



Full wwPDB EM Validation Report ⓘ

Mar 10, 2026 – 02:53 AM UTC

PDB ID : 7TKS / pdb_00007tk
EMDB ID : EMD-25980
Title : Yeast ATP synthase State 3catalytic(e) with 10 mM ATP backbone model
Authors : Guo, H.; Rubinstein, J.L.
Deposited on : 2022-01-17
Resolution : 7.50 Å(reported)
Based on initial model : 2HLD

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

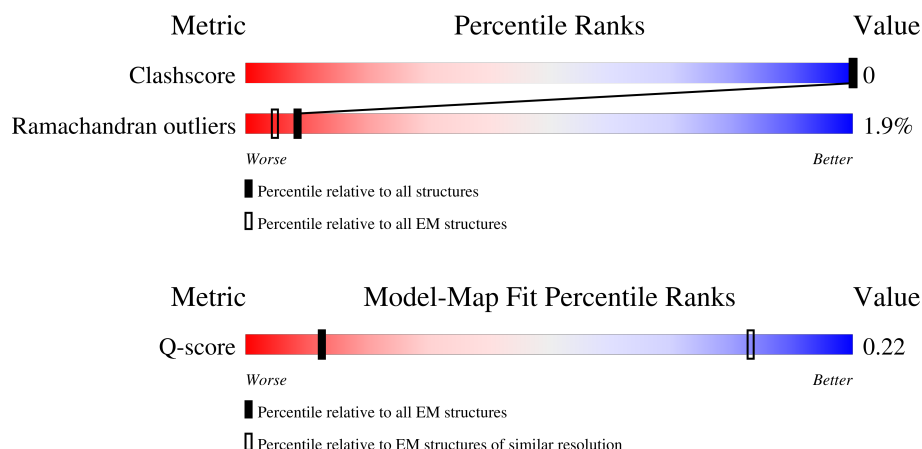
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 7.50 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.



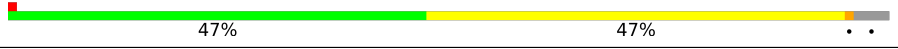
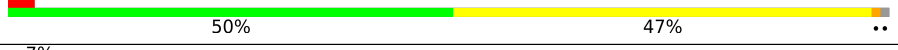
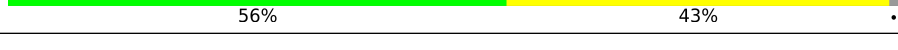
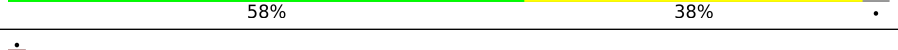
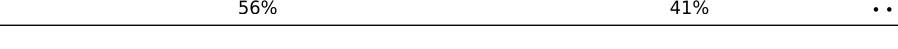
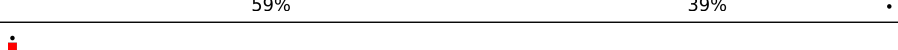
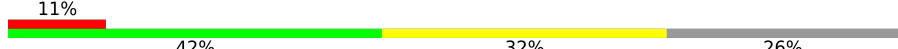
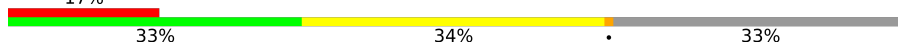
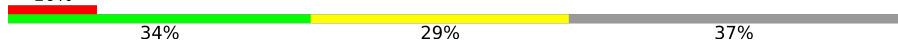
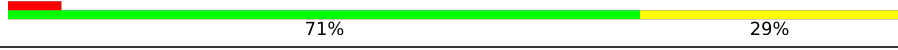
Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Q-score	-	25397	436 (7.00 - 8.00)

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	0	76	57% 42%
1	1	76	13% 54% 43%
1	2	76	12% 57% 42%
1	3	76	51% 45%
1	4	76	46% 53%

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Mol	Chain	Length	Quality of chain
1	5	76	
1	6	76	
1	7	76	
1	8	76	
1	9	76	
2	A	510	
2	B	510	
2	C	510	
3	D	478	
3	E	478	
3	F	478	
4	G	278	
5	H	138	
6	I	61	
7	O	195	
8	T	249	
9	U	209	
10	V	173	
11	W	95	
12	X	92	
13	Y	59	
14	Z	48	

2 Entry composition [i](#)

There are 14 unique types of molecules in this entry. The entry contains 20228 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 9, mitochondrial.

Mol	Chain	Residues	Atoms				AltConf	Trace
1	0	75	Total	C	N	O	0	0
			300	150	75	75		
1	1	75	Total	C	N	O	0	0
			300	150	75	75		
1	2	75	Total	C	N	O	0	0
			300	150	75	75		
1	3	74	Total	C	N	O	0	0
			296	148	74	74		
1	4	75	Total	C	N	O	0	0
			300	150	75	75		
1	5	75	Total	C	N	O	0	0
			300	150	75	75		
1	6	74	Total	C	N	O	0	0
			296	148	74	74		
1	7	73	Total	C	N	O	0	0
			292	146	73	73		
1	8	75	Total	C	N	O	0	0
			300	150	75	75		
1	9	74	Total	C	N	O	0	0
			296	148	74	74		

- Molecule 2 is a protein called ATP synthase subunit alpha.

Mol	Chain	Residues	Atoms				AltConf	Trace
2	A	499	Total	C	N	O	0	0
			1996	998	499	499		
2	B	507	Total	C	N	O	0	0
			2028	1014	507	507		
2	C	496	Total	C	N	O	0	0
			1984	992	496	496		

- Molecule 3 is a protein called ATP synthase subunit beta.

Mol	Chain	Residues	Atoms				AltConf	Trace
3	D	468	Total	C	N	O	0	0
			1872	936	468	468		
3	E	469	Total	C	N	O	0	0
			1876	938	469	469		
3	F	470	Total	C	N	O	0	0
			1880	940	470	470		

- Molecule 4 is a protein called ATP synthase subunit gamma.

Mol	Chain	Residues	Atoms				AltConf	Trace
4	G	265	Total	C	N	O	0	0
			1060	530	265	265		

- Molecule 5 is a protein called ATP synthase subunit delta.

Mol	Chain	Residues	Atoms				AltConf	Trace
5	H	120	Total	C	N	O	0	0
			480	240	120	120		

- Molecule 6 is a protein called ATP synthase subunit epsilon.

Mol	Chain	Residues	Atoms				AltConf	Trace
6	I	48	Total	C	N	O	0	0
			193	96	48	49		

- Molecule 7 is a protein called ATP synthase subunit 5.

Mol	Chain	Residues	Atoms				AltConf	Trace
7	O	187	Total	C	N	O	0	0
			748	374	187	187		

- Molecule 8 is a protein called ATP synthase subunit a.

Mol	Chain	Residues	Atoms				AltConf	Trace
8	T	224	Total	C	N	O	0	0
			897	448	224	225		

- Molecule 9 is a protein called ATP synthase subunit 4.

Mol	Chain	Residues	Atoms				AltConf	Trace
9	U	155	Total	C	N	O	0	0
			620	310	155	155		

- Molecule 10 is a protein called ATP synthase subunit d.

Mol	Chain	Residues	Atoms				AltConf	Trace
10	V	171	Total	C	N	O	0	0
			685	342	171	172		

- Molecule 11 is a protein called ATP synthase subunit f.

Mol	Chain	Residues	Atoms				AltConf	Trace
11	W	85	Total	C	N	O	0	0
			340	170	85	85		

- Molecule 12 is a protein called ATP synthase subunit H.

Mol	Chain	Residues	Atoms				AltConf	Trace
12	X	62	Total	C	N	O	0	0
			248	124	62	62		

- Molecule 13 is a protein called ATP synthase subunit J.

Mol	Chain	Residues	Atoms				AltConf	Trace
13	Y	37	Total	C	N	O	0	0
			148	74	37	37		

- Molecule 14 is a protein called ATP synthase protein 8.

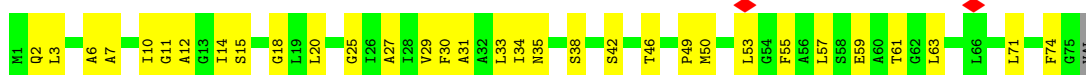
Mol	Chain	Residues	Atoms				AltConf	Trace
14	Z	48	Total	C	N	O	0	0
			193	96	48	49		

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.

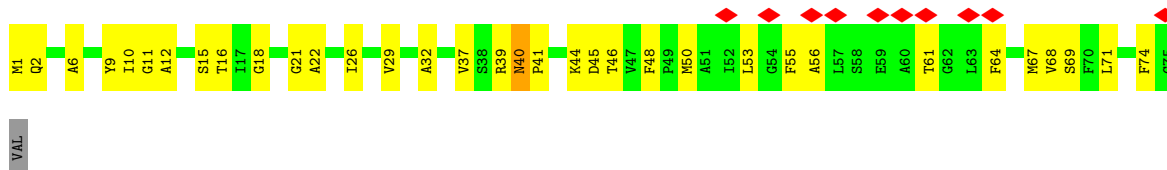
- Molecule 1: ATP synthase subunit 9, mitochondrial

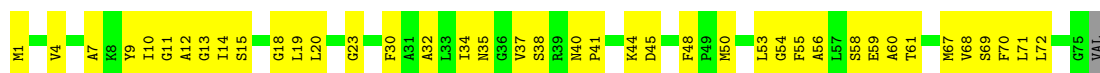
Chain 0: 



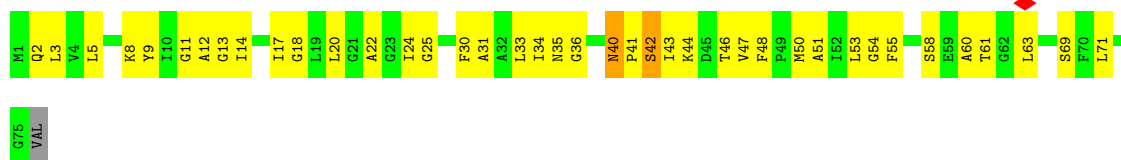
- Molecule 1: ATP synthase subunit 9, mitochondrial

Chain 1: 





- Molecule 1: ATP synthase subunit 9, mitochondrial



- Molecule 1: ATP synthase subunit 9, mitochondrial



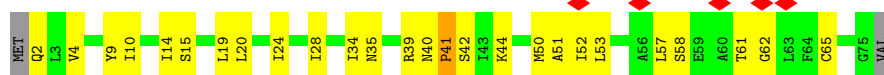
- Molecule 1: ATP synthase subunit 9, mitochondrial



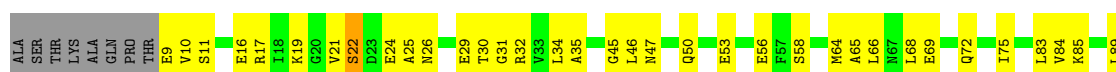
- Molecule 1: ATP synthase subunit 9, mitochondrial

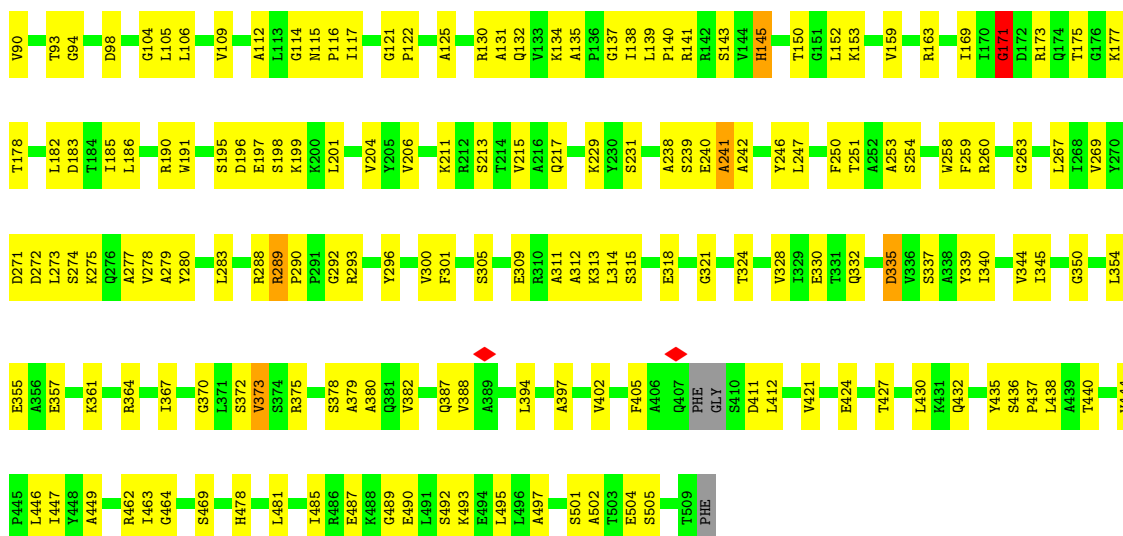


- Molecule 1: ATP synthase subunit 9, mitochondrial



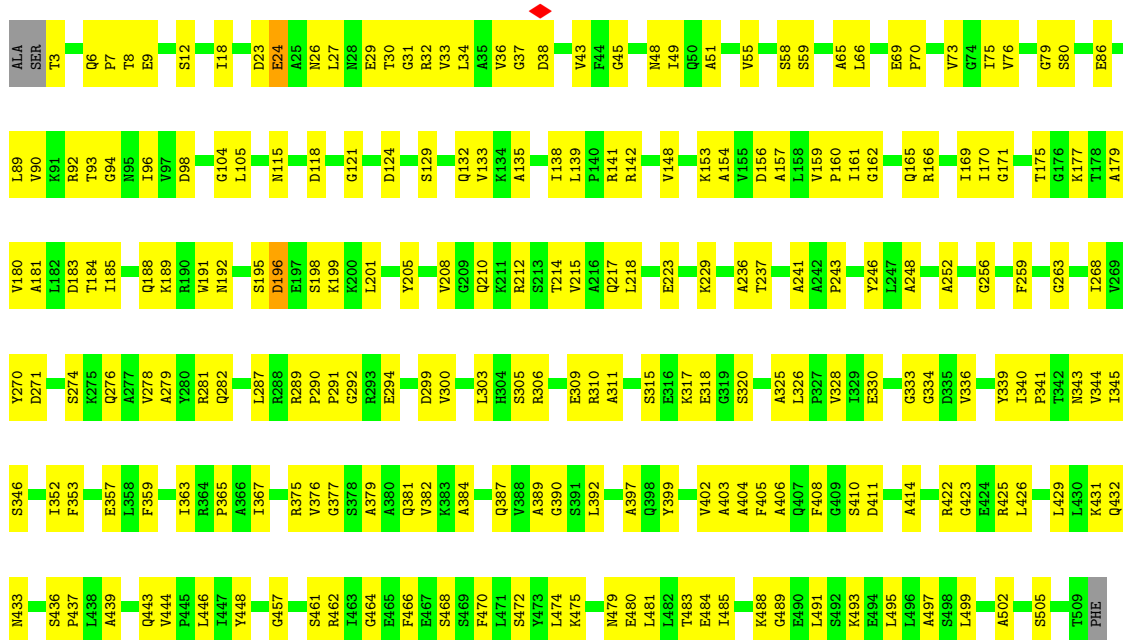
- Molecule 2: ATP synthase subunit alpha





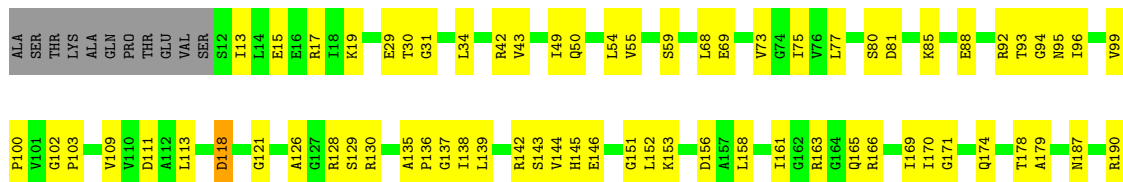
• Molecule 2: ATP synthase subunit alpha

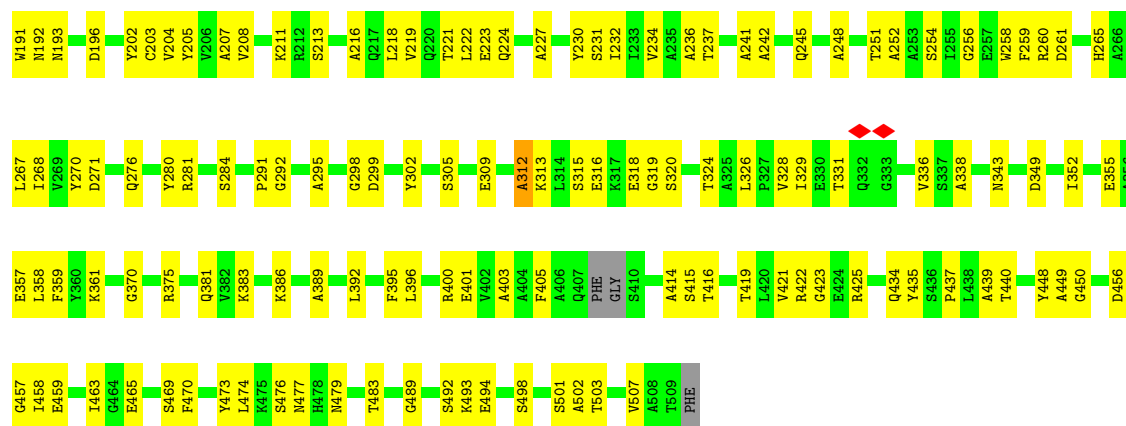
Chain B: 56% 43% .



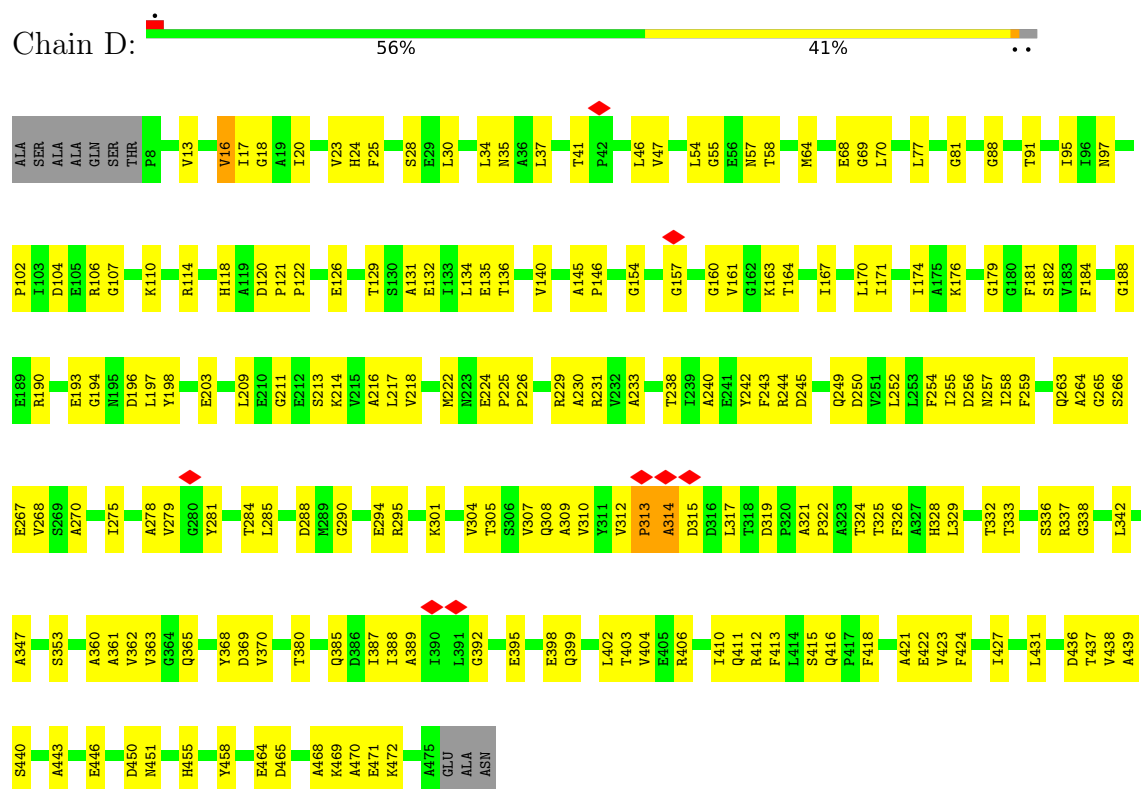
• Molecule 2: ATP synthase subunit alpha

Chain C: 58% 38% .

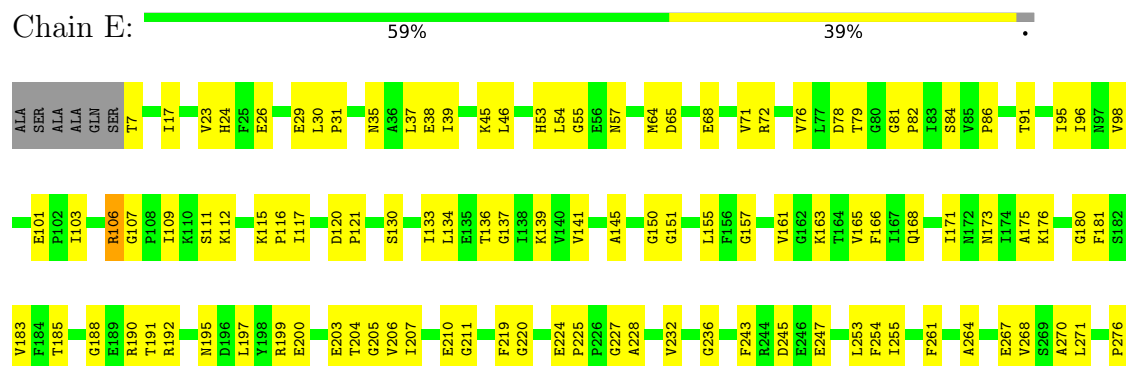


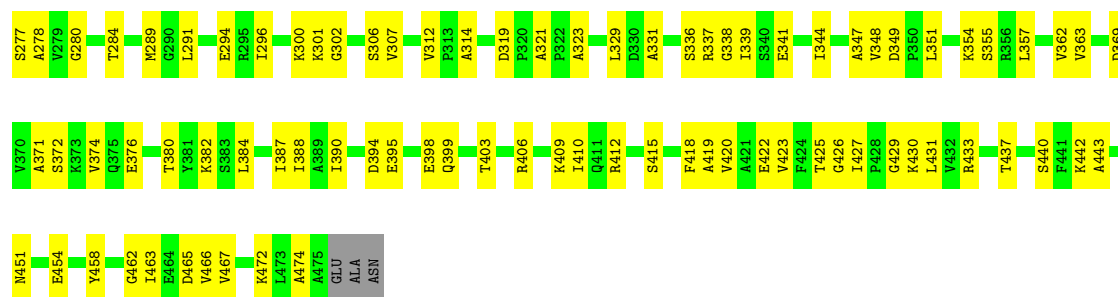


• Molecule 3: ATP synthase subunit beta

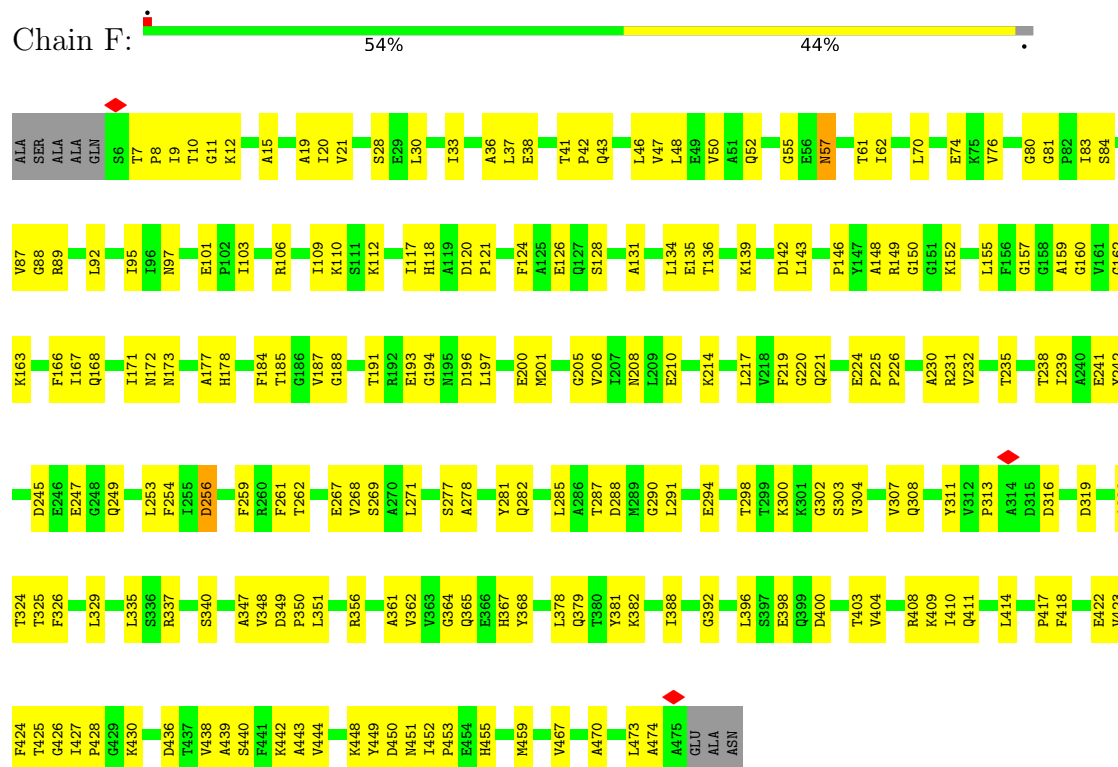


• Molecule 3: ATP synthase subunit beta

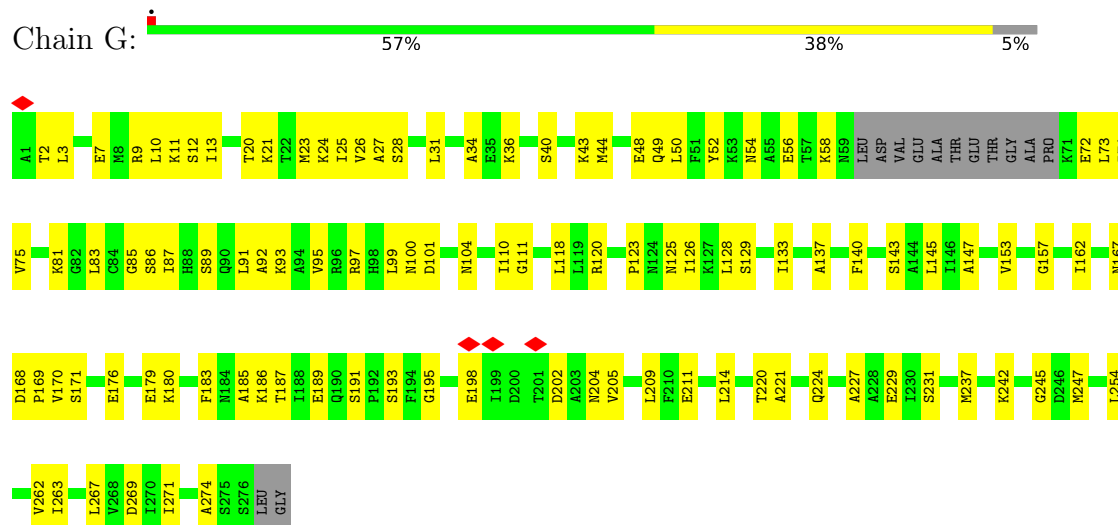




• Molecule 3: ATP synthase subunit beta

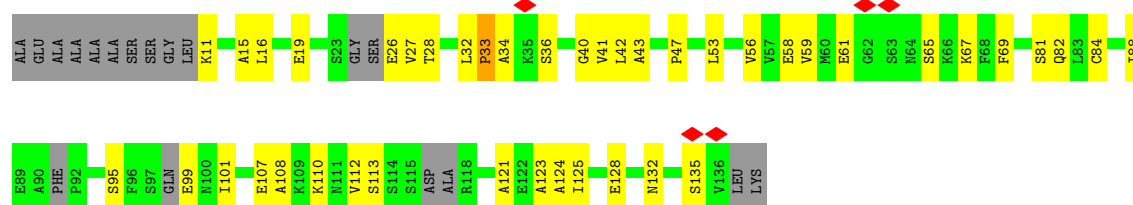


• Molecule 4: ATP synthase subunit gamma



- Molecule 5: ATP synthase subunit delta

Chain H: 



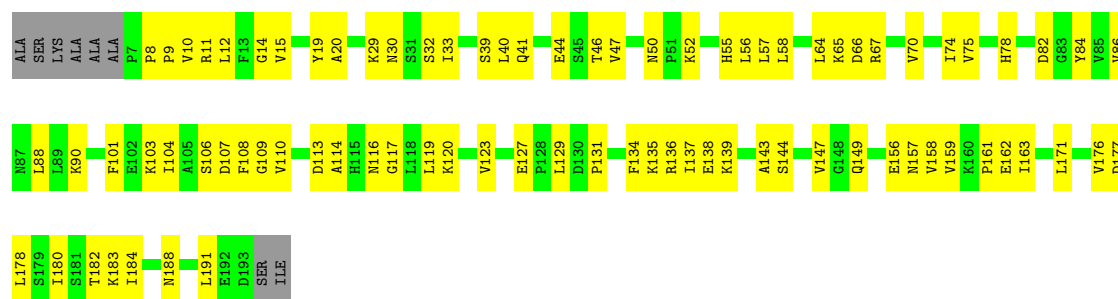
- Molecule 6: ATP synthase subunit epsilon

Chain I: 



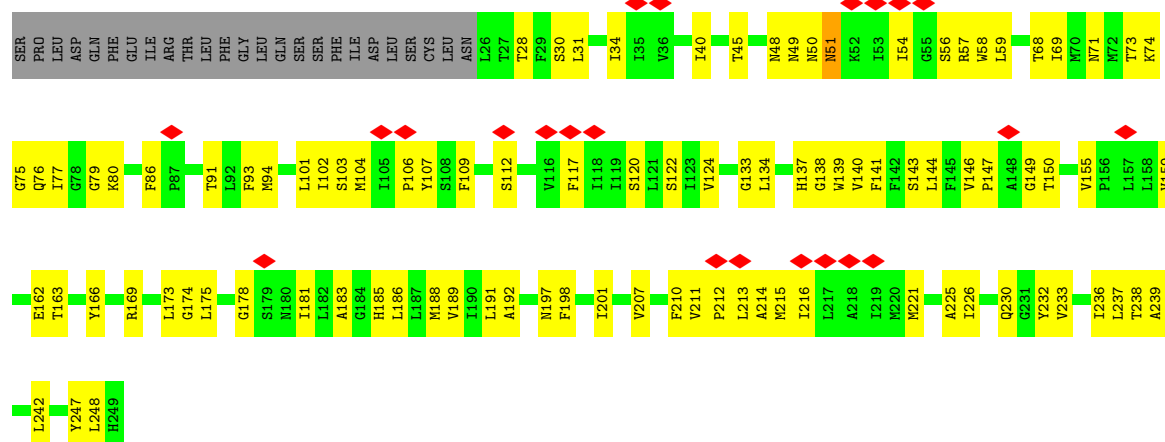
- Molecule 7: ATP synthase subunit 5

Chain O: 

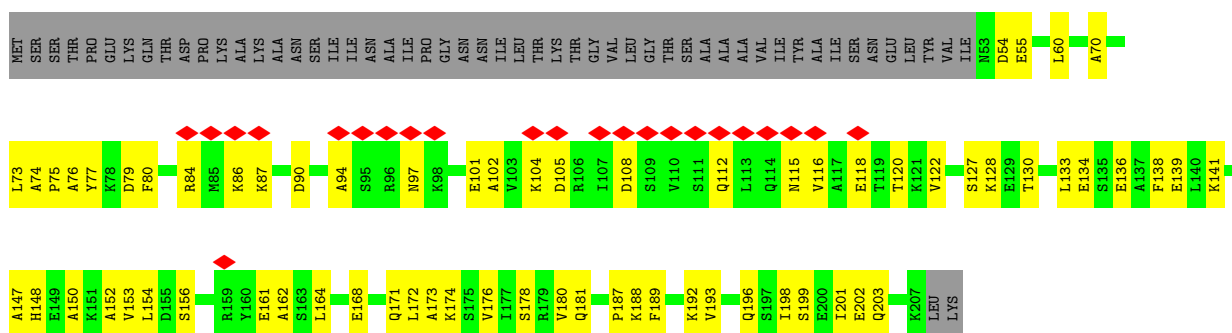
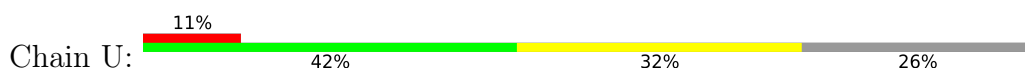


- Molecule 8: ATP synthase subunit a

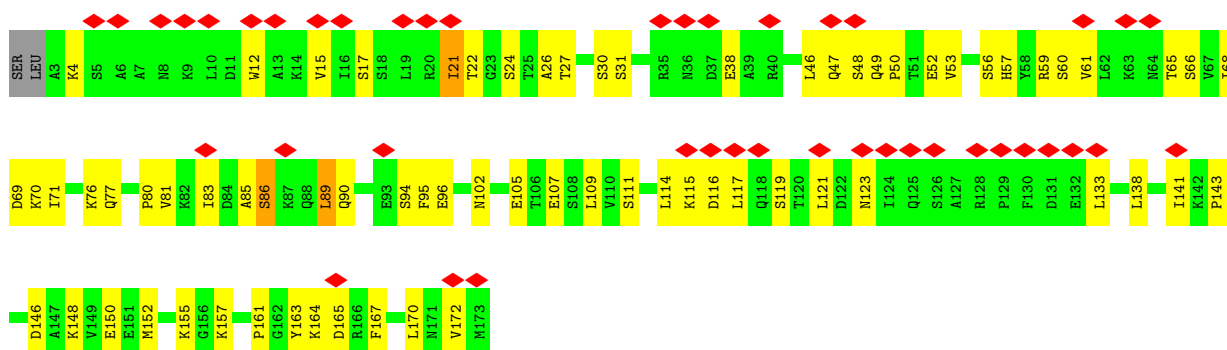
Chain T: 



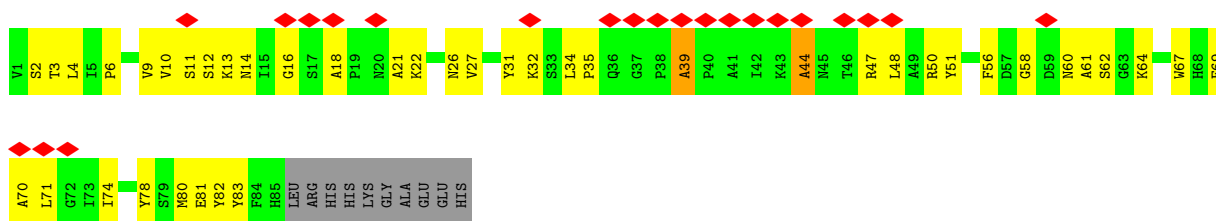
- Molecule 9: ATP synthase subunit 4



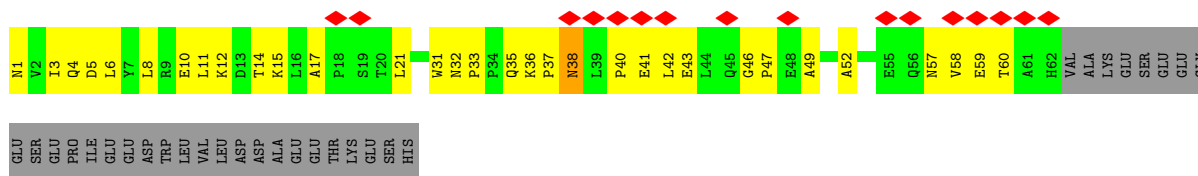
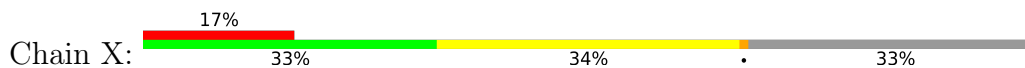
• Molecule 10: ATP synthase subunit d



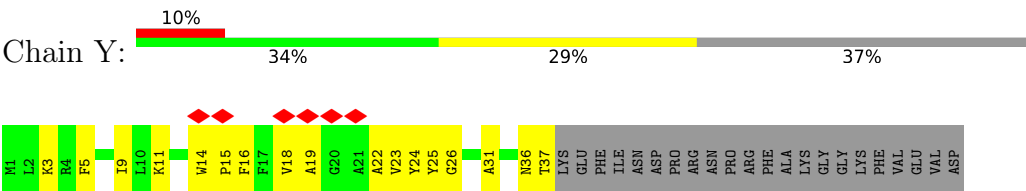
• Molecule 11: ATP synthase subunit f



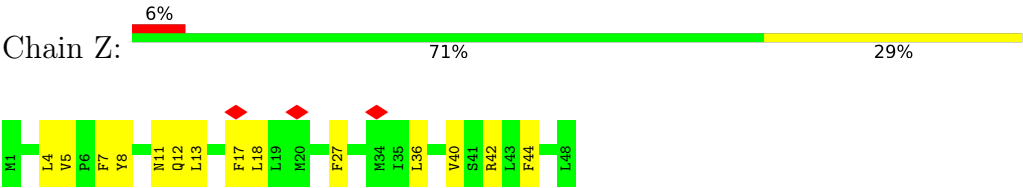
• Molecule 12: ATP synthase subunit H



• Molecule 13: ATP synthase subunit J



• Molecule 14: ATP synthase protein 8



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	3435	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	40	Depositor
Minimum defocus (nm)	1100	Depositor
Maximum defocus (nm)	2000	Depositor
Magnification	103896	Depositor
Image detector	FEI FALCON IV (4k x 4k)	Depositor
Maximum map value	1.660	Depositor
Minimum map value	-0.597	Depositor
Average map value	0.002	Depositor
Map value standard deviation	0.115	Depositor
Recommended contour level	0.45	Depositor
Map size (Å)	344.96, 344.96, 344.96	wwPDB
Map dimensions	256, 256, 256	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.3475, 1.3475, 1.3475	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	0	2.58	15/299 (5.0%)	3.17	36/372 (9.7%)
1	1	2.51	10/299 (3.3%)	3.48	42/372 (11.3%)
1	2	2.38	14/299 (4.7%)	2.99	41/372 (11.0%)
1	3	2.53	9/295 (3.1%)	3.19	44/367 (12.0%)
1	4	2.60	22/299 (7.4%)	3.23	47/372 (12.6%)
1	5	2.40	14/299 (4.7%)	3.54	56/372 (15.1%)
1	6	2.43	14/295 (4.7%)	3.19	43/367 (11.7%)
1	7	2.52	13/291 (4.5%)	3.29	45/362 (12.4%)
1	8	2.52	14/299 (4.7%)	3.26	49/372 (13.2%)
1	9	2.46	12/295 (4.1%)	3.00	32/367 (8.7%)
2	A	2.58	106/1994 (5.3%)	2.81	188/2489 (7.6%)
2	B	2.53	102/2027 (5.0%)	2.91	207/2532 (8.2%)
2	C	2.50	99/1982 (5.0%)	2.86	209/2474 (8.4%)
3	D	2.46	95/1871 (5.1%)	2.92	201/2337 (8.6%)
3	E	2.50	81/1875 (4.3%)	2.91	199/2342 (8.5%)
3	F	2.61	113/1879 (6.0%)	2.92	199/2347 (8.5%)
4	G	2.59	50/1058 (4.7%)	3.03	117/1319 (8.9%)
5	H	2.44	27/475 (5.7%)	2.58	33/585 (5.6%)
6	I	2.47	8/190 (4.2%)	2.81	15/231 (6.5%)
7	O	2.48	35/747 (4.7%)	2.87	79/932 (8.5%)
8	T	2.45	48/896 (5.4%)	2.89	87/1117 (7.8%)
9	U	2.56	38/619 (6.1%)	3.00	79/772 (10.2%)
10	V	2.44	26/684 (3.8%)	2.80	67/852 (7.9%)
11	W	2.50	12/339 (3.5%)	2.78	36/422 (8.5%)
12	X	2.63	19/247 (7.7%)	2.79	26/307 (8.5%)
13	Y	2.69	11/147 (7.5%)	2.93	13/182 (7.1%)
14	Z	2.38	8/192 (4.2%)	3.10	22/237 (9.3%)
All	All	2.52	1015/20192 (5.0%)	2.94	2212/25172 (8.8%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	1	0	1
1	3	0	1
1	5	0	1
1	6	0	1
1	7	0	2
2	A	0	3
3	F	0	1
5	H	0	1
All	All	0	11

All (1015) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A	69	GLU	N-CA	12.92	1.55	1.46
2	A	56	GLU	CA-C	-10.77	1.39	1.52
2	A	69	GLU	CA-C	10.00	1.62	1.52
2	B	159	VAL	CA-C	9.90	1.61	1.53
2	C	299	ASP	C-N	9.82	1.44	1.34
2	A	382	VAL	CA-C	-9.80	1.42	1.52
1	0	49	PRO	C-N	9.77	1.46	1.33
3	E	372	SER	CA-C	-9.31	1.40	1.52
3	E	329	LEU	N-CA	-9.26	1.34	1.45
3	F	325	THR	N-CA	-9.16	1.34	1.46
3	F	162	GLY	C-N	9.13	1.45	1.33
2	A	135	ALA	CA-C	9.07	1.62	1.53
12	X	4	GLN	C-N	8.98	1.45	1.33
4	G	176	GLU	CA-C	-8.97	1.45	1.52
3	D	197	LEU	N-CA	-8.93	1.35	1.46
1	4	50	MET	CA-C	-8.82	1.41	1.52
3	F	95	ILE	CA-C	-8.79	1.42	1.52
10	V	90	GLN	CA-C	-8.78	1.41	1.52
3	F	11	GLY	CA-C	-8.76	1.44	1.52
4	G	7	GLU	N-CA	-8.76	1.35	1.46
3	E	46	LEU	N-CA	-8.74	1.35	1.46
2	A	345	ILE	CA-C	-8.72	1.41	1.52
8	T	77	ILE	N-CA	8.68	1.54	1.46
2	C	34	LEU	C-N	8.65	1.44	1.33
3	F	452	ILE	CA-C	-8.65	1.43	1.52
3	D	70	LEU	N-CA	-8.63	1.35	1.46
2	C	218	LEU	C-N	8.59	1.44	1.33
2	B	305	SER	CA-C	-8.56	1.41	1.52
2	B	325	ALA	C-N	8.54	1.41	1.33
4	G	31	LEU	CA-C	-8.52	1.41	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A	387	GLN	C-N	8.51	1.41	1.33
1	1	56	ALA	N-CA	-8.50	1.36	1.46
3	F	396	LEU	CA-C	-8.48	1.41	1.53
3	F	350	PRO	N-CA	-8.46	1.41	1.47
3	E	17	ILE	CA-C	-8.43	1.45	1.53
4	G	263	ILE	CA-C	-8.27	1.42	1.52
2	A	269	VAL	CA-C	8.26	1.63	1.52
2	A	231	SER	CA-C	-8.23	1.42	1.52
2	B	411	ASP	C-N	8.22	1.43	1.33
3	F	349	ASP	C-N	8.18	1.40	1.33
1	1	37	VAL	CA-C	-8.18	1.42	1.52
2	B	443	GLN	C-N	8.15	1.42	1.33
7	O	119	LEU	C-N	8.15	1.44	1.33
4	G	245	GLY	C-N	8.14	1.45	1.33
3	E	29	GLU	CA-C	-8.11	1.41	1.53
3	F	303	SER	C-N	8.10	1.43	1.33
8	T	163	THR	C-N	8.09	1.44	1.33
3	F	261	PHE	C-N	8.05	1.44	1.33
2	A	339	TYR	C-N	7.97	1.42	1.33
7	O	108	PHE	CA-C	-7.97	1.42	1.52
8	T	155	VAL	CA-C	7.94	1.61	1.52
3	F	308	GLN	C-N	7.91	1.44	1.33
3	F	392	GLY	C-N	7.86	1.44	1.34
2	A	492	SER	CA-C	-7.86	1.43	1.52
3	D	436	ASP	CA-C	-7.83	1.41	1.52
2	A	300	VAL	C-N	7.80	1.43	1.33
10	V	70	LYS	CA-C	7.79	1.62	1.52
4	G	12	SER	CA-C	-7.79	1.43	1.52
4	G	214	LEU	CA-C	-7.76	1.42	1.52
3	E	24	HIS	N-CA	-7.75	1.37	1.46
3	F	205	GLY	C-N	7.75	1.43	1.33
2	B	171	GLY	CA-C	-7.75	1.44	1.51
3	F	41	THR	N-CA	-7.74	1.39	1.46
2	B	271	ASP	N-CA	-7.69	1.36	1.46
9	U	74	ALA	N-CA	-7.69	1.38	1.46
2	C	230	TYR	C-N	7.66	1.44	1.33
3	E	72	ARG	N-CA	-7.63	1.36	1.46
3	F	134	LEU	CA-C	-7.62	1.43	1.52
2	C	507	VAL	CA-C	-7.61	1.43	1.52
2	C	405	PHE	CA-C	7.59	1.62	1.52
2	A	171	GLY	N-CA	7.56	1.52	1.45
2	A	16	GLU	C-N	7.55	1.43	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
14	Z	5	VAL	CA-C	-7.55	1.45	1.52
8	T	122	SER	CA-C	-7.54	1.43	1.52
3	F	194	GLY	CA-C	-7.53	1.43	1.52
2	A	412	LEU	C-N	7.52	1.39	1.33
1	0	33	LEU	N-CA	-7.52	1.37	1.46
2	C	329	ILE	N-CA	-7.49	1.37	1.46
9	U	173	ALA	N-CA	-7.48	1.37	1.46
1	4	19	LEU	N-CA	-7.47	1.37	1.46
1	1	9	TYR	CA-C	-7.45	1.43	1.52
8	T	34	ILE	C-N	7.44	1.43	1.33
1	0	46	THR	CA-C	-7.43	1.43	1.52
11	W	64	LYS	C-N	7.42	1.43	1.34
9	U	193	VAL	CA-C	7.42	1.62	1.52
3	F	459	MET	CA-C	-7.42	1.46	1.53
2	C	313	LYS	CA-C	-7.41	1.43	1.52
1	4	54	GLY	CA-C	-7.39	1.43	1.52
8	T	237	LEU	CA-C	-7.37	1.42	1.52
1	0	53	LEU	C-N	7.37	1.42	1.33
2	A	313	LYS	C-N	7.36	1.43	1.33
3	D	213	SER	CA-C	-7.36	1.44	1.53
7	O	11	ARG	C-N	7.34	1.44	1.33
3	E	190	ARG	CA-C	-7.33	1.43	1.52
4	G	13	ILE	CA-C	7.33	1.62	1.52
9	U	148	HIS	CA-C	-7.33	1.43	1.52
10	V	152	MET	CA-C	-7.33	1.43	1.52
10	V	60	SER	N-CA	-7.32	1.38	1.46
2	C	270	TYR	CA-C	-7.32	1.43	1.52
2	B	241	ALA	C-N	7.31	1.41	1.33
2	C	256	GLY	CA-C	-7.31	1.43	1.52
9	U	168	GLU	N-CA	-7.29	1.37	1.46
1	7	7	ALA	CA-C	-7.28	1.43	1.52
3	E	415	SER	N-CA	7.28	1.55	1.46
8	T	134	LEU	C-N	7.26	1.43	1.33
3	F	201	MET	C-N	7.25	1.43	1.33
2	C	338	ALA	N-CA	-7.25	1.37	1.45
3	E	319	ASP	CA-C	7.25	1.61	1.52
3	D	58	THR	N-CA	7.25	1.54	1.45
8	T	28	THR	CA-C	-7.23	1.43	1.52
3	D	252	LEU	CA-C	-7.23	1.43	1.52
2	A	159	VAL	CA-C	-7.22	1.45	1.52
2	C	95	ASN	CA-C	-7.22	1.44	1.52
2	B	75	ILE	C-N	7.22	1.41	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A	29	GLU	CA-C	-7.21	1.43	1.52
7	O	163	ILE	CA-C	7.20	1.60	1.52
3	D	315	ASP	C-N	7.19	1.42	1.33
3	E	37	LEU	CA-C	-7.18	1.44	1.52
2	A	438	LEU	C-N	7.18	1.42	1.33
2	B	363	ILE	C-N	7.17	1.42	1.33
5	H	107	GLU	N-CA	7.17	1.55	1.46
1	1	22	ALA	CA-C	-7.14	1.43	1.52
3	F	21	VAL	C-N	7.14	1.43	1.33
12	X	46	GLY	CA-C	-7.14	1.41	1.51
2	A	17	ARG	C-N	7.13	1.43	1.33
3	E	68	GLU	CA-C	-7.13	1.43	1.52
1	4	12	ALA	CA-C	-7.12	1.43	1.52
1	0	50	MET	CA-C	-7.12	1.43	1.52
10	V	47	GLN	N-CA	-7.11	1.37	1.46
3	D	13	VAL	C-N	7.10	1.44	1.33
2	B	162	GLY	C-N	7.10	1.43	1.33
4	G	133	ILE	N-CA	-7.08	1.39	1.46
7	O	188	ASN	CA-C	-7.08	1.44	1.52
3	F	220	GLY	N-CA	-7.07	1.37	1.46
4	G	227	ALA	CA-C	-7.07	1.43	1.52
3	F	159	ALA	N-CA	-7.04	1.37	1.46
1	7	23	GLY	CA-C	-7.03	1.44	1.52
3	F	135	GLU	CA-C	-7.03	1.44	1.52
2	B	268	ILE	C-N	7.01	1.42	1.33
13	Y	19	ALA	C-N	7.01	1.42	1.33
2	B	408	PHE	C-N	7.01	1.42	1.33
9	U	108	ASP	CA-C	-7.00	1.43	1.52
12	X	49	ALA	CA-C	-7.00	1.43	1.52
7	O	163	ILE	N-CA	-6.98	1.37	1.46
3	F	43	GLN	C-N	6.98	1.41	1.32
1	0	12	ALA	N-CA	-6.97	1.38	1.46
11	W	39	ALA	N-CA	-6.96	1.36	1.46
1	9	24	ILE	C-N	6.94	1.42	1.33
6	I	16	VAL	CA-C	-6.94	1.44	1.52
1	8	70	PHE	C-N	6.92	1.43	1.33
4	G	205	VAL	N-CA	-6.92	1.38	1.46
3	D	257	ASN	CA-C	-6.91	1.43	1.52
5	H	56	VAL	N-CA	-6.91	1.38	1.46
2	C	158	LEU	C-N	6.88	1.41	1.33
2	C	146	GLU	C-N	-6.88	1.25	1.33
4	G	245	GLY	C-O	6.87	1.32	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	E	173	ASN	C-N	6.87	1.42	1.33
8	T	73	THR	CA-C	-6.86	1.43	1.52
1	3	23	GLY	CA-C	-6.86	1.44	1.52
3	D	55	GLY	C-N	6.86	1.43	1.33
2	B	76	VAL	CA-C	-6.85	1.45	1.52
3	E	443	ALA	N-CA	-6.85	1.38	1.46
1	5	42	SER	C-N	6.85	1.42	1.34
3	F	231	ARG	C-N	6.85	1.42	1.33
10	V	86	SER	N-CA	-6.83	1.37	1.46
2	B	353	PHE	C-O	-6.82	1.15	1.23
3	D	305	THR	N-CA	-6.81	1.37	1.45
3	F	424	PHE	CA-C	6.81	1.59	1.52
3	F	142	ASP	CA-C	-6.80	1.44	1.52
13	Y	3	LYS	CA-C	-6.79	1.44	1.52
2	B	480	GLU	C-N	6.78	1.42	1.33
2	B	7	PRO	N-CA	6.76	1.55	1.47
1	8	18	GLY	N-CA	-6.75	1.36	1.45
8	T	188	MET	N-CA	-6.74	1.38	1.46
2	B	65	ALA	N-CA	-6.74	1.38	1.46
4	G	179	GLU	C-N	-6.74	1.25	1.33
14	Z	36	LEU	C-N	6.74	1.42	1.33
2	C	312	ALA	CA-C	-6.73	1.43	1.52
8	T	174	GLY	CA-C	6.73	1.61	1.51
1	4	48	PHE	N-CA	6.73	1.52	1.46
2	C	498	SER	C-N	6.73	1.43	1.33
3	D	314	ALA	C-N	6.72	1.43	1.33
8	T	147	PRO	N-CA	-6.72	1.38	1.47
2	B	66	LEU	N-CA	-6.71	1.37	1.45
2	B	79	GLY	CA-C	-6.71	1.45	1.52
10	V	27	THR	N-CA	-6.70	1.38	1.46
2	A	296	TYR	CA-C	-6.70	1.44	1.52
1	6	44	LYS	C-N	6.70	1.43	1.34
3	D	294	GLU	CA-C	-6.69	1.43	1.52
7	O	116	ASN	CA-C	6.68	1.61	1.52
14	Z	11	ASN	CA-C	-6.67	1.44	1.52
1	5	54	GLY	C-N	6.64	1.42	1.33
3	F	245	ASP	C-N	6.64	1.42	1.33
9	U	118	GLU	C-N	6.64	1.43	1.34
7	O	30	ASN	CA-C	-6.64	1.44	1.52
1	6	64	PHE	C-N	6.63	1.42	1.33
2	C	80	SER	CA-C	-6.63	1.44	1.52
9	U	102	ALA	C-N	6.63	1.42	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	F	70	LEU	N-CA	-6.62	1.37	1.46
2	A	370	GLY	CA-C	-6.61	1.44	1.52
2	A	263	GLY	CA-C	-6.61	1.43	1.51
3	D	203	GLU	C-N	6.59	1.43	1.33
12	X	52	ALA	CA-C	-6.59	1.44	1.52
2	A	314	LEU	CA-C	-6.58	1.44	1.52
2	B	392	LEU	C-N	6.57	1.42	1.33
3	F	427	ILE	C-N	6.57	1.41	1.33
4	G	56	GLU	CA-C	6.57	1.61	1.52
1	9	44	LYS	CA-C	-6.57	1.44	1.52
3	D	214	LYS	C-N	6.57	1.41	1.33
12	X	21	LEU	N-CA	-6.57	1.38	1.46
1	9	61	THR	N-CA	-6.57	1.38	1.46
4	G	220	THR	C-N	6.56	1.42	1.33
2	B	488	LYS	CA-C	-6.56	1.43	1.52
3	F	37	LEU	CA-C	-6.56	1.45	1.52
2	C	267	LEU	CA-C	-6.55	1.44	1.52
2	C	386	LYS	N-CA	-6.54	1.38	1.46
6	I	45	THR	CA-C	-6.53	1.44	1.52
1	9	52	ILE	C-N	6.53	1.42	1.33
2	B	437	PRO	CA-C	6.53	1.59	1.53
3	E	65	ASP	CA-C	-6.53	1.44	1.52
1	1	10	ILE	N-CA	6.52	1.54	1.46
3	E	116	PRO	C-N	6.52	1.41	1.33
7	O	158	VAL	N-CA	-6.52	1.38	1.46
2	B	94	GLY	CA-C	-6.51	1.42	1.51
6	I	12	ALA	CA-C	-6.51	1.44	1.52
3	F	225	PRO	CA-C	6.51	1.58	1.52
7	O	117	GLY	C-N	6.51	1.42	1.33
13	Y	31	ALA	C-N	6.50	1.42	1.33
2	C	383	LYS	C-N	6.48	1.42	1.33
2	B	389	ALA	N-CA	-6.47	1.39	1.46
5	H	36	SER	C-N	6.46	1.43	1.33
3	E	291	LEU	CA-C	-6.46	1.44	1.52
1	9	58	SER	C-N	6.46	1.42	1.33
2	B	489	GLY	CA-C	6.46	1.60	1.51
4	G	220	THR	CA-C	-6.46	1.44	1.52
3	D	145	ALA	N-CA	-6.46	1.37	1.46
3	D	134	LEU	CA-C	-6.45	1.44	1.52
3	F	118	HIS	C-N	6.44	1.42	1.33
9	U	122	VAL	N-CA	-6.44	1.39	1.46
3	F	249	GLN	CA-C	-6.44	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	W	2	SER	N-CA	-6.43	1.38	1.46
1	2	62	GLY	C-O	-6.43	1.16	1.23
2	B	485	ILE	C-N	6.43	1.42	1.33
4	G	10	LEU	C-N	6.43	1.42	1.33
10	V	105	GLU	CA-C	-6.43	1.44	1.52
1	5	34	ILE	C-N	6.42	1.42	1.33
9	U	133	LEU	C-N	6.42	1.42	1.34
2	B	90	VAL	CA-C	-6.41	1.45	1.52
3	E	267	GLU	C-N	6.41	1.41	1.33
2	B	76	VAL	N-CA	-6.40	1.39	1.46
2	B	59	SER	N-CA	6.40	1.54	1.46
3	F	36	ALA	CA-C	-6.40	1.44	1.52
1	9	41	PRO	C-N	6.40	1.42	1.33
1	0	12	ALA	CA-C	6.40	1.61	1.52
6	I	39	GLN	CA-C	-6.39	1.44	1.52
3	D	370	VAL	CA-C	-6.38	1.45	1.52
2	C	42	ARG	CA-C	-6.38	1.45	1.52
3	D	190	ARG	N-CA	-6.38	1.38	1.46
3	F	430	LYS	CA-C	-6.38	1.44	1.52
3	F	256	ASP	CA-C	6.38	1.60	1.52
9	U	173	ALA	C-N	6.37	1.42	1.34
1	7	50	MET	CA-C	-6.37	1.44	1.52
2	B	294	GLU	N-CA	-6.37	1.38	1.46
2	C	196	ASP	CA-C	-6.36	1.44	1.52
10	V	167	PHE	CA-C	-6.36	1.44	1.53
2	C	331	THR	CA-C	-6.36	1.45	1.52
2	A	293	ARG	CA-C	-6.35	1.43	1.52
5	H	47	PRO	CA-C	-6.34	1.46	1.52
3	F	247	GLU	C-N	6.34	1.40	1.33
8	T	155	VAL	C-N	6.34	1.41	1.34
1	0	63	LEU	N-CA	-6.34	1.38	1.46
3	E	296	ILE	N-CA	-6.34	1.38	1.46
4	G	128	LEU	C-O	-6.33	1.15	1.23
2	B	457	GLY	C-N	6.33	1.41	1.33
1	6	11	GLY	CA-C	-6.33	1.45	1.52
1	6	73	LEU	CA-C	-6.33	1.44	1.52
7	O	159	VAL	N-CA	-6.33	1.38	1.46
3	E	294	GLU	C-N	6.32	1.42	1.33
2	B	243	PRO	CA-C	-6.32	1.43	1.52
14	Z	40	VAL	N-CA	6.32	1.54	1.46
1	6	7	ALA	CA-C	-6.31	1.44	1.52
4	G	147	ALA	C-N	6.31	1.42	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	4	10	ILE	C-N	6.30	1.41	1.33
3	D	97	ASN	C-N	6.29	1.41	1.34
2	A	65	ALA	C-N	6.29	1.42	1.33
1	8	34	ILE	C-N	6.29	1.42	1.33
2	A	112	ALA	N-CA	-6.29	1.37	1.46
3	E	106	ARG	CA-C	-6.28	1.44	1.52
3	F	348	VAL	C-N	6.28	1.42	1.33
4	G	83	LEU	N-CA	-6.28	1.38	1.46
2	A	432	GLN	CA-C	-6.27	1.45	1.52
9	U	199	SER	CA-C	6.27	1.60	1.52
1	9	14	ILE	CA-C	-6.27	1.45	1.52
3	D	132	GLU	CA-C	-6.26	1.44	1.52
2	B	166	ARG	CA-C	-6.26	1.45	1.52
12	X	17	ALA	CA-C	-6.25	1.45	1.52
5	H	128	GLU	CA-C	-6.25	1.44	1.52
10	V	164	LYS	C-N	6.25	1.42	1.33
3	E	354	LYS	C-N	6.25	1.41	1.33
8	T	149	GLY	C-N	6.25	1.40	1.32
3	E	171	ILE	C-N	6.24	1.41	1.33
2	C	326	LEU	N-CA	-6.24	1.40	1.46
2	A	427	THR	CA-C	-6.23	1.44	1.52
4	G	91	LEU	CA-C	-6.23	1.44	1.52
3	E	205	GLY	N-CA	-6.23	1.35	1.45
2	C	224	GLN	C-N	6.22	1.42	1.33
2	A	204	VAL	C-N	6.22	1.42	1.33
4	G	227	ALA	N-CA	6.22	1.54	1.46
1	3	66	LEU	CA-C	-6.22	1.44	1.52
2	B	263	GLY	CA-C	6.22	1.60	1.51
5	H	82	GLN	CA-C	-6.21	1.45	1.52
2	A	122	PRO	C-N	6.21	1.40	1.33
3	D	439	ALA	CA-C	-6.21	1.44	1.52
4	G	180	LYS	N-CA	-6.21	1.40	1.45
3	F	438	VAL	C-O	-6.21	1.17	1.24
2	C	437	PRO	C-O	-6.20	1.17	1.23
3	E	331	ALA	CA-C	-6.20	1.45	1.52
7	O	20	ALA	C-N	6.20	1.41	1.33
2	A	464	GLY	CA-C	-6.19	1.43	1.51
3	D	404	VAL	CA-C	-6.19	1.45	1.52
1	1	39	ARG	CA-C	-6.19	1.45	1.52
1	8	1	MET	C-N	6.18	1.42	1.33
4	G	110	ILE	CA-C	-6.18	1.46	1.52
3	F	131	ALA	C-N	6.18	1.42	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
9	U	136	GLU	CA-C	-6.18	1.44	1.52
3	D	140	VAL	C-N	6.17	1.41	1.33
3	E	219	PHE	CA-C	-6.17	1.45	1.52
4	G	95	VAL	C-N	6.17	1.42	1.34
3	D	470	ALA	C-N	6.17	1.42	1.33
3	F	42	PRO	CA-C	-6.16	1.46	1.52
2	B	328	VAL	N-CA	-6.16	1.39	1.46
3	D	120	ASP	CA-C	-6.15	1.44	1.52
3	F	362	VAL	C-N	6.15	1.39	1.33
3	D	242	TYR	CA-C	-6.13	1.44	1.52
7	O	182	THR	N-CA	-6.13	1.38	1.46
9	U	202	GLU	C-N	6.13	1.42	1.33
2	B	309	GLU	N-CA	-6.13	1.37	1.46
3	E	168	GLN	N-CA	-6.13	1.39	1.46
8	T	239	ALA	C-N	6.12	1.42	1.33
2	B	188	GLN	N-CA	-6.12	1.38	1.46
1	8	40	ASN	CA-C	6.12	1.60	1.52
3	D	226	PRO	C-N	6.12	1.42	1.33
3	E	205	GLY	C-O	-6.12	1.16	1.24
9	U	147	ALA	N-CA	-6.12	1.39	1.46
2	B	185	ILE	C-N	6.12	1.42	1.33
4	G	93	LYS	C-N	6.11	1.42	1.33
4	G	267	LEU	CA-C	-6.11	1.45	1.52
2	A	321	GLY	CA-C	-6.11	1.43	1.52
2	C	396	LEU	C-N	6.11	1.42	1.33
3	E	458	TYR	N-CA	-6.11	1.38	1.46
2	B	330	GLU	N-CA	-6.10	1.38	1.46
2	C	96	ILE	N-CA	6.10	1.54	1.46
3	F	281	TYR	C-N	6.10	1.42	1.33
11	W	22	LYS	N-CA	-6.10	1.38	1.46
3	F	128	SER	CA-C	-6.10	1.46	1.53
7	O	32	SER	CA-C	6.10	1.60	1.53
8	T	122	SER	C-N	6.10	1.41	1.33
4	G	195	GLY	CA-C	-6.10	1.43	1.51
2	B	80	SER	N-CA	-6.10	1.37	1.45
1	4	38	SER	C-N	6.09	1.42	1.33
2	A	201	LEU	CA-C	-6.09	1.45	1.52
2	A	94	GLY	C-N	6.09	1.41	1.33
3	F	9	ILE	CA-C	-6.09	1.45	1.52
2	A	489	GLY	C-N	6.09	1.41	1.33
3	D	321	ALA	C-O	-6.08	1.18	1.24
10	V	66	SER	C-N	6.08	1.42	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	E	341	GLU	C-N	6.08	1.43	1.33
2	A	115	ASN	CA-C	6.08	1.61	1.53
7	O	162	GLU	CA-C	-6.07	1.45	1.52
3	F	131	ALA	N-CA	-6.07	1.39	1.46
3	F	426	GLY	C-N	6.06	1.40	1.33
8	T	56	SER	C-N	6.06	1.42	1.33
2	C	320	SER	N-CA	-6.05	1.38	1.46
3	E	116	PRO	CA-C	-6.05	1.44	1.52
3	F	52	GLN	CA-C	-6.05	1.45	1.52
1	7	72	LEU	CA-C	-6.05	1.45	1.52
3	E	349	ASP	CA-C	-6.05	1.47	1.53
2	C	136	PRO	C-N	6.04	1.41	1.33
2	C	190	ARG	CA-C	-6.04	1.45	1.52
10	V	46	LEU	C-N	6.04	1.42	1.33
3	E	431	LEU	C-N	6.03	1.41	1.33
2	B	439	ALA	C-N	6.03	1.42	1.34
1	8	33	LEU	CA-C	-6.03	1.45	1.52
2	C	216	ALA	CA-C	-6.02	1.45	1.52
1	2	1	MET	N-CA	6.01	1.57	1.46
1	3	6	ALA	C-N	6.01	1.41	1.33
2	A	367	ILE	C-N	6.01	1.41	1.33
2	C	299	ASP	N-CA	-6.00	1.39	1.46
2	C	503	THR	CA-C	-6.00	1.45	1.52
7	O	157	ASN	CA-C	-6.00	1.45	1.52
3	E	388	ILE	N-CA	6.00	1.53	1.46
1	8	74	PHE	N-CA	-5.99	1.38	1.46
7	O	70	VAL	C-N	5.99	1.41	1.33
2	C	50	GLN	C-N	5.99	1.41	1.33
2	C	227	ALA	CA-C	-5.99	1.44	1.52
3	D	380	THR	CA-C	-5.99	1.45	1.52
2	A	75	ILE	C-N	5.99	1.40	1.33
3	D	403	THR	N-CA	-5.99	1.39	1.46
3	E	53	HIS	CA-C	-5.99	1.45	1.52
8	T	175	LEU	C-N	5.99	1.41	1.33
1	0	27	ALA	N-CA	-5.98	1.39	1.46
1	4	4	VAL	C-N	5.98	1.41	1.33
3	F	288	ASP	C-O	-5.98	1.17	1.24
1	2	27	ALA	CA-C	5.98	1.60	1.52
1	8	27	ALA	CA-C	-5.97	1.45	1.52
2	C	260	ARG	C-N	5.97	1.42	1.33
8	T	101	LEU	N-CA	-5.96	1.39	1.46
3	F	106	ARG	C-N	5.96	1.42	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
12	X	47	PRO	N-CA	-5.96	1.39	1.47
3	D	332	THR	C-O	-5.96	1.17	1.24
2	B	404	ALA	N-CA	-5.95	1.39	1.46
1	6	35	ASN	C-N	5.95	1.40	1.33
2	B	326	LEU	N-CA	-5.95	1.40	1.46
9	U	154	LEU	C-N	5.95	1.42	1.33
1	7	20	LEU	CA-C	-5.95	1.45	1.52
3	D	216	ALA	CA-C	-5.95	1.45	1.52
2	C	237	THR	N-CA	-5.94	1.38	1.45
3	E	467	VAL	C-N	5.94	1.42	1.33
2	B	278	VAL	N-CA	-5.93	1.39	1.46
1	9	15	SER	CA-C	-5.93	1.44	1.52
7	O	191	LEU	CA-C	-5.93	1.44	1.52
3	D	95	ILE	C-O	-5.92	1.17	1.24
3	F	219	PHE	N-CA	-5.92	1.38	1.46
2	C	174	GLN	CA-C	-5.92	1.45	1.53
8	T	103	SER	C-N	5.92	1.41	1.33
1	4	18	GLY	CA-C	-5.92	1.44	1.52
1	9	61	THR	C-N	5.91	1.41	1.33
3	D	217	LEU	CA-C	5.91	1.59	1.52
5	H	113	SER	N-CA	-5.91	1.39	1.46
3	F	19	ALA	CA-C	-5.91	1.44	1.52
1	0	3	LEU	N-CA	-5.91	1.39	1.46
3	E	117	ILE	N-CA	-5.91	1.38	1.46
1	7	6	ALA	C-N	5.90	1.42	1.33
2	A	72	GLN	CA-C	-5.90	1.45	1.52
3	D	312	VAL	N-CA	-5.90	1.39	1.46
3	E	71	VAL	CA-C	-5.90	1.46	1.52
8	T	166	TYR	C-N	5.90	1.41	1.33
2	B	457	GLY	CA-C	-5.89	1.43	1.51
3	E	412	ARG	CA-C	-5.89	1.45	1.52
3	D	16	VAL	C-N	5.89	1.41	1.33
3	D	46	LEU	CA-C	-5.89	1.45	1.52
3	E	425	THR	C-N	5.89	1.41	1.33
1	0	14	ILE	C-N	5.89	1.41	1.33
2	B	333	GLY	CA-C	-5.88	1.43	1.51
3	E	155	LEU	CA-C	-5.88	1.45	1.52
2	A	344	VAL	C-N	5.88	1.41	1.34
3	D	385	GLN	N-CA	-5.88	1.38	1.46
5	H	99	GLU	C-N	5.88	1.41	1.34
4	G	267	LEU	N-CA	-5.88	1.39	1.46
2	C	355	GLU	CA-C	-5.88	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	D	77	LEU	CA-C	-5.88	1.45	1.52
4	G	36	LYS	C-N	5.88	1.41	1.33
2	A	163	ARG	C-N	5.88	1.42	1.33
1	2	25	GLY	C-N	5.87	1.41	1.33
1	4	9	TYR	CA-C	-5.87	1.45	1.52
2	B	376	VAL	CA-C	-5.87	1.46	1.52
2	A	318	GLU	C-N	5.87	1.41	1.32
12	X	38	ASN	CA-C	-5.86	1.45	1.52
3	F	21	VAL	CA-C	-5.86	1.45	1.52
2	C	291	PRO	N-CA	-5.85	1.39	1.47
3	D	263	GLN	C-N	5.85	1.41	1.33
3	E	166	PHE	C-N	5.85	1.41	1.33
12	X	8	LEU	CA-C	5.85	1.60	1.52
2	A	380	ALA	C-N	5.84	1.41	1.33
2	A	35	ALA	CA-C	-5.84	1.45	1.52
3	F	196	ASP	C-N	5.83	1.41	1.33
3	D	264	ALA	C-N	5.83	1.41	1.33
5	H	28	THR	N-CA	-5.82	1.40	1.47
2	A	330	GLU	N-CA	-5.82	1.39	1.46
3	E	394	ASP	C-N	5.82	1.41	1.33
3	E	130	SER	CA-C	-5.82	1.45	1.52
1	6	24	ILE	C-O	-5.81	1.17	1.24
8	T	211	VAL	CA-C	-5.81	1.47	1.52
3	D	313	PRO	C-N	5.81	1.41	1.33
7	O	110	VAL	C-N	5.80	1.41	1.33
1	5	33	LEU	C-N	5.80	1.41	1.33
3	E	255	ILE	C-N	5.79	1.42	1.33
2	A	278	VAL	C-N	5.79	1.41	1.33
10	V	21	ILE	CA-C	5.79	1.60	1.52
1	8	59	GLU	C-N	5.78	1.41	1.33
4	G	143	SER	CA-C	5.78	1.60	1.52
9	U	127	SER	CA-C	-5.78	1.45	1.52
2	B	148	VAL	C-N	5.78	1.41	1.33
3	F	323	ALA	N-CA	-5.78	1.39	1.46
10	V	71	ILE	CA-C	-5.78	1.44	1.52
1	5	31	ALA	N-CA	-5.77	1.39	1.46
3	D	387	ILE	N-CA	-5.77	1.39	1.46
2	A	332	GLN	CA-C	-5.77	1.45	1.52
2	B	196	ASP	N-CA	-5.77	1.38	1.46
3	F	367	HIS	C-N	5.77	1.41	1.33
3	E	200	GLU	N-CA	-5.77	1.39	1.46
3	E	302	GLY	N-CA	5.76	1.50	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	8	53	LEU	N-CA	-5.76	1.39	1.46
2	A	355	GLU	CA-C	-5.76	1.45	1.52
3	E	195	ASN	CA-C	-5.76	1.45	1.52
10	V	157	LYS	N-CA	-5.76	1.38	1.45
8	T	215	MET	C-N	5.76	1.40	1.33
2	A	250	PHE	N-CA	-5.76	1.39	1.46
1	3	68	VAL	N-CA	-5.76	1.39	1.46
2	C	69	GLU	N-CA	-5.76	1.38	1.46
3	F	74	GLU	C-O	5.75	1.31	1.24
1	4	67	MET	CA-C	-5.75	1.45	1.52
3	D	362	VAL	C-N	5.75	1.40	1.33
5	H	34	ALA	N-CA	-5.75	1.38	1.45
2	C	230	TYR	CA-C	-5.74	1.46	1.52
3	F	398	GLU	N-CA	-5.74	1.39	1.46
2	C	204	VAL	C-N	5.74	1.41	1.33
2	C	489	GLY	C-N	5.74	1.41	1.33
2	B	212	ARG	C-O	5.74	1.30	1.24
3	F	178	HIS	CA-C	-5.74	1.45	1.52
3	F	155	LEU	CA-C	-5.73	1.47	1.53
2	A	251	THR	N-CA	-5.73	1.39	1.46
9	U	161	GLU	CA-C	5.73	1.60	1.52
1	4	12	ALA	C-N	5.72	1.40	1.33
2	A	378	SER	CA-C	-5.72	1.44	1.52
2	C	338	ALA	C-N	5.72	1.41	1.33
2	C	502	ALA	N-CA	5.72	1.53	1.46
3	F	50	VAL	CA-C	-5.72	1.46	1.52
1	6	23	GLY	C-N	5.72	1.41	1.33
2	B	205	TYR	C-N	5.72	1.40	1.33
2	C	138	ILE	C-N	5.71	1.41	1.33
2	A	10	VAL	C-N	5.71	1.41	1.33
1	5	44	LYS	N-CA	-5.71	1.39	1.46
2	C	280	TYR	N-CA	-5.71	1.39	1.46
8	T	169	ARG	C-N	5.71	1.41	1.33
3	F	167	ILE	CA-C	-5.70	1.45	1.52
2	A	152	LEU	CA-C	5.70	1.59	1.52
3	F	400	ASP	C-N	5.70	1.41	1.33
4	G	73	LEU	CA-C	-5.70	1.46	1.52
1	6	36	GLY	C-N	5.69	1.41	1.33
2	A	411	ASP	C-N	5.69	1.41	1.33
3	D	181	PHE	CA-C	-5.69	1.45	1.53
3	F	453	PRO	CA-C	-5.69	1.45	1.52
12	X	42	LEU	CA-C	-5.69	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
13	Y	26	GLY	C-N	5.69	1.42	1.33
2	B	141	ARG	CA-C	-5.69	1.45	1.52
1	2	59	GLU	CA-C	-5.69	1.45	1.52
3	F	290	GLY	CA-C	-5.69	1.45	1.52
3	D	231	ARG	C-N	5.68	1.41	1.33
1	7	21	GLY	CA-C	-5.68	1.45	1.52
1	5	17	ILE	N-CA	5.68	1.53	1.46
1	5	50	MET	C-N	5.68	1.41	1.33
3	F	424	PHE	N-CA	-5.68	1.39	1.46
4	G	186	LYS	N-CA	5.68	1.53	1.46
10	V	109	LEU	N-CA	5.68	1.53	1.46
1	4	23	GLY	C-N	5.67	1.41	1.33
2	C	265	HIS	N-CA	-5.67	1.38	1.45
1	5	3	LEU	N-CA	-5.67	1.39	1.46
4	G	26	VAL	CA-C	-5.67	1.45	1.52
2	A	274	SER	C-N	5.66	1.41	1.33
11	W	69	PHE	C-N	5.66	1.41	1.33
13	Y	26	GLY	N-CA	-5.66	1.38	1.45
3	F	124	PHE	N-CA	-5.66	1.39	1.46
2	A	201	LEU	C-N	5.66	1.41	1.33
2	C	231	SER	CA-C	-5.66	1.45	1.52
4	G	183	PHE	CA-C	-5.66	1.45	1.53
3	E	183	VAL	CA-C	-5.66	1.45	1.52
2	C	144	VAL	C-N	5.65	1.41	1.33
11	W	32	LYS	C-N	5.65	1.41	1.33
2	B	344	VAL	CA-C	-5.64	1.45	1.52
2	A	198	SER	CA-C	-5.64	1.44	1.52
3	E	247	GLU	N-CA	-5.64	1.39	1.46
2	A	324	THR	CA-C	-5.64	1.45	1.52
1	3	65	CYS	N-CA	-5.64	1.39	1.46
1	6	14	ILE	C-N	5.63	1.41	1.34
2	C	459	GLU	CA-C	-5.63	1.45	1.53
6	I	11	ALA	CA-C	-5.63	1.44	1.52
2	C	77	LEU	CA-C	5.63	1.60	1.52
3	F	160	GLY	C-N	5.63	1.41	1.33
8	T	76	GLN	CA-C	-5.62	1.45	1.52
8	T	197	ASN	CA-C	-5.62	1.45	1.52
1	4	68	VAL	N-CA	-5.62	1.39	1.46
2	C	103	PRO	N-CA	5.62	1.53	1.47
7	O	29	LYS	N-CA	-5.62	1.38	1.46
3	E	151	GLY	CA-C	-5.61	1.47	1.52
13	Y	11	LYS	C-N	5.61	1.40	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	C	259	PHE	C-N	5.61	1.41	1.33
3	D	458	TYR	N-CA	-5.61	1.39	1.46
9	U	199	SER	C-O	-5.60	1.17	1.24
1	2	62	GLY	CA-C	-5.60	1.45	1.52
3	E	440	SER	N-CA	-5.60	1.39	1.46
3	F	319	ASP	CA-C	-5.60	1.46	1.53
3	E	111	SER	CA-C	-5.60	1.46	1.52
8	T	183	ALA	C-N	5.60	1.40	1.33
2	C	370	GLY	N-CA	-5.59	1.38	1.45
3	F	185	THR	CA-C	-5.59	1.45	1.52
3	D	304	VAL	CA-C	-5.59	1.47	1.53
3	F	206	VAL	C-N	5.59	1.40	1.33
10	V	47	GLN	C-N	5.59	1.41	1.33
2	B	291	PRO	N-CA	-5.59	1.40	1.47
13	Y	18	VAL	C-O	-5.58	1.17	1.24
12	X	60	THR	CA-C	-5.58	1.45	1.52
2	B	475	LYS	CA-C	-5.58	1.45	1.52
2	A	301	PHE	N-CA	5.58	1.52	1.46
1	3	8	LYS	C-N	5.57	1.41	1.33
3	F	30	LEU	CA-C	-5.57	1.47	1.52
2	B	142	ARG	CA-C	-5.57	1.45	1.52
3	F	193	GLU	CA-C	-5.57	1.45	1.52
2	C	219	VAL	N-CA	-5.57	1.39	1.46
2	C	17	ARG	N-CA	-5.56	1.39	1.46
2	B	431	LYS	CA-C	5.56	1.60	1.52
3	D	387	ILE	C-N	5.55	1.40	1.33
3	E	307	VAL	N-CA	-5.55	1.39	1.46
3	F	48	LEU	CA-C	-5.55	1.46	1.52
2	A	50	GLN	CA-C	-5.55	1.45	1.52
3	F	38	GLU	CA-C	-5.55	1.46	1.52
2	A	337	SER	C-N	5.54	1.40	1.33
2	C	109	VAL	N-CA	-5.54	1.39	1.46
2	B	165	GLN	C-N	5.54	1.40	1.33
3	D	110	LYS	C-N	5.54	1.40	1.33
10	V	161	PRO	C-O	5.54	1.28	1.24
3	E	207	ILE	C-N	5.54	1.40	1.33
1	4	32	ALA	C-N	5.54	1.41	1.33
2	A	462	ARG	N-CA	-5.54	1.38	1.46
2	C	95	ASN	N-CA	-5.54	1.39	1.46
3	F	326	PHE	C-N	5.54	1.41	1.33
12	X	12	LYS	N-CA	-5.54	1.39	1.46
1	4	72	LEU	CA-C	-5.53	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	D	464	GLU	N-CA	-5.53	1.39	1.46
2	B	315	SER	N-CA	-5.53	1.38	1.45
1	9	10	ILE	C-N	5.53	1.40	1.33
2	B	43	VAL	N-CA	-5.53	1.39	1.46
8	T	77	ILE	CA-C	-5.53	1.47	1.52
3	D	471	GLU	N-CA	-5.53	1.39	1.46
1	1	45	ASP	N-CA	-5.52	1.39	1.46
2	A	85	LYS	CA-C	-5.52	1.46	1.52
2	A	93	THR	CA-C	-5.52	1.45	1.52
2	C	422	ARG	C-N	5.52	1.40	1.33
10	V	141	ILE	N-CA	-5.52	1.39	1.46
8	T	106	PRO	N-CA	5.51	1.54	1.47
2	C	483	THR	CA-C	5.51	1.59	1.52
3	D	431	LEU	CA-C	-5.51	1.45	1.52
5	H	67	LYS	N-CA	-5.51	1.39	1.46
9	U	198	ILE	C-N	5.51	1.41	1.33
3	D	309	ALA	N-CA	-5.51	1.39	1.46
1	7	57	LEU	N-CA	-5.50	1.39	1.46
3	F	271	LEU	CA-C	-5.50	1.45	1.52
12	X	35	GLN	N-CA	-5.50	1.39	1.45
3	F	166	PHE	CA-C	-5.50	1.45	1.52
1	5	13	GLY	CA-C	-5.50	1.46	1.52
2	B	397	ALA	N-CA	5.50	1.53	1.46
3	E	321	ALA	C-O	-5.50	1.19	1.24
2	C	156	ASP	C-O	-5.49	1.17	1.24
2	C	439	ALA	N-CA	-5.49	1.39	1.45
3	F	467	VAL	C-N	5.49	1.41	1.33
3	D	317	LEU	C-N	5.49	1.41	1.33
1	2	41	PRO	CA-C	-5.48	1.47	1.52
3	F	269	SER	CA-C	-5.48	1.45	1.52
13	Y	23	VAL	C-N	5.48	1.40	1.33
3	D	250	ASP	C-N	5.48	1.40	1.33
3	D	412	ARG	CA-C	-5.48	1.45	1.52
3	D	301	LYS	N-CA	-5.47	1.39	1.46
8	T	238	THR	C-N	5.47	1.42	1.33
9	U	77	TYR	CA-C	5.47	1.60	1.52
3	D	406	ARG	C-O	-5.47	1.17	1.24
2	A	288	ARG	N-CA	5.47	1.54	1.46
3	D	126	GLU	CA-C	-5.47	1.47	1.53
2	A	246	TYR	N-CA	-5.47	1.39	1.46
1	6	58	SER	CA-C	-5.47	1.45	1.52
3	F	459	MET	C-N	5.47	1.40	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
8	T	31	LEU	CA-C	-5.46	1.45	1.52
1	6	3	LEU	CA-C	-5.46	1.45	1.52
3	D	464	GLU	C-N	5.45	1.41	1.33
11	W	70	ALA	C-N	5.45	1.41	1.33
7	O	84	TYR	C-N	5.45	1.40	1.33
2	B	118	ASP	CA-C	5.44	1.59	1.53
3	E	31	PRO	CA-C	-5.44	1.47	1.52
1	0	29	VAL	C-N	5.44	1.41	1.33
2	A	191	TRP	CA-C	5.44	1.57	1.52
3	F	474	ALA	CA-C	-5.44	1.45	1.52
5	H	108	ALA	C-N	5.44	1.41	1.33
3	F	42	PRO	N-CA	-5.44	1.42	1.47
2	B	9	GLU	C-N	5.43	1.40	1.33
3	D	69	GLY	CA-C	5.43	1.59	1.52
3	E	84	SER	C-N	5.43	1.39	1.33
9	U	87	LYS	C-N	5.43	1.40	1.33
10	V	150	GLU	N-CA	-5.43	1.39	1.46
1	6	45	ASP	C-O	-5.43	1.17	1.24
3	D	265	GLY	N-CA	-5.43	1.38	1.45
1	1	26	ILE	CA-C	-5.43	1.46	1.52
2	C	395	PHE	C-N	5.42	1.41	1.34
3	E	163	LYS	CA-C	-5.42	1.45	1.52
3	E	253	LEU	N-CA	-5.42	1.39	1.46
5	H	128	GLU	N-CA	-5.42	1.39	1.46
2	A	145	HIS	CA-C	-5.42	1.45	1.52
4	G	28	SER	C-N	5.42	1.40	1.33
12	X	15	LYS	C-N	5.42	1.41	1.33
2	B	170	ILE	C-N	5.42	1.38	1.32
3	F	368	TYR	C-N	5.42	1.41	1.33
9	U	171	GLN	N-CA	-5.41	1.39	1.46
2	B	32	ARG	CA-C	-5.41	1.46	1.52
3	D	170	LEU	CA-C	-5.41	1.45	1.52
5	H	101	ILE	C-N	5.41	1.41	1.33
1	5	14	ILE	CA-C	5.41	1.59	1.52
2	A	335	ASP	N-CA	-5.41	1.39	1.46
2	A	490	GLU	C-N	5.41	1.41	1.33
6	I	22	ARG	N-CA	5.41	1.53	1.46
9	U	133	LEU	N-CA	-5.40	1.39	1.46
1	5	20	LEU	N-CA	-5.40	1.39	1.46
3	D	399	GLN	CA-C	-5.40	1.46	1.52
4	G	211	GLU	N-CA	-5.40	1.40	1.46
12	X	35	GLN	CA-C	5.40	1.60	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	B	129	SER	CA-C	-5.40	1.45	1.53
2	A	117	ILE	CA-C	5.40	1.59	1.52
1	7	1	MET	C-N	5.40	1.40	1.33
3	F	364	GLY	CA-C	-5.40	1.46	1.52
2	A	106	LEU	C-N	5.39	1.41	1.33
2	B	132	GLN	C-N	5.39	1.40	1.33
3	F	271	LEU	N-CA	-5.39	1.39	1.46
9	U	101	GLU	CA-C	-5.39	1.46	1.52
1	1	18	GLY	C-N	5.39	1.41	1.34
1	7	39	ARG	CA-C	-5.39	1.46	1.52
2	B	443	GLN	CA-C	-5.39	1.45	1.52
3	F	200	GLU	C-N	5.39	1.41	1.33
10	V	146	ASP	CA-C	5.39	1.60	1.52
7	O	55	HIS	N-CA	-5.39	1.40	1.46
2	A	47	ASN	C-O	-5.39	1.17	1.24
3	E	141	VAL	C-N	5.38	1.41	1.33
2	B	236	ALA	N-CA	-5.38	1.40	1.47
6	I	9	SER	C-N	5.38	1.41	1.33
1	3	34	ILE	N-CA	-5.38	1.40	1.46
2	C	292	GLY	N-CA	-5.38	1.37	1.45
2	C	386	LYS	CA-C	-5.38	1.46	1.52
2	B	58	SER	CA-C	-5.37	1.46	1.53
7	O	106	SER	CA-C	-5.37	1.45	1.52
8	T	68	THR	C-N	5.37	1.40	1.33
3	E	225	PRO	C-O	-5.36	1.20	1.25
1	8	25	GLY	N-CA	-5.36	1.39	1.45
2	C	284	SER	C-N	5.36	1.41	1.33
13	Y	16	PHE	CA-C	-5.36	1.45	1.52
2	A	405	PHE	N-CA	-5.36	1.39	1.46
3	E	277	SER	CA-C	-5.36	1.46	1.52
1	7	7	ALA	C-N	5.36	1.41	1.33
2	B	223	GLU	C-N	5.36	1.40	1.33
5	H	69	PHE	N-CA	-5.36	1.39	1.46
3	D	23	VAL	C-N	5.35	1.40	1.33
11	W	13	LYS	CA-C	-5.35	1.44	1.52
3	E	280	GLY	C-N	5.34	1.39	1.33
1	5	25	GLY	CA-C	5.34	1.58	1.52
2	B	45	GLY	CA-C	-5.34	1.44	1.51
10	V	15	VAL	C-N	5.34	1.40	1.33
3	D	184	PHE	CA-C	-5.34	1.46	1.52
3	D	198	TYR	C-N	5.34	1.40	1.33
2	A	373	VAL	N-CA	5.34	1.53	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	O	50	ASN	C-N	5.34	1.39	1.34
7	O	75	VAL	CA-C	5.34	1.58	1.52
2	B	433	ASN	C-N	5.33	1.40	1.33
4	G	126	ILE	CA-C	-5.33	1.47	1.52
2	B	160	PRO	CA-C	-5.33	1.47	1.52
2	C	236	ALA	CA-C	-5.33	1.46	1.52
1	0	18	GLY	C-N	5.33	1.41	1.34
8	T	71	ASN	CA-C	-5.33	1.45	1.52
1	1	21	GLY	C-O	-5.33	1.17	1.23
7	O	176	VAL	N-CA	-5.33	1.39	1.46
1	9	57	LEU	CA-C	-5.32	1.46	1.52
2	A	435	TYR	C-N	5.32	1.41	1.33
5	H	47	PRO	N-CA	-5.32	1.41	1.47
7	O	119	LEU	N-CA	-5.32	1.39	1.45
14	Z	18	LEU	N-CA	-5.32	1.40	1.46
8	T	214	ALA	CA-C	-5.32	1.45	1.52
2	A	267	LEU	C-N	5.32	1.40	1.33
5	H	108	ALA	CA-C	-5.32	1.45	1.52
3	F	361	ALA	N-CA	-5.32	1.39	1.46
1	9	50	MET	C-O	-5.32	1.18	1.24
2	A	32	ARG	C-O	-5.32	1.17	1.23
1	2	7	ALA	C-N	5.31	1.40	1.33
2	A	260	ARG	N-CA	-5.31	1.40	1.46
2	C	13	ILE	N-CA	-5.31	1.39	1.46
2	C	128	ARG	C-N	5.31	1.41	1.33
2	C	383	LYS	CA-C	-5.31	1.45	1.52
1	2	41	PRO	N-CA	-5.31	1.43	1.47
11	W	9	VAL	N-CA	-5.31	1.38	1.46
2	C	15	GLU	CA-C	-5.30	1.45	1.52
3	D	321	ALA	CA-C	5.30	1.58	1.52
8	T	159	VAL	C-N	5.30	1.40	1.33
5	H	110	LYS	CA-C	-5.29	1.45	1.52
2	B	493	LYS	CA-C	-5.29	1.45	1.52
3	F	187	VAL	C-O	-5.29	1.18	1.24
4	G	89	SER	C-N	5.29	1.41	1.33
10	V	52	GLU	CA-C	-5.29	1.45	1.52
8	T	94	MET	N-CA	-5.29	1.39	1.46
8	T	173	LEU	N-CA	-5.29	1.40	1.46
3	D	118	HIS	N-CA	-5.29	1.39	1.46
14	Z	42	ARG	CA-C	-5.29	1.46	1.52
3	E	372	SER	N-CA	-5.28	1.40	1.46
1	4	71	LEU	C-N	5.28	1.41	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	C	202	TYR	CA-C	-5.27	1.46	1.53
3	F	439	ALA	N-CA	-5.27	1.40	1.46
3	D	18	GLY	C-N	5.27	1.41	1.33
2	A	30	THR	C-O	-5.27	1.18	1.24
2	C	171	GLY	N-CA	-5.27	1.38	1.45
7	O	56	LEU	C-N	5.27	1.41	1.33
3	E	30	LEU	C-N	-5.26	1.26	1.33
2	A	293	ARG	N-CA	-5.26	1.39	1.46
3	D	422	GLU	N-CA	-5.26	1.40	1.46
11	W	80	MET	C-N	5.26	1.40	1.33
4	G	21	LYS	CA-C	-5.26	1.46	1.52
2	C	248	ALA	CA-C	5.26	1.58	1.52
1	4	4	VAL	N-CA	-5.26	1.40	1.46
2	A	25	ALA	C-N	5.26	1.40	1.33
3	D	310	VAL	CA-C	-5.26	1.46	1.52
3	F	262	THR	C-O	-5.26	1.18	1.24
2	B	278	VAL	C-N	5.25	1.40	1.33
3	F	37	LEU	C-O	-5.25	1.17	1.23
3	F	159	ALA	CA-C	-5.25	1.46	1.52
2	A	432	GLN	C-N	5.25	1.40	1.33
4	G	97	ARG	CA-C	-5.25	1.46	1.52
2	A	114	GLY	CA-C	-5.25	1.45	1.51
3	D	388	ILE	N-CA	-5.25	1.40	1.46
10	V	50	PRO	C-N	5.25	1.40	1.33
2	B	474	LEU	C-N	5.24	1.40	1.33
5	H	11	LYS	N-CA	5.24	1.56	1.46
1	7	10	ILE	N-CA	-5.24	1.40	1.46
3	E	106	ARG	C-N	5.24	1.41	1.33
3	E	433	ARG	CA-C	-5.23	1.46	1.53
9	U	180	VAL	C-N	5.23	1.41	1.34
2	A	21	VAL	C-N	5.23	1.41	1.33
4	G	3	LEU	CA-C	-5.23	1.46	1.52
3	E	374	VAL	N-CA	-5.23	1.40	1.46
3	D	188	GLY	CA-C	5.23	1.58	1.51
3	D	275	ILE	CA-C	-5.23	1.47	1.52
4	G	224	GLN	CA-C	-5.23	1.46	1.52
2	A	275	LYS	CA-C	-5.22	1.46	1.52
2	A	328	VAL	CA-C	-5.22	1.47	1.53
3	E	157	GLY	CA-C	-5.21	1.44	1.52
8	T	247	TYR	C-N	5.21	1.40	1.33
2	C	187	ASN	CA-C	5.21	1.59	1.52
1	0	7	ALA	C-O	5.21	1.30	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	C	161	ILE	C-N	5.21	1.39	1.33
3	E	30	LEU	N-CA	-5.21	1.39	1.46
1	2	63	LEU	C-N	5.21	1.40	1.33
3	F	444	VAL	N-CA	-5.21	1.40	1.46
1	2	13	GLY	CA-C	-5.21	1.46	1.52
2	C	43	VAL	CA-C	-5.20	1.46	1.52
12	X	10	GLU	N-CA	-5.20	1.40	1.46
2	C	470	PHE	C-N	5.20	1.40	1.33
1	6	62	GLY	C-N	5.20	1.40	1.33
2	A	11	SER	C-N	5.20	1.40	1.33
2	C	448	TYR	CA-C	-5.20	1.46	1.52
1	8	18	GLY	CA-C	5.20	1.58	1.52
9	U	104	LYS	CA-C	5.20	1.59	1.52
3	D	326	PHE	CA-C	-5.20	1.46	1.52
2	B	138	ILE	C-O	-5.19	1.18	1.24
2	B	389	ALA	C-O	-5.19	1.16	1.24
8	T	48	ASN	N-CA	-5.19	1.39	1.46
8	T	74	LYS	N-CA	-5.19	1.39	1.46
2	A	364	ARG	CA-C	-5.19	1.47	1.52
4	G	120	ARG	N-CA	-5.19	1.40	1.46
7	O	40	LEU	CA-C	-5.19	1.46	1.52
9	U	112	GLN	C-N	5.19	1.41	1.33
2	B	382	VAL	C-N	5.19	1.40	1.33
8	T	185	HIS	CA-C	-5.19	1.45	1.52
2	A	481	LEU	C-N	5.19	1.40	1.33
4	G	111	GLY	C-N	5.19	1.41	1.33
2	B	55	VAL	CA-C	-5.18	1.45	1.52
2	C	137	GLY	C-N	5.18	1.40	1.33
3	D	57	ASN	CA-C	-5.18	1.45	1.53
2	B	279	ALA	N-CA	-5.18	1.40	1.46
3	F	249	GLN	N-CA	5.18	1.51	1.45
4	G	58	LYS	N-CA	-5.18	1.39	1.46
6	I	29	LEU	N-CA	-5.18	1.40	1.46
9	U	77	TYR	C-N	5.18	1.40	1.33
2	B	271	ASP	C-N	5.18	1.40	1.33
2	B	406	ALA	C-N	5.18	1.41	1.33
3	D	35	ASN	CA-C	-5.18	1.46	1.53
1	3	16	THR	CA-C	5.18	1.59	1.52
1	4	69	SER	C-O	-5.18	1.18	1.24
1	3	36	GLY	CA-C	-5.17	1.46	1.52
2	C	111	ASP	C-N	5.17	1.41	1.33
4	G	74	ILE	CA-C	-5.17	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A	394	LEU	C-O	5.17	1.30	1.24
3	D	217	LEU	N-CA	-5.17	1.39	1.46
3	F	155	LEU	N-CA	-5.17	1.40	1.46
3	F	449	TYR	CA-C	-5.17	1.46	1.53
2	A	280	TYR	N-CA	-5.17	1.40	1.46
2	A	490	GLU	CA-C	-5.17	1.46	1.52
11	W	81	GLU	C-N	5.17	1.41	1.33
1	2	28	ILE	C-N	5.17	1.40	1.33
8	T	192	ALA	CA-C	-5.17	1.46	1.52
2	B	317	LYS	C-N	5.16	1.40	1.33
3	F	83	ILE	N-CA	-5.16	1.40	1.46
9	U	203	GLN	CA-C	-5.16	1.46	1.52
1	2	22	ALA	N-CA	-5.16	1.39	1.46
2	B	270	TYR	CA-C	-5.16	1.46	1.53
5	H	81	SER	N-CA	-5.16	1.38	1.46
7	O	90	LYS	C-O	-5.16	1.18	1.24
7	O	58	LEU	C-N	5.16	1.41	1.33
2	B	311	ALA	C-N	5.16	1.39	1.33
2	B	310	ARG	CA-C	-5.16	1.45	1.52
9	U	90	ASP	C-N	5.16	1.40	1.33
3	D	157	GLY	CA-C	5.15	1.59	1.52
3	E	175	ALA	C-N	5.15	1.41	1.33
4	G	145	LEU	C-N	5.15	1.40	1.33
1	5	18	GLY	CA-C	-5.15	1.45	1.51
2	C	258	TRP	N-CA	-5.15	1.40	1.46
3	D	209	LEU	CA-C	-5.15	1.44	1.52
3	E	430	LYS	C-O	-5.15	1.17	1.23
5	H	43	ALA	CA-C	-5.15	1.45	1.52
10	V	117	LEU	N-CA	5.15	1.52	1.46
2	C	100	PRO	N-CA	-5.15	1.41	1.47
3	E	197	LEU	CA-C	5.15	1.59	1.52
3	E	245	ASP	CA-C	-5.15	1.45	1.52
8	T	79	GLY	C-N	5.15	1.39	1.33
3	F	57	ASN	CA-C	-5.15	1.45	1.52
2	C	151	GLY	C-N	5.14	1.40	1.33
3	D	164	THR	N-CA	-5.14	1.40	1.46
3	D	230	ALA	N-CA	-5.14	1.40	1.46
9	U	152	ALA	N-CA	-5.14	1.40	1.46
8	T	71	ASN	C-N	5.14	1.41	1.33
2	A	449	ALA	C-N	5.14	1.40	1.33
4	G	189	GLU	CA-C	-5.14	1.46	1.52
2	A	130	ARG	CA-C	-5.14	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	D	380	THR	N-CA	5.13	1.52	1.46
7	O	113	ASP	N-CA	5.13	1.52	1.46
11	W	44	ALA	C-N	5.13	1.40	1.33
2	A	372	SER	N-CA	-5.13	1.40	1.46
2	B	470	PHE	C-N	5.13	1.40	1.33
2	C	302	TYR	CA-C	5.13	1.59	1.52
3	E	301	LYS	N-CA	-5.13	1.39	1.46
2	B	223	GLU	CA-C	5.12	1.59	1.52
3	E	176	LYS	N-CA	-5.12	1.38	1.45
9	U	156	SER	N-CA	5.12	1.52	1.46
3	F	109	ILE	N-CA	-5.12	1.40	1.46
2	A	26	ASN	CA-C	-5.12	1.46	1.52
7	O	47	VAL	CA-C	-5.12	1.46	1.52
3	F	242	TYR	C-N	5.11	1.40	1.33
5	H	15	ALA	CA-C	5.11	1.58	1.52
9	U	55	GLU	CA-C	-5.11	1.45	1.52
2	C	236	ALA	N-CA	-5.11	1.40	1.46
3	F	300	LYS	C-N	5.10	1.40	1.33
9	U	60	LEU	C-N	5.10	1.40	1.33
2	A	231	SER	C-N	5.10	1.40	1.33
2	B	154	ALA	N-CA	-5.10	1.40	1.46
4	G	274	ALA	C-N	5.10	1.40	1.33
8	T	102	ILE	C-O	-5.10	1.18	1.24
1	7	46	THR	CA-C	5.10	1.59	1.52
7	O	88	LEU	C-N	5.10	1.40	1.33
2	A	24	GLU	CA-C	5.10	1.58	1.52
2	A	105	LEU	N-CA	-5.10	1.39	1.46
2	B	414	ALA	N-CA	-5.10	1.40	1.46
3	E	344	ILE	CA-C	-5.09	1.46	1.52
1	0	11	GLY	N-CA	5.09	1.52	1.45
12	X	40	PRO	C-N	5.09	1.40	1.33
3	F	92	LEU	N-CA	-5.09	1.39	1.46
5	H	61	GLU	CA-C	-5.09	1.46	1.52
5	H	40	GLY	N-CA	-5.09	1.40	1.45
8	T	144	LEU	N-CA	-5.09	1.39	1.46
10	V	80	PRO	C-N	5.09	1.40	1.33
8	T	210	PHE	C-N	5.09	1.41	1.33
1	2	4	VAL	N-CA	-5.08	1.40	1.46
2	B	8	THR	C-N	5.08	1.40	1.33
2	B	352	ILE	N-CA	-5.08	1.40	1.46
2	C	139	LEU	N-CA	-5.08	1.41	1.46
5	H	135	SER	N-CA	-5.08	1.40	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	B	161	ILE	C-N	5.08	1.40	1.33
2	C	349	ASP	N-CA	-5.08	1.40	1.46
5	H	84	CYS	N-CA	-5.07	1.40	1.46
3	F	404	VAL	C-N	5.07	1.40	1.33
3	D	252	LEU	N-CA	-5.07	1.39	1.46
2	A	131	ALA	C-N	5.07	1.42	1.33
3	D	161	VAL	C-N	5.07	1.40	1.33
3	F	302	GLY	N-CA	5.07	1.50	1.45
2	B	461	SER	N-CA	5.07	1.52	1.46
14	Z	44	PHE	C-N	5.07	1.40	1.33
2	C	118	ASP	C-N	5.06	1.40	1.33
3	E	78	ASP	C-N	5.06	1.41	1.33
2	A	196	ASP	C-N	5.06	1.41	1.33
2	C	358	LEU	C-N	5.06	1.40	1.33
3	F	230	ALA	CA-C	-5.06	1.46	1.52
2	C	232	ILE	C-N	5.06	1.40	1.33
3	E	270	ALA	N-CA	-5.06	1.40	1.46
5	H	27	VAL	CA-C	-5.06	1.46	1.52
2	B	55	VAL	C-N	5.06	1.40	1.33
2	C	458	ILE	CA-C	-5.06	1.46	1.52
9	U	70	ALA	CA-C	-5.06	1.46	1.52
1	8	59	GLU	C-O	-5.05	1.18	1.24
9	U	196	GLN	CA-C	-5.05	1.46	1.52
3	F	62	ILE	CA-C	-5.05	1.46	1.52
2	B	481	LEU	N-CA	-5.05	1.40	1.46
3	D	465	ASP	C-N	5.05	1.40	1.34
7	O	78	HIS	CA-C	-5.05	1.46	1.52
2	C	281	ARG	N-CA	5.05	1.52	1.46
3	F	350	PRO	C-N	5.04	1.40	1.33
1	8	11	GLY	N-CA	5.04	1.52	1.45
2	B	390	GLY	C-N	5.04	1.40	1.33
3	F	110	LYS	N-CA	-5.04	1.40	1.46
1	4	32	ALA	CA-C	-5.04	1.46	1.52
2	C	423	GLY	CA-C	-5.04	1.46	1.52
2	C	449	ALA	CA-C	5.04	1.59	1.52
3	F	267	GLU	N-CA	-5.03	1.40	1.46
3	D	259	PHE	N-CA	-5.03	1.40	1.46
3	D	301	LYS	CA-C	-5.03	1.46	1.52
9	U	156	SER	C-N	5.03	1.40	1.33
3	F	188	GLY	N-CA	5.02	1.52	1.45
2	C	96	ILE	C-N	5.02	1.40	1.33
13	Y	19	ALA	CA-C	-5.02	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
12	X	10	GLU	CA-C	-5.02	1.46	1.52
2	A	206	VAL	CA-C	-5.02	1.46	1.52
8	T	141	PHE	CA-C	-5.02	1.45	1.52
3	F	425	THR	C-O	-5.01	1.17	1.24
12	X	14	THR	CA-C	-5.01	1.46	1.52
2	B	6	GLN	CA-C	5.01	1.59	1.52
3	D	46	LEU	C-N	5.01	1.40	1.33
3	F	92	LEU	CA-C	-5.01	1.46	1.52
2	A	394	LEU	C-N	5.01	1.40	1.34
3	D	167	ILE	N-CA	-5.01	1.40	1.46
14	Z	40	VAL	C-N	5.01	1.40	1.33
2	B	343	ASN	CA-C	-5.01	1.46	1.52
3	D	121	PRO	CA-C	-5.01	1.47	1.52
1	4	70	PHE	C-N	5.00	1.40	1.33
2	A	330	GLU	CA-C	-5.00	1.46	1.53
3	E	220	GLY	CA-C	-5.00	1.46	1.52
13	Y	22	ALA	C-N	5.00	1.40	1.33
1	4	59	GLU	N-CA	-5.00	1.40	1.46
3	D	295	ARG	C-N	5.00	1.40	1.33

All (2212) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	D	362	VAL	N-CA-C	-17.00	98.19	111.62
8	T	54	ILE	N-CA-C	-14.53	99.92	112.12
4	G	180	LYS	O-C-N	-14.18	111.30	121.65
3	D	389	ALA	CA-C-N	13.18	137.17	120.56
3	D	389	ALA	C-N-CA	13.18	137.17	120.56
2	B	339	TYR	CA-C-N	13.10	128.49	120.24
2	B	339	TYR	C-N-CA	13.10	128.49	120.24
1	1	22	ALA	CA-C-N	12.52	133.88	119.98
1	1	22	ALA	C-N-CA	12.52	133.88	119.98
3	F	136	THR	N-CA-C	-12.37	98.85	114.56
3	F	112	LYS	N-CA-C	-11.72	97.72	112.72
3	E	362	VAL	N-CA-C	-11.36	101.38	112.17
3	F	225	PRO	CA-C-N	11.28	131.68	119.28
3	F	225	PRO	C-N-CA	11.28	131.68	119.28
3	E	363	VAL	N-CA-C	-10.89	102.54	113.10
1	5	46	THR	N-CA-C	10.87	122.88	111.14
14	Z	7	PHE	CA-C-O	10.75	131.92	119.35
1	5	2	GLN	CA-C-N	10.67	134.57	120.28
1	5	2	GLN	C-N-CA	10.67	134.57	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	F	184	PHE	CA-C-O	-10.64	108.78	120.38
3	E	271	LEU	CA-C-O	-10.55	109.23	120.42
2	A	280	TYR	CA-C-N	10.52	135.41	120.79
2	A	280	TYR	C-N-CA	10.52	135.41	120.79
2	B	479	ASN	N-CA-C	-10.45	100.27	113.23
4	G	267	LEU	N-CA-C	10.36	122.15	111.07
3	F	323	ALA	N-CA-C	10.23	122.43	111.28
3	F	152	LYS	CA-C-N	10.13	134.43	120.35
3	F	152	LYS	C-N-CA	10.13	134.43	120.35
3	E	390	ILE	N-CA-C	10.10	120.92	110.72
3	F	10	THR	CA-C-N	10.09	130.26	121.58
3	F	10	THR	C-N-CA	10.09	130.26	121.58
11	W	3	THR	N-CA-C	-10.09	100.60	113.72
3	F	440	SER	N-CA-C	9.96	122.22	111.36
4	G	169	PRO	CA-C-N	9.96	133.11	120.56
4	G	169	PRO	C-N-CA	9.96	133.11	120.56
1	7	44	LYS	N-CA-C	9.95	123.37	111.33
3	D	416	GLN	CA-C-O	-9.95	111.83	119.59
2	A	447	ILE	CA-C-N	9.93	133.99	120.38
2	A	447	ILE	C-N-CA	9.93	133.99	120.38
3	D	91	THR	N-CA-C	-9.87	99.63	114.64
2	C	193	ASN	CA-C-N	9.87	133.88	121.06
2	C	193	ASN	C-N-CA	9.87	133.88	121.06
2	A	58	SER	CA-C-N	9.86	133.25	120.44
2	A	58	SER	C-N-CA	9.86	133.25	120.44
2	B	8	THR	N-CA-C	-9.70	101.55	113.97
3	D	398	GLU	CA-C-N	9.67	133.02	120.44
3	D	398	GLU	C-N-CA	9.67	133.02	120.44
2	C	232	ILE	N-CA-C	-9.59	94.17	108.46
3	E	161	VAL	N-CA-C	-9.54	103.74	112.90
1	5	35	ASN	CA-C-N	9.54	130.53	119.94
1	5	35	ASN	C-N-CA	9.54	130.53	119.94
1	5	53	LEU	CA-C-N	9.52	130.47	120.00
1	5	53	LEU	C-N-CA	9.52	130.47	120.00
3	D	424	PHE	N-CA-C	9.44	121.65	111.36
10	V	89	LEU	CA-C-N	9.42	133.25	120.44
10	V	89	LEU	C-N-CA	9.42	133.25	120.44
3	D	258	ILE	N-CA-C	-9.39	101.67	113.22
2	C	221	THR	CA-C-N	9.37	133.59	120.29
2	C	221	THR	C-N-CA	9.37	133.59	120.29
2	A	492	SER	CA-C-N	9.36	132.82	120.28
2	A	492	SER	C-N-CA	9.36	132.82	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	G	21	LYS	CA-C-N	9.34	132.58	120.44
4	G	21	LYS	C-N-CA	9.34	132.58	120.44
12	X	3	ILE	O-C-N	9.31	130.90	121.87
1	1	40	ASN	CA-C-N	9.27	131.43	119.84
1	1	40	ASN	C-N-CA	9.27	131.43	119.84
1	5	48	PHE	CA-C-N	9.23	128.84	119.24
1	5	48	PHE	C-N-CA	9.23	128.84	119.24
12	X	3	ILE	CA-C-O	-9.23	111.35	120.95
3	D	290	GLY	CA-C-N	9.20	132.40	120.44
3	D	290	GLY	C-N-CA	9.20	132.40	120.44
1	7	35	ASN	CA-C-N	9.18	130.13	119.94
1	7	35	ASN	C-N-CA	9.18	130.13	119.94
7	O	57	LEU	N-CA-C	-9.18	102.47	114.31
3	E	323	ALA	N-CA-C	9.17	121.28	111.28
1	3	48	PHE	CA-C-N	9.15	129.75	119.32
1	3	48	PHE	C-N-CA	9.15	129.75	119.32
2	C	316	GLU	CA-C-N	9.09	132.84	120.38
2	C	316	GLU	C-N-CA	9.09	132.84	120.38
2	C	222	LEU	CA-C-O	-9.09	110.79	120.42
2	B	26	ASN	N-CA-C	-9.06	103.33	114.75
1	6	25	GLY	N-CA-C	9.04	123.57	112.73
10	V	61	VAL	N-CA-C	-9.04	102.99	111.48
3	F	206	VAL	CA-C-O	9.00	129.50	119.42
1	0	6	ALA	CA-C-N	8.99	132.12	120.44
1	0	6	ALA	C-N-CA	8.99	132.12	120.44
1	0	61	THR	CA-C-N	8.94	129.69	119.94
1	0	61	THR	C-N-CA	8.94	129.69	119.94
2	B	320	SER	CA-C-N	8.91	128.57	120.10
2	B	320	SER	C-N-CA	8.91	128.57	120.10
3	F	350	PRO	N-CA-C	-8.90	103.29	114.68
4	G	262	VAL	CA-C-N	8.90	131.96	120.56
4	G	262	VAL	C-N-CA	8.90	131.96	120.56
9	U	193	VAL	N-CA-C	-8.89	101.74	110.72
2	B	169	ILE	N-CA-C	-8.88	95.67	108.36
3	D	145	ALA	CA-C-N	8.87	128.90	119.76
3	D	145	ALA	C-N-CA	8.87	128.90	119.76
2	B	96	ILE	CA-C-N	8.84	132.39	120.63
2	B	96	ILE	C-N-CA	8.84	132.39	120.63
2	A	137	GLY	CA-C-N	8.84	131.75	120.70
2	A	137	GLY	C-N-CA	8.84	131.75	120.70
3	D	402	LEU	CA-C-N	8.84	131.93	120.44
3	D	402	LEU	C-N-CA	8.84	131.93	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	T	117	PHE	CA-C-N	8.81	132.94	120.42
8	T	117	PHE	C-N-CA	8.81	132.94	120.42
5	H	16	LEU	N-CA-C	-8.80	98.02	108.14
13	Y	15	PRO	CA-C-N	8.76	132.73	120.29
13	Y	15	PRO	C-N-CA	8.76	132.73	120.29
4	G	50	LEU	CA-C-N	8.75	131.81	120.44
4	G	50	LEU	C-N-CA	8.75	131.81	120.44
1	7	69	SER	CA-C-N	8.74	131.99	120.28
1	7	69	SER	C-N-CA	8.74	131.99	120.28
2	B	69	GLU	CA-C-O	-8.74	111.28	120.28
12	X	43	GLU	CA-C-O	8.73	123.00	117.94
7	O	129	LEU	CA-C-N	8.73	133.94	120.68
7	O	129	LEU	C-N-CA	8.73	133.94	120.68
2	C	29	GLU	CA-C-N	8.71	137.38	121.70
2	C	29	GLU	C-N-CA	8.71	137.38	121.70
2	C	80	SER	N-CA-C	8.70	121.55	110.24
3	D	325	THR	CA-C-N	8.69	131.93	120.28
3	D	325	THR	C-N-CA	8.69	131.93	120.28
10	V	4	LYS	N-CA-C	8.69	120.83	111.36
1	1	53	LEU	CA-C-N	8.69	129.58	119.94
1	1	53	LEU	C-N-CA	8.69	129.58	119.94
1	3	65	CYS	CA-C-N	8.66	131.89	120.28
1	3	65	CYS	C-N-CA	8.66	131.89	120.28
3	F	450	ASP	N-CA-C	-8.66	96.81	109.11
3	E	236	GLY	CA-C-N	8.64	131.86	120.28
3	E	236	GLY	C-N-CA	8.64	131.86	120.28
1	5	31	ALA	O-C-N	8.63	131.27	122.12
1	6	36	GLY	CA-C-N	8.60	132.63	120.42
1	6	36	GLY	C-N-CA	8.60	132.63	120.42
3	E	224	GLU	CA-C-N	8.59	125.93	119.66
3	E	224	GLU	C-N-CA	8.59	125.93	119.66
2	A	56	GLU	N-CA-C	-8.58	96.29	109.24
2	B	271	ASP	O-C-N	-8.54	113.14	123.30
2	A	493	LYS	CA-C-N	8.54	134.26	120.60
2	A	493	LYS	C-N-CA	8.54	134.26	120.60
3	D	240	ALA	O-C-N	8.53	131.16	122.12
4	G	140	PHE	CA-C-N	8.52	131.52	120.44
4	G	140	PHE	C-N-CA	8.52	131.52	120.44
2	A	411	ASP	N-CA-C	-8.49	102.68	113.72
4	G	54	ASN	CA-C-N	8.49	134.90	120.72
4	G	54	ASN	C-N-CA	8.49	134.90	120.72
3	F	106	ARG	N-CA-C	-8.48	99.91	111.87

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	48	ASN	N-CA-C	-8.47	95.10	109.24
4	G	23	MET	CA-C-N	8.47	131.97	120.54
4	G	23	MET	C-N-CA	8.47	131.97	120.54
1	1	6	ALA	CA-C-N	8.45	131.61	120.28
1	1	6	ALA	C-N-CA	8.45	131.61	120.28
2	A	485	ILE	N-CA-C	8.45	120.25	110.62
3	E	443	ALA	CA-C-N	8.45	132.04	120.46
3	E	443	ALA	C-N-CA	8.45	132.04	120.46
3	D	179	GLY	CA-C-N	8.43	133.73	121.67
3	D	179	GLY	C-N-CA	8.43	133.73	121.67
2	B	495	LEU	CA-C-N	8.43	131.57	120.28
2	B	495	LEU	C-N-CA	8.43	131.57	120.28
2	C	465	GLU	CA-C-N	8.42	131.91	120.54
2	C	465	GLU	C-N-CA	8.42	131.91	120.54
3	F	381	TYR	CA-C-N	8.41	132.23	120.29
3	F	381	TYR	C-N-CA	8.41	132.23	120.29
3	F	139	LYS	N-CA-C	8.39	120.04	111.07
10	V	30	SER	CA-C-N	8.38	131.84	120.44
10	V	30	SER	C-N-CA	8.38	131.84	120.44
2	A	402	VAL	N-CA-C	-8.36	105.13	111.90
14	Z	18	LEU	CA-C-N	8.36	132.16	120.29
14	Z	18	LEU	C-N-CA	8.36	132.16	120.29
3	D	222	MET	N-CA-C	-8.34	103.10	113.28
14	Z	17	PHE	CA-C-N	8.33	131.45	120.28
14	Z	17	PHE	C-N-CA	8.33	131.45	120.28
8	T	101	LEU	N-CA-C	-8.33	102.06	112.72
3	D	319	ASP	CA-C-N	8.32	128.28	119.05
3	D	319	ASP	C-N-CA	8.32	128.28	119.05
3	E	192	ARG	CA-C-N	8.29	132.21	120.28
3	E	192	ARG	C-N-CA	8.29	132.21	120.28
1	4	53	LEU	CA-C-N	8.29	129.11	120.00
1	4	53	LEU	C-N-CA	8.29	129.11	120.00
9	U	97	ASN	N-CA-C	8.27	121.22	111.71
3	F	452	ILE	CA-C-N	8.26	128.29	119.78
3	F	452	ILE	C-N-CA	8.26	128.29	119.78
3	E	137	GLY	CA-C-N	8.26	133.75	122.93
3	E	137	GLY	C-N-CA	8.26	133.75	122.93
11	W	6	PRO	N-CA-C	8.25	120.77	110.70
8	T	75	GLY	CA-C-N	8.25	131.33	120.28
8	T	75	GLY	C-N-CA	8.25	131.33	120.28
4	G	27	ALA	O-C-N	8.24	130.85	122.12
8	T	230	GLN	CA-C-N	8.23	130.68	120.22

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	T	230	GLN	C-N-CA	8.23	130.68	120.22
1	5	14	ILE	CA-C-N	8.22	131.29	120.28
1	5	14	ILE	C-N-CA	8.22	131.29	120.28
2	A	275	LYS	CA-C-N	8.18	131.08	120.44
2	A	275	LYS	C-N-CA	8.18	131.08	120.44
2	A	388	VAL	N-CA-C	-8.17	105.95	113.71
2	C	179	ALA	CA-C-N	8.16	132.04	120.53
2	C	179	ALA	C-N-CA	8.16	132.04	120.53
3	E	271	LEU	O-C-N	8.15	131.44	122.15
1	8	25	GLY	CA-C-N	8.13	131.60	120.46
1	8	25	GLY	C-N-CA	8.13	131.60	120.46
3	E	337	ARG	CA-C-N	8.12	128.96	119.94
3	E	337	ARG	C-N-CA	8.12	128.96	119.94
3	F	351	LEU	N-CA-C	-8.12	102.40	112.88
9	U	133	LEU	N-CA-C	8.12	121.05	111.71
1	2	64	PHE	O-C-N	8.12	130.43	122.07
2	C	19	LYS	CA-C-N	8.09	128.96	119.98
2	C	19	LYS	C-N-CA	8.09	128.96	119.98
3	F	470	ALA	CA-C-N	8.08	131.11	120.28
3	F	470	ALA	C-N-CA	8.08	131.11	120.28
7	O	183	LYS	CA-C-N	8.08	130.90	120.56
7	O	183	LYS	C-N-CA	8.08	130.90	120.56
2	B	217	GLN	CA-C-N	8.07	131.10	120.28
2	B	217	GLN	C-N-CA	8.07	131.10	120.28
3	F	307	VAL	N-CA-C	-8.06	95.97	107.75
3	F	422	GLU	N-CA-C	-8.06	103.47	113.38
2	A	104	GLY	N-CA-C	-8.06	103.97	114.85
3	D	437	THR	CA-C-O	-8.05	112.36	120.82
3	F	214	LYS	N-CA-C	-8.04	103.56	112.72
8	T	150	THR	CA-C-O	-8.03	112.69	120.64
2	C	222	LEU	O-C-N	8.02	131.29	122.15
2	B	133	VAL	N-CA-C	-8.00	97.31	108.27
1	5	69	SER	CA-C-N	7.99	130.83	120.44
1	5	69	SER	C-N-CA	7.99	130.83	120.44
2	C	375	ARG	N-CA-C	-7.97	103.39	113.43
2	B	359	PHE	CA-C-N	7.96	130.95	120.28
2	B	359	PHE	C-N-CA	7.96	130.95	120.28
1	7	16	THR	CA-C-N	7.96	131.36	120.46
1	7	16	THR	C-N-CA	7.96	131.36	120.46
4	G	271	ILE	CA-C-N	7.95	130.93	120.28
4	G	271	ILE	C-N-CA	7.95	130.93	120.28
3	D	270	ALA	CA-C-O	7.93	128.95	120.55

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	D	468	ALA	N-CA-C	7.92	119.92	111.28
2	A	504	GLU	CA-C-O	-7.92	112.51	120.82
1	3	62	GLY	CA-C-N	7.90	132.32	120.31
1	3	62	GLY	C-N-CA	7.90	132.32	120.31
9	U	128	LYS	CA-C-N	7.90	130.87	120.28
9	U	128	LYS	C-N-CA	7.90	130.87	120.28
3	F	259	PHE	CA-C-O	7.89	129.05	119.97
14	Z	12	GLN	CA-C-N	7.88	132.29	120.31
14	Z	12	GLN	C-N-CA	7.88	132.29	120.31
2	B	497	ALA	CA-C-N	7.88	130.83	120.28
2	B	497	ALA	C-N-CA	7.88	130.83	120.28
1	8	19	LEU	CA-C-N	7.87	130.83	120.28
1	8	19	LEU	C-N-CA	7.87	130.83	120.28
1	4	59	GLU	CA-C-N	7.87	130.83	120.28
1	4	59	GLU	C-N-CA	7.87	130.83	120.28
1	4	13	GLY	CA-C-N	7.86	131.23	120.46
1	4	13	GLY	C-N-CA	7.86	131.23	120.46
2	C	375	ARG	CA-C-N	7.84	130.44	120.56
2	C	375	ARG	C-N-CA	7.84	130.44	120.56
1	9	39	ARG	N-CA-C	7.84	119.60	111.14
2	A	250	PHE	CA-C-N	7.83	131.67	120.79
2	A	250	PHE	C-N-CA	7.83	131.67	120.79
4	G	205	VAL	CA-C-O	-7.82	112.21	118.85
4	G	92	ALA	CA-C-O	-7.81	112.27	120.55
1	0	71	LEU	CA-C-O	-7.81	112.27	120.55
1	1	15	SER	N-CA-C	7.81	120.69	111.71
1	0	74	PHE	CA-C-N	7.80	135.74	121.70
1	0	74	PHE	C-N-CA	7.80	135.74	121.70
1	2	60	ALA	N-CA-C	7.80	120.47	111.11
2	C	139	LEU	O-C-N	-7.79	113.39	120.71
2	B	345	ILE	CA-C-N	7.78	130.70	120.28
2	B	345	ILE	C-N-CA	7.78	130.70	120.28
2	A	444	VAL	CA-C-O	-7.77	113.48	118.69
7	O	134	PHE	N-CA-C	7.77	120.44	111.11
2	B	175	THR	N-CA-C	-7.77	102.86	112.88
1	5	63	LEU	N-CA-C	7.77	119.75	111.28
2	B	256	GLY	CA-C-N	7.76	130.69	120.28
2	B	256	GLY	C-N-CA	7.76	130.69	120.28
1	6	31	ALA	N-CA-C	-7.76	102.76	111.07
3	D	308	GLN	CA-C-O	-7.76	112.38	121.46
3	E	321	ALA	CA-C-N	7.76	127.31	118.85
3	E	321	ALA	C-N-CA	7.76	127.31	118.85

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	9	61	THR	CA-C-N	7.76	128.59	119.98
1	9	61	THR	C-N-CA	7.76	128.59	119.98
1	8	24	ILE	CA-C-N	7.75	128.55	119.94
1	8	24	ILE	C-N-CA	7.75	128.55	119.94
2	C	493	LYS	CA-C-N	7.75	130.66	120.28
2	C	493	LYS	C-N-CA	7.75	130.66	120.28
3	F	443	ALA	CA-C-N	7.74	131.07	120.46
3	F	443	ALA	C-N-CA	7.74	131.07	120.46
7	O	41	GLN	CA-C-O	-7.74	112.21	120.42
1	9	62	GLY	CA-C-N	7.74	130.50	120.44
1	9	62	GLY	C-N-CA	7.74	130.50	120.44
3	F	191	THR	N-CA-C	-7.74	103.29	112.89
4	G	28	SER	N-CA-C	7.74	119.35	111.07
3	E	338	GLY	N-CA-C	-7.73	103.53	112.50
3	E	203	GLU	N-CA-C	7.71	119.68	111.28
3	D	245	ASP	N-CA-C	7.70	119.67	111.28
8	T	86	PHE	CA-C-O	-7.67	109.66	120.16
3	D	25	PHE	CA-C-N	7.67	132.09	120.82
3	D	25	PHE	C-N-CA	7.67	132.09	120.82
3	F	448	LYS	N-CA-C	-7.66	104.07	113.41
3	E	289	MET	CA-C-N	7.66	128.42	120.00
3	E	289	MET	C-N-CA	7.66	128.42	120.00
3	F	42	PRO	N-CA-C	-7.65	105.82	114.92
10	V	105	GLU	CA-C-N	7.65	130.53	120.28
10	V	105	GLU	C-N-CA	7.65	130.53	120.28
6	I	31	THR	CA-C-O	7.64	129.55	120.99
3	E	103	ILE	O-C-N	-7.64	115.21	122.16
3	F	117	ILE	CA-C-N	7.63	132.92	120.94
3	F	117	ILE	C-N-CA	7.63	132.92	120.94
7	O	139	LYS	CA-C-N	7.62	130.35	120.44
7	O	139	LYS	C-N-CA	7.62	130.35	120.44
4	G	185	ALA	N-CA-C	7.60	120.64	111.82
1	7	20	LEU	CA-C-N	7.59	128.41	119.98
1	7	20	LEU	C-N-CA	7.59	128.41	119.98
2	B	157	ALA	N-CA-C	7.59	119.55	111.28
2	B	480	GLU	CA-C-N	7.59	130.45	120.28
2	B	480	GLU	C-N-CA	7.59	130.45	120.28
1	8	39	ARG	N-CA-C	7.58	119.33	111.14
3	F	172	ASN	O-C-N	7.58	130.16	122.12
10	V	76	LYS	CA-C-N	7.57	130.28	120.44
10	V	76	LYS	C-N-CA	7.57	130.28	120.44
3	D	402	LEU	CA-C-O	-7.56	112.53	120.55

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	W	14	ASN	O-C-N	7.56	131.12	122.20
3	F	287	THR	N-CA-C	7.56	119.60	111.36
3	F	423	VAL	N-CA-C	-7.56	103.92	113.22
2	A	98	ASP	N-CA-C	-7.56	97.88	109.14
3	D	174	ILE	CA-C-O	7.55	128.81	120.95
3	F	197	LEU	CA-C-O	-7.53	112.43	120.42
7	O	50	ASN	CA-C-O	-7.53	113.19	120.19
1	5	61	THR	CA-C-N	7.52	128.33	119.98
1	5	61	THR	C-N-CA	7.52	128.33	119.98
3	E	284	THR	N-CA-C	-7.51	104.08	112.57
1	6	6	ALA	CA-C-N	7.51	130.95	120.29
1	6	6	ALA	C-N-CA	7.51	130.95	120.29
3	D	342	LEU	CA-C-N	7.50	133.74	121.00
3	D	342	LEU	C-N-CA	7.50	133.74	121.00
1	8	56	ALA	CA-C-O	7.47	128.67	120.82
1	2	43	ILE	CA-C-N	7.47	130.61	120.38
1	2	43	ILE	C-N-CA	7.47	130.61	120.38
3	E	410	ILE	CA-C-N	7.47	130.15	120.44
3	E	410	ILE	C-N-CA	7.47	130.15	120.44
3	E	351	LEU	N-CA-C	-7.47	103.25	112.88
3	D	398	GLU	O-C-N	-7.47	114.20	122.12
2	A	430	LEU	N-CA-C	7.46	121.48	112.38
3	F	7	THR	O-C-N	7.45	129.50	121.60
3	E	26	GLU	N-CA-C	-7.45	102.42	112.26
1	2	68	VAL	CA-C-N	7.44	130.25	120.28
1	2	68	VAL	C-N-CA	7.44	130.25	120.28
2	B	51	ALA	CA-C-N	7.44	135.38	123.93
2	B	51	ALA	C-N-CA	7.44	135.38	123.93
2	C	479	ASN	CA-C-O	-7.43	110.29	119.28
2	A	271	ASP	O-C-N	-7.41	114.89	123.27
2	B	3	THR	CA-C-N	7.41	131.40	120.87
2	B	3	THR	C-N-CA	7.41	131.40	120.87
7	O	114	ALA	CA-C-N	7.41	130.22	120.28
7	O	114	ALA	C-N-CA	7.41	130.22	120.28
2	B	422	ARG	CA-C-N	7.41	128.20	119.98
2	B	422	ARG	C-N-CA	7.41	128.20	119.98
3	E	419	ALA	CA-C-N	7.39	132.18	121.02
3	E	419	ALA	C-N-CA	7.39	132.18	121.02
3	D	213	SER	N-CA-C	-7.39	98.66	108.19
3	F	7	THR	CA-C-O	-7.39	112.74	120.87
8	T	236	ILE	CA-C-O	7.38	127.67	119.92
2	B	384	ALA	N-CA-C	7.38	119.32	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	O	143	ALA	N-CA-C	7.37	119.31	111.28
3	F	408	ARG	N-CA-C	7.36	119.31	111.28
1	0	15	SER	CA-C-N	7.35	131.12	120.38
1	0	15	SER	C-N-CA	7.35	131.12	120.38
1	9	62	GLY	CA-C-O	7.35	128.32	120.75
3	D	472	LYS	N-CA-C	7.35	120.35	111.82
3	D	266	SER	N-CA-C	7.34	119.36	111.36
8	T	138	GLY	O-C-N	-7.34	114.97	122.60
3	E	376	GLU	CA-C-N	7.34	129.98	120.44
3	E	376	GLU	C-N-CA	7.34	129.98	120.44
3	F	247	GLU	CA-C-O	7.34	128.23	119.06
11	W	26	ASN	CA-C-O	7.33	127.91	119.18
1	1	32	ALA	CA-C-N	7.32	129.96	120.44
1	1	32	ALA	C-N-CA	7.32	129.96	120.44
1	7	11	GLY	CA-C-N	7.32	130.09	120.28
1	7	11	GLY	C-N-CA	7.32	130.09	120.28
4	G	9	ARG	CA-C-O	7.32	128.18	120.42
2	B	281	ARG	CA-C-N	7.32	130.08	120.28
2	B	281	ARG	C-N-CA	7.32	130.08	120.28
2	B	367	ILE	O-C-N	-7.31	115.50	123.03
3	D	455	HIS	N-CA-C	-7.31	104.09	113.16
3	E	458	TYR	CA-C-N	7.31	132.74	122.36
3	E	458	TYR	C-N-CA	7.31	132.74	122.36
2	C	309	GLU	CA-C-N	7.29	130.65	120.29
2	C	309	GLU	C-N-CA	7.29	130.65	120.29
3	F	319	ASP	N-CA-C	-7.29	100.89	109.93
8	T	242	LEU	CA-C-N	7.29	130.04	120.28
8	T	242	LEU	C-N-CA	7.29	130.04	120.28
2	C	223	GLU	CA-C-N	7.28	130.04	120.28
2	C	223	GLU	C-N-CA	7.28	130.04	120.28
7	O	131	PRO	N-CA-C	-7.28	104.04	113.57
3	F	436	ASP	CA-C-O	-7.27	112.71	120.42
3	E	406	ARG	CA-C-N	7.27	130.61	120.29
3	E	406	ARG	C-N-CA	7.27	130.61	120.29
1	5	9	TYR	N-CA-C	7.26	118.98	111.14
2	C	129	SER	CA-C-N	7.26	132.34	120.94
2	C	129	SER	C-N-CA	7.26	132.34	120.94
14	Z	8	TYR	CA-C-N	7.25	130.32	120.38
14	Z	8	TYR	C-N-CA	7.25	130.32	120.38
2	C	358	LEU	CA-C-N	7.24	129.99	120.28
2	C	358	LEU	C-N-CA	7.24	129.99	120.28
1	6	30	PHE	CA-C-N	7.24	129.85	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	30	PHE	C-N-CA	7.24	129.85	120.44
2	C	357	GLU	CA-C-N	7.23	130.69	120.28
2	C	357	GLU	C-N-CA	7.23	130.69	120.28
3	F	268	VAL	CA-C-N	7.23	129.84	120.44
3	F	268	VAL	C-N-CA	7.23	129.84	120.44
9	U	104	LYS	CA-C-N	7.23	129.96	120.28
9	U	104	LYS	C-N-CA	7.23	129.96	120.28
1	1	64	PHE	CA-C-N	7.22	129.96	120.28
1	1	64	PHE	C-N-CA	7.22	129.96	120.28
3	F	224	GLU	CA-C-O	-7.22	114.10	120.60
3	F	103	ILE	CA-C-O	7.22	125.09	119.46
8	T	186	LEU	CA-C-N	7.20	129.80	120.44
8	T	186	LEU	C-N-CA	7.20	129.80	120.44
1	3	63	LEU	CA-C-O	-7.20	111.69	119.97
3	E	175	ALA	CA-C-N	7.20	133.71	122.26
3	E	175	ALA	C-N-CA	7.20	133.71	122.26
3	E	204	THR	N-CA-C	-7.20	104.07	112.92
4	G	27	ALA	CA-C-O	-7.20	112.92	120.55
3	E	347	ALA	CA-C-N	7.19	130.76	120.98
3	E	347	ALA	C-N-CA	7.19	130.76	120.98
2	B	346	SER	CA-C-N	7.18	130.30	120.46
2	B	346	SER	C-N-CA	7.18	130.30	120.46
2	B	334	GLY	N-CA-C	-7.18	104.70	115.32
2	B	448	TYR	CA-C-N	7.18	129.90	120.28
2	B	448	TYR	C-N-CA	7.18	129.90	120.28
3	D	370	VAL	O-C-N	7.18	128.94	121.91
4	G	20	THR	CA-C-N	7.17	129.77	120.44
4	G	20	THR	C-N-CA	7.17	129.77	120.44
10	V	26	ALA	CA-C-N	7.17	130.47	120.29
10	V	26	ALA	C-N-CA	7.17	130.47	120.29
2	B	70	PRO	N-CA-C	-7.17	104.59	114.27
2	A	122	PRO	CA-C-O	-7.16	113.32	122.13
3	E	276	PRO	CA-C-N	7.16	131.35	120.82
3	E	276	PRO	C-N-CA	7.16	131.35	120.82
3	F	337	ARG	CA-C-N	7.16	127.93	119.98
3	F	337	ARG	C-N-CA	7.16	127.93	119.98
2	C	276	GLN	CA-C-N	7.16	129.87	120.28
2	C	276	GLN	C-N-CA	7.16	129.87	120.28
3	E	462	GLY	CA-C-N	7.15	130.26	120.46
3	E	462	GLY	C-N-CA	7.15	130.26	120.46
3	F	62	ILE	N-CA-C	-7.15	98.16	108.53
2	A	446	LEU	CA-C-N	7.15	129.56	120.56

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A	446	LEU	C-N-CA	7.15	129.56	120.56
9	U	189	PHE	CA-C-O	-7.13	112.99	120.55
12	X	57	ASN	CA-C-N	7.13	134.80	121.97
12	X	57	ASN	C-N-CA	7.13	134.80	121.97
4	G	40	SER	CA-C-N	7.12	129.70	120.44
4	G	40	SER	C-N-CA	7.12	129.70	120.44
1	0	33	LEU	CA-C-N	7.11	129.66	120.56
1	0	33	LEU	C-N-CA	7.11	129.66	120.56
3	F	329	LEU	N-CA-C	-7.10	96.95	108.52
4	G	24	LYS	CA-C-N	7.09	129.63	120.56
4	G	24	LYS	C-N-CA	7.09	129.63	120.56
12	X	33	PRO	N-CA-C	7.09	119.35	110.70
2	B	436	SER	O-C-N	-7.08	113.43	121.79
3	F	281	TYR	CA-C-N	7.08	130.78	120.51
3	F	281	TYR	C-N-CA	7.08	130.78	120.51
1	6	55	PHE	CA-C-N	7.08	130.34	120.29
1	6	55	PHE	C-N-CA	7.08	130.34	120.29
2	B	199	LYS	N-CA-C	-7.07	103.76	112.88
3	F	362	VAL	N-CA-C	7.07	117.78	110.36
2	B	121	GLY	CA-C-N	7.03	128.63	119.84
2	B	121	GLY	C-N-CA	7.03	128.63	119.84
2	B	403	ALA	CA-C-N	7.03	130.00	120.44
2	B	403	ALA	C-N-CA	7.03	130.00	120.44
3	F	467	VAL	CA-C-N	7.03	129.71	120.28
3	F	467	VAL	C-N-CA	7.03	129.71	120.28
9	U	130	THR	CA-C-N	7.03	130.09	120.46
9	U	130	THR	C-N-CA	7.03	130.09	120.46
1	0	34	ILE	N-CA-C	-7.02	103.93	110.53
7	O	8	PRO	CA-C-N	7.01	126.64	119.56
7	O	8	PRO	C-N-CA	7.01	126.64	119.56
7	O	108	PHE	CA-C-N	7.01	127.77	119.98
7	O	108	PHE	C-N-CA	7.01	127.77	119.98
3	F	235	THR	O-C-N	7.01	129.29	122.07
2	C	352	ILE	O-C-N	-7.01	115.63	123.20
4	G	129	SER	N-CA-C	-7.00	98.43	109.07
2	B	189	LYS	CA-C-N	7.00	129.96	120.44
2	B	189	LYS	C-N-CA	7.00	129.96	120.44
3	D	121	PRO	CA-C-O	-7.00	110.41	120.56
3	F	197	LEU	O-C-N	7.00	130.12	122.15
3	E	427	ILE	CA-C-N	6.99	127.38	119.83
3	E	427	ILE	C-N-CA	6.99	127.38	119.83
2	C	126	ALA	N-CA-C	-6.99	105.37	114.04

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	E	357	LEU	N-CA-C	-6.99	104.41	114.12
7	O	57	LEU	CA-C-O	6.99	126.52	118.77
2	B	410	SER	CA-C-O	-6.98	113.16	120.70
2	C	113	LEU	N-CA-C	-6.98	104.38	113.17
3	E	55	GLY	CA-C-O	-6.98	117.28	122.37
1	4	20	LEU	CA-C-N	6.97	127.72	119.98
1	4	20	LEU	C-N-CA	6.97	127.72	119.98
1	4	61	THR	CA-C-N	6.97	127.72	119.98
1	4	61	THR	C-N-CA	6.97	127.72	119.98
2	C	178	THR	O-C-N	-6.97	114.07	122.22
3	E	465	ASP	CA-C-N	6.97	129.34	120.56
3	E	465	ASP	C-N-CA	6.97	129.34	120.56
4	G	26	VAL	CA-C-N	6.96	129.61	120.28
4	G	26	VAL	C-N-CA	6.96	129.61	120.28
2	B	444	VAL	CA-C-O	-6.96	110.62	119.95
13	Y	36	ASN	N-CA-C	-6.96	102.83	112.30
8	T	213	LEU	CA-C-N	6.96	130.89	120.31
8	T	213	LEU	C-N-CA	6.96	130.89	120.31
11	W	32	LYS	N-CA-C	-6.95	103.87	114.16
3	D	110	LYS	N-CA-C	-6.95	100.51	110.59
3	E	458	TYR	CA-C-O	-6.94	113.39	121.16
2	C	99	VAL	CA-C-N	6.93	126.90	119.76
2	C	99	VAL	C-N-CA	6.93	126.90	119.76
2	A	25	ALA	CA-C-N	6.93	130.96	121.05
2	A	25	ALA	C-N-CA	6.93	130.96	121.05
2	C	463	ILE	O-C-N	6.93	128.97	121.83
2	B	439	ALA	N-CA-C	-6.93	101.20	110.55
11	W	4	LEU	CA-C-O	-6.93	112.84	120.81
1	8	54	GLY	CA-C-N	6.92	129.44	120.44
1	8	54	GLY	C-N-CA	6.92	129.44	120.44
2	B	472	SER	CA-C-N	6.92	130.11	120.29
2	B	472	SER	C-N-CA	6.92	130.11	120.29
2	B	29	GLU	N-CA-C	-6.91	104.88	113.38
3	E	232	VAL	CA-C-N	6.91	129.54	120.28
3	E	232	VAL	C-N-CA	6.91	129.54	120.28
1	3	18	GLY	N-CA-C	6.91	121.02	112.73
2	B	306	ARG	CA-C-N	6.90	129.83	120.44
2	B	306	ARG	C-N-CA	6.90	129.83	120.44
3	D	337	ARG	CA-C-N	6.90	127.60	119.94
3	D	337	ARG	C-N-CA	6.90	127.60	119.94
3	E	185	THR	N-CA-C	-6.90	96.81	108.26
3	E	79	THR	CA-C-N	6.90	134.93	121.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	E	79	THR	C-N-CA	6.90	134.93	121.41
3	D	308	GLN	N-CA-C	-6.89	98.96	109.85
2	A	504	GLU	O-C-N	6.89	129.17	122.07
2	B	274	SER	N-CA-C	6.89	118.79	111.28
3	F	442	LYS	CA-C-N	6.89	129.51	120.28
3	F	442	LYS	C-N-CA	6.89	129.51	120.28
7	O	120	LYS	N-CA-C	-6.89	96.50	108.69
3	D	427	ILE	CA-C-N	6.89	126.85	119.76
3	D	427	ILE	C-N-CA	6.89	126.85	119.76
1	3	19	LEU	CA-C-N	6.88	129.84	120.54
1	3	19	LEU	C-N-CA	6.88	129.84	120.54
14	Z	4	LEU	CA-C-O	6.88	126.71	119.14
2	A	90	VAL	CA-C-N	6.88	130.58	120.95
2	A	90	VAL	C-N-CA	6.88	130.58	120.95
3	D	216	ALA	N-CA-C	-6.88	99.02	109.95
3	D	324	THR	CA-C-N	6.88	129.38	120.44
3	D	324	THR	C-N-CA	6.88	129.38	120.44
3	D	368	TYR	CA-C-O	-6.87	113.60	120.82
1	7	65	CYS	N-CA-C	6.87	118.76	111.28
3	E	409	LYS	CA-C-N	6.87	129.87	120.46
3	E	409	LYS	C-N-CA	6.87	129.87	120.46
3	F	194	GLY	CA-C-O	-6.86	113.59	121.00
3	F	221	GLN	N-CA-C	-6.86	98.98	109.41
2	B	124	ASP	CA-C-O	6.86	128.11	120.43
3	D	249	GLN	N-CA-C	-6.86	99.13	110.17
1	0	2	GLN	CA-C-N	6.86	129.35	120.44
1	0	2	GLN	C-N-CA	6.86	129.35	120.44
1	7	60	ALA	CA-C-N	6.84	130.01	120.29
1	7	60	ALA	C-N-CA	6.84	130.01	120.29
8	T	191	LEU	CA-C-N	6.84	130.00	120.29
8	T	191	LEU	C-N-CA	6.84	130.00	120.29
5	H	125	ILE	CA-C-N	6.84	129.44	120.28
5	H	125	ILE	C-N-CA	6.84	129.44	120.28
2	B	248	ALA	CA-C-N	6.83	126.30	118.85
2	B	248	ALA	C-N-CA	6.83	126.30	118.85
1	3	33	LEU	CA-C-N	6.83	129.17	120.56
1	3	33	LEU	C-N-CA	6.83	129.17	120.56
9	U	73	LEU	N-CA-C	-6.83	103.29	111.69
3	E	54	LEU	N-CA-C	-6.83	105.48	113.88
1	8	31	ALA	CA-C-N	6.83	129.43	120.28
1	8	31	ALA	C-N-CA	6.83	129.43	120.28
2	A	272	ASP	CA-C-N	6.81	131.49	120.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A	272	ASP	C-N-CA	6.81	131.49	120.60
2	A	277	ALA	O-C-N	6.80	129.91	122.15
6	I	31	THR	N-CA-C	-6.80	98.31	108.99
2	B	153	LYS	N-CA-C	6.80	118.78	111.36
11	W	82	TYR	N-CA-C	-6.80	104.95	113.18
8	T	59	LEU	CA-C-N	6.79	131.44	120.30
8	T	59	LEU	C-N-CA	6.79	131.44	120.30
3	F	84	SER	CA-C-O	6.79	127.57	120.30
3	D	88	GLY	N-CA-C	-6.79	103.82	111.63
2	C	59	SER	N-CA-C	-6.79	103.68	112.23
1	2	44	LYS	N-CA-C	6.78	119.53	111.33
2	B	210	GLN	N-CA-C	-6.77	97.32	108.76
1	2	32	ALA	CA-C-N	6.77	129.24	120.44
1	2	32	ALA	C-N-CA	6.77	129.24	120.44
2	C	479	ASN	N-CA-C	-6.76	104.78	113.16
3	F	268	VAL	CA-C-O	-6.76	111.40	119.58
1	1	55	PHE	O-C-N	-6.75	115.11	122.07
3	F	455	HIS	CA-C-O	6.75	127.75	119.11
1	3	59	GLU	N-CA-C	6.75	118.63	111.28
7	O	137	ILE	N-CA-C	-6.74	104.19	110.53
1	6	25	GLY	CA-C-N	6.74	130.03	120.53
1	6	25	GLY	C-N-CA	6.74	130.03	120.53
2	B	318	GLU	CA-C-O	6.74	127.80	119.78
2	B	278	VAL	CA-C-N	6.74	129.20	120.44
2	B	278	VAL	C-N-CA	6.74	129.20	120.44
3	E	264	ALA	CA-C-N	6.74	127.46	119.98
3	E	264	ALA	C-N-CA	6.74	127.46	119.98
2	B	191	TRP	CA-C-N	6.74	129.20	120.44
2	B	191	TRP	C-N-CA	6.74	129.20	120.44
4	G	193	SER	N-CA-C	-6.74	102.55	113.19
3	E	227	GLY	CA-C-O	-6.73	113.52	120.66
4	G	204	ASN	CA-C-N	6.73	124.48	120.24
4	G	204	ASN	C-N-CA	6.73	124.48	120.24
8	T	86	PHE	CA-C-N	6.73	126.52	119.05
8	T	86	PHE	C-N-CA	6.73	126.52	119.05
1	9	51	ALA	N-CA-C	6.73	118.69	111.36
7	O	46	THR	CA-C-N	6.73	129.04	120.56
7	O	46	THR	C-N-CA	6.73	129.04	120.56
1	6	3	LEU	CA-C-N	6.73	129.03	120.56
1	6	3	LEU	C-N-CA	6.73	129.03	120.56
2	C	54	LEU	O-C-N	6.72	130.89	123.22
2	C	211	LYS	O-C-N	-6.72	114.93	122.86

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	T	30	SER	CA-C-O	-6.72	113.76	120.82
11	W	62	SER	CA-C-O	-6.72	114.22	121.94
3	F	382	LYS	N-CA-C	-6.71	104.04	111.36
3	D	193	GLU	CA-C-N	6.71	127.43	119.98
3	D	193	GLU	C-N-CA	6.71	127.43	119.98
3	D	411	GLN	CA-C-N	6.71	129.82	120.29
3	D	411	GLN	C-N-CA	6.71	129.82	120.29
3	E	23	VAL	N-CA-C	-6.71	98.52	108.85
3	E	183	VAL	O-C-N	-6.70	116.03	123.26
3	F	120	ASP	CA-C-N	6.69	127.27	120.38
3	F	120	ASP	C-N-CA	6.69	127.27	120.38
3	D	333	THR	O-C-N	-6.69	115.34	123.30
1	3	73	LEU	N-CA-C	6.68	118.36	111.14
3	F	290	GLY	O-C-N	6.68	128.61	122.19
4	G	44	MET	CA-C-N	6.68	129.24	120.28
4	G	44	MET	C-N-CA	6.68	129.24	120.28
2	B	179	ALA	N-CA-C	6.68	119.39	111.71
3	D	328	HIS	O-C-N	6.68	131.68	122.46
1	8	35	ASN	N-CA-C	6.67	118.63	111.36
3	D	451	ASN	N-CA-C	-6.67	105.11	112.72
7	O	64	LEU	CA-C-N	6.67	131.98	120.58
7	O	64	LEU	C-N-CA	6.67	131.98	120.58
1	9	65	CYS	CA-C-N	6.67	129.21	120.28
1	9	65	CYS	C-N-CA	6.67	129.21	120.28
7	O	136	ARG	CA-C-N	6.67	129.09	120.56
7	O	136	ARG	C-N-CA	6.67	129.09	120.56
2	C	492	SER	CA-C-N	6.66	129.75	120.29
2	C	492	SER	C-N-CA	6.66	129.75	120.29
2	C	298	GLY	O-C-N	6.66	131.10	122.71
2	C	81	ASP	N-CA-C	-6.66	105.07	113.72
2	B	483	THR	CA-C-N	6.64	129.18	120.28
2	B	483	THR	C-N-CA	6.64	129.18	120.28
3	E	380	THR	O-C-N	6.64	129.16	122.12
1	8	39	ARG	O-C-N	-6.63	114.93	122.09
1	0	38	SER	CA-C-O	6.63	127.58	120.55
2	A	279	ALA	CA-C-N	6.63	129.06	120.44
2	A	279	ALA	C-N-CA	6.63	129.06	120.44
4	G	25	ILE	N-CA-C	-6.63	104.30	110.53
3	D	415	SER	CA-C-N	6.63	131.44	122.56
3	D	415	SER	C-N-CA	6.63	131.44	122.56
3	D	265	GLY	CA-C-O	6.63	127.59	120.30
8	T	198	PHE	CA-C-O	6.63	127.61	119.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	V	119	SER	CA-C-N	6.63	129.16	120.28
10	V	119	SER	C-N-CA	6.63	129.16	120.28
2	C	336	VAL	N-CA-C	-6.62	106.54	112.90
8	T	124	VAL	CA-C-N	6.62	129.82	120.42
8	T	124	VAL	C-N-CA	6.62	129.82	120.42
1	1	44	LYS	N-CA-C	6.62	120.22	111.75
2	A	378	SER	N-CA-C	-6.62	105.18	112.72
2	A	135	ALA	N-CA-C	6.61	118.04	109.64
2	B	115	ASN	CA-C-N	6.61	128.11	119.84
2	B	115	ASN	C-N-CA	6.61	128.11	119.84
2	C	99	VAL	CA-C-O	-6.61	113.92	121.59
9	U	150	ALA	N-CA-C	6.61	118.49	111.28
3	F	184	PHE	O-C-N	6.61	131.09	123.29
4	G	100	ASN	N-CA-C	-6.61	104.16	111.36
2	A	260	ARG	O-C-N	-6.61	115.22	122.09
3	D	418	PHE	CA-C-N	6.60	129.13	120.28
3	D	418	PHE	C-N-CA	6.60	129.13	120.28
2	C	218	LEU	CA-C-N	6.60	129.50	120.46
2	C	218	LEU	C-N-CA	6.60	129.50	120.46
9	U	94	ALA	CA-C-N	6.60	129.13	120.28
9	U	94	ALA	C-N-CA	6.60	129.13	120.28
3	F	177	ALA	CA-C-N	6.60	130.19	120.95
3	F	177	ALA	C-N-CA	6.60	130.19	120.95
1	3	23	GLY	CA-C-N	6.59	129.00	120.56
1	3	23	GLY	C-N-CA	6.59	129.00	120.56
3	F	103	ILE	O-C-N	-6.59	114.99	121.78
2	A	444	VAL	O-C-N	-6.59	116.20	120.42
2	A	478	HIS	CA-C-N	6.59	129.11	120.28
2	A	478	HIS	C-N-CA	6.59	129.11	120.28
5	H	112	VAL	CA-C-N	6.59	129.41	120.38
5	H	112	VAL	C-N-CA	6.59	129.41	120.38
2	A	89	LEU	CA-C-N	-6.59	114.74	123.17
2	A	89	LEU	C-N-CA	-6.59	114.74	123.17
10	V	12	TRP	CA-C-N	6.58	129.63	120.29
10	V	12	TRP	C-N-CA	6.58	129.63	120.29
2	C	476	SER	CA-C-N	6.58	129.38	120.44
2	C	476	SER	C-N-CA	6.58	129.38	120.44
1	4	56	ALA	CA-C-N	6.57	129.38	120.44
1	4	56	ALA	C-N-CA	6.57	129.38	120.44
2	B	429	LEU	CA-C-N	6.57	129.75	120.28
2	B	429	LEU	C-N-CA	6.57	129.75	120.28
3	D	413	PHE	CA-C-N	6.57	129.09	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	D	413	PHE	C-N-CA	6.57	129.09	120.28
1	7	2	GLN	CA-C-N	6.57	129.09	120.28
1	7	2	GLN	C-N-CA	6.57	129.09	120.28
1	3	35	ASN	N-CA-C	6.57	118.44	111.28
1	4	18	GLY	O-C-N	6.57	129.20	122.24
1	5	5	LEU	CA-C-N	6.57	128.98	120.44
1	5	5	LEU	C-N-CA	6.57	128.98	120.44
1	5	51	ALA	CA-C-N	6.56	129.45	120.46
1	5	51	ALA	C-N-CA	6.56	129.45	120.46
7	O	131	PRO	CA-C-N	6.56	128.97	120.44
7	O	131	PRO	C-N-CA	6.56	128.97	120.44
3	E	403	THR	CA-C-N	6.56	129.45	120.46
3	E	403	THR	C-N-CA	6.56	129.45	120.46
3	D	423	VAL	O-C-N	6.56	128.23	121.87
3	F	33	ILE	CA-C-N	6.56	134.07	121.54
3	F	33	ILE	C-N-CA	6.56	134.07	121.54
7	O	19	TYR	CA-C-N	6.56	129.36	120.44
7	O	19	TYR	C-N-CA	6.56	129.36	120.44
3	E	112	LYS	N-CA-C	-6.55	105.17	113.43
3	E	261	PHE	O-C-N	6.55	129.62	122.15
2	B	462	ARG	N-CA-C	-6.55	104.86	112.92
8	T	80	LYS	CA-C-N	6.55	130.35	119.35
8	T	80	LYS	C-N-CA	6.55	130.35	119.35
2	C	298	GLY	N-CA-C	-6.55	106.54	114.66
3	D	37	LEU	N-CA-C	-6.55	98.73	109.40
1	7	10	ILE	CA-C-N	6.55	127.25	119.98
1	7	10	ILE	C-N-CA	6.55	127.25	119.98
10	V	68	ILE	N-CA-C	-6.54	103.13	112.35
1	3	27	ALA	O-C-N	-6.54	114.70	122.15
1	1	64	PHE	CA-C-O	-6.54	113.62	120.55
2	A	215	VAL	CA-C-N	6.54	128.94	120.44
2	A	215	VAL	C-N-CA	6.54	128.94	120.44
2	C	343	ASN	CA-C-O	-6.54	113.62	120.55
2	C	361	LYS	CA-C-O	6.53	127.33	119.43
3	E	395	GLU	N-CA-C	-6.53	104.55	113.30
6	I	55	GLU	CA-C-N	6.53	126.48	119.76
6	I	55	GLU	C-N-CA	6.53	126.48	119.76
2	C	241	ALA	CA-C-N	6.53	127.83	120.06
2	C	241	ALA	C-N-CA	6.53	127.83	120.06
2	C	395	PHE	O-C-N	6.52	128.79	122.07
3	F	55	GLY	N-CA-C	-6.52	103.17	111.72
2	C	203	CYS	CA-C-N	6.52	132.24	122.98

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	C	203	CYS	C-N-CA	6.52	132.24	122.98
1	4	45	ASP	CA-C-N	6.52	129.31	120.44
1	4	45	ASP	C-N-CA	6.52	129.31	120.44
1	1	21	GLY	N-CA-C	6.52	120.55	112.73
11	W	35	PRO	O-C-N	6.52	131.44	122.64
1	8	26	ILE	CA-C-N	6.51	129.01	120.28
1	8	26	ILE	C-N-CA	6.51	129.01	120.28
2	A	9	GLU	CA-C-N	6.51	129.72	120.53
2	A	9	GLU	C-N-CA	6.51	129.72	120.53
3	D	365	GLN	CA-C-N	6.51	128.91	120.44
3	D	365	GLN	C-N-CA	6.51	128.91	120.44
2	B	365	PRO	CA-C-N	6.51	131.01	121.31
2	B	365	PRO	C-N-CA	6.51	131.01	121.31
5	H	53	LEU	CA-C-O	-6.50	111.91	121.27
5	H	42	LEU	N-CA-C	-6.50	96.78	108.48
3	E	430	LYS	N-CA-C	-6.49	98.03	109.06
4	G	86	SER	CA-C-N	6.49	129.35	120.46
4	G	86	SER	C-N-CA	6.49	129.35	120.46
9	U	139	GLU	CA-C-N	6.49	128.98	120.28
9	U	139	GLU	C-N-CA	6.49	128.98	120.28
10	V	148	LYS	CA-C-O	-6.49	113.67	120.55
1	0	25	GLY	CA-C-N	6.49	128.97	120.60
1	0	25	GLY	C-N-CA	6.49	128.97	120.60
1	9	53	LEU	CA-C-N	6.49	127.18	119.98
1	9	53	LEU	C-N-CA	6.49	127.18	119.98
3	F	163	LYS	CA-C-N	6.48	128.97	120.28
3	F	163	LYS	C-N-CA	6.48	128.97	120.28
3	D	410	ILE	CA-C-N	6.48	128.96	120.28
3	D	410	ILE	C-N-CA	6.48	128.96	120.28
1	5	9	TYR	CA-C-N	6.48	128.72	120.56
1	5	9	TYR	C-N-CA	6.48	128.72	120.56
4	G	162	ILE	N-CA-C	-6.47	98.32	108.81
5	H	124	ALA	CA-C-N	6.47	129.33	120.46
5	H	124	ALA	C-N-CA	6.47	129.33	120.46
3	D	363	VAL	N-CA-C	-6.47	106.38	113.43
3	F	171	ILE	CA-C-N	6.47	128.95	120.28
3	F	171	ILE	C-N-CA	6.47	128.95	120.28
3	F	365	GLN	N-CA-C	6.47	118.41	111.36
2	B	198	SER	CA-C-N	6.46	132.69	122.60
2	B	198	SER	C-N-CA	6.46	132.69	122.60
2	C	93	THR	N-CA-C	-6.46	104.32	111.36
2	A	190	ARG	CA-C-O	-6.46	113.64	120.55

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A	437	PRO	CA-C-O	-6.46	113.73	121.48
2	B	86	GLU	O-C-N	-6.46	115.70	123.13
3	E	225	PRO	CA-C-O	-6.46	116.25	120.90
8	T	112	SER	CA-C-N	6.46	133.09	121.92
8	T	112	SER	C-N-CA	6.46	133.09	121.92
1	1	69	SER	CA-C-N	6.45	129.46	120.29
1	1	69	SER	C-N-CA	6.45	129.46	120.29
4	G	2	THR	CA-C-O	6.45	127.46	120.55
4	G	255	TYR	O-C-N	6.45	128.96	122.12
3	F	282	GLN	N-CA-C	6.45	117.02	109.60
2	B	92	ARG	CA-C-O	-6.45	113.57	120.92
4	G	137	ALA	CA-C-O	-6.45	113.28	120.25
1	4	37	VAL	CA-C-N	6.44	130.10	120.31
1	4	37	VAL	C-N-CA	6.44	130.10	120.31
3	E	191	THR	CA-C-O	-6.44	112.99	120.20
3	E	384	LEU	CA-C-N	6.44	129.56	120.28
3	E	384	LEU	C-N-CA	6.44	129.56	120.28
1	8	33	LEU	CA-C-N	6.44	129.28	120.46
1	8	33	LEU	C-N-CA	6.44	129.28	120.46
2	C	241	ALA	CA-C-O	-6.44	114.40	121.87
14	Z	36	LEU	N-CA-C	-6.44	104.69	112.54
2	A	289	ARG	N-CA-C	-6.43	101.68	109.72
8	T	58	TRP	N-CA-C	-6.43	105.47	113.38
7	O	144	SER	N-CA-C	-6.43	102.04	110.53
2	A	183	ASP	CA-C-N	6.43	128.80	120.44
2	A	183	ASP	C-N-CA	6.43	128.80	120.44
3	E	426	GLY	O-C-N	6.43	129.33	122.52
2	B	184	THR	O-C-N	6.42	128.69	122.07
8	T	104	MET	CA-C-O	6.42	127.42	119.78
1	7	56	ALA	CA-C-O	-6.42	113.75	120.55
3	F	87	VAL	N-CA-C	-6.42	98.40	108.86
3	E	371	ALA	N-CA-C	6.42	118.35	111.36
9	U	74	ALA	CA-C-O	-6.41	112.12	118.34
4	G	87	ILE	CA-C-N	6.41	128.87	120.28
4	G	87	ILE	C-N-CA	6.41	128.87	120.28
3	E	437	THR	CA-C-N	6.40	129.23	120.46
3	E	437	THR	C-N-CA	6.40	129.23	120.46
1	1	46	THR	CA-C-O	6.40	127.29	120.70
3	D	160	GLY	CA-C-O	6.40	125.35	118.95
10	V	38	GLU	CA-C-O	6.40	127.33	120.55
3	D	440	SER	N-CA-C	6.39	117.91	111.07
1	0	38	SER	N-CA-C	6.38	118.24	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	F	424	PHE	N-CA-C	-6.38	104.44	112.93
11	W	56	PHE	N-CA-C	-6.38	104.11	112.41
3	E	372	SER	N-CA-C	6.38	118.23	111.28
1	2	11	GLY	CA-C-N	6.38	128.83	120.28
1	2	11	GLY	C-N-CA	6.38	128.83	120.28
3	F	411	GLN	CA-C-O	-6.38	113.79	120.55
4	G	220	THR	N-CA-C	6.37	118.23	111.28
12	X	37	PRO	CA-C-N	6.37	133.71	121.54
12	X	37	PRO	C-N-CA	6.37	133.71	121.54
3	E	81	GLY	CA-C-N	6.36	127.79	119.84
3	E	81	GLY	C-N-CA	6.36	127.79	119.84
3	D	443	ALA	CA-C-N	6.36	129.17	120.46
3	D	443	ALA	C-N-CA	6.36	129.17	120.46
7	O	39	SER	CA-C-N	6.36	129.32	120.29
7	O	39	SER	C-N-CA	6.36	129.32	120.29
1	8	65	CYS	O-C-N	6.35	128.85	122.12
2	B	493	LYS	CA-C-N	6.35	129.08	120.44
2	B	493	LYS	C-N-CA	6.35	129.08	120.44
3	F	427	ILE	CA-C-O	-6.35	111.44	119.95
2	B	299	ASP	CA-C-N	6.35	129.16	120.46
2	B	299	ASP	C-N-CA	6.35	129.16	120.46
11	W	34	LEU	CA-C-O	-6.35	113.78	120.70
3	E	155	LEU	N-CA-C	-6.35	99.56	109.72
1	1	67	MET	N-CA-C	-6.35	104.44	111.36
2	B	34	LEU	CA-C-O	-6.34	111.62	118.79
2	B	199	LYS	O-C-N	-6.34	114.70	122.25
2	B	73	VAL	N-CA-C	-6.34	100.52	108.89
1	8	17	ILE	CA-C-N	6.34	127.13	120.03
1	8	17	ILE	C-N-CA	6.34	127.13	120.03
3	D	68	GLU	N-CA-C	-6.34	104.81	113.30
5	H	40	GLY	N-CA-C	-6.34	100.37	111.46
3	F	335	LEU	N-CA-C	-6.33	99.07	109.40
3	E	336	SER	CA-C-N	6.33	128.76	120.28
3	E	336	SER	C-N-CA	6.33	128.76	120.28
3	F	379	GLN	CA-C-N	6.32	129.27	120.29
3	F	379	GLN	C-N-CA	6.32	129.27	120.29
2	A	69	GLU	O-C-N	-6.32	115.95	121.32
3	F	205	GLY	N-CA-C	-6.31	106.19	115.72
1	0	7	ALA	CA-C-N	6.31	128.73	120.28
1	0	7	ALA	C-N-CA	6.31	128.73	120.28
3	E	406	ARG	O-C-N	-6.31	115.43	122.12
3	F	81	GLY	CA-C-N	6.31	127.72	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	F	81	GLY	C-N-CA	6.31	127.72	119.84
10	V	143	PRO	N-CA-C	-6.30	106.47	114.35
2	C	163	ARG	N-CA-C	-6.30	98.01	108.34
8	T	120	SER	N-CA-C	6.30	118.15	111.28
10	V	155	LYS	N-CA-C	6.29	119.12	111.82
2	B	192	ASN	CA-C-N	6.29	128.71	120.28
2	B	192	ASN	C-N-CA	6.29	128.71	120.28
2	A	139	LEU	CA-C-N	6.29	127.70	119.84
2	A	139	LEU	C-N-CA	6.29	127.70	119.84
2	A	150	THR	N-CA-C	-6.29	105.28	114.39
1	8	48	PHE	CA-C-O	-6.28	112.25	118.34
2	A	469	SER	CA-C-N	6.28	128.60	120.44
2	A	469	SER	C-N-CA	6.28	128.60	120.44
2	C	396	LEU	CA-C-N	6.28	128.98	120.44
2	C	396	LEU	C-N-CA	6.28	128.98	120.44
2	C	403	ALA	N-CA-C	-6.28	105.26	113.17
3	E	387	ILE	CA-C-N	6.28	128.47	120.56
3	E	387	ILE	C-N-CA	6.28	128.47	120.56
3	E	467	VAL	O-C-N	6.28	128.06	121.91
9	U	134	GLU	CA-C-O	-6.28	112.75	119.97
1	8	23	GLY	CA-C-O	6.28	127.78	121.00
2	C	88	GLU	CA-C-O	6.28	127.84	120.69
2	B	497	ALA	O-C-N	-6.27	115.47	122.12
3	E	443	ALA	O-C-N	6.27	128.76	122.12
9	U	134	GLU	O-C-N	6.26	129.97	122.27
2	B	179	ALA	CA-C-N	6.26	128.44	120.56
2	B	179	ALA	C-N-CA	6.26	128.44	120.56
3	F	239	ILE	CA-C-O	6.26	127.46	120.95
8	T	221	MET	N-CA-C	6.25	117.76	111.07
3	D	161	VAL	N-CA-C	-6.25	106.41	112.29
2	A	345	ILE	CA-C-N	6.25	129.16	120.29
2	A	345	ILE	C-N-CA	6.25	129.16	120.29
3	E	120	ASP	CA-C-O	-6.25	114.38	120.19
2	A	122	PRO	N-CA-C	-6.24	101.34	111.77
7	O	86	VAL	N-CA-C	-6.24	103.07	111.44
1	0	20	LEU	CA-C-N	6.24	126.87	119.94
1	0	20	LEU	C-N-CA	6.24	126.87	119.94
3	D	450	ASP	O-C-N	-6.24	114.69	122.24
5	H	123	ALA	CA-C-N	6.24	128.64	120.28
5	H	123	ALA	C-N-CA	6.24	128.64	120.28
2	A	296	TYR	N-CA-C	-6.24	102.28	110.39
7	O	184	ILE	N-CA-C	-6.24	104.67	110.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	T	107	TYR	N-CA-C	-6.24	106.89	114.75
7	O	178	LEU	N-CA-C	-6.23	103.86	112.03
8	T	226	ILE	O-C-N	6.23	130.79	122.31
3	F	323	ALA	CA-C-N	6.23	128.63	120.28
3	F	323	ALA	C-N-CA	6.23	128.63	120.28
3	F	411	GLN	O-C-N	6.23	128.73	122.12
10	V	77	GLN	N-CA-C	-6.23	104.40	111.07
4	G	185	ALA	CA-C-O	6.23	127.14	119.97
3	E	348	VAL	N-CA-C	6.22	117.07	109.30
4	G	237	MET	N-CA-C	6.21	120.12	112.54
2	A	258	TRP	CA-C-N	6.21	128.84	120.65
2	A	258	TRP	C-N-CA	6.21	128.84	120.65
3	D	361	ALA	N-CA-C	-6.21	103.38	113.19
12	X	43	GLU	N-CA-C	-6.21	103.69	108.78
1	4	30	PHE	N-CA-C	6.20	119.02	111.82
2	B	310	ARG	N-CA-C	-6.20	105.47	113.16
2	B	352	ILE	CA-C-N	6.20	129.63	120.95
2	B	352	ILE	C-N-CA	6.20	129.63	120.95
3	E	429	GLY	CA-C-N	6.20	133.03	122.37
3	E	429	GLY	C-N-CA	6.20	133.03	122.37
1	5	43	ILE	CA-C-N	6.20	129.43	120.38
1	5	43	ILE	C-N-CA	6.20	129.43	120.38
1	5	55	PHE	CA-C-O	6.20	127.33	120.82
2	C	476	SER	CA-C-O	-6.19	114.52	120.90
3	D	305	THR	N-CA-C	-6.19	99.27	108.99
3	F	474	ALA	N-CA-C	6.19	118.03	111.28
10	V	161	PRO	O-C-N	6.19	127.13	122.73
2	A	19	LYS	N-CA-C	6.18	118.02	111.28
2	C	31	GLY	N-CA-C	-6.18	102.07	111.10
10	V	96	GLU	CA-C-O	-6.18	114.00	120.55
2	C	68	LEU	N-CA-C	-6.18	99.12	109.07
7	O	180	ILE	CA-C-N	6.17	128.47	120.44
7	O	180	ILE	C-N-CA	6.17	128.47	120.44
1	7	61	THR	CA-C-N	6.17	126.83	119.98
1	7	61	THR	C-N-CA	6.17	126.83	119.98
1	5	36	GLY	CA-C-N	6.17	129.18	120.42
1	5	36	GLY	C-N-CA	6.17	129.18	120.42
10	V	121	LEU	CA-C-O	-6.17	114.01	120.55
7	O	135	LYS	N-CA-C	6.17	118.08	111.36
1	9	35	ASN	CA-C-N	6.16	126.78	120.00
1	9	35	ASN	C-N-CA	6.16	126.78	120.00
6	I	19	GLN	O-C-N	-6.16	115.59	122.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	E	225	PRO	CA-C-N	6.16	127.54	119.84
3	E	225	PRO	C-N-CA	6.16	127.54	119.84
5	H	88	ILE	CA-C-N	6.16	132.21	122.36
5	H	88	ILE	C-N-CA	6.16	132.21	122.36
3	D	163	LYS	N-CA-C	6.16	117.66	111.07
5	H	40	GLY	CA-C-O	6.16	125.74	120.94
9	U	150	ALA	CA-C-N	6.15	129.03	120.29
9	U	150	ALA	C-N-CA	6.15	129.03	120.29
2	C	392	LEU	N-CA-C	6.15	117.98	111.28
3	E	306	SER	N-CA-C	-6.15	98.97	109.24
3	F	403	THR	CA-C-N	6.15	128.89	120.46
3	F	403	THR	C-N-CA	6.15	128.89	120.46
3	D	69	GLY	CA-C-O	6.15	127.07	121.66
3	D	106	ARG	CA-C-N	6.15	131.53	121.87
3	D	106	ARG	C-N-CA	6.15	131.53	121.87
10	V	31	SER	CA-C-N	6.15	128.44	120.44
10	V	31	SER	C-N-CA	6.15	128.44	120.44
2	B	483	THR	N-CA-C	6.15	117.65	111.07
2	C	494	GLU	CA-C-N	6.14	129.01	120.29
2	C	494	GLU	C-N-CA	6.14	129.01	120.29
3	E	134	LEU	N-CA-C	-6.14	100.90	110.42
1	7	27	ALA	N-CA-C	6.14	117.64	111.07
2	A	153	LYS	CA-C-O	6.14	127.47	120.90
4	G	13	ILE	CA-C-O	-6.14	114.57	120.95
2	A	175	THR	N-CA-C	-6.14	105.63	112.57
3	E	339	ILE	CA-C-N	6.14	129.01	120.29
3	E	339	ILE	C-N-CA	6.14	129.01	120.29
1	3	7	ALA	CA-C-N	6.14	128.50	120.28
1	3	7	ALA	C-N-CA	6.14	128.50	120.28
2	A	46	LEU	CA-C-N	6.14	128.50	120.28
2	A	46	LEU	C-N-CA	6.14	128.50	120.28
2	B	139	LEU	CA-C-O	-6.14	111.75	120.16
3	D	446	GLU	N-CA-C	-6.14	105.55	113.16
8	T	140	VAL	CA-C-N	6.13	129.11	120.28
8	T	140	VAL	C-N-CA	6.13	129.11	120.28
1	4	58	SER	CA-C-N	6.13	128.49	120.28
1	4	58	SER	C-N-CA	6.13	128.49	120.28
3	D	243	PHE	N-CA-C	-6.13	104.60	111.28
3	E	247	GLU	N-CA-C	6.12	117.95	111.28
3	D	450	ASP	CA-C-O	6.12	126.60	119.32
1	2	41	PRO	CA-C-O	6.12	125.29	118.38
2	B	185	ILE	O-C-N	6.11	128.13	121.83

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	U	120	THR	CA-C-N	6.11	128.47	120.28
9	U	120	THR	C-N-CA	6.11	128.47	120.28
2	C	268	ILE	O-C-N	-6.11	116.83	123.18
7	O	108	PHE	CA-C-O	-6.11	114.07	120.55
9	U	105	ASP	N-CA-C	-6.11	104.62	111.28
10	V	57	HIS	N-CA-C	-6.11	105.78	113.72
1	8	55	PHE	CA-C-N	6.11	128.38	120.44
1	8	55	PHE	C-N-CA	6.11	128.38	120.44
2	A	116	PRO	CA-C-N	6.11	131.21	122.72
2	A	116	PRO	C-N-CA	6.11	131.21	122.72
2	B	23	ASP	CA-C-O	-6.11	114.32	121.16
8	T	69	ILE	CA-C-O	-6.11	113.34	119.20
2	C	463	ILE	CA-C-N	6.11	126.72	119.94
2	C	463	ILE	C-N-CA	6.11	126.72	119.94
10	V	123	ASN	CA-C-O	-6.11	114.08	120.55
3	F	61	THR	CA-C-O	6.10	128.66	121.58
1	4	15	SER	CA-C-N	6.10	129.06	120.28
1	4	15	SER	C-N-CA	6.10	129.06	120.28
3	D	338	GLY	CA-C-N	6.10	129.08	120.42
3	D	338	GLY	C-N-CA	6.10	129.08	120.42
9	U	138	PHE	N-CA-C	6.10	117.93	111.28
4	G	267	LEU	CA-C-N	6.10	128.81	120.46
4	G	267	LEU	C-N-CA	6.10	128.81	120.46
2	B	12	SER	N-CA-C	6.09	117.72	111.14
9	U	187	PRO	CA-C-N	6.09	129.06	120.28
9	U	187	PRO	C-N-CA	6.09	129.06	120.28
2	B	31	GLY	N-CA-C	-6.09	101.83	110.91
2	C	381	GLN	CA-C-N	6.09	128.66	120.50
2	C	381	GLN	C-N-CA	6.09	128.66	120.50
1	8	67	MET	N-CA-C	6.08	117.99	111.36
5	H	19	GLU	N-CA-C	-6.08	99.45	108.99
9	U	115	ASN	CA-C-N	6.08	129.10	120.53
9	U	115	ASN	C-N-CA	6.08	129.10	120.53
1	4	19	LEU	CA-C-N	6.07	128.42	120.28
1	4	19	LEU	C-N-CA	6.07	128.42	120.28
2	A	177	LYS	O-C-N	6.07	129.07	122.15
3	D	97	ASN	CA-C-N	6.07	130.07	120.47
3	D	97	ASN	C-N-CA	6.07	130.07	120.47
3	D	167	ILE	N-CA-C	6.07	116.81	110.62
3	F	121	PRO	CA-C-O	-6.07	111.75	120.56
2	C	260	ARG	CA-C-N	6.07	128.91	120.29
2	C	260	ARG	C-N-CA	6.07	128.91	120.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	T	233	VAL	CA-C-N	6.07	128.33	120.44
8	T	233	VAL	C-N-CA	6.07	128.33	120.44
3	F	347	ALA	CA-C-N	6.07	128.63	120.50
3	F	347	ALA	C-N-CA	6.07	128.63	120.50
7	O	138	GLU	N-CA-C	6.07	117.56	111.07
1	6	72	LEU	N-CA-C	6.07	117.89	111.28
4	G	157	GLY	CA-C-N	6.07	128.69	120.38
4	G	157	GLY	C-N-CA	6.07	128.69	120.38
2	C	153	LYS	O-C-N	6.06	128.31	122.07
3	E	64	MET	N-CA-C	-6.06	105.18	113.30
4	G	75	VAL	O-C-N	-6.06	116.52	123.00
10	V	172	VAL	N-CA-C	-6.06	104.60	110.72
1	6	36	GLY	O-C-N	-6.05	116.38	122.19
1	9	19	LEU	N-CA-C	6.05	118.67	111.71
2	C	298	GLY	CA-C-O	-6.05	112.31	119.45
3	F	157	GLY	CA-C-N	6.05	130.76	122.04
3	F	157	GLY	C-N-CA	6.05	130.76	122.04
3	F	304	VAL	N-CA-C	-6.05	98.81	107.77
8	T	146	VAL	CA-C-N	6.05	127.41	119.84
8	T	146	VAL	C-N-CA	6.05	127.41	119.84
1	9	58	SER	CA-C-N	6.05	128.39	120.28
1	9	58	SER	C-N-CA	6.05	128.39	120.28
2	B	377	GLY	CA-C-N	6.05	130.71	122.84
2	B	377	GLY	C-N-CA	6.05	130.71	122.84
2	C	230	TYR	N-CA-C	-6.05	103.51	113.50
3	D	184	PHE	N-CA-C	-6.05	98.87	108.73
1	8	49	PRO	CA-C-N	6.05	128.88	120.29
1	8	49	PRO	C-N-CA	6.05	128.88	120.29
3	D	436	ASP	O-C-N	-6.04	114.12	122.46
3	D	17	ILE	N-CA-C	-6.04	98.99	108.23
8	T	159	VAL	N-CA-C	-6.04	105.18	111.58
3	E	369	ASP	CA-C-N	6.03	128.73	120.46
3	E	369	ASP	C-N-CA	6.03	128.73	120.46
3	E	418	PHE	CA-C-N	6.03	130.80	120.72
3	E	418	PHE	C-N-CA	6.03	130.80	120.72
7	O	109	GLY	N-CA-C	6.03	119.97	112.73
2	B	218	LEU	CA-C-O	6.03	126.94	120.55
3	E	101	GLU	O-C-N	-6.03	113.92	121.70
4	G	170	VAL	N-CA-C	-6.03	104.64	110.42
1	5	3	LEU	O-C-N	6.02	128.50	122.12
1	9	9	TYR	CA-C-N	6.02	128.15	120.56
1	9	9	TYR	C-N-CA	6.02	128.15	120.56

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	34	LEU	O-C-N	6.02	128.65	122.09
1	6	43	ILE	CA-C-N	6.02	128.63	120.38
1	6	43	ILE	C-N-CA	6.02	128.63	120.38
11	W	58	GLY	CA-C-N	6.02	132.50	123.05
11	W	58	GLY	C-N-CA	6.02	132.50	123.05
1	6	24	ILE	N-CA-C	-6.01	104.64	110.42
2	A	314	LEU	N-CA-C	-6.01	101.58	110.48
2	C	328	VAL	O-C-N	-6.01	116.87	123.18
2	A	242	ALA	CA-C-N	6.01	126.44	119.47
2	A	242	ALA	C-N-CA	6.01	126.44	119.47
2	B	425	ARG	CA-C-N	6.01	128.33	120.28
2	B	425	ARG	C-N-CA	6.01	128.33	120.28
10	V	115	LYS	N-CA-C	6.01	118.79	111.82
2	C	270	TYR	N-CA-C	-6.01	98.94	108.73
11	W	47	ARG	CA-C-N	6.01	132.40	121.41
11	W	47	ARG	C-N-CA	6.01	132.40	121.41
2	B	376	VAL	CA-C-N	6.00	125.80	120.10
2	B	376	VAL	C-N-CA	6.00	125.80	120.10
3	D	35	ASN	CA-C-N	6.00	131.46	122.99
3	D	35	ASN	C-N-CA	6.00	131.46	122.99
3	D	416	GLN	N-CA-C	-6.00	95.61	107.91
8	T	212	PRO	CA-C-N	6.00	128.32	120.28
8	T	212	PRO	C-N-CA	6.00	128.32	120.28
10	V	68	ILE	CA-C-N	6.00	128.81	120.29
10	V	68	ILE	C-N-CA	6.00	128.81	120.29
4	G	204	ASN	N-CA-C	-6.00	104.48	112.94
1	2	73	LEU	CA-C-O	-6.00	114.52	120.70
1	6	66	LEU	CA-C-O	5.99	126.77	120.42
12	X	8	LEU	CA-C-N	5.99	128.58	120.44
12	X	8	LEU	C-N-CA	5.99	128.58	120.44
2	B	282	GLN	N-CA-C	-5.99	104.76	111.28
7	O	74	ILE	N-CA-C	5.98	118.53	111.05
10	V	49	GLN	O-C-N	-5.98	115.96	122.06
3	E	206	VAL	N-CA-C	-5.98	106.91	112.83
3	F	95	ILE	N-CA-C	-5.98	99.87	108.48
1	9	28	ILE	CA-C-O	-5.98	114.51	120.85
3	D	218	VAL	CA-C-O	-5.97	114.23	120.27
5	H	26	GLU	CA-C-N	5.97	132.72	121.97
5	H	26	GLU	C-N-CA	5.97	132.72	121.97
2	C	236	ALA	CA-C-N	5.97	133.85	121.32
2	C	236	ALA	C-N-CA	5.97	133.85	121.32
3	E	91	THR	N-CA-C	-5.97	105.58	112.92

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	C	178	THR	N-CA-C	-5.96	104.85	111.71
4	G	209	LEU	CA-C-O	-5.96	114.23	120.55
4	G	99	LEU	CA-C-O	5.96	125.95	119.15
3	E	210	GLU	CA-C-O	5.96	126.49	119.28
1	4	72	LEU	CA-C-N	5.96	128.55	120.44
1	4	72	LEU	C-N-CA	5.96	128.55	120.44
3	D	319	ASP	O-C-N	-5.96	114.76	121.43
7	O	52	LYS	CA-C-O	5.96	126.84	120.70
2	B	93	THR	N-CA-C	-5.96	104.87	111.36
3	D	30	LEU	CA-C-N	5.96	126.78	120.11
3	D	30	LEU	C-N-CA	5.96	126.78	120.11
5	H	121	ALA	CA-C-N	5.96	128.26	120.28
5	H	121	ALA	C-N-CA	5.96	128.26	120.28
2	C	208	VAL	O-C-N	5.96	129.43	123.18
2	C	326	LEU	CA-C-N	5.95	125.71	119.76
2	C	326	LEU	C-N-CA	5.95	125.71	119.76
1	1	48	PHE	CA-C-N	5.95	125.82	119.28
1	1	48	PHE	C-N-CA	5.95	125.82	119.28
2	B	375	ARG	N-CA-C	-5.95	104.73	112.23
2	C	381	GLN	CA-C-O	5.95	127.12	120.70
11	W	18	ALA	O-C-N	-5.94	114.49	121.32
1	3	14	ILE	CA-C-N	5.94	128.84	120.28
1	3	14	ILE	C-N-CA	5.94	128.84	120.28
7	O	55	HIS	N-CA-C	-5.94	105.37	114.16
1	7	48	PHE	CA-C-N	5.94	126.09	119.32
1	7	48	PHE	C-N-CA	5.94	126.09	119.32
1	7	71	LEU	CA-C-N	5.94	128.72	120.29
1	7	71	LEU	C-N-CA	5.94	128.72	120.29
1	8	20	LEU	O-C-N	5.94	128.41	122.12
3	F	324	THR	CA-C-N	5.94	128.83	120.28
3	F	324	THR	C-N-CA	5.94	128.83	120.28
4	G	153	VAL	N-CA-C	5.94	116.58	110.82
8	T	91	THR	N-CA-C	-5.94	104.75	112.23
3	F	325	THR	CA-C-N	5.93	128.72	120.29
3	F	325	THR	C-N-CA	5.93	128.72	120.29
10	V	85	ALA	O-C-N	5.93	128.18	122.07
2	C	135	ALA	CA-C-O	-5.93	114.29	120.87
3	D	34	LEU	O-C-N	-5.93	114.50	121.97
1	6	22	ALA	CA-C-N	5.93	126.52	120.00
1	6	22	ALA	C-N-CA	5.93	126.52	120.00
10	V	69	ASP	N-CA-C	-5.93	104.90	111.36
1	6	71	LEU	N-CA-C	-5.92	104.82	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	3	53	LEU	CA-C-O	-5.92	114.61	120.82
1	7	36	GLY	CA-C-O	5.92	127.39	121.00
2	C	336	VAL	O-C-N	-5.92	116.78	122.16
3	E	454	GLU	N-CA-C	5.92	117.73	111.28
11	W	51	TYR	CA-C-N	5.92	129.30	120.31
11	W	51	TYR	C-N-CA	5.92	129.30	120.31
2	A	178	THR	CA-C-N	5.91	128.48	120.44
2	A	178	THR	C-N-CA	5.91	128.48	120.44
2	C	492	SER	N-CA-C	-5.91	100.35	109.52
1	7	12	ALA	CA-C-N	5.91	126.38	119.94
1	7	12	ALA	C-N-CA	5.91	126.38	119.94
2	B	156	ASP	CA-C-N	5.91	128.20	120.28
2	B	156	ASP	C-N-CA	5.91	128.20	120.28
11	W	50	ARG	CA-C-N	5.91	128.68	120.29
11	W	50	ARG	C-N-CA	5.91	128.68	120.29
1	8	52	ILE	CA-C-N	5.91	128.12	120.44
1	8	52	ILE	C-N-CA	5.91	128.12	120.44
1	4	14	ILE	CA-C-O	5.91	127.09	120.95
3	D	136	THR	N-CA-C	-5.90	100.18	109.50
3	F	168	GLN	CA-C-N	5.90	128.67	120.29
3	F	168	GLN	C-N-CA	5.90	128.67	120.29
3	D	392	GLY	CA-C-O	-5.90	116.47	121.66
3	F	185	THR	N-CA-C	-5.90	98.79	108.76
2	A	424	GLU	CA-C-N	5.89	128.43	120.65
2	A	424	GLU	C-N-CA	5.89	128.43	120.65
1	0	10	ILE	CA-C-O	5.89	127.41	121.17
5	H	132	ASN	N-CA-C	5.89	117.70	111.28
1	5	54	GLY	CA-C-N	5.88	128.09	120.44
1	5	54	GLY	C-N-CA	5.88	128.09	120.44
3	E	38	GLU	CA-C-N	5.88	130.43	122.90
3	E	38	GLU	C-N-CA	5.88	130.43	122.90
2	B	464	GLY	O-C-N	-5.88	116.49	122.19
2	A	229	LYS	CA-C-N	5.88	131.42	122.37
2	A	229	LYS	C-N-CA	5.88	131.42	122.37
1	1	1	MET	CA-C-N	5.88	128.15	120.28
1	1	1	MET	C-N-CA	5.88	128.15	120.28
3	D	469	LYS	CA-C-N	5.88	128.16	120.28
3	D	469	LYS	C-N-CA	5.88	128.16	120.28
3	E	7	THR	CA-C-N	5.88	126.77	120.13
3	E	7	THR	C-N-CA	5.88	126.77	120.13
7	O	29	LYS	N-CA-C	-5.88	106.11	113.28
10	V	47	GLN	CA-C-N	5.88	132.76	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	V	47	GLN	C-N-CA	5.88	132.76	121.54
1	6	53	LEU	CA-C-N	5.88	126.46	120.00
1	6	53	LEU	C-N-CA	5.88	126.46	120.00
5	H	32	LEU	CA-C-O	-5.88	113.82	120.46
7	O	162	GLU	CA-C-N	5.87	129.07	120.91
7	O	162	GLU	C-N-CA	5.87	129.07	120.91
7	O	127	GLU	N-CA-C	-5.87	102.94	108.22
2	A	501	SER	CA-C-N	5.87	128.95	120.79
2	A	501	SER	C-N-CA	5.87	128.95	120.79
13	Y	24	TYR	CA-C-N	5.87	128.14	120.28
13	Y	24	TYR	C-N-CA	5.87	128.14	120.28
2	B	468	SER	CA-C-N	5.87	128.62	120.29
2	B	468	SER	C-N-CA	5.87	128.62	120.29
1	5	30	PHE	CA-C-N	5.86	128.14	120.28
1	5	30	PHE	C-N-CA	5.86	128.14	120.28
13	Y	24	TYR	CA-C-O	5.86	126.98	120.82
2	C	295	ALA	N-CA-C	5.86	119.74	112.24
3	E	312	VAL	CA-C-N	5.86	127.16	119.84
3	E	312	VAL	C-N-CA	5.86	127.16	119.84
3	F	148	ALA	N-CA-C	-5.86	100.42	109.14
2	A	340	ILE	O-C-N	-5.85	114.43	121.10
12	X	6	LEU	CA-C-N	5.85	128.05	120.44
12	X	6	LEU	C-N-CA	5.85	128.05	120.44
2	B	466	PHE	CA-C-O	5.85	126.96	120.82
3	E	268	VAL	CA-C-N	5.85	128.04	120.44
3	E	268	VAL	C-N-CA	5.85	128.04	120.44
8	T	143	SER	CA-C-N	5.85	129.20	120.31
8	T	143	SER	C-N-CA	5.85	129.20	120.31
2	B	29	GLU	CA-C-O	5.84	125.81	119.15
2	A	64	MET	CA-C-N	5.84	130.86	122.21
2	A	64	MET	C-N-CA	5.84	130.86	122.21
3	E	137	GLY	N-CA-C	-5.84	106.44	115.73
3	F	378	LEU	CA-C-N	5.84	128.58	120.29
3	F	378	LEU	C-N-CA	5.84	128.58	120.29
4	G	89	SER	N-CA-C	-5.84	106.29	113.41
8	T	28	THR	CA-C-N	5.84	128.42	120.54
8	T	28	THR	C-N-CA	5.84	128.42	120.54
2	A	440	THR	CA-C-N	5.83	132.60	122.56
2	A	440	THR	C-N-CA	5.83	132.60	122.56
2	A	380	ALA	CA-C-N	5.83	129.00	120.71
2	A	380	ALA	C-N-CA	5.83	129.00	120.71
2	C	192	ASN	CA-C-N	5.83	128.09	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	C	192	ASN	C-N-CA	5.83	128.09	120.28
3	D	135	GLU	CA-C-O	-5.83	115.21	121.56
8	T	133	GLY	CA-C-O	-5.83	114.48	120.66
10	V	107	GLU	O-C-N	5.83	128.07	122.07
14	Z	40	VAL	CA-C-O	5.83	126.77	120.47
1	5	11	GLY	N-CA-C	5.83	120.23	112.77
1	8	43	ILE	CA-C-N	5.83	128.36	120.38
1	8	43	ILE	C-N-CA	5.83	128.36	120.38
9	U	201	ILE	CA-C-N	5.83	128.09	120.28
9	U	201	ILE	C-N-CA	5.83	128.09	120.28
2	B	104	GLY	CA-C-N	5.83	131.64	122.49
2	B	104	GLY	C-N-CA	5.83	131.64	122.49
2	C	457	GLY	CA-C-N	5.83	131.10	122.71
2	C	457	GLY	C-N-CA	5.83	131.10	122.71
4	G	13	ILE	O-C-N	5.82	127.52	121.87
4	G	110	ILE	CA-C-N	5.82	131.56	122.01
4	G	110	ILE	C-N-CA	5.82	131.56	122.01
1	3	26	ILE	N-CA-C	5.82	116.55	110.62
8	T	212	PRO	CA-C-O	-5.81	110.80	119.34
1	3	56	ALA	CA-C-N	5.81	128.07	120.28
1	3	56	ALA	C-N-CA	5.81	128.07	120.28
3	D	102	PRO	O-C-N	5.81	129.69	123.01
3	D	324	THR	CA-C-O	-5.81	114.39	120.55
3	E	180	GLY	CA-C-O	-5.81	116.19	122.47
4	G	247	MET	CA-C-N	5.81	128.42	120.46
4	G	247	MET	C-N-CA	5.81	128.42	120.46
9	U	97	ASN	CA-C-N	5.81	127.99	120.44
9	U	97	ASN	C-N-CA	5.81	127.99	120.44
1	9	44	LYS	CA-C-O	-5.81	114.39	120.55
2	C	254	SER	CA-C-N	5.80	127.87	120.56
2	C	254	SER	C-N-CA	5.80	127.87	120.56
7	O	158	VAL	CA-C-O	-5.80	115.58	121.67
8	T	109	PHE	N-CA-C	-5.80	99.59	108.76
2	C	419	THR	CA-C-N	5.80	128.53	120.29
2	C	419	THR	C-N-CA	5.80	128.53	120.29
4	G	229	GLU	O-C-N	-5.80	116.09	122.07
10	V	94	SER	CA-C-N	5.80	128.33	120.44
10	V	94	SER	C-N-CA	5.80	128.33	120.44
4	G	221	ALA	CA-C-N	5.80	128.05	120.28
4	G	221	ALA	C-N-CA	5.80	128.05	120.28
2	A	185	ILE	CA-C-N	5.80	130.54	120.68
2	A	185	ILE	C-N-CA	5.80	130.54	120.68

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	T	207	VAL	N-CA-C	-5.80	100.23	108.58
2	B	27	LEU	N-CA-C	-5.79	104.04	113.19
3	E	420	VAL	N-CA-C	-5.79	104.53	113.16
8	T	232	TYR	CA-C-N	5.79	128.64	120.42
8	T	232	TYR	C-N-CA	5.79	128.64	120.42
1	2	55	PHE	CA-C-N	5.79	128.31	120.44
1	2	55	PHE	C-N-CA	5.79	128.31	120.44
2	B	300	VAL	CA-C-N	5.79	128.51	120.29
2	B	300	VAL	C-N-CA	5.79	128.51	120.29
2	A	311	ALA	CA-C-O	-5.79	114.16	120.81
3	E	136	THR	N-CA-C	-5.78	99.98	109.40
3	E	276	PRO	CA-C-O	-5.78	114.21	120.97
10	V	53	VAL	N-CA-C	-5.78	99.90	107.88
10	V	22	THR	N-CA-C	-5.78	100.38	109.50
10	V	121	LEU	CA-C-N	5.78	128.02	120.28
10	V	121	LEU	C-N-CA	5.78	128.02	120.28
3	E	35	ASN	CA-C-O	-5.77	114.84	121.82
1	2	1	MET	CA-C-N	5.77	128.58	120.28
1	2	1	MET	C-N-CA	5.77	128.58	120.28
1	4	11	GLY	CA-C-N	5.77	128.01	120.28
1	4	11	GLY	C-N-CA	5.77	128.01	120.28
3	D	469	LYS	N-CA-C	5.76	117.56	111.28
1	0	7	ALA	CA-C-O	-5.76	114.77	120.82
3	E	254	PHE	N-CA-C	-5.76	99.27	109.06
3	F	316	ASP	CA-C-N	5.76	132.05	122.54
3	F	316	ASP	C-N-CA	5.76	132.05	122.54
2	B	237	THR	N-CA-C	-5.76	103.10	110.53
8	T	71	ASN	CA-C-O	-5.76	111.74	119.11
2	C	242	ALA	O-C-N	-5.76	115.28	120.92
1	2	59	GLU	CA-C-N	5.75	128.31	120.54
1	2	59	GLU	C-N-CA	5.75	128.31	120.54
2	B	105	LEU	CA-C-O	5.75	126.91	119.95
3	D	395	GLU	CA-C-N	5.75	128.88	120.71
3	D	395	GLU	C-N-CA	5.75	128.88	120.71
2	C	305	SER	CA-C-O	5.75	126.52	120.42
2	C	473	TYR	CA-C-N	5.75	127.99	120.28
2	C	473	TYR	C-N-CA	5.75	127.99	120.28
1	0	59	GLU	CA-C-N	5.75	127.98	120.28
1	0	59	GLU	C-N-CA	5.75	127.98	120.28
2	A	502	ALA	CA-C-N	5.74	127.91	120.44
2	A	502	ALA	C-N-CA	5.74	127.91	120.44
2	B	491	LEU	N-CA-C	-5.74	100.82	109.95

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A	504	GLU	CA-C-N	5.74	127.91	120.44
2	A	504	GLU	C-N-CA	5.74	127.91	120.44
2	B	259	PHE	CA-C-N	5.74	127.97	120.28
2	B	259	PHE	C-N-CA	5.74	127.97	120.28
3	E	96	ILE	N-CA-C	-5.74	99.91	108.46
12	X	41	GLU	N-CA-C	-5.74	102.41	110.50
2	C	234	VAL	N-CA-C	-5.74	100.32	108.58
2	C	456	ASP	N-CA-C	-5.74	106.32	113.38
3	F	80	GLY	N-CA-C	-5.74	106.74	115.00
10	V	17	SER	N-CA-C	5.74	118.48	111.82
2	C	232	ILE	O-C-N	5.74	129.24	123.10
11	W	14	ASN	CA-C-O	-5.74	112.41	119.18
3	D	129	THR	N-CA-C	-5.74	106.33	113.38
3	D	404	VAL	N-CA-C	-5.73	104.77	110.62
1	7	30	PHE	CA-C-N	5.73	127.89	120.44
1	7	30	PHE	C-N-CA	5.73	127.89	120.44
3	E	243	PHE	CA-C-N	5.73	128.43	120.29
3	E	243	PHE	C-N-CA	5.73	128.43	120.29
1	2	12	ALA	CA-C-N	5.72	126.30	119.94
1	2	12	ALA	C-N-CA	5.72	126.30	119.94
2	A	241	ALA	N-CA-C	5.72	122.99	110.80
2	C	359	PHE	N-CA-C	-5.72	105.05	111.28
3	E	109	ILE	N-CA-C	-5.72	100.34	108.58
2	A	495	LEU	N-CA-C	5.72	118.37	111.40
3	D	107	GLY	CA-C-O	-5.72	113.35	121.52
3	D	256	ASP	N-CA-C	-5.72	98.62	110.80
3	E	307	VAL	N-CA-C	-5.72	99.89	108.12
3	D	268	VAL	CA-C-O	-5.71	114.30	120.47
2	C	281	ARG	O-C-N	5.71	128.17	122.12
11	W	60	ASN	N-CA-C	-5.71	98.64	110.80
1	3	5	LEU	N-CA-C	-5.71	105.14	111.36
2	B	381	GLN	N-CA-C	-5.71	100.64	109.14
3	D	267	GLU	O-C-N	-5.70	116.07	122.12
2	B	215	VAL	O-C-N	5.70	127.70	121.83
3	F	418	PHE	N-CA-C	-5.70	100.85	109.85
10	V	46	LEU	CA-C-N	5.70	130.37	120.68
10	V	46	LEU	C-N-CA	5.70	130.37	120.68
9	U	102	ALA	CA-C-O	-5.70	114.51	120.55
1	9	28	ILE	N-CA-C	-5.69	104.97	110.72
3	E	165	VAL	N-CA-C	5.69	116.43	110.62
1	5	12	ALA	CA-C-N	5.69	126.29	119.98
1	5	12	ALA	C-N-CA	5.69	126.29	119.98

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A	462	ARG	N-CA-C	5.69	119.69	112.87
3	D	263	GLN	CA-C-N	5.69	127.90	120.28
3	D	263	GLN	C-N-CA	5.69	127.90	120.28
2	C	73	VAL	N-CA-C	-5.68	99.45	107.75
1	1	12	ALA	CA-C-O	-5.68	114.53	120.55
4	G	72	GLU	CA-C-O	5.68	127.10	120.80
1	6	56	ALA	CA-C-N	5.67	128.16	120.44
1	6	56	ALA	C-N-CA	5.67	128.16	120.44
2	A	253	ALA	CA-C-N	5.67	127.88	120.28
2	A	253	ALA	C-N-CA	5.67	127.88	120.28
3	F	238	THR	CA-C-N	5.67	128.24	120.46
3	F	238	THR	C-N-CA	5.67	128.24	120.46
3	F	473	LEU	CA-C-N	5.67	127.89	120.28
3	F	473	LEU	C-N-CA	5.67	127.89	120.28
1	9	34	ILE	N-CA-C	5.67	116.45	110.72
3	D	288	ASP	O-C-N	5.67	128.13	122.12
10	V	95	PHE	O-C-N	5.67	128.21	122.09
1	4	35	ASN	N-CA-C	5.67	117.14	111.07
2	A	83	LEU	CA-C-O	5.67	125.61	119.15
3	F	400	ASP	CA-C-O	5.67	126.56	120.55
3	F	417	PRO	N-CA-C	-5.67	101.58	112.01
1	3	64	PHE	N-CA-C	-5.67	105.10	111.28
3	F	409	LYS	CA-C-O	-5.67	114.41	120.42
5	H	61	GLU	O-C-N	5.67	129.90	123.27
2	C	361	LYS	CA-C-N	5.67	132.51	121.41
2	C	361	LYS	C-N-CA	5.67	132.51	121.41
3	F	146	PRO	CA-C-O	-5.66	115.31	121.77
1	7	2	GLN	N-CA-C	5.66	117.14	110.97
3	E	199	ARG	N-CA-C	5.66	117.13	111.07
3	D	46	LEU	N-CA-C	-5.66	99.20	108.76
3	F	15	ALA	O-C-N	5.66	130.40	123.44
4	G	171	SER	N-CA-C	-5.66	100.70	109.24
2	B	446	LEU	CA-C-N	5.66	129.57	120.30
2	B	446	LEU	C-N-CA	5.66	129.57	120.30
1	0	57	LEU	O-C-N	-5.65	115.71	122.15
2	B	201	LEU	CA-C-N	5.65	130.71	122.85
2	B	201	LEU	C-N-CA	5.65	130.71	122.85
3	F	408	ARG	CA-C-N	-5.65	112.26	120.29
3	F	408	ARG	C-N-CA	-5.65	112.26	120.29
2	A	449	ALA	CA-C-O	-5.65	114.43	120.42
8	T	185	HIS	CA-C-N	5.65	127.85	120.28
8	T	185	HIS	C-N-CA	5.65	127.85	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A	254	SER	CA-C-N	5.65	127.68	120.56
2	A	254	SER	C-N-CA	5.65	127.68	120.56
1	3	22	ALA	CA-C-N	5.65	126.25	119.98
1	3	22	ALA	C-N-CA	5.65	126.25	119.98
13	Y	37	THR	CA-C-O	-5.64	111.20	120.80
5	H	132	ASN	O-C-N	-5.64	116.14	122.12
1	9	40	ASN	CA-C-O	-5.64	112.43	120.16
1	1	74	PHE	CA-C-O	-5.64	114.52	120.55
2	B	423	GLY	CA-C-N	5.64	127.83	120.28
2	B	423	GLY	C-N-CA	5.64	127.83	120.28
3	F	41	THR	O-C-N	-5.64	116.75	121.54
2	B	405	PHE	O-C-N	5.64	128.57	122.15
2	C	401	GLU	CA-C-N	5.64	129.64	121.52
2	C	401	GLU	C-N-CA	5.64	129.64	121.52
3	E	474	ALA	N-CA-C	5.64	117.50	111.36
9	U	141	LYS	CA-C-N	5.63	128.87	120.31
9	U	141	LYS	C-N-CA	5.63	128.87	120.31
1	2	21	GLY	CA-C-N	5.63	128.87	120.31
1	2	21	GLY	C-N-CA	5.63	128.87	120.31
2	B	437	PRO	CA-C-O	-5.63	115.03	121.96
2	A	185	ILE	CA-C-O	-5.63	115.09	120.95
2	C	260	ARG	N-CA-C	5.63	117.42	111.28
3	D	81	GLY	O-C-N	5.63	127.40	121.77
3	F	217	LEU	O-C-N	-5.63	116.40	123.27
3	D	347	ALA	N-CA-C	-5.63	106.27	113.02
2	A	397	ALA	CA-C-N	5.63	128.61	120.79
2	A	397	ALA	C-N-CA	5.63	128.61	120.79
2	C	261	ASP	CA-C-O	5.63	126.39	120.42
3	F	12	LYS	CA-C-N	5.62	128.04	120.50
3	F	12	LYS	C-N-CA	5.62	128.04	120.50
7	O	12	LEU	N-CA-C	-5.62	100.23	109.40
1	3	12	ALA	CA-C-N	5.62	126.18	119.94
1	3	12	ALA	C-N-CA	5.62	126.18	119.94
2	C	416	THR	O-C-N	-5.62	116.16	122.12
2	C	469	SER	O-C-N	-5.62	115.74	122.15
9	U	164	LEU	N-CA-C	5.62	118.17	111.71
2	A	169	ILE	N-CA-C	-5.62	99.66	107.80
3	F	241	GLU	N-CA-C	5.62	117.40	111.28
12	X	5	ASP	CA-C-N	5.62	127.74	120.44
12	X	5	ASP	C-N-CA	5.62	127.74	120.44
3	D	238	THR	CA-C-O	-5.61	114.60	120.55
11	W	22	LYS	O-C-N	5.61	129.17	122.27

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	8	27	ALA	N-CA-C	5.61	117.40	111.28
1	4	40	ASN	CA-C-N	5.61	126.85	119.84
1	4	40	ASN	C-N-CA	5.61	126.85	119.84
2	B	24	GLU	CA-C-N	5.61	132.57	123.93
2	B	24	GLU	C-N-CA	5.61	132.57	123.93
1	6	61	THR	CA-C-N	5.61	126.17	120.00
1	6	61	THR	C-N-CA	5.61	126.17	120.00
2	A	68	LEU	N-CA-C	-5.61	99.14	108.34
2	B	289	ARG	CA-C-O	-5.61	114.17	119.55
3	D	54	LEU	N-CA-C	-5.61	106.61	113.50
11	W	71	LEU	CA-C-N	5.61	126.20	119.98
11	W	71	LEU	C-N-CA	5.61	126.20	119.98
1	2	14	ILE	CA-C-N	5.60	127.79	120.28
1	2	14	ILE	C-N-CA	5.60	127.79	120.28
1	8	62	GLY	CA-C-O	-5.60	114.14	120.30
3	D	254	PHE	N-CA-C	-5.60	101.15	110.17
3	E	300	LYS	N-CA-C	-5.60	107.45	114.56
3	F	298	THR	N-CA-C	-5.60	98.06	108.02
2	B	341	PRO	CA-C-N	5.59	127.77	120.28
2	B	341	PRO	C-N-CA	5.59	127.77	120.28
3	E	151	GLY	CA-C-O	-5.59	115.34	121.71
3	E	382	LYS	O-C-N	-5.59	115.78	122.15
1	7	48	PHE	O-C-N	-5.59	115.46	120.71
1	2	7	ALA	N-CA-C	5.58	117.36	111.28
2	B	248	ALA	O-C-N	-5.58	115.51	120.48
3	F	254	PHE	N-CA-C	-5.58	99.21	108.75
2	C	213	SER	N-CA-C	5.58	117.36	111.28
2	C	204	VAL	O-C-N	-5.57	117.39	123.18
2	C	352	ILE	N-CA-C	-5.57	100.10	108.12
3	D	329	LEU	N-CA-C	5.57	117.88	110.53
3	E	121	PRO	CA-C-N	5.57	125.58	119.90
3	E	121	PRO	C-N-CA	5.57	125.58	119.90
4	G	262	VAL	O-C-N	-5.57	116.47	121.87
8	T	40	ILE	CA-C-O	-5.57	115.16	120.95
2	A	238	ALA	N-CA-C	-5.57	106.33	113.01
2	A	273	LEU	CA-C-O	-5.57	112.75	119.49
2	C	121	GLY	CA-C-N	5.57	125.52	119.78
2	C	121	GLY	C-N-CA	5.57	125.52	119.78
1	3	52	ILE	CA-C-N	5.57	127.68	120.44
1	3	52	ILE	C-N-CA	5.57	127.68	120.44
2	C	434	GLN	CA-C-O	-5.57	115.07	121.19
3	E	348	VAL	O-C-N	-5.57	116.60	122.67

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	F	110	LYS	CA-C-O	5.57	127.03	120.58
1	9	14	ILE	CA-C-N	5.56	128.29	120.28
1	9	14	ILE	C-N-CA	5.56	128.29	120.28
1	4	7	ALA	O-C-N	5.56	129.11	122.27
1	6	16	THR	CA-C-N	5.56	128.08	120.46
1	6	16	THR	C-N-CA	5.56	128.08	120.46
3	E	45	LYS	CA-C-N	5.56	130.83	122.99
3	E	45	LYS	C-N-CA	5.56	130.83	122.99
8	T	162	GLU	CA-C-N	5.56	128.76	120.31
8	T	162	GLU	C-N-CA	5.56	128.76	120.31
3	D	198	TYR	CA-C-N	5.55	127.66	120.44
3	D	198	TYR	C-N-CA	5.55	127.66	120.44
9	U	153	VAL	CA-C-N	5.55	127.72	120.28
9	U	153	VAL	C-N-CA	5.55	127.72	120.28
1	5	22	ALA	CA-C-N	5.55	126.10	119.94
1	5	22	ALA	C-N-CA	5.55	126.10	119.94
4	G	204	ASN	O-C-N	-5.55	115.47	122.19
10	V	138	LEU	CA-C-O	5.55	126.34	119.79
3	D	196	ASP	CA-C-N	5.55	127.72	120.28
3	D	196	ASP	C-N-CA	5.55	127.72	120.28
3	D	285	LEU	O-C-N	-5.55	116.32	122.09
9	U	188	LYS	CA-C-N	5.55	127.71	120.28
9	U	188	LYS	C-N-CA	5.55	127.71	120.28
3	E	472	LYS	N-CA-C	5.54	117.32	111.28
7	O	66	ASP	O-C-N	-5.54	115.45	122.27
10	V	163	TYR	N-CA-C	-5.54	107.52	114.56
2	A	487	GLU	CA-C-O	5.54	125.50	119.24
1	8	62	GLY	CA-C-N	5.54	127.64	120.44
1	8	62	GLY	C-N-CA	5.54	127.64	120.44
2	C	422	ARG	CA-C-N	5.54	126.09	120.00
2	C	422	ARG	C-N-CA	5.54	126.09	120.00
3	E	245	ASP	CA-C-O	-5.54	112.59	120.51
8	T	139	TRP	CA-C-O	5.54	126.37	119.78
2	A	211	LYS	CA-C-O	-5.53	115.28	121.81
3	D	468	ALA	CA-C-N	5.53	127.69	120.28
3	D	468	ALA	C-N-CA	5.53	127.69	120.28
3	D	13	VAL	CA-C-O	-5.53	114.74	121.04
3	D	122	PRO	CA-C-O	-5.53	115.04	121.95
3	E	207	ILE	N-CA-C	-5.53	100.52	108.48
2	C	170	ILE	O-C-N	-5.53	117.38	123.18
1	1	67	MET	CA-C-O	-5.52	114.56	120.42
3	E	190	ARG	CA-C-N	5.52	128.44	120.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	E	190	ARG	C-N-CA	5.52	128.44	120.38
2	A	34	LEU	N-CA-C	5.52	117.30	111.28
3	D	424	PHE	O-C-N	5.52	128.45	122.15
3	D	336	SER	CA-C-N	5.52	127.68	120.28
3	D	336	SER	C-N-CA	5.52	127.68	120.28
4	G	118	LEU	O-C-N	5.52	127.97	122.12
2	A	53	GLU	CA-C-O	-5.52	115.43	120.95
2	A	125	ALA	CA-C-O	-5.52	115.37	121.33
3	F	166	PHE	CA-C-N	5.52	128.02	120.46
3	F	166	PHE	C-N-CA	5.52	128.02	120.46
7	O	104	ILE	O-C-N	5.52	127.52	121.83
1	6	68	VAL	CA-C-N	5.51	127.61	120.44
1	6	68	VAL	C-N-CA	5.51	127.61	120.44
3	D	301	LYS	CA-C-N	5.51	127.38	122.47
3	D	301	LYS	C-N-CA	5.51	127.38	122.47
2	B	94	GLY	N-CA-C	-5.51	107.67	115.43
3	F	150	GLY	N-CA-C	-5.50	107.65	115.30
6	I	41	ASP	N-CA-C	-5.50	104.82	112.03
7	O	107	ASP	CA-C-N	5.50	127.66	120.28
7	O	107	ASP	C-N-CA	5.50	127.66	120.28
1	4	34	ILE	CA-C-N	5.50	127.59	120.44
1	4	34	ILE	C-N-CA	5.50	127.59	120.44
3	D	233	ALA	CA-C-N	5.50	128.67	120.31
3	D	233	ALA	C-N-CA	5.50	128.67	120.31
3	D	281	TYR	CA-C-O	5.50	127.88	121.44
3	E	271	LEU	N-CA-C	5.50	117.35	111.36
3	F	232	VAL	N-CA-C	-5.50	105.17	110.72
7	O	30	ASN	O-C-N	-5.50	115.07	122.22
12	X	17	ALA	O-C-N	-5.50	117.64	121.65
2	C	152	LEU	N-CA-C	-5.50	99.56	108.52
2	C	489	GLY	CA-C-N	5.50	131.38	122.53
2	C	489	GLY	C-N-CA	5.50	131.38	122.53
3	D	310	VAL	O-C-N	5.50	128.95	123.18
4	G	180	LYS	CA-C-O	5.50	125.39	120.34
7	O	161	PRO	CA-C-N	5.49	127.58	120.44
7	O	161	PRO	C-N-CA	5.49	127.58	120.44
3	E	442	LYS	CA-C-N	5.49	127.64	120.28
3	E	442	LYS	C-N-CA	5.49	127.64	120.28
2	C	205	TYR	N-CA-C	-5.49	99.95	108.90
3	F	356	ARG	CA-C-O	-5.49	114.60	120.42
3	E	278	ALA	CA-C-N	5.49	131.85	121.97
3	E	278	ALA	C-N-CA	5.49	131.85	121.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A	206	VAL	CA-C-O	-5.49	115.47	121.28
6	I	47	TYR	O-C-N	-5.49	117.00	123.25
8	T	57	ARG	N-CA-C	-5.48	106.63	113.38
2	B	18	ILE	N-CA-C	-5.48	104.20	111.05
8	T	49	ASN	CA-C-N	5.48	132.01	121.54
8	T	49	ASN	C-N-CA	5.48	132.01	121.54
9	U	192	LYS	CA-C-N	5.48	128.20	120.42
9	U	192	LYS	C-N-CA	5.48	128.20	120.42
1	3	73	LEU	CA-C-O	-5.48	115.06	120.70
3	F	410	ILE	CA-C-N	5.48	127.62	120.28
3	F	410	ILE	C-N-CA	5.48	127.62	120.28
3	E	427	ILE	N-CA-C	5.48	114.51	108.05
9	U	162	ALA	CA-C-O	-5.48	113.67	119.97
12	X	32	ASN	CA-C-O	-5.48	114.11	120.03
2	C	75	ILE	CA-C-N	5.48	130.31	123.14
2	C	75	ILE	C-N-CA	5.48	130.31	123.14
2	A	213	SER	O-C-N	-5.47	116.44	122.07
3	E	425	THR	N-CA-C	-5.47	106.33	114.64
5	H	36	SER	N-CA-C	-5.47	105.30	112.41
9	U	80	PHE	CA-C-N	5.47	127.61	120.28
9	U	80	PHE	C-N-CA	5.47	127.61	120.28
4	G	231	SER	CA-C-N	5.47	127.61	120.28
4	G	231	SER	C-N-CA	5.47	127.61	120.28
3	F	76	VAL	O-C-N	5.46	128.84	122.99
3	F	139	LYS	CA-C-O	-5.46	115.09	120.82
7	O	123	VAL	N-CA-C	-5.46	97.98	109.34
2	A	177	LYS	CA-C-O	-5.46	114.63	120.42
1	5	25	GLY	CA-C-N	5.46	127.94	120.46
1	5	25	GLY	C-N-CA	5.46	127.94	120.46
2	C	494	GLU	N-CA-C	-5.46	105.33	111.28
10	V	111	SER	CA-C-N	5.46	127.59	120.28
10	V	111	SER	C-N-CA	5.46	127.59	120.28
3	D	438	VAL	CA-C-N	5.46	127.59	120.28
3	D	438	VAL	C-N-CA	5.46	127.59	120.28
1	1	15	SER	CA-C-N	5.45	128.13	120.28
1	1	15	SER	C-N-CA	5.45	128.13	120.28
2	A	84	VAL	N-CA-C	-5.45	100.58	108.71
13	Y	25	TYR	N-CA-C	-5.45	105.34	111.28
9	U	174	LYS	CA-C-N	5.45	128.03	120.29
9	U	174	LYS	C-N-CA	5.45	128.03	120.29
4	G	269	ASP	CA-C-N	5.45	127.92	120.46
4	G	269	ASP	C-N-CA	5.45	127.92	120.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	68	VAL	O-C-N	5.45	127.15	121.87
3	E	176	LYS	N-CA-C	-5.44	106.64	113.72
3	F	97	ASN	CA-C-N	5.44	127.92	120.46
3	F	97	ASN	C-N-CA	5.44	127.92	120.46
7	O	30	ASN	N-CA-C	-5.44	105.34	112.41
2	B	89	LEU	N-CA-C	-5.44	101.99	110.42
1	6	23	GLY	CA-C-N	5.44	127.41	120.56
1	6	23	GLY	C-N-CA	5.44	127.41	120.56
3	D	64	MET	CA-C-O	5.44	125.39	118.54
3	F	414	LEU	N-CA-C	-5.44	105.27	112.94
5	H	59	VAL	N-CA-C	-5.44	100.36	108.46
1	6	63	LEU	N-CA-C	5.44	117.20	111.28
8	T	178	GLY	CA-C-N	5.43	128.00	120.29
8	T	178	GLY	C-N-CA	5.43	128.00	120.29
12	X	59	GLU	N-CA-C	-5.43	106.42	113.16
4	G	28	SER	CA-C-N	5.43	127.50	120.44
4	G	28	SER	C-N-CA	5.43	127.50	120.44
2	B	208	VAL	N-CA-C	-5.43	100.31	108.12
1	8	52	ILE	N-CA-C	5.42	116.15	110.62
2	A	53	GLU	O-C-N	5.42	129.18	123.11
3	E	442	LYS	O-C-N	5.42	127.87	122.12
2	C	165	GLN	CA-C-O	-5.42	115.65	121.45
3	E	39	ILE	N-CA-C	-5.42	100.08	107.99
1	7	4	VAL	CA-C-N	5.42	127.98	120.29
1	7	4	VAL	C-N-CA	5.42	127.98	120.29
2	A	31	GLY	N-CA-C	-5.42	104.41	113.02
8	T	137	HIS	N-CA-C	-5.41	104.09	111.56
7	O	12	LEU	CA-C-O	5.41	126.54	120.70
2	B	317	LYS	CA-C-O	5.41	126.28	120.55
6	I	14	LEU	CA-C-N	5.41	127.47	120.44
6	I	14	LEU	C-N-CA	5.41	127.47	120.44
10	V	161	PRO	CA-C-O	-5.40	115.28	121.11
1	7	56	ALA	O-C-N	5.40	127.84	122.12
2	A	141	ARG	CA-C-O	-5.40	115.46	121.51
2	C	130	ARG	CA-C-O	-5.40	115.67	121.56
11	W	78	TYR	N-CA-C	5.40	116.97	111.14
3	E	145	ALA	CA-C-N	5.40	125.66	119.83
3	E	145	ALA	C-N-CA	5.40	125.66	119.83
1	1	61	THR	CA-C-N	5.39	125.97	119.98
1	1	61	THR	C-N-CA	5.39	125.97	119.98
2	A	350	GLY	O-C-N	5.39	127.45	122.81
3	E	466	VAL	O-C-N	5.39	127.20	121.91

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	F	388	ILE	CA-C-N	5.39	127.51	120.28
3	F	388	ILE	C-N-CA	5.39	127.51	120.28
1	2	65	CYS	N-CA-C	5.39	116.84	111.07
2	B	426	LEU	CA-C-N	5.39	127.50	120.28
2	B	426	LEU	C-N-CA	5.39	127.50	120.28
3	E	220	GLY	N-CA-C	-5.39	102.89	112.54
2	A	45	GLY	N-CA-C	-5.39	103.04	112.53
4	G	43	LYS	O-C-N	-5.39	116.41	122.12
1	7	17	ILE	N-CA-C	-5.39	105.13	110.62
2	B	505	SER	CA-C-N	-5.38	113.84	122.62
2	B	505	SER	C-N-CA	-5.38	113.84	122.62
3	D	23	VAL	N-CA-C	-5.38	100.44	108.46
2	C	414	ALA	N-CA-C	5.38	117.57	111.11
1	0	55	PHE	N-CA-C	5.38	116.83	111.07
2	B	339	TYR	N-CA-C	5.38	116.82	111.07
2	A	361	LYS	CA-C-O	5.37	125.99	119.11
2	C	450	GLY	CA-C-N	5.37	129.11	120.30
2	C	450	GLY	C-N-CA	5.37	129.11	120.30
2	A	143	SER	CA-C-O	5.37	127.42	121.56
2	A	215	VAL	CA-C-O	-5.37	115.48	121.17
3	D	437	THR	O-C-N	5.37	127.60	122.07
2	B	340	ILE	CA-C-N	5.37	124.70	118.85
2	B	340	ILE	C-N-CA	5.37	124.70	118.85
1	7	70	PHE	O-C-N	5.36	127.80	122.12
3	F	193	GLU	N-CA-C	5.36	117.21	111.36
4	G	189	GLU	N-CA-C	5.36	117.13	111.28
3	E	101	GLU	N-CA-C	-5.36	102.22	110.32
3	E	228	ALA	CA-C-N	5.36	127.90	120.29
3	E	228	ALA	C-N-CA	5.36	127.90	120.29
3	F	226	PRO	CA-C-N	5.36	125.93	119.98
3	F	226	PRO	C-N-CA	5.36	125.93	119.98
1	2	35	ASN	O-C-N	5.36	128.26	122.15
2	A	21	VAL	CA-C-N	5.36	131.78	121.54
2	A	21	VAL	C-N-CA	5.36	131.78	121.54
2	A	289	ARG	O-C-N	-5.36	113.77	121.54
8	T	93	PHE	CA-C-N	5.36	128.46	120.31
8	T	93	PHE	C-N-CA	5.36	128.46	120.31
2	C	315	SER	CA-C-N	5.36	129.67	120.72
2	C	315	SER	C-N-CA	5.36	129.67	120.72
4	G	73	LEU	CA-C-N	5.36	130.39	122.94
4	G	73	LEU	C-N-CA	5.36	130.39	122.94
9	U	192	LYS	CA-C-O	5.36	125.54	119.27

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
14	Z	44	PHE	N-CA-C	-5.36	105.10	111.69
3	F	290	GLY	N-CA-C	5.36	119.16	112.73
2	B	37	GLY	O-C-N	-5.35	115.74	122.70
9	U	86	LYS	N-CA-C	5.35	117.11	111.28
4	G	87	ILE	O-C-N	5.35	127.06	121.87
6	I	18	ALA	CA-C-N	5.35	127.45	120.28
6	I	18	ALA	C-N-CA	5.35	127.45	120.28
2	B	30	THR	N-CA-C	-5.35	101.28	109.41
1	4	1	MET	CA-C-N	5.35	127.39	120.44
1	4	1	MET	C-N-CA	5.35	127.39	120.44
5	H	59	VAL	CA-C-N	5.35	131.31	122.33
5	H	59	VAL	C-N-CA	5.35	131.31	122.33
2	C	324	THR	CA-C-O	-5.35	115.73	121.56
1	7	36	GLY	O-C-N	-5.34	117.05	122.18
2	B	195	SER	CA-C-N	5.34	131.74	121.54
2	B	195	SER	C-N-CA	5.34	131.74	121.54
3	E	399	GLN	N-CA-C	-5.34	105.38	111.14
4	G	202	ASP	N-CA-C	-5.34	106.64	112.72
9	U	54	ASP	CA-C-N	5.33	129.63	120.72
9	U	54	ASP	C-N-CA	5.33	129.63	120.72
1	8	32	ALA	O-C-N	5.33	127.77	122.12
14	Z	5	VAL	O-C-N	-5.33	115.02	121.10
1	5	58	SER	CA-C-N	5.33	127.42	120.28
1	5	58	SER	C-N-CA	5.33	127.42	120.28
2	A	152	LEU	CA-C-N	5.33	127.74	120.54
2	A	152	LEU	C-N-CA	5.33	127.74	120.54
7	O	188	ASN	CA-C-O	-5.33	115.21	120.70
2	C	30	THR	CA-C-N	5.33	127.13	121.48
2	C	30	THR	C-N-CA	5.33	127.13	121.48
2	A	283	LEU	N-CA-C	5.33	117.84	111.71
2	C	302	TYR	CA-C-N	5.33	127.37	120.44
2	C	302	TYR	C-N-CA	5.33	127.37	120.44
3	D	243	PHE	CA-C-N	5.33	127.37	120.44
3	D	243	PHE	C-N-CA	5.33	127.37	120.44
3	D	114	ARG	N-CA-C	-5.33	101.20	109.72
4	G	48	GLU	CA-C-O	5.33	126.06	120.42
2	B	276	GLN	CA-C-N	5.32	127.85	120.29
2	B	276	GLN	C-N-CA	5.32	127.85	120.29
2	B	303	LEU	CA-C-N	5.32	127.85	120.29
2	B	303	LEU	C-N-CA	5.32	127.85	120.29
3	F	101	GLU	CA-C-N	5.32	126.50	119.84
3	F	101	GLU	C-N-CA	5.32	126.50	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	H	65	SER	CA-C-N	5.32	131.35	122.73
5	H	65	SER	C-N-CA	5.32	131.35	122.73
2	C	92	ARG	CA-C-N	5.32	127.85	120.29
2	C	92	ARG	C-N-CA	5.32	127.85	120.29
13	Y	11	LYS	CA-C-N	5.32	127.37	120.56
13	Y	11	LYS	C-N-CA	5.32	127.37	120.56
2	A	22	SER	N-CA-C	5.32	122.13	110.80
4	G	168	ASP	N-CA-C	-5.32	102.95	109.65
7	O	44	GLU	CA-C-N	5.32	127.84	120.29
7	O	44	GLU	C-N-CA	5.32	127.84	120.29
3	D	176	LYS	O-C-N	5.32	127.76	122.12
9	U	153	VAL	N-CA-C	5.32	116.05	110.62
1	8	44	LYS	CA-C-N	5.32	128.39	120.31
1	8	44	LYS	C-N-CA	5.32	128.39	120.31
1	8	59	GLU	CA-C-N	5.32	127.41	120.28
1	8	59	GLU	C-N-CA	5.32	127.41	120.28
3	D	122	PRO	O-C-N	5.32	129.34	122.91
3	D	154	GLY	CA-C-N	5.32	129.29	120.94
3	D	154	GLY	C-N-CA	5.32	129.29	120.94
3	F	225	PRO	CA-C-O	-5.32	112.85	120.56
1	3	51	ALA	CA-C-N	5.31	127.97	120.42
1	3	51	ALA	C-N-CA	5.31	127.97	120.42
1	5	44	LYS	N-CA-C	5.31	118.55	111.75
2	A	437	PRO	O-C-N	5.31	129.75	123.06
2	B	98	ASP	O-C-N	5.31	129.30	123.25
2	C	440	THR	CA-C-N	5.31	131.69	121.18
2	C	440	THR	C-N-CA	5.31	131.69	121.18
3	D	421	ALA	CA-C-N	5.31	127.40	120.28
3	D	421	ALA	C-N-CA	5.31	127.40	120.28
3	E	372	SER	CA-C-N	5.31	127.83	120.29
3	E	372	SER	C-N-CA	5.31	127.83	120.29
8	T	248	LEU	N-CA-C	5.31	117.57	110.35
2	C	169	ILE	N-CA-C	-5.30	98.31	109.34
3	D	268	VAL	CA-C-N	5.30	127.82	120.29
3	D	268	VAL	C-N-CA	5.30	127.82	120.29
2	C	55	VAL	O-C-N	-5.30	117.45	123.18
8	T	162	GLU	CA-C-O	5.30	126.47	120.00
3	E	195	ASN	O-C-N	5.30	127.74	122.12
1	1	29	VAL	CA-C-N	5.30	127.81	120.29
1	1	29	VAL	C-N-CA	5.30	127.81	120.29
1	2	64	PHE	CA-C-O	-5.30	115.26	120.82
2	C	425	ARG	O-C-N	5.30	128.19	122.15

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	4	60	ALA	O-C-N	-5.30	116.51	122.12
3	D	224	GLU	CA-C-O	-5.30	115.20	120.66
10	V	56	SER	N-CA-C	-5.30	105.88	114.09
1	4	9	TYR	CA-C-N	5.29	127.71	120.46
1	4	9	TYR	C-N-CA	5.29	127.71	120.46
1	6	12	ALA	CA-C-N	5.29	125.81	119.94
1	6	12	ALA	C-N-CA	5.29	125.81	119.94
2	C	251	THR	CA-C-N	5.29	127.81	120.29
2	C	251	THR	C-N-CA	5.29	127.81	120.29
2	C	389	ALA	N-CA-C	5.29	120.91	113.02
1	4	55	PHE	CA-C-N	5.29	127.37	120.28
1	4	55	PHE	C-N-CA	5.29	127.37	120.28
5	H	95	SER	N-CA-C	-5.29	106.06	112.88
2	A	292	GLY	CA-C-N	5.29	128.85	121.02
2	A	292	GLY	C-N-CA	5.29	128.85	121.02
1	9	2	GLN	CA-C-N	5.29	127.36	120.28
1	9	2	GLN	C-N-CA	5.29	127.36	120.28
1	8	41	PRO	CA-C-O	-5.29	110.98	120.60
7	O	33	ILE	N-CA-C	-5.28	107.62	111.90
14	Z	42	ARG	N-CA-C	5.28	117.04	111.28
3	D	211	GLY	N-CA-C	-5.28	108.11	114.66
3	E	115	LYS	CA-C-N	5.28	125.18	119.85
3	E	115	LYS	C-N-CA	5.28	125.18	119.85
2	B	339	TYR	CA-C-O	-5.28	115.28	120.82
3	D	171	ILE	N-CA-C	-5.28	105.39	110.72
3	F	428	PRO	O-C-N	5.28	129.04	122.71
6	I	19	GLN	CA-C-N	5.28	127.35	120.28
6	I	19	GLN	C-N-CA	5.28	127.35	120.28
2	C	102	GLY	CA-C-N	5.27	125.57	119.93
2	C	102	GLY	C-N-CA	5.27	125.57	119.93
9	U	192	LYS	N-CA-C	-5.27	106.69	113.23
1	1	16	THR	CA-C-N	5.27	127.96	120.53
1	1	16	THR	C-N-CA	5.27	127.96	120.53
1	2	36	GLY	CA-C-N	5.27	127.68	120.46
1	2	36	GLY	C-N-CA	5.27	127.68	120.46
2	C	166	ARG	CA-C-N	5.27	128.25	120.82
2	C	166	ARG	C-N-CA	5.27	128.25	120.82
7	O	19	TYR	N-CA-C	-5.27	105.71	111.82
1	1	71	LEU	N-CA-C	5.27	117.10	111.36
3	D	146	PRO	CA-C-N	5.27	129.21	120.94
3	D	146	PRO	C-N-CA	5.27	129.21	120.94
2	A	247	LEU	CA-C-N	5.26	127.53	120.58

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A	247	LEU	C-N-CA	5.26	127.53	120.58
2	C	318	GLU	N-CA-C	-5.26	104.45	111.87
3	F	294	GLU	CA-C-O	5.26	126.00	120.42
2	C	359	PHE	CA-C-N	5.26	128.31	120.31
2	C	359	PHE	C-N-CA	5.26	128.31	120.31
3	D	304	VAL	CA-C-O	-5.26	115.61	121.98
3	F	291	LEU	CA-C-N	5.26	127.28	120.44
3	F	291	LEU	C-N-CA	5.26	127.28	120.44
2	C	191	TRP	CA-C-N	5.26	127.76	120.29
2	C	191	TRP	C-N-CA	5.26	127.76	120.29
5	H	41	VAL	N-CA-C	-5.26	100.55	108.12
7	O	67	ARG	N-CA-C	5.26	116.70	111.07
1	6	72	LEU	CA-C-N	5.26	127.27	120.44
1	6	72	LEU	C-N-CA	5.26	127.27	120.44
2	C	252	ALA	CA-C-N	5.26	127.32	120.28
2	C	252	ALA	C-N-CA	5.26	127.32	120.28
2	C	474	LEU	CA-C-O	-5.26	114.98	120.55
4	G	49	GLN	CA-C-N	5.26	127.32	120.28
4	G	49	GLN	C-N-CA	5.26	127.32	120.28
1	2	16	THR	N-CA-C	5.25	118.47	111.75
2	A	173	ARG	N-CA-C	5.25	117.84	109.96
2	C	319	GLY	CA-C-O	-5.25	112.72	119.13
3	F	313	PRO	CA-C-O	-5.25	115.75	121.27
13	Y	14	TRP	CA-C-N	5.25	124.58	118.85
13	Y	14	TRP	C-N-CA	5.25	124.58	118.85
3	D	284	THR	CA-C-N	5.25	127.63	120.54
3	D	284	THR	C-N-CA	5.25	127.63	120.54
14	Z	27	PHE	CA-C-N	5.25	127.27	120.44
14	Z	27	PHE	C-N-CA	5.25	127.27	120.44
1	5	40	ASN	N-CA-C	5.25	121.41	109.81
1	7	19	LEU	CA-C-N	5.25	127.31	120.28
1	7	19	LEU	C-N-CA	5.25	127.31	120.28
9	U	164	LEU	CA-C-N	5.25	127.26	120.44
9	U	164	LEU	C-N-CA	5.25	127.26	120.44
11	W	27	VAL	CA-C-O	-5.25	114.58	120.25
1	5	8	LYS	N-CA-C	5.24	117.40	111.11
2	B	177	LYS	N-CA-C	-5.24	105.65	111.36
3	E	427	ILE	O-C-N	-5.24	116.84	121.61
4	G	101	ASP	N-CA-C	-5.24	105.65	111.36
11	W	16	GLY	CA-C-O	-5.24	114.49	120.09
2	B	276	GLN	CA-C-O	5.24	125.97	120.42
3	E	139	LYS	N-CA-C	5.24	116.99	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	E	398	GLU	CA-C-N	5.24	127.56	120.44
3	E	398	GLU	C-N-CA	5.24	127.56	120.44
10	V	141	ILE	CA-C-N	5.24	129.19	122.64
10	V	141	ILE	C-N-CA	5.24	129.19	122.64
8	T	181	ILE	N-CA-C	-5.23	105.44	110.72
1	O	30	PHE	N-CA-C	-5.23	105.58	111.28
2	C	245	GLN	CA-C-N	5.23	127.23	120.44
2	C	245	GLN	C-N-CA	5.23	127.23	120.44
3	E	39	ILE	CA-C-O	5.23	126.29	120.59
4	G	123	PRO	N-CA-C	-5.23	107.22	114.27
2	A	239	SER	N-CA-C	5.22	117.88	111.82
2	A	309	GLU	CA-C-N	5.22	127.28	120.28
2	A	309	GLU	C-N-CA	5.22	127.28	120.28
2	B	367	ILE	CA-C-O	5.22	125.42	120.25
2	A	259	PHE	N-CA-C	-5.22	105.28	110.97
2	B	214	THR	O-C-N	5.22	128.10	122.15
8	T	216	ILE	CA-C-N	5.22	127.70	120.29
8	T	216	ILE	C-N-CA	5.22	127.70	120.29
8	T	51	ASN	O-C-N	-5.22	115.65	122.59
7	O	147	VAL	N-CA-C	-5.22	100.69	108.46
10	V	52	GLU	CA-C-N	5.22	128.95	121.96
10	V	52	GLU	C-N-CA	5.22	128.95	121.96
10	V	81	VAL	N-CA-C	-5.22	100.87	108.17
3	D	30	LEU	CA-C-O	-5.21	115.55	120.34
3	D	47	VAL	N-CA-C	-5.21	99.66	107.37
3	E	95	ILE	O-C-N	-5.21	117.55	123.18
7	O	39	SER	CA-C-O	-5.21	115.03	120.55
1	3	16	THR	CA-C-N	5.21	129.16	120.62
1	3	16	THR	C-N-CA	5.21	129.16	120.62
1	7	62	GLY	N-CA-C	-5.21	106.48	112.73
3	F	304	VAL	CA-C-N	-5.21	115.65	122.99
3	F	304	VAL	C-N-CA	-5.21	115.65	122.99
1	2	3	LEU	CA-C-N	5.21	127.22	120.56
1	2	3	LEU	C-N-CA	5.21	127.22	120.56
2	A	296	TYR	CA-C-N	5.21	126.35	119.84
2	A	296	TYR	C-N-CA	5.21	126.35	119.84
2	C	449	ALA	CA-C-N	5.21	125.76	119.98
2	C	449	ALA	C-N-CA	5.21	125.76	119.98
4	G	81	LYS	CA-C-O	-5.20	115.02	121.06
1	2	10	ILE	CA-C-N	5.20	125.75	119.98
1	2	10	ILE	C-N-CA	5.20	125.75	119.98
1	3	21	GLY	CA-C-N	5.20	127.68	120.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	3	21	GLY	C-N-CA	5.20	127.68	120.29
2	B	287	LEU	CA-C-N	5.20	131.47	121.54
2	B	287	LEU	C-N-CA	5.20	131.47	121.54
2	C	138	ILE	CA-C-O	-5.20	115.66	121.17
2	C	400	ARG	CA-C-N	5.20	127.68	120.29
2	C	400	ARG	C-N-CA	5.20	127.68	120.29
3	D	104	ASP	N-CA-C	-5.20	106.98	113.38
9	U	181	GLN	CA-C-N	5.20	127.67	120.29
9	U	181	GLN	C-N-CA	5.20	127.67	120.29
11	W	48	LEU	N-CA-C	-5.20	106.74	114.64
11	W	74	ILE	N-CA-C	-5.20	105.31	110.62
2	C	130	ARG	O-C-N	5.20	128.99	122.86
2	C	415	SER	O-C-N	5.20	127.63	122.12
1	9	20	LEU	CA-C-N	5.20	125.72	120.00
1	9	20	LEU	C-N-CA	5.20	125.72	120.00
1	2	28	ILE	CA-C-N	5.19	127.80	120.42
1	2	28	ILE	C-N-CA	5.19	127.80	120.42
3	D	225	PRO	N-CA-C	5.19	117.04	110.70
1	6	20	LEU	CA-C-O	-5.19	114.23	120.10
2	A	215	VAL	N-CA-C	-5.19	105.44	110.42
3	F	46	LEU	CA-C-O	-5.19	114.84	120.81
1	0	29	VAL	CA-C-O	5.19	126.35	120.85
3	D	145	ALA	CA-C-O	-5.19	113.05	120.16
3	D	370	VAL	CA-C-O	-5.19	115.67	121.17
4	G	125	ASN	CA-C-O	-5.19	114.92	120.42
9	U	84	ARG	CA-C-N	5.19	127.18	120.44
9	U	84	ARG	C-N-CA	5.19	127.18	120.44
9	U	193	VAL	CA-C-N	5.19	127.66	120.29
9	U	193	VAL	C-N-CA	5.19	127.66	120.29
2	A	290	PRO	CA-C-N	5.19	126.61	120.23
2	A	290	PRO	C-N-CA	5.19	126.61	120.23
3	D	255	ILE	O-C-N	5.19	128.52	122.97
3	D	244	ARG	CA-C-N	5.18	127.23	120.28
3	D	244	ARG	C-N-CA	5.18	127.23	120.28
3	F	20	ILE	CA-C-O	5.18	126.95	121.04
4	G	187	THR	CA-C-N	5.18	127.56	120.46
4	G	187	THR	C-N-CA	5.18	127.56	120.46
2	A	206	VAL	O-C-N	5.18	128.91	123.00
3	E	120	ASP	CA-C-N	5.18	125.72	120.38
3	E	120	ASP	C-N-CA	5.18	125.72	120.38
10	V	102	ASN	O-C-N	5.18	127.61	122.12
3	F	208	ASN	CA-C-O	5.18	126.07	120.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	O	103	LYS	CA-C-N	5.18	127.78	120.42
7	O	103	LYS	C-N-CA	5.18	127.78	120.42
8	T	80	LYS	N-CA-C	-5.18	105.21	112.25
9	U	116	VAL	O-C-N	-5.18	116.81	121.89
1	2	17	ILE	CA-C-N	5.18	126.61	120.14
1	2	17	ILE	C-N-CA	5.18	126.61	120.14
3	F	89	ARG	N-CA-C	-5.18	105.68	112.41
3	F	368	TYR	CA-C-N	5.17	127.48	120.44
3	F	368	TYR	C-N-CA	5.17	127.48	120.44
7	O	177	ASP	CA-C-N	5.17	129.57	121.08
7	O	177	ASP	C-N-CA	5.17	129.57	121.08
1	6	3	LEU	O-C-N	5.17	127.60	122.12
3	E	323	ALA	CA-C-N	5.17	130.19	121.14
3	E	323	ALA	C-N-CA	5.17	130.19	121.14
4	G	52	TYR	CA-C-O	-5.17	115.07	120.55
2	A	305	SER	N-CA-C	5.17	116.92	111.28
13	Y	5	PHE	N-CA-C	-5.17	100.08	108.82
3	E	181	PHE	N-CA-C	-5.17	103.86	110.53
5	H	58	GLU	N-CA-C	-5.17	100.61	109.24
1	2	39	ARG	N-CA-C	-5.17	106.98	113.28
3	F	474	ALA	CA-C-N	5.17	131.00	121.70
3	F	474	ALA	C-N-CA	5.17	131.00	121.70
11	W	80	MET	CA-C-O	5.17	125.71	119.31
1	1	2	GLN	N-CA-C	-5.16	105.65	111.28
3	E	103	ILE	CA-C-O	5.16	124.77	119.35
3	E	150	GLY	CA-C-N	5.16	125.00	120.10
3	E	150	GLY	C-N-CA	5.16	125.00	120.10
1	0	31	ALA	CA-C-O	5.16	126.02	120.55
3	F	404	VAL	N-CA-C	5.16	115.89	110.62
3	E	211	GLY	CA-C-O	-5.16	116.90	122.47
10	V	70	LYS	O-C-N	5.16	127.39	122.07
3	D	41	THR	CA-C-O	-5.16	115.87	120.56
3	D	369	ASP	N-CA-C	5.16	116.90	111.28
7	O	65	LYS	CA-C-N	5.16	128.15	120.31
7	O	65	LYS	C-N-CA	5.16	128.15	120.31
9	U	75	PRO	O-C-N	5.16	129.23	122.27
3	D	24	HIS	CA-C-O	-5.16	114.76	120.38
2	A	271	ASP	CA-C-N	5.16	130.98	121.70
2	A	271	ASP	C-N-CA	5.16	130.98	121.70
2	B	135	ALA	CA-C-O	-5.16	114.81	120.17
11	W	12	SER	CA-C-O	5.16	124.62	118.79
11	W	83	TYR	N-CA-C	-5.16	106.50	112.89

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	C	205	TYR	CA-C-N	-5.15	116.22	123.13
2	C	205	TYR	C-N-CA	-5.15	116.22	123.13
9	U	76	ALA	N-CA-C	5.15	116.90	111.28
2	B	180	VAL	O-C-N	5.15	126.96	121.91
2	B	502	ALA	CA-C-N	5.15	127.61	120.29
2	B	502	ALA	C-N-CA	5.15	127.61	120.29
2	C	99	VAL	N-CA-C	-5.15	104.96	109.19
3	E	76	VAL	O-C-N	-5.15	117.32	123.04
9	U	178	SER	CA-C-N	5.15	128.14	120.31
9	U	178	SER	C-N-CA	5.15	128.14	120.31
3	F	47	VAL	O-C-N	-5.15	117.89	123.14
1	0	63	LEU	O-C-N	-5.15	116.66	122.12
1	5	60	ALA	O-C-N	-5.15	116.66	122.12
10	V	59	ARG	N-CA-C	-5.15	106.69	113.17
1	0	31	ALA	O-C-N	-5.14	116.67	122.12
6	I	48	LYS	CA-C-N	5.14	130.96	121.70
6	I	48	LYS	C-N-CA	5.14	130.96	121.70
12	X	1	ASN	CA-C-N	5.14	127.72	120.42
12	X	1	ASN	C-N-CA	5.14	127.72	120.42
1	4	4	VAL	CA-C-N	5.14	127.17	120.28
1	4	4	VAL	C-N-CA	5.14	127.17	120.28
3	F	238	THR	CA-C-O	-5.14	114.06	119.97
2	B	181	ALA	O-C-N	5.14	128.01	122.15
2	B	290	PRO	CA-C-O	-5.14	113.11	120.56
4	G	242	LYS	CA-C-N	5.14	128.12	120.31
4	G	242	LYS	C-N-CA	5.14	128.12	120.31
9	U	112	GLN	CA-C-N	5.14	127.59	120.29
9	U	112	GLN	C-N-CA	5.14	127.59	120.29
2	C	381	GLN	O-C-N	-5.14	116.55	123.23
12	X	11	LEU	CA-C-N	5.14	127.16	120.28
12	X	11	LEU	C-N-CA	5.14	127.16	120.28
3	D	312	VAL	N-CA-C	5.13	119.97	108.88
1	7	64	PHE	N-CA-C	-5.13	105.77	111.36
2	A	436	SER	CA-C-N	5.13	125.53	119.99
2	A	436	SER	C-N-CA	5.13	125.53	119.99
2	C	94	GLY	CA-C-N	5.13	129.99	122.39
2	C	94	GLY	C-N-CA	5.13	129.99	122.39
3	D	436	ASP	N-CA-C	5.13	119.25	112.89
10	V	114	LEU	N-CA-C	-5.13	105.69	111.28
2	C	17	ARG	N-CA-C	5.13	116.95	111.36
3	E	437	THR	N-CA-C	-5.13	105.58	111.07
2	B	252	ALA	N-CA-C	-5.13	105.77	111.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	U	136	GLU	CA-C-N	5.13	127.15	120.28
9	U	136	GLU	C-N-CA	5.13	127.15	120.28
9	U	116	VAL	CA-C-N	5.13	128.10	120.31
9	U	116	VAL	C-N-CA	5.13	128.10	120.31
3	E	188	GLY	O-C-N	-5.12	117.31	122.54
3	F	159	ALA	CA-C-O	5.12	125.95	120.32
12	X	38	ASN	N-CA-C	-5.12	99.89	110.80
2	B	290	PRO	CA-C-N	5.12	126.24	119.84
2	B	290	PRO	C-N-CA	5.12	126.24	119.84
2	C	42	ARG	N-CA-C	-5.12	100.06	108.41
1	9	4	VAL	CA-C-N	5.12	128.09	120.31
1	9	4	VAL	C-N-CA	5.12	128.09	120.31
2	B	292	GLY	N-CA-C	-5.11	105.29	112.60
2	A	478	HIS	N-CA-C	-5.11	104.76	112.99
2	B	246	TYR	N-CA-C	5.11	116.93	111.36
3	F	149	ARG	N-CA-C	-5.11	101.38	109.76
2	C	477	ASN	CA-C-N	5.11	130.95	122.62
2	C	477	ASN	C-N-CA	5.11	130.95	122.62
1	3	53	LEU	O-C-N	5.11	127.33	122.07
8	T	56	SER	N-CA-C	-5.11	103.19	110.59
8	T	225	ALA	N-CA-C	5.11	116.53	111.07
12	X	42	LEU	CA-C-O	5.11	126.12	120.71
1	5	47	VAL	N-CA-C	5.10	117.47	111.09
2	A	138	ILE	O-C-N	-5.10	116.69	121.94
2	A	217	GLN	CA-C-N	5.10	127.37	120.38
2	A	217	GLN	C-N-CA	5.10	127.37	120.38
11	W	67	TRP	N-CA-C	5.10	116.84	111.28
1	0	35	ASN	CA-C-N	5.10	125.60	119.94
1	0	35	ASN	C-N-CA	5.10	125.60	119.94
1	4	44	LYS	N-CA-C	5.10	118.28	111.75
1	9	35	ASN	O-C-N	-5.10	116.72	122.12
2	A	199	LYS	N-CA-C	-5.10	105.96	113.61
2	C	54	LEU	CA-C-O	-5.10	114.78	120.54
1	5	71	LEU	CA-C-N	5.10	127.11	120.28
1	5	71	LEU	C-N-CA	5.10	127.11	120.28
2	A	105	LEU	N-CA-C	-5.10	106.47	113.30
2	A	182	LEU	N-CA-C	-5.10	106.32	112.54
1	0	29	VAL	O-C-N	-5.09	116.58	121.83
2	A	229	LYS	O-C-N	-5.09	115.77	122.39
2	B	183	ASP	O-C-N	5.09	127.52	122.12
2	B	499	LEU	CA-C-N	5.09	127.06	120.44
2	B	499	LEU	C-N-CA	5.09	127.06	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	F	87	VAL	O-C-N	-5.09	117.55	123.00
1	5	18	GLY	CA-C-N	5.09	127.61	120.28
1	5	18	GLY	C-N-CA	5.09	127.61	120.28
1	6	45	ASP	CA-C-O	-5.09	114.12	119.97
2	B	336	VAL	N-CA-C	-5.09	108.16	113.10
3	E	355	SER	CA-C-N	5.09	131.31	122.56
3	E	355	SER	C-N-CA	5.09	131.31	122.56
1	3	41	PRO	N-CA-C	5.09	122.95	112.47
1	3	44	LYS	N-CA-C	5.09	116.83	111.28
2	C	207	ALA	CA-C-O	-5.09	115.63	120.92
2	C	421	VAL	N-CA-C	5.09	115.86	110.72
9	U	176	VAL	O-C-N	5.09	126.81	121.87
3	E	82	PRO	CA-C-N	5.09	127.98	120.91
3	E	82	PRO	C-N-CA	5.09	127.98	120.91
2	A	134	LYS	CA-C-N	5.08	127.46	120.39
2	A	134	LYS	C-N-CA	5.08	127.46	120.39
2	B	399	TYR	O-C-N	5.08	127.51	122.12
14	Z	11	ASN	CA-C-N	5.08	127.40	120.54
14	Z	11	ASN	C-N-CA	5.08	127.40	120.54
10	V	116	ASP	N-CA-C	-5.08	105.82	111.36
1	7	18	GLY	CA-C-N	5.08	127.59	120.28
1	7	18	GLY	C-N-CA	5.08	127.59	120.28
3	D	353	SER	N-CA-C	-5.08	100.88	108.96
3	F	277	SER	CA-C-N	5.08	131.24	121.54
3	F	277	SER	C-N-CA	5.08	131.24	121.54
4	G	224	GLN	CA-C-N	5.08	125.48	119.94
4	G	224	GLN	C-N-CA	5.08	125.48	119.94
3	F	88	GLY	O-C-N	5.08	128.70	123.88
3	F	253	LEU	CA-C-O	-5.08	115.63	121.47
7	O	156	GLU	O-C-N	-5.08	117.38	123.27
2	A	211	LYS	O-C-N	5.08	128.64	122.85
2	B	124	ASP	N-CA-C	-5.08	100.89	108.96
3	D	194	GLY	CA-C-N	5.08	127.08	120.28
3	D	194	GLY	C-N-CA	5.08	127.08	120.28
1	8	63	LEU	CA-C-N	5.07	127.08	120.28
1	8	63	LEU	C-N-CA	5.07	127.08	120.28
2	B	402	VAL	CA-C-O	-5.07	115.67	120.95
3	E	463	ILE	O-C-N	5.07	126.79	121.87
1	1	40	ASN	CA-C-O	-5.07	113.22	120.16
2	C	501	SER	CA-C-O	-5.07	115.18	120.55
2	A	195	SER	CA-C-O	5.07	125.21	119.18
4	G	198	GLU	N-CA-C	-5.07	101.43	109.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	F	392	GLY	CA-C-N	5.07	127.57	120.28
3	F	392	GLY	C-N-CA	5.07	127.57	120.28
4	G	254	LEU	O-C-N	5.07	127.49	122.12
1	1	50	MET	O-C-N	5.06	127.92	122.15
2	A	173	ARG	CA-C-N	5.06	129.55	122.36
2	A	173	ARG	C-N-CA	5.06	129.55	122.36
2	B	382	VAL	CA-C-N	5.06	127.06	120.28
2	B	382	VAL	C-N-CA	5.06	127.06	120.28
3	E	107	GLY	N-CA-C	-5.06	102.01	112.34
2	C	271	ASP	CA-C-N	5.06	130.81	121.70
2	C	271	ASP	C-N-CA	5.06	130.81	121.70
3	F	143	LEU	N-CA-C	5.06	117.58	111.40
2	B	135	ALA	CA-C-N	5.06	124.99	119.78
2	B	135	ALA	C-N-CA	5.06	124.99	119.78
4	G	104	ASN	CA-C-O	5.06	124.51	118.79
2	A	186	LEU	CA-C-O	5.06	125.76	119.79
2	A	240	GLU	CA-C-N	5.06	131.20	121.54
2	A	240	GLU	C-N-CA	5.06	131.20	121.54
2	A	379	ALA	CA-C-N	5.05	129.16	120.72
2	A	379	ALA	C-N-CA	5.05	129.16	120.72
2	B	484	GLU	CA-C-O	-5.05	115.19	120.55
3	E	454	GLU	O-C-N	5.05	127.48	122.12
4	G	167	ASN	CA-C-O	-5.05	114.89	120.30
4	G	2	THR	CA-C-N	5.05	127.01	120.44
4	G	2	THR	C-N-CA	5.05	127.01	120.44
3	F	311	TYR	N-CA-C	-5.05	100.67	108.90
4	G	34	ALA	CA-C-N	5.05	127.46	120.29
4	G	34	ALA	C-N-CA	5.05	127.46	120.29
9	U	60	LEU	CA-C-O	-5.05	115.06	120.42
3	F	126	GLU	CA-C-N	5.05	128.27	121.05
3	F	126	GLU	C-N-CA	5.05	128.27	121.05
1	5	24	ILE	N-CA-C	-5.05	105.62	110.72
2	C	242	ALA	CA-C-N	5.05	124.65	119.05
2	C	242	ALA	C-N-CA	5.05	124.65	119.05
2	A	132	GLN	N-CA-C	-5.04	99.57	108.20
2	A	66	LEU	N-CA-C	5.04	116.78	111.28
2	B	387	GLN	CA-C-O	-5.04	115.07	120.42
3	F	285	LEU	N-CA-C	5.04	117.43	111.33
7	O	101	PHE	N-CA-C	-5.04	106.22	112.93
9	U	79	ASP	CA-C-N	5.04	127.30	120.44
9	U	79	ASP	C-N-CA	5.04	127.30	120.44
1	1	11	GLY	CA-C-O	5.04	125.84	120.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A	505	SER	N-CA-C	-5.04	105.67	111.07
4	G	11	LYS	CA-C-N	5.04	127.00	120.44
4	G	11	LYS	C-N-CA	5.04	127.00	120.44
14	Z	13	LEU	N-CA-C	-5.04	105.97	111.82
3	D	307	VAL	N-CA-C	-5.04	101.11	108.17
3	F	340	SER	CA-C-N	5.04	127.97	120.31
3	F	340	SER	C-N-CA	5.04	127.97	120.31
8	T	169	ARG	CA-C-N	5.04	127.03	120.28
8	T	169	ARG	C-N-CA	5.04	127.03	120.28
2	C	85	LYS	O-C-N	-5.04	117.97	123.26
11	W	21	ALA	N-CA-C	5.04	116.77	111.28
11	W	10	VAL	N-CA-C	-5.04	100.40	107.75
3	D	20	ILE	O-C-N	-5.03	116.28	122.88
3	D	182	SER	O-C-N	-5.03	118.03	123.42
2	B	33	VAL	O-C-N	5.03	127.95	122.57
2	C	142	ARG	CA-C-N	5.03	131.14	121.54
2	C	142	ARG	C-N-CA	5.03	131.14	121.54
3	D	131	ALA	O-C-N	-5.03	117.08	123.01
3	D	229	ARG	N-CA-C	5.03	116.84	111.36
1	8	15	SER	CA-C-N	5.02	127.52	120.28
1	8	15	SER	C-N-CA	5.02	127.52	120.28
2	A	197	GLU	N-CA-C	5.02	119.12	112.89
8	T	189	VAL	N-CA-C	5.02	115.25	110.53
9	U	172	LEU	CA-C-N	5.02	126.97	120.44
9	U	172	LEU	C-N-CA	5.02	126.97	120.44
1	4	23	GLY	CA-C-O	5.02	126.42	121.00
1	5	20	LEU	CA-C-N	5.02	125.56	119.98
1	5	20	LEU	C-N-CA	5.02	125.56	119.98
2	A	109	VAL	N-CA-C	-5.02	100.42	107.75
2	A	131	ALA	N-CA-C	-5.02	106.32	112.90
3	D	270	ALA	CA-C-N	5.02	127.41	120.29
3	D	270	ALA	C-N-CA	5.02	127.41	120.29
12	X	6	LEU	O-C-N	-5.02	116.90	122.07
2	B	357	GLU	CA-C-O	5.01	125.86	120.55
3	F	109	ILE	CA-C-N	5.01	128.46	121.24
3	F	109	ILE	C-N-CA	5.01	128.46	121.24
1	5	54	GLY	N-CA-C	-5.01	106.36	112.77
3	F	173	ASN	CA-C-O	-5.01	115.20	120.71
4	G	191	SER	CA-C-N	5.01	126.10	119.84
4	G	191	SER	C-N-CA	5.01	126.10	119.84
1	8	32	ALA	CA-C-O	-5.01	115.24	120.55
3	D	24	HIS	N-CA-C	-5.01	101.01	109.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	T	221	MET	CA-C-O	-5.01	115.56	120.82
10	V	102	ASN	CA-C-N	5.01	126.99	120.28
10	V	102	ASN	C-N-CA	5.01	126.99	120.28
14	Z	36	LEU	CA-C-N	5.01	126.99	120.28
14	Z	36	LEU	C-N-CA	5.01	126.99	120.28
1	4	56	ALA	CA-C-O	5.00	125.85	120.55
3	D	322	PRO	CA-C-N	5.00	127.29	120.54
3	D	322	PRO	C-N-CA	5.00	127.29	120.54
7	O	9	PRO	O-C-N	5.00	129.10	122.30

There are no chirality outliers.

All (11) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	1	40	ASN	Peptide
1	3	40	ASN	Peptide
1	5	40	ASN	Peptide
1	6	40	ASN	Peptide
1	7	40	ASN	Peptide
1	7	41	PRO	Peptide
2	A	171	GLY	Peptide
2	A	289	ARG	Peptide
2	A	312	ALA	Peptide
3	F	256	ASP	Peptide
5	H	33	PRO	Peptide

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	0	300	0	95	0	0
1	1	300	0	95	0	0
1	2	300	0	95	0	0
1	3	296	0	91	0	0
1	4	300	0	95	0	0
1	5	300	0	95	0	0
1	6	296	0	91	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	7	292	0	91	0	0
1	8	300	0	95	0	0
1	9	296	0	91	0	0
2	A	1996	0	570	1	0
2	B	2028	0	580	0	0
2	C	1984	0	567	0	0
3	D	1872	0	537	0	0
3	E	1876	0	537	0	0
3	F	1880	0	538	0	0
4	G	1060	0	277	0	0
5	H	480	0	122	0	0
6	I	193	0	43	0	0
7	O	748	0	205	0	0
8	T	897	0	248	0	0
9	U	620	0	158	0	0
10	V	685	0	173	0	0
11	W	340	0	92	0	0
12	X	248	0	61	0	0
13	Y	148	0	40	0	0
14	Z	193	0	49	0	0
All	All	20228	0	5731	1	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 0.

All (1) 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)
2:A:171:GLY:HA3	2:A:354:LEU:H	1.78	0.49

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	0	73/76 (96%)	70 (96%)	2 (3%)	1 (1%)	9	40
1	1	73/76 (96%)	71 (97%)	1 (1%)	1 (1%)	9	40
1	2	73/76 (96%)	71 (97%)	2 (3%)	0	100	100
1	3	72/76 (95%)	69 (96%)	1 (1%)	2 (3%)	4	24
1	4	73/76 (96%)	71 (97%)	1 (1%)	1 (1%)	9	40
1	5	73/76 (96%)	70 (96%)	1 (1%)	2 (3%)	4	25
1	6	72/76 (95%)	70 (97%)	1 (1%)	1 (1%)	9	40
1	7	71/76 (93%)	69 (97%)	1 (1%)	1 (1%)	9	40
1	8	73/76 (96%)	70 (96%)	1 (1%)	2 (3%)	4	25
1	9	72/76 (95%)	69 (96%)	1 (1%)	2 (3%)	4	24
2	A	495/510 (97%)	437 (88%)	45 (9%)	13 (3%)	4	25
2	B	505/510 (99%)	467 (92%)	30 (6%)	8 (2%)	7	38
2	C	492/510 (96%)	459 (93%)	27 (6%)	6 (1%)	10	44
3	D	466/478 (98%)	436 (94%)	23 (5%)	7 (2%)	8	40
3	E	467/478 (98%)	427 (91%)	31 (7%)	9 (2%)	6	32
3	F	468/478 (98%)	426 (91%)	36 (8%)	6 (1%)	9	42
4	G	261/278 (94%)	246 (94%)	14 (5%)	1 (0%)	30	67
5	H	110/138 (80%)	101 (92%)	8 (7%)	1 (1%)	14	51
6	I	42/61 (69%)	40 (95%)	1 (2%)	1 (2%)	4	27
7	O	185/195 (95%)	165 (89%)	14 (8%)	6 (3%)	3	21
8	T	222/249 (89%)	202 (91%)	16 (7%)	4 (2%)	6	34
9	U	153/209 (73%)	151 (99%)	2 (1%)	0	100	100
10	V	169/173 (98%)	152 (90%)	7 (4%)	10 (6%)	1	13
11	W	83/95 (87%)	71 (86%)	7 (8%)	5 (6%)	1	13
12	X	60/92 (65%)	53 (88%)	3 (5%)	4 (7%)	1	12
13	Y	35/59 (59%)	33 (94%)	1 (3%)	1 (3%)	3	23
14	Z	46/48 (96%)	43 (94%)	3 (6%)	0	100	100
All	All	4984/5321 (94%)	4609 (92%)	280 (6%)	95 (2%)	8	32

All (95) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	0	42	SER
1	1	41	PRO
1	3	41	PRO
1	4	41	PRO
1	5	41	PRO
1	6	41	PRO
1	7	41	PRO
1	8	41	PRO
1	9	41	PRO
2	A	22	SER
2	A	241	ALA
2	A	315	SER
2	B	229	LYS
2	C	118	ASP
3	D	278	ALA
3	E	314	ALA
3	E	451	ASN
6	I	39	GLN
7	O	10	VAL
8	T	50	ASN
10	V	24	SER
10	V	83	ILE
11	W	39	ALA
11	W	61	ALA
12	X	38	ASN
2	A	145	HIS
2	A	373	VAL
2	B	24	GLU
2	B	379	ALA
2	C	312	ALA
3	D	28	SER
3	E	98	VAL
3	E	106	ARG
7	O	82	ASP
8	T	51	ASN
10	V	65	THR
10	V	86	SER
10	V	89	LEU
10	V	133	LEU
12	X	58	VAL
1	3	42	SER
1	9	42	SER
2	A	335	ASP

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Mol	Chain	Res	Type
2	A	357	GLU
2	B	36	VAL
2	B	432	GLN
2	C	435	TYR
3	D	360	ALA
3	E	57	ASN
3	F	210	GLU
3	F	451	ASN
5	H	33	PRO
7	O	14	GLY
1	5	42	SER
1	8	42	SER
2	B	38	ASP
2	C	145	HIS
3	D	314	ALA
3	E	422	GLU
3	F	57	ASN
3	F	278	ALA
7	O	149	GLN
8	T	45	THR
10	V	165	ASP
11	W	44	ALA
2	A	375	ARG
2	A	497	ALA
2	B	196	ASP
3	E	86	PRO
3	F	28	SER
7	O	15	VAL
7	O	171	LEU
8	T	201	ILE
10	V	48	SER
10	V	170	LEU
12	X	31	TRP
2	A	121	GLY
2	C	143	SER
3	E	133	ILE
3	F	8	PRO
4	G	85	GLY
11	W	11	SER
11	W	31	TYR
12	X	36	LYS
2	A	421	VAL

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Mol	Chain	Res	Type
3	D	16	VAL
3	E	423	VAL
2	B	49	ILE
10	V	21	ILE
13	Y	9	ILE
2	A	140	PRO
2	C	49	ILE
3	D	279	VAL
3	D	313	PRO
2	A	463	ILE

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.

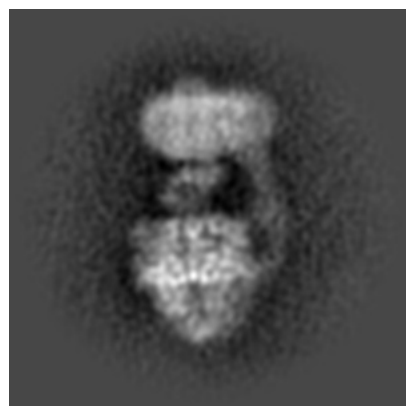
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-25980. These allow visual inspection of the internal detail of the map and identification of artifacts.

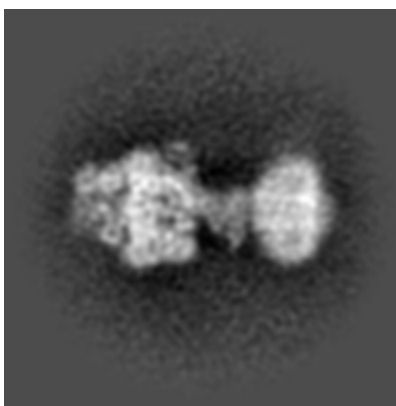
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections [i](#)

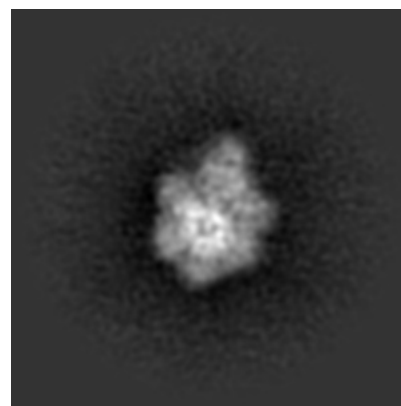
6.1.1 Primary map



X

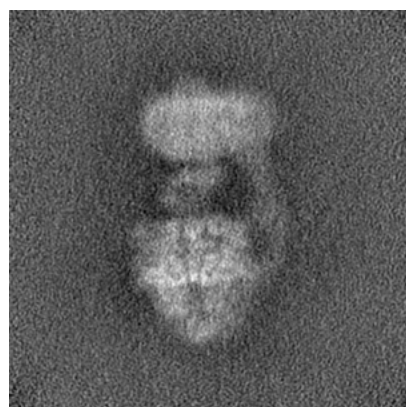


Y

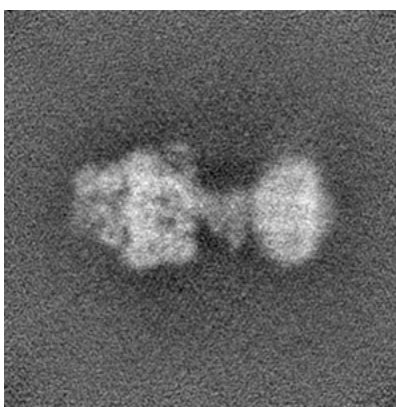


Z

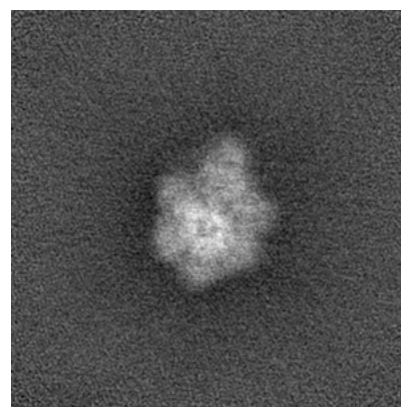
6.1.2 Raw map



X



Y

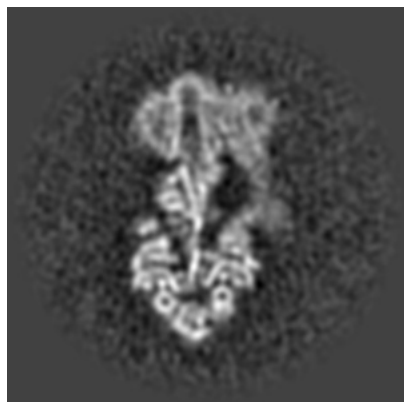


Z

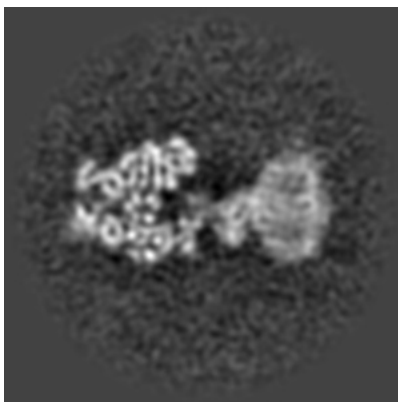
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

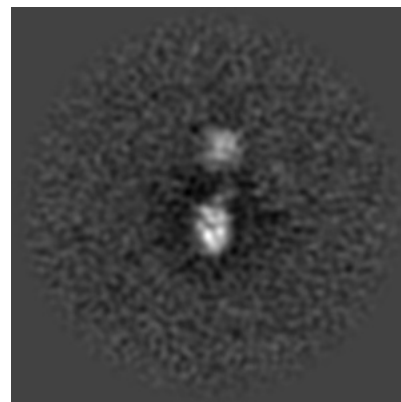
6.2.1 Primary map



X Index: 128

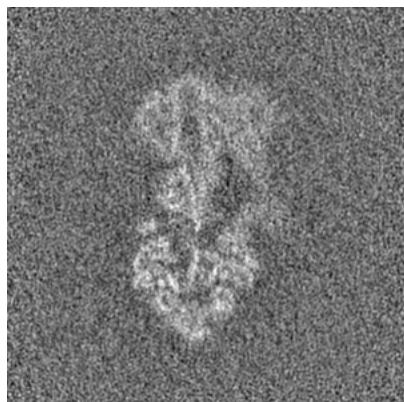


Y Index: 128

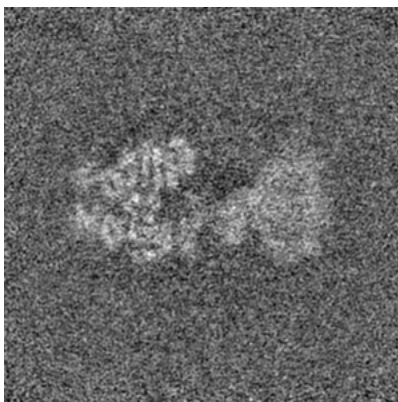


Z Index: 128

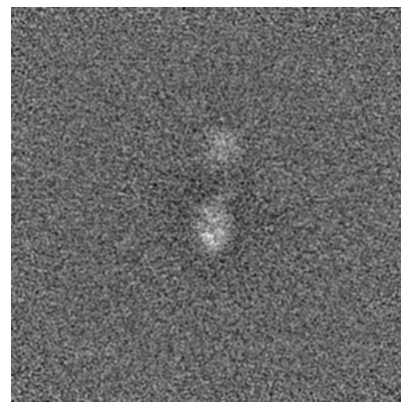
6.2.2 Raw map



X Index: 128



Y Index: 128

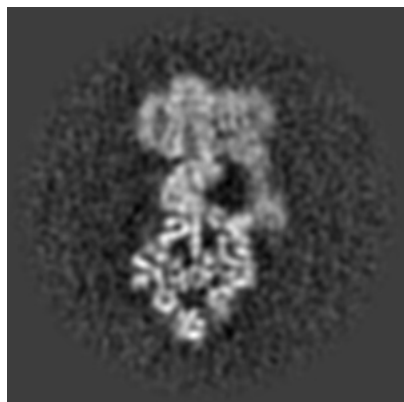


Z Index: 128

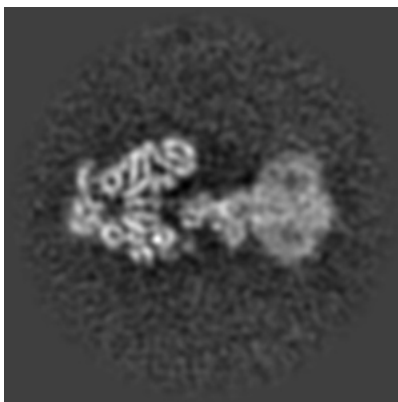
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

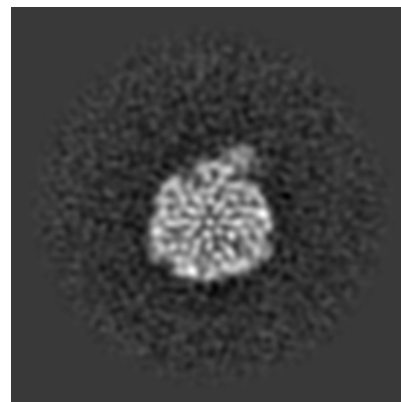
6.3.1 Primary map



X Index: 132

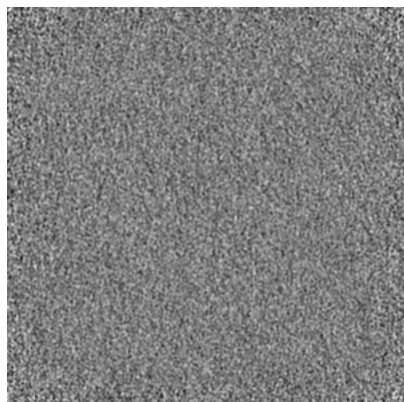


Y Index: 125

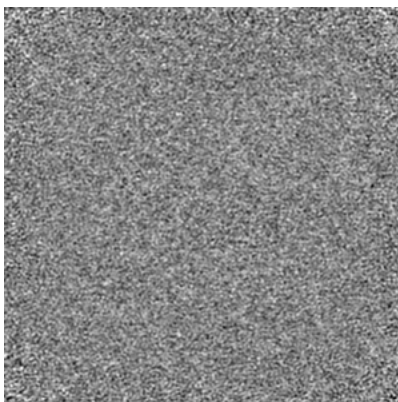


Z Index: 84

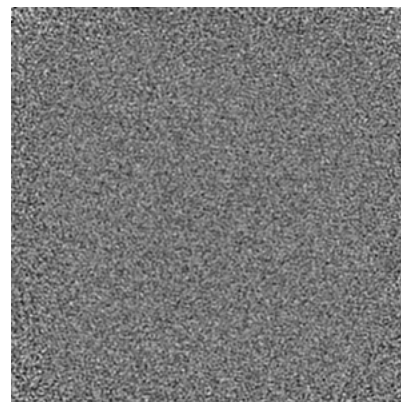
6.3.2 Raw map



X Index: 0



Y Index: 0

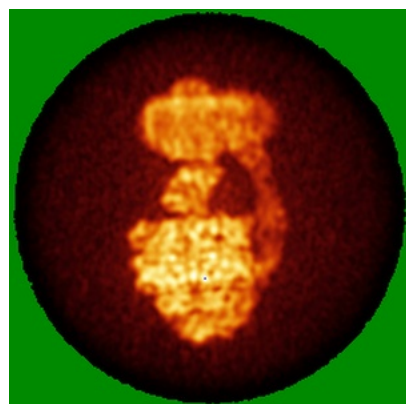


Z Index: 0

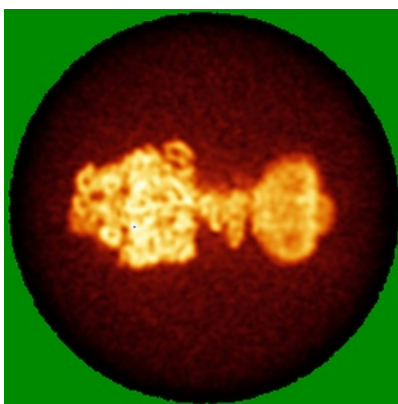
The images above show the largest variance slices of the map in three orthogonal directions.

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

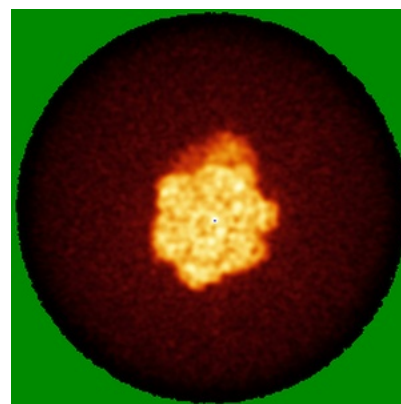
6.4.1 Primary map



X

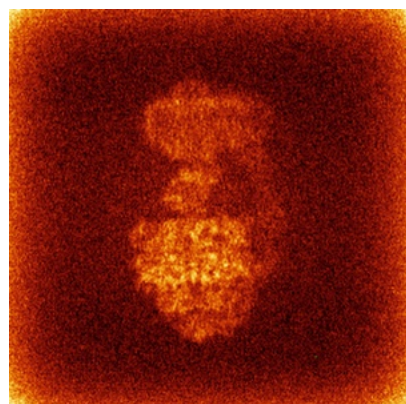


Y

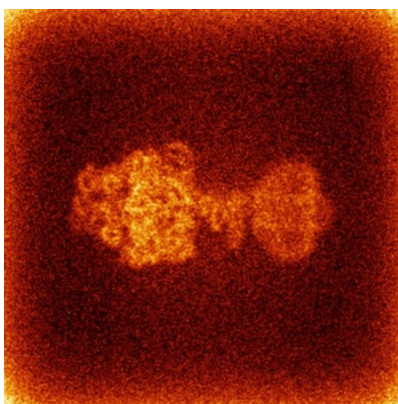


Z

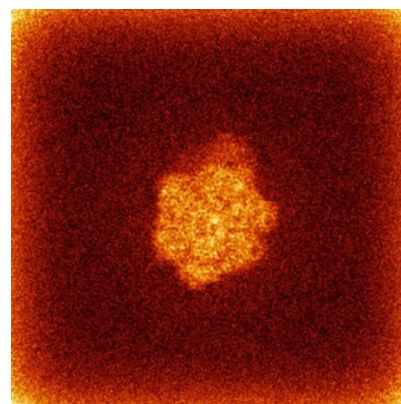
6.4.2 Raw map



X



Y

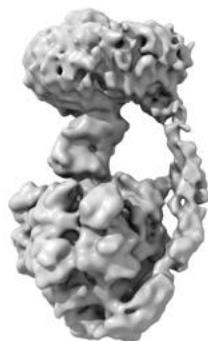


Z

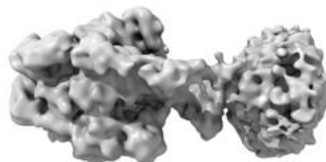
The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views [i](#)

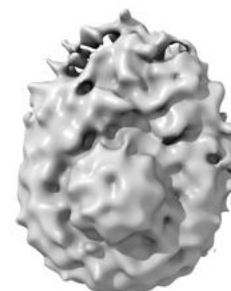
6.5.1 Primary map



X



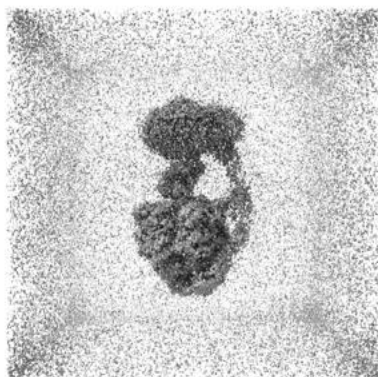
Y



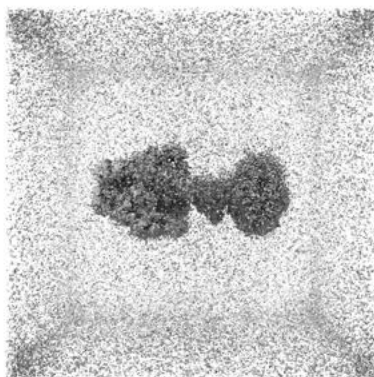
Z

The images above show the 3D surface view of the map at the recommended contour level 0.45. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

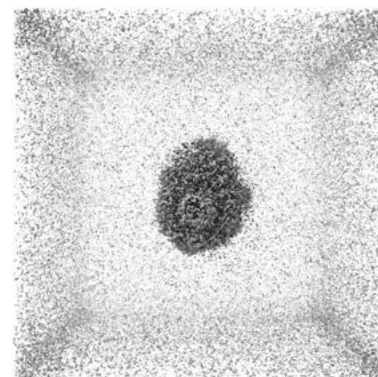
6.5.2 Raw map



X



Y



Z

These images show the 3D surface of the raw map. The raw map's contour level was selected so that its surface encloses the same volume as the primary map does at its recommended contour level.

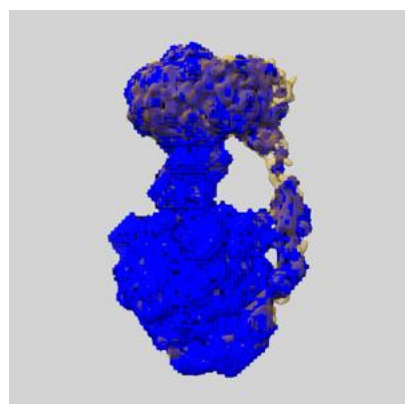
6.6 Mask visualisation [i](#)

This section shows the 3D surface view of the primary map at 50% transparency overlaid with the specified mask at 0% transparency

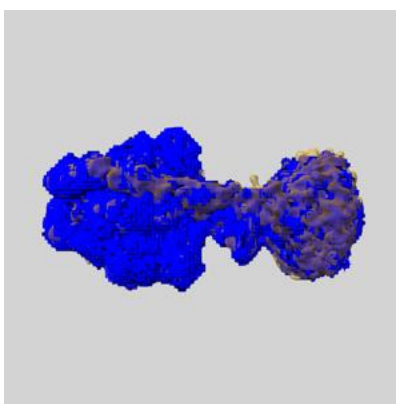
A mask typically either:

- Encompasses the whole structure
- Separates out a domain, a functional unit, a monomer or an area of interest from a larger structure

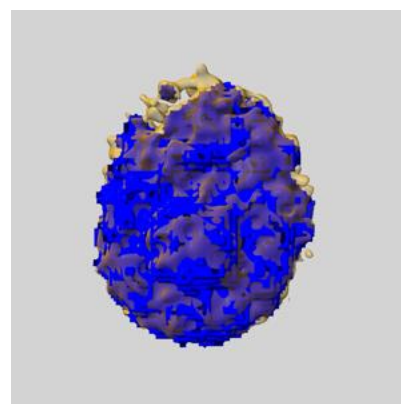
6.6.1 emd_25980_msk_1.map [i](#)



X



Y

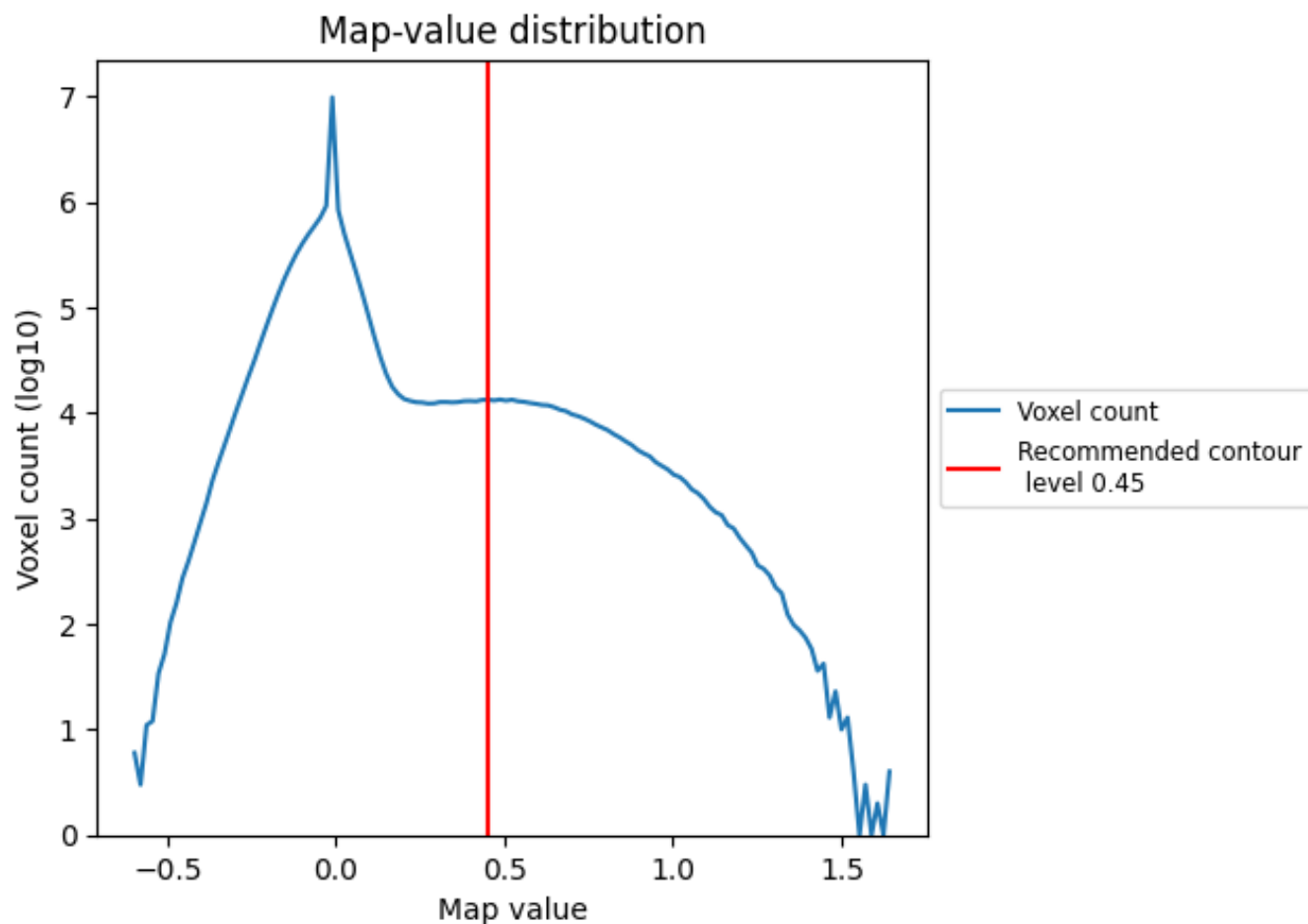


Z

7 Map analysis [i](#)

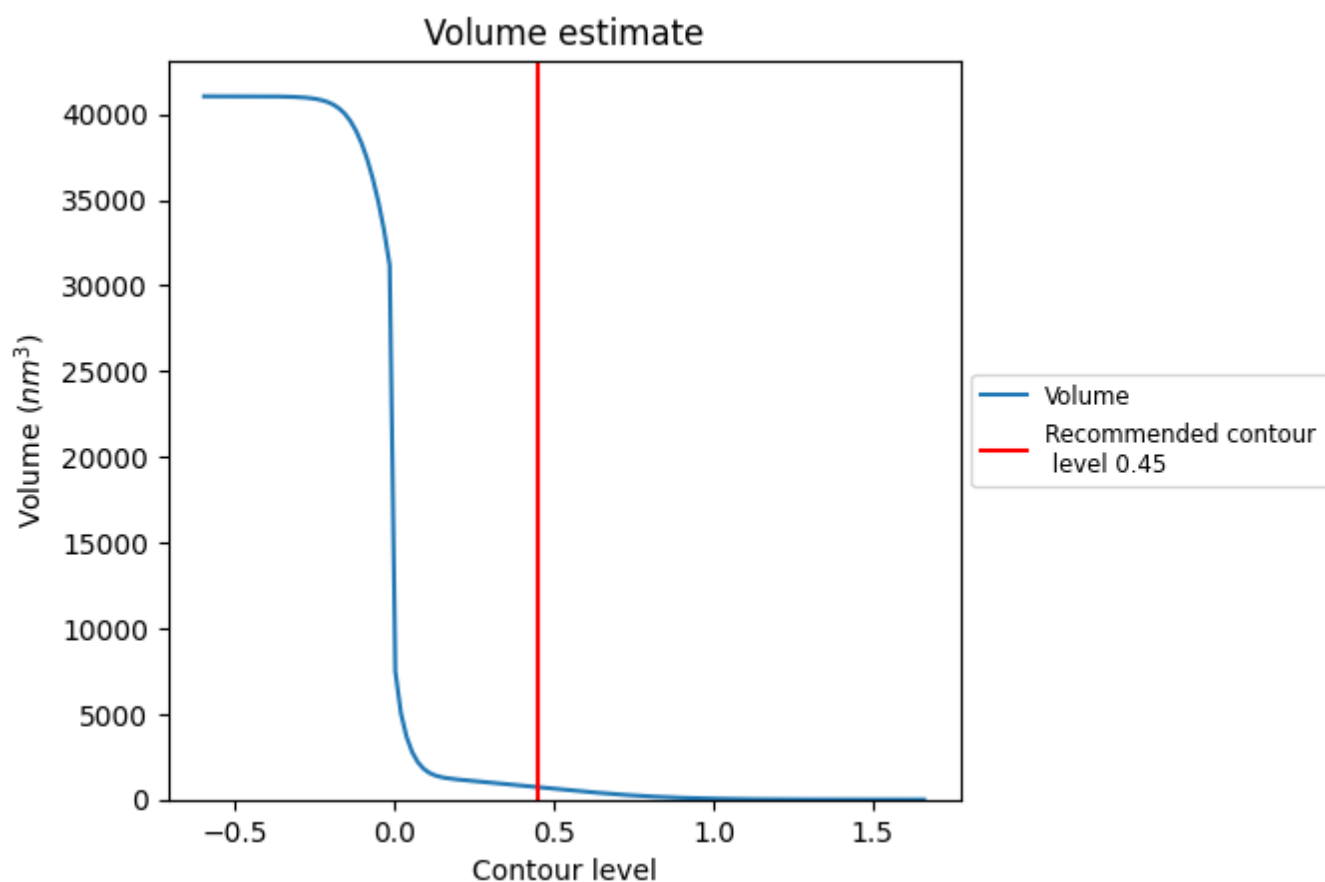
This section contains the results of statistical analysis of the map.

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.

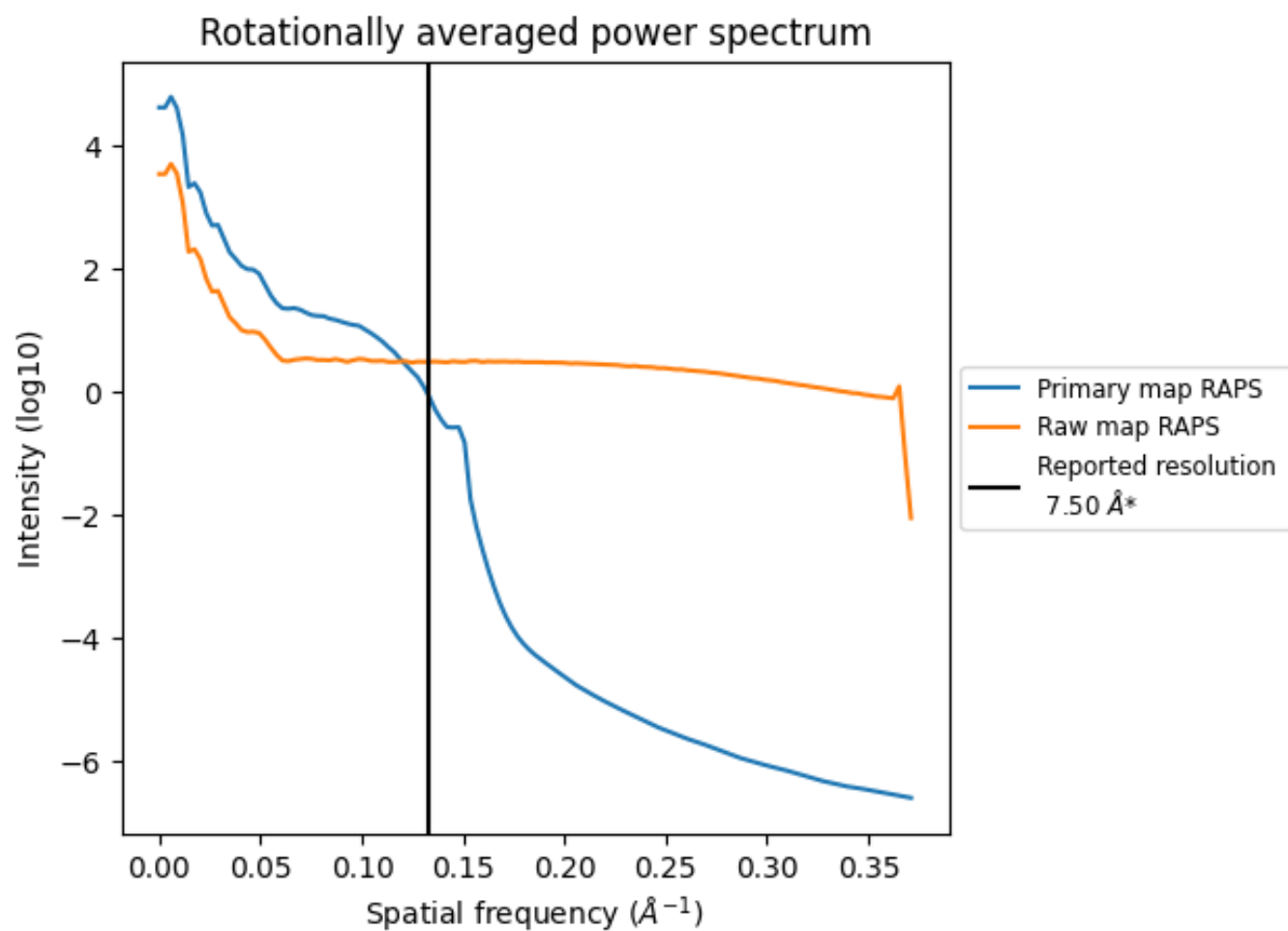
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 727 nm³; this corresponds to an approximate mass of 657 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 ⓘ

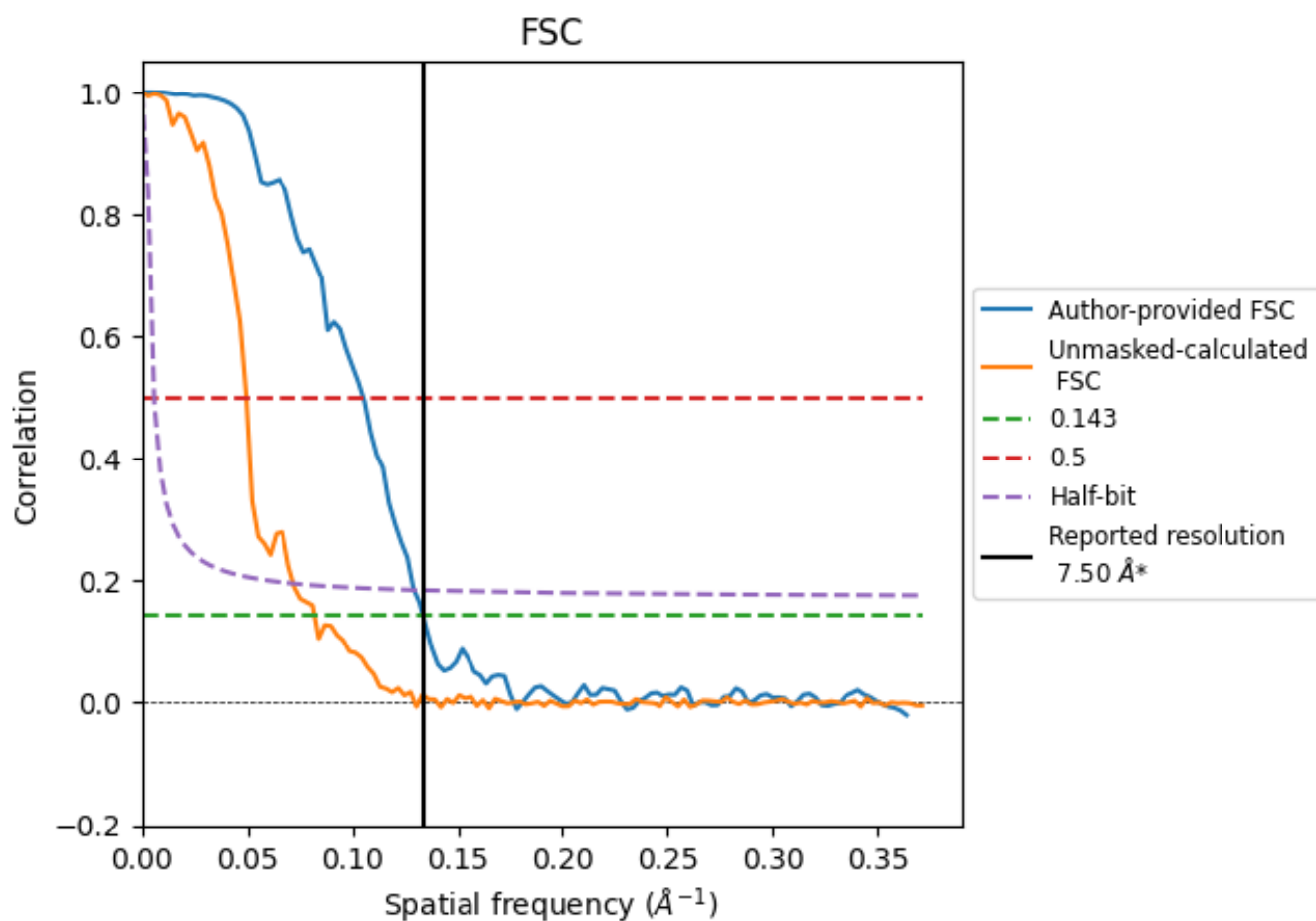


*Reported resolution corresponds to spatial frequency of 0.133 Å⁻¹

8 Fourier-Shell correlation [i](#)

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

8.1 FSC [i](#)



*Reported resolution corresponds to spatial frequency of 0.133 $\text{\AA}^{-1}$

8.2 Resolution estimates [i](#)

Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	7.50	-	-
Author-provided FSC curve	7.49	9.51	7.73
Unmasked-calculated*	12.18	20.24	13.89

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 12.18 differs from the reported value 7.5 by more than 10 %

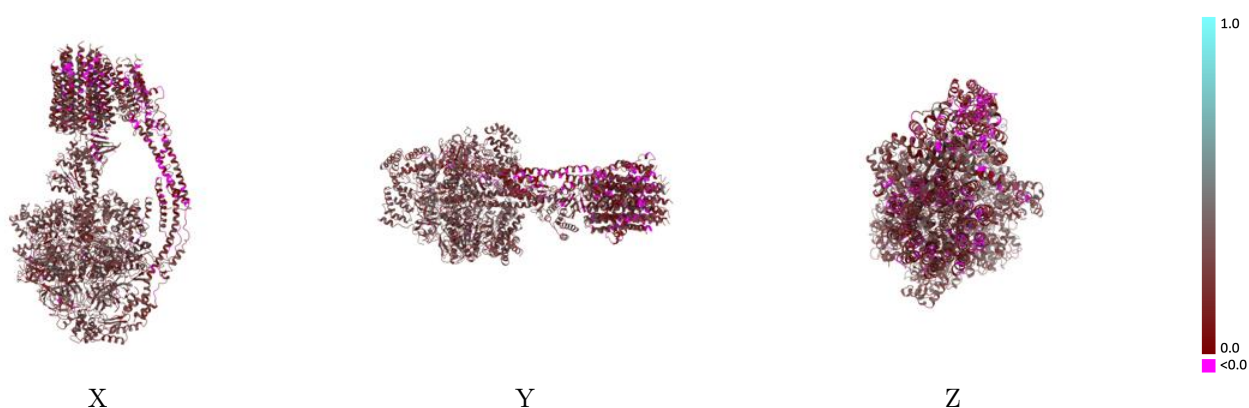
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-25980 and PDB model 7TKS. Per-residue inclusion information can be found in section 3 on page 7.

9.1 Map-model overlay [i](#)

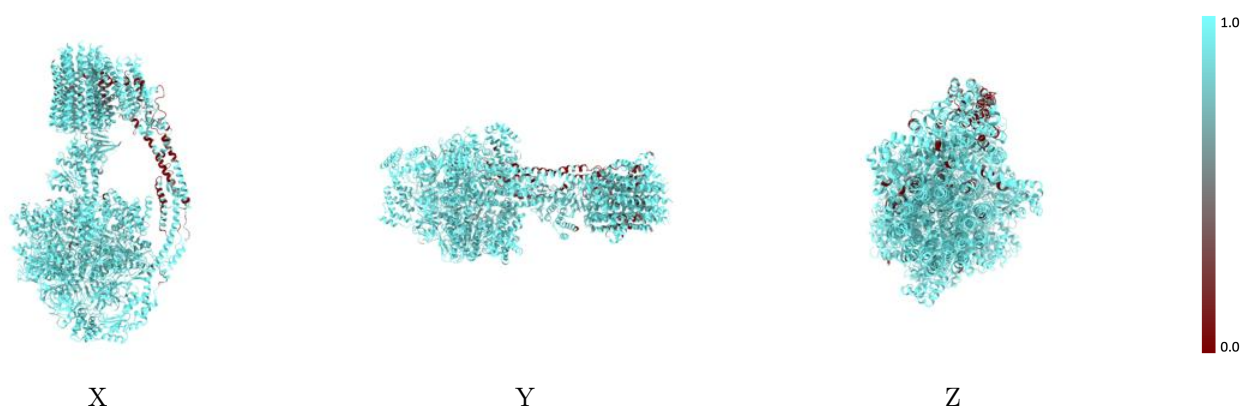
This section was not generated.

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



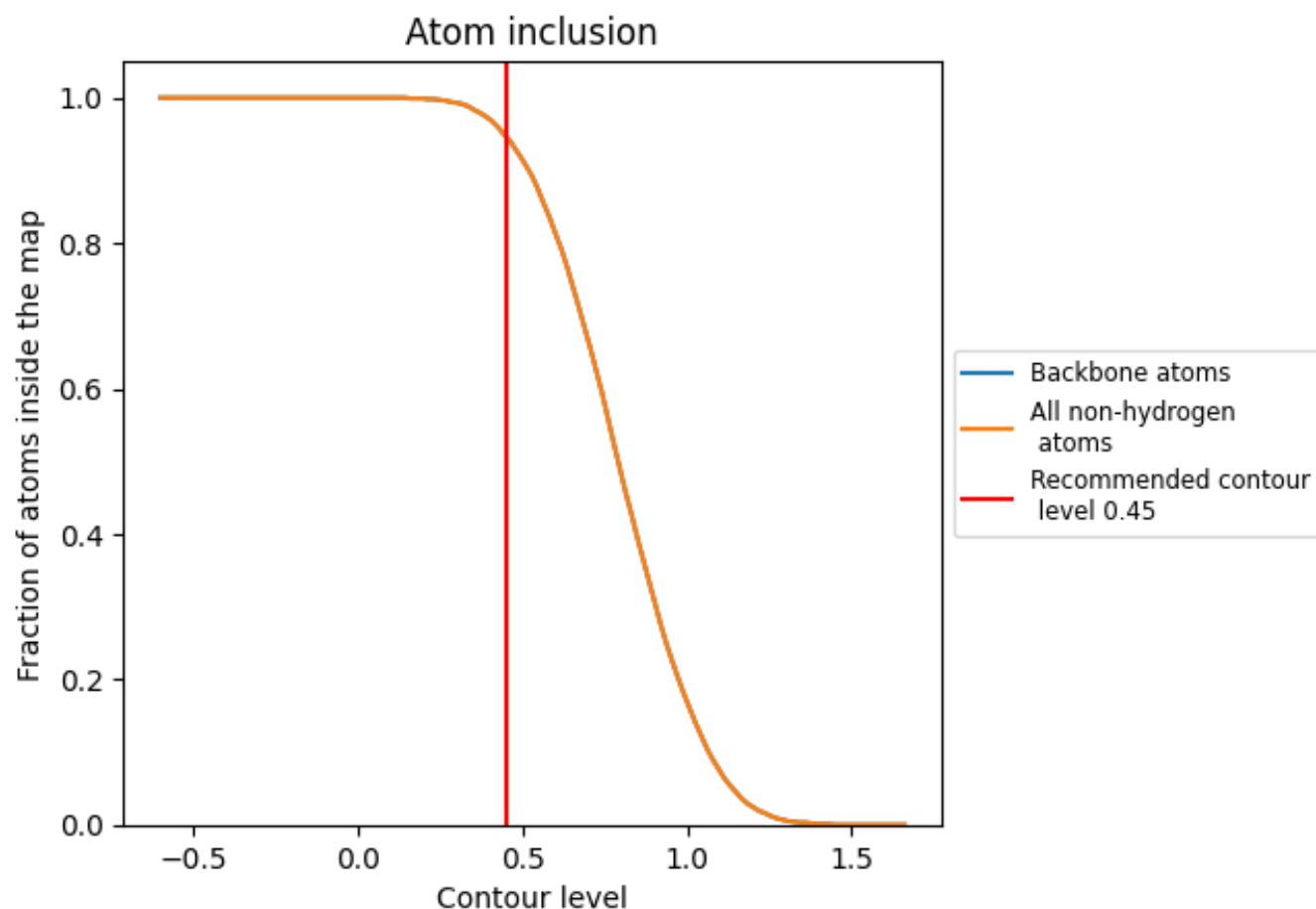
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (0.45).

9.4 Atom inclusion [i](#)



At the recommended contour level, 95% of all backbone atoms, 95% 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 (0.45) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.9470	 0.2200
0	 0.9230	 0.1640
1	 0.8570	 0.1200
2	 0.8430	 0.1620
3	 0.9930	 0.1970
4	 0.9600	 0.1460
5	 0.9830	 0.1620
6	 0.9870	 0.2050
7	 0.9690	 0.1350
8	 0.9570	 0.1530
9	 0.9120	 0.1290
A	 0.9890	 0.2590
B	 0.9880	 0.2470
C	 0.9870	 0.2540
D	 0.9730	 0.2460
E	 0.9890	 0.2530
F	 0.9890	 0.2520
G	 0.9760	 0.2520
H	 0.9330	 0.1940
I	 0.9790	 0.2450
O	 0.9930	 0.2600
T	 0.8670	 0.1510
U	 0.8290	 0.1790
V	 0.6860	 0.1240
W	 0.7030	 0.1180
X	 0.7260	 0.0990
Y	 0.8180	 0.1450
Z	 0.8960	 0.1690

