



Full wwPDB EM Validation Report ⓘ

Mar 5, 2026 – 04:56 AM UTC

PDB ID : 7TKJ / pdb_00007tkj
EMDB ID : EMD-25971
Title : Yeast ATP synthase State 2catalytic(d) with 10 mM ATP backbone model
Authors : Guo, H.; Rubinstein, J.L.
Deposited on : 2022-01-17
Resolution : 7.50 Å (reported)
Based on initial model : 2HLD

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

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

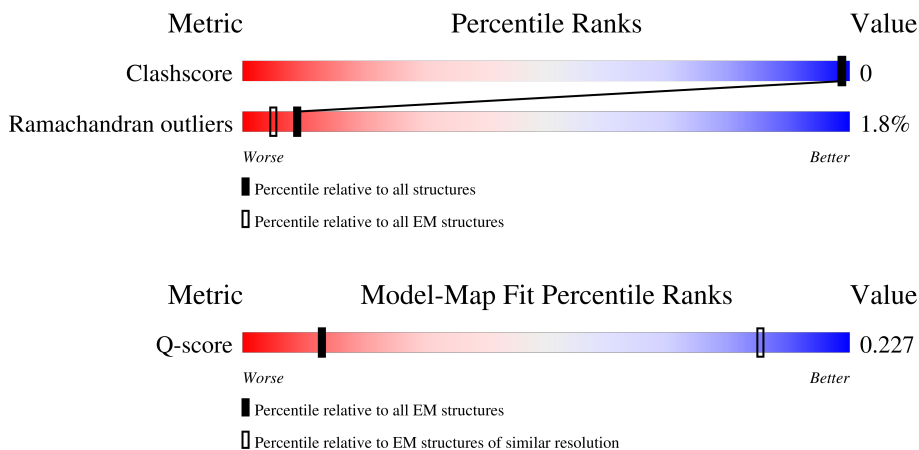
EMDB validation analysis : 0.0.1.dev132
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh &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

1 Overall quality at a glance i

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

The reported resolution of this entry is 7.50 Å.

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



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

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

Mol	Chain	Length	Quality of chain
1	0	76	 46% 53%
1	1	76	 5% 55% 42%
1	2	76	 61% 38%
1	3	76	 51% 45%
1	4	76	 57% 41%

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Mol	Chain	Length	Quality of chain
1	5	76	11% 63% 34% ..
1	6	76	5% 38% 57% ..
1	7	76	43% 51% ..
1	8	76	49% 49% ..
1	9	76	45% 51% ..
2	A	510	57% 40% ..
2	B	510	56% 42% ..
2	C	510	60% 36% .
3	D	478	57% 40% .
3	E	478	55% 42% ..
3	F	478	58% 40% .
4	G	278	56% 39% 5%
5	H	138	50% 34% 14%
6	I	61	46% 33% 21%
7	O	195	58% 37% ..
8	T	249	5% 57% 33% 10%
9	U	209	43% 31% 26%
10	V	173	12% 62% 37% .
11	W	95	14% 60% 27% 11%
12	X	92	16% 40% 26% 33%
13	Y	59	5% 34% 29% 37%
14	Z	48	8% 73% 27%

2 Entry composition [i](#)

There are 14 unique types of molecules in this entry. The entry contains 20207 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
			Total	C	N	O		
1	0	75	300	150	75	75	0	0
1	1	75	300	150	75	75	0	0
1	2	75	300	150	75	75	0	0
1	3	74	296	148	74	74	0	0
1	4	75	300	150	75	75	0	0
1	5	75	300	150	75	75	0	0
1	6	74	296	148	74	74	0	0
1	7	73	292	146	73	73	0	0
1	8	75	300	150	75	75	0	0
1	9	74	296	148	74	74	0	0

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

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
2	A	501	2004	1002	501	501	0	0
2	B	505	2020	1010	505	505	0	0
2	C	493	1972	986	493	493	0	0

- 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
			471	236	118	117		

- 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
			Total	C	N	O		
10	V	171	685	342	171	172	0	0

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

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

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

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

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

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

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

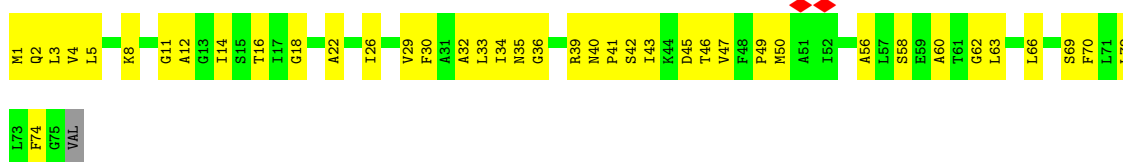
Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
14	Z	48	193	96	48	49	0	0

3 Residue-property plots

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

- Molecule 1: ATP synthase subunit 9

Chain 0: 



- Molecule 1: ATP synthase subunit 9

Chain 1: 



- Molecule 1: ATP synthase subunit 9

Chain 2: 



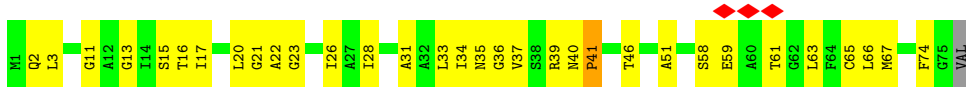
- Molecule 1: ATP synthase subunit 9

Chain 3: 

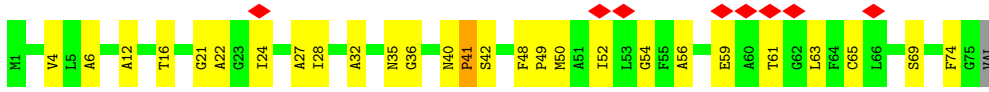


- Molecule 1: ATP synthase subunit 9

Chain 4: 



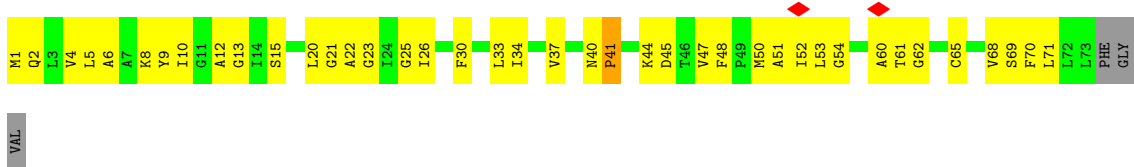
• Molecule 1: ATP synthase subunit 9



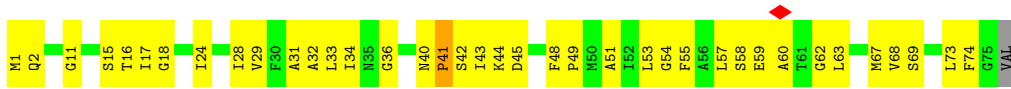
• Molecule 1: ATP synthase subunit 9



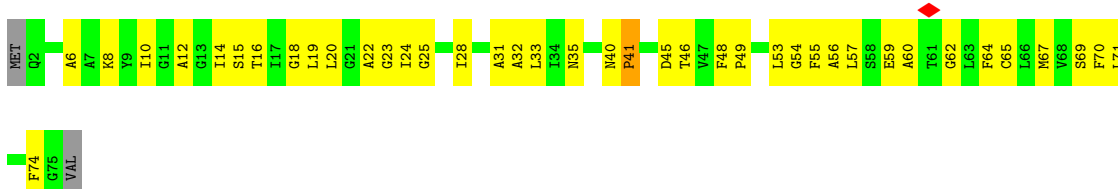
• Molecule 1: ATP synthase subunit 9



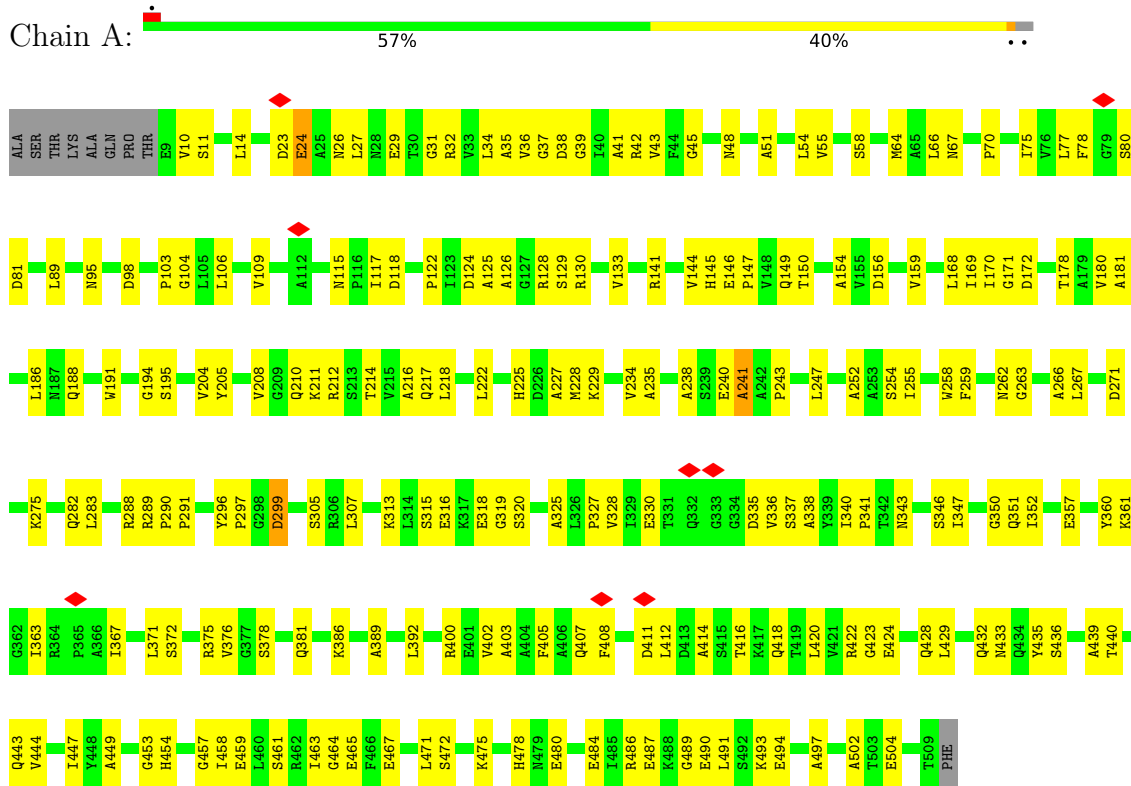
• Molecule 1: ATP synthase subunit 9



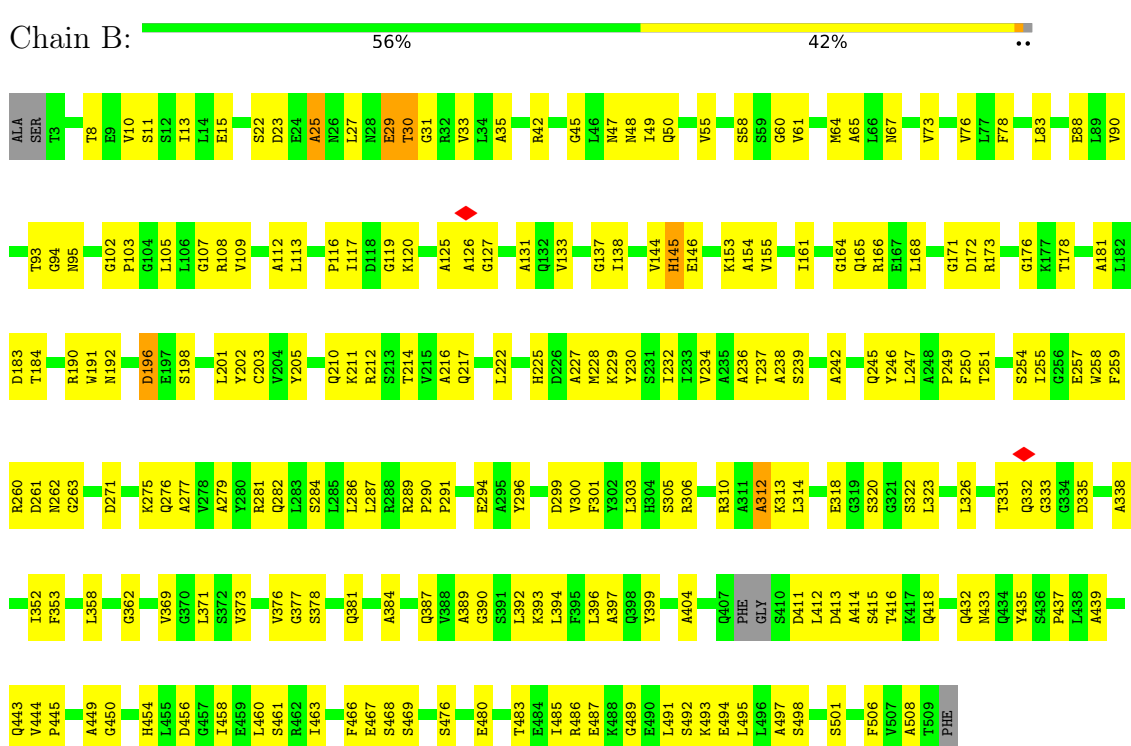
• Molecule 1: ATP synthase subunit 9



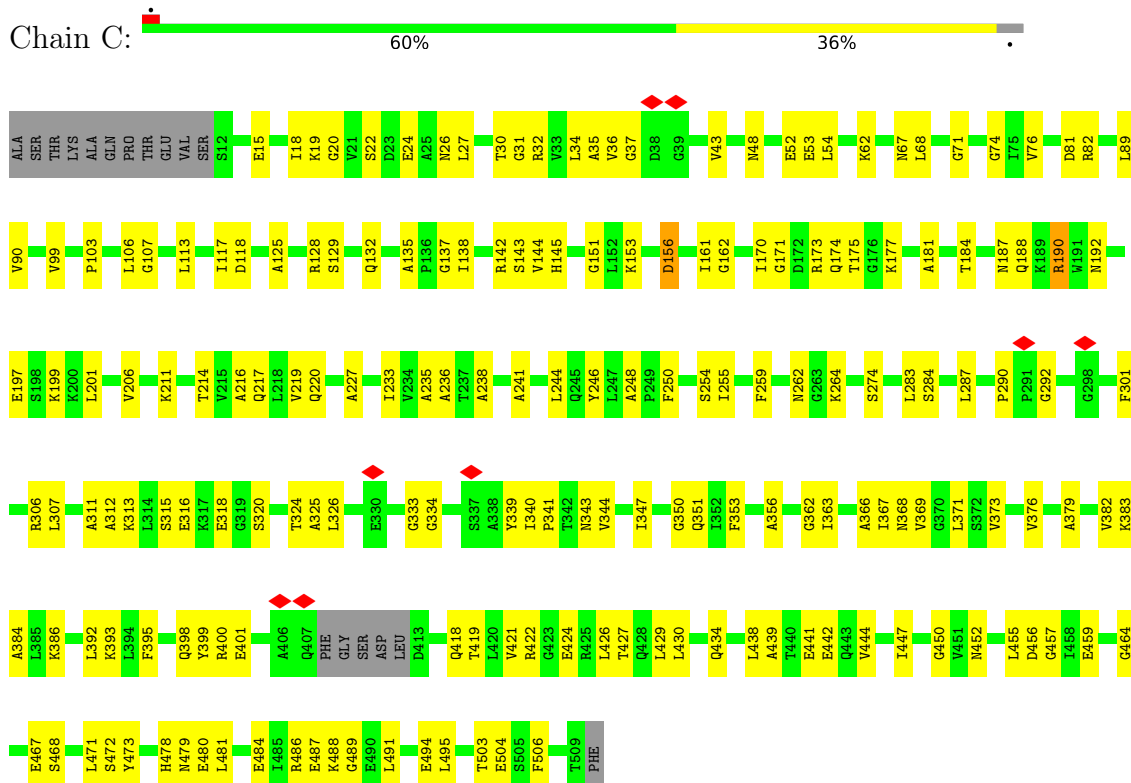
• Molecule 2: ATP synthase subunit alpha



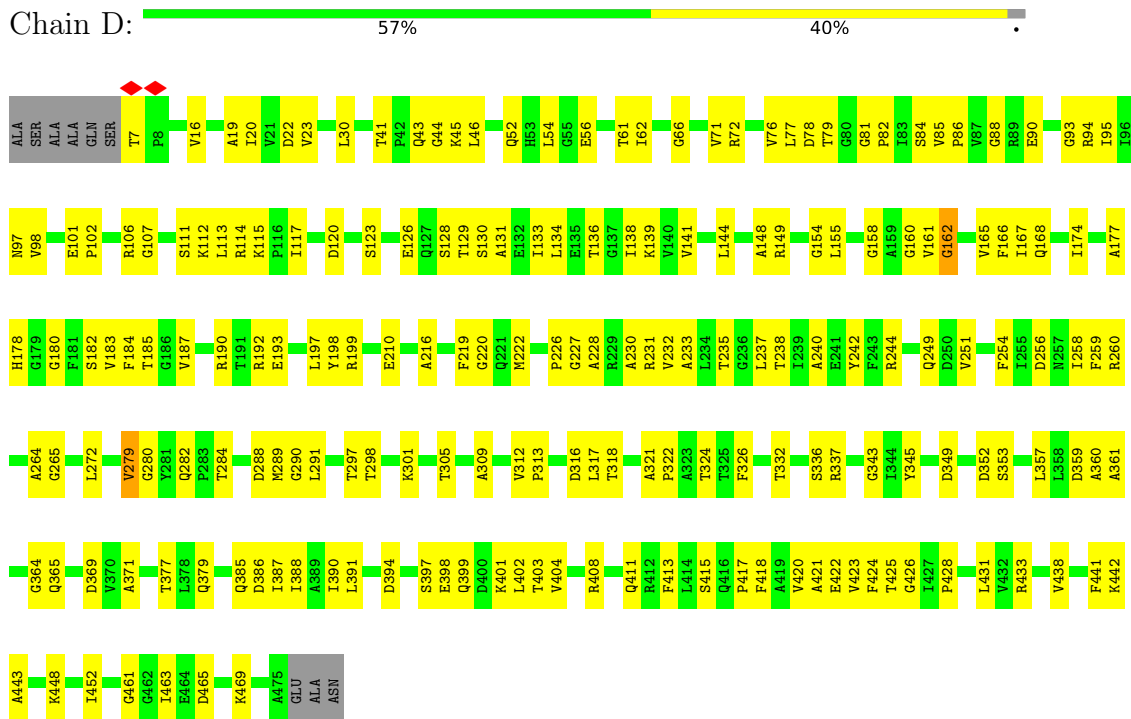
• Molecule 2: ATP synthase subunit alpha



• Molecule 2: ATP synthase subunit alpha

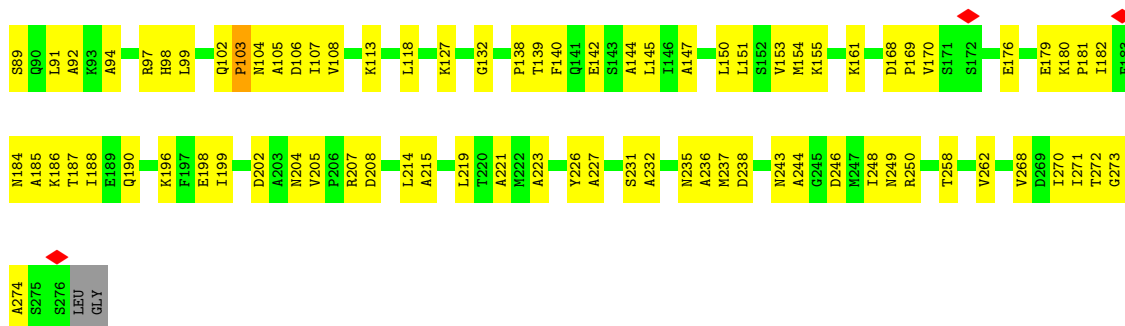


• Molecule 3: ATP synthase subunit beta

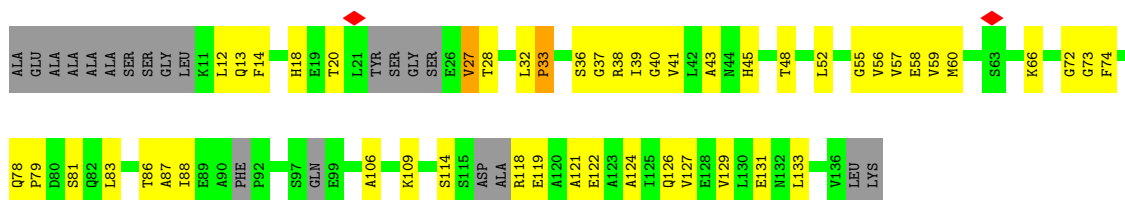


• Molecule 3: ATP synthase subunit beta

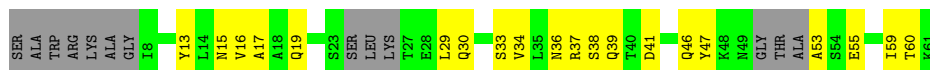




• Molecule 5: ATP synthase subunit delta



• Molecule 6: ATP synthase subunit epsilon

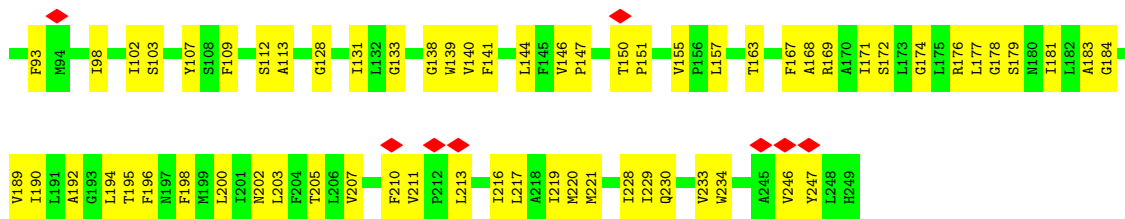


• Molecule 7: ATP synthase subunit 5

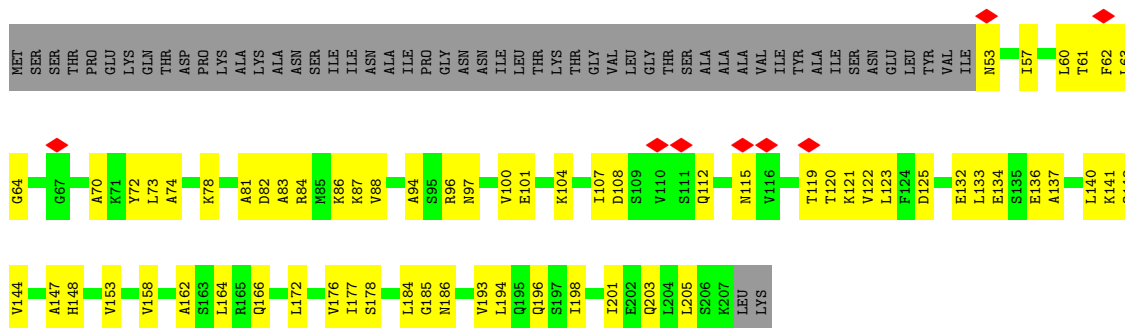


• Molecule 8: ATP synthase subunit a

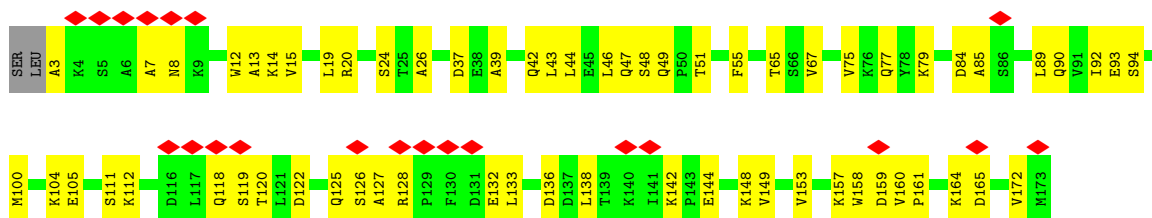




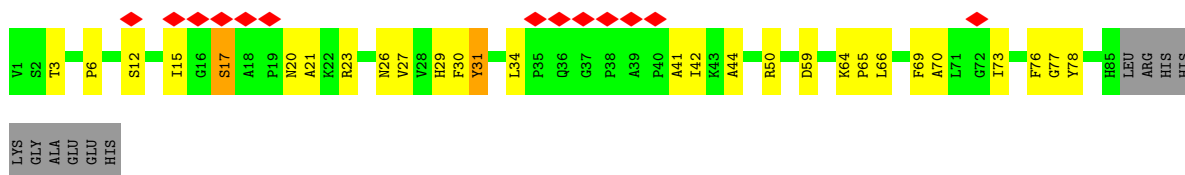
• Molecule 9: ATP synthase subunit 4



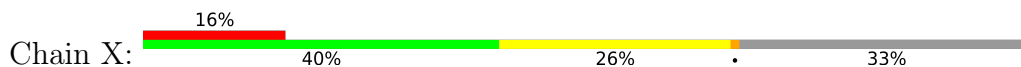
• Molecule 10: ATP synthase subunit d



• Molecule 11: ATP synthase subunit f

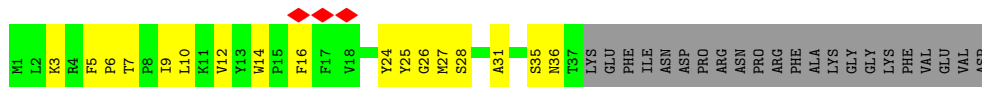


• Molecule 12: ATP synthase subunit H

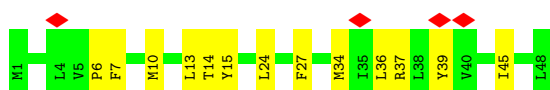
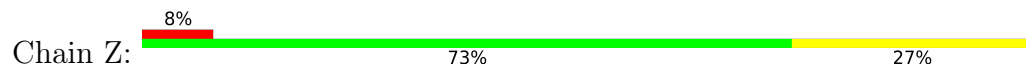


GLU
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GLU
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VAL
LEU
ASP
ASP
ALA
GLU
THR
LYS
GLU
SER
HIS

- 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	3208	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	1.789	Depositor
Minimum map value	-0.614	Depositor
Average map value	0.003	Depositor
Map value standard deviation	0.117	Depositor
Recommended contour level	0.45	Depositor
Map size (Å)	344.96, 344.96, 344.96	wwPDB
Map dimensions	256, 256, 256	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.3475, 1.3475, 1.3475	Depositor

5 Model quality i

5.1 Standard geometry i

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	2.54	18/299 (6.0%)	3.29	40/372 (10.8%)
1	1	2.37	13/299 (4.3%)	3.03	42/372 (11.3%)
1	2	2.37	14/299 (4.7%)	3.15	42/372 (11.3%)
1	3	2.47	9/295 (3.1%)	3.11	49/367 (13.4%)
1	4	2.54	14/299 (4.7%)	3.02	38/372 (10.2%)
1	5	2.44	14/299 (4.7%)	3.04	31/372 (8.3%)
1	6	2.56	20/295 (6.8%)	3.78	69/367 (18.8%)
1	7	2.58	14/291 (4.8%)	3.62	63/362 (17.4%)
1	8	2.52	20/299 (6.7%)	3.30	52/372 (14.0%)
1	9	2.68	23/295 (7.8%)	3.25	51/367 (13.9%)
2	A	2.57	113/2003 (5.6%)	2.75	180/2502 (7.2%)
2	B	2.58	112/2018 (5.6%)	2.83	197/2519 (7.8%)
2	C	2.57	86/1970 (4.4%)	2.86	178/2459 (7.2%)
3	D	2.50	74/1875 (3.9%)	2.84	195/2342 (8.3%)
3	E	2.55	93/1879 (4.9%)	2.95	219/2347 (9.3%)
3	F	2.55	92/1871 (4.9%)	2.84	180/2337 (7.7%)
4	G	2.55	60/1058 (5.7%)	3.01	113/1319 (8.6%)
5	H	2.35	19/466 (4.1%)	2.71	47/574 (8.2%)
6	I	2.40	8/190 (4.2%)	2.82	19/231 (8.2%)
7	O	2.53	32/747 (4.3%)	2.73	61/932 (6.5%)
8	T	2.53	42/896 (4.7%)	2.90	92/1117 (8.2%)
9	U	2.46	32/619 (5.2%)	3.17	93/772 (12.0%)
10	V	2.52	27/684 (3.9%)	2.86	61/852 (7.2%)
11	W	2.50	17/339 (5.0%)	2.78	32/422 (7.6%)
12	X	2.60	11/247 (4.5%)	3.00	28/307 (9.1%)
13	Y	2.46	7/147 (4.8%)	3.10	18/182 (9.9%)
14	Z	2.37	5/192 (2.6%)	2.65	14/237 (5.9%)
All	All	2.53	989/20171 (4.9%)	2.93	2204/25146 (8.8%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	1	0	1
1	4	0	1
1	5	0	1
1	6	0	1
1	7	0	1
1	9	0	1
2	B	0	1
3	D	0	2
3	E	0	1
5	H	0	1
10	V	0	1
All	All	0	12

All (989) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	C	306	ARG	N-CA	-12.41	1.31	1.46
3	E	140	VAL	CA-C	-11.13	1.38	1.52
3	F	413	PHE	CA-C	-10.83	1.37	1.52
8	T	171	ILE	N-CA	-10.21	1.33	1.46
1	7	70	PHE	CA-C	9.93	1.65	1.52
2	C	333	GLY	C-N	9.74	1.43	1.33
2	B	95	ASN	CA-C	-9.69	1.41	1.52
2	C	379	ALA	N-CA	-9.46	1.37	1.46
2	B	377	GLY	CA-C	-9.34	1.41	1.52
7	O	154	LYS	CA-C	-9.15	1.41	1.52
4	G	44	MET	CA-C	9.15	1.64	1.52
2	A	238	ALA	CA-C	-9.13	1.40	1.52
3	F	48	LEU	C-N	9.12	1.45	1.33
8	T	36	VAL	CA-C	9.10	1.64	1.52
3	F	153	ILE	C-N	9.06	1.38	1.33
2	B	165	GLN	CA-C	-8.92	1.41	1.52
2	C	31	GLY	CA-C	-8.90	1.44	1.52
4	G	132	GLY	CA-C	8.83	1.61	1.51
1	7	26	ILE	CA-C	-8.83	1.41	1.52
3	D	149	ARG	N-CA	-8.76	1.35	1.46
1	9	64	PHE	C-N	8.76	1.45	1.33
4	G	190	GLN	CA-C	-8.68	1.41	1.52
2	A	444	VAL	C-N	8.65	1.44	1.34
3	D	185	THR	N-CA	-8.60	1.36	1.46
3	F	60	ARG	C-N	8.55	1.45	1.33
3	E	437	THR	C-N	8.52	1.44	1.33
2	A	144	VAL	CA-C	8.48	1.62	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	E	299	THR	CA-C	-8.42	1.44	1.53
2	A	352	ILE	CA-C	-8.39	1.42	1.52
3	D	112	LYS	CA-C	-8.36	1.45	1.52
11	W	6	PRO	CA-C	8.28	1.59	1.52
1	0	18	GLY	CA-C	8.21	1.61	1.52
1	0	4	VAL	N-CA	-8.19	1.36	1.46
2	C	67	ASN	CA-C	-8.13	1.42	1.52
4	G	205	VAL	CA-C	8.13	1.59	1.52
1	9	56	ALA	CA-C	-8.12	1.42	1.52
2	A	255	ILE	CA-C	8.11	1.63	1.52
2	C	211	LYS	CA-C	-8.10	1.42	1.52
7	O	17	GLY	C-N	8.09	1.45	1.34
1	0	74	PHE	N-CA	-8.07	1.36	1.46
3	D	136	THR	CA-C	-8.00	1.46	1.52
2	B	369	VAL	N-CA	-7.99	1.36	1.46
2	B	201	LEU	N-CA	-7.99	1.36	1.46
5	H	121	ALA	N-CA	-7.97	1.36	1.46
3	F	76	VAL	N-CA	-7.93	1.37	1.46
2	B	493	LYS	N-CA	7.93	1.56	1.46
3	E	251	VAL	CA-C	-7.91	1.45	1.52
11	W	27	VAL	N-CA	-7.91	1.35	1.46
2	B	275	LYS	C-N	7.86	1.44	1.33
11	W	42	ILE	N-CA	-7.85	1.37	1.46
3	D	309	ALA	C-N	7.83	1.43	1.33
4	G	274	ALA	N-CA	-7.80	1.36	1.46
1	4	37	VAL	CA-C	-7.79	1.42	1.52
3	E	51	ALA	CA-C	-7.77	1.41	1.52
8	T	194	LEU	CA-C	-7.76	1.42	1.52
2	B	318	GLU	N-CA	-7.75	1.36	1.46
2	A	266	ALA	CA-C	-7.73	1.43	1.52
3	F	235	THR	C-N	7.73	1.44	1.33
8	T	192	ALA	N-CA	-7.73	1.37	1.46
3	E	128	SER	CA-C	-7.71	1.43	1.52
2	B	232	ILE	N-CA	-7.69	1.37	1.46
4	G	18	LYS	C-N	7.63	1.43	1.33
2	A	454	HIS	CA-C	-7.62	1.42	1.52
2	C	373	VAL	CA-C	-7.62	1.43	1.52
3	D	111	SER	C-N	7.62	1.43	1.33
1	4	35	ASN	CA-C	7.61	1.62	1.52
3	F	303	SER	C-N	7.60	1.43	1.33
2	A	168	LEU	CA-C	-7.60	1.43	1.52
2	B	117	ILE	N-CA	-7.60	1.38	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	E	466	VAL	C-N	7.59	1.43	1.33
7	O	23	LEU	N-CA	-7.59	1.37	1.46
3	D	184	PHE	N-CA	-7.59	1.36	1.46
3	F	308	GLN	C-O	-7.59	1.14	1.23
8	T	54	ILE	N-CA	-7.58	1.38	1.46
2	C	99	VAL	CA-C	-7.56	1.45	1.52
3	E	412	ARG	CA-C	-7.55	1.42	1.52
2	C	201	LEU	CA-C	-7.54	1.43	1.52
3	D	187	VAL	C-N	7.54	1.40	1.33
3	F	284	THR	N-CA	-7.53	1.38	1.46
9	U	83	ALA	N-CA	-7.50	1.37	1.46
3	E	127	GLN	CA-C	-7.50	1.42	1.52
3	E	26	GLU	N-CA	-7.49	1.36	1.45
2	B	154	ALA	C-N	7.47	1.43	1.33
2	C	43	VAL	C-N	7.47	1.43	1.33
2	B	303	LEU	CA-C	-7.46	1.43	1.52
9	U	88	VAL	N-CA	-7.44	1.37	1.46
7	O	15	VAL	C-N	7.42	1.44	1.33
2	C	68	LEU	CA-C	-7.42	1.43	1.52
2	C	452	ASN	N-CA	7.41	1.55	1.46
2	C	434	GLN	N-CA	7.41	1.55	1.45
2	A	405	PHE	N-CA	7.41	1.55	1.46
2	B	181	ALA	N-CA	-7.38	1.37	1.46
7	O	11	ARG	CA-C	-7.38	1.43	1.52
9	U	196	GLN	C-N	7.38	1.44	1.33
3	D	180	GLY	C-N	7.35	1.43	1.33
1	7	13	GLY	N-CA	-7.34	1.36	1.45
2	A	436	SER	C-O	-7.34	1.19	1.25
3	D	129	THR	C-N	7.34	1.43	1.33
12	X	4	GLN	CA-C	-7.33	1.43	1.52
1	5	63	LEU	C-N	7.33	1.43	1.33
2	A	484	GLU	N-CA	-7.33	1.37	1.46
7	O	45	SER	C-N	7.33	1.44	1.33
10	V	43	LEU	C-N	7.33	1.43	1.33
2	C	312	ALA	CA-C	-7.32	1.43	1.52
2	B	166	ARG	CA-C	-7.32	1.43	1.52
2	C	62	LYS	CA-C	-7.28	1.43	1.52
9	U	172	LEU	N-CA	7.26	1.55	1.46
1	0	47	VAL	CA-C	-7.26	1.42	1.52
10	V	94	SER	N-CA	-7.23	1.37	1.46
2	C	138	ILE	CA-C	-7.23	1.42	1.52
2	A	35	ALA	CA-C	-7.20	1.43	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A	271	ASP	C-N	7.19	1.43	1.33
8	T	59	LEU	CA-C	7.19	1.62	1.52
2	A	351	GLN	N-CA	-7.18	1.37	1.46
2	A	210	GLN	C-N	7.18	1.43	1.33
3	F	182	SER	CA-C	-7.18	1.43	1.52
2	A	361	LYS	CA-C	-7.17	1.42	1.52
1	6	62	GLY	C-N	7.17	1.43	1.33
1	8	16	THR	C-N	7.16	1.43	1.33
3	F	227	GLY	CA-C	7.16	1.60	1.52
2	B	263	GLY	N-CA	7.16	1.55	1.45
2	B	320	SER	CA-C	-7.16	1.43	1.52
4	G	180	LYS	N-CA	-7.15	1.38	1.46
10	V	160	VAL	CA-C	7.13	1.57	1.52
10	V	92	ILE	CA-C	-7.12	1.43	1.52
2	A	416	THR	CA-C	-7.12	1.43	1.52
3	F	436	ASP	C-N	7.11	1.43	1.33
11	W	78	TYR	C-N	7.09	1.43	1.33
7	O	41	GLN	N-CA	-7.08	1.37	1.46
4	G	246	ASP	C-N	7.08	1.43	1.33
7	O	16	GLU	CA-C	7.07	1.62	1.52
10	V	65	THR	C-N	7.06	1.43	1.33
3	E	124	PHE	C-N	7.06	1.43	1.33
2	A	81	ASP	C-N	7.05	1.42	1.33
2	A	106	LEU	C-N	7.05	1.43	1.33
2	B	191	TRP	CA-C	-7.04	1.43	1.52
2	A	340	ILE	CA-C	7.03	1.60	1.52
6	I	37	ARG	CA-C	-7.03	1.43	1.52
2	A	54	LEU	N-CA	-7.02	1.37	1.46
3	F	84	SER	C-N	7.01	1.41	1.33
2	A	98	ASP	CA-C	-7.00	1.43	1.52
3	D	177	ALA	C-N	6.98	1.42	1.33
2	A	371	LEU	CA-C	-6.97	1.44	1.52
2	C	399	TYR	N-CA	-6.96	1.37	1.46
2	B	11	SER	N-CA	-6.96	1.38	1.46
4	G	38	LYS	N-CA	-6.96	1.38	1.46
2	A	422	ARG	CA-C	-6.95	1.43	1.52
6	I	47	TYR	CA-C	-6.95	1.44	1.52
2	B	247	LEU	CA-C	6.94	1.62	1.52
3	E	110	LYS	N-CA	6.93	1.54	1.46
8	T	44	TYR	CA-C	-6.93	1.44	1.52
1	5	56	ALA	CA-C	6.92	1.61	1.52
3	D	44	GLY	CA-C	-6.92	1.42	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A	171	GLY	N-CA	6.91	1.52	1.45
10	V	125	GLN	N-CA	-6.91	1.37	1.46
1	9	22	ALA	C-N	6.91	1.43	1.33
9	U	186	ASN	C-N	-6.89	1.28	1.33
2	A	27	LEU	N-CA	-6.89	1.37	1.46
2	C	325	ALA	CA-C	-6.89	1.44	1.52
2	A	407	GLN	CA-C	-6.87	1.44	1.53
2	B	466	PHE	C-N	6.87	1.42	1.33
1	3	14	ILE	N-CA	-6.85	1.38	1.46
1	6	22	ALA	N-CA	-6.85	1.38	1.46
1	7	61	THR	C-N	6.82	1.42	1.33
1	7	50	MET	C-N	6.81	1.42	1.33
2	A	235	ALA	CA-C	-6.81	1.44	1.52
3	E	73	GLY	N-CA	6.81	1.55	1.45
3	D	23	VAL	CA-C	-6.81	1.44	1.52
2	C	343	ASN	CA-C	-6.81	1.44	1.52
2	B	322	SER	CA-C	-6.80	1.44	1.52
3	D	94	ARG	CA-C	-6.79	1.44	1.52
11	W	12	SER	N-CA	-6.79	1.40	1.46
3	D	290	GLY	CA-C	-6.79	1.44	1.52
2	A	453	GLY	CA-C	-6.78	1.43	1.51
3	F	196	ASP	CA-C	-6.78	1.44	1.52
4	G	237	MET	C-N	6.78	1.42	1.33
3	D	272	LEU	CA-C	-6.77	1.44	1.52
3	E	122	PRO	N-CA	-6.77	1.39	1.47
3	F	339	ILE	N-CA	-6.77	1.38	1.46
3	F	326	PHE	CA-C	-6.76	1.43	1.52
5	H	72	GLY	N-CA	-6.76	1.38	1.45
3	E	362	VAL	C-N	6.74	1.41	1.33
2	C	106	LEU	C-N	6.74	1.42	1.33
3	E	313	PRO	CA-C	-6.74	1.44	1.52
2	B	412	LEU	C-N	6.73	1.42	1.33
4	G	107	ILE	C-N	6.72	1.42	1.33
3	E	92	LEU	CA-C	-6.70	1.44	1.52
3	D	442	LYS	CA-C	-6.69	1.44	1.52
2	B	396	LEU	C-N	6.68	1.42	1.33
3	D	54	LEU	C-N	6.67	1.42	1.32
2	B	371	LEU	CA-C	-6.67	1.44	1.52
2	B	93	THR	CA-C	-6.66	1.44	1.52
12	X	46	GLY	C-N	6.65	1.39	1.33
8	T	179	SER	N-CA	-6.65	1.38	1.46
3	F	395	GLU	CA-C	-6.64	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	B	49	ILE	CA-C	-6.64	1.44	1.52
3	E	316	ASP	N-CA	-6.64	1.38	1.46
1	6	46	THR	N-CA	-6.63	1.38	1.46
1	6	25	GLY	CA-C	6.62	1.59	1.52
2	A	346	SER	N-CA	-6.62	1.38	1.46
4	G	161	LYS	C-N	6.62	1.42	1.33
1	1	62	GLY	CA-C	6.61	1.59	1.52
3	D	249	GLN	N-CA	-6.61	1.38	1.45
1	8	18	GLY	CA-C	-6.60	1.44	1.52
3	D	227	GLY	C-N	6.60	1.43	1.33
1	3	56	ALA	C-O	-6.60	1.16	1.24
3	F	36	ALA	C-N	6.59	1.43	1.33
3	E	221	GLN	CA-C	-6.59	1.44	1.52
1	2	15	SER	C-N	6.59	1.42	1.34
7	O	134	PHE	C-N	6.58	1.42	1.33
3	D	337	ARG	C-N	6.57	1.42	1.33
2	B	260	ARG	CA-C	-6.57	1.44	1.52
4	G	74	ILE	C-O	-6.57	1.17	1.24
2	B	501	SER	CA-C	-6.56	1.44	1.52
2	A	414	ALA	N-CA	-6.55	1.38	1.46
1	5	61	THR	CA-C	6.55	1.61	1.52
1	8	31	ALA	C-N	6.54	1.42	1.33
2	B	184	THR	C-N	6.54	1.42	1.33
7	O	77	THR	C-N	6.54	1.42	1.33
3	E	148	ALA	C-N	6.54	1.42	1.33
3	E	444	VAL	N-CA	6.54	1.54	1.46
2	B	25	ALA	C-O	-6.53	1.15	1.24
2	A	325	ALA	C-N	6.52	1.39	1.33
2	C	255	ILE	N-CA	-6.52	1.38	1.46
3	F	369	ASP	CA-C	-6.51	1.44	1.52
5	H	119	GLU	N-CA	-6.51	1.38	1.46
5	H	48	THR	CA-C	-6.50	1.44	1.52
3	E	30	LEU	CA-C	-6.50	1.44	1.53
1	6	35	ASN	N-CA	6.49	1.54	1.46
2	A	125	ALA	CA-C	-6.49	1.44	1.52
1	8	1	MET	C-N	6.48	1.42	1.33
2	B	58	SER	CA-C	-6.48	1.44	1.52
3	D	46	LEU	CA-C	-6.48	1.44	1.52
3	D	297	THR	CA-C	-6.48	1.45	1.52
1	9	8	LYS	C-N	6.47	1.42	1.33
13	Y	14	TRP	N-CA	-6.46	1.39	1.46
3	E	319	ASP	CA-C	-6.46	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A	32	ARG	N-CA	-6.46	1.38	1.46
3	D	379	GLN	CA-C	-6.46	1.44	1.52
3	D	298	THR	N-CA	-6.44	1.38	1.46
2	B	335	ASP	CA-C	-6.44	1.44	1.52
12	X	9	ARG	CA-C	-6.42	1.44	1.52
3	F	214	LYS	N-CA	-6.42	1.39	1.46
2	A	149	GLN	N-CA	6.41	1.53	1.46
1	0	14	ILE	C-N	6.41	1.42	1.33
3	F	183	VAL	CA-C	-6.40	1.45	1.52
2	B	50	GLN	CA-C	-6.40	1.44	1.52
2	B	358	LEU	C-N	6.40	1.42	1.33
2	B	489	GLY	C-N	6.40	1.41	1.33
2	C	367	ILE	N-CA	-6.40	1.38	1.46
9	U	134	GLU	CA-C	-6.39	1.44	1.52
3	E	28	SER	CA-C	6.39	1.61	1.52
11	W	23	ARG	C-N	6.39	1.41	1.34
1	4	63	LEU	C-N	6.38	1.42	1.33
3	E	350	PRO	C-N	6.38	1.42	1.34
3	F	29	GLU	CA-C	-6.38	1.45	1.52
4	G	215	ALA	N-CA	-6.37	1.38	1.46
10	V	112	LYS	N-CA	6.37	1.54	1.46
2	C	438	LEU	N-CA	-6.37	1.37	1.46
1	5	49	PRO	C-N	6.36	1.42	1.33
2	A	403	ALA	CA-C	-6.36	1.44	1.52
3	D	258	ILE	N-CA	-6.35	1.37	1.46
2	B	153	LYS	CA-C	-6.34	1.44	1.52
3	D	431	LEU	CA-C	-6.34	1.44	1.52
3	E	367	HIS	CA-C	-6.34	1.44	1.52
2	B	378	SER	CA-C	-6.34	1.44	1.52
10	V	75	VAL	CA-C	-6.33	1.45	1.52
3	E	308	GLN	CA-C	-6.33	1.45	1.52
3	F	454	GLU	C-N	6.33	1.43	1.33
3	D	219	PHE	CA-C	-6.33	1.44	1.52
1	5	74	PHE	C-N	6.32	1.42	1.33
3	E	347	ALA	C-N	6.32	1.41	1.33
3	F	456	ALA	CA-C	-6.32	1.44	1.52
3	E	209	LEU	CA-C	-6.31	1.44	1.52
2	B	381	GLN	N-CA	-6.30	1.38	1.45
4	G	145	LEU	N-CA	-6.30	1.38	1.46
1	0	45	ASP	CA-C	-6.30	1.44	1.52
2	A	497	ALA	CA-C	-6.29	1.44	1.52
1	3	15	SER	C-N	6.29	1.42	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A	133	VAL	CA-C	-6.28	1.44	1.52
3	D	95	ILE	CA-C	6.28	1.60	1.52
3	F	145	ALA	C-N	6.28	1.41	1.33
3	D	417	PRO	CA-C	-6.28	1.44	1.52
2	A	48	ASN	N-CA	-6.28	1.37	1.46
2	B	468	SER	CA-C	-6.27	1.44	1.52
1	1	61	THR	C-N	6.27	1.42	1.33
8	T	147	PRO	N-CA	6.26	1.55	1.47
2	A	218	LEU	CA-C	-6.26	1.44	1.52
1	4	15	SER	C-N	6.25	1.42	1.33
2	C	71	GLY	CA-C	-6.25	1.43	1.51
3	D	264	ALA	CA-C	-6.25	1.44	1.52
3	D	148	ALA	CA-C	-6.25	1.44	1.52
3	D	424	PHE	N-CA	-6.25	1.38	1.46
2	A	290	PRO	C-N	6.25	1.40	1.33
8	T	198	PHE	C-N	6.24	1.42	1.33
7	O	10	VAL	C-N	6.23	1.41	1.33
13	Y	36	ASN	C-N	6.23	1.42	1.33
4	G	82	GLY	CA-C	-6.23	1.45	1.52
6	I	16	VAL	CA-C	6.23	1.60	1.52
2	B	67	ASN	N-CA	-6.23	1.38	1.46
1	0	5	LEU	N-CA	-6.22	1.38	1.46
8	T	146	VAL	N-CA	-6.21	1.40	1.46
2	B	109	VAL	N-CA	-6.21	1.38	1.46
3	D	114	ARG	CA-C	6.20	1.60	1.52
2	B	414	ALA	CA-C	-6.19	1.44	1.52
1	9	65	CYS	CA-C	-6.19	1.44	1.52
2	B	460	LEU	C-N	6.18	1.42	1.33
8	T	221	MET	CA-C	-6.18	1.44	1.52
3	F	28	SER	C-N	6.18	1.41	1.33
7	O	82	ASP	C-N	6.18	1.42	1.33
4	G	182	ILE	C-N	6.17	1.41	1.33
3	F	61	THR	CA-C	6.17	1.60	1.52
3	D	353	SER	N-CA	-6.16	1.38	1.45
3	E	240	ALA	N-CA	-6.16	1.39	1.46
3	F	210	GLU	N-CA	6.16	1.54	1.46
3	F	18	GLY	CA-C	6.14	1.61	1.52
3	E	327	ALA	CA-C	-6.14	1.44	1.52
2	A	103	PRO	C-N	6.13	1.42	1.33
2	B	113	LEU	CA-C	6.12	1.60	1.52
3	F	381	TYR	C-N	6.12	1.42	1.33
1	6	19	LEU	C-N	6.12	1.42	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
9	U	164	LEU	CA-C	-6.12	1.45	1.52
2	A	95	ASN	C-N	6.12	1.41	1.33
2	B	33	VAL	C-N	6.11	1.42	1.33
2	B	387	GLN	C-N	6.11	1.42	1.33
2	A	80	SER	C-N	6.11	1.42	1.33
11	W	64	LYS	N-CA	6.11	1.52	1.46
2	A	42	ARG	CA-C	-6.09	1.45	1.52
2	B	239	SER	CA-C	6.09	1.60	1.52
2	C	90	VAL	N-CA	-6.09	1.39	1.46
1	2	4	VAL	CA-C	6.09	1.60	1.52
2	A	386	LYS	C-N	6.08	1.42	1.33
2	A	66	LEU	C-N	6.08	1.42	1.33
2	C	129	SER	N-CA	-6.08	1.38	1.45
3	D	138	ILE	CA-C	-6.08	1.45	1.52
2	B	476	SER	C-N	6.08	1.42	1.33
8	T	169	ARG	CA-C	-6.08	1.44	1.52
4	G	144	ALA	N-CA	-6.08	1.39	1.46
2	A	205	TYR	CA-C	-6.07	1.45	1.52
2	A	51	ALA	N-CA	-6.07	1.38	1.46
6	I	15	ASN	C-N	6.07	1.41	1.33
7	O	89	LEU	C-N	6.07	1.41	1.33
3	F	217	LEU	CA-C	-6.06	1.45	1.52
8	T	103	SER	CA-C	6.06	1.61	1.52
10	V	104	LYS	C-N	6.06	1.41	1.33
2	B	35	ALA	N-CA	-6.06	1.38	1.46
2	B	216	ALA	CA-C	-6.06	1.45	1.52
3	E	195	ASN	C-N	6.05	1.42	1.33
3	F	184	PHE	CA-C	-6.05	1.45	1.52
3	F	290	GLY	CA-C	-6.05	1.45	1.52
4	G	89	SER	C-N	6.05	1.42	1.33
3	E	67	THR	C-N	6.05	1.41	1.33
1	1	36	GLY	C-N	6.05	1.41	1.33
3	F	338	GLY	CA-C	-6.05	1.45	1.52
4	G	147	ALA	CA-C	-6.05	1.45	1.52
1	6	70	PHE	C-N	6.04	1.41	1.33
1	9	67	MET	C-N	6.04	1.41	1.33
4	G	88	HIS	CA-C	6.04	1.60	1.52
3	F	407	ALA	C-N	6.03	1.42	1.34
2	A	338	ALA	C-N	6.03	1.41	1.33
2	A	357	GLU	CA-C	-6.02	1.45	1.52
2	C	151	GLY	CA-C	-6.02	1.43	1.51
1	8	31	ALA	N-CA	6.02	1.53	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	H	106	ALA	C-N	6.02	1.41	1.33
2	B	381	GLN	C-N	6.01	1.41	1.33
3	D	85	VAL	N-CA	-6.01	1.39	1.46
2	A	122	PRO	N-CA	-6.00	1.40	1.46
4	G	2	THR	C-N	6.00	1.41	1.33
2	B	281	ARG	CA-C	-6.00	1.45	1.52
4	G	199	ILE	CA-C	-6.00	1.46	1.52
3	E	470	ALA	N-CA	-5.99	1.39	1.46
4	G	91	LEU	CA-C	-5.99	1.45	1.52
1	0	66	LEU	C-N	5.99	1.41	1.33
3	F	328	HIS	C-N	5.98	1.41	1.33
4	G	258	THR	CA-C	-5.98	1.45	1.52
2	A	122	PRO	C-N	5.97	1.39	1.33
3	F	335	LEU	C-N	5.97	1.41	1.33
2	A	229	LYS	CA-C	5.96	1.60	1.52
2	B	42	ARG	CA-C	-5.96	1.45	1.52
1	1	53	LEU	CA-C	-5.96	1.45	1.52
2	C	371	LEU	CA-C	-5.96	1.45	1.52
1	9	14	ILE	N-CA	-5.96	1.39	1.46
3	F	208	ASN	C-O	-5.96	1.17	1.23
5	H	83	LEU	CA-C	5.96	1.60	1.52
2	B	271	ASP	N-CA	-5.95	1.39	1.46
2	A	39	GLY	C-N	5.94	1.41	1.33
1	6	72	LEU	C-N	5.94	1.41	1.33
2	A	343	ASN	N-CA	-5.94	1.39	1.46
2	A	464	GLY	CA-C	-5.94	1.45	1.52
5	H	73	GLY	C-N	5.93	1.41	1.33
2	A	447	ILE	C-N	5.93	1.41	1.33
1	9	70	PHE	CA-C	-5.92	1.45	1.52
2	A	254	SER	N-CA	5.92	1.53	1.46
2	A	375	ARG	CA-C	5.92	1.60	1.52
3	F	94	ARG	CA-C	-5.92	1.45	1.52
2	C	315	SER	CA-C	-5.92	1.45	1.53
2	C	430	LEU	N-CA	5.92	1.53	1.46
3	D	377	THR	CA-C	-5.92	1.45	1.52
1	1	34	ILE	C-N	5.92	1.41	1.33
2	A	432	GLN	N-CA	-5.91	1.38	1.46
6	I	39	GLN	C-N	5.91	1.40	1.33
7	O	158	VAL	CA-C	-5.91	1.45	1.52
2	C	82	ARG	CA-C	5.91	1.61	1.52
2	C	113	LEU	C-N	5.90	1.39	1.33
3	E	348	VAL	CA-C	-5.90	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	H	109	LYS	CA-C	-5.90	1.45	1.52
9	U	121	LYS	CA-C	-5.90	1.44	1.52
3	E	372	SER	N-CA	-5.90	1.39	1.46
1	7	12	ALA	N-CA	-5.89	1.39	1.46
2	B	384	ALA	CA-C	-5.88	1.45	1.52
1	9	33	LEU	CA-C	-5.88	1.45	1.52
2	B	102	GLY	N-CA	5.87	1.52	1.44
1	4	21	GLY	C-O	-5.87	1.16	1.23
2	A	216	ALA	C-N	5.87	1.41	1.33
7	O	138	GLU	C-N	5.87	1.41	1.33
9	U	120	THR	C-N	5.87	1.41	1.34
3	D	415	SER	C-O	5.86	1.31	1.24
3	E	125	ALA	CA-C	5.86	1.60	1.52
9	U	176	VAL	C-N	5.86	1.41	1.33
1	0	26	ILE	N-CA	-5.86	1.39	1.46
3	E	245	ASP	CA-C	-5.86	1.45	1.52
4	G	87	ILE	CA-C	-5.86	1.45	1.52
2	A	43	VAL	N-CA	5.84	1.52	1.46
2	A	141	ARG	CA-C	-5.84	1.45	1.52
3	E	306	SER	CA-C	-5.84	1.45	1.52
2	A	170	ILE	CA-C	-5.84	1.45	1.52
7	O	86	VAL	CA-C	-5.84	1.43	1.52
3	F	159	ALA	C-N	5.83	1.40	1.33
1	5	28	ILE	N-CA	-5.83	1.39	1.46
1	9	60	ALA	CA-C	-5.83	1.45	1.52
3	F	347	ALA	N-CA	-5.83	1.38	1.46
1	1	2	GLN	C-N	5.82	1.41	1.33
1	7	37	VAL	CA-C	5.82	1.60	1.52
2	C	313	LYS	CA-C	-5.82	1.45	1.52
2	C	506	PHE	C-N	5.82	1.41	1.33
3	E	288	ASP	C-N	5.82	1.41	1.33
2	B	202	TYR	C-N	5.82	1.41	1.33
2	B	480	GLU	CA-C	-5.82	1.45	1.52
7	O	74	ILE	N-CA	5.82	1.53	1.46
2	C	238	ALA	C-N	5.82	1.42	1.33
4	G	226	TYR	CA-C	5.82	1.60	1.52
1	4	3	LEU	CA-C	-5.82	1.45	1.52
2	B	120	LYS	C-N	5.82	1.42	1.33
2	A	146	GLU	CA-C	5.81	1.60	1.52
13	Y	27	MET	N-CA	-5.81	1.38	1.46
1	4	28	ILE	CA-C	-5.81	1.45	1.52
8	T	181	ILE	C-N	5.81	1.41	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	5	21	GLY	CA-C	5.81	1.59	1.52
1	9	33	LEU	N-CA	-5.81	1.39	1.46
4	G	107	ILE	N-CA	-5.80	1.39	1.46
2	A	478	HIS	CA-C	-5.80	1.46	1.53
9	U	184	LEU	C-N	5.80	1.40	1.34
13	Y	28	SER	N-CA	-5.80	1.39	1.46
2	B	458	ILE	N-CA	-5.80	1.40	1.46
1	7	71	LEU	N-CA	5.80	1.53	1.46
2	A	424	GLU	CA-C	-5.79	1.45	1.52
2	B	282	GLN	C-N	5.79	1.41	1.33
3	E	138	ILE	CA-C	-5.79	1.45	1.52
2	A	283	LEU	N-CA	-5.78	1.39	1.46
3	E	274	ARG	C-N	5.78	1.40	1.33
3	F	407	ALA	CA-C	-5.78	1.45	1.52
1	9	71	LEU	C-N	5.78	1.41	1.33
2	B	312	ALA	N-CA	-5.78	1.38	1.46
10	V	20	ARG	CA-C	-5.78	1.45	1.52
1	5	48	PHE	N-CA	-5.78	1.41	1.46
6	I	36	ASN	C-O	-5.78	1.17	1.24
11	W	70	ALA	CA-C	-5.77	1.45	1.52
3	E	392	GLY	N-CA	-5.76	1.39	1.45
2	A	234	VAL	N-CA	-5.76	1.39	1.46
3	E	405	GLU	C-N	5.76	1.41	1.33
3	F	273	GLY	C-N	5.76	1.41	1.33
1	7	65	CYS	N-CA	-5.76	1.39	1.46
12	X	34	PRO	CA-C	-5.76	1.46	1.52
14	Z	13	LEU	CA-C	-5.75	1.45	1.52
3	E	249	GLN	CA-C	-5.75	1.45	1.52
2	C	235	ALA	N-CA	-5.75	1.39	1.46
1	9	23	GLY	CA-C	-5.74	1.45	1.52
10	V	144	GLU	CA-C	-5.74	1.45	1.52
2	A	156	ASP	CA-C	5.74	1.60	1.52
1	8	60	ALA	CA-C	-5.73	1.45	1.52
7	O	110	VAL	C-N	5.73	1.41	1.33
2	C	22	SER	CA-C	-5.73	1.45	1.52
3	F	438	VAL	CA-C	5.73	1.59	1.52
1	6	21	GLY	CA-C	-5.73	1.45	1.52
2	B	210	GLN	CA-C	-5.73	1.45	1.52
3	F	27	GLN	CA-C	-5.73	1.45	1.52
3	F	97	ASN	N-CA	-5.72	1.38	1.45
14	Z	34	MET	N-CA	5.72	1.53	1.46
2	C	427	THR	CA-C	5.72	1.60	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	B	88	GLU	CA-C	-5.71	1.45	1.52
3	F	119	ALA	CA-C	-5.71	1.45	1.52
4	G	150	LEU	CA-C	-5.71	1.45	1.52
4	G	236	ALA	C-N	5.71	1.41	1.34
2	A	259	PHE	C-N	5.71	1.41	1.33
2	B	225	HIS	N-CA	5.71	1.53	1.46
2	C	236	ALA	CA-C	-5.70	1.45	1.53
4	G	127	LYS	N-CA	-5.70	1.38	1.46
2	B	64	MET	C-N	5.70	1.40	1.33
10	V	120	THR	CA-C	-5.70	1.45	1.52
4	G	51	PHE	N-CA	-5.70	1.39	1.46
4	G	39	ILE	CA-C	-5.69	1.45	1.52
7	O	44	GLU	N-CA	-5.69	1.39	1.46
2	B	196	ASP	N-CA	5.69	1.53	1.46
2	C	344	VAL	CA-C	-5.69	1.45	1.52
3	F	365	GLN	C-N	5.69	1.41	1.33
2	C	220	GLN	C-N	5.68	1.41	1.33
2	C	366	ALA	CA-C	-5.68	1.45	1.52
1	8	32	ALA	CA-C	-5.68	1.45	1.52
2	B	279	ALA	CA-C	5.68	1.60	1.52
11	W	3	THR	C-N	5.68	1.41	1.33
3	D	161	VAL	N-CA	-5.67	1.39	1.46
10	V	15	VAL	C-N	5.67	1.40	1.34
2	C	214	THR	C-N	5.67	1.41	1.33
8	T	183	ALA	N-CA	-5.67	1.39	1.46
2	C	43	VAL	N-CA	-5.66	1.39	1.46
2	C	307	LEU	CA-C	-5.66	1.45	1.52
3	F	470	ALA	N-CA	-5.66	1.39	1.46
2	A	465	GLU	C-O	-5.66	1.17	1.24
4	G	56	GLU	CA-C	-5.66	1.45	1.52
3	E	333	THR	CA-C	-5.66	1.45	1.52
1	9	25	GLY	N-CA	-5.66	1.38	1.45
2	A	465	GLU	N-CA	-5.66	1.39	1.46
1	1	12	ALA	N-CA	5.65	1.53	1.46
1	6	15	SER	N-CA	5.65	1.53	1.46
1	0	43	ILE	C-N	5.65	1.41	1.33
1	1	16	THR	N-CA	-5.65	1.39	1.46
4	G	144	ALA	C-N	5.65	1.41	1.33
2	B	389	ALA	N-CA	-5.65	1.39	1.46
2	A	327	PRO	C-N	5.65	1.40	1.33
8	T	233	VAL	C-O	-5.64	1.17	1.24
1	9	57	LEU	CA-C	-5.64	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2	13	GLY	N-CA	-5.63	1.38	1.45
3	E	37	LEU	N-CA	-5.63	1.39	1.46
2	A	490	GLU	C-N	5.63	1.40	1.33
4	G	169	PRO	C-N	5.63	1.41	1.33
5	H	37	GLY	CA-C	-5.63	1.44	1.51
3	F	69	GLY	CA-C	5.62	1.59	1.51
4	G	17	GLU	C-N	5.62	1.41	1.33
10	V	51	THR	C-O	-5.62	1.17	1.24
11	W	34	LEU	N-CA	-5.62	1.38	1.46
1	8	55	PHE	CA-C	5.62	1.59	1.52
2	C	292	GLY	N-CA	-5.62	1.37	1.45
3	E	43	GLN	C-N	5.62	1.41	1.33
7	O	177	ASP	CA-C	-5.62	1.46	1.52
1	9	6	ALA	CA-C	-5.61	1.45	1.52
1	3	65	CYS	CA-C	-5.61	1.45	1.52
3	F	449	TYR	CA-C	5.61	1.59	1.52
9	U	83	ALA	C-N	5.60	1.41	1.33
1	5	22	ALA	CA-C	-5.60	1.45	1.52
2	B	435	TYR	C-N	5.60	1.39	1.33
8	T	28	THR	C-N	5.60	1.41	1.33
9	U	78	LYS	CA-C	5.60	1.59	1.52
3	E	206	VAL	C-N	5.59	1.40	1.33
3	F	113	LEU	CA-C	-5.59	1.45	1.52
9	U	107	ILE	CA-C	-5.59	1.45	1.52
3	F	451	ASN	C-N	5.59	1.39	1.33
13	Y	16	PHE	N-CA	-5.59	1.39	1.46
1	2	31	ALA	N-CA	-5.58	1.39	1.46
3	D	128	SER	CA-C	-5.58	1.47	1.53
3	D	226	PRO	C-N	5.58	1.40	1.33
2	B	294	GLU	CA-C	5.58	1.60	1.53
3	E	373	LYS	CA-C	5.58	1.60	1.52
3	E	451	ASN	C-N	5.58	1.39	1.33
4	G	139	THR	C-N	5.58	1.41	1.33
1	1	74	PHE	C-N	5.58	1.41	1.33
1	6	9	TYR	C-N	5.58	1.40	1.33
2	B	404	ALA	C-N	5.58	1.41	1.33
3	F	390	ILE	C-N	5.58	1.41	1.33
3	D	131	ALA	C-N	5.57	1.40	1.33
1	2	13	GLY	C-N	5.57	1.40	1.33
2	C	30	THR	CA-C	-5.57	1.45	1.52
8	T	107	TYR	C-N	5.57	1.41	1.33
11	W	69	PHE	C-N	5.57	1.41	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A	262	ASN	C-O	-5.56	1.16	1.24
1	2	69	SER	CA-C	5.56	1.60	1.52
3	F	105	GLU	CA-C	-5.56	1.45	1.52
3	E	312	VAL	N-CA	-5.56	1.42	1.46
1	2	12	ALA	N-CA	-5.56	1.39	1.46
5	H	32	LEU	N-CA	-5.56	1.38	1.45
8	T	234	TRP	N-CA	-5.56	1.39	1.46
2	B	27	LEU	N-CA	-5.56	1.40	1.46
2	C	351	GLN	C-N	5.56	1.41	1.33
2	B	305	SER	C-N	5.55	1.41	1.33
1	6	11	GLY	CA-C	5.55	1.58	1.52
2	B	418	GLN	CA-C	-5.55	1.45	1.52
8	T	66	TYR	CA-C	-5.54	1.45	1.52
2	C	371	LEU	N-CA	-5.54	1.40	1.46
2	C	422	ARG	C-N	5.54	1.40	1.33
3	D	279	VAL	C-N	5.54	1.41	1.33
2	A	341	PRO	C-N	5.54	1.41	1.33
3	F	348	VAL	CA-C	5.54	1.60	1.52
8	T	178	GLY	CA-C	-5.54	1.46	1.52
1	8	74	PHE	N-CA	-5.53	1.39	1.46
1	2	33	LEU	CA-C	5.53	1.59	1.52
9	U	166	GLN	CA-C	5.53	1.59	1.52
1	0	34	ILE	N-CA	-5.53	1.40	1.46
2	A	150	THR	CA-C	-5.53	1.45	1.52
2	C	161	ILE	CA-C	-5.53	1.46	1.52
1	6	58	SER	C-N	5.53	1.41	1.33
8	T	35	ILE	C-N	5.53	1.40	1.33
2	C	156	ASP	C-N	5.52	1.41	1.33
3	E	81	GLY	C-N	5.52	1.40	1.33
3	E	228	ALA	N-CA	-5.52	1.39	1.46
3	F	156	PHE	C-N	5.52	1.42	1.33
4	G	258	THR	N-CA	-5.52	1.39	1.46
3	F	286	ALA	C-N	5.52	1.41	1.33
3	F	347	ALA	CA-C	-5.52	1.45	1.52
4	G	105	ALA	N-CA	-5.52	1.38	1.45
1	4	2	GLN	CA-C	-5.51	1.45	1.52
10	V	161	PRO	CA-C	-5.51	1.46	1.52
3	E	40	LYS	CA-C	-5.51	1.45	1.52
3	E	246	GLU	C-N	5.51	1.41	1.33
2	B	483	THR	CA-C	-5.50	1.45	1.52
2	C	324	THR	N-CA	-5.50	1.39	1.46
1	2	26	ILE	CA-C	-5.50	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A	502	ALA	CA-C	-5.50	1.45	1.52
2	B	234	VAL	CA-C	-5.50	1.46	1.52
3	E	362	VAL	N-CA	-5.50	1.39	1.46
3	E	110	LYS	C-N	5.50	1.41	1.33
3	E	317	LEU	N-CA	-5.50	1.40	1.46
1	9	25	GLY	CA-C	5.50	1.58	1.52
3	D	230	ALA	C-O	-5.50	1.17	1.24
3	F	143	LEU	N-CA	5.50	1.53	1.46
12	X	47	PRO	C-N	5.50	1.41	1.33
14	Z	24	LEU	CA-C	-5.50	1.46	1.52
1	8	67	MET	CA-C	-5.50	1.45	1.52
3	D	391	LEU	C-N	5.50	1.40	1.33
3	D	22	ASP	N-CA	-5.50	1.39	1.45
5	H	59	VAL	C-N	5.49	1.42	1.33
7	O	92	LEU	C-N	5.49	1.41	1.33
8	T	203	LEU	CA-C	-5.49	1.45	1.52
4	G	99	LEU	C-N	5.49	1.41	1.34
8	T	138	GLY	C-N	5.49	1.40	1.33
2	B	491	LEU	CA-C	5.48	1.59	1.52
3	E	113	LEU	N-CA	-5.48	1.38	1.45
3	E	72	ARG	C-N	5.48	1.41	1.33
3	F	463	ILE	N-CA	-5.48	1.40	1.46
3	D	158	GLY	C-O	-5.48	1.18	1.23
1	9	57	LEU	C-N	5.48	1.41	1.33
2	B	286	LEU	C-N	5.48	1.41	1.33
8	T	64	ALA	C-N	5.48	1.40	1.33
3	E	21	VAL	C-O	-5.47	1.18	1.24
9	U	94	ALA	C-N	5.46	1.41	1.33
7	O	156	GLU	N-CA	-5.46	1.39	1.46
2	A	64	MET	N-CA	-5.46	1.38	1.45
2	C	484	GLU	CA-C	-5.46	1.45	1.52
2	A	275	LYS	C-N	5.46	1.41	1.33
8	T	219	ILE	N-CA	-5.46	1.39	1.46
2	B	313	LYS	N-CA	-5.45	1.39	1.46
12	X	27	ASN	CA-C	-5.45	1.46	1.52
2	C	188	GLN	N-CA	-5.45	1.39	1.46
3	F	364	GLY	CA-C	-5.45	1.44	1.52
2	C	311	ALA	N-CA	-5.45	1.39	1.46
8	T	211	VAL	CA-C	5.45	1.58	1.52
10	V	164	LYS	CA-C	-5.44	1.46	1.53
2	C	162	GLY	CA-C	-5.44	1.46	1.52
3	D	352	ASP	CA-C	-5.44	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
13	Y	3	LYS	N-CA	-5.44	1.39	1.46
2	B	67	ASN	C-N	5.43	1.40	1.33
3	D	288	ASP	CA-C	-5.43	1.45	1.52
5	H	72	GLY	CA-C	-5.43	1.45	1.52
5	H	20	THR	CA-C	-5.43	1.46	1.52
10	V	46	LEU	C-O	-5.43	1.16	1.24
2	B	237	THR	CA-C	-5.43	1.45	1.53
6	I	60	THR	C-O	-5.43	1.17	1.23
7	O	94	GLU	N-CA	-5.42	1.39	1.46
2	C	386	LYS	CA-C	-5.42	1.45	1.52
1	4	66	LEU	CA-C	-5.42	1.45	1.52
3	D	418	PHE	CA-C	-5.42	1.46	1.52
2	A	95	ASN	CA-C	-5.42	1.46	1.52
2	B	145	HIS	CA-C	-5.41	1.45	1.52
9	U	62	PHE	C-N	5.41	1.41	1.33
4	G	227	ALA	CA-C	-5.41	1.45	1.52
11	W	26	ASN	C-N	5.41	1.40	1.33
14	Z	6	PRO	CA-C	-5.41	1.45	1.52
1	4	46	THR	C-N	5.41	1.40	1.33
1	3	13	GLY	C-N	5.40	1.40	1.33
2	B	144	VAL	CA-C	5.40	1.59	1.52
3	E	423	VAL	N-CA	-5.40	1.39	1.46
3	F	151	GLY	C-N	5.40	1.41	1.33
1	3	22	ALA	N-CA	-5.39	1.39	1.46
3	E	119	ALA	C-N	5.39	1.43	1.33
2	A	263	GLY	C-N	5.39	1.40	1.33
3	D	72	ARG	CA-C	5.39	1.59	1.52
8	T	139	TRP	N-CA	-5.39	1.39	1.46
2	C	32	ARG	CA-C	-5.39	1.45	1.52
3	F	469	LYS	N-CA	-5.39	1.39	1.46
3	D	45	LYS	C-N	5.39	1.40	1.33
3	D	318	THR	C-N	5.39	1.40	1.33
1	7	47	VAL	CA-C	5.38	1.60	1.52
3	E	344	ILE	C-N	5.38	1.39	1.33
3	F	375	GLN	C-N	5.38	1.41	1.33
3	E	298	THR	CA-C	-5.38	1.46	1.53
3	F	49	GLU	C-N	5.38	1.39	1.33
1	7	8	LYS	C-N	5.38	1.40	1.33
2	B	284	SER	C-N	5.38	1.41	1.33
2	C	494	GLU	N-CA	-5.38	1.39	1.46
2	B	469	SER	N-CA	5.37	1.52	1.46
2	B	362	GLY	C-N	5.37	1.40	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	3	58	SER	C-N	5.37	1.41	1.34
10	V	165	ASP	CA-C	-5.37	1.45	1.52
8	T	207	VAL	N-CA	-5.37	1.39	1.46
2	A	247	LEU	N-CA	-5.36	1.39	1.46
2	C	284	SER	CA-C	5.36	1.59	1.52
14	Z	10	MET	N-CA	-5.36	1.39	1.46
12	X	39	LEU	C-O	-5.36	1.18	1.24
2	B	210	GLN	C-N	5.36	1.40	1.33
3	F	399	GLN	C-N	5.36	1.41	1.33
11	W	21	ALA	C-N	5.36	1.41	1.33
2	A	392	LEU	CA-C	-5.36	1.45	1.52
3	D	231	ARG	C-N	5.36	1.40	1.33
2	C	89	LEU	CA-C	-5.36	1.46	1.52
2	C	441	GLU	N-CA	-5.36	1.39	1.46
2	C	481	LEU	N-CA	-5.36	1.39	1.46
3	D	238	THR	N-CA	-5.36	1.39	1.46
3	E	456	ALA	C-N	5.35	1.41	1.33
3	D	369	ASP	N-CA	-5.35	1.39	1.46
4	G	179	GLU	C-N	5.35	1.39	1.33
3	D	81	GLY	C-N	-5.35	1.26	1.33
2	B	217	GLN	CA-C	-5.34	1.46	1.52
8	T	210	PHE	CA-C	-5.34	1.45	1.52
4	G	155	LYS	N-CA	5.34	1.54	1.46
3	E	123	SER	CA-C	-5.34	1.45	1.53
8	T	230	GLN	C-N	5.34	1.40	1.33
1	4	11	GLY	CA-C	-5.34	1.46	1.52
1	6	26	ILE	N-CA	-5.34	1.40	1.46
1	8	28	ILE	C-O	-5.34	1.18	1.24
3	F	98	VAL	C-O	5.34	1.30	1.24
2	B	164	GLY	C-N	5.33	1.40	1.33
3	D	332	THR	N-CA	-5.33	1.39	1.45
2	B	13	ILE	N-CA	-5.33	1.40	1.46
4	G	270	ILE	C-N	5.33	1.40	1.33
10	V	128	ARG	C-N	5.33	1.39	1.33
2	A	75	ILE	C-O	-5.33	1.18	1.24
3	F	407	ALA	N-CA	-5.33	1.39	1.46
1	0	62	GLY	C-N	5.33	1.40	1.33
2	B	393	LYS	C-N	5.32	1.40	1.33
1	8	57	LEU	N-CA	-5.32	1.39	1.46
3	D	182	SER	CA-C	-5.32	1.46	1.52
3	E	196	ASP	N-CA	5.32	1.52	1.46
3	E	256	ASP	C-O	-5.31	1.17	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	E	474	ALA	N-CA	-5.31	1.40	1.46
2	C	503	THR	C-N	5.31	1.40	1.33
2	C	457	GLY	N-CA	-5.31	1.39	1.45
2	A	330	GLU	CA-C	-5.31	1.46	1.52
2	A	282	GLN	C-N	5.30	1.41	1.33
3	E	235	THR	N-CA	-5.30	1.40	1.46
3	E	402	LEU	CA-C	5.30	1.59	1.52
1	8	58	SER	CA-C	5.30	1.59	1.52
2	A	463	ILE	N-CA	-5.30	1.40	1.46
3	D	43	GLN	CA-C	5.30	1.59	1.52
7	O	181	SER	N-CA	5.29	1.52	1.46
2	A	400	ARG	CA-C	-5.29	1.46	1.52
2	B	287	LEU	C-N	5.29	1.40	1.33
6	I	38	SER	CA-C	-5.29	1.45	1.52
2	A	376	VAL	CA-C	-5.29	1.46	1.52
1	2	15	SER	CA-C	-5.29	1.46	1.52
4	G	108	VAL	CA-C	-5.29	1.46	1.52
2	A	247	LEU	C-N	5.28	1.40	1.33
3	D	228	ALA	C-N	5.28	1.40	1.33
2	B	228	MET	CA-C	-5.28	1.46	1.52
2	C	233	ILE	C-N	5.28	1.41	1.33
3	D	316	ASP	N-CA	-5.28	1.40	1.46
5	H	40	GLY	C-N	5.28	1.40	1.33
8	T	57	ARG	C-O	-5.28	1.17	1.24
8	T	141	PHE	CA-C	-5.28	1.45	1.52
9	U	96	ARG	C-N	5.28	1.40	1.33
1	5	54	GLY	C-N	5.28	1.40	1.33
3	F	293	GLN	CA-C	-5.28	1.45	1.52
1	1	29	VAL	C-N	5.28	1.41	1.34
1	8	48	PHE	C-O	-5.28	1.19	1.24
7	O	129	LEU	CA-C	-5.28	1.45	1.53
2	A	475	LYS	N-CA	5.27	1.52	1.46
2	A	118	ASP	N-CA	-5.27	1.39	1.46
10	V	42	GLN	C-N	5.27	1.41	1.34
11	W	21	ALA	C-O	-5.27	1.18	1.24
3	F	265	GLY	C-N	5.26	1.40	1.33
2	B	127	GLY	CA-C	-5.26	1.46	1.51
5	H	39	ILE	C-O	-5.26	1.18	1.24
4	G	107	ILE	CA-C	-5.25	1.46	1.52
2	C	107	GLY	C-N	5.25	1.40	1.33
2	C	274	SER	C-N	5.25	1.41	1.33
4	G	185	ALA	N-CA	-5.24	1.39	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	F	184	PHE	N-CA	-5.24	1.39	1.46
3	E	185	THR	CA-C	5.24	1.59	1.52
3	F	390	ILE	N-CA	-5.24	1.40	1.46
1	8	63	LEU	N-CA	-5.23	1.40	1.46
2	A	351	GLN	C-N	5.23	1.40	1.33
3	E	193	GLU	N-CA	-5.23	1.40	1.46
1	2	29	VAL	C-N	5.23	1.41	1.34
1	5	4	VAL	CA-C	5.23	1.59	1.52
2	B	487	GLU	CA-C	-5.23	1.46	1.52
2	C	347	ILE	N-CA	5.22	1.52	1.46
9	U	136	GLU	C-N	5.22	1.40	1.33
1	1	74	PHE	N-CA	-5.22	1.39	1.46
4	G	92	ALA	CA-C	-5.22	1.46	1.52
9	U	57	ILE	C-O	-5.22	1.18	1.24
1	9	15	SER	C-N	5.22	1.41	1.34
4	G	151	LEU	CA-C	-5.22	1.46	1.52
4	G	268	VAL	N-CA	-5.22	1.40	1.46
1	8	29	VAL	C-N	5.22	1.41	1.33
1	9	24	ILE	C-N	5.22	1.40	1.33
2	A	291	PRO	N-CA	-5.22	1.41	1.46
2	B	67	ASN	CA-C	-5.22	1.46	1.52
3	E	310	VAL	N-CA	-5.22	1.40	1.46
3	F	424	PHE	N-CA	5.22	1.52	1.46
2	C	248	ALA	CA-C	5.21	1.59	1.52
3	E	197	LEU	C-O	-5.21	1.18	1.24
3	F	292	LEU	C-O	-5.21	1.18	1.24
1	1	32	ALA	N-CA	-5.21	1.40	1.46
3	F	204	THR	C-N	5.20	1.39	1.33
4	G	190	GLN	C-N	5.20	1.41	1.33
5	H	55	GLY	CA-C	-5.20	1.46	1.51
10	V	144	GLU	N-CA	-5.20	1.40	1.46
2	C	199	LYS	N-CA	-5.20	1.39	1.46
3	D	133	ILE	N-CA	-5.20	1.39	1.46
3	E	245	ASP	N-CA	-5.20	1.39	1.46
2	A	307	LEU	CA-C	-5.20	1.46	1.52
7	O	14	GLY	C-N	5.20	1.40	1.33
2	A	218	LEU	C-O	-5.20	1.18	1.24
7	O	12	LEU	CA-C	-5.20	1.46	1.52
3	E	64	MET	CA-C	-5.20	1.45	1.52
1	3	39	ARG	CA-C	-5.19	1.46	1.52
1	5	50	MET	CA-C	-5.19	1.46	1.52
10	V	105	GLU	CA-C	-5.19	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A	328	VAL	CA-C	-5.19	1.46	1.52
4	G	202	ASP	C-N	5.19	1.40	1.33
3	F	473	LEU	CA-C	-5.19	1.46	1.52
2	A	424	GLU	N-CA	5.19	1.52	1.46
1	2	45	ASP	CA-C	-5.18	1.46	1.52
1	8	33	LEU	C-N	5.18	1.40	1.33
2	A	36	VAL	CA-C	-5.18	1.46	1.52
3	E	103	ILE	C-N	5.18	1.40	1.33
1	8	34	ILE	C-N	5.18	1.41	1.33
2	C	495	LEU	N-CA	-5.18	1.40	1.46
3	F	182	SER	N-CA	-5.18	1.39	1.45
3	D	388	ILE	C-N	5.18	1.40	1.33
1	2	41	PRO	N-CA	-5.18	1.41	1.47
2	A	23	ASP	CA-C	-5.18	1.45	1.53
3	E	345	TYR	N-CA	-5.18	1.39	1.46
3	E	365	GLN	N-CA	-5.18	1.40	1.46
9	U	82	ASP	CA-C	-5.18	1.46	1.52
3	D	210	GLU	C-N	5.17	1.41	1.33
13	Y	26	GLY	CA-C	-5.17	1.46	1.52
9	U	141	LYS	CA-C	-5.17	1.46	1.52
5	H	79	PRO	N-CA	-5.17	1.41	1.47
7	O	124	THR	C-N	5.17	1.40	1.33
2	C	371	LEU	C-N	5.17	1.41	1.33
3	D	154	GLY	CA-C	-5.17	1.45	1.51
12	X	47	PRO	N-CA	-5.17	1.41	1.47
2	B	497	ALA	CA-C	-5.16	1.46	1.52
2	B	164	GLY	CA-C	-5.16	1.45	1.51
2	B	257	GLU	C-N	5.16	1.40	1.33
2	B	437	PRO	N-CA	-5.16	1.41	1.46
3	F	239	ILE	C-O	-5.16	1.18	1.24
8	T	229	ILE	N-CA	-5.16	1.40	1.46
1	6	61	THR	C-N	5.16	1.40	1.33
3	E	92	LEU	N-CA	-5.16	1.39	1.46
9	U	123	LEU	C-N	5.16	1.40	1.33
2	C	20	GLY	N-CA	-5.16	1.39	1.45
3	E	139	LYS	C-N	5.15	1.40	1.33
2	A	147	PRO	C-N	5.15	1.40	1.33
1	0	47	VAL	N-CA	-5.15	1.39	1.46
2	A	211	LYS	C-N	5.15	1.40	1.33
1	7	1	MET	C-N	5.15	1.40	1.33
1	6	20	LEU	C-N	5.14	1.40	1.33
1	9	65	CYS	C-O	-5.14	1.18	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	B	108	ARG	N-CA	-5.14	1.39	1.46
2	C	438	LEU	C-N	5.14	1.40	1.33
3	D	222	MET	CA-C	-5.14	1.45	1.52
3	F	180	GLY	CA-C	5.14	1.59	1.51
1	1	2	GLN	N-CA	-5.14	1.39	1.46
2	C	144	VAL	CA-C	-5.14	1.47	1.53
4	G	73	LEU	CA-C	-5.14	1.46	1.52
2	B	242	ALA	CA-C	5.14	1.59	1.52
3	F	147	TYR	N-CA	-5.14	1.39	1.45
2	B	333	GLY	CA-C	-5.13	1.44	1.51
2	C	480	GLU	CA-C	-5.13	1.46	1.52
9	U	140	LEU	N-CA	5.13	1.52	1.46
2	C	145	HIS	CA-C	-5.13	1.45	1.52
10	V	126	SER	N-CA	-5.13	1.39	1.46
1	0	70	PHE	C-N	5.13	1.40	1.33
2	A	14	LEU	N-CA	-5.12	1.40	1.46
3	F	225	PRO	CA-C	5.12	1.56	1.52
1	8	73	LEU	C-N	5.12	1.41	1.33
3	E	203	GLU	C-N	5.12	1.41	1.33
2	B	373	VAL	N-CA	-5.12	1.40	1.46
3	E	65	ASP	N-CA	5.12	1.52	1.45
11	W	69	PHE	N-CA	-5.12	1.40	1.46
2	B	238	ALA	CA-C	-5.12	1.45	1.52
2	B	55	VAL	N-CA	-5.12	1.40	1.46
3	E	207	ILE	C-N	5.12	1.40	1.33
3	D	398	GLU	CA-C	5.11	1.59	1.52
3	F	465	ASP	N-CA	5.11	1.52	1.46
7	O	113	ASP	C-N	5.11	1.41	1.33
1	9	12	ALA	N-CA	-5.11	1.40	1.46
7	O	39	SER	N-CA	5.11	1.52	1.46
10	V	8	ASN	C-N	5.11	1.40	1.33
10	V	133	LEU	C-N	5.11	1.40	1.33
2	B	212	ARG	C-N	5.11	1.40	1.33
3	D	134	LEU	N-CA	-5.11	1.39	1.46
4	G	184	ASN	C-N	5.11	1.41	1.34
7	O	36	ALA	CA-C	-5.11	1.46	1.52
1	8	36	GLY	C-N	5.10	1.40	1.33
3	E	392	GLY	CA-C	-5.10	1.46	1.52
5	H	87	ALA	C-N	-5.10	1.28	1.33
12	X	9	ARG	C-N	5.10	1.40	1.33
2	C	20	GLY	C-N	5.10	1.40	1.33
3	D	398	GLU	N-CA	-5.10	1.40	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	4	23	GLY	C-N	5.10	1.40	1.33
9	U	196	GLN	CA-C	-5.10	1.46	1.52
1	3	60	ALA	CA-C	5.09	1.59	1.52
2	C	341	PRO	N-CA	-5.09	1.41	1.47
3	F	308	GLN	C-N	5.09	1.40	1.33
3	E	421	ALA	CA-C	5.08	1.57	1.53
9	U	63	LEU	CA-C	-5.08	1.46	1.52
1	5	35	ASN	CA-C	5.08	1.59	1.52
2	A	411	ASP	C-O	-5.08	1.17	1.23
1	6	72	LEU	N-CA	-5.08	1.40	1.46
2	B	494	GLU	CA-C	-5.08	1.46	1.52
1	7	30	PHE	CA-C	-5.08	1.45	1.52
2	A	288	ARG	N-CA	5.08	1.54	1.46
3	F	338	GLY	C-N	5.08	1.40	1.33
1	0	4	VAL	C-N	5.07	1.40	1.33
1	0	35	ASN	CA-C	-5.07	1.46	1.52
4	G	5	GLU	C-N	5.07	1.40	1.33
2	A	290	PRO	CA-C	-5.07	1.47	1.52
9	U	147	ALA	CA-C	-5.07	1.46	1.52
8	T	229	ILE	C-N	5.07	1.41	1.34
9	U	201	ILE	N-CA	-5.07	1.40	1.46
1	7	51	ALA	C-N	5.07	1.40	1.33
11	W	69	PHE	CA-C	5.07	1.59	1.52
1	0	50	MET	CA-C	-5.07	1.46	1.52
2	A	243	PRO	N-CA	-5.07	1.41	1.47
9	U	122	VAL	CA-C	5.07	1.59	1.52
3	E	166	PHE	C-N	5.06	1.40	1.33
8	T	178	GLY	C-N	5.06	1.40	1.33
2	C	34	LEU	CA-C	5.06	1.54	1.52
1	4	34	ILE	N-CA	5.06	1.52	1.46
2	A	204	VAL	C-O	-5.05	1.18	1.24
2	A	235	ALA	N-CA	-5.05	1.39	1.45
12	X	59	GLU	CA-C	5.05	1.59	1.52
4	G	28	SER	CA-C	-5.05	1.46	1.52
4	G	106	ASP	N-CA	-5.05	1.40	1.46
8	T	98	ILE	C-N	5.05	1.41	1.33
4	G	98	HIS	N-CA	-5.05	1.39	1.46
8	T	181	ILE	CA-C	-5.05	1.46	1.52
9	U	100	VAL	C-N	5.05	1.40	1.33
3	D	120	ASP	C-N	5.04	1.39	1.33
3	E	159	ALA	C-N	5.04	1.39	1.33
3	F	395	GLU	C-N	5.04	1.40	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2	50	MET	C-N	5.04	1.40	1.33
4	G	13	ILE	C-N	5.04	1.40	1.33
7	O	157	ASN	C-N	5.04	1.41	1.33
2	C	353	PHE	C-O	-5.04	1.17	1.23
1	6	28	ILE	CA-C	5.03	1.59	1.52
3	F	306	SER	CA-C	-5.03	1.46	1.52
1	6	20	LEU	N-CA	-5.03	1.40	1.46
3	F	387	ILE	CA-C	-5.03	1.46	1.53
3	F	51	ALA	N-CA	-5.03	1.40	1.46
1	5	36	GLY	N-CA	-5.03	1.39	1.45
2	B	456	ASP	N-CA	5.03	1.52	1.46
2	C	175	THR	CA-C	5.03	1.59	1.52
8	T	46	LEU	N-CA	-5.03	1.41	1.46
9	U	203	GLN	CA-C	-5.02	1.46	1.52
2	C	125	ALA	C-N	5.02	1.41	1.33
3	D	216	ALA	N-CA	-5.02	1.39	1.45
10	V	122	ASP	C-N	5.02	1.40	1.33
1	4	58	SER	N-CA	5.02	1.52	1.46
5	H	12	LEU	CA-C	-5.02	1.46	1.52
3	F	161	VAL	C-O	-5.02	1.16	1.24
2	B	392	LEU	C-O	-5.02	1.18	1.24
2	B	112	ALA	CA-C	5.01	1.59	1.52
9	U	178	SER	C-O	5.01	1.29	1.24
11	W	65	PRO	C-N	5.01	1.40	1.33
2	C	424	GLU	CA-C	-5.01	1.46	1.52
3	E	431	LEU	CA-C	-5.01	1.46	1.52
3	F	99	ILE	C-N	5.01	1.39	1.32
3	E	117	ILE	C-N	5.01	1.40	1.33
10	V	75	VAL	C-N	5.01	1.40	1.33
1	9	32	ALA	N-CA	-5.01	1.40	1.46
2	A	204	VAL	C-N	-5.01	1.26	1.33
3	D	425	THR	CA-C	-5.01	1.46	1.52
8	T	128	GLY	N-CA	-5.01	1.38	1.45
1	6	51	ALA	C-N	5.00	1.40	1.33
8	T	246	VAL	CA-C	-5.00	1.45	1.52
12	X	12	LYS	CA-C	-5.00	1.46	1.52
1	0	1	MET	N-CA	5.00	1.55	1.46
3	F	149	ARG	N-CA	-5.00	1.40	1.46

All (2204) bond angle outliers are listed below:

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	G	168	ASP	CA-C-O	-13.94	107.35	119.76
3	D	117	ILE	N-CA-C	13.72	124.62	110.62
10	V	67	VAL	N-CA-C	-13.10	101.27	113.71
2	C	197	GLU	CA-C-N	12.56	136.76	120.44
2	C	197	GLU	C-N-CA	12.56	136.76	120.44
11	W	42	ILE	CA-C-O	12.30	130.08	119.38
1	0	11	GLY	CA-C-N	11.61	135.53	120.44
1	0	11	GLY	C-N-CA	11.61	135.53	120.44
4	G	204	ASN	CA-C-N	11.08	127.22	120.24
4	G	204	ASN	C-N-CA	11.08	127.22	120.24
3	F	234	LEU	CA-C-N	11.02	135.05	120.28
3	F	234	LEU	C-N-CA	11.02	135.05	120.28
1	6	53	LEU	CA-C-N	10.94	132.13	119.98
1	6	53	LEU	C-N-CA	10.94	132.13	119.98
3	E	410	ILE	CA-C-N	10.57	134.45	120.28
3	E	410	ILE	C-N-CA	10.57	134.45	120.28
3	E	427	ILE	CA-C-O	-10.55	112.97	119.51
1	7	53	LEU	CA-C-N	10.53	131.58	120.00
1	7	53	LEU	C-N-CA	10.53	131.58	120.00
10	V	20	ARG	N-CA-C	10.47	122.69	111.28
8	T	54	ILE	N-CA-C	-10.46	103.28	113.53
12	X	33	PRO	CA-C-N	10.45	130.55	119.89
12	X	33	PRO	C-N-CA	10.45	130.55	119.89
8	T	210	PHE	N-CA-C	-10.42	99.97	112.89
2	C	398	GLN	N-CA-C	-10.31	101.20	113.88
2	B	153	LYS	N-CA-C	10.29	122.57	111.36
3	E	256	ASP	O-C-N	-10.14	111.88	123.33
2	A	10	VAL	CA-C-N	10.11	133.82	120.28
2	A	10	VAL	C-N-CA	10.11	133.82	120.28
7	O	178	LEU	N-CA-C	-9.97	98.47	110.44
1	6	6	ALA	CA-C-N	9.94	133.60	120.28
1	6	6	ALA	C-N-CA	9.94	133.60	120.28
13	Y	25	TYR	CA-C-N	9.93	130.93	120.00
13	Y	25	TYR	C-N-CA	9.93	130.93	120.00
2	A	126	ALA	N-CA-C	-9.92	101.18	113.38
3	E	336	SER	CA-C-N	9.88	133.51	120.28
3	E	336	SER	C-N-CA	9.88	133.51	120.28
3	E	224	GLU	CA-C-N	9.85	126.85	119.66
3	E	224	GLU	C-N-CA	9.85	126.85	119.66
1	7	44	LYS	N-CA-C	9.83	123.22	111.33
2	B	376	VAL	N-CA-C	-9.80	102.86	112.17

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	H	118	ARG	CA-C-N	9.79	133.40	120.28
5	H	118	ARG	C-N-CA	9.79	133.40	120.28
1	8	17	ILE	CA-C-O	-9.77	110.79	120.95
3	E	10	THR	CA-C-N	9.77	129.98	121.58
3	E	10	THR	C-N-CA	9.77	129.98	121.58
2	C	430	LEU	CA-C-O	-9.74	110.22	120.55
5	H	39	ILE	CA-C-N	9.71	128.25	121.65
5	H	39	ILE	C-N-CA	9.71	128.25	121.65
1	8	2	GLN	CA-C-N	9.56	133.09	120.28
1	8	2	GLN	C-N-CA	9.56	133.09	120.28
1	6	2	GLN	CA-C-N	9.54	133.07	120.28
1	6	2	GLN	C-N-CA	9.54	133.07	120.28
2	A	117	ILE	N-CA-C	-9.51	103.77	112.90
8	T	207	VAL	N-CA-C	-9.49	94.14	107.99
3	D	115	LYS	CA-C-N	9.48	129.52	119.76
3	D	115	LYS	C-N-CA	9.48	129.52	119.76
3	E	390	ILE	N-CA-C	-9.44	102.61	111.48
10	V	136	ASP	CA-C-N	9.44	133.69	120.29
10	V	136	ASP	C-N-CA	9.44	133.69	120.29
1	7	22	ALA	CA-C-N	9.37	130.34	119.94
1	7	22	ALA	C-N-CA	9.37	130.34	119.94
1	4	28	ILE	O-C-N	9.35	130.94	121.87
3	E	228	ALA	CA-C-O	-9.35	110.51	120.42
2	A	24	GLU	N-CA-C	-9.32	90.94	110.80
2	C	464	GLY	CA-C-N	9.32	132.77	120.28
2	C	464	GLY	C-N-CA	9.32	132.77	120.28
2	B	10	VAL	CA-C-N	9.29	132.73	120.28
2	B	10	VAL	C-N-CA	9.29	132.73	120.28
2	C	491	LEU	N-CA-C	-9.28	92.33	108.20
3	E	392	GLY	N-CA-C	-9.27	103.14	111.95
1	4	61	THR	CA-C-N	9.22	130.22	119.98
1	4	61	THR	C-N-CA	9.22	130.22	119.98
4	G	91	LEU	CA-C-N	9.22	132.43	120.44
4	G	91	LEU	C-N-CA	9.22	132.43	120.44
7	O	101	PHE	N-CA-C	-9.22	100.67	112.93
3	D	397	SER	CA-C-N	9.18	132.58	120.28
3	D	397	SER	C-N-CA	9.18	132.58	120.28
10	V	55	PHE	N-CA-C	-9.18	101.08	114.39
3	F	392	GLY	CA-C-O	-9.15	115.69	122.37
1	5	22	ALA	CA-C-N	9.07	130.01	119.94
1	5	22	ALA	C-N-CA	9.07	130.01	119.94
1	2	61	THR	CA-C-N	9.05	129.96	120.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	61	THR	C-N-CA	9.05	129.96	120.00
7	O	56	LEU	N-CA-C	-9.05	101.21	112.88
1	8	15	SER	CA-C-N	9.01	133.26	120.28
1	8	15	SER	C-N-CA	9.01	133.26	120.28
2	C	429	LEU	N-CA-C	9.01	122.07	111.71
3	E	225	PRO	CA-C-O	-8.99	114.43	120.90
3	D	280	GLY	CA-C-N	8.99	135.05	120.94
3	D	280	GLY	C-N-CA	8.99	135.05	120.94
9	U	119	THR	N-CA-C	8.97	122.23	111.82
9	U	100	VAL	CA-C-N	8.97	132.30	120.28
9	U	100	VAL	C-N-CA	8.97	132.30	120.28
1	9	60	ALA	N-CA-C	8.97	121.06	111.28
2	A	130	ARG	N-CA-C	-8.97	95.62	109.52
3	E	207	ILE	N-CA-C	-8.92	94.22	107.51
5	H	72	GLY	N-CA-C	-8.92	101.54	112.33
9	U	104	LYS	CA-C-N	8.90	132.21	120.28
9	U	104	LYS	C-N-CA	8.90	132.21	120.28
1	0	30	PHE	N-CA-C	8.89	121.94	111.71
2	C	486	ARG	N-CA-C	8.87	120.95	111.28
3	E	347	ALA	CA-C-N	8.84	132.35	120.50
3	E	347	ALA	C-N-CA	8.84	132.35	120.50
1	5	21	GLY	CA-C-O	8.82	129.93	120.40
8	T	102	ILE	CA-C-O	8.80	130.11	120.95
2	B	254	SER	CA-C-N	8.78	132.89	120.42
2	B	254	SER	C-N-CA	8.78	132.89	120.42
1	5	48	PHE	CA-C-N	8.77	128.79	119.05
1	5	48	PHE	C-N-CA	8.77	128.79	119.05
3	E	300	LYS	N-CA-C	-8.74	100.72	112.26
2	B	439	ALA	CA-C-N	8.70	133.53	120.31
2	B	439	ALA	C-N-CA	8.70	133.53	120.31
1	8	68	VAL	CA-C-O	-8.66	111.67	120.85
3	D	289	MET	CA-C-N	8.64	129.53	119.94
3	D	289	MET	C-N-CA	8.64	129.53	119.94
3	D	343	GLY	N-CA-C	-8.63	103.04	115.64
3	E	464	GLU	CA-C-N	8.56	131.75	120.28
3	E	464	GLU	C-N-CA	8.56	131.75	120.28
8	T	146	VAL	N-CA-C	-8.56	98.19	107.77
1	0	22	ALA	CA-C-N	8.55	129.43	119.94
1	0	22	ALA	C-N-CA	8.55	129.43	119.94
3	E	424	PHE	N-CA-C	-8.55	102.24	114.12
12	X	47	PRO	N-CA-C	-8.54	105.80	114.68
3	F	206	VAL	N-CA-C	-8.52	102.74	113.22

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	V	172	VAL	N-CA-C	-8.51	105.19	113.53
3	D	317	LEU	N-CA-C	-8.49	103.04	112.72
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	239	ILE	CA-C-N	8.47	131.63	120.28
3	F	239	ILE	C-N-CA	8.47	131.63	120.28
3	F	407	ALA	CA-C-O	-8.44	111.48	120.42
11	W	6	PRO	CA-C-O	-8.44	108.33	120.56
10	V	100	MET	CA-C-O	-8.43	111.62	120.55
2	C	219	VAL	N-CA-C	8.40	118.43	110.53
3	D	123	SER	CA-C-N	8.40	131.53	120.28
3	D	123	SER	C-N-CA	8.40	131.53	120.28
3	E	162	GLY	N-CA-C	-8.36	103.44	115.64
1	0	60	ALA	N-CA-C	8.35	120.38	111.28
3	E	319	ASP	CA-C-N	8.34	128.46	119.28
3	E	319	ASP	C-N-CA	8.34	128.46	119.28
6	I	47	TYR	CA-C-N	8.33	131.27	120.44
6	I	47	TYR	C-N-CA	8.33	131.27	120.44
1	6	11	GLY	CA-C-N	8.32	131.26	120.44
1	6	11	GLY	C-N-CA	8.32	131.26	120.44
2	C	151	GLY	CA-C-O	8.31	128.24	119.02
1	8	17	ILE	CA-C-N	8.30	129.32	120.03
1	8	17	ILE	C-N-CA	8.30	129.32	120.03
7	O	95	ASN	CA-C-N	8.30	134.46	122.35
7	O	95	ASN	C-N-CA	8.30	134.46	122.35
1	9	25	GLY	O-C-N	8.26	130.11	122.18
2	C	290	PRO	CA-C-N	8.26	128.02	119.76
2	C	290	PRO	C-N-CA	8.26	128.02	119.76
5	H	56	VAL	N-CA-C	-8.26	96.23	108.12
1	6	72	LEU	O-C-N	-8.24	113.58	122.07
4	G	272	THR	CA-C-N	8.23	129.06	120.00
4	G	272	THR	C-N-CA	8.23	129.06	120.00
9	U	184	LEU	CA-C-N	8.23	130.71	120.34
9	U	184	LEU	C-N-CA	8.23	130.71	120.34
3	E	189	GLU	CA-C-N	8.20	132.51	120.87
3	E	189	GLU	C-N-CA	8.20	132.51	120.87
3	E	23	VAL	CA-C-O	-8.19	113.07	121.67
7	O	70	VAL	N-CA-C	8.19	118.97	110.62
2	C	368	ASN	CA-C-N	8.18	132.04	120.42
2	C	368	ASN	C-N-CA	8.18	132.04	120.42
2	C	54	LEU	N-CA-C	-8.17	95.91	109.07
1	7	10	ILE	CA-C-N	8.17	129.05	119.98

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	7	10	ILE	C-N-CA	8.17	129.05	119.98
1	8	17	ILE	O-C-N	8.14	129.77	121.87
3	E	308	GLN	CA-C-N	8.12	132.40	120.87
3	E	308	GLN	C-N-CA	8.12	132.40	120.87
8	T	140	VAL	N-CA-C	-8.12	104.45	112.17
2	C	217	GLN	CA-C-N	8.12	131.16	120.28
2	C	217	GLN	C-N-CA	8.12	131.16	120.28
13	Y	26	GLY	N-CA-C	-8.11	102.38	112.77
2	B	397	ALA	N-CA-C	-8.10	102.40	111.14
3	F	309	ALA	N-CA-C	-8.06	95.75	108.90
4	G	187	THR	CA-C-N	8.05	133.20	120.47
4	G	187	THR	C-N-CA	8.05	133.20	120.47
2	C	250	PHE	CA-C-N	8.05	131.06	120.28
2	C	250	PHE	C-N-CA	8.05	131.06	120.28
8	T	151	PRO	CA-C-N	8.04	130.14	120.09
8	T	151	PRO	C-N-CA	8.04	130.14	120.09
1	3	26	ILE	CA-C-N	8.04	131.71	120.29
1	3	26	ILE	C-N-CA	8.04	131.71	120.29
1	6	16	THR	CA-C-N	8.03	131.47	120.46
1	6	16	THR	C-N-CA	8.03	131.47	120.46
3	D	428	PRO	CA-C-O	-8.02	111.69	121.31
3	D	463	ILE	O-C-N	8.02	129.65	121.87
3	E	9	ILE	N-CA-C	-7.97	97.35	108.27
3	D	408	ARG	CA-C-N	7.96	130.79	120.44
3	D	408	ARG	C-N-CA	7.96	130.79	120.44
3	F	187	VAL	N-CA-C	-7.96	96.99	108.53
2	C	171	GLY	N-CA-C	-7.95	100.12	110.69
1	6	53	LEU	CA-C-O	-7.94	112.48	120.82
2	B	290	PRO	O-C-N	-7.93	112.11	121.46
1	9	69	SER	CA-C-N	7.92	130.90	120.28
1	9	69	SER	C-N-CA	7.92	130.90	120.28
3	F	419	ALA	CA-C-N	7.92	131.31	120.46
3	F	419	ALA	C-N-CA	7.92	131.31	120.46
1	6	20	LEU	CA-C-N	7.91	128.76	119.98
1	6	20	LEU	C-N-CA	7.91	128.76	119.98
3	D	260	ARG	N-CA-C	-7.91	102.62	111.71
2	C	444	VAL	O-C-N	-7.89	115.37	120.42
1	6	57	LEU	N-CA-C	7.88	119.65	111.14
3	D	357	LEU	N-CA-C	-7.87	102.98	112.59
2	C	15	GLU	CA-C-O	7.84	128.86	120.55
2	A	70	PRO	N-CA-C	-7.84	103.69	114.27
8	T	75	GLY	O-C-N	7.84	130.83	122.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	F	282	GLN	CA-C-N	7.83	127.54	119.64
3	F	282	GLN	C-N-CA	7.83	127.54	119.64
2	B	463	ILE	CA-C-N	7.81	128.46	119.94
2	B	463	ILE	C-N-CA	7.81	128.46	119.94
14	Z	45	ILE	CA-C-N	7.80	130.74	120.28
14	Z	45	ILE	C-N-CA	7.80	130.74	120.28
5	H	66	LYS	N-CA-C	-7.80	95.57	108.76
2	C	153	LYS	N-CA-C	-7.77	103.25	112.89
1	7	34	ILE	CA-C-O	-7.76	112.62	120.85
14	Z	7	PHE	N-CA-C	-7.76	103.39	113.17
1	3	58	SER	O-C-N	7.76	130.99	122.15
3	D	282	GLN	N-CA-C	7.75	121.25	110.01
3	D	394	ASP	N-CA-C	-7.75	103.41	113.17
3	E	420	VAL	N-CA-C	-7.74	105.16	112.83
3	D	365	GLN	CA-C-N	7.74	131.28	120.29
3	D	365	GLN	C-N-CA	7.74	131.28	120.29
13	Y	24	TYR	CA-C-N	7.74	130.96	120.44
13	Y	24	TYR	C-N-CA	7.74	130.96	120.44
1	5	6	ALA	O-C-N	7.73	130.03	122.07
2	A	225	HIS	CA-C-N	7.72	133.12	122.07
2	A	225	HIS	C-N-CA	7.72	133.12	122.07
3	F	376	GLU	CA-C-N	7.72	130.47	120.44
3	F	376	GLU	C-N-CA	7.72	130.47	120.44
3	D	166	PHE	CA-C-N	7.71	131.36	120.42
3	D	166	PHE	C-N-CA	7.71	131.36	120.42
1	3	48	PHE	CA-C-O	-7.71	111.18	118.73
1	6	51	ALA	CA-C-N	7.69	131.34	120.42
1	6	51	ALA	C-N-CA	7.69	131.34	120.42
1	8	44	LYS	N-CA-C	7.69	120.63	111.33
10	V	157	LYS	CA-C-N	7.69	133.74	121.98
10	V	157	LYS	C-N-CA	7.69	133.74	121.98
9	U	53	ASN	CA-C-N	7.68	130.88	120.44
9	U	53	ASN	C-N-CA	7.68	130.88	120.44
2	C	161	ILE	CA-C-N	7.66	130.66	122.69
2	C	161	ILE	C-N-CA	7.66	130.66	122.69
3	E	395	GLU	N-CA-C	-7.66	102.12	113.61
9	U	112	GLN	CA-C-N	7.66	131.16	120.29
9	U	112	GLN	C-N-CA	7.66	131.16	120.29
3	E	112	LYS	N-CA-C	-7.65	102.76	112.93
1	2	60	ALA	CA-C-N	7.64	130.51	120.28
1	2	60	ALA	C-N-CA	7.64	130.51	120.28
3	E	96	ILE	N-CA-C	-7.63	97.51	108.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	F	254	PHE	N-CA-C	-7.63	98.19	110.32
1	9	31	ALA	CA-C-N	7.63	130.50	120.28
1	9	31	ALA	C-N-CA	7.63	130.50	120.28
2	B	250	PHE	CA-C-N	7.62	130.80	120.44
2	B	250	PHE	C-N-CA	7.62	130.80	120.44
3	F	262	THR	N-CA-C	7.61	119.66	111.36
1	3	47	VAL	CA-C-N	7.61	130.46	120.26
1	3	47	VAL	C-N-CA	7.61	130.46	120.26
3	F	357	LEU	N-CA-C	-7.61	104.02	113.38
1	6	13	GLY	CA-C-N	7.61	130.88	120.46
1	6	13	GLY	C-N-CA	7.61	130.88	120.46
7	O	35	ALA	N-CA-C	7.60	119.20	111.07
1	0	3	LEU	CA-C-N	7.60	130.28	120.56
1	0	3	LEU	C-N-CA	7.60	130.28	120.56
3	E	67	THR	CA-C-N	7.60	131.59	120.95
3	E	67	THR	C-N-CA	7.60	131.59	120.95
8	T	233	VAL	CA-C-N	7.59	130.31	120.44
8	T	233	VAL	C-N-CA	7.59	130.31	120.44
2	B	492	SER	N-CA-C	-7.59	97.78	109.24
2	C	181	ALA	O-C-N	7.58	130.80	122.15
2	A	439	ALA	CA-C-N	7.58	131.20	120.28
2	A	439	ALA	C-N-CA	7.58	131.20	120.28
3	F	281	TYR	N-CA-C	-7.58	98.21	109.81
1	1	50	MET	N-CA-C	7.57	119.53	111.28
3	E	22	ASP	N-CA-C	-7.57	97.92	109.95
2	B	312	ALA	CA-C-O	7.56	131.32	120.51
3	F	472	LYS	N-CA-C	7.55	120.58	111.82
2	A	128	ARG	N-CA-C	-7.55	97.82	109.52
2	B	294	GLU	CA-C-N	7.54	133.33	122.40
2	B	294	GLU	C-N-CA	7.54	133.33	122.40
9	U	119	THR	CA-C-N	7.53	131.13	120.28
9	U	119	THR	C-N-CA	7.53	131.13	120.28
2	C	382	VAL	CA-C-N	7.53	131.12	120.28
2	C	382	VAL	C-N-CA	7.53	131.12	120.28
11	W	66	LEU	CA-C-O	-7.53	112.92	120.82
4	G	236	ALA	CA-C-N	7.52	131.11	120.28
4	G	236	ALA	C-N-CA	7.52	131.11	120.28
2	C	262	ASN	N-CA-C	-7.51	104.14	113.38
3	F	239	ILE	CA-C-O	-7.50	113.15	120.95
2	C	19	LYS	CA-C-O	-7.49	112.61	120.55
1	1	15	SER	CA-C-N	7.49	131.31	120.38
1	1	15	SER	C-N-CA	7.49	131.31	120.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	C	457	GLY	N-CA-C	-7.48	103.35	113.37
3	D	377	THR	CA-C-N	7.47	130.29	120.28
3	D	377	THR	C-N-CA	7.47	130.29	120.28
1	9	48	PHE	O-C-N	-7.47	113.69	120.71
10	V	13	ALA	O-C-N	7.47	129.77	122.07
2	B	109	VAL	N-CA-C	-7.47	97.09	107.99
2	C	283	LEU	CA-C-N	7.47	130.59	120.44
2	C	283	LEU	C-N-CA	7.47	130.59	120.44
4	G	170	VAL	O-C-N	7.46	129.22	121.91
2	C	447	ILE	CA-C-N	7.46	130.27	120.28
2	C	447	ILE	C-N-CA	7.46	130.27	120.28
3	F	388	ILE	CA-C-N	7.46	130.14	120.44
3	F	388	ILE	C-N-CA	7.46	130.14	120.44
3	D	20	ILE	CA-C-N	7.46	131.64	120.75
3	D	20	ILE	C-N-CA	7.46	131.64	120.75
9	U	125	ASP	CA-C-N	7.45	130.67	120.46
9	U	125	ASP	C-N-CA	7.45	130.67	120.46
2	A	55	VAL	O-C-N	-7.45	115.15	123.20
2	B	299	ASP	N-CA-C	-7.45	104.22	112.72
3	D	264	ALA	CA-C-N	7.45	128.25	119.98
3	D	264	ALA	C-N-CA	7.45	128.25	119.98
3	D	461	GLY	CA-C-N	7.45	131.58	121.01
3	D	461	GLY	C-N-CA	7.45	131.58	121.01
2	A	78	PHE	N-CA-C	-7.44	98.13	109.95
3	D	88	GLY	CA-C-O	7.42	128.25	122.16
2	B	45	GLY	CA-C-O	-7.42	114.03	121.30
4	G	147	ALA	CA-C-N	7.42	130.22	120.28
4	G	147	ALA	C-N-CA	7.42	130.22	120.28
12	X	3	ILE	CA-C-N	7.41	130.82	120.29
12	X	3	ILE	C-N-CA	7.41	130.82	120.29
5	H	127	VAL	N-CA-C	7.41	118.20	110.72
1	1	16	THR	CA-C-N	7.41	130.97	120.53
1	1	16	THR	C-N-CA	7.41	130.97	120.53
3	E	473	LEU	CA-C-N	7.41	130.20	120.28
3	E	473	LEU	C-N-CA	7.41	130.20	120.28
2	C	192	ASN	N-CA-C	-7.40	103.40	114.64
1	0	56	ALA	CA-C-N	7.39	130.50	120.44
1	0	56	ALA	C-N-CA	7.39	130.50	120.44
2	A	191	TRP	CA-C-N	7.39	130.18	120.28
2	A	191	TRP	C-N-CA	7.39	130.18	120.28
2	B	326	LEU	CA-C-O	-7.38	112.66	121.00
3	F	411	GLN	N-CA-C	7.38	119.32	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	W	41	ALA	N-CA-C	7.36	121.55	111.39
1	6	26	ILE	CA-C-O	-7.36	113.37	121.17
7	O	142	SER	CA-C-N	7.35	130.13	120.28
7	O	142	SER	C-N-CA	7.35	130.13	120.28
7	O	145	LYS	CA-C-N	7.35	130.13	120.28
7	O	145	LYS	C-N-CA	7.35	130.13	120.28
3	E	318	THR	N-CA-C	-7.34	103.92	113.17
4	G	170	VAL	CA-C-O	-7.34	113.39	121.17
2	A	10	VAL	N-CA-C	7.34	118.11	110.62
1	6	22	ALA	CA-C-O	-7.33	112.65	120.42
1	7	2	GLN	N-CA-C	7.33	118.91	111.07
2	B	416	THR	N-CA-C	-7.33	103.29	111.28
1	7	12	ALA	CA-C-N	7.33	128.27	119.99
1	7	12	ALA	C-N-CA	7.33	128.27	119.99
2	B	461	SER	CA-C-O	7.33	128.31	120.55
2	B	467	GLU	CA-C-N	7.33	130.69	120.29
2	B	467	GLU	C-N-CA	7.33	130.69	120.29
4	G	246	ASP	CA-C-O	7.33	128.18	120.42
10	V	90	GLN	N-CA-C	-7.32	104.87	113.88
9	U	81	ALA	CA-C-N	7.31	129.94	120.44
9	U	81	ALA	C-N-CA	7.31	129.94	120.44
1	7	8	LYS	N-CA-C	7.31	118.89	111.07
1	6	46	THR	N-CA-C	7.31	119.32	111.36
5	H	43	ALA	CA-C-N	7.30	131.50	121.05
5	H	43	ALA	C-N-CA	7.30	131.50	121.05
2	B	310	ARG	CA-C-N	7.30	133.20	122.39
2	B	310	ARG	C-N-CA	7.30	133.20	122.39
3	D	141	VAL	O-C-N	7.30	129.06	121.91
3	D	386	ASP	N-CA-C	-7.30	103.26	111.07
2	B	173	ARG	CA-C-N	7.29	132.98	122.40
2	B	173	ARG	C-N-CA	7.29	132.98	122.40
3	E	81	GLY	CA-C-N	7.28	127.71	119.92
3	E	81	GLY	C-N-CA	7.28	127.71	119.92
8	T	113	ALA	N-CA-C	-7.28	104.42	113.38
10	V	148	LYS	N-CA-C	7.28	119.29	111.36
3	E	444	VAL	N-CA-C	-7.28	103.43	110.42
2	C	325	ALA	CA-C-O	7.27	128.30	120.38
1	2	73	LEU	N-CA-C	7.27	118.89	110.97
3	D	235	THR	CA-C-N	7.26	127.99	120.00
3	D	235	THR	C-N-CA	7.26	127.99	120.00
3	D	442	LYS	O-C-N	7.26	129.55	122.07
2	B	30	THR	CA-C-N	7.26	129.17	121.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	30	THR	C-N-CA	7.26	129.17	121.48
9	U	186	ASN	N-CA-C	-7.25	99.27	110.58
10	V	12	TRP	CA-C-N	7.25	129.86	120.44
10	V	12	TRP	C-N-CA	7.25	129.86	120.44
1	6	14	ILE	N-CA-C	7.24	118.01	110.62
3	D	379	GLN	CA-C-N	7.23	129.97	120.28
3	D	379	GLN	C-N-CA	7.23	129.97	120.28
1	2	15	SER	CA-C-N	7.22	130.93	120.38
1	2	15	SER	C-N-CA	7.22	130.93	120.38
2	A	307	LEU	N-CA-C	7.21	118.93	111.14
1	6	30	PHE	CA-C-N	7.21	129.94	120.28
1	6	30	PHE	C-N-CA	7.21	129.94	120.28
3	F	389	ALA	CA-C-N	7.21	129.79	120.56
3	F	389	ALA	C-N-CA	7.21	129.79	120.56
8	T	35	ILE	CA-C-N	7.21	129.64	120.56
8	T	35	ILE	C-N-CA	7.21	129.64	120.56
3	D	126	GLU	N-CA-C	-7.20	104.49	113.28
3	E	247	GLU	N-CA-C	-7.20	103.65	113.30
3	F	469	LYS	CA-C-N	7.20	129.92	120.28
3	F	469	LYS	C-N-CA	7.20	129.92	120.28
3	D	98	VAL	N-CA-C	-7.19	105.71	112.83
3	E	409	LYS	CA-C-N	7.19	130.63	120.42
3	E	409	LYS	C-N-CA	7.19	130.63	120.42
2	A	337	SER	CA-C-N	7.18	132.22	120.94
2	A	337	SER	C-N-CA	7.18	132.22	120.94
3	F	22	ASP	CA-C-O	-7.18	112.83	120.80
3	F	85	VAL	CA-C-N	7.18	127.10	119.85
3	F	85	VAL	C-N-CA	7.18	127.10	119.85
3	D	305	THR	N-CA-C	-7.17	97.56	109.46
4	G	219	LEU	O-C-N	-7.16	114.53	122.12
2	B	29	GLU	CA-C-N	7.15	135.20	121.54
2	B	29	GLU	C-N-CA	7.15	135.20	121.54
3	F	124	PHE	CA-C-N	7.15	129.86	120.28
3	F	124	PHE	C-N-CA	7.15	129.86	120.28
3	F	448	LYS	CA-C-N	7.15	133.44	122.08
3	F	448	LYS	C-N-CA	7.15	133.44	122.08
3	D	259	PHE	CA-C-N	7.14	130.57	120.28
3	D	259	PHE	C-N-CA	7.14	130.57	120.28
1	6	53	LEU	O-C-N	7.14	129.43	122.07
1	8	45	ASP	CA-C-O	-7.14	112.86	120.42
2	C	316	GLU	CA-C-N	7.14	129.72	120.44
2	C	316	GLU	C-N-CA	7.14	129.72	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	W	78	TYR	CA-C-N	7.13	129.83	120.28
11	W	78	TYR	C-N-CA	7.13	129.83	120.28
3	E	236	GLY	O-C-N	7.12	129.02	122.18
8	T	189	VAL	CA-C-N	7.12	130.53	120.42
8	T	189	VAL	C-N-CA	7.12	130.53	120.42
3	D	322	PRO	CA-C-O	-7.12	109.42	119.74
3	F	10	THR	CA-C-O	7.12	129.32	121.06
3	E	122	PRO	CA-C-O	-7.12	112.92	121.03
1	5	32	ALA	CA-C-N	7.11	129.81	120.28
1	5	32	ALA	C-N-CA	7.11	129.81	120.28
7	O	161	PRO	N-CA-C	-7.11	106.46	114.92
1	3	18	GLY	CA-C-N	7.11	130.51	120.28
1	3	18	GLY	C-N-CA	7.11	130.51	120.28
3	D	254	PHE	O-C-N	7.11	131.93	123.33
3	D	420	VAL	N-CA-C	-7.10	94.56	109.34
2	B	306	ARG	N-CA-C	-7.10	103.62	111.36
9	U	64	GLY	CA-C-N	7.09	129.66	120.44
9	U	64	GLY	C-N-CA	7.09	129.66	120.44
2	A	48	ASN	CA-C-N	7.09	130.27	120.49
2	A	48	ASN	C-N-CA	7.09	130.27	120.49
2	A	89	LEU	N-CA-C	-7.09	99.15	110.14
1	9	59	GLU	CA-C-N	7.09	129.78	120.28
1	9	59	GLU	C-N-CA	7.09	129.78	120.28
8	T	28	THR	CA-C-N	7.08	129.77	120.28
8	T	28	THR	C-N-CA	7.08	129.77	120.28
2	C	506	PHE	CA-C-N	7.08	129.47	120.56
2	C	506	PHE	C-N-CA	7.08	129.47	120.56
1	1	45	ASP	O-C-N	-7.05	114.64	122.12
1	4	33	LEU	CA-C-N	7.05	129.45	120.56
1	4	33	LEU	C-N-CA	7.05	129.45	120.56
7	O	131	PRO	O-C-N	7.05	132.16	122.64
1	7	60	ALA	CA-C-N	7.05	129.72	120.28
1	7	60	ALA	C-N-CA	7.05	129.72	120.28
3	F	437	THR	CA-C-N	7.05	129.44	120.56
3	F	437	THR	C-N-CA	7.05	129.44	120.56
2	B	433	ASN	CA-C-O	-7.05	113.10	120.99
3	E	91	THR	CA-C-N	7.04	130.86	120.87
3	E	91	THR	C-N-CA	7.04	130.86	120.87
3	F	232	VAL	N-CA-C	7.04	117.80	110.62
8	T	216	ILE	CA-C-N	7.03	129.71	120.28
8	T	216	ILE	C-N-CA	7.03	129.71	120.28
4	G	140	PHE	CA-C-O	-7.03	113.10	120.55

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A	146	GLU	CA-C-N	7.03	128.62	119.84
2	A	146	GLU	C-N-CA	7.03	128.62	119.84
3	E	432	VAL	N-CA-C	-7.03	95.43	107.24
3	F	66	GLY	N-CA-C	7.03	121.67	112.25
3	E	456	ALA	N-CA-C	7.02	121.56	112.92
9	U	194	LEU	CA-C-N	7.02	129.69	120.28
9	U	194	LEU	C-N-CA	7.02	129.69	120.28
2	A	234	VAL	N-CA-C	-7.02	98.33	108.36
2	C	427	THR	CA-C-N	7.02	130.25	120.29
2	C	427	THR	C-N-CA	7.02	130.25	120.29
1	3	44	LYS	N-CA-C	7.02	120.73	111.75
2	C	384	ALA	O-C-N	7.01	129.55	122.12
7	O	183	LYS	N-CA-C	7.01	118.92	111.28
1	4	16	THR	CA-C-N	7.01	129.39	120.56
1	4	16	THR	C-N-CA	7.01	129.39	120.56
1	4	36	GLY	CA-C-N	7.00	130.06	120.46
1	4	36	GLY	C-N-CA	7.00	130.06	120.46
1	9	15	SER	CA-C-N	7.00	130.36	120.28
1	9	15	SER	C-N-CA	7.00	130.36	120.28
1	6	24	ILE	CA-C-N	7.00	127.71	119.94
1	6	24	ILE	C-N-CA	7.00	127.71	119.94
3	F	238	THR	CA-C-N	7.00	130.05	120.46
3	F	238	THR	C-N-CA	7.00	130.05	120.46
2	B	232	ILE	N-CA-C	-7.00	98.09	108.45
2	B	155	VAL	CA-C-N	7.00	130.94	120.31
2	B	155	VAL	C-N-CA	7.00	130.94	120.31
2	A	486	ARG	CA-C-N	6.98	130.20	120.29
2	A	486	ARG	C-N-CA	6.98	130.20	120.29
14	Z	15	TYR	CA-C-N	6.98	127.69	119.94
14	Z	15	TYR	C-N-CA	6.98	127.69	119.94
12	X	21	LEU	O-C-N	6.98	129.51	122.12
3	D	41	THR	N-CA-C	-6.97	100.16	108.25
4	G	274	ALA	CA-C-N	6.97	129.62	120.28
4	G	274	ALA	C-N-CA	6.97	129.62	120.28
1	1	49	PRO	O-C-N	6.97	130.59	122.23
3	E	107	GLY	CA-C-N	6.95	128.53	119.84
3	E	107	GLY	C-N-CA	6.95	128.53	119.84
8	T	36	VAL	N-CA-C	-6.95	103.75	110.42
2	B	296	TYR	CA-C-N	6.95	126.99	119.90
2	B	296	TYR	C-N-CA	6.95	126.99	119.90
3	E	7	THR	N-CA-C	-6.95	101.05	110.36
1	6	12	ALA	CA-C-N	6.94	127.65	119.94

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	12	ALA	C-N-CA	6.94	127.65	119.94
1	6	26	ILE	O-C-N	6.94	128.71	121.91
1	8	59	GLU	CA-C-O	6.94	127.91	120.55
4	G	207	ARG	CA-C-O	6.94	127.91	119.38
1	7	48	PHE	CA-C-N	6.93	127.22	119.32
1	7	48	PHE	C-N-CA	6.93	127.22	119.32
2	C	37	GLY	O-C-N	6.92	130.85	123.23
2	B	276	GLN	CA-C-N	6.92	129.55	120.28
2	B	276	GLN	C-N-CA	6.92	129.55	120.28
3	D	265	GLY	CA-C-N	6.92	129.55	120.28
3	D	265	GLY	C-N-CA	6.92	129.55	120.28
12	X	48	GLU	CA-C-N	6.91	130.11	120.29
12	X	48	GLU	C-N-CA	6.91	130.11	120.29
1	7	68	VAL	CA-C-N	6.91	129.54	120.28
1	7	68	VAL	C-N-CA	6.91	129.54	120.28
1	5	69	SER	CA-C-N	6.91	130.10	120.29
1	5	69	SER	C-N-CA	6.91	130.10	120.29
2	B	119	GLY	O-C-N	-6.90	116.92	122.51
3	F	162	GLY	CA-C-N	6.90	129.41	120.44
3	F	162	GLY	C-N-CA	6.90	129.41	120.44
8	T	172	SER	CA-C-N	6.90	129.53	120.28
8	T	172	SER	C-N-CA	6.90	129.53	120.28
1	3	58	SER	CA-C-O	-6.90	113.11	120.42
2	C	334	GLY	CA-C-N	6.88	130.65	120.87
2	C	334	GLY	C-N-CA	6.88	130.65	120.87
3	F	371	ALA	CA-C-N	6.87	130.05	120.29
3	F	371	ALA	C-N-CA	6.87	130.05	120.29
2	B	454	HIS	CA-C-O	6.87	127.83	119.31
12	X	52	ALA	CA-C-N	6.87	129.49	120.28
12	X	52	ALA	C-N-CA	6.87	129.49	120.28
7	O	181	SER	CA-C-N	6.87	129.48	120.28
7	O	181	SER	C-N-CA	6.87	129.48	120.28
2	B	198	SER	N-CA-C	-6.87	104.93	113.38
1	0	58	SER	CA-C-N	6.86	129.47	120.28
1	0	58	SER	C-N-CA	6.86	129.47	120.28
1	8	32	ALA	O-C-N	-6.86	114.33	122.15
9	U	86	LYS	N-CA-C	6.86	118.41	111.07
1	5	4	VAL	CA-C-N	6.85	129.46	120.28
1	5	4	VAL	C-N-CA	6.85	129.46	120.28
3	E	450	ASP	N-CA-C	-6.85	103.28	112.94
4	G	73	LEU	N-CA-C	-6.85	99.52	110.14
5	H	38	ARG	N-CA-C	-6.85	98.68	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	C	369	VAL	CA-C-O	-6.85	113.59	120.85
2	C	487	GLU	CA-C-N	6.84	129.75	120.44
2	C	487	GLU	C-N-CA	6.84	129.75	120.44
8	T	184	GLY	N-CA-C	-6.84	104.21	112.49
2	A	55	VAL	CA-C-O	6.84	127.61	120.36
3	D	193	GLU	N-CA-C	6.84	118.74	111.28
2	B	47	ASN	N-CA-C	-6.84	103.35	113.61
9	U	147	ALA	N-CA-C	6.84	118.73	111.28
1	6	55	PHE	CA-C-N	6.84	129.44	120.28
1	6	55	PHE	C-N-CA	6.84	129.44	120.28
2	A	58	SER	CA-C-N	6.83	130.70	120.31
2	A	58	SER	C-N-CA	6.83	130.70	120.31
2	A	319	GLY	N-CA-C	6.83	119.36	111.36
2	C	473	TYR	CA-C-N	6.83	129.99	120.29
2	C	473	TYR	C-N-CA	6.83	129.99	120.29
2	B	137	GLY	CA-C-N	6.83	129.17	120.56
2	B	137	GLY	C-N-CA	6.83	129.17	120.56
4	G	238	ASP	N-CA-C	-6.83	103.76	111.14
14	Z	37	ARG	CA-C-O	-6.83	113.18	120.42
3	E	414	LEU	N-CA-C	-6.82	105.11	113.50
9	U	84	ARG	CA-C-N	6.81	129.29	120.44
9	U	84	ARG	C-N-CA	6.81	129.29	120.44
3	D	71	VAL	O-C-N	6.81	130.38	123.10
2	B	495	LEU	CA-C-N	6.80	130.65	120.31
2	B	495	LEU	C-N-CA	6.80	130.65	120.31
13	Y	31	ALA	CA-C-N	6.80	129.95	120.29
13	Y	31	ALA	C-N-CA	6.80	129.95	120.29
13	Y	12	VAL	N-CA-C	-6.79	104.86	113.22
2	B	259	PHE	CA-C-N	6.79	129.93	120.29
2	B	259	PHE	C-N-CA	6.79	129.93	120.29
2	C	103	PRO	N-CA-C	-6.78	105.17	114.80
3	E	43	GLN	N-CA-C	-6.78	103.14	112.03
3	E	255	ILE	N-CA-C	-6.78	97.80	108.86
2	A	180	VAL	N-CA-C	-6.78	103.92	110.42
3	E	289	MET	CA-C-N	6.77	127.45	120.00
3	E	289	MET	C-N-CA	6.77	127.45	120.00
4	G	37	ALA	CA-C-N	6.77	129.35	120.28
4	G	37	ALA	C-N-CA	6.77	129.35	120.28
7	O	9	PRO	CA-C-O	6.77	124.79	118.29
1	2	56	ALA	CA-C-N	6.77	129.35	120.28
1	2	56	ALA	C-N-CA	6.77	129.35	120.28
1	1	59	GLU	CA-C-N	6.77	129.35	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	59	GLU	C-N-CA	6.77	129.35	120.28
3	D	41	THR	O-C-N	-6.77	116.71	121.65
1	6	54	GLY	CA-C-O	6.76	127.72	120.75
1	4	17	ILE	CA-C-N	6.75	128.58	120.14
1	4	17	ILE	C-N-CA	6.75	128.58	120.14
2	A	186	LEU	O-C-N	6.75	129.84	122.15
3	E	343	GLY	N-CA-C	-6.75	105.28	115.00
2	A	290	PRO	N-CA-C	6.75	118.93	110.70
1	6	54	GLY	O-C-N	-6.74	115.72	122.19
3	E	333	THR	N-CA-C	-6.74	98.40	108.99
3	F	30	LEU	CA-C-N	6.74	127.28	120.14
3	F	30	LEU	C-N-CA	6.74	127.28	120.14
7	O	33	ILE	N-CA-C	-6.74	106.44	111.90
6	I	46	GLN	O-C-N	-6.73	115.52	123.06
1	6	4	VAL	CA-C-N	6.72	129.84	120.29
1	6	4	VAL	C-N-CA	6.72	129.84	120.29
4	G	223	ALA	CA-C-N	6.72	129.28	120.28
4	G	223	ALA	C-N-CA	6.72	129.28	120.28
1	0	2	GLN	CA-C-N	6.71	129.82	120.29
1	0	2	GLN	C-N-CA	6.71	129.82	120.29
12	X	3	ILE	CA-C-O	-6.71	113.97	120.95
1	2	72	LEU	CA-C-N	6.71	129.51	120.65
1	2	72	LEU	C-N-CA	6.71	129.51	120.65
3	E	220	GLY	N-CA-C	-6.71	97.27	113.18
2	B	8	THR	N-CA-C	-6.71	104.40	112.59
1	6	31	ALA	CA-C-N	6.71	129.27	120.28
1	6	31	ALA	C-N-CA	6.71	129.27	120.28
1	7	62	GLY	CA-C-N	6.71	129.16	120.44
1	7	62	GLY	C-N-CA	6.71	129.16	120.44
3	F	452	ILE	CA-C-N	6.70	128.22	119.84
3	F	452	ILE	C-N-CA	6.70	128.22	119.84
1	8	43	ILE	CA-C-N	6.70	129.56	120.38
1	8	43	ILE	C-N-CA	6.70	129.56	120.38
3	E	196	ASP	CA-C-O	-6.70	113.32	120.42
10	V	111	SER	CA-C-N	6.70	129.26	120.28
10	V	111	SER	C-N-CA	6.70	129.26	120.28
2	B	445	PRO	N-CA-C	6.70	122.38	113.40
1	9	18	GLY	CA-C-N	6.69	129.92	120.28
1	9	18	GLY	C-N-CA	6.69	129.92	120.28
4	G	231	SER	CA-C-O	-6.69	113.33	120.42
3	F	377	THR	N-CA-C	-6.69	103.91	111.07
3	F	317	LEU	N-CA-C	-6.69	104.43	112.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	E	139	LYS	O-C-N	-6.69	115.03	122.12
2	A	459	GLU	CA-C-N	6.68	129.24	120.28
2	A	459	GLU	C-N-CA	6.68	129.24	120.28
2	C	118	ASP	N-CA-C	-6.68	104.26	112.88
4	G	113	LYS	N-CA-C	6.68	118.57	111.28
9	U	153	VAL	CA-C-N	6.68	129.24	120.28
9	U	153	VAL	C-N-CA	6.68	129.24	120.28
3	E	240	ALA	CA-C-N	6.68	129.23	120.28
3	E	240	ALA	C-N-CA	6.68	129.23	120.28
3	D	101	GLU	CA-C-O	-6.67	114.58	120.19
2	A	357	GLU	N-CA-C	6.67	118.55	111.28
6	I	55	GLU	CA-C-N	6.67	128.17	119.84
6	I	55	GLU	C-N-CA	6.67	128.17	119.84
11	W	73	ILE	N-CA-C	-6.66	103.74	111.00
8	T	220	MET	CA-C-N	6.66	129.21	120.28
8	T	220	MET	C-N-CA	6.66	129.21	120.28
2	C	489	GLY	CA-C-O	6.66	127.84	119.72
1	0	29	VAL	O-C-N	-6.66	114.97	121.83
1	2	8	LYS	CA-C-O	-6.66	113.83	120.82
2	C	142	ARG	CA-C-N	6.65	131.39	120.94
2	C	142	ARG	C-N-CA	6.65	131.39	120.94
1	2	6	ALA	O-C-N	-6.65	115.22	122.07
1	9	74	PHE	CA-C-O	-6.65	112.86	120.24
4	G	262	VAL	CA-C-N	6.65	128.94	120.56
4	G	262	VAL	C-N-CA	6.65	128.94	120.56
2	C	456	ASP	N-CA-C	-6.64	104.66	112.89
1	1	60	ALA	CA-C-N	6.63	129.17	120.28
1	1	60	ALA	C-N-CA	6.63	129.17	120.28
5	H	14	PHE	N-CA-C	-6.63	97.41	108.75
12	X	35	GLN	N-CA-C	-6.63	99.86	110.14
2	A	195	SER	N-CA-C	6.63	121.11	112.89
10	V	119	SER	O-C-N	-6.63	115.19	122.09
1	9	49	PRO	CA-C-N	6.63	129.16	120.28
1	9	49	PRO	C-N-CA	6.63	129.16	120.28
1	9	12	ALA	CA-C-N	6.62	127.29	119.94
1	9	12	ALA	C-N-CA	6.62	127.29	119.94
9	U	148	HIS	CA-C-O	6.62	127.57	120.55
3	F	412	ARG	N-CA-C	-6.62	104.14	111.36
3	F	337	ARG	CA-C-N	6.61	127.32	119.98
3	F	337	ARG	C-N-CA	6.61	127.32	119.98
1	0	72	LEU	CA-C-N	6.61	129.14	120.28
1	0	72	LEU	C-N-CA	6.61	129.14	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	56	ALA	CA-C-N	6.61	129.43	120.44
1	6	56	ALA	C-N-CA	6.61	129.43	120.44
2	A	347	ILE	N-CA-C	6.61	117.36	110.62
2	C	132	GLN	N-CA-C	-6.61	98.61	108.99
2	C	479	ASN	N-CA-C	-6.61	105.22	113.28
2	C	259	PHE	CA-C-N	6.61	129.14	120.28
2	C	259	PHE	C-N-CA	6.61	129.14	120.28
5	H	109	LYS	CA-C-N	6.61	129.13	120.28
5	H	109	LYS	C-N-CA	6.61	129.13	120.28
8	T	181	ILE	O-C-N	6.61	128.28	121.87
4	G	168	ASP	N-CA-C	-6.60	101.33	109.65
8	T	133	GLY	CA-C-N	6.60	129.13	120.28
8	T	133	GLY	C-N-CA	6.60	129.13	120.28
9	U	148	HIS	O-C-N	-6.60	115.12	122.12
1	7	23	GLY	O-C-N	6.60	128.51	122.18
1	1	11	GLY	CA-C-N	6.60	129.01	120.44
1	1	11	GLY	C-N-CA	6.60	129.01	120.44
2	B	450	GLY	CA-C-N	6.60	129.79	120.42
2	B	450	GLY	C-N-CA	6.60	129.79	120.42
10	V	77	GLN	N-CA-C	-6.59	104.02	111.14
11	W	66	LEU	CA-C-N	6.59	129.44	120.54
11	W	66	LEU	C-N-CA	6.59	129.44	120.54
9	U	73	LEU	CA-C-N	6.58	128.32	120.09
9	U	73	LEU	C-N-CA	6.58	128.32	120.09
1	5	61	THR	CA-C-N	6.58	127.29	119.98
1	5	61	THR	C-N-CA	6.58	127.29	119.98
1	3	38	SER	O-C-N	6.58	130.36	122.27
7	O	35	ALA	CA-C-N	6.58	129.42	120.54
7	O	35	ALA	C-N-CA	6.58	129.42	120.54
1	7	5	LEU	CA-C-N	6.58	129.42	120.54
1	7	5	LEU	C-N-CA	6.58	129.42	120.54
3	E	344	ILE	CA-C-O	-6.58	112.96	120.65
13	Y	6	PRO	CA-C-O	-6.58	113.28	120.97
2	B	217	GLN	CA-C-O	-6.57	113.45	120.42
2	B	251	THR	CA-C-N	6.57	129.62	120.29
2	B	251	THR	C-N-CA	6.57	129.62	120.29
2	C	117	ILE	N-CA-C	-6.57	106.33	112.83
4	G	273	GLY	CA-C-N	6.57	129.08	120.28
4	G	273	GLY	C-N-CA	6.57	129.08	120.28
2	C	48	ASN	N-CA-C	-6.57	104.84	112.92
2	A	217	GLN	CA-C-N	6.56	129.61	120.29
2	A	217	GLN	C-N-CA	6.56	129.61	120.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	W	44	ALA	O-C-N	-6.55	116.97	123.46
2	B	331	THR	CA-C-O	6.55	127.65	120.71
2	B	78	PHE	N-CA-C	-6.55	104.94	113.12
1	6	32	ALA	N-CA-C	6.55	118.42	111.28
3	F	107	GLY	CA-C-N	6.54	128.02	119.84
3	F	107	GLY	C-N-CA	6.54	128.02	119.84
1	8	34	ILE	O-C-N	6.54	128.21	121.87
3	D	44	GLY	O-C-N	-6.54	116.32	122.86
6	I	19	GLN	CA-C-N	6.54	129.04	120.28
6	I	19	GLN	C-N-CA	6.54	129.04	120.28
1	4	23	GLY	CA-C-N	6.53	129.69	120.42
1	4	23	GLY	C-N-CA	6.53	129.69	120.42
10	V	48	SER	CA-C-N	6.53	130.69	121.61
10	V	48	SER	C-N-CA	6.53	130.69	121.61
4	G	32	SER	CA-C-N	6.53	129.56	120.29
4	G	32	SER	C-N-CA	6.53	129.56	120.29
3	D	79	THR	N-CA-C	-6.52	104.25	111.36
8	T	75	GLY	CA-C-O	-6.52	113.12	120.30
4	G	258	THR	CA-C-O	6.52	127.46	120.55
3	E	179	GLY	CA-C-N	6.51	127.89	120.53
3	E	179	GLY	C-N-CA	6.51	127.89	120.53
2	A	180	VAL	O-C-N	6.51	128.29	121.91
2	B	454	HIS	O-C-N	-6.51	113.48	122.46
14	Z	27	PHE	N-CA-C	6.50	118.03	111.07
2	B	326	LEU	CA-C-N	6.49	126.41	119.85
2	B	326	LEU	C-N-CA	6.49	126.41	119.85
6	I	17	ALA	CA-C-N	6.49	129.51	120.29
6	I	17	ALA	C-N-CA	6.49	129.51	120.29
3	F	123	SER	CA-C-N	6.49	129.27	120.38
3	F	123	SER	C-N-CA	6.49	129.27	120.38
8	T	190	ILE	O-C-N	6.49	128.51	121.83
4	G	180	LYS	N-CA-C	-6.49	102.38	108.22
1	1	73	LEU	O-C-N	6.49	129.09	122.09
3	E	74	GLU	N-CA-C	-6.49	98.69	109.46
2	C	244	LEU	O-C-N	6.48	128.99	122.12
2	B	76	VAL	CA-C-O	-6.48	113.59	120.39
2	C	151	GLY	CA-C-N	6.47	132.13	123.00
2	C	151	GLY	C-N-CA	6.47	132.13	123.00
1	8	48	PHE	N-CA-C	6.47	121.55	112.75
3	D	448	LYS	N-CA-C	-6.47	105.01	113.17
10	V	153	VAL	CA-C-N	6.47	128.95	120.28
10	V	153	VAL	C-N-CA	6.47	128.95	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	F	121	PRO	N-CA-C	6.47	118.59	110.70
1	1	24	ILE	CA-C-N	6.46	127.16	119.98
1	1	24	ILE	C-N-CA	6.46	127.16	119.98
5	H	129	VAL	N-CA-C	6.46	117.21	110.62
2	A	420	LEU	CA-C-O	-6.46	114.04	120.82
1	7	23	GLY	CA-C-O	-6.45	114.03	121.00
4	G	118	LEU	CA-C-N	6.45	128.93	120.28
4	G	118	LEU	C-N-CA	6.45	128.93	120.28
12	X	2	VAL	CA-C-N	6.45	129.29	120.46
12	X	2	VAL	C-N-CA	6.45	129.29	120.46
3	D	82	PRO	CA-C-O	-6.45	113.99	121.34
8	T	195	THR	CA-C-N	6.44	129.44	120.29
8	T	195	THR	C-N-CA	6.44	129.44	120.29
4	G	53	LYS	N-CA-C	-6.44	104.18	111.07
3	F	370	VAL	O-C-N	6.44	128.11	121.87
3	D	102	PRO	CA-C-O	-6.43	114.00	121.34
3	D	424	PHE	CA-C-N	6.43	129.19	120.44
3	D	424	PHE	C-N-CA	6.43	129.19	120.44
4	G	16	ILE	N-CA-C	6.43	116.60	110.42
2	C	161	ILE	CA-C-O	-6.43	114.47	121.28
3	F	157	GLY	O-C-N	6.42	129.36	123.00
2	C	318	GLU	N-CA-C	-6.42	105.32	113.02
2	A	45	GLY	O-C-N	6.42	131.04	122.70
2	B	486	ARG	CA-C-O	-6.42	113.75	120.55
5	H	81	SER	N-CA-C	6.42	120.50	111.52
8	T	80	LYS	N-CA-C	-6.42	103.98	113.61
2	A	432	GLN	N-CA-C	-6.42	98.77	108.52
3	F	395	GLU	N-CA-C	-6.41	103.90	112.94
2	B	418	GLN	CA-C-O	-6.41	114.09	120.82
5	H	88	ILE	N-CA-C	-6.41	106.30	111.81
2	A	254	SER	CA-C-N	6.41	129.24	120.46
2	A	254	SER	C-N-CA	6.41	129.24	120.46
10	V	26	ALA	CA-C-N	6.41	129.38	120.29
10	V	26	ALA	C-N-CA	6.41	129.38	120.29
1	7	2	GLN	O-C-N	-6.40	115.48	122.07
1	2	13	GLY	CA-C-N	6.39	128.85	120.60
1	2	13	GLY	C-N-CA	6.39	128.85	120.60
1	5	24	ILE	CA-C-N	6.39	127.04	119.94
1	5	24	ILE	C-N-CA	6.39	127.04	119.94
2	B	164	GLY	O-C-N	6.39	129.38	122.22
2	B	414	ALA	CA-C-N	6.39	128.85	120.28
2	B	414	ALA	C-N-CA	6.39	128.85	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	T	177	LEU	CA-C-N	6.39	127.03	119.94
8	T	177	LEU	C-N-CA	6.39	127.03	119.94
3	D	220	GLY	CA-C-N	6.39	131.66	120.87
3	D	220	GLY	C-N-CA	6.39	131.66	120.87
10	V	13	ALA	CA-C-O	-6.39	114.11	120.82
7	O	140	ALA	CA-C-N	6.38	129.36	120.29
7	O	140	ALA	C-N-CA	6.38	129.36	120.29
12	X	9	ARG	N-CA-C	-6.38	104.25	111.14
1	7	15	SER	CA-C-N	6.38	129.46	120.28
1	7	15	SER	C-N-CA	6.38	129.46	120.28
3	E	264	ALA	CA-C-N	6.37	127.01	120.00
3	E	264	ALA	C-N-CA	6.37	127.01	120.00
3	D	165	VAL	CA-C-N	6.37	128.81	120.28
3	D	165	VAL	C-N-CA	6.37	128.81	120.28
4	G	223	ALA	N-CA-C	6.37	118.02	111.14
8	T	183	ALA	CA-C-N	6.37	126.88	119.94
8	T	183	ALA	C-N-CA	6.37	126.88	119.94
11	W	64	LYS	CA-C-N	6.37	126.12	119.05
11	W	64	LYS	C-N-CA	6.37	126.12	119.05
4	G	235	ASN	CA-C-N	6.37	129.10	120.44
4	G	235	ASN	C-N-CA	6.37	129.10	120.44
3	D	93	GLY	N-CA-C	-6.36	106.15	115.63
3	E	30	LEU	CA-C-N	6.36	127.79	119.84
3	E	30	LEU	C-N-CA	6.36	127.79	119.84
3	F	473	LEU	O-C-N	-6.36	115.52	122.07
1	9	65	CYS	CA-C-O	-6.36	113.81	120.55
2	C	170	ILE	N-CA-C	-6.36	98.50	108.86
7	O	184	ILE	N-CA-C	6.36	117.10	110.62
2	C	143	SER	CA-C-O	6.36	128.49	121.56
3	E	466	VAL	O-C-N	6.35	128.38	121.83
3	D	284	THR	CA-C-N	6.35	129.31	120.29
3	D	284	THR	C-N-CA	6.35	129.31	120.29
1	7	65	CYS	CA-C-N	6.35	129.31	120.29
1	7	65	CYS	C-N-CA	6.35	129.31	120.29
2	C	393	LYS	CA-C-N	6.35	129.31	120.29
2	C	393	LYS	C-N-CA	6.35	129.31	120.29
3	F	223	ASN	N-CA-C	-6.35	105.47	113.72
1	7	33	LEU	CA-C-O	-6.34	114.16	120.82
1	7	54	GLY	CA-C-N	6.34	128.68	120.44
1	7	54	GLY	C-N-CA	6.34	128.68	120.44
2	C	468	SER	CA-C-N	6.34	129.29	120.29
2	C	468	SER	C-N-CA	6.34	129.29	120.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	H	106	ALA	CA-C-N	6.34	128.68	120.44
5	H	106	ALA	C-N-CA	6.34	128.68	120.44
9	U	142	GLN	CA-C-O	-6.34	112.68	119.97
11	W	59	ASP	O-C-N	-6.33	114.56	122.35
1	1	36	GLY	CA-C-O	6.33	127.27	120.75
3	E	139	LYS	CA-C-N	6.33	129.41	120.42
3	E	139	LYS	C-N-CA	6.33	129.41	120.42
4	G	186	LYS	CA-C-N	6.33	128.76	120.28
4	G	186	LYS	C-N-CA	6.33	128.76	120.28
8	T	213	LEU	CA-C-N	6.33	129.93	120.31
8	T	213	LEU	C-N-CA	6.33	129.93	120.31
1	6	50	MET	CA-C-N	6.33	128.76	120.28
1	6	50	MET	C-N-CA	6.33	128.76	120.28
2	C	401	GLU	CA-C-N	6.32	128.53	120.56
2	C	401	GLU	C-N-CA	6.32	128.53	120.56
12	X	28	VAL	N-CA-C	-6.32	98.53	107.75
2	A	271	ASP	CA-C-N	6.32	133.07	121.70
2	A	271	ASP	C-N-CA	6.32	133.07	121.70
9	U	201	ILE	CA-C-N	6.32	129.26	120.29
9	U	201	ILE	C-N-CA	6.32	129.26	120.29
12	X	30	PRO	O-C-N	6.32	131.17	122.64
1	1	32	ALA	CA-C-N	6.31	128.65	120.44
1	1	32	ALA	C-N-CA	6.31	128.65	120.44
2	A	252	ALA	CA-C-N	6.31	129.25	120.29
2	A	252	ALA	C-N-CA	6.31	129.25	120.29
1	3	14	ILE	CA-C-N	6.31	128.73	120.28
1	3	14	ILE	C-N-CA	6.31	128.73	120.28
3	F	145	ALA	CA-C-N	6.31	126.33	119.90
3	F	145	ALA	C-N-CA	6.31	126.33	119.90
2	B	393	LYS	CA-C-N	6.30	128.63	120.44
2	B	393	LYS	C-N-CA	6.30	128.63	120.44
1	8	51	ALA	N-CA-C	6.30	118.23	111.36
2	C	36	VAL	N-CA-C	-6.30	98.97	108.17
2	C	31	GLY	N-CA-C	-6.29	101.95	111.14
9	U	74	ALA	CA-C-N	6.29	125.86	119.19
9	U	74	ALA	C-N-CA	6.29	125.86	119.19
2	A	169	ILE	N-CA-C	-6.29	98.80	107.99
8	T	131	ILE	CA-C-N	6.29	128.71	120.28
8	T	131	ILE	C-N-CA	6.29	128.71	120.28
1	8	28	ILE	O-C-N	6.29	127.97	121.87
4	G	168	ASP	CA-C-N	6.29	127.70	119.84
4	G	168	ASP	C-N-CA	6.29	127.70	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A	210	GLN	CA-C-O	-6.29	113.95	121.56
2	C	326	LEU	CA-C-N	6.28	126.78	119.99
2	C	326	LEU	C-N-CA	6.28	126.78	119.99
7	O	135	LYS	CA-C-N	6.28	128.70	120.28
7	O	135	LYS	C-N-CA	6.28	128.70	120.28
1	9	74	PHE	N-CA-C	-6.28	103.97	111.69
2	A	429	LEU	O-C-N	6.27	128.77	122.12
4	G	22	THR	CA-C-N	6.27	128.60	120.44
4	G	22	THR	C-N-CA	6.27	128.60	120.44
3	E	224	GLU	O-C-N	-6.27	115.55	121.20
3	E	306	SER	O-C-N	-6.27	116.08	123.22
2	A	78	PHE	CA-C-O	6.26	128.23	121.16
2	B	171	GLY	CA-C-N	6.26	130.37	121.42
2	B	171	GLY	C-N-CA	6.26	130.37	121.42
1	6	36	GLY	O-C-N	6.26	128.20	122.19
2	A	129	SER	N-CA-C	-6.26	100.14	108.34
2	C	450	GLY	CA-C-N	6.26	128.44	120.56
2	C	450	GLY	C-N-CA	6.26	128.44	120.56
1	9	54	GLY	CA-C-O	-6.25	114.31	120.75
3	D	16	VAL	N-CA-C	-6.25	96.35	109.34
7	O	82	ASP	CA-C-O	6.25	129.44	120.51
2	C	504	GLU	O-C-N	6.25	128.74	122.12
9	U	72	TYR	O-C-N	-6.24	114.41	122.09
2	A	433	ASN	CA-C-N	6.24	129.73	120.87
2	A	433	ASN	C-N-CA	6.24	129.73	120.87
2	B	90	VAL	CA-C-O	6.24	127.06	120.51
2	C	48	ASN	CA-C-N	6.24	128.86	120.50
2	C	48	ASN	C-N-CA	6.24	128.86	120.50
3	D	411	GLN	O-C-N	6.24	128.73	122.12
2	A	34	LEU	N-CA-C	-6.23	107.51	114.62
3	E	11	GLY	N-CA-C	-6.23	101.58	111.18
1	3	40	ASN	N-CA-C	6.23	123.58	109.81
8	T	109	PHE	N-CA-C	-6.23	99.94	109.41
12	X	6	LEU	CA-C-N	6.23	128.53	120.44
12	X	6	LEU	C-N-CA	6.23	128.53	120.44
2	A	484	GLU	N-CA-C	6.22	118.06	111.28
2	A	428	GLN	CA-C-N	6.22	128.61	120.28
2	A	428	GLN	C-N-CA	6.22	128.61	120.28
1	9	20	LEU	CA-C-N	6.21	126.88	119.98
1	9	20	LEU	C-N-CA	6.21	126.88	119.98
2	C	301	PHE	O-C-N	6.21	128.70	122.12
1	8	59	GLU	O-C-N	-6.21	115.54	122.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	E	471	GLU	CA-C-N	6.21	128.60	120.28
3	E	471	GLU	C-N-CA	6.21	128.60	120.28
3	E	249	GLN	CA-C-N	6.21	129.69	120.87
3	E	249	GLN	C-N-CA	6.21	129.69	120.87
1	1	23	GLY	CA-C-N	6.21	129.23	120.42
1	1	23	GLY	C-N-CA	6.21	129.23	120.42
4	G	102	GLN	CA-C-N	6.20	127.59	119.84
4	G	102	GLN	C-N-CA	6.20	127.59	119.84
8	T	109	PHE	CA-C-N	6.20	129.51	120.71
8	T	109	PHE	C-N-CA	6.20	129.51	120.71
3	F	150	GLY	CA-C-N	6.20	128.68	122.30
3	F	150	GLY	C-N-CA	6.20	128.68	122.30
9	U	70	ALA	CA-C-N	6.20	128.87	120.44
9	U	70	ALA	C-N-CA	6.20	128.87	120.44
3	F	104	ASP	N-CA-C	-6.20	105.76	113.38
3	E	294	GLU	N-CA-C	6.19	118.03	111.28
1	0	36	GLY	CA-C-N	6.19	129.21	120.42
1	0	36	GLY	C-N-CA	6.19	129.21	120.42
2	A	480	GLU	CA-C-N	6.19	128.57	120.28
2	A	480	GLU	C-N-CA	6.19	128.57	120.28
3	F	259	PHE	CA-C-O	6.19	126.98	120.42
4	G	231	SER	O-C-N	6.18	129.20	122.15
1	4	65	CYS	CA-C-N	6.18	129.06	120.29
1	4	65	CYS	C-N-CA	6.18	129.06	120.29
1	3	23	GLY	CA-C-N	6.17	129.19	120.42
1	3	23	GLY	C-N-CA	6.17	129.19	120.42
2	B	495	LEU	N-CA-C	-6.17	104.63	111.36
11	W	30	PHE	CA-C-O	6.17	126.88	120.40
3	E	166	PHE	CA-C-O	-6.17	114.34	120.82
3	E	287	THR	CA-C-N	6.17	128.55	120.28
3	E	287	THR	C-N-CA	6.17	128.55	120.28
9	U	177	ILE	CA-C-N	6.17	128.55	120.28
9	U	177	ILE	C-N-CA	6.17	128.55	120.28
2	C	426	LEU	CA-C-N	6.17	128.54	120.28
2	C	426	LEU	C-N-CA	6.17	128.54	120.28
3	D	192	ARG	CA-C-O	-6.16	114.02	120.55
1	8	28	ILE	N-CA-C	6.16	116.91	110.62
8	T	102	ILE	O-C-N	-6.16	115.89	121.87
2	A	412	LEU	CA-C-N	6.16	131.17	121.56
2	A	412	LEU	C-N-CA	6.16	131.17	121.56
2	C	76	VAL	N-CA-C	-6.16	99.49	108.11
3	D	387	ILE	CA-C-N	6.16	128.89	120.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	D	387	ILE	C-N-CA	6.16	128.89	120.46
8	T	157	LEU	N-CA-C	6.15	117.98	111.28
2	C	356	ALA	CA-C-O	6.15	127.28	120.82
1	2	17	ILE	CA-C-N	6.15	127.88	120.13
1	2	17	ILE	C-N-CA	6.15	127.88	120.13
1	3	27	ALA	CA-C-O	-6.15	113.91	120.42
2	B	263	GLY	CA-C-O	6.14	126.03	119.03
2	B	301	PHE	CA-C-N	6.14	128.51	120.28
2	B	301	PHE	C-N-CA	6.14	128.51	120.28
3	F	303	SER	N-CA-C	6.14	118.47	108.76
3	D	452	ILE	CA-C-N	6.14	127.52	119.84
3	D	452	ILE	C-N-CA	6.14	127.52	119.84
10	V	47	GLN	N-CA-C	-6.14	104.49	112.23
2	A	168	LEU	N-CA-C	6.14	119.25	109.24
1	8	48	PHE	CA-C-N	6.14	125.69	119.19
1	8	48	PHE	C-N-CA	6.14	125.69	119.19
2	B	181	ALA	CA-C-O	6.13	127.01	120.70
3	D	242	TYR	O-C-N	6.13	128.62	122.12
4	G	214	LEU	CA-C-O	-6.13	112.92	119.97
1	7	13	GLY	CA-C-N	6.13	128.86	120.46
1	7	13	GLY	C-N-CA	6.13	128.86	120.46
3	E	357	LEU	N-CA-C	-6.13	98.29	108.34
1	8	69	SER	CA-C-N	6.12	128.99	120.29
1	8	69	SER	C-N-CA	6.12	128.99	120.29
2	B	15	GLU	N-CA-C	-6.12	104.72	111.82
2	C	53	GLU	O-C-N	6.12	130.18	122.65
3	F	195	ASN	CA-C-N	6.12	128.40	120.44
3	F	195	ASN	C-N-CA	6.12	128.40	120.44
2	A	316	GLU	N-CA-C	-6.12	105.57	113.16
3	D	107	GLY	CA-C-O	-6.12	112.77	121.52
3	E	74	GLU	CA-C-N	6.12	129.40	120.71
3	E	74	GLU	C-N-CA	6.12	129.40	120.71
2	A	11	SER	CA-C-O	-6.12	114.06	120.55
3	E	87	VAL	O-C-N	-6.12	116.25	123.04
11	W	76	PHE	N-CA-C	-6.12	103.94	111.40
2	A	299	ASP	CA-C-N	6.12	129.10	120.42
2	A	299	ASP	C-N-CA	6.12	129.10	120.42
8	T	57	ARG	O-C-N	6.11	129.79	122.27
2	A	77	LEU	CA-C-O	-6.11	114.90	121.56
2	B	31	GLY	O-C-N	-6.11	118.03	123.65
3	E	234	LEU	CA-C-N	6.11	128.39	120.44
3	E	234	LEU	C-N-CA	6.11	128.39	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A	328	VAL	CA-C-O	6.11	127.09	120.43
3	D	469	LYS	CA-C-O	6.11	126.90	119.38
5	H	133	LEU	CA-C-N	6.10	128.46	120.28
5	H	133	LEU	C-N-CA	6.10	128.46	120.28
2	C	81	ASP	CA-C-O	6.10	126.89	119.38
8	T	190	ILE	CA-C-O	-6.10	114.39	120.85
14	Z	37	ARG	O-C-N	6.09	129.10	122.15
3	E	100	GLY	N-CA-C	-6.09	106.52	115.72
1	6	18	GLY	O-C-N	-6.08	115.79	122.24
8	T	176	ARG	O-C-N	6.08	128.34	122.07
4	G	248	ILE	N-CA-C	6.08	116.75	110.36
3	D	291	LEU	CA-C-N	6.08	128.43	120.28
3	D	291	LEU	C-N-CA	6.08	128.43	120.28
3	D	465	ASP	CA-C-N	6.08	128.22	120.56
3	D	465	ASP	C-N-CA	6.08	128.22	120.56
1	0	63	LEU	CA-C-O	-6.08	114.44	120.82
6	I	33	SER	CA-C-N	6.07	128.21	120.56
6	I	33	SER	C-N-CA	6.07	128.21	120.56
8	T	174	GLY	CA-C-N	6.07	131.00	120.68
8	T	174	GLY	C-N-CA	6.07	131.00	120.68
1	5	59	GLU	CA-C-N	6.07	128.91	120.29
1	5	59	GLU	C-N-CA	6.07	128.91	120.29
2	A	186	LEU	CA-C-O	-6.07	113.99	120.42
5	H	41	VAL	CA-C-N	6.07	132.52	122.33
5	H	41	VAL	C-N-CA	6.07	132.52	122.33
3	E	321	ALA	CA-C-O	-6.07	112.97	118.79
4	G	176	GLU	CA-C-N	6.06	125.82	119.76
4	G	176	GLU	C-N-CA	6.06	125.82	119.76
2	A	363	ILE	O-C-N	-6.06	116.08	122.68
3	D	251	VAL	N-CA-C	-6.06	96.74	109.34
9	U	101	GLU	CA-C-N	6.06	128.40	120.28
9	U	101	GLU	C-N-CA	6.06	128.40	120.28
1	6	18	GLY	CA-C-N	6.05	129.51	120.31
1	6	18	GLY	C-N-CA	6.05	129.51	120.31
9	U	115	ASN	O-C-N	6.05	128.63	122.09
2	C	37	GLY	CA-C-O	-6.05	116.00	122.05
1	8	68	VAL	CA-C-N	6.05	128.39	120.28
1	8	68	VAL	C-N-CA	6.05	128.39	120.28
9	U	193	VAL	CA-C-O	6.05	127.26	120.85
3	E	463	ILE	CA-C-N	6.04	128.30	120.44
3	E	463	ILE	C-N-CA	6.04	128.30	120.44
1	3	25	GLY	CA-C-N	6.04	128.74	120.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	3	25	GLY	C-N-CA	6.04	128.74	120.46
3	D	359	ASP	O-C-N	-6.04	115.06	122.19
1	0	8	LYS	CA-C-O	-6.04	114.48	120.82
2	C	488	LYS	CA-C-O	6.04	126.92	120.70
1	3	28	ILE	CA-C-N	6.04	128.29	120.56
1	3	28	ILE	C-N-CA	6.04	128.29	120.56
1	0	39	ARG	N-CA-C	6.04	118.82	111.82
2	C	398	GLN	CA-C-N	6.04	129.49	120.31
2	C	398	GLN	C-N-CA	6.04	129.49	120.31
2	B	23	ASP	O-C-N	6.04	128.29	122.07
3	E	456	ALA	CA-C-O	6.04	126.62	119.56
3	E	157	GLY	CA-C-N	6.03	132.22	121.48
3	E	157	GLY	C-N-CA	6.03	132.22	121.48
3	F	362	VAL	CA-C-N	6.03	131.08	122.09
3	F	362	VAL	C-N-CA	6.03	131.08	122.09
3	F	374	VAL	CA-C-O	-6.03	114.68	120.95
8	T	53	ILE	N-CA-C	-6.03	105.49	111.88
3	E	180	GLY	N-CA-C	-6.02	104.83	112.54
10	V	39	ALA	N-CA-C	6.02	119.89	112.54
7	O	107	ASP	O-C-N	-6.02	115.74	122.12
1	4	26	ILE	O-C-N	-6.02	116.03	121.87
3	D	185	THR	N-CA-C	-6.02	98.47	108.34
5	H	52	LEU	CA-C-O	-6.02	113.83	120.69
1	3	28	ILE	N-CA-C	6.02	116.80	110.72
3	E	425	THR	N-CA-C	-6.01	97.99	110.80
7	O	63	SER	CA-C-N	6.01	128.83	120.29
7	O	63	SER	C-N-CA	6.01	128.83	120.29
2	B	255	ILE	CA-C-N	6.01	126.65	119.98
2	B	255	ILE	C-N-CA	6.01	126.65	119.98
3	F	73	GLY	N-CA-C	-6.01	106.67	115.63
1	6	50	MET	N-CA-C	-6.01	104.73	111.28
1	9	19	LEU	CA-C-N	6.01	128.33	120.28
1	9	19	LEU	C-N-CA	6.01	128.33	120.28
3	F	82	PRO	CA-C-N	6.01	128.78	120.49
3	F	82	PRO	C-N-CA	6.01	128.78	120.49
5	H	88	ILE	CA-C-O	6.01	126.93	120.32
2	B	296	TYR	N-CA-C	-6.00	101.26	110.32
2	B	60	GLY	N-CA-C	-5.99	106.98	115.43
3	F	434	LEU	CA-C-N	5.99	128.31	120.28
3	F	434	LEU	C-N-CA	5.99	128.31	120.28
9	U	133	LEU	CA-C-N	5.99	129.41	120.31
9	U	133	LEU	C-N-CA	5.99	129.41	120.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	H	36	SER	N-CA-C	-5.98	104.64	112.41
3	D	62	ILE	CA-C-O	-5.98	114.83	121.23
4	G	214	LEU	N-CA-C	-5.98	104.89	111.82
1	2	26	ILE	CA-C-N	5.97	128.28	120.28
1	2	26	ILE	C-N-CA	5.97	128.28	120.28
3	F	100	GLY	CA-C-O	5.97	124.39	118.77
2	B	508	ALA	N-CA-C	5.97	118.58	111.71
2	C	128	ARG	N-CA-C	-5.97	100.26	109.52
3	D	322	PRO	O-C-N	5.97	129.69	122.23
2	C	137	GLY	CA-C-O	-5.97	116.07	122.76
2	A	367	ILE	N-CA-C	-5.97	99.76	108.11
2	A	67	ASN	N-CA-C	-5.96	99.68	109.40
2	B	246	TYR	N-CA-C	5.96	117.78	111.28
3	F	374	VAL	O-C-N	5.96	127.65	121.87
1	0	3	LEU	N-CA-C	-5.95	104.88	111.36
2	A	461	SER	N-CA-C	5.95	117.76	111.28
1	7	20	LEU	CA-C-O	-5.94	114.25	120.55
1	9	16	THR	O-C-N	-5.94	115.27	122.22
2	C	216	ALA	CA-C-O	-5.94	114.12	120.42
7	O	38	GLN	CA-C-O	5.94	127.06	120.82
1	1	54	GLY	O-C-N	5.94	127.89	122.19
2	A	117	ILE	O-C-N	-5.93	116.77	122.16
4	G	94	ALA	O-C-N	5.92	129.56	122.27
2	C	219	VAL	CA-C-N	5.92	128.22	120.28
2	C	219	VAL	C-N-CA	5.92	128.22	120.28
3	D	422	GLU	CA-C-N	5.92	128.02	120.56
3	D	422	GLU	C-N-CA	5.92	128.02	120.56
2	B	178	THR	O-C-N	-5.92	114.99	122.27
3	E	261	PHE	CA-C-N	5.92	128.14	120.44
3	E	261	PHE	C-N-CA	5.92	128.14	120.44
1	6	59	GLU	CA-C-O	5.92	126.82	120.55
2	B	183	ASP	O-C-N	-5.92	115.30	122.22
3	E	16	VAL	CA-C-O	5.92	126.86	120.53
2	C	369	VAL	O-C-N	5.92	127.92	121.83
3	F	312	VAL	N-CA-C	5.91	114.52	109.02
2	A	360	TYR	CA-C-N	5.91	130.59	120.72
2	A	360	TYR	C-N-CA	5.91	130.59	120.72
3	F	216	ALA	CA-C-O	-5.91	114.45	120.71
11	W	3	THR	N-CA-C	-5.91	105.39	113.30
3	F	474	ALA	N-CA-C	5.90	117.72	111.28
7	O	118	LEU	O-C-N	-5.90	115.47	123.15
2	A	487	GLU	N-CA-C	5.90	117.79	111.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	D	254	PHE	CA-C-O	-5.90	113.52	120.60
2	B	277	ALA	CA-C-N	5.90	128.79	120.42
2	B	277	ALA	C-N-CA	5.90	128.79	120.42
4	G	23	MET	CA-C-N	5.90	128.18	120.28
4	G	23	MET	C-N-CA	5.90	128.18	120.28
1	7	4	VAL	CA-C-N	5.90	128.66	120.29
1	7	4	VAL	C-N-CA	5.90	128.66	120.29
2	A	389	ALA	CA-C-N	5.89	126.52	119.98
2	A	389	ALA	C-N-CA	5.89	126.52	119.98
2	C	339	TYR	CA-C-O	5.89	127.01	120.82
11	W	77	GLY	CA-C-N	5.89	128.66	120.29
11	W	77	GLY	C-N-CA	5.89	128.66	120.29
5	H	13	GLN	N-CA-C	-5.89	99.05	109.06
2	A	491	LEU	N-CA-C	-5.89	99.75	108.99
3	D	199	ARG	O-C-N	5.89	128.36	122.12
2	B	42	ARG	N-CA-C	-5.89	98.82	108.41
3	E	177	ALA	CA-C-N	5.89	129.07	120.71
3	E	177	ALA	C-N-CA	5.89	129.07	120.71
3	F	174	ILE	CA-C-N	5.89	128.17	120.28
3	F	174	ILE	C-N-CA	5.89	128.17	120.28
2	A	494	GLU	CA-C-N	5.88	128.65	120.29
2	A	494	GLU	C-N-CA	5.88	128.65	120.29
9	U	176	VAL	CA-C-N	5.88	128.52	120.46
9	U	176	VAL	C-N-CA	5.88	128.52	120.46
3	F	65	ASP	N-CA-C	-5.88	100.36	109.24
1	2	7	ALA	CA-C-N	5.88	128.08	120.44
1	2	7	ALA	C-N-CA	5.88	128.08	120.44
3	D	66	GLY	N-CA-C	5.88	118.79	112.33
2	A	150	THR	O-C-N	-5.87	115.37	122.48
3	E	234	LEU	O-C-N	-5.87	115.89	122.12
5	H	39	ILE	N-CA-C	-5.87	99.71	108.46
1	3	24	ILE	N-CA-C	-5.87	104.79	110.72
1	6	42	SER	CA-C-N	5.87	129.75	120.47
1	6	42	SER	C-N-CA	5.87	129.75	120.47
2	A	336	VAL	N-CA-C	-5.87	107.03	112.43
2	C	246	TYR	CA-C-O	-5.87	114.33	120.55
1	3	9	TYR	CA-C-O	-5.87	114.20	120.42
1	9	35	ASN	CA-C-N	5.87	126.45	119.94
1	9	35	ASN	C-N-CA	5.87	126.45	119.94
3	F	283	PRO	CA-C-N	5.86	131.86	122.83
3	F	283	PRO	C-N-CA	5.86	131.86	122.83
3	F	44	GLY	CA-C-N	5.86	131.70	122.21

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	F	44	GLY	C-N-CA	5.86	131.70	122.21
3	E	41	THR	CA-C-O	-5.85	114.70	120.26
3	E	355	SER	CA-C-N	5.85	128.12	120.28
3	E	355	SER	C-N-CA	5.85	128.12	120.28
2	A	289	ARG	CA-C-N	5.85	126.41	120.38
2	A	289	ARG	C-N-CA	5.85	126.41	120.38
3	F	326	PHE	N-CA-C	5.85	118.61	111.82
1	4	20	LEU	CA-C-N	5.85	126.47	119.98
1	4	20	LEU	C-N-CA	5.85	126.47	119.98
2	B	64	MET	N-CA-C	-5.85	100.52	109.41
2	A	471	LEU	N-CA-C	5.84	117.73	111.36
8	T	140	VAL	CA-C-N	5.84	128.69	120.28
8	T	140	VAL	C-N-CA	5.84	128.69	120.28
1	3	7	ALA	O-C-N	5.84	128.31	122.12
2	B	394	LEU	CA-C-O	-5.84	114.69	120.82
9	U	162	ALA	CA-C-N	5.84	128.59	120.29
9	U	162	ALA	C-N-CA	5.84	128.59	120.29
1	2	23	GLY	CA-C-N	5.84	129.88	120.30
1	2	23	GLY	C-N-CA	5.84	129.88	120.30
2	B	146	GLU	CA-C-N	5.84	125.79	119.78
2	B	146	GLU	C-N-CA	5.84	125.79	119.78
3	E	167	ILE	N-CA-C	-5.84	104.82	110.72
4	G	248	ILE	CA-C-N	5.84	128.58	120.29
4	G	248	ILE	C-N-CA	5.84	128.58	120.29
1	6	3	LEU	CA-C-N	5.84	128.46	120.46
1	6	3	LEU	C-N-CA	5.84	128.46	120.46
1	9	10	ILE	CA-C-N	5.84	126.42	119.94
1	9	10	ILE	C-N-CA	5.84	126.42	119.94
2	B	126	ALA	CA-C-O	5.84	125.20	118.55
2	B	399	TYR	CA-C-N	5.84	128.03	120.44
2	B	399	TYR	C-N-CA	5.84	128.03	120.44
9	U	88	VAL	CA-C-N	5.84	128.10	120.28
9	U	88	VAL	C-N-CA	5.84	128.10	120.28
3	D	264	ALA	CA-C-O	5.83	126.73	120.55
3	E	443	ALA	CA-C-N	5.83	127.91	120.56
3	E	443	ALA	C-N-CA	5.83	127.91	120.56
2	B	498	SER	CA-C-N	5.83	128.57	120.29
2	B	498	SER	C-N-CA	5.83	128.57	120.29
4	G	10	LEU	CA-C-N	5.83	128.09	120.28
4	G	10	LEU	C-N-CA	5.83	128.09	120.28
2	B	214	THR	CA-C-N	5.83	130.19	120.64
2	B	214	THR	C-N-CA	5.83	130.19	120.64

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	282	GLN	CA-C-O	-5.83	114.38	120.55
2	C	125	ALA	N-CA-C	-5.83	99.88	108.79
10	V	105	GLU	CA-C-N	5.82	128.01	120.44
10	V	105	GLU	C-N-CA	5.82	128.01	120.44
10	V	118	GLN	O-C-N	5.82	128.38	122.09
2	C	190	ARG	CA-C-O	5.82	128.84	120.51
1	3	8	LYS	CA-C-N	5.82	128.56	120.29
1	3	8	LYS	C-N-CA	5.82	128.56	120.29
3	E	261	PHE	N-CA-C	-5.82	104.85	111.14
2	A	347	ILE	CA-C-O	-5.82	114.90	120.95
2	B	236	ALA	N-CA-C	-5.82	97.66	108.02
3	D	240	ALA	CA-C-N	5.82	128.55	120.29
3	D	240	ALA	C-N-CA	5.82	128.55	120.29
2	B	65	ALA	CA-C-N	5.82	128.55	120.29
2	B	65	ALA	C-N-CA	5.82	128.55	120.29
3	D	463	ILE	N-CA-C	5.81	116.55	110.62
3	E	467	VAL	CA-C-O	5.81	127.01	120.85
3	F	302	GLY	N-CA-C	-5.81	102.65	112.77
2	A	159	VAL	CA-C-N	5.81	125.75	119.76
2	A	159	VAL	C-N-CA	5.81	125.75	119.76
2	A	392	LEU	O-C-N	5.81	128.28	122.12
8	T	192	ALA	N-CA-C	-5.81	104.94	111.28
13	Y	35	SER	CA-C-N	5.81	131.50	122.49
13	Y	35	SER	C-N-CA	5.81	131.50	122.49
3	D	443	ALA	CA-C-N	5.81	128.41	120.46
3	D	443	ALA	C-N-CA	5.81	128.41	120.46
3	E	150	GLY	N-CA-C	-5.81	106.95	115.72
9	U	107	ILE	CA-C-N	5.80	127.99	120.44
9	U	107	ILE	C-N-CA	5.80	127.99	120.44
3	D	162	GLY	CA-C-N	5.80	127.98	120.44
3	D	162	GLY	C-N-CA	5.80	127.98	120.44
3	F	296	ILE	O-C-N	-5.80	116.78	122.99
3	D	114	ARG	N-CA-C	-5.80	99.74	109.07
3	F	467	VAL	CA-C-N	5.80	127.97	120.44
3	F	467	VAL	C-N-CA	5.80	127.97	120.44
9	U	123	LEU	CA-C-N	5.80	128.32	120.38
9	U	123	LEU	C-N-CA	5.80	128.32	120.38
1	9	28	ILE	CA-C-N	5.79	128.64	120.42
1	9	28	ILE	C-N-CA	5.79	128.64	120.42
7	O	171	LEU	N-CA-C	-5.79	98.47	110.80
2	B	450	GLY	O-C-N	5.78	127.74	122.19
3	F	265	GLY	CA-C-N	5.78	128.03	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	F	265	GLY	C-N-CA	5.78	128.03	120.28
2	C	367	ILE	N-CA-C	-5.78	100.10	108.89
3	E	375	GLN	N-CA-C	-5.78	104.90	111.14
10	V	158	TRP	N-CA-C	-5.78	106.01	114.39
7	O	59	ASN	CA-C-N	5.78	125.71	119.76
7	O	59	ASN	C-N-CA	5.78	125.71	119.76
2	C	307	LEU	CA-C-N	5.77	129.08	120.31
2	C	307	LEU	C-N-CA	5.77	129.08	120.31
3	F	121	PRO	CA-C-O	-5.77	112.19	120.56
3	F	356	ARG	N-CA-C	-5.77	106.24	113.28
2	B	443	GLN	CA-C-N	5.77	124.95	120.33
2	B	443	GLN	C-N-CA	5.77	124.95	120.33
4	G	187	THR	O-C-N	-5.77	116.00	122.12
4	G	176	GLU	CA-C-O	-5.77	114.02	119.55
4	G	138	PRO	CA-C-O	-5.76	114.46	121.03
10	V	142	LYS	CA-C-O	-5.76	114.47	119.72
2	C	175	THR	CA-C-N	5.76	132.70	121.41
2	C	175	THR	C-N-CA	5.76	132.70	121.41
2	C	439	ALA	CA-C-N	5.76	128.47	120.29
2	C	439	ALA	C-N-CA	5.76	128.47	120.29
2	C	132	GLN	O-C-N	5.76	129.84	123.33
3	D	237	LEU	CA-C-N	5.76	128.47	120.29
3	D	237	LEU	C-N-CA	5.76	128.47	120.29
2	C	162	GLY	N-CA-C	-5.76	104.86	112.81
4	G	74	ILE	N-CA-C	-5.76	99.88	108.46
1	9	23	GLY	CA-C-N	5.75	128.34	120.46
1	9	23	GLY	C-N-CA	5.75	128.34	120.46
12	X	58	VAL	CA-C-O	-5.75	113.59	120.78
3	E	168	GLN	CA-C-N	5.75	128.46	120.29
3	E	168	GLN	C-N-CA	5.75	128.46	120.29
3	F	303	SER	CA-C-N	-5.75	116.06	123.19
3	F	303	SER	C-N-CA	-5.75	116.06	123.19
1	7	45	ASP	CA-C-N	5.75	128.26	120.44
1	7	45	ASP	C-N-CA	5.75	128.26	120.44
8	T	247	TYR	O-C-N	5.75	130.48	123.01
2	A	267	LEU	N-CA-C	-5.75	98.52	108.69
3	D	244	ARG	O-C-N	5.75	128.70	122.15
2	C	264	LYS	N-CA-C	-5.74	100.53	109.72
3	E	266	SER	N-CA-C	5.74	117.54	111.28
1	7	21	GLY	CA-C-N	5.74	128.44	120.29
1	7	21	GLY	C-N-CA	5.74	128.44	120.29
8	T	205	THR	N-CA-C	-5.74	106.11	113.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	131	ALA	O-C-N	5.74	128.20	122.12
3	E	398	GLU	CA-C-O	5.73	126.50	120.42
3	E	305	THR	CA-C-N	-5.73	114.11	122.19
3	E	305	THR	C-N-CA	-5.73	114.11	122.19
10	V	93	GLU	O-C-N	-5.73	115.61	122.15
2	C	241	ALA	N-CA-C	5.73	117.69	110.24
3	F	64	MET	N-CA-C	-5.72	106.09	114.39
12	X	42	LEU	CA-C-O	-5.72	115.32	121.56
3	D	155	LEU	O-C-N	-5.72	116.63	123.27
1	2	20	LEU	CA-C-N	5.71	126.32	119.98
1	2	20	LEU	C-N-CA	5.71	126.32	119.98
3	F	339	ILE	N-CA-C	5.71	116.45	110.62
6	I	34	VAL	O-C-N	-5.71	116.31	121.91
2	B	449	ALA	CA-C-N	5.71	126.32	119.98
2	B	449	ALA	C-N-CA	5.71	126.32	119.98
1	0	46	THR	CA-C-N	5.71	129.66	120.30
1	0	46	THR	C-N-CA	5.71	129.66	120.30
2	B	390	GLY	CA-C-N	5.71	127.93	120.28
2	B	390	GLY	C-N-CA	5.71	127.93	120.28
3	E	387	ILE	CA-C-O	-5.71	115.01	120.95
2	A	318	GLU	N-CA-C	-5.71	98.65	110.80
3	E	282	GLN	CA-C-O	-5.70	114.49	120.88
3	E	312	VAL	CA-C-O	-5.70	113.68	119.89
3	F	358	LEU	N-CA-C	-5.70	105.64	112.59
2	B	116	PRO	O-C-N	-5.70	116.59	123.03
2	C	184	THR	O-C-N	5.70	128.16	122.12
3	F	129	THR	N-CA-C	-5.70	106.68	113.97
1	0	35	ASN	O-C-N	-5.69	116.08	122.12
1	7	6	ALA	CA-C-N	5.69	127.91	120.28
1	7	6	ALA	C-N-CA	5.69	127.91	120.28
1	9	41	PRO	CA-C-O	-5.69	110.24	120.60
5	H	45	HIS	N-CA-C	-5.69	100.41	109.23
8	T	29	PHE	CA-C-N	5.69	127.91	120.28
8	T	29	PHE	C-N-CA	5.69	127.91	120.28
1	6	56	ALA	CA-C-O	-5.69	114.52	120.55
3	D	385	GLN	CA-C-N	5.69	127.83	120.44
3	D	385	GLN	C-N-CA	5.69	127.83	120.44
1	4	31	ALA	CA-C-N	5.68	128.36	120.29
1	4	31	ALA	C-N-CA	5.68	128.36	120.29
10	V	37	ASP	CA-C-N	5.68	127.83	120.44
10	V	37	ASP	C-N-CA	5.68	127.83	120.44
1	9	14	ILE	CA-C-N	5.68	128.46	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	9	14	ILE	C-N-CA	5.68	128.46	120.28
3	E	127	GLN	N-CA-C	5.68	118.48	109.96
3	F	266	SER	CA-C-N	5.68	128.36	120.29
3	F	266	SER	C-N-CA	5.68	128.36	120.29
2	C	422	ARG	N-CA-C	5.68	117.55	111.36
14	Z	24	LEU	CA-C-N	5.68	128.24	120.46
14	Z	24	LEU	C-N-CA	5.68	128.24	120.46
2	A	238	ALA	N-CA-C	5.68	118.20	111.33
3	E	172	ASN	O-C-N	-5.68	116.10	122.12
2	B	353	PHE	CA-C-N	5.68	129.62	121.50
2	B	353	PHE	C-N-CA	5.68	129.62	121.50
3	E	315	ASP	CA-C-O	-5.68	115.25	121.84
3	D	433	ARG	CA-C-N	5.67	128.35	120.29
3	D	433	ARG	C-N-CA	5.67	128.35	120.29
2	B	454	HIS	N-CA-C	-5.67	105.86	112.89
2	C	471	LEU	CA-C-N	5.67	127.88	120.28
2	C	471	LEU	C-N-CA	5.67	127.88	120.28
2	B	249	PRO	CA-C-N	5.67	128.34	120.29
2	B	249	PRO	C-N-CA	5.67	128.34	120.29
2	C	26	ASN	CA-C-N	5.67	132.37	121.54
2	C	26	ASN	C-N-CA	5.67	132.37	121.54
2	A	313	LYS	N-CA-C	-5.66	99.67	108.90
3	E	132	GLU	CA-C-N	5.66	128.68	120.98
3	E	132	GLU	C-N-CA	5.66	128.68	120.98
1	2	32	ALA	CA-C-N	5.66	127.80	120.44
1	2	32	ALA	C-N-CA	5.66	127.80	120.44
3	E	126	GLU	N-CA-C	5.66	117.53	111.36
3	E	349	ASP	N-CA-C	-5.66	100.81	109.64
4	G	153	VAL	N-CA-C	5.66	116.31	110.82
3	F	377	THR	CA-C-O	-5.66	114.88	120.82
1	8	40	ASN	CA-C-O	-5.66	112.41	120.16
4	G	138	PRO	O-C-N	5.66	129.44	123.10
11	W	29	HIS	CA-C-O	-5.66	113.96	120.24
1	1	65	CYS	O-C-N	5.65	128.60	122.15
1	6	14	ILE	CA-C-N	5.65	128.42	120.28
1	6	14	ILE	C-N-CA	5.65	128.42	120.28
1	8	16	THR	CA-C-N	5.65	128.20	120.46
1	8	16	THR	C-N-CA	5.65	128.20	120.46
2	B	291	PRO	CA-C-O	-5.65	115.07	122.19
2	B	33	VAL	O-C-N	-5.65	116.91	122.67
9	U	158	VAL	CA-C-N	5.65	127.85	120.28
9	U	158	VAL	C-N-CA	5.65	127.85	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	T	155	VAL	CA-C-O	-5.65	112.38	119.95
1	5	27	ALA	N-CA-C	5.65	117.43	111.28
5	H	78	GLN	CA-C-N	5.65	127.72	120.89
5	H	78	GLN	C-N-CA	5.65	127.72	120.89
1	1	44	LYS	N-CA-C	5.64	118.16	111.33
2	C	456	ASP	CA-C-N	5.64	127.39	120.22
2	C	456	ASP	C-N-CA	5.64	127.39	120.22
3	E	374	VAL	CA-C-O	-5.64	115.19	121.17
2	B	323	LEU	CA-C-N	5.64	128.88	120.87
2	B	323	LEU	C-N-CA	5.64	128.88	120.87
3	F	33	ILE	O-C-N	5.64	129.38	122.95
2	B	432	GLN	CA-C-O	-5.63	114.55	120.80
5	H	57	VAL	N-CA-C	-5.63	100.06	108.46
3	E	63	ALA	CA-C-N	5.63	131.32	121.52
3	E	63	ALA	C-N-CA	5.63	131.32	121.52
13	Y	28	SER	CA-C-N	5.63	128.29	120.29
13	Y	28	SER	C-N-CA	5.63	128.29	120.29
3	E	66	GLY	CA-C-N	5.63	131.04	122.37
3	E	66	GLY	C-N-CA	5.63	131.04	122.37
10	V	3	ALA	CA-C-N	5.63	128.87	120.31
10	V	3	ALA	C-N-CA	5.63	128.87	120.31
2	B	50	GLN	N-CA-C	-5.63	101.11	110.17
1	4	59	GLU	CA-C-N	5.62	127.82	120.28
1	4	59	GLU	C-N-CA	5.62	127.82	120.28
5	H	79	PRO	N-CA-C	-5.62	106.82	114.80
2	B	261	ASP	CA-C-O	-5.62	114.59	120.55
3	F	271	LEU	N-CA-C	5.62	117.41	111.28
9	U	205	LEU	CA-C-O	5.61	126.27	119.31
1	3	46	THR	CA-C-N	5.61	128.38	120.42
1	3	46	THR	C-N-CA	5.61	128.38	120.42
1	6	41	PRO	N-CA-C	5.61	124.02	112.47
1	0	40	ASN	CA-C-O	-5.60	112.48	120.16
3	F	136	THR	N-CA-C	-5.60	99.17	108.75
3	F	221	GLN	N-CA-C	-5.60	102.17	110.46
8	T	216	ILE	O-C-N	5.60	127.30	121.87
1	2	24	ILE	CA-C-N	5.60	126.16	119.94
1	2	24	ILE	C-N-CA	5.60	126.16	119.94
2	A	222	LEU	CA-C-N	5.60	128.24	120.29
2	A	222	LEU	C-N-CA	5.60	128.24	120.29
10	V	44	LEU	CA-C-N	5.60	128.34	120.28
10	V	44	LEU	C-N-CA	5.60	128.34	120.28
1	0	49	PRO	CA-C-N	5.59	127.77	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	0	49	PRO	C-N-CA	5.59	127.77	120.28
2	B	251	THR	N-CA-C	-5.59	105.10	111.14
12	X	14	THR	CA-C-O	5.59	126.37	120.33
1	8	41	PRO	N-CA-C	5.59	123.98	112.47
3	D	251	VAL	CA-C-N	5.59	131.84	121.62
3	D	251	VAL	C-N-CA	5.59	131.84	121.62
3	E	65	ASP	N-CA-C	-5.59	100.86	109.52
2	A	467	GLU	CA-C-N	5.58	128.03	120.44
2	A	467	GLU	C-N-CA	5.58	128.03	120.44
3	D	183	VAL	N-CA-C	-5.58	100.14	108.46
13	Y	7	THR	O-C-N	-5.58	115.50	121.42
1	5	16	THR	N-CA-C	-5.58	105.35	111.82
7	O	151	LYS	CA-C-N	5.58	129.28	121.02
7	O	151	LYS	C-N-CA	5.58	129.28	121.02
1	7	41	PRO	CA-C-O	-5.58	110.45	120.60
5	H	126	GLN	N-CA-C	5.58	117.36	111.28
11	W	17	SER	CA-C-O	5.58	128.48	120.51
2	A	258	TRP	CA-C-N	5.57	127.69	120.44
2	A	258	TRP	C-N-CA	5.57	127.69	120.44
3	F	90	GLU	CA-C-O	5.57	125.95	119.32
4	G	72	GLU	O-C-N	5.57	129.56	123.04
1	5	41	PRO	N-CA-C	5.57	123.94	112.47
3	D	76	VAL	N-CA-C	-5.57	99.77	108.95
3	D	423	VAL	O-C-N	5.57	127.37	121.91
3	E	173	ASN	CA-C-O	5.57	126.74	120.89
2	C	177	LYS	CA-C-N	5.57	128.19	120.29
2	C	177	LYS	C-N-CA	5.57	128.19	120.29
9	U	142	GLN	CA-C-N	5.56	127.73	120.28
9	U	142	GLN	C-N-CA	5.56	127.73	120.28
3	D	139	LYS	CA-C-N	5.56	128.08	120.46
3	D	139	LYS	C-N-CA	5.56	128.08	120.46
3	D	403	THR	CA-C-N	5.56	128.32	120.42
3	D	403	THR	C-N-CA	5.56	128.32	120.42
14	Z	36	LEU	CA-C-N	5.56	128.19	120.29
14	Z	36	LEU	C-N-CA	5.56	128.19	120.29
1	9	55	PHE	O-C-N	-5.56	116.34	122.07
5	H	86	THR	CA-C-N	5.56	131.37	121.75
5	H	86	THR	C-N-CA	5.56	131.37	121.75
2	B	493	LYS	CA-C-N	5.56	127.73	120.28
2	B	493	LYS	C-N-CA	5.56	127.73	120.28
1	4	26	ILE	CA-C-N	5.56	127.72	120.28
1	4	26	ILE	C-N-CA	5.56	127.72	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	39	ARG	O-C-N	-5.55	116.09	122.09
2	A	305	SER	O-C-N	-5.55	116.35	122.07
3	D	326	PHE	CA-C-N	5.55	128.28	120.28
3	D	326	PHE	C-N-CA	5.55	128.28	120.28
2	C	444	VAL	CA-C-N	5.55	124.90	118.85
2	C	444	VAL	C-N-CA	5.55	124.90	118.85
1	1	26	ILE	CA-C-N	5.55	127.72	120.28
1	1	26	ILE	C-N-CA	5.55	127.72	120.28
3	F	359	ASP	N-CA-C	-5.55	100.13	109.07
2	A	325	ALA	N-CA-C	-5.55	100.84	109.72
3	F	163	LYS	N-CA-C	5.55	117.01	111.07
1	1	60	ALA	O-C-N	-5.55	116.24	122.12
9	U	97	ASN	CA-C-N	5.55	127.71	120.28
9	U	97	ASN	C-N-CA	5.55	127.71	120.28
2	A	178	THR	CA-C-N	5.55	127.71	120.28
2	A	178	THR	C-N-CA	5.55	127.71	120.28
3	E	375	GLN	O-C-N	5.54	128.08	122.09
6	I	53	ALA	CA-C-N	5.54	128.72	120.90
6	I	53	ALA	C-N-CA	5.54	128.72	120.90
3	F	275	ILE	N-CA-C	-5.54	101.67	107.60
9	U	87	LYS	CA-C-O	-5.54	114.68	120.55
1	0	16	THR	N-CA-C	5.54	118.84	111.75
3	E	225	PRO	O-C-N	5.54	123.86	121.31
2	B	432	GLN	O-C-N	5.54	129.67	123.19
13	Y	9	ILE	N-CA-C	-5.54	107.09	112.29
2	B	168	LEU	CA-C-N	5.53	131.93	121.97
2	B	168	LEU	C-N-CA	5.53	131.93	121.97
3	F	139	LYS	CA-C-N	5.53	127.53	120.56
3	F	139	LYS	C-N-CA	5.53	127.53	120.56
12	X	8	LEU	CA-C-N	5.53	127.96	120.44
12	X	8	LEU	C-N-CA	5.53	127.96	120.44
1	8	45	ASP	O-C-N	5.53	128.46	122.15
10	V	100	MET	CA-C-N	5.53	127.63	120.44
10	V	100	MET	C-N-CA	5.53	127.63	120.44
2	A	241	ALA	CA-C-N	5.53	127.00	120.09
2	A	241	ALA	C-N-CA	5.53	127.00	120.09
4	G	243	ASN	O-C-N	-5.53	115.85	122.15
9	U	120	THR	CA-C-N	5.53	128.24	120.28
9	U	120	THR	C-N-CA	5.53	128.24	120.28
3	D	198	TYR	N-CA-C	5.53	117.30	111.28
1	2	12	ALA	CA-C-N	5.52	126.07	119.94
1	2	12	ALA	C-N-CA	5.52	126.07	119.94

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	D	19	ALA	N-CA-C	-5.52	106.34	112.57
3	F	321	ALA	O-C-N	-5.52	114.98	121.32
7	O	88	LEU	O-C-N	-5.52	115.77	122.22
2	B	404	ALA	N-CA-C	-5.51	106.14	112.92
2	C	467	GLU	CA-C-O	-5.51	115.21	121.00
3	D	56	GLU	N-CA-C	5.51	118.80	111.30
2	A	475	LYS	O-C-N	-5.51	115.87	122.15
3	F	363	VAL	N-CA-C	-5.51	107.37	112.83
10	V	138	LEU	CA-C-N	5.51	128.69	120.31
10	V	138	LEU	C-N-CA	5.51	128.69	120.31
2	B	61	VAL	N-CA-C	-5.51	100.50	108.87
2	B	352	ILE	N-CA-C	-5.51	100.19	108.12
4	G	72	GLU	CA-C-O	-5.51	114.41	120.69
13	Y	5	PHE	N-CA-C	-5.51	101.05	109.64
3	D	44	GLY	CA-C-N	5.50	129.06	120.75
3	D	44	GLY	C-N-CA	5.50	129.06	120.75
1	7	9	TYR	CA-C-N	5.50	127.49	120.56
1	7	9	TYR	C-N-CA	5.50	127.49	120.56
3	D	324	THR	CA-C-N	5.50	128.68	120.31
3	D	324	THR	C-N-CA	5.50	128.68	120.31
5	H	131	GLU	N-CA-C	5.50	116.96	111.07
2	A	472	SER	CA-C-O	5.50	126.38	120.55
2	B	126	ALA	N-CA-C	-5.50	107.57	114.56
3	E	15	ALA	CA-C-N	-5.50	115.97	123.12
3	E	15	ALA	C-N-CA	-5.50	115.97	123.12
8	T	58	TRP	O-C-N	-5.50	115.88	122.15
2	B	242	ALA	O-C-N	-5.50	115.00	121.32
1	4	51	ALA	O-C-N	-5.50	115.51	122.27
14	Z	39	TYR	N-CA-C	5.50	116.95	111.07
3	D	149	ARG	N-CA-C	-5.49	100.23	108.96
3	D	305	THR	O-C-N	-5.49	116.96	123.22
3	D	426	GLY	CA-C-O	5.49	125.06	118.97
1	3	6	ALA	CA-C-N	5.49	127.63	120.28
1	3	6	ALA	C-N-CA	5.49	127.63	120.28
3	D	321	ALA	N-CA-C	5.49	119.70	112.35
3	F	295	ARG	CA-C-O	5.49	125.77	119.35
3	F	402	LEU	CA-C-N	5.49	127.63	120.28
3	F	402	LEU	C-N-CA	5.49	127.63	120.28
1	1	16	THR	O-C-N	-5.48	115.95	122.20
1	3	38	SER	CA-C-O	-5.48	113.66	119.97
3	D	155	LEU	N-CA-C	-5.48	100.73	109.23
2	B	48	ASN	CA-C-O	5.48	126.58	119.95

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	D	113	LEU	N-CA-C	-5.48	99.97	108.90
3	D	244	ARG	N-CA-C	5.48	117.33	111.36
4	G	150	LEU	CA-C-N	5.48	127.62	120.28
4	G	150	LEU	C-N-CA	5.48	127.62	120.28
2	A	240	GLU	O-C-N	5.48	129.47	123.01
3	D	313	PRO	CA-C-N	5.48	130.34	122.40
3	D	313	PRO	C-N-CA	5.48	130.34	122.40
1	1	41	PRO	N-CA-C	5.48	123.75	112.47
7	O	8	PRO	O-C-N	-5.47	115.00	121.46
10	V	159	ASP	CA-C-N	5.47	128.09	123.33
10	V	159	ASP	C-N-CA	5.47	128.09	123.33
10	V	149	VAL	O-C-N	-5.47	116.19	121.83
1	9	23	GLY	O-C-N	-5.47	116.94	122.19
3	E	376	GLU	CA-C-N	5.47	127.88	120.44
3	E	376	GLU	C-N-CA	5.47	127.88	120.44
1	7	30	PHE	CA-C-O	-5.47	113.68	119.97
2	A	402	VAL	N-CA-C	-5.47	105.20	110.72
3	E	337	ARG	CA-C-O	-5.47	114.75	120.55
3	F	345	TYR	CA-C-O	-5.47	112.89	119.67
3	E	325	THR	CA-C-O	5.46	126.27	120.10
3	F	83	ILE	O-C-N	-5.46	116.91	122.75
9	U	193	VAL	CA-C-N	5.46	127.60	120.28
9	U	193	VAL	C-N-CA	5.46	127.60	120.28
10	V	19	LEU	O-C-N	-5.46	116.33	122.12
2	B	192	ASN	CA-C-N	5.46	128.14	120.28
2	B	192	ASN	C-N-CA	5.46	128.14	120.28
2	B	211	LYS	CA-C-N	5.46	128.14	120.28
2	B	211	LYS	C-N-CA	5.46	128.14	120.28
3	E	375	GLN	CA-C-O	-5.46	115.08	120.70
2	C	175	THR	N-CA-C	-5.45	105.43	113.61
3	F	418	PHE	CA-C-N	5.45	127.59	120.28
3	F	418	PHE	C-N-CA	5.45	127.59	120.28
3	F	91	THR	N-CA-C	-5.45	106.67	113.38
1	8	18	GLY	CA-C-N	5.45	128.13	120.28
1	8	18	GLY	C-N-CA	5.45	128.13	120.28
2	A	375	ARG	CA-C-N	5.45	128.71	120.75
2	A	375	ARG	C-N-CA	5.45	128.71	120.75
1	6	46	THR	CA-C-N	5.45	129.27	120.55
1	6	46	THR	C-N-CA	5.45	129.27	120.55
3	E	99	ILE	N-CA-C	-5.45	106.53	112.80
2	B	105	LEU	CA-C-N	5.45	131.94	121.54
2	B	105	LEU	C-N-CA	5.45	131.94	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	D	413	PHE	N-CA-C	-5.45	105.34	111.28
2	A	504	GLU	CA-C-O	5.44	126.32	120.55
1	0	69	SER	CA-C-N	5.44	128.58	120.31
1	0	69	SER	C-N-CA	5.44	128.58	120.31
3	E	172	ASN	CA-C-O	5.44	126.32	120.55
1	7	25	GLY	CA-C-N	5.43	127.91	120.46
1	7	25	GLY	C-N-CA	5.43	127.91	120.46
8	T	228	ILE	CA-C-N	5.43	127.91	120.46
8	T	228	ILE	C-N-CA	5.43	127.91	120.46
1	1	59	GLU	N-CA-C	5.43	117.20	111.28
2	C	206	VAL	N-CA-C	-5.43	100.06	107.99
2	A	418	GLN	CA-C-N	5.43	127.56	120.28
2	A	418	GLN	C-N-CA	5.43	127.56	120.28
3	D	30	LEU	CA-C-N	5.43	125.33	119.85
3	D	30	LEU	C-N-CA	5.43	125.33	119.85
3	D	401	LYS	N-CA-C	5.43	117.20	111.28
1	6	36	GLY	CA-C-N	5.43	127.89	120.46
1	6	36	GLY	C-N-CA	5.43	127.89	120.46
2	C	472	SER	CA-C-O	5.43	126.30	120.55
2	A	449	ALA	CA-C-N	5.42	125.97	120.00
2	A	449	ALA	C-N-CA	5.42	125.97	120.00
2	C	74	GLY	CA-C-N	5.42	128.71	120.95
2	C	74	GLY	C-N-CA	5.42	128.71	120.95
4	G	97	ARG	N-CA-C	5.42	117.19	111.28
1	9	45	ASP	CA-C-N	5.42	127.81	120.44
1	9	45	ASP	C-N-CA	5.42	127.81	120.44
2	A	172	ASP	N-CA-C	5.42	117.87	110.55
3	E	277	SER	N-CA-C	-5.42	101.55	109.63
3	E	407	ALA	CA-C-N	5.42	127.55	120.28
3	E	407	ALA	C-N-CA	5.42	127.55	120.28
3	F	11	GLY	O-C-N	5.42	128.53	123.54
3	F	287	THR	CA-C-N	5.42	127.99	120.29
3	F	287	THR	C-N-CA	5.42	127.99	120.29
1	5	65	CYS	N-CA-C	5.42	117.19	111.28
2	C	478	HIS	CA-C-O	5.42	128.26	120.51
12	X	52	ALA	CA-C-O	5.42	126.51	120.82
3	D	222	MET	CA-C-N	5.42	127.48	120.44
3	D	222	MET	C-N-CA	5.42	127.48	120.44
12	X	17	ALA	CA-C-O	5.42	125.24	119.50
1	8	58	SER	CA-C-N	5.41	127.53	120.28
1	8	58	SER	C-N-CA	5.41	127.53	120.28
3	E	83	ILE	CA-C-O	-5.41	114.02	120.78

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	E	426	GLY	CA-C-N	5.41	128.04	123.33
3	E	426	GLY	C-N-CA	5.41	128.04	123.33
3	F	319	ASP	CA-C-N	5.41	124.75	118.85
3	F	319	ASP	C-N-CA	5.41	124.75	118.85
10	V	138	LEU	N-CA-C	5.41	117.25	111.36
3	D	106	ARG	CA-C-N	5.41	130.36	121.87
3	D	106	ARG	C-N-CA	5.41	130.36	121.87
3	E	411	GLN	O-C-N	5.41	127.85	122.12
8	T	168	ALA	CA-C-N	5.40	129.87	120.68
8	T	168	ALA	C-N-CA	5.40	129.87	120.68
7	O	29	LYS	CA-C-N	5.40	127.96	120.29
7	O	29	LYS	C-N-CA	5.40	127.96	120.29
2	B	258	TRP	N-CA-C	-5.40	105.40	111.28
1	2	24	ILE	CA-C-O	5.40	126.30	120.47
4	G	196	LYS	CA-C-O	-5.40	114.00	120.10
2	B	338	ALA	CA-C-N	5.39	127.78	120.44
2	B	338	ALA	C-N-CA	5.39	127.78	120.44
8	T	150	THR	O-C-N	5.39	127.52	121.32
3	F	284	THR	CA-C-N	5.39	127.77	120.44
3	F	284	THR	C-N-CA	5.39	127.77	120.44
4	G	139	THR	CA-C-N	5.39	127.51	120.28
4	G	139	THR	C-N-CA	5.39	127.51	120.28
1	5	54	GLY	O-C-N	5.39	127.42	122.19
3	F	162	GLY	O-C-N	-5.38	115.70	122.70
1	3	15	SER	N-CA-C	5.38	117.15	111.28
11	W	44	ALA	CA-C-N	5.38	131.82	121.54
11	W	44	ALA	C-N-CA	5.38	131.82	121.54
1	8	40	ASN	O-C-N	5.38	127.51	121.32
3	D	184	PHE	CA-C-O	-5.38	114.55	120.36
7	O	180	ILE	CA-C-N	5.38	127.75	120.38
7	O	180	ILE	C-N-CA	5.38	127.75	120.38
9	U	60	LEU	CA-C-N	5.38	127.49	120.28
9	U	60	LEU	C-N-CA	5.38	127.49	120.28
1	1	12	ALA	CA-C-N	5.38	125.95	119.98
1	1	12	ALA	C-N-CA	5.38	125.95	119.98
2	A	181	ALA	N-CA-C	5.38	117.14	111.28
3	D	390	ILE	CA-C-O	5.38	126.55	120.85
8	T	217	LEU	CA-C-N	5.38	127.93	120.29
8	T	217	LEU	C-N-CA	5.38	127.93	120.29
1	2	6	ALA	CA-C-O	5.37	126.46	120.82
6	I	41	ASP	CA-C-O	5.37	125.94	120.24
8	T	112	SER	N-CA-C	-5.37	105.36	112.94

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	U	140	LEU	CA-C-O	-5.37	115.18	120.82
1	6	12	ALA	O-C-N	5.37	127.60	122.07
1	9	55	PHE	CA-C-N	5.37	127.47	120.28
1	9	55	PHE	C-N-CA	5.37	127.47	120.28
3	F	90	GLU	N-CA-C	-5.37	106.11	113.30
4	G	142	GLU	CA-C-O	-5.37	115.18	120.82
2	A	225	HIS	O-C-N	-5.37	114.96	122.37
1	2	18	GLY	CA-C-N	5.37	128.01	120.28
1	2	18	GLY	C-N-CA	5.37	128.01	120.28
1	4	22	ALA	CA-C-N	5.37	125.90	120.00
1	4	22	ALA	C-N-CA	5.37	125.90	120.00
2	C	62	LYS	N-CA-C	-5.36	101.21	109.52
3	D	144	LEU	CA-C-O	-5.36	113.29	119.78
3	D	233	ALA	N-CA-C	-5.36	105.43	111.28
2	A	212	ARG	CA-C-N	5.36	127.47	120.28
2	A	212	ARG	C-N-CA	5.36	127.47	120.28
3	E	369	ASP	CA-C-N	5.36	128.03	120.42
3	E	369	ASP	C-N-CA	5.36	128.03	120.42
9	U	137	ALA	O-C-N	5.36	127.80	122.12
1	4	74	PHE	CA-C-O	-5.36	113.46	119.79
1	7	69	SER	CA-C-O	-5.36	114.87	120.55
1	9	16	THR	CA-C-O	5.36	126.16	120.10
2	A	443	GLN	CA-C-O	5.36	125.04	119.14
2	B	289	ARG	CA-C-O	-5.36	114.86	120.70
2	C	362	GLY	N-CA-C	-5.36	104.03	112.61
3	F	334	VAL	CA-C-N	5.36	128.48	120.87
3	F	334	VAL	C-N-CA	5.36	128.48	120.87
7	O	157	ASN	N-CA-C	-5.36	101.73	110.20
8	T	144	LEU	N-CA-C	5.36	117.88	111.71
2	C	173	ARG	N-CA-C	-5.36	101.73	110.20
3	D	190	ARG	CA-C-N	5.36	127.46	120.28
3	D	190	ARG	C-N-CA	5.36	127.46	120.28
3	E	366	GLU	CA-C-N	5.36	127.46	120.28
3	E	366	GLU	C-N-CA	5.36	127.46	120.28
2	A	378	SER	CA-C-O	5.35	126.17	119.59
5	H	114	SER	N-CA-C	-5.35	106.72	113.20
1	0	33	LEU	CA-C-N	5.35	127.30	120.56
1	0	33	LEU	C-N-CA	5.35	127.30	120.56
1	9	53	LEU	N-CA-C	5.35	116.79	111.07
2	B	245	GLN	N-CA-C	5.35	117.19	111.36
3	F	212	GLU	O-C-N	-5.34	115.78	122.35
7	O	187	LEU	CA-C-N	5.34	127.39	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	O	187	LEU	C-N-CA	5.34	127.39	120.44
2	A	400	ARG	N-CA-C	5.34	117.10	111.28
2	B	73	VAL	CA-C-O	5.34	125.94	120.39
3	D	226	PRO	CA-C-N	5.34	125.88	120.00
3	D	226	PRO	C-N-CA	5.34	125.88	120.00
8	T	167	PHE	N-CA-C	-5.34	105.99	112.88
2	A	454	HIS	N-CA-C	-5.34	106.93	113.50
10	V	84	ASP	N-CA-C	-5.34	99.90	108.55
10	V	14	LYS	CA-C-N	5.34	127.28	120.56
10	V	14	LYS	C-N-CA	5.34	127.28	120.56
3	E	16	VAL	O-C-N	-5.33	116.86	123.10
8	T	196	PHE	CA-C-O	-5.33	114.76	120.42
1	7	26	ILE	CA-C-N	5.33	127.43	120.28
1	7	26	ILE	C-N-CA	5.33	127.43	120.28
2	B	238	ALA	CA-C-N	5.33	128.42	120.31
2	B	238	ALA	C-N-CA	5.33	128.42	120.31
3	F	237	LEU	CA-C-N	5.33	127.43	120.28
3	F	237	LEU	C-N-CA	5.33	127.43	120.28
1	7	15	SER	O-C-N	-5.33	115.98	122.22
4	G	17	GLU	CA-C-N	5.33	127.42	120.28
4	G	17	GLU	C-N-CA	5.33	127.42	120.28
10	V	144	GLU	CA-C-N	5.33	127.48	120.60
10	V	144	GLU	C-N-CA	5.33	127.48	120.60
1	8	54	GLY	CA-C-O	-5.33	115.26	120.75
2	B	178	THR	CA-C-O	5.33	126.10	119.97
2	A	156	ASP	N-CA-C	5.33	116.89	111.14
3	E	78	ASP	O-C-N	-5.33	116.99	123.27
7	O	159	VAL	O-C-N	5.33	128.77	123.18
1	3	41	PRO	O-C-N	5.32	129.83	122.64
1	4	39	ARG	CA-C-O	-5.32	115.22	120.70
11	W	20	ASN	CA-C-O	5.32	126.19	120.55
2	B	242	ALA	CA-C-N	5.32	124.96	119.05
2	B	242	ALA	C-N-CA	5.32	124.96	119.05
3	D	312	VAL	N-CA-C	5.32	114.16	108.95
3	E	132	GLU	CA-C-O	5.32	126.23	120.32
2	B	138	ILE	N-CA-C	5.32	115.53	110.42
2	A	320	SER	CA-C-N	5.32	128.96	121.30
2	A	320	SER	C-N-CA	5.32	128.96	121.30
9	U	108	ASP	CA-C-N	5.32	127.35	120.44
9	U	108	ASP	C-N-CA	5.32	127.35	120.44
10	V	7	ALA	O-C-N	-5.32	116.48	122.12
2	C	392	LEU	CA-C-O	5.32	126.08	119.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	E	228	ALA	CA-C-N	5.32	127.40	120.28
3	E	228	ALA	C-N-CA	5.32	127.40	120.28
7	O	171	LEU	O-C-N	5.32	129.66	122.59
8	T	79	GLY	N-CA-C	-5.31	102.59	112.37
2	A	350	GLY	CA-C-O	-5.31	115.69	121.48
9	U	83	ALA	CA-C-O	-5.31	114.92	120.55
2	A	288	ARG	CA-C-N	5.31	131.68	122.28
2	A	288	ARG	C-N-CA	5.31	131.68	122.28
2	B	27	LEU	N-CA-C	-5.31	104.52	112.54
2	C	395	PHE	N-CA-C	-5.31	105.57	111.36
2	A	412	LEU	N-CA-C	-5.31	101.42	108.74
2	A	502	ALA	CA-C-N	5.31	127.39	120.28
2	A	502	ALA	C-N-CA	5.31	127.39	120.28
3	D	438	VAL	CA-C-N	5.31	127.39	120.28
3	D	438	VAL	C-N-CA	5.31	127.39	120.28
2	C	238	ALA	N-CA-C	5.31	119.60	113.18
2	A	154	ALA	CA-C-N	5.30	127.35	120.56
2	A	154	ALA	C-N-CA	5.30	127.35	120.56
2	C	376	VAL	N-CA-C	-5.30	107.55	112.43
3	E	177	ALA	O-C-N	-5.30	116.50	122.12
6	I	30	GLN	CA-C-N	5.30	132.73	122.07
6	I	30	GLN	C-N-CA	5.30	132.73	122.07
11	W	15	ILE	N-CA-C	-5.30	108.11	113.20
8	T	177	LEU	CA-C-O	-5.30	114.80	120.42
1	9	64	PHE	CA-C-N	5.30	127.38	120.28
1	9	64	PHE	C-N-CA	5.30	127.38	120.28
3	F	239	ILE	N-CA-C	5.30	116.03	110.62
2	A	423	GLY	O-C-N	5.30	127.27	122.19
3	D	349	ASP	O-C-N	-5.30	115.50	121.43
6	I	13	TYR	O-C-N	5.30	127.53	122.07
9	U	132	GLU	CA-C-N	5.29	127.91	120.28
9	U	132	GLU	C-N-CA	5.29	127.91	120.28
2	B	172	ASP	CA-C-N	5.29	128.23	120.71
2	B	172	ASP	C-N-CA	5.29	128.23	120.71
3	D	399	GLN	N-CA-C	5.29	117.05	111.28
1	3	55	PHE	O-C-N	5.29	127.52	122.07
7	O	103	LYS	N-CA-C	5.29	117.05	111.28
1	0	63	LEU	CA-C-N	5.29	127.37	120.28
1	0	63	LEU	C-N-CA	5.29	127.37	120.28
2	A	214	THR	CA-C-N	5.29	127.22	120.56
2	A	214	THR	C-N-CA	5.29	127.22	120.56
2	C	187	ASN	CA-C-O	5.29	126.03	120.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	D	78	ASP	CA-C-N	5.29	127.80	120.29
3	D	78	ASP	C-N-CA	5.29	127.80	120.29
3	F	153	ILE	CA-C-O	-5.29	114.89	120.39
3	D	7	THR	CA-C-O	-5.29	111.81	120.80
8	T	163	THR	CA-C-O	5.29	126.07	120.10
1	5	52	ILE	CA-C-N	5.29	127.31	120.44
1	5	52	ILE	C-N-CA	5.29	127.31	120.44
1	8	62	GLY	CA-C-N	5.29	127.36	120.28
1	8	62	GLY	C-N-CA	5.29	127.36	120.28
2	A	109	VAL	N-CA-C	-5.29	100.83	108.87
8	T	183	ALA	O-C-N	5.29	128.18	122.15
9	U	63	LEU	CA-C-O	5.28	126.02	120.42
3	D	404	VAL	N-CA-C	5.28	116.05	110.72
6	I	19	GLN	CA-C-O	-5.28	115.28	120.82
1	3	17	ILE	O-C-N	5.28	127.23	121.90
3	D	232	VAL	CA-C-N	5.28	127.35	120.28
3	D	232	VAL	C-N-CA	5.28	127.35	120.28
3	E	82	PRO	CA-C-O	-5.28	115.35	121.95
1	1	73	LEU	CA-C-O	-5.28	115.27	120.70
3	E	235	THR	O-C-N	5.28	127.50	122.07
3	F	54	LEU	N-CA-C	-5.28	106.52	113.17
8	T	172	SER	N-CA-C	-5.28	105.61	111.36
1	1	34	ILE	CA-C-O	-5.27	115.47	120.95
3	E	47	VAL	CA-C-O	5.27	126.73	120.72
1	8	24	ILE	CA-C-N	5.27	125.79	119.94
1	8	24	ILE	C-N-CA	5.27	125.79	119.94
2	C	439	ALA	CA-C-O	-5.27	115.88	121.94
3	F	425	THR	N-CA-C	5.27	119.81	112.90
1	3	12	ALA	CA-C-N	5.27	125.79	119.94
1	3	12	ALA	C-N-CA	5.27	125.79	119.94
8	T	49	ASN	N-CA-C	-5.27	99.85	108.76
1	0	69	SER	CA-C-O	-5.27	115.28	120.70
1	4	41	PRO	N-CA-C	5.27	123.32	112.47
1	6	45	ASP	O-C-N	5.27	128.16	122.15
2	B	444	VAL	O-C-N	-5.27	117.05	120.42
10	V	47	GLN	CA-C-N	5.27	129.77	121.56
10	V	47	GLN	C-N-CA	5.27	129.77	121.56
2	B	485	ILE	CA-C-N	5.26	127.33	120.28
2	B	485	ILE	C-N-CA	5.26	127.33	120.28
2	C	421	VAL	CA-C-N	5.26	127.77	120.29
2	C	421	VAL	C-N-CA	5.26	127.77	120.29
1	7	48	PHE	O-C-N	-5.26	115.76	120.71

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	H	60	MET	N-CA-C	-5.26	100.46	109.24
2	A	188	GLN	CA-C-N	5.26	127.76	120.29
2	A	188	GLN	C-N-CA	5.26	127.76	120.29
3	F	102	PRO	CA-C-O	-5.26	115.35	121.34
8	T	139	TRP	N-CA-C	-5.26	106.10	112.88
3	D	77	LEU	CA-C-O	-5.25	114.30	120.60
9	U	205	LEU	N-CA-C	-5.25	106.38	112.89
1	2	10	ILE	CA-C-O	-5.25	115.61	121.17
3	D	168	GLN	CA-C-N	5.25	127.31	120.28
3	D	168	GLN	C-N-CA	5.25	127.31	120.28
2	C	419	THR	CA-C-O	-5.25	114.86	120.42
2	A	194	GLY	O-C-N	-5.25	115.88	122.70
3	F	441	PHE	CA-C-O	-5.25	113.94	119.97
9	U	61	THR	CA-C-N	5.24	127.31	120.28
9	U	61	THR	C-N-CA	5.24	127.31	120.28
7	O	72	ASP	N-CA-C	-5.24	105.65	111.36
3	E	31	PRO	O-C-N	5.24	129.71	122.64
3	E	383	SER	O-C-N	5.24	127.67	122.12
1	3	34	ILE	CA-C-N	5.24	127.73	120.29
1	3	34	ILE	C-N-CA	5.24	127.73	120.29
1	1	43	ILE	CA-C-N	5.23	127.55	120.38
1	1	43	ILE	C-N-CA	5.23	127.55	120.38
1	4	28	ILE	CA-C-O	-5.23	115.51	120.95
1	6	44	LYS	N-CA-C	5.23	117.66	111.33
2	A	41	ALA	N-CA-C	-5.23	102.31	110.42
8	T	144	LEU	CA-C-N	5.23	131.17	122.54
8	T	144	LEU	C-N-CA	5.23	131.17	122.54
3	E	155	LEU	CA-C-N	5.23	128.19	120.82
3	E	155	LEU	C-N-CA	5.23	128.19	120.82
2	A	440	THR	O-C-N	5.22	128.33	122.22
3	D	85	VAL	O-C-N	-5.22	115.14	121.10
3	F	147	TYR	O-C-N	-5.22	115.72	122.20
4	G	103	PRO	N-CA-C	-5.22	101.71	112.47
3	D	336	SER	CA-C-N	5.22	127.28	120.28
3	D	336	SER	C-N-CA	5.22	127.28	120.28
8	T	230	GLN	N-CA-C	5.22	117.87	111.82
2	C	459	GLU	O-C-N	5.22	129.26	122.89
1	6	54	GLY	CA-C-N	5.22	127.58	120.54
1	6	54	GLY	C-N-CA	5.22	127.58	120.54
1	1	1	MET	CA-C-N	5.21	127.79	120.28
1	1	1	MET	C-N-CA	5.21	127.79	120.28
3	F	283	PRO	N-CA-C	-5.21	106.93	114.18

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	7	1	MET	CA-C-N	5.21	127.21	120.44
1	7	1	MET	C-N-CA	5.21	127.21	120.44
2	B	94	GLY	O-C-N	5.21	128.58	122.38
2	C	35	ALA	CA-C-O	-5.21	114.65	120.54
1	1	18	GLY	CA-C-N	5.21	127.78	120.28
1	1	18	GLY	C-N-CA	5.21	127.78	120.28
11	W	59	ASP	CA-C-O	5.21	124.78	119.05
7	O	20	ALA	CA-C-N	5.21	127.21	120.44
7	O	20	ALA	C-N-CA	5.21	127.21	120.44
1	0	58	SER	O-C-N	5.21	127.43	122.07
3	E	93	GLY	O-C-N	-5.21	116.79	122.41
1	3	22	ALA	CA-C-N	5.20	125.72	120.00
1	3	22	ALA	C-N-CA	5.20	125.72	120.00
2	B	107	GLY	CA-C-O	5.20	125.54	119.19
3	F	108	PRO	O-C-N	5.20	129.66	122.64
4	G	145	LEU	CA-C-O	-5.20	115.03	120.55
11	W	41	ALA	CA-C-N	5.20	129.95	122.72
11	W	41	ALA	C-N-CA	5.20	129.95	122.72
2	B	176	GLY	N-CA-C	-5.20	100.85	113.18
2	B	58	SER	CA-C-O	5.20	126.09	119.95
3	E	391	LEU	N-CA-C	5.20	117.03	111.36
2	A	433	ASN	O-C-N	5.20	128.88	123.06
1	5	12	ALA	CA-C-N	5.20	125.75	119.98
1	5	12	ALA	C-N-CA	5.20	125.75	119.98
3	E	435	LYS	CA-C-O	-5.20	115.04	120.55
1	3	60	ALA	CA-C-N	5.19	127.19	120.44
1	3	60	ALA	C-N-CA	5.19	127.19	120.44
1	8	54	GLY	O-C-N	5.19	127.17	122.19
3	E	217	LEU	N-CA-C	-5.19	100.24	109.06
2	B	190	ARG	N-CA-C	5.19	116.62	111.07
1	2	26	ILE	CA-C-O	-5.19	115.67	121.17
3	F	64	MET	CA-C-O	5.19	124.66	118.69
3	E	69	GLY	CA-C-O	-5.19	111.55	120.57
2	B	227	ALA	O-C-N	5.18	128.32	122.20
1	1	51	ALA	N-CA-C	5.18	117.01	111.36
2	A	228	MET	CA-C-N	5.18	128.18	120.31
2	A	228	MET	C-N-CA	5.18	128.18	120.31
3	E	371	ALA	N-CA-C	-5.18	105.71	111.36
2	C	135	ALA	CA-C-N	5.18	125.08	119.85
2	C	135	ALA	C-N-CA	5.18	125.08	119.85
2	B	22	SER	N-CA-C	-5.17	102.12	110.14
3	F	450	ASP	CA-C-N	5.17	130.34	122.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	F	450	ASP	C-N-CA	5.17	130.34	122.37
1	8	57	LEU	CA-C-N	5.17	127.21	120.28
1	8	57	LEU	C-N-CA	5.17	127.21	120.28
3	E	378	LEU	CA-C-N	5.17	127.21	120.28
3	E	378	LEU	C-N-CA	5.17	127.21	120.28
1	6	24	ILE	O-C-N	5.17	127.28	121.90
2	B	332	GLN	CA-C-O	5.17	125.72	119.31
2	C	35	ALA	CA-C-N	5.17	130.25	122.75
2	C	35	ALA	C-N-CA	5.17	130.25	122.75
4	G	271	ILE	CA-C-N	5.17	127.64	120.29
4	G	271	ILE	C-N-CA	5.17	127.64	120.29
3	D	130	SER	CA-C-N	5.17	130.60	122.49
3	D	130	SER	C-N-CA	5.17	130.60	122.49
1	4	13	GLY	CA-C-N	5.17	127.54	120.46
1	4	13	GLY	C-N-CA	5.17	127.54	120.46
1	9	46	THR	N-CA-C	5.17	116.72	111.14
10	V	94	SER	CA-C-N	5.17	127.20	120.28
10	V	94	SER	C-N-CA	5.17	127.20	120.28
2	A	458	ILE	CA-C-N	5.16	129.05	120.94
2	A	458	ILE	C-N-CA	5.16	129.05	120.94
4	G	208	ASP	CA-C-N	5.16	127.20	120.28
4	G	208	ASP	C-N-CA	5.16	127.20	120.28
1	7	68	VAL	N-CA-C	5.16	115.93	110.72
4	G	249	ASN	CA-C-N	5.16	127.62	120.29
4	G	249	ASN	C-N-CA	5.16	127.62	120.29
1	7	4	VAL	CA-C-O	-5.16	115.38	120.85
1	7	52	ILE	N-CA-C	5.16	115.37	110.42
4	G	36	LYS	CA-C-N	5.16	127.19	120.28
4	G	36	LYS	C-N-CA	5.16	127.19	120.28
12	X	17	ALA	O-C-N	-5.16	116.80	122.06
2	A	31	GLY	O-C-N	-5.16	118.97	123.76
3	D	371	ALA	CA-C-N	5.16	127.19	120.28
3	D	371	ALA	C-N-CA	5.16	127.19	120.28
1	8	55	PHE	CA-C-N	5.15	127.19	120.28
1	8	55	PHE	C-N-CA	5.15	127.19	120.28
2	B	411	ASP	N-CA-C	-5.15	100.12	108.52
2	B	413	ASP	CA-C-N	5.15	127.60	120.29
2	B	413	ASP	C-N-CA	5.15	127.60	120.29
4	G	250	ARG	CA-C-O	-5.15	114.96	120.42
2	C	340	ILE	O-C-N	-5.15	115.23	121.10
3	E	193	GLU	CA-C-O	-5.15	114.96	120.42
1	7	45	ASP	O-C-N	5.14	127.57	122.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	H	126	GLN	CA-C-O	-5.14	115.10	120.55
7	O	103	LYS	CA-C-O	5.14	126.00	120.55
9	U	82	ASP	N-CA-C	5.14	116.57	111.07
2	B	205	TYR	CA-C-O	-5.14	114.78	120.38
2	C	227	ALA	CA-C-N	5.14	128.12	120.31
2	C	227	ALA	C-N-CA	5.14	128.12	120.31
2	C	456	ASP	CA-C-O	5.14	125.68	119.31
4	G	42	LYS	CA-C-N	5.14	127.12	120.44
4	G	42	LYS	C-N-CA	5.14	127.12	120.44
1	7	41	PRO	N-CA-C	5.14	123.05	112.47
3	D	56	GLU	CA-C-N	5.14	129.48	122.34
3	D	56	GLU	C-N-CA	5.14	129.48	122.34
7	O	164	LYS	N-CA-C	-5.14	100.53	108.90
2	A	457	GLY	CA-C-N	5.13	129.84	122.45
2	A	457	GLY	C-N-CA	5.13	129.84	122.45
9	U	144	VAL	CA-C-N	5.13	127.12	120.44
9	U	144	VAL	C-N-CA	5.13	127.12	120.44
9	U	166	GLN	CA-C-N	5.13	127.16	120.28
9	U	166	GLN	C-N-CA	5.13	127.16	120.28
13	Y	10	LEU	N-CA-C	-5.13	105.76	112.23
1	5	65	CYS	CA-C-N	5.13	127.42	120.44
1	5	65	CYS	C-N-CA	5.13	127.42	120.44
2	C	24	GLU	CA-C-O	5.13	127.85	120.51
3	F	219	PHE	N-CA-C	-5.13	101.03	109.40
3	D	402	LEU	O-C-N	5.13	127.63	122.09
2	B	415	SER	CA-C-O	-5.13	115.11	120.55
2	C	418	GLN	CA-C-N	5.13	127.58	120.29
2	C	418	GLN	C-N-CA	5.13	127.58	120.29
3	D	197	LEU	N-CA-C	5.13	116.95	111.36
8	T	178	GLY	O-C-N	5.13	127.10	122.18
1	4	66	LEU	CA-C-N	5.13	127.15	120.28
1	4	66	LEU	C-N-CA	5.13	127.15	120.28
4	G	196	LYS	O-C-N	5.12	128.22	122.22
3	F	349	ASP	N-CA-C	-5.12	98.41	109.01
3	E	130	SER	N-CA-C	-5.12	100.25	108.55
2	A	115	ASN	CA-C-O	5.12	124.49	120.19
13	Y	14	TRP	CA-C-O	-5.12	113.37	118.34
3	D	167	ILE	CA-C-O	-5.12	115.42	120.85
2	A	493	LYS	CA-C-O	-5.12	115.00	120.42
3	D	61	THR	CA-C-N	5.12	128.02	120.91
3	D	61	THR	C-N-CA	5.12	128.02	120.91
2	A	296	TYR	CA-C-O	-5.11	115.43	120.19

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	C	287	LEU	N-CA-C	-5.11	106.82	113.16
3	E	243	PHE	CA-C-N	5.11	127.55	120.29
3	E	243	PHE	C-N-CA	5.11	127.55	120.29
3	E	317	LEU	N-CA-C	-5.11	105.35	112.30
3	F	182	SER	O-C-N	-5.11	117.22	123.10
1	3	32	ALA	CA-C-N	5.11	127.08	120.44
1	3	32	ALA	C-N-CA	5.11	127.08	120.44
1	3	64	PHE	N-CA-C	5.11	116.85	111.28
2	A	171	GLY	O-C-N	-5.11	119.01	123.92
2	B	314	LEU	CA-C-O	5.11	127.75	121.72
5	H	126	GLN	O-C-N	5.11	127.54	122.12
2	A	64	MET	CA-C-N	5.11	130.61	122.74
2	A	64	MET	C-N-CA	5.11	130.61	122.74
10	V	49	GLN	CA-C-O	-5.11	115.54	119.32
1	0	32	ALA	CA-C-O	5.11	125.96	120.55
2	A	37	GLY	O-C-N	5.11	126.93	122.64
3	F	367	HIS	CA-C-N	5.11	127.08	120.44
3	F	367	HIS	C-N-CA	5.11	127.08	120.44
9	U	122	VAL	CA-C-O	-5.11	115.76	121.17
11	W	65	PRO	N-CA-C	5.11	120.63	113.53
3	E	459	MET	N-CA-C	5.11	118.67	111.52
3	F	284	THR	N-CA-C	-5.11	106.80	112.57
2	B	300	VAL	CA-C-N	5.10	127.12	120.28
2	B	300	VAL	C-N-CA	5.10	127.12	120.28
3	F	391	LEU	CA-C-N	5.10	129.47	122.63
3	F	391	LEU	C-N-CA	5.10	129.47	122.63
11	W	50	ARG	N-CA-C	5.10	117.74	111.82
1	5	6	ALA	CA-C-O	-5.10	115.46	120.82
2	A	335	ASP	N-CA-C	5.10	117.70	110.10
2	B	125	ALA	CA-C-O	5.10	126.11	120.71
2	C	371	LEU	N-CA-C	-5.10	105.36	112.30
3	D	52	GLN	CA-C-N	5.10	130.04	123.00
3	D	52	GLN	C-N-CA	5.10	130.04	123.00
11	W	31	TYR	N-CA-C	-5.10	99.94	110.80
1	9	57	LEU	CA-C-N	5.10	127.11	120.28
1	9	57	LEU	C-N-CA	5.10	127.11	120.28
2	A	489	GLY	O-C-N	-5.10	117.34	122.54
3	D	90	GLU	N-CA-C	-5.10	106.91	112.72
8	T	81	ASN	N-CA-C	-5.10	106.75	113.17
2	A	186	LEU	CA-C-N	-5.09	112.22	121.14
2	A	186	LEU	C-N-CA	-5.09	112.22	121.14
3	E	87	VAL	N-CA-C	-5.09	100.54	108.95

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	F	129	THR	CA-C-O	5.09	124.42	118.97
9	U	198	ILE	CA-C-O	-5.09	114.97	120.47
1	2	65	CYS	CA-C-N	5.09	128.05	120.31
1	2	65	CYS	C-N-CA	5.09	128.05	120.31
1	2	15	SER	N-CA-C	5.09	116.83	111.28
1	7	9	TYR	CA-C-O	-5.09	115.47	120.82
2	C	350	GLY	O-C-N	5.09	127.61	122.77
3	D	177	ALA	N-CA-C	-5.09	107.01	114.39
3	D	364	GLY	CA-C-N	5.09	127.52	120.29
3	D	364	GLY	C-N-CA	5.09	127.52	120.29
3	F	239	ILE	O-C-N	5.09	126.81	121.87
1	9	62	GLY	CA-C-O	-5.09	115.27	120.66
3	F	179	GLY	N-CA-C	-5.09	101.13	113.18
3	F	305	THR	N-CA-C	-5.09	100.75	109.24
2	A	147	PRO	CA-C-O	-5.08	111.35	120.60
2	B	262	ASN	CA-C-O	5.08	125.62	119.11
4	G	83	LEU	N-CA-C	-5.08	107.03	113.23
5	H	58	GLU	O-C-N	5.08	129.50	123.24
1	1	37	VAL	CA-C-O	-5.08	114.98	120.47
2	C	442	GLU	CA-C-O	-5.08	114.12	119.97
7	O	66	ASP	CA-C-N	5.08	127.09	120.28
7	O	66	ASP	C-N-CA	5.08	127.09	120.28
11	W	50	ARG	CA-C-N	5.08	127.05	120.44
11	W	50	ARG	C-N-CA	5.08	127.05	120.44
3	F	329	LEU	N-CA-C	5.08	117.26	110.35
2	A	305	SER	N-CA-C	5.08	116.50	111.07
10	V	92	ILE	O-C-N	5.08	127.06	121.83
8	T	93	PHE	CA-C-N	5.08	127.59	120.28
8	T	93	PHE	C-N-CA	5.08	127.59	120.28
8	T	200	LEU	N-CA-C	-5.08	106.40	112.59
3	F	376	GLU	N-CA-C	5.08	116.81	111.28
2	C	254	SER	CA-C-O	5.07	125.93	120.55
2	C	340	ILE	CA-C-N	5.07	124.25	118.97
2	C	340	ILE	C-N-CA	5.07	124.25	118.97
2	C	400	ARG	N-CA-C	-5.07	105.75	111.28
4	G	40	SER	O-C-N	5.07	127.50	122.12
1	8	16	THR	CA-C-O	-5.07	114.37	120.10
2	C	367	ILE	CA-C-O	-5.07	114.96	121.40
3	D	84	SER	CA-C-O	5.07	125.90	120.32
7	O	73	ALA	N-CA-C	5.07	117.70	111.82
2	C	383	LYS	CA-C-N	5.07	127.07	120.28
2	C	383	LYS	C-N-CA	5.07	127.07	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	E	14	THR	CA-C-O	-5.07	113.61	119.64
3	F	145	ALA	O-C-N	5.07	127.15	121.32
3	E	81	GLY	N-CA-C	-5.07	102.01	112.34
3	E	406	ARG	N-CA-C	5.07	116.80	111.28
2	B	83	LEU	N-CA-C	-5.06	106.69	112.92
1	8	49	PRO	N-CA-C	5.06	120.20	113.57
2	A	216	ALA	N-CA-C	5.06	117.53	111.71
2	B	444	VAL	N-CA-C	-5.06	106.28	112.35
3	E	378	LEU	CA-C-O	-5.06	115.19	120.55
1	4	67	MET	CA-C-N	5.06	127.39	120.46
1	4	67	MET	C-N-CA	5.06	127.39	120.46
2	B	161	ILE	N-CA-C	-5.06	100.92	108.46
3	F	161	VAL	N-CA-C	-5.06	108.19	113.10
4	G	188	ILE	O-C-N	5.06	126.98	121.87
4	G	232	ALA	CA-C-N	5.06	127.06	120.28
4	G	232	ALA	C-N-CA	5.06	127.06	120.28
1	8	53	LEU	CA-C-O	-5.05	115.51	120.82
2	A	227	ALA	CA-C-N	5.05	131.46	122.06
2	A	227	ALA	C-N-CA	5.05	131.46	122.06
7	O	57	LEU	CA-C-N	5.05	129.81	122.08
7	O	57	LEU	C-N-CA	5.05	129.81	122.08
3	E	152	LYS	N-CA-C	-5.05	104.59	111.56
1	2	36	GLY	CA-C-N	5.05	126.92	120.56
1	2	36	GLY	C-N-CA	5.05	126.92	120.56
2	B	458	ILE	CA-C-N	5.05	131.18	121.54
2	B	458	ILE	C-N-CA	5.05	131.18	121.54
2	B	506	PHE	O-C-N	-5.05	116.39	122.15
2	C	467	GLU	O-C-N	5.05	127.28	122.03
3	D	318	THR	N-CA-C	-5.05	107.29	113.50
2	B	78	PHE	CA-C-N	5.04	128.17	121.01
2	B	78	PHE	C-N-CA	5.04	128.17	121.01
5	H	124	ALA	CA-C-N	5.04	127.37	120.46
5	H	124	ALA	C-N-CA	5.04	127.37	120.46
1	4	61	THR	O-C-N	-5.04	116.78	122.12
2	C	455	LEU	N-CA-C	-5.04	107.18	113.38
3	D	441	PHE	N-CA-C	5.04	117.67	111.82
3	E	385	GLN	CA-C-O	-5.04	115.21	120.55
4	G	48	GLU	CA-C-N	5.04	127.54	120.28
4	G	48	GLU	C-N-CA	5.04	127.54	120.28
4	G	154	MET	N-CA-C	-5.04	107.18	113.38
5	H	122	GLU	CA-C-N	5.04	127.54	120.28
5	H	122	GLU	C-N-CA	5.04	127.54	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	E	233	ALA	CA-C-N	5.04	127.03	120.28
3	E	233	ALA	C-N-CA	5.04	127.03	120.28
1	3	59	GLU	CA-C-N	5.04	127.03	120.28
1	3	59	GLU	C-N-CA	5.04	127.03	120.28
1	7	60	ALA	O-C-N	-5.04	116.78	122.12
3	F	85	VAL	CA-C-O	-5.04	113.20	119.95
1	5	63	LEU	N-CA-C	5.04	117.50	111.71
1	8	11	GLY	CA-C-N	5.04	127.03	120.28
1	8	11	GLY	C-N-CA	5.04	127.03	120.28
4	G	198	GLU	N-CA-C	5.04	116.40	109.15
8	T	28	THR	CA-C-O	5.03	125.89	120.55
3	D	174	ILE	N-CA-C	5.03	115.75	110.62
9	U	121	LYS	CA-C-N	5.03	126.90	120.56
9	U	121	LYS	C-N-CA	5.03	126.90	120.56
2	C	18	ILE	O-C-N	5.03	126.84	121.91
3	E	69	GLY	O-C-N	5.03	129.23	122.70
9	U	185	GLY	O-C-N	-5.03	116.56	122.34
10	V	15	VAL	CA-C-O	-5.03	115.84	121.17
4	G	244	ALA	CA-C-N	5.02	125.56	119.98
4	G	244	ALA	C-N-CA	5.02	125.56	119.98
2	A	208	VAL	N-CA-C	-5.02	100.89	108.12
2	A	315	SER	CA-C-O	-5.02	115.88	121.81
3	E	323	ALA	CA-C-N	5.02	127.01	120.28
3	E	323	ALA	C-N-CA	5.02	127.01	120.28
14	Z	14	THR	N-CA-C	-5.02	105.72	111.14
1	0	12	ALA	N-CA-C	-5.02	105.70	111.07
3	D	324	THR	CA-C-O	-5.02	113.08	119.31
3	E	378	LEU	N-CA-C	5.02	116.75	111.28
3	E	460	VAL	CA-C-N	5.02	131.25	121.41
3	E	460	VAL	C-N-CA	5.02	131.25	121.41
7	O	73	ALA	O-C-N	5.02	128.44	122.27
3	E	193	GLU	O-C-N	5.02	127.87	122.15
3	E	267	GLU	O-C-N	-5.02	116.67	122.09
3	D	178	HIS	CA-C-N	5.01	131.24	121.41
3	D	178	HIS	C-N-CA	5.01	131.24	121.41
3	E	253	LEU	CA-C-N	5.01	130.99	122.37
3	E	253	LEU	C-N-CA	5.01	130.99	122.37
3	E	392	GLY	CA-C-O	-5.01	118.96	122.22
4	G	221	ALA	CA-C-N	5.01	127.26	120.44
4	G	221	ALA	C-N-CA	5.01	127.26	120.44
12	X	48	GLU	O-C-N	-5.01	116.44	122.15
2	B	203	CYS	CA-C-O	-5.01	115.71	121.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	C	177	LYS	N-CA-C	-5.01	105.82	111.28
3	E	434	LEU	CA-C-O	-5.01	115.56	120.82
3	F	89	ARG	N-CA-C	-5.01	106.91	112.57
3	F	147	TYR	CA-C-O	5.01	127.89	121.82
4	G	188	ILE	CA-C-N	5.01	127.00	120.28
4	G	188	ILE	C-N-CA	5.01	127.00	120.28
7	O	167	LEU	N-CA-C	-5.01	101.12	108.79
3	E	85	VAL	CA-C-N	5.01	126.10	119.84
3	E	85	VAL	C-N-CA	5.01	126.10	119.84
3	E	434	LEU	O-C-N	-5.01	116.91	122.07
8	T	78	GLY	CA-C-N	5.01	130.33	121.01
8	T	78	GLY	C-N-CA	5.01	130.33	121.01
5	H	74	PHE	CA-C-O	-5.01	115.25	121.06
7	O	64	LEU	CA-C-O	-5.01	115.11	120.42
2	B	222	LEU	CA-C-N	5.01	127.40	120.29
2	B	222	LEU	C-N-CA	5.01	127.40	120.29
3	E	196	ASP	CA-C-N	5.01	127.40	120.29
3	E	196	ASP	C-N-CA	5.01	127.40	120.29
3	F	206	VAL	CA-C-O	5.01	124.51	119.20
2	A	381	GLN	CA-C-O	-5.00	115.91	121.51
2	B	133	VAL	N-CA-C	-5.00	101.40	108.65

There are no chirality outliers.

All (12) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	1	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	B	29	GLU	Peptide
3	D	256	ASP	Peptide
3	D	345	TYR	Peptide
3	E	256	ASP	Peptide
5	H	33	PRO	Peptide
10	V	79	LYS	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	1	0
2	B	2020	0	575	0	0
2	C	1972	0	564	0	0
3	D	1876	0	537	0	0
3	E	1880	0	538	0	0
3	F	1872	0	537	0	0
4	G	1060	0	277	0	0
5	H	471	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	20207	0	5726	2	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 (2) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:104:GLY:HA3	2:A:124:ASP:H	1.73	0.53
5:H:27:VAL:O	5:H:28:THR:C	2.57	0.47

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	0	73/76 (96%)	71 (97%)	0	2 (3%)	4	25
1	1	73/76 (96%)	70 (96%)	1 (1%)	2 (3%)	4	25
1	2	73/76 (96%)	72 (99%)	1 (1%)	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%)	1 (1%)	2 (3%)	4	25
1	6	72/76 (95%)	69 (96%)	1 (1%)	2 (3%)	4	24
1	7	71/76 (93%)	68 (96%)	2 (3%)	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%)	464 (93%)	24 (5%)	11 (2%)	5	29
2	B	501/510 (98%)	462 (92%)	31 (6%)	8 (2%)	7	38
2	C	489/510 (96%)	448 (92%)	34 (7%)	7 (1%)	9	40
3	D	467/478 (98%)	415 (89%)	43 (9%)	9 (2%)	6	32
3	E	468/478 (98%)	433 (92%)	27 (6%)	8 (2%)	7	36
3	F	466/478 (98%)	434 (93%)	23 (5%)	9 (2%)	6	32
4	G	261/278 (94%)	247 (95%)	11 (4%)	3 (1%)	11	46
5	H	108/138 (78%)	99 (92%)	6 (6%)	3 (3%)	4	24

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
6	I	42/61 (69%)	37 (88%)	3 (7%)	2 (5%)	2	16
7	O	185/195 (95%)	165 (89%)	16 (9%)	4 (2%)	5	29
8	T	222/249 (89%)	211 (95%)	9 (4%)	2 (1%)	14	51
9	U	153/209 (73%)	152 (99%)	1 (1%)	0	100	100
10	V	169/173 (98%)	155 (92%)	9 (5%)	5 (3%)	3	22
11	W	83/95 (87%)	71 (86%)	10 (12%)	2 (2%)	4	27
12	X	60/92 (65%)	52 (87%)	6 (10%)	2 (3%)	3	21
13	Y	35/59 (59%)	34 (97%)	1 (3%)	0	100	100
14	Z	46/48 (96%)	43 (94%)	3 (6%)	0	100	100
All	All	4979/5321 (94%)	4620 (93%)	269 (5%)	90 (2%)	9	34

All (90) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	0	41	PRO
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	145	HIS
2	A	299	ASP
2	A	372	SER
2	B	30	THR
2	B	229	LYS
3	D	421	ALA
3	E	29	GLU
3	E	279	VAL
3	E	423	VAL
3	F	278	ALA
4	G	104	ASN
8	T	50	ASN
8	T	202	ASN
11	W	31	TYR
2	A	24	GLU
2	A	26	ASN

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Mol	Chain	Res	Type
2	A	38	ASP
2	A	241	ALA
2	B	145	HIS
2	B	196	ASP
2	B	312	ALA
3	D	86	PRO
3	D	160	GLY
3	D	361	ALA
3	E	34	LEU
5	H	27	VAL
5	H	33	PRO
6	I	29	LEU
7	O	10	VAL
7	O	31	SER
7	O	81	LEU
10	V	24	SER
10	V	85	ALA
1	0	42	SER
1	3	42	SER
1	8	42	SER
2	A	408	PHE
2	A	435	TYR
2	B	25	ALA
2	B	230	TYR
2	C	190	ARG
2	C	320	SER
3	D	162	GLY
3	D	301	LYS
3	D	360	ALA
3	F	42	PRO
6	I	59	ILE
10	V	89	LEU
10	V	132	GLU
12	X	37	PRO
2	A	29	GLU
2	C	52	GLU
2	C	174	GLN
3	D	97	ASN
3	D	279	VAL
3	E	28	SER
3	E	358	LEU
3	F	34	LEU

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Mol	Chain	Res	Type
5	H	18	HIS
7	O	149	GLN
10	V	127	ALA
1	5	42	SER
1	6	42	SER
2	C	156	ASP
2	C	363	ILE
3	F	56	GLU
3	F	256	ASP
4	G	103	PRO
4	G	181	PRO
1	1	42	SER
2	A	297	PRO
2	C	27	LEU
11	W	17	SER
2	B	103	PRO
3	E	86	PRO
3	F	16	VAL
3	F	150	GLY
3	F	279	VAL
3	F	453	PRO
12	X	58	VAL
3	E	31	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.

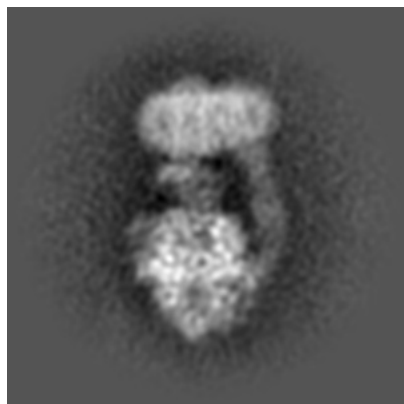
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-25971. These allow visual inspection of the internal detail of the map and identification of artifacts.

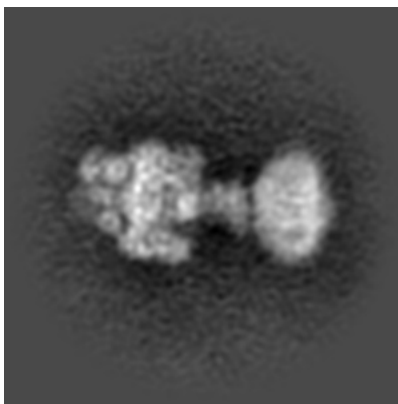
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections [i](#)

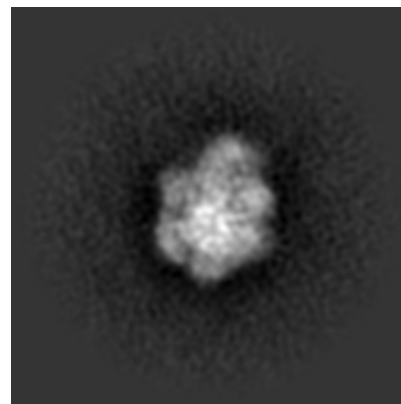
6.1.1 Primary map



X

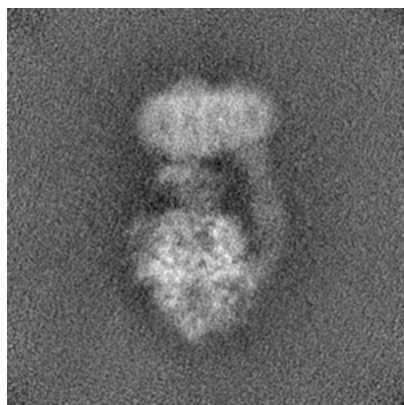


Y

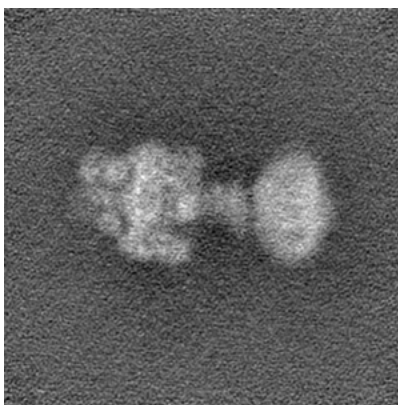


Z

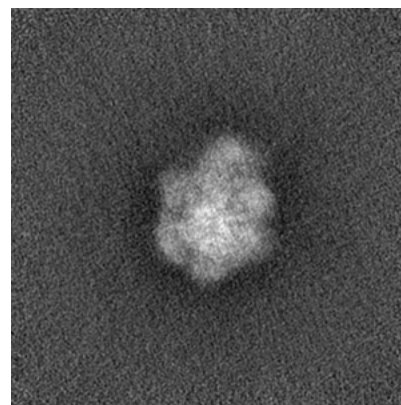
6.1.2 Raw map



X



Y

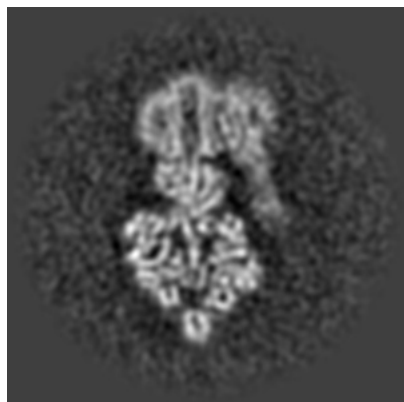


Z

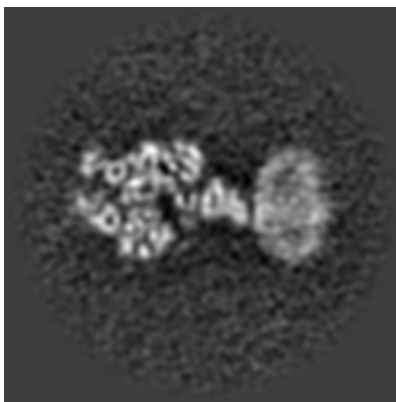
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

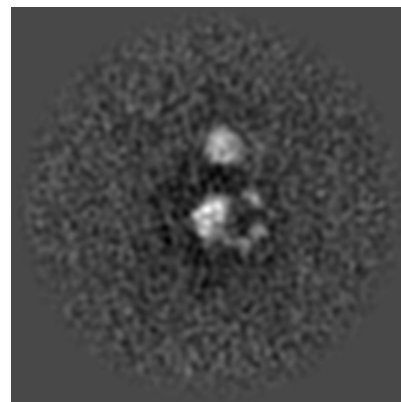
6.2.1 Primary map



X Index: 128

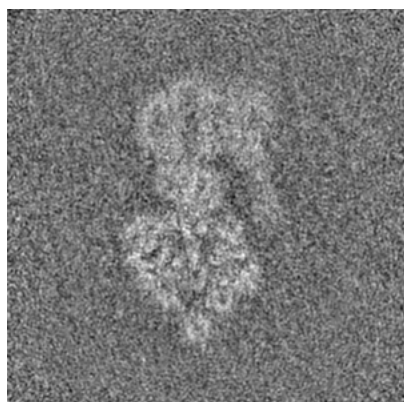


Y Index: 128

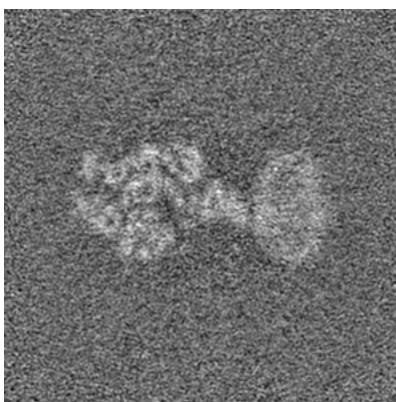


Z Index: 128

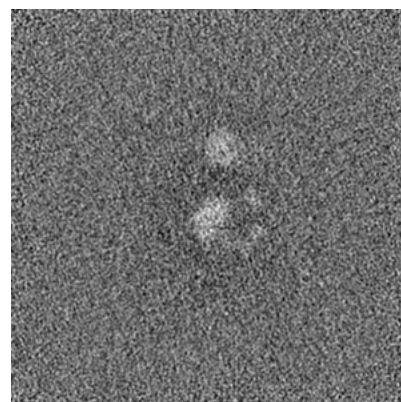
6.2.2 Raw map



X Index: 128



Y Index: 128

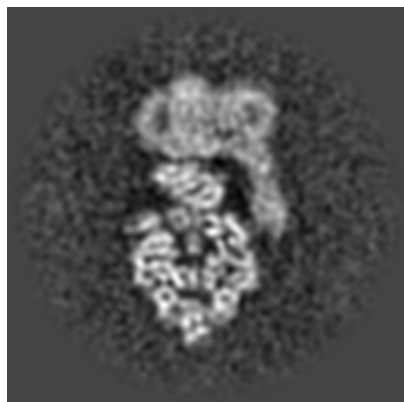


Z Index: 128

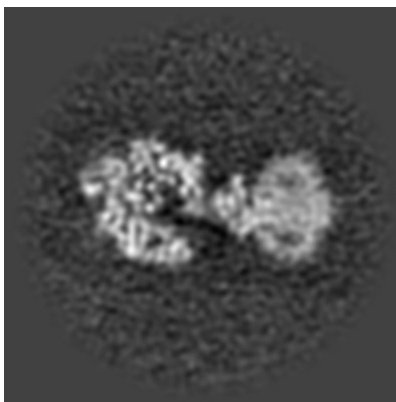
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

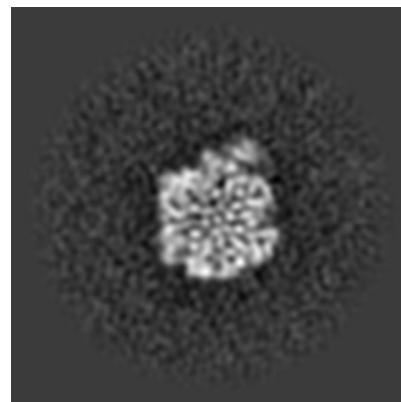
6.3.1 Primary map



X Index: 134

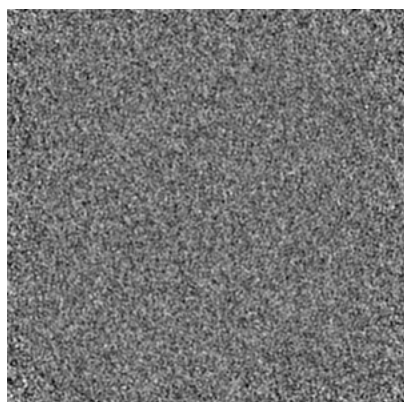


Y Index: 108

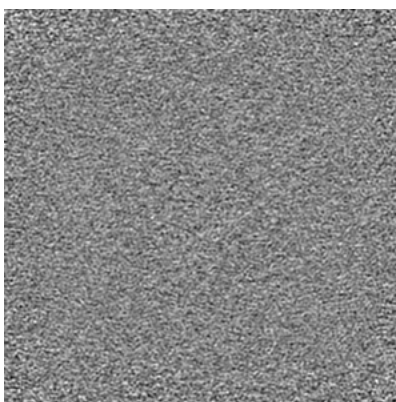


Z Index: 87

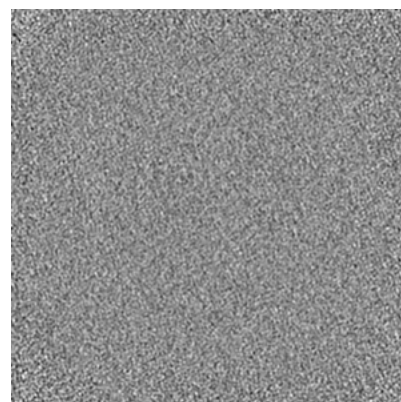
6.3.2 Raw map



X Index: 0



Y Index: 0

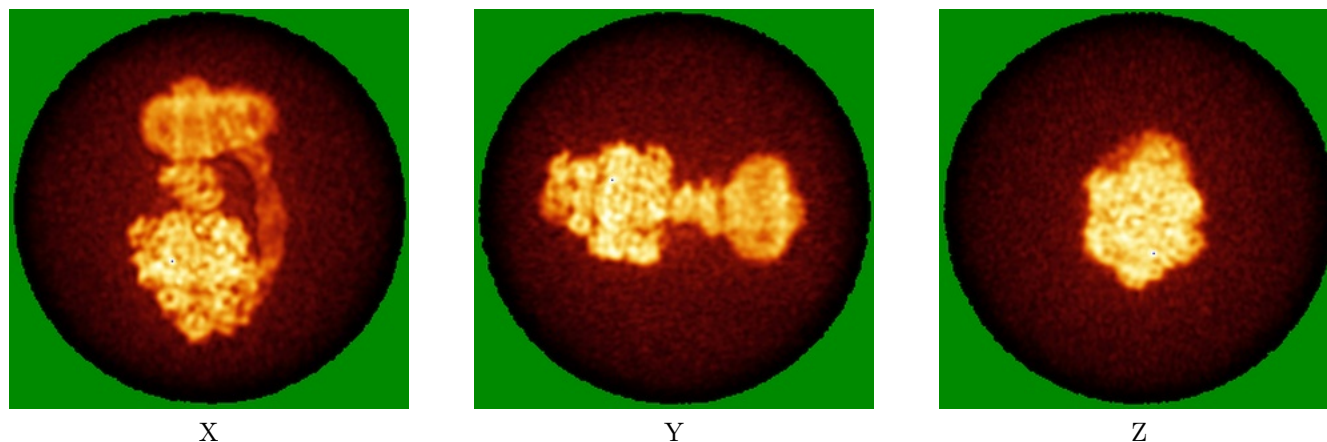


Z Index: 0

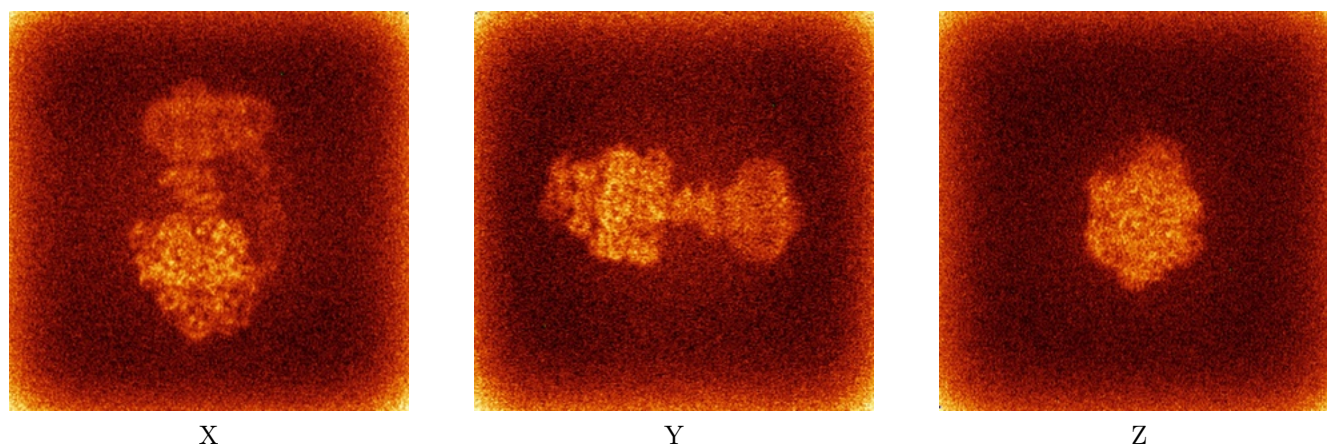
The images above show the largest variance slices of the map in three orthogonal directions.

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

6.4.1 Primary map



6.4.2 Raw map



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](#)

This section was not generated.

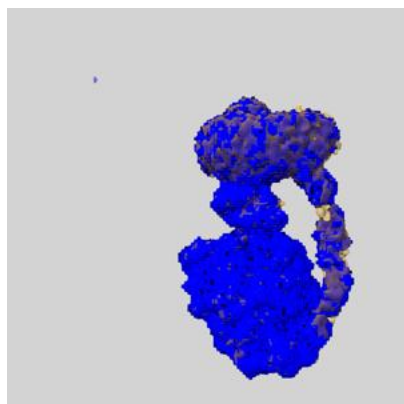
6.6 Mask visualisation [i](#)

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

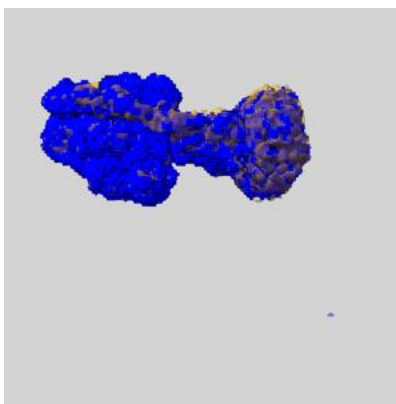
A mask typically either:

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

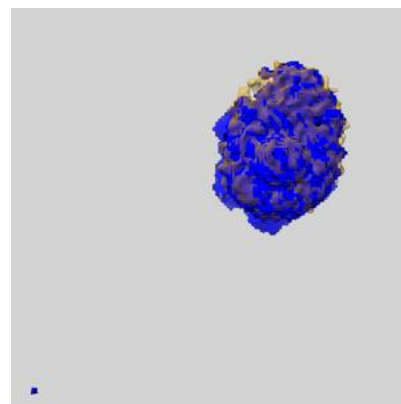
6.6.1 emd_25971_msk_1.map [i](#)



X



Y

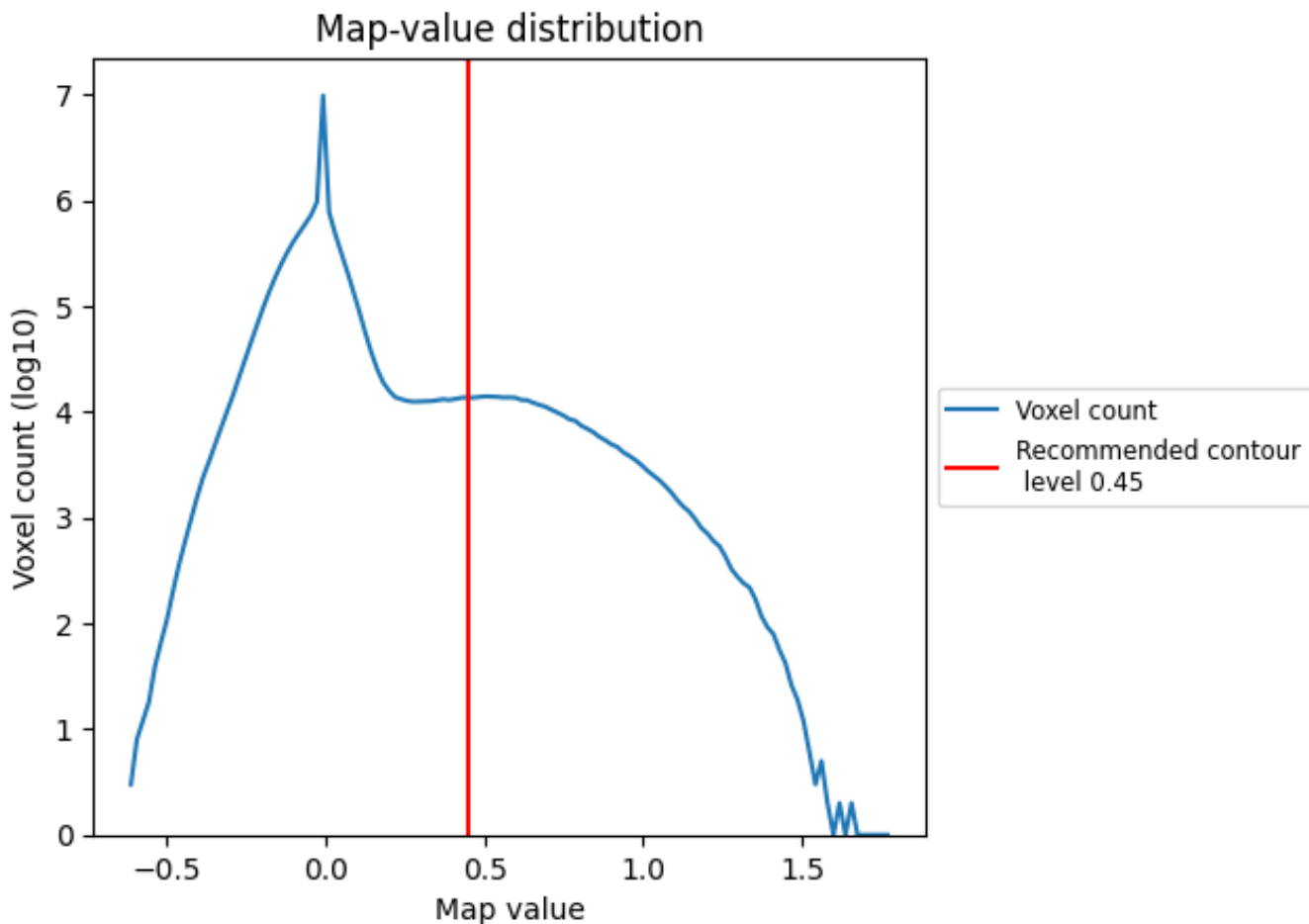


Z

7 Map analysis [i](#)

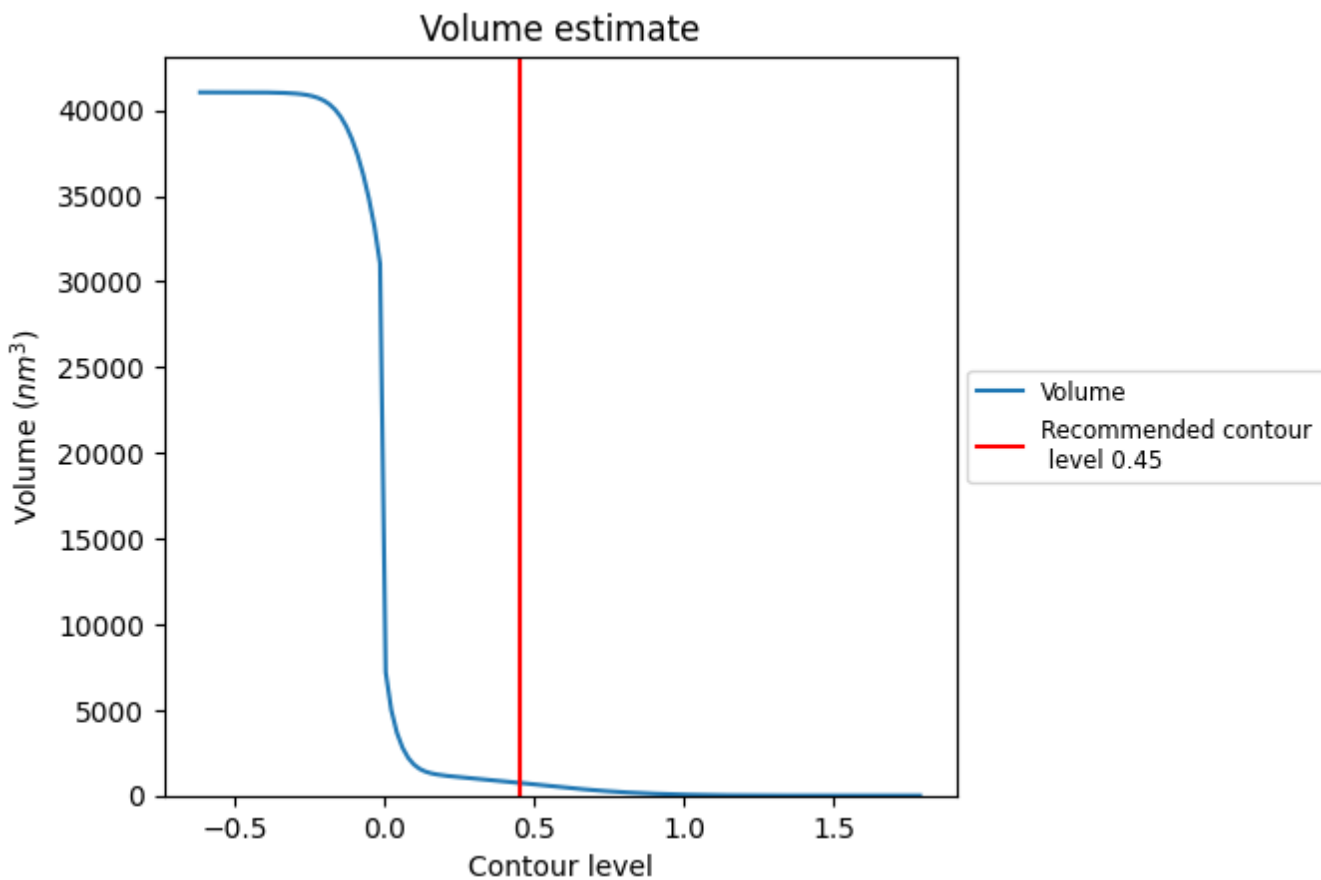
This section contains the results of statistical analysis of the map.

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.

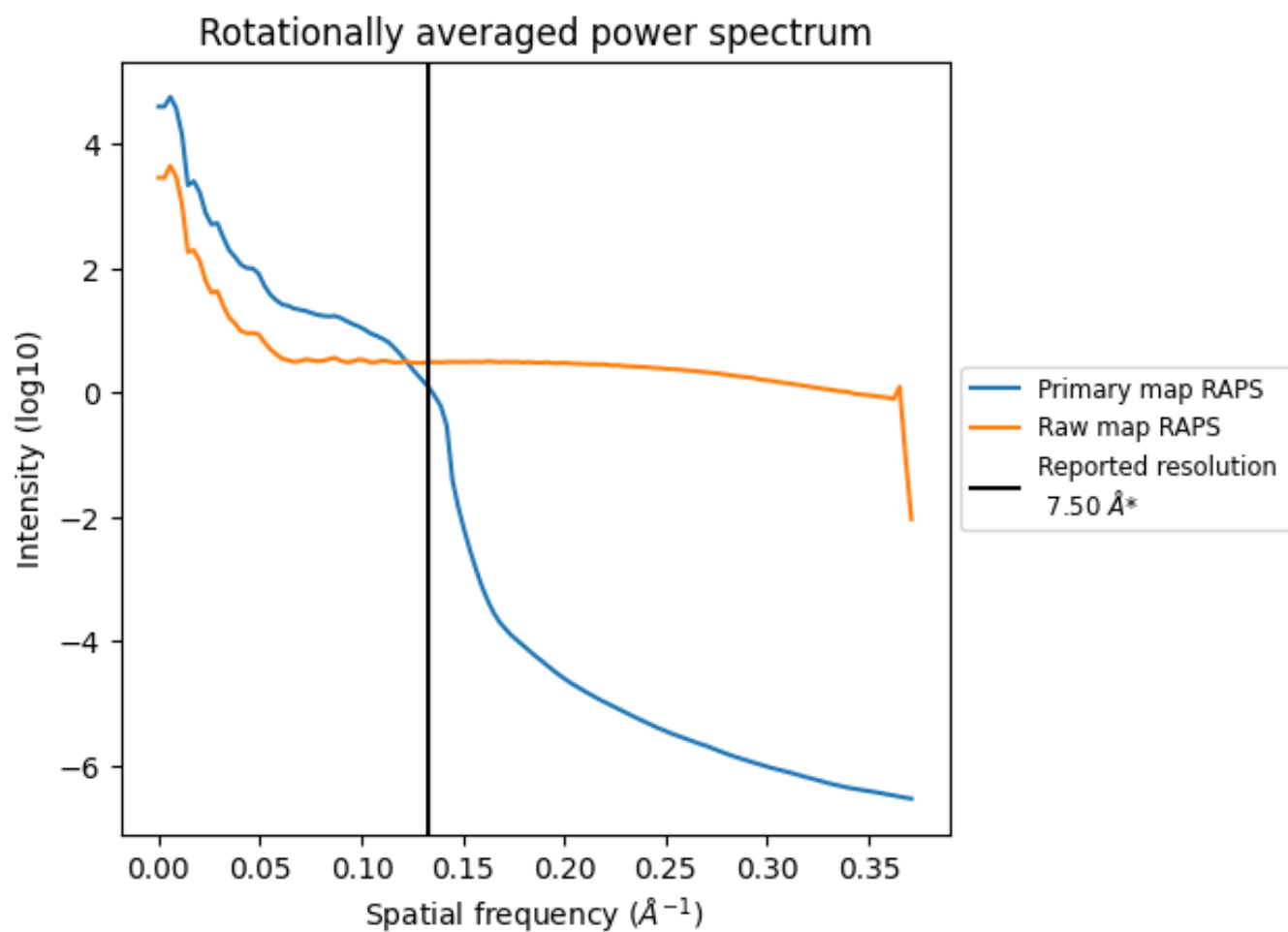
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 745 nm³; this corresponds to an approximate mass of 673 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 [i](#)

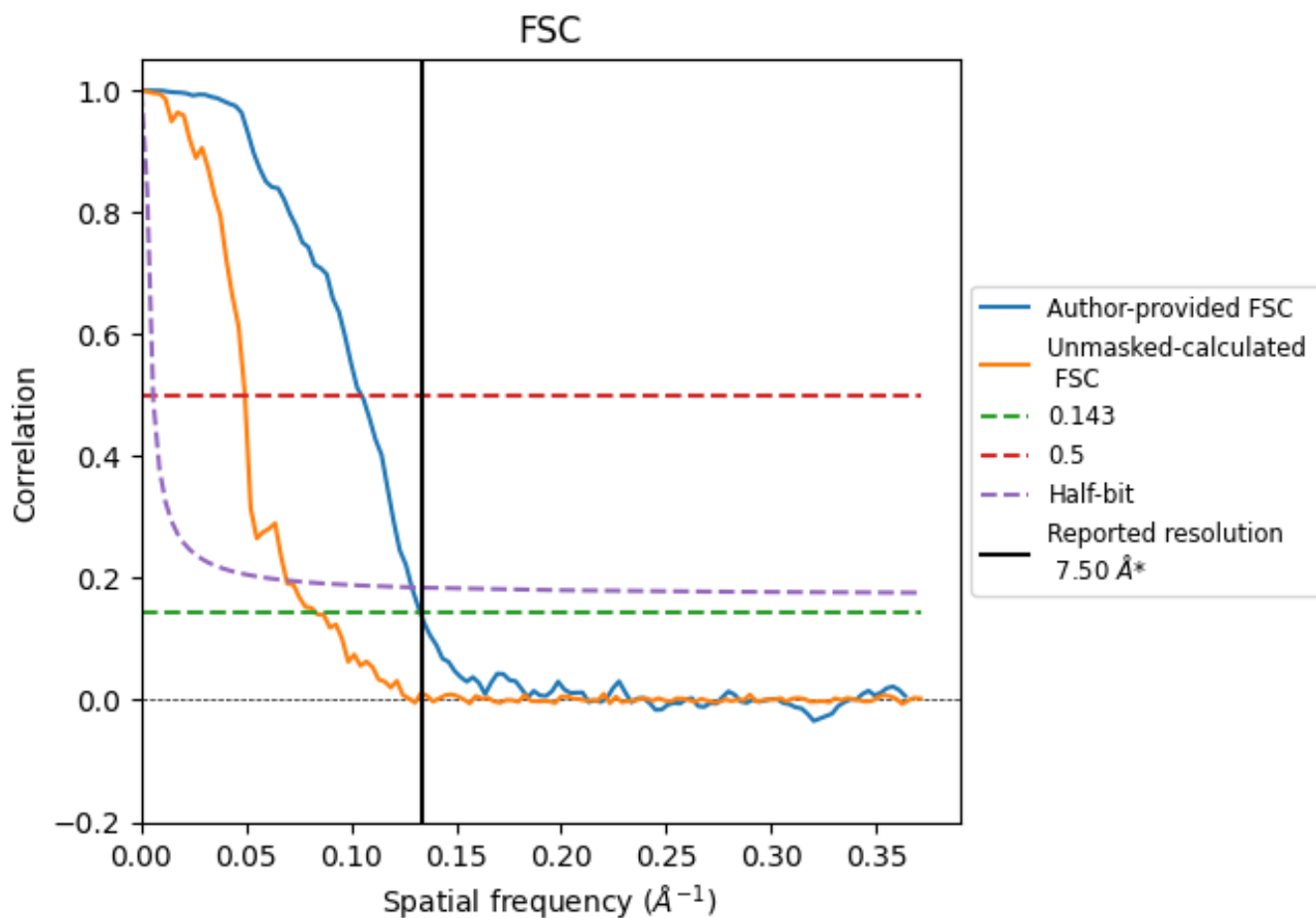


*Reported resolution corresponds to spatial frequency of 0.133 Å⁻¹

8 Fourier-Shell correlation [i](#)

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

8.1 FSC [i](#)



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

8.2 Resolution estimates [i](#)

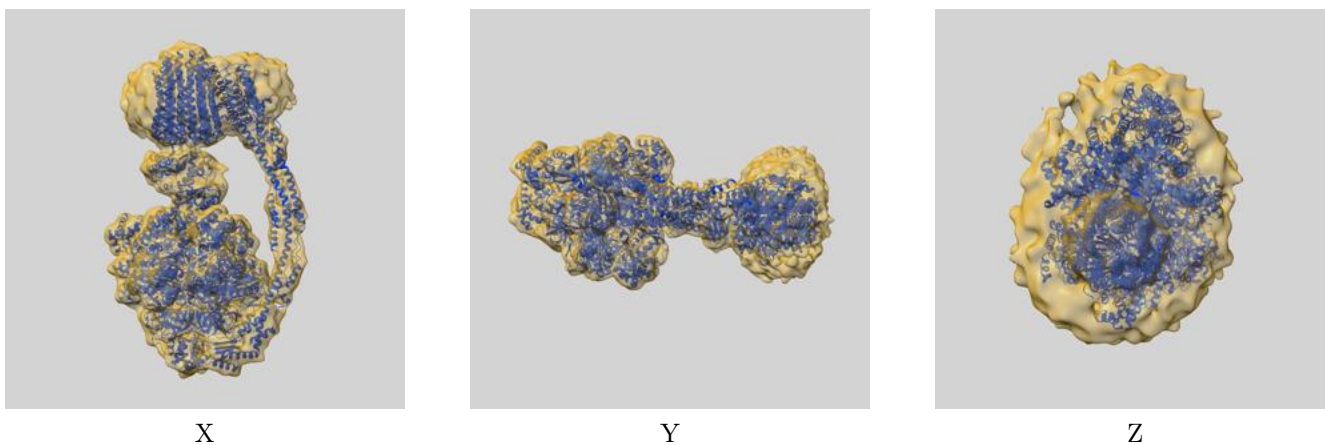
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	7.50	-	-
Author-provided FSC curve	7.52	9.53	7.76
Unmasked-calculated*	12.00	20.24	14.45

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 12.00 differs from the reported value 7.5 by more than 10 %

9 Map-model fit [i](#)

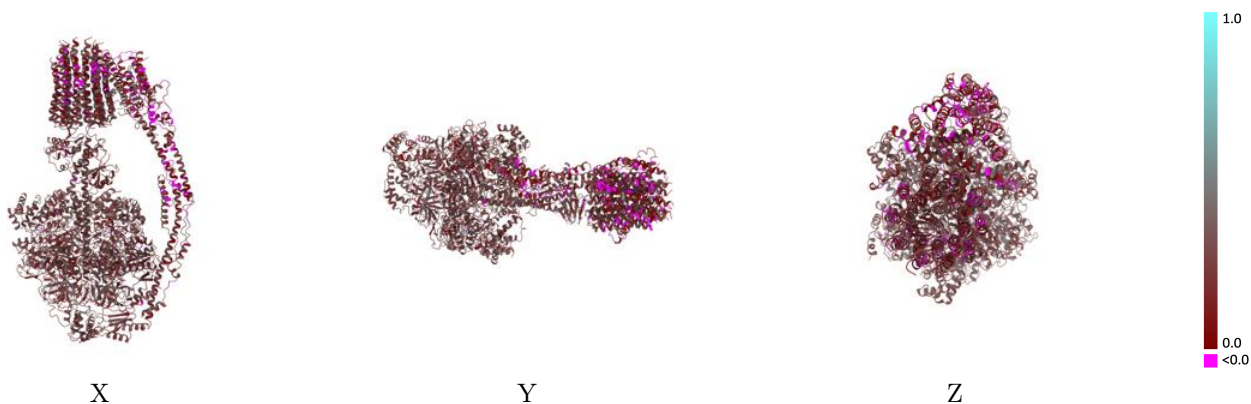
This section contains information regarding the fit between EMDB map EMD-25971 and PDB model 7TKJ. Per-residue inclusion information can be found in section 3 on page 7.

9.1 Map-model overlay [i](#)



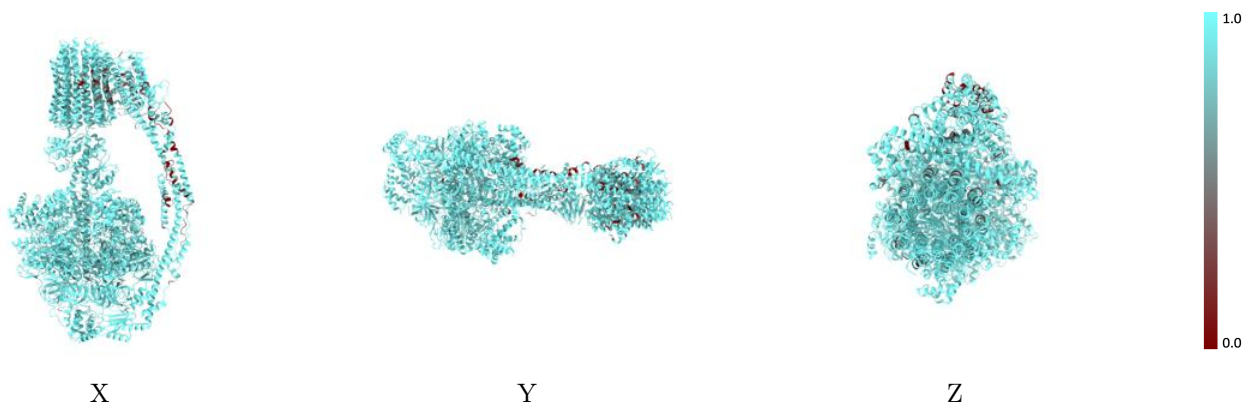
The images above show the 3D surface view of the map at the recommended contour level 0.45 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



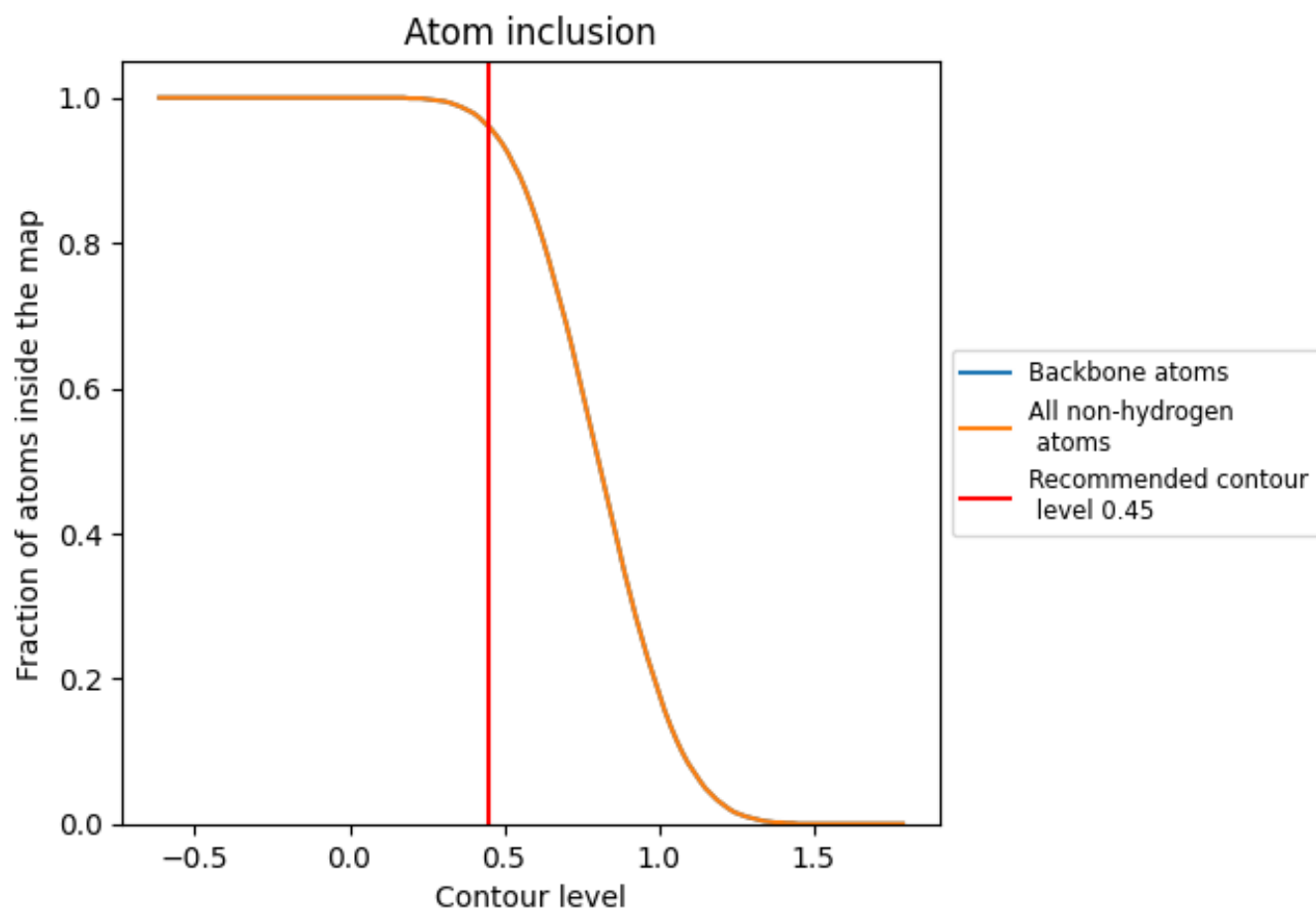
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

























































9.4 Atom inclusion [i](#)



At the recommended contour level, 96% of all backbone atoms, 96% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.45) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.9600	 0.2270
0	 0.9400	 0.1780
1	 0.9400	 0.1760
2	 0.9830	 0.1760
3	 0.9900	 0.1540
4	 0.9430	 0.1590
5	 0.8770	 0.1570
6	 0.9190	 0.1970
7	 0.9350	 0.1920
8	 0.9600	 0.1500
9	 0.9630	 0.1790
A	 0.9670	 0.2540
B	 0.9910	 0.2640
C	 0.9710	 0.2530
D	 0.9850	 0.2570
E	 0.9870	 0.2550
F	 0.9920	 0.2480
G	 0.9700	 0.2470
H	 0.9720	 0.2300
I	 0.9690	 0.2400
O	 0.9930	 0.2760
T	 0.9200	 0.1580
U	 0.9320	 0.2020
V	 0.8530	 0.1560
W	 0.8320	 0.1190
X	 0.7060	 0.1530
Y	 0.9120	 0.1120
Z	 0.9170	 0.0920

