



Full wwPDB EM Validation Report ⓘ

Mar 10, 2026 – 02:15 PM UTC

PDB ID : 7TKK / pdb_00007tkk
EMDB ID : EMD-25972
Title : Yeast ATP synthase State 2catalytic(e) with 10 mM ATP backbone model
Authors : Guo, H.; Rubinstein, J.L.
Deposited on : 2022-01-17
Resolution : 7.30 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:

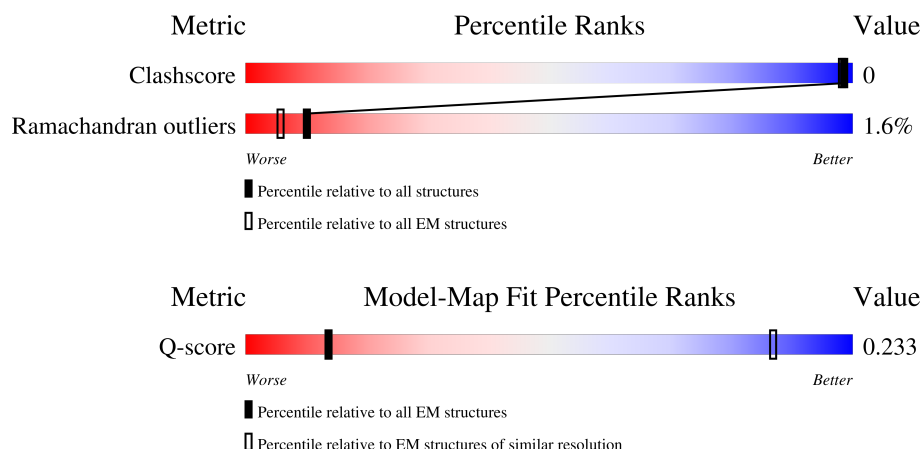
EMDB validation analysis : 0.0.1.dev132
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & 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 7.30 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Q-score	-	25397	436 (6.80 - 7.80)

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

Mol	Chain	Length	Quality of chain
1	0	76	54% 45%
1	1	76	46% 51%
1	2	76	51% 47%
1	3	76	53% 42%
1	4	76	53% 46%

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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 20211 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.

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	501	Total	C	N	O	0	0
			2004	1002	501	501		
2	B	505	Total	C	N	O	0	0
			2020	1010	505	505		
2	C	494	Total	C	N	O	0	0
			1975	988	494	493		

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

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

- 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	118	Total	C	N	O	0	0
			472	236	118	118		

- 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		

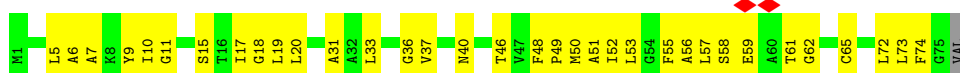
- Molecule 14 is a protein called ATP synthase protein 8.

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

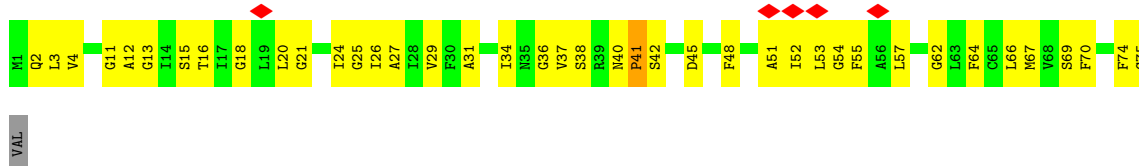
3 Residue-property plots [i](#)

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.

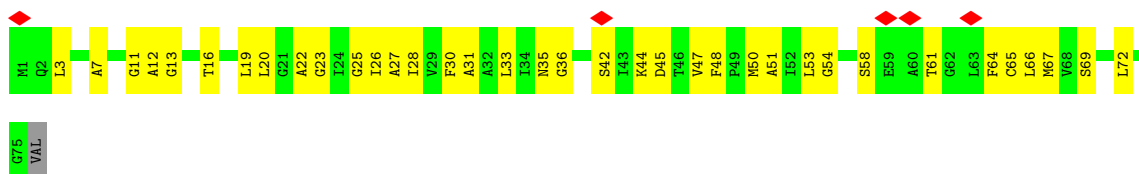
- Molecule 1: ATP synthase subunit 9



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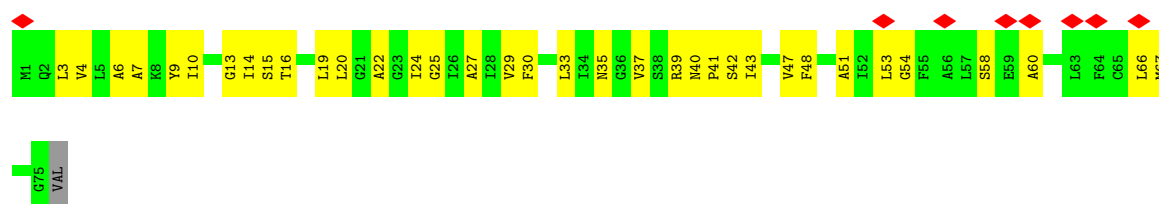
- Molecule 1: ATP synthase subunit 9



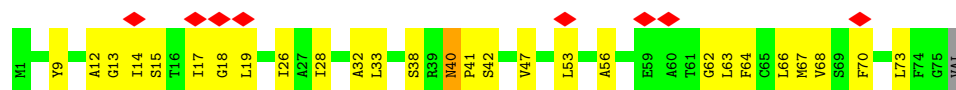
- Molecule 1: ATP synthase subunit 9



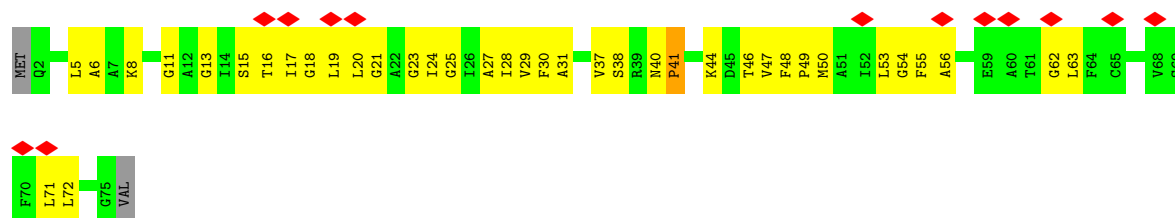
- Molecule 1: ATP synthase subunit 9



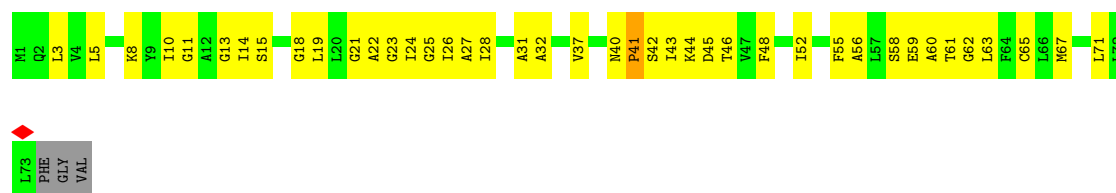
- Molecule 1: ATP synthase subunit 9



- Molecule 1: ATP synthase subunit 9



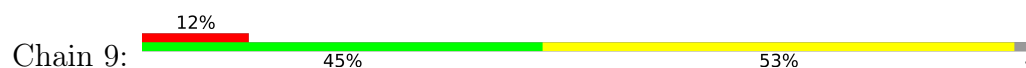
- Molecule 1: ATP synthase subunit 9

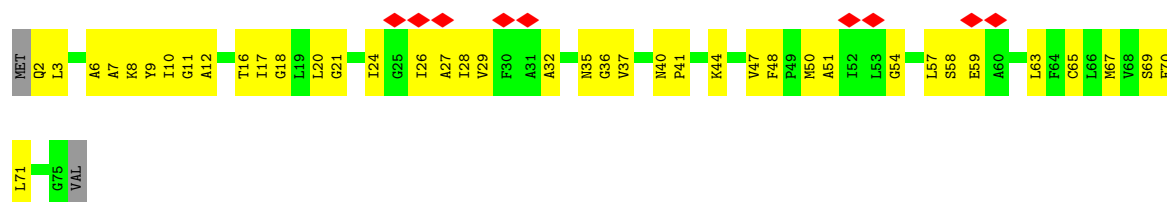


- Molecule 1: ATP synthase subunit 9

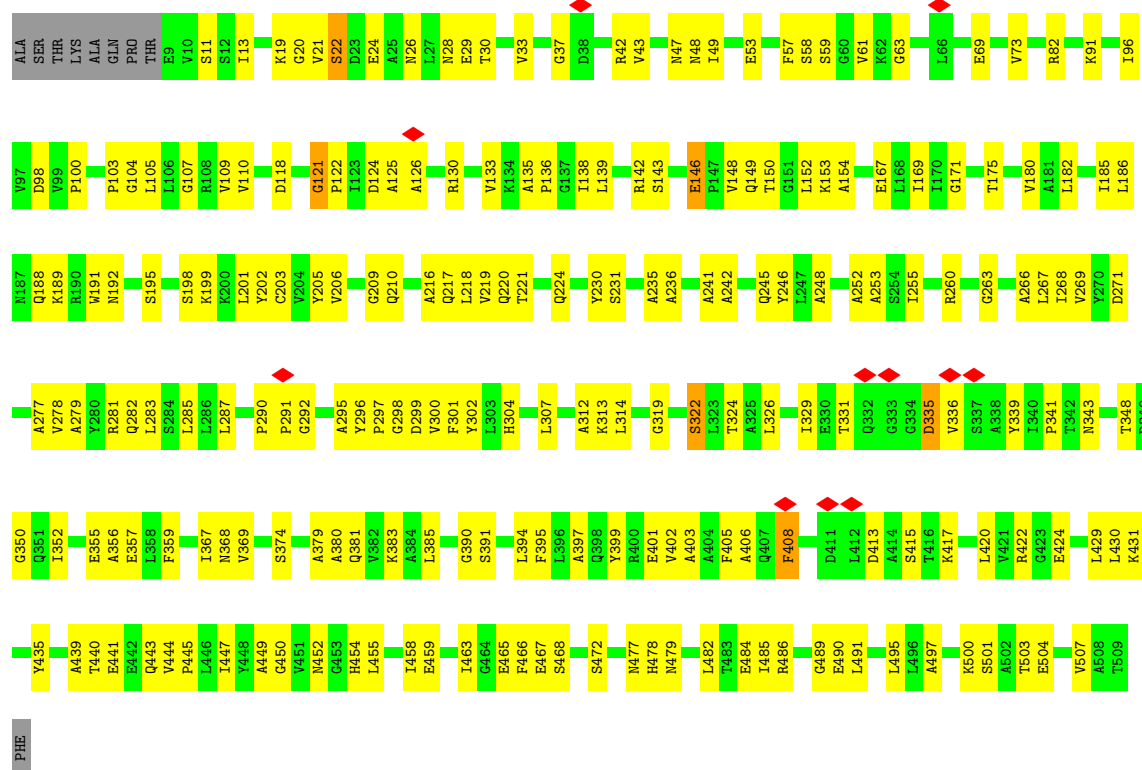


- Molecule 1: ATP synthase subunit 9

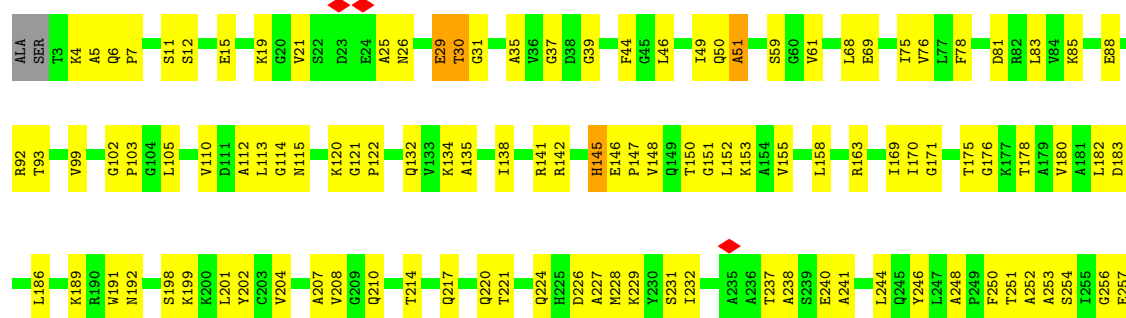




• Molecule 2: ATP synthase subunit alpha

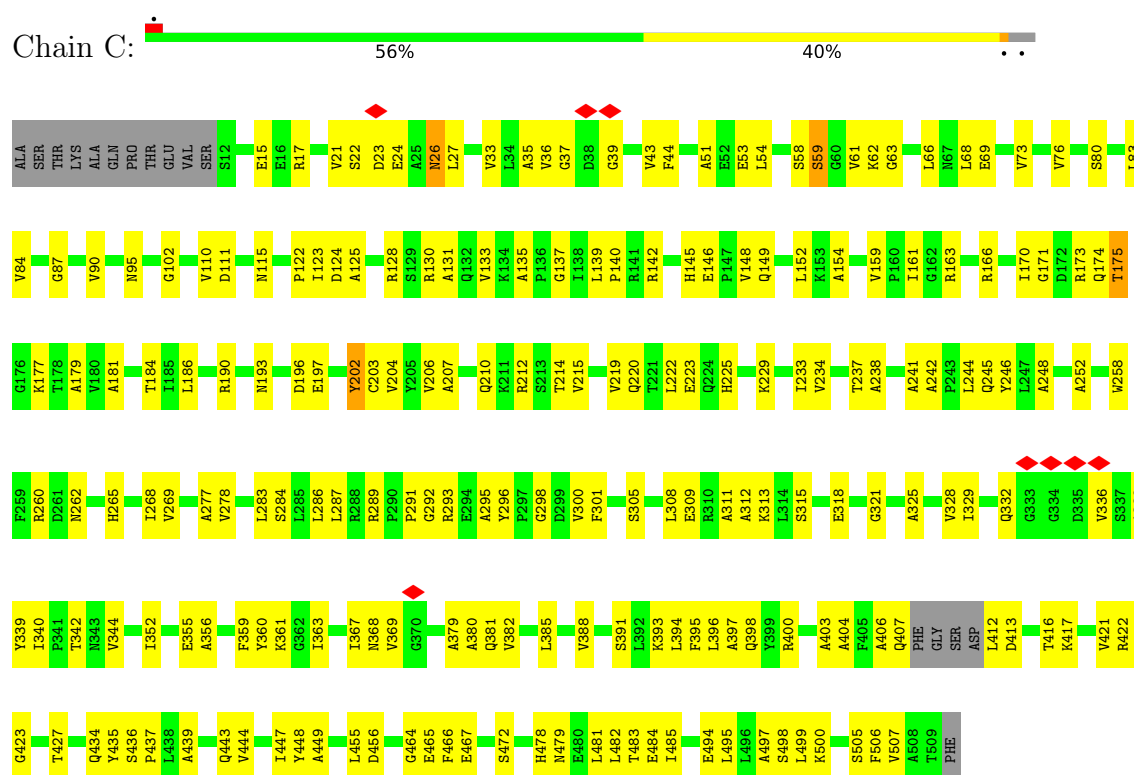


• Molecule 2: ATP synthase subunit alpha

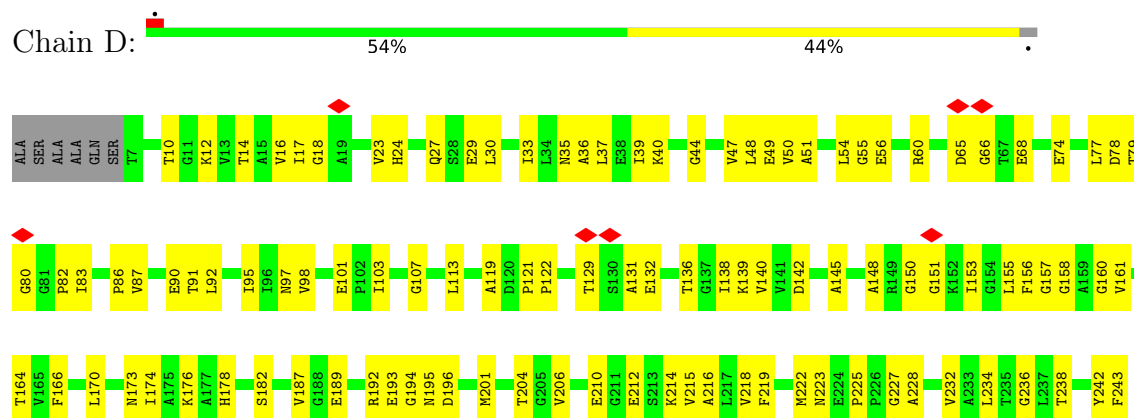


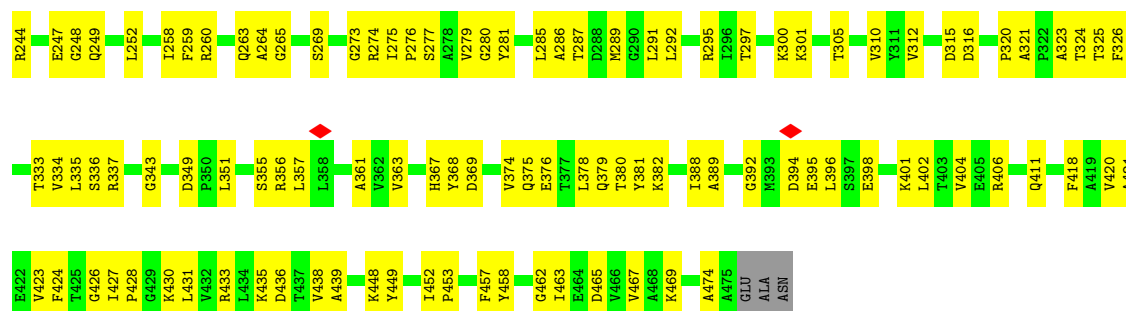


• Molecule 2: ATP synthase subunit alpha

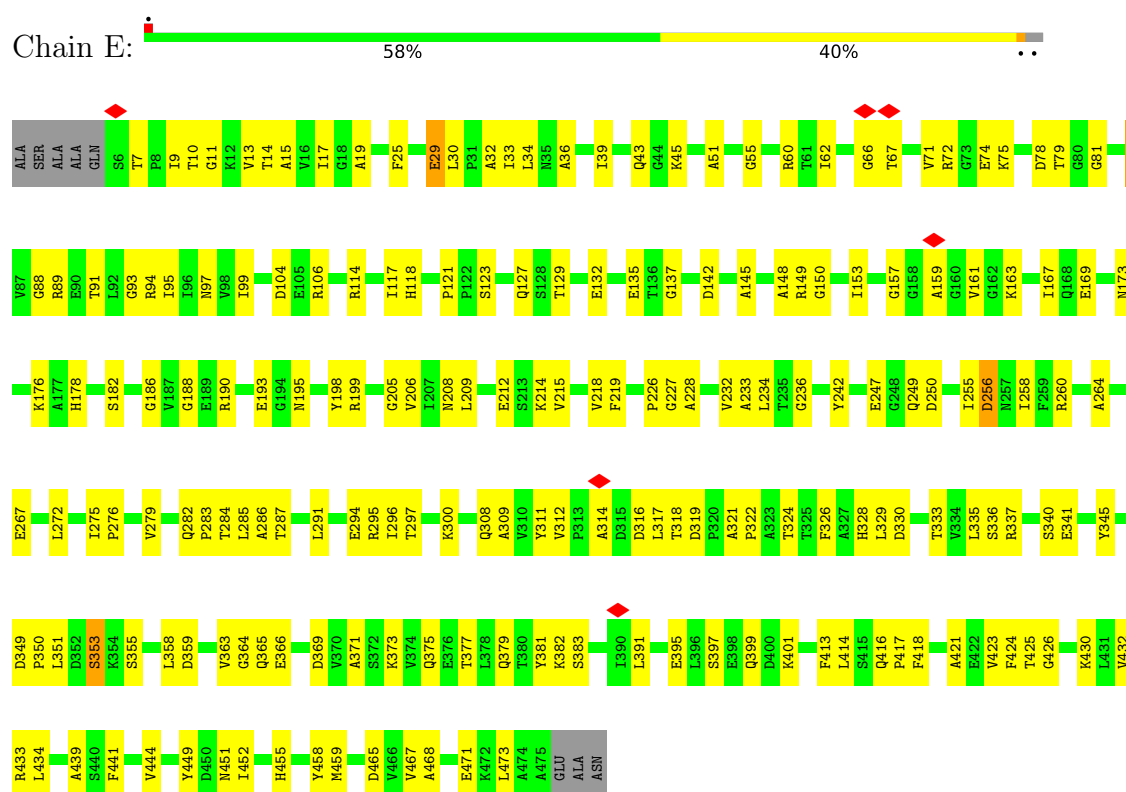


• Molecule 3: ATP synthase subunit beta

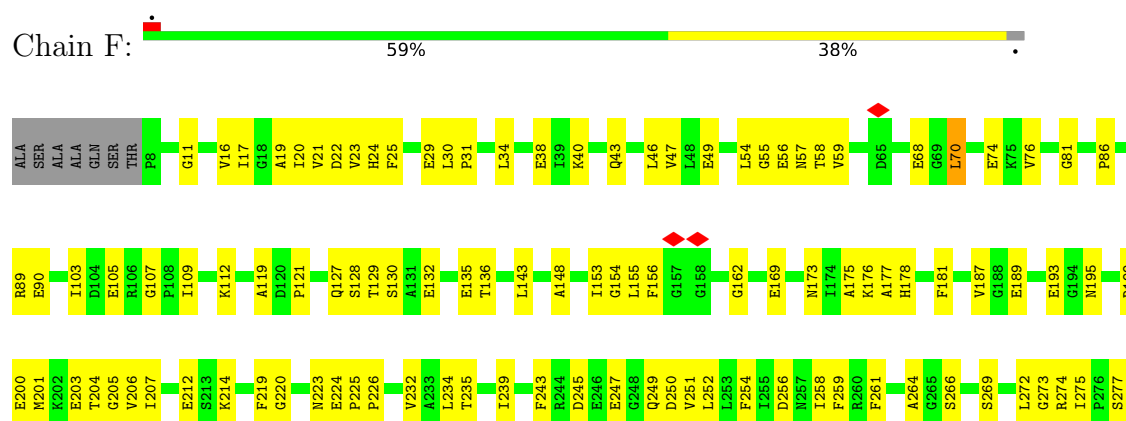


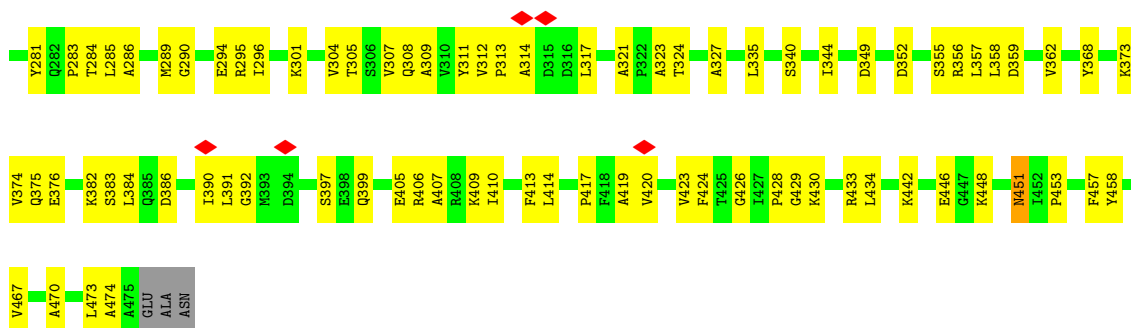


• Molecule 3: ATP synthase subunit beta



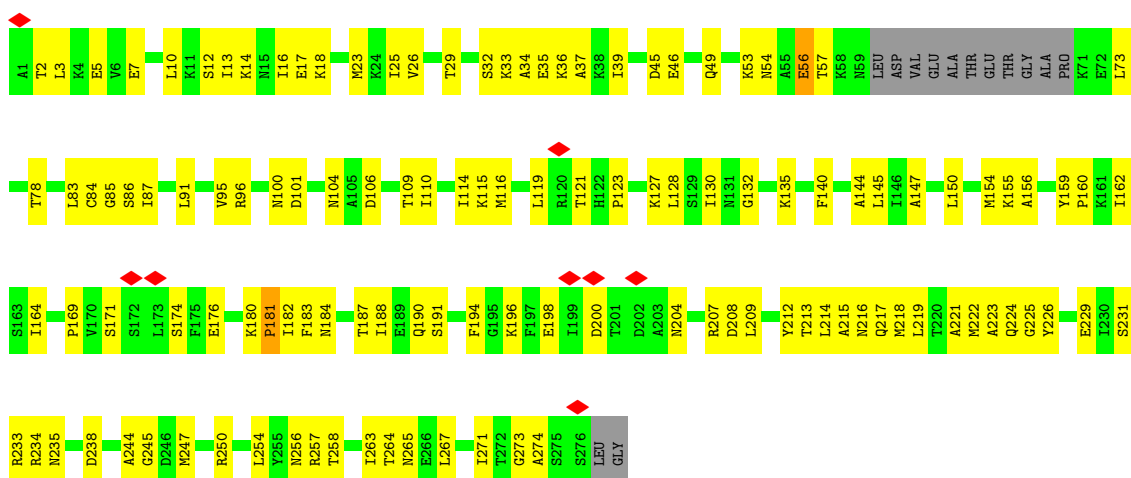
• Molecule 3: ATP synthase subunit beta





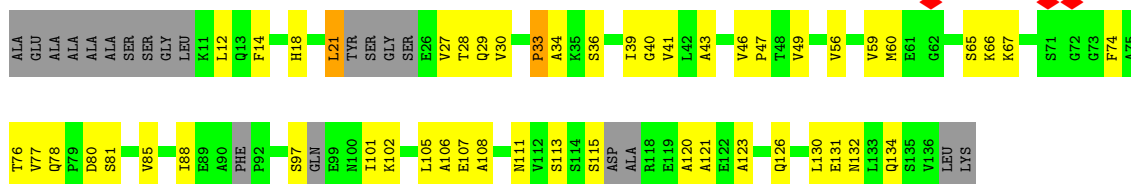
• Molecule 4: ATP synthase subunit gamma

Chain G: 51% 44% 5%



• Molecule 5: ATP synthase subunit delta

Chain H: 49% 35% 14%



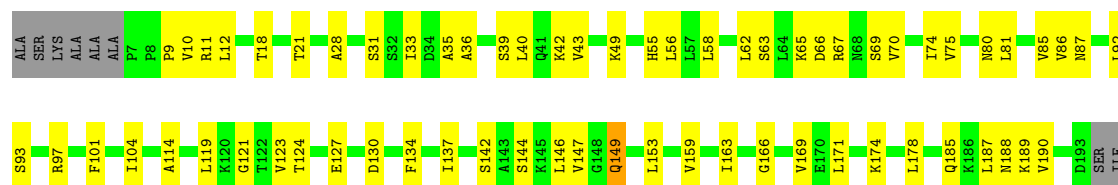
• Molecule 6: ATP synthase subunit epsilon

Chain I: 48% 30% 21%

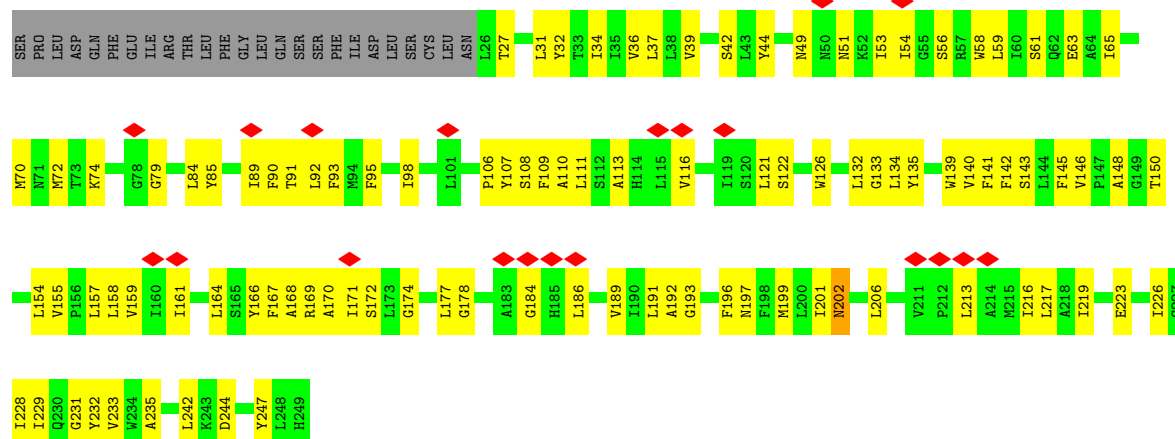


• Molecule 7: ATP synthase subunit 5

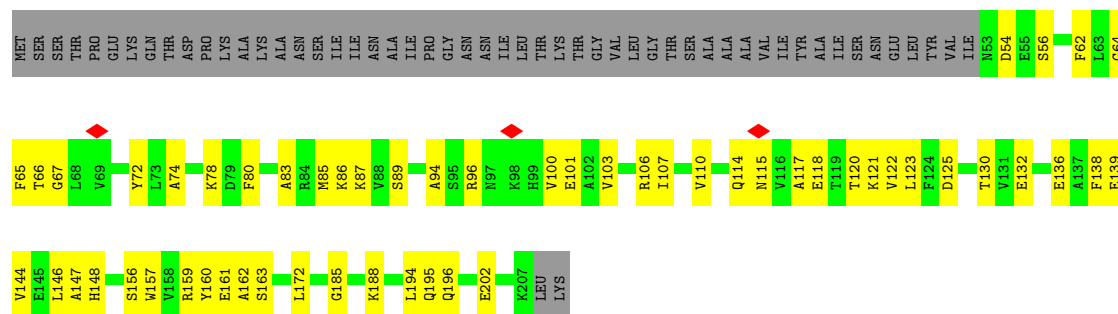
Chain O: 63% 33% 4%



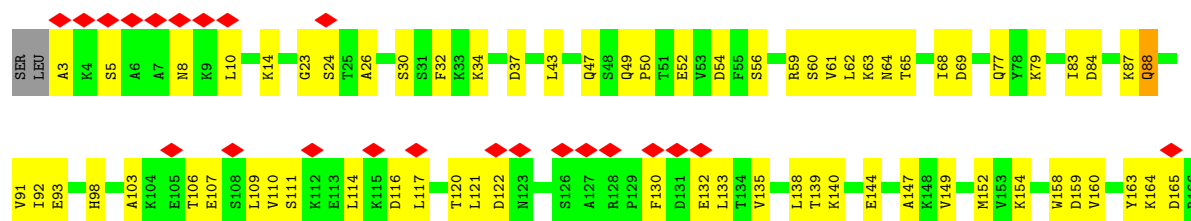
• Molecule 8: ATP synthase subunit a

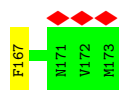


• Molecule 9: ATP synthase subunit 4

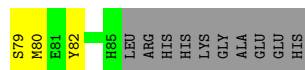
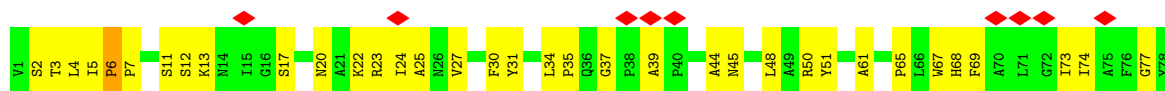


• Molecule 10: ATP synthase subunit d

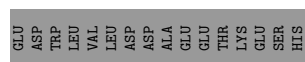
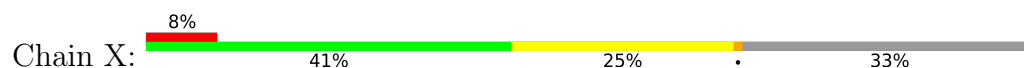




- Molecule 11: ATP synthase subunit f



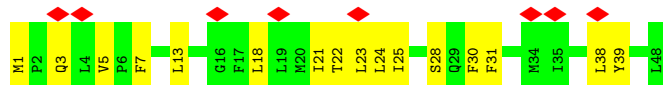
- Molecule 12: ATP synthase subunit H



- 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	3761	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	1.768	Depositor
Minimum map value	-0.654	Depositor
Average map value	0.002	Depositor
Map value standard deviation	0.119	Depositor
Recommended contour level	0.5	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	2.44	14/299 (4.7%)	3.30	48/372 (12.9%)
1	1	2.72	20/299 (6.7%)	3.25	45/372 (12.1%)
1	2	2.57	16/299 (5.4%)	3.35	51/372 (13.7%)
1	3	2.45	13/295 (4.4%)	3.10	38/367 (10.4%)
1	4	2.51	14/299 (4.7%)	3.14	40/372 (10.8%)
1	5	2.48	13/299 (4.3%)	2.86	23/372 (6.2%)
1	6	2.53	14/295 (4.7%)	3.34	53/367 (14.4%)
1	7	2.64	19/291 (6.5%)	3.36	48/362 (13.3%)
1	8	2.51	15/299 (5.0%)	3.32	52/372 (14.0%)
1	9	2.51	16/295 (5.4%)	3.27	46/367 (12.5%)
2	A	2.56	112/2003 (5.6%)	2.89	214/2502 (8.6%)
2	B	2.52	91/2018 (4.5%)	2.83	213/2519 (8.5%)
2	C	2.60	103/1973 (5.2%)	2.79	184/2463 (7.5%)
3	D	2.60	106/1875 (5.7%)	2.87	203/2342 (8.7%)
3	E	2.54	108/1879 (5.7%)	2.73	156/2347 (6.6%)
3	F	2.56	81/1871 (4.3%)	2.91	196/2337 (8.4%)
4	G	2.54	56/1058 (5.3%)	3.06	125/1319 (9.5%)
5	H	2.44	26/467 (5.6%)	2.89	54/575 (9.4%)
6	I	2.57	14/190 (7.4%)	2.79	17/231 (7.4%)
7	O	2.42	33/747 (4.4%)	2.80	64/932 (6.9%)
8	T	2.49	49/896 (5.5%)	2.91	98/1117 (8.8%)
9	U	2.45	24/619 (3.9%)	2.92	69/772 (8.9%)
10	V	2.50	34/684 (5.0%)	2.89	67/852 (7.9%)
11	W	2.56	17/339 (5.0%)	2.74	33/422 (7.8%)
12	X	2.47	9/247 (3.6%)	2.90	28/307 (9.1%)
13	Y	2.53	6/147 (4.1%)	3.05	23/182 (12.6%)
14	Z	2.74	11/192 (5.7%)	2.79	12/237 (5.1%)
All	All	2.54	1034/20175 (5.1%)	2.92	2200/25151 (8.7%)

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	4	0	1
1	5	0	1
1	6	0	1
1	7	0	1
1	9	0	1
2	A	0	2
2	B	0	1
2	C	0	1
3	E	0	1
6	I	0	1
All	All	0	13

All (1034) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
9	U	72	TYR	CA-C	-12.01	1.36	1.52
3	F	11	GLY	N-CA	-10.97	1.34	1.45
3	E	227	GLY	CA-C	-10.87	1.39	1.51
2	A	100	PRO	CA-C	-10.78	1.40	1.52
2	C	159	VAL	N-CA	-10.31	1.38	1.46
1	2	53	LEU	C-N	9.98	1.46	1.33
12	X	46	GLY	C-N	9.51	1.42	1.33
2	C	367	ILE	CA-C	-9.49	1.41	1.52
2	C	210	GLN	CA-C	-9.47	1.41	1.52
4	G	183	PHE	CA-C	-9.45	1.41	1.52
1	0	59	GLU	CA-C	-9.41	1.39	1.52
2	B	265	HIS	N-CA	-9.32	1.33	1.45
8	T	107	TYR	CA-C	-9.27	1.41	1.53
3	E	321	ALA	N-CA	9.22	1.54	1.46
12	X	32	ASN	CA-C	8.97	1.62	1.52
1	6	21	GLY	CA-C	-8.93	1.42	1.52
3	D	40	LYS	CA-C	-8.91	1.41	1.52
3	F	224	GLU	C-N	8.88	1.43	1.33
3	D	33	ILE	CA-C	-8.83	1.42	1.52
3	E	285	LEU	CA-C	-8.81	1.41	1.52
2	C	166	ARG	C-N	8.75	1.44	1.33
2	B	115	ASN	CA-C	-8.70	1.41	1.53
3	E	93	GLY	CA-C	-8.70	1.40	1.51
4	G	96	ARG	N-CA	-8.66	1.35	1.46
14	Z	24	LEU	CA-C	-8.59	1.42	1.52
3	E	72	ARG	CA-C	-8.42	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	H	47	PRO	C-N	8.41	1.45	1.33
2	A	130	ARG	CA-C	-8.36	1.42	1.52
2	C	301	PHE	C-N	8.31	1.45	1.33
2	A	465	GLU	N-CA	-8.30	1.36	1.46
2	C	202	TYR	N-CA	-8.28	1.36	1.46
3	F	57	ASN	N-CA	-8.22	1.34	1.46
3	E	89	ARG	CA-C	-8.20	1.41	1.52
2	A	374	SER	CA-C	-8.18	1.43	1.52
10	V	107	GLU	CA-C	8.18	1.63	1.52
3	D	234	LEU	N-CA	-8.17	1.36	1.46
2	A	435	TYR	CA-C	8.12	1.62	1.52
2	A	390	GLY	C-N	8.10	1.44	1.33
2	B	273	LEU	C-N	8.10	1.44	1.33
2	B	295	ALA	CA-C	-8.08	1.42	1.53
3	F	254	PHE	CA-C	-8.07	1.42	1.52
1	2	13	GLY	CA-C	-8.06	1.43	1.52
14	Z	1	MET	C-N	8.06	1.42	1.34
2	A	209	GLY	CA-C	-8.05	1.43	1.51
3	E	330	ASP	N-CA	-8.03	1.36	1.46
7	O	42	LYS	N-CA	-8.03	1.36	1.46
2	A	217	GLN	CA-C	-8.01	1.42	1.52
1	7	24	ILE	C-N	7.98	1.43	1.33
1	8	42	SER	C-N	7.97	1.42	1.34
8	T	89	ILE	N-CA	-7.97	1.35	1.46
1	7	24	ILE	CA-C	-7.96	1.42	1.52
1	2	36	GLY	C-N	7.96	1.43	1.33
2	C	219	VAL	CA-C	-7.93	1.43	1.52
4	G	264	THR	CA-C	7.91	1.62	1.52
4	G	49	GLN	C-N	7.87	1.43	1.33
2	C	59	SER	CA-C	-7.86	1.42	1.52
3	F	314	ALA	C-N	7.86	1.45	1.33
2	C	248	ALA	CA-C	-7.85	1.43	1.52
2	B	5	ALA	CA-C	-7.82	1.43	1.52
1	9	17	ILE	N-CA	-7.81	1.37	1.46
1	0	73	LEU	CA-C	-7.80	1.42	1.52
2	C	207	ALA	CA-C	-7.79	1.43	1.52
3	D	24	HIS	C-N	7.77	1.43	1.33
3	E	267	GLU	C-N	7.76	1.42	1.33
4	G	254	LEU	N-CA	7.76	1.55	1.46
9	U	160	TYR	N-CA	-7.75	1.36	1.46
4	G	257	ARG	C-N	7.73	1.44	1.33
2	B	208	VAL	CA-C	-7.70	1.43	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	D	320	PRO	C-O	-7.69	1.15	1.24
2	A	430	LEU	N-CA	-7.68	1.37	1.46
3	F	232	VAL	C-N	7.68	1.44	1.33
3	D	376	GLU	C-N	7.67	1.43	1.33
2	B	350	GLY	C-N	7.67	1.44	1.33
2	A	383	LYS	C-N	7.66	1.43	1.33
1	8	44	LYS	N-CA	-7.65	1.37	1.46
2	A	491	LEU	N-CA	-7.63	1.37	1.46
2	B	26	ASN	N-CA	-7.62	1.39	1.46
3	E	295	ARG	C-N	7.61	1.40	1.33
8	T	122	SER	C-N	7.60	1.43	1.33
1	1	66	LEU	CA-C	-7.59	1.43	1.52
2	A	69	GLU	N-CA	-7.58	1.38	1.45
1	1	27	ALA	N-CA	-7.54	1.37	1.46
3	D	119	ALA	CA-C	-7.54	1.43	1.52
7	O	10	VAL	N-CA	-7.54	1.38	1.46
2	C	184	THR	C-N	7.53	1.43	1.33
8	T	140	VAL	C-N	7.53	1.44	1.34
4	G	221	ALA	C-N	7.52	1.43	1.33
2	B	475	LYS	CA-C	-7.52	1.43	1.52
1	1	4	VAL	C-N	7.51	1.44	1.34
14	Z	5	VAL	N-CA	-7.51	1.39	1.46
2	B	389	ALA	C-N	7.46	1.42	1.33
1	7	10	ILE	CA-C	-7.45	1.43	1.52
3	E	258	ILE	N-CA	7.43	1.55	1.46
3	E	283	PRO	N-CA	-7.43	1.37	1.47
2	C	206	VAL	CA-C	-7.42	1.43	1.52
3	F	283	PRO	N-CA	-7.41	1.38	1.47
2	B	386	LYS	CA-C	-7.41	1.43	1.52
1	7	65	CYS	N-CA	7.39	1.55	1.46
1	9	36	GLY	CA-C	-7.39	1.44	1.52
3	D	35	ASN	CA-C	-7.37	1.42	1.53
7	O	146	LEU	N-CA	7.34	1.55	1.46
2	B	240	GLU	CA-C	-7.33	1.43	1.53
4	G	25	ILE	C-N	7.32	1.43	1.33
2	A	149	GLN	CA-C	-7.32	1.44	1.52
4	G	233	ARG	CA-C	-7.31	1.43	1.52
2	C	111	ASP	C-N	7.30	1.44	1.33
5	H	12	LEU	CA-C	-7.28	1.43	1.52
7	O	174	LYS	CA-C	-7.28	1.44	1.52
2	A	467	GLU	C-N	7.26	1.43	1.33
2	B	207	ALA	CA-C	-7.25	1.43	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	W	23	ARG	N-CA	-7.25	1.37	1.46
3	E	45	LYS	C-N	7.24	1.43	1.33
3	D	336	SER	CA-C	-7.23	1.43	1.52
1	2	65	CYS	CA-C	-7.22	1.43	1.52
3	D	174	ILE	N-CA	7.20	1.55	1.46
1	4	4	VAL	CA-C	-7.20	1.43	1.52
3	D	66	GLY	CA-C	-7.19	1.45	1.52
2	B	68	LEU	C-N	7.19	1.41	1.33
3	E	260	ARG	C-N	7.19	1.43	1.33
4	G	155	LYS	CA-C	-7.18	1.45	1.53
1	6	48	PHE	N-CA	-7.17	1.40	1.46
13	Y	31	ALA	C-N	7.15	1.43	1.34
3	F	136	THR	N-CA	-7.14	1.36	1.45
2	B	75	ILE	C-N	7.13	1.42	1.33
3	E	249	GLN	CA-C	-7.13	1.43	1.52
7	O	166	GLY	C-N	7.13	1.42	1.33
3	D	132	GLU	CA-C	-7.12	1.44	1.52
3	D	465	ASP	C-N	7.12	1.42	1.33
3	D	113	LEU	CA-C	-7.11	1.44	1.52
5	H	40	GLY	CA-C	-7.11	1.45	1.51
3	E	351	LEU	N-CA	-7.11	1.37	1.46
2	C	229	LYS	C-N	7.11	1.43	1.33
2	A	341	PRO	C-N	7.10	1.43	1.33
10	V	65	THR	CA-C	-7.10	1.43	1.52
3	E	328	HIS	C-N	7.09	1.43	1.33
3	D	223	ASN	CA-C	-7.08	1.43	1.52
2	A	195	SER	CA-C	-7.07	1.43	1.53
1	3	37	VAL	CA-C	-7.07	1.43	1.52
3	E	33	ILE	CA-C	7.06	1.60	1.52
2	C	455	LEU	C-N	7.05	1.43	1.33
2	A	203	CYS	CA-C	-7.05	1.43	1.52
2	B	37	GLY	C-N	7.05	1.43	1.33
8	T	150	THR	N-CA	-7.05	1.39	1.46
7	O	12	LEU	CA-C	-7.04	1.44	1.52
1	2	22	ALA	C-N	7.04	1.43	1.33
2	A	142	ARG	CA-C	-7.04	1.44	1.52
8	T	27	THR	C-N	7.02	1.43	1.33
3	E	99	ILE	C-N	7.02	1.42	1.33
1	5	42	SER	C-N	7.01	1.41	1.34
1	1	15	SER	CA-C	7.01	1.61	1.52
3	F	252	LEU	CA-C	-6.99	1.44	1.52
3	D	16	VAL	N-CA	-6.98	1.37	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A	444	VAL	CA-C	6.98	1.58	1.52
1	3	33	LEU	C-N	6.97	1.42	1.33
10	V	5	SER	C-N	6.97	1.43	1.33
8	T	189	VAL	CA-C	-6.96	1.43	1.52
4	G	217	GLN	CA-C	-6.96	1.43	1.52
2	C	39	GLY	C-N	6.95	1.43	1.33
1	8	28	ILE	C-N	6.93	1.42	1.33
2	C	363	ILE	CA-C	-6.92	1.43	1.52
3	D	151	GLY	CA-C	-6.92	1.44	1.52
3	D	48	LEU	C-N	6.92	1.42	1.33
1	1	16	THR	C-N	6.92	1.42	1.34
2	A	43	VAL	C-N	6.92	1.43	1.33
1	1	11	GLY	CA-C	-6.91	1.43	1.52
2	A	96	ILE	C-O	-6.91	1.15	1.24
3	D	225	PRO	CA-C	6.91	1.58	1.52
8	T	72	MET	N-CA	-6.91	1.37	1.46
2	C	171	GLY	CA-C	-6.91	1.45	1.52
2	A	322	SER	CA-C	-6.90	1.44	1.52
6	I	58	PRO	N-CA	-6.89	1.38	1.47
11	W	35	PRO	N-CA	-6.89	1.38	1.47
1	1	37	VAL	N-CA	-6.87	1.37	1.46
1	7	60	ALA	C-N	6.87	1.43	1.33
1	9	21	GLY	CA-C	-6.87	1.44	1.52
2	C	148	VAL	C-N	6.87	1.42	1.33
2	C	321	GLY	CA-C	-6.87	1.44	1.52
3	E	145	ALA	CA-C	-6.87	1.44	1.52
3	E	365	GLN	CA-C	-6.86	1.44	1.52
4	G	245	GLY	CA-C	-6.86	1.44	1.52
2	A	417	LYS	C-N	6.84	1.43	1.33
4	G	176	GLU	CA-C	-6.84	1.45	1.52
14	Z	30	PHE	CA-C	-6.83	1.48	1.52
3	F	451	ASN	CA-C	6.81	1.61	1.52
1	7	8	LYS	C-N	6.80	1.42	1.33
2	C	237	THR	CA-C	-6.80	1.43	1.53
3	E	153	ILE	CA-C	-6.80	1.44	1.52
9	U	83	ALA	N-CA	-6.80	1.38	1.46
1	8	59	GLU	N-CA	-6.80	1.38	1.46
3	F	29	GLU	CA-C	-6.80	1.45	1.52
3	D	252	LEU	C-N	6.79	1.42	1.33
2	C	234	VAL	CA-C	-6.78	1.44	1.52
2	C	17	ARG	C-N	6.78	1.42	1.33
8	T	59	LEU	C-N	6.77	1.42	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	1	25	GLY	CA-C	-6.77	1.44	1.52
2	C	202	TYR	CA-C	-6.77	1.44	1.52
2	A	322	SER	N-CA	-6.76	1.38	1.46
2	A	296	TYR	C-N	-6.76	1.25	1.33
8	T	58	TRP	C-N	6.75	1.43	1.33
3	F	407	ALA	CA-C	-6.75	1.44	1.52
2	B	122	PRO	CA-C	-6.74	1.42	1.52
2	C	59	SER	N-CA	-6.74	1.37	1.46
3	D	312	VAL	N-CA	6.74	1.52	1.46
1	1	57	LEU	C-N	6.74	1.43	1.33
1	5	66	LEU	C-O	-6.74	1.16	1.24
2	C	170	ILE	C-N	6.74	1.39	1.33
3	E	212	GLU	CA-C	-6.74	1.44	1.52
1	3	73	LEU	CA-C	-6.73	1.44	1.52
2	C	329	ILE	CA-C	-6.73	1.44	1.52
2	B	250	PHE	N-CA	-6.73	1.38	1.46
2	A	216	ALA	CA-C	6.72	1.61	1.52
2	A	447	ILE	CA-C	-6.71	1.43	1.52
9	U	118	GLU	N-CA	-6.71	1.38	1.46
3	D	335	LEU	CA-C	-6.71	1.44	1.52
3	D	232	VAL	CA-C	-6.71	1.44	1.52
7	O	97	ARG	N-CA	6.71	1.54	1.45
3	D	50	VAL	CA-C	-6.70	1.44	1.52
2	C	332	GLN	CA-C	-6.70	1.46	1.53
2	B	346	SER	C-N	6.69	1.42	1.33
2	B	475	LYS	N-CA	-6.69	1.38	1.46
2	C	466	PHE	N-CA	-6.68	1.38	1.46
7	O	69	SER	N-CA	-6.68	1.37	1.46
10	V	3	ALA	N-CA	6.68	1.58	1.46
2	A	110	VAL	N-CA	-6.68	1.38	1.46
4	G	213	THR	CA-C	-6.68	1.43	1.52
2	A	202	TYR	C-N	6.68	1.42	1.33
3	D	10	THR	CA-C	-6.67	1.44	1.52
3	F	178	HIS	C-N	6.67	1.43	1.33
10	V	152	MET	C-N	6.67	1.42	1.33
3	D	238	THR	CA-C	6.67	1.61	1.52
3	E	314	ALA	C-N	6.67	1.43	1.33
2	B	337	SER	CA-C	6.67	1.61	1.52
2	B	448	TYR	N-CA	-6.67	1.38	1.46
1	4	51	ALA	C-N	6.67	1.42	1.33
3	E	208	ASN	N-CA	-6.66	1.38	1.46
2	B	311	ALA	C-N	6.64	1.41	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	9	16	THR	N-CA	-6.64	1.38	1.46
9	U	123	LEU	C-N	6.63	1.42	1.33
10	V	50	PRO	CA-C	-6.62	1.43	1.52
2	A	185	ILE	N-CA	6.61	1.54	1.46
3	F	446	GLU	C-N	6.61	1.41	1.33
7	O	121	GLY	C-N	6.61	1.42	1.33
2	C	142	ARG	C-N	6.60	1.42	1.33
3	D	18	GLY	CA-C	-6.60	1.43	1.52
3	F	153	ILE	C-N	6.59	1.36	1.33
8	T	170	ALA	N-CA	-6.59	1.38	1.46
1	4	37	VAL	C-N	6.59	1.43	1.34
3	D	210	GLU	CA-C	-6.59	1.44	1.52
3	D	79	THR	C-N	6.58	1.42	1.33
2	B	241	ALA	CA-C	-6.58	1.44	1.53
10	V	79	LYS	N-CA	6.58	1.52	1.46
3	F	420	VAL	CA-C	6.58	1.61	1.52
3	E	363	VAL	CA-C	-6.57	1.44	1.53
3	E	369	ASP	C-N	6.57	1.42	1.33
3	E	417	PRO	N-CA	-6.56	1.39	1.46
3	F	31	PRO	N-CA	-6.56	1.39	1.47
1	8	2	GLN	N-CA	-6.56	1.38	1.46
2	C	115	ASN	CA-C	-6.55	1.46	1.52
2	C	265	HIS	CA-C	-6.54	1.44	1.52
3	E	29	GLU	C-N	6.54	1.41	1.33
3	E	416	GLN	C-N	6.54	1.41	1.33
2	C	131	ALA	N-CA	-6.53	1.38	1.46
4	G	181	PRO	CA-C	-6.53	1.43	1.52
2	B	398	GLN	CA-C	6.52	1.61	1.52
1	5	19	LEU	CA-C	-6.52	1.43	1.52
4	G	234	ARG	CA-C	-6.52	1.44	1.52
4	G	128	LEU	N-CA	-6.51	1.37	1.45
3	F	272	LEU	C-N	6.51	1.41	1.32
1	5	18	GLY	C-N	6.51	1.42	1.33
3	E	336	SER	C-N	6.51	1.42	1.33
5	H	131	GLU	C-N	6.51	1.42	1.33
4	G	78	THR	C-N	6.50	1.42	1.33
1	9	24	ILE	CA-C	6.50	1.61	1.52
3	D	392	GLY	N-CA	-6.50	1.37	1.45
7	O	169	VAL	C-N	6.49	1.42	1.33
1	4	39	ARG	N-CA	6.49	1.54	1.46
2	A	489	GLY	C-N	6.49	1.41	1.33
4	G	14	LYS	C-N	6.49	1.42	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	C	241	ALA	C-N	6.48	1.42	1.33
1	4	39	ARG	CA-C	-6.48	1.44	1.52
2	A	189	LYS	N-CA	-6.47	1.38	1.46
3	D	424	PHE	N-CA	-6.47	1.38	1.46
3	E	159	ALA	C-N	6.47	1.41	1.33
3	D	87	VAL	N-CA	-6.46	1.38	1.46
3	E	465	ASP	C-N	6.45	1.42	1.33
3	F	178	HIS	N-CA	-6.45	1.37	1.46
2	B	141	ARG	N-CA	-6.45	1.38	1.46
3	D	187	VAL	N-CA	-6.44	1.38	1.46
2	C	313	LYS	CA-C	-6.44	1.44	1.52
10	V	109	LEU	C-N	6.43	1.41	1.33
2	C	286	LEU	N-CA	-6.42	1.37	1.46
2	A	352	ILE	N-CA	-6.41	1.38	1.46
2	B	406	ALA	C-O	-6.41	1.15	1.24
3	F	352	ASP	CA-C	-6.41	1.44	1.52
5	H	34	ALA	N-CA	-6.41	1.37	1.45
11	W	25	ALA	N-CA	-6.41	1.38	1.46
8	T	92	LEU	C-N	6.40	1.42	1.33
2	C	87	GLY	N-CA	6.39	1.54	1.45
4	G	231	SER	C-N	6.39	1.42	1.33
2	A	21	VAL	C-N	6.39	1.42	1.33
2	A	335	ASP	N-CA	-6.39	1.38	1.46
3	F	247	GLU	C-N	6.39	1.39	1.33
2	A	415	SER	N-CA	-6.39	1.38	1.46
3	F	409	LYS	CA-C	6.39	1.61	1.52
8	T	70	MET	CA-C	-6.39	1.44	1.52
2	B	337	SER	C-N	6.38	1.41	1.33
13	Y	3	LYS	CA-C	-6.38	1.44	1.52
3	D	139	LYS	CA-C	-6.38	1.44	1.52
2	A	53	GLU	CA-C	-6.37	1.44	1.53
3	D	260	ARG	C-N	6.37	1.42	1.33
3	F	173	ASN	N-CA	-6.37	1.38	1.46
2	B	182	LEU	CA-C	-6.36	1.44	1.52
2	B	325	ALA	C-O	-6.36	1.16	1.23
3	D	148	ALA	CA-C	-6.36	1.44	1.52
3	D	216	ALA	CA-C	-6.36	1.44	1.52
3	D	74	GLU	C-N	6.36	1.41	1.33
4	G	23	MET	C-O	-6.35	1.16	1.24
3	D	214	LYS	C-N	6.35	1.42	1.33
2	A	37	GLY	CA-C	-6.35	1.43	1.51
1	5	40	ASN	CA-C	6.34	1.60	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A	486	ARG	CA-C	-6.34	1.44	1.52
3	E	401	LYS	CA-C	-6.34	1.44	1.52
1	0	19	LEU	CA-C	-6.34	1.44	1.52
2	B	325	ALA	CA-C	-6.34	1.44	1.52
10	V	98	HIS	CA-C	-6.34	1.44	1.52
8	T	36	VAL	N-CA	-6.33	1.38	1.46
3	E	71	VAL	N-CA	-6.33	1.39	1.46
1	8	69	SER	N-CA	-6.33	1.38	1.46
3	E	75	LYS	C-N	6.33	1.41	1.33
9	U	196	GLN	CA-C	-6.32	1.44	1.52
2	A	124	ASP	CA-C	-6.32	1.44	1.52
2	A	98	ASP	C-N	6.31	1.40	1.33
2	A	109	VAL	CA-C	-6.31	1.44	1.52
3	E	355	SER	CA-C	-6.31	1.45	1.52
9	U	194	LEU	N-CA	6.31	1.54	1.46
14	Z	28	SER	N-CA	-6.30	1.38	1.46
3	D	65	ASP	C-N	6.30	1.39	1.33
3	D	16	VAL	CA-C	-6.30	1.44	1.52
3	E	308	GLN	C-N	6.30	1.41	1.33
1	7	42	SER	C-N	6.30	1.41	1.34
2	C	291	PRO	CA-C	-6.29	1.45	1.52
2	B	248	ALA	CA-C	-6.29	1.44	1.52
3	D	337	ARG	CA-C	-6.29	1.44	1.52
7	O	178	LEU	C-N	6.28	1.42	1.33
1	5	63	LEU	C-N	6.28	1.41	1.33
2	B	199	LYS	N-CA	-6.28	1.37	1.46
3	D	367	HIS	C-N	-6.27	1.25	1.33
3	F	30	LEU	CA-C	-6.27	1.47	1.52
12	X	4	GLN	CA-C	6.27	1.60	1.52
4	G	53	LYS	N-CA	-6.26	1.38	1.46
2	A	291	PRO	CA-C	-6.25	1.47	1.53
2	A	422	ARG	CA-C	-6.24	1.44	1.52
4	G	135	LYS	C-N	6.23	1.42	1.33
14	Z	18	LEU	CA-C	-6.22	1.44	1.52
3	F	277	SER	N-CA	-6.22	1.42	1.46
1	7	67	MET	CA-C	-6.21	1.44	1.52
2	A	171	GLY	N-CA	-6.21	1.39	1.45
9	U	159	ARG	CA-C	-6.20	1.44	1.52
3	F	467	VAL	CA-C	-6.20	1.44	1.52
3	D	326	PHE	C-N	6.19	1.42	1.34
8	T	146	VAL	CA-C	-6.19	1.47	1.52
3	E	414	LEU	C-N	6.19	1.42	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	C	102	GLY	N-CA	6.19	1.53	1.44
8	T	142	PHE	C-N	6.19	1.42	1.33
3	E	434	LEU	N-CA	-6.19	1.38	1.46
3	F	344	ILE	N-CA	-6.19	1.38	1.46
3	F	112	LYS	C-N	6.18	1.42	1.33
3	E	74	GLU	CA-C	-6.18	1.45	1.52
3	D	91	THR	C-N	6.18	1.41	1.33
2	B	180	VAL	CA-C	-6.17	1.45	1.52
8	T	106	PRO	N-CA	-6.17	1.39	1.47
1	1	54	GLY	CA-C	-6.17	1.45	1.52
3	F	259	PHE	N-CA	-6.17	1.38	1.46
3	E	373	LYS	C-N	6.16	1.41	1.33
2	B	88	GLU	C-N	6.16	1.41	1.33
1	9	29	VAL	C-N	-6.16	1.25	1.33
2	A	380	ALA	N-CA	-6.16	1.38	1.46
3	D	145	ALA	CA-C	-6.14	1.45	1.52
1	1	53	LEU	CA-C	-6.14	1.45	1.52
2	A	33	VAL	C-N	6.14	1.42	1.33
2	C	403	ALA	C-N	6.14	1.42	1.33
4	G	87	ILE	CA-C	-6.14	1.45	1.52
1	3	25	GLY	N-CA	6.13	1.53	1.45
1	6	18	GLY	C-N	6.13	1.42	1.34
1	8	14	ILE	C-N	6.13	1.42	1.34
1	4	9	TYR	C-N	6.13	1.41	1.33
8	T	141	PHE	C-N	6.13	1.43	1.33
3	D	395	GLU	N-CA	6.12	1.53	1.46
1	4	29	VAL	C-N	6.12	1.42	1.33
4	G	229	GLU	CA-C	-6.12	1.45	1.52
9	U	96	ARG	CA-C	-6.12	1.45	1.52
2	C	388	VAL	C-N	6.11	1.41	1.33
5	H	27	VAL	CA-C	-6.11	1.45	1.52
2	C	342	THR	C-N	6.11	1.42	1.33
9	U	80	PHE	C-O	6.10	1.31	1.24
2	B	192	ASN	CA-C	-6.09	1.44	1.52
1	6	56	ALA	C-N	6.09	1.42	1.33
7	O	124	THR	CA-C	-6.09	1.44	1.52
2	C	382	VAL	N-CA	-6.09	1.38	1.46
3	E	17	ILE	C-N	6.08	1.42	1.33
3	F	11	GLY	CA-C	-6.08	1.44	1.51
9	U	120	THR	C-N	6.08	1.42	1.34
1	1	13	GLY	C-N	6.07	1.41	1.33
8	T	42	SER	N-CA	-6.07	1.38	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A	201	LEU	CA-C	-6.07	1.45	1.52
3	E	121	PRO	C-N	6.06	1.41	1.33
3	F	136	THR	CA-C	-6.06	1.45	1.52
3	E	161	VAL	C-N	6.06	1.42	1.33
7	O	159	VAL	CA-C	-6.06	1.45	1.52
3	E	473	LEU	CA-C	-6.05	1.44	1.52
14	Z	3	GLN	N-CA	-6.05	1.38	1.46
2	C	154	ALA	CA-C	-6.05	1.44	1.52
7	O	149	GLN	CA-C	-6.05	1.44	1.52
8	T	126	TRP	N-CA	-6.05	1.39	1.46
1	6	44	LYS	CA-C	-6.05	1.44	1.52
5	H	77	VAL	CA-C	-6.05	1.46	1.52
2	C	53	GLU	C-N	6.04	1.42	1.33
3	E	188	GLY	CA-C	-6.04	1.43	1.51
1	0	40	ASN	CA-C	-6.02	1.45	1.52
2	A	175	THR	C-N	6.02	1.40	1.33
2	B	21	VAL	C-N	6.01	1.42	1.33
2	B	191	TRP	N-CA	-6.01	1.39	1.46
3	F	340	SER	CA-C	-6.01	1.44	1.52
3	E	455	HIS	C-N	6.01	1.42	1.33
2	B	202	TYR	CA-C	-6.00	1.45	1.53
2	C	434	GLN	C-N	6.00	1.42	1.33
13	Y	34	SER	CA-C	-5.99	1.44	1.52
3	F	234	LEU	C-N	5.99	1.41	1.33
3	F	187	VAL	CA-C	-5.99	1.45	1.52
3	F	399	GLN	C-N	5.99	1.42	1.33
3	E	449	TYR	CA-C	-5.99	1.43	1.52
1	0	62	GLY	C-N	5.98	1.41	1.33
1	3	58	SER	CA-C	5.98	1.60	1.52
1	0	36	GLY	CA-C	-5.97	1.45	1.52
3	D	418	PHE	CA-C	-5.97	1.44	1.53
3	F	285	LEU	CA-C	-5.97	1.45	1.52
7	O	80	ASN	CA-C	-5.97	1.45	1.52
9	U	161	GLU	N-CA	-5.97	1.39	1.46
2	A	497	ALA	CA-C	-5.96	1.45	1.52
2	C	278	VAL	CA-C	-5.96	1.45	1.52
4	G	119	LEU	C-N	5.96	1.41	1.33
3	E	86	PRO	N-CA	-5.96	1.39	1.47
3	E	316	ASP	CA-C	-5.96	1.45	1.52
11	W	37	GLY	CA-C	5.95	1.60	1.51
2	C	283	LEU	CA-C	5.95	1.60	1.52
8	T	132	LEU	C-N	5.95	1.41	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	W	6	PRO	CA-C	5.95	1.57	1.52
3	E	127	GLN	C-N	5.95	1.42	1.33
3	F	31	PRO	CA-C	-5.94	1.45	1.52
8	T	244	ASP	C-N	5.94	1.42	1.33
2	A	231	SER	CA-C	-5.94	1.45	1.52
2	A	355	GLU	C-N	5.94	1.41	1.33
3	F	286	ALA	CA-C	-5.94	1.45	1.52
1	6	72	LEU	C-N	5.93	1.41	1.33
11	W	82	TYR	CA-C	-5.93	1.44	1.52
14	Z	28	SER	C-N	5.93	1.41	1.33
2	C	222	LEU	CA-C	-5.93	1.45	1.52
2	B	153	LYS	N-CA	-5.93	1.39	1.46
3	D	129	THR	CA-C	-5.93	1.45	1.52
8	T	85	TYR	N-CA	-5.93	1.39	1.46
1	5	56	ALA	CA-C	-5.92	1.45	1.52
8	T	157	LEU	C-N	5.92	1.43	1.33
8	T	226	ILE	C-N	5.92	1.41	1.34
3	E	114	ARG	C-O	-5.90	1.16	1.23
10	V	163	TYR	CA-C	-5.90	1.44	1.52
2	C	325	ALA	CA-C	-5.89	1.45	1.52
3	D	285	LEU	CA-C	-5.89	1.45	1.52
3	E	468	ALA	C-N	5.89	1.42	1.33
2	A	152	LEU	CA-C	-5.89	1.45	1.52
11	W	51	TYR	CA-C	-5.89	1.45	1.52
2	A	266	ALA	CA-C	-5.88	1.45	1.52
3	E	250	ASP	CA-C	-5.88	1.45	1.52
3	F	301	LYS	CA-C	-5.88	1.44	1.52
2	A	452	ASN	CA-C	-5.88	1.43	1.52
3	D	449	TYR	N-CA	-5.88	1.41	1.46
1	5	14	ILE	C-O	-5.88	1.17	1.24
2	B	61	VAL	N-CA	-5.88	1.39	1.46
11	W	7	PRO	N-CA	-5.88	1.39	1.47
2	A	20	GLY	CA-C	5.87	1.59	1.51
9	U	122	VAL	C-N	5.87	1.42	1.34
6	I	38	SER	C-O	-5.87	1.16	1.24
2	C	174	GLN	N-CA	-5.86	1.38	1.46
8	T	216	ILE	C-N	5.86	1.41	1.33
2	A	126	ALA	C-N	5.86	1.40	1.33
2	A	431	LYS	C-N	5.86	1.41	1.33
2	C	63	GLY	CA-C	-5.85	1.45	1.51
3	F	177	ALA	C-N	5.85	1.41	1.33
1	1	12	ALA	C-N	5.85	1.41	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	G	110	ILE	CA-C	-5.85	1.47	1.53
2	B	92	ARG	C-N	5.84	1.41	1.33
2	A	477	ASN	CA-C	-5.84	1.46	1.52
3	D	60	ARG	CA-C	-5.84	1.45	1.52
1	6	6	ALA	CA-C	-5.84	1.45	1.52
2	B	198	SER	C-N	5.84	1.42	1.33
3	F	54	LEU	C-N	5.83	1.39	1.32
3	D	398	GLU	C-N	5.83	1.41	1.33
5	H	113	SER	N-CA	5.83	1.53	1.46
3	F	457	PHE	C-N	5.82	1.41	1.33
5	H	132	ASN	C-N	5.82	1.41	1.33
8	T	192	ALA	C-N	5.82	1.41	1.33
3	E	350	PRO	CA-C	-5.82	1.44	1.52
2	C	233	ILE	CA-C	-5.81	1.45	1.52
3	D	36	ALA	CA-C	-5.81	1.45	1.52
8	T	231	GLY	CA-C	5.81	1.58	1.52
14	Z	39	TYR	N-CA	-5.81	1.39	1.46
3	F	275	ILE	N-CA	-5.81	1.40	1.46
13	Y	21	ALA	C-O	-5.80	1.17	1.24
3	E	236	GLY	C-N	5.80	1.41	1.33
3	D	389	ALA	CA-C	5.80	1.60	1.52
2	C	161	ILE	CA-C	-5.80	1.45	1.52
2	B	7	PRO	C-N	5.80	1.41	1.33
3	F	458	TYR	N-CA	-5.80	1.39	1.46
2	A	343	ASN	C-N	5.79	1.41	1.33
2	B	280	TYR	N-CA	-5.79	1.39	1.46
2	C	122	PRO	N-CA	5.79	1.53	1.46
1	1	69	SER	C-N	5.79	1.42	1.34
3	F	70	LEU	C-N	5.79	1.40	1.33
1	7	28	ILE	N-CA	-5.78	1.39	1.46
2	C	494	GLU	CA-C	-5.78	1.45	1.52
2	A	49	ILE	CA-C	-5.78	1.46	1.52
8	T	121	LEU	C-O	5.78	1.30	1.24
2	A	139	LEU	N-CA	-5.77	1.40	1.46
3	E	296	ILE	CA-C	-5.77	1.47	1.53
3	F	386	ASP	N-CA	-5.77	1.39	1.46
3	D	87	VAL	CA-C	-5.76	1.45	1.52
10	V	144	GLU	C-N	5.76	1.40	1.33
1	7	18	GLY	CA-C	-5.76	1.45	1.52
1	3	63	LEU	C-N	5.76	1.41	1.33
2	C	214	THR	CA-C	-5.76	1.45	1.52
3	E	317	LEU	C-N	5.76	1.41	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A	440	THR	C-N	5.75	1.41	1.34
3	D	310	VAL	C-N	5.75	1.41	1.33
3	D	276	PRO	C-O	-5.75	1.16	1.23
5	H	29	GLN	N-CA	5.75	1.53	1.46
1	7	11	GLY	CA-C	-5.75	1.45	1.52
3	D	142	ASP	C-N	5.75	1.41	1.33
8	T	201	ILE	CA-C	-5.74	1.45	1.52
3	D	227	GLY	C-N	5.74	1.41	1.33
3	E	149	ARG	N-CA	-5.74	1.39	1.46
3	D	82	PRO	CA-C	-5.74	1.45	1.52
3	E	121	PRO	CA-C	-5.73	1.46	1.52
1	0	5	LEU	CA-C	-5.73	1.45	1.52
1	2	35	ASN	CA-C	5.73	1.60	1.52
1	9	11	GLY	C-N	5.73	1.41	1.33
3	F	309	ALA	N-CA	-5.73	1.39	1.46
3	F	295	ARG	C-N	5.72	1.41	1.33
3	D	121	PRO	CA-C	-5.72	1.46	1.52
2	C	308	LEU	CA-C	-5.72	1.45	1.52
3	D	36	ALA	N-CA	-5.72	1.38	1.45
3	E	117	ILE	CA-C	-5.72	1.44	1.52
2	B	302	TYR	CA-C	-5.72	1.45	1.52
1	9	58	SER	CA-C	-5.72	1.45	1.52
2	B	401	GLU	C-N	5.71	1.40	1.34
5	H	18	HIS	C-N	5.71	1.40	1.33
3	E	330	ASP	CA-C	-5.70	1.45	1.52
1	4	27	ALA	C-N	5.70	1.41	1.33
2	A	385	LEU	CA-C	5.70	1.60	1.52
9	U	121	LYS	C-N	5.70	1.41	1.33
2	C	223	GLU	CA-C	-5.70	1.44	1.52
1	2	33	LEU	CA-C	5.70	1.60	1.52
1	5	28	ILE	N-CA	5.70	1.53	1.46
2	B	440	THR	C-N	5.70	1.41	1.33
8	T	196	PHE	N-CA	-5.69	1.39	1.46
3	F	355	SER	CA-C	-5.69	1.45	1.52
10	V	88	GLN	N-CA	5.69	1.53	1.46
11	W	68	HIS	CA-C	-5.69	1.45	1.52
2	B	500	LYS	CA-C	-5.68	1.45	1.52
3	D	145	ALA	N-CA	-5.68	1.38	1.46
3	D	423	VAL	C-N	5.68	1.41	1.33
2	A	230	TYR	CA-C	-5.68	1.45	1.52
3	F	307	VAL	N-CA	-5.68	1.39	1.46
3	F	274	ARG	C-N	5.68	1.38	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
12	X	39	LEU	C-O	5.68	1.31	1.24
2	A	350	GLY	C-O	5.68	1.29	1.23
4	G	109	THR	CA-C	-5.68	1.45	1.52
3	D	173	ASN	C-N	5.67	1.41	1.33
3	F	311	TYR	C-N	5.67	1.39	1.33
3	F	429	GLY	CA-C	-5.67	1.47	1.52
10	V	61	VAL	C-N	5.67	1.41	1.33
7	O	142	SER	N-CA	-5.67	1.39	1.46
2	B	46	LEU	CA-C	-5.67	1.48	1.53
2	B	329	ILE	C-N	5.66	1.40	1.33
3	E	272	LEU	CA-C	5.66	1.60	1.52
2	A	82	ARG	CA-C	-5.66	1.44	1.52
2	A	500	LYS	N-CA	-5.65	1.39	1.46
2	A	205	TYR	N-CA	-5.65	1.39	1.46
2	C	481	LEU	C-N	5.65	1.41	1.33
4	G	32	SER	C-O	5.65	1.30	1.24
1	8	33	LEU	CA-C	-5.65	1.45	1.52
1	9	17	ILE	C-N	5.64	1.42	1.33
9	U	202	GLU	C-N	5.64	1.41	1.33
1	0	72	LEU	C-O	-5.64	1.17	1.24
5	H	120	ALA	CA-C	5.63	1.59	1.52
9	U	156	SER	C-N	5.63	1.41	1.33
3	F	169	GLU	CA-C	-5.63	1.45	1.52
7	O	28	ALA	CA-C	-5.63	1.45	1.52
2	A	463	ILE	C-O	-5.63	1.17	1.24
8	T	146	VAL	C-N	-5.63	1.28	1.33
1	7	63	LEU	N-CA	-5.62	1.39	1.46
3	D	182	SER	CA-C	-5.62	1.45	1.52
3	D	315	ASP	CA-C	-5.62	1.44	1.52
4	G	250	ARG	C-N	5.62	1.41	1.33
2	A	454	HIS	CA-C	-5.61	1.45	1.52
7	O	153	LEU	C-N	5.61	1.41	1.33
2	C	395	PHE	C-N	5.61	1.42	1.33
3	E	234	LEU	N-CA	-5.61	1.39	1.46
2	C	21	VAL	C-N	5.61	1.41	1.33
7	O	114	ALA	C-N	5.61	1.41	1.33
1	9	37	VAL	C-O	5.61	1.30	1.24
2	B	299	ASP	N-CA	-5.61	1.39	1.46
6	I	35	LEU	CA-C	-5.61	1.45	1.52
3	E	322	PRO	C-O	-5.60	1.16	1.24
10	V	56	SER	C-O	-5.60	1.17	1.24
1	2	12	ALA	CA-C	-5.60	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	B	452	ASN	C-N	5.60	1.40	1.33
6	I	10	TYR	CA-C	5.60	1.60	1.52
2	C	352	ILE	C-O	-5.60	1.17	1.24
3	F	130	SER	C-N	5.60	1.40	1.33
2	A	331	THR	CA-C	-5.60	1.45	1.52
2	C	359	PHE	CA-C	-5.59	1.45	1.52
2	C	287	LEU	N-CA	5.59	1.53	1.46
3	D	195	ASN	C-N	5.59	1.41	1.33
2	A	430	LEU	CA-C	-5.58	1.45	1.52
3	D	449	TYR	CA-C	-5.58	1.46	1.53
2	B	19	LYS	C-N	5.57	1.40	1.33
3	F	275	ILE	CA-C	5.57	1.57	1.52
2	C	163	ARG	CA-C	-5.57	1.45	1.52
2	A	339	TYR	C-N	5.57	1.41	1.34
3	F	296	ILE	N-CA	-5.57	1.38	1.46
1	6	72	LEU	C-O	-5.57	1.17	1.24
2	A	406	ALA	C-N	5.56	1.41	1.33
4	G	256	ASN	C-N	5.56	1.41	1.33
2	B	442	GLU	N-CA	-5.55	1.38	1.45
2	C	258	TRP	C-N	5.55	1.41	1.33
2	A	463	ILE	C-N	5.55	1.40	1.33
4	G	2	THR	C-N	5.55	1.41	1.33
2	B	387	GLN	C-O	5.54	1.30	1.24
4	G	100	ASN	C-N	5.54	1.40	1.33
2	A	107	GLY	C-N	5.54	1.40	1.33
12	X	29	LYS	N-CA	5.54	1.53	1.45
3	D	95	ILE	N-CA	-5.54	1.39	1.46
3	D	375	GLN	C-N	5.54	1.41	1.33
2	B	323	LEU	N-CA	-5.54	1.40	1.46
3	F	143	LEU	N-CA	5.54	1.53	1.46
1	0	58	SER	CA-C	-5.54	1.45	1.52
2	B	298	GLY	CA-C	-5.53	1.45	1.51
2	C	305	SER	C-O	-5.53	1.17	1.24
2	A	255	ILE	C-N	5.53	1.41	1.33
1	7	25	GLY	CA-C	-5.52	1.46	1.52
2	C	203	CYS	C-O	-5.52	1.17	1.24
2	C	481	LEU	CA-C	-5.52	1.45	1.52
2	C	325	ALA	C-N	5.52	1.40	1.33
3	F	25	PHE	CA-C	-5.52	1.46	1.52
10	V	8	ASN	C-O	-5.52	1.17	1.24
1	9	63	LEU	N-CA	-5.52	1.39	1.46
2	B	152	LEU	C-N	5.52	1.41	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	G	144	ALA	CA-C	-5.51	1.45	1.52
10	V	62	LEU	CA-C	-5.51	1.45	1.52
7	O	137	ILE	CA-C	-5.51	1.46	1.52
8	T	233	VAL	C-O	-5.51	1.17	1.24
1	4	22	ALA	C-N	5.51	1.40	1.33
2	A	391	SER	C-N	5.51	1.41	1.33
2	C	73	VAL	C-O	-5.51	1.18	1.23
3	F	384	LEU	CA-C	-5.51	1.45	1.52
3	D	24	HIS	C-O	-5.50	1.17	1.24
2	C	177	LYS	CA-C	-5.50	1.45	1.52
3	F	235	THR	N-CA	-5.50	1.39	1.46
1	7	37	VAL	C-N	5.50	1.41	1.34
2	A	394	LEU	N-CA	-5.50	1.39	1.46
2	A	287	LEU	CA-C	5.49	1.59	1.52
4	G	34	ALA	N-CA	-5.49	1.39	1.46
8	T	164	LEU	C-O	-5.49	1.17	1.24
11	W	23	ARG	C-N	5.49	1.40	1.33
3	E	62	ILE	N-CA	-5.49	1.39	1.46
10	V	34	LYS	C-N	5.49	1.41	1.33
3	E	79	THR	C-N	5.49	1.40	1.33
1	3	47	VAL	N-CA	5.49	1.53	1.46
1	4	35	ASN	C-N	5.49	1.40	1.33
11	W	45	ASN	C-N	5.49	1.42	1.33
5	H	80	ASP	C-N	5.48	1.41	1.33
10	V	83	ILE	CA-C	-5.48	1.46	1.52
2	A	314	LEU	CA-C	-5.48	1.46	1.52
2	A	267	LEU	C-N	5.48	1.40	1.33
3	D	452	ILE	CA-C	-5.47	1.47	1.52
3	F	132	GLU	CA-C	-5.47	1.46	1.52
1	6	72	LEU	N-CA	-5.47	1.39	1.46
1	1	12	ALA	N-CA	-5.47	1.39	1.46
2	A	246	TYR	N-CA	5.47	1.53	1.46
2	C	483	THR	CA-C	-5.47	1.45	1.52
8	T	232	TYR	CA-C	5.46	1.59	1.52
2	B	385	LEU	C-N	5.46	1.41	1.33
4	G	226	TYR	N-CA	-5.46	1.39	1.46
10	V	32	PHE	C-N	5.46	1.41	1.33
5	H	28	THR	C-N	5.46	1.40	1.33
2	B	303	LEU	CA-C	-5.45	1.46	1.52
8	T	134	LEU	C-N	5.45	1.41	1.33
6	I	36	ASN	C-N	5.45	1.41	1.33
3	D	265	GLY	C-N	5.44	1.41	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
9	U	101	GLU	C-N	5.44	1.41	1.33
3	D	388	ILE	N-CA	-5.44	1.40	1.46
3	F	176	LYS	CA-C	-5.44	1.45	1.52
2	B	170	ILE	CA-C	-5.44	1.45	1.52
2	B	150	THR	CA-C	-5.43	1.45	1.52
1	2	26	ILE	CA-C	-5.43	1.46	1.52
8	T	111	LEU	C-N	5.43	1.41	1.33
1	5	68	VAL	N-CA	-5.43	1.40	1.46
2	C	379	ALA	CA-C	-5.43	1.46	1.52
10	V	69	ASP	C-N	5.43	1.41	1.33
2	B	120	LYS	C-N	5.42	1.41	1.33
10	V	91	VAL	CA-C	-5.42	1.46	1.52
5	H	33	PRO	C-N	5.42	1.41	1.33
3	D	56	GLU	C-N	5.41	1.41	1.33
2	A	313	LYS	CA-C	-5.41	1.45	1.52
3	E	218	VAL	N-CA	-5.41	1.39	1.46
1	6	38	SER	CA-C	-5.41	1.45	1.52
2	A	121	GLY	CA-C	5.41	1.59	1.51
3	E	178	HIS	CA-C	-5.41	1.46	1.52
14	Z	38	LEU	C-N	5.41	1.41	1.33
2	C	391	SER	C-N	5.41	1.41	1.34
3	E	426	GLY	C-N	5.41	1.39	1.33
11	W	4	LEU	C-N	5.40	1.39	1.33
2	A	269	VAL	C-O	-5.40	1.18	1.24
6	I	60	THR	CA-C	5.40	1.59	1.52
4	G	267	LEU	C-N	5.40	1.40	1.33
2	C	62	LYS	C-N	5.39	1.41	1.33
3	F	324	THR	C-N	5.39	1.41	1.33
3	E	297	THR	CA-C	-5.39	1.46	1.52
4	G	174	SER	C-N	5.39	1.40	1.33
7	O	62	LEU	CA-C	-5.39	1.46	1.52
10	V	10	LEU	N-CA	-5.39	1.39	1.46
11	W	37	GLY	N-CA	5.39	1.52	1.44
2	A	91	LYS	N-CA	5.39	1.52	1.46
2	A	312	ALA	N-CA	-5.39	1.39	1.46
8	T	174	GLY	CA-C	-5.39	1.44	1.51
2	B	163	ARG	C-N	5.39	1.40	1.33
3	E	32	ALA	C-N	5.39	1.39	1.33
2	C	84	VAL	C-N	5.38	1.40	1.33
2	C	146	GLU	CA-C	-5.38	1.47	1.52
2	C	439	ALA	C-N	5.38	1.41	1.33
3	E	215	VAL	CA-C	-5.38	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	D	155	LEU	CA-C	-5.37	1.46	1.52
12	X	58	VAL	N-CA	-5.37	1.39	1.46
8	T	197	ASN	C-N	5.37	1.41	1.34
2	B	505	SER	CA-C	-5.37	1.46	1.52
3	D	276	PRO	C-N	5.36	1.41	1.33
1	8	22	ALA	CA-C	-5.36	1.45	1.52
3	E	173	ASN	C-N	5.36	1.40	1.33
3	F	413	PHE	CA-C	-5.36	1.45	1.52
4	G	271	ILE	C-N	5.36	1.41	1.33
1	6	46	THR	N-CA	-5.36	1.39	1.46
1	8	71	LEU	C-N	5.36	1.41	1.34
4	G	155	LYS	N-CA	-5.36	1.39	1.46
2	B	135	ALA	C-N	5.36	1.40	1.33
2	B	175	THR	CA-C	-5.36	1.45	1.52
4	G	190	GLN	CA-C	-5.35	1.45	1.52
7	O	81	LEU	C-N	5.35	1.41	1.33
3	E	142	ASP	N-CA	-5.35	1.40	1.46
3	E	319	ASP	N-CA	-5.35	1.38	1.45
2	B	312	ALA	N-CA	-5.34	1.39	1.46
2	C	404	ALA	N-CA	5.34	1.52	1.46
3	E	382	LYS	C-N	5.34	1.41	1.33
4	G	123	PRO	N-CA	-5.34	1.41	1.47
2	B	334	GLY	CA-C	-5.34	1.44	1.51
3	D	431	LEU	C-N	5.33	1.40	1.33
11	W	5	ILE	C-O	-5.33	1.17	1.24
7	O	188	ASN	CA-C	5.33	1.59	1.52
1	8	17	ILE	CA-C	5.33	1.59	1.52
1	9	69	SER	CA-C	-5.33	1.46	1.52
3	D	51	ALA	CA-C	-5.33	1.45	1.52
3	E	169	GLU	N-CA	-5.33	1.40	1.46
8	T	196	PHE	C-N	5.32	1.41	1.33
3	E	309	ALA	N-CA	-5.32	1.39	1.46
3	E	312	VAL	C-N	5.32	1.40	1.33
2	A	57	PHE	CA-C	-5.32	1.46	1.52
1	2	23	GLY	CA-C	5.32	1.58	1.52
3	D	68	GLU	CA-C	-5.32	1.45	1.52
3	D	321	ALA	C-O	-5.32	1.19	1.24
10	V	103	ALA	N-CA	-5.32	1.39	1.46
3	D	273	GLY	C-O	-5.31	1.16	1.23
13	Y	21	ALA	CA-C	-5.31	1.46	1.52
3	F	474	ALA	C-N	5.31	1.40	1.33
4	G	39	ILE	CA-C	-5.31	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	I	44	TYR	CA-C	-5.31	1.46	1.52
2	B	336	VAL	N-CA	5.30	1.51	1.46
3	E	467	VAL	N-CA	5.30	1.52	1.46
7	O	189	LYS	C-N	5.30	1.39	1.34
1	2	69	SER	C-O	-5.30	1.17	1.24
8	T	150	THR	CA-C	-5.30	1.47	1.52
1	7	26	ILE	N-CA	-5.30	1.40	1.46
3	F	204	THR	C-N	5.30	1.39	1.33
10	V	91	VAL	N-CA	-5.30	1.39	1.46
1	5	33	LEU	C-N	5.29	1.40	1.33
3	D	269	SER	C-N	5.29	1.40	1.33
10	V	77	GLN	C-N	5.29	1.40	1.33
2	C	140	PRO	N-CA	5.29	1.51	1.47
6	I	11	ALA	N-CA	-5.29	1.39	1.46
2	A	186	LEU	N-CA	5.29	1.52	1.46
2	B	411	ASP	C-N	5.29	1.41	1.33
1	7	31	ALA	CA-C	-5.28	1.46	1.52
3	E	135	GLU	CA-C	-5.28	1.46	1.52
2	B	491	LEU	CA-C	-5.28	1.46	1.52
1	1	70	PHE	C-N	5.28	1.40	1.33
2	C	61	VAL	CA-C	-5.28	1.45	1.52
3	F	312	VAL	N-CA	-5.28	1.41	1.47
6	I	38	SER	N-CA	-5.28	1.39	1.46
3	D	122	PRO	CA-C	5.28	1.59	1.52
7	O	93	SER	C-N	5.28	1.41	1.33
2	B	171	GLY	CA-C	-5.27	1.45	1.51
1	0	9	TYR	CA-C	-5.27	1.46	1.52
2	C	311	ALA	CA-C	-5.27	1.46	1.52
9	U	117	ALA	C-N	5.27	1.40	1.33
3	E	14	THR	C-O	-5.27	1.16	1.23
1	4	43	ILE	C-N	5.26	1.41	1.34
2	C	146	GLU	C-O	-5.26	1.18	1.24
3	D	49	GLU	N-CA	-5.26	1.40	1.46
3	E	291	LEU	N-CA	-5.26	1.40	1.46
2	B	85	LYS	C-N	5.25	1.40	1.33
2	C	385	LEU	C-N	5.25	1.40	1.33
5	H	28	THR	CA-C	5.25	1.58	1.52
8	T	169	ARG	N-CA	-5.25	1.39	1.46
3	E	66	GLY	CA-C	-5.25	1.47	1.52
3	F	219	PHE	N-CA	-5.25	1.39	1.46
8	T	54	ILE	N-CA	-5.25	1.41	1.46
10	V	117	LEU	C-N	5.25	1.40	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	C	135	ALA	CA-C	5.25	1.59	1.52
6	I	48	LYS	C-N	5.25	1.40	1.33
1	0	46	THR	N-CA	-5.25	1.40	1.46
2	A	236	ALA	N-CA	-5.24	1.40	1.47
3	D	77	LEU	N-CA	-5.24	1.39	1.45
3	F	59	VAL	N-CA	-5.24	1.39	1.46
7	O	142	SER	CA-C	-5.24	1.46	1.52
9	U	118	GLU	C-O	-5.24	1.18	1.24
2	A	19	LYS	C-O	-5.24	1.17	1.24
2	A	352	ILE	C-N	5.24	1.40	1.33
6	I	18	ALA	C-N	5.24	1.40	1.33
10	V	23	GLY	CA-C	5.24	1.59	1.51
1	2	28	ILE	CA-C	5.24	1.59	1.52
3	F	317	LEU	N-CA	-5.24	1.38	1.45
1	7	15	SER	C-O	-5.24	1.17	1.24
2	B	148	VAL	N-CA	5.24	1.51	1.46
2	A	142	ARG	C-N	5.24	1.40	1.33
2	B	338	ALA	CA-C	5.23	1.59	1.52
1	1	48	PHE	N-CA	-5.23	1.41	1.46
2	A	47	ASN	CA-C	-5.23	1.46	1.52
9	U	62	PHE	N-CA	-5.23	1.39	1.46
1	4	60	ALA	C-O	-5.23	1.18	1.24
8	T	193	GLY	N-CA	5.23	1.52	1.45
2	C	145	HIS	N-CA	-5.23	1.41	1.46
2	A	348	THR	C-N	5.22	1.41	1.33
3	F	38	GLU	N-CA	5.22	1.52	1.46
2	A	441	GLU	C-N	5.22	1.40	1.33
3	E	371	ALA	CA-C	-5.22	1.45	1.52
7	O	190	VAL	C-N	5.22	1.41	1.33
2	C	505	SER	C-N	5.22	1.40	1.33
1	1	29	VAL	N-CA	-5.21	1.40	1.46
2	A	277	ALA	C-N	5.21	1.40	1.33
4	G	198	GLU	C-O	-5.21	1.17	1.23
2	C	381	GLN	C-N	5.21	1.40	1.33
10	V	60	SER	N-CA	-5.21	1.39	1.46
9	U	78	LYS	CA-C	-5.21	1.46	1.52
2	A	206	VAL	C-O	-5.21	1.18	1.24
2	A	283	LEU	C-O	-5.21	1.18	1.24
2	C	246	TYR	CA-C	-5.21	1.46	1.52
3	D	44	GLY	N-CA	5.21	1.52	1.45
10	V	149	VAL	C-N	5.21	1.41	1.33
2	C	22	SER	CA-C	-5.21	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
8	T	113	ALA	CA-C	-5.20	1.45	1.52
2	C	467	GLU	C-N	5.20	1.41	1.33
3	E	309	ALA	CA-C	-5.20	1.46	1.52
4	G	26	VAL	C-O	-5.20	1.18	1.24
7	O	9	PRO	N-CA	-5.20	1.40	1.47
1	2	58	SER	N-CA	-5.20	1.40	1.46
2	A	444	VAL	N-CA	-5.20	1.40	1.46
2	B	447	ILE	C-N	5.20	1.40	1.33
5	H	76	THR	C-N	5.20	1.40	1.33
1	1	66	LEU	C-N	5.19	1.41	1.33
1	9	8	LYS	C-N	5.19	1.41	1.33
5	H	120	ALA	C-N	5.19	1.40	1.33
2	C	260	ARG	N-CA	-5.19	1.40	1.46
3	E	71	VAL	CA-C	-5.19	1.46	1.52
7	O	11	ARG	CA-C	-5.19	1.46	1.52
1	3	16	THR	C-N	5.19	1.40	1.34
2	B	155	VAL	CA-C	-5.18	1.46	1.52
4	G	18	LYS	N-CA	-5.18	1.40	1.46
8	T	143	SER	CA-C	-5.18	1.45	1.52
5	H	111	ASN	C-N	5.18	1.40	1.34
2	C	33	VAL	CA-C	5.18	1.59	1.52
2	C	33	VAL	N-CA	5.18	1.52	1.46
3	D	281	TYR	CA-C	-5.18	1.46	1.52
1	1	75	GLY	C-O	5.17	1.33	1.23
3	D	438	VAL	C-O	-5.17	1.18	1.24
3	F	269	SER	CA-C	-5.17	1.46	1.52
5	H	106	ALA	C-N	5.17	1.40	1.33
1	8	33	LEU	N-CA	5.17	1.52	1.46
3	E	451	ASN	N-CA	-5.17	1.39	1.46
3	E	364	GLY	C-N	5.16	1.41	1.33
3	E	366	GLU	N-CA	5.16	1.52	1.46
4	G	145	LEU	N-CA	-5.16	1.40	1.46
1	0	58	SER	N-CA	-5.16	1.40	1.46
3	D	367	HIS	CA-C	-5.16	1.46	1.52
5	H	47	PRO	CA-C	5.16	1.58	1.53
2	B	153	LYS	C-O	-5.16	1.18	1.24
1	8	61	THR	CA-C	5.16	1.59	1.52
10	V	107	GLU	C-N	5.15	1.41	1.33
2	A	297	PRO	N-CA	-5.15	1.41	1.46
1	3	48	PHE	N-CA	-5.15	1.41	1.46
1	9	67	MET	N-CA	-5.15	1.39	1.46
3	E	32	ALA	CA-C	-5.15	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	E	337	ARG	C-N	5.15	1.40	1.33
3	D	433	ARG	N-CA	5.15	1.52	1.45
3	D	369	ASP	CA-C	-5.15	1.46	1.52
6	I	13	TYR	C-O	-5.15	1.18	1.24
1	0	51	ALA	CA-C	-5.14	1.46	1.52
2	B	492	SER	C-N	5.14	1.41	1.34
3	D	378	LEU	N-CA	-5.14	1.39	1.46
3	E	91	THR	N-CA	-5.14	1.39	1.46
9	U	132	GLU	N-CA	-5.14	1.40	1.46
1	5	13	GLY	C-N	5.14	1.40	1.33
2	A	422	ARG	N-CA	-5.14	1.40	1.46
3	D	219	PHE	C-N	5.14	1.41	1.33
2	B	232	ILE	N-CA	-5.14	1.40	1.46
3	E	228	ALA	C-N	5.14	1.40	1.33
3	E	275	ILE	CA-C	5.14	1.58	1.52
2	C	95	ASN	C-N	5.14	1.42	1.33
2	A	30	THR	N-CA	-5.13	1.39	1.45
3	F	392	GLY	C-N	5.13	1.40	1.33
11	W	13	LYS	CA-C	-5.13	1.45	1.52
1	3	11	GLY	C-O	-5.13	1.17	1.23
2	B	251	THR	C-N	5.13	1.41	1.33
7	O	171	LEU	CA-C	-5.13	1.45	1.52
5	H	67	LYS	C-N	5.13	1.41	1.33
2	C	417	LYS	N-CA	-5.13	1.40	1.46
11	W	74	ILE	C-N	5.13	1.41	1.33
1	6	16	THR	C-N	5.12	1.40	1.33
3	D	131	ALA	CA-C	5.12	1.58	1.52
3	D	287	THR	C-N	5.12	1.40	1.33
3	E	88	GLY	CA-C	-5.12	1.46	1.52
4	G	182	ILE	CA-C	-5.12	1.46	1.52
5	H	113	SER	CA-C	5.12	1.59	1.52
1	9	28	ILE	C-N	5.12	1.40	1.33
3	D	83	ILE	N-CA	-5.12	1.39	1.46
3	F	200	GLU	C-N	5.12	1.40	1.33
6	I	33	SER	C-N	5.12	1.40	1.33
2	A	368	ASN	C-O	-5.11	1.17	1.23
2	C	289	ARG	CA-C	5.11	1.57	1.52
2	B	395	PHE	N-CA	5.11	1.52	1.46
3	E	190	ARG	CA-C	-5.11	1.46	1.52
3	F	451	ASN	C-N	5.11	1.39	1.33
7	O	36	ALA	N-CA	-5.11	1.40	1.46
1	2	44	LYS	C-N	5.11	1.41	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	3	56	ALA	N-CA	-5.11	1.40	1.46
2	B	220	GLN	C-O	-5.11	1.18	1.24
3	E	9	ILE	C-N	5.11	1.40	1.33
3	F	40	LYS	N-CA	-5.11	1.39	1.46
3	F	313	PRO	N-CA	-5.11	1.40	1.47
14	Z	3	GLN	CA-C	5.10	1.59	1.52
12	X	30	PRO	C-N	5.10	1.40	1.33
1	4	48	PHE	N-CA	5.10	1.50	1.46
3	D	122	PRO	N-CA	5.10	1.53	1.47
9	U	144	VAL	C-N	5.10	1.40	1.33
2	A	73	VAL	C-N	5.10	1.41	1.33
3	E	341	GLU	N-CA	-5.10	1.40	1.46
2	B	442	GLU	C-N	5.09	1.40	1.33
3	D	474	ALA	C-N	5.09	1.40	1.33
1	5	9	TYR	C-N	5.09	1.40	1.33
1	6	23	GLY	C-N	5.09	1.40	1.33
12	X	15	LYS	C-N	5.09	1.40	1.33
1	2	7	ALA	CA-C	5.09	1.59	1.52
1	0	20	LEU	C-N	5.09	1.40	1.33
2	C	186	LEU	C-O	-5.09	1.18	1.24
4	G	132	GLY	CA-C	-5.09	1.44	1.51
10	V	140	LYS	N-CA	5.09	1.52	1.46
1	7	55	PHE	C-N	5.08	1.40	1.33
1	8	35	ASN	CA-C	5.08	1.59	1.52
2	C	58	SER	CA-C	-5.08	1.48	1.53
2	B	437	PRO	N-CA	5.08	1.53	1.47
1	3	39	ARG	CA-C	-5.08	1.46	1.52
3	E	423	VAL	N-CA	-5.08	1.40	1.46
7	O	185	GLN	N-CA	5.08	1.52	1.46
3	E	15	ALA	CA-C	-5.07	1.46	1.52
10	V	138	LEU	N-CA	-5.07	1.40	1.46
10	V	120	THR	CA-C	-5.07	1.46	1.52
3	D	420	VAL	CA-C	-5.07	1.46	1.52
8	T	61	SER	N-CA	-5.07	1.40	1.46
12	X	31	TRP	N-CA	-5.07	1.39	1.46
2	B	224	GLN	C-N	5.07	1.40	1.33
7	O	75	VAL	N-CA	-5.06	1.40	1.46
2	C	204	VAL	N-CA	-5.06	1.40	1.46
4	G	35	GLU	C-N	5.06	1.40	1.33
2	B	35	ALA	N-CA	-5.05	1.40	1.46
3	E	67	THR	N-CA	5.05	1.51	1.46
8	T	201	ILE	N-CA	-5.05	1.40	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	3	62	GLY	C-O	5.05	1.29	1.23
1	7	43	ILE	N-CA	-5.05	1.39	1.46
1	8	37	VAL	C-N	5.05	1.41	1.34
2	C	328	VAL	C-O	-5.05	1.18	1.24
5	H	126	GLN	C-N	5.05	1.40	1.33
13	Y	24	TYR	N-CA	-5.05	1.40	1.46
2	A	324	THR	CA-C	-5.05	1.46	1.52
3	D	39	ILE	CA-C	-5.05	1.46	1.52
9	U	172	LEU	CA-C	-5.04	1.45	1.52
3	E	30	LEU	CA-C	5.04	1.57	1.52
8	T	90	PHE	CA-C	5.03	1.59	1.52
4	G	54	ASN	C-N	5.03	1.40	1.33
1	6	30	PHE	CA-C	-5.03	1.46	1.52
5	H	81	SER	CA-C	-5.03	1.46	1.53
3	D	285	LEU	C-N	5.03	1.40	1.33
1	9	2	GLN	C-N	5.03	1.40	1.33
3	E	219	PHE	N-CA	-5.03	1.40	1.46
2	A	312	ALA	CA-C	-5.03	1.46	1.52
6	I	18	ALA	N-CA	-5.03	1.40	1.46
10	V	114	LEU	CA-C	-5.03	1.46	1.52
3	D	323	ALA	C-O	-5.02	1.18	1.24
4	G	56	GLU	CA-C	-5.02	1.46	1.52
4	G	218	MET	CA-C	5.02	1.59	1.52
3	D	275	ILE	CA-C	5.02	1.57	1.53
3	E	296	ILE	C-O	-5.02	1.17	1.23
5	H	30	VAL	CA-C	5.02	1.58	1.52
2	A	13	ILE	CA-C	5.02	1.60	1.52
2	A	268	ILE	N-CA	-5.02	1.40	1.46
2	A	29	GLU	N-CA	-5.02	1.39	1.45
3	F	178	HIS	CA-C	-5.02	1.46	1.52
2	B	198	SER	CA-C	-5.01	1.46	1.52
4	G	150	LEU	N-CA	5.01	1.52	1.46
1	4	7	ALA	CA-C	-5.01	1.45	1.52
3	F	119	ALA	N-CA	-5.01	1.39	1.46
11	W	20	ASN	N-CA	-5.01	1.40	1.46
3	E	60	ARG	CA-C	-5.01	1.46	1.52
3	F	305	THR	C-N	5.01	1.40	1.33
4	G	5	GLU	C-N	5.01	1.40	1.33
4	G	258	THR	C-N	5.01	1.40	1.33
3	E	295	ARG	CA-C	-5.00	1.46	1.52
1	2	19	LEU	CA-C	-5.00	1.45	1.52
2	B	343	ASN	C-N	5.00	1.40	1.33

All (2200) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	G	204	ASN	CA-C-N	15.36	129.92	120.24
4	G	204	ASN	C-N-CA	15.36	129.92	120.24
2	B	99	VAL	N-CA-C	-15.01	96.88	109.19
3	F	428	PRO	CA-C-N	14.93	134.29	120.10
3	F	428	PRO	C-N-CA	14.93	134.29	120.10
7	O	33	ILE	N-CA-C	-13.81	99.15	112.96
1	2	48	PHE	CA-C-O	-13.70	105.05	118.34
5	H	21	LEU	N-CA-C	-12.81	75.14	111.00
1	1	52	ILE	CA-C-N	12.51	136.70	120.44
1	1	52	ILE	C-N-CA	12.51	136.70	120.44
2	C	464	GLY	CA-C-N	11.44	135.61	120.28
2	C	464	GLY	C-N-CA	11.44	135.61	120.28
13	Y	12	VAL	N-CA-C	-11.44	101.92	112.90
3	E	150	GLY	CA-C-N	11.07	133.04	120.53
3	E	150	GLY	C-N-CA	11.07	133.04	120.53
1	8	43	ILE	CA-C-N	10.93	134.92	120.28
1	8	43	ILE	C-N-CA	10.93	134.92	120.28
1	7	58	SER	CA-C-N	10.44	134.01	120.44
1	7	58	SER	C-N-CA	10.44	134.01	120.44
1	3	61	THR	CA-C-N	10.43	131.56	119.98
1	3	61	THR	C-N-CA	10.43	131.56	119.98
3	F	386	ASP	O-C-N	10.38	133.12	122.12
5	H	78	GLN	CA-C-N	10.30	131.56	120.12
5	H	78	GLN	C-N-CA	10.30	131.56	120.12
2	A	336	VAL	N-CA-C	-10.27	102.42	112.17
3	F	226	PRO	CA-C-N	10.23	131.33	119.98
3	F	226	PRO	C-N-CA	10.23	131.33	119.98
2	C	339	TYR	CA-C-N	10.22	128.50	120.33
2	C	339	TYR	C-N-CA	10.22	128.50	120.33
3	E	358	LEU	N-CA-C	-10.06	102.07	114.75
2	A	198	SER	N-CA-C	-10.04	100.52	113.17
2	C	448	TYR	CA-C-N	10.02	133.47	120.44
2	C	448	TYR	C-N-CA	10.02	133.47	120.44
3	E	423	VAL	CA-C-N	10.01	133.69	120.28
3	E	423	VAL	C-N-CA	10.01	133.69	120.28
2	C	115	ASN	O-C-N	-9.83	112.08	121.72
1	3	19	LEU	CA-C-N	9.80	133.41	120.28
1	3	19	LEU	C-N-CA	9.80	133.41	120.28
10	V	160	VAL	N-CA-C	-9.72	98.52	108.15
4	G	238	ASP	N-CA-C	-9.68	100.69	111.14
3	E	10	THR	CA-C-N	9.61	129.01	121.61
3	E	10	THR	C-N-CA	9.61	129.01	121.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	D	65	ASP	CA-C-N	9.57	129.11	119.92
3	D	65	ASP	C-N-CA	9.57	129.11	119.92
2	C	173	ARG	CA-C-N	9.52	135.62	122.19
2	C	173	ARG	C-N-CA	9.52	135.62	122.19
2	B	294	GLU	CA-C-N	9.43	135.56	122.07
2	B	294	GLU	C-N-CA	9.43	135.56	122.07
2	A	281	ARG	O-C-N	9.36	132.04	122.12
2	A	413	ASP	CA-C-N	9.35	132.81	120.28
2	A	413	ASP	C-N-CA	9.35	132.81	120.28
1	9	10	ILE	CA-C-N	9.34	130.34	119.98
1	9	10	ILE	C-N-CA	9.34	130.34	119.98
4	G	171	SER	N-CA-C	-9.33	94.89	109.07
4	G	86	SER	CA-C-N	9.25	132.21	120.56
4	G	86	SER	C-N-CA	9.25	132.21	120.56
1	6	54	GLY	CA-C-N	9.23	133.00	120.54
1	6	54	GLY	C-N-CA	9.23	133.00	120.54
8	T	159	VAL	N-CA-C	-9.18	101.85	111.58
2	C	90	VAL	N-CA-C	-9.17	95.34	108.17
3	F	424	PHE	N-CA-C	9.12	121.30	111.36
2	C	124	ASP	N-CA-C	-9.10	94.04	109.24
3	F	277	SER	O-C-N	9.10	128.30	121.47
2	A	146	GLU	CA-C-N	9.10	129.66	119.93
2	A	146	GLU	C-N-CA	9.10	129.66	119.93
4	G	116	MET	CA-C-N	9.09	132.80	120.44
4	G	116	MET	C-N-CA	9.09	132.80	120.44
3	F	349	ASP	CA-C-O	9.07	126.44	119.46
8	T	146	VAL	CA-C-O	-9.07	113.21	119.38
7	O	39	SER	O-C-N	9.05	131.71	122.12
3	F	223	ASN	N-CA-C	-9.04	101.56	112.59
3	D	54	LEU	N-CA-C	-9.03	101.98	113.72
3	D	357	LEU	N-CA-C	-9.03	101.80	113.17
2	A	463	ILE	N-CA-C	-9.00	102.07	110.53
2	B	253	ALA	CA-C-N	8.97	132.30	120.28
2	B	253	ALA	C-N-CA	8.97	132.30	120.28
2	A	42	ARG	N-CA-C	-8.94	93.47	108.75
2	A	443	GLN	CA-C-N	8.91	125.85	120.24
2	A	443	GLN	C-N-CA	8.91	125.85	120.24
3	F	225	PRO	N-CA-C	8.88	121.54	110.70
1	2	35	ASN	O-C-N	-8.87	112.51	122.09
1	2	36	GLY	CA-C-N	8.84	131.70	120.56
1	2	36	GLY	C-N-CA	8.84	131.70	120.56
2	B	481	LEU	CA-C-N	8.84	132.84	120.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	481	LEU	C-N-CA	8.84	132.84	120.29
8	T	132	LEU	CA-C-N	8.80	129.68	120.00
8	T	132	LEU	C-N-CA	8.80	129.68	120.00
13	Y	24	TYR	O-C-N	-8.78	113.03	122.07
2	A	107	GLY	N-CA-C	-8.72	102.55	115.72
9	U	100	VAL	CA-C-N	8.72	132.31	120.54
9	U	100	VAL	C-N-CA	8.72	132.31	120.54
1	0	40	ASN	CA-C-N	8.71	128.35	118.85
1	0	40	ASN	C-N-CA	8.71	128.35	118.85
3	D	349	ASP	CA-C-O	-8.71	111.56	119.75
5	H	134	GLN	CA-C-N	8.69	132.79	120.28
5	H	134	GLN	C-N-CA	8.69	132.79	120.28
14	Z	5	VAL	CA-C-O	-8.69	114.97	120.88
2	B	221	THR	CA-C-N	8.69	131.73	120.44
2	B	221	THR	C-N-CA	8.69	131.73	120.44
10	V	167	PHE	CA-C-N	8.67	132.33	121.06
10	V	167	PHE	C-N-CA	8.67	132.33	121.06
3	E	148	ALA	N-CA-C	-8.66	94.78	109.24
1	9	29	VAL	CA-C-N	8.66	132.58	120.29
1	9	29	VAL	C-N-CA	8.66	132.58	120.29
2	A	58	SER	N-CA-C	-8.64	102.44	113.16
3	D	153	ILE	N-CA-C	-8.63	95.83	109.20
2	C	340	ILE	O-C-N	-8.61	114.91	120.42
1	8	61	THR	CA-C-N	8.61	129.47	120.00
1	8	61	THR	C-N-CA	8.61	129.47	120.00
2	A	192	ASN	O-C-N	8.59	131.23	122.12
3	F	362	VAL	CA-C-O	8.59	126.50	119.29
4	G	26	VAL	CA-C-N	8.59	131.60	120.44
4	G	26	VAL	C-N-CA	8.59	131.60	120.44
1	7	61	THR	CA-C-N	8.56	129.49	119.98
1	7	61	THR	C-N-CA	8.56	129.49	119.98
2	B	69	GLU	N-CA-C	-8.55	95.21	108.55
8	T	189	VAL	N-CA-C	8.50	119.31	110.72
8	T	140	VAL	N-CA-C	-8.49	104.11	112.17
3	F	235	THR	CA-C-N	8.48	129.40	119.98
3	F	235	THR	C-N-CA	8.48	129.40	119.98
3	F	43	GLN	N-CA-C	-8.48	103.06	112.72
1	3	54	GLY	O-C-N	8.48	130.33	122.19
2	C	146	GLU	CA-C-N	8.42	129.06	120.14
2	C	146	GLU	C-N-CA	8.42	129.06	120.14
3	F	90	GLU	N-CA-C	-8.42	103.01	113.28
2	B	15	GLU	CA-C-N	8.41	131.55	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	15	GLU	C-N-CA	8.41	131.55	120.28
8	T	150	THR	N-CA-C	-8.37	98.52	108.14
5	H	46	VAL	CA-C-O	-8.35	111.81	119.82
2	B	378	SER	CA-C-N	8.35	131.46	120.28
2	B	378	SER	C-N-CA	8.35	131.46	120.28
10	V	158	TRP	N-CA-C	-8.34	101.97	114.64
2	C	340	ILE	CA-C-O	8.31	124.26	118.69
1	5	70	PHE	CA-C-N	8.31	131.42	120.28
1	5	70	PHE	C-N-CA	8.31	131.42	120.28
3	F	250	ASP	N-CA-C	-8.31	95.35	108.90
11	W	73	ILE	CA-C-N	8.25	131.77	120.46
11	W	73	ILE	C-N-CA	8.25	131.77	120.46
7	O	49	LYS	N-CA-C	-8.23	103.71	112.93
7	O	58	LEU	N-CA-C	-8.20	103.22	113.55
10	V	116	ASP	CA-C-O	-8.19	111.73	120.42
3	E	226	PRO	CA-C-N	8.19	129.25	119.99
3	E	226	PRO	C-N-CA	8.19	129.25	119.99
2	B	204	VAL	N-CA-C	-8.19	96.33	108.12
9	U	103	VAL	CA-C-N	8.19	131.92	120.29
9	U	103	VAL	C-N-CA	8.19	131.92	120.29
2	A	199	LYS	N-CA-C	-8.16	103.52	113.97
3	F	30	LEU	CA-C-N	8.16	128.64	119.83
3	F	30	LEU	C-N-CA	8.16	128.64	119.83
9	U	163	SER	CA-C-N	8.15	132.02	120.28
9	U	163	SER	C-N-CA	8.15	132.02	120.28
1	5	17	ILE	O-C-N	-8.15	113.97	121.87
3	E	214	LYS	N-CA-C	-8.15	102.38	113.30
6	I	33	SER	CA-C-N	8.15	130.83	120.56
6	I	33	SER	C-N-CA	8.15	130.83	120.56
8	T	184	GLY	CA-C-N	8.15	131.03	120.44
8	T	184	GLY	C-N-CA	8.15	131.03	120.44
1	0	61	THR	CA-C-N	8.10	128.97	119.98
1	0	61	THR	C-N-CA	8.10	128.97	119.98
2	C	238	ALA	CA-C-N	8.08	131.10	120.28
2	C	238	ALA	C-N-CA	8.08	131.10	120.28
2	C	292	GLY	N-CA-C	-8.07	101.06	112.60
8	T	223	GLU	CA-C-N	8.07	131.74	120.29
8	T	223	GLU	C-N-CA	8.07	131.74	120.29
2	C	133	VAL	N-CA-C	-8.06	97.71	108.35
3	F	356	ARG	N-CA-C	-8.05	103.01	112.92
11	W	22	LYS	CA-C-N	8.05	130.91	120.44
11	W	22	LYS	C-N-CA	8.05	130.91	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	T	134	LEU	N-CA-C	-8.05	102.59	111.36
1	8	22	ALA	N-CA-C	-8.04	102.59	111.36
3	E	329	LEU	CA-C-N	8.04	131.40	120.38
3	E	329	LEU	C-N-CA	8.04	131.40	120.38
8	T	229	ILE	CA-C-O	-8.04	112.59	120.95
2	A	301	PHE	CA-C-N	8.03	131.04	120.28
2	A	301	PHE	C-N-CA	8.03	131.04	120.28
1	3	6	ALA	CA-C-N	8.01	131.01	120.28
1	3	6	ALA	C-N-CA	8.01	131.01	120.28
9	U	54	ASP	N-CA-C	-8.01	103.31	113.72
1	7	41	PRO	CA-C-N	8.00	131.00	120.28
1	7	41	PRO	C-N-CA	8.00	131.00	120.28
2	C	43	VAL	N-CA-C	-7.99	96.55	108.85
8	T	54	ILE	N-CA-C	-7.99	105.31	111.62
1	4	47	VAL	N-CA-C	7.99	118.79	110.72
1	1	20	LEU	CA-C-O	-7.99	112.00	120.63
1	2	11	GLY	CA-C-N	7.98	130.82	120.44
1	2	11	GLY	C-N-CA	7.98	130.82	120.44
2	B	147	PRO	CA-C-O	-7.98	111.97	121.95
3	D	248	GLY	CA-C-N	7.97	132.03	120.71
3	D	248	GLY	C-N-CA	7.97	132.03	120.71
1	8	2	GLN	CA-C-N	7.97	131.76	120.28
1	8	2	GLN	C-N-CA	7.97	131.76	120.28
1	8	47	VAL	N-CA-C	7.97	121.05	111.09
2	B	138	ILE	N-CA-C	7.96	118.06	110.42
4	G	115	LYS	CA-C-N	7.94	130.93	120.28
4	G	115	LYS	C-N-CA	7.94	130.93	120.28
2	C	465	GLU	CA-C-N	7.94	130.92	120.28
2	C	465	GLU	C-N-CA	7.94	130.92	120.28
1	1	55	PHE	CA-C-N	7.93	130.91	120.28
1	1	55	PHE	C-N-CA	7.93	130.91	120.28
10	V	30	SER	CA-C-N	7.93	130.74	120.44
10	V	30	SER	C-N-CA	7.93	130.74	120.44
1	0	62	GLY	CA-C-N	7.92	130.73	120.44
1	0	62	GLY	C-N-CA	7.92	130.73	120.44
1	4	13	GLY	CA-C-N	7.91	131.30	120.46
1	4	13	GLY	C-N-CA	7.91	131.30	120.46
3	D	12	LYS	N-CA-C	-7.90	97.31	109.24
2	A	153	LYS	CA-C-O	-7.89	112.18	120.55
2	C	481	LEU	O-C-N	7.89	130.20	122.07
1	9	59	GLU	CA-C-N	7.88	130.84	120.28
1	9	59	GLU	C-N-CA	7.88	130.84	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	D	228	ALA	CA-C-N	7.88	131.63	120.28
3	D	228	ALA	C-N-CA	7.88	131.63	120.28
12	X	39	LEU	CA-C-N	7.88	127.89	119.78
12	X	39	LEU	C-N-CA	7.88	127.89	119.78
3	E	95	ILE	N-CA-C	-7.86	96.40	107.80
4	G	204	ASN	N-CA-C	-7.86	97.94	109.11
5	H	123	ALA	CA-C-N	7.86	130.66	120.44
5	H	123	ALA	C-N-CA	7.86	130.66	120.44
4	G	224	GLN	CA-C-N	7.84	128.68	119.98
4	G	224	GLN	C-N-CA	7.84	128.68	119.98
3	F	419	ALA	CA-C-N	7.82	132.82	120.47
3	F	419	ALA	C-N-CA	7.82	132.82	120.47
2	B	336	VAL	CA-C-N	7.81	130.75	120.28
2	B	336	VAL	C-N-CA	7.81	130.75	120.28
1	6	47	VAL	CA-C-N	7.78	129.43	119.78
1	6	47	VAL	C-N-CA	7.78	129.43	119.78
1	8	20	LEU	CA-C-N	7.78	128.55	120.00
1	8	20	LEU	C-N-CA	7.78	128.55	120.00
2	A	138	ILE	N-CA-C	-7.77	105.19	112.96
9	U	56	SER	CA-C-N	7.76	132.74	120.47
9	U	56	SER	C-N-CA	7.76	132.74	120.47
1	4	33	LEU	CA-C-N	7.75	130.32	120.56
1	4	33	LEU	C-N-CA	7.75	130.32	120.56
2	A	125	ALA	N-CA-C	-7.74	97.28	109.50
2	C	137	GLY	CA-C-N	7.73	130.45	120.56
2	C	137	GLY	C-N-CA	7.73	130.45	120.56
3	F	107	GLY	CA-C-N	7.72	129.49	119.84
3	F	107	GLY	C-N-CA	7.72	129.49	119.84
2	A	482	LEU	CA-C-N	7.71	130.62	120.28
2	A	482	LEU	C-N-CA	7.71	130.62	120.28
3	F	258	ILE	N-CA-C	-7.68	105.22	112.83
2	A	279	ALA	N-CA-C	-7.67	102.86	111.14
2	A	491	LEU	CA-C-N	7.67	137.43	121.32
2	A	491	LEU	C-N-CA	7.67	137.43	121.32
7	O	39	SER	CA-C-O	-7.67	112.42	120.55
3	D	195	ASN	N-CA-C	-7.66	103.01	111.36
7	O	56	LEU	N-CA-C	-7.66	102.14	112.94
13	Y	14	TRP	CA-C-O	-7.65	110.92	118.34
1	0	17	ILE	CA-C-N	7.65	129.77	120.13
1	0	17	ILE	C-N-CA	7.65	129.77	120.13
3	D	193	GLU	O-C-N	7.63	130.84	122.15
3	F	56	GLU	CA-C-N	7.62	132.94	122.19

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	F	56	GLU	C-N-CA	7.62	132.94	122.19
3	D	395	GLU	N-CA-C	-7.61	104.04	112.72
11	W	79	SER	CA-C-N	7.60	131.87	120.31
11	W	79	SER	C-N-CA	7.60	131.87	120.31
2	C	315	SER	CA-C-N	7.60	131.22	120.28
2	C	315	SER	C-N-CA	7.60	131.22	120.28
1	3	24	ILE	CA-C-N	7.59	128.37	119.94
1	3	24	ILE	C-N-CA	7.59	128.37	119.94
1	2	48	PHE	O-C-N	7.58	127.84	120.71
3	F	81	GLY	CA-C-N	7.58	127.62	119.89
3	F	81	GLY	C-N-CA	7.58	127.62	119.89
3	E	430	LYS	N-CA-C	-7.58	96.17	109.06
2	B	237	THR	CA-C-O	-7.58	112.65	121.82
1	5	53	LEU	CA-C-N	7.58	128.34	120.00
1	5	53	LEU	C-N-CA	7.58	128.34	120.00
1	2	64	PHE	CA-C-N	7.57	130.29	120.44
1	2	64	PHE	C-N-CA	7.57	130.29	120.44
2	B	135	ALA	CA-C-O	-7.57	112.84	120.64
9	U	188	LYS	CA-C-O	-7.56	111.55	120.10
3	E	413	PHE	N-CA-C	-7.56	103.13	112.88
2	C	87	GLY	N-CA-C	7.55	126.08	115.43
4	G	176	GLU	CA-C-O	-7.55	111.99	119.69
10	V	59	ARG	N-CA-C	-7.54	103.91	113.72
13	Y	1	MET	CA-C-N	7.54	133.25	122.09
13	Y	1	MET	C-N-CA	7.54	133.25	122.09
2	B	416	THR	CA-C-O	7.54	128.54	120.55
3	E	163	LYS	O-C-N	7.54	130.74	122.15
7	O	119	LEU	CA-C-N	7.51	131.38	120.71
7	O	119	LEU	C-N-CA	7.51	131.38	120.71
2	B	59	SER	N-CA-C	7.50	119.46	111.28
1	0	37	VAL	CA-C-N	7.50	130.19	120.44
1	0	37	VAL	C-N-CA	7.50	130.19	120.44
1	6	8	LYS	N-CA-C	7.50	119.09	111.07
3	F	429	GLY	N-CA-C	7.49	120.55	111.93
3	F	264	ALA	CA-C-N	7.49	128.30	119.98
3	F	264	ALA	C-N-CA	7.49	128.30	119.98
9	U	83	ALA	N-CA-C	7.49	119.44	111.28
3	E	97	ASN	CA-C-N	7.48	130.71	120.46
3	E	97	ASN	C-N-CA	7.48	130.71	120.46
2	C	500	LYS	CA-C-N	7.48	130.17	120.44
2	C	500	LYS	C-N-CA	7.48	130.17	120.44
2	B	270	TYR	O-C-N	-7.48	114.69	123.22

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	63	LEU	CA-C-N	7.46	130.14	120.44
1	6	63	LEU	C-N-CA	7.46	130.14	120.44
2	A	122	PRO	N-CA-C	7.46	122.97	111.11
5	H	43	ALA	CA-C-N	7.45	131.29	120.71
5	H	43	ALA	C-N-CA	7.45	131.29	120.71
2	B	189	LYS	CA-C-N	7.45	130.12	120.44
2	B	189	LYS	C-N-CA	7.45	130.12	120.44
1	7	22	ALA	CA-C-N	7.43	128.23	119.98
1	7	22	ALA	C-N-CA	7.43	128.23	119.98
1	8	18	GLY	CA-C-N	7.43	130.98	120.28
1	8	18	GLY	C-N-CA	7.43	130.98	120.28
1	0	20	LEU	N-CA-C	7.43	120.32	111.33
3	E	129	THR	N-CA-C	-7.42	98.65	110.14
2	B	232	ILE	N-CA-C	-7.41	97.42	108.46
3	F	199	ARG	CA-C-O	7.40	128.27	120.42
3	D	361	ALA	CA-C-N	7.40	131.32	120.74
3	D	361	ALA	C-N-CA	7.40	131.32	120.74
1	0	11	GLY	CA-C-N	7.40	130.06	120.44
1	0	11	GLY	C-N-CA	7.40	130.06	120.44
3	E	291	LEU	O-C-N	-7.40	114.28	122.12
3	E	264	ALA	O-C-N	7.40	129.96	122.12
12	X	12	LYS	N-CA-C	7.40	118.99	111.07
7	O	101	PHE	N-CA-C	-7.39	103.10	112.93
3	D	164	THR	CA-C-N	7.38	130.57	120.46
3	D	164	THR	C-N-CA	7.38	130.57	120.46
4	G	265	ASN	CA-C-N	7.37	130.16	120.28
4	G	265	ASN	C-N-CA	7.37	130.16	120.28
2	B	403	ALA	CA-C-O	7.37	127.55	119.15
1	4	58	SER	CA-C-N	7.36	130.14	120.28
1	4	58	SER	C-N-CA	7.36	130.14	120.28
1	4	25	GLY	N-CA-C	7.36	121.04	112.50
2	A	263	GLY	N-CA-C	-7.35	105.11	114.37
2	B	321	GLY	CA-C-O	7.35	129.91	121.46
3	D	92	LEU	N-CA-C	7.34	120.33	110.35
1	6	25	GLY	CA-C-N	7.33	129.79	120.56
1	6	25	GLY	C-N-CA	7.33	129.79	120.56
3	D	196	ASP	CA-C-N	7.33	130.10	120.28
3	D	196	ASP	C-N-CA	7.33	130.10	120.28
1	6	55	PHE	CA-C-N	7.31	130.07	120.28
1	6	55	PHE	C-N-CA	7.31	130.07	120.28
3	D	411	GLN	CA-C-N	7.31	130.67	120.29
3	D	411	GLN	C-N-CA	7.31	130.67	120.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	7	56	ALA	O-C-N	7.31	129.86	122.12
3	D	29	GLU	CA-C-N	7.30	133.00	121.17
3	D	29	GLU	C-N-CA	7.30	133.00	121.17
1	2	72	LEU	CA-C-N	7.30	129.93	120.44
1	2	72	LEU	C-N-CA	7.30	129.93	120.44
3	F	375	GLN	CA-C-N	7.27	130.02	120.28
3	F	375	GLN	C-N-CA	7.27	130.02	120.28
2	C	190	ARG	N-CA-C	-7.26	104.67	113.97
10	V	135	VAL	CA-C-N	7.26	130.60	120.29
10	V	135	VAL	C-N-CA	7.26	130.60	120.29
3	E	375	GLN	CA-C-N	7.24	129.85	120.44
3	E	375	GLN	C-N-CA	7.24	129.85	120.44
2	C	400	ARG	CA-C-N	7.24	129.98	120.28
2	C	400	ARG	C-N-CA	7.24	129.98	120.28
3	D	150	GLY	N-CA-C	-7.24	104.51	114.64
2	C	423	GLY	N-CA-C	7.24	120.89	112.50
3	F	153	ILE	N-CA-C	-7.23	95.79	107.28
9	U	107	ILE	O-C-N	7.22	128.97	121.89
9	U	146	LEU	CA-C-N	7.22	130.55	120.29
9	U	146	LEU	C-N-CA	7.22	130.55	120.29
10	V	122	ASP	CA-C-N	7.22	129.96	120.28
10	V	122	ASP	C-N-CA	7.22	129.96	120.28
2	A	26	ASN	CA-C-N	7.22	133.17	122.99
2	A	26	ASN	C-N-CA	7.22	133.17	122.99
3	F	304	VAL	N-CA-C	-7.22	97.45	107.99
1	6	17	ILE	CA-C-N	7.20	129.20	120.13
1	6	17	ILE	C-N-CA	7.20	129.20	120.13
10	V	68	ILE	N-CA-C	-7.20	101.79	111.44
3	D	194	GLY	CA-C-N	7.19	130.50	120.29
3	D	194	GLY	C-N-CA	7.19	130.50	120.29
2	A	402	VAL	CA-C-O	-7.19	113.23	120.85
3	E	206	VAL	N-CA-C	-7.18	105.02	113.42
3	E	242	TYR	CA-C-N	7.17	130.48	120.29
3	E	242	TYR	C-N-CA	7.17	130.48	120.29
3	E	256	ASP	O-C-N	-7.17	115.07	123.25
1	9	27	ALA	CA-C-N	7.17	130.28	120.46
1	9	27	ALA	C-N-CA	7.17	130.28	120.46
4	G	130	ILE	N-CA-C	-7.17	100.07	108.82
1	8	61	THR	N-CA-C	-7.17	103.47	111.28
4	G	274	ALA	CA-C-N	7.16	129.88	120.28
4	G	274	ALA	C-N-CA	7.16	129.88	120.28
8	T	116	VAL	N-CA-C	7.16	120.04	111.09

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	C	497	ALA	CA-C-O	-7.16	113.33	120.70
1	1	41	PRO	N-CA-C	7.16	127.21	112.47
7	O	187	LEU	N-CA-C	7.15	119.07	111.28
10	V	147	ALA	CA-C-N	7.14	130.44	120.29
10	V	147	ALA	C-N-CA	7.14	130.44	120.29
3	E	198	TYR	CA-C-N	7.14	130.16	120.44
3	E	198	TYR	C-N-CA	7.14	130.16	120.44
6	I	29	LEU	CA-C-N	7.14	133.25	121.39
6	I	29	LEU	C-N-CA	7.14	133.25	121.39
4	G	209	LEU	CA-C-N	7.14	129.72	120.44
4	G	209	LEU	C-N-CA	7.14	129.72	120.44
5	H	106	ALA	CA-C-N	7.14	129.72	120.44
5	H	106	ALA	C-N-CA	7.14	129.72	120.44
2	C	472	SER	CA-C-N	7.13	129.84	120.28
2	C	472	SER	C-N-CA	7.13	129.84	120.28
2	B	405	PHE	N-CA-C	-7.13	102.91	113.61
2	B	390	GLY	CA-C-N	7.13	129.83	120.28
2	B	390	GLY	C-N-CA	7.13	129.83	120.28
3	D	452	ILE	CA-C-N	7.12	127.09	119.76
3	D	452	ILE	C-N-CA	7.12	127.09	119.76
3	D	258	ILE	N-CA-C	-7.12	105.78	112.83
3	D	428	PRO	CA-C-N	7.12	126.86	120.10
3	D	428	PRO	C-N-CA	7.12	126.86	120.10
3	E	336	SER	CA-C-N	7.12	129.69	120.44
3	E	336	SER	C-N-CA	7.12	129.69	120.44
3	F	251	VAL	N-CA-C	-7.11	99.85	108.53
4	G	225	GLY	CA-C-N	7.11	130.39	120.29
4	G	225	GLY	C-N-CA	7.11	130.39	120.29
3	F	405	GLU	N-CA-C	7.11	119.11	111.36
1	0	18	GLY	CA-C-N	7.10	130.50	120.28
1	0	18	GLY	C-N-CA	7.10	130.50	120.28
2	A	391	SER	N-CA-C	-7.10	103.72	112.88
4	G	13	ILE	O-C-N	7.10	128.75	121.87
2	A	290	PRO	CA-C-O	-7.09	110.28	120.56
3	E	351	LEU	N-CA-C	-7.09	103.50	112.93
1	7	43	ILE	N-CA-C	7.09	122.10	111.89
10	V	43	LEU	CA-C-N	7.08	129.77	120.28
10	V	43	LEU	C-N-CA	7.08	129.77	120.28
4	G	263	ILE	N-CA-C	7.08	117.84	110.62
3	F	376	GLU	CA-C-N	7.07	129.63	120.44
3	F	376	GLU	C-N-CA	7.07	129.63	120.44
3	F	207	ILE	N-CA-C	-7.06	98.59	108.27

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	U	162	ALA	CA-C-N	7.06	129.74	120.28
9	U	162	ALA	C-N-CA	7.06	129.74	120.28
1	9	9	TYR	CA-C-N	7.06	129.45	120.56
1	9	9	TYR	C-N-CA	7.06	129.45	120.56
2	B	384	ALA	O-C-N	7.05	129.33	122.07
3	D	300	LYS	N-CA-C	-7.04	104.42	113.16
2	C	355	GLU	CA-C-N	7.04	129.71	120.28
2	C	355	GLU	C-N-CA	7.04	129.71	120.28
3	D	379	GLN	CA-C-N	7.03	129.70	120.28
3	D	379	GLN	C-N-CA	7.03	129.70	120.28
4	G	231	SER	N-CA-C	7.03	119.02	111.36
2	A	135	ALA	CA-C-O	-7.03	113.06	120.23
1	4	16	THR	CA-C-N	7.02	130.08	120.46
1	4	16	THR	C-N-CA	7.02	130.08	120.46
7	O	35	ALA	CA-C-N	7.01	129.56	120.44
7	O	35	ALA	C-N-CA	7.01	129.56	120.44
5	H	56	VAL	N-CA-C	-7.01	98.30	108.11
4	G	196	LYS	N-CA-C	-7.01	103.84	112.88
7	O	55	HIS	N-CA-C	-7.00	104.38	114.12
10	V	52	GLU	CA-C-N	6.99	130.14	120.49
10	V	52	GLU	C-N-CA	6.99	130.14	120.49
6	I	12	ALA	O-C-N	-6.99	114.18	122.15
2	C	484	GLU	N-CA-C	6.99	118.90	111.28
3	F	49	GLU	CA-C-N	6.98	131.64	121.18
3	F	49	GLU	C-N-CA	6.98	131.64	121.18
3	D	436	ASP	CA-C-N	6.97	129.63	120.28
3	D	436	ASP	C-N-CA	6.97	129.63	120.28
1	7	23	GLY	O-C-N	6.97	128.88	122.19
2	A	11	SER	O-C-N	-6.97	114.73	122.12
2	A	458	ILE	CA-C-N	6.97	130.73	120.90
2	A	458	ILE	C-N-CA	6.97	130.73	120.90
3	E	247	GLU	N-CA-C	-6.97	104.77	113.55
2	C	123	ILE	CA-C-O	-6.96	114.61	121.58
3	F	203	GLU	N-CA-C	6.96	118.87	111.28
3	D	225	PRO	O-C-N	6.95	129.67	121.46
3	F	193	GLU	CA-C-N	6.95	127.70	119.98
3	F	193	GLU	C-N-CA	6.95	127.70	119.98
3	F	181	PHE	N-CA-C	-6.94	99.08	108.86
10	V	133	LEU	CA-C-N	6.93	131.82	120.94
10	V	133	LEU	C-N-CA	6.93	131.82	120.94
3	E	137	GLY	N-CA-C	-6.93	104.65	116.01
2	C	284	SER	O-C-N	-6.93	114.61	122.09

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	H	97	SER	CA-C-O	-6.93	109.03	120.80
2	A	356	ALA	CA-C-N	6.92	129.55	120.28
2	A	356	ALA	C-N-CA	6.92	129.55	120.28
2	A	210	GLN	CA-C-O	6.91	128.17	120.70
2	B	11	SER	N-CA-C	6.91	119.83	111.82
3	F	162	GLY	CA-C-N	6.91	129.42	120.44
3	F	162	GLY	C-N-CA	6.91	129.42	120.44
2	C	368	ASN	N-CA-C	-6.91	97.98	109.24
3	E	333	THR	N-CA-C	-6.91	98.81	109.24
4	G	162	ILE	N-CA-C	-6.91	97.62	108.81
1	4	6	ALA	CA-C-N	6.90	130.22	120.28
1	4	6	ALA	C-N-CA	6.90	130.22	120.28
2	A	218	LEU	CA-C-N	6.90	129.91	120.46
2	A	218	LEU	C-N-CA	6.90	129.91	120.46
3	F	433	ARG	N-CA-C	-6.89	99.77	110.17
1	6	30	PHE	CA-C-N	6.89	129.39	120.44
1	6	30	PHE	C-N-CA	6.89	129.39	120.44
3	F	273	GLY	CA-C-O	6.88	125.24	118.77
5	H	105	LEU	CA-C-O	-6.88	113.26	120.55
1	4	66	LEU	CA-C-N	6.87	129.37	120.44
1	4	66	LEU	C-N-CA	6.87	129.37	120.44
1	6	50	MET	CA-C-N	6.87	129.37	120.44
1	6	50	MET	C-N-CA	6.87	129.37	120.44
3	D	138	ILE	N-CA-C	-6.87	98.23	108.46
3	E	340	SER	CA-C-N	6.86	130.03	120.29
3	E	340	SER	C-N-CA	6.86	130.03	120.29
3	F	357	LEU	N-CA-C	-6.86	104.04	112.88
2	B	395	PHE	CA-C-N	6.85	130.02	120.29
2	B	395	PHE	C-N-CA	6.85	130.02	120.29
3	F	17	ILE	N-CA-C	-6.85	97.99	107.99
1	5	26	ILE	CA-C-N	6.84	129.44	120.28
1	5	26	ILE	C-N-CA	6.84	129.44	120.28
2	B	464	GLY	O-C-N	6.84	128.74	122.18
1	1	55	PHE	N-CA-C	6.84	118.39	111.07
3	E	291	LEU	CA-C-N	6.83	129.74	120.44
3	E	291	LEU	C-N-CA	6.83	129.74	120.44
2	A	292	GLY	N-CA-C	-6.83	96.99	113.18
3	D	289	MET	CA-C-N	6.83	127.51	120.00
3	D	289	MET	C-N-CA	6.83	127.51	120.00
6	I	14	LEU	CA-C-N	6.82	129.31	120.44
6	I	14	LEU	C-N-CA	6.82	129.31	120.44
2	C	175	THR	CA-C-N	6.82	127.50	120.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	C	175	THR	C-N-CA	6.82	127.50	120.00
3	F	407	ALA	O-C-N	6.81	129.09	122.07
1	9	32	ALA	CA-C-N	6.81	129.29	120.44
1	9	32	ALA	C-N-CA	6.81	129.29	120.44
2	A	369	VAL	N-CA-C	-6.81	106.09	112.83
2	B	412	LEU	CA-C-N	6.81	131.03	120.75
2	B	412	LEU	C-N-CA	6.81	131.03	120.75
8	T	31	LEU	O-C-N	6.81	129.34	122.12
2	A	180	VAL	O-C-N	6.81	128.58	121.91
3	D	145	ALA	CA-C-N	6.80	126.79	119.78
3	D	145	ALA	C-N-CA	6.80	126.79	119.78
2	B	39	GLY	CA-C-O	-6.80	111.18	119.68
5	H	39	ILE	N-CA-C	-6.80	98.33	108.46
8	T	74	LYS	CA-C-N	6.80	128.86	120.22
8	T	74	LYS	C-N-CA	6.80	128.86	120.22
2	A	357	GLU	O-C-N	6.80	129.32	122.12
3	F	362	VAL	N-CA-C	-6.79	106.17	112.96
2	A	248	ALA	CA-C-N	6.79	126.25	118.85
2	A	248	ALA	C-N-CA	6.79	126.25	118.85
3	F	374	VAL	CA-C-N	6.78	129.65	120.44
3	F	374	VAL	C-N-CA	6.78	129.65	120.44
2	B	301	PHE	CA-C-N	6.77	129.35	120.28
2	B	301	PHE	C-N-CA	6.77	129.35	120.28
1	6	47	VAL	CA-C-O	6.76	127.77	120.47
1	6	24	ILE	CA-C-N	6.76	127.62	119.99
1	6	24	ILE	C-N-CA	6.76	127.62	119.99
2	A	490	GLU	N-CA-C	-6.75	98.80	109.07
2	B	244	LEU	CA-C-N	6.75	129.33	120.28
2	B	244	LEU	C-N-CA	6.75	129.33	120.28
1	7	32	ALA	CA-C-N	6.75	129.22	120.44
1	7	32	ALA	C-N-CA	6.75	129.22	120.44
9	U	85	MET	CA-C-N	6.75	129.22	120.44
9	U	85	MET	C-N-CA	6.75	129.22	120.44
3	D	18	GLY	CA-C-N	6.75	133.23	123.17
3	D	18	GLY	C-N-CA	6.75	133.23	123.17
8	T	213	LEU	CA-C-N	6.75	130.56	120.31
8	T	213	LEU	C-N-CA	6.75	130.56	120.31
2	B	78	PHE	CA-C-O	6.74	127.75	119.79
2	B	83	LEU	N-CA-C	-6.74	105.09	113.38
3	D	90	GLU	CA-C-N	6.73	129.98	120.28
3	D	90	GLU	C-N-CA	6.73	129.98	120.28
1	3	41	PRO	N-CA-C	6.73	126.33	112.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	416	THR	CA-C-N	6.73	129.84	120.29
2	B	416	THR	C-N-CA	6.73	129.84	120.29
2	A	307	LEU	N-CA-C	6.73	118.41	111.14
1	3	71	LEU	CA-C-N	6.72	129.58	120.44
1	3	71	LEU	C-N-CA	6.72	129.58	120.44
3	F	46	LEU	N-CA-C	-6.72	97.95	108.90
3	F	127	GLN	CA-C-N	6.71	134.35	121.54
3	F	127	GLN	C-N-CA	6.71	134.35	121.54
1	4	53	LEU	CA-C-N	6.71	127.42	119.98
1	4	53	LEU	C-N-CA	6.71	127.42	119.98
3	F	103	ILE	N-CA-C	-6.70	106.60	113.10
1	9	6	ALA	CA-C-N	6.70	129.25	120.28
1	9	6	ALA	C-N-CA	6.70	129.25	120.28
1	4	42	SER	CA-C-N	6.69	131.04	120.47
1	4	42	SER	C-N-CA	6.69	131.04	120.47
2	A	57	PHE	CA-C-O	-6.69	114.27	121.56
3	F	430	LYS	N-CA-C	-6.69	99.17	109.14
1	1	24	ILE	CA-C-N	6.69	127.41	119.98
1	1	24	ILE	C-N-CA	6.69	127.41	119.98
14	Z	23	LEU	CA-C-N	6.69	129.53	120.44
14	Z	23	LEU	C-N-CA	6.69	129.53	120.44
1	8	44	LYS	N-CA-C	6.68	118.57	111.28
1	8	20	LEU	N-CA-C	6.68	118.56	111.28
2	B	12	SER	CA-C-N	6.68	129.90	120.42
2	B	12	SER	C-N-CA	6.68	129.90	120.42
1	6	44	LYS	N-CA-C	6.67	119.41	111.33
14	Z	13	LEU	CA-C-O	-6.67	111.92	119.79
1	9	17	ILE	N-CA-C	6.67	118.23	110.62
8	T	36	VAL	CA-C-N	6.67	129.22	120.28
8	T	36	VAL	C-N-CA	6.67	129.22	120.28
4	G	247	MET	CA-C-O	-6.67	113.35	120.42
7	O	62	LEU	N-CA-C	-6.67	99.02	108.96
3	E	39	ILE	N-CA-C	-6.67	98.78	108.11
4	G	194	PHE	N-CA-C	-6.66	102.78	111.71
1	6	27	ALA	CA-C-N	6.66	129.87	120.42
1	6	27	ALA	C-N-CA	6.66	129.87	120.42
3	E	142	ASP	CA-C-O	-6.66	113.84	120.70
3	D	47	VAL	CA-C-O	-6.65	113.43	120.48
1	4	58	SER	N-CA-C	-6.64	104.12	111.36
3	D	336	SER	N-CA-C	6.64	119.27	109.24
1	0	59	GLU	CA-C-N	6.64	129.18	120.28
1	0	59	GLU	C-N-CA	6.64	129.18	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	44	LYS	N-CA-C	6.64	118.52	111.28
12	X	6	LEU	N-CA-C	-6.64	103.97	111.07
3	F	457	PHE	N-CA-C	-6.64	104.76	112.92
7	O	43	VAL	CA-C-N	6.63	129.71	120.29
7	O	43	VAL	C-N-CA	6.63	129.71	120.29
12	X	5	ASP	CA-C-N	6.63	129.06	120.44
12	X	5	ASP	C-N-CA	6.63	129.06	120.44
1	2	13	GLY	CA-C-N	6.63	129.54	120.46
1	2	13	GLY	C-N-CA	6.63	129.54	120.46
3	F	390	ILE	O-C-N	-6.63	115.01	121.90
3	D	193	GLU	CA-C-O	-6.62	113.40	120.42
4	G	46	GLU	N-CA-C	6.62	119.33	111.71
3	D	157	GLY	CA-C-O	-6.61	116.25	122.13
1	9	51	ALA	N-CA-C	6.61	118.14	111.07
2	A	429	LEU	CA-C-N	6.61	129.14	120.28
2	A	429	LEU	C-N-CA	6.61	129.14	120.28
2	C	244	LEU	O-C-N	6.61	129.12	122.12
2	A	59	SER	N-CA-C	-6.61	104.00	111.14
3	F	284	THR	CA-C-O	6.61	127.29	119.56
2	C	206	VAL	N-CA-C	-6.60	98.92	108.36
3	D	242	TYR	CA-C-N	6.60	129.13	120.28
3	D	242	TYR	C-N-CA	6.60	129.13	120.28
4	G	174	SER	CA-C-O	6.60	129.24	121.58
10	V	164	LYS	N-CA-C	-6.60	105.26	113.38
1	6	15	SER	CA-C-N	6.60	129.78	120.28
1	6	15	SER	C-N-CA	6.60	129.78	120.28
2	C	344	VAL	CA-C-O	-6.59	113.86	120.85
3	F	397	SER	CA-C-N	6.59	129.12	120.28
3	F	397	SER	C-N-CA	6.59	129.12	120.28
2	B	88	GLU	CA-C-N	6.59	130.07	120.71
2	B	88	GLU	C-N-CA	6.59	130.07	120.71
5	H	40	GLY	N-CA-C	-6.59	99.93	111.46
1	3	32	ALA	CA-C-N	6.59	129.00	120.44
1	3	32	ALA	C-N-CA	6.59	129.00	120.44
4	G	73	LEU	CA-C-O	6.58	128.60	121.16
3	D	98	VAL	CA-C-N	6.58	130.42	122.26
3	D	98	VAL	C-N-CA	6.58	130.42	122.26
1	0	15	SER	CA-C-N	6.58	129.98	120.38
1	0	15	SER	C-N-CA	6.58	129.98	120.38
1	4	54	GLY	O-C-N	6.58	128.51	122.19
8	T	56	SER	CA-C-O	-6.58	114.24	121.87
2	C	311	ALA	CA-C-O	-6.57	113.09	120.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	0	56	ALA	CA-C-N	6.57	129.62	120.29
1	0	56	ALA	C-N-CA	6.57	129.62	120.29
12	X	56	GLN	N-CA-C	6.57	118.52	111.36
10	V	159	ASP	CA-C-O	6.57	127.37	120.54
1	7	59	GLU	CA-C-N	6.56	129.07	120.28
1	7	59	GLU	C-N-CA	6.56	129.07	120.28
2	A	402	VAL	O-C-N	6.56	128.59	121.83
1	8	25	GLY	N-CA-C	6.56	120.60	112.73
2	B	336	VAL	N-CA-C	-6.56	106.73	113.10
2	A	150	THR	N-CA-C	-6.55	105.58	113.97
2	A	189	LYS	N-CA-C	6.55	118.42	111.28
3	E	199	ARG	CA-C-O	-6.55	113.95	120.70
1	8	69	SER	CA-C-N	6.55	129.59	120.29
1	8	69	SER	C-N-CA	6.55	129.59	120.29
10	V	79	LYS	O-C-N	-6.55	114.65	120.48
2	A	503	THR	CA-C-O	-6.54	113.61	120.55
3	F	232	VAL	CA-C-O	6.54	127.76	120.95
2	A	454	HIS	N-CA-C	-6.54	104.53	113.30
12	X	25	GLU	CA-C-N	6.54	127.24	119.98
12	X	25	GLU	C-N-CA	6.54	127.24	119.98
4	G	169	PRO	O-C-N	6.54	131.47	122.64
2	C	338	ALA	CA-C-N	6.54	128.94	120.44
2	C	338	ALA	C-N-CA	6.54	128.94	120.44
2	C	369	VAL	O-C-N	6.54	128.91	122.05
1	6	27	ALA	N-CA-C	6.54	118.48	111.36
4	G	2	THR	N-CA-C	-6.54	104.24	111.36
2	B	341	PRO	CA-C-N	6.53	128.93	120.44
2	B	341	PRO	C-N-CA	6.53	128.93	120.44
4	G	17	GLU	CA-C-N	6.53	128.93	120.44
4	G	17	GLU	C-N-CA	6.53	128.93	120.44
3	E	167	ILE	CA-C-N	6.52	129.02	120.28
3	E	167	ILE	C-N-CA	6.52	129.02	120.28
9	U	78	LYS	O-C-N	6.52	128.79	122.07
3	D	457	PHE	N-CA-C	-6.52	105.33	113.28
3	D	80	GLY	O-C-N	-6.51	115.27	122.50
3	F	453	PRO	N-CA-C	6.51	121.56	111.21
2	C	69	GLU	CA-C-O	-6.51	113.96	120.66
3	E	294	GLU	O-C-N	6.51	130.28	122.27
2	A	313	LYS	CA-C-O	-6.51	113.87	121.16
1	9	8	LYS	N-CA-C	6.50	118.03	111.07
9	U	66	THR	CA-C-N	6.50	127.16	120.00
9	U	66	THR	C-N-CA	6.50	127.16	120.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	V	83	ILE	O-C-N	-6.50	115.61	122.57
14	Z	25	ILE	CA-C-N	6.50	128.89	120.44
14	Z	25	ILE	C-N-CA	6.50	128.89	120.44
3	D	243	PHE	N-CA-C	-6.50	104.20	111.28
3	D	78	ASP	CA-C-O	-6.50	113.41	120.36
3	D	158	GLY	O-C-N	-6.48	117.02	122.92
3	D	176	LYS	N-CA-C	-6.48	104.95	112.92
7	O	127	GLU	CA-C-N	6.48	126.83	119.83
7	O	127	GLU	C-N-CA	6.48	126.83	119.83
1	1	54	GLY	CA-C-N	6.48	128.87	120.44
1	1	54	GLY	C-N-CA	6.48	128.87	120.44
1	1	24	ILE	O-C-N	6.48	128.15	121.87
3	E	78	ASP	N-CA-C	-6.47	98.65	109.07
3	E	311	TYR	N-CA-C	-6.47	98.85	109.40
3	F	243	PHE	CA-C-N	6.47	129.24	120.44
3	F	243	PHE	C-N-CA	6.47	129.24	120.44
2	C	68	LEU	N-CA-C	-6.47	98.19	108.73
3	F	423	VAL	O-C-N	6.47	128.25	121.91
1	8	27	ALA	CA-C-N	6.46	129.31	120.46
1	8	27	ALA	C-N-CA	6.46	129.31	120.46
1	2	3	LEU	CA-C-O	6.46	127.39	120.55
3	E	286	ALA	CA-C-N	6.46	129.46	120.29
3	E	286	ALA	C-N-CA	6.46	129.46	120.29
11	W	77	GLY	CA-C-O	6.45	127.11	119.50
1	8	40	ASN	O-C-N	-6.45	113.90	121.32
2	A	455	LEU	N-CA-C	-6.45	105.33	113.72
3	F	86	PRO	CA-C-O	-6.45	113.80	121.67
4	G	180	LYS	N-CA-C	-6.45	102.42	108.22
4	G	16	ILE	O-C-N	6.45	128.23	121.91
3	F	143	LEU	N-CA-C	-6.45	102.87	111.96
1	5	56	ALA	O-C-N	-6.44	115.43	122.07
4	G	187	THR	CA-C-N	6.44	129.29	120.46
4	G	187	THR	C-N-CA	6.44	129.29	120.46
2	C	69	GLU	N-CA-C	-6.44	99.00	109.82
4	G	87	ILE	CA-C-N	6.44	129.44	120.29
4	G	87	ILE	C-N-CA	6.44	129.44	120.29
3	E	10	THR	N-CA-C	-6.44	97.78	108.34
4	G	215	ALA	N-CA-C	-6.44	103.50	112.45
1	1	37	VAL	CA-C-N	6.44	129.43	120.29
1	1	37	VAL	C-N-CA	6.44	129.43	120.29
2	A	367	ILE	N-CA-C	-6.43	98.93	108.45
1	0	33	LEU	O-C-N	6.43	128.69	122.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	19	LEU	CA-C-N	6.43	129.19	120.38
1	2	19	LEU	C-N-CA	6.43	129.19	120.38
2	A	401	GLU	CA-C-N	6.42	129.54	120.42
2	A	401	GLU	C-N-CA	6.42	129.54	120.42
3	E	74	GLU	CA-C-N	6.42	129.83	120.71
3	E	74	GLU	C-N-CA	6.42	129.83	120.71
3	D	439	ALA	O-C-N	6.42	128.93	122.12
7	O	87	ASN	CA-C-N	6.42	128.88	120.28
7	O	87	ASN	C-N-CA	6.42	128.88	120.28
1	4	47	VAL	CA-C-O	-6.42	114.05	120.85
3	E	51	ALA	O-C-N	-6.42	115.58	122.19
3	F	199	ARG	CA-C-N	6.41	128.78	120.44
3	F	199	ARG	C-N-CA	6.41	128.78	120.44
1	8	31	ALA	CA-C-N	6.41	128.87	120.28
1	8	31	ALA	C-N-CA	6.41	128.87	120.28
2	B	422	ARG	CA-C-N	6.41	127.10	119.98
2	B	422	ARG	C-N-CA	6.41	127.10	119.98
2	A	118	ASP	N-CA-C	-6.41	104.00	113.61
3	F	406	ARG	CA-C-N	6.41	128.78	120.44
3	F	406	ARG	C-N-CA	6.41	128.78	120.44
4	G	164	ILE	N-CA-C	-6.41	98.96	108.45
1	2	45	ASP	CA-C-N	6.40	129.38	120.29
1	2	45	ASP	C-N-CA	6.40	129.38	120.29
1	7	43	ILE	CA-C-N	6.40	129.15	120.38
1	7	43	ILE	C-N-CA	6.40	129.15	120.38
2	C	479	ASN	CA-C-N	6.40	128.85	120.28
2	C	479	ASN	C-N-CA	6.40	128.85	120.28
1	0	55	PHE	CA-C-N	6.39	128.85	120.28
1	0	55	PHE	C-N-CA	6.39	128.85	120.28
1	1	21	GLY	N-CA-C	6.39	120.40	112.73
2	A	252	ALA	O-C-N	6.39	130.13	122.27
1	4	19	LEU	N-CA-C	6.39	119.06	111.71
2	A	485	ILE	CA-C-N	6.39	128.75	120.44
2	A	485	ILE	C-N-CA	6.39	128.75	120.44
1	0	6	ALA	CA-C-N	6.39	129.48	120.28
1	0	6	ALA	C-N-CA	6.39	129.48	120.28
1	9	3	LEU	CA-C-O	-6.39	113.78	120.55
3	F	473	LEU	O-C-N	6.39	128.65	122.07
3	E	467	VAL	N-CA-C	-6.38	104.53	110.53
3	D	97	ASN	N-CA-C	-6.38	99.71	109.41
11	W	48	LEU	N-CA-C	-6.38	104.20	114.09
2	C	481	LEU	N-CA-C	-6.38	104.24	111.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	E	36	ALA	O-C-N	6.38	130.77	123.31
9	U	148	HIS	CA-C-O	-6.38	113.79	120.55
3	D	156	PHE	CA-C-O	-6.38	113.98	121.44
2	A	105	LEU	N-CA-C	-6.38	105.47	113.18
2	B	481	LEU	O-C-N	6.38	128.88	122.12
3	D	404	VAL	O-C-N	6.37	128.05	121.87
3	F	301	LYS	N-CA-C	-6.37	106.72	114.75
9	U	194	LEU	CA-C-N	6.37	128.82	120.28
9	U	194	LEU	C-N-CA	6.37	128.82	120.28
2	A	133	VAL	N-CA-C	-6.37	98.29	107.78
2	A	271	ASP	CA-C-O	-6.37	113.49	120.30
3	D	33	ILE	CA-C-N	6.37	133.73	123.93
3	D	33	ILE	C-N-CA	6.37	133.73	123.93
14	Z	31	PHE	CA-C-O	-6.37	112.15	119.60
12	X	17	ALA	CA-C-N	6.36	127.79	119.84
12	X	17	ALA	C-N-CA	6.36	127.79	119.84
3	D	80	GLY	CA-C-O	6.36	125.83	118.96
3	F	407	ALA	CA-C-O	-6.36	114.14	120.82
2	C	66	LEU	CA-C-O	-6.35	112.38	119.81
3	F	20	ILE	O-C-N	-6.35	116.19	122.99
3	F	335	LEU	CA-C-N	6.35	132.53	122.62
3	F	335	LEU	C-N-CA	6.35	132.53	122.62
2	B	337	SER	CA-C-N	6.35	130.91	120.94
2	B	337	SER	C-N-CA	6.35	130.91	120.94
9	U	136	GLU	CA-C-N	6.35	129.43	120.28
9	U	136	GLU	C-N-CA	6.35	129.43	120.28
2	C	293	ARG	CA-C-N	6.35	133.02	123.05
2	C	293	ARG	C-N-CA	6.35	133.02	123.05
3	D	401	LYS	CA-C-N	6.35	128.78	120.28
3	D	401	LYS	C-N-CA	6.35	128.78	120.28
1	1	3	LEU	CA-C-O	-6.35	114.16	120.70
8	T	84	LEU	N-CA-C	-6.34	104.80	112.54
10	V	47	GLN	N-CA-C	-6.34	105.36	113.23
12	X	20	THR	CA-C-N	6.34	128.78	120.28
12	X	20	THR	C-N-CA	6.34	128.78	120.28
2	B	273	LEU	N-CA-C	-6.34	105.03	112.89
2	A	220	GLN	CA-C-N	6.34	129.29	120.29
2	A	220	GLN	C-N-CA	6.34	129.29	120.29
5	H	130	LEU	CA-C-N	6.34	128.68	120.44
5	H	130	LEU	C-N-CA	6.34	128.68	120.44
2	A	439	ALA	CA-C-N	6.33	129.40	120.28
2	A	439	ALA	C-N-CA	6.33	129.40	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	E	123	SER	CA-C-N	6.33	128.76	120.28
3	E	123	SER	C-N-CA	6.33	128.76	120.28
11	W	24	ILE	CA-C-O	6.33	127.24	119.58
3	F	135	GLU	CA-C-N	6.33	132.49	122.36
3	F	135	GLU	C-N-CA	6.33	132.49	122.36
1	2	25	GLY	CA-C-N	6.33	128.53	120.56
1	2	25	GLY	C-N-CA	6.33	128.53	120.56
2	C	437	PRO	N-CA-C	-6.33	99.43	112.47
3	D	113	LEU	N-CA-C	-6.33	99.09	109.40
3	D	463	ILE	CA-C-N	6.32	128.75	120.28
3	D	463	ILE	C-N-CA	6.32	128.75	120.28
2	A	405	PHE	CA-C-N	6.32	130.71	120.60
2	A	405	PHE	C-N-CA	6.32	130.71	120.60
1	7	44	LYS	N-CA-C	6.32	118.97	111.33
2	B	138	ILE	CA-C-N	6.32	128.73	120.26
2	B	138	ILE	C-N-CA	6.32	128.73	120.26
1	0	52	ILE	CA-C-N	6.32	129.03	120.44
1	0	52	ILE	C-N-CA	6.32	129.03	120.44
2	C	161	ILE	O-C-N	-6.32	116.44	123.26
1	9	50	MET	N-CA-C	-6.31	104.40	111.28
3	E	381	TYR	CA-C-N	6.31	128.74	120.28
3	E	381	TYR	C-N-CA	6.31	128.74	120.28
3	F	29	GLU	N-CA-C	-6.31	96.88	107.80
2	A	422	ARG	CA-C-N	6.31	126.94	120.00
2	A	422	ARG	C-N-CA	6.31	126.94	120.00
1	3	24	ILE	N-CA-C	-6.30	104.35	110.72
1	9	47	VAL	CA-C-N	6.30	128.71	120.26
1	9	47	VAL	C-N-CA	6.30	128.71	120.26
3	F	307	VAL	CA-C-O	-6.30	113.80	120.48
2	B	456	ASP	CA-C-O	6.30	127.17	119.11
3	E	282	GLN	CA-C-N	6.30	127.71	119.84
3	E	282	GLN	C-N-CA	6.30	127.71	119.84
4	G	271	ILE	CA-C-N	6.30	129.24	120.29
4	G	271	ILE	C-N-CA	6.30	129.24	120.29
3	D	78	ASP	O-C-N	6.29	130.39	123.22
4	G	14	LYS	N-CA-C	6.29	118.14	111.28
1	9	18	GLY	N-CA-C	6.29	121.48	113.24
3	F	308	GLN	CA-C-N	6.29	131.86	122.99
3	F	308	GLN	C-N-CA	6.29	131.86	122.99
8	T	34	ILE	CA-C-O	-6.29	114.41	120.95
2	B	147	PRO	O-C-N	6.28	130.51	122.91
3	E	118	HIS	CA-C-O	6.28	128.15	120.92

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	C	456	ASP	N-CA-C	-6.28	105.26	113.17
3	D	469	LYS	O-C-N	6.27	130.83	122.43
3	D	55	GLY	N-CA-C	-6.27	105.27	112.29
3	E	335	LEU	N-CA-C	-6.27	99.98	109.95
4	G	95	VAL	CA-C-N	6.27	128.68	120.28
4	G	95	VAL	C-N-CA	6.27	128.68	120.28
1	3	26	ILE	CA-C-N	6.26	129.19	120.29
1	3	26	ILE	C-N-CA	6.26	129.19	120.29
2	A	167	GLU	CA-C-N	6.26	131.10	122.77
2	A	167	GLU	C-N-CA	6.26	131.10	122.77
4	G	33	LYS	CA-C-N	6.26	128.58	120.44
4	G	33	LYS	C-N-CA	6.26	128.58	120.44
3	D	467	VAL	CA-C-O	6.26	127.80	121.17
1	4	43	ILE	CA-C-N	6.25	129.51	120.38
1	4	43	ILE	C-N-CA	6.25	129.51	120.38
3	E	383	SER	O-C-N	-6.25	115.49	122.12
1	2	61	THR	CA-C-O	6.25	127.18	120.55
2	A	287	LEU	N-CA-C	-6.25	104.13	112.94
3	F	406	ARG	N-CA-C	-6.25	104.55	111.36
2	B	490	GLU	N-CA-C	-6.25	99.57	109.07
1	0	50	MET	CA-C-N	6.25	129.16	120.29
1	0	50	MET	C-N-CA	6.25	129.16	120.29
3	D	101	GLU	CA-C-N	6.25	126.74	119.99
3	D	101	GLU	C-N-CA	6.25	126.74	119.99
3	D	423	VAL	CA-C-N	6.24	128.93	120.44
3	D	423	VAL	C-N-CA	6.24	128.93	120.44
1	7	48	PHE	CA-C-N	6.23	126.43	119.32
1	7	48	PHE	C-N-CA	6.23	126.43	119.32
2	A	188	GLN	CA-C-N	6.23	128.63	120.28
2	A	188	GLN	C-N-CA	6.23	128.63	120.28
4	G	86	SER	CA-C-O	6.23	128.19	120.15
3	D	161	VAL	O-C-N	-6.23	116.49	122.16
4	G	12	SER	O-C-N	6.23	128.72	122.12
3	D	140	VAL	O-C-N	6.22	128.24	121.83
5	H	66	LYS	N-CA-C	-6.22	98.85	109.24
2	B	114	GLY	N-CA-C	-6.22	106.11	115.32
1	8	13	GLY	CA-C-O	-6.22	114.28	121.00
3	F	121	PRO	CA-C-O	-6.22	111.54	120.56
2	A	22	SER	CA-C-O	-6.21	111.62	120.51
3	D	448	LYS	N-CA-C	-6.21	105.34	113.17
3	E	276	PRO	CA-C-O	-6.21	113.86	121.31
2	B	115	ASN	CA-C-N	6.20	127.86	120.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	115	ASN	C-N-CA	6.20	127.86	120.23
3	F	155	LEU	CA-C-O	-6.20	114.34	121.47
8	T	140	VAL	CA-C-N	6.20	129.21	120.28
8	T	140	VAL	C-N-CA	6.20	129.21	120.28
2	C	137	GLY	O-C-N	-6.20	117.48	122.81
1	6	20	LEU	O-C-N	-6.20	115.55	122.12
2	A	300	VAL	N-CA-C	6.19	116.98	110.72
3	D	252	LEU	N-CA-C	-6.19	99.66	109.07
5	H	121	ALA	CA-C-N	6.19	128.49	120.44
5	H	121	ALA	C-N-CA	6.19	128.49	120.44
7	O	55	HIS	O-C-N	-6.19	115.09	122.27
2	A	73	VAL	CA-C-O	-6.19	113.71	120.71
7	O	144	SER	O-C-N	-6.19	115.56	122.86
8	T	206	LEU	N-CA-C	-6.19	105.48	113.16
2	C	234	VAL	O-C-N	-6.18	116.83	123.14
3	E	178	HIS	O-C-N	6.18	130.57	123.27
2	A	139	LEU	CA-C-O	-6.18	112.34	118.34
7	O	18	THR	CA-C-O	6.18	127.08	119.97
3	E	132	GLU	N-CA-C	-6.18	100.85	110.42
1	3	72	LEU	O-C-N	6.17	128.76	122.09
7	O	92	LEU	O-C-N	6.17	129.19	122.15
3	E	432	VAL	N-CA-C	-6.17	98.81	108.81
7	O	147	VAL	N-CA-C	-6.17	95.63	106.61
1	6	8	LYS	CA-C-O	-6.17	114.34	120.82
1	2	12	ALA	CA-C-O	6.17	127.30	120.82
3	E	433	ARG	CA-C-N	6.16	128.54	120.28
3	E	433	ARG	C-N-CA	6.16	128.54	120.28
7	O	124	THR	N-CA-C	-6.16	101.16	110.28
1	6	19	LEU	CA-C-N	6.16	128.82	120.38
1	6	19	LEU	C-N-CA	6.16	128.82	120.38
1	7	5	LEU	CA-C-N	6.16	128.45	120.44
1	7	5	LEU	C-N-CA	6.16	128.45	120.44
8	T	155	VAL	O-C-N	-6.16	115.70	120.07
1	7	62	GLY	CA-C-N	6.16	128.53	120.28
1	7	62	GLY	C-N-CA	6.16	128.53	120.28
2	A	394	LEU	CA-C-N	6.15	128.53	120.28
2	A	394	LEU	C-N-CA	6.15	128.53	120.28
1	3	40	ASN	CA-C-O	-6.15	111.73	120.16
3	F	148	ALA	CA-C-N	6.15	131.67	123.00
3	F	148	ALA	C-N-CA	6.15	131.67	123.00
5	H	59	VAL	N-CA-C	-6.15	99.26	108.12
2	A	221	THR	N-CA-C	-6.14	104.66	111.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	54	GLY	CA-C-N	6.14	128.51	120.28
1	2	54	GLY	C-N-CA	6.14	128.51	120.28
5	H	65	SER	CA-C-O	6.14	128.30	121.11
2	C	252	ALA	N-CA-C	6.14	117.97	111.28
2	C	301	PHE	N-CA-C	-6.14	104.67	111.36
2	A	479	ASN	N-CA-C	-6.14	105.62	113.23
3	D	27	GLN	CA-C-O	-6.14	114.64	121.51
4	G	101	ASP	N-CA-C	-6.14	104.52	112.68
4	G	104	ASN	CA-C-N	6.13	130.01	120.75
4	G	104	ASN	C-N-CA	6.13	130.01	120.75
10	V	14	LYS	CA-C-N	6.13	128.86	120.46
10	V	14	LYS	C-N-CA	6.13	128.86	120.46
4	G	10	LEU	N-CA-C	-6.13	104.59	111.28
2	C	443	GLN	CA-C-N	6.13	125.23	120.33
2	C	443	GLN	C-N-CA	6.13	125.23	120.33
1	2	26	ILE	CA-C-N	6.13	128.99	120.29
1	2	26	ILE	C-N-CA	6.13	128.99	120.29
1	4	67	MET	CA-C-O	-6.13	114.39	120.82
2	C	152	LEU	N-CA-C	-6.12	100.93	110.42
1	1	26	ILE	CA-C-N	6.12	128.48	120.28
1	1	26	ILE	C-N-CA	6.12	128.48	120.28
2	A	329	ILE	N-CA-C	-6.12	98.71	107.77
2	C	296	TYR	CA-C-N	6.12	126.47	119.92
2	C	296	TYR	C-N-CA	6.12	126.47	119.92
3	F	307	VAL	O-C-N	6.12	129.60	123.18
1	8	58	SER	CA-C-N	6.12	128.48	120.28
1	8	58	SER	C-N-CA	6.12	128.48	120.28
2	C	215	VAL	CA-C-N	6.12	128.97	120.29
2	C	215	VAL	C-N-CA	6.12	128.97	120.29
1	9	71	LEU	CA-C-N	6.11	129.60	120.31
1	9	71	LEU	C-N-CA	6.11	129.60	120.31
1	2	47	VAL	CA-C-N	6.11	127.73	120.09
1	2	47	VAL	C-N-CA	6.11	127.73	120.09
3	F	327	ALA	CA-C-O	-6.11	113.94	120.42
6	I	12	ALA	CA-C-N	6.11	128.38	120.44
6	I	12	ALA	C-N-CA	6.11	128.38	120.44
3	F	68	GLU	N-CA-C	-6.10	104.63	114.09
3	F	470	ALA	N-CA-C	6.10	117.93	111.28
9	U	74	ALA	N-CA-C	6.10	121.83	113.16
2	C	506	PHE	O-C-N	-6.10	115.65	122.12
3	E	452	ILE	CA-C-N	6.10	126.44	119.92
3	E	452	ILE	C-N-CA	6.10	126.44	119.92

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
12	X	39	LEU	N-CA-C	-6.09	97.46	109.10
2	B	146	GLU	CA-C-N	6.09	126.44	119.92
2	B	146	GLU	C-N-CA	6.09	126.44	119.92
8	T	171	ILE	N-CA-C	-6.09	104.44	113.39
3	F	200	GLU	CA-C-N	6.09	128.94	120.29
3	F	200	GLU	C-N-CA	6.09	128.94	120.29
2	A	98	ASP	O-C-N	-6.09	116.31	123.25
3	D	259	PHE	N-CA-C	-6.09	104.72	111.36
3	E	195	ASN	CA-C-N	6.08	128.72	120.44
3	E	195	ASN	C-N-CA	6.08	128.72	120.44
2	A	260	ARG	N-CA-C	-6.08	104.73	111.36
2	B	81	ASP	N-CA-C	-6.08	106.19	113.97
3	D	170	LEU	CA-C-N	6.08	129.06	120.42
3	D	170	LEU	C-N-CA	6.08	129.06	120.42
4	G	273	GLY	CA-C-N	6.08	128.93	120.29
4	G	273	GLY	C-N-CA	6.08	128.93	120.29
2	A	109	VAL	CA-C-N	6.08	131.47	122.71
2	A	109	VAL	C-N-CA	6.08	131.47	122.71
1	6	23	GLY	CA-C-N	6.08	128.22	120.56
1	6	23	GLY	C-N-CA	6.08	128.22	120.56
9	U	185	GLY	N-CA-C	-6.08	106.18	115.66
11	W	65	PRO	CA-C-N	6.07	128.33	120.44
11	W	65	PRO	C-N-CA	6.07	128.33	120.44
3	F	323	ALA	N-CA-C	6.07	117.90	111.28
3	D	238	THR	CA-C-N	6.07	129.03	120.42
3	D	238	THR	C-N-CA	6.07	129.03	120.42
2	A	192	ASN	CA-C-O	-6.07	114.12	120.55
2	A	58	SER	CA-C-N	6.06	128.69	120.44
2	A	58	SER	C-N-CA	6.06	128.69	120.44
7	O	21	THR	CA-C-N	6.06	128.32	120.44
7	O	21	THR	C-N-CA	6.06	128.32	120.44
1	1	52	ILE	O-C-N	6.06	128.07	121.83
1	5	47	VAL	CA-C-O	-6.06	113.93	120.47
2	C	252	ALA	CA-C-N	6.06	129.51	120.31
2	C	252	ALA	C-N-CA	6.06	129.51	120.31
2	B	252	ALA	CA-C-N	6.05	128.39	120.28
2	B	252	ALA	C-N-CA	6.05	128.39	120.28
8	T	169	ARG	CA-C-N	6.05	128.39	120.28
8	T	169	ARG	C-N-CA	6.05	128.39	120.28
1	7	18	GLY	O-C-N	6.05	128.00	122.19
3	E	397	SER	N-CA-C	6.04	118.33	110.53
8	T	231	GLY	CA-C-N	6.04	128.87	120.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	T	231	GLY	C-N-CA	6.04	128.87	120.29
9	U	115	ASN	CA-C-N	6.04	129.00	120.42
9	U	115	ASN	C-N-CA	6.04	129.00	120.42
2	B	397	ALA	CA-C-N	6.04	128.86	120.29
2	B	397	ALA	C-N-CA	6.04	128.86	120.29
2	C	416	THR	CA-C-N	6.04	128.86	120.29
2	C	416	THR	C-N-CA	6.04	128.86	120.29
2	A	319	GLY	CA-C-N	6.03	132.70	123.47
2	A	319	GLY	C-N-CA	6.03	132.70	123.47
10	V	160	VAL	CA-C-N	6.03	125.79	119.76
10	V	160	VAL	C-N-CA	6.03	125.79	119.76
3	D	264	ALA	CA-C-N	6.03	126.67	119.98
3	D	264	ALA	C-N-CA	6.03	126.67	119.98
2	C	262	ASN	N-CA-C	-6.03	105.93	113.28
7	O	63	SER	CA-C-N	6.02	128.35	120.28
7	O	63	SER	C-N-CA	6.02	128.35	120.28
1	8	13	GLY	O-C-N	6.02	127.96	122.18
8	T	109	PHE	N-CA-C	-6.02	100.15	109.24
10	V	79	LYS	CA-C-N	6.02	126.22	119.90
10	V	79	LYS	C-N-CA	6.02	126.22	119.90
1	0	53	LEU	CA-C-N	6.02	126.66	119.98
1	0	53	LEU	C-N-CA	6.02	126.66	119.98
8	T	219	ILE	O-C-N	6.01	128.03	121.83
4	G	159	TYR	N-CA-C	6.01	117.27	109.64
3	D	305	THR	N-CA-C	-6.01	100.20	109.76
1	9	48	PHE	O-C-N	-6.01	115.13	120.48
2	B	439	ALA	CA-C-N	6.00	128.93	120.28
2	B	439	ALA	C-N-CA	6.00	128.93	120.28
2	B	210	GLN	CA-C-O	6.00	127.18	120.70
3	F	296	ILE	N-CA-C	-6.00	98.07	106.53
2	C	66	LEU	N-CA-C	-6.00	105.04	112.72
7	O	36	ALA	CA-C-N	6.00	128.81	120.29
7	O	36	ALA	C-N-CA	6.00	128.81	120.29
3	D	210	GLU	CA-C-O	6.00	127.20	119.95
10	V	130	PHE	N-CA-C	-6.00	106.13	113.50
2	C	23	ASP	N-CA-C	-5.99	105.97	113.28
2	C	447	ILE	O-C-N	5.99	128.57	121.80
2	A	417	LYS	CA-C-N	5.99	128.58	120.44
2	A	417	LYS	C-N-CA	5.99	128.58	120.44
3	F	20	ILE	N-CA-C	-5.98	97.77	107.28
2	C	245	GLN	CA-C-N	5.98	128.78	120.29
2	C	245	GLN	C-N-CA	5.98	128.78	120.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	H	49	VAL	CA-C-O	-5.98	114.11	120.39
1	1	25	GLY	CA-C-N	5.98	128.09	120.56
1	1	25	GLY	C-N-CA	5.98	128.09	120.56
3	F	410	ILE	N-CA-C	-5.97	104.69	110.72
1	6	47	VAL	N-CA-C	5.97	118.55	111.09
2	C	291	PRO	CA-C-N	5.97	130.05	122.83
2	C	291	PRO	C-N-CA	5.97	130.05	122.83
2	B	289	ARG	N-CA-C	-5.96	102.26	109.72
2	B	49	ILE	N-CA-C	5.96	117.78	109.55
3	F	382	LYS	CA-C-N	5.96	128.27	120.28
3	F	382	LYS	C-N-CA	5.96	128.27	120.28
1	5	12	ALA	CA-C-N	5.96	126.55	119.94
1	5	12	ALA	C-N-CA	5.96	126.55	119.94
2	B	105	LEU	CA-C-N	5.96	129.82	121.24
2	B	105	LEU	C-N-CA	5.96	129.82	121.24
3	D	462	GLY	CA-C-N	5.96	128.62	120.46
3	D	462	GLY	C-N-CA	5.96	128.62	120.46
9	U	89	SER	CA-C-N	5.96	128.75	120.29
9	U	89	SER	C-N-CA	5.96	128.75	120.29
4	G	244	ALA	CA-C-N	5.96	126.55	120.00
4	G	244	ALA	C-N-CA	5.96	126.55	120.00
2	C	83	LEU	CA-C-N	5.95	132.03	122.50
2	C	83	LEU	C-N-CA	5.95	132.03	122.50
1	0	49	PRO	CA-C-N	5.95	128.25	120.28
1	0	49	PRO	C-N-CA	5.95	128.25	120.28
2	B	201	LEU	CA-C-O	5.95	126.73	120.36
2	B	479	ASN	CA-C-O	5.95	126.26	119.18
2	A	126	ALA	N-CA-C	-5.95	106.64	114.31
7	O	69	SER	CA-C-N	5.95	128.61	120.46
7	O	69	SER	C-N-CA	5.95	128.61	120.46
8	T	122	SER	N-CA-C	-5.95	104.80	111.28
10	V	111	SER	CA-C-N	5.94	128.24	120.28
10	V	111	SER	C-N-CA	5.94	128.24	120.28
3	E	426	GLY	O-C-N	-5.94	114.97	122.70
4	G	12	SER	CA-C-O	-5.94	114.26	120.55
3	E	439	ALA	CA-C-N	5.94	128.72	120.29
3	E	439	ALA	C-N-CA	5.94	128.72	120.29
2	B	331	THR	N-CA-C	-5.93	99.52	109.07
2	C	395	PHE	N-CA-C	5.93	117.74	111.28
3	D	234	LEU	N-CA-C	5.93	117.74	111.28
2	B	93	THR	CA-C-N	5.93	131.68	121.07
2	B	93	THR	C-N-CA	5.93	131.68	121.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	228	MET	CA-C-N	5.93	130.90	121.18
2	B	228	MET	C-N-CA	5.93	130.90	121.18
12	X	4	GLN	O-C-N	5.93	128.18	122.07
10	V	149	VAL	N-CA-C	5.92	116.66	110.62
1	1	62	GLY	O-C-N	-5.92	116.50	122.19
3	D	301	LYS	N-CA-C	-5.92	106.05	113.28
1	4	24	ILE	O-C-N	5.92	127.61	121.87
2	B	504	GLU	CA-C-N	5.92	128.14	120.44
2	B	504	GLU	C-N-CA	5.92	128.14	120.44
1	7	21	GLY	CA-C-N	5.92	128.21	120.28
1	7	21	GLY	C-N-CA	5.92	128.21	120.28
2	A	133	VAL	CA-C-N	5.92	129.51	121.05
2	A	133	VAL	C-N-CA	5.92	129.51	121.05
2	A	290	PRO	CA-C-N	5.92	127.24	120.85
2	A	290	PRO	C-N-CA	5.92	127.24	120.85
7	O	114	ALA	N-CA-C	-5.91	104.92	111.36
2	B	259	PHE	CA-C-N	5.91	128.20	120.28
2	B	259	PHE	C-N-CA	5.91	128.20	120.28
11	W	80	MET	O-C-N	-5.91	115.00	122.27
1	9	57	LEU	CA-C-N	5.91	128.12	120.44
1	9	57	LEU	C-N-CA	5.91	128.12	120.44
2	C	505	SER	N-CA-C	5.90	117.39	111.07
2	C	225	HIS	CA-C-N	5.90	131.36	122.68
2	C	225	HIS	C-N-CA	5.90	131.36	122.68
2	C	507	VAL	O-C-N	5.90	127.59	121.87
8	T	110	ALA	N-CA-C	5.90	118.56	110.24
2	A	397	ALA	CA-C-N	5.90	128.67	120.29
2	A	397	ALA	C-N-CA	5.90	128.67	120.29
1	8	24	ILE	CA-C-N	5.89	126.52	119.98
1	8	24	ILE	C-N-CA	5.89	126.52	119.98
1	8	60	ALA	N-CA-C	5.89	117.70	111.28
3	D	380	THR	N-CA-C	-5.89	104.85	111.28
2	A	224	GLN	CA-C-O	5.89	126.80	120.55
2	C	361	LYS	CA-C-N	5.89	129.01	120.11
2	C	361	LYS	C-N-CA	5.89	129.01	120.11
10	V	37	ASP	N-CA-C	5.89	119.65	112.23
3	D	121	PRO	CA-C-O	-5.89	112.02	120.56
3	E	345	TYR	N-CA-C	-5.89	96.80	109.81
3	F	386	ASP	CA-C-O	-5.88	114.31	120.55
7	O	104	ILE	O-C-N	5.88	127.58	121.87
2	B	163	ARG	N-CA-C	-5.88	98.82	108.76
2	A	495	LEU	CA-C-N	5.88	128.16	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A	495	LEU	C-N-CA	5.88	128.16	120.28
9	U	86	LYS	CA-C-N	5.88	128.16	120.28
9	U	86	LYS	C-N-CA	5.88	128.16	120.28
2	B	338	ALA	CA-C-N	5.88	128.15	120.28
2	B	338	ALA	C-N-CA	5.88	128.15	120.28
2	B	229	LYS	O-C-N	-5.87	114.11	122.04
1	2	20	LEU	CA-C-N	5.87	126.46	119.94
1	2	20	LEU	C-N-CA	5.87	126.46	119.94
3	D	381	TYR	CA-C-N	5.87	128.15	120.28
3	D	381	TYR	C-N-CA	5.87	128.15	120.28
3	E	300	LYS	N-CA-C	-5.87	105.43	112.59
2	B	4	LYS	N-CA-C	-5.87	100.83	109.81
3	D	323	ALA	N-CA-C	5.87	117.67	111.28
1	1	53	LEU	CA-C-N	5.87	126.49	119.98
1	1	53	LEU	C-N-CA	5.87	126.49	119.98
3	F	245	ASP	N-CA-C	5.86	117.75	111.36
2	A	235	ALA	O-C-N	-5.86	116.47	123.27
3	D	236	GLY	CA-C-N	5.86	128.72	120.28
3	D	236	GLY	C-N-CA	5.86	128.72	120.28
1	2	67	MET	CA-C-O	-5.85	114.22	120.42
3	F	417	PRO	O-C-N	5.85	130.12	123.10
2	A	219	VAL	CA-C-N	5.84	128.11	120.28
2	A	219	VAL	C-N-CA	5.84	128.11	120.28
2	B	258	TRP	CA-C-N	5.84	128.11	120.28
2	B	258	TRP	C-N-CA	5.84	128.11	120.28
4	G	91	LEU	CA-C-O	-5.84	114.36	120.55
2	B	26	ASN	N-CA-C	-5.83	103.59	112.99
3	D	151	GLY	N-CA-C	5.83	118.75	112.33
3	E	287	THR	N-CA-C	5.83	117.72	111.36
13	Y	29	LYS	N-CA-C	5.83	117.64	111.28
1	7	3	LEU	N-CA-C	5.83	117.64	111.28
3	D	355	SER	CA-C-O	5.83	127.63	121.33
5	H	76	THR	N-CA-C	-5.83	97.34	107.49
3	F	362	VAL	O-C-N	-5.82	115.81	122.04
7	O	21	THR	CA-C-O	5.82	126.94	120.82
2	A	148	VAL	O-C-N	-5.82	116.97	123.26
2	C	495	LEU	N-CA-C	-5.82	105.02	111.36
3	D	201	MET	CA-C-N	5.82	128.07	120.28
3	D	201	MET	C-N-CA	5.82	128.07	120.28
8	T	98	ILE	CA-C-O	-5.81	113.81	119.92
3	D	161	VAL	N-CA-C	-5.81	107.32	112.90
3	D	295	ARG	N-CA-C	-5.81	105.50	112.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	F	426	GLY	CA-C-O	5.81	125.46	119.01
3	E	284	THR	CA-C-N	5.81	128.00	120.44
3	E	284	THR	C-N-CA	5.81	128.00	120.44
2	C	394	LEU	N-CA-C	5.81	117.61	111.28
8	T	27	THR	N-CA-C	-5.81	99.87	108.99
2	A	424	GLU	O-C-N	-5.81	115.97	122.12
8	T	177	LEU	CA-C-N	5.80	126.38	119.94
8	T	177	LEU	C-N-CA	5.80	126.38	119.94
1	8	11	GLY	N-CA-C	5.80	119.69	112.73
2	A	307	LEU	CA-C-O	5.80	126.68	120.70
4	G	36	LYS	N-CA-C	5.80	117.28	111.07
8	T	172	SER	CA-C-N	5.80	128.53	120.29
8	T	172	SER	C-N-CA	5.80	128.53	120.29
10	V	121	LEU	CA-C-N	5.80	128.06	120.28
10	V	121	LEU	C-N-CA	5.80	128.06	120.28
8	T	91	THR	CA-C-O	-5.80	112.12	119.31
1	1	74	PHE	CA-C-O	-5.79	113.07	120.31
3	D	291	LEU	O-C-N	-5.79	116.10	122.07
7	O	85	VAL	O-C-N	-5.79	114.55	122.26
9	U	188	LYS	O-C-N	5.79	129.00	122.22
2	B	155	VAL	CA-C-N	5.79	129.11	120.31
2	B	155	VAL	C-N-CA	5.79	129.11	120.31
1	8	45	ASP	CA-C-N	5.79	128.51	120.29
1	8	45	ASP	C-N-CA	5.79	128.51	120.29
3	E	421	ALA	N-CA-C	-5.79	103.47	110.88
1	6	8	LYS	O-C-N	5.79	128.03	122.07
3	D	426	GLY	N-CA-C	-5.79	107.19	115.64
1	0	10	ILE	CA-C-N	5.78	127.37	120.14
1	0	10	ILE	C-N-CA	5.78	127.37	120.14
8	T	37	LEU	CA-C-O	-5.78	114.42	120.55
3	F	470	ALA	O-C-N	5.78	128.25	122.12
1	3	62	GLY	O-C-N	5.78	127.73	122.19
2	A	253	ALA	CA-C-N	5.78	128.02	120.28
2	A	253	ALA	C-N-CA	5.78	128.02	120.28
2	A	444	VAL	CA-C-N	5.78	124.98	118.97
2	A	444	VAL	C-N-CA	5.78	124.98	118.97
5	H	74	PHE	CA-C-N	5.78	132.09	122.73
5	H	74	PHE	C-N-CA	5.78	132.09	122.73
2	A	13	ILE	O-C-N	5.77	128.32	121.80
3	E	205	GLY	CA-C-N	5.77	128.72	121.85
3	E	205	GLY	C-N-CA	5.77	128.72	121.85
1	1	18	GLY	O-C-N	-5.77	116.12	122.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	T	49	ASN	CA-C-O	-5.77	114.40	120.80
2	C	309	GLU	CA-C-N	5.77	131.81	121.66
2	C	309	GLU	C-N-CA	5.77	131.81	121.66
9	U	147	ALA	CA-C-N	5.77	128.01	120.28
9	U	147	ALA	C-N-CA	5.77	128.01	120.28
2	A	465	GLU	CA-C-N	5.77	128.48	120.29
2	A	465	GLU	C-N-CA	5.77	128.48	120.29
3	D	23	VAL	N-CA-C	-5.76	100.00	108.99
9	U	195	GLN	CA-C-N	5.76	128.48	120.29
9	U	195	GLN	C-N-CA	5.76	128.48	120.29
2	B	355	GLU	N-CA-C	5.76	118.79	109.40
2	B	484	GLU	CA-C-N	5.76	128.60	120.42
2	B	484	GLU	C-N-CA	5.76	128.60	120.42
7	O	187	LEU	CA-C-O	5.76	126.65	120.55
2	B	191	TRP	N-CA-C	5.75	117.63	111.36
2	C	177	LYS	N-CA-C	5.75	117.23	111.07
9	U	130	THR	CA-C-N	5.75	128.34	120.46
9	U	130	THR	C-N-CA	5.75	128.34	120.46
8	T	84	LEU	CA-C-O	-5.75	112.30	119.38
8	T	159	VAL	CA-C-N	5.75	127.81	120.56
8	T	159	VAL	C-N-CA	5.75	127.81	120.56
3	F	294	GLU	N-CA-C	-5.75	105.60	113.30
9	U	148	HIS	O-C-N	5.75	128.21	122.12
2	B	214	THR	CA-C-N	5.75	129.72	120.30
2	B	214	THR	C-N-CA	5.75	129.72	120.30
2	C	242	ALA	CA-C-O	-5.74	112.77	118.34
1	6	29	VAL	O-C-N	-5.74	116.28	121.91
1	8	26	ILE	O-C-N	5.74	127.44	121.87
2	C	393	LYS	N-CA-C	5.74	117.54	111.28
3	D	404	VAL	CA-C-O	-5.74	114.98	120.95
3	D	427	ILE	CA-C-N	5.74	127.01	119.84
3	D	427	ILE	C-N-CA	5.74	127.01	119.84
1	2	31	ALA	N-CA-C	5.74	117.53	111.28
2	A	478	HIS	CA-C-O	-5.74	114.82	122.51
2	C	367	ILE	N-CA-C	5.74	116.84	108.58
9	U	110	VAL	CA-C-N	5.74	127.96	120.28
9	U	110	VAL	C-N-CA	5.74	127.96	120.28
1	8	7	ALA	CA-C-N	5.73	127.96	120.28
1	8	7	ALA	C-N-CA	5.73	127.96	120.28
2	A	399	TYR	CA-C-N	5.73	127.96	120.28
2	A	399	TYR	C-N-CA	5.73	127.96	120.28
3	D	65	ASP	N-CA-C	-5.73	100.59	109.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	E	414	LEU	N-CA-C	-5.73	105.95	113.17
3	E	118	HIS	O-C-N	-5.73	116.52	123.16
1	5	38	SER	N-CA-C	5.73	118.46	111.82
2	B	357	GLU	O-C-N	5.73	128.68	122.15
7	O	123	VAL	CA-C-N	5.72	129.00	120.87
7	O	123	VAL	C-N-CA	5.72	129.00	120.87
2	C	196	ASP	O-C-N	-5.72	116.41	123.33
3	D	263	GLN	CA-C-N	5.72	127.95	120.28
3	D	263	GLN	C-N-CA	5.72	127.95	120.28
3	D	325	THR	N-CA-C	5.72	117.60	111.36
3	E	209	LEU	N-CA-C	-5.72	105.50	112.88
2	A	242	ALA	CA-C-O	-5.72	112.79	118.34
9	U	114	GLN	CA-C-N	5.72	128.22	120.44
9	U	114	GLN	C-N-CA	5.72	128.22	120.44
3	E	13	VAL	O-C-N	-5.72	116.57	122.63
2	C	427	THR	CA-C-N	5.71	127.94	120.28
2	C	427	THR	C-N-CA	5.71	127.94	120.28
2	A	445	PRO	CA-C-N	5.71	127.93	120.28
2	A	445	PRO	C-N-CA	5.71	127.93	120.28
3	D	136	THR	N-CA-C	-5.71	105.98	113.12
3	F	195	ASN	CA-C-N	5.71	127.86	120.44
3	F	195	ASN	C-N-CA	5.71	127.86	120.44
2	C	422	ARG	CA-C-O	5.71	126.60	120.55
3	D	247	GLU	O-C-N	-5.71	116.58	123.03
3	D	402	LEU	CA-C-N	5.71	128.20	120.44
3	D	402	LEU	C-N-CA	5.71	128.20	120.44
2	B	394	LEU	N-CA-C	5.70	117.57	111.36
1	3	9	TYR	CA-C-O	-5.70	114.83	120.70
2	B	30	THR	N-CA-C	5.70	122.93	110.80
2	C	130	ARG	CA-C-N	5.70	128.38	120.29
2	C	130	ARG	C-N-CA	5.70	128.38	120.29
3	E	377	THR	O-C-N	-5.70	116.20	122.07
7	O	123	VAL	N-CA-C	-5.70	97.49	109.34
3	D	438	VAL	CA-C-O	5.69	126.87	120.95
3	E	256	ASP	N-CA-C	-5.69	100.42	109.07
2	A	383	LYS	CA-C-N	5.69	127.84	120.44
2	A	383	LYS	C-N-CA	5.69	127.84	120.44
2	A	468	SER	CA-C-N	5.69	128.37	120.29
2	A	468	SER	C-N-CA	5.69	128.37	120.29
3	D	394	ASP	N-CA-C	-5.69	106.32	113.72
13	Y	19	ALA	N-CA-C	5.69	117.49	111.28
1	6	37	VAL	N-CA-C	-5.69	104.82	110.62

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	D	286	ALA	CA-C-O	-5.69	114.39	120.42
2	C	268	ILE	CA-C-N	5.69	130.67	123.10
2	C	268	ILE	C-N-CA	5.69	130.67	123.10
2	A	298	GLY	CA-C-N	5.69	132.40	121.54
2	A	298	GLY	C-N-CA	5.69	132.40	121.54
3	D	396	LEU	N-CA-C	-5.69	99.39	109.06
4	G	184	ASN	CA-C-O	5.69	128.47	121.87
10	V	14	LYS	N-CA-C	5.69	118.42	111.82
1	5	47	VAL	CA-C-N	5.68	127.87	120.26
1	5	47	VAL	C-N-CA	5.68	127.87	120.26
1	5	73	LEU	O-C-N	-5.68	115.95	122.09
2	C	171	GLY	CA-C-O	5.68	127.32	121.35
2	B	207	ALA	CA-C-O	-5.68	114.63	120.54
8	T	39	VAL	N-CA-C	-5.68	104.98	110.72
9	U	202	GLU	CA-C-N	5.68	128.35	120.29
9	U	202	GLU	C-N-CA	5.68	128.35	120.29
2	B	419	THR	CA-C-O	-5.67	114.54	120.55
3	F	201	MET	N-CA-C	5.67	117.54	111.36
3	F	392	GLY	CA-C-O	-5.67	116.65	122.26
4	G	188	ILE	CA-C-O	5.67	126.85	120.95
9	U	64	GLY	CA-C-N	5.67	128.34	120.29
9	U	64	GLY	C-N-CA	5.67	128.34	120.29
2	B	158	LEU	CA-C-O	-5.67	114.86	120.70
2	B	376	VAL	N-CA-C	-5.67	106.15	111.48
3	F	305	THR	N-CA-C	-5.67	100.46	109.59
1	1	64	PHE	O-C-N	5.67	128.13	122.12
2	B	151	GLY	N-CA-C	-5.67	107.16	115.72
3	E	318	THR	CA-C-O	5.67	126.19	119.56
4	G	85	GLY	N-CA-C	-5.67	105.84	111.56
2	B	51	ALA	CA-C-N	5.67	132.36	121.54
2	B	51	ALA	C-N-CA	5.67	132.36	121.54
2	B	391	SER	CA-C-N	5.67	128.44	120.28
2	B	391	SER	C-N-CA	5.67	128.44	120.28
9	U	67	GLY	CA-C-N	5.66	127.87	120.28
9	U	67	GLY	C-N-CA	5.66	127.87	120.28
3	E	279	VAL	O-C-N	5.66	129.65	122.57
3	F	442	LYS	CA-C-N	5.66	127.86	120.28
3	F	442	LYS	C-N-CA	5.66	127.86	120.28
1	9	6	ALA	N-CA-C	5.66	117.12	111.07
6	I	15	ASN	CA-C-N	5.66	128.21	120.46
6	I	15	ASN	C-N-CA	5.66	128.21	120.46
11	W	6	PRO	CA-C-O	-5.66	112.36	120.56

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	7	13	GLY	CA-C-N	5.65	129.40	120.47
1	7	13	GLY	C-N-CA	5.65	129.40	120.47
13	Y	8	PRO	N-CA-C	-5.65	100.83	112.47
3	E	399	GLN	CA-C-N	5.65	127.85	120.28
3	E	399	GLN	C-N-CA	5.65	127.85	120.28
7	O	66	ASP	O-C-N	5.65	129.58	122.23
9	U	132	GLU	CA-C-N	5.65	127.85	120.28
9	U	132	GLU	C-N-CA	5.65	127.85	120.28
2	B	44	PHE	N-CA-C	-5.65	99.32	108.52
4	G	271	ILE	CA-C-O	-5.65	114.86	120.85
3	F	43	GLN	O-C-N	-5.65	115.41	122.35
5	H	60	MET	N-CA-C	-5.64	99.22	108.76
1	1	51	ALA	CA-C-N	5.64	128.43	120.42
1	1	51	ALA	C-N-CA	5.64	128.43	120.42
10	V	54	ASP	CA-C-N	5.64	131.05	122.08
10	V	54	ASP	C-N-CA	5.64	131.05	122.08
10	V	116	ASP	O-C-N	5.64	128.58	122.15
3	D	324	THR	CA-C-N	5.64	128.30	120.29
3	D	324	THR	C-N-CA	5.64	128.30	120.29
3	E	324	THR	CA-C-N	5.64	128.88	120.31
3	E	324	THR	C-N-CA	5.64	128.88	120.31
7	O	134	PHE	N-CA-C	5.64	117.88	111.11
1	2	16	THR	N-CA-C	5.63	118.19	111.71
3	F	47	VAL	N-CA-C	-5.63	99.63	107.80
3	E	395	GLU	N-CA-C	-5.63	106.30	112.72
3	E	471	GLU	CA-C-O	5.63	126.39	120.42
1	9	7	ALA	N-CA-C	5.63	117.42	111.28
2	A	343	ASN	CA-C-O	-5.63	114.58	120.55
9	U	94	ALA	CA-C-N	5.63	128.28	120.29
9	U	94	ALA	C-N-CA	5.63	128.28	120.29
3	E	51	ALA	N-CA-C	-5.63	106.23	114.39
8	T	247	TYR	O-C-N	-5.62	116.64	123.27
3	D	274	ARG	CA-C-O	-5.62	114.88	121.46
8	T	108	SER	CA-C-O	-5.62	115.27	121.28
9	U	87	LYS	CA-C-O	-5.62	114.59	120.55
2	B	467	GLU	CA-C-N	5.62	128.26	120.29
2	B	467	GLU	C-N-CA	5.62	128.26	120.29
3	D	103	ILE	N-CA-C	-5.62	107.26	112.43
3	D	215	VAL	CA-C-O	5.62	126.94	120.76
2	B	176	GLY	N-CA-C	-5.61	104.30	114.46
2	C	277	ALA	CA-C-N	5.61	128.15	120.46
2	C	277	ALA	C-N-CA	5.61	128.15	120.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	31	GLY	CA-C-O	-5.61	115.63	121.63
12	X	14	THR	N-CA-C	-5.61	100.19	108.99
8	T	65	ILE	CA-C-N	5.60	127.79	120.28
8	T	65	ILE	C-N-CA	5.60	127.79	120.28
2	B	414	ALA	N-CA-C	5.60	117.39	111.28
3	F	358	LEU	CA-C-N	5.60	129.21	120.75
3	F	358	LEU	C-N-CA	5.60	129.21	120.75
11	W	12	SER	N-CA-C	-5.60	105.04	113.89
11	W	34	LEU	O-C-N	-5.60	116.39	121.66
4	G	39	ILE	O-C-N	5.60	127.40	121.91
1	8	22	ALA	CA-C-N	5.60	126.15	119.94
1	8	22	ALA	C-N-CA	5.60	126.15	119.94
1	0	57	LEU	CA-C-O	5.60	126.35	120.42
11	W	17	SER	N-CA-C	-5.60	100.56	109.23
1	1	74	PHE	N-CA-C	5.59	120.10	112.04
2	B	462	ARG	CA-C-N	5.59	127.61	120.56
2	B	462	ARG	C-N-CA	5.59	127.61	120.56
2	B	113	LEU	CA-C-O	5.59	125.53	119.15
1	3	39	ARG	CA-C-O	5.59	126.46	120.70
2	B	443	GLN	N-CA-C	5.59	117.45	111.36
3	D	55	GLY	CA-C-N	5.59	130.79	122.74
3	D	55	GLY	C-N-CA	5.59	130.79	122.74
2	B	432	GLN	CA-C-N	5.59	131.34	122.62
2	B	432	GLN	C-N-CA	5.59	131.34	122.62
3	D	30	LEU	CA-C-N	5.59	126.82	119.84
3	D	30	LEU	C-N-CA	5.59	126.82	119.84
2	C	398	GLN	N-CA-C	-5.58	106.60	113.41
1	5	68	VAL	N-CA-C	5.58	116.31	110.62
8	T	145	PHE	N-CA-C	-5.58	106.32	113.02
2	B	444	VAL	CA-C-O	-5.58	112.47	119.95
3	E	345	TYR	O-C-N	-5.58	114.90	121.32
1	0	74	PHE	N-CA-C	-5.58	104.71	113.02
1	3	49	PRO	CA-C-N	5.58	127.75	120.28
1	3	49	PRO	C-N-CA	5.58	127.75	120.28
3	E	104	ASP	CA-C-O	5.58	125.96	119.32
3	F	23	VAL	O-C-N	-5.58	117.13	123.10
4	G	222	MET	CA-C-N	5.58	128.03	120.44
4	G	222	MET	C-N-CA	5.58	128.03	120.44
10	V	87	LYS	CA-C-N	5.58	132.19	121.54
10	V	87	LYS	C-N-CA	5.58	132.19	121.54
3	E	441	PHE	CA-C-O	5.57	126.38	119.97
3	D	277	SER	N-CA-C	-5.57	102.51	110.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	E	383	SER	CA-C-O	5.57	126.45	120.55
7	O	178	LEU	N-CA-C	-5.57	101.91	109.54
8	T	133	GLY	CA-C-O	-5.57	114.76	120.66
2	B	113	LEU	O-C-N	-5.57	115.13	122.42
4	G	229	GLU	O-C-N	-5.57	116.08	122.09
8	T	154	LEU	CA-C-N	5.57	123.75	120.24
8	T	154	LEU	C-N-CA	5.57	123.75	120.24
2	A	395	PHE	CA-C-O	5.56	126.45	120.55
2	B	438	LEU	O-C-N	-5.56	116.44	123.17
3	E	55	GLY	N-CA-C	-5.56	105.75	112.48
10	V	144	GLU	N-CA-C	5.56	118.06	111.33
1	1	2	GLN	O-C-N	5.56	128.01	122.12
3	F	105	GLU	N-CA-C	-5.56	106.45	113.23
2	C	479	ASN	N-CA-C	-5.56	106.54	113.38
1	8	59	GLU	N-CA-C	5.55	117.33	111.28
3	F	239	ILE	CA-C-N	5.55	127.72	120.28
3	F	239	ILE	C-N-CA	5.55	127.72	120.28
1	6	41	PRO	N-CA-C	5.55	123.91	112.47
3	E	121	PRO	N-CA-C	5.55	117.47	110.70
1	8	26	ILE	CA-C-N	5.55	127.65	120.44
1	8	26	ILE	C-N-CA	5.55	127.65	120.44
1	4	14	ILE	N-CA-C	-5.55	104.96	110.62
1	9	26	ILE	CA-C-O	-5.55	115.50	121.27
2	B	495	LEU	CA-C-N	5.55	128.27	120.28
2	B	495	LEU	C-N-CA	5.55	128.27	120.28
9	U	139	GLU	CA-C-N	5.54	127.70	120.28
9	U	139	GLU	C-N-CA	5.54	127.70	120.28
2	B	76	VAL	O-C-N	-5.54	116.62	123.10
4	G	127	LYS	O-C-N	5.54	129.52	122.10
3	E	363	VAL	CA-C-O	5.54	124.52	119.20
4	G	160	PRO	CA-C-O	-5.54	110.53	120.60
2	B	419	THR	N-CA-C	-5.53	105.25	111.28
1	9	35	ASN	N-CA-C	5.53	117.31	111.28
2	A	420	LEU	O-C-N	5.53	128.06	122.09
1	2	35	ASN	CA-C-N	5.53	126.12	119.98
1	2	35	ASN	C-N-CA	5.53	126.12	119.98
2	B	183	ASP	O-C-N	5.53	127.98	122.12
2	B	420	LEU	N-CA-C	-5.53	105.25	111.28
2	B	499	LEU	CA-C-N	5.53	127.96	120.44
2	B	499	LEU	C-N-CA	5.53	127.96	120.44
1	6	13	GLY	CA-C-O	-5.53	115.03	121.00
2	A	210	GLN	O-C-N	-5.53	116.04	123.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A	495	LEU	CA-C-O	-5.53	114.56	120.42
3	F	290	GLY	CA-C-N	5.53	127.63	120.44
3	F	290	GLY	C-N-CA	5.53	127.63	120.44
2	A	450	GLY	N-CA-C	-5.53	105.80	112.49
2	A	403	ALA	CA-C-N	5.52	127.68	120.28
2	A	403	ALA	C-N-CA	5.52	127.68	120.28
2	C	295	ALA	N-CA-C	5.52	119.96	113.23
3	F	448	LYS	N-CA-C	-5.52	106.05	112.89
5	H	88	ILE	N-CA-C	5.52	115.72	110.53
2	A	484	GLU	CA-C-N	5.52	127.51	120.56
2	A	484	GLU	C-N-CA	5.52	127.51	120.56
10	V	63	LYS	CA-C-O	-5.52	112.89	119.35
1	7	25	GLY	CA-C-N	5.52	127.51	120.56
1	7	25	GLY	C-N-CA	5.52	127.51	120.56
1	1	25	GLY	CA-C-O	-5.51	115.07	120.75
1	7	10	ILE	CA-C-N	5.51	126.10	119.98
1	7	10	ILE	C-N-CA	5.51	126.10	119.98
5	H	88	ILE	O-C-N	5.51	127.63	121.90
3	E	106	ARG	N-CA-C	-5.51	106.22	113.17
13	Y	34	SER	CA-C-N	5.51	132.35	122.38
13	Y	34	SER	C-N-CA	5.51	132.35	122.38
3	D	363	VAL	N-CA-C	-5.51	107.61	112.90
1	9	20	LEU	CA-C-N	5.51	126.09	119.98
1	9	20	LEU	C-N-CA	5.51	126.09	119.98
3	F	21	VAL	CA-C-N	-5.51	115.40	123.00
3	F	21	VAL	C-N-CA	-5.51	115.40	123.00
9	U	106	ARG	CA-C-N	5.51	128.30	120.53
9	U	106	ARG	C-N-CA	5.51	128.30	120.53
10	V	154	LYS	CA-C-O	-5.51	114.71	120.55
1	4	20	LEU	CA-C-N	5.50	126.09	119.98
1	4	20	LEU	C-N-CA	5.50	126.09	119.98
3	D	435	LYS	CA-C-N	5.50	127.66	120.28
3	D	435	LYS	C-N-CA	5.50	127.66	120.28
10	V	139	THR	CA-C-O	-5.50	114.59	120.42
1	9	16	THR	CA-C-N	5.50	128.29	120.53
1	9	16	THR	C-N-CA	5.50	128.29	120.53
8	T	178	GLY	O-C-N	5.50	127.46	122.18
1	6	20	LEU	CA-C-N	5.50	126.08	119.98
1	6	20	LEU	C-N-CA	5.50	126.08	119.98
2	B	134	LYS	CA-C-O	5.50	126.91	120.80
3	F	289	MET	CA-C-N	5.50	126.04	119.94
3	F	289	MET	C-N-CA	5.50	126.04	119.94

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	I	55	GLU	CA-C-O	-5.50	114.72	119.72
8	T	51	ASN	CA-C-O	5.50	128.08	121.65
1	2	42	SER	CA-C-N	5.50	129.76	120.64
1	2	42	SER	C-N-CA	5.50	129.76	120.64
3	E	176	LYS	CA-C-N	5.50	128.09	120.29
3	E	176	LYS	C-N-CA	5.50	128.09	120.29
3	F	414	LEU	N-CA-C	-5.50	105.29	111.28
2	B	457	GLY	N-CA-C	-5.49	106.05	115.61
2	A	28	ASN	N-CA-C	-5.49	105.37	111.36
2	B	145	HIS	CA-C-N	-5.49	115.78	122.64
2	B	145	HIS	C-N-CA	-5.49	115.78	122.64
2	B	110	VAL	N-CA-C	-5.49	99.91	108.86
8	T	139	TRP	N-CA-C	-5.49	106.46	112.72
1	5	62	GLY	O-C-N	5.49	127.45	122.18
4	G	53	LYS	CA-C-N	5.49	128.08	120.29
4	G	53	LYS	C-N-CA	5.49	128.08	120.29
13	Y	2	LEU	CA-C-N	5.49	132.16	121.63
13	Y	2	LEU	C-N-CA	5.49	132.16	121.63
7	O	67	ARG	CA-C-N	5.48	127.63	120.28
7	O	67	ARG	C-N-CA	5.48	127.63	120.28
3	F	212	GLU	CA-C-O	-5.48	114.29	120.32
8	T	158	LEU	N-CA-C	5.48	119.71	113.19
2	C	125	ALA	CA-C-N	5.48	127.62	120.28
2	C	125	ALA	C-N-CA	5.48	127.62	120.28
3	E	94	ARG	CA-C-N	-5.48	116.00	123.12
3	E	94	ARG	C-N-CA	-5.48	116.00	123.12
2	A	504	GLU	CA-C-N	5.48	128.64	120.31
2	A	504	GLU	C-N-CA	5.48	128.64	120.31
9	U	65	PHE	CA-C-N	5.48	128.64	120.31
9	U	65	PHE	C-N-CA	5.48	128.64	120.31
3	E	424	PHE	N-CA-C	-5.47	105.31	111.28
3	F	19	ALA	CA-C-N	5.47	130.46	123.13
3	F	19	ALA	C-N-CA	5.47	130.46	123.13
3	E	25	PHE	CA-C-N	5.47	129.01	120.75
3	E	25	PHE	C-N-CA	5.47	129.01	120.75
1	1	36	GLY	N-CA-C	5.47	119.29	112.73
3	F	373	LYS	O-C-N	5.47	127.92	122.12
12	X	33	PRO	CA-C-O	-5.47	112.63	120.56
3	F	266	SER	CA-C-N	5.46	128.04	120.29
3	F	266	SER	C-N-CA	5.46	128.04	120.29
4	G	233	ARG	O-C-N	5.46	127.91	122.12
2	A	154	ALA	CA-C-N	5.46	127.44	120.56

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A	154	ALA	C-N-CA	5.46	127.44	120.56
2	B	296	TYR	N-CA-C	-5.46	102.59	110.40
3	D	222	MET	CA-C-N	5.46	128.04	120.29
3	D	222	MET	C-N-CA	5.46	128.04	120.29
5	H	101	ILE	CA-C-N	5.46	128.04	120.29
5	H	101	ILE	C-N-CA	5.46	128.04	120.29
1	8	55	PHE	CA-C-O	-5.46	115.09	120.82
2	B	413	ASP	CA-C-O	-5.46	115.77	121.55
4	G	73	LEU	CA-C-N	5.46	130.52	122.94
4	G	73	LEU	C-N-CA	5.46	130.52	122.94
13	Y	20	GLY	CA-C-N	5.45	128.03	120.29
13	Y	20	GLY	C-N-CA	5.45	128.03	120.29
7	O	92	LEU	N-CA-C	5.45	117.30	111.36
1	4	48	PHE	O-C-N	-5.45	116.08	120.38
1	8	56	ALA	N-CA-C	-5.45	105.34	111.28
2	C	449	ALA	CA-C-N	5.45	126.03	119.98
2	C	449	ALA	C-N-CA	5.45	126.03	119.98
3	F	301	LYS	O-C-N	-5.45	114.94	121.64
1	5	64	PHE	CA-C-O	-5.45	115.10	120.82
1	9	65	CYS	CA-C-N	5.45	128.02	120.29
1	9	65	CYS	C-N-CA	5.45	128.02	120.29
3	D	406	ARG	CA-C-N	5.45	128.02	120.29
3	D	406	ARG	C-N-CA	5.45	128.02	120.29
9	U	138	PHE	N-CA-C	5.45	117.22	111.28
7	O	163	ILE	N-CA-C	-5.44	99.24	107.73
2	B	323	LEU	N-CA-C	-5.44	98.34	108.02
2	C	396	LEU	N-CA-C	-5.44	106.62	113.20
2	C	90	VAL	CA-C-N	5.44	131.10	122.94
2	C	90	VAL	C-N-CA	5.44	131.10	122.94
2	B	299	ASP	N-CA-C	5.44	118.92	112.72
11	W	69	PHE	CA-C-N	5.44	127.56	120.28
11	W	69	PHE	C-N-CA	5.44	127.56	120.28
1	6	47	VAL	O-C-N	-5.43	115.66	121.80
9	U	159	ARG	O-C-N	5.43	127.88	122.12
6	I	43	PHE	N-CA-C	-5.43	101.15	109.41
1	6	31	ALA	O-C-N	5.43	127.66	122.07
2	A	282	GLN	CA-C-O	5.43	126.29	120.70
5	H	43	ALA	N-CA-C	5.43	116.03	108.00
3	D	351	LEU	N-CA-C	-5.42	105.88	112.88
2	B	30	THR	CA-C-N	5.42	126.94	121.35
2	B	30	THR	C-N-CA	5.42	126.94	121.35
2	C	233	ILE	N-CA-C	-5.42	100.67	108.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	W	39	ALA	CA-C-N	5.42	126.62	119.84
11	W	39	ALA	C-N-CA	5.42	126.62	119.84
2	C	193	ASN	CA-C-N	5.42	128.11	121.06
2	C	193	ASN	C-N-CA	5.42	128.11	121.06
3	F	25	PHE	CA-C-N	5.42	128.40	120.71
3	F	25	PHE	C-N-CA	5.42	128.40	120.71
3	F	154	GLY	CA-C-O	5.42	125.47	120.81
1	1	67	MET	CA-C-O	5.42	126.16	120.42
5	H	120	ALA	N-CA-C	-5.42	105.27	111.07
1	1	29	VAL	CA-C-N	5.41	128.54	120.31
1	1	29	VAL	C-N-CA	5.41	128.54	120.31
1	9	54	GLY	O-C-N	5.41	127.44	122.19
7	O	188	ASN	CA-C-N	5.41	127.48	120.44
7	O	188	ASN	C-N-CA	5.41	127.48	120.44
2	C	397	ALA	N-CA-C	-5.41	106.27	112.92
1	1	38	SER	CA-C-N	5.41	127.80	120.44
1	1	38	SER	C-N-CA	5.41	127.80	120.44
3	F	391	LEU	CA-C-N	5.41	131.41	122.65
3	F	391	LEU	C-N-CA	5.41	131.41	122.65
2	C	436	SER	CA-C-O	-5.41	114.54	119.62
1	4	29	VAL	CA-C-O	-5.41	115.05	121.05
3	E	81	GLY	CA-C-N	5.41	126.60	119.84
3	E	81	GLY	C-N-CA	5.41	126.60	119.84
1	2	25	GLY	O-C-N	-5.40	117.00	122.19
2	A	285	LEU	N-CA-C	-5.40	106.19	112.89
3	D	153	ILE	CA-C-N	-5.40	117.28	121.82
3	D	153	ILE	C-N-CA	-5.40	117.28	121.82
3	F	109	ILE	O-C-N	-5.40	116.78	123.10
3	E	233	ALA	CA-C-N	5.40	127.52	120.28
3	E	233	ALA	C-N-CA	5.40	127.52	120.28
5	H	80	ASP	CA-C-N	5.40	129.79	122.07
5	H	80	ASP	C-N-CA	5.40	129.79	122.07
10	V	130	PHE	CA-C-N	5.40	127.52	120.28
10	V	130	PHE	C-N-CA	5.40	127.52	120.28
1	2	50	MET	CA-C-N	5.40	127.46	120.44
1	2	50	MET	C-N-CA	5.40	127.46	120.44
1	3	63	LEU	O-C-N	5.40	128.31	122.15
1	9	44	LYS	N-CA-C	5.40	117.86	111.33
4	G	154	MET	CA-C-N	5.40	130.41	122.63
4	G	154	MET	C-N-CA	5.40	130.41	122.63
8	T	168	ALA	CA-C-N	5.40	128.52	120.31
8	T	168	ALA	C-N-CA	5.40	128.52	120.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	U	157	TRP	O-C-N	5.40	127.84	122.12
1	9	29	VAL	N-CA-C	5.40	115.60	110.53
2	C	15	GLU	O-C-N	5.40	128.30	122.15
2	B	420	LEU	O-C-N	-5.40	116.40	122.12
3	F	249	GLN	N-CA-C	-5.40	102.47	110.46
2	A	143	SER	O-C-N	5.39	129.06	122.75
2	C	234	VAL	N-CA-C	-5.39	100.71	108.53
3	E	425	THR	CA-C-O	-5.39	112.80	120.51
8	T	135	TYR	CA-C-N	5.39	129.84	120.68
8	T	135	TYR	C-N-CA	5.39	129.84	120.68
4	G	235	ASN	CA-C-O	-5.39	114.84	120.55
1	3	21	GLY	CA-C-N	5.39	127.50	120.28
1	3	21	GLY	C-N-CA	5.39	127.50	120.28
2	C	241	ALA	N-CA-C	5.39	117.28	110.33
2	C	298	GLY	N-CA-C	-5.39	105.78	113.86
3	D	204	THR	N-CA-C	-5.39	106.56	113.02
1	3	44	LYS	N-CA-C	5.38	118.64	111.75
2	A	242	ALA	CA-C-N	5.38	125.03	119.05
2	A	242	ALA	C-N-CA	5.38	125.03	119.05
1	4	30	PHE	CA-C-N	5.38	127.49	120.28
1	4	30	PHE	C-N-CA	5.38	127.49	120.28
2	B	21	VAL	N-CA-C	-5.38	100.69	108.71
2	B	421	VAL	CA-C-N	5.38	127.93	120.29
2	B	421	VAL	C-N-CA	5.38	127.93	120.29
3	D	206	VAL	N-CA-C	-5.38	105.88	111.58
10	V	49	GLN	CA-C-N	5.38	126.56	119.84
10	V	49	GLN	C-N-CA	5.38	126.56	119.84
12	X	24	ALA	CA-C-N	5.38	128.49	120.31
12	X	24	ALA	C-N-CA	5.38	128.49	120.31
3	D	103	ILE	O-C-N	5.38	127.95	122.09
2	B	6	GLN	N-CA-C	-5.38	103.36	110.40
2	B	451	VAL	N-CA-C	5.38	117.77	111.05
3	D	334	VAL	CA-C-N	5.38	130.57	122.99
3	D	334	VAL	C-N-CA	5.38	130.57	122.99
11	W	27	VAL	CA-C-O	-5.38	114.66	120.47
3	E	157	GLY	N-CA-C	-5.38	101.64	110.56
1	3	50	MET	O-C-N	5.37	127.82	122.12
1	5	32	ALA	CA-C-N	5.37	127.79	120.54
1	5	32	ALA	C-N-CA	5.37	127.79	120.54
2	B	448	TYR	CA-C-N	5.37	127.43	120.44
2	B	448	TYR	C-N-CA	5.37	127.43	120.44
3	F	175	ALA	O-C-N	-5.37	116.03	122.15

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A	491	LEU	O-C-N	-5.37	117.04	123.27
12	X	36	LYS	N-CA-C	5.37	121.68	109.81
2	B	452	ASN	CA-C-N	5.37	129.61	120.91
2	B	452	ASN	C-N-CA	5.37	129.61	120.91
2	C	51	ALA	CA-C-O	-5.37	114.96	120.54
2	A	253	ALA	CA-C-O	-5.37	114.86	120.55
2	A	381	GLN	CA-C-N	5.37	127.77	120.63
2	A	381	GLN	C-N-CA	5.37	127.77	120.63
3	E	418	PHE	CA-C-N	5.36	128.46	120.31
3	E	418	PHE	C-N-CA	5.36	128.46	120.31
3	E	232	VAL	CA-C-O	5.36	126.04	120.25
1	0	48	PHE	CA-C-O	-5.36	112.82	120.16
1	2	12	ALA	CA-C-N	5.36	125.89	119.94
1	2	12	ALA	C-N-CA	5.36	125.89	119.94
1	8	11	GLY	CA-C-N	5.36	127.41	120.44
1	8	11	GLY	C-N-CA	5.36	127.41	120.44
2	A	472	SER	CA-C-N	5.36	127.90	120.29
2	A	472	SER	C-N-CA	5.36	127.90	120.29
6	I	13	TYR	CA-C-O	-5.36	115.19	120.82
1	0	65	CYS	O-C-N	5.36	127.59	122.07
3	E	178	HIS	N-CA-C	-5.36	99.79	108.52
3	E	326	PHE	O-C-N	5.36	127.80	122.12
3	D	212	GLU	N-CA-C	5.36	118.11	110.24
9	U	125	ASP	CA-C-N	5.36	127.80	120.46
9	U	125	ASP	C-N-CA	5.36	127.80	120.46
3	E	182	SER	CA-C-N	5.35	130.43	122.99
3	E	182	SER	C-N-CA	5.35	130.43	122.99
3	D	166	PHE	CA-C-N	5.35	127.79	120.46
3	D	166	PHE	C-N-CA	5.35	127.79	120.46
1	8	7	ALA	CA-C-O	-5.35	114.88	120.55
2	A	69	GLU	N-CA-C	-5.35	102.05	108.25
2	A	281	ARG	CA-C-O	-5.35	114.88	120.55
10	V	93	GLU	O-C-N	5.35	128.85	122.27
10	V	165	ASP	N-CA-C	-5.35	106.63	112.72
2	C	379	ALA	N-CA-C	-5.34	99.39	108.26
3	E	255	ILE	N-CA-C	-5.34	100.15	108.81
4	G	216	ASN	N-CA-C	5.34	117.19	111.36
2	B	381	GLN	N-CA-C	-5.34	100.60	108.99
3	D	192	ARG	CA-C-N	5.34	127.88	120.29
3	D	192	ARG	C-N-CA	5.34	127.88	120.29
3	F	383	SER	CA-C-O	5.34	126.21	120.55
1	3	8	LYS	N-CA-C	5.34	117.18	111.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	7	52	ILE	CA-C-O	5.34	126.50	120.95
7	O	130	ASP	CA-C-O	-5.34	113.58	121.27
2	A	282	GLN	CA-C-N	5.33	127.43	120.28
2	A	282	GLN	C-N-CA	5.33	127.43	120.28
1	9	12	ALA	CA-C-O	-5.33	114.90	120.55
2	A	348	THR	CA-C-N	5.33	131.98	122.06
2	A	348	THR	C-N-CA	5.33	131.98	122.06
5	H	102	LYS	CA-C-N	5.33	127.37	120.44
5	H	102	LYS	C-N-CA	5.33	127.37	120.44
8	T	191	LEU	N-CA-C	-5.33	105.55	111.36
2	A	11	SER	N-CA-C	5.33	117.09	111.28
2	B	132	GLN	N-CA-C	-5.33	100.21	108.90
2	B	348	THR	N-CA-C	5.33	117.62	109.95
2	C	421	VAL	O-C-N	-5.33	116.69	121.91
2	A	150	THR	CA-C-N	5.33	128.82	121.26
2	A	150	THR	C-N-CA	5.33	128.82	121.26
2	A	279	ALA	CA-C-N	5.33	128.41	120.31
2	A	279	ALA	C-N-CA	5.33	128.41	120.31
3	D	430	LYS	CA-C-O	-5.32	114.88	121.06
3	F	31	PRO	CA-C-O	-5.32	115.53	121.23
4	G	57	THR	CA-C-O	5.32	126.95	120.99
1	5	15	SER	CA-C-O	5.32	126.11	120.10
2	C	140	PRO	CA-C-O	-5.32	117.37	121.31
2	C	498	SER	O-C-N	5.32	127.76	122.12
5	H	60	MET	CA-C-N	5.32	130.93	122.74
5	H	60	MET	C-N-CA	5.32	130.93	122.74
3	F	74	GLU	CA-C-N	5.32	128.42	120.87
3	F	74	GLU	C-N-CA	5.32	128.42	120.87
4	G	156	ALA	CA-C-N	5.32	126.97	120.22
4	G	156	ALA	C-N-CA	5.32	126.97	120.22
4	G	229	GLU	CA-C-O	5.32	126.18	120.70
10	V	106	THR	CA-C-N	5.32	127.41	120.28
10	V	106	THR	C-N-CA	5.32	127.41	120.28
2	A	304	HIS	CA-C-O	5.32	126.14	120.24
3	E	353	SER	N-CA-C	-5.32	99.48	110.80
1	1	45	ASP	O-C-N	5.31	127.75	122.12
4	G	23	MET	CA-C-N	5.31	127.40	120.28
4	G	23	MET	C-N-CA	5.31	127.40	120.28
8	T	217	LEU	CA-C-O	-5.31	115.24	120.82
3	D	378	LEU	N-CA-C	5.31	117.98	111.82
3	F	58	THR	N-CA-C	-5.31	101.22	109.24
1	3	55	PHE	CA-C-N	5.31	127.39	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	3	55	PHE	C-N-CA	5.31	127.39	120.28
3	D	214	LYS	N-CA-C	-5.31	106.12	112.59
1	8	60	ALA	O-C-N	5.30	127.74	122.12
5	H	81	SER	N-CA-C	5.30	118.75	111.54
3	E	17	ILE	N-CA-C	-5.30	98.31	109.34
8	T	202	ASN	CA-C-N	5.30	129.09	120.60
8	T	202	ASN	C-N-CA	5.30	129.09	120.60
3	E	349	ASP	CA-C-O	-5.30	114.24	119.49
11	W	67	TRP	N-CA-C	5.30	117.06	111.28
1	4	3	LEU	CA-C-N	5.30	127.72	120.46
1	4	3	LEU	C-N-CA	5.30	127.72	120.46
1	6	49	PRO	N-CA-C	5.30	120.89	113.53
3	D	107	GLY	CA-C-N	5.30	125.30	119.90
3	D	107	GLY	C-N-CA	5.30	125.30	119.90
4	G	223	ALA	O-C-N	-5.30	116.37	122.09
3	F	89	ARG	N-CA-C	5.29	119.84	113.17
3	F	323	ALA	CA-C-N	5.29	127.37	120.28
3	F	323	ALA	C-N-CA	5.29	127.37	120.28
3	D	249	GLN	CA-C-N	5.29	128.36	120.90
3	D	249	GLN	C-N-CA	5.29	128.36	120.90
1	1	18	GLY	CA-C-N	5.29	128.10	120.38
1	1	18	GLY	C-N-CA	5.29	128.10	120.38
3	E	199	ARG	CA-C-N	5.29	127.90	120.28
3	E	199	ARG	C-N-CA	5.29	127.90	120.28
2	B	217	GLN	O-C-N	5.29	127.72	122.12
3	E	19	ALA	O-C-N	-5.28	116.63	122.07
5	H	46	VAL	O-C-N	5.28	127.35	120.75
3	D	14	THR	CA-C-N	-5.28	113.65	122.21
3	D	14	THR	C-N-CA	-5.28	113.65	122.21
2	A	63	GLY	N-CA-C	-5.28	100.67	113.18
2	B	359	PHE	O-C-N	-5.28	116.52	122.12
3	D	37	LEU	N-CA-C	-5.28	101.05	109.23
4	G	140	PHE	CA-C-N	5.28	127.30	120.44
4	G	140	PHE	C-N-CA	5.28	127.30	120.44
3	F	129	THR	N-CA-C	-5.28	107.01	113.50
12	X	21	LEU	CA-C-N	5.28	127.30	120.44
12	X	21	LEU	C-N-CA	5.28	127.30	120.44
13	Y	9	ILE	N-CA-C	-5.28	107.83	112.90
2	B	390	GLY	N-CA-C	-5.27	106.02	112.77
8	T	235	ALA	CA-C-N	5.27	128.99	120.82
8	T	235	ALA	C-N-CA	5.27	128.99	120.82
2	B	469	SER	CA-C-O	-5.27	115.27	120.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	D	368	TYR	N-CA-C	5.27	117.03	111.28
2	C	507	VAL	CA-C-N	5.27	127.34	120.28
2	C	507	VAL	C-N-CA	5.27	127.34	120.28
3	D	276	PRO	N-CA-C	5.27	119.14	111.03
14	Z	21	ILE	O-C-N	5.27	127.75	121.80
3	E	391	LEU	CA-C-O	-5.27	114.84	120.42
1	3	10	ILE	N-CA-C	5.26	115.99	110.62
3	F	286	ALA	CA-C-N	5.26	127.33	120.28
3	F	286	ALA	C-N-CA	5.26	127.33	120.28
4	G	184	ASN	CA-C-N	5.26	128.31	120.31
4	G	184	ASN	C-N-CA	5.26	128.31	120.31
3	F	24	HIS	O-C-N	-5.26	117.08	123.29
3	D	458	TYR	CA-C-N	5.26	130.87	122.93
3	D	458	TYR	C-N-CA	5.26	130.87	122.93
4	G	3	LEU	CA-C-N	5.26	128.31	120.31
4	G	3	LEU	C-N-CA	5.26	128.31	120.31
12	X	14	THR	CA-C-N	5.26	130.79	121.80
12	X	14	THR	C-N-CA	5.26	130.79	121.80
3	D	374	VAL	O-C-N	5.26	126.97	121.87
1	8	1	MET	CA-C-N	5.26	127.32	120.28
1	8	1	MET	C-N-CA	5.26	127.32	120.28
2	A	466	PHE	CA-C-O	-5.25	114.85	120.42
2	B	463	ILE	N-CA-C	-5.25	105.38	110.42
2	C	44	PHE	CA-C-O	5.25	126.11	120.38
5	H	132	ASN	CA-C-N	5.25	127.75	120.29
5	H	132	ASN	C-N-CA	5.25	127.75	120.29
13	Y	21	ALA	N-CA-C	5.25	117.09	111.36
1	5	14	ILE	N-CA-C	5.25	115.98	110.62
1	6	53	LEU	CA-C-N	5.25	125.81	119.98
1	6	53	LEU	C-N-CA	5.25	125.81	119.98
3	D	356	ARG	N-CA-C	-5.25	106.56	113.17
3	E	106	ARG	CA-C-N	5.25	130.11	121.87
3	E	106	ARG	C-N-CA	5.25	130.11	121.87
1	1	34	ILE	N-CA-C	5.25	116.02	110.72
11	W	30	PHE	CA-C-N	5.25	131.56	121.54
11	W	30	PHE	C-N-CA	5.25	131.56	121.54
2	A	260	ARG	CA-C-N	5.24	127.73	120.29
2	A	260	ARG	C-N-CA	5.24	127.73	120.29
3	E	444	VAL	CA-C-N	5.24	127.30	120.28
3	E	444	VAL	C-N-CA	5.24	127.30	120.28
6	I	12	ALA	N-CA-C	-5.24	105.65	111.36
1	3	17	ILE	CA-C-N	5.24	126.73	120.13

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	3	17	ILE	C-N-CA	5.24	126.73	120.13
2	B	102	GLY	CA-C-N	5.24	126.39	119.84
2	B	102	GLY	C-N-CA	5.24	126.39	119.84
2	B	309	GLU	O-C-N	-5.24	116.02	122.25
2	B	50	GLN	CA-C-O	-5.24	115.08	121.36
1	6	71	LEU	O-C-N	-5.24	116.57	122.12
2	B	112	ALA	N-CA-C	-5.24	106.40	112.89
10	V	8	ASN	CA-C-N	5.24	127.30	120.28
10	V	8	ASN	C-N-CA	5.24	127.30	120.28
2	A	339	TYR	N-CA-C	5.23	116.67	111.07
9	U	80	PHE	N-CA-C	-5.23	105.66	111.36
2	A	245	GLN	CA-C-N	5.23	127.71	120.29
2	A	245	GLN	C-N-CA	5.23	127.71	120.29
11	W	44	ALA	CA-C-N	5.23	130.42	122.37
11	W	44	ALA	C-N-CA	5.23	130.42	122.37
14	Z	22	THR	CA-C-O	-5.23	115.33	120.82
3	F	55	GLY	N-CA-C	-5.23	106.71	112.04
4	G	127	LYS	N-CA-C	5.23	120.02	113.43
8	T	53	ILE	N-CA-C	-5.23	107.26	111.91
2	C	179	ALA	CA-C-O	-5.22	115.01	120.55
3	F	340	SER	N-CA-C	-5.22	105.76	111.82
7	O	74	ILE	CA-C-O	-5.22	115.31	120.85
8	T	44	TYR	CA-C-N	5.22	127.59	120.54
8	T	44	TYR	C-N-CA	5.22	127.59	120.54
2	A	124	ASP	N-CA-C	-5.22	101.19	109.96
2	C	318	GLU	CA-C-O	5.22	125.60	119.28
3	E	11	GLY	N-CA-C	-5.22	102.87	111.38
3	F	368	TYR	CA-C-N	5.22	127.71	120.29
3	F	368	TYR	C-N-CA	5.22	127.71	120.29
2	B	142	ARG	N-CA-C	-5.22	99.68	110.80
2	B	474	LEU	CA-C-N	5.22	127.27	120.28
2	B	474	LEU	C-N-CA	5.22	127.27	120.28
2	C	223	GLU	O-C-N	-5.22	115.26	122.46
3	F	473	LEU	CA-C-N	5.22	127.23	120.44
3	F	473	LEU	C-N-CA	5.22	127.23	120.44
11	W	24	ILE	CA-C-N	5.22	127.54	120.44
11	W	24	ILE	C-N-CA	5.22	127.54	120.44
3	F	206	VAL	CA-C-O	5.22	123.67	118.98
7	O	40	LEU	CA-C-N	5.22	127.27	120.28
7	O	40	LEU	C-N-CA	5.22	127.27	120.28
2	B	257	GLU	CA-C-O	-5.21	115.02	120.55
2	A	182	LEU	CA-C-N	5.21	127.26	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A	182	LEU	C-N-CA	5.21	127.26	120.28
4	G	191	SER	CA-C-O	-5.21	113.02	120.16
1	8	51	ALA	CA-C-N	5.21	127.60	120.46
1	8	51	ALA	C-N-CA	5.21	127.60	120.46
2	C	382	VAL	N-CA-C	-5.21	102.86	109.58
2	A	459	GLU	CA-C-N	5.21	127.51	120.38
2	A	459	GLU	C-N-CA	5.21	127.51	120.38
8	T	161	ILE	N-CA-C	-5.21	107.28	111.91
2	B	509	THR	CA-C-O	-5.21	111.95	120.80
2	A	283	LEU	CA-C-O	5.20	126.06	120.55
3	E	458	TYR	CA-C-N	5.20	131.48	121.54
3	E	458	TYR	C-N-CA	5.20	131.48	121.54
3	F	178	HIS	O-C-N	-5.20	115.67	122.59
6	I	16	VAL	CA-C-N	5.20	127.25	120.28
6	I	16	VAL	C-N-CA	5.20	127.25	120.28
3	F	226	PRO	N-CA-C	-5.20	106.63	113.65
1	0	73	LEU	CA-C-N	-5.20	113.81	122.08
1	0	73	LEU	C-N-CA	-5.20	113.81	122.08
1	7	71	LEU	CA-C-N	5.20	127.77	120.28
1	7	71	LEU	C-N-CA	5.20	127.77	120.28
5	H	41	VAL	N-CA-C	-5.20	100.72	108.46
1	4	10	ILE	N-CA-C	5.20	115.92	110.62
7	O	70	VAL	CA-C-O	-5.20	115.55	120.95
1	2	65	CYS	CA-C-N	5.20	127.67	120.29
1	2	65	CYS	C-N-CA	5.20	127.67	120.29
2	A	359	PHE	CA-C-N	5.20	128.21	120.31
2	A	359	PHE	C-N-CA	5.20	128.21	120.31
12	X	10	GLU	CA-C-N	5.19	127.19	120.44
12	X	10	GLU	C-N-CA	5.19	127.19	120.44
1	6	5	LEU	CA-C-O	5.19	125.92	120.42
4	G	207	ARG	CA-C-O	5.19	125.76	119.38
2	A	302	TYR	CA-C-N	5.19	127.19	120.44
2	A	302	TYR	C-N-CA	5.19	127.19	120.44
2	C	26	ASN	CA-C-O	5.19	127.93	120.51
1	1	31	ALA	CA-C-N	5.19	127.66	120.29
1	1	31	ALA	C-N-CA	5.19	127.66	120.29
1	3	25	GLY	CA-C-N	5.18	127.09	120.56
1	3	25	GLY	C-N-CA	5.18	127.09	120.56
2	A	449	ALA	CA-C-N	5.18	125.59	119.94
2	A	449	ALA	C-N-CA	5.18	125.59	119.94
2	B	238	ALA	CA-C-N	5.18	127.75	120.28
2	B	238	ALA	C-N-CA	5.18	127.75	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	C	338	ALA	N-CA-C	-5.18	101.41	109.24
2	C	444	VAL	CA-C-O	-5.18	115.22	118.69
3	D	189	GLU	CA-C-O	-5.18	114.68	120.54
8	T	166	TYR	O-C-N	5.18	128.06	122.15
2	B	105	LEU	N-CA-C	-5.18	106.80	113.02
2	B	256	GLY	CA-C-N	5.18	127.23	120.28
2	B	256	GLY	C-N-CA	5.18	127.23	120.28
3	F	214	LYS	N-CA-C	-5.18	99.76	110.80
3	F	359	ASP	O-C-N	-5.18	116.44	122.81
4	G	200	ASP	CA-C-N	5.18	128.15	120.17
4	G	200	ASP	C-N-CA	5.18	128.15	120.17
3	D	382	LYS	CA-C-O	-5.18	115.06	120.55
2	C	234	VAL	CA-C-O	5.18	126.62	120.72
3	F	156	PHE	N-CA-C	-5.18	101.20	109.23
3	F	335	LEU	N-CA-C	-5.18	101.25	109.59
2	B	464	GLY	CA-C-O	-5.18	115.41	121.00
3	F	22	ASP	CA-C-O	-5.18	114.74	120.38
4	G	114	ILE	O-C-N	5.18	127.65	121.80
3	E	186	GLY	CA-C-N	5.17	130.15	123.11
3	E	186	GLY	C-N-CA	5.17	130.15	123.11
4	G	7	GLU	N-CA-C	-5.17	105.33	111.69
8	T	63	GLU	O-C-N	5.17	128.95	122.23
1	4	22	ALA	CA-C-N	5.17	125.68	119.94
1	4	22	ALA	C-N-CA	5.17	125.68	119.94
2	C	197	GLU	N-CA-C	-5.17	106.97	113.28
1	3	62	GLY	CA-C-O	-5.17	115.43	120.75
2	C	36	VAL	CA-C-O	-5.17	115.80	121.28
4	G	37	ALA	CA-C-N	5.17	127.46	120.38
4	G	37	ALA	C-N-CA	5.17	127.46	120.38
2	C	214	THR	CA-C-O	-5.17	114.94	120.42
8	T	217	LEU	CA-C-N	5.17	128.16	120.31
8	T	217	LEU	C-N-CA	5.17	128.16	120.31
1	2	51	ALA	CA-C-O	5.16	126.24	120.82
1	8	18	GLY	N-CA-C	5.16	118.93	112.73
3	D	173	ASN	CA-C-N	5.16	127.53	120.46
3	D	173	ASN	C-N-CA	5.16	127.53	120.46
3	D	244	ARG	N-CA-C	5.16	116.91	111.28
2	C	485	ILE	CA-C-N	5.16	127.62	120.29
2	C	485	ILE	C-N-CA	5.16	127.62	120.29
3	D	467	VAL	CA-C-N	5.16	127.62	120.29
3	D	467	VAL	C-N-CA	5.16	127.62	120.29
3	D	421	ALA	CA-C-N	5.16	127.19	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	D	421	ALA	C-N-CA	5.16	127.19	120.28
3	F	269	SER	N-CA-C	5.16	116.59	111.07
10	V	92	ILE	CA-C-N	5.16	128.15	120.31
10	V	92	ILE	C-N-CA	5.16	128.15	120.31
3	D	218	VAL	N-CA-C	-5.15	100.70	108.12
3	D	316	ASP	CA-C-O	5.15	126.20	120.43
7	O	121	GLY	CA-C-O	5.15	125.70	121.06
1	0	7	ALA	O-C-N	5.15	128.25	122.22
2	B	503	THR	CA-C-N	5.15	127.44	120.44
2	B	503	THR	C-N-CA	5.15	127.44	120.44
7	O	33	ILE	CA-C-N	5.15	127.60	120.29
7	O	33	ILE	C-N-CA	5.15	127.60	120.29
2	A	399	TYR	N-CA-C	5.15	116.89	111.28
4	G	212	TYR	CA-C-O	-5.14	114.05	119.97
2	B	469	SER	CA-C-N	5.14	127.17	120.28
2	B	469	SER	C-N-CA	5.14	127.17	120.28
2	B	493	LYS	CA-C-N	5.14	127.59	120.29
2	B	493	LYS	C-N-CA	5.14	127.59	120.29
1	7	27	ALA	CA-C-O	-5.14	115.42	120.82
1	7	46	THR	CA-C-N	5.14	128.73	120.30
1	7	46	THR	C-N-CA	5.14	128.73	120.30
4	G	106	ASP	CA-C-N	5.14	129.56	123.19
4	G	106	ASP	C-N-CA	5.14	129.56	123.19
5	H	36	SER	N-CA-C	-5.14	106.32	112.59
7	O	11	ARG	N-CA-C	-5.14	100.14	108.52
8	T	93	PHE	N-CA-C	-5.14	104.61	111.24
8	T	95	PHE	CA-C-N	5.14	127.72	120.42
8	T	95	PHE	C-N-CA	5.14	127.72	120.42
1	7	10	ILE	N-CA-C	5.14	115.35	110.42
1	7	19	LEU	CA-C-N	5.14	127.16	120.28
1	7	19	LEU	C-N-CA	5.14	127.16	120.28
2	B	482	LEU	O-C-N	5.13	128.00	122.15
13	Y	15	PRO	CA-C-N	5.13	127.58	120.29
13	Y	15	PRO	C-N-CA	5.13	127.58	120.29
2	A	357	GLU	CA-C-O	-5.13	115.11	120.55
2	C	269	VAL	CA-C-O	5.13	125.73	120.39
1	6	11	GLY	CA-C-N	5.13	127.16	120.28
1	6	11	GLY	C-N-CA	5.13	127.16	120.28
8	T	186	LEU	N-CA-C	-5.13	105.77	111.36
2	C	110	VAL	CA-C-O	-5.13	115.84	121.28
8	T	242	LEU	CA-C-N	5.13	127.15	120.28
8	T	242	LEU	C-N-CA	5.13	127.15	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	F	189	GLU	CA-C-O	5.12	125.84	120.36
3	F	205	GLY	CA-C-N	-5.12	116.45	122.14
3	F	205	GLY	C-N-CA	-5.12	116.45	122.14
4	G	208	ASP	CA-C-N	5.12	127.15	120.28
4	G	208	ASP	C-N-CA	5.12	127.15	120.28
2	A	191	TRP	N-CA-C	5.12	117.99	111.69
1	5	67	MET	N-CA-C	-5.12	105.78	111.36
3	D	17	ILE	CA-C-N	5.12	128.57	120.07
3	D	17	ILE	C-N-CA	5.12	128.57	120.07
4	G	121	THR	CA-C-O	-5.12	114.99	120.42
1	0	33	LEU	CA-C-O	-5.12	115.45	120.82
5	H	108	ALA	CA-C-N	5.12	127.40	120.44
5	H	108	ALA	C-N-CA	5.12	127.40	120.44
1	0	46	THR	CA-C-N	5.12	128.69	120.30
1	0	46	THR	C-N-CA	5.12	128.69	120.30
3	D	343	GLY	N-CA-C	-5.12	108.05	115.27
5	H	85	VAL	N-CA-C	-5.12	101.01	108.17
2	A	278	VAL	CA-C-N	5.12	127.40	120.44
2	A	278	VAL	C-N-CA	5.12	127.40	120.44
2	C	128	ARG	CA-C-O	5.12	127.09	121.11
2	C	289	ARG	N-CA-C	-5.12	100.53	109.48
2	C	360	TYR	N-CA-C	-5.12	105.78	111.36
8	T	167	PHE	O-C-N	-5.12	116.06	122.35
5	H	18	HIS	N-CA-C	-5.11	108.07	114.56
11	W	50	ARG	CA-C-N	5.11	127.08	120.44
11	W	50	ARG	C-N-CA	5.11	127.08	120.44
3	F	219	PHE	CA-C-O	-5.11	114.65	120.32
11	W	3	THR	CA-C-N	5.11	130.25	121.87
11	W	3	THR	C-N-CA	5.11	130.25	121.87
2	C	289	ARG	O-C-N	-5.11	116.72	121.72
1	2	3	LEU	N-CA-C	5.10	116.84	111.28
1	7	14	ILE	CA-C-N	5.10	127.62	120.28
1	7	14	ILE	C-N-CA	5.10	127.62	120.28
2	C	76	VAL	N-CA-C	-5.10	100.97	108.11
2	C	139	LEU	O-C-N	-5.10	115.92	120.92
3	F	434	LEU	N-CA-C	5.10	116.84	111.28
5	H	115	SER	CA-C-O	-5.10	112.13	120.80
2	B	501	SER	CA-C-O	5.10	125.95	120.55
12	X	32	ASN	O-C-N	-5.10	116.59	121.94
2	B	494	GLU	CA-C-O	-5.09	115.02	120.42
2	A	73	VAL	O-C-N	5.09	128.76	122.95
1	6	46	THR	CA-C-N	5.09	128.65	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	46	THR	C-N-CA	5.09	128.65	120.30
2	B	453	GLY	CA-C-O	5.09	126.04	119.68
3	D	225	PRO	CA-C-O	-5.09	113.18	120.56
4	G	164	ILE	O-C-N	-5.09	117.40	123.05
2	C	181	ALA	CA-C-N	5.09	127.10	120.28
2	C	181	ALA	C-N-CA	5.09	127.10	120.28
1	1	53	LEU	CA-C-O	5.09	126.16	120.82
2	C	499	LEU	O-C-N	-5.09	116.35	122.15
2	B	178	THR	CA-C-N	5.09	127.51	120.29
2	B	178	THR	C-N-CA	5.09	127.51	120.29
3	E	43	GLN	N-CA-C	-5.09	98.97	108.02
1	9	70	PHE	CA-C-N	5.08	127.09	120.28
1	9	70	PHE	C-N-CA	5.08	127.09	120.28
2	A	408	PHE	CA-C-O	-5.08	113.24	120.51
2	C	494	GLU	CA-C-N	5.08	127.51	120.29
2	C	494	GLU	C-N-CA	5.08	127.51	120.29
13	Y	19	ALA	CA-C-N	5.08	125.62	119.98
13	Y	19	ALA	C-N-CA	5.08	125.62	119.98
1	0	31	ALA	CA-C-N	5.08	127.51	120.29
1	0	31	ALA	C-N-CA	5.08	127.51	120.29
3	E	379	GLN	CA-C-N	5.08	127.05	120.44
3	E	379	GLN	C-N-CA	5.08	127.05	120.44
3	F	220	GLY	O-C-N	5.08	129.31	122.70
7	O	65	LYS	CA-C-O	5.08	125.79	119.79
7	O	86	VAL	CA-C-N	5.08	129.32	120.68
7	O	86	VAL	C-N-CA	5.08	129.32	120.68
10	V	64	ASN	N-CA-C	5.08	117.02	109.25
14	Z	1	MET	O-C-N	-5.08	114.87	123.00
2	C	300	VAL	CA-C-O	-5.08	115.14	120.57
2	C	356	ALA	N-CA-C	5.08	116.81	111.28
3	E	416	GLN	N-CA-C	-5.08	102.47	110.14
2	C	37	GLY	CA-C-N	5.08	131.24	121.54
2	C	37	GLY	C-N-CA	5.08	131.24	121.54
3	D	297	THR	O-C-N	5.08	129.16	123.48
11	W	2	SER	CA-C-O	5.08	125.17	119.18
4	G	144	ALA	CA-C-O	-5.07	115.49	120.82
4	G	214	LEU	O-C-N	5.07	127.93	122.15
8	T	79	GLY	CA-C-O	-5.07	115.59	122.39
1	2	30	PHE	N-CA-C	5.07	117.70	111.82
1	7	60	ALA	CA-C-O	-5.07	115.17	120.55
2	A	326	LEU	CA-C-N	-5.07	114.76	120.14
2	A	326	LEU	C-N-CA	-5.07	114.76	120.14

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	191	TRP	CA-C-N	5.07	127.08	120.28
2	B	191	TRP	C-N-CA	5.07	127.08	120.28
3	F	261	PHE	CA-C-N	5.07	127.08	120.28
3	F	261	PHE	C-N-CA	5.07	127.08	120.28
10	V	110	VAL	CA-C-N	5.07	127.03	120.44
10	V	110	VAL	C-N-CA	5.07	127.03	120.44
3	D	374	VAL	N-CA-C	5.07	115.79	110.62
2	C	207	ALA	CA-C-O	-5.07	115.04	120.46
8	T	126	TRP	CA-C-N	5.07	128.01	120.31
8	T	126	TRP	C-N-CA	5.07	128.01	120.31
12	X	11	LEU	N-CA-C	-5.07	105.65	111.07
2	B	254	SER	O-C-N	-5.07	116.75	122.12
3	E	114	ARG	N-CA-C	-5.06	101.67	109.52
3	F	275	ILE	O-C-N	-5.06	117.00	121.61
5	H	107	GLU	CA-C-N	5.06	127.06	120.28
5	H	107	GLU	C-N-CA	5.06	127.06	120.28
1	2	27	ALA	CA-C-O	5.06	125.78	120.42
2	C	22	SER	CA-C-N	5.06	131.47	122.06
2	C	22	SER	C-N-CA	5.06	131.47	122.06
3	D	36	ALA	CA-C-O	-5.06	115.19	121.11
1	9	3	LEU	O-C-N	5.06	127.48	122.12
8	T	122	SER	O-C-N	5.06	127.48	122.12
14	Z	7	PHE	O-C-N	-5.06	115.83	122.20
2	A	295	ALA	CA-C-O	5.05	125.88	119.16
3	F	281	TYR	CA-C-N	5.05	127.41	120.39
3	F	281	TYR	C-N-CA	5.05	127.41	120.39
1	2	66	LEU	CA-C-O	5.05	125.78	120.42
2	B	169	ILE	CA-C-O	5.05	127.09	120.78
2	B	436	SER	CA-C-O	-5.05	114.12	120.23
7	O	55	HIS	CA-C-O	5.05	124.46	118.90
2	B	246	TYR	O-C-N	-5.05	116.39	122.15
2	C	54	LEU	CA-C-O	5.05	126.40	120.80
2	C	149	GLN	N-CA-C	-5.05	100.94	109.07
3	D	418	PHE	CA-C-O	-5.05	115.98	121.89
1	7	46	THR	N-CA-C	-5.04	105.69	111.14
1	6	28	ILE	O-C-N	-5.04	116.64	121.83
1	6	62	GLY	N-CA-C	-5.04	106.31	112.77
10	V	98	HIS	N-CA-C	5.04	116.77	111.28
13	Y	32	ASP	CA-C-N	5.04	127.97	120.31
13	Y	32	ASP	C-N-CA	5.04	127.97	120.31
3	F	21	VAL	N-CA-C	-5.04	101.06	108.11
8	T	32	TYR	O-C-N	-5.04	115.21	122.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	353	PHE	CA-C-N	5.03	128.62	121.42
2	B	353	PHE	C-N-CA	5.03	128.62	121.42
2	A	501	SER	CA-C-N	5.03	126.98	120.44
2	A	501	SER	C-N-CA	5.03	126.98	120.44
4	G	219	LEU	CA-C-N	5.03	127.02	120.28
4	G	219	LEU	C-N-CA	5.03	127.02	120.28
4	G	45	ASP	O-C-N	5.03	127.45	122.12
3	D	292	LEU	CA-C-O	-5.03	115.09	120.42
3	E	193	GLU	CA-C-O	-5.03	115.09	120.42
14	Z	7	PHE	N-CA-C	-5.03	105.53	113.02
1	4	15	SER	CA-C-N	5.03	128.64	120.60
1	4	15	SER	C-N-CA	5.03	128.64	120.60
3	F	376	GLU	CA-C-O	-5.03	115.22	120.55
8	T	32	TYR	CA-C-N	5.03	127.43	120.29
8	T	32	TYR	C-N-CA	5.03	127.43	120.29
13	Y	36	ASN	N-CA-C	-5.03	106.07	113.61
1	9	18	GLY	CA-C-N	5.03	128.64	120.60
1	9	18	GLY	C-N-CA	5.03	128.64	120.60
3	D	92	LEU	CA-C-N	5.03	129.05	120.91
3	D	92	LEU	C-N-CA	5.03	129.05	120.91
1	7	45	ASP	CA-C-O	-5.02	114.19	119.97
2	B	186	LEU	O-C-N	5.02	127.44	122.12
2	A	48	ASN	N-CA-C	-5.02	105.63	112.26
2	B	99	VAL	O-C-N	5.02	124.85	121.69
3	D	453	PRO	CA-C-N	5.02	127.26	120.38
3	D	453	PRO	C-N-CA	5.02	127.26	120.38
3	E	7	THR	CA-C-N	5.02	126.11	119.84
3	E	7	THR	C-N-CA	5.02	126.11	119.84
8	T	199	MET	CA-C-N	5.02	130.65	122.67
8	T	199	MET	C-N-CA	5.02	130.65	122.67
2	A	169	ILE	N-CA-C	-5.02	100.66	107.99
2	B	231	SER	CA-C-O	-5.01	116.09	121.56
2	C	220	GLN	CA-C-N	5.01	127.00	120.28
2	C	220	GLN	C-N-CA	5.01	127.00	120.28
3	F	76	VAL	N-CA-C	-5.01	100.68	108.95
2	C	482	LEU	CA-C-N	5.01	127.00	120.28
2	C	482	LEU	C-N-CA	5.01	127.00	120.28
2	A	216	ALA	CA-C-O	-5.01	115.11	120.42
4	G	245	GLY	O-C-N	5.01	127.05	122.19
1	2	67	MET	N-CA-C	5.01	116.82	111.36
2	A	61	VAL	N-CA-C	-5.01	101.21	108.97
10	V	26	ALA	CA-C-N	5.01	127.40	120.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	V	26	ALA	C-N-CA	5.01	127.40	120.29
3	D	333	THR	CA-C-N	5.01	127.21	120.50
3	D	333	THR	C-N-CA	5.01	127.21	120.50
3	E	272	LEU	O-C-N	-5.01	115.72	122.43
3	F	413	PHE	CA-C-N	5.01	126.99	120.28
3	F	413	PHE	C-N-CA	5.01	126.99	120.28
8	T	228	ILE	N-CA-C	-5.01	106.27	111.58
2	A	143	SER	CA-C-N	5.00	127.20	120.50
2	A	143	SER	C-N-CA	5.00	127.20	120.50
2	A	356	ALA	CA-C-O	-5.00	115.55	120.70
2	C	212	ARG	CA-C-N	5.00	126.94	120.44
2	C	212	ARG	C-N-CA	5.00	126.94	120.44
4	G	29	THR	CA-C-O	-5.00	115.57	120.82
4	G	147	ALA	CA-C-N	5.00	126.98	120.28
4	G	147	ALA	C-N-CA	5.00	126.98	120.28
3	F	321	ALA	N-CA-C	5.00	119.05	112.35

There are no chirality outliers.

All (13) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	1	40	ASN	Peptide
1	3	40	ASN	Peptide
1	4	40	ASN	Peptide
1	5	40	ASN	Peptide
1	6	40	ASN	Peptide
1	7	40	ASN	Peptide
1	9	40	ASN	Peptide
2	A	241	ALA	Mainchain
2	A	322	SER	Mainchain
2	B	29	GLU	Peptide
2	C	202	TYR	Peptide
3	E	256	ASP	Peptide
6	I	55	GLU	Peptide

5.2 Too-close contacts ⓘ

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	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
1	7	292	0	91	0	0
1	8	300	0	95	0	0
1	9	296	0	91	0	0
2	A	2004	0	575	0	0
2	B	2020	0	575	1	0
2	C	1975	0	565	2	0
3	D	1876	0	537	0	0
3	E	1880	0	538	0	0
3	F	1872	0	537	1	0
4	G	1060	0	277	0	0
5	H	472	0	120	1	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	20211	0	5727	4	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 (4) 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)
5:H:14:PHE:O	5:H:21:LEU:O	1.92	0.88
2:B:51:ALA:H	3:F:70:LEU:H	1.47	0.61
2:C:406:ALA:O	2:C:407:GLN:C	2.47	0.57
2:C:412:LEU:O	2:C:413:ASP:C	2.56	0.46

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

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%)	72 (99%)	1 (1%)	0	100	100
1	1	73/76 (96%)	70 (96%)	1 (1%)	2 (3%)	4	25
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%)	70 (96%)	2 (3%)	1 (1%)	9	40
1	5	73/76 (96%)	70 (96%)	2 (3%)	1 (1%)	9	40
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%)	2 (3%)	1 (1%)	9	40
2	A	499/510 (98%)	468 (94%)	19 (4%)	12 (2%)	4	27
2	B	501/510 (98%)	469 (94%)	23 (5%)	9 (2%)	6	34
2	C	490/510 (96%)	451 (92%)	27 (6%)	12 (2%)	4	27
3	D	467/478 (98%)	430 (92%)	32 (7%)	5 (1%)	11	46
3	E	468/478 (98%)	433 (92%)	29 (6%)	6 (1%)	9	42
3	F	466/478 (98%)	436 (94%)	25 (5%)	5 (1%)	11	46
4	G	261/278 (94%)	242 (93%)	15 (6%)	4 (2%)	8	40
5	H	108/138 (78%)	101 (94%)	6 (6%)	1 (1%)	14	51
6	I	42/61 (69%)	39 (93%)	3 (7%)	0	100	100
7	O	185/195 (95%)	167 (90%)	16 (9%)	2 (1%)	11	46
8	T	222/249 (89%)	211 (95%)	9 (4%)	2 (1%)	14	51
9	U	153/209 (73%)	150 (98%)	3 (2%)	0	100	100
10	V	169/173 (98%)	150 (89%)	15 (9%)	4 (2%)	4	27
11	W	83/95 (87%)	70 (84%)	9 (11%)	4 (5%)	2	16
12	X	60/92 (65%)	51 (85%)	7 (12%)	2 (3%)	3	21

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
13	Y	35/59 (59%)	34 (97%)	0	1 (3%)	3	23
14	Z	46/48 (96%)	44 (96%)	2 (4%)	0	100	100
All	All	4980/5321 (94%)	4646 (93%)	254 (5%)	80 (2%)	10	38

All (80) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
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	299	ASP
2	A	335	ASP
2	A	379	ALA
2	C	336	VAL
2	C	380	ALA
3	D	178	HIS
3	D	279	VAL
8	T	148	ALA
10	V	24	SER
10	V	84	ASP
10	V	88	GLN
10	V	132	GLU
11	W	31	TYR
1	8	42	SER
2	A	507	VAL
2	B	30	THR
2	B	226	ASP
2	C	27	LEU
2	C	435	TYR
3	E	29	GLU
3	E	353	SER
3	F	128	SER
4	G	84	CYS
5	H	33	PRO
8	T	202	ASN

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Mol	Chain	Res	Type
11	W	11	SER
11	W	61	ALA
2	A	24	GLU
2	A	104	GLY
2	B	29	GLU
2	B	227	ALA
2	B	437	PRO
2	C	26	ASN
3	E	34	LEU
3	E	459	MET
3	F	34	LEU
3	F	451	ASN
7	O	31	SER
7	O	149	GLN
1	1	42	SER
2	A	121	GLY
2	B	145	HIS
2	C	35	ALA
2	C	59	SER
2	C	80	SER
3	D	160	GLY
3	D	280	GLY
12	X	44	LEU
12	X	58	VAL
1	3	42	SER
2	A	408	PHE
2	B	25	ALA
2	C	24	GLU
2	C	312	ALA
2	C	478	HIS
3	D	86	PRO
3	E	359	ASP
3	F	16	VAL
4	G	56	GLU
4	G	83	LEU
2	C	175	THR
3	F	256	ASP
4	G	181	PRO
11	W	6	PRO
2	A	103	PRO
2	A	136	PRO
2	B	103	PRO

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Mol	Chain	Res	Type
2	B	121	GLY
2	A	146	GLU
13	Y	8	PRO
3	E	86	PRO

5.3.2 Protein sidechains [i](#)

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

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

5.4 Non-standard residues in protein, DNA, RNA chains [i](#)

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

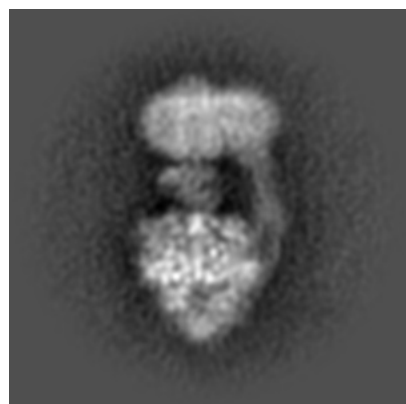
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-25972. These allow visual inspection of the internal detail of the map and identification of artifacts.

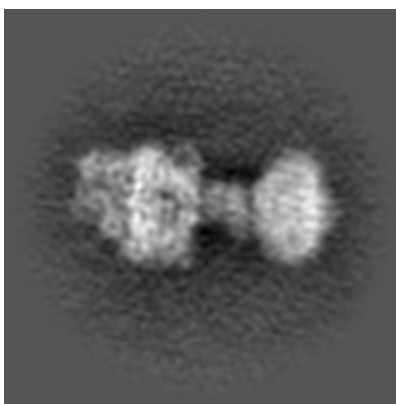
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections [i](#)

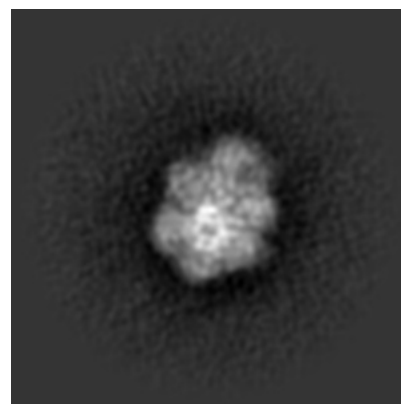
6.1.1 Primary map



X

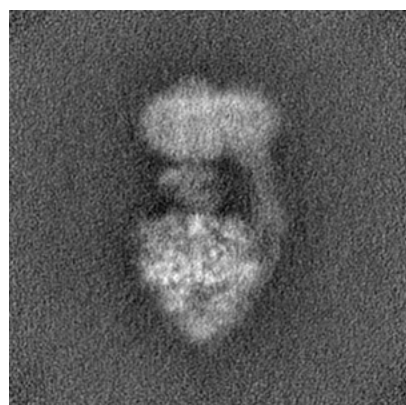


Y

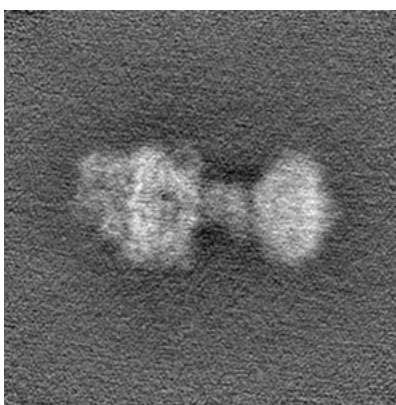


Z

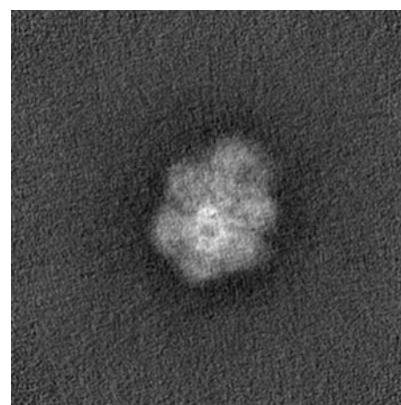
6.1.2 Raw map



X



Y

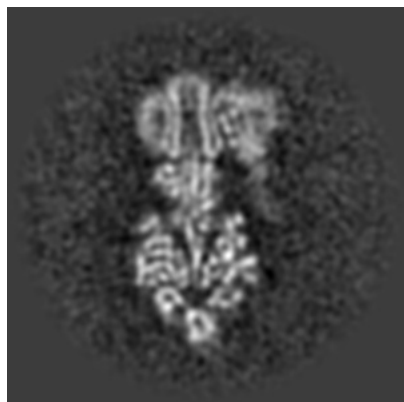


Z

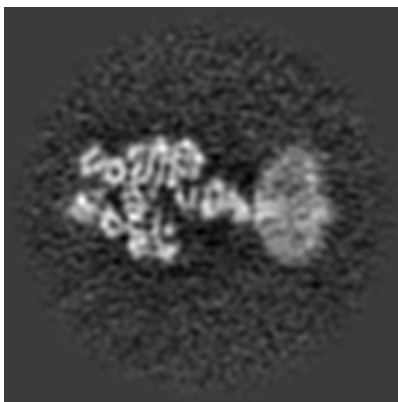
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

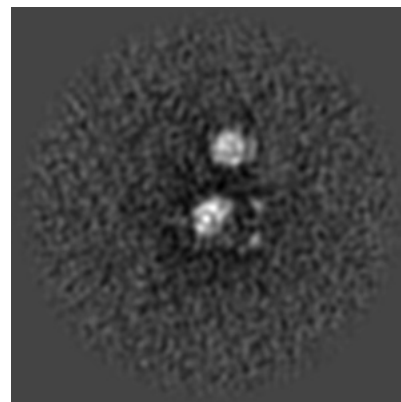
6.2.1 Primary map



X Index: 128

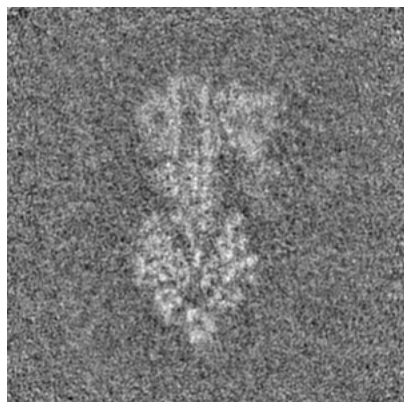


Y Index: 128

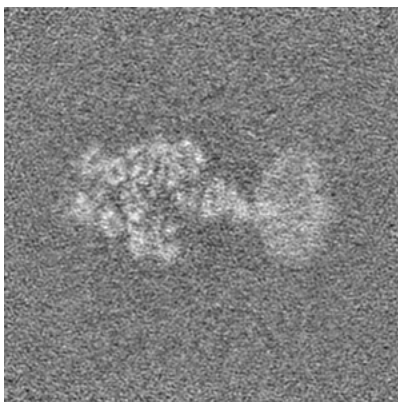


Z Index: 128

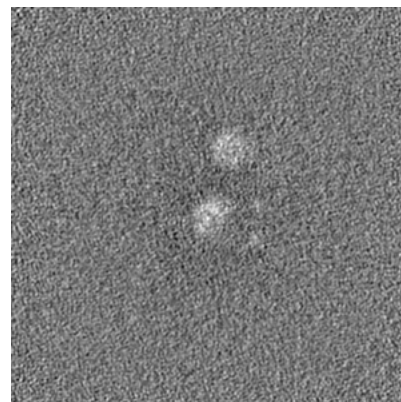
6.2.2 Raw map



X Index: 128



Y Index: 128

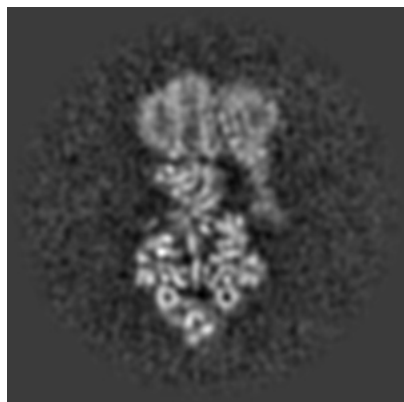


Z Index: 128

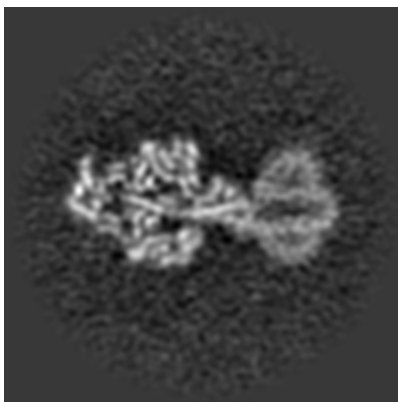
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

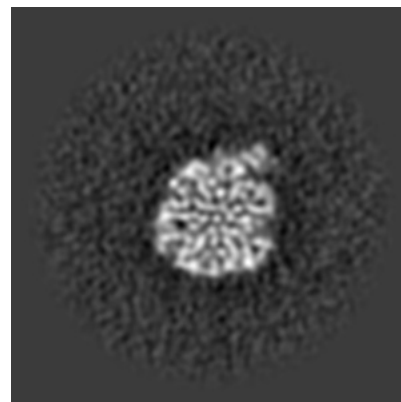
6.3.1 Primary map



X Index: 131

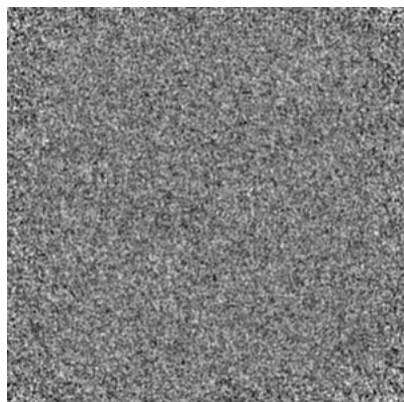


Y Index: 120

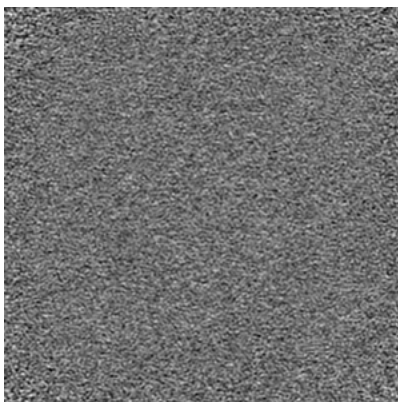


Z Index: 86

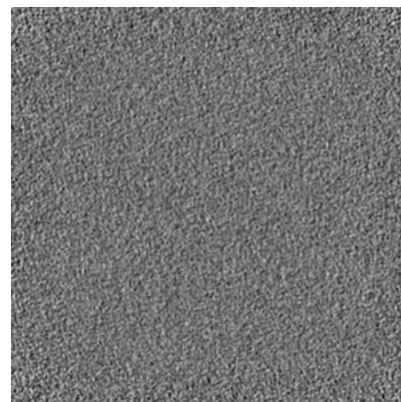
6.3.2 Raw map



X Index: 0



Y Index: 0

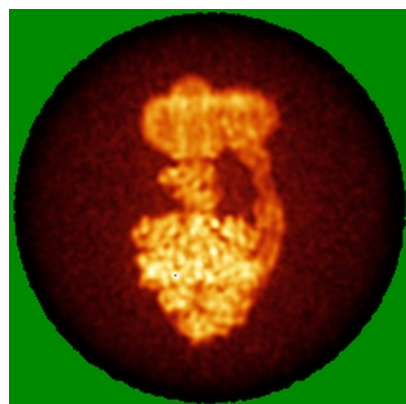


Z Index: 0

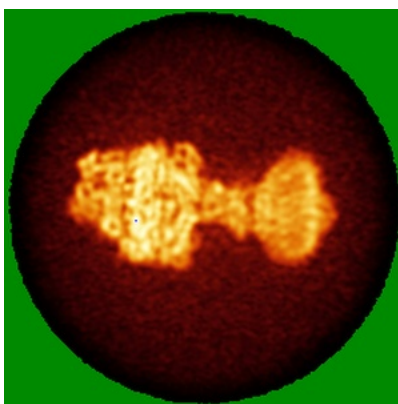
The images above show the largest variance slices of the map in three orthogonal directions.

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

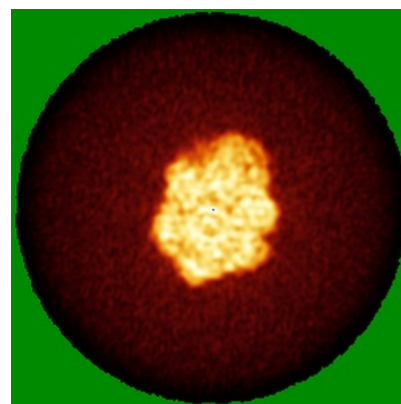
6.4.1 Primary map



X

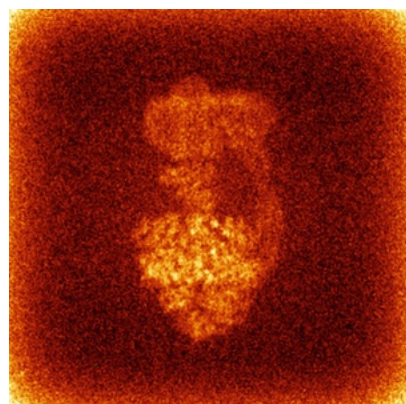


Y

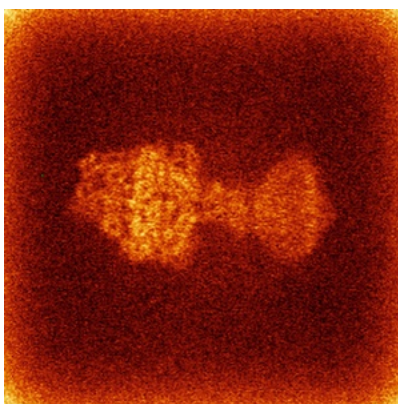


Z

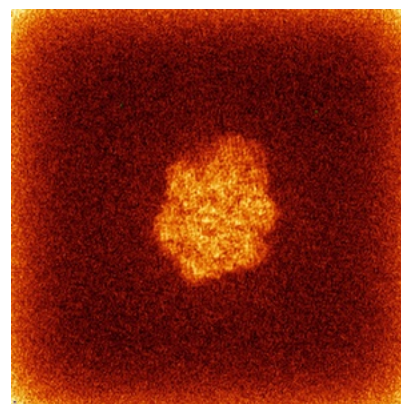
6.4.2 Raw map



X



Y

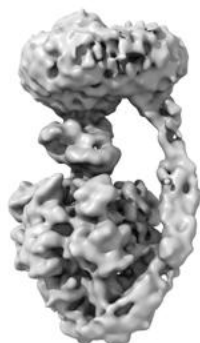


Z

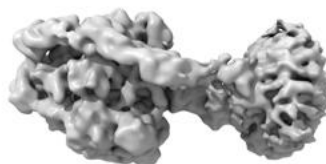
The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views [i](#)

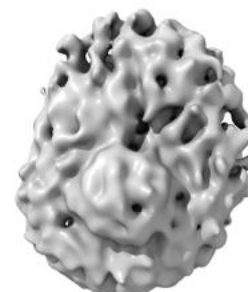
6.5.1 Primary map



X



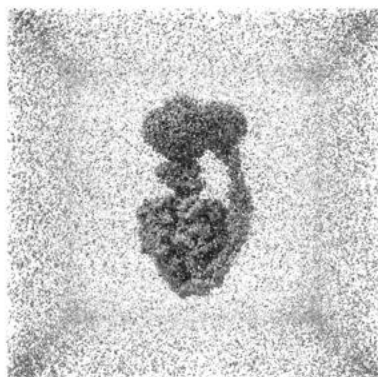
Y



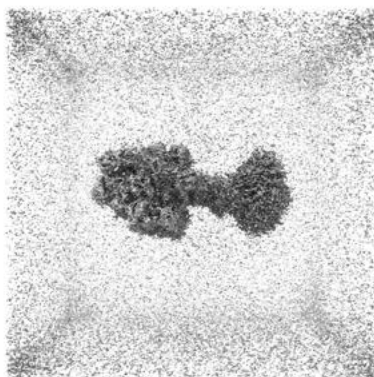
Z

The images above show the 3D surface view of the map at the recommended contour level 0.5. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

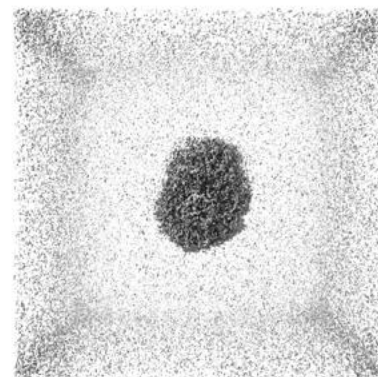
6.5.2 Raw map



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.

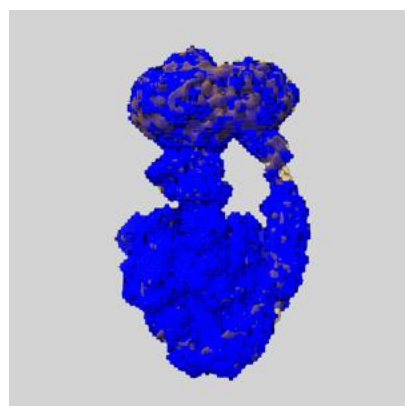
6.6 Mask visualisation [i](#)

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

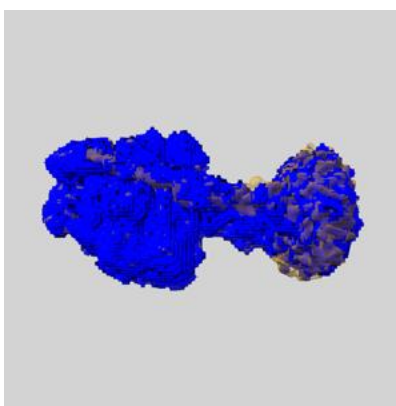
A mask typically either:

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

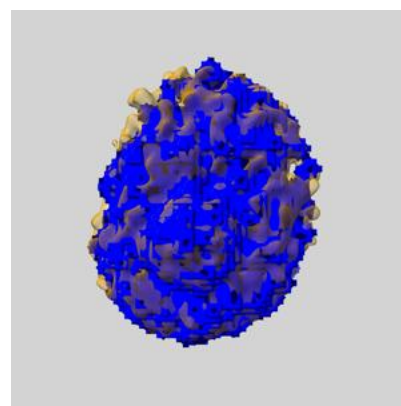
6.6.1 emd_25972_msk_1.map [i](#)



X



Y

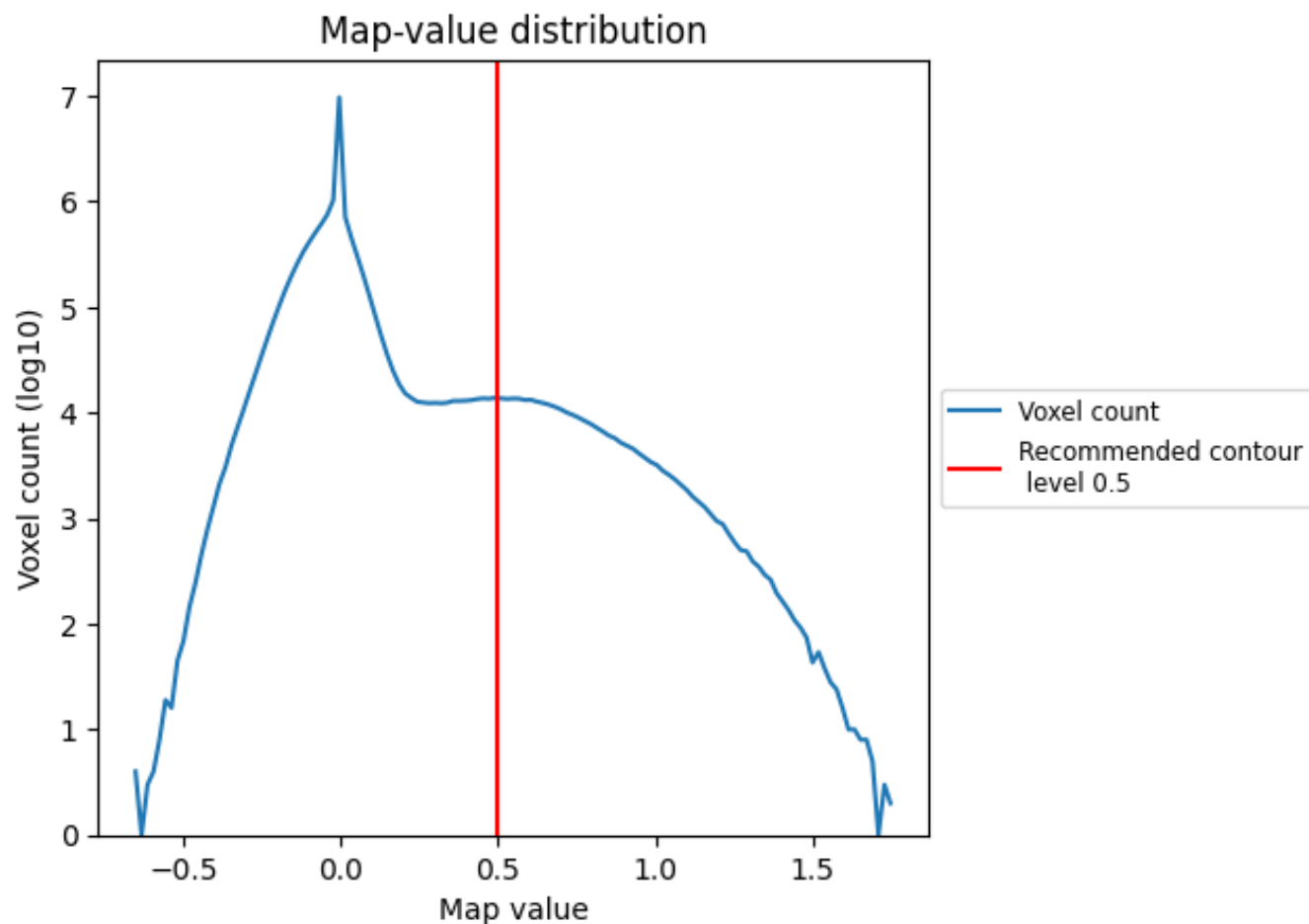


Z

7 Map analysis [i](#)

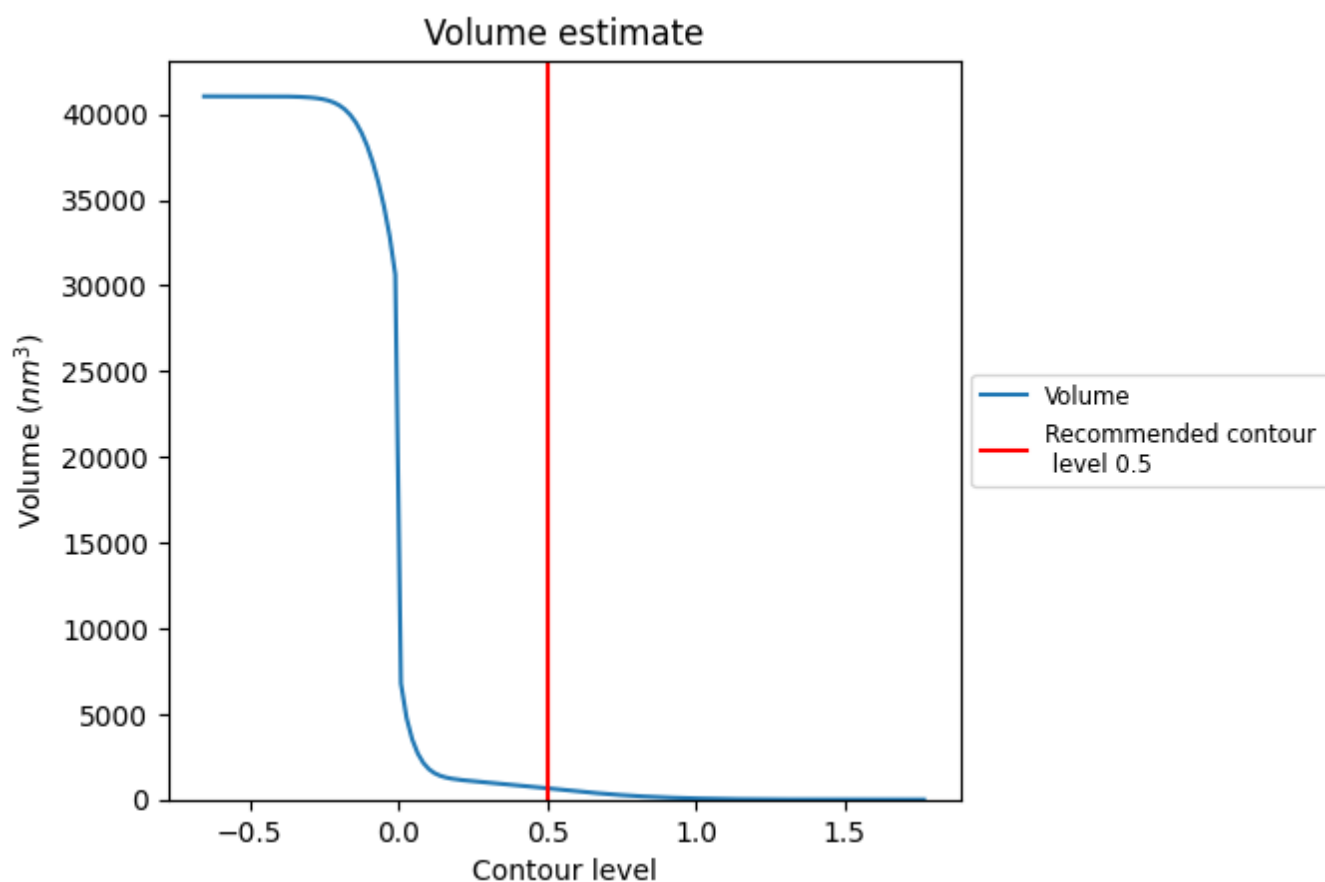
This section contains the results of statistical analysis of the map.

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.

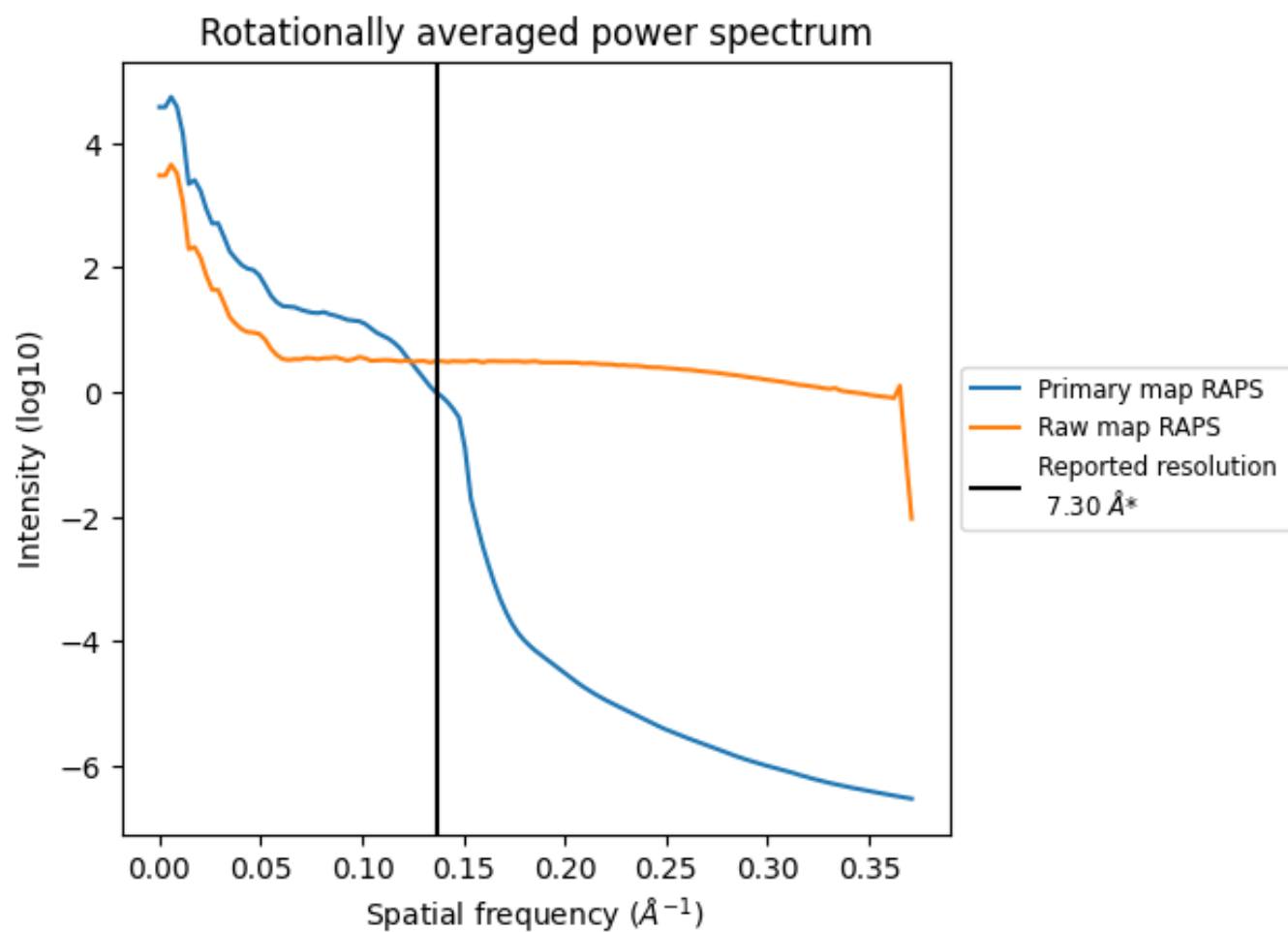
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 659 nm³; this corresponds to an approximate mass of 595 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 ⓘ

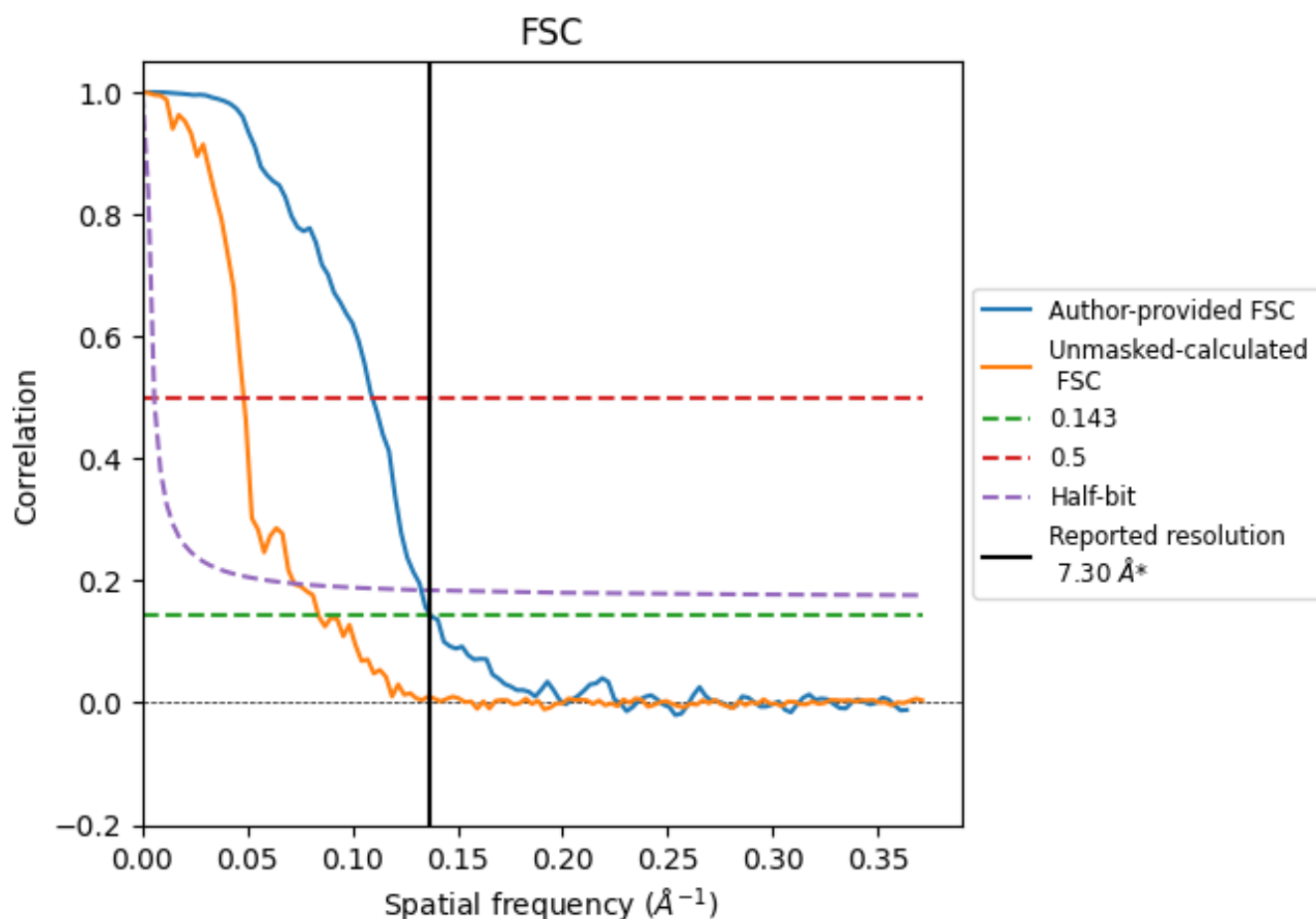


*Reported resolution corresponds to spatial frequency of 0.137 Å⁻¹

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 $0.137 \text{ \AA}^{-1}$

8.2 Resolution estimates [i](#)

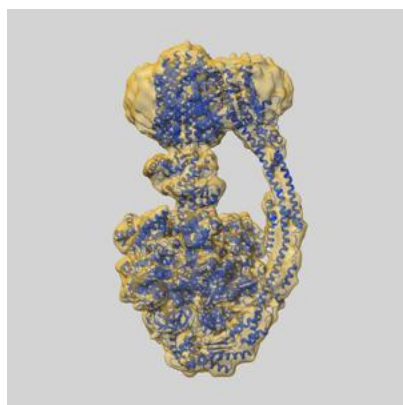
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	7.30	-	-
Author-provided FSC curve	7.28	9.14	7.54
Unmasked-calculated*	11.92	20.75	13.83

*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 11.92 differs from the reported value 7.3 by more than 10 %

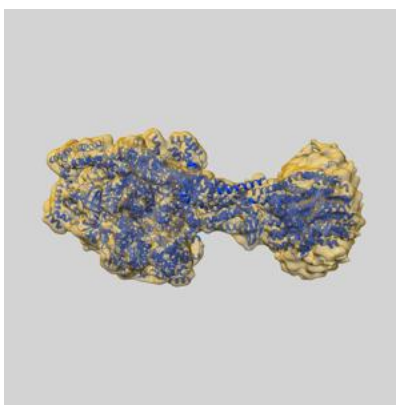
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-25972 and PDB model 7TKK. Per-residue inclusion information can be found in [section 3](#) on [page 7](#).

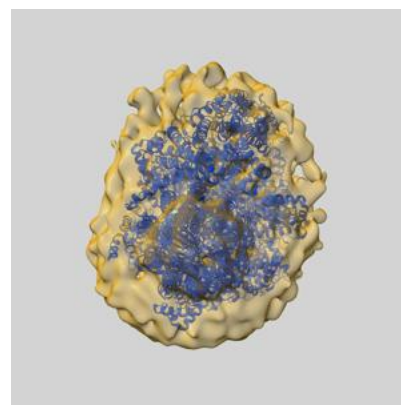
9.1 Map-model overlay [i](#)



X



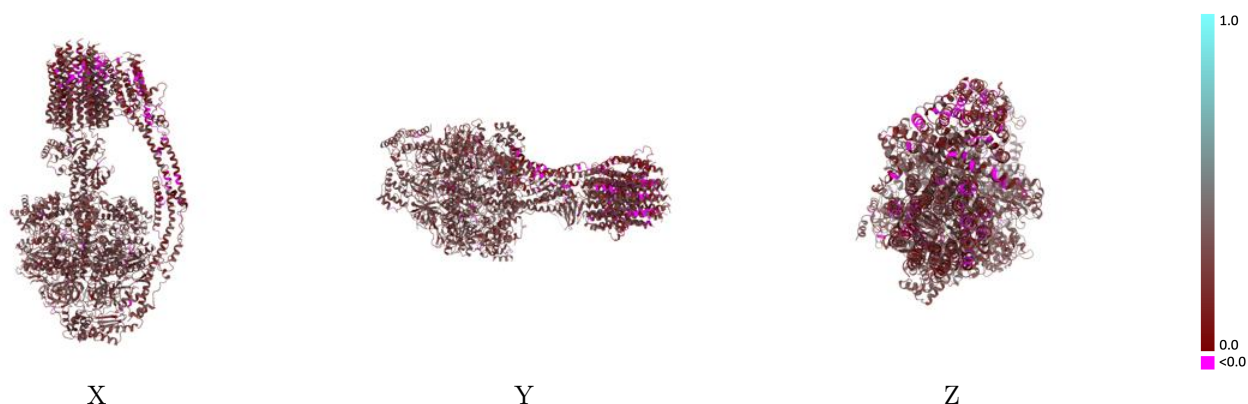
Y



Z

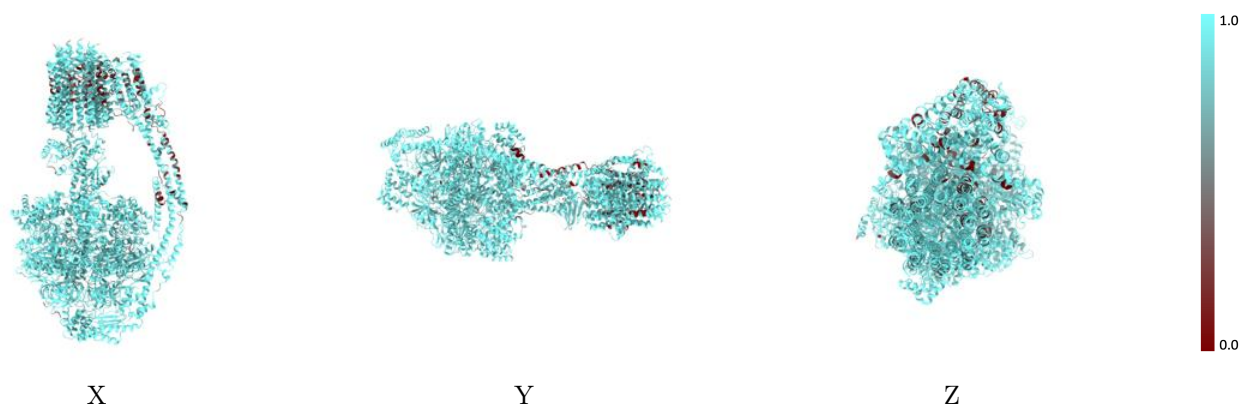
The images above show the 3D surface view of the map at the recommended contour level 0.5 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



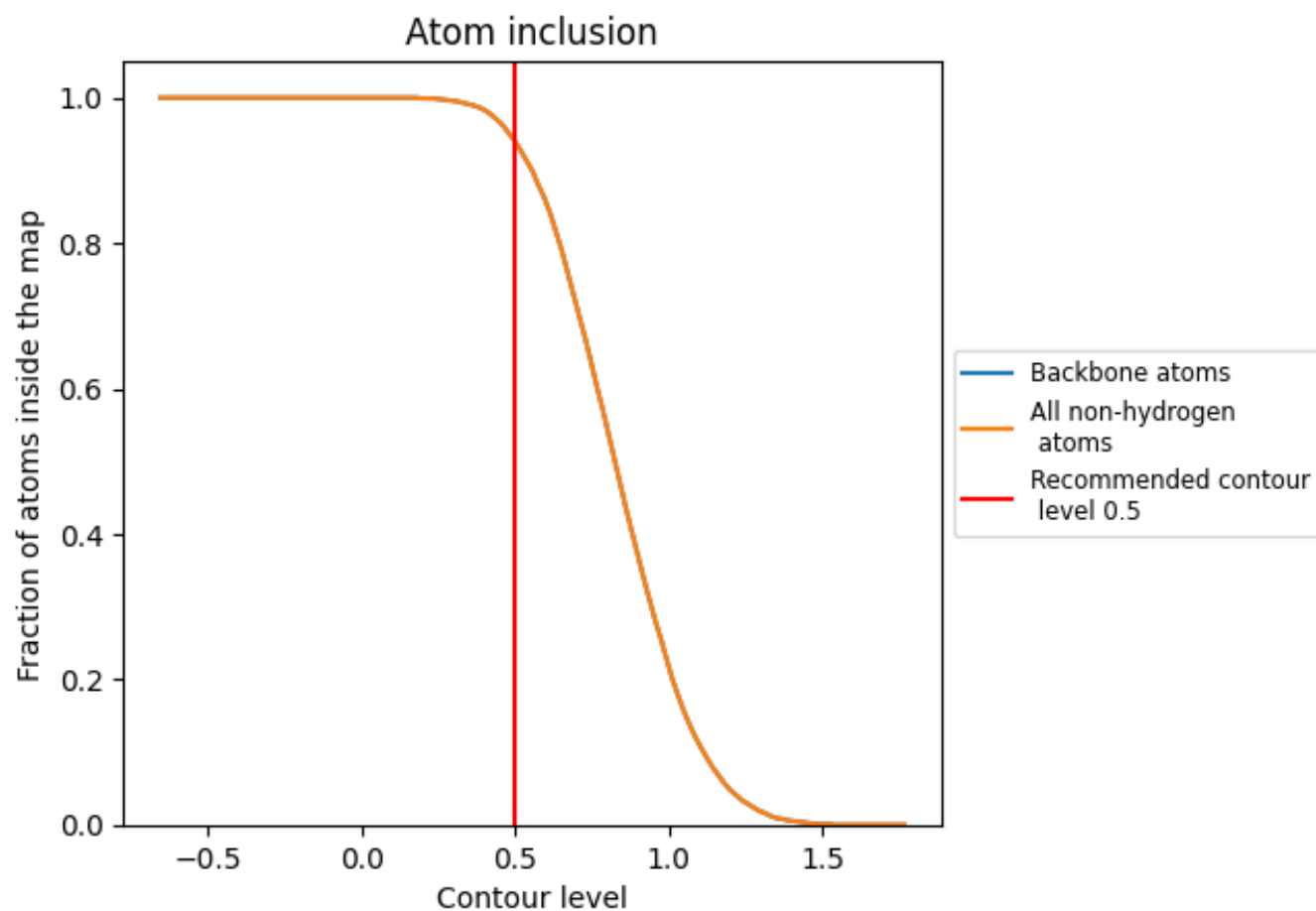
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

9.3 Atom inclusion mapped to coordinate model [i](#)



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.5).

9.4 Atom inclusion [i](#)



At the recommended contour level, 94% of all backbone atoms, 94% 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 (0.5) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.9400	 0.2330
0	 0.9430	 0.1530
1	 0.9100	 0.2070
2	 0.9130	 0.1840
3	 0.9600	 0.1890
4	 0.8800	 0.1730
5	 0.8500	 0.1680
6	 0.7670	 0.1320
7	 0.9660	 0.2320
8	 0.9500	 0.2200
9	 0.8450	 0.1490
A	 0.9630	 0.2620
B	 0.9710	 0.2590
C	 0.9720	 0.2550
D	 0.9620	 0.2600
E	 0.9710	 0.2590
F	 0.9710	 0.2550
G	 0.9480	 0.2510
H	 0.9450	 0.2230
I	 0.9480	 0.2480
O	 0.9970	 0.2640
T	 0.8600	 0.1750
U	 0.9610	 0.2370
V	 0.8190	 0.1780
W	 0.8590	 0.1560
X	 0.8310	 0.1800
Y	 0.6890	 0.0580
Z	 0.7930	 0.0790

