



Full wwPDB EM Validation Report ⓘ

Mar 9, 2026 – 04:53 AM UTC

PDB ID : 3J9V / pdb_00003j9v
EMDB ID : EMD-6286
Title : Yeast V-ATPase state 3
Authors : Zhao, J.; Benlekbir, S.; Rubinstein, J.L.
Deposited on : 2015-02-23
Resolution : 8.30 Å (reported)
Based on initial models : 4RND, 1U7L, 4DL0, 1HO8

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:

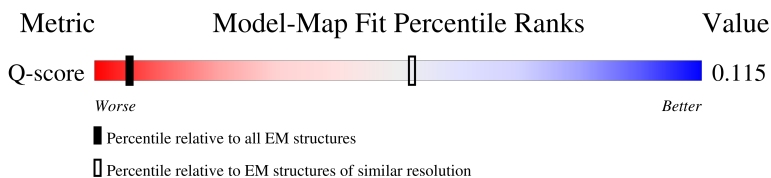
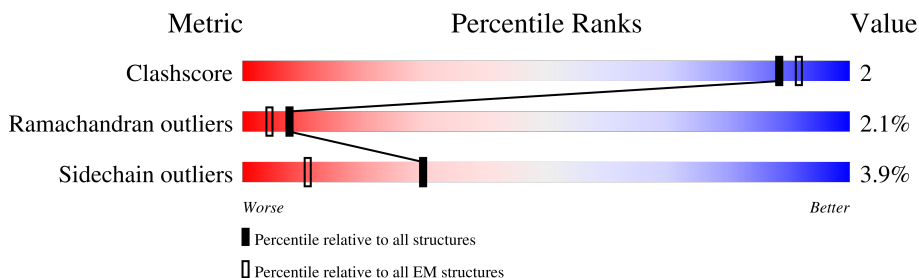
EMDB validation analysis : 0.0.1.dev132
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & 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 8.30 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.



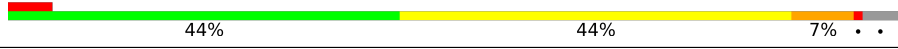
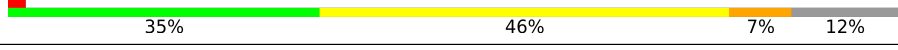
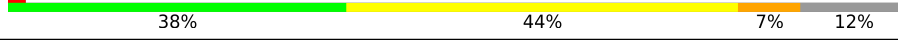
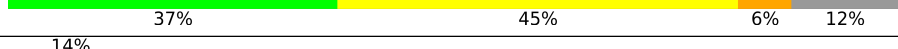
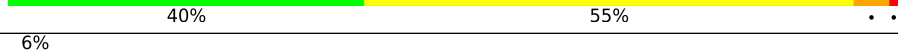
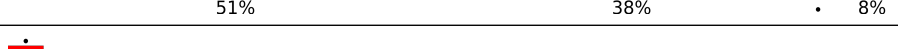
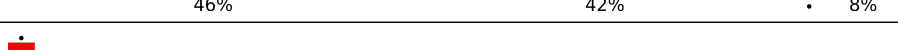
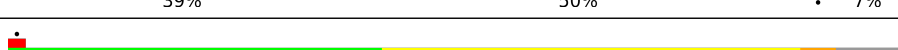
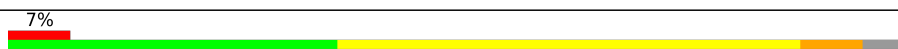
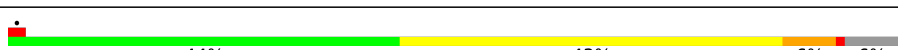
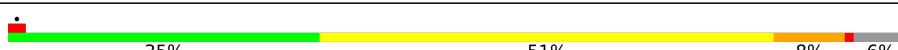
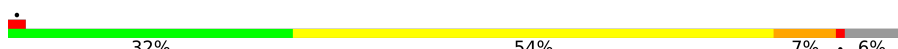
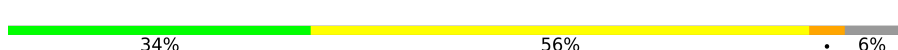
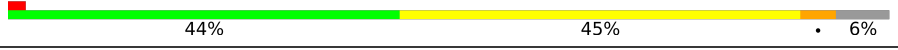
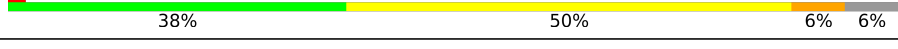
Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	280 (7.82 - 8.80)

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	b	840	
2	O	392	
3	M	256	
4	N	118	

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Mol	Chain	Length	Quality of chain
5	A	616	
5	C	616	
5	E	616	
6	B	517	
6	D	517	
6	F	517	
7	Q	345	
8	H	114	
8	J	114	
8	L	114	
9	G	233	
9	I	233	
9	K	233	
10	P	478	
11	R	160	
11	S	160	
11	T	160	
11	U	160	
11	V	160	
11	W	160	
11	X	160	
11	Y	160	
11	Z	160	
11	a	160	

2 Entry composition

There are 11 unique types of molecules in this entry. The entry contains 57659 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 V-type proton ATPase subunit a, vacuolar isoform.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	b	312	Total	C	N	O	S	0	0
			2540	1614	434	489	3		

- Molecule 2 is a protein called V-type proton ATPase subunit C.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	O	392	Total	C	N	O	S	0	0
			3122	2005	516	596	5		

- Molecule 3 is a protein called V-type proton ATPase subunit D.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	M	210	Total	C	N	O	S	0	0
			1691	1061	305	321	4		

- Molecule 4 is a protein called V-type proton ATPase subunit F.

Mol	Chain	Residues	Atoms				AltConf	Trace
4	N	115	Total	C	N	O	0	0
			928	589	157	182		

- Molecule 5 is a protein called V-type proton ATPase catalytic subunit A.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	E	593	Total	C	N	O	S	0	0
			4578	2904	760	894	20		
5	A	593	Total	C	N	O	S	0	0
			4578	2904	760	894	20		
5	C	593	Total	C	N	O	S	0	0
			4578	2904	760	894	20		

- Molecule 6 is a protein called V-type proton ATPase subunit B.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	F	457	Total	C	N	O	S	0	0
			3585	2266	612	695	12		
6	B	457	Total	C	N	O	S	0	0
			3585	2266	612	695	12		
6	D	457	Total	C	N	O	S	0	0
			3585	2266	612	695	12		

- Molecule 7 is a protein called V-type proton ATPase subunit d.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	Q	345	Total	C	N	O	S	0	0
			2802	1779	454	555	14		

- Molecule 8 is a protein called V-type proton ATPase subunit G.

Mol	Chain	Residues	Atoms				AltConf	Trace
8	J	105	Total	C	N	O	0	0
			824	517	144	163		
8	L	105	Total	C	N	O	0	0
			824	517	144	163		
8	H	105	Total	C	N	O	0	0
			824	517	144	163		

- Molecule 9 is a protein called V-type proton ATPase subunit E.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	I	217	Total	C	N	O	S	0	0
			1731	1083	296	347	5		
9	K	217	Total	C	N	O	S	0	0
			1731	1083	296	347	5		
9	G	217	Total	C	N	O	S	0	0
			1731	1083	296	347	5		

- Molecule 10 is a protein called V-type proton ATPase subunit H.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	P	461	Total	C	N	O	S	0	0
			3712	2373	623	704	12		

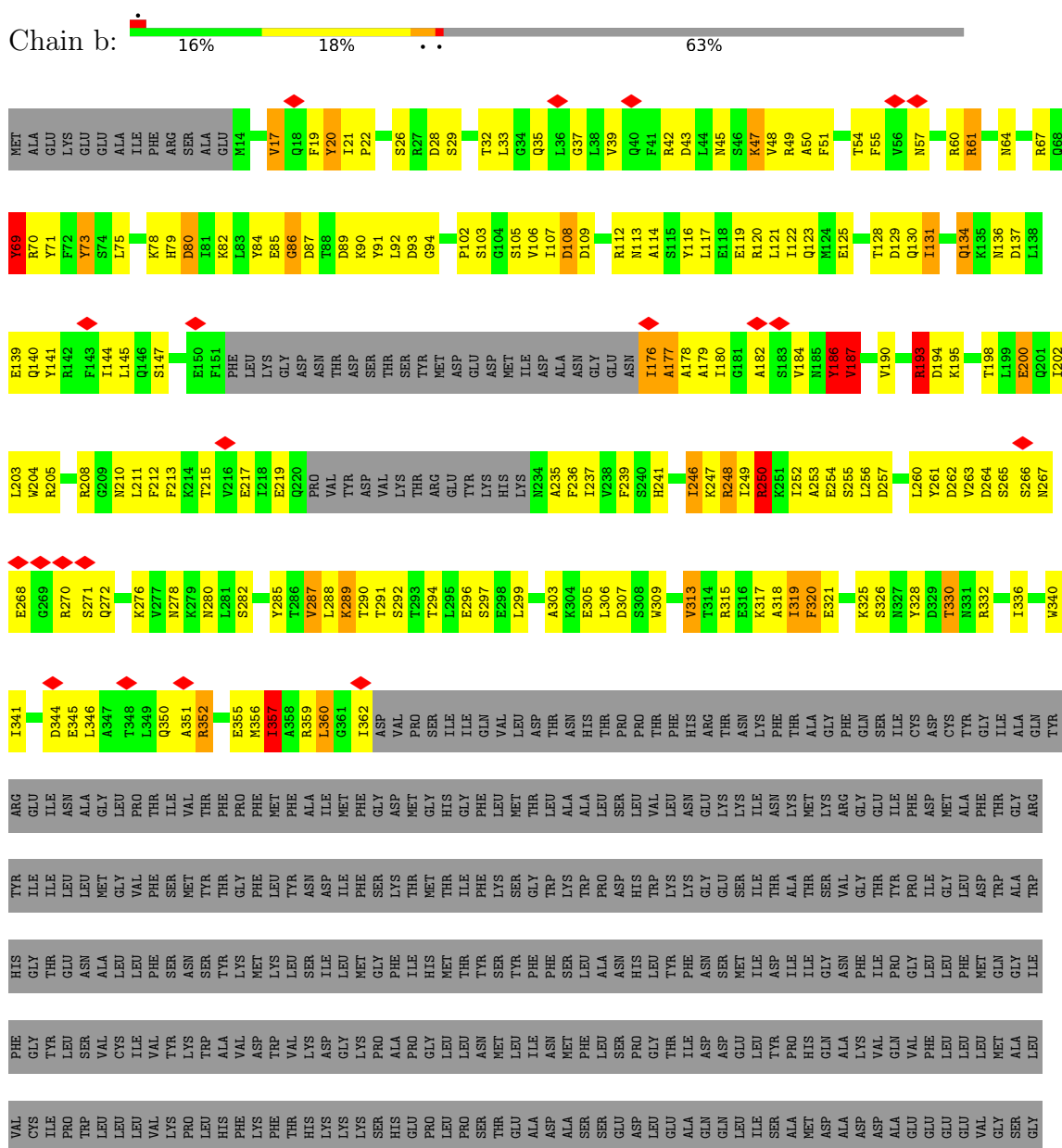
- Molecule 11 is a protein called V-type proton ATPase subunit c.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	R	150	Total 1071	C 704	N 173	O 187	S 7	0	0
11	U	150	Total 1071	C 704	N 173	O 187	S 7	0	0
11	X	150	Total 1071	C 704	N 173	O 187	S 7	0	0
11	Y	150	Total 1071	C 704	N 173	O 187	S 7	0	0
11	W	150	Total 1071	C 704	N 173	O 187	S 7	0	0
11	Z	150	Total 1071	C 704	N 173	O 187	S 7	0	0
11	V	150	Total 1071	C 704	N 173	O 187	S 7	0	0
11	a	150	Total 1071	C 704	N 173	O 187	S 7	0	0
11	S	150	Total 1071	C 704	N 173	O 187	S 7	0	0
11	T	150	Total 1071	C 704	N 173	O 187	S 7	0	0

3 Residue-property plots

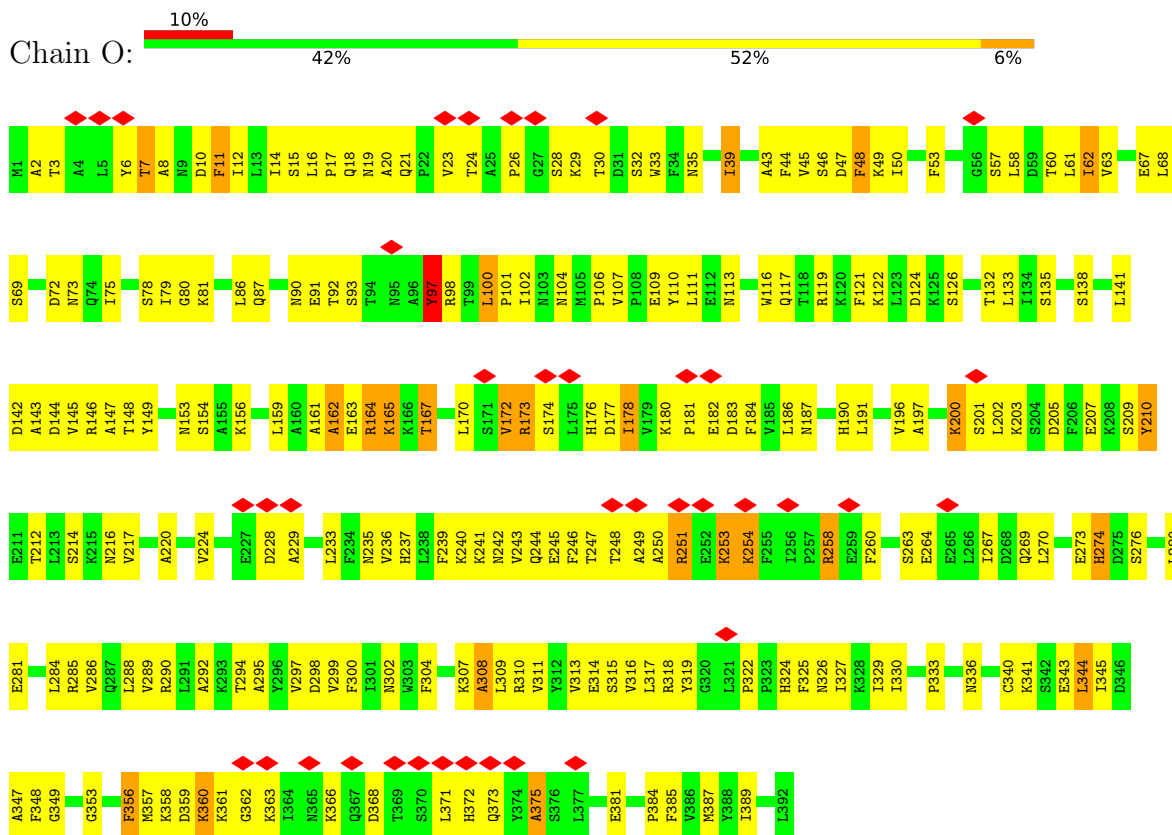
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion 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: V-type proton ATPase subunit a, vacuolar isoform



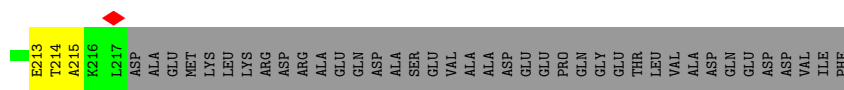
GLU	TYR	SER
LYS	GLY	HIS
ASP	GLU	GLU
MET	VAL	ASP
GLU	PHE	PHE
VAL	MET	GLY
ALA	THR	ASP
VAL	ALA	ILE
ALA	VAL	ILE
SER	SER	ILE
ALA	ALA	HIS
SER	SER	GLN
SER	SER	VAL
ALA	THR	VAL
SER	ALA	HIS
SER	ALA	THR
SER	THR	ILE
	GLU	GLU
	CYS	PHE
	ALA	CYS
	VAL	LEU
	LEU	ASN
	VAL	CYS
	LEU	VAL
	MET	SER
	GLU	HIS
	GLY	THR
	THR	ALA
	SER	SER
	ALA	TYR
	MET	LEU
	LEU	ARG
	HIS	LEU
	SER	ALA
	LEU	HIS
	TRP	ALA
	LEU	ALA
	ARG	LEU
	LEU	SER
	HIS	LEU
	TRP	ALA
	VAL	ALA
	GLU	ALA
	SER	GLN
	MET	LEU
	LYS	SER
	PHE	VAL
	PHE	LEU
	VAL	TRP
	GLY	THR
	GLY	MET
	LEU	THR
	PRO	ILE
	TYR	GLN
	GLU	ILE
	PRO	ALA
	PHE	PHE
	ALA	GLY
	PHE	ARG

- Molecule 2: V-type proton ATPase subunit C

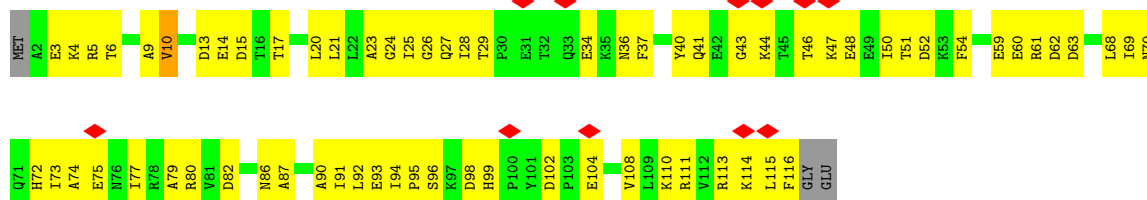


- Molecule 3: V-type proton ATPase subunit D

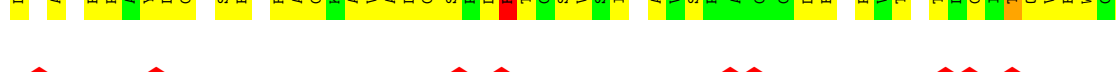




• Molecule 4: V-type proton ATPase subunit F

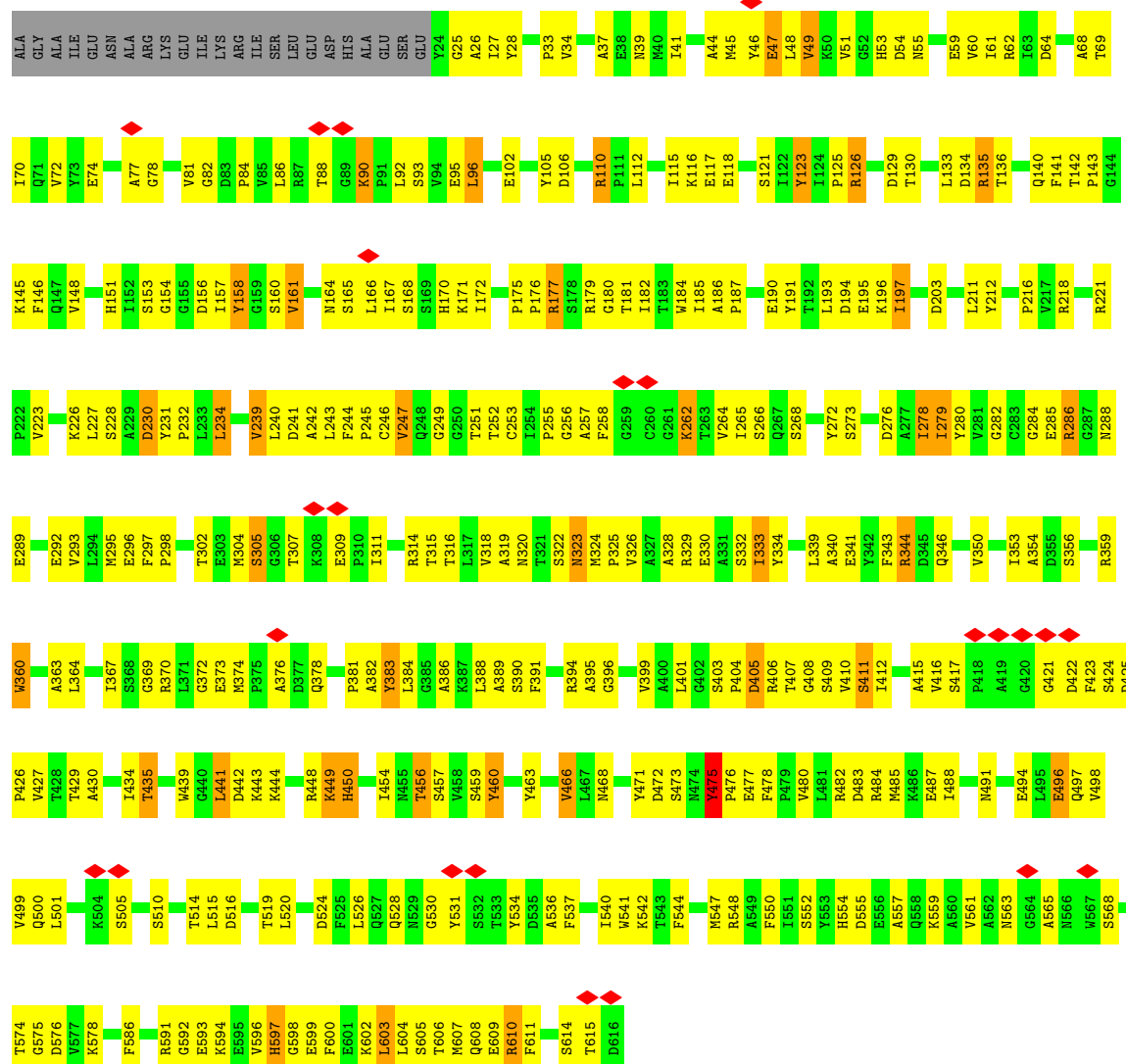


• Molecule 5: V-type proton ATPase catalytic subunit A



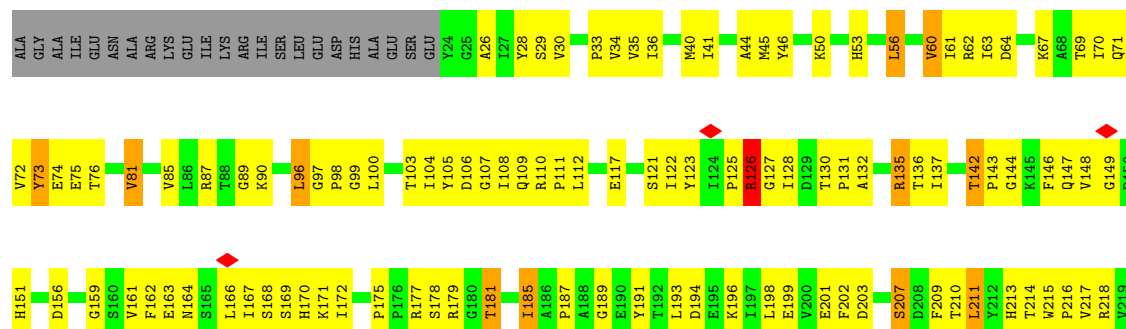
• Molecule 5: V-type proton ATPase catalytic subunit A

Chain A:  42% 48% 6% .



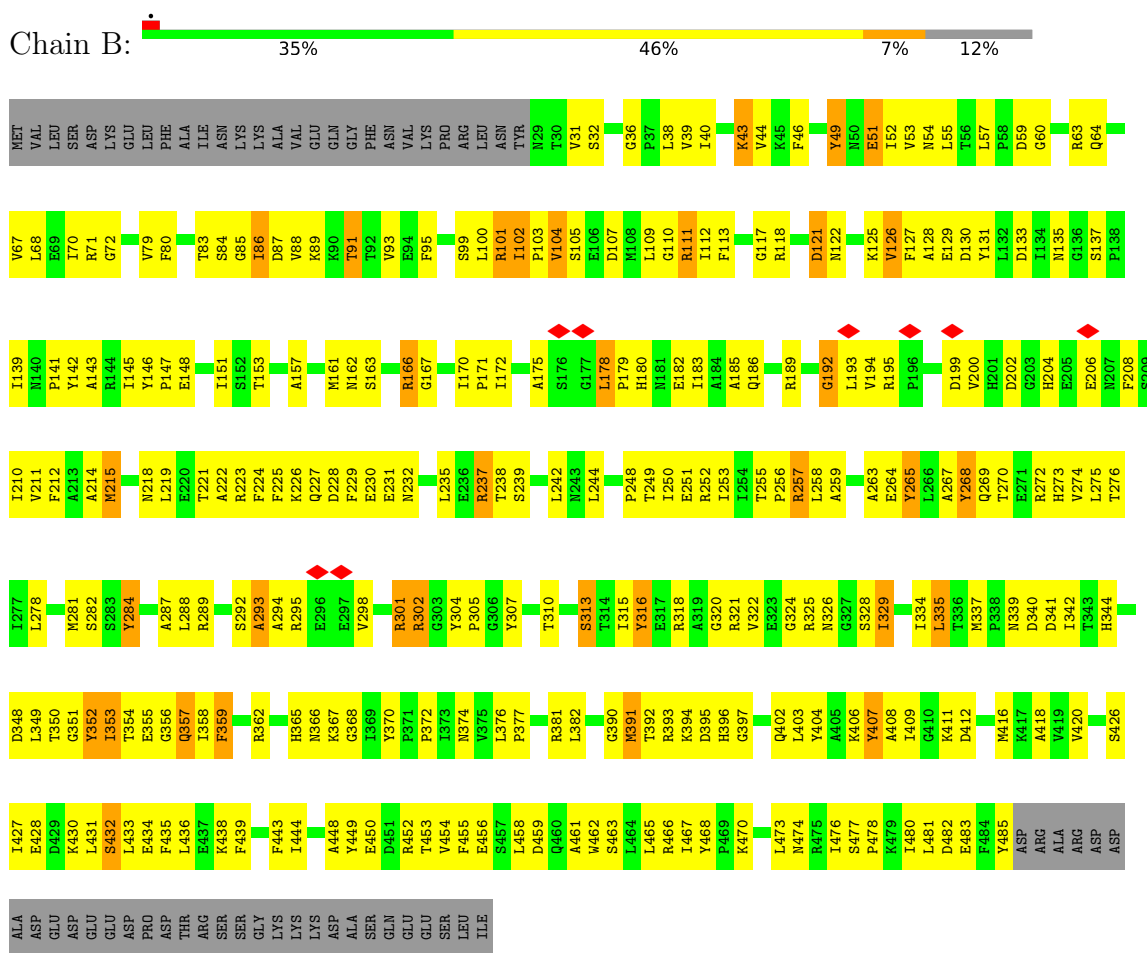
• Molecule 5: V-type proton ATPase catalytic subunit A

Chain C:  40% 50% 6% .

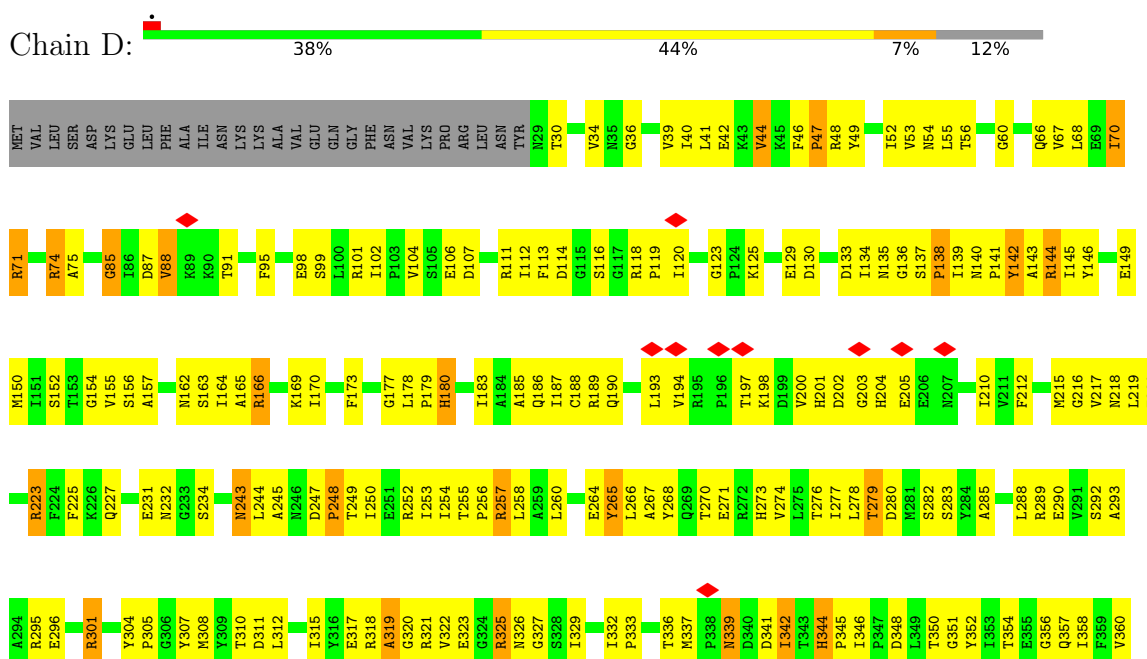


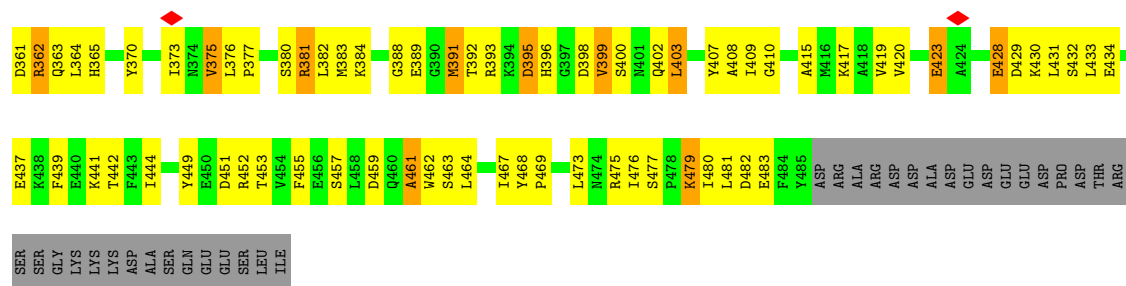


• Molecule 6: V-type proton ATPase subunit B

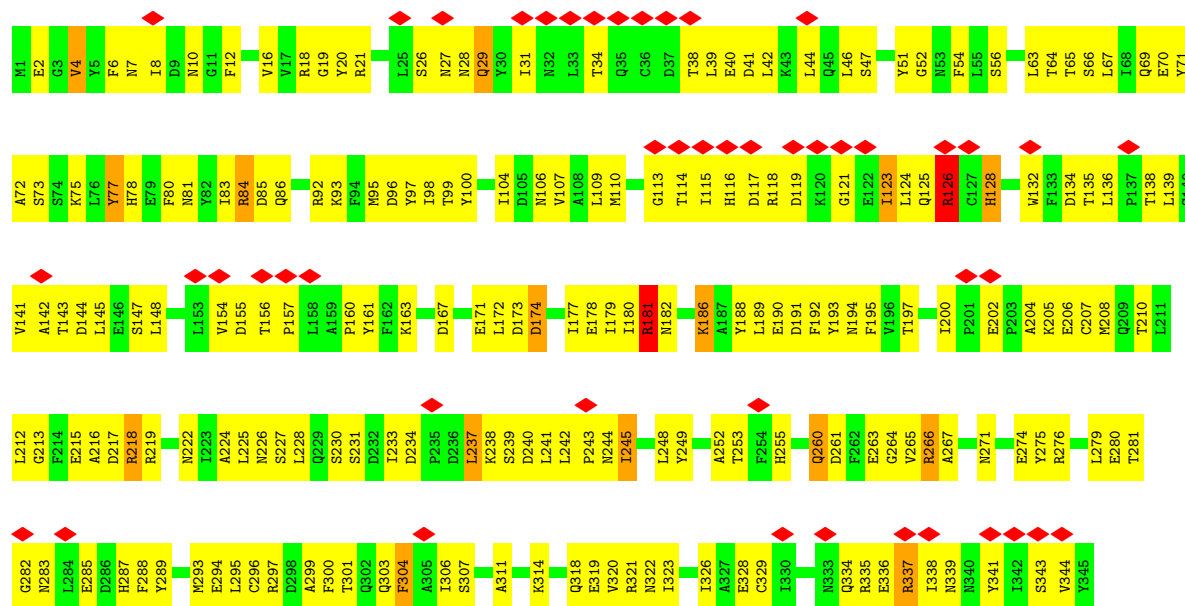


• Molecule 6: V-type proton ATPase subunit B

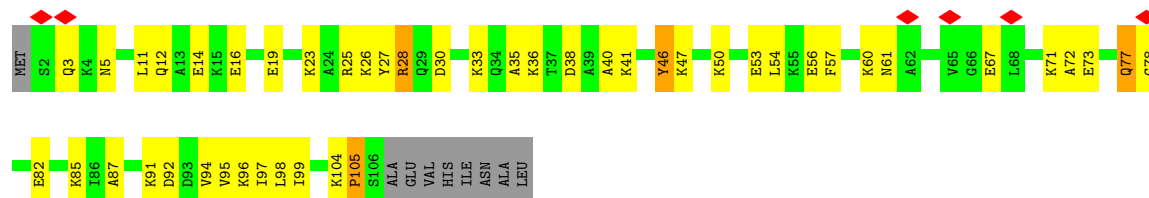




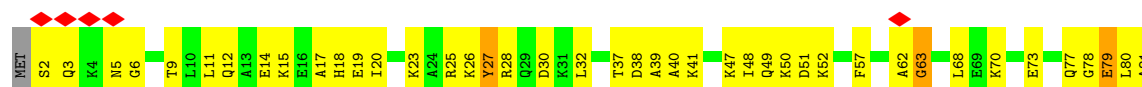
• Molecule 7: V-type proton ATPase subunit d



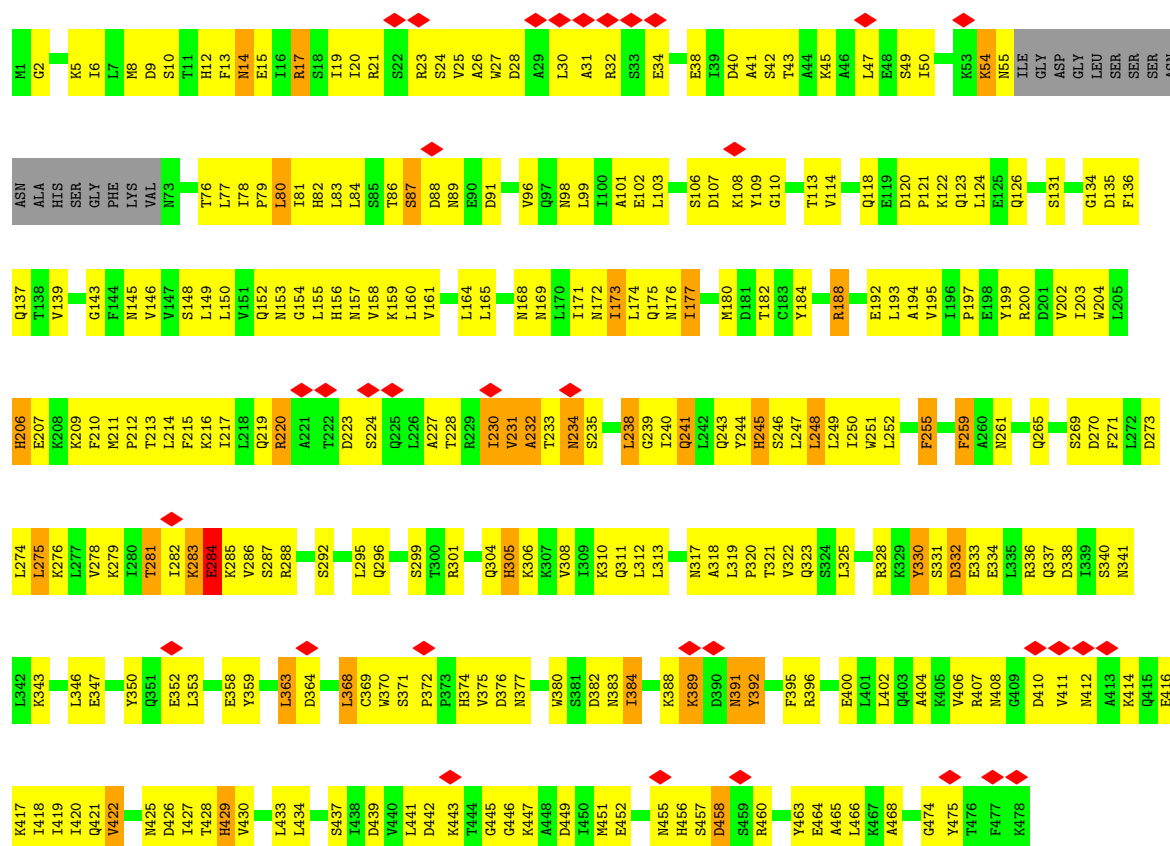
• Molecule 8: V-type proton ATPase subunit G



• Molecule 8: V-type proton ATPase subunit G









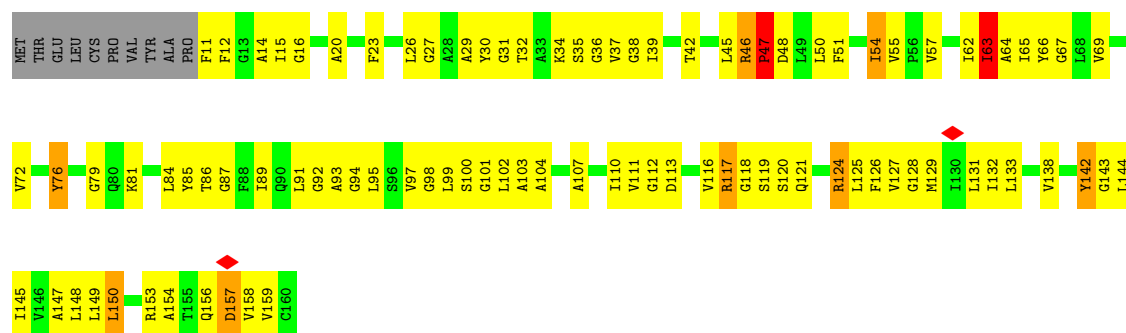
- Molecule 11: V-type proton ATPase subunit c

Chain U: 34% 56% 6%



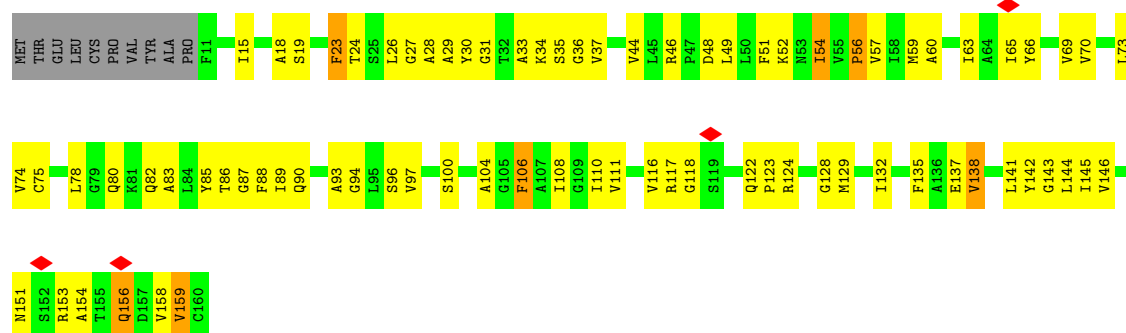
- Molecule 11: V-type proton ATPase subunit c

Chain X: 36% 52% 5% 6%

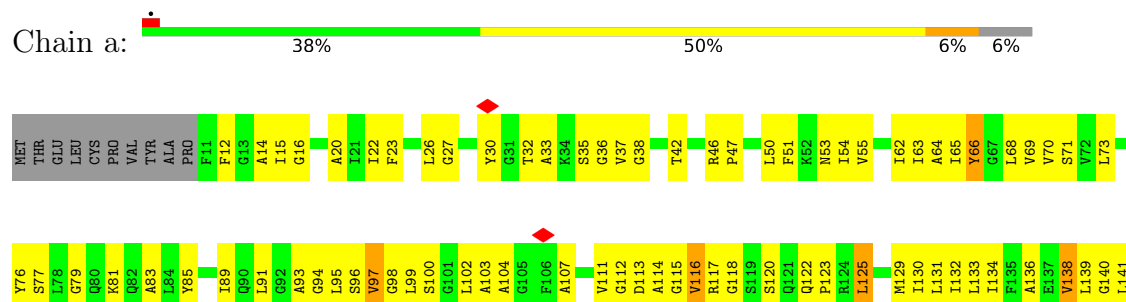


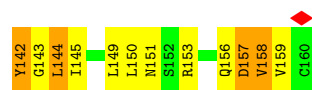
- Molecule 11: V-type proton ATPase subunit c

Chain Y: 44% 45% 6%



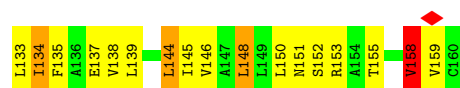
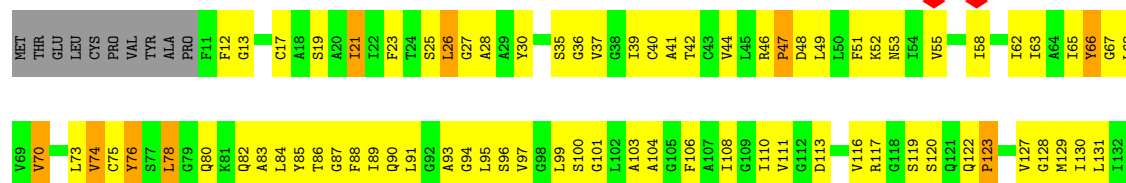
- Molecule 11: V-type proton ATPase subunit c





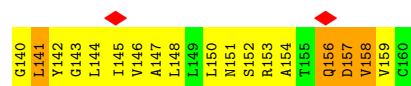
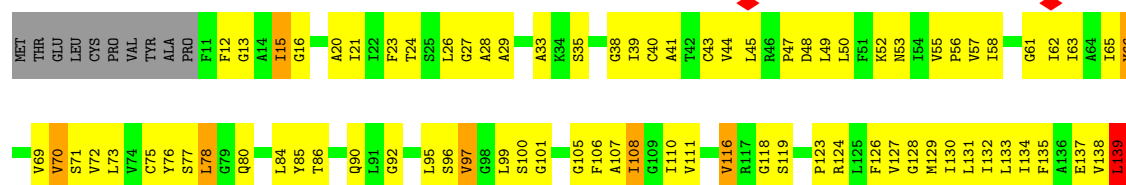
- Molecule 11: V-type proton ATPase subunit c

Chain S: 35% 51% 8% 6%



- Molecule 11: V-type proton ATPase subunit c

Chain T: 32% 54% 7% 6%



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	17595	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	Each particle	Depositor
Microscope	FEI TECNAI F20	Depositor
Voltage (kV)	200	Depositor
Electron dose ($e^-/\text{\AA}^2$)	30	Depositor
Minimum defocus (nm)	1500	Depositor
Maximum defocus (nm)	7000	Depositor
Magnification	34483	Depositor
Image detector	GATAN K2 (4k x 4k)	Depositor
Maximum map value	0.120	Depositor
Minimum map value	-0.032	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.009	Depositor
Recommended contour level	0.03	Depositor
Map size ($\text{\AA}$)	371.2, 371.2, 371.2	wwPDB
Map dimensions	256, 256, 256	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing ($\text{\AA}$)	1.45, 1.45, 1.45	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	b	2.26	78/2578 (3.0%)	2.54	184/3479 (5.3%)
2	O	2.27	125/3185 (3.9%)	2.50	244/4314 (5.7%)
3	M	2.32	72/1710 (4.2%)	2.66	147/2295 (6.4%)
4	N	2.30	30/944 (3.2%)	2.49	72/1277 (5.6%)
5	A	2.26	174/4677 (3.7%)	2.46	324/6339 (5.1%)
5	C	2.27	166/4677 (3.5%)	2.51	328/6339 (5.2%)
5	E	2.24	165/4677 (3.5%)	2.48	313/6339 (4.9%)
6	B	2.25	130/3654 (3.6%)	2.52	280/4953 (5.7%)
6	D	2.26	122/3654 (3.3%)	2.54	279/4953 (5.6%)
6	F	2.30	150/3654 (4.1%)	2.49	246/4953 (5.0%)
7	Q	2.28	116/2861 (4.1%)	2.57	224/3880 (5.8%)
8	H	2.18	28/828 (3.4%)	2.45	44/1098 (4.0%)
8	J	2.12	23/828 (2.8%)	2.47	51/1098 (4.6%)
8	L	2.10	21/828 (2.5%)	2.45	49/1098 (4.5%)
9	G	2.23	59/1743 (3.4%)	2.56	145/2338 (6.2%)
9	I	2.26	74/1743 (4.2%)	2.49	116/2338 (5.0%)
9	K	2.20	60/1743 (3.4%)	2.45	115/2338 (4.9%)
10	P	2.29	129/3766 (3.4%)	2.69	350/5087 (6.9%)
11	R	2.18	31/1086 (2.9%)	2.66	101/1472 (6.9%)
11	S	2.40	53/1086 (4.9%)	2.68	109/1472 (7.4%)
11	T	2.22	39/1086 (3.6%)	2.72	120/1472 (8.2%)
11	U	2.25	39/1086 (3.6%)	2.84	128/1472 (8.7%)
11	V	2.27	38/1086 (3.5%)	2.67	108/1472 (7.3%)
11	W	2.30	47/1086 (4.3%)	2.71	101/1472 (6.9%)
11	X	2.29	42/1086 (3.9%)	2.69	101/1472 (6.9%)
11	Y	2.26	32/1086 (2.9%)	2.65	103/1472 (7.0%)
11	Z	2.31	35/1086 (3.2%)	2.83	131/1472 (8.9%)
11	a	2.27	33/1086 (3.0%)	2.73	110/1472 (7.5%)
All	All	2.26	2111/58610 (3.6%)	2.56	4623/79236 (5.8%)

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	b	0	11
2	O	0	10
3	M	0	4
5	A	0	14
5	C	0	17
5	E	0	19
6	B	0	20
6	D	0	8
6	F	0	11
7	Q	0	6
8	J	0	2
8	L	0	1
9	G	0	4
9	I	0	3
9	K	0	4
10	P	0	9
11	R	0	3
11	S	0	1
11	T	0	1
11	U	0	3
11	W	0	1
11	X	0	7
11	Y	0	3
11	Z	0	2
11	a	0	3
All	All	0	167

All (2111) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
9	G	132	LEU	CA-C	-14.44	1.42	1.52
3	M	140	SER	CA-C	-11.15	1.38	1.52
6	B	365	HIS	ND1-CE1	10.53	1.43	1.32
6	B	257	ARG	NE-CZ	10.49	1.44	1.33
11	Z	55	VAL	CA-CB	10.48	1.61	1.53
5	E	27	ILE	CA-CB	-10.48	1.41	1.54
4	N	26	GLY	CA-C	-10.47	1.41	1.52
10	P	304	GLN	CA-CB	10.16	1.68	1.53
6	F	118	ARG	CD-NE	10.02	1.60	1.46
11	W	130	ILE	C-N	9.84	1.46	1.33
11	T	142	TYR	N-CA	-9.72	1.34	1.46
9	G	191	SER	CA-C	-9.68	1.40	1.52
2	O	177	ASP	C-N	9.64	1.45	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	F	393	ARG	CZ-NH2	9.61	1.46	1.33
7	Q	264	GLY	CA-C	9.61	1.63	1.52
6	F	462	TRP	CA-C	-9.60	1.39	1.52
5	C	169	SER	CA-C	-9.57	1.43	1.53
7	Q	6	PHE	N-CA	-9.57	1.38	1.47
11	U	46	ARG	CA-C	-9.49	1.44	1.52
6	F	376	LEU	C-N	9.45	1.43	1.34
9	K	158	ARG	CD-NE	9.38	1.59	1.46
9	K	131	LYS	CA-C	9.37	1.65	1.52
5	C	507	LEU	C-N	9.34	1.46	1.33
6	D	476	ILE	CA-C	9.30	1.63	1.52
10	P	460	ARG	CA-CB	9.23	1.68	1.53
5	C	450	HIS	ND1-CE1	9.22	1.41	1.32
6	B	219	LEU	CA-C	-9.21	1.41	1.52
6	F	267	ALA	N-CA	-9.21	1.35	1.46
10	P	374	HIS	ND1-CE1	9.19	1.41	1.32
6	F	424	ALA	N-CA	-9.10	1.38	1.46
10	P	27	TRP	NE1-CE2	9.07	1.47	1.37
5	A	48	LEU	CA-C	-9.04	1.41	1.52
10	P	246	SER	CA-CB	9.03	1.67	1.53
2	O	297	VAL	CA-C	-8.95	1.41	1.52
9	I	37	LEU	CA-C	-8.95	1.40	1.52
5	C	291	ALA	CA-C	-8.93	1.41	1.52
5	C	142	THR	CA-C	-8.92	1.43	1.52
6	F	188	CYS	N-CA	-8.91	1.35	1.46
11	Y	56	PRO	C-N	8.90	1.45	1.33
3	M	17	LEU	N-CA	-8.88	1.35	1.46
2	O	324	HIS	CA-C	-8.87	1.41	1.52
5	A	607	MET	CA-C	-8.86	1.41	1.52
11	Y	122	GLN	C-N	8.85	1.40	1.33
1	b	112	ARG	NE-CZ	8.84	1.42	1.33
11	a	125	LEU	N-CA	-8.82	1.36	1.46
2	O	190	HIS	ND1-CE1	8.78	1.41	1.32
5	E	182	ILE	N-CA	-8.78	1.35	1.46
2	O	385	PHE	CA-C	-8.76	1.41	1.52
5	C	402	GLY	N-CA	-8.73	1.36	1.45
5	E	576	ASP	C-N	8.72	1.44	1.33
6	F	362	ARG	CD-NE	8.71	1.58	1.46
5	C	329	ARG	C-N	8.70	1.45	1.33
6	F	278	LEU	CA-C	-8.67	1.42	1.52
2	O	309	LEU	N-CA	-8.61	1.36	1.46
5	C	538	CYS	CA-CB	8.61	1.61	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	Q	217	ASP	N-CA	-8.58	1.36	1.46
5	C	408	GLY	CA-C	-8.58	1.44	1.52
7	Q	67	LEU	N-CA	-8.57	1.35	1.46
2	O	251	ARG	NE-CZ	8.56	1.42	1.33
5	C	177	ARG	CA-C	-8.53	1.42	1.53
6	F	332	ILE	CA-C	-8.53	1.43	1.52
8	J	5	ASN	N-CA	-8.52	1.35	1.46
10	P	276	LYS	N-CA	-8.52	1.36	1.46
11	S	67	GLY	N-CA	-8.51	1.35	1.45
5	A	442	ASP	CA-C	-8.50	1.42	1.52
5	A	231	TYR	C-O	-8.50	1.13	1.24
7	Q	322	ASN	CA-C	-8.48	1.42	1.52
5	E	110	ARG	NE-CZ	8.46	1.42	1.33
10	P	219	GLN	CA-CB	8.45	1.66	1.53
6	B	289	ARG	CD-NE	8.44	1.58	1.46
10	P	173	ILE	CA-C	8.44	1.63	1.52
6	D	393	ARG	CD-NE	8.42	1.58	1.46
5	C	170	HIS	ND1-CE1	8.42	1.41	1.32
5	A	425	ASP	CA-C	-8.40	1.43	1.53
6	B	278	LEU	CA-C	-8.40	1.42	1.52
5	A	314	ARG	NE-CZ	8.39	1.42	1.33
7	Q	311	ALA	CA-C	-8.38	1.41	1.52
5	E	58	GLY	CA-C	-8.38	1.42	1.51
2	O	340	CYS	CA-C	-8.37	1.42	1.52
10	P	216	LYS	CA-C	-8.35	1.42	1.52
2	O	274	HIS	CD2-NE2	8.34	1.47	1.37
5	A	64	ASP	CA-C	-8.34	1.43	1.53
2	O	263	SER	CA-C	-8.33	1.42	1.52
6	D	449	TYR	C-N	8.32	1.44	1.33
5	E	433	GLY	N-CA	-8.31	1.35	1.45
5	E	266	SER	C-N	8.29	1.45	1.34
11	S	28	ALA	CA-C	-8.29	1.42	1.52
4	N	104	GLU	CA-CB	8.28	1.64	1.53
9	G	43	TYR	CA-CB	8.25	1.66	1.53
6	B	376	LEU	CA-C	-8.25	1.43	1.52
5	C	213	HIS	CA-C	-8.25	1.42	1.52
5	A	360	TRP	NE1-CE2	8.24	1.46	1.37
11	U	85	TYR	N-CA	-8.24	1.36	1.46
6	F	96	THR	CA-C	-8.23	1.42	1.52
5	A	319	ALA	CA-C	-8.21	1.43	1.52
6	D	170	ILE	CA-C	-8.21	1.46	1.52
5	C	466	VAL	C-N	8.21	1.44	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	C	252	THR	CA-C	-8.17	1.42	1.52
6	F	101	ARG	CZ-NH1	8.13	1.44	1.32
11	Z	69	VAL	CA-C	8.12	1.62	1.52
7	Q	99	THR	CA-C	-8.10	1.42	1.52
5	E	512	LYS	N-CA	-8.10	1.36	1.46
10	P	456	HIS	ND1-CE1	8.04	1.40	1.32
9	K	133	LEU	CA-CB	8.03	1.65	1.53
9	K	12	GLN	CA-C	7.99	1.63	1.52
5	C	450	HIS	CA-C	-7.99	1.42	1.52
11	X	124	ARG	C-N	7.99	1.44	1.33
8	L	99	ILE	C-N	7.99	1.44	1.33
5	C	272	TYR	CA-C	-7.97	1.41	1.52
5	E	471	TYR	CA-C	-7.97	1.42	1.52
6	D	140	ASN	C-O	-7.95	1.20	1.23
10	P	408	ASN	N-CA	-7.95	1.36	1.46
9	G	220	LEU	N-CA	-7.95	1.36	1.46
6	F	386	ALA	C-N	7.94	1.40	1.33
1	b	203	LEU	CA-C	-7.93	1.42	1.52
6	D	468	TYR	C-N	7.93	1.43	1.33
2	O	173	ARG	NE-CZ	7.92	1.41	1.33
6	F	252	ARG	CD-NE	7.92	1.57	1.46
5	E	534	TYR	N-CA	-7.92	1.35	1.46
5	A	555	ASP	CA-CB	7.89	1.65	1.53
5	A	153	SER	C-N	7.89	1.40	1.33
6	D	91	THR	C-N	7.89	1.43	1.33
5	A	68	ALA	N-CA	-7.88	1.36	1.46
9	I	204	GLU	N-CA	-7.88	1.36	1.46
5	E	412	ILE	N-CA	-7.88	1.36	1.46
1	b	261	TYR	CA-C	-7.86	1.43	1.52
6	B	178	LEU	N-CA	-7.85	1.36	1.46
4	N	99	HIS	ND1-CE1	7.83	1.40	1.32
11	U	26	LEU	CA-CB	7.83	1.65	1.53
6	F	123	GLY	N-CA	-7.81	1.34	1.44
6	D	41	LEU	CA-C	-7.80	1.43	1.52
11	T	77	SER	C-O	-7.80	1.14	1.24
11	S	135	PHE	CA-C	-7.78	1.42	1.52
11	S	138	VAL	CA-CB	-7.78	1.44	1.54
10	P	233	THR	N-CA	7.77	1.54	1.46
7	Q	104	ILE	CA-CB	-7.75	1.45	1.54
2	O	381	GLU	C-N	7.74	1.43	1.33
11	W	149	LEU	CA-C	-7.74	1.43	1.52
7	Q	337	ARG	CD-NE	7.74	1.57	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
9	I	183	LEU	N-CA	7.73	1.56	1.46
5	A	359	ARG	NE-CZ	7.72	1.41	1.33
6	D	268	TYR	N-CA	-7.72	1.37	1.46
5	E	189	GLY	N-CA	-7.71	1.37	1.45
6	B	295	ARG	NE-CZ	7.71	1.41	1.33
11	S	117	ARG	NE-CZ	7.71	1.41	1.33
6	D	166	ARG	NE-CZ	7.70	1.41	1.33
5	C	201	GLU	C-N	7.70	1.43	1.33
11	V	45	LEU	CA-C	-7.69	1.43	1.52
3	M	134	ARG	CD-NE	7.69	1.57	1.46
6	D	169	LYS	C-N	7.69	1.39	1.33
11	W	80	GLN	C-N	7.68	1.43	1.33
9	K	37	LEU	C-N	7.67	1.45	1.33
6	D	321	ARG	CD-NE	7.67	1.56	1.46
5	E	219	VAL	CA-CB	-7.67	1.45	1.54
3	M	58	GLY	CA-C	-7.66	1.43	1.52
6	F	198	LYS	CA-C	-7.66	1.42	1.52
10	P	437	SER	C-N	7.66	1.43	1.33
7	Q	249	TYR	CA-C	-7.65	1.44	1.52
11	U	51	PHE	CA-C	7.65	1.63	1.52
11	a	73	LEU	CA-CB	7.65	1.65	1.53
5	A	272	TYR	N-CA	-7.64	1.36	1.46
9	I	138	ILE	CA-C	-7.64	1.43	1.52
6	F	477	SER	CA-C	-7.64	1.45	1.53
6	D	101	ARG	NE-CZ	7.62	1.41	1.33
3	M	66	PHE	C-N	7.62	1.44	1.33
6	D	257	ARG	CZ-NH2	7.61	1.43	1.33
11	W	145	ILE	C-N	7.60	1.43	1.33
11	Z	110	ILE	C-N	7.60	1.43	1.33
3	M	96	ALA	CA-C	-7.60	1.43	1.52
5	A	27	ILE	CA-C	-7.59	1.44	1.53
5	C	41	ILE	CA-C	-7.59	1.43	1.52
6	D	30	THR	CA-C	-7.59	1.42	1.53
8	J	46	TYR	CA-CB	7.55	1.65	1.53
5	A	160	SER	CA-C	-7.54	1.43	1.52
6	B	452	ARG	NE-CZ	7.54	1.41	1.33
5	C	146	PHE	CA-C	-7.54	1.43	1.52
11	S	146	VAL	N-CA	-7.53	1.38	1.46
11	V	51	PHE	CA-C	-7.52	1.43	1.52
5	E	412	ILE	CA-CB	-7.52	1.45	1.54
6	D	135	ASN	C-N	7.52	1.44	1.33
9	G	214	ALA	CA-C	-7.52	1.43	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	b	280	ASN	CA-C	-7.52	1.43	1.52
6	D	469	PRO	CA-C	-7.51	1.45	1.53
11	a	143	GLY	CA-C	-7.50	1.44	1.52
1	b	271	SER	C-N	7.49	1.43	1.33
5	A	487	GLU	CA-CB	7.48	1.65	1.53
8	H	24	ALA	N-CA	-7.48	1.36	1.46
2	O	326	ASN	C-N	7.48	1.43	1.33
10	P	194	ALA	C-N	7.47	1.43	1.34
5	A	136	THR	C-N	7.47	1.44	1.33
5	C	554	HIS	CG-CD2	7.47	1.44	1.35
11	W	48	ASP	CA-CB	7.47	1.66	1.53
10	P	233	THR	CA-C	7.46	1.61	1.52
11	T	58	ILE	C-N	7.46	1.43	1.33
1	b	70	ARG	CD-NE	7.46	1.56	1.46
5	A	597	HIS	CA-C	-7.44	1.43	1.52
11	V	56	PRO	N-CA	-7.44	1.38	1.47
6	D	295	ARG	CD-NE	7.42	1.56	1.46
5	E	200	VAL	CA-C	-7.41	1.43	1.52
11	V	122	GLN	CA-C	-7.41	1.43	1.52
5	C	239	VAL	CA-C	-7.41	1.43	1.52
6	D	245	ALA	CA-C	-7.41	1.42	1.52
7	Q	303	GLN	CA-C	-7.41	1.43	1.52
10	P	54	LYS	CA-CB	7.40	1.66	1.53
5	A	537	PHE	N-CA	-7.40	1.37	1.46
6	B	329	ILE	CA-C	-7.39	1.43	1.52
11	W	154	ALA	CA-C	-7.39	1.43	1.52
5	C	286	ARG	CD-NE	7.39	1.56	1.46
11	Z	142	TYR	C-N	7.38	1.42	1.33
1	b	92	LEU	C-N	7.38	1.43	1.33
9	G	187	GLY	CA-C	-7.38	1.42	1.52
6	B	171	PRO	C-N	7.38	1.43	1.33
3	M	209	LYS	C-O	-7.38	1.15	1.24
6	F	214	ALA	CA-C	-7.37	1.43	1.52
11	R	139	LEU	C-N	7.37	1.42	1.33
10	P	206	HIS	ND1-CE1	7.36	1.40	1.32
5	E	331	ALA	CA-C	7.36	1.63	1.52
5	C	214	THR	CA-C	-7.36	1.44	1.52
6	D	201	HIS	CA-C	-7.36	1.42	1.52
6	D	150	MET	CA-C	-7.35	1.43	1.52
9	I	70	MET	C-N	7.35	1.44	1.33
6	D	382	LEU	CA-C	-7.35	1.43	1.52
9	G	98	GLY	CA-C	-7.35	1.41	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	a	140	GLY	C-N	7.34	1.43	1.33
5	C	331	ALA	C-N	7.34	1.43	1.33
10	P	172	ASN	CA-C	-7.32	1.43	1.52
5	C	473	SER	C-N	7.32	1.44	1.33
9	G	130	LEU	C-N	7.32	1.43	1.33
11	T	72	VAL	CA-CB	7.32	1.62	1.54
1	b	70	ARG	NE-CZ	7.31	1.41	1.33
4	N	5	ARG	CD-NE	7.31	1.56	1.46
6	D	216	GLY	C-N	7.31	1.43	1.33
5	E	501	LEU	C-N	7.31	1.43	1.33
5	E	170	HIS	CA-C	-7.31	1.43	1.53
5	C	234	LEU	N-CA	-7.30	1.36	1.46
6	F	381	ARG	CZ-NH2	7.30	1.43	1.33
5	A	86	LEU	CA-CB	7.30	1.63	1.53
5	A	95	GLU	C-N	7.30	1.43	1.33
6	B	133	ASP	CA-C	-7.29	1.43	1.52
5	A	197	ILE	C-N	7.29	1.43	1.33
5	A	135	ARG	CD-NE	7.29	1.56	1.46
11	Y	49	LEU	C-N	7.27	1.42	1.33
5	E	415	ALA	N-CA	-7.27	1.36	1.46
6	F	396	HIS	ND1-CE1	7.26	1.39	1.32
8	H	18	HIS	ND1-CE1	7.26	1.39	1.32
6	F	335	LEU	CA-C	-7.26	1.43	1.52
3	M	199	GLU	N-CA	-7.25	1.37	1.46
5	E	152	ILE	N-CA	-7.25	1.38	1.46
10	P	146	VAL	C-N	7.25	1.43	1.33
3	M	33	LYS	C-N	7.24	1.43	1.33
9	K	25	ARG	NE-CZ	7.24	1.41	1.33
2	O	274	HIS	ND1-CE1	7.24	1.39	1.32
5	C	189	GLY	CA-C	-7.23	1.44	1.51
5	C	292	GLU	C-N	7.23	1.43	1.33
11	a	53	ASN	N-CA	-7.23	1.37	1.46
5	E	573	SER	CA-CB	7.23	1.64	1.53
11	X	46	ARG	N-CA	-7.23	1.35	1.46
9	I	28	ALA	N-CA	-7.22	1.37	1.46
6	B	341	ASP	CA-C	7.21	1.61	1.52
3	M	97	ARG	NE-CZ	7.21	1.41	1.33
7	Q	224	ALA	CA-C	-7.20	1.43	1.52
8	J	71	LYS	C-N	7.20	1.44	1.33
1	b	340	TRP	N-CA	-7.20	1.37	1.46
9	I	136	LYS	N-CA	-7.19	1.37	1.46
2	O	327	ILE	N-CA	-7.19	1.37	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	E	549	ALA	CA-C	-7.19	1.43	1.52
5	C	194	ASP	N-CA	-7.19	1.37	1.46
6	D	356	GLY	CA-C	-7.19	1.44	1.52
6	B	199	ASP	N-CA	-7.18	1.37	1.46
5	C	179	ARG	CD-NE	7.18	1.56	1.46
6	D	325	ARG	CD-NE	7.18	1.56	1.46
5	A	389	ALA	N-CA	-7.17	1.37	1.46
1	b	29	SER	C-N	7.17	1.43	1.33
9	I	164	ALA	N-CA	-7.17	1.37	1.46
11	U	83	ALA	CA-C	-7.17	1.43	1.52
6	D	215	MET	CA-C	-7.16	1.43	1.52
10	P	383	ASN	C-N	7.16	1.42	1.33
5	A	421	GLY	CA-C	-7.15	1.41	1.51
10	P	156	HIS	CE1-NE2	-7.15	1.25	1.32
1	b	120	ARG	NE-CZ	7.15	1.41	1.33
11	Y	117	ARG	CZ-NH1	7.15	1.42	1.32
4	N	24	GLY	C-N	7.14	1.39	1.33
6	B	172	ILE	CA-C	-7.13	1.43	1.52
11	R	84	LEU	CA-C	-7.13	1.43	1.52
11	V	53	ASN	CA-C	-7.13	1.43	1.52
9	G	17	LEU	C-N	7.12	1.43	1.33
10	P	78	ILE	N-CA	7.12	1.55	1.46
11	Y	69	VAL	CA-C	-7.12	1.44	1.52
10	P	382	ASP	CA-CB	7.12	1.64	1.53
7	Q	261	ASP	CA-CB	7.12	1.64	1.53
8	J	30	ASP	N-CA	-7.12	1.37	1.46
11	V	13	GLY	C-N	7.12	1.43	1.33
5	A	191	TYR	CA-C	-7.11	1.43	1.52
11	X	69	VAL	CA-CB	-7.11	1.46	1.54
11	W	46	ARG	CD-NE	7.11	1.56	1.46
4	N	25	ILE	N-CA	7.11	1.52	1.46
6	F	344	HIS	CG-ND1	-7.09	1.30	1.38
11	X	35	SER	N-CA	-7.09	1.37	1.46
6	F	272	ARG	CD-NE	7.09	1.56	1.46
6	F	282	SER	C-N	7.09	1.43	1.33
3	M	213	GLU	N-CA	-7.08	1.37	1.46
9	K	190	VAL	CA-C	-7.08	1.44	1.52
11	X	27	GLY	CA-C	7.08	1.60	1.51
11	W	70	VAL	CA-CB	-7.07	1.46	1.54
11	a	62	ILE	C-N	7.07	1.42	1.33
5	C	231	TYR	C-N	7.06	1.43	1.33
2	O	68	LEU	CA-C	-7.06	1.43	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	A	568	SER	C-N	7.06	1.43	1.33
1	b	359	ARG	CD-NE	7.06	1.56	1.46
6	B	252	ARG	CD-NE	7.06	1.56	1.46
9	K	154	ASP	N-CA	-7.05	1.38	1.46
7	Q	136	LEU	CA-C	7.05	1.61	1.52
1	b	67	ARG	NE-CZ	7.05	1.40	1.33
6	F	63	ARG	CA-C	-7.05	1.44	1.52
6	F	38	LEU	CA-C	-7.04	1.43	1.52
5	A	459	SER	CA-C	7.04	1.61	1.52
6	B	427	ILE	CA-CB	-7.04	1.45	1.54
5	A	231	TYR	N-CA	-7.04	1.37	1.45
5	C	527	GLN	CA-C	-7.03	1.44	1.52
7	Q	339	ASN	C-N	7.03	1.43	1.33
5	E	482	ARG	CZ-NH1	7.03	1.42	1.32
11	X	31	GLY	C-N	7.02	1.43	1.33
5	A	516	ASP	C-N	7.02	1.42	1.33
11	V	25	SER	C-N	7.01	1.43	1.33
2	O	39	ILE	C-N	7.01	1.42	1.33
6	B	117	GLY	CA-C	-7.01	1.42	1.51
5	C	615	THR	N-CA	-7.00	1.38	1.46
9	I	25	ARG	CD-NE	7.00	1.56	1.46
8	J	73	GLU	N-CA	-7.00	1.37	1.46
5	E	127	GLY	CA-C	-6.99	1.42	1.51
11	Z	32	THR	C-N	6.99	1.43	1.33
6	B	390	GLY	CA-C	-6.98	1.41	1.51
5	C	587	PHE	N-CA	6.98	1.55	1.46
11	U	115	GLY	C-N	6.98	1.42	1.33
5	C	491	ASN	C-N	6.98	1.43	1.33
10	P	78	ILE	CA-C	6.98	1.59	1.52
6	F	285	ALA	CA-C	-6.98	1.43	1.52
6	D	463	SER	CA-CB	6.98	1.64	1.53
10	P	392	TYR	N-CA	6.98	1.55	1.46
6	B	189	ARG	CD-NE	6.97	1.56	1.46
11	S	73	LEU	CA-C	-6.97	1.44	1.52
7	Q	92	ARG	NE-CZ	6.96	1.40	1.33
6	B	237	ARG	C-N	6.96	1.43	1.33
2	O	174	SER	CA-C	-6.96	1.44	1.52
11	R	134	ILE	CA-C	-6.96	1.43	1.52
5	A	501	LEU	N-CA	-6.95	1.39	1.46
5	C	260	CYS	CA-C	-6.95	1.43	1.52
1	b	75	LEU	CA-CB	6.94	1.64	1.53
5	C	117	GLU	CA-C	-6.94	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
9	G	134	GLU	C-N	6.94	1.39	1.33
5	A	164	ASN	N-CA	-6.94	1.37	1.45
5	C	395	ALA	N-CA	-6.94	1.37	1.45
11	W	38	GLY	CA-C	-6.94	1.44	1.52
11	S	100	SER	C-N	6.93	1.43	1.33
5	A	140	GLN	CA-C	-6.93	1.44	1.52
5	C	258	PHE	CA-C	-6.93	1.43	1.52
6	D	243	ASN	CA-C	-6.93	1.44	1.52
2	O	373	GLN	CA-CB	6.93	1.62	1.52
11	V	54	ILE	C-N	6.93	1.41	1.33
11	V	125	LEU	N-CA	-6.93	1.38	1.46
9	I	72	SER	N-CA	-6.92	1.36	1.46
6	F	180	HIS	CA-C	-6.92	1.43	1.52
10	P	227	ALA	N-CA	-6.92	1.40	1.46
5	E	95	GLU	CA-C	-6.91	1.44	1.52
6	D	402	GLN	C-N	6.91	1.42	1.33
6	D	332	ILE	CA-C	-6.90	1.45	1.52
7	Q	63	LEU	CA-CB	6.90	1.63	1.53
11	Z	155	THR	CA-C	-6.90	1.44	1.52
2	O	15	SER	CA-C	-6.89	1.44	1.52
6	D	186	GLN	N-CA	6.89	1.54	1.46
10	P	25	VAL	CA-CB	6.89	1.61	1.54
11	S	49	LEU	CA-C	-6.89	1.42	1.52
3	M	183	ASN	N-CA	-6.89	1.38	1.46
1	b	237	ILE	CA-C	-6.89	1.44	1.52
11	W	153	ARG	NE-CZ	6.89	1.40	1.33
7	Q	181	ARG	NE-CZ	6.89	1.40	1.33
8	L	83	ILE	N-CA	-6.89	1.38	1.46
11	Y	135	PHE	N-CA	-6.89	1.37	1.46
5	A	484	ARG	CD-NE	6.88	1.55	1.46
11	S	25	SER	C-N	6.88	1.42	1.33
6	F	400	SER	N-CA	-6.88	1.37	1.46
9	I	195	ASP	CA-CB	6.88	1.63	1.53
11	a	73	LEU	CA-C	-6.87	1.44	1.52
11	T	111	VAL	CA-CB	6.86	1.62	1.54
11	S	21	ILE	CA-CB	-6.86	1.46	1.54
5	C	81	VAL	CA-CB	6.85	1.62	1.54
10	P	396	ARG	NE-CZ	6.85	1.40	1.33
4	N	80	ARG	CD-NE	6.84	1.55	1.46
5	A	168	SER	CA-C	-6.84	1.44	1.52
5	C	238	ARG	CD-NE	6.84	1.55	1.46
10	P	168	ASN	C-N	6.83	1.42	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	A	203	ASP	CA-C	-6.83	1.44	1.53
7	Q	283	ASN	CA-CB	6.83	1.64	1.53
5	A	484	ARG	C-N	6.82	1.42	1.33
1	b	215	THR	C-N	6.81	1.41	1.33
5	A	218	ARG	CZ-NH2	6.81	1.42	1.33
11	X	154	ALA	CA-C	-6.81	1.44	1.52
1	b	332	ARG	NE-CZ	6.80	1.40	1.33
5	E	221	ARG	CD-NE	6.80	1.55	1.46
6	D	44	VAL	CA-CB	-6.80	1.47	1.54
11	S	37	VAL	C-N	6.80	1.41	1.33
6	B	292	SER	CA-C	-6.80	1.43	1.52
5	A	158	TYR	CA-C	-6.78	1.43	1.52
7	Q	71	TYR	N-CA	-6.78	1.38	1.46
11	Z	74	VAL	C-N	6.78	1.42	1.33
5	C	365	ARG	CD-NE	6.77	1.55	1.46
11	S	51	PHE	CA-C	6.77	1.61	1.52
11	S	146	VAL	C-N	6.76	1.42	1.33
10	P	217	ILE	CA-CB	-6.76	1.46	1.54
9	G	215	LEU	CA-C	6.76	1.60	1.52
11	W	98	GLY	CA-C	-6.76	1.44	1.52
7	Q	320	VAL	CA-C	-6.76	1.44	1.52
2	O	122	LYS	CA-C	-6.75	1.44	1.52
11	T	141	LEU	N-CA	-6.75	1.38	1.46
8	L	81	ALA	N-CA	-6.75	1.37	1.46
5	C	558	GLN	CA-CB	6.74	1.63	1.53
9	K	144	ARG	C-N	6.74	1.43	1.33
6	D	205	GLU	N-CA	-6.74	1.41	1.47
7	Q	323	ILE	CA-C	-6.74	1.44	1.52
6	B	53	VAL	CA-C	-6.73	1.44	1.52
6	B	393	ARG	NE-CZ	6.73	1.40	1.33
6	D	442	THR	CA-C	-6.73	1.43	1.52
6	F	159	ASP	C-N	6.73	1.43	1.33
10	P	109	TYR	C-N	6.73	1.40	1.33
11	W	43	CYS	C-N	6.73	1.42	1.33
6	F	328	SER	C-N	6.72	1.41	1.33
6	F	215	MET	C-N	6.72	1.41	1.33
11	R	82	GLN	CA-C	-6.71	1.44	1.52
5	E	231	TYR	CA-CB	6.71	1.64	1.53
3	M	93	LYS	CA-C	-6.71	1.43	1.53
5	A	292	GLU	C-N	6.71	1.42	1.33
5	A	378	GLN	CA-C	6.71	1.61	1.53
6	D	227	GLN	C-N	6.70	1.43	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	T	110	ILE	CA-CB	-6.70	1.46	1.54
5	E	406	ARG	C-N	6.70	1.42	1.33
9	G	78	SER	C-N	6.69	1.43	1.34
7	Q	297	ARG	CD-NE	6.69	1.55	1.46
10	P	101	ALA	C-N	6.69	1.42	1.33
10	P	154	GLY	C-N	6.69	1.42	1.33
6	F	297	GLU	C-N	6.68	1.39	1.33
6	D	111	ARG	NE-CZ	6.68	1.40	1.33
8	H	20	ILE	CA-C	-6.68	1.44	1.52
5	E	352	MET	N-CA	-6.68	1.38	1.46
6	B	321	ARG	CA-C	-6.68	1.44	1.52
6	D	88	VAL	N-CA	-6.68	1.38	1.46
9	I	45	ILE	CA-C	-6.68	1.44	1.52
3	M	29	TYR	CA-C	-6.67	1.44	1.52
5	C	172	ILE	CA-C	-6.67	1.44	1.52
6	F	237	ARG	NE-CZ	6.67	1.40	1.33
5	E	551	ILE	CB-CG1	6.67	1.66	1.53
5	C	96	LEU	CA-C	-6.67	1.44	1.52
11	X	48	ASP	C-N	6.67	1.42	1.33
9	I	190	VAL	N-CA	-6.67	1.38	1.46
5	E	591	ARG	N-CA	-6.66	1.38	1.46
6	F	175	ALA	C-N	6.66	1.43	1.33
6	F	255	THR	N-CA	6.66	1.52	1.46
5	A	118	GLU	N-CA	-6.66	1.38	1.46
9	G	177	ASP	N-CA	-6.66	1.38	1.46
6	D	252	ARG	CA-C	-6.66	1.44	1.52
1	b	113	ASN	CA-C	-6.66	1.43	1.52
6	F	157	ALA	C-O	-6.65	1.16	1.24
5	A	179	ARG	CZ-NH2	6.65	1.42	1.33
11	V	26	LEU	N-CA	-6.65	1.38	1.46
5	A	70	ILE	CA-C	-6.65	1.44	1.52
11	Z	132	ILE	CA-CB	-6.65	1.46	1.54
1	b	260	LEU	CA-CB	6.65	1.61	1.52
6	F	401	ASN	CA-CB	6.65	1.63	1.53
6	B	452	ARG	CD-NE	6.65	1.55	1.46
9	K	78	SER	CA-C	-6.64	1.44	1.52
2	O	164	ARG	N-CA	-6.64	1.38	1.46
11	X	94	GLY	C-N	6.64	1.42	1.33
6	D	341	ASP	CA-C	-6.64	1.44	1.52
11	a	117	ARG	NE-CZ	6.64	1.40	1.33
8	J	14	GLU	CA-C	-6.63	1.44	1.52
2	O	156	LYS	N-CA	6.63	1.54	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	T	23	PHE	CA-CB	6.63	1.63	1.53
11	Y	117	ARG	CD-NE	6.63	1.55	1.46
11	T	131	LEU	C-N	6.63	1.42	1.33
9	G	175	SER	N-CA	-6.62	1.38	1.45
7	Q	219	ARG	CZ-NH1	6.62	1.42	1.32
6	B	221	THR	N-CA	6.62	1.54	1.46
5	E	159	GLY	CA-C	-6.62	1.43	1.51
11	R	106	PHE	N-CA	-6.61	1.38	1.46
11	Y	18	ALA	C-N	6.61	1.42	1.33
6	D	107	ASP	CA-CB	6.61	1.64	1.53
1	b	84	TYR	N-CA	-6.61	1.38	1.46
5	E	412	ILE	C-N	6.61	1.42	1.33
6	B	38	LEU	CA-C	-6.60	1.44	1.52
11	V	47	PRO	CA-C	-6.60	1.46	1.52
11	S	127	VAL	C-N	6.60	1.41	1.34
6	F	286	ASP	C-N	6.60	1.42	1.33
8	J	97	ILE	CA-C	-6.59	1.44	1.52
7	Q	75	LYS	CA-C	-6.59	1.44	1.52
10	P	299	SER	C-N	6.59	1.42	1.33
11	Z	39	ILE	CA-C	-6.59	1.44	1.52
2	O	317	LEU	CA-C	-6.58	1.44	1.52
6	D	200	VAL	C-N	6.58	1.43	1.33
3	M	97	ARG	CD-NE	6.58	1.55	1.46
7	Q	266	ARG	CZ-NH2	6.58	1.42	1.33
9	G	177	ASP	CA-C	-6.58	1.44	1.52
5	E	334	TYR	N-CA	-6.58	1.38	1.46
5	C	570	LEU	CA-C	-6.58	1.44	1.52
6	F	197	THR	C-O	-6.57	1.16	1.24
5	A	515	LEU	N-CA	-6.57	1.38	1.46
6	D	441	LYS	CA-C	-6.56	1.43	1.52
6	F	131	TYR	CA-C	-6.56	1.44	1.52
6	F	370	TYR	CA-C	-6.56	1.46	1.53
6	B	204	HIS	CD2-NE2	6.56	1.45	1.37
6	D	439	PHE	N-CA	-6.55	1.38	1.46
5	E	417	SER	CA-C	6.55	1.61	1.52
10	P	188	ARG	CZ-NH1	6.55	1.42	1.32
5	A	448	ARG	CD-NE	6.54	1.55	1.46
5	A	412	ILE	CA-C	-6.54	1.44	1.52
6	B	328	SER	C-N	6.54	1.41	1.33
9	I	122	GLN	CA-CB	6.54	1.63	1.53
9	I	44	GLU	CA-CB	6.54	1.63	1.53
2	O	153	ASN	C-N	6.53	1.43	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	F	56	THR	N-CA	-6.53	1.38	1.46
3	M	15	LEU	C-N	6.53	1.42	1.33
11	U	54	ILE	CA-CB	-6.53	1.44	1.54
11	Y	85	TYR	N-CA	-6.53	1.38	1.46
5	E	353	ILE	CA-C	-6.53	1.44	1.52
11	U	16	GLY	C-N	6.52	1.41	1.33
11	X	87	GLY	CA-C	-6.52	1.42	1.51
6	F	219	LEU	C-O	-6.51	1.16	1.24
5	C	72	VAL	CA-CB	-6.51	1.46	1.53
7	Q	44	LEU	N-CA	-6.51	1.38	1.46
5	A	251	THR	C-N	6.51	1.42	1.33
11	R	91	LEU	C-N	6.51	1.43	1.33
9	I	206	ARG	CZ-NH1	6.51	1.41	1.32
11	W	153	ARG	CD-NE	6.51	1.55	1.46
5	E	29	SER	CA-C	-6.50	1.44	1.52
11	T	28	ALA	C-N	6.50	1.42	1.33
1	b	318	ALA	C-N	6.50	1.42	1.33
6	B	431	LEU	CA-C	-6.50	1.44	1.52
5	C	339	LEU	CA-C	6.50	1.61	1.52
1	b	107	ILE	CA-C	-6.49	1.44	1.52
2	O	341	LYS	CA-C	-6.49	1.44	1.52
6	F	67	VAL	N-CA	-6.49	1.39	1.46
5	E	246	CYS	CA-C	6.49	1.60	1.52
5	E	494	GLU	N-CA	-6.49	1.38	1.46
6	B	355	GLU	CA-C	-6.49	1.44	1.53
9	I	99	ILE	CA-CB	6.49	1.62	1.54
8	L	32	LEU	C-N	6.49	1.42	1.33
2	O	295	ALA	CA-C	6.49	1.61	1.52
7	Q	92	ARG	CZ-NH1	6.48	1.41	1.32
8	H	65	VAL	N-CA	-6.48	1.39	1.46
2	O	102	ILE	CA-CB	-6.48	1.46	1.54
5	C	591	ARG	CD-NE	6.48	1.55	1.46
6	D	52	ILE	CA-C	-6.47	1.45	1.52
6	F	166	ARG	CZ-NH2	6.47	1.41	1.33
5	E	590	SER	C-N	6.47	1.42	1.33
6	F	392	THR	N-CA	-6.46	1.37	1.46
5	C	295	MET	CA-C	-6.46	1.44	1.52
10	P	213	THR	C-N	6.46	1.42	1.33
5	A	151	HIS	CD2-NE2	6.46	1.45	1.37
6	D	165	ALA	N-CA	-6.46	1.37	1.45
4	N	59	GLU	C-N	6.46	1.42	1.33
11	a	112	GLY	CA-C	-6.46	1.44	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	D	169	LYS	N-CA	-6.45	1.38	1.46
9	I	47	LYS	N-CA	-6.45	1.38	1.46
9	G	73	GLN	N-CA	-6.45	1.38	1.46
6	B	301	ARG	CD-NE	6.45	1.55	1.46
5	E	395	ALA	C-N	6.45	1.40	1.32
11	R	126	PHE	C-N	6.45	1.41	1.33
11	Z	113	ASP	CA-CB	6.45	1.63	1.53
6	B	100	LEU	CA-CB	6.44	1.63	1.53
6	B	183	ILE	CA-CB	-6.44	1.46	1.54
9	I	91	ALA	CA-C	-6.44	1.44	1.52
11	W	132	ILE	N-CA	-6.44	1.39	1.46
6	D	452	ARG	NE-CZ	6.44	1.40	1.33
7	Q	78	HIS	N-CA	-6.43	1.38	1.46
8	H	52	LYS	CA-CB	6.43	1.63	1.53
5	A	540	ILE	CA-C	6.42	1.60	1.52
5	E	70	ILE	C-N	6.42	1.42	1.33
6	B	275	LEU	C-O	-6.42	1.16	1.24
10	P	188	ARG	NE-CZ	6.42	1.40	1.33
5	E	146	PHE	CA-C	-6.42	1.44	1.52
9	K	144	ARG	CZ-NH2	6.42	1.41	1.33
11	X	112	GLY	CA-C	-6.41	1.44	1.51
6	B	180	HIS	CD2-NE2	6.41	1.45	1.37
9	K	111	ALA	C-N	6.41	1.43	1.33
6	F	257	ARG	CZ-NH1	6.40	1.41	1.32
10	P	422	VAL	CA-CB	-6.40	1.47	1.54
5	E	109	GLN	CA-C	-6.40	1.44	1.52
6	D	54	ASN	CA-C	-6.40	1.44	1.52
5	A	473	SER	CA-CB	6.40	1.64	1.53
1	b	235	ALA	C-N	6.39	1.42	1.33
5	A	326	VAL	C-N	6.39	1.42	1.33
6	D	475	ARG	C-N	-6.39	1.26	1.33
6	B	189	ARG	NE-CZ	6.39	1.40	1.33
5	E	107	GLY	CA-C	-6.38	1.42	1.51
5	E	548	ARG	CD-NE	6.38	1.55	1.46
5	C	227	LEU	CA-C	-6.38	1.44	1.52
9	K	66	LEU	CA-C	-6.38	1.44	1.52
11	U	32	THR	CA-C	-6.37	1.44	1.52
5	C	216	PRO	N-CA	-6.37	1.39	1.47
6	D	210	ILE	C-O	-6.37	1.17	1.24
9	K	198	GLU	CA-C	-6.37	1.44	1.52
11	X	36	GLY	CA-C	-6.37	1.43	1.51
6	F	461	ALA	CA-C	-6.36	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	R	71	SER	C-N	6.36	1.41	1.33
11	V	51	PHE	C-O	-6.36	1.16	1.24
6	F	228	ASP	C-N	6.36	1.42	1.34
5	C	525	PHE	CA-C	-6.36	1.45	1.53
5	E	277	ALA	CA-C	-6.36	1.44	1.52
10	P	41	ALA	N-CA	-6.36	1.38	1.46
10	P	284	GLU	C-N	6.35	1.42	1.33
5	E	27	ILE	CA-C	-6.35	1.45	1.52
11	W	13	GLY	CA-C	-6.35	1.45	1.52
2	O	119	ARG	CZ-NH2	6.35	1.41	1.33
5	E	62	ARG	CD-NE	6.35	1.55	1.46
6	F	275	LEU	CA-C	-6.35	1.45	1.52
5	C	247	VAL	N-CA	-6.35	1.39	1.46
7	Q	328	GLU	N-CA	6.35	1.53	1.46
9	I	145	ASP	CA-C	-6.35	1.44	1.52
5	E	261	GLY	CA-C	-6.34	1.43	1.51
2	O	361	LYS	CA-C	-6.34	1.44	1.52
6	F	144	ARG	CZ-NH1	6.34	1.41	1.32
11	Y	36	GLY	C-N	6.34	1.41	1.33
6	B	450	GLU	CA-C	-6.34	1.44	1.53
10	P	49	SER	C-N	6.34	1.41	1.33
5	A	325	PRO	C-N	6.34	1.41	1.34
5	C	202	PHE	CA-C	-6.34	1.45	1.52
6	F	46	PHE	N-CA	-6.33	1.37	1.46
11	V	93	ALA	C-N	6.33	1.41	1.33
6	D	479	LYS	CA-C	-6.32	1.44	1.52
5	E	115	ILE	CA-C	6.32	1.60	1.52
3	M	164	LYS	C-N	6.32	1.41	1.33
5	C	235	THR	CA-C	6.32	1.60	1.52
11	W	57	VAL	C-N	6.32	1.40	1.34
6	F	272	ARG	CZ-NH2	6.32	1.41	1.33
8	L	3	GLN	C-N	6.32	1.42	1.33
11	Z	133	LEU	CA-C	-6.32	1.44	1.52
5	A	268	SER	N-CA	-6.31	1.38	1.46
5	C	391	PHE	C-N	6.31	1.42	1.33
6	D	48	ARG	NE-CZ	6.31	1.40	1.33
11	Z	106	PHE	CA-CB	6.31	1.63	1.53
11	S	49	LEU	N-CA	-6.31	1.38	1.46
7	Q	67	LEU	CA-C	6.31	1.60	1.52
10	P	452	GLU	C-N	6.31	1.42	1.33
5	E	238	ARG	CZ-NH1	6.30	1.41	1.32
5	C	87	ARG	NE-CZ	6.30	1.40	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	F	324	GLY	CA-C	-6.30	1.43	1.51
11	Z	131	LEU	CA-CB	6.30	1.63	1.53
2	O	101	PRO	C-O	6.30	1.32	1.24
5	C	164	ASN	N-CA	-6.30	1.38	1.45
6	B	109	LEU	C-N	6.30	1.42	1.33
7	Q	249	TYR	CA-CB	6.29	1.62	1.53
11	X	95	LEU	C-N	6.29	1.42	1.33
5	A	482	ARG	CZ-NH2	6.28	1.41	1.33
6	B	55	LEU	CA-C	-6.28	1.45	1.52
7	Q	84	ARG	NE-CZ	6.28	1.40	1.33
9	G	47	LYS	CA-C	-6.28	1.44	1.52
6	F	318	ARG	C-N	6.28	1.41	1.33
11	X	120	SER	N-CA	-6.28	1.38	1.46
5	C	280	TYR	CA-C	-6.28	1.45	1.52
8	L	5	ASN	C-N	6.28	1.41	1.33
11	V	29	ALA	CA-C	-6.28	1.44	1.52
2	O	251	ARG	CD-NE	6.28	1.55	1.46
9	K	92	ARG	C-N	6.28	1.43	1.33
6	B	63	ARG	NE-CZ	6.28	1.40	1.33
9	I	86	LEU	CA-C	-6.28	1.44	1.52
10	P	220	ARG	CD-NE	6.28	1.55	1.46
8	H	72	ALA	CA-C	-6.27	1.44	1.52
6	B	273	HIS	ND1-CE1	6.27	1.38	1.32
5	C	491	ASN	CA-C	6.27	1.60	1.52
11	V	130	ILE	CA-C	-6.27	1.45	1.52
11	T	147	ALA	CA-C	-6.27	1.44	1.52
5	A	276	ASP	C-N	6.26	1.42	1.33
3	M	173	ILE	CA-C	-6.26	1.44	1.52
1	b	356	MET	N-CA	6.26	1.54	1.46
5	E	552	SER	CA-C	-6.25	1.44	1.52
6	D	129	GLU	C-N	6.25	1.41	1.33
5	A	26	ALA	C-N	6.25	1.39	1.33
2	O	292	ALA	C-N	6.25	1.42	1.33
3	M	104	VAL	C-N	6.24	1.42	1.33
6	D	344	HIS	CA-C	6.24	1.59	1.53
1	b	193	ARG	CD-NE	6.24	1.54	1.46
11	V	117	ARG	CD-NE	6.24	1.54	1.46
11	a	83	ALA	C-N	6.24	1.42	1.33
11	T	78	LEU	N-CA	-6.24	1.38	1.46
3	M	91	ARG	CD-NE	6.24	1.54	1.46
5	A	304	MET	CA-C	-6.24	1.45	1.52
6	F	52	ILE	C-N	6.23	1.43	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
9	K	69	ALA	N-CA	-6.23	1.37	1.46
1	b	186	TYR	CA-C	-6.23	1.45	1.52
9	I	62	PHE	CA-CB	6.23	1.63	1.53
2	O	220	ALA	CA-C	-6.22	1.45	1.53
3	M	42	ARG	CD-NE	6.22	1.54	1.46
5	E	339	LEU	C-O	-6.22	1.16	1.24
10	P	211	MET	C-O	-6.22	1.18	1.24
9	G	23	PHE	CA-C	-6.22	1.44	1.52
6	F	53	VAL	C-O	6.21	1.30	1.24
5	C	110	ARG	N-CA	-6.21	1.36	1.45
5	C	128	ILE	CA-C	-6.21	1.46	1.52
6	D	384	LYS	N-CA	-6.21	1.38	1.46
9	K	199	ILE	C-N	6.21	1.42	1.33
8	H	34	GLN	N-CA	6.21	1.54	1.46
11	Z	55	VAL	CA-C	-6.21	1.47	1.52
5	E	407	THR	C-N	6.21	1.42	1.33
8	H	61	ASN	C-N	6.21	1.42	1.33
8	H	12	GLN	N-CA	-6.21	1.38	1.46
6	D	270	THR	N-CA	-6.21	1.39	1.46
11	U	47	PRO	CA-C	-6.21	1.43	1.52
6	F	380	SER	N-CA	-6.21	1.38	1.46
6	D	389	GLU	C-N	6.21	1.42	1.33
11	U	159	VAL	N-CA	6.20	1.54	1.46
11	W	117	ARG	NE-CZ	6.20	1.39	1.33
1	b	195	LYS	CA-C	-6.20	1.44	1.52
10	P	417	LYS	CA-C	-6.20	1.44	1.52
9	K	41	GLN	CA-CB	6.20	1.63	1.53
11	T	57	VAL	CA-CB	-6.19	1.47	1.54
5	C	595	GLU	CA-C	-6.19	1.45	1.53
6	D	373	ILE	CA-CB	-6.19	1.46	1.54
10	P	96	VAL	CA-C	-6.19	1.45	1.52
2	O	336	ASN	CA-C	-6.19	1.45	1.52
5	C	546	MET	N-CA	-6.19	1.38	1.46
11	X	111	VAL	N-CA	6.19	1.53	1.46
6	B	396	HIS	CG-CD2	-6.18	1.29	1.35
7	Q	126	ARG	NE-CZ	6.18	1.39	1.33
2	O	372	HIS	CG-CD2	6.18	1.42	1.35
10	P	282	ILE	CA-CB	-6.18	1.47	1.54
3	M	31	LEU	CA-C	-6.18	1.44	1.52
4	N	96	SER	CA-C	-6.18	1.44	1.52
2	O	362	GLY	C-N	6.17	1.41	1.33
11	X	132	ILE	CA-CB	-6.17	1.46	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
10	P	428	THR	C-N	6.17	1.41	1.33
9	G	51	VAL	N-CA	-6.17	1.39	1.46
5	A	597	HIS	CB-CG	6.17	1.58	1.50
11	X	35	SER	C-N	6.17	1.42	1.33
7	Q	248	LEU	CA-C	-6.17	1.44	1.53
9	G	148	LEU	C-N	6.17	1.41	1.33
9	G	161	GLY	N-CA	6.16	1.53	1.45
6	F	381	ARG	CD-NE	6.16	1.54	1.46
6	B	381	ARG	CD-NE	6.16	1.54	1.46
5	C	402	GLY	CA-C	-6.16	1.45	1.52
11	W	119	SER	C-N	6.16	1.41	1.33
1	b	43	ASP	C-N	6.15	1.38	1.33
7	Q	18	ARG	C-N	6.15	1.41	1.33
2	O	135	SER	N-CA	-6.15	1.39	1.46
4	N	59	GLU	CA-C	-6.15	1.43	1.52
11	Y	154	ALA	C-N	6.15	1.42	1.33
11	Y	143	GLY	C-N	6.15	1.41	1.33
2	O	146	ARG	CA-CB	6.14	1.63	1.53
11	Y	46	ARG	CD-NE	6.14	1.54	1.46
11	W	157	ASP	CA-CB	6.14	1.63	1.53
5	A	305	SER	CA-C	-6.14	1.44	1.52
8	J	36	LYS	N-CA	-6.14	1.38	1.46
5	C	392	TYR	CA-CB	6.14	1.62	1.53
7	Q	179	ILE	CA-C	-6.14	1.43	1.52
2	O	357	MET	CA-CB	6.14	1.61	1.53
7	Q	139	LEU	N-CA	-6.13	1.39	1.46
1	b	219	GLU	CA-CB	6.13	1.62	1.53
3	M	185	ILE	C-N	6.13	1.42	1.33
5	E	80	THR	C-N	6.13	1.41	1.33
7	Q	104	ILE	N-CA	-6.13	1.39	1.46
5	A	559	LYS	C-N	6.12	1.41	1.33
5	A	154	GLY	N-CA	-6.12	1.39	1.45
2	O	247	THR	CA-C	-6.12	1.44	1.52
2	O	318	ARG	CZ-NH2	6.12	1.41	1.33
2	O	258	ARG	CA-C	-6.12	1.45	1.52
3	M	116	GLU	C-N	6.12	1.42	1.33
5	E	288	ASN	CA-CB	6.12	1.63	1.53
5	C	26	ALA	C-N	6.12	1.40	1.33
9	G	26	LYS	CA-CB	6.12	1.62	1.53
11	Z	111	VAL	CA-CB	-6.12	1.46	1.54
5	A	295	MET	CA-C	6.11	1.60	1.52
10	P	209	LYS	N-CA	-6.11	1.38	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	b	55	PHE	N-CA	-6.11	1.38	1.46
9	I	140	LYS	CA-C	-6.11	1.45	1.52
5	E	305	SER	C-N	6.11	1.40	1.33
5	C	481	LEU	C-N	6.11	1.42	1.34
3	M	20	THR	N-CA	-6.10	1.38	1.46
1	b	47	LYS	C-N	6.10	1.41	1.33
11	S	52	LYS	N-CA	-6.10	1.39	1.46
9	G	84	MET	CA-C	-6.10	1.45	1.52
3	M	56	LYS	CA-C	-6.10	1.45	1.52
5	C	363	ALA	C-N	6.10	1.42	1.33
6	D	139	ILE	CA-C	-6.10	1.46	1.52
6	D	408	ALA	N-CA	-6.10	1.39	1.46
9	K	197	ILE	C-O	6.10	1.30	1.24
10	P	146	VAL	CA-CB	-6.09	1.46	1.54
5	E	280	TYR	CA-CB	6.09	1.61	1.53
6	F	459	ASP	C-N	6.09	1.42	1.34
9	K	54	GLU	C-O	-6.09	1.16	1.24
5	C	337	ILE	CA-CB	-6.09	1.46	1.54
6	D	342	ILE	CA-CB	-6.09	1.46	1.54
11	U	121	GLN	CA-C	-6.09	1.44	1.52
11	U	73	LEU	C-N	6.08	1.41	1.33
6	D	112	ILE	N-CA	-6.08	1.39	1.46
7	Q	288	PHE	CA-C	-6.08	1.44	1.52
2	O	67	GLU	CA-C	-6.07	1.45	1.52
6	D	116	SER	CA-CB	6.07	1.62	1.53
5	E	29	SER	C-N	6.07	1.41	1.33
5	E	169	SER	CA-CB	6.07	1.63	1.53
11	U	23	PHE	N-CA	-6.07	1.39	1.46
3	M	95	ARG	CA-C	-6.07	1.45	1.52
6	D	249	THR	C-N	-6.07	1.26	1.33
10	P	312	LEU	CA-C	-6.07	1.45	1.52
10	P	427	ILE	CA-C	6.07	1.60	1.52
2	O	177	ASP	CA-CB	6.07	1.63	1.53
5	C	181	THR	C-N	6.07	1.41	1.33
10	P	143	GLY	CA-C	-6.07	1.45	1.52
5	C	304	MET	C-N	6.07	1.42	1.33
11	V	53	ASN	C-N	6.07	1.41	1.34
5	A	434	ILE	C-N	6.06	1.41	1.33
10	P	10	SER	N-CA	-6.06	1.38	1.46
9	K	194	SER	C-N	6.06	1.42	1.33
9	G	23	PHE	N-CA	6.06	1.53	1.46
5	E	113	LYS	CA-C	-6.06	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	Y	75	CYS	N-CA	-6.06	1.38	1.46
6	F	34	VAL	CA-C	-6.05	1.45	1.52
8	L	57	PHE	CA-CB	6.05	1.62	1.53
11	a	150	LEU	N-CA	-6.05	1.39	1.46
2	O	237	HIS	N-CA	-6.05	1.38	1.46
10	P	113	THR	C-N	6.05	1.41	1.33
5	A	394	ARG	CA-CB	6.05	1.63	1.53
1	b	60	ARG	N-CA	-6.05	1.39	1.46
8	L	78	GLY	CA-C	-6.05	1.44	1.51
8	H	89	LYS	N-CA	-6.05	1.39	1.46
11	W	43	CYS	N-CA	-6.05	1.38	1.46
2	O	73	ASN	CA-C	-6.04	1.45	1.52
5	E	493	GLU	N-CA	-6.04	1.39	1.46
6	B	397	GLY	CA-C	-6.04	1.45	1.52
11	T	101	GLY	C-N	6.04	1.41	1.33
2	O	62	ILE	N-CA	-6.04	1.39	1.46
5	E	314	ARG	C-N	6.04	1.42	1.33
5	E	504	LYS	CA-CB	6.04	1.63	1.53
5	E	571	ALA	CA-C	-6.04	1.45	1.52
6	F	346	ILE	C-N	6.04	1.41	1.34
2	O	358	LYS	CA-C	-6.03	1.45	1.52
3	M	123	THR	C-N	6.03	1.42	1.33
5	E	274	ASN	CA-CB	6.03	1.61	1.53
6	F	327	GLY	N-CA	-6.03	1.40	1.45
5	A	145	LYS	CA-CB	6.03	1.62	1.53
5	A	544	PHE	C-O	-6.03	1.17	1.24
9	K	106	LYS	N-CA	-6.03	1.39	1.46
10	P	159	LYS	N-CA	-6.03	1.39	1.46
4	N	15	ASP	C-N	6.03	1.41	1.33
5	C	87	ARG	N-CA	-6.03	1.38	1.46
8	H	88	GLU	C-N	6.03	1.41	1.33
11	U	103	ALA	N-CA	-6.03	1.39	1.46
6	B	171	PRO	CA-C	-6.03	1.43	1.52
7	Q	44	LEU	C-N	6.03	1.42	1.33
9	G	204	GLU	C-N	6.03	1.41	1.33
2	O	81	LYS	CA-CB	6.03	1.62	1.53
5	C	264	VAL	N-CA	-6.02	1.39	1.46
7	Q	274	GLU	C-N	6.02	1.41	1.33
5	E	221	ARG	NE-CZ	6.02	1.39	1.33
6	B	436	LEU	C-N	6.02	1.42	1.33
11	R	113	ASP	CA-CB	6.02	1.62	1.53
4	N	51	THR	N-CA	-6.02	1.39	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	S	155	THR	CB-OG1	6.02	1.53	1.43
2	O	258	ARG	CD-NE	6.01	1.54	1.46
5	A	280	TYR	N-CA	-6.01	1.38	1.46
6	F	223	ARG	CA-C	-6.01	1.45	1.52
7	Q	117	ASP	CA-CB	6.01	1.63	1.53
9	I	190	VAL	CA-C	-6.01	1.45	1.52
5	C	121	SER	CA-C	-6.01	1.45	1.52
6	F	355	GLU	CA-C	-6.01	1.47	1.53
5	A	156	ASP	CA-CB	6.00	1.63	1.53
5	A	422	ASP	C-N	6.00	1.42	1.33
11	a	81	LYS	CA-C	-6.00	1.45	1.53
2	O	98	ARG	NE-CZ	6.00	1.39	1.33
6	F	268	TYR	CA-C	-6.00	1.45	1.52
9	I	209	LEU	CA-C	6.00	1.60	1.52
10	P	54	LYS	CA-C	-6.00	1.44	1.52
4	N	10	VAL	C-O	-6.00	1.18	1.24
5	E	591	ARG	CZ-NH1	6.00	1.41	1.32
5	E	484	ARG	NE-CZ	6.00	1.39	1.33
6	F	400	SER	CA-C	-6.00	1.44	1.52
5	C	64	ASP	CA-CB	6.00	1.63	1.53
5	C	536	ALA	N-CA	-6.00	1.37	1.46
6	F	295	ARG	CA-CB	6.00	1.63	1.53
10	P	25	VAL	C-N	6.00	1.43	1.33
11	U	88	PHE	N-CA	-5.99	1.38	1.46
5	E	87	ARG	CZ-NH1	5.99	1.41	1.32
6	D	201	HIS	N-CA	-5.99	1.38	1.46
10	P	43	THR	N-CA	5.99	1.53	1.46
2	O	326	ASN	CA-C	-5.99	1.45	1.52
5	E	482	ARG	CD-NE	5.99	1.54	1.46
9	I	74	GLN	C-N	5.99	1.41	1.33
6	F	458	LEU	N-CA	-5.99	1.39	1.46
3	M	11	THR	N-CA	-5.98	1.38	1.46
6	D	389	GLU	N-CA	-5.98	1.39	1.46
9	I	221	GLU	C-N	5.98	1.42	1.33
6	D	257	ARG	CA-CB	5.98	1.62	1.53
9	K	104	LYS	N-CA	-5.98	1.38	1.46
9	G	218	ILE	CA-CB	-5.98	1.46	1.54
11	Y	156	GLN	C-N	5.98	1.42	1.33
11	X	138	VAL	CA-CB	5.98	1.63	1.54
2	O	78	SER	CA-C	-5.98	1.45	1.52
6	D	273	HIS	CA-C	-5.98	1.45	1.52
9	K	189	VAL	CA-C	-5.98	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	D	106	GLU	CA-C	-5.97	1.45	1.52
5	E	528	GLN	N-CA	-5.97	1.38	1.46
6	D	451	ASP	C-N	5.97	1.41	1.33
10	P	375	VAL	CA-CB	-5.97	1.46	1.54
10	P	457	SER	C-N	5.97	1.42	1.33
9	G	88	VAL	N-CA	5.97	1.53	1.46
11	T	132	ILE	C-N	5.97	1.41	1.33
6	D	104	VAL	CA-CB	-5.97	1.47	1.54
11	R	126	PHE	N-CA	-5.97	1.38	1.46
2	O	144	ASP	CA-CB	5.96	1.62	1.53
9	I	125	ILE	CA-C	-5.96	1.45	1.52
6	F	277	ILE	CA-CB	5.96	1.61	1.54
11	V	147	ALA	N-CA	-5.96	1.39	1.46
7	Q	213	GLY	CA-C	5.96	1.58	1.52
11	W	43	CYS	CA-C	-5.96	1.44	1.52
5	A	221	ARG	CD-NE	5.96	1.54	1.46
5	C	189	GLY	N-CA	-5.95	1.39	1.45
5	A	415	ALA	N-CA	-5.95	1.38	1.46
6	B	301	ARG	NE-CZ	5.95	1.39	1.33
5	C	213	HIS	CD2-NE2	5.95	1.44	1.37
7	Q	267	ALA	N-CA	-5.95	1.39	1.46
11	S	82	GLN	CA-C	-5.95	1.45	1.52
5	C	220	PRO	CA-C	-5.95	1.45	1.52
3	M	35	LYS	CA-CB	5.95	1.62	1.53
5	E	207	SER	CA-CB	5.95	1.63	1.53
5	A	265	ILE	C-N	5.95	1.42	1.33
11	X	121	GLN	CA-CB	5.95	1.62	1.53
7	Q	8	ILE	CA-C	-5.95	1.45	1.52
7	Q	255	HIS	CG-CD2	5.95	1.42	1.35
9	I	43	TYR	CA-C	-5.95	1.45	1.52
3	M	51	ASP	CA-C	-5.94	1.45	1.52
6	D	290	GLU	C-N	5.94	1.41	1.33
4	N	61	ARG	CA-C	-5.94	1.45	1.52
11	Z	95	LEU	CA-C	-5.94	1.45	1.52
6	F	193	LEU	C-N	5.94	1.41	1.33
10	P	426	ASP	N-CA	-5.94	1.39	1.46
5	C	107	GLY	C-N	5.94	1.40	1.34
5	E	422	ASP	C-N	5.93	1.41	1.33
6	B	408	ALA	N-CA	-5.93	1.39	1.46
7	Q	69	GLN	N-CA	-5.93	1.39	1.46
11	S	99	LEU	C-N	5.93	1.42	1.33
10	P	341	ASN	C-N	5.93	1.41	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	B	141	PRO	CA-CB	5.93	1.60	1.54
9	K	43	TYR	CA-CB	5.93	1.62	1.53
11	U	38	GLY	CA-C	-5.93	1.45	1.52
1	b	265	SER	CA-C	-5.92	1.45	1.52
5	C	585	LYS	CA-C	-5.92	1.44	1.52
5	A	510	SER	CA-C	-5.92	1.45	1.52
5	A	552	SER	CA-CB	5.92	1.62	1.53
11	T	97	VAL	CA-C	-5.92	1.43	1.52
5	A	72	VAL	CA-CB	-5.92	1.47	1.54
5	A	196	LYS	C-N	5.92	1.41	1.33
11	Y	93	ALA	CA-C	-5.92	1.45	1.52
2	O	156	LYS	C-N	5.92	1.41	1.33
3	M	92	PHE	CA-CB	5.92	1.60	1.53
5	A	528	GLN	CA-C	-5.92	1.46	1.52
3	M	121	ARG	C-N	5.91	1.43	1.33
6	F	158	ILE	N-CA	-5.91	1.39	1.46
1	b	28	ASP	CA-C	-5.91	1.44	1.52
3	M	175	HIS	CA-C	-5.90	1.45	1.52
5	C	350	VAL	CA-C	-5.90	1.45	1.52
11	R	20	ALA	CA-C	5.90	1.60	1.52
5	C	552	SER	C-N	5.90	1.41	1.33
6	B	302	ARG	CD-NE	5.90	1.54	1.46
8	L	20	ILE	CA-C	5.90	1.60	1.52
7	Q	143	THR	C-N	5.89	1.41	1.33
8	J	40	ALA	CA-C	5.89	1.60	1.52
5	C	103	THR	CA-C	-5.89	1.45	1.52
5	C	482	ARG	NE-CZ	5.89	1.39	1.33
11	V	156	GLN	CA-CB	5.89	1.63	1.53
2	O	98	ARG	CZ-NH2	5.89	1.41	1.33
5	E	360	TRP	N-CA	-5.89	1.39	1.46
5	A	528	GLN	C-N	5.89	1.41	1.33
6	B	175	ALA	CA-C	5.89	1.60	1.52
7	Q	276	ARG	CD-NE	5.89	1.54	1.46
9	G	167	ALA	N-CA	-5.89	1.37	1.46
5	C	211	LEU	CA-C	-5.89	1.45	1.52
1	b	42	ARG	NE-CZ	5.89	1.39	1.33
2	O	387	MET	SD-CE	5.89	1.94	1.79
6	B	129	GLU	N-CA	-5.89	1.39	1.46
6	B	416	MET	C-N	5.88	1.41	1.33
5	C	177	ARG	CZ-NH2	5.88	1.41	1.33
11	X	67	GLY	C-N	5.88	1.41	1.33
11	V	112	GLY	CA-C	-5.88	1.45	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	E	436	GLN	C-N	5.88	1.42	1.33
6	F	200	VAL	C-N	5.88	1.42	1.33
6	B	101	ARG	NE-CZ	5.88	1.39	1.33
10	P	407	ARG	CZ-NH2	5.88	1.41	1.33
11	Y	44	VAL	CA-CB	-5.88	1.46	1.54
6	F	398	ASP	C-N	5.88	1.41	1.33
5	E	266	SER	N-CA	-5.87	1.39	1.46
6	B	275	LEU	CA-C	-5.87	1.45	1.52
2	O	49	LYS	N-CA	-5.87	1.38	1.46
2	O	145	VAL	C-N	5.87	1.42	1.33
5	E	293	VAL	CA-CB	-5.87	1.46	1.54
6	F	223	ARG	CA-CB	5.87	1.62	1.53
11	S	130	ILE	N-CA	-5.87	1.40	1.46
3	M	89	THR	N-CA	-5.87	1.38	1.45
9	I	47	LYS	CA-CB	5.87	1.62	1.53
6	F	475	ARG	NE-CZ	5.87	1.39	1.33
5	A	74	GLU	C-N	5.87	1.41	1.33
5	C	135	ARG	CA-CB	5.87	1.63	1.54
5	C	135	ARG	CZ-NH1	5.87	1.41	1.32
2	O	319	TYR	CA-C	-5.87	1.44	1.52
3	M	101	VAL	CA-C	-5.87	1.45	1.52
6	D	74	ARG	CZ-NH1	5.87	1.41	1.32
8	J	47	LYS	CA-CB	5.87	1.62	1.53
11	S	104	ALA	CA-C	-5.87	1.45	1.52
5	E	569	LYS	C-N	5.86	1.41	1.33
5	E	298	PRO	C-N	5.86	1.42	1.33
5	E	31	SER	C-N	5.86	1.42	1.33
11	T	53	ASN	CA-C	-5.86	1.45	1.52
11	S	106	PHE	N-CA	-5.86	1.39	1.46
11	S	123	PRO	C-N	5.86	1.41	1.34
2	O	372	HIS	ND1-CE1	5.86	1.38	1.32
6	D	99	SER	CA-C	5.86	1.60	1.52
6	D	185	ALA	CA-C	-5.86	1.45	1.52
9	G	171	GLU	CA-C	-5.85	1.45	1.52
11	U	68	LEU	CA-C	5.85	1.60	1.52
5	A	412	ILE	CB-CG1	5.85	1.65	1.53
9	G	51	VAL	C-O	-5.85	1.17	1.24
11	Y	106	PHE	C-N	5.85	1.41	1.33
6	F	318	ARG	N-CA	-5.84	1.39	1.46
6	D	395	ASP	CA-C	-5.84	1.44	1.52
6	F	128	ALA	N-CA	-5.84	1.38	1.45
5	C	161	VAL	CA-C	-5.84	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	C	608	GLN	N-CA	-5.84	1.39	1.46
5	A	179	ARG	C-N	5.84	1.41	1.32
7	Q	27	ASN	CA-CB	5.83	1.62	1.53
11	W	53	ASN	CA-C	-5.83	1.44	1.52
6	F	325	ARG	CA-C	5.83	1.61	1.53
6	B	118	ARG	NE-CZ	5.83	1.39	1.33
5	C	137	ILE	CA-CB	-5.83	1.46	1.54
5	C	540	ILE	CA-CB	-5.83	1.47	1.54
9	G	190	VAL	CA-C	-5.83	1.45	1.52
9	G	206	ARG	NE-CZ	5.83	1.39	1.33
9	I	212	GLU	CA-C	5.83	1.60	1.52
5	A	505	SER	CA-C	-5.83	1.43	1.52
11	R	126	PHE	CA-CB	5.83	1.62	1.53
11	V	62	ILE	C-N	5.83	1.41	1.33
10	P	134	GLY	C-N	5.82	1.41	1.33
2	O	217	VAL	CA-C	-5.82	1.45	1.52
5	A	563	ASN	CA-C	5.82	1.60	1.52
5	E	211	LEU	N-CA	-5.82	1.39	1.46
6	B	223	ARG	CD-NE	5.82	1.54	1.46
10	P	15	GLU	CA-CB	5.82	1.62	1.53
5	A	473	SER	C-N	5.82	1.42	1.33
6	B	175	ALA	N-CA	-5.82	1.38	1.45
7	Q	341	TYR	CA-CB	5.82	1.62	1.53
3	M	143	VAL	CA-C	-5.81	1.45	1.52
5	C	332	SER	CA-C	-5.81	1.45	1.52
11	U	41	ALA	CA-C	5.81	1.60	1.52
5	C	390	SER	N-CA	-5.81	1.39	1.46
11	Z	111	VAL	CA-C	-5.81	1.45	1.52
5	E	39	ASN	C-N	5.80	1.42	1.33
7	Q	155	ASP	CA-C	-5.80	1.45	1.52
8	J	12	GLN	CA-C	5.80	1.60	1.52
10	P	204	TRP	C-O	-5.80	1.16	1.24
1	b	202	ILE	N-CA	5.80	1.53	1.46
5	E	610	ARG	C-N	5.80	1.42	1.34
6	B	483	GLU	C-N	5.80	1.41	1.33
11	X	42	THR	CA-C	-5.79	1.45	1.52
9	G	95	SER	C-N	5.79	1.41	1.33
10	P	26	ALA	CA-C	-5.79	1.45	1.53
3	M	180	ARG	NE-CZ	5.79	1.39	1.33
5	A	450	HIS	CE1-NE2	5.79	1.38	1.32
6	D	102	ILE	CA-CB	-5.79	1.47	1.54
9	K	121	LEU	N-CA	-5.79	1.39	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
9	K	114	ARG	CZ-NH2	5.78	1.41	1.33
5	E	62	ARG	NE-CZ	5.78	1.39	1.33
5	A	296	GLU	CA-C	-5.78	1.45	1.52
5	A	605	SER	C-N	5.78	1.41	1.33
6	D	74	ARG	CD-NE	5.78	1.54	1.46
11	U	19	SER	N-CA	5.78	1.53	1.46
9	G	65	LYS	C-N	5.78	1.41	1.33
5	E	296	GLU	CA-CB	5.77	1.62	1.53
8	L	14	GLU	CA-CB	5.77	1.62	1.53
3	M	121	ARG	NE-CZ	5.77	1.39	1.33
6	B	432	SER	C-N	5.77	1.41	1.33
7	Q	31	ILE	N-CA	-5.76	1.39	1.46
5	E	371	LEU	C-N	5.76	1.40	1.33
5	A	115	ILE	C-N	5.76	1.41	1.33
3	M	214	THR	N-CA	-5.76	1.39	1.46
11	U	156	GLN	CA-C	-5.76	1.45	1.52
5	E	258	PHE	C-N	5.76	1.40	1.33
5	E	337	ILE	N-CA	-5.76	1.39	1.46
5	E	353	ILE	N-CA	-5.76	1.39	1.46
6	F	145	ILE	C-N	5.76	1.41	1.33
6	F	281	MET	CA-CB	5.76	1.63	1.53
6	F	383	MET	C-N	5.76	1.41	1.33
6	B	268	TYR	CA-CB	5.76	1.62	1.53
5	C	238	ARG	NE-CZ	5.76	1.39	1.33
2	O	32	SER	C-N	5.75	1.41	1.33
3	M	75	THR	N-CA	-5.75	1.39	1.46
11	Y	153	ARG	NE-CZ	5.75	1.39	1.33
3	M	200	PHE	CA-C	-5.75	1.45	1.52
6	D	244	LEU	CA-C	-5.75	1.45	1.52
11	R	74	VAL	N-CA	-5.75	1.40	1.46
11	Y	123	PRO	CA-C	-5.75	1.47	1.52
10	P	317	ASN	C-N	5.75	1.41	1.33
11	W	113	ASP	CA-C	-5.75	1.45	1.52
6	F	126	VAL	CA-C	-5.74	1.46	1.52
11	U	37	VAL	CA-CB	-5.74	1.47	1.54
5	E	406	ARG	NE-CZ	5.74	1.39	1.33
6	F	115	GLY	C-N	5.74	1.43	1.33
11	X	64	ALA	CA-C	-5.74	1.45	1.52
2	O	117	GLN	CA-C	-5.74	1.44	1.53
5	A	226	LYS	CA-C	-5.74	1.45	1.52
6	B	393	ARG	CZ-NH2	5.73	1.40	1.33
5	E	366	GLU	N-CA	-5.73	1.39	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	E	177	ARG	N-CA	-5.73	1.38	1.46
5	E	286	ARG	CD-NE	5.73	1.54	1.46
9	I	57	ASN	N-CA	-5.73	1.39	1.46
11	Z	107	ALA	CA-C	-5.73	1.45	1.52
1	b	205	ARG	NE-CZ	5.73	1.39	1.33
5	A	323	ASN	CA-C	-5.73	1.44	1.52
5	E	376	ALA	C-N	5.72	1.41	1.33
6	B	161	MET	CA-C	-5.72	1.45	1.52
11	X	48	ASP	CA-C	-5.72	1.45	1.52
1	b	176	ILE	C-N	5.72	1.41	1.33
5	C	318	VAL	CA-C	-5.72	1.45	1.52
7	Q	294	GLU	N-CA	5.72	1.53	1.45
10	P	82	HIS	C-O	-5.72	1.17	1.24
3	M	29	TYR	CA-CB	5.72	1.62	1.53
11	T	70	VAL	CA-C	-5.72	1.45	1.52
3	M	192	LEU	N-CA	-5.72	1.39	1.46
4	N	25	ILE	CA-CB	-5.72	1.47	1.55
8	J	41	LYS	CA-C	-5.72	1.44	1.52
8	H	102	VAL	C-N	5.71	1.40	1.34
11	X	54	ILE	C-N	5.71	1.39	1.33
11	S	91	LEU	CA-CB	5.71	1.62	1.53
5	E	146	PHE	CA-CB	5.71	1.61	1.53
11	S	103	ALA	CA-CB	5.71	1.62	1.53
5	C	106	ASP	CA-CB	5.71	1.62	1.53
11	R	153	ARG	C-O	-5.71	1.17	1.24
6	F	258	LEU	C-N	5.71	1.41	1.33
5	A	230	ASP	C-N	5.71	1.43	1.33
6	B	31	VAL	N-CA	-5.71	1.39	1.46
9	G	153	LYS	C-N	5.70	1.41	1.33
7	Q	172	LEU	C-N	5.70	1.41	1.33
10	P	21	ARG	CZ-NH2	5.70	1.40	1.33
9	I	16	GLU	CA-C	-5.70	1.45	1.52
11	W	117	ARG	CZ-NH2	5.70	1.40	1.33
5	A	302	THR	C-N	5.70	1.41	1.33
5	C	383	TYR	C-N	5.70	1.41	1.33
11	U	130	ILE	C-N	5.70	1.41	1.33
5	C	185	ILE	N-CA	-5.70	1.39	1.46
5	A	110	ARG	CZ-NH2	5.70	1.40	1.33
5	C	280	TYR	C-N	5.69	1.40	1.33
9	I	189	VAL	CA-C	-5.69	1.45	1.52
2	O	240	LYS	CA-CB	5.69	1.62	1.53
6	F	131	TYR	N-CA	-5.69	1.39	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	R	105	GLY	C-N	5.69	1.41	1.33
5	C	36	ILE	C-N	5.69	1.42	1.33
2	O	310	ARG	CA-C	-5.68	1.45	1.52
10	P	40	ASP	C-N	5.68	1.41	1.33
9	G	52	ARG	CD-NE	5.68	1.54	1.46
5	C	265	ILE	N-CA	-5.68	1.39	1.46
6	D	417	LYS	CA-CB	5.68	1.62	1.53
9	K	200	ASN	CA-CB	5.68	1.60	1.52
7	Q	338	ILE	N-CA	-5.68	1.39	1.46
11	Z	76	TYR	CA-CB	5.68	1.62	1.53
6	F	240	LEU	CA-C	-5.68	1.45	1.52
2	O	165	LYS	C-N	5.67	1.41	1.33
11	W	41	ALA	N-CA	-5.67	1.39	1.46
1	b	328	TYR	C-N	5.67	1.41	1.33
2	O	281	GLU	CA-CB	5.67	1.62	1.53
3	M	168	ARG	CZ-NH1	5.67	1.40	1.32
8	L	28	ARG	N-CA	-5.67	1.39	1.46
5	E	93	SER	C-N	5.67	1.41	1.33
5	C	33	PRO	N-CD	-5.67	1.39	1.47
10	P	283	LYS	CA-C	5.67	1.59	1.52
5	C	187	PRO	N-CD	-5.66	1.39	1.47
6	F	452	ARG	C-N	5.66	1.41	1.33
5	A	141	PHE	CA-C	-5.66	1.45	1.52
9	I	25	ARG	NE-CZ	5.66	1.39	1.33
10	P	295	LEU	CA-C	-5.66	1.45	1.52
5	E	169	SER	N-CA	-5.66	1.38	1.46
8	L	25	ARG	C-N	5.66	1.41	1.33
11	W	16	GLY	N-CA	5.66	1.52	1.45
9	K	19	LYS	CA-CB	5.65	1.62	1.53
10	P	244	TYR	N-CA	-5.65	1.39	1.46
1	b	71	TYR	CA-C	-5.65	1.45	1.52
3	M	85	GLU	CA-CB	5.65	1.62	1.53
9	G	158	ARG	CZ-NH1	5.65	1.40	1.32
11	Z	40	CYS	CA-C	-5.65	1.45	1.52
2	O	124	ASP	CA-CB	5.65	1.62	1.53
11	U	110	ILE	CA-C	5.65	1.59	1.52
9	K	131	LYS	C-N	5.65	1.41	1.33
5	A	604	LEU	C-N	5.64	1.41	1.33
1	b	296	GLU	C-O	-5.64	1.17	1.24
1	b	49	ARG	NE-CZ	5.64	1.39	1.33
1	b	49	ARG	CD-NE	5.64	1.54	1.46
5	C	528	GLN	CA-CB	5.64	1.62	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	W	145	ILE	CA-CB	5.64	1.60	1.54
5	A	370	ARG	N-CA	-5.63	1.39	1.46
9	G	25	ARG	CZ-NH1	5.63	1.40	1.32
5	C	234	LEU	CA-CB	5.63	1.61	1.53
1	b	254	GLU	C-N	5.63	1.42	1.33
7	Q	41	ASP	CA-C	-5.63	1.45	1.52
5	A	221	ARG	CA-C	5.63	1.59	1.52
5	C	253	CYS	N-CA	5.63	1.52	1.46
10	P	234	ASN	N-CA	5.63	1.53	1.46
5	C	569	LYS	N-CA	-5.62	1.39	1.46
5	E	341	GLU	N-CA	-5.62	1.39	1.46
5	A	195	GLU	CA-CB	5.62	1.62	1.53
5	E	106	ASP	C-N	5.62	1.41	1.34
11	Z	81	LYS	N-CA	5.62	1.52	1.46
7	Q	39	LEU	N-CA	-5.62	1.39	1.46
11	S	151	ASN	CA-CB	5.62	1.62	1.53
11	T	99	LEU	N-CA	-5.62	1.39	1.46
9	I	15	ASP	CA-C	-5.62	1.45	1.52
5	C	399	VAL	C-N	5.62	1.41	1.33
6	F	301	ARG	NE-CZ	5.61	1.39	1.33
5	A	344	ARG	NE-CZ	5.61	1.39	1.33
7	Q	226	ASN	N-CA	-5.61	1.39	1.46
9	I	79	THR	C-N	5.61	1.41	1.33
6	F	265	TYR	CA-C	5.61	1.59	1.52
5	A	62	ARG	CA-C	-5.61	1.45	1.52
6	F	353	ILE	CA-CB	-5.61	1.46	1.54
5	A	376	ALA	N-CA	-5.61	1.39	1.46
6	D	310	THR	C-O	-5.61	1.17	1.24
5	A	519	THR	CA-C	-5.61	1.45	1.52
5	E	589	PRO	N-CA	-5.61	1.40	1.47
5	A	296	GLU	N-CA	-5.61	1.39	1.46
4	N	114	LYS	C-N	5.61	1.41	1.33
6	F	163	SER	CA-CB	5.61	1.62	1.53
11	W	86	THR	CA-C	-5.61	1.45	1.52
5	E	92	LEU	CA-CB	5.60	1.60	1.53
7	Q	206	GLU	CA-C	-5.60	1.48	1.52
5	E	579	HIS	CD2-NE2	5.60	1.44	1.37
6	F	87	ASP	CA-C	-5.60	1.45	1.52
2	O	373	GLN	C-N	5.60	1.41	1.33
6	D	333	PRO	C-N	5.60	1.40	1.33
11	V	138	VAL	N-CA	5.60	1.53	1.46
11	V	117	ARG	NE-CZ	5.60	1.39	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	T	56	PRO	N-CA	-5.60	1.40	1.47
6	B	288	LEU	N-CA	-5.59	1.39	1.46
5	E	200	VAL	N-CA	-5.59	1.39	1.46
5	E	215	TRP	CA-CB	5.59	1.63	1.53
6	D	345	PRO	N-CA	-5.59	1.40	1.47
11	a	136	ALA	C-N	5.59	1.41	1.33
5	C	355	ASP	N-CA	-5.59	1.40	1.46
10	P	153	ASN	C-N	5.59	1.41	1.33
11	T	158	VAL	CA-CB	-5.59	1.46	1.54
2	O	39	ILE	CA-C	-5.58	1.45	1.52
6	F	212	PHE	N-CA	-5.58	1.39	1.46
8	H	98	LEU	N-CA	-5.58	1.39	1.46
5	A	59	GLU	CA-C	-5.58	1.45	1.52
6	D	475	ARG	N-CA	-5.58	1.40	1.46
11	S	27	GLY	CA-C	-5.58	1.45	1.51
3	M	200	PHE	N-CA	-5.58	1.39	1.46
10	P	88	ASP	C-N	5.58	1.41	1.33
6	F	407	TYR	C-N	5.58	1.41	1.33
9	G	207	LEU	CB-CG	5.58	1.64	1.53
6	F	98	GLU	CA-C	-5.57	1.46	1.52
6	F	322	VAL	C-N	5.57	1.40	1.33
9	G	166	ARG	NE-CZ	5.57	1.39	1.33
3	M	121	ARG	N-CA	-5.57	1.40	1.46
3	M	191	GLU	C-N	5.57	1.41	1.33
9	K	87	LYS	N-CA	5.57	1.53	1.46
11	T	49	LEU	C-N	5.57	1.41	1.33
7	Q	78	HIS	CA-CB	5.57	1.62	1.53
5	E	87	ARG	NE-CZ	5.57	1.39	1.33
6	D	431	LEU	CA-CB	5.57	1.61	1.53
11	S	39	ILE	CA-CB	-5.57	1.47	1.54
6	D	346	ILE	CA-CB	5.56	1.57	1.54
1	b	123	GLN	N-CA	-5.56	1.39	1.46
3	M	11	THR	C-N	5.56	1.41	1.33
6	F	266	LEU	C-N	5.56	1.41	1.33
10	P	288	ARG	N-CA	-5.56	1.39	1.46
11	Y	110	ILE	C-N	5.56	1.41	1.33
6	F	71	ARG	CZ-NH1	5.56	1.40	1.32
6	F	354	THR	CA-C	-5.56	1.45	1.52
6	B	335	LEU	CA-C	-5.56	1.46	1.52
8	J	61	ASN	CA-CB	5.56	1.62	1.53
8	H	12	GLN	CA-CB	5.55	1.61	1.53
1	b	315	ARG	C-N	5.55	1.41	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
9	I	145	ASP	C-N	5.55	1.41	1.33
5	E	545	ASP	CA-C	5.55	1.59	1.52
5	E	561	VAL	C-N	5.55	1.41	1.34
6	B	253	ILE	CA-CB	-5.55	1.46	1.54
11	a	95	LEU	CA-CB	5.55	1.62	1.53
4	N	74	ALA	C-N	5.55	1.41	1.33
1	b	236	PHE	N-CA	-5.55	1.39	1.46
9	I	205	GLU	CA-C	-5.55	1.45	1.52
5	A	354	ALA	N-CA	-5.54	1.39	1.46
8	H	19	GLU	CA-CB	5.54	1.62	1.53
9	G	77	LYS	CA-CB	5.54	1.61	1.53
5	C	406	ARG	CD-NE	5.54	1.54	1.46
8	J	53	GLU	CA-C	-5.54	1.45	1.52
11	U	86	THR	C-N	5.54	1.40	1.33
6	F	145	ILE	N-CA	-5.54	1.39	1.46
5	E	133	LEU	N-CA	-5.54	1.39	1.45
5	E	221	ARG	CZ-NH2	5.54	1.40	1.33
6	F	138	PRO	CA-CB	5.54	1.63	1.53
5	C	460	TYR	CA-C	-5.54	1.45	1.52
11	Z	82	GLN	CA-CB	5.54	1.62	1.53
6	F	252	ARG	CZ-NH1	5.53	1.40	1.32
6	F	124	PRO	CA-CB	-5.53	1.46	1.53
2	O	267	ILE	C-N	5.53	1.41	1.33
5	C	29	SER	CA-C	-5.53	1.45	1.52
7	Q	178	GLU	C-N	5.53	1.40	1.33
2	O	106	PRO	CA-C	5.53	1.60	1.52
6	B	322	VAL	C-O	-5.53	1.17	1.24
11	T	24	THR	C-N	5.53	1.41	1.33
5	E	470	PHE	CA-CB	5.53	1.61	1.53
5	A	166	LEU	CA-C	-5.53	1.45	1.52
11	W	32	THR	CA-CB	5.53	1.62	1.53
5	A	48	LEU	CA-CB	5.53	1.61	1.53
6	B	357	GLN	N-CA	-5.53	1.39	1.46
5	C	493	GLU	N-CA	-5.53	1.39	1.46
11	T	153	ARG	CD-NE	5.53	1.53	1.46
7	Q	245	ILE	CA-C	-5.52	1.45	1.52
6	F	62	VAL	CA-CB	-5.52	1.47	1.54
5	C	126	ARG	NE-CZ	5.52	1.39	1.33
11	R	149	LEU	N-CA	5.52	1.52	1.46
11	S	17	CYS	C-N	5.52	1.40	1.33
5	C	483	ASP	CA-C	-5.52	1.45	1.52
9	I	101	GLU	CA-CB	5.52	1.62	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	F	196	PRO	C-N	5.52	1.41	1.33
10	P	231	VAL	CA-C	-5.52	1.45	1.52
2	O	61	LEU	C-N	5.52	1.40	1.33
5	A	591	ARG	CD-NE	5.52	1.53	1.46
5	C	459	SER	CA-C	-5.52	1.45	1.52
6	D	375	VAL	CA-CB	-5.52	1.47	1.54
8	J	57	PHE	C-N	5.52	1.41	1.33
5	A	297	PHE	CA-CB	5.51	1.60	1.53
7	Q	118	ARG	CA-CB	5.51	1.62	1.53
9	G	47	LYS	N-CA	-5.51	1.39	1.46
11	R	26	LEU	N-CA	-5.51	1.40	1.46
11	U	153	ARG	CD-NE	5.51	1.53	1.46
11	V	35	SER	C-N	5.51	1.41	1.33
5	E	153	SER	CA-C	-5.51	1.45	1.52
11	a	98	GLY	CA-C	-5.51	1.46	1.52
5	A	129	ASP	N-CA	-5.51	1.39	1.46
5	A	323	ASN	N-CA	-5.51	1.38	1.46
8	H	52	LYS	N-CA	-5.51	1.39	1.46
11	S	96	SER	CA-CB	5.51	1.62	1.53
11	T	15	ILE	N-CA	-5.51	1.39	1.46
6	B	374	ASN	CA-CB	5.51	1.62	1.53
9	I	12	GLN	C-N	5.51	1.40	1.33
11	S	128	GLY	CA-C	5.51	1.58	1.51
5	A	610	ARG	CA-C	-5.51	1.45	1.52
5	C	610	ARG	CD-NE	5.51	1.53	1.46
11	U	117	ARG	CZ-NH1	5.51	1.40	1.32
6	D	95	PHE	C-N	5.51	1.41	1.33
11	a	42	THR	C-N	5.51	1.41	1.34
2	O	14	ILE	CA-C	-5.50	1.46	1.52
3	M	44	ARG	CD-NE	5.50	1.53	1.46
1	b	276	LYS	C-N	5.50	1.40	1.33
9	I	62	PHE	CA-C	-5.50	1.45	1.52
8	L	70	LYS	N-CA	5.50	1.53	1.46
5	A	172	ILE	CA-CB	-5.50	1.47	1.54
10	P	210	PHE	N-CA	5.50	1.53	1.46
3	M	22	LEU	CA-C	-5.50	1.45	1.52
9	K	173	VAL	C-N	5.50	1.39	1.33
11	W	40	CYS	C-O	-5.50	1.17	1.24
11	a	97	VAL	C-N	5.50	1.40	1.33
11	S	96	SER	C-O	5.50	1.30	1.24
9	I	171	GLU	N-CA	5.50	1.52	1.45
5	E	102	GLU	C-N	5.50	1.40	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	E	521	ILE	CB-CG1	5.49	1.64	1.53
5	E	527	GLN	CA-C	-5.49	1.46	1.52
6	F	466	ARG	CZ-NH2	5.49	1.40	1.33
5	A	364	LEU	C-N	5.49	1.41	1.33
6	F	461	ALA	N-CA	-5.49	1.39	1.46
7	Q	2	GLU	N-CA	-5.49	1.39	1.46
9	I	85	ARG	C-N	5.49	1.41	1.33
10	P	439	ASP	N-CA	-5.49	1.39	1.46
8	H	76	VAL	N-CA	-5.49	1.39	1.46
11	a	111	VAL	C-N	5.49	1.40	1.33
7	Q	289	TYR	C-O	-5.48	1.17	1.24
1	b	190	VAL	C-N	5.48	1.40	1.33
3	M	198	GLU	C-O	-5.48	1.17	1.24
5	E	396	GLY	CA-C	5.48	1.57	1.51
6	B	448	ALA	CA-CB	5.48	1.62	1.53
9	I	143	GLU	CA-CB	5.48	1.62	1.53
9	K	137	ALA	N-CA	-5.48	1.39	1.46
5	C	358	SER	N-CA	-5.48	1.39	1.46
11	W	30	TYR	C-O	-5.48	1.17	1.24
1	b	117	LEU	N-CA	-5.48	1.39	1.46
5	E	279	ILE	C-N	5.48	1.41	1.33
5	C	126	ARG	CZ-NH2	5.48	1.40	1.33
6	D	42	GLU	C-N	5.47	1.40	1.33
9	G	54	GLU	CA-C	5.47	1.60	1.52
5	E	317	LEU	CA-C	-5.47	1.46	1.52
5	C	470	PHE	CA-C	-5.47	1.45	1.52
5	C	500	GLN	CA-C	-5.47	1.46	1.52
6	D	157	ALA	C-N	5.47	1.41	1.33
7	Q	167	ASP	CA-CB	5.47	1.61	1.53
10	P	182	THR	N-CA	5.47	1.52	1.46
1	b	194	ASP	N-CA	-5.47	1.39	1.46
3	M	91	ARG	CZ-NH2	5.47	1.40	1.33
1	b	315	ARG	CZ-NH1	5.47	1.40	1.32
6	B	458	LEU	CA-CB	5.47	1.62	1.53
9	I	108	SER	C-N	5.47	1.40	1.33
11	X	12	PHE	CA-C	5.47	1.59	1.52
5	E	435	THR	CA-C	-5.46	1.45	1.52
5	A	484	ARG	NE-CZ	5.46	1.39	1.33
2	O	329	ILE	CA-CB	-5.46	1.47	1.54
5	E	158	TYR	C-N	5.46	1.38	1.33
5	E	244	PHE	CA-C	-5.46	1.45	1.52
11	S	85	TYR	CZ-OH	5.46	1.49	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	F	240	LEU	N-CA	-5.46	1.39	1.46
6	B	219	LEU	CA-CB	5.46	1.61	1.53
10	P	82	HIS	CD2-NE2	5.46	1.43	1.37
10	P	193	LEU	CA-C	5.46	1.59	1.52
5	A	33	PRO	N-CD	-5.46	1.40	1.47
2	O	241	LYS	CA-CB	5.45	1.61	1.53
2	O	359	ASP	CA-C	-5.45	1.46	1.52
2	O	366	LYS	N-CA	-5.45	1.38	1.45
4	N	113	ARG	CD-NE	5.45	1.53	1.46
5	E	320	ASN	CA-C	-5.45	1.46	1.52
11	V	52	LYS	C-N	-5.45	1.26	1.33
6	D	318	ARG	CD-NE	5.45	1.53	1.46
9	K	158	ARG	C-O	-5.45	1.17	1.24
2	O	203	LYS	CA-CB	5.45	1.61	1.53
6	B	287	ALA	C-N	5.45	1.41	1.33
5	C	344	ARG	NE-CZ	5.45	1.39	1.33
9	K	215	LEU	C-O	5.45	1.29	1.24
6	F	199	ASP	C-N	5.44	1.40	1.33
2	O	197	ALA	N-CA	-5.44	1.39	1.46
3	M	205	LYS	N-CA	5.44	1.52	1.46
5	E	463	TYR	C-N	5.44	1.41	1.33
6	D	144	ARG	NE-CZ	5.44	1.39	1.33
5	A	411	SER	C-N	5.44	1.40	1.33
6	D	337	MET	CA-C	-5.44	1.47	1.52
11	Y	70	VAL	CA-CB	5.44	1.60	1.54
6	D	253	ILE	CA-CB	-5.44	1.46	1.54
2	O	143	ALA	CA-CB	5.43	1.61	1.53
6	D	271	GLU	CA-C	-5.43	1.45	1.52
7	Q	96	ASP	CA-C	-5.43	1.45	1.52
7	Q	194	ASN	CA-C	-5.43	1.45	1.52
9	K	212	GLU	CA-CB	5.43	1.61	1.53
9	K	200	ASN	N-CA	5.43	1.53	1.46
11	S	58	ILE	CA-CB	-5.43	1.47	1.54
3	M	168	ARG	CA-CB	5.43	1.61	1.53
9	I	201	ASN	CA-CB	5.43	1.60	1.53
8	H	100	GLU	CA-C	-5.43	1.45	1.52
2	O	290	ARG	CD-NE	5.43	1.53	1.46
8	J	16	GLU	C-N	5.43	1.40	1.33
6	F	173	PHE	CA-CB	5.43	1.60	1.53
5	C	606	THR	CA-C	-5.43	1.45	1.52
11	T	73	LEU	C-N	5.43	1.40	1.33
3	M	182	GLU	CA-CB	5.42	1.61	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	B	171	PRO	N-CD	-5.42	1.40	1.47
5	E	271	LYS	CA-CB	5.42	1.61	1.53
2	O	138	SER	CA-C	-5.42	1.45	1.52
5	A	350	VAL	C-N	5.42	1.41	1.33
6	B	367	LYS	N-CA	-5.42	1.39	1.46
5	C	210	THR	C-N	5.42	1.41	1.33
9	I	172	ILE	CA-C	-5.42	1.45	1.52
4	N	73	ILE	N-CA	-5.42	1.39	1.46
6	D	155	VAL	CA-C	-5.42	1.46	1.52
5	A	62	ARG	CD-NE	5.41	1.53	1.46
11	a	153	ARG	CA-C	-5.41	1.45	1.52
1	b	254	GLU	N-CA	-5.41	1.39	1.46
9	K	52	ARG	CZ-NH2	5.41	1.40	1.33
3	M	21	LYS	CA-C	-5.41	1.45	1.52
9	I	78	SER	C-N	5.41	1.41	1.34
6	F	293	ALA	CA-CB	5.41	1.62	1.53
5	A	298	PRO	CA-CB	-5.41	1.45	1.53
6	B	409	ILE	CB-CG1	5.41	1.64	1.53
5	C	590	SER	N-CA	5.41	1.51	1.46
11	S	55	VAL	CA-CB	-5.41	1.47	1.54
3	M	30	SER	CA-CB	5.41	1.61	1.53
11	Y	129	MET	C-O	-5.41	1.17	1.24
5	E	501	LEU	CB-CG	5.40	1.64	1.53
7	Q	289	TYR	CA-CB	5.40	1.61	1.53
11	R	124	ARG	NE-CZ	5.40	1.39	1.33
2	O	92	THR	CA-C	-5.40	1.46	1.52
5	A	608	GLN	CA-CB	5.40	1.61	1.53
6	B	186	GLN	C-N	5.40	1.40	1.33
7	Q	73	SER	CA-C	-5.40	1.46	1.52
9	K	103	THR	CA-C	-5.40	1.45	1.52
10	P	283	LYS	C-N	5.40	1.41	1.33
5	A	286	ARG	CA-CB	5.40	1.61	1.53
11	Z	142	TYR	C-O	-5.40	1.17	1.24
6	F	374	ASN	CA-C	-5.40	1.46	1.52
1	b	54	THR	C-N	5.39	1.40	1.33
6	B	195	ARG	C-N	5.39	1.40	1.33
6	B	356	GLY	C-N	5.39	1.40	1.33
6	B	357	GLN	C-N	5.39	1.40	1.33
8	J	50	LYS	CA-CB	5.39	1.62	1.53
1	b	108	ASP	N-CA	-5.39	1.40	1.46
5	A	88	THR	CA-C	-5.39	1.45	1.52
9	I	78	SER	CA-CB	5.39	1.62	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	S	97	VAL	CA-C	5.39	1.60	1.52
10	P	168	ASN	CA-CB	5.39	1.61	1.53
10	P	160	LEU	C-N	5.39	1.40	1.33
2	O	233	LEU	N-CA	-5.39	1.39	1.46
1	b	93	ASP	N-CA	-5.39	1.39	1.46
11	R	117	ARG	NE-CZ	5.39	1.39	1.33
11	S	39	ILE	CA-C	-5.39	1.46	1.52
6	D	189	ARG	CZ-NH1	5.38	1.40	1.32
11	W	92	GLY	C-N	5.38	1.41	1.33
11	S	89	ILE	N-CA	-5.38	1.39	1.46
7	Q	320	VAL	CA-CB	-5.38	1.48	1.54
5	E	107	GLY	C-N	5.38	1.41	1.34
10	P	155	LEU	CA-C	-5.38	1.46	1.52
11	R	85	TYR	CA-CB	5.38	1.61	1.53
6	D	223	ARG	CD-NE	5.38	1.53	1.46
6	D	364	LEU	CA-C	-5.38	1.46	1.52
8	H	11	LEU	CA-CB	5.38	1.61	1.53
9	I	182	ASP	CA-CB	5.37	1.63	1.53
6	B	362	ARG	C-N	5.37	1.41	1.33
10	P	292	SER	CA-C	-5.37	1.46	1.52
11	S	111	VAL	N-CA	-5.37	1.40	1.46
2	O	330	ILE	CA-C	-5.37	1.45	1.52
6	F	57	LEU	CA-C	-5.37	1.45	1.52
4	N	91	ILE	CA-C	-5.37	1.46	1.52
5	C	144	GLY	CA-C	-5.37	1.44	1.51
7	Q	118	ARG	CD-NE	5.37	1.53	1.46
2	O	237	HIS	C-N	5.37	1.40	1.33
5	A	88	THR	C-N	5.37	1.40	1.33
6	D	186	GLN	CA-CB	5.37	1.61	1.53
10	P	110	GLY	C-N	5.37	1.41	1.33
8	H	84	LYS	N-CA	-5.37	1.39	1.46
6	B	270	THR	CB-OG1	-5.36	1.35	1.43
11	X	102	LEU	C-N	5.36	1.41	1.33
11	S	151	ASN	C-N	5.36	1.41	1.34
4	N	59	GLU	N-CA	-5.36	1.38	1.46
5	A	329	ARG	NE-CZ	5.36	1.39	1.33
9	K	89	LEU	N-CA	-5.36	1.39	1.46
11	W	88	PHE	C-N	5.36	1.40	1.33
5	E	359	ARG	CA-C	-5.36	1.45	1.52
6	B	146	TYR	CA-CB	5.36	1.61	1.53
7	Q	142	ALA	C-N	5.36	1.41	1.33
11	T	43	CYS	CA-CB	5.36	1.62	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	F	70	ILE	CA-C	5.36	1.59	1.52
11	X	150	LEU	CA-C	-5.36	1.46	1.52
11	Z	120	SER	CA-CB	5.36	1.61	1.53
1	b	292	SER	C-N	5.35	1.41	1.33
2	O	343	GLU	N-CA	5.35	1.52	1.46
6	B	118	ARG	CD-NE	5.35	1.53	1.46
11	X	147	ALA	N-CA	-5.35	1.40	1.46
7	Q	80	PHE	CA-C	5.35	1.57	1.52
11	W	124	ARG	C-N	5.35	1.40	1.33
6	B	121	ASP	C-N	5.35	1.40	1.33
5	C	104	ILE	CA-C	-5.35	1.46	1.52
11	X	127	VAL	N-CA	-5.35	1.39	1.46
6	F	318	ARG	CA-CB	5.35	1.60	1.52
6	B	342	ILE	CA-C	-5.35	1.44	1.52
10	P	296	GLN	N-CA	-5.35	1.39	1.46
5	E	344	ARG	CA-C	5.34	1.59	1.52
6	B	135	ASN	CG-ND2	5.34	1.44	1.33
6	B	264	GLU	C-N	5.34	1.41	1.33
5	C	350	VAL	N-CA	-5.34	1.40	1.46
5	C	520	LEU	C-N	5.34	1.40	1.33
9	I	194	SER	C-N	5.34	1.40	1.33
5	A	319	ALA	N-CA	-5.34	1.40	1.46
8	L	95	VAL	N-CA	5.34	1.52	1.46
9	K	50	ILE	CA-CB	-5.34	1.48	1.54
6	F	174	SER	CA-C	-5.34	1.45	1.52
5	A	123	TYR	C-N	5.34	1.39	1.33
7	Q	84	ARG	C-N	5.34	1.41	1.33
9	I	85	ARG	NE-CZ	5.34	1.39	1.33
10	P	372	PRO	CA-C	5.34	1.57	1.52
2	O	142	ASP	CA-CB	5.33	1.61	1.53
5	A	443	LYS	CA-C	5.33	1.59	1.52
6	B	157	ALA	C-N	5.33	1.40	1.33
6	B	358	ILE	CA-C	-5.33	1.46	1.52
7	Q	249	TYR	C-O	-5.33	1.19	1.24
10	P	120	ASP	CA-CB	5.33	1.60	1.53
11	S	94	GLY	CA-C	-5.33	1.45	1.51
1	b	303	ALA	N-CA	5.33	1.52	1.46
2	O	43	ALA	C-N	5.33	1.41	1.33
2	O	80	GLY	C-N	5.33	1.41	1.33
9	K	97	ASP	C-N	5.33	1.41	1.33
7	Q	318	GLN	CA-CB	5.33	1.61	1.53
3	M	32	LEU	C-N	5.33	1.41	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	U	13	GLY	C-N	5.33	1.41	1.33
2	O	178	ILE	N-CA	-5.33	1.40	1.46
5	A	441	LEU	CA-CB	5.33	1.62	1.53
11	Y	93	ALA	C-N	5.33	1.40	1.33
11	Z	65	ILE	N-CA	-5.33	1.39	1.46
6	F	462	TRP	NE1-CE2	5.32	1.43	1.37
11	a	156	GLN	CA-C	-5.32	1.45	1.52
3	M	59	ARG	CD-NE	5.32	1.53	1.46
6	D	265	TYR	C-O	-5.32	1.18	1.24
10	P	240	ILE	C-N	5.32	1.41	1.33
10	P	255	PHE	N-CA	5.32	1.53	1.46
8	L	77	GLN	CA-C	-5.32	1.45	1.52
5	E	422	ASP	CA-C	-5.32	1.46	1.52
8	L	41	LYS	CA-C	-5.32	1.45	1.52
9	K	201	ASN	C-N	5.32	1.41	1.33
11	Y	89	ILE	C-N	5.32	1.40	1.33
6	B	466	ARG	CZ-NH2	5.32	1.40	1.33
11	X	117	ARG	NE-CZ	5.32	1.38	1.33
11	Z	101	GLY	CA-C	-5.32	1.46	1.52
11	V	109	GLY	CA-C	-5.32	1.45	1.51
11	S	84	LEU	CA-C	-5.32	1.45	1.52
5	C	337	ILE	CA-C	-5.31	1.45	1.52
10	P	389	LYS	CA-C	5.31	1.59	1.52
5	E	98	PRO	N-CA	-5.31	1.40	1.47
6	F	441	LYS	N-CA	-5.31	1.39	1.46
6	D	282	SER	N-CA	-5.31	1.39	1.46
10	P	232	ALA	N-CA	-5.31	1.39	1.46
11	a	139	LEU	CA-CB	5.31	1.61	1.53
11	T	28	ALA	CA-C	-5.31	1.46	1.52
3	M	28	GLY	CA-C	-5.31	1.46	1.52
6	B	362	ARG	CZ-NH2	5.31	1.40	1.33
5	C	232	PRO	CA-CB	-5.31	1.46	1.53
8	J	25	ARG	CD-NE	5.31	1.53	1.46
9	G	74	GLN	N-CA	-5.31	1.39	1.46
11	R	141	LEU	C-N	5.31	1.41	1.34
11	W	108	ILE	CA-C	5.31	1.59	1.52
11	S	96	SER	CA-C	-5.31	1.45	1.52
5	C	359	ARG	CZ-NH2	5.31	1.40	1.33
6	F	209	SER	C-N	5.30	1.40	1.33
7	Q	41	ASP	N-CA	5.30	1.52	1.46
7	Q	86	GLN	C-N	5.30	1.40	1.33
7	Q	231	SER	C-O	-5.30	1.17	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
9	K	15	ASP	CG-OD1	5.30	1.35	1.25
6	F	88	VAL	N-CA	-5.30	1.40	1.46
5	A	422	ASP	CA-C	-5.30	1.46	1.52
11	V	36	GLY	C-N	5.30	1.40	1.34
2	O	205	ASP	CA-C	5.30	1.59	1.52
6	F	101	ARG	NE-CZ	5.30	1.38	1.33
6	D	75	ALA	CA-C	-5.30	1.46	1.52
9	G	158	ARG	C-N	5.30	1.40	1.33
5	E	136	THR	C-N	5.30	1.40	1.33
5	A	372	GLY	N-CA	5.30	1.52	1.45
5	A	406	ARG	CD-NE	5.30	1.53	1.46
8	L	25	ARG	CA-CB	5.30	1.61	1.53
2	O	45	VAL	N-CA	5.30	1.52	1.46
6	F	244	LEU	N-CA	-5.30	1.39	1.45
5	C	579	HIS	ND1-CE1	5.30	1.37	1.32
7	Q	303	GLN	C-N	5.30	1.41	1.33
8	J	23	LYS	C-N	5.30	1.41	1.34
6	F	237	ARG	CD-NE	5.30	1.53	1.46
6	F	435	PHE	C-O	-5.29	1.18	1.24
5	C	516	ASP	CA-CB	5.29	1.61	1.53
11	T	13	GLY	CA-C	-5.29	1.46	1.52
8	J	11	LEU	N-CA	-5.29	1.39	1.46
10	P	281	THR	N-CA	-5.29	1.39	1.45
5	A	116	LYS	CA-C	-5.29	1.46	1.52
9	K	128	ALA	C-N	5.29	1.41	1.34
6	B	459	ASP	CA-C	-5.29	1.46	1.52
10	P	370	TRP	C-O	-5.29	1.17	1.23
2	O	212	THR	C-N	5.29	1.40	1.33
6	D	354	THR	CA-C	-5.29	1.45	1.53
6	D	204	HIS	CG-CD2	5.28	1.41	1.35
7	Q	180	ILE	C-N	5.28	1.40	1.33
10	P	21	ARG	C-N	5.28	1.40	1.33
9	G	219	ARG	CD-NE	5.28	1.53	1.46
11	R	29	ALA	C-N	5.28	1.40	1.33
11	Z	129	MET	N-CA	-5.28	1.39	1.46
7	Q	56	SER	C-N	5.28	1.40	1.33
7	Q	191	ASP	C-O	-5.28	1.17	1.24
1	b	130	GLN	CA-CB	5.28	1.61	1.53
9	K	62	PHE	CA-CB	5.28	1.61	1.53
10	P	91	ASP	CA-CB	5.28	1.61	1.53
9	G	98	GLY	C-N	5.28	1.40	1.33
4	N	91	ILE	N-CA	-5.28	1.40	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	B	276	THR	C-N	5.28	1.40	1.33
5	C	112	LEU	C-N	5.28	1.41	1.34
2	O	16	LEU	N-CA	-5.28	1.41	1.45
5	E	605	SER	CA-CB	5.28	1.61	1.53
8	L	26	LYS	CA-CB	5.28	1.61	1.53
11	R	33	ALA	N-CA	-5.28	1.40	1.46
6	F	32	SER	CA-CB	5.27	1.62	1.53
9	G	211	SER	C-O	-5.27	1.17	1.24
11	R	83	ALA	C-N	5.27	1.40	1.33
11	V	137	GLU	N-CA	-5.27	1.39	1.46
11	S	46	ARG	NE-CZ	5.27	1.38	1.33
6	D	318	ARG	CZ-NH1	5.27	1.40	1.32
7	Q	71	TYR	C-N	5.27	1.41	1.33
9	I	191	SER	CA-C	5.27	1.59	1.52
5	A	286	ARG	CZ-NH1	5.27	1.40	1.32
6	B	344	HIS	CD2-NE2	5.27	1.43	1.37
6	B	354	THR	CA-C	-5.27	1.46	1.53
6	D	44	VAL	CA-C	-5.27	1.45	1.53
7	Q	227	SER	N-CA	-5.27	1.39	1.46
9	G	23	PHE	C-N	5.27	1.40	1.33
5	C	74	GLU	CA-C	-5.27	1.46	1.52
5	A	311	ILE	C-N	5.27	1.40	1.33
6	B	182	GLU	C-N	5.27	1.40	1.33
10	P	317	ASN	CA-C	-5.27	1.46	1.53
9	G	152	MET	CA-CB	5.27	1.62	1.53
7	Q	204	ALA	N-CA	5.27	1.52	1.46
11	V	116	VAL	CA-CB	-5.26	1.47	1.54
1	b	248	ARG	C-N	5.26	1.40	1.33
11	X	79	GLY	N-CA	-5.26	1.40	1.44
5	A	256	GLY	CA-C	-5.26	1.45	1.51
11	T	101	GLY	CA-C	5.26	1.57	1.52
5	E	592	GLY	C-N	5.26	1.41	1.33
5	A	497	GLN	C-N	5.26	1.40	1.33
5	A	591	ARG	CZ-NH1	5.26	1.40	1.32
5	C	611	PHE	CA-C	-5.26	1.46	1.52
5	A	328	ALA	N-CA	-5.26	1.40	1.46
5	C	62	ARG	CZ-NH2	5.26	1.40	1.33
6	D	183	ILE	C-N	5.26	1.40	1.33
9	I	118	LYS	CA-CB	5.26	1.61	1.53
10	P	336	ARG	CZ-NH2	5.26	1.40	1.33
5	C	177	ARG	NE-CZ	5.26	1.38	1.33
11	U	145	ILE	N-CA	-5.26	1.40	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
10	P	126	GLN	CA-C	-5.25	1.46	1.52
6	B	60	GLY	C-N	5.25	1.41	1.33
9	I	191	SER	C-N	5.25	1.41	1.33
3	M	213	GLU	CA-CB	5.25	1.61	1.53
11	U	50	LEU	N-CA	-5.25	1.39	1.46
11	Y	137	GLU	CA-C	-5.25	1.45	1.52
5	E	184	TRP	CZ2-CH2	5.25	1.47	1.37
5	A	92	LEU	C-N	5.25	1.40	1.33
11	U	58	ILE	N-CA	-5.25	1.39	1.46
11	Y	73	LEU	C-O	-5.25	1.18	1.24
11	V	129	MET	CA-CB	5.25	1.61	1.53
11	S	139	LEU	CA-C	5.25	1.59	1.52
5	E	46	TYR	CA-CB	5.25	1.62	1.53
5	A	62	ARG	NE-CZ	5.25	1.38	1.33
6	B	289	ARG	NE-CZ	5.25	1.38	1.33
11	R	83	ALA	CA-CB	5.25	1.61	1.53
7	Q	219	ARG	CZ-NH2	5.25	1.40	1.33
9	G	37	LEU	CA-CB	5.25	1.61	1.53
2	O	333	PRO	CA-CB	-5.24	1.49	1.54
11	R	41	ALA	N-CA	5.24	1.52	1.46
11	R	57	VAL	C-N	5.24	1.40	1.34
11	Y	31	GLY	CA-C	-5.24	1.46	1.52
11	Z	28	ALA	C-N	5.24	1.40	1.33
6	F	247	ASP	CA-CB	5.24	1.62	1.53
5	C	103	THR	C-N	5.24	1.40	1.33
10	P	395	PHE	CA-CB	5.24	1.61	1.53
11	a	103	ALA	N-CA	-5.24	1.39	1.46
2	O	11	PHE	CA-C	-5.24	1.46	1.52
4	N	90	ALA	CA-CB	-5.24	1.44	1.53
9	K	175	SER	CA-C	-5.24	1.46	1.52
3	M	154	THR	N-CA	-5.24	1.40	1.46
2	O	245	GLU	C-N	5.24	1.40	1.33
6	B	293	ALA	C-N	5.24	1.41	1.33
5	C	314	ARG	CZ-NH1	5.24	1.40	1.32
7	Q	222	ASN	CA-CB	5.24	1.61	1.53
6	B	139	ILE	CA-C	-5.23	1.47	1.52
5	E	581	VAL	C-N	5.23	1.41	1.33
7	Q	282	GLY	N-CA	5.23	1.52	1.45
9	I	14	ASN	CA-CB	5.23	1.61	1.53
11	Y	18	ALA	N-CA	-5.23	1.40	1.46
8	L	99	ILE	CA-CB	-5.23	1.48	1.54
11	U	74	VAL	CA-C	5.23	1.59	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	X	124	ARG	NE-CZ	5.23	1.38	1.33
5	C	167	ILE	CA-C	-5.23	1.46	1.52
2	O	317	LEU	CA-CB	5.23	1.61	1.53
11	W	91	LEU	N-CA	-5.23	1.40	1.46
5	A	359	ARG	CA-C	-5.22	1.45	1.52
6	F	413	ALA	CA-C	-5.22	1.45	1.52
11	S	40	CYS	CA-CB	5.22	1.61	1.53
1	b	78	LYS	CA-C	-5.22	1.46	1.52
3	M	45	ASP	N-CA	-5.22	1.40	1.46
11	T	105	GLY	CA-C	-5.22	1.46	1.52
5	C	550	PHE	N-CA	5.22	1.52	1.46
11	T	77	SER	N-CA	-5.22	1.39	1.46
5	E	249	GLY	C-N	5.22	1.38	1.33
9	I	181	LYS	CA-C	-5.22	1.44	1.52
2	O	359	ASP	CA-CB	5.22	1.60	1.53
5	A	146	PHE	CA-CB	5.22	1.61	1.53
7	Q	118	ARG	CZ-NH2	5.22	1.40	1.33
1	b	270	ARG	CD-NE	5.21	1.53	1.46
3	M	83	VAL	CA-C	-5.21	1.46	1.52
5	C	74	GLU	C-N	5.21	1.41	1.33
7	Q	182	ASN	N-CA	-5.21	1.40	1.46
6	F	185	ALA	N-CA	-5.21	1.40	1.46
5	C	199	GLU	C-N	5.21	1.40	1.33
6	F	195	ARG	CA-CB	5.21	1.60	1.53
6	F	305	PRO	CA-C	5.21	1.58	1.52
5	A	264	VAL	CA-C	-5.21	1.46	1.52
9	I	48	THR	C-N	5.21	1.40	1.33
10	P	406	VAL	CA-CB	-5.21	1.48	1.54
10	P	418	ILE	N-CA	-5.21	1.40	1.46
9	G	154	ASP	CA-C	-5.21	1.46	1.52
11	S	76	TYR	C-N	5.21	1.42	1.33
10	P	224	SER	C-N	5.21	1.40	1.33
11	U	90	GLN	C-N	5.21	1.40	1.33
11	W	100	SER	N-CA	-5.21	1.40	1.46
9	K	20	MET	N-CA	-5.21	1.40	1.46
1	b	219	GLU	CA-C	-5.20	1.45	1.53
6	D	408	ALA	C-N	-5.20	1.27	1.33
9	K	190	VAL	C-N	5.20	1.40	1.33
10	P	363	LEU	CA-C	-5.20	1.46	1.52
4	N	98	ASP	CA-CB	5.20	1.61	1.53
1	b	256	LEU	C-N	5.20	1.41	1.33
2	O	216	ASN	C-N	5.20	1.40	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
10	P	376	ASP	CA-C	-5.20	1.46	1.52
11	V	123	PRO	N-CA	-5.20	1.40	1.47
11	a	81	LYS	C-N	5.20	1.40	1.33
11	S	128	GLY	C-O	-5.20	1.17	1.24
6	B	382	LEU	CA-CB	5.20	1.60	1.53
9	I	20	MET	CA-C	-5.20	1.46	1.52
9	I	76	THR	C-N	5.20	1.40	1.33
5	A	190	GLU	N-CA	-5.20	1.39	1.46
5	C	412	ILE	CA-C	-5.20	1.46	1.52
6	D	315	ILE	C-N	5.20	1.41	1.33
5	E	189	GLY	CA-C	-5.19	1.46	1.51
5	E	590	SER	CA-C	-5.19	1.46	1.52
5	A	194	ASP	CA-C	-5.19	1.45	1.52
2	O	248	THR	C-N	5.19	1.40	1.33
6	F	422	GLU	CA-C	5.19	1.59	1.53
2	O	318	ARG	NE-CZ	5.19	1.38	1.33
6	F	152	SER	CA-C	-5.19	1.46	1.52
4	N	68	LEU	C-N	5.19	1.39	1.33
5	C	424	SER	N-CA	-5.19	1.39	1.46
7	Q	231	SER	C-N	5.19	1.40	1.33
9	K	12	GLN	C-N	5.19	1.40	1.33
9	K	21	GLN	C-O	-5.19	1.17	1.24
6	B	351	GLY	N-CA	-5.19	1.38	1.45
5	A	307	THR	C-O	-5.18	1.17	1.23
5	C	461	SER	CA-C	-5.18	1.46	1.52
7	Q	182	ASN	CA-CB	5.18	1.61	1.53
10	P	407	ARG	C-N	5.18	1.40	1.33
5	A	106	ASP	CA-C	5.18	1.60	1.53
9	G	44	GLU	CA-CB	5.18	1.61	1.53
11	X	81	LYS	CA-C	-5.18	1.46	1.52
8	H	18	HIS	C-N	5.18	1.41	1.33
7	Q	97	TYR	C-N	5.18	1.40	1.33
8	H	3	GLN	C-N	5.18	1.41	1.33
11	T	145	ILE	C-N	5.18	1.40	1.33
5	A	526	LEU	N-CA	5.18	1.52	1.46
11	U	97	VAL	N-CA	5.18	1.53	1.46
5	E	102	GLU	CA-CB	5.17	1.61	1.53
10	P	210	PHE	CA-CB	5.17	1.61	1.53
2	O	111	LEU	CA-C	5.17	1.59	1.52
5	C	207	SER	CA-C	-5.17	1.45	1.52
5	A	184	TRP	CA-CB	5.17	1.62	1.53
10	P	251	TRP	CA-C	5.17	1.59	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
9	G	129	LEU	CA-C	-5.17	1.45	1.52
6	B	281	MET	C-N	5.17	1.40	1.33
11	R	39	ILE	CA-C	-5.17	1.46	1.52
5	E	349	ASN	CA-C	-5.17	1.46	1.52
6	B	46	PHE	C-N	5.17	1.40	1.33
8	H	28	ARG	CD-NE	5.17	1.53	1.46
9	G	162	GLU	N-CA	-5.17	1.39	1.46
11	X	158	VAL	CA-C	5.17	1.59	1.52
5	E	314	ARG	CZ-NH2	5.17	1.40	1.33
5	E	344	ARG	NE-CZ	5.17	1.38	1.33
6	F	285	ALA	N-CA	5.17	1.52	1.46
7	Q	56	SER	CA-C	-5.17	1.46	1.52
11	X	55	VAL	CA-CB	-5.17	1.47	1.54
5	E	597	HIS	ND1-CE1	5.16	1.37	1.32
6	F	193	LEU	CA-C	-5.16	1.45	1.52
5	C	215	TRP	CZ2-CH2	5.16	1.47	1.37
11	a	65	ILE	N-CA	-5.16	1.39	1.46
11	T	76	TYR	CA-C	5.16	1.59	1.52
9	I	58	ILE	N-CA	-5.16	1.40	1.46
6	F	41	LEU	N-CA	-5.16	1.39	1.46
6	D	360	VAL	C-N	5.16	1.40	1.33
5	E	70	ILE	CA-CB	-5.16	1.48	1.54
8	H	14	GLU	N-CA	-5.16	1.40	1.46
2	O	183	ASP	C-N	5.16	1.39	1.33
11	Z	13	GLY	CA-C	-5.16	1.46	1.52
2	O	236	VAL	C-N	5.16	1.40	1.33
9	I	214	ALA	N-CA	-5.16	1.40	1.46
9	K	123	SER	C-N	5.16	1.41	1.33
2	O	90	ASN	CA-CB	5.15	1.61	1.53
8	H	36	LYS	C-N	5.15	1.40	1.33
1	b	250	ARG	CD-NE	5.15	1.53	1.46
2	O	274	HIS	CA-C	-5.15	1.46	1.52
2	O	347	ALA	CA-CB	5.15	1.61	1.53
5	E	518	ALA	CA-CB	5.15	1.61	1.53
5	A	280	TYR	CZ-OH	5.15	1.48	1.38
5	A	297	PHE	N-CA	-5.15	1.41	1.46
10	P	8	MET	CA-C	-5.15	1.44	1.52
11	R	93	ALA	CA-CB	5.15	1.61	1.53
5	C	169	SER	C-N	5.15	1.41	1.33
5	A	231	TYR	CA-C	-5.15	1.46	1.52
6	B	68	LEU	C-N	5.15	1.40	1.33
11	W	135	PHE	CA-CB	5.15	1.61	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	A	497	GLN	CA-CB	5.14	1.61	1.53
6	D	296	GLU	N-CA	-5.14	1.39	1.46
11	W	67	GLY	C-N	5.14	1.40	1.33
1	b	200	GLU	CA-CB	5.14	1.61	1.53
8	H	25	ARG	NE-CZ	5.14	1.38	1.33
9	G	113	ASN	C-N	5.14	1.41	1.34
4	N	47	LYS	C-N	5.14	1.40	1.33
5	A	330	GLU	C-N	5.14	1.41	1.33
2	O	107	VAL	C-O	-5.14	1.20	1.24
5	A	86	LEU	C-N	5.14	1.40	1.33
7	Q	285	GLU	C-N	5.14	1.40	1.33
9	I	18	ASN	N-CA	5.14	1.52	1.46
11	V	145	ILE	C-N	5.14	1.40	1.33
5	A	245	PRO	CA-C	-5.14	1.46	1.52
4	N	23	ALA	CA-C	-5.14	1.45	1.52
7	Q	4	VAL	N-CA	-5.14	1.39	1.46
10	P	322	VAL	CA-CB	-5.14	1.48	1.54
11	Y	19	SER	N-CA	5.14	1.52	1.46
6	B	439	PHE	CA-C	5.13	1.59	1.52
8	J	78	GLY	CA-C	-5.13	1.44	1.51
6	B	110	GLY	C-N	5.13	1.41	1.33
5	E	83	ASP	CA-CB	5.13	1.60	1.53
10	P	247	LEU	C-N	5.13	1.41	1.33
2	O	244	GLN	CA-C	-5.12	1.46	1.52
5	E	279	ILE	CA-C	-5.12	1.46	1.52
11	U	46	ARG	NE-CZ	5.12	1.38	1.33
5	E	46	TYR	C-N	5.12	1.40	1.33
5	E	370	ARG	CA-C	-5.12	1.46	1.52
7	Q	195	PHE	CA-CB	5.12	1.61	1.53
8	L	9	THR	CB-OG1	-5.12	1.35	1.43
9	K	44	GLU	CA-C	-5.12	1.46	1.52
11	W	156	GLN	N-CA	-5.12	1.39	1.46
1	b	19	PHE	CA-C	-5.12	1.46	1.52
1	b	119	GLU	C-N	5.12	1.41	1.34
6	D	321	ARG	NE-CZ	5.12	1.38	1.33
7	Q	66	SER	C-O	-5.12	1.18	1.24
7	Q	67	LEU	C-N	5.12	1.40	1.33
9	K	194	SER	CA-C	-5.12	1.45	1.52
10	P	217	ILE	CA-C	5.12	1.59	1.52
9	I	25	ARG	C-N	5.12	1.40	1.33
11	Z	28	ALA	N-CA	-5.12	1.40	1.46
11	a	76	TYR	CA-CB	5.12	1.61	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	b	211	LEU	N-CA	-5.11	1.38	1.45
3	M	141	ARG	CD-NE	5.11	1.53	1.46
5	E	519	THR	CA-CB	-5.11	1.45	1.53
5	C	559	LYS	CA-C	-5.11	1.46	1.52
6	D	320	GLY	CA-C	-5.11	1.45	1.51
7	Q	21	ARG	CZ-NH1	5.11	1.40	1.32
1	b	193	ARG	CZ-NH1	5.11	1.40	1.32
5	E	147	GLN	CD-NE2	5.11	1.44	1.33
5	E	398	ALA	CA-C	-5.11	1.46	1.52
7	Q	193	TYR	C-N	5.11	1.40	1.33
10	P	402	LEU	C-N	5.11	1.40	1.33
8	H	55	LYS	C-N	5.11	1.40	1.33
11	W	19	SER	CA-C	-5.11	1.46	1.52
11	W	88	PHE	CA-C	-5.11	1.45	1.52
5	C	179	ARG	CA-C	-5.11	1.46	1.52
5	E	279	ILE	CA-CB	-5.11	1.47	1.54
6	B	328	SER	CA-C	-5.11	1.46	1.52
5	E	58	GLY	C-N	5.10	1.40	1.33
9	G	129	LEU	C-N	5.10	1.41	1.33
11	U	147	ALA	CA-C	-5.10	1.46	1.52
1	b	120	ARG	CD-NE	5.10	1.53	1.46
2	O	288	LEU	C-N	5.10	1.40	1.33
6	F	132	LEU	C-N	5.10	1.40	1.33
5	A	401	LEU	C-N	5.10	1.37	1.33
5	C	444	LYS	CA-CB	5.10	1.61	1.53
7	Q	117	ASP	CA-C	-5.10	1.46	1.52
11	V	23	PHE	CA-C	-5.10	1.46	1.52
5	A	395	ALA	CA-C	-5.10	1.46	1.52
9	I	42	GLU	CA-C	-5.10	1.46	1.52
6	F	178	LEU	N-CA	-5.10	1.39	1.46
5	A	125	PRO	N-CA	5.10	1.53	1.47
6	D	444	ILE	CA-CB	-5.10	1.47	1.54
11	W	123	PRO	N-CA	-5.10	1.40	1.47
1	b	266	SER	C-N	5.10	1.40	1.33
9	G	220	LEU	CA-C	-5.10	1.46	1.52
11	V	81	LYS	CA-CB	5.10	1.60	1.53
5	E	332	SER	N-CA	-5.10	1.40	1.46
6	B	396	HIS	ND1-CE1	5.10	1.37	1.32
11	V	75	CYS	N-CA	5.09	1.52	1.46
1	b	187	VAL	CA-C	-5.09	1.46	1.52
3	M	41	LYS	N-CA	-5.09	1.40	1.46
4	N	52	ASP	CA-C	-5.09	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	E	76	THR	C-N	5.09	1.40	1.33
6	F	268	TYR	CZ-OH	5.09	1.48	1.38
9	K	76	THR	N-CA	-5.09	1.40	1.46
11	Z	157	ASP	C-N	5.09	1.40	1.33
11	V	79	GLY	C-N	5.09	1.40	1.33
6	B	238	THR	CA-C	-5.09	1.46	1.52
6	F	325	ARG	NE-CZ	5.09	1.38	1.33
10	P	5	LYS	C-O	5.09	1.30	1.24
10	P	165	LEU	N-CA	-5.09	1.40	1.46
5	E	210	THR	C-N	5.09	1.40	1.34
5	A	460	TYR	CA-C	-5.09	1.46	1.52
9	I	201	ASN	N-CA	-5.09	1.40	1.46
10	P	227	ALA	CA-C	-5.09	1.47	1.52
11	U	85	TYR	CB-CG	-5.08	1.40	1.51
6	D	295	ARG	CA-C	-5.08	1.46	1.53
9	I	124	LEU	N-CA	5.08	1.52	1.46
9	K	26	LYS	N-CA	-5.08	1.40	1.46
9	K	95	SER	N-CA	-5.08	1.39	1.46
9	K	114	ARG	C-N	5.08	1.40	1.33
10	P	265	GLN	C-O	-5.08	1.18	1.24
11	X	103	ALA	CA-CB	5.08	1.61	1.53
11	a	51	PHE	CA-C	-5.08	1.46	1.52
2	O	253	LYS	C-N	5.08	1.40	1.33
5	A	253	CYS	N-CA	5.08	1.52	1.46
6	B	130	ASP	CA-C	-5.08	1.46	1.52
6	B	407	TYR	CA-C	5.08	1.59	1.52
6	B	462	TRP	NE1-CE2	-5.08	1.31	1.37
8	J	33	LYS	CA-C	-5.08	1.46	1.52
5	A	232	PRO	CA-CB	5.08	1.60	1.53
11	Z	25	SER	N-CA	5.08	1.52	1.46
6	F	344	HIS	CA-C	-5.08	1.47	1.53
6	B	481	LEU	CA-C	-5.08	1.46	1.52
6	D	354	THR	C-N	5.08	1.39	1.33
11	Y	142	TYR	CA-CB	5.08	1.61	1.53
2	O	181	PRO	CA-C	5.08	1.57	1.52
2	O	260	PHE	N-CA	-5.08	1.39	1.45
3	M	46	ILE	C-N	5.08	1.40	1.33
5	C	290	MET	CA-C	5.08	1.59	1.52
7	Q	34	THR	N-CA	5.08	1.52	1.46
6	F	390	GLY	C-N	5.07	1.41	1.33
11	Z	16	GLY	C-N	5.07	1.40	1.33
3	M	146	LEU	N-CA	-5.07	1.39	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	S	97	VAL	C-N	5.07	1.40	1.33
2	O	29	LYS	CA-C	-5.07	1.46	1.52
5	C	96	LEU	N-CA	-5.07	1.40	1.46
6	B	289	ARG	CA-CB	5.07	1.61	1.53
9	I	162	GLU	C-N	5.07	1.40	1.33
11	Y	69	VAL	C-O	-5.07	1.18	1.24
11	a	125	LEU	CA-CB	5.07	1.60	1.53
6	B	214	ALA	N-CA	5.07	1.52	1.46
6	B	225	PHE	C-O	5.07	1.30	1.24
11	S	117	ARG	CD-NE	5.07	1.53	1.46
10	P	273	ASP	C-N	5.06	1.40	1.33
11	Z	29	ALA	CA-C	-5.06	1.46	1.52
9	I	118	LYS	C-N	5.06	1.40	1.33
10	P	244	TYR	CA-C	-5.06	1.46	1.52
11	W	39	ILE	CA-C	5.06	1.59	1.52
11	X	107	ALA	C-N	5.06	1.40	1.34
2	O	162	ALA	N-CA	-5.06	1.40	1.46
5	A	343	PHE	N-CA	-5.06	1.39	1.46
6	B	148	GLU	N-CA	-5.06	1.39	1.46
7	Q	70	GLU	C-N	5.06	1.40	1.33
11	W	64	ALA	N-CA	-5.06	1.39	1.46
11	a	37	VAL	CA-CB	-5.06	1.48	1.54
8	L	38	ASP	CA-C	-5.06	1.45	1.52
11	R	133	LEU	CA-C	-5.06	1.46	1.52
11	T	62	ILE	CA-CB	-5.06	1.48	1.54
2	O	239	PHE	C-O	5.06	1.30	1.23
6	F	475	ARG	CZ-NH2	5.06	1.40	1.33
9	I	166	ARG	CA-C	-5.06	1.46	1.52
11	T	130	ILE	N-CA	-5.06	1.40	1.46
4	N	77	ILE	C-O	5.05	1.30	1.24
6	F	273	HIS	N-CA	-5.05	1.39	1.46
5	C	211	LEU	CA-CB	5.05	1.61	1.53
6	D	289	ARG	NE-CZ	5.05	1.38	1.33
11	R	49	LEU	N-CA	-5.05	1.39	1.46
3	M	169	ARG	CD-NE	5.05	1.53	1.46
5	A	424	SER	C-N	5.05	1.40	1.33
5	C	410	VAL	CA-C	-5.05	1.46	1.52
5	C	479	PRO	C-N	5.05	1.40	1.33
11	U	98	GLY	CA-C	-5.05	1.46	1.52
2	O	314	GLU	C-O	-5.05	1.18	1.24
4	N	20	LEU	N-CA	5.05	1.52	1.46
6	B	368	GLY	CA-C	-5.05	1.44	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	D	336	THR	CA-C	-5.05	1.46	1.52
7	Q	157	PRO	N-CD	-5.05	1.40	1.47
7	Q	202	GLU	N-CA	5.05	1.53	1.46
9	I	172	ILE	CA-CB	5.05	1.60	1.54
11	a	15	ILE	CB-CG1	5.05	1.63	1.53
11	a	96	SER	CA-CB	5.05	1.61	1.53
2	O	20	ALA	C-N	-5.05	1.26	1.33
3	M	44	ARG	CZ-NH1	5.05	1.39	1.32
6	B	88	VAL	N-CA	-5.05	1.39	1.46
6	D	476	ILE	C-N	5.05	1.40	1.33
5	E	227	LEU	C-N	5.04	1.40	1.33
7	Q	299	ALA	CA-C	-5.04	1.46	1.52
8	J	96	LYS	C-N	5.04	1.40	1.33
2	O	7	THR	CA-C	-5.04	1.46	1.52
6	F	451	ASP	CA-C	-5.04	1.46	1.52
9	I	209	LEU	C-N	5.04	1.40	1.33
1	b	303	ALA	C-O	-5.04	1.18	1.24
6	F	70	ILE	C-O	-5.04	1.18	1.24
7	Q	275	TYR	N-CA	-5.04	1.40	1.46
5	A	370	ARG	CZ-NH2	5.04	1.40	1.33
11	X	47	PRO	C-N	5.04	1.40	1.33
5	E	165	SER	CA-CB	5.04	1.61	1.53
5	E	339	LEU	CA-C	-5.04	1.46	1.52
1	b	256	LEU	CA-C	-5.04	1.46	1.52
9	I	76	THR	C-O	-5.04	1.18	1.24
8	H	70	LYS	C-N	5.04	1.41	1.33
9	G	33	LYS	C-N	5.04	1.40	1.33
11	X	148	LEU	N-CA	-5.03	1.40	1.46
11	T	48	ASP	N-CA	-5.03	1.39	1.46
1	b	290	THR	C-O	5.03	1.30	1.24
2	O	117	GLN	C-N	5.03	1.40	1.33
6	F	180	HIS	CG-ND1	-5.03	1.32	1.38
5	A	51	VAL	C-O	-5.03	1.18	1.24
6	B	242	LEU	CA-C	-5.03	1.46	1.52
6	B	318	ARG	CZ-NH2	5.03	1.40	1.33
6	B	438	LYS	CA-C	-5.03	1.46	1.52
7	Q	343	SER	C-N	5.03	1.39	1.33
7	Q	344	VAL	CA-C	-5.03	1.46	1.52
10	P	82	HIS	ND1-CE1	5.03	1.37	1.32
11	X	79	GLY	CA-C	-5.03	1.46	1.52
11	V	117	ARG	CZ-NH2	5.03	1.40	1.33
10	P	23	ARG	NE-CZ	5.03	1.38	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	W	52	LYS	C-N	5.03	1.40	1.33
5	A	247	VAL	C-O	5.03	1.29	1.23
5	A	407	THR	CA-C	-5.03	1.46	1.52
6	B	40	ILE	CA-C	-5.03	1.46	1.52
11	X	98	GLY	CA-C	-5.03	1.44	1.51
5	A	41	ILE	CA-C	-5.03	1.46	1.52
6	B	391	MET	CA-C	-5.03	1.46	1.52
5	C	597	HIS	CA-C	-5.03	1.46	1.52
5	E	333	ILE	CA-C	-5.02	1.46	1.52
6	B	259	ALA	N-CA	-5.02	1.40	1.46
11	W	156	GLN	C-N	5.02	1.40	1.33
11	T	124	ARG	C-N	5.02	1.40	1.33
7	Q	6	PHE	CA-C	5.02	1.57	1.52
11	V	29	ALA	C-N	5.02	1.40	1.33
11	T	152	SER	CA-CB	5.02	1.61	1.53
5	E	591	ARG	CD-NE	5.02	1.53	1.46
6	D	248	PRO	C-N	-5.02	1.27	1.33
7	Q	189	LEU	CA-CB	5.02	1.61	1.53
10	P	301	ARG	NE-CZ	5.02	1.38	1.33
11	S	86	THR	CA-C	-5.02	1.46	1.52
11	a	77	SER	N-CA	-5.02	1.39	1.46
5	C	266	SER	N-CA	-5.01	1.40	1.46
11	a	145	ILE	N-CA	-5.01	1.41	1.46
11	X	117	ARG	CA-C	-5.01	1.46	1.52
11	Z	114	ALA	CA-C	-5.01	1.45	1.52
1	b	94	GLY	CA-C	5.01	1.57	1.52
10	P	347	GLU	C-N	5.01	1.40	1.33
6	F	301	ARG	C-N	5.01	1.40	1.33
5	C	325	PRO	CA-CB	5.01	1.60	1.53
9	K	212	GLU	C-O	-5.01	1.18	1.24
11	U	137	GLU	CA-CB	5.01	1.62	1.53
9	K	186	GLY	N-CA	5.01	1.52	1.45
11	a	120	SER	CA-C	-5.01	1.46	1.52
6	F	233	GLY	CA-C	-5.00	1.44	1.51
6	D	473	LEU	CA-C	-5.00	1.46	1.53
1	b	290	THR	N-CA	5.00	1.52	1.46
5	E	322	SER	C-N	5.00	1.40	1.33
5	A	450	HIS	CA-C	-5.00	1.46	1.52
5	A	476	PRO	CA-CB	-5.00	1.47	1.53
11	S	104	ALA	C-O	5.00	1.29	1.24

All (4623) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	E	458	VAL	N-CA-C	-15.32	97.61	112.17
1	b	33	LEU	CA-C-N	14.63	136.53	119.99
1	b	33	LEU	C-N-CA	14.63	136.53	119.99
5	E	597	HIS	CA-CB-CG	13.89	127.69	113.80
6	D	129	GLU	N-CA-C	-12.95	98.44	114.75
11	a	138	VAL	CA-C-N	12.56	137.52	120.44
11	a	138	VAL	C-N-CA	12.56	137.52	120.44
6	F	129	GLU	N-CA-C	-11.97	100.97	114.62
10	P	177	ILE	N-CA-C	-11.86	101.81	113.20
9	G	23	PHE	CA-CB-CG	-11.78	102.02	113.80
5	A	242	ALA	N-CA-C	11.42	123.71	111.03
11	Y	63	ILE	CA-C-N	11.12	135.62	120.38
11	Y	63	ILE	C-N-CA	11.12	135.62	120.38
2	O	368	ASP	N-CA-C	-11.07	102.00	114.62
5	A	429	THR	N-CA-C	11.02	123.29	111.28
11	Y	93	ALA	CA-C-N	11.02	132.17	119.94
11	Y	93	ALA	C-N-CA	11.02	132.17	119.94
7	Q	279	LEU	N-CA-C	-11.01	100.17	112.72
6	F	193	LEU	N-CA-C	-11.00	99.97	113.50
5	E	391	PHE	CA-C-O	-10.86	109.51	120.70
11	Z	117	ARG	CA-C-N	10.84	131.97	119.94
11	Z	117	ARG	C-N-CA	10.84	131.97	119.94
11	U	12	PHE	N-CA-C	-10.81	100.21	113.50
2	O	210	TYR	N-CA-C	10.72	122.97	111.28
1	b	346	LEU	CA-C-N	10.69	134.33	120.44
1	b	346	LEU	C-N-CA	10.69	134.33	120.44
2	O	228	ASP	CA-C-O	10.66	126.05	119.55
11	S	117	ARG	CA-C-N	10.63	131.53	119.94
11	S	117	ARG	C-N-CA	10.63	131.53	119.94
11	X	11	PHE	CA-CB-CG	10.63	124.43	113.80
9	I	24	ILE	CA-C-N	10.46	134.30	120.28
9	I	24	ILE	C-N-CA	10.46	134.30	120.28
9	G	24	ILE	O-C-N	10.44	132.14	121.91
6	F	123	GLY	CA-C-N	10.44	132.89	119.84
6	F	123	GLY	C-N-CA	10.44	132.89	119.84
7	Q	54	PHE	CA-CB-CG	-10.37	103.43	113.80
2	O	333	PRO	O-C-N	-10.34	116.29	121.15
5	E	442	ASP	CA-CB-CG	-10.31	102.28	112.60
6	F	396	HIS	CA-CB-CG	10.29	124.08	113.80
5	C	391	PHE	CA-CB-CG	10.26	124.06	113.80
5	E	136	THR	N-CA-C	-10.19	100.13	111.14
9	G	215	LEU	CA-C-O	-10.19	109.25	118.63
9	G	170	GLU	N-CA-C	-10.18	101.42	114.04

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	Q	100	TYR	CA-C-N	10.16	131.18	120.00
7	Q	100	TYR	C-N-CA	10.16	131.18	120.00
6	B	478	PRO	CA-C-N	10.12	133.59	120.44
6	B	478	PRO	C-N-CA	10.12	133.59	120.44
1	b	210	ASN	CA-CB-CG	-10.06	102.54	112.60
2	O	107	VAL	O-C-N	-10.02	114.00	120.42
3	M	17	LEU	CA-C-N	10.01	134.69	120.28
3	M	17	LEU	C-N-CA	10.01	134.69	120.28
3	M	177	ILE	CA-C-N	9.94	128.28	120.33
3	M	177	ILE	C-N-CA	9.94	128.28	120.33
9	I	203	LEU	CA-C-N	9.93	133.58	120.28
9	I	203	LEU	C-N-CA	9.93	133.58	120.28
6	F	332	ILE	N-CA-CB	9.91	121.57	111.36
10	P	121	PRO	CA-C-N	9.91	133.56	120.28
10	P	121	PRO	C-N-CA	9.91	133.56	120.28
5	C	332	SER	N-CA-CB	9.85	124.29	110.01
1	b	296	GLU	CA-C-N	9.77	133.37	120.28
1	b	296	GLU	C-N-CA	9.77	133.37	120.28
2	O	78	SER	N-CA-C	9.76	122.00	111.36
9	G	8	LEU	CA-C-N	9.76	133.96	120.39
9	G	8	LEU	C-N-CA	9.76	133.96	120.39
11	X	104	ALA	CA-C-N	9.74	130.80	119.98
11	X	104	ALA	C-N-CA	9.74	130.80	119.98
8	H	11	LEU	CA-C-N	9.65	133.21	120.28
8	H	11	LEU	C-N-CA	9.65	133.21	120.28
2	O	366	LYS	O-C-N	-9.63	111.87	122.85
3	M	35	LYS	CA-C-N	9.61	133.16	120.28
3	M	35	LYS	C-N-CA	9.61	133.16	120.28
11	T	15	ILE	CA-C-N	9.61	130.61	119.94
11	T	15	ILE	C-N-CA	9.61	130.61	119.94
11	U	55	VAL	CA-C-N	9.61	128.96	118.97
11	U	55	VAL	C-N-CA	9.61	128.96	118.97
3	M	215	ALA	CA-C-N	9.59	133.91	120.29
3	M	215	ALA	C-N-CA	9.59	133.91	120.29
5	C	529	ASN	CA-CB-CG	9.59	122.19	112.60
5	E	254	ILE	CA-C-N	9.57	129.64	119.78
5	E	254	ILE	C-N-CA	9.57	129.64	119.78
10	P	123	GLN	CA-C-N	9.56	133.44	120.44
10	P	123	GLN	C-N-CA	9.56	133.44	120.44
5	E	53	HIS	CE1-NE2-CD2	-9.51	99.49	109.00
6	B	295	ARG	CA-C-N	9.51	133.02	120.28
6	B	295	ARG	C-N-CA	9.51	133.02	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	O	366	LYS	CA-C-O	9.49	133.01	121.81
6	F	247	ASP	N-CA-CB	9.46	121.48	110.03
11	W	142	TYR	CA-C-N	9.42	130.21	119.94
11	W	142	TYR	C-N-CA	9.42	130.21	119.94
6	B	137	SER	O-C-N	-9.39	110.52	121.32
6	B	178	LEU	O-C-N	-9.39	115.28	121.85
10	P	305	HIS	CA-CB-CG	9.39	123.19	113.80
5	C	608	GLN	CA-C-N	9.38	133.61	120.29
5	C	608	GLN	C-N-CA	9.38	133.61	120.29
5	C	324	MET	CA-C-N	9.37	131.56	119.84
5	C	324	MET	C-N-CA	9.37	131.56	119.84
5	E	394	ARG	NE-CZ-NH2	9.35	127.61	119.20
11	Z	67	GLY	CA-C-N	9.34	132.80	120.28
11	Z	67	GLY	C-N-CA	9.34	132.80	120.28
2	O	336	ASN	CA-CB-CG	-9.34	103.27	112.60
10	P	114	VAL	N-CA-C	-9.33	101.29	110.72
9	K	70	MET	N-CA-C	-9.31	101.34	112.89
11	X	26	LEU	CA-C-N	9.31	130.52	119.99
11	X	26	LEU	C-N-CA	9.31	130.52	119.99
7	Q	252	ALA	N-CA-C	9.31	121.43	111.28
5	E	263	THR	N-CA-C	-9.29	101.23	111.36
5	C	151	HIS	ND1-CE1-NE2	9.29	117.69	108.40
11	Z	56	PRO	CA-C-N	9.28	133.61	120.53
11	Z	56	PRO	C-N-CA	9.28	133.61	120.53
11	Z	18	ALA	CA-C-N	9.23	133.00	120.54
11	Z	18	ALA	C-N-CA	9.23	133.00	120.54
11	S	23	PHE	CA-CB-CG	-9.22	104.58	113.80
6	B	143	ALA	CA-C-N	9.21	135.61	120.23
6	B	143	ALA	C-N-CA	9.21	135.61	120.23
5	E	135	ARG	CA-C-N	9.20	132.96	120.44
5	E	135	ARG	C-N-CA	9.20	132.96	120.44
11	X	12	PHE	N-CA-C	-9.18	102.21	113.50
6	F	450	GLU	N-CA-C	-9.17	94.24	109.46
5	C	470	PHE	CA-CB-CG	-9.14	104.66	113.80
5	E	550	PHE	CA-C-O	-9.13	110.74	120.42
6	F	266	LEU	CA-C-O	9.11	130.08	120.70
11	T	131	LEU	O-C-N	9.10	131.77	122.12
6	D	350	THR	CA-C-N	9.09	129.99	120.00
6	D	350	THR	C-N-CA	9.09	129.99	120.00
5	C	522	LYS	N-CA-C	9.07	120.77	111.07
11	Z	12	PHE	N-CA-C	-9.06	102.24	113.38
11	Z	15	ILE	CA-C-N	9.06	129.99	119.94

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	Z	15	ILE	C-N-CA	9.06	129.99	119.94
11	U	93	ALA	CA-C-N	9.05	129.98	119.94
11	U	93	ALA	C-N-CA	9.05	129.98	119.94
6	B	180	HIS	ND1-CE1-NE2	9.04	117.44	108.40
6	D	464	LEU	CA-C-N	9.02	135.03	120.60
6	D	464	LEU	C-N-CA	9.02	135.03	120.60
8	J	78	GLY	N-CA-C	-9.02	103.48	114.66
9	I	153	LYS	CA-C-N	9.01	132.16	120.44
9	I	153	LYS	C-N-CA	9.01	132.16	120.44
2	O	24	THR	N-CA-C	-9.01	102.42	113.50
11	a	33	ALA	CA-C-N	8.99	133.29	120.79
11	a	33	ALA	C-N-CA	8.99	133.29	120.79
9	K	219	ARG	NE-CZ-NH2	8.98	127.28	119.20
11	U	153	ARG	CA-C-N	8.98	132.68	120.38
11	U	153	ARG	C-N-CA	8.98	132.68	120.38
1	b	64	ASN	CA-CB-CG	-8.96	103.64	112.60
2	O	167	THR	N-CA-CB	8.95	125.61	110.49
7	Q	322	ASN	N-CA-CB	8.91	122.93	110.01
9	G	197	ILE	N-CA-C	-8.90	95.65	108.11
6	D	104	VAL	CA-C-O	8.89	129.91	120.48
6	B	151	ILE	N-CA-C	-8.89	95.32	108.12
5	C	434	ILE	CA-C-N	8.89	135.89	120.87
5	C	434	ILE	C-N-CA	8.89	135.89	120.87
6	D	383	MET	N-CA-C	-8.89	104.49	114.62
9	G	45	ILE	N-CA-C	8.88	118.94	110.42
5	A	53	HIS	CA-CB-CG	8.87	122.67	113.80
6	B	39	VAL	CA-C-N	8.85	134.63	123.12
6	B	39	VAL	C-N-CA	8.85	134.63	123.12
6	B	376	LEU	O-C-N	-8.85	113.39	120.38
7	Q	114	THR	CA-C-N	8.84	132.97	120.42
7	Q	114	THR	C-N-CA	8.84	132.97	120.42
1	b	351	ALA	O-C-N	8.83	132.22	122.15
8	J	67	GLU	CA-C-N	8.82	133.71	120.31
8	J	67	GLU	C-N-CA	8.82	133.71	120.31
6	D	320	GLY	CA-C-N	8.80	133.37	120.87
6	D	320	GLY	C-N-CA	8.80	133.37	120.87
4	N	46	THR	CA-C-N	8.80	132.07	120.28
4	N	46	THR	C-N-CA	8.80	132.07	120.28
6	B	370	TYR	CA-C-O	-8.79	109.59	120.23
10	P	243	GLN	CA-C-N	8.79	131.87	120.44
10	P	243	GLN	C-N-CA	8.79	131.87	120.44
11	R	23	PHE	N-CA-C	8.78	120.85	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	D	107	ASP	CA-CB-CG	-8.76	103.84	112.60
11	R	26	LEU	CA-C-N	8.76	129.88	119.99
11	R	26	LEU	C-N-CA	8.76	129.88	119.99
11	U	120	SER	N-CA-C	8.75	121.61	111.11
6	D	104	VAL	O-C-N	-8.74	114.00	123.18
5	C	303	GLU	N-CA-C	-8.73	102.62	113.28
11	V	52	LYS	N-CA-C	8.73	120.41	111.07
6	B	324	GLY	N-CA-C	-8.72	104.31	114.69
9	G	61	ASN	CA-CB-CG	8.72	121.32	112.60
9	K	195	ASP	CA-CB-CG	-8.71	103.89	112.60
11	R	51	PHE	O-C-N	8.71	131.35	122.12
8	L	88	GLU	CA-C-O	-8.70	111.20	120.42
5	E	289	GLU	CA-C-N	8.67	131.89	120.28
5	E	289	GLU	C-N-CA	8.67	131.89	120.28
9	K	153	LYS	CA-C-N	8.67	131.71	120.44
9	K	153	LYS	C-N-CA	8.67	131.71	120.44
1	b	182	ALA	CA-C-N	8.66	132.22	120.44
1	b	182	ALA	C-N-CA	8.66	132.22	120.44
9	K	71	LEU	N-CA-C	-8.66	101.55	112.90
10	P	239	GLY	O-C-N	8.66	130.59	122.19
11	Y	87	GLY	CA-C-O	8.65	129.96	121.05
6	B	72	GLY	CA-C-N	8.65	134.64	122.36
6	B	72	GLY	C-N-CA	8.65	134.64	122.36
5	C	491	ASN	OD1-CG-ND2	8.63	131.23	122.60
10	P	137	GLN	CA-C-N	8.63	132.19	120.54
10	P	137	GLN	C-N-CA	8.63	132.19	120.54
11	Z	16	GLY	N-CA-C	-8.62	102.50	112.50
5	A	175	PRO	N-CA-CB	8.62	108.02	103.19
11	T	41	ALA	CA-C-N	8.61	131.82	120.28
11	T	41	ALA	C-N-CA	8.61	131.82	120.28
1	b	352	ARG	N-CA-CB	8.61	122.62	109.97
5	C	442	ASP	CA-CB-CG	-8.60	104.00	112.60
6	D	320	GLY	N-CA-C	-8.59	101.75	111.63
11	W	81	LYS	N-CA-C	-8.59	101.80	112.88
11	S	35	SER	CA-C-N	8.58	129.69	119.99
11	S	35	SER	C-N-CA	8.58	129.69	119.99
11	R	145	ILE	CA-C-N	8.57	131.65	120.60
11	R	145	ILE	C-N-CA	8.57	131.65	120.60
11	R	125	LEU	N-CA-C	-8.56	102.89	112.57
1	b	55	PHE	CA-CB-CG	-8.55	105.25	113.80
5	E	318	VAL	N-CA-C	-8.55	94.72	107.37
6	D	337	MET	O-C-N	8.54	128.57	121.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	P	420	ILE	O-C-N	8.54	130.28	121.91
11	Z	40	CYS	CA-C-N	8.54	132.41	120.29
11	Z	40	CYS	C-N-CA	8.54	132.41	120.29
6	D	170	ILE	CA-C-O	-8.54	114.22	119.51
1	b	114	ALA	CA-C-N	8.53	131.53	120.44
1	b	114	ALA	C-N-CA	8.53	131.53	120.44
11	Z	148	LEU	CA-C-N	8.53	131.53	120.44
11	Z	148	LEU	C-N-CA	8.53	131.53	120.44
10	P	206	HIS	CA-C-N	8.53	132.05	120.54
10	P	206	HIS	C-N-CA	8.53	132.05	120.54
11	V	147	ALA	N-CA-C	8.52	120.18	111.07
10	P	384	ILE	O-C-N	8.51	130.25	121.91
5	A	258	PHE	CA-CB-CG	-8.51	105.29	113.80
5	E	487	GLU	CA-C-N	8.50	131.28	120.56
5	E	487	GLU	C-N-CA	8.50	131.28	120.56
11	V	63	ILE	N-CA-CB	8.50	120.50	110.55
7	Q	283	ASN	CA-CB-CG	8.50	121.10	112.60
3	M	158	ILE	CA-C-N	8.49	131.66	120.28
3	M	158	ILE	C-N-CA	8.49	131.66	120.28
11	S	110	ILE	N-CA-C	8.49	118.40	110.42
10	P	171	ILE	CA-C-N	8.49	131.65	120.28
10	P	171	ILE	C-N-CA	8.49	131.65	120.28
7	Q	200	ILE	CA-C-O	-8.48	108.59	119.95
11	X	45	LEU	N-CA-C	-8.47	103.08	113.41
3	M	16	GLY	O-C-N	8.45	130.31	122.19
6	B	418	ALA	N-CA-C	8.45	120.11	111.07
5	C	56	LEU	CA-C-O	-8.45	111.75	121.47
6	F	159	ASP	O-C-N	-8.45	113.17	122.12
11	W	100	SER	CA-C-N	8.44	129.53	119.99
11	W	100	SER	C-N-CA	8.44	129.53	119.99
11	Z	81	LYS	N-CA-C	-8.44	101.67	114.16
11	S	131	LEU	CA-C-O	-8.44	111.60	120.55
10	P	391	ASN	CB-CA-C	8.43	127.19	110.42
5	C	62	ARG	NE-CZ-NH1	8.42	129.92	121.50
4	N	44	LYS	N-CA-C	-8.42	103.60	114.04
11	W	123	PRO	CA-C-N	8.41	131.55	120.28
11	W	123	PRO	C-N-CA	8.41	131.55	120.28
11	U	144	LEU	CA-C-N	8.40	131.78	120.77
11	U	144	LEU	C-N-CA	8.40	131.78	120.77
11	a	153	ARG	CA-C-N	8.39	132.64	120.38
11	a	153	ARG	C-N-CA	8.39	132.64	120.38
3	M	150	ALA	CA-C-N	8.39	131.52	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	M	150	ALA	C-N-CA	8.39	131.52	120.28
9	I	19	LYS	CA-C-N	8.39	131.85	120.44
9	I	19	LYS	C-N-CA	8.39	131.85	120.44
2	O	333	PRO	CA-C-N	8.38	128.45	119.90
2	O	333	PRO	C-N-CA	8.38	128.45	119.90
11	W	74	VAL	O-C-N	-8.38	113.69	121.91
11	a	132	ILE	N-CA-CB	8.38	120.35	110.55
11	T	45	LEU	N-CA-C	-8.37	102.88	113.43
3	M	128	GLY	CA-C-N	8.37	130.60	120.14
3	M	128	GLY	C-N-CA	8.37	130.60	120.14
5	C	552	SER	CA-C-N	8.37	131.32	120.44
5	C	552	SER	C-N-CA	8.37	131.32	120.44
6	B	153	THR	N-CA-C	-8.37	104.21	114.75
8	H	92	ASP	CA-CB-CG	-8.36	104.24	112.60
10	P	235	SER	CA-C-N	8.36	132.69	120.90
10	P	235	SER	C-N-CA	8.36	132.69	120.90
6	F	246	ASN	CA-CB-CG	8.35	120.95	112.60
5	E	249	GLY	N-CA-C	-8.35	102.31	116.01
9	I	192	ASN	CA-CB-CG	8.35	120.95	112.60
7	Q	244	ASN	N-CA-C	-8.34	96.65	109.24
9	I	23	PHE	CA-C-N	8.33	131.06	120.56
9	I	23	PHE	C-N-CA	8.33	131.06	120.56
10	P	223	ASP	CA-CB-CG	-8.33	104.27	112.60
1	b	289	LYS	CA-C-N	8.32	131.43	120.28
1	b	289	LYS	C-N-CA	8.32	131.43	120.28
11	X	99	LEU	N-CA-CB	8.32	123.12	110.30
6	F	421	GLY	N-CA-C	-8.32	101.21	111.45
5	C	519	THR	CA-C-N	8.32	131.43	120.28
5	C	519	THR	C-N-CA	8.32	131.43	120.28
11	V	144	LEU	N-CA-C	8.32	119.97	111.07
5	C	230	ASP	CA-CB-CG	8.31	120.92	112.60
11	X	46	ARG	NE-CZ-NH2	8.31	126.68	119.20
5	E	170	HIS	CE1-NE2-CD2	-8.30	100.70	109.00
6	B	304	TYR	N-CA-C	-8.30	98.53	110.40
11	a	35	SER	CA-C-N	8.29	129.35	119.99
11	a	35	SER	C-N-CA	8.29	129.35	119.99
3	M	85	GLU	CA-C-O	8.28	129.33	120.55
11	W	74	VAL	CA-C-N	8.28	131.72	120.54
11	W	74	VAL	C-N-CA	8.28	131.72	120.54
6	D	152	SER	N-CA-C	-8.28	96.47	109.72
7	Q	174	ASP	CA-CB-CG	-8.28	104.32	112.60
5	E	276	ASP	CA-CB-CG	-8.27	104.33	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	V	120	SER	N-CA-C	8.27	121.04	111.11
10	P	202	VAL	CA-C-N	8.25	131.76	120.46
10	P	202	VAL	C-N-CA	8.25	131.76	120.46
11	a	26	LEU	CA-C-N	8.25	129.31	119.99
11	a	26	LEU	C-N-CA	8.25	129.31	119.99
5	C	111	PRO	CA-C-N	8.24	132.84	120.31
5	C	111	PRO	C-N-CA	8.24	132.84	120.31
5	A	153	SER	CA-C-N	8.24	127.83	119.92
5	A	153	SER	C-N-CA	8.24	127.83	119.92
11	V	23	PHE	CA-CB-CG	8.18	121.98	113.80
5	C	563	ASN	CA-CB-CG	8.18	120.78	112.60
6	F	308	MET	N-CA-C	-8.18	102.34	111.82
11	W	11	PHE	CA-CB-CG	8.18	121.98	113.80
3	M	67	SER	CA-C-N	8.17	131.89	120.29
3	M	67	SER	C-N-CA	8.17	131.89	120.29
4	N	102	ASP	N-CA-C	-8.17	96.89	109.64
5	E	550	PHE	O-C-N	8.17	131.46	122.15
2	O	79	ILE	CA-C-N	8.17	129.00	119.94
2	O	79	ILE	C-N-CA	8.17	129.00	119.94
11	V	47	PRO	N-CA-C	-8.17	105.20	114.92
5	E	448	ARG	NE-CZ-NH1	-8.16	113.34	121.50
11	R	151	ASN	OD1-CG-ND2	8.16	130.76	122.60
2	O	162	ALA	CA-C-N	8.16	131.21	120.28
2	O	162	ALA	C-N-CA	8.16	131.21	120.28
11	V	105	GLY	CA-C-N	8.15	131.53	120.44
11	V	105	GLY	C-N-CA	8.15	131.53	120.44
6	D	459	ASP	N-CA-C	-8.15	102.47	111.36
5	C	151	HIS	CE1-NE2-CD2	-8.15	100.85	109.00
9	K	11	ASN	CA-C-N	8.14	131.18	120.28
9	K	11	ASN	C-N-CA	8.14	131.18	120.28
11	Z	96	SER	O-C-N	8.13	130.44	122.07
6	D	204	HIS	ND1-CE1-NE2	8.12	116.52	108.40
11	Y	54	ILE	N-CA-C	8.12	122.38	111.17
6	B	316	TYR	CA-C-N	8.12	131.50	120.38
6	B	316	TYR	C-N-CA	8.12	131.50	120.38
11	U	12	PHE	CA-C-N	8.12	128.79	119.94
11	U	12	PHE	C-N-CA	8.12	128.79	119.94
1	b	177	ALA	N-CA-C	-8.12	102.68	112.58
9	I	121	LEU	CA-C-N	8.12	130.99	120.44
9	I	121	LEU	C-N-CA	8.12	130.99	120.44
9	G	87	LYS	O-C-N	-8.12	113.52	122.12
6	B	113	PHE	CA-CB-CG	-8.11	105.69	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	D	134	ILE	N-CA-C	-8.11	105.28	113.47
11	S	101	GLY	CA-C-N	8.11	131.49	120.54
11	S	101	GLY	C-N-CA	8.11	131.49	120.54
1	b	357	ILE	N-CA-CB	8.10	120.71	110.99
5	C	347	GLY	CA-C-O	8.10	127.56	118.98
6	D	325	ARG	NE-CZ-NH2	-8.09	111.92	119.20
7	Q	339	ASN	CA-CB-CG	-8.09	104.51	112.60
6	F	211	VAL	N-CA-CB	8.08	122.80	111.82
5	A	324	MET	N-CA-CB	8.08	120.94	110.04
10	P	19	ILE	O-C-N	8.07	129.70	121.87
1	b	55	PHE	CA-C-N	8.07	133.23	120.47
1	b	55	PHE	C-N-CA	8.07	133.23	120.47
6	B	344	HIS	CA-CB-CG	8.07	121.87	113.80
6	F	462	TRP	CA-C-N	8.07	131.09	120.28
6	F	462	TRP	C-N-CA	8.07	131.09	120.28
5	A	391	PHE	CA-CB-CG	8.06	121.86	113.80
11	W	12	PHE	CA-C-N	8.06	128.72	119.94
11	W	12	PHE	C-N-CA	8.06	128.72	119.94
6	B	180	HIS	CA-CB-CG	8.06	121.86	113.80
5	A	333	ILE	CA-C-O	8.05	129.17	120.47
10	P	120	ASP	CB-CA-C	-8.05	103.20	110.44
5	C	97	GLY	CA-C-N	8.04	129.90	119.84
5	C	97	GLY	C-N-CA	8.04	129.90	119.84
10	P	233	THR	N-CA-C	-8.04	102.25	114.16
5	E	121	SER	CB-CA-C	-8.04	97.04	109.99
7	Q	319	GLU	N-CA-CB	8.04	121.67	110.01
6	D	186	GLN	CA-C-O	8.03	129.06	120.55
7	Q	234	ASP	CA-C-O	-8.03	110.20	117.98
11	S	93	ALA	CA-C-N	8.02	129.05	119.99
11	S	93	ALA	C-N-CA	8.02	129.05	119.99
8	H	104	LYS	CA-C-N	8.01	129.85	119.84
8	H	104	LYS	C-N-CA	8.01	129.85	119.84
3	M	63	THR	N-CA-CB	8.01	122.01	110.16
11	V	138	VAL	N-CA-CB	8.00	120.47	110.47
8	J	26	LYS	CA-C-N	8.00	130.84	120.44
8	J	26	LYS	C-N-CA	8.00	130.84	120.44
5	C	561	VAL	O-C-N	7.99	130.06	121.83
4	N	6	THR	N-CA-C	-7.99	104.41	114.56
6	B	46	PHE	CA-CB-CG	-7.99	105.81	113.80
10	P	250	ILE	CA-C-N	7.99	131.33	120.38
10	P	250	ILE	C-N-CA	7.99	131.33	120.38
6	B	179	PRO	CA-C-N	7.99	131.63	120.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	B	179	PRO	C-N-CA	7.99	131.63	120.29
9	K	86	LEU	N-CA-C	-7.99	102.66	111.36
10	P	308	VAL	O-C-N	7.99	129.62	121.87
11	Z	118	GLY	CA-C-N	7.99	130.82	120.44
11	Z	118	GLY	C-N-CA	7.99	130.82	120.44
5	E	260	CYS	N-CA-C	-7.99	101.68	112.94
10	P	340	SER	O-C-N	7.98	130.58	122.12
11	X	95	LEU	O-C-N	7.98	130.39	122.09
3	M	58	GLY	CA-C-N	7.98	130.81	120.44
3	M	58	GLY	C-N-CA	7.98	130.81	120.44
5	C	278	ILE	N-CA-C	-7.98	96.63	108.12
10	P	197	PRO	N-CA-C	7.98	124.62	113.53
11	S	119	SER	O-C-N	7.98	130.61	122.08
5	A	130	THR	O-C-N	-7.96	113.85	121.57
4	N	10	VAL	N-CA-C	7.96	120.32	108.46
6	B	482	ASP	CA-CB-CG	-7.95	104.65	112.60
5	C	436	GLN	N-CA-C	-7.95	104.47	114.56
2	O	258	ARG	CA-C-O	-7.95	112.06	120.40
11	W	12	PHE	N-CA-C	-7.95	103.73	113.50
5	C	374	MET	CA-C-O	7.94	126.86	120.19
5	C	163	GLU	O-C-N	7.93	129.23	121.85
11	X	63	ILE	N-CA-C	-7.93	103.07	110.53
2	O	356	PHE	CA-CB-CG	7.92	121.72	113.80
11	X	12	PHE	CA-C-N	7.92	128.71	120.00
11	X	12	PHE	C-N-CA	7.92	128.71	120.00
9	I	11	ASN	CA-CB-CG	-7.91	104.69	112.60
5	C	343	PHE	CA-CB-CG	7.91	121.71	113.80
9	K	166	ARG	NE-CZ-NH2	7.91	126.32	119.20
11	U	98	GLY	N-CA-C	7.91	121.67	112.50
11	W	100	SER	O-C-N	7.90	131.16	122.15
4	N	62	ASP	N-CA-C	-7.90	101.80	112.94
10	P	372	PRO	N-CA-C	7.90	120.34	110.70
9	G	12	GLN	N-CA-C	7.90	119.89	111.28
11	V	23	PHE	N-CA-C	7.90	119.52	111.07
5	A	341	GLU	CA-C-O	-7.90	112.05	120.42
5	C	354	ALA	N-CA-C	-7.90	96.37	109.24
10	P	206	HIS	CA-CB-CG	-7.89	105.91	113.80
6	D	142	TYR	CA-C-N	7.89	136.60	121.54
6	D	142	TYR	C-N-CA	7.89	136.60	121.54
7	Q	216	ALA	CA-C-N	7.88	130.69	120.44
7	Q	216	ALA	C-N-CA	7.88	130.69	120.44
5	E	240	LEU	O-C-N	7.88	130.60	122.09

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	P	136	PHE	CA-C-N	7.88	130.68	120.44
10	P	136	PHE	C-N-CA	7.88	130.68	120.44
10	P	400	GLU	CA-C-N	7.87	130.68	120.44
10	P	400	GLU	C-N-CA	7.87	130.68	120.44
11	X	112	GLY	CA-C-N	7.87	130.67	120.44
11	X	112	GLY	C-N-CA	7.87	130.67	120.44
11	a	113	ASP	CA-CB-CG	7.87	120.47	112.60
6	D	410	GLY	CA-C-N	7.87	131.47	120.29
6	D	410	GLY	C-N-CA	7.87	131.47	120.29
11	T	95	LEU	CA-C-N	7.86	130.66	120.44
11	T	95	LEU	C-N-CA	7.86	130.66	120.44
11	Y	74	VAL	CA-C-O	-7.85	112.84	121.17
5	E	30	VAL	O-C-N	-7.83	115.03	123.18
11	U	117	ARG	CA-C-N	7.83	128.48	119.94
11	U	117	ARG	C-N-CA	7.83	128.48	119.94
11	X	20	ALA	N-CA-C	7.83	120.58	111.02
6	D	285	ALA	CA-C-N	7.82	131.40	120.29
6	D	285	ALA	C-N-CA	7.82	131.40	120.29
11	a	104	ALA	N-CA-CB	7.82	121.62	110.12
11	X	29	ALA	CA-C-N	7.81	131.09	120.54
11	X	29	ALA	C-N-CA	7.81	131.09	120.54
5	A	231	TYR	CA-C-O	-7.80	112.81	119.36
6	F	395	ASP	CA-CB-CG	7.80	120.40	112.60
11	Z	128	GLY	O-C-N	7.79	130.78	122.28
6	B	396	HIS	CA-CB-CG	7.79	121.59	113.80
6	F	247	ASP	CA-C-N	7.79	127.84	119.89
6	F	247	ASP	C-N-CA	7.79	127.84	119.89
10	P	122	LYS	N-CA-C	-7.79	102.79	111.28
3	M	60	VAL	CA-C-N	7.79	130.56	120.44
3	M	60	VAL	C-N-CA	7.79	130.56	120.44
7	Q	186	LYS	CA-C-N	7.78	130.71	120.28
7	Q	186	LYS	C-N-CA	7.78	130.71	120.28
11	Z	53	ASN	CA-CB-CG	-7.78	104.82	112.60
5	E	111	PRO	N-CA-CB	7.78	107.28	102.92
9	G	186	GLY	N-CA-C	-7.77	102.69	111.63
5	A	514	THR	CA-C-N	7.77	130.69	120.28
5	A	514	THR	C-N-CA	7.77	130.69	120.28
7	Q	267	ALA	N-CA-C	-7.77	102.89	111.36
9	G	165	GLN	N-CA-C	-7.77	103.38	113.17
4	N	110	LYS	CA-C-N	7.77	130.69	120.28
4	N	110	LYS	C-N-CA	7.77	130.69	120.28
5	A	320	ASN	CA-CB-CG	-7.76	104.84	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	X	91	LEU	CA-C-N	7.76	129.84	120.14
11	X	91	LEU	C-N-CA	7.76	129.84	120.14
11	S	13	GLY	CA-C-N	7.76	131.01	120.38
11	S	13	GLY	C-N-CA	7.76	131.01	120.38
7	Q	42	LEU	CA-C-N	7.76	130.52	120.44
7	Q	42	LEU	C-N-CA	7.76	130.52	120.44
8	J	35	ALA	CA-C-N	7.76	131.30	120.29
8	J	35	ALA	C-N-CA	7.76	131.30	120.29
11	W	96	SER	N-CA-C	7.76	119.37	111.07
11	a	15	ILE	CA-C-N	7.76	128.39	119.94
11	a	15	ILE	C-N-CA	7.76	128.39	119.94
5	A	460	TYR	CA-C-O	-7.75	112.94	121.23
2	O	322	PRO	CA-C-N	7.74	127.38	119.56
2	O	322	PRO	C-N-CA	7.74	127.38	119.56
7	Q	115	ILE	N-CA-C	-7.74	102.91	110.72
9	K	202	THR	N-CA-C	-7.73	99.38	110.59
5	A	161	VAL	N-CA-C	-7.73	97.52	108.80
6	D	54	ASN	CA-CB-CG	-7.73	104.87	112.60
2	O	60	THR	CA-C-N	7.72	130.63	120.28
2	O	60	THR	C-N-CA	7.72	130.63	120.28
5	E	292	GLU	O-C-N	-7.72	113.93	122.12
6	D	409	ILE	CA-C-N	7.72	128.55	119.98
6	D	409	ILE	C-N-CA	7.72	128.55	119.98
11	a	131	LEU	CA-C-N	7.72	130.29	120.56
11	a	131	LEU	C-N-CA	7.72	130.29	120.56
6	F	168	GLN	N-CA-C	-7.71	97.69	109.95
5	C	305	SER	CA-C-N	7.71	129.24	120.53
5	C	305	SER	C-N-CA	7.71	129.24	120.53
5	C	557	ALA	N-CA-C	7.70	119.75	111.36
8	J	99	ILE	O-C-N	7.70	129.46	121.91
5	E	469	LYS	CA-C-N	7.70	130.45	120.44
5	E	469	LYS	C-N-CA	7.70	130.45	120.44
5	E	72	VAL	CB-CA-C	7.69	121.52	110.98
6	D	212	PHE	CA-CB-CG	-7.69	106.11	113.80
5	E	340	ALA	CA-C-N	7.69	131.21	120.29
5	E	340	ALA	C-N-CA	7.69	131.21	120.29
5	C	264	VAL	N-CA-CB	7.69	120.41	110.57
7	Q	224	ALA	CA-C-N	7.69	130.58	120.28
7	Q	224	ALA	C-N-CA	7.69	130.58	120.28
5	E	499	VAL	N-CA-C	-7.69	102.78	110.62
2	O	78	SER	CB-CA-C	-7.69	97.78	110.85
11	V	13	GLY	CA-C-N	7.68	130.57	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	V	13	GLY	C-N-CA	7.68	130.57	120.28
6	D	432	SER	CA-C-N	7.67	130.41	120.44
6	D	432	SER	C-N-CA	7.67	130.41	120.44
11	T	65	ILE	CA-C-O	7.67	128.75	120.47
6	D	149	GLU	N-CA-CB	7.67	122.61	110.57
5	A	510	SER	CA-C-O	-7.66	112.43	120.55
6	D	155	VAL	CA-C-N	7.66	130.54	120.28
6	D	155	VAL	C-N-CA	7.66	130.54	120.28
10	P	8	MET	N-CA-C	-7.66	104.84	114.56
5	C	455	ASN	CA-C-N	7.66	130.54	120.28
5	C	455	ASN	C-N-CA	7.66	130.54	120.28
5	C	472	ASP	CA-CB-CG	7.65	120.25	112.60
6	D	188	CYS	CB-CA-C	-7.65	98.81	110.90
1	b	344	ASP	CA-C-N	7.64	131.29	120.28
1	b	344	ASP	C-N-CA	7.64	131.29	120.28
6	F	187	ILE	CA-C-N	7.64	130.38	120.44
6	F	187	ILE	C-N-CA	7.64	130.38	120.44
10	P	96	VAL	CA-C-N	7.64	130.37	120.44
10	P	96	VAL	C-N-CA	7.64	130.37	120.44
6	B	313	SER	CA-C-N	7.64	130.51	120.28
6	B	313	SER	C-N-CA	7.64	130.51	120.28
5	E	209	PHE	CA-CB-CG	-7.63	106.17	113.80
11	U	122	GLN	CA-C-N	7.63	129.38	119.84
11	U	122	GLN	C-N-CA	7.63	129.38	119.84
3	M	18	MET	CA-C-N	7.63	130.50	120.28
3	M	18	MET	C-N-CA	7.63	130.50	120.28
10	P	419	ILE	CA-C-N	7.62	130.16	120.56
10	P	419	ILE	C-N-CA	7.62	130.16	120.56
8	L	51	ASP	CA-C-N	7.62	130.34	120.44
8	L	51	ASP	C-N-CA	7.62	130.34	120.44
10	P	446	GLY	CA-C-N	7.62	130.81	120.38
10	P	446	GLY	C-N-CA	7.62	130.81	120.38
5	A	288	ASN	CA-C-N	7.61	130.48	120.28
5	A	288	ASN	C-N-CA	7.61	130.48	120.28
3	M	100	ASN	OD1-CG-ND2	7.61	130.21	122.60
10	P	443	LYS	CA-C-N	7.60	130.32	120.44
10	P	443	LYS	C-N-CA	7.60	130.32	120.44
5	E	525	PHE	CA-CB-CG	-7.59	106.20	113.80
8	J	27	TYR	CA-C-O	-7.59	112.85	120.82
10	P	102	GLU	CA-C-N	7.59	130.77	120.44
10	P	102	GLU	C-N-CA	7.59	130.77	120.44
10	P	20	ILE	N-CA-C	7.58	117.66	110.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	P	288	ARG	O-C-N	7.58	129.88	122.07
11	W	79	GLY	N-CA-C	-7.58	95.22	113.18
5	C	596	VAL	N-CA-C	-7.58	97.21	108.12
11	Y	104	ALA	CA-C-N	7.57	129.60	120.14
11	Y	104	ALA	C-N-CA	7.57	129.60	120.14
7	Q	124	LEU	CA-C-N	7.57	132.18	120.75
7	Q	124	LEU	C-N-CA	7.57	132.18	120.75
11	S	41	ALA	CA-C-N	7.56	131.17	120.28
11	S	41	ALA	C-N-CA	7.56	131.17	120.28
10	P	78	ILE	CA-C-N	7.56	127.44	119.05
10	P	78	ILE	C-N-CA	7.56	127.44	119.05
11	S	152	SER	N-CA-C	7.56	120.40	111.71
5	E	572	ASP	CA-C-N	7.55	131.02	120.29
5	E	572	ASP	C-N-CA	7.55	131.02	120.29
9	K	66	LEU	N-CA-C	-7.55	103.13	111.36
2	O	289	VAL	CA-C-N	7.55	130.40	120.28
2	O	289	VAL	C-N-CA	7.55	130.40	120.28
9	K	44	GLU	N-CA-C	7.55	119.14	111.07
10	P	429	HIS	CB-CG-CD2	-7.55	121.39	131.20
11	S	30	TYR	CA-C-N	7.55	128.52	119.99
11	S	30	TYR	C-N-CA	7.55	128.52	119.99
9	K	115	ASP	CA-CB-CG	-7.54	105.06	112.60
11	U	12	PHE	CB-CG-CD1	7.54	133.52	120.70
5	A	55	ASN	CA-C-O	-7.54	112.83	121.65
4	N	63	ASP	CA-C-O	-7.54	110.28	119.18
11	S	129	MET	CA-C-N	7.54	130.33	120.60
11	S	129	MET	C-N-CA	7.54	130.33	120.60
5	E	83	ASP	CA-CB-CG	-7.54	105.06	112.60
6	D	183	ILE	CA-C-N	7.54	130.38	120.28
6	D	183	ILE	C-N-CA	7.54	130.38	120.28
9	I	177	ASP	CA-CB-CG	-7.53	105.07	112.60
8	L	39	ALA	N-CA-C	-7.53	104.22	113.41
11	R	91	LEU	CA-C-N	7.52	129.54	120.14
11	R	91	LEU	C-N-CA	7.52	129.54	120.14
11	U	104	ALA	CB-CA-C	-7.52	99.07	110.88
6	D	67	VAL	N-CA-CB	7.52	119.17	110.82
6	B	284	TYR	CA-C-N	7.51	130.35	120.28
6	B	284	TYR	C-N-CA	7.51	130.35	120.28
10	P	371	SER	O-C-N	-7.51	116.59	121.85
11	W	27	GLY	CA-C-O	7.51	128.78	121.05
7	Q	64	THR	CA-C-N	7.51	130.34	120.28
7	Q	64	THR	C-N-CA	7.51	130.34	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	G	177	ASP	CA-CB-CG	-7.51	105.09	112.60
5	C	407	THR	N-CA-C	-7.50	97.17	109.40
6	F	254	ILE	CA-C-N	7.50	130.31	120.26
6	F	254	ILE	C-N-CA	7.50	130.31	120.26
11	X	119	SER	CA-C-N	7.50	130.67	120.54
11	X	119	SER	C-N-CA	7.50	130.67	120.54
6	F	279	THR	O-C-N	-7.50	114.54	123.31
2	O	243	VAL	CA-C-O	-7.49	113.16	120.95
5	C	590	SER	N-CA-C	-7.49	101.14	113.50
2	O	61	LEU	CA-C-N	7.49	129.99	120.56
2	O	61	LEU	C-N-CA	7.49	129.99	120.56
6	F	289	ARG	CA-C-N	7.49	130.62	120.44
6	F	289	ARG	C-N-CA	7.49	130.62	120.44
10	P	286	VAL	CA-C-N	7.49	130.17	120.44
10	P	286	VAL	C-N-CA	7.49	130.17	120.44
5	C	516	ASP	CA-C-N	7.49	131.05	120.42
5	C	516	ASP	C-N-CA	7.49	131.05	120.42
11	R	18	ALA	CA-C-N	7.47	130.63	120.54
11	R	18	ALA	C-N-CA	7.47	130.63	120.54
3	M	108	GLN	OE1-CD-NE2	7.47	130.07	122.60
11	S	97	VAL	CA-C-N	7.47	128.24	119.94
11	S	97	VAL	C-N-CA	7.47	128.24	119.94
11	T	90	GLN	CA-C-N	7.47	131.18	120.79
11	T	90	GLN	C-N-CA	7.47	131.18	120.79
5	A	394	ARG	CA-C-N	7.47	132.10	121.42
5	A	394	ARG	C-N-CA	7.47	132.10	121.42
7	Q	240	ASP	O-C-N	7.46	131.77	123.04
5	C	281	VAL	O-C-N	7.46	130.94	123.18
5	E	170	HIS	ND1-CE1-NE2	7.46	115.86	108.40
9	I	76	THR	N-CA-CB	7.46	121.20	110.16
11	V	63	ILE	O-C-N	7.46	129.22	121.91
11	U	17	CYS	CA-C-N	7.45	131.15	120.79
11	U	17	CYS	C-N-CA	7.45	131.15	120.79
5	A	483	ASP	CA-CB-CG	-7.45	105.15	112.60
6	B	255	THR	CA-C-N	7.45	127.08	119.19
6	B	255	THR	C-N-CA	7.45	127.08	119.19
6	D	232	ASN	CA-CB-CG	7.45	120.05	112.60
5	E	548	ARG	CD-NE-CZ	-7.45	113.97	124.40
11	R	93	ALA	CA-C-O	-7.44	112.59	120.55
11	Z	55	VAL	CA-C-N	7.44	127.80	119.32
11	Z	55	VAL	C-N-CA	7.44	127.80	119.32
9	K	200	ASN	OD1-CG-ND2	7.44	130.04	122.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	a	150	LEU	CA-C-N	7.44	130.58	120.54
11	a	150	LEU	C-N-CA	7.44	130.58	120.54
11	Y	88	PHE	CA-CB-CG	7.43	121.23	113.80
11	T	131	LEU	CA-C-O	-7.43	112.60	120.63
11	a	12	PHE	CA-CB-CG	-7.43	106.37	113.80
5	A	494	GLU	CA-C-N	7.43	130.23	120.28
5	A	494	GLU	C-N-CA	7.43	130.23	120.28
9	G	125	ILE	N-CA-C	-7.43	103.22	110.72
11	W	122	GLN	CA-C-N	7.42	127.78	119.32
11	W	122	GLN	C-N-CA	7.42	127.78	119.32
11	U	88	PHE	CA-CB-CG	-7.42	106.38	113.80
7	Q	218	ARG	O-C-N	-7.42	114.25	122.12
5	A	239	VAL	N-CA-C	7.41	118.18	110.62
7	Q	65	THR	CA-CB-OG1	7.41	120.72	109.60
6	B	63	ARG	NE-CZ-NH2	7.41	125.87	119.20
10	P	442	ASP	CA-CB-CG	-7.41	105.19	112.60
9	G	118	LYS	CA-C-O	-7.41	111.47	118.73
5	A	51	VAL	CA-C-O	7.40	128.66	120.59
5	E	54	ASP	N-CA-C	-7.40	103.20	112.90
6	D	197	THR	CA-C-N	7.40	130.94	120.28
6	D	197	THR	C-N-CA	7.40	130.94	120.28
11	T	26	LEU	CA-C-N	7.40	128.35	119.99
11	T	26	LEU	C-N-CA	7.40	128.35	119.99
11	V	39	ILE	O-C-N	7.40	129.16	121.91
5	A	609	GLU	CA-C-N	7.40	130.19	120.28
5	A	609	GLU	C-N-CA	7.40	130.19	120.28
2	O	299	VAL	N-CA-CB	7.39	121.67	110.58
6	D	162	ASN	CA-CB-CG	7.39	119.99	112.60
11	a	115	GLY	N-CA-C	-7.38	105.50	114.66
6	B	133	ASP	CA-CB-CG	-7.38	105.22	112.60
5	E	493	GLU	CA-C-N	7.38	130.17	120.28
5	E	493	GLU	C-N-CA	7.38	130.17	120.28
10	P	84	LEU	N-CA-C	7.38	119.32	111.28
11	Z	89	ILE	CA-C-N	7.37	130.03	120.44
11	Z	89	ILE	C-N-CA	7.37	130.03	120.44
5	A	332	SER	N-CA-C	7.37	120.01	111.02
11	Y	143	GLY	O-C-N	7.37	129.27	122.19
11	Z	110	ILE	CA-C-N	7.37	130.56	120.46
11	Z	110	ILE	C-N-CA	7.37	130.56	120.46
5	A	320	ASN	CA-C-O	7.36	128.65	120.70
5	E	364	LEU	N-CA-C	7.36	119.31	111.28
11	X	100	SER	CA-C-N	7.36	128.11	119.94

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	X	100	SER	C-N-CA	7.36	128.11	119.94
5	A	164	ASN	O-C-N	-7.36	115.02	123.33
4	N	25	ILE	CB-CA-C	-7.36	103.72	110.63
11	Y	23	PHE	N-CA-C	7.36	119.30	111.28
9	I	152	MET	CA-C-N	7.35	130.47	120.54
9	I	152	MET	C-N-CA	7.35	130.47	120.54
11	R	60	ALA	N-CA-C	7.34	120.34	111.82
10	P	31	ALA	CA-C-O	-7.34	112.77	120.55
9	I	154	ASP	CA-CB-CG	-7.34	105.26	112.60
11	X	62	ILE	CA-C-N	7.33	129.95	120.56
11	X	62	ILE	C-N-CA	7.33	129.95	120.56
4	N	41	GLN	N-CA-C	-7.33	96.60	109.06
11	V	130	ILE	CA-C-O	-7.33	113.65	121.27
9	I	113	ASN	N-CA-C	-7.33	93.18	107.62
9	K	111	ALA	CA-C-O	7.33	128.38	120.10
3	M	58	GLY	N-CA-C	7.33	121.52	112.73
5	A	278	ILE	O-C-N	-7.33	115.26	123.10
11	W	120	SER	N-CA-C	7.33	118.91	111.07
11	T	28	ALA	CA-C-N	7.33	130.43	120.54
11	T	28	ALA	C-N-CA	7.33	130.43	120.54
11	S	158	VAL	CB-CA-C	-7.32	100.32	111.08
9	I	66	LEU	CA-C-N	7.31	130.08	120.28
9	I	66	LEU	C-N-CA	7.31	130.08	120.28
3	M	157	ILE	O-C-N	-7.31	114.30	121.83
9	G	149	ILE	CA-C-N	7.31	130.08	120.28
9	G	149	ILE	C-N-CA	7.31	130.08	120.28
5	A	554	HIS	CE1-NE2-CD2	-7.31	101.69	109.00
6	D	198	LYS	CA-C-N	7.31	130.67	120.29
6	D	198	LYS	C-N-CA	7.31	130.67	120.29
6	B	395	ASP	CA-CB-CG	7.31	119.91	112.60
11	X	37	VAL	CA-C-N	7.30	127.90	119.94
11	X	37	VAL	C-N-CA	7.30	127.90	119.94
11	R	111	VAL	N-CA-CB	7.30	118.29	110.62
6	F	62	VAL	O-C-N	-7.30	114.93	123.03
11	a	14	ALA	CA-C-N	7.30	132.61	120.64
11	a	14	ALA	C-N-CA	7.30	132.61	120.64
3	M	27	GLN	CA-C-N	7.30	128.08	119.98
3	M	27	GLN	C-N-CA	7.30	128.08	119.98
6	F	150	MET	CA-C-N	7.30	133.13	123.06
6	F	150	MET	C-N-CA	7.30	133.13	123.06
5	A	240	LEU	CA-C-N	7.30	130.65	120.29
5	A	240	LEU	C-N-CA	7.30	130.65	120.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	N	48	GLU	O-C-N	7.29	129.85	122.12
6	F	232	ASN	CA-CB-CG	-7.29	105.31	112.60
5	A	54	ASP	N-CA-C	-7.29	104.24	113.72
5	C	227	LEU	CA-C-N	7.29	131.74	121.24
5	C	227	LEU	C-N-CA	7.29	131.74	121.24
11	W	104	ALA	CA-C-N	7.29	128.07	119.98
11	W	104	ALA	C-N-CA	7.29	128.07	119.98
5	E	98	PRO	N-CA-CB	7.29	110.11	103.33
11	S	133	LEU	CB-CA-C	-7.29	98.29	110.68
6	D	482	ASP	O-C-N	7.29	129.84	122.12
10	P	17	ARG	N-CA-CB	7.29	120.94	110.16
11	W	75	CYS	O-C-N	-7.29	114.51	122.09
5	A	272	TYR	N-CA-C	7.29	120.27	111.82
6	B	344	HIS	CE1-NE2-CD2	-7.28	101.72	109.00
1	b	71	TYR	CA-CB-CG	7.28	127.01	113.90
2	O	237	HIS	O-C-N	-7.28	113.96	123.21
11	R	67	GLY	CA-C-N	7.28	130.03	120.28
11	R	67	GLY	C-N-CA	7.28	130.03	120.28
6	F	273	HIS	ND1-CE1-NE2	7.27	115.67	108.40
6	F	365	HIS	CB-CG-CD2	-7.27	121.75	131.20
7	Q	163	LYS	O-C-N	7.27	130.44	122.15
5	E	437	VAL	CA-C-O	7.26	128.80	120.67
7	Q	300	PHE	CA-C-N	7.26	131.35	120.31
7	Q	300	PHE	C-N-CA	7.26	131.35	120.31
5	E	381	PRO	CA-C-N	7.26	130.59	120.29
5	E	381	PRO	C-N-CA	7.26	130.59	120.29
10	P	353	LEU	N-CA-CB	7.26	120.62	110.17
9	G	204	GLU	CA-C-N	7.26	130.31	120.44
9	G	204	GLU	C-N-CA	7.26	130.31	120.44
6	F	474	ASN	CA-C-O	7.25	127.84	119.35
5	C	64	ASP	CA-CB-CG	-7.25	105.35	112.60
7	Q	260	GLN	CA-C-N	7.25	133.07	122.63
7	Q	260	GLN	C-N-CA	7.25	133.07	122.63
9	K	62	PHE	N-CA-C	-7.25	103.46	111.36
6	F	346	ILE	N-CA-CB	7.25	121.35	111.21
11	Z	51	PHE	CA-CB-CG	7.24	121.04	113.80
6	B	426	SER	CA-C-N	7.24	130.70	120.42
6	B	426	SER	C-N-CA	7.24	130.70	120.42
5	C	453	SER	CB-CA-C	-7.24	98.46	110.19
5	A	133	LEU	N-CA-C	-7.24	98.65	108.86
5	A	425	ASP	CA-C-O	-7.24	112.81	120.70
5	E	246	CYS	N-CA-CB	7.24	120.76	109.83

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	O	243	VAL	CB-CA-C	-7.23	102.37	112.14
8	J	54	LEU	N-CA-C	-7.23	102.39	112.45
5	A	498	VAL	CA-C-N	7.23	130.37	120.46
5	A	498	VAL	C-N-CA	7.23	130.37	120.46
6	B	51	GLU	N-CA-CB	7.23	120.62	109.85
5	E	380	PHE	CA-C-O	-7.22	114.12	120.19
5	E	554	HIS	ND1-CE1-NE2	7.22	115.62	108.40
6	F	145	ILE	N-CA-C	-7.22	97.62	108.17
11	U	138	VAL	N-CA-CB	7.22	120.36	110.54
11	Z	108	ILE	CA-C-O	-7.22	112.84	120.57
6	D	482	ASP	CA-C-O	-7.22	112.90	120.55
11	V	88	PHE	CA-CB-CG	-7.22	106.58	113.80
5	C	60	VAL	CB-CA-C	7.22	119.69	110.96
10	P	158	VAL	CA-C-N	7.21	129.95	120.28
10	P	158	VAL	C-N-CA	7.21	129.95	120.28
8	J	36	LYS	N-CA-CB	7.21	120.83	110.16
10	P	245	HIS	CE1-NE2-CD2	-7.21	101.79	109.00
6	B	444	ILE	CA-CB-CG2	7.21	122.75	110.50
9	G	24	ILE	CA-C-O	-7.21	113.53	121.17
11	V	52	LYS	CA-C-N	7.21	129.81	120.44
11	V	52	LYS	C-N-CA	7.21	129.81	120.44
6	F	332	ILE	CA-C-O	-7.20	115.98	120.88
6	F	396	HIS	CB-CA-C	-7.20	98.83	110.79
11	T	126	PHE	CA-CB-CG	7.20	121.00	113.80
2	O	353	GLY	CA-C-O	-7.20	115.32	121.66
1	b	179	ALA	CB-CA-C	-7.20	99.95	111.18
3	M	131	GLN	N-CA-C	7.20	119.21	111.36
5	E	337	ILE	CA-C-N	7.20	129.93	120.28
5	E	337	ILE	C-N-CA	7.20	129.93	120.28
10	P	270	ASP	CA-C-N	7.20	129.93	120.28
10	P	270	ASP	C-N-CA	7.20	129.93	120.28
9	G	115	ASP	CA-CB-CG	-7.19	105.41	112.60
3	M	26	ASN	CA-C-O	-7.19	112.80	120.42
11	V	29	ALA	CA-C-N	7.19	130.25	120.54
11	V	29	ALA	C-N-CA	7.19	130.25	120.54
5	A	429	THR	O-C-N	7.18	129.74	122.12
11	R	104	ALA	CA-C-N	7.18	129.12	120.14
11	R	104	ALA	C-N-CA	7.18	129.12	120.14
3	M	136	LYS	CA-C-N	7.18	130.49	120.29
3	M	136	LYS	C-N-CA	7.18	130.49	120.29
10	P	346	LEU	CA-C-N	7.18	130.23	120.54
10	P	346	LEU	C-N-CA	7.18	130.23	120.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	C	472	ASP	CA-C-N	7.18	130.21	120.38
5	C	472	ASP	C-N-CA	7.18	130.21	120.38
8	J	92	ASP	CA-CB-CG	-7.18	105.42	112.60
11	X	67	GLY	CA-C-N	7.17	129.89	120.28
11	X	67	GLY	C-N-CA	7.17	129.89	120.28
5	E	558	GLN	OE1-CD-NE2	-7.17	115.43	122.60
5	A	334	TYR	N-CA-C	7.17	118.89	111.14
1	b	69	TYR	CA-C-N	7.17	129.76	120.44
1	b	69	TYR	C-N-CA	7.17	129.76	120.44
6	D	66	GLN	OE1-CD-NE2	7.17	129.77	122.60
9	G	11	ASN	CA-C-N	7.17	129.89	120.28
9	G	11	ASN	C-N-CA	7.17	129.89	120.28
10	P	13	PHE	CA-CB-CG	-7.17	106.63	113.80
11	Z	138	VAL	CA-C-N	7.17	129.88	120.28
11	Z	138	VAL	C-N-CA	7.17	129.88	120.28
11	Z	75	CYS	CA-C-N	7.17	129.88	120.28
11	Z	75	CYS	C-N-CA	7.17	129.88	120.28
6	B	88	VAL	N-CA-C	-7.16	103.99	111.58
5	A	175	PRO	O-C-N	7.16	124.60	121.31
5	E	175	PRO	CA-C-N	7.16	127.19	119.89
5	E	175	PRO	C-N-CA	7.16	127.19	119.89
11	Y	80	GLN	N-CA-C	-7.16	105.47	114.56
5	E	405	ASP	N-CA-C	7.16	121.26	111.17
1	b	85	GLU	N-CA-C	-7.15	96.90	109.06
6	D	205	GLU	CA-C-O	7.15	128.11	118.38
11	X	157	ASP	CA-CB-CG	-7.15	105.45	112.60
6	F	79	VAL	N-CA-CB	7.15	118.32	110.53
11	Y	34	LYS	N-CA-C	7.15	119.69	111.11
6	B	320	GLY	CA-C-O	-7.14	115.77	122.13
5	C	69	THR	N-CA-C	-7.14	97.60	109.46
8	L	47	LYS	CA-C-O	-7.14	112.85	120.42
6	D	437	GLU	CA-C-N	7.14	129.85	120.28
6	D	437	GLU	C-N-CA	7.14	129.85	120.28
9	I	10	PRO	O-C-N	7.14	130.45	122.24
10	P	377	ASN	CA-C-N	7.14	127.90	119.98
10	P	377	ASN	C-N-CA	7.14	127.90	119.98
6	D	144	ARG	N-CA-C	-7.13	104.05	114.39
11	S	106	PHE	CA-CB-CG	7.12	120.92	113.80
11	V	31	GLY	CA-C-N	7.12	129.82	120.28
11	V	31	GLY	C-N-CA	7.12	129.82	120.28
6	D	398	ASP	N-CA-C	7.11	120.07	111.82
2	O	100	LEU	O-C-N	7.11	127.89	121.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	O	237	HIS	CA-C-O	7.11	128.25	120.71
11	X	23	PHE	N-CA-CB	7.11	120.57	110.12
11	Z	84	LEU	CA-C-N	7.11	129.80	120.28
11	Z	84	LEU	C-N-CA	7.11	129.80	120.28
8	J	97	ILE	N-CA-C	-7.11	103.85	110.53
10	P	429	HIS	CB-CG-ND1	7.11	133.36	122.70
11	Y	44	VAL	N-CA-CB	7.11	123.55	110.40
8	H	93	ASP	CA-CB-CG	-7.10	105.50	112.60
2	O	183	ASP	CA-CB-CG	-7.10	105.50	112.60
5	E	478	PHE	CA-C-N	7.10	127.42	119.32
5	E	478	PHE	C-N-CA	7.10	127.42	119.32
5	A	396	GLY	N-CA-C	-7.10	101.64	111.09
11	a	94	GLY	CA-C-N	7.10	131.47	120.82
11	a	94	GLY	C-N-CA	7.10	131.47	120.82
9	K	212	GLU	O-C-N	7.10	129.64	122.12
1	b	109	ASP	N-CA-C	7.10	118.66	111.07
11	Z	11	PHE	CA-CB-CG	-7.09	106.70	113.80
11	T	73	LEU	CA-C-O	-7.09	113.31	120.90
6	D	173	PHE	CB-CA-C	-7.09	98.56	110.19
5	E	221	ARG	NE-CZ-NH2	-7.09	112.82	119.20
6	D	344	HIS	CA-C-N	7.09	126.92	119.05
6	D	344	HIS	C-N-CA	7.09	126.92	119.05
11	Z	123	PRO	CA-C-N	7.09	132.70	120.58
11	Z	123	PRO	C-N-CA	7.09	132.70	120.58
11	V	66	TYR	CA-C-O	7.09	127.94	120.42
10	P	176	ASN	CA-C-N	7.08	130.58	122.36
10	P	176	ASN	C-N-CA	7.08	130.58	122.36
6	F	361	ASP	CA-C-N	7.08	131.08	120.31
6	F	361	ASP	C-N-CA	7.08	131.08	120.31
1	b	246	ILE	CB-CA-C	-7.08	102.91	111.97
10	P	161	VAL	CA-C-N	7.08	129.77	120.28
10	P	161	VAL	C-N-CA	7.08	129.77	120.28
11	Z	151	ASN	CA-C-N	7.08	130.48	120.28
11	Z	151	ASN	C-N-CA	7.08	130.48	120.28
6	B	32	SER	N-CA-C	-7.08	102.76	111.40
11	U	18	ALA	CA-C-N	7.08	130.10	120.54
11	U	18	ALA	C-N-CA	7.08	130.10	120.54
1	b	78	LYS	CB-CA-C	-7.08	99.04	110.79
2	O	109	GLU	CA-C-N	7.08	129.76	120.28
2	O	109	GLU	C-N-CA	7.08	129.76	120.28
7	Q	173	ASP	CB-CA-C	-7.08	100.03	109.16
11	Z	96	SER	CA-C-O	-7.08	113.39	120.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	V	111	VAL	CA-C-N	7.07	127.98	119.99
11	V	111	VAL	C-N-CA	7.07	127.98	119.99
2	O	308	ALA	CA-C-N	7.07	129.63	120.44
2	O	308	ALA	C-N-CA	7.07	129.63	120.44
6	D	415	ALA	N-CA-CB	7.07	120.51	110.12
10	P	78	ILE	CA-C-O	-7.07	113.95	118.69
11	S	137	GLU	CA-C-N	7.07	130.14	120.46
11	S	137	GLU	C-N-CA	7.07	130.14	120.46
10	P	414	LYS	CA-C-N	7.07	129.63	120.44
10	P	414	LYS	C-N-CA	7.07	129.63	120.44
6	F	410	GLY	CA-C-N	7.07	129.62	120.44
6	F	410	GLY	C-N-CA	7.07	129.62	120.44
6	B	448	ALA	N-CA-C	-7.07	103.83	113.30
8	J	61	ASN	N-CA-C	-7.07	105.85	114.75
5	E	394	ARG	NE-CZ-NH1	-7.06	114.44	121.50
5	C	430	ALA	O-C-N	7.06	130.20	122.15
9	K	147	ASP	N-CA-C	-7.06	103.63	111.82
1	b	144	ILE	N-CA-C	7.06	117.20	110.42
5	E	567	TRP	CA-C-N	7.05	130.31	120.29
5	E	567	TRP	C-N-CA	7.05	130.31	120.29
9	G	46	GLU	CA-C-N	7.05	129.73	120.28
9	G	46	GLU	C-N-CA	7.05	129.73	120.28
3	M	71	VAL	CA-C-N	7.05	129.60	120.44
3	M	71	VAL	C-N-CA	7.05	129.60	120.44
7	Q	276	ARG	N-CA-C	-7.04	105.88	114.75
3	M	80	GLY	CA-C-N	7.04	129.71	120.28
3	M	80	GLY	C-N-CA	7.04	129.71	120.28
10	P	12	HIS	CA-CB-CG	-7.04	106.76	113.80
9	I	50	ILE	O-C-N	-7.04	115.02	121.91
2	O	145	VAL	N-CA-CB	7.03	120.11	110.54
3	M	143	VAL	N-CA-C	7.03	117.80	110.62
10	P	308	VAL	CA-C-O	-7.03	113.63	120.95
7	Q	10	ASN	CA-C-N	7.03	127.91	120.03
7	Q	10	ASN	C-N-CA	7.03	127.91	120.03
6	F	365	HIS	N-CA-C	7.03	118.94	111.28
2	O	297	VAL	CA-C-N	7.03	129.58	120.44
2	O	297	VAL	C-N-CA	7.03	129.58	120.44
4	N	14	GLU	O-C-N	-7.03	114.78	122.09
7	Q	72	ALA	CA-C-O	-7.03	112.97	120.42
5	E	542	LYS	CA-C-N	7.02	129.68	120.28
5	E	542	LYS	C-N-CA	7.02	129.68	120.28
5	A	148	VAL	N-CA-CB	7.02	118.94	110.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	V	156	GLN	N-CA-C	-7.01	95.86	110.80
5	C	545	ASP	N-CA-C	7.01	118.57	111.07
2	O	244	GLN	N-CA-C	7.01	118.92	111.28
9	K	72	SER	CA-C-N	7.01	130.96	120.31
9	K	72	SER	C-N-CA	7.01	130.96	120.31
2	O	246	PHE	CA-C-O	-7.00	113.47	120.82
6	B	305	PRO	CB-CA-C	-7.00	102.09	111.12
5	A	409	SER	N-CA-C	-7.00	98.43	109.07
7	Q	155	ASP	CA-CB-CG	-7.00	105.60	112.60
2	O	349	GLY	CA-C-N	7.00	130.36	120.28
2	O	349	GLY	C-N-CA	7.00	130.36	120.28
5	A	531	TYR	N-CA-CB	6.99	120.21	110.07
5	E	338	THR	CA-C-O	-6.99	113.14	120.55
5	A	266	SER	N-CA-CB	6.99	120.50	110.16
6	D	87	ASP	CA-CB-CG	-6.99	105.61	112.60
9	G	157	MET	CA-C-N	6.99	129.94	120.44
9	G	157	MET	C-N-CA	6.99	129.94	120.44
11	U	73	LEU	N-CA-C	6.98	119.49	111.11
6	D	156	SER	CA-C-N	6.98	130.20	120.29
6	D	156	SER	C-N-CA	6.98	130.20	120.29
10	P	215	PHE	CA-C-N	6.98	129.63	120.28
10	P	215	PHE	C-N-CA	6.98	129.63	120.28
11	V	153	ARG	CA-C-N	6.98	131.29	120.82
11	V	153	ARG	C-N-CA	6.98	131.29	120.82
11	T	55	VAL	CA-C-N	6.98	126.23	118.97
11	T	55	VAL	C-N-CA	6.98	126.23	118.97
5	E	517	VAL	N-CA-CB	6.98	118.71	110.55
6	D	363	GLN	N-CA-C	-6.98	103.75	111.36
11	Z	31	GLY	CA-C-N	6.98	129.93	120.44
11	Z	31	GLY	C-N-CA	6.98	129.93	120.44
2	O	104	ASN	CA-CB-CG	-6.97	105.63	112.60
4	N	79	ALA	O-C-N	6.97	129.34	122.09
5	A	180	GLY	N-CA-C	-6.97	101.46	110.38
5	C	63	ILE	CA-C-O	-6.97	112.83	120.43
11	V	133	LEU	CA-C-N	6.97	132.50	120.86
11	V	133	LEU	C-N-CA	6.97	132.50	120.86
5	A	318	VAL	N-CA-C	-6.97	97.58	107.75
9	I	151	SER	O-C-N	-6.97	113.45	122.37
11	T	129	MET	CA-C-N	6.97	129.59	120.60
11	T	129	MET	C-N-CA	6.97	129.59	120.60
6	B	204	HIS	CE1-NE2-CD2	-6.96	102.04	109.00
11	X	113	ASP	N-CA-C	-6.96	103.62	111.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	F	267	ALA	N-CA-C	6.96	118.51	111.07
6	F	482	ASP	N-CA-CB	6.96	120.93	110.22
10	P	468	ALA	N-CA-CB	6.96	120.46	110.16
11	S	63	ILE	CA-C-N	6.96	130.54	120.38
11	S	63	ILE	C-N-CA	6.96	130.54	120.38
11	U	31	GLY	CA-C-O	-6.96	113.89	121.05
6	F	247	ASP	N-CA-C	-6.95	100.69	110.29
11	S	19	SER	CA-C-O	-6.95	113.46	120.90
5	C	561	VAL	CA-C-O	-6.94	113.49	120.85
1	b	262	ASP	CA-CB-CG	-6.94	105.66	112.60
7	Q	233	ILE	CB-CA-C	-6.94	105.45	113.22
10	P	210	PHE	CA-CB-CG	-6.94	106.86	113.80
6	D	247	ASP	N-CA-C	-6.94	99.84	110.32
11	T	154	ALA	N-CA-C	6.94	119.43	111.11
1	b	307	ASP	CA-C-O	-6.93	113.54	120.82
6	B	328	SER	N-CA-C	-6.93	98.19	108.79
11	Y	44	VAL	N-CA-C	-6.93	104.23	111.58
1	b	246	ILE	CA-C-N	6.93	130.84	120.31
1	b	246	ILE	C-N-CA	6.93	130.84	120.31
6	F	172	ILE	N-CA-C	-6.93	97.75	107.80
6	F	221	THR	CA-C-N	6.93	129.56	120.28
6	F	221	THR	C-N-CA	6.93	129.56	120.28
8	H	79	GLU	N-CA-C	-6.93	102.82	112.45
1	b	306	LEU	O-C-N	6.92	129.20	122.07
7	Q	4	VAL	CA-C-N	6.92	130.54	120.71
7	Q	4	VAL	C-N-CA	6.92	130.54	120.71
5	E	436	GLN	CA-C-O	6.92	126.37	118.97
1	b	285	TYR	CB-CG-CD1	6.92	131.18	120.80
5	C	321	THR	N-CA-C	-6.92	98.92	109.85
11	Z	107	ALA	CA-C-N	6.92	131.40	120.47
11	Z	107	ALA	C-N-CA	6.92	131.40	120.47
5	E	98	PRO	CA-C-O	-6.91	113.23	121.67
5	E	385	GLY	CA-C-N	6.91	129.54	120.28
5	E	385	GLY	C-N-CA	6.91	129.54	120.28
10	P	234	ASN	CA-C-N	6.91	130.23	120.28
10	P	234	ASN	C-N-CA	6.91	130.23	120.28
2	O	106	PRO	CA-C-N	6.91	125.86	120.33
2	O	106	PRO	C-N-CA	6.91	125.86	120.33
10	P	175	GLN	N-CA-CB	6.91	120.28	110.12
11	W	57	VAL	N-CA-CB	6.91	118.18	110.51
2	O	154	SER	CA-C-N	6.91	129.53	120.28
2	O	154	SER	C-N-CA	6.91	129.53	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	B	463	SER	CA-C-N	6.90	130.09	120.29
6	B	463	SER	C-N-CA	6.90	130.09	120.29
11	X	38	GLY	CA-C-N	6.90	129.26	120.56
11	X	38	GLY	C-N-CA	6.90	129.26	120.56
2	O	16	LEU	CA-C-N	6.90	126.82	119.85
2	O	16	LEU	C-N-CA	6.90	126.82	119.85
5	E	327	ALA	CB-CA-C	-6.90	99.99	110.90
4	N	48	GLU	CA-C-O	-6.90	113.24	120.55
5	E	180	GLY	CA-C-O	-6.90	114.84	121.05
11	V	63	ILE	CA-C-N	6.90	129.53	120.28
11	V	63	ILE	C-N-CA	6.90	129.53	120.28
4	N	41	GLN	O-C-N	-6.90	114.98	123.33
11	W	139	LEU	CA-C-N	6.90	127.60	119.94
11	W	139	LEU	C-N-CA	6.90	127.60	119.94
10	P	107	ASP	N-CA-C	-6.89	104.76	113.72
11	W	51	PHE	N-CA-C	6.89	119.67	111.33
2	O	18	GLN	CB-CG-CD	-6.89	100.89	112.60
3	M	36	SER	N-CA-CB	6.89	120.24	110.12
8	L	23	LYS	CA-C-O	6.89	127.72	120.42
8	L	30	ASP	CA-C-N	6.89	130.19	120.28
8	L	30	ASP	C-N-CA	6.89	130.19	120.28
11	V	25	SER	N-CA-CB	6.89	119.96	109.91
11	a	93	ALA	CA-C-N	6.89	127.77	119.99
11	a	93	ALA	C-N-CA	6.89	127.77	119.99
6	F	221	THR	CA-C-O	6.88	127.72	120.42
6	F	176	SER	N-CA-C	-6.88	105.68	112.97
8	L	11	LEU	CA-C-N	6.88	129.80	120.44
8	L	11	LEU	C-N-CA	6.88	129.80	120.44
10	P	159	LYS	CA-C-N	6.88	129.38	120.44
10	P	159	LYS	C-N-CA	6.88	129.38	120.44
5	C	392	TYR	CA-C-O	-6.88	113.26	120.55
11	a	114	ALA	CA-C-N	6.88	132.83	120.79
11	a	114	ALA	C-N-CA	6.88	132.83	120.79
6	B	365	HIS	O-C-N	6.87	129.15	122.07
9	G	142	LEU	CA-C-N	6.87	131.60	120.60
9	G	142	LEU	C-N-CA	6.87	131.60	120.60
11	a	12	PHE	N-CA-C	-6.87	105.05	113.50
11	S	12	PHE	CA-C-N	6.87	127.56	120.00
11	S	12	PHE	C-N-CA	6.87	127.56	120.00
6	D	462	TRP	N-CA-C	-6.87	103.72	111.07
10	P	169	ASN	CA-CB-CG	6.87	119.47	112.60
2	O	201	SER	CA-C-O	6.87	128.03	120.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	P	250	ILE	N-CA-C	-6.87	104.07	110.53
1	b	213	PHE	N-CA-C	-6.87	97.71	108.90
9	K	120	ILE	O-C-N	-6.87	114.76	121.90
6	B	91	THR	N-CA-C	-6.86	100.36	110.52
9	K	155	ASP	CA-C-O	-6.86	113.28	120.55
11	X	129	MET	CA-C-N	6.86	129.45	120.60
11	X	129	MET	C-N-CA	6.86	129.45	120.60
11	W	120	SER	CB-CA-C	-6.86	100.11	110.88
2	O	90	ASN	CA-C-O	-6.86	113.58	121.54
5	A	485	MET	CA-C-O	-6.86	113.62	120.82
9	K	128	ALA	N-CA-CB	6.86	120.31	110.16
11	U	153	ARG	N-CA-C	-6.86	103.03	111.40
11	W	54	ILE	N-CA-CB	6.86	119.04	110.47
11	S	130	ILE	CA-C-N	6.86	129.47	120.28
11	S	130	ILE	C-N-CA	6.86	129.47	120.28
11	V	158	VAL	N-CA-CB	6.86	122.54	111.23
6	F	288	LEU	CA-C-N	6.85	129.46	120.28
6	F	288	LEU	C-N-CA	6.85	129.46	120.28
6	F	343	THR	N-CA-CB	6.85	120.33	110.88
4	N	60	GLU	N-CA-C	-6.84	104.56	113.12
6	F	316	TYR	CA-C-N	6.84	130.13	120.28
6	F	316	TYR	C-N-CA	6.84	130.13	120.28
8	H	20	ILE	N-CA-C	6.84	117.60	110.62
10	P	425	ASN	CA-C-N	6.84	129.33	120.44
10	P	425	ASN	C-N-CA	6.84	129.33	120.44
11	Y	159	VAL	N-CA-CB	6.84	122.51	111.23
5	A	123	TYR	N-CA-C	-6.84	98.63	109.23
6	D	312	LEU	CA-C-N	6.84	130.12	120.28
6	D	312	LEU	C-N-CA	6.84	130.12	120.28
6	B	107	ASP	CA-CB-CG	-6.83	105.77	112.60
4	N	52	ASP	N-CA-C	6.83	118.38	111.07
11	T	135	PHE	CB-CG-CD1	6.83	132.32	120.70
1	b	119	GLU	CB-CG-CD	-6.83	100.99	112.60
5	E	439	TRP	CE2-CD2-CE3	6.83	125.63	118.80
5	A	341	GLU	CA-C-N	6.83	129.43	120.28
5	A	341	GLU	C-N-CA	6.83	129.43	120.28
11	a	63	ILE	CA-C-N	6.83	130.12	120.28
11	a	63	ILE	C-N-CA	6.83	130.12	120.28
11	a	158	VAL	N-CA-CB	6.83	122.49	111.23
10	P	82	HIS	CA-CB-CG	-6.83	106.97	113.80
10	P	192	GLU	N-CA-CB	6.83	120.16	110.12
9	I	30	GLU	CA-C-O	-6.82	113.66	120.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	L	47	LYS	N-CA-C	-6.82	103.92	111.36
10	P	410	ASP	CA-CB-CG	-6.82	105.78	112.60
11	W	57	VAL	N-CA-C	6.82	117.52	110.36
11	V	112	GLY	CA-C-O	-6.82	114.02	121.05
1	b	134	GLN	N-CA-C	6.82	118.79	111.36
5	C	185	ILE	N-CA-CB	6.81	120.50	111.64
11	W	26	LEU	CA-C-N	6.81	127.69	119.99
11	W	26	LEU	C-N-CA	6.81	127.69	119.99
5	C	70	ILE	N-CA-C	-6.81	98.57	108.11
6	D	407	TYR	CA-C-N	6.81	129.71	120.44
6	D	407	TYR	C-N-CA	6.81	129.71	120.44
5	A	449	LYS	N-CA-CB	6.81	122.00	110.49
7	Q	81	ASN	CA-C-N	6.81	129.70	120.44
7	Q	81	ASN	C-N-CA	6.81	129.70	120.44
9	G	62	PHE	N-CA-C	-6.81	103.79	111.14
3	M	57	MET	O-C-N	-6.81	115.06	122.07
5	C	542	LYS	CA-C-N	6.80	129.95	120.29
5	C	542	LYS	C-N-CA	6.80	129.95	120.29
10	P	150	LEU	N-CA-CB	6.80	120.12	110.12
11	Z	108	ILE	O-C-N	6.80	128.74	121.87
6	F	319	ALA	N-CA-C	-6.80	98.01	108.76
7	Q	304	PHE	CA-CB-CG	6.80	120.60	113.80
6	D	348	ASP	CA-C-N	6.80	129.69	120.44
6	D	348	ASP	C-N-CA	6.80	129.69	120.44
11	S	113	ASP	CA-CB-CG	6.79	119.39	112.60
11	T	38	GLY	CA-C-N	6.79	129.12	120.56
11	T	38	GLY	C-N-CA	6.79	129.12	120.56
7	Q	189	LEU	O-C-N	6.79	129.89	122.15
10	P	416	GLU	O-C-N	6.79	130.62	122.27
1	b	357	ILE	CB-CA-C	-6.79	101.61	110.84
6	D	308	MET	CA-C-N	6.79	129.27	120.44
6	D	308	MET	C-N-CA	6.79	129.27	120.44
11	W	69	VAL	N-CA-C	6.79	116.93	110.42
11	R	126	PHE	CA-CB-CG	-6.78	107.02	113.80
5	C	53	HIS	N-CA-C	-6.78	104.97	113.18
11	Y	146	VAL	CB-CA-C	-6.78	102.98	112.14
6	B	211	VAL	N-CA-C	-6.78	97.74	107.77
11	W	20	ALA	N-CA-C	6.78	118.32	111.07
11	X	39	ILE	CA-C-O	-6.78	113.99	121.17
10	P	82	HIS	CA-C-N	6.77	129.36	120.28
10	P	82	HIS	C-N-CA	6.77	129.36	120.28
11	T	29	ALA	CA-C-N	6.77	129.24	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	T	29	ALA	C-N-CA	6.77	129.24	120.44
5	E	587	PHE	CA-C-N	6.77	130.96	120.60
5	E	587	PHE	C-N-CA	6.77	130.96	120.60
7	Q	344	VAL	N-CA-C	-6.77	98.63	108.11
9	G	171	GLU	CA-C-N	6.77	131.46	122.93
9	G	171	GLU	C-N-CA	6.77	131.46	122.93
5	E	64	ASP	CA-CB-CG	-6.77	105.83	112.60
7	Q	334	GLN	OE1-CD-NE2	6.77	129.37	122.60
9	I	58	ILE	CA-C-O	-6.77	113.91	120.95
8	H	61	ASN	N-CA-CB	6.77	120.70	110.95
10	P	368	LEU	N-CA-CB	6.77	123.25	111.00
6	B	226	LYS	CA-C-N	6.76	129.34	120.28
6	B	226	LYS	C-N-CA	6.76	129.34	120.28
11	V	33	ALA	CA-C-N	6.76	129.67	120.54
11	V	33	ALA	C-N-CA	6.76	129.67	120.54
10	P	203	ILE	N-CA-CB	6.76	119.74	110.54
11	a	145	ILE	CA-C-N	6.76	130.06	120.53
11	a	145	ILE	C-N-CA	6.76	130.06	120.53
11	W	73	LEU	CA-C-N	6.76	129.08	120.56
11	W	73	LEU	C-N-CA	6.76	129.08	120.56
6	B	480	ILE	N-CA-C	-6.75	103.90	110.72
8	J	19	GLU	CA-C-O	-6.75	113.26	120.42
4	N	62	ASP	CA-CB-CG	-6.75	105.85	112.60
5	A	450	HIS	CE1-NE2-CD2	-6.75	102.25	109.00
5	C	565	ALA	N-CA-CB	6.75	121.90	110.49
7	Q	336	GLU	N-CA-CB	6.75	120.68	110.42
9	G	86	LEU	CA-C-N	6.75	129.33	120.28
9	G	86	LEU	C-N-CA	6.75	129.33	120.28
5	E	498	VAL	CA-C-N	6.75	129.71	120.46
5	E	498	VAL	C-N-CA	6.75	129.71	120.46
5	A	603	LEU	CA-C-N	6.75	129.32	120.28
5	A	603	LEU	C-N-CA	6.75	129.32	120.28
6	D	322	VAL	CA-C-N	6.75	134.43	121.54
6	D	322	VAL	C-N-CA	6.75	134.43	121.54
5	E	390	SER	CA-C-N	6.74	129.61	120.44
5	E	390	SER	C-N-CA	6.74	129.61	120.44
11	X	57	VAL	N-CA-CB	6.74	118.44	110.55
6	B	212	PHE	CA-CB-CG	-6.74	107.06	113.80
6	D	255	THR	CA-C-O	-6.74	112.43	118.63
6	D	480	ILE	CA-C-N	6.74	129.31	120.28
6	D	480	ILE	C-N-CA	6.74	129.31	120.28
7	Q	118	ARG	O-C-N	-6.74	113.62	122.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	Z	129	MET	CA-C-N	6.74	129.29	120.60
11	Z	129	MET	C-N-CA	6.74	129.29	120.60
6	F	204	HIS	CA-CB-CG	6.74	120.54	113.80
6	B	46	PHE	O-C-N	-6.74	113.57	121.32
9	G	23	PHE	N-CA-CB	6.74	120.03	110.12
11	Z	74	VAL	CA-C-O	-6.74	114.03	121.17
5	A	231	TYR	CB-CA-C	6.73	116.83	110.17
5	A	388	LEU	CA-C-N	6.73	129.30	120.28
5	A	388	LEU	C-N-CA	6.73	129.30	120.28
9	I	142	LEU	CA-C-N	6.73	129.60	120.38
9	I	142	LEU	C-N-CA	6.73	129.60	120.38
6	B	477	SER	CA-C-N	6.73	126.42	119.56
6	B	477	SER	C-N-CA	6.73	126.42	119.56
6	F	251	GLU	N-CA-CB	6.73	120.01	110.12
9	G	60	GLY	O-C-N	-6.73	115.72	122.18
11	U	70	VAL	CA-C-N	6.73	129.19	120.44
11	U	70	VAL	C-N-CA	6.73	129.19	120.44
6	B	465	LEU	CA-C-N	6.72	131.95	120.72
6	B	465	LEU	C-N-CA	6.72	131.95	120.72
7	Q	117	ASP	N-CA-CB	6.72	121.86	110.49
6	F	354	THR	CA-CB-OG1	6.72	119.68	109.60
6	D	345	PRO	CA-C-N	-6.72	114.95	120.33
6	D	345	PRO	C-N-CA	-6.72	114.95	120.33
7	Q	207	CYS	O-C-N	6.72	129.24	122.12
3	M	82	GLN	CA-C-N	6.72	129.96	120.42
3	M	82	GLN	C-N-CA	6.72	129.96	120.42
11	T	140	GLY	CA-C-N	6.72	129.18	120.44
11	T	140	GLY	C-N-CA	6.72	129.18	120.44
3	M	21	LYS	CA-C-N	6.72	129.28	120.28
3	M	21	LYS	C-N-CA	6.72	129.28	120.28
11	Y	88	PHE	N-CA-C	6.72	119.44	111.71
2	O	237	HIS	CB-CG-CD2	-6.71	122.47	131.20
5	A	221	ARG	CA-C-O	-6.71	113.42	119.59
11	V	39	ILE	N-CA-C	6.71	116.86	110.42
5	E	120	GLN	N-CA-CB	6.70	121.82	110.49
9	I	160	TYR	CA-C-N	6.70	128.52	120.14
9	I	160	TYR	C-N-CA	6.70	128.52	120.14
5	A	77	ALA	CA-C-O	6.70	125.98	119.08
6	B	102	ILE	CA-C-O	-6.70	114.84	119.19
10	P	282	ILE	N-CA-C	-6.70	104.98	113.22
9	G	135	PRO	N-CA-C	-6.70	105.20	114.98
6	D	408	ALA	CA-C-N	6.70	129.63	120.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	D	408	ALA	C-N-CA	6.70	129.63	120.46
7	Q	20	TYR	N-CA-CB	6.70	120.66	110.28
7	Q	177	ILE	CA-C-N	6.70	129.25	120.28
7	Q	177	ILE	C-N-CA	6.70	129.25	120.28
3	M	177	ILE	N-CA-CB	6.69	118.67	110.64
3	M	44	ARG	CA-C-N	6.69	129.54	120.44
3	M	44	ARG	C-N-CA	6.69	129.54	120.44
11	Y	75	CYS	CA-C-N	6.69	129.25	120.28
11	Y	75	CYS	C-N-CA	6.69	129.25	120.28
11	T	57	VAL	N-CA-C	6.69	117.39	110.36
11	U	117	ARG	NE-CZ-NH2	-6.69	113.18	119.20
1	b	294	THR	CA-C-N	6.69	129.13	120.44
1	b	294	THR	C-N-CA	6.69	129.13	120.44
9	I	22	ALA	O-C-N	6.69	129.31	122.09
11	T	23	PHE	N-CA-C	6.68	118.56	111.28
11	V	141	LEU	N-CA-CB	6.68	119.98	109.82
4	N	37	PHE	N-CA-C	-6.68	98.92	109.07
11	Z	52	LYS	CA-C-N	6.68	129.56	120.54
11	Z	52	LYS	C-N-CA	6.68	129.56	120.54
11	a	69	VAL	CB-CA-C	-6.67	103.28	112.02
3	M	82	GLN	N-CA-CB	6.67	120.04	110.16
4	N	21	LEU	CA-C-N	6.67	129.12	120.44
4	N	21	LEU	C-N-CA	6.67	129.12	120.44
5	C	100	LEU	N-CA-C	-6.67	103.93	111.14
2	O	180	LYS	N-CA-C	6.67	118.11	109.64
2	O	75	ILE	CA-C-N	6.67	127.38	119.98
2	O	75	ILE	C-N-CA	6.67	127.38	119.98
10	P	275	LEU	CA-C-N	6.67	129.22	120.28
10	P	275	LEU	C-N-CA	6.67	129.22	120.28
9	G	155	ASP	N-CA-C	6.67	118.55	111.28
5	C	461	SER	N-CA-C	-6.67	96.48	108.48
11	T	61	GLY	CA-C-O	-6.67	111.63	119.50
6	F	456	GLU	CA-C-N	6.66	129.21	120.28
6	F	456	GLU	C-N-CA	6.66	129.21	120.28
6	D	116	SER	N-CA-C	-6.66	103.24	112.30
9	I	125	ILE	N-CA-C	6.66	116.79	110.53
5	A	530	GLY	CA-C-N	6.66	129.50	120.44
5	A	530	GLY	C-N-CA	6.66	129.50	120.44
5	A	548	ARG	O-C-N	6.66	129.18	122.12
1	b	248	ARG	NE-CZ-NH1	6.66	128.16	121.50
5	A	399	VAL	CA-CB-CG2	6.66	121.72	110.40
10	P	288	ARG	CA-C-O	-6.66	113.83	120.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	D	88	VAL	CA-C-O	-6.66	112.46	120.78
6	D	204	HIS	CA-C-N	6.66	130.53	119.35
6	D	204	HIS	C-N-CA	6.66	130.53	119.35
6	F	303	GLY	N-CA-C	-6.65	106.14	115.32
6	D	339	ASN	CA-C-O	6.65	127.03	119.18
11	V	129	MET	O-C-N	6.65	128.92	122.07
6	F	87	ASP	CA-CB-CG	-6.64	105.95	112.60
5	E	53	HIS	CG-CD2-NE2	6.64	113.84	107.20
3	M	185	ILE	N-CA-CB	6.64	119.57	110.54
5	E	520	LEU	CA-C-N	6.64	128.92	120.56
5	E	520	LEU	C-N-CA	6.64	128.92	120.56
6	B	435	PHE	CA-C-N	6.64	129.17	120.28
6	B	435	PHE	C-N-CA	6.64	129.17	120.28
8	L	80	LEU	N-CA-C	-6.64	105.05	113.01
11	T	80	GLN	CB-CA-C	-6.64	100.46	110.88
11	Z	131	LEU	CA-C-N	6.63	128.92	120.56
11	Z	131	LEU	C-N-CA	6.63	128.92	120.56
3	M	144	GLU	CA-C-N	6.63	129.71	120.29
3	M	144	GLU	C-N-CA	6.63	129.71	120.29
5	A	322	SER	N-CA-C	-6.63	105.01	113.23
11	a	100	SER	CA-C-N	6.63	127.48	119.99
11	a	100	SER	C-N-CA	6.63	127.48	119.99
11	R	59	MET	CA-C-O	6.63	127.58	120.55
6	F	81	GLU	CA-C-N	6.63	131.05	121.44
6	F	81	GLU	C-N-CA	6.63	131.05	121.44
6	F	125	LYS	CA-C-N	6.63	128.98	120.70
6	F	125	LYS	C-N-CA	6.63	128.98	120.70
11	Y	27	GLY	CA-C-N	6.63	129.70	120.29
11	Y	27	GLY	C-N-CA	6.63	129.70	120.29
9	G	146	VAL	O-C-N	6.62	128.30	121.87
7	Q	18	ARG	CA-C-N	6.62	128.63	120.22
7	Q	18	ARG	C-N-CA	6.62	128.63	120.22
11	W	152	SER	O-C-N	-6.62	114.47	122.22
11	S	145	ILE	CA-C-N	6.62	129.15	120.60
11	S	145	ILE	C-N-CA	6.62	129.15	120.60
2	O	12	ILE	N-CA-C	-6.62	98.59	108.46
6	F	362	ARG	CA-C-N	6.62	129.15	120.28
6	F	362	ARG	C-N-CA	6.62	129.15	120.28
9	G	146	VAL	N-CA-C	6.62	117.37	110.62
11	U	141	LEU	CA-C-N	6.62	129.45	120.38
11	U	141	LEU	C-N-CA	6.62	129.45	120.38
5	A	39	ASN	CB-CA-C	6.62	121.65	111.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	B	476	ILE	N-CA-C	-6.62	98.09	108.81
11	U	119	SER	CA-C-N	6.62	129.47	120.54
11	U	119	SER	C-N-CA	6.62	129.47	120.54
11	T	35	SER	N-CA-CB	6.62	119.61	110.01
5	C	423	PHE	N-CA-C	-6.62	103.81	112.41
10	P	243	GLN	OE1-CD-NE2	6.62	129.22	122.60
11	R	112	GLY	CA-C-O	-6.61	114.24	121.05
2	O	325	PHE	N-CA-C	-6.61	99.40	109.85
1	b	253	ALA	CA-C-N	6.61	129.14	120.28
1	b	253	ALA	C-N-CA	6.61	129.14	120.28
5	C	417	SER	CA-C-N	6.61	126.56	120.21
5	C	417	SER	C-N-CA	6.61	126.56	120.21
8	L	49	GLN	N-CA-CB	6.61	119.94	110.16
10	P	184	TYR	O-C-N	6.61	128.88	122.07
10	P	343	LYS	O-C-N	6.61	128.88	122.07
11	U	37	VAL	N-CA-CB	6.61	119.53	110.54
11	V	125	LEU	CB-CA-C	-6.61	100.82	111.06
9	G	70	MET	N-CA-C	-6.60	105.22	113.28
5	E	125	PRO	N-CA-C	-6.60	98.69	111.69
6	F	358	ILE	N-CA-C	-6.60	98.87	108.11
6	B	107	ASP	CA-C-O	6.60	127.46	120.33
3	M	14	THR	N-CA-C	-6.60	104.70	112.89
6	D	317	GLU	N-CA-C	-6.60	104.09	111.28
5	E	401	LEU	CA-C-O	-6.60	113.77	121.16
5	A	554	HIS	CG-CD2-NE2	6.60	113.80	107.20
10	P	308	VAL	N-CA-CB	6.60	119.51	110.54
11	a	129	MET	CA-C-N	6.60	129.11	120.60
11	a	129	MET	C-N-CA	6.60	129.11	120.60
10	P	164	LEU	N-CA-CB	-6.60	100.06	110.22
11	Y	128	GLY	O-C-N	-6.60	114.75	122.34
9	K	58	ILE	CA-C-N	6.59	129.11	120.28
9	K	58	ILE	C-N-CA	6.59	129.11	120.28
2	O	161	ALA	O-C-N	6.59	129.21	122.09
6	D	135	ASN	OD1-CG-ND2	6.59	129.19	122.60
11	U	73	LEU	CA-C-N	6.59	129.10	120.60
11	U	73	LEU	C-N-CA	6.59	129.10	120.60
1	b	106	VAL	N-CA-CB	6.59	119.24	112.65
9	K	76	THR	CA-C-N	6.59	129.10	120.28
9	K	76	THR	C-N-CA	6.59	129.10	120.28
9	G	192	ASN	CA-CB-CG	6.59	119.19	112.60
11	W	67	GLY	CA-C-N	6.58	129.10	120.28
11	W	67	GLY	C-N-CA	6.58	129.10	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	N	69	ILE	CA-C-N	6.58	130.10	120.82
4	N	69	ILE	C-N-CA	6.58	130.10	120.82
6	B	381	ARG	NE-CZ-NH2	6.58	125.13	119.20
5	C	445	LEU	CA-C-N	6.58	129.76	120.28
5	C	445	LEU	C-N-CA	6.58	129.76	120.28
10	P	384	ILE	CA-CB-CG1	6.58	121.59	110.40
6	F	115	GLY	CA-C-N	6.58	132.56	122.23
6	F	115	GLY	C-N-CA	6.58	132.56	122.23
6	D	133	ASP	CA-C-N	6.58	129.44	122.14
6	D	133	ASP	C-N-CA	6.58	129.44	122.14
5	A	425	ASP	N-CA-C	6.58	119.16	110.08
2	O	178	ILE	N-CA-C	-6.58	98.97	108.17
5	C	545	ASP	N-CA-CB	6.58	119.55	110.01
6	D	190	GLN	CA-C-O	-6.58	112.03	119.79
11	U	142	TYR	CA-C-N	6.58	127.11	119.94
11	U	142	TYR	C-N-CA	6.58	127.11	119.94
9	I	59	ASP	CA-C-N	6.57	127.24	119.94
9	I	59	ASP	C-N-CA	6.57	127.24	119.94
11	U	148	LEU	CA-C-N	6.57	129.33	120.65
11	U	148	LEU	C-N-CA	6.57	129.33	120.65
5	A	25	GLY	CA-C-N	6.57	133.37	122.73
5	A	25	GLY	C-N-CA	6.57	133.37	122.73
8	H	76	VAL	O-C-N	-6.57	115.47	123.03
9	I	134	GLU	N-CA-C	-6.57	100.52	110.50
8	H	61	ASN	N-CA-C	-6.57	103.52	113.89
10	P	9	ASP	CA-C-N	6.57	132.43	123.11
10	P	9	ASP	C-N-CA	6.57	132.43	123.11
11	Y	108	ILE	CA-C-O	-6.57	113.55	120.57
5	E	53	HIS	ND1-CE1-NE2	6.56	114.96	108.40
10	P	310	LYS	CA-C-N	6.56	128.97	120.44
10	P	310	LYS	C-N-CA	6.56	128.97	120.44
5	C	531	TYR	CA-C-O	6.56	126.49	119.34
10	P	465	ALA	CA-C-N	6.56	129.60	120.29
10	P	465	ALA	C-N-CA	6.56	129.60	120.29
11	T	39	ILE	N-CA-CB	6.56	118.22	110.55
11	W	36	GLY	CA-C-N	6.55	129.44	120.46
11	W	36	GLY	C-N-CA	6.55	129.44	120.46
5	C	249	GLY	N-CA-C	-6.55	105.27	116.01
6	D	204	HIS	CE1-NE2-CD2	-6.55	102.45	109.00
5	A	491	ASN	N-CA-C	-6.55	104.22	111.82
6	B	36	GLY	CA-C-N	6.55	126.18	119.56
6	B	36	GLY	C-N-CA	6.55	126.18	119.56

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	B	412	ASP	N-CA-CB	6.55	119.75	110.12
5	C	255	PRO	N-CA-C	-6.55	100.83	111.77
11	W	149	LEU	N-CA-C	6.55	118.08	111.07
11	S	26	LEU	CA-C-N	6.55	127.39	119.99
11	S	26	LEU	C-N-CA	6.55	127.39	119.99
4	N	92	LEU	N-CA-C	-6.55	96.37	108.02
6	B	180	HIS	CE1-NE2-CD2	-6.55	102.45	109.00
11	T	123	PRO	CA-C-N	6.55	129.05	120.28
11	T	123	PRO	C-N-CA	6.55	129.05	120.28
3	M	167	ASN	CA-C-N	6.54	129.05	120.28
3	M	167	ASN	C-N-CA	6.54	129.05	120.28
5	E	333	ILE	N-CA-CB	6.54	120.40	110.58
11	W	150	LEU	CA-C-N	6.54	129.35	120.38
11	W	150	LEU	C-N-CA	6.54	129.35	120.38
2	O	236	VAL	N-CA-C	-6.54	98.77	108.45
11	X	87	GLY	CA-C-N	6.54	129.70	120.28
11	X	87	GLY	C-N-CA	6.54	129.70	120.28
11	V	130	ILE	CA-C-N	6.54	129.04	120.28
11	V	130	ILE	C-N-CA	6.54	129.04	120.28
1	b	257	ASP	CA-C-N	6.54	133.06	121.75
1	b	257	ASP	C-N-CA	6.54	133.06	121.75
11	a	55	VAL	CA-C-O	-6.54	111.19	119.95
5	A	329	ARG	CB-CA-C	-6.53	99.94	110.79
5	C	249	GLY	CA-C-O	-6.53	112.63	118.77
9	I	213	GLU	N-CA-C	-6.53	105.61	113.97
5	A	381	PRO	CB-CA-C	-6.53	102.69	111.12
1	b	108	ASP	CA-CB-CG	-6.53	106.07	112.60
5	C	421	GLY	O-C-N	6.53	128.81	122.41
2	O	91	GLU	CA-C-N	6.53	133.59	122.37
2	O	91	GLU	C-N-CA	6.53	133.59	122.37
5	C	149	GLY	N-CA-C	-6.53	107.31	115.08
5	C	576	ASP	CA-CB-CG	-6.53	106.08	112.60
11	T	96	SER	CA-C-O	-6.53	113.97	120.82
5	A	211	LEU	N-CA-CB	6.52	119.71	110.12
5	C	213	HIS	CA-CB-CG	-6.52	107.28	113.80
6	F	299	PRO	O-C-N	-6.52	115.99	123.23
6	F	326	ASN	N-CA-C	-6.52	102.88	113.19
11	V	132	ILE	CB-CA-C	-6.52	103.62	111.97
1	b	82	LYS	CA-C-N	6.52	130.09	120.90
1	b	82	LYS	C-N-CA	6.52	130.09	120.90
11	W	61	GLY	O-C-N	-6.52	115.31	122.68
6	B	105	SER	CA-C-N	6.51	129.66	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	B	105	SER	C-N-CA	6.51	129.66	120.28
11	Y	90	GLN	CA-C-N	6.51	129.33	120.54
11	Y	90	GLN	C-N-CA	6.51	129.33	120.54
11	a	89	ILE	O-C-N	6.51	128.54	121.83
11	U	35	SER	CA-C-N	6.51	127.35	119.99
11	U	35	SER	C-N-CA	6.51	127.35	119.99
5	E	405	ASP	CA-CB-CG	-6.51	106.09	112.60
5	E	522	LYS	N-CA-C	6.51	118.04	111.07
5	C	372	GLY	CA-C-O	-6.51	111.78	119.01
7	Q	306	ILE	CA-CB-CG1	6.51	121.47	110.40
8	L	12	GLN	OE1-CD-NE2	6.51	129.11	122.60
5	A	191	TYR	CA-CB-CG	-6.50	102.19	113.90
5	C	322	SER	CA-C-O	-6.50	113.66	120.55
11	S	55	VAL	O-C-N	-6.50	113.69	121.10
5	A	547	MET	CA-C-N	6.50	128.99	120.28
5	A	547	MET	C-N-CA	6.50	128.99	120.28
11	U	48	ASP	CA-CB-CG	-6.50	106.10	112.60
9	K	36	GLN	CB-CG-CD	-6.50	101.55	112.60
11	T	116	VAL	CA-C-O	-6.50	113.23	120.25
5	A	251	THR	N-CA-C	-6.50	98.02	109.06
6	D	301	ARG	NE-CZ-NH1	-6.50	115.00	121.50
6	D	118	ARG	CB-CA-C	-6.49	100.08	109.63
11	V	32	THR	CA-C-N	6.49	129.82	120.79
11	V	32	THR	C-N-CA	6.49	129.82	120.79
11	T	137	GLU	CA-C-N	6.49	129.36	120.46
11	T	137	GLU	C-N-CA	6.49	129.36	120.46
6	B	435	PHE	CA-C-O	-6.49	113.54	120.42
5	C	185	ILE	CA-C-O	6.49	127.14	120.39
6	B	427	ILE	CA-C-N	6.49	128.88	120.44
6	B	427	ILE	C-N-CA	6.49	128.88	120.44
5	C	271	LYS	N-CA-C	6.49	118.15	111.14
8	H	69	GLU	N-CA-C	-6.49	105.01	113.12
5	E	614	SER	CB-CA-C	-6.49	100.65	110.90
1	b	285	TYR	CB-CG-CD2	-6.48	111.07	120.80
2	O	284	LEU	CA-C-N	6.48	128.97	120.28
2	O	284	LEU	C-N-CA	6.48	128.97	120.28
4	N	25	ILE	CA-C-N	-6.48	115.54	122.67
4	N	25	ILE	C-N-CA	-6.48	115.54	122.67
6	B	391	MET	CG-SD-CE	-6.48	86.64	100.90
5	E	334	TYR	CA-C-N	6.48	129.50	120.29
5	E	334	TYR	C-N-CA	6.48	129.50	120.29
7	Q	225	LEU	CA-C-N	6.48	129.25	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	Q	225	LEU	C-N-CA	6.48	129.25	120.44
1	b	129	ASP	CB-CA-C	-6.48	100.03	110.79
10	P	332	ASP	N-CA-CB	6.48	121.44	110.49
11	U	49	LEU	N-CA-C	-6.48	104.95	112.92
5	A	110	ARG	CA-C-O	-6.48	112.61	119.22
2	O	172	VAL	CA-CB-CG2	6.48	121.41	110.40
5	E	54	ASP	N-CA-CB	6.48	120.05	110.33
5	E	86	LEU	CA-C-N	6.48	130.68	121.42
5	E	86	LEU	C-N-CA	6.48	130.68	121.42
5	A	47	GLU	CA-C-N	6.48	130.76	121.50
5	A	47	GLU	C-N-CA	6.48	130.76	121.50
8	J	95	VAL	N-CA-C	6.48	117.16	110.36
8	H	58	GLU	CA-C-N	6.47	130.15	120.31
8	H	58	GLU	C-N-CA	6.47	130.15	120.31
11	Y	31	GLY	O-C-N	6.47	128.40	122.18
11	T	119	SER	N-CA-CB	6.47	119.59	109.94
5	C	201	GLU	CA-C-N	6.47	131.24	121.40
5	C	201	GLU	C-N-CA	6.47	131.24	121.40
5	C	520	LEU	N-CA-C	-6.47	104.23	111.28
6	D	164	ILE	N-CA-C	-6.47	99.16	108.48
6	D	255	THR	CA-C-N	6.47	126.23	119.05
6	D	255	THR	C-N-CA	6.47	126.23	119.05
9	I	195	ASP	N-CA-C	6.47	120.17	111.24
5	C	343	PHE	CA-C-N	6.47	129.48	120.29
5	C	343	PHE	C-N-CA	6.47	129.48	120.29
9	K	111	ALA	N-CA-CB	6.47	120.18	110.22
5	C	237	GLN	O-C-N	-6.47	115.85	123.22
5	C	295	MET	CG-SD-CE	-6.46	86.68	100.90
6	F	405	ALA	N-CA-C	6.46	118.32	111.28
1	b	278	ASN	CA-CB-CG	-6.46	106.14	112.60
11	a	16	GLY	CA-C-N	6.46	129.26	120.54
11	a	16	GLY	C-N-CA	6.46	129.26	120.54
5	E	269	LEU	CA-C-N	6.46	128.83	120.44
5	E	269	LEU	C-N-CA	6.46	128.83	120.44
11	X	157	ASP	CA-C-N	6.46	130.12	120.69
11	X	157	ASP	C-N-CA	6.46	130.12	120.69
2	O	11	PHE	CA-CB-CG	-6.46	107.34	113.80
11	a	141	LEU	CA-C-N	6.46	129.25	120.54
11	a	141	LEU	C-N-CA	6.46	129.25	120.54
10	P	174	LEU	CA-C-N	6.45	128.93	120.28
10	P	174	LEU	C-N-CA	6.45	128.93	120.28
2	O	317	LEU	N-CA-C	6.45	118.11	111.14

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	C	104	ILE	CA-C-O	6.45	128.22	120.67
9	I	9	THR	N-CA-CB	6.45	122.80	111.19
11	Y	23	PHE	CA-C-N	6.45	129.45	120.29
11	Y	23	PHE	C-N-CA	6.45	129.45	120.29
11	a	36	GLY	CA-C-N	6.45	128.69	120.56
11	a	36	GLY	C-N-CA	6.45	128.69	120.56
6	F	363	GLN	N-CA-C	6.45	118.31	111.28
8	J	46	TYR	N-CA-C	-6.45	104.45	112.90
11	S	104	ALA	CA-C-N	6.45	127.25	120.03
11	S	104	ALA	C-N-CA	6.45	127.25	120.03
11	Y	100	SER	CA-C-N	6.45	127.10	119.94
11	Y	100	SER	C-N-CA	6.45	127.10	119.94
5	E	364	LEU	CA-C-N	6.45	128.92	120.28
5	E	364	LEU	C-N-CA	6.45	128.92	120.28
5	C	81	VAL	CA-C-N	6.44	131.44	122.29
5	C	81	VAL	C-N-CA	6.44	131.44	122.29
11	Y	124	ARG	NE-CZ-NH2	6.44	125.00	119.20
5	C	50	LYS	N-CA-C	-6.44	98.70	109.07
11	Z	100	SER	N-CA-C	-6.44	104.34	111.36
2	O	87	GLN	CA-C-N	6.44	127.13	119.98
2	O	87	GLN	C-N-CA	6.44	127.13	119.98
2	O	142	ASP	CA-C-N	6.44	128.91	120.28
2	O	142	ASP	C-N-CA	6.44	128.91	120.28
5	E	164	ASN	N-CA-C	-6.44	99.37	108.96
11	T	100	SER	O-C-N	6.44	129.49	122.15
3	M	138	ILE	N-CA-CB	6.43	120.23	110.58
11	W	49	LEU	CA-C-O	-6.43	112.03	119.56
11	a	38	GLY	CA-C-N	6.43	128.90	120.60
11	a	38	GLY	C-N-CA	6.43	128.90	120.60
6	B	101	ARG	CD-NE-CZ	-6.43	115.40	124.40
5	A	316	THR	N-CA-C	-6.43	98.42	108.90
2	O	132	THR	CA-C-N	6.43	128.89	120.28
2	O	132	THR	C-N-CA	6.43	128.89	120.28
10	P	131	SER	N-CA-CB	6.42	119.41	109.97
6	B	282	SER	CA-C-N	6.42	128.88	120.28
6	B	282	SER	C-N-CA	6.42	128.88	120.28
6	B	289	ARG	NE-CZ-NH2	-6.42	113.42	119.20
10	P	412	ASN	CA-C-N	6.42	132.04	122.99
10	P	412	ASN	C-N-CA	6.42	132.04	122.99
11	U	57	VAL	N-CA-C	6.42	117.94	110.62
5	C	300	LEU	N-CA-C	-6.42	101.45	110.50
11	R	95	LEU	N-CA-C	6.42	121.95	111.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	b	125	GLU	N-CA-C	6.41	118.27	111.28
4	N	108	VAL	N-CA-C	6.41	117.16	110.62
11	R	100	SER	CA-C-N	6.41	127.23	119.99
11	R	100	SER	C-N-CA	6.41	127.23	119.99
5	E	135	ARG	NE-CZ-NH2	6.41	124.97	119.20
5	C	587	PHE	CA-C-N	6.41	130.42	120.68
5	C	587	PHE	C-N-CA	6.41	130.42	120.68
6	D	154	GLY	O-C-N	-6.41	114.37	122.32
6	D	402	GLN	CA-C-N	6.41	128.77	120.44
6	D	402	GLN	C-N-CA	6.41	128.77	120.44
11	W	30	TYR	CA-C-N	6.41	127.21	120.03
11	W	30	TYR	C-N-CA	6.41	127.21	120.03
5	E	311	ILE	N-CA-C	-6.41	104.25	110.72
5	A	466	VAL	N-CA-C	6.40	117.19	110.72
11	X	30	TYR	CA-C-N	6.40	127.23	119.99
11	X	30	TYR	C-N-CA	6.40	127.23	119.99
11	a	141	LEU	N-CA-CB	6.40	119.48	109.94
1	b	140	GLN	N-CA-CB	6.40	119.29	110.01
6	B	431	LEU	CA-C-N	6.40	129.37	120.29
6	B	431	LEU	C-N-CA	6.40	129.37	120.29
5	C	410	VAL	N-CA-C	-6.40	98.30	107.77
5	C	594	LYS	CA-C-N	6.40	130.91	120.23
5	C	594	LYS	C-N-CA	6.40	130.91	120.23
2	O	23	VAL	N-CA-C	-6.40	106.09	112.17
5	E	257	ALA	N-CA-CB	6.39	121.29	110.49
6	B	244	LEU	N-CA-C	-6.39	100.03	109.81
9	K	128	ALA	CA-C-N	6.39	129.49	120.28
9	K	128	ALA	C-N-CA	6.39	129.49	120.28
11	U	52	LYS	CA-C-N	6.39	129.17	120.54
11	U	52	LYS	C-N-CA	6.39	129.17	120.54
11	X	97	VAL	CB-CA-C	-6.39	103.68	112.24
6	B	468	TYR	N-CA-C	-6.39	100.36	109.62
5	C	588	GLU	N-CA-CB	6.39	119.44	110.11
9	G	75	ILE	CA-C-N	6.39	129.36	120.29
9	G	75	ILE	C-N-CA	6.39	129.36	120.29
4	N	34	GLU	CA-C-N	6.39	130.39	120.75
4	N	34	GLU	C-N-CA	6.39	130.39	120.75
6	B	228	ASP	CA-CB-CG	-6.39	106.21	112.60
6	D	180	HIS	O-C-N	6.39	128.89	122.12
11	V	121	GLN	CA-C-O	-6.39	113.15	120.24
6	D	95	PHE	CA-CB-CG	-6.38	107.42	113.80
10	P	404	ALA	CA-C-N	6.38	128.84	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	P	404	ALA	C-N-CA	6.38	128.84	120.28
11	Y	110	ILE	N-CA-C	6.38	116.42	110.42
10	P	145	ASN	CA-C-N	6.38	129.21	120.46
10	P	145	ASN	C-N-CA	6.38	129.21	120.46
10	P	14	ASN	CA-C-N	6.38	128.83	120.28
10	P	14	ASN	C-N-CA	6.38	128.83	120.28
11	T	50	LEU	CA-C-N	6.38	128.83	120.28
11	T	50	LEU	C-N-CA	6.38	128.83	120.28
5	A	536	ALA	CA-C-N	6.38	130.97	121.72
5	A	536	ALA	C-N-CA	6.38	130.97	121.72
6	B	145	ILE	N-CA-C	-6.38	99.01	108.45
5	C	610	ARG	N-CA-C	6.38	118.23	111.28
11	Z	64	ALA	O-C-N	-6.38	115.36	122.12
6	F	348	ASP	CA-C-O	-6.38	114.13	120.70
11	X	15	ILE	CA-C-N	6.38	126.89	119.94
11	X	15	ILE	C-N-CA	6.38	126.89	119.94
11	Z	105	GLY	CA-C-N	6.38	129.34	120.29
11	Z	105	GLY	C-N-CA	6.38	129.34	120.29
5	A	324	MET	N-CA-C	-6.37	100.94	110.24
6	D	400	SER	N-CA-CB	6.37	119.49	110.12
7	Q	328	GLU	N-CA-C	6.37	117.89	111.07
1	b	80	ASP	O-C-N	-6.37	114.12	122.59
5	E	201	GLU	CA-C-O	6.37	127.33	120.32
11	R	110	ILE	CA-C-N	6.37	129.12	120.77
11	R	110	ILE	C-N-CA	6.37	129.12	120.77
1	b	198	THR	CA-C-N	6.37	128.81	120.28
1	b	198	THR	C-N-CA	6.37	128.81	120.28
1	b	309	TRP	CG-CD2-CE3	-6.37	127.53	133.90
9	G	72	SER	CA-C-N	6.37	129.33	120.29
9	G	72	SER	C-N-CA	6.37	129.33	120.29
2	O	202	LEU	CA-C-N	6.37	129.14	120.54
2	O	202	LEU	C-N-CA	6.37	129.14	120.54
8	H	104	LYS	N-CA-C	-6.37	100.53	110.14
11	W	23	PHE	CA-CB-CG	-6.37	107.43	113.80
8	J	5	ASN	CA-C-N	6.36	127.00	120.00
8	J	5	ASN	C-N-CA	6.36	127.00	120.00
8	H	51	ASP	N-CA-CB	6.36	120.14	110.28
10	P	182	THR	CA-C-N	6.36	128.81	120.28
10	P	182	THR	C-N-CA	6.36	128.81	120.28
11	Y	83	ALA	CA-C-N	6.36	128.71	120.44
11	Y	83	ALA	C-N-CA	6.36	128.71	120.44
11	W	124	ARG	CD-NE-CZ	-6.36	115.50	124.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	Z	40	CYS	CA-C-O	6.36	127.29	120.55
6	F	180	HIS	CB-CG-CD2	-6.36	122.94	131.20
5	C	475	TYR	CA-C-N	6.36	126.37	119.89
5	C	475	TYR	C-N-CA	6.36	126.37	119.89
5	E	431	THR	CA-C-O	-6.35	113.19	120.24
5	E	545	ASP	CA-C-O	-6.35	113.81	120.55
4	N	36	ASN	N-CA-C	-6.35	103.88	112.26
11	S	120	SER	N-CA-C	6.35	118.73	111.11
6	B	239	SER	N-CA-C	-6.35	99.05	109.40
10	P	434	LEU	CA-C-O	-6.35	113.17	120.03
1	b	341	ILE	CA-C-O	-6.35	115.57	119.51
6	F	201	HIS	ND1-CE1-NE2	6.35	114.75	108.40
5	A	408	GLY	O-C-N	-6.35	116.72	123.45
5	C	577	VAL	CA-C-O	-6.35	114.35	120.95
6	D	423	GLU	CA-C-N	6.35	129.31	120.29
6	D	423	GLU	C-N-CA	6.35	129.31	120.29
11	V	85	TYR	CB-CA-C	-6.35	100.91	110.88
11	V	97	VAL	CA-C-N	6.35	126.99	119.94
11	V	97	VAL	C-N-CA	6.35	126.99	119.94
7	Q	99	THR	CA-C-N	6.35	129.42	120.28
7	Q	99	THR	C-N-CA	6.35	129.42	120.28
9	K	197	ILE	N-CA-C	-6.35	99.29	108.17
10	P	99	LEU	N-CA-C	-6.35	104.44	111.36
6	F	212	PHE	O-C-N	6.34	130.85	123.30
6	B	219	LEU	CA-C-O	-6.34	113.70	120.42
5	C	259	GLY	N-CA-C	-6.34	105.58	115.67
11	X	147	ALA	CA-C-O	-6.34	114.16	120.82
11	W	117	ARG	CA-C-N	6.34	126.98	120.00
11	W	117	ARG	C-N-CA	6.34	126.98	120.00
1	b	263	VAL	CA-C-O	6.34	127.34	120.43
5	E	363	ALA	CA-C-O	6.34	127.27	120.55
5	A	117	GLU	CA-C-N	6.34	129.07	120.44
5	A	117	GLU	C-N-CA	6.34	129.07	120.44
6	B	257	ARG	N-CA-C	-6.34	104.45	111.36
5	C	220	PRO	N-CD-CG	6.34	112.72	103.20
11	U	33	ALA	CA-C-N	6.34	129.10	120.54
11	U	33	ALA	C-N-CA	6.34	129.10	120.54
11	U	53	ASN	CA-CB-CG	-6.34	106.26	112.60
6	D	364	LEU	N-CA-CB	6.34	119.20	110.01
5	A	520	LEU	CA-C-N	6.33	128.54	120.56
5	A	520	LEU	C-N-CA	6.33	128.54	120.56
7	Q	200	ILE	N-CA-C	6.33	122.56	108.88

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	M	204	LYS	CA-C-N	6.33	128.76	120.28
3	M	204	LYS	C-N-CA	6.33	128.76	120.28
7	Q	154	VAL	CB-CA-C	-6.33	103.59	112.14
11	V	53	ASN	CA-C-O	-6.33	114.18	120.82
5	E	308	LYS	N-CA-CB	6.33	121.18	110.49
6	F	365	HIS	CB-CG-ND1	6.33	132.19	122.70
5	A	134	ASP	N-CA-CB	6.33	119.27	109.85
6	F	350	THR	N-CA-C	-6.32	104.39	111.28
9	K	31	LYS	CA-C-N	6.32	129.92	120.31
9	K	31	LYS	C-N-CA	6.32	129.92	120.31
3	M	52	ASP	O-C-N	6.32	128.58	122.07
9	K	206	ARG	N-CA-CB	6.32	119.41	110.12
2	O	250	ALA	O-C-N	-6.32	115.42	122.12
5	A	84	PRO	CA-C-O	-6.32	114.29	122.12
5	C	562	ALA	N-CA-C	6.32	118.97	111.71
1	b	180	ILE	N-CA-C	-6.32	106.84	112.90
8	J	96	LYS	CA-C-N	6.32	128.64	120.56
8	J	96	LYS	C-N-CA	6.32	128.64	120.56
3	M	29	TYR	CA-C-N	6.31	128.65	120.44
3	M	29	TYR	C-N-CA	6.31	128.65	120.44
5	C	130	THR	CA-C-O	-6.31	113.79	120.23
11	U	49	LEU	CA-C-N	6.31	130.29	120.82
11	U	49	LEU	C-N-CA	6.31	130.29	120.82
3	M	100	ASN	CA-CB-CG	-6.31	106.29	112.60
9	K	18	ASN	CA-CB-CG	-6.31	106.29	112.60
6	F	133	ASP	O-C-N	6.31	130.09	122.96
6	B	99	SER	CA-C-O	-6.31	114.21	121.47
7	Q	320	VAL	N-CA-CB	6.31	117.93	110.55
11	Z	145	ILE	N-CA-C	6.31	116.79	110.23
11	V	129	MET	N-CA-CB	6.31	119.16	110.01
5	A	45	MET	N-CA-C	-6.31	104.85	113.30
5	C	53	HIS	CA-CB-CG	6.31	120.11	113.80
2	O	32	SER	N-CA-C	-6.30	104.49	111.36
5	E	491	ASN	CA-C-N	6.30	128.73	120.28
5	E	491	ASN	C-N-CA	6.30	128.73	120.28
9	I	122	GLN	CA-C-N	6.30	128.73	120.28
9	I	122	GLN	C-N-CA	6.30	128.73	120.28
1	b	112	ARG	NE-CZ-NH1	6.30	127.80	121.50
7	Q	8	ILE	N-CA-C	-6.30	104.61	110.53
11	T	12	PHE	CA-C-N	6.30	126.81	119.94
11	T	12	PHE	C-N-CA	6.30	126.81	119.94
10	P	323	GLN	CA-C-O	6.30	127.43	120.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	B	111	ARG	CA-C-O	-6.30	113.74	121.11
7	Q	206	GLU	N-CA-C	-6.30	101.96	111.34
9	I	201	ASN	N-CA-C	-6.30	102.11	111.81
11	a	132	ILE	CA-C-N	6.30	128.72	120.28
11	a	132	ILE	C-N-CA	6.30	128.72	120.28
5	E	195	GLU	CB-CG-CD	-6.29	101.90	112.60
6	F	218	ASN	OD1-CG-ND2	6.29	128.89	122.60
2	O	126	SER	CA-C-N	6.29	129.35	120.42
2	O	126	SER	C-N-CA	6.29	129.35	120.42
11	X	145	ILE	CA-C-N	6.29	129.07	120.46
11	X	145	ILE	C-N-CA	6.29	129.07	120.46
7	Q	144	ASP	CA-C-N	6.29	128.70	120.28
7	Q	144	ASP	C-N-CA	6.29	128.70	120.28
9	I	56	ASN	CA-C-N	6.29	129.22	120.29
9	I	56	ASN	C-N-CA	6.29	129.22	120.29
11	V	106	PHE	CA-CB-CG	6.29	120.08	113.80
5	E	579	HIS	CE1-NE2-CD2	-6.28	102.72	109.00
5	C	143	PRO	CA-C-O	-6.28	114.10	121.95
11	W	153	ARG	CA-C-N	6.28	129.02	120.54
11	W	153	ARG	C-N-CA	6.28	129.02	120.54
9	G	18	ASN	CA-CB-CG	-6.28	106.32	112.60
5	A	475	TYR	CA-C-N	6.28	126.29	119.89
5	A	475	TYR	C-N-CA	6.28	126.29	119.89
6	B	230	GLU	CA-C-N	6.28	128.69	120.28
6	B	230	GLU	C-N-CA	6.28	128.69	120.28
11	R	68	LEU	CB-CA-C	-6.28	100.37	110.79
4	N	52	ASP	N-CA-CB	6.28	119.11	110.01
11	S	74	VAL	CA-C-N	6.28	129.51	120.79
11	S	74	VAL	C-N-CA	6.28	129.51	120.79
6	F	166	ARG	N-CA-CB	6.27	121.09	110.49
5	A	191	TYR	N-CA-C	-6.27	99.61	108.96
7	Q	148	LEU	CB-CA-C	-6.27	100.02	110.68
5	E	468	ASN	N-CA-CB	6.27	120.00	110.28
9	I	154	ASP	CA-C-N	6.27	128.68	120.28
9	I	154	ASP	C-N-CA	6.27	128.68	120.28
9	G	99	ILE	O-C-N	6.27	128.42	121.90
11	R	29	ALA	CA-C-N	6.27	129.50	120.79
11	R	29	ALA	C-N-CA	6.27	129.50	120.79
11	U	65	ILE	CB-CA-C	-6.27	102.10	112.26
2	O	274	HIS	CA-C-N	6.27	128.68	120.28
2	O	274	HIS	C-N-CA	6.27	128.68	120.28
3	M	180	ARG	O-C-N	6.27	129.30	122.15

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	D	169	LYS	CA-C-N	-6.27	117.88	123.33
6	D	169	LYS	C-N-CA	-6.27	117.88	123.33
10	P	364	ASP	CB-CA-C	-6.27	101.04	110.88
8	H	43	ILE	O-C-N	6.27	128.28	121.83
6	F	440	GLU	O-C-N	-6.26	115.62	122.07
5	A	367	ILE	CA-C-N	6.26	128.68	120.28
5	A	367	ILE	C-N-CA	6.26	128.68	120.28
7	Q	12	PHE	CA-C-N	6.26	129.31	120.42
7	Q	12	PHE	C-N-CA	6.26	129.31	120.42
6	B	172	ILE	CA-C-O	6.26	128.00	120.74
6	F	47	PRO	CA-C-O	-6.26	114.30	121.56
5	C	74	GLU	CA-C-N	6.26	133.50	121.54
5	C	74	GLU	C-N-CA	6.26	133.50	121.54
6	F	103	PRO	O-C-N	-6.26	114.19	122.64
5	A	182	ILE	N-CA-C	6.26	117.80	108.54
10	P	430	VAL	N-CA-C	6.26	117.00	110.62
9	G	87	LYS	CA-C-O	6.26	127.18	120.55
4	N	70	ASN	CA-C-N	6.26	128.99	120.54
4	N	70	ASN	C-N-CA	6.26	128.99	120.54
5	C	481	LEU	O-C-N	-6.26	115.02	122.15
7	Q	19	GLY	O-C-N	6.26	129.10	122.28
2	O	235	ASN	CA-CB-CG	6.25	118.85	112.60
5	C	235	THR	N-CA-C	-6.25	104.36	112.68
6	D	150	MET	N-CA-C	6.25	119.30	110.23
8	J	91	LYS	N-CA-C	-6.25	104.15	110.97
10	P	259	PHE	CA-C-N	6.25	128.66	120.28
10	P	259	PHE	C-N-CA	6.25	128.66	120.28
11	Y	145	ILE	N-CA-CB	-6.25	104.05	110.62
5	E	298	PRO	CA-C-O	-6.25	110.25	119.00
5	A	216	PRO	CB-CA-C	6.25	119.53	111.21
5	A	390	SER	N-CA-CB	6.25	119.41	110.16
11	T	108	ILE	O-C-N	-6.25	115.56	121.87
5	A	145	LYS	CA-C-O	6.25	127.03	119.78
6	F	389	GLU	N-CA-C	-6.25	97.63	108.69
11	Y	97	VAL	CA-C-N	6.25	133.65	121.41
11	Y	97	VAL	C-N-CA	6.25	133.65	121.41
11	V	51	PHE	CA-C-N	6.25	128.56	120.44
11	V	51	PHE	C-N-CA	6.25	128.56	120.44
6	B	435	PHE	CA-CB-CG	-6.25	107.56	113.80
11	Y	151	ASN	N-CA-C	6.24	117.75	111.07
11	W	35	SER	CA-C-N	6.24	133.64	121.41
11	W	35	SER	C-N-CA	6.24	133.64	121.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	O	91	GLU	N-CA-C	-6.24	105.61	113.72
6	F	445	THR	N-CA-C	-6.24	99.07	109.24
6	D	187	ILE	O-C-N	-6.24	115.80	121.91
8	H	18	HIS	N-CA-C	-6.24	104.48	111.28
11	W	59	MET	N-CA-C	6.24	118.08	111.28
1	b	315	ARG	CD-NE-CZ	-6.23	115.67	124.40
5	C	576	ASP	CA-C-N	6.23	129.00	120.46
5	C	576	ASP	C-N-CA	6.23	129.00	120.46
11	V	44	VAL	CA-C-N	6.23	128.92	120.44
11	V	44	VAL	C-N-CA	6.23	128.92	120.44
3	M	199	GLU	CA-C-N	6.23	129.13	120.29
3	M	199	GLU	C-N-CA	6.23	129.13	120.29
5	C	489	LEU	CA-C-O	-6.23	113.82	120.42
11	U	139	LEU	CA-C-O	-6.23	113.95	120.55
11	T	52	LYS	CA-C-N	6.23	128.95	120.54
11	T	52	LYS	C-N-CA	6.23	128.95	120.54
5	C	89	GLY	O-C-N	-6.23	115.17	122.45
2	O	249	ALA	O-C-N	-6.22	115.52	122.12
3	M	74	ALA	CB-CA-C	-6.22	100.27	110.85
5	E	288	ASN	N-CA-C	-6.22	104.03	111.69
5	A	37	ALA	CA-C-N	6.22	134.54	122.03
5	A	37	ALA	C-N-CA	6.22	134.54	122.03
11	T	128	GLY	CA-C-N	6.22	129.13	120.29
11	T	128	GLY	C-N-CA	6.22	129.13	120.29
5	E	450	HIS	O-C-N	6.22	130.31	123.22
5	A	289	GLU	N-CA-C	-6.22	104.50	111.28
11	S	144	LEU	O-C-N	6.22	128.47	122.07
5	E	335	THR	N-CA-C	-6.21	104.59	111.36
6	B	258	LEU	CA-C-N	6.21	129.11	120.29
6	B	258	LEU	C-N-CA	6.21	129.11	120.29
6	D	376	LEU	CA-C-O	-6.21	111.65	120.16
10	P	319	LEU	N-CA-CB	6.21	119.06	110.11
5	C	602	LYS	CA-C-N	6.21	129.23	120.28
5	C	602	LYS	C-N-CA	6.21	129.23	120.28
7	Q	320	VAL	O-C-N	6.21	128.00	121.91
11	S	133	LEU	N-CA-C	6.21	118.85	111.33
1	b	297	SER	N-CA-C	-6.21	104.51	111.28
5	E	125	PRO	N-CA-CB	6.21	109.44	102.67
6	B	256	PRO	CA-C-N	6.21	129.10	120.29
6	B	256	PRO	C-N-CA	6.21	129.10	120.29
10	P	429	HIS	CE1-NE2-CD2	-6.21	102.79	109.00
5	E	140	GLN	CG-CD-NE2	-6.21	107.09	116.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	E	606	THR	O-C-N	6.21	129.23	122.15
11	Z	133	LEU	N-CA-CB	6.21	119.24	110.12
6	D	70	ILE	N-CA-C	-6.21	99.55	108.48
8	J	77	GLN	CA-C-N	6.21	131.65	120.79
8	J	77	GLN	C-N-CA	6.21	131.65	120.79
9	G	116	GLU	CB-CA-C	-6.21	97.20	109.67
11	a	12	PHE	CA-C-N	6.21	126.87	119.98
11	a	12	PHE	C-N-CA	6.21	126.87	119.98
4	N	102	ASP	CA-C-O	-6.20	111.98	119.67
5	C	387	LYS	N-CA-CB	6.20	119.24	110.12
10	P	161	VAL	CA-C-O	-6.20	114.16	121.05
5	A	568	SER	CA-C-N	6.20	129.09	120.29
5	A	568	SER	C-N-CA	6.20	129.09	120.29
6	D	327	GLY	CA-C-O	-6.20	114.86	120.94
10	P	164	LEU	N-CA-C	6.20	118.84	111.71
1	b	57	ASN	N-CA-C	-6.20	104.44	111.07
6	D	253	ILE	N-CA-CB	6.20	124.07	111.05
6	B	79	VAL	CA-C-N	6.20	129.09	120.29
6	B	79	VAL	C-N-CA	6.20	129.09	120.29
5	C	380	PHE	CA-CB-CG	-6.20	107.60	113.80
11	T	142	TYR	O-C-N	6.20	128.69	122.12
6	D	278	LEU	N-CA-C	-6.19	97.18	108.02
8	J	92	ASP	CB-CA-C	-6.19	99.17	110.63
5	C	531	TYR	N-CA-C	-6.19	103.79	113.02
8	J	3	GLN	CA-C-O	-6.19	114.32	120.82
6	B	326	ASN	N-CA-C	-6.19	99.64	109.23
10	P	319	LEU	CA-C-O	-6.19	113.20	119.08
6	B	64	GLN	OE1-CD-NE2	6.19	128.79	122.60
10	P	416	GLU	CA-C-O	-6.19	112.86	119.97
11	T	96	SER	O-C-N	6.19	128.44	122.07
5	A	172	ILE	N-CA-C	-6.19	98.77	108.23
5	A	561	VAL	CA-C-N	6.19	129.71	120.31
5	A	561	VAL	C-N-CA	6.19	129.71	120.31
11	X	142	TYR	N-CA-C	6.19	118.02	111.28
5	A	93	SER	O-C-N	6.18	130.75	122.96
11	R	117	ARG	N-CA-CB	6.18	119.87	110.28
1	b	307	ASP	CA-C-N	6.18	129.18	120.28
1	b	307	ASP	C-N-CA	6.18	129.18	120.28
5	A	59	GLU	CA-C-N	6.18	130.22	122.43
5	A	59	GLU	C-N-CA	6.18	130.22	122.43
5	A	454	ILE	N-CA-CB	6.18	121.50	111.36
7	Q	97	TYR	N-CA-C	6.18	118.02	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	I	58	ILE	CA-C-N	6.18	128.56	120.28
9	I	58	ILE	C-N-CA	6.18	128.56	120.28
5	C	409	SER	N-CA-CB	6.18	121.98	111.66
11	S	42	THR	N-CA-C	-6.18	104.60	111.71
2	O	313	VAL	N-CA-C	-6.18	104.72	110.53
5	C	89	GLY	CA-C-O	6.18	126.17	119.06
7	Q	10	ASN	OD1-CG-ND2	-6.18	116.42	122.60
7	Q	206	GLU	O-C-N	6.18	127.84	121.79
5	A	143	PRO	O-C-N	-6.18	115.35	123.13
7	Q	104	ILE	CB-CA-C	-6.18	104.06	111.97
9	I	95	SER	CA-C-N	6.18	129.06	120.29
9	I	95	SER	C-N-CA	6.18	129.06	120.29
11	V	50	LEU	CA-C-N	6.18	128.47	120.44
11	V	50	LEU	C-N-CA	6.18	128.47	120.44
7	Q	301	THR	CA-C-O	-6.17	112.87	119.97
1	b	123	GLN	OE1-CD-NE2	6.17	128.77	122.60
2	O	173	ARG	CA-C-N	6.17	132.19	122.94
2	O	173	ARG	C-N-CA	6.17	132.19	122.94
11	Z	153	ARG	N-CA-C	-6.17	104.10	111.69
1	b	73	TYR	CA-C-O	-6.17	114.34	120.82
6	F	285	ALA	CA-C-N	6.17	128.83	120.44
6	F	285	ALA	C-N-CA	6.17	128.83	120.44
6	B	200	VAL	CA-C-N	6.17	131.02	120.72
6	B	200	VAL	C-N-CA	6.17	131.02	120.72
10	P	103	LEU	CA-C-N	6.17	128.54	120.28
10	P	103	LEU	C-N-CA	6.17	128.54	120.28
6	F	443	PHE	N-CA-C	-6.16	105.92	113.50
11	S	68	LEU	CA-C-N	6.16	128.33	120.56
11	S	68	LEU	C-N-CA	6.16	128.33	120.56
6	F	369	ILE	N-CA-CB	6.16	117.25	110.53
8	J	104	LYS	CA-C-N	6.16	127.54	119.84
8	J	104	LYS	C-N-CA	6.16	127.54	119.84
10	P	261	ASN	N-CA-C	-6.16	104.64	111.36
2	O	325	PHE	CA-CB-CG	-6.16	107.64	113.80
5	E	428	THR	O-C-N	6.16	129.17	122.15
10	P	443	LYS	N-CA-C	6.16	117.66	111.07
11	Z	14	ALA	CA-C-O	-6.16	114.02	120.55
1	b	272	GLN	CA-C-N	6.16	128.81	120.38
1	b	272	GLN	C-N-CA	6.16	128.81	120.38
2	O	389	ILE	N-CA-C	-6.16	99.55	108.17
5	A	528	GLN	CB-CG-CD	-6.16	102.13	112.60
11	U	138	VAL	CA-C-N	6.16	128.53	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	U	138	VAL	C-N-CA	6.16	128.53	120.28
6	B	71	ARG	N-CA-C	-6.16	100.25	108.74
6	D	344	HIS	CA-CB-CG	-6.16	107.64	113.80
6	F	127	PHE	N-CA-CB	6.15	120.89	110.49
9	K	138	ILE	N-CA-CB	6.15	118.37	110.99
10	P	86	THR	N-CA-CB	6.15	118.93	110.01
11	Z	35	SER	CA-C-N	6.15	126.94	119.99
11	Z	35	SER	C-N-CA	6.15	126.94	119.99
1	b	282	SER	N-CA-C	-6.15	104.84	112.90
6	B	349	LEU	O-C-N	6.15	129.16	122.15
7	Q	40	GLU	N-CA-C	6.15	118.06	111.36
5	E	152	ILE	N-CA-C	-6.15	98.81	108.95
6	D	402	GLN	O-C-N	6.15	128.40	122.07
10	P	306	LYS	CA-C-O	-6.15	114.03	120.55
7	Q	239	SER	CB-CA-C	-6.14	96.91	109.38
3	M	213	GLU	CA-C-O	-6.14	114.04	120.55
5	E	184	TRP	CA-CB-CG	6.14	125.27	113.60
3	M	214	THR	CA-C-N	6.14	131.08	120.58
3	M	214	THR	C-N-CA	6.14	131.08	120.58
5	E	244	PHE	CA-C-N	6.14	127.51	119.84
5	E	244	PHE	C-N-CA	6.14	127.51	119.84
6	D	276	THR	N-CA-CB	6.13	120.20	110.57
2	O	107	VAL	N-CA-CB	6.13	115.23	110.45
2	O	327	ILE	N-CA-CB	6.13	119.86	111.41
11	U	53	ASN	CA-C-O	6.13	127.46	120.90
5	C	170	HIS	CB-CG-CD2	-6.12	123.24	131.20
5	A	164	ASN	CA-C-O	6.12	127.85	120.99
5	A	221	ARG	CA-C-N	6.12	127.49	119.84
5	A	221	ARG	C-N-CA	6.12	127.49	119.84
11	S	122	GLN	CA-C-N	6.12	127.50	119.84
11	S	122	GLN	C-N-CA	6.12	127.50	119.84
11	T	135	PHE	CB-CG-CD2	-6.12	110.29	120.70
5	E	381	PRO	N-CA-C	6.12	125.08	112.47
9	G	180	ASN	CB-CA-C	-6.12	97.68	109.37
5	A	181	THR	CB-CA-C	6.12	121.38	109.33
5	E	130	THR	CA-C-N	6.12	125.88	119.76
5	E	130	THR	C-N-CA	6.12	125.88	119.76
5	C	166	LEU	CA-C-O	-6.12	111.76	120.51
5	E	138	LYS	N-CA-C	-6.11	99.03	109.24
5	A	524	ASP	N-CA-C	6.11	119.93	112.23
6	B	95	PHE	CA-CB-CG	6.11	119.91	113.80
2	O	10	ASP	CA-CB-CG	-6.11	106.49	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	C	425	ASP	CA-C-N	6.11	126.28	119.32
5	C	425	ASP	C-N-CA	6.11	126.28	119.32
5	C	423	PHE	CA-CB-CG	-6.11	107.69	113.80
9	I	180	ASN	CA-C-O	6.11	128.00	121.16
11	a	157	ASP	CA-CB-CG	-6.11	106.49	112.60
5	C	392	TYR	CA-C-N	6.11	130.37	120.60
5	C	392	TYR	C-N-CA	6.11	130.37	120.60
11	R	124	ARG	NE-CZ-NH2	-6.11	113.70	119.20
5	C	560	ALA	CB-CA-C	-6.10	101.25	110.90
11	a	50	LEU	CA-C-N	6.10	128.46	120.28
11	a	50	LEU	C-N-CA	6.10	128.46	120.28
6	F	429	ASP	CA-C-N	6.10	128.37	120.44
6	F	429	ASP	C-N-CA	6.10	128.37	120.44
2	O	119	ARG	NE-CZ-NH2	-6.10	113.71	119.20
6	B	204	HIS	N-CA-CB	6.10	120.35	110.77
7	Q	181	ARG	CA-C-N	6.10	128.95	120.29
7	Q	181	ARG	C-N-CA	6.10	128.95	120.29
5	C	386	ALA	CA-C-N	6.10	128.45	120.28
5	C	386	ALA	C-N-CA	6.10	128.45	120.28
10	P	171	ILE	N-CA-CB	6.10	119.72	110.58
11	Y	63	ILE	N-CA-C	6.10	116.27	110.42
7	Q	274	GLU	CA-C-N	6.10	129.48	120.95
7	Q	274	GLU	C-N-CA	6.10	129.48	120.95
9	I	196	LYS	O-C-N	-6.10	115.59	122.23
6	D	361	ASP	CA-C-O	6.09	126.94	120.36
7	Q	212	LEU	CA-C-N	6.09	126.70	120.00
7	Q	212	LEU	C-N-CA	6.09	126.70	120.00
11	W	112	GLY	CA-C-N	6.09	128.69	120.65
11	W	112	GLY	C-N-CA	6.09	128.69	120.65
5	E	196	LYS	N-CA-CB	6.09	119.15	110.44
6	B	352	TYR	CB-CG-CD2	-6.09	111.66	120.80
5	E	202	PHE	N-CA-C	-6.09	96.89	107.49
10	P	207	GLU	CB-CG-CD	6.09	122.96	112.60
5	A	164	ASN	N-CA-C	-6.09	99.43	108.99
6	D	283	SER	CA-C-N	6.09	128.94	120.29
6	D	283	SER	C-N-CA	6.09	128.94	120.29
9	G	27	GLU	CA-C-N	6.09	128.94	120.29
9	G	27	GLU	C-N-CA	6.09	128.94	120.29
2	O	214	SER	N-CA-C	-6.09	100.23	109.85
2	O	348	PHE	CA-CB-CG	-6.09	107.71	113.80
11	X	112	GLY	N-CA-C	6.09	120.00	112.64
5	E	513	ILE	CA-CB-CG1	-6.08	100.06	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	J	56	GLU	N-CA-C	-6.08	104.73	111.36
5	C	468	ASN	CA-CB-CG	6.08	118.68	112.60
5	E	601	GLU	CA-C-N	6.08	130.88	120.72
5	E	601	GLU	C-N-CA	6.08	130.88	120.72
7	Q	116	HIS	ND1-CE1-NE2	6.08	114.48	108.40
10	P	439	ASP	N-CA-C	6.08	117.91	111.28
11	V	113	ASP	N-CA-C	6.08	118.41	111.11
10	P	149	LEU	N-CA-CB	6.08	119.16	110.16
10	P	333	GLU	O-C-N	6.08	128.56	122.12
9	G	88	VAL	N-CA-CB	6.08	117.66	110.55
6	B	52	ILE	CA-C-N	6.08	132.35	122.69
6	B	52	ILE	C-N-CA	6.08	132.35	122.69
11	X	110	ILE	CA-C-N	6.08	128.22	120.56
11	X	110	ILE	C-N-CA	6.08	128.22	120.56
5	C	85	VAL	N-CA-C	-6.08	98.78	107.77
9	K	110	ILE	N-CA-C	6.08	116.86	110.72
10	P	45	LYS	CA-C-O	6.07	126.99	120.55
10	P	352	GLU	N-CA-C	6.07	120.16	112.87
10	P	449	ASP	N-CA-CB	6.07	119.05	110.12
10	P	45	LYS	N-CA-C	6.07	117.90	111.28
6	B	87	ASP	CA-C-O	-6.07	114.54	121.58
6	B	199	ASP	CA-C-N	6.07	129.04	120.42
6	B	199	ASP	C-N-CA	6.07	129.04	120.42
9	I	57	ASN	CA-C-N	6.07	128.78	120.46
9	I	57	ASN	C-N-CA	6.07	128.78	120.46
5	C	331	ALA	CA-C-N	6.07	128.33	120.44
5	C	331	ALA	C-N-CA	6.07	128.33	120.44
11	S	44	VAL	O-C-N	-6.07	115.02	122.18
11	U	94	GLY	CA-C-N	6.07	129.92	120.82
11	U	94	GLY	C-N-CA	6.07	129.92	120.82
1	b	360	LEU	N-CA-C	-6.07	99.11	109.24
6	F	409	ILE	CA-C-N	6.07	126.71	119.98
6	F	409	ILE	C-N-CA	6.07	126.71	119.98
5	A	542	LYS	CA-C-N	6.07	128.41	120.28
5	A	542	LYS	C-N-CA	6.07	128.41	120.28
6	B	351	GLY	CA-C-N	6.07	128.41	120.28
6	B	351	GLY	C-N-CA	6.07	128.41	120.28
11	Y	86	THR	N-CA-C	-6.07	104.75	111.36
5	E	264	VAL	N-CA-CB	6.06	117.64	110.55
6	B	59	ASP	CA-C-O	6.06	126.40	119.18
11	a	22	ILE	CA-C-N	6.06	128.90	120.29
11	a	22	ILE	C-N-CA	6.06	128.90	120.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	C	537	PHE	CA-C-N	6.06	128.93	122.26
5	C	537	PHE	C-N-CA	6.06	128.93	122.26
5	C	546	MET	O-C-N	-6.06	115.69	122.12
11	X	142	TYR	O-C-N	6.06	128.55	122.12
11	Z	19	SER	CA-C-N	6.06	129.22	120.79
11	Z	19	SER	C-N-CA	6.06	129.22	120.79
2	O	269	GLN	OE1-CD-NE2	6.06	128.66	122.60
1	b	26	SER	CA-C-N	6.06	128.68	120.44
1	b	26	SER	C-N-CA	6.06	128.68	120.44
5	C	606	THR	CA-C-N	6.06	128.89	120.29
5	C	606	THR	C-N-CA	6.06	128.89	120.29
11	R	12	PHE	N-CA-C	-6.06	105.93	113.38
11	R	93	ALA	CA-C-N	6.06	126.66	119.94
11	R	93	ALA	C-N-CA	6.06	126.66	119.94
11	T	75	CYS	CA-C-N	6.06	128.40	120.28
11	T	75	CYS	C-N-CA	6.06	128.40	120.28
6	F	136	GLY	N-CA-C	-6.06	106.04	115.67
7	Q	85	ASP	CA-C-O	6.06	126.84	120.42
6	F	450	GLU	CA-C-O	6.05	127.38	120.54
5	C	609	GLU	N-CA-C	-6.05	104.76	111.36
11	R	37	VAL	CA-C-N	6.05	126.66	120.00
11	R	37	VAL	C-N-CA	6.05	126.66	120.00
2	O	107	VAL	CA-C-O	-6.05	114.64	118.69
10	P	19	ILE	CA-CB-CG1	6.05	120.69	110.40
8	H	16	GLU	N-CA-CB	6.05	119.12	110.16
11	V	127	VAL	O-C-N	6.05	128.96	122.06
3	M	171	ASN	CA-CB-CG	-6.05	106.55	112.60
10	P	233	THR	CA-C-O	6.05	125.17	118.52
11	Z	20	ALA	CA-C-N	6.05	130.96	120.86
11	Z	20	ALA	C-N-CA	6.05	130.96	120.86
2	O	359	ASP	CA-C-N	6.05	133.09	121.54
2	O	359	ASP	C-N-CA	6.05	133.09	121.54
1	b	80	ASP	CA-C-O	6.05	129.16	120.51
5	E	549	ALA	CA-C-O	-6.05	114.47	120.82
5	C	325	PRO	CA-C-N	6.04	130.68	120.64
5	C	325	PRO	C-N-CA	6.04	130.68	120.64
5	E	130	THR	CA-C-O	-6.04	114.94	120.50
5	C	579	HIS	CB-CG-CD2	-6.04	123.35	131.20
5	A	54	ASP	CA-C-N	6.04	130.73	122.34
5	A	54	ASP	C-N-CA	6.04	130.73	122.34
5	C	515	LEU	CA-C-N	6.04	128.29	120.44
5	C	515	LEU	C-N-CA	6.04	128.29	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	D	292	SER	N-CA-C	-6.04	107.74	114.62
9	I	173	VAL	O-C-N	6.04	130.79	122.88
5	A	373	GLU	CA-C-N	6.03	128.78	120.39
5	A	373	GLU	C-N-CA	6.03	128.78	120.39
6	B	462	TRP	CA-C-N	6.03	128.37	120.28
6	B	462	TRP	C-N-CA	6.03	128.37	120.28
8	L	92	ASP	CA-CB-CG	-6.03	106.57	112.60
9	K	218	ILE	N-CA-C	6.03	116.78	110.62
11	R	120	SER	N-CA-C	6.03	117.53	111.07
11	S	150	LEU	CA-C-N	6.03	128.69	120.54
11	S	150	LEU	C-N-CA	6.03	128.69	120.54
2	O	264	GLU	O-C-N	-6.03	115.73	122.12
3	M	169	ARG	CD-NE-CZ	-6.03	115.96	124.40
5	E	500	GLN	CA-C-O	-6.03	114.49	120.70
10	P	330	TYR	CA-C-N	6.03	129.69	120.82
10	P	330	TYR	C-N-CA	6.03	129.69	120.82
10	P	427	ILE	CB-CA-C	-6.03	103.90	112.22
6	D	53	VAL	CA-CB-CG1	6.03	120.65	110.40
11	Y	96	SER	CB-CA-C	-6.03	101.34	110.92
11	a	157	ASP	CB-CG-OD2	-6.03	104.53	118.40
5	C	98	PRO	N-CA-CB	6.03	109.58	103.25
6	B	411	LYS	CA-C-O	6.02	126.94	120.55
7	Q	329	CYS	CA-C-O	-6.02	114.50	120.82
1	b	37	GLY	CA-C-O	-6.02	111.54	119.25
2	O	97	TYR	N-CA-CB	6.02	120.67	110.49
6	F	29	ASN	CA-CB-CG	6.02	118.62	112.60
11	S	95	LEU	CA-C-N	6.02	128.67	120.54
11	S	95	LEU	C-N-CA	6.02	128.67	120.54
2	O	224	VAL	N-CA-C	-6.02	98.54	107.51
5	E	100	LEU	CA-C-N	6.02	129.42	120.87
5	E	100	LEU	C-N-CA	6.02	129.42	120.87
5	C	127	GLY	N-CA-C	-6.02	106.78	115.27
10	P	457	SER	N-CA-C	6.02	118.06	110.24
1	b	345	GLU	CA-C-N	6.02	129.17	120.38
1	b	345	GLU	C-N-CA	6.02	129.17	120.38
5	C	100	LEU	CB-CA-C	-6.02	101.39	110.90
2	O	177	ASP	CA-C-N	6.01	130.65	123.19
2	O	177	ASP	C-N-CA	6.01	130.65	123.19
6	D	277	ILE	O-C-N	6.01	129.43	122.99
11	S	21	ILE	O-C-N	-6.01	114.26	122.26
5	E	164	ASN	CA-CB-CG	-6.01	106.59	112.60
11	R	111	VAL	CA-C-O	-6.01	115.16	121.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	F	409	ILE	N-CA-C	-6.01	104.65	110.72
5	C	337	ILE	N-CA-C	6.01	118.60	111.09
7	Q	67	LEU	CA-C-N	6.01	128.69	120.46
7	Q	67	LEU	C-N-CA	6.01	128.69	120.46
1	b	187	VAL	CA-C-N	6.01	131.36	121.39
1	b	187	VAL	C-N-CA	6.01	131.36	121.39
8	H	52	LYS	CA-C-O	-6.01	114.51	120.70
6	B	412	ASP	CB-CA-C	-6.00	100.82	110.79
1	b	92	LEU	CA-C-N	6.00	129.81	120.75
1	b	92	LEU	C-N-CA	6.00	129.81	120.75
3	M	115	PRO	CA-C-N	6.00	128.32	120.28
3	M	115	PRO	C-N-CA	6.00	128.32	120.28
5	A	153	SER	O-C-N	-6.00	116.20	123.10
11	Z	23	PHE	O-C-N	6.00	128.48	122.12
6	F	474	ASN	OD1-CG-ND2	6.00	128.60	122.60
11	a	66	TYR	CA-C-N	6.00	126.75	120.03
11	a	66	TYR	C-N-CA	6.00	126.75	120.03
11	T	154	ALA	CA-C-N	6.00	129.28	120.82
11	T	154	ALA	C-N-CA	6.00	129.28	120.82
5	E	193	LEU	CA-C-N	6.00	128.24	120.44
5	E	193	LEU	C-N-CA	6.00	128.24	120.44
6	D	455	PHE	CA-C-N	6.00	128.32	120.28
6	D	455	PHE	C-N-CA	6.00	128.32	120.28
3	M	175	HIS	CE1-NE2-CD2	-5.99	103.01	109.00
5	C	217	VAL	CA-CB-CG2	5.99	120.59	110.40
6	D	348	ASP	CB-CA-C	-5.99	100.66	110.85
5	E	111	PRO	CA-C-N	5.99	128.91	120.28
5	E	111	PRO	C-N-CA	5.99	128.91	120.28
6	B	461	ALA	CA-C-O	5.99	126.87	120.10
11	R	68	LEU	N-CA-CB	5.99	118.93	110.12
11	S	97	VAL	CB-CA-C	-5.99	104.21	112.24
6	F	272	ARG	CA-C-O	-5.99	114.39	121.16
5	A	264	VAL	N-CA-C	5.99	116.77	110.72
5	C	62	ARG	NE-CZ-NH2	-5.99	113.81	119.20
11	T	157	ASP	CA-CB-CG	-5.99	106.61	112.60
8	L	3	GLN	N-CA-C	5.99	117.48	111.07
11	V	101	GLY	CA-C-N	5.99	128.62	120.54
11	V	101	GLY	C-N-CA	5.99	128.62	120.54
2	O	43	ALA	N-CA-C	-5.99	101.55	110.23
3	M	26	ASN	CA-CB-CG	-5.99	106.61	112.60
6	F	70	ILE	N-CA-C	-5.99	99.73	108.11
5	A	216	PRO	N-CA-C	-5.99	101.79	111.19

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	V	144	LEU	CA-C-N	5.99	128.18	120.70
11	V	144	LEU	C-N-CA	5.99	128.18	120.70
1	b	121	LEU	N-CA-CB	5.98	119.02	110.16
6	B	359	PHE	CA-C-N	5.98	130.61	123.19
6	B	359	PHE	C-N-CA	5.98	130.61	123.19
11	Y	15	ILE	O-C-N	5.98	128.56	121.80
11	Z	144	LEU	CA-C-N	5.98	128.61	120.77
11	Z	144	LEU	C-N-CA	5.98	128.61	120.77
1	b	319	ILE	CB-CA-C	-5.98	104.06	112.14
3	M	13	MET	N-CA-C	5.98	119.61	111.17
6	B	420	VAL	CA-CB-CG2	5.98	120.57	110.40
9	K	45	ILE	CA-CB-CG1	5.98	120.57	110.40
5	E	466	VAL	CA-C-N	5.98	128.21	120.44
5	E	466	VAL	C-N-CA	5.98	128.21	120.44
7	Q	119	ASP	CA-CB-CG	-5.98	106.62	112.60
10	P	421	GLN	CA-C-N	5.98	128.09	120.56
10	P	421	GLN	C-N-CA	5.98	128.09	120.56
8	L	5	ASN	CA-CB-CG	-5.98	106.62	112.60
10	P	244	TYR	CA-C-N	5.98	128.78	120.29
10	P	244	TYR	C-N-CA	5.98	128.78	120.29
5	A	339	LEU	CB-CA-C	-5.97	100.69	110.85
5	A	417	SER	N-CA-C	-5.97	96.61	109.81
5	C	454	ILE	CA-C-O	-5.97	115.58	121.67
6	D	88	VAL	CA-CB-CG2	-5.97	100.24	110.40
6	D	243	ASN	N-CA-C	-5.97	99.26	109.24
6	F	70	ILE	N-CA-CB	5.97	119.65	111.41
6	F	311	ASP	CA-C-N	5.97	128.28	120.28
6	F	311	ASP	C-N-CA	5.97	128.28	120.28
6	F	385	SER	CA-C-N	5.97	128.56	120.44
6	F	385	SER	C-N-CA	5.97	128.56	120.44
5	C	605	SER	N-CA-C	5.97	117.79	111.28
6	D	253	ILE	CA-C-N	5.97	128.90	120.42
6	D	253	ILE	C-N-CA	5.97	128.90	120.42
2	O	57	SER	CA-C-N	5.97	128.76	120.29
2	O	57	SER	C-N-CA	5.97	128.76	120.29
5	C	579	HIS	CA-CB-CG	-5.97	107.83	113.80
7	Q	271	ASN	CB-CA-C	-5.97	101.46	109.16
11	R	51	PHE	N-CA-C	5.97	117.79	111.28
11	Z	55	VAL	O-C-N	-5.97	115.83	120.07
2	O	316	VAL	O-C-N	-5.97	116.06	121.91
11	X	157	ASP	N-CA-CB	5.97	120.58	110.49
10	P	458	ASP	N-CA-CB	5.97	120.57	110.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	B	366	ASN	CA-CB-CG	-5.96	106.64	112.60
11	R	151	ASN	CA-C-N	5.96	128.27	120.28
11	R	151	ASN	C-N-CA	5.96	128.27	120.28
11	T	106	PHE	N-CA-C	-5.96	104.70	111.14
5	A	374	MET	N-CA-C	5.96	117.21	109.64
7	Q	264	GLY	CA-C-N	5.96	128.63	120.46
7	Q	264	GLY	C-N-CA	5.96	128.63	120.46
6	F	201	HIS	CE1-NE2-CD2	-5.96	103.04	109.00
11	T	47	PRO	N-CA-C	-5.96	106.28	114.98
6	F	396	HIS	CG-CD2-NE2	5.96	113.16	107.20
9	G	62	PHE	CA-CB-CG	5.96	119.76	113.80
11	U	90	GLN	OE1-CD-NE2	5.96	128.56	122.60
5	C	224	THR	O-C-N	5.96	128.52	122.09
6	F	400	SER	CA-C-O	-5.95	113.37	120.10
5	A	557	ALA	N-CA-C	-5.95	104.87	111.36
11	U	91	LEU	CA-C-N	5.95	127.58	120.14
11	U	91	LEU	C-N-CA	5.95	127.58	120.14
2	O	8	ALA	CA-C-N	5.95	129.56	121.05
2	O	8	ALA	C-N-CA	5.95	129.56	121.05
2	O	35	ASN	N-CA-C	5.95	117.57	111.14
5	C	222	PRO	N-CA-C	5.95	120.56	111.34
11	R	88	PHE	N-CA-C	5.95	118.55	111.71
11	V	138	VAL	CA-C-N	5.95	128.25	120.28
11	V	138	VAL	C-N-CA	5.95	128.25	120.28
5	A	93	SER	N-CA-C	-5.95	100.28	109.14
5	C	405	ASP	N-CA-CB	5.95	120.54	110.49
5	C	466	VAL	CB-CA-C	5.95	120.43	112.22
6	D	429	ASP	O-C-N	-5.95	114.95	122.27
11	U	146	VAL	CA-C-N	5.95	128.17	120.44
11	U	146	VAL	C-N-CA	5.95	128.17	120.44
10	P	124	LEU	N-CA-CB	5.95	118.69	110.07
11	X	50	LEU	CA-C-N	5.95	128.25	120.28
11	X	50	LEU	C-N-CA	5.95	128.25	120.28
5	E	124	ILE	CB-CG1-CD1	5.94	126.28	113.80
7	Q	190	GLU	CA-C-O	-5.94	114.58	120.70
11	Y	48	ASP	N-CA-C	-5.94	106.03	113.28
5	A	110	ARG	CB-CA-C	5.94	117.38	109.65
6	D	346	ILE	N-CA-CB	5.94	115.09	110.45
10	P	429	HIS	ND1-CE1-NE2	5.94	114.34	108.40
11	U	111	VAL	CA-C-N	5.94	126.70	119.99
11	U	111	VAL	C-N-CA	5.94	126.70	119.99
10	P	346	LEU	CA-C-O	5.94	127.06	120.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	G	206	ARG	NE-CZ-NH2	5.94	124.55	119.20
1	b	184	VAL	N-CA-C	-5.94	99.73	108.99
5	C	545	ASP	CB-CA-C	-5.94	101.56	110.88
6	D	231	GLU	N-CA-CB	5.94	118.85	110.12
7	Q	212	LEU	N-CA-C	-5.94	104.89	111.36
7	Q	335	ARG	N-CA-C	5.94	118.19	110.53
10	P	149	LEU	CA-C-O	-5.94	114.12	120.42
5	A	74	GLU	N-CA-C	-5.94	100.32	109.52
6	D	120	ILE	O-C-N	5.94	127.90	122.14
11	W	82	GLN	OE1-CD-NE2	5.94	128.54	122.60
8	L	9	THR	CA-C-O	-5.93	114.13	120.42
5	E	120	GLN	OE1-CD-NE2	5.93	128.53	122.60
9	G	161	GLY	CA-C-N	5.93	130.77	120.68
9	G	161	GLY	C-N-CA	5.93	130.77	120.68
11	W	97	VAL	CG1-CB-CG2	5.93	123.85	110.80
11	V	130	ILE	N-CA-CB	5.93	117.09	110.51
1	b	45	ASN	CA-CB-CG	5.93	118.53	112.60
3	M	85	GLU	N-CA-C	5.93	117.74	111.28
5	E	384	LEU	N-CA-C	5.93	118.22	111.11
6	F	302	ARG	CA-C-N	5.93	132.78	122.05
6	F	302	ARG	C-N-CA	5.93	132.78	122.05
5	E	587	PHE	CA-CB-CG	5.92	119.72	113.80
5	C	572	ASP	N-CA-CB	5.92	118.93	110.16
10	P	340	SER	CA-C-N	5.92	128.14	120.44
10	P	340	SER	C-N-CA	5.92	128.14	120.44
11	Y	129	MET	CA-C-N	5.92	128.03	120.56
11	Y	129	MET	C-N-CA	5.92	128.03	120.56
11	V	110	ILE	CA-C-N	5.92	128.03	120.56
11	V	110	ILE	C-N-CA	5.92	128.03	120.56
6	B	411	LYS	CB-CA-C	-5.92	100.96	110.79
6	B	365	HIS	N-CA-C	5.92	117.41	111.07
6	B	67	VAL	O-C-N	5.92	129.47	122.66
5	C	301	TYR	N-CA-C	-5.92	99.75	109.40
2	O	141	LEU	CA-C-N	5.92	128.13	120.44
2	O	141	LEU	C-N-CA	5.92	128.13	120.44
5	C	383	TYR	CA-C-N	5.92	128.13	120.44
5	C	383	TYR	C-N-CA	5.92	128.13	120.44
11	a	46	ARG	NE-CZ-NH1	-5.92	115.58	121.50
9	G	224	GLY	N-CA-C	-5.92	96.14	113.30
6	B	231	GLU	O-C-N	5.91	128.39	122.12
6	D	95	PHE	CA-C-N	5.91	128.69	120.29
6	D	95	PHE	C-N-CA	5.91	128.69	120.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	H	67	GLU	N-CA-C	-5.91	105.33	112.54
11	T	110	ILE	CA-C-O	-5.91	114.32	121.18
3	M	141	ARG	CA-C-N	5.91	128.48	120.44
3	M	141	ARG	C-N-CA	5.91	128.48	120.44
3	M	175	HIS	N-CA-C	5.91	118.61	111.40
5	E	478	PHE	CA-CB-CG	5.91	119.71	113.80
5	A	74	GLU	O-C-N	-5.91	115.47	123.15
6	B	477	SER	O-C-N	-5.91	115.37	121.28
10	P	245	HIS	CA-CB-CG	5.91	119.71	113.80
10	P	447	LYS	CA-C-N	5.91	128.68	120.29
10	P	447	LYS	C-N-CA	5.91	128.68	120.29
11	Z	141	LEU	CB-CA-C	-5.91	101.35	110.81
9	K	192	ASN	CA-C-N	5.91	128.47	120.44
9	K	192	ASN	C-N-CA	5.91	128.47	120.44
10	P	109	TYR	N-CA-C	-5.91	100.36	109.52
11	T	156	GLN	CA-C-N	5.91	132.82	121.54
11	T	156	GLN	C-N-CA	5.91	132.82	121.54
1	b	272	GLN	N-CA-CB	5.91	120.54	110.50
6	B	222	ALA	CA-C-N	5.91	128.19	120.28
6	B	222	ALA	C-N-CA	5.91	128.19	120.28
5	C	356	SER	N-CA-CB	5.91	120.54	110.50
9	K	29	GLU	CA-C-N	5.91	128.68	120.29
9	K	29	GLU	C-N-CA	5.91	128.68	120.29
11	R	46	ARG	NE-CZ-NH1	5.90	127.40	121.50
6	B	273	HIS	CE1-NE2-CD2	-5.90	103.10	109.00
5	C	337	ILE	O-C-N	-5.90	115.13	121.80
10	P	157	ASN	CA-C-N	5.90	128.80	120.42
10	P	157	ASN	C-N-CA	5.90	128.80	120.42
11	R	25	SER	CA-C-N	5.90	128.99	120.79
11	R	25	SER	C-N-CA	5.90	128.99	120.79
11	U	100	SER	CA-C-N	5.90	126.49	119.94
11	U	100	SER	C-N-CA	5.90	126.49	119.94
6	B	474	ASN	O-C-N	5.90	127.34	121.85
11	Z	55	VAL	N-CA-CB	5.90	114.22	110.50
6	B	418	ALA	CA-C-O	-5.90	114.63	120.82
5	C	281	VAL	CA-C-O	-5.90	114.31	120.27
6	D	163	SER	O-C-N	5.90	130.09	123.19
10	P	24	SER	CA-C-N	5.90	129.66	120.34
10	P	24	SER	C-N-CA	5.90	129.66	120.34
10	P	213	THR	N-CA-C	-5.90	104.77	111.14
6	B	204	HIS	N-CA-C	-5.89	98.67	108.34
8	L	37	THR	CA-C-O	-5.89	113.70	120.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	K	44	GLU	O-C-N	-5.89	116.00	122.07
11	V	126	PHE	CA-C-O	-5.89	114.17	120.42
5	A	384	LEU	N-CA-C	5.89	118.18	111.11
11	Z	72	VAL	CA-C-N	5.89	128.49	120.54
11	Z	72	VAL	C-N-CA	5.89	128.49	120.54
9	I	127	GLU	CB-CG-CD	-5.89	102.58	112.60
6	F	180	HIS	CE1-NE2-CD2	-5.89	103.11	109.00
7	Q	83	ILE	N-CA-C	5.89	116.63	110.62
11	R	33	ALA	CA-C-O	-5.89	114.59	121.07
9	K	195	ASP	N-CA-CB	5.89	120.44	110.49
11	T	153	ARG	CA-C-N	5.89	128.49	120.54
11	T	153	ARG	C-N-CA	5.89	128.49	120.54
5	A	578	LYS	CA-C-N	5.89	128.17	120.28
5	A	578	LYS	C-N-CA	5.89	128.17	120.28
6	D	218	ASN	N-CA-CB	5.89	118.69	110.04
5	E	24	TYR	CA-C-N	5.88	129.78	121.30
5	E	24	TYR	C-N-CA	5.88	129.78	121.30
6	B	315	ILE	CA-C-N	5.88	130.55	120.72
6	B	315	ILE	C-N-CA	5.88	130.55	120.72
5	A	534	TYR	CA-C-N	5.88	131.10	122.63
5	A	534	TYR	C-N-CA	5.88	131.10	122.63
6	D	220	GLU	CA-C-N	5.88	128.64	120.29
6	D	220	GLU	C-N-CA	5.88	128.64	120.29
8	L	15	LYS	CA-C-N	5.88	128.16	120.28
8	L	15	LYS	C-N-CA	5.88	128.16	120.28
11	X	63	ILE	CA-CB-CG1	5.88	120.40	110.40
5	A	279	ILE	O-C-N	-5.88	116.97	123.20
1	b	47	LYS	N-CA-CB	5.88	120.43	110.49
5	E	202	PHE	CA-CB-CG	5.88	119.68	113.80
9	K	222	LEU	N-CA-C	-5.88	105.20	112.90
10	P	176	ASN	CA-C-O	5.88	127.62	120.92
11	Z	120	SER	CA-C-O	-5.88	114.61	120.90
11	T	107	ALA	CB-CA-C	-5.88	101.65	110.88
1	b	64	ASN	CB-CA-C	-5.88	99.76	110.63
10	P	292	SER	CB-CA-C	5.88	120.11	110.88
9	G	50	ILE	N-CA-C	5.88	116.61	110.62
3	M	168	ARG	CA-C-O	5.88	126.78	120.55
6	B	434	GLU	CA-C-N	5.88	128.63	120.29
6	B	434	GLU	C-N-CA	5.88	128.63	120.29
5	E	307	THR	CA-CB-OG1	5.87	118.41	109.60
6	F	30	THR	CA-C-N	5.87	128.97	120.98
6	F	30	THR	C-N-CA	5.87	128.97	120.98

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	P	55	ASN	CA-CB-CG	-5.87	106.73	112.60
11	S	108	ILE	CA-CB-CG2	5.87	120.48	110.50
1	b	105	SER	CA-C-N	5.87	128.54	122.96
1	b	105	SER	C-N-CA	5.87	128.54	122.96
5	E	384	LEU	CA-C-N	5.87	126.34	119.94
5	E	384	LEU	C-N-CA	5.87	126.34	119.94
10	P	43	THR	CA-C-N	5.87	128.63	120.29
10	P	43	THR	C-N-CA	5.87	128.63	120.29
11	Z	148	LEU	N-CA-CB	5.87	118.69	109.94
11	V	154	ALA	N-CA-C	5.87	121.06	111.37
9	K	59	ASP	CA-CB-CG	-5.87	106.73	112.60
9	G	123	SER	CA-C-N	5.87	128.63	120.29
9	G	123	SER	C-N-CA	5.87	128.63	120.29
9	K	155	ASP	CA-CB-CG	-5.87	106.73	112.60
10	P	340	SER	CA-C-O	-5.87	114.33	120.55
7	Q	113	GLY	CA-C-O	-5.87	114.71	120.75
9	I	206	ARG	NE-CZ-NH1	-5.87	115.63	121.50
9	K	120	ILE	CA-C-N	5.87	128.14	120.28
9	K	120	ILE	C-N-CA	5.87	128.14	120.28
2	O	327	ILE	N-CA-C	-5.87	99.90	108.11
5	A	444	LYS	CB-CG-CD	5.87	124.79	111.30
11	R	20	ALA	N-CA-CB	5.87	118.68	109.94
1	b	28	ASP	N-CA-CB	5.86	119.25	110.22
2	O	327	ILE	CB-CA-C	-5.86	101.95	110.63
3	M	42	ARG	CA-C-N	5.86	128.14	120.28
3	M	42	ARG	C-N-CA	5.86	128.14	120.28
5	E	610	ARG	CA-C-O	-5.86	114.20	120.42
11	Z	119	SER	CA-C-N	5.86	128.46	120.54
11	Z	119	SER	C-N-CA	5.86	128.46	120.54
11	a	142	TYR	CA-CB-CG	5.86	124.45	113.90
1	b	321	GLU	N-CA-CB	5.86	118.51	110.01
10	P	219	GLN	CA-C-N	5.86	128.13	120.28
10	P	219	GLN	C-N-CA	5.86	128.13	120.28
5	E	192	THR	CA-C-N	5.86	128.13	120.28
5	E	192	THR	C-N-CA	5.86	128.13	120.28
6	D	253	ILE	CA-C-O	-5.86	112.58	119.85
11	R	34	LYS	N-CA-CB	5.86	118.51	110.01
7	Q	307	SER	CB-CA-C	-5.86	101.68	110.88
9	I	166	ARG	N-CA-C	-5.86	98.33	110.80
6	F	287	ALA	O-C-N	5.85	128.32	122.12
5	A	129	ASP	CA-CB-CG	5.85	118.45	112.60
5	A	423	PHE	CA-C-O	5.85	126.20	119.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	b	317	LYS	N-CA-CB	5.85	118.72	110.12
5	A	410	VAL	N-CA-CB	5.85	119.78	111.82
5	A	90	LYS	O-C-N	5.85	127.03	121.71
9	G	160	TYR	CA-C-O	-5.85	114.22	120.42
1	b	320	PHE	CA-C-O	-5.85	114.22	120.42
3	M	162	VAL	N-CA-C	-5.85	104.81	110.72
4	N	72	HIS	CA-C-N	5.85	128.73	120.42
4	N	72	HIS	C-N-CA	5.85	128.73	120.42
6	D	225	PHE	O-C-N	-5.85	115.38	122.22
9	I	62	PHE	N-CA-CB	5.85	118.49	110.01
10	P	148	SER	N-CA-C	5.85	118.13	111.11
6	B	284	TYR	N-CA-C	-5.85	104.99	111.36
9	I	94	GLN	N-CA-C	5.85	118.44	111.71
9	K	64	SER	CA-C-N	5.85	129.20	120.31
9	K	64	SER	C-N-CA	5.85	129.20	120.31
11	Z	131	LEU	N-CA-C	5.85	117.65	111.28
9	G	29	GLU	O-C-N	5.85	128.09	122.07
11	Z	147	ALA	CA-C-N	5.84	128.43	120.54
11	Z	147	ALA	C-N-CA	5.84	128.43	120.54
7	Q	155	ASP	CB-CA-C	5.84	119.38	109.80
10	P	441	LEU	CB-CA-C	-5.84	101.71	110.88
11	U	23	PHE	CA-CB-CG	5.84	119.64	113.80
5	A	430	ALA	CA-C-N	5.84	128.58	120.29
5	A	430	ALA	C-N-CA	5.84	128.58	120.29
5	C	423	PHE	CA-C-N	5.84	132.02	121.92
5	C	423	PHE	C-N-CA	5.84	132.02	121.92
10	P	108	LYS	N-CA-C	-5.84	106.50	113.97
5	C	292	GLU	N-CA-C	-5.84	104.83	111.14
6	D	46	PHE	CA-C-N	5.84	125.86	119.90
6	D	46	PHE	C-N-CA	5.84	125.86	119.90
5	E	355	ASP	N-CA-CB	5.84	119.64	110.71
5	C	412	ILE	N-CA-CB	5.84	117.99	110.99
6	D	140	ASN	CA-C-O	-5.84	115.99	120.48
7	Q	267	ALA	N-CA-CB	5.84	118.80	110.16
9	I	105	GLU	N-CA-C	-5.84	104.51	111.69
11	U	70	VAL	O-C-N	5.84	127.63	121.91
9	I	22	ALA	CA-C-N	5.83	128.03	120.44
9	I	22	ALA	C-N-CA	5.83	128.03	120.44
11	W	103	ALA	CA-C-O	5.83	126.68	119.97
2	O	360	LYS	N-CA-C	-5.83	98.37	110.80
9	I	122	GLN	OE1-CD-NE2	5.83	128.43	122.60
10	P	6	ILE	CA-CB-CG2	-5.83	100.58	110.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	S	78	LEU	N-CA-CB	5.83	119.16	110.29
11	T	139	LEU	CA-C-N	5.83	126.30	119.94
11	T	139	LEU	C-N-CA	5.83	126.30	119.94
6	B	443	PHE	CA-CB-CG	-5.83	107.97	113.80
5	C	554	HIS	CE1-NE2-CD2	-5.83	103.17	109.00
3	M	182	GLU	N-CA-CB	5.83	118.52	110.07
7	Q	210	THR	CA-C-N	5.83	128.57	120.29
7	Q	210	THR	C-N-CA	5.83	128.57	120.29
5	E	90	LYS	CA-C-N	5.83	127.12	119.84
5	E	90	LYS	C-N-CA	5.83	127.12	119.84
5	E	469	LYS	CA-C-O	-5.83	114.37	120.55
5	A	510	SER	O-C-N	5.83	128.29	122.12
7	Q	321	ARG	CA-C-N	5.83	128.01	120.44
7	Q	321	ARG	C-N-CA	5.83	128.01	120.44
10	P	275	LEU	N-CA-C	-5.83	104.93	111.28
10	P	420	ILE	CA-C-O	-5.82	115.00	121.17
11	V	90	GLN	CA-C-N	5.82	128.88	120.79
11	V	90	GLN	C-N-CA	5.82	128.88	120.79
5	A	519	THR	CA-C-N	5.82	128.01	120.44
5	A	519	THR	C-N-CA	5.82	128.01	120.44
5	C	132	ALA	N-CA-C	-5.82	106.41	112.93
3	M	59	ARG	CG-CD-NE	-5.82	99.19	112.00
4	N	95	PRO	CA-C-N	5.82	130.08	120.94
4	N	95	PRO	C-N-CA	5.82	130.08	120.94
6	F	87	ASP	N-CA-C	-5.82	100.92	109.18
6	B	304	TYR	CA-C-N	5.82	126.15	119.92
6	B	304	TYR	C-N-CA	5.82	126.15	119.92
7	Q	283	ASN	CB-CA-C	-5.82	100.95	110.85
10	P	332	ASP	CA-C-N	5.82	128.08	120.28
10	P	332	ASP	C-N-CA	5.82	128.08	120.28
11	Z	14	ALA	O-C-N	5.82	128.29	122.12
11	Z	68	LEU	CB-CA-C	-5.82	101.13	110.79
6	F	332	ILE	CA-C-N	5.82	126.31	120.14
6	F	332	ILE	C-N-CA	5.82	126.31	120.14
5	A	597	HIS	CE1-NE2-CD2	-5.82	103.18	109.00
7	Q	216	ALA	N-CA-CB	-5.82	101.57	110.01
1	b	187	VAL	N-CA-C	-5.82	97.47	107.24
6	F	342	ILE	CB-CA-C	-5.82	104.55	111.65
11	Y	60	ALA	CB-CA-C	-5.82	98.38	109.95
8	J	28	ARG	CA-C-O	-5.82	114.71	120.82
4	N	17	THR	CA-C-N	5.81	128.00	120.44
4	N	17	THR	C-N-CA	5.81	128.00	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	C	373	GLU	CB-CG-CD	-5.81	102.72	112.60
6	D	396	HIS	CE1-NE2-CD2	-5.81	103.19	109.00
11	Y	49	LEU	CB-CA-C	-5.81	100.73	110.56
1	b	267	ASN	N-CA-C	-5.81	99.72	108.96
6	D	279	THR	N-CA-C	-5.81	99.53	109.24
5	E	29	SER	N-CA-CB	5.81	120.57	111.56
8	L	52	LYS	N-CA-CB	5.81	118.44	110.01
11	a	95	LEU	CA-C-N	5.81	127.99	120.44
11	a	95	LEU	C-N-CA	5.81	127.99	120.44
2	O	113	ASN	CA-C-N	5.81	130.14	122.42
2	O	113	ASN	C-N-CA	5.81	130.14	122.42
5	E	219	VAL	N-CA-C	-5.81	101.56	107.89
5	C	355	ASP	CB-CA-C	-5.81	102.72	110.79
6	D	392	THR	N-CA-C	-5.81	100.47	109.24
6	D	434	GLU	CA-C-N	5.81	127.99	120.44
6	D	434	GLU	C-N-CA	5.81	127.99	120.44
5	A	484	ARG	NE-CZ-NH2	-5.80	113.98	119.20
5	A	593	GLU	N-CA-C	-5.80	98.44	110.80
8	H	16	GLU	CA-C-N	5.80	127.99	120.44
8	H	16	GLU	C-N-CA	5.80	127.99	120.44
11	U	61	GLY	N-CA-C	5.80	121.19	114.16
11	a	158	VAL	CA-C-N	5.80	132.42	121.97
11	a	158	VAL	C-N-CA	5.80	132.42	121.97
10	P	25	VAL	N-CA-C	5.80	116.77	110.21
5	A	450	HIS	ND1-CE1-NE2	5.80	114.20	108.40
8	J	87	ALA	CA-C-O	5.80	126.57	120.42
11	Y	59	MET	CA-C-O	-5.80	114.40	120.55
11	Y	69	VAL	CA-C-N	5.80	128.08	120.60
11	Y	69	VAL	C-N-CA	5.80	128.08	120.60
11	a	100	SER	CA-CB-OG	5.80	122.70	111.10
1	b	184	VAL	CA-C-O	-5.80	114.91	121.75
3	M	92	PHE	CB-CA-C	-5.80	101.50	110.78
5	C	486	LYS	N-CA-CB	5.80	118.42	110.01
9	K	132	LEU	CA-C-N	5.80	130.89	122.36
9	K	132	LEU	C-N-CA	5.80	130.89	122.36
6	F	73	ASP	CA-CB-CG	-5.80	106.80	112.60
9	G	45	ILE	N-CA-CB	-5.80	103.77	110.55
2	O	72	ASP	CA-C-O	-5.79	114.41	120.55
7	Q	222	ASN	CA-C-O	5.79	126.69	120.55
11	X	65	ILE	CA-CB-CG1	5.79	120.25	110.40
1	b	128	THR	CA-C-N	5.79	128.04	120.28
1	b	128	THR	C-N-CA	5.79	128.04	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	b	336	ILE	N-CA-C	-5.79	99.71	108.17
3	M	60	VAL	CB-CA-C	5.79	120.22	112.22
5	E	247	VAL	N-CA-C	-5.79	99.93	108.85
6	F	273	HIS	CE1-NE2-CD2	-5.79	103.21	109.00
5	A	407	THR	N-CA-C	-5.79	99.96	109.40
7	Q	128	HIS	ND1-CE1-NE2	5.79	114.19	108.40
11	V	104	ALA	CA-C-N	5.79	126.41	119.98
11	V	104	ALA	C-N-CA	5.79	126.41	119.98
5	A	449	LYS	CB-CG-CD	5.79	124.62	111.30
5	C	203	ASP	O-C-N	5.79	130.11	122.47
10	P	165	LEU	CA-C-O	5.79	126.69	120.55
5	A	307	THR	CA-CB-OG1	5.79	118.28	109.60
11	U	29	ALA	CA-C-N	5.79	128.29	120.65
11	U	29	ALA	C-N-CA	5.79	128.29	120.65
11	X	84	LEU	CA-C-N	5.79	128.51	120.29
11	X	84	LEU	C-N-CA	5.79	128.51	120.29
3	M	173	ILE	CA-C-N	5.79	128.50	120.63
3	M	173	ILE	C-N-CA	5.79	128.50	120.63
7	Q	326	ILE	CA-C-O	-5.79	114.63	121.05
11	U	106	PHE	CA-C-N	5.79	127.96	120.44
11	U	106	PHE	C-N-CA	5.79	127.96	120.44
8	H	99	ILE	CA-C-N	5.79	128.03	120.28
8	H	99	ILE	C-N-CA	5.79	128.03	120.28
2	O	35	ASN	CB-CA-C	-5.78	101.76	110.90
3	M	142	ALA	CA-C-N	5.78	128.38	120.46
3	M	142	ALA	C-N-CA	5.78	128.38	120.46
5	E	321	THR	N-CA-C	-5.78	102.20	110.59
6	D	399	VAL	CA-C-N	5.78	128.03	120.28
6	D	399	VAL	C-N-CA	5.78	128.03	120.28
11	U	41	ALA	N-CA-C	-5.78	104.89	111.14
5	C	426	PRO	N-CA-CB	5.78	109.85	103.26
11	X	150	LEU	CA-C-N	5.78	128.30	120.38
11	X	150	LEU	C-N-CA	5.78	128.30	120.38
11	Z	43	CYS	CB-CA-C	-5.78	99.57	110.67
4	N	27	GLN	CB-CG-CD	-5.78	102.77	112.60
7	Q	84	ARG	CA-C-N	5.78	128.50	120.29
7	Q	84	ARG	C-N-CA	5.78	128.50	120.29
4	N	87	ALA	N-CA-C	-5.78	105.81	112.92
6	B	456	GLU	CB-CA-C	-5.78	101.20	110.79
6	D	475	ARG	N-CA-C	-5.78	104.90	112.41
9	K	134	GLU	CA-C-N	5.78	125.64	119.28
9	K	134	GLU	C-N-CA	5.78	125.64	119.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	N	116	PHE	CA-CB-CG	-5.78	108.03	113.80
10	P	451	MET	N-CA-CB	5.77	118.61	110.12
5	E	51	VAL	CA-C-N	5.77	129.65	120.07
5	E	51	VAL	C-N-CA	5.77	129.65	120.07
5	E	325	PRO	CA-C-N	5.77	130.22	120.64
5	E	325	PRO	C-N-CA	5.77	130.22	120.64
7	Q	29	GLN	CA-C-N	5.77	128.01	120.28
7	Q	29	GLN	C-N-CA	5.77	128.01	120.28
10	P	28	ASP	O-C-N	5.77	128.02	122.07
10	P	214	LEU	N-CA-CB	5.77	118.61	110.12
3	M	153	GLN	CA-C-N	5.77	128.48	120.29
3	M	153	GLN	C-N-CA	5.77	128.48	120.29
6	D	267	ALA	CA-C-N	5.77	128.48	120.63
6	D	267	ALA	C-N-CA	5.77	128.48	120.63
11	Z	34	LYS	CA-C-N	5.77	127.94	120.44
11	Z	34	LYS	C-N-CA	5.77	127.94	120.44
1	b	239	PHE	N-CA-C	-5.77	100.49	109.72
2	O	207	GLU	CB-CA-C	-5.77	101.05	110.85
2	O	258	ARG	NE-CZ-NH2	-5.77	114.01	119.20
11	U	20	ALA	CB-CA-C	-5.77	101.82	110.88
5	C	258	PHE	N-CA-C	5.77	118.72	110.24
1	b	321	GLU	CA-C-N	5.76	128.04	120.60
1	b	321	GLU	C-N-CA	5.76	128.04	120.60
6	B	344	HIS	ND1-CE1-NE2	5.76	114.16	108.40
9	I	190	VAL	N-CA-C	-5.76	100.17	108.53
10	P	244	TYR	CA-CB-CG	5.76	124.28	113.90
9	G	133	LEU	N-CA-CB	5.76	120.23	110.49
1	b	313	VAL	N-CA-C	-5.76	104.90	110.72
3	M	171	ASN	CA-C-N	5.76	128.00	120.28
3	M	171	ASN	C-N-CA	5.76	128.00	120.28
6	F	412	ASP	CB-CA-C	-5.76	101.06	110.85
6	D	164	ILE	O-C-N	5.76	129.40	123.18
11	R	150	LEU	CA-C-O	-5.76	114.73	121.07
11	Y	111	VAL	CA-C-N	5.76	126.50	119.99
11	Y	111	VAL	C-N-CA	5.76	126.50	119.99
2	O	161	ALA	CA-C-N	5.76	128.00	120.28
2	O	161	ALA	C-N-CA	5.76	128.00	120.28
5	C	36	ILE	N-CA-C	-5.76	100.19	108.48
6	D	200	VAL	CA-C-O	5.76	126.95	120.85
10	P	388	LYS	N-CA-C	5.76	118.68	110.10
6	B	340	ASP	N-CA-CB	5.76	120.22	110.49
4	N	111	ARG	CB-CG-CD	5.76	124.54	111.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	U	22	ILE	CA-C-N	5.76	127.92	120.44
11	U	22	ILE	C-N-CA	5.76	127.92	120.44
5	A	282	GLY	CA-C-N	5.75	128.46	120.29
5	A	282	GLY	C-N-CA	5.75	128.46	120.29
9	K	61	ASN	CA-C-N	5.75	128.46	120.29
9	K	61	ASN	C-N-CA	5.75	128.46	120.29
11	U	111	VAL	CA-C-O	-5.75	115.29	121.27
3	M	15	LEU	N-CA-C	5.75	117.55	111.28
5	E	323	ASN	CA-C-N	5.75	128.38	120.39
5	E	323	ASN	C-N-CA	5.75	128.38	120.39
5	A	136	THR	N-CA-C	-5.75	105.85	112.92
9	G	124	LEU	CA-C-N	5.75	128.59	120.42
9	G	124	LEU	C-N-CA	5.75	128.59	120.42
11	S	70	VAL	CA-C-N	5.75	128.30	120.54
11	S	70	VAL	C-N-CA	5.75	128.30	120.54
6	D	360	VAL	CA-C-O	5.75	126.43	120.39
5	A	273	SER	N-CA-C	-5.75	101.12	110.20
10	P	274	LEU	CA-C-N	5.75	127.98	120.28
10	P	274	LEU	C-N-CA	5.75	127.98	120.28
2	O	47	ASP	CA-CB-CG	-5.75	106.85	112.60
6	B	433	LEU	CA-C-N	5.75	128.45	120.29
6	B	433	LEU	C-N-CA	5.75	128.45	120.29
7	Q	197	THR	N-CA-C	-5.75	105.10	111.36
11	U	150	LEU	CA-C-N	5.75	128.30	120.54
11	U	150	LEU	C-N-CA	5.75	128.30	120.54
11	W	54	ILE	N-CA-C	5.75	117.17	110.62
9	G	39	ALA	CA-C-N	5.75	128.25	120.44
9	G	39	ALA	C-N-CA	5.75	128.25	120.44
1	b	350	GLN	CA-C-N	5.74	128.45	120.29
1	b	350	GLN	C-N-CA	5.74	128.45	120.29
5	A	450	HIS	CA-CB-CG	5.74	119.54	113.80
6	D	388	GLY	N-CA-C	-5.74	99.58	113.18
5	E	423	PHE	CA-C-O	5.74	126.72	119.95
5	E	472	ASP	CA-C-N	5.74	128.24	120.38
5	E	472	ASP	C-N-CA	5.74	128.24	120.38
8	L	18	HIS	CE1-NE2-CD2	-5.74	103.26	109.00
5	E	402	GLY	CA-C-N	5.74	127.95	120.26
5	E	402	GLY	C-N-CA	5.74	127.95	120.26
6	F	393	ARG	NE-CZ-NH2	5.74	124.36	119.20
6	B	295	ARG	N-CA-C	-5.74	101.51	110.17
11	Y	141	LEU	N-CA-C	5.74	120.84	111.37
1	b	51	PHE	CA-C-O	5.74	126.63	120.55

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	B	204	HIS	ND1-CE1-NE2	5.74	114.14	108.40
9	K	148	LEU	N-CA-CB	5.74	118.65	110.16
10	P	322	VAL	CA-CB-CG2	-5.74	100.65	110.40
11	T	105	GLY	CA-C-N	5.74	128.24	120.44
11	T	105	GLY	C-N-CA	5.74	128.24	120.44
6	D	428	GLU	CA-C-N	5.73	129.03	120.31
6	D	428	GLU	C-N-CA	5.73	129.03	120.31
9	I	31	LYS	CA-C-O	5.73	126.50	120.42
6	B	215	MET	O-C-N	-5.73	116.15	123.26
5	C	238	ARG	CB-CA-C	-5.73	101.88	110.88
9	G	141	ALA	CA-C-N	5.73	129.41	120.75
9	G	141	ALA	C-N-CA	5.73	129.41	120.75
11	R	18	ALA	O-C-N	-5.73	116.17	122.07
11	W	137	GLU	N-CA-C	5.73	119.53	112.54
6	D	304	TYR	CA-C-O	-5.73	115.44	120.60
7	Q	174	ASP	N-CA-CB	5.73	120.17	110.49
11	a	54	ILE	N-CA-C	5.73	117.15	110.62
11	R	133	LEU	N-CA-C	5.73	118.26	111.33
5	E	339	LEU	O-C-N	5.72	128.68	122.15
6	B	57	LEU	N-CA-C	-5.72	102.95	110.39
10	P	106	SER	N-CA-CB	5.72	119.15	110.45
11	R	52	LYS	CA-C-N	5.72	127.95	120.28
11	R	52	LYS	C-N-CA	5.72	127.95	120.28
11	X	34	LYS	N-CA-C	5.72	117.19	111.07
2	O	93	SER	N-CA-C	5.72	118.36	110.35
5	E	301	TYR	CA-C-N	5.72	129.00	120.87
5	E	301	TYR	C-N-CA	5.72	129.00	120.87
6	B	227	GLN	OE1-CD-NE2	5.72	128.32	122.60
5	C	210	THR	CA-C-N	5.72	127.95	120.28
5	C	210	THR	C-N-CA	5.72	127.95	120.28
9	K	116	GLU	N-CA-C	-5.72	105.41	112.90
9	G	56	ASN	O-C-N	-5.72	115.53	122.22
6	F	386	ALA	N-CA-C	-5.72	104.97	111.14
11	S	138	VAL	CA-C-N	5.72	128.41	120.29
11	S	138	VAL	C-N-CA	5.72	128.41	120.29
11	Y	33	ALA	N-CA-CB	5.71	118.51	109.82
10	P	410	ASP	CA-C-O	5.71	128.68	120.51
2	O	313	VAL	N-CA-CB	5.71	117.88	110.57
3	M	95	ARG	NE-CZ-NH2	5.71	124.34	119.20
5	E	223	VAL	CA-C-N	5.71	128.21	120.44
5	E	223	VAL	C-N-CA	5.71	128.21	120.44
6	D	317	GLU	N-CA-CB	5.71	118.52	110.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	C	178	SER	N-CA-C	-5.71	99.74	108.76
3	M	160	ASP	CA-CB-CG	5.71	118.31	112.60
5	A	142	THR	N-CA-C	-5.71	101.52	110.14
10	P	82	HIS	ND1-CE1-NE2	5.71	114.11	108.40
5	E	234	LEU	CA-C-N	5.71	128.24	120.54
5	E	234	LEU	C-N-CA	5.71	128.24	120.54
6	F	148	GLU	CB-CA-C	-5.71	101.58	110.37
6	F	150	MET	CA-CB-CG	5.71	125.51	114.10
6	F	331	GLN	CA-C-N	5.70	129.52	123.25
6	F	331	GLN	C-N-CA	5.70	129.52	123.25
5	A	424	SER	CA-C-N	5.70	129.35	120.68
5	A	424	SER	C-N-CA	5.70	129.35	120.68
9	I	22	ALA	CA-C-O	-5.70	114.83	120.70
11	R	159	VAL	CB-CA-C	5.70	120.64	111.29
11	a	149	LEU	CA-C-N	5.70	128.18	120.65
11	a	149	LEU	C-N-CA	5.70	128.18	120.65
7	Q	135	THR	CA-C-N	5.70	128.11	120.58
7	Q	135	THR	C-N-CA	5.70	128.11	120.58
6	D	136	GLY	CA-C-N	5.70	128.58	120.49
6	D	136	GLY	C-N-CA	5.70	128.58	120.49
5	C	318	VAL	N-CA-C	-5.70	98.94	107.37
9	I	26	LYS	CA-C-N	5.70	128.38	120.29
9	I	26	LYS	C-N-CA	5.70	128.38	120.29
6	F	406	LYS	N-CA-CB	5.70	118.59	110.16
11	U	120	SER	CA-C-O	5.70	127.00	120.90
5	E	543	THR	CA-C-N	5.70	128.19	120.44
5	E	543	THR	C-N-CA	5.70	128.19	120.44
6	F	157	ALA	N-CA-C	5.70	117.49	111.28
6	B	235	LEU	CA-C-N	5.70	128.38	120.29
6	B	235	LEU	C-N-CA	5.70	128.38	120.29
9	G	145	ASP	N-CA-C	-5.70	106.20	114.12
9	I	222	LEU	CB-CA-C	-5.69	99.35	110.11
8	L	27	TYR	CB-CG-CD1	-5.69	112.26	120.80
2	O	26	PRO	CA-C-O	-5.69	114.72	121.67
7	Q	28	ASN	N-CA-CB	5.69	118.49	110.12
7	Q	99	THR	N-CA-C	5.69	117.49	111.28
7	Q	156	THR	O-C-N	-5.69	116.32	121.39
9	G	160	TYR	CA-CB-CG	-5.69	103.66	113.90
11	X	147	ALA	CA-C-N	5.69	128.23	120.54
11	X	147	ALA	C-N-CA	5.69	128.23	120.54
5	A	328	ALA	CA-C-N	5.69	127.90	120.28
5	A	328	ALA	C-N-CA	5.69	127.90	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	I	31	LYS	N-CA-C	5.69	117.56	111.36
9	K	208	LYS	CA-C-O	5.69	126.58	120.55
10	P	341	ASN	CA-C-O	-5.69	114.84	120.82
5	E	532	SER	N-CA-C	-5.69	100.76	109.41
7	Q	228	LEU	CA-C-O	-5.69	114.54	121.36
10	P	139	VAL	CB-CA-C	-5.69	104.46	112.14
10	P	255	PHE	CA-C-N	5.69	128.29	120.67
10	P	255	PHE	C-N-CA	5.69	128.29	120.67
6	D	47	PRO	CA-C-O	-5.69	114.94	121.36
7	Q	218	ARG	CB-CA-C	5.69	120.23	110.79
1	b	315	ARG	CA-C-N	5.68	128.36	120.29
1	b	315	ARG	C-N-CA	5.68	128.36	120.29
5	A	179	ARG	CA-C-O	5.68	127.31	121.23
7	Q	296	CYS	N-CA-CB	5.68	118.67	110.20
7	Q	343	SER	N-CA-C	-5.68	106.22	114.12
11	S	148	LEU	N-CA-C	5.68	117.95	111.02
5	E	292	GLU	CA-C-N	5.68	128.49	120.42
5	E	292	GLU	C-N-CA	5.68	128.49	120.42
5	C	399	VAL	CA-C-N	5.68	128.91	120.90
5	C	399	VAL	C-N-CA	5.68	128.91	120.90
5	C	483	ASP	CA-C-N	5.68	127.89	120.28
5	C	483	ASP	C-N-CA	5.68	127.89	120.28
7	Q	252	ALA	CA-C-N	5.68	128.36	120.29
7	Q	252	ALA	C-N-CA	5.68	128.36	120.29
2	O	254	LYS	N-CA-CB	5.68	120.08	110.49
3	M	44	ARG	CD-NE-CZ	5.68	132.35	124.40
5	C	607	MET	N-CA-CB	5.68	118.56	110.16
10	P	145	ASN	OD1-CG-ND2	5.68	128.28	122.60
5	E	53	HIS	N-CA-CB	-5.68	101.61	110.98
5	E	95	GLU	CB-CG-CD	-5.68	102.95	112.60
10	P	238	LEU	CA-C-N	5.68	126.24	120.00
10	P	238	LEU	C-N-CA	5.68	126.24	120.00
9	G	142	LEU	N-CA-CB	5.68	118.38	110.04
6	D	85	GLY	N-CA-C	-5.67	105.77	115.08
6	D	118	ARG	CA-C-N	5.67	125.43	119.76
6	D	118	ARG	C-N-CA	5.67	125.43	119.76
5	A	478	PHE	N-CA-C	5.67	122.35	109.81
11	U	84	LEU	CA-C-N	5.67	127.88	120.28
11	U	84	LEU	C-N-CA	5.67	127.88	120.28
5	E	309	GLU	CA-C-N	5.67	126.93	119.84
5	E	309	GLU	C-N-CA	5.67	126.93	119.84
6	F	42	GLU	CB-CA-C	-5.67	98.83	109.72

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	F	134	ILE	CA-CB-CG1	5.67	120.04	110.40
5	A	39	ASN	N-CA-C	-5.67	105.66	112.58
6	B	450	GLU	O-C-N	5.67	130.38	123.01
5	C	525	PHE	O-C-N	5.67	128.84	122.32
10	P	165	LEU	N-CA-CB	5.67	118.46	110.12
10	P	350	TYR	O-C-N	5.67	128.22	122.09
11	U	15	ILE	CB-CA-C	-5.67	104.39	112.22
11	Y	60	ALA	N-CA-C	5.67	120.04	113.18
5	A	279	ILE	CA-CB-CG1	5.67	120.04	110.40
5	C	142	THR	CA-C-N	5.67	125.98	119.92
5	C	142	THR	C-N-CA	5.67	125.98	119.92
8	L	100	GLU	N-CA-C	-5.67	105.18	111.36
10	P	31	ALA	O-C-N	5.67	128.13	122.12
2	O	126	SER	N-CA-CB	5.67	118.33	110.17
5	C	570	LEU	CA-C-N	5.67	128.33	120.29
5	C	570	LEU	C-N-CA	5.67	128.33	120.29
6	F	146	TYR	N-CA-CB	5.66	118.87	109.98
9	I	140	LYS	CA-C-N	-5.66	113.41	122.53
9	I	140	LYS	C-N-CA	-5.66	113.41	122.53
9	K	199	ILE	N-CA-C	-5.66	98.27	107.28
11	U	31	GLY	O-C-N	5.66	127.74	122.13
5	E	170	HIS	CG-CD2-NE2	5.66	112.86	107.20
5	E	602	LYS	CA-C-N	5.66	127.86	120.28
5	E	602	LYS	C-N-CA	5.66	127.86	120.28
5	A	309	GLU	CA-C-N	5.66	126.92	119.84
5	A	309	GLU	C-N-CA	5.66	126.92	119.84
5	C	228	SER	CA-C-O	5.66	127.15	120.58
9	G	160	TYR	CB-CG-CD2	-5.66	112.31	120.80
1	b	90	LYS	N-CA-CB	5.66	120.43	111.43
6	B	39	VAL	O-C-N	-5.66	117.07	123.18
6	D	264	GLU	N-CA-CB	5.66	119.02	110.30
5	E	120	GLN	CA-C-O	5.66	128.60	120.51
6	F	380	SER	N-CA-C	-5.66	99.06	108.34
9	K	131	LYS	CA-C-O	5.66	126.26	119.59
9	K	75	ILE	N-CA-CB	5.65	119.06	110.58
11	Y	104	ALA	N-CA-C	-5.65	105.20	111.36
11	Y	132	ILE	CA-C-N	5.65	128.13	120.38
11	Y	132	ILE	C-N-CA	5.65	128.13	120.38
6	D	107	ASP	N-CA-C	-5.65	105.97	112.92
8	J	30	ASP	CA-C-N	5.65	128.90	120.31
8	J	30	ASP	C-N-CA	5.65	128.90	120.31
10	P	325	LEU	CA-C-N	5.65	128.12	120.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	P	325	LEU	C-N-CA	5.65	128.12	120.38
5	E	538	CYS	N-CA-CB	5.65	120.43	110.37
7	Q	2	GLU	O-C-N	-5.65	117.33	123.26
11	U	77	SER	O-C-N	5.65	131.45	122.41
5	A	142	THR	CA-C-N	5.65	126.13	120.14
5	A	142	THR	C-N-CA	5.65	126.13	120.14
11	R	116	VAL	N-CA-C	-5.65	103.87	111.44
5	E	92	LEU	CA-C-O	5.65	126.62	120.58
11	U	86	THR	N-CA-C	-5.65	105.20	111.36
2	O	274	HIS	CE1-NE2-CD2	-5.65	103.35	109.00
6	D	142	TYR	CA-C-O	-5.65	115.41	121.56
10	P	456	HIS	ND1-CE1-NE2	5.65	114.05	108.40
11	W	101	GLY	O-C-N	5.65	127.72	122.13
4	N	59	GLU	N-CA-C	-5.64	107.04	114.04
7	Q	123	ILE	CB-CG1-CD1	5.64	125.65	113.80
6	B	89	LYS	CA-C-O	5.64	124.69	118.65
6	D	225	PHE	CA-C-O	5.64	126.48	120.10
9	G	194	SER	O-C-N	5.64	128.58	122.15
6	D	395	ASP	CB-CA-C	-5.64	98.66	110.17
7	Q	266	ARG	CD-NE-CZ	5.64	132.29	124.40
11	U	43	CYS	N-CA-C	5.64	119.26	112.38
11	Z	129	MET	CG-SD-CE	-5.64	88.50	100.90
7	Q	172	LEU	N-CA-C	-5.64	106.17	113.16
10	P	38	GLU	N-CA-C	5.64	118.19	111.71
6	F	219	LEU	CA-C-N	5.64	128.29	120.29
6	F	219	LEU	C-N-CA	5.64	128.29	120.29
6	B	110	GLY	CA-C-N	5.64	131.41	122.62
6	B	110	GLY	C-N-CA	5.64	131.41	122.62
6	B	358	ILE	CA-C-N	5.64	130.27	122.77
6	B	358	ILE	C-N-CA	5.64	130.27	122.77
6	D	189	ARG	N-CA-C	5.63	117.50	111.36
5	E	295	MET	CA-CB-CG	5.63	125.36	114.10
5	A	102	GLU	N-CA-C	-5.63	105.03	112.24
5	C	334	TYR	CA-C-N	5.63	128.29	120.29
5	C	334	TYR	C-N-CA	5.63	128.29	120.29
8	H	30	ASP	CA-CB-CG	-5.63	106.97	112.60
9	G	47	LYS	O-C-N	5.63	128.09	122.12
11	X	104	ALA	N-CA-C	5.63	117.10	111.07
11	S	26	LEU	N-CA-C	5.63	117.87	111.11
3	M	65	ALA	N-CA-CB	5.63	118.17	110.01
5	A	574	THR	N-CA-CB	5.63	118.23	110.07
6	D	136	GLY	O-C-N	5.63	130.02	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	D	384	LYS	CB-CA-C	-5.63	102.40	111.18
9	I	201	ASN	OD1-CG-ND2	-5.63	116.97	122.60
5	C	554	HIS	ND1-CE1-NE2	5.63	114.03	108.40
9	K	213	GLU	CB-CG-CD	-5.63	103.03	112.60
1	b	147	SER	CA-C-N	5.62	126.19	120.00
1	b	147	SER	C-N-CA	5.62	126.19	120.00
9	G	99	ILE	N-CA-CB	5.62	117.77	110.57
6	D	87	ASP	N-CA-CB	5.62	119.00	110.45
7	Q	156	THR	N-CA-C	-5.62	100.41	109.40
10	P	89	ASN	CA-C-N	5.62	128.38	120.28
10	P	89	ASN	C-N-CA	5.62	128.38	120.28
11	U	146	VAL	CA-C-O	-5.62	115.21	121.17
3	M	165	VAL	N-CA-CB	5.62	117.12	110.55
6	F	289	ARG	NE-CZ-NH1	-5.62	115.88	121.50
9	G	110	ILE	CA-C-N	5.62	128.37	120.28
9	G	110	ILE	C-N-CA	5.62	128.37	120.28
11	Y	142	TYR	CA-C-N	5.62	126.06	119.94
11	Y	142	TYR	C-N-CA	5.62	126.06	119.94
11	S	90	GLN	CA-C-O	5.62	126.72	120.82
5	A	170	HIS	CE1-NE2-CD2	-5.62	103.38	109.00
1	b	205	ARG	N-CA-C	5.62	117.48	111.36
8	J	82	GLU	CA-CB-CG	5.62	125.33	114.10
11	Y	96	SER	N-CA-CB	5.62	118.36	109.82
2	O	326	ASN	N-CA-C	-5.61	99.37	108.52
7	Q	46	LEU	CA-C-O	-5.61	114.47	120.42
10	P	77	LEU	CA-C-O	-5.61	114.93	120.82
11	R	57	VAL	N-CA-CB	5.61	118.17	110.54
2	O	63	VAL	CA-C-N	5.61	127.80	120.28
2	O	63	VAL	C-N-CA	5.61	127.80	120.28
3	M	114	ASP	CA-C-O	-5.61	114.85	120.63
6	F	394	LYS	N-CA-C	5.61	119.38	112.54
6	B	350	THR	N-CA-C	5.61	117.47	111.36
9	I	147	ASP	CA-C-N	5.61	128.07	120.44
9	I	147	ASP	C-N-CA	5.61	128.07	120.44
11	W	24	THR	CA-C-O	-5.61	113.52	119.97
11	a	157	ASP	N-CA-CB	5.61	119.97	110.49
5	A	240	LEU	N-CA-CB	5.61	118.46	110.16
8	J	33	LYS	CB-CA-C	-5.61	101.32	110.85
11	a	102	LEU	N-CA-C	5.61	117.84	111.11
11	S	36	GLY	CA-C-N	5.61	128.44	120.53
11	S	36	GLY	C-N-CA	5.61	128.44	120.53
2	O	345	ILE	CA-C-O	5.61	126.78	120.95

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	B	456	GLU	O-C-N	5.61	128.06	122.12
6	D	113	PHE	CA-CB-CG	-5.61	108.19	113.80
11	Y	86	THR	CA-C-N	5.61	126.32	119.99
11	Y	86	THR	C-N-CA	5.61	126.32	119.99
2	O	286	VAL	CA-C-N	5.60	127.79	120.28
2	O	286	VAL	C-N-CA	5.60	127.79	120.28
3	M	98	GLN	CA-C-O	-5.60	114.32	120.43
7	Q	134	ASP	N-CA-C	-5.60	99.21	108.12
1	b	144	ILE	CA-C-N	5.60	128.35	120.28
1	b	144	ILE	C-N-CA	5.60	128.35	120.28
11	X	133	LEU	CA-C-N	5.60	129.49	120.30
11	X	133	LEU	C-N-CA	5.60	129.49	120.30
11	X	16	GLY	CA-C-N	5.60	127.72	120.44
11	X	16	GLY	C-N-CA	5.60	127.72	120.44
11	Z	139	LEU	CA-C-N	5.60	126.16	119.94
11	Z	139	LEU	C-N-CA	5.60	126.16	119.94
3	M	181	THR	CA-CB-CG2	5.60	120.02	110.50
5	C	273	SER	N-CA-CB	5.60	118.27	110.04
6	D	146	TYR	CA-C-O	-5.60	114.35	120.17
11	a	79	GLY	N-CA-C	-5.60	99.91	113.18
5	E	60	VAL	CB-CA-C	5.60	118.36	111.25
11	W	106	PHE	N-CA-C	-5.60	105.09	111.14
5	E	476	PRO	N-CA-C	5.60	124.00	112.47
5	A	460	TYR	CA-CB-CG	5.60	123.97	113.90
8	H	77	GLN	N-CA-C	-5.60	98.88	110.80
5	E	390	SER	CB-CA-C	-5.59	101.50	110.79
6	F	384	LYS	CA-C-N	5.59	127.78	120.28
6	F	384	LYS	C-N-CA	5.59	127.78	120.28
5	A	468	ASN	CB-CA-C	5.59	120.36	110.85
7	Q	160	PRO	N-CD-CG	5.59	111.59	103.20
9	K	50	ILE	CA-C-N	5.59	128.12	120.46
9	K	50	ILE	C-N-CA	5.59	128.12	120.46
11	Z	132	ILE	N-CA-CB	5.59	117.09	110.55
6	B	284	TYR	CA-C-O	5.59	126.35	120.42
9	G	62	PHE	CA-C-N	5.59	128.81	120.31
9	G	62	PHE	C-N-CA	5.59	128.81	120.31
5	A	586	PHE	CA-CB-CG	-5.59	108.21	113.80
6	B	452	ARG	CA-C-O	5.59	127.43	121.45
6	B	465	LEU	N-CA-C	5.59	119.20	112.38
6	D	118	ARG	N-CA-CB	5.59	121.05	110.65
11	R	111	VAL	CA-C-N	5.59	126.31	119.99
11	R	111	VAL	C-N-CA	5.59	126.31	119.99

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	U	124	ARG	N-CA-C	5.59	117.38	111.28
11	Z	33	ALA	CA-C-O	-5.59	112.52	120.51
5	E	482	ARG	CA-C-N	5.59	127.77	120.28
5	E	482	ARG	C-N-CA	5.59	127.77	120.28
8	H	79	GLU	N-CA-CB	5.59	118.59	110.26
11	X	92	GLY	CA-C-N	5.59	128.04	120.44
11	X	92	GLY	C-N-CA	5.59	128.04	120.44
11	W	157	ASP	N-CA-CB	5.59	119.94	110.49
11	S	48	ASP	CA-C-O	5.59	124.63	118.65
9	G	129	LEU	CA-C-O	-5.59	113.78	120.10
3	M	48	LYS	CB-CA-C	-5.59	101.52	110.79
5	C	561	VAL	N-CA-CB	5.59	118.96	110.58
11	V	26	LEU	N-CA-C	5.59	118.09	111.33
11	V	55	VAL	CA-CB-CG2	-5.58	100.91	110.40
2	O	359	ASP	CA-C-O	5.58	126.46	120.32
5	E	584	SER	CA-CB-OG	5.58	122.27	111.10
6	F	438	LYS	CA-C-N	5.58	127.70	120.44
6	F	438	LYS	C-N-CA	5.58	127.70	120.44
10	P	120	ASP	CA-C-O	-5.58	115.19	119.71
11	W	140	GLY	CA-C-N	5.58	128.08	120.54
11	W	140	GLY	C-N-CA	5.58	128.08	120.54
11	Z	94	GLY	CA-C-N	5.58	128.08	120.54
11	Z	94	GLY	C-N-CA	5.58	128.08	120.54
11	S	158	VAL	CA-C-N	5.58	132.02	121.97
11	S	158	VAL	C-N-CA	5.58	132.02	121.97
2	O	242	ASN	N-CA-C	5.58	119.71	113.01
5	A	148	VAL	CA-C-O	5.58	127.40	121.04
9	K	200	ASN	N-CA-CB	5.58	118.39	110.46
9	G	198	GLU	CB-CA-C	-5.58	98.30	109.35
11	X	118	GLY	CA-C-N	5.58	128.55	120.79
11	X	118	GLY	C-N-CA	5.58	128.55	120.79
5	A	265	ILE	O-C-N	5.58	128.11	121.80
11	Y	89	ILE	CA-C-N	5.58	127.69	120.44
11	Y	89	ILE	C-N-CA	5.58	127.69	120.44
6	B	210	ILE	N-CA-C	-5.58	100.44	108.53
5	C	515	LEU	N-CA-CB	5.58	118.32	110.12
6	D	88	VAL	O-C-N	5.58	129.54	122.57
10	P	143	GLY	CA-C-O	5.58	126.50	120.75
10	P	156	HIS	ND1-CE1-NE2	5.58	113.98	108.40
11	X	93	ALA	N-CA-C	-5.58	105.12	111.14
6	B	208	PHE	N-CA-C	-5.58	99.93	109.24
8	L	28	ARG	CA-C-O	-5.58	114.96	120.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	K	172	ILE	N-CA-C	-5.58	99.71	107.80
11	V	22	ILE	CA-CB-CG2	5.58	119.98	110.50
11	S	49	LEU	CB-CA-C	-5.58	101.14	110.56
5	E	84	PRO	CA-C-O	-5.57	115.21	122.12
5	C	257	ALA	N-CA-C	-5.57	100.31	109.40
9	G	83	LYS	CA-C-N	5.57	128.20	120.29
9	G	83	LYS	C-N-CA	5.57	128.20	120.29
11	T	27	GLY	O-C-N	5.57	127.65	122.13
1	b	211	LEU	CA-C-N	5.57	129.39	121.42
1	b	211	LEU	C-N-CA	5.57	129.39	121.42
10	P	30	LEU	O-C-N	-5.57	116.21	122.12
11	W	132	ILE	CA-C-N	5.57	127.75	120.28
11	W	132	ILE	C-N-CA	5.57	127.75	120.28
1	b	288	LEU	CA-C-N	5.57	127.68	120.44
1	b	288	LEU	C-N-CA	5.57	127.68	120.44
5	C	374	MET	N-CA-CB	5.57	117.81	110.29
6	D	250	ILE	CA-C-O	-5.57	114.95	120.85
7	Q	93	LYS	CB-CA-C	-5.57	102.14	110.88
1	b	144	ILE	O-C-N	5.57	127.37	121.91
5	C	53	HIS	CA-C-N	5.57	130.10	120.58
5	C	53	HIS	C-N-CA	5.57	130.10	120.58
9	I	44	GLU	CB-CA-C	-5.57	102.14	110.88
10	P	269	SER	N-CA-CB	5.57	118.08	110.01
5	E	403	SER	CA-C-O	-5.56	113.28	118.73
5	C	297	PHE	CA-C-O	-5.56	113.28	118.73
7	Q	7	ASN	CA-C-N	5.56	127.68	120.56
7	Q	7	ASN	C-N-CA	5.56	127.68	120.56
8	J	94	VAL	N-CA-C	-5.56	105.42	110.82
5	A	386	ALA	CA-C-N	5.56	127.73	120.28
5	A	386	ALA	C-N-CA	5.56	127.73	120.28
2	O	375	ALA	N-CA-C	-5.56	98.96	110.80
10	P	414	LYS	N-CA-C	5.56	117.78	111.11
3	M	57	MET	CA-C-N	5.56	126.15	119.98
3	M	57	MET	C-N-CA	5.56	126.15	119.98
4	N	41	GLN	OE1-CD-NE2	-5.56	117.04	122.60
6	B	54	ASN	CB-CA-C	5.56	119.04	110.14
10	P	118	GLN	O-C-N	5.56	128.49	122.15
10	P	134	GLY	CA-C-N	5.56	132.16	121.54
10	P	134	GLY	C-N-CA	5.56	132.16	121.54
6	F	120	ILE	CA-C-N	5.56	127.66	120.44
6	F	120	ILE	C-N-CA	5.56	127.66	120.44
7	Q	242	LEU	CA-C-O	-5.56	114.03	120.03

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	T	151	ASN	CA-C-N	5.56	127.73	120.28
11	T	151	ASN	C-N-CA	5.56	127.73	120.28
2	O	344	LEU	CB-CA-C	-5.56	101.57	110.79
5	C	547	MET	CA-C-N	5.56	127.72	120.28
5	C	547	MET	C-N-CA	5.56	127.72	120.28
10	P	195	VAL	N-CA-CB	5.56	119.26	110.54
10	P	199	TYR	CA-C-N	5.56	127.72	120.28
10	P	199	TYR	C-N-CA	5.56	127.72	120.28
10	P	460	ARG	CB-CA-C	-5.56	101.40	110.85
9	G	163	LYS	O-C-N	5.56	129.29	122.34
2	O	69	SER	CA-C-N	5.55	127.99	120.44
2	O	69	SER	C-N-CA	5.55	127.99	120.44
2	O	371	LEU	CB-CA-C	-5.55	100.01	110.51
3	M	40	THR	CA-C-N	5.55	128.00	120.44
3	M	40	THR	C-N-CA	5.55	128.00	120.44
6	F	36	GLY	O-C-N	-5.55	116.22	121.77
6	F	433	LEU	CA-C-N	5.55	128.18	120.29
6	F	433	LEU	C-N-CA	5.55	128.18	120.29
5	A	343	PHE	CB-CG-CD2	-5.55	111.26	120.70
6	B	135	ASN	CA-CB-CG	-5.55	107.05	112.60
7	Q	301	THR	O-C-N	5.55	129.10	122.27
9	K	129	LEU	N-CA-CB	5.55	118.77	110.22
6	F	35	ASN	N-CA-CB	5.55	119.92	110.87
11	U	132	ILE	CA-C-N	5.55	127.66	120.44
11	U	132	ILE	C-N-CA	5.55	127.66	120.44
11	a	116	VAL	CA-C-N	5.55	128.75	120.31
11	a	116	VAL	C-N-CA	5.55	128.75	120.31
3	M	143	VAL	CA-C-N	5.55	127.72	120.28
3	M	143	VAL	C-N-CA	5.55	127.72	120.28
9	K	168	PRO	CA-C-N	5.55	128.75	120.87
9	K	168	PRO	C-N-CA	5.55	128.75	120.87
11	X	46	ARG	NH1-CZ-NH2	-5.55	112.09	119.30
11	S	75	CYS	N-CA-CB	5.55	118.25	109.82
3	M	69	ALA	CA-C-O	-5.55	114.67	120.55
6	D	277	ILE	N-CA-C	-5.55	98.46	107.28
9	G	219	ARG	CD-NE-CZ	-5.55	116.63	124.40
11	X	128	GLY	CA-C-O	-5.55	112.90	119.45
11	Z	135	PHE	CA-C-O	5.55	126.35	119.97
11	T	69	VAL	CB-CA-C	5.55	119.29	112.02
6	F	458	LEU	N-CA-C	5.54	117.33	111.28
5	C	131	PRO	CA-C-N	5.54	131.85	122.65
5	C	131	PRO	C-N-CA	5.54	131.85	122.65

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	F	278	LEU	N-CA-C	-5.54	98.32	108.02
7	Q	202	GLU	CA-C-O	-5.54	112.56	120.16
7	Q	265	VAL	CB-CA-C	5.54	119.62	112.14
8	L	2	SER	N-CA-CB	5.54	119.92	110.50
11	R	132	ILE	N-CA-CB	5.54	117.03	110.55
11	U	72	VAL	CB-CA-C	-5.54	104.88	111.97
11	Y	35	SER	O-C-N	-5.54	116.36	122.07
11	T	75	CYS	CB-CA-C	-5.54	102.11	110.92
1	b	48	VAL	N-CA-C	5.54	116.18	110.36
8	L	103	ILE	CA-CB-CG2	-5.54	101.08	110.50
5	A	41	ILE	N-CA-C	-5.54	99.70	108.90
11	Z	89	ILE	N-CA-C	-5.54	105.32	110.53
9	G	200	ASN	CA-CB-CG	-5.54	107.06	112.60
1	b	131	ILE	CA-C-N	5.54	127.70	120.28
1	b	131	ILE	C-N-CA	5.54	127.70	120.28
1	b	305	GLU	CA-C-O	-5.54	114.68	120.55
6	F	205	GLU	N-CA-C	-5.54	105.14	113.89
5	C	266	SER	CA-C-N	5.54	127.70	120.28
5	C	266	SER	C-N-CA	5.54	127.70	120.28
7	Q	73	SER	CA-C-O	5.54	126.63	120.82
8	L	91	LYS	O-C-N	5.54	128.07	122.09
4	N	28	ILE	CA-C-N	5.53	128.08	120.39
4	N	28	ILE	C-N-CA	5.53	128.08	120.39
5	C	346	GLN	N-CA-C	-5.53	106.03	112.89
7	Q	192	PHE	CA-C-N	5.53	127.69	120.28
7	Q	192	PHE	C-N-CA	5.53	127.69	120.28
10	P	87	SER	N-CA-C	5.53	117.83	110.53
11	T	86	THR	CA-C-O	5.53	126.29	120.42
3	M	206	VAL	CA-C-N	5.53	127.69	120.28
3	M	206	VAL	C-N-CA	5.53	127.69	120.28
11	T	145	ILE	CB-CA-C	-5.53	104.62	111.70
1	b	255	SER	CA-C-N	-5.53	113.66	122.29
1	b	255	SER	C-N-CA	-5.53	113.66	122.29
5	A	403	SER	O-C-N	-5.53	114.96	121.32
6	D	42	GLU	N-CA-C	-5.53	100.17	108.96
8	L	83	ILE	N-CA-CB	5.53	117.65	110.57
2	O	186	LEU	N-CA-C	-5.53	100.33	108.79
6	F	235	LEU	CA-C-N	5.53	128.24	120.28
6	F	235	LEU	C-N-CA	5.53	128.24	120.28
6	D	177	GLY	N-CA-C	-5.53	107.47	115.27
6	D	190	GLN	OE1-CD-NE2	5.53	128.13	122.60
7	Q	141	VAL	CA-C-O	-5.53	114.50	120.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	Q	205	LYS	CA-C-O	-5.53	114.54	120.46
5	E	97	GLY	CA-C-N	5.53	125.43	119.85
5	E	97	GLY	C-N-CA	5.53	125.43	119.85
5	E	242	ALA	N-CA-C	5.53	117.11	111.14
5	E	332	SER	CA-C-O	-5.53	114.99	120.90
10	P	2	GLY	N-CA-C	-5.53	107.69	115.32
11	Y	24	THR	CA-CB-OG1	5.53	117.89	109.60
1	b	247	LYS	CA-C-N	5.53	128.14	120.29
1	b	247	LYS	C-N-CA	5.53	128.14	120.29
1	b	318	ALA	N-CA-C	5.53	116.98	111.07
3	M	127	ARG	CB-CA-C	-5.53	102.21	110.88
5	A	227	LEU	N-CA-C	-5.52	98.91	108.69
4	N	29	THR	N-CA-CB	5.52	118.65	109.98
6	F	86	ILE	O-C-N	-5.52	117.02	122.76
5	A	405	ASP	CA-C-N	5.52	131.42	122.53
5	A	405	ASP	C-N-CA	5.52	131.42	122.53
6	D	67	VAL	CA-C-N	5.52	130.07	120.68
6	D	67	VAL	C-N-CA	5.52	130.07	120.68
8	H	96	LYS	CA-C-N	5.52	129.39	120.55
8	H	96	LYS	C-N-CA	5.52	129.39	120.55
11	R	71	SER	O-C-N	5.52	127.83	122.09
11	W	130	ILE	N-CA-CB	5.52	116.64	110.51
9	K	212	GLU	N-CA-C	5.52	117.30	111.28
6	F	346	ILE	CA-C-O	-5.52	112.55	119.95
6	B	192	GLY	CA-C-N	5.52	130.80	121.14
6	B	192	GLY	C-N-CA	5.52	130.80	121.14
11	U	88	PHE	N-CA-CB	5.52	118.72	110.22
6	F	60	GLY	O-C-N	5.52	129.07	122.34
6	F	303	GLY	CA-C-N	5.52	129.28	121.61
6	F	303	GLY	C-N-CA	5.52	129.28	121.61
6	D	403	LEU	O-C-N	5.52	127.75	122.07
11	Z	132	ILE	N-CA-C	-5.51	105.13	110.42
11	a	64	ALA	CA-C-O	-5.51	113.87	120.10
8	L	63	GLY	O-C-N	-5.51	115.53	122.70
10	P	269	SER	CA-C-N	5.51	128.69	120.31
10	P	269	SER	C-N-CA	5.51	128.69	120.31
11	U	83	ALA	N-CA-C	-5.51	100.03	109.24
11	W	154	ALA	CB-CA-C	-5.51	101.99	110.81
2	O	159	LEU	O-C-N	-5.51	115.87	122.15
6	F	82	GLY	O-C-N	-5.51	117.53	122.77
5	A	285	GLU	CA-C-N	5.51	128.11	120.29
5	A	285	GLU	C-N-CA	5.51	128.11	120.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	D	258	LEU	CA-C-N	5.51	127.66	120.28
6	D	258	LEU	C-N-CA	5.51	127.66	120.28
5	A	262	LYS	N-CA-C	-5.51	105.36	111.36
11	U	125	LEU	CA-C-N	5.51	128.68	120.31
11	U	125	LEU	C-N-CA	5.51	128.68	120.31
9	I	207	LEU	CA-C-O	-5.51	114.71	120.55
11	Y	78	LEU	CB-CA-C	-5.51	100.10	110.67
11	T	92	GLY	CA-C-N	5.50	127.93	120.44
11	T	92	GLY	C-N-CA	5.50	127.93	120.44
9	G	152	MET	CA-C-N	5.50	127.59	120.44
9	G	152	MET	C-N-CA	5.50	127.59	120.44
9	G	74	GLN	OE1-CD-NE2	5.50	128.10	122.60
11	T	118	GLY	CA-C-N	5.50	127.97	120.54
11	T	118	GLY	C-N-CA	5.50	127.97	120.54
6	B	162	ASN	N-CA-C	-5.50	106.62	113.55
5	C	156	ASP	CA-C-O	-5.50	115.00	121.16
10	P	430	VAL	CB-CA-C	-5.50	104.72	112.14
9	G	222	LEU	N-CA-CB	5.50	118.45	110.26
11	Z	17	CYS	N-CA-CB	5.50	117.98	110.01
5	E	338	THR	CA-C-N	5.50	128.10	120.29
5	E	338	THR	C-N-CA	5.50	128.10	120.29
5	A	576	ASP	CB-CA-C	-5.50	102.25	110.88
9	K	158	ARG	CD-NE-CZ	-5.50	116.70	124.40
11	Y	65	ILE	CB-CA-C	-5.50	104.63	112.22
6	B	170	ILE	O-C-N	-5.50	116.46	121.41
10	P	241	GLN	CA-C-N	5.50	127.92	120.44
10	P	241	GLN	C-N-CA	5.50	127.92	120.44
6	B	49	TYR	CB-CG-CD2	-5.50	112.56	120.80
1	b	139	GLU	CB-CG-CD	-5.49	103.26	112.60
1	b	217	GLU	N-CA-CB	5.49	120.94	111.00
2	O	239	PHE	N-CA-CB	5.49	118.05	109.97
6	B	430	LYS	CA-C-N	5.49	127.64	120.28
6	B	430	LYS	C-N-CA	5.49	127.64	120.28
2	O	12	ILE	CA-C-O	5.49	126.82	120.67
11	Y	52	LYS	CA-C-N	5.49	127.95	120.54
11	Y	52	LYS	C-N-CA	5.49	127.95	120.54
2	O	344	LEU	N-CA-C	5.49	117.26	111.28
5	C	497	GLN	CA-C-O	-5.49	114.73	120.55
11	Z	124	ARG	CA-C-O	-5.49	114.15	120.24
6	F	189	ARG	O-C-N	-5.49	115.89	122.15
6	B	428	GLU	CA-C-N	5.49	128.18	120.28
6	B	428	GLU	C-N-CA	5.49	128.18	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	B	455	PHE	CA-CB-CG	-5.49	108.31	113.80
5	C	287	GLY	CA-C-N	5.49	128.08	120.29
5	C	287	GLY	C-N-CA	5.49	128.08	120.29
10	P	334	GLU	N-CA-CB	5.49	118.67	110.22
9	G	129	LEU	O-C-N	5.49	128.64	122.22
5	A	244	PHE	O-C-N	-5.49	118.20	121.71
6	D	106	GLU	CB-CA-C	5.49	119.91	111.02
8	J	3	GLN	O-C-N	5.49	127.72	122.07
2	O	273	GLU	CA-C-N	5.49	127.90	120.44
2	O	273	GLU	C-N-CA	5.49	127.90	120.44
2	O	280	LEU	N-CA-CB	-5.49	102.06	110.01
5	C	356	SER	CA-C-N	5.48	132.04	121.18
5	C	356	SER	C-N-CA	5.48	132.04	121.18
5	A	404	PRO	N-CD-CG	5.48	111.42	103.20
6	D	55	LEU	N-CA-C	-5.48	100.30	109.24
11	Z	122	GLN	CA-C-O	-5.48	114.73	119.72
1	b	17	VAL	O-C-N	-5.48	117.28	123.03
5	A	186	ALA	CA-C-O	-5.48	114.33	120.25
9	G	197	ILE	CA-C-O	-5.48	114.64	120.39
3	M	8	VAL	CB-CA-C	5.48	121.81	111.40
6	F	80	PHE	CB-CA-C	-5.48	100.50	110.63
5	C	610	ARG	CB-CA-C	-5.48	101.70	110.79
4	N	54	PHE	O-C-N	5.47	127.92	122.12
5	E	499	VAL	O-C-N	-5.47	116.56	121.87
6	F	203	GLY	CA-C-N	5.47	131.17	122.74
6	F	203	GLY	C-N-CA	5.47	131.17	122.74
6	B	43	LYS	CA-CB-CG	5.47	125.05	114.10
10	P	320	PRO	O-C-N	5.47	128.54	122.24
2	O	191	LEU	CA-C-N	5.47	131.34	122.53
2	O	191	LEU	C-N-CA	5.47	131.34	122.53
8	L	79	GLU	N-CA-CB	5.47	118.35	110.20
11	S	148	LEU	CA-C-N	5.47	127.93	120.54
11	S	148	LEU	C-N-CA	5.47	127.93	120.54
6	F	33	GLY	O-C-N	-5.47	117.04	123.55
6	D	273	HIS	CE1-NE2-CD2	-5.47	103.53	109.00
6	D	293	ALA	O-C-N	5.47	128.38	122.15
7	Q	163	LYS	N-CA-C	5.47	117.32	111.36
11	W	19	SER	N-CA-C	5.47	117.67	111.11
5	C	45	MET	N-CA-C	-5.47	106.46	114.39
10	P	143	GLY	N-CA-C	5.47	119.29	112.73
6	F	466	ARG	CA-C-N	5.47	127.45	120.56
6	F	466	ARG	C-N-CA	5.47	127.45	120.56

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	H	61	ASN	CA-C-O	5.47	125.21	119.03
11	R	46	ARG	NE-CZ-NH2	-5.47	114.28	119.20
2	O	163	GLU	N-CA-C	5.46	117.23	111.28
9	G	19	LYS	CA-C-N	5.46	128.05	120.29
9	G	19	LYS	C-N-CA	5.46	128.05	120.29
11	U	130	ILE	CA-C-N	5.46	127.60	120.28
11	U	130	ILE	C-N-CA	5.46	127.60	120.28
11	W	49	LEU	O-C-N	5.46	128.90	122.34
11	a	12	PHE	O-C-N	-5.46	115.17	122.49
11	T	148	LEU	CA-C-N	5.46	127.92	120.54
11	T	148	LEU	C-N-CA	5.46	127.92	120.54
6	D	430	LYS	CA-C-N	5.46	127.60	120.28
6	D	430	LYS	C-N-CA	5.46	127.60	120.28
7	Q	47	SER	N-CA-C	5.46	119.44	112.34
11	S	91	LEU	CA-C-O	-5.46	115.08	120.82
2	O	236	VAL	O-C-N	5.46	129.11	123.05
2	O	307	LYS	CA-C-N	5.46	127.54	120.44
2	O	307	LYS	C-N-CA	5.46	127.54	120.44
10	P	313	LEU	CA-C-N	5.46	128.06	120.63
10	P	313	LEU	C-N-CA	5.46	128.06	120.63
6	B	199	ASP	CA-CB-CG	5.46	118.06	112.60
5	E	286	ARG	CB-CG-CD	5.46	123.85	111.30
6	F	263	ALA	CA-C-N	5.46	128.04	120.29
6	F	263	ALA	C-N-CA	5.46	128.04	120.29
5	A	82	GLY	O-C-N	5.46	129.36	122.43
11	S	89	ILE	N-CA-C	5.46	116.23	110.72
11	S	123	PRO	CA-C-N	5.46	128.14	120.28
11	S	123	PRO	C-N-CA	5.46	128.14	120.28
5	E	497	GLN	CA-C-N	5.46	127.94	120.46
5	E	497	GLN	C-N-CA	5.46	127.94	120.46
6	F	185	ALA	N-CA-C	5.46	117.23	111.28
5	C	493	GLU	CA-C-N	5.46	127.59	120.28
5	C	493	GLU	C-N-CA	5.46	127.59	120.28
9	K	20	MET	N-CA-CB	5.46	117.98	110.07
10	P	358	GLU	N-CA-C	5.46	116.91	111.07
9	G	88	VAL	CA-C-N	5.46	127.59	120.28
9	G	88	VAL	C-N-CA	5.46	127.59	120.28
6	D	42	GLU	O-C-N	-5.46	116.86	123.13
6	D	396	HIS	ND1-CE1-NE2	5.46	113.86	108.40
11	R	90	GLN	CA-C-N	5.46	129.86	121.19
11	R	90	GLN	C-N-CA	5.46	129.86	121.19
7	Q	280	GLU	CA-C-N	5.45	127.53	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	Q	280	GLU	C-N-CA	5.45	127.53	120.44
10	P	135	ASP	CA-C-N	5.45	127.59	120.28
10	P	135	ASP	C-N-CA	5.45	127.59	120.28
10	P	76	THR	CA-C-N	5.45	127.53	120.44
10	P	76	THR	C-N-CA	5.45	127.53	120.44
2	O	28	SER	CA-C-N	5.45	131.39	122.07
2	O	28	SER	C-N-CA	5.45	131.39	122.07
2	O	200	LYS	CA-C-N	5.45	127.53	120.44
2	O	200	LYS	C-N-CA	5.45	127.53	120.44
6	F	365	HIS	CE1-NE2-CD2	-5.45	103.55	109.00
5	A	541	TRP	CA-C-N	5.45	127.58	120.28
5	A	541	TRP	C-N-CA	5.45	127.58	120.28
6	B	263	ALA	CA-C-N	5.45	127.58	120.28
6	B	263	ALA	C-N-CA	5.45	127.58	120.28
6	D	60	GLY	N-CA-C	-5.45	107.41	113.79
6	D	479	LYS	N-CA-C	5.45	116.90	111.07
11	S	153	ARG	CA-C-N	5.45	127.85	120.38
11	S	153	ARG	C-N-CA	5.45	127.85	120.38
10	P	202	VAL	N-CA-CB	5.45	117.95	110.54
11	Z	53	ASN	CB-CG-OD1	5.45	131.70	120.80
11	W	27	GLY	O-C-N	-5.45	116.74	122.13
3	M	162	VAL	CA-C-O	-5.45	115.08	120.85
5	E	264	VAL	CB-CA-C	-5.45	105.00	111.97
9	I	178	TYR	N-CA-C	-5.45	100.90	109.50
11	Z	34	LYS	CA-C-O	-5.45	115.07	120.90
10	P	175	GLN	OE1-CD-NE2	5.44	128.04	122.60
11	Y	74	VAL	O-C-N	5.44	127.25	121.91
3	M	139	TYR	CA-CB-CG	-5.44	104.11	113.90
5	E	113	LYS	CB-CA-C	-5.44	101.76	110.79
5	A	302	THR	CA-C-N	5.44	127.84	120.38
5	A	302	THR	C-N-CA	5.44	127.84	120.38
11	S	65	ILE	CA-C-N	5.44	127.52	120.44
11	S	65	ILE	C-N-CA	5.44	127.52	120.44
2	O	30	THR	CA-C-N	5.44	127.57	120.28
2	O	30	THR	C-N-CA	5.44	127.57	120.28
5	C	67	LYS	CA-C-O	-5.44	114.39	120.54
6	F	435	PHE	CA-C-N	5.44	127.57	120.28
6	F	435	PHE	C-N-CA	5.44	127.57	120.28
5	E	66	ASP	N-CA-CB	5.44	118.76	110.44
6	B	344	HIS	CA-C-N	5.44	125.52	119.32
6	B	344	HIS	C-N-CA	5.44	125.52	119.32
8	J	98	LEU	CA-C-O	-5.44	114.79	120.55

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	D	180	HIS	CE1-NE2-CD2	-5.43	103.56	109.00
6	D	433	LEU	N-CA-C	-5.43	105.25	111.07
9	I	194	SER	N-CA-C	-5.43	106.49	113.23
10	P	42	SER	N-CA-C	-5.43	105.36	111.28
5	C	191	TYR	N-CA-C	-5.43	101.04	109.24
5	C	566	ASN	CA-C-N	5.43	127.50	120.44
5	C	566	ASN	C-N-CA	5.43	127.50	120.44
6	D	381	ARG	CA-C-O	-5.43	114.76	120.63
8	J	85	LYS	N-CA-CB	5.43	117.95	110.07
11	T	138	VAL	CB-CA-C	5.43	119.47	112.14
5	E	175	PRO	CA-C-O	-5.43	112.69	120.56
9	G	107	LEU	N-CA-CB	5.43	118.10	110.12
11	W	66	TYR	CA-C-N	5.43	126.13	119.99
11	W	66	TYR	C-N-CA	5.43	126.13	119.99
4	N	72	HIS	CA-CB-CG	5.43	119.23	113.80
6	F	313	SER	CA-C-N	5.43	127.56	120.28
6	F	313	SER	C-N-CA	5.43	127.56	120.28
6	F	462	TRP	CD2-CE2-CZ2	-5.43	116.97	122.40
5	C	316	THR	N-CA-C	-5.43	100.17	109.24
6	D	123	GLY	CA-C-O	-5.43	113.76	121.52
9	K	158	ARG	N-CA-CB	5.43	117.85	109.98
10	P	301	ARG	CA-C-N	5.43	128.46	120.91
10	P	301	ARG	C-N-CA	5.43	128.46	120.91
9	G	62	PHE	O-C-N	-5.43	116.23	122.09
6	B	218	ASN	O-C-N	-5.43	116.60	122.79
6	B	112	ILE	CA-C-O	-5.43	114.69	120.39
9	G	145	ASP	CA-CB-CG	-5.43	107.17	112.60
11	W	111	VAL	N-CA-C	-5.43	105.08	110.62
6	D	145	ILE	N-CA-CB	5.42	118.69	111.64
9	K	146	VAL	N-CA-CB	5.42	118.72	110.58
11	V	22	ILE	O-C-N	5.42	129.35	122.57
11	X	117	ARG	NE-CZ-NH1	-5.42	116.08	121.50
6	D	266	LEU	CA-C-O	5.42	126.30	120.55
7	Q	263	GLU	N-CA-C	5.42	118.11	111.82
9	G	217	ALA	N-CA-C	5.42	117.19	111.28
11	a	118	GLY	CA-C-N	5.42	128.95	120.82
11	a	118	GLY	C-N-CA	5.42	128.95	120.82
11	T	71	SER	N-CA-C	5.42	117.61	111.11
2	O	184	PHE	CA-CB-CG	-5.42	108.38	113.80
1	b	267	ASN	CA-CB-CG	-5.42	107.18	112.60
6	F	122	ASN	CA-C-N	5.42	130.38	121.87
6	F	122	ASN	C-N-CA	5.42	130.38	121.87

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	D	380	SER	CA-C-N	5.42	127.80	120.38
6	D	380	SER	C-N-CA	5.42	127.80	120.38
11	a	23	PHE	N-CA-C	-5.42	105.45	111.36
5	E	292	GLU	N-CA-C	-5.42	105.38	111.28
5	A	69	THR	CA-C-O	-5.42	114.56	120.36
5	A	426	PRO	CA-C-N	5.41	127.38	120.56
5	A	426	PRO	C-N-CA	5.41	127.38	120.56
7	Q	341	TYR	CB-CA-C	-5.41	101.65	110.85
5	C	492	ALA	N-CA-CB	5.41	118.08	110.12
5	C	592	GLY	CA-C-N	5.41	127.98	120.29
5	C	592	GLY	C-N-CA	5.41	127.98	120.29
6	D	130	ASP	CA-CB-CG	5.41	118.01	112.60
10	P	152	GLN	N-CA-CB	5.41	118.65	110.42
11	a	144	LEU	CA-C-N	5.41	127.86	120.77
11	a	144	LEU	C-N-CA	5.41	127.86	120.77
6	F	37	PRO	N-CA-C	5.41	121.66	113.81
5	C	53	HIS	ND1-CE1-NE2	5.41	113.81	108.40
1	b	203	LEU	CA-C-O	-5.41	115.11	120.90
5	E	504	LYS	N-CA-C	-5.41	106.27	112.92
5	A	360	TRP	CA-C-N	5.41	128.53	120.31
5	A	360	TRP	C-N-CA	5.41	128.53	120.31
6	B	206	GLU	N-CA-C	-5.41	101.54	109.81
7	Q	328	GLU	CA-C-N	5.41	127.47	120.44
7	Q	328	GLU	C-N-CA	5.41	127.47	120.44
5	E	406	ARG	NE-CZ-NH2	-5.41	114.33	119.20
9	K	82	ASN	OD1-CG-ND2	-5.41	117.19	122.60
5	E	104	ILE	CB-CA-C	5.41	118.63	110.63
5	E	400	ALA	N-CA-C	5.41	117.27	110.24
11	X	148	LEU	O-C-N	5.40	127.71	122.09
11	W	55	VAL	CA-C-N	5.40	124.59	118.97
11	W	55	VAL	C-N-CA	5.40	124.59	118.97
5	C	322	SER	O-C-N	5.40	127.85	122.12
9	I	200	ASN	N-CA-CB	5.40	118.07	110.24
10	P	203	ILE	CA-C-N	5.40	128.52	120.31
10	P	203	ILE	C-N-CA	5.40	128.52	120.31
11	R	125	LEU	CA-C-N	5.40	128.06	120.28
11	R	125	LEU	C-N-CA	5.40	128.06	120.28
11	W	46	ARG	CA-C-O	-5.40	113.77	119.50
11	S	96	SER	N-CA-CB	5.40	117.99	109.94
5	C	487	GLU	CA-C-N	5.40	127.86	120.46
5	C	487	GLU	C-N-CA	5.40	127.86	120.46
11	Z	100	SER	CA-C-N	5.40	125.94	119.94

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	Z	100	SER	C-N-CA	5.40	125.94	119.94
11	a	71	SER	CA-C-N	5.40	127.36	120.56
11	a	71	SER	C-N-CA	5.40	127.36	120.56
9	I	80	ILE	CA-C-O	5.40	127.04	121.05
6	B	305	PRO	N-CA-CB	5.40	108.46	103.39
7	Q	219	ARG	N-CA-CB	5.40	118.06	110.12
8	J	72	ALA	N-CA-C	-5.40	105.83	112.90
9	K	173	VAL	N-CA-CB	5.40	118.26	111.46
11	R	78	LEU	CA-C-N	5.40	128.42	121.13
11	R	78	LEU	C-N-CA	5.40	128.42	121.13
10	P	245	HIS	ND1-CE1-NE2	5.40	113.80	108.40
10	P	352	GLU	CB-CG-CD	-5.40	103.43	112.60
11	Y	29	ALA	N-CA-C	5.40	116.84	111.07
11	X	76	TYR	O-C-N	-5.39	115.91	122.22
11	Z	88	PHE	N-CA-CB	5.39	118.53	110.22
5	E	448	ARG	NH1-CZ-NH2	5.39	126.31	119.30
6	D	277	ILE	N-CA-CB	5.39	118.70	111.90
7	Q	281	THR	CA-C-N	5.39	125.93	120.00
7	Q	281	THR	C-N-CA	5.39	125.93	120.00
5	A	363	ALA	N-CA-C	5.39	117.16	111.28
7	Q	114	THR	N-CA-C	5.39	117.91	111.71
10	P	296	GLN	N-CA-CB	5.39	118.04	110.12
1	b	28	ASP	O-C-N	-5.39	115.91	122.22
5	E	118	GLU	CB-CA-C	-5.39	101.97	110.86
6	B	118	ARG	CA-C-O	-5.39	115.08	120.63
6	B	167	GLY	N-CA-C	-5.39	107.92	114.92
7	Q	128	HIS	CG-CD2-NE2	5.39	112.59	107.20
9	I	118	LYS	CA-C-O	-5.39	112.78	120.16
10	P	338	ASP	N-CA-CB	5.39	118.04	110.12
11	X	143	GLY	CA-C-N	5.39	127.81	120.54
11	X	143	GLY	C-N-CA	5.39	127.81	120.54
11	V	148	LEU	CB-CA-C	-5.39	102.42	110.88
5	C	34	VAL	N-CA-C	-5.38	100.69	108.71
6	D	431	LEU	CA-C-N	5.38	128.49	120.31
6	D	431	LEU	C-N-CA	5.38	128.49	120.31
7	Q	16	VAL	CA-C-N	5.38	128.07	120.42
7	Q	16	VAL	C-N-CA	5.38	128.07	120.42
11	X	26	LEU	CA-C-O	-5.38	115.17	120.82
11	a	117	ARG	N-CA-CB	5.38	118.63	110.28
5	E	293	VAL	CA-C-O	5.38	126.56	120.85
11	R	74	VAL	CA-C-N	5.38	131.82	121.54
11	R	74	VAL	C-N-CA	5.38	131.82	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	a	133	LEU	CA-C-O	-5.38	114.84	120.55
5	A	578	LYS	N-CA-C	5.38	117.14	111.28
11	U	12	PHE	CB-CG-CD2	-5.38	111.55	120.70
11	Y	37	VAL	N-CA-C	-5.38	105.13	110.62
2	O	133	LEU	CB-CA-C	-5.38	101.86	110.79
3	M	193	ASP	CA-C-N	5.38	127.49	120.28
3	M	193	ASP	C-N-CA	5.38	127.49	120.28
5	E	134	ASP	CA-CB-CG	-5.38	107.22	112.60
11	Y	69	VAL	N-CA-C	5.38	115.58	110.42
11	a	134	ILE	CB-CA-C	-5.38	103.83	112.16
1	b	351	ALA	CA-C-N	5.37	128.50	120.87
1	b	351	ALA	C-N-CA	5.37	128.50	120.87
5	E	71	GLN	OE1-CD-NE2	5.37	127.97	122.60
5	E	380	PHE	CA-CB-CG	5.37	119.17	113.80
6	F	205	GLU	CA-C-O	5.37	125.10	119.03
6	B	353	ILE	N-CA-CB	5.37	118.64	110.58
7	Q	193	TYR	CB-CA-C	-5.37	101.87	110.79
9	I	115	ASP	CA-C-N	5.37	129.82	120.68
9	I	115	ASP	C-N-CA	5.37	129.82	120.68
11	W	33	ALA	CA-C-N	5.37	127.42	120.44
11	W	33	ALA	C-N-CA	5.37	127.42	120.44
1	b	179	ALA	N-CA-C	-5.37	104.15	111.56
6	F	257	ARG	NE-CZ-NH2	-5.37	114.37	119.20
5	A	194	ASP	CA-CB-CG	-5.37	107.23	112.60
6	B	287	ALA	N-CA-C	5.37	117.14	111.28
5	C	581	VAL	CA-CB-CG1	-5.37	101.27	110.40
6	D	234	SER	N-CA-C	-5.37	104.51	111.71
9	G	127	GLU	CA-C-N	5.37	127.92	120.29
9	G	127	GLU	C-N-CA	5.37	127.92	120.29
6	F	137	SER	CA-C-N	5.37	125.06	119.64
6	F	137	SER	C-N-CA	5.37	125.06	119.64
5	A	228	SER	N-CA-C	5.37	117.87	110.35
5	C	370	ARG	O-C-N	5.37	128.27	122.15
5	C	302	THR	N-CA-CB	5.37	118.61	110.45
6	D	461	ALA	CA-C-N	5.37	127.42	120.44
6	D	461	ALA	C-N-CA	5.37	127.42	120.44
11	Z	118	GLY	O-C-N	5.37	127.33	122.18
11	S	53	ASN	N-CA-C	5.37	117.55	111.11
11	T	84	LEU	CB-CA-C	-5.37	101.88	110.79
6	B	411	LYS	CA-C-N	5.37	127.47	120.28
6	B	411	LYS	C-N-CA	5.37	127.47	120.28
6	D	311	ASP	N-CA-C	5.37	116.82	110.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	M	38	ALA	CA-C-N	5.37	127.91	120.29
3	M	38	ALA	C-N-CA	5.37	127.91	120.29
6	D	194	VAL	CA-C-N	5.37	126.80	120.09
6	D	194	VAL	C-N-CA	5.37	126.80	120.09
7	Q	297	ARG	CA-C-N	5.37	128.47	120.31
7	Q	297	ARG	C-N-CA	5.37	128.47	120.31
11	Y	44	VAL	CA-C-N	5.37	127.42	120.44
11	Y	44	VAL	C-N-CA	5.37	127.42	120.44
11	S	135	PHE	CA-C-O	-5.37	113.80	119.97
6	B	80	PHE	CB-CA-C	-5.36	101.73	110.85
9	K	92	ARG	CA-C-N	5.36	129.80	120.68
9	K	92	ARG	C-N-CA	5.36	129.80	120.68
9	K	99	ILE	N-CA-CB	5.36	118.63	110.58
11	R	71	SER	N-CA-C	5.36	117.55	111.11
11	V	12	PHE	CA-C-N	5.36	125.90	120.00
11	V	12	PHE	C-N-CA	5.36	125.90	120.00
11	a	144	LEU	N-CA-C	5.36	117.55	111.11
11	T	129	MET	CG-SD-CE	-5.36	89.10	100.90
5	A	265	ILE	CA-CB-CG1	5.36	119.52	110.40
6	B	438	LYS	CG-CD-CE	5.36	123.63	111.30
7	Q	311	ALA	CA-C-N	5.36	127.91	120.29
7	Q	311	ALA	C-N-CA	5.36	127.91	120.29
9	K	199	ILE	CA-CB-CG2	-5.36	101.39	110.50
11	a	130	ILE	N-CA-CB	5.36	116.46	110.51
2	O	187	ASN	OD1-CG-ND2	5.36	127.96	122.60
2	O	344	LEU	N-CA-CB	5.36	117.99	110.12
6	F	456	GLU	CB-CA-C	-5.36	101.90	110.79
2	O	315	SER	CA-C-N	5.36	127.31	120.56
2	O	315	SER	C-N-CA	5.36	127.31	120.56
4	N	9	ALA	N-CA-C	5.36	118.72	110.42
6	F	471	GLU	CA-C-O	5.36	125.55	119.18
5	A	218	ARG	CB-CG-CD	5.36	123.62	111.30
6	D	204	HIS	CA-C-O	-5.36	114.99	120.99
10	P	40	ASP	N-CA-C	-5.35	105.52	111.36
10	P	445	GLY	CA-C-N	5.35	127.02	120.22
10	P	445	GLY	C-N-CA	5.35	127.02	120.22
3	M	84	GLN	CB-CG-CD	-5.35	103.50	112.60
1	b	330	THR	N-CA-CB	5.35	117.77	110.01
4	N	82	ASP	CA-CB-CG	5.35	117.95	112.60
5	E	249	GLY	CA-C-O	5.35	123.80	118.77
11	T	137	GLU	N-CA-CB	5.35	119.27	110.39
1	b	267	ASN	N-CA-CB	5.35	119.16	110.17

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	O	300	PHE	CA-CB-CG	5.35	119.15	113.80
6	D	254	ILE	CA-CB-CG2	5.35	119.59	110.50
11	a	142	TYR	CB-CG-CD1	-5.35	112.78	120.80
5	E	438	PHE	CA-C-O	-5.35	113.70	120.28
11	V	132	ILE	CA-C-O	5.35	126.84	121.17
2	O	111	LEU	CA-C-N	5.34	129.76	120.68
2	O	111	LEU	C-N-CA	5.34	129.76	120.68
2	O	212	THR	CA-C-N	5.34	127.44	120.28
2	O	212	THR	C-N-CA	5.34	127.44	120.28
3	M	161	GLU	CA-C-N	5.34	128.01	120.42
3	M	161	GLU	C-N-CA	5.34	128.01	120.42
5	A	324	MET	CA-C-O	-5.34	115.14	120.64
5	C	328	ALA	CA-C-N	5.34	127.71	120.44
5	C	328	ALA	C-N-CA	5.34	127.71	120.44
11	Y	82	GLN	N-CA-C	-5.34	100.80	108.60
11	Y	94	GLY	CA-C-N	5.34	127.39	120.44
11	Y	94	GLY	C-N-CA	5.34	127.39	120.44
2	O	304	PHE	CA-CB-CG	-5.34	108.46	113.80
5	A	480	VAL	CB-CA-C	-5.34	104.93	112.14
7	Q	138	THR	CA-C-N	5.34	127.70	120.44
7	Q	138	THR	C-N-CA	5.34	127.70	120.44
10	P	80	LEU	N-CA-CB	5.34	117.97	110.12
10	P	358	GLU	CA-C-N	5.34	127.70	120.44
10	P	358	GLU	C-N-CA	5.34	127.70	120.44
6	B	251	GLU	CA-C-N	5.34	127.43	120.28
6	B	251	GLU	C-N-CA	5.34	127.43	120.28
7	Q	287	HIS	CE1-NE2-CD2	-5.34	103.66	109.00
8	L	82	GLU	CA-C-N	5.34	127.40	120.56
8	L	82	GLU	C-N-CA	5.34	127.40	120.56
10	P	427	ILE	N-CA-CB	5.34	118.59	110.58
11	S	76	TYR	CB-CA-C	-5.34	101.92	110.79
11	T	35	SER	CA-C-N	5.34	131.88	121.41
11	T	35	SER	C-N-CA	5.34	131.88	121.41
2	O	311	VAL	CA-C-N	5.34	127.87	120.29
2	O	311	VAL	C-N-CA	5.34	127.87	120.29
8	J	98	LEU	N-CA-CB	5.34	117.97	110.12
5	A	297	PHE	N-CA-CB	5.34	118.25	110.30
11	T	73	LEU	CA-C-N	5.34	127.77	120.46
11	T	73	LEU	C-N-CA	5.34	127.77	120.46
1	b	82	LYS	N-CA-C	5.33	117.61	110.35
11	Z	53	ASN	CB-CG-ND2	-5.33	108.40	116.40
6	D	217	VAL	CA-C-N	5.33	128.80	120.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	D	217	VAL	C-N-CA	5.33	128.80	120.75
9	G	29	GLU	CA-C-O	-5.33	115.22	120.82
11	R	76	TYR	CB-CG-CD1	5.33	128.80	120.80
11	X	62	ILE	CA-C-O	5.33	125.65	119.36
11	a	151	ASN	N-CA-CB	5.33	117.89	109.94
5	A	340	ALA	O-C-N	-5.33	116.47	122.12
8	L	73	GLU	CA-C-N	5.33	127.42	120.28
8	L	73	GLU	C-N-CA	5.33	127.42	120.28
10	P	311	GLN	CG-CD-NE2	5.33	124.39	116.40
2	O	243	VAL	N-CA-CB	5.33	117.79	110.54
6	B	202	ASP	N-CA-CB	5.33	119.50	110.49
5	C	30	VAL	O-C-N	-5.33	117.86	123.03
9	G	26	LYS	N-CA-C	-5.33	105.47	111.28
5	A	121	SER	N-CA-C	-5.33	100.64	108.79
6	B	449	TYR	N-CA-C	-5.33	104.71	113.50
11	V	80	GLN	N-CA-CB	5.33	118.55	110.45
5	A	496	GLU	CB-CA-C	-5.33	101.95	110.79
10	P	14	ASN	CB-CA-C	-5.33	101.95	110.79
2	O	297	VAL	O-C-N	-5.32	116.71	121.87
4	N	17	THR	N-CA-C	5.32	116.77	111.07
9	K	66	LEU	CA-C-N	5.32	127.41	120.28
9	K	66	LEU	C-N-CA	5.32	127.41	120.28
11	Y	49	LEU	CA-C-N	5.32	129.66	121.19
11	Y	49	LEU	C-N-CA	5.32	129.66	121.19
2	O	164	ARG	CA-C-N	5.32	127.41	120.28
2	O	164	ARG	C-N-CA	5.32	127.41	120.28
10	P	113	THR	CA-C-N	5.32	127.98	120.42
10	P	113	THR	C-N-CA	5.32	127.98	120.42
7	Q	322	ASN	CB-CA-C	-5.32	102.53	110.88
11	Y	35	SER	CA-C-O	5.32	126.41	120.82
11	S	150	LEU	O-C-N	5.32	127.77	122.08
2	O	209	SER	N-CA-C	5.32	119.83	113.23
9	G	110	ILE	N-CA-C	-5.32	105.31	110.42
5	A	126	ARG	NE-CZ-NH2	-5.32	114.41	119.20
5	A	483	ASP	O-C-N	-5.32	116.48	122.12
6	B	339	ASN	O-C-N	5.32	127.89	122.09
10	P	433	LEU	N-CA-C	5.32	117.08	111.28
11	X	32	THR	CA-C-O	5.32	126.19	120.55
11	V	129	MET	CB-CA-C	-5.32	102.53	110.88
3	M	52	ASP	CA-C-O	-5.32	115.24	120.82
5	E	334	TYR	O-C-N	5.32	127.55	122.07
11	Y	116	VAL	N-CA-CB	5.32	121.00	110.95

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	W	59	MET	CB-CA-C	-5.32	101.97	110.79
6	B	348	ASP	CA-C-N	5.31	127.84	120.29
6	B	348	ASP	C-N-CA	5.31	127.84	120.29
9	K	147	ASP	CA-C-N	5.31	127.84	120.29
9	K	147	ASP	C-N-CA	5.31	127.84	120.29
9	G	159	GLU	N-CA-C	5.31	117.07	111.28
2	O	147	ALA	CA-C-N	5.31	127.83	120.29
2	O	147	ALA	C-N-CA	5.31	127.83	120.29
5	E	545	ASP	CA-CB-CG	-5.31	107.29	112.60
5	A	64	ASP	CA-C-N	5.31	126.42	120.42
5	A	64	ASP	C-N-CA	5.31	126.42	120.42
5	A	160	SER	CB-CA-C	-5.31	99.03	110.45
6	D	326	ASN	CA-CB-CG	-5.31	107.29	112.60
4	N	3	GLU	N-CA-CB	5.31	117.99	109.28
6	B	325	ARG	CB-CA-C	5.31	118.85	111.63
8	L	17	ALA	CB-CA-C	-5.31	101.97	110.79
2	O	276	SER	CB-CA-C	-5.31	100.48	110.67
4	N	79	ALA	CA-C-O	-5.31	115.22	120.90
5	E	112	LEU	N-CA-C	5.31	117.81	111.71
5	C	463	TYR	CA-C-N	5.31	127.71	120.54
5	C	463	TYR	C-N-CA	5.31	127.71	120.54
7	Q	314	LYS	CA-C-N	5.31	127.83	120.29
7	Q	314	LYS	C-N-CA	5.31	127.83	120.29
9	K	65	LYS	N-CA-CB	5.31	118.51	110.28
10	P	271	PHE	N-CA-C	-5.31	105.49	111.28
11	T	126	PHE	N-CA-CB	5.31	117.92	110.12
11	T	137	GLU	CA-C-O	-5.31	112.85	119.38
1	b	203	LEU	CA-C-N	5.31	127.34	120.44
1	b	203	LEU	C-N-CA	5.31	127.34	120.44
2	O	273	GLU	CA-C-O	5.31	126.17	120.55
5	A	223	VAL	CA-C-N	5.31	127.66	120.44
5	A	223	VAL	C-N-CA	5.31	127.66	120.44
9	I	157	MET	CA-C-N	5.31	127.85	120.63
9	I	157	MET	C-N-CA	5.31	127.85	120.63
10	P	159	LYS	N-CA-C	5.31	117.06	111.28
10	P	248	LEU	N-CA-C	-5.31	105.57	111.36
11	Z	121	GLN	O-C-N	5.31	129.90	122.36
5	A	324	MET	CA-C-N	5.31	126.05	120.11
5	A	324	MET	C-N-CA	5.31	126.05	120.11
5	C	232	PRO	N-CA-C	5.31	119.65	111.21
10	P	160	LEU	N-CA-CB	5.31	117.70	110.01
11	W	143	GLY	O-C-N	5.31	127.28	122.19

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	V	61	GLY	CA-C-O	-5.31	114.46	120.30
1	b	73	TYR	CA-C-N	5.30	127.34	120.44
1	b	73	TYR	C-N-CA	5.30	127.34	120.44
3	M	16	GLY	N-CA-C	5.30	119.10	112.73
5	E	37	ALA	CA-C-O	5.30	126.80	120.28
5	E	322	SER	N-CA-C	-5.30	106.31	112.89
5	E	365	ARG	CD-NE-CZ	-5.30	116.97	124.40
11	a	91	LEU	CB-CA-C	-5.30	101.94	110.74
6	B	334	ILE	CA-C-N	5.30	130.47	122.99
6	B	334	ILE	C-N-CA	5.30	130.47	122.99
10	P	212	PRO	CA-C-N	5.30	127.65	120.44
10	P	212	PRO	C-N-CA	5.30	127.65	120.44
9	G	25	ARG	CA-C-N	5.30	127.39	120.28
9	G	25	ARG	C-N-CA	5.30	127.39	120.28
11	S	83	ALA	CA-C-N	5.30	127.39	120.28
11	S	83	ALA	C-N-CA	5.30	127.39	120.28
2	O	294	THR	N-CA-CB	5.30	117.91	110.12
5	E	349	ASN	OD1-CG-ND2	5.30	127.90	122.60
7	Q	38	THR	CA-CB-CG2	-5.30	101.49	110.50
11	R	16	GLY	CA-C-N	5.30	127.70	120.54
11	R	16	GLY	C-N-CA	5.30	127.70	120.54
5	C	181	THR	N-CA-C	-5.30	100.39	109.24
6	D	119	PRO	CB-CA-C	5.30	118.26	111.21
10	P	82	HIS	CB-CG-CD2	-5.30	124.31	131.20
5	E	540	ILE	O-C-N	5.30	127.29	121.83
5	C	76	THR	CA-CB-CG2	-5.30	101.49	110.50
10	P	318	ALA	N-CA-C	5.30	116.74	111.07
11	a	122	GLN	OE1-CD-NE2	5.30	127.90	122.60
6	B	426	SER	CA-C-O	-5.30	115.58	121.51
6	D	98	GLU	CA-C-N	5.30	129.25	120.94
6	D	98	GLU	C-N-CA	5.30	129.25	120.94
7	Q	47	SER	O-C-N	-5.30	115.44	122.33
7	Q	295	LEU	N-CA-CB	5.30	119.44	110.49
9	K	206	ARG	CB-CA-C	-5.30	102.00	110.79
5	A	439	TRP	O-C-N	-5.29	117.11	123.31
9	G	189	VAL	O-C-N	5.29	128.66	122.99
1	b	182	ALA	N-CA-C	-5.29	105.10	112.03
5	A	234	LEU	CA-C-N	5.29	130.79	122.11
5	A	234	LEU	C-N-CA	5.29	130.79	122.11
7	Q	253	THR	N-CA-C	-5.29	105.59	111.36
9	G	113	ASN	CA-C-O	5.29	125.96	120.40
11	R	73	LEU	CA-C-N	5.29	127.43	120.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	R	73	LEU	C-N-CA	5.29	127.43	120.60
11	R	101	GLY	CA-C-N	5.29	127.69	120.54
11	R	101	GLY	C-N-CA	5.29	127.69	120.54
11	Z	113	ASP	CA-C-N	5.29	127.90	120.28
11	Z	113	ASP	C-N-CA	5.29	127.90	120.28
1	b	102	PRO	CA-C-N	5.29	129.25	120.94
1	b	102	PRO	C-N-CA	5.29	129.25	120.94
5	E	442	ASP	N-CA-C	-5.29	100.06	109.06
6	F	73	ASP	O-C-N	5.29	128.93	122.58
11	W	56	PRO	CA-C-N	5.29	127.42	120.60
11	W	56	PRO	C-N-CA	5.29	127.42	120.60
5	A	315	THR	CA-C-N	5.29	130.45	122.99
5	A	315	THR	C-N-CA	5.29	130.45	122.99
5	A	416	VAL	N-CA-C	-5.29	101.08	108.80
6	B	289	ARG	CA-C-N	5.29	127.64	120.44
6	B	289	ARG	C-N-CA	5.29	127.64	120.44
1	b	106	VAL	O-C-N	5.29	127.59	122.30
5	A	423	PHE	CA-CB-CG	-5.29	108.51	113.80
6	B	329	ILE	O-C-N	-5.29	116.91	123.10
6	D	264	GLU	CA-C-O	-5.29	113.55	119.79
10	P	206	HIS	ND1-CE1-NE2	5.29	113.69	108.40
10	P	464	GLU	N-CA-CB	5.29	117.89	110.12
9	G	205	GLU	CA-C-N	5.29	127.37	120.28
9	G	205	GLU	C-N-CA	5.29	127.37	120.28
11	S	90	GLN	CB-CG-CD	-5.29	103.61	112.60
5	A	435	THR	N-CA-CB	5.29	117.78	110.17
5	C	323	ASN	N-CA-C	-5.29	105.49	112.94
9	I	87	LYS	N-CA-C	5.29	117.04	111.28
8	L	83	ILE	CB-CA-C	-5.29	105.09	112.02
1	b	362	ILE	N-CA-C	-5.29	96.20	111.00
5	A	64	ASP	CA-CB-CG	-5.29	107.31	112.60
11	R	11	PHE	CA-C-N	5.29	131.40	122.26
11	R	11	PHE	C-N-CA	5.29	131.40	122.26
11	Y	26	LEU	N-CA-C	5.28	117.04	111.28
5	A	146	PHE	CA-CB-CG	-5.28	108.52	113.80
5	A	468	ASN	CA-CB-CG	5.28	117.88	112.60
6	B	39	VAL	CA-C-O	5.28	126.85	120.67
9	K	128	ALA	N-CA-C	-5.28	105.60	111.36
3	M	119	ASP	CA-CB-CG	-5.28	107.32	112.60
6	F	239	SER	N-CA-C	-5.28	100.79	109.40
5	A	615	THR	N-CA-CB	5.28	117.67	110.01
5	C	40	MET	CG-SD-CE	-5.28	89.28	100.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	C	207	SER	N-CA-C	-5.28	99.55	110.80
8	H	97	ILE	N-CA-C	-5.28	105.25	111.00
6	F	337	MET	N-CA-CB	5.28	119.52	109.44
5	A	471	TYR	N-CA-C	-5.28	105.70	111.82
5	C	283	CYS	CA-C-N	5.28	131.75	121.41
5	C	283	CYS	C-N-CA	5.28	131.75	121.41
6	D	462	TRP	CA-C-O	-5.28	115.28	120.82
9	K	71	LEU	CA-C-N	5.28	127.88	120.28
9	K	71	LEU	C-N-CA	5.28	127.88	120.28
2	O	298	ASP	CB-CA-C	-5.28	102.60	110.88
5	C	302	THR	OG1-CB-CG2	-5.28	98.75	109.30
9	I	175	SER	CA-C-N	5.28	128.33	120.31
9	I	175	SER	C-N-CA	5.28	128.33	120.31
11	U	98	GLY	O-C-N	5.28	127.25	122.18
11	X	81	LYS	N-CA-C	-5.28	99.22	107.93
11	Z	101	GLY	O-C-N	-5.28	117.11	122.18
6	B	112	ILE	N-CA-C	-5.27	100.73	108.11
1	b	61	ARG	O-C-N	5.27	127.71	122.12
2	O	46	SER	CA-C-N	5.27	128.36	120.87
2	O	46	SER	C-N-CA	5.27	128.36	120.87
6	B	126	VAL	O-C-N	5.27	129.16	122.57
7	Q	77	TYR	CB-CG-CD1	5.27	128.71	120.80
11	R	111	VAL	CB-CA-C	-5.27	104.95	111.70
11	S	47	PRO	N-CA-C	-5.27	101.61	112.47
9	K	15	ASP	CA-C-O	5.27	126.14	120.55
6	F	146	TYR	CA-C-N	5.27	125.21	119.78
6	F	146	TYR	C-N-CA	5.27	125.21	119.78
6	F	405	ALA	O-C-N	5.27	127.71	122.12
5	C	35	VAL	N-CA-C	-5.27	100.61	108.46
6	D	358	ILE	N-CA-CB	5.27	118.10	111.46
7	Q	83	ILE	CA-C-N	5.27	127.87	120.28
7	Q	83	ILE	C-N-CA	5.27	127.87	120.28
10	P	278	VAL	CB-CA-C	-5.27	105.03	112.14
10	P	411	VAL	N-CA-C	-5.27	100.27	108.81
6	F	449	TYR	CB-CA-C	-5.27	102.96	111.28
6	B	178	LEU	N-CA-C	-5.27	99.70	108.23
5	C	109	GLN	OE1-CD-NE2	5.27	127.87	122.60
6	D	101	ARG	NE-CZ-NH2	5.27	123.94	119.20
7	Q	194	ASN	N-CA-C	5.27	117.10	111.36
11	Y	57	VAL	N-CA-CB	5.27	116.71	110.55
11	Z	60	ALA	CA-C-N	5.27	126.91	120.22
11	Z	60	ALA	C-N-CA	5.27	126.91	120.22

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	E	554	HIS	CE1-NE2-CD2	-5.26	103.73	109.00
5	A	252	THR	CA-C-N	5.26	130.84	122.94
5	A	252	THR	C-N-CA	5.26	130.84	122.94
6	B	128	ALA	N-CA-CB	5.26	120.31	110.99
10	P	358	GLU	CB-CG-CD	-5.26	103.65	112.60
10	P	421	GLN	OE1-CD-NE2	5.26	127.86	122.60
11	V	80	GLN	N-CA-C	-5.26	103.44	110.55
9	I	189	VAL	CA-C-N	5.26	129.89	123.10
9	I	189	VAL	C-N-CA	5.26	129.89	123.10
9	G	168	PRO	N-CA-CB	5.26	108.25	103.15
5	E	565	ALA	N-CA-CB	5.26	120.41	111.57
8	H	73	GLU	N-CA-C	-5.26	105.14	112.45
5	E	577	VAL	CA-CB-CG2	5.26	119.34	110.40
5	A	381	PRO	CA-C-N	5.26	127.33	120.28
5	A	381	PRO	C-N-CA	5.26	127.33	120.28
9	K	34	GLU	O-C-N	-5.26	116.15	122.15
11	S	139	LEU	N-CA-C	-5.26	105.63	111.36
4	N	80	ARG	NE-CZ-NH1	5.26	126.76	121.50
5	A	177	ARG	N-CA-CB	5.26	119.38	110.49
3	M	45	ASP	CA-CB-CG	-5.26	107.34	112.60
6	F	127	PHE	CA-CB-CG	-5.26	108.54	113.80
10	P	466	LEU	CA-C-N	5.26	127.75	120.29
10	P	466	LEU	C-N-CA	5.26	127.75	120.29
9	G	160	TYR	CA-C-N	5.26	126.90	120.22
9	G	160	TYR	C-N-CA	5.26	126.90	120.22
11	a	89	ILE	CA-C-N	5.26	127.59	120.44
11	a	89	ILE	C-N-CA	5.26	127.59	120.44
6	B	453	THR	CA-C-N	5.25	127.66	120.46
6	B	453	THR	C-N-CA	5.25	127.66	120.46
9	G	47	LYS	CA-C-O	-5.25	114.98	120.55
11	R	142	TYR	CA-C-N	5.25	125.67	119.94
11	R	142	TYR	C-N-CA	5.25	125.67	119.94
6	F	83	THR	N-CA-CB	5.25	119.37	110.49
6	D	274	VAL	N-CA-C	-5.25	100.82	108.17
10	P	49	SER	CA-C-O	-5.25	113.59	119.79
11	Z	14	ALA	CA-C-N	5.25	128.92	120.30
11	Z	14	ALA	C-N-CA	5.25	128.92	120.30
11	V	41	ALA	CA-C-N	5.25	127.32	120.28
11	V	41	ALA	C-N-CA	5.25	127.32	120.28
11	T	49	LEU	N-CA-C	-5.25	106.55	113.17
6	F	329	ILE	N-CA-C	-5.25	100.08	107.75
8	J	5	ASN	N-CA-CB	5.25	118.45	110.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	C	147	GLN	N-CA-C	-5.25	101.14	108.96
3	M	70	GLU	CA-C-N	5.25	127.93	120.53
3	M	70	GLU	C-N-CA	5.25	127.93	120.53
5	E	560	ALA	N-CA-C	5.25	117.08	111.36
10	P	41	ALA	CA-C-N	5.25	127.31	120.28
10	P	41	ALA	C-N-CA	5.25	127.31	120.28
2	O	33	TRP	CG-CD2-CE3	-5.25	128.66	133.90
6	F	364	LEU	CA-C-O	5.24	125.98	120.42
6	B	193	LEU	CA-C-N	5.24	127.64	120.46
6	B	193	LEU	C-N-CA	5.24	127.64	120.46
11	X	124	ARG	CA-C-O	5.24	126.00	119.97
6	F	84	SER	CA-C-O	-5.24	115.31	121.44
6	D	71	ARG	NE-CZ-NH2	-5.24	114.48	119.20
6	D	477	SER	CA-C-N	5.24	125.04	119.28
6	D	477	SER	C-N-CA	5.24	125.04	119.28
10	P	331	SER	N-CA-CB	5.24	118.30	109.92
10	P	337	GLN	CA-C-N	5.24	127.30	120.28
10	P	337	GLN	C-N-CA	5.24	127.30	120.28
9	G	173	VAL	N-CA-CB	5.24	118.06	111.46
11	S	134	ILE	CA-CB-CG2	5.24	119.41	110.50
11	T	143	GLY	CA-C-N	5.24	128.68	120.82
11	T	143	GLY	C-N-CA	5.24	128.68	120.82
5	E	554	HIS	CA-CB-CG	5.24	119.04	113.80
5	C	207	SER	N-CA-CB	5.24	119.34	110.49
7	Q	215	GLU	CA-C-O	5.24	126.10	120.55
5	C	338	THR	CA-C-N	5.24	127.30	120.28
5	C	338	THR	C-N-CA	5.24	127.30	120.28
7	Q	85	ASP	CA-CB-CG	-5.24	107.36	112.60
11	a	32	THR	N-CA-C	-5.24	105.47	111.07
11	T	20	ALA	O-C-N	5.24	127.47	122.07
4	N	82	ASP	N-CA-C	5.24	117.07	111.36
5	E	597	HIS	CA-C-N	5.24	126.87	120.22
5	E	597	HIS	C-N-CA	5.24	126.87	120.22
6	D	166	ARG	CA-C-N	5.24	130.01	122.63
6	D	166	ARG	C-N-CA	5.24	130.01	122.63
10	P	81	ILE	CA-C-N	5.24	127.25	120.44
10	P	81	ILE	C-N-CA	5.24	127.25	120.44
11	T	40	CYS	CA-C-O	-5.24	115.00	120.55
5	C	110	ARG	O-C-N	-5.23	116.59	121.72
9	I	45	ILE	O-C-N	5.23	127.04	121.91
5	E	64	ASP	CA-C-O	-5.23	114.68	120.33
6	D	178	LEU	N-CA-CB	5.23	115.40	109.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	J	36	LYS	CB-CA-C	-5.23	101.95	110.85
3	M	77	GLU	N-CA-CB	5.23	119.33	110.49
11	X	72	VAL	CA-C-O	-5.23	115.62	121.17
5	A	61	ILE	N-CA-C	-5.23	105.75	110.82
6	B	162	ASN	CA-CB-CG	-5.23	107.37	112.60
1	b	57	ASN	N-CA-CB	5.23	117.59	110.01
5	E	518	ALA	N-CA-C	5.23	116.98	111.28
5	C	272	TYR	N-CA-CB	5.23	118.35	110.30
10	P	230	ILE	O-C-N	-5.23	117.01	122.81
11	Z	67	GLY	CA-C-O	-5.23	115.67	121.05
5	E	129	ASP	CA-CB-CG	-5.22	107.38	112.60
6	F	214	ALA	N-CA-C	-5.22	100.39	108.90
6	B	99	SER	O-C-N	5.22	128.86	122.96
6	D	449	TYR	O-C-N	5.22	128.47	121.99
7	Q	167	ASP	N-CA-CB	5.22	117.58	110.01
8	L	19	GLU	CA-C-N	5.22	127.14	120.56
8	L	19	GLU	C-N-CA	5.22	127.14	120.56
8	L	88	GLU	CA-C-N	5.22	127.55	120.65
8	L	88	GLU	C-N-CA	5.22	127.55	120.65
10	P	434	LEU	CB-CA-C	5.22	117.04	109.20
11	R	123	PRO	N-CA-CB	-5.22	97.76	103.25
5	E	75	GLU	O-C-N	5.22	129.02	122.86
9	G	178	TYR	N-CA-CB	5.22	118.77	110.57
11	R	93	ALA	O-C-N	5.22	128.49	122.17
5	A	241	ASP	CA-CB-CG	5.22	117.82	112.60
6	B	394	LYS	N-CA-CB	5.22	118.91	110.40
1	b	136	ASN	O-C-N	-5.22	116.45	122.09
3	M	66	PHE	CB-CA-C	-5.22	101.98	110.85
5	C	98	PRO	N-CA-C	5.22	123.22	112.47
5	A	530	GLY	CA-C-O	-5.22	115.97	122.65
6	D	361	ASP	CA-C-N	5.22	127.27	120.28
6	D	361	ASP	C-N-CA	5.22	127.27	120.28
10	P	406	VAL	O-C-N	-5.22	116.80	121.91
11	T	134	ILE	O-C-N	-5.22	116.60	121.87
11	T	146	VAL	CA-CB-CG1	5.22	119.27	110.40
1	b	61	ARG	CB-CG-CD	5.21	123.29	111.30
5	E	370	ARG	O-C-N	5.21	128.09	122.15
6	D	40	ILE	N-CA-C	-5.21	100.38	107.99
6	D	363	GLN	CA-C-O	5.21	125.95	120.42
3	M	169	ARG	N-CA-C	5.21	117.04	111.36
5	E	129	ASP	CA-C-O	-5.21	115.67	121.51
7	Q	116	HIS	CE1-NE2-CD2	-5.21	103.79	109.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	S	88	PHE	N-CA-CB	5.21	118.25	110.22
6	B	341	ASP	CA-CB-CG	5.21	117.81	112.60
11	R	149	LEU	O-C-N	-5.21	116.67	122.09
5	E	494	GLU	CA-CB-CG	5.21	124.52	114.10
6	F	379	LEU	O-C-N	5.21	129.31	123.48
9	I	206	ARG	O-C-N	5.21	127.44	122.07
11	W	102	LEU	N-CA-CB	-5.21	102.46	110.01
1	b	241	HIS	CG-CD2-NE2	5.21	112.41	107.20
6	F	74	ARG	N-CA-CB	5.21	119.29	110.49
6	B	211	VAL	CA-C-N	5.21	130.34	123.05
6	B	211	VAL	C-N-CA	5.21	130.34	123.05
9	I	209	LEU	O-C-N	5.21	128.09	122.15
8	H	25	ARG	NE-CZ-NH1	-5.21	116.29	121.50
11	V	131	LEU	CA-C-N	5.21	127.12	120.56
11	V	131	LEU	C-N-CA	5.21	127.12	120.56
4	N	75	GLU	CA-C-O	-5.21	115.03	120.55
5	E	600	PHE	CA-CB-CG	-5.21	108.59	113.80
9	K	140	LYS	O-C-N	-5.21	117.29	123.22
9	G	80	ILE	CA-C-O	5.21	126.69	121.17
6	F	34	VAL	CB-CA-C	5.20	118.50	110.28
6	F	204	HIS	CB-CG-ND1	5.20	130.51	122.70
6	F	462	TRP	CA-C-O	-5.20	113.99	119.97
6	D	481	LEU	N-CA-C	5.20	116.95	111.28
5	E	73	TYR	N-CA-C	5.20	119.26	113.02
5	E	352	MET	CG-SD-CE	-5.20	89.46	100.90
5	E	454	ILE	CA-CB-CG2	-5.20	101.66	110.50
6	F	40	ILE	CA-C-N	5.20	130.74	122.94
6	F	40	ILE	C-N-CA	5.20	130.74	122.94
7	Q	125	GLN	CG-CD-NE2	5.20	124.20	116.40
6	F	349	LEU	CA-C-N	5.20	127.25	120.28
6	F	349	LEU	C-N-CA	5.20	127.25	120.28
6	F	431	LEU	CA-C-O	-5.20	114.91	120.42
5	C	46	TYR	CA-C-N	5.20	128.09	120.71
5	C	46	TYR	C-N-CA	5.20	128.09	120.71
9	I	65	LYS	N-CA-CB	5.20	118.34	110.28
9	I	208	LYS	N-CA-CB	5.20	117.86	110.16
11	U	62	ILE	CA-C-N	5.20	127.21	120.56
11	U	62	ILE	C-N-CA	5.20	127.21	120.56
11	Y	89	ILE	N-CA-C	5.20	115.97	110.72
6	D	55	LEU	CB-CA-C	-5.20	101.17	109.75
10	P	14	ASN	OD1-CG-ND2	5.20	127.80	122.60
1	b	112	ARG	NE-CZ-NH2	-5.20	114.52	119.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	N	26	GLY	CA-C-O	-5.20	115.96	121.88
5	A	488	ILE	CA-C-N	5.20	127.67	120.29
5	A	488	ILE	C-N-CA	5.20	127.67	120.29
5	C	552	SER	N-CA-C	5.20	116.94	111.28
6	D	431	LEU	CB-CA-C	-5.20	102.17	110.79
7	Q	77	TYR	CB-CG-CD2	-5.20	113.01	120.80
9	K	165	GLN	CA-C-N	5.20	128.60	120.75
9	K	165	GLN	C-N-CA	5.20	128.60	120.75
11	Z	125	LEU	CA-C-N	5.20	127.24	120.28
11	Z	125	LEU	C-N-CA	5.20	127.24	120.28
5	A	606	THR	CA-C-N	5.19	127.19	120.44
5	A	606	THR	C-N-CA	5.19	127.19	120.44
5	A	177	ARG	N-CA-C	-5.19	99.74	110.80
5	C	99	GLY	N-CA-C	-5.19	107.63	114.95
6	D	288	LEU	CA-C-N	5.19	127.66	120.29
6	D	288	LEU	C-N-CA	5.19	127.66	120.29
7	Q	239	SER	CA-C-N	5.19	128.92	121.50
7	Q	239	SER	C-N-CA	5.19	128.92	121.50
8	L	102	VAL	CA-C-O	5.19	126.08	120.47
11	X	131	LEU	N-CA-C	5.19	117.61	111.33
1	b	50	ALA	CB-CA-C	-5.19	102.17	110.79
6	B	470	LYS	CA-C-O	5.19	125.97	120.10
9	G	205	GLU	N-CA-CB	5.19	117.60	110.07
1	b	309	TRP	CE2-CD2-CE3	5.19	123.99	118.80
6	D	193	LEU	N-CA-C	-5.19	107.12	113.50
6	D	351	GLY	N-CA-C	-5.19	106.13	112.77
9	I	156	ILE	N-CA-C	-5.19	105.65	110.53
10	P	259	PHE	CA-CB-CG	5.19	118.99	113.80
11	W	133	LEU	CA-C-N	5.19	128.67	120.47
11	W	133	LEU	C-N-CA	5.19	128.67	120.47
1	b	79	HIS	CE1-NE2-CD2	-5.19	103.81	109.00
1	b	291	THR	N-CA-CB	5.18	117.74	110.12
5	C	586	PHE	CA-C-N	5.18	128.83	121.42
5	C	586	PHE	C-N-CA	5.18	128.83	121.42
10	P	200	ARG	CA-C-N	5.18	127.18	120.44
10	P	200	ARG	C-N-CA	5.18	127.18	120.44
10	P	312	LEU	CA-C-N	5.18	127.18	120.44
10	P	312	LEU	C-N-CA	5.18	127.18	120.44
11	U	122	GLN	O-C-N	-5.18	116.35	121.17
11	U	151	ASN	CA-CB-CG	-5.18	107.42	112.60
11	Z	54	ILE	N-CA-C	5.18	118.32	111.17
1	b	120	ARG	CA-C-O	5.18	125.93	119.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	O	313	VAL	CA-C-N	5.18	127.22	120.28
2	O	313	VAL	C-N-CA	5.18	127.22	120.28
3	M	70	GLU	O-C-N	5.18	127.61	122.12
3	M	203	LEU	CA-C-N	5.18	127.18	120.44
3	M	203	LEU	C-N-CA	5.18	127.18	120.44
6	F	96	THR	O-C-N	5.18	128.06	122.15
6	B	357	GLN	N-CA-CB	5.18	119.59	111.56
11	U	151	ASN	CA-C-N	5.18	127.74	120.28
11	U	151	ASN	C-N-CA	5.18	127.74	120.28
11	V	26	LEU	CA-C-N	5.18	125.85	119.99
11	V	26	LEU	C-N-CA	5.18	125.85	119.99
2	O	29	LYS	CA-C-O	-5.18	115.14	121.36
5	A	559	LYS	CA-C-N	5.18	127.17	120.44
5	A	559	LYS	C-N-CA	5.18	127.17	120.44
9	G	210	LEU	CA-C-N	5.18	127.74	120.28
9	G	210	LEU	C-N-CA	5.18	127.74	120.28
7	Q	266	ARG	CA-C-N	5.18	127.65	120.29
7	Q	266	ARG	C-N-CA	5.18	127.65	120.29
9	G	108	SER	O-C-N	-5.18	115.90	122.27
11	S	111	VAL	CA-C-N	5.18	131.56	121.41
11	S	111	VAL	C-N-CA	5.18	131.56	121.41
6	B	310	THR	O-C-N	5.18	127.61	122.12
6	D	36	GLY	N-CA-C	-5.18	101.78	112.34
9	I	151	SER	CA-C-O	5.18	125.96	119.59
11	X	149	LEU	CA-C-N	5.18	127.99	120.79
11	X	149	LEU	C-N-CA	5.18	127.99	120.79
2	O	67	GLU	CA-C-N	5.18	127.22	120.28
2	O	67	GLU	C-N-CA	5.18	127.22	120.28
6	F	208	PHE	CA-C-O	-5.18	115.11	120.70
5	A	384	LEU	CB-CA-C	-5.18	102.53	110.81
5	C	63	ILE	CA-CB-CG1	5.18	119.20	110.40
5	C	491	ASN	CB-CA-C	-5.17	102.06	110.85
6	D	292	SER	CA-C-N	5.17	127.64	120.29
6	D	292	SER	C-N-CA	5.17	127.64	120.29
7	Q	161	TYR	N-CA-C	-5.17	105.76	111.71
6	F	247	ASP	CA-CB-CG	5.17	117.77	112.60
5	A	293	VAL	N-CA-C	5.17	115.94	110.72
5	A	456	THR	CA-C-O	-5.17	114.02	119.97
6	B	267	ALA	CB-CA-C	-5.17	102.73	110.90
6	D	417	LYS	CA-C-N	5.17	127.21	120.28
6	D	417	LYS	C-N-CA	5.17	127.21	120.28
2	O	121	PHE	CA-C-O	-5.17	114.78	120.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	E	409	SER	O-C-N	-5.17	117.49	123.33
11	R	26	LEU	CA-C-O	-5.17	115.38	121.07
11	S	94	GLY	CA-C-N	5.17	127.47	120.38
11	S	94	GLY	C-N-CA	5.17	127.47	120.38
5	A	170	HIS	ND1-CE1-NE2	5.17	113.57	108.40
1	b	246	ILE	O-C-N	-5.17	116.84	121.91
2	O	3	THR	CB-CA-C	-5.17	101.46	110.09
2	O	182	GLU	N-CA-C	-5.17	107.00	113.72
6	F	343	THR	N-CA-C	-5.17	106.94	114.12
5	C	580	ALA	CA-C-O	-5.17	115.39	120.82
11	T	145	ILE	N-CA-C	5.17	115.61	110.23
6	F	320	GLY	CA-C-O	-5.17	117.92	122.16
5	C	221	ARG	CB-CA-C	-5.17	101.15	109.67
10	P	81	ILE	O-C-N	5.17	127.15	121.83
11	T	127	VAL	CA-C-N	5.17	126.85	120.34
11	T	127	VAL	C-N-CA	5.17	126.85	120.34
1	b	360	LEU	CA-C-N	5.17	131.53	121.41
1	b	360	LEU	C-N-CA	5.17	131.53	121.41
8	H	4	LYS	N-CA-CB	-5.17	102.54	110.44
5	E	129	ASP	N-CA-CB	5.16	119.99	111.62
5	A	268	SER	CA-C-N	5.16	127.20	120.28
5	A	268	SER	C-N-CA	5.16	127.20	120.28
6	D	180	HIS	ND1-CE1-NE2	5.16	113.56	108.40
8	J	36	LYS	CA-C-N	5.16	129.33	120.71
8	J	36	LYS	C-N-CA	5.16	129.33	120.71
9	I	197	ILE	O-C-N	-5.16	117.57	123.10
9	G	144	ARG	NE-CZ-NH2	-5.16	114.55	119.20
11	Z	73	LEU	N-CA-CB	5.16	117.63	109.94
9	I	71	LEU	N-CA-C	-5.16	105.27	112.45
10	P	82	HIS	CE1-NE2-CD2	-5.16	103.84	109.00
11	V	104	ALA	CB-CA-C	-5.16	102.22	110.79
2	O	203	LYS	CA-C-N	5.16	127.19	120.28
2	O	203	LYS	C-N-CA	5.16	127.19	120.28
5	A	477	GLU	N-CA-C	-5.16	106.83	113.02
5	E	354	ALA	CA-C-N	5.16	129.55	121.76
5	E	354	ALA	C-N-CA	5.16	129.55	121.76
6	F	273	HIS	CA-C-N	-5.16	116.38	123.14
6	F	273	HIS	C-N-CA	-5.16	116.38	123.14
5	C	428	THR	CA-C-N	5.16	127.19	120.28
5	C	428	THR	C-N-CA	5.16	127.19	120.28
9	I	180	ASN	O-C-N	-5.16	116.60	122.89
9	I	197	ILE	N-CA-C	-5.16	100.77	108.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	B	110	GLY	N-CA-C	-5.16	108.16	115.43
7	Q	323	ILE	O-C-N	5.16	126.87	121.87
11	U	29	ALA	CA-C-O	-5.16	115.38	120.90
1	b	326	SER	O-C-N	-5.16	117.47	122.99
6	F	137	SER	O-C-N	-5.16	115.39	121.32
8	L	6	GLY	CA-C-O	-5.16	115.19	120.66
10	P	76	THR	CA-C-O	5.16	125.72	119.38
11	a	20	ALA	O-C-N	5.16	127.39	122.03
2	O	113	ASN	OD1-CG-ND2	5.15	127.75	122.60
11	U	111	VAL	O-C-N	5.15	127.09	121.94
11	Z	53	ASN	N-CA-C	5.15	117.29	111.11
5	E	486	LYS	CA-C-N	5.15	127.14	120.44
5	E	486	LYS	C-N-CA	5.15	127.14	120.44
6	D	56	THR	N-CA-C	-5.15	100.12	108.52
10	P	455	ASN	CA-CB-CG	-5.15	107.45	112.60
9	G	76	THR	N-CA-C	-5.15	105.74	111.36
11	U	87	GLY	CA-C-N	5.15	127.70	120.28
11	U	87	GLY	C-N-CA	5.15	127.70	120.28
11	T	43	CYS	N-CA-C	5.15	118.83	112.54
6	B	125	LYS	CA-C-O	-5.15	114.78	120.24
5	C	136	THR	CA-C-N	5.15	131.24	121.97
5	C	136	THR	C-N-CA	5.15	131.24	121.97
5	C	585	LYS	CA-C-O	-5.15	114.05	119.97
7	Q	52	GLY	CA-C-N	5.15	127.18	120.28
7	Q	52	GLY	C-N-CA	5.15	127.18	120.28
11	V	74	VAL	N-CA-C	5.15	115.77	110.36
11	a	138	VAL	CB-CA-C	5.15	120.14	112.16
5	A	157	ILE	CB-CA-C	-5.15	104.71	111.25
5	A	600	PHE	CA-C-N	5.15	127.18	120.28
5	A	600	PHE	C-N-CA	5.15	127.18	120.28
7	Q	191	ASP	CA-CB-CG	5.15	117.75	112.60
8	J	71	LYS	N-CA-C	-5.15	106.95	113.18
11	W	144	LEU	CA-C-N	5.15	127.51	120.77
11	W	144	LEU	C-N-CA	5.15	127.51	120.77
11	S	12	PHE	CA-CB-CG	-5.15	108.65	113.80
5	C	185	ILE	O-C-N	-5.15	117.75	123.20
10	P	299	SER	N-CA-C	5.15	117.17	110.43
9	G	180	ASN	CA-C-N	5.15	132.23	121.94
9	G	180	ASN	C-N-CA	5.15	132.23	121.94
11	U	96	SER	CB-CA-C	-5.15	102.80	110.88
2	O	264	GLU	N-CA-C	5.14	116.89	111.28
5	E	128	ILE	N-CA-C	-5.14	100.83	108.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	165	SER	N-CA-CB	5.14	117.74	110.13
6	B	103	PRO	O-C-N	5.14	126.38	122.73
6	B	358	ILE	O-C-N	5.14	128.81	123.26
5	C	135	ARG	N-CA-C	-5.14	105.76	113.89
5	C	313	LYS	CG-CD-CE	5.14	123.13	111.30
9	K	208	LYS	O-C-N	-5.14	116.67	122.12
5	E	540	ILE	N-CA-C	-5.14	105.53	110.72
6	B	353	ILE	N-CA-C	-5.14	105.53	110.72
9	I	45	ILE	CA-C-O	-5.14	115.72	121.17
9	K	149	ILE	CB-CA-C	-5.14	105.20	112.14
11	Y	118	GLY	CA-C-N	5.14	127.48	120.54
11	Y	118	GLY	C-N-CA	5.14	127.48	120.54
2	O	50	ILE	CA-CB-CG1	5.14	119.14	110.40
5	C	479	PRO	O-C-N	5.14	128.15	122.24
9	K	90	SER	CA-C-O	5.14	125.69	119.11
8	H	91	LYS	N-CA-C	5.14	116.57	111.07
5	E	407	THR	N-CA-C	-5.14	101.32	109.59
8	H	8	ALA	N-CA-C	5.14	116.88	111.28
9	G	185	SER	CA-C-N	5.14	131.45	122.92
9	G	185	SER	C-N-CA	5.14	131.45	122.92
6	B	85	GLY	N-CA-C	-5.14	107.60	115.00
6	B	365	HIS	CB-CG-CD2	-5.14	124.52	131.20
5	C	485	MET	CG-SD-CE	-5.14	89.60	100.90
7	Q	98	ILE	N-CA-C	-5.14	105.53	110.72
9	I	145	ASP	CA-C-N	5.14	127.50	120.46
9	I	145	ASP	C-N-CA	5.14	127.50	120.46
10	P	80	LEU	CB-CA-C	-5.14	102.26	110.79
11	R	109	GLY	CA-C-N	5.14	126.99	120.72
11	R	109	GLY	C-N-CA	5.14	126.99	120.72
11	Y	28	ALA	CA-C-N	5.14	127.12	120.44
11	Y	28	ALA	C-N-CA	5.14	127.12	120.44
11	W	151	ASN	CA-C-N	5.14	127.68	120.28
11	W	151	ASN	C-N-CA	5.14	127.68	120.28
11	T	63	ILE	CA-C-N	5.14	127.42	120.38
11	T	63	ILE	C-N-CA	5.14	127.42	120.38
5	A	614	SER	CA-C-N	5.13	127.11	120.44
5	A	614	SER	C-N-CA	5.13	127.11	120.44
6	B	122	ASN	N-CA-C	-5.13	101.61	109.41
5	C	273	SER	CA-CB-OG	-5.13	100.83	111.10
5	C	613	GLU	CB-CA-C	-5.13	102.12	110.85
10	P	456	HIS	CE1-NE2-CD2	-5.13	103.86	109.00
8	J	71	LYS	CA-C-O	-5.13	112.54	119.11

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	b	109	ASP	CB-CA-C	-5.13	102.82	110.88
2	O	325	PHE	N-CA-CB	5.13	119.51	111.20
5	E	56	LEU	CB-CA-C	-5.13	100.74	109.51
5	E	400	ALA	N-CA-CB	-5.13	101.71	109.92
5	A	586	PHE	N-CA-C	-5.13	105.77	112.23
4	N	93	GLU	O-C-N	-5.13	116.71	123.02
11	X	86	THR	N-CA-C	-5.13	105.38	111.69
2	O	149	TYR	CA-C-N	5.13	127.10	120.44
2	O	149	TYR	C-N-CA	5.13	127.10	120.44
2	O	299	VAL	CB-CA-C	-5.13	105.15	112.22
5	E	278	ILE	N-CA-CB	5.13	119.01	111.52
5	E	552	SER	N-CA-C	5.13	117.77	111.82
5	A	130	THR	CA-C-N	5.13	125.11	120.03
5	A	130	THR	C-N-CA	5.13	125.11	120.03
6	B	224	PHE	N-CA-C	5.13	116.87	111.28
9	K	175	SER	CA-C-O	-5.13	116.12	121.55
11	Z	125	LEU	N-CA-C	-5.13	106.88	112.72
5	A	255	PRO	CA-C-N	5.12	130.38	121.15
5	A	255	PRO	C-N-CA	5.12	130.38	121.15
5	C	244	PHE	CA-C-O	-5.12	116.19	121.32
11	W	142	TYR	CB-CG-CD2	-5.12	113.11	120.80
5	A	27	ILE	CA-C-N	5.12	129.27	120.71
5	A	27	ILE	C-N-CA	5.12	129.27	120.71
6	B	268	TYR	CA-CB-CG	5.12	123.12	113.90
5	C	159	GLY	N-CA-C	-5.12	102.78	111.08
6	D	365	HIS	CE1-NE2-CD2	-5.12	103.88	109.00
7	Q	266	ARG	N-CA-C	5.12	117.60	111.71
10	P	312	LEU	CB-CA-C	-5.12	102.84	110.88
11	a	111	VAL	CA-CB-CG1	-5.12	101.69	110.40
2	O	202	LEU	N-CA-CB	5.12	119.01	110.41
4	N	13	ASP	CA-C-N	5.12	127.45	120.54
4	N	13	ASP	C-N-CA	5.12	127.45	120.54
4	N	61	ARG	CA-C-O	5.12	126.33	120.54
5	A	491	ASN	CA-C-N	5.12	127.14	120.28
5	A	491	ASN	C-N-CA	5.12	127.14	120.28
9	I	59	ASP	N-CA-CB	5.12	117.65	110.12
11	S	66	TYR	CA-C-O	5.12	126.20	120.82
9	K	200	ASN	CB-CG-OD1	-5.12	110.56	120.80
2	O	15	SER	N-CA-C	-5.12	100.36	109.06
3	M	26	ASN	CA-C-N	5.12	127.14	120.28
3	M	26	ASN	C-N-CA	5.12	127.14	120.28
4	N	43	GLY	O-C-N	-5.12	115.93	122.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	F	62	VAL	N-CA-CB	5.12	117.13	110.99
6	F	446	GLN	CB-CG-CD	-5.12	103.90	112.60
6	B	454	VAL	N-CA-C	5.12	115.84	110.62
6	D	339	ASN	CA-CB-CG	-5.12	107.48	112.60
7	Q	243	PRO	CB-CA-C	5.12	118.36	111.71
9	K	82	ASN	N-CA-C	-5.12	105.33	112.45
10	P	273	ASP	O-C-N	5.12	128.21	122.22
11	T	158	VAL	CA-C-O	-5.12	114.38	120.78
6	F	340	ASP	CA-CB-CG	5.12	117.72	112.60
6	B	166	ARG	N-CA-CB	5.12	117.52	109.69
9	K	14	ASN	CA-CB-CG	-5.12	107.48	112.60
6	F	326	ASN	CA-CB-CG	-5.11	107.49	112.60
9	G	9	THR	CB-CA-C	5.11	117.60	109.52
11	a	12	PHE	CA-C-O	5.11	124.77	119.14
5	E	509	ASP	CB-CA-C	-5.11	100.86	110.67
6	F	126	VAL	CA-C-N	5.11	131.30	121.54
6	F	126	VAL	C-N-CA	5.11	131.30	121.54
5	A	382	ALA	CA-C-N	5.11	130.09	121.14
5	A	382	ALA	C-N-CA	5.11	130.09	121.14
6	B	406	LYS	N-CA-CB	5.11	117.73	110.16
6	B	439	PHE	CA-C-N	5.11	127.55	120.29
6	B	439	PHE	C-N-CA	5.11	127.55	120.29
11	R	134	ILE	CA-C-O	-5.11	115.10	120.57
2	O	295	ALA	CB-CA-C	-5.11	102.16	110.85
6	B	107	ASP	CB-CA-C	-5.11	102.90	110.62
5	C	476	PRO	N-CA-C	5.11	119.23	111.11
7	Q	4	VAL	N-CA-C	-5.11	107.31	112.17
11	U	104	ALA	CA-C-N	5.11	125.75	120.03
11	U	104	ALA	C-N-CA	5.11	125.75	120.03
6	F	196	PRO	CA-C-O	-5.11	111.89	119.86
5	C	512	LYS	O-C-N	5.11	127.97	122.15
11	Y	51	PHE	CA-CB-CG	-5.11	108.69	113.80
1	b	107	ILE	CB-CA-C	-5.11	105.17	112.22
2	O	310	ARG	N-CA-C	5.11	116.93	111.36
6	B	125	LYS	CA-C-N	-5.11	112.78	121.97
6	B	125	LYS	C-N-CA	-5.11	112.78	121.97
1	b	299	LEU	CA-C-N	5.11	127.12	120.28
1	b	299	LEU	C-N-CA	5.11	127.12	120.28
2	O	316	VAL	CA-CB-CG2	5.11	119.08	110.40
5	E	390	SER	N-CA-C	-5.11	105.72	111.28
6	B	249	THR	CA-CB-CG2	-5.11	101.82	110.50
6	B	416	MET	N-CA-CB	5.11	118.19	110.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	D	256	PRO	O-C-N	5.11	128.36	122.23
7	Q	114	THR	N-CA-CB	5.11	118.08	110.22
7	Q	193	TYR	CA-C-O	5.11	125.96	120.55
11	R	154	ALA	N-CA-C	5.11	117.24	111.11
11	X	91	LEU	CA-C-O	-5.11	115.45	121.07
11	a	68	LEU	CD1-CG-CD2	5.11	122.03	110.80
6	F	98	GLU	CA-C-N	5.10	130.26	120.97
6	F	98	GLU	C-N-CA	5.10	130.26	120.97
5	A	196	LYS	CA-C-O	5.10	126.96	121.55
8	L	48	ILE	CA-CB-CG2	-5.10	101.82	110.50
11	Y	110	ILE	CA-CB-CG2	5.10	119.18	110.50
11	V	126	PHE	CA-C-N	5.10	129.38	120.86
11	V	126	PHE	C-N-CA	5.10	129.38	120.86
5	E	539	PRO	CA-C-N	5.10	127.67	120.42
5	E	539	PRO	C-N-CA	5.10	127.67	120.42
6	B	130	ASP	CA-C-N	5.10	130.04	123.00
6	B	130	ASP	C-N-CA	5.10	130.04	123.00
6	B	251	GLU	CA-C-O	-5.10	115.14	120.55
8	L	40	ALA	N-CA-C	5.10	117.74	111.82
10	P	359	TYR	CA-C-N	5.10	127.67	120.42
10	P	359	TYR	C-N-CA	5.10	127.67	120.42
11	T	16	GLY	CA-C-N	5.10	127.37	120.38
11	T	16	GLY	C-N-CA	5.10	127.37	120.38
6	B	265	TYR	CB-CG-CD2	-5.10	113.15	120.80
11	Y	90	GLN	N-CA-C	5.10	116.53	111.07
5	C	108	ILE	CA-C-N	5.10	131.28	121.54
5	C	108	ILE	C-N-CA	5.10	131.28	121.54
7	Q	222	ASN	O-C-N	-5.10	116.71	122.12
8	H	76	VAL	CA-CB-CG2	5.10	119.07	110.40
1	b	39	VAL	CA-C-N	5.10	129.60	122.36
1	b	39	VAL	C-N-CA	5.10	129.60	122.36
5	A	383	TYR	CB-CG-CD1	-5.10	113.15	120.80
6	B	344	HIS	CA-C-O	-5.10	114.75	120.25
1	b	340	TRP	CG-CD2-CE3	-5.10	128.80	133.90
1	b	141	TYR	CA-C-N	5.09	127.87	120.79
1	b	141	TYR	C-N-CA	5.09	127.87	120.79
3	M	72	SER	O-C-N	5.09	127.32	122.07
3	M	105	TYR	N-CA-C	-5.09	100.94	109.24
5	E	283	CYS	CA-C-O	-5.09	115.02	120.42
6	B	104	VAL	CG1-CB-CG2	5.09	122.01	110.80
7	Q	21	ARG	CA-C-N	5.09	127.11	120.28
7	Q	21	ARG	C-N-CA	5.09	127.11	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	X	14	ALA	CA-C-N	5.09	128.99	120.64
11	X	14	ALA	C-N-CA	5.09	128.99	120.64
5	E	280	TYR	CA-C-O	-5.09	114.91	120.36
6	B	339	ASN	N-CA-C	-5.09	106.20	114.09
2	O	324	HIS	CA-CB-CG	-5.09	108.71	113.80
5	C	170	HIS	ND1-CE1-NE2	5.09	113.49	108.40
7	Q	96	ASP	O-C-N	5.09	127.95	122.15
11	R	105	GLY	O-C-N	5.09	127.64	122.24
11	V	18	ALA	CA-C-N	5.09	127.41	120.54
11	V	18	ALA	C-N-CA	5.09	127.41	120.54
6	B	268	TYR	CA-C-O	5.09	126.00	120.55
10	P	281	THR	CA-C-N	5.09	129.10	121.77
10	P	281	THR	C-N-CA	5.09	129.10	121.77
4	N	44	LYS	N-CA-CB	5.09	118.34	110.81
5	A	514	THR	N-CA-C	-5.09	105.63	111.07
10	P	287	SER	CB-CA-C	-5.09	102.89	110.88
10	P	369	CYS	CA-C-O	-5.09	115.83	121.33
5	A	167	ILE	N-CA-C	-5.09	102.33	108.53
9	G	109	GLY	CA-C-N	5.09	126.97	120.56
9	G	109	GLY	C-N-CA	5.09	126.97	120.56
11	U	89	ILE	CA-CB-CG1	-5.09	101.75	110.40
6	F	266	LEU	CA-C-N	5.08	127.05	120.44
6	F	266	LEU	C-N-CA	5.08	127.05	120.44
2	O	205	ASP	CA-C-N	5.08	127.51	120.29
2	O	205	ASP	C-N-CA	5.08	127.51	120.29
5	A	611	PHE	CA-C-N	5.08	127.35	120.44
5	A	611	PHE	C-N-CA	5.08	127.35	120.44
5	C	535	ASP	O-C-N	5.08	128.30	122.25
9	I	169	LEU	N-CA-CB	5.08	117.44	109.97
10	P	207	GLU	N-CA-CB	5.08	117.52	109.94
11	X	85	TYR	CB-CA-C	-5.08	102.21	110.85
11	Y	93	ALA	N-CA-CB	5.08	117.44	110.07
2	O	48	PHE	CA-C-N	5.08	128.09	120.87
2	O	48	PHE	C-N-CA	5.08	128.09	120.87
5	E	574	THR	CB-CA-C	5.08	118.93	110.90
6	B	186	GLN	OE1-CD-NE2	-5.08	117.52	122.60
7	Q	293	MET	N-CA-C	5.08	116.90	111.36
11	W	140	GLY	N-CA-C	-5.08	106.60	112.50
11	a	132	ILE	CB-CA-C	-5.08	105.47	111.97
5	A	472	ASP	CA-C-N	5.08	128.03	120.31
5	A	472	ASP	C-N-CA	5.08	128.03	120.31
5	A	485	MET	CA-C-N	5.08	127.09	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	485	MET	C-N-CA	5.08	127.09	120.28
5	C	179	ARG	N-CA-C	-5.08	101.18	108.60
6	D	186	GLN	CA-C-N	5.08	126.96	120.56
6	D	186	GLN	C-N-CA	5.08	126.96	120.56
11	Y	117	ARG	CA-C-N	5.08	125.48	119.94
11	Y	117	ARG	C-N-CA	5.08	125.48	119.94
11	S	62	ILE	N-CA-C	-5.08	106.11	113.07
6	B	111	ARG	O-C-N	5.08	129.49	123.24
6	D	370	TYR	CA-C-O	-5.08	113.20	120.16
10	P	296	GLN	O-C-N	5.08	127.50	122.12
11	R	73	LEU	CA-C-O	-5.08	115.48	121.07
11	Z	48	ASP	CB-CA-C	-5.08	100.31	110.42
11	V	69	VAL	CA-C-N	5.08	126.96	120.56
11	V	69	VAL	C-N-CA	5.08	126.96	120.56
8	H	104	LYS	CB-CA-C	5.08	116.50	108.88
2	O	67	GLU	O-C-N	5.08	127.94	122.15
3	M	158	ILE	N-CA-C	-5.08	105.59	110.72
11	R	86	THR	CA-C-O	5.08	125.80	120.42
11	U	51	PHE	CA-CB-CG	5.08	118.88	113.80
2	O	17	PRO	N-CA-CB	-5.07	98.61	103.33
2	O	302	ASN	CB-CA-C	-5.07	102.37	110.79
2	O	363	LYS	CA-C-O	-5.07	113.36	120.21
6	B	253	ILE	N-CA-C	5.07	117.43	111.09
7	Q	28	ASN	OD1-CG-ND2	5.07	127.67	122.60
7	Q	31	ILE	N-CA-C	5.07	115.79	110.62
8	J	27	TYR	CA-C-N	5.07	127.03	120.44
8	J	27	TYR	C-N-CA	5.07	127.03	120.44
10	P	98	ASN	CA-C-N	5.07	127.49	120.29
10	P	98	ASN	C-N-CA	5.07	127.49	120.29
5	A	480	VAL	CA-C-O	5.07	126.22	120.95
5	C	309	GLU	CA-C-N	5.07	126.18	119.84
5	C	309	GLU	C-N-CA	5.07	126.18	119.84
11	U	157	ASP	CA-C-N	5.07	131.10	121.97
11	U	157	ASP	C-N-CA	5.07	131.10	121.97
2	O	19	ASN	CA-C-N	5.07	131.23	121.54
2	O	19	ASN	C-N-CA	5.07	131.23	121.54
2	O	58	LEU	CA-C-N	5.07	127.07	120.28
2	O	58	LEU	C-N-CA	5.07	127.07	120.28
4	N	27	GLN	O-C-N	-5.07	117.56	122.99
5	E	153	SER	N-CA-C	-5.07	101.41	108.96
6	F	193	LEU	N-CA-CB	5.07	117.98	110.53
6	D	483	GLU	N-CA-C	5.07	116.81	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	I	172	ILE	CA-C-N	-5.07	116.21	123.11
9	I	172	ILE	C-N-CA	-5.07	116.21	123.11
5	A	468	ASN	O-C-N	5.07	127.93	122.15
6	B	339	ASN	CA-CB-CG	5.07	117.67	112.60
5	C	529	ASN	N-CA-CB	-5.07	102.42	110.28
9	K	204	GLU	O-C-N	5.07	127.93	122.15
11	R	66	TYR	CA-C-O	5.07	125.79	120.42
11	Z	86	THR	CA-C-N	5.07	125.72	119.99
11	Z	86	THR	C-N-CA	5.07	125.72	119.99
5	E	410	VAL	CA-CB-CG1	5.07	119.01	110.40
6	F	476	ILE	CA-C-O	5.07	126.41	121.19
5	A	49	VAL	N-CA-C	-5.07	100.61	108.81
8	J	60	LYS	CA-C-N	5.07	130.33	121.52
8	J	60	LYS	C-N-CA	5.07	130.33	121.52
11	W	68	LEU	N-CA-C	-5.07	105.76	111.28
11	V	38	GLY	CA-C-N	5.07	126.94	120.56
11	V	38	GLY	C-N-CA	5.07	126.94	120.56
5	C	397	LYS	CA-C-O	-5.06	115.28	121.36
6	F	50	ASN	CA-CB-CG	5.06	117.66	112.60
6	F	278	LEU	CA-C-O	5.06	125.72	120.40
5	A	112	LEU	N-CA-CB	5.06	117.65	110.16
9	I	31	LYS	CA-CB-CG	-5.06	103.97	114.10
8	L	48	ILE	CA-CB-CG1	5.06	119.01	110.40
9	G	137	ALA	N-CA-CB	5.06	120.16	111.00
5	E	428	THR	CB-CA-C	-5.06	102.25	110.85
5	C	548	ARG	CB-CA-C	-5.06	102.39	110.79
8	L	68	LEU	N-CA-C	-5.06	106.61	112.89
5	E	26	ALA	O-C-N	-5.06	117.10	123.27
6	F	213	ALA	N-CA-CB	5.06	119.55	110.80
6	D	215	MET	N-CA-C	-5.06	100.21	108.76
7	Q	123	ILE	N-CA-C	-5.06	100.60	108.95
9	I	151	SER	CA-C-N	5.06	128.68	120.23
9	I	151	SER	C-N-CA	5.06	128.68	120.23
11	T	66	TYR	O-C-N	5.06	127.55	122.09
4	N	17	THR	CB-CA-C	-5.06	102.94	110.88
5	E	48	LEU	CA-C-O	-5.06	115.10	120.92
5	E	465	ASN	N-CA-C	5.06	116.60	111.14
5	C	383	TYR	CB-CA-C	-5.06	99.85	110.17
11	W	23	PHE	N-CA-C	5.06	116.79	111.28
5	E	471	TYR	CB-CA-C	-5.06	102.25	110.85
2	O	161	ALA	CA-C-O	-5.05	115.50	120.70
2	O	251	ARG	NE-CZ-NH1	-5.05	116.45	121.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	E	122	ILE	N-CA-C	-5.05	105.63	113.16
5	A	369	GLY	CA-C-N	5.05	127.31	120.44
5	A	369	GLY	C-N-CA	5.05	127.31	120.44
6	D	453	THR	N-CA-C	-5.05	101.63	109.72
8	H	27	TYR	CA-C-N	5.05	127.01	120.44
8	H	27	TYR	C-N-CA	5.05	127.01	120.44
8	H	83	ILE	O-C-N	-5.05	116.62	121.83
11	R	155	THR	CA-C-N	5.05	127.36	120.54
11	R	155	THR	C-N-CA	5.05	127.36	120.54
5	A	187	PRO	CA-C-O	-5.05	115.48	122.15
5	C	377	ASP	CA-C-N	5.05	129.73	122.40
5	C	377	ASP	C-N-CA	5.05	129.73	122.40
6	D	420	VAL	CA-CB-CG2	5.05	118.99	110.40
11	U	137	GLU	CA-C-N	5.05	127.38	120.46
11	U	137	GLU	C-N-CA	5.05	127.38	120.46
3	M	95	ARG	O-C-N	-5.05	117.29	123.30
5	C	424	SER	N-CA-C	-5.05	107.29	113.50
11	Y	75	CYS	N-CA-CB	5.05	118.01	109.78
11	T	33	ALA	CA-C-N	5.05	127.36	120.54
11	T	33	ALA	C-N-CA	5.05	127.36	120.54
4	N	73	ILE	N-CA-CB	5.05	118.15	110.58
5	C	601	GLU	CA-C-N	5.05	129.27	120.68
5	C	601	GLU	C-N-CA	5.05	129.27	120.68
11	R	134	ILE	O-C-N	5.05	126.97	121.87
11	U	23	PHE	CB-CA-C	5.05	118.81	110.88
10	P	184	TYR	CB-CG-CD2	-5.05	113.23	120.80
4	N	86	ASN	CA-CB-CG	5.05	117.65	112.60
5	A	391	PHE	CA-C-N	5.05	127.98	120.31
5	A	391	PHE	C-N-CA	5.05	127.98	120.31
6	B	143	ALA	N-CA-CB	5.05	117.45	109.83
10	P	9	ASP	N-CA-C	-5.05	106.97	112.72
9	G	78	SER	N-CA-CB	5.05	118.07	110.30
11	Z	143	GLY	CA-C-N	5.05	127.35	120.54
11	Z	143	GLY	C-N-CA	5.05	127.35	120.54
6	B	185	ALA	CA-C-O	-5.04	115.07	120.42
5	C	76	THR	CA-CB-OG1	5.04	117.17	109.60
5	C	511	ASP	CA-C-N	5.04	127.45	120.29
5	C	511	ASP	C-N-CA	5.04	127.45	120.29
9	G	210	LEU	CA-C-O	5.04	125.77	119.97
3	M	110	GLU	N-CA-CB	5.04	118.69	110.77
6	B	334	ILE	N-CA-C	-5.04	100.39	107.75
6	D	419	VAL	N-CA-CB	-5.04	102.91	111.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	D	457	SER	N-CA-C	5.04	116.78	111.28
11	S	89	ILE	O-C-N	5.04	127.03	121.83
5	E	510	SER	N-CA-C	-5.04	105.78	111.28
6	B	281	MET	CG-SD-CE	-5.04	89.81	100.90
6	D	114	ASP	O-C-N	5.04	128.45	122.20
10	P	83	LEU	CB-CA-C	-5.04	102.42	110.79
11	U	157	ASP	CA-C-O	5.04	127.40	121.40
11	S	87	GLY	CA-C-N	5.04	127.54	120.28
11	S	87	GLY	C-N-CA	5.04	127.54	120.28
2	O	295	ALA	CA-C-N	5.04	127.03	120.28
2	O	295	ALA	C-N-CA	5.04	127.03	120.28
5	E	106	ASP	CB-CA-C	-5.04	100.98	110.51
7	Q	222	ASN	N-CA-CB	5.04	117.53	110.12
6	F	122	ASN	OD1-CG-ND2	5.04	127.64	122.60
9	K	87	LYS	CA-C-N	5.04	126.91	120.56
9	K	87	LYS	C-N-CA	5.04	126.91	120.56
6	D	197	THR	CA-C-O	-5.04	115.08	120.42
5	E	201	GLU	CB-CG-CD	5.04	121.16	112.60
10	P	176	ASN	CA-CB-CG	5.04	117.64	112.60
9	G	173	VAL	N-CA-C	-5.04	100.50	107.80
11	Z	73	LEU	CA-C-N	5.04	126.91	120.56
11	Z	73	LEU	C-N-CA	5.04	126.91	120.56
11	a	107	ALA	N-CA-C	-5.04	105.68	111.07
5	A	176	PRO	CA-C-N	5.03	131.16	121.54
5	A	176	PRO	C-N-CA	5.03	131.16	121.54
11	V	28	ALA	CA-C-N	5.03	127.78	120.79
11	V	28	ALA	C-N-CA	5.03	127.78	120.79
8	H	12	GLN	OE1-CD-NE2	5.03	127.63	122.60
1	b	287	VAL	CA-CB-CG1	5.03	118.95	110.40
6	F	369	ILE	CA-CB-CG2	5.03	119.05	110.50
6	B	87	ASP	CA-CB-CG	-5.03	107.57	112.60
5	C	99	GLY	CA-C-N	5.03	127.28	120.44
5	C	99	GLY	C-N-CA	5.03	127.28	120.44
9	K	126	VAL	CA-C-N	5.03	127.53	120.28
9	K	126	VAL	C-N-CA	5.03	127.53	120.28
10	P	121	PRO	CB-CA-C	-5.03	104.71	111.85
11	R	19	SER	N-CA-CB	5.03	117.44	109.94
11	a	123	PRO	N-CA-C	-5.03	107.48	114.27
11	T	47	PRO	CB-CA-C	-5.03	103.70	109.89
9	G	25	ARG	N-CA-CB	5.03	117.51	110.12
2	O	237	HIS	CB-CG-ND1	5.03	130.24	122.70
5	E	433	GLY	CA-C-N	5.03	128.94	120.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	E	433	GLY	C-N-CA	5.03	128.94	120.29
5	A	550	PHE	CB-CA-C	-5.03	102.30	110.85
7	Q	107	VAL	CB-CA-C	5.03	118.40	111.97
7	Q	147	SER	O-C-N	5.03	127.88	122.15
10	P	123	GLN	CB-CG-CD	-5.03	104.05	112.60
10	P	173	ILE	O-C-N	-5.03	116.99	121.87
11	T	140	GLY	O-C-N	5.03	127.02	122.19
1	b	93	ASP	CA-CB-CG	5.03	117.62	112.60
2	O	148	THR	CB-CA-C	5.03	119.39	110.85
5	E	559	LYS	CA-C-N	5.03	127.43	120.29
5	E	559	LYS	C-N-CA	5.03	127.43	120.29
5	E	590	SER	N-CA-C	-5.03	105.85	112.94
5	C	462	LYS	CA-C-N	5.03	129.11	120.72
5	C	462	LYS	C-N-CA	5.03	129.11	120.72
9	G	126	VAL	N-CA-CB	5.03	117.38	110.54
11	Y	86	THR	CB-CA-C	5.03	119.39	110.85
11	S	127	VAL	CB-CA-C	5.03	119.95	112.16
6	D	46	PHE	CA-CB-CG	-5.02	108.78	113.80
11	a	27	GLY	CA-C-N	5.02	129.17	120.58
11	a	27	GLY	C-N-CA	5.02	129.17	120.58
2	O	184	PHE	N-CA-C	-5.02	101.44	109.07
5	E	44	ALA	CB-CA-C	-5.02	100.30	109.54
5	A	477	GLU	CA-C-N	5.02	134.05	121.80
5	A	477	GLU	C-N-CA	5.02	134.05	121.80
6	B	238	THR	CA-C-O	5.02	126.79	121.11
6	D	326	ASN	N-CA-C	-5.02	106.73	114.16
9	I	37	LEU	CB-CG-CD1	5.02	125.77	110.70
10	P	375	VAL	O-C-N	-5.02	116.29	122.57
11	Y	138	VAL	CA-C-N	5.02	127.94	120.31
11	Y	138	VAL	C-N-CA	5.02	127.94	120.31
11	a	104	ALA	CA-C-O	5.02	125.87	120.55
5	E	465	ASN	CA-CB-CG	-5.02	107.58	112.60
9	K	12	GLN	CA-CB-CG	-5.02	104.06	114.10
5	A	547	MET	CB-CA-C	-5.02	102.46	110.79
5	C	554	HIS	CA-C-N	5.02	127.42	120.29
5	C	554	HIS	C-N-CA	5.02	127.42	120.29
8	L	83	ILE	O-C-N	5.02	127.12	121.90
11	X	125	LEU	N-CA-C	-5.02	107.00	112.72
1	b	122	ILE	N-CA-C	5.02	115.74	110.62
2	O	61	LEU	N-CA-CB	5.02	117.50	110.12
5	E	490	SER	CA-C-N	5.02	127.41	120.29
5	E	490	SER	C-N-CA	5.02	127.41	120.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	F	113	PHE	N-CA-C	-5.02	101.78	109.41
6	D	383	MET	CA-C-N	5.02	131.63	122.50
6	D	383	MET	C-N-CA	5.02	131.63	122.50
2	O	21	GLN	CB-CG-CD	-5.02	104.07	112.60
5	E	310	PRO	N-CA-C	5.02	122.80	112.47
8	H	41	LYS	N-CA-C	-5.02	107.01	113.23
3	M	22	LEU	CA-C-O	5.01	125.86	120.55
6	F	287	ALA	N-CA-C	5.01	116.75	111.28
6	D	145	ILE	N-CA-C	-5.01	100.43	107.75
11	U	90	GLN	CA-C-O	-5.01	115.53	120.70
11	X	51	PHE	N-CA-CB	5.01	117.49	110.12
11	V	145	ILE	N-CA-C	-5.01	105.44	110.30
6	F	480	ILE	O-C-N	5.01	126.99	121.83
5	A	196	LYS	N-CA-CB	5.01	117.41	110.04
9	G	97	ASP	CA-CB-CG	-5.01	107.59	112.60
11	U	131	LEU	CA-C-O	5.01	125.86	120.55
6	B	84	SER	N-CA-C	-5.01	101.28	108.60
7	Q	38	THR	CA-C-N	5.01	127.40	120.29
7	Q	38	THR	C-N-CA	5.01	127.40	120.29
7	Q	132	TRP	N-CA-CB	5.01	117.47	110.56
9	I	64	SER	N-CA-CB	5.01	117.58	110.16
9	K	82	ASN	N-CA-CB	5.01	117.72	110.26
1	b	352	ARG	N-CA-C	-5.01	102.87	110.28
5	E	130	THR	N-CA-C	-5.01	100.74	108.55
5	C	500	GLN	CG-CD-OE1	5.01	130.81	120.80
11	T	147	ALA	N-CA-C	5.01	116.43	111.07
5	A	510	SER	CA-C-N	5.00	127.92	120.31
5	A	510	SER	C-N-CA	5.00	127.92	120.31
9	I	176	ASN	OD1-CG-ND2	-5.00	117.59	122.60
2	O	240	LYS	N-CA-CB	-5.00	102.77	110.12
5	E	468	ASN	CA-C-N	5.00	126.98	120.28
5	E	468	ASN	C-N-CA	5.00	126.98	120.28
6	F	315	ILE	O-C-N	5.00	126.98	121.83
5	A	96	LEU	N-CA-C	-5.00	100.25	108.41
5	C	384	LEU	CA-C-N	5.00	125.50	120.00
5	C	384	LEU	C-N-CA	5.00	125.50	120.00
11	T	150	LEU	N-CA-C	5.00	117.11	111.11
6	F	476	ILE	CA-C-N	5.00	127.59	120.49
6	F	476	ILE	C-N-CA	5.00	127.59	120.49
6	D	280	ASP	CA-C-N	5.00	126.98	120.28
6	D	280	ASP	C-N-CA	5.00	126.98	120.28
9	K	22	ALA	CA-C-N	5.00	126.98	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	K	22	ALA	C-N-CA	5.00	126.98	120.28
11	R	75	CYS	N-CA-CB	5.00	118.94	110.49

There are no chirality outliers.

All (167) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
5	A	105	TYR	Sidechain
5	A	110	ARG	Sidechain
5	A	123	TYR	Sidechain
5	A	126	ARG	Sidechain
5	A	135	ARG	Sidechain
5	A	158	TYR	Sidechain
5	A	212	TYR	Sidechain
5	A	28	TYR	Sidechain
5	A	344	ARG	Sidechain
5	A	383	TYR	Sidechain
5	A	46	TYR	Sidechain
5	A	460	TYR	Sidechain
5	A	475	TYR	Sidechain
5	A	610	ARG	Sidechain
6	B	101	ARG	Sidechain
6	B	111	ARG	Sidechain
6	B	131	TYR	Sidechain
6	B	142	TYR	Sidechain
6	B	147	PRO	Peptide
6	B	166	ARG	Sidechain
6	B	229	PHE	Sidechain
6	B	237	ARG	Sidechain
6	B	257	ARG	Sidechain
6	B	265	TYR	Sidechain
6	B	268	TYR	Sidechain
6	B	272	ARG	Sidechain
6	B	284	TYR	Sidechain
6	B	301	ARG	Sidechain
6	B	307	TYR	Sidechain
6	B	316	TYR	Sidechain
6	B	352	TYR	Sidechain
6	B	404	TYR	Sidechain
6	B	485	TYR	Sidechain
6	B	49	TYR	Sidechain
5	C	105	TYR	Sidechain

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Mol	Chain	Res	Type	Group
5	C	123	TYR	Sidechain
5	C	126	ARG	Sidechain
5	C	231	TYR	Sidechain
5	C	238	ARG	Sidechain
5	C	28	TYR	Sidechain
5	C	334	TYR	Sidechain
5	C	342	TYR	Sidechain
5	C	344	ARG	Sidechain
5	C	383	TYR	Sidechain
5	C	448	ARG	Sidechain
5	C	463	TYR	Sidechain
5	C	471	TYR	Sidechain
5	C	482	ARG	Sidechain
5	C	531	TYR	Sidechain
5	C	579	HIS	Sidechain
5	C	73	TYR	Sidechain
6	D	142	TYR	Sidechain
6	D	166	ARG	Sidechain
6	D	223	ARG	Sidechain
6	D	265	TYR	Sidechain
6	D	301	ARG	Sidechain
6	D	325	ARG	Sidechain
6	D	352	TYR	Sidechain
6	D	49	TYR	Sidechain
5	E	126	ARG	Sidechain
5	E	212	TYR	Sidechain
5	E	218	ARG	Sidechain
5	E	244	PHE	Sidechain
5	E	272	TYR	Sidechain
5	E	359	ARG	Sidechain
5	E	383	TYR	Sidechain
5	E	46	TYR	Sidechain
5	E	470	PHE	Sidechain
5	E	471	TYR	Sidechain
5	E	482	ARG	Sidechain
5	E	531	TYR	Sidechain
5	E	534	TYR	Sidechain
5	E	548	ARG	Sidechain
5	E	553	TYR	Sidechain
5	E	587	PHE	Sidechain
5	E	591	ARG	Sidechain
5	E	62	ARG	Sidechain

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Mol	Chain	Res	Type	Group
5	E	73	TYR	Sidechain
6	F	127	PHE	Sidechain
6	F	142	TYR	Sidechain
6	F	223	ARG	Sidechain
6	F	225	PHE	Sidechain
6	F	257	ARG	Sidechain
6	F	268	TYR	Sidechain
6	F	302	ARG	Sidechain
6	F	352	TYR	Sidechain
6	F	370	TYR	Sidechain
6	F	404	TYR	Sidechain
6	F	485	TYR	Sidechain
9	G	114	ARG	Sidechain
9	G	206	ARG	Sidechain
9	G	219	ARG	Sidechain
9	G	52	ARG	Sidechain
9	I	117	TYR	Sidechain
9	I	160	TYR	Sidechain
9	I	223	TYR	Sidechain
8	J	28	ARG	Sidechain
8	J	46	TYR	Sidechain
9	K	114	ARG	Sidechain
9	K	117	TYR	Sidechain
9	K	160	TYR	Sidechain
9	K	178	TYR	Sidechain
8	L	27	TYR	Sidechain
3	M	139	TYR	Sidechain
3	M	201	TYR	Sidechain
3	M	29	TYR	Sidechain
3	M	42	ARG	Sidechain
2	O	11	PHE	Sidechain
2	O	110	TYR	Sidechain
2	O	210	TYR	Sidechain
2	O	251	ARG	Sidechain
2	O	258	ARG	Sidechain
2	O	285	ARG	Sidechain
2	O	356	PHE	Sidechain
2	O	44	PHE	Sidechain
2	O	53	PHE	Sidechain
2	O	6	TYR	Sidechain
10	P	188	ARG	Sidechain
10	P	206	HIS	Sidechain

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Mol	Chain	Res	Type	Group
10	P	220	ARG	Sidechain
10	P	305	HIS	Sidechain
10	P	32	ARG	Sidechain
10	P	328	ARG	Sidechain
10	P	330	TYR	Sidechain
10	P	463	TYR	Sidechain
10	P	475	TYR	Sidechain
7	Q	126	ARG	Sidechain
7	Q	181	ARG	Sidechain
7	Q	218	ARG	Sidechain
7	Q	266	ARG	Sidechain
7	Q	51	TYR	Sidechain
7	Q	77	TYR	Sidechain
11	R	124	ARG	Sidechain
11	R	153	ARG	Sidechain
11	R	85	TYR	Sidechain
11	S	76	TYR	Sidechain
11	T	85	TYR	Sidechain
11	U	126	PHE	Sidechain
11	U	30	TYR	Sidechain
11	U	76	TYR	Sidechain
11	W	142	TYR	Sidechain
11	X	117	ARG	Sidechain
11	X	124	ARG	Sidechain
11	X	126	PHE	Sidechain
11	X	142	TYR	Sidechain
11	X	153	ARG	Sidechain
11	X	46	ARG	Sidechain
11	X	76	TYR	Sidechain
11	Y	106	PHE	Sidechain
11	Y	23	PHE	Sidechain
11	Y	30	TYR	Sidechain
11	Z	11	PHE	Sidechain
11	Z	124	ARG	Sidechain
11	a	142	TYR	Sidechain
11	a	30	TYR	Sidechain
11	a	85	TYR	Sidechain
1	b	116	TYR	Sidechain
1	b	186	TYR	Sidechain
1	b	193	ARG	Sidechain
1	b	212	PHE	Sidechain
1	b	268	GLU	Peptide

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Mol	Chain	Res	Type	Group
1	b	352	ARG	Sidechain
1	b	61	ARG	Sidechain
1	b	69	TYR	Sidechain
1	b	73	TYR	Sidechain
1	b	86	GLY	Peptide
1	b	91	TYR	Sidechain

5.2 Too-close contacts [i](#)

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	b	2540	0	2537	38	0
2	O	3122	0	3155	7	0
3	M	1691	0	1740	6	0
4	N	928	0	926	1	0
5	A	4578	0	4519	15	0
5	C	4578	0	4519	23	0
5	E	4578	0	4519	20	0
6	B	3585	0	3567	12	0
6	D	3585	0	3567	15	0
6	F	3585	0	3567	14	0
7	Q	2802	0	2689	11	0
8	H	824	0	877	1	0
8	J	824	0	877	0	0
8	L	824	0	877	0	0
9	G	1731	0	1797	2	0
9	I	1731	0	1797	6	0
9	K	1731	0	1797	2	0
10	P	3712	0	3829	16	0
11	R	1071	0	1141	7	0
11	S	1071	0	1141	4	0
11	T	1071	0	1141	8	0
11	U	1071	0	1141	0	0
11	V	1071	0	1141	2	0
11	W	1071	0	1141	8	0
11	X	1071	0	1141	7	0
11	Y	1071	0	1141	2	0
11	Z	1071	0	1141	7	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
11	a	1071	0	1141	6	0
All	All	57659	0	58566	215	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 2.

All (215) 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)
1:b:204:TRP:CH2	1:b:249:ILE:HB	1.59	1.35
1:b:204:TRP:HZ3	1:b:249:ILE:CG2	1.48	1.25
1:b:204:TRP:CZ3	1:b:249:ILE:HG22	1.77	1.20
1:b:204:TRP:CH2	1:b:249:ILE:CB	2.25	1.18
1:b:204:TRP:CZ3	1:b:249:ILE:CB	2.28	1.17
1:b:204:TRP:CH2	1:b:249:ILE:CA	2.35	1.09
1:b:204:TRP:CZ3	1:b:249:ILE:CG2	2.34	1.07
11:S:66:TYR:HB3	11:S:144:LEU:HD22	1.32	1.07
11:T:66:TYR:HB3	11:T:144:LEU:HD22	1.36	1.06
11:X:66:TYR:HB3	11:X:144:LEU:HD22	1.38	1.02
1:b:204:TRP:HZ3	1:b:249:ILE:HG22	0.89	1.02
1:b:200:GLU:O	1:b:204:TRP:HD1	1.40	1.02
1:b:204:TRP:CZ3	1:b:249:ILE:HB	1.92	0.98
1:b:204:TRP:HH2	1:b:249:ILE:HB	1.22	0.98
11:R:66:TYR:HB3	11:R:144:LEU:HD22	1.45	0.97
1:b:200:GLU:O	1:b:204:TRP:CD1	2.21	0.93
1:b:204:TRP:CZ3	1:b:249:ILE:HA	2.02	0.93
1:b:204:TRP:CH2	1:b:249:ILE:HA	2.06	0.90
1:b:204:TRP:CZ3	1:b:249:ILE:CA	2.56	0.89
1:b:204:TRP:HH2	1:b:249:ILE:CB	1.75	0.88
11:X:66:TYR:CB	11:X:144:LEU:HD22	2.05	0.86
1:b:204:TRP:HZ3	1:b:249:ILE:CB	1.81	0.82
1:b:204:TRP:HH2	1:b:249:ILE:C	1.89	0.80
1:b:204:TRP:HH2	1:b:249:ILE:CA	1.85	0.79
1:b:204:TRP:CH2	1:b:249:ILE:C	2.62	0.78
11:X:66:TYR:HB3	11:X:144:LEU:CD2	2.13	0.77
11:T:66:TYR:CB	11:T:144:LEU:HD22	2.13	0.75
11:T:66:TYR:HB3	11:T:144:LEU:CD2	2.16	0.74
11:R:66:TYR:HB3	11:R:144:LEU:CD2	2.20	0.72
11:X:66:TYR:CG	11:X:144:LEU:HD22	2.25	0.71
1:b:204:TRP:CH2	1:b:249:ILE:O	2.49	0.66
11:W:66:TYR:HB3	11:W:144:LEU:HD22	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:148:VAL:HG13	5:C:185:ILE:HG22	1.79	0.65
3:M:121:ARG:HH12	7:Q:238:LYS:HZ1	1.44	0.64
6:F:254:ILE:HG12	6:F:257:ARG:HH21	1.63	0.64
5:C:198:LEU:HD23	5:C:209:PHE:HB2	1.79	0.63
6:F:250:ILE:HD13	6:F:250:ILE:H	1.64	0.62
2:O:170:LEU:HD23	2:O:173:ARG:HB3	1.81	0.61
11:V:66:TYR:HB3	11:V:144:LEU:HD22	1.82	0.61
11:Z:66:TYR:HB3	11:Z:144:LEU:HD22	1.83	0.60
9:K:37:LEU:HD21	10:P:252:LEU:HD21	1.82	0.60
1:b:246:ILE:O	1:b:249:ILE:HG12	2.02	0.59
1:b:20:TYR:O	1:b:21:ILE:HG23	2.02	0.58
5:C:481:LEU:HD23	5:C:484:ARG:HH21	1.68	0.58
1:b:200:GLU:C	1:b:204:TRP:HD1	2.07	0.58
5:E:47:GLU:HG2	5:E:87:ARG:HE	1.69	0.58
5:C:259:GLY:H	6:D:381:ARG:HH21	1.51	0.57
11:R:66:TYR:CB	11:R:144:LEU:HD22	2.26	0.57
5:E:482:ARG:HH22	5:E:544:PHE:HA	1.69	0.57
4:N:40:TYR:CE1	4:N:50:ILE:HD11	2.40	0.56
1:b:32:THR:HA	1:b:35:GLN:HE21	1.69	0.56
11:S:66:TYR:CB	11:S:144:LEU:HD22	2.21	0.56
1:b:208:ARG:HH21	1:b:252:ILE:HD11	1.71	0.56
11:S:80:GLN:H	11:S:158:VAL:HG13	1.69	0.56
7:Q:237:LEU:HD12	7:Q:237:LEU:N	2.21	0.55
6:F:402:GLN:HE22	6:F:475:ARG:HB2	1.72	0.55
1:b:187:VAL:HG21	1:b:249:ILE:HD12	1.89	0.55
5:E:406:ARG:HE	5:E:406:ARG:H	1.53	0.55
5:C:81:VAL:HG21	6:D:70:ILE:HG21	1.89	0.55
11:X:66:TYR:CG	11:X:144:LEU:CD2	2.90	0.55
1:b:131:ILE:HD13	1:b:287:VAL:HG12	1.89	0.54
3:M:30:SER:HB3	3:M:34:ARG:HH12	1.72	0.54
3:M:66:PHE:HB2	7:Q:337:ARG:HH22	1.72	0.54
5:A:333:ILE:HD13	5:A:360:TRP:CD1	2.41	0.54
11:W:47:PRO:HA	11:V:125:LEU:HD11	1.90	0.54
6:B:43:LYS:HD2	6:B:93:VAL:HG21	1.90	0.54
5:E:104:ILE:HG23	5:E:112:LEU:HB2	1.90	0.54
11:W:113:ASP:O	11:W:116:VAL:HG22	2.08	0.53
5:A:592:GLY:HA3	5:A:598:GLY:H	1.74	0.53
5:C:548:ARG:HH21	5:C:551:ILE:HG23	1.72	0.53
11:T:66:TYR:CG	11:T:144:LEU:HD22	2.44	0.52
5:C:61:ILE:HG13	5:C:71:GLN:HE21	1.74	0.52
6:B:359:PHE:CD2	6:B:377:PRO:HG2	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:b:176:ILE:HD12	1:b:177:ALA:H	1.76	0.51
9:I:222:LEU:HB2	9:I:223:TYR:CD2	2.46	0.50
7:Q:109:LEU:HG	7:Q:181:ARG:HE	1.75	0.50
1:b:319:ILE:HD11	1:b:360:LEU:HD13	1.93	0.50
11:W:66:TYR:CG	11:W:144:LEU:HD22	2.46	0.50
10:P:284:GLU:CD	10:P:284:GLU:H	2.20	0.50
9:I:222:LEU:HB2	9:I:223:TYR:CE2	2.47	0.49
11:Y:66:TYR:CG	11:Y:144:LEU:HD22	2.47	0.49
6:F:290:GLU:O	6:F:291:VAL:HG13	2.11	0.49
6:B:102:ILE:HG23	6:B:104:VAL:HG13	1.94	0.49
5:C:122:ILE:HD12	6:D:144:ARG:HG3	1.94	0.49
5:C:599:GLU:O	5:C:603:LEU:HD23	2.12	0.49
7:Q:26:SER:H	7:Q:29:GLN:HB3	1.78	0.49
11:R:50:LEU:HD13	11:a:125:LEU:HD11	1.94	0.49
11:W:66:TYR:HB3	11:W:144:LEU:HD13	1.94	0.49
6:D:403:LEU:HD21	6:D:461:ALA:HB1	1.93	0.49
5:C:238:ARG:HG2	5:C:543:THR:HG23	1.95	0.49
11:Z:27:GLY:HA3	11:Z:102:LEU:HA	1.93	0.49
6:D:257:ARG:HA	6:D:260:LEU:HD12	1.95	0.48
6:F:195:ARG:HE	6:F:207:ASN:HA	1.76	0.48
11:T:108:ILE:HG23	11:T:133:LEU:HD22	1.95	0.48
6:D:319:ALA:HA	6:D:329:ILE:HG23	1.95	0.48
1:b:145:LEU:HD21	1:b:264:ASP:H	1.78	0.48
6:B:403:LEU:O	6:B:407:TYR:HB2	2.13	0.48
11:a:66:TYR:HB3	11:a:144:LEU:HD22	1.94	0.48
5:A:44:ALA:H	5:A:47:GLU:HG3	1.77	0.48
6:B:337:MET:HE1	6:B:359:PHE:CE1	2.48	0.48
10:P:241:GLN:O	10:P:245:HIS:CD2	2.66	0.48
6:F:192:GLY:H	6:F:194:VAL:HG22	1.79	0.48
11:R:22:ILE:HG12	11:a:99:LEU:HB2	1.96	0.47
5:C:56:LEU:HD21	5:C:126:ARG:HE	1.79	0.47
6:D:339:ASN:HD22	6:D:344:HIS:CD2	2.33	0.47
2:O:165:LYS:HD3	2:O:270:LEU:HD22	1.97	0.47
5:A:185:ILE:O	5:A:185:ILE:HG23	2.15	0.47
5:A:333:ILE:HG12	5:A:360:TRP:CG	2.49	0.47
11:R:46:ARG:HH21	11:R:49:LEU:HD21	1.80	0.47
5:C:326:VAL:HG11	5:C:370:ARG:HH22	1.79	0.47
8:H:35:ALA:HB2	9:G:43:TYR:HA	1.97	0.46
11:Z:70:VAL:O	11:Z:74:VAL:HG23	2.16	0.46
6:D:305:PRO:HB3	6:D:307:TYR:CE1	2.51	0.46
5:A:171:LYS:H	5:A:346:GLN:CD	2.24	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:Z:32:THR:HG23	11:Z:57:VAL:HG13	1.98	0.46
9:I:121:LEU:HD11	9:I:188:VAL:HG13	1.97	0.46
11:R:126:PHE:CE1	11:R:127:VAL:HG13	2.50	0.46
11:a:66:TYR:CG	11:a:144:LEU:HD22	2.51	0.46
5:E:272:TYR:CD1	5:E:536:ALA:HB1	2.50	0.45
1:b:357:ILE:N	1:b:357:ILE:HD12	2.31	0.45
5:E:112:LEU:HA	5:E:115:ILE:HG12	1.98	0.45
6:F:357:GLN:HE22	6:F:359:PHE:HB2	1.81	0.45
11:T:97:VAL:HG22	11:T:144:LEU:HA	1.99	0.45
11:T:139:LEU:HD23	11:T:139:LEU:H	1.81	0.45
5:E:192:THR:HG22	5:E:193:LEU:N	2.32	0.45
5:A:81:VAL:HG13	6:B:70:ILE:HD12	1.99	0.45
6:D:71:ARG:HB2	6:D:74:ARG:HG3	1.98	0.45
10:P:368:LEU:HB3	10:P:422:VAL:HG11	1.98	0.45
11:Y:66:TYR:HB3	11:Y:144:LEU:HD13	1.99	0.45
6:B:127:PHE:CZ	9:I:92:ARG:HD2	2.51	0.44
5:C:73:TYR:CD1	5:C:326:VAL:HB	2.52	0.44
1:b:108:ASP:HB2	10:P:279:LYS:HG3	1.99	0.44
7:Q:304:PHE:HB2	11:Z:117:ARG:HH22	1.83	0.44
5:E:365:ARG:HH12	6:F:301:ARG:HH21	1.64	0.44
7:Q:110:MET:SD	7:Q:123:ILE:HD12	2.58	0.44
11:a:66:TYR:HB3	11:a:144:LEU:HD13	1.99	0.44
9:I:126:VAL:HG23	9:I:156:ILE:HG23	1.99	0.44
11:W:66:TYR:CB	11:W:144:LEU:HD22	2.46	0.43
5:A:243:LEU:HA	5:A:243:LEU:HD12	1.89	0.43
5:C:162:PHE:HA	5:C:168:SER:HA	2.00	0.43
1:b:249:ILE:HG13	1:b:250:ARG:N	2.32	0.43
10:P:14:ASN:ND2	10:P:17:ARG:HH21	2.15	0.43
11:X:63:ILE:HG21	11:X:101:GLY:HA2	1.99	0.43
5:A:323:ASN:HD22	6:B:313:SER:HB3	1.82	0.43
6:D:137:SER:HA	6:D:138:PRO:HD3	1.83	0.43
10:P:47:LEU:HA	10:P:50:ILE:HG12	1.99	0.43
10:P:380:TRP:CD1	10:P:429:HIS:HB3	2.53	0.43
2:O:162:ALA:HB1	2:O:274:HIS:HA	2.01	0.43
10:P:228:THR:HG22	10:P:230:ILE:H	1.84	0.43
10:P:281:THR:HB	10:P:283:LYS:H	1.83	0.43
6:F:346:ILE:H	6:F:346:ILE:HD12	1.84	0.43
5:C:522:LYS:HA	5:C:526:LEU:HD13	2.01	0.43
10:P:180:MET:HE2	10:P:180:MET:HA	2.01	0.42
5:E:73:TYR:CG	5:E:327:ALA:HB2	2.54	0.42
5:C:364:LEU:HD13	5:C:364:LEU:HA	1.93	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:97:TYR:H	2:O:100:LEU:HB2	1.85	0.42
5:E:227:LEU:HD11	5:E:399:VAL:HG13	2.00	0.42
5:E:450:HIS:HB3	5:E:526:LEU:HG	2.00	0.42
7:Q:106:ASN:HD21	7:Q:126:ARG:HD3	1.84	0.42
6:D:395:ASP:O	6:D:399:VAL:HG23	2.19	0.42
3:M:107:SER:H	3:M:158:ILE:HD12	1.85	0.42
5:C:294:LEU:HD22	6:D:144:ARG:HH11	1.83	0.42
10:P:248:LEU:HD23	10:P:248:LEU:HA	1.90	0.42
5:A:496:GLU:O	5:A:500:GLN:HG3	2.19	0.42
5:A:597:HIS:CE1	5:A:599:GLU:OE2	2.73	0.42
9:G:142:LEU:O	9:G:146:VAL:HG13	2.19	0.42
5:A:247:VAL:HG21	5:A:463:TYR:CD2	2.55	0.42
5:C:61:ILE:HG21	5:C:371:LEU:HD11	2.02	0.42
6:D:362:ARG:H	6:D:362:ARG:HD2	1.84	0.42
6:B:192:GLY:H	6:B:194:VAL:HG22	1.85	0.42
11:X:89:ILE:HG23	11:X:150:LEU:HD22	2.02	0.42
5:E:175:PRO:HG2	5:E:209:PHE:CE1	2.55	0.42
5:E:192:THR:HG22	5:E:193:LEU:H	1.85	0.42
1:b:248:ARG:HD3	2:O:62:ILE:HG21	2.02	0.42
6:F:393:ARG:HH21	6:F:458:LEU:HB3	1.85	0.42
11:S:74:VAL:HG12	11:S:78:LEU:HD21	2.02	0.42
5:C:218:ARG:HH22	5:C:330:GLU:HG3	1.85	0.41
5:E:44:ALA:HB1	6:D:85:GLY:HA2	2.02	0.41
6:F:142:TYR:CE2	6:F:318:ARG:HA	2.54	0.41
6:B:402:GLN:HE21	6:B:473:LEU:HD22	1.86	0.41
1:b:320:PHE:HB3	1:b:325:LYS:HB3	2.02	0.41
5:E:112:LEU:HD22	5:E:122:ILE:O	2.20	0.41
5:E:233:LEU:HD22	5:E:235:THR:HG23	2.02	0.41
5:C:300:LEU:HD23	5:C:300:LEU:HA	1.86	0.41
3:M:158:ILE:O	3:M:162:VAL:HG23	2.19	0.41
6:D:423:GLU:H	6:D:423:GLU:CD	2.29	0.41
11:W:52:LYS:HB3	11:W:126:PHE:CZ	2.56	0.41
6:F:366:ASN:HD21	5:A:457:SER:HA	1.86	0.41
10:P:275:LEU:HB3	10:P:321:THR:HG21	2.02	0.41
5:E:280:TYR:HA	5:E:353:ILE:HG23	2.02	0.41
5:A:249:GLY:H	5:A:411:SER:HB2	1.85	0.41
5:C:513:ILE:HG22	5:C:554:HIS:CE1	2.56	0.41
9:I:38:LYS:O	9:I:42:GLU:HG3	2.20	0.41
10:P:47:LEU:HD22	10:P:80:LEU:HD11	2.03	0.41
1:b:134:GLN:HE22	10:P:474:GLY:HA2	1.86	0.41
5:E:545:ASP:HB3	5:E:600:PHE:CG	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:Z:135:PHE:O	11:Z:138:VAL:HG22	2.20	0.41
11:Z:141:LEU:O	11:Z:144:LEU:HB3	2.21	0.41
2:O:86:LEU:HD13	2:O:97:TYR:CZ	2.56	0.40
3:M:57:MET:SD	3:M:146:LEU:HG	2.61	0.40
5:E:261:GLY:HA3	5:E:441:LEU:HD11	2.03	0.40
6:B:86:ILE:HB	5:C:44:ALA:HA	2.03	0.40
11:T:141:LEU:HD23	11:T:141:LEU:HA	1.89	0.40
5:C:135:ARG:HA	5:C:193:LEU:HD23	2.03	0.40
1:b:21:ILE:HB	1:b:22:PRO:HD2	2.02	0.40
5:E:116:LYS:HE3	6:F:325:ARG:HH21	1.86	0.40
9:K:41:GLN:HG3	10:P:255:PHE:CE2	2.56	0.40
2:O:48:PHE:CE2	2:O:308:ALA:HB2	2.56	0.40
6:F:312:LEU:O	6:F:316:TYR:CD2	2.74	0.40
5:A:323:ASN:HA	6:B:313:SER:HB3	2.04	0.40
11:a:70:VAL:HG21	11:a:97:VAL:HG11	2.03	0.40
7:Q:84:ARG:HG2	7:Q:95:MET:SD	2.62	0.40
7:Q:109:LEU:HD23	7:Q:181:ARG:HH21	1.87	0.40
7:Q:186:LYS:HE3	7:Q:241:LEU:H	1.86	0.40
11:W:50:LEU:O	11:W:54:ILE:HG13	2.21	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	b	306/840 (36%)	283 (92%)	16 (5%)	7 (2%)	5	28
2	O	390/392 (100%)	359 (92%)	19 (5%)	12 (3%)	3	22
3	M	208/256 (81%)	201 (97%)	6 (3%)	1 (0%)	24	63
4	N	113/118 (96%)	103 (91%)	8 (7%)	2 (2%)	6	34
5	A	591/616 (96%)	543 (92%)	34 (6%)	14 (2%)	4	27

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
5	C	591/616 (96%)	540 (91%)	35 (6%)	16 (3%)	4	25
5	E	591/616 (96%)	536 (91%)	43 (7%)	12 (2%)	6	31
6	B	455/517 (88%)	415 (91%)	32 (7%)	8 (2%)	6	34
6	D	455/517 (88%)	406 (89%)	34 (8%)	15 (3%)	3	21
6	F	455/517 (88%)	405 (89%)	39 (9%)	11 (2%)	4	27
7	Q	343/345 (99%)	312 (91%)	24 (7%)	7 (2%)	6	31
8	H	103/114 (90%)	101 (98%)	0	2 (2%)	6	32
8	J	103/114 (90%)	99 (96%)	2 (2%)	2 (2%)	6	32
8	L	103/114 (90%)	99 (96%)	2 (2%)	2 (2%)	6	32
9	G	215/233 (92%)	205 (95%)	8 (4%)	2 (1%)	14	51
9	I	215/233 (92%)	209 (97%)	6 (3%)	0	100	100
9	K	215/233 (92%)	207 (96%)	5 (2%)	3 (1%)	9	40
10	P	457/478 (96%)	429 (94%)	19 (4%)	9 (2%)	6	31
11	R	148/160 (92%)	138 (93%)	6 (4%)	4 (3%)	4	25
11	S	148/160 (92%)	139 (94%)	7 (5%)	2 (1%)	9	40
11	T	148/160 (92%)	137 (93%)	7 (5%)	4 (3%)	4	25
11	U	148/160 (92%)	135 (91%)	10 (7%)	3 (2%)	6	31
11	V	148/160 (92%)	139 (94%)	7 (5%)	2 (1%)	9	40
11	W	148/160 (92%)	143 (97%)	4 (3%)	1 (1%)	18	56
11	X	148/160 (92%)	138 (93%)	6 (4%)	4 (3%)	4	25
11	Y	148/160 (92%)	140 (95%)	5 (3%)	3 (2%)	6	31
11	Z	148/160 (92%)	138 (93%)	6 (4%)	4 (3%)	4	25
11	a	148/160 (92%)	136 (92%)	8 (5%)	4 (3%)	4	25
All	All	7389/8469 (87%)	6835 (92%)	398 (5%)	156 (2%)	8	30

All (156) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	O	167	THR
2	O	172	VAL
5	E	475	TYR
6	F	125	LYS
6	F	207	ASN
6	F	293	ALA

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Mol	Chain	Res	Type
5	A	475	TYR
5	C	475	TYR
5	C	565	ALA
6	D	143	ALA
6	D	319	ALA
7	Q	126	ARG
7	Q	174	ASP
9	K	144	ARG
10	P	389	LYS
11	Y	159	VAL
11	Z	48	ASP
11	a	158	VAL
11	a	159	VAL
2	O	39	ILE
2	O	97	TYR
2	O	116	TRP
2	O	176	HIS
5	E	120	GLN
5	E	456	THR
5	E	575	GLY
5	E	593	GLU
6	F	340	ASP
5	A	177	ARG
5	A	234	LEU
5	A	449	LYS
5	A	450	HIS
5	A	565	ALA
5	A	575	GLY
6	B	163	SER
6	B	294	ALA
5	C	75	GLU
5	C	125	PRO
5	C	575	GLY
6	D	88	VAL
6	D	323	GLU
6	D	377	PRO
6	D	467	ILE
7	Q	230	SER
7	Q	245	ILE
8	J	77	GLN
10	P	391	ASN
10	P	392	TYR

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Mol	Chain	Res	Type
8	H	77	GLN
11	X	157	ASP
11	Y	156	GLN
11	W	157	ASP
11	V	158	VAL
11	a	47	PRO
11	T	156	GLN
11	T	159	VAL
1	b	47	LYS
1	b	89	ASP
1	b	178	ALA
4	N	4	LYS
5	E	308	LYS
5	E	529	ASN
6	F	135	ASN
5	A	305	SER
5	A	405	ASP
5	A	441	LEU
6	B	83	THR
6	B	293	ALA
5	C	325	PRO
6	D	141	PRO
6	D	203	GLY
7	Q	121	GLY
7	Q	171	GLU
8	L	63	GLY
9	K	192	ASN
10	P	234	ASN
10	P	332	ASP
11	U	155	THR
11	X	156	GLN
11	Y	158	VAL
11	Z	47	PRO
11	a	157	ASP
11	S	47	PRO
1	b	86	GLY
2	O	2	ALA
2	O	229	ALA
2	O	360	LYS
2	O	375	ALA
4	N	115	LEU
5	E	207	SER

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Mol	Chain	Res	Type
6	F	202	ASP
6	F	296	GLU
5	A	257	ALA
6	B	121	ASP
6	B	391	MET
5	C	230	ASP
5	C	405	ASP
5	C	449	LYS
6	D	179	PRO
10	P	34	GLU
10	P	232	ALA
10	P	458	ASP
9	G	195	ASP
11	R	123	PRO
11	R	155	THR
11	Z	159	VAL
11	V	159	VAL
1	b	80	ASP
1	b	87	ASP
1	b	355	GLU
2	O	254	LYS
5	E	449	LYS
5	E	476	PRO
6	F	372	PRO
5	A	594	LYS
5	C	126	ARG
5	C	207	SER
5	C	528	GLN
6	D	125	LYS
6	D	138	PRO
6	D	391	MET
7	Q	260	GLN
8	L	62	ALA
9	K	195	ASP
9	G	133	LEU
11	R	158	VAL
11	X	159	VAL
11	Z	157	ASP
11	S	159	VAL
11	T	157	ASP
11	T	158	VAL
6	F	124	PRO

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Mol	Chain	Res	Type
5	A	78	GLY
6	D	202	ASP
8	J	105	PRO
10	P	54	LYS
8	H	105	PRO
11	U	156	GLN
5	A	284	GLY
6	B	372	PRO
5	C	310	PRO
5	C	403	SER
11	U	158	VAL
5	E	284	GLY
11	R	159	VAL
11	X	47	PRO
2	O	384	PRO
3	M	115	PRO
6	F	137	SER
6	F	179	PRO
5	C	375	PRO
5	E	310	PRO
6	B	126	VAL
6	D	248	PRO
5	C	589	PRO
6	D	375	VAL

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	b	275/728 (38%)	262 (95%)	13 (5%)	23	45
2	O	348/348 (100%)	341 (98%)	7 (2%)	48	66
3	M	183/221 (83%)	177 (97%)	6 (3%)	33	55
4	N	102/104 (98%)	100 (98%)	2 (2%)	48	66
5	A	497/515 (96%)	472 (95%)	25 (5%)	22	43

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
5	C	497/515 (96%)	473 (95%)	24 (5%)	23	44
5	E	497/515 (96%)	471 (95%)	26 (5%)	21	42
6	B	391/444 (88%)	371 (95%)	20 (5%)	21	42
6	D	391/444 (88%)	376 (96%)	15 (4%)	29	50
6	F	391/444 (88%)	372 (95%)	19 (5%)	22	43
7	Q	309/309 (100%)	303 (98%)	6 (2%)	50	67
8	H	87/94 (93%)	85 (98%)	2 (2%)	44	64
8	J	87/94 (93%)	85 (98%)	2 (2%)	44	64
8	L	87/94 (93%)	84 (97%)	3 (3%)	32	54
9	G	194/208 (93%)	191 (98%)	3 (2%)	57	72
9	I	194/208 (93%)	191 (98%)	3 (2%)	57	72
9	K	194/208 (93%)	192 (99%)	2 (1%)	68	78
10	P	426/439 (97%)	414 (97%)	12 (3%)	38	60
11	R	110/119 (92%)	105 (96%)	5 (4%)	24	46
11	S	110/119 (92%)	102 (93%)	8 (7%)	13	34
11	T	110/119 (92%)	103 (94%)	7 (6%)	16	37
11	U	110/119 (92%)	102 (93%)	8 (7%)	13	34
11	V	110/119 (92%)	105 (96%)	5 (4%)	24	46
11	W	110/119 (92%)	103 (94%)	7 (6%)	16	37
11	X	110/119 (92%)	106 (96%)	4 (4%)	31	52
11	Y	110/119 (92%)	107 (97%)	3 (3%)	39	61
11	Z	110/119 (92%)	108 (98%)	2 (2%)	51	68
11	a	110/119 (92%)	108 (98%)	2 (2%)	51	68
All	All	6250/7122 (88%)	6009 (96%)	241 (4%)	30	49

All (241) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	b	17	VAL
1	b	20	TYR
1	b	69	TYR
1	b	103	SER
1	b	137	ASP
1	b	186	TYR

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Mol	Chain	Res	Type
1	b	187	VAL
1	b	193	ARG
1	b	250	ARG
1	b	289	LYS
1	b	313	VAL
1	b	330	THR
1	b	357	ILE
2	O	7	THR
2	O	164	ARG
2	O	178	ILE
2	O	196	VAL
2	O	200	LYS
2	O	253	LYS
2	O	344	LEU
3	M	13	MET
3	M	22	LEU
3	M	42	ARG
3	M	60	VAL
3	M	115	PRO
3	M	117	ILE
4	N	10	VAL
4	N	94	ILE
5	E	59	GLU
5	E	60	VAL
5	E	95	GLU
5	E	103	THR
5	E	124	ILE
5	E	161	VAL
5	E	169	SER
5	E	197	ILE
5	E	203	ASP
5	E	233	LEU
5	E	262	LYS
5	E	263	THR
5	E	286	ARG
5	E	295	MET
5	E	325	PRO
5	E	359	ARG
5	E	406	ARG
5	E	426	PRO
5	E	435	THR
5	E	468	ASN

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Mol	Chain	Res	Type
5	E	476	PRO
5	E	482	ARG
5	E	483	ASP
5	E	504	LYS
5	E	570	LEU
5	E	602	LYS
6	F	67	VAL
6	F	79	VAL
6	F	86	ILE
6	F	119	PRO
6	F	132	LEU
6	F	140	ASN
6	F	155	VAL
6	F	219	LEU
6	F	220	GLU
6	F	246	ASN
6	F	250	ILE
6	F	296	GLU
6	F	298	VAL
6	F	307	TYR
6	F	329	ILE
6	F	346	ILE
6	F	357	GLN
6	F	374	ASN
6	F	474	ASN
5	A	34	VAL
5	A	49	VAL
5	A	60	VAL
5	A	90	LYS
5	A	96	LEU
5	A	161	VAL
5	A	193	LEU
5	A	197	ILE
5	A	230	ASP
5	A	239	VAL
5	A	246	CYS
5	A	262	LYS
5	A	278	ILE
5	A	279	ILE
5	A	286	ARG
5	A	353	ILE
5	A	356	SER

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Mol	Chain	Res	Type
5	A	427	VAL
5	A	435	THR
5	A	456	THR
5	A	466	VAL
5	A	499	VAL
5	A	596	VAL
5	A	602	LYS
5	A	603	LEU
6	B	44	VAL
6	B	51	GLU
6	B	86	ILE
6	B	91	THR
6	B	178	LEU
6	B	215	MET
6	B	232	ASN
6	B	248	PRO
6	B	250	ILE
6	B	269	GLN
6	B	274	VAL
6	B	298	VAL
6	B	302	ARG
6	B	329	ILE
6	B	335	LEU
6	B	353	ILE
6	B	357	GLN
6	B	392	THR
6	B	432	SER
6	B	467	ILE
5	C	60	VAL
5	C	90	LYS
5	C	96	LEU
5	C	142	THR
5	C	171	LYS
5	C	175	PRO
5	C	181	THR
5	C	196	LYS
5	C	211	LEU
5	C	225	GLU
5	C	232	PRO
5	C	243	LEU
5	C	278	ILE
5	C	286	ARG

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Mol	Chain	Res	Type
5	C	352	MET
5	C	364	LEU
5	C	406	ARG
5	C	435	THR
5	C	465	ASN
5	C	476	PRO
5	C	548	ARG
5	C	593	GLU
5	C	603	LEU
5	C	606	THR
6	D	34	VAL
6	D	39	VAL
6	D	44	VAL
6	D	47	PRO
6	D	68	LEU
6	D	180	HIS
6	D	219	LEU
6	D	243	ASN
6	D	279	THR
6	D	342	ILE
6	D	357	GLN
6	D	362	ARG
6	D	391	MET
6	D	428	GLU
6	D	479	LYS
7	Q	4	VAL
7	Q	128	HIS
7	Q	145	LEU
7	Q	188	TYR
7	Q	208	MET
7	Q	237	LEU
8	J	38	ASP
8	J	105	PRO
9	I	118	LYS
9	I	142	LEU
9	I	191	SER
8	L	50	LYS
8	L	79	GLU
8	L	100	GLU
9	K	76	THR
9	K	147	ASP
10	P	79	PRO

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Mol	Chain	Res	Type
10	P	87	SER
10	P	173	ILE
10	P	177	ILE
10	P	231	VAL
10	P	238	LEU
10	P	249	LEU
10	P	259	PHE
10	P	284	GLU
10	P	285	LYS
10	P	363	LEU
10	P	384	ILE
8	H	50	LYS
8	H	79	GLU
9	G	61	ASN
9	G	89	LEU
9	G	165	GLN
11	R	44	VAL
11	R	54	ILE
11	R	56	PRO
11	R	116	VAL
11	R	124	ARG
11	U	21	ILE
11	U	51	PHE
11	U	56	PRO
11	U	74	VAL
11	U	85	TYR
11	U	97	VAL
11	U	116	VAL
11	U	120	SER
11	X	47	PRO
11	X	54	ILE
11	X	63	ILE
11	X	116	VAL
11	Y	54	ILE
11	Y	56	PRO
11	Y	138	VAL
11	W	11	PHE
11	W	54	ILE
11	W	56	PRO
11	W	81	LYS
11	W	123	PRO
11	W	158	VAL

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Mol	Chain	Res	Type
11	W	159	VAL
11	Z	56	PRO
11	Z	139	LEU
11	V	17	CYS
11	V	21	ILE
11	V	63	ILE
11	V	82	GLN
11	V	134	ILE
11	a	116	VAL
11	a	138	VAL
11	S	21	ILE
11	S	26	LEU
11	S	70	VAL
11	S	116	VAL
11	S	123	PRO
11	S	134	ILE
11	S	148	LEU
11	S	158	VAL
11	T	15	ILE
11	T	21	ILE
11	T	44	VAL
11	T	70	VAL
11	T	78	LEU
11	T	116	VAL
11	T	139	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (133) such sidechains are listed below:

Mol	Chain	Res	Type
1	b	35	GLN
1	b	210	ASN
1	b	259	ASN
1	b	273	GLN
2	O	35	ASN
2	O	103	ASN
2	O	153	ASN
2	O	336	ASN
3	M	100	ASN
3	M	118	ASN
3	M	153	GLN
3	M	171	ASN
3	M	189	ASN

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Mol	Chain	Res	Type
4	N	27	GLN
4	N	86	ASN
5	E	55	ASN
5	E	274	ASN
5	E	491	ASN
5	E	497	GLN
5	E	500	GLN
5	E	597	HIS
6	F	35	ASN
6	F	66	GLN
6	F	168	GLN
6	F	190	GLN
6	F	204	HIS
6	F	218	ASN
6	F	227	GLN
6	F	326	ASN
6	F	357	GLN
6	F	365	HIS
6	F	374	ASN
6	F	396	HIS
6	F	402	GLN
6	F	460	GLN
5	A	109	GLN
5	A	151	HIS
5	A	213	HIS
5	A	323	ASN
5	A	349	ASN
5	A	436	GLN
5	A	455	ASN
5	A	528	GLN
5	A	529	ASN
5	A	563	ASN
5	A	597	HIS
6	B	64	GLN
6	B	162	ASN
6	B	331	GLN
6	B	344	HIS
6	B	357	GLN
6	B	374	ASN
6	B	396	HIS
6	B	402	GLN
6	B	446	GLN

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Mol	Chain	Res	Type
5	C	71	GLN
5	C	109	GLN
5	C	151	HIS
5	C	213	HIS
5	C	274	ASN
5	C	349	ASN
5	C	447	GLN
5	C	465	ASN
5	C	491	ASN
5	C	527	GLN
5	C	566	ASN
6	D	78	GLN
6	D	140	ASN
6	D	162	ASN
6	D	168	GLN
6	D	190	GLN
6	D	273	HIS
6	D	326	ASN
6	D	339	ASN
6	D	396	HIS
6	D	402	GLN
6	D	474	ASN
7	Q	10	ASN
7	Q	176	ASN
7	Q	222	ASN
7	Q	290	GLN
7	Q	318	GLN
8	J	61	ASN
9	I	21	GLN
9	I	41	GLN
9	I	53	ASN
9	K	12	GLN
9	K	21	GLN
9	K	36	GLN
9	K	53	ASN
9	K	56	ASN
9	K	73	GLN
9	K	201	ASN
10	P	14	ASN
10	P	118	GLN
10	P	126	GLN
10	P	179	GLN

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Mol	Chain	Res	Type
10	P	236	ASN
10	P	245	HIS
10	P	261	ASN
10	P	265	GLN
10	P	296	GLN
10	P	337	GLN
10	P	351	GLN
10	P	374	HIS
10	P	391	ASN
10	P	403	GLN
10	P	408	ASN
10	P	470	GLN
8	H	5	ASN
8	H	12	GLN
8	H	59	GLN
9	G	49	ASN
9	G	112	ASN
9	G	122	GLN
11	R	156	GLN
11	U	82	GLN
11	U	90	GLN
11	U	121	GLN
11	U	151	ASN
11	Y	90	GLN
11	W	151	ASN
11	Z	80	GLN
11	Z	121	GLN
11	V	151	ASN
11	V	156	GLN
11	a	80	GLN
11	a	90	GLN
11	a	151	ASN
11	S	53	ASN
11	S	151	ASN
11	S	156	GLN
11	T	151	ASN

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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 [i](#)

There are no chain breaks in this entry.

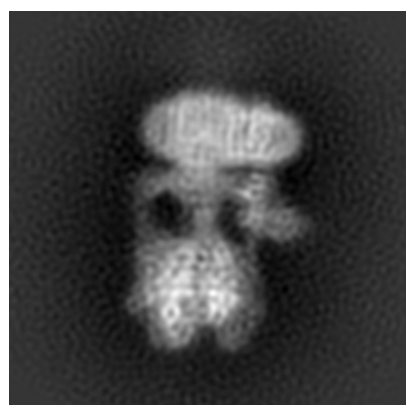
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-6286. These allow visual inspection of the internal detail of the map and identification of artifacts.

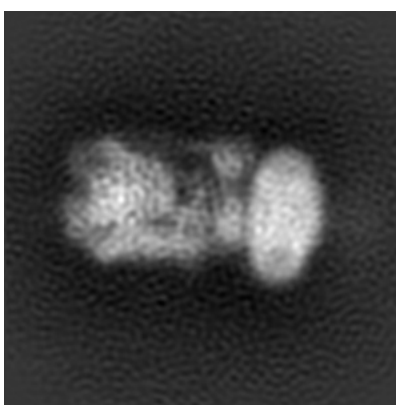
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

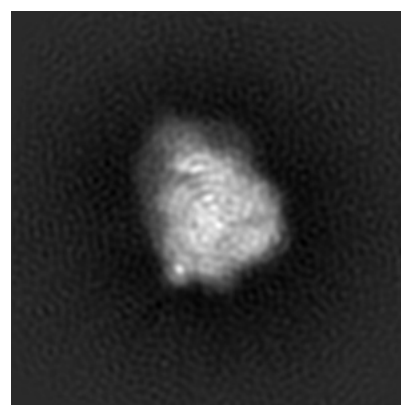
6.1.1 Primary map



X



Y

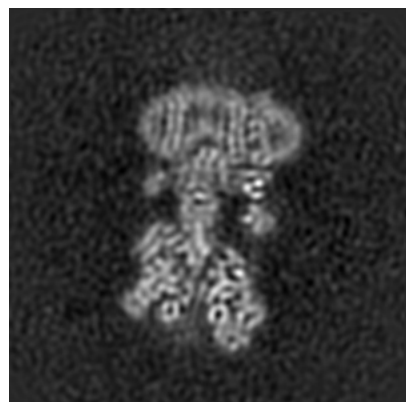


Z

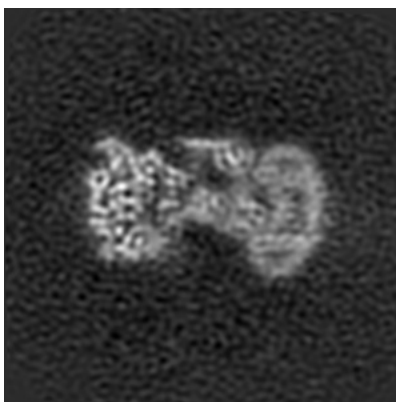
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

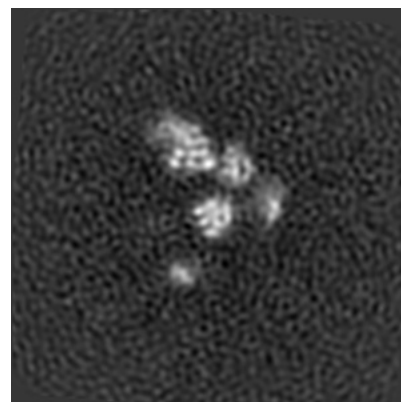
6.2.1 Primary map



X Index: 128



Y Index: 128

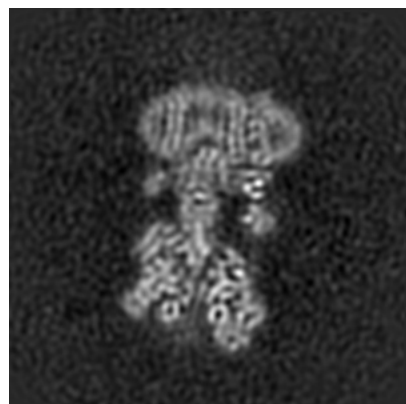


Z Index: 128

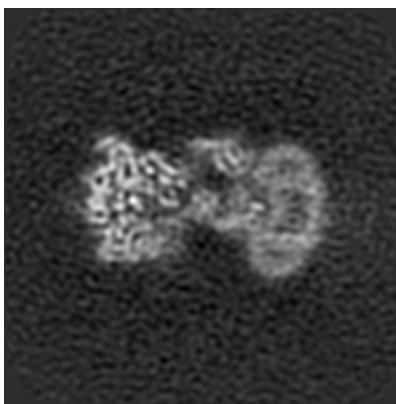
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

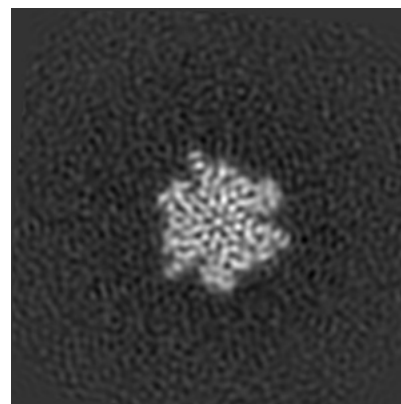
6.3.1 Primary map



X Index: 128



Y Index: 130

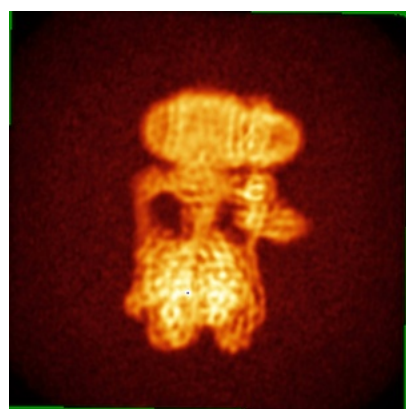


Z Index: 74

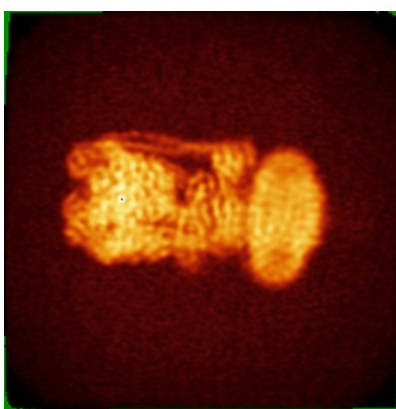
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) [i](#)

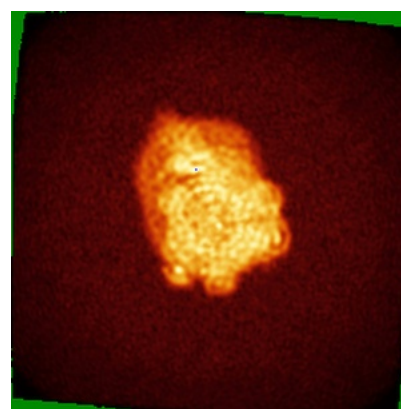
6.4.1 Primary map



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

This section was not generated.

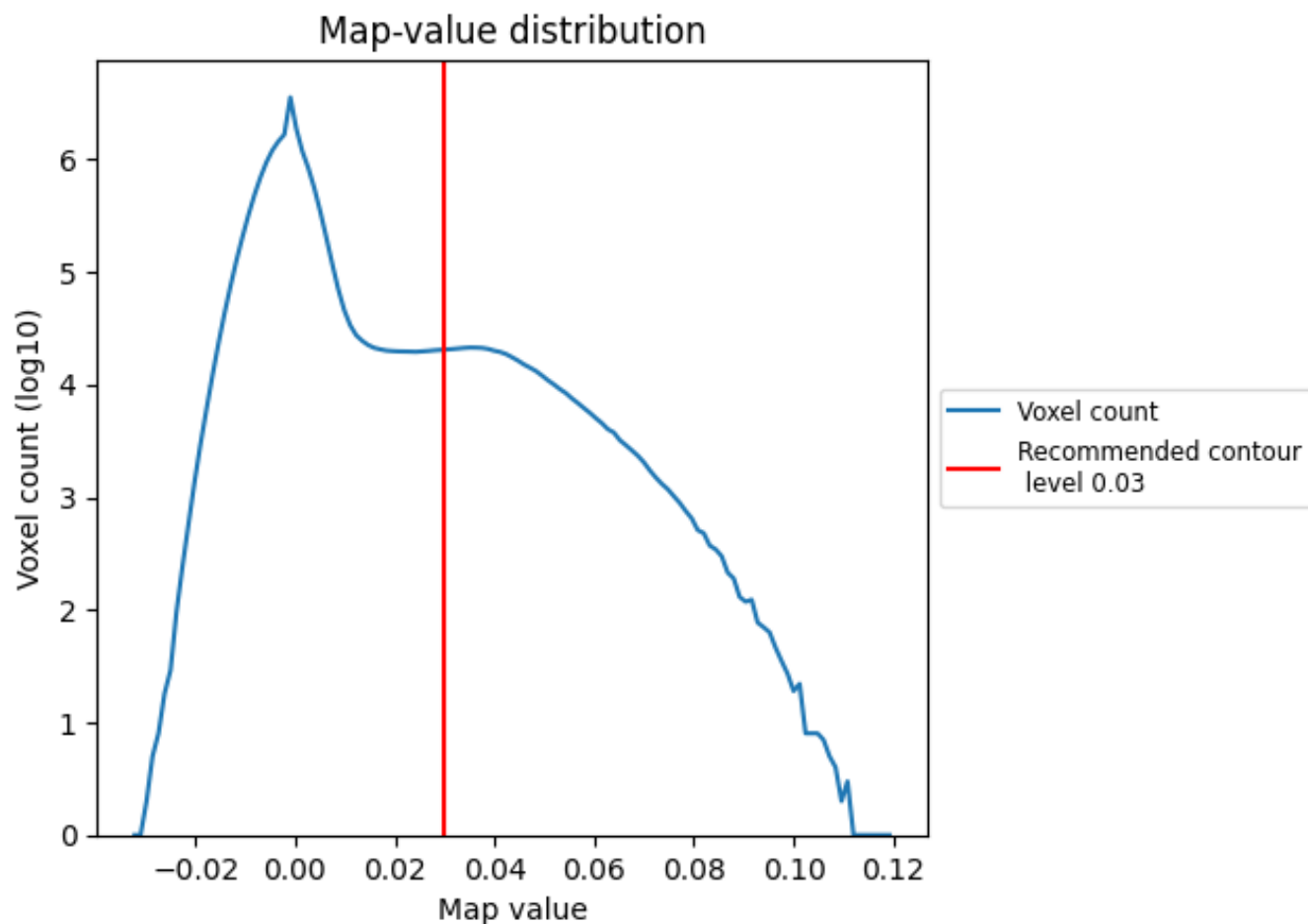
6.6 Mask visualisation

This section was not generated. No masks/segmentation were deposited.

7 Map analysis [i](#)

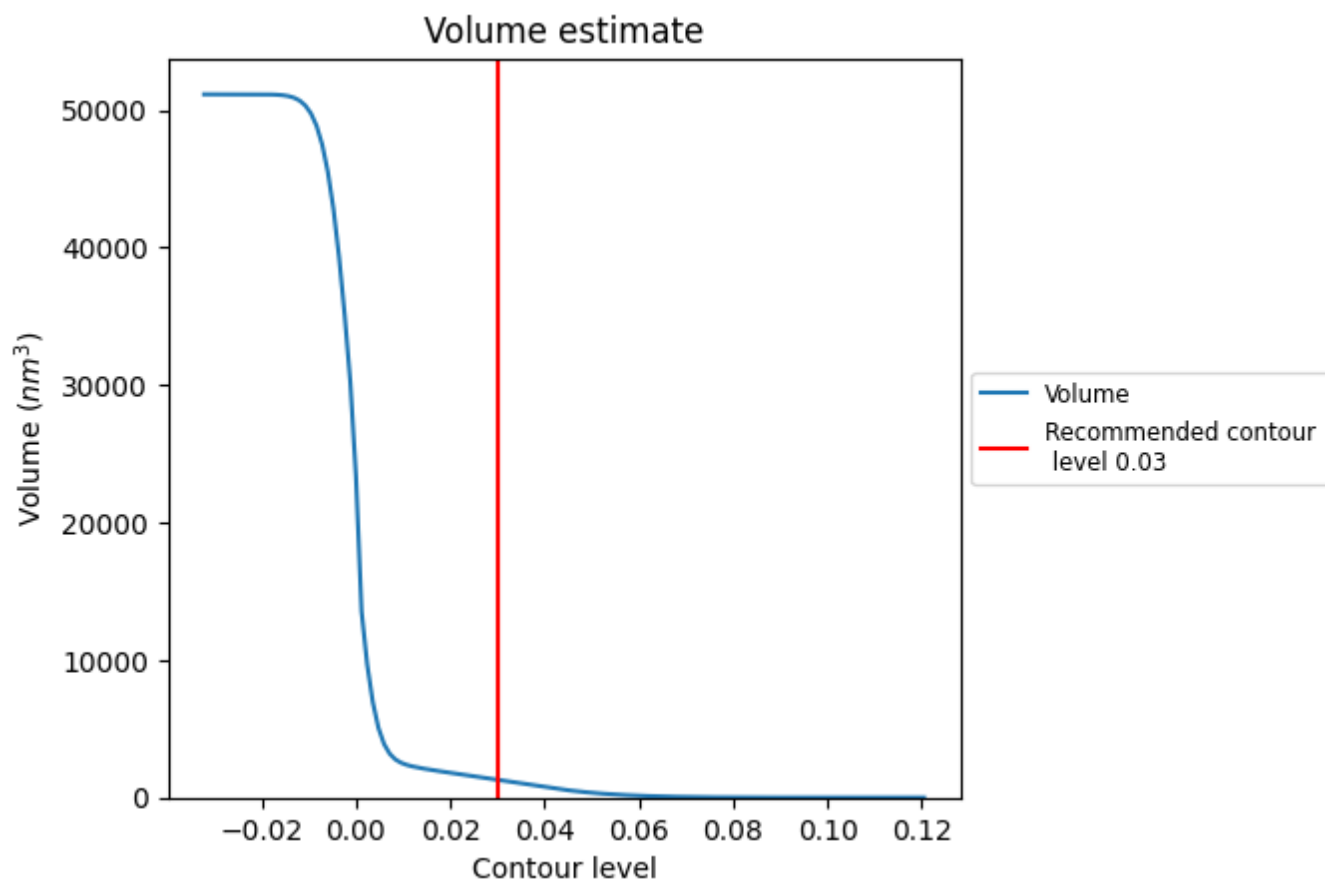
This section contains the results of statistical analysis of the map.

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.

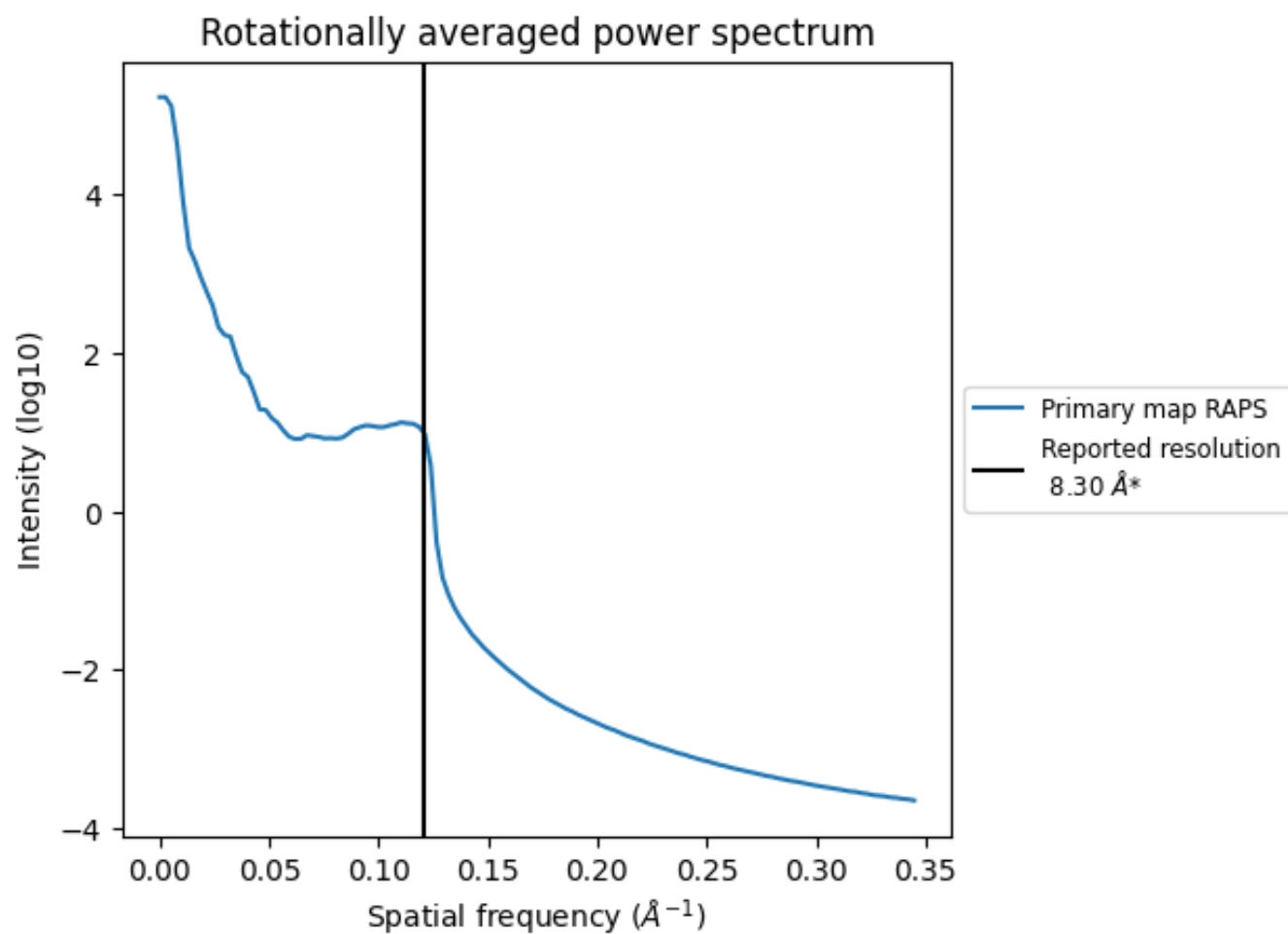
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 1299 nm³; this corresponds to an approximate mass of 1174 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 ⓘ

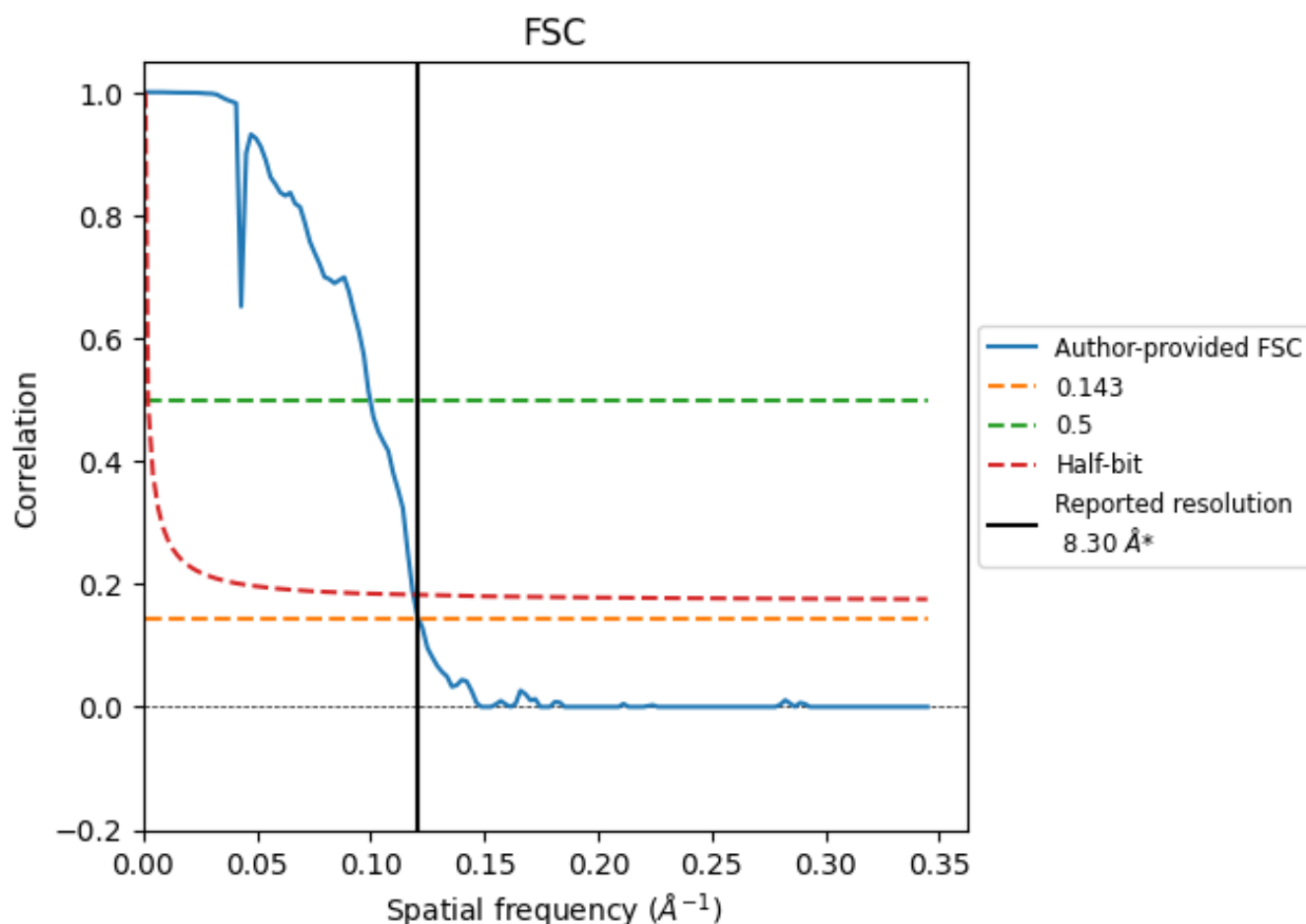


*Reported resolution corresponds to spatial frequency of 0.120 Å⁻¹

8 Fourier-Shell correlation [i](#)

Fourier-Shell Correlation (FSC) is the most commonly used method to estimate the resolution of single-particle and subtomogram-averaged maps. The shape of the curve depends on the imposed symmetry, mask and whether or not the two 3D reconstructions used were processed from a common reference. The reported resolution is shown as a black line. A curve is displayed for the half-bit criterion in addition to lines showing the 0.143 gold standard cut-off and 0.5 cut-off.

8.1 FSC [i](#)



*Reported resolution corresponds to spatial frequency of 0.120 $\text{\AA}^{-1}$

8.2 Resolution estimates [i](#)

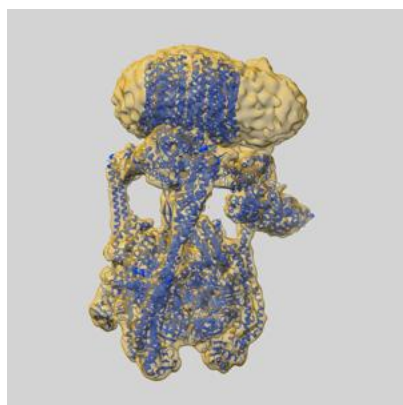
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	8.30	-	-
Author-provided FSC curve	8.26	10.02	8.42
Unmasked-calculated*	-	-	-

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps.

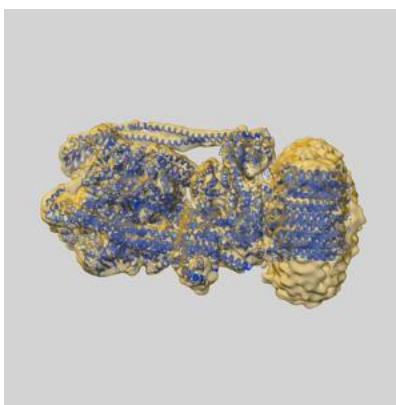
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-6286 and PDB model 3J9V. Per-residue inclusion information can be found in section [3](#) on page [7](#).

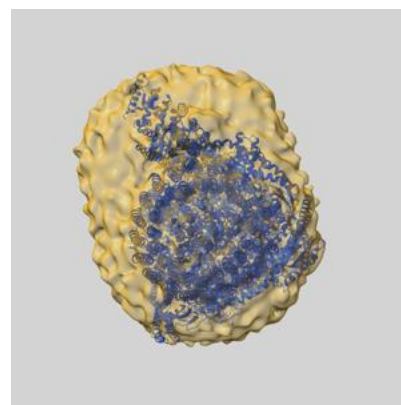
9.1 Map-model overlay [i](#)



X



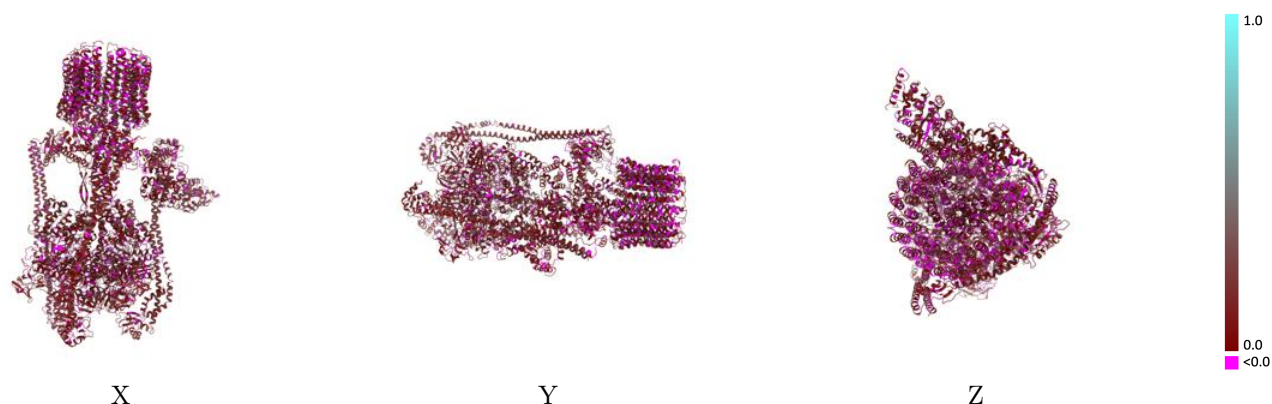
Y



Z

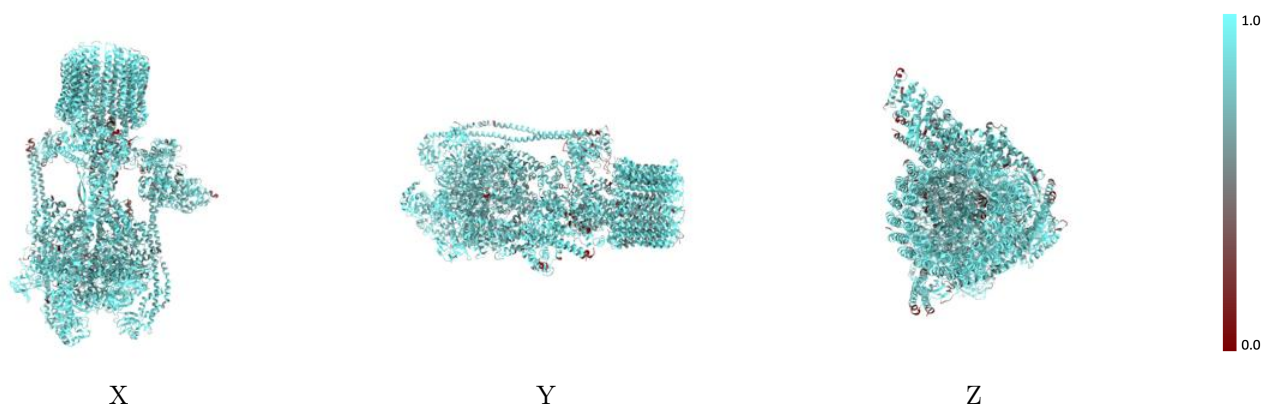
The images above show the 3D surface view of the map at the recommended contour level 0.03 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2 Q-score mapped to coordinate model [i](#)



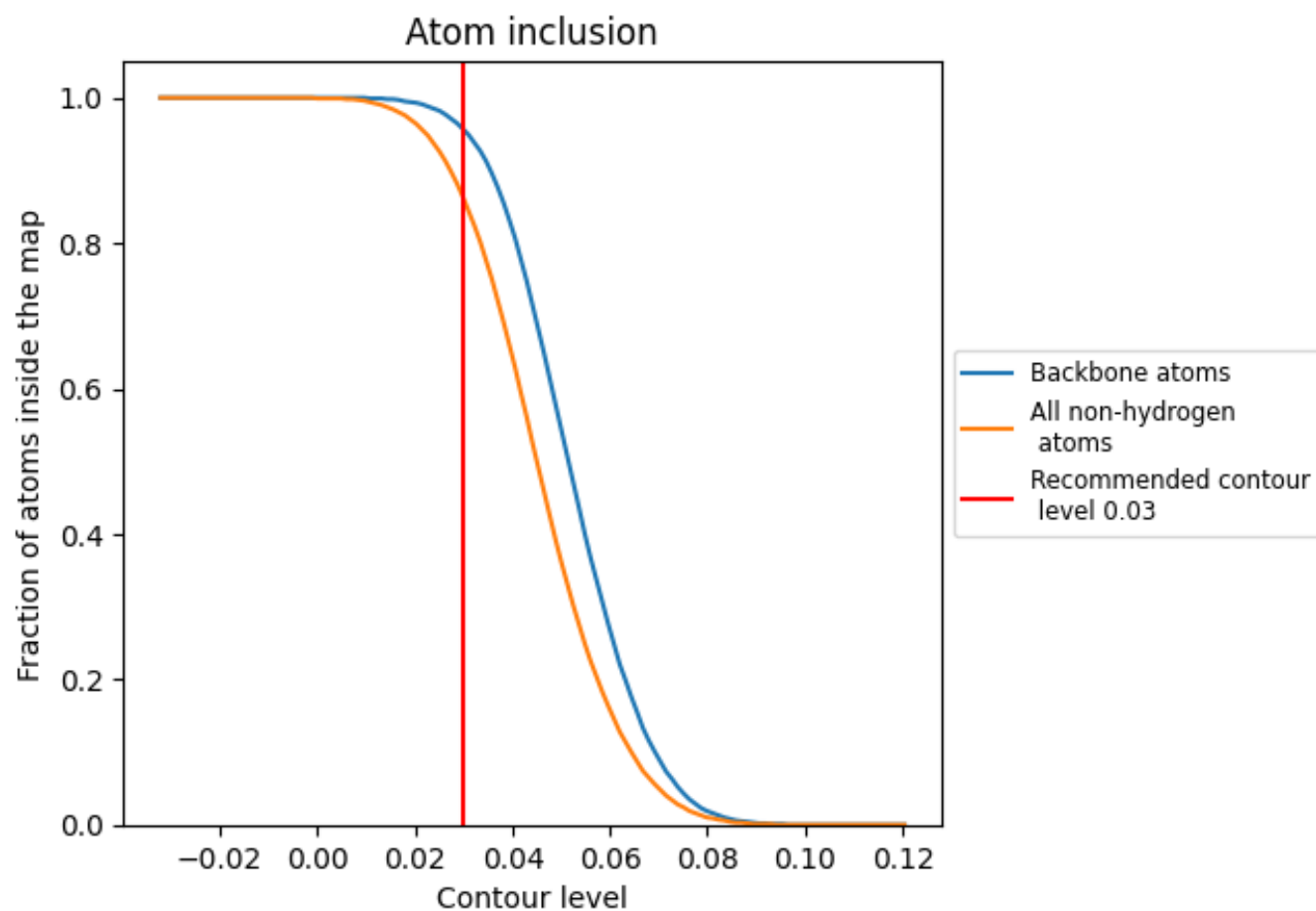
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (0.03).

9.4 Atom inclusion [i](#)



At the recommended contour level, 96% of all backbone atoms, 86% 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 (0.03) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.8610	 0.1150
A	 0.8810	 0.1250
B	 0.8730	 0.1170
C	 0.8800	 0.1280
D	 0.8540	 0.1180
E	 0.8480	 0.1260
F	 0.8780	 0.1140
G	 0.8530	 0.1400
H	 0.7900	 0.1460
I	 0.8680	 0.1490
J	 0.8010	 0.1560
K	 0.8670	 0.1430
L	 0.8140	 0.1600
M	 0.8460	 0.1150
N	 0.8110	 0.1060
O	 0.8050	 0.1150
P	 0.8300	 0.1260
Q	 0.7700	 0.0740
R	 0.9230	 0.0670
S	 0.9310	 0.0500
T	 0.9090	 0.1000
U	 0.9380	 0.0970
V	 0.9520	 0.0850
W	 0.9390	 0.0670
X	 0.9280	 0.0780
Y	 0.8880	 0.1050
Z	 0.8720	 0.0920
a	 0.8990	 0.0920
b	 0.8380	 0.1140

