C1'-N1	10.65	124.47	108.50
81	DA	2754	G	P-O3'-C3'	10.65	136.17	120.20
78	CA	298	C	O3'-P-O5'	-10.64	88.04	104.00
81	DA	2617	U	N1-C1'-C2'	-10.64	98.04	114.00
81	DA	2760	C	O3'-P-O5'	-10.64	88.04	104.00
78	CA	645	C	O4'-C1'-C2'	-10.63	96.97	107.60
81	DA	1939	G	P-O3'-C3'	10.63	136.15	120.20
81	DA	2031	U	P-O3'-C3'	10.63	136.15	120.20
81	DA	2072	G	O4'-C1'-N9	10.63	124.45	108.50
41	BN	77	ARG	N-CA-CB	10.63	128.96	111.21
78	CA	400	A	P-O3'-C3'	10.63	136.14	120.20
81	DA	1790	G	C1'-O4'-C4'	-10.63	99.27	109.90
81	DA	2067	U	N1-C1'-C2'	-10.63	98.06	114.00
35	BG	8	LYS	N-CA-C	10.62	133.43	110.80
81	DA	1055	A	O3'-P-O5'	-10.62	88.07	104.00
81	DA	2115	G	P-O5'-C5'	-10.62	104.97	120.90
81	DA	3211	C	C5'-C4'-C3'	10.62	131.94	116.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
41	BN	11	ASN	CA-C-N	10.62	140.37	121.89
41	BN	11	ASN	C-N-CA	10.62	140.37	121.89
81	DA	786	A	O4'-C1'-N9	10.62	124.43	108.50
57	Be	97	PRO	CA-C-N	10.62	147.71	121.80
57	Be	97	PRO	C-N-CA	10.62	147.71	121.80
81	DA	1627	U	O4'-C1'-N1	10.62	124.43	108.50
78	CA	1452	U	N1-C1'-C2'	10.61	127.92	112.00
81	DA	2770	G	C3'-C2'-C1'	10.61	111.91	101.30
69	Br	4	VAL	CA-C-O	-10.61	112.93	119.51
78	CA	120	U	P-O5'-C5'	10.61	136.81	120.90
78	CA	283	U	O4'-C1'-C2'	-10.61	96.99	107.60
59	Bh	23	ASP	N-CA-C	10.61	125.48	112.54
57	Be	132	PRO	O-C-N	-10.61	108.32	122.64
81	DA	442	G	P-O3'-C3'	10.61	136.11	120.20
78	CA	295	A	C5'-C4'-C3'	10.60	131.90	116.00
78	CA	648	G	C5'-C4'-C3'	10.60	131.90	116.00
78	CA	1666	U	O4'-C1'-N1	10.60	124.40	108.50
81	DA	665	A	N9-C1'-C2'	10.60	127.90	112.00
81	DA	1779	C	O4'-C1'-C2'	-10.60	97.00	107.60
78	CA	1337	A	O5'-C5'-C4'	-10.60	95.61	111.50
81	DA	2334	U	O3'-P-O5'	10.60	119.89	104.00
81	DA	1192	C	O4'-C1'-C2'	-10.59	97.01	107.60
83	DC	42	A	O4'-C1'-C2'	-10.59	97.01	107.60
17	AQ	63	LYS	CB-CA-C	-10.59	95.78	112.09
45	BR	96	PHE	CA-CB-CG	10.59	124.39	113.80
81	DA	2917	G	O4'-C1'-C2'	10.59	118.19	107.60
82	DB	122	U	O4'-C1'-C2'	-10.58	97.02	107.60
78	CA	714	G	P-O5'-C5'	10.58	135.87	120.00
81	DA	702	C	C3'-C2'-C1'	10.58	111.88	101.30
81	DA	1871	U	O4'-C1'-N1	10.58	124.36	108.50
81	DA	577	C	O4'-C1'-C2'	-10.57	95.22	105.80
38	Bs	42	ARG	CB-CA-C	10.57	128.82	110.85
78	CA	4	C	P-O3'-C3'	10.57	136.06	120.20
81	DA	975	C	P-O3'-C3'	10.57	136.06	120.20
22	AV	31	SER	CA-C-N	10.57	140.72	121.70
22	AV	31	SER	C-N-CA	10.57	140.72	121.70
76	BS	66	ILE	N-CA-CB	10.56	128.66	111.23
81	DA	2363	A	O4'-C1'-N9	10.56	124.34	108.50
81	DA	1076	C	O3'-P-O5'	-10.56	88.17	104.00
40	BK	128	ARG	N-CA-C	10.55	127.07	111.34
81	DA	640	U	P-O3'-C3'	10.55	136.03	120.20
33	BD	354	VAL	N-CA-CB	10.55	128.64	111.23

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
45	BR	156	GLY	CA-C-N	10.55	133.03	119.84
45	BR	156	GLY	C-N-CA	10.55	133.03	119.84
81	DA	2157	G	P-O3'-C3'	10.55	136.03	120.20
82	DB	45	C	P-O3'-C3'	10.55	136.02	120.20
81	DA	3381	U	P-O3'-C3'	10.55	136.02	120.20
1	Aa	240	VAL	CA-C-N	10.54	135.45	120.79
1	Aa	240	VAL	C-N-CA	10.54	135.45	120.79
80	CC	12	A	O4'-C1'-N9	10.54	124.31	108.50
21	AT	54	ALA	CA-C-N	10.54	141.67	121.54
21	AT	54	ALA	C-N-CA	10.54	141.67	121.54
81	DA	1702	U	P-O3'-C3'	10.54	136.01	120.20
78	CA	1478	G	C3'-C2'-C1'	-10.53	90.77	101.30
43	BP	80	THR	CB-CA-C	-10.53	93.04	109.89
78	CA	1133	A	N9-C1'-C2'	10.53	127.79	112.00
81	DA	1255	C	O4'-C1'-N1	10.53	124.29	108.50
33	BD	297	SER	N-CA-C	10.52	124.14	108.14
81	DA	2045	G	O3'-P-O5'	-10.52	88.22	104.00
78	CA	93	A	O4'-C1'-C2'	10.52	116.32	105.80
81	DA	2363	A	N9-C1'-C2'	-10.51	96.24	112.00
81	DA	677	A	P-O5'-C5'	10.51	136.66	120.90
81	DA	2435	G	P-O3'-C3'	10.51	135.96	120.20
81	DA	3073	A	O3'-P-O5'	-10.51	88.24	104.00
82	DB	50	C	C1'-O4'-C4'	10.50	120.40	109.90
11	AJ	85	ARG	CB-CG-CD	10.50	135.45	111.30
69	Br	89	LYS	CB-CA-C	10.50	131.31	110.42
13	AL	10	ASN	CB-CA-C	10.50	131.61	112.30
42	BM	41	GLY	N-CA-C	10.50	129.75	114.95
78	CA	1547	A	C5'-C4'-C3'	10.50	131.75	116.00
81	DA	3094	A	N9-C1'-C2'	10.49	127.74	112.00
67	Bp	34	CYS	N-CA-C	10.48	125.82	108.73
78	CA	287	G	N9-C1'-C2'	10.48	127.73	112.00
81	DA	50	U	O4'-C1'-C2'	-10.48	97.12	107.60
81	DA	209	A	C1'-O4'-C4'	10.48	120.38	109.90
81	DA	637	C	O4'-C1'-N1	10.48	124.23	108.50
16	AO	42	ARG	CA-C-N	10.48	141.56	121.54
16	AO	42	ARG	C-N-CA	10.48	141.56	121.54
78	CA	555	A	P-O3'-C3'	10.48	135.92	120.20
78	CA	1003	A	O4'-C1'-N9	10.48	123.92	108.20
60	Bi	68	THR	CB-CA-C	-10.47	89.58	110.42
13	AL	40	SER	N-CA-C	-10.47	91.17	108.34
78	CA	1338	C	P-O5'-C5'	-10.47	105.19	120.90
81	DA	162	G	O4'-C1'-C2'	-10.47	97.13	107.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BG	167	ASN	CA-C-N	10.46	131.60	119.98
35	BG	167	ASN	C-N-CA	10.46	131.60	119.98
42	BM	64	LYS	CB-CA-C	10.46	129.91	110.24
78	CA	1091	A	O4'-C1'-N9	10.46	123.89	108.20
83	DC	76	U	O4'-C1'-C2'	-10.46	97.14	107.60
83	DC	22	A	O4'-C1'-N9	10.45	124.18	108.50
60	Bi	16	ARG	CB-CA-C	-10.45	93.92	110.74
44	BO	53	PHE	CA-C-N	10.45	131.53	119.94
44	BO	53	PHE	C-N-CA	10.45	131.53	119.94
76	BS	117	ARG	N-CA-CB	10.45	128.14	110.49
78	CA	1702	A	P-O3'-C3'	10.44	135.86	120.20
6	AE	69	ILE	CA-C-O	-10.44	109.71	118.90
81	DA	2165	G	O4'-C1'-N9	10.44	124.16	108.50
81	DA	3122	A	O4'-C1'-N9	10.44	124.16	108.50
81	DA	2149	A	O4'-C1'-N9	10.44	124.16	108.50
20	AS	12	GLN	N-CA-CB	-10.44	94.78	110.12
81	DA	1104	G	O4'-C1'-N9	10.44	124.15	108.50
83	DC	27	A	O4'-C1'-C2'	-10.44	97.17	107.60
81	DA	1561	G	C1'-O4'-C4'	-10.43	99.47	109.90
81	DA	2606	G	O4'-C1'-N9	10.43	123.85	108.20
20	AS	102	ARG	NH1-CZ-NH2	10.43	132.86	119.30
81	DA	2118	C	N1-C1'-C2'	10.43	127.64	112.00
81	DA	2637	A	P-O3'-C3'	10.43	135.84	120.20
81	DA	743	C	N1-C1'-C2'	10.43	127.64	112.00
81	DA	2623	G	O4'-C1'-N9	10.43	124.14	108.50
74	BQ	190	ILE	CB-CA-C	10.43	128.39	111.29
78	CA	177	U	P-O3'-C3'	10.43	135.84	120.20
83	DC	3	U	P-O3'-C3'	10.42	135.84	120.20
20	AS	94	ILE	N-CA-C	-10.42	93.52	108.11
78	CA	591	A	O3'-P-O5'	-10.42	88.37	104.00
81	DA	1576	G	O5'-C5'-C4'	10.42	127.13	111.50
76	BS	23	HIS	CA-CB-CG	10.42	124.22	113.80
78	CA	1049	U	P-O5'-C5'	10.42	136.52	120.90
81	DA	3034	C	C3'-C2'-C1'	10.41	111.72	101.30
81	DA	1754	G	O4'-C4'-C3'	-10.41	93.59	104.00
81	DA	2495	C	P-O3'-C3'	10.41	135.81	120.20
78	CA	481	A	P-O3'-C3'	10.41	135.81	120.20
81	DA	3215	A	O4'-C1'-N9	-10.40	87.69	108.50
78	CA	183	U	P-O3'-C3'	10.40	135.80	120.20
81	DA	752	C	N1-C1'-C2'	10.40	127.60	112.00
81	DA	2435	G	N9-C1'-C2'	-10.40	96.40	112.00
3	AB	181	VAL	N-CA-CB	10.40	124.91	110.56

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	AF	30	PRO	CA-N-CD	-10.40	97.45	112.00
81	DA	3136	G	P-O3'-C3'	10.40	135.79	120.20
35	BG	75	PRO	N-CA-CB	10.39	114.17	103.25
78	CA	589	C	N1-C1'-C2'	10.39	127.59	112.00
78	CA	284	G	C5'-C4'-C3'	10.39	131.58	116.00
78	CA	689	G	O4'-C1'-C2'	10.39	117.99	107.60
81	DA	2638	C	O4'-C1'-C2'	-10.38	97.22	107.60
78	CA	920	U	P-O3'-C3'	10.38	135.77	120.20
81	DA	836	A	O4'-C1'-C2'	-10.38	97.22	107.60
81	DA	3086	A	P-O3'-C3'	10.38	135.78	120.20
53	Ba	13	VAL	N-CA-CB	10.38	128.35	111.23
78	CA	141	U	N1-C1'-C2'	-10.38	96.44	112.00
35	BG	101	PHE	N-CA-CB	10.37	127.64	111.56
76	BS	74	ILE	N-CA-C	-10.38	87.76	109.34
81	DA	161	G	O3'-P-O5'	-10.37	88.44	104.00
78	CA	1380	U	O3'-P-O5'	-10.37	88.44	104.00
81	DA	2741	C	C3'-C2'-C1'	10.37	111.67	101.30
81	DA	1688	U	N1-C1'-C2'	10.37	127.55	112.00
81	DA	3334	U	O4'-C1'-N1	10.37	123.75	108.20
4	AD	224	ASN	CA-CB-CG	-10.37	102.23	112.60
78	CA	374	U	C1'-O4'-C4'	-10.37	99.53	109.90
81	DA	3142	A	N9-C1'-C2'	-10.36	98.46	114.00
9	AH	68	ARG	N-CA-C	10.36	122.26	110.97
31	BB	246	LEU	N-CA-C	-10.36	88.73	110.80
81	DA	1598	G	O4'-C1'-N9	10.36	124.04	108.50
15	AN	47	ALA	O-C-N	-10.36	108.81	122.59
81	DA	2484	A	P-O3'-C3'	10.36	135.73	120.20
81	DA	2634	U	N1-C1'-C2'	10.36	127.53	112.00
32	BC	199	PHE	N-CA-CB	10.35	126.33	110.28
44	BO	15	VAL	N-CA-CB	10.35	128.31	111.23
45	BR	14	GLY	CA-C-N	10.35	140.33	121.70
45	BR	14	GLY	C-N-CA	10.35	140.33	121.70
17	AQ	132	TYR	N-CA-C	-10.35	94.79	109.69
50	BX	26	VAL	N-CA-C	-10.35	100.27	110.72
78	CA	1420	C	C3'-C2'-C1'	10.35	111.65	101.30
78	CA	1735	U	O5'-C5'-C4'	10.35	127.02	111.50
32	BC	123	TYR	N-CA-CB	10.35	127.97	110.49
78	CA	1394	G	C4'-C3'-C2'	-10.35	92.25	102.60
35	BG	13	GLU	CA-C-N	10.34	141.29	121.54
35	BG	13	GLU	C-N-CA	10.34	141.29	121.54
81	DA	1831	U	C1'-O4'-C4'	10.34	120.24	109.90
17	AQ	93	LEU	CA-C-N	-10.34	101.80	121.54

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
17	AQ	93	LEU	C-N-CA	-10.34	101.80	121.54
34	BE	61	ARG	O-C-N	-10.34	108.84	122.59
78	CA	255	U	C4'-C3'-C2'	-10.34	92.27	102.60
81	DA	1747	G	P-O5'-C5'	10.33	136.40	120.90
81	DA	2788	C	N1-C1'-C2'	10.33	127.50	112.00
78	CA	151	G	C5'-C4'-C3'	-10.33	100.51	116.00
81	DA	2798	C	N1-C1'-C2'	10.33	127.49	112.00
26	AZ	47	VAL	CA-C-N	10.33	134.12	120.28
26	AZ	47	VAL	C-N-CA	10.33	134.12	120.28
78	CA	1190	C	C5'-C4'-O4'	-10.32	78.53	109.50
81	DA	161	G	P-O3'-C3'	10.32	135.69	120.20
81	DA	1005	G	C4'-C3'-C2'	-10.32	92.28	102.60
35	BG	59	GLU	N-CA-C	-10.32	93.53	108.60
81	DA	1055	A	C1'-O4'-C4'	10.32	120.22	109.90
72	Bt	60	ASN	N-CA-CB	-10.32	95.29	110.87
81	DA	262	U	O4'-C1'-N1	10.31	123.97	108.50
81	DA	1675	G	O4'-C1'-C2'	10.31	116.11	105.80
21	AT	76	ASP	CA-CB-CG	10.31	122.91	112.60
78	CA	163	G	C2'-C3'-O3'	10.31	129.17	113.70
81	DA	2067	U	O4'-C1'-N1	10.31	123.67	108.20
81	DA	1432	C	N1-C1'-C2'	-10.31	98.54	114.00
4	AD	240	LYS	O-C-N	-10.30	113.26	123.46
78	CA	1546	G	C4'-C3'-C2'	10.30	112.91	102.60
78	CA	1589	C	O4'-C1'-C2'	-10.31	97.29	107.60
81	DA	635	G	P-O5'-C5'	-10.30	105.44	120.90
81	DA	2093	A	O3'-P-O5'	-10.31	88.54	104.00
82	DB	45	C	N1-C1'-C2'	10.30	127.46	112.00
81	DA	1782	U	C5'-C4'-C3'	-10.30	100.55	116.00
81	DA	608	A	P-O3'-C3'	10.30	135.65	120.20
59	Bh	26	HIS	CA-C-N	10.29	134.91	120.29
59	Bh	26	HIS	C-N-CA	10.29	134.91	120.29
76	BS	52	LYS	N-CA-C	10.29	132.72	110.80
81	DA	1403	C	P-O3'-C3'	10.29	135.63	120.20
81	DA	250	U	C5'-C4'-C3'	10.29	131.43	116.00
38	Bs	248	ALA	N-CA-CB	-10.29	95.10	110.01
81	DA	3254	G	O4'-C1'-C2'	-10.29	97.31	107.60
78	CA	1220	C	C5'-C4'-C3'	10.28	131.42	116.00
74	BQ	242	SER	N-CA-CB	10.28	127.86	110.49
78	CA	312	A	P-O3'-C3'	10.28	135.62	120.20
13	AL	6	PRO	N-CD-CG	10.27	118.61	103.20
78	CA	268	C	N1-C1'-C2'	10.27	127.41	112.00
62	Bk	95	ALA	CA-C-N	10.27	134.04	120.28

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	Bk	95	ALA	C-N-CA	10.27	134.04	120.28
77	BI	111	LEU	N-CA-C	10.27	123.73	111.82
81	DA	2279	A	O5'-C5'-C4'	10.27	127.11	111.70
82	DB	90	U	P-O3'-C3'	10.27	135.60	120.20
2	AA	31	VAL	N-CA-CB	10.26	125.98	110.58
81	DA	3050	U	O4'-C1'-C2'	-10.26	97.34	107.60
57	Be	120	THR	CA-CB-OG1	10.26	124.99	109.60
78	CA	1653	C	P-O3'-C3'	10.26	135.59	120.20
62	Bk	81	THR	CA-C-N	-10.26	107.04	122.83
62	Bk	81	THR	C-N-CA	-10.26	107.04	122.83
81	DA	3224	G	P-O3'-C3'	10.26	135.58	120.20
78	CA	948	G	C1'-O4'-C4'	-10.25	99.65	109.90
81	DA	1561	G	O4'-C1'-C2'	10.25	117.85	107.60
81	DA	2073	A	O4'-C1'-C2'	-10.25	97.35	107.60
81	DA	1034	U	P-O3'-C3'	10.25	135.58	120.20
33	BD	355	PHE	CA-C-O	-10.25	105.85	120.51
78	CA	1214	U	O4'-C1'-C2'	-10.25	97.35	107.60
81	DA	760	G	C1'-O4'-C4'	-10.24	99.66	109.90
81	DA	1250	G	O4'-C1'-N9	10.24	123.87	108.50
78	CA	140	A	C1'-O4'-C4'	10.24	120.14	109.90
81	DA	3352	U	N1-C1'-C2'	10.24	127.36	112.00
31	BB	119	LYS	CA-C-N	10.24	130.88	119.93
31	BB	119	LYS	C-N-CA	10.24	130.88	119.93
78	CA	280	U	N1-C1'-C2'	10.24	127.36	112.00
81	DA	3394	U	P-O3'-C3'	10.24	135.56	120.20
78	CA	1137	A	P-O3'-C3'	10.23	135.55	120.20
4	AD	219	VAL	CA-C-O	-10.23	111.50	121.63
81	DA	566	G	N9-C1'-C2'	10.23	127.34	112.00
81	DA	2165	G	P-O3'-C3'	10.23	135.54	120.20
81	DA	2275	A	O4'-C1'-N9	10.23	123.84	108.50
81	DA	2445	A	N9-C1'-C2'	10.23	127.34	112.00
83	DC	114	A	P-O3'-C3'	10.23	135.54	120.20
13	AL	54	LEU	N-CA-C	10.22	123.46	111.71
78	CA	1192	C	N1-C1'-C2'	10.22	127.33	112.00
29	AU	36	SER	CA-C-N	10.21	151.05	122.15
29	AU	36	SER	C-N-CA	10.21	151.05	122.15
20	AS	95	ASP	N-CA-C	-10.21	98.78	112.26
83	DC	42	A	C3'-C2'-C1'	10.21	111.51	101.30
58	Bg	25	PHE	CA-CB-CG	10.21	124.01	113.80
81	DA	25	U	P-O5'-C5'	10.21	136.21	120.90
81	DA	2748	A	O4'-C1'-C2'	-10.21	97.39	107.60
61	Bj	60	ARG	N-CA-C	-10.20	94.32	110.14

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2800	G	O4'-C1'-C2'	-10.21	97.39	107.60
78	CA	1527	C	P-O3'-C3'	10.20	135.50	120.20
50	BX	100	LYS	N-CA-C	10.20	122.40	111.28
81	DA	2716	U	P-O3'-C3'	10.20	135.50	120.20
78	CA	29	U	O4'-C1'-C2'	-10.20	97.40	107.60
81	DA	299	G	C5'-C4'-C3'	10.20	131.30	116.00
78	CA	607	G	P-O3'-C3'	10.20	135.50	120.20
81	DA	736	A	P-O5'-C5'	10.20	136.20	120.90
81	DA	2061	G	O4'-C1'-N9	10.20	123.79	108.50
82	DB	25	G	O4'-C1'-N9	10.20	123.80	108.50
37	BH	232	HIS	N-CA-CB	10.19	127.72	110.49
81	DA	313	A	O4'-C1'-N9	10.19	123.79	108.50
72	Bt	60	ASN	CB-CA-C	-10.19	90.63	111.22
78	CA	1549	C	P-O3'-C3'	10.19	135.49	120.20
81	DA	2503	G	O3'-P-O5'	-10.19	88.71	104.00
81	DA	1569	U	P-O3'-C3'	10.19	135.48	120.20
3	AB	208	ILE	CA-C-N	-10.18	103.64	121.97
3	AB	208	ILE	C-N-CA	-10.18	103.64	121.97
81	DA	3149	G	C3'-C2'-C1'	-10.18	91.12	101.30
78	CA	27	U	O4'-C1'-N1	10.18	123.76	108.50
81	DA	1061	A	O4'-C1'-N9	10.18	123.76	108.50
81	DA	2238	G	C2'-C3'-O3'	-10.17	98.44	113.70
83	DC	102	C	C3'-C2'-C1'	10.17	111.47	101.30
13	AL	22	ASN	CA-C-O	-10.17	108.61	120.10
49	BV	152	GLU	CA-C-N	10.17	140.96	121.54
49	BV	152	GLU	C-N-CA	10.17	140.96	121.54
81	DA	1455	U	C1'-O4'-C4'	10.17	119.87	109.70
81	DA	1698	C	N1-C1'-C2'	-10.17	96.75	112.00
51	BZ	69	LYS	CA-C-N	10.16	140.95	121.54
51	BZ	69	LYS	C-N-CA	10.16	140.95	121.54
81	DA	259	C	O4'-C1'-C2'	-10.16	97.44	107.60
83	DC	1	G	O4'-C1'-C2'	-10.16	97.44	107.60
10	AI	88	GLY	N-CA-C	10.16	124.92	112.73
81	DA	690	A	P-O3'-C3'	10.16	135.44	120.20
78	CA	1783	C	O3'-P-O5'	-10.16	88.76	104.00
81	DA	1694	U	N1-C1'-C2'	-10.16	96.76	112.00
78	CA	651	G	C5'-C4'-C3'	10.15	131.23	116.00
38	Bs	222	SER	N-CA-C	10.15	121.93	111.07
81	DA	70	A	C3'-C2'-C1'	10.15	111.45	101.30
4	AD	238	LEU	CB-CA-C	-10.15	90.18	110.17
39	BJ	59	THR	N-CA-CB	10.14	125.67	109.95
81	DA	155	G	P-O3'-C3'	10.14	135.41	120.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2632	G	P-O3'-C3'	-10.14	104.99	120.20
81	DA	3215	A	C1'-O4'-C4'	-10.14	89.72	110.00
19	AR	128	HIS	CA-C-N	10.14	133.09	120.22
19	AR	128	HIS	C-N-CA	10.14	133.09	120.22
32	BC	345	ASN	CA-C-N	-10.14	102.18	121.54
32	BC	345	ASN	C-N-CA	-10.14	102.18	121.54
81	DA	1793	C	P-O3'-C3'	10.13	135.40	120.20
83	DC	100	A	O3'-P-O5'	-10.13	88.80	104.00
74	BQ	40	HIS	O-C-N	10.13	137.10	121.91
81	DA	1572	U	O4'-C1'-C2'	-10.13	97.47	107.60
81	DA	2361	A	P-O3'-C3'	10.13	135.39	120.20
81	DA	1180	A	C2'-C3'-O3'	10.13	124.69	109.50
81	DA	3056	U	O4'-C1'-C2'	-10.12	97.48	107.60
81	DA	3090	U	P-O3'-C3'	10.12	135.38	120.20
62	Bk	82	ARG	N-CA-CB	-10.12	94.92	110.91
78	CA	373	G	O4'-C1'-N9	10.12	123.68	108.50
78	CA	1386	G	N9-C1'-C2'	-10.12	96.81	112.00
78	CA	1539	G	O4'-C1'-C2'	-10.12	97.48	107.60
83	DC	46	A	N9-C1'-C2'	-10.12	96.81	112.00
81	DA	637	C	C3'-C2'-C1'	10.12	111.42	101.30
81	DA	1391	C	O4'-C4'-C3'	-10.12	95.98	106.10
81	DA	1499	C	P-O3'-C3'	10.12	135.38	120.20
78	CA	1222	C	O4'-C1'-N1	10.12	123.67	108.50
81	DA	2172	A	C1'-O4'-C4'	-10.12	99.78	109.90
81	DA	2505	U	O4'-C1'-C2'	-10.12	97.48	107.60
78	CA	1459	C	C2'-C3'-O3'	-10.12	98.53	113.70
48	BW	91	ASP	CA-C-N	10.11	136.34	119.35
48	BW	91	ASP	C-N-CA	10.11	136.34	119.35
78	CA	1337	A	C4'-C3'-C2'	10.11	112.71	102.60
81	DA	1250	G	N9-C1'-C2'	-10.11	96.83	112.00
78	CA	49	C	P-O3'-C3'	-10.11	105.04	120.20
81	DA	2025	G	C4'-C3'-C2'	-10.11	92.49	102.60
11	AJ	114	VAL	CB-CA-C	-10.11	98.38	110.91
78	CA	885	G	O4'-C1'-C2'	-10.11	97.49	107.60
81	DA	2152	A	C5'-C4'-C3'	10.11	131.16	116.00
81	DA	2491	A	N9-C1'-C2'	10.11	127.16	112.00
81	DA	3306	U	C5'-C4'-O4'	10.11	124.96	109.80
81	DA	672	A	P-O5'-C5'	10.10	136.06	120.90
55	Bc	108	GLN	CA-C-O	-10.10	110.84	121.55
82	DB	63	G	O4'-C1'-C2'	-10.10	97.50	107.60
8	AF	69	PHE	CA-CB-CG	-10.10	103.70	113.80
18	AP	53	TYR	O-C-N	-10.10	109.33	123.06

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
12	AK	96	PRO	CA-C-N	10.10	131.10	120.00
12	AK	96	PRO	C-N-CA	10.10	131.10	120.00
81	DA	2026	A	P-O5'-C5'	10.10	136.04	120.90
81	DA	2114	C	O4'-C1'-N1	10.10	123.64	108.50
5	AC	18	PRO	CA-C-N	10.09	140.82	121.54
5	AC	18	PRO	C-N-CA	10.09	140.82	121.54
83	DC	102	C	O4'-C1'-C2'	-10.09	97.51	107.60
62	Bk	70	ARG	CA-C-N	10.09	134.62	120.29
62	Bk	70	ARG	C-N-CA	10.09	134.62	120.29
81	DA	3324	C	C5'-C4'-C3'	10.09	131.13	116.00
35	BG	25	ALA	CB-CA-C	-10.09	94.05	110.79
81	DA	1282	G	P-O3'-C3'	10.09	135.33	120.20
81	DA	2988	C	C3'-C2'-C1'	10.09	111.39	101.30
81	DA	1564	U	N1-C1'-C2'	10.08	127.13	112.00
81	DA	49	A	O4'-C1'-N9	10.08	123.32	108.20
81	DA	487	U	P-O5'-C5'	10.08	151.14	120.90
81	DA	1401	A	C4'-C3'-C2'	-10.08	92.52	102.60
78	CA	647	G	O4'-C1'-N9	10.07	123.61	108.50
81	DA	170	G	O4'-C1'-C2'	-10.07	97.53	107.60
81	DA	1314	C	C3'-C2'-C1'	10.07	111.37	101.30
10	AI	60	PHE	CA-CB-CG	-10.07	103.73	113.80
74	BQ	201	GLY	N-CA-C	10.07	126.86	113.37
81	DA	806	A	O4'-C1'-C2'	-10.07	95.73	105.80
81	DA	2760	C	N1-C1'-C2'	10.07	127.10	112.00
53	Ba	38	PHE	CA-CB-CG	-10.06	103.74	113.80
78	CA	1490	C	C5'-C4'-C3'	10.06	130.00	114.90
81	DA	309	U	P-O3'-C3'	10.06	135.29	120.20
15	AN	38	ILE	N-CA-CB	10.06	127.83	111.23
81	DA	1361	U	O4'-C1'-C2'	-10.06	97.54	107.60
78	CA	1746	A	P-O3'-C3'	10.06	135.28	120.20
38	Bs	39	HIS	CB-CA-C	10.05	127.48	110.79
78	CA	546	U	P-O3'-C3'	10.05	135.28	120.20
81	DA	2020	A	O4'-C1'-C2'	-10.05	97.55	107.60
81	DA	2815	G	P-O3'-C3'	10.05	135.28	120.20
22	AV	29	LYS	CA-C-N	-10.05	102.34	121.54
22	AV	29	LYS	C-N-CA	-10.05	102.34	121.54
81	DA	1076	C	N1-C1'-C2'	10.05	127.07	112.00
78	CA	1426	C	P-O3'-C3'	10.04	135.26	120.20
81	DA	2085	U	C5'-C4'-C3'	10.04	131.06	116.00
81	DA	2741	C	O4'-C1'-C2'	-10.04	97.56	107.60
82	DB	95	G	P-O3'-C3'	10.04	135.26	120.20
72	Bu	60	ASN	O-C-N	-10.04	108.56	122.81

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1446	A	P-O3'-C3'	10.04	135.25	120.20
44	BO	118	ILE	CA-C-O	-10.03	106.51	119.95
81	DA	1688	U	O4'-C1'-C2'	-10.03	97.57	107.60
81	DA	2462	A	O3'-P-O5'	-10.03	88.95	104.00
79	CB	43	C	N1-C1'-C2'	10.03	127.04	112.00
13	AL	84	THR	N-CA-C	-10.03	93.28	108.52
43	BP	44	ARG	N-CA-C	10.03	131.96	109.81
81	DA	422	A	C1'-O4'-C4'	10.03	119.93	109.90
82	DB	4	C	C5'-C4'-C3'	10.03	131.04	116.00
83	DC	29	C	C4'-C3'-C2'	-10.03	92.57	102.60
78	CA	1301	U	O4'-C1'-C2'	-10.02	97.58	107.60
81	DA	2799	A	P-O3'-C3'	10.02	135.24	120.20
81	DA	3000	A	P-O3'-C3'	10.02	135.24	120.20
81	DA	1825	G	C3'-C2'-C1'	-10.02	91.28	101.30
81	DA	1826	C	N1-C1'-C2'	-10.02	96.97	112.00
81	DA	3390	G	C5'-C4'-C3'	10.02	131.03	116.00
32	BC	331	ASN	CA-CB-CG	10.02	122.62	112.60
81	DA	2446	U	N1-C1'-C2'	10.02	127.03	112.00
5	AC	164	PHE	N-CA-C	-10.02	89.47	110.80
78	CA	841	U	C5'-C4'-C3'	10.01	131.02	116.00
81	DA	784	A	O4'-C1'-N9	10.01	123.22	108.20
81	DA	1948	G	P-O3'-C3'	10.01	135.22	120.20
81	DA	2966	G	N9-C1'-C2'	10.01	127.02	112.00
61	Bj	3	GLU	N-CA-CB	10.01	127.41	110.49
78	CA	256	A	O4'-C1'-C2'	-10.01	97.59	107.60
78	CA	1022	C	O4'-C1'-C2'	-10.01	97.59	107.60
78	CA	1632	C	N1-C1'-C2'	10.01	127.01	112.00
14	AM	125	ILE	N-CA-CB	10.01	124.15	110.54
78	CA	943	C	N1-C1'-C2'	10.01	127.01	112.00
81	DA	2238	G	O5'-C5'-C4'	10.00	126.51	111.50
78	CA	288	A	O3'-P-O5'	-10.00	89.00	104.00
81	DA	1989	U	O3'-P-O5'	10.00	119.00	104.00
81	DA	1428	A	O4'-C1'-C2'	-10.00	95.80	105.80
81	DA	3326	G	O4'-C1'-C2'	-10.00	97.60	107.60
78	CA	1537	C	P-O3'-C3'	10.00	135.20	120.20
81	DA	677	A	C2'-C3'-O3'	10.00	124.50	109.50
81	DA	1291	A	O4'-C1'-C2'	-9.99	97.61	107.60
41	BN	39	ILE	N-CA-C	9.99	119.81	110.42
78	CA	988	A	O4'-C1'-C2'	-9.99	97.61	107.60
78	CA	16	G	O4'-C1'-C2'	-9.99	97.61	107.60
81	DA	1773	C	O4'-C1'-N1	9.99	123.18	108.20
81	DA	2163	C	C5'-C4'-C3'	9.99	130.98	116.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3050	U	P-O5'-C5'	9.99	135.88	120.90
83	DC	49	G	C2'-C3'-O3'	9.99	128.68	113.70
78	CA	1393	C	C1'-O4'-C4'	9.98	119.89	109.90
11	AJ	83	GLU	CA-C-N	9.98	137.08	123.00
11	AJ	83	GLU	C-N-CA	9.98	137.08	123.00
44	BO	7	LYS	N-CA-CB	9.98	127.36	110.49
81	DA	3141	A	P-O3'-C3'	9.98	135.17	120.20
22	AV	31	SER	O-C-N	-9.98	109.31	122.59
81	DA	2476	C	C5'-C4'-C3'	9.98	130.97	116.00
78	CA	650	U	C1'-O4'-C4'	9.98	119.88	109.90
61	Bj	89	LEU	O-C-N	-9.98	101.41	121.77
78	CA	1599	C	O4'-C1'-C2'	-9.98	97.62	107.60
4	AD	150	PRO	N-CA-CB	9.97	113.72	103.25
72	Bu	60	ASN	CB-CA-C	-9.97	91.08	111.22
76	BS	70	ASN	CA-C-O	-9.97	106.50	120.16
81	DA	3283	U	O3'-P-O5'	-9.97	89.04	104.00
57	Be	220	PHE	CB-CG-CD2	-9.97	103.75	120.70
81	DA	1623	G	C5'-C4'-O4'	-9.97	94.84	109.80
81	DA	2166	A	O4'-C1'-N9	-9.97	93.54	108.50
41	BN	40	ASP	CA-CB-CG	9.97	122.57	112.60
81	DA	791	A	O3'-P-O5'	-9.97	89.05	104.00
13	AL	9	LEU	CA-C-N	9.96	137.93	122.78
13	AL	9	LEU	C-N-CA	9.96	137.93	122.78
16	AO	114	ARG	N-CA-C	9.96	122.14	111.28
26	AZ	58	PRO	CA-N-CD	-9.96	98.05	112.00
81	DA	2797	C	O4'-C1'-C2'	-9.96	97.64	107.60
32	BC	297	SER	CB-CA-C	-9.96	94.09	111.22
3	AB	205	ALA	N-CA-C	-9.96	89.59	110.80
69	Br	62	ALA	O-C-N	-9.96	109.35	122.59
81	DA	785	G	O4'-C1'-N9	9.96	123.14	108.20
81	DA	736	A	C5'-C4'-C3'	9.96	130.93	116.00
81	DA	3091	A	O5'-C5'-C4'	9.96	126.63	111.70
81	DA	572	A	O3'-P-O5'	-9.95	89.07	104.00
81	DA	785	G	P-O3'-C3'	9.95	135.13	120.20
18	AP	109	VAL	CB-CA-C	-9.95	97.90	111.63
81	DA	1682	U	P-O3'-C3'	9.95	135.12	120.20
81	DA	3350	C	N1-C1'-C2'	9.95	126.92	112.00
30	BA	120	VAL	CA-C-O	-9.94	112.03	118.69
78	CA	295	A	C1'-O4'-C4'	9.95	119.84	109.90
78	CA	323	A	O4'-C1'-N9	9.95	123.12	108.20
81	DA	111	C	N1-C1'-C2'	9.94	126.92	112.00
81	DA	1007	U	C1'-O4'-C4'	-9.94	99.96	109.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	Bs	244	LYS	CA-C-N	9.94	134.40	120.29
38	Bs	244	LYS	C-N-CA	9.94	134.40	120.29
83	DC	70	A	P-O3'-C3'	9.94	135.11	120.20
32	BC	344	THR	CA-C-N	-9.94	102.56	121.54
32	BC	344	THR	C-N-CA	-9.94	102.56	121.54
78	CA	1107	G	C3'-C2'-C1'	9.94	111.24	101.30
17	AQ	25	THR	CA-C-N	9.94	140.52	121.54
17	AQ	25	THR	C-N-CA	9.94	140.52	121.54
46	BT	86	GLU	CB-CA-C	9.93	126.68	110.09
78	CA	994	G	O4'-C1'-N9	9.93	123.40	108.50
81	DA	184	U	O4'-C1'-C2'	-9.93	97.67	107.60
45	BR	54	LEU	N-CA-C	9.93	123.86	110.35
81	DA	3103	A	C3'-C2'-C1'	9.93	111.23	101.30
78	CA	347	G	P-O3'-C3'	-9.93	105.31	120.20
78	CA	470	A	O4'-C1'-C2'	-9.93	97.67	107.60
81	DA	169	U	C1'-O4'-C4'	9.92	119.82	109.90
78	CA	303	U	O4'-C1'-C2'	-9.92	97.68	107.60
78	CA	1475	A	O4'-C1'-C2'	-9.92	97.68	107.60
79	CB	30	G	P-O3'-C3'	9.92	135.08	120.20
79	CB	71	A	N9-C1'-C2'	9.92	126.88	112.00
81	DA	2378	C	N1-C1'-C2'	9.92	126.88	112.00
78	CA	853	G	N9-C1'-C2'	-9.92	97.13	112.00
81	DA	3296	A	N9-C1'-C2'	9.92	126.87	112.00
81	DA	1637	A	P-O3'-C3'	9.91	135.07	120.20
81	DA	2376	G	O4'-C1'-C2'	-9.91	97.69	107.60
83	DC	21	G	C3'-C2'-C1'	-9.91	91.39	101.30
81	DA	311	C	O4'-C1'-C2'	-9.91	97.69	107.60
83	DC	3	U	P-O5'-C5'	9.91	135.76	120.90
78	CA	824	G	P-O3'-C3'	9.91	135.06	120.20
81	DA	3215	A	C1'-C2'-O2'	-9.91	88.39	108.20
35	BG	77	ARG	CD-NE-CZ	-9.90	110.53	124.40
78	CA	623	A	N9-C1'-C2'	-9.90	99.14	114.00
81	DA	1079	A	O4'-C1'-C2'	-9.90	95.90	105.80
81	DA	1675	G	O4'-C1'-N9	9.90	123.06	108.20
81	DA	2254	U	C1'-O4'-C4'	9.90	119.81	109.90
83	DC	77	A	O4'-C1'-C2'	-9.90	97.69	107.60
32	BC	250	ALA	CB-CA-C	-9.90	95.26	110.90
81	DA	71	A	P-O3'-C3'	9.90	135.04	120.20
81	DA	1805	C	P-O3'-C3'	9.90	135.04	120.20
81	DA	2444	C	O4'-C1'-C2'	-9.90	97.70	107.60
4	AD	239	PRO	CA-N-CD	-9.89	97.65	111.50
83	DC	16	U	P-O3'-C3'	9.89	135.04	120.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	852	C	O4'-C1'-C2'	-9.89	97.71	107.60
81	DA	1563	C	O4'-C1'-C2'	-9.89	97.71	107.60
81	DA	2625	C	O4'-C1'-C2'	-9.89	95.91	105.80
81	DA	3090	U	O5'-C5'-C4'	9.89	126.33	111.50
81	DA	3383	G	P-O3'-C3'	9.89	135.03	120.20
53	Ba	62	VAL	CB-CA-C	-9.88	96.68	110.12
81	DA	1207	G	O3'-P-O5'	-9.88	89.17	104.00
81	DA	3189	G	P-O3'-C3'	9.88	135.03	120.20
82	DB	46	G	N9-C1'-C2'	9.88	126.83	112.00
78	CA	667	U	P-O3'-C3'	9.88	135.02	120.20
81	DA	2948	C	N1-C1'-C2'	9.88	126.82	112.00
35	BG	92	SER	CA-C-N	9.87	136.46	123.03
35	BG	92	SER	C-N-CA	9.87	136.46	123.03
35	BG	96	VAL	N-CA-C	-9.87	88.81	109.34
81	DA	1238	C	C5'-C4'-C3'	9.87	130.80	116.00
82	DB	149	A	P-O3'-C3'	9.87	135.00	120.20
44	BO	73	LEU	CA-C-N	9.87	135.31	120.31
44	BO	73	LEU	C-N-CA	9.87	135.31	120.31
76	BS	41	SER	CB-CA-C	-9.87	94.41	110.79
81	DA	1277	C	P-O3'-C3'	9.87	135.00	120.20
81	DA	1513	G	N9-C1'-C2'	9.87	126.80	112.00
81	DA	2079	G	O3'-P-O5'	9.87	118.80	104.00
81	DA	2455	U	O4'-C1'-C2'	-9.87	97.73	107.60
81	DA	1687	U	C5'-C4'-C3'	9.86	130.80	116.00
83	DC	57	C	O4'-C1'-C2'	-9.87	97.73	107.60
83	DC	7	G	P-O3'-C3'	9.86	135.00	120.20
78	CA	1348	A	C1'-O4'-C4'	-9.86	100.04	109.90
5	AC	129	ILE	CB-CA-C	9.85	125.82	112.22
76	BS	151	PHE	CA-CB-CG	9.85	123.65	113.80
78	CA	964	U	O4'-C1'-N1	9.85	123.28	108.50
46	BT	80	LYS	N-CA-C	9.85	121.61	111.07
78	CA	1241	G	O4'-C1'-C2'	-9.85	97.75	107.60
81	DA	3253	G	N9-C1'-C2'	9.85	126.78	112.00
81	DA	309	U	O3'-P-O5'	-9.85	89.22	104.00
81	DA	3148	U	O4'-C1'-C2'	-9.85	97.75	107.60
78	CA	667	U	O4'-C1'-N1	9.85	123.27	108.50
81	DA	3050	U	C5'-C4'-C3'	-9.85	101.23	116.00
81	DA	3163	A	P-O3'-C3'	9.85	134.97	120.20
81	DA	2621	G	P-O5'-C5'	9.84	135.66	120.90
78	CA	1096	C	C3'-C2'-C1'	9.84	111.14	101.30
81	DA	783	A	P-O3'-C3'	9.84	134.96	120.20
81	DA	2194	G	O4'-C1'-N9	9.84	123.26	108.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
13	AL	6	PRO	CA-N-CD	-9.84	98.23	112.00
78	CA	1398	U	P-O5'-C5'	-9.84	106.14	120.90
81	DA	1788	C	C5'-C4'-C3'	9.84	130.75	116.00
81	DA	2627	C	C3'-C2'-C1'	9.83	111.33	101.50
41	BN	108	ARG	CA-C-O	9.83	131.14	120.82
81	DA	3011	A	P-O5'-C5'	-9.83	106.15	120.90
30	BA	191	VAL	N-CA-CB	9.83	127.46	110.65
66	Bo	25	GLN	CA-C-N	9.83	133.45	120.28
66	Bo	25	GLN	C-N-CA	9.83	133.45	120.28
81	DA	3222	U	O4'-C1'-N1	9.83	123.24	108.50
19	AR	130	ARG	CB-CA-C	-9.83	92.58	110.56
81	DA	1082	U	O4'-C1'-C2'	-9.83	97.77	107.60
81	DA	2682	C	O4'-C4'-C3'	-9.83	94.17	104.00
17	AQ	96	SER	N-CA-C	9.82	121.68	110.97
35	BG	76	LEU	N-CA-CB	9.82	127.09	110.49
78	CA	1458	G	C1'-O4'-C4'	-9.82	100.08	109.90
81	DA	566	G	P-O3'-C3'	9.82	134.93	120.20
81	DA	1873	U	N1-C1'-C2'	9.82	126.73	112.00
78	CA	1548	G	O3'-P-O5'	9.82	118.73	104.00
81	DA	894	G	P-O3'-C3'	9.82	134.93	120.20
81	DA	1113	G	P-O3'-C3'	-9.82	105.47	120.20
81	DA	1015	U	O4'-C1'-N1	9.82	123.23	108.50
81	DA	2437	G	P-O3'-C3'	9.82	134.93	120.20
45	BR	21	SER	CA-C-N	9.82	133.43	120.28
45	BR	21	SER	C-N-CA	9.82	133.43	120.28
81	DA	2099	A	C4'-C3'-O3'	-9.82	98.27	113.00
81	DA	2265	C	P-O3'-C3'	-9.81	105.48	120.20
81	DA	2682	C	P-O3'-C3'	9.81	134.92	120.20
81	DA	3361	G	P-O3'-C3'	9.81	134.92	120.20
81	DA	1221	A	N9-C1'-C2'	-9.81	97.28	112.00
81	DA	2657	A	O4'-C1'-C2'	-9.81	95.99	105.80
78	CA	81	G	C1'-O4'-C4'	-9.81	100.09	109.90
51	BZ	51	TRP	CB-CA-C	9.80	126.98	111.39
78	CA	32	U	N1-C1'-C2'	-9.81	97.29	112.00
81	DA	124	U	C3'-C2'-C1'	9.80	111.11	101.30
81	DA	3239	G	N9-C1'-C2'	9.80	126.71	112.00
78	CA	1492	A	C5'-C4'-C3'	9.80	129.60	114.90
81	DA	969	C	N1-C1'-C2'	-9.80	97.29	112.00
78	CA	887	A	C3'-C2'-C1'	9.80	111.10	101.30
81	DA	2420	C	C3'-C2'-C1'	9.80	111.10	101.30
51	BZ	67	VAL	O-C-N	-9.80	110.32	122.57
73	Bv	16	THR	CB-CA-C	-9.80	96.59	109.92

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1404	G	C4'-C3'-C2'	-9.80	92.80	102.60
81	DA	3325	G	C5'-C4'-C3'	9.80	130.70	116.00
22	AV	26	LYS	N-CA-CB	9.79	127.04	110.49
81	DA	1209	G	P-O3'-C3'	9.80	134.90	120.20
37	BH	229	VAL	CB-CA-C	-9.79	100.20	110.88
74	BQ	39	GLN	O-C-N	-9.79	110.77	122.22
81	DA	3091	A	P-O3'-C3'	9.79	134.88	120.20
78	CA	53	G	O3'-P-O5'	9.78	118.67	104.00
43	BP	176	LYS	N-CA-C	-9.78	96.15	109.54
45	BR	39	ARG	N-CA-CB	9.78	125.43	110.28
78	CA	719	U	P-O3'-C3'	9.78	134.86	120.20
81	DA	2437	G	N9-C1'-C2'	-9.78	99.34	114.00
78	CA	1164	G	O4'-C1'-N9	9.77	123.16	108.50
78	CA	1395	G	P-O3'-C3'	9.77	134.86	120.20
81	DA	1667	A	O4'-C1'-C2'	-9.77	97.83	107.60
81	DA	2175	U	O4'-C1'-C2'	-9.77	97.83	107.60
78	CA	1417	A	C3'-C2'-C1'	9.77	111.07	101.30
81	DA	1319	G	O4'-C1'-C2'	9.77	117.37	107.60
81	DA	2086	A	P-O3'-C3'	9.77	134.86	120.20
81	DA	3385	U	O5'-C5'-C4'	9.77	126.16	111.50
81	DA	3214	U	C5'-C4'-C3'	9.77	129.85	115.20
81	DA	672	A	C1'-O4'-C4'	-9.77	100.14	109.90
78	CA	729	G	P-O3'-C3'	9.76	134.84	120.20
4	AD	226	PHE	CA-CB-CG	-9.76	104.04	113.80
29	AU	6	THR	CA-C-N	9.76	139.54	121.97
29	AU	6	THR	C-N-CA	9.76	139.54	121.97
81	DA	2050	C	O4'-C1'-C2'	-9.76	97.84	107.60
81	DA	1634	G	P-O5'-C5'	9.76	135.54	120.90
81	DA	1974	A	C5'-C4'-C3'	9.76	130.64	116.00
4	AD	90	ILE	CA-C-N	9.76	139.74	121.69
4	AD	90	ILE	C-N-CA	9.76	139.74	121.69
81	DA	555	U	O4'-C1'-N1	9.76	122.83	108.20
81	DA	2697	A	C3'-C2'-C1'	9.76	111.06	101.30
83	DC	51	G	O4'-C1'-N9	9.76	123.14	108.50
34	BE	167	TYR	N-CA-C	9.75	124.85	111.39
81	DA	1870	C	C4'-C3'-C2'	9.75	112.35	102.60
50	BX	63	ILE	N-CA-C	-9.75	96.02	108.89
53	Ba	33	SER	N-CA-C	-9.75	98.37	110.65
42	BM	64	LYS	CA-C-O	-9.74	110.18	121.68
81	DA	491	C	P-O3'-C3'	9.74	134.81	120.20
81	DA	2442	G	O4'-C1'-C2'	-9.74	97.86	107.60
81	DA	1335	C	P-O3'-C3'	9.74	134.81	120.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1679	A	O3'-P-O5'	-9.74	89.39	104.00
3	AB	75	LYS	N-CA-C	9.74	121.89	111.28
78	CA	1530	C	O4'-C1'-N1	9.74	123.10	108.50
81	DA	3076	C	N1-C1'-C2'	9.74	126.60	112.00
81	DA	1678	G	N9-C1'-C2'	-9.73	97.40	112.00
11	AJ	103	ILE	N-CA-C	9.73	119.76	110.42
47	BU	131	GLN	CA-C-O	-9.73	109.19	118.73
78	CA	213	A	P-O3'-C3'	-9.73	105.61	120.20
78	CA	1451	C	N1-C1'-C2'	9.73	126.60	112.00
78	CA	1548	G	O4'-C1'-C2'	9.73	117.33	107.60
81	DA	3074	G	P-O5'-C5'	9.73	135.50	120.90
46	BT	15	VAL	N-CA-C	-9.73	103.20	112.83
78	CA	1058	U	P-O3'-C3'	9.73	134.79	120.20
81	DA	1260	A	P-O5'-C5'	-9.73	106.31	120.90
81	DA	238	A	O4'-C1'-C2'	-9.72	97.88	107.60
81	DA	2827	U	O4'-C1'-N1	9.72	122.78	108.20
78	CA	1386	G	C3'-C2'-C1'	-9.72	91.58	101.30
51	BZ	31	PHE	CA-CB-CG	-9.71	104.08	113.80
81	DA	2479	C	C3'-C2'-C1'	-9.72	91.58	101.30
81	DA	3357	U	P-O3'-C3'	9.72	134.77	120.20
81	DA	65	A	P-O3'-C3'	9.71	134.77	120.20
81	DA	1641	U	O4'-C1'-N1	9.71	123.07	108.50
81	DA	2187	G	O4'-C1'-C2'	-9.71	97.89	107.60
33	BD	349	THR	CB-CA-C	9.71	129.75	110.42
78	CA	386	G	N9-C1'-C2'	9.71	126.57	112.00
81	DA	2163	C	C3'-C2'-C1'	9.71	111.01	101.30
78	CA	1091	A	O4'-C1'-C2'	-9.71	96.09	105.80
81	DA	1247	U	O4'-C1'-N1	9.71	123.06	108.50
81	DA	2264	U	N1-C1'-C2'	9.71	126.56	112.00
76	BS	103	GLY	CA-C-N	9.71	133.29	120.28
76	BS	103	GLY	C-N-CA	9.71	133.29	120.28
81	DA	2001	U	C1'-O4'-C4'	9.70	119.60	109.90
81	DA	20	A	P-O3'-C3'	9.70	134.75	120.20
78	CA	683	C	O4'-C1'-N1	9.70	123.05	108.50
81	DA	209	A	N9-C1'-C2'	-9.70	97.45	112.00
32	BC	345	ASN	CA-C-O	-9.70	106.65	120.51
59	Bh	20	HIS	CA-CB-CG	9.70	123.50	113.80
81	DA	768	C	P-O3'-C3'	9.70	134.74	120.20
4	AD	153	ASN	N-CA-CB	-9.69	95.83	111.24
6	AE	24	ARG	CA-CB-CG	9.69	133.49	114.10
81	DA	1169	A	N9-C1'-C2'	9.69	126.54	112.00
81	DA	521	A	P-O5'-C5'	9.69	135.44	120.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2108	C	C3'-C2'-C1'	9.69	110.99	101.30
6	AE	4	PRO	CB-CA-C	9.69	127.55	111.56
35	BG	132	ALA	N-CA-CB	-9.69	95.88	110.12
78	CA	1419	G	C3'-C2'-C1'	-9.69	91.61	101.30
81	DA	1160	C	P-O3'-C3'	9.69	134.74	120.20
38	Bs	5	ARG	N-CA-C	-9.69	97.65	110.24
72	Bu	60	ASN	N-CA-CB	-9.69	96.24	110.87
81	DA	1462	A	O3'-P-O5'	-9.69	89.47	104.00
5	AC	18	PRO	CA-C-O	-9.69	102.97	120.60
81	DA	3349	C	P-O3'-C3'	9.69	134.73	120.20
81	DA	2305	G	P-O5'-C5'	9.68	135.43	120.90
78	CA	630	A	C1'-O4'-C4'	9.68	119.58	109.90
57	Be	200	ASN	CA-CB-CG	9.67	122.27	112.60
78	CA	1364	G	P-O3'-C3'	9.67	134.71	120.20
81	DA	3334	U	N1-C1'-C2'	-9.67	99.49	114.00
81	DA	1690	C	O3'-P-O5'	-9.67	89.50	104.00
13	AL	65	ASN	CA-CB-CG	9.66	122.26	112.60
33	BD	148	ILE	CB-CA-C	9.66	128.95	111.36
81	DA	89	A	O4'-C1'-C2'	-9.66	97.94	107.60
57	Be	200	ASN	N-CA-C	-9.66	90.22	110.80
38	Bs	34	SER	N-CA-CB	9.66	123.71	110.38
81	DA	211	A	O4'-C1'-C2'	-9.66	96.14	105.80
81	DA	1329	U	C3'-C2'-C1'	9.66	110.96	101.30
81	DA	2887	A	N9-C1'-C2'	9.66	128.48	114.00
83	DC	9	C	O3'-P-O5'	-9.66	89.52	104.00
30	BA	27	ASN	CA-CB-CG	-9.65	102.95	112.60
81	DA	2525	G	P-O3'-C3'	9.65	134.68	120.20
81	DA	3106	A	P-O3'-C3'	-9.65	105.72	120.20
31	BB	249	SER	CA-C-N	-9.65	105.97	122.67
31	BB	249	SER	C-N-CA	-9.65	105.97	122.67
58	Bg	43	HIS	CG-CD2-NE2	9.65	116.85	107.20
81	DA	2486	A	O3'-P-O5'	9.65	118.48	104.00
78	CA	56	U	O4'-C1'-N1	9.65	122.67	108.20
81	DA	2998	U	N1-C1'-C2'	-9.65	97.53	112.00
66	Bo	12	LYS	CA-CB-CG	-9.64	94.81	114.10
81	DA	2107	A	P-O3'-C3'	9.64	134.67	120.20
31	BB	50	HIS	CA-CB-CG	-9.64	104.16	113.80
60	Bi	19	LYS	N-CA-C	-9.64	90.27	110.80
81	DA	1128	U	N1-C1'-C2'	9.64	126.46	112.00
81	DA	2363	A	P-O3'-C3'	9.64	134.66	120.20
81	DA	1870	C	C2'-C3'-O3'	-9.64	99.24	113.70
31	BB	125	ALA	N-CA-C	-9.64	100.39	112.72

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1358	C	N1-C1'-C2'	9.64	126.45	112.00
78	CA	893	U	P-O5'-C5'	9.63	135.35	120.90
78	CA	1394	G	O4'-C1'-N9	9.63	122.95	108.50
78	CA	172	C	O4'-C1'-C2'	-9.63	97.97	107.60
78	CA	1772	C	P-O5'-C5'	9.63	135.35	120.90
81	DA	521	A	O5'-C5'-C4'	-9.63	97.06	111.50
81	DA	1725	C	O4'-C1'-C2'	-9.63	97.97	107.60
78	CA	81	G	N9-C1'-C2'	9.63	126.44	112.00
79	CB	2	C	N1-C1'-C2'	9.63	126.44	112.00
81	DA	2264	U	O4'-C1'-C2'	-9.63	97.97	107.60
78	CA	1427	A	C5'-C4'-C3'	9.63	129.64	115.20
81	DA	2192	C	P-O3'-C3'	9.63	134.64	120.20
55	Bc	102	GLU	CA-C-O	-9.62	106.75	120.51
81	DA	995	U	O4'-C1'-C2'	-9.62	97.98	107.60
82	DB	65	A	P-O3'-C3'	9.62	134.63	120.20
78	CA	1355	C	O4'-C1'-C2'	-9.62	97.98	107.60
81	DA	298	U	N1-C1'-C2'	9.62	128.43	114.00
81	DA	2527	G	C3'-C2'-C1'	-9.62	91.68	101.30
81	DA	1267	U	O4'-C1'-C2'	-9.62	97.98	107.60
78	CA	61	A	O4'-C1'-C2'	-9.62	97.98	107.60
40	BK	134	LYS	N-CA-C	-9.61	90.33	110.80
61	Bj	39	GLN	CG-CD-NE2	-9.61	101.98	116.40
81	DA	576	C	N1-C1'-C2'	9.61	126.42	112.00
81	DA	2496	C	O3'-P-O5'	-9.61	89.58	104.00
44	BO	60	TYR	N-CA-CB	9.61	127.42	110.80
81	DA	317	A	N9-C1'-C2'	9.61	126.41	112.00
83	DC	69	G	P-O3'-C3'	9.61	134.61	120.20
60	Bi	64	THR	CA-C-N	9.60	139.26	121.97
60	Bi	64	THR	C-N-CA	9.60	139.26	121.97
81	DA	337	G	N9-C1'-C2'	-9.60	99.60	114.00
81	DA	1008	U	P-O3'-C3'	9.60	134.60	120.20
32	BC	157	VAL	CA-C-N	9.60	139.25	121.97
32	BC	157	VAL	C-N-CA	9.60	139.25	121.97
81	DA	573	C	O4'-C1'-C2'	-9.60	98.00	107.60
5	AC	15	PRO	CA-N-CD	-9.60	98.57	112.00
78	CA	478	A	P-O3'-C3'	9.60	134.59	120.20
81	DA	2437	G	O4'-C1'-N9	9.59	122.59	108.20
78	CA	496	G	O3'-P-O5'	-9.59	89.61	104.00
78	CA	1009	U	P-O3'-C3'	9.59	134.59	120.20
81	DA	681	U	N1-C1'-C2'	9.59	128.38	114.00
81	DA	637	C	P-O5'-C5'	-9.59	106.52	120.90
81	DA	2280	A	P-O3'-C3'	9.59	134.58	120.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
82	DB	58	G	P-O3'-C3'	9.59	134.58	120.20
78	CA	886	U	O4'-C1'-C2'	-9.58	98.02	107.60
78	CA	275	C	O4'-C1'-C2'	-9.58	98.02	107.60
81	DA	2209	U	C5'-C4'-C3'	9.58	130.37	116.00
81	DA	916	G	P-O3'-C3'	9.58	134.57	120.20
41	BN	31	LYS	CB-CA-C	-9.58	100.41	114.87
81	DA	767	U	O4'-C1'-C2'	-9.58	98.02	107.60
81	DA	1560	G	O3'-P-O5'	-9.58	89.63	104.00
82	DB	120	C	O4'-C1'-C2'	-9.58	98.02	107.60
81	DA	774	G	N9-C1'-C2'	9.57	126.36	112.00
29	AU	23	PHE	CA-CB-CG	9.57	123.37	113.80
81	DA	873	C	C3'-C2'-C1'	9.57	110.87	101.30
78	CA	1396	U	P-O3'-C3'	9.57	134.55	120.20
81	DA	2421	U	O4'-C1'-C2'	-9.57	98.03	107.60
81	DA	3299	A	O4'-C1'-N9	9.56	122.85	108.50
81	DA	1754	G	C5'-C4'-C3'	9.56	130.34	116.00
10	AI	140	LYS	N-CA-C	-9.56	90.44	110.80
81	DA	3003	G	O4'-C1'-C2'	9.56	117.16	107.60
78	CA	189	C	O4'-C1'-C2'	-9.56	98.04	107.60
78	CA	1551	U	C5'-C4'-C3'	9.56	130.33	116.00
3	AB	184	ILE	N-CA-CB	9.55	126.99	111.23
53	Ba	13	VAL	CB-CA-C	9.55	126.96	111.29
74	BQ	291	ALA	N-CA-C	9.55	121.69	111.28
81	DA	113	C	N1-C1'-C2'	9.55	126.33	112.00
78	CA	1108	G	N9-C1'-C2'	-9.55	97.67	112.00
81	DA	769	G	P-O3'-C3'	9.55	134.53	120.20
74	BQ	142	PHE	CA-C-N	9.55	135.61	122.34
74	BQ	142	PHE	C-N-CA	9.55	135.61	122.34
78	CA	837	G	O3'-P-O5'	-9.55	89.68	104.00
47	BU	135	PRO	N-CA-CB	9.54	113.02	103.48
78	CA	402	C	O4'-C1'-N1	-9.54	94.19	108.50
81	DA	3092	C	C3'-C2'-C1'	9.54	110.84	101.30
14	AM	126	ARG	N-CA-CB	9.54	124.14	110.12
81	DA	448	U	P-O3'-C3'	9.54	134.51	120.20
81	DA	1757	A	P-O3'-C3'	9.53	134.50	120.20
45	BR	98	LYS	N-CA-C	-9.53	90.50	110.80
78	CA	1338	C	C2'-C3'-O3'	9.53	128.00	113.70
78	CA	218	A	O4'-C1'-C2'	9.53	117.13	107.60
81	DA	1839	A	N9-C1'-C2'	9.53	126.29	112.00
81	DA	2720	G	O4'-C1'-C2'	-9.53	98.07	107.60
5	AC	38	ASN	CA-CB-CG	-9.53	103.07	112.60
78	CA	1478	G	C1'-O4'-C4'	-9.52	100.38	109.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2631	U	P-O3'-C3'	9.52	134.49	120.20
81	DA	3140	G	O4'-C1'-C2'	-9.52	98.08	107.60
81	DA	1866	C	C3'-C2'-C1'	9.52	110.82	101.30
32	BC	364	LYS	N-CA-CB	-9.52	97.00	110.51
81	DA	1235	U	P-O3'-C3'	9.52	134.48	120.20
33	BD	341	SER	CB-CA-C	-9.52	95.94	110.88
81	DA	1879	A	P-O3'-C3'	9.52	134.47	120.20
64	Bl	78	PHE	CA-CB-CG	-9.51	104.29	113.80
81	DA	384	A	N9-C1'-C2'	9.51	126.27	112.00
81	DA	1296	C	O3'-P-O5'	-9.51	89.73	104.00
81	DA	2072	G	P-O3'-C3'	9.51	134.46	120.20
81	DA	2444	C	C4'-C3'-C2'	-9.51	93.09	102.60
12	AK	123	SER	N-CA-CB	9.51	126.56	110.49
81	DA	3305	A	O3'-P-O5'	-9.51	89.74	104.00
78	CA	304	U	C5'-C4'-C3'	9.51	130.26	116.00
61	Bj	38	PRO	N-CA-C	9.50	132.05	112.47
30	BA	188	ASN	O-C-N	9.50	131.86	122.07
18	AP	40	LEU	N-CA-C	-9.50	95.06	109.60
78	CA	1565	C	C3'-C2'-C1'	9.50	110.80	101.30
78	CA	1589	C	C3'-C2'-C1'	9.50	110.80	101.30
81	DA	1789	G	C3'-C2'-C1'	-9.50	91.80	101.30
81	DA	1673	G	P-O3'-C3'	9.50	134.45	120.20
81	DA	2950	G	C2'-C3'-O3'	9.50	123.75	109.50
55	Bc	42	PRO	N-CA-C	-9.50	101.13	113.57
81	DA	1397	C	N1-C1'-C2'	9.50	126.25	112.00
18	AP	122	ILE	N-CA-C	-9.50	96.45	109.55
81	DA	2049	A	C3'-C2'-C1'	9.50	110.80	101.30
83	DC	60	G	C1'-O4'-C4'	-9.50	100.40	109.90
76	BS	66	ILE	N-CA-C	9.49	129.09	109.34
78	CA	1338	C	P-O3'-C3'	9.49	134.44	120.20
8	AF	123	VAL	N-CA-CB	-9.49	96.34	110.58
12	AK	27	PHE	CA-CB-CG	-9.49	104.31	113.80
78	CA	1649	G	O4'-C1'-C2'	-9.49	98.11	107.60
1	Aa	278	PHE	CA-CB-CG	-9.49	104.31	113.80
74	BQ	249	ALA	CA-C-O	-9.49	108.69	119.41
81	DA	1285	G	C4'-C3'-O3'	9.49	123.63	109.40
81	DA	3067	C	O4'-C1'-C2'	-9.49	98.11	107.60
20	AS	90	PRO	CA-N-CD	-9.48	98.72	112.00
24	AX	75	GLU	N-CA-C	-9.48	95.01	109.14
41	BN	40	ASP	N-CA-CB	9.48	125.76	110.97
78	CA	27	U	O3'-P-O5'	9.48	118.22	104.00
78	CA	647	G	O4'-C1'-C2'	-9.48	98.12	107.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
59	Bh	20	HIS	CB-CA-C	-9.48	91.55	110.42
81	DA	2705	A	N9-C1'-C2'	-9.48	99.78	114.00
6	AE	7	GLN	CB-CA-C	9.48	129.28	110.42
10	AI	89	LEU	CA-C-N	9.48	133.90	120.53
10	AI	89	LEU	C-N-CA	9.48	133.90	120.53
78	CA	513	U	P-O3'-C3'	9.48	134.42	120.20
40	BK	133	ARG	CD-NE-CZ	9.48	137.67	124.40
81	DA	2676	A	P-O3'-C3'	9.48	134.42	120.20
81	DA	2372	A	C3'-C2'-C1'	9.47	110.78	101.30
81	DA	3374	U	N1-C1'-C2'	9.47	128.21	114.00
76	BS	123	ILE	O-C-N	-9.47	110.73	122.57
78	CA	1601	G	C2'-C3'-O3'	9.47	123.71	109.50
81	DA	606	C	P-O3'-C3'	9.47	134.41	120.20
81	DA	3107	U	P-O5'-C5'	9.47	135.11	120.90
73	Bw	16	THR	CB-CA-C	-9.47	97.04	109.92
78	CA	1568	C	O4'-C1'-N1	9.47	122.41	108.20
82	DB	33	A	P-O3'-C3'	9.47	134.41	120.20
4	AD	196	VAL	CB-CA-C	-9.46	99.64	112.04
78	CA	1536	G	N9-C1'-C2'	9.47	126.20	112.00
81	DA	1038	C	O4'-C1'-C2'	-9.46	98.14	107.60
13	AL	99	ASN	CA-CB-CG	9.46	122.06	112.60
77	BI	176	LEU	CA-C-N	9.46	134.69	120.31
77	BI	176	LEU	C-N-CA	9.46	134.69	120.31
81	DA	606	C	N1-C1'-C2'	9.46	126.19	112.00
81	DA	1904	C	N1-C1'-C2'	9.46	126.19	112.00
81	DA	2755	C	C3'-C2'-C1'	9.46	110.96	101.50
18	AP	108	PRO	CB-CA-C	-9.46	95.95	111.56
81	DA	2446	U	P-O5'-C5'	9.46	135.09	120.90
26	AZ	29	LYS	CA-C-N	9.45	129.54	119.05
26	AZ	29	LYS	C-N-CA	9.45	129.54	119.05
76	BS	159	ARG	CA-C-O	-9.46	107.21	120.16
78	CA	1134	C	N1-C1'-C2'	9.45	126.18	112.00
81	DA	933	A	O4'-C1'-N9	9.46	122.68	108.50
81	DA	960	U	N1-C1'-C2'	9.46	126.18	112.00
81	DA	1854	C	O4'-C1'-C2'	-9.45	98.15	107.60
83	DC	114	A	O5'-C5'-C4'	9.45	125.68	111.50
40	BK	63	ALA	N-CA-CB	-9.45	95.25	111.69
43	BP	16	SER	N-CA-C	9.45	123.95	108.26
78	CA	234	G	O4'-C1'-N9	9.45	122.67	108.50
4	AD	221	ARG	N-CA-CB	9.45	124.81	110.45
78	CA	235	G	C1'-O4'-C4'	-9.44	100.46	109.90
16	AO	41	ALA	N-CA-C	-9.44	95.71	108.74

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3010	U	C5'-C4'-C3'	9.44	130.16	116.00
81	DA	3333	G	O4'-C1'-C2'	9.44	117.04	107.60
82	DB	154	C	N1-C1'-C2'	9.44	126.15	112.00
83	DC	27	A	C3'-C2'-C1'	9.44	110.74	101.30
78	CA	312	A	C3'-C2'-C1'	9.43	110.93	101.50
81	DA	521	A	C5'-C4'-C3'	9.43	130.15	116.00
52	BY	24	SER	CA-C-N	9.43	132.92	120.28
52	BY	24	SER	C-N-CA	9.43	132.92	120.28
78	CA	993	A	P-O5'-C5'	9.43	135.04	120.90
82	DB	105	A	N9-C1'-C2'	9.43	128.14	114.00
44	BO	40	HIS	N-CA-C	-9.43	98.17	110.33
81	DA	1298	C	P-O3'-C3'	9.43	134.34	120.20
78	CA	1783	C	O4'-C1'-C2'	-9.43	98.17	107.60
81	DA	2629	U	P-O5'-C5'	9.43	135.04	120.90
81	DA	1219	C	O4'-C1'-C2'	-9.42	98.18	107.60
81	DA	1588	A	O4'-C1'-N9	9.42	122.34	108.20
1	Aa	59	ARG	N-CA-CB	-9.42	96.96	111.56
81	DA	671	U	C4'-C3'-C2'	-9.42	93.18	102.60
81	DA	1869	C	O4'-C1'-C2'	-9.42	98.18	107.60
81	DA	3255	U	P-O5'-C5'	9.42	135.03	120.90
5	AC	19	TYR	N-CA-CB	9.42	126.41	110.49
33	BD	342	LYS	N-CA-C	-9.42	100.89	111.82
81	DA	1847	A	P-O3'-C3'	9.42	134.33	120.20
81	DA	3203	U	P-O3'-C3'	9.42	134.32	120.20
2	AA	6	THR	O-C-N	-9.41	110.07	122.59
5	AC	12	TYR	CA-C-N	9.41	132.89	120.28
5	AC	12	TYR	C-N-CA	9.41	132.89	120.28
74	BQ	111	GLN	CA-C-O	-9.41	107.05	120.51
21	AT	70	ASN	CA-C-N	9.41	134.61	120.31
21	AT	70	ASN	C-N-CA	9.41	134.61	120.31
40	BK	147	TRP	N-CA-C	9.41	122.98	109.71
81	DA	680	G	P-O3'-C3'	9.41	134.32	120.20
81	DA	2422	C	C4'-C3'-O3'	-9.41	98.88	113.00
78	CA	1565	C	P-O5'-C5'	9.41	135.01	120.90
78	CA	1584	G	P-O3'-C3'	9.41	134.31	120.20
81	DA	198	A	C3'-C2'-C1'	9.41	110.71	101.30
40	BK	186	ALA	CA-C-O	-9.40	107.06	120.51
81	DA	983	A	O4'-C1'-N9	9.40	122.61	108.50
46	BT	81	ARG	CA-C-N	9.40	139.50	121.54
46	BT	81	ARG	C-N-CA	9.40	139.50	121.54
12	AK	121	VAL	CA-C-N	-9.40	108.09	119.84
12	AK	121	VAL	C-N-CA	-9.40	108.09	119.84

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
40	BK	152	VAL	N-CA-C	9.40	120.21	110.62
79	CB	11	U	P-O3'-C3'	9.40	134.30	120.20
55	Bc	81	ARG	CB-CA-C	-9.40	95.19	110.79
78	CA	630	A	P-O3'-C3'	9.40	134.30	120.20
81	DA	157	A	P-O3'-C3'	9.40	134.29	120.20
78	CA	369	A	O4'-C1'-C2'	-9.39	98.20	107.60
81	DA	2376	G	O3'-P-O5'	-9.39	89.91	104.00
78	CA	1158	C	O4'-C1'-C2'	-9.39	96.41	105.80
59	Bh	127	ALA	N-CA-CB	-9.39	96.39	110.01
78	CA	885	G	C5'-C4'-C3'	-9.39	101.92	116.00
81	DA	597	G	C1'-O4'-C4'	-9.39	100.51	109.90
83	DC	29	C	C3'-C2'-C1'	9.39	110.69	101.30
83	DC	2	G	P-O5'-C5'	9.39	134.98	120.90
47	BU	8	ARG	N-CA-CB	9.38	124.67	110.22
29	AU	72	PHE	N-CA-C	9.38	130.78	110.80
53	Ba	62	VAL	N-CA-C	9.38	121.76	107.78
78	CA	1367	G	O5'-C5'-C4'	9.38	125.57	111.50
81	DA	1885	U	P-O3'-C3'	9.38	134.27	120.20
81	DA	1668	G	P-O3'-C3'	9.38	134.27	120.20
81	DA	7	C	O4'-C1'-C2'	-9.38	98.22	107.60
81	DA	2779	A	P-O3'-C3'	9.38	134.26	120.20
82	DB	121	U	P-O3'-C3'	9.38	134.26	120.20
40	BK	120	VAL	CA-C-N	9.37	131.56	119.84
40	BK	120	VAL	C-N-CA	9.37	131.56	119.84
33	BD	353	ALA	N-CA-C	9.37	130.76	110.80
83	DC	49	G	O5'-C5'-C4'	-9.37	97.45	111.50
78	CA	1340	U	C5'-C4'-C3'	9.36	130.05	116.00
81	DA	1338	C	C1'-O4'-C4'	9.37	119.27	109.90
81	DA	1711	C	N1-C1'-C2'	9.37	126.05	112.00
81	DA	1847	A	N9-C1'-C2'	-9.37	99.95	114.00
81	DA	3107	U	C4'-C3'-C2'	-9.37	93.23	102.60
6	AE	69	ILE	N-CA-C	-9.36	102.47	113.42
11	AJ	119	ALA	CA-C-N	-9.36	108.32	122.74
11	AJ	119	ALA	C-N-CA	-9.36	108.32	122.74
81	DA	408	A	P-O3'-C3'	9.36	134.24	120.20
81	DA	623	U	P-O3'-C3'	9.36	134.25	120.20
81	DA	1624	G	O5'-C5'-C4'	9.36	125.54	111.50
81	DA	3372	A	O3'-P-O5'	9.36	118.04	104.00
13	AL	93	LEU	N-CA-C	9.36	121.56	111.36
65	Bn	36	LYS	N-CA-C	-9.36	89.12	109.81
79	CB	25	U	P-O3'-C3'	9.36	134.24	120.20
81	DA	3047	U	C3'-C2'-C1'	9.36	110.66	101.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	AD	235	TYR	CB-CA-C	-9.36	91.19	111.78
81	DA	185	C	C1'-O4'-C4'	-9.36	100.54	109.90
3	AB	78	LYS	N-CA-C	-9.36	90.88	110.80
81	DA	2663	G	P-O3'-C3'	9.36	134.23	120.20
78	CA	393	C	P-O3'-C3'	9.35	134.23	120.20
81	DA	250	U	P-O3'-C3'	9.35	134.23	120.20
81	DA	666	A	O4'-C1'-N9	9.35	122.53	108.50
34	BE	111	ASP	N-CA-CB	9.35	126.29	110.49
78	CA	1477	G	O4'-C1'-N9	9.35	122.53	108.50
81	DA	2249	G	O3'-P-O5'	9.35	118.03	104.00
51	BZ	51	TRP	N-CA-CB	9.35	123.38	110.10
78	CA	196	G	N9-C1'-C2'	9.35	126.02	112.00
81	DA	374	A	O4'-C1'-N9	9.35	122.22	108.20
20	AS	104	VAL	CA-C-N	9.35	133.56	120.29
20	AS	104	VAL	C-N-CA	9.35	133.56	120.29
61	Bj	45	LEU	N-CA-CB	9.35	123.77	109.85
81	DA	3132	C	N1-C1'-C2'	9.35	126.02	112.00
26	AZ	5	HIS	N-CA-CB	9.34	123.99	110.16
81	DA	579	G	O4'-C1'-N9	9.34	122.51	108.50
11	AJ	30	LYS	CA-C-N	9.34	132.52	120.56
11	AJ	30	LYS	C-N-CA	9.34	132.52	120.56
81	DA	688	G	P-O3'-C3'	9.34	134.21	120.20
32	BC	4	ARG	N-CA-C	-9.34	95.22	109.14
81	DA	186	U	P-O5'-C5'	9.34	134.91	120.90
82	DB	72	A	O3'-P-O5'	-9.34	89.99	104.00
74	BQ	145	PHE	CA-CB-CG	-9.34	104.46	113.80
74	BQ	239	ILE	N-CA-C	9.34	128.76	109.34
81	DA	2362	C	C4'-C3'-C2'	9.34	111.94	102.60
62	Bk	82	ARG	N-CA-C	9.33	123.11	112.57
78	CA	467	G	P-O5'-C5'	9.33	134.90	120.90
78	CA	1701	A	P-O3'-C3'	9.33	134.20	120.20
81	DA	3304	U	O4'-C1'-C2'	-9.33	98.27	107.60
3	AB	78	LYS	N-CA-CB	9.33	126.25	110.49
43	BP	2	GLY	CA-C-O	-9.33	104.34	120.57
52	BY	111	LEU	CA-C-N	9.33	139.36	121.54
52	BY	111	LEU	C-N-CA	9.33	139.36	121.54
81	DA	518	G	C3'-C2'-C1'	9.33	110.63	101.30
81	DA	2179	C	P-O3'-C3'	9.33	134.19	120.20
55	Bc	102	GLU	CA-C-N	9.32	139.35	121.54
55	Bc	102	GLU	C-N-CA	9.32	139.35	121.54
81	DA	1216	C	O4'-C1'-C2'	-9.32	98.28	107.60
57	Be	224	ILE	N-CA-C	9.32	120.13	110.62

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2917	G	C1'-O4'-C4'	-9.32	100.58	109.90
35	BG	171	PRO	N-CA-C	-9.32	93.27	112.47
81	DA	149	U	P-O3'-C3'	9.32	134.18	120.20
81	DA	2263	C	P-O3'-C3'	9.32	134.18	120.20
4	AD	158	ASP	CA-CB-CG	9.32	121.92	112.60
78	CA	354	C	C3'-C2'-C1'	9.32	110.62	101.30
81	DA	2269	U	O4'-C1'-C2'	-9.32	96.48	105.80
19	AR	125	PRO	CB-CA-C	9.32	127.14	111.21
78	CA	478	A	O4'-C1'-N9	9.32	122.47	108.50
82	DB	62	C	N1-C1'-C2'	9.32	127.98	114.00
34	BE	115	LYS	N-CA-CB	9.31	124.65	110.30
81	DA	3382	U	O3'-P-O5'	-9.31	90.03	104.00
34	BE	127	PHE	N-CA-C	-9.31	94.16	108.96
29	AU	70	VAL	N-CA-C	-9.31	94.52	108.85
81	DA	2450	G	O3'-P-O5'	-9.31	90.04	104.00
81	DA	2876	C	N1-C1'-C2'	9.31	125.96	112.00
40	BK	188	SER	N-CA-C	9.31	130.62	110.80
48	BW	96	VAL	N-CA-C	-9.30	89.99	109.34
81	DA	2623	G	C1'-O4'-C4'	9.30	119.20	109.90
81	DA	2763	U	N1-C1'-C2'	-9.30	98.05	112.00
6	AE	30	THR	CA-C-N	9.30	133.67	120.28
6	AE	30	THR	C-N-CA	9.30	133.67	120.28
9	AH	28	ARG	CB-CA-C	-9.30	97.88	113.04
20	AS	53	TRP	CA-C-O	9.30	133.81	120.51
81	DA	1401	A	O4'-C4'-C3'	-9.30	94.70	104.00
68	Bq	4	LYS	CA-C-N	9.30	132.74	120.28
68	Bq	4	LYS	C-N-CA	9.30	132.74	120.28
81	DA	264	G	O4'-C1'-C2'	-9.30	98.30	107.60
45	BR	94	PHE	CA-C-N	9.29	139.29	121.54
45	BR	94	PHE	C-N-CA	9.29	139.29	121.54
78	CA	1436	A	C5'-C4'-C3'	9.29	129.94	116.00
81	DA	2759	U	O4'-C1'-C2'	-9.29	98.31	107.60
78	CA	1724	U	O3'-P-O5'	-9.29	90.06	104.00
6	AE	27	PRO	CA-C-N	9.29	139.28	121.54
6	AE	27	PRO	C-N-CA	9.29	139.28	121.54
33	BD	29	PRO	O-C-N	-9.29	110.10	122.64
17	AQ	92	ASP	CA-C-O	-9.29	109.72	120.49
76	BS	71	PRO	N-CA-C	9.29	131.60	112.47
4	AD	106	LYS	N-CA-C	9.28	122.59	111.82
5	AC	78	ARG	N-CA-C	-9.28	100.53	112.23
78	CA	29	U	C3'-C2'-C1'	9.28	110.58	101.30
78	CA	1389	C	O4'-C1'-N1	9.28	122.12	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	605	U	O4'-C1'-C2'	-9.28	98.32	107.60
81	DA	1162	U	O3'-P-O5'	-9.28	90.08	104.00
81	DA	1478	C	P-O3'-C3'	9.28	134.12	120.20
37	BH	63	LYS	O-C-N	-9.28	110.25	122.59
15	AN	20	GLN	O-C-N	-9.27	114.28	123.46
62	Bk	82	ARG	O-C-N	-9.27	110.23	122.19
78	CA	1545	A	O3'-P-O5'	-9.27	90.09	104.00
81	DA	1085	A	O4'-C1'-C2'	-9.27	98.33	107.60
74	BQ	199	ILE	N-CA-CB	9.27	126.53	111.23
81	DA	529	A	N9-C1'-C2'	9.27	125.90	112.00
81	DA	974	G	C5'-C4'-C3'	9.27	129.90	116.00
81	DA	3249	C	N1-C1'-C2'	9.27	125.90	112.00
57	Be	98	LYS	CA-CB-CG	9.27	132.63	114.10
78	CA	1091	A	C1'-O4'-C4'	9.27	118.97	109.70
81	DA	214	G	O4'-C1'-C2'	-9.27	98.33	107.60
81	DA	1884	A	C5'-C4'-O4'	-9.26	95.91	109.80
55	Bc	85	THR	CA-C-N	9.26	139.22	121.54
55	Bc	85	THR	C-N-CA	9.26	139.22	121.54
78	CA	30	G	C5'-C4'-C3'	9.26	129.89	116.00
18	AP	109	VAL	CA-C-O	-9.26	110.25	121.54
31	BB	246	LEU	N-CA-CB	9.26	126.14	110.49
81	DA	1018	G	O4'-C1'-C2'	-9.26	98.34	107.60
33	BD	296	GLN	O-C-N	-9.26	111.29	123.14
81	DA	3221	C	O4'-C1'-C2'	-9.26	79.63	107.40
78	CA	1749	A	O4'-C1'-C2'	-9.25	98.35	107.60
44	BO	20	GLY	O-C-N	-9.25	111.05	122.71
81	DA	1535	A	O3'-P-O5'	-9.25	90.13	104.00
20	AS	25	GLN	CA-C-N	9.25	131.96	120.22
20	AS	25	GLN	C-N-CA	9.25	131.96	120.22
78	CA	88	U	P-O3'-C3'	9.25	134.07	120.20
81	DA	671	U	C3'-C2'-C1'	-9.25	92.05	101.30
81	DA	3131	U	O3'-P-O5'	-9.25	90.13	104.00
81	DA	562	C	N1-C1'-C2'	9.24	125.87	112.00
81	DA	1561	G	P-O5'-C5'	9.24	134.76	120.90
81	DA	1802	C	N1-C1'-C2'	9.24	125.87	112.00
81	DA	2086	A	C5'-C4'-C3'	9.24	129.86	116.00
78	CA	620	A	P-O3'-C3'	9.24	134.06	120.20
81	DA	2509	U	C5'-C4'-C3'	9.24	129.86	116.00
78	CA	668	C	N1-C1'-C2'	9.24	125.85	112.00
78	CA	1087	A	P-O3'-C3'	9.24	134.06	120.20
81	DA	3130	A	O4'-C1'-N9	9.23	122.35	108.50
81	DA	3221	C	C3'-C2'-C1'	9.23	129.00	101.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
79	CB	37	G	P-O3'-C3'	9.23	134.04	120.20
81	DA	2682	C	O4'-C1'-N1	9.23	122.34	108.50
81	DA	220	G	N9-C1'-C2'	-9.23	100.16	114.00
5	AC	169	PRO	CA-C-N	9.22	139.49	121.41
5	AC	169	PRO	C-N-CA	9.22	139.49	121.41
21	AT	62	ARG	CA-C-N	9.22	130.22	119.98
21	AT	62	ARG	C-N-CA	9.22	130.22	119.98
78	CA	1112	G	N9-C1'-C2'	9.22	125.83	112.00
78	CA	1394	G	P-O3'-C3'	-9.22	106.37	120.20
78	CA	1602	C	O4'-C1'-C2'	-9.22	98.38	107.60
83	DC	18	C	O3'-P-O5'	9.22	117.83	104.00
78	CA	416	A	O4'-C1'-C2'	-9.21	98.39	107.60
78	CA	1133	A	C1'-O4'-C4'	-9.21	100.69	109.90
78	CA	1580	C	C3'-C2'-C1'	9.21	110.52	101.30
81	DA	2818	U	N1-C1'-C2'	-9.22	100.18	114.00
79	CB	22	G	N9-C1'-C2'	9.21	125.82	112.00
33	BD	349	THR	CA-C-O	-9.21	107.33	120.51
33	BD	356	THR	CA-C-N	9.21	132.63	120.28
33	BD	356	THR	C-N-CA	9.21	132.63	120.28
78	CA	659	C	P-O3'-C3'	-9.21	106.38	120.20
78	CA	1520	U	C5'-C4'-C3'	9.21	143.64	116.00
43	BP	17	ASP	CA-CB-CG	9.21	121.81	112.60
78	CA	842	C	P-O3'-C3'	9.21	134.01	120.20
78	CA	1535	U	O4'-C1'-N1	9.20	122.01	108.20
81	DA	801	A	O4'-C1'-N9	9.21	122.01	108.20
81	DA	1694	U	P-O3'-C3'	9.20	134.00	120.20
74	BQ	115	LEU	N-CA-C	9.20	124.09	112.86
78	CA	1202	A	O4'-C1'-N9	9.20	122.30	108.50
78	CA	121	U	O5'-C5'-C4'	9.20	125.30	111.50
32	BC	361	THR	CA-C-N	-9.20	109.88	122.30
32	BC	361	THR	C-N-CA	-9.20	109.88	122.30
81	DA	2479	C	C1'-O4'-C4'	-9.20	100.70	109.90
81	DA	3131	U	O4'-C1'-C2'	-9.20	98.40	107.60
11	AJ	85	ARG	NE-CZ-NH1	9.20	130.70	121.50
24	AX	77	THR	N-CA-CB	9.20	126.03	110.49
78	CA	218	A	N9-C1'-C2'	9.20	125.80	112.00
78	CA	730	G	C5'-C4'-C3'	9.20	128.69	114.90
81	DA	1234	G	C5'-C4'-C3'	-9.20	102.21	116.00
81	DA	311	C	C5'-C4'-O4'	-9.19	96.01	109.80
81	DA	3288	G	P-O3'-C3'	9.19	133.99	120.20
15	AN	38	ILE	CA-C-N	9.19	132.97	120.38
15	AN	38	ILE	C-N-CA	9.19	132.97	120.38

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
47	BU	114	ALA	CA-C-N	9.19	132.60	120.28
47	BU	114	ALA	C-N-CA	9.19	132.60	120.28
78	CA	179	A	O4'-C1'-C2'	-9.19	98.41	107.60
81	DA	2463	G	O4'-C1'-N9	9.19	122.29	108.50
81	DA	2880	U	C1'-O4'-C4'	-9.19	100.71	109.90
81	DA	2071	A	O3'-P-O5'	-9.19	90.22	104.00
2	AA	11	PRO	CA-C-N	-9.19	105.06	120.68
2	AA	11	PRO	C-N-CA	-9.19	105.06	120.68
81	DA	1297	C	P-O3'-C3'	9.19	133.98	120.20
81	DA	2439	A	C3'-C2'-C1'	9.19	110.49	101.30
78	CA	689	G	C3'-C2'-C1'	-9.18	92.12	101.30
81	DA	2142	A	O4'-C1'-C2'	-9.18	96.62	105.80
20	AS	52	GLY	O-C-N	9.18	134.63	122.70
81	DA	1341	U	N1-C1'-C2'	9.18	125.77	112.00
81	DA	3056	U	C3'-C2'-C1'	9.18	110.48	101.30
81	DA	3217	C	O4'-C1'-N1	9.18	121.97	108.20
74	BQ	236	LEU	N-CA-CB	9.18	126.00	110.49
81	DA	3283	U	P-O3'-C3'	9.18	133.97	120.20
2	AA	10	THR	C-N-CD	-9.17	87.39	125.00
78	CA	1458	G	N9-C1'-C2'	9.17	125.76	112.00
81	DA	1513	G	O4'-C1'-C2'	9.17	116.77	107.60
81	DA	1400	G	O4'-C1'-N9	9.17	122.26	108.50
78	CA	69	G	O4'-C1'-N9	9.17	122.25	108.50
78	CA	501	U	O4'-C1'-N1	9.17	122.25	108.50
78	CA	1584	G	C1'-C2'-O2'	9.17	125.55	111.80
81	DA	1316	C	C3'-C2'-C1'	9.17	110.47	101.30
81	DA	2827	U	N1-C1'-C2'	-9.17	100.25	114.00
81	DA	1842	A	N9-C1'-C2'	-9.16	100.25	114.00
81	DA	3115	C	O4'-C1'-C2'	-9.16	96.64	105.80
81	DA	2099	A	P-O5'-C5'	9.16	134.64	120.90
13	AL	38	PHE	CB-CG-CD1	9.16	136.27	120.70
65	Bn	71	PRO	N-CA-CB	9.16	112.87	103.25
83	DC	27	A	C5'-C4'-C3'	-9.16	102.26	116.00
81	DA	2520	A	O4'-C1'-C2'	-9.15	98.45	107.60
78	CA	87	C	O4'-C1'-C2'	-9.15	98.45	107.60
22	AV	105	THR	CA-C-N	-9.15	104.06	121.54
22	AV	105	THR	C-N-CA	-9.15	104.06	121.54
32	BC	3	HIS	CB-CA-C	-9.15	93.42	110.16
78	CA	1548	G	C1'-O4'-C4'	-9.15	100.75	109.90
81	DA	2693	C	P-O3'-C3'	9.15	133.92	120.20
81	DA	2744	U	N1-C1'-C2'	9.15	125.72	112.00
42	BM	109	MET	N-CA-C	9.15	121.66	110.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
61	Bj	41	ALA	N-CA-C	9.15	120.94	110.97
81	DA	2372	A	O4'-C1'-C2'	-9.15	98.45	107.60
62	Bk	55	ARG	NE-CZ-NH2	9.15	127.43	119.20
78	CA	119	A	C4'-C3'-O3'	9.15	126.72	113.00
53	Ba	10	VAL	CB-CA-C	-9.14	96.29	111.29
72	Bt	57	LEU	CA-C-O	-9.14	110.86	120.55
78	CA	1280	C	O4'-C1'-C2'	-9.14	98.46	107.60
81	DA	730	C	P-O3'-C3'	9.14	133.91	120.20
59	Bh	6	HIS	CA-CB-CG	9.14	122.94	113.80
81	DA	247	C	O4'-C1'-C2'	-9.14	98.46	107.60
81	DA	682	U	O4'-C1'-C2'	-9.14	98.46	107.60
81	DA	1701	C	C1'-C2'-O2'	9.14	122.11	108.40
81	DA	3212	C	P-O3'-C3'	-9.14	106.49	120.20
81	DA	1955	U	N1-C1'-C2'	-9.14	98.29	112.00
81	DA	1229	G	O4'-C1'-N9	9.14	122.20	108.50
41	BN	115	PHE	N-CA-CB	-9.13	94.45	110.34
78	CA	1040	G	O4'-C1'-N9	9.13	122.20	108.50
81	DA	3304	U	P-O3'-C3'	9.14	133.91	120.20
45	BR	142	GLY	N-CA-C	-9.13	93.71	112.34
81	DA	1689	U	O3'-P-O5'	9.13	117.69	104.00
81	DA	1926	C	O5'-C5'-C4'	9.13	125.39	111.70
81	DA	1937	U	P-O3'-C3'	9.13	133.89	120.20
78	CA	617	U	N1-C1'-C2'	9.12	125.69	112.00
81	DA	778	U	O4'-C1'-N1	9.12	122.19	108.50
21	AT	29	HIS	N-CA-CB	9.12	125.91	110.49
81	DA	693	A	O4'-C1'-C2'	-9.12	98.48	107.60
69	Br	59	HIS	CA-CB-CG	-9.12	104.68	113.80
81	DA	1113	G	O4'-C1'-N9	9.12	122.18	108.50
78	CA	447	U	O3'-P-O5'	9.12	117.68	104.00
35	BG	166	LYS	CA-C-N	9.11	132.49	120.28
35	BG	166	LYS	C-N-CA	9.11	132.49	120.28
38	Bs	5	ARG	CB-CA-C	9.12	125.77	109.64
37	BH	62	LYS	N-CA-CB	9.11	125.89	110.49
60	Bi	106	LYS	N-CA-CB	9.11	125.89	110.49
78	CA	1081	A	C1'-O4'-C4'	9.11	119.01	109.90
81	DA	1790	G	C3'-C2'-C1'	-9.11	92.19	101.30
81	DA	2651	G	P-O3'-C3'	9.11	133.87	120.20
78	CA	1628	U	P-O3'-C3'	9.11	133.86	120.20
81	DA	1338	C	C3'-C2'-C1'	9.11	110.41	101.30
81	DA	1669	C	P-O5'-C5'	9.11	134.56	120.90
81	DA	1699	A	C5'-C4'-C3'	9.11	129.66	116.00
82	DB	100	U	N1-C1'-C2'	9.11	125.66	112.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
42	BM	40	LYS	O-C-N	-9.11	110.36	122.38
81	DA	1506	A	O4'-C1'-C2'	-9.11	96.69	105.80
12	AK	67	VAL	CA-C-N	9.11	132.85	120.38
12	AK	67	VAL	C-N-CA	9.11	132.85	120.38
51	BZ	62	GLY	CA-C-N	9.11	138.36	121.97
51	BZ	62	GLY	C-N-CA	9.11	138.36	121.97
81	DA	1508	C	N1-C1'-C2'	9.11	125.66	112.00
49	BV	64	ASN	N-CA-CB	-9.10	95.10	110.49
81	DA	2708	C	N1-C1'-C2'	9.10	125.66	112.00
38	Bs	50	VAL	N-CA-CB	-9.10	100.86	112.60
81	DA	1178	G	C3'-C2'-C1'	9.10	110.40	101.30
81	DA	1178	G	N9-C1'-C2'	9.10	125.65	112.00
74	BQ	241	THR	CA-C-N	9.10	138.92	121.54
74	BQ	241	THR	C-N-CA	9.10	138.92	121.54
78	CA	179	A	O4'-C4'-C3'	-9.10	94.90	104.00
81	DA	2444	C	P-O3'-C3'	-9.10	106.55	120.20
81	DA	1401	A	C5'-C4'-C3'	9.10	129.65	116.00
6	AE	30	THR	N-CA-C	9.10	130.17	110.80
82	DB	33	A	O4'-C1'-N9	9.10	122.14	108.50
20	AS	37	VAL	N-CA-CB	9.09	126.23	111.23
69	Br	79	THR	N-CA-C	-9.09	96.86	109.95
74	BQ	176	SER	N-CA-CB	9.09	126.08	110.81
83	DC	46	A	C1'-O4'-C4'	9.09	118.99	109.90
81	DA	1811	G	N9-C1'-C2'	-9.09	98.37	112.00
81	DA	3193	C	P-O5'-C5'	9.09	133.63	120.00
78	CA	196	G	C1'-O4'-C4'	-9.08	100.82	109.90
78	CA	1528	U	O4'-C1'-N1	9.08	122.12	108.50
81	DA	147	U	P-O3'-C3'	9.08	133.82	120.20
81	DA	801	A	O3'-P-O5'	9.08	117.62	104.00
81	DA	2594	C	N1-C1'-C2'	9.08	125.63	112.00
77	BI	119	TRP	N-CA-CB	9.08	125.83	110.49
14	AM	119	ILE	CB-CA-C	-9.08	100.15	112.04
81	DA	7	C	N1-C1'-C2'	9.08	125.61	112.00
81	DA	1819	U	O4'-C1'-N1	9.08	122.11	108.50
78	CA	1379	C	P-O3'-C3'	-9.07	106.59	120.20
81	DA	311	C	O4'-C4'-C3'	-9.07	94.92	104.00
81	DA	1222	G	P-O5'-C5'	9.07	134.51	120.90
61	Bj	89	LEU	N-CA-C	9.07	122.81	110.29
82	DB	78	G	P-O3'-C3'	9.07	133.81	120.20
81	DA	1609	C	C3'-C2'-C1'	9.07	110.37	101.30
81	DA	1866	C	N1-C1'-C2'	9.07	125.61	112.00
55	Bc	104	GLN	N-CA-C	-9.07	91.49	110.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1533	C	O3'-P-O5'	9.07	117.60	104.00
78	CA	226	A	C1'-O4'-C4'	-9.07	100.83	109.90
78	CA	296	U	C3'-C2'-C1'	9.07	110.37	101.30
79	CB	72	G	N9-C1'-C2'	-9.07	98.40	112.00
81	DA	663	C	C5'-C4'-C3'	9.07	129.60	116.00
78	CA	1063	U	P-O3'-C3'	9.06	133.80	120.20
81	DA	1446	A	O4'-C1'-C2'	-9.06	96.73	105.80
78	CA	786	C	P-O3'-C3'	9.06	133.79	120.20
81	DA	2509	U	C4'-C3'-C2'	-9.06	93.54	102.60
10	AI	87	LYS	CA-C-N	9.06	130.03	119.98
10	AI	87	LYS	C-N-CA	9.06	130.03	119.98
69	Br	63	LYS	N-CA-CB	9.06	125.80	110.49
78	CA	1375	A	C3'-C2'-C1'	9.06	110.36	101.30
81	DA	1396	C	O4'-C1'-C2'	-9.06	98.54	107.60
4	AD	149	TYR	CA-C-N	9.05	131.16	119.84
4	AD	149	TYR	C-N-CA	9.05	131.16	119.84
81	DA	2486	A	C5'-C4'-C3'	9.05	128.78	115.20
82	DB	38	U	C3'-C2'-C1'	9.06	110.56	101.50
60	Bi	14	ASN	CA-CB-CG	9.05	121.65	112.60
81	DA	156	G	P-O3'-C3'	9.05	133.78	120.20
81	DA	3013	U	P-O5'-C5'	9.05	134.48	120.90
35	BG	10	TYR	CB-CA-C	-9.05	92.34	110.17
59	Bh	27	ARG	CB-CA-C	-9.05	95.46	110.85
74	BQ	139	PRO	N-CA-C	9.05	125.16	114.03
32	BC	240	ARG	CA-C-O	9.05	130.96	121.28
81	DA	541	U	O4'-C1'-N1	9.05	122.08	108.50
81	DA	3248	C	P-O3'-C3'	9.05	133.78	120.20
81	DA	1306	G	P-O3'-C3'	9.05	133.77	120.20
81	DA	1884	A	N9-C1'-C2'	9.05	125.57	112.00
81	DA	3331	U	O4'-C1'-N1	9.05	122.07	108.50
82	DB	99	C	O4'-C1'-N1	9.05	122.07	108.50
81	DA	1508	C	C3'-C2'-C1'	9.04	110.34	101.30
2	AA	252	TRP	CB-CA-C	-9.04	92.92	110.10
32	BC	66	LYS	CA-C-N	9.04	134.05	120.31
32	BC	66	LYS	C-N-CA	9.04	134.05	120.31
41	BN	5	SER	N-CA-C	9.04	125.39	111.56
78	CA	1185	U	N1-C1'-C2'	9.04	127.56	114.00
81	DA	636	C	C4'-C3'-C2'	9.04	111.64	102.60
81	DA	3217	C	C1'-O4'-C4'	9.04	118.74	109.70
81	DA	406	G	O4'-C1'-C2'	-9.04	98.56	107.60
76	BS	120	PHE	CA-C-O	-9.03	107.78	120.16
78	CA	1090	C	N1-C1'-C2'	9.03	125.55	112.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2307	G	P-O3'-C3'	9.03	133.75	120.20
81	DA	2685	C	N1-C1'-C2'	9.04	125.55	112.00
76	BS	155	TYR	N-CA-CB	9.03	124.41	110.14
81	DA	2479	C	O4'-C1'-N1	9.03	122.05	108.50
81	DA	3003	G	O4'-C1'-N9	9.03	122.05	108.50
81	DA	3036	G	N9-C1'-C2'	9.03	125.55	112.00
81	DA	516	A	C3'-C2'-C1'	9.03	110.33	101.30
81	DA	2386	A	P-O3'-C3'	9.03	133.74	120.20
78	CA	662	U	O4'-C4'-C3'	-9.03	94.97	104.00
81	DA	2515	A	C5'-C4'-C3'	9.03	129.54	116.00
81	DA	2928	C	O4'-C1'-C2'	-9.03	98.57	107.60
34	BE	89	TYR	CB-CA-C	-9.03	92.46	110.42
65	Bn	72	THR	N-CA-CB	9.03	125.74	110.49
81	DA	3303	G	C1'-O4'-C4'	-9.03	100.67	109.70
29	AU	62	THR	CA-CB-CG2	-9.02	95.16	110.50
44	BO	8	THR	N-CA-C	9.02	130.02	110.80
45	BR	143	PRO	CA-N-CD	9.02	124.13	111.50
61	Bj	76	GLY	CA-C-O	-9.02	111.71	119.56
3	AB	185	LYS	CB-CA-C	-9.02	99.61	111.42
17	AQ	91	LEU	N-CA-C	-9.02	93.71	108.41
57	Be	58	ALA	CA-C-O	-9.02	110.99	120.55
82	DB	131	A	P-O3'-C3'	9.02	133.73	120.20
81	DA	1290	A	O4'-C1'-N9	9.02	122.03	108.50
81	DA	2760	C	C3'-C2'-C1'	9.02	110.32	101.30
81	DA	3219	G	P-O5'-C5'	9.02	134.43	120.90
79	CB	61	C	N1-C1'-C2'	9.02	125.53	112.00
78	CA	1479	A	O4'-C1'-N9	9.01	122.02	108.50
81	DA	1378	U	O3'-P-O5'	-9.01	90.48	104.00
32	BC	5	LYS	CB-CA-C	9.01	128.35	110.42
59	Bh	21	HIS	CB-CG-CD2	-9.01	119.49	131.20
81	DA	692	A	O4'-C1'-C2'	-9.01	98.59	107.60
76	BS	119	ARG	N-CA-C	-9.01	97.10	108.45
78	CA	1746	A	O3'-P-O5'	-9.01	90.49	104.00
81	DA	3303	G	P-O3'-C3'	9.00	133.71	120.20
25	AY	48	VAL	N-CA-C	-9.00	95.36	108.23
33	BD	260	GLN	CA-C-N	9.00	137.90	121.70
33	BD	260	GLN	C-N-CA	9.00	137.90	121.70
78	CA	826	U	C1'-O4'-C4'	-9.00	100.90	109.90
81	DA	3032	A	O4'-C1'-C2'	-9.00	98.60	107.60
35	BG	96	VAL	CB-CA-C	-9.00	96.53	111.29
81	DA	1152	G	C2'-C3'-O3'	9.00	123.00	109.50
81	DA	1404	G	O3'-P-O5'	8.99	117.49	104.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1481	A	P-O3'-C3'	8.99	133.69	120.20
81	DA	2669	G	O4'-C1'-N9	8.99	121.99	108.50
78	CA	773	C	O3'-P-O5'	-8.99	90.51	104.00
78	CA	219	A	O4'-C1'-C2'	-8.99	98.61	107.60
81	DA	1324	U	O3'-P-O5'	8.99	117.48	104.00
11	AJ	119	ALA	N-CA-C	-8.99	96.57	108.34
77	BI	119	TRP	CA-CB-CG	8.99	130.67	113.60
78	CA	1307	U	O5'-C5'-C4'	8.99	124.98	111.50
32	BC	122	TRP	N-CA-CB	8.98	125.67	110.49
81	DA	1744	G	P-O3'-C3'	8.98	133.68	120.20
33	BD	103	THR	N-CA-CB	8.98	125.67	110.49
76	BS	37	VAL	CB-CA-C	-8.98	100.47	111.97
78	CA	164	A	N9-C1'-C2'	8.98	125.47	112.00
78	CA	294	C	O4'-C1'-C2'	-8.98	98.62	107.60
81	DA	813	G	P-O5'-C5'	8.98	134.37	120.90
81	DA	2618	G	C2'-C3'-O3'	8.98	122.97	109.50
47	BU	54	HIS	CA-CB-CG	-8.98	104.82	113.80
78	CA	163	G	O4'-C1'-N9	8.98	121.97	108.50
81	DA	1338	C	C5'-C4'-O4'	-8.98	96.33	109.80
81	DA	1535	A	N9-C1'-C2'	-8.98	98.53	112.00
82	DB	152	G	C5'-C4'-C3'	-8.98	102.54	116.00
83	DC	48	U	OP1-P-O3'	-8.98	81.07	108.00
13	AL	37	ALA	CA-C-N	8.97	133.03	120.29
13	AL	37	ALA	C-N-CA	8.97	133.03	120.29
78	CA	393	C	N1-C1'-C2'	8.97	125.46	112.00
78	CA	1680	G	O3'-P-O5'	-8.97	90.54	104.00
78	CA	1735	U	C3'-C2'-C1'	8.97	110.27	101.30
81	DA	572	A	P-O3'-C3'	8.97	133.66	120.20
81	DA	3311	C	P-O5'-C5'	8.97	134.36	120.90
81	DA	1406	A	P-O3'-C3'	8.97	133.66	120.20
45	BR	141	ARG	CA-C-N	8.97	135.95	121.87
45	BR	141	ARG	C-N-CA	8.97	135.95	121.87
57	Be	202	LEU	N-CA-C	-8.97	93.79	108.41
53	Ba	42	LEU	CB-CA-C	-8.97	91.18	109.38
78	CA	46	A	N9-C1'-C2'	-8.97	98.55	112.00
55	Bc	104	GLN	CB-CA-C	8.96	128.26	110.42
32	BC	16	PHE	N-CA-C	-8.96	97.07	109.71
78	CA	392	G	P-O3'-C3'	8.96	133.64	120.20
81	DA	3002	C	O4'-C1'-C2'	-8.96	98.64	107.60
43	BP	12	ARG	CA-C-N	8.96	132.47	120.65
43	BP	12	ARG	C-N-CA	8.96	132.47	120.65
81	DA	1535	A	C1'-O4'-C4'	8.96	118.86	109.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	919	U	N1-C1'-C2'	8.96	125.44	112.00
81	DA	626	U	C5'-C4'-C3'	-8.96	102.57	116.00
81	DA	1877	U	P-O3'-C3'	8.95	133.63	120.20
81	DA	1496	C	N1-C1'-C2'	8.95	125.43	112.00
81	DA	1571	A	O4'-C1'-N9	8.95	121.93	108.50
78	CA	652	G	C1'-O4'-C4'	-8.95	100.95	109.90
81	DA	1525	G	N9-C1'-C2'	8.95	125.42	112.00
81	DA	1990	U	C3'-C2'-C1'	8.95	110.25	101.30
83	DC	17	A	N9-C1'-C2'	8.95	125.42	112.00
81	DA	306	A	O3'-P-O5'	8.95	117.42	104.00
81	DA	2628	A	C5'-C4'-C3'	8.95	129.42	116.00
82	DB	60	U	O4'-C1'-N1	8.95	121.62	108.20
78	CA	1404	C	P-O3'-C3'	8.94	133.61	120.20
81	DA	474	G	P-O3'-C3'	8.94	133.62	120.20
81	DA	2766	U	P-O5'-C5'	8.94	134.31	120.90
38	Bs	45	LEU	CA-C-N	8.94	132.26	120.28
38	Bs	45	LEU	C-N-CA	8.94	132.26	120.28
78	CA	1680	G	P-O3'-C3'	8.94	133.61	120.20
81	DA	3345	G	O4'-C1'-N9	8.94	121.91	108.50
9	AH	27	ILE	CB-CA-C	8.94	124.56	110.52
81	DA	1506	A	C1'-O4'-C4'	8.94	118.64	109.70
81	DA	1551	C	P-O3'-C3'	8.94	133.60	120.20
20	AS	79	LEU	CA-C-N	8.93	135.86	120.58
20	AS	79	LEU	C-N-CA	8.93	135.86	120.58
61	Bj	56	SER	N-CA-C	-8.93	93.66	108.76
81	DA	1807	G	O4'-C1'-N9	8.93	121.60	108.20
78	CA	1379	C	N1-C1'-C2'	8.93	125.39	112.00
81	DA	1810	A	P-O3'-C3'	8.93	133.60	120.20
78	CA	1753	A	P-O3'-C3'	8.93	133.59	120.20
81	DA	1742	U	O4'-C1'-C2'	-8.93	98.67	107.60
81	DA	3010	U	O4'-C1'-N1	8.93	121.89	108.50
32	BC	69	LYS	CA-C-N	8.93	138.59	121.54
32	BC	69	LYS	C-N-CA	8.93	138.59	121.54
52	BY	100	HIS	CA-C-N	8.93	128.58	119.56
52	BY	100	HIS	C-N-CA	8.93	128.58	119.56
76	BS	123	ILE	CB-CA-C	8.93	125.93	111.29
81	DA	3385	U	P-O3'-C3'	8.93	133.59	120.20
78	CA	856	A	C1'-O4'-C4'	8.92	118.82	109.90
78	CA	1234	A	O4'-C1'-N9	8.92	121.88	108.50
81	DA	836	A	O5'-C5'-C4'	8.92	124.89	111.50
1	Aa	54	PHE	CB-CA-C	8.92	130.54	110.02
40	BK	178	VAL	CA-CB-CG1	8.92	125.56	110.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1820	U	N1-C1'-C2'	8.92	125.38	112.00
81	DA	3090	U	P-O5'-C5'	8.92	134.27	120.90
78	CA	301	A	P-O3'-C3'	8.91	133.57	120.20
78	CA	1282	U	N1-C1'-C2'	8.91	125.37	112.00
83	DC	118	U	N1-C1'-C2'	8.91	125.37	112.00
33	BD	321	LYS	CB-CA-C	-8.91	92.69	110.42
81	DA	49	A	P-O3'-C3'	8.91	133.57	120.20
81	DA	627	U	P-O5'-C5'	8.91	134.27	120.90
81	DA	875	G	O4'-C1'-C2'	-8.91	98.69	107.60
81	DA	1362	G	O4'-C1'-C2'	8.91	116.51	107.60
81	DA	768	C	O4'-C4'-C3'	-8.91	97.19	106.10
35	BG	61	ASN	N-CA-CB	8.90	125.54	110.49
81	DA	2646	C	O4'-C4'-C3'	-8.90	95.09	104.00
78	CA	222	A	O4'-C4'-C3'	-8.90	95.10	104.00
78	CA	1573	A	N9-C1'-C2'	-8.90	100.65	114.00
81	DA	1556	C	P-O3'-C3'	8.90	133.55	120.20
61	Bj	73	ARG	CA-C-O	8.90	130.68	120.89
78	CA	1200	G	C1'-C2'-O2'	8.90	121.75	108.40
5	AC	4	ALA	CA-C-N	8.90	129.46	119.32
5	AC	4	ALA	C-N-CA	8.90	129.46	119.32
81	DA	278	U	O4'-C1'-N1	8.90	121.85	108.50
42	BM	67	PRO	CA-C-N	8.90	132.92	120.29
42	BM	67	PRO	C-N-CA	8.90	132.92	120.29
78	CA	572	C	N1-C1'-C2'	8.90	125.34	112.00
81	DA	2195	C	C5'-C4'-C3'	-8.90	102.66	116.00
83	DC	14	U	C3'-C2'-C1'	8.90	110.20	101.30
12	AK	60	ALA	N-CA-CB	8.89	125.52	110.49
78	CA	1548	G	O4'-C1'-N9	8.89	121.84	108.50
78	CA	1601	G	O4'-C1'-C2'	8.89	114.69	105.80
81	DA	73	C	O4'-C1'-C2'	-8.89	96.91	105.80
55	Bc	43	LYS	N-CA-C	8.89	121.05	111.36
78	CA	116	U	P-O3'-C3'	-8.89	106.86	120.20
78	CA	572	C	O4'-C1'-C2'	-8.89	98.71	107.60
58	Bg	100	SER	CA-C-N	8.89	131.99	120.44
58	Bg	100	SER	C-N-CA	8.89	131.99	120.44
81	DA	1561	G	O3'-P-O5'	8.89	117.33	104.00
81	DA	2238	G	O4'-C1'-N9	8.89	121.83	108.50
81	DA	3165	A	O4'-C1'-C2'	-8.89	98.71	107.60
81	DA	2928	C	C5'-C4'-C3'	-8.89	102.67	116.00
4	AD	138	TYR	N-CA-C	-8.88	94.04	108.52
32	BC	259	HIS	CA-CB-CG	8.88	122.68	113.80
81	DA	2509	U	O4'-C4'-C3'	-8.88	95.12	104.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	DC	25	G	O4'-C1'-N9	8.88	121.82	108.50
81	DA	2071	A	O4'-C1'-C2'	-8.88	98.72	107.60
78	CA	369	A	O4'-C1'-N9	8.88	121.82	108.50
78	CA	1099	U	P-O3'-C3'	8.88	133.52	120.20
78	CA	1478	G	O5'-C5'-C4'	-8.88	98.18	111.50
5	AC	157	ASP	N-CA-CB	-8.88	96.26	110.46
78	CA	851	U	N1-C1'-C2'	8.88	125.31	112.00
10	AI	124	PRO	CA-C-N	8.87	133.37	120.51
10	AI	124	PRO	C-N-CA	8.87	133.37	120.51
82	DB	35	C	O4'-C1'-C2'	-8.87	98.73	107.60
33	BD	84	ARG	CB-CA-C	8.87	128.07	110.42
55	Bc	117	ALA	CA-C-N	8.87	133.01	120.42
55	Bc	117	ALA	C-N-CA	8.87	133.01	120.42
34	BE	10	ARG	N-CA-CB	8.86	125.47	110.49
81	DA	240	U	N1-C1'-C2'	8.86	125.30	112.00
81	DA	524	U	O4'-C1'-C2'	-8.86	98.74	107.60
81	DA	790	U	O5'-C5'-C4'	8.86	124.80	111.50
81	DA	1001	G	C3'-C2'-C1'	-8.87	92.44	101.30
81	DA	1214	U	P-O3'-C3'	8.87	133.50	120.20
81	DA	2422	C	P-O3'-C3'	8.86	133.50	120.20
78	CA	197	A	O4'-C1'-C2'	-8.86	98.74	107.60
81	DA	740	G	P-O3'-C3'	8.86	133.50	120.20
81	DA	594	U	C3'-C2'-C1'	8.86	110.16	101.30
81	DA	1728	G	O4'-C1'-C2'	8.86	116.46	107.60
76	BS	52	LYS	CA-C-N	-8.86	109.91	120.72
76	BS	52	LYS	C-N-CA	-8.86	109.91	120.72
78	CA	660	G	P-O5'-C5'	-8.86	107.61	120.90
79	CB	74	C	O4'-C1'-C2'	-8.86	98.74	107.60
81	DA	838	G	O4'-C1'-C2'	8.86	114.66	105.80
81	DA	1346	G	O4'-C1'-N9	8.86	121.79	108.50
33	BD	84	ARG	N-CA-CB	8.86	125.45	110.49
81	DA	700	C	O4'-C1'-C2'	-8.86	98.75	107.60
50	BX	48	SER	N-CA-CB	8.85	122.69	109.94
81	DA	661	G	O4'-C1'-N9	8.85	121.48	108.20
6	AE	69	ILE	CA-C-N	8.85	138.44	121.54
6	AE	69	ILE	C-N-CA	8.85	138.44	121.54
49	BV	155	GLU	N-CA-C	8.85	121.73	111.11
81	DA	2080	C	O4'-C1'-C2'	-8.85	98.75	107.60
20	AS	68	ARG	CA-C-N	8.85	138.43	121.54
20	AS	68	ARG	C-N-CA	8.85	138.43	121.54
59	Bh	21	HIS	CB-CG-ND1	8.85	135.97	122.70
81	DA	1050	U	O4'-C1'-C2'	-8.85	98.75	107.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1152	G	P-O3'-C3'	8.85	133.47	120.20
73	Bv	15	ASN	CA-CB-CG	8.84	121.44	112.60
81	DA	2616	C	N1-C1'-C2'	8.84	125.27	112.00
81	DA	2816	G	C1'-O4'-C4'	-8.84	100.86	109.70
81	DA	2617	U	O3'-P-O5'	8.84	117.26	104.00
4	AD	96	ASN	CA-C-N	8.84	137.61	121.70
4	AD	96	ASN	C-N-CA	8.84	137.61	121.70
14	AM	90	ASN	CB-CA-C	-8.84	106.38	116.63
83	DC	93	U	P-O3'-C3'	8.84	133.46	120.20
33	BD	318	LEU	O-C-N	-8.84	113.18	123.25
43	BP	67	ARG	N-CA-CB	8.84	122.89	110.17
60	Bi	41	ARG	CA-C-O	-8.84	111.33	120.96
78	CA	46	A	C3'-C2'-C1'	-8.84	92.46	101.30
81	DA	1433	A	O4'-C1'-C2'	-8.84	96.96	105.80
81	DA	1901	A	N9-C1'-C2'	8.84	125.26	112.00
81	DA	2624	G	N9-C1'-C2'	8.84	125.26	112.00
81	DA	2032	U	O3'-P-O5'	-8.84	90.75	104.00
81	DA	2468	A	C2'-C3'-O3'	8.84	122.75	109.50
81	DA	2941	A	N9-C1'-C2'	-8.84	100.75	114.00
82	DB	49	G	O3'-P-O5'	-8.84	90.75	104.00
29	AU	72	PHE	O-C-N	-8.83	110.84	122.59
33	BD	346	LYS	N-CA-C	-8.83	101.33	112.90
81	DA	2072	G	C5'-C4'-C3'	-8.83	102.75	116.00
78	CA	894	U	C1'-O4'-C4'	8.83	118.73	109.90
81	DA	275	U	P-O3'-C3'	-8.83	106.95	120.20
40	BK	180	SER	N-CA-CB	8.83	123.67	110.95
78	CA	318	U	P-O3'-C3'	8.83	133.45	120.20
78	CA	1300	A	O4'-C1'-C2'	-8.83	98.77	107.60
78	CA	1337	A	C1'-O4'-C4'	8.83	118.73	109.90
5	AC	158	PHE	CA-CB-CG	8.83	122.63	113.80
55	Bc	96	GLU	CA-C-O	-8.83	107.81	119.11
82	DB	52	A	P-O5'-C5'	8.83	134.14	120.90
2	AA	66	ALA	CB-CA-C	-8.82	93.72	110.67
55	Bc	94	LYS	N-CA-CB	8.82	125.41	110.49
78	CA	1492	A	O5'-C5'-C4'	8.82	124.04	110.80
81	DA	1166	G	O4'-C1'-C2'	-8.82	98.78	107.60
81	DA	2476	C	O4'-C1'-C2'	-8.82	98.78	107.60
81	DA	66	A	O4'-C1'-C2'	-8.82	96.98	105.80
83	DC	38	U	P-O5'-C5'	8.82	134.13	120.90
46	BT	121	HIS	ND1-CE1-NE2	8.82	117.22	108.40
64	Bl	5	THR	CA-C-O	-8.82	110.32	118.79
68	Bq	14	LYS	N-CA-C	-8.82	101.95	112.89

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	454	U	O4'-C1'-N1	8.82	121.43	108.20
78	CA	1690	G	O4'-C4'-C3'	-8.82	95.18	104.00
35	BG	5	LYS	CB-CA-C	8.82	127.97	110.42
78	CA	179	A	P-O5'-C5'	8.82	134.13	120.90
81	DA	1480	G	O4'-C1'-N9	8.82	121.43	108.20
81	DA	3085	G	O4'-C1'-C2'	8.82	116.42	107.60
30	BA	214	PHE	CA-CB-CG	8.81	122.61	113.80
31	BB	62	VAL	N-CA-C	8.81	119.73	106.42
78	CA	658	C	C4'-C3'-O3'	8.81	126.22	113.00
82	DB	45	C	O4'-C1'-C2'	-8.81	98.78	107.60
44	BO	57	GLY	O-C-N	-8.81	111.24	122.70
78	CA	1566	U	O4'-C1'-N1	8.81	121.72	108.50
81	DA	1198	C	O4'-C1'-C2'	-8.81	96.99	105.80
82	DB	44	A	O3'-P-O5'	-8.81	90.78	104.00
82	DB	106	C	C3'-C2'-C1'	8.81	110.31	101.50
9	AH	69	LEU	N-CA-C	-8.81	92.04	110.80
81	DA	2505	U	O4'-C1'-N1	8.81	121.71	108.50
81	DA	2665	U	O4'-C1'-N1	8.80	121.41	108.20
81	DA	2901	G	O4'-C1'-C2'	8.80	116.40	107.60
24	AX	65	THR	O-C-N	8.80	129.12	121.20
81	DA	596	C	C5'-C4'-C3'	8.80	129.20	116.00
81	DA	842	G	P-O3'-C3'	8.80	133.40	120.20
81	DA	1257	C	O4'-C1'-N1	8.79	121.69	108.50
83	DC	114	A	P-O5'-C5'	8.80	134.09	120.90
78	CA	573	C	N1-C1'-C2'	8.79	125.19	112.00
81	DA	1039	U	P-O3'-C3'	8.79	133.39	120.20
16	AO	76	LYS	N-CA-CB	8.79	123.17	110.16
60	Bi	42	PRO	O-C-N	-8.79	110.77	122.64
81	DA	526	C	N1-C1'-C2'	8.79	125.18	112.00
81	DA	1716	U	O4'-C1'-C2'	-8.79	98.81	107.60
81	DA	3231	U	C5'-C4'-C3'	-8.79	102.82	116.00
9	AH	37	PHE	CA-C-N	8.78	132.05	120.28
9	AH	37	PHE	C-N-CA	8.78	132.05	120.28
83	DC	99	A	O4'-C1'-C2'	-8.79	98.81	107.60
81	DA	2141	U	C3'-C2'-C1'	8.78	110.08	101.30
81	DA	3049	A	P-O3'-C3'	-8.78	107.03	120.20
76	BS	123	ILE	CA-C-O	-8.78	109.81	120.78
81	DA	337	G	O4'-C1'-C2'	-8.78	97.02	105.80
81	DA	3105	U	N1-C1'-C2'	8.78	125.17	112.00
82	DB	86	U	O4'-C1'-N1	8.78	121.37	108.20
17	AQ	85	VAL	CA-C-N	-8.78	109.43	120.23
17	AQ	85	VAL	C-N-CA	-8.78	109.43	120.23

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
44	BO	57	GLY	CA-C-N	-8.77	104.78	121.54
44	BO	57	GLY	C-N-CA	-8.77	104.78	121.54
74	BQ	36	LEU	CB-CA-C	-8.77	97.04	110.90
81	DA	715	A	O4'-C1'-N9	8.77	121.66	108.50
12	AK	121	VAL	CA-C-O	-8.77	108.20	119.95
21	AT	28	ASP	CA-C-O	-8.77	111.60	121.07
81	DA	2567	C	P-O3'-C3'	-8.77	107.04	120.20
81	DA	2699	G	N9-C1'-C2'	8.77	125.16	112.00
78	CA	1066	C	P-O3'-C3'	8.77	133.36	120.20
81	DA	1699	A	O4'-C1'-N9	8.77	121.66	108.50
78	CA	946	U	O4'-C1'-N1	8.77	121.65	108.50
81	DA	1976	G	C5'-C4'-C3'	8.77	129.15	116.00
49	BV	78	VAL	N-CA-C	-8.77	95.78	107.88
81	DA	547	G	N9-C1'-C2'	8.77	125.15	112.00
81	DA	1676	A	O4'-C1'-C2'	-8.77	98.83	107.60
81	DA	1232	C	O4'-C1'-C2'	-8.77	98.83	107.60
81	DA	2496	C	N1-C1'-C2'	8.77	125.15	112.00
5	AC	38	ASN	N-CA-CB	8.76	125.30	110.49
34	BE	53	THR	CA-CB-CG2	8.76	125.40	110.50
81	DA	1615	C	N1-C1'-C2'	8.76	125.15	112.00
34	BE	163	PHE	CA-CB-CG	-8.76	105.04	113.80
81	DA	2150	G	C5'-C4'-C3'	-8.76	102.86	116.00
81	DA	2180	G	O4'-C1'-C2'	8.76	116.36	107.60
78	CA	1113	A	N9-C1'-C2'	-8.76	100.86	114.00
81	DA	2614	G	O4'-C1'-N9	8.76	121.64	108.50
31	BB	97	ASN	N-CA-C	-8.76	95.66	109.50
78	CA	1267	G	P-O3'-C3'	8.76	133.34	120.20
81	DA	1056	U	O4'-C1'-N1	8.76	121.64	108.50
81	DA	1689	U	C4'-C3'-C2'	-8.76	93.84	102.60
81	DA	2194	G	C5'-C4'-C3'	-8.76	102.87	116.00
60	Bi	41	ARG	N-CA-CB	-8.75	99.59	109.74
81	DA	2040	U	P-O3'-C3'	8.75	133.33	120.20
81	DA	2504	U	N1-C1'-C2'	-8.75	98.87	112.00
81	DA	519	A	P-O5'-C5'	8.75	134.03	120.90
81	DA	799	G	C3'-C2'-O2'	8.75	123.83	110.70
81	DA	1895	A	O4'-C1'-C2'	-8.75	98.85	107.60
76	BS	67	PHE	CA-C-N	8.75	138.25	121.54
76	BS	67	PHE	C-N-CA	8.75	138.25	121.54
81	DA	708	G	P-O3'-C3'	8.75	133.32	120.20
81	DA	2013	C	O4'-C1'-C2'	-8.75	98.85	107.60
4	AD	240	LYS	N-CA-C	-8.74	94.95	108.42
73	Bw	16	THR	N-CA-C	8.74	119.39	108.11

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1947	G	N9-C1'-C2'	-8.74	98.88	112.00
38	Bs	244	LYS	CB-CA-C	-8.74	96.28	110.79
60	Bi	77	GLY	CA-C-N	8.74	137.44	121.70
60	Bi	77	GLY	C-N-CA	8.74	137.44	121.70
81	DA	469	G	P-O3'-C3'	8.74	133.32	120.20
81	DA	556	U	N1-C1'-C2'	8.74	125.12	112.00
81	DA	1582	C	O4'-C1'-C2'	-8.74	98.86	107.60
53	Ba	98	THR	O-C-N	8.74	128.03	121.47
78	CA	1156	C	N1-C1'-C2'	8.74	125.11	112.00
81	DA	2626	A	N9-C1'-C2'	8.74	125.11	112.00
81	DA	3373	U	P-O5'-C5'	8.74	134.02	120.90
81	DA	3242	G	C1'-O4'-C4'	8.74	118.64	109.90
81	DA	3022	G	N9-C1'-C2'	8.74	127.11	114.00
81	DA	402	A	P-O3'-C3'	8.74	133.31	120.20
11	AJ	102	ARG	CB-CA-C	-8.74	97.16	110.88
14	AM	141	THR	N-CA-CB	8.74	125.26	110.49
78	CA	1038	U	O4'-C1'-N1	8.74	121.61	108.50
81	DA	360	G	N9-C1'-C2'	8.74	125.11	112.00
81	DA	2697	A	O4'-C1'-C2'	-8.74	98.86	107.60
81	DA	3295	A	O3'-P-O5'	8.74	117.10	104.00
81	DA	429	U	O4'-C1'-C2'	-8.73	98.86	107.60
83	DC	21	G	N9-C1'-C2'	8.73	125.10	112.00
61	Bj	12	LYS	CB-CA-C	-8.73	92.13	109.33
81	DA	968	G	P-O3'-C3'	8.73	133.30	120.20
57	Be	134	VAL	N-CA-CB	8.73	125.64	111.23
81	DA	1895	A	C1'-O4'-C4'	8.73	118.63	109.90
33	BD	99	MET	CA-C-N	8.73	138.21	121.54
33	BD	99	MET	C-N-CA	8.73	138.21	121.54
60	Bi	67	LYS	CG-CD-CE	8.73	131.37	111.30
81	DA	1686	U	C1'-O4'-C4'	8.73	118.63	109.90
78	CA	1459	C	O4'-C1'-N1	8.73	121.59	108.50
81	DA	166	C	N1-C1'-C2'	8.73	125.09	112.00
44	BO	20	GLY	CA-C-N	8.72	136.72	121.80
44	BO	20	GLY	C-N-CA	8.72	136.72	121.80
80	CC	16	G	O4'-C1'-C2'	-8.72	98.88	107.60
81	DA	1989	U	C4'-C3'-O3'	-8.72	99.91	113.00
83	DC	30	G	P-O3'-C3'	8.72	133.29	120.20
81	DA	306	A	N9-C1'-C2'	-8.72	98.92	112.00
81	DA	429	U	P-O3'-C3'	8.72	133.28	120.20
81	DA	3395	G	P-O3'-C3'	8.72	133.28	120.20
78	CA	411	C	O4'-C1'-N1	8.72	121.58	108.50
19	AR	94	VAL	CA-C-N	8.72	131.04	120.14

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	AR	94	VAL	C-N-CA	8.72	131.04	120.14
78	CA	1190	C	O5'-C5'-C4'	8.72	136.65	110.50
81	DA	3086	A	O4'-C1'-C2'	-8.72	98.88	107.60
6	AE	27	PRO	O-C-N	8.71	134.04	123.06
81	DA	1747	G	O3'-P-O5'	-8.71	90.93	104.00
81	DA	1820	U	P-O3'-C3'	8.72	133.28	120.20
74	BQ	198	TYR	N-CA-CB	8.71	125.22	110.49
78	CA	874	C	C3'-C2'-C1'	8.71	110.01	101.30
81	DA	1645	U	N1-C1'-C2'	8.71	125.07	112.00
81	DA	2674	A	N9-C1'-C2'	8.71	125.07	112.00
81	DA	3089	C	N1-C1'-C2'	8.71	125.07	112.00
50	BX	85	GLN	N-CA-CB	8.71	124.62	110.43
81	DA	595	G	O4'-C1'-C2'	-8.71	98.89	107.60
81	DA	2684	C	P-O3'-C3'	8.71	133.26	120.20
62	Bk	67	LYS	CA-C-O	-8.71	111.68	120.82
78	CA	1201	G	O4'-C1'-N9	-8.70	95.14	108.20
81	DA	248	U	C2'-C3'-O3'	8.70	126.75	113.70
55	Bc	105	ARG	CA-C-N	8.70	138.16	121.54
55	Bc	105	ARG	C-N-CA	8.70	138.16	121.54
20	AS	91	TYR	N-CA-C	8.70	129.32	110.80
39	BJ	123	ARG	CA-CB-CG	8.70	131.49	114.10
81	DA	1666	G	P-O3'-C3'	8.70	133.24	120.20
35	BG	76	LEU	CB-CA-C	-8.69	93.12	110.42
81	DA	1551	C	C3'-C2'-C1'	8.69	109.99	101.30
81	DA	2816	G	O4'-C1'-N9	-8.69	95.16	108.20
82	DB	153	U	P-O3'-C3'	8.69	133.24	120.20
79	CB	13	U	P-O3'-C3'	8.69	133.24	120.20
81	DA	1842	A	P-O5'-C5'	8.69	133.93	120.90
35	BG	75	PRO	CA-N-CD	-8.69	99.84	112.00
63	Bm	28	LYS	N-CA-C	8.69	120.36	111.07
76	BS	69	LYS	CA-C-O	-8.69	111.17	120.46
78	CA	123	G	C3'-C2'-O2'	8.69	123.73	110.70
78	CA	275	C	P-O3'-C3'	8.69	133.23	120.20
81	DA	2465	G	P-O5'-C5'	-8.69	107.87	120.90
82	DB	41	A	O4'-C1'-C2'	8.69	116.28	107.60
83	DC	2	G	C1'-O4'-C4'	8.68	118.58	109.90
81	DA	1277	C	C1'-O4'-C4'	-8.68	101.22	109.90
57	Be	205	PHE	CA-CB-CG	-8.68	105.12	113.80
81	DA	330	G	P-O5'-C5'	-8.68	107.88	120.90
81	DA	427	C	N1-C1'-C2'	8.68	125.02	112.00
81	DA	1927	G	O4'-C1'-N9	8.68	121.52	108.50
81	DA	1603	A	O5'-P-OP1	-8.68	81.96	108.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2243	A	O4'-C1'-N9	8.68	121.22	108.20
78	CA	1562	G	C1'-O4'-C4'	8.68	118.58	109.90
81	DA	405	U	N1-C1'-C2'	8.68	125.02	112.00
81	DA	2071	A	C4'-C3'-O3'	-8.68	99.98	113.00
43	BP	166	ALA	N-CA-C	8.67	129.27	110.80
57	Be	238	LYS	CA-C-N	8.67	131.72	120.44
57	Be	238	LYS	C-N-CA	8.67	131.72	120.44
78	CA	56	U	C2'-C3'-O3'	8.67	122.51	109.50
78	CA	1584	G	C1'-O4'-C4'	-8.67	101.03	109.70
81	DA	201	A	N9-C1'-C2'	8.67	125.01	112.00
45	BR	15	HIS	CA-CB-CG	-8.66	105.14	113.80
46	BT	82	LYS	N-CA-C	-8.66	92.34	110.80
81	DA	3236	U	N1-C1'-C2'	8.66	125.00	112.00
78	CA	289	U	O5'-C5'-C4'	8.66	124.50	111.50
81	DA	2860	U	O4'-C1'-C2'	-8.66	98.94	107.60
81	DA	2466	G	C1'-O4'-C4'	-8.66	101.24	109.90
81	DA	2530	G	O4'-C1'-N9	8.66	121.49	108.50
81	DA	2665	U	N1-C1'-C2'	-8.66	101.01	114.00
81	DA	3099	C	O4'-C4'-C3'	-8.66	95.34	104.00
78	CA	1703	C	O4'-C1'-C2'	-8.66	98.94	107.60
57	Be	229	PHE	CA-CB-CG	8.65	122.45	113.80
83	DC	4	U	O4'-C1'-C2'	-8.65	98.94	107.60
6	AE	82	ASN	N-CA-CB	8.65	125.11	110.49
78	CA	306	U	C3'-C2'-C1'	8.65	109.95	101.30
81	DA	490	A	C4'-C3'-C2'	-8.65	93.95	102.60
78	CA	16	G	C1'-O4'-C4'	8.65	118.55	109.90
20	AS	13	ASP	N-CA-C	-8.65	101.33	112.23
65	Bn	40	GLN	N-CA-CB	-8.65	97.81	110.87
78	CA	44	U	P-O3'-C3'	8.65	133.17	120.20
78	CA	304	U	O4'-C1'-C2'	-8.65	98.95	107.60
81	DA	167	U	O4'-C1'-N1	8.65	121.47	108.50
81	DA	949	C	O4'-C1'-C2'	-8.65	98.95	107.60
38	Bs	244	LYS	O-C-N	8.64	131.28	122.12
78	CA	609	U	O4'-C1'-C2'	-8.64	97.16	105.80
81	DA	3061	G	P-O5'-C5'	8.64	133.87	120.90
32	BC	144	ILE	CA-C-N	8.64	132.56	120.29
32	BC	144	ILE	C-N-CA	8.64	132.56	120.29
78	CA	1472	C	O4'-C1'-C2'	-8.64	97.16	105.80
78	CA	638	U	N1-C1'-C2'	8.64	124.96	112.00
81	DA	3306	U	C1'-C2'-O2'	8.64	121.36	108.40
83	DC	2	G	N9-C1'-C2'	-8.64	99.04	112.00
81	DA	1335	C	O4'-C1'-C2'	-8.64	98.96	107.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2781	U	O4'-C1'-N1	8.64	121.45	108.50
78	CA	368	U	O3'-P-O5'	-8.63	91.05	104.00
62	Bk	25	LYS	N-CA-C	-8.63	96.59	110.32
78	CA	613	G	O4'-C1'-N9	8.63	121.15	108.20
81	DA	1790	G	P-O5'-C5'	8.63	133.85	120.90
74	BQ	266	ALA	CB-CA-C	-8.63	99.30	112.07
81	DA	1078	U	C1'-O4'-C4'	8.63	118.53	109.90
81	DA	2450	G	O4'-C1'-N9	8.63	121.44	108.50
42	BM	49	LEU	CA-C-O	-8.63	110.93	120.25
81	DA	1660	C	N1-C1'-C2'	8.63	124.94	112.00
81	DA	2510	U	O4'-C4'-C3'	-8.63	95.37	104.00
78	CA	528	U	P-O3'-C3'	8.62	133.14	120.20
78	CA	834	G	N9-C1'-C2'	8.62	124.94	112.00
78	CA	1492	A	P-O5'-C5'	8.62	132.93	120.00
78	CA	1752	U	N1-C1'-C2'	8.62	124.93	112.00
81	DA	1633	C	N1-C1'-C2'	8.62	124.93	112.00
78	CA	1043	A	O4'-C1'-N9	8.62	121.12	108.20
4	AD	164	LEU	CB-CA-C	-8.62	93.28	110.42
34	BE	52	TYR	CA-CB-CG	8.61	129.40	113.90
18	AP	119	VAL	CB-CA-C	8.61	125.41	111.29
81	DA	3334	U	P-O3'-C3'	8.61	133.12	120.20
78	CA	932	U	N1-C1'-C2'	-8.61	101.09	114.00
79	CB	55	C	C4'-C3'-C2'	-8.61	93.99	102.60
21	AT	72	LEU	CA-C-N	8.61	131.81	120.28
21	AT	72	LEU	C-N-CA	8.61	131.81	120.28
78	CA	1437	U	O3'-P-O5'	8.61	116.91	104.00
22	AV	33	LYS	CA-CB-CG	-8.60	96.89	114.10
78	CA	311	U	O4'-C1'-N1	8.60	121.41	108.50
81	DA	1403	C	N1-C1'-C2'	8.60	124.91	112.00
81	DA	1967	U	O4'-C1'-N1	8.60	121.40	108.50
82	DB	151	C	C5'-C4'-C3'	-8.60	103.10	116.00
81	DA	241	G	P-O5'-C5'	8.60	133.80	120.90
12	AK	59	ALA	N-CA-CB	8.60	125.02	110.49
78	CA	831	U	N1-C1'-C2'	-8.60	101.10	114.00
14	AM	137	HIS	CA-C-O	-8.60	111.90	121.87
81	DA	527	A	O4'-C1'-C2'	-8.60	99.00	107.60
11	AJ	85	ARG	N-CA-CB	8.60	124.74	110.47
81	DA	702	C	N1-C1'-C2'	8.60	124.89	112.00
81	DA	3009	G	O4'-C1'-N9	8.60	121.39	108.50
81	DA	2505	U	C4'-C3'-O3'	-8.59	100.11	113.00
81	DA	984	G	O4'-C1'-C2'	-8.59	99.01	107.60
81	DA	1620	U	N1-C1'-C2'	8.59	124.89	112.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3321	C	O4'-C1'-C2'	-8.59	99.01	107.60
34	BE	90	GLN	N-CA-C	-8.59	92.79	107.99
45	BR	14	GLY	N-CA-C	8.59	133.54	113.18
81	DA	1651	U	C4'-C3'-C2'	-8.59	94.01	102.60
18	AP	59	PRO	CA-C-N	8.59	137.94	121.54
18	AP	59	PRO	C-N-CA	8.59	137.94	121.54
43	BP	120	TRP	N-CA-C	8.59	129.09	110.80
20	AS	12	GLN	CG-CD-NE2	-8.59	103.52	116.40
81	DA	2761	G	C5'-C4'-C3'	8.59	128.08	115.20
81	DA	2632	G	O4'-C4'-C3'	-8.58	95.42	104.00
29	AU	63	GLN	CB-CG-CD	8.58	127.19	112.60
81	DA	2170	U	O4'-C1'-C2'	-8.58	99.02	107.60
2	AA	5	ALA	CA-C-N	-8.58	105.15	121.54
2	AA	5	ALA	C-N-CA	-8.58	105.15	121.54
12	AK	29	HIS	CA-C-N	8.58	134.27	123.12
12	AK	29	HIS	C-N-CA	8.58	134.27	123.12
18	AP	110	HIS	N-CA-C	8.58	123.22	111.90
59	Bh	13	HIS	CB-CA-C	8.58	126.40	110.10
81	DA	1220	U	C2'-C3'-O3'	8.58	122.37	109.50
30	BA	176	GLU	CA-C-N	8.58	132.47	120.29
30	BA	176	GLU	C-N-CA	8.58	132.47	120.29
78	CA	117	U	O4'-C1'-C2'	-8.58	99.02	107.60
81	DA	491	C	O4'-C1'-C2'	-8.58	99.02	107.60
81	DA	1283	C	O4'-C1'-C2'	-8.58	99.02	107.60
81	DA	2917	G	C3'-C2'-C1'	-8.58	92.72	101.30
45	BR	131	ALA	CA-C-N	8.57	129.42	119.47
45	BR	131	ALA	C-N-CA	8.57	129.42	119.47
74	BQ	252	ALA	N-CA-C	8.57	120.70	111.36
76	BS	26	ILE	CB-CA-C	8.57	123.52	111.34
81	DA	261	U	O4'-C1'-N1	8.57	121.36	108.50
13	AL	13	ARG	CG-CD-NE	8.57	130.85	112.00
26	AZ	21	VAL	CA-C-O	-8.57	111.93	121.36
5	AC	16	LYS	CA-CB-CG	8.57	131.24	114.10
81	DA	3005	A	O4'-C1'-N9	8.57	121.05	108.20
9	AH	57	ARG	N-CA-CB	8.57	124.97	110.49
50	BX	43	ALA	O-C-N	-8.57	113.92	121.71
76	BS	113	ALA	N-CA-CB	-8.57	97.40	109.91
78	CA	628	G	P-O3'-C3'	8.57	133.05	120.20
83	DC	39	C	N1-C1'-C2'	8.57	124.85	112.00
20	AS	34	VAL	CA-C-N	8.56	132.61	120.28
20	AS	34	VAL	C-N-CA	8.56	132.61	120.28
2	AA	47	VAL	N-CA-CB	8.56	121.27	110.99

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	AT	45	ALA	N-CA-CB	8.56	124.96	110.49
78	CA	833	U	O4'-C1'-N1	8.56	121.35	108.50
81	DA	512	U	C3'-C2'-C1'	8.56	110.06	101.50
81	DA	829	U	N1-C1'-C2'	8.56	124.85	112.00
81	DA	3107	U	C1'-O4'-C4'	8.56	118.46	109.90
32	BC	296	THR	N-CA-CB	8.56	124.96	110.49
55	Bc	111	PHE	CA-C-N	-8.56	109.14	119.84
55	Bc	111	PHE	C-N-CA	-8.56	109.14	119.84
81	DA	849	C	O4'-C1'-C2'	-8.56	99.04	107.60
81	DA	1939	G	N9-C1'-C2'	8.56	124.84	112.00
81	DA	3141	A	O5'-C5'-C4'	-8.56	98.86	111.70
81	DA	3218	A	O4'-C1'-C2'	-8.56	97.24	105.80
83	DC	53	U	O3'-P-O5'	8.56	116.84	104.00
57	Be	27	ALA	CB-CA-C	-8.56	96.58	110.79
74	BQ	130	GLU	N-CA-CB	8.56	124.95	110.49
78	CA	267	U	C3'-C2'-C1'	8.56	109.86	101.30
1	Aa	16	HIS	CE1-NE2-CD2	-8.56	100.44	109.00
61	Bj	37	THR	CA-CB-OG1	8.56	122.44	109.60
69	Br	62	ALA	N-CA-C	-8.56	92.57	110.80
78	CA	220	A	P-O3'-C3'	8.56	133.04	120.20
79	CB	13	U	O4'-C1'-N1	8.56	121.34	108.50
81	DA	1320	C	O4'-C1'-C2'	-8.56	99.04	107.60
81	DA	1851	G	P-O3'-C3'	8.56	133.04	120.20
81	DA	2633	U	O5'-C5'-C4'	-8.56	98.66	111.50
81	DA	2668	U	O4'-C1'-C2'	-8.56	99.04	107.60
81	DA	3050	U	O3'-P-O5'	-8.56	91.16	104.00
78	CA	37	U	O4'-C1'-C2'	-8.55	99.05	107.60
81	DA	230	U	O4'-C1'-C2'	-8.55	99.05	107.60
81	DA	1455	U	P-O3'-C3'	8.56	133.03	120.20
78	CA	1238	A	C1'-O4'-C4'	8.55	118.45	109.90
81	DA	2745	G	O4'-C1'-N9	8.55	121.33	108.50
37	BH	65	LEU	CA-C-N	8.55	137.87	121.54
37	BH	65	LEU	C-N-CA	8.55	137.87	121.54
81	DA	1382	G	C4'-C3'-C2'	-8.55	94.05	102.60
81	DA	2830	G	P-O3'-C3'	8.55	133.03	120.20
78	CA	610	G	O4'-C1'-C2'	8.55	116.15	107.60
78	CA	1342	C	C5'-C4'-C3'	8.55	128.82	116.00
78	CA	1090	C	C2'-C3'-O3'	8.55	126.52	113.70
46	BT	22	VAL	CB-CA-C	-8.54	100.04	111.15
78	CA	25	C	P-O3'-C3'	8.55	133.02	120.20
81	DA	162	G	C1'-O4'-C4'	8.54	118.44	109.90
81	DA	839	C	P-O3'-C3'	8.54	133.01	120.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1258	U	O4'-C1'-C2'	-8.54	99.06	107.60
81	DA	251	G	P-O5'-C5'	-8.54	108.09	120.90
83	DC	31	U	P-O3'-C3'	8.54	133.01	120.20
4	AD	80	THR	N-CA-C	8.54	121.53	111.71
78	CA	295	A	O5'-C5'-C4'	-8.54	98.69	111.50
78	CA	1546	G	N9-C1'-C2'	8.54	124.81	112.00
81	DA	1049	C	P-O5'-C5'	8.54	133.71	120.90
29	AU	33	ALA	N-CA-C	8.54	124.82	113.72
38	Bs	180	PRO	N-CA-C	8.54	130.05	112.47
59	Bh	89	THR	CA-C-N	8.53	131.72	120.28
59	Bh	89	THR	C-N-CA	8.53	131.72	120.28
81	DA	3122	A	O4'-C1'-C2'	-8.53	99.07	107.60
81	DA	254	A	O4'-C1'-C2'	-8.53	99.07	107.60
81	DA	316	U	P-O3'-C3'	8.53	133.00	120.20
82	DB	121	U	O4'-C1'-C2'	-8.53	99.07	107.60
35	BG	112	THR	CA-C-N	8.53	131.53	120.44
35	BG	112	THR	C-N-CA	8.53	131.53	120.44
35	BG	114	LYS	CA-C-O	-8.53	111.77	120.90
81	DA	1627	U	C1'-O4'-C4'	8.53	118.43	109.90
81	DA	3295	A	C5'-C4'-C3'	-8.53	103.20	116.00
81	DA	297	G	O4'-C1'-N9	8.53	121.00	108.20
11	AJ	81	THR	CA-C-N	8.53	135.29	122.93
11	AJ	81	THR	C-N-CA	8.53	135.29	122.93
78	CA	489	C	P-O3'-C3'	8.53	132.99	120.20
78	CA	1530	C	P-O3'-C3'	8.53	132.99	120.20
81	DA	255	A	O4'-C1'-C2'	-8.53	99.07	107.60
6	AE	6	ALA	CA-C-N	8.53	137.82	121.54
6	AE	6	ALA	C-N-CA	8.53	137.82	121.54
78	CA	853	G	O4'-C1'-C2'	-8.53	99.07	107.60
78	CA	916	U	N1-C1'-C2'	8.53	124.79	112.00
81	DA	846	A	O4'-C1'-C2'	-8.53	99.07	107.60
43	BP	175	ASN	N-CA-C	8.53	123.67	110.20
81	DA	1677	G	O4'-C1'-N9	8.53	121.29	108.50
40	BK	147	TRP	CA-C-N	-8.52	106.66	121.66
40	BK	147	TRP	C-N-CA	-8.52	106.66	121.66
81	DA	1943	C	N1-C1'-C2'	8.52	124.79	112.00
81	DA	3383	G	O4'-C1'-N9	8.52	121.29	108.50
78	CA	689	G	C1'-O4'-C4'	-8.52	101.38	109.90
81	DA	765	C	C3'-C2'-C1'	8.52	109.82	101.30
81	DA	2763	U	C1'-O4'-C4'	8.52	118.42	109.90
35	BG	143	LYS	N-CA-CB	8.52	124.89	110.49
36	BF	2	LYS	N-CA-CB	-8.52	97.47	110.42

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	105	A	N9-C1'-C2'	8.52	126.78	114.00
81	DA	159	A	O4'-C1'-C2'	-8.52	99.08	107.60
81	DA	3169	U	O4'-C1'-N1	8.52	121.28	108.50
78	CA	1550	A	C4'-C3'-O3'	-8.52	100.22	113.00
53	Ba	54	THR	N-CA-CB	8.51	124.88	110.49
81	DA	1608	C	N1-C1'-C2'	8.51	124.77	112.00
16	AO	124	ARG	N-CA-CB	-8.51	97.56	110.16
81	DA	462	C	O4'-C1'-C2'	-8.51	99.09	107.60
81	DA	3030	G	N9-C1'-C2'	8.51	124.77	112.00
82	DB	97	A	C5'-C4'-C3'	8.51	128.77	116.00
3	AB	18	TYR	N-CA-C	-8.51	101.96	111.07
42	BM	111	GLY	N-CA-C	8.51	123.64	110.96
58	Bg	25	PHE	N-CA-CB	8.51	122.63	110.12
65	Bn	61	LYS	N-CA-C	8.51	120.64	111.36
81	DA	242	C	C3'-C2'-C1'	8.51	109.81	101.30
81	DA	2270	A	O4'-C1'-C2'	-8.51	99.09	107.60
38	Bs	33	VAL	CA-C-O	-8.51	110.22	121.02
62	Bk	98	ARG	CB-CA-C	8.51	122.81	109.03
81	DA	702	C	O4'-C1'-C2'	-8.51	99.09	107.60
2	AA	174	TRP	CB-CG-CD2	-8.51	114.89	126.80
78	CA	1559	A	O4'-C1'-N9	8.51	120.96	108.20
81	DA	2720	G	P-O3'-C3'	8.51	132.96	120.20
6	AE	82	ASN	N-CA-C	-8.50	92.69	110.80
25	AY	49	ARG	N-CA-C	-8.50	96.06	109.50
45	BR	155	MET	N-CA-CB	8.50	124.86	110.49
64	Bl	5	THR	N-CA-CB	8.50	120.45	110.42
81	DA	1001	G	P-O3'-C3'	-8.50	107.44	120.20
81	DA	1550	C	O4'-C1'-C2'	-8.50	99.10	107.60
81	DA	1687	U	O4'-C4'-C3'	-8.50	95.50	104.00
81	DA	2487	U	C1'-O4'-C4'	8.50	118.40	109.90
78	CA	1405	G	O4'-C1'-N9	8.50	121.25	108.50
81	DA	2988	C	C5'-C4'-C3'	8.50	128.75	116.00
81	DA	773	G	P-O5'-C5'	8.50	133.65	120.90
81	DA	1677	G	O4'-C1'-C2'	8.50	116.10	107.60
19	AR	105	VAL	N-CA-CB	8.50	122.61	111.90
81	DA	1754	G	C2'-C3'-O3'	8.50	126.45	113.70
81	DA	2757	U	O5'-C5'-C4'	8.50	124.24	111.50
81	DA	3100	U	C5'-C4'-C3'	8.50	128.75	116.00
81	DA	3212	C	P-O5'-C5'	-8.50	108.15	120.90
81	DA	3304	U	C2'-C3'-O3'	8.50	126.44	113.70
83	DC	3	U	C1'-O4'-C4'	8.50	118.40	109.90
67	Bp	46	ARG	N-CA-C	-8.49	92.06	108.45

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	636	C	C1'-C2'-O2'	8.49	121.14	108.40
16	AO	135	LEU	O-C-N	-8.49	112.73	120.71
78	CA	591	A	C5'-C4'-C3'	8.49	128.74	116.00
3	AB	201	ALA	N-CA-C	-8.49	96.55	109.96
42	BM	46	LEU	N-CA-C	8.49	122.85	110.28
78	CA	1446	A	O4'-C1'-C2'	-8.49	99.11	107.60
78	CA	123	G	C3'-C2'-C1'	8.49	109.79	101.30
81	DA	146	U	O3'-P-O5'	8.49	116.73	104.00
81	DA	506	U	O4'-C1'-C2'	-8.49	99.11	107.60
62	Bk	81	THR	N-CA-C	8.49	123.84	111.87
73	Bw	15	ASN	CA-CB-CG	8.49	121.09	112.60
81	DA	674	G	C5'-C4'-C3'	-8.49	103.27	116.00
32	BC	370	PHE	CA-C-N	8.48	137.75	121.54
32	BC	370	PHE	C-N-CA	8.48	137.75	121.54
81	DA	2089	A	P-O3'-C3'	8.48	132.93	120.20
81	DA	2873	U	C3'-C2'-C1'	8.48	109.98	101.50
81	DA	3247	G	O4'-C1'-N9	8.48	121.23	108.50
32	BC	120	LYS	CA-C-N	8.48	131.65	120.28
32	BC	120	LYS	C-N-CA	8.48	131.65	120.28
81	DA	1623	G	O4'-C4'-C3'	-8.48	95.52	104.00
81	DA	2208	A	C1'-O4'-C4'	-8.48	101.42	109.90
78	CA	174	U	C3'-C2'-C1'	8.48	109.98	101.50
47	BU	141	VAL	CA-CB-CG1	8.48	124.81	110.40
78	CA	215	A	O5'-C5'-C4'	-8.48	98.78	111.50
45	BR	95	GLU	CB-CA-C	8.47	127.28	110.42
64	Bl	63	ARG	N-CA-CB	8.47	124.81	110.49
81	DA	2437	G	C2'-C3'-O3'	8.47	122.21	109.50
78	CA	1441	C	N1-C1'-C2'	8.47	124.71	112.00
83	DC	102	C	N1-C1'-C2'	8.47	124.71	112.00
35	BG	152	THR	N-CA-C	-8.47	91.09	109.81
65	Bn	70	PRO	CA-C-N	8.47	130.43	119.84
65	Bn	70	PRO	C-N-CA	8.47	130.43	119.84
81	DA	1576	G	C5'-C4'-C3'	8.47	128.71	116.00
6	AE	75	GLY	N-CA-C	8.47	122.89	112.73
25	AY	57	MET	N-CA-CB	-8.47	97.55	109.91
81	DA	1083	G	O4'-C1'-N9	8.47	121.20	108.50
81	DA	2319	U	C3'-C2'-C1'	-8.47	92.83	101.30
65	Bn	39	ARG	CA-C-N	-8.47	107.40	123.32
65	Bn	39	ARG	C-N-CA	-8.47	107.40	123.32
78	CA	588	U	P-O3'-C3'	8.47	132.90	120.20
78	CA	1767	G	P-O3'-C3'	8.47	132.90	120.20
81	DA	1789	G	O3'-P-O5'	8.47	116.70	104.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
76	BS	18	THR	CA-C-N	8.46	130.42	119.84
76	BS	18	THR	C-N-CA	8.46	130.42	119.84
78	CA	490	C	P-O3'-C3'	8.47	132.90	120.20
81	DA	263	C	O4'-C1'-C2'	-8.47	99.13	107.60
81	DA	534	U	O4'-C1'-N1	8.47	121.20	108.50
81	DA	3145	C	P-O5'-C5'	8.46	133.60	120.90
81	DA	3217	C	O4'-C1'-C2'	-8.46	97.33	105.80
76	BS	26	ILE	N-CA-CB	-8.46	98.67	110.26
78	CA	304	U	N1-C1'-C2'	8.46	124.69	112.00
78	CA	839	U	O4'-C1'-N1	8.46	121.19	108.50
1	Aa	109	ASP	CA-CB-CG	8.46	121.06	112.60
81	DA	1831	U	O3'-P-O5'	-8.46	91.31	104.00
78	CA	1091	A	N9-C1'-C2'	-8.46	101.31	114.00
78	CA	1677	C	P-O5'-C5'	8.46	133.59	120.90
81	DA	1414	G	C1'-O4'-C4'	8.46	118.36	109.90
81	DA	1639	C	O4'-C1'-C2'	-8.46	99.14	107.60
81	DA	2704	A	O4'-C1'-C2'	-8.46	97.34	105.80
81	DA	3311	C	N1-C1'-C2'	8.45	124.68	112.00
5	AC	14	THR	CA-C-O	-8.45	108.58	120.16
81	DA	422	A	O4'-C1'-C2'	-8.45	99.15	107.60
81	DA	732	C	O3'-P-O5'	-8.45	91.32	104.00
81	DA	3019	U	O4'-C1'-C2'	-8.45	99.15	107.60
81	DA	181	U	P-O5'-C5'	-8.45	108.23	120.90
81	DA	261	U	C1'-O4'-C4'	-8.45	101.45	109.90
81	DA	1652	G	P-O3'-C3'	8.45	132.87	120.20
81	DA	2229	A	P-O5'-C5'	8.45	133.57	120.90
79	CB	71	A	P-O3'-C3'	8.45	132.87	120.20
8	AF	116	HIS	CA-C-O	-8.45	111.47	120.42
9	AH	83	ILE	O-C-N	8.45	130.57	122.97
78	CA	629	U	P-O3'-C3'	8.45	132.87	120.20
81	DA	3302	U	O3'-P-O5'	-8.45	91.33	104.00
82	DB	134	G	N9-C1'-C2'	-8.44	99.33	112.00
33	BD	221	ASN	CA-CB-CG	-8.44	104.16	112.60
81	DA	2506	U	P-O5'-C5'	8.44	133.56	120.90
78	CA	1088	A	O4'-C1'-C2'	-8.44	99.16	107.60
81	DA	2492	C	C3'-C2'-C1'	8.44	109.74	101.30
11	AJ	9	VAL	CA-C-N	8.44	134.67	122.44
11	AJ	9	VAL	C-N-CA	8.44	134.67	122.44
37	BH	204	ARG	NE-CZ-NH1	8.44	129.94	121.50
76	BS	68	GLU	N-CA-C	8.44	128.77	110.80
12	AK	38	THR	N-CA-CB	8.43	123.98	110.65
78	CA	1677	C	O4'-C1'-C2'	-8.43	99.17	107.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	969	C	C1'-O4'-C4'	8.43	118.33	109.90
81	DA	638	C	O4'-C4'-C3'	-8.43	95.57	104.00
33	BD	297	SER	CA-C-N	8.43	137.64	121.54
33	BD	297	SER	C-N-CA	8.43	137.64	121.54
78	CA	1000	C	O4'-C1'-C2'	-8.43	99.17	107.60
33	BD	108	LYS	CA-C-N	8.43	137.63	121.54
33	BD	108	LYS	C-N-CA	8.43	137.63	121.54
81	DA	162	G	O4'-C1'-N9	8.43	121.14	108.50
81	DA	2465	G	N9-C1'-C2'	8.43	124.64	112.00
82	DB	69	U	P-O3'-C3'	8.43	132.84	120.20
81	DA	369	A	P-O3'-C3'	8.43	132.84	120.20
78	CA	1336	A	N9-C1'-C2'	8.42	124.64	112.00
81	DA	1496	C	O3'-P-O5'	-8.42	91.36	104.00
81	DA	2308	C	N1-C1'-C2'	8.42	124.64	112.00
81	DA	2663	G	O3'-P-O5'	8.42	116.64	104.00
30	BA	54	LYS	N-CA-CB	8.42	124.72	110.49
72	Bt	36	PRO	CA-N-CD	-8.42	100.21	112.00
81	DA	877	C	N1-C1'-C2'	8.42	124.63	112.00
35	BG	4	GLN	N-CA-CB	8.42	124.72	110.49
37	BH	129	PRO	N-CA-C	-8.42	95.13	112.47
65	Bn	32	ASN	CA-CB-CG	8.42	121.02	112.60
76	BS	154	VAL	CA-C-O	-8.42	110.26	120.78
81	DA	2303	A	O4'-C1'-C2'	-8.42	99.18	107.60
78	CA	510	G	P-O3'-C3'	8.42	132.82	120.20
78	CA	1724	U	O4'-C1'-N1	8.42	121.12	108.50
81	DA	2466	G	C4'-C3'-C2'	-8.42	94.18	102.60
78	CA	892	A	O4'-C1'-C2'	-8.41	99.19	107.60
81	DA	1819	U	P-O3'-C3'	8.41	132.82	120.20
81	DA	3247	G	O4'-C4'-C3'	-8.41	95.59	104.00
34	BE	52	TYR	N-CA-CB	-8.41	96.28	110.49
81	DA	3058	U	C5'-C4'-C3'	8.41	128.62	116.00
38	Bs	72	ASP	N-CA-CB	-8.41	98.57	110.51
53	Ba	77	TYR	CA-C-N	8.41	131.54	120.28
53	Ba	77	TYR	C-N-CA	8.41	131.54	120.28
81	DA	2172	A	O4'-C1'-C2'	8.41	116.01	107.60
81	DA	2406	C	C3'-C2'-C1'	8.41	109.71	101.30
26	AZ	44	PHE	N-CA-C	-8.40	97.25	109.18
81	DA	873	C	O4'-C1'-C2'	-8.40	99.19	107.60
37	BH	228	GLU	CB-CA-C	-8.40	95.12	109.83
62	Bk	37	THR	N-CA-CB	8.40	122.47	110.12
81	DA	1257	C	P-O3'-C3'	8.40	132.80	120.20
8	AF	35	GLN	CA-C-N	8.40	137.59	121.54

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	AF	35	GLN	C-N-CA	8.40	137.59	121.54
21	AT	59	VAL	O-C-N	-8.40	113.72	121.87
78	CA	856	A	O4'-C1'-C2'	-8.40	99.20	107.60
81	DA	1679	A	N9-C1'-C2'	8.40	124.60	112.00
81	DA	2737	C	N1-C1'-C2'	8.40	124.60	112.00
2	AA	79	ARG	O-C-N	8.40	133.14	122.89
45	BR	140	LEU	CB-CA-C	-8.40	97.57	111.51
72	Bu	36	PRO	CA-N-CD	-8.40	100.24	112.00
78	CA	45	U	O3'-P-O5'	-8.40	91.40	104.00
78	CA	580	A	P-O3'-C3'	8.40	132.80	120.20
81	DA	2303	A	C1'-O4'-C4'	8.40	118.30	109.90
81	DA	3001	C	O4'-C1'-C2'	-8.40	99.20	107.60
83	DC	60	G	C3'-C2'-C1'	-8.40	92.90	101.30
3	AB	214	GLU	O-C-N	-8.39	111.43	122.59
37	BH	248	LYS	N-CA-C	8.39	120.43	111.28
51	BZ	69	LYS	N-CA-C	8.39	128.68	110.80
35	BG	165	LEU	CA-C-N	8.39	131.35	120.44
35	BG	165	LEU	C-N-CA	8.39	131.35	120.44
45	BR	143	PRO	N-CA-CB	-8.39	93.37	102.60
78	CA	1302	U	O4'-C1'-C2'	-8.39	99.21	107.60
81	DA	2942	C	N1-C1'-C2'	8.39	124.59	112.00
81	DA	1591	G	C1'-O4'-C4'	-8.39	101.51	109.90
42	BM	112	SER	N-CA-C	8.39	120.50	111.36
14	AM	122	HIS	N-CA-CB	8.38	122.44	110.12
39	BJ	133	LEU	CA-C-N	8.39	129.29	119.98
39	BJ	133	LEU	C-N-CA	8.39	129.29	119.98
78	CA	299	A	O4'-C1'-N9	8.38	121.08	108.50
78	CA	298	C	O4'-C1'-C2'	-8.38	99.22	107.60
21	AT	9	VAL	CB-CA-C	8.38	125.03	111.29
35	BG	45	GLY	CA-C-N	8.38	134.00	122.19
35	BG	45	GLY	C-N-CA	8.38	134.00	122.19
81	DA	1357	G	O4'-C1'-N9	8.38	121.06	108.50
81	DA	2181	C	O3'-P-O5'	8.38	116.56	104.00
81	DA	2656	A	N9-C1'-C2'	8.38	126.56	114.00
5	AC	149	ARG	N-CA-C	-8.37	98.87	111.34
29	AU	14	SER	CB-CA-C	8.37	123.83	109.51
81	DA	271	C	O4'-C1'-C2'	-8.37	99.23	107.60
81	DA	1054	A	O4'-C1'-C2'	-8.37	99.23	107.60
81	DA	2498	U	O4'-C1'-N1	8.37	121.06	108.50
22	AV	26	LYS	CB-CA-C	8.37	127.08	110.42
78	CA	120	U	C4'-C3'-C2'	-8.37	94.23	102.60
6	AE	162	CYS	CA-C-N	8.37	129.27	119.98

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	AE	162	CYS	C-N-CA	8.37	129.27	119.98
48	BW	98	THR	N-CA-C	-8.37	100.81	111.02
74	BQ	168	ASP	CA-C-N	8.37	130.88	120.34
74	BQ	168	ASP	C-N-CA	8.37	130.88	120.34
78	CA	299	A	O4'-C1'-C2'	-8.37	99.23	107.60
81	DA	1364	C	C5'-C4'-C3'	8.37	128.55	116.00
81	DA	2370	G	O3'-P-O5'	-8.37	91.45	104.00
81	DA	3306	U	O4'-C1'-C2'	-8.37	99.23	107.60
81	DA	1867	A	O4'-C1'-N9	8.37	121.05	108.50
81	DA	3389	U	O4'-C1'-C2'	-8.37	99.23	107.60
5	AC	147	MET	N-CA-C	-8.37	103.59	113.88
65	Bn	40	GLN	CA-C-N	8.37	134.77	122.39
65	Bn	40	GLN	C-N-CA	8.37	134.77	122.39
81	DA	1583	A	P-O3'-C3'	8.36	132.75	120.20
78	CA	215	A	O4'-C1'-C2'	-8.36	99.24	107.60
10	AI	65	ILE	CB-CA-C	-8.36	100.86	112.14
55	Bc	39	PRO	CA-C-N	8.36	137.51	121.54
55	Bc	39	PRO	C-N-CA	8.36	137.51	121.54
78	CA	672	U	O4'-C1'-C2'	-8.36	99.24	107.60
78	CA	1394	G	O4'-C4'-C3'	8.36	112.36	104.00
78	CA	1658	G	P-O3'-C3'	8.36	132.74	120.20
72	Bu	41	TRP	N-CA-C	8.36	120.17	111.14
81	DA	3248	C	O3'-P-O5'	-8.36	91.47	104.00
73	Bv	16	THR	N-CA-C	8.35	118.88	108.11
81	DA	2580	A	O4'-C1'-N9	8.35	121.03	108.50
20	AS	59	ALA	N-CA-C	8.35	120.46	111.36
26	AZ	42	ARG	CA-C-N	8.35	132.73	120.87
26	AZ	42	ARG	C-N-CA	8.35	132.73	120.87
42	BM	70	ARG	N-CA-CB	8.35	122.25	109.97
41	BN	12	TRP	N-CA-C	-8.35	93.45	108.48
78	CA	949	C	O3'-P-O5'	-8.35	91.48	104.00
78	CA	1149	G	N9-C1'-C2'	8.35	124.52	112.00
82	DB	151	C	C3'-C2'-C1'	8.35	109.65	101.30
1	Aa	154	VAL	N-CA-C	-8.35	95.50	108.44
47	BU	48	ILE	CA-C-N	8.35	134.85	120.58
47	BU	48	ILE	C-N-CA	8.35	134.85	120.58
52	BY	73	VAL	N-CA-C	-8.35	96.02	108.46
78	CA	880	C	O4'-C1'-C2'	-8.35	99.25	107.60
83	DC	23	A	P-O3'-C3'	8.35	132.72	120.20
78	CA	1746	A	O4'-C1'-C2'	-8.35	99.25	107.60
81	DA	3246	G	O3'-P-O5'	-8.35	91.48	104.00
83	DC	6	C	O4'-C1'-C2'	-8.35	99.25	107.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1976	G	O5'-C5'-C4'	8.34	124.01	111.50
35	BG	57	HIS	CB-CA-C	8.34	123.70	110.19
81	DA	3108	G	P-O3'-C3'	8.34	132.71	120.20
83	DC	1	G	O3'-P-O5'	-8.34	91.49	104.00
81	DA	786	A	N9-C1'-C2'	-8.34	99.49	112.00
81	DA	2837	A	O4'-C1'-N9	8.34	120.70	108.20
24	AX	61	THR	N-CA-C	-8.34	97.50	110.42
32	BC	249	VAL	O-C-N	-8.33	114.09	122.76
4	AD	147	ILE	N-CA-C	-8.33	96.05	108.46
81	DA	2803	A	N9-C1'-C2'	-8.33	101.50	114.00
34	BE	37	LEU	CA-C-N	8.33	131.44	120.28
34	BE	37	LEU	C-N-CA	8.33	131.44	120.28
69	Br	103	ALA	CA-C-N	8.33	137.45	121.54
69	Br	103	ALA	C-N-CA	8.33	137.45	121.54
81	DA	1347	U	O4'-C1'-C2'	-8.33	99.27	107.60
74	BQ	243	ALA	CA-C-N	8.33	136.69	121.70
74	BQ	243	ALA	C-N-CA	8.33	136.69	121.70
78	CA	874	C	O4'-C1'-C2'	-8.33	99.27	107.60
78	CA	120	U	O3'-P-O5'	8.33	116.49	104.00
78	CA	774	A	P-O5'-C5'	8.33	132.49	120.00
78	CA	1576	A	O4'-C1'-C2'	-8.33	99.27	107.60
81	DA	356	C	O4'-C1'-C2'	-8.33	99.27	107.60
83	DC	32	U	N1-C1'-C2'	8.33	126.49	114.00
81	DA	884	A	O4'-C1'-N9	8.32	120.68	108.20
81	DA	2064	C	C4'-C3'-O3'	-8.32	100.52	113.00
81	DA	3355	U	C1'-O4'-C4'	8.32	118.22	109.90
81	DA	3211	C	O4'-C1'-C2'	-8.32	99.28	107.60
31	BB	36	GLU	N-CA-CB	8.32	124.55	110.49
78	CA	460	A	P-O3'-C3'	8.32	132.68	120.20
81	DA	1170	A	P-O3'-C3'	8.32	132.68	120.20
81	DA	1661	G	O4'-C1'-N9	8.32	120.98	108.50
81	DA	1819	U	P-O5'-C5'	8.32	133.38	120.90
52	BY	13	ARG	NE-CZ-NH2	8.32	126.69	119.20
81	DA	1699	A	O3'-P-O5'	-8.32	91.52	104.00
83	DC	72	C	C5'-C4'-C3'	8.32	128.48	116.00
6	AE	206	THR	CA-C-N	8.32	131.42	120.28
6	AE	206	THR	C-N-CA	8.32	131.42	120.28
79	CB	42	C	P-O3'-C3'	8.32	132.68	120.20
81	DA	798	G	O4'-C1'-C2'	8.32	115.92	107.60
81	DA	1446	A	N9-C1'-C2'	-8.32	101.53	114.00
81	DA	2859	U	O4'-C1'-N1	8.32	120.68	108.20
2	AA	231	GLU	CA-C-N	8.31	136.94	121.97

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	AA	231	GLU	C-N-CA	8.31	136.94	121.97
81	DA	202	G	N9-C1'-C2'	8.31	124.47	112.00
81	DA	1054	A	C1'-O4'-C4'	8.31	118.21	109.90
81	DA	1955	U	O4'-C1'-C2'	-8.31	99.29	107.60
81	DA	3004	C	C1'-O4'-C4'	-8.31	101.59	109.90
82	DB	127	U	N1-C1'-C2'	8.31	124.47	112.00
81	DA	1572	U	P-O3'-C3'	8.31	132.67	120.20
81	DA	2207	A	O4'-C1'-N9	8.31	120.67	108.20
81	DA	2507	C	O4'-C1'-C2'	-8.31	99.29	107.60
82	DB	122	U	O4'-C1'-N1	8.31	120.97	108.50
32	BC	240	ARG	N-CA-C	-8.31	95.51	108.14
43	BP	25	VAL	N-CA-CB	8.31	121.84	110.54
65	Bn	71	PRO	CB-CA-C	8.31	125.27	111.56
35	BG	97	ASN	N-CA-CB	8.31	124.53	110.49
81	DA	1526	U	P-O3'-C3'	8.30	132.66	120.20
81	DA	1562	C	P-O3'-C3'	8.30	132.66	120.20
13	AL	23	ARG	N-CA-CB	-8.30	99.55	110.59
57	Be	25	GLN	CA-C-N	8.30	131.83	120.46
57	Be	25	GLN	C-N-CA	8.30	131.83	120.46
78	CA	1765	A	N9-C1'-C2'	8.30	126.45	114.00
81	DA	1397	C	C3'-C2'-C1'	8.30	109.60	101.30
78	CA	1419	G	C1'-C2'-O2'	8.30	120.85	108.40
78	CA	1736	G	C5'-C4'-C3'	8.30	128.45	116.00
81	DA	596	C	P-O3'-C3'	8.30	132.65	120.20
81	DA	2737	C	P-O5'-C5'	8.30	133.35	120.90
17	AQ	29	GLN	N-CA-CB	8.29	123.92	110.40
32	BC	382	THR	N-CA-C	-8.29	93.13	110.80
61	Bj	73	ARG	O-C-N	-8.29	114.19	123.48
78	CA	838	G	C1'-O4'-C4'	8.29	118.19	109.90
81	DA	435	C	C3'-C2'-C1'	8.30	109.60	101.30
81	DA	607	A	C1'-O4'-C4'	-8.29	101.61	109.90
81	DA	1691	U	O4'-C1'-C2'	-8.29	99.31	107.60
81	DA	2013	C	C3'-C2'-C1'	8.29	109.59	101.30
81	DA	2231	C	C3'-C2'-C1'	8.29	109.59	101.30
81	DA	3199	G	P-O5'-C5'	8.30	132.44	120.00
78	CA	438	A	C2'-C3'-O3'	8.29	121.94	109.50
81	DA	2041	U	N1-C1'-C2'	-8.29	99.56	112.00
59	Bh	11	LYS	CA-C-N	8.29	137.37	121.54
59	Bh	11	LYS	C-N-CA	8.29	137.37	121.54
81	DA	560	G	N9-C1'-C2'	-8.29	99.57	112.00
81	DA	2487	U	C3'-C2'-C1'	8.29	109.59	101.30
81	DA	2507	C	C5'-C4'-C3'	-8.29	103.57	116.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
20	AS	77	ASN	OD1-CG-ND2	8.28	130.88	122.60
78	CA	169	A	O4'-C1'-C2'	-8.28	99.32	107.60
78	CA	1200	G	C1'-O4'-C4'	-8.28	101.62	109.90
81	DA	1002	A	C4'-C3'-C2'	-8.28	94.32	102.60
81	DA	2717	U	P-O3'-C3'	8.28	132.63	120.20
50	BX	54	TYR	N-CA-CB	8.28	124.49	110.49
78	CA	712	G	C4'-C3'-O3'	8.28	122.42	110.00
81	DA	680	G	O4'-C1'-N9	8.28	120.92	108.50
81	DA	3296	A	C2'-C3'-O3'	8.28	126.12	113.70
78	CA	1543	A	C1'-C2'-O2'	-8.28	95.98	108.40
81	DA	798	G	O3'-P-O5'	-8.28	91.58	104.00
81	DA	1101	G	O3'-P-O5'	-8.28	91.58	104.00
81	DA	1319	G	P-O3'-C3'	8.28	132.62	120.20
81	DA	1420	C	N1-C1'-C2'	8.28	124.42	112.00
82	DB	28	C	O4'-C1'-C2'	-8.28	99.32	107.60
78	CA	1548	G	P-O3'-C3'	8.28	132.62	120.20
81	DA	1725	C	N1-C1'-C2'	8.28	124.42	112.00
81	DA	2895	G	P-O5'-C5'	8.28	133.32	120.90
2	AA	79	ARG	CA-C-N	8.28	131.37	120.28
2	AA	79	ARG	C-N-CA	8.28	131.37	120.28
81	DA	2625	C	O3'-P-O5'	-8.28	91.59	104.00
81	DA	2870	C	C3'-C2'-C1'	8.28	109.58	101.30
14	AM	22	VAL	N-CA-C	8.27	121.14	107.24
31	BB	19	HIS	CA-CB-CG	-8.27	105.53	113.80
43	BP	51	LEU	CA-C-N	8.27	137.63	121.41
43	BP	51	LEU	C-N-CA	8.27	137.63	121.41
67	Bp	33	ASN	CA-CB-CG	-8.27	104.33	112.60
77	BI	145	LYS	CA-C-N	8.27	131.19	120.44
77	BI	145	LYS	C-N-CA	8.27	131.19	120.44
78	CA	141	U	C2'-C3'-O3'	-8.27	101.29	113.70
81	DA	3236	U	C5'-C4'-C3'	-8.27	103.59	116.00
83	DC	103	U	O4'-C1'-C2'	-8.27	99.33	107.60
81	DA	588	G	P-O3'-C3'	8.27	132.60	120.20
81	DA	2467	G	P-O3'-C3'	8.27	132.61	120.20
82	DB	115	C	O4'-C1'-C2'	-8.27	99.33	107.60
83	DC	20	A	O4'-C1'-C2'	8.27	115.87	107.60
78	CA	839	U	O3'-P-O5'	-8.27	91.60	104.00
78	CA	1466	G	P-O3'-C3'	8.27	132.60	120.20
81	DA	1216	C	C4'-C3'-C2'	-8.27	94.33	102.60
81	DA	1707	A	O4'-C1'-C2'	-8.27	99.33	107.60
81	DA	2115	G	N9-C1'-C2'	8.27	124.40	112.00
81	DA	2173	U	C5'-C4'-C3'	8.26	128.40	116.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	AE	51	THR	CA-C-N	8.26	132.18	120.28
6	AE	51	THR	C-N-CA	8.26	132.18	120.28
78	CA	650	U	N1-C1'-C2'	-8.26	99.61	112.00
81	DA	2149	A	C1'-O4'-C4'	8.26	118.16	109.90
81	DA	2898	G	P-O3'-C3'	8.26	132.59	120.20
5	AC	27	GLU	CA-C-N	8.26	131.35	120.28
5	AC	27	GLU	C-N-CA	8.26	131.35	120.28
5	AC	126	ARG	CA-C-N	8.26	132.15	120.42
5	AC	126	ARG	C-N-CA	8.26	132.15	120.42
44	BO	8	THR	CA-CB-OG1	8.26	121.99	109.60
57	Be	77	VAL	N-CA-CB	8.26	124.85	111.23
78	CA	1441	C	P-O3'-C3'	8.26	132.59	120.20
81	DA	1105	A	O4'-C1'-C2'	-8.26	99.34	107.60
76	BS	73	THR	CA-CB-OG1	8.26	121.98	109.60
78	CA	1161	C	N1-C1'-C2'	8.26	124.38	112.00
81	DA	2970	C	O4'-C1'-C2'	-8.26	99.34	107.60
41	BN	108	ARG	NE-CZ-NH1	8.25	129.75	121.50
43	BP	142	ILE	N-CA-C	-8.25	102.38	110.72
78	CA	597	G	P-O3'-C3'	8.25	132.58	120.20
74	BQ	38	THR	CA-C-N	8.25	132.16	120.28
74	BQ	38	THR	C-N-CA	8.25	132.16	120.28
81	DA	3125	U	P-O3'-C3'	8.25	132.58	120.20
81	DA	2170	U	O4'-C1'-N1	8.25	120.88	108.50
81	DA	3150	A	O5'-C5'-C4'	8.25	123.88	111.50
35	BG	169	ASP	CB-CA-C	-8.25	92.58	109.65
4	AD	135	GLY	CA-C-N	8.25	137.39	122.13
4	AD	135	GLY	C-N-CA	8.25	137.39	122.13
10	AI	87	LYS	N-CA-C	8.25	128.37	110.80
31	BB	245	LEU	N-CA-C	-8.25	97.05	109.83
41	BN	39	ILE	CA-CB-CG2	-8.25	96.48	110.50
78	CA	206	A	O4'-C1'-C2'	-8.25	99.35	107.60
78	CA	309	C	O4'-C1'-C2'	-8.25	99.35	107.60
78	CA	1267	G	N9-C1'-C2'	8.25	124.37	112.00
81	DA	2506	U	O4'-C1'-C2'	-8.25	99.35	107.60
81	DA	1493	G	N9-C1'-C2'	-8.25	101.63	114.00
81	DA	2788	C	C3'-C2'-C1'	8.25	109.55	101.30
81	DA	3364	C	P-O5'-C5'	8.25	133.27	120.90
83	DC	8	G	O4'-C1'-N9	8.25	120.87	108.50
65	Bn	10	GLN	CA-C-N	8.24	132.00	120.29
65	Bn	10	GLN	C-N-CA	8.24	132.00	120.29
78	CA	867	G	O4'-C1'-N9	8.24	120.87	108.50
81	DA	597	G	O4'-C1'-C2'	8.24	115.84	107.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
82	DB	98	U	P-O5'-C5'	8.24	133.26	120.90
81	DA	1482	A	P-O3'-C3'	8.24	132.56	120.20
17	AQ	61	ILE	CB-CA-C	8.24	122.32	111.94
33	BD	320	ASN	CA-C-N	8.24	137.28	121.54
33	BD	320	ASN	C-N-CA	8.24	137.28	121.54
78	CA	336	G	O4'-C1'-N9	8.24	120.86	108.50
20	AS	35	ASP	N-CA-C	8.24	121.18	111.71
78	CA	853	G	O4'-C1'-N9	8.24	120.85	108.50
78	CA	1089	U	O4'-C1'-N1	8.23	120.85	108.50
81	DA	263	C	O3'-P-O5'	8.23	116.35	104.00
81	DA	972	A	N9-C1'-C2'	8.23	124.35	112.00
81	DA	2378	C	O4'-C1'-C2'	-8.23	99.37	107.60
81	DA	2628	A	N9-C1'-C2'	8.23	124.35	112.00
40	BK	147	TRP	CB-CA-C	-8.23	99.89	112.07
13	AL	3	LYS	N-CA-CB	-8.23	98.59	110.36
81	DA	1006	A	O4'-C1'-N9	8.23	120.84	108.50
78	CA	1613	U	N1-C1'-C2'	-8.22	99.66	112.00
81	DA	3090	U	O4'-C1'-C2'	-8.22	99.38	107.60
81	DA	2837	A	N9-C1'-C2'	-8.22	101.67	114.00
4	AD	206	ASP	CA-CB-CG	-8.22	104.38	112.60
43	BP	177	GLY	CA-C-N	-8.22	111.40	122.99
43	BP	177	GLY	C-N-CA	-8.22	111.40	122.99
62	Bk	57	LEU	CA-C-N	8.22	132.09	120.42
62	Bk	57	LEU	C-N-CA	8.22	132.09	120.42
64	Bl	39	TYR	CB-CA-C	8.22	121.61	108.87
78	CA	1580	C	P-O5'-C5'	8.22	133.23	120.90
83	DC	26	C	C1'-O4'-C4'	-8.22	101.68	109.90
81	DA	2469	G	P-O3'-C3'	8.22	132.53	120.20
81	DA	3034	C	P-O3'-C3'	8.22	132.53	120.20
58	Bg	93	VAL	CA-C-N	8.22	141.85	121.80
58	Bg	93	VAL	C-N-CA	8.22	141.85	121.80
59	Bh	60	ASN	CA-CB-CG	8.22	120.82	112.60
76	BS	113	ALA	N-CA-C	8.22	119.93	110.97
78	CA	942	G	N9-C1'-C2'	8.22	124.33	112.00
81	DA	1509	A	N9-C1'-C2'	8.22	124.33	112.00
81	DA	1695	U	O4'-C1'-N1	8.22	120.83	108.50
81	DA	1792	C	P-O3'-C3'	8.22	132.53	120.20
82	DB	16	G	P-O3'-C3'	8.22	132.53	120.20
1	Aa	123	ILE	N-CA-C	-8.21	95.61	107.77
34	BE	9	MET	CB-CA-C	-8.22	94.07	110.42
33	BD	89	ALA	CB-CA-C	-8.21	94.08	110.42
59	Bh	24	ARG	CD-NE-CZ	-8.21	112.90	124.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
76	BS	74	ILE	CB-CA-C	8.21	124.76	111.29
78	CA	1254	U	P-O3'-C3'	-8.21	107.88	120.20
81	DA	175	C	P-O5'-C5'	-8.21	108.58	120.90
81	DA	518	G	O4'-C1'-C2'	-8.21	99.39	107.60
81	DA	2345	A	N9-C1'-C2'	8.21	124.32	112.00
81	DA	2607	G	C1'-O4'-C4'	-8.21	101.69	109.90
47	BU	8	ARG	N-CA-C	8.21	121.15	111.71
78	CA	1676	U	O3'-P-O5'	8.21	116.32	104.00
81	DA	1872	C	C3'-C2'-C1'	8.21	109.51	101.30
81	DA	2628	A	O4'-C4'-C3'	-8.21	95.79	104.00
81	DA	1525	G	P-O3'-C3'	8.21	132.51	120.20
82	DB	6	U	N1-C1'-C2'	8.21	124.31	112.00
59	Bh	26	HIS	CE1-NE2-CD2	-8.21	100.79	109.00
81	DA	510	G	N9-C1'-C2'	8.21	124.31	112.00
81	DA	1591	G	O4'-C1'-C2'	8.21	115.81	107.60
81	DA	3216	G	O4'-C1'-N9	8.21	120.51	108.20
77	BI	111	LEU	CB-CA-C	-8.20	94.92	110.67
78	CA	1736	G	P-O3'-C3'	8.21	132.51	120.20
81	DA	1005	G	N9-C1'-C2'	-8.21	99.69	112.00
81	DA	1688	U	C3'-C2'-C1'	8.20	109.50	101.30
78	CA	374	U	C3'-C2'-C1'	-8.20	93.10	101.30
32	BC	241	LYS	CA-C-N	-8.20	107.33	121.85
32	BC	241	LYS	C-N-CA	-8.20	107.33	121.85
81	DA	2281	A	P-O3'-C3'	8.20	132.50	120.20
74	BQ	239	ILE	CB-CA-C	8.20	124.74	111.29
81	DA	76	G	O4'-C1'-N9	8.20	120.50	108.20
81	DA	109	A	C3'-C2'-C1'	8.20	109.70	101.50
20	AS	89	ARG	CA-C-N	8.20	130.09	119.84
20	AS	89	ARG	C-N-CA	8.20	130.09	119.84
8	AF	27	THR	N-CA-CB	-8.20	97.57	111.50
36	BF	141	LYS	N-CA-CB	8.20	124.34	110.49
81	DA	984	G	O4'-C1'-N9	8.20	120.79	108.50
58	Bg	79	ARG	N-CA-CB	8.19	124.33	110.49
78	CA	230	C	O4'-C1'-C2'	-8.19	99.41	107.60
48	BW	98	THR	N-CA-CB	8.19	122.27	109.82
81	DA	275	U	C4'-C3'-C2'	-8.19	94.41	102.60
81	DA	1199	C	N1-C1'-C2'	8.19	124.29	112.00
81	DA	1709	C	C3'-C2'-C1'	8.19	109.49	101.30
81	DA	2027	C	O4'-C1'-C2'	-8.19	99.41	107.60
34	BE	87	LYS	N-CA-CB	8.19	124.33	110.49
38	Bs	36	GLN	CA-CB-CG	8.19	130.48	114.10
62	Bk	83	ALA	CA-C-N	-8.19	109.48	120.54

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	Bk	83	ALA	C-N-CA	-8.19	109.48	120.54
78	CA	234	G	O3'-P-O5'	8.19	116.29	104.00
81	DA	183	G	O4'-C1'-C2'	8.19	115.79	107.60
3	AB	169	ASP	CA-CB-CG	-8.19	104.41	112.60
78	CA	887	A	P-O5'-C5'	-8.19	108.62	120.90
81	DA	1422	G	C1'-O4'-C4'	-8.19	101.71	109.90
66	Bo	9	ILE	N-CA-CB	8.19	120.13	110.55
69	Br	101	GLY	CA-C-N	-8.19	105.91	121.54
69	Br	101	GLY	C-N-CA	-8.19	105.91	121.54
81	DA	1251	A	C1'-C2'-O2'	8.19	124.08	111.80
3	AB	199	PRO	CA-C-O	-8.18	105.71	120.60
44	BO	39	HIS	CA-C-N	8.18	135.51	120.95
44	BO	39	HIS	C-N-CA	8.18	135.51	120.95
59	Bh	12	LYS	N-CA-C	-8.18	93.37	110.80
81	DA	255	A	N9-C1'-C2'	-8.18	99.72	112.00
76	BS	66	ILE	CA-C-N	-8.18	108.52	122.67
76	BS	66	ILE	C-N-CA	-8.18	108.52	122.67
81	DA	624	G	N9-C1'-C2'	8.18	124.27	112.00
81	DA	2439	A	O4'-C1'-C2'	-8.18	99.42	107.60
81	DA	250	U	C1'-O4'-C4'	8.18	118.08	109.90
58	Bg	23	VAL	CA-C-N	8.18	134.69	120.87
58	Bg	23	VAL	C-N-CA	8.18	134.69	120.87
74	BQ	29	ASP	CA-CB-CG	8.18	120.78	112.60
81	DA	2899	C	C1'-O4'-C4'	-8.18	101.72	109.90
61	Bj	2	ALA	N-CA-C	8.18	128.22	110.80
78	CA	1427	A	P-O5'-C5'	-8.18	108.63	120.90
81	DA	1058	U	P-O5'-C5'	8.18	133.17	120.90
62	Bk	83	ALA	N-CA-C	8.18	125.20	113.02
74	BQ	237	GLU	N-CA-C	-8.18	96.78	108.96
81	DA	2208	A	N9-C1'-C2'	-8.18	99.73	112.00
47	BU	105	PHE	CA-CB-CG	-8.18	105.62	113.80
64	Bl	63	ARG	CA-C-N	8.18	137.97	122.60
64	Bl	63	ARG	C-N-CA	8.18	137.97	122.60
81	DA	774	G	C1'-O4'-C4'	-8.18	101.72	109.90
81	DA	2625	C	C2'-C3'-O3'	8.18	121.77	109.50
81	DA	3199	G	C5'-C4'-C3'	8.18	127.16	114.90
6	AE	241	ASP	N-CA-CB	8.17	124.30	110.49
78	CA	894	U	O4'-C4'-C3'	-8.17	95.83	104.00
45	BR	10	HIS	CE1-NE2-CD2	-8.17	100.83	109.00
4	AD	97	GLU	N-CA-CB	8.17	124.39	110.50
58	Bg	22	GLY	CA-C-N	8.17	132.63	120.95
58	Bg	22	GLY	C-N-CA	8.17	132.63	120.95

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
76	BS	144	PHE	CA-CB-CG	-8.17	105.63	113.80
78	CA	1790	A	P-O3'-C3'	-8.17	107.95	120.20
81	DA	1990	U	O4'-C1'-C2'	-8.17	99.43	107.60
81	DA	2963	C	P-O3'-C3'	8.17	132.46	120.20
4	AD	240	LYS	CA-C-N	-8.17	105.40	121.41
4	AD	240	LYS	C-N-CA	-8.17	105.40	121.41
8	AF	28	PRO	N-CA-CB	8.17	111.83	103.25
31	BB	193	ARG	NE-CZ-NH1	8.17	129.67	121.50
78	CA	1458	G	O4'-C1'-C2'	8.17	115.77	107.60
81	DA	1681	U	C3'-C2'-C1'	8.17	109.47	101.30
81	DA	1360	C	P-O3'-C3'	8.17	132.45	120.20
81	DA	1382	G	O3'-P-O5'	8.17	116.25	104.00
81	DA	2492	C	C4'-C3'-C2'	-8.17	94.43	102.60
17	AQ	82	ASP	CB-CA-C	-8.16	94.59	110.10
37	BH	63	LYS	CA-C-N	-8.16	107.28	121.97
37	BH	63	LYS	C-N-CA	-8.16	107.28	121.97
65	Bn	52	TYR	CA-C-N	8.16	137.13	121.54
65	Bn	52	TYR	C-N-CA	8.16	137.13	121.54
78	CA	634	G	O4'-C1'-N9	8.16	120.44	108.20
81	DA	265	A	O5'-C5'-C4'	-8.16	99.45	111.70
35	BG	106	PHE	CA-CB-CG	-8.16	105.64	113.80
41	BN	38	ILE	N-CA-CB	8.16	122.25	111.64
61	Bj	75	HIS	N-CA-C	-8.16	94.72	108.26
78	CA	588	U	P-O5'-C5'	-8.16	108.66	120.90
78	CA	1453	G	P-O3'-C3'	8.16	132.44	120.20
81	DA	3220	G	P-O5'-C5'	8.16	133.14	120.90
78	CA	1558	U	O4'-C4'-C3'	8.16	112.16	104.00
81	DA	2130	G	C4'-C3'-C2'	-8.16	94.44	102.60
52	BY	23	PRO	CA-C-N	8.16	131.55	120.38
52	BY	23	PRO	C-N-CA	8.16	131.55	120.38
81	DA	704	U	C2'-C3'-O3'	8.16	125.93	113.70
14	AM	99	HIS	N-CA-C	-8.15	93.61	107.23
53	Ba	31	GLU	N-CA-C	-8.15	93.43	110.80
78	CA	1144	U	C5'-C4'-C3'	-8.15	103.77	116.00
81	DA	1866	C	O4'-C1'-C2'	-8.15	99.44	107.60
81	DA	3218	A	C2'-C3'-O3'	8.15	121.73	109.50
81	DA	3048	A	O4'-C1'-C2'	-8.15	97.65	105.80
81	DA	1622	U	O4'-C1'-N1	8.15	120.73	108.50
78	CA	1462	G	P-O3'-C3'	8.15	132.43	120.20
81	DA	2515	A	O3'-P-O5'	-8.15	91.77	104.00
44	BO	59	ARG	N-CA-CB	8.15	122.26	109.71
4	AD	96	ASN	N-CA-C	-8.15	93.45	110.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
43	BP	86	ASN	CA-CB-CG	8.15	120.75	112.60
78	CA	1601	G	N9-C1'-C2'	8.15	126.22	114.00
81	DA	2172	A	C5'-C4'-C3'	-8.15	103.78	116.00
81	DA	576	C	C3'-C2'-C1'	8.15	109.45	101.30
82	DB	154	C	C3'-C2'-C1'	8.15	109.45	101.30
41	BN	63	VAL	N-CA-CB	8.14	124.67	111.23
16	AO	109	LYS	CB-CA-C	8.14	126.62	110.42
36	BF	159	ALA	CA-C-N	8.14	131.19	120.28
36	BF	159	ALA	C-N-CA	8.14	131.19	120.28
44	BO	19	LYS	N-CA-C	-8.14	103.17	113.43
52	BY	75	ARG	CA-C-N	8.14	131.03	120.44
52	BY	75	ARG	C-N-CA	8.14	131.03	120.44
81	DA	858	A	C5'-C4'-C3'	-8.14	103.79	116.00
16	AO	63	ALA	N-CA-C	8.14	121.27	111.82
2	AA	5	ALA	CA-C-O	-8.14	112.66	121.78
57	Be	165	ASP	CB-CA-C	-8.14	98.10	110.88
78	CA	591	A	O4'-C4'-C3'	-8.14	95.86	104.00
81	DA	425	G	P-O5'-C5'	8.14	133.11	120.90
81	DA	2502	A	O4'-C1'-C2'	-8.14	99.46	107.60
81	DA	3254	G	P-O3'-C3'	-8.14	107.99	120.20
74	BQ	133	GLU	N-CA-C	8.14	121.55	109.59
81	DA	3167	A	O5'-C5'-C4'	8.14	123.71	111.50
20	AS	97	SER	N-CA-CB	8.13	125.65	111.42
35	BG	59	GLU	O-C-N	-8.13	114.72	123.26
81	DA	1784	G	P-O5'-C5'	8.13	133.10	120.90
10	AI	48	VAL	N-CA-C	-8.13	97.62	108.35
17	AQ	93	LEU	CA-C-O	-8.13	112.72	121.99
44	BO	67	HIS	CA-C-O	-8.13	112.47	121.58
81	DA	2693	C	C3'-C2'-C1'	8.13	109.43	101.30
79	CB	74	C	P-O3'-C3'	8.13	132.40	120.20
81	DA	1972	A	C5'-C4'-C3'	8.13	128.20	116.00
81	DA	1607	U	P-O3'-C3'	8.13	132.39	120.20
81	DA	2393	G	O5'-C5'-C4'	-8.13	99.50	111.70
81	DA	2630	C	C3'-C2'-C1'	8.13	109.43	101.30
77	BI	106	ALA	O-C-N	-8.13	111.78	122.59
81	DA	1562	C	C5'-C4'-C3'	-8.13	103.81	116.00
81	DA	2510	U	C4'-C3'-C2'	-8.13	94.47	102.60
78	CA	609	U	C3'-C2'-C1'	8.13	109.63	101.50
60	Bi	56	THR	N-CA-C	-8.12	97.55	110.14
78	CA	1419	G	O4'-C1'-N9	8.12	120.69	108.50
78	CA	1506	G	O3'-P-O5'	-8.12	91.81	104.00
81	DA	2886	U	N1-C1'-C2'	-8.12	101.81	114.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
20	AS	30	VAL	CA-C-O	-8.12	109.07	119.95
45	BR	143	PRO	CB-CA-C	-8.12	91.69	112.00
81	DA	2248	C	N1-C1'-C2'	8.12	124.18	112.00
69	Br	98	LYS	N-CA-C	-8.12	96.98	109.65
78	CA	1087	A	C5'-C4'-C3'	-8.12	103.82	116.00
81	DA	2174	G	O4'-C4'-C3'	-8.12	97.98	106.10
30	BA	208	SER	N-CA-CB	8.12	123.71	109.18
78	CA	252	U	C1'-O4'-C4'	8.12	118.02	109.90
81	DA	1622	U	C4'-C3'-O3'	-8.12	100.83	113.00
81	DA	2208	A	C5'-C4'-C3'	-8.12	103.82	116.00
81	DA	2422	C	N1-C1'-C2'	8.12	124.17	112.00
31	BB	3	ARG	N-CA-C	-8.11	97.56	110.14
47	BU	116	ARG	CB-CA-C	-8.12	97.32	110.79
81	DA	1411	C	P-O3'-C3'	8.12	132.37	120.20
81	DA	1265	U	N1-C1'-C2'	8.11	124.17	112.00
81	DA	1713	G	N9-C1'-C2'	8.11	124.17	112.00
81	DA	2629	U	O4'-C1'-N1	8.11	120.67	108.50
12	AK	128	LYS	CA-C-N	8.11	137.03	121.54
12	AK	128	LYS	C-N-CA	8.11	137.03	121.54
22	AV	71	ILE	N-CA-C	-8.11	96.80	108.48
78	CA	239	C	P-O5'-C5'	8.11	132.17	120.00
83	DC	85	G	O4'-C1'-N9	8.11	120.67	108.50
13	AL	120	VAL	N-CA-C	-8.11	92.47	109.34
78	CA	171	A	P-O3'-C3'	8.11	132.37	120.20
81	DA	160	G	P-O5'-C5'	-8.11	108.74	120.90
81	DA	430	U	N1-C1'-C2'	8.11	124.16	112.00
81	DA	741	U	P-O3'-C3'	8.11	132.37	120.20
81	DA	2237	C	O3'-P-O5'	8.11	116.16	104.00
83	DC	75	G	P-O3'-C3'	8.11	132.36	120.20
37	BH	222	PHE	N-CA-C	-8.11	93.94	107.32
81	DA	454	C	N1-C1'-C2'	8.11	124.16	112.00
81	DA	9	U	N1-C1'-C2'	8.11	124.16	112.00
81	DA	1668	G	O4'-C1'-N9	8.11	120.66	108.50
81	DA	1806	A	P-O3'-C3'	8.11	132.36	120.20
83	DC	50	U	N1-C1'-C2'	8.11	124.16	112.00
49	BV	40	GLU	CA-C-N	8.10	131.46	120.44
49	BV	40	GLU	C-N-CA	8.10	131.46	120.44
78	CA	222	A	O4'-C1'-N9	8.10	120.66	108.50
81	DA	419	G	N9-C1'-C2'	-8.10	99.85	112.00
81	DA	1429	G	O4'-C1'-N9	-8.10	96.05	108.20
52	BY	5	SER	N-CA-C	-8.10	97.55	108.24
81	DA	1895	A	N9-C1'-C2'	-8.10	99.85	112.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2475	G	C1'-O4'-C4'	8.10	118.00	109.90
81	DA	310	U	O4'-C1'-C2'	-8.10	99.50	107.60
81	DA	2673	A	N9-C1'-C2'	8.10	124.14	112.00
40	BK	160	ARG	CA-C-N	8.10	130.96	120.44
40	BK	160	ARG	C-N-CA	8.10	130.96	120.44
56	Bf	53	LYS	CA-C-N	8.10	132.62	120.31
56	Bf	53	LYS	C-N-CA	8.10	132.62	120.31
78	CA	820	U	O4'-C1'-N1	8.10	120.64	108.50
78	CA	871	G	P-O3'-C3'	8.10	132.34	120.20
81	DA	1	G	N9-C1'-C2'	-8.10	99.86	112.00
30	BA	123	LEU	N-CA-C	8.09	120.18	111.36
81	DA	2563	G	P-O3'-C3'	8.09	132.34	120.20
81	DA	983	A	N9-C1'-C2'	-8.09	99.86	112.00
81	DA	3084	C	O4'-C1'-C2'	-8.09	99.51	107.60
33	BD	312	VAL	CA-C-N	8.09	131.93	120.28
33	BD	312	VAL	C-N-CA	8.09	131.93	120.28
43	BP	95	GLN	N-CA-CB	8.09	122.01	110.12
30	BA	74	VAL	CA-C-N	8.09	131.93	120.28
30	BA	74	VAL	C-N-CA	8.09	131.93	120.28
38	Bs	72	ASP	CA-CB-CG	-8.09	104.51	112.60
81	DA	2489	C	N1-C1'-C2'	8.09	124.13	112.00
38	Bs	35	SER	N-CA-CB	8.09	123.16	110.46
78	CA	307	G	P-O3'-C3'	8.09	132.33	120.20
78	CA	948	G	O4'-C1'-C2'	8.09	115.69	107.60
41	BN	39	ILE	CB-CG1-CD1	8.08	130.77	113.80
81	DA	1281	G	O4'-C1'-N9	8.08	120.62	108.50
81	DA	2345	A	C1'-O4'-C4'	-8.08	101.82	109.90
81	DA	1357	G	P-O5'-C5'	8.08	133.02	120.90
17	AQ	66	VAL	N-CA-C	8.08	118.96	111.45
39	BJ	123	ARG	CB-CA-C	-8.08	98.14	110.90
57	Be	140	SER	CA-C-N	8.08	131.10	120.28
57	Be	140	SER	C-N-CA	8.08	131.10	120.28
61	Bj	20	LYS	CA-C-N	8.08	136.97	121.54
61	Bj	20	LYS	C-N-CA	8.08	136.97	121.54
81	DA	2858	U	N1-C1'-C2'	8.08	124.11	112.00
81	DA	2879	C	P-O5'-C5'	8.08	133.01	120.90
42	BM	48	ARG	CB-CA-C	-8.07	96.95	110.19
48	BW	90	ARG	N-CA-CB	-8.07	97.54	110.46
78	CA	1570	A	C5'-C4'-C3'	8.07	128.11	116.00
81	DA	2451	G	P-O3'-C3'	8.07	132.31	120.20
50	BX	27	ARG	N-CA-C	8.07	120.08	111.28
78	CA	1532	U	O4'-C1'-C2'	-8.07	99.53	107.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	961	C	O4'-C1'-C2'	-8.07	99.53	107.60
81	DA	1647	A	O4'-C1'-C2'	-8.07	99.53	107.60
81	DA	3313	U	C3'-C2'-C1'	-8.07	93.23	101.30
81	DA	3370	A	P-O3'-C3'	8.07	132.31	120.20
59	Bh	37	GLY	N-CA-C	8.07	121.20	112.33
78	CA	402	C	O4'-C1'-C2'	-8.07	99.53	107.60
81	DA	2934	A	O4'-C1'-N9	8.07	120.60	108.50
81	DA	200	C	O4'-C1'-C2'	-8.06	97.73	105.80
36	BF	12	VAL	N-CA-CB	8.06	122.49	111.21
58	Bg	6	ASP	N-CA-CB	8.06	124.11	110.49
78	CA	227	U	P-O3'-C3'	-8.06	108.11	120.20
81	DA	401	U	O4'-C1'-N1	8.06	120.29	108.20
20	AS	87	GLY	CA-C-N	8.06	136.48	121.97
20	AS	87	GLY	C-N-CA	8.06	136.48	121.97
37	BH	182	GLY	CA-C-N	8.06	131.08	120.28
37	BH	182	GLY	C-N-CA	8.06	131.08	120.28
40	BK	3	VAL	CA-C-N	8.06	131.91	122.89
40	BK	3	VAL	C-N-CA	8.06	131.91	122.89
66	Bo	44	TRP	CB-CG-CD2	-8.06	115.52	126.80
78	CA	1350	U	P-O3'-C3'	8.06	132.29	120.20
81	DA	177	U	C4'-C3'-C2'	-8.06	94.54	102.60
81	DA	1236	G	O4'-C1'-N9	8.06	120.29	108.20
5	AC	164	PHE	CA-C-O	-8.06	108.99	120.51
9	AH	121	VAL	CB-CA-C	-8.06	98.08	111.29
25	AY	48	VAL	CB-CA-C	8.05	124.31	110.38
78	CA	884	A	O3'-P-O5'	-8.05	91.92	104.00
78	CA	1659	A	O4'-C1'-C2'	-8.05	99.55	107.60
81	DA	2746	A	N9-C1'-C2'	8.06	124.08	112.00
82	DB	98	U	C5'-C4'-O4'	8.06	121.88	109.80
81	DA	1391	C	O4'-C1'-N1	8.05	120.28	108.20
81	DA	2630	C	N1-C1'-C2'	8.05	124.08	112.00
78	CA	1338	C	N1-C1'-C2'	8.05	124.08	112.00
81	DA	556	U	P-O3'-C3'	8.05	132.28	120.20
81	DA	2664	C	N1-C1'-C2'	8.05	124.08	112.00
12	AK	126	THR	N-CA-CB	8.05	124.09	110.49
81	DA	1341	U	P-O3'-C3'	8.05	132.27	120.20
30	BA	132	GLY	CA-C-N	8.05	130.90	120.44
30	BA	132	GLY	C-N-CA	8.05	130.90	120.44
81	DA	2243	A	N9-C1'-C2'	-8.05	101.93	114.00
12	AK	59	ALA	CB-CA-C	-8.05	94.41	110.42
81	DA	516	A	O4'-C1'-C2'	-8.05	99.55	107.60
81	DA	882	A	N9-C1'-C2'	8.05	124.07	112.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1137	C	O4'-C1'-C2'	-8.05	99.55	107.60
3	AB	210	GLU	CA-C-N	8.04	129.90	119.84
3	AB	210	GLU	C-N-CA	8.04	129.90	119.84
81	DA	1329	U	O4'-C1'-C2'	-8.04	99.56	107.60
81	DA	2085	U	O4'-C1'-C2'	-8.04	99.56	107.60
78	CA	304	U	O4'-C1'-N1	8.04	120.56	108.50
78	CA	427	C	N1-C1'-C2'	8.04	124.06	112.00
78	CA	1222	C	C5'-C4'-C3'	-8.04	103.94	116.00
81	DA	71	A	C3'-C2'-C1'	8.04	109.54	101.50
46	BT	44	LEU	CA-C-N	8.04	131.47	120.46
46	BT	44	LEU	C-N-CA	8.04	131.47	120.46
78	CA	684	A	C4'-C3'-C2'	-8.04	94.56	102.60
2	AA	3	LEU	CA-C-N	8.04	129.88	119.84
2	AA	3	LEU	C-N-CA	8.04	129.88	119.84
8	AF	27	THR	CA-CB-OG1	8.04	121.65	109.60
78	CA	1586	A	C2'-C3'-O3'	-8.03	101.65	113.70
81	DA	475	G	P-O3'-C3'	8.04	132.25	120.20
81	DA	1701	C	C5'-C4'-C3'	8.03	128.05	116.00
82	DB	98	U	C4'-C3'-C2'	8.04	110.64	102.60
1	Aa	85	TRP	N-CA-CB	8.03	122.05	110.16
78	CA	374	U	C1'-C2'-O2'	8.03	120.45	108.40
78	CA	1611	A	N9-C1'-C2'	-8.03	99.95	112.00
2	AA	169	SER	N-CA-C	8.03	119.66	111.07
76	BS	160	PRO	CA-C-O	-8.03	108.92	120.56
81	DA	2130	G	C5'-C4'-C3'	-8.03	103.95	116.00
83	DC	18	C	C4'-C3'-C2'	-8.03	94.57	102.60
22	AV	29	LYS	CA-C-O	-8.03	109.03	120.51
81	DA	1535	A	O4'-C1'-C2'	-8.03	99.57	107.60
81	DA	1542	G	P-O3'-C3'	8.03	132.24	120.20
83	DC	94	A	P-O3'-C3'	8.03	132.24	120.20
45	BR	16	ARG	CA-C-N	8.03	132.90	121.42
45	BR	16	ARG	C-N-CA	8.03	132.90	121.42
3	AB	74	GLN	N-CA-C	8.03	120.03	111.28
37	BH	61	GLN	CA-C-O	-8.03	109.03	120.51
81	DA	744	A	C5'-C4'-C3'	8.03	128.04	116.00
81	DA	1207	G	O4'-C1'-C2'	-8.03	91.35	107.40
81	DA	2700	G	C1'-O4'-C4'	-8.03	101.88	109.90
11	AJ	81	THR	CA-C-O	-8.02	111.73	120.24
18	AP	89	ALA	CA-C-N	8.02	131.03	120.28
18	AP	89	ALA	C-N-CA	8.02	131.03	120.28
60	Bi	49	SER	CA-C-N	8.02	132.26	120.87
60	Bi	49	SER	C-N-CA	8.02	132.26	120.87

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	720	A	C5'-C4'-C3'	8.02	128.03	116.00
81	DA	3019	U	N1-C1'-C2'	8.02	124.03	112.00
82	DB	112	U	C1'-O4'-C4'	8.02	117.92	109.90
31	BB	84	THR	N-CA-CB	8.02	121.91	109.48
78	CA	660	G	O4'-C4'-C3'	-8.02	95.98	104.00
10	AI	121	SER	N-CA-C	-8.02	93.72	110.80
78	CA	535	A	O5'-C5'-C4'	8.02	122.83	110.80
43	BP	180	PHE	N-CA-C	-8.02	93.72	110.80
78	CA	38	C	P-O5'-C5'	8.02	132.93	120.90
81	DA	2323	G	O4'-C1'-C2'	-8.02	97.78	105.80
81	DA	2673	A	O5'-C5'-C4'	-8.02	99.47	111.50
39	BJ	76	SER	CA-CB-OG	8.02	127.13	111.10
81	DA	3298	C	O4'-C1'-C2'	-8.02	99.58	107.60
83	DC	49	G	O5'-P-OP1	-8.02	83.95	108.00
5	AC	157	ASP	CB-CA-C	-8.01	95.81	109.83
81	DA	536	U	N1-C1'-C2'	8.01	124.02	112.00
31	BB	128	ARG	N-CA-C	-8.01	93.73	110.80
48	BW	100	THR	N-CA-C	-8.01	95.05	108.75
78	CA	434	G	P-O3'-C3'	8.01	132.22	120.20
81	DA	1698	C	O4'-C1'-N1	8.01	120.52	108.50
81	DA	3031	G	N9-C1'-C2'	8.01	124.02	112.00
83	DC	25	G	N9-C1'-C2'	-8.01	99.98	112.00
83	DC	115	A	N9-C1'-C2'	-8.01	99.98	112.00
78	CA	1394	G	N9-C1'-C2'	-8.01	99.98	112.00
81	DA	295	A	C3'-C2'-C1'	8.01	109.31	101.30
81	DA	697	A	P-O3'-C3'	8.01	132.22	120.20
81	DA	779	G	C4'-C3'-C2'	-8.01	94.59	102.60
83	DC	58	U	O4'-C1'-C2'	-8.01	99.59	107.60
81	DA	1288	U	O4'-C1'-C2'	-8.01	99.59	107.60
81	DA	2044	U	O4'-C1'-C2'	-8.01	99.59	107.60
5	AC	5	PRO	N-CA-CB	8.01	112.39	103.26
29	AU	47	VAL	CA-C-O	-8.01	111.91	120.64
38	Bs	18	TYR	N-CA-C	8.01	120.01	111.28
44	BO	56	VAL	CB-CA-C	-8.01	98.16	111.29
54	Bd	39	PHE	CA-CB-CG	-8.01	105.79	113.80
81	DA	1692	U	C5'-C4'-C3'	8.01	127.21	115.20
81	DA	2181	C	O5'-C5'-C4'	8.01	123.51	111.50
81	DA	3245	A	C1'-C2'-O2'	8.01	120.41	108.40
32	BC	102	LEU	CB-CA-C	8.01	126.71	110.38
45	BR	54	LEU	CB-CG-CD1	-8.01	86.69	110.70
46	BT	146	LYS	CB-CA-C	-8.01	97.24	110.85
78	CA	387	A	N9-C1'-C2'	-8.01	101.99	114.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	638	C	O3'-P-O5'	-8.01	91.99	104.00
81	DA	894	G	O4'-C1'-N9	8.01	120.21	108.20
81	DA	2783	U	O4'-C1'-N1	8.01	120.51	108.50
16	AO	118	ILE	CB-CA-C	8.00	123.27	112.22
16	AO	146	ALA	CA-C-N	8.00	136.83	121.54
16	AO	146	ALA	C-N-CA	8.00	136.83	121.54
78	CA	1652	C	O4'-C1'-C2'	-8.00	99.60	107.60
81	DA	180	C	O4'-C1'-C2'	-8.00	99.60	107.60
11	AJ	99	ILE	CA-C-N	8.00	131.81	120.53
11	AJ	99	ILE	C-N-CA	8.00	131.81	120.53
29	AU	63	GLN	N-CA-CB	8.00	124.01	110.49
81	DA	1748	G	O4'-C1'-N9	8.00	120.50	108.50
81	DA	3303	G	N9-C1'-C2'	8.00	126.00	114.00
78	CA	868	G	O4'-C1'-N9	8.00	120.50	108.50
81	DA	1258	U	C5'-C4'-C3'	-8.00	104.00	116.00
81	DA	1513	G	C1'-O4'-C4'	-8.00	101.90	109.90
78	CA	1340	U	N1-C1'-C2'	-8.00	100.00	112.00
81	DA	578	A	O4'-C1'-C2'	-8.00	99.60	107.60
81	DA	2294	U	O4'-C1'-C2'	-8.00	99.60	107.60
82	DB	97	A	P-O3'-C3'	8.00	132.19	120.20
6	AE	174	ARG	CA-C-N	-7.99	105.74	121.41
6	AE	174	ARG	C-N-CA	-7.99	105.74	121.41
33	BD	360	LYS	CA-C-N	7.99	130.99	120.28
33	BD	360	LYS	C-N-CA	7.99	130.99	120.28
81	DA	7	C	C3'-C2'-C1'	7.99	109.29	101.30
81	DA	2024	G	O3'-P-O5'	7.99	115.99	104.00
81	DA	2992	U	P-O3'-C3'	7.99	132.19	120.20
81	DA	3008	A	O3'-P-O5'	-7.99	92.01	104.00
51	BZ	57	LYS	CA-C-O	7.99	122.58	117.94
15	AN	15	GLY	CA-C-N	7.99	136.80	121.54
15	AN	15	GLY	C-N-CA	7.99	136.80	121.54
20	AS	35	ASP	CB-CA-C	-7.99	95.85	110.63
63	Bm	36	ARG	NE-CZ-NH2	7.99	126.39	119.20
81	DA	2072	G	C4'-C3'-C2'	-7.99	94.61	102.60
43	BP	179	LYS	CA-C-O	-7.99	109.09	120.51
81	DA	2724	U	N1-C1'-C2'	7.99	123.98	112.00
81	DA	2944	U	O4'-C1'-C2'	-7.99	99.61	107.60
5	AC	47	PHE	CA-C-N	7.99	130.98	120.28
5	AC	47	PHE	C-N-CA	7.99	130.98	120.28
81	DA	2495	C	O4'-C1'-C2'	-7.99	99.61	107.60
11	AJ	34	LEU	CA-C-N	7.99	130.98	120.28
11	AJ	34	LEU	C-N-CA	7.99	130.98	120.28

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
17	AQ	129	ASP	CA-C-O	-7.99	112.90	121.36
81	DA	1625	A	O4'-C1'-C2'	-7.99	99.61	107.60
81	DA	2310	U	N1-C1'-C2'	7.99	123.98	112.00
81	DA	2403	G	N9-C1'-C2'	-7.99	102.02	114.00
81	DA	3332	U	O4'-C1'-N1	7.99	120.48	108.50
81	DA	798	G	C5'-C4'-C3'	7.98	127.97	116.00
81	DA	1804	A	O4'-C1'-C2'	-7.98	99.62	107.60
35	BG	148	GLU	CA-C-N	-7.98	111.14	120.88
35	BG	148	GLU	C-N-CA	-7.98	111.14	120.88
81	DA	516	A	P-O5'-C5'	7.98	132.87	120.90
81	DA	3354	U	O4'-C1'-N1	7.98	120.47	108.50
82	DB	20	U	P-O3'-C3'	7.98	132.17	120.20
18	AP	53	TYR	N-CA-C	7.98	123.89	107.37
78	CA	369	A	N9-C1'-C2'	-7.98	100.03	112.00
81	DA	178	U	P-O5'-C5'	7.98	132.87	120.90
78	CA	460	A	O5'-C5'-C4'	7.98	123.47	111.50
81	DA	1814	A	N9-C1'-C2'	-7.98	102.03	114.00
14	AM	119	ILE	N-CA-CB	7.98	120.44	110.47
33	BD	92	ASN	CA-C-O	7.98	128.93	119.60
81	DA	599	C	C3'-C2'-C1'	7.98	109.28	101.30
81	DA	2245	C	O4'-C1'-C2'	-7.98	99.62	107.60
47	BU	141	VAL	CA-C-O	-7.98	113.24	119.46
81	DA	1116	G	P-O3'-C3'	7.98	132.16	120.20
19	AR	50	THR	N-CA-C	-7.97	97.27	109.95
59	Bh	12	LYS	N-CA-CB	-7.97	97.02	110.49
81	DA	2059	U	N1-C1'-C2'	7.97	123.96	112.00
81	DA	2415	C	C4'-C3'-C2'	-7.97	94.63	102.60
6	AE	24	ARG	CB-CG-CD	7.97	129.64	111.30
81	DA	43	A	C3'-C2'-C1'	-7.97	93.53	101.50
5	AC	146	PHE	CB-CA-C	7.97	122.47	111.63
81	DA	633	C	N1-C1'-C2'	7.97	123.96	112.00
81	DA	1210	U	O4'-C1'-C2'	-7.97	99.63	107.60
81	DA	2630	C	O4'-C1'-C2'	-7.97	99.63	107.60
10	AI	84	ALA	N-CA-CB	7.97	123.96	110.49
74	BQ	55	PHE	O-C-N	7.97	133.19	122.59
78	CA	1651	A	O4'-C1'-C2'	-7.97	99.63	107.60
78	CA	1678	A	P-O5'-C5'	7.97	132.85	120.90
81	DA	2617	U	C2'-C3'-O3'	7.97	121.45	109.50
81	DA	3145	C	O5'-C5'-C4'	-7.97	99.55	111.50
60	Bi	43	LYS	N-CA-C	-7.97	93.83	110.80
22	AV	104	ALA	N-CA-CB	7.97	125.21	110.87
42	BM	14	SER	CA-C-N	7.97	132.71	121.24

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
42	BM	14	SER	C-N-CA	7.97	132.71	121.24
78	CA	280	U	C3'-C2'-C1'	7.97	109.27	101.30
81	DA	906	A	O4'-C1'-N9	7.97	120.15	108.20
81	DA	1049	C	O4'-C1'-C2'	-7.97	99.63	107.60
81	DA	2536	A	C5'-C4'-C3'	7.97	127.95	116.00
81	DA	1045	C	O4'-C1'-N1	7.96	120.45	108.50
81	DA	113	C	C3'-C2'-C1'	7.96	109.26	101.30
81	DA	550	A	O4'-C1'-N9	7.96	120.14	108.20
60	Bi	80	ARG	N-CA-CB	7.96	123.94	110.49
81	DA	1538	G	O3'-P-O5'	-7.96	92.06	104.00
81	DA	3005	A	N9-C1'-C2'	-7.96	102.06	114.00
8	AF	104	ASN	CA-CB-CG	7.96	120.56	112.60
78	CA	950	C	N1-C1'-C2'	7.96	123.94	112.00
81	DA	177	U	P-O3'-C3'	-7.96	108.26	120.20
78	CA	1345	A	O4'-C1'-C2'	-7.96	99.64	107.60
81	DA	1222	G	C1'-O4'-C4'	7.96	117.66	109.70
81	DA	2267	C	O4'-C1'-C2'	-7.96	99.64	107.60
81	DA	2250	G	O4'-C1'-C2'	-7.96	99.64	107.60
3	AB	152	PHE	N-CA-CB	7.95	123.93	110.49
33	BD	345	GLU	N-CA-C	-7.95	103.56	113.18
78	CA	528	U	O3'-P-O5'	-7.95	92.07	104.00
81	DA	251	G	C5'-C4'-C3'	7.95	127.93	116.00
81	DA	1575	A	C4'-C3'-C2'	-7.95	94.65	102.60
83	DC	43	U	N1-C1'-C2'	7.95	123.93	112.00
57	Be	48	ASN	CA-C-N	7.95	130.94	120.28
57	Be	48	ASN	C-N-CA	7.95	130.94	120.28
78	CA	32	U	C1'-O4'-C4'	7.95	117.85	109.90
78	CA	1366	U	P-O3'-C3'	7.95	132.13	120.20
81	DA	124	U	O3'-P-O5'	-7.95	92.07	104.00
21	AT	48	GLY	CA-C-O	7.95	129.48	121.29
57	Be	206	LYS	CA-C-N	7.95	133.42	120.94
57	Be	206	LYS	C-N-CA	7.95	133.42	120.94
65	Bn	39	ARG	N-CA-C	7.95	127.73	110.80
81	DA	93	C	C3'-C2'-C1'	7.95	109.45	101.50
81	DA	2041	U	O4'-C1'-N1	7.95	120.42	108.50
81	DA	2854	U	C5'-C4'-C3'	-7.95	104.08	116.00
81	DA	2922	G	N9-C1'-C2'	7.95	123.92	112.00
2	AA	185	ARG	N-CA-CB	7.95	123.92	110.49
33	BD	305	ALA	CB-CA-C	-7.95	96.97	110.64
78	CA	1343	U	P-O3'-C3'	7.95	132.12	120.20
81	DA	3348	G	C5'-C4'-C3'	7.95	127.92	116.00
78	CA	155	U	N1-C1'-C2'	-7.95	100.08	112.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1295	G	C5'-C4'-C3'	7.95	127.92	116.00
81	DA	2803	A	O4'-C1'-N9	7.95	120.12	108.20
81	DA	2238	G	C5'-C4'-O4'	-7.95	97.88	109.80
81	DA	2689	A	C3'-C2'-C1'	7.95	109.45	101.50
78	CA	1674	C	P-O5'-C5'	7.94	132.82	120.90
81	DA	2452	G	N9-C1'-C2'	-7.94	102.08	114.00
81	DA	990	U	O4'-C1'-N1	7.94	120.41	108.50
57	Be	7	LEU	CA-C-O	7.94	128.97	120.55
81	DA	1495	U	N1-C1'-C2'	7.94	123.91	112.00
81	DA	2070	U	P-O3'-C3'	7.94	132.11	120.20
81	DA	3126	C	P-O3'-C3'	7.94	132.11	120.20
46	BT	167	ARG	O-C-N	7.94	130.25	122.07
67	Bp	34	CYS	CA-C-N	-7.94	107.97	121.94
67	Bp	34	CYS	C-N-CA	-7.94	107.97	121.94
74	BQ	125	VAL	N-CA-C	-7.94	98.41	108.89
78	CA	1743	U	P-O3'-C3'	7.94	132.11	120.20
77	BI	111	LEU	CA-C-O	-7.94	110.84	119.97
78	CA	471	A	O4'-C1'-C2'	-7.94	99.66	107.60
78	CA	682	C	C1'-C2'-O2'	7.94	120.30	108.40
78	CA	1107	G	N9-C1'-C2'	7.94	123.90	112.00
81	DA	2335	G	O4'-C1'-C2'	7.94	113.74	105.80
13	AL	123	LYS	N-CA-C	7.93	127.70	110.80
55	Bc	41	LEU	O-C-N	-7.93	112.19	121.32
16	AO	112	LYS	CB-CA-C	-7.93	94.63	110.42
76	BS	73	THR	N-CA-CB	7.93	123.89	110.49
81	DA	2874	G	N9-C1'-C2'	7.93	123.90	112.00
38	Bs	179	SER	C-N-CD	-7.93	92.48	125.00
65	Bn	75	VAL	N-CA-CB	7.93	124.32	111.23
81	DA	1378	U	P-O5'-C5'	7.93	132.80	120.90
78	CA	401	A	O4'-C1'-C2'	-7.93	97.87	105.80
78	CA	990	C	C1'-O4'-C4'	-7.93	101.97	109.90
81	DA	3099	C	N1-C1'-C2'	7.93	123.89	112.00
20	AS	59	ALA	CA-C-O	7.93	128.82	120.42
53	Ba	28	PRO	CB-CA-C	-7.93	98.48	111.56
78	CA	679	U	P-O3'-C3'	-7.93	108.31	120.20
81	DA	705	A	O4'-C1'-N9	7.93	120.09	108.20
81	DA	1035	G	O4'-C1'-C2'	-7.93	99.67	107.60
81	DA	2710	C	O4'-C1'-C2'	-7.93	99.67	107.60
60	Bi	94	LEU	CB-CA-C	7.92	123.94	110.79
81	DA	2829	U	O3'-P-O5'	-7.92	92.11	104.00
82	DB	38	U	P-O3'-C3'	7.92	132.09	120.20
78	CA	1187	U	O4'-C1'-C2'	-7.92	99.68	107.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1131	G	P-O3'-C3'	7.92	132.08	120.20
37	BH	233	TRP	N-CA-C	7.92	127.67	110.80
68	Bq	20	VAL	CA-CB-CG1	7.92	123.86	110.40
81	DA	872	U	P-O3'-C3'	7.92	132.08	120.20
78	CA	46	A	C5'-C4'-C3'	-7.92	104.13	116.00
81	DA	2398	A	O4'-C1'-C2'	-7.92	99.68	107.60
81	DA	2816	G	P-O3'-C3'	7.92	132.07	120.20
78	CA	858	G	O4'-C1'-C2'	-7.91	99.69	107.60
81	DA	638	C	O4'-C1'-C2'	-7.91	99.69	107.60
81	DA	1542	G	C3'-C2'-C1'	-7.91	93.39	101.30
81	DA	1947	G	O3'-P-O5'	-7.91	92.13	104.00
82	DB	28	C	P-O3'-C3'	-7.91	108.33	120.20
3	AB	77	PHE	N-CA-C	-7.91	93.95	110.80
81	DA	393	U	N1-C1'-C2'	7.91	123.86	112.00
81	DA	1947	G	C3'-C2'-C1'	-7.91	93.39	101.30
33	BD	34	ILE	N-CA-CB	7.91	122.44	110.58
78	CA	1545	A	C3'-C2'-C1'	-7.91	93.39	101.30
81	DA	2776	C	O4'-C1'-C2'	-7.91	99.69	107.60
81	DA	2884	C	N1-C1'-C2'	7.91	123.86	112.00
83	DC	9	C	P-O5'-C5'	7.91	132.76	120.90
6	AE	23	ASN	N-CA-CB	7.90	121.74	110.12
32	BC	362	ALA	N-CA-C	7.90	121.53	108.96
78	CA	680	U	O4'-C1'-C2'	-7.90	99.70	107.60
50	BX	132	ALA	CA-C-N	7.90	130.71	120.44
50	BX	132	ALA	C-N-CA	7.90	130.71	120.44
81	DA	607	A	C4'-C3'-C2'	-7.90	94.70	102.60
12	AK	101	ALA	CA-C-N	7.90	130.86	120.28
12	AK	101	ALA	C-N-CA	7.90	130.86	120.28
16	AO	106	ARG	CB-CA-C	-7.90	94.27	110.38
47	BU	19	PHE	N-CA-C	-7.90	102.75	111.36
81	DA	2707	C	C5'-C4'-C3'	-7.90	104.15	116.00
81	DA	2712	U	O4'-C1'-N1	7.90	120.35	108.50
82	DB	86	U	N1-C1'-C2'	-7.90	102.15	114.00
52	BY	95	VAL	O-C-N	-7.90	114.54	121.57
78	CA	256	A	P-O5'-C5'	7.90	132.75	120.90
78	CA	338	C	N1-C1'-C2'	7.90	123.84	112.00
81	DA	1005	G	O4'-C1'-N9	7.90	120.34	108.50
78	CA	1772	C	N1-C1'-C2'	7.90	123.84	112.00
81	DA	3100	U	P-O5'-C5'	7.90	132.74	120.90
43	BP	20	ARG	O-C-N	-7.89	113.94	122.07
81	DA	3248	C	O4'-C4'-C3'	-7.89	98.21	106.10
49	BV	51	VAL	N-CA-CB	7.89	119.78	110.55

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	989	A	O4'-C1'-N9	7.89	120.34	108.50
18	AP	102	LYS	N-CA-C	-7.89	97.10	109.72
34	BE	52	TYR	CB-CA-C	-7.89	94.72	110.42
50	BX	30	ALA	CA-C-N	7.89	130.85	120.28
50	BX	30	ALA	C-N-CA	7.89	130.85	120.28
64	Bl	62	GLY	N-CA-C	7.89	131.88	113.18
81	DA	2094	C	O4'-C1'-C2'	-7.89	99.71	107.60
8	AF	28	PRO	N-CD-CG	7.89	115.03	103.20
41	BN	63	VAL	N-CA-C	-7.89	92.93	109.34
81	DA	924	G	C3'-C2'-C1'	7.89	109.39	101.50
52	BY	114	ASP	N-CA-CB	7.88	121.83	110.16
17	AQ	116	LYS	N-CA-C	-7.88	100.75	111.87
53	Ba	44	ALA	N-CA-C	-7.88	97.21	108.96
81	DA	44	U	P-O3'-C3'	-7.88	108.38	120.20
81	DA	604	G	N9-C1'-C2'	-7.88	100.18	112.00
81	DA	2175	U	C4'-C3'-C2'	-7.88	94.72	102.60
18	AP	109	VAL	N-CA-C	-7.88	98.68	109.55
33	BD	347	THR	CA-C-N	7.88	136.85	121.41
33	BD	347	THR	C-N-CA	7.88	136.85	121.41
39	BJ	80	LEU	N-CA-CB	7.88	121.70	110.12
78	CA	659	C	P-O5'-C5'	7.88	132.72	120.90
78	CA	1440	C	P-O3'-C3'	-7.88	108.38	120.20
81	DA	3344	A	O4'-C1'-C2'	-7.88	99.72	107.60
22	AV	29	LYS	CB-CA-C	7.88	126.09	110.42
81	DA	2763	U	P-O5'-C5'	7.88	132.71	120.90
38	Bs	242	ASN	CA-CB-CG	-7.87	104.73	112.60
76	BS	77	TYR	N-CA-C	7.87	122.11	110.30
78	CA	903	U	P-O5'-C5'	-7.87	109.09	120.90
48	BW	20	SER	N-CA-C	7.87	121.35	108.99
81	DA	1697	A	P-O3'-C3'	7.87	132.00	120.20
81	DA	2511	A	C4'-C3'-C2'	-7.87	94.73	102.60
52	BY	98	ASN	CA-CB-CG	-7.87	104.73	112.60
76	BS	70	ASN	O-C-N	-7.87	112.27	121.32
78	CA	899	G	O4'-C1'-C2'	7.87	115.47	107.60
12	AK	95	GLY	CA-C-N	7.87	129.67	119.84
12	AK	95	GLY	C-N-CA	7.87	129.67	119.84
37	BH	73	PRO	CA-N-CD	-7.87	100.99	112.00
81	DA	2864	A	O3'-P-O5'	-7.87	92.20	104.00
43	BP	181	ASN	N-CA-C	7.87	127.56	110.80
49	BV	166	VAL	CA-C-O	-7.87	110.95	120.78
74	BQ	39	GLN	CA-C-N	7.87	136.04	123.93
74	BQ	39	GLN	C-N-CA	7.87	136.04	123.93

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	848	A	P-O3'-C3'	7.87	132.00	120.20
81	DA	1695	U	P-O3'-C3'	7.87	132.00	120.20
34	BE	2	SER	CA-C-N	-7.86	111.59	123.07
34	BE	2	SER	C-N-CA	-7.86	111.59	123.07
44	BO	55	LYS	N-CA-C	7.86	119.48	111.07
58	Bg	91	SER	CB-CA-C	-7.86	94.77	110.42
81	DA	249	U	O4'-C4'-C3'	-7.86	96.14	104.00
81	DA	1682	U	C1'-O4'-C4'	7.86	117.76	109.90
22	AV	27	TRP	N-CA-CB	7.86	123.77	110.49
78	CA	30	G	O4'-C4'-C3'	-7.86	96.14	104.00
78	CA	194	U	P-O3'-C3'	7.86	131.99	120.20
69	Br	79	THR	O-C-N	-7.86	111.44	122.76
31	BB	70	ARG	CB-CA-C	-7.86	96.87	109.13
81	DA	2987	A	C5'-C4'-C3'	-7.86	104.21	116.00
50	BX	38	LEU	CB-CA-C	7.86	126.05	110.42
81	DA	10	C	C5'-C4'-C3'	7.86	127.78	116.00
81	DA	384	A	P-O3'-C3'	7.86	131.98	120.20
81	DA	1944	U	O4'-C1'-C2'	-7.86	99.75	107.60
81	DA	2999	U	P-O3'-C3'	7.86	131.98	120.20
81	DA	3147	G	N9-C1'-C2'	7.86	123.78	112.00
78	CA	229	U	O4'-C1'-C2'	-7.85	99.75	107.60
81	DA	2988	C	C1'-O4'-C4'	7.85	117.75	109.90
61	Bj	82	ARG	N-CA-CB	7.85	123.21	110.41
78	CA	119	A	O4'-C1'-C2'	-7.85	99.75	107.60
81	DA	1259	A	P-O3'-C3'	7.85	131.98	120.20
81	DA	1467	A	O4'-C1'-C2'	-7.85	97.95	105.80
81	DA	2769	A	P-O3'-C3'	-7.85	108.42	120.20
81	DA	238	A	P-O5'-C5'	7.85	132.68	120.90
83	DC	2	G	O5'-C5'-C4'	-7.85	99.72	111.50
78	CA	154	G	C3'-C2'-C1'	7.85	109.15	101.30
79	CB	41	G	C1'-O4'-C4'	-7.85	102.05	109.90
81	DA	263	C	C4'-C3'-C2'	-7.85	94.75	102.60
81	DA	1222	G	O4'-C1'-N9	7.85	119.97	108.20
3	AB	75	LYS	CA-C-O	-7.85	112.23	120.55
81	DA	721	G	O4'-C1'-N9	7.85	120.27	108.50
81	DA	521	A	C4'-C3'-C2'	-7.85	94.75	102.60
81	DA	374	A	C2'-C3'-O3'	7.84	121.27	109.50
81	DA	1624	G	C3'-C2'-C1'	7.84	109.14	101.30
29	AU	38	ASP	CA-C-N	7.84	131.43	120.29
29	AU	38	ASP	C-N-CA	7.84	131.43	120.29
15	AN	44	ARG	N-CA-C	-7.84	102.69	111.71
78	CA	774	A	O5'-C5'-C4'	7.84	122.56	110.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1226	A	O4'-C1'-C2'	-7.84	99.76	107.60
81	DA	515	C	N1-C1'-C2'	7.84	123.76	112.00
81	DA	885	U	P-O5'-C5'	7.84	132.66	120.90
4	AD	44	LEU	CA-C-N	7.84	130.44	120.56
4	AD	44	LEU	C-N-CA	7.84	130.44	120.56
51	BZ	60	LYS	O-C-N	-7.84	112.16	122.59
78	CA	1601	G	C1'-C2'-O2'	7.84	123.56	111.80
81	DA	973	A	C1'-O4'-C4'	-7.84	102.06	109.90
81	DA	1692	U	C2'-C3'-O3'	7.84	121.26	109.50
81	DA	240	U	O3'-P-O5'	7.84	115.76	104.00
15	AN	23	VAL	N-CA-C	-7.84	102.63	110.62
35	BG	156	LYS	CA-C-N	7.84	130.78	120.28
35	BG	156	LYS	C-N-CA	7.84	130.78	120.28
58	Bg	37	LYS	CA-C-N	7.84	130.63	120.44
58	Bg	37	LYS	C-N-CA	7.84	130.63	120.44
67	Bp	34	CYS	N-CA-CB	-7.84	97.64	110.42
81	DA	2531	C	C1'-O4'-C4'	7.84	117.74	109.90
50	BX	114	VAL	CA-C-O	-7.83	113.75	121.58
63	Bm	6	LYS	N-CA-CB	7.83	123.73	110.49
81	DA	1333	C	O4'-C1'-C2'	-7.83	99.77	107.60
19	AR	130	ARG	CD-NE-CZ	7.83	135.37	124.40
78	CA	1123	C	C3'-C2'-C1'	7.83	109.13	101.30
52	BY	4	GLN	N-CA-CB	7.83	122.44	109.60
65	Bn	29	LYS	CA-C-N	-7.83	106.58	121.54
65	Bn	29	LYS	C-N-CA	-7.83	106.58	121.54
72	Bt	41	TRP	N-CA-C	7.83	119.60	111.14
74	BQ	128	GLU	N-CA-CB	-7.83	96.95	111.52
81	DA	2721	A	O4'-C1'-C2'	-7.83	99.77	107.60
1	Aa	178	VAL	N-CA-C	-7.83	95.78	107.37
81	DA	3234	A	O4'-C1'-C2'	-7.83	99.77	107.60
4	AD	103	TYR	CA-C-N	7.83	135.90	122.12
4	AD	103	TYR	C-N-CA	7.83	135.90	122.12
31	BB	208	ASP	CA-CB-CG	-7.83	104.77	112.60
78	CA	1326	A	P-O3'-C3'	7.83	131.94	120.20
81	DA	1084	A	P-O3'-C3'	7.83	131.94	120.20
5	AC	189	ASP	CA-C-N	7.83	136.49	121.54
5	AC	189	ASP	C-N-CA	7.83	136.49	121.54
50	BX	29	SER	N-CA-CB	7.82	121.74	110.16
1	Aa	53	LYS	CB-CA-C	-7.82	93.92	109.33
45	BR	157	PRO	CA-N-CD	-7.82	101.05	112.00
81	DA	535	G	N9-C1'-C2'	7.82	123.73	112.00
81	DA	2153	U	N1-C1'-C2'	7.82	123.73	112.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	47	A	P-O5'-C5'	7.82	132.63	120.90
78	CA	782	U	P-O3'-C3'	7.82	131.93	120.20
78	CA	1233	G	C1'-O4'-C4'	7.82	117.72	109.90
78	CA	1643	U	O4'-C1'-C2'	-7.82	99.78	107.60
78	CA	1239	U	C1'-C2'-O2'	7.82	120.12	108.40
81	DA	1114	U	C4'-C3'-C2'	-7.82	94.78	102.60
81	DA	1773	C	O4'-C1'-C2'	-7.82	97.98	105.80
42	BM	44	SER	N-CA-C	7.81	118.58	108.34
78	CA	123	G	P-O3'-C3'	7.81	131.92	120.20
26	AZ	39	LEU	N-CA-CB	7.81	123.69	110.49
76	BS	67	PHE	CA-CB-CG	7.81	121.61	113.80
78	CA	840	U	P-O5'-C5'	7.81	132.62	120.90
81	DA	2494	A	P-O5'-C5'	7.81	132.62	120.90
81	DA	2736	A	C4'-C3'-C2'	-7.81	94.79	102.60
83	DC	35	C	O4'-C1'-C2'	-7.81	99.79	107.60
6	AE	142	GLY	N-CA-C	-7.81	101.30	112.55
72	Bu	43	ASP	CA-CB-CG	-7.81	104.79	112.60
81	DA	309	U	C5'-C4'-C3'	7.81	127.71	116.00
8	AF	163	SER	CA-C-N	7.81	128.22	119.32
8	AF	163	SER	C-N-CA	7.81	128.22	119.32
34	BE	116	TYR	CE1-CZ-CE2	-7.81	104.69	120.30
81	DA	1321	G	P-O3'-C3'	7.81	131.91	120.20
78	CA	54	C	C4'-C3'-C2'	-7.80	94.80	102.60
81	DA	678	G	P-O3'-C3'	7.80	131.91	120.20
10	AI	54	LEU	N-CA-C	7.80	122.56	112.26
78	CA	1280	C	P-O3'-C3'	7.80	131.90	120.20
78	CA	637	C	O4'-C1'-C2'	-7.80	99.80	107.60
81	DA	530	G	O4'-C1'-N9	7.80	120.20	108.50
81	DA	694	C	O3'-P-O5'	-7.80	92.30	104.00
81	DA	2046	U	O4'-C1'-N1	7.80	120.20	108.50
81	DA	3148	U	C4'-C3'-O3'	-7.80	101.30	113.00
4	AD	142	HIS	CA-CB-CG	7.80	121.60	113.80
47	BU	99	SER	CA-C-N	7.80	131.36	120.29
47	BU	99	SER	C-N-CA	7.80	131.36	120.29
6	AE	65	GLU	N-CA-C	7.80	119.78	111.28
53	Ba	12	VAL	CB-CA-C	7.80	124.08	111.29
81	DA	2165	G	O3'-P-O5'	7.80	115.69	104.00
81	DA	3145	C	O4'-C1'-N1	7.80	120.19	108.50
81	DA	1869	C	C4'-C3'-C2'	-7.79	94.81	102.60
82	DB	45	C	C3'-C2'-C1'	7.79	109.09	101.30
33	BD	259	ASP	CA-C-O	-7.79	112.21	120.63
47	BU	146	ASN	CA-C-N	7.79	126.56	120.33

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
47	BU	146	ASN	C-N-CA	7.79	126.56	120.33
57	Be	119	VAL	CB-CA-C	-7.79	100.40	111.31
78	CA	999	U	O3'-P-O5'	-7.79	92.31	104.00
81	DA	1206	G	P-O5'-C5'	7.79	132.59	120.90
81	DA	2653	C	O4'-C1'-C2'	-7.79	99.81	107.60
82	DB	132	G	N9-C1'-C2'	-7.79	100.31	112.00
45	BR	38	ARG	N-CA-C	7.79	119.85	111.36
46	BT	159	ALA	CA-C-N	7.79	131.35	120.29
46	BT	159	ALA	C-N-CA	7.79	131.35	120.29
60	Bi	69	HIS	CA-CB-CG	7.79	121.59	113.80
78	CA	1722	A	C5'-C4'-C3'	7.79	127.69	116.00
78	CA	171	A	O4'-C1'-C2'	-7.79	99.81	107.60
81	DA	874	U	N1-C1'-C2'	7.79	123.69	112.00
29	AU	57	VAL	N-CA-CB	7.79	120.32	111.21
78	CA	1534	G	P-O3'-C3'	-7.79	108.52	120.20
81	DA	1429	G	N9-C1'-C2'	7.79	125.68	114.00
81	DA	1662	G	P-O5'-C5'	7.79	132.58	120.90
81	DA	2190	U	O4'-C1'-C2'	-7.79	99.81	107.60
81	DA	725	G	P-O3'-C3'	7.79	131.88	120.20
17	AQ	86	PRO	N-CA-C	7.79	122.72	110.50
36	BF	168	ARG	CA-C-N	7.79	130.71	120.28
36	BF	168	ARG	C-N-CA	7.79	130.71	120.28
81	DA	1575	A	N9-C1'-C2'	-7.79	100.32	112.00
65	Bn	29	LYS	CB-CA-C	-7.78	94.93	110.42
81	DA	179	C	C1'-O4'-C4'	-7.78	102.12	109.90
81	DA	450	G	P-O3'-C3'	7.78	131.87	120.20
81	DA	1624	G	P-O3'-C3'	7.78	131.88	120.20
81	DA	997	A	P-O3'-C3'	-7.78	108.53	120.20
61	Bj	48	ARG	CB-CA-C	-7.78	97.59	110.19
4	AD	95	THR	N-CA-C	7.78	127.37	110.80
4	AD	218	PHE	N-CA-C	-7.78	96.47	108.76
35	BG	134	ARG	CA-C-N	7.78	131.12	120.46
35	BG	134	ARG	C-N-CA	7.78	131.12	120.46
41	BN	39	ILE	CG1-CB-CG2	7.78	134.04	110.70
81	DA	249	U	P-O3'-C3'	7.78	131.87	120.20
81	DA	812	G	O3'-P-O5'	-7.78	92.33	104.00
81	DA	3391	A	P-O3'-C3'	7.78	131.87	120.20
81	DA	2030	C	O4'-C1'-C2'	-7.78	99.82	107.60
81	DA	2904	U	O4'-C1'-C2'	-7.78	99.82	107.60
82	DB	11	C	O4'-C1'-C2'	-7.78	99.82	107.60
82	DB	154	C	O4'-C1'-C2'	-7.78	99.82	107.60
32	BC	241	LYS	N-CA-CB	7.78	121.55	110.12

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BG	51	ARG	N-CA-C	7.78	121.79	109.50
66	Bo	14	ALA	CA-C-N	7.78	130.70	120.28
66	Bo	14	ALA	C-N-CA	7.78	130.70	120.28
68	Bq	20	VAL	N-CA-C	-7.78	105.13	112.83
79	CB	68	C	N1-C1'-C2'	7.78	123.66	112.00
81	DA	306	A	P-O3'-C3'	7.78	131.86	120.20
81	DA	2245	C	N1-C1'-C2'	7.78	123.66	112.00
81	DA	2406	C	P-O5'-C5'	7.77	132.56	120.90
2	AA	67	ILE	CA-C-N	7.77	127.49	119.56
2	AA	67	ILE	C-N-CA	7.77	127.49	119.56
9	AH	80	ASN	CA-C-N	7.77	135.96	121.97
9	AH	80	ASN	C-N-CA	7.77	135.96	121.97
12	AK	57	PRO	CA-C-N	7.77	134.75	122.62
12	AK	57	PRO	C-N-CA	7.77	134.75	122.62
55	Bc	95	PHE	CA-CB-CG	7.77	121.57	113.80
81	DA	2748	A	C1'-O4'-C4'	7.77	117.67	109.90
81	DA	1408	G	P-O3'-C3'	7.77	131.86	120.20
76	BS	141	THR	CA-C-N	7.77	130.69	120.28
76	BS	141	THR	C-N-CA	7.77	130.69	120.28
81	DA	683	U	O4'-C1'-C2'	-7.77	99.83	107.60
81	DA	2228	A	N9-C1'-C2'	-7.77	100.35	112.00
81	DA	2512	C	C5'-C4'-C3'	-7.77	104.35	116.00
83	DC	67	C	N1-C1'-C2'	7.77	123.66	112.00
29	AU	71	GLY	CA-C-N	7.77	136.38	121.54
29	AU	71	GLY	C-N-CA	7.77	136.38	121.54
32	BC	279	ASN	CA-CB-CG	-7.77	104.83	112.60
33	BD	313	LEU	CD1-CG-CD2	7.77	127.89	110.80
61	Bj	21	ARG	CB-CA-C	7.77	125.88	110.42
78	CA	10	G	C3'-C2'-C1'	7.77	109.07	101.30
79	CB	12	U	C4'-C3'-C2'	-7.77	94.83	102.60
81	DA	676	G	O4'-C1'-C2'	-7.77	99.83	107.60
81	DA	1819	U	O4'-C1'-C2'	-7.77	99.83	107.60
17	AQ	9	VAL	CA-C-N	7.77	130.69	120.28
17	AQ	9	VAL	C-N-CA	7.77	130.69	120.28
33	BD	323	VAL	CB-CA-C	7.76	124.02	111.29
42	BM	64	LYS	CA-C-N	-7.76	106.19	121.41
42	BM	64	LYS	C-N-CA	-7.76	106.19	121.41
50	BX	93	TYR	N-CA-CB	7.76	121.65	110.16
74	BQ	243	ALA	CA-C-O	-7.76	109.41	120.51
78	CA	230	C	C3'-C2'-C1'	7.76	109.06	101.30
83	DC	21	G	C1'-O4'-C4'	-7.76	102.14	109.90
12	AK	99	GLN	CB-CA-C	-7.76	98.39	110.81

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2938	G	O4'-C1'-C2'	-7.76	99.84	107.60
81	DA	3392	U	O3'-P-O5'	-7.76	92.36	104.00
1	Aa	309	VAL	CA-C-O	7.76	129.82	121.67
26	AZ	45	VAL	N-CA-C	-7.76	105.14	111.81
62	Bk	82	ARG	CB-CA-C	-7.76	99.03	111.06
81	DA	1631	C	N1-C1'-C2'	7.76	123.64	112.00
4	AD	238	LEU	O-C-N	7.76	130.24	121.32
41	BN	6	ILE	N-CA-C	7.76	125.47	109.34
81	DA	519	A	O3'-P-O5'	7.76	115.63	104.00
81	DA	2626	A	P-O5'-C5'	7.75	132.53	120.90
78	CA	1549	C	C3'-C2'-C1'	7.75	109.05	101.30
78	CA	1580	C	O5'-C5'-C4'	7.75	123.13	111.50
78	CA	1614	A	C3'-C2'-C1'	7.75	109.05	101.30
81	DA	259	C	C3'-C2'-C1'	7.75	109.05	101.30
81	DA	1783	U	C4'-C3'-O3'	7.75	124.63	113.00
81	DA	1826	C	O5'-C5'-C4'	7.75	123.13	111.50
35	BG	114	LYS	N-CA-CB	7.75	121.49	109.94
54	Bd	55	ALA	N-CA-C	7.75	119.63	111.03
81	DA	2031	U	P-O5'-C5'	7.75	132.53	120.90
81	DA	3235	C	O5'-C5'-C4'	7.75	123.12	111.50
78	CA	299	A	C1'-O4'-C4'	7.75	117.65	109.90
81	DA	673	U	C5'-C4'-C3'	-7.75	104.38	116.00
30	BA	12	HIS	CA-CB-CG	7.75	121.55	113.80
30	BA	208	SER	CA-C-O	-7.75	112.29	120.89
81	DA	1055	A	C3'-C2'-C1'	7.75	109.05	101.30
81	DA	1972	A	O5'-C5'-C4'	7.75	123.12	111.50
2	AA	195	TRP	CB-CA-C	7.74	125.83	110.42
3	AB	157	LEU	N-CA-CB	7.74	123.58	110.49
5	AC	15	PRO	CA-C-N	-7.74	106.75	121.54
5	AC	15	PRO	C-N-CA	-7.74	106.75	121.54
26	AZ	34	ALA	CA-C-N	7.74	130.66	120.28
26	AZ	34	ALA	C-N-CA	7.74	130.66	120.28
81	DA	373	A	O4'-C4'-C3'	7.74	111.74	104.00
81	DA	1790	G	O4'-C1'-N9	7.74	120.12	108.50
81	DA	2709	C	O4'-C1'-C2'	-7.74	99.86	107.60
53	Ba	48	ARG	N-CA-C	7.74	120.84	111.40
81	DA	2674	A	C1'-O4'-C4'	-7.74	102.16	109.90
11	AJ	87	HIS	N-CA-CB	7.74	124.58	111.57
21	AT	43	GLY	O-C-N	-7.74	112.64	122.70
59	Bh	46	PHE	CA-CB-CG	7.74	121.54	113.80
59	Bh	48	GLY	N-CA-C	-7.74	105.48	114.69
81	DA	1292	C	O4'-C1'-C2'	-7.74	99.86	107.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2350	C	O4'-C1'-C2'	-7.74	99.86	107.60
41	BN	62	GLN	CB-CA-C	7.74	124.19	111.50
62	Bk	27	SER	N-CA-CB	7.74	123.57	110.49
81	DA	2248	C	C3'-C2'-C1'	7.74	109.04	101.30
74	BQ	142	PHE	CA-CB-CG	7.74	121.54	113.80
74	BQ	289	LYS	N-CA-C	-7.74	94.32	110.80
78	CA	868	G	C3'-C2'-C1'	-7.74	93.56	101.30
81	DA	2613	U	P-O3'-C3'	7.74	131.81	120.20
78	CA	1520	U	C4'-C3'-O3'	-7.74	89.29	112.50
81	DA	3167	A	C5'-C4'-C3'	-7.74	104.40	116.00
78	CA	580	A	C2'-C3'-O3'	7.73	121.10	109.50
81	DA	298	U	C3'-C2'-C1'	7.73	109.23	101.50
39	BJ	127	SER	CA-C-N	7.73	131.05	120.46
39	BJ	127	SER	C-N-CA	7.73	131.05	120.46
43	BP	116	LEU	CA-C-N	7.73	134.78	121.64
43	BP	116	LEU	C-N-CA	7.73	134.78	121.64
81	DA	2181	C	P-O5'-C5'	-7.73	109.30	120.90
53	Ba	14	VAL	N-CA-CB	7.73	123.99	111.23
81	DA	2041	U	C1'-O4'-C4'	7.73	117.63	109.90
81	DA	789	A	P-O3'-C3'	7.73	131.79	120.20
81	DA	973	A	C4'-C3'-C2'	-7.73	94.87	102.60
81	DA	2175	U	P-O5'-C5'	7.73	132.49	120.90
81	DA	2528	G	N9-C1'-C2'	-7.73	100.41	112.00
48	BW	90	ARG	CB-CA-C	-7.73	96.31	109.83
53	Ba	56	LYS	N-CA-C	7.73	120.98	110.55
57	Be	222	HIS	CB-CG-CD2	-7.73	121.15	131.20
78	CA	501	U	C5'-C4'-O4'	-7.73	98.21	109.80
81	DA	544	C	O4'-C1'-C2'	-7.73	99.87	107.60
81	DA	2381	G	P-O3'-C3'	7.73	131.79	120.20
10	AI	84	ALA	CA-C-N	7.72	135.88	121.97
10	AI	84	ALA	C-N-CA	7.72	135.88	121.97
53	Ba	13	VAL	CA-C-N	-7.72	108.07	121.97
53	Ba	13	VAL	C-N-CA	-7.72	108.07	121.97
81	DA	1344	G	C5'-C4'-C3'	7.72	127.58	116.00
78	CA	1225	U	P-O3'-C3'	7.72	131.78	120.20
78	CA	1508	U	P-O3'-C3'	7.72	131.78	120.20
78	CA	1751	C	N1-C1'-C2'	7.72	123.58	112.00
81	DA	62	A	P-O3'-C3'	7.72	131.78	120.20
53	Ba	74	VAL	CA-CB-CG2	-7.72	97.28	110.40
81	DA	1055	A	P-O3'-C3'	7.72	131.78	120.20
10	AI	122	ARG	N-CA-C	-7.72	94.36	110.80
81	DA	2313	A	O4'-C1'-C2'	-7.72	98.08	105.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3245	A	C1'-O4'-C4'	-7.72	102.18	109.90
17	AQ	6	THR	N-CA-C	-7.72	94.36	110.80
35	BG	111	LEU	O-C-N	-7.72	113.76	122.09
37	BH	72	PRO	CA-C-N	7.72	129.49	119.84
37	BH	72	PRO	C-N-CA	7.72	129.49	119.84
55	Bc	31	LEU	CB-CA-C	7.72	124.91	110.63
78	CA	38	C	C3'-C2'-C1'	7.72	109.02	101.30
78	CA	591	A	P-O3'-C3'	7.72	131.78	120.20
81	DA	1956	A	O4'-C1'-C2'	-7.72	99.88	107.60
81	DA	2439	A	N9-C1'-C2'	7.72	123.58	112.00
18	AP	115	PHE	CA-CB-CG	7.71	121.52	113.80
61	Bj	38	PRO	CA-C-N	7.71	130.47	120.44
61	Bj	38	PRO	C-N-CA	7.71	130.47	120.44
78	CA	631	G	O4'-C1'-N9	7.71	120.07	108.50
2	AA	109	ASN	N-CA-CB	7.71	123.50	110.46
6	AE	215	PHE	CA-CB-CG	-7.71	106.09	113.80
81	DA	2162	U	C4'-C3'-O3'	-7.71	101.43	113.00
81	DA	2369	G	O4'-C1'-C2'	-7.71	99.89	107.60
82	DB	124	G	P-O3'-C3'	7.71	131.77	120.20
45	BR	14	GLY	O-C-N	-7.71	112.68	122.70
81	DA	2438	A	C5'-C4'-C3'	7.71	127.57	116.00
26	AZ	45	VAL	CB-CA-C	-7.71	102.69	111.55
30	BA	80	CYS	CA-C-N	7.71	129.78	120.14
30	BA	80	CYS	C-N-CA	7.71	129.78	120.14
81	DA	2208	A	C4'-C3'-O3'	7.71	124.56	113.00
81	DA	3047	U	O4'-C1'-C2'	-7.71	99.89	107.60
81	DA	3136	G	O4'-C1'-N9	7.71	120.06	108.50
82	DB	16	G	O4'-C1'-N9	7.71	119.76	108.20
6	AE	126	ARG	CB-CA-C	7.71	125.76	110.42
10	AI	63	ILE	CA-C-N	7.71	133.59	120.72
10	AI	63	ILE	C-N-CA	7.71	133.59	120.72
35	BG	5	LYS	N-CA-CB	7.71	123.52	110.49
49	BV	92	GLN	CA-C-N	7.71	128.53	119.98
49	BV	92	GLN	C-N-CA	7.71	128.53	119.98
74	BQ	180	PHE	CA-CB-CG	7.71	121.51	113.80
81	DA	1368	U	O4'-C1'-C2'	-7.71	99.89	107.60
81	DA	1388	U	C5'-C4'-C3'	-7.71	104.44	116.00
81	DA	3230	G	C4'-C3'-C2'	-7.71	94.89	102.60
32	BC	105	VAL	N-CA-C	-7.71	97.38	108.17
37	BH	164	VAL	CA-C-N	7.71	130.46	120.44
37	BH	164	VAL	C-N-CA	7.71	130.46	120.44
78	CA	92	A	O4'-C4'-C3'	7.71	111.70	104.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1228	G	N9-C1'-C2'	7.71	123.56	112.00
81	DA	149	U	P-O5'-C5'	7.71	144.01	120.90
74	BQ	123	GLU	CB-CA-C	-7.70	95.61	109.71
78	CA	680	U	O4'-C1'-N1	7.70	120.06	108.50
81	DA	158	G	C4'-C3'-C2'	-7.70	94.90	102.60
81	DA	3037	U	C5'-C4'-C3'	-7.70	104.44	116.00
4	AD	132	GLY	CA-C-N	7.70	136.25	121.54
4	AD	132	GLY	C-N-CA	7.70	136.25	121.54
2	AA	5	ALA	O-C-N	-7.70	111.52	121.92
4	AD	104	ASP	CA-C-N	7.70	131.36	120.42
4	AD	104	ASP	C-N-CA	7.70	131.36	120.42
81	DA	2916	U	O5'-C5'-C4'	7.70	123.05	111.50
81	DA	3142	A	O4'-C1'-N9	7.70	119.75	108.20
47	BU	136	ARG	N-CA-CB	7.70	123.25	110.47
11	AJ	89	ARG	N-CA-CB	7.70	122.66	110.65
33	BD	356	THR	N-CA-C	7.70	127.19	110.80
35	BG	22	ARG	N-CA-CB	7.70	121.41	109.94
81	DA	2316	G	N9-C1'-C2'	7.70	123.55	112.00
81	DA	2916	U	O3'-P-O5'	-7.70	92.45	104.00
3	AB	18	TYR	CB-CA-C	7.70	122.96	110.88
5	AC	123	HIS	CE1-NE2-CD2	-7.70	101.30	109.00
32	BC	264	VAL	N-CA-C	7.70	120.03	109.80
81	DA	1772	U	C2'-C3'-O3'	7.70	121.04	109.50
81	DA	2754	G	N9-C1'-C2'	-7.70	100.46	112.00
83	DC	16	U	O4'-C1'-N1	7.70	120.04	108.50
83	DC	89	A	O4'-C1'-C2'	-7.70	99.91	107.60
22	AV	106	ALA	N-CA-CB	7.69	123.49	110.49
44	BO	125	VAL	N-CA-C	-7.69	96.46	108.23
78	CA	466	U	P-O3'-C3'	-7.69	108.66	120.20
16	AO	117	LEU	N-CA-CB	7.69	122.07	110.22
78	CA	899	G	C1'-O4'-C4'	-7.69	102.21	109.90
78	CA	1617	U	N1-C1'-C2'	-7.69	102.46	114.00
81	DA	2707	C	O3'-P-O5'	7.69	115.54	104.00
83	DC	41	G	P-O5'-C5'	7.69	132.44	120.90
81	DA	672	A	O4'-C4'-C3'	-7.69	96.31	104.00
81	DA	2449	A	O4'-C1'-C2'	-7.69	99.91	107.60
30	BA	58	CYS	CA-C-N	7.69	127.58	119.05
30	BA	58	CYS	C-N-CA	7.69	127.58	119.05
11	AJ	56	VAL	CA-C-N	7.69	131.66	120.82
11	AJ	56	VAL	C-N-CA	7.69	131.66	120.82
29	AU	87	PRO	CA-C-N	7.69	135.85	122.09
29	AU	87	PRO	C-N-CA	7.69	135.85	122.09

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1238	A	O4'-C1'-N9	7.69	120.03	108.50
81	DA	2617	U	C1'-O4'-C4'	7.69	117.39	109.70
81	DA	2869	U	P-O3'-C3'	-7.69	108.67	120.20
31	BB	83	HIS	CA-CB-CG	7.69	121.49	113.80
60	Bi	41	ARG	CB-CA-C	-7.69	97.15	109.37
81	DA	664	U	O4'-C1'-N1	7.69	120.03	108.50
13	AL	121	ARG	N-CA-C	-7.68	94.43	110.80
32	BC	370	PHE	O-C-N	-7.68	112.37	122.59
43	BP	3	ALA	CA-C-N	7.68	130.58	120.28
43	BP	3	ALA	C-N-CA	7.68	130.58	120.28
46	BT	88	ARG	NE-CZ-NH2	-7.68	112.28	119.20
78	CA	713	A	C5'-C4'-C3'	7.68	126.43	114.90
81	DA	489	C	N1-C1'-C2'	7.68	123.53	112.00
81	DA	1391	C	P-O5'-C5'	7.68	132.43	120.90
81	DA	3309	G	C5'-C4'-C3'	7.68	127.53	116.00
78	CA	87	C	P-O3'-C3'	-7.68	108.68	120.20
78	CA	1340	U	C5'-C4'-O4'	7.68	121.32	109.80
81	DA	998	A	P-O5'-C5'	7.68	132.42	120.90
81	DA	1622	U	O4'-C1'-C2'	-7.68	99.92	107.60
81	DA	1883	A	O4'-C1'-C2'	-7.68	99.92	107.60
81	DA	2646	C	N1-C1'-C2'	7.68	123.52	112.00
81	DA	3096	C	N1-C1'-C2'	7.68	123.52	112.00
32	BC	249	VAL	CA-C-N	-7.68	109.99	120.44
32	BC	249	VAL	C-N-CA	-7.68	109.99	120.44
81	DA	1335	C	C3'-C2'-C1'	7.68	108.98	101.30
81	DA	2607	G	C1'-C2'-O2'	7.68	119.92	108.40
33	BD	310	THR	CA-CB-CG2	-7.68	97.44	110.50
38	Bs	244	LYS	N-CA-CB	7.68	121.41	110.12
65	Bn	55	VAL	N-CA-C	7.68	117.64	110.42
78	CA	956	C	N1-C1'-C2'	7.68	123.52	112.00
45	BR	33	TYR	N-CA-C	7.68	119.65	111.28
46	BT	36	ASN	N-CA-C	-7.68	103.45	114.12
81	DA	186	U	P-O3'-C3'	7.68	131.72	120.20
20	AS	12	GLN	N-CA-C	7.68	119.65	111.28
81	DA	2494	A	O4'-C1'-N9	7.68	120.02	108.50
76	BS	123	ILE	CA-CB-CG1	7.67	123.45	110.40
81	DA	1698	C	C4'-C3'-C2'	-7.67	94.92	102.60
81	DA	3217	C	P-O3'-C3'	7.67	131.71	120.20
78	CA	1226	A	O3'-P-O5'	-7.67	92.49	104.00
78	CA	1236	A	C5'-C4'-C3'	7.67	127.51	116.00
3	AB	78	LYS	CB-CA-C	7.67	125.69	110.42
37	BH	232	HIS	CA-C-O	-7.67	109.54	120.51

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
39	BJ	85	LEU	O-C-N	7.67	130.90	122.15
78	CA	1570	A	N9-C1'-C2'	-7.67	100.49	112.00
81	DA	178	U	O4'-C1'-C2'	-7.67	99.93	107.60
2	AA	222	GLU	CA-C-N	7.67	131.32	120.28
2	AA	222	GLU	C-N-CA	7.67	131.32	120.28
44	BO	28	HIS	CE1-NE2-CD2	-7.67	101.33	109.00
78	CA	169	A	N9-C1'-C2'	-7.67	100.49	112.00
78	CA	469	C	C3'-C2'-C1'	7.67	108.97	101.30
81	DA	2627	C	P-O3'-C3'	-7.67	108.70	120.20
74	BQ	3	PHE	N-CA-C	-7.67	102.52	111.03
78	CA	1173	C	P-O5'-C5'	-7.67	109.40	120.90
80	CC	17	A	N9-C1'-C2'	7.67	123.50	112.00
81	DA	1712	G	P-O3'-C3'	7.67	131.70	120.20
31	BB	97	ASN	CA-C-N	7.67	130.83	120.63
31	BB	97	ASN	C-N-CA	7.67	130.83	120.63
33	BD	296	GLN	N-CA-CB	7.67	124.22	110.95
78	CA	1297	G	O4'-C1'-N9	7.67	120.00	108.50
78	CA	1573	A	O4'-C1'-N9	7.67	119.70	108.20
81	DA	2957	G	P-O3'-C3'	-7.67	108.70	120.20
83	DC	54	A	P-O3'-C3'	-7.67	108.70	120.20
81	DA	1702	U	O4'-C1'-N1	7.67	120.00	108.50
78	CA	1394	G	O4'-C1'-C2'	7.66	115.26	107.60
78	CA	1479	A	C3'-C2'-C1'	-7.66	93.64	101.30
81	DA	599	C	O4'-C1'-C2'	-7.66	99.94	107.60
81	DA	799	G	O4'-C1'-N9	7.66	120.00	108.50
81	DA	1944	U	P-O3'-C3'	7.66	131.70	120.20
78	CA	932	U	P-O5'-C5'	-7.66	109.41	120.90
81	DA	637	C	C4'-C3'-C2'	7.66	110.26	102.60
81	DA	1850	A	N9-C1'-C2'	-7.66	102.51	114.00
81	DA	2224	A	P-O3'-C3'	7.66	131.69	120.20
2	AA	194	PRO	CA-C-N	7.66	136.17	121.54
2	AA	194	PRO	C-N-CA	7.66	136.17	121.54
4	AD	105	VAL	N-CA-CB	7.66	122.07	110.58
78	CA	299	A	N9-C1'-C2'	-7.66	100.51	112.00
69	Br	55	LYS	CA-C-N	7.66	129.41	119.84
69	Br	55	LYS	C-N-CA	7.66	129.41	119.84
78	CA	171	A	O3'-P-O5'	7.66	115.49	104.00
55	Bc	110	ALA	CA-C-O	7.66	129.59	121.25
61	Bj	5	HIS	CA-C-N	7.66	136.16	121.54
61	Bj	5	HIS	C-N-CA	7.66	136.16	121.54
81	DA	772	U	O4'-C1'-N1	7.66	119.98	108.50
81	DA	1825	G	O4'-C1'-C2'	7.66	115.25	107.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	393	C	C3'-C2'-C1'	7.65	108.95	101.30
78	CA	1284	C	P-O5'-C5'	-7.65	109.42	120.90
81	DA	599	C	P-O5'-C5'	7.65	132.38	120.90
81	DA	1662	G	O3'-P-O5'	-7.65	92.52	104.00
81	DA	3126	C	N1-C1'-C2'	7.65	123.48	112.00
83	DC	35	C	N1-C1'-C2'	7.65	123.48	112.00
17	AQ	55	THR	N-CA-C	7.65	119.62	111.28
48	BW	42	LYS	CA-C-N	7.65	130.35	120.56
48	BW	42	LYS	C-N-CA	7.65	130.35	120.56
78	CA	123	G	O4'-C4'-C3'	-7.65	96.35	104.00
81	DA	2	U	O4'-C1'-C2'	-7.65	99.95	107.60
81	DA	1216	C	P-O3'-C3'	-7.65	108.72	120.20
81	DA	3167	A	C3'-C2'-C1'	7.65	108.95	101.30
81	DA	3369	G	P-O5'-C5'	7.65	132.38	120.90
81	DA	3048	A	C3'-C2'-C1'	7.65	109.15	101.50
10	AI	86	ALA	N-CA-C	7.65	127.09	110.80
43	BP	191	TRP	CA-C-N	7.65	133.22	122.36
43	BP	191	TRP	C-N-CA	7.65	133.22	122.36
74	BQ	54	ARG	N-CA-C	7.65	127.09	110.80
76	BS	46	PHE	CA-C-N	7.65	130.53	120.28
76	BS	46	PHE	C-N-CA	7.65	130.53	120.28
81	DA	567	G	O4'-C1'-N9	7.65	119.97	108.50
81	DA	581	U	O4'-C1'-N1	7.65	119.97	108.50
81	DA	967	A	O4'-C1'-C2'	-7.65	99.95	107.60
81	DA	1446	A	O3'-P-O5'	-7.65	92.53	104.00
81	DA	3308	C	N1-C1'-C2'	7.65	123.47	112.00
4	AD	148	ARG	NE-CZ-NH1	7.65	129.15	121.50
64	Bl	8	PHE	CA-C-N	7.64	128.46	119.98
64	Bl	8	PHE	C-N-CA	7.64	128.46	119.98
81	DA	720	A	O4'-C1'-C2'	-7.64	99.96	107.60
81	DA	765	C	N1-C1'-C2'	7.64	123.46	112.00
81	DA	839	C	O4'-C1'-C2'	-7.64	99.96	107.60
81	DA	2176	U	C1'-O4'-C4'	7.64	117.54	109.90
67	Bp	41	HIS	ND1-CE1-NE2	7.64	116.04	108.40
78	CA	1237	G	O4'-C1'-C2'	-7.64	99.96	107.60
78	CA	1525	A	P-O3'-C3'	7.64	131.66	120.20
81	DA	1290	A	C3'-C2'-O2'	7.64	122.16	110.70
2	AA	175	TYR	N-CA-CB	7.64	121.35	110.12
41	BN	42	LYS	N-CA-C	7.64	119.39	111.14
81	DA	1773	C	C2'-C3'-O3'	7.64	120.96	109.50
16	AO	64	ARG	CD-NE-CZ	-7.64	113.71	124.40
52	BY	56	VAL	N-CA-C	-7.63	96.44	108.81

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
58	Bg	35	GLU	N-CA-CB	7.63	121.34	110.12
72	Bu	60	ASN	CA-C-N	-7.63	106.96	121.54
72	Bu	60	ASN	C-N-CA	-7.63	106.96	121.54
78	CA	1459	C	C4'-C3'-C2'	7.63	110.23	102.60
78	CA	1599	C	C3'-C2'-C1'	7.63	108.93	101.30
8	AF	116	HIS	CA-CB-CG	-7.63	106.17	113.80
65	Bn	68	SER	O-C-N	7.63	131.91	123.13
81	DA	586	C	P-O3'-C3'	7.63	131.65	120.20
81	DA	2944	U	C3'-C2'-C1'	7.63	108.93	101.30
61	Bj	89	LEU	N-CA-CB	-7.63	100.80	110.03
41	BN	2	SER	CA-C-O	-7.63	112.20	121.89
81	DA	523	A	O4'-C1'-C2'	-7.63	99.97	107.60
35	BG	99	GLU	CA-C-N	7.63	134.97	123.23
35	BG	99	GLU	C-N-CA	7.63	134.97	123.23
49	BV	139	TYR	N-CA-C	-7.63	96.47	108.90
78	CA	1409	G	C1'-O4'-C4'	7.63	117.33	109.70
78	CA	1459	C	C5'-C4'-C3'	7.63	127.44	116.00
81	DA	2376	G	N9-C1'-C2'	7.63	123.44	112.00
26	AZ	21	VAL	CA-C-N	7.62	136.10	121.54
26	AZ	21	VAL	C-N-CA	7.62	136.10	121.54
81	DA	2901	G	N9-C1'-C2'	7.62	123.44	112.00
78	CA	254	A	O4'-C1'-N9	7.62	119.93	108.50
78	CA	342	C	O4'-C1'-C2'	-7.62	99.98	107.60
78	CA	457	G	C1'-O4'-C4'	-7.62	102.28	109.90
81	DA	1221	A	C3'-C2'-C1'	-7.62	93.68	101.30
32	BC	39	LYS	CA-C-N	7.62	129.36	119.84
32	BC	39	LYS	C-N-CA	7.62	129.36	119.84
35	BG	100	LYS	N-CA-C	-7.62	90.03	107.48
78	CA	1233	G	C2'-C3'-O3'	7.62	125.13	113.70
78	CA	1415	U	N1-C1'-C2'	7.62	123.43	112.00
2	AA	157	ASP	N-CA-C	7.62	119.37	111.14
29	AU	88	THR	CB-CA-C	7.62	122.57	109.24
35	BG	20	LYS	CA-C-N	7.62	132.79	120.60
35	BG	20	LYS	C-N-CA	7.62	132.79	120.60
41	BN	66	THR	CA-C-N	7.62	127.25	119.56
41	BN	66	THR	C-N-CA	7.62	127.25	119.56
81	DA	1058	U	O4'-C1'-C2'	-7.62	99.98	107.60
49	BV	100	ALA	N-CA-CB	7.62	121.31	110.12
78	CA	254	A	O4'-C1'-C2'	-7.62	99.98	107.60
78	CA	1644	C	O4'-C1'-C2'	-7.62	99.98	107.60
81	DA	2039	C	O4'-C1'-C2'	-7.62	99.98	107.60
81	DA	2195	C	C4'-C3'-C2'	-7.62	94.98	102.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
49	BV	161	ALA	CA-C-N	7.61	134.77	121.52
49	BV	161	ALA	C-N-CA	7.61	134.77	121.52
50	BX	46	TYR	CA-C-N	7.61	133.36	122.09
50	BX	46	TYR	C-N-CA	7.61	133.36	122.09
78	CA	255	U	O4'-C1'-C2'	-7.61	99.99	107.60
78	CA	849	C	C1'-O4'-C4'	-7.61	102.29	109.90
78	CA	1342	C	P-O3'-C3'	7.61	131.62	120.20
81	DA	2486	A	O4'-C4'-C3'	-7.61	98.49	106.10
33	BD	259	ASP	CA-CB-CG	-7.61	104.99	112.60
81	DA	3167	A	O4'-C1'-N9	7.61	119.92	108.50
5	AC	163	PRO	N-CA-CB	-7.61	95.26	103.25
37	BH	129	PRO	N-CA-CB	7.61	111.24	103.25
43	BP	120	TRP	N-CA-CB	-7.61	97.63	110.49
81	DA	640	U	O4'-C1'-C2'	-7.61	99.99	107.60
81	DA	994	G	P-O3'-C3'	7.61	131.61	120.20
81	DA	1206	G	C4'-C3'-C2'	-7.61	94.99	102.60
81	DA	2679	A	P-O3'-C3'	7.61	131.62	120.20
61	Bj	37	THR	N-CA-CB	7.61	123.91	110.37
78	CA	1705	C	N1-C1'-C2'	7.61	123.41	112.00
81	DA	1049	C	N1-C1'-C2'	7.61	123.41	112.00
2	AA	103	THR	CA-C-N	7.61	128.20	120.14
2	AA	103	THR	C-N-CA	7.61	128.20	120.14
81	DA	1013	G	O4'-C1'-N9	7.61	119.91	108.50
81	DA	1390	A	O4'-C1'-N9	7.61	119.61	108.20
81	DA	1750	A	C2'-C3'-O3'	7.61	120.91	109.50
81	DA	2186	U	O4'-C1'-N1	7.61	119.91	108.50
82	DB	51	G	P-O3'-C3'	7.61	131.61	120.20
46	BT	14	VAL	CA-C-O	-7.61	111.27	120.78
81	DA	105	C	O3'-P-O5'	-7.61	92.59	104.00
81	DA	1788	C	C4'-C3'-C2'	-7.61	94.99	102.60
81	DA	2736	A	P-O3'-C3'	7.61	131.61	120.20
22	AV	32	MET	CB-CA-C	7.60	124.55	110.10
37	BH	158	ASP	CA-CB-CG	-7.60	105.00	112.60
81	DA	933	A	C2'-C3'-O3'	7.60	125.11	113.70
81	DA	2438	A	P-O5'-C5'	-7.60	109.49	120.90
81	DA	2475	G	C3'-C2'-C1'	7.60	108.90	101.30
48	BW	95	PHE	CB-CA-C	7.60	122.72	109.80
56	Bf	65	THR	N-CA-CB	7.60	123.34	110.49
81	DA	2735	U	C4'-C3'-C2'	-7.60	95.00	102.60
25	AY	25	VAL	CA-C-N	7.60	136.06	121.54
25	AY	25	VAL	C-N-CA	7.60	136.06	121.54
78	CA	1743	U	O4'-C1'-N1	7.60	119.90	108.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1790	G	O5'-C5'-C4'	-7.60	100.10	111.50
81	DA	2421	U	C4'-C3'-O3'	-7.60	101.60	113.00
13	AL	99	ASN	N-CA-CB	7.60	123.33	110.49
12	AK	67	VAL	N-CA-CB	7.60	119.44	110.55
74	BQ	239	ILE	N-CA-CB	-7.60	98.69	111.23
81	DA	82	C	C3'-C2'-C1'	7.60	108.90	101.30
81	DA	1085	A	N9-C1'-C2'	7.60	123.40	112.00
38	Bs	33	VAL	CB-CA-C	-7.60	100.80	111.21
76	BS	121	PRO	N-CA-C	7.60	128.12	112.47
78	CA	1201	G	C3'-C2'-C1'	7.59	109.09	101.50
81	DA	80	G	N9-C1'-C2'	7.59	123.39	112.00
81	DA	521	A	N9-C1'-C2'	-7.59	100.61	112.00
81	DA	1967	U	O4'-C1'-C2'	-7.59	100.00	107.60
81	DA	2915	U	C4'-C3'-C2'	-7.59	95.00	102.60
81	DA	3111	U	O4'-C1'-C2'	-7.59	100.01	107.60
19	AR	54	ALA	N-CA-CB	7.59	123.32	110.49
78	CA	1123	C	O4'-C1'-C2'	-7.59	100.01	107.60
17	AQ	129	ASP	CA-CB-CG	-7.59	105.01	112.60
78	CA	955	A	C1'-O4'-C4'	7.59	117.49	109.90
81	DA	160	G	C3'-C2'-C1'	-7.59	93.71	101.30
81	DA	658	G	C1'-O4'-C4'	-7.59	102.31	109.90
81	DA	3212	C	O5'-C5'-C4'	7.59	122.88	111.50
81	DA	3282	U	C3'-C2'-C1'	7.59	108.89	101.30
78	CA	142	G	O4'-C1'-C2'	-7.59	100.01	107.60
35	BG	140	VAL	CA-C-N	7.59	135.63	121.97
35	BG	140	VAL	C-N-CA	7.59	135.63	121.97
74	BQ	24	ARG	CA-C-N	7.59	131.06	120.29
74	BQ	24	ARG	C-N-CA	7.59	131.06	120.29
76	BS	6	PHE	N-CA-CB	7.59	123.31	110.49
81	DA	701	G	O3'-P-O5'	-7.59	92.62	104.00
81	DA	3310	A	P-O3'-C3'	-7.59	108.82	120.20
58	Bg	28	ARG	N-CA-C	7.58	120.51	111.33
81	DA	3193	C	P-O3'-C3'	7.58	131.58	120.20
78	CA	288	A	C1'-O4'-C4'	7.58	117.48	109.90
81	DA	954	U	O4'-C1'-C2'	-7.58	100.02	107.60
81	DA	1695	U	N1-C1'-C2'	-7.58	100.62	112.00
13	AL	39	LYS	CA-CB-CG	7.58	129.26	114.10
33	BD	166	VAL	O-C-N	7.58	129.64	121.83
60	Bi	67	LYS	CD-CE-NZ	7.58	136.16	111.90
78	CA	476	U	P-O3'-C3'	7.58	131.57	120.20
77	BI	20	SER	N-CA-C	7.58	119.54	111.28
9	AH	27	ILE	CA-C-O	-7.58	114.21	121.64

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	Br	64	THR	N-CA-CB	7.58	123.30	110.49
78	CA	1113	A	C1'-C2'-O2'	7.58	123.17	111.80
81	DA	2630	C	P-O3'-C3'	-7.58	108.83	120.20
81	DA	838	G	C2'-C3'-O3'	7.58	120.87	109.50
81	DA	992	A	N9-C1'-C2'	-7.58	100.64	112.00
11	AJ	41	ILE	CA-C-N	7.58	130.84	120.46
11	AJ	41	ILE	C-N-CA	7.58	130.84	120.46
53	Ba	12	VAL	N-CA-C	-7.57	93.58	109.34
78	CA	1043	A	N9-C1'-C2'	-7.57	102.64	114.00
81	DA	1315	U	P-O5'-C5'	7.57	132.26	120.90
38	Bs	229	TYR	CA-C-N	7.57	129.30	119.84
38	Bs	229	TYR	C-N-CA	7.57	129.30	119.84
78	CA	1222	C	P-O3'-C3'	7.57	131.56	120.20
81	DA	2447	A	P-O3'-C3'	7.57	131.56	120.20
8	AF	185	ARG	N-CA-C	7.57	119.61	111.36
78	CA	948	G	C1'-C2'-O2'	7.57	119.75	108.40
81	DA	2271	A	O4'-C1'-C2'	-7.57	100.03	107.60
81	DA	3010	U	C1'-O4'-C4'	7.57	117.47	109.90
37	BH	135	GLY	CA-C-N	7.57	130.42	120.28
37	BH	135	GLY	C-N-CA	7.57	130.42	120.28
81	DA	996	A	O4'-C1'-N9	7.57	119.85	108.50
43	BP	46	ASP	CA-CB-CG	7.56	120.16	112.60
81	DA	1480	G	O4'-C1'-C2'	7.56	113.36	105.80
78	CA	1711	C	O4'-C1'-C2'	-7.56	100.04	107.60
81	DA	2618	G	P-O3'-C3'	7.56	131.54	120.20
36	BF	47	LYS	CB-CA-C	-7.56	98.47	110.79
78	CA	373	G	P-O5'-C5'	7.56	132.24	120.90
78	CA	1480	G	O4'-C1'-N9	7.56	119.84	108.50
81	DA	907	G	O4'-C1'-C2'	7.56	113.36	105.80
81	DA	1575	A	O4'-C1'-N9	7.56	119.84	108.50
81	DA	1965	C	O4'-C1'-N1	7.56	119.84	108.50
81	DA	2146	C	C5'-C4'-C3'	-7.56	104.67	116.00
40	BK	132	GLY	N-CA-C	-7.56	95.27	113.18
42	BM	47	ASN	CA-C-N	7.55	133.62	123.05
42	BM	47	ASN	C-N-CA	7.55	133.62	123.05
81	DA	723	U	O4'-C1'-N1	7.55	119.83	108.50
2	AA	81	PHE	N-CA-CB	7.55	121.33	110.16
47	BU	159	PHE	O-C-N	7.55	130.12	122.12
78	CA	500	C	O3'-P-O5'	7.55	115.33	104.00
26	AZ	43	ARG	N-CA-C	7.55	121.45	110.28
81	DA	1569	U	C2'-C3'-O3'	7.55	120.82	109.50
81	DA	1587	A	O4'-C1'-N9	7.55	119.53	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2072	G	O3'-P-O5'	7.55	115.33	104.00
51	BZ	65	GLU	CA-C-O	-7.55	112.07	121.50
67	Bp	27	LEU	CA-C-N	7.55	128.15	120.38
67	Bp	27	LEU	C-N-CA	7.55	128.15	120.38
81	DA	2131	A	C1'-O4'-C4'	-7.55	102.35	109.90
81	DA	2956	A	O3'-P-O5'	7.55	115.32	104.00
81	DA	1579	C	P-O5'-C5'	7.54	132.22	120.90
81	DA	2266	U	C3'-C2'-C1'	7.54	109.05	101.50
57	Be	132	PRO	CB-CA-C	-7.54	99.11	111.56
81	DA	1239	C	P-O5'-C5'	7.54	132.22	120.90
81	DA	1777	U	P-O3'-C3'	7.54	131.52	120.20
33	BD	216	VAL	CA-C-N	7.54	131.00	120.29
33	BD	216	VAL	C-N-CA	7.54	131.00	120.29
40	BK	131	PRO	CB-CA-C	-7.54	99.12	111.56
45	BR	111	ARG	O-C-N	7.54	130.12	122.12
74	BQ	197	SER	CB-CA-C	7.54	125.43	110.42
81	DA	1598	G	P-O5'-C5'	7.54	132.21	120.90
62	Bk	25	LYS	CB-CA-C	7.54	122.40	109.51
81	DA	2	U	O4'-C1'-N1	7.54	119.81	108.50
81	DA	1944	U	N1-C1'-C2'	7.54	123.31	112.00
78	CA	887	A	P-O3'-C3'	7.54	131.51	120.20
81	DA	3385	U	C5'-C4'-O4'	-7.54	98.49	109.80
8	AF	114	ILE	N-CA-CB	7.54	120.79	110.54
44	BO	8	THR	CB-CA-C	-7.54	95.42	110.42
78	CA	460	A	O4'-C1'-N9	7.54	119.80	108.50
78	CA	1604	U	O4'-C1'-N1	7.54	119.80	108.50
81	DA	1432	C	C1'-O4'-C4'	7.54	117.23	109.70
81	DA	2653	C	N1-C1'-C2'	7.54	123.30	112.00
1	Aa	317	THR	N-CA-C	-7.53	94.75	110.80
4	AD	130	GLN	CA-C-N	7.53	137.57	121.45
4	AD	130	GLN	C-N-CA	7.53	137.57	121.45
4	AD	209	HIS	ND1-CE1-NE2	7.53	115.93	108.40
81	DA	959	C	N1-C1'-C2'	7.53	123.30	112.00
81	DA	2366	C	N1-C1'-C2'	7.53	123.30	112.00
6	AE	159	THR	CA-C-N	7.53	128.34	119.98
6	AE	159	THR	C-N-CA	7.53	128.34	119.98
44	BO	14	HIS	CE1-NE2-CD2	-7.53	101.47	109.00
81	DA	1358	C	P-O5'-C5'	7.53	132.19	120.90
81	DA	1623	G	C4'-C3'-O3'	-7.53	101.71	113.00
81	DA	1826	C	P-O5'-C5'	7.53	132.19	120.90
31	BB	193	ARG	NH1-CZ-NH2	-7.53	109.52	119.30
33	BD	109	TRP	N-CA-CB	7.53	123.21	110.49

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	BD	145	ILE	CA-C-N	-7.53	110.43	119.84
33	BD	145	ILE	C-N-CA	-7.53	110.43	119.84
74	BQ	13	SER	CA-C-N	7.53	131.12	120.28
74	BQ	13	SER	C-N-CA	7.53	131.12	120.28
78	CA	1474	G	N9-C1'-C2'	7.53	123.29	112.00
32	BC	212	ASN	CA-CB-CG	-7.53	105.07	112.60
33	BD	234	ASN	OD1-CG-ND2	7.53	130.13	122.60
81	DA	1237	G	N9-C1'-C2'	7.53	123.29	112.00
81	DA	1651	U	O4'-C1'-C2'	-7.53	100.08	107.60
78	CA	1615	C	O4'-C1'-N1	-7.52	97.21	108.50
81	DA	1984	C	P-O3'-C3'	7.52	131.49	120.20
81	DA	2684	C	P-O5'-C5'	-7.52	109.61	120.90
81	DA	3121	U	O4'-C1'-C2'	-7.52	98.28	105.80
40	BK	163	SER	N-CA-C	7.52	120.55	111.82
78	CA	574	G	C5'-C4'-C3'	7.52	127.28	116.00
78	CA	635	A	N9-C1'-C2'	7.52	123.28	112.00
81	DA	1077	U	O4'-C1'-C2'	-7.52	100.08	107.60
81	DA	1475	A	C4'-C3'-C2'	-7.52	95.08	102.60
81	DA	1889	G	C1'-O4'-C4'	-7.52	102.38	109.90
19	AR	125	PRO	CA-C-N	7.52	130.19	120.56
19	AR	125	PRO	C-N-CA	7.52	130.19	120.56
60	Bi	106	LYS	CA-C-N	7.52	135.91	121.54
60	Bi	106	LYS	C-N-CA	7.52	135.91	121.54
74	BQ	158	ARG	CD-NE-CZ	7.52	134.93	124.40
78	CA	507	U	O3'-P-O5'	-7.52	92.72	104.00
13	AL	1	MET	N-CA-C	7.52	132.05	111.00
17	AQ	62	GLN	CA-C-N	7.52	133.73	122.68
17	AQ	62	GLN	C-N-CA	7.52	133.73	122.68
72	Bt	59	VAL	N-CA-C	7.52	121.63	113.43
76	BS	43	PHE	CA-CB-CG	-7.52	106.28	113.80
81	DA	808	A	O3'-P-O5'	-7.52	92.72	104.00
81	DA	1193	A	O4'-C1'-C2'	-7.52	100.08	107.60
81	DA	2421	U	C3'-C2'-C1'	7.52	108.82	101.30
82	DB	151	C	P-O3'-C3'	7.52	131.48	120.20
30	BA	78	LYS	CA-C-N	7.52	130.35	120.28
30	BA	78	LYS	C-N-CA	7.52	130.35	120.28
41	BN	13	ARG	CA-C-N	7.52	135.90	121.54
41	BN	13	ARG	C-N-CA	7.52	135.90	121.54
46	BT	28	GLU	CA-C-N	7.52	130.69	120.54
46	BT	28	GLU	C-N-CA	7.52	130.69	120.54
81	DA	2500	A	O3'-P-O5'	-7.52	92.72	104.00
81	DA	3047	U	C1'-C2'-O2'	-7.52	97.12	108.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3048	A	P-O5'-C5'	-7.52	109.62	120.90
76	BS	123	ILE	CA-C-N	7.52	135.90	121.54
76	BS	123	ILE	C-N-CA	7.52	135.90	121.54
14	AM	40	ARG	CA-C-N	7.51	130.21	120.44
14	AM	40	ARG	C-N-CA	7.51	130.21	120.44
17	AQ	81	LYS	CB-CA-C	-7.51	98.64	111.41
17	AQ	100	LEU	CB-CA-C	-7.51	98.25	114.10
40	BK	7	VAL	N-CA-C	-7.51	97.02	107.99
81	DA	857	G	P-O5'-C5'	7.51	132.17	120.90
78	CA	1340	U	O4'-C1'-C2'	-7.51	100.09	107.60
81	DA	1277	C	N1-C1'-C2'	7.51	123.27	112.00
41	BN	62	GLN	CA-C-N	7.51	135.49	121.97
41	BN	62	GLN	C-N-CA	7.51	135.49	121.97
65	Bn	72	THR	N-CA-C	-7.51	94.80	110.80
81	DA	1908	A	N9-C1'-C2'	7.51	123.27	112.00
81	DA	3012	A	P-O3'-C3'	-7.51	108.93	120.20
81	DA	3240	C	N1-C1'-C2'	7.51	123.27	112.00
13	AL	39	LYS	CG-CD-CE	7.51	128.57	111.30
42	BM	35	TYR	CB-CA-C	7.51	123.29	109.70
53	Ba	25	ILE	N-CA-CB	7.51	120.55	111.31
55	Bc	41	LEU	CA-C-O	-7.51	109.87	120.16
81	DA	1699	A	C1'-O4'-C4'	7.51	117.41	109.90
81	DA	2487	U	C5'-C4'-O4'	-7.51	98.54	109.80
82	DB	144	G	P-O3'-C3'	7.51	131.47	120.20
2	AA	141	ILE	O-C-N	-7.51	112.54	121.10
78	CA	899	G	O4'-C1'-N9	7.51	119.76	108.50
81	DA	587	U	N1-C1'-C2'	7.51	123.26	112.00
81	DA	1306	G	N9-C1'-C2'	7.51	125.26	114.00
30	BA	211	GLY	CA-C-N	7.50	127.41	120.21
30	BA	211	GLY	C-N-CA	7.50	127.41	120.21
78	CA	1613	U	C1'-O4'-C4'	7.50	117.40	109.90
81	DA	330	G	O4'-C1'-C2'	-7.50	98.30	105.80
81	DA	562	C	P-O3'-C3'	7.50	131.45	120.20
81	DA	2431	C	O4'-C1'-C2'	-7.50	100.10	107.60
81	DA	2705	A	C2'-C3'-O3'	7.50	120.75	109.50
2	AA	63	ILE	CA-C-N	7.50	130.16	120.56
2	AA	63	ILE	C-N-CA	7.50	130.16	120.56
25	AY	5	THR	N-CA-C	-7.50	101.51	110.13
32	BC	341	SER	CA-C-N	7.50	130.65	120.38
32	BC	341	SER	C-N-CA	7.50	130.65	120.38
43	BP	13	LYS	O-C-N	-7.50	114.23	122.03
78	CA	415	C	C1'-O4'-C4'	7.50	117.40	109.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	BH	227	ASP	CA-CB-CG	7.50	120.10	112.60
38	Bs	247	LEU	N-CA-C	-7.50	103.11	111.28
81	DA	1078	U	O4'-C1'-N1	7.50	119.75	108.50
81	DA	2455	U	O3'-P-O5'	-7.50	92.75	104.00
78	CA	856	A	N9-C1'-C2'	-7.50	100.76	112.00
78	CA	1301	U	P-O3'-C3'	7.50	131.44	120.20
81	DA	1869	C	P-O5'-C5'	7.50	132.14	120.90
81	DA	2633	U	O3'-P-O5'	7.49	115.24	104.00
18	AP	40	LEU	CB-CA-C	7.49	128.72	112.99
37	BH	189	LEU	N-CA-CB	7.49	121.89	110.28
72	Bu	59	VAL	N-CA-C	7.49	121.59	113.43
81	DA	513	G	P-O3'-C3'	7.49	131.43	120.20
81	DA	808	A	N9-C1'-C2'	7.49	123.23	112.00
81	DA	2471	U	O4'-C1'-C2'	-7.49	100.11	107.60
29	AU	36	SER	O-C-N	-7.49	115.85	121.47
33	BD	296	GLN	N-CA-C	7.49	121.89	107.44
66	Bo	41	ARG	CA-C-N	-7.49	110.82	122.87
66	Bo	41	ARG	C-N-CA	-7.49	110.82	122.87
78	CA	852	C	P-O3'-C3'	7.49	131.43	120.20
81	DA	278	U	O4'-C1'-C2'	-7.49	100.11	107.60
81	DA	1894	U	O4'-C1'-C2'	-7.49	100.11	107.60
78	CA	221	A	O4'-C1'-C2'	-7.48	100.12	107.60
40	BK	30	GLY	CA-C-O	7.48	126.43	118.95
78	CA	1476	C	O5'-C5'-C4'	-7.48	100.28	111.50
81	DA	3247	G	P-O3'-C3'	7.48	131.43	120.20
11	AJ	11	GLU	CA-C-N	7.48	131.33	120.71
11	AJ	11	GLU	C-N-CA	7.48	131.33	120.71
49	BV	149	VAL	CA-C-N	7.48	132.47	123.19
49	BV	149	VAL	C-N-CA	7.48	132.47	123.19
78	CA	831	U	C4'-C3'-C2'	7.48	110.08	102.60
81	DA	677	A	O4'-C1'-N9	7.48	119.42	108.20
9	AH	120	HIS	CE1-NE2-CD2	-7.48	101.52	109.00
81	DA	997	A	O4'-C1'-N9	7.48	119.72	108.50
82	DB	46	G	C3'-C2'-C1'	-7.48	93.82	101.30
14	AM	132	ARG	N-CA-CB	7.48	120.70	109.19
76	BS	117	ARG	CA-C-N	-7.48	113.74	122.11
76	BS	117	ARG	C-N-CA	-7.48	113.74	122.11
78	CA	1530	C	C5'-C4'-C3'	7.48	127.22	116.00
78	CA	1572	G	O4'-C1'-N9	7.48	119.42	108.20
81	DA	1293	U	O3'-P-O5'	-7.48	92.78	104.00
3	AB	18	TYR	CA-C-O	-7.48	112.97	120.82
55	Bc	29	ALA	CA-C-N	7.48	130.30	120.28

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
55	Bc	29	ALA	C-N-CA	7.48	130.30	120.28
81	DA	346	C	O4'-C1'-N1	-7.48	97.29	108.50
33	BD	329	PRO	CA-C-N	7.47	135.82	121.54
33	BD	329	PRO	C-N-CA	7.47	135.82	121.54
81	DA	2648	G	O4'-C4'-C3'	-7.47	96.53	104.00
6	AE	59	HIS	CE1-NE2-CD2	-7.47	101.53	109.00
78	CA	179	A	C1'-O4'-C4'	7.47	117.37	109.90
81	DA	1686	U	P-O3'-C3'	7.47	131.41	120.20
81	DA	1951	C	P-O3'-C3'	7.47	131.41	120.20
81	DA	2681	U	C4'-C3'-C2'	-7.47	95.13	102.60
78	CA	1673	G	O3'-P-O5'	-7.47	92.79	104.00
81	DA	1774	C	O4'-C1'-N1	7.47	119.71	108.50
81	DA	2736	A	N9-C1'-C2'	-7.47	100.79	112.00
81	DA	3258	U	O4'-C1'-N1	7.47	119.71	108.50
12	AK	58	TYR	CA-C-N	7.47	135.81	121.54
12	AK	58	TYR	C-N-CA	7.47	135.81	121.54
43	BP	175	ASN	CB-CA-C	-7.47	96.91	109.53
59	Bh	24	ARG	N-CA-CB	-7.47	99.24	110.07
76	BS	51	LYS	CA-C-N	7.47	135.81	121.54
76	BS	51	LYS	C-N-CA	7.47	135.81	121.54
81	DA	767	U	O4'-C4'-C3'	-7.47	96.53	104.00
81	DA	1017	C	P-O3'-C3'	7.47	131.40	120.20
81	DA	2790	A	P-O3'-C3'	-7.47	109.00	120.20
82	DB	91	C	C1'-O4'-C4'	7.47	117.17	109.70
81	DA	2657	A	C3'-C2'-C1'	7.47	108.97	101.50
81	DA	3300	U	O4'-C1'-N1	7.47	119.70	108.50
47	BU	55	LYS	CA-C-N	7.47	131.66	120.31
47	BU	55	LYS	C-N-CA	7.47	131.66	120.31
69	Br	102	GLN	N-CA-C	-7.47	94.90	110.80
81	DA	1786	G	C3'-C2'-C1'	-7.47	93.83	101.30
5	AC	45	ILE	N-CA-CB	7.46	121.78	110.58
14	AM	128	PHE	N-CA-C	7.46	119.42	111.28
22	AV	34	ASP	CA-C-N	7.46	130.14	120.44
22	AV	34	ASP	C-N-CA	7.46	130.14	120.44
40	BK	187	GLU	CA-C-O	-7.46	109.83	120.51
78	CA	30	G	O3'-P-O5'	-7.46	92.81	104.00
78	CA	560	U	O3'-P-O5'	-7.46	92.81	104.00
37	BH	123	GLN	CA-C-N	7.46	135.79	121.54
37	BH	123	GLN	C-N-CA	7.46	135.79	121.54
81	DA	71	A	O4'-C1'-N9	-7.46	97.01	108.20
3	AB	73	VAL	CA-C-N	7.46	130.28	120.28
3	AB	73	VAL	C-N-CA	7.46	130.28	120.28

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1306	C	O5'-C5'-C4'	7.46	122.69	111.50
5	AC	26	ALA	N-CA-CB	7.46	121.20	110.16
10	AI	57	LEU	CA-C-N	7.46	135.79	121.54
10	AI	57	LEU	C-N-CA	7.46	135.79	121.54
30	BA	23	THR	CA-C-N	7.46	133.18	120.72
30	BA	23	THR	C-N-CA	7.46	133.18	120.72
78	CA	100	A	O4'-C1'-C2'	-7.46	100.14	107.60
78	CA	855	A	C1'-O4'-C4'	-7.46	102.44	109.90
81	DA	131	C	O4'-C1'-C2'	-7.46	100.14	107.60
81	DA	751	A	O3'-P-O5'	-7.46	92.81	104.00
78	CA	1113	A	O4'-C1'-N9	7.46	119.38	108.20
81	DA	240	U	O4'-C1'-C2'	-7.45	100.15	107.60
81	DA	2840	C	N1-C1'-C2'	-7.45	100.82	112.00
35	BG	1	MET	CA-C-N	7.45	135.77	121.54
35	BG	1	MET	C-N-CA	7.45	135.77	121.54
78	CA	222	A	P-O3'-C3'	7.45	131.38	120.20
81	DA	1567	U	N1-C1'-C2'	7.45	123.18	112.00
81	DA	2407	C	N1-C1'-C2'	7.45	123.18	112.00
81	DA	2593	A	C2'-C3'-O3'	7.45	120.67	109.50
81	DA	2737	C	O4'-C1'-C2'	-7.45	100.15	107.60
81	DA	3354	U	O4'-C1'-C2'	-7.45	100.15	107.60
15	AN	22	ARG	CA-C-N	7.45	130.66	120.46
15	AN	22	ARG	C-N-CA	7.45	130.66	120.46
81	DA	1500	G	O4'-C1'-N9	7.45	119.67	108.50
81	DA	2084	C	O4'-C1'-C2'	-7.45	100.15	107.60
81	DA	2491	A	C1'-C2'-O2'	7.45	119.57	108.40
9	AH	108	ALA	N-CA-C	-7.45	94.94	110.80
81	DA	417	A	O4'-C1'-N9	7.45	119.67	108.50
81	DA	466	G	P-O3'-C3'	7.45	131.37	120.20
81	DA	1889	G	C4'-C3'-C2'	-7.45	95.16	102.60
56	Bf	96	GLY	N-CA-C	-7.44	104.48	115.72
78	CA	989	U	C1'-O4'-C4'	-7.44	102.46	109.90
78	CA	1530	C	C5'-C4'-O4'	-7.44	98.63	109.80
6	AE	65	GLU	CA-C-N	7.44	131.00	120.28
6	AE	65	GLU	C-N-CA	7.44	131.00	120.28
12	AK	103	ARG	N-CA-C	7.44	119.18	111.14
38	Bs	88	PHE	CA-CB-CG	-7.44	106.36	113.80
78	CA	1053	G	P-O3'-C3'	7.44	131.37	120.20
78	CA	1359	C	O4'-C1'-C2'	-7.44	100.16	107.60
81	DA	2669	G	O4'-C1'-C2'	7.44	115.04	107.60
82	DB	120	C	P-O3'-C3'	7.44	131.36	120.20
81	DA	1040	A	O4'-C1'-C2'	-7.44	100.16	107.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1168	U	O4'-C1'-C2'	-7.44	100.16	107.60
33	BD	325	LEU	CA-C-N	7.44	135.74	121.54
33	BD	325	LEU	C-N-CA	7.44	135.74	121.54
78	CA	1235	C	C3'-C2'-C1'	-7.44	93.86	101.30
81	DA	1474	A	P-O3'-C3'	7.43	131.35	120.20
35	BG	169	ASP	O-C-N	7.43	131.44	122.75
38	Bs	179	SER	O-C-N	7.43	129.87	121.32
43	BP	123	GLN	CA-C-O	-7.43	109.88	120.51
74	BQ	237	GLU	N-CA-CB	7.43	123.30	111.56
78	CA	1765	A	C3'-C2'-C1'	7.43	108.93	101.50
81	DA	253	A	C1'-O4'-C4'	7.43	117.33	109.90
81	DA	1446	A	C1'-O4'-C4'	7.43	117.13	109.70
81	DA	2632	G	O4'-C1'-N9	7.43	119.65	108.50
43	BP	4	TYR	CA-C-N	7.43	130.56	120.38
43	BP	4	TYR	C-N-CA	7.43	130.56	120.38
78	CA	679	U	O4'-C1'-C2'	-7.43	100.17	107.60
81	DA	871	U	N1-C1'-C2'	7.43	123.15	112.00
78	CA	979	A	O4'-C1'-C2'	-7.43	100.17	107.60
81	DA	302	U	N1-C1'-C2'	7.43	123.14	112.00
81	DA	473	G	O4'-C1'-N9	7.43	119.64	108.50
81	DA	766	U	O4'-C1'-N1	7.43	119.64	108.50
81	DA	1677	G	C3'-C2'-C1'	-7.43	93.87	101.30
78	CA	606	A	C2'-C3'-O3'	7.43	120.64	109.50
81	DA	547	G	P-O3'-C3'	7.43	131.34	120.20
81	DA	2971	A	O4'-C1'-C2'	-7.43	98.37	105.80
81	DA	3391	A	O3'-P-O5'	-7.43	92.86	104.00
15	AN	14	TYR	N-CA-CB	7.43	123.04	110.49
66	Bo	27	ILE	O-C-N	7.43	130.19	121.80
81	DA	386	A	O4'-C1'-C2'	-7.43	100.17	107.60
81	DA	1806	A	N9-C1'-C2'	7.43	123.14	112.00
81	DA	1826	C	C4'-C3'-C2'	-7.43	95.17	102.60
81	DA	2363	A	C1'-O4'-C4'	7.43	117.33	109.90
46	BT	39	ASN	CA-CB-CG	7.42	120.02	112.60
78	CA	869	A	C4'-C3'-C2'	-7.42	95.17	102.60
78	CA	1546	G	C3'-C2'-O2'	7.42	121.84	110.70
82	DB	20	U	P-O5'-C5'	7.42	132.04	120.90
36	BF	46	THR	CA-C-N	7.42	133.65	123.11
36	BF	46	THR	C-N-CA	7.42	133.65	123.11
78	CA	1583	A	C1'-O4'-C4'	-7.42	102.48	109.90
19	AR	62	ALA	CA-C-N	7.42	135.72	121.54
19	AR	62	ALA	C-N-CA	7.42	135.72	121.54
40	BK	180	SER	CA-C-O	-7.42	110.64	119.03

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1196	A	O4'-C1'-N9	7.42	119.33	108.20
81	DA	1721	U	N1-C1'-C2'	7.42	123.13	112.00
44	BO	28	HIS	ND1-CE1-NE2	7.42	115.82	108.40
81	DA	1701	C	C1'-O4'-C4'	-7.42	102.48	109.90
42	BM	37	ILE	CA-CB-CG1	7.42	123.01	110.40
44	BO	60	TYR	N-CA-C	-7.42	96.22	108.76
81	DA	114	A	C1'-O4'-C4'	7.42	117.32	109.90
81	DA	1562	C	C4'-C3'-C2'	-7.42	95.18	102.60
81	DA	1975	C	P-O3'-C3'	-7.42	109.07	120.20
81	DA	2462	A	N9-C1'-C2'	7.42	123.13	112.00
81	DA	3120	C	O4'-C1'-C2'	-7.42	100.18	107.60
21	AT	81	ASN	CA-C-N	7.42	135.32	121.97
21	AT	81	ASN	C-N-CA	7.42	135.32	121.97
65	Bn	69	LEU	CA-C-O	-7.42	111.46	118.73
81	DA	1641	U	C5'-C4'-C3'	-7.42	104.88	116.00
81	DA	1951	C	N1-C1'-C2'	7.42	123.13	112.00
41	BN	5	SER	CA-C-N	-7.41	108.62	121.97
41	BN	5	SER	C-N-CA	-7.41	108.62	121.97
53	Ba	57	HIS	ND1-CE1-NE2	7.41	115.81	108.40
81	DA	3320	A	O4'-C1'-N9	7.41	119.62	108.50
81	DA	3363	U	P-O5'-C5'	7.41	132.02	120.90
5	AC	96	VAL	O-C-N	7.41	130.69	122.98
8	AF	117	THR	CA-C-N	7.41	130.21	120.28
8	AF	117	THR	C-N-CA	7.41	130.21	120.28
37	BH	73	PRO	N-CA-CB	-7.41	95.47	103.25
42	BM	27	ASP	CA-CB-CG	7.41	120.01	112.60
81	DA	192	C	N1-C1'-C2'	7.41	123.12	112.00
81	DA	321	C	N1-C1'-C2'	7.41	123.12	112.00
34	BE	92	ARG	CA-C-N	7.41	131.57	120.31
34	BE	92	ARG	C-N-CA	7.41	131.57	120.31
48	BW	107	PHE	N-CA-C	7.41	126.58	110.80
78	CA	1225	U	O4'-C1'-C2'	-7.41	100.19	107.60
81	DA	777	U	C1'-O4'-C4'	-7.41	102.49	109.90
14	AM	88	ARG	NE-CZ-NH2	7.41	125.87	119.20
78	CA	609	U	C1'-C2'-O2'	-7.41	100.69	111.80
78	CA	1700	C	O4'-C1'-C2'	-7.41	100.19	107.60
81	DA	595	G	P-O3'-C3'	-7.41	109.09	120.20
18	AP	81	HIS	N-CA-CB	7.41	121.68	110.42
44	BO	90	TYR	N-CA-C	7.41	115.86	108.75
55	Bc	88	LEU	N-CA-C	7.41	118.99	111.07
81	DA	2323	G	N9-C1'-C2'	-7.41	102.89	114.00
4	AD	54	TYR	N-CA-C	-7.40	106.18	114.62

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
13	AL	110	LYS	N-CA-C	-7.40	95.03	110.80
21	AT	57	GLY	N-CA-C	7.40	122.25	112.77
78	CA	1700	C	P-O5'-C5'	7.40	132.01	120.90
74	BQ	122	VAL	N-CA-C	-7.40	93.94	109.34
81	DA	1871	U	O4'-C4'-C3'	7.40	111.40	104.00
81	DA	2504	U	C3'-C2'-O2'	7.40	121.80	110.70
32	BC	224	HIS	ND1-CE1-NE2	7.40	115.80	108.40
38	Bs	46	ARG	N-CA-C	7.40	119.35	111.28
53	Ba	76	ASN	N-CA-CB	7.40	121.11	110.16
80	CC	20	U	C2'-C3'-O3'	7.40	120.60	109.50
81	DA	1427	U	O3'-P-O5'	7.40	115.10	104.00
78	CA	1241	G	C1'-O4'-C4'	7.40	117.30	109.90
81	DA	1894	U	O3'-P-O5'	-7.40	92.90	104.00
49	BV	11	PRO	CA-C-N	7.40	130.80	120.29
49	BV	11	PRO	C-N-CA	7.40	130.80	120.29
53	Ba	32	GLY	N-CA-C	-7.40	101.28	112.60
78	CA	233	C	N1-C1'-C2'	7.40	123.10	112.00
78	CA	1623	C	P-O3'-C3'	7.40	131.30	120.20
81	DA	1295	G	N9-C1'-C2'	7.40	123.10	112.00
12	AK	29	HIS	CA-CB-CG	-7.39	106.41	113.80
14	AM	137	HIS	ND1-CE1-NE2	7.39	115.80	108.40
22	AV	29	LYS	O-C-N	-7.39	112.75	122.59
46	BT	8	LYS	CB-CA-C	-7.39	98.52	110.79
81	DA	3385	U	P-O5'-C5'	-7.39	109.81	120.90
30	BA	169	VAL	N-CA-C	-7.39	97.65	108.89
40	BK	63	ALA	CB-CA-C	-7.39	93.81	110.07
78	CA	1179	G	N9-C1'-C2'	7.39	123.09	112.00
78	CA	1337	A	C2'-C3'-O3'	7.39	124.79	113.70
81	DA	800	G	N9-C1'-C2'	-7.39	102.91	114.00
81	DA	2770	G	P-O5'-C5'	7.39	131.99	120.90
33	BD	148	ILE	N-CA-C	-7.39	92.92	108.88
8	AF	73	THR	N-CA-CB	7.39	122.09	110.56
78	CA	1222	C	C4'-C3'-C2'	-7.39	95.21	102.60
79	CB	7	A	P-O3'-C3'	7.39	131.28	120.20
81	DA	1295	G	C5'-C4'-C3'	-7.39	104.92	116.00
81	DA	1821	U	C3'-C2'-C1'	7.39	108.69	101.30
81	DA	3110	C	N1-C1'-C2'	7.39	123.08	112.00
43	BP	149	ASN	CA-C-N	7.39	130.18	120.28
43	BP	149	ASN	C-N-CA	7.39	130.18	120.28
78	CA	415	C	O4'-C1'-C2'	-7.39	100.21	107.60
81	DA	2788	C	O4'-C1'-C2'	-7.39	100.21	107.60
81	DA	3223	A	O4'-C1'-C2'	-7.39	100.21	107.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	AX	38	PRO	N-CA-CB	7.39	111.01	103.25
40	BK	148	LYS	N-CA-C	-7.39	104.07	113.23
74	BQ	286	VAL	N-CA-C	-7.39	93.97	109.34
81	DA	268	A	O4'-C1'-C2'	-7.39	98.41	105.80
81	DA	1665	C	N1-C1'-C2'	7.39	123.08	112.00
81	DA	2144	A	O4'-C1'-C2'	7.39	113.19	105.80
81	DA	2515	A	N9-C1'-C2'	7.39	123.08	112.00
29	AU	49	LYS	N-CA-C	-7.38	95.07	110.80
58	Bg	55	LEU	CA-C-N	7.38	130.17	120.28
58	Bg	55	LEU	C-N-CA	7.38	130.17	120.28
69	Br	9	LYS	N-CA-CB	7.38	122.16	110.57
78	CA	164	A	O4'-C4'-C3'	7.38	111.39	104.00
78	CA	1238	A	O4'-C1'-C2'	-7.38	100.22	107.60
81	DA	869	G	O3'-P-O5'	-7.38	92.92	104.00
81	DA	1000	C	N1-C1'-C2'	7.38	123.08	112.00
43	BP	148	TYR	CA-C-N	7.38	131.16	120.38
43	BP	148	TYR	C-N-CA	7.38	131.16	120.38
78	CA	221	A	P-O3'-C3'	7.38	131.28	120.20
57	Be	208	SER	N-CA-CB	7.38	121.67	110.45
81	DA	662	U	O3'-P-O5'	-7.38	92.93	104.00
81	DA	2369	G	O4'-C1'-N9	7.38	119.57	108.50
78	CA	1215	C	N1-C1'-C2'	7.38	123.07	112.00
81	DA	1597	C	O4'-C1'-C2'	-7.38	100.22	107.60
31	BB	40	TYR	CB-CA-C	7.38	123.03	110.56
34	BE	53	THR	CA-C-N	7.38	135.25	121.97
34	BE	53	THR	C-N-CA	7.38	135.25	121.97
81	DA	3107	U	O4'-C4'-C3'	7.38	111.38	104.00
1	Aa	175	ASP	CA-CB-CG	-7.38	105.22	112.60
33	BD	33	ASP	CA-CB-CG	-7.38	105.22	112.60
78	CA	1393	C	P-O3'-C3'	-7.38	109.14	120.20
81	DA	2719	U	C4'-C3'-O3'	-7.38	101.94	113.00
81	DA	2942	C	C3'-C2'-C1'	7.38	108.68	101.30
12	AK	64	ALA	CA-C-O	7.38	129.26	121.15
81	DA	993	G	C1'-C2'-O2'	7.38	119.46	108.40
81	DA	2647	A	O3'-P-O5'	-7.38	92.94	104.00
81	DA	2951	G	O4'-C1'-C2'	-7.38	100.22	107.60
4	AD	140	VAL	N-CA-C	-7.37	97.22	107.99
49	BV	120	ASN	N-CA-C	-7.37	97.85	109.50
78	CA	1337	A	O4'-C1'-C2'	-7.37	100.23	107.60
78	CA	1775	U	O3'-P-O5'	7.37	115.06	104.00
81	DA	821	U	P-O3'-C3'	-7.37	109.14	120.20
5	AC	168	ARG	CA-CB-CG	7.37	128.84	114.10

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	AJ	68	ARG	CB-CA-C	7.37	123.90	111.22
21	AT	40	ASP	CA-CB-CG	7.37	119.97	112.60
81	DA	401	U	N1-C1'-C2'	-7.37	102.94	114.00
78	CA	1432	U	P-O3'-C3'	7.37	131.25	120.20
78	CA	1736	G	P-O5'-C5'	7.37	131.96	120.90
81	DA	1699	A	O4'-C4'-C3'	-7.37	96.63	104.00
81	DA	2416	U	C4'-C3'-O3'	-7.37	101.94	113.00
1	Aa	131	ILE	CB-CA-C	7.37	121.85	110.50
30	BA	143	ASP	CA-C-N	7.37	130.75	120.29
30	BA	143	ASP	C-N-CA	7.37	130.75	120.29
74	BQ	242	SER	CB-CA-C	7.37	125.08	110.42
78	CA	142	G	C3'-C2'-C1'	7.37	108.67	101.30
81	DA	745	C	C1'-O4'-C4'	-7.37	102.53	109.90
81	DA	1314	C	C1'-O4'-C4'	-7.37	102.53	109.90
81	DA	1414	G	O4'-C1'-N9	7.37	119.55	108.50
6	AE	36	VAL	N-CA-CB	7.37	116.20	110.45
81	DA	1250	G	C4'-C3'-C2'	-7.37	95.23	102.60
81	DA	2434	U	N1-C1'-C2'	7.37	125.05	114.00
35	BG	168	GLY	CA-C-N	7.37	133.32	120.87
35	BG	168	GLY	C-N-CA	7.37	133.32	120.87
78	CA	641	G	N9-C1'-C2'	7.37	123.05	112.00
78	CA	658	C	P-O3'-C3'	7.37	131.25	120.20
81	DA	134	U	O4'-C1'-N1	7.37	119.55	108.50
81	DA	312	C	P-O5'-C5'	7.37	131.95	120.90
83	DC	100	A	C5'-C4'-C3'	7.37	127.05	116.00
35	BG	94	GLU	N-CA-CB	7.36	121.73	110.39
78	CA	1477	G	P-O5'-C5'	7.36	131.94	120.90
81	DA	229	G	O4'-C1'-C2'	7.36	114.96	107.60
82	DB	129	C	O4'-C1'-C2'	-7.36	100.24	107.60
2	AA	251	GLU	CB-CA-C	-7.36	98.17	109.29
30	BA	54	LYS	CB-CA-C	7.36	125.07	110.42
32	BC	173	GLN	CA-C-N	7.36	134.02	121.14
32	BC	173	GLN	C-N-CA	7.36	134.02	121.14
31	BB	1	MET	CB-CA-C	7.36	124.08	110.10
78	CA	1112	G	C1'-O4'-C4'	-7.36	102.54	109.90
81	DA	2535	A	O3'-P-O5'	-7.36	92.96	104.00
78	CA	849	C	N1-C1'-C2'	7.36	123.04	112.00
78	CA	1657	U	O3'-P-O5'	-7.36	92.96	104.00
81	DA	329	U	O5'-C5'-C4'	7.36	122.54	111.50
81	DA	914	A	N9-C1'-C2'	-7.36	102.96	114.00
42	BM	56	ASP	CA-C-O	7.36	129.58	121.56
45	BR	24	VAL	N-CA-CB	7.36	121.62	110.58

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2509	U	C2'-C3'-O3'	-7.36	102.67	113.70
81	DA	1181	U	O4'-C1'-N1	7.36	119.23	108.20
81	DA	3389	U	O4'-C1'-N1	7.36	119.53	108.50
78	CA	1615	C	O3'-P-O5'	-7.35	92.97	104.00
81	DA	1831	U	O4'-C1'-N1	7.35	119.53	108.50
37	BH	62	LYS	N-CA-C	-7.35	95.14	110.80
78	CA	1375	A	P-O5'-C5'	7.35	131.93	120.90
81	DA	3320	A	P-O3'-C3'	7.35	131.23	120.20
78	CA	615	A	N9-C1'-C2'	7.35	123.03	112.00
81	DA	2175	U	N1-C1'-C2'	7.35	123.03	112.00
18	AP	41	GLY	N-CA-C	-7.35	95.76	113.18
29	AU	63	GLN	CB-CA-C	-7.35	95.80	110.42
36	BF	4	ILE	N-CA-C	-7.35	97.72	108.23
46	BT	18	GLY	N-CA-C	7.35	122.10	112.25
46	BT	35	ALA	N-CA-CB	7.35	121.12	109.51
78	CA	1528	U	C4'-C3'-O3'	-7.35	101.97	113.00
81	DA	666	A	O4'-C1'-C2'	7.35	114.95	107.60
81	DA	2067	U	O4'-C1'-C2'	-7.35	98.45	105.80
81	DA	2073	A	C3'-C2'-C1'	7.35	108.65	101.30
83	DC	32	U	O4'-C1'-C2'	7.35	113.15	105.80
6	AE	20	GLY	CA-C-N	7.35	130.11	120.26
6	AE	20	GLY	C-N-CA	7.35	130.11	120.26
76	BS	108	MET	N-CA-CB	7.35	121.03	110.16
81	DA	961	C	C3'-C2'-C1'	7.35	108.65	101.30
81	DA	3148	U	P-O3'-C3'	7.35	131.22	120.20
31	BB	76	PHE	CA-C-N	7.34	130.40	120.63
31	BB	76	PHE	C-N-CA	7.34	130.40	120.63
38	Bs	180	PRO	CA-N-CD	-7.34	101.72	112.00
61	Bj	85	PHE	CA-C-N	7.34	136.63	122.53
61	Bj	85	PHE	C-N-CA	7.34	136.63	122.53
77	BI	108	ALA	N-CA-C	7.34	126.44	110.80
78	CA	1381	U	O4'-C1'-N1	7.34	119.52	108.50
81	DA	1382	G	C5'-C4'-C3'	-7.34	104.98	116.00
81	DA	1679	A	O4'-C4'-C3'	-7.34	96.66	104.00
24	AX	67	THR	N-CA-CB	7.34	122.90	110.49
78	CA	1173	C	O5'-C5'-C4'	7.34	122.51	111.50
81	DA	1766	G	P-O5'-C5'	-7.34	109.89	120.90
81	DA	2757	U	C2'-C3'-O3'	7.34	124.71	113.70
2	AA	158	VAL	N-CA-CB	7.34	120.71	111.46
5	AC	68	LYS	N-CA-C	-7.34	98.25	109.41
25	AY	31	GLU	N-CA-C	-7.34	97.98	109.72
47	BU	2	GLY	N-CA-C	-7.34	102.29	112.13

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
51	BZ	60	LYS	N-CA-C	-7.34	95.17	110.80
74	BQ	187	THR	N-CA-CB	7.34	122.89	110.49
81	DA	2235	C	O4'-C1'-C2'	-7.34	100.26	107.60
6	AE	24	ARG	NE-CZ-NH2	7.34	125.81	119.20
49	BV	165	VAL	CA-C-N	-7.34	108.76	121.97
49	BV	165	VAL	C-N-CA	-7.34	108.76	121.97
81	DA	1343	A	O3'-P-O5'	7.34	115.01	104.00
81	DA	1972	A	O3'-P-O5'	7.34	115.01	104.00
32	BC	200	GLU	CA-C-O	7.34	128.34	119.10
78	CA	114	C	O4'-C1'-C2'	-7.34	100.26	107.60
78	CA	626	U	P-O3'-C3'	7.33	131.20	120.20
78	CA	712	G	P-O3'-C3'	-7.33	109.20	120.20
78	CA	1658	G	O4'-C1'-N9	7.33	119.50	108.50
81	DA	1413	G	N9-C1'-C2'	7.33	123.00	112.00
32	BC	336	VAL	N-CA-C	-7.33	97.53	108.46
35	BG	37	GLY	CA-C-N	-7.33	111.85	122.19
35	BG	37	GLY	C-N-CA	-7.33	111.85	122.19
47	BU	80	VAL	CA-C-N	7.33	132.39	122.42
47	BU	80	VAL	C-N-CA	7.33	132.39	122.42
49	BV	37	ASN	N-CA-C	-7.33	98.37	109.96
81	DA	854	G	P-O3'-C3'	7.33	131.20	120.20
81	DA	2162	U	C5'-C4'-C3'	-7.33	105.00	116.00
81	DA	2375	G	P-O3'-C3'	7.33	131.20	120.20
83	DC	31	U	C1'-O4'-C4'	7.33	117.23	109.90
78	CA	1406	A	C1'-O4'-C4'	-7.33	102.57	109.90
81	DA	2666	C	N1-C1'-C2'	7.33	123.00	112.00
81	DA	3250	U	P-O5'-C5'	7.33	131.90	120.90
35	BG	46	ARG	CA-C-N	7.33	135.54	121.54
35	BG	46	ARG	C-N-CA	7.33	135.54	121.54
41	BN	62	GLN	CA-C-O	-7.33	113.49	122.36
50	BX	124	VAL	CA-C-N	7.33	132.35	121.72
50	BX	124	VAL	C-N-CA	7.33	132.35	121.72
81	DA	1795	U	O4'-C1'-N1	7.33	119.19	108.20
1	Aa	131	ILE	N-CA-C	-7.33	97.54	108.46
1	Aa	184	ASN	OD1-CG-ND2	7.33	129.93	122.60
5	AC	126	ARG	N-CA-CB	-7.33	98.92	110.28
29	AU	53	ASP	N-CA-C	7.33	120.20	110.53
81	DA	618	C	O4'-C1'-C2'	-7.33	100.27	107.60
81	DA	2381	G	C5'-C4'-C3'	-7.33	105.01	116.00
81	DA	2874	G	C5'-C4'-C3'	-7.33	105.01	116.00
82	DB	122	U	C1'-O4'-C4'	7.33	117.23	109.90
3	AB	212	LYS	CA-C-N	-7.33	107.55	121.54

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	AB	212	LYS	C-N-CA	-7.33	107.55	121.54
81	DA	845	G	C3'-C2'-C1'	-7.33	93.97	101.30
81	DA	2508	U	O4'-C1'-N1	7.33	119.49	108.50
76	BS	150	LYS	CA-C-O	-7.32	112.00	120.20
81	DA	677	A	O3'-P-O5'	7.32	114.98	104.00
81	DA	1414	G	P-O3'-C3'	-7.32	109.22	120.20
81	DA	1958	U	O4'-C1'-C2'	-7.32	100.28	107.60
81	DA	835	G	P-O5'-C5'	7.32	131.88	120.90
5	AC	148	VAL	CA-C-O	7.32	129.93	120.78
81	DA	2165	G	N9-C1'-C2'	-7.32	101.02	112.00
20	AS	1	MET	CB-CA-C	7.32	124.00	110.10
52	BY	2	ALA	CA-C-N	7.32	132.78	122.46
52	BY	2	ALA	C-N-CA	7.32	132.78	122.46
63	Bm	46	THR	N-CA-C	7.32	120.69	111.69
78	CA	1682	U	P-O5'-C5'	7.32	131.87	120.90
81	DA	608	A	C3'-C2'-C1'	7.31	108.81	101.50
26	AZ	44	PHE	N-CA-CB	7.31	122.77	111.22
33	BD	297	SER	N-CA-CB	-7.31	99.28	111.57
81	DA	2100	A	C5'-C4'-C3'	7.31	126.17	115.20
10	AI	85	ILE	CA-C-N	7.31	135.50	121.54
10	AI	85	ILE	C-N-CA	7.31	135.50	121.54
55	Bc	99	GLN	N-CA-CB	7.31	120.87	110.12
81	DA	39	A	O4'-C1'-C2'	-7.31	100.29	107.60
2	AA	107	PHE	N-CA-C	7.31	119.33	111.36
4	AD	60	GLU	N-CA-C	-7.31	104.36	113.28
78	CA	1437	U	O4'-C1'-C2'	-7.31	100.29	107.60
78	CA	1476	C	O4'-C4'-C3'	-7.31	96.69	104.00
78	CA	1762	A	O4'-C1'-C2'	-7.31	100.29	107.60
81	DA	126	U	O4'-C1'-C2'	-7.31	100.29	107.60
81	DA	598	A	P-O3'-C3'	-7.31	109.24	120.20
82	DB	90	U	O4'-C1'-N1	7.31	119.16	108.20
19	AR	104	GLN	N-CA-C	-7.31	97.52	108.99
24	AX	59	CYS	CA-C-O	-7.31	113.14	121.40
32	BC	285	VAL	N-CA-C	-7.31	97.57	108.46
78	CA	1380	U	N1-C1'-C2'	7.31	122.96	112.00
81	DA	1842	A	C5'-C4'-C3'	7.31	126.16	115.20
9	AH	62	VAL	CA-C-O	7.31	129.36	120.74
31	BB	37	ARG	N-CA-C	-7.31	98.85	109.59
78	CA	1424	A	C5'-C4'-C3'	-7.31	105.04	116.00
78	CA	1437	U	C5'-C4'-C3'	7.30	126.96	116.00
81	DA	3067	C	P-O5'-C5'	-7.30	109.94	120.90
78	CA	1700	C	P-O3'-C3'	7.30	131.15	120.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1562	C	C3'-C2'-C1'	7.30	108.60	101.30
25	AY	27	GLN	N-CA-C	7.30	120.00	110.43
30	BA	184	LEU	CA-C-N	7.30	129.93	120.44
30	BA	184	LEU	C-N-CA	7.30	129.93	120.44
31	BB	72	ARG	CA-C-N	7.30	135.49	121.54
31	BB	72	ARG	C-N-CA	7.30	135.49	121.54
81	DA	687	U	P-O3'-C3'	7.30	131.15	120.20
81	DA	1624	G	C2'-C3'-O3'	-7.30	102.75	113.70
81	DA	3041	U	C1'-O4'-C4'	-7.30	102.60	109.90
11	AJ	85	ARG	NE-CZ-NH2	7.30	125.77	119.20
44	BO	25	HIS	CA-CB-CG	-7.30	106.50	113.80
57	Be	34	LYS	CA-C-N	7.30	130.06	120.28
57	Be	34	LYS	C-N-CA	7.30	130.06	120.28
81	DA	758	C	C4'-C3'-C2'	-7.30	95.30	102.60
81	DA	1586	G	P-O3'-C3'	7.30	131.15	120.20
74	BQ	277	LEU	CA-C-N	7.30	130.06	120.28
74	BQ	277	LEU	C-N-CA	7.30	130.06	120.28
78	CA	1570	A	P-O5'-C5'	-7.30	109.95	120.90
81	DA	506	U	P-O3'-C3'	7.30	131.15	120.20
32	BC	97	ARG	N-CA-CB	7.30	122.82	110.49
78	CA	713	A	C4'-C3'-O3'	7.30	120.94	110.00
81	DA	1400	G	N9-C1'-C2'	-7.30	101.06	112.00
81	DA	1437	C	C3'-C2'-C1'	7.30	108.60	101.30
81	DA	3071	U	N1-C1'-C2'	7.30	122.94	112.00
74	BQ	131	LEU	N-CA-C	-7.29	102.98	112.68
2	AA	59	LEU	N-CA-CB	7.29	120.84	110.12
78	CA	326	G	C5'-C4'-C3'	7.29	126.94	116.00
78	CA	1078	C	C1'-C2'-O2'	7.29	119.34	108.40
81	DA	638	C	O5'-C5'-C4'	7.29	122.44	111.50
81	DA	2157	G	O4'-C1'-N9	-7.29	97.26	108.20
19	AR	124	THR	N-CA-C	7.29	123.51	113.16
29	AU	88	THR	N-CA-CB	7.29	121.12	110.47
81	DA	339	C	C5'-C4'-C3'	-7.29	105.06	116.00
81	DA	1239	C	N1-C1'-C2'	7.29	122.94	112.00
81	DA	2591	A	O3'-P-O5'	-7.29	93.06	104.00
81	DA	3169	U	P-O3'-C3'	7.29	131.14	120.20
83	DC	42	A	N9-C1'-C2'	7.29	122.94	112.00
81	DA	1427	U	P-O5'-C5'	-7.29	109.96	120.90
53	Ba	60	LYS	CA-CB-CG	7.29	128.68	114.10
78	CA	257	A	O3'-P-O5'	7.29	114.93	104.00
81	DA	2334	U	P-O3'-C3'	7.29	131.13	120.20
1	Aa	31	ASN	N-CA-C	-7.29	95.28	110.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1527	C	O3'-P-O5'	-7.29	93.07	104.00
81	DA	2462	A	O4'-C1'-C2'	-7.29	100.31	107.60
81	DA	2988	C	C4'-C3'-C2'	-7.29	95.31	102.60
83	DC	54	A	P-O5'-C5'	7.29	131.83	120.90
65	Bn	56	ILE	CA-C-N	7.28	135.45	121.54
65	Bn	56	ILE	C-N-CA	7.28	135.45	121.54
78	CA	964	U	O4'-C1'-C2'	-7.28	100.32	107.60
81	DA	1578	C	O4'-C1'-C2'	-7.28	100.32	107.60
81	DA	2688	U	O4'-C1'-C2'	-7.28	98.52	105.80
81	DA	2697	A	P-O3'-C3'	7.28	131.12	120.20
38	Bs	4	ILE	CA-C-N	7.28	131.52	120.82
38	Bs	4	ILE	C-N-CA	7.28	131.52	120.82
81	DA	525	C	O4'-C1'-C2'	-7.28	98.52	105.80
81	DA	623	U	O4'-C1'-C2'	-7.28	100.32	107.60
81	DA	1697	A	O4'-C1'-C2'	-7.28	100.32	107.60
81	DA	2618	G	O4'-C1'-N9	7.28	119.12	108.20
41	BN	31	LYS	O-C-N	-7.28	117.65	123.11
78	CA	1264	G	O4'-C1'-C2'	-7.28	100.32	107.60
81	DA	636	C	C4'-C3'-O3'	7.28	123.92	113.00
14	AM	88	ARG	CA-C-N	7.28	134.80	121.70
14	AM	88	ARG	C-N-CA	7.28	134.80	121.70
81	DA	49	A	N9-C1'-C2'	-7.28	103.08	114.00
81	DA	2189	U	C1'-O4'-C4'	7.28	117.18	109.90
1	Aa	28	GLY	O-C-N	7.28	129.23	122.17
60	Bi	109	THR	N-CA-C	-7.28	98.80	108.19
78	CA	1288	G	P-O3'-C3'	7.28	131.12	120.20
81	DA	2794	G	P-O3'-C3'	7.28	131.12	120.20
20	AS	11	ALA	N-CA-C	7.28	119.21	111.28
33	BD	351	PRO	CA-C-N	-7.28	107.64	121.54
33	BD	351	PRO	C-N-CA	-7.28	107.64	121.54
81	DA	1131	G	C2'-C3'-O3'	7.28	120.41	109.50
81	DA	1360	C	O4'-C4'-C3'	7.28	111.28	104.00
81	DA	1384	U	O4'-C1'-N1	7.28	119.41	108.50
81	DA	533	A	O4'-C1'-C2'	-7.27	100.33	107.60
81	DA	2337	C	O4'-C1'-C2'	-7.27	100.33	107.60
25	AY	57	MET	CA-C-N	7.27	130.33	120.44
25	AY	57	MET	C-N-CA	7.27	130.33	120.44
32	BC	21	ARG	N-CA-CB	7.27	120.81	109.83
78	CA	318	U	N1-C1'-C2'	7.27	122.91	112.00
16	AO	75	LEU	O-C-N	-7.27	114.58	122.07
42	BM	45	ARG	CA-C-O	-7.27	111.92	121.73
64	Bl	85	LYS	N-CA-C	-7.27	95.32	110.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	660	G	O4'-C1'-C2'	-7.27	100.33	107.60
78	CA	1067	C	C2'-C3'-O3'	7.27	124.61	113.70
78	CA	1220	C	O4'-C1'-C2'	-7.27	100.33	107.60
81	DA	693	A	P-O3'-C3'	7.27	131.10	120.20
81	DA	1379	G	C1'-O4'-C4'	-7.27	102.63	109.90
33	BD	219	LEU	N-CA-C	-7.27	103.88	112.89
61	Bj	39	GLN	CG-CD-OE1	7.27	135.34	120.80
81	DA	424	G	O3'-P-O5'	-7.27	93.10	104.00
81	DA	2718	U	O3'-P-O5'	-7.27	93.10	104.00
46	BT	82	LYS	N-CA-CB	-7.26	98.21	110.49
78	CA	29	U	C5'-C4'-C3'	-7.26	105.10	116.00
78	CA	86	A	P-O3'-C3'	7.26	131.10	120.20
81	DA	2671	A	O3'-P-O5'	-7.26	93.11	104.00
81	DA	2928	C	O3'-P-O5'	7.26	114.90	104.00
83	DC	82	A	O4'-C1'-C2'	-7.26	100.34	107.60
34	BE	135	GLY	CA-C-N	7.26	130.98	120.38
34	BE	135	GLY	C-N-CA	7.26	130.98	120.38
76	BS	71	PRO	CA-C-N	7.26	135.41	121.54
76	BS	71	PRO	C-N-CA	7.26	135.41	121.54
81	DA	847	A	N9-C1'-C2'	7.26	122.89	112.00
13	AL	124	VAL	O-C-N	-7.26	114.53	121.87
49	BV	100	ALA	CA-C-O	-7.26	112.85	120.55
61	Bj	39	GLN	CB-CA-C	-7.26	99.48	110.88
6	AE	31	GLU	CB-CA-C	7.26	124.06	110.63
53	Ba	58	GLY	N-CA-C	-7.26	105.04	115.64
78	CA	240	U	P-O3'-C3'	-7.26	109.31	120.20
78	CA	596	C	O4'-C1'-C2'	-7.26	100.34	107.60
81	DA	275	U	O4'-C1'-N1	7.26	119.39	108.50
17	AQ	60	ARG	N-CA-C	7.26	118.88	110.97
43	BP	153	ASP	CA-C-N	7.26	127.26	119.28
43	BP	153	ASP	C-N-CA	7.26	127.26	119.28
81	DA	424	G	P-O5'-C5'	7.26	131.79	120.90
81	DA	1902	G	O4'-C1'-N9	7.26	119.38	108.50
32	BC	311	PHE	N-CA-CB	7.25	120.66	109.85
60	Bi	67	LYS	N-CA-CB	7.25	122.75	110.49
81	DA	2591	A	P-O3'-C3'	7.25	131.08	120.20
29	AU	29	HIS	CA-CB-CG	7.25	121.05	113.80
35	BG	101	PHE	N-CA-C	-7.25	97.69	108.79
52	BY	100	HIS	CE1-NE2-CD2	-7.25	101.75	109.00
53	Ba	66	THR	N-CA-C	7.25	118.83	111.07
81	DA	2146	C	O4'-C1'-C2'	-7.25	100.35	107.60
81	DA	2770	G	O4'-C1'-N9	-7.25	97.62	108.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BF	151	VAL	CA-C-N	7.25	129.87	120.44
36	BF	151	VAL	C-N-CA	7.25	129.87	120.44
43	BP	181	ASN	N-CA-CB	7.25	122.74	110.49
68	Bq	21	ARG	N-CA-C	-7.25	102.98	112.41
81	DA	1046	A	O4'-C1'-C2'	-7.25	100.35	107.60
81	DA	1287	A	C3'-C2'-C1'	7.25	108.55	101.30
81	DA	2785	A	C5'-C4'-C3'	-7.25	105.12	116.00
37	BH	123	GLN	N-CA-C	7.25	126.24	110.80
60	Bi	100	ILE	CA-C-O	-7.25	113.51	121.05
51	BZ	48	ARG	CA-C-N	7.25	135.01	121.97
51	BZ	48	ARG	C-N-CA	7.25	135.01	121.97
81	DA	224	C	N1-C1'-C2'	7.25	122.87	112.00
81	DA	2994	A	O4'-C1'-C2'	-7.25	100.35	107.60
82	DB	29	U	N1-C1'-C2'	7.25	122.87	112.00
8	AF	106	LYS	CB-CG-CD	7.25	127.96	111.30
81	DA	31	C	O4'-C1'-C2'	-7.25	100.36	107.60
81	DA	2520	A	N9-C1'-C2'	-7.25	101.13	112.00
11	AJ	84	MET	N-CA-C	7.24	120.22	108.41
81	DA	1783	U	C5'-C4'-O4'	-7.24	98.94	109.80
74	BQ	11	ALA	CA-C-N	7.24	130.57	120.29
74	BQ	11	ALA	C-N-CA	7.24	130.57	120.29
81	DA	3047	U	C4'-C3'-C2'	-7.24	95.36	102.60
32	BC	119	TYR	CA-C-N	7.24	135.05	122.09
32	BC	119	TYR	C-N-CA	7.24	135.05	122.09
72	Bt	60	ASN	CA-C-N	-7.24	107.71	121.54
72	Bt	60	ASN	C-N-CA	-7.24	107.71	121.54
81	DA	1694	U	C4'-C3'-C2'	-7.24	95.36	102.60
81	DA	2034	C	O4'-C1'-C2'	-7.24	100.36	107.60
83	DC	50	U	O3'-P-O5'	7.24	114.86	104.00
81	DA	924	G	N9-C1'-C2'	7.24	124.86	114.00
81	DA	2745	G	P-O5'-C5'	7.24	131.76	120.90
39	BJ	60	VAL	CA-C-N	7.24	133.79	122.94
39	BJ	60	VAL	C-N-CA	7.24	133.79	122.94
81	DA	977	C	O4'-C1'-C2'	-7.24	100.36	107.60
6	AE	139	ILE	N-CA-CB	7.24	125.37	111.62
32	BC	72	VAL	N-CA-C	-7.24	98.07	108.42
34	BE	90	GLN	CA-C-O	-7.24	112.72	120.46
78	CA	16	G	N9-C1'-C2'	-7.24	101.15	112.00
78	CA	435	C	C5'-C4'-C3'	-7.24	105.15	116.00
78	CA	621	A	O4'-C1'-N9	7.24	119.35	108.50
81	DA	182	U	C1'-O4'-C4'	7.24	117.14	109.90
81	DA	1393	A	P-O3'-C3'	7.24	131.05	120.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1775	G	P-O3'-C3'	-7.24	109.35	120.20
31	BB	25	GLY	O-C-N	7.23	129.58	123.43
81	DA	1206	G	O5'-C5'-C4'	-7.23	100.65	111.50
22	AV	105	THR	CA-CB-OG1	7.23	120.45	109.60
48	BW	13	LYS	N-CA-C	-7.23	97.43	109.07
54	Bd	42	ASN	CA-C-N	7.23	129.84	120.44
54	Bd	42	ASN	C-N-CA	7.23	129.84	120.44
81	DA	193	C	N1-C1'-C2'	7.23	122.85	112.00
81	DA	736	A	C4'-C3'-O3'	7.23	123.85	113.00
81	DA	2677	G	P-O3'-C3'	7.23	131.05	120.20
78	CA	1324	G	C5'-C4'-C3'	7.23	126.84	116.00
81	DA	887	G	N9-C1'-C2'	7.23	122.84	112.00
81	DA	1767	C	P-O3'-C3'	7.23	131.04	120.20
81	DA	2506	U	N1-C1'-C2'	7.23	122.84	112.00
14	AM	74	GLN	N-CA-C	7.23	119.16	111.28
78	CA	1502	G	P-O3'-C3'	7.23	131.04	120.20
81	DA	722	G	C3'-C2'-C1'	7.23	108.53	101.30
33	BD	145	ILE	CA-CB-CG2	7.23	122.78	110.50
81	DA	1853	U	O4'-C1'-C2'	-7.23	100.37	107.60
47	BU	156	TYR	N-CA-C	-7.22	97.47	109.24
74	BQ	10	SER	CA-C-N	7.22	129.96	120.28
74	BQ	10	SER	C-N-CA	7.22	129.96	120.28
78	CA	668	C	C3'-C2'-C1'	7.22	108.52	101.30
81	DA	1298	C	O4'-C1'-C2'	-7.22	100.38	107.60
81	DA	2444	C	O3'-P-O5'	7.22	114.84	104.00
33	BD	101	ALA	CA-C-N	7.22	128.87	119.84
33	BD	101	ALA	C-N-CA	7.22	128.87	119.84
81	DA	768	C	O4'-C1'-N1	7.22	119.03	108.20
81	DA	1825	G	C1'-O4'-C4'	-7.22	102.68	109.90
81	DA	2295	A	N9-C1'-C2'	7.22	122.83	112.00
81	DA	2481	G	O4'-C1'-C2'	-7.22	100.38	107.60
6	AE	68	ILE	N-CA-C	-7.22	94.32	109.34
16	AO	78	ASN	CA-CB-CG	7.22	119.82	112.60
78	CA	1506	G	P-O5'-C5'	-7.22	110.07	120.90
81	DA	2527	G	O4'-C1'-N9	7.22	119.33	108.50
81	DA	3303	G	C2'-C3'-O3'	7.22	120.33	109.50
81	DA	977	C	N1-C1'-C2'	7.22	122.83	112.00
17	AQ	73	LEU	N-CA-C	-7.22	95.43	110.80
60	Bi	114	LYS	CA-C-N	7.22	132.92	121.66
60	Bi	114	LYS	C-N-CA	7.22	132.92	121.66
78	CA	1603	U	O4'-C1'-N1	7.22	119.33	108.50
42	BM	58	VAL	CA-C-N	7.21	132.96	123.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
42	BM	58	VAL	C-N-CA	7.21	132.96	123.00
78	CA	218	A	C1'-O4'-C4'	-7.21	102.69	109.90
78	CA	1672	G	P-O3'-C3'	7.21	131.02	120.20
78	CA	1677	C	O3'-P-O5'	7.21	114.82	104.00
81	DA	104	G	C5'-C4'-C3'	7.21	126.82	116.00
81	DA	750	G	P-O3'-C3'	7.21	131.02	120.20
81	DA	1706	C	O4'-C1'-C2'	-7.21	100.39	107.60
81	DA	2188	A	C4'-C3'-C2'	-7.21	95.39	102.60
81	DA	2737	C	C4'-C3'-O3'	-7.21	102.18	113.00
83	DC	22	A	P-O3'-C3'	7.21	131.02	120.20
29	AU	61	ARG	CA-C-N	7.21	135.32	121.54
29	AU	61	ARG	C-N-CA	7.21	135.32	121.54
81	DA	1686	U	O4'-C4'-C3'	-7.21	96.79	104.00
81	DA	3002	C	C3'-C2'-C1'	7.21	108.51	101.30
41	BN	81	VAL	N-CA-C	7.21	117.97	110.62
60	Bi	16	ARG	CA-C-N	7.21	134.68	121.70
60	Bi	16	ARG	C-N-CA	7.21	134.68	121.70
78	CA	49	C	O4'-C1'-C2'	-7.21	100.39	107.60
81	DA	2685	C	C4'-C3'-O3'	-7.21	102.18	113.00
1	Aa	175	ASP	CA-C-N	7.21	133.12	122.74
1	Aa	175	ASP	C-N-CA	7.21	133.12	122.74
18	AP	107	VAL	O-C-N	7.21	129.32	121.10
48	BW	35	LYS	N-CA-CB	7.21	120.83	110.16
78	CA	1479	A	C5'-C4'-C3'	7.21	126.81	116.00
78	CA	1583	A	P-O3'-C3'	7.21	131.01	120.20
81	DA	637	C	C5'-C4'-O4'	-7.21	98.98	109.80
81	DA	1447	G	O4'-C1'-C2'	-7.21	98.59	105.80
81	DA	2071	A	C1'-O4'-C4'	7.21	117.11	109.90
81	DA	2251	G	N9-C1'-C2'	7.21	122.82	112.00
81	DA	2983	C	O4'-C1'-C2'	-7.21	98.59	105.80
3	AB	71	LEU	CA-C-N	7.21	129.94	120.28
3	AB	71	LEU	C-N-CA	7.21	129.94	120.28
81	DA	316	U	N1-C1'-C2'	-7.21	103.19	114.00
81	DA	2768	U	P-O3'-C3'	-7.21	109.39	120.20
81	DA	2899	C	C3'-C2'-C1'	7.21	108.51	101.30
58	Bg	6	ASP	CA-CB-CG	-7.21	105.39	112.60
63	Bm	73	THR	N-CA-CB	7.21	123.25	111.21
81	DA	709	A	P-O3'-C3'	7.21	131.01	120.20
81	DA	1681	U	O4'-C1'-C2'	-7.21	100.39	107.60
9	AH	120	HIS	CG-CD2-NE2	7.21	114.41	107.20
39	BJ	59	THR	CA-C-N	-7.21	110.57	122.67
39	BJ	59	THR	C-N-CA	-7.21	110.57	122.67

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
42	BM	48	ARG	N-CA-C	7.20	120.26	108.52
57	Be	220	PHE	CB-CG-CD1	-7.20	108.45	120.70
74	BQ	53	VAL	CA-C-N	7.20	135.30	121.54
74	BQ	53	VAL	C-N-CA	7.20	135.30	121.54
79	CB	66	C	O4'-C1'-C2'	-7.20	100.40	107.60
81	DA	316	U	O4'-C1'-N1	7.20	119.01	108.20
5	AC	180	LYS	N-CA-C	7.20	119.13	111.28
81	DA	645	A	O4'-C1'-C2'	-7.20	98.60	105.80
81	DA	927	C	N1-C1'-C2'	7.20	122.80	112.00
81	DA	2233	A	C1'-O4'-C4'	7.20	117.10	109.90
5	AC	191	ALA	N-CA-C	7.20	126.14	110.80
60	Bi	73	SER	N-CA-C	-7.20	97.48	109.07
81	DA	1050	U	P-O5'-C5'	7.20	131.70	120.90
81	DA	2633	U	C4'-C3'-C2'	-7.20	95.40	102.60
82	DB	134	G	O4'-C1'-C2'	-7.20	100.40	107.60
79	CB	12	U	P-O5'-C5'	-7.20	110.10	120.90
81	DA	413	U	O4'-C1'-C2'	-7.20	100.40	107.60
81	DA	2646	C	C3'-C2'-C1'	-7.20	94.10	101.30
81	DA	2785	A	N9-C1'-C2'	7.20	122.80	112.00
78	CA	667	U	O4'-C1'-C2'	-7.20	100.40	107.60
36	BF	3	TYR	CA-C-N	7.20	133.03	123.17
36	BF	3	TYR	C-N-CA	7.20	133.03	123.17
81	DA	1276	U	N1-C1'-C2'	7.20	122.79	112.00
34	BE	3	ALA	CA-C-N	7.19	132.74	122.09
34	BE	3	ALA	C-N-CA	7.19	132.74	122.09
81	DA	352	A	O4'-C1'-N9	7.19	118.99	108.20
81	DA	768	C	C5'-C4'-C3'	7.19	125.99	115.20
1	Aa	16	HIS	CG-CD2-NE2	7.19	114.39	107.20
81	DA	2233	A	N9-C1'-C2'	-7.19	101.21	112.00
83	DC	8	G	C3'-C2'-C1'	-7.19	94.11	101.30
83	DC	17	A	O4'-C1'-C2'	-7.19	100.41	107.60
35	BG	9	TRP	CA-C-N	7.19	139.34	121.80
35	BG	9	TRP	C-N-CA	7.19	139.34	121.80
78	CA	1558	U	O5'-C5'-C4'	7.19	122.29	111.50
81	DA	135	C	O4'-C1'-N1	7.19	118.99	108.20
81	DA	843	A	O4'-C1'-N9	7.19	119.28	108.50
81	DA	1189	C	O4'-C1'-C2'	-7.19	98.61	105.80
81	DA	1885	U	O4'-C1'-N1	7.19	118.98	108.20
41	BN	90	VAL	CA-C-N	7.19	130.50	120.29
41	BN	90	VAL	C-N-CA	7.19	130.50	120.29
61	Bj	86	ARG	N-CA-C	7.19	122.11	113.12
81	DA	1876	U	O4'-C1'-C2'	-7.19	100.41	107.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1564	U	N1-C1'-C2'	7.19	122.78	112.00
81	DA	3100	U	O4'-C1'-C2'	-7.19	100.41	107.60
41	BN	123	LEU	N-CA-CB	7.19	120.68	110.12
46	BT	55	VAL	N-CA-CB	7.19	123.09	111.23
3	AB	16	VAL	N-CA-CB	7.18	120.31	110.54
16	AO	65	VAL	N-CA-CB	7.18	123.08	111.23
22	AV	106	ALA	CB-CA-C	-7.18	96.12	110.42
32	BC	198	HIS	CA-CB-CG	-7.18	106.61	113.80
33	BD	89	ALA	N-CA-C	-7.18	95.50	110.80
69	Br	57	VAL	CA-C-N	7.18	135.26	121.54
69	Br	57	VAL	C-N-CA	7.18	135.26	121.54
77	BI	106	ALA	CA-C-N	7.18	135.49	121.41
77	BI	106	ALA	C-N-CA	7.18	135.49	121.41
78	CA	411	C	O4'-C1'-C2'	-7.18	100.42	107.60
81	DA	3346	U	O3'-P-O5'	7.18	114.78	104.00
2	AA	46	HIS	N-CA-C	-7.18	95.50	110.80
34	BE	115	LYS	CB-CG-CD	7.18	127.82	111.30
78	CA	1353	U	N1-C1'-C2'	7.18	122.77	112.00
81	DA	113	C	O4'-C1'-C2'	-7.18	100.42	107.60
81	DA	258	G	O4'-C1'-N9	7.18	119.27	108.50
81	DA	573	C	C3'-C2'-C1'	7.18	108.48	101.30
81	DA	1564	U	O3'-P-O5'	-7.18	93.22	104.00
3	AB	56	GLN	CA-C-N	7.18	129.77	120.44
3	AB	56	GLN	C-N-CA	7.18	129.77	120.44
31	BB	47	GLN	OE1-CD-NE2	7.18	129.78	122.60
44	BO	28	HIS	CG-CD2-NE2	7.18	114.38	107.20
51	BZ	27	LYS	N-CA-C	-7.18	99.85	110.48
81	DA	274	G	N9-C1'-C2'	7.18	122.77	112.00
81	DA	2253	G	O4'-C1'-C2'	7.18	114.78	107.60
2	AA	208	GLU	N-CA-C	-7.18	95.51	110.80
81	DA	2098	C	P-O3'-C3'	7.18	130.97	120.20
81	DA	2179	C	C3'-C2'-C1'	7.18	108.68	101.50
83	DC	37	G	C3'-C2'-C1'	7.18	108.48	101.30
13	AL	92	CYS	O-C-N	7.18	131.84	123.30
16	AO	111	ALA	CA-C-N	7.18	135.25	121.54
16	AO	111	ALA	C-N-CA	7.18	135.25	121.54
33	BD	141	ARG	N-CA-C	-7.18	98.91	110.32
53	Ba	86	THR	CA-C-N	7.18	129.90	120.28
53	Ba	86	THR	C-N-CA	7.18	129.90	120.28
78	CA	1656	U	C5'-C4'-C3'	7.18	126.77	116.00
81	DA	962	A	C1'-O4'-C4'	7.18	116.88	109.70
81	DA	1983	G	P-O3'-C3'	7.18	130.97	120.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	AH	120	HIS	N-CA-CB	7.17	122.61	110.49
60	Bi	68	THR	N-CA-C	7.17	126.08	110.80
78	CA	229	U	O4'-C1'-N1	7.17	119.26	108.50
78	CA	1003	A	N9-C1'-C2'	-7.17	103.24	114.00
81	DA	678	G	P-O5'-C5'	7.17	131.66	120.90
81	DA	1823	A	O3'-P-O5'	-7.17	93.24	104.00
81	DA	1973	G	O5'-C5'-C4'	7.17	122.26	111.50
81	DA	2971	A	P-O3'-C3'	7.17	130.96	120.20
81	DA	3188	G	P-O5'-C5'	7.17	130.76	120.00
82	DB	33	A	O3'-P-O5'	-7.17	93.24	104.00
31	BB	24	GLN	CA-C-N	-7.17	112.60	122.57
31	BB	24	GLN	C-N-CA	-7.17	112.60	122.57
39	BJ	41	LYS	O-C-N	7.17	130.57	122.32
30	BA	86	SER	CA-C-N	7.17	130.17	120.63
30	BA	86	SER	C-N-CA	7.17	130.17	120.63
33	BD	217	LYS	CA-C-N	7.17	129.89	120.28
33	BD	217	LYS	C-N-CA	7.17	129.89	120.28
63	Bm	29	LEU	CB-CA-C	7.17	123.04	110.85
76	BS	138	ARG	CA-C-N	-7.17	107.84	121.54
76	BS	138	ARG	C-N-CA	-7.17	107.84	121.54
78	CA	840	U	P-O3'-C3'	-7.17	109.44	120.20
10	AI	66	ARG	N-CA-C	-7.17	104.14	113.17
81	DA	2509	U	O4'-C1'-N1	7.17	119.25	108.50
13	AL	73	ARG	N-CA-C	-7.17	98.85	108.74
51	BZ	31	PHE	N-CA-CB	7.17	121.83	110.65
67	Bp	18	SER	O-C-N	-7.17	115.17	123.27
81	DA	295	A	O4'-C1'-C2'	-7.17	100.43	107.60
81	DA	541	U	O4'-C1'-C2'	-7.17	100.43	107.60
81	DA	1285	G	C3'-C2'-C1'	7.17	108.67	101.50
81	DA	1940	G	O4'-C1'-C2'	-7.17	100.43	107.60
81	DA	2901	G	C3'-C2'-C1'	-7.17	94.13	101.30
83	DC	87	U	N1-C1'-C2'	7.17	122.75	112.00
32	BC	183	LEU	N-CA-CB	7.17	121.82	110.57
34	BE	59	ILE	CA-C-N	7.17	135.23	121.54
34	BE	59	ILE	C-N-CA	7.17	135.23	121.54
37	BH	119	GLY	CA-C-N	7.17	134.60	121.70
37	BH	119	GLY	C-N-CA	7.17	134.60	121.70
78	CA	1601	G	O4'-C1'-N9	7.17	118.95	108.20
78	CA	890	C	N1-C1'-C2'	7.16	122.75	112.00
81	DA	1422	G	O4'-C1'-C2'	7.16	114.76	107.60
81	DA	1879	A	N9-C1'-C2'	7.16	124.75	114.00
81	DA	2999	U	O4'-C1'-N1	7.16	119.24	108.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
57	Be	165	ASP	CA-C-N	7.16	129.75	120.44
57	Be	165	ASP	C-N-CA	7.16	129.75	120.44
81	DA	186	U	O4'-C1'-C2'	-7.16	100.44	107.60
81	DA	884	A	N9-C1'-C2'	-7.16	103.26	114.00
81	DA	3385	U	O4'-C1'-N1	7.16	119.24	108.50
43	BP	43	THR	CA-C-N	7.16	139.26	121.80
43	BP	43	THR	C-N-CA	7.16	139.26	121.80
44	BO	10	LYS	N-CA-C	7.16	126.05	110.80
78	CA	107	C	O4'-C1'-C2'	-7.16	100.44	107.60
81	DA	2149	A	N9-C1'-C2'	-7.16	101.26	112.00
41	BN	43	LYS	CB-CA-C	7.16	121.50	109.48
81	DA	1688	U	P-O3'-C3'	7.16	130.94	120.20
81	DA	1999	C	O4'-C1'-C2'	-7.16	100.44	107.60
81	DA	3062	G	O4'-C1'-N9	7.16	119.23	108.50
5	AC	15	PRO	N-CA-C	7.16	127.21	112.47
30	BA	77	ALA	CA-C-N	7.16	129.87	120.28
30	BA	77	ALA	C-N-CA	7.16	129.87	120.28
81	DA	2710	C	C3'-C2'-C1'	7.16	108.46	101.30
81	DA	3055	U	C1'-O4'-C4'	7.16	117.06	109.90
65	Bn	76	ASN	CA-C-N	7.15	134.51	121.85
65	Bn	76	ASN	C-N-CA	7.15	134.51	121.85
81	DA	797	U	O3'-P-O5'	-7.15	93.27	104.00
36	BF	80	THR	CA-C-N	7.15	127.92	119.98
36	BF	80	THR	C-N-CA	7.15	127.92	119.98
11	AJ	48	HIS	CE1-NE2-CD2	-7.15	101.85	109.00
47	BU	84	TYR	N-CA-C	-7.15	99.70	110.28
78	CA	533	U	P-O3'-C3'	-7.15	109.47	120.20
78	CA	1623	C	C3'-C2'-C1'	7.15	108.45	101.30
81	DA	1238	C	O4'-C1'-C2'	-7.15	100.45	107.60
81	DA	1989	U	C5'-C4'-C3'	-7.15	105.28	116.00
81	DA	2280	A	C2'-C3'-O3'	7.15	120.22	109.50
81	DA	2527	G	C1'-C2'-O2'	7.15	119.12	108.40
81	DA	3224	G	C3'-C2'-C1'	-7.15	94.15	101.30
81	DA	3246	G	C5'-C4'-C3'	7.15	126.72	116.00
40	BK	111	PRO	N-CA-CB	7.15	110.75	103.25
44	BO	149	ALA	CB-CA-C	-7.15	99.78	110.50
81	DA	253	A	O4'-C1'-C2'	-7.15	100.45	107.60
81	DA	1746	U	O3'-P-O5'	-7.15	93.28	104.00
81	DA	2221	G	C3'-C2'-C1'	7.15	108.45	101.30
81	DA	2514	U	C1'-O4'-C4'	7.15	116.85	109.70
82	DB	128	U	P-O3'-C3'	7.15	130.92	120.20
12	AK	70	LYS	CA-C-O	-7.15	112.97	120.55

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	254	A	C3'-C2'-C1'	7.15	108.45	101.30
13	AL	22	ASN	O-C-N	7.14	130.58	122.22
81	DA	648	C	O4'-C1'-C2'	-7.14	98.66	105.80
81	DA	1178	G	P-O5'-C5'	-7.14	110.18	120.90
81	DA	1319	G	C1'-O4'-C4'	-7.14	102.75	109.90
38	Bs	184	GLY	N-CA-C	-7.14	100.42	110.63
78	CA	312	A	O4'-C1'-N9	-7.14	97.48	108.20
78	CA	468	A	N9-C1'-C2'	7.14	122.71	112.00
81	DA	270	U	O4'-C1'-C2'	-7.14	100.46	107.60
81	DA	1785	U	O4'-C1'-N1	7.14	119.21	108.50
81	DA	2471	U	P-O5'-C5'	7.14	131.61	120.90
79	CB	11	U	N1-C1'-C2'	-7.14	101.29	112.00
81	DA	2025	G	O4'-C1'-N9	7.14	119.21	108.50
81	DA	2509	U	N1-C1'-C2'	7.14	122.71	112.00
16	AO	67	THR	CA-C-N	-7.14	107.42	121.41
16	AO	67	THR	C-N-CA	-7.14	107.42	121.41
62	Bk	28	TYR	O-C-N	-7.14	111.58	123.00
81	DA	1015	U	O4'-C1'-C2'	-7.14	100.46	107.60
6	AE	21	ARG	CA-C-O	-7.14	111.74	118.73
78	CA	298	C	C3'-C2'-C1'	7.14	108.44	101.30
78	CA	367	A	O3'-P-O5'	7.14	114.71	104.00
79	CB	55	C	O4'-C1'-N1	-7.14	97.79	108.50
16	AO	113	PHE	N-CA-C	7.13	119.96	111.33
39	BJ	75	PRO	CB-CA-C	7.13	123.33	111.56
43	BP	166	ALA	CB-CA-C	-7.13	96.22	110.42
55	Bc	104	GLN	N-CA-CB	7.13	122.55	110.49
83	DC	30	G	O4'-C1'-N9	7.13	119.20	108.50
47	BU	116	ARG	CA-C-N	7.13	129.71	120.44
47	BU	116	ARG	C-N-CA	7.13	129.71	120.44
78	CA	448	C	P-O3'-C3'	7.13	130.90	120.20
81	DA	2630	C	O5'-C5'-C4'	7.13	122.20	111.50
76	BS	145	HIS	CA-CB-CG	-7.13	106.67	113.80
78	CA	1761	U	C2'-C3'-O3'	7.13	120.20	109.50
81	DA	1571	A	O3'-P-O5'	7.13	114.70	104.00
81	DA	1685	C	C3'-C2'-C1'	7.13	108.63	101.50
81	DA	2050	C	N1-C1'-C2'	7.13	122.70	112.00
78	CA	1283	U	O4'-C1'-C2'	-7.13	100.47	107.60
81	DA	3303	G	O4'-C1'-C2'	7.13	112.93	105.80
69	Br	7	THR	N-CA-C	-7.13	97.62	109.24
78	CA	609	U	O4'-C1'-N1	-7.13	97.51	108.20
78	CA	1586	A	C1'-O4'-C4'	-7.13	102.77	109.90
78	CA	1655	A	O4'-C1'-C2'	-7.13	100.47	107.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2157	G	C1'-C2'-O2'	-7.13	101.11	111.80
9	AH	65	LEU	N-CA-CB	7.13	122.53	110.49
16	AO	90	TYR	N-CA-C	-7.13	103.51	111.28
35	BG	99	GLU	CA-C-O	7.13	130.70	120.51
76	BS	160	PRO	N-CA-C	7.13	119.39	110.70
78	CA	288	A	C5'-C4'-C3'	7.13	126.69	116.00
81	DA	166	C	C4'-C3'-C2'	-7.13	95.47	102.60
81	DA	2177	G	O4'-C1'-C2'	-7.13	100.47	107.60
83	DC	93	U	C4'-C3'-O3'	-7.13	102.31	113.00
35	BG	129	GLU	N-CA-CB	7.12	122.53	110.49
81	DA	721	G	N9-C1'-C2'	-7.12	101.31	112.00
81	DA	2629	U	C5'-C4'-C3'	7.12	126.69	116.00
82	DB	147	U	O4'-C1'-C2'	-7.12	100.47	107.60
43	BP	49	ARG	CA-C-N	7.12	129.82	120.28
43	BP	49	ARG	C-N-CA	7.12	129.82	120.28
62	Bk	97	SER	N-CA-C	-7.12	104.16	112.92
81	DA	113	C	P-O5'-C5'	7.12	131.59	120.90
81	DA	1052	U	O4'-C1'-N1	7.12	119.19	108.50
81	DA	1323	G	O4'-C1'-N9	7.12	119.19	108.50
81	DA	2114	C	C5'-C4'-C3'	-7.12	105.31	116.00
29	AU	10	ARG	N-CA-CB	7.12	120.31	109.98
33	BD	102	PRO	N-CA-C	7.12	127.14	112.47
57	Be	95	ILE	CA-C-N	7.12	124.79	119.66
57	Be	95	ILE	C-N-CA	7.12	124.79	119.66
78	CA	1787	C	C3'-C2'-C1'	7.12	108.42	101.30
81	DA	691	A	O4'-C1'-C2'	-7.12	100.48	107.60
81	DA	2319	U	P-O5'-C5'	7.12	131.58	120.90
8	AF	29	ILE	N-CA-C	-7.12	93.50	108.88
22	AV	28	SER	N-CA-C	7.12	118.96	108.14
34	BE	140	ARG	N-CA-C	7.12	119.12	111.36
63	Bm	19	GLY	CA-C-O	-7.12	116.52	122.29
81	DA	2087	C	N1-C1'-C2'	7.12	122.68	112.00
81	DA	2702	A	O4'-C1'-C2'	-7.12	98.68	105.80
81	DA	3302	U	C4'-C3'-O3'	-7.12	102.32	113.00
26	AZ	20	LYS	CA-C-N	7.12	130.04	120.50
26	AZ	20	LYS	C-N-CA	7.12	130.04	120.50
31	BB	86	GLN	OE1-CD-NE2	-7.12	115.48	122.60
81	DA	73	C	C2'-C3'-O3'	7.12	120.18	109.50
81	DA	386	A	O4'-C4'-C3'	-7.12	96.88	104.00
81	DA	742	G	O4'-C1'-C2'	-7.12	100.48	107.60
81	DA	1651	U	O4'-C1'-N1	7.12	119.18	108.50
81	DA	2267	C	C3'-C2'-C1'	7.12	108.42	101.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3231	U	O4'-C1'-N1	7.12	119.18	108.50
26	AZ	57	ASN	N-CA-C	-7.12	94.08	109.81
36	BF	153	ASP	CA-C-N	7.12	129.53	120.56
36	BF	153	ASP	C-N-CA	7.12	129.53	120.56
57	Be	11	SER	CA-C-N	7.12	130.53	120.28
57	Be	11	SER	C-N-CA	7.12	130.53	120.28
18	AP	55	ASP	O-C-N	-7.12	113.13	122.59
57	Be	75	TYR	N-CA-CB	7.12	122.52	110.49
72	Bt	61	PHE	CB-CA-C	-7.12	96.26	110.42
81	DA	238	A	C3'-C2'-C1'	7.12	108.42	101.30
81	DA	1507	G	O4'-C1'-N9	7.12	118.87	108.20
82	DB	62	C	O4'-C1'-C2'	7.11	112.91	105.80
5	AC	88	GLU	CB-CA-C	7.11	122.94	110.85
78	CA	1340	U	O4'-C1'-N1	7.11	119.17	108.50
6	AE	59	HIS	CA-CB-CG	7.11	120.91	113.80
81	DA	1078	U	O4'-C4'-C3'	-7.11	96.89	104.00
81	DA	3091	A	O4'-C4'-C3'	-7.11	98.99	106.10
74	BQ	150	LEU	CA-C-N	7.11	131.27	120.82
74	BQ	150	LEU	C-N-CA	7.11	131.27	120.82
81	DA	699	A	C5'-C4'-C3'	7.11	126.66	116.00
34	BE	2	SER	CA-CB-OG	-7.11	96.89	111.10
45	BR	31	LYS	CB-CA-C	7.11	124.32	110.67
63	Bm	54	ILE	N-CA-CB	7.11	121.22	111.41
81	DA	1146	C	O4'-C1'-C2'	-7.11	100.49	107.60
82	DB	105	A	P-O3'-C3'	7.11	130.86	120.20
77	BI	113	GLN	N-CA-CB	7.11	122.50	110.49
81	DA	352	A	N9-C1'-C2'	-7.11	103.34	114.00
81	DA	1154	A	O4'-C1'-C2'	-7.11	100.50	107.60
81	DA	3005	A	C1'-O4'-C4'	7.11	116.81	109.70
81	DA	3297	U	O4'-C1'-C2'	-7.11	100.49	107.60
17	AQ	102	VAL	CA-C-N	7.10	129.80	120.28
17	AQ	102	VAL	C-N-CA	7.10	129.80	120.28
78	CA	16	G	C5'-C4'-C3'	7.10	126.66	116.00
81	DA	1297	C	O3'-P-O5'	-7.10	93.34	104.00
3	AB	207	THR	CA-C-N	7.10	134.75	121.97
3	AB	207	THR	C-N-CA	7.10	134.75	121.97
33	BD	58	HIS	N-CA-CB	7.10	121.61	110.46
78	CA	633	U	N1-C1'-C2'	7.10	122.65	112.00
81	DA	2781	U	O3'-P-O5'	7.10	114.65	104.00
78	CA	30	G	N9-C1'-C2'	7.10	122.65	112.00
81	DA	338	A	C1'-C2'-O2'	-7.10	97.75	108.40
81	DA	1077	U	N1-C1'-C2'	7.10	122.65	112.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1806	A	C3'-C2'-C1'	7.10	108.40	101.30
81	DA	1008	U	O4'-C1'-C2'	-7.10	100.50	107.60
83	DC	52	U	O4'-C1'-N1	7.10	119.15	108.50
8	AF	102	ARG	N-CA-CB	7.10	122.57	110.50
78	CA	303	U	C5'-C4'-C3'	-7.10	105.35	116.00
81	DA	248	U	O4'-C1'-N1	7.10	119.15	108.50
81	DA	3303	G	C3'-C2'-C1'	-7.10	94.40	101.50
6	AE	120	GLU	N-CA-CB	7.10	122.48	110.49
81	DA	554	A	P-O3'-C3'	7.10	130.84	120.20
83	DC	97	C	N1-C1'-C2'	7.10	122.64	112.00
65	Bn	57	ASN	CA-CB-CG	-7.09	105.50	112.60
78	CA	339	C	O4'-C1'-C2'	-7.09	100.50	107.60
81	DA	498	A	O4'-C1'-C2'	-7.09	100.50	107.60
81	DA	3093	C	C2'-C3'-O3'	7.09	120.14	109.50
82	DB	37	A	N9-C1'-C2'	-7.09	103.36	114.00
55	Bc	44	ILE	N-CA-C	7.09	117.86	110.62
81	DA	386	A	C5'-C4'-C3'	7.09	126.64	116.00
81	DA	2526	C	C4'-C3'-O3'	-7.09	102.36	113.00
81	DA	3115	C	C1'-C2'-O2'	-7.09	101.16	111.80
82	DB	10	A	N9-C1'-C2'	7.09	122.64	112.00
9	AH	87	GLU	N-CA-CB	7.09	124.72	111.53
78	CA	435	C	O3'-P-O5'	7.09	114.64	104.00
81	DA	997	A	C5'-C4'-C3'	7.09	126.64	116.00
81	DA	1976	G	O4'-C1'-C2'	7.09	114.69	107.60
2	AA	170	ILE	CA-C-N	7.09	127.81	119.94
2	AA	170	ILE	C-N-CA	7.09	127.81	119.94
78	CA	455	C	O4'-C1'-N1	7.09	118.83	108.20
78	CA	1617	U	C2'-C3'-O3'	7.09	120.13	109.50
35	BG	98	VAL	CA-CB-CG1	7.09	122.45	110.40
37	BH	232	HIS	CA-CB-CG	7.09	120.89	113.80
38	Bs	65	GLY	O-C-N	7.09	128.99	122.19
78	CA	1756	A	C3'-C2'-C1'	-7.09	94.21	101.30
81	DA	32	U	P-O5'-C5'	7.09	131.53	120.90
81	DA	502	U	O4'-C1'-C2'	-7.09	100.51	107.60
81	DA	1565	G	C5'-C4'-C3'	7.09	126.63	116.00
1	Aa	241	PHE	CA-C-O	-7.09	113.28	121.07
40	BK	188	SER	CA-C-N	7.09	135.07	121.54
40	BK	188	SER	C-N-CA	7.09	135.07	121.54
60	Bi	18	ASN	N-CA-CB	7.08	122.46	110.49
78	CA	896	U	N1-C1'-C2'	7.08	122.62	112.00
78	CA	1180	C	N1-C1'-C2'	7.08	122.63	112.00
78	CA	1551	U	O4'-C4'-C3'	7.08	111.08	104.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2088	A	O5'-C5'-C4'	7.08	121.43	110.80
81	DA	2236	G	P-O3'-C3'	7.08	130.82	120.20
81	DA	3243	A	N9-C1'-C2'	7.08	122.62	112.00
6	AE	31	GLU	N-CA-C	7.08	119.85	111.71
17	AQ	82	ASP	CA-CB-CG	7.08	119.68	112.60
58	Bg	79	ARG	CA-C-N	7.08	131.07	120.31
58	Bg	79	ARG	C-N-CA	7.08	131.07	120.31
78	CA	928	U	N1-C1'-C2'	-7.08	103.38	114.00
78	CA	1476	C	C1'-O4'-C4'	7.08	116.98	109.90
78	CA	1569	A	C5'-C4'-C3'	-7.08	105.38	116.00
81	DA	598	A	C5'-C4'-C3'	-7.08	105.38	116.00
81	DA	724	U	O4'-C1'-C2'	-7.08	100.52	107.60
9	AH	68	ARG	CA-C-O	-7.08	113.57	121.00
25	AY	26	THR	CB-CA-C	7.08	124.51	110.42
37	BH	211	LEU	CA-C-N	7.08	129.76	120.28
37	BH	211	LEU	C-N-CA	7.08	129.76	120.28
78	CA	169	A	C5'-C4'-C3'	7.08	126.62	116.00
78	CA	350	U	O4'-C1'-N1	7.08	118.82	108.20
81	DA	1251	A	P-O3'-C3'	7.08	130.82	120.20
81	DA	2233	A	O4'-C1'-N9	7.08	119.12	108.50
2	AA	248	ASP	CA-CB-CG	7.08	119.68	112.60
78	CA	1381	U	C5'-C4'-C3'	7.08	126.61	116.00
81	DA	2378	C	C3'-C2'-C1'	7.08	108.38	101.30
81	DA	2637	A	C4'-C3'-C2'	-7.08	95.52	102.60
82	DB	93	U	O4'-C1'-C2'	-7.08	100.52	107.60
81	DA	1357	G	O3'-P-O5'	7.08	114.61	104.00
81	DA	3341	U	N1-C1'-C2'	7.08	122.61	112.00
12	AK	133	ARG	CA-C-N	7.07	128.98	120.14
12	AK	133	ARG	C-N-CA	7.07	128.98	120.14
53	Ba	43	VAL	CA-C-N	7.07	133.47	121.87
53	Ba	43	VAL	C-N-CA	7.07	133.47	121.87
81	DA	837	A	O5'-C5'-C4'	7.07	122.11	111.50
81	DA	2604	U	N1-C1'-C2'	7.07	122.61	112.00
6	AE	74	PRO	N-CA-C	7.07	127.04	112.47
31	BB	128	ARG	NE-CZ-NH2	7.07	125.56	119.20
63	Bm	6	LYS	CA-CB-CG	7.07	128.24	114.10
83	DC	67	C	O4'-C1'-C2'	-7.07	100.53	107.60
32	BC	93	VAL	CA-CB-CG1	-7.07	98.38	110.40
56	Bf	55	GLU	O-C-N	7.07	129.62	122.12
20	AS	3	GLY	CA-C-N	7.07	130.15	120.46
20	AS	3	GLY	C-N-CA	7.07	130.15	120.46
34	BE	61	ARG	CA-CB-CG	7.07	128.24	114.10

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	855	A	C4'-C3'-C2'	-7.07	95.53	102.60
4	AD	196	VAL	N-CA-C	-7.07	103.97	110.82
81	DA	1109	U	O4'-C1'-C2'	-7.07	100.53	107.60
81	DA	3201	C	C4'-C3'-O3'	7.07	120.60	110.00
50	BX	94	GLN	N-CA-CB	7.07	120.25	110.01
76	BS	12	VAL	N-CA-C	7.07	118.06	108.17
78	CA	1279	C	N1-C1'-C2'	7.07	122.60	112.00
81	DA	1086	C	N1-C1'-C2'	7.07	122.60	112.00
81	DA	1597	C	O3'-P-O5'	7.07	114.60	104.00
81	DA	3244	A	C1'-O4'-C4'	-7.07	102.83	109.90
39	BJ	43	GLY	CA-C-N	7.06	130.05	120.44
39	BJ	43	GLY	C-N-CA	7.06	130.05	120.44
81	DA	3168	A	P-O3'-C3'	7.06	130.80	120.20
5	AC	157	ASP	CA-C-N	7.06	135.03	121.54
5	AC	157	ASP	C-N-CA	7.06	135.03	121.54
25	AY	45	LYS	N-CA-C	-7.06	97.70	109.07
53	Ba	74	VAL	N-CA-CB	7.06	121.17	110.58
81	DA	820	A	O4'-C1'-C2'	-7.06	100.54	107.60
81	DA	1400	G	O4'-C4'-C3'	-7.06	96.94	104.00
81	DA	1962	G	O3'-P-O5'	7.06	114.59	104.00
32	BC	193	ASP	N-CA-C	7.06	118.62	111.07
59	Bh	98	HIS	CE1-NE2-CD2	-7.06	101.94	109.00
81	DA	369	A	N9-C1'-C2'	-7.06	103.41	114.00
81	DA	1624	G	C5'-C4'-O4'	-7.06	99.21	109.80
83	DC	12	U	P-O3'-C3'	7.06	130.79	120.20
2	AA	232	VAL	N-CA-CB	7.06	122.88	111.23
12	AK	56	SER	N-CA-C	7.06	123.31	113.57
20	AS	60	SER	N-CA-CB	-7.06	99.71	110.16
35	BG	28	GLN	N-CA-CB	7.06	122.42	110.49
57	Be	22	THR	N-CA-C	7.06	118.97	111.28
58	Bg	40	ALA	CA-C-N	7.06	129.61	120.44
58	Bg	40	ALA	C-N-CA	7.06	129.61	120.44
81	DA	1262	G	N9-C1'-C2'	7.06	122.59	112.00
81	DA	1298	C	C1'-O4'-C4'	-7.06	102.84	109.90
81	DA	1362	G	C3'-C2'-C1'	-7.06	94.24	101.30
81	DA	2403	G	C1'-O4'-C4'	7.06	116.76	109.70
31	BB	107	VAL	CA-C-N	7.06	126.98	119.85
31	BB	107	VAL	C-N-CA	7.06	126.98	119.85
78	CA	1365	C	P-O3'-C3'	7.06	130.78	120.20
81	DA	1049	C	C3'-C2'-C1'	7.06	108.36	101.30
81	DA	2916	U	O4'-C1'-C2'	-7.06	100.54	107.60
81	DA	3081	C	N1-C1'-C2'	7.06	122.58	112.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
40	BK	198	GLY	N-CA-C	7.05	129.90	113.18
78	CA	1577	A	O4'-C1'-C2'	-7.05	100.55	107.60
81	DA	3010	U	O3'-P-O5'	7.05	114.58	104.00
5	AC	18	PRO	CA-N-CD	-7.05	102.13	112.00
16	AO	140	LYS	N-CA-CB	7.05	120.60	110.16
42	BM	42	SER	CA-C-N	7.05	135.23	121.41
42	BM	42	SER	C-N-CA	7.05	135.23	121.41
78	CA	308	C	O4'-C1'-C2'	-7.05	100.55	107.60
78	CA	1337	A	C5'-C4'-O4'	-7.05	99.22	109.80
81	DA	1582	C	O3'-P-O5'	-7.05	93.42	104.00
81	DA	2151	C	O4'-C1'-C2'	-7.05	100.55	107.60
81	DA	3009	G	C5'-C4'-C3'	7.05	126.58	116.00
83	DC	116	U	O4'-C1'-N1	7.05	119.08	108.50
11	AJ	26	LEU	CB-CA-C	-7.05	99.39	110.74
53	Ba	55	LYS	CA-CB-CG	7.05	128.20	114.10
81	DA	1175	C	O3'-P-O5'	7.05	114.57	104.00
81	DA	2308	C	C3'-C2'-C1'	7.05	108.35	101.30
81	DA	2504	U	C2'-C3'-O3'	7.05	124.27	113.70
82	DB	32	C	O4'-C1'-C2'	-7.05	100.55	107.60
81	DA	2698	G	O3'-P-O5'	7.05	114.57	104.00
81	DA	3211	C	P-O5'-C5'	7.05	131.47	120.90
1	Aa	47	LEU	N-CA-CB	7.05	120.48	110.12
3	AB	12	VAL	CA-C-N	7.05	129.72	120.28
3	AB	12	VAL	C-N-CA	7.05	129.72	120.28
31	BB	243	THR	N-CA-C	-7.05	99.57	108.45
81	DA	1933	A	O4'-C1'-C2'	-7.05	100.55	107.60
33	BD	226	GLU	N-CA-C	-7.04	98.31	109.23
35	BG	130	ILE	CA-C-N	7.04	129.72	120.28
35	BG	130	ILE	C-N-CA	7.04	129.72	120.28
50	BX	62	VAL	CA-C-N	7.04	131.38	121.66
50	BX	62	VAL	C-N-CA	7.04	131.38	121.66
81	DA	1738	C	C3'-C2'-C1'	7.04	108.34	101.30
13	AL	122	PHE	N-CA-C	7.04	125.80	110.80
17	AQ	85	VAL	O-C-N	-7.04	113.07	121.10
81	DA	607	A	N9-C1'-C2'	-7.04	101.44	112.00
81	DA	1250	G	O4'-C1'-C2'	-7.04	100.56	107.60
81	DA	3298	C	C4'-C3'-C2'	7.04	109.64	102.60
29	AU	88	THR	CA-C-N	7.04	130.04	120.54
29	AU	88	THR	C-N-CA	7.04	130.04	120.54
44	BO	3	SER	CA-C-N	7.04	134.37	121.70
44	BO	3	SER	C-N-CA	7.04	134.37	121.70
47	BU	22	HIS	CA-CB-CG	7.04	120.84	113.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	164	A	C1'-O4'-C4'	-7.04	102.86	109.90
78	CA	236	A	C1'-O4'-C4'	7.04	116.94	109.90
78	CA	1656	U	O5'-C5'-C4'	7.04	122.06	111.50
81	DA	1338	C	O4'-C1'-C2'	-7.04	100.56	107.60
81	DA	2870	C	O4'-C1'-C2'	-7.04	100.56	107.60
35	BG	100	LYS	CB-CA-C	7.04	122.47	111.77
78	CA	1480	G	C5'-C4'-C3'	-7.04	105.44	116.00
79	CB	72	G	C2'-C3'-O3'	7.04	124.26	113.70
81	DA	1941	C	O3'-P-O5'	-7.04	93.44	104.00
83	DC	13	A	P-O3'-C3'	-7.04	109.64	120.20
31	BB	83	HIS	CA-C-N	7.04	131.11	121.05
31	BB	83	HIS	C-N-CA	7.04	131.11	121.05
61	Bj	93	THR	N-CA-CB	7.04	121.18	110.70
81	DA	490	A	C5'-C4'-C3'	-7.04	105.44	116.00
81	DA	2651	G	N9-C1'-C2'	7.04	122.56	112.00
31	BB	246	LEU	CA-C-N	7.04	134.98	121.54
31	BB	246	LEU	C-N-CA	7.04	134.98	121.54
53	Ba	90	GLU	CA-C-N	7.04	129.71	120.28
53	Ba	90	GLU	C-N-CA	7.04	129.71	120.28
78	CA	783	G	C5'-C4'-C3'	7.04	125.45	114.90
78	CA	1792	G	O4'-C1'-N9	7.04	118.75	108.20
80	CC	21	C	P-O5'-C5'	-7.04	110.35	120.90
81	DA	3349	C	N1-C1'-C2'	7.04	122.55	112.00
13	AL	40	SER	CA-CB-OG	7.03	125.17	111.10
22	AV	45	GLU	N-CA-C	7.03	118.95	111.28
30	BA	30	GLU	N-CA-C	7.03	119.38	110.24
37	BH	236	GLY	O-C-N	7.03	131.84	122.70
78	CA	288	A	N9-C1'-C2'	-7.03	101.45	112.00
81	DA	2346	C	N1-C1'-C2'	7.03	122.55	112.00
81	DA	2801	A	O4'-C1'-N9	7.03	118.75	108.20
78	CA	482	U	C4'-C3'-C2'	-7.03	95.57	102.60
2	AA	68	PRO	CA-C-N	7.03	130.21	120.65
2	AA	68	PRO	C-N-CA	7.03	130.21	120.65
33	BD	313	LEU	CB-CA-C	-7.03	97.62	110.63
78	CA	424	C	N1-C1'-C2'	7.03	122.55	112.00
81	DA	3252	G	O3'-P-O5'	-7.03	93.45	104.00
81	DA	2854	U	P-O3'-C3'	7.03	130.74	120.20
83	DC	40	C	C3'-C2'-C1'	7.03	108.33	101.30
51	BZ	2	LYS	CA-C-N	7.03	134.62	121.97
51	BZ	2	LYS	C-N-CA	7.03	134.62	121.97
81	DA	1152	G	O4'-C1'-C2'	7.03	112.83	105.80
81	DA	1716	U	P-O3'-C3'	7.03	130.74	120.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2487	U	P-O3'-C3'	-7.03	109.66	120.20
81	DA	2650	U	O4'-C1'-C2'	-7.03	100.57	107.60
81	DA	3246	G	N9-C1'-C2'	7.03	122.54	112.00
83	DC	22	A	C3'-C2'-C1'	-7.03	94.27	101.30
10	AI	30	LYS	N-CA-CB	7.03	122.36	110.49
64	Bl	20	ASN	CB-CA-C	-7.03	99.80	110.90
78	CA	1463	C	O3'-P-O5'	-7.03	93.46	104.00
81	DA	222	A	O4'-C1'-C2'	-7.03	100.58	107.60
81	DA	230	U	O3'-P-O5'	7.03	114.54	104.00
81	DA	2950	G	O4'-C1'-N9	7.03	118.74	108.20
54	Bd	50	THR	CA-C-N	7.02	129.69	120.28
54	Bd	50	THR	C-N-CA	7.02	129.69	120.28
55	Bc	59	ASN	CA-C-N	7.02	129.69	120.28
55	Bc	59	ASN	C-N-CA	7.02	129.69	120.28
78	CA	853	G	P-O5'-C5'	-7.02	110.37	120.90
81	DA	1698	C	C1'-O4'-C4'	7.02	116.92	109.90
81	DA	2762	A	P-O3'-C3'	7.02	130.73	120.20
11	AJ	77	LYS	N-CA-C	-7.02	103.21	114.09
59	Bh	5	PRO	CA-C-N	7.02	128.87	120.09
59	Bh	5	PRO	C-N-CA	7.02	128.87	120.09
81	DA	635	G	O3'-P-O5'	7.02	114.53	104.00
81	DA	938	C	O3'-P-O5'	-7.02	93.47	104.00
81	DA	1708	C	O4'-C1'-C2'	-7.02	100.58	107.60
81	DA	2099	A	N9-C1'-C2'	7.02	122.53	112.00
83	DC	38	U	O4'-C1'-N1	7.02	119.03	108.50
78	CA	190	C	O4'-C1'-C2'	-7.02	100.58	107.60
81	DA	2724	U	P-O3'-C3'	-7.02	109.67	120.20
26	AZ	5	HIS	CB-CG-CD2	7.02	140.32	131.20
33	BD	74	ILE	O-C-N	-7.02	116.81	121.72
36	BF	93	VAL	N-CA-C	-7.02	98.01	108.12
78	CA	447	U	P-O5'-C5'	7.02	131.43	120.90
78	CA	1388	A	C2'-C3'-O3'	7.02	120.03	109.50
81	DA	1995	A	O4'-C1'-C2'	-7.02	100.58	107.60
83	DC	31	U	O4'-C1'-N1	7.02	119.03	108.50
22	AV	37	GLN	N-CA-CB	7.02	120.29	110.26
78	CA	462	G	O4'-C1'-N9	7.02	119.02	108.50
78	CA	678	A	C3'-C2'-C1'	7.02	108.32	101.30
66	Bo	34	THR	N-CA-CB	7.01	122.34	110.49
78	CA	646	C	C3'-C2'-C1'	-7.01	94.29	101.30
81	DA	2646	C	C4'-C3'-C2'	7.01	109.61	102.60
81	DA	3309	G	O4'-C1'-N9	7.01	119.02	108.50
83	DC	17	A	C4'-C3'-C2'	7.01	109.61	102.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Aa	157	VAL	N-CA-C	-7.01	99.78	108.05
5	AC	23	ARG	CA-C-N	7.01	129.68	120.28
5	AC	23	ARG	C-N-CA	7.01	129.68	120.28
5	AC	161	THR	N-CA-C	-7.01	95.87	110.80
36	BF	47	LYS	N-CA-CB	7.01	122.11	110.47
81	DA	782	U	O4'-C1'-C2'	-7.01	100.59	107.60
81	DA	1363	A	N9-C1'-C2'	7.01	122.52	112.00
81	DA	2067	U	C4'-C3'-C2'	-7.01	95.59	102.60
20	AS	96	ALA	N-CA-CB	7.01	122.34	110.49
55	Bc	108	GLN	CB-CG-CD	-7.01	100.69	112.60
81	DA	2114	C	C4'-C3'-O3'	7.01	123.52	113.00
81	DA	2520	A	C1'-O4'-C4'	7.01	116.91	109.90
59	Bh	38	ILE	N-CA-CB	7.01	118.57	110.65
76	BS	51	LYS	N-CA-C	7.01	118.81	111.03
78	CA	1576	A	C1'-O4'-C4'	7.01	116.91	109.90
46	BT	139	VAL	CB-CA-C	7.01	121.60	112.14
78	CA	588	U	C4'-C3'-C2'	-7.01	95.59	102.60
81	DA	2760	C	C4'-C3'-O3'	7.01	123.51	113.00
81	DA	2928	C	O4'-C1'-N1	7.01	119.01	108.50
82	DB	55	U	O4'-C1'-N1	7.01	119.01	108.50
30	BA	42	ASP	N-CA-C	-7.00	98.19	109.40
36	BF	65	VAL	CB-CA-C	-7.00	102.69	112.14
66	Bo	8	ARG	CA-C-N	7.00	129.38	120.56
66	Bo	8	ARG	C-N-CA	7.00	129.38	120.56
78	CA	1691	A	C5'-C4'-C3'	7.00	126.50	116.00
81	DA	9	U	C5'-C4'-C3'	7.00	126.51	116.00
81	DA	2100	A	O5'-C5'-C4'	-7.00	101.19	111.70
81	DA	2242	A	C3'-C2'-C1'	7.00	108.30	101.30
78	CA	1095	U	P-O5'-C5'	7.00	131.40	120.90
81	DA	458	U	N1-C1'-C2'	7.00	122.50	112.00
81	DA	637	C	C4'-C3'-O3'	7.00	123.50	113.00
81	DA	1429	G	C2'-C3'-O3'	7.00	120.00	109.50
81	DA	2800	G	C1'-O4'-C4'	7.00	116.90	109.90
13	AL	87	VAL	N-CA-C	-7.00	93.76	108.88
62	Bk	84	LYS	CA-C-N	7.00	130.36	120.28
62	Bk	84	LYS	C-N-CA	7.00	130.36	120.28
83	DC	17	A	O5'-C5'-C4'	7.00	122.00	111.50
78	CA	1424	A	P-O3'-C3'	7.00	130.70	120.20
81	DA	697	A	O4'-C1'-C2'	-7.00	100.60	107.60
81	DA	804	C	O4'-C1'-C2'	-7.00	100.60	107.60
19	AR	76	VAL	N-CA-CB	7.00	118.74	110.55
37	BH	225	LYS	N-CA-C	-7.00	99.88	109.95

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
47	BU	33	VAL	N-CA-C	-7.00	98.08	108.85
78	CA	1393	C	C4'-C3'-O3'	7.00	123.50	113.00
78	CA	1491	U	O3'-P-O5'	-7.00	93.50	104.00
81	DA	1630	U	O4'-C1'-N1	7.00	119.00	108.50
81	DA	3258	U	O4'-C1'-C2'	-7.00	100.60	107.60
1	Aa	59	ARG	O-C-N	-7.00	115.94	123.42
2	AA	225	GLU	CA-C-N	7.00	131.86	121.72
2	AA	225	GLU	C-N-CA	7.00	131.86	121.72
4	AD	120	SER	N-CA-CB	7.00	120.99	110.22
4	AD	126	VAL	O-C-N	-7.00	114.97	122.45
4	AD	194	THR	N-CA-CB	7.00	121.95	110.69
13	AL	16	ARG	CA-C-N	7.00	130.04	120.46
13	AL	16	ARG	C-N-CA	7.00	130.04	120.46
32	BC	249	VAL	N-CA-CB	-7.00	99.56	112.43
6	AE	56	ILE	CA-CB-CG2	-6.99	98.61	110.50
16	AO	122	ILE	N-CA-C	6.99	117.75	110.62
37	BH	61	GLN	O-C-N	-6.99	113.29	122.59
78	CA	202	A	C3'-C2'-C1'	6.99	108.29	101.30
78	CA	644	C	O4'-C1'-C2'	-6.99	100.61	107.60
32	BC	382	THR	N-CA-CB	6.99	122.31	110.49
57	Be	20	GLN	N-CA-CB	6.99	120.99	110.22
81	DA	756	U	C3'-C2'-C1'	6.99	108.29	101.30
81	DA	902	G	P-O3'-C3'	6.99	130.69	120.20
8	AF	30	PRO	N-CA-C	6.99	126.87	112.47
18	AP	55	ASP	CA-C-N	-6.99	108.19	121.54
18	AP	55	ASP	C-N-CA	-6.99	108.19	121.54
79	CB	8	U	O4'-C1'-C2'	-6.99	100.61	107.60
81	DA	1972	A	O4'-C1'-N9	6.99	118.99	108.50
81	DA	2626	A	C5'-C4'-C3'	6.99	126.49	116.00
37	BH	62	LYS	CA-C-N	6.99	134.89	121.54
37	BH	62	LYS	C-N-CA	6.99	134.89	121.54
78	CA	503	G	P-O3'-C3'	6.99	130.68	120.20
81	DA	957	C	O4'-C1'-C2'	-6.99	100.61	107.60
81	DA	1272	C	O4'-C1'-C2'	-6.99	100.61	107.60
81	DA	2478	C	N1-C1'-C2'	6.99	122.48	112.00
81	DA	2756	C	O4'-C1'-C2'	-6.99	100.61	107.60
83	DC	21	G	O4'-C1'-N9	6.99	118.98	108.50
13	AL	36	THR	N-CA-C	-6.99	99.65	108.45
22	AV	88	ILE	CA-C-O	-6.99	113.44	120.85
41	BN	100	ALA	CA-C-N	6.99	134.88	121.54
41	BN	100	ALA	C-N-CA	6.99	134.88	121.54
78	CA	1449	U	O4'-C1'-C2'	-6.99	100.61	107.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1764	C	N1-C1'-C2'	6.99	122.48	112.00
81	DA	2227	C	O4'-C1'-C2'	-6.99	100.61	107.60
81	DA	3148	U	C5'-C4'-C3'	-6.99	105.52	116.00
83	DC	48	U	O5'-C5'-C4'	6.99	121.98	111.50
8	AF	35	GLN	CB-CA-C	-6.98	99.95	111.68
16	AO	76	LYS	CB-CA-C	-6.98	98.98	110.85
35	BG	43	LEU	CB-CA-C	-6.98	99.87	110.90
63	Bm	11	THR	CA-C-N	6.98	128.93	120.13
63	Bm	11	THR	C-N-CA	6.98	128.93	120.13
81	DA	800	G	O4'-C1'-N9	6.98	118.68	108.20
81	DA	2863	G	N9-C1'-C2'	6.98	122.48	112.00
81	DA	3232	G	O4'-C1'-N9	6.98	118.98	108.50
82	DB	158	U	O4'-C1'-N1	6.98	118.98	108.50
2	AA	92	HIS	CA-C-O	-6.98	113.49	120.82
17	AQ	60	ARG	CB-CA-C	-6.98	100.21	110.96
32	BC	174	LYS	N-CA-C	6.98	121.55	112.89
46	BT	64	ARG	CB-CA-C	-6.98	99.20	110.79
52	BY	20	PHE	N-CA-CB	6.98	120.11	109.91
76	BS	65	GLU	CA-C-N	6.98	134.54	121.97
76	BS	65	GLU	C-N-CA	6.98	134.54	121.97
78	CA	220	A	O4'-C1'-C2'	-6.98	100.62	107.60
81	DA	1989	U	O4'-C1'-N1	6.98	118.97	108.50
81	DA	2963	C	C4'-C3'-C2'	-6.98	95.62	102.60
22	AV	29	LYS	N-CA-CB	6.98	122.29	110.49
81	DA	1207	G	O4'-C1'-N9	-6.98	94.54	108.50
81	DA	1457	U	N1-C1'-C2'	6.98	122.47	112.00
81	DA	2043	U	O4'-C1'-C2'	-6.98	100.62	107.60
83	DC	53	U	C3'-C2'-C1'	6.98	108.28	101.30
1	Aa	142	ALA	N-CA-C	6.98	118.68	111.14
3	AB	141	LYS	N-CA-CB	6.98	122.28	110.49
78	CA	152	U	O4'-C1'-C2'	-6.98	100.62	107.60
78	CA	1434	U	N1-C1'-C2'	6.98	122.47	112.00
81	DA	626	U	O4'-C1'-C2'	-6.98	100.62	107.60
82	DB	103	G	C4'-C3'-O3'	-6.98	102.53	113.00
6	AE	73	LEU	CA-C-O	-6.98	110.60	120.16
11	AJ	23	ARG	NE-CZ-NH2	-6.98	112.92	119.20
78	CA	1068	C	O4'-C1'-N1	6.98	118.97	108.50
81	DA	2130	G	O3'-P-O5'	6.98	114.47	104.00
81	DA	3334	U	O4'-C1'-C2'	-6.98	98.82	105.80
20	AS	3	GLY	CA-C-O	6.98	128.05	120.66
81	DA	813	G	P-O3'-C3'	6.98	130.66	120.20
81	DA	2675	C	O4'-C1'-C2'	-6.98	100.62	107.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	BD	2	SER	N-CA-C	-6.97	98.42	109.23
40	BK	64	PHE	N-CA-C	-6.97	99.55	110.36
78	CA	886	U	C3'-C2'-C1'	-6.97	94.33	101.30
78	CA	1188	G	N9-C1'-C2'	6.97	122.46	112.00
81	DA	520	U	N1-C1'-C2'	6.97	122.46	112.00
81	DA	3220	G	C1'-C2'-O2'	-6.97	97.94	108.40
16	AO	38	VAL	CA-C-N	6.97	130.91	120.31
16	AO	38	VAL	C-N-CA	6.97	130.91	120.31
16	AO	84	ILE	CA-C-N	6.97	127.14	120.31
16	AO	84	ILE	C-N-CA	6.97	127.14	120.31
81	DA	2969	A	O3'-P-O5'	6.97	114.46	104.00
42	BM	122	CYS	CB-CA-C	-6.97	99.00	110.85
81	DA	1647	A	C3'-C2'-C1'	6.97	108.27	101.30
81	DA	1827	C	O4'-C1'-C2'	-6.97	100.63	107.60
81	DA	2181	C	O4'-C1'-N1	6.97	118.95	108.50
81	DA	2337	C	N1-C1'-C2'	6.97	122.45	112.00
11	AJ	91	ILE	N-CA-CB	6.97	120.68	111.90
78	CA	469	C	C1'-O4'-C4'	6.97	116.87	109.90
81	DA	2504	U	O4'-C1'-N1	6.97	118.95	108.50
44	BO	79	TRP	CA-C-N	6.97	132.50	122.40
44	BO	79	TRP	C-N-CA	6.97	132.50	122.40
50	BX	35	PRO	CA-N-CD	-6.97	102.25	112.00
57	Be	23	ALA	N-CA-C	6.97	118.87	111.28
65	Bn	66	ILE	CA-C-N	6.97	129.50	120.44
65	Bn	66	ILE	C-N-CA	6.97	129.50	120.44
78	CA	852	C	C3'-C2'-C1'	6.97	108.27	101.30
78	CA	1161	C	C3'-C2'-C1'	6.97	108.27	101.30
78	CA	1501	C	P-O5'-C5'	6.97	131.35	120.90
81	DA	2346	C	O4'-C1'-C2'	-6.97	100.63	107.60
81	DA	2531	C	O4'-C4'-C3'	-6.97	97.03	104.00
3	AB	181	VAL	CB-CA-C	-6.96	101.67	111.21
81	DA	1542	G	O4'-C1'-N9	6.96	118.95	108.50
81	DA	2493	U	C1'-C2'-O2'	-6.96	101.35	111.80
81	DA	3219	G	P-O3'-C3'	6.96	130.65	120.20
81	DA	3359	A	P-O5'-C5'	6.96	131.35	120.90
81	DA	1661	G	P-O3'-C3'	6.96	130.64	120.20
5	AC	3	ARG	O-C-N	-6.96	113.33	122.59
49	BV	122	ALA	CA-C-N	6.96	127.13	120.31
49	BV	122	ALA	C-N-CA	6.96	127.13	120.31
81	DA	957	C	C3'-C2'-C1'	6.96	108.26	101.30
81	DA	1869	C	N1-C1'-C2'	6.96	122.44	112.00
29	AU	91	LEU	CA-C-N	6.96	130.00	120.46

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
29	AU	91	LEU	C-N-CA	6.96	130.00	120.46
78	CA	1596	C	O4'-C1'-C2'	-6.96	100.64	107.60
79	CB	1	U	P-O3'-C3'	6.96	130.64	120.20
81	DA	661	G	N9-C1'-C2'	-6.96	103.56	114.00
81	DA	1314	C	P-O5'-C5'	6.96	131.34	120.90
31	BB	142	ASP	CA-CB-CG	-6.96	105.64	112.60
58	Bg	26	LYS	N-CA-CB	6.96	120.35	110.12
58	Bg	97	LEU	CA-C-N	6.96	129.99	120.46
58	Bg	97	LEU	C-N-CA	6.96	129.99	120.46
78	CA	1602	C	N1-C1'-C2'	6.96	122.44	112.00
16	AO	104	ARG	NE-CZ-NH2	-6.96	112.94	119.20
81	DA	1234	G	C1'-O4'-C4'	-6.96	102.94	109.90
81	DA	2515	A	P-O3'-C3'	6.96	130.63	120.20
81	DA	2967	A	O3'-P-O5'	-6.96	93.57	104.00
56	Bf	61	MET	CA-C-N	6.96	129.60	120.28
56	Bf	61	MET	C-N-CA	6.96	129.60	120.28
3	AB	205	ALA	CA-C-N	-6.95	112.81	122.69
3	AB	205	ALA	C-N-CA	-6.95	112.81	122.69
6	AE	108	ASN	CB-CG-ND2	6.95	126.83	116.40
38	Bs	243	TYR	CB-CG-CD2	-6.95	110.37	120.80
47	BU	56	PHE	CB-CA-C	6.95	124.02	110.67
69	Br	97	LYS	N-CA-CB	6.95	122.24	110.49
74	BQ	159	VAL	CB-CA-C	-6.95	99.89	111.29
35	BG	124	GLU	N-CA-CB	6.95	120.34	110.12
40	BK	178	VAL	CA-C-N	-6.95	108.26	121.54
40	BK	178	VAL	C-N-CA	-6.95	108.26	121.54
74	BQ	128	GLU	CB-CA-C	-6.95	95.13	109.94
78	CA	302	U	O4'-C1'-N1	6.95	118.93	108.50
78	CA	1666	U	C1'-O4'-C4'	6.95	116.85	109.90
81	DA	2176	U	O3'-P-O5'	-6.95	93.57	104.00
81	DA	2279	A	C2'-C3'-O3'	6.95	119.93	109.50
13	AL	123	LYS	O-C-N	-6.95	113.34	122.59
32	BC	290	ASP	N-CA-C	-6.95	95.99	110.80
78	CA	151	G	C1'-O4'-C4'	-6.95	102.95	109.90
81	DA	1034	U	N1-C1'-C2'	6.95	122.43	112.00
81	DA	2698	G	C4'-C3'-C2'	-6.95	95.65	102.60
81	DA	3321	C	P-O3'-C3'	6.95	130.63	120.20
47	BU	135	PRO	CA-N-CD	-6.95	102.27	112.00
78	CA	453	U	O4'-C1'-N1	6.95	118.62	108.20
78	CA	1476	C	P-O5'-C5'	6.95	131.32	120.90
81	DA	1297	C	O4'-C4'-C3'	-6.95	97.05	104.00
81	DA	2480	A	C5'-C4'-C3'	6.95	125.62	115.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3375	A	O4'-C1'-C2'	-6.95	100.65	107.60
13	AL	10	ASN	N-CA-C	-6.95	102.34	111.02
81	DA	449	U	O4'-C1'-N1	6.95	118.92	108.50
81	DA	969	C	O3'-P-O5'	-6.95	93.58	104.00
74	BQ	193	GLU	CA-C-N	6.95	130.15	120.29
74	BQ	193	GLU	C-N-CA	6.95	130.15	120.29
63	Bm	73	THR	N-CA-C	-6.94	99.16	108.74
78	CA	368	U	C1'-C2'-O2'	6.94	118.82	108.40
46	BT	105	LEU	N-CA-CB	6.94	120.33	110.12
48	BW	32	SER	CA-C-N	6.94	129.88	120.44
48	BW	32	SER	C-N-CA	6.94	129.88	120.44
79	CB	13	U	P-O5'-C5'	-6.94	110.49	120.90
79	CB	56	A	C5'-C4'-C3'	-6.94	105.59	116.00
81	DA	1948	G	C5'-C4'-O4'	-6.94	99.39	109.80
81	DA	3311	C	P-O3'-C3'	6.94	130.61	120.20
37	BH	223	ALA	N-CA-CB	-6.94	98.87	110.39
78	CA	157	A	O4'-C1'-C2'	-6.94	100.66	107.60
81	DA	2646	C	O3'-P-O5'	-6.94	93.59	104.00
78	CA	683	C	C5'-C4'-O4'	-6.94	99.39	109.80
78	CA	1439	C	P-O3'-C3'	-6.94	109.79	120.20
81	DA	1571	A	C1'-O4'-C4'	6.94	116.84	109.90
81	DA	3149	G	O3'-P-O5'	-6.94	93.59	104.00
82	DB	134	G	O4'-C1'-N9	6.94	118.91	108.50
61	Bj	5	HIS	N-CA-C	-6.94	96.03	110.80
78	CA	1476	C	OP1-P-O3'	-6.94	87.19	108.00
81	DA	948	C	O4'-C1'-C2'	-6.94	100.66	107.60
81	DA	1174	G	C1'-O4'-C4'	-6.94	102.96	109.90
5	AC	24	LEU	N-CA-CB	6.93	120.31	110.12
32	BC	306	THR	CA-C-N	6.93	127.11	120.31
32	BC	306	THR	C-N-CA	6.93	127.11	120.31
78	CA	447	U	C1'-O4'-C4'	-6.93	102.97	109.90
81	DA	2607	G	C3'-C2'-C1'	-6.93	94.37	101.30
81	DA	3077	A	C3'-C2'-C1'	6.93	108.23	101.30
83	DC	36	C	N1-C1'-C2'	6.93	122.40	112.00
5	AC	16	LYS	O-C-N	-6.93	113.37	122.59
13	AL	95	PHE	CA-CB-CG	6.93	120.73	113.80
20	AS	45	MET	N-CA-C	6.93	125.13	109.81
31	BB	247	ARG	CA-C-N	6.93	135.00	121.41
31	BB	247	ARG	C-N-CA	6.93	135.00	121.41
40	BK	130	LYS	N-CA-CB	6.93	122.71	110.37
46	BT	84	THR	N-CA-CB	-6.93	100.88	110.38
49	BV	133	HIS	ND1-CE1-NE2	6.93	115.33	108.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
52	BY	90	VAL	N-CA-C	-6.93	103.72	110.72
60	Bi	14	ASN	CA-C-N	6.93	130.06	120.63
60	Bi	14	ASN	C-N-CA	6.93	130.06	120.63
83	DC	98	G	P-O3'-C3'	6.93	130.60	120.20
38	Bs	90	ASN	CA-C-N	6.93	130.08	120.65
38	Bs	90	ASN	C-N-CA	6.93	130.08	120.65
44	BO	7	LYS	N-CA-C	6.93	125.56	110.80
78	CA	1746	A	C1'-O4'-C4'	6.93	116.83	109.90
36	BF	115	ARG	CA-C-N	6.93	131.96	122.19
36	BF	115	ARG	C-N-CA	6.93	131.96	122.19
47	BU	17	ARG	NE-CZ-NH2	6.93	125.44	119.20
81	DA	369	A	C2'-C3'-O3'	6.93	119.89	109.50
81	DA	482	C	O4'-C1'-C2'	-6.93	100.67	107.60
81	DA	962	A	N9-C1'-C2'	-6.93	103.61	114.00
81	DA	1006	A	O3'-P-O5'	-6.93	93.61	104.00
69	Br	89	LYS	N-CA-C	-6.93	96.05	110.80
78	CA	70	C	O4'-C1'-C2'	-6.93	100.67	107.60
81	DA	2293	C	O4'-C1'-C2'	-6.93	100.67	107.60
14	AM	101	LEU	CD1-CG-CD2	6.92	126.04	110.80
20	AS	24	ARG	N-CA-C	6.92	118.83	111.28
37	BH	122	LYS	CA-C-O	-6.92	113.64	121.81
50	BX	47	ALA	CA-C-O	-6.92	112.96	120.92
78	CA	1101	G	O5'-C5'-C4'	6.92	121.89	111.50
20	AS	93	HIS	CA-C-N	6.92	132.21	123.14
20	AS	93	HIS	C-N-CA	6.92	132.21	123.14
57	Be	23	ALA	CB-CA-C	6.92	122.28	110.79
72	Bu	61	PHE	CA-CB-CG	6.92	120.72	113.80
80	CC	20	U	O3'-P-O5'	6.92	114.39	104.00
81	DA	1548	C	O4'-C1'-C2'	-6.92	100.68	107.60
40	BK	127	LEU	N-CA-CB	6.92	122.19	110.49
78	CA	1242	A	P-O3'-C3'	6.92	130.58	120.20
81	DA	2099	A	OP1-P-O3'	-6.92	87.24	108.00
32	BC	52	GLY	N-CA-C	-6.92	96.78	113.18
79	CB	26	G	O4'-C1'-C2'	6.92	114.52	107.60
81	DA	2402	A	O4'-C1'-C2'	-6.92	98.88	105.80
69	Br	100	LYS	CA-C-N	-6.92	107.85	121.41
69	Br	100	LYS	C-N-CA	-6.92	107.85	121.41
78	CA	346	G	O3'-P-O5'	-6.92	93.62	104.00
78	CA	369	A	C1'-O4'-C4'	6.92	116.82	109.90
78	CA	558	U	P-O3'-C3'	6.92	130.58	120.20
78	CA	1189	A	O3'-P-O5'	-6.92	93.62	104.00
78	CA	1321	A	N9-C1'-C2'	-6.92	103.62	114.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1774	C	O4'-C1'-C2'	-6.92	100.68	107.60
81	DA	1818	U	P-O3'-C3'	6.92	130.58	120.20
17	AQ	86	PRO	N-CA-CB	-6.92	97.77	103.30
33	BD	319	LYS	N-CA-CB	6.92	122.18	110.49
74	BQ	258	LYS	N-CA-CB	6.92	122.18	110.49
81	DA	1294	A	C4'-C3'-C2'	-6.92	95.68	102.60
81	DA	1680	G	C4'-C3'-O3'	-6.92	102.62	113.00
81	DA	2895	G	O4'-C1'-C2'	6.92	114.52	107.60
32	BC	349	LYS	N-CA-CB	6.92	122.18	110.49
31	BB	67	TYR	N-CA-C	6.91	125.53	110.80
33	BD	361	HIS	ND1-CE1-NE2	6.91	115.31	108.40
58	Bg	41	LYS	O-C-N	6.91	129.19	122.07
78	CA	1534	G	C5'-C4'-C3'	-6.91	104.83	115.20
81	DA	863	C	N1-C1'-C2'	6.91	122.37	112.00
81	DA	2984	C	O4'-C1'-C2'	-6.91	100.69	107.60
81	DA	3164	C	O4'-C1'-C2'	-6.91	100.69	107.60
21	AT	36	VAL	N-CA-C	-6.91	98.08	108.17
52	BY	25	SER	N-CA-CB	-6.91	99.96	110.12
78	CA	1563	C	C1'-O4'-C4'	-6.91	102.99	109.90
81	DA	2466	G	O4'-C1'-C2'	6.91	114.51	107.60
81	DA	3146	G	C4'-C3'-C2'	-6.91	95.69	102.60
15	AN	39	CYS	CA-C-N	6.91	129.54	120.28
15	AN	39	CYS	C-N-CA	6.91	129.54	120.28
57	Be	31	ALA	CA-C-N	6.91	129.54	120.28
57	Be	31	ALA	C-N-CA	6.91	129.54	120.28
81	DA	843	A	O4'-C1'-C2'	-6.91	100.69	107.60
81	DA	1114	U	N1-C1'-C2'	6.91	122.37	112.00
81	DA	1938	U	O4'-C1'-N1	6.91	118.57	108.20
81	DA	2858	U	C5'-C4'-C3'	-6.91	105.64	116.00
46	BT	85	ARG	CA-C-O	6.91	128.09	120.63
53	Ba	32	GLY	CA-C-N	6.91	132.33	122.24
53	Ba	32	GLY	C-N-CA	6.91	132.33	122.24
74	BQ	71	GLY	N-CA-C	-6.91	101.25	110.58
78	CA	152	U	O4'-C1'-N1	6.91	118.86	108.50
78	CA	1260	U	O4'-C1'-C2'	-6.91	100.69	107.60
81	DA	1549	U	O3'-P-O5'	-6.91	93.64	104.00
81	DA	1882	G	O4'-C1'-C2'	6.91	114.51	107.60
81	DA	3235	C	P-O5'-C5'	6.91	131.26	120.90
83	DC	107	G	O3'-P-O5'	6.91	114.36	104.00
78	CA	1761	U	C1'-C2'-O2'	-6.91	101.44	111.80
81	DA	2246	G	C5'-C4'-C3'	-6.91	105.64	116.00
81	DA	2952	G	O4'-C1'-C2'	6.91	114.51	107.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
82	DB	29	U	P-O5'-C5'	6.91	131.26	120.90
6	AE	43	ARG	N-CA-C	6.91	125.51	110.80
37	BH	61	GLN	N-CA-CB	6.91	122.16	110.49
49	BV	94	LEU	CA-C-N	6.91	130.09	120.29
49	BV	94	LEU	C-N-CA	6.91	130.09	120.29
55	Bc	86	ARG	N-CA-C	6.91	125.51	110.80
79	CB	75	A	N9-C1'-C2'	-6.91	103.64	114.00
81	DA	1364	C	O4'-C1'-C2'	-6.91	100.69	107.60
81	DA	2592	G	P-O3'-C3'	6.91	130.56	120.20
6	AE	236	PRO	CA-C-N	6.90	134.40	121.97
6	AE	236	PRO	C-N-CA	6.90	134.40	121.97
63	Bm	41	PHE	CA-CB-CG	6.90	120.70	113.80
35	BG	27	PRO	N-CA-C	-6.90	98.25	112.47
44	BO	63	LYS	CA-C-N	6.90	130.09	120.29
44	BO	63	LYS	C-N-CA	6.90	130.09	120.29
78	CA	217	A	C4'-C3'-C2'	-6.90	95.70	102.60
81	DA	637	C	N1-C1'-C2'	6.90	122.35	112.00
81	DA	1881	A	O4'-C1'-C2'	-6.90	100.70	107.60
81	DA	2705	A	P-O3'-C3'	6.90	130.55	120.20
78	CA	1090	C	O3'-P-O5'	-6.90	93.65	104.00
81	DA	643	U	N1-C1'-C2'	6.90	122.35	112.00
78	CA	88	U	C4'-C3'-C2'	-6.90	95.70	102.60
14	AM	7	GLU	CA-C-N	6.90	134.72	121.54
14	AM	7	GLU	C-N-CA	6.90	134.72	121.54
24	AX	63	LEU	N-CA-C	-6.90	96.11	110.80
39	BJ	121	PHE	N-CA-CB	-6.90	99.68	110.30
79	CB	44	A	P-O3'-C3'	6.90	130.55	120.20
81	DA	353	G	O4'-C1'-N9	6.90	118.55	108.20
81	DA	375	A	C1'-O4'-C4'	6.90	116.80	109.90
81	DA	1865	A	O4'-C1'-C2'	-6.90	100.70	107.60
81	DA	1963	G	P-O5'-C5'	6.90	131.25	120.90
81	DA	2167	A	N9-C1'-C2'	6.90	122.34	112.00
81	DA	2940	A	O3'-P-O5'	6.90	114.35	104.00
31	BB	112	ILE	CB-CA-C	6.90	121.61	111.33
33	BD	354	VAL	CB-CA-C	-6.90	99.98	111.29
41	BN	2	SER	CA-C-N	-6.90	108.37	121.54
41	BN	2	SER	C-N-CA	-6.90	108.37	121.54
2	AA	34	GLU	O-C-N	-6.89	114.16	120.92
20	AS	115	GLU	N-CA-C	-6.89	98.83	109.52
31	BB	245	LEU	CA-C-N	-6.89	108.37	121.54
31	BB	245	LEU	C-N-CA	-6.89	108.37	121.54
32	BC	250	ALA	N-CA-C	6.89	118.59	111.14

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
53	Ba	17	ARG	N-CA-CB	6.89	122.14	110.49
78	CA	68	A	C1'-O4'-C4'	-6.89	103.00	109.90
81	DA	1625	A	N9-C1'-C2'	6.89	122.34	112.00
81	DA	1753	G	O4'-C1'-C2'	-6.89	100.70	107.60
81	DA	3020	U	O4'-C1'-N1	6.89	118.84	108.50
82	DB	137	C	O4'-C1'-C2'	-6.89	100.71	107.60
5	AC	133	HIS	CE1-NE2-CD2	-6.89	102.11	109.00
34	BE	152	HIS	ND1-CE1-NE2	6.89	115.29	108.40
76	BS	112	MET	CA-C-O	6.89	127.86	120.55
78	CA	948	G	N9-C1'-C2'	6.89	122.34	112.00
78	CA	1458	G	C3'-C2'-C1'	-6.89	94.41	101.30
81	DA	169	U	O4'-C1'-N1	6.89	118.84	108.50
81	DA	266	A	O4'-C1'-N9	6.89	118.84	108.50
81	DA	1648	A	O4'-C1'-N9	6.89	118.84	108.50
43	BP	140	LYS	N-CA-CB	6.89	120.96	110.28
52	BY	51	ARG	CA-C-O	-6.89	113.50	121.49
78	CA	406	U	N1-C1'-C2'	6.89	122.34	112.00
78	CA	1623	C	N1-C1'-C2'	6.89	122.34	112.00
81	DA	750	G	C2'-C3'-O3'	6.89	124.04	113.70
11	AJ	69	LYS	N-CA-C	6.89	119.64	108.34
31	BB	25	GLY	CA-C-N	6.89	134.89	121.66
31	BB	25	GLY	C-N-CA	6.89	134.89	121.66
34	BE	164	LYS	N-CA-CB	6.89	120.83	110.22
44	BO	96	LYS	CA-C-N	6.89	134.70	121.54
44	BO	96	LYS	C-N-CA	6.89	134.70	121.54
52	BY	10	SER	N-CA-CB	6.89	122.13	110.49
60	Bi	109	THR	CA-C-N	6.89	130.48	123.04
60	Bi	109	THR	C-N-CA	6.89	130.48	123.04
81	DA	1336	U	O3'-P-O5'	-6.89	93.67	104.00
74	BQ	184	ASP	CA-CB-CG	6.89	119.49	112.60
78	CA	386	G	O3'-P-O5'	6.89	114.33	104.00
81	DA	990	U	O3'-P-O5'	-6.89	93.67	104.00
6	AE	25	ARG	O-C-N	6.89	129.53	122.09
10	AI	138	PHE	CA-CB-CG	6.89	120.69	113.80
49	BV	71	ALA	N-CA-CB	6.89	120.24	110.12
74	BQ	211	LEU	N-CA-CB	6.89	120.09	109.97
78	CA	1622	G	O4'-C1'-N9	6.89	118.83	108.50
81	DA	492	U	O4'-C1'-C2'	-6.89	100.71	107.60
83	DC	48	U	C3'-C2'-O2'	6.89	121.03	110.70
20	AS	53	TRP	CB-CG-CD1	-6.88	116.57	126.90
51	BZ	58	HIS	CE1-NE2-CD2	-6.88	102.11	109.00
78	CA	461	G	O3'-P-O5'	-6.88	93.67	104.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	960	U	N1-C1'-C2'	-6.88	101.67	112.00
81	DA	654	C	N1-C1'-C2'	6.88	122.33	112.00
81	DA	1234	G	C4'-C3'-O3'	-6.88	102.67	113.00
81	DA	1562	C	O4'-C1'-C2'	-6.88	100.72	107.60
83	DC	31	U	N1-C1'-C2'	-6.88	101.67	112.00
32	BC	104	THR	N-CA-CB	6.88	123.59	111.13
38	Bs	189	GLN	N-CA-C	6.88	119.02	108.42
18	AP	84	ILE	O-C-N	-6.88	115.64	123.00
25	AY	27	GLN	OE1-CD-NE2	6.88	129.48	122.60
74	BQ	255	PRO	N-CA-C	-6.88	104.55	113.57
78	CA	1339	C	C1'-O4'-C4'	-6.88	103.02	109.90
78	CA	1528	U	C1'-O4'-C4'	6.88	116.78	109.90
81	DA	2684	C	O4'-C1'-C2'	-6.88	100.72	107.60
81	DA	3149	G	O4'-C4'-C3'	-6.88	97.12	104.00
1	Aa	208	GLY	CA-C-N	6.88	130.06	120.29
1	Aa	208	GLY	C-N-CA	6.88	130.06	120.29
78	CA	96	G	P-O3'-C3'	6.88	130.52	120.20
81	DA	1717	U	O4'-C1'-N1	6.88	118.52	108.20
74	BQ	60	ILE	CA-CB-CG1	6.88	122.09	110.40
78	CA	886	U	C2'-C3'-O3'	6.88	124.02	113.70
81	DA	1795	U	N1-C1'-C2'	-6.88	103.68	114.00
81	DA	2644	C	C1'-O4'-C4'	6.88	116.58	109.70
81	DA	3256	G	N9-C1'-C2'	6.88	122.32	112.00
1	Aa	69	GLN	CB-CG-CD	-6.88	100.91	112.60
5	AC	168	ARG	CB-CA-C	-6.88	96.62	110.17
50	BX	23	ALA	CA-C-N	6.88	134.68	121.54
50	BX	23	ALA	C-N-CA	6.88	134.68	121.54
61	Bj	85	PHE	O-C-N	6.88	131.66	123.27
72	Bu	44	ILE	O-C-N	6.88	128.54	121.87
78	CA	1542	G	N9-C1'-C2'	-6.88	103.68	114.00
81	DA	2001	U	O4'-C1'-N1	6.88	118.82	108.50
81	DA	3063	C	C3'-C2'-C1'	6.88	108.38	101.50
74	BQ	187	THR	CA-C-N	6.88	134.07	121.70
74	BQ	187	THR	C-N-CA	6.88	134.07	121.70
78	CA	288	A	P-O3'-C3'	6.88	130.51	120.20
78	CA	1332	C	N1-C1'-C2'	6.88	122.31	112.00
78	CA	1611	A	O4'-C1'-C2'	-6.88	100.72	107.60
14	AM	44	ASN	CA-C-N	6.87	129.49	120.28
14	AM	44	ASN	C-N-CA	6.87	129.49	120.28
32	BC	289	ASP	CB-CA-C	-6.87	97.49	109.86
78	CA	868	G	O4'-C1'-C2'	6.87	114.47	107.60
78	CA	1612	U	O4'-C1'-C2'	-6.87	100.73	107.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	419	G	C1'-O4'-C4'	6.87	116.77	109.90
81	DA	1754	G	O5'-C5'-C4'	6.87	121.81	111.50
81	DA	1794	G	N9-C1'-C2'	-6.87	103.69	114.00
42	BM	87	ARG	CA-C-N	6.87	130.05	120.29
42	BM	87	ARG	C-N-CA	6.87	130.05	120.29
65	Bn	71	PRO	CA-N-CD	-6.87	102.38	112.00
78	CA	650	U	O5'-C5'-C4'	6.87	121.81	111.50
78	CA	1649	G	N9-C1'-C2'	-6.87	101.69	112.00
81	DA	736	A	O3'-P-O5'	-6.87	93.69	104.00
81	DA	1826	C	O4'-C4'-C3'	-6.87	97.13	104.00
81	DA	2898	G	C3'-C2'-C1'	6.87	108.17	101.30
49	BV	167	ARG	O-C-N	-6.87	113.45	122.59
1	Aa	212	ALA	N-CA-CB	6.87	121.63	110.43
81	DA	1972	A	C4'-C3'-C2'	-6.87	95.73	102.60
81	DA	3093	C	P-O3'-C3'	6.87	130.50	120.20
16	AO	110	ASP	CA-C-N	6.87	134.66	121.54
16	AO	110	ASP	C-N-CA	6.87	134.66	121.54
38	Bs	19	LEU	N-CA-CB	6.87	120.22	110.12
81	DA	479	U	P-O3'-C3'	6.87	130.50	120.20
81	DA	2857	C	N1-C1'-C2'	6.87	122.30	112.00
14	AM	12	GLN	CG-CD-NE2	6.87	126.70	116.40
81	DA	997	A	N9-C1'-C2'	-6.87	101.70	112.00
81	DA	2181	C	C5'-C4'-O4'	-6.87	99.50	109.80
1	Aa	219	GLU	CA-C-N	6.86	132.53	123.06
1	Aa	219	GLU	C-N-CA	6.86	132.53	123.06
5	AC	62	ARG	N-CA-C	6.86	118.41	111.07
17	AQ	129	ASP	CA-C-N	-6.86	108.45	121.15
17	AQ	129	ASP	C-N-CA	-6.86	108.45	121.15
17	AQ	134	LYS	CA-C-N	6.86	134.65	121.54
17	AQ	134	LYS	C-N-CA	6.86	134.65	121.54
33	BD	103	THR	N-CA-C	-6.86	96.18	110.80
43	BP	7	LEU	CA-C-N	6.86	129.36	120.44
43	BP	7	LEU	C-N-CA	6.86	129.36	120.44
45	BR	106	PHE	N-CA-C	-6.86	98.88	109.24
78	CA	1755	A	O4'-C1'-C2'	6.86	114.46	107.60
81	DA	554	A	N9-C1'-C2'	6.86	122.29	112.00
81	DA	1591	G	P-O3'-C3'	6.86	130.50	120.20
81	DA	2013	C	C5'-C4'-C3'	-6.86	105.70	116.00
33	BD	257	LYS	CA-C-N	6.86	130.16	120.28
33	BD	257	LYS	C-N-CA	6.86	130.16	120.28
37	BH	172	LYS	O-C-N	6.86	129.97	122.15
78	CA	377	G	N9-C1'-C2'	-6.86	103.71	114.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3236	U	O3'-P-O5'	-6.86	93.71	104.00
83	DC	92	A	O3'-P-O5'	6.86	114.29	104.00
16	AO	53	LEU	CA-C-O	6.86	127.69	120.42
21	AT	58	TYR	CB-CA-C	6.86	121.65	110.88
29	AU	29	HIS	CB-CA-C	-6.86	96.65	110.17
76	BS	122	CYS	CB-CA-C	-6.86	99.04	110.29
81	DA	665	A	C4'-C3'-O3'	-6.86	102.71	113.00
81	DA	3023	U	O4'-C1'-C2'	-6.86	100.74	107.60
39	BJ	118	ASP	N-CA-C	6.86	118.84	111.36
78	CA	1297	G	C3'-C2'-C1'	-6.86	94.44	101.30
81	DA	2768	U	O4'-C1'-N1	6.86	118.79	108.50
9	AH	25	VAL	CA-C-O	-6.86	112.95	121.11
48	BW	96	VAL	CA-C-N	6.86	134.64	121.54
48	BW	96	VAL	C-N-CA	6.86	134.64	121.54
65	Bn	6	THR	N-CA-C	6.86	120.12	111.69
81	DA	1897	G	P-O3'-C3'	6.86	130.49	120.20
66	Bo	44	TRP	N-CA-C	6.86	118.44	110.97
78	CA	1681	A	C5'-C4'-C3'	6.86	126.28	116.00
81	DA	1006	A	C5'-C4'-O4'	6.86	120.08	109.80
81	DA	2699	G	C1'-O4'-C4'	-6.86	103.04	109.90
81	DA	2700	G	P-O3'-C3'	6.86	130.48	120.20
81	DA	3099	C	P-O3'-C3'	6.86	130.48	120.20
2	AA	87	LEU	CB-CA-C	-6.85	99.41	110.79
9	AH	117	ARG	O-C-N	6.85	129.38	122.12
78	CA	1336	A	O4'-C1'-C2'	-6.85	100.75	107.60
81	DA	888	A	O4'-C1'-C2'	-6.85	100.75	107.60
49	BV	105	LYS	CA-C-N	6.85	132.02	122.29
49	BV	105	LYS	C-N-CA	6.85	132.02	122.29
81	DA	304	G	O4'-C1'-N9	6.85	118.48	108.20
81	DA	637	C	C1'-C2'-O2'	-6.85	98.12	108.40
81	DA	742	G	N9-C1'-C2'	-6.85	101.72	112.00
81	DA	3258	U	C1'-O4'-C4'	6.85	116.75	109.90
13	AL	22	ASN	N-CA-CB	6.85	120.77	110.22
68	Bq	15	ARG	N-CA-CB	6.85	120.41	110.20
42	BM	46	LEU	N-CA-CB	6.85	120.04	109.97
78	CA	412	A	O4'-C1'-C2'	-6.85	100.75	107.60
78	CA	868	G	O3'-P-O5'	-6.85	93.73	104.00
78	CA	1437	U	C5'-C4'-O4'	-6.85	99.53	109.80
81	DA	1081	U	N1-C1'-C2'	6.85	122.27	112.00
81	DA	1151	U	N1-C1'-C2'	6.85	122.28	112.00
35	BG	164	SER	CA-C-N	6.85	129.34	120.44
35	BG	164	SER	C-N-CA	6.85	129.34	120.44

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
55	Bc	49	LYS	CB-CA-C	-6.85	99.21	110.85
81	DA	2284	C	C3'-C2'-C1'	6.85	108.15	101.30
40	BK	6	VAL	N-CA-C	6.85	123.58	109.34
42	BM	75	PRO	CA-C-O	-6.85	113.63	122.12
78	CA	361	C	N1-C1'-C2'	6.85	122.27	112.00
81	DA	3097	C	O3'-P-O5'	6.85	114.27	104.00
20	AS	93	HIS	CE1-NE2-CD2	-6.84	102.16	109.00
44	BO	62	HIS	CA-C-N	6.84	134.61	121.54
44	BO	62	HIS	C-N-CA	6.84	134.61	121.54
81	DA	665	A	O4'-C1'-N9	-6.84	98.23	108.50
81	DA	2211	U	C5'-C4'-C3'	6.84	126.27	116.00
81	DA	2707	C	C4'-C3'-C2'	-6.84	95.76	102.60
81	DA	1568	U	O4'-C1'-C2'	-6.84	100.76	107.60
81	DA	1946	A	O3'-P-O5'	-6.84	93.74	104.00
14	AM	119	ILE	N-CA-C	6.84	118.42	110.62
41	BN	22	LEU	N-CA-C	-6.84	98.78	109.72
78	CA	1158	C	P-O5'-C5'	6.84	131.16	120.90
81	DA	737	G	P-O3'-C3'	6.84	130.46	120.20
1	Aa	64	HIS	CE1-NE2-CD2	-6.84	102.16	109.00
2	AA	250	VAL	CA-CB-CG2	6.84	122.03	110.40
78	CA	1133	A	C3'-C2'-C1'	-6.84	94.46	101.30
81	DA	2141	U	O4'-C1'-N1	-6.84	98.24	108.50
81	DA	3234	A	C1'-O4'-C4'	6.84	116.74	109.90
53	Ba	31	GLU	N-CA-CB	6.84	122.05	110.49
78	CA	661	A	O4'-C1'-C2'	-6.84	100.76	107.60
81	DA	3094	A	O3'-P-O5'	-6.84	93.74	104.00
5	AC	7	THR	CA-C-N	6.84	129.33	120.44
5	AC	7	THR	C-N-CA	6.84	129.33	120.44
5	AC	45	ILE	N-CA-C	6.84	117.62	110.72
33	BD	341	SER	O-C-N	6.84	129.11	122.07
35	BG	152	THR	CA-CB-OG1	6.84	119.85	109.60
78	CA	730	G	C4'-C3'-O3'	6.83	120.25	110.00
81	DA	3253	G	C1'-O4'-C4'	-6.83	103.06	109.90
39	BJ	113	ALA	CA-C-O	-6.83	113.31	120.55
53	Ba	22	LYS	CB-CA-C	6.83	121.42	109.80
81	DA	513	G	O4'-C1'-C2'	6.83	114.43	107.60
81	DA	626	U	C4'-C3'-C2'	-6.83	95.77	102.60
81	DA	2377	G	P-O3'-C3'	6.83	130.45	120.20
9	AH	31	SER	CA-C-N	6.83	129.43	120.28
9	AH	31	SER	C-N-CA	6.83	129.43	120.28
38	Bs	53	MET	N-CA-CB	-6.83	99.25	110.52
76	BS	159	ARG	CA-C-N	6.83	127.42	120.38

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
76	BS	159	ARG	C-N-CA	6.83	127.42	120.38
78	CA	276	C	O4'-C1'-C2'	-6.83	100.77	107.60
78	CA	300	A	O4'-C1'-C2'	-6.83	100.77	107.60
78	CA	1479	A	N9-C1'-C2'	-6.83	101.75	112.00
81	DA	2793	G	C5'-C4'-C3'	6.83	126.25	116.00
81	DA	3166	C	P-O5'-C5'	6.83	131.15	120.90
81	DA	1977	C	N1-C1'-C2'	6.83	122.25	112.00
14	AM	22	VAL	CB-CA-C	-6.83	102.60	110.73
31	BB	4	VAL	CA-C-N	6.83	132.02	121.85
31	BB	4	VAL	C-N-CA	6.83	132.02	121.85
35	BG	137	ASP	CA-C-N	6.83	129.74	120.38
35	BG	137	ASP	C-N-CA	6.83	129.74	120.38
44	BO	91	LEU	CA-C-N	6.83	134.58	121.54
44	BO	91	LEU	C-N-CA	6.83	134.58	121.54
48	BW	97	SER	N-CA-CB	-6.83	98.95	110.49
78	CA	852	C	C2'-C3'-O3'	6.83	123.94	113.70
81	DA	203	G	C1'-O4'-C4'	-6.83	103.07	109.90
81	DA	1177	G	N9-C1'-C2'	6.83	124.24	114.00
62	Bk	77	LEU	CA-C-N	6.83	127.56	119.98
62	Bk	77	LEU	C-N-CA	6.83	127.56	119.98
45	BR	48	VAL	N-CA-CB	6.83	119.82	110.54
58	Bg	39	PHE	CA-C-N	6.83	129.43	120.28
58	Bg	39	PHE	C-N-CA	6.83	129.43	120.28
78	CA	1178	G	N9-C1'-C2'	6.83	122.24	112.00
81	DA	1124	U	O4'-C1'-C2'	-6.83	100.77	107.60
81	DA	540	U	P-O3'-C3'	6.82	130.44	120.20
16	AO	49	GLN	CA-C-N	6.82	130.11	120.42
16	AO	49	GLN	C-N-CA	6.82	130.11	120.42
31	BB	187	HIS	CA-CB-CG	6.82	120.62	113.80
47	BU	126	VAL	CB-CA-C	-6.82	103.24	111.97
74	BQ	178	ASN	OD1-CG-ND2	6.82	129.42	122.60
78	CA	893	U	C4'-C3'-C2'	-6.82	95.78	102.60
78	CA	1246	C	N1-C1'-C2'	6.82	122.23	112.00
78	CA	1479	A	P-O5'-C5'	-6.82	110.67	120.90
78	CA	1636	C	O4'-C1'-C2'	-6.82	98.98	105.80
81	DA	222	A	O3'-P-O5'	6.82	114.23	104.00
81	DA	843	A	P-O5'-C5'	-6.82	110.67	120.90
81	DA	3234	A	O4'-C1'-N9	6.82	118.73	108.50
78	CA	70	C	C3'-C2'-C1'	6.82	108.12	101.30
81	DA	1811	G	C1'-O4'-C4'	6.82	116.72	109.90
81	DA	2599	U	O4'-C1'-C2'	-6.82	100.78	107.60
46	BT	143	ILE	CA-CB-CG1	6.82	121.99	110.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
63	Bm	7	LYS	CA-C-N	6.82	134.24	121.97
63	Bm	7	LYS	C-N-CA	6.82	134.24	121.97
81	DA	582	G	C5'-C4'-C3'	-6.82	105.78	116.00
81	DA	1746	U	O4'-C1'-N1	6.82	118.72	108.50
81	DA	2148	U	O4'-C1'-C2'	-6.82	100.78	107.60
81	DA	2188	A	O4'-C1'-C2'	-6.82	100.78	107.60
81	DA	3258	U	N1-C1'-C2'	-6.82	101.78	112.00
78	CA	433	C	O4'-C1'-C2'	-6.81	100.79	107.60
78	CA	671	G	O3'-P-O5'	-6.81	93.78	104.00
81	DA	2443	A	N9-C1'-C2'	6.81	122.22	112.00
78	CA	310	C	O4'-C1'-C2'	-6.81	100.79	107.60
78	CA	1720	G	O4'-C1'-N9	6.81	118.72	108.50
81	DA	1142	G	N9-C1'-C2'	6.81	122.22	112.00
43	BP	14	LYS	N-CA-C	6.81	125.31	110.80
65	Bn	5	ILE	N-CA-CB	6.81	118.52	110.55
81	DA	339	C	N1-C1'-C2'	6.81	122.22	112.00
81	DA	2492	C	P-O3'-C3'	6.81	130.42	120.20
81	DA	2704	A	C3'-C2'-C1'	6.81	108.31	101.50
82	DB	156	U	P-O3'-C3'	6.81	130.42	120.20
60	Bi	102	LYS	N-CA-CB	6.81	122.00	110.49
69	Br	61	LYS	CA-C-N	6.81	134.55	121.54
69	Br	61	LYS	C-N-CA	6.81	134.55	121.54
81	DA	1060	U	C5'-C4'-C3'	6.81	126.21	116.00
81	DA	1730	G	O4'-C1'-C2'	-6.81	100.79	107.60
81	DA	2226	U	P-O5'-C5'	6.81	131.11	120.90
6	AE	128	GLY	N-CA-C	-6.81	99.11	110.95
15	AN	45	GLU	CA-C-N	6.81	135.75	122.07
15	AN	45	GLU	C-N-CA	6.81	135.75	122.07
55	Bc	38	ARG	CA-C-O	-6.81	110.83	120.16
81	DA	596	C	O5'-C5'-C4'	-6.81	101.29	111.50
81	DA	2505	U	O4'-C4'-C3'	-6.81	97.19	104.00
81	DA	2507	C	P-O5'-C5'	-6.81	110.69	120.90
83	DC	118	U	C1'-O4'-C4'	-6.81	103.09	109.90
72	Bu	43	ASP	N-CA-CB	6.81	120.12	110.12
78	CA	888	U	N1-C1'-C2'	6.81	122.21	112.00
81	DA	1820	U	P-O5'-C5'	6.81	131.11	120.90
81	DA	2377	G	C2'-C3'-O3'	6.81	119.71	109.50
30	BA	199	GLN	CA-C-N	6.80	129.40	120.28
30	BA	199	GLN	C-N-CA	6.80	129.40	120.28
81	DA	1824	U	O4'-C1'-C2'	-6.80	100.80	107.60
81	DA	2217	U	O4'-C1'-N1	6.80	118.71	108.50
31	BB	40	TYR	N-CA-CB	6.80	120.49	110.56

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1199	C	C3'-C2'-C1'	6.80	108.10	101.30
49	BV	71	ALA	N-CA-C	-6.80	103.87	111.28
78	CA	70	C	C5'-C4'-C3'	6.80	126.20	116.00
81	DA	331	G	C3'-C2'-C1'	6.80	108.10	101.30
81	DA	645	A	O3'-P-O5'	-6.80	93.80	104.00
81	DA	1598	G	O5'-C5'-C4'	6.80	121.70	111.50
81	DA	1819	U	N1-C1'-C2'	-6.80	101.80	112.00
81	DA	3358	U	O4'-C1'-C2'	-6.80	100.80	107.60
82	DB	18	U	N1-C1'-C2'	6.80	122.20	112.00
33	BD	162	THR	CA-C-N	6.80	129.39	120.28
33	BD	162	THR	C-N-CA	6.80	129.39	120.28
49	BV	3	ARG	N-CA-C	-6.80	99.97	110.10
81	DA	662	U	C2'-C3'-O3'	6.80	123.90	113.70
42	BM	77	ILE	N-CA-C	-6.80	98.33	108.46
78	CA	949	C	P-O3'-C3'	6.80	130.40	120.20
78	CA	1310	U	P-O5'-C5'	6.80	131.10	120.90
4	AD	186	GLY	N-CA-C	6.80	125.07	112.77
5	AC	161	THR	CB-CA-C	6.80	123.95	110.42
37	BH	108	ARG	N-CA-CB	6.80	120.11	110.12
37	BH	179	ILE	N-CA-CB	-6.80	103.47	111.83
81	DA	910	G	N9-C1'-C2'	6.80	122.19	112.00
8	AF	89	ILE	CA-C-N	6.79	129.77	120.46
8	AF	89	ILE	C-N-CA	6.79	129.77	120.46
15	AN	33	LYS	CA-C-N	6.79	134.52	121.54
15	AN	33	LYS	C-N-CA	6.79	134.52	121.54
81	DA	1009	A	P-O5'-C5'	-6.79	110.71	120.90
81	DA	1509	A	P-O5'-C5'	6.79	131.09	120.90
81	DA	2770	G	C1'-O4'-C4'	-6.79	103.11	109.90
82	DB	98	U	C5'-C4'-C3'	-6.79	105.81	116.00
31	BB	24	GLN	N-CA-C	-6.79	104.25	112.54
32	BC	385	LYS	CA-C-N	-6.79	114.01	122.84
32	BC	385	LYS	C-N-CA	-6.79	114.01	122.84
37	BH	229	VAL	N-CA-CB	-6.79	102.97	112.35
46	BT	146	LYS	CA-C-N	6.79	129.68	120.44
46	BT	146	LYS	C-N-CA	6.79	129.68	120.44
81	DA	45	A	C4'-C3'-C2'	-6.79	95.81	102.60
81	DA	948	C	C3'-C2'-C1'	6.79	108.09	101.30
81	DA	1690	C	O4'-C4'-C3'	-6.79	97.21	104.00
81	DA	1963	G	O4'-C1'-N9	6.79	118.69	108.50
81	DA	2591	A	O4'-C1'-N9	6.79	118.69	108.50
81	DA	2689	A	N9-C1'-C2'	6.79	124.19	114.00
81	DA	3248	C	C2'-C3'-O3'	6.79	119.69	109.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1285	G	C2'-C3'-O3'	6.79	119.69	109.50
81	DA	1303	A	O4'-C1'-N9	6.79	118.39	108.20
81	DA	3028	G	N9-C1'-C2'	6.79	122.19	112.00
81	DA	909	G	O4'-C1'-C2'	-6.79	100.81	107.60
6	AE	8	GLN	N-CA-CB	-6.79	98.96	110.50
8	AF	134	VAL	CA-C-N	6.79	129.93	120.29
8	AF	134	VAL	C-N-CA	6.79	129.93	120.29
16	AO	109	LYS	N-CA-C	6.79	125.26	110.80
16	AO	125	LEU	N-CA-C	-6.79	103.90	111.71
45	BR	2	GLY	N-CA-C	-6.79	104.69	112.29
82	DB	106	C	N1-C1'-C2'	6.79	124.18	114.00
6	AE	56	ILE	CB-CA-C	6.79	121.30	112.14
31	BB	209	HIS	CA-C-N	6.79	126.75	119.28
31	BB	209	HIS	C-N-CA	6.79	126.75	119.28
81	DA	838	G	N9-C1'-C2'	-6.79	103.82	114.00
81	DA	2368	A	O4'-C1'-N9	6.79	118.68	108.50
4	AD	208	VAL	N-CA-CB	6.79	120.77	111.41
32	BC	126	LYS	CA-C-N	6.79	134.50	121.54
32	BC	126	LYS	C-N-CA	6.79	134.50	121.54
76	BS	67	PHE	CB-CA-C	-6.79	98.71	110.45
78	CA	293	U	P-O3'-C3'	6.79	130.38	120.20
81	DA	615	U	N1-C1'-C2'	6.79	122.18	112.00
81	DA	1139	G	N9-C1'-C2'	6.79	122.18	112.00
81	DA	1632	A	C5'-C4'-C3'	6.79	126.18	116.00
81	DA	2617	U	C4'-C3'-O3'	6.79	119.58	109.40
21	AT	34	ILE	N-CA-CB	6.78	122.42	111.23
38	Bs	60	ARG	CA-C-N	6.78	131.45	120.60
38	Bs	60	ARG	C-N-CA	6.78	131.45	120.60
78	CA	967	A	O4'-C1'-N9	6.78	118.67	108.50
81	DA	600	G	O4'-C1'-C2'	-6.78	100.82	107.60
82	DB	116	G	P-O5'-C5'	6.78	131.08	120.90
79	CB	28	G	O3'-P-O5'	6.78	114.17	104.00
81	DA	414	U	O4'-C1'-N1	6.78	118.67	108.50
40	BK	142	SER	N-CA-C	6.78	121.30	112.89
78	CA	1545	A	N9-C1'-C2'	-6.78	101.83	112.00
81	DA	911	C	P-O5'-C5'	6.78	131.07	120.90
81	DA	1657	C	C1'-O4'-C4'	6.78	116.68	109.90
81	DA	2081	U	O4'-C1'-N1	6.78	118.67	108.50
81	DA	2672	G	O4'-C4'-C3'	-6.78	97.22	104.00
14	AM	12	GLN	N-CA-C	-6.78	96.36	110.80
17	AQ	26	LEU	CB-CA-C	6.78	123.91	110.42
78	CA	672	U	N1-C1'-C2'	6.78	122.17	112.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	855	A	O4'-C1'-C2'	6.78	114.38	107.60
81	DA	2406	C	C5'-C4'-O4'	-6.78	99.63	109.80
37	BH	74	THR	N-CA-CB	6.78	120.36	110.26
53	Ba	15	ARG	CA-C-N	-6.78	108.12	121.41
53	Ba	15	ARG	C-N-CA	-6.78	108.12	121.41
82	DB	102	U	N1-C1'-C2'	6.78	122.17	112.00
1	Aa	18	GLY	N-CA-C	-6.78	103.46	112.81
32	BC	310	GLY	CA-C-O	-6.78	116.80	122.29
78	CA	393	C	O4'-C1'-C2'	-6.78	100.83	107.60
78	CA	1535	U	C5'-C4'-C3'	-6.78	105.04	115.20
78	CA	1547	A	O5'-P-OP1	6.78	128.32	108.00
81	DA	889	U	O4'-C1'-C2'	-6.78	100.82	107.60
81	DA	1972	A	P-O5'-C5'	-6.78	110.74	120.90
81	DA	2965	U	N1-C1'-C2'	6.78	122.16	112.00
4	AD	173	ILE	CA-C-O	-6.77	112.91	120.97
65	Bn	56	ILE	CB-CA-C	6.77	120.89	112.02
78	CA	465	G	O4'-C1'-N9	6.77	118.66	108.50
35	BG	96	VAL	N-CA-CB	6.77	122.40	111.23
41	BN	26	GLY	CA-C-N	6.77	134.47	121.54
41	BN	26	GLY	C-N-CA	6.77	134.47	121.54
81	DA	2165	G	O4'-C1'-C2'	6.77	114.37	107.60
29	AU	18	LEU	N-CA-C	-6.77	96.38	110.80
81	DA	1569	U	O4'-C1'-N1	6.77	118.36	108.20
33	BD	352	ALA	CA-C-N	-6.77	108.61	121.54
33	BD	352	ALA	C-N-CA	-6.77	108.61	121.54
38	Bs	83	ASN	CB-CA-C	6.77	123.89	110.42
48	BW	47	VAL	N-CA-C	-6.77	98.38	108.46
78	CA	1310	U	C3'-C2'-C1'	6.77	108.07	101.30
81	DA	309	U	O4'-C1'-C2'	-6.77	100.83	107.60
81	DA	1773	C	P-O3'-C3'	6.77	130.35	120.20
12	AK	42	VAL	O-C-N	6.77	128.43	121.87
78	CA	1609	U	N1-C1'-C2'	6.77	122.15	112.00
81	DA	1429	G	O4'-C1'-C2'	6.77	112.57	105.80
81	DA	2675	C	C3'-C2'-C1'	6.77	108.07	101.30
81	DA	1827	C	C3'-C2'-C1'	6.76	108.06	101.30
10	AI	90	VAL	CB-CA-C	-6.76	103.18	112.04
33	BD	331	ALA	N-CA-CB	-6.76	99.06	110.49
52	BY	50	ILE	CA-CB-CG1	6.76	121.90	110.40
81	DA	3236	U	P-O3'-C3'	6.76	130.34	120.20
46	BT	114	LYS	CB-CA-C	6.76	123.88	110.42
81	DA	231	G	N9-C1'-C2'	-6.76	101.86	112.00
81	DA	384	A	P-O5'-C5'	6.76	131.04	120.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1526	U	P-O5'-C5'	-6.76	110.76	120.90
81	DA	2023	C	O4'-C1'-C2'	-6.76	100.84	107.60
81	DA	2235	C	N1-C1'-C2'	6.76	122.14	112.00
81	DA	2823	G	N9-C1'-C2'	6.76	122.14	112.00
33	BD	142	VAL	N-CA-CB	6.76	122.38	111.23
81	DA	293	C	O4'-C1'-C2'	-6.76	100.84	107.60
81	DA	978	G	P-O5'-C5'	6.76	130.14	120.00
81	DA	3313	U	C1'-O4'-C4'	-6.76	103.14	109.90
82	DB	130	C	O4'-C1'-C2'	-6.76	100.84	107.60
37	BH	159	PRO	CB-CA-C	6.76	120.82	110.21
78	CA	146	U	N1-C1'-C2'	6.76	122.14	112.00
81	DA	814	U	P-O3'-C3'	6.76	130.34	120.20
81	DA	1280	C	O4'-C1'-C2'	-6.76	100.84	107.60
81	DA	1663	C	P-O3'-C3'	6.76	130.34	120.20
82	DB	40	A	N9-C1'-C2'	6.76	122.14	112.00
9	AH	28	ARG	CD-NE-CZ	6.76	133.86	124.40
25	AY	47	PRO	CA-N-CD	-6.76	102.54	112.00
37	BH	212	ALA	CA-C-N	6.76	129.33	120.28
37	BH	212	ALA	C-N-CA	6.76	129.33	120.28
49	BV	98	ALA	CA-C-N	6.76	129.33	120.28
49	BV	98	ALA	C-N-CA	6.76	129.33	120.28
74	BQ	141	PRO	N-CA-C	6.76	126.39	112.47
76	BS	72	THR	CA-C-O	-6.76	110.85	120.51
81	DA	672	A	P-O3'-C3'	6.76	130.33	120.20
81	DA	1258	U	P-O3'-C3'	6.76	130.34	120.20
81	DA	1385	C	O4'-C1'-C2'	-6.76	100.84	107.60
81	DA	1892	G	O3'-P-O5'	-6.76	93.87	104.00
83	DC	13	A	N9-C1'-C2'	6.76	122.14	112.00
81	DA	2303	A	C1'-C2'-O2'	-6.75	98.27	108.40
81	DA	2728	G	N9-C1'-C2'	6.75	122.13	112.00
81	DA	2735	U	N1-C1'-C2'	6.75	122.13	112.00
81	DA	3093	C	O4'-C1'-C2'	-6.75	99.05	105.80
22	AV	68	ARG	N-CA-C	6.75	118.30	111.07
34	BE	146	GLY	N-CA-C	-6.75	97.17	113.18
38	Bs	186	THR	CA-C-O	-6.75	113.22	120.92
59	Bh	14	THR	CA-C-N	6.75	129.88	120.29
59	Bh	14	THR	C-N-CA	6.75	129.88	120.29
81	DA	495	G	P-O3'-C3'	6.75	130.33	120.20
81	DA	2661	G	P-O3'-C3'	6.75	130.33	120.20
69	Br	38	GLN	CA-C-N	6.75	127.47	119.98
69	Br	38	GLN	C-N-CA	6.75	127.47	119.98
78	CA	29	U	C1'-C2'-O2'	6.75	118.53	108.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	677	G	O4'-C1'-N9	6.75	118.63	108.50
83	DC	45	A	C5'-C4'-C3'	-6.75	105.87	116.00
12	AK	62	LEU	N-CA-CB	6.75	121.90	110.49
35	BG	54	TYR	N-CA-CB	6.75	121.51	110.37
38	Bs	55	LYS	CB-CA-C	-6.75	96.99	110.42
47	BU	15	PHE	N-CA-C	-6.75	103.85	111.14
61	Bj	5	HIS	N-CA-CB	6.75	121.89	110.49
78	CA	154	G	O3'-P-O5'	6.75	114.12	104.00
78	CA	1785	U	P-O3'-C3'	6.75	130.32	120.20
81	DA	436	A	N9-C1'-C2'	6.75	122.12	112.00
81	DA	545	U	O4'-C1'-N1	6.75	118.32	108.20
46	BT	83	GLY	CA-C-N	6.75	133.74	121.06
46	BT	83	GLY	C-N-CA	6.75	133.74	121.06
81	DA	1971	C	N1-C1'-C2'	6.75	122.12	112.00
6	AE	5	GLU	N-CA-C	-6.75	99.13	109.65
74	BQ	34	LYS	CA-C-N	6.75	129.32	120.28
74	BQ	34	LYS	C-N-CA	6.75	129.32	120.28
81	DA	2149	A	P-O3'-C3'	6.75	130.32	120.20
11	AJ	44	ASN	CA-CB-CG	-6.74	105.86	112.60
42	BM	30	GLY	N-CA-C	-6.74	105.75	114.85
44	BO	129	PHE	CA-C-N	6.74	131.12	120.47
44	BO	129	PHE	C-N-CA	6.74	131.12	120.47
78	CA	428	A	O4'-C1'-C2'	-6.74	100.86	107.60
81	DA	1286	A	O4'-C1'-C2'	-6.74	99.06	105.80
81	DA	3325	G	C5'-C4'-O4'	-6.74	99.69	109.80
30	BA	208	SER	O-C-N	-6.74	114.78	122.20
78	CA	1337	A	O4'-C4'-C3'	-6.74	97.26	104.00
81	DA	171	G	P-O5'-C5'	6.74	131.01	120.90
81	DA	2018	C	O4'-C1'-C2'	-6.74	100.86	107.60
43	BP	131	GLU	N-CA-CB	6.74	121.13	110.55
76	BS	165	LEU	CB-CA-C	-6.74	97.00	110.42
78	CA	1341	A	O4'-C1'-C2'	-6.74	100.86	107.60
78	CA	1535	U	O5'-C5'-C4'	-6.74	101.59	111.70
81	DA	1061	A	C1'-O4'-C4'	-6.74	103.16	109.90
81	DA	2097	U	N1-C1'-C2'	6.74	122.11	112.00
81	DA	2506	U	P-O3'-C3'	-6.74	110.09	120.20
81	DA	3325	G	C4'-C3'-O3'	6.74	123.11	113.00
81	DA	3360	C	O4'-C1'-C2'	-6.74	100.86	107.60
1	Aa	42	LEU	CA-C-O	-6.74	113.08	120.36
55	Bc	118	ILE	CA-C-N	6.74	130.38	120.95
55	Bc	118	ILE	C-N-CA	6.74	130.38	120.95
81	DA	70	A	O4'-C1'-N9	-6.74	98.39	108.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	80	G	C1'-O4'-C4'	-6.74	103.16	109.90
81	DA	331	G	N9-C1'-C2'	-6.74	101.89	112.00
81	DA	2473	C	O4'-C1'-C2'	-6.74	100.86	107.60
81	DA	2491	A	O3'-P-O5'	-6.74	93.89	104.00
81	DA	3224	G	N9-C1'-C2'	-6.74	101.89	112.00
32	BC	381	GLY	N-CA-C	-6.74	97.21	113.18
42	BM	128	ARG	NE-CZ-NH1	-6.74	114.76	121.50
50	BX	37	THR	N-CA-CB	6.74	121.88	110.49
81	DA	241	G	O4'-C1'-C2'	6.74	114.34	107.60
35	BG	75	PRO	CA-C-N	-6.74	108.68	121.54
35	BG	75	PRO	C-N-CA	-6.74	108.68	121.54
66	Bo	24	PRO	N-CA-C	-6.74	98.60	112.47
78	CA	50	C	O4'-C1'-C2'	-6.74	100.86	107.60
78	CA	666	U	C1'-C2'-O2'	6.74	118.50	108.40
81	DA	1876	U	C4'-C3'-C2'	-6.74	95.86	102.60
11	AJ	76	SER	N-CA-C	-6.73	97.30	108.34
78	CA	1750	A	P-O3'-C3'	6.73	130.30	120.20
81	DA	2505	U	C1'-O4'-C4'	6.73	116.63	109.90
83	DC	28	C	N1-C1'-C2'	6.73	122.10	112.00
1	Aa	47	LEU	CA-C-N	6.73	132.93	120.95
1	Aa	47	LEU	C-N-CA	6.73	132.93	120.95
1	Aa	52	GLN	CA-C-N	-6.73	112.24	122.81
1	Aa	52	GLN	C-N-CA	-6.73	112.24	122.81
3	AB	199	PRO	O-C-N	-6.73	113.55	122.64
17	AQ	27	ASP	CA-C-N	6.73	129.19	120.44
17	AQ	27	ASP	C-N-CA	6.73	129.19	120.44
17	AQ	41	ILE	CB-CA-C	6.73	119.47	111.32
38	Bs	114	VAL	N-CA-C	-6.73	100.00	108.89
38	Bs	145	ILE	N-CA-CB	6.73	118.68	111.00
81	DA	1283	C	C3'-C2'-C1'	6.73	108.03	101.30
81	DA	1788	C	O4'-C1'-C2'	-6.73	100.87	107.60
1	Aa	199	ILE	N-CA-CB	6.73	118.59	112.06
5	AC	15	PRO	N-CA-CB	6.73	110.32	103.25
8	AF	31	GLU	N-CA-CB	6.73	119.99	109.83
35	BG	65	ILE	N-CA-CB	-6.73	97.98	111.91
59	Bh	26	HIS	CG-CD2-NE2	6.73	113.93	107.20
78	CA	228	G	N9-C1'-C2'	-6.73	101.90	112.00
81	DA	1297	C	C4'-C3'-C2'	-6.73	95.87	102.60
81	DA	1717	U	C5'-C4'-C3'	6.73	125.30	115.20
81	DA	3051	U	O4'-C1'-N1	6.73	118.60	108.50
4	AD	65	LEU	CA-C-N	6.73	129.97	120.28
4	AD	65	LEU	C-N-CA	6.73	129.97	120.28

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
49	BV	83	TRP	CG-CD2-CE3	-6.73	127.17	133.90
81	DA	657	A	O3'-P-O5'	6.73	114.09	104.00
18	AP	74	THR	OG1-CB-CG2	6.73	122.76	109.30
49	BV	42	THR	CA-C-O	-6.73	113.29	120.42
78	CA	173	A	O4'-C4'-C3'	-6.73	97.27	104.00
79	CB	62	C	O4'-C1'-C2'	-6.73	100.87	107.60
81	DA	2705	A	O4'-C1'-C2'	6.73	112.53	105.80
81	DA	2735	U	C1'-O4'-C4'	-6.73	103.17	109.90
5	AC	60	LEU	CA-C-N	6.73	129.29	120.28
5	AC	60	LEU	C-N-CA	6.73	129.29	120.28
43	BP	119	TYR	CA-C-N	6.73	134.39	121.54
43	BP	119	TYR	C-N-CA	6.73	134.39	121.54
81	DA	798	G	O4'-C4'-C3'	6.73	110.73	104.00
17	AQ	6	THR	N-CA-CB	6.72	121.85	110.49
30	BA	183	ILE	CA-C-N	6.72	129.18	120.44
30	BA	183	ILE	C-N-CA	6.72	129.18	120.44
32	BC	260	VAL	CA-C-O	-6.72	112.37	120.78
45	BR	144	ARG	N-CA-C	6.72	125.12	110.80
78	CA	81	G	O4'-C4'-C3'	6.72	110.72	104.00
81	DA	679	U	P-O5'-C5'	6.72	130.99	120.90
81	DA	3006	A	C1'-O4'-C4'	-6.72	103.17	109.90
1	Aa	47	LEU	CB-CA-C	-6.72	99.63	110.79
18	AP	111	VAL	N-CA-C	-6.72	96.27	106.42
33	BD	10	SER	O-C-N	6.72	130.53	122.20
35	BG	10	TYR	CA-C-O	-6.72	110.95	120.16
78	CA	1539	G	C1'-O4'-C4'	6.72	116.62	109.90
81	DA	1400	G	C4'-C3'-O3'	6.72	123.08	113.00
81	DA	1792	C	P-O5'-C5'	-6.72	110.82	120.90
82	DB	118	C	N1-C1'-C2'	6.72	122.08	112.00
39	BJ	122	GLY	CA-C-N	-6.72	111.30	120.44
39	BJ	122	GLY	C-N-CA	-6.72	111.30	120.44
78	CA	681	U	O4'-C1'-N1	6.72	118.58	108.50
81	DA	672	A	C3'-C2'-C1'	-6.72	94.58	101.30
81	DA	1154	A	C1'-O4'-C4'	6.72	116.62	109.90
82	DB	105	A	C1'-O4'-C4'	-6.72	102.98	109.70
21	AT	46	ILE	CA-C-O	-6.72	116.45	119.94
78	CA	1302	U	O4'-C1'-N1	6.72	118.58	108.50
78	CA	1615	C	N1-C1'-C2'	6.72	122.08	112.00
81	DA	3239	G	C1'-O4'-C4'	-6.72	103.18	109.90
78	CA	685	A	P-O3'-C3'	6.72	130.28	120.20
9	AH	98	GLN	O-C-N	6.72	131.14	123.48
78	CA	161	U	O3'-P-O5'	6.72	114.08	104.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	538	A	P-O3'-C3'	6.72	130.27	120.20
81	DA	1036	A	O4'-C1'-C2'	-6.72	100.88	107.60
81	DA	1343	A	N9-C1'-C2'	6.72	122.08	112.00
81	DA	2827	U	C1'-O4'-C4'	6.72	116.42	109.70
83	DC	27	A	N9-C1'-C2'	6.72	122.07	112.00
33	BD	102	PRO	CA-N-CD	-6.71	102.60	112.00
35	BG	29	LYS	CA-C-N	6.71	129.58	120.38
35	BG	29	LYS	C-N-CA	6.71	129.58	120.38
59	Bh	6	HIS	CA-C-N	6.71	126.50	119.05
59	Bh	6	HIS	C-N-CA	6.71	126.50	119.05
63	Bm	33	GLN	CB-CA-C	-6.71	99.64	110.79
63	Bm	80	ARG	N-CA-C	6.71	118.60	111.28
78	CA	1579	U	C5'-C4'-C3'	-6.71	105.93	116.00
15	AN	37	ASN	N-CA-CB	-6.71	102.83	110.35
52	BY	90	VAL	N-CA-CB	6.71	120.65	110.58
78	CA	1459	C	C1'-C2'-O2'	6.71	118.47	108.40
81	DA	1200	A	O4'-C1'-C2'	-6.71	100.89	107.60
81	DA	1331	U	N1-C1'-C2'	6.71	124.07	114.00
81	DA	1499	C	O4'-C1'-C2'	-6.71	100.89	107.60
81	DA	2504	U	C4'-C3'-C2'	6.71	109.31	102.60
2	AA	37	VAL	N-CA-C	-6.71	98.04	108.44
4	AD	238	LEU	CA-C-N	6.71	143.10	127.00
4	AD	238	LEU	C-N-CA	6.71	143.10	127.00
32	BC	162	VAL	CA-CB-CG1	6.71	121.80	110.40
38	Bs	39	HIS	ND1-CE1-NE2	6.71	115.11	108.40
78	CA	956	C	O4'-C1'-C2'	-6.71	100.89	107.60
78	CA	1567	U	N1-C1'-C2'	6.71	122.06	112.00
78	CA	1771	U	N1-C1'-C2'	6.71	122.06	112.00
81	DA	614	C	P-O5'-C5'	6.71	130.96	120.90
81	DA	1180	A	O4'-C1'-N9	6.71	118.26	108.20
81	DA	2634	U	C1'-O4'-C4'	-6.71	103.19	109.90
83	DC	14	U	O4'-C1'-C2'	-6.71	100.89	107.60
10	AI	125	GLU	CA-C-N	6.71	128.22	119.84
10	AI	125	GLU	C-N-CA	6.71	128.22	119.84
32	BC	238	LEU	N-CA-CB	6.71	119.93	110.07
50	BX	60	TYR	N-CA-C	-6.71	99.28	109.95
78	CA	1477	G	P-O3'-C3'	-6.71	110.14	120.20
81	DA	514	G	N9-C1'-C2'	6.71	122.06	112.00
81	DA	1988	C	O4'-C1'-C2'	-6.71	100.89	107.60
81	DA	2402	A	O4'-C1'-N9	6.71	118.26	108.20
81	DA	2581	U	C5'-C4'-C3'	6.71	126.06	116.00
74	BQ	127	GLY	CA-C-N	-6.71	109.98	121.85

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
74	BQ	127	GLY	C-N-CA	-6.71	109.98	121.85
81	DA	856	G	P-O5'-C5'	6.71	130.96	120.90
13	AL	93	LEU	O-C-N	-6.70	114.51	122.15
22	AV	105	THR	N-CA-C	6.70	125.08	110.80
78	CA	431	C	O4'-C1'-C2'	-6.70	100.90	107.60
78	CA	1470	C	N1-C1'-C2'	6.70	122.06	112.00
83	DC	44	C	O4'-C1'-C2'	-6.70	100.90	107.60
37	BH	89	GLU	N-CA-C	-6.70	96.53	110.80
37	BH	131	ALA	N-CA-CB	6.70	121.69	110.77
74	BQ	122	VAL	CA-C-N	-6.70	113.54	122.99
74	BQ	122	VAL	C-N-CA	-6.70	113.54	122.99
81	DA	71	A	C2'-C3'-O3'	6.70	119.55	109.50
81	DA	1567	U	C4'-C3'-C2'	-6.70	95.90	102.60
81	DA	2367	A	O3'-P-O5'	6.70	114.05	104.00
6	AE	243	TYR	N-CA-CB	6.70	121.81	110.49
9	AH	119	LYS	N-CA-C	-6.70	104.06	111.36
59	Bh	15	LYS	CA-C-N	6.70	134.34	121.54
59	Bh	15	LYS	C-N-CA	6.70	134.34	121.54
81	DA	3325	G	O4'-C1'-N9	6.70	118.55	108.50
82	DB	153	U	O4'-C1'-N1	6.70	118.55	108.50
37	BH	106	LYS	CA-C-N	6.70	129.15	120.44
37	BH	106	LYS	C-N-CA	6.70	129.15	120.44
78	CA	154	G	O4'-C1'-C2'	-6.70	100.90	107.60
81	DA	43	A	N9-C1'-C2'	-6.70	103.95	114.00
81	DA	218	G	N9-C1'-C2'	-6.70	103.95	114.00
81	DA	2171	G	O4'-C1'-C2'	-6.70	100.90	107.60
16	AO	64	ARG	NE-CZ-NH2	-6.70	113.17	119.20
81	DA	2578	U	O3'-P-O5'	-6.70	93.95	104.00
83	DC	66	C	O4'-C1'-C2'	-6.70	100.90	107.60
3	AB	18	TYR	O-C-N	6.70	128.97	122.07
81	DA	1926	C	O4'-C1'-N1	6.70	118.24	108.20
81	DA	2437	G	P-O5'-C5'	6.70	130.94	120.90
81	DA	2723	U	O4'-C1'-C2'	-6.70	100.91	107.60
78	CA	1690	G	C4'-C3'-C2'	6.69	109.29	102.60
81	DA	1784	G	C4'-C3'-C2'	-6.69	95.91	102.60
22	AV	63	SER	CB-CA-C	6.69	122.23	110.85
64	Bl	72	ARG	CA-C-N	6.69	129.14	120.44
64	Bl	72	ARG	C-N-CA	6.69	129.14	120.44
78	CA	172	C	O5'-C5'-C4'	6.69	121.54	111.50
78	CA	1477	G	C1'-C2'-O2'	6.69	118.44	108.40
81	DA	1807	G	O3'-P-O5'	6.69	114.04	104.00
81	DA	2616	C	C3'-C2'-C1'	6.69	107.99	101.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2796	G	O4'-C1'-N9	6.69	118.24	108.20
82	DB	59	A	P-O3'-C3'	6.69	130.24	120.20
20	AS	44	GLU	N-CA-C	6.69	120.05	109.81
78	CA	61	A	C3'-C2'-C1'	6.69	107.99	101.30
81	DA	674	G	O4'-C1'-C2'	-6.69	100.91	107.60
81	DA	2287	C	O4'-C1'-C2'	-6.69	99.11	105.80
82	DB	152	G	O4'-C1'-N9	6.69	118.53	108.50
35	BG	146	ILE	CA-CB-CG1	6.69	121.77	110.40
78	CA	830	U	O4'-C1'-C2'	-6.69	100.91	107.60
81	DA	2431	C	C3'-C2'-C1'	6.69	107.99	101.30
6	AE	177	GLY	O-C-N	-6.69	114.01	122.70
10	AI	112	TYR	N-CA-CB	6.69	121.79	110.49
48	BW	91	ASP	N-CA-CB	6.69	123.10	111.13
78	CA	1473	U	C1'-O4'-C4'	6.69	116.39	109.70
81	DA	498	A	C3'-C2'-C1'	6.69	107.99	101.30
83	DC	115	A	O5'-C5'-C4'	6.69	121.53	111.50
78	CA	326	G	P-O3'-C3'	-6.69	110.17	120.20
13	AL	38	PHE	O-C-N	-6.68	114.53	122.15
41	BN	12	TRP	CA-CB-CG	6.68	126.30	113.60
74	BQ	18	THR	CA-C-O	-6.68	112.73	119.08
12	AK	38	THR	CA-C-N	6.68	134.00	121.97
12	AK	38	THR	C-N-CA	6.68	134.00	121.97
51	BZ	62	GLY	O-C-N	-6.68	114.01	122.70
81	DA	1120	A	P-O3'-C3'	6.68	130.22	120.20
81	DA	1916	U	N1-C1'-C2'	6.68	122.03	112.00
81	DA	2129	U	O4'-C1'-C2'	-6.68	100.92	107.60
81	DA	2752	U	O5'-C5'-C4'	6.68	121.53	111.50
43	BP	62	TYR	N-CA-C	-6.68	98.50	108.99
81	DA	1338	C	N1-C1'-C2'	-6.68	101.98	112.00
4	AD	93	ASP	CA-C-N	6.68	133.72	121.70
4	AD	93	ASP	C-N-CA	6.68	133.72	121.70
39	BJ	12	TYR	O-C-N	-6.68	112.31	123.00
78	CA	1665	U	P-O3'-C3'	-6.68	110.18	120.20
81	DA	1547	G	C3'-C2'-C1'	6.68	107.98	101.30
81	DA	2989	U	C3'-C2'-C1'	6.68	121.33	101.30
58	Bg	23	VAL	N-CA-C	6.68	117.33	110.05
67	Bp	44	GLN	N-CA-C	-6.68	96.15	108.24
81	DA	873	C	P-O5'-C5'	-6.68	110.89	120.90
81	DA	1872	C	C1'-O4'-C4'	-6.68	103.22	109.90
81	DA	1941	C	C5'-C4'-C3'	6.68	126.01	116.00
83	DC	48	U	C5'-C4'-C3'	-6.68	105.98	116.00
78	CA	121	U	C5'-C4'-C3'	6.67	126.01	116.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	271	A	N9-C1'-C2'	6.67	122.01	112.00
78	CA	1612	U	O4'-C1'-N1	6.67	118.51	108.50
81	DA	452	G	P-O3'-C3'	6.67	130.21	120.20
81	DA	595	G	O4'-C4'-C3'	-6.67	97.33	104.00
82	DB	98	U	P-O3'-C3'	-6.67	110.19	120.20
17	AQ	91	LEU	CA-C-O	6.67	127.44	120.30
81	DA	27	C	N1-C1'-C2'	6.67	122.01	112.00
81	DA	150	A	O5'-C5'-C4'	6.67	120.81	110.80
81	DA	1209	G	C5'-C4'-C3'	6.67	126.01	116.00
81	DA	2498	U	C4'-C3'-C2'	-6.67	95.93	102.60
81	DA	2916	U	N1-C1'-C2'	6.67	122.01	112.00
43	BP	152	CYS	N-CA-C	6.67	118.63	111.36
53	Ba	70	PRO	N-CA-CB	6.67	110.67	103.33
55	Bc	112	PRO	N-CA-C	6.67	126.21	112.47
81	DA	860	G	O4'-C1'-N9	6.67	118.51	108.50
33	BD	310	THR	N-CA-C	-6.67	104.77	113.17
34	BE	110	ILE	CA-CB-CG1	6.67	121.74	110.40
81	DA	597	G	C3'-C2'-C1'	-6.67	94.63	101.30
81	DA	2405	C	O4'-C1'-N1	6.67	118.50	108.50
6	AE	50	ILE	CA-C-O	-6.67	112.44	120.78
15	AN	37	ASN	CA-CB-CG	6.67	119.27	112.60
61	Bj	54	ARG	N-CA-C	-6.67	99.27	109.41
81	DA	636	C	C5'-C4'-C3'	-6.67	106.00	116.00
81	DA	1918	C	O4'-C1'-C2'	-6.67	100.93	107.60
81	DA	2665	U	O4'-C1'-C2'	-6.67	99.13	105.80
78	CA	1300	A	C1'-O4'-C4'	6.67	116.57	109.90
81	DA	1552	G	O4'-C1'-C2'	-6.67	100.93	107.60
81	DA	1886	A	O4'-C1'-C2'	-6.67	100.93	107.60
81	DA	1946	A	O4'-C1'-C2'	-6.67	100.93	107.60
82	DB	37	A	C1'-O4'-C4'	6.67	116.37	109.70
81	DA	1488	G	O4'-C1'-C2'	6.67	114.27	107.60
11	AJ	45	ALA	CA-C-N	6.66	129.21	120.28
11	AJ	45	ALA	C-N-CA	6.66	129.21	120.28
22	AV	27	TRP	CB-CG-CD2	-6.66	117.47	126.80
26	AZ	5	HIS	N-CA-C	6.66	118.62	111.36
34	BE	127	PHE	CA-CB-CG	-6.66	107.14	113.80
78	CA	618	U	O4'-C1'-C2'	-6.66	100.94	107.60
78	CA	1357	A	C4'-C3'-C2'	-6.66	95.94	102.60
81	DA	174	C	C4'-C3'-O3'	-6.66	103.00	113.00
81	DA	306	A	O4'-C1'-C2'	-6.66	100.94	107.60
81	DA	415	G	C1'-O4'-C4'	-6.66	103.24	109.90
81	DA	1299	U	P-O5'-C5'	6.66	130.90	120.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BE	33	ALA	CA-C-N	6.66	129.87	120.28
34	BE	33	ALA	C-N-CA	6.66	129.87	120.28
78	CA	323	A	O4'-C1'-C2'	-6.66	99.14	105.80
78	CA	626	U	N1-C1'-C2'	6.66	121.99	112.00
81	DA	756	U	N1-C1'-C2'	6.66	121.99	112.00
8	AF	142	PRO	CA-C-N	6.66	130.43	120.31
8	AF	142	PRO	C-N-CA	6.66	130.43	120.31
10	AI	109	PHE	N-CA-C	-6.66	105.04	112.57
39	BJ	73	VAL	N-CA-C	-6.66	95.49	109.34
78	CA	646	C	C1'-O4'-C4'	-6.66	103.24	109.90
78	CA	1370	U	N1-C1'-C2'	6.66	121.99	112.00
81	DA	3337	G	O4'-C1'-C2'	6.66	114.26	107.60
19	AR	134	THR	CA-C-N	6.66	132.79	121.87
19	AR	134	THR	C-N-CA	6.66	132.79	121.87
46	BT	103	ARG	CD-NE-CZ	-6.66	115.08	124.40
49	BV	152	GLU	N-CA-C	6.66	124.98	110.80
55	Bc	33	VAL	CA-C-N	6.66	132.07	122.21
55	Bc	33	VAL	C-N-CA	6.66	132.07	122.21
59	Bh	25	TYR	CA-C-N	6.66	129.20	120.28
59	Bh	25	TYR	C-N-CA	6.66	129.20	120.28
81	DA	3247	G	O4'-C1'-C2'	-6.66	100.94	107.60
29	AU	11	LYS	CA-C-O	6.66	128.21	120.75
81	DA	1994	G	P-O3'-C3'	6.66	130.19	120.20
3	AB	213	GLU	CA-C-N	6.66	134.25	121.54
3	AB	213	GLU	C-N-CA	6.66	134.25	121.54
36	BF	89	LYS	N-CA-C	-6.66	98.05	108.90
54	Bd	48	HIS	ND1-CE1-NE2	6.66	115.06	108.40
66	Bo	12	LYS	N-CA-C	6.66	118.53	111.28
72	Bt	54	LEU	CA-C-N	6.66	129.09	120.44
72	Bt	54	LEU	C-N-CA	6.66	129.09	120.44
78	CA	1263	G	O4'-C1'-N9	6.66	118.48	108.50
81	DA	1674	G	O4'-C1'-N9	6.66	118.48	108.50
81	DA	2950	G	N9-C1'-C2'	-6.66	104.02	114.00
82	DB	97	A	C4'-C3'-O3'	6.66	122.98	113.00
12	AK	113	GLY	CA-C-N	6.65	129.09	120.44
12	AK	113	GLY	C-N-CA	6.65	129.09	120.44
57	Be	103	LEU	N-CA-CB	6.65	119.90	110.12
40	BK	177	LYS	CA-C-N	6.65	130.98	120.47
40	BK	177	LYS	C-N-CA	6.65	130.98	120.47
61	Bj	45	LEU	CA-C-N	6.65	134.45	121.41
61	Bj	45	LEU	C-N-CA	6.65	134.45	121.41
78	CA	1476	C	O3'-P-O5'	6.65	113.98	104.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2683	U	O4'-C1'-N1	6.65	118.48	108.50
2	AA	211	GLU	N-CA-C	6.65	120.36	109.72
52	BY	11	ASP	CA-CB-CG	6.65	119.25	112.60
56	Bf	60	ALA	CA-C-N	6.65	129.74	120.29
56	Bf	60	ALA	C-N-CA	6.65	129.74	120.29
72	Bu	59	VAL	N-CA-CB	-6.65	104.89	112.21
14	AM	99	HIS	N-CA-CB	-6.65	99.95	110.79
38	Bs	115	ALA	CA-C-N	6.65	126.28	119.56
38	Bs	115	ALA	C-N-CA	6.65	126.28	119.56
52	BY	95	VAL	CA-C-N	6.65	126.61	120.03
52	BY	95	VAL	C-N-CA	6.65	126.61	120.03
78	CA	1214	U	O4'-C1'-N1	6.65	118.47	108.50
46	BT	156	ASN	CA-C-O	-6.65	113.84	120.82
81	DA	1241	U	P-O3'-C3'	6.65	130.17	120.20
82	DB	48	A	C5'-C4'-C3'	-6.65	105.23	115.20
6	AE	28	ARG	N-CA-CB	6.64	121.72	110.49
78	CA	444	C	C3'-C2'-C1'	6.64	108.14	101.50
81	DA	548	G	N9-C1'-C2'	6.64	121.97	112.00
81	DA	874	U	C1'-O4'-C4'	-6.64	103.26	109.90
81	DA	1439	U	O4'-C1'-C2'	-6.64	100.95	107.60
81	DA	2406	C	O4'-C1'-N1	6.64	118.47	108.50
4	AD	69	HIS	ND1-CE1-NE2	6.64	115.04	108.40
33	BD	122	THR	N-CA-CB	6.64	119.64	110.01
40	BK	135	TYR	N-CA-C	-6.64	96.65	110.80
53	Ba	57	HIS	CE1-NE2-CD2	-6.64	102.36	109.00
60	Bi	110	GLU	CA-C-O	6.64	121.79	117.94
81	DA	1668	G	O3'-P-O5'	6.64	113.96	104.00
81	DA	3121	U	C5'-C4'-C3'	6.64	125.16	115.20
8	AF	70	VAL	N-CA-CB	6.64	122.19	111.23
45	BR	78	ASN	CA-CB-CG	6.64	119.24	112.60
78	CA	146	U	C3'-C2'-C1'	6.64	107.94	101.30
2	AA	122	ILE	O-C-N	-6.64	116.01	123.18
10	AI	54	LEU	CA-C-N	-6.64	110.02	121.97
10	AI	54	LEU	C-N-CA	-6.64	110.02	121.97
36	BF	44	THR	CB-CA-C	6.64	122.05	109.37
52	BY	52	ARG	N-CA-C	-6.64	104.82	113.12
78	CA	325	G	N9-C1'-C2'	-6.64	102.04	112.00
78	CA	1158	C	C3'-C2'-C1'	6.64	108.14	101.50
78	CA	1546	G	C4'-C3'-O3'	-6.64	103.04	113.00
78	CA	1613	U	O4'-C1'-N1	6.64	118.46	108.50
78	CA	1681	A	O3'-P-O5'	-6.64	94.04	104.00
6	AE	19	ARG	CA-C-N	6.64	127.31	119.94

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	AE	19	ARG	C-N-CA	6.64	127.31	119.94
55	Bc	97	ALA	N-CA-C	6.64	121.51	112.68
56	Bf	16	LEU	N-CA-CB	6.64	119.98	110.16
78	CA	606	A	C1'-O4'-C4'	-6.64	103.06	109.70
81	DA	1295	G	C1'-O4'-C4'	-6.64	103.26	109.90
82	DB	2	A	O4'-C1'-N9	6.64	118.46	108.50
32	BC	16	PHE	CB-CA-C	6.64	121.89	112.07
78	CA	1642	G	O4'-C1'-C2'	-6.64	100.96	107.60
81	DA	685	G	C5'-C4'-C3'	-6.64	106.05	116.00
81	DA	1171	G	O3'-P-O5'	6.64	113.95	104.00
81	DA	1324	U	O4'-C1'-N1	6.64	118.45	108.50
81	DA	3151	U	C1'-O4'-C4'	6.64	116.34	109.70
17	AQ	71	PHE	CA-C-N	6.63	134.21	121.54
17	AQ	71	PHE	C-N-CA	6.63	134.21	121.54
20	AS	137	ALA	CB-CA-C	-6.63	99.40	110.68
36	BF	184	LYS	N-CA-CB	6.63	121.70	110.49
50	BX	131	ASP	CA-C-N	6.63	129.83	120.28
50	BX	131	ASP	C-N-CA	6.63	129.83	120.28
78	CA	177	U	C3'-C2'-C1'	6.63	108.14	101.50
81	DA	2165	G	C3'-C2'-C1'	-6.63	94.67	101.30
81	DA	2311	G	O4'-C1'-C2'	-6.63	100.97	107.60
81	DA	3107	U	P-O3'-C3'	6.63	130.15	120.20
6	AE	34	GLY	CA-C-N	6.63	129.17	120.28
6	AE	34	GLY	C-N-CA	6.63	129.17	120.28
43	BP	127	TYR	CB-CG-CD1	-6.63	110.85	120.80
78	CA	288	A	O4'-C4'-C3'	-6.63	97.37	104.00
78	CA	1744	A	P-O3'-C3'	6.63	130.15	120.20
81	DA	1423	C	N1-C1'-C2'	6.63	121.95	112.00
81	DA	2100	A	C3'-C2'-C1'	6.63	108.13	101.50
81	DA	2334	U	O4'-C1'-N1	6.63	118.45	108.50
81	DA	2352	A	O4'-C1'-C2'	-6.63	100.97	107.60
81	DA	2499	U	N1-C1'-C2'	6.63	121.95	112.00
1	Aa	39	ASP	N-CA-C	6.63	120.83	112.87
81	DA	1856	C	C3'-C2'-C1'	6.63	107.93	101.30
64	Bl	75	LYS	N-CA-CB	6.63	121.69	110.49
81	DA	1689	U	C5'-C4'-C3'	6.63	125.94	116.00
81	DA	2218	G	C1'-O4'-C4'	-6.63	103.27	109.90
81	DA	2470	C	C5'-C4'-C3'	6.63	125.94	116.00
81	DA	2681	U	P-O3'-C3'	6.63	130.14	120.20
81	DA	3166	C	O5'-C5'-C4'	6.63	121.44	111.50
13	AL	6	PRO	N-CA-CB	6.63	109.64	103.41
16	AO	108	ASP	CA-CB-CG	6.63	119.23	112.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2420	C	O4'-C1'-C2'	-6.63	100.97	107.60
81	DA	2628	A	C4'-C3'-O3'	6.63	122.94	113.00
81	DA	3307	A	C4'-C3'-C2'	-6.63	95.97	102.60
49	BV	164	LYS	N-CA-C	6.62	124.91	110.80
81	DA	2487	U	O3'-P-O5'	6.62	113.94	104.00
81	DA	2757	U	O4'-C4'-C3'	-6.62	97.38	104.00
8	AF	66	GLN	N-CA-CB	6.62	122.16	110.37
13	AL	97	ASP	N-CA-CB	6.62	120.50	110.30
18	AP	39	GLY	CA-C-N	6.62	132.21	121.74
18	AP	39	GLY	C-N-CA	6.62	132.21	121.74
32	BC	92	TYR	CA-C-N	6.62	132.38	122.91
32	BC	92	TYR	C-N-CA	6.62	132.38	122.91
36	BF	128	VAL	N-CA-C	-6.62	98.84	108.11
46	BT	156	ASN	CA-CB-CG	6.62	119.22	112.60
55	Bc	38	ARG	CA-C-N	6.62	128.12	119.84
55	Bc	38	ARG	C-N-CA	6.62	128.12	119.84
77	BI	113	GLN	CB-CG-CD	-6.62	101.34	112.60
78	CA	1452	U	P-O3'-C3'	6.62	130.14	120.20
81	DA	1653	G	C3'-C2'-C1'	6.62	107.92	101.30
81	DA	1692	U	O4'-C1'-C2'	6.62	112.42	105.80
46	BT	17	VAL	CA-C-O	-6.62	116.22	120.66
81	DA	1293	U	O4'-C1'-C2'	-6.62	100.98	107.60
81	DA	2136	C	C3'-C2'-C1'	6.62	107.92	101.30
81	DA	2723	U	P-O5'-C5'	-6.62	110.97	120.90
8	AF	36	ALA	N-CA-C	6.62	124.90	110.80
20	AS	34	VAL	N-CA-C	6.62	119.33	111.05
38	Bs	39	HIS	CE1-NE2-CD2	-6.62	102.38	109.00
78	CA	968	U	O4'-C1'-C2'	-6.62	100.98	107.60
5	AC	127	VAL	CB-CA-C	6.62	121.35	112.22
16	AO	63	ALA	CA-C-O	6.62	127.58	119.97
58	Bg	43	HIS	CE1-NE2-CD2	-6.62	102.38	109.00
78	CA	280	U	C1'-O4'-C4'	-6.62	103.28	109.90
78	CA	1472	C	C2'-C3'-O3'	6.62	119.43	109.50
81	DA	2263	C	O4'-C1'-C2'	-6.62	100.98	107.60
81	DA	3149	G	C1'-O4'-C4'	6.62	116.52	109.90
18	AP	83	THR	CB-CA-C	6.62	122.01	109.37
33	BD	260	GLN	N-CA-CB	6.62	119.70	109.97
72	Bu	54	LEU	CA-C-N	6.62	129.04	120.44
72	Bu	54	LEU	C-N-CA	6.62	129.04	120.44
78	CA	1107	G	O4'-C1'-C2'	-6.62	100.98	107.60
78	CA	1450	U	O4'-C1'-C2'	-6.62	100.98	107.60
81	DA	1050	U	C1'-O4'-C4'	6.62	116.52	109.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2229	A	P-O3'-C3'	6.62	130.13	120.20
81	DA	2264	U	O4'-C4'-C3'	-6.62	97.38	104.00
81	DA	3221	C	O3'-P-O5'	6.62	113.92	104.00
3	AB	23	GLU	CA-C-N	6.62	129.68	120.29
3	AB	23	GLU	C-N-CA	6.62	129.68	120.29
38	Bs	42	ARG	CD-NE-CZ	-6.62	115.14	124.40
81	DA	2835	U	N1-C1'-C2'	6.62	121.92	112.00
79	CB	28	G	C4'-C3'-C2'	-6.61	95.99	102.60
34	BE	126	ASP	CA-CB-CG	6.61	119.21	112.60
35	BG	102	ASN	CA-CB-CG	-6.61	105.99	112.60
10	AI	26	LYS	N-CA-CB	6.61	121.66	110.49
46	BT	140	GLU	CA-C-N	6.61	129.14	120.28
46	BT	140	GLU	C-N-CA	6.61	129.14	120.28
50	BX	31	THR	CB-CA-C	6.61	121.76	110.79
81	DA	1819	U	C1'-O4'-C4'	6.61	116.51	109.90
81	DA	3325	G	C1'-O4'-C4'	6.61	116.51	109.90
31	BB	48	ILE	CB-CA-C	6.61	119.11	110.12
42	BM	65	GLY	O-C-N	-6.61	114.11	122.70
68	Bq	18	ARG	N-CA-CB	-6.61	100.49	110.07
81	DA	2529	A	P-O3'-C3'	6.61	130.11	120.20
81	DA	2789	U	O4'-C1'-C2'	-6.61	100.99	107.60
8	AF	148	ARG	CG-CD-NE	-6.61	97.46	112.00
29	AU	17	LEU	CB-CA-C	-6.61	97.27	110.42
31	BB	174	ARG	N-CA-C	6.61	118.48	111.28
78	CA	160	C	O4'-C1'-C2'	-6.61	100.99	107.60
78	CA	610	G	O3'-P-O5'	-6.61	94.09	104.00
79	CB	64	G	N9-C1'-C2'	6.61	121.91	112.00
81	DA	578	A	P-O5'-C5'	-6.61	110.99	120.90
81	DA	1701	C	O4'-C1'-C2'	-6.61	100.99	107.60
81	DA	2945	G	O4'-C1'-C2'	6.61	114.21	107.60
9	AH	107	SER	N-CA-CB	6.61	121.65	110.49
43	BP	44	ARG	CA-C-O	-6.61	111.11	120.16
56	Bf	97	ASP	CA-C-O	-6.61	114.07	120.94
74	BQ	254	LYS	O-C-N	-6.61	114.60	120.48
76	BS	134	LYS	CA-C-N	6.61	129.79	120.28
76	BS	134	LYS	C-N-CA	6.61	129.79	120.28
78	CA	248	U	O3'-P-O5'	-6.61	94.09	104.00
81	DA	1256	G	C1'-O4'-C4'	-6.61	103.29	109.90
36	BF	67	ALA	CA-C-N	6.60	129.67	120.29
36	BF	67	ALA	C-N-CA	6.60	129.67	120.29
81	DA	2493	U	C2'-C3'-O3'	6.60	119.41	109.50
81	DA	3344	A	C1'-O4'-C4'	6.60	116.50	109.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3357	U	N1-C1'-C2'	6.60	121.91	112.00
83	DC	83	U	P-O5'-C5'	6.60	130.81	120.90
22	AV	30	LYS	N-CA-CB	6.60	121.65	110.49
81	DA	577	C	C3'-C2'-C1'	6.60	108.10	101.50
81	DA	1379	G	O4'-C1'-C2'	6.60	114.20	107.60
82	DB	126	A	P-O3'-C3'	6.60	130.10	120.20
42	BM	46	LEU	CA-C-N	6.60	134.87	123.91
42	BM	46	LEU	C-N-CA	6.60	134.87	123.91
43	BP	192	LYS	N-CA-CB	-6.60	101.93	111.70
47	BU	137	GLU	N-CA-C	-6.60	96.74	110.80
78	CA	500	C	C4'-C3'-O3'	-6.60	103.10	113.00
78	CA	822	U	O4'-C1'-N1	6.60	118.40	108.50
81	DA	2609	A	O4'-C1'-C2'	-6.60	101.00	107.60
81	DA	2791	G	O3'-P-O5'	6.60	113.90	104.00
4	AD	210	ILE	O-C-N	-6.60	116.05	123.18
20	AS	86	ARG	CD-NE-CZ	-6.60	115.16	124.40
25	AY	57	MET	CB-CA-C	-6.60	100.80	110.96
78	CA	1	U	P-O5'-C5'	-6.60	111.00	120.90
81	DA	226	C	N1-C1'-C2'	6.60	121.90	112.00
81	DA	688	G	O3'-P-O5'	-6.60	94.10	104.00
81	DA	1361	U	C1'-O4'-C4'	6.60	116.50	109.90
81	DA	3069	G	C5'-C4'-C3'	6.60	125.90	116.00
4	AD	240	LYS	N-CA-CB	6.60	121.59	111.56
78	CA	679	U	C1'-O4'-C4'	6.60	116.50	109.90
78	CA	1700	C	C3'-C2'-C1'	6.60	107.90	101.30
81	DA	1057	A	P-O3'-C3'	6.60	130.10	120.20
81	DA	1527	C	P-O5'-C5'	6.60	130.79	120.90
4	AD	218	PHE	N-CA-CB	6.60	122.93	111.39
6	AE	158	THR	N-CA-CB	6.60	119.57	110.01
24	AX	58	SER	N-CA-C	6.60	118.13	111.07
72	Bu	61	PHE	CB-CA-C	-6.60	97.29	110.42
78	CA	1281	G	N9-C1'-C2'	6.60	121.89	112.00
81	DA	935	U	O4'-C1'-N1	6.60	118.39	108.50
81	DA	1171	G	P-O3'-C3'	6.60	130.09	120.20
42	BM	90	GLY	CA-C-O	6.59	126.49	119.04
78	CA	988	A	C3'-C2'-C1'	6.59	107.89	101.30
81	DA	250	U	O4'-C1'-C2'	-6.59	101.01	107.60
81	DA	311	C	P-O3'-C3'	-6.59	110.31	120.20
81	DA	1422	G	N9-C1'-C2'	6.59	121.89	112.00
3	AB	15	GLY	CA-C-N	6.59	129.49	120.46
3	AB	15	GLY	C-N-CA	6.59	129.49	120.46
5	AC	58	ASP	N-CA-C	6.59	118.12	111.07

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
30	BA	134	PHE	CA-C-N	6.59	128.08	119.84
30	BA	134	PHE	C-N-CA	6.59	128.08	119.84
38	Bs	98	ASN	CA-CB-CG	-6.59	106.01	112.60
43	BP	181	ASN	CA-CB-CG	6.59	119.19	112.60
81	DA	673	U	C5'-C4'-O4'	6.59	119.69	109.80
81	DA	1806	A	P-O5'-C5'	6.59	130.79	120.90
17	AQ	93	LEU	N-CA-C	-6.59	102.30	110.41
33	BD	330	TYR	N-CA-C	6.59	124.83	110.80
35	BG	148	GLU	CB-CA-C	6.59	126.16	116.54
42	BM	47	ASN	CA-CB-CG	6.59	119.19	112.60
60	Bi	51	LEU	N-CA-CB	6.59	119.81	110.12
78	CA	120	U	C5'-C4'-C3'	-6.59	106.12	116.00
78	CA	1391	A	N9-C1'-C2'	6.59	121.89	112.00
81	DA	232	G	P-O5'-C5'	-6.59	111.02	120.90
81	DA	996	A	O4'-C1'-C2'	-6.59	101.01	107.60
81	DA	1549	U	N1-C1'-C2'	6.59	121.88	112.00
81	DA	1774	C	C5'-C4'-C3'	6.59	125.89	116.00
26	AZ	44	PHE	CA-C-N	6.59	130.12	122.35
26	AZ	44	PHE	C-N-CA	6.59	130.12	122.35
55	Bc	109	ILE	CA-C-O	-6.59	112.55	120.78
57	Be	202	LEU	CA-C-N	-6.59	105.72	121.80
57	Be	202	LEU	C-N-CA	-6.59	105.72	121.80
81	DA	2756	C	O4'-C4'-C3'	-6.59	97.41	104.00
83	DC	13	A	O3'-P-O5'	6.59	113.88	104.00
6	AE	59	HIS	N-CA-C	6.59	118.25	111.14
33	BD	23	PRO	CA-C-N	6.59	129.76	120.28
33	BD	23	PRO	C-N-CA	6.59	129.76	120.28
40	BK	72	HIS	CA-CB-CG	-6.59	107.21	113.80
50	BX	84	PHE	CA-CB-CG	-6.59	107.21	113.80
78	CA	840	U	O4'-C1'-C2'	-6.59	101.01	107.60
78	CA	1560	U	C3'-C2'-C1'	6.59	107.89	101.30
78	CA	1604	U	C5'-C4'-C3'	-6.59	106.12	116.00
81	DA	2789	U	P-O3'-C3'	-6.59	110.32	120.20
78	CA	1730	A	O4'-C1'-C2'	-6.58	101.02	107.60
81	DA	704	U	C4'-C3'-O3'	6.58	122.88	113.00
81	DA	2743	A	O3'-P-O5'	-6.58	94.12	104.00
18	AP	52	SER	CA-C-N	-6.58	112.03	122.76
18	AP	52	SER	C-N-CA	-6.58	112.03	122.76
35	BG	145	LEU	N-CA-CB	6.58	121.62	110.49
57	Be	60	ARG	CA-C-N	6.58	130.32	120.31
57	Be	60	ARG	C-N-CA	6.58	130.32	120.31
65	Bn	53	THR	CA-C-N	6.58	131.55	120.88

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
65	Bn	53	THR	C-N-CA	6.58	131.55	120.88
78	CA	1408	G	O4'-C4'-C3'	6.58	110.58	104.00
2	AA	109	ASN	CA-CB-CG	-6.58	106.02	112.60
4	AD	145	ARG	NE-CZ-NH1	6.58	128.08	121.50
35	BG	99	GLU	CB-CA-C	-6.58	97.32	110.42
81	DA	1698	C	C5'-C4'-O4'	-6.58	99.93	109.80
29	AU	60	PHE	CA-CB-CG	-6.58	107.22	113.80
74	BQ	288	ALA	N-CA-C	6.58	118.14	110.97
82	DB	8	C	O4'-C1'-C2'	-6.58	101.02	107.60
1	Aa	29	GLN	OE1-CD-NE2	6.58	129.18	122.60
3	AB	202	LEU	N-CA-C	-6.58	97.70	108.82
43	BP	50	ARG	CA-C-N	6.58	134.10	121.54
43	BP	50	ARG	C-N-CA	6.58	134.10	121.54
49	BV	83	TRP	O-C-N	6.58	127.19	121.34
78	CA	1556	A	O4'-C1'-C2'	-6.58	99.22	105.80
81	DA	982	C	C4'-C3'-C2'	-6.58	96.02	102.60
81	DA	1562	C	O3'-P-O5'	6.58	113.87	104.00
81	DA	2206	G	P-O3'-C3'	6.58	130.07	120.20
12	AK	20	TYR	N-CA-CB	6.58	121.61	110.49
39	BJ	123	ARG	N-CA-CB	6.58	119.61	110.07
78	CA	236	A	O4'-C1'-C2'	-6.58	101.02	107.60
35	BG	108	LYS	N-CA-C	6.58	118.11	111.07
81	DA	158	G	P-O3'-C3'	-6.58	110.34	120.20
81	DA	678	G	C3'-C2'-C1'	-6.58	94.72	101.30
81	DA	1870	C	N1-C1'-C2'	6.58	121.86	112.00
42	BM	66	LYS	N-CA-C	6.57	119.54	110.01
81	DA	1086	C	O3'-P-O5'	-6.57	94.14	104.00
81	DA	2494	A	P-O3'-C3'	6.57	130.06	120.20
83	DC	48	U	O4'-C1'-C2'	6.57	114.17	107.60
33	BD	254	ALA	CA-C-N	6.57	129.09	120.28
33	BD	254	ALA	C-N-CA	6.57	129.09	120.28
35	BG	152	THR	CA-C-N	-6.57	111.62	119.84
35	BG	152	THR	C-N-CA	-6.57	111.62	119.84
41	BN	77	ARG	N-CA-C	-6.57	99.67	108.74
74	BQ	154	THR	N-CA-C	-6.57	98.19	108.90
82	DB	39	G	C5'-C4'-O4'	-6.57	99.94	109.80
9	AH	81	VAL	CA-C-N	6.57	134.09	121.54
9	AH	81	VAL	C-N-CA	6.57	134.09	121.54
30	BA	65	ILE	CB-CA-C	6.57	119.06	110.91
33	BD	88	GLY	CA-C-N	6.57	134.09	121.54
33	BD	88	GLY	C-N-CA	6.57	134.09	121.54
45	BR	26	LEU	CA-C-N	6.57	128.98	120.44

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
45	BR	26	LEU	C-N-CA	6.57	128.98	120.44
46	BT	188	ASP	N-CA-C	6.57	119.00	111.11
78	CA	1724	U	O4'-C1'-C2'	-6.57	101.03	107.60
81	DA	1524	A	P-O3'-C3'	6.57	130.06	120.20
81	DA	2502	A	O4'-C1'-N9	6.57	118.36	108.50
15	AN	34	TYR	CA-C-N	-6.57	116.30	121.82
15	AN	34	TYR	C-N-CA	-6.57	116.30	121.82
43	BP	147	ARG	N-CA-C	-6.57	103.61	111.69
55	Bc	109	ILE	N-CA-C	-6.57	95.68	109.34
81	DA	704	U	O3'-P-O5'	-6.57	94.15	104.00
81	DA	2719	U	O4'-C1'-C2'	-6.57	101.03	107.60
10	AI	101	SER	CA-C-N	6.57	129.08	120.28
10	AI	101	SER	C-N-CA	6.57	129.08	120.28
78	CA	158	U	C1'-C2'-O2'	6.57	118.25	108.40
78	CA	162	A	O4'-C1'-C2'	-6.57	101.03	107.60
78	CA	1341	A	N9-C1'-C2'	-6.57	102.15	112.00
81	DA	798	G	O4'-C1'-N9	6.57	118.35	108.50
81	DA	1399	A	O3'-P-O5'	-6.57	94.15	104.00
81	DA	2664	C	C5'-C4'-C3'	6.57	125.85	116.00
34	BE	15	GLU	CA-CB-CG	6.56	127.23	114.10
33	BD	190	GLY	CA-C-N	6.56	130.29	120.31
33	BD	190	GLY	C-N-CA	6.56	130.29	120.31
41	BN	115	PHE	CA-C-N	6.56	129.07	120.28
41	BN	115	PHE	C-N-CA	6.56	129.07	120.28
62	Bk	89	GLU	CA-C-O	-6.56	113.93	120.82
69	Br	99	GLN	N-CA-C	-6.56	96.82	110.80
78	CA	1180	C	O4'-C1'-C2'	-6.56	101.04	107.60
81	DA	790	U	C1'-O4'-C4'	-6.56	103.34	109.90
9	AH	38	LEU	CB-CA-C	-6.56	99.90	110.79
46	BT	55	VAL	CA-C-O	-6.56	112.58	120.78
58	Bg	75	ILE	N-CA-C	6.56	117.48	107.77
78	CA	613	G	C1'-O4'-C4'	6.56	116.26	109.70
81	DA	1106	G	O4'-C1'-C2'	-6.56	101.04	107.60
2	AA	4	PRO	O-C-N	-6.56	113.79	122.64
44	BO	129	PHE	CA-CB-CG	-6.56	107.24	113.80
64	Bl	64	MET	CA-C-O	-6.56	110.95	120.13
78	CA	336	G	C4'-C3'-O3'	6.56	122.84	113.00
78	CA	995	A	C4'-C3'-O3'	-6.56	103.16	113.00
81	DA	452	G	N9-C1'-C2'	6.56	121.84	112.00
81	DA	531	G	P-O3'-C3'	6.56	130.04	120.20
81	DA	3330	A	P-O3'-C3'	-6.56	110.36	120.20
4	AD	191	ARG	N-CA-C	-6.56	99.97	110.14

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	AE	174	ARG	O-C-N	-6.56	113.11	121.83
10	AI	124	PRO	N-CA-CB	-6.56	96.36	103.25
78	CA	327	U	O4'-C1'-N1	6.56	118.34	108.50
81	DA	673	U	O4'-C1'-N1	6.56	118.34	108.50
81	DA	3107	U	C5'-C4'-C3'	6.56	125.83	116.00
82	DB	54	A	P-O3'-C3'	6.56	130.04	120.20
82	DB	88	A	O4'-C1'-C2'	-6.56	101.04	107.60
25	AY	13	ILE	N-CA-CB	6.56	118.96	110.57
13	AL	33	LEU	N-CA-C	-6.55	104.06	111.14
20	AS	48	GLN	O-C-N	-6.55	114.55	122.22
35	BG	45	GLY	N-CA-C	-6.55	97.65	113.18
35	BG	142	ASP	N-CA-C	-6.55	96.84	110.80
56	Bf	12	GLN	CA-C-N	6.55	129.60	120.29
56	Bf	12	GLN	C-N-CA	6.55	129.60	120.29
58	Bg	101	ALA	CB-CA-C	-6.55	100.59	110.88
78	CA	1399	C	C5'-C4'-C3'	6.55	125.83	116.00
81	DA	27	C	C3'-C2'-C1'	6.55	107.86	101.30
81	DA	1362	G	O4'-C1'-N9	6.55	118.33	108.50
81	DA	2800	G	C3'-C2'-C1'	6.55	107.85	101.30
81	DA	1898	G	P-O3'-C3'	6.55	130.03	120.20
81	DA	2284	C	N1-C1'-C2'	6.55	121.83	112.00
81	DA	2334	U	C4'-C3'-C2'	-6.55	96.05	102.60
5	AC	196	GLU	O-C-N	-6.55	115.93	123.33
14	AM	127	HIS	CE1-NE2-CD2	-6.55	102.45	109.00
22	AV	105	THR	O-C-N	-6.55	113.88	122.59
78	CA	1595	U	O4'-C4'-C3'	6.55	110.55	104.00
81	DA	79	U	N1-C1'-C2'	6.55	121.83	112.00
81	DA	1007	U	O3'-P-O5'	-6.55	94.17	104.00
81	DA	1688	U	O4'-C1'-N1	-6.55	98.67	108.50
81	DA	1828	A	P-O3'-C3'	6.55	130.03	120.20
81	DA	2181	C	C4'-C3'-C2'	-6.55	96.05	102.60
81	DA	2402	A	N9-C1'-C2'	-6.55	104.17	114.00
81	DA	2916	U	C3'-C2'-C1'	6.55	107.85	101.30
8	AF	148	ARG	CB-CA-C	-6.55	100.30	110.78
31	BB	227	ARG	CB-CA-C	-6.55	97.39	110.42
36	BF	125	ASN	CA-CB-CG	6.55	119.15	112.60
45	BR	54	LEU	CB-CG-CD2	6.55	130.35	110.70
47	BU	56	PHE	CA-C-N	6.55	134.35	121.58
47	BU	56	PHE	C-N-CA	6.55	134.35	121.58
81	DA	3306	U	C5'-C4'-C3'	-6.55	106.18	116.00
78	CA	1691	A	O5'-C5'-C4'	6.55	121.32	111.50
81	DA	1314	C	O4'-C1'-N1	-6.55	98.68	108.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
39	BJ	114	ARG	CA-C-N	6.55	131.78	120.58
39	BJ	114	ARG	C-N-CA	6.55	131.78	120.58
57	Be	57	THR	N-CA-C	-6.55	104.07	111.14
78	CA	295	A	O4'-C4'-C3'	-6.55	97.45	104.00
78	CA	1016	C	N1-C1'-C2'	6.55	121.82	112.00
81	DA	273	A	P-O3'-C3'	6.55	130.02	120.20
81	DA	2561	A	O4'-C1'-C2'	-6.55	101.05	107.60
17	AQ	10	LYS	N-CA-C	-6.54	104.15	111.28
44	BO	40	HIS	N-CA-CB	6.54	119.19	110.29
45	BR	13	SER	N-CA-CB	-6.54	99.97	111.49
78	CA	1547	A	OP1-P-OP2	-6.54	99.97	119.60
81	DA	1849	C	O4'-C1'-C2'	-6.54	99.26	105.80
81	DA	2229	A	C5'-C4'-O4'	-6.54	99.98	109.80
81	DA	2230	C	C3'-C2'-C1'	6.54	107.84	101.30
1	Aa	289	ALA	CA-C-N	6.54	129.71	120.42
1	Aa	289	ALA	C-N-CA	6.54	129.71	120.42
42	BM	42	SER	N-CA-C	6.54	119.38	110.55
59	Bh	18	LYS	N-CA-C	-6.54	100.00	110.14
59	Bh	119	VAL	N-CA-CB	6.54	122.02	111.23
78	CA	119	A	C4'-C3'-C2'	-6.54	96.06	102.60
81	DA	857	G	C4'-C3'-O3'	-6.54	103.19	113.00
81	DA	3213	A	O3'-P-O5'	-6.54	94.19	104.00
29	AU	72	PHE	CA-CB-CG	6.54	120.34	113.80
43	BP	154	PRO	CA-C-N	6.54	129.42	120.46
43	BP	154	PRO	C-N-CA	6.54	129.42	120.46
81	DA	76	G	N9-C1'-C2'	-6.54	104.19	114.00
81	DA	297	G	N9-C1'-C2'	-6.54	104.19	114.00
59	Bh	129	GLU	CB-CA-C	-6.54	97.41	110.42
74	BQ	15	ARG	NE-CZ-NH1	-6.54	114.96	121.50
78	CA	1463	C	O4'-C1'-C2'	-6.54	101.06	107.60
81	DA	2303	A	C4'-C3'-C2'	6.54	109.14	102.60
33	BD	48	GLN	CA-C-N	6.54	134.02	121.54
33	BD	48	GLN	C-N-CA	6.54	134.02	121.54
78	CA	1558	U	C5'-C4'-C3'	-6.54	106.20	116.00
81	DA	1551	C	O4'-C1'-C2'	-6.54	101.06	107.60
81	DA	1702	U	O5'-C5'-C4'	6.54	121.30	111.50
32	BC	150	ARG	N-CA-C	6.53	118.40	111.28
46	BT	6	THR	N-CA-C	-6.53	104.24	111.82
62	Bk	67	LYS	O-C-N	6.53	128.80	122.07
78	CA	216	U	O4'-C1'-C2'	-6.53	101.07	107.60
78	CA	219	A	O4'-C1'-N9	6.53	118.30	108.50
78	CA	1111	G	C1'-O4'-C4'	-6.53	103.37	109.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3051	U	O3'-P-O5'	6.53	113.80	104.00
4	AD	102	VAL	N-CA-C	-6.53	100.56	108.53
32	BC	346	THR	N-CA-CB	6.53	121.53	110.49
74	BQ	111	GLN	CA-C-N	6.53	134.02	121.54
74	BQ	111	GLN	C-N-CA	6.53	134.02	121.54
81	DA	1740	U	O4'-C1'-N1	6.53	118.30	108.50
11	AJ	113	ASP	N-CA-C	-6.53	104.55	113.30
76	BS	157	LYS	N-CA-C	6.53	124.71	110.80
81	DA	835	G	O3'-P-O5'	6.53	113.80	104.00
81	DA	1309	U	O4'-C1'-N1	6.53	118.30	108.50
81	DA	1942	U	O4'-C1'-C2'	-6.53	101.07	107.60
69	Br	58	PHE	N-CA-CB	6.53	121.52	110.49
78	CA	838	G	C4'-C3'-C2'	-6.53	96.07	102.60
78	CA	1607	G	N9-C1'-C2'	6.53	121.79	112.00
81	DA	671	U	C5'-C4'-O4'	-6.53	100.01	109.80
18	AP	104	HIS	ND1-CE1-NE2	6.53	114.93	108.40
47	BU	106	LEU	N-CA-CB	6.53	119.72	110.12
78	CA	880	C	O4'-C4'-C3'	6.53	110.53	104.00
81	DA	2767	U	N1-C1'-C2'	6.53	121.79	112.00
81	DA	2916	U	P-O3'-C3'	-6.53	110.41	120.20
11	AJ	43	LYS	CA-C-O	-6.53	113.92	120.90
62	Bk	57	LEU	N-CA-C	6.53	118.39	111.28
78	CA	887	A	O4'-C1'-C2'	-6.53	101.08	107.60
81	DA	463	C	C3'-C2'-C1'	6.53	107.83	101.30
81	DA	1818	U	C4'-C3'-C2'	-6.53	96.08	102.60
81	DA	3302	U	O4'-C1'-N1	6.53	118.29	108.50
12	AK	37	GLU	N-CA-CB	6.52	121.19	110.69
78	CA	285	G	C5'-C4'-C3'	-6.52	106.22	116.00
78	CA	305	C	C3'-C2'-C1'	6.52	107.82	101.30
81	DA	1273	A	O3'-P-O5'	-6.52	94.21	104.00
81	DA	1977	C	O4'-C1'-C2'	-6.52	101.08	107.60
81	DA	3299	A	C5'-C4'-O4'	-6.52	100.01	109.80
4	AD	187	ARG	CA-C-N	6.52	131.61	120.72
4	AD	187	ARG	C-N-CA	6.52	131.61	120.72
45	BR	157	PRO	N-CA-CB	6.52	110.10	103.25
78	CA	1670	G	O4'-C1'-N9	6.52	118.28	108.50
81	DA	1539	A	O4'-C1'-C2'	-6.52	101.08	107.60
81	DA	2139	A	N9-C1'-C2'	6.52	123.78	114.00
83	DC	93	U	C4'-C3'-C2'	-6.52	96.08	102.60
81	DA	1396	C	C5'-C4'-C3'	-6.52	106.22	116.00
9	AH	77	PRO	CB-CA-C	6.52	118.74	111.11
32	BC	352	GLU	N-CA-CB	6.52	121.51	110.49

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
53	Ba	45	GLY	N-CA-C	-6.52	101.25	110.96
78	CA	141	U	C4'-C3'-C2'	-6.52	96.08	102.60
78	CA	611	U	O4'-C1'-C2'	-6.52	101.08	107.60
78	CA	957	G	O4'-C1'-N9	6.52	118.28	108.50
78	CA	1547	A	P-O5'-C5'	6.52	130.68	120.90
81	DA	2570	U	P-O3'-C3'	6.52	129.98	120.20
81	DA	3389	U	O4'-C4'-C3'	-6.52	97.48	104.00
47	BU	81	GLY	N-CA-C	6.52	118.14	111.56
67	Bp	15	CYS	N-CA-C	6.52	124.68	110.80
78	CA	1066	C	O4'-C4'-C3'	-6.52	97.48	104.00
78	CA	1764	C	C3'-C2'-C1'	6.52	107.82	101.30
81	DA	3373	U	C2'-C3'-O3'	6.52	119.28	109.50
83	DC	12	U	N1-C1'-C2'	6.52	121.78	112.00
45	BR	129	VAL	CB-CA-C	-6.52	103.48	112.02
81	DA	2886	U	C1'-O4'-C4'	6.52	116.22	109.70
81	DA	3387	U	C1'-O4'-C4'	6.52	116.42	109.90
4	AD	79	ASP	N-CA-C	6.51	119.22	109.25
5	AC	123	HIS	CG-CD2-NE2	6.51	113.71	107.20
18	AP	110	HIS	CB-CA-C	-6.51	101.43	111.66
32	BC	270	ARG	CA-C-N	6.51	131.51	122.06
32	BC	270	ARG	C-N-CA	6.51	131.51	122.06
46	BT	39	ASN	CB-CA-C	-6.51	99.98	110.79
81	DA	1690	C	C1'-C2'-O2'	6.51	118.17	108.40
81	DA	2407	C	O4'-C1'-C2'	-6.51	101.08	107.60
81	DA	2754	G	O4'-C1'-N9	6.51	118.27	108.50
81	DA	2791	G	O4'-C1'-C2'	6.51	114.11	107.60
81	DA	3337	G	C1'-O4'-C4'	-6.51	103.39	109.90
6	AE	121	VAL	N-CA-CB	6.51	120.10	111.64
16	AO	127	ARG	N-CA-CB	6.51	119.69	110.12
78	CA	970	A	O4'-C1'-N9	6.51	118.27	108.50
78	CA	1065	A	P-O3'-C3'	6.51	129.97	120.20
81	DA	2440	G	C1'-O4'-C4'	-6.51	103.39	109.90
81	DA	3120	C	P-O3'-C3'	-6.51	110.43	120.20
2	AA	105	GLY	N-CA-C	-6.51	105.06	115.08
9	AH	75	ILE	CB-CA-C	6.51	119.45	110.99
20	AS	59	ALA	CB-CA-C	-6.51	99.78	110.85
33	BD	197	ARG	CA-C-N	6.51	129.33	120.54
33	BD	197	ARG	C-N-CA	6.51	129.33	120.54
53	Ba	95	VAL	O-C-N	6.51	128.18	121.87
78	CA	1644	C	P-O3'-C3'	6.51	129.96	120.20
81	DA	529	A	C3'-C2'-C1'	6.51	107.81	101.30
81	DA	799	G	C3'-C2'-C1'	6.51	107.81	101.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2592	G	O4'-C1'-C2'	-6.51	101.09	107.60
81	DA	2818	U	O4'-C1'-N1	6.51	117.96	108.20
2	AA	55	GLU	CA-C-N	6.51	129.00	120.28
2	AA	55	GLU	C-N-CA	6.51	129.00	120.28
43	BP	180	PHE	CA-C-N	-6.51	109.11	121.54
43	BP	180	PHE	C-N-CA	-6.51	109.11	121.54
57	Be	81	HIS	ND1-CE1-NE2	6.51	114.91	108.40
79	CB	47	U	N1-C1'-C2'	-6.51	104.24	114.00
81	DA	3334	U	C1'-O4'-C4'	6.51	116.21	109.70
1	Aa	66	HIS	CE1-NE2-CD2	-6.50	102.50	109.00
40	BK	151	ASP	CA-CB-CG	6.50	119.11	112.60
42	BM	44	SER	CA-C-N	6.50	135.30	123.27
42	BM	44	SER	C-N-CA	6.50	135.30	123.27
81	DA	455	C	N1-C1'-C2'	6.50	121.76	112.00
81	DA	2435	G	P-O5'-C5'	-6.50	111.14	120.90
4	AD	105	VAL	O-C-N	-6.50	115.13	121.83
29	AU	79	VAL	O-C-N	6.50	128.66	121.90
40	BK	195	ALA	CA-C-N	6.50	129.29	120.44
40	BK	195	ALA	C-N-CA	6.50	129.29	120.44
42	BM	66	LYS	CA-C-O	-6.50	113.33	120.87
50	BX	30	ALA	N-CA-CB	6.50	119.68	110.12
78	CA	521	A	C5'-C4'-C3'	6.50	124.66	114.90
78	CA	773	C	C5'-C4'-C3'	6.50	124.66	114.90
78	CA	1390	U	C5'-C4'-C3'	6.50	124.95	115.20
81	DA	1234	G	O4'-C1'-C2'	6.50	114.10	107.60
81	DA	2332	A	C1'-O4'-C4'	-6.50	103.40	109.90
1	Aa	47	LEU	CA-C-O	-6.50	113.66	120.55
32	BC	131	THR	CB-CA-C	6.50	126.67	112.63
34	BE	31	THR	CA-C-N	6.50	131.10	120.63
34	BE	31	THR	C-N-CA	6.50	131.10	120.63
58	Bg	65	LYS	N-CA-C	6.50	124.65	110.80
81	DA	1637	A	C1'-O4'-C4'	-6.50	103.40	109.90
78	CA	591	A	P-O5'-C5'	-6.50	111.15	120.90
78	CA	901	G	P-O5'-C5'	6.50	130.65	120.90
78	CA	1534	G	O5'-C5'-C4'	6.50	121.45	111.70
5	AC	87	SER	CA-C-N	6.50	129.52	120.29
5	AC	87	SER	C-N-CA	6.50	129.52	120.29
65	Bn	3	ARG	CA-C-N	6.50	131.00	120.60
65	Bn	3	ARG	C-N-CA	6.50	131.00	120.60
73	Bv	16	THR	CA-C-N	6.50	127.96	119.84
73	Bv	16	THR	C-N-CA	6.50	127.96	119.84
80	CC	18	C	P-O3'-C3'	-6.50	110.45	120.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1776	G	O4'-C1'-N9	6.50	118.25	108.50
81	DA	2606	G	N9-C1'-C2'	-6.50	104.25	114.00
83	DC	47	C	P-O3'-C3'	-6.50	110.45	120.20
4	AD	201	HIS	CA-CB-CG	-6.50	107.30	113.80
16	AO	107	LYS	N-CA-CB	6.50	119.78	110.16
20	AS	101	ASN	CA-C-N	6.50	129.51	120.29
20	AS	101	ASN	C-N-CA	6.50	129.51	120.29
33	BD	318	LEU	N-CA-CB	6.50	122.51	111.66
34	BE	19	LEU	N-CA-C	-6.50	98.14	108.73
58	Bg	41	LYS	CA-C-N	6.50	128.88	120.44
58	Bg	41	LYS	C-N-CA	6.50	128.88	120.44
60	Bi	38	LEU	CA-C-N	6.50	129.31	120.54
60	Bi	38	LEU	C-N-CA	6.50	129.31	120.54
81	DA	574	U	O4'-C1'-C2'	-6.50	101.10	107.60
81	DA	2275	A	C3'-C2'-C1'	-6.50	94.80	101.30
81	DA	3013	U	N1-C1'-C2'	6.50	121.74	112.00
29	AU	12	VAL	N-CA-C	-6.50	98.84	108.45
81	DA	346	C	C3'-C2'-C1'	6.50	107.80	101.30
62	Bk	43	LEU	N-CA-CB	6.49	119.43	110.01
78	CA	586	G	O4'-C4'-C3'	6.49	110.49	104.00
81	DA	1007	U	C3'-C2'-C1'	-6.49	94.81	101.30
81	DA	2188	A	P-O3'-C3'	6.49	129.94	120.20
81	DA	2802	A	P-O3'-C3'	6.49	129.94	120.20
43	BP	143	ARG	N-CA-C	6.49	118.36	111.28
58	Bg	65	LYS	N-CA-CB	-6.49	99.52	110.49
78	CA	894	U	O4'-C1'-N1	6.49	118.24	108.50
83	DC	82	A	P-O3'-C3'	-6.49	110.46	120.20
6	AE	235	LEU	O-C-N	-6.49	113.86	121.32
40	BK	197	LEU	CB-CA-C	6.49	123.34	110.42
53	Ba	46	ILE	CB-CA-C	6.49	120.03	111.33
74	BQ	52	VAL	O-C-N	-6.49	114.46	122.57
81	DA	681	U	C3'-C2'-C1'	6.49	107.99	101.50
81	DA	1437	C	C1'-O4'-C4'	6.49	116.39	109.90
81	DA	3348	G	O4'-C1'-N9	6.49	118.23	108.50
20	AS	120	GLY	CA-C-O	-6.49	114.07	120.75
30	BA	183	ILE	N-CA-CB	6.49	119.36	110.54
78	CA	1368	G	P-O5'-C5'	-6.49	111.17	120.90
81	DA	1478	C	C5'-C4'-C3'	-6.49	106.27	116.00
29	AU	34	ASN	CA-C-N	6.49	131.79	122.77
29	AU	34	ASN	C-N-CA	6.49	131.79	122.77
48	BW	93	ILE	CA-CB-CG2	6.49	121.53	110.50
54	Bd	58	LYS	N-CA-CB	6.49	119.66	110.12

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
57	Be	132	PRO	CA-C-O	-6.49	108.79	120.60
81	DA	161	G	C3'-C2'-C1'	-6.49	94.81	101.30
4	AD	184	THR	CA-C-O	-6.49	111.68	119.27
31	BB	31	THR	CA-C-N	6.49	133.93	121.54
31	BB	31	THR	C-N-CA	6.49	133.93	121.54
61	Bj	2	ALA	CA-C-N	-6.49	109.15	121.54
61	Bj	2	ALA	C-N-CA	-6.49	109.15	121.54
83	DC	83	U	O3'-P-O5'	6.49	113.73	104.00
78	CA	1736	G	O4'-C1'-N9	6.48	118.23	108.50
81	DA	241	G	O3'-P-O5'	6.48	113.73	104.00
51	BZ	51	TRP	CA-C-N	6.48	131.12	121.72
51	BZ	51	TRP	C-N-CA	6.48	131.12	121.72
77	BI	27	PRO	CA-C-N	6.48	133.92	121.54
77	BI	27	PRO	C-N-CA	6.48	133.92	121.54
78	CA	661	A	C4'-C3'-C2'	-6.48	96.12	102.60
78	CA	1649	G	C1'-O4'-C4'	6.48	116.38	109.90
81	DA	1657	C	O4'-C1'-C2'	-6.48	101.12	107.60
81	DA	2061	G	C5'-C4'-C3'	6.48	125.72	116.00
82	DB	19	C	O4'-C1'-C2'	-6.48	101.12	107.60
2	AA	230	GLU	N-CA-C	6.48	124.61	110.80
5	AC	190	GLU	CA-C-O	-6.48	111.24	120.51
21	AT	12	TYR	N-CA-CB	-6.48	100.59	110.12
47	BU	116	ARG	N-CA-C	6.48	118.34	111.28
58	Bg	60	TRP	N-CA-C	6.48	120.45	112.54
78	CA	172	C	P-O5'-C5'	-6.48	111.18	120.90
46	BT	152	GLU	N-CA-CB	6.48	119.40	110.01
65	Bn	29	LYS	N-CA-CB	6.48	121.44	110.49
78	CA	594	A	O4'-C1'-N9	6.48	117.92	108.20
14	AM	93	THR	N-CA-CB	6.48	121.44	110.49
81	DA	492	U	P-O3'-C3'	6.48	129.92	120.20
81	DA	636	C	O4'-C4'-C3'	-6.48	97.52	104.00
81	DA	1312	C	O4'-C1'-C2'	-6.48	101.12	107.60
81	DA	1477	A	O3'-P-O5'	6.48	113.72	104.00
82	DB	85	G	O4'-C1'-N9	-6.48	98.78	108.50
83	DC	29	C	N1-C1'-C2'	6.48	121.72	112.00
57	Be	158	LYS	N-CA-C	-6.48	98.30	108.14
81	DA	646	A	N9-C1'-C2'	6.48	121.71	112.00
81	DA	1612	A	O4'-C1'-C2'	-6.48	101.12	107.60
18	AP	66	ILE	O-C-N	6.47	130.17	123.18
43	BP	134	LEU	N-CA-CB	6.47	122.09	110.83
78	CA	936	G	C1'-C2'-O2'	6.47	118.11	108.40
81	DA	2498	U	O3'-P-O5'	6.47	113.71	104.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3373	U	P-O3'-C3'	6.47	129.91	120.20
17	AQ	35	CYS	CA-C-N	6.47	128.85	120.44
17	AQ	35	CYS	C-N-CA	6.47	128.85	120.44
22	AV	64	VAL	CB-CA-C	-6.47	103.40	112.14
45	BR	105	ARG	NE-CZ-NH2	6.47	125.03	119.20
78	CA	784	C	O5'-C5'-C4'	6.47	120.51	110.80
81	DA	1653	G	N9-C1'-C2'	6.47	121.71	112.00
81	DA	2336	U	P-O5'-C5'	-6.47	111.19	120.90
81	DA	2620	G	C5'-C4'-C3'	6.47	125.71	116.00
40	BK	73	PHE	N-CA-C	-6.47	98.65	109.07
78	CA	368	U	C1'-O4'-C4'	-6.47	103.43	109.90
81	DA	1638	A	O4'-C1'-C2'	6.47	114.07	107.60
81	DA	2146	C	N1-C1'-C2'	6.47	121.71	112.00
81	DA	2180	G	C1'-C2'-O2'	6.47	118.11	108.40
81	DA	3391	A	O4'-C1'-C2'	-6.47	101.13	107.60
43	BP	150	TRP	CE2-CD2-CE3	6.47	125.27	118.80
46	BT	141	HIS	CA-C-N	6.47	129.32	120.46
46	BT	141	HIS	C-N-CA	6.47	129.32	120.46
57	Be	107	ARG	N-CA-CB	6.47	121.42	110.49
81	DA	444	U	P-O3'-C3'	6.47	129.91	120.20
81	DA	3223	A	C5'-C4'-C3'	6.47	125.70	116.00
81	DA	3298	C	N1-C1'-C2'	6.47	121.70	112.00
14	AM	124	GLY	CA-C-O	-6.47	113.80	120.66
78	CA	1327	C	O4'-C1'-C2'	-6.47	101.13	107.60
78	CA	1613	U	O4'-C1'-C2'	-6.47	101.13	107.60
4	AD	213	SER	N-CA-CB	6.47	121.42	110.49
76	BS	111	GLU	N-CA-C	6.47	118.41	111.36
78	CA	839	U	O4'-C4'-C3'	-6.47	97.53	104.00
81	DA	1925	U	O4'-C1'-C2'	-6.47	99.33	105.80
6	AE	57	PHE	N-CA-C	-6.46	104.23	111.28
22	AV	54	VAL	CB-CA-C	-6.46	107.50	114.35
34	BE	9	MET	CA-C-N	6.46	133.89	121.54
34	BE	9	MET	C-N-CA	6.46	133.89	121.54
46	BT	84	THR	CA-CB-CG2	6.46	121.49	110.50
78	CA	116	U	C4'-C3'-C2'	-6.46	96.14	102.60
81	DA	1331	U	O4'-C1'-C2'	-6.46	99.34	105.80
81	DA	3240	C	C1'-O4'-C4'	-6.46	103.44	109.90
53	Ba	65	ARG	CB-CA-C	-6.46	99.20	109.80
55	Bc	96	GLU	N-CA-CB	6.46	121.26	110.41
76	BS	105	VAL	O-C-N	6.46	128.62	121.90
78	CA	385	A	O4'-C1'-C2'	-6.46	101.14	107.60
78	CA	1395	G	O3'-P-O5'	6.46	113.69	104.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3117	C	N1-C1'-C2'	6.46	121.69	112.00
8	AF	70	VAL	N-CA-C	-6.46	95.90	109.34
81	DA	801	A	P-O3'-C3'	-6.46	110.51	120.20
83	DC	112	G	P-O3'-C3'	-6.46	110.51	120.20
17	AQ	10	LYS	N-CA-CB	6.46	119.61	110.12
20	AS	56	LYS	N-CA-C	-6.46	104.24	111.28
32	BC	382	THR	CA-C-N	6.46	128.84	120.44
32	BC	382	THR	C-N-CA	6.46	128.84	120.44
59	Bh	27	ARG	N-CA-C	-6.46	104.32	111.36
77	BI	144	ASN	CA-C-N	6.46	128.94	120.28
77	BI	144	ASN	C-N-CA	6.46	128.94	120.28
81	DA	640	U	C4'-C3'-C2'	-6.46	96.14	102.60
81	DA	2169	G	P-O3'-C3'	6.46	129.89	120.20
81	DA	2477	G	O4'-C1'-C2'	-6.46	101.14	107.60
82	DB	95	G	O4'-C1'-C2'	-6.46	101.14	107.60
1	Aa	303	ALA	CA-C-N	6.46	126.58	121.61
1	Aa	303	ALA	C-N-CA	6.46	126.58	121.61
3	AB	101	GLN	CA-C-N	6.46	129.22	120.44
3	AB	101	GLN	C-N-CA	6.46	129.22	120.44
3	AB	162	GLN	N-CA-CB	-6.46	98.88	110.37
57	Be	195	PHE	CA-CB-CG	-6.46	107.34	113.80
81	DA	1017	C	N1-C1'-C2'	6.46	121.69	112.00
81	DA	2873	U	N1-C1'-C2'	6.46	123.68	114.00
82	DB	96	A	O4'-C1'-C2'	-6.46	101.14	107.60
16	AO	45	LEU	CA-C-N	6.46	128.16	120.09
16	AO	45	LEU	C-N-CA	6.46	128.16	120.09
26	AZ	22	GLU	CB-CG-CD	-6.46	101.63	112.60
78	CA	893	U	P-O3'-C3'	-6.46	110.52	120.20
78	CA	1104	U	N1-C1'-C2'	6.46	121.68	112.00
78	CA	1733	C	C3'-C2'-C1'	6.46	107.75	101.30
81	DA	3092	C	C1'-C2'-O2'	-6.46	98.72	108.40
81	DA	3140	G	O3'-P-O5'	-6.46	94.32	104.00
82	DB	91	C	N1-C1'-C2'	-6.46	104.32	114.00
6	AE	178	ILE	CA-CB-CG1	6.45	121.37	110.40
31	BB	26	ALA	N-CA-CB	6.45	119.28	110.38
46	BT	167	ARG	CA-C-O	-6.45	114.04	120.82
76	BS	162	THR	CB-CA-C	-6.45	99.71	110.68
78	CA	888	U	C5'-C4'-C3'	6.45	125.68	116.00
78	CA	1356	U	N1-C1'-C2'	6.45	121.68	112.00
78	CA	1610	G	O4'-C1'-C2'	6.45	114.05	107.60
81	DA	2318	U	O3'-P-O5'	-6.45	94.32	104.00
81	DA	2323	G	O4'-C1'-N9	6.45	117.88	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2520	A	P-O5'-C5'	-6.45	111.22	120.90
81	DA	2751	G	C4'-C3'-C2'	-6.45	96.15	102.60
40	BK	186	ALA	O-C-N	6.45	131.17	122.59
78	CA	546	U	O3'-P-O5'	6.45	113.68	104.00
13	AL	109	ARG	NE-CZ-NH2	-6.45	113.39	119.20
41	BN	95	ALA	N-CA-CB	6.45	120.15	110.22
81	DA	1220	U	P-O3'-C3'	6.45	129.88	120.20
32	BC	127	LYS	N-CA-CB	6.45	121.39	110.49
37	BH	91	PHE	CA-C-N	6.45	131.62	121.56
37	BH	91	PHE	C-N-CA	6.45	131.62	121.56
78	CA	951	A	O4'-C1'-N9	6.45	118.17	108.50
81	DA	275	U	O3'-P-O5'	6.45	113.67	104.00
82	DB	132	G	C1'-O4'-C4'	6.45	116.35	109.90
56	Bf	5	LYS	N-CA-C	-6.45	98.10	109.06
64	Bl	64	MET	N-CA-C	-6.45	104.11	112.68
78	CA	1680	G	C1'-O4'-C4'	6.45	116.34	109.90
31	BB	3	ARG	CB-CA-C	-6.44	98.11	109.71
35	BG	77	ARG	CB-CA-C	-6.44	95.25	109.56
44	BO	4	ARG	CA-C-N	6.44	129.79	120.38
44	BO	4	ARG	C-N-CA	6.44	129.79	120.38
78	CA	932	U	O4'-C1'-N1	6.44	117.86	108.20
78	CA	1578	U	P-O3'-C3'	6.44	129.86	120.20
81	DA	2066	C	C3'-C2'-C1'	6.44	107.74	101.30
42	BM	85	TRP	N-CA-C	-6.44	98.90	109.40
59	Bh	114	ALA	CA-C-N	6.44	130.10	120.31
59	Bh	114	ALA	C-N-CA	6.44	130.10	120.31
60	Bi	13	TYR	CA-C-N	6.44	129.20	120.44
60	Bi	13	TYR	C-N-CA	6.44	129.20	120.44
81	DA	1114	U	O4'-C4'-C3'	-6.44	97.56	104.00
81	DA	2492	C	O5'-C5'-C4'	6.44	121.16	111.50
41	BN	20	VAL	N-CA-C	-6.44	100.66	109.55
44	BO	117	ARG	N-CA-CB	6.44	119.66	110.13
63	Bm	34	HIS	CE1-NE2-CD2	-6.44	102.56	109.00
81	DA	3335	A	N9-C1'-C2'	6.44	121.66	112.00
16	AO	126	ALA	CA-C-N	6.44	128.91	120.28
16	AO	126	ALA	C-N-CA	6.44	128.91	120.28
56	Bf	98	SER	N-CA-CB	6.44	121.37	110.49
81	DA	135	C	O4'-C1'-C2'	-6.44	99.36	105.80
81	DA	655	C	O4'-C1'-C2'	-6.44	101.16	107.60
81	DA	1400	G	O4'-C1'-C2'	-6.44	101.16	107.60
81	DA	1907	C	N1-C1'-C2'	6.44	121.66	112.00
81	DA	2435	G	C5'-C4'-C3'	6.44	125.66	116.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	AD	165	ALA	CA-C-N	6.44	131.46	120.71
4	AD	165	ALA	C-N-CA	6.44	131.46	120.71
19	AR	67	ALA	CA-C-O	-6.44	112.42	118.73
44	BO	25	HIS	ND1-CE1-NE2	6.44	114.84	108.40
57	Be	48	ASN	CA-CB-CG	-6.44	106.16	112.60
1	Aa	150	TRP	CA-CB-CG	6.43	125.83	113.60
29	AU	33	ALA	CB-CA-C	-6.43	98.74	109.55
31	BB	150	LEU	CA-C-N	6.43	126.36	119.28
31	BB	150	LEU	C-N-CA	6.43	126.36	119.28
41	BN	38	ILE	CB-CA-C	-6.43	101.63	110.77
66	Bo	11	GLN	OE1-CD-NE2	-6.43	116.17	122.60
81	DA	73	C	O4'-C1'-N1	6.43	117.85	108.20
81	DA	2183	A	C4'-C3'-C2'	-6.43	96.17	102.60
81	DA	2408	U	C1'-O4'-C4'	-6.43	103.47	109.90
81	DA	2416	U	O3'-P-O5'	6.43	113.65	104.00
81	DA	2423	U	C5'-C4'-C3'	-6.43	106.35	116.00
17	AQ	16	LEU	N-CA-C	6.43	119.28	111.82
78	CA	267	U	O5'-C5'-C4'	-6.43	101.85	111.50
78	CA	1453	G	C5'-C4'-C3'	-6.43	106.35	116.00
81	DA	689	U	O4'-C1'-N1	6.43	118.15	108.50
81	DA	1167	U	O4'-C1'-C2'	-6.43	101.17	107.60
81	DA	2074	C	N1-C1'-C2'	6.43	121.65	112.00
81	DA	2774	C	N1-C1'-C2'	6.43	121.65	112.00
81	DA	3241	G	C3'-C2'-C1'	6.43	107.73	101.30
34	BE	16	LYS	N-CA-CB	6.43	121.36	110.49
47	BU	8	ARG	CB-CA-C	-6.43	98.73	110.63
81	DA	1990	U	O5'-C5'-C4'	6.43	121.15	111.50
81	DA	2644	C	O4'-C1'-N1	6.43	117.85	108.20
4	AD	236	ILE	N-CA-CB	6.43	121.84	111.23
10	AI	127	LYS	N-CA-C	-6.43	100.94	110.46
33	BD	261	VAL	N-CA-C	6.43	129.00	111.00
53	Ba	19	ALA	CA-C-N	6.43	134.01	121.41
53	Ba	19	ALA	C-N-CA	6.43	134.01	121.41
76	BS	90	HIS	CE1-NE2-CD2	-6.43	102.57	109.00
81	DA	330	G	O4'-C1'-N9	6.43	117.84	108.20
81	DA	3167	A	C1'-C2'-O2'	-6.43	98.75	108.40
42	BM	105	PRO	CA-C-N	6.43	130.08	120.31
42	BM	105	PRO	C-N-CA	6.43	130.08	120.31
81	DA	2998	U	C1'-O4'-C4'	6.43	116.33	109.90
83	DC	83	U	C4'-C3'-C2'	-6.43	96.17	102.60
1	Aa	279	ALA	CB-CA-C	6.43	120.95	110.22
15	AN	36	LEU	N-CA-C	6.43	118.85	110.43

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BF	96	HIS	N-CA-C	6.43	121.30	112.04
46	BT	17	VAL	N-CA-CB	6.43	118.32	109.84
61	Bj	76	GLY	CA-C-N	6.43	133.81	121.54
61	Bj	76	GLY	C-N-CA	6.43	133.81	121.54
79	CB	6	G	N9-C1'-C2'	6.43	121.64	112.00
81	DA	1420	C	C3'-C2'-C1'	6.43	107.73	101.30
81	DA	2963	C	O3'-P-O5'	6.43	113.64	104.00
81	DA	3042	U	O5'-P-OP1	-6.43	88.72	108.00
11	AJ	117	VAL	O-C-N	-6.42	116.39	123.20
22	AV	78	ILE	CA-C-N	6.42	128.89	120.28
22	AV	78	ILE	C-N-CA	6.42	128.89	120.28
32	BC	315	GLY	N-CA-C	-6.42	105.07	111.56
48	BW	23	THR	CA-CB-OG1	6.42	119.24	109.60
61	Bj	3	GLU	CB-CG-CD	6.42	123.52	112.60
78	CA	119	A	P-O3'-C3'	6.42	129.84	120.20
78	CA	880	C	P-O5'-C5'	6.42	130.54	120.90
78	CA	1114	G	C4'-C3'-C2'	-6.42	96.18	102.60
81	DA	837	A	C5'-C4'-C3'	6.42	125.64	116.00
81	DA	1776	G	C4'-C3'-C2'	-6.42	96.17	102.60
83	DC	17	A	C5'-C4'-C3'	6.42	125.64	116.00
38	Bs	28	VAL	CA-C-N	6.42	134.00	121.41
38	Bs	28	VAL	C-N-CA	6.42	134.00	121.41
42	BM	97	ASP	N-CA-CB	6.42	120.57	110.87
81	DA	279	U	P-O5'-C5'	6.42	130.53	120.90
81	DA	1467	A	O4'-C1'-N9	6.42	117.83	108.20
11	AJ	82	TYR	CA-C-N	6.42	131.98	121.58
11	AJ	82	TYR	C-N-CA	6.42	131.98	121.58
25	AY	56	LEU	N-CA-C	-6.42	94.44	107.41
57	Be	98	LYS	CB-CA-C	-6.42	97.52	110.17
78	CA	1794	A	C1'-O4'-C4'	6.42	116.32	109.90
81	DA	1842	A	O4'-C4'-C3'	-6.42	99.68	106.10
83	DC	79	U	O4'-C1'-C2'	-6.42	101.18	107.60
2	AA	15	GLN	N-CA-CB	6.42	121.34	110.49
32	BC	61	ASP	N-CA-CB	6.42	121.34	110.49
39	BJ	13	LEU	CA-C-O	6.42	127.17	120.30
59	Bh	6	HIS	CE1-NE2-CD2	-6.42	102.58	109.00
81	DA	169	U	P-O3'-C3'	6.42	129.83	120.20
32	BC	51	ALA	CB-CA-C	-6.42	100.01	110.79
34	BE	32	ARG	N-CA-C	6.42	120.68	112.34
40	BK	7	VAL	N-CA-CB	-6.42	103.70	111.21
47	BU	118	GLU	CB-CG-CD	-6.42	101.69	112.60
78	CA	482	U	P-O5'-C5'	-6.42	111.28	120.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2440	G	C1'-C2'-O2'	6.42	118.03	108.40
83	DC	90	C	O4'-C1'-C2'	-6.42	101.18	107.60
20	AS	11	ALA	CA-C-N	6.42	128.88	120.28
20	AS	11	ALA	C-N-CA	6.42	128.88	120.28
62	Bk	85	ALA	CA-C-N	6.42	129.40	120.29
62	Bk	85	ALA	C-N-CA	6.42	129.40	120.29
74	BQ	23	ARG	N-CA-CB	6.42	119.66	110.16
81	DA	3330	A	C4'-C3'-C2'	-6.42	96.19	102.60
81	DA	3363	U	O3'-P-O5'	-6.42	94.38	104.00
1	Aa	38	ARG	NE-CZ-NH2	-6.41	113.43	119.20
33	BD	131	VAL	CA-C-N	6.41	128.87	120.28
33	BD	131	VAL	C-N-CA	6.41	128.87	120.28
50	BX	65	GLN	N-CA-C	-6.41	99.84	108.11
59	Bh	25	TYR	N-CA-CB	6.41	121.46	110.68
63	Bm	35	ALA	N-CA-CB	6.41	119.89	109.69
81	DA	839	C	C5'-C4'-C3'	6.41	125.62	116.00
81	DA	1073	U	O4'-C1'-N1	6.41	118.12	108.50
81	DA	1109	U	C1'-O4'-C4'	6.41	116.31	109.90
81	DA	1383	G	C4'-C3'-C2'	-6.41	96.19	102.60
43	BP	14	LYS	N-CA-CB	-6.41	99.65	110.49
81	DA	110	G	O4'-C1'-C2'	6.41	114.01	107.60
6	AE	136	VAL	N-CA-C	-6.41	98.42	108.81
36	BF	64	HIS	CE1-NE2-CD2	-6.41	102.59	109.00
53	Ba	51	LEU	CA-C-N	-6.41	113.15	122.19
53	Ba	51	LEU	C-N-CA	-6.41	113.15	122.19
56	Bf	10	ILE	CA-C-O	-6.41	114.28	120.95
59	Bh	25	TYR	CB-CA-C	-6.41	97.98	109.71
74	BQ	111	GLN	N-CA-C	6.41	124.46	110.80
81	DA	682	U	N1-C1'-C2'	6.41	121.62	112.00
81	DA	1059	G	N9-C1'-C2'	6.41	121.62	112.00
81	DA	2822	U	O4'-C1'-C2'	-6.41	101.19	107.60
53	Ba	54	THR	CA-C-N	6.41	133.78	121.54
53	Ba	54	THR	C-N-CA	6.41	133.78	121.54
73	Bv	20	THR	N-CA-CB	6.41	119.54	110.12
78	CA	544	A	O3'-P-O5'	6.41	113.61	104.00
78	CA	1280	C	C3'-C2'-C1'	6.41	107.71	101.30
81	DA	993	G	C3'-C2'-C1'	-6.41	94.89	101.30
81	DA	2417	U	N1-C1'-C2'	6.41	121.61	112.00
1	Aa	16	HIS	ND1-CE1-NE2	6.41	114.81	108.40
38	Bs	215	SER	N-CA-CB	6.41	119.64	110.16
78	CA	858	G	O4'-C1'-N9	6.41	118.11	108.50
14	AM	11	PHE	CA-C-N	6.41	133.78	121.54

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
14	AM	11	PHE	C-N-CA	6.41	133.78	121.54
19	AR	104	GLN	CA-C-N	6.41	131.71	123.13
19	AR	104	GLN	C-N-CA	6.41	131.71	123.13
53	Ba	57	HIS	N-CA-C	-6.41	98.40	108.14
63	Bm	17	ARG	CA-C-N	6.41	133.78	121.54
63	Bm	17	ARG	C-N-CA	6.41	133.78	121.54
68	Bq	15	ARG	N-CA-C	-6.41	103.81	111.69
76	BS	15	GLY	N-CA-C	6.41	128.36	113.18
76	BS	38	ARG	CA-C-N	6.41	128.86	120.28
76	BS	38	ARG	C-N-CA	6.41	128.86	120.28
78	CA	1453	G	O4'-C1'-N9	6.41	118.11	108.50
81	DA	2892	A	C3'-C2'-C1'	6.41	107.71	101.30
14	AM	68	ARG	NE-CZ-NH1	-6.40	115.10	121.50
33	BD	241	GLY	CA-C-N	6.40	135.00	124.31
33	BD	241	GLY	C-N-CA	6.40	135.00	124.31
42	BM	11	PHE	N-CA-CB	6.40	122.00	111.62
47	BU	159	PHE	CA-C-N	6.40	133.23	121.70
47	BU	159	PHE	C-N-CA	6.40	133.23	121.70
81	DA	2757	U	O3'-P-O5'	-6.40	94.39	104.00
40	BK	137	THR	CB-CA-C	6.40	120.46	109.51
72	Bt	59	VAL	N-CA-CB	-6.40	105.17	112.21
81	DA	2271	A	C1'-O4'-C4'	6.40	116.30	109.90
81	DA	2294	U	O4'-C1'-N1	6.40	118.10	108.50
66	Bo	49	MET	N-CA-C	-6.40	101.01	110.48
67	Bp	34	CYS	CA-C-O	-6.40	113.51	120.36
81	DA	2479	C	C1'-C2'-O2'	6.40	118.00	108.40
81	DA	2506	U	C1'-C2'-O2'	-6.40	98.80	108.40
81	DA	2968	G	N9-C1'-C2'	-6.40	102.40	112.00
81	DA	3333	G	C1'-O4'-C4'	-6.40	103.50	109.90
1	Aa	165	ASP	CA-CB-CG	6.40	119.00	112.60
57	Be	224	ILE	CB-CA-C	-6.40	103.50	112.14
78	CA	303	U	C3'-C2'-C1'	6.40	107.70	101.30
81	DA	726	G	N9-C1'-C2'	6.40	121.60	112.00
6	AE	246	GLU	CA-C-N	6.40	129.37	120.29
6	AE	246	GLU	C-N-CA	6.40	129.37	120.29
61	Bj	62	SER	CA-C-N	6.40	132.63	122.59
61	Bj	62	SER	C-N-CA	6.40	132.63	122.59
81	DA	1678	G	C1'-C2'-O2'	6.40	118.00	108.40
81	DA	1745	C	O4'-C1'-C2'	-6.40	101.20	107.60
81	DA	3346	U	P-O5'-C5'	6.40	130.50	120.90
82	DB	49	G	P-O3'-C3'	6.40	129.80	120.20
83	DC	70	A	C4'-C3'-O3'	-6.40	103.40	113.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	AT	29	HIS	CA-C-N	6.39	134.39	123.01
21	AT	29	HIS	C-N-CA	6.39	134.39	123.01
25	AY	47	PRO	CA-C-N	6.39	131.93	123.17
25	AY	47	PRO	C-N-CA	6.39	131.93	123.17
38	Bs	229	TYR	N-CA-CB	6.39	121.75	110.37
78	CA	173	A	P-O3'-C3'	-6.39	110.61	120.20
78	CA	287	G	P-O3'-C3'	6.39	129.79	120.20
78	CA	718	U	O3'-P-O5'	-6.39	94.41	104.00
78	CA	1289	U	P-O3'-C3'	6.39	129.79	120.20
78	CA	1291	G	N9-C1'-C2'	6.39	121.59	112.00
1	Aa	48	THR	CA-C-O	-6.39	114.81	122.03
5	AC	17	ARG	N-CA-C	-6.39	95.68	109.81
65	Bn	22	THR	CA-CB-OG1	6.39	119.19	109.60
66	Bo	14	ALA	N-CA-C	6.39	118.33	111.36
74	BQ	94	ASN	CA-C-N	6.39	129.37	120.29
74	BQ	94	ASN	C-N-CA	6.39	129.37	120.29
78	CA	366	A	O4'-C1'-C2'	-6.39	101.21	107.60
78	CA	684	A	C1'-O4'-C4'	-6.39	103.51	109.90
78	CA	1782	A	P-O3'-C3'	-6.39	110.61	120.20
81	DA	1376	C	N1-C1'-C2'	6.39	121.59	112.00
81	DA	2004	U	O4'-C1'-C2'	-6.39	101.21	107.60
81	DA	2116	G	O4'-C1'-N9	6.39	117.79	108.20
81	DA	3035	A	C5'-C4'-C3'	-6.39	106.41	116.00
10	AI	140	LYS	CA-C-O	-6.39	111.37	120.51
78	CA	1783	C	P-O3'-C3'	6.39	129.79	120.20
81	DA	162	G	C5'-C4'-O4'	-6.39	100.21	109.80
81	DA	186	U	C1'-O4'-C4'	6.39	116.29	109.90
1	Aa	112	SER	CA-C-N	6.39	129.27	122.11
1	Aa	112	SER	C-N-CA	6.39	129.27	122.11
15	AN	32	ARG	CA-C-N	6.39	133.74	121.54
15	AN	32	ARG	C-N-CA	6.39	133.74	121.54
32	BC	369	ARG	CA-C-N	6.39	133.74	121.54
32	BC	369	ARG	C-N-CA	6.39	133.74	121.54
81	DA	199	A	O4'-C1'-N9	6.39	117.79	108.20
81	DA	984	G	C1'-O4'-C4'	6.39	116.29	109.90
82	DB	58	G	O4'-C1'-N9	6.39	117.78	108.20
83	DC	13	A	O4'-C1'-C2'	-6.39	101.21	107.60
46	BT	158	GLU	CA-C-N	6.39	129.36	120.29
46	BT	158	GLU	C-N-CA	6.39	129.36	120.29
78	CA	658	C	O3'-P-O5'	-6.39	94.42	104.00
81	DA	249	U	C5'-C4'-C3'	6.39	125.58	116.00
22	AV	95	HIS	CE1-NE2-CD2	-6.39	102.61	109.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BG	151	LYS	N-CA-CB	6.39	121.28	110.49
62	Bk	83	ALA	CB-CA-C	-6.39	99.71	110.44
72	Bu	48	ALA	CB-CA-C	-6.39	100.85	110.88
81	DA	548	G	O4'-C1'-C2'	6.39	113.99	107.60
81	DA	1251	A	C1'-O4'-C4'	-6.39	103.31	109.70
81	DA	1730	G	O4'-C1'-N9	6.39	118.08	108.50
81	DA	1743	G	N9-C1'-C2'	6.39	123.58	114.00
81	DA	3236	U	P-O5'-C5'	6.39	130.48	120.90
81	DA	3361	G	C5'-C4'-O4'	6.39	118.68	109.10
5	AC	196	GLU	N-CA-C	6.38	119.01	108.99
68	Bq	11	ARG	CA-C-O	-6.38	113.65	120.42
78	CA	689	G	O4'-C1'-N9	6.38	118.08	108.50
11	AJ	48	HIS	ND1-CE1-NE2	6.38	114.78	108.40
78	CA	304	U	C3'-C2'-C1'	6.38	107.68	101.30
78	CA	339	C	C4'-C3'-C2'	-6.38	96.22	102.60
81	DA	838	G	P-O5'-C5'	-6.38	111.33	120.90
81	DA	1078	U	N1-C1'-C2'	-6.38	102.42	112.00
81	DA	1319	G	O3'-P-O5'	-6.38	94.42	104.00
81	DA	1968	G	C5'-C4'-C3'	6.38	125.57	116.00
9	AH	99	PHE	CA-CB-CG	6.38	120.18	113.80
12	AK	60	ALA	CA-C-N	-6.38	112.86	123.33
12	AK	60	ALA	C-N-CA	-6.38	112.86	123.33
34	BE	29	ARG	CB-CG-CD	6.38	125.98	111.30
72	Bt	57	LEU	CA-C-N	6.38	130.91	120.63
72	Bt	57	LEU	C-N-CA	6.38	130.91	120.63
78	CA	519	C	P-O5'-C5'	6.38	129.57	120.00
78	CA	1366	U	O3'-P-O5'	6.38	113.57	104.00
81	DA	1447	G	C4'-C3'-C2'	-6.38	96.22	102.60
78	CA	10	G	C2'-C3'-O3'	-6.38	104.13	113.70
78	CA	124	A	C3'-C2'-C1'	6.38	107.68	101.30
82	DB	123	G	O4'-C1'-C2'	-6.38	101.22	107.60
6	AE	197	TYR	CA-CB-CG	-6.38	102.42	113.90
40	BK	113	ASP	CA-C-O	6.38	127.31	119.97
46	BT	95	TRP	N-CA-CB	6.38	119.50	110.12
1	Aa	188	ILE	N-CA-CB	6.38	117.82	110.49
5	AC	110	GLN	N-CA-C	-6.38	100.77	110.14
78	CA	285	G	C1'-O4'-C4'	-6.38	103.52	109.90
78	CA	1562	G	N9-C1'-C2'	-6.38	102.44	112.00
82	DB	52	A	C3'-C2'-C1'	6.38	107.68	101.30
32	BC	241	LYS	CB-CA-C	6.38	121.37	110.79
83	DC	38	U	C5'-C4'-C3'	6.38	125.56	116.00
21	AT	57	GLY	CA-C-N	6.37	128.73	120.44

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	AT	57	GLY	C-N-CA	6.37	128.73	120.44
37	BH	140	VAL	CA-CB-CG2	6.37	121.23	110.40
38	Bs	133	THR	CA-C-N	6.37	129.46	120.28
38	Bs	133	THR	C-N-CA	6.37	129.46	120.28
40	BK	189	ASP	CA-C-N	6.37	129.19	120.46
40	BK	189	ASP	C-N-CA	6.37	129.19	120.46
43	BP	153	ASP	N-CA-C	6.37	116.93	109.60
78	CA	46	A	C3'-C2'-O2'	6.37	120.26	110.70
78	CA	1722	A	O3'-P-O5'	-6.37	94.44	104.00
81	DA	7	C	C4'-C3'-O3'	-6.37	103.44	113.00
81	DA	998	A	C5'-C4'-C3'	6.37	125.56	116.00
81	DA	1057	A	O4'-C1'-C2'	-6.37	101.23	107.60
81	DA	1790	G	C5'-C4'-C3'	-6.37	106.44	116.00
83	DC	1	G	N9-C1'-C2'	-6.37	102.44	112.00
33	BD	92	ASN	CB-CA-C	6.37	122.48	109.67
35	BG	96	VAL	CA-CB-CG1	-6.37	99.57	110.40
78	CA	306	U	N1-C1'-C2'	-6.37	102.44	112.00
81	DA	1339	C	O4'-C1'-C2'	-6.37	101.23	107.60
81	DA	1474	A	C5'-C4'-C3'	-6.37	106.44	116.00
81	DA	2885	C	N1-C1'-C2'	6.37	121.56	112.00
81	DA	3050	U	C4'-C3'-C2'	-6.37	96.23	102.60
81	DA	3313	U	C4'-C3'-O3'	-6.37	103.44	113.00
54	Bd	41	ARG	N-CA-CB	6.37	119.25	110.01
10	AI	119	ALA	CA-C-N	6.37	133.70	121.54
10	AI	119	ALA	C-N-CA	6.37	133.70	121.54
10	AI	120	ASP	N-CA-CB	6.37	121.25	110.49
29	AU	62	THR	CA-C-N	-6.37	109.38	121.54
29	AU	62	THR	C-N-CA	-6.37	109.38	121.54
34	BE	90	GLN	N-CA-CB	6.37	121.04	110.47
78	CA	157	A	C3'-C2'-C1'	6.37	107.67	101.30
78	CA	560	U	N1-C1'-C2'	6.37	121.55	112.00
78	CA	1579	U	P-O3'-C3'	-6.37	110.65	120.20
81	DA	725	G	O4'-C1'-C2'	6.37	113.97	107.60
81	DA	1426	C	C2'-C3'-O3'	-6.37	104.15	113.70
81	DA	2464	U	P-O3'-C3'	6.37	129.75	120.20
30	BA	191	VAL	CB-CA-C	-6.37	102.29	112.16
78	CA	296	U	N1-C1'-C2'	6.37	121.55	112.00
81	DA	275	U	C2'-C3'-O3'	-6.37	104.15	113.70
83	DC	51	G	C5'-C4'-C3'	-6.37	106.45	116.00
2	AA	174	TRP	CB-CG-CD1	6.37	136.45	126.90
3	AB	27	ARG	CA-C-O	-6.37	114.14	120.70
21	AT	82	VAL	N-CA-C	-6.37	96.10	109.34

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
30	BA	96	ASN	CA-CB-CG	-6.37	106.23	112.60
81	DA	636	C	O3'-P-O5'	-6.37	94.45	104.00
81	DA	1006	A	O4'-C1'-C2'	-6.37	101.23	107.60
81	DA	1528	G	C3'-C2'-C1'	-6.37	94.93	101.30
81	DA	1680	G	O3'-P-O5'	6.37	113.55	104.00
81	DA	2233	A	O4'-C1'-C2'	-6.37	101.23	107.60
81	DA	2774	C	P-O3'-C3'	-6.37	110.65	120.20
8	AF	175	LEU	CA-C-N	6.36	129.33	120.29
8	AF	175	LEU	C-N-CA	6.36	129.33	120.29
78	CA	190	C	N1-C1'-C2'	6.36	121.54	112.00
81	DA	1620	U	C5'-C4'-O4'	-6.36	100.25	109.80
81	DA	1867	A	C1'-O4'-C4'	6.36	116.26	109.90
81	DA	3351	U	O4'-C1'-C2'	-6.36	101.24	107.60
82	DB	32	C	C3'-C2'-C1'	6.36	107.66	101.30
33	BD	249	ILE	CB-CA-C	6.36	119.80	110.77
37	BH	185	ARG	CB-CA-C	-6.36	100.23	110.79
78	CA	520	A	P-O3'-C3'	-6.36	110.66	120.20
81	DA	859	G	O4'-C1'-C2'	-6.36	99.44	105.80
81	DA	2235	C	C5'-C4'-C3'	6.36	125.54	116.00
4	AD	129	VAL	CA-C-N	-6.36	111.73	121.40
4	AD	129	VAL	C-N-CA	-6.36	111.73	121.40
33	BD	298	ALA	CA-C-N	6.36	133.42	121.97
33	BD	298	ALA	C-N-CA	6.36	133.42	121.97
38	Bs	213	PHE	N-CA-CB	6.36	119.23	110.01
38	Bs	222	SER	CA-C-N	6.36	128.57	120.56
38	Bs	222	SER	C-N-CA	6.36	128.57	120.56
78	CA	423	G	C4'-C3'-C2'	-6.36	96.24	102.60
78	CA	664	U	P-O3'-C3'	6.36	129.74	120.20
78	CA	1024	U	O4'-C1'-C2'	-6.36	101.24	107.60
78	CA	1440	C	O4'-C1'-C2'	-6.36	101.24	107.60
78	CA	1616	G	N9-C1'-C2'	6.36	121.54	112.00
81	DA	1181	U	N1-C1'-C2'	-6.36	104.46	114.00
81	DA	1412	G	P-O5'-C5'	-6.36	111.36	120.90
81	DA	1612	A	N9-C1'-C2'	-6.36	102.46	112.00
14	AM	13	HIS	N-CA-C	6.36	124.34	110.80
35	BG	140	VAL	N-CA-CB	6.36	121.72	111.23
36	BF	164	ILE	O-C-N	6.36	128.04	121.87
43	BP	135	VAL	CA-C-N	6.36	129.19	120.67
43	BP	135	VAL	C-N-CA	6.36	129.19	120.67
77	BI	174	THR	N-CA-CB	6.36	121.24	110.49
79	CB	13	U	C5'-C4'-C3'	-6.36	106.46	116.00
81	DA	2185	G	O4'-C1'-N9	6.36	118.04	108.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2867	C	O4'-C1'-C2'	-6.36	101.24	107.60
81	DA	3372	A	C4'-C3'-C2'	-6.36	96.24	102.60
1	Aa	159	ASN	OD1-CG-ND2	6.36	128.96	122.60
3	AB	69	LEU	N-CA-CB	6.36	119.57	110.16
78	CA	1144	U	N1-C1'-C2'	6.36	121.54	112.00
81	DA	816	A	O4'-C1'-C2'	-6.36	99.44	105.80
81	DA	1396	C	O3'-P-O5'	6.36	113.54	104.00
81	DA	2486	A	P-O3'-C3'	6.36	129.74	120.20
81	DA	2619	G	C5'-C4'-C3'	6.36	125.54	116.00
44	BO	140	ALA	CB-CA-C	-6.36	108.23	115.79
55	Bc	71	LYS	CA-C-N	6.36	126.99	120.00
55	Bc	71	LYS	C-N-CA	6.36	126.99	120.00
58	Bg	28	ARG	CD-NE-CZ	-6.36	115.50	124.40
60	Bi	36	LYS	CA-CB-CG	6.36	126.81	114.10
79	CB	38	C	O4'-C1'-C2'	-6.36	101.24	107.60
81	DA	976	U	O4'-C1'-C2'	-6.36	101.24	107.60
81	DA	1621	A	O4'-C4'-C3'	-6.36	97.64	104.00
81	DA	3249	C	C1'-O4'-C4'	-6.36	103.55	109.90
58	Bg	41	LYS	CA-C-O	-6.35	114.15	120.82
81	DA	1076	C	C1'-O4'-C4'	-6.35	103.55	109.90
81	DA	2907	G	O4'-C1'-N9	6.35	118.03	108.50
42	BM	65	GLY	CA-C-O	-6.35	109.52	120.57
48	BW	44	GLU	N-CA-CB	6.35	119.56	110.16
78	CA	730	G	P-O5'-C5'	6.35	129.53	120.00
78	CA	1027	A	O4'-C1'-N9	6.35	118.03	108.50
43	BP	11	GLN	N-CA-C	6.35	119.02	111.33
32	BC	93	VAL	N-CA-C	6.35	118.17	108.71
74	BQ	157	ALA	CA-C-O	-6.35	112.98	120.60
81	DA	2028	U	O4'-C1'-C2'	-6.35	101.25	107.60
81	DA	2496	C	O5'-C5'-C4'	6.35	121.03	111.50
81	DA	2682	C	P-O5'-C5'	6.35	130.42	120.90
81	DA	3252	G	O4'-C1'-N9	6.35	118.02	108.50
17	AQ	94	SER	N-CA-C	-6.35	97.28	110.80
30	BA	54	LYS	CB-CG-CD	6.35	125.90	111.30
32	BC	233	TRP	CA-C-N	6.35	130.27	121.26
32	BC	233	TRP	C-N-CA	6.35	130.27	121.26
40	BK	69	GLY	CA-C-N	-6.35	111.91	119.84
40	BK	69	GLY	C-N-CA	-6.35	111.91	119.84
76	BS	72	THR	N-CA-C	-6.35	97.28	110.80
78	CA	53	G	O4'-C1'-C2'	-6.35	101.25	107.60
78	CA	338	C	P-O5'-C5'	-6.35	111.38	120.90
78	CA	1006	C	O4'-C1'-C2'	-6.35	101.25	107.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	322	U	O4'-C1'-C2'	-6.35	101.25	107.60
81	DA	2681	U	O4'-C4'-C3'	-6.35	97.65	104.00
81	DA	2729	U	P-O5'-C5'	-6.35	111.38	120.90
31	BB	73	GLU	CA-C-N	-6.35	109.42	121.54
31	BB	73	GLU	C-N-CA	-6.35	109.42	121.54
81	DA	3389	U	P-O5'-C5'	6.35	130.42	120.90
2	AA	229	LYS	N-CA-CB	-6.34	100.15	110.81
78	CA	629	U	C2'-C3'-O3'	6.34	119.02	109.50
81	DA	1180	A	C1'-O4'-C4'	6.34	116.05	109.70
81	DA	2118	C	C3'-C2'-C1'	6.34	107.64	101.30
81	DA	2968	G	O4'-C1'-C2'	-6.34	101.26	107.60
25	AY	41	VAL	N-CA-C	-6.34	99.29	108.36
33	BD	101	ALA	N-CA-C	6.34	123.83	109.81
58	Bg	35	GLU	CB-CG-CD	-6.34	101.82	112.60
78	CA	637	C	C1'-O4'-C4'	6.34	116.24	109.90
78	CA	1441	C	O4'-C1'-C2'	-6.34	101.26	107.60
81	DA	337	G	O3'-P-O5'	-6.34	94.49	104.00
81	DA	1640	G	O4'-C1'-C2'	6.34	113.94	107.60
81	DA	2238	G	P-O5'-C5'	-6.34	111.39	120.90
5	AC	116	LEU	CA-C-O	6.34	129.58	120.51
10	AI	120	ASP	CA-CB-CG	-6.34	106.26	112.60
17	AQ	104	ASN	CA-C-N	6.34	129.29	120.29
17	AQ	104	ASN	C-N-CA	6.34	129.29	120.29
32	BC	308	MET	CA-CB-CG	-6.34	101.42	114.10
33	BD	219	LEU	CA-C-N	6.34	129.41	120.28
33	BD	219	LEU	C-N-CA	6.34	129.41	120.28
35	BG	98	VAL	N-CA-C	6.34	122.53	109.34
81	DA	1410	U	O4'-C1'-N1	6.34	118.01	108.50
81	DA	1823	A	C5'-C4'-C3'	-6.34	106.49	116.00
81	DA	3050	U	C2'-C3'-O3'	6.34	123.21	113.70
83	DC	55	A	C1'-O4'-C4'	6.34	116.24	109.90
33	BD	89	ALA	N-CA-CB	-6.34	99.78	110.49
52	BY	74	TYR	N-CA-C	-6.34	96.77	107.99
60	Bi	116	GLU	CA-C-O	6.34	127.36	120.32
78	CA	1151	A	O4'-C1'-C2'	-6.34	101.26	107.60
81	DA	1002	A	O3'-P-O5'	6.34	113.51	104.00
81	DA	1361	U	O3'-P-O5'	-6.34	94.49	104.00
3	AB	197	THR	CA-C-N	6.34	131.82	121.87
3	AB	197	THR	C-N-CA	6.34	131.82	121.87
13	AL	6	PRO	CA-C-N	-6.34	113.61	122.74
13	AL	6	PRO	C-N-CA	-6.34	113.61	122.74
25	AY	14	LYS	CA-C-N	6.34	130.02	120.77

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	AY	14	LYS	C-N-CA	6.34	130.02	120.77
29	AU	63	GLN	CA-C-N	6.34	128.77	120.28
29	AU	63	GLN	C-N-CA	6.34	128.77	120.28
40	BK	124	LEU	N-CA-C	-6.34	105.03	112.89
81	DA	2882	U	C5'-C4'-C3'	6.34	125.50	116.00
2	AA	4	PRO	CB-CA-C	6.33	122.01	111.56
35	BG	73	GLY	N-CA-C	6.33	128.19	113.18
36	BF	178	GLY	CA-C-N	6.33	131.44	123.14
36	BF	178	GLY	C-N-CA	6.33	131.44	123.14
81	DA	2388	U	O4'-C1'-C2'	-6.33	101.27	107.60
81	DA	2493	U	P-O3'-C3'	6.33	129.70	120.20
16	AO	69	ASN	CA-C-N	6.33	128.77	120.28
16	AO	69	ASN	C-N-CA	6.33	128.77	120.28
35	BG	150	LYS	N-CA-C	-6.33	97.31	110.80
37	BH	66	SER	N-CA-CB	6.33	121.19	110.49
51	BZ	52	THR	CB-CA-C	6.33	120.68	110.29
58	Bg	14	ILE	N-CA-C	-6.33	98.74	107.99
78	CA	959	U	C2'-C3'-O3'	6.33	119.00	109.50
78	CA	1642	G	N9-C1'-C2'	-6.33	102.50	112.00
81	DA	434	U	O3'-P-O5'	6.33	113.50	104.00
81	DA	2972	G	O4'-C1'-C2'	6.33	113.93	107.60
11	AJ	104	THR	CA-C-N	6.33	128.67	120.44
11	AJ	104	THR	C-N-CA	6.33	128.67	120.44
43	BP	28	TRP	CB-CA-C	-6.33	100.28	110.79
43	BP	99	ARG	NE-CZ-NH2	6.33	124.90	119.20
78	CA	649	U	C3'-C2'-C1'	-6.33	94.97	101.30
81	DA	694	C	O4'-C1'-C2'	-6.33	101.27	107.60
39	BJ	21	GLU	CA-C-N	6.33	131.63	121.95
39	BJ	21	GLU	C-N-CA	6.33	131.63	121.95
81	DA	3122	A	C4'-C3'-O3'	-6.33	103.50	113.00
6	AE	226	THR	CA-C-O	-6.33	111.49	120.16
6	AE	240	LEU	N-CA-CB	6.33	120.48	110.23
41	BN	44	VAL	N-CA-C	-6.33	98.63	108.44
49	BV	147	GLU	CB-CA-C	6.33	120.77	109.38
53	Ba	29	HIS	CB-CA-C	-6.33	97.83	110.42
78	CA	297	U	C5'-C4'-C3'	6.33	125.49	116.00
78	CA	1321	A	O3'-P-O5'	-6.33	94.51	104.00
81	DA	436	A	C3'-C2'-C1'	6.33	107.63	101.30
35	BG	55	LEU	CA-C-N	-6.33	111.85	122.29
35	BG	55	LEU	C-N-CA	-6.33	111.85	122.29
43	BP	110	ALA	CA-C-N	6.33	129.39	120.28
43	BP	110	ALA	C-N-CA	6.33	129.39	120.28

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1333	C	C3'-C2'-C1'	6.33	107.63	101.30
81	DA	1824	U	C4'-C3'-C2'	-6.33	96.27	102.60
2	AA	239	ALA	N-CA-C	6.33	118.17	111.28
8	AF	40	ILE	N-CA-CB	6.33	117.42	110.53
20	AS	117	SER	CA-C-N	6.33	127.75	119.84
20	AS	117	SER	C-N-CA	6.33	127.75	119.84
41	BN	132	LYS	CA-C-N	6.33	128.75	120.28
41	BN	132	LYS	C-N-CA	6.33	128.75	120.28
78	CA	368	U	O4'-C4'-C3'	-6.33	97.67	104.00
78	CA	1007	C	N1-C1'-C2'	6.33	121.49	112.00
78	CA	1412	G	C5'-C4'-C3'	6.33	124.69	115.20
81	DA	1725	C	C3'-C2'-C1'	6.33	107.62	101.30
25	AY	56	LEU	CA-C-O	6.32	128.89	121.11
45	BR	33	TYR	N-CA-CB	6.32	119.42	110.12
74	BQ	274	GLN	OE1-CD-NE2	-6.32	116.28	122.60
78	CA	328	A	O4'-C1'-C2'	-6.32	101.28	107.60
81	DA	376	G	C2'-C3'-O3'	6.32	118.98	109.50
81	DA	664	U	N1-C1'-C2'	6.32	121.49	112.00
81	DA	1209	G	O4'-C1'-N9	6.32	117.98	108.50
81	DA	1232	C	O5'-C5'-C4'	6.32	120.99	111.50
81	DA	2024	G	C4'-C3'-C2'	-6.32	96.28	102.60
81	DA	2245	C	C3'-C2'-C1'	6.32	107.62	101.30
81	DA	2306	C	N1-C1'-C2'	6.32	121.48	112.00
18	AP	63	LEU	CA-C-O	-6.32	113.53	120.30
39	BJ	75	PRO	N-CA-C	-6.32	99.45	112.47
78	CA	1239	U	O4'-C4'-C3'	-6.32	97.68	104.00
81	DA	1998	G	O4'-C1'-N9	6.32	117.98	108.50
82	DB	3	A	C3'-C2'-C1'	-6.32	94.98	101.30
2	AA	5	ALA	CB-CA-C	-6.32	99.39	111.97
5	AC	24	LEU	CA-C-N	6.32	128.75	120.28
5	AC	24	LEU	C-N-CA	6.32	128.75	120.28
20	AS	69	LYS	N-CA-CB	6.32	121.17	110.49
57	Be	64	GLN	O-C-N	6.32	129.35	122.15
78	CA	1719	A	C5'-C4'-C3'	6.32	125.48	116.00
78	CA	1234	A	C3'-C2'-C1'	-6.32	94.98	101.30
69	Br	79	THR	CB-CA-C	6.32	123.55	111.48
81	DA	339	C	C4'-C3'-O3'	-6.32	103.52	113.00
81	DA	457	C	O4'-C1'-C2'	-6.32	101.28	107.60
81	DA	684	G	O4'-C1'-C2'	-6.32	101.28	107.60
81	DA	1037	C	C3'-C2'-C1'	6.32	107.62	101.30
81	DA	1193	A	N9-C1'-C2'	-6.32	102.52	112.00
81	DA	1781	C	O4'-C1'-C2'	-6.32	99.48	105.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	AA	102	PHE	CA-C-O	-6.32	113.10	120.62
20	AS	105	LEU	CA-C-N	6.32	128.74	120.28
20	AS	105	LEU	C-N-CA	6.32	128.74	120.28
64	Bl	70	VAL	CA-C-N	6.32	129.06	120.54
64	Bl	70	VAL	C-N-CA	6.32	129.06	120.54
78	CA	355	G	O4'-C1'-N9	6.32	117.97	108.50
81	DA	173	G	N9-C1'-C2'	6.32	121.47	112.00
81	DA	1127	G	O4'-C1'-N9	6.32	117.97	108.50
81	DA	1203	A	C1'-O4'-C4'	-6.32	103.58	109.90
81	DA	2141	U	N1-C1'-C2'	6.32	121.47	112.00
81	DA	2406	C	O3'-P-O5'	-6.32	94.53	104.00
25	AY	51	ASN	CA-CB-CG	6.31	118.91	112.60
33	BD	36	HIS	N-CA-CB	6.31	119.50	110.16
45	BR	157	PRO	CB-CA-C	6.31	121.98	111.56
74	BQ	219	PHE	CA-C-N	6.31	128.74	120.28
74	BQ	219	PHE	C-N-CA	6.31	128.74	120.28
81	DA	2776	C	C3'-C2'-C1'	6.31	107.61	101.30
54	Bd	53	ALA	N-CA-CB	6.31	119.40	110.12
78	CA	257	A	C5'-C4'-C3'	6.31	125.47	116.00
78	CA	1608	U	O4'-C1'-N1	6.31	117.97	108.50
81	DA	93	C	O4'-C1'-C2'	-6.31	99.49	105.80
81	DA	185	C	N1-C1'-C2'	6.31	121.47	112.00
81	DA	1234	G	P-O5'-C5'	-6.31	111.43	120.90
81	DA	2178	A	P-O3'-C3'	6.31	129.67	120.20
78	CA	662	U	N1-C1'-C2'	6.31	121.47	112.00
81	DA	881	C	N1-C1'-C2'	6.31	121.47	112.00
81	DA	1308	A	O4'-C1'-C2'	-6.31	101.29	107.60
8	AF	82	PHE	CA-CB-CG	6.31	120.11	113.80
35	BG	10	TYR	N-CA-C	6.31	123.75	109.81
40	BK	72	HIS	N-CA-C	-6.31	98.33	109.06
47	BU	95	HIS	ND1-CE1-NE2	6.31	114.71	108.40
52	BY	114	ASP	CB-CA-C	6.31	121.58	110.85
81	DA	350	C	O4'-C1'-C2'	-6.31	99.49	105.80
57	Be	199	ASN	CA-C-N	6.31	133.59	121.54
57	Be	199	ASN	C-N-CA	6.31	133.59	121.54
78	CA	489	C	O4'-C1'-N1	6.31	117.96	108.50
81	DA	543	C	N1-C1'-C2'	6.31	121.46	112.00
81	DA	2420	C	P-O3'-C3'	6.31	129.66	120.20
81	DA	3308	C	C3'-C2'-C1'	6.31	107.61	101.30
1	Aa	46	LYS	CA-C-N	6.31	128.73	120.28
1	Aa	46	LYS	C-N-CA	6.31	128.73	120.28
5	AC	39	LYS	N-CA-CB	6.31	121.15	110.49

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	Bs	179	SER	CA-C-N	6.30	127.72	119.84
38	Bs	179	SER	C-N-CA	6.30	127.72	119.84
48	BW	81	LYS	CA-CB-CG	6.30	126.71	114.10
57	Be	47	ARG	CA-C-N	6.30	128.63	120.44
57	Be	47	ARG	C-N-CA	6.30	128.63	120.44
60	Bi	7	PHE	CB-CA-C	-6.30	100.94	110.90
81	DA	2375	G	O5'-C5'-C4'	-6.30	102.24	111.70
9	AH	23	ARG	NE-CZ-NH2	-6.30	113.53	119.20
20	AS	12	GLN	CB-CG-CD	-6.30	101.89	112.60
74	BQ	17	GLN	CA-C-N	6.30	128.63	120.44
74	BQ	17	GLN	C-N-CA	6.30	128.63	120.44
78	CA	846	G	P-O5'-C5'	-6.30	111.44	120.90
81	DA	1683	A	O3'-P-O5'	-6.30	94.55	104.00
81	DA	2001	U	N1-C1'-C2'	-6.30	102.55	112.00
83	DC	61	U	O4'-C1'-N1	6.30	117.95	108.50
31	BB	2	GLY	O-C-N	6.30	129.08	122.59
32	BC	93	VAL	O-C-N	-6.30	116.25	122.93
50	BX	135	ILE	CA-C-N	6.30	128.72	120.28
50	BX	135	ILE	C-N-CA	6.30	128.72	120.28
81	DA	2073	A	C4'-C3'-O3'	-6.30	103.55	113.00
81	DA	2704	A	C4'-C3'-O3'	6.30	118.85	109.40
5	AC	146	PHE	N-CA-CB	6.30	122.35	112.46
16	AO	104	ARG	N-CA-CB	6.30	119.38	110.12
32	BC	359	ILE	N-CA-C	-6.30	100.01	108.96
46	BT	4	LEU	N-CA-C	-6.30	104.86	113.30
81	DA	728	G	P-O5'-C5'	-6.30	111.45	120.90
81	DA	1391	C	C5'-C4'-O4'	-6.30	99.65	109.10
81	DA	2691	A	C5'-C4'-C3'	6.30	125.45	116.00
81	DA	2697	A	C5'-C4'-C3'	-6.30	106.55	116.00
81	DA	3345	G	N9-C1'-C2'	-6.30	102.55	112.00
22	AV	86	GLU	N-CA-CB	6.30	119.38	110.12
31	BB	39	GLY	CA-C-N	6.30	132.73	122.65
31	BB	39	GLY	C-N-CA	6.30	132.73	122.65
31	BB	245	LEU	N-CA-CB	-6.30	101.93	111.19
81	DA	804	C	O3'-P-O5'	6.30	113.45	104.00
83	DC	86	G	O4'-C1'-C2'	-6.30	101.30	107.60
21	AT	49	GLU	N-CA-C	-6.30	99.55	109.50
32	BC	54	THR	N-CA-C	-6.30	100.05	108.74
36	BF	180	TYR	CA-C-O	-6.30	113.74	121.11
44	BO	134	ALA	CA-C-N	6.30	129.76	120.95
44	BO	134	ALA	C-N-CA	6.30	129.76	120.95
46	BT	55	VAL	CB-CA-C	6.30	121.62	111.29

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
63	Bm	51	ALA	N-CA-C	-6.30	99.88	108.38
76	BS	156	ARG	N-CA-CB	6.30	121.13	110.49
78	CA	841	U	O5'-C5'-C4'	6.30	120.95	111.50
81	DA	513	G	N9-C1'-C2'	6.30	121.44	112.00
10	AI	139	GLN	CA-C-N	6.29	133.56	121.54
10	AI	139	GLN	C-N-CA	6.29	133.56	121.54
33	BD	311	HIS	CE1-NE2-CD2	-6.29	102.70	109.00
34	BE	132	ASN	CA-CB-CG	-6.29	106.31	112.60
53	Ba	57	HIS	CA-C-O	6.29	128.02	121.28
81	DA	386	A	O3'-P-O5'	-6.29	94.56	104.00
81	DA	2677	G	C4'-C3'-C2'	-6.29	96.31	102.60
81	DA	2901	G	C1'-O4'-C4'	-6.29	103.61	109.90
6	AE	126	ARG	CA-C-N	6.29	133.34	122.64
6	AE	126	ARG	C-N-CA	6.29	133.34	122.64
16	AO	124	ARG	NE-CZ-NH1	-6.29	115.21	121.50
37	BH	155	ASN	CB-CA-C	-6.29	100.95	110.90
81	DA	2207	A	N9-C1'-C2'	-6.29	104.56	114.00
5	AC	123	HIS	ND1-CE1-NE2	6.29	114.69	108.40
47	BU	110	LYS	CA-C-N	6.29	128.71	120.28
47	BU	110	LYS	C-N-CA	6.29	128.71	120.28
68	Bq	12	ARG	N-CA-C	6.29	118.22	111.36
78	CA	56	U	O3'-P-O5'	6.29	113.44	104.00
81	DA	432	G	P-O3'-C3'	6.29	129.64	120.20
81	DA	796	U	N1-C1'-C2'	6.29	121.44	112.00
81	DA	862	U	N1-C1'-C2'	6.29	121.44	112.00
81	DA	1567	U	O4'-C1'-C2'	-6.29	101.31	107.60
83	DC	21	G	C1'-C2'-O2'	6.29	117.84	108.40
77	BI	112	GLN	CA-C-N	6.29	133.55	121.54
77	BI	112	GLN	C-N-CA	6.29	133.55	121.54
78	CA	1394	G	O5'-C5'-C4'	6.29	120.94	111.50
57	Be	228	SER	CA-C-N	6.29	133.55	121.54
57	Be	228	SER	C-N-CA	6.29	133.55	121.54
66	Bo	21	ARG	CA-C-O	6.29	126.28	120.50
78	CA	229	U	N1-C1'-C2'	6.29	121.43	112.00
81	DA	63	A	P-O5'-C5'	-6.29	111.47	120.90
81	DA	252	U	C5'-C4'-C3'	6.29	125.43	116.00
81	DA	1144	U	C2'-C3'-O3'	6.29	123.13	113.70
29	AU	43	LYS	CA-C-N	6.29	128.71	120.28
29	AU	43	LYS	C-N-CA	6.29	128.71	120.28
45	BR	44	PHE	CB-CA-C	-6.29	100.35	110.79
69	Br	34	SER	N-CA-CB	6.29	121.12	110.49
78	CA	1731	A	P-O3'-C3'	6.29	129.63	120.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1250	G	P-O3'-C3'	-6.29	110.77	120.20
6	AE	226	THR	CA-CB-OG1	6.29	119.03	109.60
32	BC	8	ALA	CA-C-N	6.29	126.30	119.89
32	BC	8	ALA	C-N-CA	6.29	126.30	119.89
32	BC	335	ILE	N-CA-CB	6.29	118.04	110.31
78	CA	179	A	O5'-C5'-C4'	-6.29	102.07	111.50
78	CA	868	G	C4'-C3'-O3'	-6.29	103.57	113.00
81	DA	2664	C	C3'-C2'-C1'	6.29	107.59	101.30
1	Aa	13	LEU	N-CA-C	-6.28	100.90	110.14
43	BP	44	ARG	CA-C-N	6.28	126.48	119.32
43	BP	44	ARG	C-N-CA	6.28	126.48	119.32
74	BQ	46	THR	N-CA-CB	6.28	120.06	111.20
78	CA	150	U	C2'-C3'-O3'	6.28	123.13	113.70
78	CA	1137	A	C2'-C3'-O3'	6.28	118.93	109.50
81	DA	1786	G	P-O3'-C3'	-6.28	110.77	120.20
82	DB	101	U	C4'-C3'-C2'	-6.28	96.32	102.60
12	AK	58	TYR	O-C-N	-6.28	115.51	123.24
34	BE	52	TYR	O-C-N	-6.28	114.23	122.59
37	BH	117	ALA	CA-C-O	6.28	129.49	120.51
41	BN	136	ALA	CB-CA-C	-6.28	100.36	110.79
57	Be	241	LYS	CA-C-N	6.28	129.86	120.31
57	Be	241	LYS	C-N-CA	6.28	129.86	120.31
64	Bl	74	PHE	N-CA-CB	6.28	119.18	110.07
78	CA	451	A	P-O3'-C3'	6.28	129.62	120.20
78	CA	1129	U	O4'-C1'-N1	6.28	117.92	108.50
81	DA	3010	U	C5'-C4'-O4'	-6.28	100.38	109.80
69	Br	41	ARG	CA-C-N	6.28	128.70	120.28
69	Br	41	ARG	C-N-CA	6.28	128.70	120.28
78	CA	1761	U	C3'-C2'-C1'	6.28	107.78	101.50
81	DA	848	A	N9-C1'-C2'	6.28	121.42	112.00
81	DA	1245	A	O4'-C1'-N9	6.28	117.62	108.20
81	DA	1295	G	P-O3'-C3'	-6.28	110.78	120.20
82	DB	126	A	C2'-C3'-O3'	6.28	118.92	109.50
81	DA	1626	U	N1-C1'-C2'	6.28	121.42	112.00
82	DB	139	U	O4'-C1'-N1	6.28	117.92	108.50
5	AC	77	ILE	CB-CA-C	6.28	121.58	111.29
34	BE	116	TYR	N-CA-C	6.28	118.12	111.28
35	BG	68	PRO	CB-CA-C	-6.28	101.20	111.56
38	Bs	222	SER	N-CA-CB	-6.28	100.91	110.01
38	Bs	235	VAL	N-CA-C	6.28	116.95	110.36
43	BP	122	ASN	CA-CB-CG	-6.28	106.32	112.60
81	DA	3085	G	O3'-P-O5'	6.28	113.42	104.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
43	BP	25	VAL	N-CA-C	6.28	117.02	110.62
65	Bn	46	ARG	N-CA-C	-6.28	99.17	109.40
74	BQ	73	VAL	CA-C-O	-6.28	113.33	120.67
78	CA	377	G	O4'-C1'-C2'	-6.28	99.52	105.80
78	CA	955	A	O4'-C1'-N9	6.28	117.91	108.50
78	CA	1547	A	O4'-C1'-C2'	-6.28	101.33	107.60
81	DA	3095	U	P-O3'-C3'	6.28	129.61	120.20
3	AB	25	PHE	CA-CB-CG	-6.27	107.53	113.80
44	BO	67	HIS	CA-C-N	6.27	133.52	121.54
44	BO	67	HIS	C-N-CA	6.27	133.52	121.54
78	CA	1180	C	C3'-C2'-C1'	6.27	107.57	101.30
79	CB	10	G	C5'-C4'-C3'	-6.27	106.59	116.00
81	DA	1285	G	P-O3'-C3'	6.27	129.61	120.20
82	DB	130	C	P-O5'-C5'	6.27	130.31	120.90
22	AV	51	LEU	N-CA-C	6.27	118.20	111.36
32	BC	160	VAL	CA-C-N	6.27	131.38	122.72
32	BC	160	VAL	C-N-CA	6.27	131.38	122.72
37	BH	138	HIS	CA-C-N	6.27	129.05	120.46
37	BH	138	HIS	C-N-CA	6.27	129.05	120.46
78	CA	104	A	O4'-C1'-C2'	-6.27	101.33	107.60
78	CA	200	A	P-O3'-C3'	6.27	129.61	120.20
81	DA	162	G	C4'-C3'-C2'	-6.27	96.33	102.60
81	DA	1687	U	O3'-P-O5'	6.27	113.41	104.00
81	DA	2101	C	P-O3'-C3'	-6.27	110.79	120.20
81	DA	3150	A	C4'-C3'-C2'	-6.27	96.33	102.60
4	AD	111	VAL	N-CA-CB	-6.27	101.67	110.26
59	Bh	97	ALA	CA-C-N	6.27	129.31	120.28
59	Bh	97	ALA	C-N-CA	6.27	129.31	120.28
78	CA	45	U	C4'-C3'-C2'	6.27	108.87	102.60
78	CA	869	A	C1'-O4'-C4'	-6.27	103.63	109.90
81	DA	451	U	O4'-C1'-N1	6.27	117.91	108.50
81	DA	606	C	C4'-C3'-O3'	6.27	122.41	113.00
81	DA	1632	A	C4'-C3'-C2'	-6.27	96.33	102.60
81	DA	2885	C	C4'-C3'-O3'	-6.27	103.59	113.00
81	DA	3035	A	P-O3'-C3'	6.27	129.61	120.20
4	AD	48	LEU	N-CA-C	-6.27	104.53	111.36
20	AS	120	GLY	N-CA-C	6.27	120.25	112.73
74	BQ	260	PHE	CA-CB-CG	6.27	120.07	113.80
78	CA	267	U	C1'-O4'-C4'	6.27	116.17	109.90
78	CA	1545	A	O5'-C5'-C4'	6.27	120.90	111.50
81	DA	182	U	O4'-C1'-N1	6.27	117.90	108.50
81	DA	932	U	O4'-C1'-N1	6.27	117.60	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1174	G	N9-C1'-C2'	6.27	121.41	112.00
21	AT	46	ILE	N-CA-CB	6.27	120.79	112.27
40	BK	187	GLU	CB-CA-C	6.27	122.89	110.42
41	BN	127	LYS	CA-C-N	6.27	128.68	120.28
41	BN	127	LYS	C-N-CA	6.27	128.68	120.28
45	BR	58	ASN	N-CA-CB	6.27	119.73	110.33
59	Bh	17	PHE	N-CA-CB	6.27	119.69	110.35
62	Bk	75	LYS	O-C-N	6.27	128.76	122.12
76	BS	155	TYR	CA-C-N	6.27	133.51	121.54
76	BS	155	TYR	C-N-CA	6.27	133.51	121.54
81	DA	1060	U	C3'-C2'-C1'	6.27	107.57	101.30
81	DA	2210	G	C5'-C4'-C3'	6.27	125.40	116.00
81	DA	2313	A	P-O5'-C5'	-6.27	111.50	120.90
81	DA	3234	A	N9-C1'-C2'	-6.27	102.60	112.00
82	DB	134	G	P-O5'-C5'	-6.27	111.50	120.90
62	Bk	58	ILE	N-CA-CB	6.27	119.98	110.58
78	CA	226	A	P-O5'-C5'	6.27	130.30	120.90
81	DA	530	G	P-O3'-C3'	-6.27	110.80	120.20
82	DB	117	C	O4'-C1'-C2'	-6.27	101.33	107.60
83	DC	13	A	C3'-C2'-C1'	6.27	107.57	101.30
30	BA	81	GLY	CA-C-N	6.26	128.45	120.56
30	BA	81	GLY	C-N-CA	6.26	128.45	120.56
46	BT	37	SER	CA-C-N	6.26	129.83	120.31
46	BT	37	SER	C-N-CA	6.26	129.83	120.31
81	DA	624	G	P-O3'-C3'	6.26	129.60	120.20
81	DA	788	C	C3'-C2'-C1'	6.26	107.56	101.30
81	DA	1477	A	C5'-C4'-C3'	-6.26	106.60	116.00
81	DA	3387	U	O4'-C1'-N1	6.26	117.90	108.50
29	AU	58	PHE	N-CA-CB	-6.26	100.99	110.07
46	BT	98	ARG	CA-C-N	6.26	128.67	120.28
46	BT	98	ARG	C-N-CA	6.26	128.67	120.28
78	CA	717	C	C5'-C4'-C3'	6.26	124.29	114.90
78	CA	1086	A	P-O3'-C3'	-6.26	110.81	120.20
78	CA	1680	G	O4'-C1'-C2'	-6.26	101.34	107.60
81	DA	135	C	C1'-O4'-C4'	6.26	115.96	109.70
81	DA	1128	U	C1'-O4'-C4'	-6.26	103.64	109.90
81	DA	2874	G	C1'-O4'-C4'	-6.26	103.64	109.90
78	CA	22	A	O4'-C1'-C2'	-6.26	101.34	107.60
78	CA	1181	U	O4'-C1'-N1	6.26	117.89	108.50
78	CA	1584	G	C2'-C3'-O3'	6.26	118.89	109.50
81	DA	664	U	C3'-C2'-C1'	-6.26	95.04	101.30
81	DA	2628	A	C4'-C3'-C2'	6.26	108.86	102.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BB	104	LEU	CA-C-N	6.26	126.93	119.98
31	BB	104	LEU	C-N-CA	6.26	126.93	119.98
53	Ba	36	HIS	CA-C-N	6.26	127.66	119.84
53	Ba	36	HIS	C-N-CA	6.26	127.66	119.84
81	DA	2892	A	O4'-C1'-C2'	-6.26	101.34	107.60
81	DA	3246	G	O5'-C5'-C4'	6.26	120.89	111.50
2	AA	141	ILE	CA-C-N	6.26	126.59	119.83
2	AA	141	ILE	C-N-CA	6.26	126.59	119.83
20	AS	112	GLY	CA-C-N	6.26	128.44	120.56
20	AS	112	GLY	C-N-CA	6.26	128.44	120.56
38	Bs	237	HIS	CG-CD2-NE2	6.26	113.46	107.20
48	BW	74	LYS	CA-C-N	6.26	128.66	120.28
48	BW	74	LYS	C-N-CA	6.26	128.66	120.28
52	BY	51	ARG	N-CA-C	-6.26	100.30	109.18
53	Ba	96	VAL	N-CA-C	6.26	118.91	111.09
78	CA	616	G	N9-C1'-C2'	6.26	121.38	112.00
81	DA	1124	U	O3'-P-O5'	6.26	113.39	104.00
81	DA	1217	A	O4'-C1'-C2'	-6.25	101.34	107.60
81	DA	2216	G	O4'-C1'-C2'	-6.25	101.34	107.60
2	AA	207	PRO	CA-C-N	6.25	133.49	121.54
2	AA	207	PRO	C-N-CA	6.25	133.49	121.54
26	AZ	34	ALA	N-CA-C	-6.25	104.54	111.36
78	CA	162	A	N9-C1'-C2'	6.25	121.38	112.00
78	CA	1677	C	C5'-C4'-O4'	6.25	119.18	109.80
81	DA	1623	G	O4'-C1'-C2'	-6.25	101.35	107.60
81	DA	1649	U	C1'-O4'-C4'	6.25	116.15	109.90
81	DA	1918	C	O3'-P-O5'	6.25	113.38	104.00
81	DA	2454	G	O4'-C1'-C2'	-6.25	101.35	107.60
82	DB	131	A	O4'-C1'-N9	6.25	117.88	108.50
20	AS	61	VAL	CA-C-O	6.25	127.22	120.47
30	BA	131	ALA	CA-C-N	6.25	127.95	120.14
30	BA	131	ALA	C-N-CA	6.25	127.95	120.14
33	BD	351	PRO	CA-C-O	-6.25	109.22	120.60
36	BF	61	GLY	N-CA-C	-6.25	100.83	111.27
64	Bl	11	ARG	O-C-N	-6.25	114.28	122.59
78	CA	842	C	C4'-C3'-C2'	-6.25	96.35	102.60
78	CA	1408	G	C2'-C3'-O3'	6.25	123.08	113.70
81	DA	524	U	N1-C1'-C2'	-6.25	102.62	112.00
81	DA	2494	A	O4'-C1'-C2'	-6.25	101.35	107.60
81	DA	2505	U	O3'-P-O5'	-6.25	94.62	104.00
81	DA	2742	C	P-O5'-C5'	6.25	130.28	120.90
83	DC	111	U	O4'-C1'-N1	6.25	117.88	108.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1870	C	C3'-C2'-O2'	-6.25	101.33	110.70
81	DA	1960	A	O4'-C1'-C2'	-6.25	101.35	107.60
3	AB	53	THR	CA-C-O	6.25	127.04	120.42
20	AS	43	ASN	CB-CA-C	-6.25	100.81	111.31
29	AU	18	LEU	N-CA-CB	6.25	121.05	110.49
39	BJ	49	ALA	N-CA-C	6.25	119.07	111.82
61	Bj	79	GLY	CA-C-N	6.25	129.03	120.35
61	Bj	79	GLY	C-N-CA	6.25	129.03	120.35
78	CA	610	G	C1'-C2'-O2'	6.25	117.77	108.40
81	DA	163	C	C5'-C4'-C3'	-6.25	106.63	116.00
81	DA	1087	G	P-O3'-C3'	-6.25	110.83	120.20
81	DA	1717	U	O4'-C4'-C3'	-6.25	99.85	106.10
81	DA	1793	C	O4'-C1'-C2'	-6.25	99.55	105.80
81	DA	2656	A	P-O3'-C3'	6.25	129.57	120.20
81	DA	2952	G	C1'-O4'-C4'	-6.25	103.65	109.90
81	DA	3287	U	P-O3'-C3'	6.25	129.57	120.20
5	AC	106	GLU	N-CA-C	6.25	119.06	111.82
38	Bs	177	ASN	CA-C-N	6.25	130.54	121.80
38	Bs	177	ASN	C-N-CA	6.25	130.54	121.80
48	BW	90	ARG	CA-CB-CG	6.25	126.59	114.10
78	CA	158	U	N1-C1'-C2'	6.25	121.37	112.00
81	DA	606	C	C1'-C2'-O2'	6.25	117.77	108.40
81	DA	2407	C	P-O5'-C5'	6.25	130.27	120.90
31	BB	115	ASN	CA-CB-CG	-6.25	106.36	112.60
45	BR	105	ARG	N-CA-C	-6.25	99.58	109.07
47	BU	143	THR	CA-CB-OG1	6.25	118.97	109.60
50	BX	31	THR	CA-C-N	6.25	128.65	120.28
50	BX	31	THR	C-N-CA	6.25	128.65	120.28
52	BY	27	ARG	CA-C-N	6.25	128.56	120.44
52	BY	27	ARG	C-N-CA	6.25	128.56	120.44
81	DA	162	G	P-O5'-C5'	6.25	130.27	120.90
1	Aa	85	TRP	CA-C-N	6.24	130.68	120.63
1	Aa	85	TRP	C-N-CA	6.24	130.68	120.63
1	Aa	103	PHE	CA-CB-CG	-6.24	107.56	113.80
40	BK	95	GLY	O-C-N	6.24	128.25	122.19
78	CA	851	U	C1'-O4'-C4'	-6.24	103.66	109.90
81	DA	1688	U	O4'-C4'-C3'	-6.24	97.76	104.00
81	DA	1784	G	O4'-C1'-C2'	-6.24	101.36	107.60
1	Aa	10	ARG	CB-CA-C	-6.24	101.04	110.90
37	BH	235	GLY	N-CA-C	-6.24	105.26	111.56
79	CB	13	U	C2'-C3'-O3'	6.24	123.06	113.70
81	DA	1144	U	C3'-C2'-C1'	6.24	107.54	101.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2416	U	C1'-O4'-C4'	-6.24	103.66	109.90
78	CA	882	U	O4'-C1'-N1	6.24	117.86	108.50
78	CA	1478	G	O5'-P-OP1	-6.24	89.28	108.00
78	CA	1533	C	O4'-C1'-N1	6.24	117.56	108.20
81	DA	2086	A	O3'-P-O5'	6.24	113.36	104.00
81	DA	346	C	O4'-C1'-C2'	-6.24	101.36	107.60
81	DA	1293	U	O4'-C1'-N1	6.24	117.86	108.50
81	DA	1687	U	O5'-C5'-C4'	-6.24	102.14	111.50
81	DA	2244	A	N9-C1'-C2'	-6.24	102.64	112.00
81	DA	3039	C	N1-C1'-C2'	6.24	121.36	112.00
81	DA	1824	U	P-O5'-C5'	6.24	130.25	120.90
83	DC	61	U	N1-C1'-C2'	-6.24	102.64	112.00
60	Bi	14	ASN	N-CA-C	-6.24	104.41	111.14
64	Bl	51	ALA	CA-C-N	6.24	128.63	120.28
64	Bl	51	ALA	C-N-CA	6.24	128.63	120.28
76	BS	137	LYS	CA-C-N	6.24	133.45	121.54
76	BS	137	LYS	C-N-CA	6.24	133.45	121.54
78	CA	1197	C	O4'-C1'-C2'	-6.24	101.36	107.60
81	DA	1185	C	O4'-C1'-C2'	-6.24	101.36	107.60
16	AO	123	HIS	CA-C-O	6.23	127.03	120.42
56	Bf	2	ALA	CA-C-N	6.23	127.63	119.84
56	Bf	2	ALA	C-N-CA	6.23	127.63	119.84
81	DA	406	G	C1'-O4'-C4'	6.23	116.13	109.90
81	DA	3338	C	O3'-P-O5'	6.23	113.35	104.00
8	AF	98	MET	O-C-N	6.23	128.73	122.12
14	AM	85	PHE	CA-CB-CG	-6.23	107.57	113.80
17	AQ	93	LEU	N-CA-CB	6.23	118.92	110.38
58	Bg	58	ALA	O-C-N	6.23	128.73	122.12
81	DA	1411	C	C4'-C3'-C2'	-6.23	96.37	102.60
81	DA	2948	C	O4'-C1'-C2'	-6.23	101.37	107.60
81	DA	3297	U	C4'-C3'-C2'	-6.23	96.37	102.60
30	BA	67	ILE	N-CA-CB	6.23	117.51	110.72
35	BG	65	ILE	O-C-N	-6.23	116.49	123.03
46	BT	160	GLU	CA-C-N	6.23	128.63	120.28
46	BT	160	GLU	C-N-CA	6.23	128.63	120.28
49	BV	156	ALA	CA-C-N	6.23	129.32	120.53
49	BV	156	ALA	C-N-CA	6.23	129.32	120.53
72	Bt	61	PHE	N-CA-CB	6.23	121.02	110.49
78	CA	465	G	O4'-C1'-C2'	6.23	113.83	107.60
78	CA	591	A	C1'-C2'-O2'	6.23	117.75	108.40
78	CA	1566	U	C5'-C4'-C3'	6.23	125.34	116.00
81	DA	997	A	O4'-C1'-C2'	-6.23	101.37	107.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	AV	100	ILE	CA-C-O	6.23	128.21	121.67
81	DA	638	C	C4'-C3'-O3'	6.23	122.34	113.00
81	DA	1251	A	C2'-C3'-O3'	6.23	118.84	109.50
4	AD	68	ARG	NH1-CZ-NH2	6.23	127.40	119.30
10	AI	87	LYS	CB-CA-C	-6.23	98.03	110.42
30	BA	60	ARG	CB-CA-C	6.23	117.83	109.42
41	BN	131	VAL	N-CA-CB	6.23	119.92	110.58
52	BY	16	ARG	CA-C-N	6.23	129.13	120.29
52	BY	16	ARG	C-N-CA	6.23	129.13	120.29
57	Be	222	HIS	CA-C-O	-6.23	114.37	121.72
78	CA	1324	G	C1'-O4'-C4'	-6.23	103.67	109.90
81	DA	489	C	C3'-C2'-C1'	6.23	107.53	101.30
81	DA	647	A	C3'-C2'-C1'	6.23	107.73	101.50
81	DA	1777	U	P-O5'-C5'	6.23	130.24	120.90
81	DA	1974	A	O3'-P-O5'	6.23	113.34	104.00
81	DA	2950	G	P-O3'-C3'	6.23	129.54	120.20
82	DB	93	U	O4'-C1'-N1	6.23	117.84	108.50
78	CA	1412	G	O4'-C1'-N9	-6.23	98.86	108.20
83	DC	32	U	P-O3'-C3'	6.23	129.54	120.20
83	DC	48	U	C1'-O4'-C4'	-6.23	103.67	109.90
40	BK	171	LYS	N-CA-CB	6.22	119.37	110.16
78	CA	229	U	P-O5'-C5'	-6.22	111.56	120.90
81	DA	1210	U	C3'-C2'-C1'	6.22	107.53	101.30
81	DA	1689	U	P-O3'-C3'	6.22	129.53	120.20
13	AL	62	LYS	N-CA-C	-6.22	99.95	109.41
21	AT	58	TYR	N-CA-C	-6.22	104.41	111.07
41	BN	119	GLN	CB-CA-C	-6.22	100.46	110.79
55	Bc	6	ALA	CB-CA-C	6.22	121.43	110.85
78	CA	31	C	C3'-C2'-C1'	6.22	107.52	101.30
78	CA	637	C	C3'-C2'-C1'	6.22	107.52	101.30
81	DA	1659	U	O4'-C1'-N1	6.22	117.83	108.50
81	DA	3035	A	C4'-C3'-O3'	-6.22	103.67	113.00
30	BA	122	ARG	NE-CZ-NH1	-6.22	115.28	121.50
32	BC	386	ASP	CA-C-N	-6.22	109.66	121.54
32	BC	386	ASP	C-N-CA	-6.22	109.66	121.54
33	BD	346	LYS	O-C-N	-6.22	113.53	122.36
37	BH	159	PRO	N-CA-C	-6.22	100.56	112.01
38	Bs	214	VAL	CA-C-N	6.22	129.12	120.29
38	Bs	214	VAL	C-N-CA	6.22	129.12	120.29
45	BR	78	ASN	N-CA-CB	6.22	121.00	110.49
67	Bp	41	HIS	N-CA-CB	6.22	121.76	112.30
81	DA	3296	A	P-O5'-C5'	6.22	130.23	120.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
46	BT	55	VAL	CA-C-N	6.22	129.96	120.82
46	BT	55	VAL	C-N-CA	6.22	129.96	120.82
49	BV	157	VAL	N-CA-CB	6.22	118.24	110.47
78	CA	853	G	C4'-C3'-C2'	-6.22	96.38	102.60
81	DA	2331	C	N1-C1'-C2'	6.22	121.33	112.00
81	DA	2354	C	C5'-C4'-C3'	-6.22	106.67	116.00
31	BB	19	HIS	CB-CA-C	6.22	121.73	112.03
32	BC	18	PRO	N-CA-CB	-6.22	98.10	103.32
82	DB	84	C	C2'-C3'-O3'	6.22	118.83	109.50
6	AE	242	ILE	N-CA-C	-6.22	96.41	109.34
12	AK	66	ASP	CA-C-N	6.22	128.39	120.56
12	AK	66	ASP	C-N-CA	6.22	128.39	120.56
78	CA	221	A	O3'-P-O5'	6.22	113.33	104.00
81	DA	890	C	O4'-C1'-C2'	-6.22	101.38	107.60
81	DA	1637	A	N9-C1'-C2'	6.22	121.33	112.00
81	DA	1869	C	C3'-C2'-C1'	6.22	107.52	101.30
81	DA	2319	U	P-O3'-C3'	6.22	129.52	120.20
81	DA	3042	U	O4'-C1'-C2'	-6.22	101.38	107.60
81	DA	3380	U	O4'-C1'-C2'	-6.22	101.38	107.60
83	DC	107	G	O4'-C1'-C2'	-6.22	101.38	107.60
9	AH	61	ILE	N-CA-C	-6.21	99.47	108.17
47	BU	22	HIS	CE1-NE2-CD2	-6.21	102.79	109.00
78	CA	1067	C	P-O3'-C3'	6.21	129.52	120.20
81	DA	1211	U	N1-C1'-C2'	6.21	121.32	112.00
81	DA	2968	G	C1'-O4'-C4'	6.21	116.11	109.90
47	BU	29	THR	O-C-N	6.21	129.23	122.15
79	CB	40	U	O4'-C1'-N1	6.21	117.82	108.50
81	DA	1590	G	N9-C1'-C2'	6.21	121.32	112.00
81	DA	2245	C	C4'-C3'-O3'	-6.21	103.68	113.00
3	AB	214	GLU	CA-C-N	-6.21	110.52	121.70
3	AB	214	GLU	C-N-CA	-6.21	110.52	121.70
41	BN	137	LYS	N-CA-CB	6.21	120.99	110.49
66	Bo	9	ILE	CA-C-N	6.21	128.60	120.28
66	Bo	9	ILE	C-N-CA	6.21	128.60	120.28
74	BQ	3	PHE	CA-C-N	6.21	133.40	121.54
74	BQ	3	PHE	C-N-CA	6.21	133.40	121.54
74	BQ	186	GLU	CA-C-N	6.21	133.40	121.54
74	BQ	186	GLU	C-N-CA	6.21	133.40	121.54
78	CA	32	U	O4'-C1'-N1	6.21	117.82	108.50
81	DA	491	C	C3'-C2'-C1'	6.21	107.51	101.30
81	DA	1123	U	O4'-C1'-C2'	-6.21	101.39	107.60
81	DA	2225	U	O4'-C1'-C2'	-6.21	101.39	107.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	408	C	O4'-C1'-C2'	-6.21	101.39	107.60
81	DA	1388	U	O4'-C1'-N1	6.21	117.81	108.50
4	AD	148	ARG	NE-CZ-NH2	-6.21	113.61	119.20
14	AM	127	HIS	CG-CD2-NE2	6.21	113.41	107.20
37	BH	175	VAL	O-C-N	6.21	128.18	121.10
47	BU	142	SER	N-CA-C	-6.21	97.57	110.80
59	Bh	102	ALA	CB-CA-C	-6.21	101.13	110.88
78	CA	309	C	O3'-P-O5'	6.21	113.31	104.00
78	CA	1438	G	O4'-C1'-C2'	-6.21	101.39	107.60
81	DA	212	G	O4'-C1'-N9	6.21	117.51	108.20
81	DA	237	G	O4'-C4'-C3'	-6.21	97.79	104.00
81	DA	508	U	O4'-C1'-N1	6.21	117.81	108.50
81	DA	1595	U	O4'-C1'-N1	6.21	117.51	108.20
81	DA	1826	C	O3'-P-O5'	-6.21	94.69	104.00
81	DA	2182	A	N9-C1'-C2'	6.21	121.31	112.00
83	DC	47	C	O5'-C5'-C4'	-6.21	102.19	111.50
14	AM	107	SER	CA-C-N	6.21	128.88	120.44
14	AM	107	SER	C-N-CA	6.21	128.88	120.44
16	AO	61	THR	CA-C-N	6.21	128.51	120.44
16	AO	61	THR	C-N-CA	6.21	128.51	120.44
25	AY	20	GLY	N-CA-C	-6.21	98.47	113.18
46	BT	90	PRO	CA-C-N	6.21	133.39	121.54
46	BT	90	PRO	C-N-CA	6.21	133.39	121.54
68	Bq	16	LYS	CB-CA-C	-6.21	101.14	110.88
78	CA	1373	C	O4'-C1'-C2'	-6.21	99.59	105.80
81	DA	1718	G	N9-C1'-C2'	6.21	121.31	112.00
81	DA	2316	G	C1'-O4'-C4'	-6.21	103.69	109.90
81	DA	2872	A	N9-C1'-C2'	-6.21	104.69	114.00
8	AF	147	THR	N-CA-CB	6.21	119.16	110.04
14	AM	40	ARG	N-CA-C	-6.21	104.52	111.28
78	CA	207	U	O4'-C1'-C2'	-6.21	101.39	107.60
78	CA	1213	G	O3'-P-O5'	6.21	113.31	104.00
81	DA	2131	A	N9-C1'-C2'	6.21	121.31	112.00
33	BD	338	LYS	CB-CA-C	-6.20	103.59	111.22
44	BO	71	PRO	CA-C-O	-6.20	113.96	121.03
53	Ba	78	ASN	N-CA-CB	6.20	119.24	110.12
78	CA	1196	A	O4'-C1'-C2'	-6.20	99.60	105.80
78	CA	1419	G	N9-C1'-C2'	6.20	121.31	112.00
81	DA	285	A	O4'-C1'-C2'	-6.20	99.60	105.80
81	DA	1327	C	N1-C1'-C2'	6.20	121.30	112.00
81	DA	2213	A	O4'-C1'-C2'	-6.20	101.40	107.60
81	DA	2611	U	O4'-C1'-C2'	-6.20	101.40	107.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	AJ	60	THR	N-CA-CB	6.20	120.32	110.65
20	AS	69	LYS	CB-CA-C	6.20	122.76	110.42
45	BR	108	ALA	CA-C-N	6.20	126.82	120.00
45	BR	108	ALA	C-N-CA	6.20	126.82	120.00
48	BW	29	ASP	CA-C-N	6.20	125.82	119.56
48	BW	29	ASP	C-N-CA	6.20	125.82	119.56
78	CA	1238	A	N9-C1'-C2'	-6.20	102.70	112.00
81	DA	1179	A	O4'-C1'-N9	6.20	117.80	108.50
1	Aa	57	PRO	CA-C-N	6.20	133.13	121.97
1	Aa	57	PRO	C-N-CA	6.20	133.13	121.97
3	AB	173	ARG	N-CA-C	-6.20	97.60	110.80
33	BD	344	ALA	CA-C-N	6.20	133.66	121.58
33	BD	344	ALA	C-N-CA	6.20	133.66	121.58
44	BO	40	HIS	CB-CA-C	6.20	124.28	110.02
48	BW	33	TYR	CA-C-N	6.20	128.87	120.44
48	BW	33	TYR	C-N-CA	6.20	128.87	120.44
78	CA	284	G	C4'-C3'-C2'	-6.20	96.40	102.60
81	DA	1592	G	O4'-C1'-C2'	6.20	112.00	105.80
81	DA	1828	A	O3'-P-O5'	-6.20	94.70	104.00
81	DA	2063	U	O3'-P-O5'	-6.20	94.70	104.00
81	DA	2438	A	O3'-P-O5'	-6.20	94.70	104.00
81	DA	3383	G	C5'-C4'-C3'	6.20	125.30	116.00
78	CA	1784	C	P-O3'-C3'	6.20	129.50	120.20
81	DA	110	G	C1'-O4'-C4'	-6.20	103.70	109.90
81	DA	1201	C	N1-C1'-C2'	6.20	121.30	112.00
2	AA	193	GLN	CA-C-O	-6.20	111.67	120.16
12	AK	124	ASP	CA-CB-CG	6.20	118.80	112.60
32	BC	311	PHE	CA-CB-CG	-6.20	107.60	113.80
38	Bs	201	ILE	CA-C-N	6.20	129.09	120.29
38	Bs	201	ILE	C-N-CA	6.20	129.09	120.29
78	CA	1220	C	N1-C1'-C2'	-6.20	102.71	112.00
81	DA	2925	C	N1-C1'-C2'	6.20	121.29	112.00
81	DA	3387	U	N1-C1'-C2'	-6.20	102.71	112.00
11	AJ	106	ILE	N-CA-C	6.19	116.37	110.42
46	BT	72	GLU	CA-C-N	6.19	133.55	121.41
46	BT	72	GLU	C-N-CA	6.19	133.55	121.41
63	Bm	17	ARG	N-CA-CB	-6.19	100.02	110.49
78	CA	976	G	O4'-C1'-N9	6.19	117.79	108.50
81	DA	2667	A	P-O3'-C3'	-6.19	110.91	120.20
81	DA	3249	C	O3'-P-O5'	-6.19	94.71	104.00
14	AM	87	ASN	CA-CB-CG	6.19	118.79	112.60
20	AS	90	PRO	N-CA-CB	6.19	109.75	103.25

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BB	227	ARG	N-CA-C	6.19	123.99	110.80
39	BJ	88	PRO	CA-C-N	6.19	127.58	119.84
39	BJ	88	PRO	C-N-CA	6.19	127.58	119.84
45	BR	80	THR	N-CA-CB	6.19	120.31	110.65
61	Bj	2	ALA	N-CA-CB	6.19	120.96	110.49
78	CA	1478	G	O4'-C1'-N9	6.19	117.79	108.50
81	DA	286	U	O4'-C1'-C2'	-6.19	101.41	107.60
81	DA	1127	G	C3'-C2'-O2'	6.19	119.99	110.70
81	DA	2264	U	O3'-P-O5'	-6.19	94.71	104.00
81	DA	2511	A	C5'-C4'-C3'	-6.19	106.71	116.00
5	AC	173	ALA	CA-C-N	6.19	128.86	120.44
5	AC	173	ALA	C-N-CA	6.19	128.86	120.44
81	DA	830	A	O4'-C1'-N9	6.19	117.78	108.50
81	DA	1599	G	C4'-C3'-O3'	-6.19	103.72	113.00
81	DA	1677	G	O3'-P-O5'	6.19	113.29	104.00
83	DC	54	A	O3'-P-O5'	-6.19	94.71	104.00
56	Bf	11	ASN	CA-C-N	6.19	128.57	120.28
56	Bf	11	ASN	C-N-CA	6.19	128.57	120.28
81	DA	606	C	O4'-C1'-C2'	-6.19	101.41	107.60
81	DA	1536	G	C2'-C3'-O3'	6.19	118.78	109.50
30	BA	13	VAL	CA-C-O	-6.19	115.00	121.93
61	Bj	42	GLN	N-CA-CB	6.19	118.98	110.01
81	DA	1216	C	C3'-C2'-C1'	6.19	107.49	101.30
81	DA	1279	C	C3'-C2'-C1'	6.19	107.49	101.30
81	DA	2620	G	O3'-P-O5'	6.19	113.28	104.00
81	DA	2794	G	O3'-P-O5'	6.19	113.28	104.00
33	BD	322	GLN	N-CA-C	6.19	128.32	111.00
38	Bs	88	PHE	N-CA-C	-6.19	99.63	109.59
78	CA	110	U	O4'-C1'-C2'	-6.19	101.41	107.60
81	DA	2228	A	P-O5'-C5'	6.19	130.18	120.90
5	AC	26	ALA	CA-C-N	6.18	128.57	120.28
5	AC	26	ALA	C-N-CA	6.18	128.57	120.28
77	BI	103	LEU	CA-C-N	6.18	133.35	121.54
77	BI	103	LEU	C-N-CA	6.18	133.35	121.54
78	CA	27	U	O5'-C5'-C4'	-6.18	102.22	111.50
78	CA	530	C	O5'-C5'-C4'	6.18	120.08	110.80
78	CA	922	G	N9-C1'-C2'	6.18	121.28	112.00
16	AO	50	ILE	CA-C-N	6.18	127.87	120.14
16	AO	50	ILE	C-N-CA	6.18	127.87	120.14
21	AT	45	ALA	N-CA-C	-6.18	97.63	110.80
57	Be	223	PHE	O-C-N	-6.18	114.37	122.59
78	CA	477	A	C3'-C2'-C1'	6.18	107.48	101.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1674	C	C3'-C2'-C1'	6.18	107.48	101.30
83	DC	112	G	O4'-C1'-N9	6.18	117.77	108.50
10	AI	137	ARG	CA-C-N	6.18	133.35	121.54
10	AI	137	ARG	C-N-CA	6.18	133.35	121.54
30	BA	194	LEU	CA-C-N	6.18	129.18	120.28
30	BA	194	LEU	C-N-CA	6.18	129.18	120.28
40	BK	73	PHE	CA-CB-CG	-6.18	107.62	113.80
55	Bc	30	GLU	N-CA-CB	6.18	119.21	110.12
55	Bc	71	LYS	N-CA-CB	6.18	119.33	110.06
78	CA	291	G	C1'-O4'-C4'	-6.18	103.72	109.90
2	AA	175	TYR	CA-C-N	6.18	129.70	120.31
2	AA	175	TYR	C-N-CA	6.18	129.70	120.31
6	AE	244	SER	N-CA-C	6.18	123.96	110.80
14	AM	124	GLY	N-CA-C	6.18	120.68	112.77
45	BR	50	LYS	CA-C-N	6.18	129.70	120.31
45	BR	50	LYS	C-N-CA	6.18	129.70	120.31
48	BW	80	THR	CA-C-N	6.18	128.56	120.28
48	BW	80	THR	C-N-CA	6.18	128.56	120.28
78	CA	584	C	O3'-P-O5'	6.18	113.27	104.00
78	CA	1566	U	O4'-C4'-C3'	6.18	110.18	104.00
81	DA	2148	U	P-O3'-C3'	6.18	129.47	120.20
81	DA	2840	C	O4'-C1'-N1	6.18	117.77	108.50
82	DB	124	G	P-O5'-C5'	6.18	130.17	120.90
83	DC	54	A	C1'-C2'-O2'	6.18	117.67	108.40
5	AC	129	ILE	N-CA-C	6.18	116.96	110.72
29	AU	26	ASP	CA-CB-CG	-6.18	106.42	112.60
41	BN	60	LEU	N-CA-C	6.18	118.09	111.36
72	Bu	41	TRP	O-C-N	-6.18	115.42	122.09
78	CA	101	U	N1-C1'-C2'	6.18	121.27	112.00
81	DA	73	C	C1'-O4'-C4'	6.18	115.88	109.70
81	DA	1631	C	C3'-C2'-C1'	6.18	107.48	101.30
9	AH	117	ARG	CA-C-O	-6.18	114.00	120.55
38	Bs	55	LYS	CA-C-N	6.18	129.70	120.31
38	Bs	55	LYS	C-N-CA	6.18	129.70	120.31
49	BV	34	GLN	CB-CG-CD	-6.18	102.10	112.60
58	Bg	28	ARG	CG-CD-NE	-6.18	98.41	112.00
61	Bj	21	ARG	N-CA-CB	6.18	120.93	110.49
68	Bq	14	LYS	CB-CA-C	6.18	122.90	109.99
73	Bv	22	ILE	CB-CA-C	-6.18	104.06	111.97
78	CA	1383	G	O3'-P-O5'	6.18	113.26	104.00
78	CA	1602	C	C1'-O4'-C4'	-6.18	103.72	109.90
81	DA	588	G	O4'-C1'-N9	6.18	117.76	108.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2209	U	O4'-C4'-C3'	-6.18	97.82	104.00
81	DA	3113	A	C3'-C2'-C1'	6.18	107.48	101.30
2	AA	251	GLU	CA-C-N	6.17	132.81	121.70
2	AA	251	GLU	C-N-CA	6.17	132.81	121.70
4	AD	240	LYS	CB-CA-C	6.17	120.80	110.43
6	AE	243	TYR	CA-C-O	-6.17	111.68	120.51
33	BD	306	THR	N-CA-C	-6.17	100.15	108.86
44	BO	1	MET	CA-C-N	-6.17	112.12	119.84
44	BO	1	MET	C-N-CA	-6.17	112.12	119.84
74	BQ	234	ASP	CA-CB-CG	6.17	118.77	112.60
78	CA	1440	C	C3'-C2'-C1'	6.17	107.47	101.30
79	CB	19	U	P-O5'-C5'	6.17	130.16	120.90
81	DA	31	C	C3'-C2'-C1'	6.17	107.47	101.30
81	DA	693	A	C1'-O4'-C4'	6.17	116.07	109.90
81	DA	1300	G	O4'-C1'-N9	6.17	117.76	108.50
81	DA	1346	G	N9-C1'-C2'	-6.17	102.74	112.00
81	DA	2351	U	P-O3'-C3'	-6.17	110.94	120.20
82	DB	3	A	O4'-C1'-C2'	6.17	113.77	107.60
29	AU	50	ALA	O-C-N	6.17	127.74	123.11
78	CA	542	A	C5'-C4'-C3'	6.17	124.16	114.90
81	DA	1206	G	C1'-O4'-C4'	-6.17	103.73	109.90
81	DA	2315	G	N9-C1'-C2'	6.17	121.26	112.00
83	DC	31	U	P-O5'-C5'	6.17	130.16	120.90
17	AQ	95	ARG	N-CA-C	6.17	123.95	110.80
21	AT	48	GLY	O-C-N	-6.17	118.02	123.76
54	Bd	40	ARG	CA-C-O	-6.17	113.88	120.42
58	Bg	33	VAL	N-CA-CB	6.17	118.93	110.54
65	Bn	29	LYS	CA-C-O	-6.17	111.69	120.51
78	CA	172	C	C3'-C2'-C1'	6.17	107.47	101.30
81	DA	1728	G	C1'-O4'-C4'	-6.17	103.73	109.90
81	DA	2506	U	C5'-C4'-C3'	-6.17	106.74	116.00
81	DA	2960	C	N1-C1'-C2'	6.17	121.26	112.00
18	AP	95	PRO	CA-C-N	6.17	130.89	122.19
18	AP	95	PRO	C-N-CA	6.17	130.89	122.19
37	BH	233	TRP	O-C-N	-6.17	114.38	122.59
73	Bv	17	PRO	CA-N-CD	-6.17	103.36	112.00
81	DA	248	U	C4'-C3'-C2'	-6.17	96.43	102.60
81	DA	1268	G	N9-C1'-C2'	6.17	121.26	112.00
82	DB	21	C	O4'-C1'-C2'	-6.17	101.43	107.60
2	AA	137	SER	CA-C-N	6.17	128.54	120.28
2	AA	137	SER	C-N-CA	6.17	128.54	120.28
37	BH	69	LEU	CA-C-O	-6.17	114.52	121.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1302	U	O3'-P-O5'	6.17	113.25	104.00
81	DA	2172	A	P-O3'-C3'	6.17	129.45	120.20
81	DA	2872	A	P-O3'-C3'	-6.17	110.95	120.20
81	DA	3333	G	N9-C1'-C2'	6.17	121.25	112.00
83	DC	46	A	C3'-C2'-C1'	-6.17	95.13	101.30
16	AO	65	VAL	N-CA-C	6.17	122.17	109.34
31	BB	47	GLN	CB-CA-C	-6.17	100.07	110.43
76	BS	109	TYR	CA-C-N	6.17	128.54	120.28
76	BS	109	TYR	C-N-CA	6.17	128.54	120.28
78	CA	880	C	C3'-C2'-C1'	6.17	107.47	101.30
78	CA	1425	A	C5'-C4'-C3'	6.17	125.25	116.00
78	CA	1712	A	O4'-C1'-C2'	-6.17	101.43	107.60
81	DA	1208	U	C1'-O4'-C4'	6.17	116.07	109.90
81	DA	2622	C	C1'-C2'-O2'	6.17	117.65	108.40
82	DB	104	A	C3'-C2'-C1'	6.17	107.47	101.30
1	Aa	177	MET	N-CA-C	-6.17	99.86	109.72
9	AH	28	ARG	CA-C-O	-6.16	112.87	118.79
32	BC	26	ARG	CD-NE-CZ	-6.16	115.77	124.40
36	BF	58	HIS	CE1-NE2-CD2	-6.16	102.84	109.00
46	BT	136	ARG	N-CA-CB	6.16	119.01	110.07
57	Be	120	THR	N-CA-C	6.16	117.91	108.42
81	DA	1869	C	C4'-C3'-O3'	6.16	122.25	113.00
81	DA	2411	U	O4'-C1'-C2'	-6.16	101.44	107.60
81	DA	3356	G	C5'-C4'-C3'	6.16	125.25	116.00
54	Bd	54	LEU	CA-C-O	-6.16	114.02	120.55
78	CA	975	C	P-O5'-C5'	-6.16	111.66	120.90
78	CA	1549	C	N1-C1'-C2'	6.16	121.24	112.00
81	DA	2452	G	C1'-O4'-C4'	6.16	115.86	109.70
35	BG	119	ALA	CB-CA-C	-6.16	100.56	110.79
46	BT	162	ARG	NE-CZ-NH1	-6.16	115.34	121.50
57	Be	203	TRP	CB-CG-CD2	-6.16	118.17	126.80
83	DC	61	U	O4'-C1'-C2'	-6.16	101.44	107.60
4	AD	201	HIS	CE1-NE2-CD2	-6.16	102.84	109.00
35	BG	170	LYS	O-C-N	6.16	127.31	121.71
40	BK	129	LEU	N-CA-CB	6.16	120.97	110.50
44	BO	149	ALA	N-CA-CB	6.16	119.64	110.40
45	BR	58	ASN	CA-CB-CG	6.16	118.76	112.60
57	Be	120	THR	O-C-N	-6.16	117.36	123.46
64	Bl	5	THR	CB-CA-C	-6.16	103.00	113.04
74	BQ	117	GLU	CA-C-N	6.16	133.30	121.54
74	BQ	117	GLU	C-N-CA	6.16	133.30	121.54
78	CA	1191	U	C3'-C2'-C1'	-6.16	95.14	101.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1351	G	P-O5'-C5'	-6.16	111.66	120.90
81	DA	1739	U	P-O5'-C5'	6.16	130.14	120.90
81	DA	2481	G	C3'-C2'-C1'	6.16	107.46	101.30
81	DA	2775	U	O3'-P-O5'	6.16	113.24	104.00
1	Aa	305	TYR	CA-C-O	6.16	128.36	121.40
5	AC	158	PHE	N-CA-CB	6.16	120.89	110.49
31	BB	245	LEU	O-C-N	-6.16	113.16	121.78
49	BV	133	HIS	CE1-NE2-CD2	-6.16	102.84	109.00
78	CA	448	C	P-O5'-C5'	6.16	130.13	120.90
81	DA	1788	C	C5'-C4'-O4'	-6.16	100.56	109.80
81	DA	2957	G	C1'-O4'-C4'	-6.16	103.74	109.90
2	AA	67	ILE	CA-C-O	-6.16	111.70	119.95
20	AS	59	ALA	CA-C-N	6.16	129.03	120.29
20	AS	59	ALA	C-N-CA	6.16	129.03	120.29
57	Be	125	GLU	N-CA-CB	6.16	119.27	110.16
77	BI	102	MET	CA-C-N	6.16	133.30	121.54
77	BI	102	MET	C-N-CA	6.16	133.30	121.54
78	CA	46	A	C1'-C2'-O2'	6.16	117.63	108.40
78	CA	680	U	C4'-C3'-C2'	-6.16	96.44	102.60
78	CA	1623	C	O4'-C1'-C2'	-6.16	101.44	107.60
81	DA	997	A	C1'-O4'-C4'	6.16	116.06	109.90
81	DA	2241	U	P-O3'-C3'	6.16	129.43	120.20
81	DA	3365	U	C5'-C4'-C3'	-6.16	106.77	116.00
83	DC	57	C	C3'-C2'-C1'	6.16	107.45	101.30
19	AR	133	ALA	N-CA-CB	6.15	120.89	110.49
78	CA	310	C	N1-C1'-C2'	6.15	121.23	112.00
81	DA	3010	U	C4'-C3'-C2'	-6.15	96.45	102.60
38	Bs	144	LYS	N-CA-C	-6.15	99.62	108.60
50	BX	24	LEU	N-CA-C	6.15	123.90	110.80
78	CA	619	A	O3'-P-O5'	-6.15	94.77	104.00
81	DA	1873	U	P-O5'-C5'	6.15	130.13	120.90
81	DA	2332	A	N9-C1'-C2'	6.15	121.23	112.00
81	DA	2515	A	C4'-C3'-O3'	6.15	122.23	113.00
82	DB	101	U	O4'-C1'-C2'	-6.15	101.45	107.60
21	AT	44	ARG	CA-CB-CG	6.15	126.40	114.10
29	AU	29	HIS	CA-C-O	-6.15	111.73	120.16
37	BH	128	LYS	C-N-CD	-6.15	99.78	125.00
40	BK	186	ALA	CA-C-N	6.15	133.29	121.54
40	BK	186	ALA	C-N-CA	6.15	133.29	121.54
63	Bm	91	GLU	N-CA-C	6.15	117.65	111.07
78	CA	585	A	O3'-P-O5'	6.15	113.23	104.00
81	DA	252	U	O4'-C1'-C2'	-6.15	101.45	107.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	802	C	O5'-C5'-C4'	6.15	120.73	111.50
81	DA	1145	G	N9-C1'-C2'	6.15	121.23	112.00
81	DA	1785	U	O4'-C1'-C2'	-6.15	101.45	107.60
82	DB	101	U	O3'-P-O5'	6.15	113.23	104.00
13	AL	143	PRO	CA-C-N	6.15	128.43	120.44
13	AL	143	PRO	C-N-CA	6.15	128.43	120.44
31	BB	76	PHE	CA-CB-CG	-6.15	107.65	113.80
74	BQ	289	LYS	N-CA-CB	6.15	120.88	110.49
81	DA	635	G	C3'-C2'-C1'	-6.15	95.15	101.30
81	DA	1623	G	N9-C1'-C2'	6.15	121.22	112.00
16	AO	118	ILE	N-CA-CB	6.15	119.80	110.58
33	BD	240	PRO	O-C-N	-6.15	116.22	123.10
78	CA	1689	A	P-O3'-C3'	6.15	129.42	120.20
81	DA	1007	U	C5'-C4'-O4'	6.15	119.02	109.80
81	DA	1395	G	C4'-C3'-O3'	-6.15	103.78	113.00
81	DA	1898	G	O4'-C1'-N9	6.15	117.72	108.50
48	BW	46	ALA	N-CA-C	-6.15	97.71	110.80
78	CA	337	G	O4'-C4'-C3'	6.15	110.15	104.00
78	CA	1201	G	C1'-C2'-O2'	-6.15	102.58	111.80
81	DA	1415	U	N1-C1'-C2'	6.15	121.22	112.00
1	Aa	256	THR	CA-C-N	6.14	129.13	120.28
1	Aa	256	THR	C-N-CA	6.14	129.13	120.28
51	BZ	17	ARG	CA-C-N	6.14	130.97	122.06
51	BZ	17	ARG	C-N-CA	6.14	130.97	122.06
65	Bn	27	ILE	N-CA-CB	-6.14	101.37	111.45
74	BQ	27	LYS	N-CA-C	6.14	117.78	111.14
78	CA	918	U	P-O5'-C5'	6.14	130.12	120.90
78	CA	942	G	C1'-C2'-O2'	6.14	117.62	108.40
78	CA	1522	U	P-O3'-C3'	6.14	129.42	120.20
81	DA	744	A	O4'-C1'-C2'	-6.14	101.45	107.60
81	DA	1065	A	P-O3'-C3'	-6.14	110.98	120.20
81	DA	2194	G	C4'-C3'-O3'	-6.14	103.78	113.00
5	AC	37	LYS	CB-CG-CD	6.14	125.43	111.30
15	AN	22	ARG	CB-CA-C	6.14	121.94	110.70
37	BH	215	VAL	CA-C-N	6.14	128.51	120.28
37	BH	215	VAL	C-N-CA	6.14	128.51	120.28
59	Bh	122	PRO	CA-C-N	6.14	128.43	120.44
59	Bh	122	PRO	C-N-CA	6.14	128.43	120.44
63	Bm	77	ALA	O-C-N	-6.14	115.61	122.12
78	CA	702	G	C5'-C4'-C3'	6.14	124.11	114.90
81	DA	713	U	N1-C1'-C2'	6.14	121.21	112.00
81	DA	2587	U	P-O5'-C5'	-6.14	111.69	120.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3018	C	N1-C1'-C2'	6.14	121.21	112.00
2	AA	42	PRO	CA-C-O	-6.14	114.22	122.08
8	AF	59	VAL	N-CA-CB	6.14	118.89	110.54
81	DA	1563	C	O4'-C4'-C3'	-6.14	97.86	104.00
82	DB	112	U	O4'-C1'-C2'	-6.14	101.46	107.60
35	BG	93	VAL	N-CA-C	-6.14	99.75	108.65
35	BG	170	LYS	CB-CA-C	-6.14	102.11	110.22
51	BZ	70	LYS	O-C-N	6.14	130.75	122.59
66	Bo	29	LEU	N-CA-C	6.14	119.97	112.23
78	CA	444	C	N1-C1'-C2'	6.14	123.21	114.00
78	CA	1550	A	O4'-C4'-C3'	6.14	110.14	104.00
81	DA	1082	U	C3'-C2'-C1'	6.14	107.44	101.30
81	DA	1478	C	N1-C1'-C2'	6.14	121.21	112.00
2	AA	200	ASP	CA-C-N	6.14	133.26	121.54
2	AA	200	ASP	C-N-CA	6.14	133.26	121.54
13	AL	73	ARG	N-CA-CB	6.14	121.46	111.21
55	Bc	44	ILE	N-CA-CB	6.14	118.89	110.54
60	Bi	11	ASN	CA-C-O	-6.14	111.75	120.16
78	CA	912	U	O4'-C1'-N1	6.14	117.41	108.20
78	CA	932	U	C2'-C3'-O3'	6.14	118.70	109.50
81	DA	1685	C	O4'-C1'-C2'	-6.14	99.66	105.80
83	DC	47	C	P-O5'-C5'	6.14	130.10	120.90
6	AE	170	ILE	CA-C-O	6.13	123.55	119.38
53	Ba	49	TYR	CA-C-O	-6.13	111.75	120.16
78	CA	235	G	C5'-C4'-C3'	-6.13	106.80	116.00
78	CA	1501	C	O4'-C1'-N1	6.13	117.70	108.50
81	DA	382	U	O4'-C1'-N1	6.13	117.70	108.50
81	DA	406	G	N9-C1'-C2'	-6.13	102.80	112.00
81	DA	989	A	C1'-O4'-C4'	6.13	116.03	109.90
81	DA	2684	C	C3'-C2'-C1'	6.13	107.44	101.30
81	DA	3222	U	C5'-C4'-C3'	6.13	125.20	116.00
82	DB	65	A	N9-C1'-C2'	6.13	121.20	112.00
35	BG	164	SER	N-CA-CB	6.13	119.14	110.12
42	BM	102	ILE	CA-C-N	6.13	134.57	121.45
42	BM	102	ILE	C-N-CA	6.13	134.57	121.45
78	CA	177	U	C1'-C2'-O2'	-6.13	102.60	111.80
81	DA	843	A	N9-C1'-C2'	-6.13	102.80	112.00
1	Aa	149	ASP	N-CA-CB	6.13	119.87	110.49
11	AJ	65	ILE	N-CA-C	-6.13	97.53	107.28
46	BT	174	ALA	N-CA-C	-6.13	104.68	111.36
60	Bi	52	GLN	CA-C-N	-6.13	112.05	120.57
60	Bi	52	GLN	C-N-CA	-6.13	112.05	120.57

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2218	G	O3'-P-O5'	6.13	113.20	104.00
11	AJ	114	VAL	N-CA-CB	6.13	117.40	110.72
32	BC	6	TYR	CB-CG-CD2	6.13	130.00	120.80
35	BG	9	TRP	N-CA-CB	-6.13	99.87	110.17
50	BX	102	LEU	N-CA-CB	6.13	120.08	110.46
57	Be	71	ALA	N-CA-CB	6.13	120.85	110.49
81	DA	312	C	C3'-C2'-C1'	6.13	107.43	101.30
81	DA	2253	G	C3'-C2'-C1'	-6.13	95.17	101.30
81	DA	2829	U	C3'-C2'-O2'	6.13	119.89	110.70
81	DA	3365	U	P-O3'-C3'	6.13	129.40	120.20
29	AU	57	VAL	CA-C-N	6.13	128.78	120.44
29	AU	57	VAL	C-N-CA	6.13	128.78	120.44
55	Bc	109	ILE	CB-CA-C	6.13	121.34	111.29
76	BS	29	MET	N-CA-CB	6.13	121.40	110.80
76	BS	165	LEU	CA-C-O	-6.13	111.75	120.51
78	CA	1136	U	C3'-C2'-C1'	6.13	107.43	101.30
32	BC	14	LEU	N-CA-C	6.13	118.93	111.82
39	BJ	53	PHE	CA-CB-CG	-6.13	107.67	113.80
78	CA	253	A	O4'-C1'-C2'	6.13	113.73	107.60
78	CA	660	G	O5'-C5'-C4'	-6.13	102.31	111.50
81	DA	2210	G	O3'-P-O5'	6.13	113.19	104.00
81	DA	2750	U	P-O3'-C3'	-6.13	111.01	120.20
81	DA	2758	A	C1'-C2'-O2'	6.13	117.59	108.40
81	DA	2903	A	O4'-C4'-C3'	6.13	110.13	104.00
81	DA	3090	U	O3'-P-O5'	6.13	113.19	104.00
1	Aa	7	LEU	N-CA-C	-6.12	98.92	108.90
3	AB	160	SER	N-CA-C	6.12	118.72	109.23
31	BB	152	SER	CB-CA-C	-6.12	97.51	110.31
46	BT	122	VAL	CA-C-N	6.12	128.49	120.28
46	BT	122	VAL	C-N-CA	6.12	128.49	120.28
81	DA	2148	U	O3'-P-O5'	-6.12	94.81	104.00
81	DA	3142	A	P-O3'-C3'	6.12	129.39	120.20
2	AA	10	THR	CA-CB-OG1	6.12	118.78	109.60
78	CA	554	C	O3'-P-O5'	-6.12	94.82	104.00
81	DA	43	A	C4'-C3'-C2'	6.12	108.72	102.60
81	DA	1876	U	O4'-C1'-N1	6.12	117.68	108.50
81	DA	2904	U	N1-C1'-C2'	6.12	121.19	112.00
83	DC	9	C	O4'-C4'-C3'	-6.12	97.88	104.00
83	DC	115	A	O4'-C1'-N9	6.12	117.69	108.50
33	BD	351	PRO	N-CA-CB	6.12	109.68	103.25
51	BZ	38	SER	CA-C-N	6.12	128.48	120.28
51	BZ	38	SER	C-N-CA	6.12	128.48	120.28

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
55	Bc	110	ALA	CA-C-N	6.12	133.11	122.28
55	Bc	110	ALA	C-N-CA	6.12	133.11	122.28
78	CA	1206	U	N1-C1'-C2'	6.12	121.18	112.00
78	CA	1466	G	N9-C1'-C2'	6.12	121.18	112.00
79	CB	16	U	P-O3'-C3'	6.12	129.38	120.20
81	DA	1010	G	P-O3'-C3'	6.12	129.38	120.20
81	DA	1217	A	C4'-C3'-C2'	-6.12	96.48	102.60
81	DA	1515	A	N9-C1'-C2'	6.12	121.18	112.00
81	DA	3003	G	O3'-P-O5'	-6.12	94.82	104.00
35	BG	58	LEU	CA-C-N	6.12	132.26	121.80
35	BG	58	LEU	C-N-CA	6.12	132.26	121.80
81	DA	159	A	N9-C1'-C2'	-6.12	102.82	112.00
81	DA	838	G	C5'-C4'-C3'	6.12	124.38	115.20
81	DA	1036	A	N9-C1'-C2'	-6.12	102.82	112.00
81	DA	1329	U	N1-C1'-C2'	6.12	121.18	112.00
81	DA	2152	A	P-O3'-C3'	-6.12	111.02	120.20
1	Aa	200	ASN	CA-CB-CG	-6.12	106.48	112.60
2	AA	67	ILE	O-C-N	-6.12	114.12	121.10
6	AE	21	ARG	CA-C-N	6.12	125.68	119.19
6	AE	21	ARG	C-N-CA	6.12	125.68	119.19
78	CA	446	A	O4'-C1'-N9	6.12	117.68	108.50
81	DA	249	U	O4'-C1'-C2'	-6.12	101.48	107.60
81	DA	788	C	P-O3'-C3'	6.12	129.38	120.20
81	DA	1782	U	O3'-P-O5'	6.12	113.18	104.00
81	DA	1853	U	O4'-C1'-N1	6.12	117.68	108.50
81	DA	2647	A	N9-C1'-C2'	-6.12	102.82	112.00
81	DA	2925	C	O4'-C1'-C2'	-6.12	101.48	107.60
61	Bj	43	PHE	CA-CB-CG	-6.12	107.68	113.80
81	DA	3108	G	C1'-O4'-C4'	-6.12	103.78	109.90
83	DC	44	C	O4'-C1'-N1	6.12	117.68	108.50
2	AA	251	GLU	O-C-N	6.12	128.41	121.93
8	AF	68	ILE	N-CA-C	-6.12	96.62	109.34
47	BU	88	ARG	N-CA-C	-6.12	99.74	109.59
57	Be	104	GLN	CA-C-N	6.12	128.76	120.44
57	Be	104	GLN	C-N-CA	6.12	128.76	120.44
76	BS	26	ILE	CA-C-O	-6.12	113.83	121.11
78	CA	223	U	O4'-C1'-C2'	-6.12	101.48	107.60
78	CA	1751	C	O4'-C1'-C2'	-6.12	101.48	107.60
81	DA	246	U	O4'-C1'-C2'	-6.12	101.48	107.60
10	AI	93	HIS	CE1-NE2-CD2	-6.11	102.89	109.00
16	AO	120	SER	O-C-N	-6.11	115.64	122.12
22	AV	93	SER	CA-C-N	6.11	133.22	121.54

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	AV	93	SER	C-N-CA	6.11	133.22	121.54
81	DA	678	G	C1'-O4'-C4'	-6.11	103.79	109.90
81	DA	1079	A	N9-C1'-C2'	-6.11	104.83	114.00
78	CA	153	G	C5'-C4'-C3'	6.11	125.17	116.00
81	DA	441	U	O4'-C1'-N1	6.11	117.67	108.50
5	AC	3	ARG	CA-C-N	6.11	132.70	121.70
5	AC	3	ARG	C-N-CA	6.11	132.70	121.70
16	AO	40	TYR	CB-CG-CD1	6.11	129.97	120.80
26	AZ	39	LEU	N-CA-C	6.11	123.81	110.80
26	AZ	46	ASN	N-CA-CB	6.11	120.82	110.49
32	BC	109	HIS	CE1-NE2-CD2	-6.11	102.89	109.00
78	CA	1398	U	C5'-C4'-C3'	6.11	124.36	115.20
81	DA	1265	U	C1'-O4'-C4'	-6.11	103.79	109.90
81	DA	2440	G	O4'-C4'-C3'	-6.11	97.89	104.00
81	DA	2711	C	O4'-C1'-C2'	-6.11	101.49	107.60
81	DA	2764	C	N1-C1'-C2'	6.11	121.17	112.00
83	DC	55	A	N9-C1'-C2'	-6.11	102.83	112.00
31	BB	65	ASP	CA-CB-CG	-6.11	106.49	112.60
33	BD	25	VAL	O-C-N	-6.11	115.70	121.87
74	BQ	16	PHE	CA-C-N	6.11	128.47	120.28
74	BQ	16	PHE	C-N-CA	6.11	128.47	120.28
76	BS	165	LEU	N-CA-CB	6.11	120.81	110.49
79	CB	67	G	O3'-P-O5'	6.11	113.16	104.00
31	BB	199	THR	CB-CA-C	6.11	119.95	109.51
32	BC	324	VAL	O-C-N	-6.11	116.91	123.14
52	BY	109	LEU	CA-C-N	6.11	130.89	122.77
52	BY	109	LEU	C-N-CA	6.11	130.89	122.77
81	DA	229	G	N9-C1'-C2'	6.11	121.16	112.00
81	DA	2684	C	N1-C1'-C2'	6.11	121.16	112.00
44	BO	62	HIS	N-CA-C	6.11	118.41	110.53
78	CA	143	G	N9-C1'-C2'	6.11	121.16	112.00
81	DA	1766	G	O4'-C1'-N9	6.11	117.66	108.50
81	DA	2861	U	N1-C1'-C2'	6.11	121.16	112.00
83	DC	3	U	N1-C1'-C2'	-6.11	102.84	112.00
33	BD	316	ASN	O-C-N	-6.10	114.30	121.32
60	Bi	66	SER	CA-C-N	6.10	133.20	121.54
60	Bi	66	SER	C-N-CA	6.10	133.20	121.54
78	CA	88	U	C5'-C4'-C3'	-6.10	106.84	116.00
78	CA	1295	G	C3'-C2'-C1'	-6.10	95.20	101.30
82	DB	122	U	N1-C1'-C2'	-6.10	102.84	112.00
6	AE	33	LYS	CA-C-N	6.10	128.03	120.34
6	AE	33	LYS	C-N-CA	6.10	128.03	120.34

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
12	AK	63	ALA	CA-C-N	6.10	129.50	120.90
12	AK	63	ALA	C-N-CA	6.10	129.50	120.90
32	BC	17	LEU	N-CA-CB	6.10	121.92	110.63
41	BN	4	ASP	CA-C-N	6.10	132.98	121.81
41	BN	4	ASP	C-N-CA	6.10	132.98	121.81
78	CA	1080	U	O4'-C1'-N1	6.10	117.65	108.50
78	CA	1214	U	C1'-O4'-C4'	6.10	116.00	109.90
81	DA	1	G	C1'-O4'-C4'	6.10	116.00	109.90
81	DA	623	U	C2'-C3'-O3'	6.10	122.85	113.70
81	DA	1296	C	O4'-C1'-C2'	-6.10	101.50	107.60
81	DA	2683	U	O4'-C1'-C2'	-6.10	101.50	107.60
83	DC	1	G	C5'-C4'-C3'	6.10	125.15	116.00
78	CA	383	G	C1'-O4'-C4'	-6.10	103.80	109.90
6	AE	209	ASN	N-CA-CB	6.10	119.09	110.12
47	BU	86	GLU	CB-CG-CD	-6.10	102.23	112.60
57	Be	43	ILE	N-CA-C	6.10	116.84	110.62
78	CA	54	C	O4'-C1'-C2'	-6.10	101.50	107.60
78	CA	402	C	C3'-C2'-C1'	6.10	107.40	101.30
81	DA	1188	U	O4'-C1'-C2'	-6.10	101.50	107.60
81	DA	2338	C	C5'-C4'-C3'	6.10	125.15	116.00
6	AE	241	ASP	CA-CB-CG	6.10	118.70	112.60
10	AI	88	GLY	CA-C-N	6.10	128.45	120.28
10	AI	88	GLY	C-N-CA	6.10	128.45	120.28
43	BP	64	VAL	CA-CB-CG2	6.10	120.76	110.40
72	Bt	59	VAL	O-C-N	-6.10	116.09	122.25
76	BS	70	ASN	CB-CA-C	-6.10	98.16	110.17
81	DA	1752	A	P-O5'-C5'	-6.10	111.75	120.90
81	DA	2216	G	P-O3'-C3'	6.10	129.34	120.20
81	DA	1598	G	O3'-P-O5'	-6.10	94.86	104.00
81	DA	3002	C	C5'-C4'-C3'	-6.10	106.86	116.00
1	Aa	163	ASP	O-C-N	6.09	128.58	122.12
17	AQ	107	SER	CB-CA-C	6.09	120.53	110.90
32	BC	112	ASP	N-CA-C	-6.09	104.55	112.23
33	BD	155	ASP	CA-C-N	6.09	132.32	120.99
33	BD	155	ASP	C-N-CA	6.09	132.32	120.99
37	BH	163	VAL	CA-C-N	6.09	129.12	120.53
37	BH	163	VAL	C-N-CA	6.09	129.12	120.53
43	BP	78	GLY	N-CA-C	-6.09	98.73	113.18
45	BR	28	LEU	CA-C-O	-6.09	113.48	120.24
64	Bl	49	TRP	CA-C-O	6.09	126.88	120.42
83	DC	55	A	C3'-C2'-C1'	6.09	107.39	101.30
22	AV	89	ILE	CA-C-O	-6.09	114.56	121.75

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
41	BN	64	VAL	N-CA-CB	-6.09	101.45	111.44
64	Bl	57	HIS	N-CA-CB	6.09	118.84	110.01
78	CA	284	G	O4'-C1'-C2'	-6.09	101.51	107.60
78	CA	1791	A	C4'-C3'-C2'	-6.09	96.51	102.60
81	DA	1188	U	O4'-C1'-N1	6.09	117.64	108.50
81	DA	1565	G	P-O5'-C5'	6.09	130.04	120.90
81	DA	1752	A	N9-C1'-C2'	6.09	121.14	112.00
76	BS	10	GLN	CA-C-N	-6.09	115.26	122.93
76	BS	10	GLN	C-N-CA	-6.09	115.26	122.93
78	CA	461	G	O4'-C1'-N9	6.09	117.63	108.50
81	DA	311	C	C3'-C2'-C1'	6.09	107.39	101.30
81	DA	424	G	C3'-C2'-C1'	6.09	107.39	101.30
81	DA	2025	G	N9-C1'-C2'	-6.09	102.86	112.00
81	DA	2420	C	O3'-P-O5'	-6.09	94.87	104.00
81	DA	3149	G	C1'-C2'-O2'	6.09	117.53	108.40
39	BJ	53	PHE	N-CA-C	6.09	118.15	110.24
81	DA	1119	C	N1-C1'-C2'	6.09	121.13	112.00
81	DA	2208	A	C4'-C3'-C2'	-6.09	96.51	102.60
41	BN	129	TYR	CA-C-N	6.09	128.93	120.29
41	BN	129	TYR	C-N-CA	6.09	128.93	120.29
78	CA	407	A	O4'-C1'-C2'	-6.09	101.51	107.60
81	DA	1623	G	O3'-P-O5'	6.09	113.13	104.00
20	AS	61	VAL	N-CA-CB	6.08	121.78	110.77
81	DA	183	G	C1'-O4'-C4'	-6.08	103.81	109.90
81	DA	675	C	P-O3'-C3'	6.08	129.33	120.20
82	DB	108	C	C3'-C2'-C1'	6.08	107.39	101.30
8	AF	123	VAL	CA-C-O	-6.08	114.40	120.85
19	AR	114	HIS	CB-CG-CD2	-6.08	123.29	131.20
66	Bo	18	LYS	CA-C-N	6.08	128.43	120.28
66	Bo	18	LYS	C-N-CA	6.08	128.43	120.28
77	BI	110	ARG	O-C-N	-6.08	114.50	122.59
78	CA	70	C	O5'-C5'-C4'	6.08	120.62	111.50
78	CA	191	C	C3'-C2'-C1'	6.08	107.38	101.30
78	CA	1032	G	C5'-C4'-C3'	6.08	125.13	116.00
78	CA	1548	G	O5'-C5'-C4'	6.08	120.62	111.50
81	DA	1649	U	N1-C1'-C2'	-6.08	102.88	112.00
1	Aa	309	VAL	N-CA-C	-6.08	98.92	108.95
5	AC	18	PRO	N-CA-CB	6.08	109.64	103.25
9	AH	125	ILE	N-CA-C	-6.08	100.94	109.21
53	Ba	15	ARG	N-CA-CB	6.08	120.77	110.49
60	Bi	46	ASP	CB-CA-C	-6.08	101.29	110.90
69	Br	23	HIS	CE1-NE2-CD2	-6.08	102.92	109.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	320	U	N1-C1'-C2'	6.08	121.12	112.00
78	CA	1141	G	O4'-C1'-C2'	6.08	113.68	107.60
79	CB	47	U	O4'-C1'-C2'	-6.08	99.72	105.80
81	DA	2423	U	O4'-C1'-N1	6.08	117.62	108.50
81	DA	2769	A	C5'-C4'-C3'	-6.08	106.88	116.00
16	AO	114	ARG	CB-CA-C	-6.08	100.70	110.79
38	Bs	244	LYS	N-CA-C	-6.08	104.65	111.28
81	DA	434	U	C4'-C3'-C2'	-6.08	96.52	102.60
81	DA	3250	U	N1-C1'-C2'	6.08	121.12	112.00
55	Bc	89	ARG	CA-C-N	6.08	128.43	120.28
55	Bc	89	ARG	C-N-CA	6.08	128.43	120.28
65	Bn	30	LYS	N-CA-C	6.08	123.75	110.80
78	CA	49	C	C4'-C3'-O3'	6.08	122.12	113.00
78	CA	394	C	N1-C1'-C2'	6.08	121.12	112.00
78	CA	684	A	C3'-C2'-C1'	6.08	107.38	101.30
78	CA	947	U	O4'-C1'-N1	6.08	117.62	108.50
81	DA	878	G	N9-C1'-C2'	6.08	121.12	112.00
81	DA	1400	G	C3'-C2'-C1'	-6.08	95.22	101.30
81	DA	3059	G	O3'-P-O5'	6.08	113.12	104.00
3	AB	34	TYR	CB-CA-C	-6.08	108.32	117.07
10	AI	58	ASP	N-CA-C	-6.08	97.86	110.80
74	BQ	11	ALA	CA-C-O	6.08	126.99	120.55
81	DA	3130	A	O4'-C1'-C2'	6.08	113.68	107.60
2	AA	152	PRO	N-CA-C	-6.08	101.53	111.68
8	AF	218	GLU	N-CA-CB	6.08	119.70	110.28
18	AP	54	ILE	CA-C-N	6.08	133.14	121.54
18	AP	54	ILE	C-N-CA	6.08	133.14	121.54
41	BN	62	GLN	CG-CD-NE2	6.08	125.52	116.40
78	CA	641	G	C1'-O4'-C4'	-6.08	103.82	109.90
78	CA	1444	A	O4'-C1'-N9	6.08	117.31	108.20
78	CA	1792	G	O4'-C1'-C2'	6.08	111.88	105.80
79	CB	12	U	C5'-C4'-C3'	-6.08	106.89	116.00
81	DA	1014	U	O3'-P-O5'	-6.08	94.89	104.00
33	BD	349	THR	N-CA-C	-6.07	97.86	110.80
78	CA	1141	G	C1'-C2'-O2'	6.07	117.51	108.40
81	DA	661	G	O5'-C5'-C4'	6.07	120.81	111.70
81	DA	737	G	C5'-C4'-C3'	6.07	125.11	116.00
81	DA	1967	U	P-O3'-C3'	-6.07	111.09	120.20
81	DA	2038	C	O4'-C1'-C2'	-6.07	101.53	107.60
35	BG	66	SER	N-CA-CB	6.07	120.83	111.24
81	DA	1693	C	O4'-C1'-N1	6.07	117.61	108.50
22	AV	95	HIS	CG-CD2-NE2	6.07	113.27	107.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	BH	89	GLU	CB-CA-C	6.07	122.50	110.42
51	BZ	72	SER	CA-C-N	6.07	132.63	121.70
51	BZ	72	SER	C-N-CA	6.07	132.63	121.70
54	Bd	45	HIS	ND1-CE1-NE2	6.07	114.47	108.40
72	Bt	41	TRP	CA-C-O	-6.07	114.45	120.70
78	CA	593	U	O4'-C1'-C2'	-6.07	101.53	107.60
78	CA	648	G	N9-C1'-C2'	6.07	121.11	112.00
81	DA	1947	G	C1'-O4'-C4'	6.07	115.97	109.90
81	DA	2066	C	O4'-C1'-C2'	-6.07	101.53	107.60
81	DA	2177	G	C3'-C2'-O2'	6.07	119.81	110.70
81	DA	2339	C	C3'-C2'-C1'	6.07	107.57	101.50
81	DA	3188	G	C5'-C4'-C3'	6.07	124.00	114.90
1	Aa	64	HIS	CG-CD2-NE2	6.07	113.27	107.20
31	BB	70	ARG	N-CA-C	-6.07	106.85	114.56
81	DA	1975	C	O5'-C5'-C4'	6.07	120.60	111.50
81	DA	2406	C	O4'-C1'-C2'	-6.07	101.53	107.60
81	DA	3122	A	P-O3'-C3'	6.07	129.30	120.20
24	AX	48	SER	CA-C-N	6.07	131.60	122.68
24	AX	48	SER	C-N-CA	6.07	131.60	122.68
32	BC	140	ASP	N-CA-C	-6.07	103.16	110.44
32	BC	281	LYS	CA-CB-CG	6.07	126.23	114.10
38	Bs	132	LYS	CA-C-N	6.07	129.53	120.31
38	Bs	132	LYS	C-N-CA	6.07	129.53	120.31
78	CA	351	C	O4'-C1'-C2'	-6.07	99.73	105.80
78	CA	1236	A	O4'-C1'-N9	6.07	117.60	108.50
81	DA	630	A	P-O5'-C5'	6.07	130.00	120.90
81	DA	1742	U	C3'-C2'-C1'	6.07	107.37	101.30
81	DA	1744	G	O4'-C1'-N9	6.07	117.60	108.50
81	DA	1794	G	P-O5'-C5'	-6.07	111.80	120.90
81	DA	2504	U	P-O3'-C3'	-6.07	111.10	120.20
81	DA	2756	C	C4'-C3'-C2'	-6.07	96.53	102.60
81	DA	2873	U	C5'-C4'-C3'	-6.07	106.10	115.20
5	AC	175	ARG	CA-C-O	-6.07	113.99	120.42
40	BK	192	LYS	CA-C-O	-6.07	114.45	120.82
52	BY	36	SER	CA-C-N	6.07	128.41	120.28
52	BY	36	SER	C-N-CA	6.07	128.41	120.28
54	Bd	52	LYS	CB-CG-CD	6.07	125.25	111.30
78	CA	178	U	C5'-C4'-O4'	-6.07	100.70	109.80
81	DA	1638	A	C3'-C2'-C1'	-6.07	95.23	101.30
81	DA	1739	U	O4'-C1'-N1	6.07	117.60	108.50
81	DA	2297	U	N1-C1'-C2'	6.07	121.10	112.00
81	DA	3320	A	O5'-C5'-C4'	6.07	120.60	111.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
82	DB	142	C	N1-C1'-C2'	6.07	121.10	112.00
17	AQ	110	VAL	N-CA-CB	6.06	117.64	110.55
45	BR	98	LYS	CA-CB-CG	-6.06	101.97	114.10
78	CA	365	G	C1'-C2'-O2'	6.06	117.50	108.40
81	DA	742	G	O4'-C1'-N9	6.06	117.60	108.50
81	DA	2157	G	C2'-C3'-O3'	6.06	118.60	109.50
81	DA	3313	U	C1'-C2'-O2'	6.06	117.50	108.40
82	DB	153	U	N1-C1'-C2'	-6.06	102.90	112.00
6	AE	18	ASN	N-CA-C	6.06	117.56	111.07
14	AM	38	VAL	N-CA-C	-6.06	98.99	108.81
29	AU	50	ALA	CA-C-O	-6.06	115.83	120.19
32	BC	47	LEU	N-CA-CB	6.06	121.07	111.43
33	BD	352	ALA	N-CA-C	6.06	123.72	110.80
38	Bs	200	SER	CA-C-N	6.06	128.20	120.56
38	Bs	200	SER	C-N-CA	6.06	128.20	120.56
58	Bg	10	ARG	NE-CZ-NH1	6.06	127.56	121.50
76	BS	11	VAL	CA-C-N	6.06	130.71	123.19
76	BS	11	VAL	C-N-CA	6.06	130.71	123.19
78	CA	670	U	P-O3'-C3'	6.06	129.29	120.20
78	CA	1209	C	N1-C1'-C2'	6.06	121.09	112.00
78	CA	1791	A	C3'-C2'-C1'	6.06	107.56	101.50
81	DA	934	G	N9-C1'-C2'	6.06	121.09	112.00
9	AH	119	LYS	CA-C-O	-6.06	114.00	120.42
78	CA	1733	C	O4'-C1'-C2'	-6.06	101.54	107.60
31	BB	83	HIS	CE1-NE2-CD2	-6.06	102.94	109.00
36	BF	64	HIS	ND1-CE1-NE2	6.06	114.46	108.40
40	BK	182	ASN	CA-CB-CG	-6.06	106.54	112.60
56	Bf	73	GLY	CA-C-N	6.06	128.40	120.28
56	Bf	73	GLY	C-N-CA	6.06	128.40	120.28
81	DA	539	C	O3'-P-O5'	-6.06	94.91	104.00
82	DB	40	A	C1'-O4'-C4'	-6.06	103.84	109.90
6	AE	175	GLY	N-CA-C	-6.06	98.82	113.18
37	BH	191	ASN	OD1-CG-ND2	6.06	128.66	122.60
79	CB	20	C	O4'-C1'-C2'	-6.06	101.54	107.60
81	DA	84	U	N1-C1'-C2'	6.06	121.09	112.00
81	DA	262	U	C4'-C3'-O3'	-6.06	103.91	113.00
81	DA	431	U	O4'-C1'-N1	6.06	117.59	108.50
81	DA	1378	U	O4'-C1'-C2'	-6.06	101.54	107.60
81	DA	2206	G	N9-C1'-C2'	-6.06	102.91	112.00
34	BE	14	ILE	N-CA-C	-6.06	99.15	107.99
60	Bi	38	LEU	N-CA-CB	6.06	119.97	110.46
81	DA	1321	G	C4'-C3'-C2'	-6.06	96.54	102.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1755	C	P-O5'-C5'	6.06	129.98	120.90
5	AC	38	ASN	O-C-N	6.05	130.64	122.59
17	AQ	81	LYS	CA-C-N	6.05	132.60	121.70
17	AQ	81	LYS	C-N-CA	6.05	132.60	121.70
21	AT	44	ARG	O-C-N	-6.05	116.10	123.36
72	Bu	61	PHE	N-CA-CB	6.05	120.72	110.49
78	CA	1085	G	C3'-C2'-C1'	-6.05	95.25	101.30
81	DA	49	A	C2'-C3'-O3'	6.05	118.58	109.50
32	BC	266	ARG	CD-NE-CZ	6.05	132.87	124.40
81	DA	1773	C	N1-C1'-C2'	-6.05	104.92	114.00
42	BM	88	ARG	N-CA-CB	6.05	119.12	110.16
50	BX	130	TYR	CA-C-O	6.05	127.06	119.98
73	Bv	7	TYR	CB-CA-C	-6.05	99.05	110.67
74	BQ	81	HIS	ND1-CE1-NE2	6.05	114.45	108.40
81	DA	1814	A	O4'-C1'-N9	6.05	117.28	108.20
81	DA	2266	U	C1'-C2'-O2'	-6.05	102.72	111.80
34	BE	150	ASN	CA-C-N	6.05	128.63	120.65
34	BE	150	ASN	C-N-CA	6.05	128.63	120.65
47	BU	160	ILE	N-CA-CB	-6.05	101.22	111.50
61	Bj	42	GLN	CB-CA-C	-6.05	101.38	110.88
76	BS	110	THR	N-CA-CB	6.05	119.01	110.12
78	CA	1433	G	C3'-C2'-C1'	6.05	107.35	101.30
81	DA	639	G	C4'-C3'-O3'	-6.05	103.93	113.00
81	DA	2502	A	C1'-O4'-C4'	6.05	115.95	109.90
81	DA	2738	A	C4'-C3'-C2'	-6.05	96.55	102.60
4	AD	234	PRO	CB-CA-C	-6.05	101.58	111.56
81	DA	2709	C	C3'-C2'-C1'	6.05	107.35	101.30
4	AD	177	ALA	CA-C-N	6.05	132.00	122.51
4	AD	177	ALA	C-N-CA	6.05	132.00	122.51
22	AV	30	LYS	CA-CB-CG	6.05	126.19	114.10
31	BB	33	ASP	CA-CB-CG	-6.05	106.55	112.60
78	CA	996	U	O4'-C1'-C2'	-6.05	101.55	107.60
78	CA	1319	A	O4'-C1'-C2'	-6.05	101.55	107.60
81	DA	369	A	O4'-C1'-C2'	-6.05	99.75	105.80
81	DA	969	C	C5'-C4'-O4'	-6.05	100.73	109.80
81	DA	1006	A	P-O3'-C3'	-6.05	111.13	120.20
33	BD	351	PRO	CA-N-CD	-6.04	103.54	112.00
41	BN	19	ARG	NE-CZ-NH1	6.04	127.55	121.50
72	Bu	57	LEU	CA-C-N	6.04	130.36	120.63
72	Bu	57	LEU	C-N-CA	6.04	130.36	120.63
81	DA	59	G	N9-C1'-C2'	-6.04	104.93	114.00
81	DA	1591	G	N9-C1'-C2'	6.04	121.07	112.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2174	G	O4'-C1'-C2'	6.04	111.84	105.80
5	AC	34	PHE	N-CA-CB	6.04	119.65	110.28
6	AE	195	ASP	N-CA-C	-6.04	100.11	109.24
33	BD	311	HIS	ND1-CE1-NE2	6.04	114.44	108.40
43	BP	166	ALA	CA-C-N	6.04	128.38	120.28
43	BP	166	ALA	C-N-CA	6.04	128.38	120.28
63	Bm	45	LYS	N-CA-CB	6.04	119.32	110.25
78	CA	900	A	C5'-C4'-O4'	-6.04	100.73	109.80
81	DA	1198	C	O3'-P-O5'	-6.04	94.93	104.00
81	DA	2663	G	O4'-C1'-N9	6.04	117.56	108.50
81	DA	3038	U	O3'-P-O5'	6.04	113.07	104.00
81	DA	3328	G	O4'-C1'-N9	6.04	117.56	108.50
12	AK	89	THR	N-CA-CB	6.04	120.13	110.16
22	AV	92	ILE	CB-CA-C	6.04	121.20	111.29
33	BD	65	TRP	N-CA-C	-6.04	104.99	112.90
38	Bs	249	VAL	CA-C-O	-6.04	114.77	121.05
40	BK	37	ARG	CA-C-N	6.04	128.38	120.28
40	BK	37	ARG	C-N-CA	6.04	128.38	120.28
78	CA	1568	C	O3'-P-O5'	-6.04	94.94	104.00
81	DA	158	G	P-O5'-C5'	-6.04	111.84	120.90
81	DA	1130	A	P-O3'-C3'	6.04	129.26	120.20
81	DA	1664	G	C1'-O4'-C4'	-6.04	103.86	109.90
81	DA	2393	G	C5'-C4'-C3'	6.04	124.26	115.20
81	DA	2633	U	N1-C1'-C2'	6.04	121.06	112.00
81	DA	3282	U	O4'-C1'-C2'	-6.04	101.56	107.60
57	Be	37	ASN	CA-C-N	6.04	128.37	120.28
57	Be	37	ASN	C-N-CA	6.04	128.37	120.28
58	Bg	44	MET	N-CA-CB	6.04	119.10	110.16
58	Bg	64	VAL	CA-C-N	6.04	133.08	121.54
58	Bg	64	VAL	C-N-CA	6.04	133.08	121.54
81	DA	3284	G	N9-C1'-C2'	6.04	121.06	112.00
5	AC	164	PHE	CB-CA-C	6.04	122.44	110.42
6	AE	209	ASN	CA-CB-CG	6.04	118.64	112.60
42	BM	102	ILE	N-CA-C	6.04	116.39	107.15
52	BY	89	LYS	CA-C-N	6.04	129.00	120.42
52	BY	89	LYS	C-N-CA	6.04	129.00	120.42
78	CA	686	C	O4'-C1'-C2'	-6.04	101.56	107.60
78	CA	1549	C	O4'-C1'-C2'	-6.04	101.56	107.60
81	DA	181	U	O4'-C1'-C2'	-6.04	101.56	107.60
81	DA	932	U	P-O3'-C3'	6.04	129.26	120.20
81	DA	2153	U	O3'-P-O5'	6.04	113.06	104.00
81	DA	2163	C	C1'-O4'-C4'	6.04	115.94	109.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2647	A	P-O5'-C5'	-6.04	111.84	120.90
81	DA	2723	U	C3'-C2'-C1'	6.04	107.34	101.30
2	AA	238	GLU	CA-C-N	6.04	128.37	120.28
2	AA	238	GLU	C-N-CA	6.04	128.37	120.28
6	AE	56	ILE	CA-C-N	6.04	128.37	120.28
6	AE	56	ILE	C-N-CA	6.04	128.37	120.28
60	Bi	112	ALA	N-CA-C	-6.04	99.06	108.90
79	CB	17	G	C3'-C2'-C1'	6.04	107.54	101.50
81	DA	114	A	O4'-C1'-C2'	-6.04	101.56	107.60
81	DA	341	G	C2'-C3'-O3'	6.04	122.75	113.70
81	DA	1492	G	P-O3'-C3'	6.04	129.25	120.20
81	DA	3312	U	O3'-P-O5'	6.04	113.06	104.00
10	AI	83	GLN	CA-C-O	-6.04	112.13	120.52
63	Bm	6	LYS	CB-CA-C	6.04	122.43	110.42
78	CA	652	G	C5'-C4'-C3'	6.04	125.05	116.00
78	CA	1394	G	C5'-C4'-O4'	6.04	118.85	109.80
81	DA	1242	G	O4'-C1'-N9	6.04	117.55	108.50
81	DA	2531	C	C4'-C3'-C2'	-6.04	96.56	102.60
10	AI	28	LEU	CA-C-N	6.03	128.74	120.35
10	AI	28	LEU	C-N-CA	6.03	128.74	120.35
20	AS	116	ILE	CA-CB-CG1	6.03	120.66	110.40
43	BP	50	ARG	N-CA-CB	6.03	118.99	110.12
78	CA	547	U	O4'-C1'-C2'	-6.03	101.57	107.60
78	CA	1385	G	O4'-C1'-C2'	-6.03	101.57	107.60
81	DA	765	C	C4'-C3'-C2'	-6.03	96.57	102.60
81	DA	1584	U	C4'-C3'-O3'	-6.03	103.95	113.00
6	AE	126	ARG	N-CA-CB	-6.03	100.30	110.49
10	AI	74	HIS	ND1-CE1-NE2	6.03	114.43	108.40
78	CA	153	G	N9-C1'-C2'	6.03	121.05	112.00
12	AK	93	THR	CB-CA-C	6.03	122.05	110.17
13	AL	64	PRO	CA-C-O	-6.03	114.50	121.86
20	AS	89	ARG	CA-C-O	-6.03	111.90	120.16
35	BG	113	LYS	CA-C-N	6.03	128.68	120.54
35	BG	113	LYS	C-N-CA	6.03	128.68	120.54
49	BV	93	GLY	CA-C-N	6.03	128.64	120.44
49	BV	93	GLY	C-N-CA	6.03	128.64	120.44
63	Bm	4	ARG	CB-CA-C	-6.03	97.17	109.65
74	BQ	140	ARG	CA-C-N	6.03	127.38	119.84
74	BQ	140	ARG	C-N-CA	6.03	127.38	119.84
81	DA	462	C	P-O5'-C5'	6.03	129.94	120.90
81	DA	2434	U	C3'-C2'-C1'	6.03	107.53	101.50
82	DB	84	C	O4'-C1'-N1	6.03	117.24	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	DC	49	G	O4'-C1'-N9	-6.03	99.45	108.50
9	AH	108	ALA	N-CA-CB	6.03	120.68	110.49
18	AP	60	PHE	CB-CA-C	-6.03	98.42	110.42
32	BC	136	LYS	CA-C-N	6.03	133.06	121.54
32	BC	136	LYS	C-N-CA	6.03	133.06	121.54
46	BT	27	ASN	N-CA-C	-6.03	105.58	113.12
2	AA	242	TRP	CD2-CE2-CZ2	-6.03	116.37	122.40
40	BK	162	VAL	N-CA-CB	-6.03	102.85	110.57
41	BN	24	LYS	CA-C-N	6.03	132.06	123.14
41	BN	24	LYS	C-N-CA	6.03	132.06	123.14
61	Bj	76	GLY	N-CA-C	6.03	120.84	113.79
78	CA	1545	A	O4'-C1'-N9	6.03	117.54	108.50
81	DA	1358	C	O4'-C1'-C2'	-6.03	101.57	107.60
81	DA	2423	U	O4'-C1'-C2'	-6.03	101.57	107.60
81	DA	2821	C	N1-C1'-C2'	6.03	121.04	112.00
81	DA	3221	C	P-O5'-C5'	6.03	138.98	120.90
1	Aa	89	LEU	N-CA-C	-6.03	99.37	109.07
38	Bs	55	LYS	CB-CG-CD	6.03	125.16	111.30
47	BU	154	VAL	CB-CA-C	-6.03	107.96	114.35
66	Bo	14	ALA	CB-CA-C	-6.03	100.61	110.85
77	BI	106	ALA	CA-C-O	-6.03	111.89	120.51
78	CA	120	U	P-O3'-C3'	-6.03	111.16	120.20
78	CA	1347	U	O4'-C1'-C2'	-6.03	101.58	107.60
78	CA	1437	U	C1'-C2'-O2'	-6.03	99.36	108.40
81	DA	627	U	O5'-C5'-C4'	-6.03	102.46	111.50
81	DA	2137	U	O4'-C1'-N1	6.03	117.54	108.50
58	Bg	6	ASP	CA-C-N	6.02	129.28	120.91
58	Bg	6	ASP	C-N-CA	6.02	129.28	120.91
69	Br	102	GLN	CA-C-N	-6.02	111.50	121.80
69	Br	102	GLN	C-N-CA	-6.02	111.50	121.80
78	CA	223	U	C5'-C4'-C3'	6.02	125.04	116.00
81	DA	771	A	C4'-C3'-C2'	-6.02	96.58	102.60
16	AO	102	LEU	N-CA-C	6.02	117.84	111.28
20	AS	14	PHE	CA-CB-CG	-6.02	107.78	113.80
32	BC	165	GLN	CA-C-N	6.02	130.18	120.30
32	BC	165	GLN	C-N-CA	6.02	130.18	120.30
47	BU	63	VAL	CA-CB-CG2	-6.02	100.16	110.40
78	CA	1535	U	O4'-C1'-C2'	6.02	111.82	105.80
78	CA	1610	G	C1'-O4'-C4'	-6.02	103.88	109.90
81	DA	627	U	N1-C1'-C2'	6.02	121.03	112.00
81	DA	2410	U	O4'-C1'-C2'	-6.02	101.58	107.60
17	AQ	81	LYS	N-CA-C	6.02	119.57	107.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
18	AP	108	PRO	CA-N-CD	-6.02	103.57	112.00
37	BH	124	ASP	N-CA-C	-6.02	97.97	110.80
78	CA	589	C	P-O3'-C3'	-6.02	111.17	120.20
81	DA	1872	C	C5'-C4'-C3'	6.02	125.03	116.00
5	AC	93	LEU	CA-C-O	6.02	127.04	120.12
20	AS	140	LEU	CA-C-N	6.02	128.35	120.28
20	AS	140	LEU	C-N-CA	6.02	128.35	120.28
32	BC	235	THR	N-CA-C	-6.02	101.61	110.52
68	Bq	10	THR	O-C-N	6.02	129.01	122.15
78	CA	110	U	N1-C1'-C2'	6.02	121.03	112.00
81	DA	78	U	O4'-C1'-C2'	-6.02	101.58	107.60
81	DA	281	G	N9-C1'-C2'	6.02	121.03	112.00
81	DA	2162	U	P-O5'-C5'	6.02	129.93	120.90
81	DA	2499	U	O4'-C1'-C2'	-6.02	101.58	107.60
2	AA	112	THR	CA-C-N	6.02	131.76	121.29
2	AA	112	THR	C-N-CA	6.02	131.76	121.29
2	AA	159	ALA	N-CA-C	-6.02	99.90	109.59
8	AF	209	TYR	N-CA-C	-6.02	104.80	111.36
11	AJ	88	LYS	CA-C-N	6.02	131.49	123.00
11	AJ	88	LYS	C-N-CA	6.02	131.49	123.00
30	BA	30	GLU	CA-C-N	6.02	128.34	120.28
30	BA	30	GLU	C-N-CA	6.02	128.34	120.28
46	BT	130	ASN	N-CA-CB	6.02	120.66	110.49
57	Be	33	ARG	CA-C-N	6.02	128.34	120.28
57	Be	33	ARG	C-N-CA	6.02	128.34	120.28
57	Be	123	THR	O-C-N	6.02	129.01	122.15
67	Bp	51	LEU	N-CA-CB	6.02	120.66	110.49
77	BI	178	ARG	O-C-N	-6.02	114.40	121.32
81	DA	448	U	O3'-P-O5'	6.02	113.03	104.00
81	DA	982	C	P-O3'-C3'	6.02	129.23	120.20
16	AO	101	HIS	CG-CD2-NE2	6.02	113.22	107.20
81	DA	974	G	O4'-C1'-N9	6.02	117.52	108.50
9	AH	79	PHE	CA-CB-CG	6.01	119.81	113.80
11	AJ	84	MET	N-CA-CB	6.01	120.03	110.65
32	BC	379	PHE	CA-CB-CG	-6.01	107.78	113.80
40	BK	5	PRO	CA-N-CD	-6.01	103.58	112.00
81	DA	1058	U	N1-C1'-C2'	6.01	121.02	112.00
81	DA	1392	G	P-O5'-C5'	-6.01	111.88	120.90
14	AM	42	TYR	CA-C-N	6.01	128.34	120.28
14	AM	42	TYR	C-N-CA	6.01	128.34	120.28
40	BK	178	VAL	O-C-N	-6.01	115.80	121.87
81	DA	329	U	C2'-C3'-O3'	6.01	122.72	113.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1847	A	O4'-C1'-N9	6.01	117.22	108.20
81	DA	2721	A	O3'-P-O5'	-6.01	94.98	104.00
81	DA	2648	G	C4'-C3'-C2'	-6.01	96.59	102.60
81	DA	2830	G	O3'-P-O5'	6.01	113.02	104.00
81	DA	2971	A	N9-C1'-C2'	-6.01	104.98	114.00
2	AA	46	HIS	ND1-CE1-NE2	6.01	114.41	108.40
31	BB	10	LYS	N-CA-CB	6.01	118.95	109.82
35	BG	74	VAL	CA-C-N	6.01	127.35	119.84
35	BG	74	VAL	C-N-CA	6.01	127.35	119.84
50	BX	35	PRO	N-CA-CB	6.01	109.56	103.25
78	CA	1478	G	C1'-C2'-O2'	6.01	117.41	108.40
81	DA	436	A	P-O3'-C3'	6.01	129.21	120.20
81	DA	1057	A	O4'-C1'-N9	6.01	117.52	108.50
81	DA	1847	A	C2'-C3'-O3'	6.01	118.51	109.50
81	DA	2563	G	O3'-P-O5'	6.01	113.01	104.00
81	DA	2620	G	P-O5'-C5'	6.01	129.91	120.90
81	DA	996	A	C1'-O4'-C4'	6.01	115.91	109.90
81	DA	2081	U	O3'-P-O5'	6.01	113.01	104.00
81	DA	2160	G	O3'-P-O5'	-6.01	94.99	104.00
11	AJ	105	GLN	OE1-CD-NE2	6.01	128.61	122.60
16	AO	65	VAL	CA-CB-CG1	-6.01	100.19	110.40
31	BB	139	HIS	O-C-N	6.01	130.58	122.59
37	BH	125	ALA	O-C-N	-6.01	116.21	122.94
37	BH	207	ASP	N-CA-C	-6.01	96.30	107.71
49	BV	43	LYS	O-C-N	6.01	128.26	122.07
53	Ba	69	LYS	CA-C-N	6.01	125.72	119.05
53	Ba	69	LYS	C-N-CA	6.01	125.72	119.05
81	DA	218	G	O4'-C1'-N9	6.01	117.21	108.20
81	DA	427	C	C3'-C2'-C1'	6.01	107.31	101.30
81	DA	1360	C	C1'-O4'-C4'	-6.01	103.89	109.90
13	AL	77	ILE	N-CA-C	-6.00	99.70	108.11
81	DA	228	U	C4'-C3'-O3'	-6.00	103.99	113.00
81	DA	2771	U	O4'-C1'-N1	6.00	117.51	108.50
3	AB	181	VAL	N-CA-C	-6.00	99.75	108.87
32	BC	289	ASP	CA-CB-CG	6.00	118.60	112.60
51	BZ	27	LYS	N-CA-CB	6.00	119.42	110.29
64	Bl	45	ARG	N-CA-CB	6.00	118.80	109.85
78	CA	112	A	O4'-C1'-C2'	-6.00	101.60	107.60
78	CA	269	G	C1'-O4'-C4'	-6.00	103.90	109.90
78	CA	296	U	P-O5'-C5'	-6.00	111.89	120.90
79	CB	40	U	O3'-P-O5'	6.00	113.00	104.00
81	DA	2044	U	P-O3'-C3'	6.00	129.20	120.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
82	DB	75	G	O3'-P-O5'	6.00	113.01	104.00
2	AA	97	PRO	CA-C-N	-6.00	114.83	123.11
2	AA	97	PRO	C-N-CA	-6.00	114.83	123.11
31	BB	34	TYR	N-CA-CB	6.00	120.63	110.49
33	BD	221	ASN	CB-CA-C	-6.00	97.77	110.31
38	Bs	52	LEU	CA-C-N	6.00	131.59	122.65
38	Bs	52	LEU	C-N-CA	6.00	131.59	122.65
53	Ba	34	LYS	CB-CA-C	-6.00	103.51	112.09
82	DB	156	U	O4'-C1'-N1	6.00	117.50	108.50
37	BH	90	THR	N-CA-CB	6.00	120.63	110.49
78	CA	336	G	C4'-C3'-C2'	-6.00	96.60	102.60
78	CA	1660	A	O4'-C1'-C2'	-6.00	101.60	107.60
81	DA	985	U	O4'-C1'-C2'	-6.00	101.60	107.60
81	DA	3074	G	O4'-C1'-C2'	-6.00	101.60	107.60
14	AM	111	ASP	CA-C-O	-6.00	114.06	120.42
22	AV	26	LYS	N-CA-C	-6.00	98.03	110.80
25	AY	46	GLY	CA-C-N	6.00	126.46	120.52
25	AY	46	GLY	C-N-CA	6.00	126.46	120.52
31	BB	235	ALA	N-CA-C	-6.00	100.20	109.14
33	BD	75	PRO	CA-C-O	-6.00	113.67	122.31
76	BS	32	TRP	CA-CB-CG	6.00	125.00	113.60
78	CA	947	U	C1'-O4'-C4'	6.00	115.90	109.90
81	DA	77	A	C4'-C3'-O3'	-6.00	104.00	113.00
81	DA	804	C	C3'-C2'-C1'	6.00	107.30	101.30
81	DA	1988	C	C4'-C3'-O3'	-6.00	104.00	113.00
81	DA	2377	G	O4'-C1'-C2'	6.00	111.80	105.80
82	DB	55	U	O4'-C1'-C2'	-6.00	101.60	107.60
83	DC	116	U	P-O3'-C3'	6.00	129.20	120.20
66	Bo	27	ILE	CA-CB-CG2	6.00	120.69	110.50
78	CA	604	A	C3'-C2'-C1'	6.00	107.30	101.30
81	DA	231	G	P-O5'-C5'	6.00	129.90	120.90
81	DA	2886	U	P-O3'-C3'	6.00	129.19	120.20
10	AI	116	LEU	N-CA-C	-6.00	105.89	112.72
14	AM	121	ALA	N-CA-C	-6.00	101.90	110.59
32	BC	50	LYS	N-CA-CB	6.00	119.43	109.60
78	CA	1582	U	O4'-C1'-N1	6.00	117.19	108.20
81	DA	2108	C	O4'-C1'-C2'	-6.00	101.61	107.60
2	AA	119	ARG	N-CA-C	-5.99	104.83	111.36
4	AD	151	ASP	N-CA-CB	5.99	121.04	110.37
60	Bi	27	GLY	CA-C-N	5.99	125.79	120.10
60	Bi	27	GLY	C-N-CA	5.99	125.79	120.10
62	Bk	75	LYS	CA-C-O	-5.99	114.20	120.55

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	617	U	O3'-P-O5'	-5.99	95.01	104.00
8	AF	188	LYS	O-C-N	-5.99	116.40	123.41
10	AI	131	GLY	O-C-N	5.99	130.37	122.76
39	BJ	54	LYS	N-CA-C	5.99	117.48	111.07
42	BM	45	ARG	N-CA-CB	-5.99	101.49	110.60
74	BQ	6	ASP	CB-CA-C	-5.99	101.47	110.88
78	CA	51	A	O4'-C1'-C2'	-5.99	101.61	107.60
78	CA	644	C	C4'-C3'-C2'	-5.99	96.61	102.60
81	DA	798	G	O5'-C5'-C4'	-5.99	102.51	111.50
81	DA	2190	U	C4'-C3'-C2'	-5.99	96.61	102.60
81	DA	2465	G	P-O3'-C3'	-5.99	111.21	120.20
81	DA	2579	G	O4'-C1'-N9	5.99	117.48	108.50
5	AC	16	LYS	CB-CA-C	-5.99	98.50	110.42
6	AE	246	GLU	CB-CG-CD	-5.99	102.42	112.60
33	BD	174	ALA	CA-C-N	5.99	129.12	120.38
33	BD	174	ALA	C-N-CA	5.99	129.12	120.38
38	Bs	247	LEU	CA-C-O	5.99	126.90	120.55
49	BV	82	ARG	N-CA-C	-5.99	100.42	108.86
78	CA	1066	C	O4'-C1'-N1	5.99	117.48	108.50
81	DA	1132	C	N1-C1'-C2'	5.99	120.98	112.00
81	DA	2177	G	O4'-C1'-N9	5.99	117.48	108.50
81	DA	2196	C	C5'-C4'-C3'	-5.99	107.02	116.00
81	DA	2423	U	N1-C1'-C2'	5.99	120.98	112.00
81	DA	2636	A	N9-C1'-C2'	5.99	120.98	112.00
81	DA	2673	A	C3'-C2'-C1'	5.99	107.29	101.30
81	DA	3217	C	C2'-C3'-O3'	5.99	118.48	109.50
41	BN	124	ARG	N-CA-C	5.99	117.81	111.28
53	Ba	41	ALA	CA-C-N	5.99	132.67	122.37
53	Ba	41	ALA	C-N-CA	5.99	132.67	122.37
78	CA	553	G	C1'-O4'-C4'	-5.99	103.91	109.90
59	Bh	2	ALA	N-CA-C	5.99	118.27	110.43
73	Bw	7	TYR	CB-CA-C	-5.99	99.18	110.67
78	CA	889	U	N1-C1'-C2'	5.99	120.98	112.00
81	DA	1926	C	C2'-C3'-O3'	5.99	118.48	109.50
81	DA	2206	G	C2'-C3'-O3'	5.99	122.68	113.70
81	DA	2503	G	O4'-C4'-C3'	-5.99	98.02	104.00
81	DA	3231	U	O3'-P-O5'	5.99	112.98	104.00
81	DA	3236	U	C1'-O4'-C4'	-5.99	103.92	109.90
32	BC	298	PHE	CB-CA-C	-5.98	98.73	110.10
63	Bm	29	LEU	N-CA-CB	5.98	119.02	110.16
83	DC	113	C	O4'-C1'-C2'	-5.98	101.62	107.60
16	AO	57	ALA	CA-C-N	5.98	132.97	121.54

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
16	AO	57	ALA	C-N-CA	5.98	132.97	121.54
21	AT	1	MET	CA-C-N	5.98	128.30	120.28
21	AT	1	MET	C-N-CA	5.98	128.30	120.28
31	BB	34	TYR	N-CA-C	-5.98	98.06	110.80
35	BG	57	HIS	N-CA-C	-5.98	98.98	108.73
43	BP	7	LEU	N-CA-CB	5.98	118.68	110.01
78	CA	1625	C	O4'-C1'-C2'	-5.98	101.62	107.60
81	DA	270	U	C1'-O4'-C4'	5.98	115.88	109.90
81	DA	543	C	C3'-C2'-C1'	5.98	107.28	101.30
81	DA	872	U	C4'-C3'-O3'	-5.98	104.03	113.00
6	AE	174	ARG	CA-CB-CG	5.98	126.06	114.10
53	Ba	82	PRO	CA-N-CD	-5.98	103.63	112.00
78	CA	768	C	P-O3'-C3'	5.98	129.17	120.20
78	CA	1440	C	C5'-C4'-C3'	-5.98	107.03	116.00
78	CA	1755	A	C3'-C2'-C1'	-5.98	95.32	101.30
79	CB	73	C	O4'-C1'-C2'	-5.98	101.62	107.60
81	DA	697	A	O3'-P-O5'	5.98	112.97	104.00
81	DA	1427	U	C3'-C2'-C1'	5.98	107.28	101.30
81	DA	1622	U	O4'-C4'-C3'	-5.98	98.02	104.00
81	DA	2465	G	C1'-C2'-O2'	5.98	117.37	108.40
42	BM	29	SER	CA-C-N	5.98	131.06	122.63
42	BM	29	SER	C-N-CA	5.98	131.06	122.63
45	BR	40	THR	CA-C-N	5.98	131.60	121.14
45	BR	40	THR	C-N-CA	5.98	131.60	121.14
81	DA	2048	G	C3'-C2'-C1'	5.98	107.28	101.30
14	AM	94	ASP	CA-CB-CG	5.98	118.58	112.60
20	AS	100	ILE	N-CA-C	5.98	116.76	110.72
48	BW	10	LYS	N-CA-CB	5.98	121.85	111.39
61	Bj	48	ARG	O-C-N	-5.98	116.41	123.22
78	CA	1409	G	P-O5'-C5'	5.98	129.87	120.90
81	DA	1695	U	C1'-O4'-C4'	5.98	115.88	109.90
81	DA	1783	U	C3'-C2'-O2'	5.98	119.67	110.70
81	DA	2508	U	O3'-P-O5'	-5.98	95.03	104.00
81	DA	3144	G	P-O3'-C3'	5.98	129.17	120.20
38	Bs	124	VAL	CB-CA-C	5.98	121.09	111.29
57	Be	49	ALA	CA-C-N	5.98	128.29	120.28
57	Be	49	ALA	C-N-CA	5.98	128.29	120.28
64	Bl	69	HIS	ND1-CE1-NE2	5.98	114.38	108.40
81	DA	172	G	O4'-C4'-C3'	-5.98	98.02	104.00
81	DA	2070	U	O4'-C1'-N1	5.98	117.46	108.50
5	AC	162	SER	CA-C-N	-5.97	112.37	119.84
5	AC	162	SER	C-N-CA	-5.97	112.37	119.84

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	AH	2	THR	CA-CB-OG1	5.97	118.56	109.60
13	AL	119	GLY	N-CA-C	-5.97	99.02	113.18
32	BC	221	THR	N-CA-C	5.97	117.76	110.41
40	BK	133	ARG	NH1-CZ-NH2	-5.97	111.53	119.30
57	Be	111	ILE	N-CA-CB	5.97	118.44	110.26
58	Bg	101	ALA	CA-C-N	5.97	128.29	120.28
58	Bg	101	ALA	C-N-CA	5.97	128.29	120.28
65	Bn	11	PHE	CA-CB-CG	-5.97	107.83	113.80
81	DA	3098	G	P-O5'-C5'	-5.97	111.94	120.90
83	DC	82	A	C5'-C4'-C3'	-5.97	107.04	116.00
12	AK	30	VAL	N-CA-CB	-5.97	103.94	111.46
19	AR	55	GLY	N-CA-C	-5.97	101.67	110.87
19	AR	78	THR	CA-C-N	5.97	132.95	121.54
19	AR	78	THR	C-N-CA	5.97	132.95	121.54
21	AT	33	GLN	N-CA-CB	5.97	119.53	110.45
31	BB	56	ALA	O-C-N	-5.97	116.46	121.54
78	CA	1791	A	C1'-C2'-O2'	-5.97	102.84	111.80
81	DA	32	U	N1-C1'-C2'	5.97	120.96	112.00
81	DA	338	A	C5'-C4'-C3'	-5.97	107.04	116.00
81	DA	1716	U	C3'-C2'-C1'	5.97	107.27	101.30
81	DA	2319	U	C5'-C4'-C3'	5.97	124.96	116.00
81	DA	3214	U	O4'-C1'-N1	5.97	117.16	108.20
35	BG	39	VAL	N-CA-C	-5.97	99.65	108.85
78	CA	164	A	C4'-C3'-C2'	-5.97	96.63	102.60
78	CA	897	C	C1'-C2'-O2'	-5.97	102.84	111.80
6	AE	210	THR	CA-C-N	5.97	130.15	120.60
6	AE	210	THR	C-N-CA	5.97	130.15	120.60
18	AP	94	ILE	N-CA-CB	-5.97	102.85	111.21
41	BN	98	SER	N-CA-CB	5.97	120.58	110.49
74	BQ	183	TRP	CB-CA-C	5.97	120.15	110.96
78	CA	1603	U	O4'-C1'-C2'	-5.97	101.63	107.60
81	DA	329	U	C3'-C2'-C1'	-5.97	95.33	101.30
81	DA	770	G	O5'-C5'-C4'	5.97	120.45	111.50
81	DA	904	A	O3'-P-O5'	-5.97	95.05	104.00
81	DA	1230	G	P-O3'-C3'	5.97	129.15	120.20
81	DA	1273	A	O4'-C1'-C2'	-5.97	101.63	107.60
81	DA	1361	U	C4'-C3'-O3'	-5.97	104.05	113.00
81	DA	1424	C	C3'-C2'-C1'	5.97	107.27	101.30
44	BO	58	MET	CA-C-O	-5.97	111.98	120.51
55	Bc	64	GLU	CA-C-N	5.97	128.76	120.29
55	Bc	64	GLU	C-N-CA	5.97	128.76	120.29
66	Bo	3	ALA	CB-CA-C	-5.97	101.03	112.43

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	164	A	C5'-C4'-C3'	-5.97	107.05	116.00
78	CA	339	C	O3'-P-O5'	5.97	112.95	104.00
78	CA	991	G	C3'-C2'-O2'	-5.97	101.75	110.70
81	DA	984	G	P-O3'-C3'	5.97	129.15	120.20
81	DA	1178	G	O4'-C1'-C2'	-5.97	101.63	107.60
81	DA	1217	A	O3'-P-O5'	5.97	112.95	104.00
81	DA	2859	U	N1-C1'-C2'	-5.97	105.05	114.00
81	DA	3019	U	O3'-P-O5'	-5.97	95.05	104.00
6	AE	161	LYS	CB-CA-C	-5.97	100.88	110.79
31	BB	96	LEU	CB-CA-C	-5.97	102.28	111.83
78	CA	1600	A	P-O3'-C3'	5.97	129.15	120.20
81	DA	2809	C	N1-C1'-C2'	5.97	120.95	112.00
81	DA	3338	C	N1-C1'-C2'	5.97	120.95	112.00
3	AB	209	ILE	O-C-N	-5.96	115.11	122.57
21	AT	52	THR	CA-C-N	5.96	130.47	121.40
21	AT	52	THR	C-N-CA	5.96	130.47	121.40
32	BC	100	ARG	NE-CZ-NH2	-5.96	113.83	119.20
59	Bh	38	ILE	N-CA-C	-5.96	104.81	110.42
60	Bi	108	GLN	N-CA-CB	-5.96	102.14	111.56
78	CA	513	U	O3'-P-O5'	5.96	112.95	104.00
81	DA	1338	C	C1'-C2'-O2'	-5.96	99.45	108.40
81	DA	2333	C	C3'-C2'-C1'	5.96	107.27	101.30
81	DA	2406	C	C1'-O4'-C4'	5.96	115.86	109.90
81	DA	2445	A	C3'-C2'-C1'	5.96	107.27	101.30
82	DB	149	A	C5'-C4'-C3'	5.96	124.95	116.00
83	DC	98	G	O3'-P-O5'	-5.96	95.05	104.00
78	CA	1753	A	C4'-C3'-C2'	-5.96	96.64	102.60
81	DA	1260	A	N9-C1'-C2'	-5.96	103.06	112.00
81	DA	3244	A	P-O5'-C5'	-5.96	111.96	120.90
35	BG	170	LYS	N-CA-C	-5.96	102.86	108.22
50	BX	24	LEU	N-CA-CB	-5.96	100.42	110.49
78	CA	934	C	O4'-C1'-C2'	-5.96	99.84	105.80
81	DA	626	U	O4'-C1'-N1	5.96	117.44	108.50
81	DA	1949	G	P-O3'-C3'	5.96	129.14	120.20
81	DA	3225	C	O3'-P-O5'	5.96	112.94	104.00
16	AO	117	LEU	CA-C-N	5.96	128.88	120.42
16	AO	117	LEU	C-N-CA	5.96	128.88	120.42
22	AV	50	ILE	CA-C-N	5.96	128.75	120.29
22	AV	50	ILE	C-N-CA	5.96	128.75	120.29
40	BK	178	VAL	N-CA-CB	5.96	120.84	110.65
78	CA	597	G	C3'-C2'-C1'	5.96	107.26	101.30
81	DA	235	A	O4'-C1'-N9	5.96	117.44	108.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1258	U	O5'-C5'-C4'	-5.96	102.56	111.50
4	AD	230	GLU	CB-CA-C	-5.96	98.18	111.77
12	AK	72	LYS	O-C-N	-5.96	115.80	122.12
12	AK	102	LEU	O-C-N	-5.96	115.80	122.12
35	BG	149	ILE	N-CA-CB	-5.96	103.49	110.64
58	Bg	95	PRO	CA-N-CD	-5.96	103.66	112.00
59	Bh	21	HIS	CG-CD2-NE2	5.96	113.16	107.20
81	DA	2252	A	O4'-C1'-C2'	-5.96	101.64	107.60
16	AO	72	MET	CA-C-O	5.96	126.70	119.38
41	BN	61	GLY	N-CA-C	5.96	119.88	112.73
76	BS	66	ILE	CB-CA-C	-5.96	101.52	111.29
78	CA	69	G	C4'-C3'-O3'	5.96	121.94	113.00
81	DA	595	G	O4'-C1'-N9	5.96	117.43	108.50
81	DA	1710	C	O4'-C1'-C2'	-5.96	101.64	107.60
82	DB	4	C	O5'-C5'-C4'	5.96	120.43	111.50
2	AA	144	ILE	O-C-N	-5.96	116.73	123.10
53	Ba	20	GLY	N-CA-C	5.96	127.29	113.18
78	CA	204	G	C1'-O4'-C4'	-5.96	103.94	109.90
78	CA	1647	U	N1-C1'-C2'	5.96	120.93	112.00
81	DA	246	U	C4'-C3'-C2'	-5.96	96.64	102.60
81	DA	2829	U	N1-C1'-C2'	5.96	120.93	112.00
81	DA	2997	G	P-O3'-C3'	5.96	129.13	120.20
1	Aa	7	LEU	N-CA-CB	5.95	120.68	110.68
10	AI	74	HIS	CE1-NE2-CD2	-5.95	103.05	109.00
21	AT	16	LYS	N-CA-C	5.95	117.77	111.28
40	BK	172	ARG	N-CA-C	-5.95	104.70	111.07
40	BK	196	ALA	N-CA-C	-5.95	104.71	111.14
81	DA	841	A	C1'-O4'-C4'	-5.95	103.95	109.90
81	DA	1180	A	P-O5'-C5'	-5.95	111.97	120.90
81	DA	1758	G	C2'-C3'-O3'	5.95	122.63	113.70
81	DA	3365	U	N1-C1'-C2'	5.95	120.93	112.00
2	AA	251	GLU	N-CA-C	-5.95	105.59	114.64
29	AU	93	ARG	CB-CA-C	-5.95	100.91	110.79
81	DA	2179	C	C2'-C3'-O3'	5.95	118.43	109.50
39	BJ	113	ALA	CA-C-N	5.95	128.25	120.28
39	BJ	113	ALA	C-N-CA	5.95	128.25	120.28
49	BV	103	GLU	N-CA-CB	5.95	118.64	110.01
59	Bh	106	VAL	CB-CA-C	-5.95	104.35	111.97
78	CA	640	U	O4'-C1'-N1	5.95	117.43	108.50
78	CA	1545	A	C5'-C4'-C3'	-5.95	107.08	116.00
81	DA	391	A	O4'-C1'-C2'	-5.95	101.65	107.60
81	DA	507	U	O4'-C1'-C2'	-5.95	101.65	107.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1009	A	O4'-C1'-C2'	-5.95	101.65	107.60
63	Bm	54	ILE	CB-CA-C	-5.95	101.83	110.63
74	BQ	286	VAL	N-CA-CB	5.95	121.05	111.23
78	CA	160	C	P-O3'-C3'	5.95	129.12	120.20
81	DA	513	G	O4'-C1'-N9	5.95	117.42	108.50
81	DA	1684	U	O5'-C5'-C4'	5.95	120.42	111.50
81	DA	2443	A	C4'-C3'-C2'	-5.95	96.65	102.60
81	DA	2827	U	O4'-C1'-C2'	-5.95	99.85	105.80
4	AD	139	VAL	N-CA-C	-5.95	99.31	107.99
58	Bg	99	ALA	CA-C-N	5.95	128.25	120.28
58	Bg	99	ALA	C-N-CA	5.95	128.25	120.28
77	BI	119	TRP	CB-CA-C	-5.95	98.58	110.42
78	CA	286	C	O3'-P-O5'	-5.95	95.08	104.00
81	DA	769	G	O4'-C1'-N9	5.95	117.42	108.50
81	DA	2057	G	O4'-C1'-N9	5.95	117.42	108.50
81	DA	2176	U	O4'-C1'-C2'	-5.95	101.65	107.60
2	AA	142	PRO	O-C-N	5.95	129.85	123.01
10	AI	39	VAL	N-CA-CB	5.95	121.04	111.23
22	AV	35	ARG	O-C-N	-5.95	115.95	122.07
30	BA	12	HIS	ND1-CE1-NE2	5.95	114.35	108.40
38	Bs	77	LEU	N-CA-C	-5.95	96.67	109.81
57	Be	57	THR	N-CA-CB	5.95	118.69	110.07
66	Bo	3	ALA	CA-C-N	-5.95	112.22	121.02
66	Bo	3	ALA	C-N-CA	-5.95	112.22	121.02
78	CA	992	A	C5'-C4'-C3'	-5.95	107.08	116.00
81	DA	2854	U	O4'-C1'-N1	5.95	117.42	108.50
82	DB	21	C	O3'-P-O5'	-5.95	95.08	104.00
9	AH	51	GLU	N-CA-C	-5.94	105.86	113.23
35	BG	95	GLY	CA-C-N	5.94	132.67	121.97
35	BG	95	GLY	C-N-CA	5.94	132.67	121.97
41	BN	112	LEU	N-CA-CB	5.94	120.53	110.49
65	Bn	42	LYS	CA-C-N	5.94	131.85	122.34
65	Bn	42	LYS	C-N-CA	5.94	131.85	122.34
78	CA	323	A	C1'-O4'-C4'	5.94	115.64	109.70
78	CA	333	A	N9-C1'-C2'	5.94	120.92	112.00
78	CA	1088	A	O5'-C5'-C4'	-5.94	102.58	111.50
78	CA	1525	A	C5'-C4'-C3'	5.94	123.82	114.90
81	DA	2338	C	P-O3'-C3'	5.94	129.12	120.20
32	BC	180	GLU	CB-CA-C	-5.94	100.44	110.19
33	BD	359	LEU	O-C-N	5.94	128.93	122.15
42	BM	85	TRP	CE2-CD2-CE3	5.94	124.74	118.80
58	Bg	17	HIS	CA-C-O	-5.94	114.58	120.82

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	696	C	C3'-C2'-C1'	5.94	107.24	101.30
81	DA	1817	G	O4'-C1'-N9	5.94	117.41	108.50
83	DC	29	C	C5'-C4'-O4'	-5.94	100.89	109.80
3	AB	152	PHE	N-CA-C	-5.94	98.15	110.80
4	AD	69	HIS	CE1-NE2-CD2	-5.94	103.06	109.00
45	BR	53	PHE	N-CA-C	5.94	117.56	111.14
51	BZ	45	ASN	OD1-CG-ND2	5.94	128.54	122.60
78	CA	1113	A	C3'-C2'-O2'	-5.94	105.69	114.60
78	CA	1270	G	O4'-C1'-C2'	-5.94	101.66	107.60
78	CA	1506	G	O5'-C5'-C4'	5.94	120.41	111.50
81	DA	799	G	C1'-C2'-O2'	5.94	117.31	108.40
81	DA	1889	G	N9-C1'-C2'	5.94	120.91	112.00
81	DA	2476	C	P-O3'-C3'	5.94	129.11	120.20
81	DA	2498	U	N1-C1'-C2'	-5.94	103.09	112.00
10	AI	135	ARG	N-CA-C	-5.94	106.58	113.88
11	AJ	21	LYS	N-CA-C	-5.94	107.85	114.62
22	AV	85	LYS	CA-C-N	5.94	128.24	120.28
22	AV	85	LYS	C-N-CA	5.94	128.24	120.28
34	BE	59	ILE	CB-CA-C	-5.94	101.55	111.29
59	Bh	37	GLY	CA-C-N	5.94	127.96	120.72
59	Bh	37	GLY	C-N-CA	5.94	127.96	120.72
78	CA	1580	C	O4'-C1'-N1	-5.94	99.59	108.50
81	DA	969	C	C2'-C3'-O3'	-5.94	104.79	113.70
16	AO	107	LYS	CA-C-O	-5.94	114.13	120.42
22	AV	77	ARG	CD-NE-CZ	-5.94	116.09	124.40
47	BU	112	ASN	CA-C-N	5.94	128.24	120.28
47	BU	112	ASN	C-N-CA	5.94	128.24	120.28
50	BX	110	VAL	N-CA-CB	5.94	121.20	111.58
52	BY	60	ARG	N-CA-C	5.94	117.55	111.14
62	Bk	27	SER	N-CA-C	5.94	123.44	110.80
78	CA	1339	C	C4'-C3'-C2'	-5.94	96.66	102.60
78	CA	1784	C	O4'-C1'-C2'	-5.94	101.66	107.60
29	AU	89	TYR	CA-CB-CG	5.93	124.58	113.90
43	BP	179	LYS	CB-CA-C	5.93	122.23	110.42
81	DA	796	U	C4'-C3'-O3'	-5.93	104.10	113.00
81	DA	2198	A	O4'-C1'-C2'	-5.93	101.67	107.60
81	DA	2422	C	O3'-P-O5'	-5.93	95.10	104.00
81	DA	2465	G	C1'-O4'-C4'	-5.93	103.97	109.90
22	AV	90	LYS	CA-C-N	5.93	127.26	120.85
22	AV	90	LYS	C-N-CA	5.93	127.26	120.85
31	BB	126	LEU	CA-C-N	5.93	132.87	121.54
31	BB	126	LEU	C-N-CA	5.93	132.87	121.54

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BG	121	LEU	CA-C-O	-5.93	114.59	120.70
41	BN	5	SER	N-CA-CB	5.93	119.39	110.14
43	BP	75	VAL	N-CA-C	-5.93	96.06	108.88
49	BV	113	TYR	CA-CB-CG	5.93	124.58	113.90
53	Ba	69	LYS	N-CA-CB	5.93	119.14	110.30
58	Bg	17	HIS	CA-CB-CG	5.93	119.73	113.80
63	Bm	70	THR	N-CA-CB	-5.93	101.59	111.20
78	CA	1037	C	N1-C1'-C2'	5.93	120.90	112.00
78	CA	1406	A	O4'-C1'-C2'	5.93	113.53	107.60
78	CA	1609	U	C5'-C4'-C3'	-5.93	107.10	116.00
81	DA	3147	G	C4'-C3'-O3'	-5.93	104.10	113.00
78	CA	306	U	C5'-C4'-C3'	-5.93	107.10	116.00
81	DA	332	C	O4'-C1'-C2'	-5.93	101.67	107.60
81	DA	3295	A	N9-C1'-C2'	5.93	120.90	112.00
4	AD	209	HIS	CE1-NE2-CD2	-5.93	103.07	109.00
32	BC	194	TRP	N-CA-CB	5.93	118.84	110.12
45	BR	110	ALA	O-C-N	-5.93	115.83	122.12
53	Ba	27	LYS	CB-CG-CD	5.93	124.94	111.30
81	DA	853	G	O4'-C1'-N9	5.93	117.39	108.50
81	DA	1382	G	P-O5'-C5'	5.93	129.79	120.90
81	DA	1539	A	P-O3'-C3'	5.93	129.09	120.20
81	DA	1756	C	O4'-C4'-C3'	5.93	109.93	104.00
81	DA	2422	C	C5'-C4'-C3'	-5.93	107.11	116.00
81	DA	2897	A	C3'-C2'-C1'	5.93	107.23	101.30
82	DB	115	C	C3'-C2'-C1'	5.93	107.23	101.30
8	AF	36	ALA	CA-C-N	5.93	132.86	121.54
8	AF	36	ALA	C-N-CA	5.93	132.86	121.54
38	Bs	248	ALA	CA-C-O	5.93	127.05	120.82
63	Bm	32	GLN	N-CA-C	5.93	118.53	111.71
6	AE	73	LEU	CA-C-N	5.93	127.25	119.84
6	AE	73	LEU	C-N-CA	5.93	127.25	119.84
11	AJ	50	LEU	N-CA-C	5.93	117.41	111.07
77	BI	16	PRO	CA-C-N	5.93	132.37	121.70
77	BI	16	PRO	C-N-CA	5.93	132.37	121.70
78	CA	36	C	N1-C1'-C2'	5.93	120.89	112.00
81	DA	1085	A	P-O3'-C3'	-5.93	111.31	120.20
81	DA	1294	A	O4'-C1'-C2'	-5.93	101.67	107.60
81	DA	2160	G	C1'-O4'-C4'	-5.93	103.97	109.90
81	DA	2375	G	C5'-C4'-C3'	5.93	124.09	115.20
81	DA	3013	U	C1'-O4'-C4'	-5.93	103.97	109.90
83	DC	100	A	O4'-C1'-C2'	-5.93	101.67	107.60
31	BB	50	HIS	N-CA-CB	5.92	118.78	109.83

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
47	BU	136	ARG	NE-CZ-NH1	5.92	127.42	121.50
67	Bp	20	CYS	N-CA-CB	5.92	118.68	109.85
78	CA	1128	C	O3'-P-O5'	-5.92	95.11	104.00
81	DA	1570	U	O4'-C1'-N1	5.92	117.39	108.50
81	DA	2673	A	O4'-C1'-C2'	-5.92	101.67	107.60
81	DA	3165	A	C3'-C2'-C1'	5.92	107.22	101.30
32	BC	40	PRO	N-CA-C	5.92	124.67	112.47
79	CB	50	G	O4'-C1'-C2'	5.92	113.52	107.60
81	DA	1316	C	C1'-O4'-C4'	-5.92	103.98	109.90
15	AN	23	VAL	O-C-N	-5.92	116.13	121.87
33	BD	68	GLY	N-CA-C	-5.92	106.56	115.32
78	CA	1156	C	C3'-C2'-C1'	5.92	107.22	101.30
81	DA	547	G	P-O5'-C5'	-5.92	112.02	120.90
81	DA	2344	U	O4'-C1'-C2'	-5.92	101.68	107.60
81	DA	2898	G	P-O5'-C5'	5.92	129.78	120.90
82	DB	152	G	O4'-C1'-C2'	-5.92	101.68	107.60
5	AC	63	ASP	O-C-N	-5.92	114.53	122.23
6	AE	59	HIS	ND1-CE1-NE2	5.92	114.32	108.40
6	AE	197	TYR	N-CA-CB	5.92	120.49	110.49
33	BD	329	PRO	CB-CA-C	-5.92	101.79	111.56
38	Bs	237	HIS	CE1-NE2-CD2	-5.92	103.08	109.00
51	BZ	71	ARG	CA-C-O	5.92	127.37	120.80
78	CA	831	U	O4'-C4'-C3'	-5.92	100.18	106.10
78	CA	896	U	P-O3'-C3'	5.92	129.08	120.20
78	CA	1299	G	P-O3'-C3'	5.92	129.08	120.20
81	DA	2489	C	C3'-C2'-C1'	5.92	107.22	101.30
81	DA	2895	G	C1'-O4'-C4'	-5.92	103.98	109.90
9	AH	17	ALA	CA-C-N	5.92	132.84	121.54
9	AH	17	ALA	C-N-CA	5.92	132.84	121.54
31	BB	84	THR	CA-C-O	-5.92	114.51	120.96
40	BK	87	MET	N-CA-C	5.92	117.73	111.28
59	Bh	108	ILE	CA-C-N	5.92	128.13	120.44
59	Bh	108	ILE	C-N-CA	5.92	128.13	120.44
74	BQ	293	LEU	N-CA-CB	5.92	120.49	110.49
78	CA	1579	U	O4'-C1'-C2'	-5.92	101.68	107.60
81	DA	1641	U	P-O3'-C3'	5.92	129.07	120.20
16	AO	101	HIS	CE1-NE2-CD2	-5.92	103.08	109.00
40	BK	6	VAL	O-C-N	-5.92	115.18	122.57
52	BY	113	LYS	CB-CA-C	-5.92	100.85	110.79
78	CA	314	C	N1-C1'-C2'	5.92	120.87	112.00
81	DA	1129	A	P-O3'-C3'	5.92	129.07	120.20
2	AA	56	LYS	O-C-N	5.91	128.39	122.12

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	BD	242	ALA	N-CA-CB	5.91	122.79	113.15
37	BH	131	ALA	CA-C-O	-5.91	112.98	120.20
43	BP	141	ALA	O-C-N	5.91	128.16	122.07
45	BR	121	CYS	N-CA-CB	5.91	119.41	110.30
53	Ba	27	LYS	C-N-CD	-5.91	100.75	125.00
78	CA	1333	C	O4'-C1'-C2'	-5.91	101.69	107.60
78	CA	1590	G	O3'-P-O5'	5.91	112.87	104.00
46	BT	119	LEU	N-CA-CB	5.91	118.81	110.12
49	BV	70	THR	CA-C-N	5.91	128.20	120.28
49	BV	70	THR	C-N-CA	5.91	128.20	120.28
76	BS	115	ARG	CD-NE-CZ	-5.91	116.12	124.40
32	BC	371	GLN	N-CA-CB	5.91	120.48	110.49
50	BX	112	THR	N-CA-C	5.91	118.53	108.90
57	Be	222	HIS	CB-CG-ND1	5.91	131.56	122.70
78	CA	510	G	C5'-C4'-C3'	5.91	123.76	114.90
81	DA	415	G	N9-C1'-C2'	5.91	120.86	112.00
81	DA	2152	A	C5'-C4'-O4'	-5.91	100.94	109.80
5	AC	148	VAL	O-C-N	-5.91	115.19	122.57
40	BK	110	PRO	CA-C-N	5.91	127.23	119.84
40	BK	110	PRO	C-N-CA	5.91	127.23	119.84
41	BN	4	ASP	N-CA-C	5.91	123.39	110.80
69	Br	59	HIS	N-CA-C	5.91	123.39	110.80
77	BI	108	ALA	O-C-N	5.91	130.45	122.59
81	DA	265	A	O4'-C1'-N9	5.91	117.06	108.20
81	DA	561	C	N1-C1'-C2'	5.91	120.86	112.00
81	DA	1005	G	O4'-C1'-C2'	-5.91	101.69	107.60
81	DA	1783	U	O4'-C1'-N1	5.91	117.36	108.50
81	DA	3002	C	O4'-C4'-C3'	-5.91	98.09	104.00
83	DC	32	U	C1'-O4'-C4'	-5.91	103.79	109.70
32	BC	80	ASP	N-CA-C	-5.91	99.66	109.46
39	BJ	76	SER	CA-C-N	-5.91	110.26	121.54
39	BJ	76	SER	C-N-CA	-5.91	110.26	121.54
40	BK	94	ARG	CA-C-N	5.91	126.50	120.00
40	BK	94	ARG	C-N-CA	5.91	126.50	120.00
44	BO	71	PRO	O-C-N	5.91	129.72	123.10
65	Bn	54	LEU	N-CA-C	5.91	118.86	111.24
78	CA	1323	C	N1-C1'-C2'	5.91	120.86	112.00
81	DA	1868	G	P-O3'-C3'	-5.91	111.34	120.20
81	DA	2200	U	N1-C1'-C2'	5.91	120.86	112.00
5	AC	38	ASN	CA-C-N	5.91	132.82	121.54
5	AC	38	ASN	C-N-CA	5.91	132.82	121.54
33	BD	23	PRO	CA-C-O	-5.91	114.47	121.67

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
49	BV	12	ALA	CA-C-N	5.91	130.72	120.68
49	BV	12	ALA	C-N-CA	5.91	130.72	120.68
78	CA	1383	G	P-O3'-C3'	5.91	129.06	120.20
79	CB	22	G	O4'-C1'-C2'	5.91	113.51	107.60
81	DA	724	U	N1-C1'-C2'	5.91	120.86	112.00
81	DA	848	A	C1'-O4'-C4'	-5.91	104.00	109.90
81	DA	2487	U	N1-C1'-C2'	-5.91	103.14	112.00
81	DA	2513	U	C2'-C3'-O3'	5.91	122.56	113.70
81	DA	2535	A	O4'-C4'-C3'	-5.90	98.10	104.00
3	AB	65	ARG	CA-C-N	5.90	128.54	120.46
3	AB	65	ARG	C-N-CA	5.90	128.54	120.46
29	AU	62	THR	CB-CA-C	5.90	122.17	110.42
32	BC	278	ILE	CB-CA-C	5.90	120.45	110.95
33	BD	315	LYS	N-CA-C	5.90	123.37	110.80
36	BF	96	HIS	CB-CG-CD2	-5.90	123.53	131.20
46	BT	52	LYS	CA-CB-CG	-5.90	102.29	114.10
51	BZ	24	GLY	O-C-N	5.90	127.86	122.19
81	DA	246	U	O4'-C1'-N1	5.90	117.36	108.50
81	DA	1332	A	C3'-C2'-C1'	5.90	107.20	101.30
81	DA	1884	A	C3'-C2'-C1'	5.90	107.20	101.30
81	DA	2065	U	N1-C1'-C2'	5.90	120.85	112.00
78	CA	839	U	N1-C1'-C2'	-5.90	103.15	112.00
78	CA	1690	G	C5'-C4'-O4'	-5.90	100.95	109.80
81	DA	104	G	O4'-C1'-N9	5.90	117.35	108.50
81	DA	227	G	C3'-C2'-C1'	5.90	107.20	101.30
81	DA	1975	C	C1'-C2'-O2'	5.90	117.25	108.40
81	DA	2135	U	O4'-C1'-C2'	-5.90	101.70	107.60
81	DA	3051	U	O4'-C1'-C2'	-5.90	101.70	107.60
9	AH	64	GLN	CA-C-N	-5.90	110.27	121.54
9	AH	64	GLN	C-N-CA	-5.90	110.27	121.54
35	BG	155	LEU	N-CA-C	5.90	123.37	110.80
76	BS	37	VAL	N-CA-CB	-5.90	103.65	110.55
81	DA	1649	U	O4'-C1'-N1	5.90	117.35	108.50
81	DA	1784	G	O4'-C4'-C3'	-5.90	98.10	104.00
81	DA	2770	G	C5'-C4'-C3'	-5.90	107.15	116.00
4	AD	90	ILE	CB-CA-C	-5.90	101.59	110.55
13	AL	18	HIS	CE1-NE2-CD2	-5.90	103.10	109.00
29	AU	93	ARG	CA-C-N	5.90	132.80	121.54
29	AU	93	ARG	C-N-CA	5.90	132.80	121.54
33	BD	348	GLY	N-CA-C	5.90	127.16	113.18
60	Bi	62	TYR	N-CA-C	5.90	119.38	111.24
81	DA	841	A	N9-C1'-C2'	5.90	120.85	112.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	AC	155	HIS	CA-C-N	5.90	130.89	121.34
5	AC	155	HIS	C-N-CA	5.90	130.89	121.34
36	BF	18	VAL	CB-CA-C	5.90	120.12	110.69
78	CA	1752	U	C1'-C2'-O2'	5.90	117.24	108.40
81	DA	2606	G	C1'-O4'-C4'	5.90	115.60	109.70
81	DA	2621	G	N9-C1'-C2'	5.90	120.84	112.00
81	DA	2962	U	O3'-P-O5'	5.90	112.84	104.00
8	AF	135	ASP	CA-CB-CG	5.89	118.49	112.60
9	AH	34	ILE	N-CA-CB	5.89	118.56	110.54
45	BR	111	ARG	CB-CA-C	-5.89	101.01	110.79
78	CA	254	A	C1'-O4'-C4'	5.89	115.79	109.90
78	CA	1321	A	P-O3'-C3'	-5.89	111.36	120.20
81	DA	1478	C	C4'-C3'-C2'	-5.89	96.71	102.60
81	DA	3107	U	C1'-C2'-O2'	-5.89	99.56	108.40
5	AC	153	GLU	N-CA-CB	5.89	121.05	111.21
9	AH	5	SER	CA-C-N	5.89	129.78	120.47
9	AH	5	SER	C-N-CA	5.89	129.78	120.47
31	BB	62	VAL	CA-CB-CG1	5.89	120.42	110.40
32	BC	41	VAL	N-CA-C	-5.89	103.69	111.05
74	BQ	19	PRO	N-CA-C	5.89	119.89	110.40
78	CA	273	G	C3'-C2'-C1'	5.89	107.19	101.30
78	CA	1554	U	O4'-C1'-N1	5.89	117.34	108.50
81	DA	1692	U	O4'-C1'-N1	5.89	117.04	108.20
81	DA	2657	A	C1'-O4'-C4'	5.89	115.59	109.70
81	DA	3253	G	O4'-C1'-C2'	5.89	113.49	107.60
15	AN	47	ALA	N-CA-C	-5.89	98.25	110.80
25	AY	47	PRO	N-CA-CB	5.89	110.75	103.15
34	BE	111	ASP	N-CA-C	-5.89	98.25	110.80
34	BE	152	HIS	CE1-NE2-CD2	-5.89	103.11	109.00
78	CA	870	C	O4'-C1'-C2'	-5.89	101.71	107.60
78	CA	1141	G	C3'-C2'-C1'	-5.89	95.41	101.30
81	DA	2251	G	C5'-C4'-C3'	5.89	124.84	116.00
81	DA	2617	U	O4'-C1'-C2'	-5.89	99.91	105.80
3	AB	206	VAL	N-CA-C	-5.89	99.12	108.90
5	AC	116	LEU	CA-C-N	5.89	130.52	122.04
5	AC	116	LEU	C-N-CA	5.89	130.52	122.04
20	AS	60	SER	N-CA-C	-5.89	104.94	111.36
31	BB	46	LYS	O-C-N	5.89	129.61	122.48
33	BD	326	ARG	N-CA-C	5.89	123.34	110.80
46	BT	17	VAL	CA-C-N	5.89	128.72	121.06
46	BT	17	VAL	C-N-CA	5.89	128.72	121.06
63	Bm	64	VAL	CA-CB-CG2	5.89	120.41	110.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1420	C	N1-C1'-C2'	5.89	120.83	112.00
79	CB	28	G	O4'-C1'-N9	5.89	117.33	108.50
81	DA	168	U	C4'-C3'-O3'	-5.89	104.17	113.00
81	DA	745	C	O3'-P-O5'	-5.89	95.17	104.00
81	DA	1890	U	P-O3'-C3'	5.89	129.03	120.20
81	DA	2410	U	C5'-C4'-C3'	-5.89	107.17	116.00
81	DA	2467	G	P-O5'-C5'	-5.89	112.06	120.90
81	DA	2480	A	O5'-C5'-C4'	5.89	120.53	111.70
37	BH	221	ASN	N-CA-C	5.89	120.61	112.90
50	BX	77	GLU	CA-C-N	5.89	128.17	120.28
50	BX	77	GLU	C-N-CA	5.89	128.17	120.28
53	Ba	33	SER	N-CA-CB	-5.89	103.58	110.35
55	Bc	109	ILE	CA-C-N	-5.89	111.97	122.45
55	Bc	109	ILE	C-N-CA	-5.89	111.97	122.45
81	DA	1077	U	C3'-C2'-C1'	5.89	107.19	101.30
19	AR	89	MET	CA-C-N	5.89	129.77	120.47
19	AR	89	MET	C-N-CA	5.89	129.77	120.47
35	BG	99	GLU	O-C-N	-5.89	114.76	122.59
48	BW	88	GLN	CA-C-N	5.89	130.02	120.60
48	BW	88	GLN	C-N-CA	5.89	130.02	120.60
55	Bc	32	LYS	N-CA-CB	5.89	118.55	110.01
81	DA	638	C	C1'-C2'-O2'	5.89	117.23	108.40
81	DA	1105	A	C1'-O4'-C4'	5.89	115.79	109.90
81	DA	2281	A	C2'-C3'-O3'	5.89	122.53	113.70
81	DA	3325	G	N9-C1'-C2'	-5.89	103.17	112.00
81	DA	3325	G	O4'-C1'-C2'	-5.89	101.71	107.60
13	AL	7	ARG	CA-C-N	5.88	126.47	120.00
13	AL	7	ARG	C-N-CA	5.88	126.47	120.00
35	BG	25	ALA	N-CA-CB	5.88	118.77	110.12
63	Bm	7	LYS	O-C-N	5.88	130.42	122.59
78	CA	1084	A	P-O5'-C5'	-5.88	112.07	120.90
81	DA	1770	G	P-O5'-C5'	5.88	129.73	120.90
81	DA	2645	G	C5'-C4'-C3'	-5.88	107.17	116.00
81	DA	2837	A	O4'-C1'-C2'	-5.88	99.92	105.80
81	DA	2172	A	C4'-C3'-O3'	-5.88	104.18	113.00
81	DA	2248	C	O4'-C1'-C2'	-5.88	101.72	107.60
12	AK	56	SER	O-C-N	-5.88	115.16	120.92
35	BG	75	PRO	CB-CA-C	-5.88	101.86	111.56
36	BF	109	ALA	N-CA-CB	5.88	118.60	109.48
78	CA	570	A	O4'-C4'-C3'	5.88	109.88	104.00
81	DA	1217	A	C3'-C2'-C1'	5.88	107.18	101.30
81	DA	1537	A	O4'-C1'-C2'	-5.88	101.72	107.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
51	BZ	56	ARG	NE-CZ-NH2	-5.88	113.91	119.20
57	Be	47	ARG	CB-CA-C	-5.88	101.65	110.88
78	CA	195	G	O4'-C1'-C2'	-5.88	101.72	107.60
81	DA	2726	C	C1'-C2'-O2'	-5.88	102.98	111.80
1	Aa	6	VAL	N-CA-C	-5.88	97.36	107.24
2	AA	244	GLU	N-CA-C	5.88	117.77	111.36
31	BB	40	TYR	CB-CG-CD1	5.88	129.62	120.80
31	BB	63	PHE	N-CA-C	5.88	123.32	110.80
33	BD	342	LYS	CB-CA-C	5.88	121.96	110.67
47	BU	22	HIS	ND1-CE1-NE2	5.88	114.28	108.40
78	CA	173	A	C5'-C4'-C3'	5.88	124.82	116.00
78	CA	731	C	C5'-C4'-C3'	5.88	123.72	114.90
81	DA	444	U	N1-C1'-C2'	5.88	120.82	112.00
81	DA	2638	C	C5'-C4'-C3'	5.88	124.82	116.00
8	AF	69	PHE	N-CA-C	-5.88	97.64	107.80
41	BN	15	VAL	N-CA-CB	5.88	125.10	111.23
78	CA	471	A	C3'-C2'-C1'	5.88	107.18	101.30
81	DA	102	C	N1-C1'-C2'	5.88	120.81	112.00
81	DA	2173	U	C1'-C2'-O2'	5.88	117.21	108.40
82	DB	34	U	O4'-C1'-C2'	-5.88	101.72	107.60
13	AL	74	VAL	N-CA-C	-5.88	99.96	108.71
74	BQ	243	ALA	CB-CA-C	-5.88	98.73	110.42
78	CA	62	A	O4'-C1'-C2'	-5.88	101.72	107.60
1	Aa	226	ALA	CB-CA-C	-5.87	101.62	110.90
34	BE	54	VAL	CA-C-O	5.87	128.12	120.78
58	Bg	87	ASN	OD1-CG-ND2	-5.87	116.73	122.60
79	CB	27	G	O3'-P-O5'	5.87	112.81	104.00
81	DA	790	U	P-O5'-C5'	5.87	129.71	120.90
81	DA	1616	U	N1-C1'-C2'	5.87	120.81	112.00
81	DA	2275	A	C1'-O4'-C4'	-5.87	104.03	109.90
35	BG	22	ARG	CA-C-N	5.87	134.15	121.64
35	BG	22	ARG	C-N-CA	5.87	134.15	121.64
36	BF	157	ASN	N-CA-CB	5.87	118.85	110.16
51	BZ	45	ASN	CB-CG-ND2	-5.87	107.59	116.40
81	DA	782	U	O4'-C1'-N1	5.87	117.31	108.50
81	DA	3214	U	C2'-C3'-O3'	5.87	118.31	109.50
69	Br	63	LYS	CA-C-N	5.87	132.75	121.54
69	Br	63	LYS	C-N-CA	5.87	132.75	121.54
5	AC	170	GLY	CA-C-N	5.87	128.46	120.54
5	AC	170	GLY	C-N-CA	5.87	128.46	120.54
14	AM	125	ILE	CA-C-N	5.87	128.14	120.28
14	AM	125	ILE	C-N-CA	5.87	128.14	120.28

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	BD	90	PHE	N-CA-C	-5.87	94.57	111.00
40	BK	187	GLU	O-C-N	-5.87	114.79	122.59
78	CA	1092	A	P-O5'-C5'	5.87	129.70	120.90
78	CA	1173	C	O4'-C1'-C2'	-5.87	101.73	107.60
81	DA	242	C	C1'-O4'-C4'	-5.87	104.03	109.90
81	DA	1258	U	O4'-C1'-N1	5.87	117.30	108.50
81	DA	1635	G	N9-C1'-C2'	5.87	120.80	112.00
81	DA	1996	C	C1'-O4'-C4'	5.87	115.77	109.90
81	DA	2031	U	O4'-C1'-N1	5.87	117.30	108.50
81	DA	2669	G	C3'-C2'-C1'	-5.87	95.43	101.30
81	DA	3112	G	O4'-C1'-C2'	-5.87	101.73	107.60
81	DA	3304	U	O5'-C5'-C4'	5.87	120.30	111.50
57	Be	38	LYS	CB-CA-C	-5.87	101.05	110.79
74	BQ	16	PHE	CA-C-O	-5.87	114.33	120.55
81	DA	2264	U	C1'-C2'-O2'	5.87	117.20	108.40
82	DB	100	U	C5'-C4'-C3'	-5.87	107.20	116.00
8	AF	29	ILE	CA-C-N	5.87	127.17	119.84
8	AF	29	ILE	C-N-CA	5.87	127.17	119.84
34	BE	108	GLU	CB-CA-C	-5.87	99.78	110.63
78	CA	1297	G	N9-C1'-C2'	-5.87	103.20	112.00
81	DA	3098	G	O5'-C5'-C4'	5.87	120.30	111.50
17	AQ	53	TYR	CA-C-N	5.86	128.62	120.29
17	AQ	53	TYR	C-N-CA	5.86	128.62	120.29
22	AV	78	ILE	CA-CB-CG2	5.86	120.47	110.50
32	BC	9	PRO	N-CD-CG	5.86	111.99	103.20
32	BC	18	PRO	N-CD-CG	-5.86	94.41	103.20
33	BD	146	PRO	CA-N-CD	-5.86	103.79	112.00
46	BT	67	ALA	N-CA-C	5.86	117.67	111.28
76	BS	37	VAL	N-CA-C	5.86	116.05	110.42
76	BS	52	LYS	N-CA-CB	-5.86	100.58	110.49
78	CA	962	C	O4'-C1'-C2'	-5.86	101.74	107.60
78	CA	1307	U	P-O5'-C5'	-5.86	112.10	120.90
81	DA	524	U	C4'-C3'-C2'	-5.86	96.74	102.60
81	DA	1337	A	O4'-C1'-C2'	-5.86	101.74	107.60
81	DA	2137	U	P-O5'-C5'	-5.86	112.11	120.90
81	DA	2265	C	C5'-C4'-C3'	5.86	124.79	116.00
81	DA	2837	A	C1'-O4'-C4'	5.86	115.56	109.70
81	DA	3072	C	N1-C1'-C2'	5.86	120.80	112.00
40	BK	141	LEU	N-CA-CB	-5.86	101.51	110.01
50	BX	126	LEU	CA-C-N	5.86	129.19	120.87
50	BX	126	LEU	C-N-CA	5.86	129.19	120.87
5	AC	102	GLU	CB-CG-CD	-5.86	102.64	112.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
46	BT	129	GLY	N-CA-C	5.86	121.25	114.16
60	Bi	53	GLY	N-CA-C	5.86	121.14	111.59
76	BS	152	PRO	CA-N-CD	-5.86	103.80	112.00
78	CA	183	U	O4'-C1'-C2'	-5.86	101.74	107.60
78	CA	1010	C	P-O5'-C5'	-5.86	112.11	120.90
81	DA	1069	C	O4'-C1'-C2'	-5.86	101.74	107.60
81	DA	2677	G	O4'-C1'-N9	5.86	116.99	108.20
81	DA	3135	U	C4'-C3'-O3'	-5.86	104.21	113.00
8	AF	106	LYS	N-CA-CB	5.86	120.18	110.63
40	BK	193	GLN	CA-C-N	5.86	128.06	120.44
40	BK	193	GLN	C-N-CA	5.86	128.06	120.44
50	BX	30	ALA	CB-CA-C	-5.86	101.06	110.79
74	BQ	158	ARG	CG-CD-NE	5.86	124.89	112.00
81	DA	125	C	O4'-C1'-C2'	-5.86	101.74	107.60
81	DA	310	U	O4'-C1'-N1	5.86	117.29	108.50
81	DA	1078	U	P-O3'-C3'	-5.86	111.41	120.20
81	DA	1401	A	C1'-C2'-O2'	-5.86	99.61	108.40
81	DA	2072	G	P-O5'-C5'	5.86	129.69	120.90
12	AK	125	SER	N-CA-CB	5.86	120.39	110.49
15	AN	27	HIS	CE1-NE2-CD2	-5.86	103.14	109.00
31	BB	79	ASN	OD1-CG-ND2	5.86	128.46	122.60
35	BG	29	LYS	N-CA-CB	5.86	120.39	110.49
37	BH	107	GLU	O-C-N	-5.86	116.04	122.07
38	Bs	12	PHE	CB-CA-C	-5.86	101.07	110.79
45	BR	17	THR	CA-C-O	-5.86	114.37	121.05
47	BU	26	HIS	CA-C-O	5.86	126.77	120.38
51	BZ	48	ARG	CB-CA-C	-5.86	101.07	110.79
54	Bd	45	HIS	CE1-NE2-CD2	-5.86	103.14	109.00
57	Be	217	PRO	N-CA-C	-5.86	100.60	111.03
69	Br	100	LYS	N-CA-C	-5.86	101.28	110.36
74	BQ	215	ASP	CA-CB-CG	-5.86	106.74	112.60
78	CA	980	G	N9-C1'-C2'	5.86	120.79	112.00
78	CA	1310	U	O4'-C4'-C3'	5.86	109.86	104.00
81	DA	594	U	C4'-C3'-O3'	-5.86	104.21	113.00
81	DA	897	U	O4'-C1'-C2'	-5.86	101.74	107.60
81	DA	1912	U	N1-C1'-C2'	5.86	120.78	112.00
81	DA	2087	C	P-O5'-C5'	5.86	129.69	120.90
81	DA	3011	A	C3'-C2'-C1'	5.86	107.36	101.50
83	DC	45	A	P-O5'-C5'	5.86	129.69	120.90
1	Aa	106	HIS	CA-CB-CG	5.86	119.66	113.80
9	AH	79	PHE	N-CA-C	5.86	120.57	112.90
14	AM	43	SER	N-CA-C	5.86	117.66	111.28

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BE	98	ALA	N-CA-C	-5.86	104.98	111.36
40	BK	148	LYS	N-CA-CB	5.86	119.57	110.44
48	BW	14	THR	CA-CB-OG1	5.86	118.38	109.60
53	Ba	10	VAL	N-CA-CB	5.86	120.89	111.23
78	CA	368	U	C3'-C2'-C1'	-5.86	95.44	101.30
80	CC	12	A	O4'-C1'-C2'	5.86	113.46	107.60
81	DA	264	G	P-O5'-C5'	5.86	129.68	120.90
81	DA	1483	G	C3'-C2'-C1'	-5.86	95.44	101.30
81	DA	2530	G	C3'-C2'-C1'	-5.86	95.44	101.30
81	DA	3214	U	C1'-O4'-C4'	5.86	115.56	109.70
8	AF	190	ILE	CA-C-O	-5.85	114.31	120.57
56	Bf	97	ASP	N-CA-C	-5.85	99.89	107.73
78	CA	359	A	O4'-C4'-C3'	5.85	109.85	104.00
78	CA	520	A	C4'-C3'-O3'	5.85	118.78	110.00
81	DA	3081	C	C3'-C2'-C1'	5.85	107.15	101.30
2	AA	155	PHE	CA-CB-CG	-5.85	107.95	113.80
10	AI	135	ARG	NE-CZ-NH2	5.85	124.47	119.20
11	AJ	79	TRP	N-CA-CB	5.85	120.38	110.49
14	AM	126	ARG	N-CA-C	-5.85	104.90	111.28
34	BE	150	ASN	OD1-CG-ND2	-5.85	116.75	122.60
39	BJ	129	THR	N-CA-CB	5.85	118.72	110.12
43	BP	106	VAL	CA-C-N	5.85	127.46	120.14
43	BP	106	VAL	C-N-CA	5.85	127.46	120.14
78	CA	1476	C	C4'-C3'-O3'	5.85	121.78	113.00
81	DA	541	U	N1-C1'-C2'	-5.85	103.22	112.00
81	DA	600	G	P-O3'-C3'	5.85	128.98	120.20
81	DA	711	A	O4'-C1'-C2'	-5.85	101.75	107.60
81	DA	1251	A	C5'-C4'-C3'	5.85	123.98	115.20
81	DA	2747	A	C3'-C2'-C1'	5.85	107.15	101.30
81	DA	2931	C	N1-C1'-C2'	5.85	120.78	112.00
8	AF	82	PHE	N-CA-C	-5.85	101.29	110.36
38	Bs	58	MET	CB-CA-C	-5.85	101.69	110.88
46	BT	85	ARG	CB-CA-C	-5.85	100.73	110.68
81	DA	2202	C	N1-C1'-C2'	5.85	120.78	112.00
83	DC	51	G	O4'-C1'-C2'	5.85	113.45	107.60
31	BB	35	ALA	CB-CA-C	5.85	122.06	110.42
51	BZ	51	TRP	CA-CB-CG	5.85	124.71	113.60
61	Bj	68	TRP	CA-C-N	-5.85	115.75	122.83
61	Bj	68	TRP	C-N-CA	-5.85	115.75	122.83
74	BQ	282	ARG	CA-C-O	-5.85	114.68	120.82
78	CA	1301	U	P-O5'-C5'	-5.85	112.13	120.90
78	CA	1561	U	O4'-C1'-C2'	-5.85	101.75	107.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1531	C	C3'-C2'-C1'	5.85	107.15	101.30
81	DA	2258	U	O4'-C1'-N1	5.85	117.28	108.50
81	DA	3085	G	C5'-C4'-C3'	5.85	124.77	116.00
82	DB	74	U	P-O3'-C3'	5.85	128.97	120.20
6	AE	224	PHE	CA-CB-CG	5.85	119.65	113.80
8	AF	225	ARG	NE-CZ-NH1	5.85	127.35	121.50
22	AV	82	HIS	CG-CD2-NE2	5.85	113.05	107.20
49	BV	107	LEU	O-C-N	5.85	129.76	122.86
57	Be	172	ASN	N-CA-C	-5.85	98.34	110.80
78	CA	786	C	P-O5'-C5'	5.85	128.77	120.00
78	CA	1785	U	O4'-C1'-N1	5.85	117.27	108.50
81	DA	241	G	C3'-C2'-C1'	-5.85	95.45	101.30
81	DA	3000	A	P-O5'-C5'	5.85	129.67	120.90
4	AD	146	THR	N-CA-C	-5.85	99.87	109.40
21	AT	32	VAL	O-C-N	5.85	129.88	122.57
46	BT	58	HIS	CG-CD2-NE2	5.85	113.05	107.20
78	CA	987	G	O5'-C5'-C4'	5.85	120.27	111.50
81	DA	1713	G	C1'-O4'-C4'	-5.85	104.05	109.90
4	AD	160	VAL	O-C-N	-5.84	116.95	123.26
5	AC	39	LYS	N-CA-C	-5.84	98.35	110.80
12	AK	89	THR	N-CA-C	-5.84	99.76	109.46
47	BU	116	ARG	CG-CD-NE	-5.84	99.14	112.00
78	CA	1339	C	C5'-C4'-O4'	5.84	118.57	109.80
81	DA	1900	A	C5'-C4'-C3'	5.84	123.97	115.20
78	CA	1439	C	N1-C1'-C2'	5.84	120.77	112.00
81	DA	1474	A	C4'-C3'-O3'	-5.84	104.23	113.00
81	DA	2528	G	C1'-O4'-C4'	5.84	115.74	109.90
45	BR	33	TYR	CA-C-N	5.84	129.19	120.31
45	BR	33	TYR	C-N-CA	5.84	129.19	120.31
49	BV	161	ALA	N-CA-C	-5.84	97.71	107.99
58	Bg	50	ARG	N-CA-CB	5.84	120.50	110.68
78	CA	770	A	C4'-C3'-O3'	5.84	118.76	110.00
81	DA	273	A	C5'-C4'-C3'	5.84	124.76	116.00
81	DA	1639	C	N1-C1'-C2'	5.84	120.76	112.00
81	DA	2172	A	C5'-C4'-O4'	5.84	118.56	109.80
1	Aa	17	ASN	N-CA-C	5.84	117.45	111.14
45	BR	6	THR	CA-C-N	5.84	128.10	120.28
45	BR	6	THR	C-N-CA	5.84	128.10	120.28
74	BQ	290	ILE	N-CA-CB	5.84	119.54	110.14
81	DA	193	C	C3'-C2'-C1'	5.84	107.14	101.30
81	DA	1256	G	O4'-C1'-C2'	5.84	113.44	107.60
81	DA	1563	C	C5'-C4'-O4'	5.84	118.56	109.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1956	A	N9-C1'-C2'	-5.84	103.24	112.00
81	DA	2047	A	C2'-C3'-O3'	5.84	122.46	113.70
81	DA	3146	G	P-O3'-C3'	5.84	128.96	120.20
38	Bs	26	PHE	N-CA-CB	5.84	121.06	111.08
77	BI	16	PRO	O-C-N	-5.84	116.30	123.01
78	CA	978	A	C2'-C3'-O3'	5.84	122.46	113.70
78	CA	1630	U	O4'-C1'-N1	5.84	117.26	108.50
81	DA	90	C	N1-C1'-C2'	5.84	120.76	112.00
81	DA	2345	A	C5'-C4'-C3'	-5.84	107.24	116.00
2	AA	250	VAL	CA-C-N	-5.84	110.73	121.41
2	AA	250	VAL	C-N-CA	-5.84	110.73	121.41
11	AJ	43	LYS	O-C-N	5.84	128.16	122.09
32	BC	218	ILE	N-CA-C	-5.84	99.72	108.12
33	BD	318	LEU	N-CA-C	-5.84	100.20	109.07
55	Bc	106	LYS	CA-C-N	5.84	132.69	121.54
55	Bc	106	LYS	C-N-CA	5.84	132.69	121.54
81	DA	790	U	C5'-C4'-C3'	-5.84	107.24	116.00
81	DA	2616	C	O4'-C1'-C2'	-5.84	101.76	107.60
81	DA	2706	G	C4'-C3'-O3'	-5.84	104.25	113.00
82	DB	134	G	C4'-C3'-C2'	-5.84	96.76	102.60
6	AE	99	LYS	N-CA-CB	5.83	120.35	110.49
36	BF	119	GLY	CA-C-N	5.83	129.64	121.24
36	BF	119	GLY	C-N-CA	5.83	129.64	121.24
46	BT	120	TYR	N-CA-CB	5.83	118.70	110.12
78	CA	1079	U	O4'-C4'-C3'	5.83	109.83	104.00
81	DA	835	G	C3'-C2'-C1'	5.83	107.14	101.30
81	DA	2987	A	O4'-C1'-C2'	-5.83	101.77	107.60
81	DA	3230	G	C1'-O4'-C4'	-5.83	104.06	109.90
30	BA	209	SER	N-CA-C	5.83	118.52	111.40
46	BT	179	GLU	N-CA-C	5.83	117.64	111.28
48	BW	99	LYS	N-CA-C	-5.83	102.27	110.50
57	Be	53	LYS	O-C-N	-5.83	115.94	122.12
60	Bi	51	LEU	CA-C-O	-5.83	114.37	120.55
66	Bo	37	TYR	CA-C-O	-5.83	114.69	122.51
78	CA	611	U	N1-C1'-C2'	5.83	120.75	112.00
78	CA	662	U	C3'-C2'-C1'	5.83	107.13	101.30
78	CA	1553	G	N9-C1'-C2'	5.83	120.75	112.00
81	DA	2067	U	C5'-C4'-O4'	5.83	117.85	109.10
81	DA	3048	A	C1'-C2'-O2'	-5.83	103.05	111.80
81	DA	3111	U	O4'-C1'-N1	5.83	117.25	108.50
81	DA	3344	A	N9-C1'-C2'	-5.83	103.25	112.00
2	AA	69	ASN	CA-C-O	-5.83	114.27	119.75

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	AJ	51	VAL	N-CA-CB	5.83	120.85	111.23
32	BC	222	LYS	N-CA-CB	5.83	118.57	110.17
67	Bp	43	ASN	CA-CB-CG	5.83	118.43	112.60
78	CA	959	U	C4'-C3'-O3'	5.83	118.15	109.40
81	DA	213	A	O4'-C1'-C2'	-5.83	101.77	107.60
81	DA	230	U	O4'-C1'-N1	5.83	117.25	108.50
81	DA	1937	U	C4'-C3'-O3'	-5.83	104.25	113.00
81	DA	1980	C	O4'-C1'-C2'	-5.83	101.77	107.60
81	DA	2563	G	O4'-C1'-N9	5.83	117.25	108.50
1	Aa	278	PHE	N-CA-CB	5.83	119.15	110.29
48	BW	22	PRO	CA-C-N	5.83	132.68	121.54
48	BW	22	PRO	C-N-CA	5.83	132.68	121.54
78	CA	642	G	O4'-C1'-C2'	-5.83	99.97	105.80
81	DA	1754	G	C3'-C2'-C1'	-5.83	95.47	101.30
81	DA	2528	G	P-O5'-C5'	-5.83	112.15	120.90
12	AK	91	THR	N-CA-C	-5.83	98.37	108.69
19	AR	124	THR	CA-C-N	5.83	126.59	120.12
19	AR	124	THR	C-N-CA	5.83	126.59	120.12
78	CA	1124	A	C1'-O4'-C4'	5.83	115.73	109.90
78	CA	1341	A	C4'-C3'-C2'	-5.83	96.77	102.60
81	DA	341	G	P-O3'-C3'	5.83	128.94	120.20
81	DA	513	G	C1'-O4'-C4'	-5.83	104.07	109.90
81	DA	1505	C	P-O3'-C3'	5.83	128.94	120.20
81	DA	1614	C	O4'-C1'-C2'	-5.83	101.77	107.60
81	DA	1620	U	O3'-P-O5'	-5.83	95.26	104.00
81	DA	2016	U	O4'-C1'-C2'	-5.83	101.77	107.60
81	DA	2274	U	N1-C1'-C2'	5.83	120.74	112.00
4	AD	70	VAL	CB-CA-C	-5.83	102.01	110.63
5	AC	114	TYR	CB-CG-CD1	-5.83	112.06	120.80
37	BH	140	VAL	CA-C-O	-5.83	114.67	120.85
53	Ba	38	PHE	CA-C-N	5.83	126.61	120.43
53	Ba	38	PHE	C-N-CA	5.83	126.61	120.43
81	DA	3054	U	P-O5'-C5'	5.83	129.64	120.90
82	DB	41	A	C3'-C2'-C1'	-5.83	95.47	101.30
35	BG	122	PHE	O-C-N	-5.83	115.23	120.71
42	BM	35	TYR	O-C-N	-5.83	116.49	123.31
44	BO	16	SER	CA-C-O	5.83	126.67	119.97
55	Bc	4	VAL	CA-C-N	5.83	131.96	122.81
55	Bc	4	VAL	C-N-CA	5.83	131.96	122.81
78	CA	1471	A	O4'-C1'-C2'	-5.83	101.78	107.60
81	DA	1879	A	C2'-C3'-O3'	5.83	118.24	109.50
2	AA	244	GLU	CB-CA-C	5.82	120.75	110.85

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
14	AM	137	HIS	CE1-NE2-CD2	-5.82	103.18	109.00
39	BJ	100	HIS	N-CA-C	-5.82	102.69	110.55
41	BN	70	PHE	N-CA-CB	5.82	120.64	111.20
60	Bi	88	ARG	CA-C-N	5.82	128.01	120.56
60	Bi	88	ARG	C-N-CA	5.82	128.01	120.56
78	CA	323	A	N9-C1'-C2'	-5.82	105.27	114.00
81	DA	447	U	P-O3'-C3'	5.82	128.94	120.20
81	DA	994	G	C3'-C2'-C1'	5.82	107.12	101.30
81	DA	1160	C	C3'-C2'-C1'	5.82	107.12	101.30
81	DA	1404	G	P-O5'-C5'	-5.82	112.16	120.90
81	DA	2672	G	O4'-C1'-N9	5.82	117.24	108.50
78	CA	205	U	C4'-C3'-C2'	-5.82	96.78	102.60
78	CA	1398	U	C2'-C3'-O3'	5.82	118.23	109.50
81	DA	239	G	P-O3'-C3'	-5.82	111.47	120.20
81	DA	606	C	C3'-C2'-C1'	-5.82	95.48	101.30
81	DA	1568	U	C3'-C2'-C1'	5.82	107.12	101.30
81	DA	1802	C	C3'-C2'-C1'	5.82	107.12	101.30
5	AC	89	ASP	N-CA-C	-5.82	105.02	111.71
12	AK	101	ALA	N-CA-C	5.82	118.40	111.71
20	AS	2	PRO	N-CA-C	5.82	123.21	113.78
48	BW	27	VAL	CB-CA-C	5.82	119.66	110.52
52	BY	55	GLU	N-CA-C	-5.82	100.30	109.50
61	Bj	72	THR	N-CA-C	-5.82	103.73	111.24
78	CA	447	U	N1-C1'-C2'	5.82	120.73	112.00
81	DA	640	U	C5'-C4'-C3'	-5.82	107.27	116.00
81	DA	664	U	P-O3'-C3'	-5.82	111.47	120.20
3	AB	71	LEU	CA-C-O	5.82	126.67	120.10
17	AQ	106	THR	N-CA-C	5.82	117.30	111.07
30	BA	110	PHE	CB-CA-C	-5.82	101.13	110.79
36	BF	96	HIS	N-CA-CB	5.82	119.21	110.19
78	CA	56	U	N1-C1'-C2'	-5.82	105.27	114.00
78	CA	335	U	O5'-C5'-C4'	5.82	120.23	111.50
81	DA	2377	G	C4'-C3'-C2'	5.82	108.42	102.60
1	Aa	169	ILE	N-CA-C	-5.82	99.38	108.86
3	AB	193	ALA	N-CA-C	-5.82	106.18	113.28
6	AE	135	SER	N-CA-C	-5.82	99.70	109.07
12	AK	70	LYS	CA-C-N	5.82	128.55	120.29
12	AK	70	LYS	C-N-CA	5.82	128.55	120.29
40	BK	196	ALA	N-CA-CB	5.82	118.50	110.07
78	CA	877	G	N9-C1'-C2'	5.82	120.73	112.00
78	CA	891	A	C4'-C3'-C2'	-5.82	96.78	102.60
81	DA	385	A	O4'-C1'-C2'	-5.82	101.78	107.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1284	C	O4'-C1'-C2'	-5.82	101.78	107.60
81	DA	2106	A	P-O3'-C3'	5.82	128.93	120.20
81	DA	2374	C	C5'-C4'-C3'	-5.82	106.47	115.20
83	DC	97	C	C3'-C2'-C1'	5.82	107.12	101.30
13	AL	51	GLY	CA-C-O	-5.82	116.19	122.47
35	BG	143	LYS	CB-CA-C	-5.82	98.85	110.42
43	BP	7	LEU	CB-CA-C	-5.82	101.75	110.88
60	Bi	39	ALA	N-CA-C	5.82	118.09	111.11
81	DA	320	G	O4'-C1'-N9	5.82	117.22	108.50
81	DA	362	U	O4'-C1'-C2'	-5.82	101.78	107.60
81	DA	779	G	O4'-C1'-N9	5.82	117.22	108.50
81	DA	2697	A	C4'-C3'-O3'	-5.82	104.28	113.00
81	DA	2736	A	C5'-C4'-C3'	5.82	124.72	116.00
81	DA	2795	U	O4'-C1'-N1	5.82	117.22	108.50
81	DA	3143	C	O4'-C1'-C2'	-5.82	99.98	105.80
81	DA	3347	A	O4'-C1'-C2'	-5.82	101.78	107.60
83	DC	18	C	P-O3'-C3'	5.82	128.92	120.20
44	BO	25	HIS	CE1-NE2-CD2	-5.81	103.19	109.00
81	DA	872	U	N1-C1'-C2'	5.81	120.72	112.00
16	AO	60	VAL	O-C-N	-5.81	116.21	121.91
29	AU	28	LEU	CA-C-O	5.81	125.96	120.09
38	Bs	86	PHE	CA-CB-CG	5.81	119.61	113.80
40	BK	15	LEU	CA-C-N	5.81	127.88	120.56
40	BK	15	LEU	C-N-CA	5.81	127.88	120.56
43	BP	166	ALA	N-CA-CB	-5.81	100.67	110.49
56	Bf	62	LEU	O-C-N	5.81	128.28	122.12
59	Bh	43	ARG	N-CA-CB	5.81	118.66	110.12
59	Bh	127	ALA	CB-CA-C	5.81	120.01	110.88
80	CC	16	G	N9-C1'-C2'	-5.81	103.28	112.00
81	DA	26	A	O4'-C1'-C2'	-5.81	101.79	107.60
81	DA	598	A	P-O5'-C5'	5.81	129.62	120.90
81	DA	1396	C	P-O5'-C5'	5.81	129.62	120.90
13	AL	2	GLY	N-CA-C	-5.81	99.41	113.18
46	BT	19	LYS	O-C-N	-5.81	115.37	122.34
57	Be	151	ARG	CD-NE-CZ	-5.81	116.27	124.40
63	Bm	85	ARG	NE-CZ-NH2	-5.81	113.97	119.20
81	DA	2437	G	O4'-C1'-C2'	-5.81	99.99	105.80
82	DB	38	U	O4'-C1'-C2'	-5.81	99.99	105.80
4	AD	175	PHE	CA-CB-CG	-5.81	107.99	113.80
31	BB	145	LYS	CB-CA-C	-5.81	98.18	109.68
35	BG	157	GLN	CA-C-N	5.81	128.06	120.28
35	BG	157	GLN	C-N-CA	5.81	128.06	120.28

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	Bs	55	LYS	N-CA-CB	5.81	120.31	110.49
50	BX	111	ASN	CB-CA-C	-5.81	99.08	109.71
74	BQ	158	ARG	N-CA-CB	5.81	120.31	110.49
78	CA	1316	G	C1'-O4'-C4'	-5.81	104.09	109.90
81	DA	2577	C	C4'-C3'-C2'	-5.81	96.79	102.60
81	DA	2722	U	C2'-C3'-O3'	5.81	122.42	113.70
81	DA	2866	U	C1'-O4'-C4'	5.81	115.51	109.70
82	DB	126	A	O4'-C1'-C2'	5.81	111.61	105.80
20	AS	101	ASN	N-CA-CB	5.81	118.75	110.16
22	AV	87	GLY	N-CA-C	-5.81	107.08	115.27
26	AZ	45	VAL	CA-C-N	5.81	132.63	121.54
26	AZ	45	VAL	C-N-CA	5.81	132.63	121.54
32	BC	100	ARG	N-CA-C	-5.81	100.23	109.23
37	BH	229	VAL	N-CA-C	5.81	120.21	113.42
49	BV	30	ARG	CA-C-N	5.81	127.99	120.44
49	BV	30	ARG	C-N-CA	5.81	127.99	120.44
69	Br	7	THR	CA-C-N	5.81	131.62	122.21
69	Br	7	THR	C-N-CA	5.81	131.62	122.21
73	Bw	20	THR	N-CA-CB	5.81	118.66	110.12
78	CA	171	A	N9-C1'-C2'	-5.81	103.29	112.00
78	CA	270	C	N1-C1'-C2'	5.81	120.71	112.00
81	DA	837	A	P-O5'-C5'	-5.81	112.19	120.90
81	DA	918	C	O4'-C1'-C2'	-5.81	101.79	107.60
81	DA	1550	C	C3'-C2'-C1'	5.81	107.11	101.30
81	DA	2119	A	P-O3'-C3'	5.81	128.91	120.20
1	Aa	51	ASP	CA-CB-CG	5.81	118.41	112.60
45	BR	27	LYS	CB-CA-C	-5.81	101.77	110.88
50	BX	25	LYS	N-CA-CB	5.81	119.08	110.49
81	DA	3034	C	C2'-C3'-O3'	5.81	122.41	113.70
22	AV	64	VAL	N-CA-CB	5.80	118.43	110.54
32	BC	249	VAL	N-CA-C	-5.80	100.20	109.20
45	BR	10	HIS	CA-CB-CG	5.80	119.61	113.80
58	Bg	21	HIS	ND1-CE1-NE2	5.80	114.20	108.40
78	CA	1053	G	O3'-P-O5'	5.80	112.71	104.00
81	DA	1539	A	C3'-C2'-C1'	5.80	107.11	101.30
48	BW	37	LEU	CA-C-N	5.80	128.66	120.42
48	BW	37	LEU	C-N-CA	5.80	128.66	120.42
81	DA	1301	A	N9-C1'-C2'	5.80	122.70	114.00
81	DA	2705	A	O4'-C1'-N9	5.80	116.90	108.20
33	BD	140	HIS	CA-C-O	5.80	127.24	120.80
37	BH	116	VAL	CA-C-N	5.80	132.62	121.54
37	BH	116	VAL	C-N-CA	5.80	132.62	121.54

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
53	Ba	43	VAL	CA-C-O	-5.80	115.58	121.67
61	Bj	85	PHE	CA-C-O	5.80	127.33	120.66
81	DA	2014	U	O4'-C1'-N1	5.80	117.20	108.50
81	DA	2816	G	C4'-C3'-O3'	5.80	118.10	109.40
81	DA	3125	U	C4'-C3'-C2'	-5.80	96.80	102.60
4	AD	201	HIS	ND1-CE1-NE2	5.80	114.20	108.40
9	AH	120	HIS	CB-CA-C	5.80	121.96	110.42
44	BO	67	HIS	CE1-NE2-CD2	-5.80	103.20	109.00
81	DA	327	A	N9-C1'-C2'	5.80	120.70	112.00
81	DA	1233	G	C3'-C2'-C1'	-5.80	95.50	101.30
81	DA	2681	U	C3'-C2'-C1'	5.80	107.10	101.30
83	DC	37	G	O4'-C1'-C2'	-5.80	101.80	107.60
3	AB	104	SER	CA-C-N	5.80	128.05	120.28
3	AB	104	SER	C-N-CA	5.80	128.05	120.28
32	BC	284	ARG	NE-CZ-NH2	-5.80	113.98	119.20
74	BQ	73	VAL	O-C-N	5.80	129.44	123.18
78	CA	1760	G	P-O5'-C5'	-5.80	112.20	120.90
6	AE	51	THR	N-CA-C	5.80	123.15	110.80
16	AO	33	VAL	CB-CA-C	-5.80	104.22	112.22
31	BB	57	PRO	N-CA-CB	5.80	108.86	102.72
46	BT	91	SER	CA-C-N	5.80	127.97	120.44
46	BT	91	SER	C-N-CA	5.80	127.97	120.44
78	CA	1392	U	P-O5'-C5'	5.80	129.59	120.90
81	DA	916	G	C1'-O4'-C4'	5.80	115.70	109.90
81	DA	989	A	O4'-C1'-C2'	-5.80	101.80	107.60
9	AH	106	THR	CA-CB-CG2	5.79	120.35	110.50
78	CA	1130	G	O4'-C1'-N9	5.79	117.19	108.50
81	DA	1057	A	C2'-C3'-O3'	5.79	122.39	113.70
3	AB	30	ALA	CA-C-N	5.79	127.97	120.44
3	AB	30	ALA	C-N-CA	5.79	127.97	120.44
6	AE	113	LEU	N-CA-C	-5.79	99.56	109.24
72	Bu	59	VAL	O-C-N	-5.79	116.40	122.25
78	CA	1241	G	N9-C1'-C2'	-5.79	103.31	112.00
81	DA	498	A	P-O5'-C5'	5.79	129.59	120.90
81	DA	565	U	O4'-C1'-C2'	-5.79	101.81	107.60
81	DA	1799	A	O3'-P-O5'	5.79	112.69	104.00
81	DA	2031	U	N1-C1'-C2'	5.79	120.69	112.00
83	DC	57	C	C1'-O4'-C4'	5.79	115.69	109.90
19	AR	117	GLY	CA-C-N	5.79	130.48	120.58
19	AR	117	GLY	C-N-CA	5.79	130.48	120.58
35	BG	122	PHE	CB-CA-C	-5.79	100.99	112.05
44	BO	42	ARG	NE-CZ-NH2	5.79	124.41	119.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
47	BU	133	ALA	N-CA-C	5.79	118.54	111.82
53	Ba	55	LYS	N-CA-C	-5.79	98.46	110.80
54	Bd	50	THR	CB-CA-C	5.79	120.12	109.46
81	DA	1331	U	O4'-C1'-N1	-5.79	99.51	108.20
81	DA	2304	C	N1-C1'-C2'	5.79	122.69	114.00
81	DA	2899	C	C4'-C3'-O3'	-5.79	104.31	113.00
15	AN	10	HIS	CA-C-N	-5.79	112.60	119.84
15	AN	10	HIS	C-N-CA	-5.79	112.60	119.84
61	Bj	86	ARG	N-CA-CB	-5.79	101.56	110.42
81	DA	248	U	P-O5'-C5'	5.79	129.59	120.90
82	DB	2	A	O4'-C1'-C2'	-5.79	101.81	107.60
19	AR	135	THR	N-CA-C	-5.79	100.33	108.96
26	AZ	18	THR	N-CA-C	-5.79	97.02	109.81
40	BK	55	HIS	CE1-NE2-CD2	-5.79	103.21	109.00
41	BN	27	GLN	N-CA-C	-5.79	98.47	110.80
44	BO	15	VAL	CB-CA-C	5.79	120.78	111.29
44	BO	101	VAL	CA-C-O	5.79	128.01	120.78
45	BR	115	VAL	CA-C-N	5.79	128.51	120.29
45	BR	115	VAL	C-N-CA	5.79	128.51	120.29
47	BU	55	LYS	CA-C-O	5.79	126.50	119.38
49	BV	54	HIS	CA-CB-CG	5.79	119.59	113.80
78	CA	586	G	C1'-O4'-C4'	-5.79	104.11	109.90
78	CA	824	G	O4'-C1'-N9	5.79	117.18	108.50
81	DA	657	A	C4'-C3'-C2'	-5.79	96.81	102.60
81	DA	694	C	N1-C1'-C2'	5.79	120.68	112.00
81	DA	1382	G	C3'-C2'-C1'	5.79	107.09	101.30
2	AA	201	LEU	N-CA-C	-5.79	98.47	110.80
18	AP	83	THR	CA-CB-OG1	5.79	118.28	109.60
20	AS	96	ALA	CA-C-O	5.79	128.78	120.51
29	AU	35	VAL	N-CA-CB	-5.79	105.14	112.60
32	BC	190	GLU	CA-C-N	5.79	128.03	120.28
32	BC	190	GLU	C-N-CA	5.79	128.03	120.28
45	BR	13	SER	CB-CA-C	-5.79	100.32	111.78
62	Bk	28	TYR	N-CA-CB	-5.79	100.66	110.50
78	CA	1006	C	C3'-C2'-C1'	5.79	107.09	101.30
81	DA	3079	U	N1-C1'-C2'	5.79	122.68	114.00
6	AE	38	VAL	N-CA-C	5.79	116.52	110.62
9	AH	35	ILE	CA-C-N	5.79	128.03	120.28
9	AH	35	ILE	C-N-CA	5.79	128.03	120.28
14	AM	10	SER	N-CA-C	-5.79	104.17	111.92
20	AS	36	ILE	N-CA-C	5.79	115.91	110.30
26	AZ	9	ALA	N-CA-C	-5.79	104.97	111.28

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
30	BA	68	PHE	CA-CB-CG	-5.79	108.02	113.80
36	BF	44	THR	N-CA-C	-5.79	99.97	109.40
38	Bs	180	PRO	N-CA-CB	-5.79	97.17	103.25
57	Be	60	ARG	CB-CG-CD	5.79	124.60	111.30
63	Bm	4	ARG	CA-C-N	5.79	132.59	121.54
63	Bm	4	ARG	C-N-CA	5.79	132.59	121.54
63	Bm	73	THR	CA-C-N	5.79	128.50	120.29
63	Bm	73	THR	C-N-CA	5.79	128.50	120.29
78	CA	27	U	C4'-C3'-C2'	-5.79	96.81	102.60
78	CA	1398	U	O5'-C5'-C4'	5.79	120.38	111.70
78	CA	1580	C	O4'-C1'-C2'	-5.79	101.81	107.60
81	DA	638	C	O4'-C1'-N1	5.79	117.18	108.50
81	DA	1426	C	O5'-C5'-C4'	-5.79	102.82	111.50
81	DA	2060	A	O3'-P-O5'	-5.79	95.32	104.00
81	DA	2100	A	P-O5'-C5'	5.79	129.58	120.90
81	DA	2194	G	P-O5'-C5'	-5.79	112.22	120.90
81	DA	3104	U	O4'-C1'-N1	5.79	117.18	108.50
81	DA	3308	C	O4'-C1'-C2'	-5.79	101.81	107.60
12	AK	87	GLY	O-C-N	5.78	127.97	122.99
41	BN	130	THR	N-CA-CB	5.78	118.72	110.16
48	BW	62	VAL	CB-CA-C	-5.78	102.89	111.80
55	Bc	67	ARG	CA-C-N	5.78	128.31	120.44
55	Bc	67	ARG	C-N-CA	5.78	128.31	120.44
62	Bk	52	PRO	CA-N-CD	-5.78	103.90	112.00
65	Bn	5	ILE	CA-C-O	-5.78	115.04	121.17
66	Bo	20	ASN	O-C-N	-5.78	114.75	122.38
78	CA	141	U	C4'-C3'-O3'	5.78	121.68	113.00
78	CA	283	U	C3'-C2'-C1'	5.78	107.08	101.30
78	CA	1101	G	C4'-C3'-C2'	-5.78	96.82	102.60
78	CA	1108	G	C1'-C2'-O2'	5.78	117.08	108.40
78	CA	1436	A	C1'-O4'-C4'	-5.78	104.12	109.90
78	CA	1604	U	C1'-O4'-C4'	-5.78	104.12	109.90
78	CA	1755	A	C1'-C2'-O2'	5.78	117.08	108.40
81	DA	802	C	C3'-C2'-C1'	5.78	107.08	101.30
81	DA	1540	U	O4'-C1'-N1	5.78	117.18	108.50
81	DA	1975	C	C1'-O4'-C4'	5.78	115.68	109.90
22	AV	98	GLN	N-CA-C	-5.78	101.64	110.14
59	Bh	20	HIS	O-C-N	-5.78	114.90	122.59
78	CA	90	C	N1-C1'-C2'	5.78	120.67	112.00
81	DA	55	G	N9-C1'-C2'	5.78	120.67	112.00
6	AE	50	ILE	CB-CA-C	5.78	120.77	111.29
20	AS	58	ALA	N-CA-CB	-5.78	101.61	110.16

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	BC	163	HIS	CE1-NE2-CD2	-5.78	103.22	109.00
41	BN	3	THR	CA-CB-CG2	5.78	120.33	110.50
42	BM	57	MET	CA-C-N	5.78	131.81	122.68
42	BM	57	MET	C-N-CA	5.78	131.81	122.68
78	CA	1101	G	C1'-O4'-C4'	-5.78	104.12	109.90
78	CA	1106	U	O4'-C1'-N1	5.78	117.17	108.50
78	CA	1419	G	O4'-C4'-C3'	-5.78	98.22	104.00
81	DA	62	A	C2'-C3'-O3'	5.78	122.37	113.70
81	DA	223	U	N1-C1'-C2'	5.78	120.67	112.00
81	DA	275	U	C5'-C4'-C3'	-5.78	107.33	116.00
81	DA	1786	G	C4'-C3'-C2'	-5.78	96.82	102.60
81	DA	3248	C	N1-C1'-C2'	5.78	122.67	114.00
81	DA	3313	U	C5'-C4'-O4'	5.78	118.47	109.80
82	DB	18	U	C4'-C3'-O3'	-5.78	104.33	113.00
36	BF	58	HIS	CB-CG-CD2	-5.78	123.69	131.20
55	Bc	43	LYS	CA-C-O	-5.78	114.29	120.42
81	DA	1662	G	C4'-C3'-O3'	-5.78	104.33	113.00
81	DA	1992	U	O4'-C1'-C2'	-5.78	101.82	107.60
81	DA	2244	A	C5'-C4'-O4'	-5.78	101.13	109.80
81	DA	2712	U	O4'-C1'-C2'	-5.78	101.82	107.60
11	AJ	74	GLU	CA-C-N	5.78	132.10	121.70
11	AJ	74	GLU	C-N-CA	5.78	132.10	121.70
21	AT	85	TYR	CA-C-N	-5.78	110.50	121.54
21	AT	85	TYR	C-N-CA	-5.78	110.50	121.54
33	BD	233	LEU	N-CA-CB	5.78	118.49	110.17
41	BN	19	ARG	NH1-CZ-NH2	-5.78	111.79	119.30
47	BU	16	GLN	CB-CA-C	5.78	119.53	109.65
78	CA	874	C	O4'-C1'-N1	-5.78	99.83	108.50
81	DA	1435	A	O3'-P-O5'	-5.78	95.33	104.00
81	DA	2164	A	P-O5'-C5'	5.78	129.57	120.90
1	Aa	89	LEU	N-CA-CB	-5.78	101.50	110.57
3	AB	163	PRO	N-CD-CG	5.78	111.86	103.20
9	AH	65	LEU	CA-C-N	5.78	132.57	121.54
9	AH	65	LEU	C-N-CA	5.78	132.57	121.54
19	AR	62	ALA	O-C-N	-5.78	114.91	122.59
32	BC	43	LEU	N-CA-CB	5.78	118.78	110.06
33	BD	19	ALA	N-CA-C	-5.78	99.24	109.06
38	Bs	245	ASP	CA-CB-CG	5.78	118.38	112.60
76	BS	71	PRO	N-CA-CB	-5.78	97.19	103.25
78	CA	1437	U	O4'-C4'-C3'	-5.78	98.22	104.00
78	CA	1627	U	N1-C1'-C2'	5.78	120.66	112.00
81	DA	1208	U	N1-C1'-C2'	-5.78	103.34	112.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
82	DB	139	U	O3'-P-O5'	-5.78	95.34	104.00
2	AA	157	ASP	O-C-N	-5.77	115.85	122.09
11	AJ	81	THR	CB-CA-C	-5.77	100.90	110.14
31	BB	74	GLU	N-CA-C	-5.77	98.50	110.80
38	Bs	115	ALA	CA-C-O	-5.77	114.03	119.80
39	BJ	14	TYR	CA-C-N	5.77	131.60	122.36
39	BJ	14	TYR	C-N-CA	5.77	131.60	122.36
57	Be	199	ASN	N-CA-C	-5.77	101.57	109.71
78	CA	302	U	C4'-C3'-C2'	-5.77	96.83	102.60
78	CA	1472	C	C3'-C2'-C1'	5.77	107.27	101.50
81	DA	2688	U	O4'-C4'-C3'	-5.77	100.33	106.10
81	DA	3324	C	C5'-C4'-O4'	-5.77	101.14	109.80
14	AM	66	LEU	CA-C-N	5.77	128.02	120.28
14	AM	66	LEU	C-N-CA	5.77	128.02	120.28
35	BG	158	TYR	CB-CA-C	-5.77	101.21	110.79
47	BU	31	LEU	CA-C-N	5.77	129.04	120.90
47	BU	31	LEU	C-N-CA	5.77	129.04	120.90
62	Bk	24	PRO	CA-C-N	5.77	131.94	122.07
62	Bk	24	PRO	C-N-CA	5.77	131.94	122.07
78	CA	1208	A	O4'-C1'-N9	5.77	117.16	108.50
81	DA	788	C	O4'-C1'-C2'	-5.77	101.83	107.60
81	DA	2706	G	C5'-C4'-C3'	-5.77	107.34	116.00
81	DA	2906	C	P-O3'-C3'	-5.77	111.54	120.20
44	BO	19	LYS	CA-C-N	5.77	129.92	121.67
44	BO	19	LYS	C-N-CA	5.77	129.92	121.67
57	Be	93	ASN	OD1-CG-ND2	5.77	128.37	122.60
81	DA	604	G	O4'-C1'-N9	5.77	117.16	108.50
81	DA	1527	C	O5'-C5'-C4'	-5.77	102.84	111.50
2	AA	212	GLN	CA-C-N	5.77	132.56	121.54
2	AA	212	GLN	C-N-CA	5.77	132.56	121.54
5	AC	143	ILE	N-CA-CB	5.77	121.31	111.50
47	BU	3	LYS	CA-C-N	5.77	132.56	121.54
47	BU	3	LYS	C-N-CA	5.77	132.56	121.54
50	BX	105	VAL	CB-CA-C	-5.77	103.31	111.21
69	Br	53	GLN	N-CA-C	5.77	119.58	112.54
74	BQ	33	ARG	CD-NE-CZ	-5.77	116.32	124.40
81	DA	1064	A	C5'-C4'-C3'	5.77	124.65	116.00
81	DA	1190	A	N9-C1'-C2'	5.77	120.66	112.00
81	DA	1756	C	O4'-C1'-N1	5.77	117.15	108.50
81	DA	2952	G	N9-C1'-C2'	5.77	120.65	112.00
82	DB	126	A	O4'-C1'-N9	5.77	116.85	108.20
63	Bm	58	SER	CB-CA-C	-5.77	101.82	110.88

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
76	BS	13	GLY	CA-C-N	5.77	132.56	121.54
76	BS	13	GLY	C-N-CA	5.77	132.56	121.54
78	CA	394	C	C3'-C2'-C1'	5.77	107.07	101.30
81	DA	1270	A	C3'-C2'-C1'	-5.77	95.53	101.30
81	DA	1820	U	C5'-C4'-C3'	5.77	124.65	116.00
81	DA	2032	U	P-O5'-C5'	5.77	129.55	120.90
81	DA	2716	U	O4'-C1'-C2'	-5.77	101.83	107.60
81	DA	2856	G	N9-C1'-C2'	5.77	120.65	112.00
82	DB	57	C	P-O3'-C3'	5.77	128.85	120.20
39	BJ	88	PRO	CA-C-O	-5.77	112.20	120.56
60	Bi	32	ALA	N-CA-CB	5.77	119.62	110.57
81	DA	55	G	C1'-O4'-C4'	-5.77	104.13	109.90
81	DA	805	G	O3'-P-O5'	-5.77	95.35	104.00
81	DA	1073	U	P-O3'-C3'	-5.77	111.55	120.20
81	DA	2624	G	C4'-C3'-O3'	-5.77	104.35	113.00
3	AB	74	GLN	N-CA-CB	5.76	118.59	110.12
5	AC	41	GLU	CB-CA-C	-5.76	101.05	110.85
13	AL	38	PHE	N-CA-CB	-5.76	101.63	110.16
29	AU	59	GLY	N-CA-C	-5.76	99.52	113.18
33	BD	126	ILE	CA-C-N	5.76	128.00	120.28
33	BD	126	ILE	C-N-CA	5.76	128.00	120.28
36	BF	175	PHE	CA-CB-CG	-5.76	108.03	113.80
81	DA	359	U	N1-C1'-C2'	5.76	120.65	112.00
81	DA	462	C	O3'-P-O5'	-5.76	95.36	104.00
81	DA	514	G	C1'-O4'-C4'	-5.76	104.14	109.90
81	DA	538	G	N9-C1'-C2'	5.76	120.65	112.00
81	DA	1152	G	O3'-P-O5'	5.76	112.65	104.00
81	DA	1177	G	O4'-C1'-C2'	5.76	111.56	105.80
83	DC	12	U	O4'-C1'-C2'	-5.76	101.83	107.60
5	AC	48	GLN	CA-C-N	5.76	128.00	120.28
5	AC	48	GLN	C-N-CA	5.76	128.00	120.28
32	BC	226	PHE	N-CA-C	-5.76	99.51	108.90
39	BJ	59	THR	CB-CA-C	-5.76	100.45	109.84
40	BK	101	ARG	NE-CZ-NH1	5.76	127.26	121.50
81	DA	1576	G	O4'-C1'-C2'	-5.76	101.84	107.60
21	AT	44	ARG	CB-CA-C	-5.76	103.56	110.94
38	Bs	177	ASN	N-CA-CB	5.76	120.23	110.49
78	CA	1537	C	N1-C1'-C2'	5.76	120.64	112.00
81	DA	212	G	O4'-C1'-C2'	-5.76	100.04	105.80
81	DA	907	G	C1'-O4'-C4'	-5.76	103.94	109.70
81	DA	994	G	O4'-C1'-C2'	-5.76	101.84	107.60
81	DA	2394	G	P-O5'-C5'	-5.76	112.26	120.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	AA	104	PRO	N-CA-CB	5.76	108.74	103.15
20	AS	37	VAL	N-CA-C	-5.76	97.36	109.34
21	AT	72	LEU	N-CA-C	5.76	117.56	111.28
36	BF	66	ALA	CA-C-N	5.76	128.00	120.28
36	BF	66	ALA	C-N-CA	5.76	128.00	120.28
47	BU	7	TYR	N-CA-C	5.76	117.42	111.03
78	CA	1068	C	C4'-C3'-C2'	-5.76	96.84	102.60
78	CA	1078	C	C1'-O4'-C4'	-5.76	104.14	109.90
78	CA	1764	C	O4'-C1'-C2'	-5.76	101.84	107.60
81	DA	1059	G	C1'-O4'-C4'	-5.76	104.14	109.90
81	DA	1156	C	O4'-C1'-C2'	-5.76	101.84	107.60
81	DA	1933	A	C1'-O4'-C4'	5.76	115.66	109.90
81	DA	2041	U	P-O5'-C5'	-5.76	112.26	120.90
81	DA	2167	A	C3'-C2'-C1'	5.76	107.06	101.30
30	BA	195	LYS	CA-C-N	5.76	129.28	120.82
30	BA	195	LYS	C-N-CA	5.76	129.28	120.82
61	Bj	26	ASN	N-CA-CB	5.76	120.22	110.49
74	BQ	223	PHE	N-CA-CB	5.76	118.68	110.16
81	DA	825	U	O3'-P-O5'	-5.76	95.36	104.00
8	AF	206	SER	N-CA-C	5.76	119.92	113.01
20	AS	8	ASP	N-CA-C	5.76	123.06	110.80
20	AS	61	VAL	CA-C-N	5.76	127.99	120.28
20	AS	61	VAL	C-N-CA	5.76	127.99	120.28
26	AZ	29	LYS	N-CA-CB	5.76	120.62	110.37
38	Bs	46	ARG	CA-C-N	5.76	126.33	119.94
38	Bs	46	ARG	C-N-CA	5.76	126.33	119.94
81	DA	1054	A	O3'-P-O5'	5.76	112.64	104.00
81	DA	1620	U	O4'-C1'-C2'	5.76	113.36	107.60
81	DA	3201	C	O5'-C5'-C4'	5.76	119.44	110.80
82	DB	41	A	C1'-O4'-C4'	-5.76	104.14	109.90
81	DA	248	U	O4'-C1'-C2'	-5.75	101.84	107.60
81	DA	2700	G	N9-C1'-C2'	5.75	120.63	112.00
83	DC	40	C	O4'-C1'-C2'	-5.75	101.84	107.60
1	Aa	78	ALA	CA-C-O	-5.75	114.78	120.82
20	AS	11	ALA	CB-CA-C	-5.75	101.24	110.79
38	Bs	36	GLN	N-CA-C	-5.75	105.09	111.36
44	BO	14	HIS	ND1-CE1-NE2	5.75	114.15	108.40
45	BR	16	ARG	CA-CB-CG	5.75	125.61	114.10
53	Ba	79	HIS	ND1-CE1-NE2	5.75	114.15	108.40
66	Bo	21	ARG	N-CA-C	-5.75	99.58	108.55
78	CA	642	G	N9-C1'-C2'	-5.75	105.37	114.00
10	AI	107	LYS	N-CA-C	-5.75	95.79	107.41

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	AR	96	ILE	N-CA-C	5.75	116.49	110.62
19	AR	104	GLN	OE1-CD-NE2	5.75	128.35	122.60
25	AY	22	ARG	CA-C-N	-5.75	110.14	121.41
25	AY	22	ARG	C-N-CA	-5.75	110.14	121.41
43	BP	150	TRP	CG-CD2-CE3	-5.75	128.15	133.90
81	DA	1409	G	C3'-C2'-C1'	-5.75	95.55	101.30
81	DA	1516	C	P-O3'-C3'	5.75	128.83	120.20
81	DA	1673	G	N9-C1'-C2'	5.75	120.63	112.00
81	DA	2138	A	O4'-C1'-N9	5.75	116.83	108.20
81	DA	2390	A	C3'-C2'-C1'	5.75	107.05	101.30
2	AA	104	PRO	CB-CA-C	5.75	118.85	110.63
49	BV	122	ALA	O-C-N	-5.75	114.71	121.32
81	DA	24	G	O4'-C1'-N9	5.75	117.12	108.50
81	DA	851	C	C3'-C2'-C1'	5.75	107.05	101.30
81	DA	1391	C	P-O3'-C3'	5.75	128.82	120.20
81	DA	1991	G	C4'-C3'-O3'	-5.75	104.38	113.00
14	AM	110	ARG	NE-CZ-NH2	5.75	124.37	119.20
61	Bj	61	GLY	CA-C-N	5.75	131.48	122.17
61	Bj	61	GLY	C-N-CA	5.75	131.48	122.17
76	BS	149	ILE	CA-C-N	5.75	128.77	120.38
76	BS	149	ILE	C-N-CA	5.75	128.77	120.38
78	CA	1578	U	O4'-C1'-N1	5.75	117.12	108.50
81	DA	535	G	P-O3'-C3'	5.75	128.82	120.20
81	DA	1403	C	O4'-C1'-C2'	-5.75	101.85	107.60
81	DA	1445	U	N1-C1'-C2'	5.75	120.62	112.00
81	DA	1984	C	O4'-C1'-C2'	-5.75	101.85	107.60
81	DA	2688	U	O4'-C1'-N1	5.75	116.82	108.20
81	DA	2881	C	O4'-C1'-C2'	-5.75	101.85	107.60
83	DC	107	G	N9-C1'-C2'	-5.75	103.38	112.00
8	AF	169	ASN	CB-CA-C	-5.75	101.08	110.85
10	AI	53	LEU	N-CA-CB	5.75	118.67	110.16
13	AL	33	LEU	CA-C-N	5.75	132.51	121.54
13	AL	33	LEU	C-N-CA	5.75	132.51	121.54
35	BG	66	SER	N-CA-C	5.75	116.14	108.38
48	BW	83	TYR	CA-C-N	5.75	128.55	120.28
48	BW	83	TYR	C-N-CA	5.75	128.55	120.28
78	CA	545	A	P-O5'-C5'	5.75	128.62	120.00
78	CA	1605	G	O3'-P-O5'	5.75	112.62	104.00
81	DA	2750	U	N1-C1'-C2'	5.75	120.62	112.00
81	DA	3364	C	O4'-C1'-C2'	-5.75	101.85	107.60
82	DB	93	U	C1'-O4'-C4'	5.75	115.65	109.90
83	DC	54	A	C1'-O4'-C4'	-5.75	104.15	109.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	BD	78	GLY	N-CA-C	-5.75	99.56	113.18
81	DA	635	G	C1'-C2'-O2'	5.75	117.02	108.40
81	DA	702	C	O4'-C1'-N1	-5.75	99.88	108.50
81	DA	2363	A	O4'-C1'-C2'	-5.75	101.86	107.60
4	AD	56	LEU	N-CA-C	-5.74	104.49	112.30
5	AC	53	ARG	NE-CZ-NH1	5.74	127.24	121.50
17	AQ	3	ARG	CA-C-N	5.74	132.31	121.97
17	AQ	3	ARG	C-N-CA	5.74	132.31	121.97
36	BF	139	ASN	CA-C-N	5.74	127.80	120.56
36	BF	139	ASN	C-N-CA	5.74	127.80	120.56
40	BK	72	HIS	CE1-NE2-CD2	-5.74	103.26	109.00
73	Bw	16	THR	CA-C-N	5.74	127.02	119.84
73	Bw	16	THR	C-N-CA	5.74	127.02	119.84
78	CA	51	A	C3'-C2'-C1'	5.74	107.04	101.30
81	DA	275	U	O4'-C1'-C2'	-5.74	101.86	107.60
81	DA	3012	A	O4'-C4'-C3'	-5.74	98.26	104.00
81	DA	3369	G	C3'-C2'-C1'	5.74	107.04	101.30
82	DB	89	A	C3'-C2'-C1'	5.74	107.24	101.50
8	AF	161	ASP	CB-CA-C	-5.74	98.99	110.42
10	AI	124	PRO	CB-CA-C	5.74	121.03	111.56
74	BQ	247	ILE	CA-C-N	5.74	132.51	121.54
74	BQ	247	ILE	C-N-CA	5.74	132.51	121.54
78	CA	1326	A	O4'-C1'-C2'	-5.74	101.86	107.60
81	DA	450	G	C2'-C3'-O3'	5.74	122.31	113.70
81	DA	1852	G	N9-C1'-C2'	5.74	120.61	112.00
81	DA	2085	U	O3'-P-O5'	-5.74	95.39	104.00
81	DA	2400	G	N9-C1'-C2'	5.74	120.61	112.00
6	AE	58	LEU	CA-C-N	5.74	128.25	120.44
6	AE	58	LEU	C-N-CA	5.74	128.25	120.44
10	AI	46	PHE	CB-CA-C	-5.74	102.00	111.36
15	AN	25	SER	N-CA-CB	5.74	118.32	110.57
35	BG	38	THR	N-CA-C	5.74	118.99	109.46
44	BO	66	ALA	CA-C-N	5.74	131.53	122.34
44	BO	66	ALA	C-N-CA	5.74	131.53	122.34
45	BR	33	TYR	CB-CA-C	-5.74	101.26	110.79
73	Bw	20	THR	CA-CB-OG1	5.74	118.21	109.60
78	CA	284	G	O4'-C1'-N9	5.74	117.11	108.50
81	DA	635	G	P-O3'-C3'	-5.74	111.59	120.20
82	DB	151	C	C4'-C3'-O3'	-5.74	104.39	113.00
83	DC	46	A	P-O5'-C5'	5.74	129.51	120.90
37	BH	64	ILE	CB-CA-C	5.74	120.70	111.29
78	CA	1205	C	N1-C1'-C2'	5.74	120.61	112.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	714	G	O4'-C1'-C2'	5.74	111.54	105.80
81	DA	1687	U	O4'-C1'-C2'	-5.74	101.86	107.60
24	AX	42	ASN	OD1-CG-ND2	-5.74	116.86	122.60
35	BG	79	VAL	CB-CA-C	-5.74	100.61	110.30
81	DA	1319	G	P-O5'-C5'	5.74	129.50	120.90
81	DA	3219	G	O4'-C1'-N9	5.74	117.11	108.50
20	AS	110	LYS	CA-C-O	5.74	126.84	120.82
26	AZ	50	VAL	N-CA-C	5.74	116.38	110.36
60	Bi	11	ASN	CA-C-N	5.74	127.01	119.84
60	Bi	11	ASN	C-N-CA	5.74	127.01	119.84
81	DA	550	A	O4'-C1'-C2'	-5.74	100.06	105.80
81	DA	2956	A	C4'-C3'-O3'	-5.74	104.40	113.00
5	AC	41	GLU	CB-CG-CD	-5.73	102.85	112.60
39	BJ	112	ILE	CA-C-N	5.73	127.96	120.28
39	BJ	112	ILE	C-N-CA	5.73	127.96	120.28
53	Ba	91	ALA	CB-CA-C	-5.73	101.27	110.79
78	CA	194	U	O4'-C1'-N1	5.73	117.10	108.50
81	DA	765	C	O4'-C1'-C2'	-5.73	101.87	107.60
81	DA	2296	A	C1'-O4'-C4'	5.73	115.63	109.90
81	DA	2296	A	O4'-C1'-C2'	-5.73	101.87	107.60
42	BM	72	LYS	N-CA-C	-5.73	101.25	110.14
45	BR	82	VAL	N-CA-CB	5.73	118.58	111.41
49	BV	157	VAL	N-CA-C	5.73	117.16	110.62
73	Bw	58	ASN	OD1-CG-ND2	5.73	128.33	122.60
78	CA	1157	A	O4'-C1'-C2'	-5.73	101.87	107.60
78	CA	1404	C	N1-C1'-C2'	5.73	120.60	112.00
78	CA	1642	G	O4'-C1'-N9	5.73	117.10	108.50
81	DA	9	U	C1'-C2'-O2'	5.73	117.00	108.40
81	DA	31	C	O3'-P-O5'	-5.73	95.40	104.00
6	AE	103	VAL	N-CA-C	-5.73	106.72	113.42
31	BB	126	LEU	CB-CA-C	-5.73	99.85	109.48
32	BC	364	LYS	CA-CB-CG	5.73	125.56	114.10
35	BG	8	LYS	N-CA-CB	5.73	120.17	110.49
44	BO	38	GLN	CB-CG-CD	-5.73	102.86	112.60
49	BV	152	GLU	CA-C-O	-5.73	112.32	120.51
62	Bk	89	GLU	CA-C-N	5.73	128.43	120.29
62	Bk	89	GLU	C-N-CA	5.73	128.43	120.29
78	CA	905	A	P-O5'-C5'	5.73	129.50	120.90
78	CA	1088	A	N9-C1'-C2'	-5.73	103.40	112.00
81	DA	1160	C	N1-C1'-C2'	5.73	120.59	112.00
82	DB	98	U	O4'-C4'-C3'	-5.73	98.27	104.00
52	BY	90	VAL	CA-C-N	5.73	128.53	120.28

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
52	BY	90	VAL	C-N-CA	5.73	128.53	120.28
76	BS	100	THR	N-CA-CB	5.73	121.19	111.57
78	CA	1120	U	N1-C1'-C2'	5.73	120.59	112.00
21	AT	4	ASP	CA-CB-CG	-5.73	106.87	112.60
32	BC	301	THR	CA-C-N	5.73	128.97	120.95
32	BC	301	THR	C-N-CA	5.73	128.97	120.95
44	BO	30	GLY	O-C-N	5.73	128.26	122.65
49	BV	106	GLY	N-CA-C	-5.73	107.10	115.63
81	DA	148	G	O3'-P-O5'	-5.73	95.41	104.00
81	DA	1609	C	P-O3'-C3'	5.73	128.79	120.20
81	DA	2257	C	C3'-C2'-C1'	-5.73	95.57	101.30
82	DB	48	A	P-O3'-C3'	-5.73	111.61	120.20
40	BK	55	HIS	ND1-CE1-NE2	5.73	114.13	108.40
47	BU	27	LEU	N-CA-C	5.73	119.78	112.34
62	Bk	68	ARG	CD-NE-CZ	-5.73	116.38	124.40
78	CA	56	U	C3'-C2'-C1'	-5.73	95.77	101.50
78	CA	686	C	N1-C1'-C2'	5.73	120.59	112.00
78	CA	836	U	C3'-C2'-C1'	5.73	107.03	101.30
78	CA	1555	A	C3'-C2'-C1'	5.73	107.03	101.30
2	AA	204	TYR	N-CA-C	-5.72	101.05	109.81
9	AH	58	SER	CA-C-O	5.72	127.24	120.66
36	BF	45	PHE	CA-C-O	-5.72	111.29	120.85
78	CA	1239	U	P-O5'-C5'	5.72	129.49	120.90
78	CA	1462	G	C4'-C3'-C2'	-5.72	96.88	102.60
81	DA	199	A	N9-C1'-C2'	-5.72	105.41	114.00
81	DA	1864	A	O4'-C1'-C2'	-5.72	100.08	105.80
81	DA	3213	A	O4'-C1'-C2'	-5.72	101.88	107.60
81	DA	3324	C	N1-C1'-C2'	5.72	120.59	112.00
76	BS	11	VAL	CA-C-O	5.72	126.69	120.57
78	CA	50	C	N1-C1'-C2'	5.72	120.58	112.00
78	CA	628	G	C4'-C3'-O3'	-5.72	104.42	113.00
78	CA	1144	U	O4'-C1'-C2'	-5.72	101.88	107.60
81	DA	214	G	N9-C1'-C2'	-5.72	103.42	112.00
81	DA	330	G	O5'-C5'-C4'	5.72	120.28	111.70
81	DA	1681	U	N1-C1'-C2'	5.72	120.58	112.00
81	DA	2184	U	C5'-C4'-C3'	5.72	124.58	116.00
81	DA	2870	C	C5'-C4'-C3'	-5.72	107.42	116.00
6	AE	213	ALA	N-CA-C	-5.72	100.38	109.59
78	CA	1736	G	O4'-C4'-C3'	-5.72	98.28	104.00
81	DA	2221	G	O4'-C1'-C2'	-5.72	101.88	107.60
81	DA	2634	U	P-O5'-C5'	5.72	129.48	120.90
14	AM	91	ASP	CB-CA-C	5.72	118.97	109.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BF	184	LYS	CB-CA-C	-5.72	99.04	110.42
38	Bs	46	ARG	N-CA-CB	-5.72	101.71	110.12
78	CA	1482	C	O5'-C5'-C4'	-5.72	102.22	110.80
79	CB	12	U	O4'-C1'-C2'	-5.72	101.88	107.60
81	DA	77	A	N9-C1'-C2'	5.72	120.58	112.00
81	DA	964	G	N9-C1'-C2'	5.72	120.58	112.00
81	DA	2205	U	O4'-C1'-C2'	-5.72	101.88	107.60
81	DA	2241	U	C4'-C3'-O3'	-5.72	104.42	113.00
61	Bj	3	GLU	N-CA-C	-5.72	98.62	110.80
78	CA	344	A	N9-C1'-C2'	5.72	120.58	112.00
78	CA	1587	A	P-O5'-C5'	5.72	129.48	120.90
81	DA	907	G	P-O3'-C3'	5.72	128.78	120.20
12	AK	52	ARG	CA-C-N	5.72	132.46	121.54
12	AK	52	ARG	C-N-CA	5.72	132.46	121.54
38	Bs	23	LYS	CA-C-N	-5.72	114.93	122.99
38	Bs	23	LYS	C-N-CA	-5.72	114.93	122.99
40	BK	90	HIS	CB-CG-CD2	-5.72	123.77	131.20
44	BO	25	HIS	N-CA-C	-5.72	100.86	109.95
44	BO	128	ARG	CA-C-N	5.72	127.94	120.28
44	BO	128	ARG	C-N-CA	5.72	127.94	120.28
49	BV	61	ARG	NE-CZ-NH1	5.72	127.22	121.50
53	Ba	27	LYS	CA-CB-CG	5.72	125.53	114.10
53	Ba	86	THR	N-CA-CB	5.72	118.30	110.01
78	CA	1181	U	C1'-O4'-C4'	-5.72	104.18	109.90
78	CA	1674	C	O4'-C1'-C2'	-5.72	101.88	107.60
81	DA	418	A	O4'-C1'-C2'	-5.72	101.88	107.60
81	DA	426	G	C3'-C2'-C1'	5.72	107.22	101.50
81	DA	1401	A	C3'-C2'-O2'	5.72	119.27	110.70
81	DA	2191	U	N1-C1'-C2'	5.72	120.58	112.00
81	DA	2266	U	C5'-C4'-C3'	5.72	123.78	115.20
2	AA	229	LYS	CB-CA-C	-5.71	99.65	109.65
4	AD	103	TYR	CB-CA-C	-5.71	99.42	109.71
6	AE	193	VAL	N-CA-C	-5.71	100.19	108.71
20	AS	104	VAL	CA-CB-CG1	5.71	120.11	110.40
41	BN	3	THR	O-C-N	-5.71	114.99	122.59
42	BM	28	ASN	CA-C-N	5.71	131.14	121.14
42	BM	28	ASN	C-N-CA	5.71	131.14	121.14
55	Bc	39	PRO	N-CA-CB	-5.71	97.25	103.25
58	Bg	106	THR	CA-C-N	5.71	132.26	121.97
58	Bg	106	THR	C-N-CA	5.71	132.26	121.97
78	CA	485	A	P-O3'-C3'	5.71	128.77	120.20
78	CA	726	C	O3'-P-O5'	5.71	112.57	104.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1392	U	O4'-C1'-N1	5.71	117.07	108.50
81	DA	775	A	C1'-O4'-C4'	-5.71	104.19	109.90
81	DA	1359	C	N1-C1'-C2'	5.71	120.57	112.00
81	DA	2197	C	O4'-C1'-N1	-5.71	99.63	108.20
81	DA	2728	G	P-O3'-C3'	5.71	128.77	120.20
46	BT	171	ASP	CA-CB-CG	5.71	118.31	112.60
81	DA	517	G	C1'-O4'-C4'	-5.71	104.19	109.90
14	AM	100	THR	N-CA-CB	5.71	120.14	110.49
15	AN	27	HIS	ND1-CE1-NE2	5.71	114.11	108.40
21	AT	60	ARG	CA-C-O	-5.71	114.50	120.55
33	BD	346	LYS	CA-CB-CG	5.71	125.52	114.10
40	BK	131	PRO	N-CA-C	5.71	124.24	112.47
53	Ba	36	HIS	ND1-CE1-NE2	5.71	114.11	108.40
78	CA	1135	U	N1-C1'-C2'	5.71	120.57	112.00
78	CA	1187	U	O4'-C1'-N1	5.71	117.07	108.50
81	DA	584	G	N9-C1'-C2'	5.71	120.57	112.00
81	DA	598	A	C1'-O4'-C4'	-5.71	104.19	109.90
81	DA	2468	A	C5'-C4'-C3'	5.71	123.77	115.20
81	DA	2512	C	O4'-C1'-C2'	-5.71	101.89	107.60
81	DA	2638	C	C1'-C2'-O2'	5.71	116.97	108.40
10	AI	20	ALA	N-CA-CB	5.71	119.65	110.86
42	BM	45	ARG	CB-CA-C	-5.71	100.57	111.48
81	DA	2	U	N1-C1'-C2'	-5.71	103.44	112.00
81	DA	773	G	O4'-C1'-N9	5.71	117.06	108.50
81	DA	1275	C	O4'-C1'-N1	5.71	117.07	108.50
81	DA	2486	A	O4'-C1'-C2'	-5.71	100.09	105.80
81	DA	3035	A	N9-C1'-C2'	5.71	120.56	112.00
30	BA	24	LYS	CB-CA-C	5.71	122.24	110.31
35	BG	63	LEU	N-CA-C	-5.71	100.38	109.23
44	BO	58	MET	CB-CA-C	-5.71	99.06	110.42
50	BX	41	ALA	CA-C-N	5.71	132.44	121.54
50	BX	41	ALA	C-N-CA	5.71	132.44	121.54
58	Bg	19	ARG	NE-CZ-NH1	5.71	127.21	121.50
60	Bi	100	ILE	N-CA-C	5.71	117.13	110.62
78	CA	289	U	C3'-C2'-C1'	5.71	107.01	101.30
78	CA	468	A	C5'-C4'-C3'	-5.71	107.44	116.00
81	DA	8	C	N1-C1'-C2'	5.71	120.56	112.00
81	DA	837	A	C5'-C4'-O4'	-5.71	101.24	109.80
81	DA	2661	G	O3'-P-O5'	5.71	112.56	104.00
4	AD	116	ASP	CA-C-N	5.71	127.86	120.44
4	AD	116	ASP	C-N-CA	5.71	127.86	120.44
6	AE	101	VAL	N-CA-CB	5.71	120.65	111.23

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
20	AS	65	ILE	N-CA-C	5.71	116.44	110.62
38	Bs	81	LYS	CA-C-O	-5.71	114.96	121.58
52	BY	10	SER	N-CA-C	-5.71	98.64	110.80
63	Bm	41	PHE	N-CA-CB	-5.71	100.84	110.49
69	Br	57	VAL	N-CA-CB	5.71	120.65	111.23
73	Bw	58	ASN	CA-CB-CG	-5.71	106.89	112.60
78	CA	1586	A	N9-C1'-C2'	5.71	120.56	112.00
81	DA	72	C	C5'-C4'-C3'	-5.71	106.64	115.20
81	DA	291	C	O4'-C1'-C2'	-5.71	101.89	107.60
81	DA	986	U	O4'-C1'-N1	5.71	117.06	108.50
81	DA	2000	U	O4'-C1'-N1	5.71	117.06	108.50
81	DA	2994	A	O4'-C1'-N9	5.71	117.06	108.50
81	DA	3220	G	C3'-C2'-C1'	5.71	107.01	101.30
82	DB	89	A	C4'-C3'-O3'	5.71	117.96	109.40
78	CA	217	A	N9-C1'-C2'	-5.71	103.44	112.00
78	CA	1012	U	O4'-C4'-C3'	5.71	109.70	104.00
78	CA	1560	U	P-O5'-C5'	-5.71	112.34	120.90
81	DA	1730	G	C1'-O4'-C4'	5.71	115.61	109.90
13	AL	83	VAL	N-CA-C	-5.70	100.01	107.88
14	AM	22	VAL	CA-CB-CG2	5.70	120.09	110.40
16	AO	62	GLN	CB-CA-C	5.70	119.83	110.88
34	BE	133	ARG	N-CA-CB	5.70	117.65	109.78
41	BN	3	THR	CB-CA-C	-5.70	99.07	110.42
78	CA	219	A	C5'-C4'-C3'	-5.70	107.44	116.00
78	CA	1177	C	O4'-C1'-C2'	-5.70	101.90	107.60
78	CA	1233	G	N9-C1'-C2'	-5.70	103.44	112.00
78	CA	1384	A	O3'-P-O5'	-5.70	95.45	104.00
78	CA	1400	A	O4'-C1'-N9	-5.70	99.95	108.50
81	DA	345	G	O4'-C4'-C3'	5.70	109.70	104.00
81	DA	1513	G	C1'-C2'-O2'	5.70	116.96	108.40
82	DB	150	G	P-O5'-C5'	-5.70	112.35	120.90
32	BC	372	THR	CA-C-O	-5.70	112.35	120.16
81	DA	1279	C	O4'-C1'-C2'	-5.70	101.90	107.60
81	DA	1796	G	C5'-C4'-C3'	5.70	124.55	116.00
2	AA	6	THR	N-CA-CB	5.70	120.12	110.49
50	BX	57	LEU	CA-C-O	-5.70	112.36	120.51
56	Bf	26	GLY	CA-C-N	5.70	127.85	120.44
56	Bf	26	GLY	C-N-CA	5.70	127.85	120.44
78	CA	195	G	P-O3'-C3'	5.70	128.75	120.20
78	CA	1793	G	N9-C1'-C2'	5.70	120.55	112.00
81	DA	834	U	O4'-C1'-N1	5.70	117.05	108.50
81	DA	1586	G	C4'-C3'-O3'	-5.70	104.45	113.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1688	U	O5'-C5'-C4'	5.70	120.05	111.50
81	DA	2230	C	N1-C1'-C2'	5.70	120.55	112.00
81	DA	3169	U	O4'-C1'-C2'	-5.70	101.90	107.60
3	AB	65	ARG	N-CA-C	5.70	117.17	111.07
6	AE	110	HIS	CE1-NE2-CD2	-5.70	103.30	109.00
36	BF	18	VAL	N-CA-C	-5.70	99.57	108.86
37	BH	65	LEU	N-CA-CB	5.70	120.12	110.49
40	BK	58	LEU	CA-C-N	5.70	128.38	120.29
40	BK	58	LEU	C-N-CA	5.70	128.38	120.29
42	BM	124	ASP	N-CA-CB	5.70	118.27	110.01
45	BR	99	THR	N-CA-CB	5.70	120.12	110.49
59	Bh	17	PHE	N-CA-C	-5.70	97.96	107.99
78	CA	309	C	O4'-C1'-N1	5.70	117.05	108.50
80	CC	18	C	N1-C1'-C2'	5.70	122.55	114.00
81	DA	3239	G	O3'-P-O5'	-5.70	95.45	104.00
2	AA	11	PRO	CB-CA-C	5.70	120.96	111.56
8	AF	186	ASN	CA-CB-CG	-5.70	106.90	112.60
34	BE	28	ASP	N-CA-CB	5.70	119.02	110.19
35	BG	141	VAL	CA-C-N	-5.70	110.66	121.54
35	BG	141	VAL	C-N-CA	-5.70	110.66	121.54
58	Bg	87	ASN	CB-CA-C	5.70	121.39	110.17
59	Bh	13	HIS	CA-C-N	5.70	132.81	122.27
59	Bh	13	HIS	C-N-CA	5.70	132.81	122.27
74	BQ	74	VAL	N-CA-CB	5.70	117.88	111.21
78	CA	123	G	C1'-C2'-O2'	-5.70	99.86	108.40
4	AD	108	ARG	NE-CZ-NH2	-5.70	114.07	119.20
6	AE	245	ASP	CA-C-N	5.70	127.91	120.28
6	AE	245	ASP	C-N-CA	5.70	127.91	120.28
8	AF	99	MET	CG-SD-CE	-5.70	88.37	100.90
8	AF	184	PHE	CA-CB-CG	-5.70	108.11	113.80
17	AQ	45	ARG	CA-C-N	5.70	128.97	120.31
17	AQ	45	ARG	C-N-CA	5.70	128.97	120.31
35	BG	17	ALA	CA-C-O	-5.70	112.80	119.24
43	BP	99	ARG	N-CA-CB	-5.70	101.75	110.01
46	BT	131	ALA	N-CA-C	-5.70	104.89	113.89
49	BV	116	HIS	CE1-NE2-CD2	-5.70	103.30	109.00
74	BQ	101	THR	CA-C-N	5.70	126.30	119.98
74	BQ	101	THR	C-N-CA	5.70	126.30	119.98
78	CA	50	C	O3'-P-O5'	5.70	112.54	104.00
78	CA	442	C	N1-C1'-C2'	5.70	120.54	112.00
78	CA	587	C	N1-C1'-C2'	5.70	120.54	112.00
81	DA	1324	U	C5'-C4'-C3'	-5.70	107.46	116.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1392	G	N9-C1'-C2'	5.70	120.54	112.00
81	DA	1907	C	C3'-C2'-C1'	5.70	107.00	101.30
83	DC	10	C	C4'-C3'-O3'	-5.70	104.46	113.00
12	AK	25	ASP	O-C-N	-5.69	115.94	122.89
38	Bs	30	VAL	CA-CB-CG1	5.69	120.08	110.40
43	BP	108	ARG	CA-C-N	5.69	128.18	120.44
43	BP	108	ARG	C-N-CA	5.69	128.18	120.44
78	CA	433	C	N1-C1'-C2'	5.69	120.54	112.00
78	CA	1624	C	C3'-C2'-C1'	5.69	106.99	101.30
81	DA	399	A	C5'-C4'-C3'	-5.69	107.46	116.00
81	DA	1404	G	C5'-C4'-C3'	-5.69	107.46	116.00
35	BG	35	VAL	CA-CB-CG1	5.69	120.08	110.40
46	BT	132	PHE	CA-CB-CG	-5.69	108.11	113.80
78	CA	182	A	O3'-P-O5'	5.69	112.54	104.00
78	CA	1437	U	C1'-O4'-C4'	5.69	115.59	109.90
79	CB	50	G	O4'-C1'-N9	5.69	117.04	108.50
81	DA	1366	A	C3'-C2'-C1'	5.69	106.99	101.30
81	DA	2683	U	C4'-C3'-C2'	-5.69	96.91	102.60
81	DA	2736	A	O5'-C5'-C4'	5.69	120.04	111.50
81	DA	3241	G	O4'-C1'-N9	-5.69	99.96	108.50
82	DB	21	C	C3'-C2'-C1'	5.69	106.99	101.30
10	AI	142	TYR	CA-CB-CG	5.69	124.14	113.90
32	BC	295	ALA	CA-C-N	5.69	132.41	121.54
32	BC	295	ALA	C-N-CA	5.69	132.41	121.54
41	BN	43	LYS	CA-CB-CG	5.69	125.48	114.10
65	Bn	74	LYS	N-CA-C	-5.69	98.68	110.80
78	CA	352	A	O4'-C1'-N9	5.69	116.74	108.20
78	CA	1103	U	O4'-C1'-C2'	-5.69	101.91	107.60
81	DA	1081	U	O4'-C1'-N1	5.69	117.04	108.50
81	DA	1262	G	C5'-C4'-C3'	-5.69	107.46	116.00
81	DA	1280	C	O4'-C1'-N1	5.69	117.04	108.50
82	DB	85	G	O4'-C1'-C2'	-5.69	101.91	107.60
79	CB	37	G	N9-C1'-C2'	5.69	120.53	112.00
81	DA	1207	G	C3'-C2'-C1'	5.69	112.68	101.30
81	DA	1291	A	C1'-O4'-C4'	5.69	115.59	109.90
81	DA	3372	A	O4'-C1'-C2'	-5.69	101.91	107.60
8	AF	182	ALA	CA-C-N	5.69	128.37	120.29
8	AF	182	ALA	C-N-CA	5.69	128.37	120.29
35	BG	63	LEU	CA-C-N	5.69	130.85	123.00
35	BG	63	LEU	C-N-CA	5.69	130.85	123.00
74	BQ	296	GLN	CA-C-O	5.69	127.53	121.05
78	CA	1585	U	C1'-O4'-C4'	5.69	115.59	109.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	AC	92	LYS	CB-CG-CD	5.69	124.38	111.30
31	BB	28	LYS	CA-C-N	5.69	129.43	121.24
31	BB	28	LYS	C-N-CA	5.69	129.43	121.24
38	Bs	198	PRO	CA-C-N	5.69	129.70	120.60
38	Bs	198	PRO	C-N-CA	5.69	129.70	120.60
81	DA	678	G	C4'-C3'-O3'	5.69	121.53	113.00
81	DA	1776	G	P-O3'-C3'	-5.69	111.67	120.20
81	DA	2361	A	C4'-C3'-O3'	-5.69	104.47	113.00
83	DC	47	C	OP2-P-O3'	-5.69	90.94	108.00
2	AA	88	LYS	CB-CA-C	-5.68	101.95	110.88
16	AO	136	PRO	CA-C-O	-5.68	112.32	120.56
30	BA	141	ASN	OD1-CG-ND2	-5.68	116.92	122.60
33	BD	323	VAL	N-CA-C	-5.68	97.52	109.34
38	Bs	219	THR	CA-C-N	5.68	127.72	120.56
38	Bs	219	THR	C-N-CA	5.68	127.72	120.56
52	BY	17	LYS	N-CA-C	-5.68	105.17	111.36
78	CA	1065	A	O3'-P-O5'	-5.68	95.47	104.00
78	CA	1375	A	O4'-C1'-N9	-5.68	99.97	108.50
81	DA	484	C	O4'-C1'-C2'	-5.68	101.92	107.60
81	DA	914	A	O3'-P-O5'	-5.68	95.47	104.00
81	DA	2630	C	P-O5'-C5'	-5.68	112.37	120.90
81	DA	2639	G	O5'-C5'-C4'	5.68	120.03	111.50
81	DA	3230	G	O3'-P-O5'	5.68	112.53	104.00
1	Aa	118	LYS	CA-C-N	5.68	127.89	120.28
1	Aa	118	LYS	C-N-CA	5.68	127.89	120.28
52	BY	95	VAL	CB-CA-C	5.68	119.04	110.97
76	BS	167	THR	N-CA-CB	5.68	121.16	111.50
78	CA	1069	A	O5'-C5'-C4'	5.68	120.03	111.50
78	CA	1659	A	C3'-C2'-C1'	5.68	106.98	101.30
81	DA	1072	G	P-O3'-C3'	5.68	128.72	120.20
81	DA	2893	C	O3'-P-O5'	-5.68	95.47	104.00
81	DA	3149	G	P-O3'-C3'	-5.68	111.67	120.20
83	DC	94	A	O3'-P-O5'	5.68	112.52	104.00
29	AU	13	ILE	N-CA-C	-5.68	100.00	108.46
78	CA	1756	A	O3'-P-O5'	5.68	112.52	104.00
9	AH	38	LEU	O-C-N	5.68	128.14	122.12
29	AU	56	SER	CB-CA-C	5.68	119.23	110.14
31	BB	62	VAL	N-CA-CB	-5.68	106.97	112.65
39	BJ	64	ILE	N-CA-CB	5.68	121.27	111.39
42	BM	101	VAL	CA-C-N	5.68	129.58	122.48
42	BM	101	VAL	C-N-CA	5.68	129.58	122.48
55	Bc	6	ALA	CA-C-N	5.68	127.89	120.28

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
55	Bc	6	ALA	C-N-CA	5.68	127.89	120.28
56	Bf	50	VAL	N-CA-CB	5.68	117.57	110.47
57	Be	241	LYS	O-C-N	5.68	128.14	122.12
74	BQ	177	GLU	N-CA-C	5.68	118.24	111.71
81	DA	638	C	C4'-C3'-C2'	5.68	108.28	102.60
81	DA	1317	A	O4'-C1'-N9	5.68	116.72	108.20
81	DA	1422	G	C3'-C2'-C1'	-5.68	95.62	101.30
81	DA	1542	G	O4'-C1'-C2'	5.68	113.28	107.60
81	DA	2096	A	O3'-P-O5'	-5.68	95.48	104.00
81	DA	2141	U	O4'-C1'-C2'	-5.68	101.92	107.60
82	DB	103	G	C1'-O4'-C4'	-5.68	104.22	109.90
13	AL	6	PRO	CB-CA-C	-5.68	102.87	111.44
52	BY	72	SER	N-CA-C	-5.68	100.31	108.60
81	DA	1298	C	C2'-C3'-O3'	5.68	122.22	113.70
81	DA	2316	G	C4'-C3'-C2'	-5.68	96.92	102.60
2	AA	33	GLN	N-CA-C	5.68	118.40	111.82
2	AA	79	ARG	CA-C-O	-5.68	114.80	121.16
5	AC	62	ARG	NH1-CZ-NH2	5.68	126.68	119.30
6	AE	228	ASN	N-CA-C	-5.68	105.17	111.36
32	BC	380	MET	CB-CA-C	5.68	120.50	110.85
32	BC	387	LEU	N-CA-C	-5.68	98.71	110.80
33	BD	7	THR	CA-C-N	5.68	128.86	120.74
33	BD	7	THR	C-N-CA	5.68	128.86	120.74
35	BG	49	GLY	CA-C-N	-5.68	111.93	121.75
35	BG	49	GLY	C-N-CA	-5.68	111.93	121.75
63	Bm	34	HIS	CA-C-N	5.68	128.90	120.90
63	Bm	34	HIS	C-N-CA	5.68	128.90	120.90
64	Bl	46	SER	CA-C-O	5.68	127.26	120.28
69	Br	96	GLU	N-CA-C	-5.68	98.71	110.80
78	CA	178	U	O4'-C1'-N1	5.68	117.01	108.50
78	CA	774	A	C5'-C4'-C3'	5.68	123.41	114.90
78	CA	1632	C	C3'-C2'-C1'	5.68	106.98	101.30
78	CA	1664	C	O4'-C1'-C2'	-5.68	101.92	107.60
78	CA	1729	C	O4'-C1'-C2'	-5.68	101.92	107.60
81	DA	1621	A	P-O3'-C3'	5.68	128.71	120.20
2	AA	67	ILE	N-CA-C	5.67	121.14	108.88
4	AD	134	LYS	O-C-N	-5.67	115.04	122.59
40	BK	131	PRO	CA-N-CD	-5.67	104.06	112.00
42	BM	68	GLU	CB-CA-C	5.67	120.50	110.85
60	Bi	21	LYS	CA-C-N	5.67	130.23	123.19
60	Bi	21	LYS	C-N-CA	5.67	130.23	123.19
78	CA	37	U	C4'-C3'-C2'	-5.67	96.92	102.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2494	A	O4'-C4'-C3'	-5.67	98.33	104.00
83	DC	117	C	O4'-C1'-C2'	-5.67	101.92	107.60
10	AI	93	HIS	CB-CA-C	-5.67	101.97	110.88
31	BB	184	ARG	CA-C-N	5.67	127.88	120.28
31	BB	184	ARG	C-N-CA	5.67	127.88	120.28
33	BD	161	LYS	CB-CA-C	-5.67	107.31	114.40
39	BJ	123	ARG	NE-CZ-NH1	-5.67	115.83	121.50
53	Ba	87	LEU	N-CA-CB	5.67	118.46	110.12
81	DA	2578	U	O4'-C1'-N1	5.67	117.01	108.50
2	AA	235	GLU	CA-C-N	5.67	127.88	120.28
2	AA	235	GLU	C-N-CA	5.67	127.88	120.28
6	AE	3	ALA	CA-C-N	5.67	126.93	119.84
6	AE	3	ALA	C-N-CA	5.67	126.93	119.84
6	AE	33	LYS	N-CA-CB	5.67	118.96	110.22
19	AR	123	TYR	N-CA-C	-5.67	100.65	109.72
22	AV	78	ILE	CA-CB-CG1	-5.67	100.76	110.40
29	AU	31	ASN	N-CA-CB	5.67	120.08	110.49
35	BG	10	TYR	CA-C-N	-5.67	112.75	119.84
35	BG	10	TYR	C-N-CA	-5.67	112.75	119.84
39	BJ	90	ARG	CA-C-N	5.67	132.37	121.54
39	BJ	90	ARG	C-N-CA	5.67	132.37	121.54
53	Ba	20	GLY	O-C-N	-5.67	115.33	122.70
56	Bf	17	VAL	CA-C-N	5.67	129.43	120.47
56	Bf	17	VAL	C-N-CA	5.67	129.43	120.47
57	Be	126	LEU	CA-C-N	5.67	128.45	120.28
57	Be	126	LEU	C-N-CA	5.67	128.45	120.28
66	Bo	16	ALA	CA-C-O	-5.67	114.54	120.55
69	Br	31	GLY	CA-C-N	-5.67	110.71	121.54
69	Br	31	GLY	C-N-CA	-5.67	110.71	121.54
74	BQ	157	ALA	CA-C-N	-5.67	110.71	121.54
74	BQ	157	ALA	C-N-CA	-5.67	110.71	121.54
76	BS	148	ASP	CB-CA-C	-5.67	101.38	110.79
78	CA	122	U	O4'-C1'-C2'	-5.67	101.93	107.60
78	CA	313	U	N1-C1'-C2'	-5.67	105.49	114.00
78	CA	1124	A	N9-C1'-C2'	-5.67	103.49	112.00
78	CA	1345	A	C3'-C2'-C1'	5.67	106.97	101.30
81	DA	647	A	P-O3'-C3'	5.67	128.71	120.20
81	DA	1320	C	O4'-C1'-N1	5.67	117.01	108.50
81	DA	1765	U	P-O3'-C3'	5.67	128.71	120.20
50	BX	34	LEU	O-C-N	-5.67	116.50	121.32
74	BQ	252	ALA	CA-C-N	5.67	127.88	120.28
74	BQ	252	ALA	C-N-CA	5.67	127.88	120.28

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1407	U	O4'-C1'-C2'	-5.67	101.93	107.60
81	DA	15	C	O4'-C1'-C2'	-5.67	101.93	107.60
81	DA	282	G	C2'-C3'-O3'	5.67	122.20	113.70
81	DA	1054	A	C4'-C3'-C2'	-5.67	96.93	102.60
81	DA	2439	A	C4'-C3'-C2'	-5.67	96.93	102.60
81	DA	2627	C	O5'-P-OP2	-5.67	91.00	108.00
81	DA	3365	U	O4'-C1'-C2'	-5.67	101.93	107.60
42	BM	9	THR	CA-CB-OG1	5.67	118.10	109.60
56	Bf	43	ILE	N-CA-CB	5.67	119.23	111.41
62	Bk	97	SER	N-CA-CB	5.67	118.83	110.56
64	Bl	2	GLY	CA-C-N	5.67	130.90	122.17
64	Bl	2	GLY	C-N-CA	5.67	130.90	122.17
76	BS	105	VAL	CA-C-O	-5.67	114.76	121.05
78	CA	307	G	C1'-O4'-C4'	-5.67	104.23	109.90
81	DA	69	C	C5'-C4'-C3'	5.67	124.50	116.00
81	DA	329	U	O4'-C1'-C2'	5.67	113.27	107.60
81	DA	1833	G	O3'-P-O5'	-5.67	95.50	104.00
82	DB	37	A	P-O3'-C3'	5.67	128.70	120.20
24	AX	53	ALA	N-CA-CB	5.67	118.33	110.17
34	BE	79	ILE	CB-CA-C	5.67	120.04	112.22
69	Br	68	VAL	CA-C-O	-5.67	115.17	121.23
81	DA	326	U	N1-C1'-C2'	5.67	120.50	112.00
81	DA	658	G	C3'-C2'-C1'	-5.67	95.64	101.30
81	DA	2015	C	O4'-C1'-C2'	-5.67	101.94	107.60
81	DA	2504	U	C1'-O4'-C4'	5.67	115.56	109.90
81	DA	3396	U	O4'-C1'-C2'	-5.67	101.94	107.60
5	AC	181	ALA	CA-C-N	5.66	131.14	121.29
5	AC	181	ALA	C-N-CA	5.66	131.14	121.29
17	AQ	2	GLY	N-CA-C	-5.66	102.48	110.75
20	AS	10	ALA	CA-C-N	5.66	127.87	120.28
20	AS	10	ALA	C-N-CA	5.66	127.87	120.28
45	BR	97	PRO	N-CA-C	5.66	121.20	113.84
76	BS	142	LYS	CA-C-N	5.66	127.87	120.28
76	BS	142	LYS	C-N-CA	5.66	127.87	120.28
81	DA	846	A	C3'-C2'-C1'	5.66	106.96	101.30
81	DA	847	A	P-O3'-C3'	5.66	128.70	120.20
81	DA	2679	A	O3'-P-O5'	-5.66	95.50	104.00
59	Bh	96	ILE	CB-CA-C	5.66	117.93	110.91
81	DA	851	C	O4'-C1'-C2'	-5.66	101.94	107.60
5	AC	187	ALA	N-CA-C	5.66	122.86	110.80
19	AR	102	PHE	CA-CB-CG	-5.66	108.14	113.80
44	BO	40	HIS	CE1-NE2-CD2	-5.66	103.34	109.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
50	BX	86	VAL	CA-C-N	5.66	132.35	121.54
50	BX	86	VAL	C-N-CA	5.66	132.35	121.54
81	DA	705	A	P-O5'-C5'	-5.66	112.41	120.90
81	DA	1669	C	N1-C1'-C2'	5.66	120.49	112.00
81	DA	2666	C	C4'-C3'-O3'	-5.66	104.51	113.00
12	AK	80	HIS	CA-C-N	5.66	132.16	121.97
12	AK	80	HIS	C-N-CA	5.66	132.16	121.97
19	AR	128	HIS	N-CA-C	-5.66	106.73	113.97
30	BA	161	LYS	N-CA-CB	5.66	120.05	110.49
44	BO	73	LEU	O-C-N	-5.66	115.83	122.96
45	BR	107	THR	CA-C-N	5.66	127.86	120.28
45	BR	107	THR	C-N-CA	5.66	127.86	120.28
78	CA	1063	U	C2'-C3'-O3'	5.66	117.99	109.50
81	DA	572	A	O4'-C1'-N9	5.66	116.99	108.50
81	DA	2318	U	O4'-C1'-C2'	-5.66	101.94	107.60
81	DA	2420	C	P-O5'-C5'	-5.66	112.41	120.90
5	AC	105	LEU	CB-CA-C	-5.66	101.23	110.85
74	BQ	192	PRO	CA-C-N	5.66	132.34	121.54
74	BQ	192	PRO	C-N-CA	5.66	132.34	121.54
81	DA	178	U	C2'-C3'-O3'	5.66	122.19	113.70
81	DA	1403	C	C4'-C3'-O3'	-5.66	104.51	113.00
9	AH	8	ALA	N-CA-CB	5.66	118.27	110.07
34	BE	68	HIS	CA-CB-CG	5.66	119.45	113.80
42	BM	36	ILE	CA-CB-CG1	5.66	120.02	110.40
78	CA	272	U	C4'-C3'-C2'	-5.66	96.94	102.60
81	DA	1110	U	O4'-C1'-N1	5.66	116.98	108.50
81	DA	3091	A	C4'-C3'-O3'	5.66	117.88	109.40
83	DC	52	U	C4'-C3'-C2'	-5.66	96.94	102.60
17	AQ	106	THR	CA-C-N	5.65	128.13	120.44
17	AQ	106	THR	C-N-CA	5.65	128.13	120.44
17	AQ	114	GLY	CA-C-O	5.65	126.57	120.75
31	BB	120	PRO	CA-C-O	-5.65	115.16	121.32
35	BG	126	GLN	CB-CG-CD	-5.65	102.99	112.60
58	Bg	93	VAL	CA-CB-CG1	5.65	120.01	110.40
78	CA	152	U	C4'-C3'-C2'	-5.65	96.95	102.60
78	CA	1087	A	C5'-C4'-O4'	5.65	118.28	109.80
79	CB	75	A	C1'-O4'-C4'	5.65	115.35	109.70
81	DA	2789	U	P-O5'-C5'	5.65	129.38	120.90
51	BZ	66	GLU	N-CA-CB	5.65	120.04	110.49
78	CA	1108	G	P-O3'-C3'	5.65	128.68	120.20
81	DA	1046	A	N9-C1'-C2'	-5.65	103.52	112.00
81	DA	2165	G	C5'-C4'-C3'	5.65	124.48	116.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2253	G	O4'-C1'-N9	5.65	116.98	108.50
81	DA	2499	U	C3'-C2'-C1'	5.65	106.95	101.30
4	AD	140	VAL	CA-C-O	-5.65	114.43	120.59
20	AS	26	GLY	CA-C-O	5.65	126.52	120.30
22	AV	56	THR	N-CA-CB	5.65	118.26	110.07
34	BE	32	ARG	CA-C-N	5.65	129.64	120.60
34	BE	32	ARG	C-N-CA	5.65	129.64	120.60
41	BN	56	GLN	CA-C-O	-5.65	114.50	121.11
50	BX	118	GLY	N-CA-C	-5.65	107.39	115.64
59	Bh	103	LYS	CA-C-N	5.65	127.85	120.28
59	Bh	103	LYS	C-N-CA	5.65	127.85	120.28
74	BQ	233	ALA	CA-C-N	5.65	132.33	121.54
74	BQ	233	ALA	C-N-CA	5.65	132.33	121.54
81	DA	303	G	O4'-C1'-N9	5.65	116.98	108.50
81	DA	570	A	O4'-C1'-C2'	-5.65	101.95	107.60
81	DA	1202	A	N9-C1'-C2'	5.65	120.47	112.00
81	DA	1734	G	O4'-C1'-C2'	-5.65	101.95	107.60
81	DA	2765	C	P-O3'-C3'	-5.65	111.72	120.20
76	BS	74	ILE	CA-C-N	-5.65	112.01	121.39
76	BS	74	ILE	C-N-CA	-5.65	112.01	121.39
78	CA	304	U	O3'-P-O5'	5.65	112.47	104.00
81	DA	2958	A	C5'-C4'-C3'	5.65	124.47	116.00
81	DA	3256	G	P-O5'-C5'	5.65	129.37	120.90
6	AE	30	THR	N-CA-CB	5.65	120.03	110.49
11	AJ	27	THR	O-C-N	5.65	129.82	123.27
39	BJ	57	LYS	N-CA-C	5.65	118.64	110.28
41	BN	91	CYS	CA-C-N	5.65	127.85	120.28
41	BN	91	CYS	C-N-CA	5.65	127.85	120.28
64	Bl	69	HIS	CB-CG-CD2	-5.65	123.86	131.20
78	CA	1111	G	O4'-C1'-C2'	5.65	113.25	107.60
81	DA	730	C	O3'-P-O5'	5.65	112.47	104.00
81	DA	2582	C	O4'-C1'-C2'	-5.65	101.95	107.60
81	DA	2637	A	C3'-C2'-C1'	-5.65	95.65	101.30
83	DC	49	G	O4'-C4'-C3'	5.65	109.65	104.00
39	BJ	51	LYS	N-CA-CB	5.65	120.03	110.49
39	BJ	82	ILE	CA-C-O	-5.65	114.78	121.05
43	BP	77	LYS	N-CA-CB	5.65	121.28	111.40
81	DA	2479	C	C5'-C4'-C3'	5.65	124.47	116.00
81	DA	3081	C	C4'-C3'-C2'	-5.65	96.95	102.60
81	DA	3246	G	P-O5'-C5'	5.65	129.37	120.90
82	DB	86	U	O4'-C1'-C2'	-5.65	100.15	105.80
82	DB	153	U	O4'-C1'-C2'	-5.65	101.95	107.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Aa	284	ALA	N-CA-C	-5.64	98.78	110.80
5	AC	131	GLN	CA-C-N	5.64	128.16	120.54
5	AC	131	GLN	C-N-CA	5.64	128.16	120.54
16	AO	119	GLU	CB-CG-CD	-5.64	103.00	112.60
45	BR	83	VAL	N-CA-C	-5.64	99.02	107.37
48	BW	28	PHE	N-CA-C	-5.64	101.56	109.69
78	CA	541	A	C5'-C4'-C3'	5.64	123.37	114.90
78	CA	893	U	O4'-C1'-C2'	-5.64	101.96	107.60
78	CA	1362	U	P-O3'-C3'	5.64	128.67	120.20
81	DA	779	G	C5'-C4'-C3'	-5.64	107.53	116.00
81	DA	1075	A	C4'-C3'-O3'	-5.64	104.53	113.00
83	DC	62	A	O3'-P-O5'	-5.64	95.53	104.00
2	AA	174	TRP	CB-CA-C	5.64	120.44	110.85
13	AL	2	GLY	CA-C-O	5.64	130.39	120.57
32	BC	266	ARG	CG-CD-NE	5.64	124.41	112.00
47	BU	9	SER	CA-C-N	5.64	130.87	122.74
47	BU	9	SER	C-N-CA	5.64	130.87	122.74
47	BU	18	ASP	N-CA-C	-5.64	103.47	110.41
64	Bl	57	HIS	O-C-N	5.64	127.88	122.07
78	CA	202	A	O4'-C1'-C2'	-5.64	101.96	107.60
78	CA	1682	U	O4'-C1'-C2'	-5.64	101.96	107.60
81	DA	177	U	C1'-O4'-C4'	-5.64	104.26	109.90
81	DA	1773	C	O4'-C4'-C3'	-5.64	100.46	106.10
81	DA	2438	A	O5'-C5'-C4'	5.64	119.96	111.50
81	DA	2614	G	C4'-C3'-O3'	-5.64	104.54	113.00
81	DA	2787	G	O4'-C1'-C2'	5.64	113.24	107.60
82	DB	60	U	N1-C1'-C2'	-5.64	105.54	114.00
4	AD	142	HIS	CA-C-N	5.64	130.14	120.72
4	AD	142	HIS	C-N-CA	5.64	130.14	120.72
17	AQ	30	THR	CA-CB-CG2	-5.64	100.91	110.50
57	Be	233	GLU	N-CA-C	5.64	117.23	111.14
62	Bk	53	TYR	CB-CA-C	5.64	121.64	110.42
78	CA	37	U	O3'-P-O5'	5.64	112.46	104.00
78	CA	439	U	O4'-C1'-C2'	-5.64	100.16	105.80
78	CA	466	U	C5'-C4'-C3'	-5.64	107.54	116.00
81	DA	1272	C	P-O5'-C5'	-5.64	112.44	120.90
43	BP	74	PRO	N-CA-CB	-5.64	97.33	103.25
46	BT	151	ARG	CA-C-O	-5.64	114.57	120.55
66	Bo	46	ARG	N-CA-C	-5.64	101.85	110.14
67	Bp	48	LYS	CB-CA-C	-5.64	100.36	109.72
76	BS	28	ARG	O-C-N	-5.64	116.51	123.33
78	CA	219	A	C1'-O4'-C4'	5.64	115.54	109.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	669	G	C5'-C4'-C3'	-5.64	107.54	116.00
79	CB	21	A	P-O5'-C5'	5.64	129.36	120.90
81	DA	836	A	C3'-C2'-C1'	5.64	106.94	101.30
81	DA	2898	G	N9-C1'-C2'	5.64	120.46	112.00
81	DA	3146	G	N9-C1'-C2'	5.64	120.46	112.00
81	DA	3248	C	O4'-C1'-C2'	-5.64	100.16	105.80
81	DA	3336	A	O4'-C1'-N9	5.64	116.96	108.50
83	DC	72	C	O4'-C1'-N1	5.64	116.96	108.50
1	Aa	35	SER	CB-CA-C	5.64	121.95	109.94
13	AL	132	LEU	N-CA-C	-5.64	98.79	110.80
57	Be	14	LYS	CA-C-O	5.64	126.47	120.10
61	Bj	13	HIS	CE1-NE2-CD2	-5.64	103.36	109.00
78	CA	1365	C	N1-C1'-C2'	5.64	120.46	112.00
81	DA	1871	U	O4'-C1'-C2'	-5.64	101.96	107.60
81	DA	1920	U	N1-C1'-C2'	5.64	120.46	112.00
9	AH	111	MET	N-CA-CB	5.64	120.01	110.49
46	BT	89	LEU	N-CA-C	-5.64	97.35	109.81
78	CA	1209	C	C3'-C2'-C1'	5.64	106.94	101.30
81	DA	42	C	C5'-C4'-C3'	-5.64	107.54	116.00
81	DA	2209	U	O5'-C5'-C4'	5.64	119.95	111.50
81	DA	2507	C	O3'-P-O5'	-5.64	95.55	104.00
81	DA	2770	G	O4'-C1'-C2'	-5.64	101.96	107.60
16	AO	93	LYS	CA-C-N	5.63	128.29	120.29
16	AO	93	LYS	C-N-CA	5.63	128.29	120.29
31	BB	144	ASN	N-CA-CB	5.63	118.24	110.07
43	BP	12	ARG	CA-C-O	5.63	126.72	120.63
46	BT	22	VAL	N-CA-C	-5.63	101.45	108.89
46	BT	118	HIS	CA-C-N	5.63	127.83	120.28
46	BT	118	HIS	C-N-CA	5.63	127.83	120.28
48	BW	59	ASP	CA-C-N	5.63	126.19	119.94
48	BW	59	ASP	C-N-CA	5.63	126.19	119.94
51	BZ	12	LYS	CA-C-N	5.63	129.64	122.37
51	BZ	12	LYS	C-N-CA	5.63	129.64	122.37
78	CA	124	A	O4'-C1'-C2'	-5.63	101.97	107.60
78	CA	924	A	O4'-C1'-C2'	-5.63	101.97	107.60
78	CA	1544	U	OP1-P-O3'	-5.63	91.10	108.00
81	DA	852	U	O4'-C1'-N1	5.63	116.95	108.50
81	DA	3034	C	C5'-C4'-C3'	-5.63	107.55	116.00
83	DC	25	G	O5'-C5'-C4'	-5.63	103.05	111.50
33	BD	203	ARG	O-C-N	5.63	129.92	123.27
34	BE	39	GLN	CA-C-N	5.63	128.10	120.44
34	BE	39	GLN	C-N-CA	5.63	128.10	120.44

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
43	BP	74	PRO	CA-N-CD	5.63	119.89	112.00
81	DA	1693	C	O4'-C4'-C3'	-5.63	98.37	104.00
81	DA	2514	U	O4'-C1'-N1	5.63	116.65	108.20
81	DA	2679	A	O4'-C1'-C2'	5.63	113.23	107.60
3	AB	181	VAL	CA-CB-CG2	5.63	119.97	110.40
24	AX	69	GLY	CA-C-O	-5.63	117.15	122.39
37	BH	83	ASP	CA-C-N	5.63	127.76	120.44
37	BH	83	ASP	C-N-CA	5.63	127.76	120.44
48	BW	62	VAL	N-CA-C	-5.63	100.85	108.06
56	Bf	30	THR	N-CA-C	-5.63	105.14	111.28
74	BQ	21	ARG	CA-C-O	-5.63	114.58	120.55
78	CA	1723	U	O3'-P-O5'	-5.63	95.55	104.00
81	DA	973	A	O5'-C5'-C4'	-5.63	103.05	111.50
81	DA	1123	U	O4'-C1'-N1	5.63	116.95	108.50
81	DA	1429	G	P-O3'-C3'	5.63	128.65	120.20
81	DA	2487	U	O4'-C1'-N1	5.63	116.95	108.50
13	AL	51	GLY	O-C-N	5.63	127.65	122.81
34	BE	117	ASP	CA-C-O	-5.63	112.45	120.16
43	BP	16	SER	CA-C-N	5.63	128.09	120.38
43	BP	16	SER	C-N-CA	5.63	128.09	120.38
78	CA	947	U	C3'-C2'-C1'	5.63	106.93	101.30
81	DA	2900	A	P-O5'-C5'	5.63	129.34	120.90
5	AC	21	SER	CA-C-O	-5.63	115.11	121.25
25	AY	15	VAL	CA-C-N	5.63	128.87	120.31
25	AY	15	VAL	C-N-CA	5.63	128.87	120.31
32	BC	311	PHE	CB-CA-C	-5.63	100.89	109.89
64	Bl	40	PRO	N-CA-CB	-5.63	98.30	103.25
74	BQ	58	LYS	CB-CA-C	5.63	118.85	109.56
74	BQ	267	ALA	N-CA-C	-5.63	105.06	111.14
78	CA	199	G	P-O3'-C3'	5.63	128.64	120.20
78	CA	955	A	N9-C1'-C2'	-5.63	103.56	112.00
78	CA	1075	C	C3'-C2'-C1'	5.63	106.93	101.30
79	CB	19	U	C1'-C2'-O2'	5.63	120.24	111.80
81	DA	255	A	C1'-O4'-C4'	5.63	115.53	109.90
81	DA	739	G	P-O3'-C3'	-5.63	111.76	120.20
81	DA	1208	U	C4'-C3'-O3'	5.63	121.44	113.00
81	DA	1216	C	O3'-P-O5'	5.63	112.44	104.00
81	DA	2514	U	N1-C1'-C2'	-5.63	105.56	114.00
17	AQ	130	ARG	N-CA-C	5.63	121.04	112.54
74	BQ	121	GLY	N-CA-C	5.63	123.12	115.30
78	CA	225	A	P-O3'-C3'	-5.63	111.76	120.20
78	CA	1564	U	C3'-C2'-C1'	5.63	106.93	101.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1677	C	C4'-C3'-C2'	-5.63	96.97	102.60
81	DA	47	C	N1-C1'-C2'	5.63	120.44	112.00
81	DA	171	G	O4'-C4'-C3'	-5.63	98.37	104.00
81	DA	2196	C	O4'-C1'-C2'	-5.63	101.97	107.60
81	DA	2297	U	C3'-C2'-C1'	5.63	106.93	101.30
81	DA	3053	G	O4'-C1'-C2'	5.63	113.23	107.60
81	DA	3258	U	C5'-C4'-C3'	5.63	124.44	116.00
82	DB	117	C	C3'-C2'-C1'	5.63	106.93	101.30
29	AU	15	ASN	CA-C-N	5.62	126.87	119.84
29	AU	15	ASN	C-N-CA	5.62	126.87	119.84
32	BC	237	LYS	N-CA-C	-5.62	102.16	110.48
52	BY	72	SER	CA-C-O	5.62	127.34	121.38
57	Be	103	LEU	CB-CA-C	-5.62	101.45	110.79
78	CA	1220	C	O4'-C1'-N1	5.62	116.94	108.50
81	DA	2897	A	O4'-C1'-C2'	-5.62	101.97	107.60
81	DA	3003	G	P-O3'-C3'	5.62	128.64	120.20
20	AS	6	VAL	CA-C-O	5.62	127.13	121.17
43	BP	160	GLU	CA-C-N	5.62	127.82	120.28
43	BP	160	GLU	C-N-CA	5.62	127.82	120.28
58	Bg	94	GLU	N-CA-C	-5.62	97.38	109.81
64	Bl	20	ASN	N-CA-C	-5.62	105.07	111.14
67	Bp	41	HIS	CE1-NE2-CD2	-5.62	103.38	109.00
74	BQ	15	ARG	NE-CZ-NH2	5.62	124.26	119.20
78	CA	650	U	O5'-P-OP1	5.62	124.87	108.00
81	DA	1826	C	C5'-C4'-C3'	5.62	124.43	116.00
81	DA	2278	C	O4'-C1'-C2'	-5.62	101.98	107.60
81	DA	2773	C	O4'-C1'-C2'	-5.62	101.98	107.60
83	DC	100	A	P-O3'-C3'	5.62	128.63	120.20
4	AD	209	HIS	N-CA-CB	5.62	119.79	110.63
33	BD	352	ALA	N-CA-CB	5.62	119.99	110.49
58	Bg	11	GLU	CB-CA-C	-5.62	100.47	109.75
60	Bi	71	THR	CA-C-N	5.62	130.90	122.75
60	Bi	71	THR	C-N-CA	5.62	130.90	122.75
61	Bj	49	ILE	CB-CA-C	5.62	119.00	111.19
78	CA	885	G	C3'-C2'-C1'	5.62	106.92	101.30
81	DA	627	U	C5'-C4'-C3'	5.62	124.43	116.00
81	DA	1007	U	O4'-C1'-C2'	5.62	113.22	107.60
81	DA	2337	C	O3'-P-O5'	-5.62	95.57	104.00
81	DA	2992	U	O4'-C1'-C2'	-5.62	101.98	107.60
81	DA	3029	A	N9-C1'-C2'	5.62	120.43	112.00
81	DA	3306	U	O4'-C1'-N1	5.62	116.93	108.50
32	BC	240	ARG	CA-C-N	5.62	127.81	120.28

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	BC	240	ARG	C-N-CA	5.62	127.81	120.28
56	Bf	51	LEU	CA-C-O	5.62	126.72	120.82
81	DA	1107	C	P-O5'-C5'	5.62	129.33	120.90
81	DA	1739	U	O3'-P-O5'	5.62	112.43	104.00
12	AK	85	ALA	CA-C-O	-5.62	114.81	121.16
18	AP	88	ARG	CB-CA-C	-5.62	103.38	111.70
79	CB	24	A	O4'-C1'-C2'	-5.62	101.98	107.60
81	DA	1359	C	C1'-O4'-C4'	-5.62	104.28	109.90
81	DA	2775	U	O4'-C1'-C2'	-5.62	101.98	107.60
81	DA	2984	C	N1-C1'-C2'	5.62	120.43	112.00
82	DB	117	C	N1-C1'-C2'	5.62	120.43	112.00
83	DC	15	C	O4'-C1'-C2'	-5.62	101.98	107.60
2	AA	193	GLN	CA-C-N	5.62	125.98	119.47
2	AA	193	GLN	C-N-CA	5.62	125.98	119.47
8	AF	183	ALA	CA-C-N	5.62	127.74	120.44
8	AF	183	ALA	C-N-CA	5.62	127.74	120.44
40	BK	21	SER	CB-CA-C	-5.62	102.06	110.88
65	Bn	77	ARG	N-CA-C	-5.62	100.17	108.99
78	CA	663	U	C1'-O4'-C4'	-5.62	104.28	109.90
78	CA	1023	A	O4'-C1'-N9	5.62	116.62	108.20
81	DA	1420	C	P-O3'-C3'	5.62	128.62	120.20
82	DB	87	G	P-O3'-C3'	5.62	128.63	120.20
5	AC	3	ARG	CB-CG-CD	5.62	124.22	111.30
8	AF	125	THR	CA-C-N	5.62	130.55	122.35
8	AF	125	THR	C-N-CA	5.62	130.55	122.35
8	AF	134	VAL	N-CA-C	5.62	116.35	110.62
10	AI	122	ARG	CA-C-N	5.62	135.50	121.80
10	AI	122	ARG	C-N-CA	5.62	135.50	121.80
12	AK	84	ARG	N-CA-CB	5.62	119.98	110.49
31	BB	157	VAL	N-CA-CB	5.62	118.43	111.41
37	BH	101	THR	N-CA-C	5.62	117.08	111.07
42	BM	120	LYS	CA-C-N	5.62	127.80	120.28
42	BM	120	LYS	C-N-CA	5.62	127.80	120.28
50	BX	24	LEU	CB-CA-C	5.62	121.59	110.42
67	Bp	35	ARG	N-CA-C	5.62	118.35	108.75
69	Br	58	PHE	CA-CB-CG	-5.62	108.18	113.80
78	CA	1322	A	C1'-O4'-C4'	5.62	115.52	109.90
78	CA	1471	A	C5'-C4'-C3'	-5.62	107.58	116.00
81	DA	922	U	O4'-C1'-N1	-5.62	100.08	108.50
81	DA	2042	G	O4'-C1'-C2'	-5.62	101.98	107.60
81	DA	2321	A	O3'-P-O5'	-5.62	95.58	104.00
81	DA	3365	U	C3'-C2'-C1'	5.62	106.92	101.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
82	DB	91	C	C3'-C2'-C1'	5.62	107.12	101.50
4	AD	90	ILE	N-CA-CB	-5.61	103.01	112.44
14	AM	93	THR	CA-CB-CG2	5.61	120.04	110.50
17	AQ	135	ARG	N-CA-C	-5.61	98.84	110.80
32	BC	240	ARG	N-CA-CB	5.61	121.00	111.57
35	BG	48	ARG	CG-CD-NE	-5.61	99.65	112.00
36	BF	167	VAL	CB-CA-C	5.61	117.41	110.73
73	Bw	34	GLU	CA-C-N	5.61	127.80	120.28
73	Bw	34	GLU	C-N-CA	5.61	127.80	120.28
78	CA	1117	U	C5'-C4'-C3'	5.61	124.42	116.00
81	DA	32	U	C5'-C4'-C3'	5.61	124.42	116.00
81	DA	492	U	O4'-C1'-N1	5.61	116.92	108.50
81	DA	678	G	O3'-P-O5'	-5.61	95.58	104.00
81	DA	928	C	N1-C1'-C2'	5.61	120.42	112.00
81	DA	2322	C	O4'-C1'-C2'	-5.61	101.99	107.60
81	DA	2563	G	O4'-C4'-C3'	-5.61	98.39	104.00
81	DA	2625	C	P-O3'-C3'	5.61	128.62	120.20
83	DC	53	U	N1-C1'-C2'	5.61	120.42	112.00
18	AP	62	GLY	CA-C-O	5.61	126.14	120.64
42	BM	85	TRP	CB-CG-CD2	-5.61	118.94	126.80
78	CA	1571	C	P-O5'-C5'	-5.61	112.48	120.90
81	DA	2905	U	N1-C1'-C2'	5.61	120.42	112.00
81	DA	3257	C	N1-C1'-C2'	5.61	120.42	112.00
8	AF	160	VAL	CA-C-O	-5.61	114.77	121.28
38	Bs	34	SER	N-CA-C	-5.61	102.61	110.35
38	Bs	225	LEU	N-CA-CB	5.61	118.21	110.07
44	BO	68	PHE	N-CA-CB	5.61	119.97	110.49
55	Bc	10	ARG	N-CA-C	5.61	117.39	111.28
74	BQ	279	LYS	CB-CA-C	5.61	120.39	110.85
78	CA	1235	C	C5'-C4'-C3'	5.61	124.42	116.00
81	DA	754	G	N9-C1'-C2'	5.61	120.41	112.00
81	DA	984	G	C5'-C4'-C3'	5.61	124.42	116.00
81	DA	2721	A	C3'-C2'-C1'	5.61	106.91	101.30
81	DA	2727	A	C2'-C3'-O3'	5.61	117.92	109.50
81	DA	2927	C	O3'-P-O5'	-5.61	95.58	104.00
82	DB	72	A	O5'-C5'-C4'	5.61	119.22	110.80
78	CA	1460	A	P-O3'-C3'	5.61	128.61	120.20
78	CA	1746	A	OP1-P-O3'	5.61	124.83	108.00
81	DA	1215	U	O4'-C1'-C2'	-5.61	101.99	107.60
4	AD	109	PHE	CA-CB-CG	5.61	119.41	113.80
8	AF	68	ILE	CA-CB-CG1	5.61	119.93	110.40
9	AH	56	HIS	CA-CB-CG	-5.61	108.19	113.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
14	AM	44	ASN	CA-CB-CG	5.61	118.21	112.60
41	BN	108	ARG	CB-CA-C	-5.61	102.08	110.88
42	BM	9	THR	N-CA-CB	5.61	118.86	110.22
55	Bc	111	PHE	CA-C-O	-5.61	112.47	119.54
58	Bg	64	VAL	O-C-N	-5.61	115.56	122.57
59	Bh	98	HIS	CA-C-N	5.61	127.79	120.28
59	Bh	98	HIS	C-N-CA	5.61	127.79	120.28
64	Bl	73	ARG	CD-NE-CZ	-5.61	116.55	124.40
69	Br	93	LEU	N-CA-C	-5.61	100.33	108.07
78	CA	971	A	O4'-C1'-C2'	-5.61	101.99	107.60
78	CA	1079	U	O4'-C1'-N1	5.61	116.91	108.50
78	CA	1199	G	C1'-O4'-C4'	5.61	115.31	109.70
78	CA	1540	G	N9-C1'-C2'	5.61	120.41	112.00
81	DA	320	G	C1'-O4'-C4'	-5.61	104.29	109.90
81	DA	2061	G	O3'-P-O5'	-5.61	95.59	104.00
82	DB	32	C	O3'-P-O5'	-5.61	95.59	104.00
6	AE	205	ARG	N-CA-C	5.61	117.47	111.36
17	AQ	99	VAL	CB-CA-C	-5.61	103.89	111.63
22	AV	36	ALA	N-CA-CB	5.61	118.11	109.98
41	BN	108	ARG	O-C-N	-5.61	116.30	122.07
45	BR	2	GLY	CA-C-N	5.61	132.06	121.97
45	BR	2	GLY	C-N-CA	5.61	132.06	121.97
46	BT	108	LYS	CA-C-N	5.61	127.79	120.28
46	BT	108	LYS	C-N-CA	5.61	127.79	120.28
50	BX	45	LYS	CB-CA-C	-5.61	99.26	110.42
73	Bv	34	GLU	CA-C-N	5.61	127.79	120.28
73	Bv	34	GLU	C-N-CA	5.61	127.79	120.28
78	CA	273	G	N9-C1'-C2'	5.61	120.41	112.00
78	CA	1290	U	N1-C1'-C2'	5.61	120.41	112.00
81	DA	2625	C	C5'-C4'-C3'	-5.61	106.79	115.20
81	DA	2776	C	P-O3'-C3'	-5.61	111.79	120.20
31	BB	112	ILE	N-CA-CB	-5.60	103.42	110.31
78	CA	868	G	P-O5'-C5'	-5.60	112.49	120.90
78	CA	1288	G	C1'-O4'-C4'	-5.60	104.30	109.90
81	DA	1978	A	N9-C1'-C2'	5.60	120.41	112.00
3	AB	120	TYR	CB-CA-C	-5.60	101.33	110.85
10	AI	142	TYR	CA-C-N	5.60	131.78	121.70
10	AI	142	TYR	C-N-CA	5.60	131.78	121.70
50	BX	96	LYS	CB-CA-C	-5.60	101.49	110.79
58	Bg	50	ARG	CA-C-N	5.60	131.81	122.73
58	Bg	50	ARG	C-N-CA	5.60	131.81	122.73
78	CA	942	G	C1'-O4'-C4'	-5.60	104.30	109.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1786	G	O4'-C1'-C2'	-5.60	102.00	107.60
81	DA	145	G	O3'-P-O5'	-5.60	95.60	104.00
81	DA	2368	A	C2'-C3'-O3'	-5.60	105.30	113.70
81	DA	2745	G	O4'-C1'-C2'	-5.60	102.00	107.60
6	AE	110	HIS	CG-CD2-NE2	5.60	112.80	107.20
6	AE	216	VAL	O-C-N	-5.60	117.02	123.07
17	AQ	44	LYS	CB-CA-C	-5.60	102.33	110.96
19	AR	74	ALA	N-CA-CB	5.60	119.11	110.43
61	Bj	69	GLY	CA-C-N	5.60	132.38	121.63
61	Bj	69	GLY	C-N-CA	5.60	132.38	121.63
74	BQ	190	ILE	CA-CB-CG1	5.60	119.92	110.40
78	CA	1762	A	N9-C1'-C2'	5.60	120.40	112.00
81	DA	2707	C	C1'-O4'-C4'	-5.60	104.30	109.90
20	AS	107	ALA	CA-C-N	5.60	128.24	120.29
20	AS	107	ALA	C-N-CA	5.60	128.24	120.29
30	BA	138	VAL	CB-CA-C	-5.60	104.02	111.80
51	BZ	61	LYS	O-C-N	-5.60	114.86	122.36
56	Bf	82	GLY	CA-C-N	5.60	129.56	120.60
56	Bf	82	GLY	C-N-CA	5.60	129.56	120.60
78	CA	1164	G	C3'-C2'-C1'	-5.60	95.70	101.30
78	CA	1737	G	O4'-C1'-N9	5.60	116.90	108.50
81	DA	136	G	C4'-C3'-O3'	5.60	121.40	113.00
81	DA	233	C	C1'-O4'-C4'	5.60	115.50	109.90
81	DA	1408	G	C4'-C3'-C2'	-5.60	97.00	102.60
81	DA	1975	C	C5'-C4'-C3'	5.60	124.40	116.00
81	DA	2500	A	O4'-C1'-N9	5.60	116.90	108.50
82	DB	104	A	O4'-C1'-C2'	-5.60	102.00	107.60
2	AA	217	GLU	N-CA-CB	5.60	118.44	110.16
6	AE	207	LEU	N-CA-C	-5.60	105.18	111.28
33	BD	150	LEU	N-CA-CB	5.60	119.30	110.23
59	Bh	102	ALA	N-CA-C	5.60	117.06	111.07
78	CA	155	U	P-O3'-C3'	5.60	128.59	120.20
78	CA	1436	A	C2'-C3'-O3'	5.60	122.09	113.70
78	CA	1643	U	O4'-C1'-N1	5.60	116.90	108.50
81	DA	32	U	P-O3'-C3'	5.60	128.60	120.20
82	DB	92	A	P-O5'-C5'	5.60	129.30	120.90
35	BG	122	PHE	N-CA-CB	5.60	119.10	110.43
81	DA	3388	C	N1-C1'-C2'	5.60	120.39	112.00
2	AA	213	GLN	N-CA-C	5.59	122.72	110.80
14	AM	75	ASN	O-C-N	-5.59	117.48	121.84
36	BF	46	THR	CA-C-O	-5.59	115.34	121.89
78	CA	660	G	O4'-C1'-N9	5.59	116.89	108.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1577	A	N9-C1'-C2'	-5.59	103.61	112.00
81	DA	262	U	C4'-C3'-C2'	-5.59	97.00	102.60
81	DA	1050	U	O4'-C1'-N1	5.59	116.89	108.50
81	DA	1730	G	N9-C1'-C2'	-5.59	103.61	112.00
81	DA	2137	U	O4'-C1'-C2'	-5.59	102.00	107.60
81	DA	3327	G	P-O3'-C3'	5.59	128.59	120.20
83	DC	1	G	C1'-O4'-C4'	5.59	115.49	109.90
5	AC	62	ARG	CA-CB-CG	5.59	125.28	114.10
31	BB	83	HIS	CB-CG-CD2	-5.59	123.93	131.20
36	BF	181	VAL	N-CA-CB	5.59	117.03	110.82
16	AO	113	PHE	CA-C-O	-5.59	114.59	120.63
36	BF	139	ASN	CB-CA-C	-5.59	110.14	116.63
81	DA	3161	C	C3'-C2'-C1'	5.59	106.89	101.30
81	DA	3298	C	O4'-C4'-C3'	-5.59	98.41	104.00
81	DA	3363	U	C1'-O4'-C4'	5.59	115.49	109.90
83	DC	25	G	C4'-C3'-C2'	-5.59	97.01	102.60
1	Aa	317	THR	N-CA-CB	5.59	119.94	110.49
6	AE	244	SER	CA-C-N	5.59	127.77	120.28
6	AE	244	SER	C-N-CA	5.59	127.77	120.28
31	BB	233	GLN	N-CA-C	-5.59	104.81	111.69
50	BX	111	ASN	N-CA-C	-5.59	99.79	108.90
58	Bg	30	PRO	N-CA-C	5.59	120.89	113.57
62	Bk	63	ASN	CA-C-N	5.59	128.23	120.29
62	Bk	63	ASN	C-N-CA	5.59	128.23	120.29
79	CB	32	U	N1-C1'-C2'	5.59	120.38	112.00
81	DA	283	G	N9-C1'-C2'	5.59	120.38	112.00
81	DA	1971	C	O4'-C4'-C3'	-5.59	98.41	104.00
81	DA	2504	U	O4'-C1'-C2'	-5.59	102.01	107.60
83	DC	9	C	O4'-C1'-C2'	-5.59	102.01	107.60
55	Bc	25	LYS	CA-C-N	5.59	127.70	120.44
55	Bc	25	LYS	C-N-CA	5.59	127.70	120.44
81	DA	1512	U	N1-C1'-C2'	5.59	120.38	112.00
81	DA	1684	U	O4'-C1'-N1	-5.59	100.12	108.50
31	BB	33	ASP	N-CA-CB	5.59	118.11	110.01
78	CA	584	C	C1'-O4'-C4'	-5.59	104.31	109.90
78	CA	942	G	C3'-C2'-C1'	-5.59	95.71	101.30
81	DA	574	U	O4'-C1'-N1	5.59	116.88	108.50
81	DA	995	U	C3'-C2'-C1'	5.59	106.89	101.30
81	DA	1500	G	C4'-C3'-C2'	-5.59	97.01	102.60
81	DA	2415	C	O3'-P-O5'	5.59	112.38	104.00
33	BD	331	ALA	N-CA-C	-5.58	98.90	110.80
43	BP	28	TRP	CA-C-N	5.58	128.22	120.29

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
43	BP	28	TRP	C-N-CA	5.58	128.22	120.29
78	CA	458	G	O4'-C1'-C2'	5.58	113.19	107.60
78	CA	1339	C	C5'-C4'-C3'	-5.58	107.62	116.00
81	DA	427	C	C1'-O4'-C4'	-5.58	104.31	109.90
81	DA	2629	U	C4'-C3'-C2'	-5.58	97.02	102.60
10	AI	83	GLN	CA-C-N	-5.58	110.88	121.54
10	AI	83	GLN	C-N-CA	-5.58	110.88	121.54
16	AO	112	LYS	CA-CB-CG	5.58	125.27	114.10
24	AX	70	LYS	CB-CA-C	-5.58	99.31	110.42
46	BT	45	VAL	N-CA-CB	5.58	118.13	110.54
57	Be	159	GLN	CA-C-N	5.58	131.14	122.26
57	Be	159	GLN	C-N-CA	5.58	131.14	122.26
72	Bu	57	LEU	CA-C-O	-5.58	114.63	120.55
78	CA	225	A	O3'-P-O5'	5.58	112.38	104.00
78	CA	1124	A	O4'-C1'-C2'	-5.58	102.02	107.60
78	CA	1607	G	C3'-C2'-C1'	5.58	106.88	101.30
81	DA	74	G	C5'-C4'-O4'	-5.58	101.43	109.80
81	DA	958	C	O4'-C1'-C2'	-5.58	102.02	107.60
81	DA	1118	C	O4'-C1'-C2'	-5.58	102.02	107.60
81	DA	2176	U	C5'-C4'-C3'	5.58	124.38	116.00
83	DC	28	C	C5'-C4'-C3'	-5.58	107.62	116.00
83	DC	112	G	P-O5'-C5'	5.58	129.28	120.90
32	BC	187	SER	CA-C-N	5.58	128.11	120.46
32	BC	187	SER	C-N-CA	5.58	128.11	120.46
41	BN	133	LYS	CA-C-N	5.58	127.76	120.28
41	BN	133	LYS	C-N-CA	5.58	127.76	120.28
44	BO	66	ALA	N-CA-C	5.58	122.69	110.80
48	BW	74	LYS	N-CA-CB	5.58	118.96	110.14
61	Bj	75	HIS	CA-C-N	5.58	130.08	123.44
61	Bj	75	HIS	C-N-CA	5.58	130.08	123.44
74	BQ	98	ALA	CA-C-N	5.58	127.70	120.44
74	BQ	98	ALA	C-N-CA	5.58	127.70	120.44
81	DA	277	G	O4'-C1'-N9	5.58	116.87	108.50
81	DA	1487	G	O4'-C1'-N9	5.58	116.87	108.50
81	DA	2102	U	C3'-C2'-C1'	5.58	106.88	101.30
81	DA	2383	C	N1-C1'-C2'	5.58	120.37	112.00
81	DA	2393	G	O4'-C1'-N9	5.58	116.57	108.20
81	DA	3149	G	P-O5'-C5'	5.58	129.27	120.90
4	AD	106	LYS	CB-CA-C	-5.58	99.96	110.67
19	AR	114	HIS	CA-CB-CG	-5.58	108.22	113.80
50	BX	46	TYR	CA-C-O	-5.58	112.53	120.51
81	DA	1825	G	N9-C1'-C2'	5.58	120.37	112.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	AA	77	SER	CB-CA-C	-5.58	104.51	111.43
2	AA	148	ASP	CA-CB-CG	5.58	118.18	112.60
2	AA	242	TRP	CE2-CD2-CE3	5.58	124.38	118.80
13	AL	138	GLU	CA-C-N	5.58	127.69	120.44
13	AL	138	GLU	C-N-CA	5.58	127.69	120.44
19	AR	69	GLU	CA-C-N	5.58	127.75	120.28
19	AR	69	GLU	C-N-CA	5.58	127.75	120.28
30	BA	45	ARG	N-CA-C	-5.58	101.28	109.81
56	Bf	83	LYS	CA-C-N	5.58	127.76	120.28
56	Bf	83	LYS	C-N-CA	5.58	127.76	120.28
74	BQ	52	VAL	CB-CA-C	5.58	120.44	111.29
78	CA	687	G	O4'-C1'-C2'	-5.58	100.22	105.80
81	DA	520	U	O4'-C4'-C3'	-5.58	98.42	104.00
81	DA	2685	C	C1'-O4'-C4'	-5.58	104.32	109.90
81	DA	3316	A	C2'-C3'-O3'	5.58	117.87	109.50
10	AI	125	GLU	O-C-N	5.58	126.68	121.27
13	AL	18	HIS	ND1-CE1-NE2	5.58	113.98	108.40
78	CA	1145	U	O4'-C1'-C2'	-5.58	102.02	107.60
78	CA	1554	U	N1-C1'-C2'	-5.58	103.64	112.00
81	DA	1069	C	C3'-C2'-C1'	5.58	106.88	101.30
81	DA	1620	U	C4'-C3'-O3'	-5.58	104.63	113.00
82	DB	98	U	N1-C1'-C2'	5.58	120.36	112.00
20	AS	119	LYS	CA-C-N	5.58	126.17	119.98
20	AS	119	LYS	C-N-CA	5.58	126.17	119.98
33	BD	107	ARG	CA-C-N	5.58	129.39	121.42
33	BD	107	ARG	C-N-CA	5.58	129.39	121.42
39	BJ	134	GLY	CA-C-N	5.58	128.21	120.29
39	BJ	134	GLY	C-N-CA	5.58	128.21	120.29
45	BR	153	PHE	CA-CB-CG	5.58	119.38	113.80
81	DA	2075	C	N1-C1'-C2'	5.58	120.36	112.00
81	DA	2203	U	O4'-C1'-N1	5.58	116.86	108.50
81	DA	2513	U	O4'-C1'-N1	5.58	116.86	108.50
2	AA	169	SER	CA-C-N	5.57	128.33	120.42
2	AA	169	SER	C-N-CA	5.57	128.33	120.42
15	AN	40	ARG	NE-CZ-NH2	5.57	124.22	119.20
31	BB	118	GLU	N-CA-CB	5.57	118.15	110.07
58	Bg	80	ASN	OD1-CG-ND2	-5.57	117.03	122.60
76	BS	165	LEU	CA-C-N	5.57	132.19	121.54
76	BS	165	LEU	C-N-CA	5.57	132.19	121.54
78	CA	481	A	C5'-C4'-C3'	5.57	124.36	116.00
81	DA	353	G	N9-C1'-C2'	-5.57	105.64	114.00
81	DA	551	A	O4'-C1'-N9	5.57	116.86	108.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1827	C	O3'-P-O5'	-5.57	95.64	104.00
81	DA	2375	G	C2'-C3'-O3'	5.57	117.86	109.50
33	BD	240	PRO	CB-CA-C	-5.57	104.72	111.46
58	Bg	110	GLU	CA-C-O	-5.57	111.33	120.80
78	CA	182	A	C4'-C3'-C2'	-5.57	97.03	102.60
78	CA	1337	A	C4'-C3'-O3'	5.57	121.36	113.00
81	DA	1269	U	C5'-C4'-C3'	5.57	124.36	116.00
81	DA	3018	C	O4'-C1'-C2'	-5.57	102.03	107.60
30	BA	17	LEU	N-CA-C	-5.57	102.24	110.48
35	BG	94	GLU	N-CA-C	-5.57	99.75	110.56
35	BG	163	PHE	N-CA-CB	5.57	118.31	110.12
36	BF	124	ARG	O-C-N	-5.57	116.70	123.27
38	Bs	101	VAL	N-CA-CB	5.57	118.94	110.58
42	BM	79	VAL	CB-CA-C	-5.57	104.92	111.94
59	Bh	67	SER	CA-C-O	-5.57	114.64	120.88
78	CA	589	C	O4'-C1'-C2'	-5.57	102.03	107.60
78	CA	621	A	C1'-O4'-C4'	5.57	115.47	109.90
78	CA	646	C	O4'-C1'-C2'	5.57	113.17	107.60
81	DA	306	A	C4'-C3'-C2'	-5.57	97.03	102.60
81	DA	1387	G	P-O3'-C3'	-5.57	111.84	120.20
81	DA	1564	U	C5'-C4'-C3'	5.57	124.36	116.00
81	DA	2754	G	C2'-C3'-O3'	5.57	122.06	113.70
10	AI	68	ARG	NE-CZ-NH1	-5.57	115.93	121.50
39	BJ	92	ARG	NE-CZ-NH2	-5.57	114.19	119.20
49	BV	59	PRO	N-CA-C	5.57	119.61	111.03
67	Bp	50	LYS	CA-C-N	5.57	132.18	121.54
67	Bp	50	LYS	C-N-CA	5.57	132.18	121.54
78	CA	295	A	P-O5'-C5'	5.57	129.25	120.90
81	DA	1004	U	O4'-C1'-C2'	-5.57	102.03	107.60
81	DA	3220	G	C3'-C2'-O2'	5.57	119.05	110.70
78	CA	619	A	C4'-C3'-O3'	-5.57	104.65	113.00
81	DA	524	U	O4'-C1'-N1	5.57	116.85	108.50
81	DA	639	G	C4'-C3'-C2'	-5.57	97.03	102.60
81	DA	750	G	O4'-C4'-C3'	-5.57	98.43	104.00
81	DA	1718	G	C1'-O4'-C4'	-5.57	104.33	109.90
81	DA	2030	C	O3'-P-O5'	-5.57	95.65	104.00
81	DA	2446	U	O5'-C5'-C4'	5.57	119.85	111.50
81	DA	2753	G	C5'-C4'-C3'	5.57	124.35	116.00
40	BK	14	HIS	CG-CD2-NE2	5.57	112.77	107.20
50	BX	105	VAL	N-CA-CB	5.57	118.24	110.56
60	Bi	108	GLN	CB-CA-C	-5.57	98.46	111.09
74	BQ	55	PHE	N-CA-CB	5.57	119.90	110.49

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1791	A	C4'-C3'-O3'	5.57	117.75	109.40
81	DA	1674	G	O4'-C4'-C3'	-5.57	98.44	104.00
81	DA	3037	U	N1-C1'-C2'	5.57	120.35	112.00
82	DB	58	G	C2'-C3'-O3'	5.57	117.85	109.50
83	DC	10	C	O4'-C1'-C2'	-5.57	102.03	107.60
83	DC	62	A	O4'-C1'-C2'	-5.57	102.03	107.60
22	AV	28	SER	CA-C-N	5.56	132.17	121.54
22	AV	28	SER	C-N-CA	5.56	132.17	121.54
41	BN	59	ASN	N-CA-C	-5.56	100.22	109.46
78	CA	1264	G	O4'-C1'-N9	5.56	116.85	108.50
81	DA	553	U	O4'-C1'-N1	5.56	116.85	108.50
81	DA	766	U	P-O3'-C3'	5.56	128.54	120.20
81	DA	1344	G	P-O5'-C5'	5.56	129.25	120.90
81	DA	1890	U	O4'-C1'-N1	5.56	116.84	108.50
9	AH	23	ARG	NH1-CZ-NH2	5.56	126.53	119.30
14	AM	44	ASN	OD1-CG-ND2	5.56	128.16	122.60
14	AM	122	HIS	CB-CA-C	-5.56	101.56	110.79
18	AP	58	CYS	CA-C-O	-5.56	111.34	120.80
25	AY	60	GLU	N-CA-C	-5.56	95.43	111.00
35	BG	61	ASN	CB-CA-C	-5.56	99.35	110.42
81	DA	1	G	O4'-C1'-C2'	-5.56	102.04	107.60
81	DA	249	U	P-O5'-C5'	-5.56	112.56	120.90
81	DA	803	C	O4'-C4'-C3'	5.56	109.56	104.00
81	DA	2832	C	N1-C1'-C2'	5.56	120.34	112.00
4	AD	153	ASN	CA-CB-CG	-5.56	107.04	112.60
8	AF	157	ARG	N-CA-C	-5.56	99.22	108.34
10	AI	138	PHE	CA-C-N	5.56	132.16	121.54
10	AI	138	PHE	C-N-CA	5.56	132.16	121.54
11	AJ	70	THR	CA-C-N	5.56	126.79	119.84
11	AJ	70	THR	C-N-CA	5.56	126.79	119.84
41	BN	10	SER	N-CA-CB	5.56	119.89	110.49
53	Ba	13	VAL	N-CA-C	-5.56	97.77	109.34
63	Bm	13	LYS	CA-C-N	5.56	127.73	120.28
63	Bm	13	LYS	C-N-CA	5.56	127.73	120.28
78	CA	433	C	C3'-C2'-C1'	5.56	106.86	101.30
81	DA	295	A	N9-C1'-C2'	5.56	120.34	112.00
1	Aa	159	ASN	CA-C-O	-5.56	114.53	120.42
1	Aa	220	ILE	CB-CA-C	5.56	118.91	110.62
10	AI	125	GLU	N-CA-C	5.56	116.00	109.60
12	AK	104	ALA	CA-C-N	5.56	128.28	120.28
12	AK	104	ALA	C-N-CA	5.56	128.28	120.28
16	AO	33	VAL	CA-C-N	5.56	128.08	120.46

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
16	AO	33	VAL	C-N-CA	5.56	128.08	120.46
33	BD	255	PHE	CA-C-O	-5.56	114.66	120.55
40	BK	162	VAL	N-CA-C	5.56	115.76	110.53
67	Bp	21	ARG	CD-NE-CZ	-5.56	116.62	124.40
67	Bp	26	ARG	CB-CA-C	-5.56	100.93	110.22
76	BS	19	PRO	N-CA-C	5.56	123.92	112.47
78	CA	279	G	C5'-C4'-C3'	5.56	124.34	116.00
78	CA	1227	A	C5'-C4'-C3'	5.56	124.34	116.00
81	DA	1861	G	O4'-C1'-N9	5.56	116.84	108.50
81	DA	2528	G	O4'-C4'-C3'	-5.56	98.44	104.00
11	AJ	38	SER	N-CA-C	5.56	117.34	111.28
14	AM	39	GLY	N-CA-C	-5.56	104.96	112.57
20	AS	46	PRO	N-CA-C	5.56	117.48	110.70
20	AS	78	LYS	O-C-N	-5.56	115.76	122.48
22	AV	44	GLN	CA-C-O	-5.56	114.95	120.90
34	BE	105	GLY	N-CA-C	-5.56	102.32	111.38
44	BO	146	GLU	CA-C-N	5.56	131.31	122.59
44	BO	146	GLU	C-N-CA	5.56	131.31	122.59
45	BR	19	PRO	CA-C-O	-5.56	115.00	121.95
57	Be	33	ARG	O-C-N	5.56	128.49	122.15
78	CA	555	A	C1'-O4'-C4'	-5.56	104.34	109.90
78	CA	1791	A	P-O5'-C5'	5.56	129.24	120.90
81	DA	173	G	O4'-C1'-C2'	5.56	113.16	107.60
81	DA	1196	C	O4'-C1'-C2'	-5.56	102.04	107.60
81	DA	2160	G	C1'-C2'-O2'	5.56	116.73	108.40
81	DA	2352	A	C3'-C2'-C1'	5.56	106.86	101.30
81	DA	2609	A	C3'-C2'-C1'	5.56	106.86	101.30
81	DA	2785	A	O4'-C1'-C2'	-5.56	102.04	107.60
81	DA	2876	C	P-O3'-C3'	-5.56	111.86	120.20
44	BO	22	ILE	N-CA-CB	5.56	120.40	111.23
48	BW	77	LYS	CA-C-N	5.56	127.98	120.65
48	BW	77	LYS	C-N-CA	5.56	127.98	120.65
56	Bf	9	SER	CA-C-N	5.56	128.07	120.46
56	Bf	9	SER	C-N-CA	5.56	128.07	120.46
56	Bf	22	LYS	N-CA-C	-5.56	99.46	108.52
78	CA	1400	A	C3'-C2'-C1'	5.56	106.86	101.30
82	DB	11	C	C3'-C2'-C1'	5.56	106.86	101.30
4	AD	96	ASN	CB-CA-C	5.55	121.47	110.42
30	BA	71	ALA	CA-C-O	5.55	126.36	120.36
40	BK	93	ALA	CA-C-N	5.55	127.72	120.28
40	BK	93	ALA	C-N-CA	5.55	127.72	120.28
43	BP	84	PRO	N-CA-C	5.55	123.91	112.47

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
43	BP	186	GLY	N-CA-C	-5.55	101.34	110.56
44	BO	25	HIS	CB-CG-CD2	-5.55	123.98	131.20
78	CA	735	C	O3'-P-O5'	-5.55	95.67	104.00
78	CA	1460	A	P-O5'-C5'	-5.55	112.57	120.90
81	DA	173	G	O4'-C4'-C3'	-5.55	98.44	104.00
81	DA	420	G	O4'-C1'-N9	5.55	116.83	108.50
81	DA	629	U	N1-C1'-C2'	5.55	120.33	112.00
81	DA	1459	C	O4'-C1'-N1	5.55	116.83	108.50
81	DA	1597	C	C3'-C2'-C1'	5.55	106.85	101.30
81	DA	1617	G	O3'-P-O5'	-5.55	95.67	104.00
81	DA	1898	G	O3'-P-O5'	5.55	112.33	104.00
81	DA	3215	A	O4'-C1'-C2'	-5.55	96.29	107.40
29	AU	46	GLU	CA-C-N	5.55	129.73	120.62
29	AU	46	GLU	C-N-CA	5.55	129.73	120.62
37	BH	168	ALA	CA-C-O	5.55	126.42	120.70
49	BV	122	ALA	CB-CA-C	5.55	121.11	110.17
50	BX	115	ARG	CB-CA-C	-5.55	100.45	108.84
78	CA	1226	A	C5'-C4'-C3'	5.55	124.33	116.00
81	DA	1243	G	C1'-O4'-C4'	-5.55	104.35	109.90
41	BN	62	GLN	CG-CD-OE1	-5.55	109.70	120.80
50	BX	35	PRO	N-CA-C	-5.55	101.03	112.47
78	CA	335	U	O4'-C4'-C3'	5.55	109.55	104.00
81	DA	260	C	O4'-C1'-C2'	-5.55	102.05	107.60
81	DA	2051	G	N9-C1'-C2'	5.55	120.33	112.00
81	DA	2108	C	N1-C1'-C2'	5.55	120.33	112.00
81	DA	2931	C	P-O3'-C3'	-5.55	111.87	120.20
5	AC	194	ALA	N-CA-C	5.55	122.62	110.80
8	AF	28	PRO	CB-CA-C	5.55	120.72	111.56
10	AI	137	ARG	CB-CA-C	-5.55	99.38	110.42
55	Bc	26	LYS	CB-CA-C	-5.55	102.17	110.88
81	DA	596	C	P-O5'-C5'	-5.55	112.58	120.90
81	DA	764	U	O4'-C1'-N1	5.55	116.83	108.50
81	DA	1278	A	P-O3'-C3'	5.55	128.52	120.20
81	DA	1570	U	P-O3'-C3'	5.55	128.52	120.20
81	DA	1757	A	C5'-C4'-O4'	5.55	118.12	109.80
83	DC	49	G	C5'-C4'-C3'	-5.55	107.67	116.00
5	AC	150	LEU	N-CA-C	-5.55	98.17	107.99
26	AZ	54	ARG	NE-CZ-NH2	-5.55	114.21	119.20
81	DA	2684	C	C4'-C3'-O3'	-5.55	104.68	113.00
81	DA	2742	C	N1-C1'-C2'	5.55	120.32	112.00
24	AX	37	CYS	N-CA-C	-5.55	101.35	109.50
74	BQ	43	LYS	CB-CA-C	-5.55	100.96	110.22

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
80	CC	12	A	C3'-C2'-C1'	-5.55	95.75	101.30
81	DA	2404	A	O4'-C1'-C2'	-5.55	102.05	107.60
13	AL	67	ALA	CA-C-N	5.54	127.55	120.56
13	AL	67	ALA	C-N-CA	5.54	127.55	120.56
22	AV	48	ASP	N-CA-CB	5.54	118.00	109.91
30	BA	13	VAL	CA-C-N	5.54	127.71	120.28
30	BA	13	VAL	C-N-CA	5.54	127.71	120.28
78	CA	117	U	C5'-C4'-C3'	5.54	124.32	116.00
78	CA	574	G	O3'-P-O5'	-5.54	95.68	104.00
81	DA	759	U	P-O5'-C5'	-5.54	112.58	120.90
81	DA	1882	G	C1'-O4'-C4'	-5.54	104.36	109.90
32	BC	135	ALA	O-C-N	-5.54	116.73	122.94
34	BE	41	SER	N-CA-C	5.54	118.51	111.69
37	BH	226	TYR	CA-CB-CG	-5.54	103.92	113.90
42	BM	83	LYS	CA-C-N	5.54	129.12	120.75
42	BM	83	LYS	C-N-CA	5.54	129.12	120.75
44	BO	82	ILE	N-CA-CB	5.54	113.99	110.50
50	BX	36	LYS	CB-CA-C	-5.54	99.39	110.42
68	Bq	15	ARG	CD-NE-CZ	-5.54	116.64	124.40
81	DA	380	U	N1-C1'-C2'	5.54	120.31	112.00
81	DA	1101	G	N9-C1'-C2'	5.54	120.32	112.00
81	DA	2419	A	P-O5'-C5'	-5.54	112.59	120.90
83	DC	97	C	O4'-C1'-C2'	-5.54	102.06	107.60
3	AB	76	ARG	CA-CB-CG	5.54	125.18	114.10
3	AB	99	VAL	N-CA-CB	5.54	120.37	111.23
16	AO	58	HIS	ND1-CE1-NE2	5.54	113.94	108.40
21	AT	10	GLU	N-CA-C	5.54	117.32	111.28
32	BC	6	TYR	N-CA-C	5.54	119.04	111.39
32	BC	151	ILE	CA-CB-CG1	5.54	119.82	110.40
40	BK	196	ALA	O-C-N	5.54	128.07	122.09
49	BV	77	GLY	N-CA-C	-5.54	100.05	113.18
65	Bn	25	VAL	N-CA-CB	-5.54	102.09	111.23
72	Bt	59	VAL	CB-CA-C	-5.54	103.91	110.84
78	CA	369	A	P-O5'-C5'	5.54	129.21	120.90
78	CA	1015	U	O4'-C1'-N1	-5.54	100.19	108.50
81	DA	1603	A	O5'-P-OP2	5.54	124.63	108.00
81	DA	2633	U	C5'-C4'-C3'	5.54	124.31	116.00
31	BB	253	GLN	N-CA-C	-5.54	99.00	110.80
45	BR	23	ASN	CA-CB-CG	5.54	118.14	112.60
79	CB	26	G	C1'-O4'-C4'	-5.54	104.36	109.90
79	CB	68	C	P-O5'-C5'	5.54	129.21	120.90
81	DA	2212	C	O4'-C1'-C2'	-5.54	102.06	107.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	AY	15	VAL	N-CA-CB	5.54	116.86	110.49
51	BZ	45	ASN	O-C-N	-5.54	115.73	121.60
77	BI	10	ARG	N-CA-C	5.54	117.32	111.28
79	CB	27	G	C4'-C3'-C2'	-5.54	97.06	102.60
81	DA	3146	G	O4'-C1'-C2'	-5.54	102.06	107.60
9	AH	119	LYS	N-CA-CB	5.54	118.35	110.16
14	AM	112	ASP	CA-C-N	5.54	127.64	120.44
14	AM	112	ASP	C-N-CA	5.54	127.64	120.44
74	BQ	135	VAL	CB-CA-C	5.54	120.62	110.71
78	CA	1641	C	N1-C1'-C2'	5.54	120.31	112.00
81	DA	968	G	O3'-P-O5'	-5.54	95.69	104.00
81	DA	1690	C	C5'-C4'-C3'	5.54	124.31	116.00
6	AE	49	LYS	CA-CB-CG	5.54	125.17	114.10
37	BH	138	HIS	ND1-CE1-NE2	5.54	113.94	108.40
48	BW	15	PHE	CA-CB-CG	-5.54	108.26	113.80
59	Bh	42	VAL	CA-C-N	5.54	127.70	120.28
59	Bh	42	VAL	C-N-CA	5.54	127.70	120.28
63	Bm	12	GLY	CA-C-N	5.54	128.01	120.54
63	Bm	12	GLY	C-N-CA	5.54	128.01	120.54
73	Bv	15	ASN	CA-C-O	-5.54	114.79	120.99
78	CA	255	U	O3'-P-O5'	5.54	112.30	104.00
78	CA	1071	U	N1-C1'-C2'	5.54	120.31	112.00
81	DA	1435	A	C5'-C4'-C3'	-5.54	107.70	116.00
83	DC	37	G	O3'-P-O5'	-5.54	95.70	104.00
8	AF	84	LYS	N-CA-C	5.53	118.15	111.40
9	AH	63	VAL	CB-CA-C	5.53	119.27	111.63
29	AU	67	GLY	CA-C-N	5.53	128.70	120.95
29	AU	67	GLY	C-N-CA	5.53	128.70	120.95
33	BD	304	GLN	OE1-CD-NE2	5.53	128.13	122.60
37	BH	103	ALA	CB-CA-C	-5.53	102.16	110.90
52	BY	3	LYS	N-CA-C	-5.53	103.77	111.30
57	Be	207	LEU	N-CA-CB	5.53	118.14	110.17
79	CB	58	U	O4'-C1'-N1	5.53	116.80	108.50
81	DA	1568	U	P-O5'-C5'	5.53	129.20	120.90
81	DA	2159	U	N1-C1'-C2'	-5.53	105.70	114.00
81	DA	2484	A	O3'-P-O5'	5.53	112.30	104.00
81	DA	3111	U	N1-C1'-C2'	-5.53	103.70	112.00
82	DB	3	A	C1'-C2'-O2'	5.53	116.70	108.40
83	DC	26	C	C4'-C3'-C2'	-5.53	97.07	102.60
19	AR	60	LEU	CA-C-N	5.53	132.11	121.54
19	AR	60	LEU	C-N-CA	5.53	132.11	121.54
59	Bh	71	HIS	CB-CA-C	-5.53	99.28	109.46

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	926	A	N9-C1'-C2'	5.53	120.30	112.00
81	DA	1033	U	O4'-C1'-C2'	-5.53	102.07	107.60
10	AI	19	VAL	N-CA-C	-5.53	100.16	108.12
38	Bs	123	ALA	CA-C-N	5.53	131.92	121.97
38	Bs	123	ALA	C-N-CA	5.53	131.92	121.97
43	BP	162	ARG	CD-NE-CZ	-5.53	116.66	124.40
52	BY	51	ARG	NE-CZ-NH1	-5.53	115.97	121.50
74	BQ	227	LEU	N-CA-CB	5.53	118.25	110.12
81	DA	166	C	O4'-C1'-C2'	-5.53	102.07	107.60
81	DA	205	C	O4'-C1'-C2'	-5.53	102.07	107.60
81	DA	1523	U	O4'-C1'-N1	5.53	116.50	108.20
81	DA	1842	A	C1'-O4'-C4'	5.53	115.23	109.70
81	DA	2640	A	C5'-C4'-O4'	5.53	118.10	109.80
52	BY	50	ILE	N-CA-C	-5.53	101.44	109.29
58	Bg	72	ARG	CA-C-O	-5.53	114.75	121.05
81	DA	583	G	O4'-C4'-C3'	-5.53	98.47	104.00
18	AP	85	VAL	CB-CA-C	5.53	117.65	110.96
35	BG	113	LYS	N-CA-C	5.53	116.98	111.07
37	BH	179	ILE	N-CA-C	5.53	114.70	106.85
60	Bi	63	ALA	CA-C-N	5.53	132.10	121.54
60	Bi	63	ALA	C-N-CA	5.53	132.10	121.54
78	CA	399	A	O4'-C1'-N9	5.53	116.49	108.20
81	DA	103	G	C1'-O4'-C4'	5.53	115.43	109.90
17	AQ	8	THR	CA-C-N	5.53	127.63	120.56
17	AQ	8	THR	C-N-CA	5.53	127.63	120.56
53	Ba	9	LYS	O-C-N	-5.53	114.36	122.81
74	BQ	71	GLY	CA-C-O	-5.53	117.10	120.91
78	CA	1506	G	O4'-C1'-N9	5.53	116.79	108.50
83	DC	59	G	C3'-C2'-C1'	-5.53	95.77	101.30
1	Aa	51	ASP	N-CA-CB	5.52	119.83	110.49
2	AA	6	THR	CA-CB-OG1	5.52	117.89	109.60
25	AY	33	LEU	N-CA-CB	5.52	118.24	110.12
38	Bs	197	PHE	CA-CB-CG	-5.52	108.28	113.80
64	Bl	50	GLY	CA-C-N	5.52	130.90	121.29
64	Bl	50	GLY	C-N-CA	5.52	130.90	121.29
65	Bn	38	PHE	N-CA-CB	-5.52	101.90	110.57
81	DA	2211	U	P-O3'-C3'	5.52	128.49	120.20
81	DA	3197	G	O3'-P-O5'	5.52	112.29	104.00
2	AA	52	LYS	CA-C-O	-5.52	114.56	120.42
44	BO	40	HIS	ND1-CE1-NE2	5.52	113.92	108.40
58	Bg	75	ILE	CB-CA-C	5.52	117.88	110.42
64	Bl	57	HIS	CA-CB-CG	-5.52	108.28	113.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	430	G	O3'-P-O5'	-5.52	95.72	104.00
78	CA	1380	U	C4'-C3'-O3'	5.52	121.28	113.00
81	DA	366	A	C1'-O4'-C4'	-5.52	104.38	109.90
81	DA	2061	G	O4'-C4'-C3'	-5.52	98.48	104.00
81	DA	2189	U	O4'-C1'-C2'	-5.52	102.08	107.60
83	DC	30	G	C4'-C3'-C2'	-5.52	97.08	102.60
55	Bc	96	GLU	CA-C-N	-5.52	112.22	122.60
55	Bc	96	GLU	C-N-CA	-5.52	112.22	122.60
20	AS	92	LYS	N-CA-C	-5.52	99.04	110.80
33	BD	140	HIS	CE1-NE2-CD2	-5.52	103.48	109.00
34	BE	112	LEU	N-CA-C	-5.52	101.47	109.59
40	BK	194	LEU	CA-C-N	5.52	127.68	120.28
40	BK	194	LEU	C-N-CA	5.52	127.68	120.28
56	Bf	34	LEU	N-CA-CB	5.52	118.33	110.16
59	Bh	79	VAL	CA-C-O	5.52	126.69	120.95
78	CA	39	A	N9-C1'-C2'	5.52	120.28	112.00
78	CA	1246	C	P-O3'-C3'	5.52	128.48	120.20
81	DA	825	U	O4'-C1'-N1	5.52	116.78	108.50
81	DA	1479	U	N1-C1'-C2'	5.52	120.28	112.00
81	DA	1732	U	O4'-C1'-C2'	-5.52	102.08	107.60
81	DA	1805	C	C3'-C2'-C1'	5.52	106.82	101.30
81	DA	2423	U	C4'-C3'-C2'	-5.52	97.08	102.60
81	DA	3216	G	O4'-C1'-C2'	5.52	111.32	105.80
30	BA	152	ARG	N-CA-C	-5.52	101.48	110.20
32	BC	171	LEU	CA-C-N	5.52	127.67	120.28
32	BC	171	LEU	C-N-CA	5.52	127.67	120.28
38	Bs	189	GLN	CB-CG-CD	-5.52	103.22	112.60
41	BN	114	ASP	N-CA-C	-5.52	100.34	107.73
43	BP	16	SER	N-CA-CB	-5.52	101.78	110.77
48	BW	84	LEU	CB-CA-C	-5.52	100.42	110.63
51	BZ	57	LYS	N-CA-C	-5.52	104.26	108.78
53	Ba	21	LYS	CB-CA-C	-5.52	99.62	110.10
61	Bj	90	PRO	O-C-N	-5.52	115.19	122.64
78	CA	312	A	C2'-C3'-O3'	5.52	117.78	109.50
78	CA	626	U	O4'-C1'-N1	5.52	116.78	108.50
78	CA	869	A	O4'-C4'-C3'	5.52	109.52	104.00
78	CA	944	A	C1'-C2'-O2'	5.52	120.08	111.80
78	CA	1533	C	C2'-C3'-O3'	5.52	117.78	109.50
81	DA	1410	U	P-O3'-C3'	-5.52	111.92	120.20
81	DA	1543	G	O4'-C1'-C2'	-5.52	102.08	107.60
81	DA	2947	G	O3'-P-O5'	5.52	112.28	104.00
81	DA	3097	C	P-O3'-C3'	5.52	128.48	120.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3215	A	P-O3'-C3'	5.52	128.48	120.20
81	DA	3281	U	P-O3'-C3'	5.52	128.47	120.20
82	DB	139	U	O4'-C1'-C2'	-5.52	102.08	107.60
83	DC	110	C	O4'-C1'-C2'	-5.52	102.08	107.60
81	DA	1328	C	N1-C1'-C2'	5.52	120.27	112.00
82	DB	88	A	N9-C1'-C2'	-5.52	103.73	112.00
8	AF	35	GLN	N-CA-C	5.51	118.35	107.98
8	AF	217	LEU	CA-C-N	5.51	128.69	120.31
8	AF	217	LEU	C-N-CA	5.51	128.69	120.31
32	BC	18	PRO	CB-CA-C	5.51	118.45	111.39
35	BG	57	HIS	N-CA-CB	5.51	119.41	110.42
62	Bk	36	ARG	CA-C-N	5.51	127.67	120.28
62	Bk	36	ARG	C-N-CA	5.51	127.67	120.28
74	BQ	81	HIS	CA-CB-CG	-5.51	108.29	113.80
81	DA	706	A	P-O5'-C5'	-5.51	112.63	120.90
81	DA	1287	A	O3'-P-O5'	-5.51	95.73	104.00
81	DA	1679	A	C2'-C3'-O3'	-5.51	105.43	113.70
81	DA	2438	A	O4'-C1'-C2'	-5.51	102.08	107.60
30	BA	12	HIS	CE1-NE2-CD2	-5.51	103.49	109.00
78	CA	288	A	C2'-C3'-O3'	-5.51	105.43	113.70
78	CA	1156	C	O4'-C1'-C2'	-5.51	102.09	107.60
79	CB	25	U	C4'-C3'-C2'	-5.51	97.09	102.60
82	DB	95	G	C3'-C2'-C1'	5.51	106.81	101.30
2	AA	120	LEU	N-CA-CB	5.51	120.27	111.56
4	AD	159	THR	CA-CB-OG1	5.51	117.87	109.60
32	BC	112	ASP	CA-C-N	5.51	127.67	120.28
32	BC	112	ASP	C-N-CA	5.51	127.67	120.28
34	BE	52	TYR	CD1-CG-CD2	-5.51	109.83	118.10
37	BH	213	LYS	CA-C-N	5.51	128.69	120.31
37	BH	213	LYS	C-N-CA	5.51	128.69	120.31
57	Be	194	HIS	ND1-CE1-NE2	5.51	113.91	108.40
74	BQ	12	TYR	CB-CG-CD1	5.51	129.07	120.80
78	CA	223	U	N1-C1'-C2'	-5.51	103.73	112.00
78	CA	1347	U	O4'-C1'-N1	5.51	116.77	108.50
78	CA	1569	A	C1'-O4'-C4'	-5.51	104.39	109.90
78	CA	1612	U	P-O5'-C5'	-5.51	112.63	120.90
78	CA	1688	U	O4'-C1'-N1	5.51	116.77	108.50
81	DA	1144	U	N1-C1'-C2'	5.51	120.27	112.00
81	DA	1292	C	C3'-C2'-C1'	5.51	106.81	101.30
81	DA	1343	A	O4'-C1'-N9	5.51	116.77	108.50
81	DA	2264	U	C5'-C4'-C3'	5.51	124.27	116.00
81	DA	3367	C	O4'-C1'-C2'	-5.51	102.09	107.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
49	BV	167	ARG	CA-C-N	5.51	132.06	121.54
49	BV	167	ARG	C-N-CA	5.51	132.06	121.54
57	Be	236	ILE	N-CA-CB	5.51	118.84	110.58
60	Bi	110	GLU	O-C-N	5.51	125.60	121.47
78	CA	367	A	C5'-C4'-C3'	5.51	124.27	116.00
78	CA	438	A	N9-C1'-C2'	5.51	122.27	114.00
78	CA	1437	U	C3'-C2'-O2'	5.51	118.97	110.70
81	DA	210	U	C4'-C3'-O3'	5.51	117.67	109.40
81	DA	951	A	O4'-C1'-C2'	-5.51	102.09	107.60
81	DA	1391	C	C1'-O4'-C4'	5.51	115.21	109.70
81	DA	2276	G	N9-C1'-C2'	5.51	120.26	112.00
81	DA	2631	U	C2'-C3'-O3'	5.51	121.97	113.70
81	DA	2966	G	C1'-O4'-C4'	-5.51	104.39	109.90
8	AF	134	VAL	O-C-N	5.51	127.21	121.87
61	Bj	12	LYS	N-CA-C	-5.51	100.91	109.72
76	BS	140	ASN	CB-CA-C	-5.51	102.20	110.90
78	CA	264	G	P-O5'-C5'	-5.51	111.74	120.00
78	CA	508	U	P-O3'-C3'	5.51	128.46	120.20
81	DA	203	G	N9-C1'-C2'	5.51	120.26	112.00
81	DA	2172	A	O4'-C4'-C3'	-5.51	98.49	104.00
20	AS	33	TYR	CB-CA-C	-5.51	101.65	110.79
37	BH	97	TYR	N-CA-C	5.51	117.70	108.73
42	BM	89	ASP	CA-C-O	-5.51	113.88	120.10
43	BP	121	VAL	O-C-N	-5.51	114.52	122.12
48	BW	15	PHE	N-CA-CB	5.51	119.20	110.55
69	Br	80	ARG	CB-CG-CD	5.51	123.97	111.30
78	CA	169	A	O5'-C5'-C4'	5.51	119.76	111.50
78	CA	386	G	C1'-O4'-C4'	-5.51	104.39	109.90
78	CA	835	U	P-O5'-C5'	5.51	129.16	120.90
78	CA	1417	A	N9-C1'-C2'	5.51	120.26	112.00
81	DA	195	U	N1-C1'-C2'	5.51	120.26	112.00
81	DA	724	U	C3'-C2'-C1'	5.51	106.81	101.30
81	DA	894	G	N9-C1'-C2'	-5.51	105.74	114.00
81	DA	1732	U	O4'-C1'-N1	5.51	116.76	108.50
81	DA	1837	U	N1-C1'-C2'	5.51	120.26	112.00
81	DA	1966	U	C2'-C3'-O3'	5.51	121.96	113.70
31	BB	83	HIS	CB-CA-C	-5.50	98.61	110.45
78	CA	179	A	P-O3'-C3'	5.50	128.46	120.20
78	CA	1371	A	N9-C1'-C2'	5.50	120.26	112.00
78	CA	1411	A	C5'-C4'-O4'	-5.50	101.54	109.80
78	CA	1528	U	O4'-C1'-C2'	-5.50	102.09	107.60
81	DA	376	G	N9-C1'-C2'	-5.50	105.74	114.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	812	G	C5'-C4'-C3'	5.50	124.26	116.00
81	DA	1885	U	C2'-C3'-O3'	5.50	117.76	109.50
2	AA	83	GLN	N-CA-CB	5.50	117.94	109.91
21	AT	60	ARG	CA-C-N	5.50	128.10	120.29
21	AT	60	ARG	C-N-CA	5.50	128.10	120.29
43	BP	173	GLY	N-CA-C	-5.50	107.41	115.72
78	CA	177	U	C2'-C3'-O3'	5.50	117.76	109.50
78	CA	926	A	O4'-C1'-N9	5.50	116.75	108.50
78	CA	1665	U	O3'-P-O5'	-5.50	95.74	104.00
81	DA	598	A	O4'-C1'-N9	5.50	116.75	108.50
81	DA	754	G	C4'-C3'-O3'	-5.50	104.75	113.00
81	DA	2048	G	O4'-C1'-C2'	-5.50	102.10	107.60
81	DA	2249	G	C4'-C3'-C2'	-5.50	97.10	102.60
81	DA	2987	A	C3'-C2'-C1'	5.50	106.80	101.30
82	DB	11	C	C4'-C3'-C2'	-5.50	97.10	102.60
2	AA	248	ASP	N-CA-C	5.50	117.36	111.36
33	BD	130	ALA	CA-C-N	-5.50	115.49	122.37
33	BD	130	ALA	C-N-CA	-5.50	115.49	122.37
78	CA	162	A	C3'-C2'-C1'	5.50	106.80	101.30
78	CA	573	C	C3'-C2'-C1'	5.50	106.80	101.30
81	DA	294	U	N1-C1'-C2'	5.50	120.25	112.00
81	DA	497	C	N1-C1'-C2'	5.50	120.25	112.00
81	DA	1175	C	P-O3'-C3'	5.50	128.45	120.20
81	DA	1338	C	C3'-C2'-O2'	5.50	118.95	110.70
32	BC	18	PRO	CA-C-O	5.50	127.59	121.43
47	BU	139	ARG	CA-C-O	5.50	128.38	120.51
78	CA	1136	U	O4'-C1'-C2'	-5.50	102.10	107.60
2	AA	219	THR	CA-C-N	5.50	127.65	120.28
2	AA	219	THR	C-N-CA	5.50	127.65	120.28
8	AF	136	ALA	CA-C-N	5.50	128.23	120.42
8	AF	136	ALA	C-N-CA	5.50	128.23	120.42
8	AF	220	VAL	N-CA-CB	5.50	118.83	110.58
24	AX	69	GLY	N-CA-C	-5.50	105.50	112.65
31	BB	93	LYS	N-CA-C	-5.50	105.88	112.59
33	BD	222	VAL	CB-CA-C	5.50	116.27	110.88
59	Bh	38	ILE	CA-C-N	5.50	128.41	120.38
59	Bh	38	ILE	C-N-CA	5.50	128.41	120.38
76	BS	131	VAL	CB-CA-C	5.50	119.15	111.40
78	CA	37	U	N1-C1'-C2'	-5.50	103.75	112.00
78	CA	1628	U	N1-C1'-C2'	5.50	120.25	112.00
81	DA	362	U	O4'-C1'-N1	5.50	116.75	108.50
81	DA	3092	C	C1'-O4'-C4'	5.50	115.40	109.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
82	DB	155	A	O4'-C1'-C2'	-5.50	102.10	107.60
1	Aa	248	ASN	OD1-CG-ND2	-5.50	117.10	122.60
2	AA	27	ARG	CA-C-N	5.50	132.04	121.54
2	AA	27	ARG	C-N-CA	5.50	132.04	121.54
33	BD	104	LYS	N-CA-C	-5.50	99.09	110.80
39	BJ	88	PRO	N-CA-C	5.50	117.41	110.70
53	Ba	97	SER	CA-C-N	-5.50	117.10	123.04
53	Ba	97	SER	C-N-CA	-5.50	117.10	123.04
76	BS	84	GLN	O-C-N	-5.50	117.06	123.27
78	CA	31	C	O4'-C1'-C2'	-5.50	102.10	107.60
78	CA	50	C	C5'-C4'-C3'	-5.50	107.75	116.00
78	CA	649	U	O4'-C1'-N1	5.50	116.75	108.50
78	CA	1783	C	P-O5'-C5'	-5.50	112.65	120.90
81	DA	1290	A	O4'-C4'-C3'	-5.50	98.50	104.00
81	DA	1396	C	N1-C1'-C2'	5.50	120.24	112.00
81	DA	2153	U	C4'-C3'-C2'	-5.50	97.10	102.60
81	DA	2922	G	C1'-O4'-C4'	-5.50	104.40	109.90
81	DA	3302	U	N1-C1'-C2'	5.50	120.24	112.00
1	Aa	258	THR	CA-CB-CG2	5.50	119.84	110.50
1	Aa	316	MET	O-C-N	5.50	129.43	122.84
62	Bk	76	ARG	NE-CZ-NH1	5.50	127.00	121.50
78	CA	989	U	C1'-C2'-O2'	5.50	116.64	108.40
78	CA	1754	A	O4'-C1'-C2'	5.50	113.09	107.60
81	DA	2710	C	N1-C1'-C2'	5.50	120.24	112.00
83	DC	72	C	C5'-C4'-O4'	-5.50	101.56	109.80
10	AI	70	THR	N-CA-C	-5.49	99.10	110.80
16	AO	32	SER	N-CA-C	-5.49	105.19	111.07
44	BO	62	HIS	CB-CA-C	5.49	121.77	110.40
67	Bp	17	LYS	CA-C-N	5.49	130.30	122.72
67	Bp	17	LYS	C-N-CA	5.49	130.30	122.72
78	CA	1240	U	P-O5'-C5'	5.49	129.14	120.90
81	DA	890	C	N1-C1'-C2'	5.49	120.24	112.00
81	DA	1089	G	O4'-C1'-C2'	5.49	113.09	107.60
81	DA	1115	G	C1'-O4'-C4'	5.49	115.39	109.90
81	DA	3052	G	C1'-O4'-C4'	-5.49	104.41	109.90
1	Aa	94	VAL	N-CA-CB	5.49	120.29	111.23
78	CA	312	A	C1'-C2'-O2'	-5.49	103.56	111.80
78	CA	429	G	O4'-C1'-N9	5.49	116.74	108.50
78	CA	1298	U	C3'-C2'-C1'	5.49	106.79	101.30
81	DA	2471	U	C4'-C3'-C2'	-5.49	97.11	102.60
81	DA	2580	A	P-O5'-C5'	5.49	129.14	120.90
81	DA	2734	A	C4'-C3'-C2'	-5.49	97.11	102.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
17	AQ	65	PRO	CA-C-N	5.49	129.78	121.65
17	AQ	65	PRO	C-N-CA	5.49	129.78	121.65
32	BC	364	LYS	CG-CD-CE	5.49	123.93	111.30
32	BC	377	HIS	CE1-NE2-CD2	-5.49	103.51	109.00
53	Ba	30	ASP	CA-C-N	5.49	132.03	121.54
53	Ba	30	ASP	C-N-CA	5.49	132.03	121.54
74	BQ	93	THR	CB-CA-C	5.49	121.47	109.99
81	DA	821	U	O4'-C1'-N1	5.49	116.73	108.50
81	DA	975	C	O4'-C1'-C2'	-5.49	102.11	107.60
81	DA	1088	U	O4'-C1'-N1	5.49	116.74	108.50
81	DA	1640	G	C3'-C2'-O2'	5.49	118.93	110.70
81	DA	1704	A	P-O5'-C5'	5.49	129.14	120.90
81	DA	1792	C	O4'-C4'-C3'	5.49	109.49	104.00
81	DA	2236	G	O4'-C1'-C2'	5.49	113.09	107.60
81	DA	2576	G	P-O3'-C3'	-5.49	111.96	120.20
81	DA	2931	C	O3'-P-O5'	-5.49	95.76	104.00
33	BD	135	VAL	CA-C-N	5.49	128.08	120.29
33	BD	135	VAL	C-N-CA	5.49	128.08	120.29
33	BD	340	GLY	CA-C-N	5.49	127.57	120.44
33	BD	340	GLY	C-N-CA	5.49	127.57	120.44
78	CA	435	C	C3'-C2'-C1'	5.49	106.79	101.30
78	CA	519	C	P-O3'-C3'	5.49	128.43	120.20
78	CA	629	U	O4'-C1'-N1	5.49	116.43	108.20
78	CA	1506	G	C4'-C3'-O3'	-5.49	104.77	113.00
78	CA	1747	G	O5'-C5'-C4'	-5.49	103.27	111.50
79	CB	47	U	O4'-C1'-N1	5.49	116.43	108.20
81	DA	49	A	C1'-O4'-C4'	5.49	115.19	109.70
81	DA	337	G	C1'-O4'-C4'	5.49	115.19	109.70
81	DA	540	U	P-O5'-C5'	5.49	129.13	120.90
81	DA	2700	G	C4'-C3'-C2'	-5.49	97.11	102.60
81	DA	3041	U	N1-C1'-C2'	5.49	120.23	112.00
81	DA	3242	G	O4'-C4'-C3'	-5.49	98.51	104.00
8	AF	192	GLU	CB-CA-C	-5.49	101.52	110.85
43	BP	23	GLN	N-CA-C	5.49	117.26	111.28
81	DA	1439	U	O4'-C1'-N1	5.49	116.73	108.50
81	DA	3337	G	C3'-C2'-C1'	-5.49	95.81	101.30
8	AF	28	PRO	O-C-N	5.49	130.05	122.64
18	AP	57	LYS	CA-C-N	5.49	131.57	121.70
18	AP	57	LYS	C-N-CA	5.49	131.57	121.70
40	BK	128	ARG	N-CA-CB	5.49	122.62	111.21
42	BM	60	ALA	N-CA-C	-5.49	100.79	108.96
56	Bf	70	PHE	O-C-N	5.49	127.72	122.07

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
73	Bw	17	PRO	CA-N-CD	-5.49	104.32	112.00
78	CA	320	U	C3'-C2'-C1'	5.49	106.78	101.30
78	CA	1288	G	N9-C1'-C2'	5.49	120.23	112.00
78	CA	1770	U	N1-C1'-C2'	-5.49	103.77	112.00
80	CC	13	A	P-O3'-C3'	5.49	128.43	120.20
81	DA	1130	A	O4'-C1'-C2'	-5.49	102.11	107.60
81	DA	2307	G	N9-C1'-C2'	-5.49	105.77	114.00
81	DA	2363	A	C4'-C3'-C2'	-5.49	97.11	102.60
81	DA	2622	C	N1-C1'-C2'	5.49	120.23	112.00
81	DA	2673	A	P-O3'-C3'	5.49	128.43	120.20
81	DA	2846	U	N1-C1'-C2'	5.49	120.23	112.00
1	Aa	195	HIS	CE1-NE2-CD2	-5.48	103.52	109.00
32	BC	141	GLY	CA-C-N	5.48	127.63	120.28
32	BC	141	GLY	C-N-CA	5.48	127.63	120.28
51	BZ	34	SER	CA-C-N	5.48	127.63	120.28
51	BZ	34	SER	C-N-CA	5.48	127.63	120.28
66	Bo	27	ILE	CA-C-O	-5.48	114.55	120.47
10	AI	93	HIS	ND1-CE1-NE2	5.48	113.88	108.40
34	BE	89	TYR	CA-CB-CG	-5.48	104.03	113.90
39	BJ	103	ASN	N-CA-C	-5.48	99.58	108.52
41	BN	62	GLN	N-CA-C	5.48	118.56	108.58
46	BT	187	GLU	N-CA-CB	-5.48	102.06	110.12
78	CA	93	A	C1'-O4'-C4'	-5.48	104.22	109.70
78	CA	158	U	C5'-C4'-C3'	5.48	124.22	116.00
78	CA	842	C	O4'-C1'-C2'	-5.48	102.12	107.60
78	CA	852	C	P-O5'-C5'	-5.48	112.68	120.90
78	CA	1668	G	N9-C1'-C2'	5.48	120.22	112.00
81	DA	180	C	C3'-C2'-C1'	5.48	106.78	101.30
81	DA	261	U	O4'-C1'-C2'	5.48	113.08	107.60
81	DA	515	C	C5'-C4'-C3'	-5.48	107.78	116.00
81	DA	2727	A	O4'-C1'-C2'	5.48	111.28	105.80
81	DA	2873	U	P-O3'-C3'	-5.48	111.97	120.20
81	DA	3018	C	C5'-C4'-C3'	5.48	124.22	116.00
6	AE	87	GLN	N-CA-CB	5.48	118.27	110.16
12	AK	107	ARG	NH1-CZ-NH2	5.48	126.42	119.30
45	BR	13	SER	O-C-N	-5.48	117.34	123.04
78	CA	638	U	C5'-C4'-C3'	5.48	124.22	116.00
78	CA	685	A	C1'-O4'-C4'	-5.48	104.42	109.90
78	CA	1357	A	O4'-C1'-N9	5.48	116.72	108.50
81	DA	386	A	P-O3'-C3'	5.48	128.42	120.20
81	DA	1836	C	N1-C1'-C2'	5.48	120.22	112.00
81	DA	3385	U	C4'-C3'-C2'	-5.48	97.12	102.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Aa	66	HIS	ND1-CE1-NE2	5.48	113.88	108.40
56	Bf	57	GLU	CB-CA-C	-5.48	101.54	110.85
81	DA	1586	G	N9-C1'-C2'	5.48	120.22	112.00
81	DA	1885	U	C5'-C4'-C3'	5.48	123.42	115.20
81	DA	2641	U	C5'-C4'-C3'	-5.48	107.78	116.00
81	DA	3369	G	O4'-C1'-C2'	-5.48	102.12	107.60
1	Aa	92	TRP	CB-CG-CD2	-5.48	119.13	126.80
1	Aa	121	MET	CG-SD-CE	-5.48	88.85	100.90
2	AA	162	CYS	CA-C-N	5.48	128.88	121.05
2	AA	162	CYS	C-N-CA	5.48	128.88	121.05
14	AM	133	VAL	N-CA-C	5.48	115.68	110.53
33	BD	255	PHE	CA-CB-CG	5.48	119.28	113.80
36	BF	8	GLN	CA-C-O	-5.48	114.36	120.66
40	BK	50	ASN	CA-C-N	5.48	128.07	120.29
40	BK	50	ASN	C-N-CA	5.48	128.07	120.29
45	BR	42	ALA	CA-C-N	5.48	125.00	119.19
45	BR	42	ALA	C-N-CA	5.48	125.00	119.19
51	BZ	35	LYS	CA-C-N	5.48	128.07	120.29
51	BZ	35	LYS	C-N-CA	5.48	128.07	120.29
78	CA	234	G	C5'-C4'-O4'	-5.48	101.58	109.80
78	CA	368	U	C5'-C4'-C3'	5.48	124.22	116.00
81	DA	621	A	C5'-C4'-C3'	5.48	123.11	114.90
81	DA	1155	C	O4'-C1'-C2'	-5.48	102.12	107.60
81	DA	1715	A	O4'-C1'-N9	5.48	116.42	108.20
81	DA	1833	G	O4'-C4'-C3'	-5.48	98.52	104.00
81	DA	2045	G	P-O3'-C3'	5.48	128.41	120.20
81	DA	2661	G	C4'-C3'-C2'	-5.48	97.12	102.60
82	DB	152	G	C4'-C3'-C2'	-5.48	97.12	102.60
38	Bs	58	MET	CG-SD-CE	-5.48	88.85	100.90
78	CA	1207	C	O4'-C1'-C2'	-5.48	100.32	105.80
78	CA	1593	A	O4'-C1'-C2'	-5.48	102.12	107.60
81	DA	2142	A	C1'-O4'-C4'	5.48	115.18	109.70
81	DA	3314	A	P-O5'-C5'	-5.48	112.69	120.90
6	AE	174	ARG	N-CA-C	-5.47	103.87	110.44
11	AJ	63	LEU	O-C-N	-5.47	116.92	123.27
12	AK	20	TYR	CA-C-N	5.47	129.02	120.75
12	AK	20	TYR	C-N-CA	5.47	129.02	120.75
30	BA	138	VAL	N-CA-CB	5.47	119.10	111.05
47	BU	24	ALA	N-CA-CB	5.47	118.10	109.83
78	CA	195	G	C3'-C2'-C1'	5.47	106.77	101.30
78	CA	878	G	O4'-C1'-C2'	-5.47	102.12	107.60
79	CB	22	G	C1'-O4'-C4'	-5.47	104.43	109.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1001	G	O4'-C1'-N9	5.47	116.71	108.50
81	DA	1215	U	O4'-C1'-N1	5.47	116.71	108.50
81	DA	2340	U	O4'-C1'-N1	5.47	116.71	108.50
13	AL	137	LYS	N-CA-C	5.47	117.25	111.28
60	Bi	95	ILE	N-CA-C	5.47	116.25	110.72
61	Bj	9	VAL	N-CA-C	-5.47	97.96	109.34
61	Bj	82	ARG	CA-C-N	5.47	130.85	121.87
61	Bj	82	ARG	C-N-CA	5.47	130.85	121.87
61	Bj	90	PRO	N-CA-CB	-5.47	97.50	103.25
63	Bm	63	THR	N-CA-C	-5.47	101.25	109.95
78	CA	253	A	C5'-C4'-O4'	5.47	118.01	109.80
78	CA	1105	C	O4'-C1'-C2'	-5.47	102.13	107.60
81	DA	204	A	O4'-C1'-N9	5.47	116.71	108.50
81	DA	344	A	P-O3'-C3'	-5.47	111.99	120.20
81	DA	1697	A	C3'-C2'-C1'	5.47	106.77	101.30
81	DA	2369	G	C4'-C3'-C2'	-5.47	97.13	102.60
81	DA	2843	U	N1-C1'-C2'	5.47	120.21	112.00
81	DA	2924	U	N1-C1'-C2'	5.47	120.21	112.00
82	DB	111	A	O4'-C1'-N9	5.47	116.71	108.50
82	DB	131	A	O3'-P-O5'	-5.47	95.79	104.00
38	Bs	101	VAL	CG1-CB-CG2	5.47	122.83	110.80
52	BY	13	ARG	CA-C-N	5.47	128.06	120.29
52	BY	13	ARG	C-N-CA	5.47	128.06	120.29
60	Bi	41	ARG	NE-CZ-NH1	5.47	126.97	121.50
81	DA	798	G	C3'-C2'-C1'	-5.47	95.83	101.30
81	DA	1534	A	C2'-C3'-O3'	5.47	121.91	113.70
81	DA	3235	C	C3'-C2'-C1'	5.47	106.77	101.30
1	Aa	19	TRP	N-CA-CB	-5.47	101.32	109.69
5	AC	172	VAL	CG1-CB-CG2	5.47	122.83	110.80
25	AY	16	LEU	N-CA-CB	-5.47	101.80	110.28
45	BR	57	ILE	N-CA-C	5.47	117.93	111.09
57	Be	198	ALA	N-CA-CB	5.47	118.76	110.28
81	DA	578	A	C3'-C2'-C1'	5.47	106.77	101.30
81	DA	1015	U	C1'-O4'-C4'	5.47	115.37	109.90
81	DA	1057	A	N9-C1'-C2'	-5.47	103.80	112.00
81	DA	1775	G	O4'-C1'-N9	5.47	116.70	108.50
6	AE	84	LYS	N-CA-CB	5.47	120.10	110.37
11	AJ	38	SER	CA-C-N	5.47	127.61	120.28
11	AJ	38	SER	C-N-CA	5.47	127.61	120.28
76	BS	162	THR	CA-C-O	5.47	126.53	120.63
78	CA	360	A	C5'-C4'-C3'	5.47	123.10	114.90
81	DA	1475	A	O3'-P-O5'	5.47	112.20	104.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1823	A	C4'-C3'-C2'	-5.47	97.13	102.60
20	AS	93	HIS	ND1-CE1-NE2	5.47	113.87	108.40
37	BH	119	GLY	N-CA-C	5.47	126.14	113.18
57	Be	16	SER	CA-C-N	5.47	128.62	120.31
57	Be	16	SER	C-N-CA	5.47	128.62	120.31
57	Be	201	PHE	CA-CB-CG	-5.47	108.33	113.80
59	Bh	24	ARG	CB-CG-CD	5.47	123.88	111.30
64	Bl	36	SER	N-CA-C	-5.47	99.16	110.80
78	CA	457	G	O4'-C1'-C2'	5.47	113.07	107.60
81	DA	1620	U	C1'-O4'-C4'	-5.47	104.43	109.90
2	AA	213	GLN	CA-C-N	5.46	128.18	120.42
2	AA	213	GLN	C-N-CA	5.46	128.18	120.42
2	AA	217	GLU	CA-C-N	5.46	127.60	120.28
2	AA	217	GLU	C-N-CA	5.46	127.60	120.28
11	AJ	15	GLN	N-CA-C	-5.46	95.70	111.00
52	BY	100	HIS	N-CA-C	-5.46	103.15	109.93
65	Bn	24	THR	N-CA-C	-5.46	100.27	109.07
74	BQ	281	GLU	N-CA-CB	5.46	118.15	110.12
76	BS	140	ASN	OD1-CG-ND2	5.46	128.06	122.60
81	DA	548	G	C1'-O4'-C4'	-5.46	104.44	109.90
81	DA	704	U	P-O5'-C5'	5.46	129.10	120.90
81	DA	1198	C	C2'-C3'-O3'	5.46	117.70	109.50
9	AH	50	PHE	N-CA-CB	5.46	119.72	110.49
41	BN	120	VAL	CB-CA-C	5.46	119.51	112.14
44	BO	97	GLU	N-CA-CB	5.46	119.72	110.49
81	DA	646	A	C5'-C4'-C3'	5.46	124.19	116.00
81	DA	1293	U	O4'-C4'-C3'	-5.46	98.54	104.00
4	AD	82	TYR	CA-C-O	-5.46	114.49	120.17
5	AC	44	ARG	N-CA-C	-5.46	105.41	111.36
10	AI	49	TYR	N-CA-CB	5.46	118.00	109.97
18	AP	104	HIS	CE1-NE2-CD2	-5.46	103.54	109.00
32	BC	96	PRO	CA-C-N	5.46	131.97	121.54
32	BC	96	PRO	C-N-CA	5.46	131.97	121.54
32	BC	131	THR	N-CA-C	-5.46	101.36	109.94
35	BG	149	ILE	CB-CA-C	5.46	119.15	111.94
38	Bs	187	VAL	CB-CA-C	5.46	117.57	110.96
51	BZ	4	GLU	N-CA-C	-5.46	101.42	109.18
65	Bn	8	ILE	CA-C-O	-5.46	115.06	120.85
74	BQ	168	ASP	CA-CB-CG	-5.46	107.14	112.60
78	CA	1425	A	P-O3'-C3'	5.46	128.39	120.20
78	CA	1728	A	P-O3'-C3'	5.46	128.39	120.20
81	DA	851	C	N1-C1'-C2'	5.46	120.19	112.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2091	U	P-O3'-C3'	-5.46	112.01	120.20
81	DA	3068	U	N1-C1'-C2'	5.46	120.19	112.00
81	DA	3135	U	P-O3'-C3'	5.46	128.39	120.20
10	AI	64	ASP	CA-C-N	5.46	127.94	120.46
10	AI	64	ASP	C-N-CA	5.46	127.94	120.46
10	AI	93	HIS	CG-CD2-NE2	5.46	112.66	107.20
35	BG	27	PRO	N-CA-CB	-5.46	97.52	103.25
40	BK	57	PHE	N-CA-CB	5.46	118.24	110.16
74	BQ	262	LYS	N-CA-C	-5.46	101.90	110.36
78	CA	477	A	N9-C1'-C2'	5.46	120.19	112.00
78	CA	1055	U	P-O3'-C3'	5.46	128.39	120.20
78	CA	1167	G	O4'-C1'-N9	5.46	116.69	108.50
81	DA	1866	C	P-O3'-C3'	-5.46	112.01	120.20
81	DA	2138	A	N9-C1'-C2'	-5.46	105.81	114.00
32	BC	310	GLY	O-C-N	5.46	129.22	122.78
53	Ba	87	LEU	CA-C-N	5.46	127.54	120.44
53	Ba	87	LEU	C-N-CA	5.46	127.54	120.44
64	Bl	44	THR	N-CA-C	-5.46	102.81	110.50
74	BQ	172	TYR	CA-C-O	-5.46	114.46	120.36
78	CA	97	C	N1-C1'-C2'	5.46	120.19	112.00
78	CA	1746	A	C4'-C3'-C2'	5.46	108.06	102.60
81	DA	338	A	O3'-P-O5'	-5.46	95.81	104.00
81	DA	499	G	N9-C1'-C2'	5.46	120.19	112.00
81	DA	832	G	O4'-C1'-N9	5.46	116.69	108.50
81	DA	1917	C	N1-C1'-C2'	5.46	120.19	112.00
81	DA	2339	C	O4'-C1'-N1	5.46	116.39	108.20
81	DA	2467	G	C5'-C4'-C3'	5.46	124.19	116.00
81	DA	2789	U	O4'-C1'-N1	5.46	116.69	108.50
20	AS	89	ARG	N-CA-C	5.46	121.87	109.81
29	AU	53	ASP	CA-C-N	5.46	131.96	121.54
29	AU	53	ASP	C-N-CA	5.46	131.96	121.54
39	BJ	60	VAL	N-CA-C	-5.46	100.45	108.85
54	Bd	58	LYS	N-CA-C	-5.46	105.33	111.28
55	Bc	69	LEU	CA-C-N	5.46	130.69	121.14
55	Bc	69	LEU	C-N-CA	5.46	130.69	121.14
58	Bg	2	ALA	CA-C-N	5.46	132.10	121.41
58	Bg	2	ALA	C-N-CA	5.46	132.10	121.41
81	DA	186	U	N1-C1'-C2'	-5.46	103.81	112.00
81	DA	2000	U	O4'-C1'-C2'	-5.46	102.14	107.60
81	DA	2283	G	C4'-C3'-C2'	5.46	108.06	102.60
81	DA	2999	U	C4'-C3'-C2'	-5.46	97.14	102.60
83	DC	46	A	O4'-C1'-N9	5.46	116.69	108.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	Bs	86	PHE	CA-C-O	-5.46	114.47	120.36
56	Bf	64	LYS	CA-C-N	-5.46	111.12	121.54
56	Bf	64	LYS	C-N-CA	-5.46	111.12	121.54
59	Bh	9	ILE	CA-C-N	5.46	128.17	120.42
59	Bh	9	ILE	C-N-CA	5.46	128.17	120.42
78	CA	1674	C	N1-C1'-C2'	5.46	120.18	112.00
81	DA	74	G	O4'-C1'-N9	5.46	116.68	108.50
81	DA	559	A	O4'-C4'-C3'	-5.46	98.55	104.00
10	AI	104	GLU	N-CA-C	5.45	116.91	111.07
12	AK	28	VAL	CB-CA-C	5.45	118.51	110.77
64	Bl	63	ARG	CA-C-O	5.45	128.31	120.51
66	Bo	49	MET	CA-C-N	-5.45	112.74	122.07
66	Bo	49	MET	C-N-CA	-5.45	112.74	122.07
69	Br	28	TYR	CA-CB-CG	-5.45	104.08	113.90
78	CA	1544	U	O4'-C1'-N1	5.45	116.68	108.50
81	DA	3191	G	P-O3'-C3'	-5.45	112.02	120.20
82	DB	96	A	C1'-O4'-C4'	5.45	115.35	109.90
19	AR	96	ILE	CB-CA-C	-5.45	104.78	112.14
20	AS	101	ASN	OD1-CG-ND2	5.45	128.05	122.60
51	BZ	25	ASP	N-CA-CB	5.45	120.02	110.42
62	Bk	84	LYS	CB-CA-C	-5.45	102.09	110.81
79	CB	5	U	O3'-P-O5'	-5.45	95.82	104.00
82	DB	34	U	N1-C1'-C2'	5.45	120.18	112.00
14	AM	52	VAL	N-CA-C	-5.45	100.46	108.85
16	AO	70	LYS	N-CA-C	-5.45	105.34	111.28
30	BA	140	HIS	CA-C-N	5.45	128.03	120.29
30	BA	140	HIS	C-N-CA	5.45	128.03	120.29
49	BV	162	GLU	CA-C-O	5.45	124.68	118.47
57	Be	164	SER	CA-C-N	5.45	127.53	120.44
57	Be	164	SER	C-N-CA	5.45	127.53	120.44
78	CA	255	U	C5'-C4'-O4'	-5.45	101.62	109.80
78	CA	499	U	C4'-C3'-C2'	-5.45	97.15	102.60
78	CA	1148	C	N1-C1'-C2'	5.45	120.17	112.00
78	CA	1409	G	C4'-C3'-C2'	5.45	108.05	102.60
81	DA	266	A	C5'-C4'-O4'	5.45	117.98	109.80
81	DA	1683	A	O5'-C5'-C4'	5.45	119.67	111.50
81	DA	3107	U	O3'-P-O5'	5.45	112.17	104.00
81	DA	3301	U	C4'-C3'-C2'	-5.45	97.15	102.60
11	AJ	65	ILE	CB-CA-C	5.45	118.07	110.99
45	BR	135	GLN	N-CA-C	-5.45	101.24	109.85
78	CA	219	A	C1'-C2'-O2'	-5.45	100.23	108.40
78	CA	1546	G	P-O5'-C5'	5.45	129.07	120.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1597	A	O4'-C4'-C3'	5.45	109.45	104.00
81	DA	9	U	O4'-C4'-C3'	-5.45	98.55	104.00
81	DA	740	G	O3'-P-O5'	-5.45	95.83	104.00
81	DA	2041	U	C4'-C3'-C2'	-5.45	97.15	102.60
81	DA	2382	G	O4'-C1'-N9	5.45	116.67	108.50
81	DA	2886	U	O3'-P-O5'	5.45	112.17	104.00
81	DA	3165	A	O3'-P-O5'	-5.45	95.83	104.00
1	Aa	20	VAL	N-CA-CB	5.45	117.87	111.66
6	AE	95	ARG	CD-NE-CZ	-5.45	116.77	124.40
81	DA	983	A	O4'-C4'-C3'	-5.45	98.55	104.00
81	DA	2398	A	C5'-C4'-C3'	-5.45	107.83	116.00
81	DA	3026	G	C4'-C3'-C2'	-5.45	97.15	102.60
1	Aa	142	ALA	N-CA-CB	5.45	117.97	110.07
1	Aa	261	LYS	N-CA-C	-5.45	100.30	109.07
40	BK	195	ALA	N-CA-C	5.45	117.22	111.28
45	BR	25	TYR	CA-C-N	5.45	128.02	120.29
45	BR	25	TYR	C-N-CA	5.45	128.02	120.29
46	BT	125	LYS	CB-CA-C	5.45	120.11	110.85
79	CB	66	C	C3'-C2'-C1'	5.45	106.75	101.30
81	DA	2353	G	C1'-O4'-C4'	-5.45	104.45	109.90
81	DA	1269	U	N1-C1'-C2'	5.44	120.17	112.00
81	DA	2195	C	O4'-C1'-C2'	-5.44	102.16	107.60
81	DA	3213	A	P-O3'-C3'	5.44	128.37	120.20
4	AD	126	VAL	CA-C-N	5.44	128.02	120.29
4	AD	126	VAL	C-N-CA	5.44	128.02	120.29
31	BB	114	SER	N-CA-C	-5.44	100.85	108.96
35	BG	122	PHE	CA-C-N	5.44	124.63	118.97
35	BG	122	PHE	C-N-CA	5.44	124.63	118.97
48	BW	21	SER	CA-C-N	5.44	126.64	119.84
48	BW	21	SER	C-N-CA	5.44	126.64	119.84
65	Bn	21	LYS	N-CA-C	-5.44	101.45	109.18
78	CA	411	C	N1-C1'-C2'	-5.44	103.83	112.00
81	DA	510	G	P-O3'-C3'	5.44	128.37	120.20
81	DA	1089	G	C1'-O4'-C4'	-5.44	104.46	109.90
81	DA	2844	C	C3'-C2'-C1'	5.44	106.74	101.30
83	DC	4	U	O4'-C1'-N1	5.44	116.66	108.50
83	DC	113	C	C3'-C2'-C1'	5.44	106.74	101.30
3	AB	54	ARG	CA-C-N	5.44	129.31	120.60
3	AB	54	ARG	C-N-CA	5.44	129.31	120.60
35	BG	97	ASN	N-CA-C	-5.44	99.21	110.80
39	BJ	88	PRO	O-C-N	-5.44	115.04	121.46
40	BK	157	GLU	CA-C-O	-5.44	115.11	120.82

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
76	BS	26	ILE	CA-CB-CG1	5.44	119.65	110.40
76	BS	106	GLU	CB-CA-C	-5.44	101.60	110.85
78	CA	831	U	O4'-C1'-N1	5.44	116.36	108.20
78	CA	1221	A	O4'-C1'-C2'	-5.44	102.16	107.60
78	CA	1295	G	O4'-C1'-N9	5.44	116.66	108.50
81	DA	1319	G	N9-C1'-C2'	5.44	120.16	112.00
50	BX	76	VAL	O-C-N	-5.44	116.58	121.91
78	CA	1086	A	O3'-P-O5'	-5.44	95.84	104.00
33	BD	104	LYS	N-CA-CB	5.44	119.68	110.49
40	BK	115	LYS	CA-C-N	5.44	129.19	121.42
40	BK	115	LYS	C-N-CA	5.44	129.19	121.42
40	BK	146	GLY	CA-C-N	-5.44	114.50	122.06
40	BK	146	GLY	C-N-CA	-5.44	114.50	122.06
43	BP	21	PHE	CA-CB-CG	5.44	119.24	113.80
43	BP	67	ARG	CD-NE-CZ	-5.44	116.79	124.40
55	Bc	77	PRO	CA-C-N	5.44	129.79	120.71
55	Bc	77	PRO	C-N-CA	5.44	129.79	120.71
59	Bh	10	VAL	N-CA-C	5.44	116.21	110.72
81	DA	988	U	C1'-O4'-C4'	5.44	115.34	109.90
81	DA	2443	A	P-O3'-C3'	5.44	128.36	120.20
6	AE	63	VAL	N-CA-C	5.44	116.17	110.62
8	AF	28	PRO	CA-N-CD	-5.44	104.39	112.00
33	BD	37	THR	N-CA-CB	5.44	118.20	110.16
46	BT	91	SER	N-CA-CB	5.44	119.68	110.49
57	Be	118	LYS	CA-C-N	-5.44	115.81	122.93
57	Be	118	LYS	C-N-CA	-5.44	115.81	122.93
81	DA	1484	U	C3'-C2'-C1'	5.44	106.94	101.50
81	DA	3010	U	O4'-C4'-C3'	-5.44	98.56	104.00
6	AE	220	ASN	N-CA-C	-5.43	98.91	108.20
20	AS	68	ARG	O-C-N	5.43	129.82	122.59
46	BT	73	GLY	CA-C-N	5.43	131.92	121.54
46	BT	73	GLY	C-N-CA	5.43	131.92	121.54
49	BV	40	GLU	CA-CB-CG	-5.43	103.23	114.10
55	Bc	45	LYS	N-CA-CB	5.43	117.95	110.07
61	Bj	90	PRO	N-CA-C	5.43	123.67	112.47
78	CA	107	C	C3'-C2'-C1'	5.43	106.73	101.30
78	CA	304	U	C4'-C3'-C2'	-5.43	97.17	102.60
81	DA	179	C	N1-C1'-C2'	5.43	120.15	112.00
81	DA	1576	G	O4'-C1'-N9	5.43	116.65	108.50
81	DA	1850	A	O4'-C1'-C2'	-5.43	100.37	105.80
81	DA	2407	C	C3'-C2'-C1'	5.43	106.73	101.30
81	DA	2463	G	N9-C1'-C2'	-5.43	103.85	112.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	DC	14	U	P-O3'-C3'	-5.43	112.05	120.20
5	AC	132	ARG	O-C-N	5.43	127.74	122.09
6	AE	124	ALA	CA-C-N	5.43	131.75	121.97
6	AE	124	ALA	C-N-CA	5.43	131.75	121.97
34	BE	80	LEU	N-CA-CB	5.43	118.11	110.12
73	Bw	55	THR	N-CA-C	5.43	116.88	111.07
81	DA	388	G	O4'-C1'-N9	5.43	116.65	108.50
81	DA	1503	A	N9-C1'-C2'	5.43	120.15	112.00
81	DA	1726	C	N1-C1'-C2'	5.43	120.15	112.00
81	DA	2908	G	C1'-O4'-C4'	-5.43	104.47	109.90
4	AD	68	ARG	NE-CZ-NH2	-5.43	114.31	119.20
14	AM	26	ILE	CA-C-N	5.43	130.85	120.97
14	AM	26	ILE	C-N-CA	5.43	130.85	120.97
31	BB	173	GLY	O-C-N	5.43	128.80	122.45
40	BK	183	ALA	N-CA-C	5.43	118.68	110.64
81	DA	611	A	P-O3'-C3'	-5.43	112.05	120.20
81	DA	1970	U	O4'-C1'-N1	5.43	116.65	108.50
81	DA	2888	U	O3'-P-O5'	-5.43	95.85	104.00
81	DA	3167	A	O4'-C1'-C2'	-5.43	102.17	107.60
81	DA	3213	A	C5'-C4'-C3'	5.43	124.15	116.00
1	Aa	27	ALA	CA-C-N	5.43	126.11	120.03
1	Aa	27	ALA	C-N-CA	5.43	126.11	120.03
1	Aa	176	LYS	N-CA-C	-5.43	105.95	112.58
4	AD	58	GLY	CA-C-N	5.43	131.22	121.66
4	AD	58	GLY	C-N-CA	5.43	131.22	121.66
12	AK	93	THR	CA-C-O	-5.43	112.72	120.16
20	AS	90	PRO	N-CD-CG	5.43	111.34	103.20
29	AU	26	ASP	N-CA-C	-5.43	101.32	109.95
43	BP	121	VAL	CA-C-O	-5.43	113.01	119.58
78	CA	605	A	C1'-O4'-C4'	-5.43	104.47	109.90
81	DA	345	G	C1'-O4'-C4'	-5.43	104.47	109.90
81	DA	693	A	C3'-C2'-C1'	5.43	106.73	101.30
81	DA	2492	C	O4'-C1'-C2'	-5.43	102.17	107.60
81	DA	2625	C	C1'-C2'-O2'	-5.43	103.66	111.80
81	DA	3166	C	C3'-C2'-C1'	5.43	106.73	101.30
6	AE	98	PHE	CA-C-N	5.43	131.91	121.54
6	AE	98	PHE	C-N-CA	5.43	131.91	121.54
16	AO	35	GLU	CA-C-N	5.43	128.56	120.31
16	AO	35	GLU	C-N-CA	5.43	128.56	120.31
20	AS	107	ALA	O-C-N	5.43	127.87	122.12
38	Bs	204	ILE	CB-CA-C	-5.43	102.39	111.29
45	BR	8	LYS	CA-C-N	5.43	127.55	120.28

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
45	BR	8	LYS	C-N-CA	5.43	127.55	120.28
81	DA	2269	U	P-O3'-C3'	5.43	128.34	120.20
81	DA	2625	C	P-O5'-C5'	5.43	129.04	120.90
1	Aa	20	VAL	CA-C-O	5.43	127.39	121.04
29	AU	70	VAL	O-C-N	-5.43	117.33	123.03
31	BB	83	HIS	ND1-CE1-NE2	5.43	113.83	108.40
52	BY	90	VAL	CG1-CB-CG2	5.43	122.74	110.80
53	Ba	96	VAL	CA-CB-CG1	5.43	119.63	110.40
79	CB	66	C	P-O3'-C3'	5.43	128.34	120.20
81	DA	73	C	O3'-P-O5'	-5.43	95.86	104.00
81	DA	247	C	N1-C1'-C2'	5.43	120.14	112.00
81	DA	1151	U	C3'-C2'-C1'	5.43	106.73	101.30
81	DA	1484	U	P-O3'-C3'	5.43	128.34	120.20
81	DA	1728	G	P-O5'-C5'	5.43	129.04	120.90
81	DA	1741	A	P-O5'-C5'	-5.43	112.76	120.90
2	AA	227	GLU	N-CA-C	-5.42	101.11	109.52
3	AB	31	GLU	N-CA-C	5.42	116.87	111.07
3	AB	70	THR	CB-CA-C	5.42	119.47	110.90
13	AL	23	ARG	CB-CG-CD	5.42	123.78	111.30
78	CA	1617	U	O4'-C1'-N1	5.42	116.34	108.20
78	CA	1645	G	C1'-O4'-C4'	-5.42	104.47	109.90
81	DA	203	G	P-O3'-C3'	-5.42	112.06	120.20
81	DA	2824	G	O3'-P-O5'	5.42	112.14	104.00
82	DB	60	U	O5'-C5'-C4'	5.42	119.84	111.70
11	AJ	48	HIS	CA-C-N	5.42	127.55	120.28
11	AJ	48	HIS	C-N-CA	5.42	127.55	120.28
78	CA	831	U	C1'-C2'-O2'	5.42	119.93	111.80
81	DA	676	G	N9-C1'-C2'	-5.42	103.87	112.00
81	DA	1808	G	N9-C1'-C2'	5.42	120.13	112.00
81	DA	1957	G	O4'-C1'-N9	5.42	116.64	108.50
81	DA	2385	G	C1'-O4'-C4'	-5.42	104.48	109.90
8	AF	183	ALA	O-C-N	5.42	128.33	122.15
31	BB	200	ARG	N-CA-CB	5.42	117.98	110.17
78	CA	590	C	O4'-C1'-C2'	-5.42	102.18	107.60
78	CA	893	U	O4'-C1'-N1	5.42	116.63	108.50
81	DA	1235	U	C5'-C4'-C3'	5.42	123.33	115.20
81	DA	1460	A	O4'-C1'-C2'	-5.42	102.18	107.60
81	DA	1534	A	O4'-C1'-C2'	-5.42	102.18	107.60
81	DA	2413	A	O4'-C1'-C2'	-5.42	102.18	107.60
81	DA	2679	A	C4'-C3'-O3'	-5.42	104.87	113.00
81	DA	2752	U	C3'-C2'-C1'	5.42	106.72	101.30
81	DA	2852	C	O4'-C1'-C2'	-5.42	102.18	107.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3030	G	C5'-C4'-C3'	5.42	124.13	116.00
81	DA	3362	A	O3'-P-O5'	-5.42	95.87	104.00
1	Aa	31	ASN	OD1-CG-ND2	-5.42	117.18	122.60
40	BK	21	SER	CA-C-N	5.42	128.12	120.42
40	BK	21	SER	C-N-CA	5.42	128.12	120.42
46	BT	118	HIS	ND1-CE1-NE2	5.42	113.82	108.40
81	DA	243	G	C5'-C4'-C3'	5.42	124.13	116.00
81	DA	367	A	O4'-C1'-C2'	-5.42	102.18	107.60
81	DA	1409	G	N9-C1'-C2'	5.42	120.13	112.00
81	DA	3301	U	P-O3'-C3'	5.42	128.33	120.20
2	AA	109	ASN	CA-C-N	5.42	128.55	120.31
2	AA	109	ASN	C-N-CA	5.42	128.55	120.31
30	BA	202	GLY	N-CA-C	5.42	119.05	112.49
32	BC	375	GLU	CA-C-N	5.42	127.48	120.44
32	BC	375	GLU	C-N-CA	5.42	127.48	120.44
76	BS	35	ASN	N-CA-CB	5.42	119.65	110.49
78	CA	145	A	C2'-C3'-O3'	5.42	117.63	109.50
78	CA	1318	G	N9-C1'-C2'	5.42	120.13	112.00
81	DA	720	A	N9-C1'-C2'	-5.42	103.87	112.00
81	DA	1647	A	C1'-O4'-C4'	5.42	115.32	109.90
83	DC	70	A	O4'-C1'-C2'	-5.42	102.18	107.60
41	BN	114	ASP	N-CA-CB	5.42	119.64	111.35
52	BY	25	SER	CB-CA-C	-5.42	101.80	110.79
52	BY	80	VAL	N-CA-C	-5.42	100.04	108.81
67	Bp	44	GLN	CB-CG-CD	5.42	121.81	112.60
81	DA	32	U	C1'-O4'-C4'	-5.42	104.48	109.90
81	DA	1867	A	N9-C1'-C2'	-5.42	103.88	112.00
81	DA	2049	A	C1'-O4'-C4'	5.42	115.32	109.90
81	DA	2285	C	O4'-C1'-C2'	-5.42	102.18	107.60
81	DA	2354	C	P-O5'-C5'	5.42	129.02	120.90
9	AH	99	PHE	N-CA-C	-5.42	99.27	110.80
78	CA	1447	C	C3'-C2'-C1'	5.42	106.72	101.30
81	DA	509	U	N1-C1'-C2'	5.42	120.12	112.00
81	DA	1013	G	C5'-C4'-C3'	5.42	124.12	116.00
81	DA	3081	C	C1'-O4'-C4'	-5.42	104.48	109.90
5	AC	142	ASN	CB-CG-ND2	-5.41	108.28	116.40
10	AI	84	ALA	O-C-N	5.41	129.79	122.59
16	AO	110	ASP	CA-CB-CG	-5.41	107.19	112.60
21	AT	42	GLU	CB-CA-C	-5.41	100.79	110.70
41	BN	39	ILE	CB-CA-C	-5.41	104.89	111.87
43	BP	9	GLU	N-CA-C	5.41	117.18	111.28
57	Be	74	SER	CA-C-O	-5.41	115.01	121.56

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
61	Bj	45	LEU	CB-CA-C	5.41	118.55	109.89
78	CA	684	A	N9-C1'-C2'	5.41	120.12	112.00
81	DA	3122	A	O4'-C4'-C3'	-5.41	98.59	104.00
12	AK	60	ALA	CB-CA-C	-5.41	99.65	110.42
63	Bm	8	VAL	N-CA-CB	-5.41	102.30	111.23
78	CA	317	C	O3'-P-O5'	-5.41	95.88	104.00
78	CA	588	U	C5'-C4'-C3'	5.41	124.12	116.00
78	CA	1237	G	C3'-C2'-C1'	5.41	106.71	101.30
20	AS	31	PRO	CA-C-N	5.41	132.01	121.41
20	AS	31	PRO	C-N-CA	5.41	132.01	121.41
25	AY	26	THR	CA-C-N	5.41	130.01	120.87
25	AY	26	THR	C-N-CA	5.41	130.01	120.87
59	Bh	79	VAL	CB-CA-C	-5.41	104.84	112.14
73	Bw	22	ILE	CB-CA-C	-5.41	105.05	111.97
78	CA	572	C	C3'-C2'-C1'	5.41	106.71	101.30
78	CA	868	G	C1'-O4'-C4'	-5.41	104.49	109.90
78	CA	883	C	N1-C1'-C2'	5.41	120.12	112.00
78	CA	926	A	N9-C1'-C2'	5.41	120.11	112.00
78	CA	1563	C	P-O3'-C3'	5.41	128.32	120.20
81	DA	181	U	O3'-P-O5'	-5.41	95.88	104.00
3	AB	112	GLY	CA-C-N	5.41	131.87	121.54
3	AB	112	GLY	C-N-CA	5.41	131.87	121.54
31	BB	74	GLU	N-CA-CB	5.41	119.63	110.49
49	BV	71	ALA	O-C-N	5.41	127.85	122.12
78	CA	1461	C	C5'-C4'-O4'	-5.41	101.69	109.80
81	DA	329	U	P-O5'-C5'	-5.41	112.79	120.90
81	DA	1213	G	O4'-C1'-N9	5.41	116.61	108.50
81	DA	1612	A	O4'-C1'-N9	5.41	116.61	108.50
81	DA	1743	G	O4'-C1'-C2'	5.41	111.21	105.80
81	DA	2177	G	P-O3'-C3'	-5.41	112.09	120.20
81	DA	3225	C	C5'-C4'-C3'	5.41	123.01	114.90
9	AH	84	GLY	N-CA-C	5.41	125.99	113.18
29	AU	36	SER	CB-CA-C	-5.41	109.28	117.07
61	Bj	32	ILE	CA-C-N	5.41	127.79	120.65
61	Bj	32	ILE	C-N-CA	5.41	127.79	120.65
78	CA	184	C	O4'-C1'-C2'	-5.41	102.19	107.60
78	CA	667	U	C1'-O4'-C4'	5.41	115.31	109.90
78	CA	1335	U	C3'-C2'-C1'	5.41	106.71	101.30
81	DA	519	A	C4'-C3'-C2'	-5.41	97.19	102.60
82	DB	98	U	C3'-C2'-O2'	5.41	118.81	110.70
2	AA	233	THR	CA-CB-OG1	5.41	117.71	109.60
6	AE	11	ARG	CA-C-O	-5.41	113.99	120.10

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	AF	55	ASP	CB-CA-C	5.41	118.37	110.26
17	AQ	45	ARG	N-CA-CB	5.41	118.26	110.20
44	BO	14	HIS	N-CA-CB	5.41	120.02	111.43
78	CA	220	A	C3'-C2'-C1'	5.41	106.71	101.30
78	CA	335	U	C2'-C3'-O3'	5.41	121.81	113.70
78	CA	1412	G	C3'-C2'-C1'	5.41	106.91	101.50
78	CA	1752	U	C1'-O4'-C4'	-5.41	104.49	109.90
81	DA	251	G	C1'-C2'-O2'	5.41	116.51	108.40
81	DA	339	C	O4'-C1'-C2'	-5.41	102.19	107.60
81	DA	419	G	C3'-C2'-C1'	-5.41	95.89	101.30
81	DA	2065	U	C4'-C3'-O3'	-5.41	104.89	113.00
82	DB	138	A	C3'-C2'-C1'	5.41	106.70	101.30
10	AI	84	ALA	CB-CA-C	-5.40	99.67	110.42
14	AM	139	LYS	CA-C-O	5.40	126.28	120.55
20	AS	94	ILE	N-CA-CB	5.40	118.87	111.41
36	BF	149	ASN	CA-CB-CG	5.40	118.00	112.60
42	BM	85	TRP	CD2-CE2-CZ2	-5.40	117.00	122.40
79	CB	40	U	O4'-C1'-C2'	-5.40	102.20	107.60
81	DA	2783	U	N1-C1'-C2'	-5.40	103.89	112.00
81	DA	3218	A	O4'-C1'-N9	5.40	116.31	108.20
83	DC	20	A	C3'-C2'-C1'	-5.40	95.90	101.30
31	BB	139	HIS	CG-CD2-NE2	5.40	112.60	107.20
48	BW	98	THR	O-C-N	5.40	127.86	122.08
68	Bq	10	THR	CA-C-O	-5.40	114.69	120.42
78	CA	270	C	P-O5'-C5'	-5.40	112.80	120.90
78	CA	310	C	C3'-C2'-C1'	5.40	106.70	101.30
81	DA	1527	C	O4'-C1'-N1	5.40	116.60	108.50
81	DA	1757	A	P-O5'-C5'	5.40	129.00	120.90
2	AA	135	GLU	CB-CA-C	-5.40	101.67	110.85
4	AD	82	TYR	CA-C-N	5.40	127.54	120.25
4	AD	82	TYR	C-N-CA	5.40	127.54	120.25
5	AC	89	ASP	N-CA-CB	5.40	118.54	110.22
6	AE	67	GLN	CA-C-N	5.40	131.69	121.97
6	AE	67	GLN	C-N-CA	5.40	131.69	121.97
17	AQ	85	VAL	CA-CB-CG1	5.40	119.58	110.40
35	BG	55	LEU	N-CA-C	-5.40	104.81	111.40
37	BH	71	VAL	CA-C-N	5.40	125.94	120.38
37	BH	71	VAL	C-N-CA	5.40	125.94	120.38
50	BX	35	PRO	N-CD-CG	5.40	111.30	103.20
52	BY	79	ALA	CA-C-N	5.40	130.57	122.58
52	BY	79	ALA	C-N-CA	5.40	130.57	122.58
57	Be	13	LEU	CA-C-N	5.40	128.06	120.28

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
57	Be	13	LEU	C-N-CA	5.40	128.06	120.28
78	CA	466	U	O4'-C1'-N1	5.40	116.60	108.50
81	DA	696	C	O3'-P-O5'	5.40	112.10	104.00
81	DA	955	U	O4'-C1'-N1	5.40	116.60	108.50
81	DA	2394	G	C1'-O4'-C4'	-5.40	104.50	109.90
81	DA	2627	C	C2'-C3'-O3'	5.40	117.60	109.50
55	Bc	39	PRO	O-C-N	5.40	129.93	122.64
78	CA	182	A	O4'-C1'-N9	5.40	116.60	108.50
78	CA	1470	C	P-O3'-C3'	5.40	128.30	120.20
81	DA	608	A	C5'-C4'-O4'	5.40	117.20	109.10
81	DA	1638	A	O4'-C1'-N9	5.40	116.60	108.50
3	AB	162	GLN	CB-CA-C	5.40	120.80	110.17
14	AM	47	CYS	N-CA-C	5.40	116.85	110.97
33	BD	161	LYS	CA-C-O	5.40	125.09	119.91
38	Bs	26	PHE	CA-CB-CG	-5.40	108.40	113.80
64	Bl	65	ARG	CB-CA-C	-5.40	99.68	110.42
78	CA	482	U	O4'-C1'-N1	5.40	116.60	108.50
78	CA	1282	U	C3'-C2'-C1'	5.40	106.70	101.30
78	CA	1678	A	N9-C1'-C2'	5.40	120.09	112.00
79	CB	69	G	N9-C1'-C2'	5.40	120.09	112.00
81	DA	656	A	N9-C1'-C2'	5.40	120.10	112.00
81	DA	1668	G	P-O5'-C5'	5.40	129.00	120.90
81	DA	1843	C	N1-C1'-C2'	5.40	120.10	112.00
81	DA	2702	A	C1'-C2'-O2'	-5.40	103.70	111.80
81	DA	1253	U	P-O3'-C3'	5.40	128.29	120.20
81	DA	2115	G	C1'-O4'-C4'	-5.40	104.50	109.90
81	DA	2438	A	O4'-C4'-C3'	-5.40	98.60	104.00
13	AL	52	ILE	CA-C-O	-5.39	114.04	120.78
14	AM	21	ASN	CA-C-N	5.39	130.55	123.11
14	AM	21	ASN	C-N-CA	5.39	130.55	123.11
45	BR	17	THR	N-CA-C	-5.39	101.68	110.20
74	BQ	270	LYS	N-CA-CB	5.39	117.89	110.07
78	CA	434	G	O4'-C1'-C2'	-5.39	102.20	107.60
78	CA	1186	U	O4'-C1'-N1	5.39	116.59	108.50
78	CA	1501	C	O3'-P-O5'	-5.39	95.91	104.00
81	DA	278	U	C4'-C3'-C2'	-5.39	97.20	102.60
81	DA	2284	C	O4'-C1'-C2'	-5.39	102.20	107.60
81	DA	2492	C	C2'-C3'-O3'	5.39	121.79	113.70
81	DA	3126	C	C3'-C2'-C1'	5.39	106.69	101.30
4	AD	82	TYR	CB-CA-C	-5.39	101.00	109.52
20	AS	78	LYS	N-CA-C	5.39	120.87	113.97
31	BB	1	MET	CA-C-N	5.39	129.25	121.54

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BB	1	MET	C-N-CA	5.39	129.25	121.54
33	BD	328	ASN	C-N-CD	-5.39	102.89	125.00
40	BK	90	HIS	CE1-NE2-CD2	-5.39	103.61	109.00
50	BX	65	GLN	N-CA-CB	5.39	118.27	110.77
78	CA	50	C	C4'-C3'-C2'	-5.39	97.21	102.60
78	CA	302	U	O4'-C1'-C2'	-5.39	102.21	107.60
78	CA	951	A	O3'-P-O5'	5.39	112.09	104.00
78	CA	1335	U	O4'-C1'-C2'	-5.39	102.21	107.60
78	CA	1779	U	N1-C1'-C2'	5.39	120.09	112.00
81	DA	1621	A	O4'-C1'-N9	5.39	116.59	108.50
81	DA	1863	G	N9-C1'-C2'	5.39	120.09	112.00
81	DA	2656	A	C2'-C3'-O3'	5.39	117.59	109.50
81	DA	2797	C	P-O3'-C3'	5.39	128.29	120.20
83	DC	85	G	C3'-C2'-C1'	-5.39	95.91	101.30
46	BT	121	HIS	CE1-NE2-CD2	-5.39	103.61	109.00
76	BS	90	HIS	ND1-CE1-NE2	5.39	113.79	108.40
78	CA	1568	C	C2'-C3'-O3'	5.39	117.59	109.50
81	DA	638	C	N1-C1'-C2'	5.39	120.09	112.00
81	DA	1704	A	C2'-C3'-O3'	5.39	121.79	113.70
81	DA	3051	U	C5'-C4'-O4'	-5.39	101.71	109.80
81	DA	3388	C	O4'-C1'-C2'	-5.39	102.21	107.60
1	Aa	90	ARG	CD-NE-CZ	-5.39	116.86	124.40
6	AE	13	GLY	CA-C-N	5.39	131.83	121.54
6	AE	13	GLY	C-N-CA	5.39	131.83	121.54
8	AF	109	LYS	CA-C-O	5.39	126.13	120.42
13	AL	76	LEU	CA-C-O	-5.39	115.36	121.72
16	AO	123	HIS	CG-CD2-NE2	5.39	112.59	107.20
31	BB	35	ALA	N-CA-C	-5.39	99.32	110.80
33	BD	146	PRO	N-CA-C	-5.39	101.37	112.47
41	BN	131	VAL	CA-CB-CG2	5.39	119.56	110.40
45	BR	18	ALA	CB-CA-C	-5.39	100.59	109.27
45	BR	72	LYS	N-CA-C	5.39	117.23	111.36
52	BY	95	VAL	N-CA-CB	5.39	116.25	111.67
60	Bi	3	GLN	CA-C-N	5.39	128.04	120.28
60	Bi	3	GLN	C-N-CA	5.39	128.04	120.28
81	DA	59	G	O4'-C1'-C2'	-5.39	100.41	105.80
81	DA	2043	U	O3'-P-O5'	-5.39	95.91	104.00
81	DA	2316	G	C3'-C2'-C1'	5.39	106.69	101.30
81	DA	2526	C	C2'-C3'-O3'	5.39	121.78	113.70
81	DA	2626	A	O4'-C1'-C2'	5.39	112.99	107.60
81	DA	3147	G	P-O3'-C3'	5.39	128.28	120.20
81	DA	3223	A	C3'-C2'-C1'	5.39	106.69	101.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Aa	246	SER	CB-CA-C	5.39	120.78	110.17
10	AI	103	ASN	N-CA-CB	5.39	118.04	110.12
31	BB	156	LYS	CB-CA-C	-5.39	99.68	109.38
46	BT	41	ILE	CB-CA-C	5.39	119.41	112.14
74	BQ	46	THR	N-CA-C	-5.39	95.63	108.40
81	DA	756	U	O4'-C1'-C2'	-5.39	102.21	107.60
81	DA	2175	U	O4'-C4'-C3'	5.39	109.39	104.00
22	AV	88	ILE	O-C-N	5.39	127.38	121.83
48	BW	22	PRO	N-CD-CG	5.39	111.28	103.20
78	CA	841	U	O4'-C4'-C3'	5.39	109.39	104.00
81	DA	27	C	O4'-C1'-C2'	-5.39	102.21	107.60
81	DA	512	U	C2'-C3'-O3'	5.39	117.58	109.50
81	DA	1702	U	C4'-C3'-O3'	-5.39	104.92	113.00
81	DA	1782	U	C4'-C3'-O3'	-5.39	104.92	113.00
81	DA	2059	U	O3'-P-O5'	-5.39	95.92	104.00
81	DA	2402	A	C1'-O4'-C4'	5.39	115.09	109.70
5	AC	46	SER	N-CA-CB	5.38	118.03	110.12
17	AQ	61	ILE	N-CA-C	-5.38	105.87	111.58
30	BA	116	LEU	CA-C-N	5.38	127.84	120.46
30	BA	116	LEU	C-N-CA	5.38	127.84	120.46
32	BC	299	ASP	N-CA-CB	5.38	117.99	110.07
40	BK	78	ARG	CA-C-N	5.38	127.84	120.46
40	BK	78	ARG	C-N-CA	5.38	127.84	120.46
57	Be	31	ALA	CB-CA-C	-5.38	101.85	110.79
57	Be	223	PHE	CA-CB-CG	5.38	119.19	113.80
66	Bo	30	ARG	N-CA-CB	5.38	121.52	110.64
78	CA	180	A	O4'-C1'-C2'	-5.38	102.22	107.60
78	CA	231	U	O4'-C1'-N1	5.38	116.58	108.50
78	CA	427	C	C3'-C2'-C1'	5.38	106.69	101.30
81	DA	491	C	N1-C1'-C2'	5.38	120.08	112.00
81	DA	1577	G	O4'-C1'-N9	5.38	116.58	108.50
81	DA	2471	U	O4'-C1'-N1	5.38	116.58	108.50
37	BH	106	LYS	CB-CG-CD	5.38	123.68	111.30
78	CA	205	U	P-O5'-C5'	5.38	128.97	120.90
78	CA	1120	U	P-O3'-C3'	-5.38	112.12	120.20
81	DA	745	C	O5'-C5'-C4'	5.38	119.58	111.50
81	DA	804	C	C4'-C3'-C2'	-5.38	97.22	102.60
81	DA	1258	U	C1'-O4'-C4'	5.38	115.28	109.90
81	DA	2438	A	P-O3'-C3'	5.38	128.27	120.20
81	DA	2607	G	O4'-C4'-C3'	-5.38	98.62	104.00
6	AE	252	LYS	CA-C-N	5.38	131.82	121.54
6	AE	252	LYS	C-N-CA	5.38	131.82	121.54

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
46	BT	79	GLY	CA-C-N	5.38	127.44	120.44
46	BT	79	GLY	C-N-CA	5.38	127.44	120.44
47	BU	90	ASN	CA-C-O	-5.38	114.40	120.43
81	DA	819	U	O4'-C1'-C2'	-5.38	102.22	107.60
81	DA	2631	U	P-O5'-C5'	-5.38	112.83	120.90
14	AM	96	LYS	N-CA-CB	5.38	119.58	110.49
20	AS	94	ILE	CB-CA-C	-5.38	102.67	110.63
42	BM	61	THR	CA-CB-OG1	5.38	117.67	109.60
78	CA	314	C	C1'-O4'-C4'	-5.38	104.52	109.90
81	DA	2252	A	C3'-C2'-C1'	5.38	106.68	101.30
81	DA	3075	G	C4'-C3'-O3'	-5.38	104.93	113.00
83	DC	16	U	C4'-C3'-C2'	-5.38	97.22	102.60
6	AE	241	ASP	CA-C-N	5.38	131.65	121.97
6	AE	241	ASP	C-N-CA	5.38	131.65	121.97
17	AQ	51	ALA	N-CA-C	5.38	117.14	111.28
22	AV	59	TYR	N-CA-CB	5.38	121.16	111.37
46	BT	98	ARG	NE-CZ-NH2	5.38	124.04	119.20
58	Bg	28	ARG	CB-CA-C	-5.38	101.54	110.68
78	CA	1409	G	C2'-C3'-O3'	5.38	117.57	109.50
78	CA	1424	A	O4'-C1'-C2'	-5.38	102.22	107.60
78	CA	1452	U	C1'-O4'-C4'	-5.38	104.52	109.90
81	DA	33	G	N9-C1'-C2'	5.38	120.07	112.00
81	DA	1888	U	O4'-C1'-N1	5.38	116.57	108.50
81	DA	2171	G	P-O3'-C3'	-5.38	112.13	120.20
33	BD	85	SER	N-CA-CB	-5.38	101.84	110.39
57	Be	205	PHE	N-CA-C	-5.38	100.53	109.46
81	DA	174	C	N1-C1'-C2'	5.38	120.06	112.00
81	DA	1630	U	P-O5'-C5'	5.38	128.96	120.90
81	DA	2178	A	C2'-C3'-O3'	5.38	117.56	109.50
81	DA	2630	C	C2'-C3'-O3'	-5.38	105.64	113.70
47	BU	124	VAL	N-CA-C	-5.38	98.16	109.34
74	BQ	202	GLY	N-CA-C	-5.38	97.71	113.30
81	DA	1666	G	C4'-C3'-C2'	-5.38	97.22	102.60
81	DA	2254	U	O4'-C1'-N1	5.38	116.56	108.50
82	DB	116	G	P-O3'-C3'	-5.38	112.14	120.20
32	BC	252	ILE	N-CA-CB	5.37	117.45	110.57
67	Bp	27	LEU	CB-CA-C	5.37	120.76	110.17
78	CA	904	G	O5'-C5'-C4'	5.37	119.56	111.50
78	CA	975	C	N1-C1'-C2'	5.37	120.06	112.00
81	DA	803	C	P-O3'-C3'	-5.37	112.14	120.20
81	DA	2612	U	O4'-C1'-N1	5.37	116.56	108.50
81	DA	2735	U	C5'-C4'-C3'	-5.37	107.94	116.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3365	U	C4'-C3'-O3'	-5.37	104.94	113.00
4	AD	136	VAL	N-CA-C	-5.37	97.28	108.88
17	AQ	110	VAL	O-C-N	5.37	127.17	121.91
22	AV	31	SER	N-CA-CB	-5.37	101.41	110.49
52	BY	76	LEU	O-C-N	-5.37	116.54	122.07
62	Bk	54	GLU	CA-CB-CG	-5.37	103.36	114.10
78	CA	207	U	C4'-C3'-C2'	-5.37	97.23	102.60
78	CA	650	U	O4'-C1'-N1	5.37	116.56	108.50
78	CA	1793	G	C1'-O4'-C4'	-5.37	104.53	109.90
81	DA	1360	C	C2'-C3'-O3'	5.37	121.76	113.70
81	DA	1602	A	OP2-P-O3'	-5.37	91.89	108.00
81	DA	3054	U	C3'-C2'-C1'	5.37	106.67	101.30
50	BX	93	TYR	CB-CG-CD2	5.37	128.85	120.80
78	CA	1181	U	C3'-C2'-C1'	-5.37	95.93	101.30
78	CA	1427	A	O5'-C5'-C4'	5.37	119.75	111.70
81	DA	1618	G	P-O5'-C5'	5.37	128.95	120.90
82	DB	132	G	O4'-C1'-N9	5.37	116.55	108.50
1	Aa	206	PRO	N-CD-CG	5.37	111.25	103.20
18	AP	79	LYS	CA-C-O	5.37	126.40	120.71
20	AS	91	TYR	CA-C-O	5.37	128.19	120.51
29	AU	58	PHE	CA-CB-CG	5.37	119.17	113.80
32	BC	34	LYS	O-C-N	5.37	128.95	122.94
35	BG	8	LYS	CA-C-N	-5.37	115.05	122.30
35	BG	8	LYS	C-N-CA	-5.37	115.05	122.30
41	BN	100	ALA	N-CA-CB	5.37	119.56	110.49
45	BR	45	ASN	CA-CB-CG	-5.37	107.23	112.60
78	CA	92	A	C1'-O4'-C4'	-5.37	104.53	109.90
78	CA	318	U	C3'-C2'-C1'	5.37	106.67	101.30
78	CA	858	G	N9-C1'-C2'	-5.37	103.95	112.00
81	DA	208	C	N1-C1'-C2'	5.37	120.05	112.00
81	DA	1082	U	C2'-C3'-O3'	5.37	121.75	113.70
81	DA	1624	G	O4'-C1'-N9	5.37	116.55	108.50
81	DA	1918	C	C4'-C3'-C2'	-5.37	97.23	102.60
81	DA	2482	U	N1-C1'-C2'	5.37	120.05	112.00
83	DC	47	C	O4'-C4'-C3'	-5.37	98.63	104.00
8	AF	190	ILE	N-CA-CB	5.37	119.83	110.65
8	AF	191	ALA	CA-C-N	5.37	127.91	120.29
8	AF	191	ALA	C-N-CA	5.37	127.91	120.29
50	BX	52	PRO	N-CA-C	-5.37	101.41	112.47
54	Bd	48	HIS	CE1-NE2-CD2	-5.37	103.63	109.00
81	DA	306	A	C5'-C4'-C3'	-5.37	107.95	116.00
81	DA	1124	U	P-O3'-C3'	5.37	128.25	120.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
40	BK	93	ALA	CA-C-O	-5.37	114.86	120.55
50	BX	37	THR	N-CA-C	-5.37	99.37	110.80
55	Bc	66	VAL	CA-C-N	5.37	127.47	120.28
55	Bc	66	VAL	C-N-CA	5.37	127.47	120.28
57	Be	149	TYR	CB-CA-C	-5.37	102.45	110.88
59	Bh	119	VAL	N-CA-C	-5.37	98.18	109.34
78	CA	36	C	C3'-C2'-C1'	5.37	106.67	101.30
78	CA	457	G	N9-C1'-C2'	5.37	120.05	112.00
78	CA	1288	G	P-O5'-C5'	5.37	128.95	120.90
81	DA	250	U	O5'-C5'-C4'	5.37	119.55	111.50
81	DA	1675	G	C2'-C3'-O3'	5.37	117.55	109.50
81	DA	1782	U	N1-C1'-C2'	5.37	120.05	112.00
5	AC	123	HIS	CB-CG-CD2	-5.36	124.23	131.20
21	AT	14	PRO	N-CA-C	5.36	120.60	113.57
29	AU	23	PHE	CA-C-N	5.36	130.02	123.10
29	AU	23	PHE	C-N-CA	5.36	130.02	123.10
30	BA	134	PHE	CA-C-O	-5.36	112.81	120.16
37	BH	147	LYS	O-C-N	5.36	129.97	122.36
50	BX	139	ILE	CB-CA-C	5.36	120.08	111.29
59	Bh	77	ALA	O-C-N	-5.36	116.03	122.15
74	BQ	191	ASP	CA-CB-CG	5.36	117.96	112.60
78	CA	651	G	C3'-C2'-C1'	5.36	106.66	101.30
81	DA	237	G	O4'-C1'-C2'	-5.36	102.24	107.60
81	DA	541	U	P-O3'-C3'	-5.36	112.16	120.20
81	DA	1871	U	C4'-C3'-C2'	-5.36	97.24	102.60
2	AA	209	GLU	CA-C-N	5.36	131.62	121.97
2	AA	209	GLU	C-N-CA	5.36	131.62	121.97
4	AD	85	GLY	CA-C-N	5.36	128.32	120.71
4	AD	85	GLY	C-N-CA	5.36	128.32	120.71
11	AJ	74	GLU	N-CA-CB	-5.36	101.39	110.50
81	DA	975	C	C3'-C2'-C1'	5.36	106.66	101.30
81	DA	2237	C	O4'-C1'-C2'	-5.36	102.24	107.60
81	DA	2854	U	O3'-P-O5'	5.36	112.04	104.00
81	DA	3238	G	O4'-C1'-N9	5.36	116.54	108.50
4	AD	223	ASN	CA-CB-CG	-5.36	107.24	112.60
30	BA	173	GLU	CA-C-N	5.36	127.46	120.28
30	BA	173	GLU	C-N-CA	5.36	127.46	120.28
38	Bs	150	ILE	N-CA-C	-5.36	101.81	108.89
40	BK	101	ARG	N-CA-C	5.36	119.08	112.54
52	BY	70	ILE	N-CA-CB	5.36	117.11	111.00
78	CA	1278	G	O4'-C1'-C2'	-5.36	102.24	107.60
78	CA	1574	G	N9-C1'-C2'	5.36	120.04	112.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1605	G	O4'-C1'-N9	5.36	116.54	108.50
81	DA	56	G	O4'-C1'-N9	5.36	116.54	108.50
81	DA	1477	A	P-O3'-C3'	5.36	128.24	120.20
81	DA	1833	G	C5'-C4'-C3'	5.36	124.04	116.00
81	DA	3151	U	N1-C1'-C2'	-5.36	105.96	114.00
81	DA	3248	C	C3'-C2'-C1'	5.36	106.86	101.50
81	DA	3387	U	C4'-C3'-C2'	-5.36	97.24	102.60
2	AA	243	ALA	CA-C-N	5.36	127.90	120.29
2	AA	243	ALA	C-N-CA	5.36	127.90	120.29
17	AQ	85	VAL	CB-CA-C	-5.36	101.61	111.36
32	BC	70	ARG	N-CA-CB	5.36	119.55	110.49
74	BQ	32	GLN	CA-C-N	5.36	127.46	120.28
74	BQ	32	GLN	C-N-CA	5.36	127.46	120.28
78	CA	1340	U	O3'-P-O5'	-5.36	95.96	104.00
81	DA	311	C	N1-C1'-C2'	5.36	120.04	112.00
81	DA	1262	G	C4'-C3'-O3'	-5.36	104.96	113.00
81	DA	2901	G	C1'-C2'-O2'	5.36	116.44	108.40
2	AA	58	VAL	N-CA-CB	5.36	117.43	110.57
16	AO	80	LEU	CA-C-N	5.36	134.87	121.80
16	AO	80	LEU	C-N-CA	5.36	134.87	121.80
32	BC	52	GLY	CA-C-N	5.36	131.33	121.85
32	BC	52	GLY	C-N-CA	5.36	131.33	121.85
35	BG	111	LEU	CA-C-N	5.36	127.90	120.29
35	BG	111	LEU	C-N-CA	5.36	127.90	120.29
43	BP	133	ILE	N-CA-C	-5.36	100.70	108.36
55	Bc	81	ARG	N-CA-C	5.36	117.12	111.28
78	CA	947	U	P-O3'-C3'	-5.36	112.16	120.20
81	DA	1421	G	N9-C1'-C2'	5.36	120.04	112.00
81	DA	1429	G	C1'-O4'-C4'	-5.36	104.34	109.70
81	DA	1862	U	N1-C1'-C2'	5.36	120.03	112.00
17	AQ	84	TYR	CB-CA-C	-5.36	102.98	111.17
19	AR	107	ILE	CB-CA-C	5.36	120.07	111.29
35	BG	11	PRO	CB-CA-C	-5.36	102.72	111.56
37	BH	63	LYS	CB-CA-C	5.36	121.08	110.42
53	Ba	49	TYR	O-C-N	-5.36	115.16	121.32
78	CA	1120	U	O4'-C1'-C2'	-5.36	102.24	107.60
81	DA	2166	A	P-O5'-C5'	-5.36	112.87	120.90
83	DC	102	C	O4'-C1'-N1	-5.36	100.47	108.50
4	AD	234	PRO	N-CA-CB	-5.35	97.63	103.25
33	BD	33	ASP	CB-CA-C	5.35	119.36	110.90
38	Bs	230	PRO	CA-C-O	-5.35	110.86	120.60
78	CA	1384	A	O4'-C1'-C2'	-5.35	102.25	107.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	606	C	O3'-P-O5'	-5.35	95.97	104.00
81	DA	2173	U	O3'-P-O5'	5.35	112.03	104.00
1	Aa	20	VAL	N-CA-C	-5.35	98.96	107.15
11	AJ	51	VAL	CB-CA-C	-5.35	102.51	111.29
32	BC	35	ASP	CA-C-N	5.35	131.67	122.09
32	BC	35	ASP	C-N-CA	5.35	131.67	122.09
33	BD	225	VAL	N-CA-C	-5.35	104.22	110.05
37	BH	148	ALA	CA-C-O	-5.35	114.82	120.92
39	BJ	79	SER	N-CA-CB	5.35	118.58	110.28
68	Bq	2	ARG	NE-CZ-NH1	-5.35	116.15	121.50
74	BQ	132	THR	O-C-N	5.35	129.48	123.27
78	CA	1213	G	C4'-C3'-C2'	-5.35	97.25	102.60
78	CA	1315	U	N1-C1'-C2'	5.35	120.03	112.00
78	CA	1765	A	O4'-C1'-C2'	-5.35	100.45	105.80
81	DA	437	G	C5'-C4'-C3'	5.35	122.93	114.90
81	DA	577	C	C1'-C2'-O2'	-5.35	103.77	111.80
81	DA	1006	A	O4'-C4'-C3'	-5.35	98.65	104.00
81	DA	3136	G	C3'-C2'-C1'	-5.35	95.95	101.30
10	AI	73	GLY	N-CA-C	-5.35	100.50	113.18
13	AL	100	ASP	N-CA-C	-5.35	100.38	108.46
15	AN	43	PHE	CA-C-N	5.35	127.98	120.28
15	AN	43	PHE	C-N-CA	5.35	127.98	120.28
37	BH	93	LEU	CA-C-O	5.35	128.16	120.51
81	DA	977	C	C5'-C4'-C3'	5.35	124.03	116.00
81	DA	2684	C	C4'-C3'-C2'	-5.35	97.25	102.60
81	DA	3143	C	P-O3'-C3'	5.35	128.23	120.20
81	DA	3147	G	C1'-O4'-C4'	-5.35	104.55	109.90
81	DA	3232	G	C4'-C3'-C2'	-5.35	97.25	102.60
10	AI	119	ALA	N-CA-C	-5.35	99.41	110.80
11	AJ	64	LYS	N-CA-CB	5.35	120.05	110.80
13	AL	32	ARG	N-CA-C	-5.35	99.41	110.80
36	BF	185	GLY	O-C-N	-5.35	115.75	122.70
49	BV	61	ARG	N-CA-CB	5.35	117.77	110.01
78	CA	441	A	N9-C1'-C2'	5.35	120.02	112.00
81	DA	332	C	C3'-C2'-C1'	5.35	106.65	101.30
81	DA	985	U	C3'-C2'-O2'	5.35	118.72	110.70
81	DA	1773	C	O3'-P-O5'	-5.35	95.98	104.00
81	DA	2596	U	O4'-C1'-C2'	-5.35	102.25	107.60
81	DA	3123	A	O4'-C1'-N9	5.35	116.52	108.50
9	AH	28	ARG	N-CA-C	5.35	119.52	112.35
20	AS	53	TRP	O-C-N	5.35	129.70	122.59
50	BX	90	ALA	N-CA-CB	5.35	118.09	110.44

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	204	G	N9-C1'-C2'	5.35	120.02	112.00
78	CA	1034	C	O4'-C1'-C2'	-5.35	102.25	107.60
81	DA	949	C	C3'-C2'-C1'	5.35	106.65	101.30
81	DA	1005	G	O4'-C4'-C3'	-5.35	98.65	104.00
81	DA	1535	A	C4'-C3'-O3'	5.35	121.02	113.00
81	DA	1548	C	C3'-C2'-C1'	5.35	106.65	101.30
81	DA	2440	G	P-O3'-C3'	-5.35	112.18	120.20
81	DA	2526	C	O4'-C1'-N1	5.35	116.52	108.50
81	DA	3298	C	O3'-P-O5'	-5.35	95.98	104.00
31	BB	209	HIS	CE1-NE2-CD2	-5.35	103.65	109.00
33	BD	229	ASN	N-CA-C	-5.35	101.40	109.85
35	BG	55	LEU	CB-CA-C	5.35	119.77	110.79
38	Bs	163	ASN	CA-CB-CG	-5.35	107.25	112.60
42	BM	136	VAL	O-C-N	-5.35	117.43	123.20
59	Bh	125	ARG	CA-C-N	5.35	127.44	120.28
59	Bh	125	ARG	C-N-CA	5.35	127.44	120.28
64	Bl	18	LEU	CA-C-O	-5.35	115.31	121.19
78	CA	1698	G	O4'-C1'-N9	5.35	116.52	108.50
79	CB	61	C	O4'-C1'-C2'	-5.35	102.25	107.60
81	DA	720	A	C1'-O4'-C4'	5.35	115.25	109.90
2	AA	121	VAL	N-CA-C	-5.34	100.54	108.45
3	AB	99	VAL	CA-C-N	5.34	127.44	120.28
3	AB	99	VAL	C-N-CA	5.34	127.44	120.28
26	AZ	55	ARG	CA-C-N	-5.34	115.63	123.00
26	AZ	55	ARG	C-N-CA	-5.34	115.63	123.00
32	BC	295	ALA	CB-CA-C	-5.34	102.49	110.88
32	BC	345	ASN	OD1-CG-ND2	5.34	127.94	122.60
33	BD	327	LEU	CA-C-N	5.34	128.78	120.60
33	BD	327	LEU	C-N-CA	5.34	128.78	120.60
50	BX	42	ARG	N-CA-CB	5.34	119.52	110.49
52	BY	2	ALA	CB-CA-C	5.34	120.39	109.76
56	Bf	99	ASP	CA-C-N	5.34	127.78	120.46
56	Bf	99	ASP	C-N-CA	5.34	127.78	120.46
72	Bu	19	ILE	O-C-N	-5.34	117.42	122.98
78	CA	1787	C	O4'-C1'-C2'	-5.34	102.26	107.60
81	DA	1898	G	C4'-C3'-O3'	-5.34	104.98	113.00
81	DA	2410	U	C4'-C3'-C2'	-5.34	97.26	102.60
81	DA	2483	G	O4'-C1'-N9	5.34	116.52	108.50
3	AB	99	VAL	CA-CB-CG2	5.34	119.48	110.40
30	BA	140	HIS	CG-CD2-NE2	5.34	112.54	107.20
36	BF	95	ALA	CA-C-O	-5.34	114.83	120.55
56	Bf	25	LEU	CA-C-O	5.34	126.13	120.36

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	599	C	O5'-C5'-C4'	-5.34	103.48	111.50
36	BF	75	VAL	CA-C-N	5.34	127.44	120.28
36	BF	75	VAL	C-N-CA	5.34	127.44	120.28
55	Bc	100	VAL	CB-CA-C	-5.34	105.13	111.97
56	Bf	97	ASP	O-C-N	5.34	128.95	122.75
81	DA	113	C	O5'-C5'-C4'	-5.34	103.49	111.50
81	DA	222	A	C3'-C2'-C1'	5.34	106.64	101.30
81	DA	1037	C	N1-C1'-C2'	5.34	120.01	112.00
81	DA	1094	U	O4'-C1'-C2'	-5.34	102.26	107.60
81	DA	1285	G	C1'-O4'-C4'	5.34	115.04	109.70
81	DA	2680	A	P-O3'-C3'	-5.34	112.19	120.20
13	AL	56	LYS	N-CA-CB	5.34	119.51	110.49
44	BO	100	PRO	CA-C-N	5.34	131.58	121.97
44	BO	100	PRO	C-N-CA	5.34	131.58	121.97
52	BY	16	ARG	N-CA-C	5.34	117.18	111.36
78	CA	1547	A	O5'-P-OP2	5.34	124.02	108.00
81	DA	674	G	C4'-C3'-C2'	-5.34	97.26	102.60
81	DA	1640	G	C1'-O4'-C4'	-5.34	104.56	109.90
81	DA	2497	U	O4'-C1'-C2'	-5.34	102.26	107.60
48	BW	78	TYR	CA-CB-CG	5.34	123.51	113.90
53	Ba	79	HIS	CE1-NE2-CD2	-5.34	103.66	109.00
79	CB	26	G	C3'-C2'-C1'	-5.34	95.96	101.30
81	DA	311	C	P-O5'-C5'	-5.34	112.89	120.90
16	AO	99	ARG	O-C-N	5.34	127.57	122.07
31	BB	190	ARG	CA-C-N	5.34	129.14	120.60
31	BB	190	ARG	C-N-CA	5.34	129.14	120.60
32	BC	224	HIS	CA-C-O	5.34	126.26	120.55
43	BP	177	GLY	CA-C-O	-5.34	111.28	120.57
50	BX	85	GLN	CA-C-O	-5.34	114.61	120.43
68	Bq	2	ARG	NE-CZ-NH2	5.34	124.00	119.20
78	CA	339	C	C5'-C4'-C3'	-5.34	108.00	116.00
78	CA	1151	A	N9-C1'-C2'	-5.34	103.99	112.00
78	CA	1235	C	P-O5'-C5'	5.34	128.91	120.90
78	CA	1396	U	C2'-C3'-O3'	5.34	121.70	113.70
81	DA	208	C	C3'-C2'-C1'	5.34	106.64	101.30
81	DA	251	G	O4'-C1'-C2'	-5.34	102.26	107.60
81	DA	2378	C	C4'-C3'-O3'	-5.34	105.00	113.00
81	DA	2816	G	C2'-C3'-O3'	5.34	117.51	109.50
81	DA	3042	U	O5'-P-OP2	5.34	124.01	108.00
81	DA	3104	U	O4'-C1'-C2'	-5.34	102.26	107.60
21	AT	73	ALA	CA-C-N	5.33	127.43	120.28
21	AT	73	ALA	C-N-CA	5.33	127.43	120.28

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BB	1	MET	O-C-N	-5.33	114.46	123.00
54	Bd	43	HIS	CG-CD2-NE2	5.33	112.53	107.20
58	Bg	17	HIS	CB-CG-CD2	-5.33	124.26	131.20
63	Bm	27	LYS	CB-CA-C	-5.33	102.50	110.88
81	DA	243	G	O4'-C1'-C2'	5.33	112.94	107.60
4	AD	187	ARG	N-CA-C	-5.33	105.63	111.82
14	AM	42	TYR	N-CA-C	5.33	117.17	111.36
30	BA	190	PHE	CA-CB-CG	5.33	119.13	113.80
31	BB	207	VAL	CA-C-N	5.33	127.86	120.29
31	BB	207	VAL	C-N-CA	5.33	127.86	120.29
40	BK	54	TYR	CA-C-N	5.33	127.43	120.28
40	BK	54	TYR	C-N-CA	5.33	127.43	120.28
43	BP	30	TYR	CA-C-O	-5.33	114.90	120.55
50	BX	28	THR	N-CA-CB	5.33	117.80	110.07
57	Be	18	ALA	CA-C-N	5.33	127.86	120.29
57	Be	18	ALA	C-N-CA	5.33	127.86	120.29
78	CA	1657	U	C5'-C4'-C3'	5.33	124.00	116.00
81	DA	803	C	C1'-O4'-C4'	-5.33	104.57	109.90
81	DA	1501	U	N1-C1'-C2'	5.33	120.00	112.00
81	DA	1898	G	P-O5'-C5'	-5.33	112.90	120.90
81	DA	1933	A	O4'-C1'-N9	5.33	116.50	108.50
81	DA	2734	A	O3'-P-O5'	5.33	112.00	104.00
81	DA	2960	C	O4'-C1'-C2'	-5.33	102.27	107.60
37	BH	234	GLY	N-CA-C	-5.33	100.54	113.18
42	BM	101	VAL	CB-CA-C	-5.33	102.61	110.82
57	Be	163	LEU	CA-C-N	5.33	131.72	121.54
57	Be	163	LEU	C-N-CA	5.33	131.72	121.54
81	DA	698	U	O4'-C1'-N1	5.33	116.50	108.50
81	DA	1061	A	P-O3'-C3'	-5.33	112.20	120.20
81	DA	1409	G	P-O5'-C5'	-5.33	112.90	120.90
81	DA	1870	C	O4'-C1'-N1	5.33	116.50	108.50
81	DA	1883	A	O4'-C1'-N9	5.33	116.50	108.50
81	DA	2040	U	O4'-C1'-N1	5.33	116.50	108.50
81	DA	3303	G	P-O5'-C5'	5.33	128.90	120.90
82	DB	83	C	C5'-C4'-C3'	5.33	124.00	116.00
6	AE	64	LYS	CA-C-N	5.33	127.42	120.28
6	AE	64	LYS	C-N-CA	5.33	127.42	120.28
13	AL	4	GLY	N-CA-C	5.33	119.13	112.73
14	AM	110	ARG	NE-CZ-NH1	-5.33	116.17	121.50
50	BX	55	ASN	N-CA-C	-5.33	100.71	109.40
60	Bi	75	ALA	CA-C-N	5.33	131.72	121.54
60	Bi	75	ALA	C-N-CA	5.33	131.72	121.54

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1832	C	O3'-P-O5'	5.33	112.00	104.00
34	BE	118	PRO	N-CA-CB	5.33	107.56	103.30
35	BG	167	ASN	N-CA-CB	5.33	117.95	110.12
45	BR	36	LEU	CB-CA-C	5.33	119.91	110.85
49	BV	66	SER	CB-CA-C	-5.33	104.72	111.86
51	BZ	60	LYS	CA-C-N	5.33	130.56	121.29
51	BZ	60	LYS	C-N-CA	5.33	130.56	121.29
57	Be	66	LYS	CA-C-O	-5.33	114.77	120.42
58	Bg	32	ALA	CA-C-N	5.33	127.76	120.46
58	Bg	32	ALA	C-N-CA	5.33	127.76	120.46
78	CA	475	A	C5'-C4'-C3'	-5.33	106.91	114.90
78	CA	627	C	O4'-C1'-N1	5.33	116.49	108.50
78	CA	661	A	O4'-C1'-N9	5.33	116.49	108.50
79	CB	11	U	O4'-C1'-C2'	-5.33	102.27	107.60
81	DA	868	C	O4'-C1'-C2'	-5.33	102.27	107.60
81	DA	1175	C	C5'-C4'-C3'	-5.33	108.01	116.00
81	DA	1744	G	C5'-C4'-C3'	5.33	123.99	116.00
81	DA	2729	U	C3'-C2'-C1'	5.33	106.63	101.30
81	DA	3325	G	O4'-C4'-C3'	-5.33	98.67	104.00
29	AU	46	GLU	CB-CA-C	-5.33	100.44	110.67
48	BW	16	THR	N-CA-C	-5.33	101.48	109.95
68	Bq	14	LYS	N-CA-CB	5.33	119.08	110.40
78	CA	372	G	C4'-C3'-C2'	-5.33	97.27	102.60
78	CA	588	U	C5'-C4'-O4'	-5.33	101.81	109.80
81	DA	765	C	C5'-C4'-O4'	5.33	117.79	109.80
81	DA	2681	U	O4'-C1'-N1	5.33	116.49	108.50
81	DA	2889	C	O4'-C1'-N1	5.33	116.49	108.50
32	BC	5	LYS	CA-C-N	-5.33	114.80	122.36
32	BC	5	LYS	C-N-CA	-5.33	114.80	122.36
32	BC	14	LEU	CA-C-N	5.33	126.80	120.14
32	BC	14	LEU	C-N-CA	5.33	126.80	120.14
37	BH	182	GLY	O-C-N	-5.33	118.68	123.37
72	Bt	19	ILE	O-C-N	-5.33	117.44	122.98
81	DA	45	A	N9-C1'-C2'	5.33	119.99	112.00
81	DA	2496	C	C4'-C3'-C2'	5.33	107.93	102.60
81	DA	2707	C	P-O5'-C5'	5.33	128.89	120.90
83	DC	18	C	C5'-C4'-O4'	-5.33	101.81	109.80
9	AH	67	GLY	CA-C-O	-5.32	111.31	120.57
40	BK	61	ALA	CA-C-N	5.32	129.73	120.68
40	BK	61	ALA	C-N-CA	5.32	129.73	120.68
45	BR	10	HIS	ND1-CE1-NE2	5.32	113.72	108.40
54	Bd	42	ASN	CA-CB-CG	5.32	117.92	112.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
55	Bc	113	GLN	CA-C-N	5.32	127.41	120.28
55	Bc	113	GLN	C-N-CA	5.32	127.41	120.28
76	BS	102	ASN	O-C-N	-5.32	115.24	122.48
81	DA	1975	C	C3'-C2'-C1'	5.32	106.62	101.30
81	DA	2420	C	C4'-C3'-O3'	-5.32	105.01	113.00
81	DA	2482	U	C1'-O4'-C4'	-5.32	104.58	109.90
81	DA	2749	G	N9-C1'-C2'	5.32	119.98	112.00
18	AP	108	PRO	O-C-N	5.32	129.82	122.64
39	BJ	81	VAL	CA-CB-CG2	-5.32	101.35	110.40
56	Bf	52	ARG	N-CA-C	5.32	117.99	111.82
62	Bk	96	ALA	N-CA-C	5.32	117.08	111.28
78	CA	153	G	P-O3'-C3'	5.32	128.18	120.20
81	DA	464	U	O4'-C1'-N1	5.32	116.48	108.50
81	DA	1073	U	C4'-C3'-C2'	-5.32	97.28	102.60
81	DA	1516	C	C4'-C3'-O3'	-5.32	105.02	113.00
81	DA	1699	A	P-O3'-C3'	5.32	128.18	120.20
4	AD	208	VAL	CB-CA-C	-5.32	102.75	110.63
24	AX	65	THR	CA-C-O	-5.32	114.96	120.87
44	BO	62	HIS	CG-CD2-NE2	5.32	112.52	107.20
68	Bq	21	ARG	N-CA-CB	-5.32	102.42	111.20
76	BS	45	TYR	CA-C-O	-5.32	114.78	120.42
81	DA	1293	U	C4'-C3'-C2'	-5.32	97.28	102.60
81	DA	1419	A	O4'-C1'-C2'	-5.32	102.28	107.60
81	DA	1810	A	O3'-P-O5'	-5.32	96.02	104.00
81	DA	2756	C	N1-C1'-C2'	5.32	119.98	112.00
81	DA	2889	C	O4'-C1'-C2'	-5.32	102.28	107.60
81	DA	3345	G	O4'-C1'-C2'	-5.32	102.28	107.60
44	BO	38	GLN	OE1-CD-NE2	5.32	127.92	122.60
55	Bc	75	TYR	O-C-N	5.32	129.66	122.59
72	Bu	46	ALA	CB-CA-C	-5.32	101.96	110.79
76	BS	85	SER	CA-C-N	5.32	131.70	121.54
76	BS	85	SER	C-N-CA	5.32	131.70	121.54
78	CA	899	G	O5'-C5'-C4'	5.32	119.48	111.50
81	DA	1493	G	C2'-C3'-O3'	5.32	117.48	109.50
81	DA	2392	C	C3'-C2'-C1'	5.32	106.62	101.30
81	DA	2668	U	C4'-C3'-C2'	-5.32	97.28	102.60
81	DA	3384	U	N1-C1'-C2'	5.32	119.98	112.00
83	DC	25	G	O3'-P-O5'	5.32	111.98	104.00
1	Aa	50	ASP	N-CA-CB	5.32	118.32	109.60
11	AJ	28	SER	N-CA-CB	5.32	118.95	110.65
34	BE	129	VAL	N-CA-C	-5.32	99.99	107.75
39	BJ	131	GLU	CA-C-O	-5.32	114.91	120.55

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
49	BV	92	GLN	N-CA-C	-5.32	105.48	111.28
78	CA	1087	A	O5'-C5'-C4'	5.32	119.48	111.50
78	CA	1090	C	C1'-O4'-C4'	-5.32	104.58	109.90
81	DA	1247	U	O4'-C1'-C2'	-5.32	102.28	107.60
81	DA	3356	G	P-O3'-C3'	-5.32	112.22	120.20
17	AQ	78	ARG	N-CA-C	5.32	122.12	110.80
26	AZ	62	VAL	N-CA-C	5.32	120.39	109.34
42	BM	74	MET	CA-C-N	5.32	125.52	120.31
42	BM	74	MET	C-N-CA	5.32	125.52	120.31
49	BV	153	LYS	N-CA-CB	5.32	119.47	110.49
72	Bt	58	LEU	N-CA-C	5.32	119.25	112.34
77	BI	145	LYS	N-CA-CB	-5.32	102.31	110.12
81	DA	848	A	O3'-P-O5'	-5.32	96.03	104.00
81	DA	1871	U	N1-C1'-C2'	5.32	119.97	112.00
81	DA	2967	A	P-O3'-C3'	5.32	128.17	120.20
20	AS	45	MET	N-CA-CB	-5.31	100.91	110.37
49	BV	137	ASN	OD1-CG-ND2	-5.31	117.29	122.60
50	BX	74	LYS	CA-C-N	5.31	128.39	120.31
50	BX	74	LYS	C-N-CA	5.31	128.39	120.31
55	Bc	40	SER	N-CA-CB	-5.31	101.51	110.49
81	DA	595	G	C5'-C4'-C3'	5.31	123.97	116.00
81	DA	625	G	O4'-C1'-N9	5.31	116.47	108.50
81	DA	1784	G	O4'-C1'-N9	5.31	116.47	108.50
3	AB	18	TYR	CB-CG-CD1	-5.31	112.83	120.80
3	AB	27	ARG	NE-CZ-NH1	-5.31	116.19	121.50
22	AV	29	LYS	N-CA-C	-5.31	99.48	110.80
32	BC	345	ASN	O-C-N	5.31	129.66	122.59
33	BD	92	ASN	N-CA-C	-5.31	105.94	112.90
33	BD	123	ALA	CA-C-N	5.31	127.83	120.29
33	BD	123	ALA	C-N-CA	5.31	127.83	120.29
43	BP	85	THR	CB-CA-C	5.31	119.22	110.88
43	BP	181	ASN	CB-CA-C	-5.31	99.85	110.42
58	Bg	70	ARG	N-CA-C	-5.31	101.00	109.07
59	Bh	62	LYS	CB-CA-C	-5.31	101.97	110.79
78	CA	367	A	C4'-C3'-C2'	-5.31	97.29	102.60
78	CA	1367	G	C4'-C3'-O3'	-5.31	105.03	113.00
81	DA	1575	A	O4'-C1'-C2'	-5.31	102.29	107.60
6	AE	70	ASP	CA-C-N	-5.31	111.40	121.54
6	AE	70	ASP	C-N-CA	-5.31	111.40	121.54
40	BK	197	LEU	CA-C-N	5.31	131.82	121.41
40	BK	197	LEU	C-N-CA	5.31	131.82	121.41
78	CA	1511	U	P-O3'-C3'	-5.31	112.23	120.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1738	C	O4'-C1'-C2'	-5.31	102.29	107.60
12	AK	124	ASP	N-CA-CB	5.31	119.46	110.49
13	AL	142	LYS	CA-C-N	5.31	124.82	119.19
13	AL	142	LYS	C-N-CA	5.31	124.82	119.19
20	AS	50	ALA	N-CA-C	5.31	116.75	111.07
25	AY	31	GLU	N-CA-CB	5.31	120.16	111.08
26	AZ	40	TYR	CB-CA-C	5.31	120.99	110.42
30	BA	120	VAL	O-C-N	5.31	123.82	120.42
30	BA	145	TYR	CB-CA-C	-5.31	101.98	110.79
34	BE	79	ILE	CA-C-N	5.31	127.39	120.28
34	BE	79	ILE	C-N-CA	5.31	127.39	120.28
43	BP	27	VAL	CA-C-N	5.31	127.39	120.28
43	BP	27	VAL	C-N-CA	5.31	127.39	120.28
46	BT	147	ALA	N-CA-C	-5.31	105.41	111.14
74	BQ	6	ASP	N-CA-CB	5.31	117.71	110.01
78	CA	547	U	C4'-C3'-C2'	-5.31	97.29	102.60
78	CA	1300	A	C4'-C3'-O3'	-5.31	105.03	113.00
81	DA	147	U	O3'-P-O5'	-5.31	96.04	104.00
81	DA	496	C	O4'-C1'-C2'	-5.31	102.29	107.60
81	DA	904	A	P-O5'-C5'	-5.31	112.94	120.90
81	DA	1101	G	P-O3'-C3'	5.31	128.16	120.20
81	DA	3060	C	O4'-C1'-C2'	-5.31	102.29	107.60
8	AF	215	ASP	O-C-N	5.31	128.80	122.27
21	AT	62	ARG	NE-CZ-NH2	-5.31	114.42	119.20
78	CA	498	G	P-O3'-C3'	-5.31	112.24	120.20
78	CA	850	A	C3'-C2'-C1'	5.31	106.61	101.30
81	DA	775	A	O4'-C1'-N9	5.31	116.46	108.50
81	DA	1784	G	C5'-C4'-C3'	-5.31	108.04	116.00
82	DB	9	A	N9-C1'-C2'	5.31	119.96	112.00
12	AK	67	VAL	CA-C-O	-5.31	115.55	121.17
37	BH	189	LEU	CA-C-N	5.31	129.84	121.09
37	BH	189	LEU	C-N-CA	5.31	129.84	121.09
51	BZ	58	HIS	CG-CD2-NE2	5.31	112.51	107.20
81	DA	767	U	P-O3'-C3'	-5.31	112.24	120.20
81	DA	1152	G	P-O5'-C5'	-5.31	112.94	120.90
81	DA	2345	A	O4'-C1'-C2'	5.31	112.91	107.60
81	DA	2873	U	C1'-C2'-O2'	-5.31	103.84	111.80
1	Aa	282	SER	N-CA-C	5.30	117.86	109.96
6	AE	107	SER	CB-CA-C	5.30	119.21	110.88
9	AH	113	HIS	O-C-N	5.30	127.74	122.12
16	AO	118	ILE	N-CA-C	5.30	116.08	110.72
29	AU	85	PHE	CA-C-O	-5.30	114.43	120.32

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BG	7	PRO	N-CA-C	5.30	123.40	112.47
36	BF	176	LEU	CA-C-N	5.30	129.69	121.26
36	BF	176	LEU	C-N-CA	5.30	129.69	121.26
40	BK	66	LYS	N-CA-CB	5.30	119.45	110.49
60	Bi	56	THR	N-CA-CB	5.30	119.02	110.85
67	Bp	16	ASP	CA-CB-CG	-5.30	107.30	112.60
78	CA	887	A	O5'-C5'-C4'	5.30	119.46	111.50
78	CA	1588	G	N9-C1'-C2'	5.30	119.96	112.00
81	DA	1410	U	O4'-C1'-C2'	-5.30	102.30	107.60
81	DA	1627	U	O4'-C4'-C3'	-5.30	98.70	104.00
81	DA	1918	C	C3'-C2'-C1'	5.30	106.61	101.30
81	DA	1944	U	C4'-C3'-O3'	-5.30	105.04	113.00
81	DA	2446	U	C2'-C3'-O3'	5.30	121.66	113.70
81	DA	2451	G	O4'-C1'-N9	5.30	116.46	108.50
81	DA	3370	A	O3'-P-O5'	5.30	111.96	104.00
4	AD	217	THR	CA-C-N	5.30	131.81	121.63
4	AD	217	THR	C-N-CA	5.30	131.81	121.63
17	AQ	40	THR	N-CA-CB	5.30	119.45	110.49
32	BC	9	PRO	CA-N-CD	-5.30	104.58	112.00
64	Bl	49	TRP	N-CA-CB	5.30	118.01	110.16
78	CA	57	G	O4'-C1'-N9	5.30	116.45	108.50
78	CA	553	G	N9-C1'-C2'	5.30	119.95	112.00
81	DA	340	C	O4'-C1'-C2'	-5.30	102.30	107.60
81	DA	2242	A	O4'-C1'-C2'	-5.30	102.30	107.60
81	DA	2335	G	O4'-C1'-N9	5.30	116.16	108.20
16	AO	102	LEU	CA-C-N	5.30	127.38	120.28
16	AO	102	LEU	C-N-CA	5.30	127.38	120.28
32	BC	213	GLU	CA-C-N	5.30	129.46	122.30
32	BC	213	GLU	C-N-CA	5.30	129.46	122.30
32	BC	330	GLY	O-C-N	-5.30	117.53	123.10
46	BT	90	PRO	O-C-N	5.30	129.80	122.64
55	Bc	87	ALA	O-C-N	5.30	128.19	122.15
78	CA	118	U	C2'-C3'-O3'	5.30	117.45	109.50
78	CA	156	A	N9-C1'-C2'	-5.30	104.05	112.00
78	CA	474	A	C2'-C3'-O3'	5.30	121.65	113.70
78	CA	586	G	O3'-P-O5'	5.30	111.95	104.00
78	CA	853	G	C1'-O4'-C4'	5.30	115.20	109.90
81	DA	241	G	C5'-C4'-C3'	5.30	123.95	116.00
81	DA	1253	U	O4'-C1'-N1	5.30	116.45	108.50
81	DA	2182	A	C1'-O4'-C4'	-5.30	104.60	109.90
81	DA	2231	C	O4'-C1'-N1	-5.30	100.55	108.50
81	DA	2278	C	P-O3'-C3'	5.30	128.15	120.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2619	G	C1'-O4'-C4'	-5.30	104.60	109.90
81	DA	2698	G	O4'-C1'-N9	5.30	116.45	108.50
81	DA	3243	A	C1'-O4'-C4'	-5.30	104.60	109.90
82	DB	48	A	P-O5'-C5'	5.30	128.85	120.90
82	DB	108	C	N1-C1'-C2'	5.30	119.95	112.00
5	AC	65	LYS	CA-C-N	5.30	126.37	120.06
5	AC	65	LYS	C-N-CA	5.30	126.37	120.06
49	BV	137	ASN	N-CA-C	-5.30	101.02	109.23
58	Bg	12	TYR	N-CA-C	-5.30	101.13	109.50
69	Br	36	PHE	CA-C-N	5.30	131.66	121.54
69	Br	36	PHE	C-N-CA	5.30	131.66	121.54
78	CA	221	A	C4'-C3'-O3'	-5.30	105.05	113.00
78	CA	588	U	N1-C1'-C2'	5.30	119.95	112.00
78	CA	1786	G	C3'-C2'-C1'	5.30	106.60	101.30
81	DA	43	A	C1'-O4'-C4'	-5.30	104.40	109.70
81	DA	1534	A	O4'-C1'-N9	5.30	116.45	108.50
81	DA	2708	C	C3'-C2'-C1'	5.30	106.60	101.30
3	AB	170	THR	N-CA-C	-5.30	100.05	109.06
21	AT	27	ASP	N-CA-C	5.30	118.53	111.75
47	BU	145	GLY	CA-C-N	5.30	127.91	120.28
47	BU	145	GLY	C-N-CA	5.30	127.91	120.28
51	BZ	67	VAL	CB-CA-C	5.30	119.98	111.29
53	Ba	21	LYS	CB-CG-CD	5.30	123.49	111.30
56	Bf	44	ILE	N-CA-CB	5.30	118.58	111.90
74	BQ	16	PHE	N-CA-CB	5.30	117.91	110.12
1	Aa	195	HIS	CG-CD2-NE2	5.30	112.50	107.20
9	AH	42	GLN	CA-C-N	5.30	131.66	121.54
9	AH	42	GLN	C-N-CA	5.30	131.66	121.54
20	AS	55	TYR	O-C-N	-5.30	115.34	122.23
26	AZ	5	HIS	CE1-NE2-CD2	-5.30	103.70	109.00
37	BH	219	ASP	N-CA-CB	5.30	119.18	110.39
43	BP	6	TYR	CA-CB-CG	-5.30	104.37	113.90
64	Bl	85	LYS	CA-C-N	5.30	131.66	121.54
64	Bl	85	LYS	C-N-CA	5.30	131.66	121.54
69	Br	10	THR	CA-C-N	5.30	128.39	120.87
69	Br	10	THR	C-N-CA	5.30	128.39	120.87
76	BS	153	LEU	N-CA-CB	5.30	118.08	110.40
78	CA	181	A	N9-C1'-C2'	5.30	119.95	112.00
78	CA	606	A	C5'-C4'-O4'	5.30	117.05	109.10
78	CA	1103	U	O4'-C1'-N1	5.30	116.44	108.50
81	DA	1064	A	C1'-O4'-C4'	5.30	115.20	109.90
81	DA	1478	C	P-O5'-C5'	5.30	128.84	120.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1680	G	P-O3'-C3'	5.30	128.15	120.20
81	DA	1697	A	P-O5'-C5'	5.30	128.84	120.90
81	DA	2119	A	N9-C1'-C2'	5.30	119.94	112.00
35	BG	16	ALA	N-CA-CB	5.29	119.44	110.49
56	Bf	53	LYS	N-CA-CB	-5.29	102.31	110.20
78	CA	1337	A	C5'-C4'-C3'	5.29	123.94	116.00
83	DC	47	C	O4'-C1'-C2'	-5.29	102.31	107.60
31	BB	50	HIS	CB-CA-C	-5.29	100.93	109.72
32	BC	42	ALA	CA-C-O	-5.29	115.47	121.66
32	BC	363	SER	N-CA-C	5.29	122.08	110.80
36	BF	122	LYS	N-CA-CB	5.29	118.15	109.95
39	BJ	110	ILE	CA-C-N	5.29	127.81	120.29
39	BJ	110	ILE	C-N-CA	5.29	127.81	120.29
47	BU	86	GLU	O-C-N	-5.29	116.30	122.81
74	BQ	208	MET	CA-C-N	5.29	127.37	120.28
74	BQ	208	MET	C-N-CA	5.29	127.37	120.28
78	CA	1100	G	O5'-C5'-C4'	5.29	118.74	110.80
81	DA	691	A	C1'-O4'-C4'	5.29	115.19	109.90
81	DA	3299	A	C1'-O4'-C4'	5.29	115.19	109.90
2	AA	219	THR	N-CA-CB	5.29	117.99	110.16
5	AC	64	GLU	CB-CG-CD	-5.29	103.60	112.60
10	AI	140	LYS	CB-CA-C	-5.29	99.89	110.42
26	AZ	51	ASN	CA-C-O	-5.29	114.81	120.42
57	Be	179	LEU	CB-CA-C	-5.29	100.51	110.67
59	Bh	85	LEU	N-CA-C	5.29	117.05	111.28
61	Bj	74	THR	N-CA-CB	5.29	118.33	110.29
74	BQ	285	ARG	CA-C-N	5.29	131.50	121.97
74	BQ	285	ARG	C-N-CA	5.29	131.50	121.97
78	CA	1164	G	N9-C1'-C2'	-5.29	104.06	112.00
78	CA	1735	U	N1-C1'-C2'	5.29	119.94	112.00
81	DA	1954	G	P-O5'-C5'	-5.29	112.96	120.90
81	DA	2424	A	C4'-C3'-O3'	-5.29	105.06	113.00
81	DA	2690	G	O4'-C1'-N9	5.29	116.44	108.50
81	DA	2764	C	C3'-C2'-C1'	5.29	106.59	101.30
81	DA	3168	A	C5'-C4'-C3'	-5.29	108.06	116.00
2	AA	161	PRO	O-C-N	5.29	129.03	123.10
6	AE	153	SER	N-CA-CB	5.29	119.43	110.49
21	AT	13	VAL	CA-C-O	-5.29	115.15	118.69
74	BQ	223	PHE	N-CA-C	-5.29	105.59	111.36
78	CA	678	A	O4'-C1'-C2'	-5.29	102.31	107.60
78	CA	994	G	N9-C1'-C2'	-5.29	104.06	112.00
78	CA	1040	G	O4'-C1'-C2'	-5.29	102.31	107.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	748	U	N1-C1'-C2'	-5.29	104.06	112.00
81	DA	2627	C	N1-C1'-C2'	5.29	121.94	114.00
82	DB	56	G	P-O3'-C3'	5.29	128.13	120.20
1	Aa	70	ASP	N-CA-CB	5.29	119.43	110.49
3	AB	155	GLY	CA-C-N	5.29	131.64	121.54
3	AB	155	GLY	C-N-CA	5.29	131.64	121.54
29	AU	90	ARG	N-CA-C	-5.29	105.52	111.28
55	Bc	93	THR	CA-C-N	5.29	131.64	121.54
55	Bc	93	THR	C-N-CA	5.29	131.64	121.54
65	Bn	35	GLY	N-CA-C	-5.29	100.65	113.18
76	BS	35	ASN	CA-CB-CG	5.29	117.89	112.60
78	CA	47	A	O5'-C5'-C4'	-5.29	103.77	111.70
78	CA	264	G	P-O3'-C3'	5.29	128.13	120.20
81	DA	375	A	C3'-C2'-C1'	5.29	106.59	101.30
81	DA	1847	A	O4'-C1'-C2'	-5.29	100.51	105.80
81	DA	2201	G	C4'-C3'-C2'	-5.29	97.31	102.60
81	DA	2201	G	N9-C1'-C2'	5.29	119.93	112.00
37	BH	84	ARG	N-CA-C	-5.29	105.41	111.07
44	BO	92	LYS	N-CA-C	5.29	122.06	110.80
58	Bg	55	LEU	O-C-N	-5.29	116.12	122.15
78	CA	1264	G	C5'-C4'-C3'	5.29	123.93	116.00
8	AF	123	VAL	O-C-N	5.29	127.27	121.83
22	AV	63	SER	CA-C-N	5.29	127.70	120.46
22	AV	63	SER	C-N-CA	5.29	127.70	120.46
37	BH	247	ASP	CA-C-N	5.29	127.36	120.28
37	BH	247	ASP	C-N-CA	5.29	127.36	120.28
41	BN	22	LEU	CA-C-N	5.29	130.08	121.62
41	BN	22	LEU	C-N-CA	5.29	130.08	121.62
42	BM	7	GLN	CA-C-N	5.29	125.74	120.98
42	BM	7	GLN	C-N-CA	5.29	125.74	120.98
62	Bk	99	ARG	N-CA-C	5.29	122.06	110.80
64	Bl	12	HIS	CA-CB-CG	5.29	119.09	113.80
78	CA	960	U	C4'-C3'-C2'	-5.29	97.31	102.60
78	CA	984	G	O4'-C1'-N9	5.29	116.43	108.50
81	DA	290	G	C1'-O4'-C4'	-5.29	104.61	109.90
81	DA	844	G	P-O3'-C3'	-5.29	112.27	120.20
81	DA	1087	G	O4'-C1'-N9	5.29	116.43	108.50
81	DA	1334	U	N1-C1'-C2'	5.29	119.93	112.00
81	DA	1388	U	C4'-C3'-C2'	-5.29	97.31	102.60
81	DA	1846	C	N1-C1'-C2'	5.29	119.93	112.00
81	DA	2854	U	C4'-C3'-C2'	-5.29	97.31	102.60
81	DA	3321	C	C3'-C2'-C1'	5.29	106.59	101.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
82	DB	75	G	C5'-C4'-C3'	5.29	122.83	114.90
10	AI	96	TYR	CB-CA-C	-5.28	102.02	110.79
20	AS	90	PRO	N-CA-C	5.28	123.35	112.47
31	BB	113	VAL	CB-CA-C	5.28	118.58	110.55
32	BC	230	THR	O-C-N	-5.28	116.52	122.12
35	BG	115	GLU	CB-CG-CD	-5.28	103.62	112.60
41	BN	126	GLN	CA-C-N	5.28	127.36	120.28
41	BN	126	GLN	C-N-CA	5.28	127.36	120.28
43	BP	34	ASN	CA-CB-CG	5.28	117.88	112.60
45	BR	20	LYS	CA-CB-CG	5.28	124.67	114.10
49	BV	13	LYS	CB-CA-C	5.28	121.16	110.38
63	Bm	55	TRP	CB-CG-CD2	-5.28	119.40	126.80
69	Br	21	THR	CA-CB-OG1	5.28	117.53	109.60
78	CA	334	G	O3'-P-O5'	5.28	111.93	104.00
78	CA	904	G	P-O5'-C5'	-5.28	112.97	120.90
78	CA	1686	C	O4'-C1'-C2'	-5.28	102.32	107.60
78	CA	1725	U	O4'-C1'-C2'	-5.28	102.32	107.60
81	DA	312	C	N1-C1'-C2'	5.28	119.93	112.00
81	DA	655	C	O3'-P-O5'	5.28	111.93	104.00
81	DA	1001	G	C1'-O4'-C4'	-5.28	104.62	109.90
81	DA	1230	G	C4'-C3'-C2'	5.28	107.88	102.60
81	DA	1320	C	C4'-C3'-O3'	-5.28	105.08	113.00
81	DA	1557	A	P-O3'-C3'	5.28	128.12	120.20
81	DA	3199	G	O3'-P-O5'	5.28	111.92	104.00
81	DA	3307	A	O4'-C1'-N9	5.28	116.42	108.50
38	Bs	126	THR	N-CA-C	-5.28	105.69	111.82
78	CA	1386	G	P-O3'-C3'	5.28	128.12	120.20
81	DA	1796	G	N9-C1'-C2'	5.28	119.92	112.00
81	DA	3301	U	P-O5'-C5'	-5.28	112.98	120.90
2	AA	103	THR	CA-CB-OG1	5.28	117.52	109.60
12	AK	114	ARG	CB-CG-CD	5.28	123.45	111.30
40	BK	48	PHE	CB-CG-CD1	-5.28	111.72	120.70
49	BV	121	GLN	CB-CG-CD	-5.28	103.62	112.60
57	Be	181	ILE	N-CA-C	5.28	115.49	110.42
57	Be	209	ASN	CA-C-N	5.28	125.04	119.76
57	Be	209	ASN	C-N-CA	5.28	125.04	119.76
74	BQ	46	THR	CA-CB-OG1	5.28	117.52	109.60
76	BS	59	GLN	N-CA-C	-5.28	100.79	109.40
78	CA	1611	A	C3'-C2'-C1'	5.28	106.58	101.30
81	DA	1989	U	P-O5'-C5'	-5.28	112.98	120.90
81	DA	2176	U	C5'-C4'-O4'	-5.28	101.88	109.80
3	AB	178	ARG	CA-C-O	-5.28	115.28	120.82

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	AY	4	LYS	O-C-N	-5.28	116.63	122.86
43	BP	127	TYR	CA-CB-CG	-5.28	104.40	113.90
78	CA	320	U	P-O5'-C5'	-5.28	112.98	120.90
78	CA	833	U	C3'-C2'-C1'	-5.28	96.02	101.30
78	CA	1606	C	O4'-C1'-C2'	-5.28	102.32	107.60
81	DA	2830	G	O4'-C4'-C3'	-5.28	98.72	104.00
1	Aa	309	VAL	O-C-N	-5.28	117.18	123.04
14	AM	140	THR	CA-C-O	-5.28	114.05	120.54
56	Bf	59	TYR	CB-CA-C	-5.28	102.03	110.79
78	CA	348	U	C3'-C2'-C1'	5.28	106.58	101.30
78	CA	423	G	O4'-C1'-N9	5.28	116.12	108.20
78	CA	1535	U	C2'-C3'-O3'	5.28	117.42	109.50
81	DA	2251	G	C1'-O4'-C4'	-5.28	104.62	109.90
81	DA	2372	A	O4'-C1'-N9	-5.28	100.58	108.50
81	DA	2728	G	C1'-O4'-C4'	-5.28	104.62	109.90
83	DC	107	G	C4'-C3'-C2'	-5.28	97.32	102.60
8	AF	174	LEU	CA-C-N	5.28	127.78	120.29
8	AF	174	LEU	C-N-CA	5.28	127.78	120.29
21	AT	19	ALA	CA-C-O	5.28	126.14	120.55
31	BB	120	PRO	N-CA-CB	5.28	107.94	103.19
40	BK	4	GLU	C-N-CD	-5.28	103.37	125.00
52	BY	78	PHE	CA-CB-CG	-5.28	108.52	113.80
52	BY	113	LYS	CA-CB-CG	5.28	124.65	114.10
66	Bo	16	ALA	CA-C-N	5.28	127.35	120.28
66	Bo	16	ALA	C-N-CA	5.28	127.35	120.28
78	CA	465	G	C5'-C4'-C3'	-5.28	108.09	116.00
78	CA	1794	A	C3'-C2'-C1'	5.28	106.58	101.30
81	DA	105	C	P-O3'-C3'	5.28	128.11	120.20
81	DA	1334	U	C3'-C2'-C1'	5.28	106.58	101.30
81	DA	1334	U	C5'-C4'-C3'	-5.28	108.09	116.00
81	DA	2865	U	C2'-C3'-O3'	5.28	121.61	113.70
81	DA	3088	G	N9-C1'-C2'	5.28	119.91	112.00
83	DC	40	C	N1-C1'-C2'	5.28	119.91	112.00
14	AM	129	TRP	CZ3-CH2-CZ2	-5.27	114.64	121.50
16	AO	36	GLN	CA-C-N	5.27	127.69	120.46
16	AO	36	GLN	C-N-CA	5.27	127.69	120.46
33	BD	79	GLY	CA-C-N	5.27	128.05	121.83
33	BD	79	GLY	C-N-CA	5.27	128.05	121.83
78	CA	449	C	C3'-C2'-C1'	5.27	106.57	101.30
81	DA	513	G	C1'-C2'-O2'	5.27	116.31	108.40
81	DA	1581	C	O4'-C1'-C2'	-5.27	100.53	105.80
81	DA	3001	C	C3'-C2'-C1'	5.27	106.57	101.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	AN	15	GLY	O-C-N	5.27	129.56	122.70
21	AT	6	GLY	CA-C-N	5.27	127.34	120.28
21	AT	6	GLY	C-N-CA	5.27	127.34	120.28
35	BG	157	GLN	N-CA-CB	-5.27	102.37	110.12
41	BN	92	GLU	CA-C-N	5.27	127.34	120.28
41	BN	92	GLU	C-N-CA	5.27	127.34	120.28
52	BY	51	ARG	NH1-CZ-NH2	5.27	126.15	119.30
78	CA	158	U	C1'-O4'-C4'	-5.27	104.63	109.90
78	CA	682	C	O4'-C1'-C2'	-5.27	102.33	107.60
81	DA	990	U	P-O3'-C3'	5.27	128.11	120.20
81	DA	1225	A	N9-C1'-C2'	5.27	119.91	112.00
81	DA	2100	A	C1'-O4'-C4'	-5.27	104.43	109.70
33	BD	52	VAL	N-CA-C	-5.27	102.04	109.21
48	BW	10	LYS	O-C-N	5.27	129.38	123.48
69	Br	55	LYS	N-CA-C	5.27	120.10	113.25
76	BS	12	VAL	CA-C-N	-5.27	113.24	120.57
76	BS	12	VAL	C-N-CA	-5.27	113.24	120.57
78	CA	141	U	P-O5'-C5'	5.27	128.81	120.90
79	CB	63	C	N1-C1'-C2'	5.27	119.91	112.00
81	DA	299	G	O4'-C1'-N9	5.27	116.41	108.50
81	DA	408	A	O3'-P-O5'	-5.27	96.09	104.00
81	DA	654	C	C4'-C3'-O3'	-5.27	105.09	113.00
81	DA	1880	U	O4'-C1'-C2'	-5.27	102.33	107.60
81	DA	2510	U	O3'-P-O5'	5.27	111.91	104.00
4	AD	90	ILE	O-C-N	-5.27	117.19	123.04
21	AT	71	ARG	NE-CZ-NH2	5.27	123.94	119.20
32	BC	381	GLY	CA-C-N	-5.27	111.48	121.54
32	BC	381	GLY	C-N-CA	-5.27	111.48	121.54
46	BT	118	HIS	O-C-N	-5.27	116.64	122.07
78	CA	16	G	O3'-P-O5'	-5.27	96.10	104.00
78	CA	124	A	C5'-C4'-C3'	5.27	123.91	116.00
78	CA	593	U	O4'-C1'-N1	5.27	116.41	108.50
78	CA	1607	G	O3'-P-O5'	5.27	111.90	104.00
81	DA	1035	G	P-O3'-C3'	-5.27	112.29	120.20
81	DA	1574	C	O4'-C1'-C2'	-5.27	102.33	107.60
81	DA	1939	G	C1'-O4'-C4'	-5.27	104.63	109.90
81	DA	3066	U	O4'-C1'-N1	5.27	116.40	108.50
78	CA	348	U	C4'-C3'-C2'	-5.27	97.33	102.60
78	CA	934	C	N1-C1'-C2'	-5.27	106.10	114.00
81	DA	2492	C	O4'-C4'-C3'	5.27	109.27	104.00
81	DA	2892	A	N9-C1'-C2'	5.27	119.90	112.00
81	DA	3107	U	O5'-C5'-C4'	-5.27	103.60	111.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3327	G	C4'-C3'-C2'	-5.27	97.33	102.60
81	DA	3358	U	O3'-P-O5'	5.27	111.90	104.00
81	DA	3361	G	C3'-C2'-C1'	5.27	106.77	101.50
13	AL	87	VAL	CA-CB-CG1	-5.27	101.45	110.40
14	AM	139	LYS	N-CA-CB	-5.27	102.38	110.12
16	AO	109	LYS	CA-C-N	5.27	129.51	120.72
16	AO	109	LYS	C-N-CA	5.27	129.51	120.72
31	BB	92	LYS	CA-C-O	-5.27	114.97	120.55
40	BK	175	THR	CA-C-N	5.27	127.29	120.44
40	BK	175	THR	C-N-CA	5.27	127.29	120.44
12	AK	76	ILE	CA-C-N	5.26	131.59	121.54
12	AK	76	ILE	C-N-CA	5.26	131.59	121.54
32	BC	197	GLU	CB-CG-CD	-5.26	103.65	112.60
41	BN	119	GLN	CA-C-N	5.26	127.67	120.46
41	BN	119	GLN	C-N-CA	5.26	127.67	120.46
53	Ba	88	ASP	N-CA-CB	5.26	117.64	110.01
60	Bi	67	LYS	CB-CG-CD	-5.26	99.19	111.30
61	Bj	38	PRO	N-CA-CB	5.26	108.78	103.25
74	BQ	15	ARG	N-CA-C	5.26	117.02	111.28
78	CA	268	C	C3'-C2'-C1'	5.26	106.56	101.30
81	DA	9	U	C1'-O4'-C4'	-5.26	104.64	109.90
81	DA	702	C	C5'-C4'-C3'	5.26	123.90	116.00
81	DA	1767	C	C4'-C3'-C2'	-5.26	97.34	102.60
81	DA	2494	A	O3'-P-O5'	-5.26	96.10	104.00
81	DA	2523	A	C5'-C4'-C3'	-5.26	107.00	114.90
81	DA	2958	A	P-O3'-C3'	-5.26	112.30	120.20
33	BD	357	GLU	CB-CA-C	-5.26	102.05	110.79
43	BP	157	LYS	CB-CA-C	-5.26	100.98	109.72
46	BT	39	ASN	N-CA-C	5.26	117.02	111.28
81	DA	1831	U	P-O5'-C5'	5.26	128.79	120.90
8	AF	77	TYR	N-CA-CB	5.26	119.38	110.49
14	AM	45	LEU	CA-C-N	5.26	127.89	120.42
14	AM	45	LEU	C-N-CA	5.26	127.89	120.42
33	BD	361	HIS	CE1-NE2-CD2	-5.26	103.74	109.00
50	BX	118	GLY	CA-C-N	5.26	132.45	123.03
50	BX	118	GLY	C-N-CA	5.26	132.45	123.03
63	Bm	89	MET	CA-C-N	5.26	127.19	120.56
63	Bm	89	MET	C-N-CA	5.26	127.19	120.56
76	BS	110	THR	CA-CB-CG2	5.26	119.44	110.50
78	CA	110	U	C3'-C2'-C1'	5.26	106.56	101.30
78	CA	620	A	C2'-C3'-O3'	5.26	121.59	113.70
78	CA	1477	G	O5'-P-OP1	5.26	123.79	108.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	201	A	C1'-O4'-C4'	-5.26	104.64	109.90
81	DA	1014	U	C5'-C4'-C3'	5.26	123.89	116.00
81	DA	1291	A	N9-C1'-C2'	-5.26	104.11	112.00
81	DA	1335	C	C4'-C3'-C2'	-5.26	97.34	102.60
81	DA	2218	G	O4'-C1'-C2'	5.26	112.86	107.60
81	DA	2444	C	C3'-C2'-C1'	5.26	106.56	101.30
81	DA	2527	G	O4'-C1'-C2'	5.26	112.86	107.60
81	DA	2963	C	N1-C1'-C2'	5.26	119.89	112.00
82	DB	54	A	N9-C1'-C2'	5.26	119.89	112.00
2	AA	215	ALA	O-C-N	5.26	127.69	122.12
4	AD	209	HIS	CA-C-O	-5.26	115.07	121.28
4	AD	235	TYR	CA-C-N	-5.26	112.50	121.97
4	AD	235	TYR	C-N-CA	-5.26	112.50	121.97
13	AL	112	LYS	N-CA-C	5.26	119.41	112.89
34	BE	110	ILE	N-CA-CB	5.26	116.78	110.31
36	BF	173	ARG	N-CA-CB	5.26	117.85	110.12
59	Bh	27	ARG	O-C-N	5.26	128.15	122.15
78	CA	181	A	O4'-C1'-C2'	-5.26	102.34	107.60
78	CA	880	C	O4'-C1'-N1	5.26	116.39	108.50
78	CA	1316	G	P-O3'-C3'	5.26	128.09	120.20
78	CA	1404	C	C2'-C3'-O3'	5.26	121.59	113.70
79	CB	25	U	O4'-C1'-N1	5.26	116.39	108.50
79	CB	53	U	O4'-C1'-C2'	-5.26	102.34	107.60
81	DA	665	A	C3'-C2'-C1'	5.26	106.56	101.30
81	DA	1314	C	P-O3'-C3'	-5.26	112.31	120.20
81	DA	1695	U	P-O5'-C5'	-5.26	113.01	120.90
81	DA	1756	C	C5'-C4'-C3'	-5.26	108.11	116.00
81	DA	3025	C	N1-C1'-C2'	5.26	119.89	112.00
82	DB	43	A	O3'-P-O5'	-5.26	96.11	104.00
21	AT	43	GLY	N-CA-C	-5.26	100.72	113.18
58	Bg	10	ARG	NH1-CZ-NH2	-5.26	112.46	119.30
74	BQ	244	HIS	CA-C-N	5.26	131.58	121.54
74	BQ	244	HIS	C-N-CA	5.26	131.58	121.54
81	DA	960	U	C1'-C2'-O2'	5.26	116.29	108.40
81	DA	1072	G	O4'-C1'-C2'	5.26	112.86	107.60
83	DC	66	C	C3'-C2'-C1'	5.26	106.56	101.30
13	AL	11	SER	N-CA-CB	5.26	119.95	111.65
33	BD	87	GLN	N-CA-CB	5.26	118.54	110.60
43	BP	139	HIS	CA-C-N	5.26	128.30	120.31
43	BP	139	HIS	C-N-CA	5.26	128.30	120.31
47	BU	1	MET	CA-C-N	5.26	134.48	123.12
47	BU	1	MET	C-N-CA	5.26	134.48	123.12

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
50	BX	93	TYR	CA-C-N	5.26	127.27	120.44
50	BX	93	TYR	C-N-CA	5.26	127.27	120.44
60	Bi	111	ALA	N-CA-C	5.26	119.99	111.37
81	DA	534	U	N1-C1'-C2'	-5.26	104.12	112.00
81	DA	582	G	C1'-O4'-C4'	-5.26	104.64	109.90
81	DA	656	A	C1'-O4'-C4'	-5.26	104.64	109.90
81	DA	2929	C	O4'-C1'-C2'	-5.26	102.34	107.60
44	BO	40	HIS	CA-C-N	5.25	131.16	121.70
44	BO	40	HIS	C-N-CA	5.25	131.16	121.70
78	CA	420	A	C5'-C4'-C3'	-5.25	108.12	116.00
81	DA	1850	A	O4'-C1'-N9	5.25	116.08	108.20
81	DA	2127	U	P-O3'-C3'	-5.25	112.32	120.20
9	AH	109	GLY	N-CA-C	-5.25	100.73	113.18
19	AR	103	ASN	N-CA-C	-5.25	101.31	109.14
31	BB	49	VAL	N-CA-C	5.25	115.69	108.12
33	BD	18	ASN	N-CA-CB	5.25	119.37	110.49
36	BF	45	PHE	CA-CB-CG	5.25	119.05	113.80
50	BX	76	VAL	N-CA-CB	5.25	116.70	110.55
61	Bj	39	GLN	CB-CG-CD	-5.25	103.67	112.60
67	Bp	42	THR	N-CA-CB	5.25	119.58	110.39
78	CA	875	G	C1'-O4'-C4'	-5.25	104.65	109.90
81	DA	982	C	P-O5'-C5'	-5.25	113.02	120.90
81	DA	1346	G	C1'-O4'-C4'	5.25	115.15	109.90
82	DB	110	C	N1-C1'-C2'	5.25	119.88	112.00
30	BA	145	TYR	N-CA-CB	5.25	117.84	110.12
32	BC	298	PHE	N-CA-CB	-5.25	101.57	110.50
60	Bi	109	THR	N-CA-CB	5.25	119.06	110.55
78	CA	408	C	C3'-C2'-C1'	5.25	106.55	101.30
78	CA	1378	U	O4'-C1'-C2'	-5.25	102.35	107.60
81	DA	1134	G	O4'-C1'-N9	5.25	116.38	108.50
81	DA	1949	G	P-O5'-C5'	-5.25	113.02	120.90
6	AE	87	GLN	CA-C-O	-5.25	114.86	120.42
15	AN	9	SER	CB-CA-C	5.25	120.08	110.10
59	Bh	13	HIS	ND1-CE1-NE2	5.25	113.65	108.40
61	Bj	68	TRP	CE2-CD2-CE3	5.25	124.05	118.80
62	Bk	59	ASP	N-CA-CB	5.25	117.84	110.12
81	DA	1001	G	O4'-C1'-C2'	5.25	112.85	107.60
81	DA	2802	A	C2'-C3'-O3'	5.25	117.38	109.50
1	Aa	91	LEU	N-CA-CB	5.25	118.86	110.46
8	AF	213	LYS	N-CA-C	5.25	117.08	111.36
20	AS	47	PRO	N-CA-C	-5.25	107.57	114.03
39	BJ	51	LYS	CA-C-N	5.25	131.74	121.66

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
39	BJ	51	LYS	C-N-CA	5.25	131.74	121.66
78	CA	280	U	C5'-C4'-C3'	5.25	123.87	116.00
78	CA	392	G	N9-C1'-C2'	5.25	119.87	112.00
78	CA	788	A	P-O3'-C3'	5.25	128.07	120.20
78	CA	1088	A	C4'-C3'-O3'	-5.25	105.13	113.00
78	CA	1091	A	C5'-C4'-C3'	5.25	123.07	115.20
78	CA	1175	U	N1-C1'-C2'	5.25	119.87	112.00
78	CA	1475	A	O4'-C4'-C3'	-5.25	98.75	104.00
81	DA	677	A	N9-C1'-C2'	-5.25	106.13	114.00
81	DA	1657	C	O3'-P-O5'	5.25	111.87	104.00
81	DA	1807	G	O4'-C1'-C2'	5.25	111.05	105.80
81	DA	2146	C	C3'-C2'-C1'	5.25	106.55	101.30
81	DA	2391	G	N9-C1'-C2'	5.25	119.87	112.00
81	DA	2740	A	O4'-C1'-N9	5.25	116.37	108.50
81	DA	2994	A	C1'-O4'-C4'	5.25	115.15	109.90
81	DA	3093	C	C3'-C2'-C1'	5.25	106.75	101.50
81	DA	3138	U	N1-C1'-C2'	5.25	119.87	112.00
2	AA	96	THR	CA-C-O	-5.25	114.88	120.23
39	BJ	16	ARG	N-CA-C	-5.25	101.39	109.52
76	BS	139	ASP	N-CA-CB	5.25	119.36	110.49
78	CA	15	U	C1'-C2'-O2'	5.25	116.27	108.40
78	CA	927	C	N1-C1'-C2'	5.25	119.87	112.00
81	DA	522	A	O4'-C1'-N9	5.25	116.37	108.50
81	DA	665	A	C1'-O4'-C4'	-5.25	104.65	109.90
81	DA	1427	U	O4'-C1'-C2'	-5.25	102.35	107.60
81	DA	3247	G	C5'-C4'-C3'	5.25	123.87	116.00
20	AS	21	PHE	CA-CB-CG	-5.25	108.56	113.80
39	BJ	41	LYS	N-CA-C	-5.25	103.54	111.56
46	BT	173	ARG	CA-C-N	5.25	127.74	120.29
46	BT	173	ARG	C-N-CA	5.25	127.74	120.29
53	Ba	13	VAL	CG1-CB-CG2	5.25	122.34	110.80
64	Bl	47	TYR	N-CA-CB	5.25	118.83	110.65
78	CA	1461	C	C3'-C2'-C1'	5.25	106.55	101.30
81	DA	506	U	C4'-C3'-O3'	-5.25	105.13	113.00
81	DA	2597	U	P-O3'-C3'	5.25	128.07	120.20
81	DA	2964	G	C4'-C3'-C2'	-5.25	97.36	102.60
81	DA	3113	A	O4'-C1'-C2'	-5.25	102.36	107.60
5	AC	39	LYS	CA-C-N	5.24	132.33	121.32
5	AC	39	LYS	C-N-CA	5.24	132.33	121.32
10	AI	54	LEU	N-CA-CB	5.24	119.77	111.17
12	AK	107	ARG	CA-C-N	5.24	132.80	122.31
12	AK	107	ARG	C-N-CA	5.24	132.80	122.31

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
30	BA	187	VAL	CA-C-O	-5.24	115.50	120.95
38	Bs	232	LEU	O-C-N	-5.24	115.78	120.92
38	Bs	243	TYR	N-CA-C	5.24	117.00	111.28
56	Bf	50	VAL	CA-CB-CG1	-5.24	101.49	110.40
78	CA	310	C	P-O5'-C5'	5.24	128.76	120.90
78	CA	897	C	C5'-C4'-C3'	5.24	123.07	115.20
78	CA	1774	G	N9-C1'-C2'	5.24	119.87	112.00
81	DA	1140	G	N9-C1'-C2'	5.24	119.87	112.00
81	DA	1752	A	O4'-C1'-C2'	-5.24	102.36	107.60
81	DA	3221	C	O5'-C5'-C4'	-5.24	94.77	110.50
20	AS	5	SER	N-CA-C	5.24	118.78	112.38
24	AX	56	CYS	N-CA-CB	5.24	117.66	109.85
25	AY	20	GLY	CA-C-O	-5.24	111.45	120.57
46	BT	161	ALA	O-C-N	5.24	127.68	122.12
78	CA	1690	G	C4'-C3'-O3'	5.24	120.86	113.00
81	DA	959	C	C3'-C2'-C1'	5.24	106.54	101.30
81	DA	2174	G	C1'-O4'-C4'	5.24	114.94	109.70
81	DA	2677	G	C1'-O4'-C4'	5.24	114.94	109.70
1	Aa	201	THR	CA-CB-CG2	5.24	119.41	110.50
16	AO	55	ARG	CA-C-N	5.24	127.25	120.44
16	AO	55	ARG	C-N-CA	5.24	127.25	120.44
46	BT	98	ARG	NE-CZ-NH1	-5.24	116.26	121.50
62	Bk	57	LEU	N-CA-CB	5.24	117.82	110.12
62	Bk	59	ASP	CA-C-N	5.24	127.25	120.44
62	Bk	59	ASP	C-N-CA	5.24	127.25	120.44
74	BQ	21	ARG	CA-C-N	5.24	127.25	120.44
74	BQ	21	ARG	C-N-CA	5.24	127.25	120.44
78	CA	280	U	O4'-C4'-C3'	5.24	109.24	104.00
81	DA	1138	U	O4'-C1'-N1	5.24	116.36	108.50
81	DA	1296	C	O4'-C1'-N1	5.24	116.36	108.50
81	DA	1694	U	C1'-O4'-C4'	5.24	115.14	109.90
81	DA	2403	G	O4'-C1'-N9	5.24	116.06	108.20
81	DA	2944	U	C1'-O4'-C4'	5.24	115.14	109.90
81	DA	2973	G	C5'-C4'-C3'	5.24	123.86	116.00
81	DA	3229	G	C1'-O4'-C4'	-5.24	104.66	109.90
3	AB	19	ALA	N-CA-CB	5.24	117.82	110.12
15	AN	40	ARG	N-CA-C	5.24	116.99	111.28
29	AU	30	PRO	CA-N-CD	-5.24	104.67	112.00
32	BC	374	ALA	O-C-N	5.24	127.67	122.12
45	BR	39	ARG	CB-CA-C	5.24	120.73	110.67
69	Br	34	SER	N-CA-C	-5.24	99.64	110.80
77	BI	82	ARG	N-CA-C	5.24	116.99	111.28

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1424	A	C3'-C2'-C1'	5.24	106.54	101.30
78	CA	1547	A	C4'-C3'-C2'	-5.24	97.36	102.60
81	DA	503	C	N1-C1'-C2'	5.24	119.86	112.00
81	DA	652	G	N9-C1'-C2'	5.24	119.86	112.00
81	DA	971	G	O4'-C1'-N9	5.24	116.36	108.50
81	DA	1131	G	C4'-C3'-C2'	5.24	107.84	102.60
81	DA	1853	U	N1-C1'-C2'	-5.24	104.14	112.00
81	DA	1884	A	O4'-C1'-C2'	-5.24	102.36	107.60
81	DA	2047	A	C1'-O4'-C4'	-5.24	104.66	109.90
81	DA	2565	U	C4'-C3'-C2'	-5.24	97.36	102.60
82	DB	72	A	P-O5'-C5'	5.24	127.86	120.00
14	AM	140	THR	N-CA-C	-5.24	99.79	108.75
52	BY	111	LEU	N-CA-C	5.24	116.99	111.28
78	CA	1793	G	P-O5'-C5'	-5.24	113.05	120.90
81	DA	3031	G	C1'-O4'-C4'	-5.24	104.66	109.90
9	AH	97	ARG	N-CA-CB	5.24	119.34	110.49
25	AY	12	VAL	CB-CA-C	-5.24	104.95	111.08
35	BG	120	ASN	CA-C-N	5.24	127.56	120.44
35	BG	120	ASN	C-N-CA	5.24	127.56	120.44
45	BR	13	SER	N-CA-C	-5.24	100.50	107.88
50	BX	84	PHE	N-CA-CB	5.24	119.68	111.20
57	Be	133	TYR	N-CA-CB	5.24	117.77	109.71
65	Bn	67	GLN	N-CA-CB	5.24	117.60	110.01
78	CA	949	C	C5'-C4'-C3'	5.24	123.85	116.00
78	CA	1265	G	O4'-C1'-N9	5.24	116.35	108.50
79	CB	74	C	C3'-C2'-C1'	5.24	106.53	101.30
81	DA	723	U	C5'-C4'-O4'	-5.24	101.95	109.80
81	DA	2426	U	O4'-C1'-N1	5.24	116.35	108.50
81	DA	2627	C	O4'-C1'-C2'	-5.24	100.56	105.80
81	DA	2931	C	C1'-C2'-O2'	5.24	116.25	108.40
81	DA	3350	C	O4'-C4'-C3'	-5.24	98.77	104.00
4	AD	233	LYS	O-C-N	-5.23	115.30	121.32
5	AC	153	GLU	CB-CG-CD	-5.23	103.70	112.60
33	BD	300	ARG	N-CA-C	5.23	121.38	109.81
38	Bs	52	LEU	N-CA-CB	5.23	120.05	111.31
38	Bs	201	ILE	O-C-N	5.23	127.04	121.91
78	CA	223	U	C5'-C4'-O4'	-5.23	101.95	109.80
81	DA	1404	G	C4'-C3'-O3'	5.23	120.85	113.00
1	Aa	297	ASP	N-CA-CB	5.23	117.90	110.16
31	BB	39	GLY	N-CA-C	5.23	123.93	114.46
31	BB	144	ASN	CA-C-O	-5.23	115.31	120.70
33	BD	295	ILE	CA-C-N	-5.23	114.62	122.47

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	BD	295	ILE	C-N-CA	-5.23	114.62	122.47
39	BJ	67	ARG	NE-CZ-NH2	-5.23	114.49	119.20
43	BP	15	GLN	CB-CA-C	-5.23	100.68	110.36
78	CA	446	A	O3'-P-O5'	5.23	111.85	104.00
78	CA	1349	G	O4'-C4'-C3'	5.23	109.23	104.00
81	DA	62	A	O4'-C1'-C2'	-5.23	102.37	107.60
81	DA	654	C	O3'-P-O5'	5.23	111.85	104.00
81	DA	1855	U	O4'-C1'-C2'	-5.23	102.37	107.60
81	DA	2169	G	O4'-C1'-C2'	-5.23	102.37	107.60
82	DB	108	C	O4'-C1'-C2'	-5.23	102.37	107.60
5	AC	83	VAL	CA-CB-CG2	-5.23	101.51	110.40
17	AQ	31	ASN	OD1-CG-ND2	-5.23	117.37	122.60
32	BC	29	VAL	N-CA-C	-5.23	101.05	108.58
32	BC	279	ASN	CB-CA-C	-5.23	104.85	111.86
33	BD	355	PHE	CA-CB-CG	5.23	119.03	113.80
37	BH	198	ALA	N-CA-CB	5.23	119.83	111.56
47	BU	26	HIS	CA-C-N	5.23	129.05	120.63
47	BU	26	HIS	C-N-CA	5.23	129.05	120.63
50	BX	54	TYR	CA-C-N	-5.23	115.09	122.94
50	BX	54	TYR	C-N-CA	-5.23	115.09	122.94
57	Be	63	ILE	N-CA-C	5.23	115.45	110.53
78	CA	48	G	N9-C1'-C2'	5.23	119.85	112.00
81	DA	241	G	C5'-C4'-O4'	-5.23	101.96	109.80
81	DA	811	U	N1-C1'-C2'	5.23	119.84	112.00
81	DA	2687	G	P-O3'-C3'	5.23	128.04	120.20
82	DB	22	U	O4'-C1'-C2'	-5.23	100.57	105.80
1	Aa	286	GLU	CA-C-N	5.23	126.50	120.85
1	Aa	286	GLU	C-N-CA	5.23	126.50	120.85
24	AX	76	GLY	CA-C-N	5.23	131.53	121.54
24	AX	76	GLY	C-N-CA	5.23	131.53	121.54
37	BH	138	HIS	CE1-NE2-CD2	-5.23	103.77	109.00
44	BO	25	HIS	CA-C-O	-5.23	115.25	121.16
78	CA	590	C	C5'-C4'-C3'	5.23	123.84	116.00
81	DA	72	C	C2'-C3'-O3'	5.23	117.34	109.50
81	DA	903	U	O4'-C1'-N1	5.23	116.34	108.50
81	DA	3330	A	C3'-C2'-C1'	5.23	106.53	101.30
81	DA	3371	G	P-O3'-C3'	-5.23	112.36	120.20
82	DB	49	G	O4'-C1'-N9	5.23	116.34	108.50
5	AC	175	ARG	NE-CZ-NH1	-5.23	116.27	121.50
6	AE	85	PRO	CA-C-N	5.23	128.87	120.30
6	AE	85	PRO	C-N-CA	5.23	128.87	120.30
6	AE	119	LYS	CA-C-N	5.23	131.53	121.54

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	AE	119	LYS	C-N-CA	5.23	131.53	121.54
29	AU	19	ALA	N-CA-CB	5.23	119.33	110.49
46	BT	76	SER	CA-C-N	5.23	127.86	121.06
46	BT	76	SER	C-N-CA	5.23	127.86	121.06
46	BT	112	ALA	CA-C-N	5.23	131.66	121.41
46	BT	112	ALA	C-N-CA	5.23	131.66	121.41
46	BT	156	ASN	CA-C-N	5.23	127.28	120.28
46	BT	156	ASN	C-N-CA	5.23	127.28	120.28
49	BV	86	LYS	N-CA-CB	5.23	117.59	110.01
53	Ba	79	HIS	CA-CB-CG	5.23	119.03	113.80
78	CA	70	C	P-O5'-C5'	-5.23	113.06	120.90
78	CA	500	C	C2'-C3'-O3'	5.23	121.54	113.70
78	CA	1440	C	C4'-C3'-C2'	-5.23	97.37	102.60
81	DA	77	A	O3'-P-O5'	5.23	111.84	104.00
81	DA	105	C	N1-C1'-C2'	5.23	119.84	112.00
81	DA	736	A	O5'-C5'-C4'	-5.23	103.66	111.50
81	DA	750	G	C4'-C3'-O3'	-5.23	105.16	113.00
81	DA	1263	A	C2'-C3'-O3'	5.23	117.34	109.50
81	DA	1859	A	O4'-C1'-N9	5.23	116.04	108.20
81	DA	2571	U	C2'-C3'-O3'	5.23	117.34	109.50
81	DA	2743	A	C4'-C3'-O3'	-5.23	105.16	113.00
5	AC	42	ILE	O-C-N	5.23	126.94	121.87
10	AI	31	VAL	N-CA-CB	5.23	118.43	111.64
12	AK	96	PRO	N-CA-C	-5.23	101.70	112.47
31	BB	216	HIS	CE1-NE2-CD2	-5.23	103.77	109.00
33	BD	252	GLU	CA-C-N	5.23	128.25	120.31
33	BD	252	GLU	C-N-CA	5.23	128.25	120.31
37	BH	170	CYS	CA-C-N	5.23	127.81	120.28
37	BH	170	CYS	C-N-CA	5.23	127.81	120.28
40	BK	24	ALA	CA-C-N	5.23	127.71	120.29
40	BK	24	ALA	C-N-CA	5.23	127.71	120.29
76	BS	32	TRP	CB-CG-CD2	-5.23	119.48	126.80
81	DA	787	G	P-O3'-C3'	5.23	128.04	120.20
6	AE	79	GLU	N-CA-C	5.22	116.66	111.07
11	AJ	33	GLN	O-C-N	5.22	128.11	122.15
26	AZ	54	ARG	CA-C-O	5.22	125.67	119.56
33	BD	71	VAL	CA-C-N	5.22	128.29	120.87
33	BD	71	VAL	C-N-CA	5.22	128.29	120.87
36	BF	158	ALA	N-CA-C	-5.22	105.67	111.36
39	BJ	13	LEU	CA-C-N	-5.22	113.72	122.92
39	BJ	13	LEU	C-N-CA	-5.22	113.72	122.92
52	BY	5	SER	CA-C-O	5.22	126.54	121.05

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
57	Be	140	SER	N-CA-CB	5.22	117.54	110.38
58	Bg	19	ARG	CD-NE-CZ	-5.22	117.09	124.40
74	BQ	116	ASP	N-CA-C	5.22	125.63	111.00
78	CA	203	U	O4'-C4'-C3'	-5.22	98.78	104.00
78	CA	308	C	C3'-C2'-C1'	5.22	106.53	101.30
78	CA	1547	A	O5'-C5'-C4'	5.22	119.34	111.50
78	CA	1652	C	P-O5'-C5'	-5.22	113.06	120.90
81	DA	1790	G	C4'-C3'-C2'	-5.22	97.38	102.60
81	DA	1897	G	C4'-C3'-C2'	-5.22	97.38	102.60
2	AA	241	GLU	N-CA-C	5.22	116.97	111.28
6	AE	36	VAL	CB-CA-C	-5.22	107.16	114.00
11	AJ	102	ARG	N-CA-CB	5.22	117.58	110.01
32	BC	290	ASP	CB-CA-C	5.22	120.81	110.42
46	BT	97	ARG	CA-C-N	5.22	127.71	120.29
46	BT	97	ARG	C-N-CA	5.22	127.71	120.29
53	Ba	75	VAL	CB-CA-C	5.22	120.72	112.26
60	Bi	59	PRO	N-CA-CB	5.22	108.73	103.25
81	DA	277	G	P-O3'-C3'	5.22	128.03	120.20
81	DA	792	G	P-O3'-C3'	5.22	128.03	120.20
81	DA	2094	C	O3'-P-O5'	-5.22	96.17	104.00
81	DA	2988	C	C4'-C3'-O3'	5.22	120.83	113.00
13	AL	87	VAL	C-N-CD	-5.22	109.11	120.60
14	AM	53	ASP	N-CA-CB	5.22	118.39	110.45
21	AT	46	ILE	N-CA-C	-5.22	96.85	107.92
22	AV	30	LYS	CA-C-N	5.22	131.51	121.54
22	AV	30	LYS	C-N-CA	5.22	131.51	121.54
37	BH	232	HIS	CB-CA-C	-5.22	100.03	110.42
38	Bs	223	ILE	N-CA-C	-5.22	105.41	110.42
50	BX	60	TYR	CG-CD1-CE1	-5.22	113.37	121.20
65	Bn	71	PRO	N-CA-C	-5.22	101.72	112.47
78	CA	418	G	O4'-C1'-N9	5.22	116.33	108.50
79	CB	42	C	N1-C1'-C2'	5.22	119.83	112.00
81	DA	179	C	C5'-C4'-C3'	-5.22	108.17	116.00
81	DA	849	C	P-O5'-C5'	5.22	128.73	120.90
4	AD	233	LYS	CA-C-O	-5.22	113.01	120.16
13	AL	96	VAL	N-CA-CB	5.22	119.21	110.86
18	AP	87	ARG	CB-CA-C	-5.22	101.33	109.84
32	BC	139	GLN	OE1-CD-NE2	5.22	127.82	122.60
36	BF	170	LYS	N-CA-C	-5.22	102.33	110.42
39	BJ	34	PRO	CB-CA-C	5.22	117.85	111.12
39	BJ	116	MET	CA-C-N	5.22	127.80	120.28
39	BJ	116	MET	C-N-CA	5.22	127.80	120.28

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
48	BW	101	ASN	CA-C-N	5.22	128.12	120.71
48	BW	101	ASN	C-N-CA	5.22	128.12	120.71
53	Ba	21	LYS	N-CA-C	-5.22	96.38	111.00
65	Bn	57	ASN	N-CA-C	5.22	121.92	110.80
66	Bo	15	LYS	CB-CA-C	5.22	119.45	110.79
73	Bw	23	LYS	N-CA-CB	5.22	117.89	110.16
78	CA	1286	U	C3'-C2'-C1'	5.22	106.52	101.30
79	CB	23	A	N9-C1'-C2'	5.22	119.83	112.00
81	DA	168	U	O4'-C1'-C2'	-5.22	102.38	107.60
81	DA	1198	C	C4'-C3'-C2'	-5.22	97.38	102.60
81	DA	1290	A	C2'-C3'-O3'	5.22	121.53	113.70
81	DA	1720	U	O4'-C1'-N1	5.22	116.33	108.50
81	DA	2036	U	O4'-C1'-N1	5.22	116.33	108.50
81	DA	2706	G	O3'-P-O5'	5.22	111.83	104.00
81	DA	3118	C	N1-C1'-C2'	5.22	119.83	112.00
17	AQ	126	ALA	CA-C-N	5.22	131.51	121.54
17	AQ	126	ALA	C-N-CA	5.22	131.51	121.54
32	BC	238	LEU	CA-C-O	-5.22	114.98	119.36
36	BF	78	MET	CA-C-N	5.22	127.24	120.56
36	BF	78	MET	C-N-CA	5.22	127.24	120.56
39	BJ	53	PHE	CA-C-N	5.22	127.22	120.44
39	BJ	53	PHE	C-N-CA	5.22	127.22	120.44
41	BN	50	LYS	CA-C-O	-5.22	115.65	121.23
81	DA	1284	C	C3'-C2'-C1'	5.22	106.52	101.30
81	DA	1614	C	O4'-C1'-N1	5.22	116.33	108.50
81	DA	2100	A	C2'-C3'-O3'	5.22	117.33	109.50
81	DA	3149	G	O4'-C1'-C2'	-5.22	102.38	107.60
3	AB	143	ARG	N-CA-C	5.22	119.22	112.86
4	AD	147	ILE	N-CA-CB	5.22	119.99	111.44
24	AX	33	LEU	CB-CA-C	5.22	118.78	109.65
30	BA	8	GLN	CA-C-N	5.22	127.83	120.42
30	BA	8	GLN	C-N-CA	5.22	127.83	120.42
76	BS	164	LYS	CB-CA-C	5.22	119.97	110.11
79	CB	5	U	O4'-C1'-N1	5.22	116.32	108.50
81	DA	533	A	P-O5'-C5'	5.22	128.72	120.90
81	DA	1125	U	O4'-C1'-C2'	-5.22	102.38	107.60
81	DA	1679	A	C3'-C2'-C1'	5.22	106.52	101.30
6	AE	91	ARG	CB-CA-C	-5.21	102.14	110.79
16	AO	85	PRO	N-CA-C	-5.21	103.64	111.57
20	AS	69	LYS	CA-CB-CG	5.21	124.53	114.10
24	AX	45	THR	N-CA-C	-5.21	99.91	108.41
44	BO	103	ASP	CA-CB-CG	-5.21	107.39	112.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
46	BT	93	VAL	CA-C-N	5.21	127.82	120.42
46	BT	93	VAL	C-N-CA	5.21	127.82	120.42
81	DA	1175	C	N1-C1'-C2'	5.21	119.82	112.00
81	DA	1493	G	O4'-C1'-C2'	-5.21	100.58	105.80
81	DA	1794	G	O4'-C1'-N9	5.21	116.02	108.20
81	DA	2100	A	O3'-P-O5'	-5.21	96.18	104.00
81	DA	3068	U	O5'-C5'-C4'	-5.21	103.68	111.50
1	Aa	316	MET	N-CA-CB	5.21	120.26	110.56
31	BB	179	LEU	CA-C-N	5.21	131.50	121.54
31	BB	179	LEU	C-N-CA	5.21	131.50	121.54
37	BH	121	SER	N-CA-C	5.21	117.70	111.71
78	CA	1204	A	N9-C1'-C2'	5.21	119.82	112.00
81	DA	1411	C	O4'-C1'-C2'	-5.21	102.39	107.60
81	DA	1937	U	O4'-C1'-C2'	-5.21	102.39	107.60
6	AE	21	ARG	N-CA-CB	-5.21	102.54	110.30
29	AU	35	VAL	CA-C-O	-5.21	116.14	121.67
33	BD	3	ARG	CB-CA-C	5.21	117.84	110.02
35	BG	5	LYS	N-CA-C	-5.21	99.70	110.80
42	BM	56	ASP	CA-CB-CG	-5.21	107.39	112.60
74	BQ	203	HIS	ND1-CE1-NE2	5.21	113.61	108.40
78	CA	169	A	P-O5'-C5'	-5.21	113.08	120.90
78	CA	977	A	N9-C1'-C2'	5.21	119.82	112.00
81	DA	1272	C	C4'-C3'-C2'	-5.21	97.39	102.60
81	DA	1973	G	O4'-C1'-C2'	-5.21	102.39	107.60
81	DA	2321	A	N9-C1'-C2'	5.21	119.82	112.00
30	BA	79	SER	N-CA-C	-5.21	105.60	111.28
74	BQ	245	GLU	N-CA-CB	5.21	119.30	110.49
78	CA	978	A	P-O3'-C3'	5.21	128.01	120.20
78	CA	1744	A	O4'-C1'-C2'	-5.21	102.39	107.60
79	CB	11	U	O4'-C1'-N1	5.21	116.31	108.50
81	DA	1001	G	C4'-C3'-O3'	5.21	120.81	113.00
81	DA	1007	U	N1-C1'-C2'	5.21	119.81	112.00
81	DA	1258	U	C5'-C4'-O4'	5.21	117.61	109.80
2	AA	102	PHE	N-CA-C	-5.21	101.65	109.15
5	AC	8	TYR	CB-CG-CD2	-5.21	112.99	120.80
5	AC	106	GLU	N-CA-CB	5.21	118.35	110.28
11	AJ	81	THR	O-C-N	5.21	129.36	123.27
12	AK	106	ALA	N-CA-CB	5.21	118.24	110.22
37	BH	164	VAL	N-CA-CB	5.21	116.98	110.47
38	Bs	215	SER	CA-C-N	5.21	127.21	120.44
38	Bs	215	SER	C-N-CA	5.21	127.21	120.44
40	BK	32	LYS	N-CA-CB	5.21	118.73	110.55

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	13	C	N1-C1'-C2'	5.21	119.81	112.00
81	DA	563	U	N1-C1'-C2'	5.21	119.81	112.00
81	DA	751	A	O4'-C1'-N9	5.21	116.31	108.50
81	DA	1332	A	C5'-C4'-C3'	-5.21	108.19	116.00
81	DA	1454	A	C3'-C2'-C1'	5.21	106.71	101.50
81	DA	1756	C	C3'-C2'-C1'	5.21	106.51	101.30
81	DA	2631	U	C4'-C3'-C2'	-5.21	97.39	102.60
82	DB	56	G	C3'-C2'-C1'	5.21	106.51	101.30
14	AM	80	LYS	N-CA-CB	5.21	120.49	111.69
38	Bs	86	PHE	O-C-N	5.21	129.50	123.30
42	BM	22	ILE	N-CA-C	-5.21	100.91	108.36
43	BP	141	ALA	N-CA-C	5.21	116.64	111.07
74	BQ	238	ASP	CA-C-N	-5.21	112.60	121.97
74	BQ	238	ASP	C-N-CA	-5.21	112.60	121.97
78	CA	37	U	C3'-C2'-C1'	5.21	106.51	101.30
78	CA	40	A	O4'-C1'-C2'	-5.21	102.39	107.60
78	CA	540	G	O5'-C5'-C4'	5.21	118.61	110.80
78	CA	1570	A	C1'-O4'-C4'	5.21	115.11	109.90
81	DA	13	A	C3'-C2'-C1'	5.21	106.51	101.30
81	DA	1599	G	P-O3'-C3'	5.21	128.01	120.20
81	DA	1986	U	O4'-C1'-N1	5.21	116.31	108.50
81	DA	3395	G	C2'-C3'-O3'	5.21	117.31	109.50
18	AP	58	CYS	CA-C-N	5.21	126.35	119.84
18	AP	58	CYS	C-N-CA	5.21	126.35	119.84
19	AR	73	PRO	N-CA-CB	5.21	108.51	103.51
19	AR	85	ILE	CA-C-N	-5.21	115.94	123.28
19	AR	85	ILE	C-N-CA	-5.21	115.94	123.28
31	BB	35	ALA	O-C-N	5.21	129.51	122.59
39	BJ	120	SER	N-CA-C	-5.21	102.82	110.52
52	BY	21	THR	N-CA-C	-5.21	105.69	111.36
59	Bh	90	LYS	CA-C-N	5.21	127.68	120.29
59	Bh	90	LYS	C-N-CA	5.21	127.68	120.29
81	DA	1256	G	N9-C1'-C2'	5.21	119.81	112.00
81	DA	1829	G	O4'-C1'-N9	5.21	116.31	108.50
20	AS	99	SER	CA-C-N	5.20	127.81	120.42
20	AS	99	SER	C-N-CA	5.20	127.81	120.42
31	BB	241	ARG	N-CA-CB	5.20	119.28	110.49
38	Bs	121	VAL	N-CA-C	-5.20	100.99	108.48
43	BP	189	LYS	CA-C-O	-5.20	115.03	120.55
45	BR	44	PHE	CA-CB-CG	-5.20	108.60	113.80
63	Bm	10	ILE	CA-C-N	5.20	131.48	121.54
63	Bm	10	ILE	C-N-CA	5.20	131.48	121.54

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	55	A	P-O5'-C5'	5.20	128.71	120.90
78	CA	488	G	O4'-C1'-N9	5.20	116.30	108.50
78	CA	1625	C	P-O5'-C5'	5.20	128.70	120.90
79	CB	28	G	C1'-O4'-C4'	-5.20	104.70	109.90
81	DA	605	U	O4'-C1'-N1	5.20	116.31	108.50
81	DA	1773	C	C1'-O4'-C4'	-5.20	104.50	109.70
81	DA	2124	G	O4'-C1'-N9	5.20	116.31	108.50
81	DA	2318	U	N1-C1'-C2'	5.20	119.81	112.00
82	DB	61	A	N9-C1'-C2'	5.20	119.81	112.00
83	DC	30	G	C3'-C2'-C1'	-5.20	96.10	101.30
32	BC	51	ALA	N-CA-C	5.20	117.75	111.40
42	BM	48	ARG	O-C-N	-5.20	117.13	123.27
43	BP	3	ALA	N-CA-C	5.20	117.75	111.40
43	BP	95	GLN	OE1-CD-NE2	5.20	127.80	122.60
65	Bn	47	GLY	N-CA-C	-5.20	103.47	110.80
78	CA	449	C	N1-C1'-C2'	5.20	119.80	112.00
79	CB	19	U	O4'-C1'-N1	5.20	116.00	108.20
81	DA	1504	A	O3'-P-O5'	-5.20	96.20	104.00
81	DA	2262	A	O4'-C1'-C2'	-5.20	102.40	107.60
81	DA	3331	U	O5'-C5'-C4'	-5.20	103.70	111.50
13	AL	133	LEU	CA-C-N	5.20	131.47	121.54
13	AL	133	LEU	C-N-CA	5.20	131.47	121.54
14	AM	35	ILE	N-CA-CB	5.20	119.81	111.23
30	BA	121	PRO	O-C-N	5.20	127.80	122.18
46	BT	104	ARG	CA-C-N	5.20	127.25	120.28
46	BT	104	ARG	C-N-CA	5.20	127.25	120.28
61	Bj	67	MET	CA-C-N	5.20	130.75	122.74
61	Bj	67	MET	C-N-CA	5.20	130.75	122.74
61	Bj	69	GLY	N-CA-C	-5.20	105.16	112.60
66	Bo	26	TRP	N-CA-C	5.20	116.95	111.28
76	BS	53	VAL	N-CA-CB	-5.20	104.77	110.65
76	BS	145	HIS	ND1-CE1-NE2	5.20	113.60	108.40
78	CA	465	G	C1'-O4'-C4'	-5.20	104.70	109.90
78	CA	1090	C	P-O3'-C3'	5.20	128.00	120.20
78	CA	1543	A	C3'-C2'-O2'	5.20	118.50	110.70
81	DA	661	G	C2'-C3'-O3'	5.20	117.30	109.50
81	DA	2189	U	C4'-C3'-O3'	-5.20	105.20	113.00
81	DA	2864	A	P-O5'-C5'	5.20	128.70	120.90
83	DC	8	G	P-O5'-C5'	-5.20	113.10	120.90
1	Aa	297	ASP	CA-CB-CG	5.20	117.80	112.60
32	BC	268	GLY	O-C-N	-5.20	118.33	124.15
39	BJ	125	LEU	CA-C-N	5.20	127.77	120.28

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
39	BJ	125	LEU	C-N-CA	5.20	127.77	120.28
73	Bw	15	ASN	CA-C-O	-5.20	115.17	120.99
81	DA	1224	C	C1'-O4'-C4'	-5.20	104.70	109.90
81	DA	1566	A	O4'-C1'-C2'	-5.20	102.40	107.60
81	DA	2968	G	O4'-C1'-N9	5.20	116.30	108.50
8	AF	50	GLU	CA-C-N	5.20	127.54	120.63
8	AF	50	GLU	C-N-CA	5.20	127.54	120.63
17	AQ	127	GLN	CG-CD-NE2	-5.20	108.61	116.40
32	BC	322	ILE	N-CA-C	-5.20	100.58	108.17
33	BD	322	GLN	CA-C-O	-5.20	111.97	120.80
78	CA	253	A	C3'-C2'-C1'	-5.20	96.10	101.30
78	CA	1462	G	C5'-C4'-C3'	5.20	123.80	116.00
81	DA	2452	G	C1'-C2'-O2'	-5.20	104.00	111.80
17	AQ	33	ARG	CA-C-N	5.20	127.24	120.28
17	AQ	33	ARG	C-N-CA	5.20	127.24	120.28
53	Ba	56	LYS	N-CA-CB	5.20	118.35	110.45
53	Ba	79	HIS	N-CA-CB	5.20	117.85	110.16
59	Bh	85	LEU	N-CA-CB	5.20	117.76	110.12
78	CA	366	A	P-O5'-C5'	-5.20	113.11	120.90
78	CA	1433	G	C4'-C3'-C2'	-5.20	97.40	102.60
81	DA	1694	U	P-O5'-C5'	-5.20	113.11	120.90
81	DA	2050	C	C2'-C3'-O3'	5.20	121.49	113.70
81	DA	2187	G	C1'-C2'-O2'	5.20	116.19	108.40
81	DA	2592	G	C4'-C3'-O3'	-5.20	105.21	113.00
30	BA	86	SER	N-CA-CB	5.19	119.94	110.95
37	BH	154	ALA	CA-C-N	5.19	127.50	120.44
37	BH	154	ALA	C-N-CA	5.19	127.50	120.44
78	CA	530	C	P-O5'-C5'	-5.19	112.21	120.00
78	CA	736	C	C5'-C4'-C3'	5.19	122.69	114.90
81	DA	913	A	C3'-C2'-C1'	5.19	106.49	101.30
81	DA	1071	U	O4'-C1'-N1	5.19	116.29	108.50
81	DA	1168	U	O4'-C1'-N1	5.19	116.29	108.50
14	AM	19	ASN	OD1-CG-ND2	5.19	127.79	122.60
32	BC	232	ARG	N-CA-CB	-5.19	102.44	110.07
38	Bs	2	GLY	CA-C-N	5.19	126.63	120.14
38	Bs	2	GLY	C-N-CA	5.19	126.63	120.14
62	Bk	96	ALA	CB-CA-C	-5.19	102.17	110.79
63	Bm	5	THR	N-CA-C	-5.19	99.74	110.80
78	CA	631	G	C2'-C3'-O3'	5.19	121.49	113.70
78	CA	1461	C	O4'-C1'-N1	5.19	116.29	108.50
81	DA	211	A	C3'-C2'-C1'	5.19	106.69	101.50
81	DA	608	A	C2'-C3'-O3'	5.19	117.29	109.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2192	C	O3'-P-O5'	5.19	111.79	104.00
81	DA	3027	A	P-O5'-C5'	-5.19	113.11	120.90
81	DA	3121	U	O5'-C5'-C4'	5.19	119.49	111.70
5	AC	140	ILE	N-CA-C	-5.19	100.72	108.46
21	AT	32	VAL	N-CA-C	5.19	120.14	109.34
24	AX	75	GLU	CB-CG-CD	-5.19	103.78	112.60
35	BG	52	VAL	CA-C-O	-5.19	116.26	121.45
35	BG	110	LYS	CB-CA-C	5.19	120.23	110.63
41	BN	136	ALA	N-CA-C	5.19	116.94	111.28
49	BV	157	VAL	CA-C-N	5.19	127.23	120.28
49	BV	157	VAL	C-N-CA	5.19	127.23	120.28
50	BX	127	THR	CA-C-N	5.19	130.64	120.99
50	BX	127	THR	C-N-CA	5.19	130.64	120.99
68	Bq	10	THR	N-CA-CB	5.19	117.84	110.16
78	CA	1602	C	O4'-C1'-N1	-5.19	100.71	108.50
81	DA	849	C	O3'-P-O5'	-5.19	96.22	104.00
81	DA	1786	G	N9-C1'-C2'	-5.19	104.21	112.00
81	DA	1907	C	P-O3'-C3'	5.19	127.98	120.20
81	DA	3364	C	C3'-C2'-C1'	5.19	106.49	101.30
81	DA	3374	U	O3'-P-O5'	5.19	111.78	104.00
82	DB	151	C	P-O5'-C5'	-5.19	113.11	120.90
83	DC	93	U	C5'-C4'-C3'	-5.19	108.21	116.00
11	AJ	77	LYS	CA-CB-CG	5.19	124.48	114.10
12	AK	66	ASP	N-CA-C	5.19	116.94	111.28
31	BB	91	GLY	CA-C-N	5.19	127.23	120.28
31	BB	91	GLY	C-N-CA	5.19	127.23	120.28
35	BG	153	PRO	CA-N-CD	5.19	119.27	112.00
40	BK	190	VAL	CA-C-N	5.19	127.23	120.28
40	BK	190	VAL	C-N-CA	5.19	127.23	120.28
46	BT	140	GLU	N-CA-CB	5.19	117.53	110.01
74	BQ	135	VAL	CA-C-N	5.19	129.50	120.68
74	BQ	135	VAL	C-N-CA	5.19	129.50	120.68
78	CA	941	A	O4'-C1'-C2'	-5.19	102.41	107.60
78	CA	1797	A	O5'-C5'-C4'	5.19	118.58	110.80
81	DA	2236	G	C1'-O4'-C4'	-5.19	104.71	109.90
1	Aa	269	TYR	N-CA-CB	5.19	119.95	111.08
15	AN	55	PHE	N-CA-C	-5.19	99.75	110.80
32	BC	134	SER	O-C-N	-5.19	116.56	122.89
35	BG	104	GLU	N-CA-C	5.19	116.74	111.14
76	BS	154	VAL	O-C-N	-5.19	116.09	122.57
78	CA	1434	U	P-O5'-C5'	5.19	128.68	120.90
78	CA	1643	U	C1'-O4'-C4'	5.19	115.09	109.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	19	U	C5'-C4'-C3'	5.19	123.78	116.00
81	DA	506	U	N1-C1'-C2'	5.19	119.78	112.00
81	DA	702	C	O3'-P-O5'	5.19	111.78	104.00
81	DA	1235	U	N1-C1'-C2'	5.19	121.78	114.00
81	DA	1250	G	C1'-O4'-C4'	5.19	115.09	109.90
81	DA	3198	U	P-O3'-C3'	-5.19	112.42	120.20
8	AF	142	PRO	O-C-N	5.19	129.33	123.00
17	AQ	49	LYS	CA-C-O	-5.19	115.05	120.55
78	CA	623	A	O4'-C1'-N9	5.19	115.98	108.20
81	DA	173	G	C4'-C3'-C2'	-5.19	97.41	102.60
81	DA	1041	U	N1-C1'-C2'	5.19	119.78	112.00
2	AA	214	VAL	CA-C-N	5.18	127.23	120.28
2	AA	214	VAL	C-N-CA	5.18	127.23	120.28
6	AE	242	ILE	CA-C-N	5.18	131.44	121.54
6	AE	242	ILE	C-N-CA	5.18	131.44	121.54
10	AI	138	PHE	CB-CG-CD1	5.18	129.51	120.70
29	AU	82	ALA	O-C-N	-5.18	116.62	122.12
38	Bs	213	PHE	CA-C-N	5.18	127.78	120.42
38	Bs	213	PHE	C-N-CA	5.18	127.78	120.42
73	Bv	23	LYS	N-CA-CB	5.18	117.83	110.16
81	DA	612	U	C5'-C4'-C3'	5.18	123.78	116.00
81	DA	2272	G	N9-C1'-C2'	-5.18	106.22	114.00
81	DA	2487	U	C5'-C4'-C3'	-5.18	108.22	116.00
81	DA	3335	A	P-O3'-C3'	5.18	127.98	120.20
81	DA	3354	U	C1'-O4'-C4'	5.18	115.08	109.90
4	AD	227	VAL	CA-C-N	5.18	131.30	121.97
4	AD	227	VAL	C-N-CA	5.18	131.30	121.97
40	BK	90	HIS	ND1-CE1-NE2	5.18	113.58	108.40
44	BO	103	ASP	N-CA-C	-5.18	101.19	109.07
50	BX	51	VAL	N-CA-CB	5.18	118.47	111.21
62	Bk	29	LYS	CA-C-N	5.18	131.44	121.54
62	Bk	29	LYS	C-N-CA	5.18	131.44	121.54
64	Bl	14	LYS	N-CA-C	-5.18	99.84	108.34
78	CA	301	A	C4'-C3'-O3'	-5.18	105.22	113.00
78	CA	661	A	O5'-C5'-C4'	5.18	119.27	111.50
78	CA	1085	G	O4'-C1'-N9	5.18	116.27	108.50
78	CA	1793	G	C3'-C2'-C1'	5.18	106.48	101.30
81	DA	730	C	O4'-C1'-N1	5.18	116.27	108.50
81	DA	2520	A	O4'-C1'-N9	5.18	116.28	108.50
81	DA	2534	G	O3'-P-O5'	5.18	111.77	104.00
81	DA	2689	A	O3'-P-O5'	5.18	111.77	104.00
81	DA	3010	U	C4'-C3'-O3'	5.18	120.78	113.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3232	G	N9-C1'-C2'	-5.18	104.23	112.00
4	AD	208	VAL	CA-C-O	-5.18	114.95	120.39
13	AL	57	LEU	N-CA-C	-5.18	99.77	110.80
20	AS	139	THR	N-CA-C	5.18	116.61	111.07
60	Bi	92	ALA	N-CA-C	5.18	116.93	111.28
78	CA	2	A	P-O5'-C5'	-5.18	113.13	120.90
78	CA	431	C	C3'-C2'-C1'	5.18	106.48	101.30
79	CB	40	U	P-O5'-C5'	5.18	128.67	120.90
81	DA	2213	A	C3'-C2'-C1'	5.18	106.48	101.30
30	BA	193	LEU	CA-C-N	5.18	127.64	120.29
30	BA	193	LEU	C-N-CA	5.18	127.64	120.29
40	BK	163	SER	CA-C-N	5.18	127.65	120.29
40	BK	163	SER	C-N-CA	5.18	127.65	120.29
51	BZ	47	ARG	CA-C-N	5.18	127.22	120.28
51	BZ	47	ARG	C-N-CA	5.18	127.22	120.28
53	Ba	52	LYS	CA-C-N	5.18	128.84	120.55
53	Ba	52	LYS	C-N-CA	5.18	128.84	120.55
57	Be	220	PHE	CE1-CZ-CE2	5.18	129.32	120.00
69	Br	65	THR	CB-CA-C	5.18	119.71	109.66
76	BS	87	THR	N-CA-C	-5.18	99.77	110.80
78	CA	294	C	C3'-C2'-C1'	5.18	106.48	101.30
78	CA	434	G	C1'-O4'-C4'	5.18	115.08	109.90
78	CA	969	C	C3'-C2'-C1'	5.18	106.48	101.30
78	CA	1426	C	C5'-C4'-C3'	-5.18	108.23	116.00
78	CA	1746	A	C3'-C2'-O2'	5.18	118.47	110.70
81	DA	43	A	O3'-P-O5'	-5.18	96.23	104.00
81	DA	724	U	C1'-C2'-O2'	5.18	116.17	108.40
81	DA	1562	C	P-O5'-C5'	5.18	128.67	120.90
81	DA	3099	C	C5'-C4'-O4'	-5.18	102.03	109.80
13	AL	127	VAL	N-CA-C	5.18	120.11	109.34
30	BA	147	LYS	N-CA-CB	5.18	117.58	110.07
46	BT	132	PHE	N-CA-C	-5.18	102.23	109.69
48	BW	43	VAL	CA-C-O	-5.18	115.30	121.05
57	Be	148	VAL	N-CA-C	5.18	115.90	110.62
65	Bn	7	ASP	N-CA-CB	5.18	117.73	110.12
81	DA	1296	C	C2'-C3'-O3'	5.18	121.47	113.70
81	DA	1459	C	C2'-C3'-O3'	5.18	121.47	113.70
6	AE	30	THR	CA-CB-CG2	-5.18	101.70	110.50
19	AR	56	PHE	N-CA-CB	5.18	118.48	110.46
35	BG	46	ARG	CB-CG-CD	5.18	123.21	111.30
49	BV	85	ALA	N-CA-C	5.18	117.00	111.36
55	Bc	66	VAL	CA-C-O	-5.18	115.57	120.95

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	55	A	O4'-C1'-C2'	-5.18	102.42	107.60
79	CB	12	U	C4'-C3'-O3'	-5.18	105.23	113.00
81	DA	1296	C	O4'-C4'-C3'	-5.18	98.82	104.00
81	DA	1693	C	P-O3'-C3'	-5.18	112.44	120.20
81	DA	3358	U	C4'-C3'-C2'	-5.18	97.42	102.60
81	DA	3381	U	O3'-P-O5'	5.18	111.77	104.00
83	DC	73	G	O4'-C1'-C2'	-5.18	102.42	107.60
3	AB	75	LYS	O-C-N	5.17	127.61	122.12
6	AE	111	VAL	CA-C-N	5.17	131.55	121.41
6	AE	111	VAL	C-N-CA	5.17	131.55	121.41
8	AF	213	LYS	CA-C-N	5.17	127.17	120.44
8	AF	213	LYS	C-N-CA	5.17	127.17	120.44
20	AS	69	LYS	N-CA-C	-5.17	99.78	110.80
24	AX	48	SER	O-C-N	5.17	129.12	123.01
33	BD	157	GLU	N-CA-CB	5.17	117.82	110.16
37	BH	246	MET	CA-C-N	5.17	127.64	120.29
37	BH	246	MET	C-N-CA	5.17	127.64	120.29
38	Bs	205	THR	CA-C-N	5.17	131.42	121.54
38	Bs	205	THR	C-N-CA	5.17	131.42	121.54
49	BV	83	TRP	CA-C-N	5.17	126.31	119.84
49	BV	83	TRP	C-N-CA	5.17	126.31	119.84
58	Bg	53	PRO	CA-C-N	5.17	127.22	120.28
58	Bg	53	PRO	C-N-CA	5.17	127.22	120.28
66	Bo	1	MET	CG-SD-CE	-5.17	89.52	100.90
69	Br	6	LYS	CB-CA-C	-5.17	102.05	110.85
78	CA	1000	C	O4'-C1'-N1	5.17	116.26	108.50
81	DA	504	A	O4'-C1'-C2'	-5.17	102.42	107.60
81	DA	1008	U	P-O5'-C5'	-5.17	113.14	120.90
81	DA	1247	U	C1'-O4'-C4'	5.17	115.08	109.90
81	DA	2769	A	C1'-O4'-C4'	-5.17	104.73	109.90
81	DA	3082	C	O4'-C1'-C2'	-5.17	102.43	107.60
41	BN	75	GLY	CA-C-N	-5.17	114.08	122.36
41	BN	75	GLY	C-N-CA	-5.17	114.08	122.36
47	BU	23	GLY	CA-C-O	-5.17	118.72	122.45
62	Bk	80	PHE	N-CA-C	5.17	121.82	110.80
81	DA	209	A	O4'-C1'-N9	5.17	116.26	108.50
81	DA	2288	G	N9-C1'-C2'	5.17	119.76	112.00
10	AI	91	ALA	CA-C-N	5.17	127.21	120.28
10	AI	91	ALA	C-N-CA	5.17	127.21	120.28
12	AK	24	ASN	CA-CB-CG	-5.17	107.43	112.60
12	AK	126	THR	N-CA-C	-5.17	99.78	110.80
14	AM	144	ARG	NE-CZ-NH2	5.17	123.86	119.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BB	158	ILE	CA-C-N	5.17	128.06	120.71
31	BB	158	ILE	C-N-CA	5.17	128.06	120.71
32	BC	169	THR	O-C-N	-5.17	115.37	121.32
76	BS	104	ALA	CA-C-N	5.17	127.18	120.56
76	BS	104	ALA	C-N-CA	5.17	127.18	120.56
78	CA	897	C	P-O3'-C3'	5.17	127.96	120.20
78	CA	1246	C	C1'-O4'-C4'	-5.17	104.73	109.90
81	DA	193	C	O4'-C1'-C2'	-5.17	102.43	107.60
81	DA	709	A	C3'-C2'-C1'	5.17	106.47	101.30
81	DA	1003	A	O4'-C1'-N9	5.17	116.26	108.50
81	DA	1777	U	C2'-C3'-O3'	5.17	121.46	113.70
81	DA	2256	A	N9-C1'-C2'	-5.17	106.24	114.00
81	DA	2650	U	C4'-C3'-O3'	-5.17	105.24	113.00
81	DA	2785	A	O3'-P-O5'	-5.17	96.24	104.00
81	DA	2870	C	O3'-P-O5'	5.17	111.76	104.00
82	DB	107	G	N9-C1'-C2'	5.17	119.76	112.00
83	DC	83	U	O4'-C1'-N1	5.17	116.26	108.50
78	CA	1281	G	O3'-P-O5'	-5.17	96.25	104.00
78	CA	1626	U	P-O5'-C5'	-5.17	113.15	120.90
81	DA	1955	U	C1'-O4'-C4'	5.17	115.07	109.90
81	DA	1975	C	O4'-C4'-C3'	-5.17	98.83	104.00
81	DA	3238	G	C4'-C3'-C2'	-5.17	97.43	102.60
2	AA	119	ARG	CD-NE-CZ	5.17	131.64	124.40
10	AI	21	HIS	ND1-CE1-NE2	5.17	113.57	108.40
24	AX	73	LEU	CB-CA-C	-5.17	101.55	111.78
32	BC	97	ARG	CA-CB-CG	5.17	124.44	114.10
57	Be	43	ILE	N-CA-CB	5.17	117.57	110.54
74	BQ	248	ARG	CA-CB-CG	5.17	124.44	114.10
78	CA	47	A	N9-C1'-C2'	-5.17	106.25	114.00
78	CA	1581	C	N1-C1'-C2'	5.17	119.75	112.00
78	CA	1770	U	O4'-C1'-N1	5.17	116.25	108.50
81	DA	298	U	O4'-C1'-C2'	-5.17	100.63	105.80
81	DA	1481	A	C2'-C3'-O3'	5.17	117.25	109.50
81	DA	1558	A	P-O3'-C3'	-5.17	112.45	120.20
81	DA	1953	G	P-O5'-C5'	-5.17	112.25	120.00
81	DA	2362	C	O4'-C4'-C3'	-5.17	98.83	104.00
81	DA	3395	G	C3'-C2'-C1'	5.17	106.67	101.50
83	DC	17	A	O4'-C4'-C3'	-5.17	98.83	104.00
42	BM	122	CYS	O-C-N	5.17	128.04	122.15
78	CA	297	U	C3'-C2'-C1'	5.17	106.47	101.30
81	DA	264	G	C4'-C3'-C2'	-5.17	97.43	102.60
81	DA	1047	A	O4'-C1'-C2'	-5.17	102.43	107.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2160	G	O4'-C1'-C2'	5.17	112.77	107.60
81	DA	2763	U	C5'-C4'-C3'	-5.17	108.25	116.00
81	DA	2999	U	O4'-C1'-C2'	-5.17	102.43	107.60
81	DA	3369	G	N9-C1'-C2'	5.17	119.75	112.00
83	DC	114	A	N9-C1'-C2'	5.17	119.75	112.00
36	BF	103	ILE	CB-CA-C	5.17	118.27	110.63
81	DA	2383	C	C4'-C3'-O3'	-5.17	105.25	113.00
81	DA	2440	G	O4'-C1'-C2'	-5.17	102.44	107.60
81	DA	2452	G	P-O3'-C3'	5.17	127.95	120.20
81	DA	3305	A	OP1-P-O3'	5.17	123.50	108.00
30	BA	209	SER	CA-C-N	5.16	129.41	120.58
30	BA	209	SER	C-N-CA	5.16	129.41	120.58
31	BB	19	HIS	CA-C-N	5.16	128.86	120.60
31	BB	19	HIS	C-N-CA	5.16	128.86	120.60
33	BD	145	ILE	CA-CB-CG1	-5.16	101.62	110.40
45	BR	18	ALA	N-CA-C	-5.16	102.95	110.08
45	BR	158	HIS	N-CA-C	-5.16	98.15	107.60
47	BU	147	VAL	CA-C-N	5.16	124.96	119.28
47	BU	147	VAL	C-N-CA	5.16	124.96	119.28
48	BW	91	ASP	CA-C-O	5.16	126.80	120.60
74	BQ	27	LYS	CB-CG-CD	5.16	123.17	111.30
78	CA	165	G	O4'-C4'-C3'	5.16	109.16	104.00
78	CA	289	U	P-O5'-C5'	5.16	128.64	120.90
78	CA	1029	U	O4'-C1'-C2'	-5.16	100.64	105.80
78	CA	1166	A	O4'-C1'-C2'	-5.16	102.44	107.60
81	DA	1669	C	C3'-C2'-C1'	5.16	106.46	101.30
81	DA	2760	C	C4'-C3'-C2'	5.16	107.76	102.60
38	Bs	91	GLU	CA-C-N	5.16	125.14	120.03
38	Bs	91	GLU	C-N-CA	5.16	125.14	120.03
58	Bg	31	ARG	CA-C-N	5.16	127.20	120.28
58	Bg	31	ARG	C-N-CA	5.16	127.20	120.28
78	CA	1624	C	N1-C1'-C2'	5.16	119.74	112.00
78	CA	1653	C	O4'-C4'-C3'	5.16	109.16	104.00
81	DA	360	G	C3'-C2'-C1'	5.16	106.46	101.30
81	DA	854	G	C4'-C3'-O3'	-5.16	105.26	113.00
81	DA	2303	A	O5'-C5'-C4'	-5.16	103.76	111.50
83	DC	26	C	P-O3'-C3'	5.16	127.94	120.20
2	AA	45	VAL	CB-CA-C	5.16	119.75	111.29
2	AA	106	SER	CA-C-O	5.16	126.42	121.00
3	AB	137	VAL	N-CA-C	-5.16	100.81	108.45
14	AM	93	THR	N-CA-C	-5.16	99.81	110.80
29	AU	33	ALA	O-C-N	-5.16	116.00	122.35

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
30	BA	208	SER	CA-C-N	-5.16	112.09	120.71
30	BA	208	SER	C-N-CA	-5.16	112.09	120.71
32	BC	33	PRO	CA-N-CD	-5.16	104.77	112.00
32	BC	220	VAL	N-CA-C	-5.16	101.05	108.48
35	BG	123	PRO	CA-C-N	5.16	127.20	120.28
35	BG	123	PRO	C-N-CA	5.16	127.20	120.28
43	BP	81	TYR	N-CA-C	5.16	118.51	111.39
57	Be	101	LYS	N-CA-C	5.16	118.36	111.75
78	CA	430	G	N9-C1'-C2'	5.16	119.74	112.00
78	CA	1783	C	C4'-C3'-O3'	-5.16	105.26	113.00
81	DA	147	U	C5'-C4'-C3'	5.16	131.48	116.00
81	DA	813	G	O4'-C1'-N9	5.16	116.24	108.50
81	DA	899	U	O3'-P-O5'	5.16	111.74	104.00
81	DA	995	U	O4'-C1'-N1	5.16	116.24	108.50
81	DA	1723	A	O4'-C1'-C2'	-5.16	102.44	107.60
81	DA	1791	C	O4'-C4'-C3'	-5.16	98.84	104.00
81	DA	2695	A	O4'-C4'-C3'	5.16	109.16	104.00
81	DA	2700	G	O4'-C1'-C2'	5.16	112.76	107.60
83	DC	98	G	C3'-C2'-C1'	5.16	106.46	101.30
5	AC	90	LYS	CA-C-N	5.16	128.15	120.31
5	AC	90	LYS	C-N-CA	5.16	128.15	120.31
5	AC	147	MET	CA-C-N	5.16	131.26	121.97
5	AC	147	MET	C-N-CA	5.16	131.26	121.97
11	AJ	11	GLU	N-CA-C	-5.16	98.15	107.75
16	AO	72	MET	CA-C-N	5.16	127.71	120.28
16	AO	72	MET	C-N-CA	5.16	127.71	120.28
16	AO	104	ARG	NE-CZ-NH1	5.16	126.66	121.50
30	BA	145	TYR	CA-C-N	5.16	125.71	119.98
30	BA	145	TYR	C-N-CA	5.16	125.71	119.98
43	BP	44	ARG	NH1-CZ-NH2	-5.16	112.59	119.30
48	BW	38	ILE	N-CA-CB	5.16	118.32	110.58
50	BX	102	LEU	N-CA-C	-5.16	106.98	113.28
78	CA	223	U	C1'-O4'-C4'	5.16	115.06	109.90
78	CA	558	U	O3'-P-O5'	-5.16	96.26	104.00
78	CA	1316	G	O4'-C4'-C3'	5.16	109.16	104.00
81	DA	251	G	C3'-C2'-C1'	5.16	106.46	101.30
81	DA	543	C	P-O5'-C5'	5.16	128.64	120.90
81	DA	597	G	N9-C1'-C2'	5.16	119.74	112.00
81	DA	758	C	O4'-C1'-C2'	-5.16	102.44	107.60
81	DA	760	G	O4'-C1'-C2'	5.16	112.76	107.60
81	DA	1690	C	O4'-C1'-N1	5.16	116.24	108.50
81	DA	2121	G	P-O5'-C5'	-5.16	113.16	120.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
29	AU	81	GLU	CA-C-N	5.16	127.19	120.28
29	AU	81	GLU	C-N-CA	5.16	127.19	120.28
32	BC	280	HIS	CA-CB-CG	-5.16	108.64	113.80
38	Bs	43	LYS	N-CA-CB	5.16	117.80	110.06
55	Bc	45	LYS	O-C-N	-5.16	116.52	122.09
78	CA	413	U	O4'-C1'-C2'	-5.16	102.44	107.60
81	DA	1339	C	O4'-C1'-N1	5.16	116.24	108.50
81	DA	1741	A	C2'-C3'-O3'	5.16	121.44	113.70
1	Aa	75	ALA	CB-CA-C	-5.16	102.23	110.79
1	Aa	214	ALA	CA-C-N	5.16	126.15	121.82
1	Aa	214	ALA	C-N-CA	5.16	126.15	121.82
5	AC	193	GLU	CA-C-N	-5.16	111.69	121.54
5	AC	193	GLU	C-N-CA	-5.16	111.69	121.54
11	AJ	86	ILE	O-C-N	-5.16	116.81	122.69
26	AZ	14	VAL	CA-C-O	-5.16	114.34	120.78
29	AU	88	THR	N-CA-C	-5.16	107.12	113.41
33	BD	352	ALA	CB-CA-C	-5.16	100.16	110.42
74	BQ	180	PHE	CB-CA-C	-5.16	101.00	109.46
78	CA	587	C	P-O3'-C3'	-5.16	112.47	120.20
81	DA	70	A	P-O3'-C3'	5.16	127.94	120.20
81	DA	1162	U	N1-C1'-C2'	5.16	119.73	112.00
81	DA	1166	G	C3'-C2'-C1'	5.16	106.45	101.30
81	DA	1542	G	C1'-O4'-C4'	-5.16	104.75	109.90
81	DA	1550	C	C5'-C4'-C3'	-5.16	108.27	116.00
81	DA	2195	C	O3'-P-O5'	5.16	111.73	104.00
81	DA	2228	A	C1'-O4'-C4'	5.16	115.06	109.90
81	DA	2231	C	P-O5'-C5'	5.16	128.63	120.90
10	AI	75	VAL	CB-CA-C	-5.15	102.84	111.29
13	AL	15	LEU	N-CA-C	5.15	116.90	111.28
38	Bs	42	ARG	N-CA-C	-5.15	105.74	111.36
57	Be	182	ASP	N-CA-C	5.15	116.98	111.36
81	DA	786	A	C3'-C2'-O2'	5.15	118.43	110.70
81	DA	2469	G	P-O5'-C5'	-5.15	113.17	120.90
11	AJ	73	GLY	O-C-N	-5.15	116.00	122.70
19	AR	58	LYS	CB-CA-C	-5.15	103.10	110.62
38	Bs	232	LEU	N-CA-C	5.15	120.68	113.57
45	BR	10	HIS	CG-CD2-NE2	5.15	112.35	107.20
52	BY	8	VAL	CA-C-N	5.15	131.38	121.54
52	BY	8	VAL	C-N-CA	5.15	131.38	121.54
53	Ba	79	HIS	CG-CD2-NE2	5.15	112.35	107.20
55	Bc	81	ARG	CA-C-N	5.15	127.18	120.28
55	Bc	81	ARG	C-N-CA	5.15	127.18	120.28

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
60	Bi	39	ALA	CA-C-N	5.15	127.18	120.28
60	Bi	39	ALA	C-N-CA	5.15	127.18	120.28
78	CA	1028	C	O4'-C1'-C2'	-5.15	100.65	105.80
78	CA	1312	A	O4'-C1'-C2'	-5.15	102.45	107.60
81	DA	641	C	O4'-C1'-C2'	-5.15	102.45	107.60
81	DA	1101	G	C4'-C3'-C2'	5.15	107.75	102.60
81	DA	1786	G	O4'-C1'-C2'	5.15	112.75	107.60
81	DA	1846	C	O4'-C1'-C2'	-5.15	102.45	107.60
81	DA	2169	G	O4'-C1'-N9	5.15	116.23	108.50
81	DA	2727	A	O5'-C5'-C4'	5.15	119.43	111.70
83	DC	63	G	P-O5'-C5'	5.15	128.63	120.90
83	DC	104	C	C4'-C3'-C2'	-5.15	97.45	102.60
10	AI	86	ALA	CB-CA-C	-5.15	100.17	110.42
30	BA	181	ASN	N-CA-CB	5.15	117.69	110.12
33	BD	5	GLN	CG-CD-NE2	-5.15	108.67	116.40
69	Br	58	PHE	CB-CA-C	5.15	120.67	110.42
78	CA	222	A	C5'-C4'-C3'	5.15	123.72	116.00
78	CA	585	A	C2'-C3'-O3'	5.15	121.43	113.70
78	CA	918	U	O5'-C5'-C4'	5.15	119.23	111.50
78	CA	1067	C	P-O5'-C5'	5.15	128.62	120.90
81	DA	595	G	C4'-C3'-O3'	5.15	120.73	113.00
81	DA	821	U	P-O5'-C5'	5.15	128.63	120.90
81	DA	1414	G	N9-C1'-C2'	-5.15	104.28	112.00
81	DA	2257	C	C1'-C2'-O2'	5.15	116.12	108.40
31	BB	215	ASN	N-CA-CB	5.15	117.43	109.91
78	CA	1537	C	O4'-C1'-C2'	-5.15	102.45	107.60
81	DA	320	G	O4'-C1'-C2'	5.15	112.75	107.60
81	DA	932	U	C1'-O4'-C4'	5.15	114.85	109.70
81	DA	2917	G	O4'-C1'-N9	5.15	116.22	108.50
16	AO	72	MET	O-C-N	-5.15	115.53	122.43
29	AU	89	TYR	N-CA-CB	5.15	117.61	109.94
31	BB	111	THR	N-CA-CB	5.15	119.33	110.68
40	BK	4	GLU	CA-C-N	-5.15	113.41	119.84
40	BK	4	GLU	C-N-CA	-5.15	113.41	119.84
43	BP	118	SER	N-CA-C	5.15	116.78	108.34
47	BU	105	PHE	CA-C-N	5.15	127.18	120.28
47	BU	105	PHE	C-N-CA	5.15	127.18	120.28
78	CA	892	A	C4'-C3'-C2'	-5.15	97.45	102.60
78	CA	1201	G	C1'-O4'-C4'	-5.15	104.55	109.70
81	DA	1768	U	C4'-C3'-O3'	-5.15	105.28	113.00
81	DA	2532	U	P-O3'-C3'	-5.15	112.48	120.20
81	DA	2904	U	O3'-P-O5'	-5.15	96.28	104.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
82	DB	29	U	O4'-C1'-C2'	-5.15	102.45	107.60
82	DB	39	G	C1'-O4'-C4'	5.15	115.05	109.90
2	AA	31	VAL	CA-CB-CG1	5.15	119.15	110.40
13	AL	22	ASN	N-CA-C	5.15	117.63	111.71
14	AM	38	VAL	CA-C-N	5.15	127.01	122.43
14	AM	38	VAL	C-N-CA	5.15	127.01	122.43
54	Bd	45	HIS	CA-C-N	5.15	127.60	120.29
54	Bd	45	HIS	C-N-CA	5.15	127.60	120.29
78	CA	1265	G	O5'-C5'-C4'	-5.15	103.78	111.50
81	DA	50	U	C1'-O4'-C4'	5.15	115.05	109.90
81	DA	251	G	C4'-C3'-C2'	-5.15	97.45	102.60
37	BH	216	SER	N-CA-C	5.14	116.89	111.28
73	Bv	25	ILE	CB-CA-C	-5.14	105.39	111.97
81	DA	775	A	O4'-C1'-C2'	5.14	112.74	107.60
81	DA	1263	A	C4'-C3'-O3'	5.14	117.12	109.40
81	DA	1687	U	P-O5'-C5'	5.14	128.62	120.90
81	DA	2338	C	C2'-C3'-O3'	-5.14	105.98	113.70
81	DA	2735	U	O3'-P-O5'	5.14	111.72	104.00
2	AA	158	VAL	N-CA-C	-5.14	100.34	107.80
3	AB	43	PRO	N-CA-CB	5.14	107.75	103.17
5	AC	38	ASN	OD1-CG-ND2	5.14	127.74	122.60
5	AC	144	PRO	O-C-N	5.14	129.58	122.64
8	AF	141	GLY	N-CA-C	-5.14	101.85	112.34
49	BV	54	HIS	CG-CD2-NE2	5.14	112.34	107.20
51	BZ	58	HIS	ND1-CE1-NE2	5.14	113.54	108.40
61	Bj	68	TRP	N-CA-C	-5.14	100.07	108.76
81	DA	264	G	O5'-C5'-C4'	-5.14	103.79	111.50
81	DA	472	A	O4'-C1'-C2'	-5.14	102.46	107.60
81	DA	912	G	P-O3'-C3'	5.14	127.91	120.20
55	Bc	96	GLU	O-C-N	-5.14	114.92	122.43
78	CA	1452	U	C5'-C4'-C3'	-5.14	108.29	116.00
81	DA	2242	A	O4'-C1'-N9	-5.14	100.79	108.50
81	DA	2899	C	O3'-P-O5'	5.14	111.71	104.00
81	DA	3135	U	O4'-C1'-C2'	-5.14	102.46	107.60
83	DC	101	A	C4'-C3'-C2'	-5.14	97.46	102.60
5	AC	192	ASP	CA-C-N	-5.14	111.72	121.54
5	AC	192	ASP	C-N-CA	-5.14	111.72	121.54
12	AK	39	ILE	N-CA-C	5.14	120.03	109.34
30	BA	114	GLU	CA-C-N	5.14	128.73	120.30
30	BA	114	GLU	C-N-CA	5.14	128.73	120.30
31	BB	139	HIS	CE1-NE2-CD2	-5.14	103.86	109.00
34	BE	100	GLY	N-CA-C	-5.14	107.96	115.72

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
56	Bf	59	TYR	CA-C-O	5.14	126.00	120.55
56	Bf	100	ILE	N-CA-C	5.14	115.86	110.62
61	Bj	49	ILE	N-CA-C	5.14	114.98	107.37
62	Bk	39	PHE	CA-CB-CG	-5.14	108.66	113.80
78	CA	156	A	O4'-C1'-N9	5.14	116.21	108.50
78	CA	294	C	P-O3'-C3'	5.14	127.91	120.20
78	CA	642	G	C2'-C3'-O3'	5.14	117.21	109.50
78	CA	836	U	O4'-C1'-C2'	-5.14	102.46	107.60
78	CA	1455	G	N9-C1'-C2'	5.14	119.71	112.00
78	CA	1647	U	O3'-P-O5'	5.14	111.71	104.00
78	CA	1721	A	C3'-C2'-C1'	5.14	106.44	101.30
81	DA	1521	G	N9-C1'-C2'	5.14	119.71	112.00
81	DA	2917	G	C1'-C2'-O2'	5.14	116.11	108.40
5	AC	174	ARG	CA-C-N	5.14	127.58	120.29
5	AC	174	ARG	C-N-CA	5.14	127.58	120.29
48	BW	20	SER	O-C-N	5.14	129.14	123.33
78	CA	831	U	O4'-C1'-C2'	-5.14	100.66	105.80
78	CA	1077	C	N1-C1'-C2'	5.14	119.71	112.00
78	CA	1458	G	C1'-C2'-O2'	5.14	116.11	108.40
81	DA	423	A	O3'-P-O5'	-5.14	96.29	104.00
81	DA	607	A	O3'-P-O5'	5.14	111.71	104.00
81	DA	1685	C	C1'-O4'-C4'	-5.14	104.56	109.70
81	DA	3126	C	C4'-C3'-O3'	-5.14	105.29	113.00
20	AS	63	ARG	NE-CZ-NH1	-5.14	116.36	121.50
29	AU	32	ARG	O-C-N	-5.14	115.76	122.59
31	BB	35	ALA	N-CA-CB	5.14	119.17	110.49
31	BB	116	VAL	CB-CA-C	-5.14	104.17	111.21
40	BK	172	ARG	CA-C-N	5.14	127.58	120.29
40	BK	172	ARG	C-N-CA	5.14	127.58	120.29
42	BM	78	VAL	O-C-N	5.14	129.21	122.94
45	BR	99	THR	N-CA-C	-5.14	99.86	110.80
81	DA	1540	U	O4'-C1'-C2'	-5.14	102.46	107.60
81	DA	2148	U	C3'-C2'-C1'	5.14	106.44	101.30
81	DA	3085	G	C1'-O4'-C4'	-5.14	104.76	109.90
8	AF	184	PHE	CA-C-O	5.13	126.21	120.82
9	AH	43	LYS	N-CA-CB	5.13	119.17	110.49
38	Bs	70	LEU	O-C-N	-5.13	115.42	121.32
45	BR	117	ALA	CB-CA-C	-5.13	102.79	110.90
57	Be	81	HIS	CE1-NE2-CD2	-5.13	103.86	109.00
57	Be	213	GLY	N-CA-C	-5.13	107.91	115.30
78	CA	227	U	O4'-C4'-C3'	5.13	109.14	104.00
78	CA	276	C	C3'-C2'-C1'	5.13	106.44	101.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	886	U	C3'-C2'-O2'	5.13	118.40	110.70
81	DA	433	A	N9-C1'-C2'	5.13	119.70	112.00
81	DA	896	A	C2'-C3'-O3'	5.13	121.40	113.70
81	DA	938	C	O4'-C1'-C2'	-5.13	102.47	107.60
81	DA	1228	C	O4'-C1'-N1	5.13	116.20	108.50
81	DA	1256	G	C4'-C3'-O3'	-5.13	105.30	113.00
81	DA	2242	A	N9-C1'-C2'	5.13	119.70	112.00
81	DA	3003	G	C1'-O4'-C4'	-5.13	104.77	109.90
25	AY	25	VAL	CG1-CB-CG2	5.13	122.09	110.80
32	BC	337	THR	CA-C-O	-5.13	115.16	120.70
38	Bs	255	TYR	N-CA-CB	5.13	118.80	110.43
81	DA	700	C	C5'-C4'-C3'	5.13	123.70	116.00
81	DA	1884	A	C5'-C4'-C3'	5.13	123.70	116.00
22	AV	37	GLN	CA-C-N	5.13	127.67	120.28
22	AV	37	GLN	C-N-CA	5.13	127.67	120.28
40	BK	72	HIS	N-CA-CB	5.13	120.31	111.13
40	BK	92	THR	CA-C-N	5.13	127.16	120.28
40	BK	92	THR	C-N-CA	5.13	127.16	120.28
41	BN	81	VAL	CB-CA-C	-5.13	105.21	112.14
59	Bh	35	GLN	CA-C-O	5.13	126.40	120.60
62	Bk	87	VAL	N-CA-CB	5.13	116.55	110.55
78	CA	154	G	O4'-C1'-N9	-5.13	100.80	108.50
78	CA	171	A	C1'-O4'-C4'	5.13	115.03	109.90
81	DA	1217	A	P-O3'-C3'	5.13	127.90	120.20
81	DA	2130	G	N9-C1'-C2'	-5.13	104.30	112.00
81	DA	3235	C	C4'-C3'-C2'	-5.13	97.47	102.60
82	DB	90	U	O4'-C1'-C2'	5.13	110.93	105.80
9	AH	29	PRO	N-CA-C	-5.13	106.85	113.57
36	BF	97	PHE	N-CA-C	-5.13	102.39	110.14
81	DA	17	G	C5'-C4'-C3'	-5.13	108.31	116.00
1	Aa	32	LEU	N-CA-CB	5.13	117.49	109.85
4	AD	59	ARG	CA-C-O	5.13	125.27	119.27
37	BH	216	SER	CA-C-N	5.13	127.15	120.28
37	BH	216	SER	C-N-CA	5.13	127.15	120.28
41	BN	38	ILE	CB-CG1-CD1	-5.13	103.03	113.80
44	BO	38	GLN	CB-CA-C	-5.13	102.38	111.05
46	BT	17	VAL	CG1-CB-CG2	-5.13	99.52	110.80
55	Bc	10	ARG	CA-C-N	5.13	127.67	120.28
55	Bc	10	ARG	C-N-CA	5.13	127.67	120.28
78	CA	970	A	N9-C1'-C2'	-5.13	104.31	112.00
78	CA	1394	G	C4'-C3'-O3'	5.13	120.69	113.00
81	DA	2173	U	O4'-C4'-C3'	-5.13	98.87	104.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3240	C	C2'-C3'-O3'	5.13	121.39	113.70
11	AJ	17	GLN	CA-C-N	5.13	131.33	121.54
11	AJ	17	GLN	C-N-CA	5.13	131.33	121.54
17	AQ	52	GLY	CA-C-N	5.13	127.15	120.28
17	AQ	52	GLY	C-N-CA	5.13	127.15	120.28
30	BA	22	GLU	CB-CA-C	-5.13	102.80	110.90
31	BB	54	ARG	CB-CA-C	-5.13	100.22	110.42
47	BU	114	ALA	N-CA-CB	5.13	117.66	110.12
57	Be	142	SER	CA-CB-OG	-5.13	100.84	111.10
78	CA	437	A	P-O3'-C3'	5.13	127.89	120.20
78	CA	449	C	O5'-C5'-C4'	5.13	119.19	111.50
78	CA	1208	A	O4'-C1'-C2'	5.13	112.73	107.60
81	DA	2	U	P-O3'-C3'	-5.13	112.51	120.20
81	DA	599	C	N1-C1'-C2'	5.13	119.69	112.00
81	DA	1038	C	O3'-P-O5'	-5.13	96.31	104.00
81	DA	1086	C	C3'-C2'-C1'	5.13	106.43	101.30
81	DA	2029	A	O4'-C1'-C2'	-5.13	102.47	107.60
81	DA	2137	U	C5'-C4'-C3'	5.13	123.69	116.00
76	BS	145	HIS	CE1-NE2-CD2	-5.12	103.88	109.00
81	DA	1133	A	O3'-P-O5'	-5.12	96.31	104.00
81	DA	2047	A	O4'-C1'-C2'	-5.12	102.47	107.60
81	DA	2497	U	C4'-C3'-O3'	-5.12	105.31	113.00
81	DA	2741	C	N1-C1'-C2'	5.12	119.69	112.00
15	AN	12	ARG	NE-CZ-NH2	5.12	123.81	119.20
21	AT	52	THR	CA-CB-CG2	5.12	119.21	110.50
34	BE	99	THR	N-CA-C	5.12	117.76	111.82
48	BW	26	GLY	CA-C-N	5.12	130.00	123.03
48	BW	26	GLY	C-N-CA	5.12	130.00	123.03
61	Bj	73	ARG	N-CA-C	-5.12	100.67	108.76
74	BQ	79	TYR	N-CA-C	-5.12	101.40	109.50
78	CA	996	U	O4'-C1'-N1	5.12	116.19	108.50
78	CA	1314	U	O3'-P-O5'	-5.12	96.31	104.00
78	CA	1706	C	O4'-C1'-C2'	-5.12	102.48	107.60
81	DA	2504	U	P-O5'-C5'	-5.12	113.21	120.90
81	DA	2700	G	C4'-C3'-O3'	-5.12	105.31	113.00
82	DB	16	G	N9-C1'-C2'	-5.12	106.31	114.00
2	AA	139	VAL	N-CA-CB	5.12	119.41	110.65
11	AJ	29	THR	N-CA-CB	5.12	118.81	110.77
14	AM	13	HIS	CA-C-N	5.12	129.85	123.14
14	AM	13	HIS	C-N-CA	5.12	129.85	123.14
14	AM	134	ARG	N-CA-C	-5.12	99.89	110.80
30	BA	90	LEU	CA-C-N	5.12	127.14	120.28

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
30	BA	90	LEU	C-N-CA	5.12	127.14	120.28
33	BD	230	VAL	CA-C-N	5.12	127.65	120.28
33	BD	230	VAL	C-N-CA	5.12	127.65	120.28
47	BU	68	THR	CA-C-N	5.12	131.32	121.54
47	BU	68	THR	C-N-CA	5.12	131.32	121.54
50	BX	124	VAL	O-C-N	-5.12	117.51	122.99
64	Bl	50	GLY	N-CA-C	-5.12	104.57	111.54
78	CA	690	G	C1'-O4'-C4'	-5.12	104.78	109.90
78	CA	1327	C	C5'-C4'-C3'	-5.12	108.32	116.00
81	DA	181	U	P-O3'-C3'	5.12	127.88	120.20
81	DA	1680	G	P-O5'-C5'	-5.12	113.22	120.90
81	DA	2163	C	C3'-C2'-O2'	-5.12	103.02	110.70
1	Aa	27	ALA	N-CA-C	5.12	117.76	111.82
81	DA	1208	U	O4'-C1'-C2'	-5.12	102.48	107.60
81	DA	1810	A	C1'-C2'-O2'	-5.12	100.72	108.40
81	DA	2688	U	C2'-C3'-O3'	5.12	117.18	109.50
82	DB	59	A	N9-C1'-C2'	5.12	121.68	114.00
1	Aa	50	ASP	CA-CB-CG	5.12	117.72	112.60
22	AV	63	SER	CA-C-O	-5.12	114.99	120.42
36	BF	172	ILE	O-C-N	5.12	127.10	121.83
37	BH	185	ARG	CA-C-N	5.12	127.14	120.28
37	BH	185	ARG	C-N-CA	5.12	127.14	120.28
50	BX	37	THR	CB-CA-C	5.12	120.61	110.42
58	Bg	95	PRO	N-CD-CG	5.12	110.88	103.20
64	Bl	41	ALA	N-CA-C	-5.12	99.90	110.80
78	CA	581	U	O4'-C4'-C3'	5.12	109.12	104.00
78	CA	1194	A	O4'-C1'-C2'	-5.12	102.48	107.60
81	DA	341	G	N9-C1'-C2'	5.12	119.68	112.00
81	DA	550	A	N9-C1'-C2'	-5.12	106.32	114.00
81	DA	972	A	C1'-C2'-O2'	5.12	116.08	108.40
81	DA	1771	C	C1'-C2'-O2'	5.12	116.08	108.40
81	DA	2061	G	P-O3'-C3'	-5.12	112.52	120.20
81	DA	2673	A	C4'-C3'-O3'	-5.12	105.32	113.00
81	DA	2724	U	C5'-C4'-C3'	-5.12	108.32	116.00
81	DA	3136	G	C4'-C3'-C2'	-5.12	97.48	102.60
5	AC	45	ILE	CB-CA-C	-5.12	105.16	112.22
18	AP	92	HIS	CB-CG-CD2	-5.12	124.55	131.20
56	Bf	76	GLU	CA-C-N	5.12	127.65	120.28
56	Bf	76	GLU	C-N-CA	5.12	127.65	120.28
81	DA	1287	A	C1'-O4'-C4'	5.12	115.02	109.90
81	DA	1395	G	C2'-C3'-O3'	5.12	121.38	113.70
81	DA	3111	U	C1'-O4'-C4'	5.12	115.02	109.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	AF	170	GLN	CA-C-N	5.12	127.09	120.44
8	AF	170	GLN	C-N-CA	5.12	127.09	120.44
12	AK	93	THR	CA-C-N	5.12	126.23	119.84
12	AK	93	THR	C-N-CA	5.12	126.23	119.84
22	AV	55	PRO	N-CD-CG	5.12	110.87	103.20
26	AZ	36	LYS	N-CA-CB	5.12	117.73	110.16
45	BR	124	LEU	N-CA-CB	5.12	119.14	110.49
78	CA	219	A	C4'-C3'-O3'	-5.12	105.33	113.00
78	CA	644	C	O3'-P-O5'	5.12	111.67	104.00
78	CA	1646	C	N1-C1'-C2'	5.12	119.67	112.00
81	DA	329	U	O4'-C1'-N1	5.12	116.17	108.50
81	DA	1717	U	C4'-C3'-C2'	5.12	107.72	102.60
81	DA	2437	G	C1'-O4'-C4'	5.12	114.81	109.70
81	DA	2455	U	C3'-C2'-C1'	5.12	106.42	101.30
81	DA	2479	C	C5'-C4'-O4'	5.12	117.47	109.80
81	DA	2506	U	O4'-C4'-C3'	5.12	109.12	104.00
81	DA	3011	A	C2'-C3'-O3'	5.12	117.17	109.50
81	DA	3038	U	C4'-C3'-C2'	-5.12	97.48	102.60
81	DA	3326	G	O3'-P-O5'	-5.12	96.33	104.00
6	AE	29	ASN	N-CA-CB	5.11	117.39	110.38
18	AP	97	TYR	N-CA-C	-5.11	101.06	109.40
30	BA	62	ASN	CA-C-N	5.11	129.40	122.19
30	BA	62	ASN	C-N-CA	5.11	129.40	122.19
38	Bs	38	MET	CA-C-N	5.11	127.13	120.28
38	Bs	38	MET	C-N-CA	5.11	127.13	120.28
78	CA	164	A	C2'-C3'-O3'	5.11	121.37	113.70
78	CA	597	G	O5'-C5'-C4'	5.11	119.17	111.50
78	CA	636	A	P-O3'-C3'	5.11	127.87	120.20
78	CA	1395	G	O4'-C4'-C3'	5.11	109.11	104.00
78	CA	1596	C	C3'-C2'-C1'	5.11	106.41	101.30
79	CB	24	A	P-O3'-C3'	5.11	127.87	120.20
81	DA	1621	A	P-O5'-C5'	5.11	128.57	120.90
81	DA	2377	G	O3'-P-O5'	-5.11	96.33	104.00
81	DA	2672	G	C3'-C2'-C1'	-5.11	96.19	101.30
81	DA	2818	U	O3'-P-O5'	-5.11	96.33	104.00
82	DB	20	U	O4'-C1'-C2'	-5.11	102.49	107.60
13	AL	58	GLY	N-CA-C	-5.11	101.06	113.18
31	BB	22	LEU	CB-CA-C	-5.11	99.95	110.38
38	Bs	42	ARG	NE-CZ-NH1	5.11	126.61	121.50
39	BJ	16	ARG	O-C-N	-5.11	116.50	123.15
49	BV	95	LEU	CA-C-N	5.11	127.13	120.28
49	BV	95	LEU	C-N-CA	5.11	127.13	120.28

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
50	BX	66	PRO	CA-C-O	-5.11	115.76	121.23
56	Bf	95	ALA	CA-C-N	5.11	128.90	122.00
56	Bf	95	ALA	C-N-CA	5.11	128.90	122.00
57	Be	203	TRP	CB-CG-CD1	5.11	134.57	126.90
78	CA	1091	A	O3'-P-O5'	-5.11	96.33	104.00
78	CA	1100	G	O3'-P-O5'	5.11	111.67	104.00
78	CA	1136	U	C4'-C3'-C2'	5.11	107.71	102.60
78	CA	1611	A	P-O5'-C5'	-5.11	113.23	120.90
81	DA	37	U	O4'-C1'-C2'	-5.11	102.49	107.60
81	DA	2818	U	C1'-O4'-C4'	5.11	114.81	109.70
83	DC	39	C	C3'-C2'-C1'	5.11	106.41	101.30
3	AB	87	TYR	N-CA-C	-5.11	100.70	109.24
3	AB	196	ARG	CA-C-N	5.11	131.30	121.54
3	AB	196	ARG	C-N-CA	5.11	131.30	121.54
17	AQ	70	SER	N-CA-CB	5.11	119.13	110.49
17	AQ	88	VAL	CB-CA-C	5.11	119.67	111.29
20	AS	90	PRO	CB-CA-C	5.11	119.99	111.56
34	BE	50	ALA	N-CA-C	-5.11	102.22	110.14
53	Ba	43	VAL	CA-CB-CG2	-5.11	101.71	110.40
55	Bc	107	LYS	CA-C-N	5.11	128.47	120.75
55	Bc	107	LYS	C-N-CA	5.11	128.47	120.75
55	Bc	113	GLN	N-CA-CB	5.11	117.72	110.06
60	Bi	48	GLY	N-CA-C	-5.11	107.45	113.99
76	BS	157	LYS	CG-CD-CE	5.11	123.06	111.30
76	BS	161	PRO	CA-CB-CG	-5.11	94.79	104.50
78	CA	309	C	C4'-C3'-C2'	-5.11	97.49	102.60
78	CA	489	C	C4'-C3'-C2'	-5.11	97.49	102.60
78	CA	595	G	O3'-P-O5'	5.11	111.67	104.00
78	CA	918	U	O4'-C4'-C3'	5.11	109.11	104.00
78	CA	963	A	C3'-C2'-C1'	5.11	106.41	101.30
81	DA	496	C	N1-C1'-C2'	5.11	119.67	112.00
81	DA	1550	C	C4'-C3'-C2'	-5.11	97.49	102.60
81	DA	1940	G	C3'-C2'-C1'	5.11	106.41	101.30
81	DA	2059	U	C1'-O4'-C4'	-5.11	104.79	109.90
81	DA	2479	C	O4'-C1'-C2'	5.11	112.71	107.60
81	DA	2566	C	O4'-C1'-N1	5.11	116.16	108.50
81	DA	2873	U	C2'-C3'-O3'	5.11	117.17	109.50
81	DA	2925	C	C3'-C2'-C1'	5.11	106.41	101.30
34	BE	13	LYS	CA-C-N	-5.11	116.36	122.90
34	BE	13	LYS	C-N-CA	-5.11	116.36	122.90
38	Bs	14	LYS	CB-CA-C	-5.11	102.86	110.88
60	Bi	83	ASN	N-CA-CB	5.11	117.63	110.12

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	645	C	C1'-O4'-C4'	5.11	115.01	109.90
78	CA	1220	C	C1'-O4'-C4'	5.11	115.01	109.90
78	CA	1384	A	N9-C1'-C2'	5.11	119.66	112.00
81	DA	39	A	C3'-C2'-C1'	5.11	106.41	101.30
81	DA	1321	G	O4'-C1'-N9	5.11	116.16	108.50
81	DA	1454	A	O4'-C1'-C2'	-5.11	100.69	105.80
8	AF	137	ILE	CA-C-N	5.11	127.12	120.28
8	AF	137	ILE	C-N-CA	5.11	127.12	120.28
11	AJ	104	THR	CA-C-O	-5.11	115.46	120.82
16	AO	96	VAL	CA-C-N	5.11	127.08	120.44
16	AO	96	VAL	C-N-CA	5.11	127.08	120.44
18	AP	75	VAL	CA-CB-CG1	5.11	119.08	110.40
30	BA	120	VAL	CA-CB-CG2	5.11	119.08	110.40
30	BA	190	PHE	N-CA-C	5.11	116.85	111.28
44	BO	101	VAL	N-CA-C	-5.11	98.72	109.34
44	BO	128	ARG	O-C-N	-5.11	116.70	122.68
44	BO	144	VAL	N-CA-C	-5.11	101.27	108.27
46	BT	170	ARG	N-CA-C	5.11	116.85	111.28
59	Bh	111	ARG	O-C-N	-5.11	116.71	122.12
73	Bv	55	THR	N-CA-C	5.11	116.53	111.07
78	CA	267	U	C4'-C3'-C2'	-5.11	97.49	102.60
78	CA	440	U	O4'-C1'-N1	5.11	116.16	108.50
81	DA	45	A	C3'-C2'-C1'	5.11	106.41	101.30
81	DA	47	C	O4'-C1'-C2'	-5.11	102.49	107.60
81	DA	450	G	N9-C1'-C2'	5.11	119.66	112.00
81	DA	572	A	P-O5'-C5'	5.11	128.56	120.90
81	DA	794	U	O4'-C1'-C2'	-5.11	102.49	107.60
81	DA	3074	G	O5'-C5'-C4'	-5.11	103.84	111.50
82	DB	46	G	C5'-C4'-C3'	-5.11	108.34	116.00
4	AD	219	VAL	CA-CB-CG1	5.11	119.08	110.40
20	AS	67	MET	O-C-N	5.11	127.60	122.09
21	AT	52	THR	CA-C-O	5.11	126.84	121.33
33	BD	239	ALA	CA-C-O	-5.11	115.23	121.00
33	BD	337	GLU	CB-CA-C	-5.11	102.17	110.85
37	BH	138	HIS	CA-CB-CG	-5.11	108.69	113.80
56	Bf	37	GLY	CA-C-O	5.11	124.78	119.06
60	Bi	50	ALA	CB-CA-C	5.11	118.38	109.65
61	Bj	65	ARG	NE-CZ-NH1	-5.11	116.39	121.50
65	Bn	77	ARG	N-CA-CB	5.11	121.02	111.52
78	CA	913	G	O4'-C1'-N9	5.11	115.86	108.20
81	DA	1324	U	P-O3'-C3'	5.11	127.86	120.20
81	DA	2130	G	O4'-C1'-N9	5.11	116.16	108.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3212	C	N1-C1'-C2'	5.11	119.66	112.00
82	DB	90	U	C2'-C3'-O3'	5.11	117.16	109.50
3	AB	96	LEU	N-CA-C	5.10	118.28	111.75
12	AK	78	ALA	CA-C-N	5.10	131.16	121.97
12	AK	78	ALA	C-N-CA	5.10	131.16	121.97
31	BB	177	LYS	CB-CA-C	-5.10	101.67	108.87
78	CA	224	C	O4'-C1'-N1	5.10	116.16	108.50
78	CA	358	U	O3'-P-O5'	-5.10	96.34	104.00
81	DA	1338	C	P-O3'-C3'	-5.10	112.54	120.20
81	DA	2641	U	O5'-C5'-C4'	5.10	119.16	111.50
81	DA	3383	G	C3'-C2'-C1'	-5.10	96.20	101.30
83	DC	75	G	C1'-O4'-C4'	-5.10	104.80	109.90
10	AI	96	TYR	CA-C-N	5.10	126.99	120.56
10	AI	96	TYR	C-N-CA	5.10	126.99	120.56
19	AR	100	LYS	CA-C-N	5.10	128.09	120.95
19	AR	100	LYS	C-N-CA	5.10	128.09	120.95
32	BC	296	THR	N-CA-C	-5.10	99.93	110.80
37	BH	233	TRP	CA-C-O	5.10	127.81	120.51
43	BP	148	TYR	CB-CG-CD1	-5.10	113.15	120.80
55	Bc	50	SER	CB-CA-C	-5.10	102.18	110.85
74	BQ	37	VAL	N-CA-C	5.10	117.47	111.09
77	BI	114	GLY	N-CA-C	-5.10	101.08	113.18
81	DA	155	G	C5'-C4'-C3'	5.10	122.55	114.90
81	DA	559	A	O4'-C1'-N9	5.10	116.15	108.50
81	DA	602	A	C2'-C3'-O3'	5.10	121.35	113.70
81	DA	612	U	O4'-C1'-N1	5.10	116.15	108.50
81	DA	1064	A	P-O5'-C5'	-5.10	113.25	120.90
81	DA	1388	U	O3'-P-O5'	5.10	111.65	104.00
81	DA	1734	G	O4'-C1'-N9	5.10	116.15	108.50
64	Bl	72	ARG	N-CA-CB	5.10	117.71	110.16
78	CA	348	U	N1-C1'-C2'	5.10	119.65	112.00
78	CA	1146	G	N9-C1'-C2'	5.10	119.65	112.00
81	DA	652	G	C5'-C4'-C3'	-5.10	108.35	116.00
81	DA	1209	G	C4'-C3'-C2'	-5.10	97.50	102.60
82	DB	43	A	O4'-C1'-C2'	-5.10	102.50	107.60
10	AI	39	VAL	N-CA-C	-5.10	98.73	109.34
12	AK	107	ARG	CD-NE-CZ	-5.10	117.26	124.40
20	AS	22	LEU	CA-C-N	5.10	127.62	120.28
20	AS	22	LEU	C-N-CA	5.10	127.62	120.28
31	BB	67	TYR	CB-CA-C	5.10	120.57	110.42
40	BK	77	SER	CA-C-N	5.10	127.53	120.29
40	BK	77	SER	C-N-CA	5.10	127.53	120.29

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
45	BR	92	ARG	N-CA-CB	5.10	119.08	110.77
46	BT	134	HIS	O-C-N	-5.10	117.90	123.26
57	Be	103	LEU	CA-C-N	5.10	127.62	120.28
57	Be	103	LEU	C-N-CA	5.10	127.62	120.28
73	Bv	38	VAL	CB-CA-C	-5.10	105.26	112.14
77	BI	118	ALA	CA-C-N	5.10	131.28	121.54
77	BI	118	ALA	C-N-CA	5.10	131.28	121.54
78	CA	585	A	O4'-C4'-C3'	5.10	109.10	104.00
78	CA	1221	A	P-O3'-C3'	5.10	127.85	120.20
78	CA	1353	U	O4'-C1'-C2'	-5.10	102.50	107.60
78	CA	1396	U	N1-C1'-C2'	5.10	119.65	112.00
78	CA	1625	C	C3'-C2'-C1'	5.10	106.40	101.30
78	CA	1754	A	C5'-C4'-C3'	5.10	123.65	116.00
79	CB	32	U	O4'-C1'-N1	5.10	116.15	108.50
81	DA	319	A	C1'-O4'-C4'	-5.10	104.80	109.90
81	DA	776	U	C1'-O4'-C4'	-5.10	104.80	109.90
81	DA	794	U	O3'-P-O5'	-5.10	96.35	104.00
1	Aa	77	GLY	N-CA-C	-5.10	108.08	115.27
11	AJ	109	GLU	CA-C-N	5.10	127.21	121.04
11	AJ	109	GLU	C-N-CA	5.10	127.21	121.04
24	AX	35	VAL	CA-C-O	-5.10	116.32	121.67
38	Bs	88	PHE	N-CA-CB	5.10	118.90	110.69
49	BV	69	ARG	N-CA-C	5.10	117.60	109.65
59	Bh	111	ARG	CA-C-N	5.10	127.11	120.28
59	Bh	111	ARG	C-N-CA	5.10	127.11	120.28
78	CA	49	C	O4'-C1'-N1	5.10	116.15	108.50
78	CA	117	U	C4'-C3'-C2'	-5.10	97.50	102.60
78	CA	1385	G	N9-C1'-C2'	-5.10	104.36	112.00
78	CA	1656	U	O4'-C1'-C2'	-5.10	102.50	107.60
78	CA	1692	G	C5'-C4'-C3'	5.10	123.65	116.00
81	DA	386	A	N9-C1'-C2'	5.10	119.65	112.00
81	DA	523	A	N9-C1'-C2'	-5.10	104.35	112.00
81	DA	609	G	O4'-C1'-N9	5.10	116.15	108.50
81	DA	1057	A	O3'-P-O5'	-5.10	96.35	104.00
81	DA	1772	U	C3'-C2'-C1'	5.10	106.60	101.50
81	DA	1774	C	C4'-C3'-C2'	-5.10	97.50	102.60
81	DA	1864	A	N9-C1'-C2'	-5.10	106.35	114.00
81	DA	2439	A	C5'-C4'-O4'	5.10	117.45	109.80
2	AA	67	ILE	N-CA-CB	-5.10	104.08	111.21
16	AO	129	TYR	CA-C-N	5.10	128.75	120.60
16	AO	129	TYR	C-N-CA	5.10	128.75	120.60
33	BD	302	ALA	CB-CA-C	-5.10	101.20	110.63

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1193	A	O4'-C1'-C2'	-5.10	100.70	105.80
81	DA	816	A	O4'-C1'-N9	-5.10	100.56	108.20
81	DA	2567	C	O4'-C1'-N1	5.10	116.14	108.50
81	DA	2781	U	C3'-C2'-C1'	-5.10	96.20	101.30
19	AR	108	ARG	O-C-N	-5.09	115.94	120.48
22	AV	44	GLN	N-CA-C	5.09	117.22	111.11
30	BA	36	VAL	CA-C-N	5.09	126.30	121.46
30	BA	36	VAL	C-N-CA	5.09	126.30	121.46
43	BP	177	GLY	O-C-N	-5.09	116.08	122.70
52	BY	29	VAL	CA-C-N	5.09	128.75	120.60
52	BY	29	VAL	C-N-CA	5.09	128.75	120.60
73	Bw	38	VAL	CB-CA-C	-5.09	105.26	112.14
78	CA	299	A	C5'-C4'-C3'	5.09	123.64	116.00
78	CA	629	U	O4'-C1'-C2'	-5.09	100.71	105.80
78	CA	1194	A	C3'-C2'-C1'	5.09	106.39	101.30
81	DA	750	G	O3'-P-O5'	-5.09	96.36	104.00
81	DA	860	G	O3'-P-O5'	5.09	111.64	104.00
81	DA	1193	A	C2'-C3'-O3'	5.09	121.34	113.70
81	DA	1399	A	P-O3'-C3'	-5.09	112.56	120.20
81	DA	1525	G	C4'-C3'-O3'	-5.09	105.36	113.00
81	DA	1981	G	P-O3'-C3'	-5.09	112.56	120.20
81	DA	2149	A	C4'-C3'-O3'	-5.09	105.36	113.00
81	DA	2577	C	P-O5'-C5'	5.09	128.54	120.90
83	DC	5	G	C1'-O4'-C4'	-5.09	104.81	109.90
26	AZ	11	ALA	CA-C-N	5.09	129.70	120.79
26	AZ	11	ALA	C-N-CA	5.09	129.70	120.79
32	BC	3	HIS	N-CA-CB	-5.09	102.48	111.39
42	BM	66	LYS	CA-C-N	5.09	124.40	118.85
42	BM	66	LYS	C-N-CA	5.09	124.40	118.85
44	BO	130	VAL	CA-C-N	5.09	127.52	120.29
44	BO	130	VAL	C-N-CA	5.09	127.52	120.29
48	BW	96	VAL	N-CA-CB	5.09	119.63	111.23
81	DA	182	U	C4'-C3'-C2'	5.09	107.69	102.60
81	DA	2755	C	C4'-C3'-O3'	5.09	117.04	109.40
4	AD	159	THR	CA-C-O	5.09	126.86	121.11
36	BF	126	VAL	N-CA-C	-5.09	105.02	109.19
41	BN	3	THR	CA-C-N	-5.09	111.81	121.54
41	BN	3	THR	C-N-CA	-5.09	111.81	121.54
46	BT	9	ARG	CA-C-N	5.09	127.52	120.29
46	BT	9	ARG	C-N-CA	5.09	127.52	120.29
56	Bf	65	THR	OG1-CB-CG2	5.09	119.48	109.30
57	Be	199	ASN	N-CA-CB	5.09	116.05	110.35

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
57	Be	231	ASN	OD1-CG-ND2	5.09	127.69	122.60
73	Bv	20	THR	CA-CB-OG1	5.09	117.24	109.60
78	CA	548	G	P-O5'-C5'	5.09	128.54	120.90
78	CA	837	G	C1'-C2'-O2'	5.09	116.04	108.40
78	CA	1221	A	C4'-C3'-C2'	-5.09	97.51	102.60
78	CA	1739	C	N1-C1'-C2'	5.09	119.64	112.00
81	DA	254	A	C2'-C3'-O3'	5.09	121.34	113.70
81	DA	287	G	O4'-C1'-N9	5.09	116.14	108.50
81	DA	748	U	O4'-C1'-C2'	-5.09	102.51	107.60
81	DA	912	G	O4'-C1'-C2'	5.09	112.69	107.60
81	DA	1844	C	O4'-C1'-N1	5.09	116.14	108.50
81	DA	2747	A	O4'-C1'-C2'	-5.09	102.51	107.60
81	DA	3055	U	O4'-C1'-N1	5.09	116.14	108.50
81	DA	3322	A	C5'-C4'-C3'	-5.09	108.36	116.00
11	AJ	29	THR	O-C-N	-5.09	117.31	123.27
30	BA	205	VAL	CA-CB-CG1	5.09	119.05	110.40
33	BD	53	SER	O-C-N	-5.09	115.82	122.59
56	Bf	43	ILE	N-CA-C	-5.09	100.98	108.11
57	Be	242	SER	N-CA-C	5.09	117.72	111.82
65	Bn	56	ILE	N-CA-CB	-5.09	104.06	110.57
69	Br	78	LYS	CA-C-O	-5.09	114.67	120.98
78	CA	93	A	O4'-C1'-N9	5.09	115.83	108.20
78	CA	971	A	O4'-C1'-N9	5.09	116.13	108.50
78	CA	1201	G	N9-C1'-C2'	5.09	121.64	114.00
81	DA	292	U	O4'-C1'-N1	5.09	116.13	108.50
78	CA	1091	A	P-O3'-C3'	-5.09	112.57	120.20
81	DA	514	G	P-O3'-C3'	5.09	127.83	120.20
81	DA	996	A	N9-C1'-C2'	-5.09	104.37	112.00
81	DA	1249	G	O4'-C1'-N9	5.09	116.13	108.50
4	AD	222	LEU	CB-CA-C	-5.09	102.20	110.85
30	BA	140	HIS	CE1-NE2-CD2	-5.09	103.91	109.00
40	BK	148	LYS	CA-C-N	5.09	127.05	120.44
40	BK	148	LYS	C-N-CA	5.09	127.05	120.44
51	BZ	68	ALA	N-CA-C	5.09	121.63	110.80
63	Bm	22	LEU	CA-C-N	5.09	127.61	120.28
63	Bm	22	LEU	C-N-CA	5.09	127.61	120.28
78	CA	315	A	O4'-C1'-N9	5.09	115.83	108.20
78	CA	349	U	O4'-C1'-N1	5.09	116.13	108.50
78	CA	1130	G	O4'-C4'-C3'	5.09	109.09	104.00
81	DA	714	G	C2'-C3'-O3'	5.09	117.13	109.50
81	DA	1247	U	N1-C1'-C2'	-5.09	104.37	112.00
81	DA	2515	A	O4'-C1'-C2'	-5.09	102.51	107.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2647	A	C2'-C3'-O3'	-5.09	106.07	113.70
81	DA	3316	A	P-O3'-C3'	5.09	127.83	120.20
6	AE	69	ILE	N-CA-CB	5.08	119.37	112.35
14	AM	86	LEU	N-CA-C	-5.08	103.22	110.59
16	AO	105	ASN	OD1-CG-ND2	5.08	127.69	122.60
30	BA	17	LEU	N-CA-CB	5.08	118.02	110.29
33	BD	47	ARG	CA-C-N	5.08	129.88	122.41
33	BD	47	ARG	C-N-CA	5.08	129.88	122.41
55	Bc	108	GLN	CB-CA-C	5.08	118.72	109.62
81	DA	328	U	C4'-C3'-C2'	5.08	107.69	102.60
81	DA	1991	G	P-O5'-C5'	-5.08	113.27	120.90
81	DA	2726	C	O4'-C1'-C2'	-5.08	100.72	105.80
1	Aa	149	ASP	CA-C-N	5.08	127.93	120.71
1	Aa	149	ASP	C-N-CA	5.08	127.93	120.71
16	AO	92	ILE	CA-C-N	5.08	127.09	120.28
16	AO	92	ILE	C-N-CA	5.08	127.09	120.28
17	AQ	16	LEU	CA-C-N	5.08	127.42	120.46
17	AQ	16	LEU	C-N-CA	5.08	127.42	120.46
29	AU	57	VAL	CA-C-O	5.08	126.13	120.59
37	BH	80	TYR	CA-C-N	5.08	127.09	120.28
37	BH	80	TYR	C-N-CA	5.08	127.09	120.28
39	BJ	14	TYR	N-CA-CB	5.08	118.68	110.85
42	BM	21	ALA	N-CA-C	5.08	117.67	110.50
52	BY	26	GLN	N-CA-C	-5.08	105.92	111.82
52	BY	29	VAL	CB-CA-C	-5.08	105.20	112.22
78	CA	916	U	O4'-C1'-C2'	-5.08	102.52	107.60
81	DA	2639	G	C1'-O4'-C4'	-5.08	104.82	109.90
81	DA	2654	C	O4'-C1'-C2'	-5.08	102.52	107.60
82	DB	92	A	N9-C1'-C2'	5.08	119.62	112.00
3	AB	91	VAL	N-CA-C	-5.08	101.15	108.42
3	AB	125	TYR	CA-C-O	-5.08	115.67	120.90
4	AD	61	VAL	N-CA-CB	5.08	116.82	110.47
6	AE	153	SER	CA-C-N	5.08	127.50	120.29
6	AE	153	SER	C-N-CA	5.08	127.50	120.29
16	AO	122	ILE	N-CA-CB	5.08	117.45	110.54
32	BC	273	HIS	CE1-NE2-CD2	-5.08	103.92	109.00
57	Be	22	THR	CA-C-N	5.08	127.09	120.28
57	Be	22	THR	C-N-CA	5.08	127.09	120.28
69	Br	47	GLN	CB-CA-C	-5.08	99.62	109.68
74	BQ	242	SER	O-C-N	-5.08	115.83	122.59
76	BS	23	HIS	N-CA-CB	5.08	119.42	110.37
78	CA	58	U	O4'-C4'-C3'	5.08	109.08	104.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1385	G	O3'-P-O5'	-5.08	96.38	104.00
81	DA	974	G	C5'-C4'-O4'	-5.08	102.18	109.80
81	DA	1045	C	C3'-C2'-C1'	-5.08	96.22	101.30
81	DA	1747	G	N9-C1'-C2'	5.08	119.62	112.00
81	DA	1904	C	P-O5'-C5'	-5.08	113.28	120.90
81	DA	2014	U	P-O5'-C5'	5.08	128.52	120.90
81	DA	2204	C	N1-C1'-C2'	5.08	119.62	112.00
81	DA	2244	A	C1'-O4'-C4'	5.08	114.98	109.90
81	DA	2310	U	O4'-C1'-C2'	-5.08	102.52	107.60
81	DA	3249	C	C5'-C4'-O4'	5.08	117.42	109.80
81	DA	3349	C	P-O5'-C5'	5.08	128.52	120.90
31	BB	130	SER	N-CA-CB	5.08	117.46	109.69
48	BW	23	THR	N-CA-CB	5.08	119.08	110.49
64	Bl	73	ARG	CA-C-O	-5.08	115.49	120.82
78	CA	354	C	N1-C1'-C2'	5.08	119.62	112.00
78	CA	1775	U	C4'-C3'-C2'	-5.08	97.52	102.60
81	DA	1278	A	C3'-C2'-C1'	5.08	106.38	101.30
74	BQ	157	ALA	N-CA-C	-5.08	100.43	109.06
78	CA	465	G	C3'-C2'-C1'	-5.08	96.22	101.30
78	CA	512	A	O5'-C5'-C4'	5.08	118.42	110.80
78	CA	1575	G	N9-C1'-C2'	5.08	119.62	112.00
81	DA	2349	U	N1-C1'-C2'	5.08	119.62	112.00
81	DA	2820	A	O4'-C1'-C2'	-5.08	102.52	107.60
81	DA	3165	A	P-O3'-C3'	5.08	127.82	120.20
81	DA	3222	U	O4'-C4'-C3'	-5.08	98.92	104.00
81	DA	3230	G	C5'-C4'-C3'	-5.08	108.38	116.00
83	DC	109	G	O4'-C1'-N9	5.08	116.12	108.50
4	AD	102	VAL	O-C-N	5.08	128.13	122.75
33	BD	109	TRP	CA-CB-CG	5.08	123.25	113.60
78	CA	967	A	N9-C1'-C2'	-5.08	104.38	112.00
81	DA	1193	A	P-O3'-C3'	-5.08	112.58	120.20
81	DA	1937	U	C5'-C4'-C3'	-5.08	108.38	116.00
21	AT	71	ARG	CB-CG-CD	5.08	122.97	111.30
24	AX	33	LEU	CA-C-N	5.08	129.72	122.72
24	AX	33	LEU	C-N-CA	5.08	129.72	122.72
32	BC	309	GLY	CA-C-O	5.08	124.75	119.07
33	BD	361	HIS	CB-CG-CD2	-5.08	124.60	131.20
42	BM	98	ASN	CA-CB-CG	-5.08	107.52	112.60
72	Bu	59	VAL	CB-CA-C	-5.08	104.50	110.84
73	Bw	25	ILE	CB-CA-C	-5.08	105.47	111.97
78	CA	1389	C	N1-C1'-C2'	5.08	121.61	114.00
78	CA	1691	A	P-O5'-C5'	-5.08	113.29	120.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	742	G	C1'-O4'-C4'	5.08	114.97	109.90
81	DA	752	C	C5'-C4'-C3'	5.08	123.61	116.00
81	DA	3296	A	O4'-C1'-N9	-5.08	100.89	108.50
83	DC	107	G	C1'-O4'-C4'	5.08	114.98	109.90
1	Aa	106	HIS	CG-CD2-NE2	5.07	112.27	107.20
2	AA	47	VAL	O-C-N	5.07	128.66	123.03
6	AE	200	SER	CA-C-N	5.07	130.48	122.36
6	AE	200	SER	C-N-CA	5.07	130.48	122.36
11	AJ	113	ASP	N-CA-CB	5.07	118.27	110.61
14	AM	108	LYS	N-CA-CB	5.07	117.43	110.07
17	AQ	36	ASP	CA-C-N	5.07	127.50	120.29
17	AQ	36	ASP	C-N-CA	5.07	127.50	120.29
37	BH	110	THR	N-CA-C	-5.07	105.40	112.45
60	Bi	110	GLU	N-CA-C	5.07	112.94	108.78
68	Bq	16	LYS	N-CA-C	5.07	116.50	111.07
78	CA	177	U	O4'-C1'-N1	5.07	115.81	108.20
78	CA	1547	A	O3'-P-O5'	5.07	111.61	104.00
81	DA	110	G	N9-C1'-C2'	5.07	119.61	112.00
81	DA	140	C	N1-C1'-C2'	5.07	119.61	112.00
81	DA	238	A	N9-C1'-C2'	5.07	119.61	112.00
81	DA	461	U	O4'-C1'-N1	5.07	116.11	108.50
81	DA	819	U	O4'-C1'-N1	5.07	116.11	108.50
81	DA	1862	U	O4'-C1'-N1	5.07	116.11	108.50
81	DA	2534	G	P-O3'-C3'	5.07	127.81	120.20
81	DA	3019	U	P-O5'-C5'	5.07	128.51	120.90
18	AP	106	ASN	CA-CB-CG	5.07	117.67	112.60
20	AS	25	GLN	CA-C-O	-5.07	115.57	121.15
38	Bs	239	LEU	CA-C-N	5.07	128.48	120.47
38	Bs	239	LEU	C-N-CA	5.07	128.48	120.47
47	BU	72	VAL	O-C-N	-5.07	117.54	122.97
66	Bo	28	ARG	NE-CZ-NH1	-5.07	116.43	121.50
66	Bo	34	THR	CA-CB-OG1	5.07	117.21	109.60
78	CA	558	U	O4'-C1'-C2'	-5.07	102.53	107.60
78	CA	570	A	C2'-C3'-O3'	5.07	121.31	113.70
78	CA	654	C	N1-C1'-C2'	5.07	119.61	112.00
81	DA	493	G	C5'-C4'-C3'	5.07	123.61	116.00
81	DA	2868	U	P-O5'-C5'	5.07	128.51	120.90
38	Bs	7	LYS	N-CA-CB	5.07	117.47	110.17
48	BW	19	VAL	N-CA-CB	5.07	117.44	111.66
52	BY	12	ARG	CB-CA-C	-5.07	102.23	110.85
57	Be	26	VAL	CB-CA-C	5.07	118.98	112.14
78	CA	174	U	P-O3'-C3'	5.07	127.81	120.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1009	U	O3'-P-O5'	5.07	111.61	104.00
78	CA	1316	G	C4'-C3'-C2'	-5.07	97.53	102.60
81	DA	612	U	O5'-C5'-C4'	5.07	119.11	111.50
81	DA	1976	G	C5'-C4'-O4'	-5.07	102.19	109.80
81	DA	2466	G	O4'-C4'-C3'	5.07	109.07	104.00
81	DA	2477	G	O4'-C1'-N9	5.07	116.11	108.50
81	DA	2725	U	N1-C1'-C2'	5.07	119.61	112.00
21	AT	2	GLU	CA-C-N	5.07	127.58	120.28
21	AT	2	GLU	C-N-CA	5.07	127.58	120.28
25	AY	56	LEU	CA-C-N	5.07	127.34	120.65
25	AY	56	LEU	C-N-CA	5.07	127.34	120.65
40	BK	64	PHE	CA-CB-CG	-5.07	108.73	113.80
78	CA	425	A	N9-C1'-C2'	5.07	119.60	112.00
81	DA	3220	G	O4'-C1'-N9	5.07	116.10	108.50
83	DC	27	A	O4'-C1'-N9	-5.07	100.90	108.50
3	AB	31	GLU	CA-C-O	-5.07	115.50	120.82
3	AB	56	GLN	N-CA-CB	5.07	117.36	110.01
11	AJ	85	ARG	N-CA-C	-5.07	99.02	107.99
30	BA	58	CYS	CA-C-O	-5.07	114.73	119.80
40	BK	5	PRO	CB-CA-C	-5.07	103.20	111.56
51	BZ	15	PRO	N-CA-C	5.07	119.16	111.15
78	CA	589	C	C1'-O4'-C4'	-5.07	104.83	109.90
78	CA	1306	C	N1-C1'-C2'	5.07	119.60	112.00
81	DA	420	G	N9-C1'-C2'	-5.07	104.40	112.00
81	DA	498	A	N9-C1'-C2'	5.07	119.60	112.00
81	DA	723	U	O3'-P-O5'	-5.07	96.40	104.00
81	DA	824	C	N1-C1'-C2'	5.07	119.60	112.00
81	DA	854	G	P-O5'-C5'	-5.07	113.30	120.90
81	DA	2057	G	C5'-C4'-C3'	5.07	123.60	116.00
1	Aa	61	PHE	CB-CA-C	-5.07	99.32	109.35
2	AA	250	VAL	N-CA-CB	5.07	119.59	111.23
33	BD	40	THR	N-CA-CB	5.07	118.13	110.28
35	BG	93	VAL	N-CA-CB	5.07	119.90	112.35
60	Bi	86	LYS	CA-C-N	5.07	127.07	120.28
60	Bi	86	LYS	C-N-CA	5.07	127.07	120.28
78	CA	620	A	C4'-C3'-O3'	-5.07	105.40	113.00
78	CA	842	C	O4'-C1'-N1	5.07	116.10	108.50
78	CA	1389	C	C2'-C3'-O3'	5.07	117.10	109.50
78	CA	1586	A	OP1-P-O3'	-5.07	92.80	108.00
78	CA	1657	U	O4'-C1'-C2'	-5.07	102.53	107.60
81	DA	1424	C	N1-C1'-C2'	5.07	119.60	112.00
81	DA	2132	C	O4'-C1'-N1	5.07	116.10	108.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2147	A	P-O3'-C3'	-5.07	112.60	120.20
33	BD	132	ALA	N-CA-C	5.06	116.80	111.28
49	BV	150	VAL	O-C-N	-5.06	117.86	123.18
52	BY	70	ILE	CA-CB-CG1	5.06	119.01	110.40
76	BS	23	HIS	N-CA-C	-5.06	98.62	109.81
4	AD	55	ALA	O-C-N	-5.06	115.86	122.59
8	AF	167	ARG	O-C-N	5.06	127.28	122.07
9	AH	3	ARG	CA-C-N	5.06	127.06	120.28
9	AH	3	ARG	C-N-CA	5.06	127.06	120.28
13	AL	84	THR	CA-CB-CG2	5.06	119.11	110.50
20	AS	77	ASN	CB-CA-C	-5.06	102.39	110.79
26	AZ	5	HIS	CB-CG-ND1	-5.06	115.11	122.70
31	BB	116	VAL	O-C-N	-5.06	116.96	122.83
31	BB	173	GLY	CA-C-N	5.06	127.06	120.28
31	BB	173	GLY	C-N-CA	5.06	127.06	120.28
31	BB	186	PHE	N-CA-C	5.06	117.18	111.11
42	BM	129	VAL	O-C-N	5.06	127.05	121.83
44	BO	144	VAL	CA-C-N	5.06	127.28	120.50
44	BO	144	VAL	C-N-CA	5.06	127.28	120.50
51	BZ	64	THR	N-CA-C	-5.06	100.92	109.07
76	BS	97	ARG	CB-CA-C	5.06	118.31	109.65
78	CA	161	U	O4'-C1'-C2'	-5.06	102.54	107.60
81	DA	2637	A	C1'-O4'-C4'	5.06	114.96	109.90
81	DA	2645	G	O4'-C1'-N9	5.06	116.09	108.50
81	DA	2650	U	C3'-C2'-C1'	5.06	106.36	101.30
81	DA	3080	G	C2'-C3'-O3'	5.06	121.30	113.70
6	AE	2	SER	N-CA-C	5.06	117.55	109.96
81	DA	356	C	P-O3'-C3'	5.06	127.79	120.20
81	DA	947	G	C4'-C3'-O3'	-5.06	105.41	113.00
81	DA	1948	G	O5'-C5'-C4'	5.06	119.09	111.50
81	DA	2596	U	O4'-C1'-N1	5.06	116.09	108.50
81	DA	2778	G	N9-C1'-C2'	5.06	119.59	112.00
3	AB	215	GLU	N-CA-C	-5.06	96.83	111.00
10	AI	83	GLN	CB-CA-C	-5.06	103.38	111.17
16	AO	105	ASN	N-CA-C	5.06	117.69	111.82
32	BC	196	ARG	NE-CZ-NH2	-5.06	114.65	119.20
34	BE	23	VAL	CA-C-O	-5.06	114.46	120.78
38	Bs	14	LYS	CA-C-N	5.06	127.56	120.28
38	Bs	14	LYS	C-N-CA	5.06	127.56	120.28
39	BJ	85	LEU	CA-C-O	-5.06	115.06	120.42
63	Bm	90	VAL	O-C-N	5.06	126.87	121.91
74	BQ	164	LYS	CA-C-N	5.06	125.60	119.98

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
74	BQ	164	LYS	C-N-CA	5.06	125.60	119.98
81	DA	743	C	O3'-P-O5'	-5.06	96.41	104.00
81	DA	2130	G	C1'-O4'-C4'	5.06	114.96	109.90
81	DA	2364	G	N9-C1'-C2'	5.06	119.59	112.00
83	DC	108	U	C3'-C2'-C1'	5.06	106.36	101.30
11	AJ	65	ILE	CA-C-N	-5.06	115.69	123.07
11	AJ	65	ILE	C-N-CA	-5.06	115.69	123.07
17	AQ	10	LYS	CA-C-N	5.06	127.02	120.44
17	AQ	10	LYS	C-N-CA	5.06	127.02	120.44
17	AQ	91	LEU	N-CA-CB	5.06	118.54	110.65
32	BC	121	ASN	CB-CA-C	5.06	119.18	110.79
33	BD	111	VAL	N-CA-C	-5.06	101.20	108.53
35	BG	8	LYS	CA-CB-CG	5.06	124.21	114.10
45	BR	114	ILE	N-CA-CB	5.06	117.42	110.54
46	BT	49	THR	N-CA-C	-5.06	105.85	111.36
81	DA	162	G	C4'-C3'-O3'	-5.06	105.41	113.00
81	DA	376	G	C3'-C2'-C1'	-5.06	96.44	101.50
81	DA	780	A	P-O5'-C5'	-5.06	113.31	120.90
81	DA	1976	G	O4'-C4'-C3'	5.06	109.06	104.00
81	DA	2963	C	C1'-O4'-C4'	-5.06	104.84	109.90
83	DC	19	C	O4'-C1'-C2'	-5.06	102.54	107.60
83	DC	25	G	C3'-C2'-C1'	-5.06	96.24	101.30
8	AF	203	LYS	CA-C-O	5.06	124.74	119.03
14	AM	105	VAL	CA-CB-CG2	-5.06	101.80	110.40
22	AV	79	ALA	N-CA-CB	5.06	117.55	110.12
78	CA	1382	A	P-O5'-C5'	-5.06	113.32	120.90
81	DA	1623	G	O5'-C5'-C4'	5.06	119.08	111.50
9	AH	97	ARG	CB-CA-C	5.05	120.48	110.42
21	AT	84	SER	CA-C-O	-5.05	114.60	120.31
45	BR	149	ALA	N-CA-CB	5.05	119.03	110.49
76	BS	12	VAL	CA-CB-CG1	-5.05	101.81	110.40
76	BS	47	LEU	N-CA-CB	5.05	117.55	110.12
78	CA	1741	U	O4'-C1'-N1	5.05	116.08	108.50
79	CB	9	A	O4'-C1'-C2'	-5.05	100.75	105.80
81	DA	970	A	O3'-P-O5'	-5.05	96.42	104.00
81	DA	1541	G	O4'-C1'-C2'	-5.05	102.55	107.60
81	DA	2151	C	O3'-P-O5'	-5.05	96.42	104.00
81	DA	2479	C	P-O3'-C3'	-5.05	112.62	120.20
21	AT	51	VAL	CB-CA-C	5.05	118.23	110.55
33	BD	304	GLN	CA-C-O	5.05	125.55	119.59
42	BM	111	GLY	O-C-N	-5.05	118.87	123.57
46	BT	166	ASN	CA-C-N	5.05	127.01	120.44

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
46	BT	166	ASN	C-N-CA	5.05	127.01	120.44
47	BU	115	LYS	CA-C-N	5.05	127.05	120.28
47	BU	115	LYS	C-N-CA	5.05	127.05	120.28
55	Bc	82	ALA	CA-C-N	5.05	127.01	120.44
55	Bc	82	ALA	C-N-CA	5.05	127.01	120.44
81	DA	158	G	O4'-C1'-C2'	-5.05	102.55	107.60
81	DA	2784	G	O4'-C1'-C2'	-5.05	102.55	107.60
5	AC	50	SER	CA-C-N	5.05	127.01	120.44
5	AC	50	SER	C-N-CA	5.05	127.01	120.44
8	AF	129	PRO	CA-C-O	-5.05	111.91	119.34
14	AM	65	GLU	CA-C-N	5.05	127.46	120.29
14	AM	65	GLU	C-N-CA	5.05	127.46	120.29
33	BD	98	ARG	CA-C-N	5.05	130.52	122.94
33	BD	98	ARG	C-N-CA	5.05	130.52	122.94
41	BN	134	ALA	CA-C-N	5.05	127.05	120.28
41	BN	134	ALA	C-N-CA	5.05	127.05	120.28
46	BT	174	ALA	CA-C-O	-5.05	115.06	120.42
53	Ba	56	LYS	CA-C-O	5.05	127.77	121.81
78	CA	152	U	P-O3'-C3'	-5.05	112.62	120.20
81	DA	1290	A	C5'-C4'-C3'	5.05	123.58	116.00
81	DA	2405	C	C2'-C3'-O3'	-5.05	106.12	113.70
81	DA	2999	U	O3'-P-O5'	-5.05	96.42	104.00
1	Aa	48	THR	O-C-N	-5.05	116.72	122.68
6	AE	82	ASN	CA-CB-CG	5.05	117.65	112.60
19	AR	107	ILE	N-CA-C	-5.05	98.84	109.34
31	BB	63	PHE	CA-CB-CG	-5.05	108.75	113.80
34	BE	99	THR	N-CA-CB	-5.05	102.45	110.28
42	BM	108	GLU	N-CA-CB	5.05	118.13	110.45
57	Be	9	PRO	N-CA-CB	5.05	108.36	103.51
76	BS	116	HIS	CG-CD2-NE2	5.05	112.25	107.20
78	CA	349	U	O4'-C1'-C2'	-5.05	102.55	107.60
81	DA	276	U	P-O3'-C3'	-5.05	112.63	120.20
81	DA	712	G	N9-C1'-C2'	5.05	119.58	112.00
81	DA	2392	C	P-O3'-C3'	5.05	127.77	120.20
81	DA	2775	U	O4'-C1'-N1	5.05	116.08	108.50
81	DA	2908	G	O4'-C1'-C2'	5.05	112.65	107.60
8	AF	129	PRO	CA-C-N	5.05	127.59	120.42
8	AF	129	PRO	C-N-CA	5.05	127.59	120.42
47	BU	75	ILE	N-CA-CB	5.05	117.05	110.99
78	CA	1393	C	C3'-C2'-C1'	5.05	106.35	101.30
81	DA	1007	U	C5'-C4'-C3'	-5.05	108.43	116.00
81	DA	1690	C	C3'-C2'-C1'	-5.05	96.25	101.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Aa	52	GLN	OE1-CD-NE2	5.05	127.65	122.60
5	AC	123	HIS	CB-CG-ND1	5.05	130.27	122.70
6	AE	10	LYS	CA-C-N	5.05	127.55	120.28
6	AE	10	LYS	C-N-CA	5.05	127.55	120.28
6	AE	53	ILE	O-C-N	5.05	126.77	121.87
10	AI	49	TYR	CA-C-N	5.05	126.04	119.78
10	AI	49	TYR	C-N-CA	5.05	126.04	119.78
10	AI	80	ALA	N-CA-C	-5.05	100.81	109.24
14	AM	85	PHE	N-CA-C	-5.05	100.05	110.80
24	AX	45	THR	CB-CA-C	5.05	118.54	110.16
45	BR	131	ALA	CA-C-O	-5.05	113.25	120.16
59	Bh	23	ASP	O-C-N	5.05	129.19	122.43
64	Bl	12	HIS	CB-CG-CD2	-5.05	124.64	131.20
78	CA	1659	A	P-O5'-C5'	-5.05	113.33	120.90
81	DA	167	U	P-O5'-C5'	-5.05	113.33	120.90
81	DA	751	A	C1'-C2'-O2'	5.05	115.97	108.40
81	DA	1427	U	O5'-C5'-C4'	5.05	119.07	111.50
81	DA	1740	U	O3'-P-O5'	-5.05	96.43	104.00
81	DA	2812	C	C3'-C2'-C1'	5.05	106.35	101.30
82	DB	50	C	O4'-C1'-N1	5.05	116.07	108.50
14	AM	86	LEU	N-CA-CB	5.04	118.09	110.42
16	AO	149	LEU	N-CA-CB	5.04	119.02	110.49
36	BF	169	ASN	CB-CG-ND2	5.04	123.97	116.40
42	BM	76	ALA	CA-C-O	-5.04	116.05	121.45
74	BQ	129	TYR	CB-CA-C	5.04	120.46	110.42
76	BS	159	ARG	CD-NE-CZ	-5.04	117.34	124.40
78	CA	122	U	C4'-C3'-C2'	-5.04	97.56	102.60
78	CA	899	G	C1'-C2'-O2'	5.04	115.97	108.40
81	DA	1625	A	O4'-C1'-N9	-5.04	100.93	108.50
1	Aa	66	HIS	CG-CD2-NE2	5.04	112.24	107.20
6	AE	233	GLN	N-CA-C	5.04	120.32	113.16
10	AI	66	ARG	NE-CZ-NH2	-5.04	114.66	119.20
46	BT	126	GLU	CB-CG-CD	-5.04	104.03	112.60
49	BV	10	ASN	CA-C-N	5.04	124.35	118.85
49	BV	10	ASN	C-N-CA	5.04	124.35	118.85
77	BI	104	SER	CA-C-N	5.04	130.14	122.37
77	BI	104	SER	C-N-CA	5.04	130.14	122.37
78	CA	14	C	N1-C1'-C2'	5.04	119.57	112.00
81	DA	1179	A	C1'-O4'-C4'	5.04	114.94	109.90
81	DA	1992	U	O4'-C1'-N1	5.04	116.07	108.50
82	DB	46	G	O4'-C1'-C2'	5.04	112.64	107.60
2	AA	242	TRP	N-CA-C	-5.04	105.78	111.28

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BE	31	THR	N-CA-CB	-5.04	103.29	110.80
35	BG	50	LYS	N-CA-C	5.04	116.73	109.07
36	BF	38	LEU	N-CA-C	5.04	119.28	113.18
39	BJ	81	VAL	N-CA-CB	5.04	117.39	110.54
40	BK	175	THR	N-CA-CB	5.04	117.62	110.16
44	BO	81	LEU	CA-C-O	-5.04	115.08	120.42
64	Bl	66	TYR	CA-C-N	5.04	127.45	120.29
64	Bl	66	TYR	C-N-CA	5.04	127.45	120.29
78	CA	887	A	C4'-C3'-C2'	-5.04	97.56	102.60
78	CA	994	G	O4'-C1'-C2'	5.04	112.64	107.60
78	CA	1474	G	C1'-O4'-C4'	-5.04	104.86	109.90
81	DA	597	G	C1'-C2'-O2'	5.04	115.96	108.40
81	DA	675	C	C5'-C4'-C3'	-5.04	108.44	116.00
81	DA	1508	C	O4'-C1'-C2'	-5.04	102.56	107.60
81	DA	2133	U	O4'-C1'-C2'	-5.04	102.56	107.60
81	DA	2423	U	C4'-C3'-O3'	-5.04	105.44	113.00
83	DC	99	A	C3'-C2'-C1'	5.04	106.34	101.30
10	AI	107	LYS	CA-C-O	-5.04	114.91	121.11
44	BO	50	PRO	CA-C-N	5.04	125.54	120.00
44	BO	50	PRO	C-N-CA	5.04	125.54	120.00
78	CA	1043	A	C2'-C3'-O3'	5.04	117.06	109.50
81	DA	1475	A	P-O3'-C3'	5.04	127.76	120.20
2	AA	224	GLY	CA-C-O	-5.04	115.86	120.80
36	BF	44	THR	CA-C-N	5.04	131.59	123.33
36	BF	44	THR	C-N-CA	5.04	131.59	123.33
39	BJ	123	ARG	NE-CZ-NH2	5.04	123.73	119.20
58	Bg	65	LYS	CA-CB-CG	5.04	124.18	114.10
60	Bi	115	SER	N-CA-CB	5.04	117.86	109.60
78	CA	1449	U	O4'-C1'-N1	5.04	116.06	108.50
81	DA	422	A	N9-C1'-C2'	-5.04	104.44	112.00
81	DA	696	C	C4'-C3'-C2'	-5.04	97.56	102.60
81	DA	820	A	P-O3'-C3'	-5.04	112.64	120.20
81	DA	2307	G	C4'-C3'-O3'	5.04	116.96	109.40
81	DA	2629	U	O3'-P-O5'	5.04	111.56	104.00
81	DA	3306	U	C1'-O4'-C4'	-5.04	104.86	109.90
21	AT	30	ALA	CA-C-O	-5.04	115.65	121.49
81	DA	319	A	C4'-C3'-C2'	-5.04	97.56	102.60
8	AF	43	PHE	N-CA-CB	5.04	121.05	113.65
12	AK	68	ALA	CA-C-N	5.04	127.29	120.44
12	AK	68	ALA	C-N-CA	5.04	127.29	120.44
22	AV	88	ILE	CA-CB-CG1	5.04	118.96	110.40
33	BD	84	ARG	CA-C-N	-5.04	113.26	122.12

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	BD	84	ARG	C-N-CA	-5.04	113.26	122.12
33	BD	216	VAL	N-CA-CB	5.04	116.85	111.46
35	BG	154	LEU	N-CA-CB	5.04	119.00	110.49
55	Bc	93	THR	CA-CB-CG2	5.04	119.06	110.50
78	CA	298	C	C5'-C4'-C3'	5.04	123.55	116.00
78	CA	1320	U	O4'-C4'-C3'	5.04	109.04	104.00
78	CA	1337	A	O3'-P-O5'	-5.04	96.45	104.00
78	CA	1424	A	C4'-C3'-C2'	-5.04	97.56	102.60
81	DA	1678	G	O3'-P-O5'	5.04	111.56	104.00
81	DA	1819	U	C5'-C4'-O4'	-5.04	102.25	109.80
81	DA	2645	G	C3'-C2'-C1'	-5.04	96.26	101.30
82	DB	54	A	C3'-C2'-C1'	5.04	106.33	101.30
17	AQ	30	THR	CA-C-O	5.03	125.89	120.55
29	AU	50	ALA	CA-C-N	5.03	133.52	123.20
29	AU	50	ALA	C-N-CA	5.03	133.52	123.20
31	BB	241	ARG	N-CA-C	-5.03	100.08	110.80
37	BH	72	PRO	CA-C-O	-5.03	113.26	120.56
42	BM	48	ARG	CA-C-N	5.03	127.64	120.49
42	BM	48	ARG	C-N-CA	5.03	127.64	120.49
55	Bc	70	TYR	CB-CG-CD1	5.03	128.35	120.80
56	Bf	49	PRO	N-CA-C	-5.03	103.86	111.41
78	CA	1323	C	C1'-O4'-C4'	-5.03	104.87	109.90
81	DA	45	A	O4'-C1'-C2'	-5.03	102.57	107.60
81	DA	124	U	C5'-C4'-C3'	5.03	123.55	116.00
81	DA	677	A	OP2-P-O3'	-5.03	92.90	108.00
81	DA	1044	U	O4'-C1'-N1	5.03	116.05	108.50
81	DA	1689	U	P-O5'-C5'	-5.03	113.35	120.90
81	DA	1926	C	C3'-C2'-O2'	-5.03	107.05	114.60
81	DA	3129	A	C5'-C4'-C3'	-5.03	108.45	116.00
82	DB	41	A	O3'-P-O5'	5.03	111.55	104.00
17	AQ	96	SER	CA-C-O	-5.03	115.72	121.00
20	AS	119	LYS	N-CA-CB	5.03	117.76	110.26
33	BD	176	SER	CA-C-N	5.03	127.96	120.31
33	BD	176	SER	C-N-CA	5.03	127.96	120.31
58	Bg	13	THR	N-CA-CB	5.03	118.63	110.43
76	BS	87	THR	CB-CA-C	5.03	120.43	110.42
78	CA	95	G	O4'-C1'-N9	5.03	116.05	108.50
78	CA	221	A	O4'-C1'-N9	5.03	116.05	108.50
78	CA	386	G	P-O3'-C3'	5.03	127.75	120.20
2	AA	117	GLU	CA-C-O	-5.03	115.01	120.69
3	AB	159	HIS	CE1-NE2-CD2	-5.03	103.97	109.00
3	AB	174	HIS	CE1-NE2-CD2	-5.03	103.97	109.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
16	AO	42	ARG	N-CA-C	5.03	117.10	108.90
32	BC	290	ASP	CA-CB-CG	-5.03	107.57	112.60
33	BD	356	THR	N-CA-CB	-5.03	101.99	110.49
38	Bs	66	PHE	CA-C-N	5.03	127.02	120.28
38	Bs	66	PHE	C-N-CA	5.03	127.02	120.28
46	BT	21	LYS	N-CA-CB	5.03	117.59	110.90
48	BW	24	GLU	N-CA-C	5.03	116.61	111.03
54	Bd	43	HIS	ND1-CE1-NE2	5.03	113.43	108.40
61	Bj	83	ALA	N-CA-C	-5.03	101.47	108.96
78	CA	923	A	C3'-C2'-C1'	5.03	106.33	101.30
78	CA	1568	C	N1-C1'-C2'	-5.03	106.46	114.00
78	CA	1615	C	O4'-C4'-C3'	5.03	109.03	104.00
81	DA	269	G	O4'-C1'-N9	5.03	115.75	108.20
81	DA	317	A	C1'-O4'-C4'	-5.03	104.87	109.90
81	DA	823	C	N1-C1'-C2'	5.03	119.55	112.00
81	DA	1222	G	O4'-C1'-C2'	-5.03	100.77	105.80
81	DA	1978	A	O4'-C1'-C2'	-5.03	102.57	107.60
12	AK	26	THR	N-CA-CB	5.03	119.58	110.83
38	Bs	99	VAL	N-CA-CB	-5.03	104.67	110.55
77	BI	159	PHE	N-CA-C	-5.03	103.69	108.22
78	CA	99	C	C3'-C2'-C1'	5.03	106.53	101.50
78	CA	1316	G	O3'-P-O5'	5.03	111.54	104.00
81	DA	558	U	N1-C1'-C2'	5.03	119.54	112.00
81	DA	985	U	O4'-C1'-N1	5.03	116.04	108.50
81	DA	2109	U	O4'-C1'-C2'	-5.03	102.57	107.60
81	DA	3099	C	O5'-C5'-C4'	5.03	119.04	111.50
13	AL	23	ARG	CA-C-N	5.03	131.14	121.54
13	AL	23	ARG	C-N-CA	5.03	131.14	121.54
21	AT	18	SER	CA-C-N	5.03	127.02	120.28
21	AT	18	SER	C-N-CA	5.03	127.02	120.28
22	AV	44	GLN	CA-C-N	5.03	127.02	120.28
22	AV	44	GLN	C-N-CA	5.03	127.02	120.28
78	CA	203	U	C3'-C2'-C1'	5.03	106.33	101.30
78	CA	204	G	P-O3'-C3'	-5.03	112.66	120.20
78	CA	385	A	P-O3'-C3'	-5.03	112.66	120.20
78	CA	455	C	O4'-C1'-C2'	-5.03	100.77	105.80
78	CA	690	G	C3'-C2'-C1'	-5.03	96.27	101.30
78	CA	1294	G	C1'-O4'-C4'	-5.03	104.87	109.90
81	DA	628	A	P-O3'-C3'	5.03	127.74	120.20
81	DA	1320	C	O4'-C4'-C3'	-5.03	98.97	104.00
81	DA	1478	C	C1'-O4'-C4'	-5.03	104.87	109.90
81	DA	1802	C	O3'-P-O5'	-5.03	96.46	104.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2149	A	O4'-C1'-C2'	-5.03	102.57	107.60
81	DA	3313	U	O4'-C1'-N1	5.03	116.04	108.50
4	AD	193	GLY	CA-C-O	5.03	126.94	121.56
6	AE	168	ARG	CA-C-N	5.03	130.82	121.62
6	AE	168	ARG	C-N-CA	5.03	130.82	121.62
35	BG	4	GLN	N-CA-C	-5.03	100.09	110.80
53	Ba	25	ILE	CA-CB-CG1	5.03	118.94	110.40
78	CA	1379	C	O4'-C1'-C2'	-5.03	102.58	107.60
78	CA	1575	G	C1'-O4'-C4'	-5.03	104.88	109.90
81	DA	528	U	P-O3'-C3'	-5.03	112.66	120.20
81	DA	700	C	O3'-P-O5'	5.03	111.54	104.00
81	DA	2993	G	C3'-C2'-C1'	5.03	106.33	101.30
32	BC	163	HIS	ND1-CE1-NE2	5.02	113.42	108.40
61	Bj	42	GLN	O-C-N	-5.02	116.89	122.07
81	DA	38	U	O3'-P-O5'	-5.02	96.46	104.00
81	DA	48	A	O4'-C1'-N9	5.02	115.74	108.20
81	DA	1808	G	C1'-O4'-C4'	-5.02	104.88	109.90
81	DA	1981	G	O4'-C1'-N9	5.02	116.04	108.50
81	DA	2240	G	C3'-C2'-C1'	-5.02	96.28	101.30
81	DA	2746	A	C1'-O4'-C4'	-5.02	104.88	109.90
81	DA	3382	U	P-O5'-C5'	-5.02	113.36	120.90
4	AD	133	LYS	CB-CA-C	5.02	120.41	110.42
29	AU	94	TYR	N-CA-C	-5.02	100.10	110.80
31	BB	86	GLN	CA-C-N	5.02	129.52	122.09
31	BB	86	GLN	C-N-CA	5.02	129.52	122.09
34	BE	158	ASP	CB-CA-C	-5.02	102.31	110.85
35	BG	79	VAL	CG1-CB-CG2	5.02	121.85	110.80
36	BF	58	HIS	CA-CB-CG	-5.02	108.78	113.80
58	Bg	3	GLY	CA-C-N	5.02	128.63	120.60
58	Bg	3	GLY	C-N-CA	5.02	128.63	120.60
74	BQ	12	TYR	CB-CA-C	5.02	119.39	110.85
78	CA	116	U	O4'-C1'-C2'	-5.02	102.58	107.60
78	CA	658	C	O4'-C4'-C3'	5.02	109.02	104.00
78	CA	848	C	N1-C1'-C2'	5.02	119.53	112.00
78	CA	1294	G	C4'-C3'-C2'	-5.02	97.58	102.60
81	DA	228	U	C2'-C3'-O3'	5.02	121.23	113.70
81	DA	2339	C	C4'-C3'-O3'	5.02	116.94	109.40
81	DA	3232	G	O3'-P-O5'	5.02	111.53	104.00
81	DA	3232	G	P-O3'-C3'	-5.02	112.67	120.20
11	AJ	47	GLN	OE1-CD-NE2	-5.02	117.58	122.60
20	AS	45	MET	CG-SD-CE	-5.02	89.86	100.90
22	AV	31	SER	CA-C-O	5.02	127.69	120.51

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
41	BN	7	VAL	CA-C-N	5.02	129.24	121.26
41	BN	7	VAL	C-N-CA	5.02	129.24	121.26
48	BW	54	VAL	CB-CA-C	-5.02	104.01	110.84
51	BZ	22	VAL	N-CA-C	-5.02	100.66	107.99
57	Be	26	VAL	CA-C-N	5.02	127.01	120.28
57	Be	26	VAL	C-N-CA	5.02	127.01	120.28
57	Be	135	ALA	N-CA-C	-5.02	101.22	109.40
74	BQ	252	ALA	N-CA-CB	5.02	117.59	110.16
78	CA	1462	G	O4'-C1'-N9	5.02	116.03	108.50
81	DA	30	G	P-O3'-C3'	5.02	127.73	120.20
81	DA	2897	A	P-O3'-C3'	5.02	127.73	120.20
81	DA	3099	C	C4'-C3'-C2'	5.02	107.62	102.60
16	AO	127	ARG	CB-CA-C	-5.02	102.46	110.79
20	AS	64	HIS	CA-C-N	5.02	127.34	120.46
20	AS	64	HIS	C-N-CA	5.02	127.34	120.46
32	BC	190	GLU	N-CA-CB	5.02	117.95	110.22
33	BD	311	HIS	N-CA-C	-5.02	105.89	111.36
44	BO	16	SER	N-CA-C	5.02	117.64	111.82
46	BT	130	ASN	CA-CB-CG	-5.02	107.58	112.60
47	BU	138	SER	N-CA-C	-5.02	103.03	110.46
53	Ba	40	HIS	CA-C-N	5.02	131.51	122.02
53	Ba	40	HIS	C-N-CA	5.02	131.51	122.02
57	Be	7	LEU	O-C-N	-5.02	116.80	122.12
73	Bv	13	ALA	CA-C-N	5.02	128.78	122.00
73	Bv	13	ALA	C-N-CA	5.02	128.78	122.00
78	CA	230	C	N1-C1'-C2'	5.02	119.53	112.00
78	CA	372	G	N9-C1'-C2'	5.02	119.53	112.00
78	CA	1647	U	C1'-O4'-C4'	-5.02	104.88	109.90
78	CA	1736	G	O5'-C5'-C4'	5.02	119.03	111.50
81	DA	688	G	O4'-C1'-N9	5.02	116.03	108.50
81	DA	1148	G	C5'-C4'-C3'	5.02	123.53	116.00
81	DA	1580	A	C1'-O4'-C4'	-5.02	104.88	109.90
81	DA	1956	A	C1'-O4'-C4'	5.02	114.92	109.90
81	DA	3253	G	P-O3'-C3'	5.02	127.73	120.20
31	BB	218	HIS	CB-CG-CD2	-5.02	124.68	131.20
35	BG	104	GLU	CA-C-N	5.02	130.12	122.29
35	BG	104	GLU	C-N-CA	5.02	130.12	122.29
36	BF	46	THR	O-C-N	-5.02	116.81	122.68
39	BJ	72	SER	N-CA-C	-5.02	100.34	108.52
47	BU	114	ALA	N-CA-C	5.02	116.75	111.28
52	BY	59	VAL	CB-CA-C	-5.02	105.35	111.92
55	Bc	45	LYS	CA-C-O	5.02	125.87	120.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
65	Bn	11	PHE	CA-C-N	5.02	126.96	120.44
65	Bn	11	PHE	C-N-CA	5.02	126.96	120.44
78	CA	166	C	O4'-C1'-N1	-5.02	100.97	108.50
78	CA	334	G	P-O5'-C5'	-5.02	113.37	120.90
78	CA	1702	A	C5'-C4'-O4'	-5.02	102.27	109.80
78	CA	1722	A	P-O3'-C3'	5.02	127.72	120.20
81	DA	593	C	O4'-C1'-N1	5.02	116.03	108.50
81	DA	1772	U	P-O3'-C3'	5.02	127.73	120.20
81	DA	1773	C	C4'-C3'-O3'	5.02	116.93	109.40
81	DA	2515	A	C1'-C2'-O2'	5.02	115.92	108.40
82	DB	30	C	C4'-C3'-C2'	-5.02	97.58	102.60
83	DC	5	G	C4'-C3'-O3'	-5.02	105.47	113.00
2	AA	242	TRP	CA-C-N	5.02	127.41	120.29
2	AA	242	TRP	C-N-CA	5.02	127.41	120.29
9	AH	16	ASN	OD1-CG-ND2	-5.02	117.58	122.60
13	AL	133	LEU	N-CA-C	-5.02	106.85	113.12
62	Bk	64	SER	N-CA-CB	5.02	117.58	110.16
79	CB	1	U	C4'-C3'-O3'	-5.02	105.47	113.00
81	DA	1404	G	O4'-C1'-N9	5.02	116.02	108.50
81	DA	2140	U	O4'-C1'-N1	5.02	116.02	108.50
81	DA	2989	U	C1'-O4'-C4'	5.02	125.05	110.00
2	AA	16	LEU	N-CA-CB	5.01	118.96	110.49
5	AC	184	SER	N-CA-CB	5.01	118.96	110.49
10	AI	93	HIS	CA-C-N	5.01	126.96	120.44
10	AI	93	HIS	C-N-CA	5.01	126.96	120.44
29	AU	64	PHE	CA-CB-CG	-5.01	108.79	113.80
36	BF	164	ILE	N-CA-CB	5.01	117.36	110.54
40	BK	189	ASP	N-CA-C	5.01	121.48	110.80
57	Be	41	ARG	CA-C-N	5.01	127.00	120.28
57	Be	41	ARG	C-N-CA	5.01	127.00	120.28
64	Bl	16	HIS	CE1-NE2-CD2	-5.01	103.98	109.00
78	CA	173	A	N9-C1'-C2'	-5.01	104.48	112.00
78	CA	1712	A	N9-C1'-C2'	-5.01	104.48	112.00
80	CC	15	A	O4'-C1'-C2'	-5.01	102.59	107.60
81	DA	1289	G	C5'-C4'-C3'	5.01	123.52	116.00
81	DA	1746	U	C3'-C2'-O2'	5.01	118.22	110.70
81	DA	2061	G	P-O5'-C5'	-5.01	113.38	120.90
81	DA	3220	G	C4'-C3'-C2'	-5.01	97.59	102.60
82	DB	55	U	P-O5'-C5'	5.01	128.42	120.90
5	AC	183	ALA	N-CA-C	-5.01	103.43	110.50
60	Bi	18	ASN	CA-C-N	5.01	131.11	121.54
60	Bi	18	ASN	C-N-CA	5.01	131.11	121.54

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	Bp	16	ASP	N-CA-CB	5.01	118.15	109.18
78	CA	437	A	O4'-C1'-N9	5.01	116.02	108.50
78	CA	1412	G	N9-C1'-C2'	5.01	121.52	114.00
81	DA	255	A	C4'-C3'-C2'	-5.01	97.59	102.60
81	DA	763	G	O3'-P-O5'	-5.01	96.48	104.00
81	DA	2323	G	C1'-O4'-C4'	5.01	114.71	109.70
3	AB	44	THR	N-CA-C	5.01	118.68	112.47
31	BB	209	HIS	CG-CD2-NE2	5.01	112.21	107.20
33	BD	311	HIS	CA-C-N	5.01	126.97	120.56
33	BD	311	HIS	C-N-CA	5.01	126.97	120.56
39	BJ	133	LEU	O-C-N	-5.01	116.81	122.12
78	CA	1775	U	O4'-C1'-C2'	-5.01	102.59	107.60
81	DA	1748	G	C4'-C3'-O3'	-5.01	105.48	113.00
81	DA	1879	A	C3'-C2'-C1'	5.01	106.51	101.50
1	Aa	224	ASN	CA-CB-CG	5.01	117.61	112.60
16	AO	57	ALA	N-CA-CB	5.01	118.96	110.49
26	AZ	23	LYS	N-CA-C	-5.01	101.75	109.52
31	BB	197	PRO	N-CA-C	-5.01	102.15	112.47
32	BC	287	LYS	CA-C-N	5.01	125.54	119.98
32	BC	287	LYS	C-N-CA	5.01	125.54	119.98
35	BG	156	LYS	N-CA-CB	5.01	117.27	110.01
43	BP	149	ASN	CB-CA-C	-5.01	100.74	110.46
78	CA	925	G	C3'-C2'-C1'	-5.01	96.29	101.30
78	CA	1202	A	C3'-C2'-C1'	-5.01	96.29	101.30
78	CA	1647	U	O4'-C1'-N1	5.01	116.01	108.50
81	DA	1003	A	N9-C1'-C2'	-5.01	104.48	112.00
81	DA	2031	U	C1'-C2'-O2'	5.01	115.92	108.40
81	DA	2065	U	P-O5'-C5'	-5.01	113.39	120.90
81	DA	2366	C	O3'-P-O5'	5.01	111.51	104.00
81	DA	3345	G	O4'-C4'-C3'	-5.01	98.99	104.00
82	DB	43	A	O5'-C5'-C4'	-5.01	103.99	111.50
55	Bc	85	THR	O-C-N	5.01	129.25	122.59
74	BQ	231	ILE	CB-CA-C	-5.01	104.40	112.16
78	CA	169	A	C5'-C4'-O4'	-5.01	102.29	109.80
78	CA	1243	G	O4'-C1'-C2'	-5.01	102.59	107.60
81	DA	1496	C	O4'-C1'-C2'	-5.01	102.59	107.60
81	DA	1870	C	O4'-C1'-C2'	-5.01	102.59	107.60
1	Aa	133	VAL	N-CA-CB	5.01	120.47	111.21
11	AJ	23	ARG	NH1-CZ-NH2	5.01	125.81	119.30
15	AN	23	VAL	CA-C-N	-5.01	115.67	122.93
15	AN	23	VAL	C-N-CA	-5.01	115.67	122.93
15	AN	44	ARG	CA-C-N	-5.01	113.57	120.28

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	AN	44	ARG	C-N-CA	-5.01	113.57	120.28
61	Bj	87	ASN	CB-CA-C	5.01	120.38	110.42
76	BS	109	TYR	N-CA-C	-5.01	105.71	111.07
78	CA	92	A	P-O5'-C5'	5.01	128.41	120.90
78	CA	484	C	O4'-C1'-N1	5.01	116.01	108.50
81	DA	334	A	O3'-P-O5'	5.01	111.51	104.00
81	DA	735	A	P-O3'-C3'	5.01	127.71	120.20
81	DA	786	A	C1'-O4'-C4'	5.01	114.91	109.90
81	DA	1517	G	C4'-C3'-O3'	-5.01	105.49	113.00
81	DA	2142	A	N9-C1'-C2'	-5.01	106.49	114.00
81	DA	2240	G	C1'-O4'-C4'	-5.01	104.89	109.90
2	AA	53	THR	CA-C-N	5.00	126.95	120.44
2	AA	53	THR	C-N-CA	5.00	126.95	120.44
78	CA	1672	G	O4'-C1'-N9	5.00	116.01	108.50
81	DA	1502	C	O4'-C1'-C2'	-5.00	100.80	105.80
1	Aa	16	HIS	CB-CG-CD2	-5.00	124.69	131.20
1	Aa	217	ASP	CA-CB-CG	5.00	117.60	112.60
2	AA	102	PHE	CA-CB-CG	-5.00	108.80	113.80
3	AB	102	ALA	N-CA-C	5.00	116.54	111.14
16	AO	124	ARG	CD-NE-CZ	5.00	131.41	124.40
26	AZ	8	LEU	CA-C-N	5.00	126.98	120.28
26	AZ	8	LEU	C-N-CA	5.00	126.98	120.28
31	BB	1	MET	CG-SD-CE	-5.00	89.89	100.90
35	BG	162	SER	CA-C-N	5.00	126.98	120.28
35	BG	162	SER	C-N-CA	5.00	126.98	120.28
41	BN	50	LYS	CA-C-N	5.00	131.09	121.54
41	BN	50	LYS	C-N-CA	5.00	131.09	121.54
47	BU	69	LYS	CB-CA-C	5.00	120.38	110.42
57	Be	96	PRO	N-CA-C	5.00	115.93	110.58
69	Br	7	THR	CA-C-O	5.00	125.88	120.43
69	Br	17	CYS	CA-C-O	5.00	126.05	120.80
78	CA	1651	A	C3'-C2'-C1'	5.00	106.30	101.30
81	DA	229	G	C1'-O4'-C4'	-5.00	104.90	109.90
81	DA	329	U	C5'-C4'-C3'	5.00	123.50	116.00
81	DA	433	A	C3'-C2'-C1'	5.00	106.30	101.30
81	DA	835	G	C4'-C3'-C2'	-5.00	97.60	102.60
81	DA	1061	A	P-O5'-C5'	-5.00	113.39	120.90
81	DA	1263	A	C4'-C3'-C2'	5.00	107.60	102.60
81	DA	1367	G	N9-C1'-C2'	5.00	119.50	112.00
81	DA	2641	U	P-O5'-C5'	5.00	128.40	120.90
81	DA	3045	G	O4'-C1'-N9	5.00	116.00	108.50
81	DA	3060	C	P-O3'-C3'	-5.00	112.69	120.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	AC	107	ARG	N-CA-CB	5.00	117.64	109.69
5	AC	133	HIS	ND1-CE1-NE2	5.00	113.40	108.40
6	AE	232	GLU	CA-C-O	-5.00	115.55	120.70
13	AL	38	PHE	CA-CB-CG	5.00	118.80	113.80
24	AX	32	PHE	N-CA-C	-5.00	101.54	109.59
30	BA	148	VAL	N-CA-CB	5.00	117.34	110.54
35	BG	84	VAL	N-CA-CB	5.00	119.48	111.23
52	BY	3	LYS	CB-CG-CD	5.00	122.80	111.30
55	Bc	30	GLU	CA-C-N	5.00	127.48	120.28
55	Bc	30	GLU	C-N-CA	5.00	127.48	120.28
56	Bf	101	LEU	N-CA-CB	-5.00	102.77	110.12
60	Bi	34	HIS	CA-CB-CG	5.00	118.80	113.80
78	CA	293	U	O4'-C4'-C3'	-5.00	101.10	106.10
78	CA	887	A	N9-C1'-C2'	5.00	119.50	112.00
78	CA	1025	A	O4'-C1'-C2'	-5.00	102.60	107.60
78	CA	1562	G	P-O3'-C3'	-5.00	112.70	120.20
81	DA	1130	A	C3'-C2'-C1'	5.00	106.30	101.30
81	DA	2390	A	O4'-C1'-C2'	-5.00	102.60	107.60
81	DA	2736	A	O4'-C1'-C2'	-5.00	102.60	107.60
81	DA	2993	G	O4'-C1'-C2'	-5.00	102.60	107.60

All (85) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
2	AA	241	GLU	CA
5	AC	129	ILE	CA
5	AC	162	SER	CA
6	AE	28	ARG	CA
6	AE	30	THR	CA
6	AE	31	GLU	CA
12	AK	67	VAL	CA
16	AO	67	THR	CA
16	AO	118	ILE	CA
29	AU	5	VAL	CA
29	AU	62	THR	CA
31	BB	40	TYR	CA
31	BB	67	TYR	CA
32	BC	241	LYS	CA
32	BC	344	THR	CA
33	BD	261	VAL	CA
33	BD	296	GLN	CA
34	BE	52	TYR	CA

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atom
34	BE	55	ARG	CA
35	BG	8	LYS	CA
35	BG	75	PRO	CA
39	BJ	14	TYR	CA
41	BN	62	GLN	CA
43	BP	13	LYS	CA
43	BP	44	ARG	CA
43	BP	122	ASN	CA
43	BP	123	GLN	CA
44	BO	7	LYS	CA
47	BU	126	VAL	CA
57	Be	98	LYS	CA
61	Bj	21	ARG	CA
62	Bk	27	SER	CA
63	Bm	29	LEU	CA
76	BS	66	ILE	CA
77	BI	13	LYS	CA
77	BI	90	ARG	CA
78	CA	558	U	C3'
78	CA	963	A	C3'
78	CA	1337	A	C3'
78	CA	1434	U	C3'
78	CA	1444	A	C2'
78	CA	1459	C	C2'
78	CA	1546	G	C1'
78	CA	1601	G	C1'
78	CA	1700	C	C2'
78	CA	1735	U	C4'
79	CB	55	C	C1'
80	CC	20	U	C4'
81	DA	476	G	C3'
81	DA	527	A	C3'
81	DA	609	G	C3'
81	DA	637	C	C3'
81	DA	699	A	C4'
81	DA	702	C	C3'
81	DA	782	U	C2'
81	DA	975	C	C3'
81	DA	1047	A	C3'
81	DA	1209	G	C3'
81	DA	1221	A	C1'
81	DA	1251	A	C1'

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atom
81	DA	1384	U	C3'
81	DA	1537	A	C3'
81	DA	1701	C	C3'
81	DA	1754	G	C3'
81	DA	1771	C	C2',C4',C3'
81	DA	1856	C	C3'
81	DA	2067	U	C4'
81	DA	2137	U	C3'
81	DA	2211	U	C3'
81	DA	2362	C	C3'
81	DA	2384	A	C3'
81	DA	2757	U	C2'
81	DA	2760	C	C3'
81	DA	2970	C	C3'
81	DA	3044	G	C3'
81	DA	3092	C	C3'
81	DA	3215	A	C2',C1'
82	DB	51	G	C3'
82	DB	94	C	C3'
82	DB	120	C	C3'
82	DB	132	G	C3'
82	DB	138	A	C3'

All (1514) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
2	AA	10	THR	Peptide,Mainchain
2	AA	101	ARG	Sidechain
2	AA	104	PRO	Peptide
2	AA	11	PRO	Peptide,Mainchain
2	AA	110	TYR	Sidechain
2	AA	13	ASP	Peptide
2	AA	175	TYR	Sidechain
2	AA	194	PRO	Peptide
2	AA	195	TRP	Peptide,Mainchain
2	AA	197	ILE	Peptide
2	AA	229	LYS	Peptide,Mainchain
2	AA	230	GLU	Peptide
2	AA	232	VAL	Peptide
2	AA	250	VAL	Peptide,Mainchain
2	AA	251	GLU	Peptide,Mainchain
2	AA	36	TYR	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
2	AA	4	PRO	Peptide,Mainchain
2	AA	5	ALA	Peptide
2	AA	6	THR	Peptide,Mainchain
2	AA	82	GLY	Peptide
2	AA	84	ARG	Sidechain
2	AA	9	LEU	Peptide
3	AB	116	ARG	Sidechain
3	AB	117	ARG	Sidechain
3	AB	120	TYR	Sidechain
3	AB	125	TYR	Sidechain
3	AB	17	PHE	Sidechain
3	AB	18	TYR	Sidechain
3	AB	192	PRO	Peptide
3	AB	198	GLY	Peptide
3	AB	199	PRO	Peptide,Mainchain
3	AB	201	ALA	Peptide
3	AB	202	LEU	Peptide
3	AB	205	ALA	Peptide,Mainchain
3	AB	206	VAL	Peptide
3	AB	208	ILE	Peptide
3	AB	209	ILE	Peptide,Mainchain
3	AB	210	GLU	Peptide
3	AB	212	LYS	Peptide,Mainchain
3	AB	214	GLU	Peptide,Mainchain
3	AB	64	ARG	Sidechain
3	AB	72	LEU	Mainchain
3	AB	78	LYS	Peptide,Mainchain
3	AB	79	TYR	Peptide
3	AB	87	TYR	Sidechain
5	AC	104	PHE	Sidechain
5	AC	117	GLY	Peptide
5	AC	118	LEU	Peptide
5	AC	126	ARG	Sidechain
5	AC	133	HIS	Sidechain
5	AC	14	THR	Peptide
5	AC	142	ASN	Sidechain
5	AC	148	VAL	Peptide
5	AC	15	PRO	Mainchain
5	AC	151	ASP	Peptide
5	AC	157	ASP	Peptide,Mainchain
5	AC	158	PHE	Peptide,Sidechain
5	AC	16	LYS	Peptide

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
5	AC	160	PRO	Peptide
5	AC	162	SER	Peptide,Mainchain
5	AC	163	PRO	Peptide
5	AC	164	PHE	Peptide,Mainchain
5	AC	168	ARG	Peptide,Mainchain
5	AC	18	PRO	Peptide,Mainchain
5	AC	182	GLU	Peptide
5	AC	183	ALA	Peptide
5	AC	184	SER	Peptide
5	AC	186	GLU	Peptide
5	AC	187	ALA	Peptide
5	AC	188	ALA	Peptide
5	AC	19	TYR	Peptide
5	AC	190	GLU	Peptide
5	AC	191	ALA	Peptide
5	AC	193	GLU	Peptide
5	AC	2	PRO	Peptide
5	AC	21	SER	Peptide
5	AC	3	ARG	Peptide
5	AC	57	ARG	Sidechain
5	AC	6	ARG	Sidechain
4	AD	103	TYR	Sidechain
4	AD	108	ARG	Sidechain
4	AD	131	LEU	Peptide
4	AD	134	LYS	Peptide
4	AD	142	HIS	Sidechain
4	AD	149	TYR	Sidechain
4	AD	150	PRO	Peptide
4	AD	153	ASN	Peptide,Mainchain
4	AD	182	TYR	Sidechain
4	AD	187	ARG	Sidechain
4	AD	211	LYS	Peptide
4	AD	212	ASP	Peptide
4	AD	218	PHE	Mainchain
4	AD	230	GLU	Peptide
4	AD	231	GLN	Peptide
4	AD	234	PRO	Peptide
4	AD	235	TYR	Mainchain
4	AD	238	LEU	Peptide
4	AD	239	PRO	Peptide
4	AD	240	LYS	Peptide,Mainchain
4	AD	51	ARG	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
4	AD	54	TYR	Peptide
4	AD	55	ALA	Peptide
4	AD	57	ASN	Peptide
4	AD	82	TYR	Sidechain
4	AD	90	ILE	Peptide,Mainchain
4	AD	93	ASP	Peptide,Mainchain
4	AD	94	ALA	Peptide,Mainchain
4	AD	95	THR	Peptide
4	AD	96	ASN	Mainchain
4	AD	99	PHE	Sidechain
6	AE	109	GLY	Peptide
6	AE	110	HIS	Sidechain
6	AE	126	ARG	Sidechain
6	AE	137	ILE	Peptide
6	AE	168	ARG	Sidechain
6	AE	174	ARG	Peptide,Mainchain
6	AE	205	ARG	Sidechain
6	AE	225	LEU	Peptide
6	AE	239	PRO	Peptide
6	AE	24	ARG	Sidechain
6	AE	243	TYR	Mainchain
6	AE	25	ARG	Peptide
6	AE	28	ARG	Peptide
6	AE	30	THR	Peptide
6	AE	31	GLU	Peptide
6	AE	4	PRO	Peptide,Mainchain
6	AE	67	GLN	Peptide
6	AE	69	ILE	Peptide
6	AE	7	GLN	Peptide,Mainchain
6	AE	70	ASP	Mainchain
6	AE	71	THR	Peptide
6	AE	81	MET	Peptide,Mainchain
6	AE	92	ALA	Peptide,Mainchain
6	AE	95	ARG	Sidechain
8	AF	101	GLY	Peptide
8	AF	103	ASN	Peptide
8	AF	116	HIS	Sidechain
8	AF	157	ARG	Sidechain
8	AF	209	TYR	Sidechain
8	AF	28	PRO	Peptide
8	AF	35	GLN	Peptide,Mainchain
8	AF	36	ALA	Peptide

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
8	AF	37	GLN	Peptide
8	AF	61	TYR	Sidechain
8	AF	65	ARG	Peptide
8	AF	79	ASN	Peptide
8	AF	92	ARG	Sidechain
7	AG	10	UNK	Peptide,Mainchain
7	AG	100	UNK	Peptide,Mainchain
7	AG	101	UNK	Peptide,Mainchain
7	AG	103	UNK	Peptide,Mainchain
7	AG	104	UNK	Peptide,Mainchain
7	AG	107	UNK	Peptide,Mainchain
7	AG	11	UNK	Peptide
7	AG	127	UNK	Peptide,Mainchain
7	AG	128	UNK	Peptide
7	AG	131	UNK	Peptide
7	AG	21	UNK	Peptide,Mainchain
7	AG	35	UNK	Peptide,Mainchain
7	AG	37	UNK	Peptide,Mainchain
7	AG	38	UNK	Peptide,Mainchain
7	AG	52	UNK	Peptide,Mainchain
7	AG	53	UNK	Peptide
7	AG	55	UNK	Peptide,Mainchain
7	AG	56	UNK	Peptide
7	AG	68	UNK	Mainchain
7	AG	69	UNK	Peptide
7	AG	71	UNK	Peptide,Mainchain
7	AG	75	UNK	Peptide,Mainchain
7	AG	79	UNK	Peptide
7	AG	81	UNK	Peptide,Mainchain
7	AG	83	UNK	Peptide,Mainchain
7	AG	86	UNK	Peptide,Mainchain
7	AG	87	UNK	Peptide,Mainchain
7	AG	9	UNK	Peptide,Mainchain
7	AG	96	UNK	Peptide,Mainchain
7	AG	97	UNK	Peptide,Mainchain
9	AH	101	TYR	Sidechain
9	AH	121	VAL	Peptide
9	AH	3	ARG	Sidechain
9	AH	41	MET	Peptide
9	AH	52	TYR	Sidechain
9	AH	57	ARG	Sidechain
9	AH	64	GLN	Peptide

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
9	AH	65	LEU	Peptide
9	AH	66	ASN	Peptide,Mainchain
9	AH	67	GLY	Peptide
9	AH	79	PHE	Peptide,Sidechain
9	AH	80	ASN	Peptide
9	AH	83	ILE	Peptide
10	AI	119	ALA	Peptide,Mainchain
10	AI	123	ARG	Peptide,Sidechain
10	AI	125	GLU	Peptide
10	AI	126	PRO	Peptide
10	AI	140	LYS	Peptide,Mainchain
10	AI	27	GLY	Peptide
10	AI	49	TYR	Sidechain
10	AI	54	LEU	Peptide,Mainchain
10	AI	83	GLN	Peptide
10	AI	85	ILE	Peptide
11	AJ	119	ALA	Peptide,Mainchain
11	AJ	21	LYS	Peptide
11	AJ	57	ARG	Sidechain
11	AJ	61	LYS	Peptide
11	AJ	64	LYS	Peptide
11	AJ	68	ARG	Sidechain
11	AJ	71	PRO	Peptide
11	AJ	73	GLY	Peptide
11	AJ	74	GLU	Peptide
11	AJ	78	THR	Peptide
11	AJ	81	THR	Peptide,Mainchain
11	AJ	82	TYR	Peptide
11	AJ	86	ILE	Peptide
11	AJ	87	HIS	Peptide
11	AJ	90	TYR	Sidechain
12	AK	107	ARG	Sidechain
12	AK	111	ARG	Sidechain
12	AK	114	ARG	Sidechain
12	AK	119	THR	Peptide
12	AK	123	SER	Peptide,Mainchain
12	AK	136	ARG	Peptide
12	AK	21	ALA	Peptide
12	AK	22	SER	Peptide,Mainchain
12	AK	30	VAL	Peptide
12	AK	59	ALA	Peptide,Mainchain
12	AK	60	ALA	Peptide,Mainchain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
13	AL	10	ASN	Mainchain
13	AL	124	VAL	Peptide
13	AL	13	ARG	Sidechain
13	AL	134	ALA	Peptide,Mainchain
13	AL	22	ASN	Peptide,Mainchain
13	AL	34	LEU	Peptide,Mainchain
13	AL	38	PHE	Peptide,Sidechain
13	AL	87	VAL	Mainchain
13	AL	93	LEU	Mainchain
13	AL	98	GLU	Peptide
14	AM	10	SER	Peptide
14	AM	11	PHE	Sidechain
14	AM	110	ARG	Sidechain
14	AM	134	ARG	Sidechain
14	AM	140	THR	Peptide
14	AM	145	ARG	Sidechain
14	AM	22	VAL	Peptide
14	AM	87	ASN	Peptide
14	AM	88	ARG	Peptide
14	AM	90	ASN	Peptide
14	AM	99	HIS	Peptide,Mainchain
15	AN	10	HIS	Peptide,Sidechain
15	AN	37	ASN	Peptide
15	AN	44	ARG	Sidechain
15	AN	46	LYS	Peptide,Mainchain
15	AN	47	ALA	Mainchain
15	AN	52	PHE	Mainchain
15	AN	53	ASN	Peptide,Mainchain
15	AN	54	LYS	Peptide,Mainchain
16	AO	104	ARG	Sidechain
16	AO	106	ARG	Sidechain
16	AO	114	ARG	Sidechain
16	AO	127	ARG	Sidechain
16	AO	128	TYR	Sidechain
16	AO	129	TYR	Sidechain
16	AO	40	TYR	Peptide,Sidechain
16	AO	41	ALA	Peptide
16	AO	63	ALA	Mainchain
16	AO	64	ARG	Sidechain
16	AO	67	THR	Peptide,Mainchain
16	AO	89	TYR	Sidechain
16	AO	90	TYR	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
18	AP	100	TYR	Sidechain
18	AP	109	VAL	Peptide
18	AP	110	HIS	Peptide
18	AP	122	ILE	Peptide,Mainchain
18	AP	40	LEU	Peptide,Mainchain
18	AP	53	TYR	Mainchain
18	AP	54	ILE	Peptide
18	AP	55	ASP	Peptide,Mainchain
18	AP	57	LYS	Mainchain
18	AP	59	PRO	Peptide
18	AP	60	PHE	Sidechain
18	AP	93	TYR	Sidechain
17	AQ	101	ASN	Peptide
17	AQ	128	ARG	Peptide
17	AQ	129	ASP	Peptide,Mainchain
17	AQ	131	ARG	Peptide,Sidechain
17	AQ	132	TYR	Sidechain
17	AQ	133	ARG	Sidechain
17	AQ	134	LYS	Peptide
17	AQ	19	ARG	Sidechain
17	AQ	20	TYR	Sidechain
17	AQ	26	LEU	Peptide,Mainchain
17	AQ	5	ARG	Peptide,Sidechain
17	AQ	60	ARG	Sidechain
17	AQ	63	LYS	Mainchain
17	AQ	71	PHE	Sidechain
17	AQ	81	LYS	Peptide,Mainchain
17	AQ	82	ASP	Peptide,Mainchain
17	AQ	85	VAL	Peptide,Mainchain
17	AQ	87	GLU	Peptide
17	AQ	93	LEU	Peptide
17	AQ	94	SER	Peptide
17	AQ	95	ARG	Sidechain
17	AQ	99	VAL	Peptide
19	AR	108	ARG	Sidechain
19	AR	125	PRO	Peptide
19	AR	127	ARG	Sidechain
19	AR	131	ALA	Peptide
19	AR	134	THR	Peptide
19	AR	52	LYS	Peptide
19	AR	77	ARG	Sidechain
19	AR	97	TYR	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
20	AS	122	ARG	Sidechain
20	AS	130	ARG	Sidechain
20	AS	30	VAL	Peptide
20	AS	43	ASN	Peptide
20	AS	60	SER	Mainchain
20	AS	68	ARG	Sidechain
20	AS	69	LYS	Peptide
20	AS	7	ARG	Sidechain
20	AS	70	GLN	Peptide
20	AS	78	LYS	Peptide
20	AS	80	TYR	Sidechain
20	AS	87	GLY	Peptide
20	AS	90	PRO	Peptide,Mainchain
20	AS	91	TYR	Peptide
20	AS	95	ASP	Peptide,Mainchain
20	AS	96	ALA	Peptide,Mainchain
21	AT	27	ASP	Peptide
21	AT	43	GLY	Peptide,Mainchain
21	AT	44	ARG	Peptide,Mainchain
21	AT	53	TYR	Peptide
21	AT	54	ALA	Peptide,Mainchain
21	AT	58	TYR	Sidechain
21	AT	68	SER	Peptide
21	AT	8	LEU	Peptide
21	AT	85	TYR	Peptide,Sidechain
21	AT	9	VAL	Peptide,Mainchain
29	AU	27	VAL	Peptide
29	AU	35	VAL	Peptide
29	AU	36	SER	Peptide,Mainchain
29	AU	37	LYS	Peptide
29	AU	52	LYS	Peptide
29	AU	58	PHE	Sidechain
29	AU	62	THR	Mainchain
29	AU	66	GLY	Peptide
29	AU	70	VAL	Mainchain
29	AU	72	PHE	Peptide
29	AU	89	TYR	Sidechain
22	AV	103	ARG	Peptide,Sidechain
22	AV	104	ALA	Mainchain
22	AV	105	THR	Mainchain
22	AV	106	ALA	Peptide
22	AV	26	LYS	Peptide,Mainchain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
22	AV	28	SER	Peptide
22	AV	29	LYS	Peptide
22	AV	43	ASP	Peptide
22	AV	47	TYR	Sidechain
22	AV	77	ARG	Sidechain
23	AW	117	UNK	Peptide
23	AW	15	UNK	Peptide,Mainchain
23	AW	60	UNK	Peptide
23	AW	61	UNK	Peptide
23	AW	62	UNK	Peptide
23	AW	63	UNK	Peptide
23	AW	64	UNK	Peptide
23	AW	66	UNK	Peptide
23	AW	67	UNK	Peptide
23	AW	69	UNK	Peptide
23	AW	70	UNK	Peptide
23	AW	72	UNK	Peptide
23	AW	73	UNK	Peptide
23	AW	75	UNK	Peptide
23	AW	77	UNK	Peptide
23	AW	91	UNK	Peptide
23	AW	92	UNK	Peptide
23	AW	93	UNK	Peptide
23	AW	94	UNK	Peptide
24	AX	47	PHE	Sidechain
24	AX	58	SER	Peptide
25	AY	20	GLY	Peptide
25	AY	21	SER	Peptide
25	AY	22	ARG	Peptide
25	AY	23	GLY	Peptide
26	AZ	10	ARG	Sidechain
26	AZ	18	THR	Peptide,Mainchain
26	AZ	19	PRO	Peptide
26	AZ	21	VAL	Peptide
26	AZ	22	GLU	Peptide
26	AZ	24	THR	Peptide
26	AZ	26	LYS	Peptide
26	AZ	35	TYR	Sidechain
26	AZ	39	LEU	Peptide,Mainchain
26	AZ	40	TYR	Peptide,Mainchain
26	AZ	41	THR	Peptide
26	AZ	42	ARG	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
26	AZ	43	ARG	Sidechain
26	AZ	44	PHE	Peptide,Mainchain
26	AZ	46	ASN	Peptide
26	AZ	54	ARG	Peptide
26	AZ	55	ARG	Peptide
26	AZ	57	ASN	Peptide
26	AZ	58	PRO	Peptide
26	AZ	59	GLY	Peptide
26	AZ	61	SER	Peptide
1	Aa	10	ARG	Sidechain
1	Aa	192	PHE	Sidechain
1	Aa	232	TYR	Sidechain
1	Aa	240	VAL	Peptide
1	Aa	280	GLY	Peptide
1	Aa	302	PHE	Sidechain
1	Aa	305	TYR	Sidechain
1	Aa	48	THR	Peptide
1	Aa	49	GLY	Peptide
1	Aa	53	LYS	Peptide,Mainchain
1	Aa	54	PHE	Peptide,Mainchain
1	Aa	58	VAL	Peptide
1	Aa	59	ARG	Peptide,Mainchain
1	Aa	60	SER	Peptide
1	Aa	78	ALA	Peptide
27	Ab	1	UNK	Mainchain
27	Ab	27	UNK	Mainchain
27	Ab	29	UNK	Mainchain
28	Ac	3	UNK	Peptide
30	BA	107	TYR	Sidechain
30	BA	122	ARG	Sidechain
30	BA	19	TYR	Peptide
30	BA	208	SER	Mainchain
30	BA	210	MET	Peptide
30	BA	214	PHE	Sidechain
30	BA	41	TYR	Sidechain
30	BA	68	PHE	Sidechain
31	BB	1	MET	Mainchain
31	BB	127	ALA	Peptide,Mainchain
31	BB	128	ARG	Sidechain
31	BB	140	ASN	Peptide
31	BB	19	HIS	Sidechain
31	BB	193	ARG	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
31	BB	196	TRP	Peptide,Mainchain
31	BB	2	GLY	Peptide
31	BB	239	ALA	Peptide
31	BB	241	ARG	Sidechain
31	BB	242	ARG	Sidechain
31	BB	243	THR	Peptide
31	BB	244	GLY	Peptide,Mainchain
31	BB	245	LEU	Mainchain
31	BB	249	SER	Peptide,Mainchain
31	BB	252	THR	Peptide,Mainchain
31	BB	26	ALA	Peptide
31	BB	27	ALA	Peptide
31	BB	30	ARG	Sidechain
31	BB	34	TYR	Sidechain
31	BB	37	ARG	Mainchain
31	BB	39	GLY	Peptide
31	BB	40	TYR	Peptide,Sidechain
31	BB	42	ARG	Sidechain
31	BB	50	HIS	Sidechain
31	BB	54	ARG	Sidechain
31	BB	6	ARG	Sidechain
31	BB	62	VAL	Peptide,Mainchain
31	BB	67	TYR	Sidechain
31	BB	68	LYS	Peptide
31	BB	69	TYR	Sidechain
31	BB	70	ARG	Peptide
31	BB	73	GLU	Peptide,Mainchain
31	BB	83	HIS	Sidechain
31	BB	84	THR	Mainchain
31	BB	89	TYR	Sidechain
31	BB	9	ARG	Sidechain
32	BC	10	ARG	Sidechain
32	BC	100	ARG	Sidechain
32	BC	101	SER	Mainchain
32	BC	103	THR	Peptide
32	BC	109	HIS	Peptide
32	BC	117	ARG	Sidechain
32	BC	119	TYR	Sidechain
32	BC	121	ASN	Peptide
32	BC	129	ALA	Peptide
32	BC	130	PHE	Peptide,Mainchain
32	BC	154	TYR	Peptide

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
32	BC	155	ALA	Peptide
32	BC	169	THR	Peptide
32	BC	17	LEU	Peptide,Mainchain
32	BC	19	ARG	Sidechain
32	BC	247	ARG	Sidechain
32	BC	256	HIS	Peptide,Mainchain
32	BC	28	ARG	Sidechain
32	BC	283	TYR	Sidechain
32	BC	288	GLY	Peptide
32	BC	289	ASP	Peptide,Mainchain
32	BC	297	SER	Peptide,Mainchain
32	BC	298	PHE	Peptide,Mainchain
32	BC	3	HIS	Peptide,Mainchain
32	BC	314	TYR	Sidechain
32	BC	334	ARG	Sidechain
32	BC	339	ARG	Sidechain
32	BC	344	THR	Mainchain
32	BC	345	ASN	Peptide,Mainchain
32	BC	353	GLU	Peptide
32	BC	360	ASP	Peptide,Mainchain
32	BC	362	ALA	Peptide,Mainchain
32	BC	365	PHE	Sidechain
32	BC	368	GLY	Peptide,Mainchain
32	BC	371	GLN	Mainchain
32	BC	381	GLY	Peptide,Mainchain
32	BC	386	ASP	Peptide,Mainchain
32	BC	49	TYR	Sidechain
32	BC	5	LYS	Peptide,Mainchain
32	BC	6	TYR	Sidechain
32	BC	70	ARG	Sidechain
32	BC	92	TYR	Mainchain
33	BD	105	THR	Peptide
33	BD	107	ARG	Sidechain
33	BD	108	LYS	Peptide
33	BD	12	THR	Peptide,Mainchain
33	BD	143	GLU	Peptide
33	BD	145	ILE	Peptide,Mainchain
33	BD	146	PRO	Peptide
33	BD	148	ILE	Peptide,Mainchain
33	BD	195	ARG	Sidechain
33	BD	197	ARG	Sidechain
33	BD	209	TYR	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
33	BD	220	ARG	Sidechain
33	BD	258	LEU	Peptide
33	BD	260	GLN	Peptide
33	BD	295	ILE	Peptide
33	BD	314	LYS	Peptide
33	BD	318	LEU	Peptide,Mainchain
33	BD	319	LYS	Peptide
33	BD	320	ASN	Peptide
33	BD	321	LYS	Peptide,Mainchain
33	BD	323	VAL	Peptide,Mainchain
33	BD	326	ARG	Sidechain
33	BD	330	TYR	Peptide,Sidechain
33	BD	331	ALA	Peptide,Mainchain
33	BD	334	PHE	Sidechain
33	BD	346	LYS	Mainchain
33	BD	348	GLY	Peptide
33	BD	349	THR	Peptide,Mainchain
33	BD	350	LYS	Peptide
33	BD	351	PRO	Peptide,Mainchain
33	BD	353	ALA	Peptide
33	BD	354	VAL	Mainchain
33	BD	355	PHE	Peptide
33	BD	47	ARG	Sidechain
33	BD	73	ARG	Sidechain
33	BD	76	ARG	Sidechain
33	BD	78	GLY	Peptide,Mainchain
33	BD	84	ARG	Peptide,Mainchain
33	BD	88	GLY	Peptide
33	BD	89	ALA	Peptide,Mainchain
34	BE	116	TYR	Sidechain
34	BE	121	GLY	Peptide
34	BE	123	PHE	Peptide,Mainchain
34	BE	124	GLY	Peptide
34	BE	127	PHE	Sidechain
34	BE	128	TYR	Sidechain
34	BE	2	SER	Peptide
34	BE	51	ARG	Mainchain
34	BE	52	TYR	Peptide,Sidechain
34	BE	53	THR	Peptide,Mainchain
34	BE	54	VAL	Peptide,Mainchain
34	BE	55	ARG	Peptide,Mainchain
34	BE	58	GLY	Mainchain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
34	BE	60	ARG	Mainchain
34	BE	72	ARG	Sidechain
34	BE	89	TYR	Peptide,Mainchain
34	BE	9	MET	Peptide,Mainchain
34	BE	94	ARG	Sidechain
36	BF	184	LYS	Peptide
36	BF	185	GLY	Peptide
36	BF	2	LYS	Peptide,Mainchain
36	BF	23	ARG	Sidechain
36	BF	3	TYR	Sidechain
36	BF	44	THR	Peptide
36	BF	45	PHE	Mainchain
36	BF	62	ARG	Sidechain
36	BF	96	HIS	Peptide
35	BG	10	TYR	Peptide,Mainchain
35	BG	102	ASN	Peptide
35	BG	105	TYR	Mainchain
35	BG	11	PRO	Peptide
35	BG	12	SER	Peptide
35	BG	128	LYS	Peptide
35	BG	129	GLU	Peptide
35	BG	134	ARG	Sidechain
35	BG	14	ASP	Peptide
35	BG	141	VAL	Peptide
35	BG	142	ASP	Peptide,Mainchain
35	BG	148	GLU	Peptide,Mainchain
35	BG	15	VAL	Peptide,Mainchain
35	BG	150	LYS	Peptide
35	BG	152	THR	Peptide,Mainchain
35	BG	154	LEU	Peptide
35	BG	16	ALA	Peptide,Mainchain
35	BG	169	ASP	Peptide
35	BG	17	ALA	Peptide
35	BG	2	SER	Peptide,Mainchain
35	BG	22	ARG	Sidechain
35	BG	25	ALA	Peptide
35	BG	27	PRO	Peptide,Mainchain
35	BG	3	ALA	Peptide,Mainchain
35	BG	34	LEU	Peptide
35	BG	38	THR	Peptide,Mainchain
35	BG	44	ALA	Peptide
35	BG	46	ARG	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
35	BG	47	PHE	Sidechain
35	BG	49	GLY	Peptide,Mainchain
35	BG	5	LYS	Peptide,Mainchain
35	BG	54	TYR	Sidechain
35	BG	56	LYS	Peptide
35	BG	57	HIS	Peptide
35	BG	75	PRO	Peptide,Mainchain
35	BG	77	ARG	Peptide,Sidechain
35	BG	8	LYS	Peptide,Mainchain
35	BG	81	ALA	Peptide
35	BG	93	VAL	Peptide
35	BG	94	GLU	Peptide
35	BG	96	VAL	Peptide
35	BG	99	GLU	Mainchain
37	BH	108	ARG	Sidechain
37	BH	117	ALA	Peptide
37	BH	119	GLY	Mainchain
37	BH	120	LYS	Peptide
37	BH	122	LYS	Peptide
37	BH	123	GLN	Peptide
37	BH	125	ALA	Peptide
37	BH	128	LYS	Peptide
37	BH	130	TYR	Peptide
37	BH	134	TYR	Sidechain
37	BH	138	HIS	Sidechain
37	BH	158	ASP	Peptide,Mainchain
37	BH	226	TYR	Peptide
37	BH	228	GLU	Peptide,Mainchain
37	BH	232	HIS	Sidechain,Mainchain
37	BH	236	GLY	Peptide,Mainchain
37	BH	60	ARG	Sidechain
37	BH	61	GLN	Mainchain
37	BH	62	LYS	Peptide
37	BH	63	LYS	Peptide,Mainchain
37	BH	64	ILE	Peptide
37	BH	68	ARG	Sidechain
37	BH	70	LYS	Peptide
37	BH	73	PRO	Peptide,Mainchain
37	BH	84	ARG	Sidechain
37	BH	89	GLU	Peptide,Sidechain,Mainchain
37	BH	98	ARG	Peptide,Sidechain
77	BI	10	ARG	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
77	BI	106	ALA	Peptide
77	BI	108	ALA	Peptide
77	BI	109	ASP	Peptide
77	BI	110	ARG	Sidechain
77	BI	111	LEU	Peptide
77	BI	114	GLY	Peptide
77	BI	116	ARG	Peptide
77	BI	128	ARG	Sidechain
77	BI	13	LYS	Peptide
77	BI	139	ARG	Sidechain
77	BI	154	ARG	Sidechain
77	BI	156	ARG	Sidechain
77	BI	17	TYR	Peptide
77	BI	170	LYS	Peptide
77	BI	21	ARG	Peptide
77	BI	24	ARG	Sidechain
77	BI	3	ARG	Sidechain
77	BI	4	ARG	Peptide,Sidechain
77	BI	69	ARG	Sidechain
77	BI	7	ARG	Sidechain
77	BI	82	ARG	Sidechain
77	BI	88	ARG	Sidechain
39	BJ	121	PHE	Peptide
39	BJ	123	ARG	Sidechain
39	BJ	14	TYR	Sidechain
39	BJ	59	THR	Peptide
39	BJ	74	VAL	Peptide
39	BJ	75	PRO	Peptide,Mainchain
39	BJ	76	SER	Peptide,Mainchain
39	BJ	92	ARG	Sidechain
40	BK	1	MET	Peptide
40	BK	110	PRO	Peptide
40	BK	120	VAL	Peptide
40	BK	125	ARG	Peptide
40	BK	128	ARG	Mainchain
40	BK	129	LEU	Peptide
40	BK	130	LYS	Peptide
40	BK	131	PRO	Peptide
40	BK	133	ARG	Peptide
40	BK	147	TRP	Peptide,Mainchain
40	BK	168	TYR	Sidechain
40	BK	178	VAL	Mainchain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
40	BK	180	SER	Peptide,Mainchain
40	BK	181	ALA	Peptide
40	BK	182	ASN	Peptide
40	BK	184	THR	Peptide,Mainchain
40	BK	187	GLU	Mainchain
40	BK	4	GLU	Peptide
40	BK	6	VAL	Peptide
40	BK	63	ALA	Peptide,Mainchain
40	BK	64	PHE	Sidechain
40	BK	69	GLY	Peptide,Mainchain
40	BK	74	ARG	Peptide
40	BK	90	HIS	Sidechain
75	BL	122	UNK	Peptide
75	BL	145	UNK	Peptide
75	BL	149	UNK	Peptide
75	BL	52	UNK	Peptide
75	BL	82	UNK	Peptide
42	BM	109	MET	Peptide
42	BM	11	PHE	Sidechain
42	BM	12	ARG	Sidechain
42	BM	35	TYR	Sidechain
42	BM	40	LYS	Mainchain
42	BM	45	ARG	Sidechain
42	BM	48	ARG	Mainchain
42	BM	64	LYS	Mainchain
42	BM	65	GLY	Mainchain
42	BM	75	PRO	Mainchain
42	BM	80	ARG	Sidechain
41	BN	10	SER	Peptide
41	BN	115	PHE	Sidechain
41	BN	124	ARG	Sidechain
41	BN	129	TYR	Sidechain
41	BN	19	ARG	Sidechain
41	BN	2	SER	Peptide,Mainchain
41	BN	3	THR	Mainchain
41	BN	5	SER	Peptide,Mainchain
41	BN	52	GLY	Peptide
41	BN	61	GLY	Peptide
41	BN	9	ALA	Peptide
44	BO	117	ARG	Sidechain
44	BO	128	ARG	Sidechain
44	BO	139	ARG	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
44	BO	14	HIS	Sidechain
44	BO	142	GLY	Peptide,Mainchain
44	BO	27	LYS	Peptide
44	BO	29	PRO	Peptide
44	BO	3	SER	Mainchain
44	BO	32	ARG	Sidechain
44	BO	40	HIS	Mainchain
44	BO	48	TYR	Sidechain
44	BO	5	PHE	Sidechain
44	BO	56	VAL	Mainchain
44	BO	57	GLY	Mainchain
44	BO	59	ARG	Sidechain
44	BO	6	THR	Peptide
44	BO	61	PHE	Sidechain
44	BO	62	HIS	Peptide,Mainchain
44	BO	7	LYS	Peptide,Mainchain
44	BO	8	THR	Peptide,Mainchain
44	BO	87	ARG	Sidechain
44	BO	90	TYR	Peptide,Sidechain
44	BO	98	THR	Peptide
43	BP	114	ARG	Sidechain
43	BP	116	LEU	Peptide,Mainchain
43	BP	12	ARG	Sidechain
43	BP	120	TRP	Peptide
43	BP	121	VAL	Peptide
43	BP	123	GLN	Peptide
43	BP	127	TYR	Sidechain
43	BP	129	TYR	Sidechain
43	BP	13	LYS	Peptide,Mainchain
43	BP	137	PRO	Peptide
43	BP	147	ARG	Sidechain
43	BP	159	ARG	Sidechain
43	BP	16	SER	Peptide,Mainchain
43	BP	162	ARG	Sidechain
43	BP	165	THR	Mainchain
43	BP	175	ASN	Peptide,Mainchain
43	BP	176	LYS	Peptide
43	BP	177	GLY	Peptide,Mainchain
43	BP	179	LYS	Peptide,Mainchain
43	BP	180	PHE	Peptide
43	BP	185	ALA	Peptide
43	BP	187	ARG	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
43	BP	2	GLY	Peptide,Mainchain
43	BP	20	ARG	Sidechain
43	BP	4	TYR	Sidechain
43	BP	42	PRO	Mainchain
43	BP	50	ARG	Sidechain
43	BP	51	LEU	Peptide
43	BP	62	TYR	Sidechain
43	BP	67	ARG	Sidechain
43	BP	68	ARG	Sidechain
43	BP	74	PRO	Peptide,Mainchain
43	BP	80	THR	Peptide,Mainchain
43	BP	81	TYR	Sidechain
43	BP	96	ARG	Sidechain
74	BQ	111	GLN	Peptide,Mainchain
74	BQ	115	LEU	Peptide,Mainchain
74	BQ	119	TYR	Sidechain
74	BQ	121	GLY	Peptide,Mainchain
74	BQ	123	GLU	Mainchain
74	BQ	128	GLU	Peptide,Mainchain
74	BQ	129	TYR	Peptide,Mainchain
74	BQ	136	GLU	Peptide
74	BQ	145	PHE	Sidechain
74	BQ	158	ARG	Sidechain,Mainchain
74	BQ	172	TYR	Sidechain
74	BQ	180	PHE	Peptide
74	BQ	189	GLU	Peptide
74	BQ	190	ILE	Peptide,Mainchain
74	BQ	197	SER	Peptide,Mainchain
74	BQ	2	ALA	Peptide
74	BQ	201	GLY	Peptide,Mainchain
74	BQ	203	HIS	Sidechain
74	BQ	21	ARG	Sidechain
74	BQ	223	PHE	Sidechain
74	BQ	237	GLU	Peptide,Mainchain
74	BQ	238	ASP	Peptide,Mainchain
74	BQ	239	ILE	Peptide
74	BQ	240	TYR	Peptide
74	BQ	242	SER	Mainchain
74	BQ	243	ALA	Mainchain
74	BQ	248	ARG	Peptide
74	BQ	249	ALA	Peptide
74	BQ	258	LYS	Peptide

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
74	BQ	265	TYR	Sidechain
74	BQ	27	LYS	Peptide
74	BQ	272	TYR	Sidechain
74	BQ	33	ARG	Sidechain
74	BQ	51	LEU	Peptide
74	BQ	52	VAL	Peptide
74	BQ	54	ARG	Sidechain
74	BQ	55	PHE	Peptide
45	BR	1	MET	Peptide
45	BR	11	LYS	Peptide
45	BR	111	ARG	Sidechain
45	BR	13	SER	Peptide,Mainchain
45	BR	131	ALA	Peptide
45	BR	14	GLY	Mainchain
45	BR	140	LEU	Peptide,Mainchain
45	BR	142	GLY	Peptide,Mainchain
45	BR	143	PRO	Peptide,Mainchain
45	BR	15	HIS	Peptide
45	BR	156	GLY	Peptide
45	BR	157	PRO	Peptide,Mainchain
45	BR	159	LYS	Peptide
45	BR	17	THR	Peptide
45	BR	2	GLY	Peptide
45	BR	3	ILE	Peptide,Mainchain
45	BR	38	ARG	Sidechain
45	BR	39	ARG	Sidechain
45	BR	53	PHE	Sidechain
45	BR	75	GLY	Peptide
45	BR	95	GLU	Peptide,Mainchain
45	BR	96	PHE	Sidechain
45	BR	98	LYS	Peptide,Mainchain
76	BS	115	ARG	Sidechain
76	BS	117	ARG	Sidechain
76	BS	119	ARG	Sidechain
76	BS	120	PHE	Mainchain
76	BS	122	CYS	Peptide,Mainchain
76	BS	123	ILE	Peptide,Mainchain
76	BS	124	GLN	Peptide
76	BS	138	ARG	Peptide,Sidechain
76	BS	14	ARG	Peptide
76	BS	144	PHE	Sidechain
76	BS	15	GLY	Peptide,Mainchain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
76	BS	150	LYS	Peptide
76	BS	151	PHE	Peptide,Sidechain
76	BS	152	PRO	Peptide
76	BS	153	LEU	Peptide
76	BS	156	ARG	Peptide,Mainchain
76	BS	157	LYS	Peptide
76	BS	159	ARG	Peptide,Sidechain
76	BS	161	PRO	Peptide
76	BS	18	THR	Peptide
76	BS	25	LYS	Peptide
76	BS	28	ARG	Peptide
76	BS	43	PHE	Sidechain
76	BS	52	LYS	Peptide
76	BS	53	VAL	Peptide
76	BS	54	LYS	Peptide
76	BS	69	LYS	Peptide
76	BS	70	ASN	Peptide,Mainchain
76	BS	72	THR	Peptide
76	BS	73	THR	Peptide,Mainchain
76	BS	74	ILE	Peptide
76	BS	96	TYR	Sidechain
46	BT	103	ARG	Sidechain
46	BT	114	LYS	Peptide
46	BT	151	ARG	Sidechain
46	BT	162	ARG	Sidechain
46	BT	163	ARG	Sidechain
46	BT	173	ARG	Sidechain
46	BT	38	ARG	Sidechain
46	BT	56	THR	Peptide
46	BT	58	HIS	Sidechain
46	BT	62	ARG	Sidechain
46	BT	71	ARG	Peptide,Mainchain
46	BT	78	TYR	Sidechain
46	BT	82	LYS	Peptide,Mainchain
46	BT	83	GLY	Peptide
46	BT	88	ARG	Sidechain
47	BU	10	ARG	Sidechain
47	BU	102	ARG	Sidechain
47	BU	108	ARG	Sidechain
47	BU	126	VAL	Peptide,Mainchain
47	BU	136	ARG	Peptide
47	BU	137	GLU	Peptide

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
47	BU	138	SER	Peptide
47	BU	140	ILE	Peptide,Mainchain
47	BU	141	VAL	Peptide
47	BU	20	ARG	Sidechain
47	BU	5	HIS	Peptide
47	BU	8	ARG	Sidechain
47	BU	84	TYR	Sidechain
47	BU	88	ARG	Sidechain
49	BV	113	TYR	Sidechain
49	BV	122	ALA	Peptide
49	BV	130	TYR	Sidechain
49	BV	139	TYR	Sidechain
49	BV	152	GLU	Peptide,Mainchain
49	BV	162	GLU	Peptide,Mainchain
49	BV	165	VAL	Peptide,Mainchain
49	BV	167	ARG	Peptide,Mainchain
49	BV	2	ALA	Peptide
49	BV	3	ARG	Peptide
49	BV	47	TYR	Sidechain
49	BV	56	ARG	Sidechain
49	BV	63	PHE	Peptide
49	BV	69	ARG	Peptide,Sidechain
49	BV	90	PHE	Sidechain
48	BW	106	ALA	Peptide
48	BW	107	PHE	Peptide
48	BW	109	GLN	Peptide
48	BW	19	VAL	Peptide
48	BW	20	SER	Peptide
48	BW	28	PHE	Sidechain
48	BW	29	ASP	Peptide
48	BW	7	ARG	Peptide
48	BW	78	TYR	Sidechain
48	BW	90	ARG	Peptide,Mainchain
48	BW	93	ILE	Mainchain
50	BX	123	TYR	Sidechain
50	BX	130	TYR	Sidechain
50	BX	138	ARG	Sidechain
50	BX	22	LYS	Peptide
50	BX	34	LEU	Peptide
50	BX	36	LYS	Peptide
50	BX	37	THR	Peptide
50	BX	39	LYS	Peptide

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
50	BX	43	ALA	Peptide
50	BX	46	TYR	Peptide
50	BX	54	TYR	Peptide
50	BX	56	ARG	Sidechain
50	BX	60	TYR	Sidechain
52	BY	10	SER	Peptide
52	BY	13	ARG	Sidechain
52	BY	27	ARG	Sidechain
52	BY	51	ARG	Sidechain
52	BY	60	ARG	Peptide
52	BY	74	TYR	Sidechain
52	BY	78	PHE	Sidechain
52	BY	9	SER	Peptide
51	BZ	14	TYR	Sidechain
51	BZ	51	TRP	Peptide,Mainchain
51	BZ	56	ARG	Sidechain
51	BZ	57	LYS	Peptide
51	BZ	58	HIS	Peptide
51	BZ	59	HIS	Peptide
51	BZ	60	LYS	Peptide,Mainchain
51	BZ	62	GLY	Peptide
51	BZ	63	ILE	Peptide
51	BZ	65	GLU	Peptide
51	BZ	67	VAL	Mainchain
51	BZ	68	ALA	Peptide
51	BZ	69	LYS	Peptide
51	BZ	70	LYS	Peptide,Mainchain
51	BZ	71	ARG	Peptide
53	Ba	11	ALA	Peptide
53	Ba	12	VAL	Peptide
53	Ba	13	VAL	Peptide,Mainchain
53	Ba	15	ARG	Peptide,Mainchain
53	Ba	16	GLY	Peptide,Mainchain
53	Ba	20	GLY	Mainchain
53	Ba	36	HIS	Peptide
53	Ba	41	ALA	Peptide
53	Ba	44	ALA	Peptide
53	Ba	46	ILE	Peptide
53	Ba	53	VAL	Peptide
53	Ba	55	LYS	Peptide
53	Ba	56	LYS	Peptide
53	Ba	57	HIS	Peptide,Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
53	Ba	59	ALA	Peptide
53	Ba	60	LYS	Peptide,Mainchain
53	Ba	64	LYS	Peptide
53	Ba	8	GLY	Peptide,Mainchain
53	Ba	9	LYS	Peptide
55	Bc	102	GLU	Peptide,Mainchain
55	Bc	104	GLN	Peptide,Mainchain
55	Bc	108	GLN	Mainchain
55	Bc	110	ALA	Peptide
55	Bc	112	PRO	Peptide,Mainchain
55	Bc	119	LYS	Peptide
55	Bc	70	TYR	Sidechain
55	Bc	76	GLN	Peptide
55	Bc	81	ARG	Sidechain
55	Bc	86	ARG	Peptide
55	Bc	94	LYS	Peptide,Mainchain
55	Bc	96	GLU	Mainchain
54	Bd	41	ARG	Sidechain
57	Be	107	ARG	Sidechain
57	Be	132	PRO	Peptide,Mainchain
57	Be	133	TYR	Peptide,Sidechain
57	Be	134	VAL	Peptide
57	Be	141	TYR	Sidechain
57	Be	151	ARG	Sidechain
57	Be	164	SER	Peptide
57	Be	202	LEU	Peptide,Mainchain
57	Be	220	PHE	Sidechain
57	Be	55	TYR	Sidechain
57	Be	97	PRO	Peptide
56	Bf	3	PRO	Peptide
56	Bf	35	ARG	Sidechain
56	Bf	5	LYS	Peptide
56	Bf	52	ARG	Sidechain
56	Bf	64	LYS	Peptide
56	Bf	85	PHE	Sidechain
58	Bg	107	VAL	Peptide,Mainchain
58	Bg	12	TYR	Sidechain
58	Bg	28	ARG	Sidechain
58	Bg	31	ARG	Sidechain
58	Bg	4	LEU	Peptide
58	Bg	63	GLY	Peptide
58	Bg	64	VAL	Peptide

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
58	Bg	69	TYR	Sidechain
58	Bg	72	ARG	Sidechain
58	Bg	90	PHE	Peptide
58	Bg	92	TYR	Peptide
58	Bg	94	GLU	Peptide
59	Bh	12	LYS	Peptide,Mainchain
59	Bh	125	ARG	Sidechain
59	Bh	13	HIS	Peptide
59	Bh	18	LYS	Peptide
59	Bh	20	HIS	Peptide,Mainchain
59	Bh	23	ASP	Mainchain
59	Bh	24	ARG	Sidechain
59	Bh	25	TYR	Sidechain
59	Bh	26	HIS	Sidechain
59	Bh	43	ARG	Sidechain
59	Bh	46	PHE	Sidechain
59	Bh	47	ARG	Sidechain
60	Bi	108	GLN	Peptide,Mainchain
60	Bi	110	GLU	Peptide
60	Bi	16	ARG	Mainchain
60	Bi	19	LYS	Peptide
60	Bi	34	HIS	Sidechain
60	Bi	41	ARG	Peptide,Mainchain
60	Bi	42	PRO	Peptide,Mainchain
60	Bi	43	LYS	Peptide
60	Bi	55	SER	Peptide,Mainchain
60	Bi	58	ARG	Peptide
60	Bi	60	ARG	Peptide
60	Bi	62	TYR	Sidechain
60	Bi	67	LYS	Peptide
60	Bi	68	THR	Peptide,Mainchain
60	Bi	77	GLY	Mainchain
60	Bi	78	GLY	Peptide,Mainchain
60	Bi	79	SER	Peptide,Mainchain
60	Bi	88	ARG	Sidechain
61	Bj	18	ARG	Sidechain
61	Bj	2	ALA	Peptide,Mainchain
61	Bj	20	LYS	Peptide,Mainchain
61	Bj	35	VAL	Peptide
61	Bj	36	ALA	Peptide
61	Bj	37	THR	Peptide,Mainchain
61	Bj	4	SER	Peptide

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
61	Bj	43	PHE	Peptide
61	Bj	44	TYR	Peptide,Sidechain
61	Bj	51	TYR	Sidechain
61	Bj	56	SER	Peptide
61	Bj	57	LYS	Peptide
61	Bj	58	GLU	Peptide
61	Bj	65	ARG	Sidechain
61	Bj	8	TYR	Peptide,Sidechain,Mainchain
61	Bj	86	ARG	Sidechain
61	Bj	89	LEU	Mainchain
61	Bj	90	PRO	Peptide
61	Bj	98	VAL	Peptide
61	Bj	99	ARG	Peptide
62	Bk	25	LYS	Peptide,Mainchain
62	Bk	27	SER	Mainchain
62	Bk	28	TYR	Mainchain
62	Bk	45	ARG	Sidechain
62	Bk	54	GLU	Peptide
62	Bk	55	ARG	Peptide
62	Bk	62	ARG	Sidechain
62	Bk	81	THR	Peptide,Mainchain
62	Bk	82	ARG	Peptide,Mainchain
62	Bk	83	ALA	Peptide,Mainchain
62	Bk	98	ARG	Mainchain
64	Bl	11	ARG	Peptide,Sidechain
64	Bl	25	ARG	Sidechain
64	Bl	39	TYR	Peptide,Mainchain
64	Bl	56	ARG	Sidechain
64	Bl	64	MET	Peptide
64	Bl	65	ARG	Peptide,Sidechain
64	Bl	73	ARG	Sidechain
64	Bl	74	PHE	Sidechain
64	Bl	83	ALA	Peptide
64	Bl	84	SER	Peptide
63	Bm	1	MET	Peptide
63	Bm	14	TYR	Sidechain
63	Bm	37	TYR	Sidechain
63	Bm	41	PHE	Sidechain
63	Bm	80	ARG	Sidechain
65	Bn	11	PHE	Sidechain
65	Bn	26	LYS	Peptide
65	Bn	29	LYS	Peptide

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
65	Bn	34	ALA	Peptide,Mainchain
65	Bn	35	GLY	Peptide,Mainchain
65	Bn	36	LYS	Peptide
65	Bn	39	ARG	Peptide
65	Bn	46	ARG	Sidechain
65	Bn	51	LEU	Peptide
65	Bn	52	TYR	Peptide
65	Bn	71	PRO	Peptide,Mainchain
65	Bn	72	THR	Peptide
66	Bo	1	MET	Peptide
66	Bo	2	ALA	Peptide
66	Bo	28	ARG	Sidechain
66	Bo	3	ALA	Peptide
66	Bo	30	ARG	Peptide
66	Bo	34	THR	Peptide
66	Bo	4	GLN	Peptide
66	Bo	40	LYS	Peptide
66	Bo	42	ARG	Peptide
66	Bo	45	ARG	Peptide,Sidechain
66	Bo	46	ARG	Peptide
66	Bo	49	MET	Peptide
66	Bo	6	SER	Peptide
66	Bo	8	ARG	Sidechain
67	Bp	13	TYR	Peptide
67	Bp	14	ASN	Peptide
67	Bp	34	CYS	Mainchain
67	Bp	37	ARG	Sidechain
67	Bp	41	HIS	Sidechain
67	Bp	46	ARG	Sidechain
67	Bp	49	LYS	Peptide
67	Bp	50	LYS	Peptide
68	Bq	12	ARG	Sidechain
68	Bq	21	ARG	Sidechain
68	Bq	23	ARG	Peptide
68	Bq	24	SER	Peptide
69	Br	100	LYS	Peptide
69	Br	101	GLY	Peptide,Mainchain
69	Br	102	GLN	Peptide
69	Br	103	ALA	Peptide,Mainchain
69	Br	104	LEU	Mainchain
69	Br	28	TYR	Sidechain
69	Br	31	GLY	Peptide

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
69	Br	36	PHE	Sidechain
69	Br	43	TYR	Sidechain
69	Br	46	LYS	Peptide
69	Br	47	GLN	Peptide,Mainchain
69	Br	49	GLY	Peptide
69	Br	56	PRO	Peptide
69	Br	58	PHE	Peptide,Mainchain
69	Br	59	HIS	Sidechain
69	Br	62	ALA	Mainchain
69	Br	89	LYS	Peptide,Mainchain
69	Br	99	GLN	Peptide
38	Bs	202	LEU	Peptide
38	Bs	203	ASP	Peptide
38	Bs	243	TYR	Sidechain
38	Bs	254	SER	Peptide
38	Bs	257	TYR	Sidechain
38	Bs	26	PHE	Sidechain
38	Bs	30	VAL	Peptide
38	Bs	42	ARG	Sidechain
38	Bs	46	ARG	Sidechain
38	Bs	49	ALA	Peptide
38	Bs	5	ARG	Peptide,Mainchain
38	Bs	52	LEU	Peptide
38	Bs	55	LYS	Peptide
38	Bs	60	ARG	Sidechain
38	Bs	64	ARG	Sidechain
38	Bs	72	ASP	Peptide,Mainchain
72	Bt	52	GLN	Peptide
72	Bt	60	ASN	Mainchain
72	Bt	61	PHE	Sidechain
72	Bu	52	GLN	Peptide
72	Bu	60	ASN	Mainchain
72	Bu	61	PHE	Sidechain
73	Bv	55	THR	Peptide
73	Bw	55	THR	Peptide
70	Bx	1	UNK	Peptide
70	Bx	3	UNK	Peptide,Mainchain
70	Bx	6	UNK	Peptide,Mainchain
70	Bx	8	UNK	Peptide,Mainchain
71	Bz	2	UNK	Peptide
78	CA	1057	U	Sidechain
78	CA	1058	U	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
78	CA	1064	G	Sidechain
78	CA	1275	A	Sidechain
78	CA	1427	A	Sidechain
78	CA	1428	G	Sidechain
78	CA	1499	G	Sidechain
78	CA	1502	G	Sidechain
78	CA	1506	G	Sidechain
78	CA	1634	C	Sidechain
78	CA	1761	U	Sidechain
78	CA	479	C	Sidechain
78	CA	488	G	Sidechain
78	CA	489	C	Sidechain
78	CA	496	G	Sidechain
78	CA	507	U	Sidechain
78	CA	567	A	Sidechain
78	CA	577	G	Sidechain
78	CA	824	G	Sidechain
78	CA	829	A	Sidechain
78	CA	841	U	Sidechain
78	CA	842	C	Sidechain
81	DA	164	A	Sidechain
81	DA	1756	C	Sidechain
81	DA	1766	G	Sidechain
81	DA	1768	U	Sidechain
81	DA	1771	C	Sidechain
81	DA	2531	C	Sidechain
81	DA	2534	G	Sidechain
81	DA	2562	A	Sidechain
81	DA	2564	G	Sidechain
81	DA	2576	G	Sidechain
81	DA	2579	G	Sidechain
81	DA	731	U	Sidechain
81	DA	733	G	Sidechain
81	DA	737	G	Sidechain
81	DA	769	G	Sidechain

5.2 Too-close contacts ⓘ

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	Aa	2442	0	2396	59	0
2	AA	1922	0	1841	39	0
3	AB	1511	0	1503	24	0
4	AD	1591	0	1653	84	0
5	AC	1521	0	1546	65	0
6	AE	1936	0	2030	89	0
7	AG	716	0	164	27	0
8	AF	1543	0	1589	40	0
9	AH	1030	0	1072	30	0
10	AI	998	0	1048	68	0
11	AJ	849	0	864	17	0
12	AK	833	0	824	79	0
13	AL	978	0	901	114	0
14	AM	1156	0	1176	155	0
15	AN	353	0	333	21	0
16	AO	978	0	1040	72	0
17	AQ	1098	0	1163	25	0
18	AP	631	0	634	93	0
19	AR	676	0	696	90	0
20	AS	1120	0	1132	88	0
21	AT	685	0	672	24	0
22	AV	688	0	734	27	0
23	AW	461	0	106	16	0
24	AX	366	0	364	19	0
25	AY	445	0	462	13	0
26	AZ	492	0	535	7	0
27	Ab	181	0	38	4	0
28	Ac	126	0	28	0	0
29	AU	714	0	711	47	0
30	BA	1718	0	1811	34	0
31	BB	1904	0	1952	175	0
32	BC	3055	0	3109	132	0
33	BD	2486	0	2587	134	0
34	BE	1341	0	1376	118	0
35	BG	1409	0	1513	119	0
36	BF	1516	0	1581	49	0
37	BH	1505	0	1582	69	0
38	Bs	1976	0	2017	219	0
39	BJ	954	0	1025	28	0
40	BK	1570	0	1676	53	0
41	BN	1068	0	1166	107	0
42	BM	972	0	1019	58	0
43	BP	1625	0	1685	75	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
44	BO	1182	0	1221	65	0
45	BR	1243	0	1327	65	0
46	BT	1530	0	1629	41	0
47	BU	1261	0	1281	36	0
48	BW	830	0	845	29	0
49	BV	1312	0	1314	23	0
50	BX	978	0	1049	4	0
51	BZ	579	0	591	55	0
52	BY	972	0	1060	17	0
53	Ba	708	0	742	114	0
54	Bd	174	0	188	5	0
55	Bc	965	0	1073	20	0
56	Bf	785	0	819	54	0
57	Be	1919	0	2013	59	0
58	Bg	873	0	913	23	0
59	Bh	1043	0	1113	47	0
60	Bi	926	0	998	131	0
61	Bj	738	0	730	33	0
62	Bk	619	0	673	13	0
63	Bm	703	0	750	48	0
64	Bl	678	0	667	14	0
65	Bn	604	0	664	28	0
66	Bo	445	0	487	14	0
67	Bp	330	0	356	18	0
68	Bq	234	0	284	3	0
69	Br	834	0	894	18	0
70	Bx	100	0	22	8	0
70	By	100	0	22	0	0
71	Bz	70	0	18	0	0
72	Bt	440	0	439	252	0
72	Bu	440	0	439	177	0
73	Bv	429	0	445	107	0
73	Bw	429	0	442	162	0
74	BQ	2356	0	2289	104	0
75	BL	845	0	192	38	0
76	BS	1420	0	1466	88	0
77	BI	1444	0	1478	32	0
78	CA	33643	0	16491	1344	0
79	CB	1599	0	807	34	0
80	CC	236	0	121	10	0
81	DA	68830	0	34361	1898	0
82	DB	3129	0	1554	81	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
83	DC	2513	0	1271	127	0
All	All	191627	0	136892	6102	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 19.

All (6102) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BH:158:ASP:CA	37:BH:158:ASP:CB	1.74	1.66
14:AM:12:GLN:HG3	34:BE:116:TYR:CD1	1.28	1.65
38:Bs:229:TYR:CE1	72:Bt:44:ILE:HG22	1.19	1.64
78:CA:960:U:C2'	78:CA:960:U:C1'	1.75	1.63
69:Br:47:GLN:CA	69:Br:47:GLN:CB	1.74	1.63
82:DB:50:C:C2'	82:DB:50:C:C1'	1.74	1.62
22:AV:105:THR:CB	22:AV:105:THR:CA	1.74	1.62
33:BD:321:LYS:CA	33:BD:321:LYS:CB	1.74	1.62
60:Bi:16:ARG:CB	60:Bi:16:ARG:CA	1.74	1.61
4:AD:93:ASP:CA	4:AD:93:ASP:CB	1.76	1.61
43:BP:80:THR:CB	43:BP:80:THR:CA	1.75	1.61
81:DA:2339:C:C1'	81:DA:2339:C:C2'	1.75	1.61
72:Bt:7:LEU:HD13	72:Bt:45:PHE:CE2	1.14	1.60
81:DA:3304:U:C2'	81:DA:3304:U:C3'	1.76	1.60
72:Bt:9:TYR:CB	73:Bv:9:LEU:CD2	1.76	1.60
38:Bs:220:ILE:HD13	72:Bt:9:TYR:CE1	1.35	1.60
6:AE:92:ALA:CA	6:AE:92:ALA:CB	1.79	1.60
59:Bh:20:HIS:CA	59:Bh:20:HIS:CB	1.77	1.60
29:AU:70:VAL:CG1	29:AU:70:VAL:CB	1.79	1.59
32:BC:3:HIS:CA	32:BC:3:HIS:CB	1.77	1.59
5:AC:157:ASP:CA	5:AC:157:ASP:CB	1.77	1.59
31:BB:196:TRP:CA	31:BB:196:TRP:CB	1.75	1.59
81:DA:1682:U:C1'	81:DA:1682:U:C2'	1.77	1.59
33:BD:89:ALA:CA	33:BD:89:ALA:CB	1.77	1.58
44:BO:124:ILE:HG21	75:BL:147:UNK:CB	1.31	1.58
81:DA:331:G:C1'	81:DA:331:G:C2'	1.79	1.58
32:BC:289:ASP:CA	32:BC:289:ASP:CB	1.74	1.58
57:Be:98:LYS:CA	57:Be:98:LYS:C	1.77	1.57
61:Bj:66:VAL:CB	61:Bj:66:VAL:CG2	1.79	1.57
34:BE:89:TYR:CA	34:BE:89:TYR:CB	1.83	1.57
74:BQ:128:GLU:CB	74:BQ:128:GLU:CA	1.78	1.57
1:Aa:53:LYS:CA	1:Aa:53:LYS:CB	1.74	1.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:2001:U:C1'	81:DA:2001:U:C2'	1.76	1.56
7:AG:75:UNK:N	7:AG:75:UNK:CA	1.68	1.56
32:BC:298:PHE:CA	32:BC:298:PHE:CB	1.75	1.56
60:Bi:68:THR:CB	60:Bi:68:THR:CA	1.77	1.56
78:CA:856:A:C2'	78:CA:856:A:C1'	1.79	1.56
78:CA:1091:A:C2'	78:CA:1091:A:C1'	1.76	1.56
81:DA:169:U:C1'	81:DA:169:U:C2'	1.77	1.56
38:Bs:229:TYR:CZ	72:Bt:44:ILE:HG22	1.37	1.56
60:Bi:108:GLN:CA	60:Bi:108:GLN:CB	1.75	1.56
72:Bt:9:TYR:CB	73:Bv:9:LEU:HD23	1.31	1.56
81:DA:3142:A:C1'	81:DA:3142:A:C2'	1.81	1.56
17:AQ:82:ASP:CA	17:AQ:82:ASP:CB	1.77	1.55
31:BB:62:VAL:CA	31:BB:62:VAL:CB	1.77	1.55
81:DA:1054:A:C1'	81:DA:1054:A:C2'	1.78	1.55
35:BG:69:PHE:CE1	35:BG:69:PHE:CD1	1.94	1.55
81:DA:1055:A:C1'	81:DA:1055:A:C2'	1.82	1.55
3:AB:205:ALA:N	3:AB:205:ALA:CA	1.68	1.54
34:BE:115:LYS:CB	34:BE:115:LYS:CG	1.78	1.54
15:AN:54:LYS:N	15:AN:54:LYS:CA	1.70	1.54
77:BI:106:ALA:HB3	77:BI:108:ALA:CB	1.35	1.54
4:AD:153:ASN:CA	4:AD:153:ASN:CB	1.79	1.54
81:DA:1285:G:C1'	81:DA:1285:G:C2'	1.79	1.54
72:Bu:17:SER:HB2	73:Bw:31:ILE:CD1	1.21	1.54
81:DA:3304:U:C3'	81:DA:3304:U:C4'	1.83	1.54
48:BW:90:ARG:CA	48:BW:90:ARG:CB	1.76	1.54
60:Bi:79:SER:N	60:Bi:79:SER:CA	1.71	1.53
81:DA:2869:U:C1'	81:DA:2869:U:C2'	1.78	1.53
72:Bt:9:TYR:HB2	73:Bv:9:LEU:CD2	1.13	1.53
78:CA:1393:C:C1'	78:CA:1393:C:C2'	1.85	1.52
13:AL:135:LEU:N	13:AL:135:LEU:CA	1.70	1.52
72:Bt:7:LEU:CD1	72:Bt:45:PHE:CE2	1.86	1.52
78:CA:228:G:C1'	78:CA:228:G:C2'	1.80	1.52
16:AO:117:LEU:HG	78:CA:939:A:C6	1.41	1.52
72:Bt:13:ILE:CG1	73:Bv:5:ALA:CB	1.87	1.52
78:CA:306:U:C1'	78:CA:306:U:C2'	1.84	1.52
81:DA:422:A:C1'	81:DA:422:A:C2'	1.75	1.51
81:DA:2487:U:C2'	81:DA:2487:U:C1'	1.74	1.51
83:DC:46:A:C1'	83:DC:46:A:C2'	1.84	1.51
37:BH:89:GLU:N	37:BH:89:GLU:CA	1.67	1.50
74:BQ:129:TYR:N	74:BQ:129:TYR:CA	1.73	1.50
78:CA:631:G:C2'	78:CA:631:G:C1'	1.83	1.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:CA:955:A:C1'	78:CA:955:A:C2'	1.75	1.50
81:DA:3149:G:C1'	81:DA:3149:G:C2'	1.74	1.50
21:AT:10:GLU:N	21:AT:10:GLU:CA	1.69	1.50
81:DA:3217:C:C1'	81:DA:3217:C:C2'	1.77	1.49
7:AG:97:UNK:N	7:AG:97:UNK:CA	1.68	1.49
81:DA:2612:U:H1'	81:DA:2803:A:C2	1.46	1.49
7:AG:107:UNK:N	7:AG:107:UNK:CA	1.72	1.49
43:BP:74:PRO:CB	43:BP:74:PRO:CA	1.75	1.49
32:BC:266:ARG:NE	32:BC:266:ARG:CD	1.71	1.48
33:BD:323:VAL:N	33:BD:323:VAL:CA	1.70	1.48
35:BG:99:GLU:CA	35:BG:99:GLU:CB	1.89	1.48
78:CA:46:A:C1'	78:CA:46:A:C2'	1.81	1.48
72:Bt:13:ILE:CG1	73:Bv:5:ALA:HB3	1.42	1.48
78:CA:140:A:C1'	78:CA:140:A:C2'	1.80	1.48
81:DA:677:A:C1'	81:DA:677:A:C2'	1.84	1.48
38:Bs:220:ILE:CD1	72:Bt:9:TYR:CE1	1.91	1.48
78:CA:853:G:C1'	78:CA:853:G:C2'	1.76	1.47
78:CA:1081:A:C1'	78:CA:1081:A:C2'	1.80	1.47
81:DA:1859:A:C1'	81:DA:1859:A:C2'	1.77	1.47
33:BD:296:GLN:N	33:BD:296:GLN:CA	1.73	1.47
78:CA:929:A:N6	78:CA:930:A:C2	1.80	1.47
12:AK:36:LYS:NZ	78:CA:900:A:H5''	1.31	1.46
81:DA:209:A:C1'	81:DA:209:A:C2'	1.77	1.46
53:Ba:84:ARG:NH1	60:Bi:37:LYS:HE3	1.17	1.45
56:Bf:62:LEU:C	60:Bi:31:ARG:HH21	1.24	1.45
78:CA:45:U:C1'	78:CA:45:U:C2'	1.89	1.45
38:Bs:229:TYR:CE1	72:Bt:44:ILE:CG2	1.98	1.44
56:Bf:35:ARG:NH2	60:Bi:66:SER:HB3	1.25	1.44
42:BM:95:PHE:CD2	51:BZ:22:VAL:HG11	1.52	1.44
81:DA:2363:A:C1'	81:DA:2363:A:C2'	1.77	1.44
65:Bn:73:LEU:HB2	81:DA:1751:G:C8	1.52	1.43
81:DA:2637:A:C1'	81:DA:2637:A:C2'	1.76	1.43
81:DA:3304:U:C4'	81:DA:3304:U:O4'	1.64	1.43
44:BO:20:GLY:C	44:BO:21:ARG:CA	1.92	1.43
81:DA:2362:C:C1'	81:DA:2362:C:C2'	1.76	1.43
81:DA:2623:G:C1'	81:DA:2623:G:C2'	1.75	1.43
30:BA:194:LEU:HD21	75:BL:178:UNK:CB	1.46	1.43
6:AE:217:ALA:CB	78:CA:2:A:N6	1.82	1.42
78:CA:1190:C:P	78:CA:1190:C:OP1	1.03	1.42
72:Bt:9:TYR:C	73:Bv:9:LEU:HD21	1.45	1.42
81:DA:699:A:C1'	81:DA:699:A:O4'	1.65	1.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BO:124:ILE:CD1	75:BL:148:UNK:H	1.32	1.42
30:BA:194:LEU:CD2	75:BL:178:UNK:CB	1.98	1.42
72:Bt:41:TRP:O	72:Bt:45:PHE:CD2	1.70	1.41
81:DA:2648:G:C1'	81:DA:2648:G:C2'	1.92	1.41
83:DC:49:G:C1'	83:DC:49:G:O4'	1.64	1.41
72:Bu:13:ILE:HG13	73:Bw:5:ALA:CB	1.48	1.41
78:CA:1190:C:C4'	78:CA:1190:C:C5'	2.00	1.40
72:Bt:44:ILE:CG1	73:Bw:36:GLU:HB3	1.47	1.40
35:BG:145:LEU:CD1	41:BN:114:ASP:HA	1.47	1.40
81:DA:1401:A:C1'	81:DA:1401:A:C2'	1.86	1.40
16:AO:117:LEU:HG	78:CA:939:A:N1	1.30	1.39
78:CA:295:A:C1'	78:CA:295:A:C2'	1.79	1.39
4:AD:146:THR:HG22	78:CA:295:A:N1	1.38	1.39
13:AL:7:ARG:CG	18:AP:76:VAL:HG22	1.50	1.39
31:BB:6:ARG:NH2	81:DA:914:A:C6	1.91	1.39
44:BO:73:LEU:C	44:BO:73:LEU:O	1.63	1.39
72:Bu:13:ILE:CG1	73:Bw:5:ALA:HB3	1.49	1.39
81:DA:2934:A:C1'	81:DA:2934:A:C2'	1.93	1.39
14:AM:16:ARG:HH12	34:BE:111:ASP:N	1.22	1.38
72:Bt:43:ASP:HB2	73:Bw:36:GLU:CD	1.47	1.38
81:DA:3103:A:C1'	81:DA:3103:A:O4'	1.63	1.38
44:BO:20:GLY:CA	44:BO:21:ARG:N	1.86	1.38
81:DA:577:C:C1'	81:DA:577:C:O4'	1.64	1.38
38:Bs:220:ILE:CD1	72:Bt:9:TYR:CD1	2.04	1.38
78:CA:1702:A:C2'	78:CA:1702:A:C1'	1.76	1.38
78:CA:1791:A:C1'	78:CA:1791:A:O4'	1.64	1.38
79:CB:55:C:C1'	79:CB:55:C:O4'	1.71	1.38
72:Bt:7:LEU:CD1	72:Bt:45:PHE:CZ	2.07	1.38
78:CA:296:U:C1'	78:CA:296:U:O4'	1.67	1.37
78:CA:1614:A:O4'	78:CA:1614:A:C1'	1.63	1.37
44:BO:21:ARG:C	44:BO:22:ILE:N	1.82	1.37
72:Bt:44:ILE:CD1	73:Bw:36:GLU:O	1.70	1.37
78:CA:1161:C:C1'	78:CA:1161:C:O4'	1.64	1.37
16:AO:117:LEU:CD2	78:CA:939:A:H61	1.36	1.36
78:CA:298:C:C1'	78:CA:298:C:O4'	1.63	1.36
14:AM:13:HIS:O	34:BE:116:TYR:CZ	1.78	1.36
72:Bt:13:ILE:HG13	73:Bv:5:ALA:CB	1.45	1.36
79:CB:55:C:C1'	79:CB:55:C:C3'	1.99	1.36
6:AE:188:LEU:HD11	78:CA:1298:U:C2	1.59	1.35
61:Bj:33:GLU:CG	61:Bj:33:GLU:CD	1.99	1.35
31:BB:6:ARG:NH1	81:DA:914:A:N6	1.70	1.35

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BB:111:THR:CG2	63:Bm:86:LEU:HD12	1.56	1.35
31:BB:245:LEU:HD12	81:DA:2243:A:C8	1.62	1.35
33:BD:29:PRO:CA	45:BR:25:TYR:OH	1.75	1.35
56:Bf:62:LEU:HA	60:Bi:31:ARG:NE	1.42	1.35
81:DA:124:U:C1'	81:DA:124:U:O4'	1.69	1.35
2:AA:11:PRO:CD	2:AA:11:PRO:N	1.67	1.35
78:CA:469:C:C1'	78:CA:469:C:O4'	1.73	1.35
81:DA:2187:G:C1'	81:DA:2187:G:C2'	1.82	1.35
81:DA:3115:C:C1'	81:DA:3115:C:O4'	1.65	1.35
72:Bu:17:SER:CB	73:Bw:31:ILE:CD1	2.04	1.34
81:DA:1209:G:C1'	81:DA:1209:G:C2'	2.00	1.34
72:Bt:13:ILE:HD11	73:Bv:5:ALA:C	1.50	1.34
78:CA:1570:A:C1'	78:CA:1570:A:O4'	1.64	1.34
78:CA:897:C:C1'	78:CA:897:C:O4'	1.68	1.34
14:AM:16:ARG:NH1	34:BE:111:ASP:O	1.60	1.34
33:BD:29:PRO:HB2	45:BR:25:TYR:CE1	1.62	1.33
72:Bt:44:ILE:HG13	73:Bw:36:GLU:CB	1.56	1.33
78:CA:433:C:C1'	78:CA:433:C:O4'	1.63	1.33
78:CA:1565:C:C1'	78:CA:1565:C:O4'	1.66	1.33
13:AL:7:ARG:CD	18:AP:76:VAL:HG22	1.55	1.33
38:Bs:242:ASN:HB3	73:Bw:8:LEU:CD1	1.57	1.33
78:CA:354:C:C1'	78:CA:354:C:O4'	1.64	1.33
44:BO:20:GLY:O	44:BO:21:ARG:N	1.58	1.33
56:Bf:62:LEU:HA	60:Bi:31:ARG:CZ	1.57	1.33
38:Bs:242:ASN:CB	73:Bw:8:LEU:CD1	2.06	1.32
19:AR:130:ARG:NH1	78:CA:1558:U:H5'	1.42	1.32
42:BM:95:PHE:CD2	51:BZ:22:VAL:CG1	2.13	1.32
78:CA:686:C:C1'	78:CA:686:C:O4'	1.63	1.32
81:DA:2612:U:C1'	81:DA:2803:A:C2	2.12	1.32
38:Bs:223:ILE:CD1	72:Bt:12:LEU:HD21	1.60	1.32
81:DA:594:U:C1'	81:DA:594:U:O4'	1.65	1.32
38:Bs:229:TYR:HE2	72:Bt:48:ALA:CB	1.43	1.31
38:Bs:242:ASN:CG	73:Bw:4:LEU:HB3	1.55	1.31
81:DA:338:A:C1'	81:DA:338:A:O4'	1.70	1.31
12:AK:33:LEU:HD13	78:CA:902:G:C8	1.64	1.31
42:BM:95:PHE:CE2	51:BZ:22:VAL:HG11	1.64	1.31
72:Bt:7:LEU:HD12	72:Bt:45:PHE:CZ	1.63	1.31
31:BB:245:LEU:CD1	81:DA:2243:A:C8	2.14	1.31
72:Bu:29:LEU:HD21	73:Bw:29:VAL:CG2	1.59	1.31
31:BB:245:LEU:CD1	81:DA:2243:A:N7	1.93	1.30
78:CA:668:C:C1'	78:CA:668:C:O4'	1.64	1.30

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AE:188:LEU:CD1	78:CA:1298:U:O2	1.79	1.30
38:Bs:220:ILE:HD13	72:Bt:9:TYR:CD1	1.62	1.30
43:BP:49:ARG:HG2	81:DA:114:A:O2'	1.31	1.30
72:Bt:43:ASP:CB	73:Bw:36:GLU:OE1	1.79	1.30
74:BQ:39:GLN:C	74:BQ:40:HIS:N	1.90	1.30
78:CA:1157:A:C8	78:CA:1617:U:O4	1.85	1.30
81:DA:1115:G:O4'	81:DA:1115:G:C1'	1.67	1.30
81:DA:675:C:C1'	81:DA:675:C:O4'	1.67	1.29
78:CA:206:A:C1'	78:CA:206:A:O4'	1.64	1.29
81:DA:752:C:C1'	81:DA:752:C:O4'	1.64	1.29
44:BO:124:ILE:HD13	75:BL:147:UNK:CB	1.61	1.29
78:CA:1615:C:C1'	78:CA:1615:C:O4'	1.68	1.29
81:DA:573:C:C1'	81:DA:573:C:O4'	1.64	1.29
83:DC:54:A:C1'	83:DC:54:A:O4'	1.64	1.29
14:AM:16:ARG:NH1	34:BE:111:ASP:N	1.81	1.29
81:DA:1975:C:C1'	81:DA:1975:C:O4'	1.72	1.29
78:CA:1690:G:C1'	78:CA:1690:G:O4'	1.74	1.28
82:DB:35:C:C1'	82:DB:35:C:O4'	1.67	1.28
81:DA:1396:C:C1'	81:DA:1396:C:O4'	1.67	1.28
31:BB:6:ARG:CZ	81:DA:914:A:N6	1.96	1.28
81:DA:2264:U:C1'	81:DA:2264:U:O4'	1.67	1.28
77:BI:106:ALA:CB	77:BI:108:ALA:CB	2.12	1.28
81:DA:3092:C:C1'	81:DA:3092:C:O4'	1.76	1.28
81:DA:247:C:C1'	81:DA:247:C:O4'	1.63	1.28
81:DA:1582:C:C1'	81:DA:1582:C:O4'	1.67	1.28
31:BB:6:ARG:CZ	81:DA:914:A:C6	2.15	1.27
78:CA:1180:C:C1'	78:CA:1180:C:O4'	1.64	1.27
5:AC:24:LEU:HD13	78:CA:555:A:O4'	1.25	1.27
13:AL:13:ARG:NH2	18:AP:78:THR:CG2	1.96	1.27
47:BU:61:THR:OG1	81:DA:1062:A:N1	1.64	1.27
72:Bt:29:LEU:HD21	73:Bv:29:VAL:CG2	1.62	1.27
78:CA:672:U:C1'	78:CA:672:U:O4'	1.64	1.27
80:CC:18:C:O4'	80:CC:18:C:C1'	1.65	1.27
81:DA:665:A:C1'	81:DA:665:A:O4'	1.65	1.27
81:DA:498:A:C1'	81:DA:498:A:O4'	1.63	1.27
53:Ba:81:LEU:HD11	60:Bi:34:HIS:CG	1.67	1.27
38:Bs:214:VAL:HG11	73:Bv:58:ASN:CB	1.63	1.26
78:CA:1674:C:C1'	78:CA:1674:C:O4'	1.64	1.26
78:CA:1780:G:N1	78:CA:1781:A:C2	2.03	1.26
81:DA:7:C:C1'	81:DA:7:C:O4'	1.70	1.26
83:DC:42:A:C1'	83:DC:42:A:O4'	1.65	1.26

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BB:188:LYS:HD3	81:DA:1793:C:O2'	1.14	1.26
81:DA:1397:C:C1'	81:DA:1397:C:O4'	1.64	1.26
31:BB:245:LEU:HD11	81:DA:2243:A:N7	1.45	1.26
78:CA:636:A:C1'	78:CA:636:A:C2'	2.13	1.26
81:DA:1297:C:C1'	81:DA:1297:C:O4'	1.65	1.26
81:DA:2653:C:C1'	81:DA:2653:C:O4'	1.64	1.26
81:DA:3094:A:C1'	81:DA:3094:A:O4'	1.64	1.25
56:Bf:61:MET:O	60:Bi:31:ARG:NH2	1.66	1.25
78:CA:305:C:C1'	78:CA:305:C:O4'	1.75	1.25
81:DA:1579:C:C1'	81:DA:1579:C:O4'	1.68	1.25
78:CA:1096:C:C1'	78:CA:1096:C:O4'	1.65	1.25
19:AR:89:MET:HG3	78:CA:1555:A:O2'	1.35	1.25
42:BM:94:TYR:O	51:BZ:22:VAL:HG12	1.37	1.25
83:DC:45:A:C1'	83:DC:45:A:O4'	1.64	1.25
78:CA:471:A:C1'	78:CA:471:A:O4'	1.64	1.25
9:AH:6:VAL:HG11	78:CA:1036:A:O2'	1.37	1.24
81:DA:2407:C:C1'	81:DA:2407:C:O4'	1.64	1.24
13:AL:13:ARG:HD3	18:AP:74:THR:CG2	1.68	1.24
31:BB:188:LYS:CD	81:DA:1793:C:O2'	1.86	1.24
78:CA:1336:A:C1'	78:CA:1336:A:O4'	1.64	1.24
6:AE:92:ALA:CB	6:AE:92:ALA:O	1.85	1.24
14:AM:12:GLN:HG3	34:BE:116:TYR:CE1	1.72	1.24
81:DA:1333:C:C1'	81:DA:1333:C:O4'	1.67	1.24
81:DA:3298:C:C1'	81:DA:3298:C:O4'	1.66	1.24
46:BT:57:VAL:O	81:DA:1871:U:H5''	1.32	1.24
72:Bt:44:ILE:HD11	73:Bw:36:GLU:O	1.23	1.24
72:Bt:9:TYR:CA	73:Bv:9:LEU:HD21	1.67	1.23
81:DA:608:A:C1'	81:DA:608:A:O4'	1.66	1.23
14:AM:12:GLN:NE2	34:BE:116:TYR:CZ	2.04	1.23
72:Bt:13:ILE:HD12	73:Bv:9:LEU:CD1	1.66	1.23
81:DA:1085:A:C1'	81:DA:1085:A:O4'	1.63	1.23
81:DA:2757:U:C1'	81:DA:2757:U:O4'	1.74	1.23
31:BB:85:GLY:HA3	63:Bm:62:LYS:NZ	1.54	1.23
81:DA:2942:C:C1'	81:DA:2942:C:O4'	1.63	1.23
78:CA:1780:G:C6	78:CA:1781:A:C6	2.25	1.23
81:DA:1971:C:O4'	81:DA:1971:C:C1'	1.70	1.23
81:DA:2625:C:C1'	81:DA:2625:C:O4'	1.70	1.23
78:CA:635:A:C1'	78:CA:635:A:O4'	1.67	1.23
81:DA:3212:C:C1'	81:DA:3212:C:O4'	1.76	1.23
81:DA:2439:A:O4'	81:DA:2439:A:C1'	1.67	1.22
5:AC:24:LEU:CD1	78:CA:555:A:C1'	2.15	1.22

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AL:7:ARG:HD2	18:AP:76:VAL:CG2	1.70	1.22
16:AO:117:LEU:CG	78:CA:939:A:C6	2.22	1.22
78:CA:609:U:C1'	78:CA:609:U:O4'	1.71	1.22
78:CA:1580:C:C1'	78:CA:1580:C:O4'	1.67	1.22
81:DA:518:G:C1'	81:DA:518:G:O4'	1.66	1.22
12:AK:33:LEU:CD1	78:CA:902:G:C8	2.21	1.22
31:BB:111:THR:HG23	63:Bm:86:LEU:CD1	1.69	1.22
14:AM:12:GLN:HG3	34:BE:116:TYR:CG	1.75	1.22
14:AM:14:ILE:HD13	34:BE:115:LYS:CB	1.70	1.22
72:Bu:13:ILE:HD11	73:Bw:6:ALA:N	1.53	1.22
78:CA:174:U:C1'	78:CA:174:U:O4'	1.66	1.22
83:DC:53:U:C1'	83:DC:53:U:O4'	1.66	1.22
13:AL:13:ARG:CD	18:AP:74:THR:HG21	1.70	1.22
14:AM:133:VAL:CB	78:CA:1545:A:H5''	1.69	1.22
81:DA:576:C:C1'	81:DA:576:C:O4'	1.63	1.22
13:AL:7:ARG:NH1	18:AP:75:VAL:O	1.73	1.21
14:AM:14:ILE:CB	34:BE:115:LYS:H	1.51	1.21
53:Ba:81:LEU:HD11	60:Bi:34:HIS:CD2	1.74	1.21
81:DA:745:C:O4'	81:DA:745:C:C1'	1.64	1.21
81:DA:1633:C:C1'	81:DA:1633:C:O4'	1.64	1.21
81:DA:3350:C:C1'	81:DA:3350:C:O4'	1.63	1.21
81:DA:2166:A:C1'	81:DA:2166:A:O4'	1.77	1.21
83:DC:27:A:C1'	83:DC:27:A:O4'	1.64	1.21
5:AC:24:LEU:CD1	78:CA:555:A:O4'	1.85	1.21
31:BB:204:MET:SD	81:DA:914:A:O2'	1.96	1.21
72:Bt:43:ASP:CB	73:Bw:36:GLU:CD	2.13	1.21
4:AD:187:ARG:NH2	78:CA:652:G:O6	1.71	1.21
78:CA:589:C:C1'	78:CA:589:C:O4'	1.65	1.21
72:Bu:13:ILE:HD11	73:Bw:5:ALA:C	1.64	1.21
81:DA:1551:C:C1'	81:DA:1551:C:O4'	1.65	1.21
53:Ba:81:LEU:HD21	60:Bi:34:HIS:CD2	1.77	1.20
78:CA:1308:G:O6	78:CA:1318:G:C6	1.93	1.20
81:DA:702:C:C1'	81:DA:702:C:O4'	1.71	1.20
81:DA:1585:C:C1'	81:DA:1585:C:O4'	1.65	1.20
81:DA:1820:U:C1'	81:DA:1820:U:O4'	1.73	1.20
81:DA:2721:A:C1'	81:DA:2721:A:O4'	1.69	1.20
33:BD:89:ALA:CB	33:BD:89:ALA:O	1.87	1.20
78:CA:1003:A:C6	78:CA:1005:A:C2	2.28	1.20
78:CA:1200:G:O4'	78:CA:1200:G:C1'	1.70	1.20
81:DA:1821:U:C1'	81:DA:1821:U:O4'	1.71	1.20
16:AO:117:LEU:CG	78:CA:939:A:N6	2.04	1.20

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BE:89:TYR:CB	34:BE:89:TYR:O	1.89	1.20
56:Bf:35:ARG:NH2	60:Bi:66:SER:CB	2.04	1.20
81:DA:2438:A:C1'	81:DA:2438:A:O4'	1.65	1.20
78:CA:1086:A:C1'	78:CA:1086:A:O4'	1.64	1.20
81:DA:2157:G:C1'	81:DA:2157:G:O4'	1.69	1.20
81:DA:3249:C:C1'	81:DA:3249:C:O4'	1.64	1.20
2:AA:10:THR:C	2:AA:11:PRO:CD	2.14	1.20
12:AK:33:LEU:HD13	78:CA:902:G:N7	1.54	1.20
31:BB:85:GLY:HA3	63:Bm:62:LYS:HZ1	1.04	1.20
13:AL:7:ARG:CD	18:AP:76:VAL:CG2	2.19	1.19
14:AM:12:GLN:CG	34:BE:116:TYR:CD1	2.25	1.19
19:AR:89:MET:CG	78:CA:1555:A:O2'	1.90	1.19
78:CA:393:C:C1'	78:CA:393:C:O4'	1.66	1.19
81:DA:3131:U:C1'	81:DA:3131:U:O4'	1.74	1.19
19:AR:130:ARG:O	78:CA:1558:U:O4'	1.59	1.19
31:BB:245:LEU:HD11	81:DA:2243:A:C5	1.76	1.19
53:Ba:84:ARG:HH12	60:Bi:37:LYS:CE	1.55	1.19
72:Bu:9:TYR:CE1	73:Bw:8:LEU:HB3	1.78	1.19
81:DA:3002:C:C1'	81:DA:3002:C:O4'	1.65	1.19
78:CA:1308:G:C6	78:CA:1318:G:C2	2.30	1.19
4:AD:187:ARG:CZ	78:CA:652:G:O6	1.89	1.19
14:AM:13:HIS:O	34:BE:116:TYR:CE1	1.94	1.19
38:Bs:229:TYR:CE2	72:Bt:48:ALA:HB2	1.77	1.19
56:Bf:62:LEU:C	60:Bi:31:ARG:NH2	2.00	1.19
65:Bn:73:LEU:CB	81:DA:1751:G:C8	2.26	1.19
5:AC:157:ASP:CB	5:AC:157:ASP:O	1.91	1.19
81:DA:3034:C:C1'	81:DA:3034:C:O4'	1.75	1.19
82:DB:45:C:C1'	82:DB:45:C:O4'	1.67	1.19
33:BD:296:GLN:N	33:BD:296:GLN:HA	1.44	1.18
81:DA:1261:G:C2'	81:DA:1261:G:C1'	2.18	1.18
81:DA:1866:C:C1'	81:DA:1866:C:O4'	1.70	1.18
81:DA:2638:C:C1'	81:DA:2638:C:O4'	1.67	1.18
38:Bs:229:TYR:CE2	72:Bt:48:ALA:CB	2.25	1.18
56:Bf:35:ARG:CZ	60:Bi:66:SER:HB3	1.74	1.18
81:DA:636:C:C1'	81:DA:636:C:O4'	1.87	1.18
81:DA:2630:C:C1'	81:DA:2630:C:O4'	1.69	1.18
81:DA:2770:G:C1'	81:DA:2770:G:O4'	1.71	1.18
21:AT:9:VAL:O	21:AT:10:GLU:CA	1.91	1.18
81:DA:345:G:O2'	82:DB:25:G:N2	1.77	1.18
38:Bs:223:ILE:HD11	72:Bt:12:LEU:HD21	1.21	1.18
78:CA:172:C:O4'	78:CA:172:C:C1'	1.75	1.18

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:2220:A:N6	81:DA:2221:G:C2	2.12	1.18
81:DA:2756:C:C1'	81:DA:2756:C:O4'	1.65	1.18
43:BP:49:ARG:CG	81:DA:114:A:O2'	1.90	1.17
81:DA:2720:G:C1'	81:DA:2720:G:O4'	1.67	1.17
32:BC:298:PHE:CB	32:BC:298:PHE:O	1.91	1.17
56:Bf:62:LEU:HD22	60:Bi:31:ARG:CG	1.73	1.17
81:DA:2916:U:C1'	81:DA:2916:U:O4'	1.65	1.17
81:DA:1747:G:C1'	81:DA:1747:G:O4'	1.66	1.17
51:BZ:70:LYS:O	51:BZ:70:LYS:CA	1.90	1.17
72:Bt:43:ASP:HB2	73:Bw:36:GLU:OE2	1.44	1.17
77:BI:106:ALA:CB	77:BI:108:ALA:HB3	1.70	1.17
78:CA:1308:G:C6	78:CA:1318:G:N1	2.12	1.17
14:AM:14:ILE:HG21	34:BE:114:ILE:HA	1.18	1.16
44:BO:124:ILE:CG2	75:BL:147:UNK:CB	2.23	1.16
78:CA:294:C:C1'	78:CA:294:C:O4'	1.70	1.16
78:CA:874:C:C1'	78:CA:874:C:O4'	1.72	1.16
78:CA:1292:G:N3	78:CA:1324:G:N2	1.93	1.16
23:AW:15:UNK:O	23:AW:15:UNK:CA	1.92	1.16
5:AC:166:GLY:HA2	78:CA:586:G:H4'	1.22	1.16
63:Bm:51:ALA:CB	81:DA:1795:U:H3	1.58	1.16
81:DA:2108:C:C1'	81:DA:2108:C:O4'	1.64	1.16
48:BW:90:ARG:CB	48:BW:90:ARG:O	1.94	1.16
82:DB:154:C:C1'	82:DB:154:C:O4'	1.73	1.16
5:AC:24:LEU:HD13	78:CA:555:A:C1'	1.76	1.15
33:BD:29:PRO:HA	45:BR:25:TYR:OH	1.43	1.15
48:BW:81:LYS:HD2	81:DA:1688:U:C4	1.81	1.15
81:DA:1552:G:C1'	81:DA:1552:G:O4'	1.64	1.15
82:DB:32:C:C1'	82:DB:32:C:O4'	1.66	1.15
6:AE:201:ASN:ND2	78:CA:3:U:C5	2.13	1.15
38:Bs:246:LEU:HD11	72:Bu:9:TYR:CD1	1.79	1.15
81:DA:2899:C:C1'	81:DA:2899:C:O4'	1.69	1.15
16:AO:117:LEU:HD23	78:CA:939:A:N6	1.58	1.15
60:Bi:108:GLN:CB	60:Bi:108:GLN:O	1.93	1.15
81:DA:1688:U:C1'	81:DA:1688:U:O4'	1.71	1.15
65:Bn:73:LEU:HB2	81:DA:1751:G:N7	1.58	1.15
78:CA:990:C:C1'	78:CA:990:C:O4'	1.67	1.15
81:DA:427:C:C1'	81:DA:427:C:O4'	1.70	1.15
81:DA:1316:C:C1'	81:DA:1316:C:O4'	1.68	1.15
72:Bt:7:LEU:HD13	72:Bt:45:PHE:CD2	1.82	1.14
81:DA:71:A:C1'	81:DA:71:A:O4'	1.72	1.14
13:AL:13:ARG:HG3	18:AP:76:VAL:CB	1.76	1.14

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AS:43:ASN:CA	78:CA:1477:G:H4'	1.76	1.14
78:CA:123:G:C1'	78:CA:123:G:O4'	1.84	1.14
8:AF:153:GLY:N	78:CA:904:G:O2'	1.81	1.14
13:AL:13:ARG:HH22	18:AP:78:THR:HG21	1.11	1.14
14:AM:12:GLN:NE2	34:BE:116:TYR:CE1	2.15	1.14
78:CA:280:U:O4'	78:CA:280:U:C1'	1.65	1.14
78:CA:1201:G:C1'	78:CA:1201:G:O4'	1.69	1.14
35:BG:46:ARG:HD3	81:DA:3215:A:H61	1.05	1.14
38:Bs:229:TYR:HE2	72:Bt:48:ALA:HB2	1.05	1.14
42:BM:95:PHE:HA	51:BZ:22:VAL:HG13	1.16	1.14
81:DA:2440:G:C1'	81:DA:2440:G:O4'	1.73	1.14
72:Bu:6:ALA:O	73:Bw:9:LEU:HD22	1.47	1.14
78:CA:1602:C:C1'	78:CA:1602:C:O4'	1.76	1.14
81:DA:2788:C:C1'	81:DA:2788:C:O4'	1.75	1.14
13:AL:134:ALA:C	13:AL:135:LEU:CA	2.22	1.13
15:AN:53:ASN:C	15:AN:54:LYS:CA	2.21	1.13
32:BC:3:HIS:CB	32:BC:3:HIS:O	1.95	1.13
81:DA:638:C:C1'	81:DA:638:C:O4'	1.72	1.13
81:DA:2880:U:C1'	81:DA:2880:U:O4'	1.66	1.13
81:DA:2948:C:O4'	81:DA:2948:C:C1'	1.68	1.13
81:DA:3241:G:C1'	81:DA:3241:G:O4'	1.74	1.13
31:BB:177:LYS:O	81:DA:1793:C:N4	1.82	1.13
72:Bt:7:LEU:HD13	72:Bt:45:PHE:CZ	1.78	1.13
78:CA:1003:A:N6	78:CA:1005:A:C2	2.16	1.13
81:DA:386:A:C1'	81:DA:386:A:O4'	1.64	1.13
83:DC:17:A:C1'	83:DC:17:A:O4'	1.69	1.13
10:AI:135:ARG:NH2	78:CA:1588:G:C5	2.15	1.13
13:AL:13:ARG:CZ	18:AP:71:LEU:HD22	1.78	1.13
80:CC:18:C:O3'	80:CC:19:U:P	2.07	1.13
81:DA:242:C:C1'	81:DA:242:C:O4'	1.65	1.13
4:AD:153:ASN:CB	4:AD:153:ASN:O	1.94	1.13
81:DA:1572:U:C1'	81:DA:1572:U:O4'	1.68	1.13
14:AM:116:LEU:HD21	78:CA:1547:A:H5''	1.27	1.12
31:BB:6:ARG:NH2	81:DA:914:A:C5	2.11	1.12
60:Bi:68:THR:CB	60:Bi:68:THR:O	1.93	1.12
78:CA:1157:A:N7	78:CA:1617:U:O4	1.81	1.12
81:DA:1802:C:C1'	81:DA:1802:C:O4'	1.77	1.12
83:DC:102:C:C1'	83:DC:102:C:O4'	1.73	1.12
72:Bt:10:ALA:N	73:Bv:9:LEU:HD21	1.64	1.12
78:CA:1780:G:O6	78:CA:1781:A:N1	1.82	1.12
23:AW:15:UNK:O	23:AW:15:UNK:C	0.83	1.12

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BB:196:TRP:CB	31:BB:196:TRP:O	1.98	1.12
38:Bs:242:ASN:CB	73:Bw:8:LEU:HD12	1.74	1.12
4:AD:93:ASP:CB	4:AD:93:ASP:O	1.95	1.12
6:AE:201:ASN:ND2	78:CA:3:U:C4	2.17	1.11
17:AQ:82:ASP:CB	17:AQ:82:ASP:O	1.95	1.11
72:Bt:13:ILE:HD12	73:Bv:9:LEU:HD12	1.22	1.11
79:CB:55:C:C1'	79:CB:55:C:O2'	1.97	1.11
81:DA:2231:C:C1'	81:DA:2231:C:O4'	1.65	1.11
81:DA:3221:C:O4'	81:DA:3221:C:C1'	1.92	1.11
7:AG:107:UNK:N	7:AG:107:UNK:O	1.83	1.11
13:AL:22:ASN:O	13:AL:22:ASN:CA	1.97	1.11
19:AR:58:LYS:HD3	78:CA:1549:C:C5	1.84	1.11
35:BG:145:LEU:HD13	41:BN:114:ASP:HA	1.15	1.11
38:Bs:220:ILE:HD11	72:Bt:9:TYR:CD1	1.76	1.11
5:AC:24:LEU:CD1	78:CA:555:A:H1'	1.74	1.11
13:AL:13:ARG:HH22	18:AP:78:THR:CG2	1.56	1.11
53:Ba:84:ARG:NH1	60:Bi:37:LYS:CE	2.11	1.11
72:Bu:13:ILE:HG13	73:Bw:5:ALA:HB1	1.29	1.11
22:AV:105:THR:CB	22:AV:105:THR:C	2.23	1.10
35:BG:46:ARG:HD3	81:DA:3215:A:N6	1.64	1.10
37:BH:134:TYR:CE1	81:DA:146:U:H5''	1.86	1.10
35:BG:99:GLU:HB2	35:BG:100:LYS:H	1.09	1.10
38:Bs:229:TYR:CZ	72:Bt:44:ILE:CG2	2.27	1.10
78:CA:1308:G:C5	78:CA:1318:G:C2	2.39	1.10
19:AR:129:GLY:O	78:CA:1558:U:N3	1.83	1.10
35:BG:145:LEU:HD11	41:BN:113:THR:O	1.52	1.10
38:Bs:214:VAL:HG13	73:Bv:58:ASN:H	1.08	1.10
81:DA:70:A:C1'	81:DA:70:A:O4'	1.67	1.10
81:DA:1685:C:C1'	81:DA:1685:C:O4'	1.70	1.10
4:AD:146:THR:CG2	78:CA:295:A:N1	2.13	1.09
72:Bt:44:ILE:CG1	73:Bw:36:GLU:CB	2.18	1.09
78:CA:929:A:N6	78:CA:930:A:N1	2.00	1.09
72:Bt:44:ILE:CD1	73:Bw:36:GLU:C	2.26	1.09
32:BC:266:ARG:CD	32:BC:266:ARG:HH11	1.63	1.09
72:Bt:13:ILE:HG12	73:Bv:5:ALA:CB	1.65	1.09
38:Bs:242:ASN:CB	73:Bw:8:LEU:HD11	1.75	1.09
44:BO:124:ILE:CD1	75:BL:147:UNK:CB	2.29	1.09
72:Bt:17:SER:HB2	73:Bv:31:ILE:CD1	1.82	1.09
78:CA:591:A:C1'	78:CA:591:A:O4'	1.76	1.09
81:DA:1207:G:C1'	81:DA:1207:G:O4'	1.92	1.09
7:AG:75:UNK:N	7:AG:75:UNK:O	1.85	1.09

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AR:90:ILE:CD1	78:CA:1554:U:O2'	1.99	1.09
38:Bs:242:ASN:CG	73:Bw:4:LEU:CB	2.26	1.09
44:BO:124:ILE:CD1	75:BL:148:UNK:N	2.15	1.09
56:Bf:62:LEU:CA	60:Bi:31:ARG:NH2	2.16	1.09
72:Bu:13:ILE:HG12	73:Bw:5:ALA:HB3	1.27	1.09
12:AK:33:LEU:CD2	78:CA:903:U:C5	2.35	1.08
19:AR:90:ILE:HD11	78:CA:1554:U:O2'	1.52	1.08
35:BG:99:GLU:CB	35:BG:100:LYS:H	1.63	1.08
72:Bu:17:SER:CB	73:Bw:31:ILE:HD12	1.77	1.08
6:AE:188:LEU:CD1	78:CA:1298:U:C2	2.34	1.08
56:Bf:62:LEU:CA	60:Bi:31:ARG:NE	2.16	1.08
46:BT:57:VAL:O	81:DA:1871:U:C5'	2.01	1.08
14:AM:14:ILE:HB	34:BE:115:LYS:H	1.14	1.08
3:AB:205:ALA:N	3:AB:205:ALA:O	1.86	1.07
6:AE:217:ALA:HB3	78:CA:2:A:N6	1.56	1.07
11:AJ:81:THR:C	11:AJ:81:THR:O	0.83	1.07
14:AM:133:VAL:HB	78:CA:1545:A:H5''	1.08	1.07
9:AH:6:VAL:CG2	78:CA:1036:A:H1'	1.84	1.07
72:Bt:29:LEU:HD21	73:Bv:29:VAL:HG22	1.19	1.07
53:Ba:74:VAL:HB	60:Bi:67:LYS:HZ3	1.10	1.07
72:Bt:19:ILE:HG22	72:Bt:25:LYS:HD3	1.08	1.07
72:Bu:17:SER:HB2	73:Bw:31:ILE:HD12	1.17	1.07
35:BG:2:SER:C	35:BG:2:SER:O	0.82	1.07
44:BO:124:ILE:HG13	75:BL:149:UNK:CB	1.84	1.07
56:Bf:62:LEU:CA	60:Bi:31:ARG:CZ	2.32	1.07
72:Bu:29:LEU:CD2	73:Bw:29:VAL:CG2	2.33	1.07
72:Bt:19:ILE:CG2	72:Bt:25:LYS:HD3	1.84	1.07
13:AL:13:ARG:CG	18:AP:76:VAL:HB	1.84	1.06
35:BG:145:LEU:HD11	41:BN:113:THR:C	1.78	1.06
72:Bu:19:ILE:HG22	72:Bu:25:LYS:HD3	1.08	1.06
11:AJ:81:THR:O	11:AJ:81:THR:CA	2.03	1.06
20:AS:43:ASN:HA	78:CA:1477:G:H4'	1.09	1.06
38:Bs:246:LEU:HD22	72:Bu:8:SER:CB	1.83	1.06
72:Bt:43:ASP:CB	73:Bw:36:GLU:OE2	1.99	1.06
72:Bu:19:ILE:CG2	72:Bu:25:LYS:HD3	1.84	1.06
78:CA:1552:U:C4	78:CA:1553:G:C6	2.41	1.06
12:AK:36:LYS:NZ	78:CA:900:A:C5'	2.17	1.06
35:BG:145:LEU:CD1	41:BN:114:ASP:CA	2.32	1.06
72:Bu:29:LEU:CD2	73:Bw:29:VAL:HG23	1.85	1.06
32:BC:266:ARG:CZ	81:DA:2989:U:C6	2.37	1.06
43:BP:80:THR:CB	43:BP:80:THR:O	2.03	1.06

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:Bu:5:SER:O	72:Bu:9:TYR:HD2	1.39	1.06
19:AR:59:LYS:HG3	78:CA:1551:U:C5	1.90	1.06
19:AR:59:LYS:HG3	78:CA:1551:U:H5	1.19	1.06
78:CA:1780:G:O6	78:CA:1781:A:C6	2.09	1.06
81:DA:1647:A:N6	81:DA:1808:G:O2'	1.89	1.06
14:AM:30:TYR:CZ	78:CA:1532:U:O2'	2.10	1.05
56:Bf:62:LEU:CD2	60:Bi:31:ARG:O	2.03	1.05
72:Bu:13:ILE:CG1	73:Bw:5:ALA:CB	2.19	1.05
12:AK:124:ASP:OD1	78:CA:929:A:C5	2.09	1.05
13:AL:7:ARG:CG	18:AP:76:VAL:CG2	2.35	1.05
14:AM:14:ILE:HD13	34:BE:115:LYS:CG	1.86	1.05
44:BO:124:ILE:HD11	75:BL:148:UNK:H	1.22	1.05
51:BZ:70:LYS:O	51:BZ:70:LYS:C	0.81	1.05
56:Bf:62:LEU:HD21	60:Bi:31:ARG:O	1.56	1.05
60:Bi:79:SER:N	60:Bi:79:SER:C	2.13	1.05
72:Bu:17:SER:HA	73:Bw:2:LYS:HE2	1.36	1.05
78:CA:904:G:O6	78:CA:905:A:N1	1.89	1.05
5:AC:24:LEU:HD12	78:CA:555:A:N3	1.71	1.05
6:AE:92:ALA:CB	6:AE:92:ALA:C	2.29	1.05
33:BD:297:SER:HB3	45:BR:25:TYR:CE2	1.90	1.05
35:BG:2:SER:O	35:BG:3:ALA:N	1.89	1.05
38:Bs:242:ASN:HB2	73:Bw:8:LEU:HD11	1.07	1.05
19:AR:59:LYS:CG	78:CA:1551:U:C5	2.40	1.04
29:AU:70:VAL:CG1	29:AU:70:VAL:CA	2.35	1.04
72:Bt:44:ILE:HD11	73:Bw:36:GLU:C	1.80	1.04
78:CA:1552:U:O4	78:CA:1553:G:C6	2.10	1.04
7:AG:97:UNK:N	7:AG:97:UNK:O	1.87	1.04
13:AL:22:ASN:O	13:AL:22:ASN:C	0.80	1.04
32:BC:289:ASP:CB	32:BC:289:ASP:O	2.04	1.04
4:AD:146:THR:CG2	78:CA:295:A:C6	2.40	1.04
60:Bi:79:SER:N	60:Bi:79:SER:O	1.87	1.04
78:CA:1292:G:C2	78:CA:1324:G:C2	2.44	1.04
79:CB:55:C:C1'	79:CB:55:C:C4'	2.33	1.04
81:DA:1314:C:C1'	81:DA:1314:C:O4'	1.72	1.04
81:DA:2612:U:O4'	81:DA:2803:A:N1	1.90	1.04
31:BB:173:GLY:O	63:Bm:69:TYR:HE2	1.40	1.04
38:Bs:222:SER:HB2	72:Bt:61:PHE:CZ	1.91	1.04
13:AL:7:ARG:NH1	18:AP:75:VAL:C	2.15	1.03
56:Bf:62:LEU:HD23	60:Bi:31:ARG:HD2	1.40	1.03
37:BH:134:TYR:CE1	81:DA:146:U:C3'	2.42	1.03
78:CA:1780:G:C6	78:CA:1781:A:N1	2.25	1.03

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:2362:C:C2'	81:DA:2362:C:N1	2.21	1.03
1:Aa:59:ARG:HA	10:Al:107:LYS:CE	1.88	1.03
4:AD:146:THR:HG22	78:CA:295:A:C6	1.93	1.03
72:Bu:29:LEU:HD21	73:Bw:29:VAL:HG23	1.37	1.03
72:Bt:5:SER:O	72:Bt:9:TYR:HD2	1.39	1.03
38:Bs:94:THR:HG21	73:Bv:43:SER:HB3	1.37	1.03
78:CA:1583:A:C1'	78:CA:1583:A:O4'	1.77	1.03
72:Bu:20:GLU:H	72:Bu:25:LYS:HZ2	1.03	1.02
38:Bs:222:SER:HB2	72:Bt:61:PHE:CE1	1.95	1.02
6:AE:217:ALA:HB2	78:CA:2:A:N6	1.69	1.02
31:BB:6:ARG:NH1	81:DA:914:A:H62	1.37	1.02
38:Bs:214:VAL:CG1	73:Bv:58:ASN:HB2	1.89	1.02
43:BP:50:ARG:CA	81:DA:267:G:H21	1.72	1.02
74:BQ:128:GLU:CB	74:BQ:128:GLU:O	2.08	1.02
78:CA:1161:C:H42	78:CA:1616:G:H1	1.03	1.02
72:Bt:20:GLU:H	72:Bt:25:LYS:HZ2	1.06	1.02
78:CA:1167:G:H1	78:CA:1578:U:H3	1.07	1.02
38:Bs:242:ASN:OD1	73:Bw:4:LEU:CB	2.07	1.01
79:CB:55:C:H1'	79:CB:55:C:H2'	1.05	1.01
81:DA:1298:C:C1'	81:DA:1298:C:O4'	1.73	1.01
81:DA:1401:A:C2'	81:DA:1401:A:N9	2.21	1.01
72:Bt:13:ILE:CG1	73:Bv:5:ALA:HB1	1.65	1.01
72:Bt:44:ILE:HG12	73:Bw:36:GLU:C	1.85	1.01
81:DA:2206:G:H21	81:DA:2208:A:H61	1.08	1.01
13:AL:19:ARG:CZ	78:CA:1106:U:O4	2.09	1.01
37:BH:89:GLU:N	37:BH:89:GLU:O	1.92	1.01
56:Bf:62:LEU:CD2	60:Bi:31:ARG:HG3	1.89	1.01
78:CA:1147:A:H61	78:CA:1630:U:H3	1.05	1.01
4:AD:153:ASN:CB	4:AD:153:ASN:C	2.32	1.01
7:AG:96:UNK:O	7:AG:97:UNK:CA	2.08	1.01
37:BH:134:TYR:CZ	81:DA:146:U:C3'	2.43	1.01
56:Bf:58:TYR:OH	60:Bi:33:GLN:N	1.93	1.01
19:AR:59:LYS:HG2	78:CA:1551:U:C6	1.96	1.01
72:Bu:13:ILE:HD12	73:Bw:9:LEU:HD12	1.38	1.01
13:AL:7:ARG:HH11	18:AP:75:VAL:C	1.69	1.00
13:AL:13:ARG:HH21	18:AP:78:THR:HG22	1.21	1.00
33:BD:29:PRO:HB2	45:BR:25:TYR:CZ	1.94	1.00
33:BD:29:PRO:CB	45:BR:25:TYR:OH	2.08	1.00
78:CA:1157:A:N7	78:CA:1617:U:C4	2.30	1.00
72:Bu:29:LEU:HD21	73:Bw:29:VAL:HG22	1.39	1.00
12:AK:33:LEU:CD1	78:CA:902:G:H8	1.68	1.00

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AR:59:LYS:HB2	78:CA:1550:A:H3'	1.43	1.00
35:BG:69:PHE:CD1	35:BG:69:PHE:CZ	2.40	1.00
78:CA:904:G:O6	78:CA:905:A:C2	2.14	1.00
78:CA:976:G:N2	78:CA:1027:A:H61	1.60	1.00
14:AM:12:GLN:CG	34:BE:116:TYR:CE1	2.43	1.00
12:AK:46:MET:HE1	78:CA:918:U:H1'	1.39	1.00
14:AM:30:TYR:CE2	78:CA:1532:U:O2'	2.15	1.00
72:Bt:9:TYR:HB3	73:Bv:9:LEU:CD2	1.88	1.00
79:CB:55:C:C1'	79:CB:55:C:H2'	1.60	1.00
16:AO:117:LEU:CD2	78:CA:939:A:N6	2.12	0.99
43:BP:74:PRO:CB	43:BP:74:PRO:O	2.10	0.99
12:AK:46:MET:HE1	78:CA:918:U:C1'	1.92	0.99
31:BB:26:ALA:HB2	81:DA:2175:U:H2'	1.41	0.99
78:CA:976:G:H21	78:CA:1027:A:H61	1.08	0.99
78:CA:1158:C:C5	78:CA:1582:U:C4	2.50	0.99
19:AR:129:GLY:O	78:CA:1558:U:C2	2.15	0.99
14:AM:11:PHE:CD2	22:AV:33:LYS:CG	2.45	0.99
20:AS:89:ARG:NH1	78:CA:1467:C:H1'	1.78	0.99
72:Bt:14:LEU:CD2	72:Bt:29:LEU:HD11	1.92	0.99
72:Bu:17:SER:CB	73:Bw:31:ILE:HD11	1.76	0.99
72:Bu:14:LEU:CD2	72:Bu:29:LEU:HD11	1.92	0.99
12:AK:33:LEU:HD21	78:CA:903:U:C5	1.97	0.99
63:Bm:51:ALA:HB2	81:DA:1795:U:H3	1.28	0.99
33:BD:29:PRO:CB	45:BR:25:TYR:CE1	2.46	0.98
72:Bt:44:ILE:HD13	73:Bw:36:GLU:O	1.62	0.98
78:CA:1780:G:N1	78:CA:1781:A:N3	2.11	0.98
4:AD:221:ARG:NH2	78:CA:682:C:H1'	1.78	0.98
14:AM:14:ILE:HG21	34:BE:114:ILE:CA	1.93	0.98
53:Ba:81:LEU:CD1	60:Bi:34:HIS:CD2	2.47	0.98
72:Bu:20:GLU:N	72:Bu:25:LYS:HZ2	1.60	0.98
14:AM:16:ARG:HH12	34:BE:110:ILE:C	1.70	0.98
31:BB:111:THR:HG23	63:Bm:86:LEU:HD12	0.98	0.98
72:Bt:13:ILE:CD1	73:Bv:9:LEU:HD12	1.93	0.98
38:Bs:223:ILE:HD12	72:Bt:12:LEU:HD21	1.45	0.98
72:Bt:9:TYR:HB3	73:Bv:9:LEU:HG	1.45	0.98
72:Bt:20:GLU:O	72:Bt:25:LYS:HD2	1.62	0.98
81:DA:299:G:H1	81:DA:316:U:H3	1.00	0.98
1:Aa:53:LYS:CB	1:Aa:53:LYS:C	2.36	0.98
5:AC:53:ARG:HH22	78:CA:658:C:H4'	1.25	0.98
9:AH:6:VAL:HG22	78:CA:1036:A:H1'	1.44	0.98
38:Bs:242:ASN:HB2	73:Bw:8:LEU:CD1	1.80	0.98

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BU:116:ARG:CZ	81:DA:1095:U:C3'	2.41	0.98
60:Bi:68:THR:CB	60:Bi:68:THR:C	2.36	0.98
38:Bs:220:ILE:HD12	72:Bt:9:TYR:CE1	1.99	0.98
72:Bt:17:SER:HB2	73:Bv:31:ILE:HD11	1.43	0.98
14:AM:14:ILE:CG2	34:BE:114:ILE:HA	1.93	0.98
72:Bu:20:GLU:O	72:Bu:25:LYS:HD2	1.62	0.98
78:CA:901:G:O6	78:CA:902:G:N1	1.97	0.98
72:Bu:20:GLU:H	72:Bu:25:LYS:NZ	1.62	0.97
63:Bm:51:ALA:HB1	81:DA:1795:U:C4	1.98	0.97
78:CA:1203:A:C4	78:CA:1556:A:C2	2.51	0.97
4:AD:207:LEU:HD11	78:CA:683:C:H1'	1.45	0.97
5:AC:21:SER:HB3	78:CA:555:A:H5'	1.43	0.97
14:AM:116:LEU:HD21	78:CA:1547:A:C5'	1.93	0.97
35:BG:2:SER:O	35:BG:2:SER:CA	2.12	0.97
38:Bs:246:LEU:CD2	72:Bu:8:SER:C	2.36	0.97
37:BH:158:ASP:CB	37:BH:158:ASP:C	2.36	0.97
46:BT:58:HIS:HA	81:DA:1871:U:H5'	1.44	0.97
74:BQ:57:ASN:O	83:DC:49:G:O6	1.81	0.97
11:AJ:83:GLU:HA	15:AN:55:PHE:H	1.28	0.97
19:AR:130:ARG:NH1	78:CA:1558:U:C5'	2.27	0.97
33:BD:29:PRO:CB	45:BR:25:TYR:CZ	2.47	0.97
4:AD:206:ASP:CG	78:CA:682:C:O2'	2.06	0.97
6:AE:217:ALA:CB	78:CA:2:A:H61	1.76	0.97
38:Bs:246:LEU:HD11	72:Bu:9:TYR:CG	2.00	0.97
13:AL:13:ARG:NH2	18:AP:78:THR:HG22	1.73	0.97
78:CA:1185:U:C4	78:CA:1458:G:C5	2.52	0.97
53:Ba:81:LEU:HD21	60:Bi:34:HIS:HD2	1.22	0.97
81:DA:1870:C:H3'	81:DA:1871:U:C5	1.99	0.97
81:DA:2989:U:C1'	81:DA:2989:U:O4'	2.04	0.97
16:AO:117:LEU:CG	78:CA:939:A:N1	2.23	0.96
33:BD:321:LYS:CB	33:BD:321:LYS:O	2.12	0.96
38:Bs:220:ILE:HD13	72:Bt:9:TYR:CZ	1.99	0.96
72:Bt:44:ILE:CG1	73:Bw:36:GLU:C	2.37	0.96
31:BB:196:TRP:CB	31:BB:196:TRP:C	2.38	0.96
72:Bt:19:ILE:HG22	72:Bt:25:LYS:CD	1.95	0.96
78:CA:1292:G:C2	78:CA:1324:G:N2	2.32	0.96
77:BI:117:GLY:HA2	81:DA:2645:G:OP2	1.64	0.96
78:CA:1552:U:O4	78:CA:1553:G:O6	1.82	0.96
30:BA:194:LEU:HD22	75:BL:178:UNK:CB	1.93	0.96
72:Bt:41:TRP:C	72:Bt:45:PHE:CD2	2.43	0.96
80:CC:18:C:O3'	80:CC:19:U:O5'	1.82	0.96

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:Bs:242:ASN:HB3	73:Bw:8:LEU:HD12	0.96	0.96
53:Ba:74:VAL:HG11	60:Bi:67:LYS:HD3	1.44	0.96
81:DA:533:A:H61	81:DA:560:G:H1	1.06	0.96
13:AL:13:ARG:HD3	18:AP:74:THR:HG21	0.99	0.96
72:Bt:20:GLU:H	72:Bt:25:LYS:NZ	1.62	0.96
48:BW:81:LYS:CD	81:DA:1688:U:C4	2.48	0.96
72:Bt:29:LEU:CD2	73:Bv:29:VAL:CG2	2.42	0.96
72:Bu:19:ILE:HG22	72:Bu:25:LYS:CD	1.95	0.96
13:AL:7:ARG:HD2	18:AP:76:VAL:HG22	1.32	0.96
63:Bm:51:ALA:HB1	81:DA:1795:U:N3	1.81	0.96
4:AD:187:ARG:NH2	78:CA:652:G:C6	2.33	0.95
81:DA:2994:A:N1	81:DA:3142:A:N6	2.12	0.95
33:BD:295:ILE:C	33:BD:296:GLN:HA	1.91	0.95
53:Ba:81:LEU:CD2	60:Bi:34:HIS:CD2	2.47	0.95
77:BI:106:ALA:CB	77:BI:108:ALA:HB2	1.94	0.95
12:AK:33:LEU:HD11	78:CA:902:G:H8	1.30	0.95
35:BG:99:GLU:CB	35:BG:100:LYS:N	2.30	0.95
38:Bs:214:VAL:HG11	73:Bv:58:ASN:HB2	0.96	0.95
38:Bs:214:VAL:CG1	73:Bv:58:ASN:H	1.77	0.95
16:AO:117:LEU:HD21	78:CA:975:C:H1'	1.43	0.95
18:AP:59:PRO:HG2	78:CA:326:G:H4'	1.46	0.95
33:BD:321:LYS:CB	33:BD:321:LYS:C	2.38	0.95
59:Bh:20:HIS:CB	59:Bh:20:HIS:C	2.38	0.95
63:Bm:51:ALA:HB1	81:DA:1795:U:H3	1.31	0.95
31:BB:109:GLU:O	63:Bm:86:LEU:HD11	1.66	0.95
38:Bs:223:ILE:CD1	72:Bt:12:LEU:CD2	2.45	0.95
43:BP:50:ARG:CB	81:DA:267:G:H21	1.78	0.95
78:CA:5:U:O2	78:CA:20:G:N2	2.00	0.95
78:CA:1181:U:O2	78:CA:1458:G:C2	2.20	0.95
16:AO:117:LEU:HD23	78:CA:939:A:H61	0.78	0.95
18:AP:59:PRO:HG2	78:CA:326:G:C4'	1.97	0.95
36:BF:46:THR:CA	41:BN:7:VAL:HG23	1.97	0.95
42:BM:93:LEU:HD23	51:BZ:20:LEU:HB3	1.48	0.95
38:Bs:239:LEU:HD12	73:Bw:53:LEU:CD1	1.97	0.94
78:CA:929:A:C6	78:CA:930:A:C2	2.54	0.94
78:CA:1747:G:H5'	81:DA:2302:G:H21	1.29	0.94
7:AG:107:UNK:N	7:AG:107:UNK:C	2.31	0.94
37:BH:138:HIS:CD2	81:DA:147:U:C4'	2.49	0.94
56:Bf:62:LEU:HD22	60:Bi:31:ARG:HG3	0.96	0.94
78:CA:559:C:N4	78:CA:586:G:H1	1.66	0.94
78:CA:636:A:C2'	78:CA:636:A:N9	2.29	0.94

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AM:12:GLN:CG	34:BE:116:TYR:CG	2.48	0.94
72:Bt:9:TYR:CB	73:Bv:9:LEU:HD21	1.67	0.94
72:Bt:20:GLU:N	72:Bt:25:LYS:HZ2	1.63	0.94
78:CA:901:G:N1	78:CA:902:G:C2	2.34	0.94
5:AC:52:ILE:HG12	78:CA:1:U:O2	1.66	0.94
16:AO:114:ARG:NH1	78:CA:940:A:H62	1.64	0.94
16:AO:117:LEU:HG	78:CA:939:A:N6	1.77	0.94
72:Bt:43:ASP:HB3	73:Bw:36:GLU:OE1	1.68	0.94
78:CA:899:G:H2'	78:CA:900:A:H5'	1.50	0.94
78:CA:1303:U:O4	78:CA:1304:G:N1	2.00	0.94
6:AE:201:ASN:ND2	78:CA:3:U:C6	2.36	0.94
22:AV:105:THR:CB	22:AV:105:THR:O	2.15	0.94
77:BI:106:ALA:HB3	77:BI:108:ALA:HB3	0.97	0.94
78:CA:1203:A:C5	78:CA:1556:A:C2	2.55	0.94
12:AK:124:ASP:OD1	78:CA:929:A:C6	2.21	0.94
16:AO:117:LEU:HB2	78:CA:939:A:N6	1.83	0.94
72:Bt:43:ASP:C	73:Bw:36:GLU:OE1	2.10	0.94
72:Bu:10:ALA:N	73:Bw:9:LEU:HD21	1.73	0.94
78:CA:295:A:C2'	78:CA:295:A:N9	2.30	0.94
72:Bt:43:ASP:HB2	73:Bw:36:GLU:OE1	1.47	0.94
32:BC:3:HIS:CB	32:BC:3:HIS:C	2.40	0.94
38:Bs:239:LEU:HD12	73:Bw:53:LEU:HD13	1.50	0.94
81:DA:3149:G:C2'	81:DA:3149:G:N9	2.29	0.94
16:AO:117:LEU:CB	78:CA:939:A:N6	2.31	0.93
22:AV:105:THR:O	22:AV:105:THR:HB	1.68	0.93
32:BC:93:VAL:HG11	81:DA:3243:A:C4	2.03	0.93
79:CB:55:C:C2'	79:CB:55:C:N1	2.31	0.93
31:BB:204:MET:SD	81:DA:914:A:N3	2.40	0.93
81:DA:2612:U:H1'	81:DA:2803:A:N3	1.82	0.93
15:AN:53:ASN:O	15:AN:54:LYS:CA	2.16	0.93
72:Bu:14:LEU:HD21	72:Bu:29:LEU:CD1	1.99	0.93
72:Bt:26:LEU:O	72:Bt:30:THR:HG23	1.69	0.93
12:AK:124:ASP:OD1	78:CA:929:A:C4	2.22	0.93
78:CA:1308:G:C6	78:CA:1318:G:C6	2.52	0.93
78:CA:1292:G:C4	78:CA:1324:G:N2	2.36	0.93
81:DA:2869:U:O2	81:DA:2873:U:C5	2.21	0.93
12:AK:36:LYS:HZ3	78:CA:900:A:C5'	1.78	0.93
21:AT:9:VAL:C	21:AT:10:GLU:CA	2.42	0.93
37:BH:134:TYR:HE1	81:DA:146:U:H5''	1.27	0.93
78:CA:1780:G:C2	78:CA:1781:A:C4	2.57	0.93
72:Bt:14:LEU:HD21	72:Bt:29:LEU:CD1	1.99	0.93

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AF:98:MET:HE1	78:CA:1611:A:H5'	1.48	0.93
15:AN:54:LYS:N	15:AN:54:LYS:O	2.01	0.93
38:Bs:242:ASN:OD1	73:Bw:4:LEU:HB2	1.66	0.93
42:BM:95:PHE:CD2	51:BZ:22:VAL:HG13	2.04	0.93
38:Bs:214:VAL:CG1	73:Bv:58:ASN:CA	2.46	0.92
38:Bs:214:VAL:HG12	73:Bv:58:ASN:C	1.95	0.92
38:Bs:246:LEU:CD1	72:Bu:9:TYR:CE1	2.52	0.92
43:BP:74:PRO:CB	43:BP:74:PRO:C	2.40	0.92
45:BR:90:ASP:CB	81:DA:677:A:N7	2.33	0.92
14:AM:14:ILE:HG12	34:BE:115:LYS:N	1.84	0.92
72:Bu:26:LEU:O	72:Bu:30:THR:HG23	1.69	0.92
44:BO:124:ILE:HD13	75:BL:147:UNK:CA	1.98	0.92
78:CA:1455:G:C8	78:CA:1559:A:N6	2.37	0.92
81:DA:1949:G:H1	81:DA:2097:U:H3	1.16	0.92
14:AM:16:ARG:NH1	34:BE:111:ASP:H	1.57	0.92
19:AR:59:LYS:CG	78:CA:1551:U:H5	1.77	0.92
38:Bs:246:LEU:HD22	72:Bu:8:SER:C	1.95	0.92
38:Bs:230:PRO:CB	73:Bw:44:ALA:HB2	2.00	0.92
56:Bf:62:LEU:HD23	60:Bi:31:ARG:CD	1.99	0.92
13:AL:7:ARG:CB	18:AP:76:VAL:HG22	1.99	0.92
14:AM:14:ILE:HD11	34:BE:109:HIS:NE2	1.84	0.92
14:AM:14:ILE:CG1	34:BE:115:LYS:H	1.82	0.92
33:BD:162:THR:HG21	81:DA:209:A:C8	2.04	0.92
43:BP:80:THR:CB	43:BP:80:THR:C	2.42	0.92
81:DA:1870:C:C3'	81:DA:1871:U:C5	2.51	0.92
81:DA:3304:U:C3'	81:DA:3304:U:C5'	2.48	0.92
13:AL:7:ARG:HA	18:AP:76:VAL:HG13	1.51	0.92
79:CB:55:C:C1'	79:CB:55:C:C2'	0.92	0.92
72:Bt:13:ILE:HD12	73:Bv:9:LEU:HD11	1.50	0.92
12:AK:36:LYS:HZ1	78:CA:900:A:H5''	1.32	0.92
43:BP:49:ARG:HG2	81:DA:114:A:C2'	2.00	0.92
78:CA:1747:G:C5'	81:DA:2302:G:H21	1.82	0.92
81:DA:3215:A:C1'	81:DA:3215:A:O4'	1.96	0.92
35:BG:55:LEU:CB	35:BG:98:VAL:HG22	2.00	0.91
72:Bt:29:LEU:HD21	73:Bv:29:VAL:HG23	1.51	0.91
72:Bu:5:SER:O	72:Bu:9:TYR:CD2	2.23	0.91
72:Bt:5:SER:O	72:Bt:9:TYR:CD2	2.23	0.91
57:Be:98:LYS:CA	57:Be:99:PRO:N	2.33	0.91
78:CA:1747:G:H5'	81:DA:2302:G:N2	1.84	0.91
33:BD:162:THR:HG21	81:DA:209:A:H8	1.31	0.91
42:BM:95:PHE:CA	51:BZ:22:VAL:HG13	2.00	0.91

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:Ba:74:VAL:HG23	60:Bi:41:ARG:HH22	1.36	0.91
42:BM:93:LEU:HD22	51:BZ:20:LEU:HD22	1.49	0.91
72:Bt:13:ILE:HD11	73:Bv:6:ALA:N	1.86	0.91
5:AC:52:ILE:CG1	78:CA:1:U:O2	2.17	0.91
14:AM:14:ILE:CG1	34:BE:115:LYS:N	2.34	0.91
14:AM:133:VAL:HB	78:CA:1545:A:C5'	2.00	0.91
72:Bt:13:ILE:CD1	73:Bv:5:ALA:C	2.42	0.91
74:BQ:128:GLU:O	74:BQ:129:TYR:CA	2.16	0.91
78:CA:929:A:C6	78:CA:930:A:N1	2.37	0.91
14:AM:13:HIS:C	34:BE:116:TYR:CE1	2.49	0.91
32:BC:298:PHE:CB	32:BC:298:PHE:C	2.43	0.91
10:AI:139:GLN:OE1	78:CA:1580:C:H5''	1.71	0.91
35:BG:99:GLU:HB2	35:BG:100:LYS:N	1.85	0.91
78:CA:1308:G:C5	78:CA:1318:G:N2	2.39	0.91
10:AI:135:ARG:NH2	78:CA:1588:G:N7	2.15	0.90
72:Bt:9:TYR:HB3	73:Bv:9:LEU:CG	2.01	0.90
72:Bt:9:TYR:C	73:Bv:9:LEU:CD2	2.39	0.90
19:AR:130:ARG:HH11	78:CA:1558:U:H5'	1.30	0.90
78:CA:1157:A:N7	78:CA:1617:U:N3	2.19	0.90
38:Bs:214:VAL:CG1	73:Bv:58:ASN:N	2.34	0.90
53:Ba:81:LEU:CD2	60:Bi:34:HIS:HD2	1.83	0.90
60:Bi:16:ARG:CB	60:Bi:16:ARG:C	2.43	0.90
81:DA:2612:U:O4'	81:DA:2803:A:C2	2.20	0.90
38:Bs:223:ILE:HD11	72:Bt:12:LEU:CD2	2.02	0.90
81:DA:1297:C:H2'	81:DA:1298:C:C6	2.06	0.90
81:DA:1683:A:C8	81:DA:1684:U:C5	2.59	0.90
12:AK:33:LEU:CD2	78:CA:903:U:H5	1.84	0.90
13:AL:22:ASN:O	13:AL:23:ARG:N	2.05	0.90
33:BD:29:PRO:HA	45:BR:25:TYR:HH	1.27	0.90
78:CA:45:U:C2'	78:CA:45:U:N1	2.34	0.90
81:DA:2531:C:H1'	81:DA:2580:A:N6	1.87	0.90
3:AB:205:ALA:N	3:AB:205:ALA:C	2.29	0.90
16:AO:114:ARG:NH1	78:CA:940:A:N7	2.19	0.90
81:DA:2637:A:C2'	81:DA:2637:A:N9	2.35	0.90
38:Bs:214:VAL:HG12	73:Bv:58:ASN:O	1.72	0.90
42:BM:95:PHE:HA	51:BZ:22:VAL:CG1	2.00	0.90
31:BB:6:ARG:HG2	81:DA:914:A:H61	1.37	0.89
72:Bt:29:LEU:CD2	73:Bv:29:VAL:HG22	2.01	0.89
74:BQ:129:TYR:N	74:BQ:129:TYR:O	2.03	0.89
78:CA:901:G:C6	78:CA:902:G:C2	2.61	0.89
19:AR:58:LYS:HD3	78:CA:1549:C:C4	2.06	0.89

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AR:130:ARG:O	78:CA:1558:U:C1'	2.20	0.89
34:BE:89:TYR:CB	34:BE:89:TYR:C	2.45	0.89
78:CA:904:G:C6	78:CA:905:A:C4	2.59	0.89
81:DA:653:A:H61	81:DA:1442:U:H3	1.17	0.89
23:AW:15:UNK:O	23:AW:16:UNK:N	2.05	0.89
31:BB:188:LYS:HD3	81:DA:1793:C:HO2'	1.16	0.89
37:BH:134:TYR:CE1	81:DA:146:U:C5'	2.55	0.89
38:Bs:214:VAL:HG13	73:Bv:58:ASN:N	1.87	0.89
38:Bs:229:TYR:HE1	72:Bt:44:ILE:CG2	1.58	0.89
5:AC:53:ARG:NH2	78:CA:658:C:H5''	1.86	0.89
8:AF:83:ARG:NH2	25:AY:9:LEU:HD21	1.86	0.89
13:AL:7:ARG:HD2	18:AP:76:VAL:HG23	1.52	0.89
63:Bm:51:ALA:HB1	81:DA:1795:U:O4	1.69	0.89
72:Bt:41:TRP:HB3	72:Bt:45:PHE:HE2	1.37	0.89
78:CA:1190:C:C5'	78:CA:1190:C:O4'	2.20	0.89
78:CA:1203:A:C6	78:CA:1556:A:C6	2.60	0.89
4:AD:187:ARG:NE	78:CA:652:G:O6	2.04	0.89
5:AC:20:GLU:O	78:CA:555:A:H5''	1.73	0.89
78:CA:929:A:C6	78:CA:930:A:C6	2.60	0.89
78:CA:1780:G:C2	78:CA:1781:A:N3	2.40	0.89
17:AQ:82:ASP:CB	17:AQ:82:ASP:C	2.46	0.89
41:BN:12:TRP:CG	41:BN:19:ARG:HH22	1.90	0.89
44:BO:4:ARG:NH2	81:DA:661:G:C6	2.41	0.89
63:Bm:51:ALA:CB	81:DA:1795:U:N3	2.36	0.89
81:DA:345:G:O2'	82:DB:25:G:C2	2.26	0.89
33:BD:29:PRO:HB2	45:BR:25:TYR:HE1	1.07	0.89
31:BB:193:ARG:CZ	81:DA:2174:G:H3'	2.02	0.89
34:BE:9:MET:HE2	83:DC:54:A:N1	1.87	0.89
35:BG:55:LEU:HB3	35:BG:98:VAL:HG22	1.53	0.89
78:CA:904:G:C6	78:CA:905:A:C2	2.60	0.89
78:CA:1003:A:N7	78:CA:1005:A:C6	2.41	0.89
81:DA:3347:A:H61	81:DA:3358:U:H3	1.17	0.88
5:AC:53:ARG:HH22	78:CA:658:C:C4'	1.86	0.88
60:Bi:68:THR:O	60:Bi:68:THR:HB	1.70	0.88
60:Bi:78:GLY:O	60:Bi:79:SER:CA	2.19	0.88
19:AR:89:MET:HG2	78:CA:1555:A:O2'	1.73	0.88
37:BH:138:HIS:HD2	81:DA:147:U:C4'	1.86	0.88
44:BO:2:PRO:HG2	81:DA:802:C:N4	1.87	0.88
48:BW:90:ARG:O	48:BW:90:ARG:HB2	1.71	0.88
14:AM:133:VAL:HG21	78:CA:1545:A:H4'	1.56	0.88
72:Bu:17:SER:HB2	73:Bw:31:ILE:HD11	0.90	0.88

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:2623:G:C2'	81:DA:2623:G:N9	2.36	0.88
38:Bs:229:TYR:OH	72:Bt:44:ILE:HG22	1.74	0.88
5:AC:53:ARG:NH2	78:CA:658:C:H4'	1.87	0.88
5:AC:157:ASP:CB	5:AC:157:ASP:C	2.47	0.88
72:Bu:13:ILE:HD12	73:Bw:9:LEU:CD1	2.03	0.88
74:BQ:128:GLU:CB	74:BQ:128:GLU:C	2.47	0.88
78:CA:1170:G:N2	78:CA:1574:G:N3	2.21	0.88
29:AU:10:ARG:HH12	78:CA:164:A:C5'	1.86	0.88
33:BD:89:ALA:CB	33:BD:89:ALA:C	2.46	0.88
47:BU:60:LYS:HA	81:DA:1062:A:N3	1.87	0.88
81:DA:3165:A:H61	81:DA:3285:C:H42	1.15	0.88
61:Bj:66:VAL:CG2	61:Bj:66:VAL:CG1	2.51	0.88
81:DA:1870:C:O3'	81:DA:1871:U:C5	2.26	0.88
4:AD:146:THR:HG21	78:CA:295:A:C6	2.08	0.88
43:BP:50:ARG:HA	81:DA:267:G:H21	1.36	0.88
72:Bt:41:TRP:O	72:Bt:45:PHE:CE2	2.26	0.88
48:BW:90:ARG:CB	48:BW:90:ARG:C	2.46	0.88
78:CA:1308:G:N1	78:CA:1318:G:C4	2.41	0.88
1:Aa:60:SER:HB2	10:AI:107:LYS:HD3	1.53	0.87
13:AL:7:ARG:HA	18:AP:76:VAL:CG1	2.04	0.87
33:BD:112:LYS:NZ	81:DA:790:U:H5'	1.88	0.87
36:BF:58:HIS:CE1	76:BS:160:PRO:O	2.27	0.87
11:AJ:81:THR:O	11:AJ:82:TYR:N	2.06	0.87
32:BC:266:ARG:CD	32:BC:266:ARG:NH1	2.37	0.87
81:DA:1625:A:N6	81:DA:1819:U:O4	2.06	0.87
4:AD:206:ASP:CB	78:CA:682:C:O2'	2.22	0.87
40:BK:18:ARG:NE	81:DA:1181:U:C5	2.36	0.87
14:AM:16:ARG:CZ	34:BE:111:ASP:H	1.80	0.87
38:Bs:214:VAL:HG11	73:Bv:58:ASN:CA	2.01	0.87
56:Bf:62:LEU:CA	60:Bi:31:ARG:HH21	1.80	0.87
78:CA:840:U:O2'	78:CA:841:U:H5'	1.75	0.87
4:AD:199:GLU:OE1	78:CA:683:C:O2'	1.93	0.87
5:AC:24:LEU:HD11	78:CA:555:A:H1'	1.56	0.87
72:Bu:13:ILE:CD1	73:Bw:6:ALA:N	2.35	0.87
83:DC:26:C:H42	83:DC:53:U:H3	1.21	0.87
14:AM:133:VAL:CG2	78:CA:1545:A:H5''	2.03	0.87
7:AG:75:UNK:N	7:AG:75:UNK:C	2.38	0.87
72:Bt:10:ALA:N	73:Bv:9:LEU:CD2	2.37	0.87
72:Bt:29:LEU:CD2	73:Bv:29:VAL:HG23	2.03	0.87
72:Bu:9:TYR:CE1	73:Bw:8:LEU:CB	2.58	0.87
8:AF:83:ARG:HH21	25:AY:9:LEU:HD21	1.38	0.87

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AM:14:ILE:CB	34:BE:115:LYS:N	2.36	0.87
78:CA:1147:A:N6	78:CA:1630:U:H3	1.72	0.87
81:DA:169:U:C2'	81:DA:169:U:N1	2.37	0.86
56:Bf:62:LEU:CA	60:Bi:31:ARG:HE	1.83	0.86
72:Bt:7:LEU:CD1	72:Bt:45:PHE:HE2	1.87	0.86
81:DA:2648:G:C2'	81:DA:2648:G:N9	2.38	0.86
38:Bs:246:LEU:HD22	72:Bu:8:SER:HB2	1.57	0.86
72:Bu:14:LEU:CD2	72:Bu:29:LEU:CD1	2.53	0.86
78:CA:552:G:H1	78:CA:572:C:H42	1.21	0.86
81:DA:1788:C:H2'	81:DA:1789:G:C8	2.10	0.86
5:AC:24:LEU:HD12	78:CA:555:A:C1'	2.04	0.86
7:AG:74:UNK:C	7:AG:75:UNK:CA	2.54	0.86
35:BG:46:ARG:CD	81:DA:3215:A:H61	1.88	0.86
72:Bt:13:ILE:HG13	73:Bv:5:ALA:HB1	0.87	0.86
74:BQ:128:GLU:CB	74:BQ:128:GLU:N	2.38	0.86
81:DA:2439:A:H2'	81:DA:2440:G:C8	2.11	0.86
78:CA:1780:G:C6	78:CA:1781:A:C2	2.62	0.86
29:AU:16:PRO:CG	29:AU:93:ARG:HB2	2.05	0.86
72:Bt:41:TRP:C	72:Bt:45:PHE:HD2	1.81	0.86
78:CA:1158:C:C6	78:CA:1582:U:C5	2.63	0.86
83:DC:29:C:H2'	83:DC:30:G:H8	1.40	0.86
31:BB:204:MET:HE1	81:DA:914:A:H1'	1.58	0.86
38:Bs:230:PRO:HB2	73:Bw:44:ALA:HB2	1.55	0.86
20:AS:43:ASN:HA	78:CA:1477:G:C4'	2.03	0.86
1:Aa:59:ARG:HA	10:AI:107:LYS:HE3	1.56	0.86
32:BC:266:ARG:CZ	81:DA:2989:U:H6	1.87	0.86
78:CA:1161:C:N3	78:CA:1616:G:N2	2.22	0.86
81:DA:1054:A:C2'	81:DA:1054:A:N9	2.39	0.86
14:AM:12:GLN:CD	34:BE:116:TYR:CE1	2.53	0.86
72:Bt:14:LEU:CD2	72:Bt:29:LEU:CD1	2.53	0.86
81:DA:2220:A:N6	81:DA:2221:G:N2	2.23	0.86
78:CA:1157:A:H8	78:CA:1617:U:O4	1.53	0.85
81:DA:2187:G:C2'	81:DA:2187:G:N9	2.38	0.85
38:Bs:206:ASP:OD1	73:Bv:44:ALA:HB2	1.75	0.85
59:Bh:21:HIS:CE1	81:DA:637:C:H1'	2.12	0.85
6:AE:217:ALA:HB3	78:CA:2:A:H62	1.38	0.85
13:AL:13:ARG:NH1	18:AP:71:LEU:HD22	1.89	0.85
37:BH:138:HIS:CD2	81:DA:147:U:O5'	2.29	0.85
44:BO:124:ILE:HD12	75:BL:148:UNK:H	1.38	0.85
53:Ba:74:VAL:HB	60:Bi:67:LYS:NZ	1.91	0.85
78:CA:1185:U:O4	78:CA:1458:G:C4	2.29	0.85

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AW:62:UNK:HA	78:CA:1800:A:H5'	1.57	0.85
22:AV:105:THR:C	22:AV:105:THR:HB	1.99	0.85
31:BB:128:ARG:HD3	81:DA:2177:G:H2'	1.55	0.85
56:Bf:62:LEU:CD2	60:Bi:31:ARG:CG	2.51	0.85
4:AD:153:ASN:O	4:AD:153:ASN:HB3	1.74	0.85
13:AL:13:ARG:NH2	18:AP:78:THR:HG21	1.76	0.85
19:AR:58:LYS:CG	78:CA:1550:A:N7	2.40	0.85
19:AR:59:LYS:HG2	78:CA:1551:U:H6	1.38	0.85
53:Ba:81:LEU:CD1	60:Bi:34:HIS:CG	2.58	0.85
78:CA:1780:G:C6	78:CA:1781:A:C5	2.65	0.85
29:AU:16:PRO:HG3	29:AU:93:ARG:HB2	1.57	0.85
38:Bs:94:THR:HB	73:Bv:43:SER:HB2	1.58	0.85
38:Bs:252:ALA:HB2	72:Bu:57:LEU:HD22	1.56	0.85
59:Bh:21:HIS:CE1	81:DA:637:C:O2	2.30	0.85
72:Bt:44:ILE:N	73:Bw:36:GLU:OE1	2.10	0.85
6:AE:188:LEU:HD11	78:CA:1298:U:O2	1.48	0.85
19:AR:59:LYS:CG	78:CA:1551:U:C6	2.59	0.85
56:Bf:61:MET:C	60:Bi:31:ARG:NH2	2.35	0.85
78:CA:1158:C:C4	78:CA:1582:U:C4	2.65	0.85
81:DA:3304:U:C3'	81:DA:3304:U:C1'	2.55	0.84
31:BB:188:LYS:CE	81:DA:1793:C:O2'	2.23	0.84
42:BM:94:TYR:CZ	51:BZ:21:PHE:N	2.34	0.84
72:Bt:41:TRP:O	72:Bt:45:PHE:HD2	1.24	0.84
72:Bt:47:LYS:CB	73:Bw:37:LYS:HE3	2.06	0.84
78:CA:56:U:O4	78:CA:92:A:C4'	2.26	0.84
81:DA:2206:G:N2	81:DA:2208:A:H61	1.75	0.84
6:AE:217:ALA:HB2	78:CA:2:A:H61	1.35	0.84
72:Bu:29:LEU:CD2	73:Bw:29:VAL:HG22	2.04	0.84
33:BD:112:LYS:HZ2	81:DA:790:U:H5'	1.38	0.84
38:Bs:246:LEU:CD1	72:Bu:9:TYR:CZ	2.60	0.84
9:AH:84:GLY:HA3	13:AL:6:PRO:O	1.78	0.84
56:Bf:62:LEU:CD2	60:Bi:31:ARG:CD	2.55	0.84
81:DA:2450:G:N2	81:DA:2496:C:O2	2.10	0.84
16:AO:112:LYS:HE2	16:AO:115:LEU:HB3	1.59	0.84
78:CA:631:G:C2'	78:CA:631:G:N9	2.40	0.84
78:CA:999:U:O2	78:CA:1005:A:N6	2.11	0.84
78:CA:1702:A:C2'	78:CA:1702:A:N9	2.40	0.84
14:AM:22:VAL:HG13	34:BE:115:LYS:HD2	1.58	0.84
34:BE:89:TYR:O	34:BE:89:TYR:HB3	1.76	0.84
48:BW:90:ARG:CB	48:BW:90:ARG:N	2.41	0.84
4:AD:93:ASP:CB	4:AD:93:ASP:N	2.41	0.84

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AL:7:ARG:HG2	18:AP:76:VAL:HG22	1.56	0.84
16:AO:117:LEU:CB	78:CA:939:A:C6	2.60	0.84
47:BU:116:ARG:CZ	81:DA:1095:U:C4'	2.55	0.84
7:AG:14:UNK:CB	46:BT:188:ASP:CG	2.51	0.83
36:BF:69:ARG:HG2	81:DA:3113:A:H4'	1.59	0.83
47:BU:8:ARG:HG2	81:DA:2631:U:H5''	1.58	0.83
81:DA:207:U:H3	81:DA:222:A:H61	1.26	0.83
13:AL:13:ARG:HG3	18:AP:76:VAL:HB	0.91	0.83
69:Br:47:GLN:CB	69:Br:47:GLN:C	2.51	0.83
72:Bu:13:ILE:HD11	73:Bw:6:ALA:CA	2.08	0.83
14:AM:14:ILE:HD13	34:BE:115:LYS:CA	2.07	0.83
20:AS:84:LYS:NZ	78:CA:1525:A:C4'	2.42	0.83
78:CA:372:G:O6	78:CA:373:G:C2	2.32	0.83
81:DA:1255:C:O2'	81:DA:1256:G:H5'	1.79	0.83
5:AC:53:ARG:NH2	78:CA:658:C:C4'	2.41	0.83
6:AE:217:ALA:CB	78:CA:2:A:C6	2.61	0.83
16:AO:117:LEU:HD21	78:CA:975:C:C1'	2.08	0.83
72:Bt:9:TYR:CB	73:Bv:9:LEU:CG	2.56	0.83
78:CA:899:G:C2'	78:CA:900:A:H5'	2.08	0.83
53:Ba:84:ARG:CZ	60:Bi:37:LYS:HE3	2.07	0.83
78:CA:976:G:H21	78:CA:1027:A:N6	1.75	0.83
43:BP:49:ARG:CB	81:DA:114:A:O2'	2.26	0.83
78:CA:587:C:C4	78:CA:588:U:C5	2.67	0.83
1:Aa:57:PRO:HB2	10:AI:107:LYS:HD2	1.59	0.83
38:Bs:227:ILE:CG2	72:Bt:48:ALA:HB1	2.07	0.83
57:Be:159:GLN:OE1	81:DA:1343:A:H2	1.62	0.83
72:Bt:23:SER:O	72:Bt:27:LEU:HG	1.77	0.83
13:AL:39:LYS:HD2	13:AL:110:LYS:HD3	1.60	0.83
72:Bu:23:SER:O	72:Bu:27:LEU:HG	1.77	0.83
82:DB:86:U:O2'	82:DB:86:U:O2	1.96	0.83
4:AD:221:ARG:NH2	78:CA:682:C:C1'	2.42	0.83
31:BB:62:VAL:CB	31:BB:62:VAL:C	2.51	0.83
42:BM:94:TYR:O	51:BZ:22:VAL:CG1	2.23	0.83
78:CA:1174:C:C4	78:CA:1466:G:C2	2.67	0.83
81:DA:2363:A:C2'	81:DA:2363:A:N9	2.41	0.83
13:AL:99:ASN:OD1	78:CA:1136:U:H5	1.62	0.82
57:Be:98:LYS:CA	57:Be:99:PRO:CD	2.56	0.82
78:CA:1181:U:H3	78:CA:1185:U:H3	1.27	0.82
78:CA:1780:G:N1	78:CA:1781:A:C4	2.46	0.82
56:Bf:62:LEU:O	60:Bi:31:ARG:NH2	2.11	0.82
78:CA:853:G:C2'	78:CA:853:G:N9	2.42	0.82

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:CA:933:A:N1	78:CA:935:U:O2	2.11	0.82
78:CA:1399:C:N4	78:CA:1401:A:H61	1.77	0.82
81:DA:3338:C:O2	81:DA:3366:G:N2	2.12	0.82
4:AD:153:ASN:CB	4:AD:153:ASN:N	2.42	0.82
32:BC:289:ASP:CB	32:BC:289:ASP:C	2.52	0.82
51:BZ:70:LYS:O	51:BZ:71:ARG:N	2.09	0.82
74:BQ:158:ARG:NE	83:DC:46:A:H5''	1.93	0.82
78:CA:1158:C:C5	78:CA:1582:U:C5	2.67	0.82
13:AL:7:ARG:HG2	18:AP:76:VAL:CG2	2.07	0.82
38:Bs:94:THR:CG2	73:Bv:43:SER:HB3	2.09	0.82
38:Bs:246:LEU:HD11	72:Bu:9:TYR:CE1	2.12	0.82
78:CA:57:G:O6	78:CA:91:G:C2	2.32	0.82
78:CA:140:A:C2'	78:CA:140:A:N9	2.42	0.82
33:BD:29:PRO:C	45:BR:25:TYR:OH	2.21	0.82
48:BW:81:LYS:HD2	81:DA:1688:U:O4	1.78	0.82
53:Ba:74:VAL:CB	60:Bi:67:LYS:HZ3	1.90	0.82
5:AC:24:LEU:HD12	78:CA:555:A:O4'	1.79	0.82
31:BB:173:GLY:O	63:Bm:69:TYR:CE2	2.30	0.82
66:Bo:4:GLN:CG	81:DA:1493:G:O6	2.26	0.82
72:Bt:19:ILE:CG2	72:Bt:25:LYS:CD	2.56	0.82
33:BD:297:SER:CB	45:BR:25:TYR:CE2	2.63	0.82
45:BR:90:ASP:HB2	81:DA:677:A:N7	1.93	0.82
59:Bh:20:HIS:CB	59:Bh:20:HIS:N	2.43	0.82
81:DA:637:C:H2'	81:DA:638:C:C6	2.15	0.82
4:AD:221:ARG:HH22	78:CA:682:C:C1'	1.92	0.82
53:Ba:81:LEU:HD11	60:Bi:34:HIS:CB	2.08	0.82
72:Bt:44:ILE:HG12	73:Bw:36:GLU:CB	2.10	0.82
12:AK:46:MET:CE	78:CA:918:U:H1'	2.09	0.82
16:AO:114:ARG:CD	78:CA:938:G:O2'	2.27	0.82
13:AL:7:ARG:CA	18:AP:76:VAL:HG13	2.10	0.81
38:Bs:39:HIS:NE2	81:DA:1261:G:O6	2.13	0.81
78:CA:1003:A:C5	78:CA:1005:A:C6	2.67	0.81
81:DA:1055:A:C2'	81:DA:1055:A:N9	2.43	0.81
37:BH:134:TYR:CE2	81:DA:147:U:P	2.73	0.81
45:BR:105:ARG:NH2	81:DA:675:C:C5	2.49	0.81
53:Ba:21:LYS:HG3	53:Ba:63:ALA:H	1.44	0.81
72:Bu:9:TYR:C	73:Bw:9:LEU:HD11	2.04	0.81
72:Bu:10:ALA:N	73:Bw:9:LEU:CD2	2.44	0.81
78:CA:1203:A:C6	78:CA:1556:A:N1	2.48	0.81
81:DA:1683:A:N7	81:DA:1684:U:C4	2.47	0.81
81:DA:1859:A:C2'	81:DA:1859:A:N9	2.43	0.81

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AA:10:THR:C	2:AA:11:PRO:HD3	2.03	0.81
14:AM:144:ARG:CD	78:CA:1570:A:H4'	2.11	0.81
78:CA:587:C:C4	78:CA:588:U:C4	2.69	0.81
78:CA:1308:G:C4	78:CA:1318:G:N2	2.49	0.81
19:AR:58:LYS:CD	78:CA:1549:C:C4	2.63	0.81
38:Bs:94:THR:HG21	73:Bv:43:SER:CB	2.10	0.81
38:Bs:206:ASP:OD1	73:Bv:44:ALA:CB	2.27	0.81
38:Bs:230:PRO:CG	73:Bw:44:ALA:HB2	2.11	0.81
81:DA:3305:A:H2'	81:DA:3306:U:C6	2.16	0.81
78:CA:904:G:O6	78:CA:905:A:C6	2.33	0.81
81:DA:209:A:C2'	81:DA:209:A:N9	2.43	0.81
4:AD:235:TYR:O	4:AD:236:ILE:HG13	1.81	0.81
13:AL:19:ARG:NH2	78:CA:1106:U:O4	2.12	0.81
14:AM:14:ILE:HB	34:BE:115:LYS:N	1.93	0.81
42:BM:95:PHE:CG	51:BZ:22:VAL:CG1	2.64	0.81
83:DC:30:G:H1	83:DC:47:C:H42	1.29	0.81
14:AM:144:ARG:HD3	78:CA:1570:A:H4'	1.61	0.81
41:BN:43:LYS:HB2	76:BS:97:ARG:HH22	1.45	0.81
14:AM:14:ILE:HD13	34:BE:115:LYS:HB2	1.62	0.81
53:Ba:14:VAL:H	53:Ba:21:LYS:HD3	1.45	0.81
78:CA:901:G:C6	78:CA:902:G:N1	2.49	0.81
31:BB:204:MET:SD	81:DA:914:A:C4	2.74	0.81
38:Bs:39:HIS:CD2	81:DA:1261:G:O6	2.34	0.81
45:BR:90:ASP:CB	81:DA:677:A:C8	2.64	0.81
81:DA:1870:C:O3'	81:DA:1871:U:C6	2.34	0.81
18:AP:59:PRO:HG2	78:CA:326:G:C5'	2.10	0.80
29:AU:16:PRO:CB	29:AU:93:ARG:HB2	2.11	0.80
72:Bt:33:ALA:O	72:Bt:34:ASN:HB2	1.80	0.80
72:Bu:14:LEU:HD23	72:Bu:29:LEU:HD11	1.62	0.80
34:BE:89:TYR:CA	34:BE:89:TYR:CG	2.65	0.80
38:Bs:246:LEU:CD1	72:Bu:9:TYR:CD1	2.63	0.80
5:AC:4:ALA:HB1	5:AC:8:TYR:CE1	2.16	0.80
72:Bt:43:ASP:HB3	73:Bw:36:GLU:CD	2.02	0.80
35:BG:99:GLU:CB	35:BG:99:GLU:C	2.53	0.80
81:DA:2466:G:N2	81:DA:2489:C:O2	2.13	0.80
9:AH:6:VAL:HG21	78:CA:1036:A:H1'	1.63	0.80
38:Bs:229:TYR:OH	72:Bt:44:ILE:CG2	2.29	0.80
44:BO:20:GLY:O	44:BO:21:ARG:CA	2.11	0.80
78:CA:1172:G:N2	78:CA:1468:U:C2	2.49	0.80
78:CA:1203:A:C2	78:CA:1556:A:C4	2.69	0.80
19:AR:89:MET:HG3	78:CA:1555:A:HO2'	1.44	0.80

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:Bt:14:LEU:HD23	72:Bt:29:LEU:HD11	1.62	0.80
81:DA:509:U:H3	81:DA:582:G:H1	1.28	0.80
81:DA:1399:A:H61	81:DA:1411:C:H42	1.28	0.80
5:AC:157:ASP:CB	5:AC:157:ASP:N	2.45	0.80
81:DA:3304:U:C4'	81:DA:3304:U:C1'	2.59	0.80
4:AD:207:LEU:HD11	78:CA:683:C:C1'	2.11	0.80
20:AS:43:ASN:N	78:CA:1477:G:H5'	1.95	0.80
78:CA:1171:A:C2	78:CA:1469:A:C6	2.69	0.80
81:DA:636:C:H2'	81:DA:637:C:H5''	1.63	0.80
21:AT:9:VAL:O	21:AT:10:GLU:HA	1.81	0.80
33:BD:323:VAL:N	33:BD:323:VAL:O	2.14	0.80
72:Bt:17:SER:HB2	73:Bv:31:ILE:HD12	1.64	0.80
78:CA:1161:C:N4	78:CA:1616:G:H1	1.78	0.80
81:DA:209:A:N1	81:DA:212:G:N7	2.30	0.80
81:DA:2482:U:O2	81:DA:2486:A:N6	2.13	0.80
31:BB:85:GLY:CA	63:Bm:62:LYS:NZ	2.42	0.79
31:BB:196:TRP:O	31:BB:196:TRP:HB3	1.81	0.79
72:Bt:49:LEU:HA	72:Bt:52:GLN:OE1	1.83	0.79
81:DA:2693:C:H2'	81:DA:2755:C:C5	2.16	0.79
6:AE:24:ARG:HB3	9:AH:68:ARG:C	2.07	0.79
77:BI:106:ALA:CA	77:BI:108:ALA:HB3	2.11	0.79
81:DA:3052:G:H1	81:DA:3090:U:H3	1.28	0.79
78:CA:1003:A:C6	78:CA:1005:A:N3	2.51	0.79
81:DA:832:G:H1	81:DA:862:U:H3	1.28	0.79
5:AC:166:GLY:HA2	78:CA:586:G:C4'	2.07	0.79
61:Bj:66:VAL:CG2	61:Bj:66:VAL:CA	2.57	0.79
72:Bu:6:ALA:O	73:Bw:9:LEU:CD2	2.28	0.79
77:BI:106:ALA:HB3	77:BI:108:ALA:HB1	1.58	0.79
78:CA:587:C:N4	78:CA:588:U:O4	2.15	0.79
78:CA:1170:G:N2	78:CA:1574:G:C2	2.51	0.79
1:Aa:60:SER:HB2	10:AI:107:LYS:CD	2.11	0.79
19:AR:129:GLY:O	78:CA:1558:U:O2	2.00	0.79
36:BF:46:THR:CA	41:BN:7:VAL:CG2	2.60	0.79
57:Be:98:LYS:C	57:Be:98:LYS:CB	2.56	0.79
9:AH:6:VAL:CG1	78:CA:1036:A:O2'	2.27	0.79
12:AK:36:LYS:HZ1	78:CA:900:A:C5'	1.86	0.79
78:CA:1149:G:H1	78:CA:1628:U:H3	1.28	0.79
78:CA:1170:G:C2	78:CA:1574:G:C4	2.71	0.79
78:CA:1292:G:N1	78:CA:1324:G:C2	2.51	0.79
14:AM:16:ARG:CZ	34:BE:111:ASP:N	2.32	0.79
32:BC:3:HIS:CA	32:BC:3:HIS:CG	2.64	0.79

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:Bu:9:TYR:CD1	73:Bw:8:LEU:CB	2.65	0.79
65:Bn:42:LYS:HB2	65:Bn:54:LEU:HD13	1.65	0.79
78:CA:1295:G:O2'	78:CA:1321:A:C6	2.35	0.79
6:AE:92:ALA:O	6:AE:92:ALA:HB1	1.82	0.79
12:AK:33:LEU:CD2	78:CA:903:U:C4	2.66	0.79
56:Bf:35:ARG:HH22	60:Bi:66:SER:CB	1.93	0.79
72:Bu:19:ILE:CG2	72:Bu:25:LYS:CD	2.56	0.79
78:CA:904:G:C6	78:CA:905:A:C5	2.70	0.79
78:CA:145:A:N6	78:CA:169:A:C8	2.51	0.78
5:AC:166:GLY:CA	78:CA:586:G:H4'	2.10	0.78
35:BG:46:ARG:CD	81:DA:3215:A:N6	2.45	0.78
78:CA:1292:G:C5	78:CA:1324:G:N1	2.51	0.78
10:AI:141:SER:HA	78:CA:1579:U:O2'	1.83	0.78
35:BG:69:PHE:CE1	35:BG:76:LEU:HD21	2.19	0.78
38:Bs:214:VAL:CG1	73:Bv:58:ASN:C	2.55	0.78
40:BK:18:ARG:CZ	81:DA:1181:U:C5	2.66	0.78
60:Bi:108:GLN:CB	60:Bi:108:GLN:C	2.52	0.78
60:Bi:108:GLN:O	60:Bi:108:GLN:HB3	1.84	0.78
72:Bt:7:LEU:HD12	72:Bt:45:PHE:HZ	1.41	0.78
72:Bu:33:ALA:O	72:Bu:34:ASN:HB2	1.80	0.78
81:DA:798:G:H2'	81:DA:799:G:C8	2.18	0.78
4:AD:206:ASP:CG	78:CA:682:C:HO2'	1.90	0.78
72:Bu:35:VAL:HG13	72:Bu:36:PRO:HD3	1.65	0.78
78:CA:372:G:C6	78:CA:373:G:C4	2.72	0.78
78:CA:1203:A:C5	78:CA:1556:A:N1	2.51	0.78
81:DA:1069:C:H42	81:DA:1091:A:H61	1.30	0.78
16:AO:65:VAL:HG11	24:AX:51:GLN:H	1.48	0.78
19:AR:130:ARG:C	78:CA:1558:U:O2	2.26	0.78
53:Ba:60:LYS:HA	53:Ba:61:LYS:HG2	1.63	0.78
5:AC:168:ARG:HD2	5:AC:168:ARG:O	1.83	0.78
13:AL:13:ARG:NE	18:AP:74:THR:HG21	1.99	0.78
80:CC:18:C:O3'	80:CC:19:U:OP1	2.01	0.78
5:AC:52:ILE:CD1	78:CA:1:U:O2	2.32	0.78
2:AA:88:LYS:HZ2	2:AA:217:GLU:HB3	1.48	0.78
13:AL:13:ARG:NH2	18:AP:78:THR:CB	2.46	0.78
72:Bu:49:LEU:HA	72:Bu:52:GLN:OE1	1.83	0.78
32:BC:3:HIS:O	32:BC:3:HIS:HB3	1.82	0.78
41:BN:39:ILE:HG23	76:BS:74:ILE:HG12	1.66	0.78
72:Bt:14:LEU:CD1	72:Bt:26:LEU:HD23	2.14	0.78
78:CA:1552:U:C4	78:CA:1553:G:O6	2.36	0.78
35:BG:145:LEU:HD11	41:BN:114:ASP:N	2.00	0.77

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:Bs:212:HIS:HB3	73:Bv:4:LEU:HD11	1.64	0.77
38:Bs:251:ILE:HD12	72:Bu:61:PHE:HD1	1.48	0.77
78:CA:1158:C:C4	78:CA:1582:U:N3	2.53	0.77
78:CA:1185:U:C4	78:CA:1458:G:C4	2.72	0.77
37:BH:158:ASP:CB	37:BH:158:ASP:O	2.30	0.77
81:DA:519:A:H2'	81:DA:520:U:H5'	1.66	0.77
32:BC:266:ARG:CZ	81:DA:2988:C:H2'	2.14	0.77
32:BC:298:PHE:O	32:BC:298:PHE:HB3	1.84	0.77
72:Bt:44:ILE:HG12	73:Bw:37:LYS:N	1.99	0.77
32:BC:298:PHE:CA	32:BC:298:PHE:CG	2.67	0.77
41:BN:39:ILE:HG21	76:BS:97:ARG:HH21	1.48	0.77
69:Br:47:GLN:CB	69:Br:47:GLN:N	2.46	0.77
81:DA:426:G:H5''	81:DA:427:C:C6	2.19	0.77
81:DA:2919:A:H61	81:DA:2927:C:H42	1.32	0.77
83:DC:46:A:C2'	83:DC:46:A:N9	2.48	0.77
20:AS:12:GLN:HG3	20:AS:13:ASP:H	1.47	0.77
33:BD:84:ARG:HB2	81:DA:365:A:O2'	1.85	0.77
40:BK:84:LEU:HD12	40:BK:102:LEU:HD22	1.65	0.77
43:BP:80:THR:CB	43:BP:80:THR:N	2.48	0.77
72:Bu:13:ILE:CD1	73:Bw:6:ALA:HA	2.15	0.77
74:BQ:128:GLU:O	74:BQ:129:TYR:C	2.28	0.77
78:CA:1170:G:H1'	78:CA:1574:G:O2'	1.84	0.77
81:DA:1232:C:H41	81:DA:1261:G:H2'	1.49	0.77
38:Bs:246:LEU:HD21	72:Bu:8:SER:C	2.09	0.77
72:Bu:9:TYR:CD1	73:Bw:8:LEU:HB3	2.20	0.77
78:CA:1003:A:C5	78:CA:1005:A:C5	2.73	0.77
81:DA:1997:U:H3	81:DA:2024:G:H1	1.33	0.77
1:Aa:44:SER:H	10:AI:107:LYS:NZ	1.82	0.77
31:BB:193:ARG:NH1	81:DA:2174:G:H2'	2.00	0.77
13:AL:7:ARG:CD	18:AP:76:VAL:HG23	2.09	0.77
81:DA:2612:U:H1'	81:DA:2803:A:H2	1.40	0.77
4:AD:93:ASP:CB	4:AD:93:ASP:C	2.58	0.77
8:AF:57:SER:OG	25:AY:57:MET:HA	1.84	0.77
10:AI:127:LYS:NZ	78:CA:1584:G:H4'	1.99	0.77
13:AL:99:ASN:OD1	78:CA:1136:U:C5	2.38	0.77
35:BG:97:ASN:HB2	35:BG:165:LEU:HD22	1.67	0.77
35:BG:145:LEU:HD12	41:BN:114:ASP:HA	1.62	0.77
72:Bt:6:ALA:O	73:Bv:9:LEU:HD22	1.85	0.77
72:Bt:35:VAL:HG13	72:Bt:36:PRO:HD3	1.65	0.77
72:Bt:43:ASP:CA	73:Bw:36:GLU:OE1	2.32	0.77
74:BQ:93:THR:HG23	83:DC:48:U:OP2	1.85	0.77

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:CA:1393:C:C2'	78:CA:1393:C:N1	2.48	0.77
81:DA:3062:G:H1	81:DA:3081:C:H42	1.33	0.77
83:DC:29:C:H2'	83:DC:30:G:C8	2.19	0.77
37:BH:89:GLU:N	37:BH:89:GLU:C	2.42	0.77
81:DA:988:U:H3	81:DA:1063:G:H1	1.33	0.77
13:AL:129:GLY:HA3	13:AL:135:LEU:N	2.00	0.76
20:AS:42:GLY:C	78:CA:1477:G:H5'	2.10	0.76
35:BG:145:LEU:HD11	41:BN:114:ASP:HA	1.64	0.76
37:BH:158:ASP:CB	37:BH:158:ASP:N	2.46	0.76
72:Bu:14:LEU:CD1	72:Bu:26:LEU:HD23	2.15	0.76
13:AL:11:SER:H	18:AP:79:LYS:HG2	1.49	0.76
31:BB:62:VAL:CA	31:BB:62:VAL:CG2	2.64	0.76
81:DA:3066:U:H3	81:DA:3075:G:H1	1.30	0.76
3:AB:158:ILE:HD13	3:AB:162:GLN:HG3	1.66	0.76
4:AD:206:ASP:HB3	78:CA:682:C:O2'	1.84	0.76
16:AO:58:HIS:CD2	16:AO:59:GLY:H	2.03	0.76
33:BD:346:LYS:HA	81:DA:577:C:H5''	1.67	0.76
41:BN:74:ARG:HD3	76:BS:154:VAL:HG11	1.66	0.76
53:Ba:74:VAL:HG23	60:Bi:41:ARG:NH2	2.00	0.76
56:Bf:62:LEU:HD22	60:Bi:31:ARG:O	1.84	0.76
69:Br:55:LYS:HB3	81:DA:2802:A:N3	2.00	0.76
78:CA:1544:U:H3	78:CA:1567:U:H3	1.33	0.76
81:DA:345:G:O2'	82:DB:25:G:N3	2.16	0.76
81:DA:2155:G:H1	81:DA:2181:C:H42	1.33	0.76
19:AR:130:ARG:O	78:CA:1558:U:C2	2.39	0.76
53:Ba:56:LYS:C	53:Ba:57:HIS:CE1	2.63	0.76
72:Bt:13:ILE:HG12	73:Bv:5:ALA:HB3	0.78	0.76
81:DA:2427:U:H3	81:DA:2602:G:H1	1.33	0.76
14:AM:101:LEU:CD2	78:CA:1566:U:H4'	2.16	0.76
81:DA:1975:C:H2'	81:DA:1976:G:H5'	1.66	0.76
32:BC:75:ALA:HB2	81:DA:3049:A:N1	2.01	0.76
33:BD:89:ALA:CB	33:BD:89:ALA:N	2.48	0.76
33:BD:323:VAL:N	33:BD:323:VAL:C	2.44	0.76
57:Be:159:GLN:OE1	81:DA:1343:A:C2	2.39	0.76
81:DA:1209:G:C2'	81:DA:1209:G:N9	2.48	0.76
16:AO:58:HIS:CG	16:AO:59:GLY:H	2.02	0.76
35:BG:21:THR:O	81:DA:503:C:H4'	1.85	0.76
14:AM:14:ILE:HD11	34:BE:109:HIS:CD2	2.20	0.76
29:AU:5:VAL:HG22	29:AU:35:VAL:HA	1.68	0.76
31:BB:193:ARG:CZ	81:DA:2174:G:C3'	2.63	0.76
37:BH:134:TYR:CD1	81:DA:146:U:H5''	2.20	0.76

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:Bs:220:ILE:HD11	72:Bt:9:TYR:HD1	1.47	0.76
60:Bi:4:ARG:HH22	81:DA:1628:C:H5''	1.48	0.76
60:Bi:16:ARG:CB	60:Bi:16:ARG:O	2.32	0.76
64:Bl:63:ARG:HG3	64:Bl:64:MET:H	1.51	0.76
78:CA:904:G:N1	78:CA:905:A:N3	2.33	0.76
81:DA:2934:A:C2'	81:DA:2934:A:N9	2.48	0.76
12:AK:46:MET:HE1	78:CA:918:U:C2	2.21	0.76
74:BQ:93:THR:HG23	83:DC:48:U:P	2.25	0.76
77:BI:6:ALA:N	81:DA:2855:U:OP2	2.17	0.76
78:CA:1648:A:N6	78:CA:1752:U:O4	2.15	0.76
38:Bs:229:TYR:HE1	72:Bt:44:ILE:CB	1.98	0.75
60:Bi:108:GLN:CA	60:Bi:108:GLN:CG	2.65	0.75
81:DA:636:C:C2'	81:DA:637:C:H5''	2.15	0.75
12:AK:36:LYS:HZ3	78:CA:900:A:H5''	0.91	0.75
20:AS:42:GLY:HA3	78:CA:1476:C:O2'	1.85	0.75
45:BR:90:ASP:CG	81:DA:677:A:N7	2.44	0.75
5:AC:53:ARG:NH2	78:CA:658:C:C5'	2.50	0.75
32:BC:3:HIS:CB	32:BC:3:HIS:N	2.48	0.75
61:Bj:74:THR:HG22	61:Bj:81:VAL:HG12	1.67	0.75
72:Bt:13:ILE:HD11	73:Bv:5:ALA:O	1.86	0.75
72:Bu:14:LEU:HD21	72:Bu:29:LEU:HD11	1.64	0.75
78:CA:46:A:C2'	78:CA:46:A:N9	2.49	0.75
20:AS:45:MET:HE1	20:AS:53:TRP:CG	2.21	0.75
32:BC:134:SER:HB2	81:DA:3150:A:H5''	1.68	0.75
42:BM:96:GLU:HA	51:BZ:21:PHE:HZ	1.49	0.75
78:CA:904:G:C6	78:CA:905:A:C6	2.75	0.75
78:CA:1292:G:C4	78:CA:1324:G:C2	2.75	0.75
78:CA:1307:U:N3	78:CA:1319:A:C2	2.55	0.75
81:DA:2279:A:C2	81:DA:2286:U:N3	2.53	0.75
38:Bs:217:VAL:HG21	73:Bv:54:ILE:HG12	1.69	0.75
72:Bt:17:SER:O	72:Bt:18:GLU:HB2	1.85	0.75
72:Bt:41:TRP:C	72:Bt:45:PHE:CE2	2.64	0.75
82:DB:98:U:C5	82:DB:99:C:C4	2.74	0.75
1:Aa:58:VAL:C	10:AI:107:LYS:HE3	2.10	0.75
5:AC:52:ILE:HD11	78:CA:1:U:O2	1.87	0.75
14:AM:122:HIS:H	19:AR:126:VAL:HG12	1.51	0.75
31:BB:37:ARG:O	70:Bx:9:UNK:CB	2.35	0.75
37:BH:158:ASP:CA	37:BH:158:ASP:CG	2.60	0.75
56:Bf:62:LEU:CD2	60:Bi:31:ARG:HD2	2.16	0.75
78:CA:373:G:N2	78:CA:374:U:C2	2.55	0.75
78:CA:1174:C:H42	78:CA:1465:C:H42	1.34	0.75

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:CA:1547:A:H2'	78:CA:1548:G:H5'	1.68	0.75
13:AL:14:LYS:HE2	18:AP:78:THR:OG1	1.86	0.75
31:BB:196:TRP:CB	31:BB:196:TRP:N	2.49	0.75
72:Bu:17:SER:O	72:Bu:18:GLU:HB2	1.84	0.75
77:BI:118:ALA:CB	81:DA:2645:G:O2'	2.35	0.75
81:DA:2191:U:H3	81:DA:2316:G:H1	1.32	0.75
82:DB:39:G:H1'	82:DB:104:A:N6	2.01	0.75
10:AI:127:LYS:HZ1	78:CA:1584:G:H4'	1.52	0.75
78:CA:1677:C:H2'	78:CA:1678:A:C8	2.22	0.75
66:Bo:4:GLN:HG3	81:DA:1493:G:O6	1.86	0.75
81:DA:1501:U:O4	81:DA:1515:A:N6	2.18	0.75
81:DA:2005:G:H1	81:DA:2016:U:H3	1.31	0.75
81:DA:2420:C:N4	81:DA:2606:G:O6	2.18	0.75
81:DA:3248:C:H2'	81:DA:3249:C:C6	2.22	0.75
19:AR:59:LYS:HE2	78:CA:1551:U:P	2.27	0.74
29:AU:70:VAL:CG1	29:AU:70:VAL:HA	2.16	0.74
33:BD:112:LYS:CE	81:DA:790:U:H5'	2.17	0.74
81:DA:2626:A:H5''	81:DA:2627:C:OP2	1.87	0.74
12:AK:46:MET:HE1	78:CA:918:U:N1	2.02	0.74
31:BB:108:PRO:HB2	63:Bm:86:LEU:HD13	1.70	0.74
36:BF:58:HIS:CE1	76:BS:160:PRO:HA	2.23	0.74
42:BM:96:GLU:HA	51:BZ:21:PHE:CZ	2.21	0.74
74:BQ:57:ASN:C	83:DC:49:G:O6	2.30	0.74
78:CA:1747:G:C5'	81:DA:2302:G:N2	2.45	0.74
4:AD:207:LEU:CD1	78:CA:683:C:H1'	2.17	0.74
11:AJ:68:ARG:HD2	78:CA:1605:G:H5'	1.68	0.74
38:Bs:229:TYR:CE2	72:Bt:48:ALA:HB3	2.20	0.74
43:BP:50:ARG:HA	81:DA:114:A:H1'	1.69	0.74
81:DA:1072:G:H1	81:DA:1088:U:H3	1.36	0.74
81:DA:1976:G:H1	81:DA:2046:U:H3	1.35	0.74
4:AD:188:ASN:CG	78:CA:650:U:H5''	2.12	0.74
39:BJ:127:SER:OG	81:DA:1256:G:H4'	1.87	0.74
53:Ba:74:VAL:CG2	60:Bi:67:LYS:HZ2	2.00	0.74
81:DA:1975:C:C2'	81:DA:1976:G:H5'	2.17	0.74
81:DA:3142:A:C2'	81:DA:3142:A:N9	2.49	0.74
72:Bu:20:GLU:O	72:Bu:25:LYS:CD	2.36	0.74
81:DA:1261:G:C2'	81:DA:1261:G:N9	2.49	0.74
12:AK:124:ASP:HA	78:CA:929:A:N9	2.03	0.74
31:BB:191:LEU:HD11	81:DA:1794:G:H5''	1.70	0.74
33:BD:297:SER:CB	45:BR:25:TYR:HE2	2.00	0.74
38:Bs:230:PRO:HB2	73:Bw:44:ALA:CB	2.16	0.74

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:Ba:74:VAL:CG2	60:Bi:67:LYS:NZ	2.51	0.74
59:Bh:20:HIS:HA	59:Bh:22:SER:H	1.52	0.74
31:BB:188:LYS:NZ	81:DA:1793:C:H2'	2.02	0.74
45:BR:54:LEU:CD2	45:BR:55:SER:H	2.01	0.74
83:DC:26:C:H2'	83:DC:27:A:C8	2.22	0.74
5:AC:53:ARG:HH21	78:CA:658:C:H5''	1.52	0.74
12:AK:33:LEU:CD1	78:CA:902:G:N7	2.37	0.74
18:AP:63:LEU:HD21	18:AP:86:ILE:HB	1.70	0.74
19:AR:58:LYS:HE2	78:CA:1550:A:H62	1.52	0.74
38:Bs:214:VAL:CG1	73:Bv:58:ASN:CB	2.52	0.74
53:Ba:81:LEU:CD1	60:Bi:34:HIS:CB	2.66	0.74
72:Bu:29:LEU:HA	73:Bw:28:SER:OG	1.87	0.74
78:CA:1170:G:C2	78:CA:1574:G:N3	2.56	0.74
60:Bi:68:THR:CA	60:Bi:68:THR:CG2	2.64	0.74
78:CA:913:G:C2	81:DA:2208:A:C2	2.76	0.74
78:CA:1308:G:O6	78:CA:1318:G:N1	2.10	0.74
7:AG:96:UNK:C	7:AG:97:UNK:CA	2.66	0.74
37:BH:134:TYR:CE1	81:DA:146:U:C4'	2.70	0.74
8:AF:99:MET:HE1	78:CA:1612:U:H5'	1.69	0.73
42:BM:31:ALA:HA	42:BM:65:GLY:HA2	1.69	0.73
61:Bj:33:GLU:CD	61:Bj:33:GLU:CB	2.57	0.73
78:CA:856:A:C2'	78:CA:856:A:N9	2.51	0.73
81:DA:533:A:N6	81:DA:560:G:H1	1.83	0.73
81:DA:1058:U:H2'	81:DA:1059:G:C8	2.22	0.73
35:BG:99:GLU:CB	35:BG:99:GLU:HA	2.12	0.73
77:BI:106:ALA:C	77:BI:108:ALA:H	1.95	0.73
78:CA:486:G:H1	78:CA:501:U:H3	1.36	0.73
78:CA:960:U:C2'	78:CA:960:U:N1	2.50	0.73
81:DA:1792:C:O2'	81:DA:1794:G:C5	2.40	0.73
81:DA:2668:U:H2'	81:DA:2669:G:C8	2.24	0.73
83:DC:14:U:H3	83:DC:64:A:H61	1.31	0.73
35:BG:99:GLU:HA	81:DA:616:G:H5'	1.71	0.73
78:CA:1091:A:C2'	78:CA:1091:A:N9	2.50	0.73
78:CA:1352:G:H22	78:CA:1372:U:H3	1.35	0.73
81:DA:2531:C:H1'	81:DA:2580:A:H61	1.53	0.73
31:BB:188:LYS:HZ1	81:DA:1793:C:H2'	1.53	0.73
40:BK:198:GLY:HA2	41:BN:108:ARG:HD3	1.69	0.73
81:DA:2487:U:C2'	81:DA:2487:U:N1	2.52	0.73
12:AK:33:LEU:HD11	78:CA:902:G:C8	2.08	0.73
14:AM:14:ILE:CD1	34:BE:115:LYS:CG	2.64	0.73
20:AS:89:ARG:HH12	78:CA:1467:C:H1'	1.54	0.73

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:Bs:246:LEU:HD12	72:Bu:9:TYR:CE1	2.21	0.73
4:AD:93:ASP:O	4:AD:93:ASP:HB3	1.87	0.73
5:AC:157:ASP:O	5:AC:157:ASP:HB3	1.88	0.73
6:AE:20:GLY:O	6:AE:24:ARG:HG3	1.88	0.73
16:AO:114:ARG:NH1	78:CA:940:A:N6	2.36	0.73
44:BO:57:GLY:O	44:BO:58:MET:HG2	1.89	0.73
72:Bt:44:ILE:HG23	73:Bw:37:LYS:HG2	1.70	0.73
78:CA:327:U:H3	78:CA:341:A:H61	1.37	0.73
11:AJ:85:ARG:HA	15:AN:52:PHE:H	1.53	0.73
38:Bs:229:TYR:CE1	72:Bt:44:ILE:HG21	2.18	0.73
72:Bu:9:TYR:CD1	73:Bw:8:LEU:HB2	2.23	0.73
81:DA:369:A:H61	82:DB:20:U:H3	1.33	0.73
81:DA:2426:U:H3	81:DA:2603:G:H1	1.36	0.73
8:AF:153:GLY:H	78:CA:904:G:HO2'	1.33	0.73
78:CA:587:C:N4	78:CA:588:U:C4	2.56	0.73
78:CA:1308:G:C2	78:CA:1318:G:N3	2.57	0.73
72:Bu:13:ILE:CD1	73:Bw:6:ALA:CA	2.67	0.73
78:CA:1746:A:H3'	78:CA:1747:G:C8	2.24	0.73
13:AL:13:ARG:NH2	18:AP:78:THR:HB	2.04	0.73
19:AR:130:ARG:O	78:CA:1558:U:O2	2.06	0.73
42:BM:95:PHE:CG	51:BZ:22:VAL:HG11	2.22	0.73
44:BO:124:ILE:HD13	75:BL:148:UNK:H	1.46	0.73
78:CA:372:G:C6	78:CA:373:G:N3	2.57	0.73
78:CA:904:G:C5	78:CA:905:A:C5	2.77	0.73
78:CA:1697:G:H1	78:CA:1704:U:H3	1.35	0.73
81:DA:2756:C:H2'	81:DA:2757:U:C6	2.24	0.73
72:Bt:13:ILE:CD1	73:Bv:6:ALA:N	2.52	0.72
76:BS:83:TYR:CE1	76:BS:92:MET:HE1	2.23	0.72
13:AL:98:GLU:OE1	78:CA:19:A:H5'	1.88	0.72
21:AT:53:TYR:CE2	23:AW:69:UNK:O	2.41	0.72
31:BB:196:TRP:CA	31:BB:196:TRP:CG	2.71	0.72
43:BP:49:ARG:HB3	81:DA:114:A:O2'	1.89	0.72
45:BR:90:ASP:HB2	81:DA:677:A:C8	2.25	0.72
72:Bt:47:LYS:HB2	73:Bw:37:LYS:HE3	1.71	0.72
20:AS:84:LYS:HZ2	78:CA:1525:A:C4'	2.01	0.72
31:BB:191:LEU:HD11	81:DA:1794:G:H4'	1.71	0.72
31:BB:245:LEU:O	31:BB:246:LEU:HG	1.89	0.72
14:AM:16:ARG:NH1	34:BE:111:ASP:C	2.46	0.72
32:BC:298:PHE:CB	32:BC:298:PHE:N	2.50	0.72
37:BH:134:TYR:HE1	81:DA:146:U:C5'	2.00	0.72
79:CB:55:C:H1'	79:CB:55:C:C2'	1.04	0.72

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AE:188:LEU:HD12	78:CA:1298:U:O2	1.84	0.72
78:CA:1295:G:O4'	78:CA:1321:A:N1	2.21	0.72
81:DA:2086:A:H2'	81:DA:2087:C:C5	2.25	0.72
10:AI:139:GLN:OE1	78:CA:1580:C:C5'	2.37	0.72
12:AK:36:LYS:CE	78:CA:900:A:H5''	2.18	0.72
14:AM:133:VAL:CG2	78:CA:1545:A:C5'	2.66	0.72
33:BD:84:ARG:CZ	81:DA:366:A:H4'	2.19	0.72
40:BK:3:VAL:HG12	40:BK:4:GLU:H	1.55	0.72
58:Bg:93:VAL:HG23	58:Bg:94:GLU:H	1.54	0.72
81:DA:600:G:H1'	81:DA:603:A:H61	1.54	0.72
35:BG:64:LEU:HD22	35:BG:98:VAL:HG13	1.72	0.72
65:Bn:73:LEU:HB3	81:DA:1751:G:C8	2.24	0.72
78:CA:955:A:C2'	78:CA:955:A:N9	2.52	0.72
81:DA:1001:G:H1	81:DA:1050:U:H3	1.38	0.72
34:BE:61:ARG:NH2	79:CB:55:C:C6	2.58	0.72
43:BP:149:ASN:HD21	55:Bc:100:VAL:HG22	1.55	0.72
78:CA:1185:U:C5	78:CA:1458:G:C8	2.78	0.72
81:DA:372:A:N6	81:DA:373:A:N1	2.37	0.72
81:DA:1054:A:C5	81:DA:1055:A:H1'	2.24	0.72
6:AE:188:LEU:HD13	78:CA:1298:U:O2	1.87	0.72
35:BG:145:LEU:CD1	41:BN:113:THR:O	2.36	0.72
43:BP:50:ARG:CB	81:DA:267:G:N2	2.52	0.72
60:Bi:108:GLN:CB	60:Bi:108:GLN:N	2.53	0.72
12:AK:33:LEU:HD23	78:CA:903:U:C5	2.23	0.71
78:CA:887:A:H2'	78:CA:888:U:C6	2.25	0.71
78:CA:1303:U:C4	78:CA:1304:G:C6	2.78	0.71
31:BB:85:GLY:HA3	63:Bm:62:LYS:HZ3	1.54	0.71
44:BO:4:ARG:HB2	81:DA:802:C:OP1	1.90	0.71
81:DA:2206:G:H21	81:DA:2208:A:N6	1.84	0.71
31:BB:62:VAL:CB	31:BB:62:VAL:N	2.49	0.71
46:BT:57:VAL:C	81:DA:1871:U:H5''	2.15	0.71
72:Bt:20:GLU:O	72:Bt:25:LYS:CD	2.36	0.71
81:DA:1683:A:H8	81:DA:1684:U:C5	2.08	0.71
81:DA:2683:U:H2'	81:DA:2684:C:C6	2.25	0.71
30:BA:164:CYS:HB3	81:DA:2465:G:H4'	1.72	0.71
33:BD:112:LYS:HE3	81:DA:790:U:H5'	1.73	0.71
72:Bu:19:ILE:CD1	73:Bw:29:VAL:O	2.38	0.71
81:DA:971:G:H1	81:DA:1110:U:H3	1.38	0.71
5:AC:21:SER:HB3	78:CA:555:A:C5'	2.18	0.71
43:BP:179:LYS:O	43:BP:180:PHE:HB3	1.87	0.71
56:Bf:62:LEU:O	60:Bi:31:ARG:CZ	2.38	0.71

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:Bt:9:TYR:CA	73:Bv:9:LEU:CD2	2.43	0.71
78:CA:57:G:C6	78:CA:91:G:C2	2.79	0.71
80:CC:18:C:HO3'	80:CC:19:U:P	1.97	0.71
81:DA:1232:C:N4	81:DA:1261:G:H2'	2.04	0.71
1:Aa:53:LYS:CA	1:Aa:53:LYS:CG	2.68	0.71
31:BB:6:ARG:NH2	81:DA:914:A:N1	2.36	0.71
32:BC:331:ASN:ND2	81:DA:3304:U:H4'	2.05	0.71
38:Bs:242:ASN:OD1	73:Bw:4:LEU:HB3	1.76	0.71
45:BR:90:ASP:HB3	81:DA:677:A:C8	2.25	0.71
64:Bl:63:ARG:HG2	64:Bl:65:ARG:H	1.54	0.71
78:CA:228:G:C2'	78:CA:228:G:N9	2.54	0.71
81:DA:2681:U:H2'	81:DA:2682:C:C6	2.26	0.71
6:AE:24:ARG:HG2	9:AH:69:LEU:HB2	1.72	0.71
22:AV:105:THR:CA	22:AV:105:THR:CG2	2.68	0.71
72:Bu:10:ALA:H	73:Bw:9:LEU:HD21	1.55	0.71
78:CA:330:G:H1	78:CA:338:C:H42	1.38	0.71
78:CA:1185:U:N3	78:CA:1458:G:C5	2.59	0.71
78:CA:1203:A:C2	78:CA:1556:A:N3	2.59	0.71
81:DA:2369:G:H2'	81:DA:2370:G:C8	2.26	0.71
60:Bi:50:ALA:HB3	60:Bi:53:GLY:HA3	1.72	0.71
78:CA:1086:A:H2'	78:CA:1087:A:O4'	1.91	0.71
81:DA:1687:U:O2'	81:DA:1688:U:H5'	1.91	0.71
81:DA:2001:U:C2'	81:DA:2001:U:N1	2.52	0.71
43:BP:80:THR:CA	43:BP:80:THR:CG2	2.68	0.71
81:DA:422:A:C2'	81:DA:422:A:N9	2.54	0.71
83:DC:93:U:H2'	83:DC:94:A:C8	2.26	0.71
6:AE:198:THR:HG23	78:CA:1:U:OP3	1.91	0.71
72:Bt:19:ILE:CG2	72:Bt:25:LYS:CE	2.69	0.71
78:CA:1293:U:H3	78:CA:1322:A:H61	1.39	0.71
78:CA:1747:G:C4'	81:DA:2302:G:H21	2.02	0.71
81:DA:1683:A:C8	81:DA:1684:U:C4	2.78	0.71
20:AS:84:LYS:NZ	78:CA:1525:A:C5'	2.54	0.70
35:BG:2:SER:O	35:BG:3:ALA:CA	2.39	0.70
72:Bt:35:VAL:CG1	72:Bt:36:PRO:CD	2.69	0.70
72:Bu:17:SER:HB3	73:Bw:31:ILE:HD12	1.68	0.70
78:CA:1310:U:O2	78:CA:1316:G:C2	2.44	0.70
19:AR:90:ILE:CG1	78:CA:1554:U:O2'	2.38	0.70
32:BC:180:GLU:OE1	81:DA:3003:G:H4'	1.91	0.70
33:BD:321:LYS:O	33:BD:321:LYS:HB3	1.91	0.70
37:BH:134:TYR:CE2	81:DA:147:U:OP2	2.45	0.70
38:Bs:246:LEU:HD22	72:Bu:8:SER:OG	1.91	0.70

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BO:20:GLY:C	44:BO:21:ARG:N	0.61	0.70
72:Bt:60:ASN:O	72:Bt:61:PHE:CG	2.44	0.70
72:Bu:60:ASN:O	72:Bu:61:PHE:CG	2.44	0.70
81:DA:310:U:H2'	81:DA:311:C:H5'	1.71	0.70
83:DC:27:A:H1'	83:DC:55:A:H61	1.54	0.70
42:BM:94:TYR:CZ	51:BZ:20:LEU:C	2.69	0.70
56:Bf:62:LEU:C	60:Bi:31:ARG:CZ	2.61	0.70
56:Bf:62:LEU:C	60:Bi:31:ARG:HE	1.99	0.70
74:BQ:74:VAL:CG1	83:DC:5:G:H21	2.03	0.70
77:BI:118:ALA:HB3	81:DA:2645:G:O3'	1.91	0.70
56:Bf:62:LEU:O	60:Bi:31:ARG:NE	2.23	0.70
58:Bg:24:SER:HB3	58:Bg:27:LYS:H	1.56	0.70
78:CA:138:A:N1	78:CA:284:G:N7	2.39	0.70
78:CA:1308:G:N1	78:CA:1318:G:N3	2.39	0.70
81:DA:821:U:H3	81:DA:904:A:H61	1.37	0.70
14:AM:12:GLN:NE2	34:BE:116:TYR:CE2	2.52	0.70
31:BB:127:ALA:H	31:BB:128:ARG:HD2	1.55	0.70
55:Bc:93:THR:HG23	55:Bc:94:LYS:H	1.55	0.70
74:BQ:242:SER:O	74:BQ:243:ALA:CB	2.37	0.70
78:CA:1292:G:C2	78:CA:1324:G:N3	2.60	0.70
1:Aa:90:ARG:HH22	78:CA:1341:A:H2'	1.57	0.70
5:AC:24:LEU:HD12	78:CA:555:A:C4	2.27	0.70
6:AE:92:ALA:CB	6:AE:92:ALA:N	2.53	0.70
6:AE:101:VAL:HG12	6:AE:102:VAL:H	1.56	0.70
55:Bc:106:LYS:O	55:Bc:108:GLN:O	2.10	0.70
72:Bu:35:VAL:CG1	72:Bu:36:PRO:CD	2.69	0.70
81:DA:8:C:H2'	81:DA:9:U:C6	2.26	0.70
2:AA:109:ASN:HD21	78:CA:1294:G:H1'	1.56	0.70
32:BC:362:ALA:HB1	32:BC:364:LYS:CB	2.22	0.70
38:Bs:94:THR:CB	73:Bv:43:SER:CB	2.69	0.70
60:Bi:79:SER:H	60:Bi:80:ARG:HG3	1.54	0.70
64:Bl:63:ARG:CG	64:Bl:64:MET:H	2.00	0.70
72:Bu:5:SER:N	72:Bu:9:TYR:HE2	1.90	0.70
78:CA:1308:G:C4	78:CA:1318:G:C2	2.80	0.70
43:BP:80:THR:O	43:BP:80:THR:HB	1.90	0.70
59:Bh:17:PHE:CE1	81:DA:1405:U:O2'	2.44	0.70
72:Bt:13:ILE:CD1	73:Bv:5:ALA:CB	2.68	0.70
78:CA:936:G:C6	78:CA:937:C:C4	2.80	0.70
81:DA:2187:G:C2'	81:DA:2187:G:C8	2.75	0.70
81:DA:2920:U:C5	81:DA:2921:U:C4	2.80	0.70
8:AF:153:GLY:CA	78:CA:904:G:O2'	2.40	0.70

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AK:33:LEU:HD23	78:CA:903:U:H5	1.56	0.70
60:Bi:34:HIS:CG	60:Bi:35:VAL:H	2.10	0.70
77:BI:106:ALA:HB1	77:BI:108:ALA:HB2	1.74	0.70
20:AS:75:LYS:HE3	78:CA:1523:G:H5'	1.72	0.70
31:BB:111:THR:HB	63:Bm:83:ILE:HG22	1.73	0.70
38:Bs:94:THR:CB	73:Bv:43:SER:HB2	2.21	0.70
53:Ba:81:LEU:HD13	60:Bi:34:HIS:HA	1.73	0.70
78:CA:1176:G:C6	78:CA:1464:G:C6	2.80	0.70
81:DA:1071:U:H3	81:DA:1089:G:H1	1.38	0.70
81:DA:1584:U:C4	81:DA:1585:C:C4	2.80	0.70
4:AD:146:THR:CG2	78:CA:295:A:N6	2.55	0.69
10:AI:135:ARG:NH2	78:CA:1588:G:C6	2.60	0.69
38:Bs:220:ILE:CD1	72:Bt:9:TYR:HE1	1.94	0.69
38:Bs:239:LEU:HD12	73:Bw:53:LEU:HD12	1.74	0.69
53:Ba:74:VAL:CB	60:Bi:67:LYS:NZ	2.53	0.69
72:Bu:19:ILE:CG2	72:Bu:25:LYS:CE	2.69	0.69
72:Bu:19:ILE:HG23	72:Bu:25:LYS:CE	2.21	0.69
81:DA:381:U:H3	81:DA:388:G:H1	1.40	0.69
81:DA:674:G:H2'	81:DA:675:C:C6	2.27	0.69
32:BC:255:TRP:NE1	81:DA:2941:A:N6	2.40	0.69
41:BN:12:TRP:CE3	76:BS:165:LEU:HB2	2.27	0.69
72:Bu:14:LEU:HD11	72:Bu:26:LEU:HD23	1.73	0.69
72:Bu:29:LEU:HD22	73:Bw:29:VAL:HG23	1.69	0.69
78:CA:901:G:C6	78:CA:902:G:C6	2.80	0.69
81:DA:1692:U:H2'	81:DA:1693:C:C6	2.27	0.69
81:DA:3304:U:O4'	81:DA:3304:U:C5'	2.39	0.69
36:BF:46:THR:CA	41:BN:8:LYS:CE	2.69	0.69
38:Bs:252:ALA:CB	72:Bu:57:LEU:HD22	2.21	0.69
47:BU:61:THR:OG1	81:DA:1062:A:C6	2.44	0.69
72:Bt:47:LYS:HB3	73:Bw:37:LYS:HE3	1.74	0.69
81:DA:1820:U:H2'	81:DA:1821:U:C6	2.28	0.69
17:AQ:100:LEU:HD13	17:AQ:133:ARG:C	2.17	0.69
31:BB:6:ARG:HH12	81:DA:914:A:H62	1.33	0.69
53:Ba:55:LYS:HG3	53:Ba:57:HIS:CE1	2.28	0.69
81:DA:1970:U:H3	81:DA:2052:G:H1	1.37	0.69
81:DA:2220:A:H61	81:DA:2221:G:N2	1.90	0.69
82:DB:50:C:C2'	82:DB:50:C:N1	2.55	0.69
78:CA:388:G:C8	78:CA:423:G:N2	2.61	0.69
78:CA:1115:U:C4	78:CA:1130:G:C2	2.80	0.69
81:DA:3146:G:H2'	81:DA:3147:G:C8	2.27	0.69
12:AK:53:ASP:HB2	78:CA:899:G:H5'	1.74	0.69

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BF:45:PHE:CZ	36:BF:75:VAL:HG11	2.27	0.69
47:BU:141:VAL:H	47:BU:142:SER:CB	2.05	0.69
53:Ba:74:VAL:CG1	60:Bi:67:LYS:HD3	2.18	0.69
72:Bt:14:LEU:HD11	72:Bt:26:LEU:HD23	1.73	0.69
72:Bu:14:LEU:HD21	72:Bu:29:LEU:HD12	1.74	0.69
78:CA:1292:G:C6	78:CA:1324:G:C2	2.81	0.69
81:DA:1124:U:H3	81:DA:1134:G:H22	1.39	0.69
81:DA:1870:C:H2'	81:DA:1870:C:O2	1.90	0.69
53:Ba:84:ARG:HH12	60:Bi:37:LYS:CD	2.05	0.69
72:Bt:14:LEU:HD21	72:Bt:29:LEU:HD12	1.74	0.69
72:Bu:13:ILE:CD1	73:Bw:5:ALA:C	2.57	0.69
78:CA:673:A:H2'	78:CA:674:C:H6	1.56	0.69
78:CA:989:U:C5	78:CA:990:C:C5	2.80	0.69
78:CA:1589:C:H42	78:CA:1607:G:H1	1.40	0.69
81:DA:854:G:H2'	81:DA:855:U:C6	2.28	0.69
81:DA:1788:C:H2'	81:DA:1789:G:H8	1.56	0.69
10:AI:138:PHE:CD2	78:CA:1587:A:OP2	2.46	0.69
16:AO:65:VAL:HG22	24:AX:51:GLN:NE2	2.08	0.69
45:BR:90:ASP:OD1	81:DA:786:A:N6	2.25	0.69
47:BU:60:LYS:NZ	81:DA:2638:C:H1'	2.08	0.69
53:Ba:10:VAL:HG23	53:Ba:11:ALA:C	2.18	0.69
53:Ba:84:ARG:HH12	60:Bi:37:LYS:HE3	0.86	0.69
72:Bt:9:TYR:CE1	73:Bv:8:LEU:HB3	2.27	0.69
78:CA:929:A:N1	78:CA:930:A:C6	2.60	0.69
81:DA:3348:G:H1	81:DA:3357:U:H3	1.40	0.69
81:DA:3374:U:H3'	81:DA:3375:A:H5'	1.74	0.69
72:Bt:19:ILE:HG23	72:Bt:25:LYS:CE	2.21	0.69
78:CA:1203:A:N6	78:CA:1556:A:C6	2.61	0.69
81:DA:1870:C:H3'	81:DA:1871:U:C4	2.28	0.69
1:Aa:59:ARG:HA	10:AI:107:LYS:HE2	1.73	0.69
12:AK:33:LEU:HD22	78:CA:903:U:C4	2.28	0.69
33:BD:84:ARG:NE	81:DA:366:A:H4'	2.07	0.69
72:Bu:29:LEU:HD11	73:Bw:29:VAL:HG22	1.74	0.69
81:DA:1687:U:H2'	81:DA:1688:U:C5'	2.23	0.69
81:DA:2000:U:H3	81:DA:2021:G:H1	1.40	0.69
7:AG:130:UNK:C	78:CA:636:A:H61	2.05	0.68
19:AR:58:LYS:HG2	78:CA:1550:A:N7	2.07	0.68
35:BG:34:LEU:HB3	35:BG:147:ALA:HB3	1.75	0.68
35:BG:98:VAL:HG12	35:BG:99:GLU:H	1.57	0.68
38:Bs:222:SER:CB	72:Bt:61:PHE:CZ	2.75	0.68
52:BY:13:ARG:H	52:BY:13:ARG:HE	1.41	0.68

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:331:G:C2'	81:DA:331:G:N9	2.53	0.68
81:DA:655:C:H2'	81:DA:656:A:C8	2.28	0.68
81:DA:2505:U:H2'	81:DA:2506:U:C5	2.27	0.68
83:DC:30:G:N2	83:DC:47:C:N3	2.33	0.68
6:AE:217:ALA:HB1	78:CA:2:A:N6	2.02	0.68
42:BM:95:PHE:CE2	51:BZ:22:VAL:CG1	2.56	0.68
78:CA:901:G:O6	78:CA:902:G:C6	2.46	0.68
33:BD:112:LYS:HE3	81:DA:790:U:C5'	2.24	0.68
36:BF:46:THR:CA	41:BN:8:LYS:HE3	2.23	0.68
53:Ba:81:LEU:CG	60:Bi:34:HIS:CD2	2.76	0.68
78:CA:1158:C:C6	78:CA:1582:U:C4	2.81	0.68
81:DA:636:C:N3	81:DA:2361:A:N1	2.41	0.68
14:AM:133:VAL:CG2	78:CA:1545:A:H4'	2.23	0.68
31:BB:204:MET:SD	81:DA:914:A:C2'	2.81	0.68
47:BU:60:LYS:CA	81:DA:1062:A:N3	2.52	0.68
53:Ba:74:VAL:HG21	60:Bi:67:LYS:HZ2	1.58	0.68
72:Bt:5:SER:N	72:Bt:9:TYR:HE2	1.90	0.68
72:Bu:13:ILE:HG13	73:Bw:5:ALA:HB3	1.15	0.68
72:Bu:13:ILE:CD1	73:Bw:9:LEU:HD12	2.19	0.68
81:DA:1623:G:O2'	81:DA:1624:G:H5''	1.93	0.68
81:DA:3047:U:H2'	81:DA:3048:A:C8	2.29	0.68
13:AL:22:ASN:O	13:AL:22:ASN:CB	2.41	0.68
31:BB:98:VAL:HG23	63:Bm:83:ILE:HD11	1.76	0.68
32:BC:134:SER:CB	81:DA:3150:A:H5''	2.22	0.68
41:BN:132:LYS:NZ	81:DA:3230:G:H5'	2.09	0.68
58:Bg:93:VAL:CG2	58:Bg:94:GLU:H	2.07	0.68
72:Bt:14:LEU:HD21	72:Bt:29:LEU:HD11	1.64	0.68
81:DA:372:A:C6	81:DA:373:A:C2	2.82	0.68
81:DA:2073:A:H2'	81:DA:2074:C:C6	2.28	0.68
33:BD:84:ARG:CD	81:DA:365:A:O2'	2.42	0.68
53:Ba:55:LYS:CG	53:Ba:57:HIS:CE1	2.77	0.68
78:CA:552:G:H1	78:CA:572:C:N4	1.90	0.68
83:DC:29:C:C2	83:DC:30:G:C8	2.81	0.68
9:AH:6:VAL:HG11	78:CA:1036:A:C2'	2.23	0.68
20:AS:43:ASN:CB	78:CA:1477:G:H4'	2.24	0.68
53:Ba:56:LYS:HA	53:Ba:57:HIS:NE2	2.09	0.68
72:Bt:57:LEU:O	72:Bt:61:PHE:HZ	1.77	0.68
78:CA:936:G:C6	78:CA:937:C:N4	2.61	0.68
81:DA:2407:C:O2	81:DA:2818:U:N3	2.27	0.68
31:BB:233:GLN:NE2	81:DA:2607:G:C8	2.55	0.68
33:BD:310:THR:HG22	33:BD:313:LEU:HD12	1.75	0.68

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BF:46:THR:C	41:BN:7:VAL:HG23	2.18	0.68
41:BN:39:ILE:HG21	76:BS:97:ARG:NH2	2.09	0.68
47:BU:141:VAL:H	47:BU:142:SER:HB3	1.59	0.68
14:AM:101:LEU:HD21	78:CA:1566:U:H4'	1.75	0.68
14:AM:144:ARG:HG3	78:CA:1570:A:O2'	1.93	0.68
16:AO:65:VAL:HG12	24:AX:47:PHE:CZ	2.29	0.68
81:DA:1395:G:H2'	81:DA:1396:C:C6	2.29	0.68
81:DA:331:G:C8	81:DA:332:C:C5	2.81	0.68
44:BO:20:GLY:O	44:BO:21:ARG:HA	1.94	0.67
44:BO:124:ILE:HD12	75:BL:148:UNK:N	1.97	0.67
45:BR:58:ASN:HD21	81:DA:975:C:H5'	1.58	0.67
76:BS:81:LEU:HG	76:BS:108:MET:HE2	1.74	0.67
12:AK:36:LYS:NZ	78:CA:900:A:C4'	2.57	0.67
31:BB:245:LEU:HD13	81:DA:2243:A:N7	2.07	0.67
41:BN:39:ILE:O	76:BS:145:HIS:CD2	2.47	0.67
53:Ba:74:VAL:HG21	60:Bi:67:LYS:NZ	2.09	0.67
78:CA:372:G:C2	78:CA:373:G:H1'	2.29	0.67
81:DA:1623:G:H2'	81:DA:1624:G:H5'	1.76	0.67
45:BR:122:ILE:HG22	45:BR:124:LEU:H	1.59	0.67
8:AF:33:VAL:HG12	8:AF:34:GLN:H	1.59	0.67
33:BD:354:VAL:HG23	33:BD:354:VAL:O	1.95	0.67
37:BH:61:GLN:O	37:BH:62:LYS:HB3	1.94	0.67
38:Bs:246:LEU:HD13	72:Bu:9:TYR:CE2	2.28	0.67
65:Bn:72:THR:HA	81:DA:1751:G:C6	1.93	0.67
81:DA:129:U:H3	81:DA:139:G:H1	1.41	0.67
83:DC:48:U:H2'	83:DC:49:G:C8	2.30	0.67
14:AM:16:ARG:NH1	34:BE:109:HIS:O	2.26	0.67
14:AM:116:LEU:CD2	78:CA:1547:A:H5''	2.17	0.67
38:Bs:244:LYS:O	38:Bs:248:ALA:HB2	1.95	0.67
51:BZ:53:VAL:HG23	51:BZ:54:LEU:H	1.58	0.67
78:CA:1174:C:N3	78:CA:1466:G:C2	2.62	0.67
81:DA:3330:A:C2	81:DA:3373:U:O2	2.47	0.67
14:AM:121:ALA:HB3	14:AM:124:GLY:H	1.59	0.67
19:AR:130:ARG:CZ	78:CA:1558:U:H5'	2.21	0.67
20:AS:95:ASP:O	20:AS:96:ALA:O	2.12	0.67
35:BG:75:PRO:O	35:BG:76:LEU:CG	2.43	0.67
38:Bs:246:LEU:HD12	72:Bu:9:TYR:CZ	2.30	0.67
7:AG:106:UNK:C	7:AG:107:UNK:CA	2.64	0.67
34:BE:123:PHE:CZ	81:DA:2674:A:C4	2.83	0.67
43:BP:50:ARG:HA	81:DA:267:G:N2	2.07	0.67
46:BT:58:HIS:CA	81:DA:1871:U:H5'	2.21	0.67

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:CA:57:G:O6	78:CA:91:G:N1	2.27	0.67
81:DA:1742:U:H2'	81:DA:1744:G:C8	2.30	0.67
81:DA:1869:C:C5	81:DA:1870:C:C5	2.82	0.67
81:DA:2004:U:H3	81:DA:2017:G:H1	1.41	0.67
34:BE:86:VAL:HB	34:BE:110:ILE:HD13	1.75	0.67
35:BG:98:VAL:CG1	35:BG:99:GLU:H	2.07	0.67
53:Ba:23:VAL:HG22	53:Ba:55:LYS:HZ3	1.59	0.67
74:BQ:57:ASN:HB3	83:DC:48:U:O4	1.95	0.67
78:CA:46:A:C2'	78:CA:46:A:C8	2.78	0.67
81:DA:1455:U:C5	81:DA:2346:C:H5'	2.29	0.67
81:DA:1647:A:H62	81:DA:1808:G:H1'	1.60	0.67
12:AK:59:ALA:O	12:AK:62:LEU:HB2	1.95	0.67
31:BB:216:HIS:CE1	81:DA:2960:C:C5	2.82	0.67
78:CA:1476:C:H3'	78:CA:1476:C:C6	2.29	0.67
78:CA:1476:C:H2'	78:CA:1477:G:C8	2.30	0.67
81:DA:2565:U:H3	81:DA:2576:G:H1	1.43	0.67
7:AG:97:UNK:N	7:AG:97:UNK:C	2.50	0.67
12:AK:36:LYS:HZ1	78:CA:900:A:C4'	2.08	0.67
12:AK:124:ASP:OD1	78:CA:929:A:C2	2.48	0.67
22:AV:105:THR:O	22:AV:106:ALA:HB2	1.94	0.67
32:BC:289:ASP:CB	32:BC:289:ASP:N	2.56	0.67
33:BD:31:ARG:HH11	45:BR:23:ASN:HD22	1.42	0.67
39:BJ:34:PRO:HB3	39:BJ:62:LEU:HD11	1.77	0.67
48:BW:85:LYS:HE3	81:DA:1682:U:H1'	1.76	0.67
57:Be:98:LYS:C	57:Be:98:LYS:N	2.41	0.67
72:Bu:5:SER:N	72:Bu:9:TYR:CE2	2.63	0.67
78:CA:1292:G:C6	78:CA:1324:G:N1	2.63	0.67
78:CA:1308:G:C5	78:CA:1318:G:N1	2.56	0.67
81:DA:1289:G:H2'	81:DA:1290:A:C8	2.30	0.67
81:DA:1801:U:H2'	81:DA:1802:C:C6	2.30	0.67
14:AM:116:LEU:HD11	78:CA:1546:G:O3'	1.95	0.66
31:BB:193:ARG:NE	81:DA:2174:G:H3'	2.10	0.66
35:BG:98:VAL:HG12	35:BG:99:GLU:N	2.09	0.66
35:BG:145:LEU:HD11	41:BN:114:ASP:CA	2.16	0.66
44:BO:4:ARG:HG2	81:DA:802:C:H5	1.58	0.66
72:Bt:44:ILE:CD1	73:Bw:36:GLU:HB3	2.25	0.66
78:CA:1295:G:H4'	78:CA:1321:A:H61	1.58	0.66
78:CA:1399:C:N4	78:CA:1401:A:N6	2.42	0.66
78:CA:1746:A:H4'	81:DA:2291:A:O2'	1.95	0.66
81:DA:92:G:N7	81:DA:94:G:N3	2.44	0.66
81:DA:1623:G:H2'	81:DA:1624:G:C5'	2.25	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:1752:A:H5'	81:DA:1752:A:H8	1.59	0.66
81:DA:2065:U:H3	81:DA:2071:A:H61	1.42	0.66
14:AM:13:HIS:N	34:BE:116:TYR:CE1	2.63	0.66
18:AP:59:PRO:CG	78:CA:326:G:H4'	2.24	0.66
31:BB:204:MET:SD	81:DA:914:A:C1'	2.83	0.66
32:BC:344:THR:O	32:BC:345:ASN:CB	2.42	0.66
78:CA:45:U:C2'	78:CA:45:U:C6	2.78	0.66
81:DA:2735:U:H2'	81:DA:2736:A:H5'	1.76	0.66
6:AE:188:LEU:HD11	78:CA:1298:U:N1	2.08	0.66
20:AS:84:LYS:HZ1	78:CA:1525:A:C4'	2.07	0.66
20:AS:89:ARG:NH1	78:CA:1467:C:C1'	2.57	0.66
81:DA:160:G:N2	81:DA:261:U:C5	2.63	0.66
36:BF:58:HIS:HE1	76:BS:160:PRO:HA	1.58	0.66
69:Br:55:LYS:HB3	81:DA:2802:A:C2	2.30	0.66
1:Aa:59:ARG:CA	10:AI:107:LYS:CE	2.71	0.66
35:BG:49:GLY:HA3	35:BG:50:LYS:HD3	1.77	0.66
37:BH:134:TYR:OH	81:DA:146:U:C3'	2.43	0.66
37:BH:138:HIS:CD2	81:DA:147:U:C5'	2.78	0.66
72:Bu:10:ALA:N	73:Bw:9:LEU:HD11	2.11	0.66
78:CA:676:G:H2'	78:CA:677:G:H5''	1.78	0.66
81:DA:2508:U:H6	81:DA:2508:U:H5''	1.60	0.66
14:AM:14:ILE:HD13	34:BE:115:LYS:HG3	1.74	0.66
38:Bs:199:SER:HA	38:Bs:202:LEU:HG	1.76	0.66
38:Bs:239:LEU:CD1	73:Bw:53:LEU:CD1	2.72	0.66
78:CA:1003:A:N6	78:CA:1005:A:N1	2.43	0.66
5:AC:20:GLU:O	78:CA:555:A:C5'	2.42	0.66
36:BF:129:ARG:HH12	81:DA:3126:C:H5'	1.58	0.66
81:DA:1993:G:H1	81:DA:2028:U:H3	1.44	0.66
31:BB:204:MET:CE	81:DA:914:A:H1'	2.24	0.66
41:BN:12:TRP:HB2	76:BS:165:LEU:H	1.60	0.66
60:Bi:79:SER:C	60:Bi:79:SER:H	1.98	0.66
78:CA:904:G:C6	78:CA:905:A:N3	2.63	0.66
78:CA:1582:U:C2	78:CA:1614:A:H1'	2.31	0.66
81:DA:2465:G:C3'	81:DA:2466:G:H5'	2.25	0.66
81:DA:3058:U:H3	81:DA:3085:G:H1	1.44	0.66
10:AI:123:ARG:O	78:CA:1337:A:H3'	1.96	0.66
20:AS:12:GLN:HG3	20:AS:13:ASP:N	2.10	0.66
30:BA:164:CYS:CB	81:DA:2465:G:H4'	2.26	0.66
38:Bs:230:PRO:CB	73:Bw:44:ALA:CB	2.74	0.66
60:Bi:68:THR:HA	60:Bi:69:HIS:CD2	2.31	0.66
78:CA:6:G:N1	78:CA:19:A:C2	2.64	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AA:104:PRO:HG2	78:CA:1322:A:H4'	1.78	0.66
2:AA:252:TRP:CG	3:AB:198:GLY:H	2.14	0.66
13:AL:13:ARG:HH22	18:AP:78:THR:CB	2.06	0.66
29:AU:14:SER:HB2	29:AU:89:TYR:H	1.60	0.66
29:AU:16:PRO:HG3	29:AU:93:ARG:CB	2.24	0.66
72:BU:35:VAL:HG12	72:BU:36:PRO:CD	2.26	0.66
72:BT:35:VAL:HG12	72:BT:36:PRO:CD	2.26	0.65
78:CA:218:A:H61	78:CA:838:G:H1'	1.60	0.65
78:CA:1552:U:C4	78:CA:1553:G:C5	2.83	0.65
4:AD:188:ASN:ND2	78:CA:650:U:H5''	2.11	0.65
6:AE:217:ALA:HB2	78:CA:2:A:C6	2.30	0.65
12:AK:33:LEU:HD22	78:CA:902:G:N7	2.10	0.65
13:AL:11:SER:H	18:AP:79:LYS:CG	2.09	0.65
38:BS:246:LEU:CD1	72:BU:9:TYR:CE2	2.78	0.65
65:BN:51:LEU:HB2	65:BN:73:LEU:HD21	1.78	0.65
74:BQ:184:ASP:H	74:BQ:190:ILE:HB	1.61	0.65
78:CA:29:U:H2'	78:CA:30:G:C1'	2.27	0.65
78:CA:646:C:N3	78:CA:685:A:H2	1.94	0.65
78:CA:893:U:O2	78:CA:919:A:C2	2.49	0.65
81:DA:77:A:H61	81:DA:323:A:H61	1.43	0.65
81:DA:799:G:H2'	81:DA:801:A:H62	1.61	0.65
81:DA:1783:U:H2'	81:DA:1784:G:C8	2.31	0.65
82:DB:98:U:C4	82:DB:99:C:C2	2.84	0.65
4:AD:93:ASP:CA	4:AD:93:ASP:CG	2.69	0.65
5:AC:4:ALA:HB1	5:AC:8:TYR:CZ	2.30	0.65
16:AO:114:ARG:HD2	78:CA:938:G:O2'	1.95	0.65
43:BP:50:ARG:CB	81:DA:267:G:N3	2.60	0.65
79:CB:55:C:C4	79:CB:56:A:C6	2.84	0.65
81:DA:1682:U:O2'	81:DA:1685:C:N4	2.24	0.65
81:DA:1688:U:O4'	81:DA:1688:U:C6	2.48	0.65
81:DA:2920:U:C4	81:DA:2921:U:C4	2.84	0.65
64:BI:72:ARG:HH12	81:DA:331:G:N2	1.94	0.65
78:CA:901:G:N1	78:CA:902:G:N3	2.43	0.65
78:CA:1181:U:C2	78:CA:1458:G:N1	2.64	0.65
2:AA:131:GLN:NE2	78:CA:1321:A:N7	2.45	0.65
12:AK:59:ALA:HB3	12:AK:61:MET:H	1.60	0.65
12:AK:124:ASP:CG	78:CA:929:A:C5	2.73	0.65
41:BN:43:LYS:HD2	76:BS:97:ARG:NH2	2.12	0.65
81:DA:2464:U:H3	81:DA:2491:A:H61	1.43	0.65
14:AM:99:HIS:HA	14:AM:101:LEU:H	1.62	0.65
38:BS:229:TYR:CZ	72:BT:48:ALA:HB2	2.31	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BM:95:PHE:CE2	51:BZ:22:VAL:HG21	2.32	0.65
72:Bt:5:SER:N	72:Bt:9:TYR:CE2	2.63	0.65
78:CA:1174:C:N4	78:CA:1465:C:H42	1.94	0.65
78:CA:1552:U:C5	78:CA:1553:G:C6	2.85	0.65
81:DA:2994:A:C6	81:DA:3142:A:N6	2.62	0.65
31:BB:38:HIS:HB2	70:Bx:7:UNK:N	2.10	0.65
53:Ba:11:ALA:HB2	53:Ba:57:HIS:CD2	2.31	0.65
78:CA:304:U:C2	78:CA:305:C:C5	2.84	0.65
78:CA:1308:G:N1	78:CA:1318:G:C2	2.64	0.65
81:DA:1985:G:H1	81:DA:2036:U:H3	1.42	0.65
33:BD:322:GLN:C	33:BD:323:VAL:CA	2.68	0.65
72:Bt:44:ILE:HD11	73:Bw:36:GLU:CA	2.26	0.65
78:CA:272:U:H3	78:CA:284:G:H1	1.45	0.65
78:CA:295:A:C2'	78:CA:295:A:C4	2.79	0.65
78:CA:1476:C:H3'	78:CA:1476:C:H6	1.62	0.65
81:DA:2697:A:H2'	81:DA:2698:G:C8	2.32	0.65
83:DC:14:U:H2'	83:DC:15:C:C6	2.32	0.65
12:AK:33:LEU:HD22	78:CA:903:U:O4	1.97	0.65
13:AL:39:LYS:HB2	13:AL:110:LYS:HE2	1.79	0.65
32:BC:362:ALA:HB1	32:BC:364:LYS:HB2	1.78	0.65
43:BP:49:ARG:HG2	81:DA:114:A:C3'	2.26	0.65
81:DA:2734:A:H2'	81:DA:2735:U:C6	2.32	0.65
2:AA:131:GLN:NE2	78:CA:1321:A:C8	2.65	0.65
13:AL:7:ARG:HH11	18:AP:76:VAL:N	1.94	0.65
32:BC:331:ASN:HD21	81:DA:3304:U:H4'	1.62	0.65
44:BO:73:LEU:O	44:BO:73:LEU:CA	2.43	0.65
72:Bt:44:ILE:HG13	73:Bw:36:GLU:HB3	0.69	0.65
78:CA:651:G:N2	78:CA:679:U:C4	2.65	0.65
82:DB:58:G:N2	82:DB:59:A:C2	2.64	0.65
4:AD:153:ASN:CA	4:AD:153:ASN:CG	2.68	0.64
16:AO:117:LEU:HB2	78:CA:939:A:C6	2.30	0.64
35:BG:46:ARG:CD	35:BG:46:ARG:H	2.09	0.64
82:DB:86:U:O2	82:DB:86:U:C2'	2.44	0.64
38:Bs:246:LEU:CD2	72:Bu:8:SER:O	2.44	0.64
53:Ba:35:SER:HA	53:Ba:59:ALA:H	1.62	0.64
55:Bc:41:LEU:HD12	55:Bc:44:ILE:HB	1.78	0.64
72:Bu:13:ILE:HD11	73:Bw:6:ALA:HA	1.76	0.64
78:CA:1185:U:N3	78:CA:1458:G:C6	2.65	0.64
78:CA:1759:C:H4'	81:DA:2262:A:C2	2.31	0.64
81:DA:2216:G:H2'	81:DA:2217:U:C6	2.31	0.64
7:AG:75:UNK:N	7:AG:75:UNK:CB	2.59	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AK:29:HIS:NE2	78:CA:918:U:H5''	2.13	0.64
31:BB:207:VAL:HG21	81:DA:916:G:C6	2.32	0.64
42:BM:94:TYR:CE2	51:BZ:20:LEU:O	2.50	0.64
78:CA:1201:G:C6	78:CA:1601:G:N7	2.65	0.64
81:DA:1667:A:H2'	81:DA:1668:G:C8	2.33	0.64
81:DA:3242:G:C8	81:DA:3242:G:H3'	2.33	0.64
33:BD:107:ARG:HB2	81:DA:663:C:H4'	1.80	0.64
38:Bs:94:THR:CG2	73:Bv:43:SER:CB	2.73	0.64
55:Bc:96:GLU:O	55:Bc:100:VAL:HG23	1.98	0.64
63:Bm:16:VAL:HA	81:DA:1927:G:C8	2.32	0.64
78:CA:225:A:H61	78:CA:233:C:H42	1.45	0.64
78:CA:868:G:H1	78:CA:960:U:H3	1.44	0.64
78:CA:1115:U:C4	78:CA:1130:G:N2	2.65	0.64
81:DA:1979:G:H1	81:DA:2043:U:H3	1.46	0.64
81:DA:2203:U:H2'	81:DA:2204:C:C6	2.31	0.64
81:DA:2508:U:H2'	81:DA:2509:U:C6	2.33	0.64
9:AH:86:ILE:HG22	13:AL:7:ARG:HH22	1.62	0.64
31:BB:109:GLU:O	63:Bm:86:LEU:CD1	2.44	0.64
32:BC:255:TRP:HE1	81:DA:2941:A:N6	1.95	0.64
38:Bs:248:ALA:HB1	72:Bu:61:PHE:CZ	2.33	0.64
72:Bt:13:ILE:CD1	73:Bv:9:LEU:CD1	2.57	0.64
78:CA:306:U:C2'	78:CA:306:U:N1	2.58	0.64
78:CA:667:U:H2'	78:CA:668:C:C6	2.33	0.64
78:CA:1303:U:C5	78:CA:1304:G:C6	2.86	0.64
78:CA:1618:C:O2	78:CA:1618:C:H3'	1.98	0.64
81:DA:636:C:H5	81:DA:646:A:H4'	1.61	0.64
81:DA:640:U:H2'	81:DA:641:C:C6	2.33	0.64
81:DA:3121:U:H4'	81:DA:3122:A:OP1	1.96	0.64
38:Bs:227:ILE:HG22	72:Bt:48:ALA:HB1	1.79	0.64
38:Bs:239:LEU:CD1	73:Bw:53:LEU:HD12	2.27	0.64
42:BM:95:PHE:CG	51:BZ:22:VAL:HG13	2.28	0.64
67:Bp:41:HIS:HB3	81:DA:1695:U:H4'	1.79	0.64
78:CA:388:G:C8	78:CA:423:G:C2	2.85	0.64
78:CA:1303:U:O4	78:CA:1304:G:C2	2.51	0.64
81:DA:2505:U:H2'	81:DA:2506:U:C6	2.31	0.64
83:DC:2:G:H2'	83:DC:3:U:C5	2.33	0.64
20:AS:89:ARG:HH11	78:CA:1467:C:H1'	1.60	0.64
31:BB:204:MET:CE	81:DA:914:A:N3	2.60	0.64
38:Bs:12:PHE:CZ	38:Bs:57:THR:HG22	2.32	0.64
38:Bs:230:PRO:HG3	73:Bw:40:SER:O	1.97	0.64
53:Ba:14:VAL:H	53:Ba:21:LYS:CD	2.11	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:Bt:40:ILE:HG23	73:Bw:36:GLU:HG2	1.79	0.64
5:AC:53:ARG:HH22	78:CA:658:C:C3'	2.11	0.64
30:BA:53:LEU:HD21	30:BA:134:PHE:CD1	2.33	0.64
37:BH:88:ALA:C	37:BH:89:GLU:CA	2.68	0.64
52:BY:8:VAL:HG13	81:DA:334:A:H4'	1.80	0.64
81:DA:385:A:H2'	81:DA:386:A:C8	2.33	0.64
81:DA:835:G:H1'	81:DA:858:A:N6	2.13	0.64
8:AF:57:SER:OG	25:AY:57:MET:CA	2.46	0.64
32:BC:331:ASN:CG	81:DA:3304:U:H4'	2.22	0.64
72:Bu:35:VAL:CG1	72:Bu:36:PRO:HD3	2.28	0.64
78:CA:904:G:N1	78:CA:905:A:C4	2.66	0.64
20:AS:84:LYS:HB3	78:CA:1590:G:H5''	1.80	0.64
34:BE:21:ILE:HD11	34:BE:122:ILE:HG21	1.80	0.64
36:BF:46:THR:CA	41:BN:8:LYS:HE2	2.28	0.64
46:BT:82:LYS:H	46:BT:82:LYS:CD	2.10	0.64
72:Bu:29:LEU:HD21	73:Bw:29:VAL:CA	2.28	0.64
78:CA:1170:G:N1	78:CA:1574:G:C4	2.67	0.64
81:DA:2176:U:H2'	81:DA:2177:G:C8	2.33	0.64
81:DA:3147:G:H2'	81:DA:3148:U:C6	2.32	0.64
17:AQ:85:VAL:O	17:AQ:85:VAL:HG12	1.98	0.63
19:AR:107:ILE:CG1	78:CA:1453:G:H21	2.10	0.63
56:Bf:62:LEU:N	60:Bi:31:ARG:NH2	2.46	0.63
72:Bu:29:LEU:HD23	73:Bw:28:SER:OG	1.98	0.63
74:BQ:128:GLU:O	74:BQ:129:TYR:O	2.12	0.63
78:CA:938:G:N2	78:CA:942:G:C4	2.65	0.63
78:CA:1303:U:O4	78:CA:1304:G:C6	2.51	0.63
81:DA:1076:C:O2	81:DA:1084:A:N1	2.30	0.63
81:DA:2130:G:H2'	81:DA:2131:A:H5'	1.81	0.63
2:AA:194:PRO:HB2	2:AA:208:GLU:HB2	1.80	0.63
8:AF:153:GLY:HA3	78:CA:904:G:H1'	1.79	0.63
17:AQ:82:ASP:O	17:AQ:82:ASP:HB3	1.94	0.63
19:AR:59:LYS:HE3	78:CA:1551:U:C5'	2.28	0.63
72:Bt:17:SER:CB	73:Bv:31:ILE:CD1	2.70	0.63
34:BE:9:MET:HG2	83:DC:54:A:C5	2.33	0.63
78:CA:1346:A:C2	78:CA:1347:U:C4	2.87	0.63
78:CA:1780:G:N2	78:CA:1781:A:N3	2.47	0.63
81:DA:3146:G:H2'	81:DA:3147:G:H8	1.60	0.63
7:AG:68:UNK:O	7:AG:69:UNK:CB	2.40	0.63
33:BD:84:ARG:HD3	81:DA:366:A:H5'	1.79	0.63
38:Bs:243:TYR:CZ	73:Bw:54:ILE:CD1	2.82	0.63
41:BN:12:TRP:CD1	41:BN:19:ARG:HH22	2.15	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:2187:G:C8	81:DA:2187:G:H2'	2.34	0.63
81:DA:2684:C:H2'	81:DA:2685:C:C6	2.33	0.63
56:Bf:62:LEU:C	60:Bi:31:ARG:NE	2.55	0.63
78:CA:646:C:N3	78:CA:685:A:C2	2.67	0.63
81:DA:177:U:H3	81:DA:241:G:H22	1.46	0.63
81:DA:1716:U:C5	81:DA:1730:G:N2	2.67	0.63
1:Aa:59:ARG:CA	10:AI:107:LYS:HE3	2.28	0.63
13:AL:7:ARG:HB3	18:AP:76:VAL:HG22	1.81	0.63
14:AM:123:ARG:CZ	78:CA:1547:A:OP2	2.46	0.63
18:AP:105:LYS:HE3	78:CA:335:U:H4'	1.81	0.63
38:Bs:246:LEU:HD22	72:Bu:8:SER:CA	2.28	0.63
53:Ba:13:VAL:HG21	53:Ba:61:LYS:HG3	1.81	0.63
81:DA:3235:C:H2'	81:DA:3236:U:C6	2.34	0.63
6:AE:198:THR:HG22	78:CA:2:A:N1	2.14	0.63
72:Bu:17:SER:CA	73:Bw:31:ILE:CD1	2.76	0.63
78:CA:1357:A:H2'	78:CA:1358:G:C8	2.34	0.63
81:DA:2100:A:H2'	81:DA:2101:C:C6	2.34	0.63
81:DA:2499:U:H2'	81:DA:2500:A:C8	2.34	0.63
81:DA:3217:C:C2'	81:DA:3217:C:N1	2.61	0.63
3:AB:76:ARG:HB2	17:AQ:33:ARG:HE	1.63	0.63
32:BC:308:MET:HE1	81:DA:3327:G:H2'	1.80	0.63
35:BG:49:GLY:CA	35:BG:50:LYS:HD3	2.29	0.63
78:CA:1187:U:H3	78:CA:1198:G:H1	1.45	0.63
78:CA:1203:A:C6	78:CA:1556:A:C2	2.86	0.63
81:DA:1975:C:C3'	81:DA:1976:G:H5'	2.28	0.63
1:Aa:44:SER:H	10:AI:107:LYS:HZ1	1.44	0.63
6:AE:184:VAL:HG21	78:CA:1098:U:H5'	1.81	0.63
16:AO:58:HIS:CG	16:AO:59:GLY:N	2.67	0.63
38:Bs:39:HIS:NE2	81:DA:1261:G:C6	2.67	0.63
44:BO:3:SER:H	44:BO:4:ARG:HA	1.64	0.63
57:Be:66:LYS:HG2	76:BS:28:ARG:HH21	1.63	0.63
72:Bt:7:LEU:HD11	72:Bt:41:TRP:HB3	1.79	0.63
75:BL:18:UNK:CB	81:DA:798:G:H4'	2.28	0.63
78:CA:1003:A:C6	78:CA:1005:A:N1	2.66	0.63
81:DA:45:A:N3	81:DA:95:A:H2	1.97	0.63
81:DA:1863:G:H1'	81:DA:1867:A:N6	2.13	0.63
81:DA:3049:A:H2'	81:DA:3050:U:H5'	1.79	0.63
81:DA:3304:U:C3'	81:DA:3304:U:O4'	2.47	0.63
12:AK:122:PRO:HG3	78:CA:887:A:H5''	1.80	0.62
14:AM:99:HIS:CG	14:AM:101:LEU:HD12	2.33	0.62
32:BC:266:ARG:HH11	32:BC:266:ARG:CG	2.12	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:Bt:17:SER:HA	73:Bv:2:LYS:HE2	1.80	0.62
72:Bt:21:ILE:HG21	72:Bt:49:LEU:CD1	2.29	0.62
74:BQ:54:ARG:HA	83:DC:27:A:OP1	1.98	0.62
78:CA:991:G:N2	78:CA:1014:G:C6	2.67	0.62
7:AG:14:UNK:CB	46:BT:188:ASP:OD1	2.47	0.62
20:AS:126:GLU:HA	20:AS:129:GLN:HE21	1.64	0.62
32:BC:331:ASN:OD1	81:DA:3304:U:C4'	2.47	0.62
34:BE:53:THR:O	34:BE:55:ARG:N	2.31	0.62
40:BK:18:ARG:CZ	81:DA:1181:U:H5	2.12	0.62
58:Bg:72:ARG:HE	58:Bg:73:LEU:H	1.47	0.62
72:Bt:35:VAL:HG12	72:Bt:36:PRO:HD2	1.81	0.62
78:CA:1747:G:H4'	81:DA:2303:A:H1'	1.82	0.62
81:DA:673:U:H2'	81:DA:674:G:C8	2.34	0.62
19:AR:58:LYS:HG3	78:CA:1550:A:C8	2.33	0.62
32:BC:106:TRP:HE1	81:DA:3149:G:H5'	1.63	0.62
38:Bs:246:LEU:HD21	72:Bu:9:TYR:HA	1.80	0.62
56:Bf:16:LEU:O	56:Bf:16:LEU:HD13	1.99	0.62
65:Bn:54:LEU:HD12	65:Bn:77:ARG:HA	1.82	0.62
72:Bu:21:ILE:HG21	72:Bu:49:LEU:CD1	2.29	0.62
82:DB:3:A:H3'	82:DB:4:C:C6	2.33	0.62
6:AE:217:ALA:CB	78:CA:2:A:H62	1.98	0.62
8:AF:116:HIS:CG	22:AV:94:LYS:HD2	2.34	0.62
16:AO:123:HIS:CE1	16:AO:148:ALA:HB1	2.34	0.62
30:BA:18:LYS:HB3	30:BA:24:LYS:H	1.65	0.62
31:BB:231:SER:HB2	81:DA:2163:C:H5''	1.81	0.62
38:Bs:214:VAL:CG1	73:Bv:58:ASN:O	2.44	0.62
78:CA:1552:U:C5	78:CA:1553:G:C5	2.88	0.62
81:DA:307:A:H1'	81:DA:2222:A:C2	2.34	0.62
5:AC:168:ARG:O	5:AC:168:ARG:CD	2.48	0.62
29:AU:62:THR:O	29:AU:63:GLN:CB	2.47	0.62
32:BC:29:VAL:HG22	32:BC:218:ILE:HD12	1.80	0.62
41:BN:74:ARG:HD3	76:BS:154:VAL:CG1	2.30	0.62
51:BZ:70:LYS:O	51:BZ:70:LYS:N	2.31	0.62
58:Bg:92:TYR:CD1	81:DA:3324:C:H5''	2.35	0.62
64:Bl:63:ARG:CG	64:Bl:65:ARG:H	2.12	0.62
81:DA:1687:U:H2'	81:DA:1688:U:H5'	1.81	0.62
81:DA:1687:U:C2'	81:DA:1688:U:H5'	2.29	0.62
81:DA:2266:U:H2'	81:DA:2267:C:C5	2.35	0.62
82:DB:39:G:H1'	82:DB:104:A:H61	1.64	0.62
14:AM:14:ILE:CD1	34:BE:115:LYS:HG3	2.28	0.62
20:AS:68:ARG:NH2	78:CA:1481:C:H5''	2.15	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:Bh:36:LYS:HG3	81:DA:639:G:H5'	1.82	0.62
72:Bt:43:ASP:CG	73:Bw:36:GLU:OE2	2.43	0.62
72:Bu:35:VAL:HG12	72:Bu:36:PRO:HD2	1.81	0.62
74:BQ:257:GLU:HG3	74:BQ:258:LYS:H	1.63	0.62
78:CA:29:U:H2'	78:CA:30:G:O4'	1.99	0.62
78:CA:1756:A:H3'	78:CA:1757:G:H5'	1.82	0.62
81:DA:1013:G:H1	81:DA:1039:U:H3	1.45	0.62
81:DA:1870:C:O2'	81:DA:1871:U:P	2.57	0.62
81:DA:1915:A:H2'	81:DA:1916:U:C6	2.35	0.62
1:Aa:47:LEU:H	1:Aa:47:LEU:HD12	1.64	0.62
6:AE:201:ASN:ND2	78:CA:3:U:C2	2.68	0.62
11:AJ:83:GLU:HA	15:AN:55:PHE:N	2.10	0.62
17:AQ:16:LEU:HD13	17:AQ:38:ILE:HB	1.81	0.62
35:BG:69:PHE:HE1	35:BG:76:LEU:HD21	1.63	0.62
40:BK:27:LEU:HD21	40:BK:33:ILE:HG22	1.82	0.62
40:BK:178:VAL:O	40:BK:180:SER:N	2.32	0.62
42:BM:45:ARG:O	42:BM:48:ARG:HB2	1.99	0.62
76:BS:123:ILE:HA	76:BS:124:GLN:HE21	1.62	0.62
78:CA:95:G:H1	78:CA:402:C:H41	1.47	0.62
78:CA:163:G:H3'	78:CA:164:A:C8	2.35	0.62
6:AE:198:THR:CG2	78:CA:2:A:C2	2.82	0.62
8:AF:192:GLU:H	8:AF:192:GLU:CD	2.07	0.62
31:BB:26:ALA:HB2	81:DA:2175:U:C2'	2.24	0.62
35:BG:145:LEU:HD13	41:BN:114:ASP:CA	2.09	0.62
41:BN:110:ALA:O	61:Bj:39:GLN:NE2	2.33	0.62
41:BN:132:LYS:HZ1	81:DA:3230:G:H5'	1.64	0.62
72:Bu:29:LEU:CD1	73:Bw:29:VAL:HG22	2.30	0.62
78:CA:929:A:C5	78:CA:930:A:C4	2.88	0.62
78:CA:1582:U:O2	78:CA:1614:A:H1'	1.99	0.62
81:DA:2631:U:H2'	81:DA:2632:G:C8	2.35	0.62
16:AO:124:ARG:HD2	78:CA:627:C:O2'	2.00	0.62
19:AR:59:LYS:CE	78:CA:1551:U:O5'	2.48	0.62
38:Bs:9:ALA:N	81:DA:1221:A:H2	1.97	0.62
44:BO:124:ILE:CG1	75:BL:149:UNK:CB	2.70	0.62
81:DA:168:U:H3	81:DA:254:A:H61	1.47	0.62
5:AC:24:LEU:HD13	78:CA:555:A:C4'	2.28	0.61
30:BA:130:LYS:H	30:BA:130:LYS:HD2	1.64	0.61
33:BD:321:LYS:CA	33:BD:321:LYS:CG	2.76	0.61
60:Bi:4:ARG:HH22	81:DA:1628:C:C5'	2.12	0.61
78:CA:1081:A:H61	78:CA:1092:A:H62	1.47	0.61
78:CA:1292:G:N1	78:CA:1324:G:N3	2.48	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:1006:A:H2'	81:DA:1007:U:C6	2.35	0.61
81:DA:1682:U:C2'	81:DA:1682:U:N1	2.59	0.61
54:Bd:59:LYS:HE3	81:DA:1209:G:C6	2.35	0.61
67:Bp:27:LEU:CD1	67:Bp:35:ARG:H	2.12	0.61
67:Bp:34:CYS:O	67:Bp:39:CYS:HB2	2.00	0.61
29:AU:16:PRO:CG	29:AU:93:ARG:CB	2.79	0.61
31:BB:98:VAL:HG23	63:Bm:83:ILE:CD1	2.30	0.61
44:BO:2:PRO:HG2	81:DA:802:C:H41	1.62	0.61
53:Ba:53:VAL:H	53:Ba:69:LYS:HZ3	1.46	0.61
72:Bt:33:ALA:O	72:Bt:34:ASN:CB	2.47	0.61
72:Bu:17:SER:O	72:Bu:18:GLU:CB	2.49	0.61
74:BQ:44:TYR:HB2	74:BQ:144:VAL:HG23	1.81	0.61
78:CA:1785:U:H2'	78:CA:1786:G:C8	2.34	0.61
81:DA:2720:G:O2'	81:DA:2736:A:N6	2.33	0.61
19:AR:123:TYR:O	19:AR:126:VAL:HG23	2.01	0.61
33:BD:354:VAL:O	33:BD:355:PHE:HB2	1.99	0.61
72:Bt:44:ILE:CG1	73:Bw:36:GLU:CA	2.78	0.61
81:DA:1958:U:H3	81:DA:2083:G:H1	1.49	0.61
81:DA:3330:A:H2	81:DA:3373:U:O2	1.83	0.61
7:AG:14:UNK:CB	46:BT:188:ASP:OD2	2.47	0.61
13:AL:9:LEU:HB3	18:AP:79:LYS:HZ1	1.65	0.61
22:AV:104:ALA:O	22:AV:105:THR:HG23	2.00	0.61
31:BB:84:THR:C	63:Bm:62:LYS:HE2	2.26	0.61
32:BC:9:PRO:HD2	42:BM:45:ARG:HH22	1.65	0.61
38:Bs:217:VAL:HG11	73:Bv:54:ILE:HG23	1.82	0.61
78:CA:56:U:O4	78:CA:92:A:H4'	2.00	0.61
81:DA:2755:C:H2'	81:DA:2756:C:C6	2.34	0.61
6:AE:110:HIS:CE1	6:AE:140:ARG:HE	2.19	0.61
16:AO:65:VAL:HG13	24:AX:51:GLN:OE1	2.00	0.61
26:AZ:11:ALA:HB2	26:AZ:33:ARG:HH22	1.66	0.61
58:Bg:26:LYS:HA	58:Bg:65:LYS:HB3	1.82	0.61
74:BQ:129:TYR:N	74:BQ:129:TYR:CB	2.60	0.61
78:CA:1003:A:C5	78:CA:1005:A:C4	2.88	0.61
78:CA:1158:C:C5	78:CA:1582:U:N3	2.68	0.61
78:CA:1583:A:O4'	78:CA:1583:A:N9	2.31	0.61
81:DA:1480:G:H1	81:DA:1871:U:H3	1.47	0.61
81:DA:2830:G:H1	81:DA:2858:U:H3	1.48	0.61
35:BG:97:ASN:O	35:BG:98:VAL:HG23	2.00	0.61
38:Bs:243:TYR:CE2	73:Bw:54:ILE:HG12	2.36	0.61
39:BJ:12:TYR:HB2	39:BJ:14:TYR:CE1	2.35	0.61
78:CA:163:G:H3'	78:CA:164:A:H8	1.65	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:CA:218:A:N6	78:CA:838:G:H1'	2.15	0.61
81:DA:77:A:H61	81:DA:323:A:N6	1.98	0.61
81:DA:1584:U:C4	81:DA:1585:C:N4	2.69	0.61
81:DA:2160:G:O6	81:DA:2173:U:H2'	2.01	0.61
81:DA:2339:C:C2'	81:DA:2339:C:N1	2.61	0.61
1:Aa:53:LYS:CB	1:Aa:53:LYS:N	2.58	0.61
38:Bs:220:ILE:HD12	72:Bt:9:TYR:HE1	1.58	0.61
78:CA:304:U:H2'	78:CA:305:C:C5	2.36	0.61
78:CA:1170:G:N3	78:CA:1574:G:H1'	2.15	0.61
13:AL:13:ARG:NH2	18:AP:71:LEU:HD22	2.15	0.61
41:BN:74:ARG:NE	76:BS:154:VAL:HB	2.15	0.61
72:Bt:35:VAL:CG1	72:Bt:36:PRO:HD3	2.28	0.61
78:CA:1292:G:C5	78:CA:1324:G:C2	2.89	0.61
81:DA:2177:G:H8	81:DA:2177:G:O5'	1.84	0.61
13:AL:9:LEU:CB	18:AP:79:LYS:HZ1	2.14	0.61
14:AM:116:LEU:CD1	78:CA:1546:G:O3'	2.49	0.61
47:BU:8:ARG:H	47:BU:8:ARG:HD2	1.65	0.61
72:Bt:17:SER:O	72:Bt:18:GLU:CB	2.49	0.61
72:Bu:14:LEU:HD12	72:Bu:26:LEU:HD23	1.83	0.61
78:CA:1295:G:H4'	78:CA:1321:A:N6	2.15	0.61
81:DA:636:C:C5	81:DA:646:A:H4'	2.36	0.61
14:AM:133:VAL:HG21	78:CA:1545:A:C4'	2.30	0.60
52:BY:90:VAL:HG22	81:DA:378:A:O4'	2.01	0.60
72:Bt:36:PRO:HD2	72:Bt:36:PRO:O	2.01	0.60
81:DA:219:A:C2	81:DA:1390:A:H2'	2.35	0.60
81:DA:2129:U:H3	81:DA:2323:G:H1	1.48	0.60
23:AW:63:UNK:H	23:AW:64:UNK:HA	1.65	0.60
40:BK:27:LEU:CD1	40:BK:84:LEU:HD11	2.30	0.60
43:BP:50:ARG:HB2	81:DA:267:G:N3	2.16	0.60
78:CA:1115:U:H2'	78:CA:1115:U:O2	2.00	0.60
78:CA:1201:G:O6	78:CA:1601:G:O6	2.19	0.60
78:CA:1393:C:H2'	78:CA:1394:G:H5'	1.83	0.60
81:DA:406:G:H1'	82:DB:17:A:N6	2.16	0.60
81:DA:1401:A:C2'	81:DA:1401:A:C4	2.84	0.60
81:DA:2676:A:H1'	81:DA:2679:A:N7	2.16	0.60
31:BB:230:VAL:HG21	81:DA:2424:A:C2	2.37	0.60
35:BG:97:ASN:C	35:BG:98:VAL:HG23	2.25	0.60
78:CA:45:U:C6	78:CA:45:U:H2'	2.37	0.60
78:CA:330:G:H1	78:CA:338:C:N4	1.98	0.60
78:CA:1115:U:N3	78:CA:1131:A:N7	2.49	0.60
80:CC:18:C:C3'	80:CC:19:U:P	2.89	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AE:197:TYR:HB2	78:CA:2:A:N6	2.16	0.60
10:AI:127:LYS:HG3	78:CA:1584:G:H3'	1.83	0.60
30:BA:54:LYS:H	30:BA:155:ILE:HG22	1.65	0.60
31:BB:6:ARG:NH1	81:DA:914:A:C6	2.47	0.60
33:BD:84:ARG:HD3	81:DA:365:A:O2'	2.00	0.60
38:Bs:222:SER:CB	72:Bt:61:PHE:CE1	2.80	0.60
41:BN:15:VAL:HG11	76:BS:160:PRO:HG2	1.83	0.60
41:BN:74:ARG:CD	76:BS:154:VAL:HG11	2.31	0.60
48:BW:90:ARG:H	48:BW:90:ARG:HG3	1.65	0.60
78:CA:446:A:H62	78:CA:461:G:H21	1.49	0.60
81:DA:1218:U:H2'	81:DA:1219:C:H5''	1.81	0.60
81:DA:2840:C:HO2'	81:DA:2841:G:H8	1.47	0.60
9:AH:6:VAL:HG21	78:CA:1036:A:C1'	2.30	0.60
20:AS:43:ASN:CA	78:CA:1477:G:C4'	2.66	0.60
21:AT:55:LEU:H	21:AT:55:LEU:HD12	1.67	0.60
22:AV:49:ARG:HB3	22:AV:69:LEU:HD13	1.83	0.60
32:BC:25:ILE:HD12	81:DA:3312:U:H5''	1.83	0.60
35:BG:136:GLU:HG2	41:BN:115:PHE:HB3	1.83	0.60
38:Bs:246:LEU:HD21	72:Bu:9:TYR:N	2.16	0.60
41:BN:12:TRP:HZ2	76:BS:164:LYS:HD3	1.65	0.60
78:CA:1201:G:O4'	78:CA:1201:G:N9	2.33	0.60
78:CA:1746:A:H3'	78:CA:1747:G:H8	1.65	0.60
14:AM:16:ARG:NH1	34:BE:110:ILE:C	2.30	0.60
19:AR:107:ILE:HG13	78:CA:1453:G:N2	2.17	0.60
20:AS:39:THR:HG22	20:AS:40:SER:H	1.66	0.60
43:BP:49:ARG:HB3	81:DA:114:A:HO2'	1.64	0.60
53:Ba:87:LEU:HD11	70:Bx:7:UNK:CB	2.32	0.60
78:CA:587:C:N3	78:CA:588:U:C5	2.69	0.60
78:CA:1583:A:C2	78:CA:1612:U:H5	2.18	0.60
81:DA:345:G:OP1	81:DA:1429:G:N2	2.35	0.60
81:DA:2661:G:H2'	81:DA:2662:G:H8	1.67	0.60
13:AL:19:ARG:NH2	78:CA:1106:U:C4	2.69	0.60
14:AM:122:HIS:CD2	19:AR:130:ARG:HD3	2.37	0.60
19:AR:58:LYS:HG3	78:CA:1550:A:N7	2.17	0.60
20:AS:42:GLY:CA	78:CA:1476:C:O2'	2.50	0.60
41:BN:12:TRP:CZ2	76:BS:164:LYS:HD3	2.37	0.60
42:BM:95:PHE:CZ	51:BZ:22:VAL:HG11	2.33	0.60
53:Ba:10:VAL:CG2	53:Ba:11:ALA:H	2.12	0.60
61:Bj:2:ALA:O	61:Bj:3:GLU:CD	2.44	0.60
81:DA:1257:C:H2'	81:DA:1258:U:C5'	2.32	0.60
8:AF:98:MET:CE	78:CA:1611:A:H5'	2.27	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AR:59:LYS:HG2	78:CA:1551:U:C5	2.22	0.60
78:CA:207:U:C6	78:CA:253:A:C2	2.90	0.60
81:DA:1695:U:H3	81:DA:1752:A:H61	1.48	0.60
81:DA:1871:U:H6	81:DA:1871:U:O5'	1.84	0.60
81:DA:1900:A:H61	81:DA:1908:A:H61	1.48	0.60
2:AA:108:THR:HB	78:CA:1294:G:O2'	2.02	0.60
14:AM:14:ILE:CD1	34:BE:115:LYS:CA	2.79	0.60
20:AS:85:SER:H	78:CA:1591:C:P	2.24	0.60
31:BB:15:ILE:HD11	81:DA:911:C:H5''	1.83	0.60
31:BB:188:LYS:HG2	81:DA:1794:G:H5'	1.83	0.60
35:BG:75:PRO:O	35:BG:76:LEU:CB	2.49	0.60
72:Bt:14:LEU:HD12	72:Bt:26:LEU:HD23	1.83	0.60
78:CA:117:U:H2'	78:CA:118:U:H5'	1.84	0.60
78:CA:1618:C:O2	78:CA:1618:C:C3'	2.49	0.60
81:DA:636:C:C4	81:DA:637:C:C5	2.90	0.60
81:DA:1009:A:H61	81:DA:1043:C:H42	1.50	0.60
81:DA:1054:A:N7	81:DA:1055:A:H1'	2.17	0.60
81:DA:1941:C:O2	81:DA:2107:A:N1	2.35	0.60
81:DA:2362:C:C2'	81:DA:2362:C:C6	2.85	0.60
33:BD:31:ARG:HH22	81:DA:673:U:H4'	1.67	0.60
43:BP:178:HIS:HB2	81:DA:69:C:C5'	2.32	0.60
49:BV:18:ARG:HH21	81:DA:388:G:H5''	1.66	0.60
53:Ba:23:VAL:HG21	53:Ba:55:LYS:O	2.02	0.60
53:Ba:74:VAL:HG21	60:Bi:67:LYS:CE	2.32	0.60
62:Bk:28:TYR:HB2	62:Bk:29:LYS:HA	1.84	0.60
81:DA:1746:U:H2'	81:DA:1747:G:C8	2.37	0.60
81:DA:2292:U:H3	81:DA:2300:G:H1	1.49	0.60
81:DA:2478:C:C5	81:DA:2479:C:C2	2.89	0.60
6:AE:198:THR:CG2	78:CA:2:A:N1	2.65	0.59
10:AI:90:VAL:HA	10:AI:93:HIS:CE1	2.36	0.59
38:Bs:36:GLN:HG3	81:DA:1232:C:H4'	1.84	0.59
38:Bs:180:PRO:HD2	38:Bs:181:PHE:H	1.66	0.59
39:BJ:123:ARG:HH21	81:DA:1257:C:C3'	2.15	0.59
43:BP:50:ARG:CA	81:DA:267:G:N2	2.54	0.59
59:Bh:54:LYS:O	81:DA:1405:U:C2	2.55	0.59
78:CA:6:G:C2	78:CA:19:A:C2	2.89	0.59
81:DA:754:G:H1	81:DA:778:U:H3	1.50	0.59
81:DA:1427:U:O2'	81:DA:1428:A:H5'	2.02	0.59
13:AL:14:LYS:CE	18:AP:78:THR:OG1	2.50	0.59
35:BG:11:PRO:HD2	59:Bh:1:MET:HE1	1.84	0.59
38:Bs:33:VAL:HA	38:Bs:183:PHE:HB3	1.83	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BP:12:ARG:NH1	81:DA:297:G:O6	2.35	0.59
72:Bu:36:PRO:HD2	72:Bu:36:PRO:O	2.01	0.59
81:DA:600:G:H1'	81:DA:603:A:N6	2.16	0.59
1:Aa:59:ARG:HD2	1:Aa:95:ALA:O	2.02	0.59
4:AD:125:LYS:H	4:AD:142:HIS:HD2	1.50	0.59
6:AE:30:THR:HG22	6:AE:31:GLU:H	1.66	0.59
6:AE:174:ARG:O	6:AE:174:ARG:HD3	2.02	0.59
10:AI:138:PHE:CE1	78:CA:1587:A:OP1	2.55	0.59
16:AO:112:LYS:HA	78:CA:879:G:H5'	1.84	0.59
20:AS:15:ILE:HD13	20:AS:56:LYS:CD	2.32	0.59
36:BF:47:LYS:N	41:BN:7:VAL:HG23	2.17	0.59
42:BM:93:LEU:HD23	51:BZ:20:LEU:CB	2.28	0.59
78:CA:267:U:H2'	78:CA:268:C:C6	2.37	0.59
81:DA:668:G:H1	81:DA:794:U:H3	1.50	0.59
5:AC:122:VAL:O	5:AC:124:HIS:CD2	2.55	0.59
14:AM:13:HIS:CA	34:BE:116:TYR:CE1	2.85	0.59
32:BC:123:TYR:HB2	81:DA:3296:A:H5''	1.84	0.59
33:BD:295:ILE:O	33:BD:296:GLN:HA	2.01	0.59
40:BK:110:PRO:HB3	81:DA:3246:G:H21	1.66	0.59
41:BN:65:LEU:HD23	76:BS:161:PRO:CG	2.32	0.59
55:Bc:81:ARG:HG2	82:DB:38:U:H1'	1.84	0.59
78:CA:1176:G:C2	78:CA:1464:G:C2	2.91	0.59
81:DA:230:U:H3'	81:DA:231:G:H5'	1.83	0.59
81:DA:861:C:H2'	81:DA:862:U:C6	2.37	0.59
19:AR:107:ILE:HG23	19:AR:108:ARG:H	1.67	0.59
58:Bg:33:VAL:HG13	58:Bg:59:ILE:HD13	1.84	0.59
72:Bu:19:ILE:HG23	72:Bu:25:LYS:HE2	1.84	0.59
72:Bu:32:ALA:HB2	73:Bw:28:SER:HB3	1.83	0.59
78:CA:1735:U:H3'	78:CA:1736:G:C8	2.38	0.59
81:DA:1871:U:C6	81:DA:1871:U:P	2.96	0.59
21:AT:83:TRP:CD1	23:AW:118:UNK:CB	2.85	0.59
31:BB:230:VAL:HG21	81:DA:2424:A:N1	2.18	0.59
40:BK:178:VAL:O	40:BK:178:VAL:CG1	2.47	0.59
44:BO:4:ARG:HG2	81:DA:802:C:C5	2.38	0.59
46:BT:69:SER:HB2	46:BT:74:ARG:HH22	1.68	0.59
72:Bt:24:GLU:O	72:Bt:28:THR:HG23	2.03	0.59
72:Bu:24:GLU:O	72:Bu:28:THR:HG23	2.03	0.59
78:CA:936:G:C2	78:CA:937:C:C2	2.91	0.59
78:CA:1334:U:H3	78:CA:1417:A:H61	1.48	0.59
78:CA:1759:C:H4'	81:DA:2262:A:H2	1.67	0.59
78:CA:1770:U:H3	78:CA:1791:A:H61	1.50	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:1622:U:H4'	81:DA:1623:G:OP1	2.01	0.59
81:DA:1630:U:H3	81:DA:1811:G:H1	1.48	0.59
81:DA:2999:U:H2'	81:DA:3000:A:C8	2.38	0.59
4:AD:105:VAL:HG12	4:AD:187:ARG:O	2.03	0.59
74:BQ:90:HIS:CG	74:BQ:91:GLY:H	2.21	0.59
76:BS:75:LYS:HE2	76:BS:131:VAL:HG12	1.84	0.59
78:CA:1003:A:N1	78:CA:1005:A:N3	2.49	0.59
80:CC:18:C:H4'	80:CC:19:U:C5	2.38	0.59
38:Bs:246:LEU:CD1	72:Bu:9:TYR:CG	2.82	0.59
78:CA:932:U:C2	78:CA:944:A:C6	2.91	0.59
78:CA:1174:C:H42	78:CA:1465:C:N4	2.00	0.59
81:DA:1335:C:H2'	81:DA:1336:U:C6	2.38	0.59
81:DA:2346:C:C4	81:DA:2347:U:C5	2.91	0.59
1:Aa:60:SER:HB2	10:AI:107:LYS:CE	2.33	0.59
13:AL:13:ARG:HG3	18:AP:76:VAL:CG2	2.32	0.59
21:AT:10:GLU:N	21:AT:10:GLU:CB	2.60	0.59
78:CA:45:U:O4	78:CA:434:G:N2	2.32	0.59
78:CA:223:U:H3	78:CA:234:G:H1	1.50	0.59
78:CA:1225:U:H2'	78:CA:1226:A:C8	2.37	0.59
78:CA:1281:G:H2'	78:CA:1282:U:C6	2.38	0.59
20:AS:15:ILE:HG21	20:AS:60:SER:CB	2.33	0.59
31:BB:188:LYS:CE	81:DA:1793:C:C2'	2.81	0.59
32:BC:182:GLN:HE21	32:BC:184:ASN:HD21	1.50	0.59
43:BP:74:PRO:C	43:BP:74:PRO:HB2	2.28	0.59
65:Bn:22:THR:HG23	65:Bn:46:ARG:HE	1.68	0.59
69:Br:1:MET:HG2	69:Br:89:LYS:H	1.68	0.59
72:Bu:10:ALA:HA	73:Bw:9:LEU:HD11	1.84	0.59
14:AM:123:ARG:CZ	78:CA:1547:A:P	2.91	0.58
19:AR:90:ILE:HG13	78:CA:1554:U:O2'	2.01	0.58
20:AS:6:VAL:HG21	20:AS:133:ASP:OD1	2.03	0.58
31:BB:208:ASP:HB3	81:DA:914:A:H2	1.67	0.58
33:BD:129:THR:HG21	33:BD:248:VAL:HG12	1.84	0.58
34:BE:143:ARG:HD2	74:BQ:50:ARG:HB3	1.84	0.58
40:BK:130:LYS:HB2	81:DA:1316:C:C6	2.38	0.58
78:CA:1174:C:C4	78:CA:1466:G:N2	2.71	0.58
78:CA:1780:G:C5	78:CA:1781:A:C5	2.91	0.58
81:DA:372:A:C6	81:DA:373:A:N1	2.71	0.58
81:DA:1989:U:H2'	81:DA:1990:U:C5	2.38	0.58
11:AJ:81:THR:O	11:AJ:81:THR:N	2.34	0.58
16:AO:53:LEU:CD2	16:AO:63:ALA:HA	2.33	0.58
34:BE:53:THR:OG1	79:CB:55:C:H2'	2.03	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BH:230:LYS:C	37:BH:232:HIS:H	2.10	0.58
38:Bs:53:MET:HG3	81:DA:1260:A:OP1	2.04	0.58
53:Ba:56:LYS:CA	53:Ba:57:HIS:CE1	2.86	0.58
56:Bf:35:ARG:NH2	60:Bi:66:SER:OG	2.35	0.58
57:Be:71:ALA:O	76:BS:28:ARG:HB2	2.02	0.58
72:Bu:33:ALA:O	72:Bu:34:ASN:CB	2.47	0.58
74:BQ:256:THR:HG23	83:DC:59:G:H21	1.68	0.58
78:CA:451:A:H61	78:CA:455:C:H42	1.51	0.58
78:CA:1679:G:H1'	78:CA:1722:A:H61	1.68	0.58
81:DA:1379:G:H1	81:DA:1427:U:H3	1.49	0.58
81:DA:1990:U:H2'	81:DA:1991:G:O4'	2.02	0.58
13:AL:7:ARG:HB3	18:AP:76:VAL:HG13	1.84	0.58
14:AM:26:ILE:HD12	78:CA:1534:G:P	2.43	0.58
33:BD:338:LYS:O	33:BD:339:LEU:HD23	2.04	0.58
44:BO:57:GLY:O	44:BO:58:MET:CB	2.48	0.58
59:Bh:53:PRO:HB3	81:DA:1405:U:O2	2.04	0.58
78:CA:365:G:C6	78:CA:377:G:C2	2.91	0.58
78:CA:1552:U:C5	78:CA:1553:G:N7	2.72	0.58
81:DA:2661:G:H2'	81:DA:2662:G:C8	2.39	0.58
2:AA:252:TRP:HA	3:AB:198:GLY:HA3	1.83	0.58
13:AL:7:ARG:CB	18:AP:76:VAL:HG13	2.33	0.58
20:AS:43:ASN:HB2	78:CA:1477:G:H5''	1.86	0.58
32:BC:170:PRO:HG2	32:BC:171:LEU:HD12	1.86	0.58
32:BC:232:ARG:HH11	32:BC:233:TRP:HE1	1.50	0.58
35:BG:145:LEU:HD21	41:BN:113:THR:O	2.03	0.58
37:BH:134:TYR:CD1	81:DA:146:U:C5'	2.83	0.58
41:BN:65:LEU:HD23	76:BS:161:PRO:HG2	1.85	0.58
78:CA:5:U:O2	78:CA:20:G:C2	2.57	0.58
78:CA:671:G:H2'	78:CA:672:U:C6	2.38	0.58
78:CA:1055:U:O2	78:CA:1065:A:C2	2.57	0.58
78:CA:1087:A:HO2'	78:CA:1142:A:HO2'	1.51	0.58
81:DA:4:U:H3	82:DB:155:A:H61	1.51	0.58
81:DA:519:A:H62	81:DA:571:U:H3	1.52	0.58
81:DA:1666:G:H1	81:DA:1783:U:H3	1.49	0.58
81:DA:2999:U:H3	81:DA:3149:G:H1	1.51	0.58
5:AC:39:LYS:HE2	5:AC:39:LYS:HA	1.85	0.58
18:AP:69:LYS:HZ2	78:CA:307:G:H4'	1.67	0.58
40:BK:90:HIS:CE1	81:DA:2381:G:H5''	2.38	0.58
78:CA:1684:U:H3	78:CA:1717:G:H1	1.51	0.58
81:DA:1258:U:H2'	81:DA:1260:A:OP2	2.04	0.58
81:DA:1667:A:H61	81:DA:1782:U:H3	1.52	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:3092:C:O4'	81:DA:3092:C:N1	2.33	0.58
13:AL:134:ALA:O	13:AL:135:LEU:CA	2.51	0.58
37:BH:233:TRP:CG	37:BH:234:GLY:H	2.21	0.58
53:Ba:8:GLY:HA2	53:Ba:9:LYS:HG2	1.84	0.58
53:Ba:81:LEU:CD1	60:Bi:34:HIS:HB2	2.32	0.58
53:Ba:81:LEU:HD13	60:Bi:34:HIS:CA	2.33	0.58
72:Bt:19:ILE:HG23	72:Bt:25:LYS:HE2	1.84	0.58
81:DA:1825:G:C6	81:DA:1826:C:C5	2.92	0.58
81:DA:3302:U:H2'	81:DA:3303:G:C8	2.39	0.58
81:DA:3384:U:H6	81:DA:3384:U:H5''	1.68	0.58
4:AD:153:ASN:C	4:AD:153:ASN:HB3	2.19	0.58
10:AI:123:ARG:N	10:AI:124:PRO:HD3	2.19	0.58
13:AL:13:ARG:HD3	18:AP:74:THR:CB	2.33	0.58
18:AP:105:LYS:CE	78:CA:335:U:H4'	2.34	0.58
43:BP:50:ARG:HB3	81:DA:267:G:N3	2.17	0.58
46:BT:78:TYR:HB2	81:DA:1938:U:O4'	2.04	0.58
57:Be:98:LYS:HA	57:Be:99:PRO:CD	2.34	0.58
59:Bh:21:HIS:HB2	81:DA:637:C:H3'	1.84	0.58
72:Bt:54:LEU:O	72:Bt:58:LEU:HG	2.04	0.58
78:CA:46:A:C8	78:CA:46:A:H2'	2.39	0.58
78:CA:1308:G:C6	78:CA:1318:G:C5	2.91	0.58
81:DA:92:G:C8	81:DA:94:G:C4	2.92	0.58
8:AF:66:GLN:H	8:AF:67:PRO:HD3	1.69	0.58
20:AS:45:MET:HE1	20:AS:53:TRP:CB	2.33	0.58
32:BC:308:MET:HG3	32:BC:309:GLY:N	2.18	0.58
32:BC:321:PHE:HB2	32:BC:323:MET:HE1	1.86	0.58
38:Bs:15:LEU:HD21	38:Bs:53:MET:H	1.68	0.58
55:Bc:63:ARG:NH2	82:DB:98:U:OP1	2.36	0.58
61:Bj:37:THR:O	61:Bj:39:GLN:N	2.37	0.58
72:Bu:10:ALA:H	73:Bw:9:LEU:CD2	2.13	0.58
78:CA:964:U:H1'	78:CA:965:U:C4	2.39	0.58
78:CA:1176:G:C4	78:CA:1464:G:C2	2.92	0.58
81:DA:372:A:N1	81:DA:373:A:C2	2.72	0.58
81:DA:1209:G:C8	81:DA:1210:U:P	2.96	0.58
81:DA:1623:G:C2'	81:DA:1624:G:H5''	2.34	0.58
81:DA:2607:G:C6	81:DA:2608:G:C5	2.92	0.58
81:DA:2631:U:H2'	81:DA:2632:G:H8	1.69	0.58
6:AE:217:ALA:HB1	78:CA:2:A:C6	2.39	0.58
12:AK:29:HIS:CE1	78:CA:918:U:H5''	2.39	0.58
14:AM:133:VAL:CG2	78:CA:1545:A:C4'	2.82	0.58
16:AO:53:LEU:HD23	16:AO:63:ALA:HA	1.85	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AO:62:GLN:O	16:AO:65:VAL:HG23	2.04	0.58
45:BR:54:LEU:HD23	45:BR:55:SER:H	1.69	0.58
53:Ba:10:VAL:O	53:Ba:57:HIS:CD2	2.57	0.58
56:Bf:87:VAL:HG23	81:DA:1729:A:OP1	2.03	0.58
72:Bt:60:ASN:O	72:Bt:61:PHE:CD2	2.56	0.58
74:BQ:203:HIS:CE1	83:DC:47:C:H5'	2.38	0.58
78:CA:1292:G:C6	78:CA:1324:G:C6	2.92	0.58
81:DA:1427:U:H2'	81:DA:1428:A:C8	2.39	0.58
81:DA:1573:G:H2'	81:DA:1574:C:C6	2.39	0.58
33:BD:84:ARG:CB	81:DA:365:A:O2'	2.51	0.58
44:BO:62:HIS:C	75:BL:146:UNK:HA	2.29	0.58
50:BX:56:ARG:HB2	82:DB:134:G:H5'	1.86	0.58
51:BZ:67:VAL:O	51:BZ:69:LYS:HG2	2.04	0.58
78:CA:402:C:C5	78:CA:403:G:N7	2.72	0.58
78:CA:1132:A:H2'	78:CA:1133:A:C8	2.39	0.58
81:DA:636:C:C3'	81:DA:637:C:H5''	2.33	0.58
81:DA:1963:G:H1	81:DA:2059:U:H3	1.52	0.58
81:DA:2356:A:N1	81:DA:2982:A:C2	2.72	0.58
83:DC:66:C:H2'	83:DC:67:C:C6	2.39	0.58
13:AL:13:ARG:CD	18:AP:74:THR:CG2	2.51	0.57
21:AT:1:MET:SD	23:AW:119:UNK:HA	2.44	0.57
27:Ab:1:UNK:C	78:CA:127:G:H3'	2.33	0.57
38:Bs:220:ILE:HG21	72:Bt:9:TYR:CZ	2.39	0.57
48:BW:81:LYS:HG2	81:DA:1688:U:C5	2.38	0.57
52:BY:48:LEU:HD13	52:BY:115:ARG:HH21	1.69	0.57
73:Bw:23:LYS:HA	73:Bw:33:ILE:CD1	2.33	0.57
78:CA:674:C:O2'	78:CA:675:U:H5'	2.04	0.57
4:AD:209:HIS:HA	4:AD:219:VAL:HA	1.85	0.57
14:AM:116:LEU:HD11	78:CA:1547:A:H5'	1.86	0.57
16:AO:65:VAL:HG11	24:AX:51:GLN:HB2	1.85	0.57
35:BG:46:ARG:HG3	81:DA:3215:A:H62	1.69	0.57
35:BG:55:LEU:HB3	35:BG:98:VAL:CG2	2.31	0.57
37:BH:232:HIS:CD2	37:BH:232:HIS:O	2.57	0.57
76:BS:151:PHE:HB2	76:BS:153:LEU:H	1.69	0.57
78:CA:1395:G:H1	78:CA:1403:C:H42	1.52	0.57
81:DA:2002:G:H1	81:DA:2019:U:H3	1.52	0.57
81:DA:2291:A:N1	81:DA:2302:G:C6	2.72	0.57
2:AA:93:THR:HG23	2:AA:95:ALA:H	1.69	0.57
20:AS:43:ASN:N	78:CA:1477:G:C5'	2.65	0.57
20:AS:83:ALA:H	20:AS:84:LYS:HD2	1.68	0.57
31:BB:6:ARG:NH2	81:DA:914:A:C4	2.68	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BD:331:ALA:HB1	33:BD:334:PHE:H	1.69	0.57
48:BW:81:LYS:HD2	81:DA:1688:U:N3	2.19	0.57
48:BW:105:LEU:HG	48:BW:107:PHE:HB3	1.85	0.57
68:Bq:15:ARG:HA	68:Bq:18:ARG:HD2	1.86	0.57
78:CA:372:G:C5	78:CA:373:G:C4	2.92	0.57
78:CA:590:C:H2'	78:CA:591:A:C8	2.38	0.57
81:DA:331:G:N7	81:DA:332:C:C5	2.72	0.57
81:DA:998:A:H61	81:DA:1052:U:H3	1.51	0.57
81:DA:1649:U:H2'	81:DA:1650:G:C8	2.39	0.57
81:DA:1871:U:C6	81:DA:1871:U:O5'	2.57	0.57
81:DA:1959:G:H1	81:DA:2082:U:H3	1.52	0.57
81:DA:1986:U:H3	81:DA:2035:G:H1	1.53	0.57
37:BH:158:ASP:C	37:BH:158:ASP:HB3	2.28	0.57
38:Bs:94:THR:CB	73:Bv:43:SER:HB3	2.32	0.57
43:BP:49:ARG:NE	81:DA:114:A:O2'	2.37	0.57
44:BO:141:ALA:CB	75:BL:80:UNK:O	2.53	0.57
81:DA:1640:G:H2'	81:DA:1641:U:C6	2.39	0.57
20:AS:11:ALA:O	20:AS:15:ILE:HG23	2.03	0.57
20:AS:12:GLN:HA	20:AS:15:ILE:HG13	1.86	0.57
38:Bs:213:PHE:CD1	73:Bv:4:LEU:HD22	2.39	0.57
43:BP:142:ILE:H	43:BP:142:ILE:HD12	1.69	0.57
43:BP:180:PHE:CD2	81:DA:287:G:H5''	2.39	0.57
51:BZ:50:ALA:HB3	51:BZ:53:VAL:HG22	1.87	0.57
63:Bm:6:LYS:HE2	63:Bm:6:LYS:CA	2.34	0.57
76:BS:148:ASP:HB3	76:BS:154:VAL:HG23	1.87	0.57
78:CA:1617:U:H4'	78:CA:1618:C:O2	2.05	0.57
81:DA:678:G:C5	81:DA:703:G:C6	2.92	0.57
81:DA:1075:A:H2'	81:DA:1076:C:C6	2.39	0.57
81:DA:1869:C:C2	81:DA:1870:C:C6	2.91	0.57
81:DA:2612:U:O2'	81:DA:2803:A:C4	2.50	0.57
72:Bu:17:SER:CB	73:Bw:29:VAL:HG11	2.34	0.57
74:BQ:121:GLY:O	74:BQ:122:VAL:CG2	2.52	0.57
78:CA:1115:U:N3	78:CA:1130:G:N2	2.52	0.57
78:CA:1203:A:N1	78:CA:1556:A:C5	2.72	0.57
81:DA:114:A:N1	81:DA:266:A:H5'	2.19	0.57
81:DA:299:G:O6	81:DA:316:U:O4	2.22	0.57
29:AU:14:SER:HB3	29:AU:89:TYR:HB3	1.86	0.57
38:Bs:212:HIS:HB3	73:Bv:4:LEU:CD1	2.32	0.57
38:Bs:246:LEU:CD1	72:Bu:9:TYR:CD2	2.88	0.57
53:Ba:57:HIS:HD1	53:Ba:61:LYS:HB3	1.68	0.57
81:DA:1666:G:H2'	81:DA:1667:A:C8	2.40	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:3129:A:H3'	81:DA:3131:U:C5	2.40	0.57
81:DA:3221:C:H2'	81:DA:3222:U:C6	2.40	0.57
8:AF:33:VAL:HB	10:AI:68:ARG:HH12	1.70	0.57
18:AP:59:PRO:CG	78:CA:326:G:C5'	2.81	0.57
33:BD:221:ASN:O	81:DA:212:G:C8	2.58	0.57
42:BM:94:TYR:OH	51:BZ:21:PHE:N	2.38	0.57
44:BO:57:GLY:O	44:BO:58:MET:CG	2.53	0.57
72:Bt:38:GLU:OE1	72:Bt:41:TRP:CD1	2.58	0.57
72:Bu:60:ASN:O	72:Bu:61:PHE:CD2	2.58	0.57
78:CA:1381:U:H2'	78:CA:1382:A:C8	2.39	0.57
14:AM:16:ARG:HH12	34:BE:111:ASP:CA	2.11	0.57
14:AM:116:LEU:HA	14:AM:119:ILE:HD12	1.87	0.57
14:AM:133:VAL:HG23	78:CA:1545:A:C5'	2.34	0.57
31:BB:1:MET:HE1	81:DA:2606:G:H1'	1.87	0.57
41:BN:12:TRP:CE3	76:BS:165:LEU:CB	2.88	0.57
42:BM:48:ARG:HD2	81:DA:2339:C:OP2	2.05	0.57
58:Bg:93:VAL:HG23	58:Bg:94:GLU:N	2.20	0.57
72:Bt:21:ILE:HG21	72:Bt:49:LEU:HD13	1.86	0.57
78:CA:885:G:H2'	78:CA:886:U:C6	2.39	0.57
78:CA:1171:A:C2	78:CA:1469:A:N1	2.72	0.57
81:DA:1017:C:H42	81:DA:1037:C:H42	1.53	0.57
81:DA:1623:G:C2'	81:DA:1624:G:C5'	2.82	0.57
14:AM:30:TYR:OH	78:CA:1532:U:H1'	2.05	0.57
16:AO:63:ALA:N	16:AO:64:ARG:HB2	2.20	0.57
31:BB:178:PRO:HB3	81:DA:2150:G:H5''	1.87	0.57
32:BC:266:ARG:NE	81:DA:2989:U:C6	2.71	0.57
37:BH:97:TYR:CD1	37:BH:221:ASN:HB2	2.40	0.57
38:Bs:246:LEU:CD2	72:Bu:8:SER:HB2	2.33	0.57
42:BM:92:PHE:HB2	51:BZ:19:THR:HG22	1.87	0.57
44:BO:124:ILE:CD1	75:BL:147:UNK:C	2.83	0.57
53:Ba:81:LEU:HD21	60:Bi:34:HIS:NE2	2.16	0.57
78:CA:296:U:H2'	78:CA:297:U:H6	1.70	0.57
81:DA:752:C:H42	81:DA:780:A:H61	1.53	0.57
81:DA:1019:G:H1	81:DA:1035:G:H21	1.53	0.57
83:DC:105:A:H2'	83:DC:106:G:C8	2.40	0.57
10:AI:135:ARG:NH1	78:CA:1589:C:H41	2.03	0.56
14:AM:13:HIS:C	34:BE:116:TYR:CD1	2.83	0.56
37:BH:232:HIS:O	37:BH:232:HIS:CG	2.49	0.56
53:Ba:8:GLY:CA	53:Ba:9:LYS:HG2	2.34	0.56
78:CA:6:G:C2	78:CA:19:A:N3	2.73	0.56
78:CA:1176:G:C2	78:CA:1464:G:N3	2.72	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:CA:1437:U:C2'	78:CA:1438:G:H5'	2.35	0.56
2:AA:41:ARG:HB2	2:AA:45:VAL:HG11	1.87	0.56
10:AI:49:TYR:H	20:AS:8:ASP:HB2	1.70	0.56
14:AM:122:HIS:CD2	19:AR:130:ARG:HG2	2.41	0.56
29:AU:68:LYS:NZ	78:CA:165:G:H5''	2.20	0.56
37:BH:200:LEU:HD13	37:BH:202:GLU:HB2	1.86	0.56
46:BT:82:LYS:O	46:BT:83:GLY:O	2.22	0.56
53:Ba:10:VAL:HG23	53:Ba:11:ALA:H	1.69	0.56
57:Be:223:PHE:HB2	76:BS:37:VAL:HG13	1.86	0.56
81:DA:369:A:N6	82:DB:20:U:H3	2.03	0.56
81:DA:701:G:H2'	81:DA:702:C:C6	2.40	0.56
81:DA:1784:G:O2'	81:DA:1785:U:H5'	2.04	0.56
83:DC:14:U:H3	83:DC:64:A:N6	2.01	0.56
3:AB:162:GLN:HB3	3:AB:163:PRO:HD2	1.87	0.56
4:AD:169:ILE:HG21	4:AD:172:PHE:CE1	2.40	0.56
5:AC:157:ASP:CA	5:AC:157:ASP:CG	2.72	0.56
6:AE:198:THR:HG23	78:CA:2:A:C2	2.41	0.56
7:AG:130:UNK:O	78:CA:636:A:N6	2.37	0.56
12:AK:59:ALA:HB2	78:CA:906:A:OP1	2.05	0.56
13:AL:98:GLU:HG2	78:CA:18:C:O2'	2.04	0.56
14:AM:15:LEU:H	14:AM:22:VAL:HG11	1.69	0.56
19:AR:59:LYS:HE2	78:CA:1551:U:O5'	2.05	0.56
29:AU:10:ARG:HH12	78:CA:164:A:H5'	1.65	0.56
31:BB:26:ALA:CB	81:DA:2175:U:H2'	2.26	0.56
32:BC:362:ALA:HB1	32:BC:364:LYS:HB3	1.87	0.56
33:BD:3:ARG:HH21	33:BD:22:LEU:CD1	2.18	0.56
37:BH:60:ARG:C	37:BH:61:GLN:O	2.47	0.56
43:BP:12:ARG:CZ	81:DA:297:G:O6	2.53	0.56
43:BP:50:ARG:HB3	81:DA:267:G:H21	1.63	0.56
59:Bh:24:ARG:HE	59:Bh:25:TYR:CB	2.17	0.56
59:Bh:36:LYS:CG	81:DA:639:G:H5''	2.35	0.56
65:Bn:51:LEU:HD13	65:Bn:73:LEU:HD21	1.87	0.56
74:BQ:121:GLY:O	74:BQ:122:VAL:HG23	2.05	0.56
78:CA:933:A:C6	78:CA:935:U:H1'	2.40	0.56
78:CA:1455:G:OP1	78:CA:1558:U:C2	2.58	0.56
81:DA:44:U:H2'	81:DA:45:A:H5'	1.85	0.56
81:DA:394:G:H22	81:DA:397:A:H5'	1.70	0.56
81:DA:796:U:H2'	81:DA:797:U:C6	2.41	0.56
81:DA:798:G:C2'	81:DA:799:G:C8	2.89	0.56
81:DA:1659:U:H3	81:DA:1790:G:H1	1.52	0.56
81:DA:2161:G:C8	81:DA:2162:U:C5	2.93	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:DC:2:G:H2'	83:DC:3:U:H5	1.71	0.56
83:DC:102:C:H2'	83:DC:103:U:C6	2.40	0.56
14:AM:123:ARG:HB3	78:CA:1547:A:OP1	2.04	0.56
32:BC:300:ARG:HE	51:BZ:1:MET:N	2.03	0.56
33:BD:89:ALA:O	33:BD:89:ALA:HB3	1.99	0.56
33:BD:107:ARG:HA	81:DA:664:U:H5'	1.88	0.56
35:BG:76:LEU:CD2	35:BG:100:LYS:HB3	2.35	0.56
38:Bs:15:LEU:HB3	38:Bs:64:ARG:HH21	1.71	0.56
38:Bs:246:LEU:CD2	72:Bu:9:TYR:N	2.69	0.56
39:BJ:94:LYS:HG2	81:DA:1251:A:N3	2.20	0.56
40:BK:198:GLY:CA	41:BN:108:ARG:HD3	2.34	0.56
78:CA:195:G:O3'	78:CA:196:G:C8	2.59	0.56
78:CA:647:G:O5'	78:CA:647:G:H8	1.89	0.56
78:CA:1667:A:H4'	81:DA:1936:A:H5'	1.86	0.56
81:DA:677:A:C2'	81:DA:677:A:N9	2.64	0.56
81:DA:997:A:H3'	81:DA:997:A:C8	2.40	0.56
81:DA:1285:G:C2'	81:DA:1285:G:N9	2.64	0.56
81:DA:1863:G:O2'	81:DA:1867:A:N6	2.39	0.56
81:DA:2869:U:O2	81:DA:2873:U:C4	2.57	0.56
81:DA:3305:A:H2'	81:DA:3306:U:O4'	2.06	0.56
10:AI:29:ILE:HD11	10:AI:125:GLU:HB3	1.87	0.56
13:AL:7:ARG:HD2	18:AP:76:VAL:N	2.21	0.56
13:AL:11:SER:HB2	13:AL:14:LYS:HZ2	1.70	0.56
14:AM:136:GLN:HG3	78:CA:1544:U:H5''	1.88	0.56
64:Bl:11:ARG:C	64:Bl:12:HIS:CG	2.84	0.56
74:BQ:5:LYS:HZ3	74:BQ:12:TYR:HB3	1.69	0.56
74:BQ:152:ARG:HG2	81:DA:2663:G:C5'	2.36	0.56
81:DA:1073:U:H3	81:DA:1087:G:H1	1.53	0.56
81:DA:1675:G:H2'	81:DA:1676:A:C8	2.41	0.56
81:DA:1820:U:H2'	81:DA:1821:U:H6	1.70	0.56
83:DC:29:C:C2	83:DC:30:G:N7	2.74	0.56
1:Aa:57:PRO:HB2	10:AI:107:LYS:CD	2.32	0.56
20:AS:41:SER:N	78:CA:1477:G:OP1	2.37	0.56
33:BD:145:ILE:HG23	33:BD:146:PRO:HA	1.88	0.56
33:BD:359:LEU:HB3	57:Be:56:GLU:OE2	2.04	0.56
53:Ba:25:ILE:HG23	53:Ba:25:ILE:O	2.05	0.56
78:CA:929:A:H5''	78:CA:931:C:H42	1.70	0.56
81:DA:1291:A:H2'	81:DA:1292:C:C6	2.40	0.56
14:AM:109:LEU:HD11	78:CA:1546:G:O4'	2.05	0.56
19:AR:107:ILE:HG12	78:CA:1453:G:H21	1.69	0.56
29:AU:10:ARG:HH12	78:CA:164:A:H5''	1.67	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:Bs:219:THR:HB	72:Bt:58:LEU:HD22	1.86	0.56
51:BZ:51:TRP:H	51:BZ:53:VAL:HG13	1.71	0.56
57:Be:66:LYS:HD3	76:BS:12:VAL:HG11	1.87	0.56
76:BS:51:LYS:C	76:BS:52:LYS:HG2	2.31	0.56
78:CA:217:A:C2	78:CA:839:U:O2	2.59	0.56
78:CA:1003:A:C4	78:CA:1005:A:C5	2.93	0.56
78:CA:1087:A:O2'	78:CA:1142:A:O2'	2.23	0.56
81:DA:2424:A:C2	81:DA:2607:G:C2	2.93	0.56
81:DA:2919:A:N6	81:DA:2927:C:H42	2.03	0.56
14:AM:15:LEU:O	14:AM:22:VAL:HG12	2.06	0.56
18:AP:60:PHE:CD2	78:CA:325:G:H4'	2.41	0.56
33:BD:100:PHE:HB3	81:DA:803:C:H4'	1.87	0.56
46:BT:82:LYS:H	46:BT:82:LYS:HD2	1.70	0.56
53:Ba:73:LYS:HB2	60:Bi:41:ARG:NH2	2.21	0.56
56:Bf:68:TYR:CD1	56:Bf:104:LEU:HD21	2.40	0.56
60:Bi:16:ARG:CB	60:Bi:16:ARG:N	2.57	0.56
78:CA:1190:C:C6	78:CA:1190:C:H5'	2.41	0.56
81:DA:2721:A:H61	81:DA:2735:U:H3	1.54	0.56
81:DA:3035:A:H2'	81:DA:3036:G:C8	2.41	0.56
4:AD:188:ASN:CG	78:CA:650:U:C5'	2.79	0.56
13:AL:7:ARG:HG2	18:AP:76:VAL:HG21	1.87	0.56
17:AQ:93:LEU:O	17:AQ:94:SER:CB	2.53	0.56
38:Bs:229:TYR:HE2	72:Bt:48:ALA:HB1	1.59	0.56
41:BN:65:LEU:CD2	76:BS:161:PRO:HG2	2.36	0.56
61:Bj:13:HIS:HB2	61:Bj:95:GLY:H	1.71	0.56
64:Bl:72:ARG:NH1	81:DA:331:G:N2	2.54	0.56
65:Bn:31:LEU:HA	65:Bn:38:PHE:HB3	1.88	0.56
72:Bu:21:ILE:HG21	72:Bu:49:LEU:HD13	1.86	0.56
81:DA:394:G:N2	81:DA:397:A:C8	2.74	0.56
81:DA:3013:U:O4	81:DA:3041:U:O4	2.23	0.56
81:DA:3019:U:C5	81:DA:3020:U:C4	2.94	0.56
82:DB:45:C:H2'	82:DB:46:G:C8	2.41	0.56
1:Aa:59:ARG:N	10:AI:107:LYS:HE3	2.20	0.56
13:AL:19:ARG:HH21	78:CA:1106:U:H5	1.53	0.56
22:AV:105:THR:O	22:AV:106:ALA:CB	2.45	0.56
32:BC:50:LYS:HA	32:BC:79:VAL:HG12	1.88	0.56
39:BJ:74:VAL:HG11	81:DA:1235:U:H5'	1.87	0.56
53:Ba:53:VAL:H	53:Ba:69:LYS:NZ	2.04	0.56
77:BI:6:ALA:HB3	81:DA:2855:U:OP1	2.05	0.56
78:CA:218:A:H61	78:CA:838:G:C1'	2.18	0.56
78:CA:220:A:C2	78:CA:836:U:O2	2.59	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:CA:553:G:H22	78:CA:571:G:H1	1.54	0.56
78:CA:1747:G:O2'	81:DA:2303:A:C1'	2.54	0.56
81:DA:655:C:H2'	81:DA:656:A:H8	1.71	0.56
24:AX:47:PHE:HD1	24:AX:47:PHE:H	1.53	0.55
34:BE:89:TYR:CB	34:BE:89:TYR:N	2.62	0.55
38:Bs:245:ASP:O	38:Bs:248:ALA:HB3	2.06	0.55
48:BW:95:PHE:HA	48:BW:100:THR:HG22	1.87	0.55
56:Bf:66:LYS:HE3	56:Bf:104:LEU:HB3	1.87	0.55
73:Bv:23:LYS:HA	73:Bv:33:ILE:CD1	2.35	0.55
78:CA:988:A:H2'	78:CA:989:U:C6	2.41	0.55
78:CA:1388:A:H1'	78:CA:1411:A:H2	1.70	0.55
81:DA:991:G:H1	81:DA:1060:U:H3	1.52	0.55
81:DA:1686:U:H3	81:DA:3069:G:H1	1.53	0.55
81:DA:1752:A:H8	81:DA:1752:A:C5'	2.18	0.55
82:DB:98:U:H5	82:DB:99:C:C4	2.23	0.55
82:DB:104:A:C8	82:DB:105:A:C8	2.94	0.55
4:AD:79:ASP:CB	4:AD:82:TYR:CE2	2.88	0.55
7:AG:9:UNK:O	7:AG:11:UNK:HA	2.06	0.55
14:AM:123:ARG:NE	78:CA:1547:A:OP2	2.39	0.55
16:AO:63:ALA:O	16:AO:66:ILE:HG12	2.07	0.55
19:AR:124:THR:HG23	19:AR:125:PRO:HD3	1.88	0.55
31:BB:84:THR:O	63:Bm:62:LYS:HE2	2.05	0.55
32:BC:248:LYS:HD2	32:BC:249:VAL:H	1.71	0.55
36:BF:168:ARG:HH21	81:DA:2894:C:H4'	1.71	0.55
37:BH:138:HIS:O	37:BH:142:LEU:HD23	2.06	0.55
78:CA:676:G:C2'	78:CA:677:G:H5''	2.37	0.55
78:CA:1081:A:C2'	78:CA:1081:A:N9	2.62	0.55
78:CA:1185:U:C4	78:CA:1458:G:N7	2.74	0.55
79:CB:67:G:H2'	79:CB:68:C:H5''	1.88	0.55
81:DA:275:U:H3	81:DA:290:G:H22	1.54	0.55
81:DA:1646:G:C6	81:DA:1808:G:C6	2.94	0.55
81:DA:3049:A:C8	81:DA:3050:U:C5	2.93	0.55
81:DA:3107:U:H2'	81:DA:3108:G:H8	1.70	0.55
29:AU:16:PRO:HB2	29:AU:93:ARG:HE	1.70	0.55
38:Bs:37:GLN:O	38:Bs:41:VAL:HG23	2.05	0.55
53:Ba:56:LYS:HA	53:Ba:57:HIS:CE1	2.42	0.55
72:Bt:35:VAL:HG13	72:Bt:36:PRO:CD	2.34	0.55
73:Bw:7:TYR:CE2	73:Bw:41:VAL:HG11	2.42	0.55
77:BI:106:ALA:CA	77:BI:108:ALA:CB	2.79	0.55
78:CA:1203:A:N6	78:CA:1556:A:N6	2.54	0.55
78:CA:1673:G:H2'	78:CA:1674:C:C5	2.42	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:1870:C:HO2'	81:DA:1871:U:P	2.29	0.55
13:AL:10:ASN:H	18:AP:79:LYS:NZ	2.04	0.55
31:BB:15:ILE:HD11	81:DA:911:C:P	2.47	0.55
32:BC:344:THR:O	32:BC:345:ASN:HB2	2.06	0.55
36:BF:23:ARG:HH22	36:BF:44:THR:HA	1.71	0.55
37:BH:153:ILE:HG23	37:BH:163:VAL:CG2	2.35	0.55
38:Bs:223:ILE:HD12	72:Bt:12:LEU:CD2	2.26	0.55
52:BY:112:ASP:HB2	52:BY:115:ARG:HB3	1.88	0.55
59:Bh:19:ARG:NH2	81:DA:1433:A:N7	2.54	0.55
60:Bi:57:LEU:HD13	60:Bi:57:LEU:H	1.71	0.55
69:Br:58:PHE:O	69:Br:59:HIS:O	2.23	0.55
78:CA:1552:U:C5	78:CA:1553:G:O6	2.59	0.55
81:DA:1869:C:C4	81:DA:1870:C:C5	2.94	0.55
81:DA:2157:G:O4'	81:DA:2157:G:N9	2.37	0.55
81:DA:2164:A:N6	81:DA:2165:G:C6	2.74	0.55
81:DA:2220:A:H2'	81:DA:2221:G:H5'	1.87	0.55
81:DA:2465:G:C2'	81:DA:2466:G:H5'	2.37	0.55
81:DA:2676:A:H1'	81:DA:2679:A:C5	2.42	0.55
82:DB:121:U:H5	82:DB:132:G:H21	1.53	0.55
13:AL:74:VAL:HG12	13:AL:102:VAL:HG12	1.89	0.55
14:AM:137:HIS:NE2	78:CA:1173:C:H3'	2.22	0.55
16:AO:114:ARG:HD3	78:CA:938:G:O2'	2.04	0.55
31:BB:224:THR:HG21	81:DA:2201:G:H21	1.72	0.55
36:BF:57:VAL:HG12	36:BF:59:ASN:H	1.71	0.55
43:BP:149:ASN:ND2	55:Bc:100:VAL:HG22	2.21	0.55
45:BR:72:LYS:HD3	45:BR:99:THR:HB	1.88	0.55
45:BR:105:ARG:NH2	81:DA:675:C:C6	2.74	0.55
72:Bt:7:LEU:HD11	72:Bt:45:PHE:CE2	2.23	0.55
74:BQ:238:ASP:HB3	74:BQ:239:ILE:HA	1.87	0.55
78:CA:1570:A:H3'	78:CA:1571:C:C6	2.42	0.55
81:DA:600:G:C2	81:DA:604:G:C5	2.95	0.55
81:DA:1314:C:H2'	81:DA:1315:U:H5'	1.89	0.55
81:DA:1686:U:C4	81:DA:1687:U:N3	2.73	0.55
81:DA:1696:A:H2'	81:DA:1697:A:C8	2.41	0.55
81:DA:2177:G:H4'	81:DA:2180:G:H1'	1.89	0.55
4:AD:147:ILE:HD13	4:AD:169:ILE:HD11	1.87	0.55
31:BB:193:ARG:HH11	81:DA:2173:U:H3'	1.71	0.55
44:BO:5:PHE:CE2	81:DA:801:A:OP1	2.60	0.55
46:BT:17:VAL:HG23	46:BT:52:LYS:HD2	1.88	0.55
51:BZ:67:VAL:HB	51:BZ:69:LYS:HB3	1.89	0.55
72:Bt:47:LYS:O	73:Bw:37:LYS:NZ	2.38	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:CA:1303:U:C4	78:CA:1304:G:N1	2.75	0.55
81:DA:384:A:H2'	81:DA:385:A:C8	2.41	0.55
81:DA:1942:U:H2'	81:DA:1943:C:C6	2.42	0.55
82:DB:98:U:C5	82:DB:99:C:N3	2.74	0.55
10:AI:138:PHE:CZ	78:CA:1587:A:P	2.99	0.55
13:AL:9:LEU:HD13	18:AP:79:LYS:CE	2.36	0.55
18:AP:104:HIS:CG	18:AP:105:LYS:H	2.24	0.55
26:AZ:11:ALA:HB2	26:AZ:33:ARG:NH2	2.22	0.55
31:BB:37:ARG:HA	31:BB:93:LYS:HB3	1.87	0.55
37:BH:134:TYR:CD2	81:DA:147:U:OP1	2.59	0.55
38:Bs:38:MET:HE1	38:Bs:185:LEU:HG	1.89	0.55
38:Bs:227:ILE:HD13	72:Bt:49:LEU:HD23	1.88	0.55
45:BR:13:SER:HB2	81:DA:1342:C:H5''	1.89	0.55
49:BV:18:ARG:NH2	81:DA:388:G:H5''	2.21	0.55
72:Bt:41:TRP:CB	72:Bt:45:PHE:HE2	2.17	0.55
72:Bt:47:LYS:C	73:Bw:37:LYS:HZ1	2.14	0.55
78:CA:481:A:N6	78:CA:506:A:H61	2.05	0.55
78:CA:1292:G:C5	78:CA:1293:U:C4	2.94	0.55
78:CA:1413:U:H5	78:CA:1415:U:H5''	1.72	0.55
78:CA:1547:A:H2'	78:CA:1548:G:C5'	2.37	0.55
81:DA:535:G:H1	81:DA:558:U:H3	1.55	0.55
81:DA:2065:U:O2	81:DA:2071:A:N1	2.39	0.55
8:AF:55:ASP:OD2	25:AY:58:GLU:OE2	2.25	0.55
10:AI:86:ALA:HB2	78:CA:1609:U:OP1	2.07	0.55
32:BC:93:VAL:HG11	81:DA:3243:A:N9	2.21	0.55
40:BK:197:LEU:HD13	41:BN:108:ARG:HB3	1.89	0.55
45:BR:102:ALA:HB1	45:BR:124:LEU:HD13	1.88	0.55
53:Ba:74:VAL:CG1	53:Ba:74:VAL:O	2.53	0.55
57:Be:200:ASN:HA	57:Be:203:TRP:CH2	2.41	0.55
57:Be:220:PHE:C	57:Be:220:PHE:CD2	2.85	0.55
72:Bu:10:ALA:CA	73:Bw:9:LEU:HD11	2.37	0.55
74:BQ:74:VAL:HG12	83:DC:5:G:H21	1.72	0.55
81:DA:19:U:H3	82:DB:140:G:H1	1.54	0.55
81:DA:2723:U:H2'	81:DA:2724:U:C6	2.41	0.55
81:DA:3106:A:H2'	81:DA:3107:U:H5'	1.88	0.55
83:DC:58:U:H2'	83:DC:59:G:H8	1.71	0.55
14:AM:26:ILE:HD12	78:CA:1534:G:OP2	2.06	0.55
16:AO:65:VAL:HB	24:AX:51:GLN:HB2	1.89	0.55
73:Bv:7:TYR:CE2	73:Bv:41:VAL:HG11	2.42	0.55
78:CA:1158:C:N4	78:CA:1582:U:N3	2.54	0.55
32:BC:331:ASN:OD1	81:DA:3304:U:H4'	2.06	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BD:240:PRO:HB2	81:DA:1383:G:H4'	1.89	0.55
35:BG:3:ALA:HB1	35:BG:4:GLN:HB3	1.89	0.55
40:BK:17:GLY:HA3	81:DA:1314:C:OP1	2.07	0.55
41:BN:12:TRP:HE3	76:BS:165:LEU:HD12	1.73	0.55
44:BO:14:HIS:CG	81:DA:95:A:H4'	2.41	0.55
48:BW:81:LYS:CG	81:DA:1688:U:O4	2.55	0.55
77:BI:112:GLN:HE22	77:BI:116:ARG:HG2	1.72	0.55
78:CA:1375:A:H2'	78:CA:1376:C:C6	2.42	0.55
78:CA:1677:C:H2'	78:CA:1678:A:H8	1.71	0.55
81:DA:2220:A:C6	81:DA:2221:G:C2	2.92	0.55
81:DA:2747:A:H2'	81:DA:2748:A:C8	2.42	0.55
10:AI:138:PHE:CE2	78:CA:1587:A:OP2	2.60	0.54
16:AO:106:ARG:HD2	16:AO:112:LYS:HG2	1.90	0.54
33:BD:354:VAL:O	33:BD:355:PHE:CB	2.45	0.54
34:BE:123:PHE:CE2	81:DA:2674:A:C4	2.95	0.54
35:BG:99:GLU:CA	81:DA:616:G:H5'	2.35	0.54
37:BH:89:GLU:HA	37:BH:89:GLU:OE2	2.07	0.54
67:Bp:19:VAL:HG22	67:Bp:26:ARG:HG2	1.89	0.54
78:CA:559:C:H42	78:CA:586:G:H1	0.81	0.54
78:CA:1641:C:H42	78:CA:1760:G:H1	1.55	0.54
81:DA:600:G:C6	81:DA:604:G:O6	2.60	0.54
81:DA:703:G:C6	81:DA:704:U:C2	2.94	0.54
81:DA:1694:U:H3	81:DA:1753:G:H1	1.55	0.54
83:DC:117:C:H2'	83:DC:118:U:C6	2.41	0.54
10:AI:135:ARG:CZ	78:CA:1588:G:C6	2.90	0.54
12:AK:33:LEU:CD2	78:CA:903:U:O4	2.55	0.54
31:BB:200:ARG:NH2	81:DA:2187:G:C6	2.76	0.54
38:Bs:43:LYS:HE2	39:BJ:121:PHE:CG	2.43	0.54
39:BJ:120:SER:HA	81:DA:1234:G:H5'	1.90	0.54
67:Bp:28:PRO:HG2	67:Bp:31:ALA:H	1.72	0.54
78:CA:901:G:H1	78:CA:902:G:N2	2.04	0.54
81:DA:1927:G:N2	81:DA:1928:G:C8	2.76	0.54
81:DA:2638:C:H2'	81:DA:2639:G:H5'	1.88	0.54
81:DA:2762:A:H3'	81:DA:2763:U:C5	2.43	0.54
19:AR:59:LYS:HE3	78:CA:1551:U:O5'	2.06	0.54
19:AR:125:PRO:HG2	78:CA:1557:U:H3	1.72	0.54
31:BB:191:LEU:HD11	81:DA:1794:G:C5'	2.37	0.54
43:BP:177:GLY:O	43:BP:181:ASN:CB	2.55	0.54
47:BU:116:ARG:CZ	81:DA:1095:U:O3'	2.55	0.54
59:Bh:15:LYS:HE2	81:DA:428:A:H4'	1.87	0.54
72:Bt:44:ILE:CG1	73:Bw:36:GLU:HB2	2.30	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:BQ:203:HIS:HE1	83:DC:47:C:H5'	1.72	0.54
78:CA:415:C:C5	78:CA:417:A:N3	2.75	0.54
79:CB:73:C:H42	81:DA:2620:G:H1	1.54	0.54
81:DA:1078:U:C6	81:DA:1078:U:H3'	2.42	0.54
81:DA:2216:G:H2'	81:DA:2217:U:C5	2.43	0.54
32:BC:308:MET:HE1	81:DA:3327:G:C2'	2.37	0.54
34:BE:149:GLY:H	34:BE:152:HIS:CD2	2.26	0.54
36:BF:45:PHE:CE1	36:BF:75:VAL:HG11	2.42	0.54
37:BH:138:HIS:NE2	81:DA:147:U:C5'	2.70	0.54
40:BK:27:LEU:HD13	40:BK:84:LEU:HD11	1.89	0.54
42:BM:49:LEU:HD11	81:DA:1901:A:H1'	1.87	0.54
43:BP:73:ARG:HH12	43:BP:92:LEU:HD12	1.72	0.54
48:BW:81:LYS:CG	81:DA:1688:U:C4	2.89	0.54
58:Bg:51:LEU:HB3	81:DA:1459:C:H4'	1.90	0.54
74:BQ:238:ASP:HB3	74:BQ:239:ILE:CA	2.36	0.54
78:CA:586:G:H2'	78:CA:587:C:H6	1.72	0.54
78:CA:1115:U:O2	78:CA:1131:A:N6	2.41	0.54
81:DA:349:A:H2	82:DB:22:U:HO2'	1.55	0.54
81:DA:1201:C:H42	81:DA:2857:C:H5''	1.72	0.54
81:DA:1961:G:N2	81:DA:2080:C:O2	2.35	0.54
81:DA:2279:A:H2	81:DA:2286:U:H3	1.42	0.54
11:AJ:56:VAL:HG12	11:AJ:57:ARG:H	1.72	0.54
19:AR:59:LYS:CB	78:CA:1551:U:H5	2.20	0.54
31:BB:38:HIS:N	31:BB:38:HIS:CD2	2.68	0.54
31:BB:129:ALA:HB2	81:DA:2177:G:H5''	1.88	0.54
33:BD:161:LYS:O	33:BD:218:ALA:HB1	2.08	0.54
38:Bs:246:LEU:HD21	72:Bu:9:TYR:CA	2.37	0.54
78:CA:228:G:C2'	78:CA:228:G:C8	2.91	0.54
78:CA:375:U:C4	78:CA:376:C:C4	2.96	0.54
78:CA:918:U:H2'	78:CA:919:A:C8	2.42	0.54
78:CA:1176:G:C2	78:CA:1464:G:C4	2.96	0.54
78:CA:1780:G:O6	78:CA:1781:A:N6	2.41	0.54
81:DA:1887:A:H61	81:DA:2348:A:H1'	1.72	0.54
81:DA:2007:G:H1	81:DA:2014:U:H3	1.56	0.54
81:DA:2166:A:O4'	81:DA:2166:A:N9	2.36	0.54
81:DA:2700:G:H21	81:DA:2705:A:H2	1.55	0.54
81:DA:2859:U:H4'	81:DA:2860:U:C5	2.42	0.54
81:DA:3219:G:H2'	81:DA:3220:G:C8	2.43	0.54
35:BG:64:LEU:HD13	35:BG:98:VAL:HG11	1.89	0.54
35:BG:77:ARG:CD	35:BG:79:VAL:HG13	2.37	0.54
41:BN:12:TRP:CD2	41:BN:19:ARG:NH2	2.75	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BU:27:LEU:HD23	74:BQ:37:VAL:HG21	1.89	0.54
81:DA:1009:A:H5'	81:DA:1009:A:H8	1.71	0.54
81:DA:3304:U:C2'	81:DA:3304:U:C4'	2.84	0.54
83:DC:49:G:O4'	83:DC:49:G:N9	2.37	0.54
38:Bs:252:ALA:CB	72:Bu:57:LEU:CD2	2.85	0.54
46:BT:71:ARG:CZ	81:DA:2100:A:P	2.95	0.54
53:Ba:9:LYS:HA	81:DA:1740:U:OP2	2.07	0.54
72:Bu:20:GLU:N	72:Bu:25:LYS:NZ	2.36	0.54
78:CA:275:C:H2'	78:CA:276:C:C5	2.43	0.54
78:CA:893:U:O2	78:CA:919:A:H2	1.87	0.54
78:CA:1003:A:C6	78:CA:1005:A:C4	2.96	0.54
78:CA:1133:A:C2	78:CA:1651:A:O2'	2.60	0.54
78:CA:1203:A:N1	78:CA:1556:A:C4	2.76	0.54
78:CA:1543:A:N6	78:CA:1567:U:N3	2.56	0.54
81:DA:847:A:H2'	81:DA:848:A:C8	2.43	0.54
81:DA:1617:G:H2'	81:DA:1618:G:C8	2.43	0.54
81:DA:2041:U:H2'	81:DA:2042:G:C8	2.42	0.54
81:DA:3048:A:H5'	81:DA:3048:A:H8	1.73	0.54
82:DB:153:U:H2'	82:DB:154:C:C5	2.43	0.54
14:AM:11:PHE:CE2	22:AV:33:LYS:CG	2.89	0.54
16:AO:90:TYR:HE2	78:CA:869:A:H4'	1.73	0.54
19:AR:130:ARG:C	78:CA:1558:U:C2	2.85	0.54
20:AS:82:GLY:H	20:AS:95:ASP:CG	2.16	0.54
30:BA:190:PHE:HB3	75:BL:180:UNK:C	2.38	0.54
33:BD:341:SER:HA	57:Be:34:LYS:HB3	1.89	0.54
35:BG:46:ARG:HG2	35:BG:50:LYS:HZ2	1.72	0.54
56:Bf:58:TYR:OH	60:Bi:32:ALA:C	2.51	0.54
61:Bj:85:PHE:HA	61:Bj:86:ARG:HD2	1.90	0.54
76:BS:156:ARG:O	76:BS:158:VAL:HB	2.08	0.54
78:CA:1308:G:C6	78:CA:1318:G:C4	2.95	0.54
81:DA:701:G:C8	81:DA:701:G:H3'	2.43	0.54
81:DA:3219:G:H3'	81:DA:3220:G:C8	2.42	0.54
81:DA:3385:U:H2'	81:DA:3386:G:C8	2.42	0.54
82:DB:44:A:H3'	82:DB:45:C:C5	2.43	0.54
14:AM:101:LEU:HD22	78:CA:1566:U:H4'	1.90	0.54
19:AR:58:LYS:HD2	78:CA:1549:C:C4	2.41	0.54
19:AR:123:TYR:CE2	78:CA:1556:A:OP1	2.61	0.54
32:BC:73:VAL:HG23	42:BM:89:ASP:O	2.08	0.54
34:BE:60:ARG:HH11	34:BE:60:ARG:H	1.54	0.54
38:Bs:246:LEU:HG	72:Bu:12:LEU:HD12	1.89	0.54
54:Bd:48:HIS:CE1	81:DA:2908:G:H5'	2.43	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:Be:223:PHE:CZ	57:Be:224:ILE:HD11	2.42	0.54
72:Bu:54:LEU:O	72:Bu:58:LEU:HG	2.07	0.54
76:BS:73:THR:HA	76:BS:74:ILE:HG13	1.89	0.54
78:CA:1699:G:O2'	78:CA:1702:A:N6	2.41	0.54
81:DA:677:A:C2	81:DA:786:A:C4	2.95	0.54
81:DA:1401:A:C1'	81:DA:1401:A:O2'	2.52	0.54
81:DA:1717:U:H3	81:DA:1727:G:H1	1.55	0.54
81:DA:2743:A:H2'	81:DA:2744:U:C6	2.43	0.54
4:AD:79:ASP:HB2	4:AD:82:TYR:CE2	2.43	0.54
12:AK:124:ASP:OD1	78:CA:929:A:N1	2.41	0.54
31:BB:193:ARG:HD3	81:DA:2173:U:H5''	1.90	0.54
35:BG:111:LEU:O	35:BG:114:LYS:HG3	2.08	0.54
44:BO:91:LEU:HD13	44:BO:116:GLY:HA2	1.90	0.54
66:Bo:2:ALA:HB1	66:Bo:3:ALA:CA	2.38	0.54
78:CA:295:A:C4	78:CA:295:A:H2'	2.42	0.54
78:CA:1176:G:C6	78:CA:1464:G:N1	2.76	0.54
81:DA:1825:G:C5	81:DA:1826:C:C5	2.96	0.54
81:DA:2044:U:H2'	81:DA:2045:G:C8	2.43	0.54
81:DA:2148:U:H2'	81:DA:2149:A:C4	2.43	0.54
83:DC:44:C:H2'	83:DC:45:A:C8	2.43	0.54
4:AD:123:LEU:HD21	4:AD:159:THR:HB	1.90	0.53
18:AP:67:ARG:NE	78:CA:306:U:H5''	2.22	0.53
32:BC:173:GLN:HA	81:DA:3314:A:OP1	2.08	0.53
36:BF:45:PHE:O	41:BN:8:LYS:HE2	2.08	0.53
36:BF:121:LYS:NZ	81:DA:3036:G:H1'	2.23	0.53
44:BO:73:LEU:H	44:BO:73:LEU:HD12	1.73	0.53
46:BT:58:HIS:HA	81:DA:1871:U:C5'	2.28	0.53
72:Bt:60:ASN:N	72:Bt:61:PHE:CE2	2.76	0.53
78:CA:5:U:C2	78:CA:20:G:N2	2.76	0.53
78:CA:306:U:O5'	78:CA:306:U:C6	2.60	0.53
78:CA:933:A:C6	78:CA:935:U:O2	2.61	0.53
78:CA:1463:C:OP1	79:CB:30:G:H4'	2.09	0.53
81:DA:160:G:N2	81:DA:261:U:C4	2.76	0.53
81:DA:1889:G:H2'	81:DA:1890:U:C6	2.44	0.53
81:DA:2680:A:O5'	81:DA:2681:U:C5	2.61	0.53
81:DA:3047:U:C3'	81:DA:3048:A:C8	2.91	0.53
83:DC:35:C:N4	83:DC:46:A:H1'	2.23	0.53
5:AC:16:LYS:O	5:AC:17:ARG:HG3	2.08	0.53
6:AE:221:THR:HG23	6:AE:222:TYR:CD2	2.44	0.53
21:AT:77:GLY:HA3	21:AT:82:VAL:HG23	1.90	0.53
40:BK:23:VAL:HG22	40:BK:33:ILE:HD13	1.90	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:BW:81:LYS:CD	81:DA:1688:U:O4	2.49	0.53
49:BV:116:HIS:CE1	49:BV:118:GLN:HG3	2.42	0.53
57:Be:139:PRO:HB2	57:Be:143:THR:HG23	1.90	0.53
77:BI:90:ARG:HD2	77:BI:134:ILE:HG23	1.88	0.53
81:DA:1293:U:H2'	81:DA:1294:A:C8	2.43	0.53
81:DA:1639:C:H2'	81:DA:1640:G:C8	2.42	0.53
81:DA:2735:U:H2'	81:DA:2736:A:C5'	2.39	0.53
83:DC:4:U:H2'	83:DC:5:G:C8	2.43	0.53
14:AM:101:LEU:CD2	78:CA:1566:U:C5'	2.86	0.53
16:AO:117:LEU:HB2	78:CA:939:A:H62	1.70	0.53
43:BP:12:ARG:HB2	43:BP:13:LYS:HG3	1.90	0.53
46:BT:16:GLY:HA3	67:Bp:37:ARG:HD2	1.91	0.53
48:BW:90:ARG:HB2	48:BW:91:ASP:HA	1.90	0.53
50:BX:37:THR:H	50:BX:38:LEU:HD23	1.74	0.53
60:Bi:78:GLY:O	60:Bi:79:SER:CB	2.55	0.53
72:Bu:14:LEU:HD12	72:Bu:26:LEU:CD2	2.39	0.53
72:Bu:16:ASP:OD2	73:Bw:1:MET:N	2.38	0.53
78:CA:479:C:N4	78:CA:509:G:H1	2.06	0.53
81:DA:310:U:C2'	81:DA:311:C:H5'	2.38	0.53
81:DA:665:A:O4'	81:DA:665:A:N9	2.35	0.53
81:DA:947:G:H2'	81:DA:948:C:C6	2.43	0.53
81:DA:1020:G:H2'	81:DA:1021:G:C8	2.43	0.53
81:DA:2073:A:H2'	81:DA:2074:C:H6	1.71	0.53
81:DA:3071:U:C5	81:DA:3072:C:C4	2.96	0.53
83:DC:19:C:C2	83:DC:60:G:C2	2.97	0.53
4:AD:180:LEU:O	4:AD:227:VAL:HG13	2.07	0.53
5:AC:168:ARG:O	5:AC:168:ARG:CG	2.52	0.53
13:AL:120:VAL:C	78:CA:586:G:OP2	2.51	0.53
20:AS:15:ILE:HD13	20:AS:56:LYS:HD3	1.89	0.53
32:BC:308:MET:HE2	81:DA:3328:G:H4'	1.89	0.53
37:BH:153:ILE:HG23	37:BH:163:VAL:HG21	1.90	0.53
39:BJ:123:ARG:CZ	81:DA:1257:C:H5''	2.38	0.53
41:BN:77:ARG:HG2	81:DA:560:G:H5'	1.89	0.53
78:CA:62:A:H61	78:CA:88:U:H3	1.55	0.53
78:CA:1003:A:C4	78:CA:1005:A:C4	2.96	0.53
79:CB:55:C:O4'	79:CB:55:C:N1	2.40	0.53
81:DA:757:C:O2	81:DA:775:A:C2	2.62	0.53
81:DA:955:U:C2	81:DA:967:A:C2	2.96	0.53
81:DA:1390:A:H4'	81:DA:1391:C:H5'	1.91	0.53
81:DA:2208:A:C2	81:DA:2209:U:C6	2.97	0.53
81:DA:3305:A:H2'	81:DA:3306:U:H6	1.71	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:DC:104:C:C2'	83:DC:105:A:H5'	2.38	0.53
3:AB:59:LEU:HD11	3:AB:86:LEU:CD2	2.39	0.53
19:AR:59:LYS:HE2	78:CA:1551:U:OP2	2.08	0.53
32:BC:8:ALA:HB2	42:BM:46:LEU:HD22	1.90	0.53
41:BN:3:THR:O	41:BN:3:THR:HG22	2.09	0.53
41:BN:39:ILE:O	76:BS:145:HIS:CG	2.62	0.53
42:BM:94:TYR:CZ	51:BZ:20:LEU:O	2.62	0.53
46:BT:71:ARG:NH2	81:DA:2100:A:P	2.81	0.53
78:CA:56:U:O4	78:CA:92:A:O4'	2.26	0.53
78:CA:617:U:H3	78:CA:1088:A:H61	1.57	0.53
78:CA:1115:U:C2	78:CA:1130:G:N2	2.77	0.53
81:DA:3215:A:O4'	81:DA:3215:A:N9	2.39	0.53
1:Aa:59:ARG:CA	10:AI:107:LYS:HE2	2.36	0.53
2:AA:109:ASN:ND2	78:CA:1294:G:H1'	2.22	0.53
4:AD:146:THR:HG22	78:CA:295:A:N6	2.19	0.53
15:AN:38:ILE:HB	78:CA:1433:G:H2'	1.89	0.53
17:AQ:30:THR:HA	17:AQ:33:ARG:HH11	1.74	0.53
31:BB:37:ARG:HA	31:BB:93:LYS:CB	2.39	0.53
39:BJ:124:THR:O	39:BJ:128:VAL:HG23	2.08	0.53
66:Bo:2:ALA:HB1	66:Bo:3:ALA:HA	1.91	0.53
72:Bt:41:TRP:HB3	72:Bt:45:PHE:CE2	2.29	0.53
78:CA:651:G:N2	78:CA:679:U:O4	2.41	0.53
78:CA:1003:A:N7	78:CA:1005:A:N6	2.56	0.53
78:CA:1172:G:N2	78:CA:1468:U:O2	2.41	0.53
81:DA:2660:G:H1	81:DA:2710:C:H42	1.57	0.53
83:DC:94:A:O2'	83:DC:95:C:H5'	2.08	0.53
4:AD:235:TYR:O	4:AD:236:ILE:CG1	2.55	0.53
18:AP:103:ARG:HH21	78:CA:304:U:H4'	1.73	0.53
31:BB:11:GLY:HA2	81:DA:2163:C:C2'	2.38	0.53
31:BB:245:LEU:CD1	81:DA:2243:A:C5	2.63	0.53
32:BC:75:ALA:HB2	81:DA:3049:A:C6	2.44	0.53
32:BC:93:VAL:HG13	32:BC:93:VAL:O	2.07	0.53
34:BE:29:ARG:HD2	34:BE:33:ALA:H	1.72	0.53
44:BO:2:PRO:CG	81:DA:802:C:H41	2.22	0.53
45:BR:55:SER:HA	81:DA:672:A:P	2.49	0.53
72:Bt:19:ILE:HG23	72:Bt:25:LYS:NZ	2.24	0.53
78:CA:1115:U:O2	78:CA:1131:A:C6	2.61	0.53
78:CA:1185:U:C4	78:CA:1458:G:C8	2.97	0.53
78:CA:1616:G:H1'	78:CA:1618:C:H42	1.73	0.53
81:DA:688:G:H2'	81:DA:689:U:C5	2.44	0.53
81:DA:1673:G:H2'	81:DA:1674:G:C8	2.43	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:DC:58:U:H2'	83:DC:59:G:C8	2.43	0.53
33:BD:89:ALA:HA	33:BD:91:GLY:N	2.24	0.53
34:BE:53:THR:OG1	79:CB:55:C:C2'	2.56	0.53
40:BK:198:GLY:HA2	41:BN:108:ARG:CD	2.38	0.53
45:BR:54:LEU:HB3	45:BR:58:ASN:HB2	1.91	0.53
72:Bu:17:SER:CA	73:Bw:31:ILE:HD11	2.36	0.53
78:CA:217:A:H2	78:CA:839:U:O2	1.90	0.53
78:CA:1336:A:C2	78:CA:1416:G:C2	2.97	0.53
81:DA:967:A:C4	81:DA:968:G:C8	2.97	0.53
81:DA:2071:A:H2'	81:DA:2072:G:C8	2.43	0.53
81:DA:2479:C:N4	81:DA:2487:U:N3	2.57	0.53
7:AG:130:UNK:C	78:CA:636:A:N6	2.72	0.53
12:AK:53:ASP:CB	78:CA:899:G:H5'	2.39	0.53
32:BC:266:ARG:CZ	81:DA:2989:U:O4'	2.57	0.53
34:BE:56:THR:HG21	81:DA:2678:A:C6	2.43	0.53
35:BG:142:ASP:HB3	35:BG:143:LYS:HA	1.90	0.53
37:BH:139:VAL:HA	37:BH:200:LEU:HD23	1.90	0.53
38:Bs:42:ARG:HB2	38:Bs:46:ARG:CZ	2.39	0.53
43:BP:17:ASP:HA	43:BP:20:ARG:HB3	1.89	0.53
44:BO:16:SER:O	44:BO:21:ARG:HA	2.09	0.53
66:Bo:10:LYS:HZ1	81:DA:1493:G:N2	2.07	0.53
74:BQ:51:LEU:HB2	74:BQ:55:PHE:CZ	2.43	0.53
78:CA:1041:G:N2	78:CA:1042:G:C6	2.77	0.53
78:CA:1303:U:C5	78:CA:1304:G:C5	2.97	0.53
78:CA:1357:A:H2'	78:CA:1358:G:H8	1.73	0.53
81:DA:567:G:H2'	81:DA:568:G:C8	2.44	0.53
81:DA:1013:G:H2'	81:DA:1014:U:H5'	1.91	0.53
81:DA:2443:A:H2'	81:DA:2444:C:C6	2.44	0.53
81:DA:2678:A:N1	81:DA:2679:A:C4	2.77	0.53
82:DB:131:A:H2'	82:DB:132:G:C8	2.44	0.53
5:AC:53:ARG:NH2	78:CA:658:C:C3'	2.72	0.53
9:AH:66:ASN:HA	9:AH:67:GLY:O	2.08	0.53
11:AJ:63:LEU:HD11	11:AJ:89:ARG:HE	1.74	0.53
14:AM:13:HIS:N	34:BE:116:TYR:HE1	2.05	0.53
17:AQ:102:VAL:HG12	17:AQ:103:ASP:H	1.74	0.53
36:BF:69:ARG:CG	81:DA:3113:A:H4'	2.35	0.53
38:Bs:252:ALA:HB2	72:Bu:57:LEU:CD2	2.33	0.53
42:BM:46:LEU:HA	81:DA:2917:G:OP1	2.09	0.53
57:Be:235:PHE:CE1	76:BS:37:VAL:HG21	2.44	0.53
72:Bt:9:TYR:CD1	73:Bv:8:LEU:HB3	2.44	0.53
72:Bt:14:LEU:HD12	72:Bt:26:LEU:CD2	2.39	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:Bt:57:LEU:O	72:Bt:61:PHE:CZ	2.60	0.53
72:Bu:9:TYR:HE1	73:Bw:8:LEU:HD13	1.74	0.53
81:DA:519:A:H2'	81:DA:520:U:C5'	2.38	0.53
81:DA:519:A:C2'	81:DA:520:U:H5'	2.36	0.53
81:DA:2030:C:H2'	81:DA:2031:U:C6	2.43	0.53
81:DA:3306:U:H2'	81:DA:3307:A:H5''	1.90	0.53
83:DC:49:G:O4'	83:DC:49:G:C8	2.62	0.53
13:AL:13:ARG:NE	18:AP:74:THR:CG2	2.68	0.52
36:BF:58:HIS:HE1	76:BS:160:PRO:O	1.89	0.52
41:BN:43:LYS:H	76:BS:97:ARG:HH12	1.55	0.52
44:BO:124:ILE:HD13	75:BL:147:UNK:C	2.39	0.52
63:Bm:8:VAL:HG13	63:Bm:11:THR:HB	1.91	0.52
72:Bu:14:LEU:CD2	72:Bu:29:LEU:HD12	2.35	0.52
78:CA:175:G:H8	78:CA:175:G:H5''	1.74	0.52
78:CA:586:G:O2'	78:CA:587:C:H5'	2.09	0.52
78:CA:1690:G:H8	78:CA:1690:G:O5'	1.92	0.52
79:CB:17:G:H3'	79:CB:18:G:H5''	1.91	0.52
81:DA:677:A:C2'	81:DA:677:A:C8	2.92	0.52
81:DA:730:C:H2'	81:DA:731:U:C6	2.44	0.52
81:DA:768:C:H4'	81:DA:769:G:OP1	2.08	0.52
81:DA:3215:A:O4'	81:DA:3215:A:C8	2.62	0.52
82:DB:38:U:H3'	82:DB:39:G:H5'	1.90	0.52
1:Aa:288:HIS:CE1	78:CA:1392:U:OP1	2.62	0.52
9:AH:121:VAL:HG22	9:AH:122:SER:N	2.24	0.52
13:AL:19:ARG:NH2	78:CA:1106:U:C5	2.77	0.52
30:BA:18:LYS:CB	30:BA:24:LYS:H	2.23	0.52
31:BB:132:ASN:OD1	81:DA:2179:C:H2'	2.09	0.52
33:BD:84:ARG:NH2	81:DA:366:A:O2'	2.43	0.52
38:Bs:97:LYS:NZ	38:Bs:202:LEU:HD22	2.24	0.52
46:BT:78:TYR:HB2	81:DA:1938:U:C1'	2.39	0.52
65:Bn:24:THR:HG22	65:Bn:46:ARG:HH22	1.75	0.52
72:Bt:47:LYS:C	73:Bw:37:LYS:CE	2.82	0.52
81:DA:331:G:N7	81:DA:332:C:C4	2.77	0.52
81:DA:2050:C:O2'	81:DA:2051:G:H5'	2.09	0.52
81:DA:2389:C:H2'	81:DA:2390:A:C8	2.44	0.52
81:DA:2612:U:C4	81:DA:2613:U:C4	2.97	0.52
6:AE:24:ARG:CG	9:AH:69:LEU:HB2	2.38	0.52
13:AL:7:ARG:HA	18:AP:76:VAL:HG11	1.86	0.52
13:AL:11:SER:HB2	13:AL:14:LYS:NZ	2.24	0.52
14:AM:14:ILE:CG2	34:BE:115:LYS:H	2.18	0.52
14:AM:16:ARG:HH12	34:BE:111:ASP:C	2.14	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:AU:20:ARG:HE	78:CA:154:G:H4'	1.73	0.52
34:BE:19:LEU:CD1	34:BE:37:LEU:HD22	2.39	0.52
35:BG:11:PRO:CD	59:Bh:1:MET:HE1	2.38	0.52
38:Bs:201:ILE:CD1	73:Bv:36:GLU:CD	2.83	0.52
43:BP:50:ARG:HB3	81:DA:267:G:N2	2.22	0.52
75:BL:93:UNK:CB	81:DA:76:G:N7	2.73	0.52
78:CA:929:A:C6	78:CA:930:A:C5	2.98	0.52
78:CA:1747:G:O2'	81:DA:2303:A:H1'	2.09	0.52
81:DA:66:A:N6	81:DA:76:G:H1'	2.24	0.52
81:DA:2177:G:C8	81:DA:2177:G:O5'	2.63	0.52
82:DB:34:U:C2	82:DB:35:C:C5	2.97	0.52
83:DC:47:C:H2'	83:DC:48:U:O5'	2.09	0.52
83:DC:47:C:C2'	83:DC:48:U:O5'	2.57	0.52
4:AD:207:LEU:CD1	78:CA:683:C:C1'	2.84	0.52
4:AD:208:VAL:O	4:AD:219:VAL:HG13	2.09	0.52
14:AM:44:ASN:HB3	20:AS:46:PRO:HD2	1.90	0.52
31:BB:204:MET:HE2	81:DA:914:A:N3	2.25	0.52
44:BO:124:ILE:CB	75:BL:147:UNK:CB	2.87	0.52
52:BY:35:LEU:HD21	52:BY:48:LEU:HD11	1.90	0.52
53:Ba:74:VAL:HG11	60:Bi:67:LYS:CD	2.29	0.52
61:Bj:65:ARG:HH22	61:Bj:88:ASN:HB2	1.74	0.52
72:Bt:17:SER:CB	73:Bv:31:ILE:HD12	2.38	0.52
78:CA:1003:A:C5	78:CA:1005:A:C2	2.93	0.52
78:CA:1680:G:O2'	78:CA:1721:A:N6	2.43	0.52
81:DA:821:U:O2'	81:DA:822:G:H5'	2.10	0.52
81:DA:1206:G:O6	81:DA:1298:C:N4	2.18	0.52
81:DA:2770:G:O4'	81:DA:2770:G:N9	2.39	0.52
4:AD:206:ASP:CB	78:CA:682:C:HO2'	2.19	0.52
9:AH:86:ILE:HG22	13:AL:7:ARG:NH2	2.25	0.52
10:AI:117:LEU:O	10:AI:118:ILE:HB	2.10	0.52
12:AK:59:ALA:O	12:AK:62:LEU:CB	2.58	0.52
18:AP:69:LYS:NZ	78:CA:307:G:H4'	2.23	0.52
19:AR:59:LYS:CB	78:CA:1551:U:C5	2.93	0.52
29:AU:70:VAL:CG1	29:AU:70:VAL:CG2	2.80	0.52
30:BA:28:PHE:HB2	30:BA:34:LEU:HD12	1.92	0.52
33:BD:339:LEU:HD22	33:BD:342:LYS:HB3	1.91	0.52
38:Bs:42:ARG:CB	38:Bs:46:ARG:CZ	2.88	0.52
38:Bs:246:LEU:HD11	72:Bu:9:TYR:CD2	2.44	0.52
43:BP:28:TRP:CZ2	81:DA:2515:A:H4'	2.45	0.52
61:Bj:86:ARG:H	61:Bj:86:ARG:CD	2.22	0.52
76:BS:75:LYS:HD3	76:BS:131:VAL:H	1.75	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:CA:1012:U:H2'	78:CA:1013:A:C8	2.45	0.52
78:CA:1135:U:H2'	78:CA:1136:U:C6	2.44	0.52
78:CA:1563:C:H2'	78:CA:1564:U:C5	2.45	0.52
81:DA:410:U:H3	82:DB:13:A:H61	1.57	0.52
81:DA:2493:U:H4'	81:DA:2494:A:OP1	2.10	0.52
81:DA:3048:A:C8	81:DA:3048:A:H5'	2.45	0.52
15:AN:24:CYS:HB2	15:AN:36:LEU:CD2	2.40	0.52
18:AP:85:VAL:O	18:AP:111:VAL:HG13	2.09	0.52
19:AR:116:LEU:H	19:AR:119:PHE:HB3	1.75	0.52
20:AS:89:ARG:HH12	78:CA:1467:C:C1'	2.19	0.52
22:AV:29:LYS:O	22:AV:30:LYS:HB2	2.09	0.52
32:BC:125:SER:C	32:BC:127:LYS:H	2.17	0.52
33:BD:3:ARG:HH21	33:BD:22:LEU:HD12	1.74	0.52
38:Bs:246:LEU:HD21	72:Bu:8:SER:O	2.06	0.52
41:BN:99:TRP:C	41:BN:101:LYS:H	2.16	0.52
43:BP:30:TYR:HB3	43:BP:129:TYR:CE1	2.45	0.52
52:BY:46:LYS:H	52:BY:46:LYS:HD3	1.74	0.52
72:Bt:13:ILE:CD1	73:Bv:6:ALA:HA	2.40	0.52
72:Bt:32:ALA:HB2	73:Bv:28:SER:HB3	1.92	0.52
72:Bu:19:ILE:HG23	72:Bu:25:LYS:NZ	2.24	0.52
74:BQ:285:ARG:O	74:BQ:286:VAL:HG23	2.10	0.52
78:CA:374:U:C2	78:CA:375:U:C6	2.98	0.52
78:CA:1570:A:O4'	78:CA:1570:A:N9	2.39	0.52
78:CA:1667:A:H2'	78:CA:1668:G:C8	2.44	0.52
78:CA:1746:A:C4'	81:DA:2291:A:O2'	2.57	0.52
81:DA:70:A:O4'	81:DA:70:A:N9	2.37	0.52
81:DA:428:A:H61	81:DA:631:U:H3	1.57	0.52
81:DA:807:A:H2	81:DA:2411:U:O2	1.92	0.52
81:DA:2304:C:O3'	81:DA:2305:G:C8	2.62	0.52
81:DA:2509:U:H2'	81:DA:2510:U:C6	2.45	0.52
81:DA:3035:A:H2'	81:DA:3036:G:H8	1.75	0.52
81:DA:3319:U:C5	81:DA:3382:U:OP2	2.63	0.52
5:AC:68:LYS:H	5:AC:71:PHE:HB3	1.75	0.52
33:BD:343:LYS:HA	33:BD:346:LYS:HG3	1.92	0.52
35:BG:69:PHE:CZ	35:BG:76:LEU:HD11	2.45	0.52
44:BO:4:ARG:HG3	81:DA:802:C:P	2.50	0.52
52:BY:11:ASP:HA	52:BY:13:ARG:HH21	1.75	0.52
78:CA:929:A:H5''	78:CA:931:C:N4	2.25	0.52
78:CA:933:A:C5	78:CA:935:U:H1'	2.45	0.52
78:CA:936:G:N2	78:CA:937:C:C2	2.78	0.52
78:CA:1352:G:N2	78:CA:1372:U:H3	2.05	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:69:C:H2'	81:DA:70:A:H5'	1.91	0.52
81:DA:1167:U:H3	81:DA:1332:A:H61	1.56	0.52
81:DA:2470:C:N4	81:DA:2471:U:C4	2.78	0.52
81:DA:2710:C:H2'	81:DA:2711:C:C6	2.45	0.52
1:Aa:181:TRP:CE2	1:Aa:188:ILE:HG22	2.45	0.52
5:AC:163:PRO:HD2	78:CA:588:U:OP1	2.09	0.52
11:AJ:85:ARG:NH2	15:AN:51:GLY:O	2.43	0.52
16:AO:65:VAL:CG2	24:AX:51:GLN:NE2	2.73	0.52
20:AS:22:LEU:HD11	20:AS:59:ALA:HA	1.91	0.52
31:BB:175:VAL:CG2	81:DA:2179:C:H1'	2.40	0.52
32:BC:75:ALA:HB2	81:DA:3049:A:C2	2.45	0.52
34:BE:18:VAL:HG22	34:BE:70:THR:HG22	1.92	0.52
43:BP:95:GLN:O	81:DA:289:A:H5'	2.10	0.52
78:CA:205:U:C4	78:CA:206:A:C2	2.98	0.52
78:CA:1455:G:N7	78:CA:1559:A:N6	2.58	0.52
78:CA:1548:G:N2	78:CA:1564:U:N3	2.58	0.52
81:DA:798:G:H2'	81:DA:799:G:N9	2.25	0.52
81:DA:2086:A:H2'	81:DA:2087:C:C6	2.45	0.52
81:DA:2155:G:H1	81:DA:2181:C:N4	2.06	0.52
82:DB:98:U:C5	82:DB:99:C:C2	2.97	0.52
4:AD:93:ASP:CB	4:AD:93:ASP:H	2.20	0.52
13:AL:10:ASN:O	13:AL:11:SER:C	2.52	0.52
13:AL:133:LEU:O	13:AL:135:LEU:N	2.43	0.52
37:BH:61:GLN:O	37:BH:62:LYS:CB	2.51	0.52
41:BN:3:THR:O	41:BN:4:ASP:C	2.52	0.52
55:Bc:93:THR:C	55:Bc:95:PHE:HA	2.35	0.52
72:Bt:48:ALA:N	73:Bw:37:LYS:CE	2.73	0.52
78:CA:119:A:C6	78:CA:120:U:C6	2.98	0.52
78:CA:624:G:C4	78:CA:1027:A:C2	2.98	0.52
78:CA:1756:A:H3'	78:CA:1757:G:C5'	2.39	0.52
81:DA:835:G:H1'	81:DA:858:A:H62	1.74	0.52
81:DA:1584:U:C5	81:DA:1585:C:N4	2.78	0.52
2:AA:56:LYS:HG3	2:AA:161:PRO:HD2	1.92	0.52
29:AU:70:VAL:HA	29:AU:70:VAL:HG13	1.92	0.52
44:BO:73:LEU:HD12	44:BO:73:LEU:N	2.25	0.52
46:BT:58:HIS:CG	81:DA:1691:U:OP1	2.63	0.52
53:Ba:9:LYS:HD3	53:Ba:32:GLY:HA3	1.92	0.52
57:Be:218:ARG:HB3	57:Be:220:PHE:CB	2.39	0.52
59:Bh:20:HIS:CA	59:Bh:22:SER:H	2.23	0.52
74:BQ:52:VAL:C	74:BQ:54:ARG:H	2.17	0.52
78:CA:1295:G:O2'	78:CA:1321:A:C5	2.58	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:677:A:N6	81:DA:785:G:C4	2.78	0.52
81:DA:799:G:C2	81:DA:801:A:C6	2.98	0.52
81:DA:2409:G:H4'	81:DA:2410:U:OP2	2.09	0.52
4:AD:175:PHE:CE1	4:AD:227:VAL:HG23	2.45	0.51
33:BD:33:ASP:HB2	45:BR:22:ASP:HA	1.92	0.51
40:BK:90:HIS:HE1	81:DA:2381:G:C5'	2.23	0.51
41:BN:12:TRP:CH2	41:BN:67:PRO:HG3	2.45	0.51
47:BU:139:ARG:H	47:BU:141:VAL:HG13	1.75	0.51
61:Bj:21:ARG:O	61:Bj:23:ASN:N	2.44	0.51
78:CA:383:G:C6	78:CA:384:G:C5	2.98	0.51
78:CA:962:C:H3'	78:CA:963:A:H5''	1.92	0.51
78:CA:1751:C:H2'	78:CA:1752:U:C6	2.45	0.51
81:DA:2450:G:N1	81:DA:2496:C:N3	2.53	0.51
30:BA:19:TYR:C	30:BA:206:VAL:HG11	2.35	0.51
32:BC:119:TYR:CZ	81:DA:3314:A:OP2	2.63	0.51
33:BD:88:GLY:C	33:BD:89:ALA:CB	2.83	0.51
33:BD:297:SER:HB3	45:BR:25:TYR:CD2	2.42	0.51
37:BH:133:LYS:HA	81:DA:147:U:OP1	2.11	0.51
38:Bs:243:TYR:OH	73:Bw:54:ILE:HD11	2.10	0.51
38:Bs:247:LEU:O	38:Bs:250:ALA:HB3	2.10	0.51
49:BV:17:ALA:HB1	49:BV:97:ASN:HD22	1.76	0.51
53:Ba:21:LYS:O	53:Ba:22:LYS:HG2	2.10	0.51
78:CA:1203:A:N3	78:CA:1556:A:N3	2.58	0.51
81:DA:77:A:N6	81:DA:323:A:H61	2.08	0.51
81:DA:1039:U:H3'	81:DA:1040:A:C8	2.45	0.51
81:DA:2294:U:C2	81:DA:2297:U:C5	2.98	0.51
81:DA:2369:G:H2'	81:DA:2370:G:H8	1.73	0.51
81:DA:2763:U:H3	81:DA:2794:G:H1	1.58	0.51
14:AM:11:PHE:HD2	22:AV:33:LYS:CG	2.13	0.51
21:AT:33:GLN:O	21:AT:34:ILE:HG23	2.11	0.51
30:BA:17:LEU:HD12	30:BA:214:PHE:HB2	1.93	0.51
38:Bs:220:ILE:CG1	72:Bt:12:LEU:HD12	2.40	0.51
43:BP:49:ARG:CD	81:DA:114:A:O2'	2.58	0.51
45:BR:26:LEU:CD2	81:DA:673:U:OP2	2.57	0.51
53:Ba:55:LYS:CG	53:Ba:57:HIS:HE1	2.22	0.51
72:Bu:9:TYR:O	73:Bw:9:LEU:HD11	2.10	0.51
74:BQ:16:PHE:HB3	83:DC:14:U:H5'	1.92	0.51
74:BQ:128:GLU:C	74:BQ:129:TYR:O	2.52	0.51
77:BI:98:ARG:HH22	81:DA:2646:C:H4'	1.74	0.51
81:DA:1677:G:H22	81:DA:1691:U:H3	1.59	0.51
1:Aa:141:LEU:HD23	1:Aa:141:LEU:H	1.75	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:97:UNK:N	7:AG:97:UNK:CB	2.61	0.51
12:AK:124:ASP:HA	78:CA:929:A:C4	2.45	0.51
19:AR:59:LYS:HB3	78:CA:1551:U:C5	2.46	0.51
42:BM:40:LYS:HB2	42:BM:59:MET:HE1	1.92	0.51
46:BT:71:ARG:NE	81:DA:2100:A:H5''	2.25	0.51
59:Bh:21:HIS:ND1	81:DA:637:C:H1'	2.25	0.51
72:Bt:47:LYS:C	73:Bw:37:LYS:NZ	2.69	0.51
78:CA:34:G:C6	78:CA:35:U:C2	2.98	0.51
81:DA:1295:G:C5	81:DA:1296:C:C5	2.98	0.51
81:DA:2129:U:H2'	81:DA:2130:G:C8	2.45	0.51
81:DA:2154:U:H2'	81:DA:2155:G:C8	2.45	0.51
81:DA:2957:G:H1	81:DA:2975:U:H3	1.57	0.51
81:DA:3221:C:C5	81:DA:3221:C:OP2	2.63	0.51
81:DA:3325:G:C2'	81:DA:3326:G:H5'	2.39	0.51
20:AS:43:ASN:HB2	78:CA:1477:G:C5'	2.40	0.51
31:BB:245:LEU:O	31:BB:246:LEU:CG	2.58	0.51
48:BW:92:TRP:CZ3	81:DA:1680:G:OP2	2.64	0.51
53:Ba:10:VAL:O	53:Ba:57:HIS:HD2	1.93	0.51
53:Ba:11:ALA:CB	53:Ba:57:HIS:CD2	2.93	0.51
53:Ba:21:LYS:CG	53:Ba:63:ALA:H	2.17	0.51
65:Bn:53:THR:HG21	65:Bn:56:ILE:HG22	1.92	0.51
72:Bt:43:ASP:OD2	73:Bw:36:GLU:OE2	2.29	0.51
78:CA:279:G:H2'	78:CA:280:U:H5'	1.92	0.51
81:DA:2266:U:H2'	81:DA:2267:C:C6	2.45	0.51
81:DA:3217:C:C2'	81:DA:3217:C:C6	2.93	0.51
2:AA:115:PHE:CE1	6:AE:93:GLY:O	2.64	0.51
6:AE:24:ARG:HB3	9:AH:68:ARG:O	2.11	0.51
6:AE:70:ASP:O	6:AE:71:THR:C	2.52	0.51
13:AL:129:GLY:HA3	13:AL:135:LEU:CA	2.41	0.51
16:AO:53:LEU:HD23	16:AO:63:ALA:CA	2.41	0.51
20:AS:57:ARG:HB2	78:CA:1479:A:OP1	2.11	0.51
32:BC:9:PRO:HD2	42:BM:45:ARG:NH2	2.25	0.51
34:BE:16:LYS:HE3	81:DA:2683:U:H5''	1.93	0.51
45:BR:3:ILE:HG13	57:Be:100:ARG:HH12	1.74	0.51
53:Ba:43:VAL:HG21	53:Ba:55:LYS:O	2.10	0.51
72:Bt:48:ALA:N	73:Bw:37:LYS:HE2	2.25	0.51
72:Bu:29:LEU:HD21	73:Bw:29:VAL:CB	2.34	0.51
78:CA:959:U:O2	78:CA:960:U:C5	2.64	0.51
79:CB:30:G:H1	79:CB:40:U:H3	1.58	0.51
81:DA:800:G:O2'	81:DA:801:A:C8	2.63	0.51
81:DA:1685:C:H2'	81:DA:1686:U:C6	2.46	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:1893:A:H1'	81:DA:3080:G:O6	2.10	0.51
81:DA:1905:G:H2'	81:DA:1906:G:H5''	1.93	0.51
81:DA:3302:U:H2'	81:DA:3303:G:H8	1.74	0.51
6:AE:5:GLU:HG2	6:AE:6:ALA:H	1.76	0.51
9:AH:86:ILE:CG2	13:AL:7:ARG:HH22	2.24	0.51
19:AR:85:ILE:HD11	19:AR:105:VAL:HG11	1.92	0.51
21:AT:23:ILE:HG12	21:AT:59:VAL:HG11	1.92	0.51
32:BC:100:ARG:HB2	81:DA:3243:A:C2	2.46	0.51
33:BD:89:ALA:O	33:BD:89:ALA:HB1	2.01	0.51
36:BF:45:PHE:CZ	36:BF:75:VAL:CG1	2.94	0.51
36:BF:96:HIS:CG	81:DA:3024:A:H4'	2.46	0.51
38:Bs:229:TYR:HE1	72:Bt:44:ILE:HB	1.73	0.51
46:BT:16:GLY:O	46:BT:17:VAL:HG13	2.11	0.51
74:BQ:152:ARG:HG2	81:DA:2663:G:H5''	1.92	0.51
78:CA:1580:C:O4'	78:CA:1580:C:N1	2.40	0.51
78:CA:1615:C:O4'	78:CA:1615:C:N1	2.36	0.51
79:CB:20:C:H3'	79:CB:21:A:H5'	1.93	0.51
81:DA:653:A:H4'	81:DA:2361:A:H5''	1.93	0.51
81:DA:1292:C:H2'	81:DA:1293:U:C6	2.46	0.51
81:DA:2932:U:O2	81:DA:2934:A:C8	2.64	0.51
12:AK:30:VAL:HG21	12:AK:94:PRO:O	2.10	0.51
22:AV:27:TRP:CZ2	78:CA:1535:U:OP2	2.64	0.51
31:BB:38:HIS:HB2	70:Bx:7:UNK:H	1.73	0.51
35:BG:56:LYS:HB2	35:BG:64:LEU:CB	2.40	0.51
40:BK:74:ARG:HA	40:BK:145:VAL:HG11	1.93	0.51
53:Ba:55:LYS:HG2	53:Ba:57:HIS:CE1	2.46	0.51
55:Bc:41:LEU:HD23	55:Bc:41:LEU:O	2.11	0.51
57:Be:97:PRO:HD2	57:Be:98:LYS:H	1.76	0.51
62:Bk:83:ALA:H	62:Bk:84:LYS:HA	1.75	0.51
78:CA:1158:C:C5	78:CA:1582:U:C6	2.99	0.51
81:DA:1055:A:C1'	81:DA:1055:A:O2'	2.51	0.51
81:DA:1716:U:C4	81:DA:1730:G:N2	2.79	0.51
83:DC:41:G:C2	83:DC:45:A:C2	2.98	0.51
1:Aa:182:ASN:HD22	1:Aa:185:GLN:H	1.58	0.51
4:AD:55:ALA:H	4:AD:56:LEU:HB2	1.76	0.51
10:AI:93:HIS:H	10:AI:93:HIS:CD2	2.29	0.51
31:BB:136:ILE:HG21	31:BB:139:HIS:CE1	2.46	0.51
35:BG:68:PRO:HB3	35:BG:103:VAL:HA	1.92	0.51
38:Bs:248:ALA:CA	72:Bu:61:PHE:CE1	2.94	0.51
39:BJ:35:LEU:HD23	39:BJ:41:LYS:HG2	1.93	0.51
72:Bu:10:ALA:N	73:Bw:9:LEU:CD1	2.74	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:BQ:158:ARG:O	74:BQ:160:PHE:N	2.44	0.51
78:CA:609:U:O4'	78:CA:609:U:N1	2.39	0.51
78:CA:1181:U:O2	78:CA:1458:G:N2	2.44	0.51
81:DA:16:A:H61	82:DB:143:U:H3	1.57	0.51
81:DA:194:U:H3	81:DA:201:A:H61	1.58	0.51
81:DA:301:G:H1	81:DA:314:U:H3	1.59	0.51
81:DA:1295:G:C6	81:DA:1296:C:C4	2.99	0.51
81:DA:2424:A:C2	81:DA:2607:G:N3	2.79	0.51
81:DA:2693:C:H2'	81:DA:2755:C:C6	2.46	0.51
9:AH:122:SER:H	78:CA:646:C:H5''	1.75	0.51
12:AK:124:ASP:CG	78:CA:929:A:C6	2.86	0.51
20:AS:119:LYS:HE3	78:CA:1519:U:C4'	2.41	0.51
29:AU:9:THR:HG23	29:AU:84:LYS:HB3	1.92	0.51
35:BG:5:LYS:HA	35:BG:6:ALA:HB2	1.92	0.51
35:BG:25:ALA:CB	81:DA:502:U:H5'	2.40	0.51
45:BR:58:ASN:HD21	81:DA:975:C:C5'	2.23	0.51
50:BX:40:LEU:HD12	81:DA:1578:C:H41	1.75	0.51
53:Ba:12:VAL:HG22	81:DA:1739:U:H1'	1.93	0.51
65:Bn:72:THR:HA	81:DA:1751:G:C5	2.43	0.51
78:CA:57:G:H2'	78:CA:58:U:C6	2.45	0.51
78:CA:604:A:N6	78:CA:605:A:C6	2.78	0.51
78:CA:1167:G:N2	78:CA:1578:U:O2	2.36	0.51
78:CA:1655:A:C2	78:CA:1746:A:H1'	2.46	0.51
79:CB:27:G:H2'	79:CB:28:G:H8	1.76	0.51
81:DA:181:U:H4'	82:DB:94:C:C4	2.46	0.51
81:DA:209:A:C2	81:DA:212:G:N7	2.78	0.51
81:DA:2171:G:C4	81:DA:2172:A:C8	2.99	0.51
81:DA:3077:A:N6	81:DA:3081:C:C5	2.79	0.51
81:DA:3325:G:H2'	81:DA:3326:G:H5'	1.92	0.51
81:DA:3375:A:H2'	81:DA:3380:U:C6	2.46	0.51
10:AI:139:GLN:HB2	78:CA:1580:C:H4'	1.92	0.50
15:AN:24:CYS:CB	15:AN:36:LEU:HD21	2.42	0.50
16:AO:124:ARG:HD3	81:DA:846:A:C6	2.46	0.50
26:AZ:18:THR:HG22	26:AZ:24:THR:H	1.75	0.50
44:BO:124:ILE:HD11	75:BL:148:UNK:N	2.03	0.50
48:BW:94:ARG:C	48:BW:95:PHE:CD2	2.89	0.50
53:Ba:23:VAL:HG22	53:Ba:55:LYS:NZ	2.24	0.50
55:Bc:41:LEU:CD1	55:Bc:44:ILE:HB	2.40	0.50
58:Bg:92:TYR:O	58:Bg:93:VAL:HG13	2.11	0.50
64:Bl:9:GLY:HA2	81:DA:1844:C:O2	2.11	0.50
78:CA:1263:G:H2'	78:CA:1264:G:C8	2.46	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:14:U:H2'	81:DA:15:C:C6	2.46	0.50
81:DA:497:C:H2'	81:DA:498:A:C8	2.45	0.50
81:DA:2064:C:H2'	81:DA:2065:U:C6	2.46	0.50
81:DA:3241:G:C6	81:DA:3242:G:O6	2.63	0.50
81:DA:3342:A:H61	81:DA:3363:U:H3	1.59	0.50
83:DC:41:G:H4'	83:DC:42:A:C8	2.46	0.50
6:AE:69:ILE:C	6:AE:70:ASP:O	2.52	0.50
14:AM:122:HIS:CE1	19:AR:131:ALA:HB2	2.46	0.50
18:AP:104:HIS:CD2	18:AP:105:LYS:H	2.29	0.50
29:AU:62:THR:O	29:AU:63:GLN:CD	2.54	0.50
40:BK:187:GLU:O	40:BK:188:SER:C	2.53	0.50
53:Ba:10:VAL:HG22	81:DA:1739:U:H4'	1.94	0.50
61:Bj:65:ARG:HH22	61:Bj:88:ASN:CB	2.23	0.50
64:Bl:63:ARG:CG	64:Bl:64:MET:N	2.74	0.50
66:Bo:15:LYS:HD3	82:DB:45:C:H4'	1.94	0.50
78:CA:326:G:O6	78:CA:337:G:O6	2.28	0.50
78:CA:1147:A:N1	78:CA:1630:U:O2	2.44	0.50
78:CA:1611:A:C6	78:CA:1612:U:C4	2.98	0.50
81:DA:653:A:N6	81:DA:1442:U:H3	1.96	0.50
81:DA:1049:C:H2'	81:DA:1050:U:C6	2.46	0.50
81:DA:1476:G:H1	81:DA:1877:U:H3	1.58	0.50
81:DA:2121:G:H2'	81:DA:2122:G:H4'	1.93	0.50
81:DA:2224:A:H2'	81:DA:2225:U:C6	2.46	0.50
81:DA:3222:U:H2'	81:DA:3223:A:C8	2.46	0.50
1:Aa:58:VAL:O	10:AI:107:LYS:HG3	2.12	0.50
1:Aa:131:ILE:HG23	1:Aa:145:LEU:HB2	1.91	0.50
12:AK:36:LYS:HZ1	78:CA:900:A:C3'	2.24	0.50
22:AV:57:TYR:HB2	22:AV:60:VAL:HG13	1.93	0.50
31:BB:128:ARG:HG2	81:DA:2177:G:C8	2.46	0.50
36:BF:47:LYS:HA	36:BF:53:ILE:HA	1.92	0.50
57:Be:144:ILE:HG21	57:Be:189:ILE:HD11	1.94	0.50
58:Bg:92:TYR:CE1	81:DA:3324:C:H5''	2.47	0.50
74:BQ:215:ASP:OD1	83:DC:49:G:OP1	2.30	0.50
78:CA:904:G:N1	78:CA:905:A:C2	2.76	0.50
78:CA:1570:A:H3'	78:CA:1571:C:C5	2.46	0.50
81:DA:702:C:O4'	81:DA:702:C:C6	2.64	0.50
81:DA:1870:C:C3'	81:DA:1871:U:C4	2.92	0.50
81:DA:2223:A:C6	81:DA:2224:A:C2	2.99	0.50
81:DA:3051:U:H2'	81:DA:3052:G:H8	1.76	0.50
1:Aa:74:THR:HG23	1:Aa:77:GLY:H	1.77	0.50
6:AE:24:ARG:HB3	9:AH:69:LEU:N	2.26	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AF:143:ARG:O	8:AF:162:VAL:HG11	2.11	0.50
11:AJ:85:ARG:NE	15:AN:51:GLY:C	2.70	0.50
16:AO:114:ARG:NH2	78:CA:941:A:H62	2.10	0.50
20:AS:40:SER:HB3	78:CA:1477:G:P	2.52	0.50
29:AU:63:GLN:HG3	29:AU:66:GLY:HA3	1.94	0.50
41:BN:13:ARG:HB3	76:BS:158:VAL:HG13	1.93	0.50
47:BU:132:PRO:O	47:BU:136:ARG:HB2	2.11	0.50
49:BV:86:LYS:HB2	81:DA:2353:G:H5''	1.94	0.50
53:Ba:74:VAL:O	53:Ba:74:VAL:HG12	2.03	0.50
60:Bi:16:ARG:C	60:Bi:16:ARG:CG	2.85	0.50
60:Bi:64:THR:HG23	60:Bi:65:VAL:H	1.77	0.50
72:Bt:23:SER:O	72:Bt:27:LEU:CG	2.55	0.50
78:CA:152:U:C2'	78:CA:153:G:H5'	2.42	0.50
78:CA:257:A:C2'	78:CA:258:C:H5'	2.42	0.50
78:CA:1041:G:C2	78:CA:1042:G:C5	2.99	0.50
78:CA:1140:G:N2	78:CA:1141:G:C4	2.80	0.50
81:DA:713:U:H2'	81:DA:714:G:C8	2.46	0.50
81:DA:2840:C:O2'	81:DA:2841:G:H8	1.94	0.50
81:DA:3049:A:N7	81:DA:3050:U:C5	2.79	0.50
83:DC:27:A:O4'	83:DC:27:A:N9	2.39	0.50
83:DC:81:U:H2'	83:DC:82:A:C8	2.46	0.50
17:AQ:81:LYS:O	17:AQ:82:ASP:CB	2.59	0.50
18:AP:69:LYS:NZ	78:CA:307:G:O3'	2.44	0.50
20:AS:15:ILE:HD13	20:AS:56:LYS:CG	2.41	0.50
32:BC:106:TRP:NE1	81:DA:3149:G:H5'	2.26	0.50
32:BC:116:ARG:HB3	32:BC:176:ALA:H	1.75	0.50
32:BC:308:MET:HE1	81:DA:3327:G:C3'	2.42	0.50
38:Bs:91:GLU:HB2	38:Bs:96:ILE:HD11	1.94	0.50
40:BK:177:LYS:O	41:BN:135:LEU:HD13	2.11	0.50
41:BN:14:LEU:HB3	41:BN:19:ARG:HB2	1.93	0.50
43:BP:178:HIS:C	43:BP:179:LYS:O	2.54	0.50
47:BU:80:VAL:HB	81:DA:2727:A:N6	2.26	0.50
61:Bj:66:VAL:HG21	81:DA:1178:G:C5'	2.42	0.50
66:Bo:13:MET:HE3	81:DA:1493:G:C8	2.46	0.50
72:Bt:19:ILE:HG23	72:Bt:25:LYS:HZ3	1.75	0.50
74:BQ:55:PHE:HD1	74:BQ:56:THR:H	1.58	0.50
78:CA:191:C:H2'	78:CA:192:U:C6	2.46	0.50
78:CA:1003:A:C5	78:CA:1005:A:N1	2.79	0.50
78:CA:1176:G:C4	78:CA:1464:G:N2	2.80	0.50
78:CA:1476:C:C6	78:CA:1476:C:C3'	2.94	0.50
4:AD:218:PHE:CZ	78:CA:650:U:OP1	2.64	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AQ:85:VAL:O	17:AQ:85:VAL:CG1	2.57	0.50
19:AR:107:ILE:HG13	78:CA:1453:G:H21	1.74	0.50
31:BB:225:ILE:HG22	31:BB:238:ILE:HA	1.93	0.50
37:BH:92:LYS:HB3	37:BH:230:LYS:H	1.76	0.50
47:BU:160:ILE:HG23	81:DA:969:C:H5'	1.92	0.50
50:BX:38:LEU:HD12	81:DA:1560:G:N2	2.27	0.50
55:Bc:109:ILE:O	55:Bc:110:ALA:HB2	2.11	0.50
75:BL:21:UNK:CB	81:DA:799:G:O2'	2.60	0.50
78:CA:872:G:H2'	78:CA:873:U:C6	2.47	0.50
78:CA:1087:A:H2'	78:CA:1088:A:C8	2.47	0.50
78:CA:1149:G:O6	78:CA:1628:U:O4	2.30	0.50
78:CA:1306:C:C3'	78:CA:1307:U:H5'	2.42	0.50
78:CA:1311:U:O2	78:CA:1315:U:C2	2.64	0.50
81:DA:71:A:O4'	81:DA:71:A:N9	2.39	0.50
81:DA:1313:G:O3'	81:DA:1314:C:C6	2.64	0.50
81:DA:2637:A:H2	81:DA:2639:G:H3'	1.77	0.50
81:DA:2638:C:C2	81:DA:2639:G:C8	2.99	0.50
1:Aa:104:VAL:HG13	1:Aa:134:TRP:CZ2	2.46	0.50
20:AS:62:ALA:HB1	20:AS:132:LEU:HD21	1.93	0.50
31:BB:41:ILE:HG23	31:BB:63:PHE:CE1	2.47	0.50
38:Bs:70:LEU:CB	38:Bs:71:PRO:HD3	2.41	0.50
57:Be:23:ALA:HB3	81:DA:595:G:O3'	2.11	0.50
57:Be:103:LEU:HD11	57:Be:133:TYR:CZ	2.47	0.50
60:Bi:64:THR:HG21	81:DA:1635:G:H21	1.75	0.50
76:BS:6:PHE:HB2	76:BS:105:VAL:HG21	1.94	0.50
78:CA:1045:C:H2'	78:CA:1046:G:C8	2.47	0.50
78:CA:1190:C:C5'	78:CA:1190:C:H6	2.24	0.50
81:DA:2859:U:C4'	81:DA:2860:U:H5	2.25	0.50
81:DA:3107:U:H2'	81:DA:3108:G:C8	2.46	0.50
81:DA:3250:U:H2'	81:DA:3251:U:C6	2.46	0.50
8:AF:147:THR:HG21	25:AY:45:LYS:HD3	1.94	0.50
12:AK:53:ASP:HB2	78:CA:899:G:C5'	2.41	0.50
12:AK:59:ALA:HB3	12:AK:61:MET:N	2.24	0.50
18:AP:104:HIS:CG	18:AP:105:LYS:N	2.80	0.50
20:AS:48:GLN:HA	20:AS:52:GLY:HA3	1.93	0.50
31:BB:83:HIS:CG	63:Bm:64:VAL:HG12	2.46	0.50
31:BB:188:LYS:HE3	81:DA:1794:G:C8	2.47	0.50
31:BB:240:ALA:HB1	81:DA:2154:U:H4'	1.94	0.50
32:BC:8:ALA:HB2	42:BM:46:LEU:CD2	2.42	0.50
32:BC:9:PRO:HD3	81:DA:2915:U:OP2	2.11	0.50
34:BE:86:VAL:CB	34:BE:110:ILE:HD13	2.41	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BH:116:VAL:HG21	37:BH:205:ALA:HB3	1.93	0.50
57:Be:66:LYS:HB3	76:BS:10:GLN:HG3	1.92	0.50
78:CA:296:U:H2'	78:CA:297:U:C6	2.46	0.50
78:CA:324:U:H2'	78:CA:325:G:C8	2.47	0.50
81:DA:406:G:H1'	82:DB:17:A:H62	1.76	0.50
81:DA:2623:G:H2'	81:DA:2624:G:C8	2.47	0.50
81:DA:3034:C:O4'	81:DA:3034:C:C6	2.64	0.50
81:DA:3052:G:O6	81:DA:3090:U:O4	2.29	0.50
83:DC:14:U:H2'	83:DC:15:C:H6	1.75	0.50
83:DC:73:G:O2'	83:DC:100:A:N6	2.44	0.50
13:AL:13:ARG:CZ	18:AP:71:LEU:CD2	2.70	0.50
16:AO:65:VAL:HG12	24:AX:47:PHE:HZ	1.76	0.50
17:AQ:95:ARG:H	17:AQ:95:ARG:HD3	1.77	0.50
21:AT:53:TYR:CE2	23:AW:70:UNK:HA	2.46	0.50
29:AU:5:VAL:HG21	29:AU:29:HIS:CA	2.42	0.50
31:BB:126:LEU:HD21	31:BB:156:LYS:HZ2	1.77	0.50
31:BB:126:LEU:HD11	31:BB:158:ILE:CD1	2.41	0.50
32:BC:102:LEU:HD11	32:BC:151:ILE:HB	1.94	0.50
33:BD:73:ARG:HH22	81:DA:2402:A:H2'	1.76	0.50
33:BD:349:THR:HG23	33:BD:350:LYS:HE3	1.94	0.50
36:BF:58:HIS:HE1	76:BS:160:PRO:CA	2.24	0.50
39:BJ:34:PRO:CB	39:BJ:62:LEU:HD11	2.40	0.50
40:BK:90:HIS:CE1	81:DA:2381:G:C5'	2.95	0.50
43:BP:50:ARG:HH21	81:DA:266:A:H5''	1.76	0.50
49:BV:54:HIS:CD2	49:BV:54:HIS:O	2.65	0.50
81:DA:265:A:OP2	81:DA:266:A:C4	2.65	0.50
81:DA:331:G:C1'	81:DA:331:G:O2'	2.53	0.50
81:DA:570:A:H2'	81:DA:571:U:H5'	1.94	0.50
81:DA:1070:U:H3	81:DA:1090:G:H1	1.60	0.50
81:DA:1826:C:H2'	81:DA:1827:C:C6	2.47	0.50
81:DA:1967:U:C2'	81:DA:1968:G:H5'	2.41	0.50
81:DA:2666:C:H41	81:DA:2687:G:H2'	1.76	0.50
31:BB:18:SER:HB3	31:BB:193:ARG:HG3	1.94	0.49
46:BT:78:TYR:CB	81:DA:1938:U:H1'	2.42	0.49
74:BQ:94:ASN:HA	83:DC:47:C:P	2.52	0.49
78:CA:365:G:O6	78:CA:377:G:C2	2.65	0.49
78:CA:548:G:C4	78:CA:591:A:C2	3.00	0.49
78:CA:930:A:N7	78:CA:931:C:C2	2.80	0.49
78:CA:1308:G:N1	78:CA:1318:G:C5	2.80	0.49
78:CA:1327:C:H2'	78:CA:1328:G:H8	1.77	0.49
81:DA:168:U:H3	81:DA:254:A:N6	2.10	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:1685:C:N3	81:DA:3070:A:N1	2.60	0.49
81:DA:2629:U:C2	81:DA:2630:C:C5	3.00	0.49
81:DA:2712:U:H2'	81:DA:2713:U:C6	2.48	0.49
6:AE:73:LEU:HD23	6:AE:73:LEU:H	1.77	0.49
33:BD:30:ILE:HD11	33:BD:128:ALA:HB2	1.94	0.49
33:BD:359:LEU:HB3	57:Be:56:GLU:CD	2.37	0.49
41:BN:38:ILE:HD12	76:BS:154:VAL:CG1	2.43	0.49
57:Be:220:PHE:CE2	83:DC:83:U:H4'	2.47	0.49
57:Be:224:ILE:O	57:Be:224:ILE:HG22	2.12	0.49
66:Bo:10:LYS:NZ	81:DA:1493:G:N2	2.60	0.49
78:CA:1292:G:C5	78:CA:1293:U:C5	3.00	0.49
81:DA:664:U:H2'	81:DA:665:A:C8	2.47	0.49
81:DA:674:G:C6	81:DA:675:C:N4	2.79	0.49
81:DA:807:A:H62	81:DA:934:G:H1	1.58	0.49
81:DA:967:A:C5	81:DA:968:G:C8	3.00	0.49
81:DA:1660:C:H2'	81:DA:1661:G:C8	2.47	0.49
1:Aa:34:LEU:HD21	1:Aa:80:ALA:HB1	1.94	0.49
10:AI:54:LEU:O	10:AI:55:VAL:O	2.29	0.49
14:AM:14:ILE:HG21	34:BE:113:GLY:O	2.11	0.49
15:AN:24:CYS:HB2	15:AN:36:LEU:HD21	1.93	0.49
19:AR:125:PRO:HG2	78:CA:1557:U:O2	2.12	0.49
30:BA:207:LYS:HG2	30:BA:208:SER:H	1.78	0.49
31:BB:245:LEU:O	31:BB:246:LEU:CB	2.57	0.49
32:BC:25:ILE:HD12	81:DA:3312:U:H4'	1.94	0.49
32:BC:380:MET:HB3	81:DA:3369:G:C8	2.47	0.49
36:BF:90:MET:HE2	36:BF:179:ILE:HG13	1.94	0.49
37:BH:89:GLU:N	37:BH:89:GLU:CB	2.61	0.49
37:BH:138:HIS:NE2	81:DA:147:U:C4'	2.75	0.49
38:Bs:245:ASP:C	38:Bs:248:ALA:HB3	2.37	0.49
43:BP:50:ARG:CB	81:DA:267:G:C2	2.95	0.49
53:Ba:10:VAL:CG1	53:Ba:43:VAL:HG22	2.42	0.49
59:Bh:20:HIS:C	59:Bh:20:HIS:CG	2.89	0.49
62:Bk:82:ARG:HD2	62:Bk:82:ARG:N	2.27	0.49
69:Br:55:LYS:CB	81:DA:2802:A:C2	2.95	0.49
72:Bt:13:ILE:CD1	73:Bv:5:ALA:HB1	2.34	0.49
80:CC:17:A:C2	80:CC:19:U:O4	2.65	0.49
81:DA:456:U:H2'	81:DA:457:C:C6	2.46	0.49
81:DA:1673:G:H2'	81:DA:1674:G:H8	1.77	0.49
81:DA:2231:C:O4'	81:DA:2231:C:C6	2.64	0.49
6:AE:69:ILE:O	6:AE:70:ASP:O	2.30	0.49
8:AF:98:MET:HE1	78:CA:1611:A:C5'	2.32	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AK:53:ASP:OD2	78:CA:900:A:OP2	2.31	0.49
15:AN:53:ASN:O	15:AN:54:LYS:C	2.55	0.49
20:AS:57:ARG:O	20:AS:61:VAL:HG13	2.12	0.49
25:AY:25:VAL:HG22	25:AY:46:GLY:H	1.77	0.49
31:BB:108:PRO:CB	63:Bm:86:LEU:HD13	2.41	0.49
31:BB:193:ARG:NH1	81:DA:2174:G:C2'	2.74	0.49
32:BC:28:ARG:HG3	81:DA:3003:G:OP2	2.11	0.49
32:BC:180:GLU:CD	81:DA:3003:G:H4'	2.36	0.49
38:Bs:50:VAL:HG13	81:DA:1258:U:OP2	2.12	0.49
38:Bs:195:GLN:OE1	73:Bv:35:ASP:HB3	2.12	0.49
46:BT:78:TYR:HB2	81:DA:1938:U:H1'	1.95	0.49
48:BW:81:LYS:HG2	81:DA:1688:U:C4	2.47	0.49
67:Bp:27:LEU:CD1	67:Bp:35:ARG:N	2.75	0.49
78:CA:221:A:C2	78:CA:835:U:O2	2.65	0.49
78:CA:372:G:O6	78:CA:373:G:N3	2.43	0.49
78:CA:595:G:H2'	78:CA:596:C:C6	2.47	0.49
78:CA:851:U:C4	78:CA:852:C:C4	2.99	0.49
81:DA:665:A:H2	81:DA:797:U:H3	1.57	0.49
81:DA:1900:A:N6	81:DA:1908:A:H61	2.09	0.49
1:Aa:212:ALA:HB3	1:Aa:243:LEU:HD22	1.95	0.49
5:AC:163:PRO:CG	78:CA:588:U:OP2	2.60	0.49
11:AJ:85:ARG:HG2	15:AN:52:PHE:H	1.78	0.49
12:AK:124:ASP:HA	78:CA:929:A:C1'	2.43	0.49
30:BA:158:GLN:HE21	81:DA:2464:U:H5''	1.78	0.49
31:BB:15:ILE:HD11	81:DA:911:C:C5'	2.42	0.49
31:BB:200:ARG:NH2	81:DA:2187:G:C5	2.79	0.49
41:BN:125:LYS:HG3	41:BN:128:ARG:HB3	1.94	0.49
47:BU:25:VAL:HG22	47:BU:47:SER:HB3	1.95	0.49
49:BV:61:ARG:O	82:DB:4:C:H5''	2.12	0.49
66:Bo:12:LYS:HE2	82:DB:112:U:C5	2.48	0.49
72:Bt:20:GLU:CA	72:Bt:25:LYS:HZ2	2.24	0.49
78:CA:636:A:C2'	78:CA:636:A:C8	2.94	0.49
78:CA:1280:C:H2'	78:CA:1281:G:C8	2.47	0.49
81:DA:264:G:H2'	81:DA:265:A:H4'	1.94	0.49
81:DA:989:A:H2'	81:DA:990:U:C6	2.48	0.49
81:DA:997:A:C8	81:DA:997:A:C3'	2.95	0.49
81:DA:1372:C:H2'	81:DA:1373:A:C8	2.47	0.49
81:DA:2665:U:O4	81:DA:2703:A:H4'	2.13	0.49
83:DC:40:C:C5	83:DC:42:A:C6	3.01	0.49
1:Aa:220:ILE:HG23	1:Aa:234:LEU:HB2	1.94	0.49
20:AS:84:LYS:HZ2	78:CA:1525:A:C5'	2.22	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AT:71:ARG:HE	21:AT:71:ARG:H	1.60	0.49
31:BB:84:THR:C	63:Bm:62:LYS:CE	2.86	0.49
33:BD:148:ILE:HD12	33:BD:149:PRO:HA	1.95	0.49
33:BD:223:PRO:HD3	81:DA:212:G:C5	2.47	0.49
34:BE:9:MET:HE2	83:DC:54:A:C6	2.45	0.49
35:BG:98:VAL:CG1	35:BG:99:GLU:N	2.71	0.49
35:BG:161:ALA:O	35:BG:165:LEU:HG	2.13	0.49
41:BN:40:ASP:OD2	76:BS:97:ARG:HD2	2.13	0.49
53:Ba:71:PHE:CE1	56:Bf:55:GLU:OE1	2.66	0.49
72:Bt:20:GLU:N	72:Bt:25:LYS:NZ	2.36	0.49
74:BQ:18:THR:HG21	81:DA:2689:A:N6	2.28	0.49
78:CA:337:G:H1	78:CA:342:C:N4	2.11	0.49
78:CA:866:G:N2	78:CA:965:U:H2'	2.27	0.49
78:CA:1679:G:H1'	78:CA:1722:A:N6	2.27	0.49
79:CB:55:C:O4'	79:CB:55:C:C6	2.65	0.49
81:DA:1084:A:C5	81:DA:1085:A:C2	3.01	0.49
82:DB:103:G:C2	82:DB:105:A:N6	2.80	0.49
83:DC:46:A:N9	83:DC:46:A:C3'	2.70	0.49
31:BB:83:HIS:HA	63:Bm:64:VAL:HA	1.95	0.49
33:BD:341:SER:H	57:Be:34:LYS:HG3	1.77	0.49
35:BG:56:LYS:CD	35:BG:98:VAL:HG21	2.42	0.49
44:BO:24:LYS:NZ	75:BL:15:UNK:N	2.59	0.49
53:Ba:26:VAL:HB	53:Ba:42:LEU:HD12	1.95	0.49
56:Bf:35:ARG:HH12	60:Bi:65:VAL:C	2.20	0.49
61:Bj:67:MET:HE2	61:Bj:89:LEU:HA	1.94	0.49
72:Bu:19:ILE:HD13	73:Bw:29:VAL:O	2.12	0.49
72:Bu:20:GLU:CA	72:Bu:25:LYS:HZ2	2.25	0.49
81:DA:1055:A:C2'	81:DA:1055:A:C4	2.95	0.49
81:DA:3365:U:H2'	81:DA:3366:G:H8	1.76	0.49
2:AA:4:PRO:HB3	2:AA:5:ALA:HB2	1.95	0.49
2:AA:176:LEU:HD21	2:AA:179:ARG:HH21	1.78	0.49
4:AD:210:ILE:O	4:AD:218:PHE:O	2.31	0.49
9:AH:120:HIS:O	9:AH:121:VAL:HB	2.12	0.49
20:AS:42:GLY:N	78:CA:1477:G:H5'	2.28	0.49
22:AV:105:THR:CB	22:AV:105:THR:N	2.63	0.49
31:BB:125:ALA:HB1	31:BB:128:ARG:HH11	1.78	0.49
31:BB:197:PRO:HG2	81:DA:913:A:O4'	2.12	0.49
33:BD:354:VAL:O	33:BD:354:VAL:CG2	2.47	0.49
38:Bs:39:HIS:HB3	39:BJ:121:PHE:CZ	2.48	0.49
38:Bs:251:ILE:HD12	72:Bu:61:PHE:CD1	2.37	0.49
45:BR:55:SER:HA	81:DA:672:A:OP1	2.13	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:Ba:11:ALA:HB3	53:Ba:57:HIS:NE2	2.26	0.49
57:Be:46:GLU:O	57:Be:49:ALA:HB3	2.13	0.49
62:Bk:98:ARG:HB2	81:DA:298:U:OP1	2.13	0.49
65:Bn:72:THR:O	65:Bn:73:LEU:HD22	2.12	0.49
78:CA:95:G:H1	78:CA:402:C:N4	2.11	0.49
78:CA:587:C:C2	78:CA:588:U:C6	3.01	0.49
78:CA:604:A:C6	78:CA:605:A:C5	2.99	0.49
78:CA:826:U:H3	78:CA:846:G:H1	1.61	0.49
78:CA:916:U:C4	78:CA:917:U:C4	3.01	0.49
78:CA:929:A:C5	78:CA:930:A:C5	3.01	0.49
81:DA:1207:G:O4'	81:DA:1207:G:C8	2.65	0.49
81:DA:1624:G:H1	81:DA:1820:U:H3	1.60	0.49
81:DA:2406:C:H2'	81:DA:2407:C:C6	2.48	0.49
81:DA:2723:U:H2'	81:DA:2724:U:H6	1.77	0.49
81:DA:2775:U:H3	81:DA:2785:A:H61	1.59	0.49
83:DC:22:A:C8	83:DC:53:U:C4	3.01	0.49
1:Aa:58:VAL:O	10:AI:107:LYS:CG	2.61	0.49
2:AA:242:TRP:CE3	2:AA:242:TRP:HA	2.47	0.49
10:AI:139:GLN:O	10:AI:140:LYS:HB2	2.13	0.49
19:AR:58:LYS:HD3	78:CA:1549:C:C6	2.43	0.49
31:BB:126:LEU:HD13	31:BB:150:LEU:HD11	1.94	0.49
32:BC:119:TYR:CZ	32:BC:125:SER:HB3	2.46	0.49
37:BH:134:TYR:CZ	81:DA:147:U:P	3.05	0.49
39:BJ:90:ARG:HH11	39:BJ:90:ARG:HG3	1.77	0.49
42:BM:95:PHE:CD2	51:BZ:22:VAL:HG21	2.48	0.49
53:Ba:57:HIS:HA	53:Ba:59:ALA:O	2.13	0.49
54:Bd:59:LYS:HE3	81:DA:1209:G:N1	2.28	0.49
72:Bt:14:LEU:CD2	72:Bt:29:LEU:HD12	2.35	0.49
74:BQ:183:TRP:HB2	74:BQ:189:GLU:O	2.13	0.49
76:BS:83:TYR:CD1	76:BS:92:MET:HE1	2.48	0.49
78:CA:1665:U:H3	78:CA:1736:G:H22	1.59	0.49
81:DA:572:A:H3'	81:DA:573:C:C5	2.48	0.49
81:DA:600:G:C2	81:DA:604:G:C6	3.00	0.49
81:DA:636:C:N3	81:DA:2361:A:C2	2.81	0.49
81:DA:1205:A:H3'	81:DA:1206:G:H5''	1.95	0.49
81:DA:1623:G:H1	81:DA:1821:U:H3	1.61	0.49
81:DA:1697:A:H3'	81:DA:1698:C:C6	2.48	0.49
81:DA:1883:A:H2'	81:DA:1884:A:O4'	2.13	0.49
81:DA:2231:C:O4'	81:DA:2231:C:N1	2.40	0.49
81:DA:2403:G:N2	81:DA:2405:C:C2	2.80	0.49
81:DA:3161:C:H2'	81:DA:3162:C:C6	2.48	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:118:GLU:CD	4:AD:236:ILE:H	2.21	0.49
13:AL:53:VAL:HG22	13:AL:54:LEU:H	1.77	0.49
33:BD:84:ARG:CZ	81:DA:366:A:C4'	2.88	0.49
43:BP:179:LYS:O	43:BP:180:PHE:CB	2.60	0.49
45:BR:55:SER:CB	81:DA:672:A:P	3.01	0.49
45:BR:120:GLU:HB3	45:BR:122:ILE:HG13	1.94	0.49
58:Bg:32:ALA:HA	58:Bg:35:GLU:HG2	1.95	0.49
60:Bi:61:GLN:HE22	81:DA:2050:C:H5''	1.77	0.49
72:Bu:19:ILE:HD12	73:Bw:29:VAL:HG12	1.95	0.49
74:BQ:265:TYR:CE2	83:DC:106:G:OP1	2.66	0.49
78:CA:590:C:H2'	78:CA:591:A:H8	1.78	0.49
78:CA:1580:C:O4'	78:CA:1580:C:C6	2.66	0.49
81:DA:1377:G:H5''	81:DA:1409:G:OP1	2.12	0.49
1:Aa:212:ALA:CB	1:Aa:243:LEU:HD22	2.43	0.48
7:AG:38:UNK:H	7:AG:39:UNK:HA	1.78	0.48
8:AF:133:VAL:HG22	8:AF:198:LEU:HD11	1.95	0.48
13:AL:22:ASN:O	13:AL:22:ASN:HB2	2.11	0.48
29:AU:14:SER:CB	29:AU:89:TYR:HB3	2.43	0.48
30:BA:193:LEU:HG	30:BA:195:LYS:H	1.76	0.48
35:BG:52:VAL:HG11	81:DA:3217:C:H5'	1.94	0.48
35:BG:148:GLU:HB3	35:BG:149:ILE:HA	1.95	0.48
38:Bs:70:LEU:HB2	38:Bs:71:PRO:HD3	1.94	0.48
42:BM:93:LEU:CD2	51:BZ:20:LEU:HB3	2.33	0.48
46:BT:58:HIS:CD2	81:DA:1691:U:OP1	2.66	0.48
49:BV:66:SER:H	81:DA:2389:C:H5''	1.78	0.48
52:BY:28:ARG:HA	52:BY:31:LEU:HB2	1.94	0.48
67:Bp:18:SER:HA	67:Bp:47:PRO:HA	1.95	0.48
69:Br:69:VAL:O	69:Br:69:VAL:HG23	2.12	0.48
72:Bt:10:ALA:HA	73:Bv:9:LEU:HD11	1.95	0.48
72:Bt:44:ILE:HG12	73:Bw:36:GLU:HB2	1.94	0.48
75:BL:85:UNK:CB	75:BL:86:UNK:HA	2.42	0.48
78:CA:570:A:H62	78:CA:574:G:H21	1.60	0.48
78:CA:1086:A:H8	78:CA:1086:A:OP1	1.96	0.48
81:DA:209:A:C2	81:DA:212:G:C8	3.00	0.48
81:DA:1971:C:C3'	81:DA:1972:A:H5'	2.43	0.48
81:DA:3215:A:H8	81:DA:3215:A:O5'	1.96	0.48
1:Aa:60:SER:HB2	10:AI:107:LYS:HE2	1.94	0.48
29:AU:23:PHE:HB3	29:AU:73:GLY:O	2.13	0.48
36:BF:47:LYS:N	41:BN:7:VAL:CG2	2.76	0.48
40:BK:130:LYS:HB2	81:DA:1316:C:C5	2.48	0.48
42:BM:12:ARG:HH11	81:DA:3040:A:H5''	1.77	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BP:179:LYS:C	43:BP:180:PHE:O	2.52	0.48
47:BU:80:VAL:CG1	81:DA:2727:A:N6	2.76	0.48
49:BV:101:ASN:ND2	81:DA:388:G:H21	2.12	0.48
58:Bg:93:VAL:HG22	81:DA:3324:C:O4'	2.12	0.48
74:BQ:158:ARG:HE	83:DC:47:C:P	2.36	0.48
78:CA:1167:G:O6	78:CA:1578:U:O4	2.30	0.48
81:DA:798:G:H3'	81:DA:799:G:C8	2.48	0.48
81:DA:1869:C:H2'	81:DA:1870:C:H6	1.79	0.48
81:DA:2491:A:H3'	81:DA:2492:C:H5'	1.94	0.48
81:DA:2763:U:O5'	81:DA:2763:U:H6	1.96	0.48
81:DA:2859:U:H4'	81:DA:2860:U:H5	1.76	0.48
82:DB:153:U:H4'	82:DB:154:C:OP1	2.12	0.48
4:AD:186:GLY:HA3	78:CA:651:G:OP2	2.13	0.48
33:BD:341:SER:CA	57:Be:34:LYS:HB3	2.43	0.48
44:BO:47:LYS:HG2	44:BO:92:LYS:H	1.77	0.48
61:Bj:91:ALA:HA	81:DA:430:U:H4'	1.95	0.48
67:Bp:26:ARG:HH21	81:DA:1487:G:H21	1.60	0.48
78:CA:1292:G:N7	78:CA:1293:U:C5	2.81	0.48
78:CA:1603:U:C5	78:CA:1604:U:C5	3.01	0.48
81:DA:32:U:H3	81:DA:52:A:H61	1.61	0.48
81:DA:1621:A:H2'	81:DA:1622:U:C6	2.47	0.48
81:DA:1664:G:H1	81:DA:1785:U:H3	1.61	0.48
81:DA:2279:A:C2	81:DA:2288:G:C8	3.01	0.48
81:DA:2279:A:H3'	81:DA:2279:A:OP1	2.14	0.48
81:DA:2592:G:H4'	81:DA:2594:C:C2	2.48	0.48
82:DB:89:A:C5	82:DB:91:C:C5	3.01	0.48
10:AI:93:HIS:CD2	10:AI:93:HIS:N	2.81	0.48
29:AU:58:PHE:CD2	29:AU:72:PHE:HB3	2.49	0.48
29:AU:70:VAL:HG12	29:AU:71:GLY:N	2.28	0.48
36:BF:129:ARG:HH12	81:DA:3126:C:C5'	2.26	0.48
41:BN:39:ILE:HG23	76:BS:74:ILE:CG1	2.41	0.48
41:BN:74:ARG:NH2	76:BS:151:PHE:HB3	2.28	0.48
46:BT:55:VAL:HG12	46:BT:56:THR:H	1.79	0.48
53:Ba:73:LYS:CB	60:Bi:41:ARG:HH21	2.26	0.48
66:Bo:4:GLN:HG2	81:DA:1493:G:O6	2.10	0.48
72:Bt:44:ILE:HG23	73:Bw:37:LYS:CG	2.41	0.48
74:BQ:16:PHE:CD1	83:DC:14:U:OP1	2.66	0.48
78:CA:585:A:H2'	78:CA:586:G:C8	2.48	0.48
78:CA:929:A:N6	78:CA:930:A:H2	1.87	0.48
78:CA:995:A:H4'	81:DA:2196:C:OP1	2.12	0.48
78:CA:1171:A:N3	78:CA:1469:A:N1	2.61	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:798:G:H3'	81:DA:799:G:H8	1.78	0.48
81:DA:1256:G:H2'	81:DA:1257:C:O4'	2.14	0.48
81:DA:1363:A:H2'	81:DA:1364:C:C6	2.48	0.48
81:DA:1824:U:H2'	81:DA:1825:G:H8	1.79	0.48
81:DA:2228:A:H2'	81:DA:2229:A:H5''	1.95	0.48
81:DA:2294:U:C2	81:DA:2297:U:H5	2.32	0.48
81:DA:2487:U:C2'	81:DA:2487:U:C6	2.97	0.48
81:DA:2632:G:C6	81:DA:2633:U:C4	3.01	0.48
81:DA:2698:G:H2'	81:DA:2699:G:C8	2.48	0.48
81:DA:3034:C:H2'	81:DA:3035:A:C8	2.48	0.48
81:DA:3048:A:H61	81:DA:3090:U:H5''	1.79	0.48
81:DA:3048:A:N6	81:DA:3090:U:H5''	2.28	0.48
83:DC:27:A:H1'	83:DC:55:A:N6	2.25	0.48
6:AE:201:ASN:ND2	78:CA:3:U:N1	2.62	0.48
33:BD:93:MET:HE1	81:DA:1435:A:C2	2.49	0.48
47:BU:56:PHE:HB2	81:DA:2639:G:H5''	1.95	0.48
53:Ba:10:VAL:HG11	53:Ba:23:VAL:HG23	1.96	0.48
53:Ba:81:LEU:HD11	60:Bi:34:HIS:HB2	1.92	0.48
69:Br:61:LYS:HD2	81:DA:2795:U:H4'	1.96	0.48
72:Bu:16:ASP:OD2	73:Bw:1:MET:CA	2.61	0.48
74:BQ:146:LEU:HD22	74:BQ:163:LEU:HD22	1.94	0.48
78:CA:1202:A:C8	78:CA:1600:A:N6	2.81	0.48
78:CA:1276:U:H3	78:CA:1436:A:H61	1.61	0.48
78:CA:1334:U:H3	78:CA:1417:A:N6	2.10	0.48
81:DA:887:G:H2'	81:DA:888:A:C8	2.49	0.48
81:DA:1944:U:H2'	81:DA:1945:A:C8	2.48	0.48
81:DA:1995:A:H2'	81:DA:1996:C:C6	2.48	0.48
81:DA:2479:C:H2'	81:DA:2480:A:H5'	1.96	0.48
4:AD:188:ASN:OD1	78:CA:650:U:H5''	2.13	0.48
16:AO:65:VAL:CB	24:AX:51:GLN:HB2	2.44	0.48
31:BB:188:LYS:NZ	81:DA:1793:C:C2'	2.74	0.48
31:BB:188:LYS:HE2	81:DA:1793:C:C2'	2.44	0.48
31:BB:216:HIS:HE1	81:DA:2960:C:C5	2.31	0.48
34:BE:53:THR:C	34:BE:55:ARG:N	2.68	0.48
46:BT:140:GLU:O	46:BT:143:ILE:HG23	2.14	0.48
69:Br:89:LYS:O	69:Br:90:HIS:O	2.31	0.48
74:BQ:110:LEU:HD22	74:BQ:118:THR:HG21	1.95	0.48
78:CA:990:C:O4'	78:CA:990:C:C6	2.67	0.48
78:CA:1190:C:O4'	78:CA:1190:C:H5''	2.10	0.48
78:CA:1637:C:H5'	80:CC:18:C:N3	2.29	0.48
81:DA:1688:U:O4'	81:DA:1688:U:N1	2.41	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:2624:G:H21	81:DA:2626:A:H2	1.60	0.48
81:DA:2826:U:C4	81:DA:2827:U:C4	3.02	0.48
81:DA:3048:A:H2	81:DA:3091:A:N7	2.12	0.48
81:DA:3049:A:H2'	81:DA:3050:U:C5'	2.43	0.48
81:DA:3215:A:H8	81:DA:3215:A:C5'	2.26	0.48
81:DA:3240:C:H2'	81:DA:3241:G:O4'	2.12	0.48
81:DA:3242:G:C8	81:DA:3242:G:C3'	2.97	0.48
83:DC:29:C:N3	83:DC:30:G:C5	2.82	0.48
83:DC:57:C:C5	83:DC:58:U:C4	3.01	0.48
10:AI:139:GLN:CD	78:CA:1580:C:H5''	2.37	0.48
12:AK:107:ARG:HG3	12:AK:108:SER:H	1.79	0.48
18:AP:85:VAL:HB	18:AP:111:VAL:HG22	1.96	0.48
21:AT:53:TYR:CD2	23:AW:69:UNK:O	2.67	0.48
21:AT:55:LEU:H	21:AT:55:LEU:CD1	2.25	0.48
31:BB:199:THR:HG22	81:DA:913:A:H4'	1.95	0.48
34:BE:115:LYS:CG	34:BE:115:LYS:CA	2.71	0.48
36:BF:113:GLU:HB2	36:BF:123:ILE:HD11	1.94	0.48
36:BF:121:LYS:HZ3	81:DA:3036:G:H1'	1.78	0.48
42:BM:95:PHE:CD2	51:BZ:22:VAL:CG2	2.96	0.48
46:BT:71:ARG:HE	81:DA:2100:A:H5''	1.78	0.48
49:BV:4:TYR:O	82:DB:12:A:H4'	2.14	0.48
78:CA:280:U:O4'	78:CA:280:U:C6	2.67	0.48
78:CA:866:G:C6	78:CA:965:U:C4	3.01	0.48
78:CA:942:G:C2	78:CA:943:C:C2	3.02	0.48
78:CA:1427:A:H4'	78:CA:1428:G:C5'	2.44	0.48
81:DA:380:U:H2'	81:DA:381:U:C6	2.48	0.48
81:DA:1514:G:H22	81:DA:1842:A:H5''	1.77	0.48
81:DA:1784:G:C2'	81:DA:1785:U:H5'	2.44	0.48
81:DA:1826:C:H2'	81:DA:1827:C:C5	2.48	0.48
82:DB:115:C:H2'	82:DB:116:G:C8	2.49	0.48
4:AD:188:ASN:OD1	78:CA:650:U:OP1	2.31	0.48
19:AR:125:PRO:CG	78:CA:1557:U:H3	2.27	0.48
30:BA:190:PHE:HB3	75:BL:181:UNK:CB	2.44	0.48
33:BD:221:ASN:ND2	81:DA:211:A:OP2	2.43	0.48
41:BN:39:ILE:CG2	76:BS:97:ARG:NH2	2.75	0.48
53:Ba:17:ARG:HD2	53:Ba:62:VAL:CG2	2.43	0.48
66:Bo:15:LYS:HG2	82:DB:46:G:OP1	2.12	0.48
72:Bt:47:LYS:HB3	73:Bw:34:GLU:CD	2.22	0.48
73:Bw:22:ILE:HD11	73:Bw:42:LEU:HD21	1.95	0.48
78:CA:441:A:C2	78:CA:464:A:C2	3.02	0.48
78:CA:936:G:N1	78:CA:937:C:C4	2.82	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:CA:1170:G:H22	78:CA:1574:G:N2	2.10	0.48
78:CA:1589:C:N4	78:CA:1607:G:H1	2.10	0.48
81:DA:595:G:H3'	81:DA:595:G:C8	2.48	0.48
81:DA:2197:C:N4	81:DA:2241:U:H2'	2.28	0.48
81:DA:3009:G:C6	81:DA:3010:U:C2	3.02	0.48
81:DA:3382:U:H2'	81:DA:3383:G:C8	2.49	0.48
83:DC:4:U:H2'	83:DC:5:G:H8	1.79	0.48
83:DC:104:C:H2'	83:DC:105:A:H5'	1.95	0.48
6:AE:188:LEU:HD11	78:CA:1298:U:C1'	2.44	0.48
6:AE:198:THR:CG2	78:CA:1:U:P	3.02	0.48
6:AE:199:GLN:HG2	6:AE:200:SER:H	1.77	0.48
8:AF:140:THR:HG23	8:AF:171:ALA:HB1	1.96	0.48
14:AM:14:ILE:CD1	34:BE:115:LYS:CB	2.65	0.48
14:AM:116:LEU:HD22	78:CA:1547:A:OP1	2.13	0.48
33:BD:30:ILE:N	45:BR:25:TYR:OH	2.46	0.48
33:BD:100:PHE:CD1	33:BD:100:PHE:N	2.80	0.48
38:BS:248:ALA:CB	72:BU:61:PHE:CE1	2.97	0.48
41:BN:33:ALA:HB1	41:BN:46:ILE:HG22	1.95	0.48
43:BP:44:ARG:HB2	43:BP:119:TYR:CE1	2.48	0.48
45:BR:10:HIS:HA	81:DA:949:C:H4'	1.95	0.48
56:BF:58:TYR:HH	60:BI:33:GLN:N	2.06	0.48
72:BU:9:TYR:C	73:BW:9:LEU:CD1	2.80	0.48
74:BQ:261:THR:HB	74:BQ:266:ALA:HB2	1.96	0.48
78:CA:121:U:C2	78:CA:122:U:C5	3.02	0.48
78:CA:1170:G:N1	78:CA:1574:G:C5	2.82	0.48
78:CA:1178:G:C6	78:CA:1462:G:C6	3.01	0.48
78:CA:1780:G:C6	78:CA:1781:A:C4	2.95	0.48
81:DA:814:U:H2'	81:DA:815:G:C8	2.49	0.48
81:DA:1230:G:H2'	81:DA:1231:A:C8	2.49	0.48
81:DA:1739:U:H2'	81:DA:1740:U:O4'	2.14	0.48
81:DA:1747:G:H2'	81:DA:1748:G:C8	2.48	0.48
81:DA:2043:U:H2'	81:DA:2044:U:C6	2.49	0.48
81:DA:2374:C:N4	81:DA:2822:U:O2'	2.47	0.48
10:AI:127:LYS:HZ1	78:CA:1584:G:C4'	2.24	0.48
13:AL:8:GLY:O	13:AL:9:LEU:CB	2.62	0.48
14:AM:15:LEU:H	14:AM:22:VAL:CG1	2.27	0.48
18:AP:54:ILE:C	18:AP:55:ASP:O	2.55	0.48
20:AS:116:ILE:HG13	78:CA:1499:G:H4'	1.95	0.48
31:BB:199:THR:CG2	81:DA:913:A:H4'	2.43	0.48
35:BG:25:ALA:HB2	81:DA:502:U:O3'	2.14	0.48
36:BF:92:TYR:CD1	36:BF:99:ILE:HG21	2.48	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:Bs:243:TYR:CZ	73:Bw:54:ILE:HD11	2.48	0.48
53:Ba:10:VAL:CG1	53:Ba:23:VAL:HG23	2.44	0.48
57:Be:224:ILE:HG23	76:BS:41:SER:HB3	1.95	0.48
59:Bh:24:ARG:HH22	81:DA:2361:A:H1'	1.78	0.48
72:Bu:23:SER:O	72:Bu:27:LEU:CG	2.55	0.48
78:CA:673:A:O2'	78:CA:674:C:H5'	2.14	0.48
78:CA:1310:U:C2	78:CA:1316:G:N1	2.82	0.48
81:DA:182:U:H3	81:DA:234:G:H1	1.62	0.48
81:DA:1976:G:H2'	81:DA:1977:C:C6	2.49	0.48
81:DA:2208:A:C2	81:DA:2209:U:C5	3.02	0.48
81:DA:2502:A:C2	81:DA:2503:G:C8	3.02	0.48
81:DA:2720:G:O4'	81:DA:2720:G:C8	2.67	0.48
81:DA:3160:U:H3	81:DA:3290:G:H1	1.62	0.48
81:DA:3320:A:H2'	81:DA:3321:C:C6	2.49	0.48
82:DB:29:U:H2'	82:DB:30:C:C6	2.48	0.48
83:DC:107:G:H2'	83:DC:108:U:H5'	1.95	0.48
10:AI:138:PHE:HB2	78:CA:1586:A:H5''	1.96	0.47
14:AM:101:LEU:HD21	78:CA:1566:U:C5'	2.44	0.47
16:AO:114:ARG:NH1	78:CA:940:A:C5	2.72	0.47
19:AR:130:ARG:O	78:CA:1558:U:N1	2.47	0.47
29:AU:32:ARG:HB3	29:AU:33:ALA:H	1.54	0.47
31:BB:193:ARG:NH1	81:DA:2173:U:O5'	2.47	0.47
32:BC:25:ILE:HD12	81:DA:3312:U:C5'	2.43	0.47
42:BM:95:PHE:HE2	51:BZ:22:VAL:HG21	1.76	0.47
49:BV:2:ALA:HB1	49:BV:18:ARG:CZ	2.44	0.47
57:Be:44:ILE:HG21	57:Be:141:TYR:CD2	2.49	0.47
59:Bh:25:TYR:CE1	81:DA:654:C:OP1	2.67	0.47
60:Bi:21:LYS:HE2	60:Bi:21:LYS:HA	1.96	0.47
74:BQ:110:LEU:HD11	74:BQ:170:GLY:HA3	1.96	0.47
74:BQ:142:PHE:CG	74:BQ:143:LYS:N	2.82	0.47
78:CA:180:A:H2'	78:CA:181:A:C8	2.49	0.47
78:CA:877:G:N1	78:CA:951:A:C2	2.79	0.47
78:CA:901:G:O6	78:CA:902:G:C2	2.57	0.47
78:CA:1295:G:C4'	78:CA:1321:A:N1	2.76	0.47
78:CA:1386:G:H3'	78:CA:1387:G:H5''	1.96	0.47
78:CA:1393:C:C2'	78:CA:1394:G:H5'	2.44	0.47
78:CA:1476:C:H2'	78:CA:1477:G:H8	1.78	0.47
81:DA:1237:G:O2'	81:DA:1251:A:N6	2.47	0.47
81:DA:1257:C:H2'	81:DA:1258:U:O4'	2.13	0.47
81:DA:1689:U:H2'	81:DA:1690:C:H6	1.79	0.47
81:DA:2422:C:H2'	81:DA:2423:U:C6	2.49	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:2665:U:H4'	81:DA:2666:C:H5'	1.96	0.47
81:DA:2897:A:N7	81:DA:2899:C:C5	2.82	0.47
13:AL:38:PHE:CZ	78:CA:600:U:O2	2.67	0.47
16:AO:72:MET:HE2	16:AO:72:MET:HA	1.96	0.47
20:AS:2:PRO:HB3	20:AS:137:ALA:HA	1.94	0.47
20:AS:34:VAL:HB	20:AS:45:MET:SD	2.54	0.47
20:AS:39:THR:HG21	78:CA:1478:G:OP1	2.14	0.47
31:BB:101:VAL:HG22	31:BB:165:VAL:HG22	1.96	0.47
40:BK:96:LYS:HD3	81:DA:422:A:N7	2.29	0.47
41:BN:12:TRP:CD1	41:BN:19:ARG:NH2	2.82	0.47
41:BN:116:GLU:HA	41:BN:119:GLN:CD	2.39	0.47
43:BP:74:PRO:HA	43:BP:76:PRO:HD3	1.96	0.47
44:BO:4:ARG:NH2	81:DA:661:G:O6	2.46	0.47
45:BR:44:PHE:CZ	45:BR:137:THR:HG23	2.49	0.47
56:Bf:17:VAL:HG21	56:Bf:100:ILE:HG21	1.96	0.47
74:BQ:18:THR:HG21	81:DA:2689:A:H61	1.78	0.47
78:CA:31:C:C5	78:CA:32:U:C5	3.02	0.47
78:CA:1176:G:N3	78:CA:1464:G:C2	2.82	0.47
78:CA:1178:G:C2	78:CA:1462:G:C4	3.02	0.47
81:DA:756:U:H2'	81:DA:757:C:C6	2.49	0.47
81:DA:802:C:N4	81:DA:803:C:N4	2.62	0.47
81:DA:1414:G:C8	81:DA:1414:G:H3'	2.49	0.47
81:DA:1584:U:H2'	81:DA:1585:C:C6	2.49	0.47
81:DA:2491:A:C3'	81:DA:2492:C:C5'	2.92	0.47
81:DA:2744:U:H3	81:DA:2749:G:H1	1.59	0.47
81:DA:2869:U:C2'	81:DA:2869:U:N1	2.65	0.47
5:AC:79:ARG:HD3	5:AC:82:ARG:HA	1.97	0.47
6:AE:225:LEU:H	6:AE:225:LEU:HD12	1.79	0.47
9:AH:64:GLN:HG2	9:AH:71:LYS:HB2	1.96	0.47
22:AV:104:ALA:O	22:AV:105:THR:CB	2.62	0.47
30:BA:88:ASP:HA	30:BA:92:LYS:HD2	1.95	0.47
33:BD:99:MET:HB2	33:BD:102:PRO:HG2	1.96	0.47
37:BH:93:LEU:HD11	43:BP:21:PHE:CD1	2.50	0.47
40:BK:54:TYR:CE2	40:BK:141:LEU:HD11	2.49	0.47
43:BP:177:GLY:O	43:BP:181:ASN:HB2	2.14	0.47
55:Bc:86:ARG:HE	55:Bc:87:ALA:HB2	1.78	0.47
60:Bi:44:CYS:H	60:Bi:51:LEU:N	2.12	0.47
69:Br:78:LYS:HE3	69:Br:80:ARG:HH12	1.79	0.47
78:CA:45:U:O2	78:CA:434:G:H1'	2.15	0.47
78:CA:205:U:C4	78:CA:206:A:H2	2.32	0.47
78:CA:1201:G:O6	78:CA:1601:G:N7	2.47	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:34:A:H3'	81:DA:48:A:H61	1.79	0.47
81:DA:2190:U:H2'	81:DA:2191:U:C6	2.49	0.47
81:DA:2279:A:H2	81:DA:2286:U:N3	2.05	0.47
81:DA:2623:G:C2'	81:DA:2623:G:C4	2.97	0.47
81:DA:2919:A:H61	81:DA:2927:C:N4	2.07	0.47
5:AC:122:VAL:O	5:AC:124:HIS:CE1	2.67	0.47
19:AR:124:THR:CG2	19:AR:125:PRO:HD3	2.44	0.47
20:AS:6:VAL:HG22	20:AS:136:ALA:HB2	1.96	0.47
29:AU:63:GLN:CG	29:AU:66:GLY:HA3	2.44	0.47
32:BC:315:GLY:HA2	81:DA:3380:U:H4'	1.95	0.47
34:BE:23:VAL:HG11	34:BE:28:ASP:OD1	2.15	0.47
35:BG:55:LEU:HB2	35:BG:98:VAL:HG22	1.90	0.47
39:BJ:123:ARG:NE	81:DA:1257:C:H5''	2.30	0.47
46:BT:57:VAL:O	81:DA:1871:U:O5'	2.33	0.47
78:CA:123:G:C2	78:CA:296:U:C4	3.02	0.47
78:CA:901:G:C2	78:CA:902:G:N3	2.83	0.47
78:CA:1203:A:C2	78:CA:1556:A:C2	3.02	0.47
81:DA:267:G:O6	81:DA:319:A:C5	2.68	0.47
81:DA:598:A:C2	81:DA:606:C:O2	2.67	0.47
81:DA:599:C:C4	81:DA:600:G:N7	2.82	0.47
81:DA:664:U:O5'	81:DA:664:U:H6	1.97	0.47
81:DA:3342:A:N6	81:DA:3363:U:H3	2.12	0.47
4:AD:125:LYS:H	4:AD:142:HIS:CD2	2.31	0.47
6:AE:52:THR:HA	6:AE:55:GLU:HB3	1.96	0.47
16:AO:50:ILE:HG23	16:AO:64:ARG:HD3	1.96	0.47
18:AP:63:LEU:HD23	18:AP:63:LEU:N	2.30	0.47
20:AS:51:GLU:O	20:AS:56:LYS:HE2	2.14	0.47
20:AS:55:TYR:O	20:AS:56:LYS:C	2.54	0.47
20:AS:88:VAL:HG21	78:CA:1600:A:O3'	2.13	0.47
32:BC:262:TRP:HB2	81:DA:2989:U:OP1	2.13	0.47
35:BG:46:ARG:HG3	81:DA:3215:A:N6	2.30	0.47
35:BG:77:ARG:HD2	35:BG:79:VAL:HG13	1.96	0.47
46:BT:77:GLY:HA3	81:DA:1939:G:OP1	2.15	0.47
53:Ba:46:ILE:HG23	60:Bi:43:LYS:HZ3	1.79	0.47
69:Br:42:ARG:HG2	69:Br:54:THR:HB	1.97	0.47
78:CA:163:G:C3'	78:CA:164:A:H8	2.28	0.47
78:CA:304:U:H2'	78:CA:305:C:H5	1.79	0.47
78:CA:636:A:C2'	78:CA:636:A:C4	2.95	0.47
78:CA:1166:A:O2'	78:CA:1587:A:H4'	2.14	0.47
81:DA:13:A:H61	82:DB:145:U:H3	1.63	0.47
81:DA:66:A:C5	81:DA:68:C:C2	3.03	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:92:G:C8	81:DA:94:G:H1'	2.49	0.47
81:DA:3149:G:C8	81:DA:3149:G:H3'	2.50	0.47
6:AE:24:ARG:HD3	9:AH:69:LEU:N	2.30	0.47
8:AF:143:ARG:C	8:AF:162:VAL:HG11	2.40	0.47
32:BC:166:ILE:HD11	32:BC:171:LEU:HD22	1.96	0.47
32:BC:349:LYS:HZ1	81:DA:3098:G:H5''	1.80	0.47
32:BC:349:LYS:NZ	81:DA:3098:G:H5''	2.30	0.47
33:BD:162:THR:HG23	33:BD:163:LYS:N	2.29	0.47
35:BG:56:LYS:HB2	35:BG:64:LEU:HB2	1.95	0.47
35:BG:153:PRO:HD2	35:BG:154:LEU:H	1.79	0.47
37:BH:62:LYS:O	37:BH:63:LYS:O	2.32	0.47
41:BN:3:THR:HG21	81:DA:3198:U:OP1	2.15	0.47
44:BO:124:ILE:HD12	75:BL:147:UNK:CB	2.36	0.47
45:BR:54:LEU:HD12	45:BR:58:ASN:CG	2.40	0.47
78:CA:296:U:C4	78:CA:297:U:C4	3.02	0.47
81:DA:675:C:O4'	81:DA:675:C:C6	2.67	0.47
81:DA:1469:C:N4	81:DA:1509:A:H1'	2.29	0.47
81:DA:2500:A:H2'	81:DA:2501:U:C6	2.50	0.47
81:DA:2698:G:H2'	81:DA:2699:G:H8	1.79	0.47
81:DA:3137:C:H2'	81:DA:3138:U:C6	2.49	0.47
2:AA:124:THR:HG23	2:AA:125:ASP:H	1.80	0.47
5:AC:53:ARG:NH2	78:CA:658:C:O3'	2.47	0.47
11:AJ:85:ARG:HB3	15:AN:51:GLY:HA3	1.97	0.47
12:AK:33:LEU:HD21	78:CA:903:U:H5	1.52	0.47
12:AK:124:ASP:HA	78:CA:929:A:H1'	1.96	0.47
14:AM:13:HIS:O	34:BE:116:TYR:OH	2.27	0.47
19:AR:130:ARG:CZ	78:CA:1558:U:C5'	2.90	0.47
29:AU:17:LEU:HD21	29:AU:93:ARG:HG3	1.97	0.47
30:BA:18:LYS:HG2	30:BA:19:TYR:O	2.14	0.47
31:BB:17:THR:HG22	81:DA:2172:A:O3'	2.15	0.47
31:BB:111:THR:CB	63:Bm:83:ILE:HG22	2.42	0.47
33:BD:357:GLU:O	33:BD:361:HIS:CD2	2.67	0.47
35:BG:145:LEU:CD1	41:BN:114:ASP:N	2.67	0.47
38:Bs:72:ASP:O	38:Bs:74:GLU:N	2.45	0.47
38:Bs:230:PRO:HG3	73:Bw:44:ALA:HB2	1.93	0.47
39:BJ:34:PRO:HG2	39:BJ:42:VAL:HG11	1.97	0.47
39:BJ:94:LYS:HG2	81:DA:1251:A:C2	2.49	0.47
43:BP:114:ARG:HD3	43:BP:157:LYS:HA	1.96	0.47
45:BR:98:LYS:HB3	45:BR:99:THR:HA	1.96	0.47
46:BT:1:MET:HE1	81:DA:1467:A:H61	1.80	0.47
48:BW:52:ASN:HB3	48:BW:69:ALA:HB2	1.95	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:Ba:32:GLY:C	53:Ba:41:ALA:HB3	2.40	0.47
59:Bh:41:VAL:HG22	81:DA:637:C:OP2	2.15	0.47
61:Bj:86:ARG:H	61:Bj:86:ARG:HD3	1.79	0.47
72:Bu:10:ALA:HA	73:Bw:9:LEU:CD1	2.45	0.47
77:BI:118:ALA:HB3	81:DA:2645:G:O2'	2.11	0.47
78:CA:6:G:C6	78:CA:19:A:N1	2.83	0.47
78:CA:26:A:O2'	78:CA:27:U:H5'	2.15	0.47
78:CA:109:G:H1	78:CA:305:C:H42	1.63	0.47
78:CA:122:U:C5	78:CA:123:G:N7	2.82	0.47
78:CA:501:U:H6	78:CA:501:U:H5''	1.78	0.47
78:CA:595:G:H2'	78:CA:596:C:H6	1.79	0.47
78:CA:618:U:C2	78:CA:1087:A:N1	2.82	0.47
78:CA:636:A:P	78:CA:636:A:H8	2.37	0.47
78:CA:1580:C:H2'	78:CA:1581:C:C6	2.50	0.47
81:DA:124:U:O4'	81:DA:124:U:C6	2.67	0.47
81:DA:799:G:C5	81:DA:801:A:C5	3.02	0.47
81:DA:934:G:H3'	81:DA:935:U:C6	2.50	0.47
81:DA:1004:U:C6	81:DA:1005:G:C8	3.02	0.47
81:DA:1257:C:H2'	81:DA:1258:U:H5'	1.96	0.47
81:DA:1446:A:N6	81:DA:2356:A:H5''	2.29	0.47
81:DA:1623:G:C2'	81:DA:1624:G:H5'	2.42	0.47
81:DA:2041:U:H2'	81:DA:2042:G:H8	1.79	0.47
81:DA:2110:G:H4'	81:DA:3364:C:H5'	1.96	0.47
81:DA:2199:G:C5	81:DA:2200:U:C5	3.03	0.47
81:DA:2479:C:C2'	81:DA:2480:A:H5'	2.45	0.47
81:DA:2735:U:C2'	81:DA:2736:A:H5'	2.42	0.47
81:DA:2756:C:H4'	81:DA:2757:U:OP1	2.14	0.47
81:DA:2770:G:H2'	81:DA:2771:U:C6	2.50	0.47
81:DA:2916:U:O4'	81:DA:2916:U:C6	2.67	0.47
82:DB:98:U:H2'	82:DB:99:C:H5'	1.96	0.47
2:AA:23:HIS:CE1	2:AA:168:HIS:HB3	2.50	0.47
11:AJ:85:ARG:HG2	15:AN:52:PHE:N	2.30	0.47
16:AO:53:LEU:HD23	16:AO:63:ALA:CB	2.45	0.47
31:BB:6:ARG:CG	81:DA:914:A:H61	2.17	0.47
38:Bs:220:ILE:HG12	72:Bt:12:LEU:HD12	1.97	0.47
41:BN:77:ARG:CG	81:DA:560:G:H5'	2.44	0.47
47:BU:126:VAL:HG21	47:BU:129:LYS:HB2	1.97	0.47
57:Be:66:LYS:HB3	76:BS:10:GLN:CG	2.45	0.47
72:Bt:47:LYS:HB3	73:Bw:37:LYS:CE	2.45	0.47
74:BQ:68:THR:HG22	74:BQ:71:GLY:O	2.15	0.47
78:CA:673:A:H2'	78:CA:674:C:C6	2.44	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:CA:1132:A:H2'	78:CA:1133:A:H8	1.79	0.47
78:CA:1174:C:N3	78:CA:1466:G:N3	2.62	0.47
78:CA:1770:U:H3	78:CA:1791:A:N6	2.12	0.47
81:DA:1021:G:H1	81:DA:1033:U:H3	1.63	0.47
81:DA:1487:G:H1	81:DA:1855:U:H3	1.63	0.47
81:DA:1971:C:H3'	81:DA:1972:A:H5'	1.97	0.47
81:DA:2615:G:H2'	81:DA:2616:C:C6	2.50	0.47
81:DA:3148:U:H2'	81:DA:3149:G:C8	2.50	0.47
83:DC:17:A:H61	83:DC:61:U:H3	1.62	0.47
83:DC:41:G:H4'	83:DC:42:A:H8	1.79	0.47
13:AL:1:MET:HG3	13:AL:2:GLY:O	2.15	0.47
14:AM:16:ARG:CZ	34:BE:109:HIS:O	2.63	0.47
20:AS:94:ILE:HG22	20:AS:96:ALA:H	1.78	0.47
32:BC:345:ASN:O	32:BC:346:THR:CB	2.63	0.47
33:BD:310:THR:HG22	33:BD:313:LEU:CD1	2.43	0.47
43:BP:178:HIS:HB2	81:DA:69:C:H5'	1.97	0.47
46:BT:71:ARG:NH2	81:DA:2100:A:OP1	2.47	0.47
57:Be:88:ARG:HH11	57:Be:103:LEU:HD13	1.79	0.47
73:Bv:22:ILE:HD11	73:Bv:42:LEU:HD21	1.96	0.47
81:DA:1083:G:H2'	81:DA:1084:A:C8	2.49	0.47
81:DA:2405:C:O2	81:DA:2819:A:N1	2.48	0.47
81:DA:2994:A:N6	81:DA:3142:A:H62	2.13	0.47
82:DB:97:A:C6	82:DB:98:U:C4	3.03	0.47
83:DC:45:A:C8	83:DC:45:A:H3'	2.50	0.47
4:AD:77:ARG:HD3	4:AD:82:TYR:CE1	2.51	0.47
5:AC:122:VAL:O	5:AC:124:HIS:CG	2.68	0.47
17:AQ:85:VAL:O	17:AQ:86:PRO:C	2.54	0.47
30:BA:190:PHE:O	75:BL:180:UNK:HA	2.15	0.47
45:BR:17:THR:HA	45:BR:53:PHE:CD1	2.50	0.47
58:Bg:25:PHE:CD1	58:Bg:28:ARG:NH1	2.83	0.47
78:CA:1075:C:N4	78:CA:1076:A:N6	2.62	0.47
78:CA:1308:G:O6	78:CA:1318:G:O6	2.28	0.47
81:DA:425:G:H5'	81:DA:426:G:H5'	1.97	0.47
81:DA:693:A:H2'	81:DA:694:C:C6	2.49	0.47
81:DA:1675:G:N2	81:DA:1693:C:O2	2.42	0.47
81:DA:1967:U:H2'	81:DA:1968:G:H5'	1.97	0.47
82:DB:98:U:C5	82:DB:99:C:C5	3.03	0.47
83:DC:23:A:O2'	83:DC:24:A:C5'	2.63	0.47
6:AE:115:ILE:HD13	6:AE:230:TRP:NE1	2.30	0.46
6:AE:121:VAL:H	78:CA:11:A:H4'	1.81	0.46
16:AO:112:LYS:HG3	16:AO:112:LYS:O	2.15	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AP:103:ARG:HH21	78:CA:304:U:C4'	2.28	0.46
31:BB:193:ARG:CZ	81:DA:2174:G:C2'	2.93	0.46
37:BH:232:HIS:O	37:BH:233:TRP:O	2.32	0.46
39:BJ:123:ARG:NH2	81:DA:1257:C:H5''	2.29	0.46
41:BN:36:VAL:HG23	41:BN:76:ALA:HB3	1.97	0.46
58:Bg:59:ILE:HA	58:Bg:67:VAL:HG11	1.97	0.46
60:Bi:61:GLN:HE22	81:DA:2050:C:C5'	2.27	0.46
74:BQ:115:LEU:O	74:BQ:116:ASP:O	2.34	0.46
77:BI:106:ALA:C	77:BI:108:ALA:CB	2.87	0.46
81:DA:674:G:H2'	81:DA:675:C:H6	1.79	0.46
81:DA:1042:U:H2'	81:DA:1043:C:C6	2.49	0.46
81:DA:1203:A:N6	81:DA:1300:G:H2'	2.30	0.46
81:DA:1209:G:H22	81:DA:3114:A:N6	2.13	0.46
81:DA:1261:G:H5''	81:DA:1262:G:OP1	2.15	0.46
81:DA:1413:G:H3'	81:DA:1414:G:C8	2.51	0.46
81:DA:2486:A:O2'	81:DA:2487:U:C5	2.62	0.46
7:AG:100:UNK:N	7:AG:101:UNK:HA	2.30	0.46
13:AL:9:LEU:HD13	18:AP:79:LYS:HE3	1.97	0.46
14:AM:119:ILE:HG23	19:AR:119:PHE:HA	1.97	0.46
20:AS:71:VAL:HG12	20:AS:72:GLY:H	1.80	0.46
41:BN:12:TRP:O	76:BS:162:THR:HA	2.14	0.46
44:BO:139:ARG:HE	75:BL:84:UNK:HA	1.79	0.46
47:BU:160:ILE:HG12	81:DA:969:C:OP2	2.15	0.46
53:Ba:15:ARG:C	53:Ba:16:GLY:O	2.57	0.46
65:Bn:16:ARG:HA	65:Bn:16:ARG:HE	1.79	0.46
72:Bt:10:ALA:H	73:Bv:9:LEU:CD2	2.23	0.46
72:Bu:57:LEU:O	72:Bu:61:PHE:CZ	2.69	0.46
78:CA:309:C:H2'	78:CA:310:C:C6	2.51	0.46
78:CA:904:G:C5	78:CA:905:A:C4	3.00	0.46
78:CA:1086:A:C6	78:CA:1087:A:N1	2.84	0.46
78:CA:1584:G:N2	78:CA:1610:G:H2'	2.30	0.46
81:DA:424:G:H1	81:DA:2365:C:H5	1.64	0.46
81:DA:835:G:O2'	81:DA:858:A:N6	2.48	0.46
81:DA:920:A:H3'	81:DA:922:U:O4	2.16	0.46
81:DA:1974:A:H61	81:DA:2048:G:H1'	1.80	0.46
81:DA:2332:A:C6	81:DA:2333:C:C2	3.04	0.46
81:DA:3019:U:C4	81:DA:3020:U:N3	2.83	0.46
81:DA:3112:G:O6	81:DA:3120:C:H5''	2.15	0.46
1:Aa:59:ARG:H	1:Aa:59:ARG:NE	2.12	0.46
13:AL:23:ARG:NH1	78:CA:1107:G:N7	2.63	0.46
14:AM:101:LEU:HD21	78:CA:1566:U:C4'	2.43	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AO:118:ILE:HG23	16:AO:121:ARG:HB2	1.97	0.46
19:AR:58:LYS:CD	78:CA:1549:C:C5	2.75	0.46
19:AR:59:LYS:HB3	78:CA:1551:U:H5	1.80	0.46
32:BC:223:GLY:C	81:DA:3306:U:OP2	2.59	0.46
32:BC:364:LYS:HD2	51:BZ:17:ARG:HD3	1.97	0.46
33:BD:36:HIS:CG	81:DA:1425:U:H4'	2.50	0.46
33:BD:84:ARG:CD	81:DA:366:A:H5'	2.45	0.46
38:Bs:61:ARG:HA	38:Bs:64:ARG:HH11	1.80	0.46
38:Bs:124:VAL:CG1	38:Bs:125:ASN:H	2.28	0.46
41:BN:21:VAL:HG13	41:BN:65:LEU:HD13	1.97	0.46
57:Be:20:GLN:HA	81:DA:596:C:OP2	2.15	0.46
74:BQ:152:ARG:HG2	81:DA:2663:G:H5'	1.98	0.46
79:CB:55:C:O2'	79:CB:55:C:H1'	1.92	0.46
81:DA:64:G:C6	81:DA:322:U:C5	3.03	0.46
81:DA:993:G:C8	81:DA:1059:G:N2	2.84	0.46
81:DA:1054:A:C2'	81:DA:1054:A:C8	2.99	0.46
81:DA:1120:A:H61	81:DA:1138:U:H3	1.63	0.46
81:DA:2678:A:C6	81:DA:2679:A:C5	3.04	0.46
8:AF:161:ASP:HB2	25:AY:44:VAL:HA	1.96	0.46
10:AI:138:PHE:CD1	78:CA:1587:A:OP1	2.68	0.46
17:AQ:30:THR:HA	17:AQ:33:ARG:HD3	1.98	0.46
25:AY:26:THR:HG22	25:AY:27:GLN:H	1.79	0.46
31:BB:50:HIS:CE1	63:Bm:52:ALA:O	2.68	0.46
33:BD:107:ARG:HG3	33:BD:109:TRP:CD1	2.51	0.46
33:BD:195:ARG:NH2	81:DA:337:G:N7	2.64	0.46
33:BD:355:PHE:O	33:BD:357:GLU:N	2.49	0.46
38:Bs:246:LEU:HD13	72:Bu:9:TYR:CD2	2.49	0.46
42:BM:95:PHE:CB	51:BZ:22:VAL:HG13	2.44	0.46
43:BP:16:SER:HB3	62:Bk:84:LYS:HD3	1.98	0.46
46:BT:121:HIS:NE2	81:DA:1718:G:C8	2.84	0.46
58:Bg:60:TRP:HB3	81:DA:1476:G:C5'	2.45	0.46
64:Bl:63:ARG:H	82:DB:42:G:P	2.37	0.46
67:Bp:47:PRO:CG	81:DA:1784:G:OP1	2.63	0.46
74:BQ:94:ASN:HA	83:DC:47:C:OP2	2.15	0.46
76:BS:101:LEU:HD22	76:BS:101:LEU:H	1.80	0.46
78:CA:6:G:N2	78:CA:19:A:N3	2.64	0.46
81:DA:638:C:C4	81:DA:639:G:N7	2.83	0.46
81:DA:2406:C:H2'	81:DA:2407:C:C5	2.51	0.46
12:AK:33:LEU:CD2	78:CA:902:G:N7	2.77	0.46
13:AL:15:LEU:HD22	78:CA:1105:C:OP2	2.15	0.46
14:AM:136:GLN:CG	78:CA:1544:U:H5''	2.46	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AO:60:VAL:O	16:AO:64:ARG:HG2	2.16	0.46
19:AR:58:LYS:CD	78:CA:1550:A:N7	2.78	0.46
29:AU:16:PRO:HG3	29:AU:93:ARG:CA	2.44	0.46
29:AU:62:THR:O	29:AU:63:GLN:HB3	2.16	0.46
31:BB:242:ARG:HB3	81:DA:2241:U:H4'	1.97	0.46
32:BC:362:ALA:HB2	32:BC:364:LYS:HD3	1.98	0.46
33:BD:29:PRO:HB2	45:BR:25:TYR:OH	1.93	0.46
33:BD:222:VAL:O	33:BD:225:VAL:HG12	2.16	0.46
38:Bs:30:VAL:HG11	81:DA:1260:A:N6	2.30	0.46
41:BN:5:SER:O	41:BN:6:ILE:HB	2.14	0.46
44:BO:62:HIS:O	75:BL:146:UNK:CA	2.63	0.46
45:BR:98:LYS:HD2	45:BR:98:LYS:HA	1.78	0.46
78:CA:408:C:C5	78:CA:409:C:C5	3.04	0.46
78:CA:938:G:C2	78:CA:942:G:C4	3.03	0.46
78:CA:1008:G:H2'	78:CA:1009:U:C6	2.51	0.46
78:CA:1041:G:N2	78:CA:1042:G:C5	2.83	0.46
78:CA:1213:G:H22	78:CA:1450:U:H3	1.63	0.46
78:CA:1272:U:O2	78:CA:1438:G:O6	2.34	0.46
81:DA:518:G:H2'	81:DA:519:A:C8	2.51	0.46
81:DA:896:A:H62	81:DA:2133:U:H3	1.63	0.46
81:DA:1427:U:O2'	81:DA:1428:A:C5'	2.63	0.46
81:DA:2531:C:H3'	81:DA:2532:U:C6	2.50	0.46
83:DC:46:A:C2'	83:DC:46:A:C4	2.98	0.46
5:AC:21:SER:CB	78:CA:555:A:H5'	2.31	0.46
8:AF:33:VAL:HG13	8:AF:44:ASN:HD21	1.80	0.46
14:AM:18:LEU:HD23	14:AM:18:LEU:H	1.79	0.46
14:AM:40:ARG:HB2	20:AS:42:GLY:HA2	1.96	0.46
20:AS:58:ALA:HA	20:AS:61:VAL:HG22	1.98	0.46
31:BB:128:ARG:HG2	81:DA:2177:G:N7	2.30	0.46
32:BC:360:ASP:HA	32:BC:361:THR:HB	1.97	0.46
34:BE:110:ILE:HD12	34:BE:110:ILE:O	2.15	0.46
36:BF:58:HIS:ND1	76:BS:160:PRO:O	2.49	0.46
38:Bs:206:ASP:OD1	73:Bv:44:ALA:CA	2.64	0.46
40:BK:187:GLU:O	40:BK:189:ASP:N	2.48	0.46
41:BN:74:ARG:HH21	76:BS:151:PHE:HB3	1.81	0.46
43:BP:50:ARG:NH2	81:DA:114:A:C2	2.84	0.46
57:Be:92:ILE:O	57:Be:95:ILE:HG22	2.16	0.46
57:Be:178:ILE:HG22	57:Be:180:SER:H	1.81	0.46
58:Bg:17:HIS:O	58:Bg:21:HIS:CD2	2.69	0.46
59:Bh:78:ASN:HB3	81:DA:1388:U:H5''	1.98	0.46
72:Bt:13:ILE:HD13	73:Bv:6:ALA:HA	1.97	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:Bu:10:ALA:O	72:Bu:14:LEU:HG	2.16	0.46
72:Bu:13:ILE:HD13	73:Bw:6:ALA:HA	1.95	0.46
72:Bu:19:ILE:CG2	72:Bu:25:LYS:HE2	2.43	0.46
74:BQ:187:THR:O	74:BQ:187:THR:HG23	2.15	0.46
78:CA:174:U:O4'	78:CA:174:U:C6	2.69	0.46
78:CA:936:G:N1	78:CA:937:C:N3	2.64	0.46
78:CA:989:U:C6	78:CA:990:C:C5	3.04	0.46
78:CA:1284:C:OP2	78:CA:1623:C:H4'	2.16	0.46
78:CA:1570:A:O4'	78:CA:1570:A:C8	2.68	0.46
81:DA:678:G:C6	81:DA:703:G:C6	3.04	0.46
81:DA:1257:C:H2'	81:DA:1258:U:C4'	2.46	0.46
81:DA:1384:U:H3	81:DA:1422:G:H1	1.64	0.46
81:DA:1627:U:H2'	81:DA:1628:C:H5'	1.98	0.46
81:DA:1824:U:H2'	81:DA:1825:G:C8	2.51	0.46
81:DA:1923:C:C4	81:DA:1924:U:C4	3.04	0.46
81:DA:2787:G:H2'	81:DA:2788:C:C6	2.51	0.46
81:DA:3165:A:N6	81:DA:3285:C:H42	1.98	0.46
5:AC:91:LYS:HZ1	78:CA:474:A:H4'	1.81	0.46
14:AM:129:TRP:CZ3	19:AR:133:ALA:HB3	2.51	0.46
20:AS:15:ILE:CD1	20:AS:56:LYS:HD3	2.46	0.46
32:BC:28:ARG:HD2	81:DA:3003:G:H5'	1.97	0.46
35:BG:94:GLU:HB2	81:DA:501:A:H5'	1.98	0.46
40:BK:133:ARG:HH21	40:BK:133:ARG:HA	1.81	0.46
42:BM:11:PHE:HB2	42:BM:85:TRP:CZ2	2.51	0.46
51:BZ:53:VAL:HG23	51:BZ:54:LEU:N	2.25	0.46
78:CA:913:G:C4	81:DA:2208:A:C6	3.04	0.46
78:CA:1399:C:H2'	78:CA:1400:A:H8	1.80	0.46
78:CA:1583:A:C2	78:CA:1612:U:C5	3.03	0.46
78:CA:1746:A:C3'	81:DA:2291:A:O2'	2.64	0.46
81:DA:756:U:H3	81:DA:775:A:H61	1.63	0.46
81:DA:985:U:H2'	81:DA:986:U:C6	2.51	0.46
81:DA:1294:A:H2'	81:DA:1295:G:H8	1.81	0.46
81:DA:1990:U:H2'	81:DA:1991:G:C1'	2.45	0.46
81:DA:2447:A:C2	81:DA:2499:U:O2	2.68	0.46
2:AA:241:GLU:HB2	78:CA:1391:A:O4'	2.15	0.46
5:AC:182:GLU:O	5:AC:184:SER:HB2	2.16	0.46
14:AM:27:LYS:HA	14:AM:57:ARG:HA	1.98	0.46
29:AU:5:VAL:HG23	29:AU:6:THR:H	1.80	0.46
32:BC:51:ALA:HA	32:BC:314:TYR:CE1	2.50	0.46
34:BE:29:ARG:HH11	34:BE:33:ALA:HB3	1.80	0.46
35:BG:142:ASP:O	35:BG:143:LYS:HG3	2.16	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BH:134:TYR:CZ	81:DA:147:U:OP2	2.68	0.46
47:BU:60:LYS:HZ3	81:DA:2638:C:H1'	1.80	0.46
57:Be:218:ARG:HB3	57:Be:220:PHE:HB2	1.97	0.46
72:Bt:7:LEU:CD1	72:Bt:41:TRP:HB3	2.45	0.46
77:BI:119:TRP:CD1	81:DA:2646:C:OP1	2.68	0.46
78:CA:177:U:H2'	78:CA:178:U:C6	2.50	0.46
78:CA:1043:A:C2	78:CA:1044:U:C2	3.04	0.46
78:CA:1044:U:C4	78:CA:1045:C:N4	2.84	0.46
81:DA:597:G:C4	81:DA:607:A:N6	2.84	0.46
81:DA:640:U:H2'	81:DA:641:C:H6	1.81	0.46
81:DA:766:U:C5	81:DA:767:U:H1'	2.51	0.46
81:DA:982:C:H2'	81:DA:983:A:H5'	1.97	0.46
81:DA:2362:C:C1'	81:DA:2362:C:O2'	2.55	0.46
81:DA:2391:G:H2'	81:DA:2392:C:C6	2.51	0.46
81:DA:3131:U:O4'	81:DA:3131:U:C6	2.68	0.46
81:DA:3374:U:H3'	81:DA:3375:A:C5'	2.43	0.46
82:DB:154:C:H2'	82:DB:155:A:C8	2.51	0.46
6:AE:12:GLY:C	6:AE:14:PHE:H	2.24	0.46
6:AE:31:GLU:HA	6:AE:34:GLY:H	1.81	0.46
14:AM:123:ARG:NH2	78:CA:1547:A:OP2	2.49	0.46
16:AO:65:VAL:CG1	24:AX:47:PHE:CZ	2.98	0.46
19:AR:107:ILE:CG1	78:CA:1453:G:N2	2.76	0.46
35:BG:65:ILE:CG2	35:BG:77:ARG:HB2	2.46	0.46
35:BG:65:ILE:HG22	35:BG:77:ARG:H	1.81	0.46
41:BN:66:THR:HG23	41:BN:68:LEU:H	1.80	0.46
46:BT:82:LYS:HD3	81:DA:1914:G:H21	1.81	0.46
57:Be:235:PHE:CE1	76:BS:37:VAL:CG2	2.99	0.46
59:Bh:35:GLN:CD	59:Bh:35:GLN:H	2.24	0.46
67:Bp:16:ASP:HB2	67:Bp:48:LYS:HB2	1.98	0.46
67:Bp:20:CYS:O	67:Bp:24:TYR:HA	2.16	0.46
72:Bt:9:TYR:CG	73:Bv:9:LEU:HD23	2.32	0.46
72:Bt:44:ILE:CD1	73:Bw:36:GLU:CA	2.91	0.46
76:BS:165:LEU:HG	76:BS:167:THR:H	1.81	0.46
78:CA:4:C:C4	78:CA:5:U:O4	2.69	0.46
78:CA:463:U:C4	78:CA:464:A:N6	2.84	0.46
78:CA:1427:A:H4'	78:CA:1428:G:H5'	1.97	0.46
81:DA:1218:U:C2'	81:DA:1219:C:H5''	2.45	0.46
81:DA:1222:G:H1'	81:DA:1286:A:N6	2.31	0.46
81:DA:1869:C:C6	81:DA:1870:C:C5	3.04	0.46
81:DA:3025:C:H2'	81:DA:3026:G:H5'	1.98	0.46
82:DB:91:C:H2'	82:DB:92:A:C8	2.51	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Aa:201:THR:HG21	1:Aa:242:SER:HA	1.98	0.46
4:AD:107:GLY:N	4:AD:189:LEU:HD13	2.31	0.46
5:AC:157:ASP:CB	5:AC:157:ASP:H	2.28	0.46
6:AE:3:ALA:HB1	9:AH:97:ARG:HG2	1.98	0.46
12:AK:124:ASP:OD1	12:AK:124:ASP:O	2.34	0.46
14:AM:122:HIS:CG	19:AR:130:ARG:HG2	2.51	0.46
32:BC:289:ASP:O	32:BC:289:ASP:HB2	2.08	0.46
32:BC:367:LYS:O	51:BZ:14:TYR:CE2	2.69	0.46
34:BE:50:ALA:O	34:BE:61:ARG:O	2.34	0.46
35:BG:82:ARG:HD3	81:DA:3218:A:H4'	1.97	0.46
40:BK:1:MET:HE2	40:BK:117:ARG:HH21	1.80	0.46
41:BN:23:ILE:HG21	41:BN:31:LYS:H	1.81	0.46
43:BP:175:ASN:O	43:BP:180:PHE:CZ	2.69	0.46
64:Bl:3:LYS:HB2	81:DA:2139:A:C6	2.51	0.46
73:Bw:10:LEU:CB	73:Bw:16:THR:HG22	2.46	0.46
76:BS:148:ASP:HB3	76:BS:154:VAL:CG2	2.45	0.46
78:CA:10:G:H2'	78:CA:11:A:C8	2.51	0.46
78:CA:69:G:H1	78:CA:82:U:H3	1.64	0.46
78:CA:164:A:H2'	78:CA:165:G:C8	2.50	0.46
78:CA:304:U:C2	78:CA:305:C:H5	2.34	0.46
78:CA:1225:U:H2'	78:CA:1226:A:H8	1.76	0.46
81:DA:1209:G:N2	81:DA:3114:A:C6	2.84	0.46
81:DA:1838:G:H4'	81:DA:1839:A:C8	2.51	0.46
81:DA:2220:A:C6	81:DA:2221:G:N3	2.83	0.46
81:DA:2637:A:H1'	81:DA:2640:A:H62	1.81	0.46
81:DA:2871:G:OP1	81:DA:2871:G:C8	2.68	0.46
82:DB:98:U:H2'	82:DB:99:C:C5'	2.46	0.46
82:DB:98:U:C6	82:DB:99:C:C6	3.04	0.46
1:Aa:131:ILE:HG12	1:Aa:145:LEU:HD23	1.97	0.45
5:AC:3:ARG:HH11	5:AC:6:ARG:HB3	1.81	0.45
5:AC:144:PRO:HA	78:CA:477:A:C4	2.51	0.45
6:AE:5:GLU:OE1	6:AE:174:ARG:O	2.34	0.45
16:AO:129:TYR:OH	78:CA:868:G:H5'	2.16	0.45
19:AR:59:LYS:HG3	78:CA:1551:U:C6	2.38	0.45
21:AT:53:TYR:HE2	23:AW:70:UNK:HA	1.81	0.45
32:BC:46:PHE:CZ	32:BC:84:VAL:HB	2.51	0.45
32:BC:93:VAL:HG11	81:DA:3243:A:N3	2.30	0.45
36:BF:41:ILE:HD12	40:BK:130:LYS:O	2.16	0.45
43:BP:49:ARG:NE	81:DA:114:A:C2'	2.79	0.45
45:BR:55:SER:OG	81:DA:671:U:H5''	2.16	0.45
51:BZ:49:ILE:HG23	51:BZ:49:ILE:O	2.15	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:Bh:75:LEU:HD23	59:Bh:75:LEU:H	1.80	0.45
64:Bl:63:ARG:CZ	64:Bl:65:ARG:HA	2.47	0.45
73:Bw:15:ASN:HB2	73:Bw:21:LYS:NZ	2.31	0.45
76:BS:33:ALA:HB1	76:BS:38:ARG:CB	2.46	0.45
77:BI:106:ALA:C	77:BI:108:ALA:HB2	2.41	0.45
78:CA:117:U:H2'	78:CA:118:U:C5'	2.46	0.45
78:CA:1292:G:C4	78:CA:1324:G:N1	2.84	0.45
81:DA:45:A:H2'	81:DA:46:U:C5'	2.47	0.45
81:DA:600:G:C1'	81:DA:603:A:H61	2.26	0.45
81:DA:2279:A:N1	81:DA:2286:U:C4	2.83	0.45
81:DA:2359:C:H2'	81:DA:2360:C:C6	2.51	0.45
81:DA:2822:U:H2'	81:DA:2823:G:O4'	2.16	0.45
6:AE:182:PRO:HG3	9:AH:97:ARG:HH11	1.80	0.45
13:AL:7:ARG:CB	18:AP:76:VAL:CG2	2.84	0.45
17:AQ:91:LEU:HD22	17:AQ:96:SER:HB2	1.98	0.45
20:AS:53:TRP:CE3	20:AS:54:PHE:HA	2.51	0.45
32:BC:364:LYS:HG2	51:BZ:17:ARG:CZ	2.46	0.45
34:BE:89:TYR:CA	34:BE:89:TYR:CD1	3.00	0.45
43:BP:50:ARG:HB3	81:DA:267:G:C2	2.50	0.45
44:BO:5:PHE:CZ	81:DA:801:A:OP1	2.70	0.45
47:BU:10:ARG:HD2	81:DA:2637:A:H62	1.81	0.45
47:BU:152:ALA:HB3	47:BU:153:PRO:HD3	1.99	0.45
48:BW:85:LYS:CE	81:DA:1682:U:H1'	2.46	0.45
57:Be:98:LYS:HA	57:Be:99:PRO:HD2	1.95	0.45
59:Bh:12:LYS:HB3	59:Bh:13:HIS:HA	1.98	0.45
60:Bi:34:HIS:CG	60:Bi:35:VAL:N	2.82	0.45
61:Bj:40:ASP:O	61:Bj:44:TYR:CD2	2.70	0.45
74:BQ:26:GLY:C	81:DA:2703:A:H61	2.24	0.45
74:BQ:247:ILE:HG13	74:BQ:248:ARG:HH11	1.81	0.45
81:DA:811:U:H2'	81:DA:812:G:C8	2.51	0.45
81:DA:1314:C:O4'	81:DA:1314:C:N1	2.42	0.45
81:DA:1411:C:H2'	81:DA:1412:G:H8	1.81	0.45
81:DA:2362:C:C6	81:DA:2362:C:H2'	2.50	0.45
81:DA:3219:G:H8	81:DA:3219:G:O5'	1.99	0.45
83:DC:41:G:N2	83:DC:45:A:C2	2.84	0.45
20:AS:42:GLY:C	78:CA:1477:G:C5'	2.86	0.45
23:AW:15:UNK:O	23:AW:15:UNK:N	2.46	0.45
32:BC:39:LYS:HB3	32:BC:40:PRO:CD	2.47	0.45
33:BD:107:ARG:NH1	81:DA:664:U:OP1	2.49	0.45
40:BK:197:LEU:HD22	41:BN:109:ARG:HD3	1.98	0.45
45:BR:55:SER:HB3	81:DA:672:A:P	2.56	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:BW:24:GLU:H	48:BW:24:GLU:CD	2.23	0.45
53:Ba:35:SER:HA	53:Ba:59:ALA:N	2.30	0.45
53:Ba:73:LYS:CB	60:Bi:41:ARG:NH2	2.79	0.45
57:Be:159:GLN:HB2	57:Be:160:ARG:H	1.60	0.45
72:Bt:10:ALA:O	72:Bt:14:LEU:HG	2.16	0.45
72:Bu:19:ILE:HG23	72:Bu:25:LYS:HZ3	1.79	0.45
74:BQ:93:THR:O	83:DC:47:C:OP2	2.35	0.45
78:CA:1204:A:H62	78:CA:1597:A:N6	2.14	0.45
81:DA:1444:G:C6	81:DA:1445:U:C2	3.04	0.45
81:DA:1477:A:H2'	81:DA:1478:C:C6	2.51	0.45
81:DA:1506:A:H3'	81:DA:1507:G:H4'	1.98	0.45
81:DA:1513:G:C2	81:DA:1515:A:C8	3.04	0.45
81:DA:1884:A:C5	81:DA:1885:U:C4	3.04	0.45
81:DA:2172:A:C8	81:DA:2172:A:H3'	2.51	0.45
81:DA:2180:G:H2'	81:DA:2181:C:C6	2.51	0.45
2:AA:29:VAL:HG12	2:AA:30:GLN:H	1.80	0.45
4:AD:77:ARG:HD3	4:AD:82:TYR:CZ	2.51	0.45
5:AC:16:LYS:O	5:AC:16:LYS:HG3	2.17	0.45
9:AH:25:VAL:HG12	9:AH:27:ILE:HD12	1.98	0.45
13:AL:3:LYS:HG3	78:CA:611:U:C5'	2.47	0.45
14:AM:133:VAL:HG11	78:CA:1545:A:O3'	2.15	0.45
18:AP:107:VAL:N	18:AP:108:PRO:CD	2.79	0.45
37:BH:138:HIS:NE2	81:DA:147:U:O5'	2.49	0.45
40:BK:4:GLU:HG3	40:BK:31:GLN:HE22	1.82	0.45
40:BK:197:LEU:HD13	41:BN:108:ARG:CB	2.47	0.45
55:Bc:118:ILE:H	55:Bc:118:ILE:HG13	1.52	0.45
59:Bh:21:HIS:CD2	59:Bh:24:ARG:CD	3.00	0.45
59:Bh:41:VAL:HG11	81:DA:635:G:P	2.57	0.45
59:Bh:96:ILE:O	81:DA:1411:C:H5''	2.16	0.45
60:Bi:23:VAL:HG13	60:Bi:23:VAL:O	2.16	0.45
63:Bm:16:VAL:HA	81:DA:1927:G:H8	1.77	0.45
67:Bp:20:CYS:HB2	67:Bp:24:TYR:H	1.81	0.45
72:Bt:13:ILE:CD1	73:Bv:6:ALA:CA	2.95	0.45
72:Bu:29:LEU:HD21	73:Bw:29:VAL:N	2.32	0.45
78:CA:866:G:C2	78:CA:965:U:C2	3.05	0.45
78:CA:1292:G:C6	78:CA:1293:U:C4	3.04	0.45
78:CA:1314:U:H4'	78:CA:1315:U:H5	1.82	0.45
78:CA:1747:G:O2'	81:DA:2303:A:C4'	2.65	0.45
79:CB:12:U:H2'	79:CB:13:U:C6	2.51	0.45
81:DA:741:U:H2'	81:DA:742:G:C8	2.52	0.45
81:DA:882:A:C2	81:DA:885:U:C6	3.05	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:1728:G:C4'	81:DA:1730:G:H1'	2.46	0.45
81:DA:2629:U:H2'	81:DA:2630:C:H6	1.81	0.45
81:DA:2998:U:H1'	81:DA:3395:G:N2	2.31	0.45
6:AE:21:ARG:HD3	6:AE:249:ALA:HB1	1.98	0.45
6:AE:198:THR:HG23	78:CA:1:U:P	2.55	0.45
14:AM:144:ARG:HG3	78:CA:1570:A:C3'	2.46	0.45
19:AR:131:ALA:HB1	19:AR:133:ALA:H	1.81	0.45
27:Ab:23:UNK:O	27:Ab:27:UNK:CB	2.65	0.45
35:BG:69:PHE:CB	35:BG:73:GLY:HA3	2.46	0.45
37:BH:97:TYR:CE1	37:BH:99:PRO:HD3	2.51	0.45
44:BO:75:LEU:HA	44:BO:81:LEU:HD13	1.99	0.45
53:Ba:10:VAL:HG13	53:Ba:43:VAL:HG22	1.99	0.45
53:Ba:17:ARG:CD	53:Ba:62:VAL:CG2	2.94	0.45
59:Bh:53:PRO:CB	81:DA:1405:U:O2	2.65	0.45
60:Bi:4:ARG:HE	81:DA:1631:C:H5''	1.81	0.45
65:Bn:30:LYS:HG2	65:Bn:31:LEU:H	1.81	0.45
78:CA:1190:C:C5'	78:CA:1190:C:C6	3.00	0.45
78:CA:1292:G:C8	78:CA:1293:U:C5	3.05	0.45
78:CA:1395:G:H1	78:CA:1403:C:N4	2.14	0.45
78:CA:1780:G:C5	78:CA:1781:A:C6	2.96	0.45
81:DA:2279:A:OP2	81:DA:2305:G:N2	2.50	0.45
82:DB:50:C:H5	82:DB:51:G:N7	2.14	0.45
12:AK:124:ASP:HA	78:CA:929:A:C8	2.51	0.45
13:AL:13:ARG:NH1	18:AP:71:LEU:CD2	2.72	0.45
16:AO:65:VAL:HG21	24:AX:51:GLN:HB2	1.98	0.45
17:AQ:100:LEU:HD13	17:AQ:133:ARG:O	2.15	0.45
30:BA:164:CYS:SG	81:DA:2465:G:H4'	2.57	0.45
31:BB:178:PRO:HB2	81:DA:2150:G:H5'	1.98	0.45
36:BF:45:PHE:C	41:BN:8:LYS:HE2	2.40	0.45
41:BN:12:TRP:HB2	76:BS:165:LEU:HB2	1.99	0.45
44:BO:14:HIS:C	44:BO:16:SER:H	2.23	0.45
49:BV:54:HIS:O	49:BV:54:HIS:CG	2.69	0.45
58:Bg:23:VAL:HG12	58:Bg:24:SER:H	1.80	0.45
60:Bi:79:SER:N	60:Bi:80:ARG:HG3	2.26	0.45
72:Bt:60:ASN:O	72:Bt:61:PHE:CD1	2.68	0.45
72:Bu:29:LEU:HD22	73:Bw:29:VAL:CG2	2.32	0.45
78:CA:31:C:C5	78:CA:32:U:C4	3.05	0.45
78:CA:1388:A:H1'	78:CA:1411:A:C2	2.51	0.45
78:CA:1499:G:H2'	78:CA:1500:C:C6	2.52	0.45
81:DA:634:C:H3'	81:DA:635:G:C5'	2.47	0.45
81:DA:636:C:H42	81:DA:2361:A:H61	1.63	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:660:A:H62	81:DA:1432:C:H5	1.64	0.45
81:DA:836:A:C2	81:DA:858:A:H1'	2.52	0.45
81:DA:2274:U:H2'	81:DA:2275:A:H5'	1.98	0.45
81:DA:2373:A:H2	81:DA:2824:G:H21	1.64	0.45
83:DC:113:C:H2'	83:DC:114:A:O4'	2.17	0.45
14:AM:20:THR:HG23	34:BE:110:ILE:CG2	2.47	0.45
16:AO:65:VAL:CG1	24:AX:51:GLN:HB2	2.46	0.45
30:BA:184:LEU:C	30:BA:184:LEU:HD23	2.41	0.45
31:BB:11:GLY:HA2	81:DA:2163:C:H2'	1.99	0.45
31:BB:85:GLY:CA	63:Bm:62:LYS:HZ3	2.17	0.45
35:BG:75:PRO:O	35:BG:76:LEU:HG	2.15	0.45
35:BG:77:ARG:HD3	35:BG:79:VAL:HG13	1.97	0.45
36:BF:46:THR:C	41:BN:7:VAL:CG2	2.87	0.45
39:BJ:34:PRO:C	39:BJ:42:VAL:HG21	2.41	0.45
39:BJ:74:VAL:HA	39:BJ:76:SER:HB2	1.98	0.45
40:BK:69:GLY:HA3	81:DA:2383:C:H4'	1.99	0.45
40:BK:189:ASP:O	40:BK:192:LYS:HB2	2.16	0.45
40:BK:197:LEU:CD2	41:BN:109:ARG:HH11	2.28	0.45
57:Be:218:ARG:HB3	57:Be:220:PHE:HB3	1.99	0.45
59:Bh:11:LYS:O	59:Bh:12:LYS:HB2	2.16	0.45
62:Bk:28:TYR:CB	62:Bk:29:LYS:HA	2.47	0.45
72:Bt:49:LEU:HA	72:Bt:52:GLN:CD	2.41	0.45
78:CA:284:G:H2'	78:CA:284:G:N3	2.32	0.45
78:CA:1115:U:C5	78:CA:1130:G:C2	3.04	0.45
78:CA:1556:A:HO2'	78:CA:1560:U:H5	1.56	0.45
81:DA:491:C:OP2	81:DA:491:C:C6	2.70	0.45
81:DA:813:G:H2'	81:DA:814:U:C6	2.52	0.45
81:DA:2362:C:C2'	81:DA:2362:C:C2	2.97	0.45
6:AE:110:HIS:CE1	6:AE:138:PRO:HB2	2.52	0.45
10:AI:28:LEU:HD23	10:AI:125:GLU:OE2	2.16	0.45
14:AM:116:LEU:HD13	78:CA:1547:A:OP1	2.17	0.45
15:AN:22:ARG:HE	17:AQ:32:LYS:HD3	1.81	0.45
24:AX:77:THR:HB	24:AX:78:SER:H	1.74	0.45
29:AU:14:SER:HB2	29:AU:89:TYR:N	2.30	0.45
32:BC:160:VAL:HG23	32:BC:183:LEU:HD21	1.98	0.45
34:BE:36:VAL:HG13	34:BE:108:GLU:HB2	1.98	0.45
35:BG:69:PHE:CE1	35:BG:100:LYS:C	2.95	0.45
53:Ba:20:GLY:HA3	53:Ba:21:LYS:HG3	1.98	0.45
53:Ba:35:SER:O	53:Ba:36:HIS:CG	2.69	0.45
61:Bj:20:LYS:O	61:Bj:21:ARG:O	2.34	0.45
78:CA:629:U:H4'	78:CA:630:A:OP1	2.17	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:CA:659:C:H42	78:CA:673:A:H61	1.64	0.45
78:CA:1086:A:O4'	78:CA:1086:A:N9	2.40	0.45
81:DA:45:A:H2'	81:DA:46:U:H5'	1.97	0.45
81:DA:641:C:C5	81:DA:642:U:C5	3.05	0.45
81:DA:1069:C:H42	81:DA:1091:A:N6	2.07	0.45
81:DA:1360:C:H2'	81:DA:1361:U:C6	2.51	0.45
81:DA:1514:G:C6	81:DA:1842:A:C8	3.05	0.45
81:DA:1561:G:C6	81:DA:1562:C:C4	3.05	0.45
81:DA:2174:G:O4'	81:DA:2176:U:C1'	2.64	0.45
81:DA:2304:C:H3'	81:DA:2305:G:C8	2.52	0.45
81:DA:2897:A:H2'	81:DA:2899:C:H5''	1.99	0.45
6:AE:24:ARG:O	9:AH:69:LEU:HD13	2.16	0.45
8:AF:29:ILE:HG23	8:AF:30:PRO:HD2	1.99	0.45
14:AM:57:ARG:HH11	14:AM:57:ARG:HG3	1.82	0.45
14:AM:144:ARG:HG3	78:CA:1570:A:H4'	1.99	0.45
31:BB:43:GLY:HA2	31:BB:63:PHE:H	1.80	0.45
32:BC:100:ARG:HB2	81:DA:3243:A:H2	1.82	0.45
32:BC:233:TRP:CE2	32:BC:265:ALA:HA	2.51	0.45
38:Bs:201:ILE:HD11	73:Bv:36:GLU:CD	2.42	0.45
40:BK:49:ARG:NH1	81:DA:1191:U:C6	2.85	0.45
40:BK:197:LEU:C	41:BN:108:ARG:O	2.60	0.45
41:BN:16:GLU:HG3	41:BN:17:VAL:N	2.32	0.45
41:BN:121:MET:HA	41:BN:124:ARG:HE	1.82	0.45
42:BM:96:GLU:HB2	51:BZ:23:ARG:HA	1.99	0.45
43:BP:73:ARG:HH22	43:BP:92:LEU:CD1	2.30	0.45
59:Bh:58:GLY:HA2	81:DA:1405:U:OP1	2.17	0.45
72:Bt:14:LEU:CD1	72:Bt:26:LEU:CD2	2.92	0.45
72:Bt:19:ILE:CD1	73:Bv:29:VAL:O	2.65	0.45
74:BQ:51:LEU:HG	83:DC:5:G:H5''	1.99	0.45
74:BQ:237:GLU:HA	74:BQ:238:ASP:HB2	1.99	0.45
81:DA:636:C:C3'	81:DA:637:C:C5'	2.93	0.45
81:DA:1343:A:H3'	81:DA:1344:G:H5''	1.98	0.45
81:DA:2763:U:H3'	81:DA:2763:U:C6	2.52	0.45
12:AK:33:LEU:CD2	78:CA:902:G:C8	3.00	0.45
13:AL:9:LEU:HD13	18:AP:79:LYS:NZ	2.32	0.45
20:AS:43:ASN:HB2	78:CA:1477:G:C4'	2.47	0.45
31:BB:6:ARG:NH2	81:DA:914:A:C2	2.85	0.45
31:BB:178:PRO:CB	81:DA:2150:G:H5''	2.47	0.45
32:BC:255:TRP:NE1	81:DA:2941:A:C6	2.84	0.45
36:BF:45:PHE:HA	36:BF:55:VAL:HA	1.98	0.45
38:Bs:229:TYR:CE1	72:Bt:44:ILE:CB	2.80	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BK:68:ARG:NH1	81:DA:2988:C:H5''	2.32	0.45
78:CA:375:U:C4	78:CA:376:C:N4	2.85	0.45
78:CA:479:C:H42	78:CA:509:G:H1	1.63	0.45
78:CA:881:A:C6	78:CA:882:U:C4	3.05	0.45
78:CA:1586:A:C4	78:CA:1611:A:C6	3.04	0.45
78:CA:1679:G:H2'	78:CA:1680:G:C1'	2.47	0.45
79:CB:27:G:H2'	79:CB:28:G:C8	2.51	0.45
81:DA:635:G:N2	81:DA:646:A:C6	2.84	0.45
81:DA:797:U:H2'	81:DA:798:G:O4'	2.16	0.45
81:DA:1084:A:C6	81:DA:1085:A:C2	3.05	0.45
81:DA:2733:A:H2'	81:DA:2734:A:C8	2.52	0.45
1:Aa:68:VAL:O	1:Aa:68:VAL:HG22	2.17	0.44
2:AA:66:ALA:HB2	6:AE:56:ILE:HG22	1.99	0.44
4:AD:235:TYR:O	4:AD:236:ILE:CB	2.65	0.44
8:AF:33:VAL:HG12	8:AF:34:GLN:N	2.30	0.44
9:AH:79:PHE:HB3	9:AH:125:ILE:O	2.17	0.44
11:AJ:85:ARG:CA	15:AN:52:PHE:H	2.25	0.44
14:AM:12:GLN:HG2	34:BE:116:TYR:CG	2.47	0.44
22:AV:66:VAL:HG21	22:AV:73:GLY:HA2	1.98	0.44
32:BC:6:TYR:HA	42:BM:46:LEU:HD11	1.99	0.44
35:BG:25:ALA:HB1	81:DA:502:U:H5'	1.98	0.44
35:BG:91:VAL:HG12	35:BG:92:SER:H	1.82	0.44
36:BF:77:ASN:HB3	36:BF:151:VAL:HG21	1.99	0.44
39:BJ:58:VAL:HG12	39:BJ:59:THR:O	2.16	0.44
41:BN:12:TRP:HA	41:BN:19:ARG:HH12	1.82	0.44
44:BO:149:ALA:HA	75:BL:118:UNK:O	2.17	0.44
62:Bk:56:ARG:H	62:Bk:56:ARG:HG3	1.34	0.44
63:Bm:41:PHE:CZ	63:Bm:62:LYS:HD2	2.52	0.44
67:Bp:28:PRO:HG2	67:Bp:31:ALA:CB	2.47	0.44
74:BQ:25:GLU:HG3	74:BQ:52:VAL:HG21	1.98	0.44
78:CA:163:G:C2'	78:CA:164:A:H5'	2.48	0.44
78:CA:1388:A:H4'	78:CA:1389:C:O4'	2.17	0.44
79:CB:41:G:C3'	79:CB:42:C:H5''	2.47	0.44
81:DA:701:G:C8	81:DA:701:G:C3'	2.99	0.44
81:DA:798:G:C3'	81:DA:799:G:C8	3.01	0.44
81:DA:2476:C:O2'	81:DA:2488:A:C5'	2.65	0.44
81:DA:2629:U:H2'	81:DA:2630:C:C6	2.52	0.44
32:BC:118:PHE:C	32:BC:122:TRP:H	2.25	0.44
33:BD:3:ARG:NH2	33:BD:22:LEU:HD12	2.31	0.44
38:Bs:43:LYS:HE2	39:BJ:121:PHE:CD1	2.52	0.44
38:Bs:243:TYR:CE1	72:Bu:9:TYR:OH	2.70	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:Bs:248:ALA:CB	72:Bu:61:PHE:CZ	3.01	0.44
42:BM:26:ALA:O	42:BM:115:THR:HG22	2.17	0.44
49:BV:7:THR:HG23	49:BV:8:SER:H	1.82	0.44
52:BY:87:LYS:HB3	81:DA:375:A:H5''	1.99	0.44
59:Bh:21:HIS:CD2	59:Bh:24:ARG:HD3	2.53	0.44
74:BQ:13:SER:CB	83:DC:11:A:C2	3.00	0.44
78:CA:127:G:H22	78:CA:291:G:H1	1.64	0.44
78:CA:257:A:H2'	78:CA:258:C:H5'	1.99	0.44
78:CA:401:A:C2	78:CA:404:G:C8	3.05	0.44
78:CA:631:G:C4	78:CA:632:U:H5	2.35	0.44
78:CA:841:U:H2'	78:CA:842:C:C6	2.51	0.44
78:CA:959:U:H1'	78:CA:960:U:H5	1.82	0.44
78:CA:994:G:C6	78:CA:1011:G:N2	2.86	0.44
78:CA:1037:C:N3	78:CA:1094:G:O6	2.51	0.44
81:DA:422:A:C1'	81:DA:422:A:O2'	2.52	0.44
81:DA:1697:A:H3'	81:DA:1698:C:H6	1.82	0.44
81:DA:2690:G:H5''	81:DA:2691:A:OP2	2.17	0.44
81:DA:2722:U:C2'	81:DA:2723:U:O5'	2.65	0.44
3:AB:157:LEU:C	3:AB:158:ILE:HG13	2.42	0.44
10:AI:85:ILE:HG21	10:AI:89:LEU:HD12	1.98	0.44
13:AL:3:LYS:HG2	13:AL:16:ARG:NH2	2.32	0.44
16:AO:114:ARG:NH1	78:CA:938:G:O2'	2.50	0.44
23:AW:2:UNK:CB	25:AY:14:LYS:HD2	2.45	0.44
30:BA:72:PHE:CD1	30:BA:109:ALA:HB2	2.52	0.44
38:Bs:214:VAL:HG11	73:Bv:58:ASN:N	2.19	0.44
41:BN:3:THR:O	41:BN:3:THR:CG2	2.63	0.44
57:Be:224:ILE:H	57:Be:224:ILE:HG12	1.42	0.44
62:Bk:28:TYR:HB2	62:Bk:29:LYS:CA	2.47	0.44
68:Bq:16:LYS:O	68:Bq:20:VAL:HG23	2.17	0.44
74:BQ:215:ASP:OD1	83:DC:49:G:P	2.76	0.44
76:BS:109:TYR:O	76:BS:113:ALA:HB2	2.17	0.44
78:CA:12:U:H2'	78:CA:13:C:C6	2.52	0.44
78:CA:228:G:C8	78:CA:228:G:H2'	2.53	0.44
78:CA:312:A:C5	78:CA:314:C:N4	2.86	0.44
78:CA:399:A:C2	78:CA:401:A:C4	3.06	0.44
78:CA:1172:G:C2	78:CA:1468:U:C2	3.06	0.44
78:CA:1479:A:C2	78:CA:1528:U:O2	2.70	0.44
78:CA:1545:A:O2'	78:CA:1546:G:H5'	2.17	0.44
81:DA:230:U:C3'	81:DA:231:G:H5'	2.47	0.44
81:DA:1006:A:H2'	81:DA:1007:U:H6	1.81	0.44
81:DA:1209:G:N7	81:DA:1210:U:OP1	2.49	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:1622:U:O2	81:DA:1823:A:H2	2.00	0.44
81:DA:2920:U:C5	81:DA:2921:U:O4	2.70	0.44
81:DA:2987:A:H2'	81:DA:2988:C:C6	2.53	0.44
81:DA:3240:C:C4	81:DA:3241:G:C2	3.05	0.44
82:DB:43:A:C2	82:DB:102:U:C2	3.06	0.44
10:AI:127:LYS:HZ1	78:CA:1584:G:C5'	2.31	0.44
14:AM:144:ARG:HG3	78:CA:1570:A:C2'	2.47	0.44
30:BA:165:LEU:HD21	30:BA:184:LEU:HD21	1.99	0.44
33:BD:29:PRO:HB3	45:BR:25:TYR:CZ	2.46	0.44
36:BF:168:ARG:HB3	81:DA:2894:C:H5'	2.00	0.44
37:BH:91:PHE:HB2	43:BP:17:ASP:HB2	1.99	0.44
38:Bs:19:LEU:HD22	38:Bs:25:LEU:HD22	1.99	0.44
43:BP:33:LYS:HD2	43:BP:37:HIS:CD2	2.51	0.44
45:BR:88:THR:OG1	81:DA:786:A:N6	2.50	0.44
57:Be:55:TYR:CE1	57:Be:78:GLU:HB2	2.52	0.44
58:Bg:23:VAL:HG11	58:Bg:27:LYS:HD3	1.98	0.44
72:Bu:13:ILE:CD1	73:Bw:5:ALA:CB	2.94	0.44
78:CA:145:A:C6	78:CA:169:A:N7	2.86	0.44
78:CA:1176:G:C5	78:CA:1464:G:N1	2.86	0.44
78:CA:1288:G:H5''	78:CA:1625:C:H5'	1.99	0.44
78:CA:1647:U:H2'	78:CA:1648:A:H5''	1.99	0.44
78:CA:1690:G:C8	78:CA:1690:G:H3'	2.53	0.44
78:CA:1747:G:H4'	81:DA:2302:G:H21	1.80	0.44
81:DA:68:C:H41	81:DA:315:C:H5'	1.82	0.44
81:DA:311:C:O2'	81:DA:312:C:H5'	2.18	0.44
81:DA:523:A:C8	81:DA:524:U:C5	3.06	0.44
81:DA:1341:U:H2'	81:DA:1342:C:C6	2.53	0.44
81:DA:2716:U:H2'	81:DA:2717:U:C6	2.52	0.44
81:DA:2996:U:C5	81:DA:2997:G:C5	3.05	0.44
81:DA:3343:G:N2	81:DA:3363:U:C4	2.85	0.44
1:Aa:113:VAL:HG13	1:Aa:122:ILE:HG13	1.99	0.44
2:AA:153:SER:O	6:AE:30:THR:HG21	2.16	0.44
10:AI:48:VAL:HG11	10:AI:53:LEU:HG	2.00	0.44
12:AK:60:ALA:HB2	12:AK:63:ALA:HB3	1.99	0.44
27:Ab:25:UNK:C	27:Ab:28:UNK:N	2.81	0.44
29:AU:17:LEU:CD2	29:AU:93:ARG:HG3	2.48	0.44
31:BB:83:HIS:CG	63:Bm:64:VAL:CG1	3.01	0.44
32:BC:28:ARG:HD2	81:DA:3003:G:C5'	2.46	0.44
32:BC:300:ARG:HE	51:BZ:1:MET:H1	1.65	0.44
34:BE:12:LEU:HD12	34:BE:12:LEU:HA	1.84	0.44
39:BJ:98:VAL:HG23	39:BJ:100:HIS:O	2.18	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BO:14:HIS:CG	44:BO:15:VAL:H	2.36	0.44
44:BO:124:ILE:HD12	75:BL:149:UNK:N	2.32	0.44
48:BW:11:ILE:HG12	48:BW:13:LYS:HD2	1.99	0.44
69:Br:73:GLU:HA	69:Br:80:ARG:HB3	2.00	0.44
74:BQ:128:GLU:C	74:BQ:128:GLU:CG	2.90	0.44
76:BS:85:SER:HB2	81:DA:1294:A:H4'	1.99	0.44
78:CA:374:U:C4	78:CA:375:U:C5	3.05	0.44
78:CA:1031:U:H3'	78:CA:1032:G:C5'	2.47	0.44
78:CA:1710:U:H2'	78:CA:1711:C:C6	2.53	0.44
81:DA:1752:A:H5'	81:DA:1752:A:C8	2.47	0.44
81:DA:1972:A:H61	81:DA:2050:C:H42	1.66	0.44
81:DA:2531:C:H1'	81:DA:2580:A:H62	1.73	0.44
81:DA:3003:G:H1	81:DA:3145:C:H42	1.65	0.44
81:DA:3010:U:H2'	81:DA:3011:A:OP1	2.18	0.44
83:DC:35:C:H2'	83:DC:36:C:H5'	1.99	0.44
2:AA:175:TYR:CE1	2:AA:192:THR:HG22	2.53	0.44
10:AI:29:ILE:HD11	10:AI:125:GLU:CB	2.48	0.44
12:AK:59:ALA:H	12:AK:62:LEU:HD12	1.83	0.44
17:AQ:93:LEU:HD23	17:AQ:93:LEU:HA	1.90	0.44
20:AS:7:ARG:HE	20:AS:67:MET:HA	1.83	0.44
34:BE:38:GLU:HG3	34:BE:45:PRO:HD3	1.99	0.44
37:BH:134:TYR:O	81:DA:146:U:O3'	2.36	0.44
40:BK:90:HIS:HE1	81:DA:2381:G:H5''	1.79	0.44
46:BT:17:VAL:HG23	46:BT:52:LYS:CD	2.48	0.44
46:BT:97:ARG:O	46:BT:101:VAL:HG23	2.17	0.44
53:Ba:10:VAL:HG23	53:Ba:11:ALA:O	2.16	0.44
53:Ba:13:VAL:HG21	53:Ba:61:LYS:CG	2.47	0.44
56:Bf:62:LEU:CD1	60:Bi:31:ARG:O	2.66	0.44
56:Bf:66:LYS:NZ	56:Bf:66:LYS:HB2	2.32	0.44
65:Bn:21:LYS:HB2	65:Bn:46:ARG:HG3	1.98	0.44
78:CA:629:U:C5	78:CA:969:C:C2	3.06	0.44
78:CA:1003:A:O2'	78:CA:1005:A:N7	2.37	0.44
81:DA:329:U:OP1	81:DA:330:G:C8	2.70	0.44
81:DA:521:A:N1	81:DA:570:A:C5	2.86	0.44
81:DA:532:A:H2'	81:DA:533:A:C8	2.52	0.44
81:DA:1405:U:H2'	81:DA:1406:A:H5'	2.00	0.44
81:DA:2220:A:N7	81:DA:2221:G:C5	2.86	0.44
81:DA:2625:C:H4'	81:DA:2626:A:OP1	2.18	0.44
81:DA:2816:G:C8	81:DA:2869:U:C6	3.06	0.44
81:DA:3002:C:H2'	81:DA:3003:G:O4'	2.18	0.44
81:DA:3061:G:H2'	81:DA:3062:G:C8	2.53	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:DB:37:A:H5'	82:DB:37:A:H8	1.83	0.44
1:Aa:34:LEU:HD23	1:Aa:71:CYS:HB2	2.00	0.44
4:AD:98:ASN:HD22	4:AD:116:ASP:HA	1.83	0.44
4:AD:175:PHE:CZ	4:AD:227:VAL:HG23	2.52	0.44
8:AF:57:SER:OG	25:AY:57:MET:C	2.60	0.44
12:AK:119:THR:HG22	23:AW:89:UNK:CB	2.47	0.44
14:AM:14:ILE:CD1	34:BE:115:LYS:HB2	2.42	0.44
14:AM:144:ARG:HG3	78:CA:1570:A:O3'	2.18	0.44
22:AV:30:LYS:O	22:AV:31:SER:O	2.36	0.44
29:AU:20:ARG:NE	78:CA:154:G:H4'	2.32	0.44
30:BA:155:ILE:HG13	30:BA:165:LEU:HD22	1.98	0.44
31:BB:128:ARG:CZ	81:DA:2157:G:H21	2.31	0.44
31:BB:188:LYS:CE	81:DA:1794:G:C8	3.01	0.44
31:BB:207:VAL:HG13	81:DA:2415:C:H5''	2.00	0.44
33:BD:197:ARG:HH22	81:DA:337:G:H3'	1.83	0.44
34:BE:56:THR:HG21	81:DA:2678:A:N1	2.33	0.44
37:BH:230:LYS:C	37:BH:232:HIS:N	2.76	0.44
38:Bs:43:LYS:HA	38:Bs:46:ARG:HD2	2.00	0.44
38:Bs:111:ALA:HB1	38:Bs:167:GLN:HA	2.00	0.44
38:Bs:227:ILE:CD1	72:Bt:49:LEU:HD23	2.48	0.44
39:BJ:61:GLN:HB2	39:BJ:72:SER:HB3	1.99	0.44
41:BN:12:TRP:CZ3	76:BS:165:LEU:HA	2.52	0.44
55:Bc:109:ILE:HG22	55:Bc:110:ALA:H	1.83	0.44
59:Bh:37:GLY:HA2	81:DA:640:U:OP2	2.17	0.44
59:Bh:37:GLY:H	81:DA:639:G:H5''	1.83	0.44
72:Bt:36:PRO:CD	72:Bt:36:PRO:O	2.66	0.44
74:BQ:51:LEU:HD21	83:DC:5:G:H4'	1.99	0.44
76:BS:83:TYR:CD2	76:BS:116:HIS:HB3	2.53	0.44
78:CA:150:U:H2'	78:CA:151:G:C8	2.53	0.44
78:CA:1244:A:H2'	78:CA:1245:G:H8	1.82	0.44
78:CA:1306:C:H5''	78:CA:1307:U:OP2	2.17	0.44
78:CA:1308:G:C2	78:CA:1318:G:C4	3.00	0.44
78:CA:1781:A:C6	78:CA:1782:A:N6	2.86	0.44
81:DA:160:G:C2	81:DA:261:U:C5	3.06	0.44
81:DA:264:G:C8	81:DA:264:G:H3'	2.53	0.44
81:DA:1209:G:N2	81:DA:3114:A:N1	2.66	0.44
81:DA:1645:U:C4	81:DA:1646:G:C6	3.06	0.44
81:DA:2220:A:C2'	81:DA:2221:G:H5'	2.47	0.44
81:DA:2255:A:H5''	81:DA:2261:G:H1	1.83	0.44
81:DA:2363:A:C1'	81:DA:2363:A:O2'	2.52	0.44
81:DA:2638:C:C2'	81:DA:2639:G:H5'	2.47	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:2755:C:H2'	81:DA:2756:C:C5	2.52	0.44
81:DA:3088:G:H2'	81:DA:3089:C:C6	2.53	0.44
81:DA:3115:C:O4'	81:DA:3115:C:C6	2.71	0.44
81:DA:3313:U:H2'	81:DA:3314:A:C8	2.53	0.44
1:Aa:156:VAL:HG22	1:Aa:169:ILE:HD12	2.00	0.44
2:AA:107:PHE:HB3	2:AA:139:VAL:HG21	2.00	0.44
8:AF:192:GLU:HG2	22:AV:63:SER:C	2.43	0.44
10:AI:49:TYR:H	20:AS:8:ASP:CB	2.29	0.44
31:BB:1:MET:CE	81:DA:2608:G:N7	2.81	0.44
32:BC:94:GLU:HA	32:BC:99:LEU:CD2	2.47	0.44
36:BF:47:LYS:O	41:BN:7:VAL:HB	2.17	0.44
36:BF:118:LEU:O	81:DA:3033:A:H2	2.00	0.44
43:BP:33:LYS:HD2	43:BP:37:HIS:CG	2.52	0.44
45:BR:90:ASP:OD2	81:DA:677:A:N7	2.50	0.44
46:BT:24:LEU:HD22	46:BT:50:ILE:HG12	1.99	0.44
55:Bc:39:PRO:C	55:Bc:41:LEU:H	2.26	0.44
63:Bm:55:TRP:HB2	63:Bm:64:VAL:HG22	1.99	0.44
72:Bu:49:LEU:HD23	72:Bu:52:GLN:OE1	2.18	0.44
78:CA:270:C:H3'	78:CA:271:A:H5''	2.00	0.44
78:CA:974:A:H2'	78:CA:975:C:C6	2.53	0.44
78:CA:1548:G:N2	78:CA:1564:U:C2	2.85	0.44
79:CB:12:U:H2'	79:CB:13:U:O4'	2.18	0.44
81:DA:372:A:H61	81:DA:394:G:H4'	1.83	0.44
81:DA:529:A:H61	81:DA:563:U:H3	1.65	0.44
81:DA:637:C:C2'	81:DA:638:C:C6	2.94	0.44
81:DA:1733:G:H3'	81:DA:1734:G:C8	2.53	0.44
81:DA:2624:G:H2'	81:DA:2625:C:C6	2.52	0.44
83:DC:68:U:H3	83:DC:105:A:H61	1.66	0.44
4:AD:105:VAL:HG13	4:AD:189:LEU:O	2.18	0.44
8:AF:41:LYS:HZ1	10:AI:65:ILE:HG12	1.82	0.44
29:AU:3:ASP:O	29:AU:36:SER:C	2.61	0.44
33:BD:321:LYS:CB	33:BD:321:LYS:N	2.64	0.44
35:BG:43:LEU:HD21	35:BG:121:LEU:HD22	2.00	0.44
43:BP:177:GLY:O	43:BP:181:ASN:CG	2.60	0.44
48:BW:100:THR:O	48:BW:101:ASN:C	2.61	0.44
72:Bt:20:GLU:CB	72:Bt:25:LYS:HZ2	2.31	0.44
78:CA:280:U:O4'	78:CA:280:U:N1	2.42	0.44
78:CA:571:G:OP1	78:CA:571:G:C2	2.71	0.44
78:CA:1426:C:C3'	78:CA:1427:A:H5''	2.47	0.44
81:DA:49:A:N7	81:DA:279:U:H4'	2.33	0.44
81:DA:409:A:H5'	81:DA:655:C:H4'	2.00	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:894:G:H1'	81:DA:895:A:C8	2.53	0.44
81:DA:1314:C:O4'	81:DA:1314:C:C6	2.71	0.44
81:DA:2185:G:C6	81:DA:2186:U:C4	3.06	0.44
81:DA:2499:U:H2'	81:DA:2500:A:H8	1.80	0.44
83:DC:30:G:C2	83:DC:31:U:C4	3.06	0.44
6:AE:29:ASN:HD22	6:AE:29:ASN:H	1.66	0.43
16:AO:114:ARG:NH2	78:CA:938:G:N3	2.66	0.43
30:BA:114:GLU:O	30:BA:117:ILE:HG22	2.18	0.43
31:BB:38:HIS:HB3	70:Bx:5:UNK:C	2.48	0.43
31:BB:111:THR:CG2	63:Bm:83:ILE:HG22	2.48	0.43
32:BC:261:MET:HB3	40:BK:65:ASN:HB3	2.00	0.43
33:BD:148:ILE:HD12	33:BD:148:ILE:HA	1.94	0.43
33:BD:295:ILE:C	33:BD:296:GLN:CA	2.60	0.43
34:BE:48:SER:HB2	34:BE:66:ALA:HB3	2.00	0.43
36:BF:132:VAL:HG23	36:BF:147:SER:O	2.18	0.43
53:Ba:12:VAL:C	53:Ba:13:VAL:HG22	2.43	0.43
60:Bi:101:VAL:HG13	60:Bi:102:LYS:H	1.83	0.43
78:CA:279:G:C2'	78:CA:280:U:H5'	2.47	0.43
78:CA:664:U:H3'	78:CA:666:U:OP2	2.18	0.43
78:CA:874:C:O4'	78:CA:874:C:N1	2.44	0.43
78:CA:1747:G:HO2'	81:DA:2303:A:C1'	2.30	0.43
81:DA:1036:A:H2'	81:DA:1037:C:H5'	2.00	0.43
81:DA:1829:G:H5''	81:DA:1830:G:C8	2.53	0.43
81:DA:2431:C:H2'	81:DA:2432:A:H8	1.83	0.43
81:DA:2513:U:O2'	81:DA:2514:U:C6	2.71	0.43
81:DA:2920:U:C5	81:DA:2921:U:C5	3.06	0.43
1:Aa:90:ARG:HH22	78:CA:1341:A:C2'	2.30	0.43
1:Aa:172:ALA:HB2	1:Aa:202:LEU:HB2	2.00	0.43
4:AD:136:VAL:HA	4:AD:137:PRO:O	2.18	0.43
6:AE:197:TYR:HB2	78:CA:2:A:H61	1.82	0.43
8:AF:41:LYS:NZ	10:AI:65:ILE:HG12	2.33	0.43
14:AM:26:ILE:HG13	14:AM:27:LYS:H	1.83	0.43
14:AM:136:GLN:CD	78:CA:1544:U:H5''	2.43	0.43
16:AO:128:TYR:HB2	78:CA:628:G:OP1	2.18	0.43
22:AV:104:ALA:O	22:AV:105:THR:CG2	2.67	0.43
33:BD:352:ALA:HA	81:DA:516:A:H4'	1.99	0.43
34:BE:59:ILE:HB	79:CB:19:U:C2	2.53	0.43
35:BG:15:VAL:H	35:BG:15:VAL:HG13	1.44	0.43
35:BG:75:PRO:HG2	81:DA:3218:A:N1	2.33	0.43
35:BG:76:LEU:HD21	35:BG:100:LYS:HB3	1.98	0.43
37:BH:84:ARG:HG3	43:BP:25:VAL:HB	2.00	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:Bs:124:VAL:HG13	38:Bs:125:ASN:H	1.83	0.43
38:Bs:199:SER:HA	38:Bs:202:LEU:CG	2.46	0.43
38:Bs:243:TYR:CZ	73:Bw:54:ILE:HD13	2.54	0.43
40:BK:130:LYS:O	40:BK:131:PRO:CB	2.66	0.43
41:BN:74:ARG:NH1	76:BS:154:VAL:HG21	2.34	0.43
53:Ba:48:ARG:H	60:Bi:43:LYS:HB2	1.84	0.43
65:Bn:21:LYS:HD2	81:DA:1699:A:H2'	1.99	0.43
65:Bn:48:SER:O	81:DA:1748:G:H4'	2.17	0.43
77:BI:142:ASP:CG	77:BI:145:LYS:HZ1	2.26	0.43
78:CA:148:A:C8	78:CA:149:C:C5	3.06	0.43
78:CA:181:A:H61	78:CA:193:U:H3	1.66	0.43
78:CA:672:U:H2'	78:CA:673:A:C8	2.53	0.43
78:CA:1550:A:C2	78:CA:1562:G:C2	3.06	0.43
81:DA:427:C:O4'	81:DA:427:C:C6	2.71	0.43
81:DA:840:C:H2'	81:DA:841:A:C8	2.53	0.43
81:DA:1842:A:H4'	81:DA:1843:C:OP2	2.18	0.43
81:DA:2136:C:N4	81:DA:2142:A:H1'	2.33	0.43
82:DB:35:C:O4'	82:DB:35:C:C6	2.71	0.43
1:Aa:113:VAL:HG12	1:Aa:114:ASP:N	2.33	0.43
3:AB:59:LEU:HA	3:AB:66:ILE:HB	1.99	0.43
8:AF:156:ARG:HH21	78:CA:905:A:H5''	1.82	0.43
12:AK:46:MET:CE	78:CA:918:U:C1'	2.77	0.43
12:AK:121:VAL:HG22	12:AK:122:PRO:HD3	2.00	0.43
13:AL:39:LYS:HE2	13:AL:41:SER:HB2	2.01	0.43
14:AM:14:ILE:CG1	34:BE:115:LYS:CA	2.94	0.43
14:AM:144:ARG:CG	78:CA:1570:A:H4'	2.48	0.43
19:AR:58:LYS:CE	78:CA:1550:A:H62	2.27	0.43
26:AZ:57:ASN:H	26:AZ:58:PRO:HD2	1.83	0.43
29:AU:5:VAL:HG21	29:AU:29:HIS:HA	1.99	0.43
30:BA:165:LEU:N	30:BA:165:LEU:HD23	2.33	0.43
31:BB:40:TYR:H	70:Bx:9:UNK:CB	2.32	0.43
32:BC:51:ALA:HA	32:BC:314:TYR:CZ	2.53	0.43
37:BH:172:LYS:HZ1	62:Bk:89:GLU:HG2	1.82	0.43
38:Bs:224:SER:HB2	38:Bs:234:SER:HB3	2.00	0.43
51:BZ:67:VAL:O	51:BZ:69:LYS:HB3	2.19	0.43
52:BY:60:ARG:HD3	52:BY:103:LYS:HA	2.00	0.43
53:Ba:9:LYS:C	53:Ba:25:ILE:HD12	2.43	0.43
53:Ba:20:GLY:HA3	53:Ba:21:LYS:CG	2.48	0.43
53:Ba:27:LYS:HG2	53:Ba:28:PRO:HD2	2.00	0.43
65:Bn:50:SER:H	65:Bn:51:LEU:HD12	1.82	0.43
72:Bt:49:LEU:HD23	72:Bt:52:GLN:OE1	2.18	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:CA:91:G:OP1	78:CA:397:A:N6	2.51	0.43
78:CA:1013:A:H2'	78:CA:1014:G:H5'	2.00	0.43
78:CA:1140:G:C2	78:CA:1141:G:C5	3.06	0.43
78:CA:1264:G:C8	78:CA:1264:G:H3'	2.54	0.43
78:CA:1747:G:H4'	81:DA:2302:G:N2	2.33	0.43
81:DA:411:U:H2'	81:DA:412:G:C8	2.53	0.43
81:DA:595:G:C6	81:DA:596:C:C5	3.06	0.43
81:DA:729:C:H2'	81:DA:730:C:C6	2.53	0.43
81:DA:814:U:H2'	81:DA:815:G:H8	1.83	0.43
81:DA:1009:A:H61	81:DA:1043:C:N4	2.16	0.43
81:DA:1069:C:N4	81:DA:1091:A:H61	2.08	0.43
81:DA:2187:G:OP1	81:DA:2315:G:H8	2.01	0.43
81:DA:2487:U:C6	81:DA:2487:U:H2'	2.53	0.43
81:DA:2626:A:C5'	81:DA:2627:C:OP2	2.61	0.43
81:DA:3142:A:H4'	81:DA:3143:C:OP1	2.18	0.43
82:DB:14:C:N4	82:DB:15:G:C6	2.86	0.43
82:DB:98:U:C2'	82:DB:99:C:H5'	2.48	0.43
16:AO:65:VAL:CG1	24:AX:51:GLN:OE1	2.65	0.43
16:AO:114:ARG:NH1	78:CA:940:A:C6	2.86	0.43
18:AP:64:VAL:CG2	18:AP:81:HIS:CD2	3.01	0.43
18:AP:108:PRO:HG2	18:AP:109:VAL:O	2.19	0.43
20:AS:43:ASN:CB	78:CA:1477:G:C4'	2.96	0.43
31:BB:15:ILE:HD11	81:DA:911:C:OP1	2.18	0.43
32:BC:115:LYS:HA	32:BC:118:PHE:CD2	2.53	0.43
38:Bs:93:LEU:HD13	38:Bs:190:VAL:HG11	2.00	0.43
40:BK:197:LEU:HD22	41:BN:109:ARG:CD	2.49	0.43
43:BP:77:LYS:HB3	81:DA:2165:G:OP1	2.18	0.43
48:BW:90:ARG:H	48:BW:90:ARG:CG	2.28	0.43
53:Ba:43:VAL:CG1	53:Ba:44:ALA:N	2.81	0.43
56:Bf:58:TYR:OH	60:Bi:32:ALA:CA	2.66	0.43
57:Be:27:ALA:CB	81:DA:597:G:OP2	2.66	0.43
57:Be:179:LEU:H	57:Be:179:LEU:HD22	1.84	0.43
59:Bh:21:HIS:HD2	81:DA:1433:A:N1	2.17	0.43
63:Bm:51:ALA:HB2	81:DA:1795:U:N3	2.12	0.43
76:BS:145:HIS:CE1	76:BS:149:ILE:HD11	2.52	0.43
77:BI:106:ALA:O	77:BI:108:ALA:HB2	2.19	0.43
78:CA:587:C:N3	78:CA:588:U:C4	2.86	0.43
78:CA:653:C:H2'	78:CA:654:C:H6	1.83	0.43
81:DA:407:A:O3'	81:DA:1396:C:H5'	2.17	0.43
81:DA:425:G:H2'	81:DA:636:C:O2'	2.19	0.43
81:DA:1445:U:O2'	81:DA:2358:A:N6	2.50	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:1792:C:O2'	81:DA:1794:G:C4	2.67	0.43
81:DA:1988:C:H2'	81:DA:1989:U:H6	1.82	0.43
81:DA:2396:G:O6	81:DA:2946:A:N1	2.51	0.43
81:DA:3129:A:H3'	81:DA:3131:U:H5	1.81	0.43
82:DB:103:G:C6	82:DB:105:A:C6	3.06	0.43
6:AE:131:ILE:HG22	6:AE:132:ALA:H	1.84	0.43
20:AS:48:GLN:CA	20:AS:52:GLY:HA3	2.49	0.43
21:AT:78:LEU:HD23	21:AT:78:LEU:C	2.42	0.43
32:BC:171:LEU:HD22	32:BC:173:GLN:HE21	1.83	0.43
35:BG:28:GLN:C	35:BG:30:LEU:H	2.26	0.43
38:Bs:243:TYR:CZ	72:Bu:9:TYR:OH	2.70	0.43
60:Bi:52:GLN:NE2	60:Bi:69:HIS:HB3	2.34	0.43
73:Bv:10:LEU:CB	73:Bv:16:THR:HG22	2.48	0.43
74:BQ:289:LYS:HG3	74:BQ:290:ILE:H	1.84	0.43
76:BS:145:HIS:CD2	76:BS:145:HIS:O	2.71	0.43
78:CA:653:C:H2'	78:CA:654:C:C6	2.54	0.43
81:DA:659:G:H2'	81:DA:1432:C:H42	1.83	0.43
81:DA:846:A:C2	81:DA:847:A:C4	3.06	0.43
81:DA:998:A:N6	81:DA:1052:U:H3	2.15	0.43
81:DA:1289:G:H2'	81:DA:1290:A:H8	1.82	0.43
81:DA:1514:G:H1	81:DA:1841:A:H2'	1.84	0.43
81:DA:2279:A:H2	81:DA:2286:U:C2	2.37	0.43
81:DA:3000:A:H2'	81:DA:3001:C:C6	2.53	0.43
81:DA:3099:C:H2'	81:DA:3100:U:C6	2.54	0.43
81:DA:3112:G:C2	81:DA:3121:U:C5	3.06	0.43
3:AB:162:GLN:HB3	3:AB:163:PRO:CD	2.48	0.43
4:AD:107:GLY:HA2	4:AD:189:LEU:HD13	2.00	0.43
14:AM:132:ARG:HG2	14:AM:145:ARG:HH12	1.82	0.43
24:AX:63:LEU:HD22	24:AX:75:GLU:OE1	2.18	0.43
31:BB:25:GLY:HA2	81:DA:2175:U:H5	1.84	0.43
31:BB:204:MET:SD	81:DA:914:A:H1'	2.56	0.43
32:BC:266:ARG:HH11	32:BC:266:ARG:HG3	1.83	0.43
37:BH:190:VAL:HG11	37:BH:199:ALA:CB	2.48	0.43
45:BR:17:THR:HA	45:BR:53:PHE:CG	2.54	0.43
65:Bn:75:VAL:HB	81:DA:1752:A:OP2	2.18	0.43
72:Bt:6:ALA:O	73:Bv:9:LEU:CD2	2.62	0.43
72:Bt:29:LEU:HA	73:Bv:28:SER:OG	2.19	0.43
72:Bu:49:LEU:HA	72:Bu:52:GLN:CD	2.41	0.43
76:BS:153:LEU:HD23	76:BS:156:ARG:HB2	2.00	0.43
78:CA:89:G:C5	78:CA:90:C:C5	3.07	0.43
78:CA:228:G:C1'	78:CA:228:G:O2'	2.58	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:CA:562:G:H2'	78:CA:563:U:C6	2.53	0.43
78:CA:636:A:C8	78:CA:636:A:C3'	3.02	0.43
78:CA:884:A:H2'	78:CA:885:G:C8	2.53	0.43
78:CA:888:U:H2'	78:CA:889:U:C6	2.54	0.43
78:CA:1003:A:C8	78:CA:1005:A:C6	3.06	0.43
78:CA:1178:G:C4	78:CA:1462:G:C2	3.07	0.43
78:CA:1181:U:H2'	78:CA:1182:U:H5'	2.01	0.43
78:CA:1304:G:H5'	78:CA:1322:A:OP2	2.18	0.43
78:CA:1319:A:C6	78:CA:1320:U:C2	3.07	0.43
78:CA:1350:U:H3	78:CA:1375:A:H61	1.65	0.43
78:CA:1545:A:H61	78:CA:1566:U:H3	1.67	0.43
78:CA:1679:G:H2'	78:CA:1680:G:H1'	2.01	0.43
81:DA:94:G:O6	81:DA:95:A:N1	2.52	0.43
81:DA:672:A:C5	81:DA:673:U:C4	3.07	0.43
81:DA:762:U:H3	81:DA:769:G:H22	1.65	0.43
81:DA:1679:A:C2	81:DA:1680:G:C5	3.07	0.43
81:DA:2117:A:H3'	81:DA:2118:C:C6	2.54	0.43
81:DA:3051:U:H2'	81:DA:3052:G:C8	2.52	0.43
83:DC:17:A:O4'	83:DC:17:A:C8	2.72	0.43
1:Aa:309:VAL:HG12	1:Aa:310:ILE:H	1.83	0.43
2:AA:252:TRP:HA	3:AB:198:GLY:CA	2.48	0.43
5:AC:92:LYS:HD3	5:AC:94:ASP:OD2	2.18	0.43
31:BB:19:HIS:CE1	81:DA:823:C:H5'	2.54	0.43
31:BB:80:GLU:HG3	31:BB:170:ALA:HA	2.00	0.43
33:BD:244:LEU:H	33:BD:244:LEU:CD2	2.32	0.43
36:BF:49:ASN:HA	41:BN:4:ASP:HB3	2.00	0.43
37:BH:232:HIS:O	37:BH:233:TRP:C	2.60	0.43
38:Bs:248:ALA:HB1	72:Bu:61:PHE:CE1	2.54	0.43
53:Ba:75:VAL:CG1	56:Bf:54:SER:HB3	2.49	0.43
57:Be:223:PHE:HB2	76:BS:37:VAL:CG1	2.48	0.43
61:Bj:67:MET:HE1	61:Bj:87:ASN:HB3	2.00	0.43
69:Br:31:GLY:O	81:DA:2767:U:H5'	2.19	0.43
74:BQ:152:ARG:HG3	83:DC:45:A:OP1	2.19	0.43
78:CA:123:G:N2	78:CA:296:U:C4	2.87	0.43
78:CA:892:A:H2'	78:CA:893:U:H5'	2.00	0.43
78:CA:991:G:H2'	78:CA:1012:U:O4	2.19	0.43
78:CA:1096:C:C2	78:CA:1101:G:H5'	2.54	0.43
78:CA:1190:C:H5'	78:CA:1190:C:H6	1.82	0.43
78:CA:1303:U:C4	78:CA:1304:G:C5	3.06	0.43
78:CA:1413:U:H5	78:CA:1415:U:C5'	2.31	0.43
79:CB:74:C:N3	81:DA:2619:G:N1	2.67	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:1896:A:H5''	81:DA:1897:G:OP2	2.19	0.43
81:DA:1920:U:O2	81:DA:1932:A:H5'	2.19	0.43
83:DC:35:C:C5	83:DC:36:C:C5	3.07	0.43
2:AA:45:VAL:HG22	2:AA:46:HIS:H	1.84	0.43
3:AB:16:VAL:HA	3:AB:19:ALA:HB3	2.00	0.43
3:AB:95:GLY:CA	3:AB:188:ILE:HD12	2.49	0.43
12:AK:124:ASP:OD1	78:CA:929:A:N3	2.52	0.43
14:AM:14:ILE:HG21	34:BE:114:ILE:C	2.42	0.43
43:BP:178:HIS:HB2	81:DA:69:C:H5''	1.99	0.43
44:BO:9:ARG:C	44:BO:10:LYS:HG2	2.44	0.43
49:BV:61:ARG:HG2	82:DB:4:C:O5'	2.19	0.43
55:Bc:94:LYS:N	55:Bc:95:PHE:HA	2.33	0.43
61:Bj:88:ASN:ND2	81:DA:630:A:C1'	2.82	0.43
64:Bl:62:GLY:HA3	82:DB:43:A:OP2	2.19	0.43
72:Bt:43:ASP:O	72:Bt:47:LYS:HG3	2.18	0.43
72:Bu:36:PRO:CD	72:Bu:36:PRO:O	2.66	0.43
77:Bl:118:ALA:CB	81:DA:2646:C:H5'	2.48	0.43
77:Bl:118:ALA:HB2	81:DA:2645:G:O2'	2.13	0.43
78:CA:589:C:H2'	78:CA:590:C:H5'	2.00	0.43
78:CA:631:G:H2'	78:CA:632:U:C6	2.52	0.43
78:CA:933:A:C2	78:CA:935:U:C2	3.07	0.43
81:DA:998:A:C2	81:DA:1053:A:C6	3.07	0.43
81:DA:1623:G:H2'	81:DA:1624:G:H5''	1.95	0.43
81:DA:3312:U:H2'	81:DA:3313:U:H6	1.84	0.43
81:DA:3358:U:O2'	81:DA:3359:A:H5'	2.18	0.43
82:DB:103:G:N1	82:DB:105:A:N6	2.66	0.43
83:DC:99:A:H2'	83:DC:100:A:H5'	2.00	0.43
1:Aa:33:LEU:HB2	1:Aa:47:LEU:HD11	2.01	0.43
1:Aa:260:ILE:HG23	1:Aa:274:LEU:HB2	1.99	0.43
5:AC:1:MET:HE2	78:CA:593:U:H3	1.83	0.43
11:Aj:85:ARG:HA	15:AN:52:PHE:N	2.29	0.43
12:AK:39:ILE:HD12	12:AK:79:VAL:HG21	1.99	0.43
12:AK:122:PRO:CG	78:CA:887:A:H5''	2.45	0.43
13:AL:1:MET:CG	13:AL:2:GLY:H	2.23	0.43
14:AM:41:ARG:HG2	20:AS:37:VAL:HB	2.01	0.43
16:AO:63:ALA:C	16:AO:66:ILE:HG12	2.44	0.43
27:Ab:1:UNK:C	78:CA:127:G:C3'	2.96	0.43
31:BB:175:VAL:HG21	81:DA:2179:C:H1'	2.01	0.43
31:BB:175:VAL:HG23	81:DA:2179:C:H1'	2.01	0.43
33:BD:334:PHE:HE2	81:DA:505:G:H5'	1.84	0.43
35:BG:64:LEU:HD21	35:BG:100:LYS:HE3	2.00	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BG:76:LEU:HD22	35:BG:100:LYS:HG2	2.01	0.43
36:BF:31:ARG:HH22	36:BF:133:THR:HG22	1.83	0.43
38:Bs:30:VAL:O	38:Bs:33:VAL:HG23	2.19	0.43
38:Bs:201:ILE:HD11	73:Bv:36:GLU:OE1	2.18	0.43
44:BO:53:PHE:CZ	81:DA:678:G:OP2	2.72	0.43
49:BV:114:VAL:HG11	49:BV:117:ILE:HD11	2.00	0.43
60:Bi:46:ASP:HA	81:DA:1639:C:N4	2.34	0.43
72:Bu:27:LEU:HA	72:Bu:30:THR:OG1	2.19	0.43
73:Bw:10:LEU:HG	73:Bw:25:ILE:CD1	2.49	0.43
74:BQ:158:ARG:O	74:BQ:159:VAL:C	2.61	0.43
74:BQ:241:THR:C	74:BQ:242:SER:O	2.60	0.43
74:BQ:242:SER:O	74:BQ:243:ALA:HB2	2.17	0.43
78:CA:1158:C:C5	78:CA:1582:U:C2	3.07	0.43
78:CA:1649:G:H3'	78:CA:1650:U:H4'	2.00	0.43
81:DA:2493:U:O2'	81:DA:2494:A:H5''	2.19	0.43
81:DA:2726:C:C2	81:DA:2729:U:C5	3.07	0.43
81:DA:2879:C:H2'	81:DA:2880:U:C6	2.54	0.43
81:DA:3214:U:H2'	81:DA:3215:A:N7	2.34	0.43
83:DC:31:U:C6	83:DC:31:U:H3'	2.54	0.43
16:AO:120:SER:O	16:AO:124:ARG:HG3	2.19	0.43
29:AU:18:LEU:HG	78:CA:155:U:H5''	2.01	0.43
31:BB:32:LEU:HD23	31:BB:32:LEU:H	1.84	0.43
31:BB:177:LYS:HE3	63:Bm:29:LEU:HB2	2.00	0.43
33:BD:346:LYS:HA	81:DA:577:C:C5'	2.44	0.43
35:BG:56:LYS:HB2	35:BG:64:LEU:HB3	2.01	0.43
35:BG:77:ARG:HG3	35:BG:79:VAL:HG22	2.01	0.43
37:BH:138:HIS:CE1	81:DA:146:U:C3'	3.02	0.43
37:BH:186:LEU:HD11	37:BH:199:ALA:HB3	2.01	0.43
46:BT:77:GLY:O	46:BT:81:ARG:HG3	2.18	0.43
47:BU:133:ALA:HB3	81:DA:1095:U:OP2	2.19	0.43
47:BU:141:VAL:HG21	81:DA:1067:U:H5	1.84	0.43
55:Bc:41:LEU:O	55:Bc:42:PRO:C	2.59	0.43
55:Bc:93:THR:HG23	55:Bc:94:LYS:N	2.27	0.43
58:Bg:49:VAL:HA	58:Bg:84:ASP:HB3	2.01	0.43
72:Bt:17:SER:CB	73:Bv:29:VAL:HG11	2.49	0.43
78:CA:163:G:H2'	78:CA:164:A:H5'	2.01	0.43
78:CA:1033:C:H2'	78:CA:1034:C:C6	2.54	0.43
78:CA:1213:G:H1	78:CA:1450:U:H3	1.65	0.43
81:DA:972:A:H2'	81:DA:973:A:C8	2.54	0.43
81:DA:2130:G:C2'	81:DA:2131:A:H5'	2.47	0.43
81:DA:2188:A:H2'	81:DA:2189:U:H5'	2.01	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:2420:C:H2'	81:DA:2421:U:C6	2.54	0.43
81:DA:2511:A:H2'	81:DA:2512:C:O5'	2.19	0.43
81:DA:2766:U:H3	81:DA:2792:A:H61	1.65	0.43
81:DA:3342:A:N1	81:DA:3364:C:H1'	2.33	0.43
83:DC:55:A:H2'	83:DC:56:G:H5'	2.00	0.43
83:DC:86:G:N2	83:DC:89:A:C8	2.86	0.43
4:AD:93:ASP:HB3	4:AD:94:ALA:C	2.44	0.42
4:AD:200:ARG:C	4:AD:201:HIS:CD2	2.97	0.42
19:AR:125:PRO:HG2	78:CA:1557:U:C2	2.53	0.42
25:AY:33:LEU:HD23	25:AY:33:LEU:HA	1.96	0.42
31:BB:221:LYS:HE2	81:DA:2417:U:H5''	2.01	0.42
32:BC:242:THR:HG22	81:DA:874:U:OP1	2.19	0.42
33:BD:30:ILE:HD11	33:BD:244:LEU:CD1	2.49	0.42
38:Bs:195:GLN:CD	73:Bv:35:ASP:HB3	2.44	0.42
43:BP:115:VAL:HG12	43:BP:117:ASN:H	1.84	0.42
48:BW:90:ARG:CB	48:BW:90:ARG:H	2.26	0.42
52:BY:90:VAL:HG22	81:DA:378:A:C1'	2.49	0.42
54:Bd:48:HIS:CE1	81:DA:2908:G:C5'	3.02	0.42
56:Bf:50:VAL:HG11	70:Bx:1:UNK:HA	2.00	0.42
57:Be:66:LYS:CD	76:BS:12:VAL:HG11	2.48	0.42
57:Be:159:GLN:CD	81:DA:1343:A:H2	2.25	0.42
74:BQ:39:GLN:CD	81:DA:2749:G:H4'	2.44	0.42
78:CA:172:C:O4'	78:CA:172:C:C6	2.72	0.42
78:CA:446:A:N6	78:CA:461:G:H21	2.16	0.42
78:CA:1191:U:C6	79:CB:34:G:H4'	2.53	0.42
78:CA:1347:U:H5	78:CA:1348:A:C5	2.37	0.42
78:CA:1352:G:C6	78:CA:1371:A:N6	2.86	0.42
78:CA:1604:U:H2'	78:CA:1605:G:C8	2.54	0.42
81:DA:1637:A:C2	81:DA:1711:C:O2	2.72	0.42
81:DA:3312:U:H2'	81:DA:3313:U:C6	2.54	0.42
81:DA:3375:A:H2'	81:DA:3380:U:H6	1.84	0.42
1:Aa:234:LEU:HG	1:Aa:251:TRP:CZ2	2.55	0.42
5:AC:39:LYS:HA	5:AC:39:LYS:CE	2.48	0.42
6:AE:5:GLU:CG	6:AE:6:ALA:H	2.32	0.42
6:AE:24:ARG:C	9:AH:68:ARG:O	2.62	0.42
10:AI:138:PHE:CE1	78:CA:1587:A:P	3.13	0.42
17:AQ:26:LEU:O	17:AQ:27:ASP:O	2.37	0.42
20:AS:53:TRP:CZ2	20:AS:100:ILE:HG21	2.53	0.42
31:BB:150:LEU:HD12	81:DA:2157:G:C2	2.54	0.42
37:BH:237:ILE:C	37:BH:238:LEU:HG	2.44	0.42
38:Bs:5:ARG:HB3	38:Bs:7:LYS:HA	2.00	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BJ:56:ILE:HB	81:DA:1239:C:OP2	2.19	0.42
42:BM:94:TYR:CD2	51:BZ:20:LEU:O	2.71	0.42
67:Bp:34:CYS:SG	67:Bp:44:GLN:O	2.77	0.42
69:Br:50:PHE:CZ	81:DA:43:A:H1'	2.54	0.42
72:Bt:27:LEU:HA	72:Bt:30:THR:OG1	2.19	0.42
78:CA:631:G:C6	78:CA:969:C:O2	2.72	0.42
78:CA:647:G:O5'	78:CA:647:G:C8	2.69	0.42
78:CA:874:C:H2'	78:CA:875:G:C8	2.54	0.42
78:CA:1174:C:C5	78:CA:1466:G:N2	2.87	0.42
78:CA:1264:G:H3'	78:CA:1264:G:H8	1.84	0.42
78:CA:1408:G:H2'	78:CA:1409:G:H3'	2.02	0.42
81:DA:597:G:C4	81:DA:607:A:C6	3.08	0.42
81:DA:1510:G:C2	81:DA:1879:A:N6	2.87	0.42
81:DA:1862:U:H3	81:DA:1868:G:H1	1.67	0.42
81:DA:1911:A:H2'	81:DA:1912:U:C6	2.54	0.42
81:DA:2301:U:H2'	81:DA:2302:G:H8	1.83	0.42
81:DA:3049:A:C2'	81:DA:3050:U:H5'	2.46	0.42
81:DA:3079:U:H4'	81:DA:3080:G:OP2	2.19	0.42
83:DC:52:U:O2'	83:DC:53:U:H5'	2.19	0.42
2:AA:73:VAL:O	2:AA:95:ALA:HB1	2.19	0.42
4:AD:183:VAL:HG22	4:AD:220:THR:HG21	2.01	0.42
4:AD:201:HIS:CD2	4:AD:206:ASP:OD2	2.71	0.42
10:AI:38:LEU:HD22	10:AI:75:VAL:O	2.19	0.42
14:AM:20:THR:O	34:BE:109:HIS:CE1	2.73	0.42
14:AM:22:VAL:HG13	34:BE:115:LYS:CD	2.41	0.42
15:AN:12:ARG:HE	15:AN:13:ARG:N	2.17	0.42
20:AS:89:ARG:NH2	78:CA:1601:G:OP1	2.52	0.42
29:AU:16:PRO:HG3	29:AU:93:ARG:N	2.35	0.42
31:BB:191:LEU:HD11	81:DA:1794:G:C4'	2.45	0.42
32:BC:60:LEU:HD21	32:BC:69:LYS:N	2.34	0.42
33:BD:162:THR:HG22	81:DA:210:U:OP2	2.20	0.42
33:BD:313:LEU:N	33:BD:313:LEU:HD23	2.27	0.42
35:BG:34:LEU:O	35:BG:35:VAL:HB	2.20	0.42
35:BG:99:GLU:HB2	35:BG:100:LYS:HB2	2.01	0.42
53:Ba:35:SER:N	53:Ba:58:GLY:H	2.17	0.42
53:Ba:55:LYS:O	53:Ba:55:LYS:HG2	2.19	0.42
56:Bf:13:LYS:HE2	56:Bf:13:LYS:HA	2.00	0.42
58:Bg:26:LYS:HE3	81:DA:1455:U:C5	2.54	0.42
59:Bh:68:PRO:HD2	81:DA:1401:A:O2'	2.19	0.42
65:Bn:42:LYS:HG3	65:Bn:42:LYS:O	2.19	0.42
72:Bt:20:GLU:HB2	72:Bt:25:LYS:HZ2	1.83	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:BQ:36:LEU:HD12	74:BQ:145:PHE:HD1	1.83	0.42
75:BL:18:UNK:CB	81:DA:798:G:C4'	2.97	0.42
78:CA:642:G:H21	78:CA:690:G:H22	1.67	0.42
78:CA:901:G:C6	78:CA:902:G:C5	3.07	0.42
78:CA:1160:A:H2'	78:CA:1161:C:C6	2.54	0.42
78:CA:1210:C:H2'	78:CA:1211:A:C8	2.54	0.42
78:CA:1409:G:N2	78:CA:1410:A:C6	2.87	0.42
78:CA:1576:A:N7	78:CA:1577:A:H1'	2.35	0.42
78:CA:1592:A:C2	78:CA:1605:G:C2	3.07	0.42
81:DA:242:C:O4'	81:DA:242:C:C6	2.72	0.42
81:DA:513:G:H2'	81:DA:514:G:C8	2.54	0.42
81:DA:966:U:H2'	81:DA:967:A:C8	2.54	0.42
81:DA:2841:G:H2'	81:DA:2844:C:H42	1.84	0.42
82:DB:55:U:C4	82:DB:56:G:N7	2.87	0.42
82:DB:101:U:H2'	82:DB:102:U:H6	1.84	0.42
83:DC:102:C:O4'	83:DC:102:C:N1	2.46	0.42
2:AA:103:THR:HA	2:AA:104:PRO:HD3	1.61	0.42
6:AE:168:ARG:O	6:AE:169:LEU:HG	2.20	0.42
6:AE:243:TYR:O	6:AE:244:SER:C	2.61	0.42
9:AH:69:LEU:HB3	9:AH:70:ASN:H	1.44	0.42
12:AK:39:ILE:HG21	12:AK:79:VAL:HG11	2.01	0.42
13:AL:9:LEU:HD13	18:AP:79:LYS:HZ1	1.84	0.42
14:AM:45:LEU:CD1	20:AS:35:ASP:HB3	2.49	0.42
16:AO:53:LEU:HD23	16:AO:63:ALA:HB2	2.01	0.42
20:AS:45:MET:O	20:AS:48:GLN:HG2	2.19	0.42
21:AT:43:GLY:N	21:AT:44:ARG:HG2	2.34	0.42
38:Bs:30:VAL:HG13	38:Bs:38:MET:HG3	2.01	0.42
38:Bs:220:ILE:HD13	72:Bt:9:TYR:CG	2.38	0.42
38:Bs:220:ILE:HG13	72:Bt:12:LEU:HD12	1.99	0.42
40:BK:186:ALA:O	40:BK:187:GLU:O	2.37	0.42
41:BN:12:TRP:CZ3	76:BS:165:LEU:HD23	2.53	0.42
61:Bj:2:ALA:O	61:Bj:3:GLU:CB	2.67	0.42
62:Bk:76:ARG:NH1	81:DA:2505:U:H5'	2.34	0.42
72:Bt:48:ALA:CA	73:Bw:37:LYS:HE2	2.49	0.42
78:CA:308:C:H5''	78:CA:309:C:OP1	2.19	0.42
78:CA:368:U:C4	78:CA:369:A:C6	3.07	0.42
78:CA:611:U:C4	78:CA:612:U:C4	3.08	0.42
78:CA:1303:U:C4	78:CA:1304:G:C2	3.08	0.42
78:CA:1548:G:H2'	78:CA:1549:C:H6	1.84	0.42
78:CA:1681:A:C2	78:CA:1721:A:H1'	2.54	0.42
81:DA:7:C:O4'	81:DA:7:C:C6	2.73	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:69:C:C2'	81:DA:70:A:H5'	2.49	0.42
81:DA:263:C:H2'	81:DA:264:G:H5''	2.01	0.42
81:DA:303:G:C2	81:DA:313:A:C2	3.07	0.42
81:DA:321:C:H2'	81:DA:322:U:C6	2.55	0.42
81:DA:749:C:H2'	81:DA:750:G:C8	2.55	0.42
81:DA:1679:A:OP1	81:DA:1757:A:H5''	2.20	0.42
81:DA:1858:A:H5''	81:DA:1859:A:H3'	2.01	0.42
81:DA:2210:G:C6	81:DA:2236:G:C2	3.07	0.42
81:DA:2291:A:C2	81:DA:2302:G:C6	3.07	0.42
81:DA:2916:U:OP2	81:DA:2916:U:H6	2.02	0.42
83:DC:103:U:H2'	83:DC:104:C:C6	2.55	0.42
4:AD:125:LYS:O	4:AD:141:THR:HA	2.20	0.42
10:AI:135:ARG:HH12	78:CA:1589:C:H41	1.65	0.42
12:AK:53:ASP:CB	78:CA:899:G:C5'	2.97	0.42
13:AL:15:LEU:CD2	78:CA:1105:C:OP2	2.67	0.42
14:AM:14:ILE:CD1	34:BE:109:HIS:NE2	2.69	0.42
14:AM:122:HIS:CD2	19:AR:130:ARG:CD	3.02	0.42
17:AQ:111:LYS:HD2	26:AZ:31:LYS:HG2	2.01	0.42
18:AP:59:PRO:CG	78:CA:326:G:H5''	2.48	0.42
26:AZ:24:THR:HA	26:AZ:28:LYS:HD2	2.01	0.42
32:BC:364:LYS:CG	51:BZ:17:ARG:CZ	2.97	0.42
35:BG:50:LYS:H	35:BG:118:GLU:HG3	1.84	0.42
41:BN:43:LYS:CB	76:BS:97:ARG:HH22	2.23	0.42
49:BV:22:LEU:HD13	49:BV:90:PHE:CG	2.55	0.42
54:Bd:50:THR:HG21	81:DA:1299:U:H4'	2.01	0.42
61:Bj:88:ASN:ND2	81:DA:630:A:H1'	2.35	0.42
63:Bm:17:ARG:CD	63:Bm:17:ARG:H	2.32	0.42
78:CA:30:G:H2'	78:CA:31:C:C6	2.55	0.42
78:CA:605:A:N1	78:CA:606:A:C5	2.88	0.42
78:CA:1190:C:C5'	78:CA:1190:C:C1'	2.98	0.42
80:CC:18:C:O4'	80:CC:18:C:N1	2.43	0.42
81:DA:68:C:N4	81:DA:315:C:H5'	2.34	0.42
81:DA:1050:U:O5'	81:DA:1050:U:H6	2.01	0.42
81:DA:1662:G:H2'	81:DA:1663:C:C5	2.55	0.42
81:DA:1679:A:C2	81:DA:1690:C:C2	3.07	0.42
81:DA:2164:A:C6	81:DA:2171:G:C2	3.07	0.42
81:DA:3213:A:H3'	81:DA:3214:U:C6	2.54	0.42
1:Aa:202:LEU:HD23	1:Aa:203:THR:N	2.35	0.42
3:AB:46:THR:OG1	3:AB:84:ILE:HD11	2.19	0.42
4:AD:133:LYS:O	4:AD:134:LYS:HB2	2.18	0.42
8:AF:123:VAL:HG22	22:AV:59:TYR:CD2	2.55	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AK:118:VAL:O	12:AK:119:THR:HG23	2.19	0.42
14:AM:13:HIS:O	34:BE:116:TYR:CE2	2.58	0.42
17:AQ:82:ASP:C	17:AQ:82:ASP:CG	2.87	0.42
18:AP:119:VAL:HG22	18:AP:120:GLY:H	1.85	0.42
19:AR:125:PRO:HG2	78:CA:1557:U:N3	2.35	0.42
20:AS:30:VAL:O	20:AS:30:VAL:HG23	2.20	0.42
29:AU:62:THR:O	29:AU:63:GLN:CG	2.67	0.42
30:BA:18:LYS:O	30:BA:20:SER:C	2.62	0.42
30:BA:77:ALA:O	30:BA:80:CYS:HB3	2.20	0.42
32:BC:32:PHE:CE2	32:BC:182:GLN:HB2	2.53	0.42
32:BC:167:ARG:HH11	32:BC:174:LYS:HB3	1.84	0.42
32:BC:173:GLN:HG3	32:BC:175:LYS:H	1.83	0.42
33:BD:73:ARG:O	81:DA:805:G:H4'	2.19	0.42
35:BG:35:VAL:HG13	35:BG:36:PRO:HD2	2.01	0.42
37:BH:190:VAL:HG11	37:BH:199:ALA:HB1	2.02	0.42
38:Bs:72:ASP:HB3	38:Bs:73:PHE:HB2	2.01	0.42
58:Bg:89:LEU:HD11	58:Bg:97:LEU:HD21	2.01	0.42
59:Bh:21:HIS:ND1	81:DA:637:C:C1'	2.82	0.42
60:Bi:94:LEU:HD13	60:Bi:114:LYS:HA	2.01	0.42
66:Bo:7:PHE:CD2	66:Bo:8:ARG:HD2	2.55	0.42
72:Bt:41:TRP:C	72:Bt:45:PHE:HE2	2.25	0.42
74:BQ:16:PHE:HB3	83:DC:14:U:C5'	2.49	0.42
74:BQ:158:ARG:H	74:BQ:158:ARG:HD2	1.85	0.42
78:CA:22:A:H61	78:CA:603:U:H3	1.68	0.42
78:CA:586:G:O2'	78:CA:587:C:C5'	2.68	0.42
78:CA:1165:G:N2	78:CA:1581:C:C2	2.87	0.42
81:DA:696:C:H2'	81:DA:697:A:C8	2.55	0.42
81:DA:1357:G:O2'	81:DA:1358:C:H5'	2.20	0.42
81:DA:1363:A:H2'	81:DA:1364:C:H6	1.84	0.42
81:DA:2253:G:N2	81:DA:2264:U:C2	2.88	0.42
81:DA:2734:A:H2'	81:DA:2735:U:H6	1.82	0.42
81:DA:3243:A:C4	81:DA:3244:A:C8	3.07	0.42
83:DC:102:C:O4'	83:DC:102:C:C6	2.72	0.42
1:Aa:58:VAL:H	10:AI:107:LYS:HD2	1.85	0.42
2:AA:58:VAL:HG11	6:AE:44:LEU:HD13	2.02	0.42
13:AL:39:LYS:HG3	13:AL:91:GLY:CA	2.49	0.42
14:AM:95:GLY:HA3	14:AM:98:TYR:CZ	2.54	0.42
14:AM:141:THR:HB	78:CA:1173:C:OP2	2.20	0.42
19:AR:58:LYS:HA	78:CA:1549:C:H3'	2.01	0.42
38:Bs:9:ALA:HB2	81:DA:1221:A:N1	2.34	0.42
38:Bs:55:LYS:HA	81:DA:1281:G:H5''	2.01	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BM:44:SER:HB2	81:DA:2916:U:O2'	2.19	0.42
45:BR:26:LEU:O	45:BR:30:VAL:HG22	2.20	0.42
55:Bc:90:ARG:O	55:Bc:93:THR:HG22	2.20	0.42
74:BQ:54:ARG:HH22	83:DC:4:U:H5'	1.84	0.42
78:CA:589:C:C2'	78:CA:590:C:H5'	2.50	0.42
78:CA:1086:A:OP1	78:CA:1086:A:C8	2.72	0.42
78:CA:1203:A:N3	78:CA:1556:A:C2	2.84	0.42
78:CA:1379:C:H5''	78:CA:1380:U:OP2	2.20	0.42
78:CA:1413:U:C5	78:CA:1415:U:H5''	2.53	0.42
78:CA:1534:G:H21	78:CA:1535:U:H3	1.68	0.42
81:DA:345:G:C6	81:DA:346:C:H5	2.37	0.42
81:DA:1245:A:C8	81:DA:1272:C:H5'	2.54	0.42
81:DA:1506:A:H4'	81:DA:1507:G:OP2	2.20	0.42
81:DA:1567:U:H2'	81:DA:1568:U:H5'	2.02	0.42
81:DA:1700:G:H22	81:DA:1746:U:H3	1.67	0.42
81:DA:1746:U:H3'	81:DA:1747:G:C8	2.54	0.42
81:DA:2174:G:O4'	81:DA:2176:U:H1'	2.19	0.42
81:DA:2450:G:C6	81:DA:2451:G:C5	3.08	0.42
81:DA:2506:U:H2'	81:DA:2507:C:C6	2.55	0.42
81:DA:2637:A:C2	81:DA:2639:G:H3'	2.54	0.42
81:DA:2648:G:C1'	81:DA:2648:G:O2'	2.61	0.42
81:DA:3106:A:C2'	81:DA:3107:U:H5'	2.50	0.42
4:AD:107:GLY:HA2	4:AD:189:LEU:CD1	2.50	0.42
6:AE:188:LEU:HD13	78:CA:1298:U:C2	2.41	0.42
29:AU:12:VAL:HG22	29:AU:23:PHE:HB2	2.01	0.42
29:AU:24:VAL:HG13	78:CA:163:G:O2'	2.19	0.42
32:BC:84:VAL:CG1	32:BC:162:VAL:HG13	2.50	0.42
33:BD:328:ASN:HD22	57:Be:165:ASP:CG	2.27	0.42
33:BD:334:PHE:CE2	81:DA:505:G:H5'	2.55	0.42
34:BE:143:ARG:HH22	74:BQ:52:VAL:HG23	1.84	0.42
35:BG:68:PRO:CB	35:BG:103:VAL:HA	2.50	0.42
36:BF:45:PHE:CE1	36:BF:53:ILE:HG12	2.55	0.42
38:Bs:220:ILE:HG23	72:Bt:8:SER:OG	2.19	0.42
44:BO:52:TYR:HA	45:BR:92:ARG:HG2	2.02	0.42
45:BR:45:ASN:HA	45:BR:48:VAL:HG12	2.02	0.42
47:BU:27:LEU:C	47:BU:27:LEU:HD22	2.45	0.42
53:Ba:11:ALA:HB2	53:Ba:57:HIS:CG	2.55	0.42
60:Bi:54:ILE:HA	60:Bi:72:VAL:CG2	2.50	0.42
61:Bj:18:ARG:HG2	81:DA:431:U:H5''	2.02	0.42
65:Bn:51:LEU:HD12	65:Bn:51:LEU:H	1.84	0.42
74:BQ:153:THR:HG21	81:DA:2746:A:C5	2.54	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:BQ:260:PHE:CD1	74:BQ:268:GLU:HB2	2.54	0.42
76:BS:61:LEU:HD22	76:BS:62:ALA:HB2	2.01	0.42
78:CA:297:U:H3'	78:CA:298:C:C6	2.55	0.42
78:CA:610:G:H2'	78:CA:614:C:C5	2.55	0.42
78:CA:893:U:O2	78:CA:919:A:N1	2.53	0.42
78:CA:1141:G:C6	78:CA:1142:A:C6	3.07	0.42
81:DA:997:A:H3'	81:DA:997:A:H8	1.85	0.42
81:DA:1261:G:C5'	81:DA:1262:G:OP1	2.68	0.42
81:DA:1396:C:O2'	81:DA:1397:C:H5'	2.20	0.42
81:DA:1405:U:C2'	81:DA:1406:A:H5'	2.49	0.42
81:DA:1510:G:N1	81:DA:1879:A:N6	2.68	0.42
81:DA:1575:A:H2'	81:DA:1576:G:OP2	2.19	0.42
81:DA:2206:G:N2	81:DA:2208:A:N6	2.53	0.42
81:DA:2465:G:C3'	81:DA:2466:G:C5'	2.97	0.42
81:DA:3375:A:H5'	81:DA:3375:A:C8	2.55	0.42
4:AD:188:ASN:OD1	78:CA:650:U:C5'	2.68	0.42
9:AH:102:VAL:CG1	9:AH:125:ILE:HG23	2.50	0.42
12:AK:22:SER:HA	12:AK:87:GLY:CA	2.50	0.42
14:AM:122:HIS:CG	14:AM:122:HIS:O	2.73	0.42
25:AY:23:GLY:O	25:AY:47:PRO:HG3	2.20	0.42
33:BD:100:PHE:HB2	33:BD:101:ALA:H	1.64	0.42
34:BE:55:ARG:HB3	81:DA:2678:A:H1'	2.02	0.42
34:BE:101:ASN:ND2	34:BE:128:TYR:CE2	2.88	0.42
35:BG:145:LEU:CD2	41:BN:113:THR:O	2.66	0.42
42:BM:15:LEU:H	42:BM:15:LEU:HG	1.63	0.42
47:BU:116:ARG:HH11	47:BU:116:ARG:HD2	1.60	0.42
52:BY:30:LEU:O	52:BY:101:PRO:HG3	2.20	0.42
57:Be:98:LYS:CA	57:Be:99:PRO:HD2	2.47	0.42
64:Bl:63:ARG:HB3	82:DB:42:G:OP2	2.20	0.42
65:Bn:44:LYS:HE3	65:Bn:54:LEU:HD11	2.02	0.42
72:Bt:19:ILE:CG2	72:Bt:25:LYS:HE2	2.43	0.42
72:Bt:42:ALA:HA	72:Bt:45:PHE:HD2	1.83	0.42
73:Bw:10:LEU:HD13	73:Bw:16:THR:HG22	2.01	0.42
78:CA:116:U:H2'	78:CA:117:U:OP2	2.19	0.42
78:CA:124:A:H2'	78:CA:125:U:C6	2.54	0.42
78:CA:547:U:H3	78:CA:591:A:H61	1.67	0.42
78:CA:852:C:H2'	78:CA:853:G:C8	2.55	0.42
78:CA:874:C:O4'	78:CA:874:C:C6	2.73	0.42
78:CA:1220:C:H2'	78:CA:1221:A:OP2	2.19	0.42
78:CA:1308:G:O6	78:CA:1318:G:C5	2.66	0.42
78:CA:1308:G:C2	78:CA:1318:G:C2	3.06	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:659:G:H2'	81:DA:1432:C:N4	2.34	0.42
81:DA:840:C:H2'	81:DA:841:A:H8	1.84	0.42
81:DA:1009:A:N6	81:DA:1043:C:H42	2.17	0.42
81:DA:1190:A:H3'	81:DA:1191:U:H5''	2.01	0.42
81:DA:1661:G:C2	81:DA:1789:G:C2	3.08	0.42
81:DA:1728:G:H4'	81:DA:1730:G:H1'	2.02	0.42
81:DA:1908:A:H3'	81:DA:1909:A:C8	2.55	0.42
81:DA:2462:A:H3'	81:DA:2463:G:H8	1.85	0.42
81:DA:2510:U:H2'	81:DA:2511:A:C8	2.55	0.42
81:DA:2684:C:H2'	81:DA:2685:C:H6	1.83	0.42
81:DA:2744:U:C4	81:DA:2745:G:C5	3.07	0.42
81:DA:3219:G:C3'	81:DA:3220:G:C8	3.03	0.42
13:AL:98:GLU:CG	78:CA:18:C:O2'	2.66	0.42
19:AR:58:LYS:HE3	78:CA:1549:C:N4	2.35	0.42
30:BA:19:TYR:HA	30:BA:206:VAL:HB	2.02	0.42
33:BD:138:ARG:O	81:DA:1384:U:H4'	2.20	0.42
35:BG:14:ASP:HB3	35:BG:15:VAL:H	1.48	0.42
38:Bs:243:TYR:CE2	73:Bw:8:LEU:HD22	2.55	0.42
47:BU:80:VAL:HG12	81:DA:2727:A:H62	1.84	0.42
69:Br:47:GLN:C	69:Br:47:GLN:HB2	2.41	0.42
73:Bv:15:ASN:HB2	73:Bv:21:LYS:NZ	2.35	0.42
76:BS:79:ILE:HG23	76:BS:81:LEU:HB2	2.02	0.42
78:CA:104:A:H2'	78:CA:106:U:C5	2.54	0.42
78:CA:342:C:H2'	78:CA:343:C:C6	2.55	0.42
78:CA:374:U:C5	78:CA:375:U:C5	3.07	0.42
78:CA:469:C:O4'	78:CA:469:C:C6	2.72	0.42
78:CA:936:G:O6	78:CA:937:C:N4	2.53	0.42
81:DA:82:C:H2'	81:DA:83:U:C6	2.55	0.42
81:DA:1005:G:H2'	81:DA:1006:A:OP2	2.19	0.42
81:DA:1115:G:O4'	81:DA:1115:G:N9	2.44	0.42
81:DA:1988:C:H2'	81:DA:1989:U:C6	2.54	0.42
81:DA:2102:U:H2'	81:DA:2103:U:C6	2.55	0.42
81:DA:2203:U:H3	81:DA:2239:G:H1	1.68	0.42
81:DA:2510:U:H2'	81:DA:2511:A:H8	1.85	0.42
81:DA:3325:G:C8	81:DA:3325:G:H3'	2.55	0.42
12:AK:22:SER:HA	12:AK:87:GLY:HA3	2.02	0.41
13:AL:1:MET:SD	78:CA:1101:G:OP1	2.78	0.41
13:AL:9:LEU:O	78:CA:632:U:C5'	2.67	0.41
14:AM:136:GLN:OE1	78:CA:1544:U:OP1	2.38	0.41
14:AM:143:ARG:HH21	78:CA:1171:A:P	2.43	0.41
17:AQ:107:SER:CB	26:AZ:28:LYS:HB3	2.50	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AP:91:LEU:HB3	18:AP:92:HIS:H	1.72	0.41
18:AP:109:VAL:H	18:AP:109:VAL:HG23	1.55	0.41
19:AR:130:ARG:HG3	78:CA:1558:U:H5'	2.01	0.41
31:BB:171:GLY:HA3	31:BB:174:ARG:NH1	2.35	0.41
33:BD:47:ARG:HB3	33:BD:47:ARG:HH11	1.85	0.41
35:BG:69:PHE:HE1	35:BG:100:LYS:CA	2.33	0.41
37:BH:143:ILE:HD11	37:BH:151:VAL:HG11	2.01	0.41
38:Bs:33:VAL:HG12	38:Bs:37:GLN:HB2	2.02	0.41
52:BY:95:VAL:HB	52:BY:96:PRO:HD2	2.02	0.41
53:Ba:23:VAL:HG21	53:Ba:43:VAL:HG11	2.02	0.41
56:Bf:62:LEU:HD21	60:Bi:31:ARG:C	2.37	0.41
72:Bt:14:LEU:CG	72:Bt:29:LEU:HD12	2.50	0.41
74:BQ:94:ASN:N	83:DC:48:U:OP2	2.53	0.41
78:CA:56:U:O4	78:CA:92:A:C5'	2.66	0.41
78:CA:1075:C:H2'	78:CA:1076:A:C8	2.54	0.41
78:CA:1340:U:H5''	78:CA:1341:A:OP1	2.19	0.41
81:DA:295:A:C6	81:DA:296:A:C6	3.07	0.41
81:DA:636:C:N4	81:DA:637:C:C5	2.88	0.41
81:DA:641:C:H42	81:DA:645:A:H8	1.68	0.41
81:DA:1001:G:N2	81:DA:1050:U:O2	2.44	0.41
81:DA:1633:C:C4	81:DA:1634:G:C6	3.08	0.41
81:DA:2171:G:C6	81:DA:2172:A:C5	3.08	0.41
83:DC:5:G:C5	83:DC:114:A:C2	3.07	0.41
3:AB:29:LEU:HD13	3:AB:32:GLU:OE1	2.20	0.41
4:AD:181:VAL:O	4:AD:192:ILE:HD13	2.20	0.41
10:AI:127:LYS:HZ2	78:CA:1584:G:H4'	1.83	0.41
13:AL:52:ILE:HG23	13:AL:53:VAL:H	1.84	0.41
18:AP:108:PRO:HB2	18:AP:109:VAL:H	1.32	0.41
19:AR:76:VAL:HA	19:AR:100:LYS:HE2	2.03	0.41
21:AT:53:TYR:HE2	23:AW:69:UNK:O	1.99	0.41
33:BD:162:THR:CG2	81:DA:209:A:C8	2.90	0.41
33:BD:305:ALA:O	33:BD:310:THR:HG21	2.20	0.41
35:BG:50:LYS:HD2	81:DA:3216:G:C8	2.54	0.41
38:Bs:124:VAL:CG1	38:Bs:125:ASN:N	2.83	0.41
38:Bs:243:TYR:CE1	73:Bw:54:ILE:HD13	2.55	0.41
42:BM:41:GLY:HA2	81:DA:2932:U:H5''	2.01	0.41
46:BT:121:HIS:NE2	81:DA:1718:G:H8	2.18	0.41
47:BU:8:ARG:HH21	81:DA:2757:U:H3'	1.84	0.41
52:BY:25:SER:HA	52:BY:28:ARG:HB2	2.02	0.41
60:Bi:79:SER:N	60:Bi:79:SER:CB	2.70	0.41
61:Bj:88:ASN:CG	81:DA:630:A:H1'	2.45	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:Bj:91:ALA:HB2	81:DA:429:U:O2'	2.20	0.41
63:Bm:41:PHE:CE1	63:Bm:62:LYS:HD2	2.55	0.41
66:Bo:13:MET:HE3	81:DA:1493:G:N7	2.35	0.41
76:BS:77:TYR:CE1	76:BS:101:LEU:HD13	2.55	0.41
76:BS:81:LEU:HD13	76:BS:82:ARG:N	2.35	0.41
77:BI:118:ALA:HB1	81:DA:2646:C:H5'	2.02	0.41
78:CA:231:U:C5	78:CA:232:U:C4	3.08	0.41
78:CA:929:A:C6	78:CA:930:A:C4	3.09	0.41
78:CA:932:U:O2	78:CA:932:U:O2'	2.37	0.41
78:CA:974:A:C6	78:CA:975:C:N4	2.88	0.41
78:CA:1161:C:C2	78:CA:1616:G:N2	2.82	0.41
78:CA:1791:A:O4'	78:CA:1791:A:N9	2.43	0.41
81:DA:342:A:OP2	82:DB:21:C:N4	2.54	0.41
81:DA:409:A:H2'	81:DA:410:U:O4'	2.19	0.41
81:DA:665:A:O4'	81:DA:665:A:C8	2.73	0.41
81:DA:838:G:H2'	81:DA:839:C:C5	2.55	0.41
81:DA:1008:U:O2'	81:DA:1009:A:H5''	2.20	0.41
81:DA:1333:C:O4'	81:DA:1333:C:C6	2.73	0.41
81:DA:1932:A:H2'	81:DA:1933:A:H5'	2.01	0.41
81:DA:2383:C:H2'	81:DA:2384:A:H8	1.86	0.41
81:DA:2783:U:H2'	81:DA:2784:G:C8	2.54	0.41
81:DA:3234:A:H3'	81:DA:3234:A:C8	2.55	0.41
1:Aa:156:VAL:HA	1:Aa:169:ILE:HG13	2.01	0.41
3:AB:35:SER:HA	3:AB:99:VAL:HG22	2.02	0.41
5:AC:1:MET:HB2	5:AC:2:PRO:HD3	2.03	0.41
8:AF:29:ILE:N	8:AF:30:PRO:HD2	2.36	0.41
10:AI:48:VAL:HG12	20:AS:8:ASP:HB2	2.03	0.41
10:AI:62:ASN:O	10:AI:65:ILE:HG13	2.20	0.41
13:AL:98:GLU:CD	78:CA:18:C:O2'	2.63	0.41
14:AM:125:ILE:HD13	14:AM:129:TRP:CH2	2.55	0.41
16:AO:65:VAL:HB	24:AX:52:THR:HG23	2.02	0.41
32:BC:358:TRP:CZ3	51:BZ:15:PRO:HB2	2.55	0.41
33:BD:313:LEU:HD23	33:BD:313:LEU:HA	1.67	0.41
35:BG:60:ASP:O	61:Bj:76:GLY:HA2	2.20	0.41
36:BF:129:ARG:NH1	81:DA:3126:C:C5'	2.83	0.41
37:BH:138:HIS:CD2	81:DA:147:U:P	3.12	0.41
38:Bs:229:TYR:OH	72:Bt:48:ALA:HB2	2.19	0.41
38:Bs:243:TYR:OH	73:Bw:54:ILE:CD1	2.68	0.41
47:BU:147:VAL:HB	47:BU:148:PRO:HD3	2.02	0.41
56:Bf:62:LEU:CD2	60:Bi:31:ARG:C	2.87	0.41
72:Bu:14:LEU:CG	72:Bu:29:LEU:HD12	2.50	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:BQ:158:ARG:CD	83:DC:46:A:H5''	2.48	0.41
74:BQ:256:THR:O	74:BQ:256:THR:HG22	2.20	0.41
76:BS:75:LYS:HG2	76:BS:130:THR:HG22	2.03	0.41
77:BI:108:ALA:HB1	77:BI:111:LEU:HG	2.02	0.41
78:CA:95:G:C2	78:CA:403:G:O6	2.73	0.41
78:CA:1142:A:H2'	78:CA:1143:A:C8	2.55	0.41
81:DA:896:A:C2	81:DA:913:A:C2	3.09	0.41
81:DA:959:C:H4'	81:DA:960:U:O5'	2.20	0.41
81:DA:1258:U:H4'	81:DA:1259:A:OP1	2.20	0.41
81:DA:1582:C:O4'	81:DA:1582:C:C6	2.72	0.41
81:DA:1783:U:H4'	81:DA:1784:G:OP1	2.20	0.41
81:DA:2166:A:OP1	81:DA:2166:A:C8	2.73	0.41
81:DA:2718:U:H3	81:DA:2738:A:H61	1.68	0.41
6:AE:188:LEU:HD11	78:CA:1298:U:H1'	2.01	0.41
7:AG:129:UNK:HA	78:CA:638:U:C2	2.55	0.41
10:AI:84:ALA:O	10:AI:85:ILE:HB	2.19	0.41
14:AM:144:ARG:HG3	78:CA:1570:A:C4'	2.51	0.41
16:AO:65:VAL:HG21	24:AX:52:THR:HG23	2.02	0.41
30:BA:19:TYR:O	30:BA:206:VAL:HG11	2.20	0.41
31:BB:245:LEU:HA	81:DA:2153:U:H5''	2.02	0.41
35:BG:136:GLU:HG2	41:BN:115:PHE:CB	2.49	0.41
36:BF:41:ILE:CD1	40:BK:130:LYS:O	2.68	0.41
36:BF:130:ASP:CG	36:BF:131:GLY:H	2.27	0.41
38:Bs:33:VAL:HG22	38:Bs:184:GLY:H	1.84	0.41
38:Bs:206:ASP:OD1	73:Bv:44:ALA:HA	2.21	0.41
38:Bs:242:ASN:CG	73:Bw:4:LEU:HB2	2.20	0.41
42:BM:59:MET:HG3	42:BM:75:PRO:HG3	2.03	0.41
52:BY:100:HIS:CG	52:BY:101:PRO:HD2	2.55	0.41
53:Ba:56:LYS:HE2	53:Ba:56:LYS:O	2.20	0.41
59:Bh:127:ALA:HB1	81:DA:1412:G:O3'	2.20	0.41
60:Bi:43:LYS:CA	60:Bi:50:ALA:HA	2.50	0.41
74:BQ:18:THR:HG23	74:BQ:19:PRO:HD2	2.02	0.41
77:BI:6:ALA:HB3	81:DA:2855:U:P	2.60	0.41
77:BI:106:ALA:N	77:BI:108:ALA:HB3	2.35	0.41
78:CA:16:G:H1'	78:CA:1139:A:H61	1.84	0.41
78:CA:220:A:H2	78:CA:836:U:O2	2.02	0.41
78:CA:483:A:H61	78:CA:504:U:H3	1.69	0.41
78:CA:851:U:C4	78:CA:852:C:N4	2.89	0.41
78:CA:1307:U:C2	78:CA:1319:A:C2	3.07	0.41
78:CA:1543:A:N6	78:CA:1567:U:C4	2.88	0.41
78:CA:1702:A:C1'	78:CA:1702:A:O2'	2.57	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:68:C:C5	81:DA:315:C:H5'	2.56	0.41
81:DA:372:A:C6	81:DA:373:A:C6	3.09	0.41
81:DA:799:G:C4	81:DA:801:A:C5	3.07	0.41
81:DA:1727:G:H2'	81:DA:1728:G:C8	2.55	0.41
81:DA:1891:A:H61	81:DA:2344:U:H3	1.68	0.41
81:DA:1954:G:C8	81:DA:1955:U:C5	3.08	0.41
81:DA:1955:U:H3'	81:DA:1955:U:C6	2.55	0.41
81:DA:2144:A:C4	81:DA:2281:A:N1	2.88	0.41
81:DA:2217:U:O2	81:DA:2229:A:C5	2.74	0.41
81:DA:2345:A:C2	81:DA:2346:C:C2	3.08	0.41
81:DA:2413:A:H2'	81:DA:2414:G:C8	2.55	0.41
81:DA:2462:A:H3'	81:DA:2463:G:C8	2.55	0.41
81:DA:2591:A:H2'	81:DA:2592:G:C8	2.56	0.41
81:DA:2677:G:N7	81:DA:2679:A:N6	2.68	0.41
81:DA:2961:G:C5	81:DA:2962:U:C5	3.08	0.41
81:DA:3296:A:H2'	81:DA:3297:U:C6	2.55	0.41
8:AF:99:MET:HE1	78:CA:1611:A:O2'	2.21	0.41
8:AF:99:MET:HE3	8:AF:99:MET:HB2	1.76	0.41
18:AP:86:ILE:HD13	18:AP:86:ILE:HG21	1.89	0.41
20:AS:78:LYS:O	78:CA:1524:A:H5''	2.20	0.41
31:BB:11:GLY:O	81:DA:2163:C:O2	2.37	0.41
33:BD:39:PHE:CB	33:BD:242:ALA:HB2	2.50	0.41
33:BD:181:VAL:O	33:BD:181:VAL:HG12	2.21	0.41
41:BN:38:ILE:CD1	76:BS:154:VAL:HG13	2.51	0.41
42:BM:37:ILE:HG22	81:DA:2295:A:C5	2.55	0.41
42:BM:40:LYS:HA	81:DA:2931:C:O3'	2.21	0.41
45:BR:3:ILE:HD12	57:Be:100:ARG:HH22	1.84	0.41
46:BT:14:VAL:HG23	46:BT:38:ARG:HD2	2.02	0.41
47:BU:26:HIS:CD2	47:BU:26:HIS:N	2.89	0.41
47:BU:113:ALA:HA	47:BU:116:ARG:HD3	2.03	0.41
48:BW:81:LYS:CD	81:DA:1688:U:C5	3.03	0.41
49:BV:69:ARG:HB3	49:BV:79:THR:O	2.21	0.41
49:BV:151:THR:HG23	49:BV:154:GLU:HG2	2.01	0.41
58:Bg:20:LEU:HG	58:Bg:28:ARG:HG2	2.03	0.41
59:Bh:71:HIS:CD2	59:Bh:119:VAL:HG21	2.56	0.41
61:Bj:80:VAL:H	61:Bj:80:VAL:HG23	1.60	0.41
65:Bn:25:VAL:HG12	65:Bn:43:PHE:HA	2.02	0.41
74:BQ:53:VAL:HG12	83:DC:27:A:H5''	2.01	0.41
76:BS:120:PHE:O	76:BS:122:CYS:N	2.54	0.41
77:BI:34:TYR:CZ	77:BI:92:HIS:CD2	3.09	0.41
78:CA:901:G:C6	78:CA:902:G:C4	3.08	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:CA:1001:A:OP1	79:CB:39:G:H5'	2.20	0.41
78:CA:1174:C:N4	78:CA:1466:G:N1	2.68	0.41
78:CA:1346:A:C2	78:CA:1347:U:O4	2.74	0.41
78:CA:1658:G:H2'	78:CA:1659:A:C8	2.56	0.41
81:DA:916:G:N7	81:DA:924:G:C5	2.88	0.41
81:DA:1008:U:H4'	81:DA:1009:A:OP1	2.21	0.41
81:DA:1339:C:H2'	81:DA:1340:G:H8	1.85	0.41
81:DA:1444:G:H2'	81:DA:1445:U:O4'	2.21	0.41
81:DA:1757:A:H2'	81:DA:1758:G:C8	2.56	0.41
81:DA:2492:C:C2'	81:DA:2493:U:O5'	2.69	0.41
81:DA:2616:C:C5	81:DA:2617:U:C4	3.09	0.41
81:DA:2625:C:O4'	81:DA:2625:C:C6	2.73	0.41
81:DA:3090:U:O2'	81:DA:3091:A:P	2.79	0.41
81:DA:3368:U:H4'	81:DA:3369:G:H5'	2.03	0.41
81:DA:3380:U:H2'	81:DA:3381:U:C6	2.55	0.41
83:DC:27:A:O4'	83:DC:27:A:C8	2.72	0.41
1:Aa:240:VAL:CG2	1:Aa:256:THR:H	2.34	0.41
2:AA:195:TRP:CE3	2:AA:195:TRP:HA	2.55	0.41
6:AE:198:THR:HG23	78:CA:2:A:H2	1.85	0.41
7:AG:130:UNK:O	78:CA:636:A:N1	2.53	0.41
10:AI:90:VAL:H	10:AI:90:VAL:HG23	1.49	0.41
14:AM:116:LEU:CD1	78:CA:1547:A:P	3.08	0.41
21:AT:44:ARG:HA	21:AT:45:ALA:HB2	2.03	0.41
31:BB:193:ARG:CZ	81:DA:2174:G:O3'	2.69	0.41
32:BC:93:VAL:H	32:BC:93:VAL:HG12	1.53	0.41
34:BE:50:ALA:HB2	34:BE:65:ILE:HD12	2.01	0.41
35:BG:52:VAL:CG1	81:DA:3217:C:H5'	2.50	0.41
35:BG:76:LEU:HB3	35:BG:100:LYS:HD3	2.03	0.41
42:BM:40:LYS:HD3	81:DA:2931:C:H5'	2.01	0.41
45:BR:38:ARG:HH22	81:DA:1347:U:H5	1.69	0.41
49:BV:29:THR:HG23	49:BV:119:VAL:HG11	2.02	0.41
51:BZ:4:GLU:HB3	51:BZ:13:ILE:HB	2.02	0.41
62:Bk:28:TYR:CD2	62:Bk:28:TYR:N	2.89	0.41
74:BQ:36:LEU:HD12	74:BQ:145:PHE:CD1	2.55	0.41
74:BQ:95:TRP:CZ2	83:DC:46:A:H4'	2.55	0.41
74:BQ:158:ARG:HD2	83:DC:46:A:C5'	2.50	0.41
74:BQ:267:ALA:O	74:BQ:271:LYS:HG2	2.21	0.41
77:BI:88:ARG:HD3	81:DA:1046:A:H1'	2.02	0.41
78:CA:1621:U:H2'	78:CA:1622:G:H8	1.86	0.41
81:DA:1002:A:N1	81:DA:1049:C:N3	2.68	0.41
81:DA:1393:A:H4'	81:DA:1420:C:H4'	2.03	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:1688:U:O4'	81:DA:1688:U:H6	1.98	0.41
81:DA:2478:C:N4	81:DA:2479:C:C5	2.89	0.41
81:DA:2603:G:H2'	81:DA:2604:U:C6	2.56	0.41
82:DB:128:U:H3'	82:DB:129:C:C6	2.56	0.41
3:AB:34:TYR:HB3	3:AB:52:ALA:HB2	2.03	0.41
5:AC:23:ARG:HE	78:CA:554:C:H5'	1.85	0.41
8:AF:33:VAL:HG11	8:AF:39:GLU:CD	2.45	0.41
8:AF:146:THR:CG2	8:AF:221:ALA:HA	2.50	0.41
12:AK:65:GLN:O	12:AK:68:ALA:HB3	2.21	0.41
12:AK:96:PRO:HD2	12:AK:99:GLN:HB2	2.02	0.41
13:AL:1:MET:HG3	13:AL:2:GLY:H	1.85	0.41
14:AM:22:VAL:HG22	34:BE:115:LYS:HD3	2.02	0.41
29:AU:16:PRO:HD3	29:AU:92:VAL:HG13	2.02	0.41
32:BC:17:LEU:HD12	32:BC:17:LEU:HA	1.79	0.41
32:BC:237:LYS:HE3	81:DA:2340:U:C6	2.56	0.41
33:BD:47:ARG:HD3	81:DA:338:A:C8	2.56	0.41
33:BD:305:ALA:C	33:BD:310:THR:HG21	2.45	0.41
34:BE:29:ARG:HG2	34:BE:32:ARG:H	1.86	0.41
38:Bs:222:SER:CB	72:Bt:61:PHE:CE2	3.04	0.41
40:BK:197:LEU:HD23	41:BN:124:ARG:HH12	1.84	0.41
43:BP:44:ARG:HD3	43:BP:121:VAL:HG12	2.03	0.41
43:BP:112:ASN:HD21	43:BP:138:GLN:NE2	2.18	0.41
45:BR:15:HIS:O	45:BR:16:ARG:CB	2.69	0.41
60:Bi:44:CYS:O	60:Bi:45:GLY:C	2.61	0.41
61:Bj:18:ARG:CZ	81:DA:431:U:OP1	2.69	0.41
61:Bj:66:VAL:HG21	81:DA:1178:G:H5''	2.02	0.41
66:Bo:20:ASN:HD21	66:Bo:49:MET:HE1	1.85	0.41
73:Bv:10:LEU:HD13	73:Bv:16:THR:HG22	2.02	0.41
73:Bv:26:LEU:HB2	73:Bv:33:ILE:HD11	2.03	0.41
74:BQ:3:PHE:C	74:BQ:5:LYS:H	2.28	0.41
74:BQ:5:LYS:HD2	81:DA:2687:G:H5''	2.03	0.41
78:CA:8:U:O4	78:CA:15:U:O4	2.39	0.41
78:CA:294:C:O4'	78:CA:294:C:C6	2.73	0.41
78:CA:375:U:N3	78:CA:376:C:C4	2.88	0.41
78:CA:1094:G:N2	78:CA:1095:U:H1'	2.35	0.41
78:CA:1327:C:H2'	78:CA:1328:G:C8	2.56	0.41
78:CA:1551:U:H2'	78:CA:1552:U:C6	2.56	0.41
79:CB:66:C:H2'	79:CB:67:G:C8	2.55	0.41
81:DA:375:A:H3'	81:DA:376:G:H5''	2.02	0.41
81:DA:498:A:H61	81:DA:615:U:H3	1.69	0.41
81:DA:1783:U:H2'	81:DA:1784:G:H8	1.81	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:1927:G:C2	81:DA:1928:G:C8	3.08	0.41
81:DA:2163:C:N3	81:DA:2172:A:C2	2.89	0.41
81:DA:2444:C:H2'	81:DA:2445:A:OP2	2.20	0.41
81:DA:3047:U:O3'	81:DA:3048:A:H8	2.04	0.41
83:DC:8:G:H2'	83:DC:9:C:C6	2.56	0.41
83:DC:31:U:C6	83:DC:31:U:C3'	3.04	0.41
1:Aa:74:THR:HG22	1:Aa:79:TYR:O	2.21	0.41
2:AA:213:GLN:HB3	2:AA:216:GLU:HB3	2.03	0.41
3:AB:158:ILE:HG21	3:AB:162:GLN:HB2	2.02	0.41
6:AE:109:GLY:C	6:AE:110:HIS:CD2	2.99	0.41
6:AE:125:ILE:H	78:CA:1146:G:H4'	1.86	0.41
14:AM:118:LYS:O	19:AR:116:LEU:HD13	2.21	0.41
14:AM:139:LYS:H	14:AM:139:LYS:HD2	1.85	0.41
19:AR:124:THR:N	19:AR:125:PRO:HD2	2.36	0.41
22:AV:71:ILE:HG13	22:AV:75:LEU:HD12	2.02	0.41
31:BB:38:HIS:CD2	31:BB:38:HIS:H	2.10	0.41
32:BC:101:SER:O	81:DA:3147:G:H4'	2.21	0.41
32:BC:103:THR:HB	32:BC:147:GLU:HB3	2.01	0.41
32:BC:119:TYR:CE2	32:BC:174:LYS:NZ	2.89	0.41
32:BC:120:LYS:CG	81:DA:3313:U:OP2	2.69	0.41
34:BE:114:ILE:HG21	34:BE:117:ASP:HB2	2.02	0.41
34:BE:130:VAL:HG21	81:DA:2684:C:OP1	2.21	0.41
35:BG:21:THR:O	81:DA:503:C:C4'	2.64	0.41
38:Bs:9:ALA:HB2	81:DA:1221:A:C2	2.56	0.41
38:Bs:229:TYR:OH	72:Bt:44:ILE:HG23	2.16	0.41
42:BM:56:ASP:O	42:BM:77:ILE:HA	2.21	0.41
45:BR:13:SER:CB	81:DA:1342:C:H5''	2.51	0.41
45:BR:15:HIS:CE1	45:BR:54:LEU:N	2.89	0.41
53:Ba:75:VAL:HG11	56:Bf:51:LEU:HA	2.02	0.41
57:Be:71:ALA:O	76:BS:28:ARG:HD3	2.21	0.41
59:Bh:76:VAL:HG11	59:Bh:94:ALA:HB1	2.03	0.41
61:Bj:20:LYS:C	61:Bj:21:ARG:O	2.63	0.41
67:Bp:24:TYR:HB2	81:DA:1486:G:H1'	2.03	0.41
69:Br:97:LYS:HD3	69:Br:97:LYS:HA	1.98	0.41
72:Bu:58:LEU:C	72:Bu:61:PHE:CE2	2.99	0.41
74:BQ:128:GLU:O	74:BQ:128:GLU:HB2	2.08	0.41
74:BQ:228:ALA:HA	74:BQ:231:ILE:HG12	2.02	0.41
76:BS:54:LYS:HB3	76:BS:57:ASN:H	1.85	0.41
78:CA:991:G:H1'	78:CA:1014:G:N2	2.35	0.41
78:CA:1076:A:H2'	78:CA:1077:C:C6	2.56	0.41
78:CA:1437:U:H2'	78:CA:1438:G:H5'	2.03	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:CB:54:U:C2	79:CB:56:A:OP2	2.73	0.41
81:DA:169:U:N1	81:DA:169:U:H2'	2.31	0.41
81:DA:290:G:H2'	81:DA:291:C:C6	2.56	0.41
81:DA:410:U:H2'	81:DA:411:U:C6	2.55	0.41
81:DA:1059:G:H2'	81:DA:1060:U:H4'	2.02	0.41
81:DA:1256:G:H3'	81:DA:1257:C:C6	2.56	0.41
81:DA:1633:C:H3'	81:DA:1634:G:C8	2.56	0.41
81:DA:1647:A:N6	81:DA:1808:G:H1'	2.31	0.41
81:DA:1784:G:H2'	81:DA:1785:U:C5'	2.51	0.41
81:DA:2367:A:C2	81:DA:2368:A:C4	3.09	0.41
81:DA:3141:A:H4'	81:DA:3142:A:OP1	2.20	0.41
81:DA:3257:C:C4	81:DA:3258:U:C4	3.09	0.41
82:DB:93:U:H2'	82:DB:95:G:C4	2.56	0.41
1:Aa:200:ASN:OD1	1:Aa:216:LYS:HB2	2.20	0.41
3:AB:156:PHE:HA	78:CA:1327:C:OP1	2.20	0.41
4:AD:183:VAL:HG12	4:AD:189:LEU:HA	2.03	0.41
6:AE:150:GLN:HB2	6:AE:156:THR:HB	2.03	0.41
8:AF:43:PHE:CD1	8:AF:115:LYS:HG2	2.56	0.41
10:AI:86:ALA:CB	78:CA:1609:U:OP1	2.69	0.41
12:AK:29:HIS:NE2	78:CA:918:U:C5'	2.82	0.41
13:AL:99:ASN:HB3	78:CA:1136:U:OP2	2.21	0.41
17:AQ:92:ASP:C	17:AQ:93:LEU:O	2.58	0.41
20:AS:65:ILE:HG21	20:AS:124:ILE:HD13	2.03	0.41
20:AS:85:SER:HB2	78:CA:1591:C:OP2	2.20	0.41
33:BD:26:PHE:CE2	33:BD:126:ILE:HG22	2.56	0.41
33:BD:329:PRO:CG	81:DA:506:U:OP1	2.69	0.41
35:BG:46:ARG:CG	81:DA:3215:A:N6	2.84	0.41
35:BG:102:ASN:OD1	35:BG:106:PHE:CG	2.74	0.41
38:Bs:33:VAL:HG22	38:Bs:184:GLY:N	2.36	0.41
38:Bs:39:HIS:HB3	39:BJ:121:PHE:CE1	2.56	0.41
39:BJ:26:ALA:O	39:BJ:30:PRO:HD2	2.21	0.41
45:BR:71:LEU:HD21	45:BR:79:LYS:HB2	2.03	0.41
46:BT:134:HIS:HB2	46:BT:137:ALA:H	1.86	0.41
47:BU:141:VAL:HG21	81:DA:1067:U:C5	2.55	0.41
49:BV:31:GLU:HG3	49:BV:60:PHE:CD2	2.56	0.41
51:BZ:51:TRP:N	51:BZ:53:VAL:HG13	2.33	0.41
53:Ba:14:VAL:O	53:Ba:15:ARG:HB2	2.21	0.41
56:Bf:50:VAL:CB	70:Bx:1:UNK:HA	2.51	0.41
57:Be:174:GLY:HA3	57:Be:179:LEU:HD11	2.01	0.41
59:Bh:37:GLY:H	81:DA:639:G:C5'	2.34	0.41
59:Bh:49:ASN:O	59:Bh:50:ILE:HB	2.21	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:Bi:4:ARG:HD3	81:DA:1630:U:OP1	2.21	0.41
63:Bm:19:GLY:HA3	81:DA:2189:U:H4'	2.03	0.41
65:Bn:73:LEU:CB	81:DA:1751:G:N7	2.51	0.41
72:Bt:13:ILE:HD11	73:Bv:6:ALA:CA	2.48	0.41
73:Bw:26:LEU:HB2	73:Bw:33:ILE:HD11	2.02	0.41
74:BQ:94:ASN:HB3	83:DC:47:C:H5''	2.03	0.41
74:BQ:112:ARG:HG3	74:BQ:112:ARG:NH1	2.36	0.41
74:BQ:261:THR:CB	74:BQ:266:ALA:HB2	2.50	0.41
78:CA:97:C:H2'	78:CA:98:U:C6	2.56	0.41
78:CA:152:U:H3	78:CA:162:A:H61	1.69	0.41
78:CA:202:A:H2'	78:CA:203:U:C6	2.56	0.41
78:CA:473:A:H2'	78:CA:474:A:C8	2.56	0.41
78:CA:1190:C:H6	78:CA:1190:C:H5''	1.85	0.41
78:CA:1500:C:C5	78:CA:1501:C:C5	3.09	0.41
78:CA:1667:A:H4'	81:DA:1936:A:C5'	2.50	0.41
79:CB:67:G:C2'	79:CB:68:C:H5''	2.51	0.41
81:DA:598:A:C2	81:DA:606:C:C2	3.09	0.41
81:DA:664:U:O2'	81:DA:665:A:H5'	2.21	0.41
81:DA:1002:A:C2	81:DA:1049:C:N3	2.89	0.41
81:DA:1004:U:C5	81:DA:1005:G:C4	3.09	0.41
81:DA:1020:G:H1	81:DA:1034:U:H3	1.69	0.41
81:DA:1222:G:H1'	81:DA:1286:A:H62	1.85	0.41
81:DA:1397:C:O4'	81:DA:1397:C:C6	2.73	0.41
81:DA:1658:G:H2'	81:DA:1659:U:C6	2.56	0.41
81:DA:1852:G:H2'	81:DA:1853:U:C6	2.56	0.41
81:DA:1975:C:O4'	81:DA:1975:C:C6	2.74	0.41
81:DA:2386:A:N6	81:DA:2993:G:H1'	2.36	0.41
81:DA:2897:A:N7	81:DA:2899:C:C6	2.89	0.41
81:DA:3321:C:H2'	81:DA:3322:A:C8	2.55	0.41
83:DC:29:C:N3	83:DC:30:G:N7	2.68	0.41
6:AE:18:ASN:O	6:AE:22:PRO:HD2	2.21	0.41
8:AF:147:THR:OG1	8:AF:160:VAL:HG21	2.21	0.41
14:AM:44:ASN:HB3	20:AS:44:GLU:HB3	2.03	0.41
14:AM:101:LEU:HD22	78:CA:1566:U:H5''	2.01	0.41
16:AO:114:ARG:NH2	78:CA:941:A:N7	2.68	0.41
22:AV:104:ALA:C	22:AV:105:THR:CB	2.94	0.41
31:BB:128:ARG:NH2	81:DA:2157:G:N2	2.69	0.41
32:BC:43:LEU:HD11	32:BC:203:VAL:HG11	2.02	0.41
33:BD:46:LYS:HE3	81:DA:691:A:C2	2.56	0.41
33:BD:343:LYS:NZ	81:DA:598:A:H4'	2.36	0.41
34:BE:22:SER:HB3	81:DA:2680:A:H62	1.86	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BF:16:VAL:HG12	36:BF:18:VAL:HG23	2.02	0.41
36:BF:121:LYS:HE3	81:DA:3035:A:N3	2.36	0.41
38:Bs:218:SER:O	38:Bs:222:SER:HB3	2.22	0.41
40:BK:3:VAL:HG12	40:BK:4:GLU:N	2.30	0.41
40:BK:15:LEU:HD23	40:BK:15:LEU:HA	1.96	0.41
44:BO:62:HIS:O	75:BL:146:UNK:CB	2.69	0.41
57:Be:168:ILE:HD13	57:Be:168:ILE:HA	1.93	0.41
59:Bh:101:SER:HA	81:DA:1392:G:OP1	2.21	0.41
72:Bu:29:LEU:HD21	73:Bw:29:VAL:HA	2.03	0.41
76:BS:107:GLN:HA	76:BS:110:THR:HG22	2.03	0.41
78:CA:16:G:H21	78:CA:1138:A:H62	1.68	0.41
78:CA:145:A:N1	78:CA:169:A:N7	2.69	0.41
78:CA:297:U:H3'	78:CA:298:C:C5	2.56	0.41
78:CA:1092:A:N3	78:CA:1092:A:O5'	2.54	0.41
78:CA:1171:A:N3	78:CA:1469:A:C2	2.89	0.41
81:DA:32:U:C4	81:DA:33:G:C5	3.10	0.41
81:DA:199:A:C2	81:DA:219:A:C2	3.09	0.41
81:DA:2203:U:H2'	81:DA:2204:C:H6	1.85	0.41
81:DA:2508:U:H5''	81:DA:2508:U:C6	2.49	0.41
81:DA:2612:U:C1'	81:DA:2803:A:H2	2.07	0.41
81:DA:3364:C:H2'	81:DA:3365:U:C6	2.56	0.41
83:DC:41:G:H1'	83:DC:44:C:H42	1.86	0.41
1:Aa:207:ASP:HB2	1:Aa:209:THR:HG22	2.03	0.40
1:Aa:302:PHE:CZ	1:Aa:310:ILE:HG21	2.56	0.40
2:AA:159:ALA:HB3	6:AE:32:GLU:HG3	2.03	0.40
13:AL:6:PRO:HG2	13:AL:8:GLY:H	1.86	0.40
13:AL:98:GLU:OE1	78:CA:18:C:O3'	2.38	0.40
20:AS:15:ILE:HD13	20:AS:56:LYS:HG2	2.03	0.40
22:AV:94:LYS:HG2	22:AV:95:HIS:H	1.85	0.40
29:AU:17:LEU:HD21	78:CA:419:G:H4'	2.03	0.40
30:BA:40:ASN:HD21	30:BA:188:ASN:HD22	1.68	0.40
31:BB:221:LYS:O	81:DA:2245:C:H4'	2.21	0.40
34:BE:110:ILE:HD12	34:BE:111:ASP:OD1	2.19	0.40
37:BH:138:HIS:CE1	81:DA:146:U:O3'	2.74	0.40
42:BM:117:PRO:HG3	51:BZ:22:VAL:CG2	2.51	0.40
43:BP:13:LYS:HD2	62:Bk:84:LYS:HE3	2.03	0.40
43:BP:50:ARG:CZ	81:DA:114:A:C2	3.05	0.40
49:BV:4:TYR:CE1	49:BV:147:GLU:HB2	2.56	0.40
53:Ba:8:GLY:CA	53:Ba:9:LYS:CG	2.97	0.40
53:Ba:13:VAL:HG12	53:Ba:14:VAL:HG23	2.03	0.40
59:Bh:21:HIS:HB2	81:DA:637:C:H4'	2.02	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:Bh:21:HIS:CD2	59:Bh:24:ARG:HD2	2.56	0.40
67:Bp:41:HIS:HB2	81:DA:1696:A:H5''	2.01	0.40
72:Bt:9:TYR:C	73:Bv:9:LEU:HD11	2.46	0.40
72:Bt:59:VAL:O	72:Bt:59:VAL:HG12	2.22	0.40
72:Bu:13:ILE:HD13	73:Bw:6:ALA:CA	2.47	0.40
74:BQ:130:GLU:HB3	74:BQ:183:TRP:CD1	2.56	0.40
76:BS:74:ILE:CG2	76:BS:145:HIS:HE1	2.35	0.40
78:CA:1196:A:C6	78:CA:1601:G:H4'	2.55	0.40
81:DA:283:G:C6	81:DA:285:A:C2	3.09	0.40
81:DA:1043:C:C5	81:DA:1044:U:C5	3.09	0.40
81:DA:1233:G:H1'	81:DA:1256:G:N2	2.36	0.40
81:DA:1509:A:H62	81:DA:1879:A:H62	1.69	0.40
81:DA:1768:U:H2'	81:DA:1769:G:C8	2.56	0.40
81:DA:2133:U:O4	81:DA:2147:A:H2	2.04	0.40
81:DA:2300:G:C6	81:DA:2301:U:C4	3.09	0.40
81:DA:2678:A:N6	81:DA:2679:A:C6	2.89	0.40
81:DA:3094:A:O4'	81:DA:3094:A:C8	2.73	0.40
82:DB:37:A:H5'	82:DB:37:A:C8	2.56	0.40
82:DB:45:C:O4'	82:DB:45:C:C6	2.72	0.40
83:DC:3:U:H3'	83:DC:3:U:C6	2.56	0.40
83:DC:23:A:O2'	83:DC:24:A:C4'	2.69	0.40
83:DC:23:A:O2'	83:DC:24:A:H4'	2.21	0.40
83:DC:79:U:H2'	83:DC:80:G:C8	2.56	0.40
83:DC:107:G:H3'	83:DC:107:G:C8	2.56	0.40
2:AA:144:ILE:HG22	2:AA:158:VAL:HG12	2.03	0.40
2:AA:227:GLU:H	2:AA:229:LYS:HD2	1.86	0.40
12:AK:72:LYS:HZ2	12:AK:105:LEU:CA	2.34	0.40
13:AL:8:GLY:O	13:AL:9:LEU:CG	2.69	0.40
14:AM:22:VAL:CG1	34:BE:115:LYS:HD2	2.40	0.40
29:AU:7:ILE:HG23	29:AU:25:VAL:CG2	2.52	0.40
31:BB:142:ASP:HB3	31:BB:145:LYS:H	1.85	0.40
32:BC:32:PHE:CD1	32:BC:44:THR:HG21	2.56	0.40
32:BC:119:TYR:CE2	32:BC:125:SER:CB	3.04	0.40
32:BC:174:LYS:NZ	81:DA:3314:A:OP2	2.54	0.40
34:BE:110:ILE:C	34:BE:110:ILE:HD12	2.47	0.40
34:BE:140:ARG:HH22	81:DA:2684:C:H5''	1.86	0.40
41:BN:12:TRP:CB	76:BS:165:LEU:HB2	2.51	0.40
41:BN:116:GLU:HA	41:BN:119:GLN:NE2	2.36	0.40
45:BR:13:SER:HA	45:BR:14:GLY:HA3	1.73	0.40
47:BU:116:ARG:NE	81:DA:1095:U:C4'	2.82	0.40
49:BV:132:ALA:HB1	81:DA:880:G:C8	2.55	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:Ba:9:LYS:HB3	53:Ba:34:LYS:HE2	2.02	0.40
67:Bp:41:HIS:HB3	81:DA:1695:U:C4'	2.50	0.40
78:CA:305:C:O4'	78:CA:305:C:C6	2.74	0.40
78:CA:1336:A:H3'	78:CA:1337:A:H5''	2.02	0.40
78:CA:1398:U:O2	78:CA:1398:U:O4'	2.36	0.40
78:CA:1554:U:H2'	78:CA:1555:A:C8	2.56	0.40
81:DA:19:U:H2'	81:DA:20:A:C8	2.55	0.40
81:DA:422:A:C2'	81:DA:422:A:C8	3.04	0.40
81:DA:851:C:H2'	81:DA:852:U:C6	2.56	0.40
81:DA:992:A:C2	81:DA:1059:G:N1	2.89	0.40
81:DA:1677:G:H1	81:DA:1691:U:H3	1.69	0.40
81:DA:2316:G:C6	81:DA:2317:A:C6	3.09	0.40
81:DA:2770:G:O4'	81:DA:2770:G:C8	2.75	0.40
81:DA:2880:U:O4'	81:DA:2880:U:C6	2.73	0.40
82:DB:101:U:H2'	82:DB:102:U:C6	2.56	0.40
4:AD:126:VAL:HG23	4:AD:158:ASP:O	2.21	0.40
14:AM:26:ILE:CG1	14:AM:27:LYS:H	2.34	0.40
19:AR:86:VAL:HG22	19:AR:88:GLU:H	1.86	0.40
20:AS:43:ASN:CA	78:CA:1477:G:C5'	2.99	0.40
21:AT:29:HIS:H	78:CA:875:G:H5''	1.87	0.40
23:AW:62:UNK:HA	78:CA:1800:A:C5'	2.41	0.40
31:BB:50:HIS:HD2	63:Bm:54:ILE:HD12	1.86	0.40
31:BB:204:MET:SD	81:DA:914:A:N9	2.93	0.40
33:BD:323:VAL:HG12	33:BD:324:LEU:N	2.37	0.40
35:BG:65:ILE:HG22	35:BG:77:ARG:N	2.37	0.40
35:BG:69:PHE:HB2	35:BG:73:GLY:HA3	2.03	0.40
37:BH:68:ARG:O	81:DA:2587:U:H5'	2.22	0.40
38:Bs:43:LYS:CE	39:BJ:121:PHE:CD1	3.04	0.40
38:Bs:55:LYS:HB2	38:Bs:56:ASN:H	1.14	0.40
40:BK:92:THR:HG23	40:BK:95:GLY:H	1.85	0.40
41:BN:35:ILE:HG23	41:BN:44:VAL:CG1	2.52	0.40
44:BO:43:ILE:H	44:BO:84:GLU:HG3	1.85	0.40
44:BO:75:LEU:HD12	44:BO:81:LEU:HD21	2.02	0.40
57:Be:220:PHE:CZ	83:DC:83:U:H4'	2.57	0.40
65:Bn:51:LEU:HD13	65:Bn:73:LEU:CD2	2.50	0.40
72:Bu:17:SER:HB3	73:Bw:29:VAL:HG11	2.02	0.40
73:Bv:10:LEU:HG	73:Bv:25:ILE:CD1	2.52	0.40
74:BQ:20:PHE:CE1	74:BQ:30:TYR:CE1	3.09	0.40
76:BS:33:ALA:HB1	76:BS:38:ARG:HB3	2.03	0.40
76:BS:151:PHE:HB2	76:BS:153:LEU:N	2.33	0.40
78:CA:643:G:C6	78:CA:690:G:N2	2.90	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:CA:893:U:O2'	78:CA:894:U:H5'	2.21	0.40
78:CA:1747:G:HO2'	81:DA:2303:A:C4'	2.35	0.40
78:CA:1754:A:C6	78:CA:1755:A:N6	2.89	0.40
78:CA:1765:A:C2	78:CA:1767:G:C4	3.10	0.40
81:DA:35:A:H2'	81:DA:36:C:C6	2.56	0.40
81:DA:194:U:H3	81:DA:201:A:N6	2.19	0.40
81:DA:506:U:H2'	81:DA:507:U:C6	2.57	0.40
81:DA:1002:A:H2'	81:DA:1003:A:C5'	2.51	0.40
81:DA:1209:G:C8	81:DA:1210:U:OP1	2.74	0.40
81:DA:1514:G:N1	81:DA:1842:A:H8	2.19	0.40
81:DA:1651:U:H2'	81:DA:1652:G:O5'	2.21	0.40
81:DA:2039:C:H2'	81:DA:2040:U:C6	2.56	0.40
81:DA:2435:G:H2'	81:DA:2436:U:C6	2.56	0.40
81:DA:2680:A:O5'	81:DA:2681:U:H5	2.05	0.40
81:DA:2685:C:H2'	81:DA:2686:A:C8	2.56	0.40
81:DA:3033:A:H2'	81:DA:3034:C:C6	2.57	0.40
81:DA:3370:A:H2'	81:DA:3371:G:C8	2.57	0.40
1:Aa:183:LEU:HD13	1:Aa:183:LEU:C	2.47	0.40
6:AE:242:ILE:HG13	6:AE:243:TYR:H	1.86	0.40
18:AP:103:ARG:NH2	78:CA:304:U:C4'	2.84	0.40
20:AS:76:LEU:O	20:AS:80:TYR:CE2	2.74	0.40
21:AT:44:ARG:CA	21:AT:45:ALA:CB	2.98	0.40
21:AT:82:VAL:HG12	21:AT:83:TRP:CE3	2.57	0.40
30:BA:61:PRO:HB2	30:BA:63:MET:H	1.87	0.40
31:BB:103:PRO:HA	31:BB:163:ARG:HA	2.04	0.40
33:BD:343:LYS:O	33:BD:346:LYS:HB2	2.21	0.40
35:BG:28:GLN:CG	35:BG:29:LYS:H	2.33	0.40
35:BG:146:ILE:HD11	41:BN:115:PHE:CD2	2.57	0.40
38:Bs:93:LEU:HD22	38:Bs:190:VAL:CG1	2.52	0.40
40:BK:28:LEU:HD23	40:BK:28:LEU:HA	1.98	0.40
40:BK:129:LEU:H	40:BK:131:PRO:HA	1.86	0.40
42:BM:27:ASP:HB3	42:BM:101:VAL:HG12	2.04	0.40
44:BO:141:ALA:HB1	75:BL:80:UNK:O	2.22	0.40
49:BV:122:ALA:O	82:DB:14:C:H4'	2.22	0.40
52:BY:56:VAL:HG21	52:BY:104:LEU:HD23	2.03	0.40
57:Be:159:GLN:HB3	81:DA:1362:G:H1'	2.03	0.40
63:Bm:49:ARG:NH2	81:DA:1793:C:OP2	2.54	0.40
63:Bm:51:ALA:CB	81:DA:1795:U:O4	2.56	0.40
68:Bq:21:ARG:HH22	81:DA:122:A:H5'	1.86	0.40
78:CA:175:G:H5''	78:CA:175:G:C8	2.55	0.40
78:CA:620:A:H2	78:CA:1108:G:N3	2.20	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:CA:954:G:H2'	78:CA:955:A:H5'	2.04	0.40
78:CA:1185:U:H4'	78:CA:1186:U:H5''	2.01	0.40
78:CA:1346:A:H61	78:CA:1379:C:N4	2.19	0.40
78:CA:1601:G:H1'	78:CA:1602:C:C5	2.57	0.40
81:DA:299:G:C6	81:DA:300:G:C5	3.09	0.40
81:DA:836:A:N6	81:DA:857:G:O2'	2.53	0.40
81:DA:1572:U:C5	81:DA:1573:G:C5	3.09	0.40
81:DA:1689:U:C2	81:DA:1690:C:C6	3.09	0.40
81:DA:2171:G:C6	81:DA:2172:A:N7	2.89	0.40
81:DA:2465:G:H2'	81:DA:2466:G:H5'	2.04	0.40
2:AA:135:GLU:O	2:AA:139:VAL:HG23	2.21	0.40
3:AB:59:LEU:HD11	3:AB:86:LEU:HD22	2.04	0.40
3:AB:133:GLY:HA3	3:AB:157:LEU:HB2	2.02	0.40
3:AB:176:LEU:HD13	78:CA:1437:U:H5'	2.04	0.40
4:AD:103:TYR:HB3	4:AD:189:LEU:HD22	2.02	0.40
4:AD:131:LEU:HA	4:AD:132:GLY:HA2	1.89	0.40
5:AC:92:LYS:HD3	5:AC:121:SER:OG	2.21	0.40
6:AE:84:LYS:HB3	6:AE:86:VAL:H	1.86	0.40
14:AM:12:GLN:NE2	34:BE:116:TYR:OH	2.48	0.40
16:AO:39:LYS:HE2	24:AX:32:PHE:CZ	2.57	0.40
19:AR:130:ARG:HD2	78:CA:1557:U:C3'	2.51	0.40
20:AS:88:VAL:H	20:AS:90:PRO:HD2	1.86	0.40
31:BB:173:GLY:C	63:Bm:69:TYR:HE2	2.20	0.40
31:BB:205:ASN:HB3	31:BB:206:PRO:HD2	2.04	0.40
33:BD:182:LEU:HG	81:DA:212:G:H1	1.87	0.40
33:BD:360:LYS:HG2	81:DA:519:A:C5'	2.52	0.40
35:BG:81:ALA:HA	35:BG:140:VAL:HB	2.03	0.40
40:BK:7:VAL:HG21	40:BK:31:GLN:HB3	2.03	0.40
45:BR:54:LEU:HD12	45:BR:58:ASN:ND2	2.37	0.40
62:Bk:82:ARG:HD2	62:Bk:82:ARG:H	1.87	0.40
72:Bt:9:TYR:HB2	73:Bv:9:LEU:HD23	0.42	0.40
72:Bu:5:SER:OG	72:Bu:8:SER:CB	2.69	0.40
74:BQ:74:VAL:CG1	83:DC:5:G:N2	2.80	0.40
81:DA:531:G:C2	81:DA:532:A:C2	3.09	0.40
81:DA:1292:C:H2'	81:DA:1293:U:H6	1.86	0.40
81:DA:1508:C:C5	81:DA:1879:A:N3	2.89	0.40
81:DA:1615:C:H2'	81:DA:1616:U:C6	2.56	0.40
81:DA:1679:A:C2	81:DA:1690:C:O2	2.75	0.40
81:DA:1821:U:O4'	81:DA:1821:U:C6	2.75	0.40
81:DA:2604:U:C4	81:DA:2605:G:C5	3.10	0.40
81:DA:2880:U:H2'	81:DA:2881:C:C6	2.56	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:3025:C:C2'	81:DA:3026:G:H5'	2.52	0.40
82:DB:92:A:C2'	82:DB:93:U:H5'	2.51	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	Aa	317/319 (99%)	274 (86%)	23 (7%)	20 (6%)	1	13
2	AA	250/252 (99%)	199 (80%)	21 (8%)	30 (12%)	0	4
3	AB	202/240 (84%)	137 (68%)	30 (15%)	35 (17%)	0	2
4	AD	198/261 (76%)	160 (81%)	17 (9%)	21 (11%)	0	6
5	AC	192/197 (98%)	136 (71%)	28 (15%)	28 (15%)	0	3
6	AE	252/254 (99%)	176 (70%)	36 (14%)	40 (16%)	0	2
8	AF	197/225 (88%)	170 (86%)	9 (5%)	18 (9%)	0	8
9	AH	128/130 (98%)	95 (74%)	17 (13%)	16 (12%)	0	4
10	AI	124/143 (87%)	84 (68%)	16 (13%)	24 (19%)	0	2
11	AJ	108/121 (89%)	92 (85%)	8 (7%)	8 (7%)	1	10
12	AK	117/137 (85%)	81 (69%)	9 (8%)	27 (23%)	0	1
13	AL	143/145 (99%)	100 (70%)	22 (15%)	21 (15%)	0	3
14	AM	138/146 (94%)	107 (78%)	21 (15%)	10 (7%)	1	11
15	AN	46/56 (82%)	31 (67%)	2 (4%)	13 (28%)	0	0
16	AO	119/151 (79%)	95 (80%)	12 (10%)	12 (10%)	0	7
17	AQ	134/136 (98%)	90 (67%)	22 (16%)	22 (16%)	0	2
18	AP	83/156 (53%)	65 (78%)	12 (14%)	6 (7%)	1	11
19	AR	86/142 (61%)	64 (74%)	10 (12%)	12 (14%)	0	3

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
20	AS	142/144 (99%)	118 (83%)	8 (6%)	16 (11%)	0	5
21	AT	85/87 (98%)	66 (78%)	10 (12%)	9 (11%)	0	6
22	AV	83/108 (77%)	66 (80%)	7 (8%)	10 (12%)	0	4
24	AX	48/82 (58%)	37 (77%)	7 (15%)	4 (8%)	0	9
25	AY	58/67 (87%)	46 (79%)	7 (12%)	5 (9%)	0	9
26	AZ	61/63 (97%)	41 (67%)	6 (10%)	14 (23%)	0	1
29	AU	94/135 (70%)	62 (66%)	14 (15%)	18 (19%)	0	2
30	BA	215/217 (99%)	194 (90%)	11 (5%)	10 (5%)	2	16
31	BB	252/254 (99%)	208 (82%)	18 (7%)	26 (10%)	0	6
32	BC	386/388 (100%)	316 (82%)	33 (8%)	37 (10%)	0	7
33	BD	325/362 (90%)	250 (77%)	34 (10%)	41 (13%)	0	4
34	BE	166/174 (95%)	136 (82%)	11 (7%)	19 (11%)	0	5
35	BG	174/176 (99%)	108 (62%)	15 (9%)	51 (29%)	0	0
36	BF	189/191 (99%)	173 (92%)	13 (7%)	3 (2%)	7	38
37	BH	195/256 (76%)	156 (80%)	18 (9%)	21 (11%)	0	6
38	Bs	255/312 (82%)	224 (88%)	16 (6%)	15 (6%)	1	13
39	BJ	125/165 (76%)	107 (86%)	11 (9%)	7 (6%)	1	14
40	BK	197/199 (99%)	161 (82%)	15 (8%)	21 (11%)	0	6
41	BN	136/138 (99%)	104 (76%)	14 (10%)	18 (13%)	0	4
42	BM	129/137 (94%)	124 (96%)	5 (4%)	0	100	100
43	BP	191/204 (94%)	168 (88%)	14 (7%)	9 (5%)	2	16
44	BO	147/149 (99%)	100 (68%)	24 (16%)	23 (16%)	0	3
45	BR	159/186 (86%)	116 (73%)	22 (14%)	21 (13%)	0	4
46	BT	187/189 (99%)	163 (87%)	14 (8%)	10 (5%)	1	15
47	BU	158/160 (99%)	144 (91%)	7 (4%)	7 (4%)	2	17
48	BW	103/121 (85%)	79 (77%)	15 (15%)	9 (9%)	0	9
49	BV	168/170 (99%)	135 (80%)	20 (12%)	13 (8%)	1	10
50	BX	120/142 (84%)	95 (79%)	11 (9%)	14 (12%)	0	4
51	BZ	71/155 (46%)	48 (68%)	13 (18%)	10 (14%)	0	3
52	BY	121/123 (98%)	115 (95%)	2 (2%)	4 (3%)	3	21
53	Ba	93/136 (68%)	62 (67%)	15 (16%)	16 (17%)	0	2

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
54	Bd	20/59 (34%)	19 (95%)	1 (5%)	0	100	100
55	Bc	116/120 (97%)	92 (79%)	11 (10%)	13 (11%)	0	5
56	Bf	103/105 (98%)	91 (88%)	7 (7%)	5 (5%)	1	16
57	Be	237/244 (97%)	213 (90%)	14 (6%)	10 (4%)	2	17
58	Bg	108/113 (96%)	95 (88%)	4 (4%)	9 (8%)	0	9
59	Bh	128/130 (98%)	115 (90%)	7 (6%)	6 (5%)	2	16
60	Bi	116/118 (98%)	76 (66%)	13 (11%)	27 (23%)	0	1
61	Bj	98/107 (92%)	66 (67%)	15 (15%)	17 (17%)	0	2
62	Bk	75/100 (75%)	61 (81%)	6 (8%)	8 (11%)	0	6
63	Bm	90/92 (98%)	78 (87%)	10 (11%)	2 (2%)	5	29
64	Bl	86/88 (98%)	65 (76%)	14 (16%)	7 (8%)	1	9
65	Bn	76/78 (97%)	56 (74%)	10 (13%)	10 (13%)	0	4
66	Bo	49/51 (96%)	38 (78%)	3 (6%)	8 (16%)	0	2
67	Bp	38/52 (73%)	28 (74%)	7 (18%)	3 (8%)	1	10
68	Bq	23/25 (92%)	21 (91%)	1 (4%)	1 (4%)	2	17
69	Br	104/106 (98%)	71 (68%)	14 (14%)	19 (18%)	0	2
72	Bt	56/106 (53%)	53 (95%)	0	3 (5%)	1	15
72	Bu	56/106 (53%)	53 (95%)	0	3 (5%)	1	15
73	Bv	56/106 (53%)	53 (95%)	1 (2%)	2 (4%)	2	20
73	Bw	56/106 (53%)	53 (95%)	1 (2%)	2 (4%)	2	20
74	BQ	295/297 (99%)	232 (79%)	27 (9%)	36 (12%)	0	4
76	BS	165/167 (99%)	116 (70%)	15 (9%)	34 (21%)	0	2
77	BI	179/221 (81%)	135 (75%)	23 (13%)	21 (12%)	0	4
All	All	9997/11298 (88%)	7958 (80%)	949 (10%)	1090 (11%)	1	6

All (1090) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	Aa	29	GLN
1	Aa	51	ASP
1	Aa	55	GLY
1	Aa	57	PRO
1	Aa	84	SER
1	Aa	129	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	Aa	160	GLU
1	Aa	246	SER
1	Aa	281	TYR
1	Aa	285	ALA
2	AA	4	PRO
2	AA	6	THR
2	AA	10	THR
2	AA	11	PRO
2	AA	43	ASP
2	AA	97	PRO
2	AA	195	TRP
2	AA	201	LEU
2	AA	232	VAL
2	AA	250	VAL
3	AB	30	ALA
3	AB	32	GLU
3	AB	36	GLY
3	AB	62	ASN
3	AB	78	LYS
3	AB	113	LEU
3	AB	141	LYS
3	AB	152	PHE
3	AB	156	PHE
3	AB	184	ILE
3	AB	189	MET
3	AB	190	ARG
3	AB	199	PRO
3	AB	209	ILE
3	AB	211	PRO
3	AB	213	GLU
3	AB	214	GLU
4	AD	53	LYS
4	AD	96	ASN
4	AD	133	LYS
4	AD	137	PRO
4	AD	149	TYR
4	AD	151	ASP
4	AD	154	ILE
4	AD	215	ASP
4	AD	233	LYS
4	AD	234	PRO
4	AD	236	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	AD	239	PRO
5	AC	15	PRO
5	AC	17	ARG
5	AC	18	PRO
5	AC	39	LYS
5	AC	56	ALA
5	AC	145	SER
5	AC	148	VAL
5	AC	152	SER
5	AC	159	ALA
5	AC	168	ARG
5	AC	170	GLY
5	AC	184	SER
5	AC	186	GLU
5	AC	187	ALA
5	AC	188	ALA
5	AC	189	ASP
5	AC	192	ASP
6	AE	4	PRO
6	AE	7	GLN
6	AE	13	GLY
6	AE	14	PHE
6	AE	43	ARG
6	AE	50	ILE
6	AE	51	THR
6	AE	67	GLN
6	AE	68	ILE
6	AE	70	ASP
6	AE	72	LEU
6	AE	84	LYS
6	AE	99	LYS
6	AE	108	ASN
6	AE	120	GLU
6	AE	125	ILE
6	AE	224	PHE
6	AE	242	ILE
6	AE	243	TYR
6	AE	244	SER
6	AE	251	LYS
8	AF	29	ILE
8	AF	30	PRO
8	AF	36	ALA

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
8	AF	37	GLN
8	AF	66	GLN
8	AF	68	ILE
8	AF	71	ALA
8	AF	161	ASP
8	AF	163	SER
9	AH	43	LYS
9	AH	53	ILE
9	AH	65	LEU
9	AH	66	ASN
9	AH	81	VAL
9	AH	84	GLY
9	AH	108	ALA
10	AI	30	LYS
10	AI	39	VAL
10	AI	55	VAL
10	AI	70	THR
10	AI	84	ALA
10	AI	85	ILE
10	AI	86	ALA
10	AI	87	LYS
10	AI	108	ALA
10	AI	118	ILE
10	AI	121	SER
10	AI	122	ARG
10	AI	123	ARG
10	AI	136	SER
10	AI	138	PHE
11	AJ	51	VAL
11	AJ	96	PRO
12	AK	22	SER
12	AK	39	ILE
12	AK	40	ALA
12	AK	53	ASP
12	AK	59	ALA
12	AK	60	ALA
12	AK	62	LEU
12	AK	80	HIS
12	AK	81	VAL
12	AK	84	ARG
12	AK	121	VAL
12	AK	122	PRO

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
12	AK	127	ARG
12	AK	128	LYS
12	AK	129	LYS
13	AL	9	LEU
13	AL	37	ALA
13	AL	81	LYS
13	AL	87	VAL
13	AL	99	ASN
13	AL	116	ASP
13	AL	121	ARG
13	AL	123	LYS
13	AL	132	LEU
13	AL	134	ALA
14	AM	8	GLN
14	AM	93	THR
14	AM	102	ALA
14	AM	141	THR
15	AN	10	HIS
15	AN	11	PRO
15	AN	14	TYR
15	AN	34	TYR
15	AN	47	ALA
15	AN	52	PHE
16	AO	43	LYS
16	AO	58	HIS
16	AO	81	ALA
17	AQ	4	VAL
17	AQ	27	ASP
17	AQ	71	PHE
17	AQ	74	GLN
17	AQ	78	ARG
17	AQ	88	VAL
17	AQ	117	LEU
17	AQ	133	ARG
17	AQ	135	ARG
18	AP	55	ASP
18	AP	119	VAL
19	AR	62	ALA
19	AR	79	HIS
19	AR	107	ILE
19	AR	134	THR
20	AS	27	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
20	AS	37	VAL
20	AS	69	LYS
20	AS	79	LEU
20	AS	83	ALA
20	AS	88	VAL
20	AS	90	PRO
20	AS	91	TYR
20	AS	96	ALA
21	AT	29	HIS
21	AT	34	ILE
21	AT	45	ALA
21	AT	55	LEU
21	AT	68	SER
22	AV	26	LYS
22	AV	30	LYS
22	AV	31	SER
22	AV	105	THR
22	AV	106	ALA
24	AX	66	PRO
24	AX	67	THR
24	AX	77	THR
25	AY	18	ARG
25	AY	26	THR
26	AZ	18	THR
26	AZ	27	PRO
26	AZ	46	ASN
26	AZ	57	ASN
26	AZ	58	PRO
26	AZ	60	PRO
26	AZ	61	SER
29	AU	5	VAL
29	AU	6	THR
29	AU	19	ALA
29	AU	32	ARG
29	AU	49	LYS
29	AU	52	LYS
29	AU	63	GLN
29	AU	94	TYR
30	BA	21	ASN
30	BA	74	VAL
30	BA	135	PRO
30	BA	151	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
31	BB	27	ALA
31	BB	63	PHE
31	BB	67	TYR
31	BB	68	LYS
31	BB	71	LEU
31	BB	73	GLU
31	BB	128	ARG
31	BB	227	ARG
31	BB	241	ARG
31	BB	244	GLY
31	BB	246	LEU
31	BB	247	ARG
31	BB	249	SER
31	BB	253	GLN
32	BC	5	LYS
32	BC	60	LEU
32	BC	61	ASP
32	BC	127	LYS
32	BC	137	TYR
32	BC	158	VAL
32	BC	259	HIS
32	BC	292	ALA
32	BC	296	THR
32	BC	345	ASN
32	BC	349	LYS
32	BC	352	GLU
32	BC	355	SER
32	BC	371	GLN
33	BD	11	LEU
33	BD	15	ALA
33	BD	49	ALA
33	BD	84	ARG
33	BD	89	ALA
33	BD	100	PHE
33	BD	102	PRO
33	BD	103	THR
33	BD	104	LYS
33	BD	106	TRP
33	BD	109	TRP
33	BD	142	VAL
33	BD	144	LYS
33	BD	146	PRO

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
33	BD	173	GLY
33	BD	196	ASN
33	BD	298	ALA
33	BD	300	ARG
33	BD	315	LYS
33	BD	317	PRO
33	BD	319	LYS
33	BD	321	LYS
33	BD	323	VAL
33	BD	329	PRO
33	BD	330	TYR
33	BD	350	LYS
33	BD	351	PRO
33	BD	354	VAL
33	BD	355	PHE
33	BD	356	THR
34	BE	5	ALA
34	BE	9	MET
34	BE	25	GLU
34	BE	52	TYR
34	BE	53	THR
34	BE	54	VAL
34	BE	59	ILE
34	BE	61	ARG
34	BE	89	TYR
34	BE	111	ASP
34	BE	122	ILE
35	BG	2	SER
35	BG	4	GLN
35	BG	10	TYR
35	BG	11	PRO
35	BG	15	VAL
35	BG	18	LEU
35	BG	27	PRO
35	BG	35	VAL
35	BG	61	ASN
35	BG	69	PHE
35	BG	75	PRO
35	BG	76	LEU
35	BG	81	ALA
35	BG	88	SER
35	BG	98	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
35	BG	99	GLU
35	BG	103	VAL
35	BG	139	LYS
35	BG	140	VAL
35	BG	141	VAL
35	BG	143	LYS
35	BG	145	LEU
35	BG	151	LYS
35	BG	152	THR
35	BG	153	PRO
35	BG	155	LEU
35	BG	171	PRO
36	BF	141	LYS
37	BH	62	LYS
37	BH	63	LYS
37	BH	65	LEU
37	BH	73	PRO
37	BH	88	ALA
37	BH	89	GLU
37	BH	96	LYS
37	BH	123	GLN
37	BH	124	ASP
37	BH	126	SER
37	BH	129	PRO
37	BH	232	HIS
37	BH	233	TRP
37	BH	237	ILE
38	Bs	60	ARG
38	Bs	70	LEU
38	Bs	71	PRO
38	Bs	73	PHE
38	Bs	83	ASN
38	Bs	124	VAL
38	Bs	179	SER
38	Bs	180	PRO
38	Bs	231	THR
39	BJ	37	LEU
39	BJ	51	LYS
39	BJ	75	PRO
39	BJ	76	SER
40	BK	5	PRO
40	BK	66	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
40	BK	70	PRO
40	BK	121	PRO
40	BK	127	LEU
40	BK	129	LEU
40	BK	130	LYS
40	BK	131	PRO
40	BK	185	ALA
40	BK	188	SER
40	BK	189	ASP
40	BK	198	GLY
41	BN	6	ILE
41	BN	14	LEU
41	BN	27	GLN
41	BN	29	ALA
41	BN	51	ALA
41	BN	63	VAL
41	BN	72	LEU
41	BN	73	PRO
41	BN	90	VAL
41	BN	98	SER
41	BN	101	LYS
41	BN	112	LEU
41	BN	137	LYS
43	BP	14	LYS
43	BP	44	ARG
43	BP	51	LEU
43	BP	52	GLY
43	BP	120	TRP
43	BP	123	GLN
44	BO	2	PRO
44	BO	15	VAL
44	BO	22	ILE
44	BO	58	MET
44	BO	92	LYS
44	BO	95	SER
44	BO	97	GLU
44	BO	99	ALA
44	BO	101	VAL
45	BR	4	ASP
45	BR	15	HIS
45	BR	16	ARG
45	BR	20	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
45	BR	78	ASN
45	BR	95	GLU
45	BR	122	ILE
45	BR	141	ARG
45	BR	144	ARG
45	BR	149	ALA
45	BR	155	MET
46	BT	55	VAL
46	BT	59	SER
46	BT	74	ARG
46	BT	82	LYS
46	BT	91	SER
46	BT	115	ILE
47	BU	4	SER
47	BU	69	LYS
47	BU	137	GLU
47	BU	140	ILE
47	BU	142	SER
48	BW	23	THR
48	BW	46	ALA
49	BV	70	THR
49	BV	111	LYS
49	BV	122	ALA
49	BV	163	LYS
49	BV	164	LYS
49	BV	166	VAL
50	BX	24	LEU
50	BX	42	ARG
50	BX	50	ALA
51	BZ	49	ILE
51	BZ	55	PHE
51	BZ	59	HIS
51	BZ	60	LYS
51	BZ	63	ILE
51	BZ	67	VAL
51	BZ	70	LYS
51	BZ	72	SER
52	BY	9	SER
52	BY	11	ASP
52	BY	22	ALA
53	Ba	10	VAL
53	Ba	11	ALA

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
53	Ba	13	VAL
53	Ba	17	ARG
53	Ba	20	GLY
53	Ba	27	LYS
53	Ba	28	PRO
53	Ba	31	GLU
53	Ba	35	SER
53	Ba	37	PRO
53	Ba	54	THR
55	Bc	38	ARG
55	Bc	39	PRO
55	Bc	40	SER
55	Bc	102	GLU
55	Bc	103	LYS
55	Bc	104	GLN
55	Bc	107	LYS
55	Bc	109	ILE
55	Bc	112	PRO
56	Bf	4	VAL
56	Bf	98	SER
57	Be	82	LYS
57	Be	98	LYS
57	Be	134	VAL
57	Be	172	ASN
58	Bg	2	ALA
58	Bg	64	VAL
58	Bg	65	LYS
58	Bg	79	ARG
58	Bg	91	SER
58	Bg	107	VAL
60	Bi	11	ASN
60	Bi	12	PRO
60	Bi	18	ASN
60	Bi	19	LYS
60	Bi	37	LYS
60	Bi	42	PRO
60	Bi	43	LYS
60	Bi	44	CYS
60	Bi	57	LEU
60	Bi	65	VAL
60	Bi	67	LYS
60	Bi	68	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
60	Bi	79	SER
60	Bi	80	ARG
60	Bi	102	LYS
60	Bi	107	GLU
61	Bj	2	ALA
61	Bj	3	GLU
61	Bj	4	SER
61	Bj	6	ARG
61	Bj	9	VAL
61	Bj	21	ARG
61	Bj	25	PRO
61	Bj	35	VAL
61	Bj	38	PRO
61	Bj	57	LYS
61	Bj	87	ASN
61	Bj	96	ALA
62	Bk	26	ILE
62	Bk	51	SER
62	Bk	52	PRO
62	Bk	54	GLU
63	Bm	6	LYS
63	Bm	17	ARG
64	Bl	11	ARG
64	Bl	12	HIS
64	Bl	63	ARG
64	Bl	84	SER
64	Bl	85	LYS
64	Bl	86	ALA
65	Bn	29	LYS
65	Bn	34	ALA
65	Bn	36	LYS
65	Bn	50	SER
65	Bn	53	THR
65	Bn	72	THR
66	Bo	2	ALA
66	Bo	34	THR
66	Bo	35	ILE
66	Bo	38	ASN
67	Bp	51	LEU
69	Br	33	ALA
69	Br	34	SER
69	Br	48	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
69	Br	56	PRO
69	Br	58	PHE
69	Br	59	HIS
69	Br	62	ALA
69	Br	64	THR
69	Br	96	GLU
69	Br	97	LYS
69	Br	102	GLN
72	Bt	61	PHE
72	Bu	61	PHE
73	Bv	17	PRO
73	Bw	17	PRO
74	BQ	10	SER
74	BQ	54	ARG
74	BQ	88	ILE
74	BQ	116	ASP
74	BQ	118	THR
74	BQ	144	VAL
74	BQ	159	VAL
74	BQ	198	TYR
74	BQ	199	ILE
74	BQ	218	ARG
74	BQ	236	LEU
74	BQ	238	ASP
74	BQ	239	ILE
74	BQ	242	SER
74	BQ	243	ALA
74	BQ	245	GLU
74	BQ	258	LYS
74	BQ	285	ARG
74	BQ	286	VAL
74	BQ	289	LYS
74	BQ	293	LEU
76	BS	4	PHE
76	BS	6	PHE
76	BS	17	PRO
76	BS	19	PRO
76	BS	23	HIS
76	BS	35	ASN
76	BS	54	LYS
76	BS	68	GLU
76	BS	71	PRO

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
76	BS	72	THR
76	BS	73	THR
76	BS	87	THR
76	BS	120	PHE
76	BS	121	PRO
76	BS	123	ILE
76	BS	124	GLN
76	BS	138	ARG
76	BS	151	PHE
76	BS	152	PRO
76	BS	156	ARG
76	BS	157	LYS
76	BS	158	VAL
76	BS	159	ARG
77	BI	4	ARG
77	BI	5	PRO
77	BI	18	PRO
77	BI	108	ALA
77	BI	109	ASP
77	BI	112	GLN
77	BI	113	GLN
77	BI	115	MET
1	Aa	58	VAL
1	Aa	240	VAL
1	Aa	283	LYS
2	AA	13	ASP
2	AA	15	GLN
2	AA	16	LEU
2	AA	21	ASN
2	AA	210	VAL
2	AA	230	GLU
3	AB	48	VAL
3	AB	63	GLY
3	AB	173	ARG
3	AB	183	GLY
3	AB	208	ILE
4	AD	94	ALA
4	AD	189	LEU
4	AD	213	SER
5	AC	14	THR
5	AC	19	TYR
5	AC	84	GLY

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
5	AC	116	LEU
5	AC	154	LYS
5	AC	165	GLY
6	AE	28	ARG
6	AE	42	GLY
6	AE	83	ILE
6	AE	100	ALA
6	AE	110	HIS
6	AE	178	ILE
8	AF	67	PRO
8	AF	72	HIS
8	AF	79	ASN
9	AH	67	GLY
9	AH	99	PHE
9	AH	121	VAL
10	AI	75	VAL
11	AJ	59	PRO
11	AJ	73	GLY
11	AJ	79	TRP
12	AK	63	ALA
12	AK	75	GLY
12	AK	76	ILE
12	AK	120	PRO
12	AK	124	ASP
12	AK	126	THR
12	AK	131	GLY
13	AL	28	ASN
13	AL	30	LYS
13	AL	34	LEU
13	AL	88	PRO
13	AL	102	VAL
13	AL	120	VAL
13	AL	130	VAL
14	AM	85	PHE
15	AN	13	ARG
15	AN	33	LYS
15	AN	38	ILE
15	AN	48	ASN
15	AN	55	PHE
16	AO	80	LEU
16	AO	112	LYS
16	AO	147	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
17	AQ	6	THR
17	AQ	62	GLN
17	AQ	67	ARG
17	AQ	72	LYS
17	AQ	73	LEU
17	AQ	82	ASP
17	AQ	94	SER
17	AQ	121	VAL
17	AQ	127	GLN
18	AP	75	VAL
18	AP	108	PRO
19	AR	65	LEU
19	AR	66	ALA
20	AS	71	VAL
22	AV	42	LEU
22	AV	99	ALA
26	AZ	16	SER
26	AZ	62	VAL
29	AU	18	LEU
29	AU	31	ASN
29	AU	54	ALA
30	BA	99	LEU
30	BA	168	ALA
30	BA	198	TRP
30	BA	199	GLN
31	BB	11	GLY
31	BB	30	ARG
31	BB	35	ALA
31	BB	74	GLU
31	BB	140	ASN
32	BC	70	ARG
32	BC	97	ARG
32	BC	124	LYS
32	BC	138	ALA
32	BC	139	GLN
32	BC	344	THR
32	BC	346	THR
32	BC	367	LYS
32	BC	381	GLY
33	BD	12	THR
33	BD	53	SER
33	BD	78	GLY

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
33	BD	172	VAL
33	BD	326	ARG
33	BD	339	LEU
33	BD	352	ALA
34	BE	56	THR
35	BG	7	PRO
35	BG	13	GLU
35	BG	14	ASP
35	BG	19	LYS
35	BG	36	PRO
35	BG	71	VAL
35	BG	82	ARG
35	BG	97	ASN
35	BG	142	ASP
35	BG	146	ILE
35	BG	154	LEU
37	BH	66	SER
37	BH	238	LEU
38	Bs	49	ALA
38	Bs	206	ASP
38	Bs	253	ALA
39	BJ	32	ILE
39	BJ	77	ALA
40	BK	3	VAL
40	BK	68	ARG
40	BK	184	THR
43	BP	166	ALA
44	BO	7	LYS
44	BO	8	THR
44	BO	61	PHE
44	BO	63	LYS
44	BO	68	PHE
44	BO	105	LEU
44	BO	106	ALA
45	BR	3	ILE
45	BR	11	LYS
45	BR	75	GLY
45	BR	123	THR
45	BR	124	LEU
45	BR	146	SER
47	BU	80	VAL
48	BW	86	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
48	BW	96	VAL
49	BV	38	GLY
49	BV	169	THR
50	BX	36	LYS
50	BX	37	THR
50	BX	45	LYS
50	BX	52	PRO
50	BX	57	LEU
50	BX	58	ASP
51	BZ	66	GLU
53	Ba	15	ARG
53	Ba	16	GLY
53	Ba	19	ALA
55	Bc	94	LYS
56	Bf	6	SER
56	Bf	65	THR
57	Be	75	TYR
57	Be	77	VAL
57	Be	107	ARG
58	Bg	92	TYR
59	Bh	19	ARG
60	Bi	34	HIS
60	Bi	35	VAL
60	Bi	55	SER
60	Bi	69	HIS
60	Bi	106	LYS
61	Bj	99	ARG
62	Bk	30	LYS
62	Bk	68	ARG
65	Bn	57	ASN
66	Bo	39	ALA
66	Bo	47	THR
67	Bp	15	CYS
69	Br	29	LYS
69	Br	63	LYS
69	Br	89	LYS
72	Bt	18	GLU
72	Bt	34	ASN
72	Bu	18	GLU
72	Bu	34	ASN
73	Bv	18	ASP
73	Bw	18	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
74	BQ	112	ARG
74	BQ	122	VAL
74	BQ	129	TYR
74	BQ	130	GLU
74	BQ	200	PHE
74	BQ	234	ASP
76	BS	3	ALA
76	BS	22	GLU
76	BS	52	LYS
76	BS	86	ARG
76	BS	125	ILE
76	BS	165	LEU
76	BS	166	LYS
77	BI	28	ASP
77	BI	103	LEU
77	BI	106	ALA
77	BI	107	GLY
77	BI	117	GLY
1	Aa	31	ASN
1	Aa	95	ALA
1	Aa	236	ALA
1	Aa	317	THR
2	AA	9	LEU
2	AA	67	ILE
2	AA	185	ARG
2	AA	196	SER
2	AA	212	GLN
2	AA	231	GLU
3	AB	64	ARG
3	AB	98	ALA
3	AB	157	LEU
4	AD	95	THR
5	AC	37	LYS
5	AC	151	ASP
5	AC	195	ASP
6	AE	10	LYS
6	AE	238	SER
6	AE	241	ASP
9	AH	18	GLU
9	AH	80	ASN
9	AH	97	ARG
10	AI	26	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
10	AI	35	PRO
10	AI	58	ASP
10	AI	124	PRO
10	AI	126	PRO
10	AI	140	LYS
11	AJ	18	GLN
11	AJ	23	ARG
11	AJ	71	PRO
12	AK	96	PRO
13	AL	70	LYS
15	AN	16	LYS
16	AO	67	THR
16	AO	79	GLY
16	AO	86	GLU
17	AQ	26	LEU
17	AQ	68	GLY
17	AQ	102	VAL
18	AP	59	PRO
19	AR	54	ALA
19	AR	61	ARG
19	AR	63	ALA
21	AT	54	ALA
21	AT	82	VAL
22	AV	27	TRP
25	AY	19	THR
26	AZ	19	PRO
26	AZ	24	THR
26	AZ	47	VAL
29	AU	17	LEU
29	AU	34	ASN
30	BA	137	PRO
31	BB	32	LEU
31	BB	38	HIS
32	BC	130	PHE
32	BC	169	THR
32	BC	319	ASN
32	BC	354	VAL
32	BC	370	PHE
33	BD	18	ASN
34	BE	30	LEU
34	BE	88	GLU
35	BG	12	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
35	BG	34	LEU
35	BG	47	PHE
35	BG	84	VAL
35	BG	96	VAL
35	BG	129	GLU
35	BG	150	LYS
35	BG	172	HIS
37	BH	130	TYR
38	Bs	6	GLU
40	BK	186	ALA
40	BK	187	GLU
41	BN	4	ASP
41	BN	10	SER
41	BN	89	ALA
43	BP	125	SER
44	BO	28	HIS
44	BO	96	LYS
45	BR	151	ARG
45	BR	159	LYS
47	BU	78	LYS
49	BV	74	LYS
49	BV	153	LYS
50	BX	35	PRO
51	BZ	58	HIS
53	Ba	59	ALA
55	Bc	37	SER
55	Bc	85	THR
55	Bc	92	LEU
59	Bh	50	ILE
60	Bi	59	PRO
61	Bj	5	HIS
61	Bj	46	GLY
62	Bk	53	TYR
62	Bk	55	ARG
66	Bo	40	LYS
69	Br	57	VAL
69	Br	90	HIS
69	Br	99	GLN
74	BQ	4	GLN
74	BQ	111	GLN
74	BQ	141	PRO
74	BQ	158	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
74	BQ	188	GLU
76	BS	70	ASN
76	BS	130	THR
77	BI	14	ASN
77	BI	23	ASN
77	BI	84	ALA
77	BI	93	PRO
77	BI	104	SER
77	BI	174	THR
2	AA	28	ASN
2	AA	208	GLU
3	AB	93	ASP
3	AB	99	VAL
3	AB	149	ALA
3	AB	192	PRO
3	AB	197	THR
4	AD	163	ASP
4	AD	231	GLN
5	AC	38	ASN
5	AC	160	PRO
6	AE	17	ARG
6	AE	41	LEU
6	AE	82	ASN
6	AE	109	GLY
6	AE	140	ARG
6	AE	253	ARG
8	AF	88	PRO
8	AF	99	MET
9	AH	50	PHE
9	AH	111	MET
9	AH	120	HIS
10	AI	25	GLY
10	AI	132	LYS
12	AK	20	TYR
12	AK	94	PRO
12	AK	123	SER
13	AL	57	LEU
14	AM	76	PRO
14	AM	82	PRO
14	AM	97	ASP
16	AO	109	LYS
19	AR	64	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
20	AS	30	VAL
20	AS	31	PRO
20	AS	68	ARG
22	AV	94	LYS
25	AY	9	LEU
26	AZ	40	TYR
29	AU	2	SER
31	BB	34	TYR
31	BB	36	GLU
31	BB	66	PRO
32	BC	40	PRO
32	BC	95	THR
32	BC	129	ALA
32	BC	347	SER
32	BC	385	LYS
32	BC	387	LEU
33	BD	17	ALA
34	BE	23	VAL
34	BE	106	ILE
34	BE	143	ARG
35	BG	74	VAL
35	BG	102	ASN
36	BF	51	GLN
37	BH	203	VAL
37	BH	224	ASP
38	Bs	233	PRO
40	BK	134	LYS
40	BK	135	TYR
41	BN	99	TRP
43	BP	181	ASN
44	BO	35	ALA
44	BO	100	PRO
44	BO	111	LYS
46	BT	71	ARG
46	BT	130	ASN
48	BW	9	GLN
48	BW	88	GLN
48	BW	101	ASN
49	BV	8	SER
50	BX	44	PRO
52	BY	10	SER
57	Be	71	ALA

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
59	Bh	12	LYS
59	Bh	16	LYS
59	Bh	89	THR
60	Bi	76	TYR
61	Bj	15	SER
64	Bl	76	ASN
67	Bp	14	ASN
74	BQ	248	ARG
77	BI	160	PRO
1	Aa	79	TYR
1	Aa	284	ALA
2	AA	124	THR
2	AA	167	LYS
2	AA	207	PRO
2	AA	213	GLN
3	AB	61	GLU
3	AB	110	LEU
3	AB	205	ALA
3	AB	207	THR
6	AE	126	ARG
8	AF	33	VAL
8	AF	77	TYR
13	AL	118	PRO
14	AM	100	THR
16	AO	57	ALA
16	AO	150	VAL
18	AP	58	CYS
19	AR	81	ARG
20	AS	40	SER
20	AS	92	LYS
21	AT	83	TRP
24	AX	60	SER
29	AU	95	GLY
31	BB	127	ALA
32	BC	62	ARG
32	BC	136	LYS
33	BD	29	PRO
33	BD	327	LEU
34	BE	87	LYS
35	BG	16	ALA
36	BF	186	PHE
37	BH	61	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
37	BH	117	ALA
39	BJ	95	ASP
40	BK	126	VAL
48	BW	7	ARG
49	BV	63	PHE
49	BV	167	ARG
50	BX	104	GLU
53	Ba	55	LYS
59	Bh	11	LYS
60	Bi	13	TYR
65	Bn	28	ASN
69	Br	50	PHE
74	BQ	190	ILE
76	BS	117	ARG
2	AA	46	HIS
3	AB	80	ALA
4	AD	241	GLY
8	AF	103	ASN
8	AF	159	ALA
17	AQ	85	VAL
20	AS	32	GLY
22	AV	92	ILE
26	AZ	26	LYS
30	BA	134	PHE
31	BB	226	SER
32	BC	96	PRO
35	BG	130	ILE
41	BN	7	VAL
44	BO	10	LYS
44	BO	56	VAL
45	BR	131	ALA
50	BX	38	LEU
57	Be	173	LEU
58	Bg	93	VAL
60	Bi	54	ILE
68	Bq	4	LYS
69	Br	105	GLN
74	BQ	52	VAL
1	Aa	193	ILE
6	AE	74	PRO
13	AL	52	ILE
15	AN	15	GLY

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
29	AU	16	PRO
34	BE	24	GLY
46	BT	83	GLY
48	BW	22	PRO
56	Bf	3	PRO
57	Be	204	PRO
58	Bg	94	GLU
65	Bn	35	GLY
14	AM	135	GLY
21	AT	32	VAL
29	AU	29	HIS
46	BT	57	VAL
76	BS	74	ILE
77	BI	178	ARG
2	AA	70	PRO
6	AE	16	GLY
12	AK	79	VAL
25	AY	6	PRO
50	BX	51	VAL
60	Bi	101	VAL
65	Bn	75	VAL
74	BQ	192	PRO
4	AD	135	GLY
4	AD	150	PRO
29	AU	7	ILE
35	BG	68	PRO
38	Bs	228	GLY
40	BK	111	PRO
45	BR	14	GLY
60	Bi	58	ARG
61	Bj	90	PRO
66	Bo	24	PRO
6	AE	101	VAL
19	AR	132	GLY

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	Aa	259/262 (99%)	235 (91%)	24 (9%)	8	26
2	AA	198/210 (94%)	177 (89%)	21 (11%)	6	21
3	AB	148/195 (76%)	135 (91%)	13 (9%)	9	28
4	AD	173/222 (78%)	157 (91%)	16 (9%)	8	27
5	AC	153/166 (92%)	131 (86%)	22 (14%)	3	13
6	AE	205/205 (100%)	180 (88%)	25 (12%)	5	17
8	AF	163/191 (85%)	144 (88%)	19 (12%)	5	18
9	AH	111/111 (100%)	98 (88%)	13 (12%)	5	18
10	AI	105/119 (88%)	93 (89%)	12 (11%)	5	18
11	AJ	93/114 (82%)	85 (91%)	8 (9%)	10	29
12	AK	82/105 (78%)	76 (93%)	6 (7%)	13	34
13	AL	87/120 (72%)	75 (86%)	12 (14%)	3	14
14	AM	123/129 (95%)	107 (87%)	16 (13%)	4	15
15	AN	34/49 (69%)	30 (88%)	4 (12%)	5	18
16	AO	105/128 (82%)	89 (85%)	16 (15%)	3	12
17	AQ	122/124 (98%)	113 (93%)	9 (7%)	13	33
18	AP	63/137 (46%)	57 (90%)	6 (10%)	8	25
19	AR	71/118 (60%)	62 (87%)	9 (13%)	4	16
20	AS	115/116 (99%)	100 (87%)	15 (13%)	4	15
21	AT	74/74 (100%)	66 (89%)	8 (11%)	6	21
22	AV	74/89 (83%)	64 (86%)	10 (14%)	4	14
24	AX	43/71 (61%)	34 (79%)	9 (21%)	1	6
25	AY	50/60 (83%)	45 (90%)	5 (10%)	7	24
26	AZ	51/54 (94%)	47 (92%)	4 (8%)	11	32
29	AU	72/113 (64%)	58 (81%)	14 (19%)	1	7
30	BA	198/198 (100%)	179 (90%)	19 (10%)	8	25
31	BB	189/196 (96%)	173 (92%)	16 (8%)	10	29
32	BC	315/323 (98%)	258 (82%)	57 (18%)	2	9
33	BD	253/289 (88%)	219 (87%)	34 (13%)	4	14
34	BE	145/150 (97%)	118 (81%)	27 (19%)	1	8
35	BG	153/153 (100%)	124 (81%)	29 (19%)	1	8
36	BF	170/171 (99%)	156 (92%)	14 (8%)	10	31

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
37	BH	154/208 (74%)	136 (88%)	18 (12%)	5	18
38	Bs	216/254 (85%)	210 (97%)	6 (3%)	38	60
39	BJ	102/136 (75%)	93 (91%)	9 (9%)	9	28
40	BK	162/162 (100%)	139 (86%)	23 (14%)	3	13
41	BN	109/109 (100%)	88 (81%)	21 (19%)	1	7
42	BM	101/105 (96%)	86 (85%)	15 (15%)	3	12
43	BP	165/176 (94%)	141 (86%)	24 (14%)	3	13
44	BO	119/119 (100%)	104 (87%)	15 (13%)	4	16
45	BR	131/151 (87%)	107 (82%)	24 (18%)	2	8
46	BT	154/154 (100%)	140 (91%)	14 (9%)	9	27
47	BU	132/137 (96%)	111 (84%)	21 (16%)	2	11
48	BW	90/107 (84%)	76 (84%)	14 (16%)	2	12
49	BV	131/137 (96%)	116 (88%)	15 (12%)	5	18
50	BX	106/118 (90%)	97 (92%)	9 (8%)	10	29
51	BZ	59/129 (46%)	49 (83%)	10 (17%)	2	10
52	BY	107/107 (100%)	93 (87%)	14 (13%)	4	15
53	Ba	73/116 (63%)	60 (82%)	13 (18%)	2	9
54	Bd	15/47 (32%)	13 (87%)	2 (13%)	4	14
55	Bc	104/105 (99%)	90 (86%)	14 (14%)	4	14
56	Bf	83/88 (94%)	74 (89%)	9 (11%)	6	21
57	Be	202/205 (98%)	180 (89%)	22 (11%)	6	21
58	Bg	90/97 (93%)	77 (86%)	13 (14%)	3	13
59	Bh	111/111 (100%)	94 (85%)	17 (15%)	3	12
60	Bi	99/101 (98%)	84 (85%)	15 (15%)	3	12
61	Bj	71/91 (78%)	61 (86%)	10 (14%)	3	13
62	Bk	64/82 (78%)	58 (91%)	6 (9%)	8	26
63	Bm	72/72 (100%)	69 (96%)	3 (4%)	26	48
64	Bl	68/71 (96%)	60 (88%)	8 (12%)	5	18
65	Bn	66/69 (96%)	51 (77%)	15 (23%)	1	6
66	Bo	46/46 (100%)	38 (83%)	8 (17%)	2	9
67	Bp	37/47 (79%)	35 (95%)	2 (5%)	20	41

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
68	Bq	23/23 (100%)	22 (96%)	1 (4%)	26	47
69	Br	87/91 (96%)	77 (88%)	10 (12%)	5	18
72	Bt	48/76 (63%)	48 (100%)	0	100	100
72	Bu	48/76 (63%)	48 (100%)	0	100	100
73	Bv	47/74 (64%)	45 (96%)	2 (4%)	26	47
73	Bw	47/74 (64%)	46 (98%)	1 (2%)	47	65
74	BQ	238/245 (97%)	201 (84%)	37 (16%)	2	12
76	BS	153/153 (100%)	116 (76%)	37 (24%)	1	4
77	BI	151/187 (81%)	134 (89%)	17 (11%)	5	19
All	All	8278/9418 (88%)	7252 (88%)	1026 (12%)	7	17

All (1026) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	Aa	9	LEU
1	Aa	16	HIS
1	Aa	35	SER
1	Aa	47	LEU
1	Aa	54	PHE
1	Aa	59	ARG
1	Aa	67	ILE
1	Aa	68	VAL
1	Aa	71	CYS
1	Aa	82	SER
1	Aa	89	LEU
1	Aa	92	TRP
1	Aa	131	ILE
1	Aa	133	VAL
1	Aa	145	LEU
1	Aa	188	ILE
1	Aa	199	ILE
1	Aa	201	THR
1	Aa	211	ILE
1	Aa	229	LYS
1	Aa	258	THR
1	Aa	260	ILE
1	Aa	306	THR
1	Aa	308	ASN
2	AA	9	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	AA	11	PRO
2	AA	23	HIS
2	AA	48	ILE
2	AA	58	VAL
2	AA	71	GLU
2	AA	108	THR
2	AA	120	LEU
2	AA	121	VAL
2	AA	135	GLU
2	AA	139	VAL
2	AA	144	ILE
2	AA	157	ASP
2	AA	165	ARG
2	AA	176	LEU
2	AA	193	GLN
2	AA	231	GLU
2	AA	234	GLU
2	AA	238	GLU
2	AA	240	THR
2	AA	250	VAL
3	AB	22	ASN
3	AB	71	LEU
3	AB	75	LYS
3	AB	78	LYS
3	AB	84	ILE
3	AB	85	VAL
3	AB	91	VAL
3	AB	108	LYS
3	AB	115	ILE
3	AB	126	VAL
3	AB	168	ILE
3	AB	176	LEU
3	AB	191	ASP
4	AD	56	LEU
4	AD	102	VAL
4	AD	118	GLU
4	AD	123	LEU
4	AD	125	LYS
4	AD	136	VAL
4	AD	137	PRO
4	AD	146	THR
4	AD	154	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	AD	182	TYR
4	AD	189	LEU
4	AD	192	ILE
4	AD	207	LEU
4	AD	220	THR
4	AD	228	ILE
4	AD	239	PRO
5	AC	15	PRO
5	AC	16	LYS
5	AC	24	LEU
5	AC	37	LYS
5	AC	38	ASN
5	AC	39	LYS
5	AC	47	PHE
5	AC	61	THR
5	AC	65	LYS
5	AC	67	PRO
5	AC	91	LYS
5	AC	95	TYR
5	AC	103	ASP
5	AC	118	LEU
5	AC	122	VAL
5	AC	126	ARG
5	AC	136	VAL
5	AC	143	ILE
5	AC	146	PHE
5	AC	148	VAL
5	AC	153	GLU
5	AC	158	PHE
6	AE	5	GLU
6	AE	29	ASN
6	AE	30	THR
6	AE	39	THR
6	AE	51	THR
6	AE	69	ILE
6	AE	71	THR
6	AE	83	ILE
6	AE	96	THR
6	AE	139	ILE
6	AE	153	SER
6	AE	170	ILE
6	AE	178	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
6	AE	179	VAL
6	AE	196	VAL
6	AE	209	ASN
6	AE	212	LYS
6	AE	218	ILE
6	AE	224	PHE
6	AE	225	LEU
6	AE	235	LEU
6	AE	241	ASP
6	AE	242	ILE
6	AE	251	LYS
6	AE	252	LYS
8	AF	27	THR
8	AF	29	ILE
8	AF	30	PRO
8	AF	31	GLU
8	AF	42	LEU
8	AF	58	LEU
8	AF	73	THR
8	AF	80	LYS
8	AF	81	ARG
8	AF	106	LYS
8	AF	108	LEU
8	AF	123	VAL
8	AF	160	VAL
8	AF	161	ASP
8	AF	180	ARG
8	AF	189	THR
8	AF	203	LYS
8	AF	217	LEU
8	AF	222	LYS
9	AH	27	ILE
9	AH	28	ARG
9	AH	40	VAL
9	AH	65	LEU
9	AH	68	ARG
9	AH	69	LEU
9	AH	74	VAL
9	AH	79	PHE
9	AH	81	VAL
9	AH	93	LEU
9	AH	110	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
9	AH	122	SER
9	AH	130	TYR
10	AI	22	VAL
10	AI	36	ILE
10	AI	37	THR
10	AI	39	VAL
10	AI	57	LEU
10	AI	63	ILE
10	AI	70	THR
10	AI	85	ILE
10	AI	93	HIS
10	AI	118	ILE
10	AI	132	LYS
10	AI	142	TYR
11	AJ	24	ILE
11	AJ	25	THR
11	AJ	56	VAL
11	AJ	58	LEU
11	AJ	71	PRO
11	AJ	78	THR
11	AJ	79	TRP
11	AJ	87	HIS
12	AK	24	ASN
12	AK	46	MET
12	AK	51	ASP
12	AK	67	VAL
12	AK	107	ARG
12	AK	115	ILE
13	AL	6	PRO
13	AL	9	LEU
13	AL	13	ARG
13	AL	22	ASN
13	AL	38	PHE
13	AL	53	VAL
13	AL	59	ILE
13	AL	78	LYS
13	AL	86	PHE
13	AL	87	VAL
13	AL	96	VAL
13	AL	114	LYS
14	AM	13	HIS
14	AM	18	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
14	AM	20	THR
14	AM	22	VAL
14	AM	27	LYS
14	AM	51	ASP
14	AM	60	GLU
14	AM	66	LEU
14	AM	76	PRO
14	AM	80	LYS
14	AM	81	ILE
14	AM	87	ASN
14	AM	92	ILE
14	AM	93	THR
14	AM	108	LYS
14	AM	139	LYS
15	AN	9	SER
15	AN	12	ARG
15	AN	20	GLN
15	AN	37	ASN
16	AO	36	GLN
16	AO	40	TYR
16	AO	46	THR
16	AO	64	ARG
16	AO	65	VAL
16	AO	70	LYS
16	AO	83	GLU
16	AO	92	ILE
16	AO	112	LYS
16	AO	113	PHE
16	AO	118	ILE
16	AO	120	SER
16	AO	124	ARG
16	AO	132	VAL
16	AO	134	VAL
16	AO	145	THR
17	AQ	29	GLN
17	AQ	50	ILE
17	AQ	96	SER
17	AQ	97	ASN
17	AQ	99	VAL
17	AQ	102	VAL
17	AQ	119	LEU
17	AQ	128	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
17	AQ	132	TYR
18	AP	63	LEU
18	AP	78	THR
18	AP	99	ARG
18	AP	101	GLU
18	AP	115	PHE
18	AP	119	VAL
19	AR	49	MET
19	AR	58	LYS
19	AR	60	LEU
19	AR	72	LYS
19	AR	80	MET
19	AR	88	GLU
19	AR	106	GLU
19	AR	107	ILE
19	AR	130	ARG
20	AS	4	VAL
20	AS	7	ARG
20	AS	15	ILE
20	AS	30	VAL
20	AS	38	LYS
20	AS	46	PRO
20	AS	56	LYS
20	AS	75	LYS
20	AS	76	LEU
20	AS	89	ARG
20	AS	90	PRO
20	AS	100	ILE
20	AS	101	ASN
20	AS	104	VAL
20	AS	116	ILE
21	AT	23	ILE
21	AT	33	GLN
21	AT	44	ARG
21	AT	46	ILE
21	AT	55	LEU
21	AT	68	SER
21	AT	71	ARG
21	AT	72	LEU
22	AV	27	TRP
22	AV	45	GLU
22	AV	54	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	AV	59	TYR
22	AV	60	VAL
22	AV	75	LEU
22	AV	89	ILE
22	AV	95	HIS
22	AV	96	SER
22	AV	105	THR
24	AX	35	VAL
24	AX	43	ILE
24	AX	44	THR
24	AX	47	PHE
24	AX	55	THR
24	AX	56	CYS
24	AX	61	THR
24	AX	73	LEU
24	AX	77	THR
25	AY	4	LYS
25	AY	7	VAL
25	AY	25	VAL
25	AY	36	THR
25	AY	60	GLU
26	AZ	18	THR
26	AZ	30	PRO
26	AZ	48	THR
26	AZ	58	PRO
29	AU	2	SER
29	AU	3	ASP
29	AU	20	ARG
29	AU	25	VAL
29	AU	27	VAL
29	AU	30	PRO
29	AU	32	ARG
29	AU	35	VAL
29	AU	47	VAL
29	AU	60	PHE
29	AU	63	GLN
29	AU	72	PHE
29	AU	86	GLU
29	AU	87	PRO
30	BA	38	LEU
30	BA	67	ILE
30	BA	74	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
30	BA	93	LEU
30	BA	101	LYS
30	BA	103	LEU
30	BA	105	LYS
30	BA	108	ASN
30	BA	120	VAL
30	BA	135	PRO
30	BA	136	THR
30	BA	138	VAL
30	BA	149	THR
30	BA	155	ILE
30	BA	160	LYS
30	BA	178	VAL
30	BA	190	PHE
30	BA	191	VAL
30	BA	207	LYS
31	BB	15	ILE
31	BB	32	LEU
31	BB	61	VAL
31	BB	66	PRO
31	BB	102	LEU
31	BB	134	VAL
31	BB	136	ILE
31	BB	142	ASP
31	BB	148	VAL
31	BB	155	LYS
31	BB	186	PHE
31	BB	199	THR
31	BB	207	VAL
31	BB	225	ILE
31	BB	242	ARG
31	BB	245	LEU
32	BC	1	MET
32	BC	2	SER
32	BC	3	HIS
32	BC	6	TYR
32	BC	25	ILE
32	BC	39	LYS
32	BC	40	PRO
32	BC	43	LEU
32	BC	45	SER
32	BC	55	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
32	BC	60	LEU
32	BC	66	LYS
32	BC	68	HIS
32	BC	72	VAL
32	BC	73	VAL
32	BC	76	VAL
32	BC	77	THR
32	BC	78	VAL
32	BC	84	VAL
32	BC	87	VAL
32	BC	95	THR
32	BC	104	THR
32	BC	118	PHE
32	BC	120	LYS
32	BC	130	PHE
32	BC	144	ILE
32	BC	154	TYR
32	BC	160	VAL
32	BC	164	THR
32	BC	174	LYS
32	BC	175	LYS
32	BC	183	LEU
32	BC	212	ASN
32	BC	218	ILE
32	BC	231	HIS
32	BC	241	LYS
32	BC	248	LYS
32	BC	249	VAL
32	BC	251	CYS
32	BC	252	ILE
32	BC	261	MET
32	BC	262	TRP
32	BC	264	VAL
32	BC	266	ARG
32	BC	300	ARG
32	BC	305	ILE
32	BC	318	LYS
32	BC	322	ILE
32	BC	324	VAL
32	BC	331	ASN
32	BC	335	ILE
32	BC	340	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
32	BC	346	THR
32	BC	348	ARG
32	BC	354	VAL
32	BC	361	THR
32	BC	364	LYS
33	BD	5	GLN
33	BD	6	VAL
33	BD	8	VAL
33	BD	25	VAL
33	BD	29	PRO
33	BD	30	ILE
33	BD	33	ASP
33	BD	47	ARG
33	BD	100	PHE
33	BD	102	PRO
33	BD	109	TRP
33	BD	122	THR
33	BD	131	VAL
33	BD	140	HIS
33	BD	142	VAL
33	BD	143	GLU
33	BD	145	ILE
33	BD	156	LEU
33	BD	187	LEU
33	BD	219	LEU
33	BD	230	VAL
33	BD	238	LEU
33	BD	244	LEU
33	BD	256	THR
33	BD	259	ASP
33	BD	260	GLN
33	BD	295	ILE
33	BD	312	VAL
33	BD	318	LEU
33	BD	321	LYS
33	BD	324	LEU
33	BD	333	VAL
33	BD	341	SER
33	BD	349	THR
34	BE	4	LYS
34	BE	10	ARG
34	BE	21	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
34	BE	25	GLU
34	BE	29	ARG
34	BE	32	ARG
34	BE	36	VAL
34	BE	53	THR
34	BE	55	ARG
34	BE	57	PHE
34	BE	59	ILE
34	BE	60	ARG
34	BE	64	LYS
34	BE	65	ILE
34	BE	67	VAL
34	BE	72	ARG
34	BE	80	LEU
34	BE	89	TYR
34	BE	91	LEU
34	BE	101	ASN
34	BE	110	ILE
34	BE	115	LYS
34	BE	117	ASP
34	BE	131	MET
34	BE	147	THR
34	BE	152	HIS
34	BE	166	LYS
35	BG	4	GLN
35	BG	5	LYS
35	BG	11	PRO
35	BG	27	PRO
35	BG	35	VAL
35	BG	41	ILE
35	BG	42	LEU
35	BG	46	ARG
35	BG	50	LYS
35	BG	52	VAL
35	BG	56	LYS
35	BG	57	HIS
35	BG	62	THR
35	BG	64	LEU
35	BG	65	ILE
35	BG	71	VAL
35	BG	74	VAL
35	BG	75	PRO

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
35	BG	79	VAL
35	BG	84	VAL
35	BG	85	ILE
35	BG	93	VAL
35	BG	99	GLU
35	BG	111	LEU
35	BG	141	VAL
35	BG	146	ILE
35	BG	151	LYS
35	BG	154	LEU
35	BG	160	SER
36	BF	2	LYS
36	BF	4	ILE
36	BF	39	LYS
36	BF	41	ILE
36	BF	44	THR
36	BF	47	LYS
36	BF	53	ILE
36	BF	62	ARG
36	BF	69	ARG
36	BF	103	ILE
36	BF	106	LYS
36	BF	122	LYS
36	BF	149	ASN
36	BF	174	LYS
37	BH	66	SER
37	BH	70	LYS
37	BH	71	VAL
37	BH	73	PRO
37	BH	86	THR
37	BH	92	LYS
37	BH	110	THR
37	BH	128	LYS
37	BH	136	LEU
37	BH	152	LEU
37	BH	158	ASP
37	BH	181	LYS
37	BH	183	LYS
37	BH	193	LYS
37	BH	202	GLU
37	BH	218	ILE
37	BH	221	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
37	BH	229	VAL
38	Bs	36	GLN
38	Bs	50	VAL
38	Bs	73	PHE
38	Bs	84	VAL
38	Bs	89	THR
38	Bs	230	PRO
39	BJ	14	TYR
39	BJ	18	VAL
39	BJ	37	LEU
39	BJ	40	LYS
39	BJ	41	LYS
39	BJ	96	LYS
39	BJ	98	VAL
39	BJ	105	GLN
39	BJ	133	LEU
40	BK	3	VAL
40	BK	22	VAL
40	BK	26	GLN
40	BK	32	LYS
40	BK	39	GLU
40	BK	43	ILE
40	BK	49	ARG
40	BK	62	THR
40	BK	84	LEU
40	BK	87	MET
40	BK	96	LYS
40	BK	114	LYS
40	BK	121	PRO
40	BK	126	VAL
40	BK	129	LEU
40	BK	133	ARG
40	BK	140	LYS
40	BK	153	VAL
40	BK	155	LYS
40	BK	162	VAL
40	BK	184	THR
40	BK	190	VAL
40	BK	197	LEU
41	BN	6	ILE
41	BN	8	LYS
41	BN	10	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
41	BN	14	LEU
41	BN	17	VAL
41	BN	21	VAL
41	BN	22	LEU
41	BN	23	ILE
41	BN	36	VAL
41	BN	39	ILE
41	BN	43	LYS
41	BN	64	VAL
41	BN	65	LEU
41	BN	66	THR
41	BN	72	LEU
41	BN	83	LYS
41	BN	85	TRP
41	BN	99	TRP
41	BN	109	ARG
41	BN	113	THR
41	BN	125	LYS
42	BM	12	ARG
42	BM	15	LEU
42	BM	22	ILE
42	BM	36	ILE
42	BM	49	LEU
42	BM	53	SER
42	BM	54	LEU
42	BM	61	THR
42	BM	62	VAL
42	BM	71	LYS
42	BM	75	PRO
42	BM	78	VAL
42	BM	101	VAL
42	BM	110	LYS
42	BM	125	LEU
43	BP	21	PHE
43	BP	22	LEU
43	BP	24	ARG
43	BP	25	VAL
43	BP	36	ILE
43	BP	50	ARG
43	BP	73	ARG
43	BP	84	PRO
43	BP	86	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
43	BP	87	GLN
43	BP	95	GLN
43	BP	98	LEU
43	BP	116	LEU
43	BP	120	TRP
43	BP	125	SER
43	BP	135	VAL
43	BP	138	GLN
43	BP	143	ARG
43	BP	144	ARG
43	BP	174	ILE
43	BP	176	LYS
43	BP	180	PHE
43	BP	184	LYS
43	BP	192	LYS
44	BO	8	THR
44	BO	19	LYS
44	BO	39	HIS
44	BO	43	ILE
44	BO	47	LYS
44	BO	60	TYR
44	BO	62	HIS
44	BO	72	VAL
44	BO	75	LEU
44	BO	80	THR
44	BO	84	GLU
44	BO	101	VAL
44	BO	122	PRO
44	BO	123	VAL
44	BO	128	ARG
45	BR	3	ILE
45	BR	10	HIS
45	BR	11	LYS
45	BR	12	ARG
45	BR	13	SER
45	BR	17	THR
45	BR	22	ASP
45	BR	24	VAL
45	BR	28	LEU
45	BR	32	LEU
45	BR	35	PHE
45	BR	36	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
45	BR	39	ARG
45	BR	49	LEU
45	BR	54	LEU
45	BR	72	LYS
45	BR	92	ARG
45	BR	93	ILE
45	BR	95	GLU
45	BR	100	THR
45	BR	123	THR
45	BR	127	LEU
45	BR	148	GLU
45	BR	155	MET
46	BT	14	VAL
46	BT	17	VAL
46	BT	20	ARG
46	BT	51	VAL
46	BT	57	VAL
46	BT	80	LYS
46	BT	82	LYS
46	BT	96	ILE
46	BT	124	TYR
46	BT	130	ASN
46	BT	138	LEU
46	BT	142	ILE
46	BT	143	ILE
46	BT	177	VAL
47	BU	7	TYR
47	BU	8	ARG
47	BU	10	ARG
47	BU	25	VAL
47	BU	26	HIS
47	BU	27	LEU
47	BU	31	LEU
47	BU	42	ILE
47	BU	48	ILE
47	BU	56	PHE
47	BU	67	VAL
47	BU	69	LYS
47	BU	72	VAL
47	BU	88	ARG
47	BU	89	LEU
47	BU	91	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
47	BU	96	ILE
47	BU	128	LEU
47	BU	141	VAL
47	BU	151	LEU
47	BU	160	ILE
48	BW	8	LYS
48	BW	11	ILE
48	BW	13	LYS
48	BW	24	GLU
48	BW	29	ASP
48	BW	42	LYS
48	BW	66	VAL
48	BW	76	LEU
48	BW	81	LYS
48	BW	90	ARG
48	BW	92	TRP
48	BW	95	PHE
48	BW	97	SER
48	BW	98	THR
49	BV	4	TYR
49	BV	18	ARG
49	BV	22	LEU
49	BV	30	ARG
49	BV	43	LYS
49	BV	58	ILE
49	BV	59	PRO
49	BV	69	ARG
49	BV	70	THR
49	BV	74	LYS
49	BV	78	VAL
49	BV	79	THR
49	BV	88	VAL
49	BV	143	PRO
49	BV	169	THR
50	BX	28	THR
50	BX	36	LYS
50	BX	40	LEU
50	BX	48	SER
50	BX	86	VAL
50	BX	93	TYR
50	BX	105	VAL
50	BX	113	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	BX	141	TYR
51	BZ	5	ILE
51	BZ	22	VAL
51	BZ	27	LYS
51	BZ	49	ILE
51	BZ	51	TRP
51	BZ	56	ARG
51	BZ	63	ILE
51	BZ	66	GLU
51	BZ	67	VAL
51	BZ	69	LYS
52	BY	3	LYS
52	BY	16	ARG
52	BY	21	THR
52	BY	31	LEU
52	BY	46	LYS
52	BY	48	LEU
52	BY	51	ARG
52	BY	70	ILE
52	BY	73	VAL
52	BY	80	VAL
52	BY	91	ASN
52	BY	106	ILE
52	BY	110	HIS
52	BY	118	LEU
53	Ba	10	VAL
53	Ba	12	VAL
53	Ba	14	VAL
53	Ba	25	ILE
53	Ba	27	LYS
53	Ba	29	HIS
53	Ba	37	PRO
53	Ba	42	LEU
53	Ba	55	LYS
53	Ba	56	LYS
53	Ba	61	LYS
53	Ba	68	ILE
53	Ba	82	PRO
54	Bd	44	LYS
54	Bd	52	LYS
55	Bc	14	LYS
55	Bc	20	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
55	Bc	32	LYS
55	Bc	36	LEU
55	Bc	39	PRO
55	Bc	48	ARG
55	Bc	71	LYS
55	Bc	75	TYR
55	Bc	88	LEU
55	Bc	93	THR
55	Bc	94	LYS
55	Bc	95	PHE
55	Bc	109	ILE
55	Bc	118	ILE
56	Bf	13	LYS
56	Bf	14	LEU
56	Bf	18	ILE
56	Bf	48	THR
56	Bf	50	VAL
56	Bf	51	LEU
56	Bf	65	THR
56	Bf	66	LYS
56	Bf	77	LEU
57	Be	17	LYS
57	Be	22	THR
57	Be	44	ILE
57	Be	53	LYS
57	Be	60	ARG
57	Be	70	LYS
57	Be	82	LYS
57	Be	95	ILE
57	Be	101	LYS
57	Be	105	LEU
57	Be	107	ARG
57	Be	142	SER
57	Be	160	ARG
57	Be	162	PRO
57	Be	163	LEU
57	Be	165	ASP
57	Be	181	ILE
57	Be	185	ILE
57	Be	200	ASN
57	Be	224	ILE
57	Be	229	PHE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
57	Be	242	SER
58	Bg	7	VAL
58	Bg	10	ARG
58	Bg	11	GLU
58	Bg	23	VAL
58	Bg	64	VAL
58	Bg	65	LYS
58	Bg	71	LEU
58	Bg	72	ARG
58	Bg	73	LEU
58	Bg	89	LEU
58	Bg	93	VAL
58	Bg	96	VAL
58	Bg	100	SER
59	Bh	9	ILE
59	Bh	24	ARG
59	Bh	25	TYR
59	Bh	30	GLU
59	Bh	35	GLN
59	Bh	36	LYS
59	Bh	38	ILE
59	Bh	41	VAL
59	Bh	43	ARG
59	Bh	45	ARG
59	Bh	46	PHE
59	Bh	50	ILE
59	Bh	57	TYR
59	Bh	60	ASN
59	Bh	76	VAL
59	Bh	89	THR
59	Bh	96	ILE
60	Bi	3	GLN
60	Bi	5	VAL
60	Bi	8	ARG
60	Bi	9	ARG
60	Bi	12	PRO
60	Bi	14	ASN
60	Bi	29	ILE
60	Bi	36	LYS
60	Bi	38	LEU
60	Bi	55	SER
60	Bi	57	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
60	Bi	58	ARG
60	Bi	60	ARG
60	Bi	74	ARG
60	Bi	80	ARG
61	Bj	7	LEU
61	Bj	18	ARG
61	Bj	19	SER
61	Bj	35	VAL
61	Bj	37	THR
61	Bj	47	LYS
61	Bj	51	TYR
61	Bj	80	VAL
61	Bj	86	ARG
61	Bj	90	PRO
62	Bk	26	ILE
62	Bk	27	SER
62	Bk	28	TYR
62	Bk	56	ARG
62	Bk	57	LEU
62	Bk	63	ASN
63	Bm	6	LYS
63	Bm	17	ARG
63	Bm	29	LEU
64	Bl	1	MET
64	Bl	7	SER
64	Bl	12	HIS
64	Bl	31	LYS
64	Bl	63	ARG
64	Bl	67	LEU
64	Bl	76	ASN
64	Bl	79	GLN
65	Bn	15	THR
65	Bn	16	ARG
65	Bn	17	ARG
65	Bn	20	VAL
65	Bn	27	ILE
65	Bn	31	LEU
65	Bn	33	LYS
65	Bn	40	GLN
65	Bn	46	ARG
65	Bn	52	TYR
65	Bn	54	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
65	Bn	64	LYS
65	Bn	72	THR
65	Bn	73	LEU
65	Bn	78	LEU
66	Bo	5	LYS
66	Bo	6	SER
66	Bo	7	PHE
66	Bo	8	ARG
66	Bo	10	LYS
66	Bo	30	ARG
66	Bo	34	THR
66	Bo	45	ARG
67	Bp	21	ARG
67	Bp	35	ARG
68	Bq	24	SER
69	Br	17	CYS
69	Br	32	LYS
69	Br	45	ARG
69	Br	47	GLN
69	Br	50	PHE
69	Br	55	LYS
69	Br	56	PRO
69	Br	61	LYS
69	Br	75	VAL
69	Br	79	THR
73	Bv	17	PRO
73	Bv	20	THR
73	Bw	20	THR
74	BQ	3	PHE
74	BQ	9	SER
74	BQ	18	THR
74	BQ	20	PHE
74	BQ	34	LYS
74	BQ	36	LEU
74	BQ	46	THR
74	BQ	49	TYR
74	BQ	53	VAL
74	BQ	55	PHE
74	BQ	65	ILE
74	BQ	74	VAL
74	BQ	79	TYR
74	BQ	88	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
74	BQ	103	LEU
74	BQ	113	LEU
74	BQ	131	LEU
74	BQ	142	PHE
74	BQ	144	VAL
74	BQ	148	ILE
74	BQ	151	GLN
74	BQ	159	VAL
74	BQ	167	SER
74	BQ	188	GLU
74	BQ	196	ARG
74	BQ	222	LEU
74	BQ	224	LYS
74	BQ	227	LEU
74	BQ	239	ILE
74	BQ	240	TYR
74	BQ	248	ARG
74	BQ	251	PRO
74	BQ	259	LYS
74	BQ	260	PHE
74	BQ	276	LYS
74	BQ	289	LYS
74	BQ	293	LEU
76	BS	7	HIS
76	BS	16	LEU
76	BS	19	PRO
76	BS	23	HIS
76	BS	25	LYS
76	BS	31	LEU
76	BS	51	LYS
76	BS	52	LYS
76	BS	53	VAL
76	BS	55	LYS
76	BS	61	LEU
76	BS	66	ILE
76	BS	68	GLU
76	BS	69	LYS
76	BS	71	PRO
76	BS	73	THR
76	BS	74	ILE
76	BS	75	LYS
76	BS	79	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
76	BS	81	LEU
76	BS	92	MET
76	BS	94	LYS
76	BS	97	ARG
76	BS	98	ASP
76	BS	105	VAL
76	BS	114	SER
76	BS	115	ARG
76	BS	118	VAL
76	BS	119	ARG
76	BS	123	ILE
76	BS	132	HIS
76	BS	142	LYS
76	BS	143	GLN
76	BS	152	PRO
76	BS	157	LYS
76	BS	158	VAL
76	BS	159	ARG
77	BI	1	MET
77	BI	4	ARG
77	BI	5	PRO
77	BI	12	GLN
77	BI	13	LYS
77	BI	17	TYR
77	BI	20	SER
77	BI	23	ASN
77	BI	28	ASP
77	BI	30	LYS
77	BI	63	GLU
77	BI	65	LEU
77	BI	90	ARG
77	BI	134	ILE
77	BI	144	ASN
77	BI	146	ASP
77	BI	177	ASP

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (219) such sidechains are listed below:

Mol	Chain	Res	Type
1	Aa	64	HIS
1	Aa	159	ASN
1	Aa	182	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	Aa	185	GLN
1	Aa	195	HIS
1	Aa	268	GLN
1	Aa	288	HIS
1	Aa	314	GLN
2	AA	23	HIS
2	AA	46	HIS
2	AA	109	ASN
2	AA	131	GLN
2	AA	140	ASN
3	AB	165	ASN
4	AD	112	HIS
4	AD	130	GLN
4	AD	142	HIS
4	AD	153	ASN
4	AD	201	HIS
5	AC	124	HIS
5	AC	133	HIS
5	AC	176	ASN
6	AE	29	ASN
6	AE	67	GLN
6	AE	77	GLN
6	AE	110	HIS
6	AE	150	GLN
6	AE	228	ASN
6	AE	233	GLN
8	AF	37	GLN
8	AF	44	ASN
8	AF	63	GLN
8	AF	79	ASN
8	AF	86	GLN
8	AF	116	HIS
8	AF	122	ASN
8	AF	127	GLN
8	AF	224	ASN
9	AH	16	ASN
9	AH	113	HIS
10	AI	32	ASN
10	AI	74	HIS
10	AI	93	HIS
11	AJ	49	ASN
11	AJ	72	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
12	AK	24	ASN
13	AL	18	HIS
13	AL	65	ASN
13	AL	99	ASN
14	AM	13	HIS
14	AM	55	HIS
14	AM	63	GLN
14	AM	122	HIS
14	AM	127	HIS
16	AO	58	HIS
16	AO	69	ASN
16	AO	78	ASN
16	AO	138	ASN
17	AQ	29	GLN
17	AQ	48	ASN
17	AQ	101	ASN
18	AP	81	HIS
18	AP	104	HIS
19	AR	98	ASN
20	AS	12	GLN
20	AS	106	GLN
20	AS	129	GLN
21	AT	74	GLN
22	AV	37	GLN
22	AV	95	HIS
22	AV	98	GLN
24	AX	49	HIS
26	AZ	17	GLN
29	AU	29	HIS
29	AU	63	GLN
30	BA	12	HIS
30	BA	40	ASN
30	BA	62	ASN
30	BA	94	ASN
30	BA	96	ASN
30	BA	127	GLN
30	BA	158	GLN
30	BA	199	GLN
31	BB	47	GLN
31	BB	50	HIS
31	BB	86	GLN
31	BB	187	HIS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
31	BB	205	ASN
31	BB	216	HIS
31	BB	217	GLN
32	BC	121	ASN
32	BC	163	HIS
32	BC	177	HIS
32	BC	182	GLN
32	BC	224	HIS
32	BC	293	ASN
33	BD	36	HIS
33	BD	43	ASN
33	BD	48	GLN
33	BD	58	HIS
33	BD	175	HIS
33	BD	229	ASN
33	BD	307	GLN
33	BD	361	HIS
34	BE	68	HIS
34	BE	101	ASN
34	BE	132	ASN
35	BG	28	GLN
35	BG	57	HIS
35	BG	125	GLN
36	BF	58	HIS
36	BF	64	HIS
36	BF	102	ASN
36	BF	139	ASN
37	BH	79	GLN
37	BH	155	ASN
37	BH	192	GLN
37	BH	232	HIS
37	BH	243	GLN
38	Bs	32	ASN
38	Bs	37	GLN
38	Bs	189	GLN
38	Bs	212	HIS
39	BJ	61	GLN
39	BJ	66	ASN
39	BJ	100	HIS
40	BK	31	GLN
40	BK	42	ASN
40	BK	65	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
40	BK	90	HIS
41	BN	56	GLN
41	BN	126	GLN
42	BM	47	ASN
43	BP	37	HIS
43	BP	86	ASN
43	BP	87	GLN
43	BP	112	ASN
43	BP	149	ASN
43	BP	175	ASN
44	BO	11	HIS
44	BO	14	HIS
44	BO	39	HIS
44	BO	44	ASN
44	BO	49	HIS
44	BO	65	GLN
44	BO	89	GLN
45	BR	58	ASN
45	BR	73	GLN
45	BR	78	ASN
45	BR	145	ASN
45	BR	152	HIS
46	BT	58	HIS
46	BT	75	HIS
47	BU	16	GLN
47	BU	26	HIS
47	BU	58	GLN
47	BU	66	ASN
47	BU	98	HIS
48	BW	25	ASN
48	BW	52	ASN
49	BV	10	ASN
49	BV	34	GLN
49	BV	72	GLN
49	BV	97	ASN
49	BV	101	ASN
49	BV	133	HIS
50	BX	91	ASN
50	BX	94	GLN
51	BZ	32	GLN
51	BZ	33	ASN
51	BZ	58	HIS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
52	BY	66	GLN
52	BY	98	ASN
52	BY	120	GLN
53	Ba	57	HIS
53	Ba	79	HIS
54	Bd	42	ASN
54	Bd	48	HIS
55	Bc	62	GLN
55	Bc	68	GLN
55	Bc	99	GLN
55	Bc	104	GLN
57	Be	19	GLN
57	Be	80	GLN
57	Be	93	ASN
57	Be	159	GLN
57	Be	194	HIS
57	Be	200	ASN
57	Be	222	HIS
57	Be	231	ASN
58	Bg	21	HIS
59	Bh	6	HIS
59	Bh	13	HIS
59	Bh	21	HIS
59	Bh	71	HIS
59	Bh	88	HIS
59	Bh	104	ASN
60	Bi	18	ASN
60	Bi	34	HIS
60	Bi	52	GLN
60	Bi	69	HIS
60	Bi	98	GLN
61	Bj	5	HIS
61	Bj	13	HIS
61	Bj	17	GLN
61	Bj	88	ASN
62	Bk	92	ASN
64	Bl	69	HIS
64	Bl	76	ASN
64	Bl	79	GLN
65	Bn	76	ASN
67	Bp	43	ASN
69	Br	23	HIS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
73	Bw	58	ASN
74	BQ	203	HIS
76	BS	7	HIS
76	BS	124	GLN
76	BS	145	HIS
77	BI	23	ASN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
78	CA	1471/1800 (81%)	511 (34%)	209 (14%)
79	CB	74/75 (98%)	26 (35%)	10 (13%)
80	CC	10/11 (90%)	7 (70%)	1 (10%)
81	DA	3140/3396 (92%)	1252 (39%)	607 (19%)
82	DB	141/158 (89%)	65 (46%)	36 (25%)
83	DC	117/118 (99%)	60 (51%)	26 (22%)
All	All	4953/5558 (89%)	1921 (38%)	889 (17%)

All (1921) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
78	CA	3	U
78	CA	4	C
78	CA	5	U
78	CA	10	G
78	CA	11	A
78	CA	16	G
78	CA	26	A
78	CA	28	A
78	CA	29	U
78	CA	30	G
78	CA	31	C
78	CA	34	G
78	CA	37	U
78	CA	42	G
78	CA	45	U
78	CA	46	A
78	CA	47	A
78	CA	49	C
78	CA	50	C
78	CA	51	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
78	CA	55	A
78	CA	57	G
78	CA	58	U
78	CA	59	C
78	CA	60	U
78	CA	61	A
78	CA	65	A
78	CA	68	A
78	CA	70	C
78	CA	84	A
78	CA	87	C
78	CA	89	G
78	CA	92	A
78	CA	93	A
78	CA	100	A
78	CA	101	U
78	CA	104	A
78	CA	105	A
78	CA	114	C
78	CA	115	G
78	CA	116	U
78	CA	117	U
78	CA	118	U
78	CA	119	A
78	CA	120	U
78	CA	123	G
78	CA	140	A
78	CA	141	U
78	CA	142	G
78	CA	146	U
78	CA	149	C
78	CA	151	G
78	CA	153	G
78	CA	156	A
78	CA	157	A
78	CA	158	U
78	CA	162	A
78	CA	163	G
78	CA	164	A
78	CA	169	A
78	CA	170	U
78	CA	172	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
78	CA	173	A
78	CA	174	U
78	CA	175	G
78	CA	178	U
78	CA	179	A
78	CA	180	A
78	CA	183	U
78	CA	184	C
78	CA	185	U
78	CA	191	C
78	CA	192	U
78	CA	195	G
78	CA	196	G
78	CA	206	A
78	CA	219	A
78	CA	220	A
78	CA	221	A
78	CA	222	A
78	CA	223	U
78	CA	229	U
78	CA	231	U
78	CA	235	G
78	CA	236	A
78	CA	255	U
78	CA	256	A
78	CA	271	A
78	CA	276	C
78	CA	279	G
78	CA	282	C
78	CA	288	A
78	CA	289	U
78	CA	294	C
78	CA	295	A
78	CA	298	C
78	CA	304	U
78	CA	305	C
78	CA	309	C
78	CA	310	C
78	CA	313	U
78	CA	316	A
78	CA	319	U
78	CA	320	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
78	CA	324	U
78	CA	335	U
78	CA	337	G
78	CA	338	C
78	CA	345	U
78	CA	348	U
78	CA	352	A
78	CA	354	C
78	CA	359	A
78	CA	369	A
78	CA	373	G
78	CA	378	A
78	CA	387	A
78	CA	393	C
78	CA	394	C
78	CA	400	A
78	CA	401	A
78	CA	404	G
78	CA	413	U
78	CA	418	G
78	CA	421	A
78	CA	423	G
78	CA	424	C
78	CA	425	A
78	CA	426	G
78	CA	435	C
78	CA	438	A
78	CA	439	U
78	CA	444	C
78	CA	445	A
78	CA	449	C
78	CA	452	A
78	CA	453	U
78	CA	454	U
78	CA	455	C
78	CA	456	A
78	CA	459	G
78	CA	460	A
78	CA	461	G
78	CA	463	U
78	CA	468	A
78	CA	478	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
78	CA	479	C
78	CA	481	A
78	CA	482	U
78	CA	483	A
78	CA	484	C
78	CA	486	G
78	CA	487	G
78	CA	489	C
78	CA	490	C
78	CA	491	C
78	CA	492	A
78	CA	493	U
78	CA	494	U
78	CA	496	G
78	CA	497	G
78	CA	498	G
78	CA	499	U
78	CA	500	C
78	CA	501	U
78	CA	502	U
78	CA	504	U
78	CA	505	A
78	CA	506	A
78	CA	508	U
78	CA	548	G
78	CA	551	G
78	CA	554	C
78	CA	555	A
78	CA	556	A
78	CA	559	C
78	CA	565	C
78	CA	566	C
78	CA	571	G
78	CA	574	G
78	CA	577	G
78	CA	578	U
78	CA	579	A
78	CA	580	A
78	CA	581	U
78	CA	582	U
78	CA	586	G
78	CA	589	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
78	CA	591	A
78	CA	594	A
78	CA	597	G
78	CA	598	U
78	CA	604	A
78	CA	606	A
78	CA	607	G
78	CA	608	U
78	CA	611	U
78	CA	613	G
78	CA	618	U
78	CA	619	A
78	CA	620	A
78	CA	623	A
78	CA	624	G
78	CA	627	C
78	CA	629	U
78	CA	630	A
78	CA	631	G
78	CA	634	G
78	CA	635	A
78	CA	636	A
78	CA	637	C
78	CA	638	U
78	CA	645	C
78	CA	647	G
78	CA	650	U
78	CA	651	G
78	CA	652	G
78	CA	662	U
78	CA	671	G
78	CA	677	G
78	CA	678	A
78	CA	685	A
78	CA	690	G
78	CA	823	G
78	CA	825	U
78	CA	826	U
78	CA	830	U
78	CA	831	U
78	CA	832	U
78	CA	833	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
78	CA	838	G
78	CA	840	U
78	CA	841	U
78	CA	842	C
78	CA	843	U
78	CA	849	C
78	CA	853	G
78	CA	855	A
78	CA	857	U
78	CA	876	G
78	CA	886	U
78	CA	887	A
78	CA	888	U
78	CA	892	A
78	CA	893	U
78	CA	898	A
78	CA	899	G
78	CA	912	U
78	CA	913	G
78	CA	914	G
78	CA	921	U
78	CA	925	G
78	CA	926	A
78	CA	930	A
78	CA	934	C
78	CA	935	U
78	CA	942	G
78	CA	944	A
78	CA	945	U
78	CA	960	U
78	CA	963	A
78	CA	964	U
78	CA	966	A
78	CA	979	A
78	CA	1004	U
78	CA	1026	A
78	CA	1027	A
78	CA	1028	C
78	CA	1032	G
78	CA	1039	A
78	CA	1044	U
78	CA	1050	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
78	CA	1056	U
78	CA	1057	U
78	CA	1058	U
78	CA	1059	U
78	CA	1060	U
78	CA	1061	A
78	CA	1064	G
78	CA	1066	C
78	CA	1067	C
78	CA	1068	C
78	CA	1069	A
78	CA	1076	A
78	CA	1080	U
78	CA	1081	A
78	CA	1091	A
78	CA	1092	A
78	CA	1096	C
78	CA	1108	G
78	CA	1109	G
78	CA	1118	G
78	CA	1132	A
78	CA	1138	A
78	CA	1144	U
78	CA	1151	A
78	CA	1155	G
78	CA	1158	C
78	CA	1173	C
78	CA	1174	C
78	CA	1185	U
78	CA	1190	C
78	CA	1191	U
78	CA	1194	A
78	CA	1196	A
78	CA	1197	C
78	CA	1199	G
78	CA	1200	G
78	CA	1202	A
78	CA	1209	C
78	CA	1214	U
78	CA	1221	A
78	CA	1222	C
78	CA	1223	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
78	CA	1226	A
78	CA	1228	G
78	CA	1234	A
78	CA	1237	G
78	CA	1239	U
78	CA	1242	A
78	CA	1243	G
78	CA	1246	C
78	CA	1258	U
78	CA	1262	U
78	CA	1263	G
78	CA	1265	G
78	CA	1268	G
78	CA	1270	G
78	CA	1274	C
78	CA	1275	A
78	CA	1281	G
78	CA	1282	U
78	CA	1285	U
78	CA	1286	U
78	CA	1289	U
78	CA	1290	U
78	CA	1291	G
78	CA	1301	U
78	CA	1303	U
78	CA	1305	U
78	CA	1306	C
78	CA	1310	U
78	CA	1312	A
78	CA	1314	U
78	CA	1321	A
78	CA	1324	G
78	CA	1325	A
78	CA	1327	C
78	CA	1337	A
78	CA	1338	C
78	CA	1339	C
78	CA	1340	U
78	CA	1341	A
78	CA	1342	C
78	CA	1343	U
78	CA	1344	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
78	CA	1349	G
78	CA	1352	G
78	CA	1353	U
78	CA	1354	G
78	CA	1355	C
78	CA	1356	U
78	CA	1357	A
78	CA	1358	G
78	CA	1365	C
78	CA	1366	U
78	CA	1367	G
78	CA	1368	G
78	CA	1375	A
78	CA	1376	C
78	CA	1377	U
78	CA	1382	A
78	CA	1387	G
78	CA	1388	A
78	CA	1389	C
78	CA	1391	A
78	CA	1392	U
78	CA	1394	G
78	CA	1396	U
78	CA	1397	U
78	CA	1401	A
78	CA	1402	G
78	CA	1405	G
78	CA	1410	A
78	CA	1418	G
78	CA	1419	G
78	CA	1420	C
78	CA	1425	A
78	CA	1426	C
78	CA	1427	A
78	CA	1428	G
78	CA	1432	U
78	CA	1433	G
78	CA	1434	U
78	CA	1437	U
78	CA	1438	G
78	CA	1440	C
78	CA	1441	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
78	CA	1442	U
78	CA	1444	A
78	CA	1448	G
78	CA	1451	C
78	CA	1453	G
78	CA	1454	G
78	CA	1455	G
78	CA	1456	C
78	CA	1459	C
78	CA	1460	A
78	CA	1461	C
78	CA	1462	G
78	CA	1463	C
78	CA	1467	C
78	CA	1471	A
78	CA	1472	C
78	CA	1473	U
78	CA	1477	G
78	CA	1478	G
78	CA	1479	A
78	CA	1497	U
78	CA	1499	G
78	CA	1502	G
78	CA	1503	A
78	CA	1505	A
78	CA	1506	G
78	CA	1507	G
78	CA	1508	U
78	CA	1509	C
78	CA	1529	C
78	CA	1530	C
78	CA	1534	G
78	CA	1535	U
78	CA	1537	C
78	CA	1538	U
78	CA	1542	G
78	CA	1548	G
78	CA	1549	C
78	CA	1550	A
78	CA	1557	U
78	CA	1558	U
78	CA	1568	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
78	CA	1571	C
78	CA	1573	A
78	CA	1575	G
78	CA	1578	U
78	CA	1580	C
78	CA	1583	A
78	CA	1584	G
78	CA	1590	G
78	CA	1601	G
78	CA	1602	C
78	CA	1603	U
78	CA	1614	A
78	CA	1615	C
78	CA	1617	U
78	CA	1618	C
78	CA	1629	G
78	CA	1636	C
78	CA	1645	G
78	CA	1648	A
78	CA	1649	G
78	CA	1650	U
78	CA	1654	G
78	CA	1656	U
78	CA	1659	A
78	CA	1665	U
78	CA	1666	U
78	CA	1670	G
78	CA	1673	G
78	CA	1674	C
78	CA	1677	C
78	CA	1678	A
78	CA	1680	G
78	CA	1690	G
78	CA	1691	A
78	CA	1694	A
78	CA	1699	G
78	CA	1700	C
78	CA	1701	A
78	CA	1702	A
78	CA	1703	C
78	CA	1708	U
78	CA	1720	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
78	CA	1721	A
78	CA	1724	U
78	CA	1725	U
78	CA	1729	C
78	CA	1732	A
78	CA	1735	U
78	CA	1736	G
78	CA	1737	G
78	CA	1744	A
78	CA	1745	G
78	CA	1749	A
78	CA	1750	A
78	CA	1751	C
78	CA	1754	A
78	CA	1755	A
78	CA	1756	A
78	CA	1757	G
78	CA	1761	U
78	CA	1762	A
78	CA	1764	C
78	CA	1765	A
78	CA	1766	A
78	CA	1767	G
78	CA	1768	G
78	CA	1771	U
78	CA	1775	U
78	CA	1783	C
78	CA	1786	G
78	CA	1793	G
79	CB	8	U
79	CB	12	U
79	CB	13	U
79	CB	14	A
79	CB	17	G
79	CB	18	G
79	CB	19	U
79	CB	20	C
79	CB	21	A
79	CB	22	G
79	CB	26	G
79	CB	28	G
79	CB	32	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
79	CB	33	U
79	CB	37	G
79	CB	38	C
79	CB	42	C
79	CB	45	G
79	CB	47	U
79	CB	51	G
79	CB	60	C
79	CB	65	U
79	CB	68	C
79	CB	73	C
79	CB	74	C
79	CB	75	A
80	CC	13	A
80	CC	14	A
80	CC	18	C
80	CC	19	U
80	CC	20	U
80	CC	21	C
80	CC	22	A
81	DA	2	U
81	DA	3	U
81	DA	7	C
81	DA	8	C
81	DA	9	U
81	DA	21	G
81	DA	22	G
81	DA	31	C
81	DA	32	U
81	DA	33	G
81	DA	37	U
81	DA	40	A
81	DA	43	A
81	DA	44	U
81	DA	50	U
81	DA	60	A
81	DA	61	A
81	DA	63	A
81	DA	64	G
81	DA	66	A
81	DA	72	C
81	DA	73	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	74	G
81	DA	77	A
81	DA	92	G
81	DA	93	C
81	DA	105	C
81	DA	109	A
81	DA	110	G
81	DA	114	A
81	DA	134	U
81	DA	135	C
81	DA	136	G
81	DA	137	G
81	DA	160	G
81	DA	162	G
81	DA	167	U
81	DA	170	G
81	DA	171	G
81	DA	179	C
81	DA	186	U
81	DA	187	A
81	DA	190	U
81	DA	191	U
81	DA	210	U
81	DA	211	A
81	DA	212	G
81	DA	218	G
81	DA	219	A
81	DA	228	U
81	DA	229	G
81	DA	230	U
81	DA	231	G
81	DA	248	U
81	DA	249	U
81	DA	250	U
81	DA	251	G
81	DA	261	U
81	DA	264	G
81	DA	265	A
81	DA	266	A
81	DA	267	G
81	DA	269	G
81	DA	281	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	283	G
81	DA	285	A
81	DA	286	U
81	DA	295	A
81	DA	298	U
81	DA	299	G
81	DA	304	G
81	DA	305	U
81	DA	308	A
81	DA	311	C
81	DA	312	C
81	DA	327	A
81	DA	329	U
81	DA	330	G
81	DA	339	C
81	DA	342	A
81	DA	346	C
81	DA	350	C
81	DA	351	A
81	DA	367	A
81	DA	370	U
81	DA	374	A
81	DA	375	A
81	DA	376	G
81	DA	384	A
81	DA	385	A
81	DA	386	A
81	DA	387	A
81	DA	391	A
81	DA	398	A
81	DA	399	A
81	DA	400	G
81	DA	402	A
81	DA	403	C
81	DA	409	A
81	DA	420	G
81	DA	425	G
81	DA	426	G
81	DA	427	C
81	DA	430	U
81	DA	433	A
81	DA	434	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	435	C
81	DA	436	A
81	DA	441	U
81	DA	443	G
81	DA	444	U
81	DA	451	U
81	DA	453	C
81	DA	456	U
81	DA	457	C
81	DA	458	U
81	DA	460	C
81	DA	462	C
81	DA	463	C
81	DA	466	G
81	DA	467	U
81	DA	468	G
81	DA	469	G
81	DA	470	G
81	DA	471	U
81	DA	473	G
81	DA	474	G
81	DA	475	G
81	DA	476	G
81	DA	482	C
81	DA	483	G
81	DA	484	C
81	DA	485	A
81	DA	490	A
81	DA	491	C
81	DA	492	U
81	DA	493	G
81	DA	494	G
81	DA	495	G
81	DA	496	C
81	DA	497	C
81	DA	498	A
81	DA	500	C
81	DA	501	A
81	DA	502	U
81	DA	506	U
81	DA	507	U
81	DA	508	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	510	G
81	DA	511	G
81	DA	512	U
81	DA	513	G
81	DA	516	A
81	DA	517	G
81	DA	518	G
81	DA	519	A
81	DA	520	U
81	DA	521	A
81	DA	523	A
81	DA	524	U
81	DA	525	C
81	DA	527	A
81	DA	528	U
81	DA	530	G
81	DA	532	A
81	DA	533	A
81	DA	534	U
81	DA	535	G
81	DA	536	U
81	DA	537	A
81	DA	538	G
81	DA	539	C
81	DA	540	U
81	DA	541	U
81	DA	544	C
81	DA	545	U
81	DA	547	G
81	DA	548	G
81	DA	549	U
81	DA	551	A
81	DA	552	G
81	DA	553	U
81	DA	555	U
81	DA	556	U
81	DA	557	A
81	DA	558	U
81	DA	559	A
81	DA	560	G
81	DA	561	C
81	DA	562	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	563	U
81	DA	565	U
81	DA	567	G
81	DA	569	A
81	DA	570	A
81	DA	571	U
81	DA	573	C
81	DA	577	C
81	DA	578	A
81	DA	579	G
81	DA	581	U
81	DA	582	G
81	DA	583	G
81	DA	585	A
81	DA	586	C
81	DA	587	U
81	DA	594	U
81	DA	595	G
81	DA	597	G
81	DA	599	C
81	DA	600	G
81	DA	601	U
81	DA	602	A
81	DA	603	A
81	DA	604	G
81	DA	606	C
81	DA	607	A
81	DA	608	A
81	DA	609	G
81	DA	614	C
81	DA	616	G
81	DA	617	G
81	DA	624	G
81	DA	626	U
81	DA	628	A
81	DA	629	U
81	DA	634	C
81	DA	635	G
81	DA	636	C
81	DA	637	C
81	DA	638	C
81	DA	639	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	640	U
81	DA	641	C
81	DA	647	A
81	DA	648	C
81	DA	649	A
81	DA	652	G
81	DA	656	A
81	DA	662	U
81	DA	663	C
81	DA	664	U
81	DA	671	U
81	DA	672	A
81	DA	673	U
81	DA	674	G
81	DA	675	C
81	DA	676	G
81	DA	677	A
81	DA	678	G
81	DA	679	U
81	DA	681	U
81	DA	682	U
81	DA	688	G
81	DA	689	U
81	DA	690	A
81	DA	691	A
81	DA	698	U
81	DA	699	A
81	DA	700	C
81	DA	701	G
81	DA	702	C
81	DA	703	G
81	DA	704	U
81	DA	705	A
81	DA	706	A
81	DA	709	A
81	DA	710	A
81	DA	714	G
81	DA	715	A
81	DA	723	U
81	DA	729	C
81	DA	730	C
81	DA	732	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	733	G
81	DA	735	A
81	DA	736	A
81	DA	737	G
81	DA	740	G
81	DA	741	U
81	DA	742	G
81	DA	745	C
81	DA	751	A
81	DA	753	C
81	DA	763	G
81	DA	764	U
81	DA	765	C
81	DA	767	U
81	DA	768	C
81	DA	769	G
81	DA	770	G
81	DA	773	G
81	DA	781	G
81	DA	782	U
81	DA	783	A
81	DA	784	A
81	DA	785	G
81	DA	786	A
81	DA	787	G
81	DA	788	C
81	DA	789	A
81	DA	792	G
81	DA	793	C
81	DA	799	G
81	DA	800	G
81	DA	808	A
81	DA	813	G
81	DA	814	U
81	DA	817	A
81	DA	835	G
81	DA	837	A
81	DA	838	G
81	DA	839	C
81	DA	840	C
81	DA	843	A
81	DA	849	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	852	U
81	DA	856	G
81	DA	857	G
81	DA	858	A
81	DA	859	G
81	DA	861	C
81	DA	862	U
81	DA	864	G
81	DA	865	U
81	DA	874	U
81	DA	879	U
81	DA	884	A
81	DA	888	A
81	DA	895	A
81	DA	896	A
81	DA	897	U
81	DA	900	G
81	DA	903	U
81	DA	907	G
81	DA	908	G
81	DA	914	A
81	DA	916	G
81	DA	917	A
81	DA	921	A
81	DA	924	G
81	DA	928	C
81	DA	933	A
81	DA	934	G
81	DA	937	G
81	DA	944	C
81	DA	948	C
81	DA	960	U
81	DA	962	A
81	DA	966	U
81	DA	969	C
81	DA	970	A
81	DA	975	C
81	DA	976	U
81	DA	977	C
81	DA	983	A
81	DA	985	U
81	DA	987	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	991	G
81	DA	993	G
81	DA	994	G
81	DA	995	U
81	DA	996	A
81	DA	997	A
81	DA	1001	G
81	DA	1002	A
81	DA	1003	A
81	DA	1005	G
81	DA	1006	A
81	DA	1009	A
81	DA	1011	A
81	DA	1014	U
81	DA	1018	G
81	DA	1021	G
81	DA	1035	G
81	DA	1038	C
81	DA	1040	A
81	DA	1042	U
81	DA	1044	U
81	DA	1047	A
81	DA	1048	A
81	DA	1049	C
81	DA	1050	U
81	DA	1055	A
81	DA	1056	U
81	DA	1058	U
81	DA	1061	A
81	DA	1062	A
81	DA	1063	G
81	DA	1064	A
81	DA	1077	U
81	DA	1079	A
81	DA	1080	A
81	DA	1085	A
81	DA	1088	U
81	DA	1089	G
81	DA	1094	U
81	DA	1102	A
81	DA	1105	A
81	DA	1114	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	1115	G
81	DA	1116	G
81	DA	1117	G
81	DA	1125	U
81	DA	1130	A
81	DA	1131	G
81	DA	1132	C
81	DA	1137	C
81	DA	1143	A
81	DA	1144	U
81	DA	1145	G
81	DA	1152	G
81	DA	1153	A
81	DA	1159	A
81	DA	1160	C
81	DA	1161	G
81	DA	1165	A
81	DA	1172	G
81	DA	1178	G
81	DA	1179	A
81	DA	1180	A
81	DA	1181	U
81	DA	1182	A
81	DA	1186	G
81	DA	1191	U
81	DA	1193	A
81	DA	1194	G
81	DA	1195	A
81	DA	1196	C
81	DA	1199	C
81	DA	1200	A
81	DA	1201	C
81	DA	1206	G
81	DA	1207	G
81	DA	1208	U
81	DA	1209	G
81	DA	1210	U
81	DA	1215	U
81	DA	1216	C
81	DA	1217	A
81	DA	1219	C
81	DA	1220	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	1221	A
81	DA	1227	C
81	DA	1231	A
81	DA	1232	C
81	DA	1233	G
81	DA	1234	G
81	DA	1235	U
81	DA	1236	G
81	DA	1237	G
81	DA	1242	G
81	DA	1243	G
81	DA	1244	A
81	DA	1245	A
81	DA	1246	G
81	DA	1248	C
81	DA	1251	A
81	DA	1252	A
81	DA	1256	G
81	DA	1258	U
81	DA	1259	A
81	DA	1260	A
81	DA	1262	G
81	DA	1263	A
81	DA	1265	U
81	DA	1269	U
81	DA	1270	A
81	DA	1274	A
81	DA	1278	A
81	DA	1279	C
81	DA	1283	C
81	DA	1286	A
81	DA	1287	A
81	DA	1289	G
81	DA	1290	A
81	DA	1291	A
81	DA	1292	C
81	DA	1293	U
81	DA	1294	A
81	DA	1296	C
81	DA	1297	C
81	DA	1298	C
81	DA	1299	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	1301	A
81	DA	1302	A
81	DA	1307	G
81	DA	1308	A
81	DA	1309	U
81	DA	1310	G
81	DA	1313	G
81	DA	1314	C
81	DA	1317	A
81	DA	1318	A
81	DA	1321	G
81	DA	1322	U
81	DA	1334	U
81	DA	1336	U
81	DA	1339	C
81	DA	1344	G
81	DA	1345	G
81	DA	1361	U
81	DA	1366	A
81	DA	1367	G
81	DA	1379	G
81	DA	1384	U
81	DA	1385	C
81	DA	1391	C
81	DA	1392	G
81	DA	1394	A
81	DA	1397	C
81	DA	1401	A
81	DA	1404	G
81	DA	1407	A
81	DA	1408	G
81	DA	1409	G
81	DA	1412	G
81	DA	1414	G
81	DA	1417	G
81	DA	1418	A
81	DA	1419	A
81	DA	1421	G
81	DA	1428	A
81	DA	1430	U
81	DA	1432	C
81	DA	1434	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	1436	U
81	DA	1437	C
81	DA	1446	A
81	DA	1447	G
81	DA	1454	A
81	DA	1456	A
81	DA	1479	U
81	DA	1480	G
81	DA	1481	A
81	DA	1482	A
81	DA	1483	G
81	DA	1484	U
81	DA	1485	G
81	DA	1493	G
81	DA	1500	G
81	DA	1501	U
81	DA	1506	A
81	DA	1507	G
81	DA	1514	G
81	DA	1515	A
81	DA	1518	U
81	DA	1525	G
81	DA	1526	U
81	DA	1527	C
81	DA	1528	G
81	DA	1529	A
81	DA	1531	C
81	DA	1534	A
81	DA	1535	A
81	DA	1536	G
81	DA	1537	A
81	DA	1538	G
81	DA	1539	A
81	DA	1540	U
81	DA	1541	G
81	DA	1542	G
81	DA	1543	G
81	DA	1547	G
81	DA	1551	C
81	DA	1552	G
81	DA	1561	G
81	DA	1563	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	1564	U
81	DA	1565	G
81	DA	1566	A
81	DA	1568	U
81	DA	1570	U
81	DA	1571	A
81	DA	1572	U
81	DA	1573	G
81	DA	1575	A
81	DA	1576	G
81	DA	1579	C
81	DA	1580	A
81	DA	1581	C
81	DA	1583	A
81	DA	1584	U
81	DA	1585	C
81	DA	1586	G
81	DA	1587	A
81	DA	1588	A
81	DA	1589	A
81	DA	1590	G
81	DA	1593	A
81	DA	1598	G
81	DA	1603	A
81	DA	1607	U
81	DA	1608	C
81	DA	1609	C
81	DA	1610	G
81	DA	1616	U
81	DA	1618	G
81	DA	1621	A
81	DA	1622	U
81	DA	1623	G
81	DA	1624	G
81	DA	1625	A
81	DA	1626	U
81	DA	1629	U
81	DA	1630	U
81	DA	1631	C
81	DA	1633	C
81	DA	1634	G
81	DA	1635	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	1637	A
81	DA	1638	A
81	DA	1639	C
81	DA	1640	G
81	DA	1641	U
81	DA	1648	A
81	DA	1649	U
81	DA	1653	G
81	DA	1656	A
81	DA	1657	C
81	DA	1658	G
81	DA	1662	G
81	DA	1666	G
81	DA	1667	A
81	DA	1668	G
81	DA	1674	G
81	DA	1676	A
81	DA	1679	A
81	DA	1683	A
81	DA	1684	U
81	DA	1685	C
81	DA	1686	U
81	DA	1687	U
81	DA	1688	U
81	DA	1690	C
81	DA	1691	U
81	DA	1692	U
81	DA	1693	C
81	DA	1694	U
81	DA	1695	U
81	DA	1696	A
81	DA	1698	C
81	DA	1699	A
81	DA	1701	C
81	DA	1702	U
81	DA	1703	U
81	DA	1704	A
81	DA	1705	U
81	DA	1707	A
81	DA	1709	C
81	DA	1710	C
81	DA	1711	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	1713	G
81	DA	1717	U
81	DA	1718	G
81	DA	1728	G
81	DA	1729	A
81	DA	1730	G
81	DA	1731	A
81	DA	1734	G
81	DA	1742	U
81	DA	1743	G
81	DA	1745	C
81	DA	1747	G
81	DA	1749	A
81	DA	1750	A
81	DA	1751	G
81	DA	1752	A
81	DA	1754	G
81	DA	1755	C
81	DA	1756	C
81	DA	1757	A
81	DA	1758	G
81	DA	1767	C
81	DA	1768	U
81	DA	1769	G
81	DA	1771	C
81	DA	1772	U
81	DA	1773	C
81	DA	1774	C
81	DA	1775	G
81	DA	1777	U
81	DA	1778	G
81	DA	1779	C
81	DA	1781	C
81	DA	1782	U
81	DA	1784	G
81	DA	1789	G
81	DA	1792	C
81	DA	1794	G
81	DA	1802	C
81	DA	1806	A
81	DA	1807	G
81	DA	1809	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	1810	A
81	DA	1811	G
81	DA	1814	A
81	DA	1815	U
81	DA	1816	A
81	DA	1817	G
81	DA	1818	U
81	DA	1819	U
81	DA	1820	U
81	DA	1821	U
81	DA	1824	U
81	DA	1826	C
81	DA	1827	C
81	DA	1829	G
81	DA	1830	G
81	DA	1831	U
81	DA	1832	C
81	DA	1833	G
81	DA	1839	A
81	DA	1840	U
81	DA	1841	A
81	DA	1842	A
81	DA	1847	A
81	DA	1848	G
81	DA	1849	C
81	DA	1850	A
81	DA	1856	C
81	DA	1857	C
81	DA	1858	A
81	DA	1860	G
81	DA	1864	A
81	DA	1865	A
81	DA	1869	C
81	DA	1871	U
81	DA	1872	C
81	DA	1873	U
81	DA	1877	U
81	DA	1878	G
81	DA	1879	A
81	DA	1880	U
81	DA	1886	A
81	DA	1896	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	1897	G
81	DA	1898	G
81	DA	1904	C
81	DA	1906	G
81	DA	1907	C
81	DA	1908	A
81	DA	1928	G
81	DA	1932	A
81	DA	1940	G
81	DA	1943	C
81	DA	1944	U
81	DA	1948	G
81	DA	1949	G
81	DA	1966	U
81	DA	1967	U
81	DA	1973	G
81	DA	1975	C
81	DA	1976	G
81	DA	1989	U
81	DA	1990	U
81	DA	1995	A
81	DA	2010	U
81	DA	2011	U
81	DA	2013	C
81	DA	2031	U
81	DA	2032	U
81	DA	2041	U
81	DA	2042	G
81	DA	2044	U
81	DA	2047	A
81	DA	2048	G
81	DA	2067	U
81	DA	2068	U
81	DA	2071	A
81	DA	2072	G
81	DA	2073	A
81	DA	2081	U
81	DA	2087	C
81	DA	2099	A
81	DA	2100	A
81	DA	2102	U
81	DA	2108	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	2115	G
81	DA	2116	G
81	DA	2119	A
81	DA	2120	A
81	DA	2121	G
81	DA	2122	G
81	DA	2131	A
81	DA	2137	U
81	DA	2138	A
81	DA	2149	A
81	DA	2157	G
81	DA	2158	A
81	DA	2170	U
81	DA	2174	G
81	DA	2175	U
81	DA	2177	G
81	DA	2178	A
81	DA	2179	C
81	DA	2180	G
81	DA	2181	C
81	DA	2182	A
81	DA	2187	G
81	DA	2188	A
81	DA	2189	U
81	DA	2190	U
81	DA	2194	G
81	DA	2207	A
81	DA	2208	A
81	DA	2209	U
81	DA	2210	G
81	DA	2211	U
81	DA	2212	C
81	DA	2216	G
81	DA	2225	U
81	DA	2229	A
81	DA	2230	C
81	DA	2236	G
81	DA	2237	C
81	DA	2239	G
81	DA	2244	A
81	DA	2245	C
81	DA	2251	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	2258	U
81	DA	2259	A
81	DA	2266	U
81	DA	2267	C
81	DA	2268	U
81	DA	2269	U
81	DA	2270	A
81	DA	2273	G
81	DA	2275	A
81	DA	2279	A
81	DA	2280	A
81	DA	2281	A
81	DA	2282	U
81	DA	2283	G
81	DA	2284	C
81	DA	2287	C
81	DA	2298	U
81	DA	2305	G
81	DA	2306	C
81	DA	2308	C
81	DA	2310	U
81	DA	2313	A
81	DA	2314	U
81	DA	2315	G
81	DA	2316	G
81	DA	2323	G
81	DA	2335	G
81	DA	2336	U
81	DA	2339	C
81	DA	2340	U
81	DA	2351	U
81	DA	2355	G
81	DA	2362	C
81	DA	2363	A
81	DA	2364	G
81	DA	2365	C
81	DA	2368	A
81	DA	2369	G
81	DA	2370	G
81	DA	2373	A
81	DA	2374	C
81	DA	2375	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	2376	G
81	DA	2377	G
81	DA	2378	C
81	DA	2384	A
81	DA	2385	G
81	DA	2387	A
81	DA	2392	C
81	DA	2394	G
81	DA	2397	A
81	DA	2402	A
81	DA	2403	G
81	DA	2405	C
81	DA	2406	C
81	DA	2407	C
81	DA	2411	U
81	DA	2419	A
81	DA	2421	U
81	DA	2422	C
81	DA	2424	A
81	DA	2435	G
81	DA	2436	U
81	DA	2438	A
81	DA	2439	A
81	DA	2440	G
81	DA	2441	A
81	DA	2443	A
81	DA	2444	C
81	DA	2445	A
81	DA	2446	U
81	DA	2447	A
81	DA	2448	G
81	DA	2451	G
81	DA	2452	G
81	DA	2453	U
81	DA	2454	G
81	DA	2455	U
81	DA	2458	A
81	DA	2459	A
81	DA	2461	A
81	DA	2463	G
81	DA	2464	U
81	DA	2467	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	2468	A
81	DA	2469	G
81	DA	2470	C
81	DA	2471	U
81	DA	2472	U
81	DA	2473	C
81	DA	2474	G
81	DA	2475	G
81	DA	2477	G
81	DA	2478	C
81	DA	2479	C
81	DA	2480	A
81	DA	2481	G
81	DA	2482	U
81	DA	2484	A
81	DA	2485	A
81	DA	2487	U
81	DA	2488	A
81	DA	2489	C
81	DA	2490	C
81	DA	2491	A
81	DA	2492	C
81	DA	2493	U
81	DA	2494	A
81	DA	2495	C
81	DA	2496	C
81	DA	2498	U
81	DA	2499	U
81	DA	2501	U
81	DA	2502	A
81	DA	2503	G
81	DA	2504	U
81	DA	2505	U
81	DA	2506	U
81	DA	2507	C
81	DA	2508	U
81	DA	2509	U
81	DA	2510	U
81	DA	2511	A
81	DA	2514	U
81	DA	2530	G
81	DA	2545	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	2547	A
81	DA	2563	G
81	DA	2567	C
81	DA	2569	A
81	DA	2571	U
81	DA	2573	G
81	DA	2579	G
81	DA	2580	A
81	DA	2581	U
81	DA	2592	G
81	DA	2593	A
81	DA	2594	C
81	DA	2596	U
81	DA	2597	U
81	DA	2606	G
81	DA	2607	G
81	DA	2614	G
81	DA	2615	G
81	DA	2617	U
81	DA	2618	G
81	DA	2619	G
81	DA	2620	G
81	DA	2621	G
81	DA	2622	C
81	DA	2625	C
81	DA	2626	A
81	DA	2627	C
81	DA	2629	U
81	DA	2630	C
81	DA	2632	G
81	DA	2633	U
81	DA	2636	A
81	DA	2637	A
81	DA	2638	C
81	DA	2640	A
81	DA	2649	A
81	DA	2651	G
81	DA	2652	U
81	DA	2655	U
81	DA	2656	A
81	DA	2657	A
81	DA	2658	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	2665	U
81	DA	2667	A
81	DA	2669	G
81	DA	2673	A
81	DA	2674	A
81	DA	2675	C
81	DA	2676	A
81	DA	2677	G
81	DA	2678	A
81	DA	2680	A
81	DA	2681	U
81	DA	2682	C
81	DA	2683	U
81	DA	2684	C
81	DA	2686	A
81	DA	2688	U
81	DA	2689	A
81	DA	2690	G
81	DA	2694	A
81	DA	2696	A
81	DA	2699	G
81	DA	2702	A
81	DA	2703	A
81	DA	2704	A
81	DA	2706	G
81	DA	2709	C
81	DA	2711	C
81	DA	2713	U
81	DA	2714	G
81	DA	2715	A
81	DA	2717	U
81	DA	2718	U
81	DA	2721	A
81	DA	2723	U
81	DA	2724	U
81	DA	2727	A
81	DA	2728	G
81	DA	2729	U
81	DA	2735	U
81	DA	2736	A
81	DA	2737	C
81	DA	2738	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	2747	A
81	DA	2752	U
81	DA	2755	C
81	DA	2756	C
81	DA	2757	U
81	DA	2758	A
81	DA	2759	U
81	DA	2760	C
81	DA	2761	G
81	DA	2763	U
81	DA	2764	C
81	DA	2777	G
81	DA	2780	A
81	DA	2784	G
81	DA	2785	A
81	DA	2788	C
81	DA	2795	U
81	DA	2796	G
81	DA	2797	C
81	DA	2798	C
81	DA	2799	A
81	DA	2800	G
81	DA	2801	A
81	DA	2802	A
81	DA	2803	A
81	DA	2810	C
81	DA	2816	G
81	DA	2817	A
81	DA	2825	C
81	DA	2830	G
81	DA	2841	G
81	DA	2845	A
81	DA	2859	U
81	DA	2860	U
81	DA	2861	U
81	DA	2864	A
81	DA	2866	U
81	DA	2867	C
81	DA	2871	G
81	DA	2872	A
81	DA	2873	U
81	DA	2875	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	2887	A
81	DA	2890	A
81	DA	2898	G
81	DA	2899	C
81	DA	2900	A
81	DA	2904	U
81	DA	2912	G
81	DA	2916	U
81	DA	2917	G
81	DA	2923	U
81	DA	2929	C
81	DA	2935	U
81	DA	2936	A
81	DA	2941	A
81	DA	2942	C
81	DA	2947	G
81	DA	2951	G
81	DA	2954	U
81	DA	2957	G
81	DA	2964	G
81	DA	2968	G
81	DA	2970	C
81	DA	2971	A
81	DA	2972	G
81	DA	2983	C
81	DA	2989	U
81	DA	2993	G
81	DA	2994	A
81	DA	2996	U
81	DA	2997	G
81	DA	2998	U
81	DA	2999	U
81	DA	3000	A
81	DA	3001	C
81	DA	3002	C
81	DA	3003	G
81	DA	3011	A
81	DA	3012	A
81	DA	3013	U
81	DA	3035	A
81	DA	3041	U
81	DA	3042	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	3044	G
81	DA	3045	G
81	DA	3048	A
81	DA	3051	U
81	DA	3052	G
81	DA	3056	U
81	DA	3063	C
81	DA	3071	U
81	DA	3072	C
81	DA	3078	U
81	DA	3079	U
81	DA	3081	C
81	DA	3087	A
81	DA	3090	U
81	DA	3091	A
81	DA	3092	C
81	DA	3093	C
81	DA	3094	A
81	DA	3098	G
81	DA	3099	C
81	DA	3100	U
81	DA	3107	U
81	DA	3108	G
81	DA	3113	A
81	DA	3116	G
81	DA	3122	A
81	DA	3130	A
81	DA	3131	U
81	DA	3136	G
81	DA	3137	C
81	DA	3138	U
81	DA	3139	A
81	DA	3141	A
81	DA	3142	A
81	DA	3143	C
81	DA	3144	G
81	DA	3145	C
81	DA	3146	G
81	DA	3150	A
81	DA	3151	U
81	DA	3163	A
81	DA	3164	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	3165	A
81	DA	3166	C
81	DA	3167	A
81	DA	3168	A
81	DA	3212	C
81	DA	3215	A
81	DA	3216	G
81	DA	3217	C
81	DA	3218	A
81	DA	3219	G
81	DA	3220	G
81	DA	3221	C
81	DA	3222	U
81	DA	3223	A
81	DA	3230	G
81	DA	3231	U
81	DA	3232	G
81	DA	3234	A
81	DA	3235	C
81	DA	3237	U
81	DA	3239	G
81	DA	3240	C
81	DA	3241	G
81	DA	3242	G
81	DA	3243	A
81	DA	3244	A
81	DA	3245	A
81	DA	3246	G
81	DA	3247	G
81	DA	3248	C
81	DA	3249	C
81	DA	3250	U
81	DA	3251	U
81	DA	3252	G
81	DA	3253	G
81	DA	3254	G
81	DA	3256	G
81	DA	3257	C
81	DA	3258	U
81	DA	3282	U
81	DA	3283	U
81	DA	3284	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	3285	C
81	DA	3288	G
81	DA	3289	G
81	DA	3290	G
81	DA	3296	A
81	DA	3297	U
81	DA	3299	A
81	DA	3300	U
81	DA	3301	U
81	DA	3304	U
81	DA	3305	A
81	DA	3306	U
81	DA	3308	C
81	DA	3312	U
81	DA	3314	A
81	DA	3316	A
81	DA	3317	U
81	DA	3318	G
81	DA	3319	U
81	DA	3320	A
81	DA	3321	C
81	DA	3325	G
81	DA	3326	G
81	DA	3328	G
81	DA	3334	U
81	DA	3336	A
81	DA	3337	G
81	DA	3342	A
81	DA	3343	G
81	DA	3344	A
81	DA	3346	U
81	DA	3361	G
81	DA	3362	A
81	DA	3363	U
81	DA	3364	C
81	DA	3365	U
81	DA	3368	U
81	DA	3369	G
81	DA	3370	A
81	DA	3371	G
81	DA	3373	U
81	DA	3374	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	3375	A
81	DA	3382	U
81	DA	3383	G
81	DA	3384	U
81	DA	3385	U
81	DA	3386	G
81	DA	3387	U
81	DA	3388	C
81	DA	3389	U
81	DA	3394	U
81	DA	3395	G
81	DA	3396	U
82	DB	3	A
82	DB	4	C
82	DB	20	U
82	DB	21	C
82	DB	23	U
82	DB	29	U
82	DB	34	U
82	DB	36	G
82	DB	37	A
82	DB	38	U
82	DB	39	G
82	DB	45	C
82	DB	47	C
82	DB	48	A
82	DB	49	G
82	DB	51	G
82	DB	52	A
82	DB	59	A
82	DB	60	U
82	DB	61	A
82	DB	62	C
82	DB	64	U
82	DB	66	A
82	DB	83	C
82	DB	84	C
82	DB	85	G
82	DB	86	U
82	DB	88	A
82	DB	89	A
82	DB	90	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
82	DB	91	C
82	DB	92	A
82	DB	94	C
82	DB	95	G
82	DB	96	A
82	DB	97	A
82	DB	98	U
82	DB	100	U
82	DB	104	A
82	DB	105	A
82	DB	106	C
82	DB	107	G
82	DB	111	A
82	DB	112	U
82	DB	120	C
82	DB	121	U
82	DB	122	U
82	DB	125	U
82	DB	126	A
82	DB	127	U
82	DB	128	U
82	DB	129	C
82	DB	132	G
82	DB	133	G
82	DB	134	G
82	DB	135	G
82	DB	138	A
82	DB	139	U
82	DB	145	U
82	DB	150	G
82	DB	151	C
82	DB	152	G
82	DB	154	C
82	DB	157	U
82	DB	158	U
83	DC	4	U
83	DC	9	C
83	DC	11	A
83	DC	13	A
83	DC	15	C
83	DC	16	U
83	DC	18	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
83	DC	19	C
83	DC	21	G
83	DC	22	A
83	DC	23	A
83	DC	24	A
83	DC	25	G
83	DC	26	C
83	DC	27	A
83	DC	28	C
83	DC	29	C
83	DC	30	G
83	DC	31	U
83	DC	32	U
83	DC	38	U
83	DC	39	C
83	DC	41	G
83	DC	42	A
83	DC	45	A
83	DC	46	A
83	DC	47	C
83	DC	48	U
83	DC	49	G
83	DC	50	U
83	DC	51	G
83	DC	52	U
83	DC	54	A
83	DC	55	A
83	DC	56	G
83	DC	58	U
83	DC	61	U
83	DC	62	A
83	DC	63	G
83	DC	64	A
83	DC	70	A
83	DC	71	C
83	DC	73	G
83	DC	74	A
83	DC	75	G
83	DC	76	U
83	DC	84	G
83	DC	86	G
83	DC	90	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
83	DC	93	U
83	DC	95	C
83	DC	99	A
83	DC	101	A
83	DC	102	C
83	DC	105	A
83	DC	108	U
83	DC	109	G
83	DC	114	A
83	DC	115	A
83	DC	116	U

All (889) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
78	CA	4	C
78	CA	10	G
78	CA	16	G
78	CA	25	C
78	CA	29	U
78	CA	36	C
78	CA	44	U
78	CA	45	U
78	CA	46	A
78	CA	49	C
78	CA	50	C
78	CA	56	U
78	CA	69	G
78	CA	70	C
78	CA	86	A
78	CA	88	U
78	CA	92	A
78	CA	103	A
78	CA	104	A
78	CA	117	U
78	CA	118	U
78	CA	120	U
78	CA	139	C
78	CA	140	A
78	CA	141	U
78	CA	150	U
78	CA	161	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
78	CA	163	G
78	CA	169	A
78	CA	172	C
78	CA	174	U
78	CA	177	U
78	CA	179	A
78	CA	183	U
78	CA	191	C
78	CA	194	U
78	CA	195	G
78	CA	205	U
78	CA	219	A
78	CA	220	A
78	CA	222	A
78	CA	228	G
78	CA	234	G
78	CA	275	C
78	CA	278	U
78	CA	281	G
78	CA	287	G
78	CA	288	A
78	CA	289	U
78	CA	293	U
78	CA	294	C
78	CA	303	U
78	CA	304	U
78	CA	305	C
78	CA	306	U
78	CA	309	C
78	CA	312	A
78	CA	315	A
78	CA	337	G
78	CA	392	G
78	CA	400	A
78	CA	434	G
78	CA	438	A
78	CA	448	C
78	CA	462	G
78	CA	474	A
78	CA	478	A
78	CA	481	A
78	CA	485	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
78	CA	488	G
78	CA	489	C
78	CA	490	C
78	CA	500	C
78	CA	501	U
78	CA	504	U
78	CA	555	A
78	CA	558	U
78	CA	565	C
78	CA	577	G
78	CA	580	A
78	CA	588	U
78	CA	590	C
78	CA	606	A
78	CA	607	G
78	CA	613	G
78	CA	622	A
78	CA	626	U
78	CA	629	U
78	CA	630	A
78	CA	631	G
78	CA	636	A
78	CA	637	C
78	CA	646	C
78	CA	650	U
78	CA	658	C
78	CA	661	A
78	CA	670	U
78	CA	689	G
78	CA	824	G
78	CA	825	U
78	CA	837	G
78	CA	838	G
78	CA	842	C
78	CA	852	C
78	CA	886	U
78	CA	891	A
78	CA	898	A
78	CA	924	A
78	CA	955	A
78	CA	959	U
78	CA	960	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
78	CA	963	A
78	CA	978	A
78	CA	1057	U
78	CA	1058	U
78	CA	1063	U
78	CA	1066	C
78	CA	1067	C
78	CA	1068	C
78	CA	1080	U
78	CA	1090	C
78	CA	1096	C
78	CA	1108	G
78	CA	1137	A
78	CA	1173	C
78	CA	1190	C
78	CA	1196	A
78	CA	1220	C
78	CA	1221	A
78	CA	1222	C
78	CA	1233	G
78	CA	1281	G
78	CA	1284	C
78	CA	1285	U
78	CA	1302	U
78	CA	1324	G
78	CA	1338	C
78	CA	1339	C
78	CA	1340	U
78	CA	1342	C
78	CA	1351	G
78	CA	1355	C
78	CA	1356	U
78	CA	1357	A
78	CA	1359	C
78	CA	1364	G
78	CA	1381	U
78	CA	1388	A
78	CA	1389	C
78	CA	1393	C
78	CA	1394	G
78	CA	1396	U
78	CA	1398	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
78	CA	1401	A
78	CA	1409	G
78	CA	1419	G
78	CA	1425	A
78	CA	1427	A
78	CA	1432	U
78	CA	1434	U
78	CA	1436	A
78	CA	1437	U
78	CA	1441	C
78	CA	1452	U
78	CA	1459	C
78	CA	1460	A
78	CA	1461	C
78	CA	1462	G
78	CA	1472	C
78	CA	1476	C
78	CA	1501	C
78	CA	1507	G
78	CA	1508	U
78	CA	1529	C
78	CA	1533	C
78	CA	1537	C
78	CA	1539	G
78	CA	1547	A
78	CA	1548	G
78	CA	1585	U
78	CA	1601	G
78	CA	1617	U
78	CA	1647	U
78	CA	1649	G
78	CA	1658	G
78	CA	1666	U
78	CA	1672	G
78	CA	1677	C
78	CA	1691	A
78	CA	1698	G
78	CA	1700	C
78	CA	1701	A
78	CA	1702	A
78	CA	1720	G
78	CA	1724	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
78	CA	1731	A
78	CA	1735	U
78	CA	1736	G
78	CA	1743	U
78	CA	1744	A
78	CA	1746	A
78	CA	1748	G
78	CA	1753	A
78	CA	1755	A
78	CA	1761	U
78	CA	1765	A
78	CA	1767	G
78	CA	1785	U
78	CA	1792	G
79	CB	11	U
79	CB	12	U
79	CB	13	U
79	CB	25	U
79	CB	32	U
79	CB	37	G
79	CB	44	A
79	CB	64	G
79	CB	72	G
79	CB	73	C
80	CC	20	U
81	DA	1	G
81	DA	8	C
81	DA	20	A
81	DA	21	G
81	DA	31	C
81	DA	32	U
81	DA	43	A
81	DA	49	A
81	DA	62	A
81	DA	63	A
81	DA	65	A
81	DA	71	A
81	DA	72	C
81	DA	73	C
81	DA	104	G
81	DA	124	U
81	DA	136	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	166	C
81	DA	178	U
81	DA	185	C
81	DA	186	U
81	DA	209	A
81	DA	210	U
81	DA	211	A
81	DA	228	U
81	DA	229	G
81	DA	248	U
81	DA	249	U
81	DA	250	U
81	DA	263	C
81	DA	266	A
81	DA	282	G
81	DA	298	U
81	DA	310	U
81	DA	326	U
81	DA	331	G
81	DA	338	A
81	DA	341	G
81	DA	369	A
81	DA	374	A
81	DA	384	A
81	DA	385	A
81	DA	402	A
81	DA	406	G
81	DA	408	A
81	DA	419	G
81	DA	425	G
81	DA	432	G
81	DA	434	U
81	DA	442	G
81	DA	450	G
81	DA	466	G
81	DA	468	G
81	DA	472	A
81	DA	474	G
81	DA	476	G
81	DA	485	A
81	DA	491	C
81	DA	512	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	521	A
81	DA	523	A
81	DA	527	A
81	DA	534	U
81	DA	535	G
81	DA	537	A
81	DA	538	G
81	DA	540	U
81	DA	556	U
81	DA	562	C
81	DA	566	G
81	DA	568	G
81	DA	572	A
81	DA	586	C
81	DA	588	G
81	DA	594	U
81	DA	596	C
81	DA	599	C
81	DA	602	A
81	DA	606	C
81	DA	607	A
81	DA	608	A
81	DA	609	G
81	DA	618	C
81	DA	623	U
81	DA	637	C
81	DA	638	C
81	DA	640	U
81	DA	647	A
81	DA	651	G
81	DA	655	C
81	DA	663	C
81	DA	670	C
81	DA	671	U
81	DA	672	A
81	DA	673	U
81	DA	674	G
81	DA	676	G
81	DA	677	A
81	DA	678	G
81	DA	681	U
81	DA	690	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	699	A
81	DA	701	G
81	DA	702	C
81	DA	704	U
81	DA	708	G
81	DA	714	G
81	DA	720	A
81	DA	728	G
81	DA	734	C
81	DA	735	A
81	DA	736	A
81	DA	740	G
81	DA	741	U
81	DA	744	A
81	DA	750	G
81	DA	752	C
81	DA	764	U
81	DA	768	C
81	DA	769	G
81	DA	783	A
81	DA	786	A
81	DA	798	G
81	DA	807	A
81	DA	813	G
81	DA	834	U
81	DA	837	A
81	DA	838	G
81	DA	839	C
81	DA	842	G
81	DA	851	C
81	DA	855	U
81	DA	858	A
81	DA	861	C
81	DA	873	C
81	DA	887	G
81	DA	894	G
81	DA	896	A
81	DA	899	U
81	DA	916	G
81	DA	932	U
81	DA	933	A
81	DA	959	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	968	G
81	DA	969	C
81	DA	975	C
81	DA	984	G
81	DA	986	U
81	DA	992	A
81	DA	995	U
81	DA	996	A
81	DA	1001	G
81	DA	1006	A
81	DA	1008	U
81	DA	1017	C
81	DA	1020	G
81	DA	1021	G
81	DA	1039	U
81	DA	1046	A
81	DA	1047	A
81	DA	1050	U
81	DA	1054	A
81	DA	1055	A
81	DA	1057	A
81	DA	1061	A
81	DA	1063	G
81	DA	1064	A
81	DA	1079	A
81	DA	1084	A
81	DA	1088	U
81	DA	1114	U
81	DA	1115	G
81	DA	1116	G
81	DA	1131	G
81	DA	1144	U
81	DA	1152	G
81	DA	1160	C
81	DA	1164	G
81	DA	1178	G
81	DA	1180	A
81	DA	1185	C
81	DA	1193	A
81	DA	1194	G
81	DA	1198	C
81	DA	1206	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	1208	U
81	DA	1209	G
81	DA	1214	U
81	DA	1215	U
81	DA	1220	U
81	DA	1221	A
81	DA	1226	G
81	DA	1232	C
81	DA	1233	G
81	DA	1241	U
81	DA	1242	G
81	DA	1243	G
81	DA	1244	A
81	DA	1251	A
81	DA	1258	U
81	DA	1259	A
81	DA	1261	G
81	DA	1263	A
81	DA	1268	G
81	DA	1277	C
81	DA	1282	G
81	DA	1285	G
81	DA	1288	U
81	DA	1289	G
81	DA	1290	A
81	DA	1291	A
81	DA	1292	C
81	DA	1293	U
81	DA	1296	C
81	DA	1297	C
81	DA	1298	C
81	DA	1301	A
81	DA	1303	A
81	DA	1317	A
81	DA	1320	C
81	DA	1333	C
81	DA	1338	C
81	DA	1344	G
81	DA	1366	A
81	DA	1378	U
81	DA	1384	U
81	DA	1390	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	1391	C
81	DA	1406	A
81	DA	1408	G
81	DA	1413	G
81	DA	1427	U
81	DA	1429	G
81	DA	1435	A
81	DA	1454	A
81	DA	1455	U
81	DA	1481	A
81	DA	1482	A
81	DA	1483	G
81	DA	1484	U
81	DA	1500	G
81	DA	1505	C
81	DA	1524	A
81	DA	1526	U
81	DA	1527	C
81	DA	1528	G
81	DA	1534	A
81	DA	1535	A
81	DA	1536	G
81	DA	1537	A
81	DA	1539	A
81	DA	1542	G
81	DA	1543	G
81	DA	1560	G
81	DA	1562	C
81	DA	1563	C
81	DA	1567	U
81	DA	1569	U
81	DA	1571	A
81	DA	1572	U
81	DA	1576	G
81	DA	1578	C
81	DA	1579	C
81	DA	1583	A
81	DA	1588	A
81	DA	1602	A
81	DA	1605	A
81	DA	1609	C
81	DA	1615	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	1617	G
81	DA	1621	A
81	DA	1622	U
81	DA	1623	G
81	DA	1624	G
81	DA	1632	A
81	DA	1633	C
81	DA	1637	A
81	DA	1639	C
81	DA	1648	A
81	DA	1656	A
81	DA	1657	C
81	DA	1661	G
81	DA	1666	G
81	DA	1667	A
81	DA	1675	G
81	DA	1678	G
81	DA	1682	U
81	DA	1684	U
81	DA	1685	C
81	DA	1687	U
81	DA	1689	U
81	DA	1692	U
81	DA	1698	C
81	DA	1699	A
81	DA	1701	C
81	DA	1704	A
81	DA	1709	C
81	DA	1712	G
81	DA	1730	G
81	DA	1741	A
81	DA	1744	G
81	DA	1745	C
81	DA	1746	U
81	DA	1748	G
81	DA	1750	A
81	DA	1753	G
81	DA	1755	C
81	DA	1756	C
81	DA	1766	G
81	DA	1767	C
81	DA	1770	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	1771	C
81	DA	1772	U
81	DA	1773	C
81	DA	1774	C
81	DA	1777	U
81	DA	1778	G
81	DA	1781	C
81	DA	1783	U
81	DA	1788	C
81	DA	1801	U
81	DA	1806	A
81	DA	1810	A
81	DA	1814	A
81	DA	1818	U
81	DA	1819	U
81	DA	1820	U
81	DA	1823	A
81	DA	1824	U
81	DA	1825	G
81	DA	1826	C
81	DA	1828	A
81	DA	1831	U
81	DA	1832	C
81	DA	1840	U
81	DA	1841	A
81	DA	1847	A
81	DA	1856	C
81	DA	1870	C
81	DA	1872	C
81	DA	1876	U
81	DA	1877	U
81	DA	1883	A
81	DA	1884	A
81	DA	1939	G
81	DA	1942	U
81	DA	1943	C
81	DA	1948	G
81	DA	1965	C
81	DA	1966	U
81	DA	1972	A
81	DA	1974	A
81	DA	2030	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	2031	U
81	DA	2041	U
81	DA	2043	U
81	DA	2046	U
81	DA	2047	A
81	DA	2067	U
81	DA	2070	U
81	DA	2071	A
81	DA	2072	G
81	DA	2080	C
81	DA	2086	A
81	DA	2100	A
81	DA	2107	A
81	DA	2114	C
81	DA	2130	G
81	DA	2137	U
81	DA	2148	U
81	DA	2157	G
81	DA	2174	G
81	DA	2177	G
81	DA	2178	A
81	DA	2179	C
81	DA	2186	U
81	DA	2187	G
81	DA	2208	A
81	DA	2209	U
81	DA	2211	U
81	DA	2224	A
81	DA	2228	A
81	DA	2236	G
81	DA	2238	G
81	DA	2244	A
81	DA	2254	U
81	DA	2266	U
81	DA	2267	C
81	DA	2269	U
81	DA	2279	A
81	DA	2280	A
81	DA	2281	A
81	DA	2283	G
81	DA	2286	U
81	DA	2304	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	2307	G
81	DA	2313	A
81	DA	2315	G
81	DA	2322	C
81	DA	2334	U
81	DA	2339	C
81	DA	2362	C
81	DA	2363	A
81	DA	2364	G
81	DA	2369	G
81	DA	2375	G
81	DA	2376	G
81	DA	2377	G
81	DA	2384	A
81	DA	2391	G
81	DA	2405	C
81	DA	2406	C
81	DA	2410	U
81	DA	2423	U
81	DA	2434	U
81	DA	2437	G
81	DA	2439	A
81	DA	2445	A
81	DA	2446	U
81	DA	2447	A
81	DA	2450	G
81	DA	2462	A
81	DA	2463	G
81	DA	2468	A
81	DA	2469	G
81	DA	2479	C
81	DA	2480	A
81	DA	2483	G
81	DA	2486	A
81	DA	2487	U
81	DA	2489	C
81	DA	2492	C
81	DA	2493	U
81	DA	2494	A
81	DA	2495	C
81	DA	2497	U
81	DA	2500	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	2501	U
81	DA	2502	A
81	DA	2503	G
81	DA	2504	U
81	DA	2506	U
81	DA	2507	C
81	DA	2508	U
81	DA	2509	U
81	DA	2510	U
81	DA	2513	U
81	DA	2529	A
81	DA	2544	U
81	DA	2546	C
81	DA	2562	A
81	DA	2566	C
81	DA	2570	U
81	DA	2571	U
81	DA	2578	U
81	DA	2579	G
81	DA	2591	A
81	DA	2593	A
81	DA	2596	U
81	DA	2613	U
81	DA	2614	G
81	DA	2617	U
81	DA	2618	G
81	DA	2619	G
81	DA	2625	C
81	DA	2626	A
81	DA	2631	U
81	DA	2637	A
81	DA	2640	A
81	DA	2648	G
81	DA	2651	G
81	DA	2655	U
81	DA	2666	C
81	DA	2668	U
81	DA	2672	G
81	DA	2676	A
81	DA	2681	U
81	DA	2682	C
81	DA	2683	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	2688	U
81	DA	2698	G
81	DA	2703	A
81	DA	2705	A
81	DA	2708	C
81	DA	2710	C
81	DA	2712	U
81	DA	2714	G
81	DA	2715	A
81	DA	2722	U
81	DA	2723	U
81	DA	2734	A
81	DA	2735	U
81	DA	2736	A
81	DA	2748	A
81	DA	2754	G
81	DA	2755	C
81	DA	2756	C
81	DA	2757	U
81	DA	2758	A
81	DA	2760	C
81	DA	2762	A
81	DA	2763	U
81	DA	2779	A
81	DA	2783	U
81	DA	2784	G
81	DA	2787	G
81	DA	2794	G
81	DA	2797	C
81	DA	2799	A
81	DA	2801	A
81	DA	2802	A
81	DA	2816	G
81	DA	2829	U
81	DA	2840	C
81	DA	2860	U
81	DA	2865	U
81	DA	2870	C
81	DA	2872	A
81	DA	2889	C
81	DA	2916	U
81	DA	2928	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	2934	A
81	DA	2941	A
81	DA	2950	G
81	DA	2970	C
81	DA	2971	A
81	DA	2988	C
81	DA	2992	U
81	DA	2993	G
81	DA	2997	G
81	DA	2998	U
81	DA	2999	U
81	DA	3001	C
81	DA	3002	C
81	DA	3010	U
81	DA	3034	C
81	DA	3041	U
81	DA	3044	G
81	DA	3047	U
81	DA	3050	U
81	DA	3051	U
81	DA	3062	G
81	DA	3078	U
81	DA	3080	G
81	DA	3086	A
81	DA	3090	U
81	DA	3092	C
81	DA	3093	C
81	DA	3107	U
81	DA	3121	U
81	DA	3136	G
81	DA	3137	C
81	DA	3141	A
81	DA	3142	A
81	DA	3143	C
81	DA	3144	G
81	DA	3145	C
81	DA	3151	U
81	DA	3167	A
81	DA	3169	U
81	DA	3214	U
81	DA	3215	A
81	DA	3217	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	3218	A
81	DA	3219	G
81	DA	3220	G
81	DA	3221	C
81	DA	3222	U
81	DA	3224	G
81	DA	3231	U
81	DA	3236	U
81	DA	3240	C
81	DA	3243	A
81	DA	3245	A
81	DA	3246	G
81	DA	3247	G
81	DA	3248	C
81	DA	3252	G
81	DA	3255	U
81	DA	3258	U
81	DA	3288	G
81	DA	3296	A
81	DA	3299	A
81	DA	3300	U
81	DA	3303	G
81	DA	3304	U
81	DA	3305	A
81	DA	3311	C
81	DA	3313	U
81	DA	3316	A
81	DA	3319	U
81	DA	3320	A
81	DA	3341	U
81	DA	3344	A
81	DA	3345	G
81	DA	3361	G
81	DA	3368	U
81	DA	3373	U
81	DA	3381	U
81	DA	3382	U
81	DA	3383	G
81	DA	3384	U
81	DA	3385	U
81	DA	3386	G
81	DA	3387	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
81	DA	3394	U
81	DA	3395	G
82	DB	2	A
82	DB	20	U
82	DB	38	U
82	DB	39	G
82	DB	44	A
82	DB	47	C
82	DB	51	G
82	DB	63	G
82	DB	65	A
82	DB	83	C
82	DB	87	G
82	DB	88	A
82	DB	89	A
82	DB	90	U
82	DB	93	U
82	DB	94	C
82	DB	95	G
82	DB	96	A
82	DB	97	A
82	DB	106	C
82	DB	120	C
82	DB	121	U
82	DB	124	G
82	DB	126	A
82	DB	128	U
82	DB	131	A
82	DB	132	G
82	DB	134	G
82	DB	137	C
82	DB	138	A
82	DB	144	G
82	DB	149	A
82	DB	150	G
82	DB	151	C
82	DB	153	U
82	DB	156	U
83	DC	2	G
83	DC	3	U
83	DC	8	G
83	DC	12	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
83	DC	15	C
83	DC	18	C
83	DC	22	A
83	DC	23	A
83	DC	24	A
83	DC	26	C
83	DC	28	C
83	DC	29	C
83	DC	30	G
83	DC	31	U
83	DC	32	U
83	DC	41	G
83	DC	44	C
83	DC	46	A
83	DC	48	U
83	DC	49	G
83	DC	51	G
83	DC	53	U
83	DC	72	C
83	DC	75	G
83	DC	83	U
83	DC	100	A

5.4 Non-standard residues in protein, DNA, RNA chains [i](#)

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues ⓘ

The following chains have linkage breaks:

Mol	Chain	Number of breaks
78	CA	4
44	BO	3
23	AW	1
80	CC	1
74	BQ	1
76	BS	1
20	AS	1
7	AG	1
14	AM	1
34	BE	1
32	BC	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	AW	31:UNK	C	59:UNK	N	10.96
1	CC	18:C	O3'	19:U	P	2.07
1	CA	1255:G	O3'	1256:A	P	1.94
1	BQ	39:GLN	C	40:HIS	N	1.90
1	CA	1254:U	O3'	1255:G	P	1.83
1	BO	21:ARG	C	22:ILE	N	1.82
1	CA	1189:A	O3'	1190:C	P	1.81
1	CA	120:U	O3'	121:U	P	1.78
1	BS	84:GLN	C	85:SER	N	1.20
1	AS	53:TRP	C	54:PHE	N	1.18
1	AG	106:UNK	C	107:UNK	N	1.17
1	AM	12:GLN	C	13:HIS	N	1.17
1	BE	54:VAL	C	55:ARG	N	1.16
1	BC	371:GLN	C	372:THR	N	1.14
1	BO	73:LEU	C	74:ASN	N	1.03
1	BO	20:GLY	C	21:ARG	N	0.61

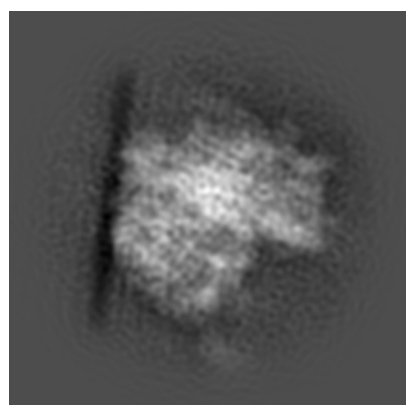
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-1669. These allow visual inspection of the internal detail of the map and identification of artifacts.

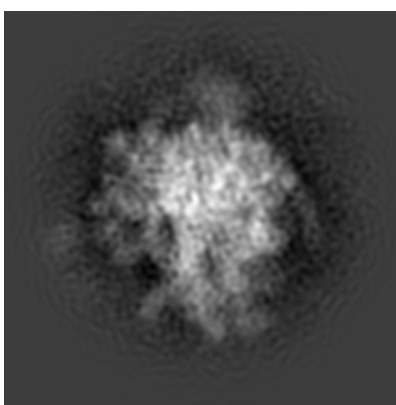
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

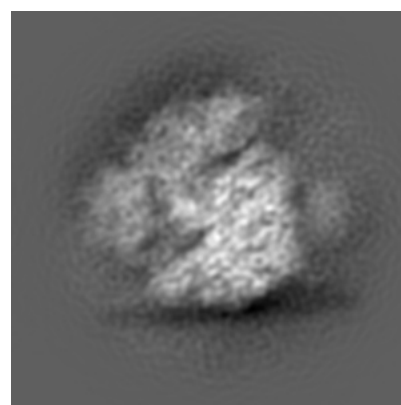
6.1.1 Primary map



X



Y

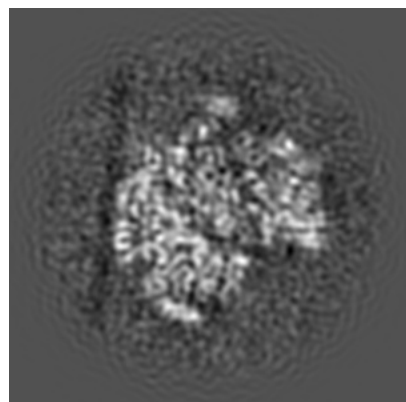


Z

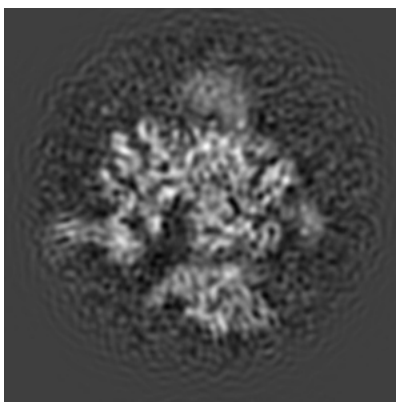
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

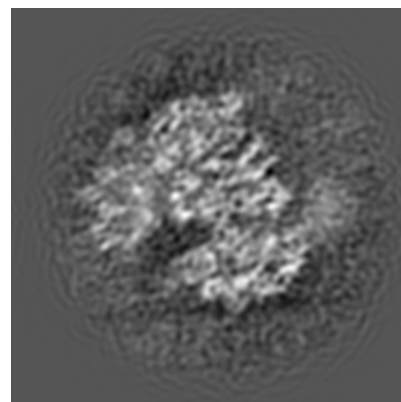
6.2.1 Primary map



X Index: 184



Y Index: 184

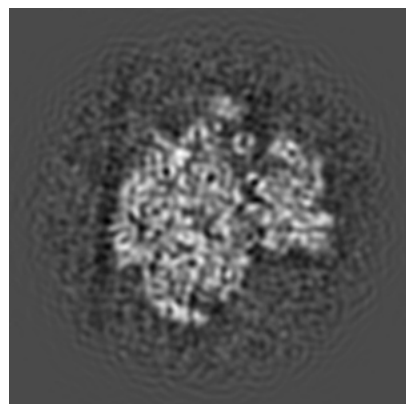


Z Index: 184

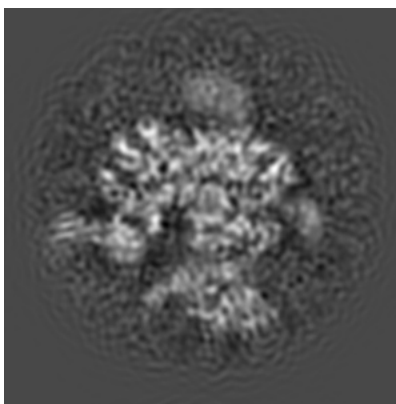
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

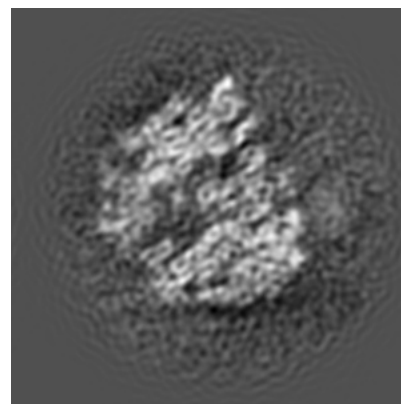
6.3.1 Primary map



X Index: 188



Y Index: 187

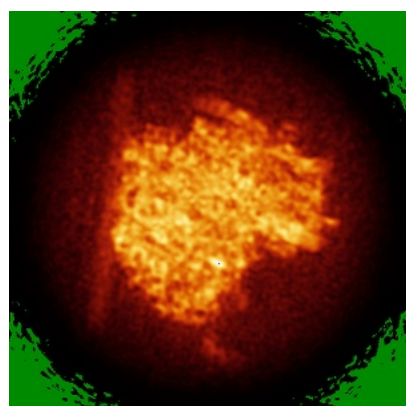


Z Index: 172

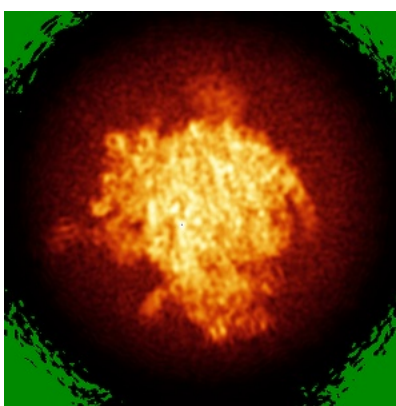
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) [i](#)

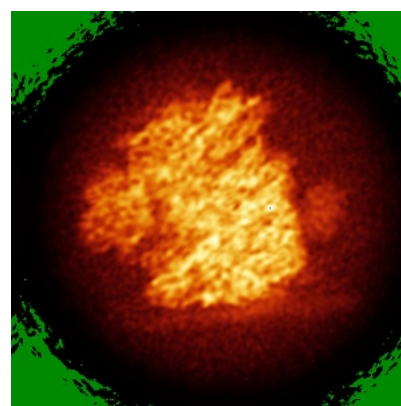
6.4.1 Primary map



X



Y



Z

The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 1.75. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

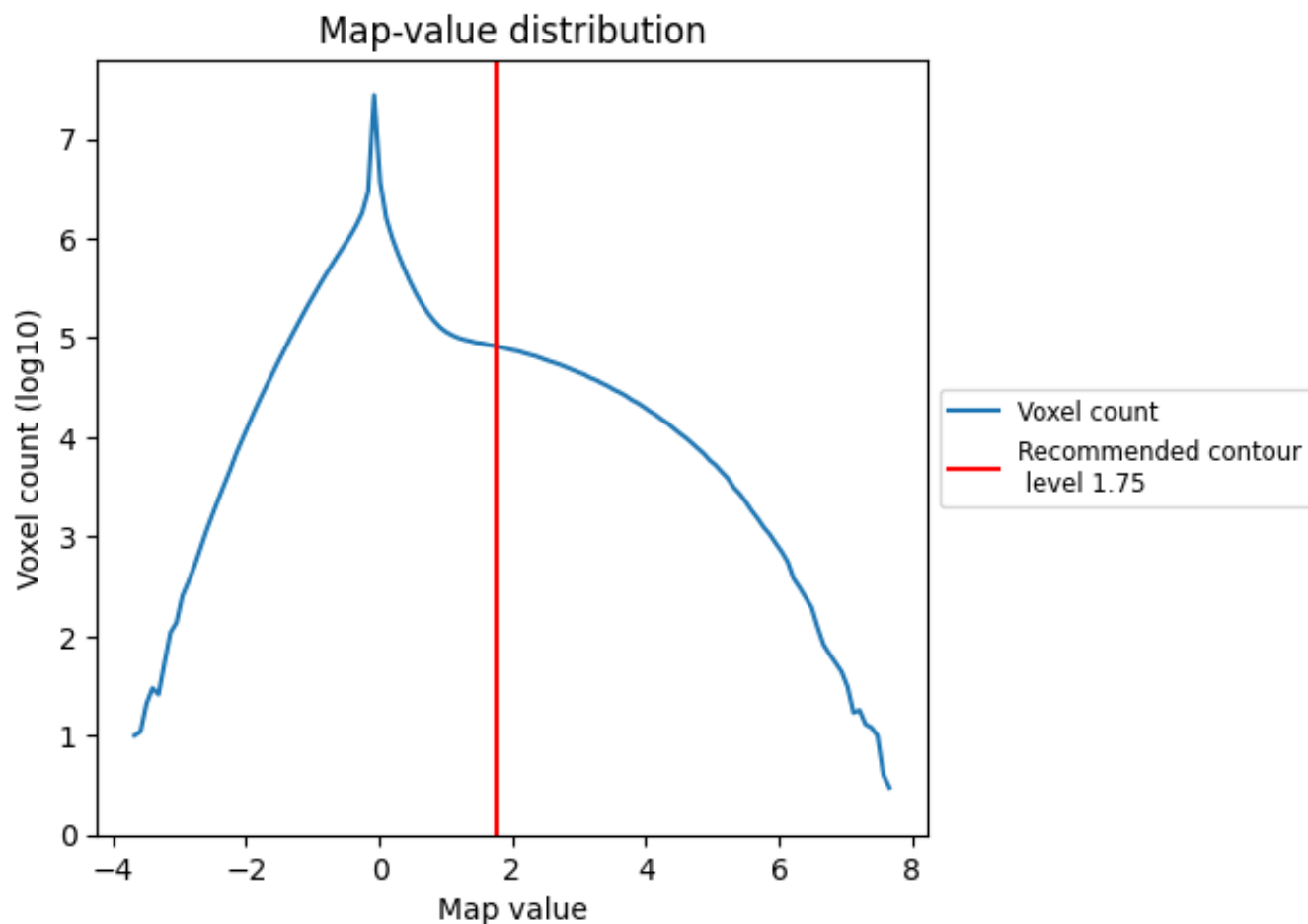
6.6 Mask visualisation [i](#)

This section was not generated. No masks/segmentation were deposited.

7 Map analysis [i](#)

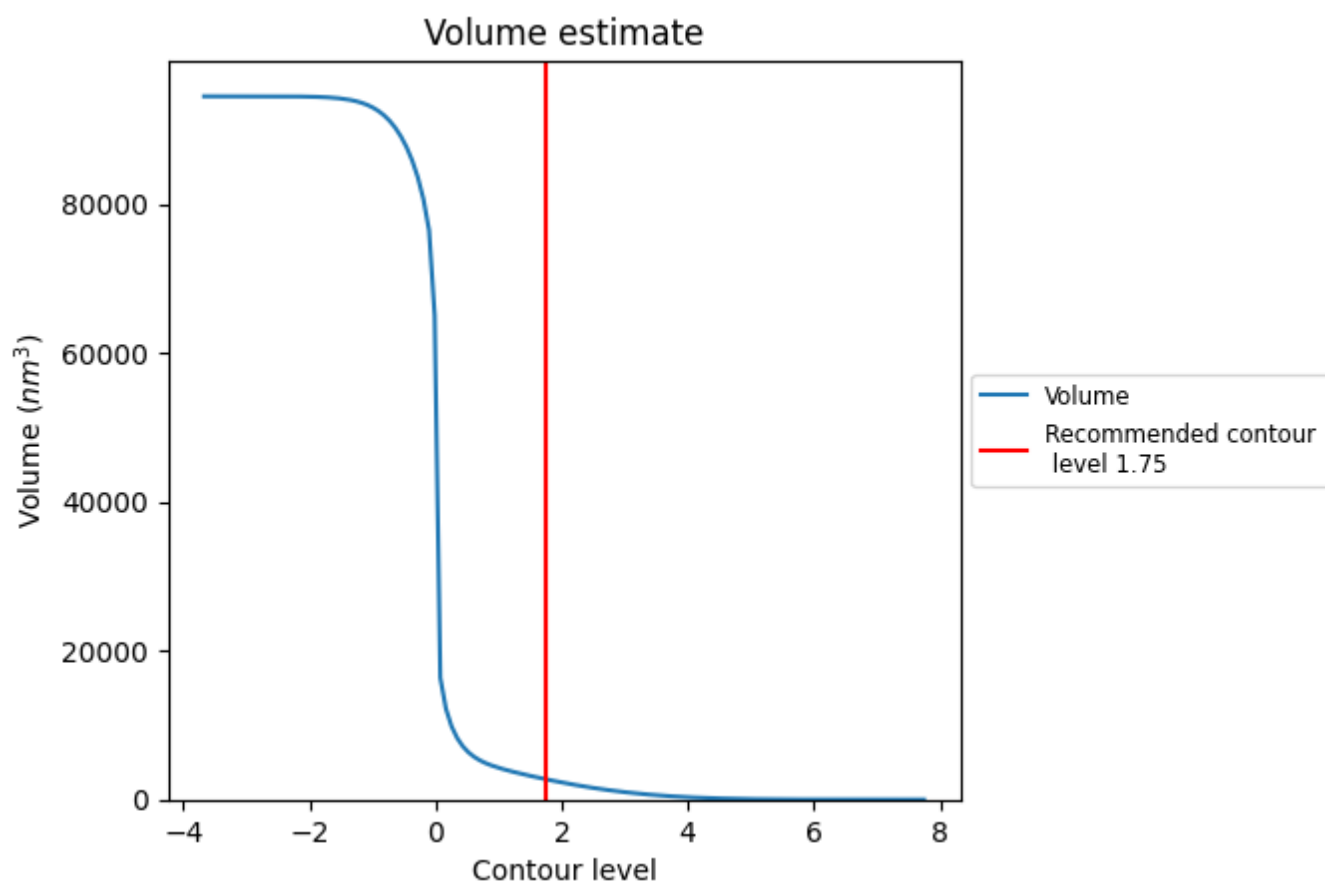
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

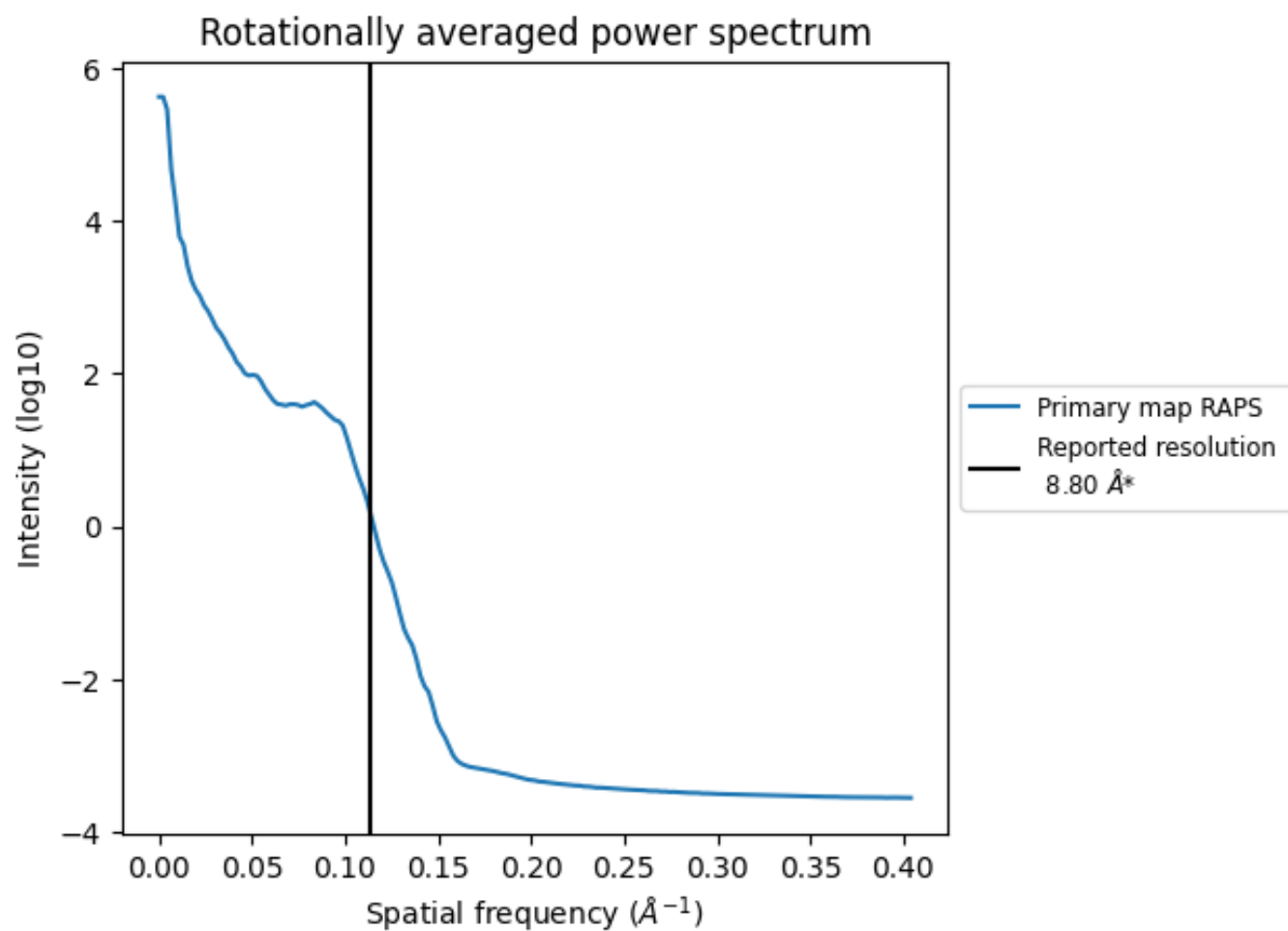
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 2728 nm³; this corresponds to an approximate mass of 2464 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum ⓘ



*Reported resolution corresponds to spatial frequency of 0.114 Å⁻¹

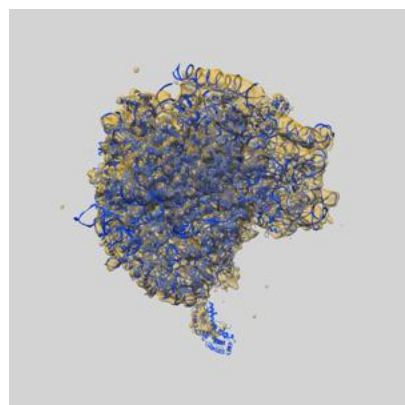
8 Fourier-Shell correlation

This section was not generated. No FSC curve or half-maps provided.

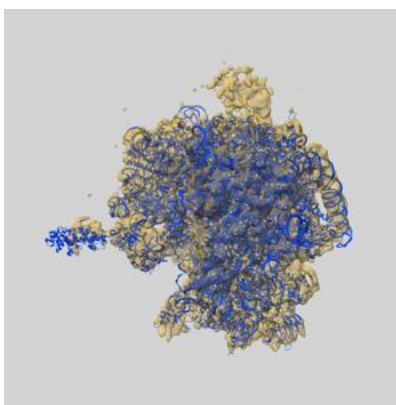
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-1669 and PDB model 4V6I. Per-residue inclusion information can be found in section 3 on page 20.

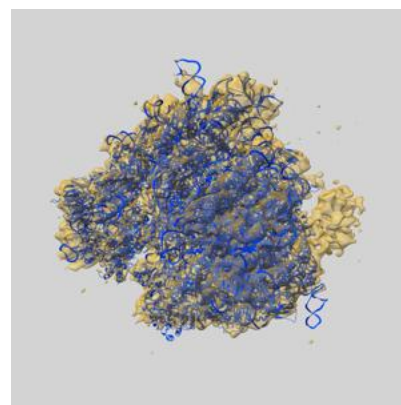
9.1 Map-model overlay [i](#)



X



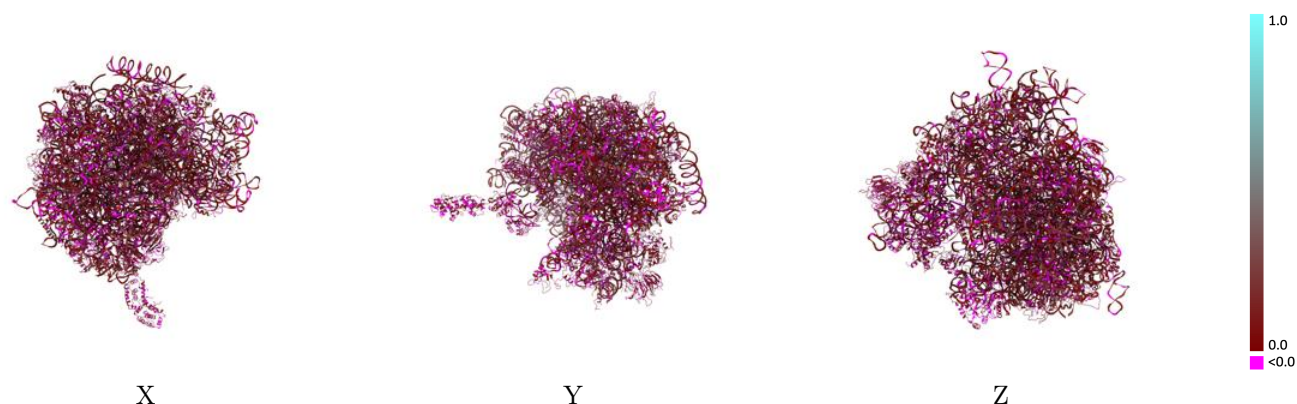
Y



Z

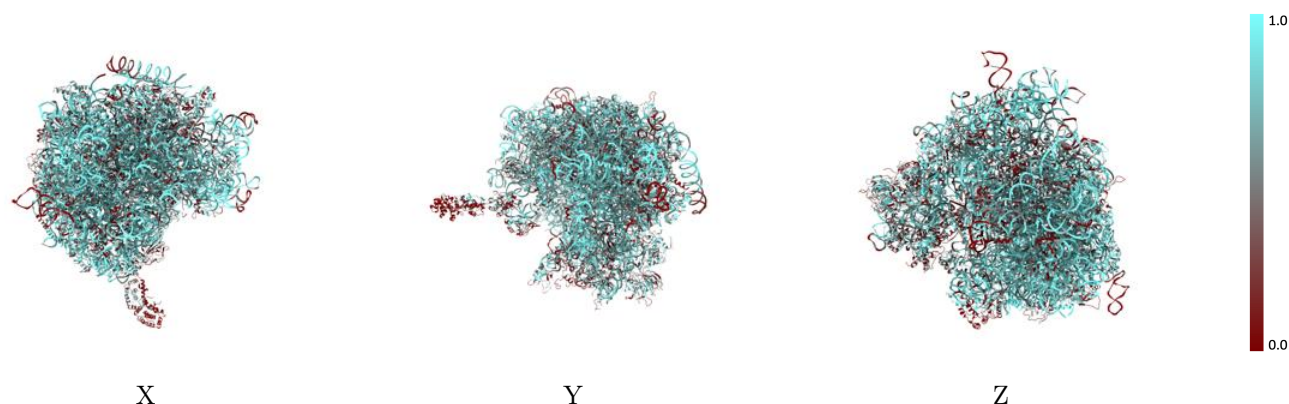
The images above show the 3D surface view of the map at the recommended contour level 1.75 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2 Q-score mapped to coordinate model [i](#)



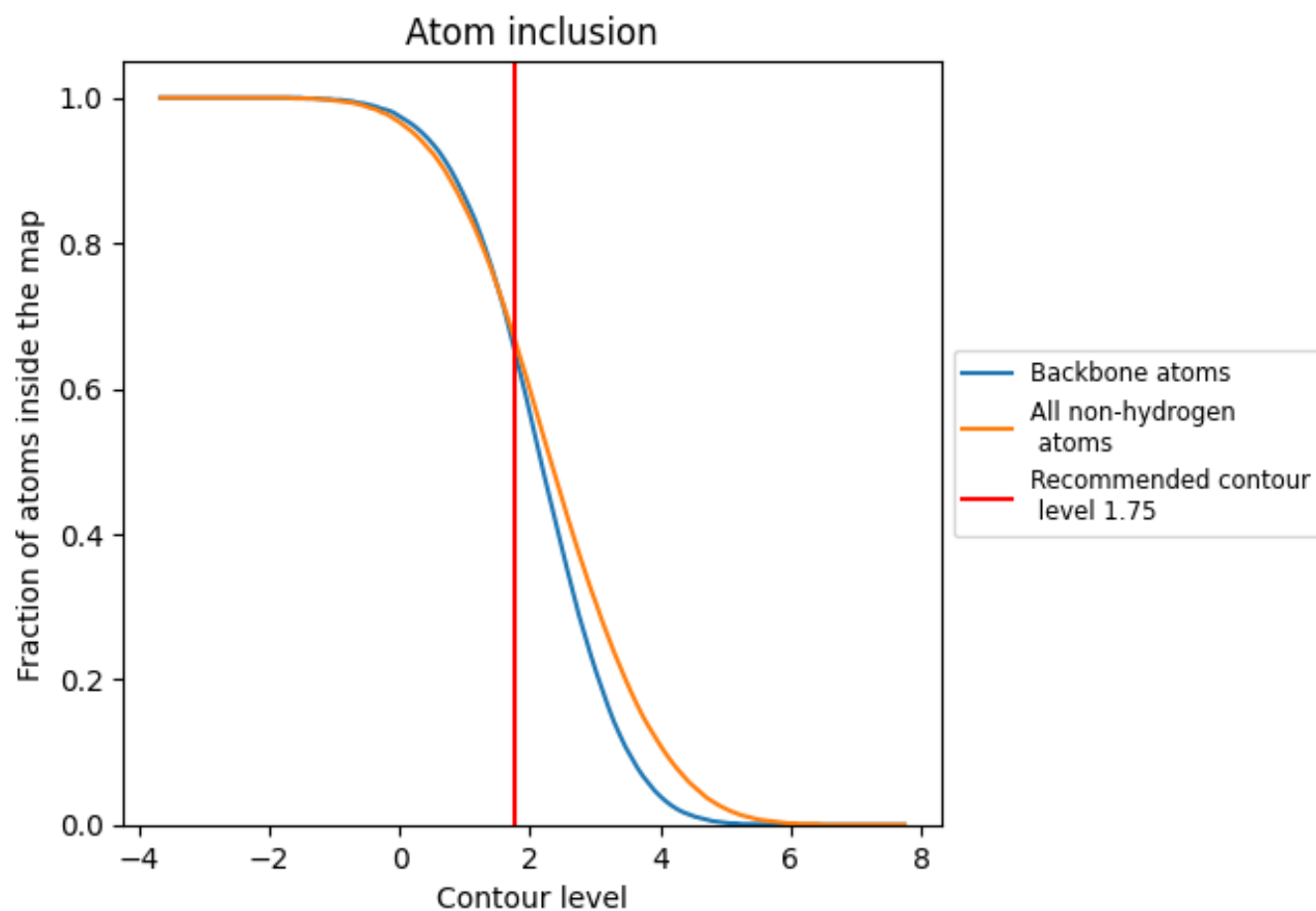
The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

9.3 Atom inclusion mapped to coordinate model [i](#)



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (1.75).

9.4 Atom inclusion [i](#)



At the recommended contour level, 66% of all backbone atoms, 67% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary ⓘ

The table lists the average atom inclusion at the recommended contour level (1.75) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.6720	 0.0940
AA	 0.6070	 0.1010
AB	 0.4530	 0.0770
AC	 0.5850	 0.0770
AD	 0.5780	 0.0860
AE	 0.5530	 0.0920
AF	 0.5030	 0.0710
AG	 0.6840	 0.1610
AH	 0.5130	 0.0870
AI	 0.5430	 0.0530
AJ	 0.5000	 0.0680
AK	 0.5770	 0.0700
AL	 0.6540	 0.0570
AM	 0.2950	 0.0500
AN	 0.3770	 0.0420
AO	 0.4520	 0.0830
AP	 0.4140	 0.0750
AQ	 0.3000	 0.0670
AR	 0.3300	 0.0730
AS	 0.5260	 0.0540
AT	 0.4160	 0.1050
AU	 0.5370	 0.0730
AV	 0.3770	 0.0800
AW	 0.7200	 0.1670
AX	 0.4820	 0.0650
AY	 0.3320	 0.0120
AZ	 0.4960	 0.0540
Aa	 0.4650	 0.0690
Ab	 0.8670	 0.2310
Ac	 0.6350	 0.2370
BA	 0.2180	 0.0010
BB	 0.4620	 0.0460
BC	 0.5830	 0.0580
BD	 0.5840	 0.0660
BE	 0.5590	 0.0870



Continued on next page...

Continued from previous page...

Chain	Atom inclusion	Q-score
BF	 0.5300	 0.0860
BG	 0.5860	 0.0780
BH	 0.6210	 0.0830
BI	 0.6600	 0.0620
BJ	 0.3380	 0.0300
BK	 0.5740	 0.0870
BL	 0.7800	 0.1700
BM	 0.2620	 0.0860
BN	 0.6400	 0.0980
BO	 0.4910	 0.0400
BP	 0.5560	 0.0370
BQ	 0.7450	 0.0620
BR	 0.5520	 0.1000
BS	 0.5020	 0.0650
BT	 0.4790	 0.0960
BU	 0.6290	 0.0650
BV	 0.5070	 0.0570
BW	 0.6070	 0.0800
BX	 0.5130	 0.0770
BY	 0.6950	 0.0860
BZ	 0.3940	 0.0600
Ba	 0.4830	 0.0350
Bc	 0.7380	 0.1170
Bd	 0.6180	 0.0590
Be	 0.5650	 0.0900
Bf	 0.4790	 0.1190
Bg	 0.5580	 0.0760
Bh	 0.4620	 0.0730
Bi	 0.4370	 0.0580
Bj	 0.4450	 0.0490
Bk	 0.6900	 0.0950
Bl	 0.6730	 0.0500
Bm	 0.3920	 0.0810
Bn	 0.5630	 0.0860
Bo	 0.4720	 0.0500
Bp	 0.4370	 -0.0300
Bq	 0.4880	 0.1170
Br	 0.4650	 0.0650
Bs	 0.2770	 0.0350
Bt	 0.3560	 0.0260
Bu	 0.0000	 0.0530
Bv	 0.2740	 0.0480

Continued on next page...

Continued from previous page...

Chain	Atom inclusion	Q-score
Bw	 0.0370	 0.0100
Bx	 0.7900	 0.1580
By	 0.9100	 0.2380
Bz	 0.6140	 0.2150
CA	 0.7890	 0.1050
CB	 0.0690	 0.0440
CC	 0.1440	 -0.0370
DA	 0.7960	 0.1160
DB	 0.8120	 0.1140
DC	 0.9130	 0.1250