



Full wwPDB EM Validation Report ⓘ

Mar 8, 2026 – 08:38 AM UTC

PDB ID : 5A1W / pdb_00005a1w
EMDB ID : EMD-2987
Title : The structure of the COPI coat linkage II
Authors : Dodonova, S.O.; Diestelkoetter-Bachert, P.; von Appen, A.; Hagen, W.J.H.; Beck, R.; Beck, M.; Wieland, F.; Briggs, J.A.G.
Deposited on : 2015-05-06
Resolution : 18.00 Å(reported)

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

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

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

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

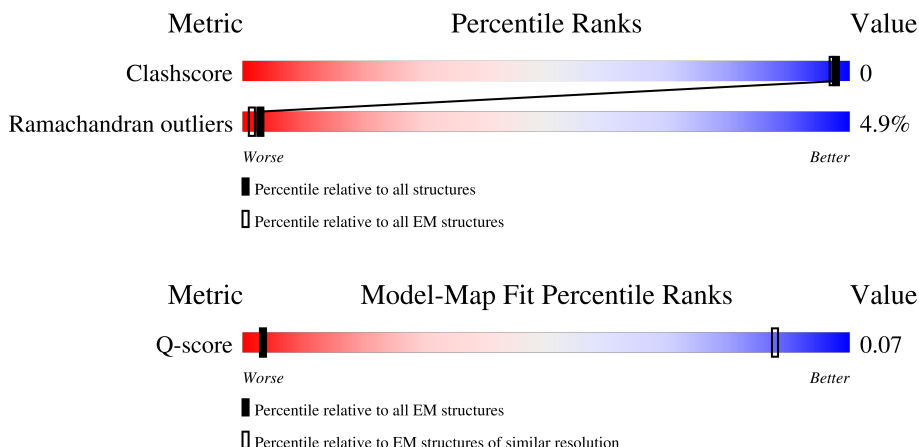
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 18.00 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	24 (17.50 - 18.30)

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

Mol	Chain	Length	Quality of chain
1	A	181	30% 86% 12%
1	B	181	15% 86% 12%
2	C	1262	11% 33% 31% 36%
3	D	905	9% 44% 44% 11%
4	E	874	10% 31% 30% 37%

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Mol	Chain	Length	Quality of chain
5	F	177	12% 37% 40% 21%
6	G	968	11% 40% 41% 16%
7	H	511	17% 56% 18% 26%

2 Entry composition

There are 7 unique types of molecules in this entry. The entry contains 15258 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 ADP-RIBOSYLATION FACTOR 1.

Mol	Chain	Residues	Atoms				AltConf	Trace
1	A	159	Total	C	N	O	0	0
			636	318	159	159		
1	B	159	Total	C	N	O	0	0
			636	318	159	159		

- Molecule 2 is a protein called COATOMER SUBUNIT ALPHA.

Mol	Chain	Residues	Atoms				AltConf	Trace
2	C	813	Total	C	N	O	0	0
			3251	1626	813	812		

There are 38 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
C	1225	LEU	-	expression tag	UNP Q8CIE6
C	1226	GLU	-	expression tag	UNP Q8CIE6
C	1227	VAL	-	expression tag	UNP Q8CIE6
C	1228	LEU	-	expression tag	UNP Q8CIE6
C	1229	PHE	-	expression tag	UNP Q8CIE6
C	1230	GLN	-	expression tag	UNP Q8CIE6
C	1231	GLY	-	expression tag	UNP Q8CIE6
C	1232	PRO	-	expression tag	UNP Q8CIE6
C	1233	SER	-	expression tag	UNP Q8CIE6
C	1234	ALA	-	expression tag	UNP Q8CIE6
C	1235	TRP	-	expression tag	UNP Q8CIE6
C	1236	SER	-	expression tag	UNP Q8CIE6
C	1237	HIS	-	expression tag	UNP Q8CIE6
C	1238	PRO	-	expression tag	UNP Q8CIE6
C	1239	GLN	-	expression tag	UNP Q8CIE6
C	1240	PHE	-	expression tag	UNP Q8CIE6
C	1241	GLU	-	expression tag	UNP Q8CIE6
C	1242	LYS	-	expression tag	UNP Q8CIE6
C	1243	GLY	-	expression tag	UNP Q8CIE6

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Chain	Residue	Modelled	Actual	Comment	Reference
C	1244	GLY	-	expression tag	UNP Q8CIE6
C	1245	GLY	-	expression tag	UNP Q8CIE6
C	1246	SER	-	expression tag	UNP Q8CIE6
C	1247	GLY	-	expression tag	UNP Q8CIE6
C	1248	GLY	-	expression tag	UNP Q8CIE6
C	1249	GLY	-	expression tag	UNP Q8CIE6
C	1250	SER	-	expression tag	UNP Q8CIE6
C	1251	GLY	-	expression tag	UNP Q8CIE6
C	1252	GLY	-	expression tag	UNP Q8CIE6
C	1253	SER	-	expression tag	UNP Q8CIE6
C	1254	ALA	-	expression tag	UNP Q8CIE6
C	1255	TRP	-	expression tag	UNP Q8CIE6
C	1256	SER	-	expression tag	UNP Q8CIE6
C	1257	HIS	-	expression tag	UNP Q8CIE6
C	1258	PRO	-	expression tag	UNP Q8CIE6
C	1259	GLN	-	expression tag	UNP Q8CIE6
C	1260	PHE	-	expression tag	UNP Q8CIE6
C	1261	GLU	-	expression tag	UNP Q8CIE6
C	1262	LYS	-	expression tag	UNP Q8CIE6

- Molecule 3 is a protein called COATOMER SUBUNIT BETA'.

Mol	Chain	Residues	Atoms				AltConf	Trace
3	D	803	Total	C	N	O	0	0
			3211	1606	803	802		

- Molecule 4 is a protein called COATOMER SUBUNIT GAMMA-1.

Mol	Chain	Residues	Atoms				AltConf	Trace
4	E	550	Total	C	N	O	0	0
			2199	1100	550	549		

- Molecule 5 is a protein called COATOMER SUBUNIT ZETA-1.

Mol	Chain	Residues	Atoms				AltConf	Trace
5	F	139	Total	C	N	O	0	0
			555	278	139	138		

- Molecule 6 is a protein called COATOMER SUBUNIT BETA.

Mol	Chain	Residues	Atoms				AltConf	Trace
6	G	813	Total	C	N	O	0	0
			3250	1626	813	811		

There are 15 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
G	-14	MET	-	expression tag	UNP Q9JIF7
G	-13	HIS	-	expression tag	UNP Q9JIF7
G	-12	HIS	-	expression tag	UNP Q9JIF7
G	-11	HIS	-	expression tag	UNP Q9JIF7
G	-10	HIS	-	expression tag	UNP Q9JIF7
G	-9	HIS	-	expression tag	UNP Q9JIF7
G	-8	HIS	-	expression tag	UNP Q9JIF7
G	-7	GLU	-	expression tag	UNP Q9JIF7
G	-6	ASN	-	expression tag	UNP Q9JIF7
G	-5	LEU	-	expression tag	UNP Q9JIF7
G	-4	TYR	-	expression tag	UNP Q9JIF7
G	-3	PHE	-	expression tag	UNP Q9JIF7
G	-2	GLN	-	expression tag	UNP Q9JIF7
G	-1	GLY	-	expression tag	UNP Q9JIF7
G	0	HIS	-	expression tag	UNP Q9JIF7

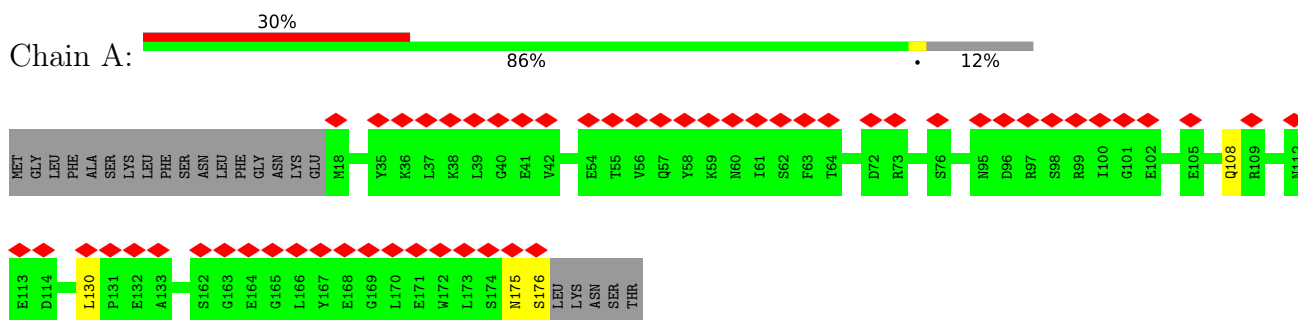
- Molecule 7 is a protein called COATOMER SUBUNIT DELTA.

Mol	Chain	Residues	Atoms				AltConf	Trace
7	H	380	Total	C	N	O	0	0
			1520	760	380	380		

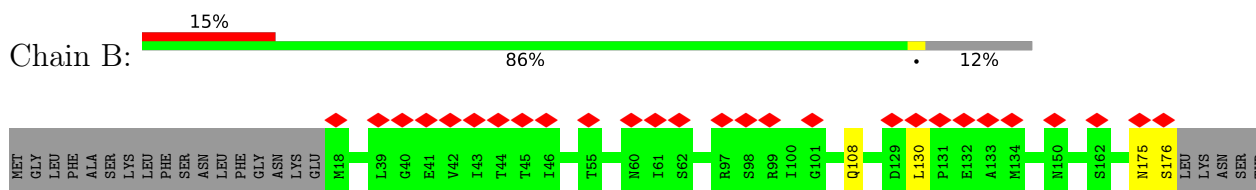
3 Residue-property plots

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.

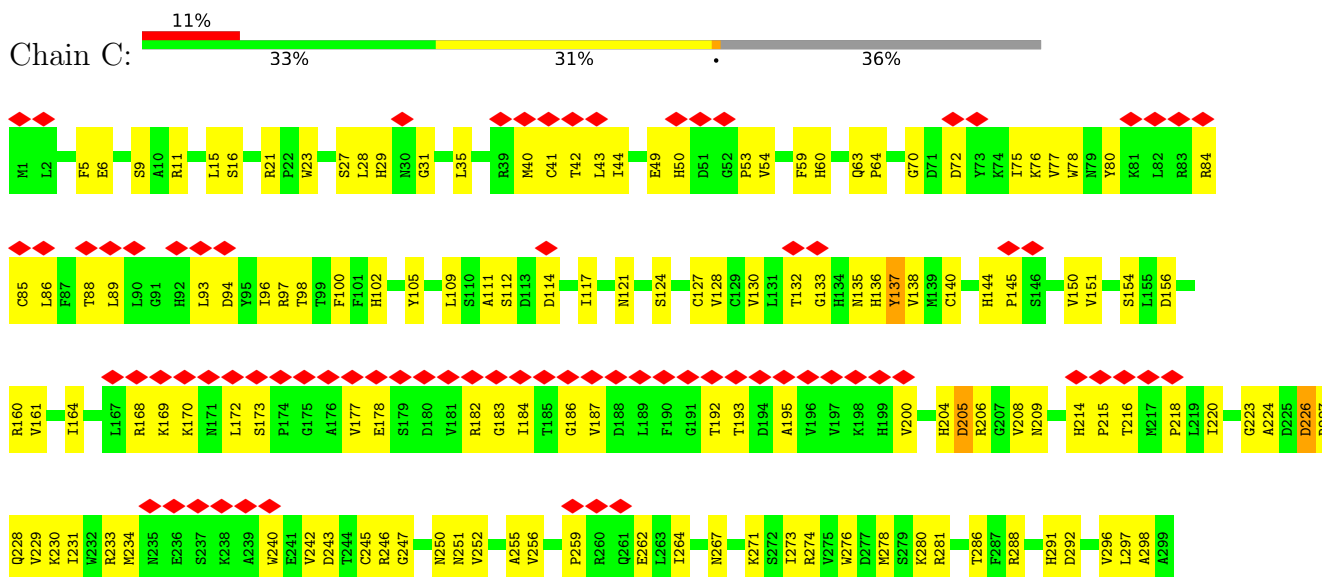
• Molecule 1: ADP-RIBOSYLATION FACTOR 1

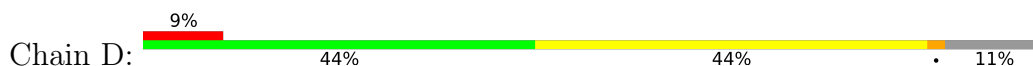


• Molecule 1: ADP-RIBOSYLATION FACTOR 1



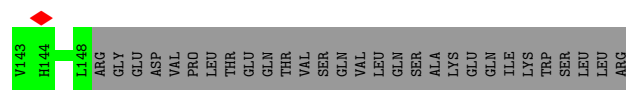
• Molecule 2: COATOMER SUBUNIT ALPHA



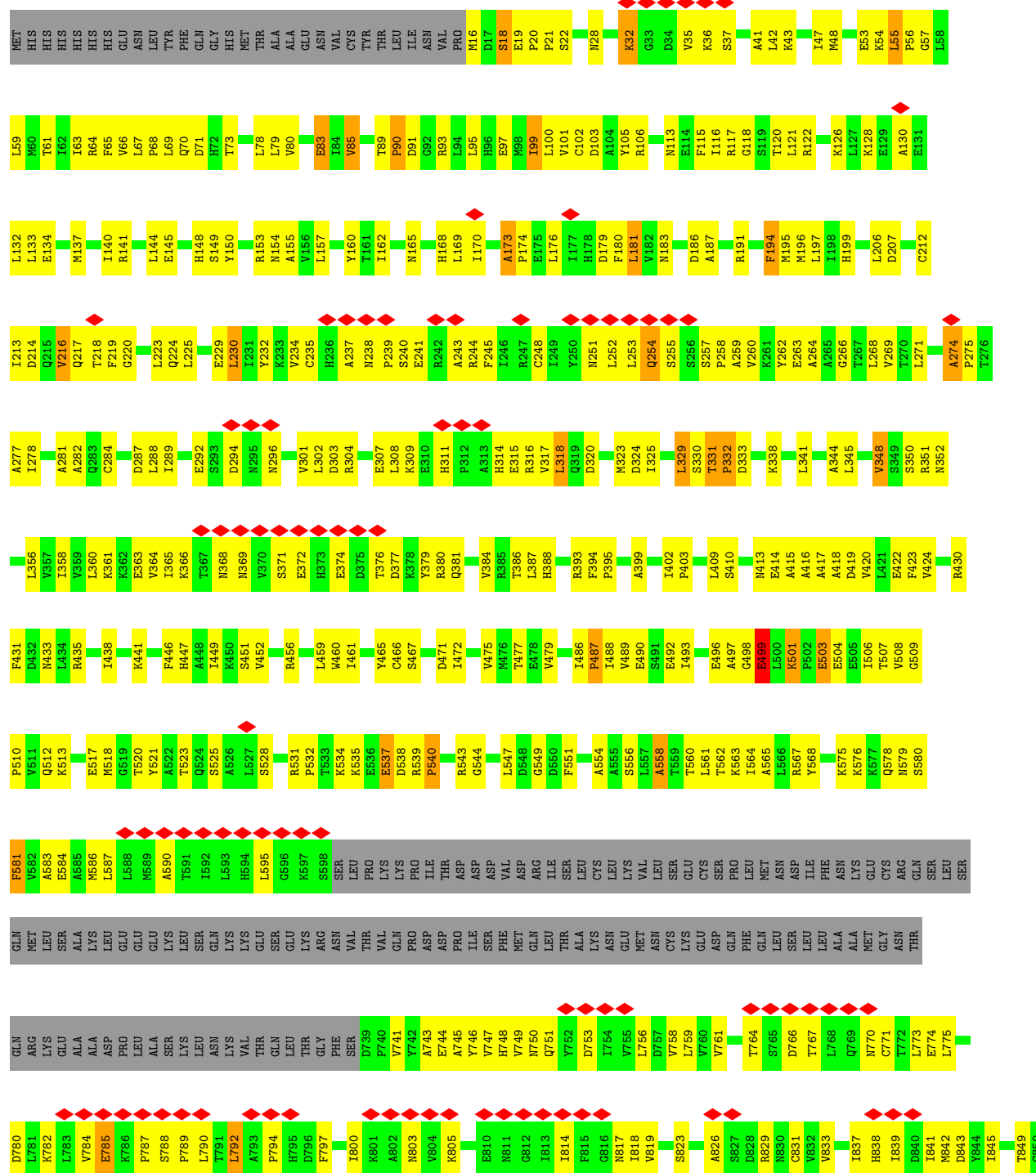
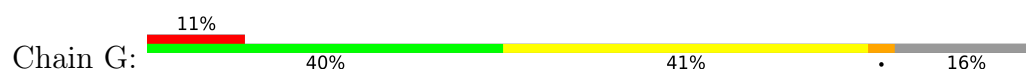


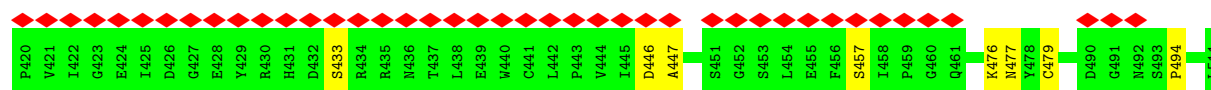


Gene	Chromosome	Start (kb)	End (kb)	Strand	Transcript	Feature
Y69	1	110,000	110,100	+	Y69	5' UTR
K70	1	110,100	110,200	+	K70	5' UTR
S71	1	110,200	110,300	+	S71	5' UTR
S72	1	110,300	110,400	+	S72	5' UTR
I73	1	110,400	110,500	+	I73	5' UTR
D74	1	110,500	110,600	+	D74	5' UTR
L75	1	110,600	110,700	+	L75	5' UTR
Y76	1	110,700	110,800	+	Y76	5' UTR
Y79	1	110,800	110,900	+	Y79	5' UTR
I80	1	110,900	111,000	+	I80	5' UTR
Y84	1	111,000	111,100	+	Y84	5' UTR
S85	1	111,100	111,200	+	S85	5' UTR
M86	1	111,200	111,300	+	M86	5' UTR
E87	1	111,300	111,400	+	E87	5' UTR
L88	1	111,400	111,500	+	L88	5' UTR
M89	1	111,500	111,600	+	M89	5' UTR
Y93	1	111,600	111,700	+	Y93	5' UTR
F98	1	111,700	111,800	+	F98	5' UTR
L101	1	111,800	111,900	+	L101	5' UTR
S102	1	111,900	112,000	+	S102	5' UTR
Q103	1	112,000	112,100	+	Q103	5' UTR
M104	1	112,100	112,200	+	M104	5' UTR
L105	1	112,200	112,300	+	L105	5' UTR
R106	1	112,300	112,400	+	R106	5' UTR
K107	1	112,400	112,500	+	K107	5' UTR
M108	1	112,500	112,600	+	M108	5' UTR
Y109	1	112,600	112,700	+	Y109	5' UTR
E110	1	112,700	112,800	+	E110	5' UTR
K111	1	112,800	112,900	+	K111	5' UTR
R112	1	112,900	113,000	+	R112	5' UTR
A113	1	113,000	113,100	+	A113	5' UTR
L114	1	113,100	113,200	+	L114	5' UTR
L115	1	113,200	113,300	+	L115	5' UTR
E116	1	113,300	113,400	+	E116	5' UTR
M117	1	113,400	113,500	+	M117	5' UTR
M118	1	113,500	113,600	+	M118	5' UTR
E119	1	113,600	113,700	+	E119	5' UTR
G120	1	113,700	113,800	+	G120	5' UTR
L121	1	113,800	113,900	+	L121	5' UTR
E127	1	113,900	114,000	+	E127	5' UTR
I128	1	114,000	114,100	+	I128	5' UTR
V129	1	114,100	114,200	+	V129	5' UTR
D130	1	114,200	114,300	+	D130	5' UTR
G131	1	114,300	114,400	+	G131	5' UTR
G132	1	114,400	114,500	+	G132	5' UTR
V133	1	114,500	114,600	+	V133	5' UTR
I134	1	114,600	114,700	+	I134	5' UTR
D138	1	114,700	114,800	+	D138	5' UTR
P139	1	114,800	114,900	+	P139	5' UTR
Q140	1	114,900	115,000	+	Q140	5' UTR
Q141	1	115,000	115,100	+	Q141	5' UTR
V142	1	115,100	115,200	+	V142	5' UTR
Y69	1	110,000	110,100	+	Y69	5' UTR
K70	1	110,100	110,200	+	K70	5' UTR
S71	1	110,200	110,300</			



• Molecule 6: COATOMER SUBUNIT BETA





4 Experimental information

Property	Value	Source
EM reconstruction method	TOMOGRAPHY	Depositor
Imposed symmetry	POINT, C3	Depositor
Number of tilted images used	2122	Depositor
Resolution determination method	Not provided	
CTF correction method	PHASE FLIPPING OF INDIVIDUAL TILTS	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	200	Depositor
Electron dose ($e^-/\text{\AA}^2$)	45	Depositor
Minimum defocus (nm)	1500	Depositor
Maximum defocus (nm)	4000	Depositor
Magnification	42000	Depositor
Image detector	GATAN MULTISCAN	Depositor
Maximum voxel value	6.631	Depositor
Minimum voxel value	-6.583	Depositor
Average voxel value	-0.037	Depositor
Voxel value standard deviation	0.860	Depositor
Recommended contour level	1.5	Depositor
Tomogram size ($\text{\AA}$)	403.80002, 403.80002, 403.80002	wwPDB
Tomogram dimensions	200, 200, 200	wwPDB
Tomogram angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Grid spacing ($\text{\AA}$)	2.019, 2.019, 2.019	Depositor

5 Model quality

5.1 Standard geometry

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	A	0.69	0/635	1.31	3/792 (0.4%)
1	B	0.69	0/635	1.31	3/792 (0.4%)
2	C	2.64	200/3250 (6.2%)	2.89	327/4061 (8.1%)
3	D	2.71	223/3210 (6.9%)	2.89	344/4011 (8.6%)
4	E	2.62	122/2198 (5.6%)	3.13	284/2746 (10.3%)
5	F	2.72	41/554 (7.4%)	2.99	72/691 (10.4%)
6	G	2.57	178/3248 (5.5%)	3.09	420/4057 (10.4%)
7	H	2.07	24/1518 (1.6%)	2.47	106/1893 (5.6%)
All	All	2.48	788/15248 (5.2%)	2.84	1559/19043 (8.2%)

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
2	C	0	4
3	D	0	2
4	E	0	4
5	F	0	1
6	G	0	14
All	All	0	25

All (788) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	D	330	MET	N-CA	-10.71	1.32	1.46
2	C	98	THR	CA-C	10.48	1.65	1.52
3	D	537	THR	N-CA	-10.04	1.33	1.45
4	E	198	GLY	CA-C	-9.83	1.41	1.52
4	E	536	GLU	CA-C	-9.72	1.40	1.52
3	D	378	TYR	N-CA	-9.71	1.33	1.45
5	F	116	GLU	CA-C	-9.62	1.40	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	G	539	ARG	C-N	9.55	1.44	1.33
6	G	538	ASP	CA-C	-9.52	1.48	1.53
2	C	204	HIS	N-CA	-9.35	1.34	1.46
2	C	130	VAL	C-N	9.29	1.45	1.33
2	C	27	SER	CA-C	-9.21	1.41	1.52
6	G	892	CYS	C-N	9.11	1.43	1.33
5	F	29	LYS	CA-C	-9.11	1.41	1.52
6	G	351	ARG	CA-C	-9.03	1.40	1.52
2	C	631	LYS	N-CA	-8.99	1.34	1.46
6	G	118	GLY	CA-C	-8.98	1.41	1.52
2	C	509	HIS	CA-C	-8.95	1.42	1.52
6	G	761	VAL	CA-C	-8.92	1.41	1.52
6	G	879	ASP	CA-C	8.80	1.64	1.52
3	D	716	ALA	CA-C	-8.80	1.41	1.52
6	G	348	VAL	CA-C	-8.75	1.41	1.52
6	G	447	HIS	CA-C	-8.69	1.40	1.52
3	D	543	LEU	CA-C	-8.68	1.42	1.52
3	D	289	GLY	CA-C	-8.61	1.46	1.52
6	G	19	GLU	N-CA	-8.60	1.38	1.46
6	G	304	ARG	CA-C	-8.59	1.42	1.52
6	G	857	GLN	N-CA	-8.58	1.36	1.46
2	C	224	ALA	CA-C	-8.58	1.42	1.52
3	D	799	PRO	C-N	8.54	1.44	1.33
2	C	455	GLU	CA-C	-8.54	1.41	1.53
4	E	233	ILE	CA-C	-8.54	1.42	1.52
3	D	695	ASP	C-N	8.54	1.45	1.33
6	G	160	TYR	N-CA	-8.54	1.35	1.46
6	G	565	ALA	N-CA	-8.47	1.36	1.46
7	H	31	GLY	C-N	8.41	1.44	1.33
3	D	111	GLN	N-CA	-8.40	1.40	1.46
3	D	464	GLN	N-CA	-8.38	1.34	1.45
2	C	223	GLY	CA-C	-8.36	1.44	1.52
3	D	466	LYS	N-CA	-8.33	1.35	1.46
3	D	645	PHE	N-CA	-8.27	1.36	1.46
3	D	298	LYS	CA-C	-8.25	1.42	1.52
3	D	598	VAL	CA-C	-8.23	1.42	1.52
4	E	303	LEU	CA-C	-8.23	1.41	1.52
2	C	621	VAL	C-N	8.23	1.45	1.33
5	F	25	ARG	CA-C	-8.22	1.42	1.52
3	D	74	THR	C-O	-8.18	1.13	1.23
6	G	329	LEU	CA-C	-8.18	1.42	1.52
6	G	374	GLU	C-N	8.17	1.44	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	G	148	HIS	CA-C	-8.16	1.42	1.52
4	E	83	THR	CA-C	-8.15	1.42	1.52
2	C	550	LYS	CA-C	-8.13	1.42	1.52
5	F	68	VAL	CA-C	-8.09	1.42	1.52
4	E	455	ILE	C-N	8.09	1.44	1.33
2	C	341	LEU	CA-C	8.04	1.60	1.53
3	D	555	ALA	CA-C	-8.03	1.43	1.52
2	C	154	SER	CA-C	-7.99	1.42	1.52
6	G	145	GLU	C-N	7.99	1.44	1.33
2	C	137	TYR	C-N	7.97	1.42	1.33
2	C	297	LEU	CA-C	-7.96	1.42	1.52
2	C	353	ALA	N-CA	-7.95	1.36	1.45
2	C	252	VAL	CA-C	-7.93	1.43	1.52
3	D	159	ALA	CA-C	-7.90	1.43	1.52
2	C	652	ALA	C-N	7.90	1.44	1.34
2	C	77	VAL	CA-C	-7.89	1.43	1.52
2	C	631	LYS	C-N	7.86	1.44	1.33
2	C	584	GLU	C-N	7.85	1.44	1.33
6	G	773	LEU	CA-C	-7.83	1.43	1.52
4	E	123	PRO	N-CA	-7.83	1.37	1.47
3	D	562	TYR	CA-C	-7.81	1.43	1.52
6	G	329	LEU	C-N	7.78	1.44	1.33
2	C	85	CYS	CA-C	-7.77	1.43	1.52
3	D	191	ILE	CA-C	-7.75	1.42	1.52
2	C	525	HIS	N-CA	-7.73	1.36	1.46
3	D	451	ASP	CA-C	-7.73	1.42	1.52
3	D	276	CYS	CA-C	-7.70	1.42	1.52
3	D	550	GLU	CA-C	-7.70	1.43	1.52
3	D	621	VAL	N-CA	-7.68	1.37	1.46
7	H	132	THR	CA-C	7.68	1.62	1.52
6	G	472	ILE	N-CA	-7.67	1.37	1.46
5	F	19	LEU	CA-C	-7.67	1.43	1.52
2	C	127	CYS	CA-C	-7.66	1.43	1.52
3	D	122	LEU	CA-C	-7.64	1.43	1.52
2	C	220	ILE	CA-C	-7.61	1.43	1.52
4	E	542	LEU	N-CA	-7.61	1.37	1.46
6	G	920	ALA	CA-C	-7.60	1.43	1.52
5	F	117	ASN	CA-C	-7.59	1.44	1.53
6	G	580	SER	CA-C	-7.59	1.43	1.52
2	C	560	ILE	CA-C	-7.58	1.43	1.52
3	D	33	SER	N-CA	-7.58	1.36	1.46
3	D	468	ILE	CA-C	-7.58	1.43	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	D	414	ILE	CA-C	-7.56	1.43	1.52
6	G	433	ASN	CA-C	-7.54	1.42	1.53
5	F	12	THR	C-N	7.52	1.43	1.33
2	C	505	LEU	CA-C	-7.51	1.43	1.52
4	E	99	ALA	N-CA	-7.51	1.36	1.46
3	D	586	SER	N-CA	-7.50	1.36	1.46
4	E	124	ALA	CA-C	-7.46	1.43	1.52
3	D	296	ILE	CA-C	-7.46	1.43	1.52
3	D	16	ASP	C-N	7.46	1.44	1.33
7	H	61	MET	CA-C	-7.45	1.44	1.52
3	D	50	VAL	C-N	7.44	1.42	1.33
2	C	471	SER	C-N	7.44	1.42	1.33
3	D	310	ALA	N-CA	-7.40	1.36	1.46
2	C	172	LEU	CA-C	-7.40	1.43	1.52
4	E	530	PHE	N-CA	-7.40	1.37	1.46
7	H	93	TYR	C-N	7.38	1.44	1.33
3	D	295	ILE	N-CA	-7.37	1.37	1.46
3	D	366	PHE	CA-C	-7.37	1.43	1.52
4	E	208	ARG	CA-C	-7.37	1.43	1.52
5	F	129	VAL	CA-C	-7.37	1.44	1.52
2	C	792	ALA	CA-C	-7.34	1.43	1.52
3	D	567	ILE	CA-C	-7.34	1.47	1.53
3	D	126	TRP	CA-C	-7.32	1.43	1.52
3	D	767	SER	N-CA	-7.31	1.37	1.46
4	E	53	TYR	C-O	-7.31	1.15	1.24
3	D	186	LYS	C-N	7.29	1.43	1.32
3	D	772	LEU	C-N	7.28	1.43	1.33
3	D	228	HIS	CA-C	-7.27	1.44	1.52
2	C	661	ALA	CA-C	-7.26	1.43	1.52
3	D	595	GLN	C-N	7.25	1.43	1.33
3	D	508	ASP	CA-C	-7.24	1.43	1.52
4	E	370	GLU	N-CA	-7.22	1.37	1.46
6	G	792	LEU	N-CA	-7.22	1.36	1.46
3	D	3	LEU	C-N	7.20	1.43	1.33
2	C	517	LYS	CA-C	7.20	1.62	1.52
6	G	289	ILE	CA-C	-7.20	1.43	1.52
6	G	467	SER	C-N	7.18	1.43	1.33
3	D	184	HIS	CA-C	-7.18	1.44	1.52
2	C	782	LYS	CA-C	-7.18	1.43	1.52
4	E	412	GLU	C-N	7.18	1.43	1.33
3	D	575	LEU	CA-C	-7.17	1.44	1.52
3	D	208	ASP	C-N	7.17	1.43	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	E	561	ALA	CA-C	7.16	1.62	1.52
6	G	510	PRO	C-N	7.16	1.43	1.33
2	C	650	SER	N-CA	-7.15	1.37	1.46
6	G	898	ALA	C-N	7.15	1.43	1.33
4	E	263	HIS	N-CA	-7.15	1.36	1.46
2	C	216	THR	C-N	7.13	1.42	1.33
2	C	694	TYR	C-N	7.13	1.43	1.33
5	F	28	ALA	N-CA	-7.11	1.37	1.46
2	C	763	ALA	CA-C	-7.10	1.43	1.52
3	D	340	ARG	CA-C	-7.10	1.43	1.52
4	E	252	PHE	N-CA	-7.10	1.38	1.46
4	E	540	LYS	CA-C	-7.09	1.43	1.52
6	G	745	ALA	N-CA	-7.09	1.37	1.46
3	D	723	GLY	CA-C	-7.08	1.41	1.51
4	E	432	LYS	C-N	7.07	1.43	1.33
5	F	28	ALA	CA-C	-7.07	1.43	1.52
6	G	394	PHE	CA-C	-7.07	1.45	1.52
3	D	667	GLU	N-CA	7.06	1.55	1.46
2	C	524	ILE	CA-C	-7.06	1.44	1.52
4	E	492	VAL	CA-C	-7.05	1.43	1.52
2	C	420	TRP	C-N	7.05	1.42	1.33
4	E	136	MET	C-N	7.04	1.43	1.33
2	C	495	ILE	CA-C	-7.03	1.44	1.52
2	C	748	ILE	N-CA	7.03	1.54	1.46
2	C	140	CYS	CA-C	-7.02	1.43	1.52
2	C	579	TYR	CA-C	-7.01	1.44	1.52
2	C	392	ASP	CA-C	-7.01	1.43	1.52
2	C	737	LEU	CA-C	-7.01	1.43	1.52
6	G	132	LEU	N-CA	-7.00	1.37	1.46
2	C	531	LYS	CA-C	-7.00	1.44	1.52
2	C	511	ILE	N-CA	-7.00	1.38	1.46
2	C	714	GLU	C-O	6.99	1.32	1.24
4	E	559	GLU	CA-C	-6.99	1.43	1.52
2	C	259	PRO	CA-C	-6.99	1.42	1.52
2	C	644	ASP	CA-C	-6.98	1.43	1.52
2	C	740	GLY	CA-C	-6.98	1.43	1.52
6	G	117	ARG	CA-C	-6.96	1.43	1.52
6	G	767	THR	C-N	6.96	1.44	1.33
6	G	61	THR	CA-C	-6.93	1.44	1.52
7	H	86	PHE	N-CA	-6.92	1.38	1.46
4	E	264	GLU	CA-C	-6.92	1.43	1.52
2	C	298	ALA	C-N	6.90	1.44	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	C	525	HIS	CA-C	-6.90	1.44	1.52
3	D	114	ILE	CA-C	-6.89	1.44	1.52
6	G	220	GLY	C-N	6.89	1.43	1.33
6	G	93	ARG	CA-C	-6.89	1.46	1.52
3	D	694	GLN	CA-C	6.88	1.61	1.52
4	E	95	MET	C-N	6.88	1.42	1.33
5	F	87	GLU	CA-C	-6.87	1.43	1.52
3	D	74	THR	N-CA	-6.86	1.37	1.45
3	D	90	GLU	CA-C	-6.86	1.44	1.52
3	D	507	GLU	CA-C	-6.86	1.44	1.53
4	E	64	THR	CA-C	-6.85	1.44	1.52
2	C	694	TYR	N-CA	-6.84	1.37	1.46
7	H	10	THR	CA-C	-6.83	1.44	1.52
2	C	533	GLY	N-CA	-6.83	1.39	1.45
3	D	624	PHE	N-CA	-6.83	1.38	1.46
3	D	502	HIS	CA-C	-6.81	1.44	1.53
5	F	14	LYS	CA-C	-6.78	1.44	1.52
6	G	759	LEU	N-CA	-6.78	1.37	1.46
3	D	660	LEU	N-CA	-6.77	1.38	1.46
6	G	409	LEU	N-CA	-6.77	1.38	1.46
6	G	518	MET	N-CA	-6.76	1.38	1.46
2	C	410	GLY	C-N	6.76	1.42	1.33
2	C	464	LEU	N-CA	-6.76	1.39	1.46
2	C	499	ASP	N-CA	-6.75	1.37	1.46
6	G	217	GLN	CA-C	-6.75	1.44	1.52
2	C	510	ALA	N-CA	-6.74	1.38	1.47
4	E	121	ARG	C-O	-6.73	1.16	1.24
3	D	479	ILE	N-CA	-6.72	1.38	1.46
2	C	226	ASP	CA-C	-6.71	1.43	1.52
3	D	205	GLY	CA-C	-6.71	1.46	1.51
4	E	337	ASN	N-CA	-6.71	1.37	1.46
3	D	331	GLY	CA-C	-6.70	1.42	1.51
2	C	623	GLN	CA-C	-6.70	1.45	1.53
3	D	769	VAL	CA-C	-6.69	1.44	1.52
4	E	404	MET	C-N	6.69	1.42	1.33
4	E	483	GLU	CA-C	-6.68	1.44	1.52
3	D	139	GLU	CA-C	-6.68	1.44	1.52
2	C	741	ASP	CA-C	-6.68	1.44	1.52
2	C	723	ALA	CA-C	-6.67	1.42	1.52
2	C	288	ARG	CA-C	-6.67	1.44	1.52
3	D	199	LYS	CA-C	-6.66	1.45	1.52
6	G	196	MET	N-CA	-6.65	1.38	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	D	83	VAL	N-CA	-6.65	1.38	1.46
4	E	351	THR	CA-C	6.65	1.61	1.52
3	D	749	GLY	C-N	6.65	1.40	1.33
2	C	121	ASN	CA-C	-6.64	1.44	1.52
7	H	58	TYR	N-CA	-6.64	1.38	1.46
6	G	229	GLU	C-N	6.64	1.43	1.33
3	D	288	LEU	C-N	6.63	1.39	1.33
6	G	380	ARG	CA-C	-6.63	1.44	1.52
2	C	111	ALA	C-N	6.62	1.42	1.33
3	D	46	THR	CA-C	-6.62	1.43	1.52
3	D	649	LEU	C-N	6.62	1.42	1.33
6	G	853	ALA	C-N	6.62	1.43	1.33
3	D	53	PHE	N-CA	-6.62	1.37	1.46
2	C	602	ALA	C-N	6.61	1.42	1.33
2	C	229	VAL	N-CA	-6.60	1.38	1.46
4	E	170	SER	N-CA	-6.60	1.38	1.46
6	G	460	TRP	C-N	6.58	1.42	1.33
2	C	463	ASN	N-CA	-6.57	1.37	1.46
6	G	456	ARG	CA-C	-6.57	1.44	1.52
6	G	741	VAL	N-CA	-6.57	1.38	1.46
6	G	122	ARG	N-CA	-6.56	1.38	1.46
5	F	52	THR	N-CA	-6.56	1.38	1.46
4	E	294	LEU	CA-C	-6.56	1.44	1.52
6	G	386	THR	C-N	6.55	1.42	1.33
6	G	914	SER	CA-C	-6.54	1.44	1.52
3	D	697	GLY	CA-C	-6.53	1.45	1.52
3	D	227	GLY	CA-C	-6.53	1.42	1.51
3	D	404	ALA	N-CA	-6.52	1.37	1.45
4	E	423	SER	N-CA	-6.52	1.38	1.46
4	E	49	THR	CA-C	-6.52	1.44	1.52
4	E	229	TYR	CA-C	-6.50	1.44	1.52
2	C	42	THR	CA-C	-6.50	1.44	1.52
3	D	541	ASN	CA-C	-6.50	1.44	1.53
5	F	89	MET	CA-C	-6.50	1.44	1.52
3	D	297	VAL	CA-C	-6.49	1.44	1.52
6	G	121	LEU	CA-C	-6.49	1.44	1.52
4	E	551	LEU	N-CA	-6.49	1.37	1.46
3	D	510	ILE	CA-C	-6.48	1.45	1.52
4	E	431	SER	CA-C	-6.48	1.44	1.52
3	D	81	ILE	CA-C	-6.47	1.45	1.52
2	C	436	LEU	N-CA	-6.47	1.38	1.45
3	D	116	THR	CA-C	-6.46	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	C	521	LEU	C-O	-6.46	1.16	1.24
2	C	433	HIS	C-N	6.46	1.42	1.33
3	D	123	ILE	N-CA	-6.46	1.38	1.46
3	D	80	GLN	N-CA	-6.45	1.38	1.45
5	F	101	LEU	CA-C	-6.45	1.44	1.52
4	E	79	SER	CA-C	-6.44	1.45	1.52
6	G	364	VAL	CA-C	-6.44	1.46	1.53
6	G	884	ILE	C-N	6.43	1.42	1.34
3	D	283	SER	C-N	6.43	1.42	1.33
7	H	110	ILE	N-CA	-6.42	1.38	1.46
4	E	101	ASP	C-N	6.42	1.41	1.34
3	D	796	ASN	C-N	6.42	1.41	1.33
2	C	218	PRO	N-CA	-6.41	1.39	1.47
2	C	102	HIS	CA-C	-6.41	1.44	1.52
2	C	300	HIS	CA-C	-6.40	1.45	1.52
2	C	231	ILE	CA-C	-6.38	1.45	1.52
6	G	431	PHE	N-CA	-6.38	1.37	1.46
3	D	116	THR	N-CA	-6.38	1.37	1.45
3	D	671	LYS	CA-C	-6.38	1.44	1.52
6	G	509	GLY	CA-C	-6.37	1.42	1.51
4	E	564	GLN	N-CA	-6.37	1.38	1.46
2	C	614	MET	N-CA	-6.36	1.38	1.46
6	G	18	SER	CA-C	-6.34	1.44	1.52
2	C	135	ASN	C-N	6.34	1.41	1.33
3	D	76	ALA	N-CA	-6.33	1.36	1.46
6	G	922	ALA	CA-C	-6.32	1.45	1.52
2	C	374	GLU	CA-C	-6.31	1.44	1.52
4	E	60	HIS	C-N	6.31	1.41	1.33
7	H	91	PRO	C-N	6.31	1.42	1.33
3	D	431	GLU	C-N	6.31	1.41	1.33
6	G	780	ASP	N-CA	-6.30	1.37	1.46
4	E	364	ILE	N-CA	-6.30	1.38	1.46
3	D	654	LEU	CA-C	-6.29	1.44	1.52
6	G	85	VAL	C-N	6.29	1.43	1.33
3	D	114	ILE	N-CA	-6.29	1.38	1.46
6	G	756	LEU	CA-C	-6.29	1.44	1.52
6	G	422	GLU	CA-C	-6.28	1.44	1.52
6	G	173	ALA	N-CA	-6.28	1.37	1.46
6	G	278	ILE	CA-C	-6.28	1.45	1.52
3	D	774	ARG	C-N	6.28	1.42	1.33
3	D	222	VAL	N-CA	-6.27	1.39	1.46
2	C	135	ASN	CA-C	-6.26	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	C	723	ALA	C-N	6.26	1.41	1.33
4	E	301	ALA	C-N	6.25	1.42	1.34
3	D	711	MET	CA-C	-6.25	1.46	1.53
6	G	748	HIS	N-CA	-6.25	1.38	1.45
2	C	124	SER	C-N	6.24	1.43	1.33
5	F	98	PHE	CA-C	-6.24	1.45	1.52
3	D	104	CYS	CA-C	-6.24	1.44	1.52
6	G	907	ALA	N-CA	-6.24	1.38	1.46
6	G	774	GLU	CA-C	-6.22	1.45	1.52
7	H	108	ASP	CA-C	-6.21	1.45	1.52
4	E	480	VAL	CA-C	-6.21	1.44	1.52
2	C	672	ASN	CA-C	-6.21	1.44	1.52
3	D	80	GLN	CA-C	-6.20	1.45	1.52
5	F	45	GLU	N-CA	-6.20	1.39	1.46
2	C	535	TRP	C-N	6.20	1.42	1.33
3	D	414	ILE	N-CA	-6.20	1.39	1.46
4	E	280	CYS	N-CA	-6.20	1.38	1.46
5	F	30	TYR	C-N	6.20	1.42	1.33
6	G	255	SER	C-N	6.20	1.42	1.33
2	C	691	GLU	CA-C	-6.19	1.44	1.52
2	C	449	GLN	C-N	6.19	1.40	1.33
4	E	378	VAL	N-CA	-6.19	1.39	1.46
6	G	36	LYS	CA-C	-6.18	1.44	1.52
3	D	376	ILE	CA-C	-6.18	1.45	1.52
4	E	520	ASP	CA-C	-6.17	1.46	1.53
7	H	374	ILE	CA-C	-6.17	1.48	1.53
3	D	330	MET	CA-C	-6.16	1.45	1.52
4	E	114	THR	C-N	6.15	1.39	1.33
6	G	417	ALA	CA-C	-6.15	1.44	1.52
3	D	441	VAL	C-O	6.14	1.30	1.24
4	E	86	ARG	C-N	6.14	1.42	1.33
6	G	57	GLY	N-CA	6.14	1.53	1.45
3	D	542	ARG	CA-C	-6.14	1.45	1.52
2	C	286	THR	N-CA	-6.14	1.38	1.46
2	C	84	ARG	N-CA	-6.14	1.38	1.45
3	D	622	ALA	N-CA	-6.14	1.39	1.46
3	D	255	ILE	N-CA	-6.13	1.39	1.46
6	G	266	GLY	CA-C	-6.13	1.45	1.52
2	C	274	ARG	CA-C	-6.12	1.45	1.52
6	G	575	LYS	CA-C	-6.12	1.46	1.53
6	G	903	CYS	CA-C	-6.12	1.45	1.52
6	G	962	SER	N-CA	-6.12	1.38	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	D	520	ILE	CA-C	-6.11	1.44	1.52
5	F	16	ILE	CA-C	-6.11	1.45	1.52
6	G	403	PRO	C-N	6.10	1.41	1.34
3	D	391	ALA	C-N	6.10	1.42	1.33
6	G	535	LYS	CA-C	-6.09	1.44	1.52
2	C	485	SER	CA-C	-6.08	1.45	1.52
2	C	378	LEU	N-CA	-6.08	1.38	1.46
4	E	384	SER	C-N	-6.08	1.25	1.33
3	D	724	LYS	N-CA	-6.08	1.38	1.46
4	E	341	ALA	CA-C	-6.08	1.44	1.52
6	G	374	GLU	CA-C	6.07	1.60	1.52
4	E	382	ALA	CA-C	-6.05	1.45	1.52
2	C	183	GLY	N-CA	6.05	1.52	1.45
4	E	290	SER	N-CA	-6.05	1.37	1.45
6	G	358	ILE	CA-C	-6.04	1.45	1.52
3	D	741	CYS	C-O	-6.04	1.17	1.24
2	C	784	THR	C-N	6.04	1.40	1.33
3	D	308	MET	N-CA	-6.04	1.38	1.46
3	D	613	ILE	CA-C	-6.03	1.46	1.52
4	E	319	PRO	C-N	6.02	1.41	1.33
4	E	82	PRO	N-CA	-6.02	1.39	1.47
2	C	49	GLU	C-N	6.02	1.41	1.33
2	C	487	LYS	CA-C	-6.01	1.45	1.52
2	C	605	ASN	C-N	6.01	1.41	1.33
2	C	614	MET	C-N	6.01	1.41	1.33
3	D	440	GLY	CA-C	-6.01	1.48	1.52
3	D	124	LYS	CA-C	-6.00	1.45	1.52
4	E	228	ALA	CA-C	-6.00	1.45	1.52
5	F	133	VAL	CA-C	-6.00	1.45	1.52
4	E	326	ASN	CA-C	-6.00	1.45	1.52
6	G	766	ASP	CA-C	-5.99	1.45	1.53
6	G	744	GLU	N-CA	-5.98	1.38	1.45
7	H	98	GLU	C-N	5.98	1.41	1.33
6	G	214	ASP	N-CA	-5.97	1.39	1.46
6	G	251	ASN	C-N	5.97	1.41	1.33
4	E	163	SER	C-N	5.96	1.42	1.33
2	C	97	ARG	CA-C	-5.96	1.45	1.52
2	C	132	THR	CA-C	-5.96	1.45	1.52
3	D	397	ALA	CA-C	-5.96	1.44	1.52
2	C	358	ARG	C-N	5.95	1.42	1.33
2	C	701	ASP	CA-C	5.95	1.60	1.52
3	D	448	ALA	CA-C	-5.95	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	C	689	ILE	C-N	5.95	1.41	1.33
2	C	6	GLU	N-CA	-5.94	1.38	1.46
3	D	178	ASN	C-N	5.94	1.40	1.33
4	E	278	PRO	N-CA	-5.94	1.39	1.47
4	E	91	THR	C-N	5.94	1.41	1.33
6	G	160	TYR	C-N	5.93	1.42	1.34
5	F	69	TYR	CA-C	5.93	1.59	1.52
4	E	455	ILE	C-O	-5.92	1.17	1.24
3	D	430	ALA	CA-C	-5.92	1.45	1.52
3	D	752	PRO	CA-C	-5.91	1.43	1.52
2	C	561	ILE	C-N	-5.91	1.26	1.33
2	C	735	ASN	N-CA	-5.91	1.39	1.46
2	C	281	ARG	C-N	5.91	1.40	1.33
3	D	405	ILE	N-CA	-5.91	1.39	1.46
5	F	98	PHE	N-CA	-5.91	1.39	1.46
6	G	547	LEU	CA-C	-5.90	1.44	1.52
6	G	857	GLN	CA-C	-5.90	1.45	1.52
2	C	109	LEU	CA-C	-5.89	1.45	1.52
4	E	556	PRO	CA-C	5.89	1.60	1.52
5	F	120	GLY	CA-C	-5.89	1.45	1.52
5	F	57	SER	CA-C	-5.88	1.45	1.52
3	D	254	ARG	CA-C	-5.88	1.45	1.52
6	G	501	LYS	C-N	-5.88	1.27	1.34
6	G	905	PHE	CA-C	-5.88	1.45	1.52
3	D	439	LEU	CA-C	-5.88	1.45	1.52
4	E	50	LYS	C-N	5.87	1.41	1.33
5	F	24	ASP	C-N	5.87	1.41	1.33
2	C	663	GLU	CA-C	-5.87	1.45	1.52
4	E	119	ASN	N-CA	5.87	1.53	1.46
2	C	641	PHE	CA-C	-5.87	1.45	1.52
3	D	108	HIS	CA-C	-5.87	1.45	1.52
3	D	145	VAL	CA-C	-5.87	1.47	1.53
6	G	53	GLU	CA-C	-5.87	1.45	1.52
3	D	262	ARG	N-CA	-5.86	1.38	1.46
3	D	168	LYS	N-CA	-5.86	1.38	1.46
3	D	413	LYS	CA-C	-5.86	1.45	1.52
4	E	213	LYS	C-N	5.86	1.41	1.33
4	E	500	ALA	N-CA	-5.85	1.39	1.46
3	D	630	PHE	CA-C	-5.85	1.45	1.52
6	G	199	HIS	CA-C	-5.85	1.45	1.52
3	D	635	LEU	C-N	5.85	1.41	1.33
4	E	78	GLN	C-N	5.84	1.41	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	E	431	SER	C-O	-5.84	1.17	1.24
4	E	411	PHE	N-CA	-5.83	1.39	1.46
2	C	70	GLY	CA-C	-5.83	1.46	1.52
4	E	494	ALA	CA-C	-5.83	1.45	1.52
2	C	389	SER	CA-C	-5.82	1.48	1.53
7	H	103	SER	C-N	5.82	1.42	1.34
2	C	333	LEU	CA-C	-5.82	1.45	1.52
4	E	242	GLU	N-CA	-5.82	1.39	1.46
6	G	218	THR	CA-C	5.82	1.60	1.52
4	E	61	LEU	C-N	5.80	1.37	1.33
6	G	910	LEU	CA-C	-5.80	1.46	1.52
6	G	140	ILE	CA-C	5.80	1.58	1.52
2	C	80	TYR	C-N	5.80	1.42	1.33
6	G	333	ASP	C-N	5.79	1.41	1.33
3	D	362	PRO	N-CA	-5.78	1.40	1.47
2	C	396	ILE	CA-C	-5.78	1.47	1.52
3	D	55	VAL	N-CA	-5.78	1.39	1.46
2	C	267	ASN	CA-C	-5.78	1.45	1.52
3	D	600	ARG	N-CA	-5.78	1.38	1.46
2	C	496	TRP	CA-C	-5.77	1.45	1.52
6	G	556	SER	CA-C	-5.75	1.45	1.52
7	H	95	ARG	CA-C	-5.75	1.48	1.53
2	C	64	PRO	C-N	5.75	1.40	1.33
3	D	297	VAL	C-N	5.75	1.41	1.33
2	C	507	ALA	CA-C	5.74	1.60	1.52
3	D	371	GLY	CA-C	-5.74	1.43	1.51
6	G	864	TRP	CA-C	-5.74	1.44	1.52
2	C	647	THR	CA-C	-5.74	1.45	1.52
3	D	596	THR	C-O	-5.74	1.17	1.24
6	G	936	ALA	CA-C	-5.74	1.46	1.53
3	D	595	GLN	N-CA	-5.73	1.39	1.46
4	E	57	GLN	N-CA	-5.73	1.39	1.46
3	D	294	SER	CA-C	-5.73	1.45	1.52
6	G	477	THR	C-N	5.73	1.41	1.33
2	C	603	LEU	C-N	5.72	1.41	1.33
3	D	448	ALA	N-CA	-5.72	1.39	1.46
6	G	132	LEU	CA-C	-5.72	1.45	1.52
2	C	192	THR	C-N	5.72	1.41	1.33
6	G	324	ASP	N-CA	-5.71	1.39	1.46
6	G	369	ASN	CA-C	-5.71	1.45	1.52
3	D	225	LEU	CA-C	-5.71	1.46	1.52
5	F	26	LEU	C-N	5.70	1.41	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	C	401	ASP	CA-C	-5.70	1.45	1.52
3	D	139	GLU	C-O	-5.70	1.17	1.24
6	G	537	GLU	C-N	5.70	1.37	1.33
3	D	101	TYR	N-CA	-5.70	1.38	1.45
2	C	596	GLU	N-CA	-5.70	1.39	1.46
3	D	160	SER	CA-C	-5.70	1.45	1.52
4	E	482	LEU	CA-C	-5.70	1.45	1.52
6	G	324	ASP	C-N	5.69	1.41	1.33
6	G	540	PRO	C-O	-5.69	1.18	1.24
2	C	215	PRO	CA-C	-5.69	1.44	1.52
2	C	672	ASN	C-O	-5.68	1.17	1.24
3	D	84	PHE	N-CA	-5.68	1.38	1.45
3	D	203	ILE	N-CA	-5.68	1.39	1.46
3	D	547	VAL	N-CA	-5.68	1.39	1.46
3	D	737	LYS	N-CA	-5.68	1.39	1.45
6	G	843	ASP	CA-C	-5.67	1.45	1.52
6	G	839	ILE	CA-C	-5.67	1.45	1.52
3	D	312	GLY	C-N	5.67	1.41	1.33
3	D	677	ALA	C-O	-5.66	1.17	1.24
2	C	614	MET	CA-C	-5.65	1.45	1.52
3	D	136	GLN	N-CA	-5.64	1.38	1.45
2	C	23	TRP	C-N	5.64	1.41	1.33
4	E	471	LYS	CA-C	-5.64	1.45	1.52
2	C	40	MET	N-CA	5.63	1.53	1.46
2	C	64	PRO	CA-C	-5.63	1.44	1.52
2	C	88	THR	CA-C	-5.63	1.45	1.52
4	E	96	SER	C-N	5.63	1.42	1.33
3	D	744	LEU	CA-C	-5.63	1.45	1.52
6	G	849	THR	N-CA	-5.63	1.38	1.45
4	E	491	ALA	CA-C	-5.63	1.45	1.52
6	G	838	HIS	C-N	5.63	1.41	1.33
7	H	56	TYR	N-CA	-5.62	1.39	1.46
3	D	286	VAL	C-O	-5.62	1.18	1.23
5	F	36	PRO	C-N	5.61	1.41	1.33
3	D	594	TYR	CA-C	-5.61	1.45	1.52
6	G	245	PHE	C-N	5.60	1.40	1.33
5	F	30	TYR	CA-C	-5.60	1.45	1.52
3	D	428	PHE	CA-C	-5.60	1.46	1.53
6	G	282	ALA	N-CA	-5.60	1.39	1.46
2	C	315	ILE	C-N	5.59	1.40	1.33
2	C	230	LYS	N-CA	-5.59	1.39	1.46
2	C	600	LYS	C-N	5.59	1.41	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	E	255	ILE	C-N	5.59	1.41	1.33
3	D	164	ASP	C-O	-5.58	1.16	1.24
3	D	466	LYS	CA-C	-5.58	1.45	1.52
6	G	418	ALA	CA-C	-5.58	1.45	1.52
3	D	675	GLU	CA-C	-5.58	1.45	1.52
6	G	73	THR	N-CA	5.58	1.53	1.46
6	G	399	ALA	N-CA	-5.58	1.39	1.46
2	C	445	THR	N-CA	-5.57	1.39	1.46
3	D	85	ASN	C-N	5.57	1.41	1.33
3	D	9	ARG	CA-C	-5.57	1.46	1.53
2	C	781	GLU	CA-C	-5.56	1.45	1.52
3	D	95	PHE	CA-C	-5.56	1.45	1.52
2	C	251	ASN	C-O	-5.56	1.17	1.24
6	G	281	ALA	C-N	5.56	1.41	1.33
6	G	149	SER	C-N	5.56	1.41	1.33
5	F	74	ASP	N-CA	-5.55	1.40	1.46
2	C	735	ASN	CA-C	-5.55	1.45	1.52
4	E	537	GLN	CA-C	-5.55	1.45	1.52
3	D	756	PHE	N-CA	-5.55	1.39	1.46
3	D	437	PHE	N-CA	5.54	1.52	1.46
4	E	199	LEU	CA-C	-5.54	1.45	1.52
3	D	379	THR	C-N	5.54	1.41	1.33
3	D	424	PHE	N-CA	-5.54	1.39	1.46
4	E	217	LYS	CA-C	-5.54	1.45	1.52
2	C	670	ASP	N-CA	-5.54	1.39	1.46
6	G	162	ILE	C-N	5.53	1.41	1.33
6	G	80	VAL	CA-C	-5.53	1.45	1.52
3	D	83	VAL	CA-C	-5.52	1.46	1.52
3	D	233	SER	CA-C	-5.52	1.45	1.52
3	D	632	GLN	CA-C	-5.51	1.45	1.52
4	E	277	LEU	N-CA	-5.51	1.41	1.46
5	F	126	ASP	N-CA	5.51	1.53	1.46
2	C	529	ARG	CA-C	-5.51	1.45	1.52
2	C	441	LYS	CA-C	-5.51	1.45	1.52
4	E	432	LYS	CA-C	-5.51	1.45	1.52
2	C	514	CYS	CA-C	-5.50	1.46	1.52
3	D	253	VAL	CA-C	-5.50	1.46	1.52
4	E	553	VAL	C-N	5.50	1.40	1.33
6	G	314	HIS	C-N	5.50	1.41	1.33
2	C	86	LEU	C-N	5.50	1.40	1.33
3	D	357	THR	C-N	5.50	1.40	1.33
2	C	111	ALA	CA-C	-5.49	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	F	88	LEU	CA-C	-5.48	1.45	1.52
5	F	111	LYS	N-CA	-5.48	1.39	1.46
2	C	474	LEU	CA-C	-5.48	1.46	1.52
4	E	276	ASN	CA-C	5.48	1.59	1.52
2	C	177	VAL	CA-C	-5.47	1.44	1.52
2	C	592	ILE	CA-C	-5.47	1.46	1.52
6	G	556	SER	C-N	5.47	1.41	1.33
6	G	947	LYS	C-N	5.46	1.42	1.34
4	E	437	SER	C-N	5.46	1.41	1.33
6	G	277	ALA	N-CA	-5.45	1.39	1.46
4	E	546	TYR	N-CA	-5.45	1.39	1.46
2	C	318	LYS	N-CA	-5.45	1.39	1.46
6	G	41	ALA	CA-C	-5.44	1.46	1.52
3	D	97	ALA	N-CA	-5.44	1.39	1.46
6	G	423	PHE	C-N	5.44	1.40	1.33
3	D	375	TYR	CA-C	-5.44	1.46	1.52
3	D	459	ARG	CA-C	-5.44	1.46	1.52
4	E	83	THR	C-N	5.44	1.41	1.33
6	G	97	GLU	N-CA	-5.43	1.39	1.46
2	C	367	ASN	N-CA	-5.43	1.39	1.45
2	C	465	LEU	CA-C	-5.43	1.45	1.52
2	C	480	LYS	C-N	5.43	1.40	1.33
7	H	87	SER	C-N	5.43	1.41	1.33
3	D	120	ASP	C-N	5.43	1.41	1.33
3	D	470	TRP	CA-C	-5.43	1.46	1.52
2	C	634	TYR	N-CA	-5.42	1.40	1.46
3	D	576	GLY	N-CA	5.42	1.53	1.45
6	G	856	ARG	CA-C	5.42	1.59	1.52
3	D	302	GLU	CA-C	-5.41	1.45	1.52
3	D	567	ILE	N-CA	-5.41	1.42	1.46
2	C	35	LEU	CA-C	-5.41	1.46	1.52
3	D	200	PRO	CA-C	-5.41	1.44	1.52
3	D	4	ARG	N-CA	-5.41	1.39	1.46
4	E	78	GLN	N-CA	-5.41	1.39	1.46
4	E	148	ILE	C-N	5.41	1.40	1.34
4	E	271	ALA	CA-C	5.41	1.59	1.52
6	G	764	THR	N-CA	-5.40	1.39	1.45
5	F	65	LEU	CA-C	5.40	1.59	1.52
4	E	416	ALA	CA-C	-5.39	1.45	1.52
2	C	344	LEU	C-N	5.39	1.41	1.33
3	D	329	ALA	CA-C	-5.39	1.45	1.52
5	F	127	GLU	C-N	5.39	1.40	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	G	949	GLN	CA-C	-5.39	1.46	1.53
6	G	368	ASN	CA-C	-5.38	1.46	1.53
2	C	41	CYS	CA-C	-5.38	1.45	1.52
6	G	886	LYS	N-CA	-5.38	1.39	1.46
4	E	375	PHE	CA-C	-5.38	1.45	1.52
2	C	164	ILE	CA-C	-5.38	1.47	1.52
4	E	193	GLN	N-CA	-5.37	1.39	1.46
3	D	307	SER	CA-C	-5.37	1.45	1.52
7	H	83	LEU	CA-C	-5.37	1.45	1.52
2	C	245	CYS	N-CA	-5.36	1.39	1.46
3	D	778	SER	C-N	5.36	1.41	1.33
5	F	142	VAL	CA-C	-5.36	1.46	1.52
6	G	243	ALA	C-N	5.36	1.41	1.33
3	D	605	MET	N-CA	-5.36	1.39	1.46
3	D	801	LEU	CA-C	-5.35	1.45	1.53
2	C	604	ILE	C-N	5.35	1.40	1.33
2	C	761	SER	N-CA	-5.35	1.40	1.46
3	D	279	SER	C-N	5.34	1.40	1.33
2	C	680	VAL	C-N	5.34	1.40	1.33
6	G	380	ARG	C-N	5.34	1.40	1.33
6	G	842	MET	C-N	5.34	1.41	1.33
2	C	262	GLU	C-N	-5.34	1.27	1.33
2	C	209	ASN	N-CA	-5.33	1.39	1.46
4	E	177	TRP	CA-C	-5.33	1.45	1.52
3	D	42	TRP	CA-C	-5.33	1.46	1.52
2	C	416	LEU	CA-C	-5.33	1.46	1.52
7	H	22	VAL	N-CA	-5.33	1.40	1.46
7	H	57	VAL	CA-C	-5.33	1.46	1.52
3	D	504	GLY	N-CA	5.33	1.53	1.45
2	C	379	LEU	C-O	-5.33	1.17	1.24
3	D	193	TYR	CA-C	-5.33	1.46	1.52
3	D	684	SER	C-N	5.32	1.41	1.33
6	G	504	GLU	CA-C	-5.32	1.45	1.52
7	H	94	CYS	CA-C	-5.32	1.45	1.52
6	G	939	THR	CA-C	-5.32	1.45	1.52
6	G	32	LYS	CA-C	-5.32	1.45	1.52
6	G	56	PRO	C-N	5.32	1.41	1.33
6	G	83	GLU	CA-C	-5.32	1.45	1.52
3	D	46	THR	N-CA	5.31	1.53	1.46
2	C	419	VAL	C-O	-5.31	1.18	1.23
6	G	565	ALA	CA-C	-5.31	1.46	1.52
3	D	773	TRP	N-CA	-5.30	1.39	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	G	902	TYR	N-CA	-5.30	1.39	1.46
4	E	327	LEU	C-O	-5.30	1.18	1.24
4	E	456	LEU	C-N	-5.29	1.27	1.33
6	G	590	ALA	N-CA	-5.29	1.39	1.46
3	D	421	LYS	C-N	-5.29	1.26	1.33
6	G	183	ASN	N-CA	5.29	1.52	1.46
3	D	155	ASN	CA-C	5.28	1.60	1.52
4	E	441	GLU	N-CA	5.28	1.53	1.46
6	G	887	SER	C-N	5.27	1.39	1.33
6	G	535	LYS	C-O	-5.27	1.17	1.23
7	H	15	ALA	CA-C	-5.27	1.46	1.52
2	C	170	LYS	CA-C	-5.27	1.46	1.52
2	C	54	VAL	N-CA	-5.26	1.39	1.46
2	C	59	PHE	CA-C	-5.26	1.46	1.52
3	D	311	ASN	N-CA	5.26	1.52	1.46
4	E	213	LYS	CA-C	-5.26	1.46	1.52
4	E	496	ALA	N-CA	-5.26	1.40	1.46
4	E	168	LYS	CA-C	-5.25	1.46	1.52
6	G	497	ALA	CA-C	-5.24	1.46	1.52
6	G	753	ASP	CA-C	-5.24	1.46	1.52
3	D	449	PHE	CA-C	-5.24	1.46	1.52
3	D	556	HIS	C-N	5.24	1.40	1.33
3	D	472	ASP	CA-C	-5.23	1.45	1.52
3	D	458	ILE	CA-C	-5.23	1.46	1.52
5	F	79	VAL	N-CA	-5.23	1.40	1.46
2	C	278	MET	C-N	5.22	1.41	1.33
3	D	383	LEU	CA-C	-5.22	1.46	1.53
3	D	756	PHE	CA-C	-5.21	1.46	1.52
4	E	436	LEU	CA-C	-5.21	1.46	1.52
6	G	831	CYS	CA-C	5.21	1.58	1.52
3	D	696	TYR	N-CA	-5.21	1.40	1.46
2	C	337	LYS	C-N	5.21	1.40	1.33
2	C	385	ASN	C-N	5.21	1.41	1.33
2	C	186	GLY	N-CA	-5.21	1.37	1.45
2	C	580	CYS	C-N	5.21	1.40	1.33
5	F	55	THR	CA-C	-5.21	1.45	1.52
6	G	393	ARG	N-CA	-5.21	1.40	1.46
6	G	537	GLU	C-O	-5.20	1.17	1.24
4	E	568	GLU	CA-C	5.20	1.58	1.52
6	G	141	ARG	N-CA	-5.20	1.39	1.46
3	D	649	LEU	N-CA	5.20	1.52	1.46
4	E	421	ILE	CA-C	-5.20	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	D	556	HIS	CA-C	-5.19	1.46	1.52
2	C	589	VAL	N-CA	-5.19	1.40	1.46
6	G	68	PRO	CA-C	-5.19	1.45	1.52
3	D	211	VAL	C-N	5.19	1.41	1.33
6	G	489	VAL	C-N	5.19	1.40	1.33
2	C	333	LEU	N-CA	-5.18	1.39	1.46
6	G	862	PHE	C-N	5.18	1.40	1.33
2	C	397	PRO	C-N	5.18	1.40	1.33
5	F	130	ASP	C-N	5.18	1.39	1.33
6	G	316	ARG	C-N	5.17	1.40	1.33
6	G	934	PRO	CA-C	-5.17	1.47	1.52
2	C	16	SER	C-N	5.17	1.40	1.33
6	G	99	ILE	C-O	-5.17	1.18	1.24
7	H	68	LEU	CA-C	-5.17	1.46	1.52
4	E	453	THR	C-N	5.17	1.40	1.33
4	E	47	ILE	CA-C	5.17	1.59	1.52
4	E	452	ALA	CA-C	-5.16	1.46	1.52
3	D	306	MET	C-N	5.16	1.40	1.33
3	D	442	ARG	CA-C	-5.16	1.46	1.52
3	D	512	ASP	CA-C	5.16	1.58	1.52
6	G	567	ARG	CA-C	-5.15	1.46	1.52
6	G	758	VAL	N-CA	-5.15	1.40	1.46
2	C	755	LYS	N-CA	-5.14	1.40	1.46
6	G	179	ASP	C-O	-5.14	1.17	1.23
5	F	107	LYS	C-N	5.14	1.40	1.33
2	C	206	ARG	CA-C	5.14	1.59	1.53
2	C	144	HIS	C-N	-5.13	1.27	1.33
2	C	250	ASN	CA-C	-5.13	1.46	1.52
3	D	648	ALA	C-N	5.13	1.40	1.33
6	G	465	TYR	N-CA	-5.13	1.39	1.46
3	D	787	SER	CA-C	-5.13	1.45	1.52
4	E	292	LEU	C-N	5.13	1.40	1.33
4	E	92	ILE	CA-C	-5.13	1.46	1.52
3	D	42	TRP	N-CA	-5.13	1.39	1.46
2	C	494	VAL	C-N	5.13	1.40	1.33
3	D	528	LEU	C-N	5.13	1.40	1.33
4	E	515	ARG	CA-C	-5.12	1.46	1.52
2	C	765	HIS	C-O	-5.12	1.17	1.24
4	E	560	LYS	C-N	5.12	1.40	1.33
2	C	331	ASN	C-N	5.12	1.40	1.33
4	E	46	HIS	C-O	-5.12	1.18	1.24
6	G	845	ILE	CA-C	-5.11	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	C	529	ARG	C-N	5.11	1.44	1.33
6	G	341	LEU	C-N	5.11	1.40	1.33
6	G	113	ASN	C-N	5.10	1.40	1.33
6	G	477	THR	CA-C	-5.10	1.45	1.52
3	D	325	ALA	CA-C	-5.10	1.46	1.52
4	E	525	ARG	N-CA	-5.10	1.40	1.46
3	D	729	PHE	C-N	5.10	1.40	1.33
2	C	673	CYS	C-O	-5.09	1.18	1.24
6	G	925	SER	C-O	-5.09	1.17	1.24
3	D	479	ILE	CA-C	-5.09	1.46	1.52
3	D	314	ILE	CA-C	-5.09	1.46	1.52
6	G	251	ASN	N-CA	-5.09	1.40	1.46
2	C	301	PRO	C-O	-5.09	1.17	1.24
2	C	572	ARG	N-CA	5.09	1.52	1.46
6	G	101	VAL	CA-C	-5.09	1.46	1.53
6	G	303	ASP	C-O	-5.09	1.19	1.24
2	C	317	PHE	N-CA	-5.08	1.39	1.45
2	C	787	ASP	C-N	5.08	1.40	1.33
6	G	912	ALA	N-CA	-5.08	1.40	1.46
6	G	186	ASP	CA-C	-5.08	1.45	1.52
2	C	633	GLY	C-N	5.08	1.41	1.34
6	G	271	LEU	C-N	5.08	1.39	1.33
3	D	725	ASN	N-CA	-5.08	1.40	1.46
6	G	746	TYR	C-N	5.08	1.40	1.33
5	F	61	LEU	C-O	-5.07	1.18	1.24
7	H	28	ARG	C-N	5.07	1.40	1.33
2	C	114	ASP	N-CA	-5.07	1.40	1.46
3	D	269	TYR	C-N	5.07	1.40	1.33
6	G	532	PRO	N-CA	-5.07	1.42	1.46
7	H	374	ILE	N-CA	-5.07	1.42	1.46
2	C	145	PRO	C-N	5.07	1.40	1.33
3	D	739	ASP	C-N	5.07	1.40	1.33
4	E	103	ILE	C-N	5.06	1.40	1.34
2	C	28	LEU	C-N	5.06	1.41	1.33
3	D	373	GLY	N-CA	-5.06	1.37	1.45
6	G	890	MET	CA-C	-5.06	1.46	1.52
6	G	116	ILE	N-CA	-5.05	1.40	1.46
4	E	465	LYS	N-CA	-5.05	1.38	1.45
2	C	758	ALA	CA-C	-5.05	1.46	1.52
6	G	301	VAL	C-N	5.05	1.40	1.33
2	C	349	SER	CA-C	-5.05	1.46	1.52
4	E	489	ALA	N-CA	5.05	1.52	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	C	369	SER	CA-C	-5.05	1.46	1.52
3	D	478	CYS	CA-C	-5.05	1.46	1.52
4	E	451	LEU	N-CA	-5.05	1.40	1.46
3	D	35	TYR	N-CA	-5.04	1.39	1.46
5	F	132	GLY	N-CA	-5.04	1.38	1.45
3	D	796	ASN	CA-C	-5.04	1.46	1.52
4	E	452	ALA	N-CA	-5.03	1.40	1.46
6	G	145	GLU	N-CA	-5.03	1.39	1.46
6	G	241	GLU	CA-C	-5.03	1.46	1.52
2	C	479	GLN	CA-C	-5.03	1.46	1.52
4	E	57	GLN	C-N	5.03	1.40	1.33
3	D	355	PRO	CA-C	-5.02	1.45	1.52
6	G	490	GLU	CA-C	-5.02	1.46	1.52
4	E	499	GLY	C-N	5.02	1.40	1.33
3	D	18	VAL	N-CA	-5.01	1.40	1.46
3	D	498	ALA	CA-C	-5.01	1.46	1.52
2	C	728	ASP	CA-C	-5.01	1.46	1.52
3	D	115	LEU	CA-C	-5.01	1.46	1.52
3	D	565	GLY	CA-C	-5.01	1.46	1.51
4	E	527	ARG	CA-C	-5.01	1.46	1.52
2	C	50	HIS	CA-C	-5.00	1.46	1.52
3	D	308	MET	CA-C	-5.00	1.46	1.52
3	D	552	VAL	N-CA	-5.00	1.40	1.46
3	D	55	VAL	CA-C	-5.00	1.46	1.52
3	D	694	GLN	C-N	5.00	1.39	1.33

All (1559) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	G	496	GLU	N-CA-C	19.03	132.10	111.36
7	H	90	ILE	CA-C-O	-14.54	108.95	118.69
4	E	302	ALA	CA-C-N	12.99	139.35	120.38
4	E	302	ALA	C-N-CA	12.99	139.35	120.38
6	G	472	ILE	N-CA-C	12.99	123.87	110.62
4	E	450	VAL	N-CA-C	12.90	123.78	110.62
4	E	206	ASN	N-CA-C	-12.78	98.65	114.75
6	G	64	ARG	N-CA-C	12.64	125.06	111.28
3	D	431	GLU	N-CA-C	-12.54	100.33	114.62
7	H	132	THR	N-CA-C	-11.85	98.36	111.28
2	C	732	HIS	CA-C-N	11.69	135.94	120.28
2	C	732	HIS	C-N-CA	11.69	135.94	120.28
4	E	203	VAL	N-CA-C	11.44	121.29	110.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	G	486	ILE	O-C-N	-11.35	108.17	121.10
2	C	164	ILE	N-CA-C	-11.34	102.71	111.90
3	D	642	GLU	CA-C-O	-10.93	108.83	120.42
5	F	26	LEU	N-CA-C	-10.92	99.35	111.14
2	C	54	VAL	N-CA-C	-10.57	92.31	107.75
3	D	461	ILE	N-CA-C	-10.27	93.69	108.48
6	G	563	LYS	CA-C-N	10.27	133.70	120.56
6	G	563	LYS	C-N-CA	10.27	133.70	120.56
6	G	869	THR	N-CA-C	-10.17	92.83	109.40
2	C	697	THR	N-CA-C	-10.16	100.62	113.23
4	E	542	LEU	CA-C-N	10.02	133.47	120.44
4	E	542	LEU	C-N-CA	10.02	133.47	120.44
3	D	78	ASP	CA-C-N	10.02	137.17	122.74
3	D	78	ASP	C-N-CA	10.02	137.17	122.74
6	G	544	GLY	CA-C-N	9.88	133.29	120.44
6	G	544	GLY	C-N-CA	9.88	133.29	120.44
4	E	429	SER	N-CA-C	9.78	122.84	111.11
3	D	204	SER	N-CA-C	-9.77	94.09	109.23
6	G	873	ASN	N-CA-C	-9.77	98.08	111.56
6	G	63	ILE	N-CA-C	9.65	120.46	110.62
4	E	254	PHE	N-CA-C	-9.63	93.70	109.40
4	E	465	LYS	N-CA-C	-9.63	98.67	113.89
4	E	503	GLU	CA-C-N	9.63	133.57	120.38
4	E	503	GLU	C-N-CA	9.63	133.57	120.38
3	D	429	GLY	N-CA-C	-9.56	99.32	112.13
3	D	469	PHE	N-CA-C	-9.52	94.47	109.50
3	D	286	VAL	N-CA-C	-9.50	93.43	108.81
4	E	356	SER	CA-C-N	9.48	133.44	120.46
4	E	356	SER	C-N-CA	9.48	133.44	120.46
6	G	106	ARG	N-CA-C	-9.45	100.53	112.90
3	D	490	TYR	N-CA-C	-9.41	93.06	108.41
3	D	573	LEU	N-CA-C	-9.41	94.33	109.76
3	D	642	GLU	O-C-N	9.36	132.81	122.15
2	C	395	THR	CA-C-N	9.34	126.12	120.24
2	C	395	THR	C-N-CA	9.34	126.12	120.24
7	H	417	VAL	N-CA-C	9.34	120.15	110.72
7	H	66	MET	N-CA-C	-9.24	94.19	109.07
7	H	131	ARG	CA-C-N	9.23	132.66	120.28
7	H	131	ARG	C-N-CA	9.23	132.66	120.28
2	C	407	ALA	CA-C-N	9.20	128.95	119.56
2	C	407	ALA	C-N-CA	9.20	128.95	119.56
4	E	411	PHE	N-CA-C	-9.15	102.23	112.57

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	G	42	LEU	CA-C-N	9.10	132.27	120.44
6	G	42	LEU	C-N-CA	9.10	132.27	120.44
6	G	560	THR	CA-C-N	9.07	132.43	120.28
6	G	560	THR	C-N-CA	9.07	132.43	120.28
2	C	276	TRP	CA-C-N	9.06	133.64	120.95
2	C	276	TRP	C-N-CA	9.06	133.64	120.95
6	G	170	ILE	CA-C-N	9.06	128.80	119.56
6	G	170	ILE	C-N-CA	9.06	128.80	119.56
5	F	110	GLU	N-CA-C	-9.03	96.28	108.74
4	E	386	LEU	N-CA-C	-8.99	101.43	111.14
7	H	479	CYS	N-CA-C	-8.98	101.26	113.30
6	G	507	THR	N-CA-C	-8.97	104.40	114.62
2	C	291	HIS	N-CA-C	-8.96	99.67	113.02
3	D	717	GLU	CA-C-N	8.93	129.90	119.98
3	D	717	GLU	C-N-CA	8.93	129.90	119.98
4	E	208	ARG	CA-C-N	8.92	132.03	120.44
4	E	208	ARG	C-N-CA	8.92	132.03	120.44
6	G	130	ALA	N-CA-C	-8.90	102.15	113.72
5	F	80	ILE	N-CA-C	-8.89	95.68	108.48
2	C	440	LEU	N-CA-C	-8.85	104.53	114.62
2	C	423	ARG	CA-C-N	8.84	134.65	122.19
2	C	423	ARG	C-N-CA	8.84	134.65	122.19
2	C	435	LEU	CA-C-O	8.84	129.73	120.54
4	E	426	GLU	N-CA-C	-8.82	101.34	112.90
1	A	108	GLN	N-CA-C	8.80	121.98	111.33
1	B	108	GLN	N-CA-C	8.80	121.98	111.33
6	G	952	ALA	CA-C-N	8.79	132.06	120.28
6	G	952	ALA	C-N-CA	8.79	132.06	120.28
2	C	649	PHE	CA-C-N	8.78	132.05	120.28
2	C	649	PHE	C-N-CA	8.78	132.05	120.28
3	D	423	SER	N-CA-C	-8.78	102.28	113.16
6	G	410	SER	CA-C-N	8.75	132.35	120.54
6	G	410	SER	C-N-CA	8.75	132.35	120.54
4	E	193	GLN	N-CA-C	8.74	120.81	111.28
4	E	509	ILE	N-CA-C	-8.74	102.03	110.42
6	G	451	SER	CA-C-N	8.74	131.74	120.56
6	G	451	SER	C-N-CA	8.74	131.74	120.56
5	F	120	GLY	O-C-N	8.71	130.55	122.19
6	G	549	GLY	O-C-N	8.70	130.54	122.19
7	H	116	ILE	N-CA-C	8.69	119.50	110.72
7	H	56	TYR	N-CA-C	-8.65	94.79	109.24
2	C	767	LEU	CA-C-N	8.63	133.43	120.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	C	767	LEU	C-N-CA	8.63	133.43	120.31
7	H	366	LEU	CA-C-N	-8.58	109.40	122.09
7	H	366	LEU	C-N-CA	-8.58	109.40	122.09
2	C	431	ARG	N-CA-C	-8.56	99.38	113.50
3	D	21	VAL	N-CA-C	-8.54	97.08	108.35
4	E	435	GLY	CA-C-N	8.51	131.68	120.28
4	E	435	GLY	C-N-CA	8.51	131.68	120.28
6	G	89	THR	CA-C-O	-8.50	112.19	119.76
3	D	657	ALA	CA-C-N	8.49	131.47	120.44
3	D	657	ALA	C-N-CA	8.49	131.47	120.44
6	G	860	ALA	CA-C-N	8.46	131.62	120.28
6	G	860	ALA	C-N-CA	8.46	131.62	120.28
6	G	441	LYS	CA-C-N	8.45	131.60	120.28
6	G	441	LYS	C-N-CA	8.45	131.60	120.28
2	C	611	VAL	CA-C-O	-8.44	111.35	120.47
6	G	818	ILE	N-CA-C	-8.44	95.88	108.46
6	G	78	LEU	CA-C-N	8.44	131.59	120.28
6	G	78	LEU	C-N-CA	8.44	131.59	120.28
6	G	394	PHE	CA-C-N	8.43	128.04	118.85
6	G	394	PHE	C-N-CA	8.43	128.04	118.85
4	E	455	ILE	O-C-N	8.43	130.04	121.87
5	F	69	TYR	CA-C-O	-8.40	112.26	121.33
6	G	376	THR	N-CA-C	-8.40	95.04	108.73
7	H	377	THR	CA-C-N	-8.39	112.78	123.19
7	H	377	THR	C-N-CA	-8.39	112.78	123.19
2	C	15	LEU	N-CA-C	-8.37	95.85	108.99
3	D	115	LEU	N-CA-C	-8.36	96.34	109.72
2	C	273	ILE	N-CA-C	-8.36	96.41	108.11
6	G	79	LEU	CA-C-N	8.35	131.90	120.46
6	G	79	LEU	C-N-CA	8.35	131.90	120.46
5	F	69	TYR	O-C-N	8.33	132.75	123.25
6	G	165	ASN	CA-C-N	8.32	134.31	122.08
6	G	165	ASN	C-N-CA	8.32	134.31	122.08
6	G	100	LEU	CA-C-N	8.31	133.35	121.55
6	G	100	LEU	C-N-CA	8.31	133.35	121.55
3	D	104	CYS	CA-C-N	8.28	134.45	122.94
3	D	104	CYS	C-N-CA	8.28	134.45	122.94
6	G	239	PRO	CA-C-N	8.27	131.57	120.65
6	G	239	PRO	C-N-CA	8.27	131.57	120.65
6	G	352	ASN	CA-C-N	8.25	130.96	120.56
6	G	352	ASN	C-N-CA	8.25	130.96	120.56
2	C	645	GLU	CA-C-N	8.23	131.98	120.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	C	645	GLU	C-N-CA	8.23	131.98	120.29
2	C	618	ALA	N-CA-C	-8.21	101.29	113.61
7	H	49	VAL	N-CA-C	-8.21	96.69	108.42
2	C	208	VAL	CA-C-N	8.20	131.93	120.29
2	C	208	VAL	C-N-CA	8.20	131.93	120.29
2	C	704	SER	CA-C-N	8.17	131.06	120.44
2	C	704	SER	C-N-CA	8.17	131.06	120.44
2	C	743	SER	N-CA-C	-8.17	105.31	114.62
7	H	19	ARG	CA-C-N	8.15	134.68	123.11
7	H	19	ARG	C-N-CA	8.15	134.68	123.11
7	H	102	ILE	O-C-N	8.14	129.76	121.87
3	D	268	ASN	N-CA-C	-8.12	97.06	109.41
3	D	352	GLU	N-CA-C	-8.12	104.51	114.75
6	G	304	ARG	CA-C-N	8.12	131.00	120.44
6	G	304	ARG	C-N-CA	8.12	131.00	120.44
4	E	324	ALA	N-CA-C	8.10	128.06	110.80
4	E	455	ILE	CA-C-O	-8.10	112.52	120.95
4	E	543	ASN	O-C-N	8.08	130.39	122.07
6	G	775	LEU	N-CA-C	-8.06	97.14	109.95
3	D	473	SER	N-CA-C	-8.06	104.33	114.56
6	G	792	LEU	N-CA-C	-8.06	93.64	110.80
2	C	526	GLU	CA-C-N	8.03	130.88	120.44
2	C	526	GLU	C-N-CA	8.03	130.88	120.44
3	D	578	LYS	CA-C-N	8.02	132.25	120.87
3	D	578	LYS	C-N-CA	8.02	132.25	120.87
6	G	424	VAL	CA-C-N	8.01	130.85	120.44
6	G	424	VAL	C-N-CA	8.01	130.85	120.44
7	H	269	ILE	N-CA-C	-8.00	105.34	113.10
4	E	374	GLU	CA-C-N	7.98	131.77	120.28
4	E	374	GLU	C-N-CA	7.98	131.77	120.28
4	E	535	LEU	CA-C-N	7.96	131.45	120.63
4	E	535	LEU	C-N-CA	7.96	131.45	120.63
3	D	441	VAL	N-CA-C	-7.96	96.68	108.45
6	G	71	ASP	N-CA-C	-7.95	97.71	109.15
6	G	338	LYS	O-C-N	7.91	130.64	122.09
6	G	540	PRO	O-C-N	-7.90	112.14	121.46
2	C	447	LYS	CA-C-N	7.89	131.72	120.98
2	C	447	LYS	C-N-CA	7.89	131.72	120.98
5	F	25	ARG	CA-C-O	7.89	129.13	120.92
6	G	66	VAL	CA-C-O	-7.88	112.28	120.71
2	C	723	ALA	N-CA-C	-7.88	104.55	114.56
3	D	556	HIS	CA-C-O	7.87	129.05	120.71

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	D	705	ALA	N-CA-C	-7.86	103.25	112.92
2	C	400	ALA	N-CA-C	-7.83	94.12	110.80
4	E	364	ILE	CA-C-N	7.83	130.62	120.44
4	E	364	ILE	C-N-CA	7.83	130.62	120.44
6	G	207	ASP	CA-C-N	7.83	130.77	120.28
6	G	207	ASP	C-N-CA	7.83	130.77	120.28
6	G	805	LYS	N-CA-C	-7.81	97.42	109.52
6	G	790	LEU	N-CA-C	-7.81	98.70	109.71
3	D	232	VAL	CA-C-N	7.78	131.02	120.44
3	D	232	VAL	C-N-CA	7.78	131.02	120.44
5	F	141	GLN	CA-C-N	7.78	130.36	120.56
5	F	141	GLN	C-N-CA	7.78	130.36	120.56
3	D	631	LYS	CA-C-N	7.77	130.54	120.44
3	D	631	LYS	C-N-CA	7.77	130.54	120.44
4	E	266	VAL	CA-C-N	7.75	130.33	120.56
4	E	266	VAL	C-N-CA	7.75	130.33	120.56
6	G	868	VAL	N-CA-C	-7.75	97.14	108.23
3	D	532	ASP	N-CA-C	-7.74	103.86	113.38
3	D	759	ARG	CA-C-N	7.74	130.50	120.44
3	D	759	ARG	C-N-CA	7.74	130.50	120.44
2	C	138	VAL	CA-C-N	7.73	132.06	120.31
2	C	138	VAL	C-N-CA	7.73	132.06	120.31
5	F	49	PHE	CA-C-O	-7.73	112.70	120.82
4	E	403	THR	CA-C-N	7.72	130.63	120.28
4	E	403	THR	C-N-CA	7.72	130.63	120.28
6	G	966	THR	CA-C-O	-7.72	113.19	121.45
6	G	287	ASP	N-CA-C	7.72	119.69	111.28
6	G	325	ILE	CA-C-O	7.71	128.97	120.95
5	F	38	VAL	O-C-N	7.71	129.35	121.87
6	G	857	GLN	O-C-N	7.70	130.00	122.07
4	E	189	ASN	N-CA-C	-7.70	98.63	110.10
4	E	235	VAL	CA-C-N	7.70	132.01	120.31
4	E	235	VAL	C-N-CA	7.70	132.01	120.31
4	E	460	GLY	CA-C-N	7.69	130.90	120.44
4	E	460	GLY	C-N-CA	7.69	130.90	120.44
4	E	530	PHE	N-CA-C	7.69	119.30	111.07
7	H	118	ALA	CA-C-N	7.68	133.06	122.07
7	H	118	ALA	C-N-CA	7.68	133.06	122.07
3	D	110	THR	N-CA-C	-7.68	103.93	113.38
6	G	377	ASP	N-CA-C	7.68	119.73	111.36
6	G	466	CYS	N-CA-C	7.68	120.62	111.33
4	E	545	GLY	CA-C-N	7.67	130.42	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	E	545	GLY	C-N-CA	7.67	130.42	120.44
6	G	53	GLU	CA-C-N	7.65	132.00	121.05
6	G	53	GLU	C-N-CA	7.65	132.00	121.05
3	D	20	SER	CA-C-N	7.65	134.26	122.25
3	D	20	SER	C-N-CA	7.65	134.26	122.25
6	G	857	GLN	CA-C-O	-7.65	112.79	120.82
6	G	387	LEU	CA-C-N	7.65	130.53	120.28
6	G	387	LEU	C-N-CA	7.65	130.53	120.28
6	G	333	ASP	CA-C-N	7.62	130.81	120.38
6	G	333	ASP	C-N-CA	7.62	130.81	120.38
4	E	541	ALA	N-CA-C	-7.61	103.07	111.36
6	G	350	SER	N-CA-C	-7.61	101.09	112.04
6	G	420	VAL	CA-C-N	7.60	130.46	120.28
6	G	420	VAL	C-N-CA	7.60	130.46	120.28
7	H	86	PHE	O-C-N	7.60	130.17	122.12
3	D	543	LEU	O-C-N	-7.59	114.57	123.22
7	H	86	PHE	CA-C-O	-7.58	112.52	120.55
5	F	46	LYS	CA-C-N	7.58	130.29	120.44
5	F	46	LYS	C-N-CA	7.58	130.29	120.44
2	C	72	ASP	N-CA-C	-7.56	104.03	113.18
4	E	147	ALA	N-CA-C	7.56	119.60	111.36
7	H	477	ASN	CA-C-N	-7.55	107.95	122.61
7	H	477	ASN	C-N-CA	-7.55	107.95	122.61
3	D	799	PRO	CA-C-N	7.55	128.30	120.00
3	D	799	PRO	C-N-CA	7.55	128.30	120.00
6	G	837	ILE	CA-C-N	7.55	131.43	120.71
6	G	837	ILE	C-N-CA	7.55	131.43	120.71
2	C	724	GLU	O-C-N	7.54	129.84	122.07
3	D	740	ALA	CA-C-N	7.52	130.22	120.44
3	D	740	ALA	C-N-CA	7.52	130.22	120.44
3	D	493	GLU	CA-C-N	7.51	130.35	120.28
3	D	493	GLU	C-N-CA	7.51	130.35	120.28
2	C	375	ASN	N-CA-C	-7.51	106.06	114.62
2	C	709	ILE	CA-C-N	7.50	134.27	121.14
2	C	709	ILE	C-N-CA	7.50	134.27	121.14
3	D	114	ILE	N-CA-C	-7.50	97.29	108.46
2	C	668	LEU	N-CA-C	-7.50	104.16	113.38
6	G	513	LYS	N-CA-C	-7.49	103.11	111.28
4	E	550	GLY	CA-C-N	7.49	135.84	121.54
4	E	550	GLY	C-N-CA	7.49	135.84	121.54
3	D	457	LEU	CA-C-N	7.48	130.13	120.56
3	D	457	LEU	C-N-CA	7.48	130.13	120.56

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	G	902	TYR	N-CA-C	-7.48	105.33	114.75
4	E	286	ALA	CA-C-N	7.47	129.18	119.84
4	E	286	ALA	C-N-CA	7.47	129.18	119.84
4	E	384	SER	CA-C-N	7.47	130.90	120.29
4	E	384	SER	C-N-CA	7.47	130.90	120.29
6	G	576	LYS	N-CA-C	-7.45	103.31	113.30
2	C	453	CYS	CA-C-O	-7.45	113.28	121.33
4	E	62	GLY	O-C-N	-7.45	117.84	123.35
3	D	278	ALA	CA-C-O	-7.44	113.29	121.33
3	D	129	ASP	N-CA-C	7.44	120.45	111.82
2	C	264	ILE	N-CA-C	-7.43	97.78	108.48
2	C	748	ILE	CA-C-N	7.43	130.84	120.29
2	C	748	ILE	C-N-CA	7.43	130.84	120.29
4	E	561	ALA	N-CA-C	7.43	119.38	111.28
7	H	48	PHE	N-CA-C	-7.43	97.11	109.07
7	H	368	THR	N-CA-C	-7.40	103.20	111.71
4	E	329	LEU	N-CA-C	7.40	119.42	111.36
4	E	211	VAL	CA-C-N	7.39	130.18	120.28
4	E	211	VAL	C-N-CA	7.39	130.18	120.28
6	G	287	ASP	CA-C-N	7.38	130.04	120.44
6	G	287	ASP	C-N-CA	7.38	130.04	120.44
3	D	111	GLN	CA-C-O	-7.37	113.50	120.94
2	C	757	LEU	CA-C-N	7.37	130.15	120.28
2	C	757	LEU	C-N-CA	7.37	130.15	120.28
4	E	55	ILE	N-CA-C	7.36	117.45	110.53
2	C	231	ILE	N-CA-C	-7.36	97.86	108.53
3	D	684	SER	N-CA-C	7.34	118.92	111.07
5	F	121	LEU	CA-C-N	7.33	129.97	120.44
5	F	121	LEU	C-N-CA	7.33	129.97	120.44
6	G	797	PHE	N-CA-C	-7.33	97.44	109.40
6	G	788	SER	CA-C-O	-7.33	110.12	120.16
5	F	67	VAL	CA-C-O	7.32	128.08	120.39
4	E	295	PHE	N-CA-C	7.32	119.26	111.28
2	C	223	GLY	N-CA-C	-7.30	98.41	111.19
2	C	694	TYR	CA-C-N	7.30	130.66	120.29
2	C	694	TYR	C-N-CA	7.30	130.66	120.29
3	D	744	LEU	O-C-N	7.30	129.86	122.12
3	D	682	GLN	CA-C-N	7.30	130.06	120.28
3	D	682	GLN	C-N-CA	7.30	130.06	120.28
4	E	543	ASN	CA-C-O	-7.29	113.16	120.82
6	G	195	MET	N-CA-C	-7.29	96.15	108.26
4	E	319	PRO	CA-C-N	7.29	130.05	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	E	319	PRO	C-N-CA	7.29	130.05	120.28
2	C	98	THR	N-CA-C	-7.28	97.56	108.99
3	D	401	SER	CA-C-O	7.27	126.57	119.08
6	G	499	GLU	N-CA-C	7.25	126.25	110.80
3	D	771	LYS	N-CA-C	7.24	118.81	111.07
6	G	459	LEU	CA-C-O	-7.23	112.88	120.55
6	G	496	GLU	CA-C-O	-7.23	112.75	120.42
2	C	534	ALA	CA-C-N	7.22	132.97	123.00
2	C	534	ALA	C-N-CA	7.22	132.97	123.00
4	E	330	GLU	N-CA-C	7.22	119.23	111.36
4	E	386	LEU	CA-C-O	-7.22	113.27	120.70
6	G	784	VAL	N-CA-C	-7.21	105.69	112.83
6	G	561	LEU	CA-C-N	7.21	129.94	120.28
6	G	561	LEU	C-N-CA	7.21	129.94	120.28
6	G	105	TYR	N-CA-C	-7.21	103.58	112.88
2	C	144	HIS	N-CA-C	-7.18	101.69	110.31
2	C	571	THR	N-CA-C	-7.17	103.55	111.36
7	H	446	ASP	N-CA-C	-7.16	103.55	111.36
3	D	422	LYS	N-CA-C	-7.16	103.71	113.30
4	E	62	GLY	CA-C-N	7.16	129.87	120.28
4	E	62	GLY	C-N-CA	7.16	129.87	120.28
6	G	479	VAL	N-CA-C	7.15	117.94	110.72
2	C	647	THR	CA-C-N	7.15	129.86	120.28
2	C	647	THR	C-N-CA	7.15	129.86	120.28
3	D	394	PHE	N-CA-C	-7.14	96.92	109.06
2	C	718	LYS	CA-C-N	7.13	130.42	120.29
2	C	718	LYS	C-N-CA	7.13	130.42	120.29
4	E	171	PHE	CA-C-N	7.13	129.84	120.28
4	E	171	PHE	C-N-CA	7.13	129.84	120.28
3	D	171	GLN	CA-C-N	7.12	129.82	120.28
3	D	171	GLN	C-N-CA	7.12	129.82	120.28
7	H	78	GLU	N-CA-C	7.12	119.05	111.28
3	D	155	ASN	CA-C-O	7.11	128.12	119.38
6	G	586	MET	CA-C-O	-7.11	112.89	120.42
6	G	240	SER	CA-C-N	7.10	129.79	120.28
6	G	240	SER	C-N-CA	7.10	129.79	120.28
6	G	587	LEU	CA-C-O	-7.09	113.03	120.55
3	D	326	ASN	N-CA-C	-7.09	98.81	109.94
6	G	862	PHE	CA-C-N	7.09	131.45	120.75
6	G	862	PHE	C-N-CA	7.09	131.45	120.75
2	C	322	GLU	CA-C-O	-7.08	113.17	121.46
3	D	656	ILE	CA-C-N	7.08	129.77	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	D	656	ILE	C-N-CA	7.08	129.77	120.28
4	E	181	ALA	CA-C-N	7.08	129.77	120.28
4	E	181	ALA	C-N-CA	7.08	129.77	120.28
2	C	296	VAL	CA-C-N	7.08	133.68	122.21
2	C	296	VAL	C-N-CA	7.08	133.68	122.21
3	D	118	SER	N-CA-C	-7.08	98.59	109.14
2	C	482	THR	CA-C-N	7.07	132.66	120.58
2	C	482	THR	C-N-CA	7.07	132.66	120.58
2	C	806	THR	N-CA-C	-7.07	104.66	113.28
2	C	195	ALA	N-CA-C	-7.05	103.02	111.69
5	F	38	VAL	CA-C-O	-7.04	113.63	120.95
3	D	128	TRP	CA-C-O	7.03	128.00	120.55
3	D	465	PRO	CA-C-N	7.03	132.45	120.71
3	D	465	PRO	C-N-CA	7.03	132.45	120.71
3	D	652	GLY	N-CA-C	-7.03	105.38	115.64
3	D	66	VAL	CA-C-N	7.02	129.69	120.28
3	D	66	VAL	C-N-CA	7.02	129.69	120.28
3	D	195	SER	N-CA-C	7.02	120.39	110.50
4	E	267	VAL	CA-C-N	7.01	129.55	120.44
4	E	267	VAL	C-N-CA	7.01	129.55	120.44
3	D	630	PHE	CA-C-N	7.01	130.24	120.29
3	D	630	PHE	C-N-CA	7.01	130.24	120.29
2	C	128	VAL	N-CA-C	7.00	117.79	110.72
2	C	173	SER	CA-C-N	7.00	128.59	119.84
2	C	173	SER	C-N-CA	7.00	128.59	119.84
3	D	526	THR	N-CA-C	-6.99	98.54	108.96
6	G	419	ASP	CA-C-O	6.99	127.96	120.55
4	E	131	ILE	CA-C-N	6.99	130.79	120.87
4	E	131	ILE	C-N-CA	6.99	130.79	120.87
6	G	47	ILE	CA-C-O	-6.99	113.69	120.95
6	G	42	LEU	O-C-N	-6.98	114.72	122.12
6	G	320	ASP	CA-C-N	6.98	129.51	120.44
6	G	320	ASP	C-N-CA	6.98	129.51	120.44
6	G	318	LEU	CA-C-N	6.97	129.63	120.28
6	G	318	LEU	C-N-CA	6.97	129.63	120.28
6	G	503	GLU	N-CA-C	-6.97	95.95	110.80
6	G	952	ALA	CA-C-O	6.97	127.93	120.55
2	C	396	ILE	N-CA-C	6.96	122.71	112.61
7	H	90	ILE	O-C-N	-6.95	115.97	120.42
2	C	323	ARG	CA-C-N	6.95	127.12	120.31
2	C	323	ARG	C-N-CA	6.95	127.12	120.31
2	C	117	ILE	N-CA-C	-6.93	98.14	108.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	D	621	VAL	CA-C-N	6.93	129.57	120.28
3	D	621	VAL	C-N-CA	6.93	129.57	120.28
4	E	149	VAL	CA-C-N	6.92	130.66	120.90
4	E	149	VAL	C-N-CA	6.92	130.66	120.90
6	G	800	ILE	O-C-N	-6.92	115.69	123.10
6	G	945	ARG	CA-C-O	6.92	128.71	121.38
3	D	152	PRO	N-CA-C	-6.91	106.70	114.92
6	G	150	TYR	N-CA-C	-6.90	103.69	111.14
4	E	510	LEU	CA-C-O	-6.90	113.58	120.82
2	C	280	LYS	CA-C-O	6.90	126.41	118.55
2	C	559	GLY	CA-C-O	-6.89	114.92	121.19
4	E	391	PRO	N-CA-C	6.88	126.65	112.47
4	E	348	LEU	CA-C-N	6.88	129.50	120.28
4	E	348	LEU	C-N-CA	6.88	129.50	120.28
2	C	608	TYR	CA-C-N	6.87	129.37	120.44
2	C	608	TYR	C-N-CA	6.87	129.37	120.44
6	G	318	LEU	N-CA-C	6.86	125.42	110.80
3	D	369	VAL	N-CA-C	-6.86	98.51	108.11
2	C	652	ALA	N-CA-C	6.85	118.75	111.28
7	H	270	ASN	N-CA-C	-6.85	103.89	111.36
2	C	630	GLN	N-CA-C	-6.84	96.22	110.80
6	G	750	ASN	CA-C-N	6.84	131.84	122.19
6	G	750	ASN	C-N-CA	6.84	131.84	122.19
6	G	953	LEU	CA-C-O	-6.84	113.30	120.55
5	F	121	LEU	CA-C-O	-6.83	113.65	120.82
6	G	497	ALA	CA-C-O	-6.83	113.18	120.42
4	E	285	LEU	O-C-N	-6.82	114.13	122.25
6	G	943	ARG	N-CA-C	-6.82	98.13	109.24
3	D	396	TRP	N-CA-C	-6.81	99.50	110.32
6	G	229	GLU	CA-C-N	6.81	134.54	121.54
6	G	229	GLU	C-N-CA	6.81	134.54	121.54
2	C	739	LEU	N-CA-C	-6.79	99.90	110.42
4	E	270	ALA	N-CA-C	6.79	118.47	111.14
6	G	170	ILE	CA-C-O	-6.79	110.86	119.95
4	E	354	GLU	CA-C-N	6.78	129.25	120.44
4	E	354	GLU	C-N-CA	6.78	129.25	120.44
6	G	402	ILE	CA-C-O	-6.78	114.15	118.69
4	E	258	CYS	N-CA-C	-6.77	100.19	109.95
6	G	851	THR	N-CA-C	-6.77	100.20	109.95
5	F	114	LEU	CA-C-O	-6.77	113.71	120.82
3	D	67	ALA	CA-C-N	6.77	129.35	120.28
3	D	67	ALA	C-N-CA	6.77	129.35	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	C	228	GLN	CA-C-O	6.77	129.38	121.46
4	E	497	LYS	CA-C-N	6.76	129.34	120.28
4	E	497	LYS	C-N-CA	6.76	129.34	120.28
6	G	540	PRO	N-CA-C	6.76	118.95	110.70
6	G	558	ALA	N-CA-C	-6.75	96.41	110.80
2	C	770	GLU	CA-C-N	6.75	129.32	120.28
2	C	770	GLU	C-N-CA	6.75	129.32	120.28
2	C	243	ASP	N-CA-C	-6.74	98.85	109.50
3	D	613	ILE	N-CA-C	-6.74	94.32	108.88
6	G	856	ARG	CA-C-N	6.73	129.19	120.44
6	G	856	ARG	C-N-CA	6.73	129.19	120.44
2	C	693	CYS	O-C-N	6.73	129.35	122.09
2	C	608	TYR	N-CA-C	-6.72	105.70	114.04
6	G	329	LEU	N-CA-C	-6.72	104.98	113.72
3	D	695	ASP	CA-C-N	6.72	129.28	120.28
3	D	695	ASP	C-N-CA	6.72	129.28	120.28
2	C	226	ASP	N-CA-C	-6.71	96.51	110.80
6	G	493	ILE	CA-C-O	-6.71	113.97	120.95
3	D	454	ASN	CA-C-N	6.70	131.91	122.46
3	D	454	ASN	C-N-CA	6.70	131.91	122.46
4	E	420	CYS	O-C-N	6.70	128.97	122.07
4	E	447	GLU	CA-C-N	6.70	134.33	121.54
4	E	447	GLU	C-N-CA	6.70	134.33	121.54
2	C	172	LEU	CA-C-N	6.69	129.69	120.39
2	C	172	LEU	C-N-CA	6.69	129.69	120.39
6	G	581	PHE	O-C-N	-6.69	115.58	123.41
7	H	70	THR	N-CA-C	-6.69	98.90	109.07
7	H	300	MET	CA-C-N	-6.69	114.20	123.10
7	H	300	MET	C-N-CA	-6.69	114.20	123.10
2	C	323	ARG	O-C-N	-6.69	113.63	121.32
5	F	56	ASP	CA-C-O	6.67	127.91	120.43
7	H	77	LEU	CA-C-N	6.67	129.22	120.28
7	H	77	LEU	C-N-CA	6.67	129.22	120.28
6	G	43	LYS	CA-C-O	-6.67	113.82	120.82
4	E	112	ASP	CA-C-N	6.66	129.21	120.28
4	E	112	ASP	C-N-CA	6.66	129.21	120.28
3	D	1	MET	O-C-N	-6.66	112.35	123.00
7	H	72	LYS	O-C-N	-6.66	115.45	123.10
2	C	96	ILE	N-CA-C	-6.64	97.61	107.51
2	C	255	ALA	CA-C-O	6.64	128.25	120.14
4	E	92	ILE	CA-C-O	-6.64	113.81	120.85
6	G	747	VAL	N-CA-C	-6.64	98.91	108.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	G	314	HIS	N-CA-C	-6.63	105.76	114.31
6	G	187	ALA	CA-C-N	6.63	130.00	120.79
6	G	187	ALA	C-N-CA	6.63	130.00	120.79
6	G	859	TRP	CA-C-O	6.62	127.77	120.82
2	C	94	ASP	CA-C-N	6.61	131.88	121.56
2	C	94	ASP	C-N-CA	6.61	131.88	121.56
6	G	388	HIS	CA-C-N	6.61	129.80	120.28
6	G	388	HIS	C-N-CA	6.61	129.80	120.28
3	D	557	LEU	N-CA-C	-6.61	98.92	109.76
2	C	319	LEU	CA-C-N	6.60	134.09	122.67
2	C	319	LEU	C-N-CA	6.60	134.09	122.67
3	D	437	PHE	CA-C-O	-6.60	114.07	121.00
5	F	66	THR	N-CA-C	-6.60	99.26	109.76
6	G	520	THR	CA-C-N	6.60	129.12	120.28
6	G	520	THR	C-N-CA	6.60	129.12	120.28
3	D	58	LEU	CA-C-N	6.59	128.08	119.84
3	D	58	LEU	C-N-CA	6.59	128.08	119.84
2	C	754	GLN	CA-C-N	6.59	129.65	120.29
2	C	754	GLN	C-N-CA	6.59	129.65	120.29
7	H	41	ASN	CA-C-N	6.59	134.12	121.54
7	H	41	ASN	C-N-CA	6.59	134.12	121.54
6	G	381	GLN	CA-C-N	6.58	129.10	120.28
6	G	381	GLN	C-N-CA	6.58	129.10	120.28
3	D	158	PHE	N-CA-C	-6.58	99.16	108.96
4	E	41	PRO	CA-C-N	6.58	128.99	120.44
4	E	41	PRO	C-N-CA	6.58	128.99	120.44
4	E	298	SER	N-CA-C	6.57	122.58	113.45
6	G	449	ILE	O-C-N	-6.57	115.47	123.09
6	G	924	VAL	O-C-N	6.57	130.07	123.18
2	C	292	ASP	CA-C-N	6.57	134.08	121.54
2	C	292	ASP	C-N-CA	6.57	134.08	121.54
6	G	881	LEU	O-C-N	6.56	128.83	122.07
4	E	441	GLU	CA-C-N	6.55	134.05	121.54
4	E	441	GLU	C-N-CA	6.55	134.05	121.54
2	C	136	HIS	CA-C-N	6.54	134.04	121.54
2	C	136	HIS	C-N-CA	6.54	134.04	121.54
7	H	114	ASP	CA-C-N	6.54	129.34	120.44
7	H	114	ASP	C-N-CA	6.54	129.34	120.44
4	E	322	VAL	CA-C-O	-6.54	113.57	120.57
6	G	234	VAL	CA-C-O	-6.54	113.79	121.05
3	D	698	GLY	CA-C-N	6.53	129.02	120.28
3	D	698	GLY	C-N-CA	6.53	129.02	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	E	415	ARG	CA-C-N	6.53	129.03	120.28
4	E	415	ARG	C-N-CA	6.53	129.03	120.28
6	G	841	ILE	CA-C-N	6.52	129.67	120.28
6	G	841	ILE	C-N-CA	6.52	129.67	120.28
2	C	740	GLY	N-CA-C	6.52	121.78	113.24
6	G	105	TYR	CA-C-O	6.52	127.28	119.59
4	E	178	VAL	CA-C-N	6.51	129.30	120.44
4	E	178	VAL	C-N-CA	6.51	129.30	120.44
3	D	702	LEU	O-C-N	6.51	129.12	122.09
3	D	785	ALA	CA-C-N	6.51	129.00	120.28
3	D	785	ALA	C-N-CA	6.51	129.00	120.28
3	D	402	GLU	N-CA-C	-6.51	98.00	109.06
7	H	361	VAL	CA-C-N	-6.51	112.90	122.86
7	H	361	VAL	C-N-CA	-6.51	112.90	122.86
2	C	218	PRO	N-CA-C	-6.50	103.69	114.75
4	E	191	MET	O-C-N	6.50	129.11	122.09
2	C	783	GLU	CA-C-N	6.50	133.96	121.54
2	C	783	GLU	C-N-CA	6.50	133.96	121.54
4	E	255	ILE	CA-C-N	6.49	133.94	121.54
4	E	255	ILE	C-N-CA	6.49	133.94	121.54
3	D	617	GLN	CA-C-O	-6.48	113.68	120.55
3	D	578	LYS	N-CA-C	-6.48	104.07	112.23
5	F	18	ILE	N-CA-C	-6.47	98.20	107.77
3	D	498	ALA	N-CA-C	6.46	117.98	111.07
6	G	561	LEU	N-CA-C	-6.46	104.24	111.28
7	H	57	VAL	N-CA-C	-6.46	98.33	108.86
4	E	424	ILE	N-CA-C	6.45	117.20	110.62
2	C	699	ASN	CA-C-N	6.45	129.45	120.29
2	C	699	ASN	C-N-CA	6.45	129.45	120.29
6	G	435	ARG	N-CA-C	-6.44	101.89	111.81
6	G	479	VAL	CA-C-N	6.44	130.10	120.31
6	G	479	VAL	C-N-CA	6.44	130.10	120.31
4	E	450	VAL	CA-C-O	-6.44	114.25	120.95
2	C	733	TYR	CA-C-N	6.44	128.81	120.44
2	C	733	TYR	C-N-CA	6.44	128.81	120.44
6	G	223	LEU	CA-C-O	-6.44	113.73	120.55
7	H	457	SER	N-CA-C	-6.44	100.95	110.48
6	G	67	LEU	N-CA-C	6.43	124.03	109.81
3	D	544	ASN	N-CA-C	-6.43	99.64	109.41
3	D	196	GLY	CA-C-O	6.43	131.75	120.57
5	F	84	TYR	CA-C-O	6.43	126.83	119.18
7	H	83	LEU	CA-C-N	6.42	129.17	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	H	83	LEU	C-N-CA	6.42	129.17	120.44
4	E	248	ASP	O-C-N	-6.42	114.64	122.34
3	D	45	GLU	N-CA-C	6.41	119.22	111.40
6	G	338	LYS	CA-C-O	-6.41	114.09	120.70
2	C	105	TYR	N-CA-C	-6.41	95.64	109.81
2	C	693	CYS	CA-C-N	6.41	129.50	120.28
2	C	693	CYS	C-N-CA	6.41	129.50	120.28
5	F	133	VAL	N-CA-C	-6.40	99.00	109.12
2	C	187	VAL	N-CA-C	-6.39	105.45	112.80
2	C	628	TYR	N-CA-C	-6.39	104.96	112.89
6	G	169	LEU	N-CA-C	-6.39	97.18	110.80
6	G	365	ILE	CA-C-O	-6.39	113.50	121.11
3	D	82	ARG	N-CA-C	-6.39	98.99	109.40
6	G	37	SER	CA-C-N	6.39	129.36	120.29
6	G	37	SER	C-N-CA	6.39	129.36	120.29
6	G	264	ALA	CA-C-N	6.39	128.84	120.28
6	G	264	ALA	C-N-CA	6.39	128.84	120.28
6	G	948	SER	N-CA-C	-6.38	103.62	112.30
3	D	148	ILE	O-C-N	6.38	129.93	123.10
3	D	55	VAL	N-CA-C	6.38	116.53	110.53
5	F	76	TYR	N-CA-C	-6.38	98.59	109.24
4	E	360	LEU	CA-C-O	-6.37	113.79	120.55
6	G	218	THR	N-CA-C	6.37	118.23	111.28
5	F	138	ASP	N-CA-C	-6.37	98.51	109.15
2	C	168	ARG	N-CA-C	-6.37	97.24	110.80
4	E	138	GLN	CA-C-N	6.37	128.81	120.28
4	E	138	GLN	C-N-CA	6.37	128.81	120.28
2	C	700	PHE	N-CA-C	-6.36	104.42	111.36
3	D	354	TYR	N-CA-C	-6.36	101.51	110.29
4	E	77	PHE	CA-C-N	6.36	128.80	120.28
4	E	77	PHE	C-N-CA	6.36	128.80	120.28
3	D	78	ASP	N-CA-C	-6.36	105.34	113.23
3	D	392	GLN	N-CA-C	-6.36	104.22	112.23
3	D	637	VAL	O-C-N	-6.36	115.28	121.83
6	G	517	GLU	CA-C-N	6.35	128.70	120.44
6	G	517	GLU	C-N-CA	6.35	128.70	120.44
2	C	497	SER	CA-C-N	6.35	133.66	121.54
2	C	497	SER	C-N-CA	6.35	133.66	121.54
4	E	446	CYS	N-CA-C	-6.34	105.47	113.72
6	G	155	ALA	N-CA-C	6.34	117.86	111.07
6	G	953	LEU	CA-C-N	6.34	128.78	120.28
6	G	953	LEU	C-N-CA	6.34	128.78	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	D	775	GLU	O-C-N	6.34	128.84	122.12
4	E	487	VAL	N-CA-C	6.34	117.12	110.72
5	F	51	LYS	O-C-N	6.34	128.94	122.09
4	E	207	ASP	N-CA-C	-6.34	99.34	108.60
2	C	766	GLY	N-CA-C	-6.33	106.16	115.72
4	E	428	ASN	N-CA-C	6.33	120.47	112.87
2	C	43	LEU	CA-C-N	6.32	128.59	120.88
2	C	43	LEU	C-N-CA	6.32	128.59	120.88
2	C	432	MET	N-CA-C	-6.32	103.07	113.50
2	C	762	ALA	CA-C-N	6.32	128.75	120.28
2	C	762	ALA	C-N-CA	6.32	128.75	120.28
6	G	860	ALA	O-C-N	6.32	128.82	122.12
6	G	196	MET	CA-C-N	6.31	133.59	121.54
6	G	196	MET	C-N-CA	6.31	133.59	121.54
6	G	395	PRO	CA-C-N	6.31	128.74	120.28
6	G	395	PRO	C-N-CA	6.31	128.74	120.28
6	G	128	LYS	CA-C-O	-6.30	112.18	119.56
2	C	574	LYS	N-CA-C	-6.30	98.11	108.76
6	G	819	VAL	CA-C-O	-6.30	113.02	121.02
2	C	214	HIS	N-CA-C	-6.30	102.12	109.93
6	G	316	ARG	O-C-N	-6.29	115.81	123.30
6	G	934	PRO	CA-C-O	-6.29	113.84	122.15
2	C	571	THR	O-C-N	6.29	129.32	122.15
4	E	455	ILE	CA-C-N	6.29	128.62	120.44
4	E	455	ILE	C-N-CA	6.29	128.62	120.44
6	G	118	GLY	CA-C-N	6.28	128.69	120.28
6	G	118	GLY	C-N-CA	6.28	128.69	120.28
3	D	57	ASP	N-CA-C	-6.28	104.89	113.30
3	D	100	ASP	N-CA-C	-6.28	99.44	108.60
6	G	561	LEU	O-C-N	-6.27	115.47	122.12
6	G	865	GLU	CA-C-N	6.27	130.01	121.05
6	G	865	GLU	C-N-CA	6.27	130.01	121.05
3	D	58	LEU	N-CA-C	-6.26	100.68	110.14
2	C	677	LEU	CA-C-O	-6.26	113.78	120.42
3	D	169	VAL	N-CA-C	-6.25	99.42	108.36
5	F	142	VAL	O-C-N	6.25	128.03	121.91
5	F	58	GLU	N-CA-C	-6.25	105.42	113.16
4	E	108	SER	CA-C-O	-6.24	113.93	120.55
2	C	206	ARG	N-CA-C	-6.24	102.79	111.52
6	G	497	ALA	N-CA-C	6.24	118.16	111.36
2	C	584	GLU	N-CA-C	-6.24	105.16	112.89
3	D	741	CYS	CA-C-N	6.24	128.92	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	D	741	CYS	C-N-CA	6.24	128.92	120.44
3	D	70	ASN	N-CA-C	-6.23	103.57	111.92
6	G	137	MET	O-C-N	-6.23	115.97	120.27
6	G	59	LEU	N-CA-C	6.23	118.86	111.33
4	E	259	LEU	N-CA-C	-6.22	101.17	110.06
3	D	271	MET	O-C-N	6.21	129.58	122.25
2	C	29	HIS	N-CA-C	-6.21	105.19	112.89
4	E	27	VAL	N-CA-C	6.21	116.99	110.72
2	C	75	ILE	N-CA-C	-6.21	99.48	108.17
2	C	385	ASN	N-CA-C	-6.21	102.85	110.61
2	C	716	LEU	CA-C-N	6.20	128.59	120.28
2	C	716	LEU	C-N-CA	6.20	128.59	120.28
5	F	33	ASP	N-CA-C	-6.20	105.36	113.17
7	H	61	MET	CA-C-O	-6.20	112.44	120.25
7	H	374	ILE	O-C-N	6.20	125.27	121.37
4	E	463	GLY	CA-C-N	6.19	127.58	119.84
4	E	463	GLY	C-N-CA	6.19	127.58	119.84
4	E	548	LEU	N-CA-C	-6.19	104.33	113.61
6	G	16	MET	CA-C-N	6.19	128.86	120.38
6	G	16	MET	C-N-CA	6.19	128.86	120.38
2	C	808	TRP	CA-C-O	-6.18	114.52	119.71
4	E	433	GLU	CA-C-N	6.18	128.57	120.28
4	E	433	GLU	C-N-CA	6.18	128.57	120.28
3	D	88	THR	N-CA-C	-6.18	104.91	112.88
4	E	366	SER	CA-C-N	6.18	128.56	120.28
4	E	366	SER	C-N-CA	6.18	128.56	120.28
5	F	65	LEU	N-CA-C	-6.18	99.84	109.72
6	G	168	HIS	CA-C-O	-6.18	111.96	119.43
6	G	414	GLU	N-CA-C	-6.17	104.47	111.07
5	F	55	THR	N-CA-C	-6.17	97.67	110.80
6	G	115	PHE	N-CA-C	6.17	117.67	111.07
3	D	302	GLU	N-CA-C	-6.17	105.55	114.12
2	C	363	PHE	N-CA-C	-6.16	102.67	108.22
6	G	498	GLY	CA-C-N	6.16	133.31	121.54
6	G	498	GLY	C-N-CA	6.16	133.31	121.54
7	H	92	GLU	N-CA-C	-6.16	104.65	111.36
3	D	668	GLN	CA-C-N	6.16	128.44	120.44
3	D	668	GLN	C-N-CA	6.16	128.44	120.44
2	C	570	VAL	CA-C-N	6.16	129.03	120.29
2	C	570	VAL	C-N-CA	6.16	129.03	120.29
6	G	430	ARG	CA-C-N	6.15	132.47	123.12
6	G	430	ARG	C-N-CA	6.15	132.47	123.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	E	108	SER	O-C-N	6.15	128.63	122.12
3	D	39	VAL	N-CA-C	-6.14	99.39	108.85
7	H	373	PHE	CA-C-N	-6.14	115.85	122.85
7	H	373	PHE	C-N-CA	-6.14	115.85	122.85
2	C	359	SER	N-CA-C	6.13	118.44	108.63
7	H	11	LYS	N-CA-C	-6.13	106.47	112.97
2	C	560	ILE	N-CA-C	-6.12	98.92	107.80
3	D	751	LEU	O-C-N	-6.12	114.28	121.32
6	G	55	LEU	CA-C-N	6.12	125.80	119.56
6	G	55	LEU	C-N-CA	6.12	125.80	119.56
2	C	150	VAL	N-CA-C	-6.12	99.78	108.65
4	E	269	GLU	O-C-N	6.12	128.37	122.07
3	D	625	LEU	O-C-N	6.12	128.60	122.12
4	E	151	LYS	N-CA-C	-6.12	105.46	113.17
2	C	317	PHE	CA-C-N	6.11	131.43	123.00
2	C	317	PHE	C-N-CA	6.11	131.43	123.00
4	E	502	ASN	CA-C-N	6.11	128.46	120.28
4	E	502	ASN	C-N-CA	6.11	128.46	120.28
4	E	550	GLY	N-CA-C	-6.11	106.00	116.01
6	G	899	LEU	N-CA-C	6.10	123.79	110.80
6	G	19	GLU	O-C-N	-6.10	116.38	121.44
6	G	438	ILE	CA-C-N	6.10	128.47	120.60
6	G	438	ILE	C-N-CA	6.10	128.47	120.60
4	E	275	VAL	N-CA-C	6.09	117.57	110.62
7	H	29	ILE	CA-C-O	-6.09	114.71	121.17
4	E	24	LYS	O-C-N	-6.09	115.21	122.15
5	F	109	VAL	CA-C-O	6.09	128.32	120.95
6	G	224	GLN	CA-C-N	6.09	128.44	120.28
6	G	224	GLN	C-N-CA	6.09	128.44	120.28
4	E	396	VAL	CA-C-N	6.09	128.35	120.44
4	E	396	VAL	C-N-CA	6.09	128.35	120.44
2	C	85	CYS	CA-C-O	-6.08	114.07	120.58
3	D	765	GLN	CA-C-N	6.08	129.10	120.53
3	D	765	GLN	C-N-CA	6.08	129.10	120.53
5	F	60	ALA	N-CA-C	-6.08	99.16	108.76
2	C	657	ASN	N-CA-C	-6.07	98.51	108.41
3	D	245	ILE	N-CA-C	-6.07	99.61	108.11
3	D	608	LYS	CA-C-N	6.07	130.06	120.47
3	D	608	LYS	C-N-CA	6.07	130.06	120.47
3	D	143	HIS	CA-C-N	6.07	133.13	121.54
3	D	143	HIS	C-N-CA	6.07	133.13	121.54
4	E	180	GLU	CA-C-N	6.07	128.32	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	E	180	GLU	C-N-CA	6.07	128.32	120.44
7	H	374	ILE	CA-C-O	6.07	123.86	119.25
6	G	217	GLN	N-CA-C	-6.06	98.40	108.34
6	G	507	THR	CA-C-N	6.06	132.88	121.97
6	G	507	THR	C-N-CA	6.06	132.88	121.97
7	H	90	ILE	CA-C-N	6.06	125.74	119.56
7	H	90	ILE	C-N-CA	6.06	125.74	119.56
7	H	371	GLU	CA-C-N	-6.06	112.34	122.64
7	H	371	GLU	C-N-CA	-6.06	112.34	122.64
3	D	367	VAL	N-CA-C	-6.06	99.44	108.46
3	D	366	PHE	N-CA-C	-6.05	100.13	109.52
6	G	219	PHE	N-CA-C	-6.05	104.59	111.07
2	C	528	ILE	CA-C-N	6.05	129.35	120.82
2	C	528	ILE	C-N-CA	6.05	129.35	120.82
6	G	488	ILE	CA-C-N	6.04	129.05	120.53
6	G	488	ILE	C-N-CA	6.04	129.05	120.53
2	C	352	VAL	O-C-N	-6.04	115.02	122.57
6	G	562	THR	N-CA-C	-6.04	104.70	111.28
6	G	766	ASP	N-CA-C	6.04	118.50	110.53
3	D	710	SER	N-CA-C	6.04	118.82	111.82
5	F	87	GLU	CA-C-O	-6.04	114.15	120.55
4	E	86	ARG	N-CA-C	6.03	117.85	111.28
3	D	323	GLN	N-CA-C	-6.02	101.29	110.14
6	G	126	LYS	N-CA-C	6.02	118.81	111.82
7	H	64	LEU	CA-C-O	6.02	128.16	121.11
6	G	153	ARG	CA-C-N	6.02	128.35	120.28
6	G	153	ARG	C-N-CA	6.02	128.35	120.28
2	C	228	GLN	CA-C-N	6.02	131.02	123.14
2	C	228	GLN	C-N-CA	6.02	131.02	123.14
6	G	356	LEU	O-C-N	-6.02	115.29	122.15
2	C	503	VAL	O-C-N	-6.01	116.15	123.00
3	D	549	GLY	N-CA-C	-6.01	106.86	115.64
4	E	129	CYS	CA-C-N	6.01	128.62	120.44
4	E	129	CYS	C-N-CA	6.01	128.62	120.44
3	D	670	TRP	N-CA-C	6.01	117.91	111.36
4	E	117	GLU	N-CA-C	-6.00	98.01	110.80
6	G	232	TYR	N-CA-C	-6.00	106.12	113.50
2	C	531	LYS	N-CA-C	-6.00	104.37	111.03
3	D	713	ASN	CA-C-N	6.00	128.80	120.29
3	D	713	ASN	C-N-CA	6.00	128.80	120.29
3	D	112	PRO	N-CA-C	-5.99	107.79	114.92
3	D	614	PRO	CA-C-O	-5.99	114.59	121.96

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	C	200	VAL	O-C-N	5.99	130.88	122.97
7	H	310	PHE	CA-C-N	-5.99	115.91	122.38
7	H	310	PHE	C-N-CA	-5.99	115.91	122.38
3	D	763	PRO	CA-C-N	5.99	131.09	122.40
3	D	763	PRO	C-N-CA	5.99	131.09	122.40
4	E	222	GLY	N-CA-C	-5.99	98.99	113.18
3	D	9	ARG	O-C-N	-5.98	115.33	122.63
3	D	379	THR	CA-C-N	5.98	132.97	121.54
3	D	379	THR	C-N-CA	5.98	132.97	121.54
6	G	946	ALA	N-CA-C	-5.98	100.48	108.74
3	D	420	GLU	CA-C-N	5.98	131.60	123.11
3	D	420	GLU	C-N-CA	5.98	131.60	123.11
4	E	267	VAL	O-C-N	-5.97	116.05	121.91
2	C	458	TYR	CA-C-N	5.97	130.21	121.31
2	C	458	TYR	C-N-CA	5.97	130.21	121.31
5	F	104	MET	CA-C-N	5.97	129.39	120.31
5	F	104	MET	C-N-CA	5.97	129.39	120.31
6	G	829	ARG	CA-C-N	5.97	128.28	120.28
6	G	829	ARG	C-N-CA	5.97	128.28	120.28
7	H	101	GLU	CA-C-O	-5.97	113.11	119.97
4	E	314	VAL	O-C-N	-5.97	116.15	122.83
6	G	128	LYS	CA-C-N	5.97	129.59	120.82
6	G	128	LYS	C-N-CA	5.97	129.59	120.82
3	D	75	GLY	N-CA-C	-5.96	99.04	113.18
4	E	141	GLU	CA-C-O	-5.96	114.52	120.90
6	G	568	TYR	CA-C-N	5.96	129.09	120.98
6	G	568	TYR	C-N-CA	5.96	129.09	120.98
3	D	434	TYR	N-CA-C	-5.96	99.29	109.24
5	F	87	GLU	O-C-N	5.96	128.43	122.12
7	H	121	TYR	CA-C-O	5.96	126.87	120.38
4	E	215	ILE	N-CA-C	5.96	116.73	110.72
4	E	562	LEU	CA-C-O	5.95	126.73	120.42
6	G	874	MET	N-CA-C	-5.95	104.88	111.36
2	C	670	ASP	CA-C-N	5.95	128.73	120.29
2	C	670	ASP	C-N-CA	5.95	128.73	120.29
6	G	926	ILE	O-C-N	5.94	129.50	123.20
2	C	428	VAL	N-CA-C	-5.94	99.61	108.46
6	G	578	GLN	CA-C-N	5.94	130.56	122.07
6	G	578	GLN	C-N-CA	5.94	130.56	122.07
3	D	37	GLY	N-CA-C	-5.94	107.56	115.40
7	H	6	ALA	N-CA-C	-5.93	98.73	108.76
6	G	134	GLU	CA-C-N	5.93	125.47	119.19

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	G	134	GLU	C-N-CA	5.93	125.47	119.19
6	G	292	GLU	N-CA-C	-5.93	97.65	108.02
6	G	743	ALA	CA-C-O	-5.93	114.18	121.11
2	C	160	ARG	N-CA-C	-5.92	99.74	109.40
3	D	94	MET	N-CA-C	-5.92	98.99	109.06
6	G	751	GLN	CA-C-N	5.92	132.53	123.47
6	G	751	GLN	C-N-CA	5.92	132.53	123.47
4	E	524	VAL	CA-C-N	5.92	128.48	120.44
4	E	524	VAL	C-N-CA	5.92	128.48	120.44
2	C	707	TYR	N-CA-C	5.91	118.51	111.71
3	D	247	GLY	CA-C-O	5.91	126.79	121.47
6	G	206	LEU	O-C-N	5.91	128.39	122.12
6	G	258	PRO	N-CA-C	-5.91	105.82	113.57
6	G	394	PHE	CA-C-O	-5.91	113.65	120.03
2	C	438	LYS	O-C-N	5.91	130.18	123.27
3	D	472	ASP	CA-C-N	5.91	131.12	122.08
3	D	472	ASP	C-N-CA	5.91	131.12	122.08
4	E	224	LYS	N-CA-C	-5.91	103.41	111.56
6	G	366	LYS	CA-C-N	5.91	132.29	122.54
6	G	366	LYS	C-N-CA	5.91	132.29	122.54
6	G	888	THR	CA-C-N	5.91	132.83	121.54
6	G	888	THR	C-N-CA	5.91	132.83	121.54
3	D	772	LEU	CA-C-O	5.91	126.81	120.55
6	G	150	TYR	CA-C-O	-5.91	114.62	120.70
2	C	787	ASP	N-CA-C	-5.90	106.04	113.18
4	E	164	LEU	N-CA-C	-5.90	104.93	111.36
2	C	688	GLN	CA-C-N	5.90	128.79	120.42
2	C	688	GLN	C-N-CA	5.90	128.79	120.42
2	C	475	PHE	O-C-N	5.89	130.49	123.24
3	D	344	ALA	CA-C-N	5.89	128.40	120.50
3	D	344	ALA	C-N-CA	5.89	128.40	120.50
4	E	467	ASN	N-CA-C	-5.89	100.36	109.14
4	E	481	VAL	N-CA-C	5.89	116.08	110.42
3	D	452	TRP	N-CA-C	-5.89	106.01	112.72
6	G	254	GLN	N-CA-C	-5.89	106.10	113.28
3	D	595	GLN	CA-C-N	5.88	128.09	120.44
3	D	595	GLN	C-N-CA	5.88	128.09	120.44
3	D	455	THR	N-CA-C	5.88	119.30	111.30
2	C	76	LYS	N-CA-C	-5.88	100.22	109.50
3	D	218	ASN	O-C-N	5.87	130.69	122.36
3	D	393	GLU	N-CA-C	-5.87	100.13	109.23
2	C	688	GLN	N-CA-C	-5.87	104.79	111.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	E	234	ARG	N-CA-C	5.87	117.67	111.28
4	E	377	VAL	N-CA-C	-5.87	104.80	110.72
6	G	302	LEU	O-C-N	5.86	130.38	122.59
4	E	531	TYR	CA-C-N	5.86	128.05	120.44
4	E	531	TYR	C-N-CA	5.86	128.05	120.44
2	C	759	TYR	CA-C-O	-5.85	114.67	120.70
6	G	316	ARG	CA-C-N	5.85	132.23	121.70
6	G	316	ARG	C-N-CA	5.85	132.23	121.70
6	G	128	LYS	O-C-N	5.85	129.36	122.34
2	C	605	ASN	CA-C-N	5.85	131.12	122.82
2	C	605	ASN	C-N-CA	5.85	131.12	122.82
3	D	344	ALA	CA-C-O	-5.84	113.43	120.32
2	C	451	PRO	CA-C-O	-5.84	114.65	121.95
5	F	115	LEU	CA-C-N	5.84	128.10	120.28
5	F	115	LEU	C-N-CA	5.84	128.10	120.28
6	G	512	GLN	N-CA-C	5.84	117.65	111.28
4	E	365	SER	CA-C-N	5.84	128.58	120.29
4	E	365	SER	C-N-CA	5.84	128.58	120.29
3	D	32	ALA	N-CA-C	-5.84	99.50	109.24
4	E	283	LYS	CA-C-N	5.84	129.18	120.31
4	E	283	LYS	C-N-CA	5.84	129.18	120.31
4	E	293	GLN	CA-C-N	5.84	128.38	120.44
4	E	293	GLN	C-N-CA	5.84	128.38	120.44
6	G	149	SER	CA-C-N	5.84	128.38	120.44
6	G	149	SER	C-N-CA	5.84	128.38	120.44
6	G	214	ASP	CA-C-O	-5.84	114.89	120.90
7	H	476	LYS	CA-C-N	-5.84	114.95	123.00
7	H	476	LYS	C-N-CA	-5.84	114.95	123.00
2	C	684	GLN	CA-C-N	5.83	132.84	121.41
2	C	684	GLN	C-N-CA	5.83	132.84	121.41
7	H	116	ILE	CA-C-N	-5.83	114.70	122.98
7	H	116	ILE	C-N-CA	-5.83	114.70	122.98
3	D	416	LYS	O-C-N	-5.83	116.49	123.31
4	E	306	ALA	CA-C-N	5.83	128.02	120.44
4	E	306	ALA	C-N-CA	5.83	128.02	120.44
2	C	344	LEU	CA-C-N	5.83	132.68	121.54
2	C	344	LEU	C-N-CA	5.83	132.68	121.54
3	D	551	ILE	N-CA-C	-5.83	99.95	108.11
3	D	625	LEU	CA-C-N	5.83	128.09	120.28
3	D	625	LEU	C-N-CA	5.83	128.09	120.28
4	E	357	ILE	CA-C-N	5.83	128.02	120.44
4	E	357	ILE	C-N-CA	5.83	128.02	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	G	360	LEU	N-CA-C	5.83	117.63	111.28
3	D	406	ARG	O-C-N	5.82	130.03	123.27
2	C	297	LEU	CA-C-O	-5.82	114.82	121.40
2	C	613	HIS	CA-C-N	5.82	128.66	120.28
2	C	613	HIS	C-N-CA	5.82	128.66	120.28
3	D	414	ILE	N-CA-C	-5.81	100.11	108.48
4	E	315	ALA	CA-C-N	5.81	131.80	121.75
4	E	315	ALA	C-N-CA	5.81	131.80	121.75
6	G	54	LYS	N-CA-C	5.81	118.78	110.24
3	D	475	GLU	N-CA-C	-5.81	106.74	113.88
6	G	587	LEU	CA-C-N	5.81	128.64	120.28
6	G	587	LEU	C-N-CA	5.81	128.64	120.28
3	D	350	SER	N-CA-C	5.80	123.16	110.80
4	E	310	THR	N-CA-C	-5.80	98.44	110.80
6	G	196	MET	N-CA-C	-5.80	96.03	107.69
4	E	511	VAL	CA-C-N	5.80	128.32	120.44
4	E	511	VAL	C-N-CA	5.80	128.32	120.44
4	E	459	LEU	CA-C-N	5.79	126.37	119.94
4	E	459	LEU	C-N-CA	5.79	126.37	119.94
6	G	449	ILE	CA-C-O	5.79	127.09	120.90
4	E	349	LEU	CA-C-N	5.78	128.49	120.29
4	E	349	LEU	C-N-CA	5.78	128.49	120.29
6	G	924	VAL	N-CA-C	-5.78	100.08	108.17
2	C	316	VAL	N-CA-C	-5.78	100.08	108.17
7	H	76	ILE	N-CA-C	5.78	115.96	110.42
3	D	744	LEU	CA-C-N	5.77	128.49	120.29
3	D	744	LEU	C-N-CA	5.77	128.49	120.29
2	C	100	PHE	O-C-N	-5.77	116.57	123.27
3	D	618	ARG	N-CA-C	5.77	117.57	111.28
4	E	344	ALA	CA-C-O	-5.77	114.43	120.55
3	D	614	PRO	CA-C-N	5.77	132.56	121.54
3	D	614	PRO	C-N-CA	5.77	132.56	121.54
3	D	697	GLY	CA-C-N	5.77	126.34	120.00
3	D	697	GLY	C-N-CA	5.77	126.34	120.00
3	D	542	ARG	N-CA-C	-5.76	100.78	109.95
3	D	618	ARG	CA-C-N	5.76	128.00	120.28
3	D	618	ARG	C-N-CA	5.76	128.00	120.28
6	G	216	VAL	CA-C-N	5.76	130.90	122.77
6	G	216	VAL	C-N-CA	5.76	130.90	122.77
6	G	325	ILE	O-C-N	-5.76	116.28	121.87
4	E	304	ARG	CA-C-O	-5.76	113.60	120.10
6	G	248	CYS	CA-C-N	5.76	128.59	120.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	G	248	CYS	C-N-CA	5.76	128.59	120.42
2	C	53	PRO	CA-C-N	5.75	130.75	123.10
2	C	53	PRO	C-N-CA	5.75	130.75	123.10
2	C	417	THR	N-CA-C	-5.75	100.55	109.24
4	E	106	THR	CA-C-N	5.75	127.92	120.44
4	E	106	THR	C-N-CA	5.75	127.92	120.44
5	F	118	MET	CA-C-N	5.75	127.92	120.44
5	F	118	MET	C-N-CA	5.75	127.92	120.44
3	D	294	SER	N-CA-C	-5.75	100.55	109.24
5	F	103	GLN	CA-C-N	5.75	127.91	120.44
5	F	103	GLN	C-N-CA	5.75	127.91	120.44
2	C	662	LEU	O-C-N	5.74	128.20	122.12
2	C	205	ASP	CA-C-N	5.73	130.31	122.34
2	C	205	ASP	C-N-CA	5.73	130.31	122.34
4	E	162	SER	CA-C-N	5.72	127.95	120.28
4	E	162	SER	C-N-CA	5.72	127.95	120.28
3	D	205	GLY	N-CA-C	-5.72	102.06	111.38
6	G	521	TYR	N-CA-C	-5.72	105.05	111.28
6	G	55	LEU	O-C-N	-5.72	114.75	121.32
3	D	762	LEU	N-CA-C	5.71	122.43	109.81
2	C	667	ALA	CA-C-N	5.70	132.12	122.26
2	C	667	ALA	C-N-CA	5.70	132.12	122.26
4	E	141	GLU	N-CA-C	5.70	117.94	111.11
7	H	349	PRO	N-CA-C	-5.69	102.33	111.38
2	C	309	GLY	CA-C-O	-5.69	115.74	120.92
7	H	61	MET	N-CA-C	-5.69	97.95	107.80
2	C	184	ILE	CA-C-N	5.69	129.44	121.02
2	C	184	ILE	C-N-CA	5.69	129.44	121.02
6	G	787	PRO	N-CA-C	-5.69	102.26	111.19
2	C	313	GLY	N-CA-C	-5.68	102.91	110.58
6	G	274	ALA	CA-C-O	-5.68	114.12	119.80
4	E	400	PHE	CA-C-N	5.67	127.89	120.28
4	E	400	PHE	C-N-CA	5.67	127.89	120.28
3	D	481	THR	CA-C-O	-5.67	115.21	121.33
6	G	361	LYS	CA-C-N	5.67	128.34	120.29
6	G	361	LYS	C-N-CA	5.67	128.34	120.29
6	G	842	MET	CA-C-N	5.66	127.87	120.28
6	G	842	MET	C-N-CA	5.66	127.87	120.28
4	E	133	ASP	N-CA-C	-5.66	100.71	109.14
4	E	160	LEU	CA-C-N	5.66	128.46	120.42
4	E	160	LEU	C-N-CA	5.66	128.46	120.42
2	C	450	VAL	CA-C-N	5.65	125.97	119.92

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	C	450	VAL	C-N-CA	5.65	125.97	119.92
4	E	170	SER	CA-C-N	5.65	128.13	120.44
4	E	170	SER	C-N-CA	5.65	128.13	120.44
2	C	359	SER	CA-C-O	-5.65	114.53	121.02
6	G	395	PRO	O-C-N	5.64	129.29	122.23
6	G	379	TYR	CA-C-O	5.64	126.53	120.55
6	G	855	PHE	CA-C-N	5.64	127.78	120.44
6	G	855	PHE	C-N-CA	5.64	127.78	120.44
7	H	29	ILE	O-C-N	5.64	127.44	121.91
4	E	424	ILE	O-C-N	5.64	127.34	121.87
2	C	330	GLY	O-C-N	5.64	130.03	122.70
2	C	89	LEU	CA-C-N	5.63	129.91	122.42
2	C	89	LEU	C-N-CA	5.63	129.91	122.42
3	D	614	PRO	O-C-N	5.63	129.49	123.23
5	F	140	GLN	CA-C-O	5.63	126.39	120.42
3	D	681	CYS	N-CA-C	-5.63	106.36	113.23
6	G	191	ARG	N-CA-C	5.63	119.65	112.34
6	G	120	THR	N-CA-C	-5.62	105.23	111.36
2	C	161	VAL	N-CA-C	-5.62	100.30	108.17
2	C	418	ALA	N-CA-C	-5.62	99.14	108.75
3	D	658	TYR	CA-C-N	5.62	127.81	120.28
3	D	658	TYR	C-N-CA	5.62	127.81	120.28
6	G	534	LYS	CA-C-O	-5.62	115.22	121.51
2	C	659	GLU	N-CA-C	-5.62	105.23	111.36
6	G	284	CYS	O-C-N	5.62	127.86	122.07
2	C	658	ILE	O-C-N	5.62	127.15	122.09
6	G	488	ILE	N-CA-C	5.61	119.97	111.89
2	C	665	ALA	CA-C-N	5.61	127.80	120.28
2	C	665	ALA	C-N-CA	5.61	127.80	120.28
2	C	151	VAL	N-CA-C	-5.61	100.21	108.85
2	C	545	THR	N-CA-C	-5.61	105.39	114.09
4	E	420	CYS	CA-C-O	-5.61	114.93	120.82
6	G	595	LEU	N-CA-C	-5.61	104.79	111.69
4	E	163	SER	CA-C-N	5.61	128.25	120.29
4	E	163	SER	C-N-CA	5.61	128.25	120.29
5	F	84	TYR	N-CA-C	-5.61	106.44	113.28
3	D	577	ASP	CA-C-N	5.60	130.21	120.68
3	D	577	ASP	C-N-CA	5.60	130.21	120.68
4	E	326	ASN	CA-C-N	5.60	128.06	120.44
4	E	326	ASN	C-N-CA	5.60	128.06	120.44
7	H	44	LYS	N-CA-C	-5.60	104.08	112.54
2	C	741	ASP	O-C-N	5.60	130.22	123.16

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	D	447	LEU	N-CA-C	-5.60	99.29	108.41
4	E	263	HIS	CA-C-N	5.60	127.78	120.28
4	E	263	HIS	C-N-CA	5.60	127.78	120.28
3	D	463	ILE	N-CA-C	-5.60	99.58	107.75
5	F	45	GLU	CA-C-N	5.60	127.78	120.28
5	F	45	GLU	C-N-CA	5.60	127.78	120.28
6	G	743	ALA	O-C-N	5.59	130.12	123.24
2	C	517	LYS	N-CA-C	-5.59	98.89	110.80
4	E	410	GLY	O-C-N	5.59	129.97	122.70
7	H	46	HIS	CA-C-N	5.59	128.33	120.28
7	H	46	HIS	C-N-CA	5.59	128.33	120.28
6	G	213	ILE	CA-C-N	5.58	128.22	120.63
6	G	213	ILE	C-N-CA	5.58	128.22	120.63
6	G	268	LEU	N-CA-C	5.58	118.12	111.71
6	G	157	LEU	CA-C-O	-5.58	114.51	120.42
5	F	134	ILE	CA-C-O	5.57	127.56	121.04
2	C	93	LEU	N-CA-C	-5.57	105.09	112.94
7	H	63	LYS	N-CA-C	-5.57	106.37	112.72
3	D	154	ASP	N-CA-C	-5.56	98.95	110.80
3	D	395	ALA	N-CA-C	-5.56	99.24	108.75
5	F	29	LYS	N-CA-C	-5.56	98.85	108.69
6	G	101	VAL	N-CA-C	-5.56	105.22	113.39
6	G	269	VAL	CA-C-O	-5.56	114.88	121.05
6	G	288	LEU	O-C-N	5.55	127.79	122.07
6	G	28	ASN	CA-C-N	5.55	128.74	120.31
6	G	28	ASN	C-N-CA	5.55	128.74	120.31
4	E	65	GLU	O-C-N	5.54	128.47	122.15
4	E	444	GLU	N-CA-C	5.54	118.25	111.82
6	G	459	LEU	O-C-N	5.54	128.00	122.12
3	D	291	ASP	O-C-N	5.54	128.47	122.15
6	G	938	VAL	CA-C-N	5.54	132.12	121.54
6	G	938	VAL	C-N-CA	5.54	132.12	121.54
2	C	367	ASN	N-CA-C	-5.54	100.29	108.99
7	H	127	LEU	CA-C-O	-5.54	113.60	119.97
2	C	111	ALA	N-CA-C	-5.53	100.69	109.59
3	D	271	MET	CA-C-N	5.53	132.10	121.54
3	D	271	MET	C-N-CA	5.53	132.10	121.54
3	D	283	SER	CA-C-N	5.53	132.10	121.54
3	D	283	SER	C-N-CA	5.53	132.10	121.54
5	F	31	TYR	N-CA-C	-5.53	106.12	112.92
3	D	479	ILE	CA-C-N	5.53	130.35	122.72
3	D	479	ILE	C-N-CA	5.53	130.35	122.72

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	E	457	HIS	CA-C-N	5.53	127.96	120.44
4	E	457	HIS	C-N-CA	5.53	127.96	120.44
6	G	782	LYS	CA-C-N	5.53	129.32	121.42
6	G	782	LYS	C-N-CA	5.53	129.32	121.42
6	G	785	GLU	O-C-N	-5.53	115.24	122.59
2	C	363	PHE	CA-C-O	-5.53	115.01	120.26
4	E	542	LEU	CA-C-O	-5.53	115.01	120.70
6	G	490	GLU	CA-C-N	-5.52	113.26	120.44
6	G	490	GLU	C-N-CA	-5.52	113.26	120.44
2	C	205	ASP	N-CA-C	-5.52	99.04	110.80
2	C	685	GLY	O-C-N	5.52	129.88	122.70
3	D	436	GLY	CA-C-N	5.52	127.94	120.65
3	D	436	GLY	C-N-CA	5.52	127.94	120.65
4	E	526	ASP	O-C-N	5.52	127.75	122.07
6	G	345	LEU	CA-C-N	5.52	128.13	120.29
6	G	345	LEU	C-N-CA	5.52	128.13	120.29
2	C	750	LYS	O-C-N	5.52	127.75	122.07
3	D	728	ALA	N-CA-C	5.52	117.29	111.28
3	D	590	SER	N-CA-C	5.51	117.29	111.28
3	D	620	ARG	N-CA-C	5.51	117.09	111.14
7	H	75	ASN	CA-C-N	5.51	127.50	120.56
7	H	75	ASN	C-N-CA	5.51	127.50	120.56
2	C	169	LYS	CA-C-O	-5.51	115.18	121.68
6	G	489	VAL	CA-C-N	5.51	127.60	120.44
6	G	489	VAL	C-N-CA	5.51	127.60	120.44
6	G	181	LEU	N-CA-C	-5.51	99.07	110.80
3	D	120	ASP	CA-C-N	5.50	131.89	123.47
3	D	120	ASP	C-N-CA	5.50	131.89	123.47
3	D	770	VAL	O-C-N	-5.50	116.53	121.87
2	C	178	GLU	CA-C-N	5.50	128.66	120.90
2	C	178	GLU	C-N-CA	5.50	128.66	120.90
3	D	574	TYR	N-CA-C	-5.49	100.22	109.07
6	G	584	GLU	N-CA-C	-5.49	99.95	108.90
2	C	756	SER	O-C-N	5.49	127.73	122.07
4	E	64	THR	CA-C-N	5.49	128.09	120.29
4	E	64	THR	C-N-CA	5.49	128.09	120.29
3	D	534	PHE	CA-C-O	-5.49	114.49	120.36
3	D	753	GLU	CA-C-O	-5.49	114.61	120.42
4	E	159	ALA	CA-C-N	5.49	127.57	120.44
4	E	159	ALA	C-N-CA	5.49	127.57	120.44
3	D	802	LYS	CA-C-O	-5.48	115.45	121.31
3	D	421	LYS	CA-C-N	5.48	130.98	122.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	D	421	LYS	C-N-CA	5.48	130.98	122.49
6	G	864	TRP	N-CA-C	-5.48	104.86	112.03
2	C	234	MET	N-CA-C	-5.47	106.28	113.17
2	C	300	HIS	O-C-N	-5.47	115.62	121.42
3	D	416	LYS	N-CA-C	-5.47	99.51	108.76
2	C	651	LEU	CA-C-N	5.47	127.61	120.28
2	C	651	LEU	C-N-CA	5.47	127.61	120.28
4	E	81	ASP	CA-C-N	5.47	124.81	118.85
4	E	81	ASP	C-N-CA	5.47	124.81	118.85
2	C	373	ALA	CA-C-N	5.46	131.98	121.54
2	C	373	ALA	C-N-CA	5.46	131.98	121.54
4	E	103	ILE	CA-C-N	5.46	129.10	120.47
4	E	103	ILE	C-N-CA	5.46	129.10	120.47
6	G	415	ALA	CA-C-N	5.46	127.60	120.28
6	G	415	ALA	C-N-CA	5.46	127.60	120.28
3	D	596	THR	N-CA-C	-5.46	105.23	111.07
6	G	363	GLU	CA-C-N	5.46	128.75	120.95
6	G	363	GLU	C-N-CA	5.46	128.75	120.95
3	D	106	ALA	N-CA-C	-5.46	100.13	109.24
5	F	68	VAL	CA-C-O	5.46	126.12	120.39
4	E	538	LYS	CA-C-N	5.45	127.59	120.28
4	E	538	LYS	C-N-CA	5.45	127.59	120.28
4	E	492	VAL	N-CA-C	5.45	116.22	110.72
4	E	196	ALA	CA-C-N	5.45	128.02	120.29
4	E	196	ALA	C-N-CA	5.45	128.02	120.29
2	C	156	ASP	N-CA-C	-5.44	106.52	112.72
4	E	23	GLU	CA-C-N	5.44	128.02	120.29
4	E	23	GLU	C-N-CA	5.44	128.02	120.29
6	G	888	THR	N-CA-C	-5.44	104.85	112.25
4	E	513	LEU	N-CA-C	5.44	118.13	111.82
6	G	255	SER	CA-C-N	5.44	131.93	121.54
6	G	255	SER	C-N-CA	5.44	131.93	121.54
7	H	68	LEU	N-CA-C	-5.44	100.15	109.24
6	G	452	VAL	CA-C-N	5.44	127.57	120.28
6	G	452	VAL	C-N-CA	5.44	127.57	120.28
2	C	637	VAL	CA-C-N	5.43	127.56	120.28
2	C	637	VAL	C-N-CA	5.43	127.56	120.28
2	C	751	ASN	CA-C-N	5.43	128.57	120.31
2	C	751	ASN	C-N-CA	5.43	128.57	120.31
4	E	292	LEU	N-CA-C	5.43	117.91	111.33
6	G	914	SER	O-C-N	-5.43	116.34	122.97
6	G	914	SER	N-CA-C	5.43	117.90	110.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	C	240	TRP	N-CA-C	-5.43	104.93	113.02
2	C	405	PRO	N-CA-C	-5.43	105.52	114.75
3	D	243	ILE	CA-C-O	5.43	127.56	120.78
6	G	823	SER	N-CA-C	-5.43	101.16	109.41
6	G	509	GLY	N-CA-C	-5.42	101.27	112.34
4	E	49	THR	CA-C-N	5.42	127.55	120.28
4	E	49	THR	C-N-CA	5.42	127.55	120.28
2	C	215	PRO	N-CA-C	5.42	123.64	112.47
3	D	190	CYS	O-C-N	5.42	129.56	123.27
2	C	523	ASN	CA-C-N	5.42	129.36	122.37
2	C	523	ASN	C-N-CA	5.42	129.36	122.37
3	D	390	SER	N-CA-C	-5.42	100.86	109.59
3	D	729	PHE	O-C-N	5.42	128.33	122.15
2	C	807	ASN	N-CA-C	-5.42	104.93	112.30
3	D	633	GLN	N-CA-C	-5.42	105.46	111.36
2	C	27	SER	N-CA-C	-5.41	100.08	108.90
2	C	669	ASP	O-C-N	5.41	129.08	122.58
6	G	803	ASN	CA-C-O	-5.41	115.24	121.47
4	E	337	ASN	CA-C-N	-5.41	112.61	120.29
4	E	337	ASN	C-N-CA	-5.41	112.61	120.29
4	E	557	GLY	O-C-N	5.41	128.32	122.96
3	D	145	VAL	O-C-N	5.41	128.95	122.62
6	G	352	ASN	N-CA-C	-5.41	107.94	114.75
2	C	392	ASP	CA-C-N	5.41	130.77	122.93
2	C	392	ASP	C-N-CA	5.41	130.77	122.93
3	D	440	GLY	N-CA-C	-5.40	101.09	110.71
3	D	182	GLU	N-CA-C	-5.40	95.82	107.49
3	D	588	LEU	CA-C-N	5.39	127.85	120.46
3	D	588	LEU	C-N-CA	5.39	127.85	120.46
6	G	332	PRO	O-C-N	5.39	129.92	122.64
6	G	880	TYR	CA-C-N	5.39	127.45	120.44
6	G	880	TYR	C-N-CA	5.39	127.45	120.44
7	H	363	LYS	CA-C-N	-5.39	113.02	121.87
7	H	363	LYS	C-N-CA	-5.39	113.02	121.87
3	D	381	MET	CA-C-O	5.39	125.22	119.34
3	D	540	VAL	O-C-N	5.39	127.07	122.16
4	E	188	ASP	N-CA-C	-5.39	106.07	113.30
4	E	285	LEU	CA-C-O	5.39	125.95	119.59
4	E	452	ALA	CA-C-N	5.39	127.51	120.28
4	E	452	ALA	C-N-CA	5.39	127.51	120.28
2	C	5	PHE	O-C-N	-5.39	117.11	123.41
3	D	654	LEU	CA-C-N	5.38	127.50	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	D	654	LEU	C-N-CA	5.38	127.50	120.28
4	E	154	SER	O-C-N	5.38	127.62	122.07
2	C	422	ALA	CA-C-N	5.38	131.82	121.54
2	C	422	ALA	C-N-CA	5.38	131.82	121.54
3	D	648	ALA	O-C-N	5.38	127.82	122.12
5	F	114	LEU	CA-C-N	5.38	127.93	120.29
5	F	114	LEU	C-N-CA	5.38	127.93	120.29
6	G	953	LEU	O-C-N	5.38	127.82	122.12
3	D	346	LYS	CA-C-N	5.38	128.35	120.71
3	D	346	LYS	C-N-CA	5.38	128.35	120.71
3	D	582	ILE	CA-C-N	5.38	131.24	122.69
3	D	582	ILE	C-N-CA	5.38	131.24	122.69
3	D	439	LEU	CA-C-N	-5.37	117.59	122.80
3	D	439	LEU	C-N-CA	-5.37	117.59	122.80
6	G	520	THR	N-CA-C	5.37	117.13	111.28
6	G	749	VAL	CA-C-O	5.37	125.57	120.25
3	D	752	PRO	CA-C-N	5.37	127.91	120.29
3	D	752	PRO	C-N-CA	5.37	127.91	120.29
3	D	349	GLY	CA-C-N	5.36	131.78	121.54
3	D	349	GLY	C-N-CA	5.36	131.78	121.54
6	G	951	MET	N-CA-C	-5.36	106.42	113.17
5	F	59	ILE	O-C-N	-5.36	117.40	123.03
2	C	501	SER	O-C-N	-5.36	116.04	122.15
3	D	608	LYS	O-C-N	5.36	128.86	122.27
4	E	402	PHE	CA-C-O	-5.36	114.87	120.55
6	G	475	VAL	N-CA-C	5.35	115.56	110.53
3	D	92	VAL	CA-C-O	-5.35	115.11	121.05
3	D	493	GLU	N-CA-C	5.35	117.19	111.36
3	D	564	LEU	CA-C-O	5.35	126.21	120.70
3	D	719	ALA	CA-C-N	5.35	128.85	120.82
3	D	719	ALA	C-N-CA	5.35	128.85	120.82
4	E	498	PHE	CA-C-N	5.35	125.88	119.94
4	E	498	PHE	C-N-CA	5.35	125.88	119.94
4	E	465	LYS	O-C-N	-5.35	116.40	122.23
6	G	926	ILE	N-CA-C	-5.35	99.94	107.75
2	C	700	PHE	CA-C-O	-5.35	114.75	120.42
3	D	579	GLU	O-C-N	5.34	129.41	122.89
6	G	90	PRO	CA-C-O	-5.34	110.88	120.60
2	C	502	HIS	CA-C-N	-5.34	114.68	122.58
2	C	502	HIS	C-N-CA	-5.34	114.68	122.58
3	D	450	TYR	CA-C-N	5.34	129.06	121.42
3	D	450	TYR	C-N-CA	5.34	129.06	121.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	D	360	HIS	CA-C-N	5.34	128.07	120.49
3	D	360	HIS	C-N-CA	5.34	128.07	120.49
2	C	40	MET	CA-C-N	5.34	131.73	121.54
2	C	40	MET	C-N-CA	5.34	131.73	121.54
4	E	503	GLU	CA-C-O	5.34	126.21	120.55
2	C	424	ASN	N-CA-C	5.33	118.94	111.74
3	D	184	HIS	N-CA-C	-5.33	100.81	108.60
6	G	176	LEU	N-CA-C	-5.33	104.36	112.04
3	D	238	HIS	CA-C-O	-5.33	114.49	120.25
3	D	77	ASP	N-CA-C	-5.33	107.08	113.21
3	D	602	ASP	CA-C-N	5.32	127.36	120.44
3	D	602	ASP	C-N-CA	5.32	127.36	120.44
7	H	369	THR	CA-C-N	-5.32	113.55	122.17
7	H	369	THR	C-N-CA	-5.32	113.55	122.17
5	F	87	GLU	CA-C-N	5.32	127.84	120.29
5	F	87	GLU	C-N-CA	5.32	127.84	120.29
3	D	401	SER	CA-C-N	5.32	131.51	122.37
3	D	401	SER	C-N-CA	5.32	131.51	122.37
4	E	30	GLU	CA-C-N	5.32	129.11	120.60
4	E	30	GLU	C-N-CA	5.32	129.11	120.60
7	H	18	SER	CA-C-N	-5.32	113.40	122.33
7	H	18	SER	C-N-CA	-5.32	113.40	122.33
2	C	35	LEU	N-CA-C	-5.32	100.24	108.90
6	G	162	ILE	CA-C-N	5.32	127.40	120.28
6	G	162	ILE	C-N-CA	5.32	127.40	120.28
4	E	46	HIS	CA-C-N	5.31	127.74	120.46
4	E	46	HIS	C-N-CA	5.31	127.74	120.46
6	G	212	CYS	CA-C-N	5.31	128.02	120.53
6	G	212	CYS	C-N-CA	5.31	128.02	120.53
6	G	260	VAL	CA-C-N	5.31	128.25	120.71
6	G	260	VAL	C-N-CA	5.31	128.25	120.71
6	G	369	ASN	N-CA-C	-5.30	101.01	109.23
4	E	381	GLN	CA-C-N	5.30	127.33	120.44
4	E	381	GLN	C-N-CA	5.30	127.33	120.44
5	F	62	LEU	N-CA-C	-5.30	100.05	109.06
2	C	520	ALA	CA-C-N	5.30	127.65	120.44
2	C	520	ALA	C-N-CA	5.30	127.65	120.44
4	E	68	GLU	CA-C-N	5.30	127.39	120.28
4	E	68	GLU	C-N-CA	5.30	127.39	120.28
2	C	556	GLY	N-CA-C	-5.30	107.96	115.43
2	C	658	ILE	CA-C-N	5.30	127.81	120.29
2	C	658	ILE	C-N-CA	5.30	127.81	120.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	D	409	ASN	N-CA-C	-5.30	105.66	113.61
7	H	385	SER	N-CA-C	-5.30	106.65	113.01
2	C	703	LEU	O-C-N	5.30	127.73	122.12
3	D	754	ALA	CA-C-N	5.29	127.37	120.28
3	D	754	ALA	C-N-CA	5.29	127.37	120.28
6	G	849	THR	CA-C-O	-5.29	115.42	121.40
2	C	404	ASN	O-C-N	-5.29	117.70	121.83
2	C	60	HIS	O-C-N	-5.29	115.95	122.82
2	C	78	TRP	CA-C-N	5.29	129.64	122.19
2	C	78	TRP	C-N-CA	5.29	129.64	122.19
4	E	454	ARG	N-CA-C	5.29	116.85	111.14
3	D	530	VAL	CA-C-N	5.28	127.96	119.98
3	D	530	VAL	C-N-CA	5.28	127.96	119.98
2	C	31	GLY	O-C-N	5.28	128.63	122.45
3	D	468	ILE	O-C-N	-5.28	117.45	123.10
6	G	180	PHE	N-CA-C	-5.28	99.56	110.80
6	G	315	GLU	CA-C-N	5.28	130.43	122.99
6	G	315	GLU	C-N-CA	5.28	130.43	122.99
4	E	566	THR	CA-C-N	5.28	127.35	120.28
4	E	566	THR	C-N-CA	5.28	127.35	120.28
5	F	62	LEU	CA-C-N	5.28	131.34	123.05
5	F	62	LEU	C-N-CA	5.28	131.34	123.05
2	C	44	ILE	N-CA-C	-5.28	105.94	110.74
6	G	558	ALA	CA-C-O	-5.28	112.97	120.51
6	G	418	ALA	N-CA-C	5.27	116.71	111.07
2	C	587	PRO	CA-C-N	-5.27	113.30	122.37
2	C	587	PRO	C-N-CA	-5.27	113.30	122.37
6	G	789	PRO	N-CA-C	5.27	119.49	111.11
6	G	487	PRO	CA-C-N	5.27	129.66	120.86
6	G	487	PRO	C-N-CA	5.27	129.66	120.86
6	G	581	PHE	N-CA-C	-5.27	99.74	108.75
4	E	142	ARG	CA-C-O	5.27	126.35	120.82
3	D	776	ASN	CA-C-N	-5.27	113.22	120.28
3	D	776	ASN	C-N-CA	-5.27	113.22	120.28
6	G	248	CYS	O-C-N	-5.27	116.54	122.12
2	C	797	PRO	CA-C-O	-5.27	112.92	120.56
2	C	721	LYS	N-CA-C	5.26	117.10	111.36
3	D	208	ASP	N-CA-C	-5.26	107.03	112.93
6	G	758	VAL	N-CA-C	-5.26	100.28	108.81
6	G	35	VAL	CA-C-N	5.26	127.76	120.29
6	G	35	VAL	C-N-CA	5.26	127.76	120.29
4	E	66	ALA	CA-C-N	5.26	127.33	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	E	66	ALA	C-N-CA	5.26	127.33	120.28
2	C	548	HIS	CA-C-O	5.26	127.26	121.11
4	E	392	ARG	N-CA-C	-5.26	105.58	112.41
6	G	225	LEU	CA-C-O	-5.26	114.98	120.55
3	D	268	ASN	CA-C-O	5.25	127.68	121.58
3	D	428	PHE	N-CA-C	-5.25	101.72	109.86
2	C	396	ILE	CA-C-O	-5.25	114.39	118.85
3	D	1	MET	CA-C-N	5.25	125.15	119.85
3	D	1	MET	C-N-CA	5.25	125.15	119.85
3	D	425	LYS	CA-C-N	5.25	126.41	119.84
3	D	425	LYS	C-N-CA	5.25	126.41	119.84
4	E	286	ALA	O-C-N	-5.25	115.28	121.32
5	F	139	PRO	CA-C-N	5.25	127.75	120.29
5	F	139	PRO	C-N-CA	5.25	127.75	120.29
6	G	461	ILE	CA-C-N	5.25	127.32	120.28
6	G	461	ILE	C-N-CA	5.25	127.32	120.28
6	G	558	ALA	O-C-N	5.25	129.57	122.59
6	G	579	ASN	CA-C-N	-5.25	113.96	122.36
6	G	579	ASN	C-N-CA	-5.25	113.96	122.36
3	D	552	VAL	N-CA-C	-5.25	100.77	108.85
6	G	230	LEU	CA-C-N	5.25	130.01	122.45
6	G	230	LEU	C-N-CA	5.25	130.01	122.45
2	C	72	ASP	CA-C-N	5.24	131.56	121.54
2	C	72	ASP	C-N-CA	5.24	131.56	121.54
6	G	413	ASN	N-CA-C	-5.24	102.76	110.52
6	G	551	PHE	N-CA-C	-5.24	104.06	111.56
7	H	89	VAL	N-CA-C	5.24	116.02	110.72
2	C	601	LEU	N-CA-C	-5.24	105.65	111.36
3	D	177	PRO	N-CA-C	-5.24	101.68	112.47
3	D	595	GLN	N-CA-C	5.24	117.07	111.36
4	E	179	ASN	CA-C-N	5.24	127.73	120.29
4	E	179	ASN	C-N-CA	5.24	127.73	120.29
2	C	432	MET	O-C-N	5.24	128.02	121.84
3	D	530	VAL	N-CA-C	-5.24	99.62	107.37
3	D	678	ILE	CA-C-O	-5.23	115.30	120.85
5	F	50	ASN	N-CA-C	5.23	116.98	111.28
2	C	664	ALA	CA-C-N	5.23	127.29	120.28
2	C	664	ALA	C-N-CA	5.23	127.29	120.28
2	C	699	ASN	O-C-N	5.23	129.55	122.59
6	G	856	ARG	O-C-N	-5.23	116.68	122.07
6	G	512	GLN	O-C-N	5.23	127.66	122.12
4	E	435	GLY	CA-C-O	5.22	126.13	120.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	C	679	GLU	CA-C-N	5.22	127.61	120.46
2	C	679	GLU	C-N-CA	5.22	127.61	120.46
2	C	512	VAL	CA-C-N	-5.22	116.31	123.14
2	C	512	VAL	C-N-CA	-5.22	116.31	123.14
6	G	113	ASN	CA-C-N	5.22	127.27	120.28
6	G	113	ASN	C-N-CA	5.22	127.27	120.28
7	H	47	THR	CA-C-O	-5.22	114.20	120.10
4	E	379	VAL	CA-C-O	-5.21	115.32	120.85
4	E	535	LEU	N-CA-C	5.21	116.77	111.14
5	F	79	VAL	N-CA-C	-5.21	100.69	108.46
6	G	48	MET	CA-C-O	-5.21	114.89	120.42
2	C	182	ARG	N-CA-C	-5.21	100.54	109.24
3	D	357	THR	N-CA-C	-5.21	100.20	109.06
2	C	537	GLU	CA-C-N	5.21	131.49	121.54
2	C	537	GLU	C-N-CA	5.21	131.49	121.54
4	E	471	LYS	O-C-N	-5.21	116.60	122.12
7	H	112	ALA	O-C-N	-5.21	116.60	122.12
7	H	494	PRO	CA-C-N	-5.21	116.73	123.19
7	H	494	PRO	C-N-CA	-5.21	116.73	123.19
3	D	554	ILE	N-CA-C	-5.20	105.33	111.00
2	C	233	ARG	N-CA-C	-5.20	100.25	108.73
3	D	356	GLN	O-C-N	5.20	128.08	122.15
6	G	837	ILE	N-CA-C	5.20	120.16	109.34
3	D	669	LYS	CA-C-O	5.20	126.28	120.82
4	E	219	THR	N-CA-C	5.20	116.95	111.28
6	G	133	LEU	CA-C-N	5.20	127.23	120.26
6	G	133	LEU	C-N-CA	5.20	127.23	120.26
6	G	384	VAL	CA-C-O	-5.20	115.66	121.17
6	G	371	SER	N-CA-C	-5.20	104.54	111.87
6	G	967	SER	CA-C-N	5.20	131.05	121.70
6	G	967	SER	C-N-CA	5.20	131.05	121.70
7	H	457	SER	CA-C-N	-5.20	112.52	122.13
7	H	457	SER	C-N-CA	-5.20	112.52	122.13
2	C	751	ASN	O-C-N	-5.19	115.88	122.27
7	H	416	GLY	CA-C-N	5.19	127.79	120.42
7	H	416	GLY	C-N-CA	5.19	127.79	120.42
6	G	252	LEU	N-CA-C	-5.19	103.47	110.68
6	G	344	ALA	N-CA-C	-5.19	105.52	111.07
4	E	231	MET	O-C-N	5.18	127.61	122.12
4	E	158	SER	O-C-N	5.18	127.61	122.12
7	H	62	GLU	N-CA-C	5.18	116.84	108.08
3	D	643	HIS	N-CA-C	-5.18	105.72	111.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	G	154	ASN	N-CA-C	-5.18	105.64	111.28
6	G	525	SER	N-CA-C	-5.18	99.90	108.75
2	C	21	ARG	CA-C-O	-5.18	115.71	120.94
6	G	41	ALA	CA-C-N	5.18	127.22	120.28
6	G	41	ALA	C-N-CA	5.18	127.22	120.28
2	C	796	GLN	CA-C-O	-5.17	113.97	120.23
3	D	580	LEU	CA-C-N	5.17	132.84	123.27
3	D	580	LEU	C-N-CA	5.17	132.84	123.27
4	E	318	HIS	O-C-N	-5.17	115.37	121.32
5	F	71	SER	CA-C-N	5.17	131.42	121.54
5	F	71	SER	C-N-CA	5.17	131.42	121.54
6	G	244	ARG	CA-C-N	5.17	127.21	120.28
6	G	244	ARG	C-N-CA	5.17	127.21	120.28
6	G	492	GLU	N-CA-C	5.17	117.00	111.36
1	B	130	LEU	CA-C-N	5.17	124.62	119.24
1	B	130	LEU	C-N-CA	5.17	124.62	119.24
3	D	639	THR	N-CA-C	-5.17	105.72	111.36
7	H	433	SER	N-CA-C	-5.17	103.78	110.19
7	H	20	GLN	N-CA-C	-5.17	98.84	107.99
5	F	27	PHE	N-CA-C	5.17	117.58	108.75
4	E	457	HIS	CA-C-O	-5.17	115.40	120.82
2	C	112	SER	CA-C-O	5.16	127.57	121.58
3	D	695	ASP	O-C-N	-5.16	116.67	122.86
6	G	919	ASP	N-CA-C	-5.16	101.86	109.86
6	G	950	GLY	N-CA-C	-5.16	100.95	113.18
3	D	116	THR	N-CA-C	-5.16	101.35	109.50
2	C	242	VAL	CA-C-N	5.16	130.66	122.62
2	C	242	VAL	C-N-CA	5.16	130.66	122.62
2	C	302	ASN	N-CA-C	-5.16	106.67	113.17
2	C	382	ARG	CA-C-N	5.16	131.39	121.54
2	C	382	ARG	C-N-CA	5.16	131.39	121.54
6	G	106	ARG	CA-C-N	5.16	127.19	120.28
6	G	106	ARG	C-N-CA	5.16	127.19	120.28
3	D	203	ILE	CA-C-O	-5.15	115.30	121.28
7	H	118	ALA	CA-C-O	-5.15	114.79	120.30
2	C	9	SER	O-C-N	5.15	127.56	122.10
1	A	130	LEU	CA-C-N	5.14	124.59	119.24
1	A	130	LEU	C-N-CA	5.14	124.59	119.24
2	C	441	LYS	CA-C-N	5.14	131.36	121.54
2	C	441	LYS	C-N-CA	5.14	131.36	121.54
6	G	95	LEU	CA-C-N	5.14	130.59	121.80
6	G	95	LEU	C-N-CA	5.14	130.59	121.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	D	611	PRO	O-C-N	5.14	129.13	122.24
3	D	330	MET	N-CA-C	-5.14	100.93	108.79
7	H	57	VAL	CA-C-N	-5.14	113.57	122.10
7	H	57	VAL	C-N-CA	-5.14	113.57	122.10
4	E	81	ASP	N-CA-C	-5.13	100.49	109.48
2	C	404	ASN	N-CA-C	-5.13	101.49	108.11
3	D	777	LEU	N-CA-C	5.13	116.87	111.28
6	G	323	MET	CA-C-N	5.13	127.67	120.28
6	G	323	MET	C-N-CA	5.13	127.67	120.28
3	D	539	SER	CA-C-N	5.13	130.33	122.69
3	D	539	SER	C-N-CA	5.13	130.33	122.69
3	D	637	VAL	CA-C-N	5.13	128.61	121.02
3	D	637	VAL	C-N-CA	5.13	128.61	121.02
4	E	256	GLU	N-CA-C	-5.13	99.88	110.80
6	G	576	LYS	CA-C-N	5.13	131.33	121.54
6	G	576	LYS	C-N-CA	5.13	131.33	121.54
3	D	3	LEU	O-C-N	-5.12	117.64	123.48
2	C	85	CYS	O-C-N	5.12	129.07	122.93
6	G	128	LYS	N-CA-C	-5.12	106.62	112.92
6	G	199	HIS	CA-C-O	-5.12	115.26	120.99
2	C	344	LEU	CA-C-O	5.11	127.82	120.51
3	D	335	ILE	CA-C-N	5.11	131.30	121.54
3	D	335	ILE	C-N-CA	5.11	131.30	121.54
6	G	833	VAL	N-CA-C	-5.11	101.01	108.17
4	E	68	GLU	N-CA-C	5.11	116.84	111.28
6	G	263	GLU	N-CA-C	-5.11	106.64	112.92
6	G	416	ALA	CA-C-N	5.11	127.12	120.28
6	G	416	ALA	C-N-CA	5.11	127.12	120.28
3	D	228	HIS	CA-C-N	5.10	131.12	122.65
3	D	228	HIS	C-N-CA	5.10	131.12	122.65
3	D	522	GLU	CA-C-N	5.10	127.44	120.35
3	D	522	GLU	C-N-CA	5.10	127.44	120.35
3	D	358	ILE	N-CA-C	-5.10	100.72	108.17
5	F	93	VAL	CA-C-N	5.10	127.12	120.28
5	F	93	VAL	C-N-CA	5.10	127.12	120.28
3	D	283	SER	N-CA-C	5.10	121.66	110.80
6	G	939	THR	N-CA-C	-5.09	99.95	110.80
3	D	173	GLY	CA-C-O	5.09	125.90	120.30
6	G	20	PRO	O-C-N	-5.08	115.46	121.46
2	C	136	HIS	N-CA-C	-5.08	100.79	108.46
2	C	758	ALA	CA-C-N	5.08	127.35	120.44
2	C	758	ALA	C-N-CA	5.08	127.35	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	F	86	ASN	CA-C-N	5.08	127.09	120.28
5	F	86	ASN	C-N-CA	5.08	127.09	120.28
6	G	759	LEU	N-CA-C	-5.08	100.17	108.76
3	D	598	VAL	CA-C-N	5.08	127.09	120.28
3	D	598	VAL	C-N-CA	5.08	127.09	120.28
3	D	217	GLN	CA-C-O	5.08	125.93	120.55
3	D	322	VAL	CA-C-O	-5.08	115.96	121.19
6	G	144	LEU	CA-C-O	5.08	125.78	119.79
4	E	490	GLY	CA-C-N	5.08	127.50	120.29
4	E	490	GLY	C-N-CA	5.08	127.50	120.29
6	G	393	ARG	N-CA-C	5.07	116.62	111.14
4	E	134	SER	CA-C-N	5.07	127.03	120.44
4	E	134	SER	C-N-CA	5.07	127.03	120.44
4	E	454	ARG	CA-C-O	-5.07	115.48	120.70
6	G	70	GLN	N-CA-C	-5.07	106.87	113.16
3	D	731	SER	N-CA-C	5.07	116.81	111.28
6	G	564	ILE	N-CA-C	-5.07	105.77	110.53
4	E	42	ARG	N-CA-C	5.07	116.49	111.07
2	C	771	ALA	CA-C-O	5.06	125.92	120.55
2	C	640	HIS	O-C-N	-5.06	116.86	122.07
2	C	700	PHE	CA-C-N	5.06	127.06	120.28
2	C	700	PHE	C-N-CA	5.06	127.06	120.28
6	G	296	ASN	O-C-N	5.06	128.31	121.83
2	C	389	SER	O-C-N	-5.06	119.31	123.11
3	D	246	THR	CA-C-N	5.05	126.26	121.46
3	D	246	THR	C-N-CA	5.05	126.26	121.46
3	D	570	ASP	CA-C-N	5.05	131.19	121.54
3	D	570	ASP	C-N-CA	5.05	131.19	121.54
6	G	903	CYS	O-C-N	-5.05	117.02	123.24
2	C	246	ARG	N-CA-C	-5.05	100.80	109.24
3	D	28	PRO	N-CA-C	-5.05	108.91	114.92
2	C	256	VAL	O-C-N	-5.05	117.31	123.02
2	C	376	ALA	CA-C-N	5.05	129.96	122.94
2	C	376	ALA	C-N-CA	5.05	129.96	122.94
7	H	290	GLY	N-CA-C	-5.05	108.09	115.72
2	C	803	PRO	N-CA-C	-5.04	102.08	112.47
3	D	146	MET	CA-C-O	-5.04	115.08	120.42
3	D	247	GLY	N-CA-C	-5.04	103.19	110.90
5	F	56	ASP	O-C-N	-5.04	117.34	123.13
3	D	603	PHE	CA-C-O	-5.04	115.53	120.82
3	D	756	PHE	CA-C-N	5.04	127.03	120.28
3	D	756	PHE	C-N-CA	5.04	127.03	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	C	715	LYS	CA-C-N	5.04	127.03	120.28
2	C	715	LYS	C-N-CA	5.04	127.03	120.28
4	E	78	GLN	O-C-N	5.03	127.45	122.12
7	H	3	LEU	CA-C-N	5.03	127.33	120.54
7	H	3	LEU	C-N-CA	5.03	127.33	120.54
6	G	194	PHE	N-CA-C	-5.03	100.09	110.80
2	C	109	LEU	N-CA-C	-5.03	101.50	109.59
3	D	480	ALA	CA-C-O	5.03	125.91	120.43
3	D	738	LEU	N-CA-C	-5.03	106.46	112.59
2	C	388	ASN	O-C-N	5.02	129.11	123.48
6	G	294	ASP	CA-C-O	-5.02	115.22	120.55
4	E	483	GLU	CA-C-N	5.02	131.13	121.54
4	E	483	GLU	C-N-CA	5.02	131.13	121.54
4	E	492	VAL	O-C-N	-5.02	116.66	121.83
3	D	780	VAL	CA-C-N	5.02	131.13	121.54
3	D	780	VAL	C-N-CA	5.02	131.13	121.54
2	C	746	VAL	CA-C-O	-5.02	115.85	121.17
2	C	568	ILE	CA-C-N	5.02	130.85	122.73
2	C	568	ILE	C-N-CA	5.02	130.85	122.73
6	G	771	CYS	CA-C-O	5.02	126.40	120.58
3	D	220	THR	N-CA-C	-5.01	103.04	110.46
3	D	650	GLN	CA-C-N	5.01	127.50	120.28
3	D	650	GLN	C-N-CA	5.01	127.50	120.28
4	E	127	ALA	O-C-N	-5.01	116.91	122.07
7	H	324	GLY	N-CA-C	-5.01	104.34	112.31
6	G	759	LEU	CA-C-N	-5.01	116.58	123.14
6	G	759	LEU	C-N-CA	-5.01	116.58	123.14
6	G	431	PHE	N-CA-C	5.01	116.74	107.73
3	D	346	LYS	N-CA-C	-5.01	101.71	109.72
6	G	858	MET	CA-C-N	5.01	126.95	120.44
6	G	858	MET	C-N-CA	5.01	126.95	120.44
6	G	829	ARG	N-CA-C	-5.00	99.78	109.24
3	D	758	ALA	CA-C-N	5.00	126.98	120.28
3	D	758	ALA	C-N-CA	5.00	126.98	120.28

There are no chirality outliers.

All (25) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
2	C	317	PHE	Mainchain
2	C	380	CYS	Mainchain
2	C	559	GLY	Mainchain

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Mol	Chain	Res	Type	Group
2	C	63	GLN	Peptide
3	D	119	ASP	Mainchain
3	D	44	HIS	Mainchain
4	E	309	ARG	Peptide
4	E	323	THR	Peptide
4	E	442	PHE	Peptide
4	E	447	GLU	Peptide
5	F	59	ILE	Mainchain
6	G	235	CYS	Peptide
6	G	254	GLN	Peptide
6	G	274	ALA	Peptide
6	G	309	LYS	Peptide
6	G	311	HIS	Peptide
6	G	329	LEU	Peptide
6	G	331	THR	Peptide
6	G	348	VAL	Peptide
6	G	471	ASP	Peptide
6	G	499	GLU	Mainchain
6	G	581	PHE	Peptide
6	G	65	PHE	Mainchain
6	G	897	LYS	Peptide
6	G	91	ASP	Mainchain

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	A	636	0	181	1	0
1	B	636	0	181	1	0
2	C	3251	0	869	0	0
3	D	3211	0	880	2	0
4	E	2199	0	570	1	0
5	F	555	0	148	0	0
6	G	3250	0	833	0	0
7	H	1520	0	406	4	0
All	All	15258	0	4068	9	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 (9) 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)
7:H:296:GLU:CA	7:H:368:THR:H	1.95	0.79
7:H:356:ASN:CA	7:H:362:LEU:H	2.10	0.65
7:H:356:ASN:C	7:H:362:LEU:H	2.20	0.49
4:E:249:SER:C	4:E:251:LEU:H	2.23	0.46
1:A:175:ASN:O	1:A:176:SER:C	2.60	0.45
1:B:175:ASN:O	1:B:176:SER:C	2.60	0.44
3:D:76:ALA:C	3:D:78:ASP:H	2.28	0.42
3:D:162:SER:C	3:D:164:ASP:H	2.27	0.41
7:H:356:ASN:CA	7:H:362:LEU:N	2.83	0.41

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	157/181 (87%)	153 (98%)	4 (2%)	0	100	100
1	B	157/181 (87%)	153 (98%)	4 (2%)	0	100	100
2	C	811/1262 (64%)	671 (83%)	97 (12%)	43 (5%)	1	15
3	D	801/905 (88%)	700 (87%)	64 (8%)	37 (5%)	2	17
4	E	548/874 (63%)	492 (90%)	27 (5%)	29 (5%)	1	15
5	F	137/177 (77%)	128 (93%)	7 (5%)	2 (2%)	8	40
6	G	809/968 (84%)	658 (81%)	84 (10%)	67 (8%)	0	9
7	H	376/511 (74%)	336 (89%)	31 (8%)	9 (2%)	4	27
All	All	3796/5059 (75%)	3291 (87%)	318 (8%)	187 (5%)	3	16

All (187) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	C	11	ARG
2	C	227	ARG
2	C	526	GLU
2	C	572	ARG
2	C	686	ASN
3	D	6	ASP
3	D	284	ASN
3	D	329	ALA
3	D	336	LYS
3	D	350	SER
3	D	484	SER
3	D	513	ALA
3	D	615	LYS
3	D	791	PRO
3	D	795	GLU
4	E	117	GLU
4	E	280	CYS
4	E	309	ARG
4	E	323	THR
4	E	324	ALA
4	E	391	PRO
4	E	393	LYS
4	E	413	TYR
4	E	448	PHE
4	E	549	ASN
5	F	36	PRO
6	G	55	LEU
6	G	69	LEU
6	G	85	VAL
6	G	90	PRO
6	G	173	ALA
6	G	181	LEU
6	G	197	LEU
6	G	237	ALA
6	G	253	LEU
6	G	275	PRO
6	G	331	THR
6	G	499	GLU
6	G	506	ILE
6	G	508	VAL
6	G	523	THR
6	G	543	ARG
6	G	770	ASN

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Mol	Chain	Res	Type
6	G	785	GLU
6	G	792	LEU
6	G	814	ILE
6	G	826	ALA
6	G	939	THR
6	G	959	ILE
7	H	326	GLN
7	H	361	VAL
2	C	137	TYR
2	C	226	ASP
2	C	337	LYS
2	C	425	ARG
2	C	441	LYS
2	C	498	ALA
2	C	538	SER
2	C	546	SER
2	C	621	VAL
2	C	642	VAL
3	D	17	ARG
3	D	59	PRO
3	D	273	ARG
3	D	410	SER
3	D	426	PRO
3	D	630	PHE
3	D	739	ASP
4	E	263	HIS
4	E	310	THR
4	E	313	LYS
4	E	373	ASP
4	E	442	PHE
4	E	484	HIS
4	E	551	LEU
6	G	83	GLU
6	G	103	ASP
6	G	174	PRO
6	G	307	GLU
6	G	554	ALA
6	G	558	ALA
6	G	879	ASP
7	H	351	LYS
2	C	205	ASP
2	C	345	ASP

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Mol	Chain	Res	Type
2	C	348	SER
2	C	349	SER
2	C	387	GLU
2	C	469	ALA
2	C	594	PRO
2	C	619	LYS
2	C	624	SER
2	C	627	ALA
2	C	630	GLN
2	C	790	PRO
3	D	140	GLY
3	D	260	THR
3	D	272	GLU
3	D	571	ASN
3	D	601	ARG
3	D	662	VAL
3	D	694	GLN
3	D	735	GLN
4	E	256	GLU
4	E	353	SER
4	E	522	ASN
4	E	569	PRO
5	F	55	THR
6	G	18	SER
6	G	22	SER
6	G	194	PHE
6	G	257	SER
6	G	259	ALA
6	G	308	LEU
6	G	318	LEU
6	G	487	PRO
6	G	501	LYS
6	G	528	SER
6	G	817	ASN
6	G	904	GLY
7	H	45	GLN
7	H	358	ASP
7	H	398	GLN
7	H	447	ALA
2	C	133	GLY
2	C	193	THR
2	C	271	LYS

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Mol	Chain	Res	Type
2	C	423	ARG
2	C	452	ASN
2	C	731	GLY
3	D	89	LEU
3	D	318	LYS
3	D	577	ASP
3	D	734	LEU
3	D	740	ALA
3	D	787	SER
3	D	788	LEU
4	E	40	ASN
4	E	251	LEU
4	E	464	PRO
6	G	332	PRO
6	G	372	GLU
6	G	446	PHE
6	G	537	GLU
6	G	583	ALA
6	G	876	ASP
7	H	309	LYS
7	H	359	VAL
2	C	470	ASP
2	C	698	LYS
2	C	793	LYS
2	C	812	THR
4	E	221	HIS
4	E	311	LEU
4	E	410	GLY
6	G	32	LYS
6	G	99	ILE
6	G	262	TYR
6	G	330	SER
6	G	794	PRO
6	G	894	THR
6	G	898	ALA
6	G	900	SER
6	G	916	PHE
6	G	962	SER
2	C	442	ASN
2	C	781	GLU
3	D	391	ALA
6	G	21	PRO

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Mol	Chain	Res	Type
6	G	102	CYS
6	G	230	LEU
6	G	503	GLU
3	D	790	ASP
6	G	216	VAL
6	G	238	ASN
2	C	780	PRO
2	C	799	ALA
3	D	355	PRO
6	G	540	PRO
3	D	762	LEU
4	E	278	PRO
6	G	531	ARG
4	E	556	PRO
6	G	317	VAL
2	C	247	GLY
2	C	488	ILE
3	D	200	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.

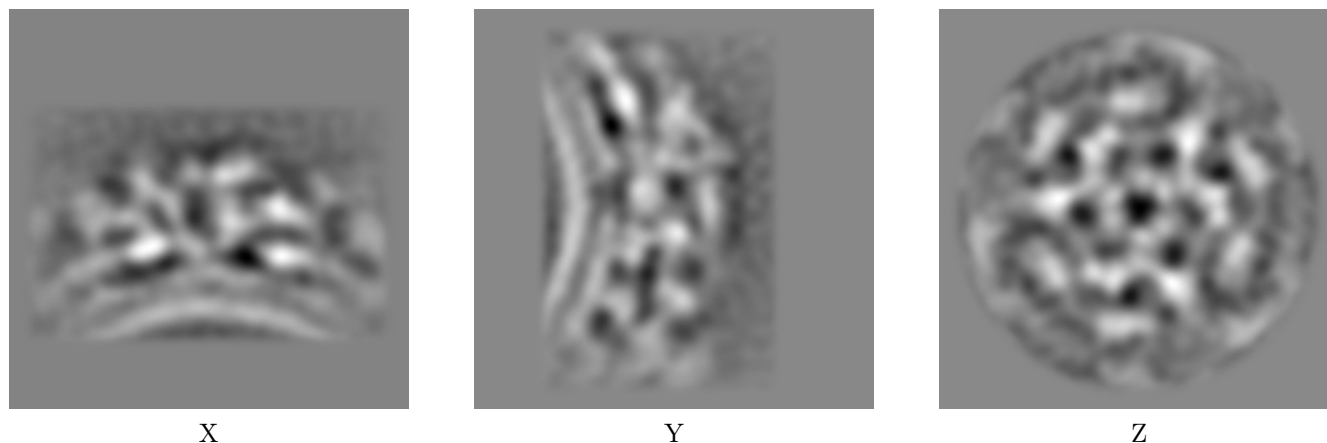
5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Tomogram visualisation [i](#)

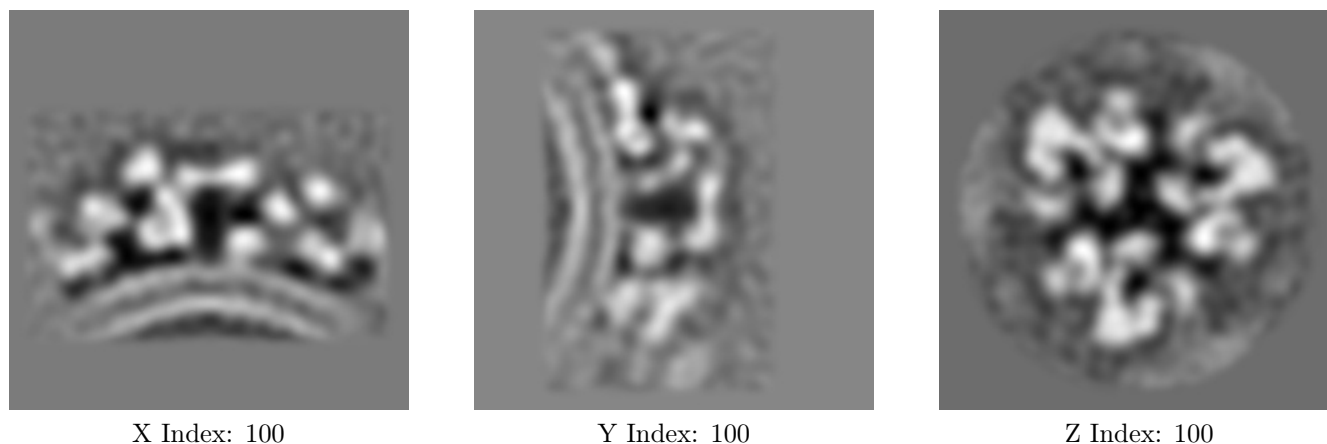
This section contains visualisations of the EMDB entry EMD-2987. These allow visual inspection of the internal detail of the tomogram and identification of artifacts.

6.1 Orthogonal projections [i](#)



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

6.2 Central slices [i](#)

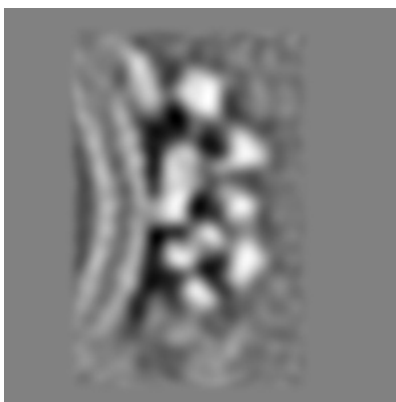


The images above show central slices of the tomogram in three orthogonal directions.

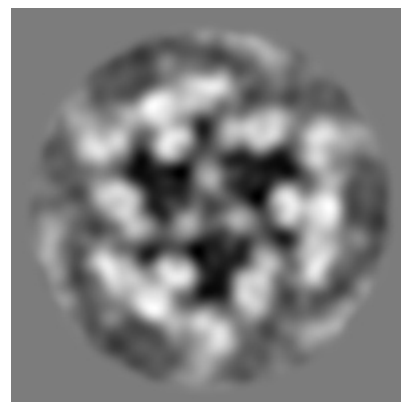
6.3 Largest variance slices [i](#)



X Index: 99



Y Index: 118



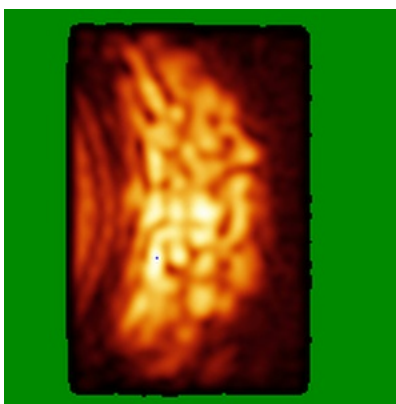
Z Index: 75

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

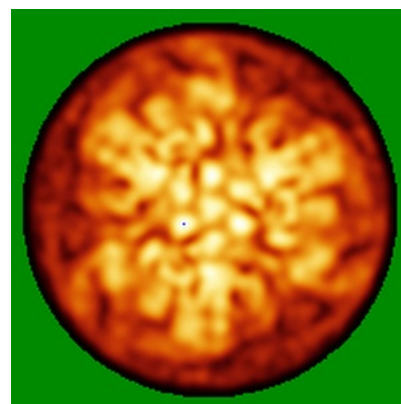
6.4 Orthogonal standard-deviation projections (False-color) [i](#)



X



Y



Z

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

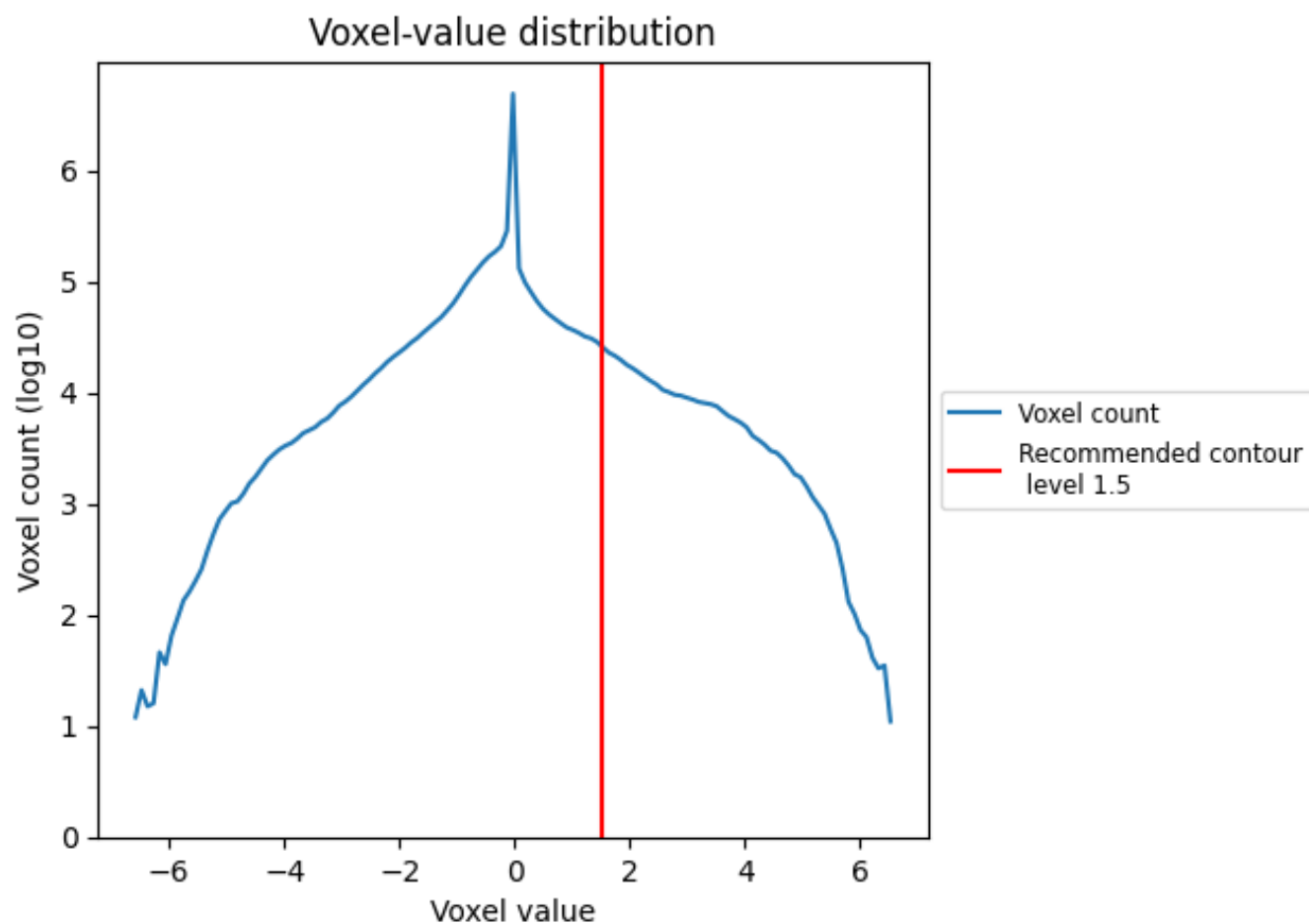
6.5 Mask visualisation [i](#)

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

7 Tomogram analysis [i](#)

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

7.1 Voxel-value distribution [i](#)



The voxel-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic.

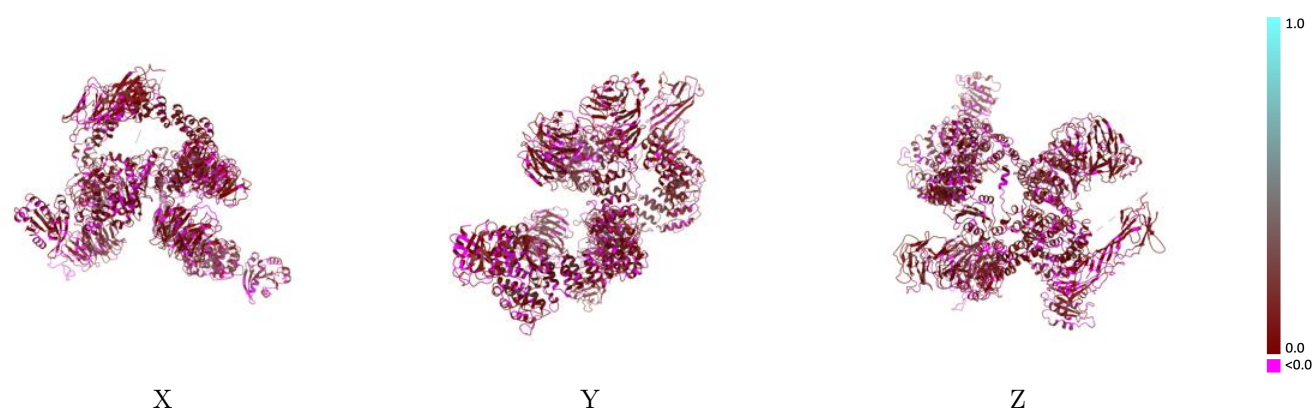
8 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-2987 and PDB model 5A1W. Per-residue inclusion information can be found in section [3](#) on page [7](#).

8.1 Map-model overlay [i](#)

This section was not generated.

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

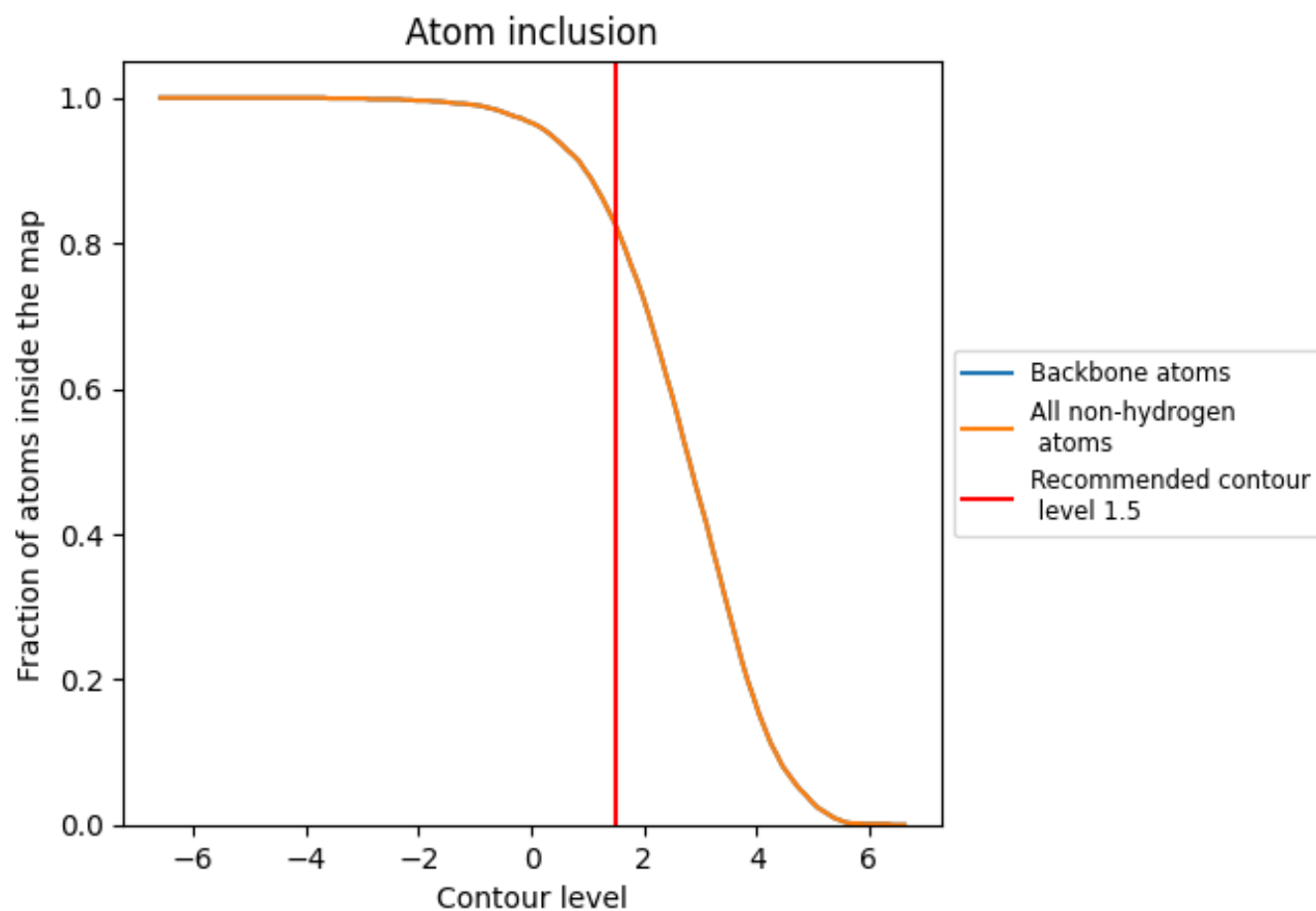


The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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

This section was not generated.

8.4 Atom inclusion [i](#)



At the recommended contour level, 82% of all backbone atoms, 82% of all non-hydrogen atoms, are inside the map.

8.5 Map-model fit summary ⓘ

The table lists the average atom inclusion at the recommended contour level (1.5) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.8250	0.0700
A	0.6450	0.0560
B	0.8110	0.0630
C	0.8160	0.0700
D	0.8890	0.0740
E	0.8090	0.0710
F	0.8290	0.0670
G	0.8480	0.0740
H	0.7590	0.0570

1.0

0.0

<0.0