



Full wwPDB EM Validation Report ⓘ

Mar 5, 2026 – 08:24 PM UTC

PDB ID : 5FIJ / pdb_00005fij
EMDB ID : EMD-3168
Title : Bovine mitochondrial ATP synthase state 2c
Authors : Zhou, A.; Rohou, A.; Schep, D.G.; Bason, J.V.; Montgomery, M.G.; Walker, J.E.; Grigorieff, N.; Rubinstein, J.L.
Deposited on : 2015-09-28
Resolution : 7.40 Å (reported)
Based on initial models : 2WSS, 2CLY, 2XND

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:

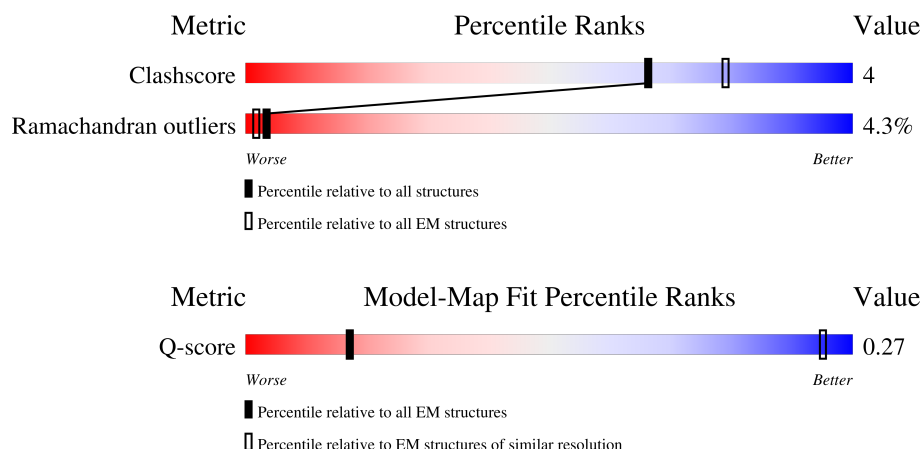
EMDB validation analysis : 0.0.1.dev132
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh &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

1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY

The reported resolution of this entry is 7.40 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.



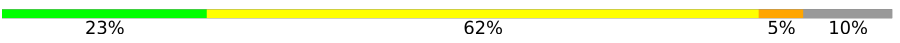
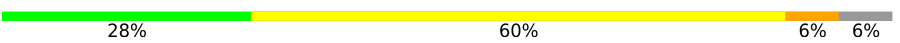
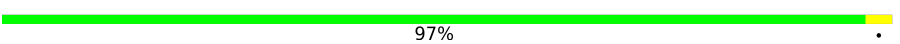
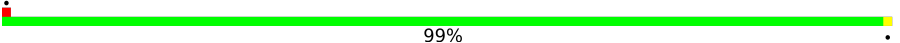
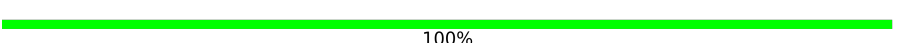
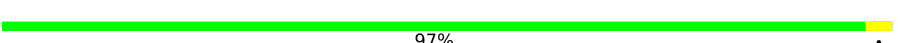
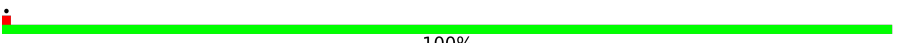
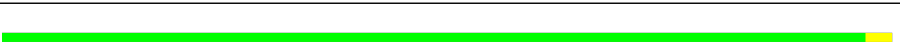
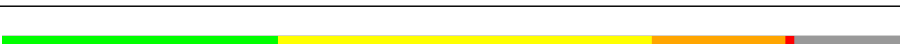
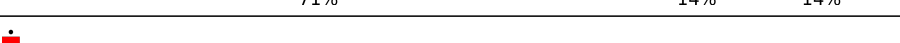
Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Q-score	-	25397	412 (6.90 - 7.90)

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	A	510	
1	B	510	
1	C	510	
2	D	482	
2	E	482	

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Mol	Chain	Length	Quality of chain
2	F	482	
3	G	273	
4	H	146	
5	I	50	
6	J	72	
6	K	72	
6	L	72	
6	M	72	
6	N	72	
6	O	72	
6	P	72	
6	Q	72	
7	S	190	
8	T	174	
9	U	124	
10	V	77	
11	W	217	

2 Entry composition [i](#)

There are 11 unique types of molecules in this entry. The entry contains 18543 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 ATP SYNTHASE SUBUNIT ALPHA, MITOCHONDRIAL.

Mol	Chain	Residues	Atoms				AltConf	Trace
1	A	509	Total	C	N	O	0	0
			2035	1018	509	508		
1	B	480	Total	C	N	O	0	0
			1918	960	480	478		
1	C	487	Total	C	N	O	0	0
			1947	974	487	486		

There are 3 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	481	GLY	SER	conflict	UNP P19483
B	481	GLY	SER	conflict	UNP P19483
C	481	GLY	SER	conflict	UNP P19483

- Molecule 2 is a protein called ATP SYNTHASE SUBUNIT BETA, MITOCHONDRIAL.

Mol	Chain	Residues	Atoms				AltConf	Trace
2	D	467	Total	C	N	O	0	0
			1867	934	467	466		
2	E	466	Total	C	N	O	0	0
			1863	932	466	465		
2	F	466	Total	C	N	O	0	0
			1863	932	466	465		

- Molecule 3 is a protein called ATP SYNTHASE SUBUNIT GAMMA, MITOCHONDRIAL.

Mol	Chain	Residues	Atoms				AltConf	Trace
3	G	264	Total	C	N	O	0	0
			1053	528	264	261		

- Molecule 4 is a protein called ATP SYNTHASE SUBUNIT DELTA, MITOCHONDRIAL.

Mol	Chain	Residues	Atoms				AltConf	Trace
4	H	131	Total	C	N	O	0	0
			523	262	131	130		

- Molecule 5 is a protein called ATP SYNTHASE SUBUNIT EPSILON, MITOCHONDRIAL.

Mol	Chain	Residues	Atoms				AltConf	Trace
5	I	47	Total	C	N	O	0	0
			187	94	47	46		

- Molecule 6 is a protein called ATP SYNTHASE F(0) COMPLEX SUBUNIT C1, MITOCHONDRIAL.

Mol	Chain	Residues	Atoms				AltConf	Trace
6	J	72	Total	C	N	O	0	0
			288	144	72	72		
6	K	72	Total	C	N	O	0	0
			288	144	72	72		
6	L	72	Total	C	N	O	0	0
			288	144	72	72		
6	M	72	Total	C	N	O	0	0
			288	144	72	72		
6	N	72	Total	C	N	O	0	0
			288	144	72	72		
6	O	72	Total	C	N	O	0	0
			288	144	72	72		
6	P	72	Total	C	N	O	0	0
			288	144	72	72		
6	Q	72	Total	C	N	O	0	0
			288	144	72	72		

- Molecule 7 is a protein called ATP SYNTHASE SUBUNIT O, MITOCHONDRIAL.

Mol	Chain	Residues	Atoms				AltConf	Trace
7	S	168	Total	C	N	O	0	1
			669	334	168	167		

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
S	129	THR	ALA	conflict	UNP P13621

- Molecule 8 is a protein called ATP SYNTHASE F(0) COMPLEX SUBUNIT B1, MITOCHONDRIAL.

Mol	Chain	Residues	Atoms				AltConf	Trace
8	T	174	Total	C	N	O	0	0
			697	348	174	175		

- Molecule 9 is a protein called ATP SYNTHASE SUBUNIT D, MITOCHONDRIAL.

Mol	Chain	Residues	Atoms				AltConf	Trace
9	U	121	Total	C	N	O	0	0
			484	242	121	121		

- Molecule 10 is a protein called ATP SYNTHASE-COUPPLING FACTOR 6, MITOCHONDRIAL.

Mol	Chain	Residues	Atoms				AltConf	Trace
10	V	66	Total	C	N	O	0	0
			264	132	66	66		

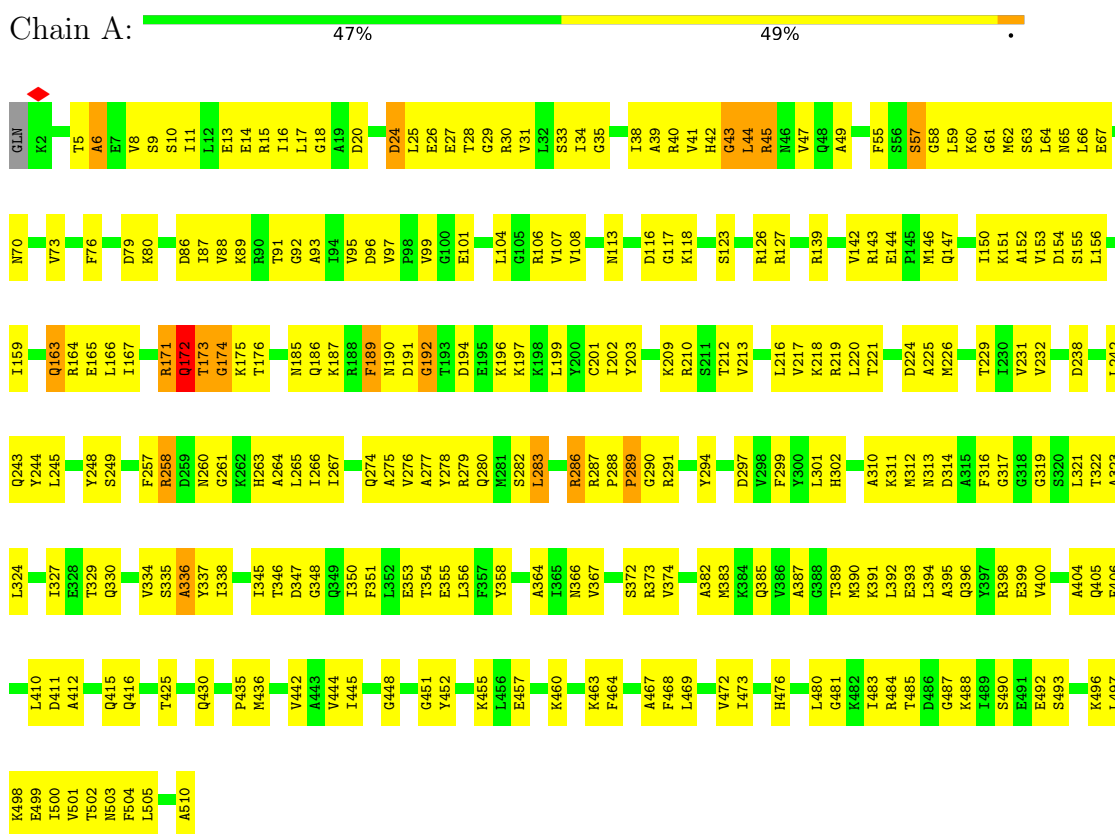
- Molecule 11 is a protein called ATP SYNTHASE SUBUNIT BETA, MITOCHONDRIAL.

Mol	Chain	Residues	Atoms				AltConf	Trace
11	W	217	Total	C	N	O	0	0
			869	434	217	218		

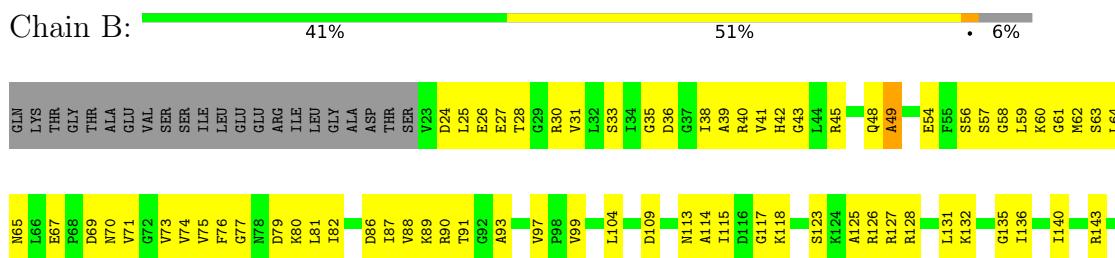
3 Residue-property plots [i](#)

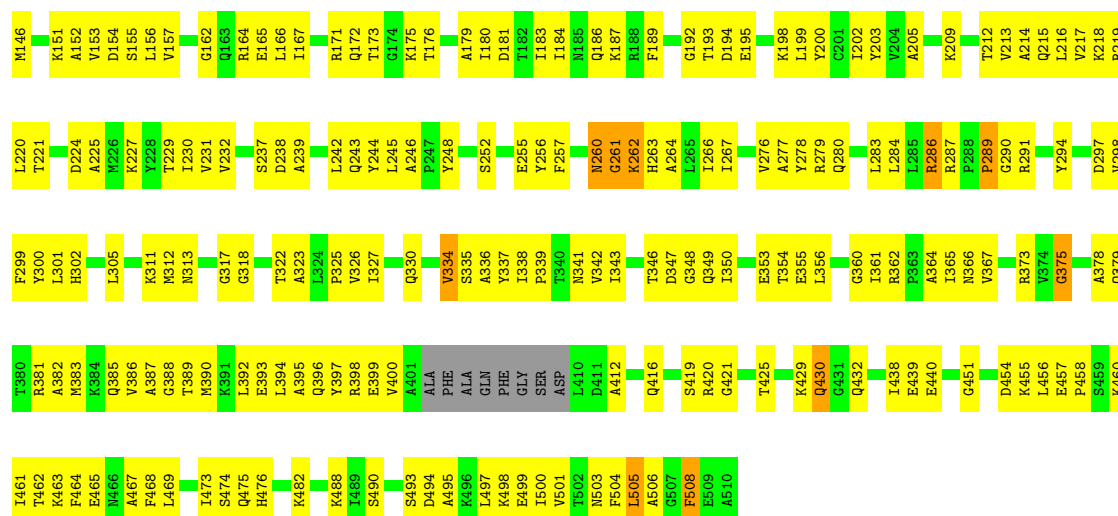
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion 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: ATP SYNTHASE SUBUNIT ALPHA, MITOCHONDRIAL



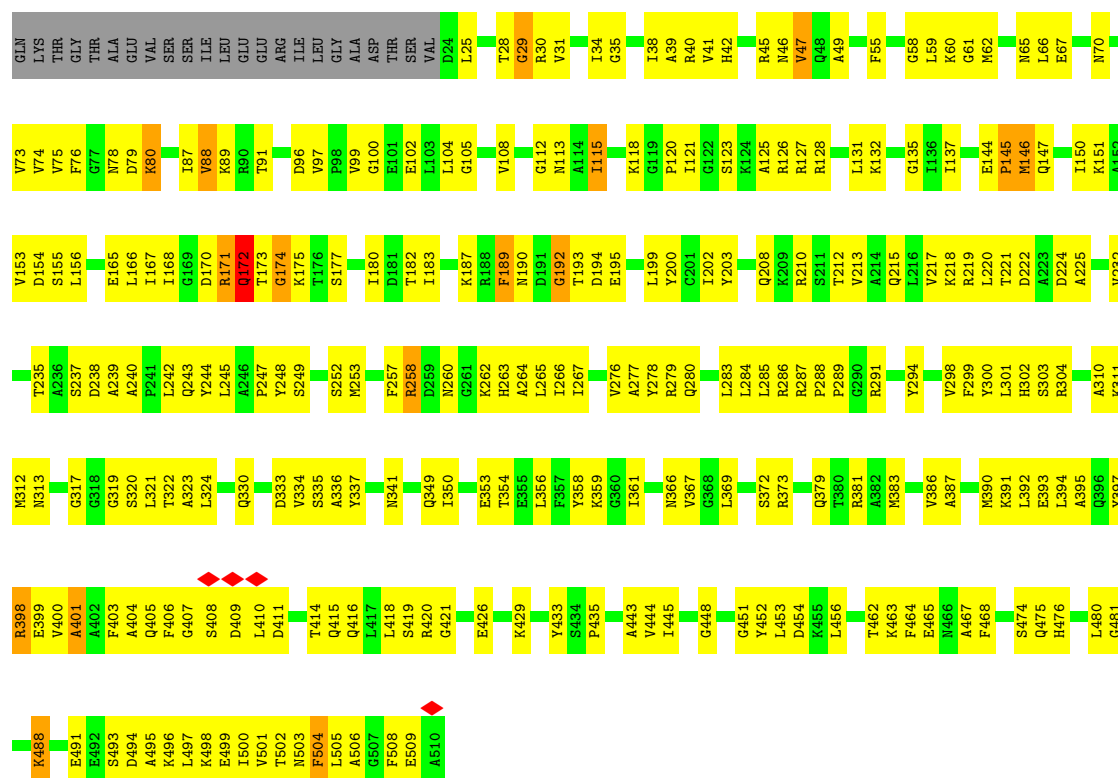
• Molecule 1: ATP SYNTHASE SUBUNIT ALPHA, MITOCHONDRIAL





• Molecule 1: ATP SYNTHASE SUBUNIT ALPHA, MITOCHONDRIAL

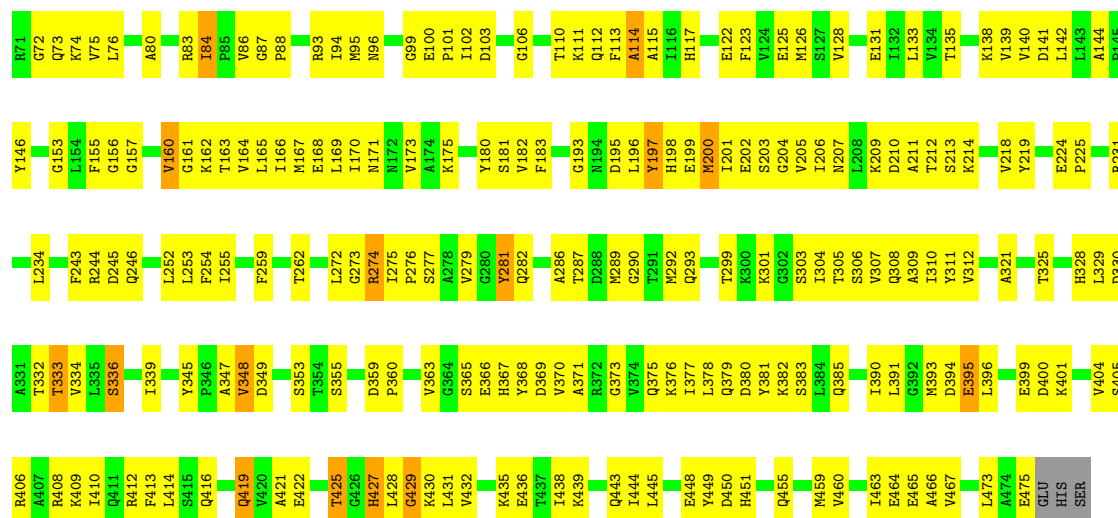
Chain C: 45% 47% 5%



• Molecule 2: ATP SYNTHASE SUBUNIT BETA, MITOCHONDRIAL

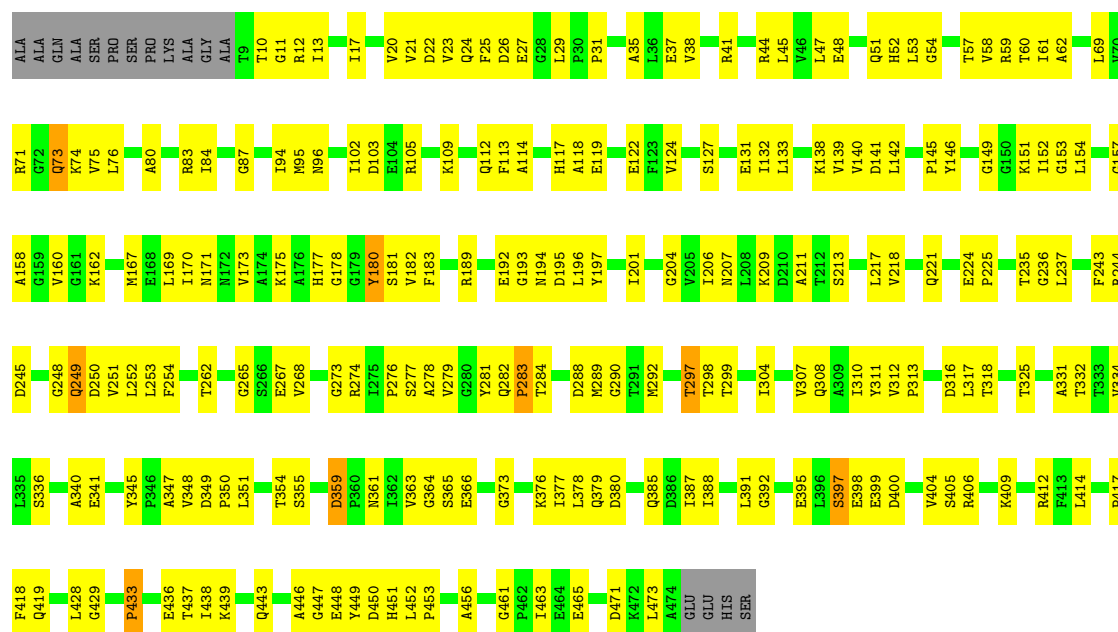
Chain D: 45% 48%





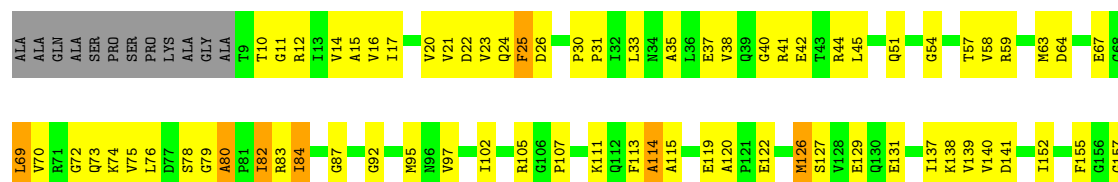
• Molecule 2: ATP SYNTHASE SUBUNIT BETA, MITOCHONDRIAL

Chain E: 51% 44%

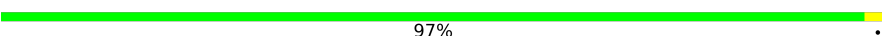


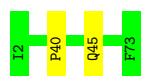
• Molecule 2: ATP SYNTHASE SUBUNIT BETA, MITOCHONDRIAL

Chain F: 46% 46%

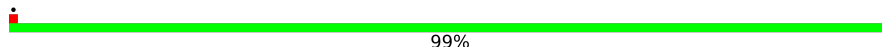


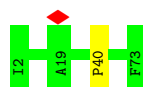
- Molecule 6: ATP SYNTHASE F(0) COMPLEX SUBUNIT C1, MITOCHONDRIAL

Chain J:  97%

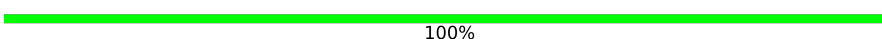


- Molecule 6: ATP SYNTHASE F(0) COMPLEX SUBUNIT C1, MITOCHONDRIAL

Chain K:  99%

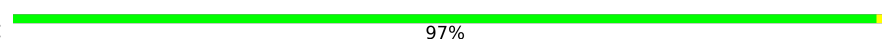


- Molecule 6: ATP SYNTHASE F(0) COMPLEX SUBUNIT C1, MITOCHONDRIAL

Chain L:  100%

There are no outlier residues recorded for this chain.

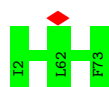
- Molecule 6: ATP SYNTHASE F(0) COMPLEX SUBUNIT C1, MITOCHONDRIAL

Chain M:  97%



- Molecule 6: ATP SYNTHASE F(0) COMPLEX SUBUNIT C1, MITOCHONDRIAL

Chain N:  100%

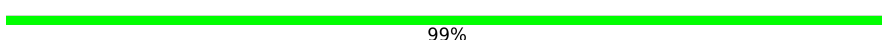


- Molecule 6: ATP SYNTHASE F(0) COMPLEX SUBUNIT C1, MITOCHONDRIAL

Chain O:  99%

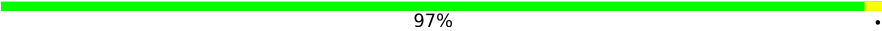


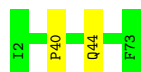
- Molecule 6: ATP SYNTHASE F(0) COMPLEX SUBUNIT C1, MITOCHONDRIAL

Chain P:  99%

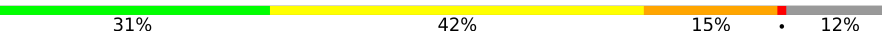


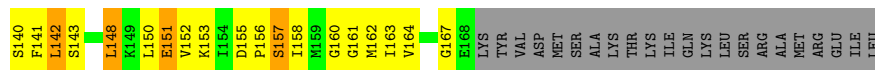
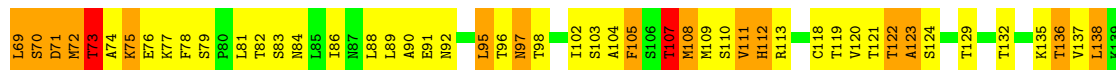
- Molecule 6: ATP SYNTHASE F(0) COMPLEX SUBUNIT C1, MITOCHONDRIAL

Chain Q:  97% .



• Molecule 7: ATP SYNTHASE SUBUNIT O, MITOCHONDRIAL

Chain S:  31% 42% 15% 12% .



• Molecule 8: ATP SYNTHASE F(0) COMPLEX SUBUNIT B1, MITOCHONDRIAL

Chain T:  80% 16% . .



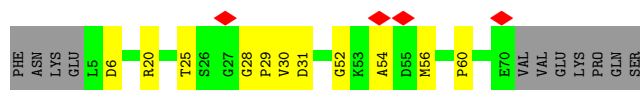
• Molecule 9: ATP SYNTHASE SUBUNIT D, MITOCHONDRIAL

Chain U:  5% 81% 13% . .



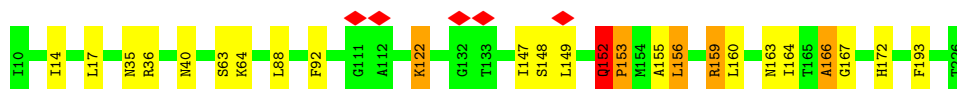
• Molecule 10: ATP SYNTHASE-COUPPLING FACTOR 6, MITOCHONDRIAL

Chain V:  5% 71% 14% 14%



• Molecule 11: ATP SYNTHASE SUBUNIT BETA, MITOCHONDRIAL

Chain W:  88% 9% .



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	18899	Depositor
Resolution determination method	Not provided	
CTF correction method	EACH PARTICLE	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	60.3	Depositor
Minimum defocus (nm)	1200	Depositor
Maximum defocus (nm)	4100	Depositor
Magnification	30487	Depositor
Image detector	GATAN K2 (4k x 4k)	Depositor
Maximum map value	0.443	Depositor
Minimum map value	-0.093	Depositor
Average map value	-0.000	Depositor
Map value standard deviation	0.022	Depositor
Recommended contour level	0.13	Depositor
Map size ($\text{\AA}$)	419.84, 419.84, 419.84	wwPDB
Map dimensions	256, 256, 256	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing ($\text{\AA}$)	1.64, 1.64, 1.64	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	A	3.05	211/2034 (10.4%)	2.51	159/2541 (6.3%)
1	B	3.16	237/1916 (12.4%)	2.56	142/2392 (5.9%)
1	C	3.07	212/1946 (10.9%)	2.52	151/2431 (6.2%)
2	D	3.14	226/1866 (12.1%)	2.61	135/2331 (5.8%)
2	E	2.90	166/1862 (8.9%)	2.58	146/2326 (6.3%)
2	F	3.16	217/1862 (11.7%)	2.54	132/2326 (5.7%)
3	G	3.39	147/1050 (14.0%)	2.63	92/1308 (7.0%)
4	H	3.67	102/522 (19.5%)	2.83	57/651 (8.8%)
5	I	3.32	20/186 (10.8%)	2.75	24/231 (10.4%)
6	J	0.51	0/287	1.01	0/357
6	K	0.50	0/287	0.99	0/357
6	L	0.52	0/287	0.98	0/357
6	M	0.49	0/287	1.04	0/357
6	N	0.50	0/287	0.99	0/357
6	O	0.51	0/287	1.01	0/357
6	P	0.49	0/287	1.00	0/357
6	Q	0.49	0/287	0.98	0/357
7	S	2.96	58/668 (8.7%)	2.96	81/834 (9.7%)
8	T	2.03	14/696 (2.0%)	2.36	29/867 (3.3%)
9	U	0.57	0/483	0.98	2/602 (0.3%)
10	V	1.08	0/263	1.91	7/327 (2.1%)
11	W	1.37	10/868 (1.2%)	1.77	14/1082 (1.3%)
All	All	2.77	1620/18518 (8.7%)	2.37	1171/23105 (5.1%)

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	A	0	1
1	B	0	2
2	D	0	2

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Mol	Chain	#Chirality outliers	#Planarity outliers
2	E	0	3
2	F	0	5
3	G	0	3
4	H	0	1
5	I	0	1
7	S	0	9
8	T	0	17
9	U	0	2
10	V	0	3
11	W	0	9
All	All	0	58

All (1620) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
8	T	96	ARG	CA-C	26.62	1.88	1.52
8	T	93	ASP	N-CA	23.76	1.76	1.45
3	G	261	GLU	CA-C	-12.85	1.35	1.52
3	G	252	ARG	CA-C	-12.26	1.37	1.52
7	S	72	MET	N-CA	11.58	1.60	1.46
2	F	366	GLU	CA-C	-11.53	1.38	1.52
2	F	11	GLY	CA-C	-11.51	1.42	1.52
2	E	12	ARG	CA-C	-11.41	1.38	1.52
2	F	246	GLN	CA-C	-11.36	1.38	1.52
2	D	153	GLY	CA-C	-10.99	1.44	1.52
1	A	97	VAL	CA-C	-10.68	1.41	1.52
2	E	74	LYS	CA-C	-10.48	1.40	1.52
2	D	12	ARG	CA-C	-10.46	1.39	1.52
7	S	72	MET	CA-C	10.33	1.66	1.52
1	B	175	LYS	CA-C	-10.30	1.39	1.52
2	F	12	ARG	CA-C	-10.23	1.39	1.52
4	H	128	ARG	CA-C	-10.16	1.40	1.52
1	B	62	MET	CA-C	-10.13	1.40	1.52
3	G	266	ILE	CA-C	-9.96	1.39	1.52
2	D	37	GLU	CA-C	-9.86	1.40	1.52
1	C	263	HIS	CA-C	-9.84	1.41	1.52
2	F	51	GLN	CA-C	-9.82	1.40	1.52
3	G	248	LEU	CA-C	-9.80	1.42	1.52
7	S	71	ASP	CA-C	9.78	1.65	1.52
4	H	28	PHE	CA-C	-9.75	1.40	1.52
2	F	23	VAL	CA-C	-9.73	1.41	1.52
3	G	204	TYR	CA-C	-9.57	1.40	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	89	LYS	CA-C	-9.54	1.41	1.52
4	H	84	VAL	CA-C	-9.52	1.40	1.52
2	D	51	GLN	CA-C	-9.52	1.41	1.52
2	F	244	ARG	CA-C	-9.52	1.40	1.52
2	E	250	ASP	CA-C	-9.51	1.40	1.52
3	G	15	ASN	CA-C	-9.46	1.41	1.52
5	I	13	ARG	CA-C	-9.45	1.40	1.52
5	I	15	SER	CA-C	-9.39	1.40	1.52
1	A	16	ILE	CA-C	-9.38	1.42	1.52
2	E	252	LEU	CA-C	-9.36	1.41	1.52
1	B	176	THR	N-CA	-9.34	1.35	1.46
3	G	163	ASN	CA-C	-9.32	1.41	1.52
3	G	128	PHE	CA-C	-9.28	1.41	1.52
2	D	421	ALA	CA-C	-9.28	1.43	1.53
2	F	410	ILE	CA-C	-9.27	1.41	1.52
1	C	172	GLN	CA-C	-9.25	1.40	1.52
2	D	57	THR	CA-C	-9.25	1.41	1.52
4	H	19	THR	CA-C	-9.20	1.41	1.52
5	I	2	ALA	CA-C	-9.19	1.40	1.52
1	A	337	TYR	CA-C	-9.16	1.41	1.52
4	H	94	ALA	CA-C	-9.16	1.41	1.52
3	G	5	ASP	CA-C	-9.12	1.40	1.52
2	D	58	VAL	N-CA	-9.07	1.35	1.46
7	S	35	VAL	CA-C	-9.07	1.43	1.52
2	F	369	ASP	CA-C	-9.05	1.41	1.52
1	C	70	ASN	CA-C	-9.03	1.41	1.52
7	S	86	ILE	CA-C	-9.03	1.42	1.52
2	F	12	ARG	N-CA	-9.02	1.34	1.46
2	D	58	VAL	CA-C	-9.01	1.42	1.52
2	D	308	GLN	CA-C	-8.99	1.42	1.52
1	A	172	GLN	CA-C	-8.98	1.40	1.52
4	H	56	GLN	CA-C	-8.98	1.41	1.52
4	H	129	ALA	CA-C	-8.97	1.41	1.52
2	F	84	ILE	CA-C	-8.95	1.42	1.52
2	F	380	ASP	CA-C	-8.93	1.41	1.52
4	H	111	ASN	CA-C	-8.91	1.41	1.52
1	B	172	GLN	CA-C	-8.90	1.41	1.53
1	A	302	HIS	CA-C	-8.90	1.40	1.52
1	B	212	THR	CA-C	-8.89	1.41	1.52
1	C	73	VAL	CA-C	-8.89	1.41	1.52
1	C	312	MET	CA-C	-8.86	1.40	1.53
7	S	84	ASN	CA-C	-8.85	1.40	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	175	LYS	CA-C	-8.84	1.41	1.52
2	E	57	THR	CA-C	-8.84	1.41	1.52
7	S	71	ASP	C-N	8.84	1.46	1.33
4	H	92	LEU	CA-C	-8.83	1.41	1.52
1	A	41	VAL	CA-C	-8.82	1.41	1.52
2	D	333	THR	CA-C	-8.80	1.42	1.52
2	E	152	ILE	CA-C	-8.80	1.42	1.52
2	F	254	PHE	CA-C	-8.72	1.42	1.52
2	F	275	ILE	N-CA	-8.71	1.39	1.46
2	E	350	PRO	CA-C	-8.69	1.44	1.52
2	D	122	GLU	CA-C	-8.66	1.41	1.53
3	G	11	LYS	CA-C	-8.64	1.41	1.52
1	C	65	ASN	CA-C	-8.61	1.42	1.52
5	I	14	TYR	CA-C	-8.60	1.41	1.52
4	H	29	ASN	CA-C	-8.58	1.43	1.53
1	B	245	LEU	CA-C	-8.53	1.41	1.52
1	A	312	MET	CA-C	-8.53	1.42	1.52
2	D	169	LEU	CA-C	-8.53	1.42	1.52
1	C	38	ILE	CA-C	-8.51	1.41	1.52
2	F	140	VAL	CA-C	-8.50	1.42	1.52
4	H	74	LYS	CA-C	-8.48	1.42	1.52
3	G	109	GLY	CA-C	-8.47	1.39	1.52
3	G	174	GLU	CA-C	-8.45	1.42	1.52
2	E	254	PHE	CA-C	-8.45	1.42	1.52
1	A	202	ILE	CA-C	-8.43	1.41	1.52
2	D	23	VAL	CA-C	-8.43	1.42	1.52
8	T	93	ASP	CA-C	-8.43	1.41	1.52
2	F	173	VAL	CA-C	-8.40	1.42	1.52
2	E	22	ASP	CA-C	-8.39	1.42	1.52
3	G	42	ARG	CA-C	-8.38	1.42	1.52
1	C	153	VAL	CA-C	-8.37	1.42	1.52
1	C	31	VAL	CA-C	-8.37	1.43	1.52
1	B	499	GLU	CA-C	-8.33	1.42	1.52
1	B	291	ARG	CA-C	-8.31	1.42	1.52
2	D	25	PHE	CA-C	-8.31	1.42	1.52
4	H	85	ASN	CA-C	-8.31	1.44	1.53
7	S	102	ILE	CA-C	-8.31	1.42	1.52
2	D	54	GLY	CA-C	-8.30	1.43	1.52
4	H	66	HIS	CA-C	-8.30	1.41	1.52
3	G	36	ARG	CA-C	-8.30	1.42	1.52
2	F	24	GLN	CA-C	-8.28	1.42	1.52
3	G	172	LYS	CA-C	-8.27	1.42	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	E	51	GLN	CA-C	-8.27	1.42	1.52
1	A	279	ARG	CA-C	-8.24	1.42	1.52
4	H	136	GLU	CA-C	-8.24	1.41	1.52
1	A	499	GLU	CA-C	-8.22	1.42	1.52
2	D	13	ILE	CA-C	-8.22	1.43	1.52
2	F	253	LEU	CA-C	-8.22	1.42	1.52
3	G	234	ASN	CA-C	-8.21	1.42	1.52
2	E	25	PHE	CA-C	-8.18	1.43	1.52
2	F	255	ILE	CA-C	-8.18	1.42	1.52
3	G	214	TYR	N-CA	-8.17	1.36	1.46
2	F	196	LEU	CA-C	-8.11	1.42	1.52
2	F	372	ARG	CA-C	-8.11	1.41	1.52
3	G	213	ILE	CA-C	-8.11	1.42	1.52
2	D	21	VAL	CA-C	-8.09	1.42	1.52
1	B	501	VAL	CA-C	-8.09	1.43	1.52
4	H	19	THR	N-CA	-8.09	1.36	1.46
1	A	153	VAL	CA-C	-8.08	1.43	1.52
1	A	382	ALA	CA-C	-8.06	1.42	1.52
1	A	27	GLU	CA-C	-8.06	1.42	1.52
1	A	70	ASN	CA-C	-8.05	1.43	1.52
5	I	16	GLN	CA-C	-8.05	1.41	1.52
1	C	262	LYS	CA-C	-8.04	1.41	1.53
3	G	251	ASN	CA-C	-8.01	1.42	1.52
2	F	245	ASP	CA-C	-7.99	1.42	1.53
1	C	171	ARG	CA-C	-7.98	1.42	1.52
3	G	255	GLN	CA-C	-7.96	1.42	1.52
1	A	217	VAL	CA-C	-7.95	1.42	1.52
1	C	97	VAL	CA-C	-7.95	1.44	1.52
2	F	409	LYS	CA-C	-7.95	1.42	1.52
1	C	257	PHE	CA-C	-7.95	1.42	1.52
1	B	43	GLY	CA-C	-7.94	1.43	1.52
1	B	97	VAL	CA-C	-7.94	1.44	1.52
2	D	334	VAL	CA-C	-7.93	1.42	1.52
1	A	464	PHE	CA-C	-7.92	1.42	1.52
3	G	172	LYS	N-CA	-7.92	1.36	1.46
1	A	501	VAL	CA-C	-7.91	1.43	1.52
1	A	283	LEU	CA-C	-7.90	1.42	1.52
2	F	189	ARG	CA-C	-7.90	1.43	1.52
2	D	234	LEU	CA-C	-7.89	1.42	1.52
2	F	365	SER	CA-C	-7.89	1.41	1.52
1	B	349	GLN	CA-C	-7.88	1.42	1.52
2	F	74	LYS	CA-C	-7.86	1.42	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	D	173	VAL	CA-C	-7.83	1.42	1.52
3	G	51	LEU	CA-C	-7.81	1.42	1.52
1	B	70	ASN	CA-C	-7.80	1.43	1.52
4	H	35	GLN	CA-C	-7.80	1.43	1.52
7	S	44	GLN	CA-C	-7.76	1.42	1.52
1	A	87	ILE	CA-C	-7.76	1.43	1.52
4	H	40	THR	CA-C	-7.76	1.42	1.52
1	A	299	PHE	CA-C	-7.75	1.43	1.52
2	E	245	ASP	CA-C	-7.75	1.42	1.52
1	A	40	ARG	CA-C	-7.75	1.43	1.52
1	C	500	ILE	CA-C	-7.74	1.43	1.52
1	B	153	VAL	CA-C	-7.74	1.43	1.52
1	C	40	ARG	CA-C	-7.74	1.43	1.52
2	D	167	MET	CA-C	-7.74	1.42	1.52
1	A	203	TYR	CA-C	-7.72	1.43	1.52
1	B	339	PRO	CA-C	-7.72	1.40	1.52
3	G	14	LYS	CA-C	-7.72	1.42	1.52
1	B	30	ARG	CA-C	-7.72	1.43	1.52
2	E	60	THR	CA-C	-7.71	1.43	1.52
1	C	283	LEU	CA-C	-7.71	1.42	1.52
1	B	460	LYS	CA-C	-7.70	1.41	1.52
1	C	30	ARG	CA-C	-7.70	1.43	1.52
8	T	24	THR	N-CA	-7.68	1.37	1.46
1	B	420	ARG	CA-C	-7.68	1.42	1.52
1	C	497	LEU	CA-C	-7.67	1.43	1.52
2	D	28	GLY	CA-C	-7.67	1.45	1.52
1	C	464	PHE	CA-C	-7.67	1.43	1.52
4	H	91	GLN	CA-C	-7.66	1.43	1.52
1	B	503	ASN	CA-C	-7.66	1.43	1.52
2	F	76	LEU	CA-C	-7.66	1.43	1.52
1	A	67	GLU	C-N	-7.65	1.26	1.34
2	E	58	VAL	CA-C	-7.65	1.43	1.52
2	D	244	ARG	CA-C	-7.65	1.43	1.52
1	A	277	ALA	CA-C	-7.64	1.43	1.52
3	G	249	THR	CA-C	-7.63	1.42	1.52
2	F	308	GLN	CA-C	-7.62	1.43	1.52
2	E	290	GLY	CA-C	-7.61	1.43	1.52
7	S	83	SER	CA-C	-7.61	1.42	1.52
1	A	30	ARG	CA-C	-7.61	1.43	1.52
4	H	138	ASN	CA-C	-7.61	1.42	1.52
3	G	164	ARG	CA-C	-7.59	1.43	1.52
2	D	292	MET	CA-C	-7.58	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	202	ILE	CA-C	-7.58	1.42	1.52
2	F	58	VAL	CA-C	-7.57	1.43	1.52
1	B	421	GLY	CA-C	-7.57	1.43	1.52
2	F	25	PHE	CA-C	-7.56	1.43	1.52
2	D	376	LYS	N-CA	-7.56	1.37	1.46
2	E	122	GLU	CA-C	-7.55	1.43	1.52
1	A	263	HIS	CA-C	-7.55	1.43	1.52
3	G	18	LYS	CA-C	-7.55	1.43	1.52
2	E	112	GLN	CA-C	-7.55	1.43	1.52
1	B	464	PHE	CA-C	-7.55	1.43	1.52
3	G	218	LYS	CA-C	-7.55	1.42	1.52
1	C	279	ARG	CA-C	-7.54	1.43	1.52
1	B	356	LEU	CA-C	-7.54	1.43	1.52
2	E	365	SER	CA-C	-7.54	1.42	1.52
2	D	253	LEU	CA-C	-7.53	1.43	1.52
4	H	71	THR	CA-C	-7.53	1.43	1.52
1	B	299	PHE	CA-C	-7.53	1.43	1.52
1	A	151	LYS	CA-C	-7.52	1.43	1.52
3	G	175	GLU	N-CA	-7.51	1.36	1.45
2	F	80	ALA	CA-C	-7.51	1.43	1.52
2	D	378	LEU	CA-C	-7.51	1.43	1.52
2	E	140	VAL	CA-C	-7.51	1.44	1.52
2	D	449	TYR	CA-C	-7.50	1.43	1.52
1	A	468	PHE	CA-C	-7.49	1.43	1.52
2	D	60	THR	CA-C	-7.49	1.43	1.52
3	G	252	ARG	N-CA	-7.48	1.37	1.46
1	C	391	LYS	CA-C	-7.48	1.43	1.52
2	D	39	GLN	CA-C	-7.46	1.43	1.52
2	F	373	GLY	CA-C	-7.46	1.44	1.52
1	A	42	HIS	N-CA	-7.46	1.36	1.46
3	G	208	SER	CA-C	-7.45	1.42	1.52
1	A	299	PHE	N-CA	-7.45	1.37	1.46
2	F	312	VAL	CA-C	-7.44	1.47	1.53
2	D	17	ILE	CA-C	-7.44	1.43	1.52
2	D	162	LYS	CA-C	-7.44	1.43	1.52
3	G	229	MET	CA-C	-7.44	1.43	1.52
3	G	16	ILE	N-CA	-7.44	1.38	1.46
1	B	87	ILE	CA-C	-7.44	1.44	1.52
3	G	270	ALA	CA-C	-7.43	1.42	1.52
2	F	57	THR	CA-C	-7.43	1.43	1.52
2	F	95	MET	CA-C	-7.42	1.43	1.52
2	D	182	VAL	CA-C	-7.42	1.43	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	G	126	VAL	CA-C	-7.42	1.45	1.52
1	A	147	GLN	CA-C	-7.41	1.43	1.52
2	D	329	LEU	CA-C	-7.41	1.43	1.52
2	F	375	GLN	CA-C	-7.41	1.43	1.52
7	S	23	TYR	CA-C	-7.40	1.42	1.52
3	G	267	SER	CA-C	-7.40	1.42	1.52
2	E	71	ARG	CA-C	-7.40	1.43	1.53
1	A	212	THR	CA-C	-7.40	1.43	1.52
2	E	244	ARG	CA-C	-7.39	1.44	1.53
2	E	117	HIS	CA-C	-7.39	1.44	1.52
7	S	69	LEU	CA-C	-7.39	1.45	1.52
1	B	127	ARG	CA-C	-7.38	1.43	1.52
2	D	459	MET	CA-C	-7.38	1.44	1.53
1	A	63	SER	CA-C	-7.38	1.43	1.52
1	B	337	TYR	CA-C	-7.38	1.43	1.52
1	B	193	THR	CA-C	-7.38	1.45	1.53
2	D	95	MET	CA-C	-7.38	1.43	1.52
2	E	153	GLY	CA-C	-7.38	1.45	1.51
1	B	498	LYS	CA-C	-7.37	1.42	1.52
1	C	481	GLY	CA-C	-7.37	1.43	1.51
2	F	268	VAL	CA-C	-7.36	1.42	1.52
1	C	41	VAL	CA-C	-7.35	1.43	1.52
4	H	115	ALA	CA-C	-7.35	1.43	1.52
2	E	23	VAL	CA-C	-7.35	1.43	1.52
1	C	242	LEU	CA-C	-7.34	1.43	1.52
1	B	89	LYS	CA-C	-7.34	1.43	1.52
2	F	75	VAL	CA-C	-7.34	1.43	1.52
3	G	254	ARG	N-CA	-7.34	1.37	1.46
1	C	421	GLY	CA-C	-7.33	1.44	1.52
2	F	21	VAL	CA-C	-7.33	1.43	1.52
1	C	151	LYS	CA-C	-7.33	1.43	1.52
2	F	370	VAL	CA-C	-7.33	1.43	1.52
2	E	59	ARG	CA-C	-7.32	1.44	1.52
1	A	65	ASN	CA-C	-7.32	1.43	1.52
1	B	322	THR	CA-C	-7.32	1.43	1.52
1	C	203	TYR	N-CA	-7.32	1.37	1.46
2	D	301	LYS	CA-C	-7.32	1.45	1.53
3	G	16	ILE	CA-C	-7.31	1.43	1.52
1	A	108	VAL	CA-C	-7.31	1.44	1.52
2	D	74	LYS	CA-C	-7.31	1.43	1.52
5	I	20	LYS	CA-C	-7.30	1.43	1.52
1	A	97	VAL	N-CA	-7.29	1.40	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	311	LYS	CA-C	-7.29	1.44	1.52
1	C	189	PHE	CA-C	-7.28	1.42	1.52
2	D	412	ARG	CA-C	-7.28	1.42	1.52
2	F	407	ALA	CA-C	-7.27	1.43	1.52
1	C	146	MET	CA-C	-7.27	1.43	1.52
2	F	292	MET	CA-C	-7.27	1.43	1.53
2	F	183	PHE	N-CA	-7.26	1.37	1.46
4	H	131	ILE	CA-C	-7.26	1.44	1.52
2	D	365	SER	CA-C	-7.26	1.42	1.52
11	W	152	GLN	N-CA	-7.26	1.35	1.46
2	D	163	THR	N-CA	-7.25	1.37	1.46
1	C	67	GLU	C-N	-7.25	1.27	1.34
3	G	127	THR	CA-C	-7.24	1.43	1.52
2	E	206	ILE	CA-C	-7.24	1.45	1.52
2	D	20	VAL	CA-C	-7.24	1.43	1.52
1	A	323	ALA	CA-C	-7.24	1.44	1.52
1	A	59	LEU	CA-C	-7.22	1.43	1.52
5	I	5	ARG	CA-C	-7.22	1.43	1.52
1	A	33	SER	CA-C	-7.21	1.43	1.52
1	A	176	THR	N-CA	-7.21	1.37	1.46
1	B	465	GLU	CA-C	-7.20	1.43	1.52
2	F	162	LYS	CA-C	-7.20	1.43	1.52
2	F	218	VAL	CA-C	-7.20	1.43	1.52
1	A	505	LEU	CA-C	-7.19	1.43	1.52
2	E	11	GLY	CA-C	-7.19	1.46	1.52
1	C	200	TYR	CA-C	-7.18	1.43	1.52
1	A	203	TYR	N-CA	-7.18	1.37	1.46
1	A	248	TYR	CA-C	-7.17	1.43	1.52
1	B	286	ARG	CA-C	-7.17	1.43	1.52
2	D	449	TYR	N-CA	-7.17	1.37	1.46
7	S	129	THR	CA-C	-7.17	1.43	1.52
1	C	55	PHE	CA-C	-7.16	1.42	1.53
2	E	75	VAL	CA-C	-7.15	1.44	1.52
1	B	86	ASP	CA-C	-7.14	1.43	1.52
1	C	248	TYR	CA-C	-7.14	1.43	1.52
1	A	497	LEU	CA-C	-7.13	1.43	1.52
1	C	503	ASN	CA-C	-7.13	1.43	1.52
2	E	336	SER	CA-C	-7.13	1.44	1.52
2	F	41	ARG	CA-C	-7.13	1.43	1.52
4	H	55	LEU	CA-C	-7.13	1.43	1.52
1	B	156	LEU	CA-C	-7.12	1.43	1.52
2	D	254	PHE	CA-C	-7.12	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	496	LYS	CA-C	-7.12	1.43	1.52
7	S	158	ILE	CA-C	-7.12	1.44	1.52
2	D	61	ILE	CA-C	-7.11	1.43	1.52
1	A	395	ALA	CA-C	-7.09	1.43	1.52
1	B	430	GLN	CA-C	-7.09	1.43	1.52
3	G	39	LYS	N-CA	-7.08	1.41	1.46
1	B	312	MET	CA-C	-7.07	1.43	1.52
2	D	312	VAL	N-CA	-7.07	1.41	1.46
1	A	280	GLN	CA-C	-7.07	1.43	1.52
1	C	62	MET	CA-C	-7.07	1.43	1.52
1	C	70	ASN	N-CA	-7.07	1.37	1.46
1	A	62	MET	CA-C	-7.07	1.44	1.52
1	C	494	ASP	CA-C	-7.07	1.43	1.52
1	B	396	GLN	CA-C	-7.06	1.43	1.52
4	H	75	TYR	CA-C	-7.06	1.43	1.52
1	C	324	LEU	CA-C	-7.05	1.45	1.52
1	C	167	ILE	CA-C	-7.05	1.43	1.52
1	C	320	SER	CA-C	-7.05	1.43	1.52
3	G	243	ILE	CA-C	-7.05	1.44	1.52
2	E	308	GLN	CA-C	-7.04	1.44	1.52
1	A	480	LEU	CA-C	-7.04	1.43	1.52
1	B	41	VAL	CA-C	-7.03	1.44	1.52
2	F	131	GLU	CA-C	-7.03	1.43	1.52
2	E	83	ARG	CA-C	-7.03	1.44	1.52
8	T	104	GLU	C-N	-7.03	1.25	1.33
8	T	92	PHE	CA-C	7.03	1.62	1.52
7	S	38	GLU	CA-C	-7.02	1.43	1.52
2	E	61	ILE	CA-C	-7.02	1.44	1.52
2	D	289	MET	CA-C	-7.01	1.43	1.52
1	C	75	VAL	CA-C	-7.01	1.44	1.52
2	D	45	LEU	CA-C	-7.01	1.43	1.53
3	G	53	GLU	CA-C	-7.01	1.44	1.53
1	C	299	PHE	CA-C	-7.00	1.43	1.52
1	A	322	THR	CA-C	-7.00	1.44	1.52
1	C	88	VAL	CA-C	-6.99	1.44	1.52
2	F	378	LEU	CA-C	-6.99	1.43	1.52
2	F	385	GLN	CA-C	-6.98	1.43	1.52
2	F	362	ILE	CA-C	-6.97	1.43	1.52
2	F	59	ARG	CA-C	-6.97	1.44	1.52
1	B	216	LEU	CA-C	-6.97	1.44	1.52
1	B	299	PHE	N-CA	-6.97	1.38	1.46
2	D	183	PHE	N-CA	-6.97	1.37	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	D	436	GLU	CA-C	-6.97	1.43	1.52
11	W	166	ALA	N-CA	-6.97	1.37	1.46
1	B	248	TYR	CA-C	-6.96	1.43	1.52
1	B	500	ILE	CA-C	-6.96	1.44	1.52
1	C	39	ALA	CA-C	-6.96	1.44	1.52
4	H	77	VAL	CA-C	-6.96	1.44	1.52
4	H	54	THR	CA-C	-6.95	1.43	1.52
2	F	405	SER	CA-C	-6.95	1.43	1.52
1	A	171	ARG	CA-C	-6.94	1.43	1.52
2	D	380	ASP	CA-C	-6.94	1.43	1.52
2	F	304	ILE	CA-C	-6.93	1.43	1.52
2	D	370	VAL	CA-C	-6.92	1.43	1.52
1	B	166	LEU	CA-C	-6.92	1.44	1.52
1	A	276	VAL	CA-C	-6.92	1.44	1.52
1	B	40	ARG	CA-C	-6.92	1.44	1.52
2	F	429	GLY	CA-C	-6.92	1.43	1.52
8	T	77	MET	N-CA	-6.92	1.37	1.46
1	B	202	ILE	CA-C	-6.91	1.43	1.52
1	B	229	THR	CA-C	-6.91	1.44	1.52
1	C	42	HIS	N-CA	-6.91	1.37	1.46
2	D	59	ARG	CA-C	-6.90	1.44	1.52
3	G	238	ASN	CA-C	-6.90	1.44	1.52
2	F	255	ILE	N-CA	-6.89	1.38	1.46
1	A	390	MET	CA-C	-6.89	1.44	1.52
1	B	463	LYS	CA-C	-6.89	1.44	1.52
4	H	65	VAL	CA-C	-6.88	1.44	1.52
1	B	313	ASN	CA-C	-6.88	1.44	1.53
1	B	429	LYS	CA-C	-6.88	1.44	1.53
4	H	59	ARG	CA-C	-6.88	1.44	1.52
1	A	221	THR	CA-C	-6.87	1.43	1.52
1	B	461	ILE	CA-C	-6.87	1.44	1.52
4	H	20	PHE	N-CA	-6.87	1.38	1.46
1	A	278	TYR	CA-C	-6.87	1.43	1.52
3	G	212	ILE	CA-C	-6.87	1.43	1.52
2	F	114	ALA	CA-C	-6.86	1.44	1.52
4	H	112	LEU	N-CA	-6.86	1.38	1.46
2	E	196	LEU	CA-C	-6.86	1.44	1.52
1	A	314	ASP	CA-C	-6.85	1.43	1.52
3	G	230	THR	CA-C	-6.85	1.44	1.52
4	H	93	LEU	N-CA	-6.85	1.38	1.46
1	C	199	LEU	CA-C	-6.85	1.44	1.52
4	H	139	GLU	CA-C	-6.85	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	H	83	THR	CA-C	-6.84	1.44	1.52
4	H	127	THR	CA-C	-6.84	1.43	1.52
4	H	132	GLN	N-CA	-6.84	1.38	1.46
2	E	281	TYR	CA-C	-6.84	1.44	1.52
1	B	330	GLN	CA-C	-6.84	1.44	1.53
1	A	38	ILE	CA-C	-6.83	1.43	1.52
2	F	364	GLY	CA-C	-6.83	1.42	1.51
1	A	156	LEU	CA-C	-6.83	1.43	1.52
1	B	326	VAL	N-CA	-6.82	1.38	1.46
2	D	11	GLY	CA-C	-6.82	1.46	1.52
1	B	338	ILE	CA-C	-6.82	1.46	1.52
1	B	465	GLU	N-CA	-6.82	1.38	1.46
1	B	76	PHE	CA-C	-6.81	1.45	1.53
1	B	217	VAL	CA-C	-6.81	1.44	1.52
5	I	19	ALA	CA-C	-6.81	1.44	1.52
5	I	16	GLN	N-CA	-6.81	1.37	1.46
2	F	263	GLN	N-CA	-6.80	1.38	1.46
2	F	449	TYR	CA-C	-6.80	1.44	1.52
3	G	78	CYS	CA-C	-6.80	1.45	1.53
2	F	113	PHE	CA-C	-6.79	1.44	1.52
1	A	86	ASP	CA-C	-6.78	1.44	1.52
2	D	197	TYR	CA-C	-6.78	1.43	1.52
3	G	161	ILE	CA-C	-6.78	1.44	1.52
1	B	132	LYS	CA-C	-6.78	1.44	1.52
2	D	196	LEU	CA-C	-6.77	1.44	1.52
2	F	325	THR	CA-C	-6.77	1.44	1.52
1	C	302	HIS	CA-C	-6.76	1.43	1.52
2	F	165	LEU	CA-C	-6.76	1.44	1.52
2	D	170	ILE	CA-C	-6.75	1.44	1.52
2	F	376	LYS	CA-C	-6.75	1.44	1.52
3	G	269	ALA	CA-C	-6.75	1.43	1.52
2	F	141	ASP	CA-C	-6.74	1.44	1.52
4	H	129	ALA	N-CA	-6.74	1.38	1.46
1	A	42	HIS	CA-C	-6.74	1.44	1.52
4	H	39	PRO	CA-C	-6.74	1.47	1.53
2	D	47	LEU	CA-C	-6.73	1.44	1.52
2	F	345	TYR	N-CA	-6.72	1.40	1.46
2	D	383	SER	CA-C	-6.72	1.44	1.52
2	F	408	ARG	N-CA	-6.71	1.38	1.46
5	I	18	CYS	CA-C	-6.71	1.44	1.52
2	E	94	ILE	CA-C	-6.71	1.44	1.52
4	H	46	GLY	CA-C	-6.71	1.42	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	D	70	VAL	CA-C	-6.70	1.44	1.52
2	F	438	ILE	CA-C	-6.70	1.44	1.52
1	B	28	THR	CA-C	-6.70	1.44	1.52
5	I	23	ARG	CA-C	-6.69	1.44	1.52
2	E	404	VAL	CA-C	-6.69	1.44	1.52
2	D	382	LYS	CA-C	-6.68	1.44	1.52
1	C	39	ALA	N-CA	-6.68	1.38	1.46
2	E	76	LEU	CA-C	-6.68	1.44	1.52
1	C	405	GLN	CA-C	-6.67	1.45	1.53
3	G	257	VAL	CA-C	-6.67	1.44	1.52
1	B	326	VAL	CA-C	-6.67	1.44	1.52
1	B	504	PHE	CA-C	-6.67	1.44	1.52
1	B	88	VAL	CA-C	-6.67	1.44	1.52
1	B	198	LYS	CA-C	-6.66	1.45	1.53
1	B	126	ARG	CA-C	-6.66	1.44	1.52
4	H	25	GLN	CA-C	-6.66	1.44	1.52
1	C	96	ASP	CA-C	-6.66	1.44	1.52
2	F	17	ILE	CA-C	-6.66	1.44	1.52
2	F	20	VAL	CA-C	-6.65	1.44	1.52
3	G	244	ASP	CA-C	-6.65	1.43	1.52
1	B	74	VAL	CA-C	-6.65	1.45	1.52
4	H	72	THR	CA-C	-6.65	1.44	1.52
1	B	155	SER	CA-C	-6.65	1.44	1.53
1	C	187	LYS	CA-C	-6.65	1.44	1.52
2	D	38	VAL	CA-C	-6.64	1.45	1.52
1	A	31	VAL	CA-C	-6.64	1.45	1.52
1	A	301	LEU	CA-C	-6.64	1.44	1.52
1	C	303	SER	CA-C	-6.64	1.44	1.52
4	H	73	SER	CA-C	-6.64	1.44	1.52
2	E	195	ASP	CA-C	-6.63	1.44	1.52
2	F	115	ALA	CA-C	-6.63	1.44	1.52
1	C	166	LEU	CA-C	-6.63	1.44	1.52
2	E	157	GLY	CA-C	-6.63	1.47	1.52
4	H	37	ASP	CA-C	-6.63	1.44	1.52
1	A	39	ALA	CA-C	-6.62	1.44	1.52
1	A	150	ILE	CA-C	-6.62	1.44	1.52
1	A	356	LEU	CA-C	-6.62	1.44	1.52
3	G	110	ASP	N-CA	-6.62	1.39	1.46
1	C	182	THR	CA-C	-6.62	1.44	1.52
8	T	106	THR	N-CA	-6.62	1.38	1.46
2	F	137	ILE	CA-C	-6.61	1.44	1.52
2	E	183	PHE	N-CA	-6.61	1.38	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	E	194	ASN	CA-C	-6.61	1.44	1.52
2	D	24	GLN	CA-C	-6.60	1.44	1.52
1	C	266	ILE	CA-C	-6.60	1.44	1.52
2	F	58	VAL	N-CA	-6.60	1.38	1.46
1	B	469	LEU	CA-C	-6.60	1.44	1.52
1	C	403	PHE	CA-C	-6.60	1.44	1.52
1	C	165	GLU	CA-C	-6.58	1.44	1.52
1	A	498	LYS	CA-C	-6.58	1.43	1.52
3	G	174	GLU	N-CA	-6.58	1.37	1.45
2	F	274	ARG	CA-C	-6.57	1.44	1.53
2	F	382	LYS	CA-C	-6.57	1.43	1.52
1	B	33	SER	CA-C	-6.57	1.44	1.52
1	B	27	GLU	CA-C	-6.57	1.44	1.52
2	F	244	ARG	N-CA	-6.57	1.38	1.46
2	E	20	VAL	CA-C	-6.56	1.44	1.52
1	B	260	ASN	CA-C	-6.55	1.45	1.53
2	F	22	ASP	CA-C	-6.55	1.44	1.52
1	A	460	LYS	CA-C	-6.55	1.43	1.52
4	H	139	GLU	N-CA	-6.55	1.38	1.46
1	C	60	LYS	CA-C	-6.55	1.44	1.52
2	E	217	LEU	CA-C	-6.54	1.45	1.52
3	G	259	THR	CA-C	-6.54	1.44	1.52
1	B	218	LYS	CA-C	-6.54	1.44	1.52
2	D	286	ALA	CA-C	-6.54	1.44	1.52
2	E	443	GLN	CA-C	-6.53	1.44	1.52
3	G	154	GLU	CA-C	-6.53	1.44	1.52
1	B	362	ARG	N-CA	-6.53	1.40	1.46
2	E	24	GLN	CA-C	-6.53	1.44	1.52
1	A	366	ASN	CA-C	-6.53	1.44	1.52
3	G	221	THR	CA-C	-6.52	1.44	1.52
1	A	26	GLU	CA-C	-6.52	1.44	1.52
1	B	242	LEU	CA-C	-6.52	1.44	1.52
4	H	113	GLU	CA-C	-6.52	1.44	1.52
1	B	463	LYS	N-CA	-6.52	1.38	1.46
1	A	351	PHE	CA-C	-6.52	1.44	1.52
1	C	123	SER	CA-C	-6.52	1.46	1.53
2	D	366	GLU	CA-C	-6.52	1.44	1.52
3	G	248	LEU	N-CA	-6.50	1.38	1.46
2	D	113	PHE	CA-C	-6.50	1.44	1.52
1	B	203	TYR	CA-C	-6.50	1.44	1.52
2	F	430	LYS	CA-C	-6.50	1.44	1.52
3	G	162	PHE	CA-C	-6.50	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	321	LEU	N-CA	-6.50	1.38	1.46
1	C	415	GLN	CA-C	-6.50	1.44	1.52
2	D	252	LEU	CA-C	-6.49	1.44	1.52
1	B	390	MET	CA-C	-6.49	1.44	1.52
1	B	467	ALA	CA-C	-6.49	1.44	1.52
2	E	180	TYR	CA-C	-6.49	1.44	1.52
2	F	217	LEU	CA-C	-6.49	1.44	1.52
1	B	394	LEU	CA-C	-6.48	1.44	1.52
1	B	497	LEU	CA-C	-6.48	1.44	1.52
2	E	58	VAL	N-CA	-6.47	1.38	1.46
1	B	244	TYR	N-CA	-6.47	1.38	1.46
2	F	376	LYS	N-CA	-6.47	1.38	1.46
1	A	89	LYS	CA-C	-6.47	1.44	1.52
2	D	246	GLN	CA-C	-6.47	1.44	1.52
1	C	126	ARG	CA-C	-6.47	1.44	1.52
1	A	354	THR	CA-C	-6.47	1.44	1.52
1	B	173	THR	CA-C	-6.46	1.43	1.52
3	G	149	LEU	CA-C	-6.46	1.44	1.52
2	E	400	ASP	N-CA	-6.46	1.38	1.46
1	B	327	ILE	CA-C	-6.45	1.44	1.52
1	B	432	GLN	CA-C	-6.45	1.44	1.52
2	F	259	PHE	N-CA	-6.45	1.38	1.46
4	H	53	PRO	CA-C	-6.44	1.44	1.52
3	G	245	LYS	CA-C	-6.44	1.44	1.52
2	F	254	PHE	N-CA	-6.43	1.38	1.46
3	G	105	ILE	N-CA	-6.43	1.38	1.46
1	C	217	VAL	CA-C	-6.43	1.45	1.52
1	C	278	TYR	CA-C	-6.43	1.44	1.52
4	H	62	LEU	CA-C	-6.43	1.45	1.52
1	B	263	HIS	CA-C	-6.42	1.45	1.52
1	B	266	ILE	CA-C	-6.42	1.45	1.52
1	C	220	LEU	CA-C	-6.42	1.44	1.52
1	C	323	ALA	CA-C	-6.42	1.45	1.52
2	F	11	GLY	N-CA	-6.41	1.38	1.44
2	F	261	PHE	N-CA	-6.41	1.38	1.46
2	D	339	ILE	CA-C	-6.41	1.44	1.52
1	A	356	LEU	N-CA	-6.41	1.38	1.46
2	E	17	ILE	CA-C	-6.41	1.44	1.52
2	D	22	ASP	CA-C	-6.40	1.44	1.52
1	C	418	LEU	CA-C	-6.40	1.44	1.52
4	H	22	SER	N-CA	-6.40	1.41	1.46
3	G	209	LEU	N-CA	-6.40	1.38	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	S	143	SER	CA-C	-6.40	1.44	1.52
2	D	200	MET	CA-C	-6.39	1.44	1.52
1	A	275	ALA	CA-C	-6.39	1.44	1.52
1	B	476	HIS	CA-C	-6.39	1.44	1.52
1	C	498	LYS	CA-C	-6.39	1.44	1.52
2	F	201	ILE	CA-C	-6.38	1.45	1.52
2	D	140	VAL	CA-C	-6.38	1.45	1.52
1	B	38	ILE	CA-C	-6.38	1.44	1.52
1	C	358	TYR	CA-C	-6.38	1.44	1.52
1	A	201	CYS	CA-C	-6.38	1.44	1.52
1	B	220	LEU	CA-C	-6.38	1.44	1.52
3	G	156	ASP	CA-C	-6.38	1.45	1.52
1	A	392	LEU	N-CA	-6.38	1.38	1.46
2	F	381	TYR	CA-C	-6.38	1.44	1.52
2	D	289	MET	N-CA	-6.37	1.38	1.46
2	F	384	LEU	N-CA	-6.37	1.37	1.46
1	A	245	LEU	CA-C	-6.37	1.44	1.52
2	D	117	HIS	CA-C	-6.37	1.44	1.52
2	E	95	MET	CA-C	-6.37	1.45	1.52
2	D	355	SER	CA-C	-6.37	1.44	1.52
4	H	51	HIS	CA-C	-6.37	1.44	1.52
1	C	208	GLN	CA-C	-6.36	1.44	1.52
4	H	74	LYS	N-CA	-6.36	1.38	1.45
1	C	350	ILE	CA-C	-6.36	1.45	1.52
2	D	363	VAL	CA-C	-6.36	1.44	1.52
2	E	334	VAL	CA-C	-6.36	1.44	1.52
1	B	213	VAL	N-CA	-6.36	1.39	1.46
2	E	169	LEU	CA-C	-6.36	1.44	1.52
1	B	473	ILE	CA-C	-6.35	1.45	1.52
1	C	406	PHE	CA-C	-6.35	1.44	1.52
1	B	343	ILE	CA-C	-6.35	1.45	1.52
2	F	367	HIS	CA-C	-6.35	1.44	1.52
2	E	181	SER	CA-C	-6.34	1.44	1.52
2	F	216	ALA	CA-C	-6.34	1.44	1.52
3	G	129	LYS	CA-C	-6.34	1.44	1.52
1	C	420	ARG	CA-C	-6.33	1.44	1.52
2	D	24	GLN	N-CA	-6.33	1.38	1.46
1	C	203	TYR	CA-C	-6.33	1.45	1.52
2	E	170	ILE	CA-C	-6.33	1.44	1.52
2	E	253	LEU	CA-C	-6.33	1.45	1.52
1	C	501	VAL	CA-C	-6.33	1.45	1.52
2	D	199	GLU	N-CA	-6.33	1.38	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	290	GLY	CA-C	-6.33	1.43	1.52
2	E	289	MET	CA-C	-6.33	1.44	1.52
2	E	75	VAL	N-CA	-6.32	1.39	1.46
1	B	505	LEU	CA-C	-6.32	1.44	1.52
1	C	299	PHE	N-CA	-6.32	1.38	1.46
1	B	468	PHE	CA-C	-6.32	1.44	1.52
1	C	263	HIS	N-CA	-6.32	1.38	1.46
1	B	419	SER	CA-C	-6.31	1.45	1.52
2	E	377	ILE	CA-C	-6.31	1.44	1.52
1	A	34	ILE	CA-C	-6.31	1.44	1.52
1	A	330	GLN	CA-C	-6.31	1.45	1.52
2	D	369	ASP	CA-C	-6.31	1.44	1.52
2	F	164	VAL	CA-C	-6.31	1.45	1.52
3	G	12	SER	CA-C	-6.30	1.43	1.52
2	D	139	VAL	N-CA	-6.30	1.39	1.46
1	C	175	LYS	CA-C	-6.29	1.44	1.52
1	B	64	LEU	N-CA	-6.29	1.38	1.46
3	G	108	VAL	CA-C	-6.29	1.44	1.52
1	B	462	THR	CA-C	-6.29	1.44	1.52
1	C	501	VAL	N-CA	-6.29	1.39	1.46
4	H	135	ILE	CA-C	-6.29	1.45	1.52
2	F	152	ILE	CA-C	-6.29	1.44	1.52
2	E	183	PHE	CA-C	-6.28	1.45	1.52
2	F	37	GLU	CA-C	-6.28	1.45	1.52
1	B	337	TYR	N-CA	-6.28	1.39	1.46
3	G	228	ARG	CA-C	-6.28	1.44	1.52
1	B	392	LEU	N-CA	-6.28	1.38	1.46
3	G	7	THR	CA-C	-6.28	1.44	1.52
1	C	369	LEU	CA-C	-6.27	1.43	1.52
2	F	413	PHE	N-CA	-6.27	1.38	1.46
1	B	243	GLN	CA-C	-6.27	1.44	1.52
1	B	469	LEU	N-CA	-6.27	1.38	1.46
1	B	475	GLN	CA-C	-6.27	1.45	1.53
4	H	57	VAL	CA-C	-6.27	1.45	1.52
3	G	206	GLU	CA-C	-6.26	1.44	1.52
2	F	412	ARG	CA-C	-6.26	1.44	1.52
7	S	33	GLU	CA-C	-6.26	1.44	1.52
1	B	381	ARG	CA-C	-6.26	1.44	1.52
1	C	215	GLN	CA-C	-6.26	1.44	1.52
2	D	430	LYS	CA-C	-6.25	1.45	1.52
1	B	39	ALA	CA-C	-6.25	1.45	1.52
8	T	103	LEU	CA-C	-6.25	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	G	25	MET	CA-C	-6.24	1.44	1.52
2	F	249	GLN	CA-C	-6.24	1.44	1.52
4	H	18	PHE	CA-C	-6.24	1.45	1.52
2	D	165	LEU	N-CA	-6.24	1.39	1.46
4	H	133	ILE	CA-C	-6.24	1.45	1.52
2	E	61	ILE	N-CA	-6.23	1.39	1.46
3	G	113	ARG	CA-C	-6.23	1.44	1.52
2	D	410	ILE	CA-C	-6.23	1.44	1.52
1	B	325	PRO	CA-C	-6.23	1.44	1.52
2	D	138	LYS	CA-C	-6.22	1.45	1.52
2	D	287	THR	CA-C	-6.22	1.44	1.52
1	B	73	VAL	CA-C	-6.22	1.44	1.52
2	F	368	TYR	N-CA	-6.22	1.39	1.46
7	S	81	LEU	CA-C	-6.22	1.44	1.52
1	A	218	LYS	CA-C	-6.22	1.44	1.52
2	F	83	ARG	CA-C	-6.21	1.45	1.52
2	D	111	LYS	CA-C	-6.21	1.44	1.52
1	A	165	GLU	CA-C	-6.21	1.45	1.52
1	A	492	GLU	CA-C	-6.21	1.45	1.52
3	G	211	ASN	CA-C	-6.21	1.44	1.52
1	B	451	GLY	CA-C	-6.21	1.43	1.51
1	C	392	LEU	N-CA	-6.21	1.38	1.46
3	G	257	VAL	N-CA	-6.21	1.38	1.46
2	F	126	MET	CA-C	-6.20	1.44	1.53
1	C	222	ASP	CA-C	-6.20	1.44	1.52
2	D	435	LYS	CA-C	-6.20	1.44	1.52
1	B	425	THR	CA-C	-6.19	1.44	1.52
2	F	371	ALA	N-CA	-6.19	1.39	1.46
2	F	192	GLU	CA-C	-6.19	1.44	1.52
1	A	213	VAL	N-CA	-6.18	1.39	1.46
2	E	119	GLU	CA-C	-6.18	1.45	1.52
2	F	383	SER	CA-C	-6.18	1.44	1.52
11	W	164	ILE	N-CA	-6.18	1.39	1.46
4	H	134	ARG	N-CA	-6.18	1.38	1.46
1	A	502	THR	CA-C	-6.18	1.44	1.52
2	D	274	ARG	CA-C	-6.18	1.44	1.53
2	E	449	TYR	CA-C	-6.18	1.46	1.53
1	A	61	GLY	CA-C	-6.17	1.44	1.51
2	D	36	LEU	CA-C	-6.17	1.45	1.52
2	D	312	VAL	CA-C	-6.17	1.48	1.53
1	A	127	ARG	CA-C	-6.17	1.44	1.52
1	C	395	ALA	CA-C	-6.16	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	G	31	TYR	N-CA	-6.16	1.39	1.46
3	G	158	GLY	CA-C	-6.16	1.43	1.51
2	F	377	ILE	CA-C	-6.16	1.45	1.52
7	S	103	SER	N-CA	-6.15	1.39	1.46
2	E	292	MET	CA-C	-6.15	1.45	1.53
1	C	495	ALA	CA-C	-6.15	1.44	1.52
1	C	409	ASP	C-N	6.14	1.41	1.33
3	G	52	TYR	N-CA	-6.14	1.39	1.46
1	B	279	ARG	CA-C	-6.14	1.45	1.52
2	E	299	THR	CA-C	-6.14	1.45	1.53
1	A	282	SER	CA-C	-6.13	1.44	1.52
1	A	398	ARG	CA-C	-6.13	1.44	1.52
2	D	80	ALA	N-CA	-6.13	1.40	1.46
3	G	50	ALA	CA-C	-6.12	1.44	1.52
1	C	366	ASN	CA-C	-6.12	1.45	1.53
2	F	406	ARG	CA-C	-6.12	1.45	1.52
1	A	76	PHE	CA-C	-6.12	1.46	1.53
1	A	266	ILE	CA-C	-6.12	1.45	1.52
2	E	10	THR	CA-C	-6.11	1.45	1.52
3	G	129	LYS	N-CA	-6.11	1.37	1.45
5	I	6	GLN	CA-C	-6.11	1.44	1.52
1	A	60	LYS	CA-C	-6.11	1.44	1.52
1	C	304	ARG	N-CA	-6.11	1.38	1.46
2	D	290	GLY	CA-C	-6.11	1.45	1.52
7	S	30	ASN	CA-C	-6.11	1.45	1.53
1	B	323	ALA	N-CA	-6.10	1.38	1.46
2	F	139	VAL	N-CA	-6.10	1.39	1.46
1	B	302	HIS	CA-C	-6.10	1.44	1.52
4	H	67	ALA	CA-C	-6.10	1.45	1.52
2	F	398	GLU	CA-C	-6.10	1.44	1.52
1	A	24	ASP	CA-C	-6.10	1.44	1.52
4	H	84	VAL	N-CA	-6.10	1.38	1.46
1	B	342	VAL	N-CA	-6.09	1.39	1.46
3	G	29	ALA	CA-C	-6.09	1.45	1.52
1	B	498	LYS	N-CA	-6.09	1.38	1.46
1	C	367	VAL	N-CA	-6.09	1.39	1.46
1	A	15	ARG	CA-C	-6.09	1.44	1.52
1	A	500	ILE	CA-C	-6.09	1.45	1.52
2	F	289	MET	CA-C	-6.09	1.45	1.52
1	C	154	ASP	CA-C	-6.09	1.44	1.52
1	A	88	VAL	N-CA	-6.08	1.39	1.46
1	B	93	ALA	CA-C	-6.08	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	125	ALA	CA-C	-6.08	1.44	1.53
2	D	404	VAL	CA-C	-6.08	1.45	1.52
2	D	375	GLN	CA-C	-6.08	1.44	1.52
11	W	172	HIS	N-CA	-6.08	1.38	1.46
1	B	146	MET	N-CA	-6.08	1.38	1.46
1	A	146	MET	CA-C	-6.07	1.44	1.52
2	D	376	LYS	CA-C	-6.07	1.45	1.52
2	F	305	THR	N-CA	-6.07	1.38	1.46
5	I	12	ILE	N-CA	-6.07	1.39	1.46
1	C	25	LEU	CA-C	-6.07	1.44	1.52
2	E	38	VAL	CA-C	-6.07	1.45	1.52
2	E	350	PRO	N-CA	-6.07	1.41	1.47
1	A	383	MET	N-CA	-6.06	1.39	1.46
1	C	128	ARG	CA-C	-6.06	1.44	1.52
2	D	126	MET	CA-C	-6.06	1.44	1.53
4	H	75	TYR	N-CA	-6.06	1.38	1.45
5	I	22	VAL	CA-C	-6.06	1.45	1.52
1	B	350	ILE	CA-C	-6.05	1.45	1.52
2	D	378	LEU	N-CA	-6.05	1.39	1.46
1	A	229	THR	CA-C	-6.04	1.45	1.52
2	D	180	TYR	CA-C	-6.04	1.44	1.53
1	A	155	SER	CA-C	-6.04	1.45	1.53
1	A	166	LEU	CA-C	-6.04	1.45	1.52
2	D	175	LYS	CA-C	-6.04	1.45	1.52
2	D	80	ALA	CA-C	-6.04	1.45	1.52
1	B	189	PHE	CA-C	-6.04	1.44	1.52
2	D	310	ILE	CA-C	-6.03	1.44	1.52
1	B	256	TYR	N-CA	-6.03	1.39	1.46
1	B	504	PHE	N-CA	-6.03	1.39	1.46
1	C	349	GLN	CA-C	-6.03	1.45	1.52
1	C	394	LEU	CA-C	-6.03	1.44	1.52
1	B	167	ILE	N-CA	-6.03	1.38	1.46
2	D	336	SER	CA-C	-6.03	1.45	1.52
1	A	257	PHE	CA-C	-6.02	1.45	1.52
2	F	275	ILE	CA-C	-6.02	1.48	1.53
2	D	26	ASP	CA-C	-6.01	1.47	1.52
8	T	93	ASP	C-O	-6.01	1.16	1.23
2	D	141	ASP	CA-C	-6.01	1.45	1.52
1	C	212	THR	CA-C	-6.01	1.45	1.52
1	C	499	GLU	CA-C	-6.01	1.45	1.52
3	G	254	ARG	CA-C	-6.01	1.45	1.52
1	A	218	LYS	N-CA	-6.01	1.39	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	D	304	ILE	CA-C	-6.01	1.45	1.52
3	G	125	LEU	CA-C	-6.01	1.46	1.52
2	D	385	GLN	CA-C	-6.00	1.44	1.52
1	A	337	TYR	N-CA	-6.00	1.39	1.46
2	D	254	PHE	N-CA	-6.00	1.38	1.46
1	A	311	LYS	CA-C	-6.00	1.45	1.52
2	D	381	TYR	N-CA	-6.00	1.39	1.46
2	F	411	GLN	CA-C	-6.00	1.44	1.52
1	C	465	GLU	CA-C	-5.99	1.45	1.52
3	G	69	ILE	N-CA	-5.99	1.39	1.46
2	E	363	VAL	CA-C	-5.99	1.45	1.52
1	C	277	ALA	CA-C	-5.98	1.45	1.52
1	A	243	GLN	CA-C	-5.98	1.45	1.52
2	E	251	VAL	N-CA	-5.98	1.39	1.46
4	H	116	GLN	CA-C	-5.98	1.44	1.52
2	D	448	GLU	CA-C	-5.98	1.44	1.52
1	B	215	GLN	CA-C	-5.97	1.45	1.52
3	G	266	ILE	N-CA	-5.97	1.37	1.46
2	E	225	PRO	CA-C	-5.97	1.46	1.52
1	C	76	PHE	CA-C	-5.97	1.45	1.52
2	D	94	ILE	CA-C	-5.97	1.45	1.52
2	F	387	ILE	N-CA	-5.97	1.39	1.46
3	G	117	HIS	CA-C	-5.97	1.45	1.53
1	A	265	LEU	CA-C	-5.97	1.45	1.52
1	C	276	VAL	CA-C	-5.96	1.45	1.52
2	F	73	GLN	CA-C	-5.96	1.45	1.52
2	F	215	VAL	CA-C	-5.96	1.45	1.52
1	C	66	LEU	N-CA	-5.96	1.38	1.46
2	E	376	LYS	N-CA	-5.96	1.39	1.46
2	F	290	GLY	CA-C	-5.96	1.45	1.52
1	C	505	LEU	CA-C	-5.96	1.45	1.52
7	S	32	LEU	N-CA	-5.95	1.39	1.46
3	G	148	LEU	CA-C	-5.95	1.44	1.52
2	E	37	GLU	CA-C	-5.95	1.45	1.52
3	G	241	GLU	CA-C	-5.95	1.45	1.52
1	C	324	LEU	N-CA	-5.95	1.40	1.46
3	G	184	ILE	CA-C	-5.95	1.45	1.52
1	C	372	SER	CA-C	-5.94	1.45	1.52
3	G	171	TYR	CA-C	-5.94	1.45	1.52
2	F	195	ASP	CA-C	-5.94	1.45	1.52
3	G	164	ARG	N-CA	-5.94	1.38	1.46
7	S	110	SER	C-N	5.94	1.41	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	216	LEU	N-CA	-5.94	1.39	1.46
2	E	47	LEU	CA-C	-5.94	1.45	1.52
1	C	127	ARG	CA-C	-5.93	1.45	1.52
1	A	266	ILE	N-CA	-5.93	1.39	1.46
2	D	368	TYR	N-CA	-5.93	1.39	1.46
7	S	164	VAL	N-CA	-5.93	1.39	1.46
2	D	171	ASN	N-CA	-5.93	1.39	1.46
2	D	22	ASP	N-CA	-5.92	1.38	1.46
1	C	286	ARG	CA-C	-5.92	1.44	1.52
2	D	262	THR	CA-C	-5.92	1.45	1.52
2	D	391	LEU	CA-C	-5.92	1.45	1.52
7	S	119	THR	CA-C	-5.92	1.45	1.52
2	F	194	ASN	CA-C	-5.92	1.45	1.52
2	D	17	ILE	N-CA	-5.92	1.39	1.46
3	G	259	THR	N-CA	-5.92	1.39	1.46
7	S	12	TYR	CA-C	-5.91	1.46	1.53
1	C	258	ARG	N-CA	-5.91	1.39	1.46
1	B	231	VAL	CA-C	-5.91	1.45	1.52
1	B	36	ASP	N-CA	-5.91	1.39	1.46
1	B	474	SER	N-CA	-5.91	1.39	1.46
1	B	183	ILE	CA-C	-5.91	1.45	1.52
1	A	28	THR	CA-C	-5.91	1.45	1.52
2	F	182	VAL	CA-C	-5.91	1.45	1.52
1	C	504	PHE	CA-C	-5.90	1.45	1.52
2	F	163	THR	N-CA	-5.90	1.39	1.46
1	B	131	LEU	CA-C	-5.90	1.45	1.52
1	A	29	GLY	N-CA	-5.90	1.39	1.45
2	F	435	LYS	N-CA	-5.90	1.39	1.46
7	S	98	THR	N-CA	-5.90	1.40	1.46
1	B	153	VAL	N-CA	-5.89	1.39	1.46
2	E	139	VAL	N-CA	-5.89	1.39	1.46
7	S	158	ILE	N-CA	-5.89	1.39	1.46
1	A	469	LEU	CA-C	-5.89	1.45	1.52
1	A	216	LEU	CA-C	-5.89	1.45	1.52
1	B	157	VAL	CA-C	-5.89	1.46	1.52
2	D	86	VAL	CA-C	-5.89	1.45	1.52
8	T	96	ARG	C-N	5.89	1.41	1.34
2	D	419	GLN	CA-C	-5.89	1.44	1.52
1	C	280	GLN	CA-C	-5.88	1.45	1.52
1	B	61	GLY	CA-C	-5.88	1.45	1.51
2	F	316	ASP	CA-C	-5.88	1.45	1.52
1	C	463	LYS	CA-C	-5.88	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	D	395	GLU	N-CA	-5.88	1.39	1.46
4	H	109	LYS	CA-C	-5.88	1.45	1.52
1	B	389	THR	N-CA	-5.88	1.38	1.46
2	D	21	VAL	N-CA	-5.88	1.39	1.46
2	D	133	LEU	N-CA	-5.88	1.38	1.46
2	D	379	GLN	CA-C	-5.88	1.45	1.52
1	A	396	GLN	CA-C	-5.88	1.45	1.52
1	B	171	ARG	CA-C	-5.88	1.44	1.52
2	D	41	ARG	CA-C	-5.87	1.45	1.53
4	H	114	LYS	CA-C	-5.87	1.45	1.52
1	B	54	GLU	CA-C	-5.87	1.45	1.52
2	D	429	GLY	CA-C	-5.87	1.43	1.52
2	D	371	ALA	CA-C	-5.86	1.45	1.52
2	D	195	ASP	CA-C	-5.86	1.45	1.52
1	A	220	LEU	CA-C	-5.86	1.45	1.52
1	B	104	LEU	CA-C	-5.86	1.45	1.52
1	C	399	GLU	CA-C	-5.86	1.44	1.52
1	C	240	ALA	N-CA	-5.85	1.41	1.46
2	D	203	SER	CA-C	-5.85	1.44	1.52
3	G	204	TYR	N-CA	-5.84	1.38	1.46
4	H	58	LEU	CA-C	-5.84	1.45	1.52
7	S	88	LEU	CA-C	-5.84	1.46	1.52
1	A	496	LYS	CA-C	-5.84	1.45	1.52
1	A	355	GLU	CA-C	-5.84	1.45	1.52
2	F	213	SER	CA-C	-5.84	1.45	1.52
4	H	24	THR	N-CA	-5.84	1.38	1.45
2	D	57	THR	N-CA	-5.83	1.38	1.46
1	B	146	MET	CA-C	-5.83	1.45	1.52
3	G	143	VAL	CA-C	-5.83	1.45	1.52
1	A	324	LEU	CA-C	-5.83	1.47	1.52
1	C	74	VAL	N-CA	-5.83	1.39	1.46
2	F	303	SER	CA-C	-5.83	1.45	1.52
4	H	76	PHE	N-CA	-5.83	1.38	1.46
2	F	281	TYR	CA-C	-5.83	1.45	1.52
2	F	284	THR	CA-C	-5.83	1.44	1.52
4	H	89	SER	CA-C	-5.82	1.45	1.52
7	S	37	LYS	N-CA	-5.82	1.38	1.46
1	C	387	ALA	CA-C	-5.82	1.45	1.52
2	E	465	GLU	CA-C	-5.82	1.44	1.52
2	D	15	ALA	CA-C	-5.82	1.45	1.52
1	C	194	ASP	CA-C	-5.82	1.45	1.52
1	B	276	VAL	CA-C	-5.82	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	E	218	VAL	CA-C	-5.82	1.45	1.52
1	A	278	TYR	N-CA	-5.81	1.39	1.46
1	B	199	LEU	CA-C	-5.81	1.45	1.52
4	H	38	VAL	N-CA	-5.81	1.41	1.45
7	S	136	THR	N-CA	-5.81	1.38	1.46
1	C	392	LEU	CA-C	-5.81	1.45	1.52
2	F	306	SER	CA-C	-5.81	1.45	1.52
3	G	18	LYS	N-CA	-5.81	1.39	1.46
2	E	21	VAL	CA-C	-5.81	1.45	1.52
1	A	389	THR	CA-C	-5.80	1.45	1.52
2	D	59	ARG	N-CA	-5.80	1.39	1.46
2	F	119	GLU	CA-C	-5.80	1.45	1.53
3	G	20	THR	CA-C	-5.80	1.45	1.52
1	A	473	ILE	CA-C	-5.80	1.45	1.52
1	B	218	LYS	N-CA	-5.80	1.39	1.46
1	B	393	GLU	CA-C	-5.80	1.45	1.52
3	G	170	SER	N-CA	-5.79	1.39	1.46
1	A	185	ASN	CA-C	-5.79	1.44	1.52
1	B	127	ARG	N-CA	-5.79	1.39	1.46
1	C	390	MET	CA-C	-5.79	1.45	1.52
3	G	70	GLY	CA-C	-5.79	1.45	1.51
3	G	230	THR	N-CA	-5.79	1.39	1.46
2	D	61	ILE	N-CA	-5.78	1.39	1.46
1	C	509	GLU	CA-C	-5.78	1.45	1.52
2	D	16	VAL	CA-C	-5.78	1.45	1.52
1	C	267	ILE	N-CA	-5.78	1.39	1.46
2	D	406	ARG	CA-C	-5.78	1.45	1.52
1	B	508	PHE	CA-C	-5.78	1.45	1.52
11	W	147	ILE	C-O	-5.78	1.17	1.24
1	B	154	ASP	CA-C	-5.77	1.44	1.52
2	F	79	GLY	CA-C	-5.77	1.43	1.51
2	F	399	GLU	CA-C	-5.77	1.45	1.52
1	C	294	TYR	CA-C	-5.77	1.45	1.53
2	F	74	LYS	N-CA	-5.77	1.38	1.46
3	G	33	ARG	CA-C	-5.77	1.45	1.52
1	A	144	GLU	N-CA	-5.76	1.39	1.45
2	D	332	THR	CA-C	-5.76	1.45	1.52
1	A	355	GLU	N-CA	-5.76	1.39	1.46
3	G	179	PHE	CA-C	-5.76	1.44	1.53
7	S	141	PHE	CA-C	-5.76	1.45	1.52
2	E	45	LEU	CA-C	-5.76	1.45	1.52
1	B	113	ASN	CA-C	-5.76	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	D	218	VAL	CA-C	-5.76	1.45	1.52
2	E	304	ILE	CA-C	-5.76	1.45	1.52
1	C	49	ALA	CA-C	-5.75	1.45	1.52
2	F	262	THR	CA-C	-5.75	1.45	1.52
1	A	249	SER	CA-C	-5.75	1.45	1.52
1	B	81	LEU	CA-C	-5.75	1.47	1.53
1	B	495	ALA	CA-C	-5.75	1.45	1.52
2	E	355	SER	CA-C	-5.75	1.45	1.52
1	B	397	TYR	N-CA	-5.75	1.39	1.46
2	D	12	ARG	N-CA	-5.75	1.39	1.46
2	D	101	PRO	CA-C	-5.75	1.46	1.52
2	D	75	VAL	CA-C	-5.75	1.45	1.52
2	E	449	TYR	N-CA	-5.75	1.39	1.46
1	A	412	ALA	CA-C	-5.75	1.45	1.52
2	F	234	LEU	CA-C	-5.75	1.45	1.52
2	E	267	GLU	CA-C	-5.74	1.45	1.52
1	C	341	ASN	CA-C	-5.74	1.45	1.52
3	G	155	PHE	CA-C	-5.74	1.45	1.52
1	A	393	GLU	CA-C	-5.74	1.45	1.52
1	B	257	PHE	CA-C	-5.74	1.45	1.52
1	B	367	VAL	CA-C	-5.74	1.45	1.52
2	D	170	ILE	N-CA	-5.74	1.39	1.46
2	F	197	TYR	CA-C	-5.74	1.45	1.52
1	A	336	ALA	CA-C	-5.74	1.45	1.52
1	B	430	GLN	N-CA	-5.74	1.38	1.46
2	E	158	ALA	CA-C	-5.74	1.45	1.52
2	D	255	ILE	CA-C	-5.73	1.45	1.52
2	E	334	VAL	N-CA	-5.73	1.39	1.46
1	B	277	ALA	CA-C	-5.73	1.45	1.52
3	G	110	ASP	CA-C	-5.73	1.46	1.52
5	I	15	SER	N-CA	-5.73	1.39	1.46
1	A	416	GLN	N-CA	-5.73	1.39	1.46
1	B	87	ILE	N-CA	-5.73	1.39	1.46
1	C	383	MET	CA-C	-5.72	1.45	1.52
1	C	170	ASP	CA-C	-5.72	1.45	1.52
1	C	465	GLU	N-CA	-5.72	1.39	1.46
1	B	398	ARG	CA-C	-5.72	1.45	1.52
1	C	243	GLN	CA-C	-5.72	1.45	1.52
1	B	341	ASN	CA-C	-5.72	1.45	1.52
1	B	219	ARG	CA-C	-5.71	1.45	1.52
3	G	2	THR	CA-C	-5.71	1.45	1.53
2	E	349	ASP	CA-C	-5.71	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	G	104	LYS	CA-C	-5.71	1.45	1.52
7	S	135	LYS	CA-C	-5.71	1.45	1.52
1	C	267	ILE	CA-C	-5.70	1.45	1.52
2	F	237	LEU	CA-C	-5.70	1.45	1.52
2	E	405	SER	N-CA	-5.70	1.39	1.46
2	F	63	MET	CA-C	-5.70	1.45	1.52
1	B	395	ALA	CA-C	-5.70	1.45	1.52
1	C	493	SER	CA-C	-5.70	1.45	1.52
2	E	278	ALA	CA-C	-5.70	1.45	1.52
2	F	97	VAL	CA-C	-5.70	1.45	1.52
2	F	388	ILE	CA-C	-5.70	1.45	1.52
1	C	104	LEU	CA-C	-5.70	1.45	1.52
2	E	307	VAL	CA-C	-5.69	1.45	1.52
1	A	425	THR	CA-C	-5.69	1.45	1.52
1	B	214	ALA	CA-C	-5.69	1.45	1.52
2	D	382	LYS	N-CA	-5.69	1.39	1.46
2	F	45	LEU	CA-C	-5.69	1.45	1.53
2	E	218	VAL	N-CA	-5.69	1.39	1.46
2	E	114	ALA	CA-C	-5.69	1.45	1.52
1	B	493	SER	CA-C	-5.68	1.45	1.52
1	C	218	LYS	N-CA	-5.68	1.39	1.46
2	D	131	GLU	CA-C	-5.68	1.45	1.52
2	D	181	SER	N-CA	-5.68	1.38	1.45
2	F	272	LEU	CA-C	-5.68	1.44	1.52
1	B	366	ASN	CA-C	-5.68	1.45	1.52
2	F	24	GLN	N-CA	-5.68	1.39	1.46
2	F	278	ALA	CA-C	-5.68	1.45	1.52
2	F	384	LEU	CA-C	-5.68	1.44	1.52
3	G	233	ASP	N-CA	-5.68	1.39	1.46
5	I	36	LYS	CA-C	-5.67	1.45	1.52
1	A	391	LYS	CA-C	-5.67	1.45	1.52
2	E	288	ASP	CA-C	-5.67	1.45	1.52
2	D	52	HIS	N-CA	-5.67	1.39	1.46
7	S	40	LEU	CA-C	-5.66	1.45	1.52
3	G	271	ALA	N-CA	-5.66	1.39	1.46
1	C	336	ALA	CA-C	-5.66	1.45	1.52
1	A	324	LEU	N-CA	-5.65	1.40	1.46
1	B	213	VAL	CA-C	-5.65	1.45	1.52
1	C	35	GLY	CA-C	-5.65	1.44	1.51
1	C	194	ASP	N-CA	-5.65	1.39	1.46
2	F	371	ALA	CA-C	-5.65	1.45	1.52
3	G	263	ILE	CA-C	-5.65	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	F	310	ILE	CA-C	-5.65	1.45	1.52
1	C	356	LEU	CA-C	-5.64	1.45	1.52
11	W	148	SER	CA-C	-5.64	1.44	1.52
1	C	291	ARG	CA-C	-5.64	1.45	1.52
2	F	243	PHE	CA-C	-5.64	1.44	1.52
1	B	215	GLN	N-CA	-5.64	1.39	1.46
2	D	367	HIS	CA-C	-5.64	1.45	1.52
1	C	59	LEU	CA-C	-5.63	1.45	1.52
2	E	141	ASP	CA-C	-5.63	1.45	1.52
1	C	475	GLN	CA-C	-5.63	1.46	1.53
7	S	103	SER	CA-C	-5.63	1.45	1.52
2	F	408	ARG	CA-C	-5.63	1.45	1.52
3	G	226	SER	CA-C	-5.63	1.44	1.52
2	F	404	VAL	CA-C	-5.63	1.46	1.52
2	E	138	LYS	CA-C	-5.62	1.45	1.52
1	B	343	ILE	N-CA	-5.62	1.40	1.46
2	D	307	VAL	CA-C	-5.62	1.45	1.52
3	G	9	ARG	CA-C	-5.62	1.45	1.52
1	B	186	GLN	CA-C	-5.62	1.44	1.52
2	D	133	LEU	CA-C	-5.62	1.45	1.52
2	E	48	GLU	N-CA	-5.62	1.39	1.46
4	H	78	SER	CA-C	-5.62	1.45	1.52
1	C	221	THR	CA-C	-5.62	1.45	1.52
1	C	476	HIS	CA-C	-5.61	1.43	1.52
2	F	206	ILE	N-CA	-5.61	1.39	1.46
7	S	18	TYR	CA-C	-5.61	1.45	1.52
1	C	108	VAL	CA-C	-5.61	1.46	1.52
2	E	398	GLU	CA-C	-5.61	1.44	1.52
1	A	451	GLY	CA-C	-5.61	1.44	1.51
1	A	277	ALA	N-CA	-5.61	1.39	1.46
1	A	286	ARG	CA-C	-5.61	1.45	1.52
1	C	482	LYS	N-CA	-5.61	1.39	1.46
3	G	8	ARG	CA-C	-5.61	1.45	1.52
4	H	88	SER	CA-C	-5.61	1.44	1.52
2	E	378	LEU	N-CA	-5.61	1.39	1.46
2	F	231	ARG	CA-C	-5.61	1.45	1.52
3	G	256	ALA	CA-C	-5.61	1.45	1.52
3	G	189	SER	CA-C	-5.60	1.45	1.52
1	A	448	GLY	CA-C	-5.60	1.44	1.51
2	D	193	GLY	CA-C	-5.60	1.45	1.51
2	E	54	GLY	CA-C	-5.60	1.46	1.52
7	S	107	THR	C-O	-5.60	1.17	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	74	VAL	CA-C	-5.59	1.46	1.52
2	D	427	HIS	CA-C	-5.59	1.45	1.53
3	G	13	ILE	CA-C	-5.59	1.44	1.52
4	H	63	VAL	CA-C	-5.59	1.45	1.52
1	B	205	ALA	CA-C	-5.59	1.45	1.52
1	A	493	SER	CA-C	-5.59	1.45	1.52
2	F	16	VAL	CA-C	-5.59	1.45	1.52
1	B	157	VAL	N-CA	-5.58	1.39	1.46
2	D	206	ILE	N-CA	-5.58	1.39	1.46
2	F	15	ALA	CA-C	-5.58	1.45	1.52
1	A	291	ARG	CA-C	-5.58	1.45	1.52
1	B	71	VAL	N-CA	-5.58	1.39	1.46
4	H	141	LEU	CA-C	-5.58	1.45	1.52
2	D	377	ILE	CA-C	-5.58	1.45	1.52
1	A	503	ASN	CA-C	-5.58	1.45	1.52
2	D	305	THR	CA-C	-5.58	1.46	1.52
2	D	464	GLU	CA-C	-5.58	1.45	1.52
3	G	233	ASP	CA-C	-5.58	1.45	1.52
2	D	311	TYR	CA-C	-5.57	1.45	1.52
1	B	200	TYR	CA-C	-5.57	1.45	1.52
2	D	409	LYS	CA-C	-5.57	1.45	1.52
2	E	31	PRO	CA-C	-5.57	1.46	1.52
3	G	167	SER	CA-C	-5.57	1.46	1.52
7	S	37	LYS	CA-C	-5.56	1.45	1.52
2	F	260	ARG	CA-C	-5.56	1.45	1.52
2	E	224	GLU	CA-C	-5.56	1.45	1.52
2	D	47	LEU	N-CA	-5.56	1.39	1.46
2	E	438	ILE	CA-C	-5.56	1.45	1.52
2	F	33	LEU	CA-C	-5.56	1.45	1.52
2	D	125	GLU	CA-C	-5.56	1.44	1.52
7	S	21	ALA	CA-C	-5.55	1.45	1.52
1	A	25	LEU	CA-C	-5.55	1.44	1.52
7	S	91	GLU	CA-C	-5.55	1.45	1.52
1	C	213	VAL	N-CA	-5.55	1.40	1.46
2	D	399	GLU	CA-C	-5.55	1.45	1.52
2	E	182	VAL	CA-C	-5.55	1.45	1.52
2	F	54	GLY	CA-C	-5.55	1.46	1.52
2	F	324	THR	CA-C	-5.55	1.45	1.52
2	F	387	ILE	CA-C	-5.55	1.46	1.52
1	C	264	ALA	N-CA	-5.55	1.39	1.45
7	S	136	THR	CA-C	-5.54	1.45	1.52
1	A	152	ALA	CA-C	-5.54	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	E	175	LYS	CA-C	-5.54	1.46	1.52
2	E	332	THR	CA-C	-5.54	1.45	1.52
2	D	405	SER	CA-C	-5.53	1.45	1.52
7	S	32	LEU	CA-C	-5.53	1.45	1.52
1	B	301	LEU	CA-C	-5.53	1.45	1.52
11	W	156	LEU	CA-C	-5.53	1.45	1.52
4	H	72	THR	N-CA	-5.53	1.39	1.46
1	C	451	GLY	CA-C	-5.52	1.44	1.51
1	C	462	THR	CA-C	-5.52	1.45	1.52
2	E	351	LEU	N-CA	-5.52	1.39	1.46
2	F	305	THR	CA-C	-5.52	1.46	1.52
5	I	12	ILE	CA-C	-5.52	1.46	1.52
1	B	429	LYS	N-CA	-5.52	1.38	1.45
1	C	239	ALA	CA-C	-5.52	1.45	1.52
8	T	92	PHE	C-N	5.51	1.41	1.33
1	A	143	ARG	CA-C	-5.51	1.45	1.52
1	A	242	LEU	CA-C	-5.51	1.45	1.52
1	C	453	LEU	CA-C	-5.51	1.46	1.53
3	G	30	LYS	CA-C	-5.51	1.45	1.52
3	G	154	GLU	N-CA	-5.51	1.39	1.45
1	B	280	GLN	CA-C	-5.50	1.45	1.52
8	T	170	LEU	CA-C	5.50	1.60	1.52
2	E	366	GLU	CA-C	-5.50	1.45	1.52
4	H	93	LEU	CA-C	-5.50	1.46	1.53
3	G	203	ASN	CA-C	-5.49	1.44	1.52
11	W	193	PHE	N-CA	-5.49	1.39	1.46
2	E	124	VAL	N-CA	-5.49	1.39	1.46
2	F	10	THR	CA-C	-5.49	1.46	1.52
1	B	278	TYR	CA-C	-5.49	1.45	1.52
1	B	394	LEU	N-CA	-5.49	1.39	1.46
2	D	443	GLN	N-CA	-5.49	1.39	1.46
1	B	181	ASP	CA-C	-5.49	1.45	1.52
1	C	404	ALA	CA-C	-5.49	1.45	1.52
2	D	166	ILE	CA-C	-5.48	1.45	1.52
2	F	23	VAL	N-CA	-5.48	1.40	1.46
1	A	39	ALA	N-CA	-5.48	1.39	1.46
2	E	318	THR	CA-C	-5.48	1.45	1.52
1	C	416	GLN	CA-C	-5.48	1.46	1.52
2	E	52	HIS	CA-C	-5.48	1.46	1.52
1	A	17	LEU	CA-C	-5.47	1.45	1.52
1	A	154	ASP	CA-C	-5.47	1.45	1.52
2	E	182	VAL	N-CA	-5.47	1.39	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	H	52	VAL	CA-C	-5.47	1.47	1.52
2	F	80	ALA	N-CA	-5.47	1.41	1.46
2	F	252	LEU	CA-C	-5.47	1.46	1.52
1	A	372	SER	N-CA	-5.47	1.39	1.46
2	F	242	TYR	CA-C	-5.47	1.45	1.52
1	C	320	SER	N-CA	-5.47	1.39	1.45
3	G	38	LEU	CA-C	-5.47	1.45	1.52
5	I	13	ARG	N-CA	-5.47	1.39	1.46
2	E	167	MET	CA-C	-5.46	1.45	1.52
2	F	331	ALA	N-CA	-5.46	1.39	1.46
3	G	183	THR	CA-C	-5.46	1.45	1.52
4	H	47	ILE	CA-C	-5.46	1.46	1.52
1	A	238	ASP	CA-C	-5.46	1.45	1.52
1	C	301	LEU	N-CA	-5.46	1.39	1.46
3	G	115	ILE	CA-C	-5.46	1.45	1.52
1	A	294	TYR	CA-C	-5.46	1.45	1.52
2	E	197	TYR	CA-C	-5.45	1.45	1.52
1	C	334	VAL	N-CA	-5.45	1.41	1.46
1	C	474	SER	N-CA	-5.45	1.40	1.46
2	D	142	LEU	CA-C	-5.45	1.46	1.52
2	E	312	VAL	CA-C	-5.44	1.47	1.52
2	F	381	TYR	N-CA	-5.44	1.39	1.46
1	A	274	GLN	CA-C	-5.44	1.46	1.52
1	B	300	TYR	N-CA	-5.44	1.39	1.46
2	F	390	ILE	N-CA	-5.44	1.39	1.46
2	E	201	ILE	CA-C	-5.44	1.46	1.52
2	F	402	LEU	CA-C	-5.44	1.46	1.52
7	S	111	VAL	CA-C	-5.44	1.45	1.52
2	D	373	GLY	CA-C	-5.44	1.46	1.52
1	B	297	ASP	CA-C	-5.43	1.43	1.52
2	F	83	ARG	N-CA	-5.43	1.39	1.46
2	F	329	LEU	CA-C	-5.43	1.46	1.52
2	E	189	ARG	CA-C	-5.43	1.45	1.52
7	S	70	SER	C-N	5.43	1.41	1.33
1	B	63	SER	CA-C	-5.43	1.46	1.52
3	G	217	LEU	CA-C	-5.43	1.46	1.52
4	H	98	VAL	CA-C	-5.43	1.46	1.52
1	A	43	GLY	CA-C	-5.42	1.44	1.51
2	F	268	VAL	N-CA	-5.42	1.39	1.46
2	F	316	ASP	N-CA	-5.42	1.39	1.45
1	C	100	GLY	CA-C	-5.42	1.44	1.51
1	C	488	LYS	CA-C	-5.42	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	D	163	THR	CA-C	-5.42	1.45	1.52
2	D	202	GLU	CA-C	-5.42	1.45	1.52
2	E	26	ASP	CA-C	-5.42	1.45	1.52
2	E	80	ALA	CA-C	-5.42	1.46	1.52
2	E	409	LYS	CA-C	-5.42	1.45	1.52
2	D	259	PHE	N-CA	-5.42	1.39	1.46
1	B	165	GLU	CA-C	-5.42	1.46	1.52
1	C	265	LEU	CA-C	-5.42	1.46	1.52
2	F	355	SER	N-CA	-5.42	1.39	1.46
1	A	445	ILE	CA-C	-5.42	1.46	1.52
2	E	171	ASN	N-CA	-5.41	1.40	1.46
1	B	194	ASP	N-CA	-5.41	1.39	1.45
1	C	502	THR	CA-C	-5.41	1.45	1.52
1	A	484	ARG	CA-C	-5.41	1.46	1.52
11	W	147	ILE	CA-C	-5.41	1.46	1.52
1	A	10	SER	CA-C	-5.41	1.45	1.52
2	E	197	TYR	N-CA	-5.41	1.39	1.46
1	A	476	HIS	CA-C	-5.41	1.43	1.52
1	C	87	ILE	CA-C	-5.41	1.46	1.52
2	D	245	ASP	N-CA	-5.41	1.39	1.46
2	E	274	ARG	CA-C	-5.41	1.45	1.53
2	F	442	GLN	N-CA	-5.41	1.39	1.46
7	S	119	THR	N-CA	-5.40	1.39	1.45
4	H	131	ILE	N-CA	-5.40	1.40	1.46
7	S	104	ALA	CA-C	-5.40	1.45	1.52
2	D	164	VAL	CA-C	-5.40	1.46	1.52
4	H	47	ILE	N-CA	-5.40	1.40	1.46
1	B	267	ILE	N-CA	-5.40	1.39	1.46
2	F	200	MET	CA-C	-5.40	1.45	1.52
1	A	267	ILE	CA-C	-5.39	1.45	1.52
1	C	156	LEU	CA-C	-5.39	1.45	1.52
2	D	205	VAL	CA-C	-5.39	1.47	1.52
1	C	480	LEU	CA-C	-5.39	1.46	1.52
2	E	95	MET	N-CA	-5.39	1.39	1.45
2	E	308	GLN	N-CA	-5.39	1.39	1.46
2	D	438	ILE	CA-C	-5.39	1.46	1.52
1	C	150	ILE	CA-C	-5.39	1.46	1.52
1	B	79	ASP	CA-C	-5.38	1.46	1.52
4	H	79	SER	CA-C	-5.38	1.45	1.52
1	B	221	THR	CA-C	-5.38	1.45	1.52
1	C	419	SER	CA-C	-5.38	1.46	1.52
1	A	297	ASP	CA-C	-5.38	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	D	371	ALA	N-CA	-5.38	1.40	1.46
2	D	410	ILE	N-CA	-5.38	1.40	1.46
1	A	107	VAL	CA-C	-5.38	1.45	1.52
4	H	85	ASN	N-CA	-5.38	1.40	1.46
1	A	219	ARG	CA-C	-5.37	1.45	1.52
1	A	280	GLN	N-CA	-5.37	1.40	1.46
2	E	196	LEU	N-CA	-5.37	1.39	1.46
1	A	399	GLU	CA-C	-5.37	1.45	1.52
2	F	138	LYS	CA-C	-5.37	1.46	1.52
8	T	28	ILE	N-CA	-5.37	1.40	1.46
2	E	414	LEU	CA-C	-5.37	1.45	1.52
2	F	421	ALA	CA-C	-5.37	1.46	1.53
1	A	338	ILE	CA-C	-5.37	1.47	1.52
2	E	355	SER	N-CA	-5.37	1.39	1.46
1	B	421	GLY	N-CA	-5.36	1.39	1.45
2	F	26	ASP	CA-C	-5.36	1.47	1.53
2	E	313	PRO	CA-C	-5.36	1.46	1.52
1	A	64	LEU	N-CA	-5.36	1.39	1.46
1	B	140	ILE	CA-C	-5.36	1.45	1.52
1	C	113	ASN	CA-C	-5.35	1.46	1.52
1	B	70	ASN	N-CA	-5.35	1.39	1.46
2	E	412	ARG	CA-C	-5.35	1.45	1.52
3	G	264	GLU	CA-C	-5.35	1.45	1.52
1	A	276	VAL	N-CA	-5.35	1.40	1.46
1	B	26	GLU	CA-C	-5.35	1.45	1.52
1	A	404	ALA	CA-C	-5.35	1.46	1.53
1	A	485	THR	CA-C	-5.35	1.46	1.52
3	G	253	THR	N-CA	-5.35	1.39	1.46
2	F	75	VAL	N-CA	-5.34	1.40	1.46
1	A	20	ASP	CA-C	-5.34	1.45	1.53
1	A	321	LEU	N-CA	-5.34	1.40	1.46
1	C	167	ILE	N-CA	-5.34	1.39	1.46
2	D	293	GLN	CA-C	-5.34	1.46	1.52
2	D	467	VAL	CA-C	-5.34	1.45	1.52
2	E	44	ARG	CA-C	-5.34	1.45	1.52
1	B	31	VAL	CA-C	-5.34	1.47	1.53
1	B	54	GLU	N-CA	-5.34	1.39	1.46
4	H	83	THR	N-CA	-5.34	1.39	1.46
1	B	180	ILE	CA-C	-5.34	1.46	1.52
3	G	38	LEU	N-CA	-5.34	1.39	1.46
1	C	97	VAL	N-CA	-5.33	1.40	1.46
2	E	54	GLY	N-CA	-5.33	1.40	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	D	245	ASP	CA-C	-5.33	1.46	1.52
1	A	210	ARG	CA-C	-5.33	1.45	1.52
1	C	503	ASN	N-CA	-5.33	1.39	1.46
1	A	9	SER	CA-C	-5.33	1.47	1.53
1	C	418	LEU	N-CA	-5.33	1.40	1.46
1	C	426	GLU	CA-C	-5.33	1.45	1.52
2	E	378	LEU	CA-C	-5.33	1.45	1.52
2	F	206	ILE	CA-C	-5.32	1.46	1.52
1	A	383	MET	CA-C	-5.32	1.45	1.52
1	B	179	ALA	CA-C	-5.32	1.45	1.52
2	D	439	LYS	N-CA	-5.32	1.40	1.46
11	W	88	LEU	C-O	-5.32	1.20	1.24
1	B	194	ASP	CA-C	-5.32	1.45	1.52
1	B	342	VAL	CA-C	-5.32	1.46	1.52
3	G	199	ASP	CA-C	-5.32	1.45	1.52
3	G	219	GLU	N-CA	-5.32	1.40	1.46
2	F	198	HIS	CA-C	-5.32	1.45	1.52
7	S	160	GLY	CA-C	-5.32	1.46	1.52
2	D	198	HIS	CA-C	-5.31	1.45	1.52
1	B	454	ASP	CA-C	-5.31	1.44	1.52
2	D	112	GLN	N-CA	-5.31	1.39	1.46
2	E	354	THR	CA-C	-5.31	1.46	1.52
1	C	89	LYS	N-CA	-5.31	1.39	1.46
1	C	199	LEU	N-CA	-5.31	1.39	1.46
2	E	80	ALA	N-CA	-5.31	1.41	1.46
2	F	163	THR	CA-C	-5.31	1.45	1.52
4	H	92	LEU	N-CA	-5.31	1.39	1.46
1	A	35	GLY	CA-C	-5.30	1.44	1.51
7	S	46	LEU	N-CA	-5.30	1.39	1.46
1	C	47	VAL	N-CA	-5.30	1.39	1.46
2	F	269	SER	CA-C	-5.30	1.45	1.52
4	H	27	PHE	CA-C	-5.30	1.46	1.52
2	E	35	ALA	CA-C	-5.30	1.45	1.52
2	E	175	LYS	N-CA	-5.30	1.40	1.46
2	F	306	SER	N-CA	-5.30	1.39	1.46
3	G	69	ILE	CA-C	-5.30	1.46	1.52
1	C	219	ARG	CA-C	-5.30	1.45	1.52
2	D	168	GLU	N-CA	-5.30	1.40	1.46
2	D	200	MET	N-CA	-5.30	1.39	1.46
1	B	60	LYS	CA-C	-5.30	1.46	1.52
2	D	100	GLU	CA-C	-5.30	1.46	1.52
2	D	231	ARG	CA-C	-5.30	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	D	334	VAL	N-CA	-5.30	1.39	1.46
1	A	73	VAL	CA-C	-5.29	1.45	1.52
2	F	82	ILE	CA-C	-5.29	1.46	1.52
1	C	258	ARG	CA-C	-5.29	1.46	1.52
2	D	112	GLN	CA-C	-5.29	1.46	1.52
2	F	442	GLN	CA-C	-5.29	1.45	1.52
1	B	172	GLN	N-CA	-5.29	1.39	1.46
1	A	367	VAL	CA-C	-5.28	1.46	1.52
4	H	20	PHE	CA-C	-5.28	1.46	1.52
3	G	109	GLY	N-CA	-5.28	1.39	1.45
1	A	500	ILE	N-CA	-5.28	1.40	1.46
1	A	329	THR	CA-C	-5.28	1.46	1.53
2	E	71	ARG	N-CA	-5.28	1.38	1.45
3	G	17	GLN	CA-C	-5.28	1.45	1.52
4	H	64	VAL	N-CA	-5.28	1.39	1.46
4	H	96	GLU	CA-C	-5.28	1.46	1.52
1	A	154	ASP	N-CA	-5.27	1.39	1.46
1	C	262	LYS	N-CA	-5.27	1.39	1.45
3	G	114	SER	CA-C	-5.27	1.45	1.52
2	D	224	GLU	CA-C	-5.27	1.46	1.53
3	G	43	VAL	CA-C	-5.27	1.46	1.52
3	G	250	PHE	N-CA	-5.27	1.39	1.46
2	D	379	GLN	N-CA	-5.27	1.40	1.46
2	D	408	ARG	N-CA	-5.27	1.40	1.46
1	B	382	ALA	CA-C	-5.27	1.46	1.52
3	G	4	LYS	CA-C	-5.26	1.45	1.52
1	B	356	LEU	N-CA	-5.26	1.40	1.46
2	D	321	ALA	CA-C	-5.26	1.46	1.52
2	E	418	PHE	CA-C	-5.26	1.47	1.53
4	H	24	THR	CA-C	-5.26	1.45	1.52
2	E	289	MET	N-CA	-5.26	1.40	1.46
2	E	310	ILE	CA-C	-5.26	1.46	1.52
4	H	57	VAL	N-CA	-5.26	1.39	1.46
1	A	8	VAL	CA-C	-5.26	1.46	1.52
2	D	275	ILE	N-CA	-5.25	1.40	1.46
2	E	118	ALA	N-CA	-5.25	1.39	1.46
2	D	75	VAL	N-CA	-5.25	1.40	1.46
1	B	440	GLU	CA-C	-5.25	1.46	1.52
7	S	42	VAL	N-CA	-5.25	1.40	1.46
1	A	174	GLY	N-CA	-5.25	1.37	1.45
1	A	353	GLU	CA-C	-5.25	1.46	1.52
2	E	405	SER	CA-C	-5.25	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	F	139	VAL	CA-C	-5.25	1.46	1.52
2	D	146	TYR	CA-C	-5.25	1.46	1.52
2	D	432	VAL	CA-C	-5.25	1.47	1.52
2	E	268	VAL	CA-C	-5.25	1.46	1.52
2	D	413	PHE	N-CA	-5.25	1.39	1.46
2	F	197	TYR	N-CA	-5.25	1.40	1.46
3	G	225	GLN	CA-C	-5.25	1.45	1.52
7	S	66	VAL	CA-C	-5.25	1.46	1.52
2	F	26	ASP	N-CA	-5.24	1.39	1.46
2	F	226	PRO	CA-C	-5.24	1.44	1.52
2	F	382	LYS	N-CA	-5.24	1.39	1.46
1	A	142	VAL	CA-C	-5.24	1.46	1.52
2	D	394	ASP	CA-C	-5.24	1.44	1.52
2	F	379	GLN	N-CA	-5.23	1.40	1.46
2	F	166	ILE	N-CA	-5.23	1.40	1.46
1	B	385	GLN	CA-C	-5.23	1.45	1.52
2	E	154	LEU	CA-C	-5.23	1.46	1.52
1	A	442	VAL	CA-C	-5.23	1.45	1.52
1	B	67	GLU	CA-C	-5.23	1.45	1.52
1	B	264	ALA	CA-C	-5.23	1.46	1.52
2	E	436	GLU	CA-C	-5.23	1.45	1.52
2	F	235	THR	CA-C	-5.23	1.46	1.52
2	F	448	GLU	CA-C	-5.23	1.46	1.52
1	A	88	VAL	CA-C	-5.22	1.46	1.52
1	A	139	ARG	CA-C	-5.22	1.45	1.53
1	A	267	ILE	N-CA	-5.22	1.39	1.46
2	D	292	MET	N-CA	-5.22	1.40	1.46
1	B	88	VAL	N-CA	-5.22	1.40	1.46
2	F	412	ARG	N-CA	-5.22	1.39	1.46
2	D	76	LEU	CA-C	-5.22	1.46	1.52
4	H	16	MET	CA-C	-5.22	1.46	1.52
4	H	67	ALA	N-CA	-5.22	1.39	1.46
7	S	157	SER	CA-C	-5.22	1.45	1.52
5	I	19	ALA	N-CA	-5.21	1.40	1.46
1	A	127	ARG	N-CA	-5.21	1.39	1.46
2	E	235	THR	CA-C	-5.21	1.46	1.52
1	A	258	ARG	CA-C	-5.21	1.46	1.52
1	A	60	LYS	N-CA	-5.21	1.39	1.45
2	D	443	GLN	CA-C	-5.21	1.46	1.52
2	E	27	GLU	CA-C	-5.21	1.45	1.52
1	B	221	THR	N-CA	-5.21	1.40	1.46
1	C	393	GLU	CA-C	-5.21	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	D	160	VAL	CA-C	-5.21	1.46	1.52
2	D	309	ALA	CA-C	-5.21	1.46	1.52
2	F	364	GLY	N-CA	-5.21	1.37	1.45
1	B	203	TYR	N-CA	-5.20	1.40	1.46
1	C	183	ILE	CA-C	-5.20	1.46	1.52
2	F	464	GLU	N-CA	-5.20	1.40	1.46
2	F	464	GLU	CA-C	-5.20	1.45	1.52
1	B	399	GLU	CA-C	-5.19	1.45	1.52
1	B	284	LEU	CA-C	-5.19	1.45	1.52
1	C	452	TYR	CA-C	-5.19	1.45	1.52
2	E	262	THR	CA-C	-5.18	1.46	1.52
1	B	305	LEU	CA-C	-5.18	1.46	1.52
1	C	88	VAL	N-CA	-5.18	1.40	1.46
2	D	201	ILE	N-CA	-5.18	1.40	1.46
2	F	236	GLY	CA-C	-5.18	1.46	1.52
3	G	270	ALA	N-CA	-5.18	1.39	1.46
2	D	439	LYS	CA-C	-5.18	1.46	1.52
2	F	404	VAL	N-CA	-5.18	1.40	1.46
2	F	245	ASP	N-CA	-5.17	1.39	1.46
1	B	277	ALA	N-CA	-5.17	1.40	1.46
2	F	378	LEU	N-CA	-5.17	1.40	1.46
4	H	82	VAL	N-CA	-5.17	1.40	1.46
1	B	301	LEU	N-CA	-5.17	1.40	1.46
1	C	394	LEU	N-CA	-5.17	1.39	1.46
2	D	325	THR	CA-C	-5.17	1.46	1.52
2	D	396	LEU	CA-C	-5.17	1.46	1.52
2	D	401	LYS	CA-C	-5.17	1.45	1.52
2	F	307	VAL	N-CA	-5.17	1.39	1.46
3	G	70	GLY	N-CA	-5.17	1.39	1.45
7	S	140	SER	CA-C	-5.17	1.46	1.52
1	B	488	LYS	CA-C	-5.17	1.46	1.52
1	A	190	ASN	CA-C	-5.16	1.45	1.52
7	S	67	LYS	N-CA	-5.16	1.40	1.46
1	B	69	ASP	CA-C	-5.16	1.45	1.52
1	A	463	LYS	N-CA	-5.16	1.40	1.46
1	B	48	GLN	CA-C	-5.16	1.46	1.53
1	B	65	ASN	CA-C	-5.16	1.46	1.52
2	D	197	TYR	N-CA	-5.16	1.40	1.46
2	E	142	LEU	N-CA	-5.16	1.40	1.46
2	D	412	ARG	N-CA	-5.16	1.39	1.46
3	G	52	TYR	CA-C	-5.16	1.46	1.52
2	D	123	PHE	N-CA	-5.16	1.40	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	226	MET	CA-C	-5.16	1.45	1.52
1	C	247	PRO	CA-C	-5.16	1.44	1.52
2	F	45	LEU	N-CA	-5.16	1.39	1.46
4	H	59	ARG	C-N	-5.16	1.28	1.33
4	H	78	SER	N-CA	-5.16	1.39	1.46
1	C	367	VAL	CA-C	-5.15	1.46	1.52
2	D	460	VAL	CA-C	-5.15	1.46	1.52
2	F	14	VAL	CA-C	-5.15	1.47	1.53
1	A	385	GLN	CA-C	-5.15	1.45	1.52
2	E	53	LEU	CA-C	-5.15	1.45	1.52
2	E	373	GLY	CA-C	-5.15	1.46	1.52
4	H	79	SER	N-CA	-5.15	1.39	1.46
4	H	60	PRO	N-CA	-5.15	1.41	1.47
1	A	186	GLN	CA-C	-5.14	1.45	1.52
1	A	34	ILE	N-CA	-5.14	1.40	1.46
1	B	152	ALA	CA-C	-5.14	1.45	1.52
2	F	70	VAL	CA-C	-5.14	1.47	1.52
2	D	466	ALA	CA-C	-5.13	1.46	1.52
3	G	6	ILE	CA-C	-5.13	1.46	1.52
1	C	61	GLY	CA-C	-5.13	1.45	1.51
1	A	172	GLN	N-CA	-5.13	1.39	1.46
1	A	358	TYR	CA-C	-5.13	1.46	1.52
1	B	246	ALA	N-CA	-5.13	1.41	1.46
1	A	167	ILE	N-CA	-5.13	1.40	1.46
1	B	416	GLN	CA-C	-5.13	1.46	1.52
1	A	338	ILE	N-CA	-5.13	1.40	1.46
1	C	359	LYS	N-CA	-5.13	1.39	1.46
2	D	287	THR	N-CA	-5.13	1.40	1.46
4	H	34	ARG	CA-C	-5.13	1.46	1.53
2	E	406	ARG	CA-C	-5.12	1.46	1.52
1	B	39	ALA	N-CA	-5.12	1.39	1.46
1	B	464	PHE	N-CA	-5.12	1.40	1.46
1	C	414	THR	CA-C	-5.12	1.45	1.52
3	G	215	TYR	CA-C	-5.12	1.46	1.52
1	C	448	GLY	CA-C	-5.12	1.46	1.52
2	E	21	VAL	N-CA	-5.12	1.40	1.46
1	C	195	GLU	CA-C	-5.12	1.46	1.52
1	A	481	GLY	CA-C	-5.12	1.46	1.51
1	C	284	LEU	N-CA	-5.12	1.39	1.46
3	G	222	THR	CA-C	-5.12	1.46	1.52
1	B	476	HIS	N-CA	-5.11	1.40	1.46
3	G	13	ILE	N-CA	-5.11	1.39	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	279	ARG	N-CA	-5.11	1.40	1.46
2	D	445	LEU	CA-C	-5.11	1.46	1.52
2	F	17	ILE	N-CA	-5.11	1.39	1.46
2	D	199	GLU	CA-C	-5.11	1.45	1.52
1	C	330	GLN	CA-C	-5.11	1.46	1.52
2	D	367	HIS	N-CA	-5.11	1.40	1.46
1	A	405	GLN	N-CA	-5.10	1.39	1.46
3	G	124	PHE	N-CA	-5.10	1.39	1.45
1	B	63	SER	N-CA	-5.10	1.40	1.46
1	C	243	GLN	N-CA	-5.10	1.40	1.46
1	C	322	THR	CA-C	-5.10	1.46	1.52
4	H	137	ALA	N-CA	-5.10	1.40	1.46
4	H	94	ALA	N-CA	-5.10	1.40	1.46
1	A	316	PHE	CA-C	-5.09	1.46	1.52
1	C	404	ALA	N-CA	-5.09	1.39	1.46
1	B	89	LYS	N-CA	-5.09	1.39	1.46
3	G	128	PHE	N-CA	-5.09	1.39	1.45
5	I	17	ILE	CA-C	-5.09	1.44	1.52
1	B	311	LYS	CA-C	-5.09	1.46	1.52
3	G	4	LYS	N-CA	-5.09	1.39	1.46
1	B	283	LEU	CA-C	-5.09	1.46	1.52
2	F	107	PRO	CA-C	-5.09	1.46	1.52
1	A	310	ALA	CA-C	-5.09	1.46	1.52
2	F	167	MET	CA-C	-5.09	1.46	1.52
3	G	116	LEU	CA-C	-5.08	1.46	1.52
2	D	207	ASN	CA-C	-5.08	1.46	1.52
1	A	126	ARG	CA-C	-5.08	1.46	1.52
1	A	488	LYS	N-CA	-5.08	1.39	1.46
1	C	468	PHE	CA-C	-5.08	1.46	1.52
2	D	144	ALA	N-CA	-5.08	1.41	1.46
7	S	41	ARG	CA-C	-5.08	1.46	1.52
1	C	354	THR	CA-C	-5.08	1.46	1.52
4	H	55	LEU	N-CA	-5.08	1.39	1.46
1	A	501	VAL	N-CA	-5.07	1.40	1.46
1	B	184	ILE	CA-C	-5.07	1.46	1.52
1	B	199	LEU	N-CA	-5.07	1.40	1.46
1	C	173	THR	N-CA	-5.07	1.39	1.46
3	G	17	GLN	N-CA	-5.07	1.40	1.46
1	C	99	VAL	CA-C	-5.07	1.46	1.52
2	D	432	VAL	N-CA	-5.07	1.40	1.46
1	C	429	LYS	CA-C	-5.07	1.46	1.52
3	G	171	TYR	N-CA	-5.07	1.39	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	H	142	VAL	CA-C	-5.07	1.45	1.52
2	F	138	LYS	N-CA	-5.07	1.40	1.46
7	S	28	LYS	CA-C	-5.07	1.46	1.52
2	E	312	VAL	N-CA	-5.06	1.40	1.46
1	B	99	VAL	N-CA	-5.06	1.40	1.46
2	E	473	LEU	CA-C	-5.06	1.46	1.52
7	S	15	GLU	CA-C	-5.06	1.46	1.52
7	S	97	ASN	CA-C	-5.06	1.45	1.52
1	B	499	GLU	N-CA	-5.06	1.40	1.46
1	C	445	ILE	N-CA	-5.06	1.40	1.46
2	D	243	PHE	CA-C	-5.06	1.45	1.52
2	F	287	THR	CA-C	-5.06	1.46	1.52
2	E	341	GLU	CA-C	-5.06	1.46	1.52
1	B	252	SER	CA-C	-5.05	1.46	1.52
1	B	266	ILE	N-CA	-5.05	1.40	1.46
2	D	414	LEU	CA-C	-5.05	1.46	1.52
1	B	383	MET	N-CA	-5.05	1.40	1.46
2	E	151	LYS	CA-C	-5.05	1.46	1.52
1	C	155	SER	N-CA	-5.05	1.39	1.46
2	D	465	GLU	CA-C	-5.05	1.46	1.52
3	G	206	GLU	N-CA	-5.05	1.39	1.46
1	A	321	LEU	CA-C	-5.05	1.46	1.52
2	D	171	ASN	CA-C	-5.05	1.46	1.52
2	E	73	GLN	CA-C	-5.05	1.46	1.52
2	E	236	GLY	CA-C	-5.05	1.46	1.52
2	E	237	LEU	CA-C	-5.05	1.46	1.52
2	F	399	GLU	N-CA	-5.05	1.40	1.46
2	F	449	TYR	N-CA	-5.04	1.40	1.46
1	A	123	SER	CA-C	-5.04	1.46	1.52
1	C	491	GLU	CA-C	-5.04	1.45	1.52
1	A	187	LYS	CA-C	-5.04	1.46	1.52
1	B	67	GLU	C-N	-5.04	1.27	1.33
1	C	210	ARG	CA-C	-5.04	1.46	1.52
1	C	443	ALA	CA-C	-5.04	1.46	1.52
2	F	419	GLN	CA-C	-5.04	1.46	1.52
1	C	433	TYR	CA-C	-5.04	1.46	1.53
1	B	187	LYS	N-CA	-5.04	1.40	1.46
1	C	310	ALA	CA-C	-5.04	1.46	1.52
2	E	109	LYS	CA-C	-5.04	1.46	1.52
1	C	137	ILE	N-CA	-5.03	1.40	1.46
2	E	29	LEU	N-CA	-5.03	1.41	1.46
1	B	280	GLN	N-CA	-5.03	1.40	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	E	276	PRO	N-CA	-5.03	1.40	1.47
1	B	128	ARG	N-CA	-5.03	1.40	1.46
1	C	244	TYR	N-CA	-5.03	1.40	1.46
1	A	244	TYR	N-CA	-5.03	1.40	1.46
2	D	306	SER	CA-C	-5.03	1.46	1.52
2	D	349	ASP	N-CA	-5.03	1.40	1.46
2	E	471	ASP	CA-C	-5.03	1.46	1.52
2	F	38	VAL	N-CA	-5.03	1.40	1.46
2	E	13	ILE	CA-C	-5.03	1.47	1.52
4	H	40	THR	N-CA	-5.03	1.39	1.45
1	A	199	LEU	CA-C	-5.02	1.46	1.52
2	F	363	VAL	CA-C	-5.02	1.46	1.52
1	A	469	LEU	N-CA	-5.02	1.40	1.46
1	B	90	ARG	CA-C	-5.02	1.46	1.52
1	B	187	LYS	CA-C	-5.02	1.46	1.52
4	H	64	VAL	CA-C	-5.02	1.46	1.52
2	D	383	SER	N-CA	-5.02	1.40	1.46
2	E	292	MET	N-CA	-5.02	1.39	1.46
1	B	262	LYS	N-CA	-5.01	1.39	1.46
2	D	328	HIS	CA-C	-5.01	1.45	1.52
2	D	428	LEU	CA-C	-5.01	1.46	1.52
4	H	130	GLU	CA-C	-5.01	1.46	1.52
7	S	90	ALA	CA-C	-5.01	1.46	1.52
1	C	128	ARG	N-CA	-5.01	1.39	1.46
2	D	84	ILE	CA-C	-5.01	1.46	1.52
1	A	394	LEU	CA-C	-5.01	1.45	1.52
1	B	153	VAL	C-O	-5.01	1.19	1.24
1	B	494	ASP	CA-C	-5.01	1.46	1.52
2	F	293	GLN	CA-C	-5.01	1.46	1.52
2	E	325	THR	CA-C	-5.01	1.46	1.52
2	F	366	GLU	N-CA	-5.01	1.40	1.46
2	F	270	ALA	CA-C	-5.01	1.46	1.52
3	G	165	PHE	N-CA	-5.00	1.39	1.46
1	C	245	LEU	CA-C	-5.00	1.46	1.52
2	E	412	ARG	N-CA	-5.00	1.40	1.46
2	F	202	GLU	CA-C	-5.00	1.46	1.52
2	F	365	SER	N-CA	-5.00	1.39	1.46
4	H	112	LEU	CA-C	-5.00	1.46	1.52
7	S	105	PHE	N-CA	-5.00	1.39	1.46

All (1171) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	T	103	LEU	CA-C-O	-18.81	101.07	120.82
2	F	84	ILE	N-CA-C	-18.01	94.42	109.19
8	T	96	ARG	O-C-N	-17.16	99.77	122.59
2	E	54	GLY	N-CA-C	-16.61	95.09	112.04
8	T	92	PHE	CA-C-N	15.51	147.54	122.11
8	T	92	PHE	C-N-CA	15.51	147.54	122.11
2	D	205	VAL	N-CA-C	-15.16	98.77	111.81
8	T	104	GLU	N-CA-C	14.60	128.76	111.82
7	S	71	ASP	CA-C-N	14.32	145.06	120.58
7	S	71	ASP	C-N-CA	14.32	145.06	120.58
2	D	399	GLU	N-CA-C	-13.60	96.82	113.41
8	T	93	ASP	N-CA-C	-13.54	96.64	113.97
2	E	387	ILE	N-CA-C	-13.30	98.03	110.53
1	B	36	ASP	N-CA-C	-12.90	99.92	114.62
2	D	54	GLY	N-CA-C	-12.58	99.21	112.04
1	A	10	SER	N-CA-C	-12.48	97.70	113.43
1	C	353	GLU	CA-C-N	12.23	136.67	120.28
1	C	353	GLU	C-N-CA	12.23	136.67	120.28
7	S	75	LYS	N-CA-C	-12.11	99.50	114.75
2	D	41	ARG	CA-C-N	12.05	136.43	120.28
2	D	41	ARG	C-N-CA	12.05	136.43	120.28
2	D	16	VAL	N-CA-C	-11.89	90.17	107.77
1	C	173	THR	N-CA-C	-11.24	99.53	113.02
1	B	91	THR	N-CA-C	-11.17	99.76	113.50
2	D	395	GLU	N-CA-C	-11.10	99.05	112.59
2	F	83	ARG	N-CA-C	-11.09	91.32	109.40
7	S	25	ALA	N-CA-C	10.80	122.81	111.14
2	D	84	ILE	N-CA-C	-10.71	100.41	109.19
1	A	313	ASN	CA-C-N	10.61	135.55	120.28
1	A	313	ASN	C-N-CA	10.61	135.55	120.28
8	T	96	ARG	CA-C-N	10.57	135.82	120.38
8	T	96	ARG	C-N-CA	10.57	135.82	120.38
1	B	38	ILE	N-CA-C	-10.51	93.39	108.11
7	S	72	MET	CA-C-N	10.51	141.03	122.42
7	S	72	MET	C-N-CA	10.51	141.03	122.42
3	G	171	TYR	N-CA-C	-10.51	93.30	108.96
1	A	41	VAL	N-CA-C	-10.45	93.49	108.11
7	S	72	MET	N-CA-C	10.44	124.54	111.69
2	F	256	ASP	N-CA-C	-10.41	89.79	107.80
2	D	80	ALA	N-CA-C	-10.38	98.83	108.07
2	E	418	PHE	CA-C-N	10.31	134.93	120.29
2	E	418	PHE	C-N-CA	10.31	134.93	120.29
2	D	207	ASN	N-CA-C	-10.29	92.83	108.99

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	136	ILE	CA-C-N	10.29	126.72	120.24
1	B	136	ILE	C-N-CA	10.29	126.72	120.24
1	C	313	ASN	CA-C-N	10.26	135.05	120.28
1	C	313	ASN	C-N-CA	10.26	135.05	120.28
1	A	196	LYS	N-CA-C	-10.18	101.64	114.56
1	B	387	ALA	N-CA-C	10.12	122.39	111.36
2	E	80	ALA	N-CA-C	-9.96	99.20	108.07
1	B	313	ASN	CA-C-N	9.87	134.49	120.28
1	B	313	ASN	C-N-CA	9.87	134.49	120.28
2	E	450	ASP	N-CA-C	-9.79	102.12	114.56
2	E	399	GLU	N-CA-C	-9.72	100.64	111.14
8	T	103	LEU	N-CA-C	-9.72	100.67	111.07
2	D	209	LYS	N-CA-C	-9.68	100.78	112.59
2	F	387	ILE	CA-C-N	9.66	133.69	120.46
2	F	387	ILE	C-N-CA	9.66	133.69	120.46
1	C	91	THR	N-CA-C	-9.64	101.64	113.50
2	D	102	ILE	N-CA-C	-9.61	103.59	112.43
2	F	102	ILE	N-CA-C	-9.59	103.33	112.83
1	B	42	HIS	CA-C-N	9.58	130.00	121.86
1	B	42	HIS	C-N-CA	9.58	130.00	121.86
2	F	423	VAL	N-CA-C	9.57	119.53	110.53
7	S	157	SER	N-CA-C	-9.55	90.45	110.80
1	A	330	GLN	N-CA-C	-9.47	93.46	108.90
1	C	504	PHE	CA-C-N	9.47	132.75	120.44
1	C	504	PHE	C-N-CA	9.47	132.75	120.44
1	B	500	ILE	CA-C-N	9.45	132.47	120.56
1	B	500	ILE	C-N-CA	9.45	132.47	120.56
2	D	112	GLN	N-CA-C	-9.40	93.93	109.07
3	G	54	LYS	N-CA-C	-9.39	101.12	111.36
2	E	355	SER	N-CA-C	-9.36	91.64	108.48
2	F	80	ALA	N-CA-C	-9.34	99.76	108.07
2	D	449	TYR	N-CA-C	-9.33	93.04	108.34
2	D	20	VAL	N-CA-C	-9.27	94.35	107.80
2	D	57	THR	N-CA-C	-9.27	94.28	109.40
1	B	25	LEU	N-CA-C	-9.25	99.04	110.61
3	G	125	LEU	N-CA-C	-9.22	100.67	112.93
2	F	26	ASP	N-CA-C	-9.19	99.00	111.96
4	H	54	THR	N-CA-C	-9.19	94.55	108.52
1	B	88	VAL	N-CA-C	-9.16	95.29	108.11
1	A	225	ALA	N-CA-C	-9.14	102.14	113.38
5	I	45	VAL	N-CA-C	-9.13	100.10	110.05
2	D	161	GLY	N-CA-C	-9.13	101.02	115.08

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	H	135	ILE	CA-C-N	9.13	132.89	120.38
4	H	135	ILE	C-N-CA	9.13	132.89	120.38
1	A	400	VAL	N-CA-C	-9.10	102.03	113.22
2	D	273	GLY	N-CA-C	-9.03	103.34	115.36
3	G	105	ILE	N-CA-C	-9.03	94.19	108.81
1	A	35	GLY	N-CA-C	-8.99	91.87	113.18
3	G	111	LYS	N-CA-C	-8.98	102.24	113.55
8	T	96	ARG	N-CA-C	-8.95	91.74	110.80
1	A	504	PHE	CA-C-N	8.93	132.05	120.44
1	A	504	PHE	C-N-CA	8.93	132.05	120.44
1	B	334	VAL	CA-C-N	8.93	132.25	120.28
1	B	334	VAL	C-N-CA	8.93	132.25	120.28
1	A	67	GLU	N-CA-C	-8.93	96.93	110.50
2	D	218	VAL	N-CA-C	-8.85	95.37	108.12
2	E	118	ALA	N-CA-C	-8.83	95.28	108.79
2	E	57	THR	N-CA-C	-8.82	95.02	109.40
2	F	54	GLY	N-CA-C	-8.82	100.41	111.70
2	D	330	ASP	N-CA-C	-8.81	103.65	114.75
5	I	39	GLY	N-CA-C	-8.81	97.22	110.97
2	F	211	ALA	N-CA-C	-8.81	102.62	112.57
2	E	211	ALA	N-CA-C	-8.77	102.14	112.92
1	A	335	SER	N-CA-C	-8.76	101.73	111.28
2	D	22	ASP	N-CA-C	-8.76	94.95	109.24
2	F	273	GLY	N-CA-C	-8.75	103.72	115.36
1	C	419	SER	CA-C-N	8.72	132.31	120.54
1	C	419	SER	C-N-CA	8.72	132.31	120.54
2	E	273	GLY	N-CA-C	-8.71	103.78	115.36
1	A	410	LEU	N-CA-C	-8.65	102.44	113.16
3	G	124	PHE	N-CA-C	-8.64	97.74	110.52
11	W	152	GLN	CA-C-N	8.64	130.63	119.84
11	W	152	GLN	C-N-CA	8.64	130.63	119.84
1	C	454	ASP	CA-C-N	8.62	131.84	120.28
1	C	454	ASP	C-N-CA	8.62	131.84	120.28
1	B	67	GLU	N-CA-C	-8.62	97.40	110.50
1	C	88	VAL	N-CA-C	-8.60	96.14	108.17
1	B	140	ILE	N-CA-C	-8.59	95.83	108.89
1	C	225	ALA	N-CA-C	-8.58	102.83	113.38
2	E	218	VAL	N-CA-C	-8.55	95.80	108.12
2	F	17	ILE	N-CA-C	-8.55	92.87	107.24
1	A	290	GLY	N-CA-C	-8.55	99.04	110.58
7	S	70	SER	CA-C-N	8.54	137.05	122.36
7	S	70	SER	C-N-CA	8.54	137.05	122.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	S	31	LYS	N-CA-C	-8.50	103.41	112.93
2	F	41	ARG	CA-C-N	8.49	132.34	120.29
2	F	41	ARG	C-N-CA	8.49	132.34	120.29
3	G	115	ILE	N-CA-C	-8.49	104.10	112.17
4	H	76	PHE	N-CA-C	-8.47	95.59	109.40
2	D	83	ARG	N-CA-C	-8.44	95.65	109.40
1	B	195	GLU	N-CA-C	-8.40	103.14	112.72
2	D	25	PHE	N-CA-C	-8.38	96.10	109.59
2	E	145	PRO	N-CA-C	-8.37	96.90	110.55
2	F	304	ILE	N-CA-C	-8.37	93.97	107.28
1	B	430	GLN	N-CA-C	-8.36	92.99	110.80
2	F	24	GLN	N-CA-C	-8.34	95.64	109.07
2	E	152	ILE	CA-C-N	-8.30	114.91	122.29
2	E	152	ILE	C-N-CA	-8.30	114.91	122.29
2	D	59	ARG	N-CA-C	-8.29	96.25	109.59
2	F	138	LYS	CA-C-N	8.27	131.78	120.46
2	F	138	LYS	C-N-CA	8.27	131.78	120.46
7	S	69	LEU	N-CA-C	-8.26	101.06	112.12
2	D	21	VAL	N-CA-C	-8.24	96.57	108.11
1	B	77	GLY	N-CA-C	-8.21	99.35	110.43
2	D	128	VAL	N-CA-C	-8.21	103.12	113.22
3	G	129	LYS	N-CA-C	-8.19	96.96	109.41
2	E	439	LYS	CA-C-N	8.19	129.24	119.99
2	E	439	LYS	C-N-CA	8.19	129.24	119.99
7	S	54	SER	N-CA-C	-8.19	101.45	112.26
3	G	248	LEU	N-CA-C	-8.17	102.06	112.93
7	S	158	ILE	N-CA-C	-8.17	98.28	109.55
3	G	268	GLY	N-CA-C	-8.14	93.88	113.18
2	D	349	ASP	N-CA-C	-8.14	92.16	109.01
2	E	105	ARG	N-CA-C	-8.13	103.45	112.72
2	F	20	VAL	N-CA-C	-8.13	96.01	107.80
1	B	457	GLU	N-CA-C	-8.12	98.16	110.50
2	E	47	LEU	N-CA-C	-8.11	96.01	109.07
3	G	184	ILE	N-CA-C	-8.10	102.97	110.82
2	D	212	THR	N-CA-C	-8.09	98.49	110.06
1	B	488	LYS	N-CA-C	-8.07	96.44	108.79
1	A	336	ALA	CA-C-N	8.07	130.93	120.44
1	A	336	ALA	C-N-CA	8.07	130.93	120.44
2	F	345	TYR	N-CA-C	-8.07	90.83	108.74
1	C	35	GLY	N-CA-C	-8.07	94.06	113.18
1	C	411	ASP	N-CA-C	-8.06	96.84	108.60
2	F	21	VAL	N-CA-C	-8.05	96.83	108.11

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	46	ASN	N-CA-C	-8.05	103.46	113.28
2	E	463	ILE	CA-C-N	8.04	131.39	120.54
2	E	463	ILE	C-N-CA	8.04	131.39	120.54
3	G	81	ILE	CA-C-N	8.03	131.36	120.44
3	G	81	ILE	C-N-CA	8.03	131.36	120.44
7	S	162	MET	N-CA-C	8.03	120.94	111.71
1	C	28	THR	N-CA-C	-8.02	97.12	109.24
2	D	17	ILE	N-CA-C	-8.01	92.68	109.34
1	A	96	ASP	N-CA-C	-8.00	97.16	109.24
1	B	438	ILE	N-CA-C	7.98	118.76	110.62
3	G	166	ARG	N-CA-C	-7.98	102.57	113.18
1	A	24	ASP	N-CA-C	-7.97	93.82	110.80
2	F	207	ASN	N-CA-C	-7.95	97.00	109.72
2	D	162	LYS	N-CA-C	-7.94	102.57	111.07
2	E	461	GLY	N-CA-C	-7.94	96.13	112.34
1	A	97	VAL	N-CA-C	-7.92	100.06	109.01
1	A	91	THR	N-CA-C	-7.91	102.70	113.30
1	A	455	LYS	N-CA-C	-7.91	101.75	111.40
2	F	16	VAL	N-CA-C	-7.91	96.07	107.77
3	G	197	ASP	N-CA-C	7.88	127.60	110.80
2	F	105	ARG	N-CA-C	-7.88	101.54	112.25
4	H	32	ASN	CA-C-N	7.87	135.31	122.64
4	H	32	ASN	C-N-CA	7.87	135.31	122.64
2	D	26	ASP	N-CA-C	-7.86	101.36	112.13
1	B	192	GLY	N-CA-C	-7.86	100.58	112.60
1	A	197	LYS	N-CA-C	-7.85	101.83	111.40
2	E	52	HIS	N-CA-C	-7.83	94.81	108.20
2	F	455	GLN	N-CA-C	-7.81	103.32	112.92
1	C	408	SER	N-CA-C	7.79	121.20	110.06
8	T	107	TYR	CA-C-O	-7.78	112.65	120.82
8	T	93	ASP	O-C-N	-7.78	113.06	122.48
1	C	96	ASP	N-CA-C	-7.77	97.56	109.14
1	A	143	ARG	CA-C-N	7.75	131.75	120.51
1	A	143	ARG	C-N-CA	7.75	131.75	120.51
4	H	87	ASP	CA-C-N	7.75	131.70	120.38
4	H	87	ASP	C-N-CA	7.75	131.70	120.38
1	C	366	ASN	CA-C-N	7.74	131.41	120.42
1	C	366	ASN	C-N-CA	7.74	131.41	120.42
1	C	321	LEU	N-CA-C	-7.72	95.68	108.34
1	A	16	ILE	O-C-N	7.69	130.26	121.96
1	C	67	GLU	N-CA-C	-7.68	98.82	110.50
2	D	135	THR	N-CA-C	-7.68	104.51	114.04

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	G	80	ALA	CA-C-N	7.68	130.51	120.60
3	G	80	ALA	C-N-CA	7.68	130.51	120.60
2	E	160	VAL	N-CA-C	-7.67	101.74	113.16
2	E	84	ILE	N-CA-C	-7.66	102.91	109.19
2	F	450	ASP	N-CA-C	-7.66	94.48	110.80
1	A	118	LYS	N-CA-C	-7.65	102.14	113.61
1	B	432	GLN	N-CA-C	-7.65	98.57	110.42
4	H	77	VAL	N-CA-C	-7.64	96.40	108.86
7	S	121	THR	CA-C-N	7.63	136.12	121.54
7	S	121	THR	C-N-CA	7.63	136.12	121.54
2	E	182	VAL	N-CA-C	-7.59	97.15	108.46
2	E	59	ARG	N-CA-C	-7.58	97.38	109.59
2	D	157	GLY	CA-C-N	7.57	135.99	121.54
2	D	157	GLY	C-N-CA	7.57	135.99	121.54
3	G	154	GLU	CA-C-N	7.56	132.13	121.24
3	G	154	GLU	C-N-CA	7.56	132.13	121.24
11	W	148	SER	CA-C-O	-7.55	109.23	119.05
7	S	122	THR	N-CA-C	7.54	126.85	110.80
1	C	39	ALA	N-CA-C	-7.53	96.24	108.52
3	G	93	ALA	N-CA-C	7.51	126.81	110.80
7	S	7	PRO	CA-C-N	7.51	129.23	119.84
7	S	7	PRO	C-N-CA	7.51	129.23	119.84
1	A	288	PRO	N-CA-C	7.51	119.86	110.70
2	E	243	PHE	N-CA-C	7.49	120.51	111.82
2	E	398	GLU	N-CA-C	7.49	121.52	112.38
1	A	289	PRO	N-CA-C	-7.49	97.05	112.47
3	G	4	LYS	CA-C-N	7.48	130.64	120.54
3	G	4	LYS	C-N-CA	7.48	130.64	120.54
7	S	15	GLU	N-CA-C	-7.48	104.18	113.38
1	A	88	VAL	N-CA-C	-7.47	97.65	108.11
7	S	76	GLU	CA-C-N	7.47	135.81	121.54
7	S	76	GLU	C-N-CA	7.47	135.81	121.54
2	E	331	ALA	N-CA-C	-7.46	97.19	108.52
1	A	16	ILE	CA-C-N	7.45	130.27	120.28
1	A	16	ILE	C-N-CA	7.45	130.27	120.28
1	A	44	LEU	CA-C-N	7.45	135.78	121.54
1	A	44	LEU	C-N-CA	7.45	135.78	121.54
1	A	80	LYS	CA-C-N	7.45	130.59	120.54
1	A	80	LYS	C-N-CA	7.45	130.59	120.54
1	A	150	ILE	N-CA-C	-7.43	96.70	107.78
1	C	125	ALA	N-CA-C	-7.42	98.52	110.32
2	D	211	ALA	N-CA-C	-7.42	104.27	112.72

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	232	VAL	N-CA-C	-7.41	97.76	108.36
2	E	451	HIS	N-CA-C	-7.41	103.50	112.54
2	F	399	GLU	N-CA-C	-7.41	103.28	111.36
1	C	263	HIS	N-CA-C	-7.41	96.33	108.41
2	E	292	MET	N-CA-C	-7.41	101.37	112.04
1	B	237	SER	CA-C-N	7.39	135.66	121.54
1	B	237	SER	C-N-CA	7.39	135.66	121.54
2	F	42	GLU	N-CA-C	-7.39	103.31	111.36
3	G	51	LEU	N-CA-C	-7.39	95.06	110.80
1	A	372	SER	N-CA-C	-7.38	96.23	108.34
7	S	55	LEU	CA-C-N	7.38	130.49	120.38
7	S	55	LEU	C-N-CA	7.38	130.49	120.38
1	A	173	THR	N-CA-C	-7.37	104.18	113.02
8	T	104	GLU	CA-C-O	7.35	128.42	119.97
1	C	80	LYS	CA-C-N	7.34	134.40	122.65
1	C	80	LYS	C-N-CA	7.34	134.40	122.65
2	F	370	VAL	N-CA-C	-7.32	103.65	110.53
1	B	464	PHE	CA-C-N	7.32	129.96	120.44
1	B	464	PHE	C-N-CA	7.32	129.96	120.44
2	D	138	LYS	CA-C-N	7.32	130.49	120.46
2	D	138	LYS	C-N-CA	7.32	130.49	120.46
3	G	2	THR	N-CA-C	-7.32	100.67	110.55
1	B	176	THR	N-CA-C	-7.31	103.24	111.14
2	D	282	GLN	N-CA-C	-7.30	100.59	109.72
2	D	385	GLN	N-CA-C	7.29	120.10	111.71
1	C	31	VAL	N-CA-C	-7.27	99.24	108.84
1	A	492	GLU	N-CA-C	-7.26	103.30	111.07
7	S	107	THR	CA-C-O	-7.25	110.15	120.51
1	B	300	TYR	CA-C-N	7.25	130.32	120.54
1	B	300	TYR	C-N-CA	7.25	130.32	120.54
2	F	115	ALA	N-CA-C	-7.24	98.76	110.20
2	D	103	ASP	N-CA-C	-7.22	103.93	112.89
1	A	404	ALA	N-CA-C	-7.22	102.73	112.26
2	F	397	SER	CA-C-N	7.21	130.66	120.28
2	F	397	SER	C-N-CA	7.21	130.66	120.28
1	A	260	ASN	N-CA-C	-7.20	102.45	112.25
4	H	110	ALA	CA-C-N	7.19	130.50	120.29
4	H	110	ALA	C-N-CA	7.19	130.50	120.29
2	F	409	LYS	CA-C-N	7.19	129.76	120.56
2	F	409	LYS	C-N-CA	7.19	129.76	120.56
1	A	415	GLN	CA-C-N	7.19	129.78	120.44
1	A	415	GLN	C-N-CA	7.19	129.78	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	461	ILE	N-CA-C	-7.18	103.53	110.42
2	E	207	ASN	N-CA-C	-7.18	97.90	109.96
1	A	483	ILE	CA-C-N	7.18	129.77	120.44
1	A	483	ILE	C-N-CA	7.18	129.77	120.44
2	F	422	GLU	N-CA-C	-7.17	103.50	111.82
1	A	321	LEU	N-CA-C	-7.17	96.58	108.34
2	F	311	TYR	N-CA-C	-7.14	98.91	110.20
2	D	463	ILE	CA-C-N	7.12	130.13	120.38
2	D	463	ILE	C-N-CA	7.12	130.13	120.38
1	B	263	HIS	N-CA-C	-7.10	97.33	108.90
3	G	110	ASP	N-CA-C	-7.10	102.65	112.30
8	T	89	HIS	O-C-N	-7.09	114.60	122.12
2	D	126	MET	N-CA-C	-7.09	100.03	110.52
4	H	86	ALA	N-CA-C	-7.08	101.85	112.04
7	S	150	LEU	CA-C-N	7.07	135.03	121.54
7	S	150	LEU	C-N-CA	7.07	135.03	121.54
1	C	74	VAL	N-CA-C	-7.06	99.57	108.89
1	C	379	GLN	CA-C-N	7.06	132.88	122.86
1	C	379	GLN	C-N-CA	7.06	132.88	122.86
2	F	40	GLY	N-CA-C	-7.06	105.58	115.32
4	H	119	LEU	CA-C-N	7.06	130.45	120.28
4	H	119	LEU	C-N-CA	7.06	130.45	120.28
3	G	106	ILE	N-CA-C	-7.04	97.98	108.12
2	F	11	GLY	N-CA-C	-7.03	100.87	111.14
7	S	82	THR	N-CA-C	-7.03	104.02	112.59
7	S	91	GLU	N-CA-C	-7.03	103.55	111.14
1	C	488	LYS	N-CA-C	-7.02	95.84	110.80
2	E	183	PHE	N-CA-C	-7.02	97.45	108.90
2	E	456	ALA	N-CA-C	-7.01	105.54	112.97
5	I	7	ALA	N-CA-C	-7.01	104.61	113.02
1	B	175	LYS	CA-C-O	7.01	128.18	120.82
2	E	251	VAL	N-CA-C	-7.00	99.69	109.21
2	F	410	ILE	N-CA-C	-6.99	103.96	110.53
3	G	179	PHE	CA-C-N	6.99	130.35	120.28
3	G	179	PHE	C-N-CA	6.99	130.35	120.28
3	G	167	SER	N-CA-C	-6.99	96.48	107.73
1	A	267	ILE	N-CA-C	-6.99	97.55	107.75
1	A	327	ILE	N-CA-C	-6.98	97.97	108.17
7	S	59	TYR	N-CA-C	-6.98	105.11	112.93
7	S	42	VAL	N-CA-C	6.97	117.68	110.36
7	S	74	ALA	N-CA-C	-6.97	101.87	110.65
2	F	225	PRO	CA-C-N	6.96	126.48	119.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	F	225	PRO	C-N-CA	6.96	126.48	119.24
1	B	500	ILE	O-C-N	6.96	128.73	121.91
1	C	200	TYR	N-CA-C	-6.96	97.91	109.46
1	B	127	ARG	N-CA-C	-6.96	97.28	108.55
4	H	93	LEU	N-CA-C	-6.95	93.17	107.70
2	D	110	THR	CA-C-N	6.93	134.79	121.54
2	D	110	THR	C-N-CA	6.93	134.79	121.54
1	A	334	VAL	CA-C-N	6.93	129.56	120.28
1	A	334	VAL	C-N-CA	6.93	129.56	120.28
1	B	267	ILE	N-CA-C	-6.92	97.64	107.75
5	I	6	GLN	N-CA-C	-6.92	103.95	112.88
2	D	115	ALA	N-CA-C	-6.92	98.76	109.76
2	E	29	LEU	N-CA-C	-6.92	100.18	108.14
1	C	257	PHE	CA-C-N	6.90	129.41	120.44
1	C	257	PHE	C-N-CA	6.90	129.41	120.44
10	V	28	GLY	CA-C-N	6.89	128.46	119.84
10	V	28	GLY	C-N-CA	6.89	128.46	119.84
2	E	209	LYS	N-CA-C	-6.88	104.19	112.59
1	B	400	VAL	N-CA-C	-6.87	106.03	112.83
1	C	397	TYR	CA-C-N	6.87	130.04	120.29
1	C	397	TYR	C-N-CA	6.87	130.04	120.29
2	E	162	LYS	N-CA-C	-6.87	103.72	111.07
11	W	14	ILE	CA-C-O	-6.86	113.58	120.85
2	F	127	SER	N-CA-C	-6.85	98.05	108.67
1	B	335	SER	N-CA-C	-6.84	103.83	111.28
2	E	359	ASP	CA-C-N	6.83	126.52	119.56
2	E	359	ASP	C-N-CA	6.83	126.52	119.56
4	H	92	LEU	N-CA-C	-6.82	98.12	109.24
10	V	6	ASP	CA-C-N	6.81	128.36	119.84
10	V	6	ASP	C-N-CA	6.81	128.36	119.84
1	C	174	GLY	N-CA-C	-6.80	100.55	114.16
2	D	94	ILE	N-CA-C	-6.80	97.95	107.80
2	F	161	GLY	N-CA-C	-6.79	100.58	114.16
11	W	147	ILE	CA-C-O	-6.79	113.52	121.05
1	C	146	MET	N-CA-C	-6.77	96.37	110.80
1	C	505	LEU	N-CA-C	-6.77	103.83	111.07
2	E	151	LYS	N-CA-C	-6.77	98.17	109.07
2	F	331	ALA	N-CA-C	-6.76	97.59	108.55
3	G	149	LEU	N-CA-C	-6.76	103.53	111.03
1	A	15	ARG	CA-C-N	6.74	129.60	120.77
1	A	15	ARG	C-N-CA	6.74	129.60	120.77
1	A	151	LYS	CA-C-N	6.73	129.60	120.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	151	LYS	C-N-CA	6.73	129.60	120.38
2	E	340	ALA	CA-C-N	6.73	130.53	120.31
2	E	340	ALA	C-N-CA	6.73	130.53	120.31
8	T	66	ALA	CA-C-O	-6.72	113.76	120.82
2	E	95	MET	N-CA-C	-6.72	98.97	109.72
1	B	99	VAL	N-CA-C	-6.72	97.75	108.90
2	F	218	VAL	N-CA-C	-6.72	98.44	108.12
2	E	433	PRO	CA-C-N	6.72	129.58	120.38
2	E	433	PRO	C-N-CA	6.72	129.58	120.38
1	B	279	ARG	CA-C-N	6.72	129.61	120.54
1	B	279	ARG	C-N-CA	6.72	129.61	120.54
1	B	35	GLY	N-CA-C	-6.71	97.28	113.18
2	D	87	GLY	CA-C-N	6.70	126.39	119.82
2	D	87	GLY	C-N-CA	6.70	126.39	119.82
2	D	122	GLU	CA-C-N	6.70	129.25	120.28
2	D	122	GLU	C-N-CA	6.70	129.25	120.28
7	S	50	LYS	CA-C-N	6.69	134.31	121.54
7	S	50	LYS	C-N-CA	6.69	134.31	121.54
1	C	135	GLY	N-CA-C	-6.68	102.09	112.85
3	G	159	SER	CA-C-O	-6.67	113.32	121.06
2	F	330	ASP	N-CA-C	-6.67	106.34	114.75
2	F	229	ARG	CA-C-N	6.66	129.88	120.28
2	F	229	ARG	C-N-CA	6.66	129.88	120.28
7	S	47	LYS	N-CA-C	6.66	124.99	110.80
1	B	261	GLY	CA-C-N	6.66	130.80	120.75
1	B	261	GLY	C-N-CA	6.66	130.80	120.75
4	H	85	ASN	N-CA-C	-6.64	99.88	109.31
1	B	482	LYS	N-CA-C	6.64	118.31	111.14
1	B	354	THR	N-CA-C	6.64	118.60	111.36
1	C	372	SER	N-CA-C	-6.63	96.21	108.02
1	C	408	SER	CA-C-O	-6.63	114.36	121.78
2	E	311	TYR	N-CA-C	-6.62	97.62	108.41
3	G	270	ALA	N-CA-C	-6.62	96.70	110.80
1	B	360	GLY	N-CA-C	-6.62	97.50	113.18
1	C	192	GLY	N-CA-C	-6.62	102.48	112.60
1	A	117	GLY	N-CA-C	-6.61	106.11	115.30
2	F	319	ASP	O-C-N	6.61	126.62	121.47
2	F	217	LEU	N-CA-C	-6.60	98.44	109.07
1	B	255	GLU	CA-C-N	6.60	129.02	120.44
1	B	255	GLU	C-N-CA	6.60	129.02	120.44
2	D	444	ILE	CA-C-N	6.59	129.11	120.28
2	D	444	ILE	C-N-CA	6.59	129.11	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	F	25	PHE	N-CA-C	-6.59	98.50	109.24
4	H	67	ALA	N-CA-C	-6.58	98.91	109.96
3	G	162	PHE	N-CA-C	-6.57	99.67	108.74
2	E	249	GLN	CA-C-N	6.57	132.85	122.34
2	E	249	GLN	C-N-CA	6.57	132.85	122.34
7	S	105	PHE	CA-C-N	6.57	129.41	120.54
7	S	105	PHE	C-N-CA	6.57	129.41	120.54
2	D	431	LEU	N-CA-C	-6.57	99.02	109.59
1	B	225	ALA	CA-C-N	6.56	129.73	120.28
1	B	225	ALA	C-N-CA	6.56	129.73	120.28
1	A	174	GLY	N-CA-C	-6.56	97.64	113.18
2	F	393	MET	CA-C-N	6.56	134.06	121.54
2	F	393	MET	C-N-CA	6.56	134.06	121.54
1	B	506	ALA	CA-C-N	6.56	134.26	121.41
1	B	506	ALA	C-N-CA	6.56	134.26	121.41
1	C	175	LYS	N-CA-C	-6.56	104.13	111.28
1	C	193	THR	N-CA-C	-6.55	103.70	112.94
1	C	509	GLU	N-CA-C	-6.55	96.84	110.80
2	F	22	ASP	N-CA-C	-6.55	98.53	109.07
3	G	92	GLU	CA-C-N	6.55	134.04	121.54
3	G	92	GLU	C-N-CA	6.55	134.04	121.54
2	D	203	SER	N-CA-C	-6.54	104.23	111.82
1	B	336	ALA	CA-C-N	6.54	129.28	120.65
1	B	336	ALA	C-N-CA	6.54	129.28	120.65
3	G	132	GLY	N-CA-C	-6.54	101.71	112.83
1	C	253	MET	N-CA-C	6.54	118.41	111.28
1	A	279	ARG	CA-C-N	6.54	129.36	120.54
1	A	279	ARG	C-N-CA	6.54	129.36	120.54
1	C	89	LYS	N-CA-C	-6.54	98.75	109.40
2	F	59	ARG	N-CA-C	-6.53	98.55	109.07
5	I	43	LYS	CA-C-N	6.53	133.73	121.97
5	I	43	LYS	C-N-CA	6.53	133.73	121.97
1	B	40	ARG	N-CA-C	-6.53	98.58	108.96
4	H	78	SER	N-CA-C	-6.52	105.21	113.43
3	G	74	ASP	N-CA-C	-6.52	104.37	112.72
7	S	21	ALA	N-CA-C	-6.52	104.10	111.14
1	A	93	ALA	CA-C-N	6.52	130.64	120.34
1	A	93	ALA	C-N-CA	6.52	130.64	120.34
1	B	113	ASN	N-CA-C	-6.52	99.55	109.85
4	H	132	GLN	CA-C-N	6.52	129.01	120.60
4	H	132	GLN	C-N-CA	6.52	129.01	120.60
1	C	317	GLY	N-CA-C	-6.50	105.08	115.08

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	350	ILE	N-CA-C	6.49	116.97	107.37
3	G	248	LEU	CA-C-N	6.49	129.27	120.38
3	G	248	LEU	C-N-CA	6.49	129.27	120.38
4	H	22	SER	N-CA-C	-6.48	97.53	109.06
1	B	45	ARG	N-CA-C	6.48	120.76	112.34
1	A	80	LYS	N-CA-C	-6.48	104.31	111.82
2	D	345	TYR	N-CA-C	-6.47	95.50	109.81
1	C	407	GLY	N-CA-C	-6.46	104.55	115.34
1	B	131	LEU	N-CA-C	-6.46	99.49	109.24
2	E	225	PRO	CA-C-N	6.46	125.96	119.24
2	E	225	PRO	C-N-CA	6.46	125.96	119.24
2	D	274	ARG	N-CA-C	-6.46	102.20	110.53
3	G	129	LYS	CA-C-N	6.45	131.75	122.40
3	G	129	LYS	C-N-CA	6.45	131.75	122.40
3	G	72	SER	CA-C-N	6.44	133.84	121.54
3	G	72	SER	C-N-CA	6.44	133.84	121.54
1	B	135	GLY	CA-C-N	6.43	128.90	120.60
1	B	135	GLY	C-N-CA	6.43	128.90	120.60
1	C	70	ASN	N-CA-C	-6.43	99.69	108.38
5	I	3	TYR	N-CA-C	-6.43	104.69	112.54
2	E	75	VAL	N-CA-C	-6.43	99.23	108.48
1	A	8	VAL	N-CA-C	-6.42	101.30	109.58
2	E	133	LEU	N-CA-C	-6.42	99.71	109.85
1	B	347	ASP	N-CA-C	-6.41	102.83	111.87
2	F	122	GLU	CA-C-N	6.41	128.87	120.28
2	F	122	GLU	C-N-CA	6.41	128.87	120.28
4	H	28	PHE	N-CA-C	-6.41	98.54	109.24
2	D	114	ALA	CA-C-N	6.40	130.66	121.50
2	D	114	ALA	C-N-CA	6.40	130.66	121.50
2	D	390	ILE	N-CA-C	-6.40	105.93	113.42
1	A	406	PHE	N-CA-C	-6.40	100.09	110.20
3	G	123	GLN	N-CA-C	-6.39	105.35	113.02
4	H	82	VAL	N-CA-C	-6.39	99.01	108.85
2	E	284	THR	N-CA-C	-6.37	105.80	112.93
2	E	446	ALA	CA-C-N	6.37	133.89	121.41
2	E	446	ALA	C-N-CA	6.37	133.89	121.41
2	F	316	ASP	N-CA-C	-6.37	99.63	109.24
7	S	132	THR	CA-C-N	6.37	131.63	122.40
7	S	132	THR	C-N-CA	6.37	131.63	122.40
1	C	335	SER	CA-C-N	6.36	131.47	121.56
1	C	335	SER	C-N-CA	6.36	131.47	121.56
2	F	75	VAL	N-CA-C	-6.36	98.99	108.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	F	412	ARG	N-CA-C	-6.35	104.23	112.23
2	E	235	THR	CA-C-N	6.35	127.03	119.98
2	E	235	THR	C-N-CA	6.35	127.03	119.98
5	I	23	ARG	N-CA-C	-6.35	104.36	111.28
1	A	113	ASN	N-CA-C	-6.33	96.94	108.02
7	S	95	LEU	N-CA-C	6.33	118.26	111.36
1	C	406	PHE	N-CA-C	-6.32	97.34	110.80
2	E	12	ARG	N-CA-C	-6.32	99.10	109.40
5	I	32	ALA	CA-C-N	6.32	130.80	120.63
5	I	32	ALA	C-N-CA	6.32	130.80	120.63
2	F	120	ALA	N-CA-C	-6.31	100.08	109.42
1	A	347	ASP	CA-C-N	6.30	131.33	122.57
1	A	347	ASP	C-N-CA	6.30	131.33	122.57
3	G	204	TYR	N-CA-C	-6.30	97.38	110.80
2	E	169	LEU	CA-C-N	6.29	129.08	120.46
2	E	169	LEU	C-N-CA	6.29	129.08	120.46
3	G	24	LYS	N-CA-C	6.29	117.93	111.14
1	B	458	PRO	N-CA-C	6.29	123.11	113.75
2	D	213	SER	N-CA-C	-6.28	102.40	110.19
5	I	41	THR	CA-C-N	6.27	133.25	121.97
5	I	41	THR	C-N-CA	6.27	133.25	121.97
7	S	31	LYS	CA-C-N	6.26	128.99	120.54
7	S	31	LYS	C-N-CA	6.26	128.99	120.54
1	B	232	VAL	N-CA-C	-6.26	99.41	108.36
2	F	366	GLU	N-CA-C	6.26	117.90	111.14
7	S	89	LEU	CA-C-N	6.26	128.57	120.44
7	S	89	LEU	C-N-CA	6.26	128.57	120.44
8	T	102	ALA	O-C-N	6.26	129.28	122.15
2	D	12	ARG	N-CA-C	-6.25	99.20	109.40
1	B	89	LYS	N-CA-C	-6.25	99.22	109.40
2	E	221	GLN	CA-C-N	6.25	129.50	120.38
2	E	221	GLN	C-N-CA	6.25	129.50	120.38
3	G	70	GLY	N-CA-C	-6.25	99.35	111.03
5	I	8	GLY	N-CA-C	-6.24	98.39	113.18
4	H	56	GLN	N-CA-C	-6.24	99.56	109.23
7	S	129	THR	N-CA-C	-6.23	99.83	109.24
8	T	103	LEU	CA-C-N	6.23	129.78	120.31
8	T	103	LEU	C-N-CA	6.23	129.78	120.31
2	D	40	GLY	N-CA-C	-6.23	106.82	114.92
1	B	126	ARG	N-CA-C	-6.23	99.84	109.24
1	B	123	SER	CA-C-N	6.22	128.53	120.44
1	B	123	SER	C-N-CA	6.22	128.53	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	G	78	CYS	N-CA-C	-6.22	100.18	109.83
2	F	381	TYR	N-CA-C	-6.22	104.50	111.28
1	B	173	THR	N-CA-C	-6.22	103.03	111.55
2	E	351	LEU	N-CA-C	-6.22	97.56	110.80
1	B	198	LYS	N-CA-C	-6.22	96.99	108.24
1	B	355	GLU	CA-C-N	6.21	128.61	120.28
1	B	355	GLU	C-N-CA	6.21	128.61	120.28
1	C	34	ILE	CA-C-O	6.21	127.55	120.90
1	A	430	GLN	N-CA-C	-6.21	97.95	108.26
1	A	299	PHE	N-CA-C	-6.21	104.43	111.14
1	A	299	PHE	CA-C-O	-6.20	114.31	120.70
1	B	118	LYS	N-CA-C	-6.20	105.66	112.72
4	H	51	HIS	N-CA-C	-6.20	97.60	110.80
2	E	51	GLN	N-CA-C	-6.19	99.63	109.23
7	S	111	VAL	N-CA-C	-6.18	96.48	109.34
1	A	317	GLY	N-CA-C	-6.18	106.71	115.30
1	C	232	VAL	N-CA-C	-6.18	99.52	108.36
1	A	62	MET	N-CA-C	-6.18	98.32	108.76
1	C	379	GLN	N-CA-C	6.17	119.93	110.36
2	E	22	ASP	N-CA-C	-6.17	99.17	109.24
2	D	422	GLU	N-CA-C	-6.17	105.01	112.54
1	A	202	ILE	N-CA-C	-6.17	98.65	107.77
1	B	327	ILE	N-CA-C	-6.16	99.25	108.12
1	C	115	ILE	CA-C-N	6.14	128.43	120.44
1	C	115	ILE	C-N-CA	6.14	128.43	120.44
1	B	75	VAL	N-CA-C	-6.14	99.74	108.58
2	E	146	TYR	N-CA-C	6.13	117.96	110.41
7	S	107	THR	CA-C-N	6.13	133.25	121.54
7	S	107	THR	C-N-CA	6.13	133.25	121.54
1	C	337	TYR	N-CA-C	-6.12	104.52	111.07
1	B	70	ASN	N-CA-C	-6.12	99.66	108.60
2	E	127	SER	N-CA-C	-6.12	98.92	108.90
2	D	276	PRO	N-CA-C	-6.12	99.86	112.47
10	V	56	MET	CA-C-N	6.11	128.97	120.29
10	V	56	MET	C-N-CA	6.11	128.97	120.29
2	F	155	PHE	N-CA-C	-6.11	100.55	110.20
2	E	131	GLU	CA-C-N	6.11	132.96	121.97
2	E	131	GLU	C-N-CA	6.11	132.96	121.97
2	F	456	ALA	N-CA-C	-6.10	105.32	112.89
2	D	290	GLY	N-CA-C	-6.10	105.43	112.50
10	V	25	THR	O-C-N	-6.10	116.14	122.18
4	H	55	LEU	CA-C-N	-6.09	112.23	122.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	H	55	LEU	C-N-CA	-6.09	112.23	122.29
2	F	449	TYR	N-CA-C	-6.09	99.27	108.96
1	C	358	TYR	CA-C-N	6.08	130.34	120.60
1	C	358	TYR	C-N-CA	6.08	130.34	120.60
1	C	264	ALA	N-CA-C	-6.08	100.24	109.85
4	H	83	THR	N-CA-C	-6.08	97.92	108.69
7	S	26	ALA	N-CA-C	-6.08	104.58	111.14
7	S	73	THR	O-C-N	-6.08	114.96	122.25
1	B	456	LEU	N-CA-C	-6.07	99.74	108.60
2	D	68	GLY	N-CA-C	-6.07	106.36	114.25
8	T	102	ALA	CA-C-O	-6.06	114.00	120.42
1	C	73	VAL	N-CA-C	-6.06	98.91	107.75
1	B	420	ARG	CA-C-N	6.05	126.66	119.94
1	B	420	ARG	C-N-CA	6.05	126.66	119.94
1	C	401	ALA	N-CA-C	-6.05	104.76	111.36
1	A	34	ILE	CA-C-O	6.05	127.11	120.64
1	C	29	GLY	N-CA-C	-6.04	99.37	110.97
1	C	202	ILE	N-CA-C	-6.04	98.83	107.77
2	E	361	ASN	N-CA-C	-6.03	103.46	111.24
2	D	301	LYS	N-CA-C	-6.03	103.46	111.96
3	G	193	TYR	N-CA-C	-6.03	105.69	113.16
1	C	373	ARG	N-CA-C	-6.02	104.79	111.36
2	F	57	THR	N-CA-C	-6.02	99.59	109.40
2	E	399	GLU	CA-C-N	6.01	128.34	120.28
2	E	399	GLU	C-N-CA	6.01	128.34	120.28
2	E	23	VAL	N-CA-C	-6.01	99.51	108.46
1	A	199	LEU	N-CA-C	-6.00	98.50	108.34
1	C	260	ASN	N-CA-C	-6.00	104.09	112.25
1	B	39	ALA	N-CA-C	-6.00	98.96	108.73
2	E	297	THR	CA-C-N	5.99	131.96	122.74
2	E	297	THR	C-N-CA	5.99	131.96	122.74
1	C	187	LYS	CA-C-N	5.98	128.90	120.28
1	C	187	LYS	C-N-CA	5.98	128.90	120.28
2	F	419	GLN	CA-C-N	5.98	132.74	121.97
2	F	419	GLN	C-N-CA	5.98	132.74	121.97
3	G	215	TYR	CA-C-N	5.96	128.55	120.38
3	G	215	TYR	C-N-CA	5.96	128.55	120.38
1	C	168	ILE	N-CA-C	-5.96	99.62	108.45
2	F	247	GLU	N-CA-C	-5.96	105.77	113.16
1	C	104	LEU	N-CA-C	-5.96	99.57	109.46
2	D	347	ALA	CA-C-N	5.96	132.69	121.97
2	D	347	ALA	C-N-CA	5.96	132.69	121.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	D	416	GLN	N-CA-C	-5.96	96.64	109.81
1	C	61	GLY	N-CA-C	-5.95	99.42	110.73
1	A	38	ILE	N-CA-C	-5.95	97.82	107.28
2	D	370	VAL	N-CA-C	-5.95	104.71	110.72
1	C	58	GLY	N-CA-C	-5.95	107.45	115.36
3	G	94	ALA	CA-C-N	5.95	128.57	120.54
3	G	94	ALA	C-N-CA	5.95	128.57	120.54
4	H	88	SER	CA-C-N	-5.94	114.52	122.72
4	H	88	SER	C-N-CA	-5.94	114.52	122.72
1	A	99	VAL	N-CA-C	-5.94	99.14	108.95
3	G	10	LEU	CA-C-N	5.94	129.05	120.79
3	G	10	LEU	C-N-CA	5.94	129.05	120.79
1	A	40	ARG	N-CA-C	-5.92	99.63	109.46
2	E	316	ASP	CA-C-N	5.92	133.91	122.53
2	E	316	ASP	C-N-CA	5.92	133.91	122.53
1	B	298	VAL	N-CA-C	-5.91	103.77	112.04
1	B	473	ILE	N-CA-C	-5.90	104.75	110.42
2	D	254	PHE	N-CA-C	-5.90	99.62	109.24
2	D	425	THR	N-CA-C	5.90	118.95	111.69
2	E	276	PRO	N-CA-C	-5.90	100.32	112.47
3	G	130	GLU	N-CA-C	-5.90	104.69	112.24
7	S	109	MET	CA-C-N	5.90	130.44	120.88
7	S	109	MET	C-N-CA	5.90	130.44	120.88
4	H	61	GLY	N-CA-C	-5.90	99.21	113.18
1	C	409	ASP	N-CA-C	5.89	117.98	108.32
2	F	201	ILE	CA-C-N	5.89	128.49	120.54
2	F	201	ILE	C-N-CA	5.89	128.49	120.54
1	A	366	ASN	CA-C-N	5.88	128.78	120.42
1	A	366	ASN	C-N-CA	5.88	128.78	120.42
2	F	255	ILE	N-CA-C	-5.88	99.65	108.12
1	A	95	VAL	N-CA-C	5.88	117.31	109.37
1	C	46	ASN	CA-C-N	5.88	132.56	121.97
1	C	46	ASN	C-N-CA	5.88	132.56	121.97
1	C	506	ALA	CA-C-N	5.87	127.68	120.22
1	C	506	ALA	C-N-CA	5.87	127.68	120.22
2	F	254	PHE	N-CA-C	-5.87	99.67	109.24
1	C	400	VAL	O-C-N	-5.87	116.33	122.20
4	H	134	ARG	CA-C-N	5.87	127.95	120.56
4	H	134	ARG	C-N-CA	5.87	127.95	120.56
8	T	136	GLU	N-CA-C	-5.86	104.48	111.69
1	C	79	ASP	CA-C-N	5.84	132.70	121.54
1	C	79	ASP	C-N-CA	5.84	132.70	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	225	ALA	N-CA-C	-5.84	105.92	113.16
2	E	109	LYS	N-CA-C	-5.83	99.77	109.46
7	S	26	ALA	CA-C-N	5.83	128.41	120.54
7	S	26	ALA	C-N-CA	5.83	128.41	120.54
7	S	138	LEU	N-CA-C	-5.83	103.98	113.19
2	D	281	TYR	N-CA-C	5.83	123.21	110.80
2	D	400	ASP	N-CA-C	-5.83	104.85	111.14
2	E	350	PRO	N-CA-C	-5.83	101.06	110.74
1	C	40	ARG	N-CA-C	-5.83	99.79	109.46
2	D	52	HIS	CA-C-O	5.82	126.60	120.54
2	D	214	LYS	N-CA-C	-5.82	105.94	113.16
2	D	353	SER	N-CA-C	-5.82	97.84	108.02
2	E	178	GLY	N-CA-C	-5.82	105.31	114.10
1	B	349	GLN	N-CA-C	-5.82	99.86	108.99
1	C	381	ARG	N-CA-C	5.82	117.62	111.28
1	B	366	ASN	CA-C-N	5.81	128.67	120.42
1	B	366	ASN	C-N-CA	5.81	128.67	120.42
3	G	134	ARG	N-CA-C	-5.81	96.97	109.81
4	H	64	VAL	N-CA-C	-5.81	99.18	107.77
2	E	298	THR	N-CA-C	-5.80	98.95	108.76
2	E	397	SER	N-CA-C	-5.80	99.44	108.90
4	H	124	ASP	CA-C-N	5.80	128.38	120.54
4	H	124	ASP	C-N-CA	5.80	128.38	120.54
1	A	151	LYS	O-C-N	5.80	128.05	122.07
2	E	283	PRO	CA-C-N	5.80	132.28	122.65
2	E	283	PRO	C-N-CA	5.80	132.28	122.65
2	F	58	VAL	CA-C-N	-5.80	114.99	123.00
2	F	58	VAL	C-N-CA	-5.80	114.99	123.00
2	D	163	THR	N-CA-C	-5.80	104.96	111.28
1	A	30	ARG	N-CA-C	-5.80	100.25	109.59
1	C	177	SER	CA-C-N	5.79	127.86	120.56
1	C	177	SER	C-N-CA	5.79	127.86	120.56
1	C	112	GLY	N-CA-C	-5.78	105.59	115.08
1	A	364	ALA	CA-C-N	5.78	128.25	120.50
1	A	364	ALA	C-N-CA	5.78	128.25	120.50
1	B	419	SER	CA-C-N	5.78	128.34	120.54
1	B	419	SER	C-N-CA	5.78	128.34	120.54
1	C	267	ILE	N-CA-C	-5.77	99.32	107.75
1	A	70	ASN	N-CA-C	-5.77	100.17	108.60
1	B	219	ARG	N-CA-C	5.77	117.57	111.28
1	A	500	ILE	CA-C-N	5.77	127.83	120.56
1	A	500	ILE	C-N-CA	5.77	127.83	120.56

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	D	360	PRO	CA-C-N	5.77	127.94	120.44
2	D	360	PRO	C-N-CA	5.77	127.94	120.44
1	C	298	VAL	N-CA-C	-5.76	103.97	112.04
1	C	311	LYS	N-CA-C	-5.76	99.02	108.41
2	E	44	ARG	N-CA-C	-5.76	101.12	109.59
3	G	204	TYR	CA-C-N	5.76	128.27	120.38
3	G	204	TYR	C-N-CA	5.76	128.27	120.38
1	C	444	VAL	N-CA-C	-5.75	103.73	111.44
5	I	18	CYS	CA-C-N	5.75	127.99	120.28
5	I	18	CYS	C-N-CA	5.75	127.99	120.28
1	A	191	ASP	CA-C-N	5.75	126.53	120.43
1	A	191	ASP	C-N-CA	5.75	126.53	120.43
2	F	162	LYS	CA-C-N	5.75	127.99	120.28
2	F	162	LYS	C-N-CA	5.75	127.99	120.28
1	B	220	LEU	CA-C-N	5.75	127.98	120.28
1	B	220	LEU	C-N-CA	5.75	127.98	120.28
1	C	322	THR	N-CA-C	-5.75	100.33	109.76
2	E	113	PHE	N-CA-C	-5.74	100.78	109.85
2	E	448	GLU	N-CA-C	-5.74	106.26	113.72
1	B	373	ARG	N-CA-C	-5.74	105.10	111.36
1	A	104	LEU	N-CA-C	-5.74	100.64	109.76
3	G	172	LYS	N-CA-C	-5.73	98.54	108.69
1	C	403	PHE	N-CA-C	-5.73	104.41	111.40
3	G	151	SER	N-CA-C	-5.73	100.78	108.86
2	D	183	PHE	N-CA-C	-5.72	99.57	108.90
2	F	368	TYR	CA-C-N	5.72	128.42	120.29
2	F	368	TYR	C-N-CA	5.72	128.42	120.29
1	A	123	SER	CA-C-N	5.72	128.73	120.38
1	A	123	SER	C-N-CA	5.72	128.73	120.38
1	A	101	GLU	N-CA-C	-5.72	106.10	114.39
3	G	168	VAL	CA-C-N	5.72	130.92	121.54
3	G	168	VAL	C-N-CA	5.72	130.92	121.54
2	E	87	GLY	CA-C-N	5.71	125.42	119.82
2	E	87	GLY	C-N-CA	5.71	125.42	119.82
2	E	397	SER	CA-C-N	5.71	129.74	120.60
2	E	397	SER	C-N-CA	5.71	129.74	120.60
1	B	323	ALA	N-CA-C	-5.71	99.59	108.90
1	B	348	GLY	N-CA-C	-5.71	105.80	111.85
1	C	400	VAL	N-CA-C	-5.71	106.20	113.22
7	S	112	HIS	CA-C-N	5.71	132.45	121.54
7	S	112	HIS	C-N-CA	5.71	132.45	121.54
2	D	23	VAL	N-CA-C	-5.71	99.95	108.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	H	36	VAL	N-CA-C	-5.71	100.00	108.45
1	A	143	ARG	N-CA-C	-5.71	106.86	113.88
1	B	495	ALA	N-CA-C	-5.70	105.14	111.36
2	E	399	GLU	CA-C-O	5.70	126.57	120.70
3	G	120	HIS	N-CA-C	-5.70	104.73	112.26
1	C	237	SER	CA-C-N	5.70	132.43	121.54
1	C	237	SER	C-N-CA	5.70	132.43	121.54
1	C	194	ASP	CA-C-N	5.70	128.38	120.29
1	C	194	ASP	C-N-CA	5.70	128.38	120.29
2	E	385	GLN	N-CA-C	5.70	119.05	111.75
2	D	73	GLN	N-CA-C	5.70	118.10	110.35
2	D	182	VAL	N-CA-C	-5.70	99.97	108.46
2	D	84	ILE	O-C-N	-5.70	118.10	121.69
2	E	204	GLY	N-CA-C	-5.69	107.79	115.36
2	F	274	ARG	N-CA-C	-5.69	103.02	110.53
1	A	189	PHE	N-CA-C	-5.69	105.45	112.90
1	A	436	MET	N-CA-C	5.69	117.88	110.43
2	F	64	ASP	CA-C-N	5.69	126.64	120.44
2	F	64	ASP	C-N-CA	5.69	126.64	120.44
2	F	318	THR	N-CA-C	-5.68	105.08	111.28
2	F	30	PRO	CA-C-N	5.68	126.94	119.84
2	F	30	PRO	C-N-CA	5.68	126.94	119.84
1	A	20	ASP	N-CA-C	-5.68	102.36	110.59
1	B	239	ALA	CA-C-N	5.67	128.07	120.58
1	B	239	ALA	C-N-CA	5.67	128.07	120.58
1	B	290	GLY	CA-C-N	5.67	130.41	121.56
1	B	290	GLY	C-N-CA	5.67	130.41	121.56
2	E	308	GLN	N-CA-C	-5.67	99.16	108.41
2	F	338	ALA	CA-C-N	5.67	128.48	120.42
2	F	338	ALA	C-N-CA	5.67	128.48	120.42
2	E	249	GLN	N-CA-C	5.67	122.88	110.80
4	H	79	SER	CA-C-N	5.67	132.53	121.41
4	H	79	SER	C-N-CA	5.67	132.53	121.41
2	F	452	LEU	CA-C-N	5.66	126.55	119.98
2	F	452	LEU	C-N-CA	5.66	126.55	119.98
1	A	66	LEU	N-CA-C	-5.65	98.53	108.20
2	E	345	TYR	N-CA-C	-5.65	96.32	107.91
3	G	89	MET	N-CA-C	-5.65	106.52	113.41
2	D	201	ILE	CA-C-N	5.64	128.16	120.54
2	D	201	ILE	C-N-CA	5.64	128.16	120.54
2	E	149	GLY	N-CA-C	-5.64	107.87	115.21
1	B	209	LYS	N-CA-C	-5.64	101.36	110.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	E	41	ARG	CA-C-N	5.64	132.31	121.54
2	E	41	ARG	C-N-CA	5.64	132.31	121.54
3	G	52	TYR	N-CA-C	-5.64	104.35	111.11
1	B	455	LYS	N-CA-C	-5.63	103.13	111.81
2	F	188	GLU	N-CA-C	-5.63	100.86	109.65
1	B	490	SER	N-CA-C	-5.63	100.53	109.76
2	F	189	ARG	N-CA-C	-5.63	100.06	109.24
3	G	197	ASP	CA-C-N	5.62	132.28	121.54
3	G	197	ASP	C-N-CA	5.62	132.28	121.54
7	S	62	ARG	N-CA-C	5.62	117.41	111.28
1	A	39	ALA	N-CA-C	-5.62	99.36	108.52
4	H	100	LEU	CA-C-N	5.62	132.28	121.54
4	H	100	LEU	C-N-CA	5.62	132.28	121.54
2	E	350	PRO	O-C-N	5.62	126.72	122.73
7	S	135	LYS	CA-C-O	5.61	126.84	120.00
2	F	257	ASN	N-CA-C	-5.61	95.30	111.00
2	D	243	PHE	N-CA-C	5.60	119.37	112.54
1	C	132	LYS	CA-C-N	5.60	129.16	120.60
1	C	132	LYS	C-N-CA	5.60	129.16	120.60
11	W	159	ARG	CA-C-O	-5.60	112.72	119.49
2	E	310	ILE	N-CA-C	-5.59	100.12	108.46
2	D	76	LEU	N-CA-C	-5.59	99.30	108.41
4	H	118	GLU	N-CA-C	5.59	117.37	111.28
1	B	398	ARG	N-CA-C	5.58	117.44	111.36
1	A	192	GLY	CA-C-N	5.58	127.76	120.28
1	A	192	GLY	C-N-CA	5.58	127.76	120.28
1	B	109	ASP	N-CA-C	-5.58	103.55	110.41
2	E	45	LEU	CA-C-N	-5.58	115.17	122.37
2	E	45	LEU	C-N-CA	-5.58	115.17	122.37
1	C	190	ASN	N-CA-C	-5.58	105.98	112.89
2	D	52	HIS	N-CA-C	-5.58	98.67	108.20
1	A	464	PHE	CA-C-N	5.57	127.75	120.28
1	A	464	PHE	C-N-CA	5.57	127.75	120.28
2	F	303	SER	CA-C-N	-5.57	115.67	123.13
2	F	303	SER	C-N-CA	-5.57	115.67	123.13
2	D	24	GLN	N-CA-C	-5.57	99.45	108.52
1	C	45	ARG	N-CA-C	-5.57	106.32	114.39
2	D	303	SER	CA-C-N	-5.57	115.67	123.13
2	D	303	SER	C-N-CA	-5.57	115.67	123.13
1	C	333	ASP	CA-C-N	5.56	129.31	121.53
1	C	333	ASP	C-N-CA	5.56	129.31	121.53
2	E	336	SER	N-CA-C	-5.56	98.57	108.13

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	145	PRO	N-CA-C	-5.55	101.03	112.47
1	A	444	VAL	N-CA-C	-5.55	104.95	111.00
1	B	230	ILE	N-CA-C	-5.55	100.45	108.71
2	F	69	LEU	N-CA-C	5.55	117.14	109.15
7	S	110	SER	CA-C-N	5.55	131.95	121.97
7	S	110	SER	C-N-CA	5.55	131.95	121.97
2	E	193	GLY	CA-C-N	5.54	127.65	120.44
2	E	193	GLY	C-N-CA	5.54	127.65	120.44
1	B	58	GLY	CA-C-N	5.54	132.12	121.54
1	B	58	GLY	C-N-CA	5.54	132.12	121.54
2	D	29	LEU	CA-C-N	5.54	123.65	119.66
2	D	29	LEU	C-N-CA	5.54	123.65	119.66
1	A	323	ALA	N-CA-C	-5.54	99.88	108.90
4	H	18	PHE	CA-C-O	5.53	126.41	120.32
2	E	248	GLY	CA-C-N	5.52	132.09	121.54
2	E	248	GLY	C-N-CA	5.52	132.09	121.54
2	F	78	SER	N-CA-C	-5.52	106.50	113.18
2	D	47	LEU	N-CA-C	-5.51	100.20	109.07
2	F	231	ARG	N-CA-C	-5.51	106.72	113.50
2	F	433	PRO	CA-C-N	5.51	127.93	120.38
2	F	433	PRO	C-N-CA	5.51	127.93	120.38
1	C	102	GLU	N-CA-C	-5.51	106.23	113.17
2	D	455	GLN	CA-C-N	5.51	127.66	120.28
2	D	455	GLN	C-N-CA	5.51	127.66	120.28
8	T	164	CYS	CA-C-O	5.50	128.38	120.51
1	B	318	GLY	N-CA-C	-5.50	107.67	115.43
2	D	355	SER	N-CA-C	-5.50	99.34	108.75
1	A	467	ALA	CA-C-N	5.50	127.65	120.28
1	A	467	ALA	C-N-CA	5.50	127.65	120.28
4	H	100	LEU	N-CA-C	5.50	118.04	111.71
1	A	487	GLY	N-CA-C	-5.50	107.38	115.30
11	W	153	PRO	CA-C-N	5.50	127.91	120.65
11	W	153	PRO	C-N-CA	5.50	127.91	120.65
1	C	147	GLN	N-CA-C	-5.49	101.01	109.52
2	D	44	ARG	CA-C-N	-5.49	115.02	123.14
2	D	44	ARG	C-N-CA	-5.49	115.02	123.14
8	T	132	MET	O-C-N	-5.49	116.30	122.12
3	G	104	LYS	N-CA-C	-5.49	100.79	108.96
1	A	261	GLY	CA-C-N	5.48	130.14	120.87
1	A	261	GLY	C-N-CA	5.48	130.14	120.87
1	B	294	TYR	CA-C-N	5.48	126.69	119.84
1	B	294	TYR	C-N-CA	5.48	126.69	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	504	PHE	CA-C-N	5.48	132.01	121.54
1	B	504	PHE	C-N-CA	5.48	132.01	121.54
2	D	204	GLY	N-CA-C	-5.48	105.44	114.76
2	D	225	PRO	CA-C-N	5.48	124.94	119.24
2	D	225	PRO	C-N-CA	5.48	124.94	119.24
2	F	467	VAL	CA-C-N	5.48	127.56	120.44
2	F	467	VAL	C-N-CA	5.48	127.56	120.44
3	G	39	LYS	O-C-N	-5.48	116.05	120.38
2	D	13	ILE	CA-C-N	-5.47	115.66	121.84
2	D	13	ILE	C-N-CA	-5.47	115.66	121.84
1	B	61	GLY	N-CA-C	-5.46	100.48	110.97
1	A	164	ARG	N-CA-C	-5.46	99.17	110.80
1	B	412	ALA	N-CA-C	5.46	117.23	111.28
5	I	33	ASN	CA-C-N	5.46	127.91	120.54
5	I	33	ASN	C-N-CA	5.46	127.91	120.54
4	H	94	ALA	N-CA-C	-5.45	100.30	109.07
1	A	159	ILE	CA-C-N	5.45	132.12	121.93
1	A	159	ILE	C-N-CA	5.45	132.12	121.93
7	S	142	LEU	N-CA-C	-5.45	99.20	110.80
1	A	505	LEU	N-CA-C	-5.45	105.24	111.07
1	B	429	LYS	N-CA-C	-5.44	102.84	110.35
1	C	398	ARG	CA-C-N	5.44	128.12	120.28
1	C	398	ARG	C-N-CA	5.44	128.12	120.28
2	F	380	ASP	CA-C-N	5.44	127.57	120.28
2	F	380	ASP	C-N-CA	5.44	127.57	120.28
3	G	127	THR	N-CA-C	-5.44	100.45	108.99
3	G	92	GLU	N-CA-C	5.44	122.38	110.80
1	B	364	ALA	CA-C-N	5.44	131.75	121.97
1	B	364	ALA	C-N-CA	5.44	131.75	121.97
1	C	501	VAL	CA-C-O	-5.43	115.41	121.17
2	E	27	GLU	N-CA-C	-5.43	99.23	110.80
3	G	167	SER	O-C-N	-5.42	118.16	123.26
3	G	271	ALA	N-CA-C	-5.42	105.53	111.82
7	S	123	ALA	N-CA-C	5.42	122.34	110.80
7	S	9	VAL	CA-C-N	5.42	131.45	121.70
7	S	9	VAL	C-N-CA	5.42	131.45	121.70
2	D	219	TYR	N-CA-C	-5.41	100.20	109.24
2	D	20	VAL	CA-C-N	-5.41	116.06	123.14
2	D	20	VAL	C-N-CA	-5.41	116.06	123.14
9	U	1	ARG	CA-C-N	5.41	131.09	122.93
9	U	1	ARG	C-N-CA	5.41	131.09	122.93
2	D	428	LEU	N-CA-C	-5.40	100.90	109.76

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	F	204	GLY	N-CA-C	-5.40	107.79	115.30
1	A	57	SER	N-CA-C	-5.40	106.07	113.30
1	C	170	ASP	CA-C-N	5.39	131.84	121.54
1	C	170	ASP	C-N-CA	5.39	131.84	121.54
7	S	86	ILE	N-CA-C	-5.39	105.83	110.74
1	A	231	VAL	N-CA-C	-5.39	98.70	107.28
11	W	122	LYS	CA-C-O	-5.39	112.97	119.49
1	C	383	MET	CA-C-N	5.39	128.25	120.38
1	C	383	MET	C-N-CA	5.39	128.25	120.38
2	E	103	ASP	N-CA-C	-5.39	105.49	111.36
4	H	67	ALA	CA-C-N	5.39	131.83	121.54
4	H	67	ALA	C-N-CA	5.39	131.83	121.54
1	C	495	ALA	N-CA-C	-5.39	105.49	111.36
2	D	438	ILE	CA-C-N	5.39	127.44	120.44
2	D	438	ILE	C-N-CA	5.39	127.44	120.44
1	A	501	VAL	CA-C-N	5.38	127.50	120.28
1	A	501	VAL	C-N-CA	5.38	127.50	120.28
2	E	76	LEU	N-CA-C	-5.38	99.63	108.41
5	I	23	ARG	CA-C-N	5.38	127.50	120.28
5	I	23	ARG	C-N-CA	5.38	127.50	120.28
2	D	181	SER	N-CA-C	-5.38	101.11	109.24
7	S	78	PHE	N-CA-C	-5.38	106.91	112.93
1	C	180	ILE	N-CA-C	-5.37	105.48	110.53
2	F	20	VAL	CA-C-N	-5.37	116.11	123.14
2	F	20	VAL	C-N-CA	-5.37	116.11	123.14
5	I	40	SER	CA-C-N	5.36	127.73	120.38
5	I	40	SER	C-N-CA	5.36	127.73	120.38
1	C	300	TYR	CA-C-N	5.36	127.78	120.54
1	C	300	TYR	C-N-CA	5.36	127.78	120.54
8	T	92	PHE	CA-C-O	-5.36	114.20	120.20
1	C	443	ALA	N-CA-C	5.35	116.79	111.07
1	A	163	GLN	CA-C-N	5.34	131.75	121.54
1	A	163	GLN	C-N-CA	5.34	131.75	121.54
2	E	299	THR	N-CA-C	-5.34	100.71	109.80
2	F	87	GLY	CA-C-N	5.34	125.43	119.87
2	F	87	GLY	C-N-CA	5.34	125.43	119.87
2	E	17	ILE	N-CA-C	-5.34	98.27	107.24
11	W	17	LEU	CA-C-N	5.34	124.97	119.05
11	W	17	LEU	C-N-CA	5.34	124.97	119.05
1	B	49	ALA	N-CA-C	-5.33	102.63	110.52
2	E	262	THR	N-CA-C	-5.33	105.55	111.36
1	B	151	LYS	CA-C-N	5.33	127.67	120.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	151	LYS	C-N-CA	5.33	127.67	120.38
1	B	117	GLY	N-CA-C	-5.32	108.28	115.36
2	D	146	TYR	N-CA-C	5.32	118.40	109.95
7	S	23	TYR	CA-C-N	-5.32	113.22	122.36
7	S	23	TYR	C-N-CA	-5.32	113.22	122.36
1	B	353	GLU	CA-C-N	5.31	127.83	120.29
1	B	353	GLU	C-N-CA	5.31	127.83	120.29
2	E	318	THR	N-CA-C	-5.31	105.60	111.71
1	C	120	PRO	CA-C-N	5.31	131.52	121.97
1	C	120	PRO	C-N-CA	5.31	131.52	121.97
4	H	84	VAL	N-CA-C	-5.31	100.00	107.75
2	E	173	VAL	N-CA-C	5.30	115.52	110.53
1	B	227	LYS	N-CA-C	5.30	118.53	111.75
2	D	14	VAL	N-CA-C	-5.30	107.66	112.96
2	F	234	LEU	CA-C-N	5.29	128.15	120.79
2	F	234	LEU	C-N-CA	5.29	128.15	120.79
1	A	6	ALA	N-CA-C	5.29	122.08	110.80
1	A	373	ARG	N-CA-C	-5.29	105.52	111.28
2	F	361	ASN	N-CA-C	-5.29	105.57	112.23
4	H	141	LEU	CA-C-N	5.29	128.97	120.30
4	H	141	LEU	C-N-CA	5.29	128.97	120.30
1	A	385	GLN	CA-C-N	-5.28	116.11	122.35
1	A	385	GLN	C-N-CA	-5.28	116.11	122.35
1	B	162	GLY	N-CA-C	-5.28	107.61	113.79
2	E	428	LEU	CA-C-N	5.28	131.77	121.41
2	E	428	LEU	C-N-CA	5.28	131.77	121.41
2	D	106	GLY	N-CA-C	-5.28	101.57	112.34
2	E	177	HIS	N-CA-C	-5.28	105.69	113.61
1	A	171	ARG	CA-C-N	5.28	131.62	121.54
1	A	171	ARG	C-N-CA	5.28	131.62	121.54
1	A	106	ARG	CA-C-N	5.28	129.98	123.12
1	A	106	ARG	C-N-CA	5.28	129.98	123.12
1	A	63	SER	N-CA-C	-5.27	98.07	107.98
3	G	39	LYS	N-CA-C	5.27	119.67	112.55
7	S	79	SER	N-CA-C	-5.27	98.16	109.81
3	G	149	LEU	O-C-N	5.27	127.72	122.03
2	F	129	GLU	N-CA-C	-5.26	100.45	109.24
1	C	172	GLN	O-C-N	5.26	129.59	122.59
1	C	252	SER	N-CA-C	5.25	116.69	111.07
1	C	391	LYS	N-CA-C	-5.25	105.56	111.28
1	A	457	GLU	N-CA-C	-5.25	102.89	110.40
2	F	224	GLU	N-CA-C	-5.25	104.09	110.13

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	467	ALA	CA-C-N	5.25	127.31	120.28
1	C	467	ALA	C-N-CA	5.25	127.31	120.28
2	D	60	THR	N-CA-C	-5.25	101.32	109.14
1	C	237	SER	N-CA-C	5.25	117.00	111.28
1	C	38	ILE	N-CA-C	-5.24	98.43	107.24
1	B	24	ASP	N-CA-C	-5.24	100.63	108.96
1	A	92	GLY	N-CA-C	-5.24	108.39	115.36
1	A	337	TYR	N-CA-C	-5.24	105.47	111.07
2	E	96	ASN	N-CA-C	-5.24	102.25	110.36
1	C	78	ASN	N-CA-C	-5.23	100.87	109.40
1	C	410	LEU	N-CA-C	5.23	117.03	108.76
2	E	316	ASP	N-CA-C	-5.23	100.65	109.07
4	H	20	PHE	N-CA-C	-5.23	99.76	108.34
2	D	410	ILE	CA-C-N	5.23	127.60	120.54
2	D	410	ILE	C-N-CA	5.23	127.60	120.54
1	B	386	VAL	CA-C-N	5.23	127.71	120.29
1	B	386	VAL	C-N-CA	5.23	127.71	120.29
2	E	61	ILE	N-CA-C	-5.23	100.79	108.11
2	D	409	LYS	CA-C-N	5.22	127.62	120.46
2	D	409	LYS	C-N-CA	5.22	127.62	120.46
4	H	41	GLN	CA-C-N	5.22	128.65	120.82
4	H	41	GLN	C-N-CA	5.22	128.65	120.82
1	A	452	TYR	N-CA-C	-5.21	106.87	114.12
3	G	86	ALA	CA-C-N	5.21	131.50	121.54
3	G	86	ALA	C-N-CA	5.21	131.50	121.54
7	S	148	LEU	CA-C-N	5.21	127.52	120.38
7	S	148	LEU	C-N-CA	5.21	127.52	120.38
1	A	264	ALA	N-CA-C	-5.20	101.63	109.85
2	F	389	ALA	N-CA-C	-5.20	105.73	111.71
2	E	317	LEU	CA-C-N	5.20	127.76	120.28
2	E	317	LEU	C-N-CA	5.20	127.76	120.28
8	T	137	GLN	CA-C-O	-5.20	115.54	121.00
4	H	90	VAL	N-CA-C	-5.19	100.72	108.46
2	D	199	GLU	O-C-N	-5.19	115.89	122.27
1	B	388	GLY	CA-C-O	5.19	126.39	121.05
2	E	304	ILE	N-CA-C	-5.19	99.03	107.28
1	C	105	GLY	N-CA-C	-5.18	107.09	115.08
1	C	97	VAL	N-CA-C	-5.18	97.68	108.88
2	E	388	ILE	N-CA-C	5.18	115.91	110.62
1	C	336	ALA	CA-C-N	5.18	127.18	120.44
1	C	336	ALA	C-N-CA	5.18	127.18	120.44
1	B	164	ARG	N-CA-C	-5.18	99.97	108.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	D	99	GLY	N-CA-C	-5.18	100.91	113.18
2	D	156	GLY	N-CA-C	-5.18	100.90	113.18
2	D	396	LEU	N-CA-C	-5.18	100.86	108.99
1	A	322	THR	N-CA-C	-5.17	100.81	109.24
1	A	345	ILE	N-CA-C	5.17	116.26	111.45
1	B	360	GLY	CA-C-N	5.17	131.28	121.97
1	B	360	GLY	C-N-CA	5.17	131.28	121.97
2	E	265	GLY	N-CA-C	5.17	118.93	112.73
2	F	252	LEU	N-CA-C	-5.17	100.82	109.24
3	G	79	GLY	CA-C-N	5.17	130.76	122.86
3	G	79	GLY	C-N-CA	5.17	130.76	122.86
2	E	347	ALA	CA-C-N	5.16	131.26	121.97
2	E	347	ALA	C-N-CA	5.16	131.26	121.97
1	B	56	SER	CA-C-N	5.16	131.39	121.54
1	B	56	SER	C-N-CA	5.16	131.39	121.54
2	F	275	ILE	N-CA-C	-5.16	102.55	107.76
1	C	456	LEU	CA-C-N	5.16	129.28	121.03
1	C	456	LEU	C-N-CA	5.16	129.28	121.03
3	G	91	SER	N-CA-C	5.16	117.30	111.11
1	A	490	SER	CA-C-N	5.15	131.38	121.54
1	A	490	SER	C-N-CA	5.15	131.38	121.54
1	C	279	ARG	CA-C-N	5.15	127.49	120.54
1	C	279	ARG	C-N-CA	5.15	127.49	120.54
2	F	347	ALA	N-CA-C	-5.15	106.84	113.02
2	F	44	ARG	N-CA-C	-5.14	98.31	107.98
1	C	249	SER	CA-C-N	5.14	125.78	120.03
1	C	249	SER	C-N-CA	5.14	125.78	120.03
1	C	399	GLU	N-CA-C	-5.14	105.80	111.71
1	A	287	ARG	N-CA-C	-5.13	103.20	110.29
1	B	439	GLU	CA-C-N	5.13	127.16	120.28
1	B	439	GLU	C-N-CA	5.13	127.16	120.28
1	C	386	VAL	CA-C-N	5.13	127.58	120.29
1	C	386	VAL	C-N-CA	5.13	127.58	120.29
1	A	5	THR	CA-C-N	5.13	131.34	121.54
1	A	5	THR	C-N-CA	5.13	131.34	121.54
1	A	484	ARG	N-CA-C	-5.13	105.58	111.07
2	E	364	GLY	N-CA-C	-5.13	106.03	111.93
2	D	455	GLN	N-CA-C	-5.13	106.97	113.18
1	C	45	ARG	CA-C-O	5.13	124.59	118.69
11	W	159	ARG	CA-C-N	5.13	127.57	120.29
11	W	159	ARG	C-N-CA	5.13	127.57	120.29
2	F	428	LEU	N-CA-C	-5.13	102.19	110.14

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	G	8	ARG	N-CA-C	-5.12	105.59	111.07
7	S	71	ASP	CA-C-O	-5.12	113.45	119.24
4	H	122	ALA	CA-C-N	5.12	131.32	121.54
4	H	122	ALA	C-N-CA	5.12	131.32	121.54
7	S	88	LEU	CA-C-N	5.12	128.87	120.63
7	S	88	LEU	C-N-CA	5.12	128.87	120.63
8	T	89	HIS	CA-C-O	-5.12	115.13	120.55
2	F	208	LEU	N-CA-C	-5.12	106.82	113.16
1	A	153	VAL	N-CA-C	-5.11	106.09	110.74
1	C	62	MET	N-CA-C	-5.11	100.71	109.24
1	A	510	ALA	N-CA-C	-5.11	96.70	111.00
1	A	28	THR	N-CA-C	-5.10	101.54	109.24
1	B	27	GLU	N-CA-C	-5.10	105.75	112.94
2	E	192	GLU	CA-C-N	5.10	126.77	120.34
2	E	192	GLU	C-N-CA	5.10	126.77	120.34
3	G	60	PRO	N-CA-C	-5.10	103.17	111.68
8	T	106	THR	O-C-N	-5.10	116.73	122.03
1	A	350	ILE	CA-C-N	5.09	129.37	122.19
1	A	350	ILE	C-N-CA	5.09	129.37	122.19
1	A	58	GLY	N-CA-C	-5.09	108.22	115.30
1	A	191	ASP	N-CA-C	-5.09	107.07	113.28
2	F	111	LYS	N-CA-C	-5.09	104.79	111.96
3	G	107	GLY	N-CA-C	-5.09	101.12	113.18
2	F	347	ALA	CA-C-N	5.08	127.42	120.35
2	F	347	ALA	C-N-CA	5.08	127.42	120.35
2	F	72	GLY	N-CA-C	-5.08	108.70	115.40
8	T	63	VAL	O-C-N	-5.08	116.62	121.90
1	C	118	LYS	N-CA-C	-5.07	107.59	112.97
3	G	153	TYR	N-CA-C	-5.07	101.85	109.15
1	B	289	PRO	N-CA-C	-5.07	102.03	112.47
7	S	164	VAL	N-CA-C	-5.07	105.60	110.72
1	A	387	ALA	N-CA-C	5.06	116.88	111.36
5	I	14	TYR	O-C-N	5.06	127.50	122.08
2	E	452	LEU	CA-C-N	5.06	126.16	119.84
2	E	452	LEU	C-N-CA	5.06	126.16	119.84
8	T	43	ALA	CA-C-N	5.06	127.06	120.28
8	T	43	ALA	C-N-CA	5.06	127.06	120.28
2	D	332	THR	N-CA-C	-5.06	101.16	109.40
2	E	62	ALA	N-CA-C	-5.06	102.21	110.20
3	G	196	ILE	CA-C-N	5.06	131.20	121.54
3	G	196	ILE	C-N-CA	5.06	131.20	121.54
5	I	11	TYR	CA-C-N	5.06	127.12	120.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	I	11	TYR	C-N-CA	5.06	127.12	120.60
2	E	437	THR	CA-C-N	5.05	127.38	120.46
2	E	437	THR	C-N-CA	5.05	127.38	120.46
1	B	503	ASN	N-CA-C	-5.05	105.85	111.36
7	S	46	LEU	CA-C-N	5.05	131.19	121.54
7	S	46	LEU	C-N-CA	5.05	131.19	121.54
2	F	45	LEU	N-CA-C	-5.05	97.68	107.62
2	F	268	VAL	CA-C-O	-5.05	115.31	120.71
3	G	76	GLY	N-CA-C	-5.05	105.28	112.55
2	E	380	ASP	CA-C-O	5.04	125.77	120.42
1	C	131	LEU	N-CA-C	-5.04	101.07	108.79
2	F	457	PHE	N-CA-C	-5.04	106.64	112.89
3	G	82	HIS	CA-C-N	5.04	127.28	120.38
3	G	82	HIS	C-N-CA	5.04	127.28	120.38
1	A	194	ASP	N-CA-C	-5.03	103.03	110.48
2	F	205	VAL	N-CA-C	-5.03	104.70	111.44
2	D	255	ILE	N-CA-C	-5.03	100.33	107.77
1	A	472	VAL	CA-C-N	5.03	126.89	120.56
1	A	472	VAL	C-N-CA	5.03	126.89	120.56
1	A	493	SER	CA-C-O	-5.02	115.23	120.55
7	S	84	ASN	N-CA-C	-5.02	107.28	113.41
2	E	201	ILE	CA-C-N	5.02	127.32	120.54
2	E	201	ILE	C-N-CA	5.02	127.32	120.54
2	D	21	VAL	CA-C-O	5.02	125.66	120.39
2	D	299	THR	N-CA-C	-5.02	102.58	110.36
2	D	88	PRO	N-CA-C	5.02	120.45	113.98
2	E	379	GLN	N-CA-C	5.01	116.75	111.28
2	D	96	ASN	CA-C-N	5.01	126.87	120.56
2	D	96	ASN	C-N-CA	5.01	126.87	120.56
1	A	496	LYS	CA-C-N	5.01	126.95	120.44
1	A	496	LYS	C-N-CA	5.01	126.95	120.44
2	F	340	ALA	CA-C-N	5.01	127.92	120.31
2	F	340	ALA	C-N-CA	5.01	127.92	120.31
3	G	199	ASP	CA-C-N	5.01	130.98	121.97
3	G	199	ASP	C-N-CA	5.01	130.98	121.97
11	W	163	ASN	CA-C-O	5.00	125.79	120.24

There are no chirality outliers.

All (58) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	173	THR	Mainchain

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Mol	Chain	Res	Type	Group
1	B	375	GLY	Peptide
1	B	379	GLN	Peptide
2	D	160	VAL	Mainchain
2	D	57	THR	Mainchain
2	E	180	TYR	Mainchain
2	E	397	SER	Mainchain
2	E	433	PRO	Peptide
2	F	126	MET	Peptide
2	F	25	PHE	Mainchain
2	F	319	ASP	Mainchain,Peptide
2	F	329	LEU	Mainchain
3	G	112	ILE	Mainchain
3	G	154	GLU	Mainchain
3	G	53	GLU	Mainchain
4	H	59	ARG	Mainchain
5	I	38	SER	Peptide
7	S	148	LEU	Peptide
7	S	151	GLU	Peptide
7	S	152	VAL	Peptide
7	S	156	PRO	Peptide
7	S	157	SER	Mainchain
7	S	161	GLY	Mainchain
7	S	70	SER	Mainchain
7	S	73	THR	Peptide
7	S	96	THR	Mainchain
8	T	103	LEU	Mainchain
8	T	107	TYR	Mainchain
8	T	108	ARG	Mainchain
8	T	113	ARG	Mainchain
8	T	119	LYS	Mainchain
8	T	137	GLN	Mainchain
8	T	154	ALA	Peptide
8	T	155	GLN	Mainchain
8	T	158	LYS	Mainchain
8	T	173	LYS	Peptide
8	T	47	GLU	Peptide
8	T	63	VAL	Mainchain
8	T	86	GLN	Mainchain
8	T	89	HIS	Mainchain
8	T	93	ASP	Mainchain
8	T	96	ARG	Mainchain
8	T	97	ASN	Mainchain

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Mol	Chain	Res	Type	Group
9	U	120	ARG	Peptide
9	U	57	ASN	Peptide
10	V	20	ARG	Mainchain
10	V	29	PRO	Peptide
10	V	52	GLY	Mainchain
11	W	122	LYS	Mainchain
11	W	149	LEU	Mainchain
11	W	152	GLN	Mainchain
11	W	159	ARG	Mainchain
11	W	166	ALA	Mainchain
11	W	167	GLY	Mainchain
11	W	35	ASN	Peptide
11	W	63	SER	Mainchain
11	W	64	LYS	Mainchain

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	A	2035	0	589	8	0
1	B	1918	0	553	3	0
1	C	1947	0	563	8	0
2	D	1867	0	533	10	0
2	E	1863	0	532	5	0
2	F	1863	0	532	9	0
3	G	1053	0	283	5	0
4	H	523	0	140	3	0
5	I	187	0	53	2	0
6	J	288	0	92	0	0
6	K	288	0	92	0	0
6	L	288	0	92	0	0
6	M	288	0	92	0	0
6	N	288	0	92	0	0
6	O	288	0	92	0	0
6	P	288	0	92	0	0
6	Q	288	0	92	0	0
7	S	669	0	179	22	0
8	T	697	0	182	9	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
9	U	484	0	121	11	0
10	V	264	0	68	0	0
11	W	869	0	226	2	0
All	All	18543	0	5290	93	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 4.

All (93) 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)
8:T:96:ARG:C	8:T:96:ARG:CA	1.88	1.47
8:T:93:ASP:CA	8:T:93:ASP:N	1.76	1.46
7:S:163:ILE:O	7:S:167:GLY:O	1.76	1.03
3:G:267:SER:H	3:G:270:ALA:H	1.22	0.82
8:T:93:ASP:N	8:T:93:ASP:C	2.38	0.81
8:T:96:ARG:C	8:T:96:ARG:N	2.39	0.81
9:U:116:LEU:O	9:U:120:ARG:N	2.16	0.78
9:U:98:CYS:O	9:U:102:LEU:N	2.15	0.78
2:F:84:ILE:H	2:F:114:ALA:H	1.34	0.72
9:U:98:CYS:O	9:U:101:PHE:N	2.26	0.68
8:T:93:ASP:N	8:T:94:VAL:N	2.42	0.67
7:S:69:LEU:CA	7:S:72:MET:H	2.09	0.64
7:S:68:SER:C	7:S:72:MET:H	2.06	0.63
7:S:69:LEU:O	7:S:72:MET:N	2.31	0.62
7:S:107:THR:O	7:S:111:VAL:N	2.33	0.61
3:G:267:SER:H	3:G:270:ALA:N	1.97	0.61
9:U:98:CYS:O	9:U:99:ALA:C	2.43	0.61
2:D:84:ILE:H	2:D:114:ALA:H	1.47	0.61
8:T:95:GLN:C	8:T:96:ARG:C	2.69	0.59
2:D:473:LEU:C	2:D:475:GLU:H	2.13	0.56
1:C:285:LEU:C	1:C:287:ARG:H	2.13	0.56
7:S:69:LEU:O	7:S:73:THR:N	2.39	0.55
2:F:92:GLY:HA3	2:F:213:SER:H	1.71	0.55
7:S:136:THR:C	7:S:138:LEU:H	2.15	0.54
1:C:172:GLN:C	1:C:174:GLY:H	2.16	0.54
1:A:43:GLY:C	1:A:45:ARG:H	2.15	0.54
8:T:66:ALA:O	9:U:119:MET:O	2.26	0.53
2:E:419:GLN:H	2:E:429:GLY:H	1.56	0.53
1:B:260:ASN:C	1:B:262:LYS:H	2.17	0.52
7:S:69:LEU:C	7:S:71:ASP:N	2.67	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S:73:THR:C	7:S:75:LYS:H	2.17	0.52
1:C:398:ARG:C	1:C:401:ALA:H	2.17	0.52
1:A:189:PHE:C	1:A:192:GLY:H	2.20	0.50
1:A:49:ALA:H	2:E:69:LEU:N	2.08	0.50
1:A:172:GLN:C	1:A:174:GLY:H	2.20	0.50
7:S:28:LYS:C	7:S:30:ASN:H	2.21	0.49
1:C:258:ARG:O	1:C:319:GLY:HA3	2.14	0.48
2:E:419:GLN:N	2:E:429:GLY:H	2.11	0.48
7:S:13:GLY:C	7:S:15:GLU:H	2.21	0.48
1:C:189:PHE:C	1:C:192:GLY:H	2.22	0.48
7:S:108:MET:CA	7:S:111:VAL:O	2.62	0.48
2:E:417:PRO:O	2:E:429:GLY:HA2	2.14	0.47
7:S:30:ASN:C	7:S:32:LEU:H	2.22	0.47
4:H:80:GLY:HA3	4:H:95:GLU:H	1.79	0.47
2:D:419:GLN:CA	2:D:429:GLY:H	2.27	0.47
5:I:4:TRP:C	5:I:7:ALA:H	2.22	0.47
1:B:49:ALA:H	2:F:69:LEU:N	2.13	0.47
3:G:51:LEU:C	3:G:54:LYS:H	2.23	0.47
5:I:6:GLN:C	5:I:8:GLY:H	2.21	0.47
2:F:159:GLY:C	2:F:161:GLY:H	2.23	0.47
1:A:258:ARG:O	1:A:319:GLY:HA3	2.15	0.46
8:T:66:ALA:C	9:U:119:MET:O	2.59	0.46
7:S:105:PHE:O	7:S:108:MET:N	2.48	0.46
2:F:35:ALA:H	2:F:80:ALA:C	2.23	0.46
8:T:96:ARG:O	8:T:99:ILE:N	2.49	0.46
2:D:425:THR:C	2:D:427:HIS:H	2.24	0.45
9:U:86:GLN:O	9:U:87:VAL:C	2.59	0.45
9:U:54:TYR:O	9:U:58:VAL:N	2.29	0.45
2:D:197:TYR:C	2:D:200:MET:H	2.25	0.45
2:D:393:MET:C	2:D:395:GLU:H	2.23	0.45
2:F:362:ILE:C	2:F:364:GLY:H	2.25	0.45
1:A:346:THR:C	1:A:348:GLY:H	2.24	0.45
2:D:272:LEU:C	2:D:274:ARG:H	2.25	0.45
11:W:152:GLN:O	11:W:155:ALA:N	2.50	0.44
4:H:22:SER:C	4:H:24:THR:H	2.25	0.44
7:S:49:PRO:C	7:S:51:MET:H	2.25	0.44
1:B:261:GLY:HA2	1:B:317:GLY:C	2.41	0.44
7:S:69:LEU:N	7:S:72:MET:H	2.16	0.44
7:S:58:PRO:C	7:S:60:VAL:H	2.25	0.44
3:G:246:LEU:C	3:G:248:LEU:H	2.25	0.43
4:H:142:VAL:O	4:H:145:LEU:C	2.61	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:336:SER:H	2:D:348:VAL:C	2.26	0.43
11:W:156:LEU:O	11:W:160:LEU:N	2.51	0.43
7:S:69:LEU:C	7:S:73:THR:H	2.25	0.43
9:U:90:GLU:O	9:U:94:ASP:N	2.49	0.43
7:S:69:LEU:CA	7:S:72:MET:N	2.80	0.42
7:S:105:PHE:O	7:S:108:MET:CA	2.68	0.42
9:U:88:ASP:C	9:U:90:GLU:N	2.77	0.41
7:S:95:LEU:C	7:S:97:ASN:H	2.28	0.41
1:C:29:GLY:N	1:C:88:VAL:O	2.54	0.41
7:S:69:LEU:C	7:S:72:MET:N	2.79	0.41
3:G:122:ASP:C	3:G:124:PHE:H	2.28	0.41
1:A:55:PHE:C	1:A:57:SER:H	2.28	0.41
2:D:155:PHE:N	2:D:333:THR:O	2.53	0.41
1:A:283:LEU:C	1:A:286:ARG:H	2.29	0.41
1:C:504:PHE:O	1:C:508:PHE:N	2.53	0.41
2:D:13:ILE:O	2:D:72:GLY:N	2.50	0.41
2:F:382:LYS:C	2:F:385:GLN:H	2.28	0.41
9:U:86:GLN:C	9:U:88:ASP:N	2.78	0.41
2:F:92:GLY:H	2:F:215:VAL:H	1.68	0.41
2:E:277:SER:H	2:E:283:PRO:N	2.19	0.40
1:C:285:LEU:C	1:C:287:ARG:N	2.79	0.40
2:F:268:VAL:O	2:F:269:SER:C	2.63	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	A	507/510 (99%)	451 (89%)	35 (7%)	21 (4%)	2	18
1	B	476/510 (93%)	424 (89%)	31 (6%)	21 (4%)	2	17
1	C	485/510 (95%)	440 (91%)	28 (6%)	17 (4%)	3	20

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	D	465/482 (96%)	417 (90%)	37 (8%)	11 (2%)	4	27
2	E	464/482 (96%)	416 (90%)	33 (7%)	15 (3%)	3	21
2	F	464/482 (96%)	410 (88%)	34 (7%)	20 (4%)	2	17
3	G	258/273 (94%)	196 (76%)	37 (14%)	25 (10%)	0	7
4	H	129/146 (88%)	111 (86%)	10 (8%)	8 (6%)	1	13
5	I	45/50 (90%)	35 (78%)	5 (11%)	5 (11%)	0	5
6	J	70/72 (97%)	62 (89%)	6 (9%)	2 (3%)	3	23
6	K	70/72 (97%)	64 (91%)	5 (7%)	1 (1%)	9	40
6	L	70/72 (97%)	57 (81%)	13 (19%)	0	100	100
6	M	70/72 (97%)	64 (91%)	4 (6%)	2 (3%)	3	23
6	N	70/72 (97%)	61 (87%)	9 (13%)	0	100	100
6	O	70/72 (97%)	64 (91%)	5 (7%)	1 (1%)	9	40
6	P	70/72 (97%)	64 (91%)	5 (7%)	1 (1%)	9	40
6	Q	70/72 (97%)	61 (87%)	7 (10%)	2 (3%)	3	23
7	S	166/190 (87%)	112 (68%)	26 (16%)	28 (17%)	0	2
8	T	172/174 (99%)	153 (89%)	17 (10%)	2 (1%)	10	44
9	U	119/124 (96%)	97 (82%)	15 (13%)	7 (6%)	1	13
10	V	64/77 (83%)	50 (78%)	10 (16%)	4 (6%)	1	13
11	W	215/217 (99%)	187 (87%)	23 (11%)	5 (2%)	5	28
All	All	4589/4803 (96%)	3996 (87%)	395 (9%)	198 (4%)	3	17

All (198) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	13	GLU
1	A	14	GLU
1	A	45	ARG
1	A	47	VAL
1	A	171	ARG
1	A	289	PRO
1	A	374	VAL
1	A	435	PRO
1	B	57	SER
1	B	59	LEU
1	B	80	LYS

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Mol	Chain	Res	Type
1	B	143	ARG
1	B	224	ASP
1	B	238	ASP
1	B	289	PRO
1	B	346	THR
1	B	361	ILE
1	B	365	ILE
1	B	378	ALA
1	C	47	VAL
1	C	80	LYS
1	C	121	ILE
1	C	146	MET
1	C	289	PRO
1	C	361	ILE
1	C	488	LYS
2	D	277	SER
2	D	281	TYR
2	D	450	ASP
2	D	451	HIS
2	E	249	GLN
2	E	282	GLN
2	E	348	VAL
2	E	395	GLU
2	E	447	GLY
2	F	213	SER
2	F	277	SER
2	F	450	ASP
2	F	451	HIS
3	G	73	SER
3	G	93	ALA
3	G	118	ARG
3	G	134	ARG
3	G	196	ILE
3	G	197	ASP
3	G	199	ASP
3	G	250	PHE
3	G	257	VAL
4	H	45	PHE
4	H	69	ASP
4	H	101	ASP
5	I	28	THR
5	I	42	ILE

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Mol	Chain	Res	Type
7	S	2	ALA
7	S	47	LYS
7	S	52	ALA
7	S	108	MET
7	S	112	HIS
7	S	113	ARG
7	S	118	CYS
7	S	122	THR
7	S	124	SER
7	S	142	LEU
7	S	151	GLU
7	S	153	LYS
8	T	149	VAL
10	V	54	ALA
10	V	60	PRO
11	W	152	GLN
1	A	11	ILE
1	A	24	ASP
1	A	116	ASP
1	A	163	GLN
1	A	172	GLN
1	A	224	ASP
1	B	114	ALA
1	B	115	ILE
1	B	505	LEU
1	B	508	PHE
1	C	172	GLN
1	C	224	ASP
1	C	238	ASP
2	D	67	GLU
2	D	93	ARG
2	E	73	GLN
2	E	102	ILE
2	E	132	ILE
2	E	213	SER
2	E	297	THR
2	E	392	GLY
2	F	82	ILE
2	F	282	GLN
2	F	419	GLN
3	G	9	ARG
3	G	87	LYS

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Mol	Chain	Res	Type
3	G	114	SER
3	G	122	ASP
3	G	157	GLU
3	G	187	ALA
3	G	200	VAL
4	H	68	GLU
7	S	8	PRO
7	S	50	LYS
7	S	77	LYS
7	S	123	ALA
9	U	49	ILE
9	U	98	CYS
10	V	30	VAL
10	V	31	ASP
1	A	411	ASP
1	B	82	ILE
1	B	286	ARG
1	B	430	GLN
1	C	171	ARG
2	D	348	VAL
2	E	391	LEU
2	F	31	PRO
2	F	223	ASN
2	F	317	LEU
3	G	92	GLU
3	G	116	LEU
3	G	272	LEU
4	H	51	HIS
4	H	123	ALA
4	H	124	ASP
5	I	26	LEU
6	J	45	GLN
7	S	14	ILE
7	S	55	LEU
7	S	68	SER
7	S	155	ASP
9	U	82	LYS
9	U	99	ALA
11	W	40	ASN
1	A	6	ALA
1	A	18	GLY
1	A	79	ASP

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Mol	Chain	Res	Type
1	B	287	ARG
1	B	375	GLY
1	C	235	THR
2	D	210	ASP
2	F	67	GLU
2	F	297	THR
2	F	364	GLY
3	G	88	GLN
3	G	201	LEU
5	I	9	LEU
6	P	40	PRO
6	Q	44	GLN
7	S	11	ILE
7	S	92	ASN
7	S	107	THR
7	S	137	VAL
8	T	171	LEU
9	U	84	THR
9	U	87	VAL
11	W	36	ARG
11	W	92	PHE
11	W	153	PRO
1	A	44	LEU
1	A	336	ALA
2	D	44	ARG
2	E	359	ASP
2	F	157	GLY
2	F	176	ALA
3	G	133	ARG
3	G	150	ASN
3	G	258	ILE
3	G	269	ALA
6	O	39	ASN
7	S	9	VAL
7	S	49	PRO
7	S	61	LYS
7	S	120	VAL
9	U	13	PHE
1	A	209	LYS
1	C	435	PRO
2	D	279	VAL
2	F	359	ASP

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Mol	Chain	Res	Type
2	F	363	VAL
5	I	44	ILE
1	C	115	ILE
1	C	288	PRO
2	E	279	VAL
2	F	160	VAL
2	F	279	VAL
6	M	40	PRO
1	B	334	VAL
1	C	144	GLU
2	E	453	PRO
4	H	52	VAL
6	J	40	PRO
1	C	145	PRO
2	D	359	ASP
2	F	420	VAL
6	M	71	ILE
6	K	40	PRO
6	Q	40	PRO

5.3.2 Protein sidechains [i](#)

There are no protein residues with a non-rotameric sidechain to report in this entry.

5.3.3 RNA [i](#)

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.

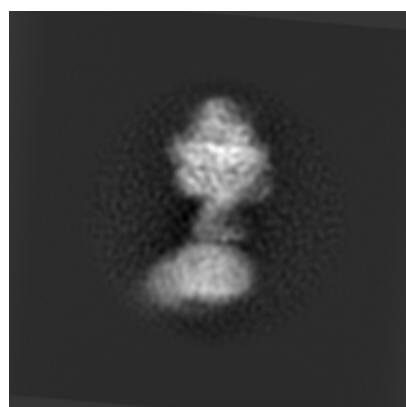
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-3168. These allow visual inspection of the internal detail of the map and identification of artifacts.

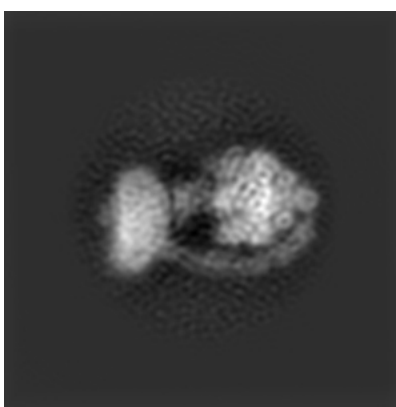
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

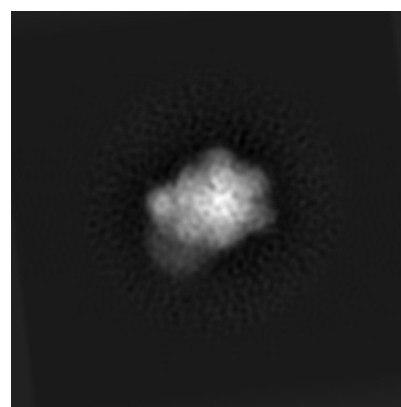
6.1.1 Primary map



X



Y

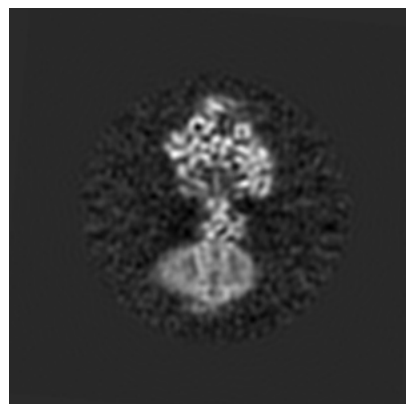


Z

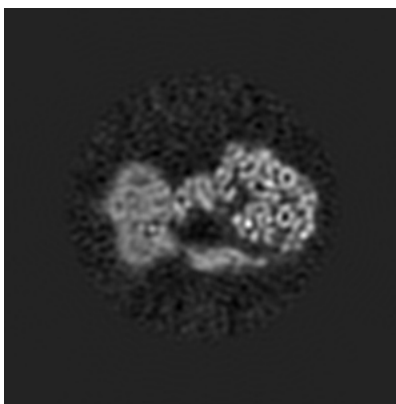
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

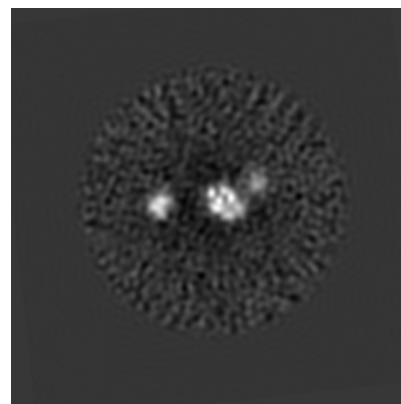
6.2.1 Primary map



X Index: 128



Y Index: 128



Z Index: 128

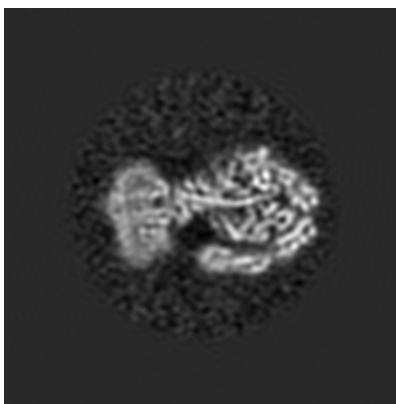
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

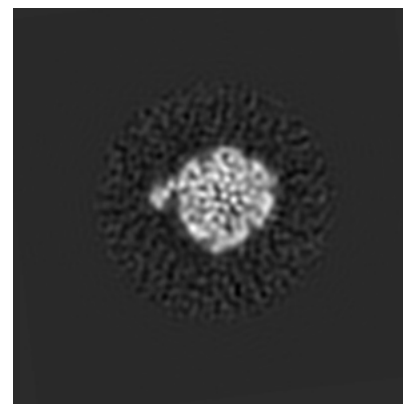
6.3.1 Primary map



X Index: 134



Y Index: 133

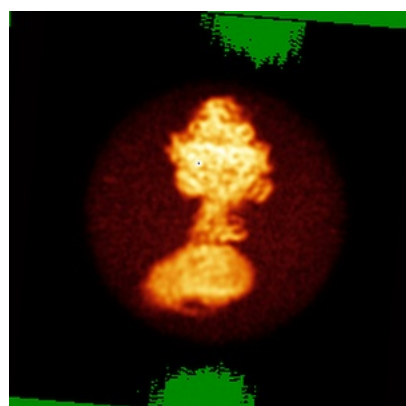


Z Index: 166

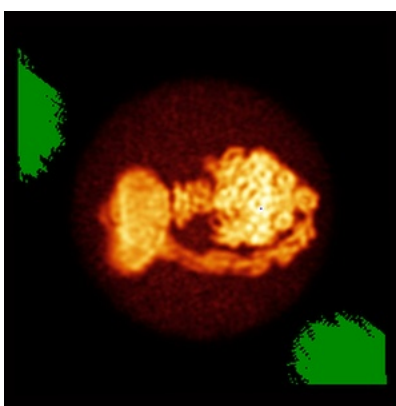
The images above show the largest variance slices of the map in three orthogonal directions.

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

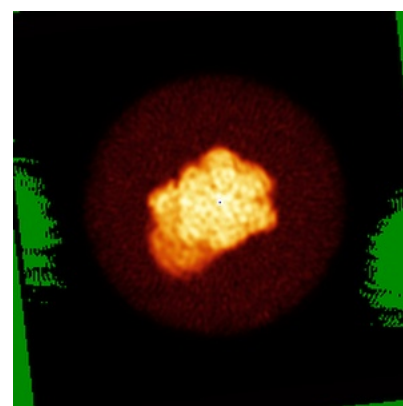
6.4.1 Primary map



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.

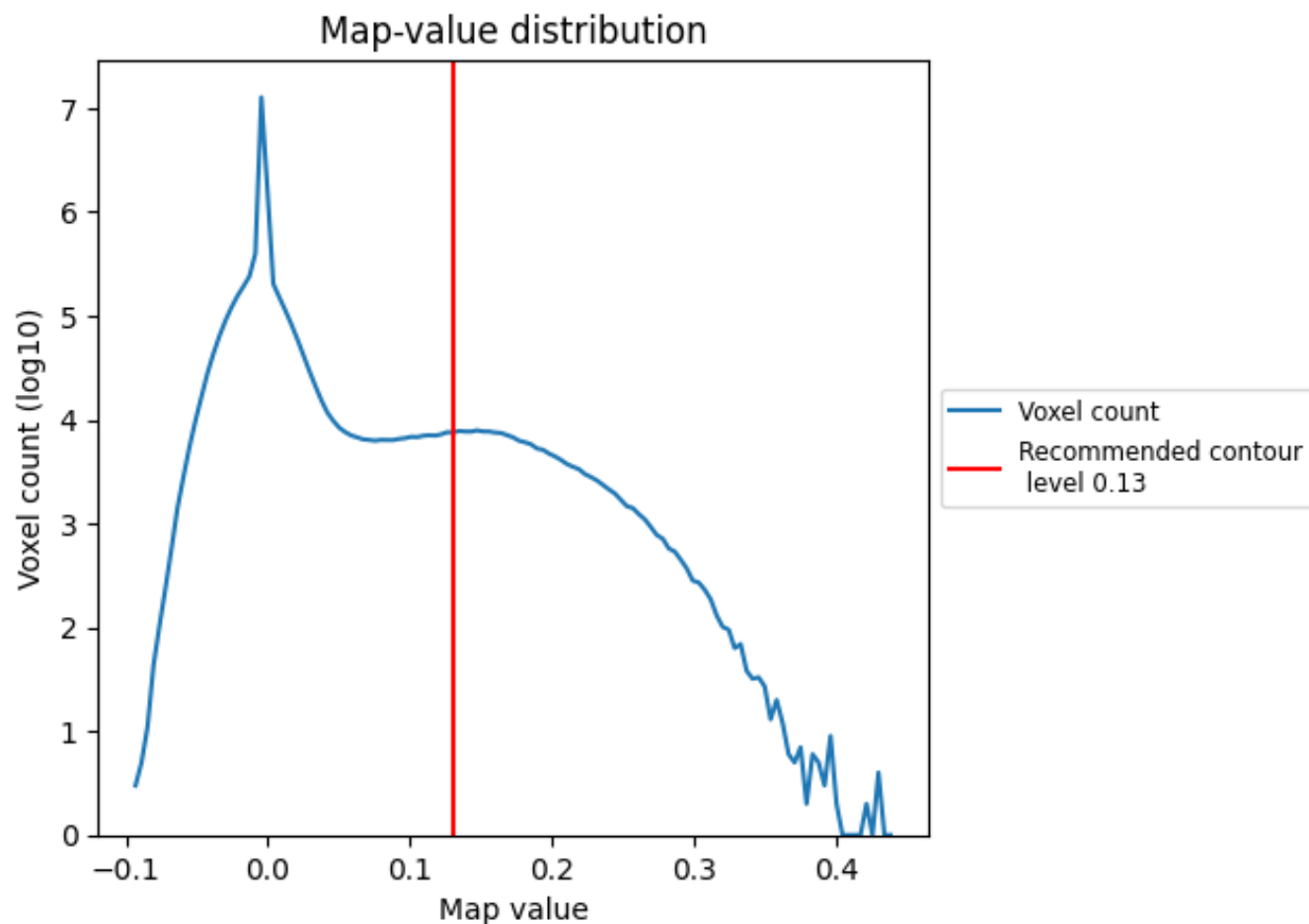
6.6 Mask visualisation

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

7 Map analysis [i](#)

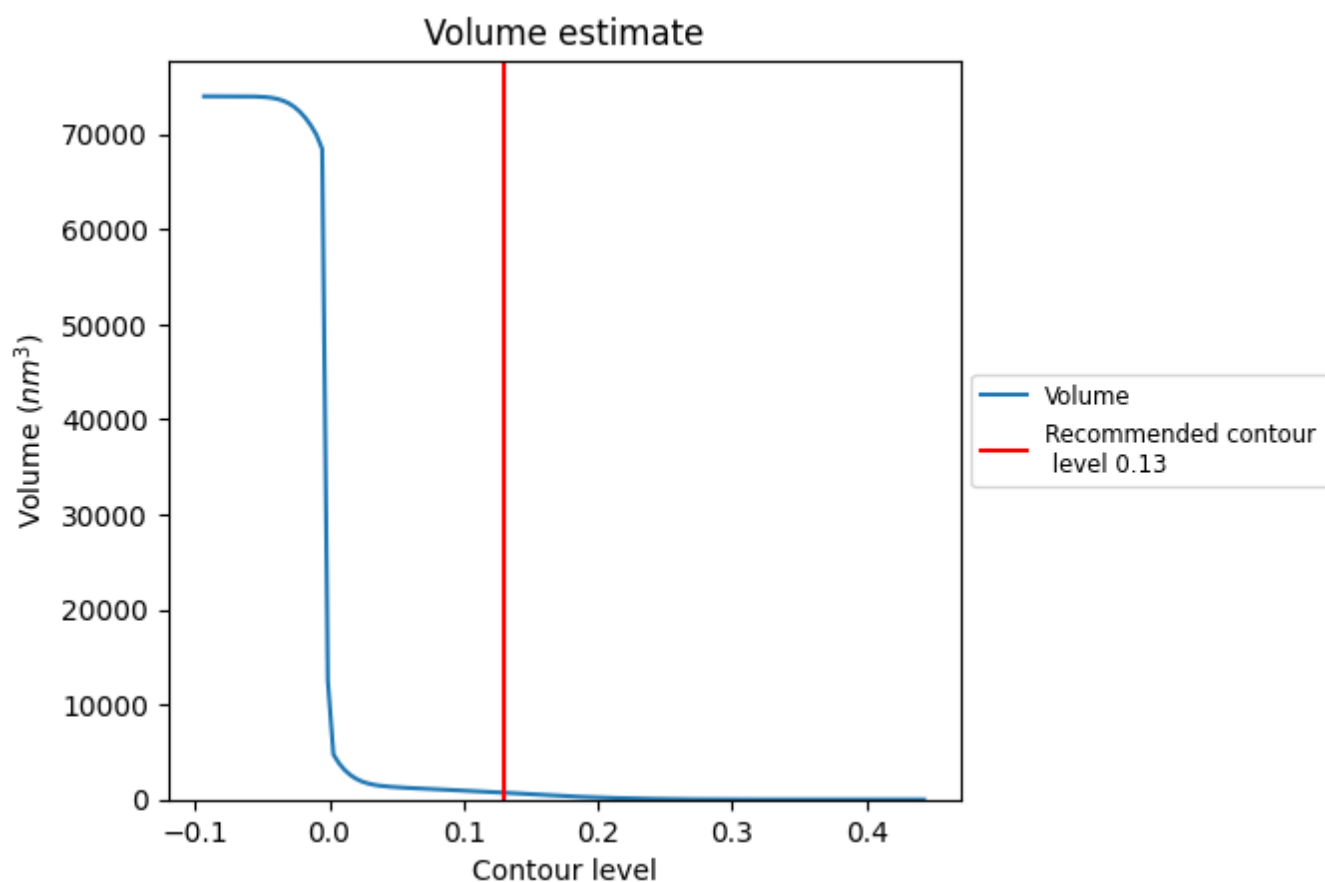
This section contains the results of statistical analysis of the map.

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.

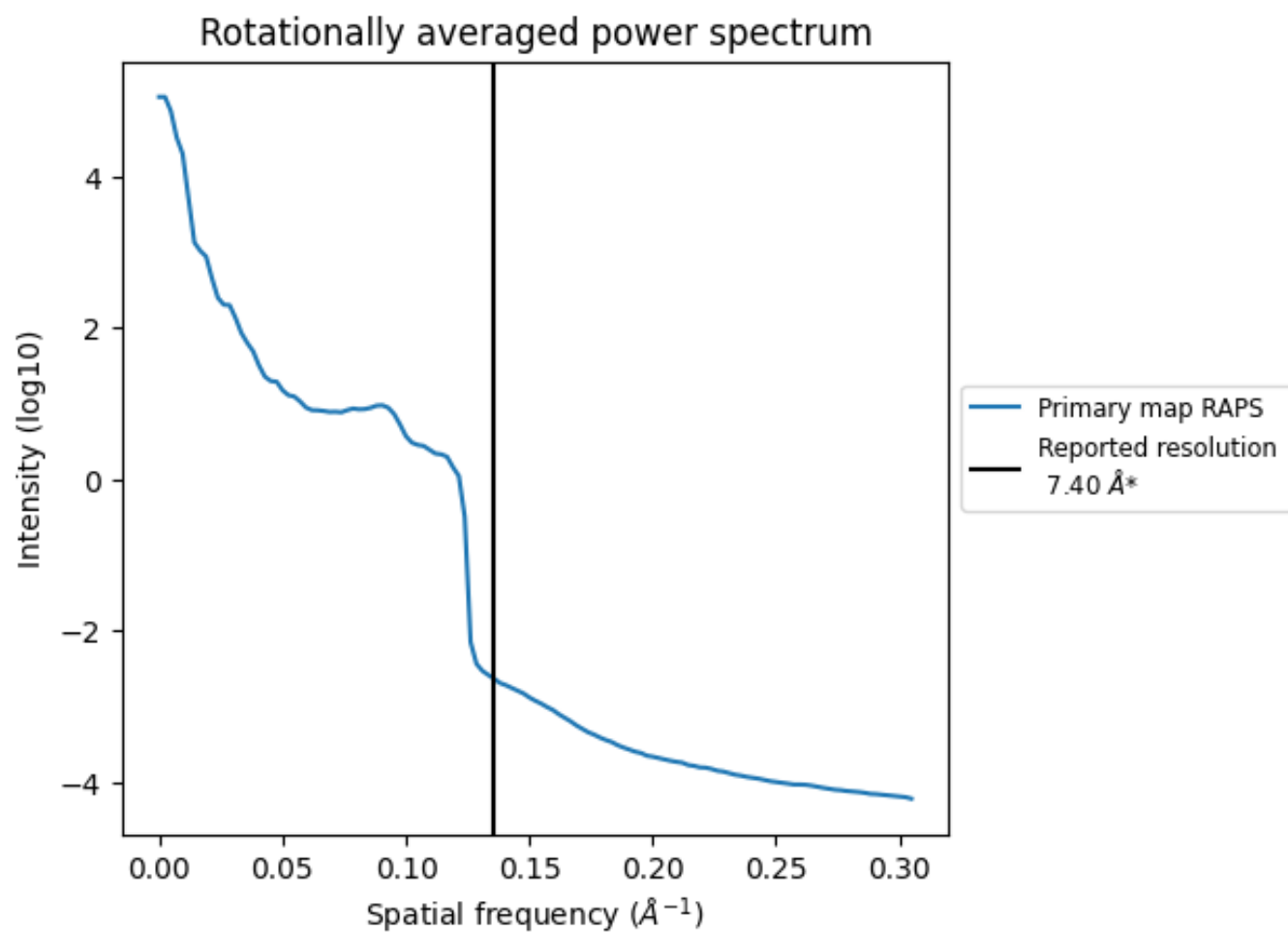
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 722 nm³; this corresponds to an approximate mass of 652 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 0.135 Å⁻¹

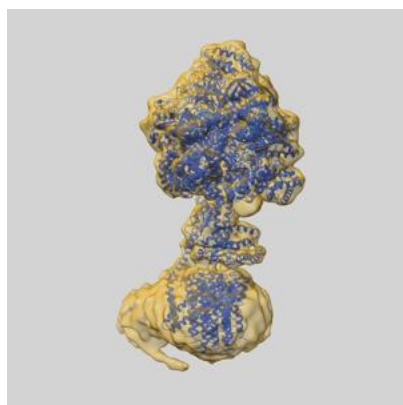
8 Fourier-Shell correlation

This section was not generated. No FSC curve or half-maps provided.

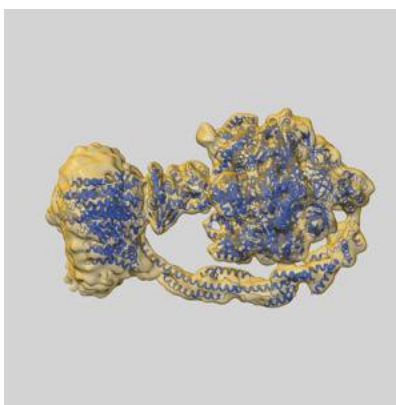
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-3168 and PDB model 5FIJ. Per-residue inclusion information can be found in section [3](#) on page [7](#).

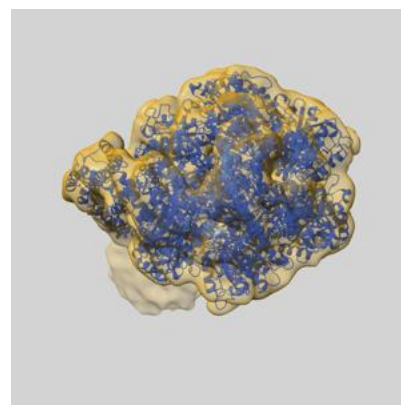
9.1 Map-model overlay [i](#)



X



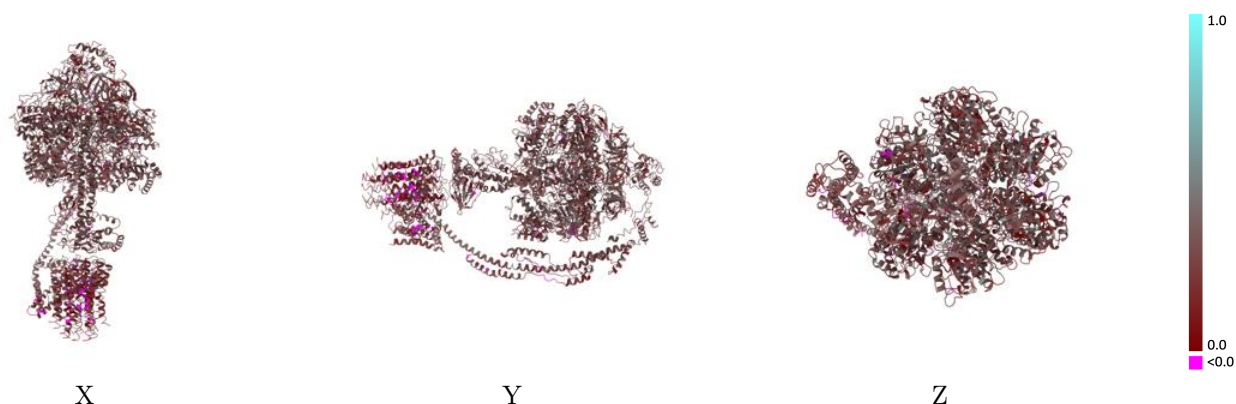
Y



Z

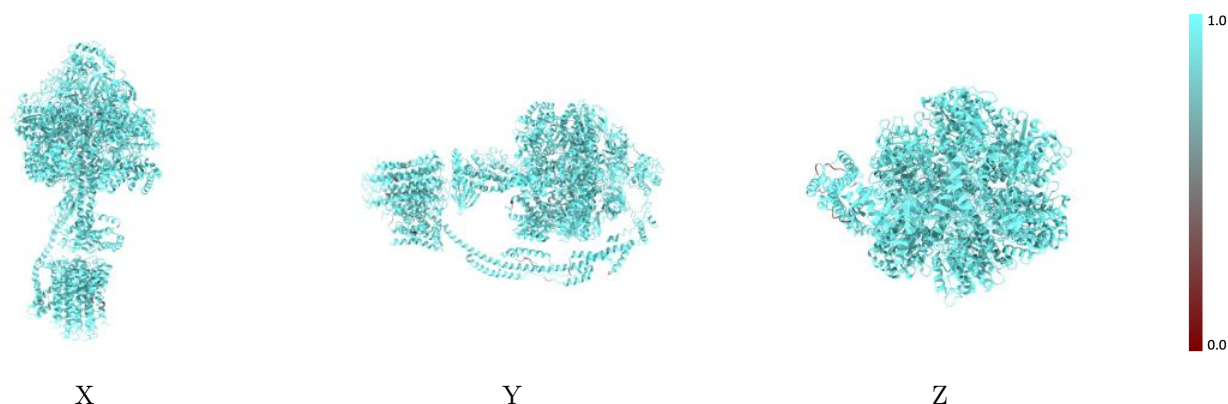
The images above show the 3D surface view of the map at the recommended contour level 0.13 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



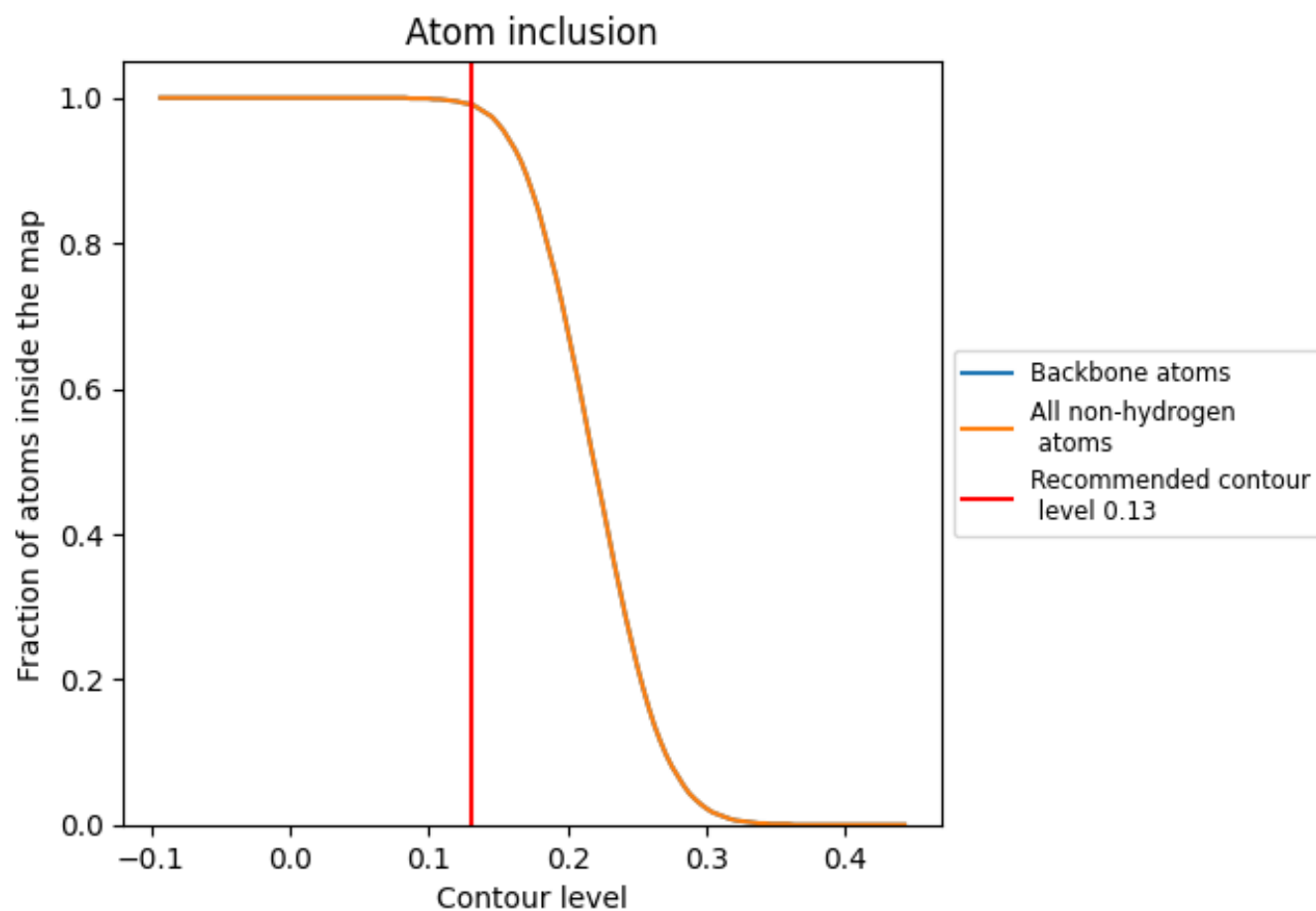
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (0.13).

9.4 Atom inclusion [i](#)



At the recommended contour level, 99% of all backbone atoms, 99% 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 (0.13) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.9910	 0.2700
A	 0.9950	 0.2830
B	 1.0000	 0.2940
C	 0.9930	 0.2900
D	 1.0000	 0.2960
E	 1.0000	 0.2900
F	 0.9970	 0.2930
G	 1.0000	 0.2960
H	 0.9960	 0.2980
I	 0.9890	 0.3010
J	 0.9930	 0.2020
K	 0.9790	 0.1760
L	 1.0000	 0.2130
M	 0.9760	 0.1500
N	 0.9720	 0.1930
O	 0.9410	 0.1500
P	 1.0000	 0.2010
Q	 0.9930	 0.1700
S	 1.0000	 0.3010
T	 0.9940	 0.2920
U	 0.9260	 0.2130
V	 0.9240	 0.2250
W	 0.9590	 0.1840

