



Full wwPDB EM Validation Report ⓘ

Mar 21, 2026 – 05:55 PM UTC

PDB ID : 5ARI / pdb_00005ari
EMDB ID : EMD-3167
Title : Bovine mitochondrial ATP synthase state 2b
Authors : Zhou, A.; Rohou, A.; Schep, D.G.; Bason, J.V.; Montgomery, M.G.; Walker, J.E.; Grigorieff, N.; Rubinstein, J.L.
Deposited on : 2015-09-24
Resolution : 7.40 Å (reported)
Based on initial models : 2WSS, 2CLY, 2XND

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

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

A user guide is available at

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

The types of validation reports are described at

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

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

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

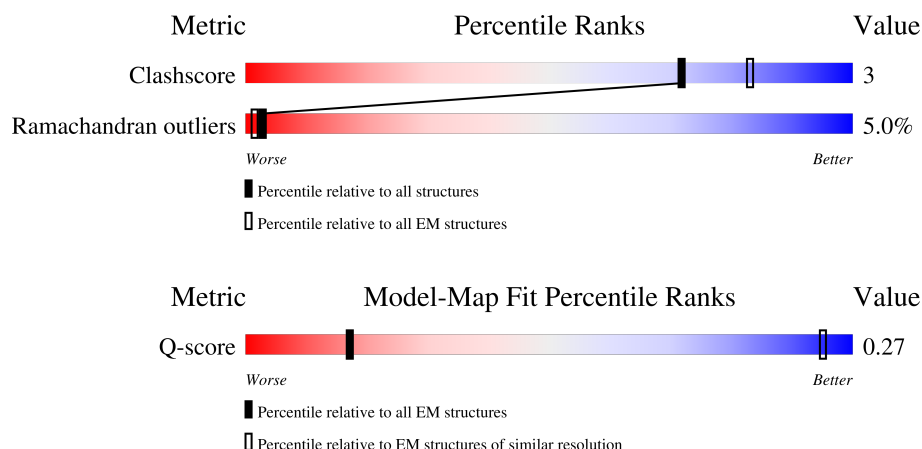
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 7.40 Å.

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



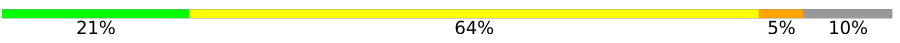
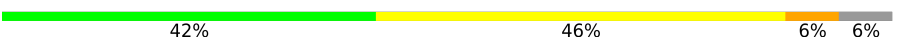
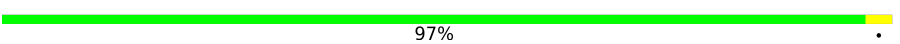
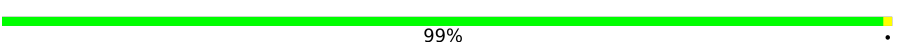
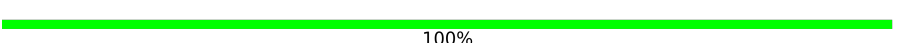
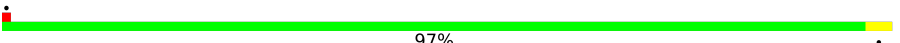
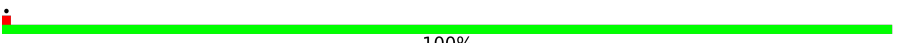
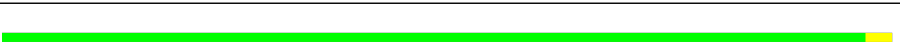
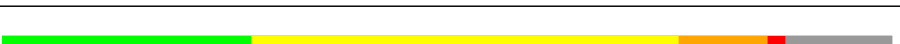
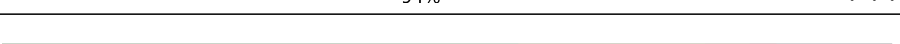
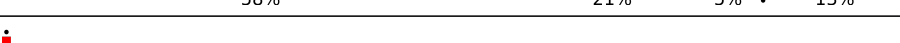
Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Q-score	-	25397	412 (6.90 - 7.90)

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

Mol	Chain	Length	Quality of chain
1	A	510	44% 51% 5%
1	B	510	38% 50% 5% • 6%
1	C	510	40% 51% • 5%
2	D	482	40% 53% • •
2	E	482	39% 53% • • •

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

2 Entry composition [i](#)

There are 11 unique types of molecules in this entry. The entry contains 18545 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a protein called ATP SYNTHASE SUBUNIT ALPHA, MITOCHONDRIAL.

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

There are 3 discrepancies between the modelled and reference sequences:

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

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

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

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

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

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

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

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

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

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

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

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

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

There is a discrepancy between the modelled and reference sequences:

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

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

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

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

Mol	Chain	Residues	Atoms				AltConf	Trace
9	U	122	Total	C	N	O	0	1
			485	242	122	121		

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

Mol	Chain	Residues	Atoms				AltConf	Trace
10	V	67	Total	C	N	O	0	1
			265	132	67	66		

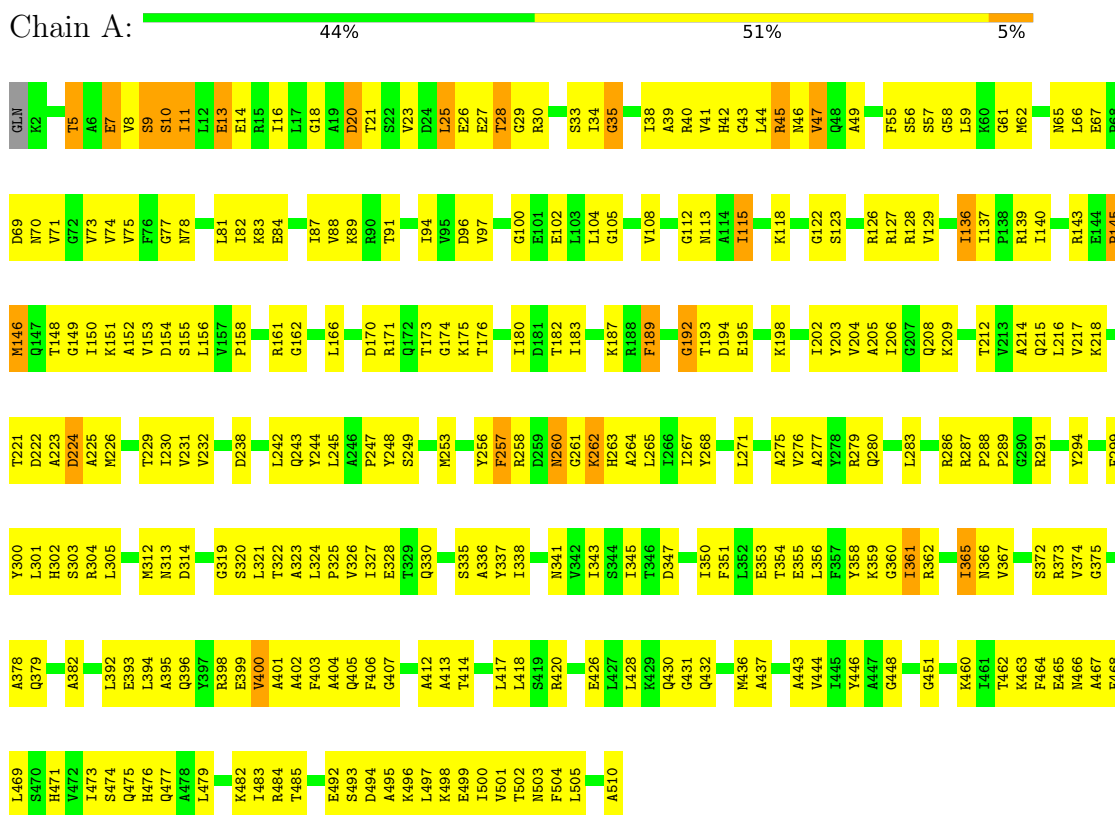
- Molecule 11 is a protein called ATP SYNTHASE SUBUNIT BETA, MITOCHONDRIAL.

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

3 Residue-property plots

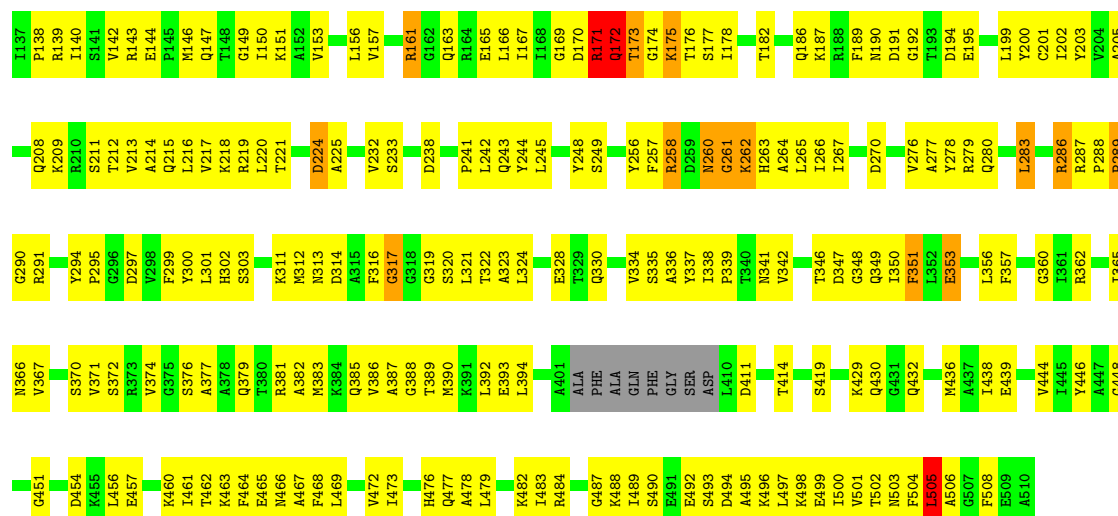
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion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

• Molecule 1: ATP SYNTHASE SUBUNIT ALPHA, MITOCHONDRIAL



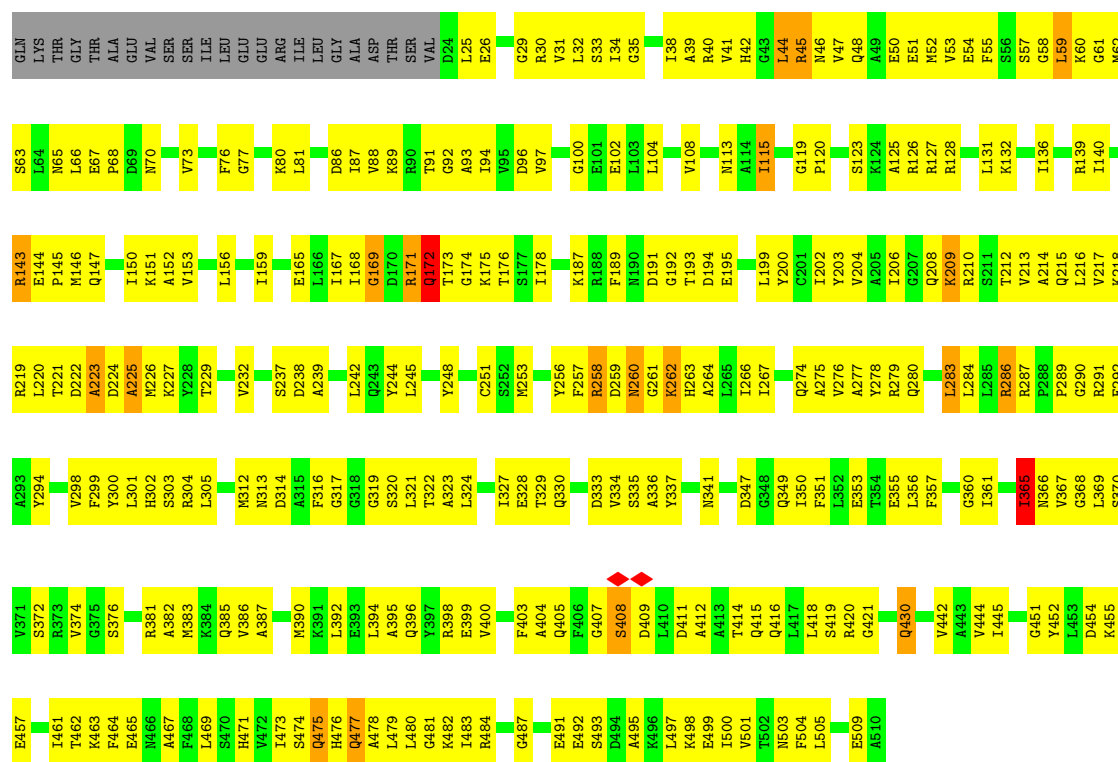
• Molecule 1: ATP SYNTHASE SUBUNIT ALPHA, MITOCHONDRIAL





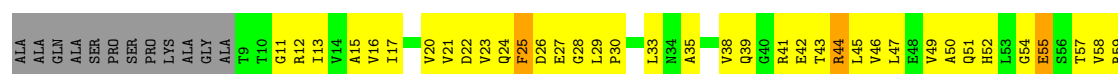
• Molecule 1: ATP SYNTHASE SUBUNIT ALPHA, MITOCHONDRIAL

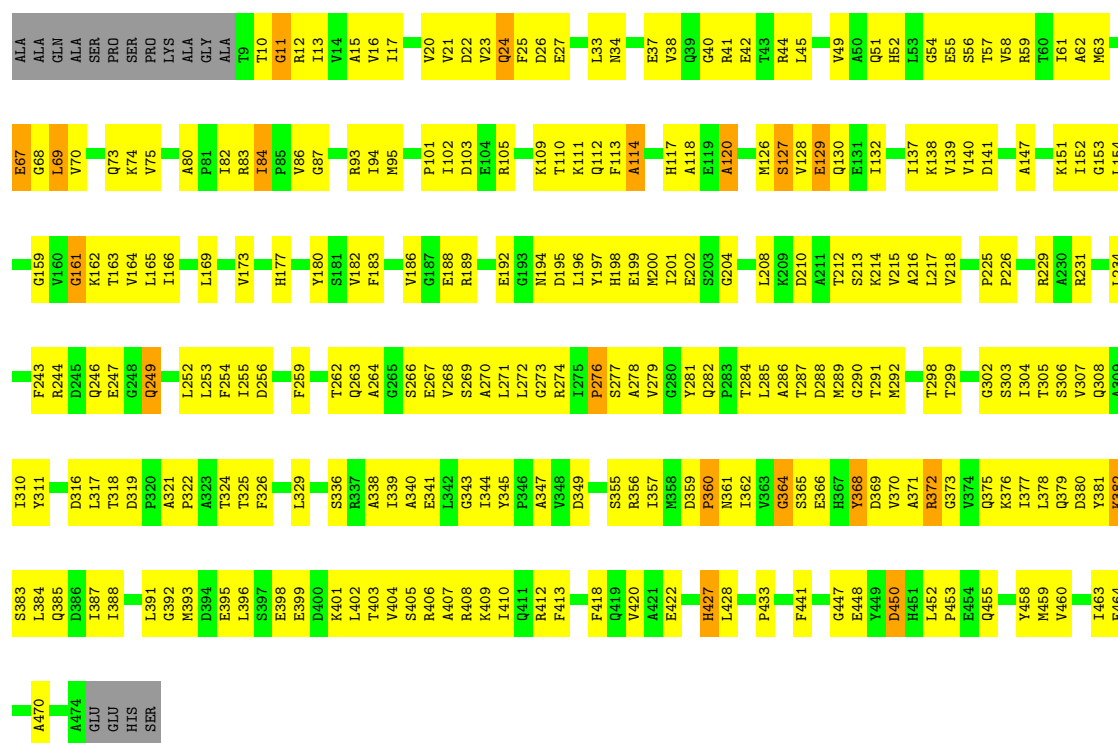
Chain C: 40% 51% • 5%



• Molecule 2: ATP SYNTHASE SUBUNIT BETA, MITOCHONDRIAL

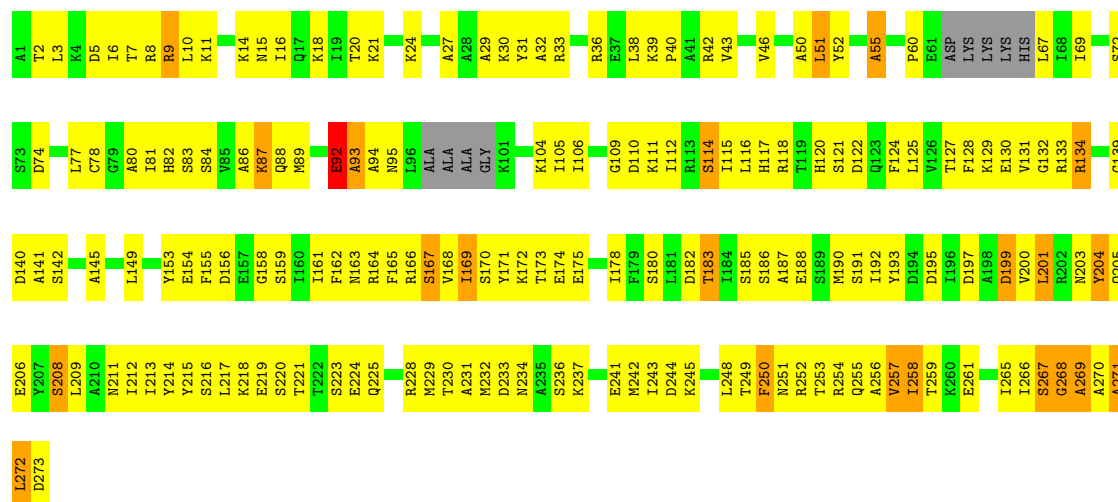
Chain D: 40% 53% • •





• Molecule 3: ATP SYNTHASE SUBUNIT GAMMA, MITOCHONDRIAL

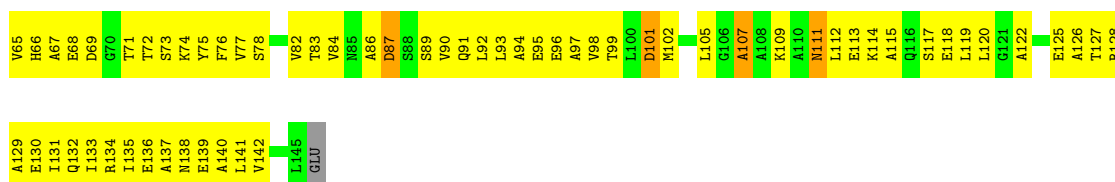
Chain G: 32% 57% 8% .



• Molecule 4: ATP SYNTHASE SUBUNIT DELTA, MITOCHONDRIAL

Chain H: 21% 64% 5% 10%





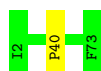
- Molecule 5: ATP SYNTHASE SUBUNIT EPSILON, MITOCHONDRIAL



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



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



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



There are no outlier residues recorded for this chain.

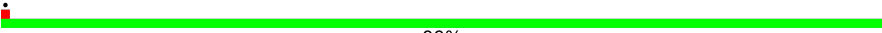
- Molecule 6: ATP SYNTHASE F(0) COMPLEX SUBUNIT C1, MITOCHONDRIAL



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



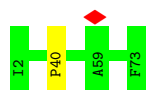
- Molecule 6: ATP SYNTHASE F(0) COMPLEX SUBUNIT C1, MITOCHONDRIAL

Chain O:  99%

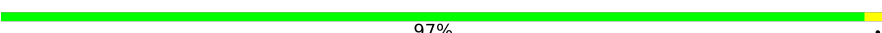


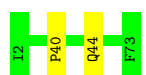
- Molecule 6: ATP SYNTHASE F(0) COMPLEX SUBUNIT C1, MITOCHONDRIAL

Chain P:  99%

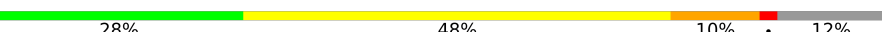


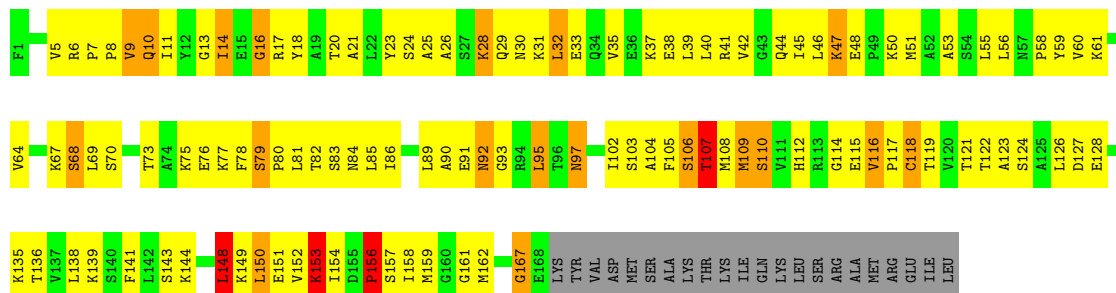
- Molecule 6: ATP SYNTHASE F(0) COMPLEX SUBUNIT C1, MITOCHONDRIAL

Chain Q:  97%



- Molecule 7: ATP SYNTHASE SUBUNIT O, MITOCHONDRIAL

Chain S:  28% 48% 10% 12%



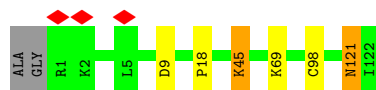
- Molecule 8: ATP SYNTHASE F(0) COMPLEX SUBUNIT B1, MITOCHONDRIAL

Chain T:  81% 14%



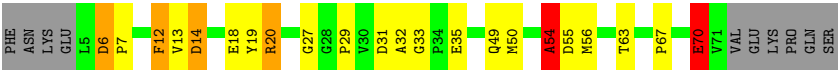
- Molecule 9: ATP SYNTHASE SUBUNIT D, MITOCHONDRIAL

Chain U:  94%



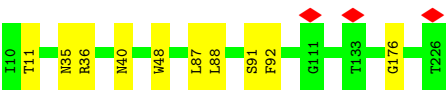
- Molecule 10: ATP SYNTHASE-COUPPLING FACTOR 6, MITOCHONDRIAL

Chain V:  58% 21% 5% 13%



● Molecule 11: ATP SYNTHASE SUBUNIT BETA, MITOCHONDRIAL

Chain W:  95% 5%



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	17610	Depositor
Resolution determination method	Not provided	
CTF correction method	EACH PARTICLE	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	60.3	Depositor
Minimum defocus (nm)	1200	Depositor
Maximum defocus (nm)	4100	Depositor
Magnification	30487	Depositor
Image detector	GATAN K2 (4k x 4k)	Depositor
Maximum map value	0.395	Depositor
Minimum map value	-0.096	Depositor
Average map value	-0.000	Depositor
Map value standard deviation	0.022	Depositor
Recommended contour level	0.13	Depositor
Map size ($\text{\AA}$)	419.84, 419.84, 419.84	wwPDB
Map dimensions	256, 256, 256	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing ($\text{\AA}$)	1.64, 1.64, 1.64	Depositor

5 Model quality

5.1 Standard geometry

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# $ Z > 5$	RMSZ	# $ Z > 5$
1	A	3.15	232/2034 (11.4%)	2.66	180/2541 (7.1%)
1	B	3.29	265/1916 (13.8%)	2.67	170/2392 (7.1%)
1	C	3.20	250/1946 (12.8%)	2.57	151/2431 (6.2%)
2	D	3.19	225/1866 (12.1%)	2.65	152/2331 (6.5%)
2	E	3.15	221/1862 (11.9%)	2.68	175/2326 (7.5%)
2	F	3.16	226/1862 (12.1%)	2.70	160/2326 (6.9%)
3	G	3.55	170/1050 (16.2%)	2.66	79/1308 (6.0%)
4	H	3.73	100/522 (19.2%)	2.85	63/651 (9.7%)
5	I	3.45	24/186 (12.9%)	2.92	17/231 (7.4%)
6	J	0.51	0/287	1.01	0/357
6	K	0.51	0/287	1.00	0/357
6	L	0.52	0/287	0.98	0/357
6	M	0.49	0/287	1.03	0/357
6	N	0.50	0/287	0.99	0/357
6	O	0.51	0/287	1.02	0/357
6	P	0.49	0/287	1.00	0/357
6	Q	0.49	0/287	0.98	0/357
7	S	2.99	70/668 (10.5%)	3.57	83/834 (10.0%)
8	T	1.26	2/696 (0.3%)	2.13	27/867 (3.1%)
9	U	1.04	0/484	3.02	7/604 (1.2%)
10	V	1.21	1/264 (0.4%)	2.36	7/329 (2.1%)
11	W	0.78	0/868	1.53	2/1082 (0.2%)
All	All	2.83	1786/18520 (9.6%)	2.50	1273/23109 (5.5%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	6
1	B	0	2
1	C	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
2	D	0	6
2	E	0	3
2	F	0	2
3	G	0	2
7	S	0	11
8	T	0	18
9	U	0	2
10	V	0	20
11	W	0	5
All	All	0	78

All (1786) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	G	248	LEU	CA-C	-13.36	1.41	1.52
3	G	252	ARG	CA-C	-13.08	1.36	1.52
2	D	153	GLY	CA-C	-12.44	1.43	1.52
4	H	28	PHE	CA-C	-12.10	1.37	1.52
2	E	74	LYS	CA-C	-11.99	1.38	1.52
1	A	501	VAL	CA-C	-10.95	1.39	1.52
1	B	337	TYR	CA-C	-10.82	1.39	1.52
1	C	193	THR	CA-C	-10.78	1.40	1.52
4	H	19	THR	CA-C	-10.78	1.39	1.52
2	D	173	VAL	CA-C	-10.78	1.39	1.52
1	A	26	GLU	CA-C	-10.69	1.39	1.52
2	F	196	LEU	CA-C	-10.47	1.39	1.52
2	D	333	THR	CA-C	-10.41	1.40	1.52
3	G	245	LYS	CA-C	-10.33	1.39	1.52
1	A	337	TYR	CA-C	-10.27	1.39	1.52
2	F	369	ASP	CA-C	-10.07	1.39	1.52
2	F	74	LYS	CA-C	-10.07	1.39	1.52
4	H	131	ILE	CA-C	-9.93	1.40	1.52
1	B	30	ARG	CA-C	-9.92	1.40	1.52
2	D	51	GLN	CA-C	-9.91	1.40	1.52
2	F	23	VAL	CA-C	-9.85	1.40	1.52
1	B	301	LEU	CA-C	-9.82	1.39	1.52
1	C	215	GLN	N-CA	-9.79	1.34	1.46
3	G	251	ASN	CA-C	-9.78	1.39	1.52
2	F	12	ARG	CA-C	-9.77	1.40	1.52
3	G	42	ARG	CA-C	-9.75	1.40	1.52
2	E	23	VAL	CA-C	-9.74	1.41	1.52
5	I	15	SER	CA-C	-9.67	1.40	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	G	259	THR	CA-C	-9.66	1.40	1.52
1	A	299	PHE	CA-C	-9.63	1.40	1.52
1	C	500	ILE	CA-C	-9.59	1.41	1.52
1	A	97	VAL	CA-C	-9.54	1.42	1.52
1	C	41	VAL	CA-C	-9.54	1.40	1.52
1	B	501	VAL	CA-C	-9.50	1.41	1.52
2	F	244	ARG	CA-C	-9.50	1.40	1.52
1	B	97	VAL	CA-C	-9.46	1.43	1.52
2	F	372	ARG	CA-C	-9.44	1.39	1.52
1	B	217	VAL	CA-C	-9.41	1.40	1.52
2	E	153	GLY	CA-C	-9.40	1.45	1.52
1	A	263	HIS	CA-C	-9.36	1.41	1.52
2	F	112	GLN	CA-C	-9.35	1.41	1.52
1	B	499	GLU	CA-C	-9.31	1.40	1.52
2	D	289	MET	CA-C	-9.27	1.40	1.52
2	E	12	ARG	CA-C	-9.27	1.41	1.52
2	F	11	GLY	CA-C	-9.26	1.44	1.52
4	H	135	ILE	CA-C	-9.21	1.41	1.52
4	H	109	LYS	CA-C	-9.20	1.41	1.52
1	B	411	ASP	CA-C	-9.18	1.40	1.52
2	F	380	ASP	CA-C	-9.18	1.41	1.52
2	D	11	GLY	CA-C	-9.08	1.44	1.52
1	B	86	ASP	CA-C	-9.07	1.41	1.52
1	B	263	HIS	CA-C	-9.06	1.42	1.52
1	A	497	LEU	CA-C	-9.05	1.41	1.52
1	C	40	ARG	CA-C	-9.03	1.41	1.52
1	A	175	LYS	CA-C	-9.00	1.41	1.52
3	G	129	LYS	CA-C	-9.00	1.41	1.52
2	F	402	LEU	CA-C	-8.99	1.41	1.52
1	A	8	VAL	CA-C	-8.98	1.41	1.52
3	G	172	LYS	CA-C	-8.98	1.41	1.52
2	E	11	GLY	CA-C	-8.97	1.44	1.52
1	C	65	ASN	CA-C	-8.96	1.41	1.52
4	H	16	MET	CA-C	-8.96	1.41	1.52
1	A	279	ARG	CA-C	-8.96	1.41	1.52
1	B	216	LEU	CA-C	-8.95	1.41	1.52
3	G	252	ARG	N-CA	-8.95	1.35	1.46
4	H	128	ARG	CA-C	-8.93	1.41	1.52
2	E	58	VAL	CA-C	-8.93	1.42	1.52
3	G	243	ILE	CA-C	-8.91	1.42	1.52
3	G	50	ALA	CA-C	-8.91	1.42	1.53
2	E	365	SER	CA-C	-8.88	1.40	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	I	14	TYR	CA-C	-8.87	1.41	1.52
2	E	253	LEU	CA-C	-8.86	1.42	1.52
2	D	141	ASP	CA-C	-8.86	1.41	1.52
1	B	390	MET	CA-C	-8.84	1.41	1.52
4	H	83	THR	CA-C	-8.83	1.41	1.52
1	C	33	SER	CA-C	-8.82	1.41	1.52
1	B	262	LYS	CA-C	-8.81	1.41	1.53
2	F	246	GLN	CA-C	-8.81	1.41	1.52
5	I	44	ILE	CA-C	-8.81	1.45	1.53
5	I	45	VAL	CA-C	-8.81	1.43	1.52
1	C	202	ILE	CA-C	-8.80	1.41	1.52
2	E	52	HIS	CA-C	-8.80	1.41	1.52
4	H	132	GLN	N-CA	-8.80	1.35	1.46
3	G	266	ILE	CA-C	-8.78	1.41	1.52
4	H	94	ALA	CA-C	-8.76	1.42	1.52
2	F	57	THR	CA-C	-8.74	1.42	1.52
1	C	312	MET	CA-C	-8.74	1.42	1.52
1	A	464	PHE	CA-C	-8.73	1.41	1.52
2	E	25	PHE	CA-C	-8.70	1.42	1.52
5	I	20	LYS	CA-C	-8.70	1.41	1.52
2	D	169	LEU	CA-C	-8.66	1.41	1.52
2	F	25	PHE	CA-C	-8.66	1.42	1.52
1	C	464	PHE	CA-C	-8.66	1.41	1.52
1	A	499	GLU	CA-C	-8.65	1.41	1.52
4	H	20	PHE	N-CA	-8.64	1.35	1.46
5	I	13	ARG	CA-C	-8.64	1.41	1.52
5	I	14	TYR	N-CA	-8.63	1.36	1.46
1	C	194	ASP	CA-C	-8.61	1.42	1.52
1	C	287	ARG	CA-C	-8.58	1.42	1.52
4	H	98	VAL	CA-C	-8.58	1.42	1.52
1	B	279	ARG	CA-C	-8.57	1.42	1.52
1	C	286	ARG	CA-C	-8.57	1.42	1.53
2	D	377	ILE	CA-C	-8.57	1.41	1.52
2	F	288	ASP	CA-C	-8.57	1.41	1.52
7	S	162	MET	CA-C	-8.57	1.41	1.52
1	C	263	HIS	CA-C	-8.56	1.42	1.52
1	C	259	ASP	CA-C	-8.56	1.41	1.52
2	D	57	THR	CA-C	-8.56	1.42	1.52
2	E	57	THR	CA-C	-8.53	1.42	1.52
2	F	274	ARG	CA-C	-8.52	1.42	1.52
1	A	25	LEU	CA-C	-8.51	1.45	1.53
1	B	324	LEU	CA-C	-8.51	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	D	376	LYS	N-CA	-8.51	1.36	1.46
3	G	267	SER	CA-C	-8.50	1.43	1.53
3	G	174	GLU	CA-C	-8.50	1.42	1.52
2	E	252	LEU	CA-C	-8.45	1.42	1.52
4	H	92	LEU	CA-C	-8.45	1.42	1.52
3	G	219	GLU	N-CA	-8.44	1.35	1.46
1	A	30	ARG	CA-C	-8.44	1.42	1.52
3	G	249	THR	CA-C	-8.44	1.41	1.52
2	F	173	VAL	CA-C	-8.43	1.42	1.52
3	G	36	ARG	CA-C	-8.43	1.42	1.52
1	A	38	ILE	CA-C	-8.42	1.41	1.52
1	C	301	LEU	CA-C	-8.42	1.41	1.52
3	G	33	ARG	CA-C	-8.41	1.42	1.52
1	B	208	GLN	CA-C	-8.41	1.42	1.52
7	S	112	HIS	CA-C	-8.41	1.41	1.52
2	E	377	ILE	CA-C	-8.39	1.42	1.52
1	B	372	SER	CA-C	-8.38	1.42	1.52
2	F	289	MET	N-CA	-8.38	1.36	1.46
4	H	19	THR	N-CA	-8.38	1.35	1.46
7	S	21	ALA	CA-C	-8.38	1.42	1.52
2	D	375	GLN	CA-C	-8.37	1.41	1.52
3	G	257	VAL	CA-C	-8.36	1.42	1.52
1	B	464	PHE	CA-C	-8.34	1.42	1.52
1	B	175	LYS	CA-C	-8.33	1.42	1.52
2	D	299	THR	CA-C	-8.32	1.44	1.53
3	G	256	ALA	CA-C	-8.32	1.41	1.52
1	C	479	LEU	CA-C	-8.30	1.42	1.52
2	D	45	LEU	CA-C	-8.30	1.42	1.53
1	B	465	GLU	CA-C	-8.28	1.42	1.52
2	D	369	ASP	CA-C	-8.28	1.42	1.52
1	B	41	VAL	CA-C	-8.28	1.42	1.52
2	D	25	PHE	CA-C	-8.27	1.42	1.52
1	C	320	SER	CA-C	-8.27	1.42	1.52
1	A	244	TYR	N-CA	-8.26	1.36	1.46
1	A	70	ASN	CA-C	-8.26	1.42	1.52
1	B	266	ILE	CA-C	-8.26	1.42	1.52
1	A	500	ILE	CA-C	-8.26	1.42	1.52
1	A	8	VAL	N-CA	-8.25	1.36	1.46
7	S	119	THR	CA-C	-8.24	1.42	1.52
1	C	361	ILE	CA-C	-8.23	1.43	1.53
2	D	24	GLN	CA-C	-8.23	1.42	1.52
2	D	80	ALA	CA-C	-8.23	1.42	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	H	91	GLN	N-CA	-8.22	1.36	1.46
1	C	501	VAL	CA-C	-8.21	1.42	1.52
4	H	90	VAL	CA-C	-8.21	1.42	1.52
1	A	257	PHE	CA-C	-8.21	1.42	1.52
2	D	316	ASP	CA-C	-8.20	1.42	1.52
1	A	34	ILE	CA-C	-8.17	1.42	1.52
1	C	203	TYR	CA-C	-8.17	1.42	1.52
2	E	366	GLU	CA-C	-8.16	1.42	1.52
1	B	70	ASN	CA-C	-8.16	1.42	1.52
2	E	58	VAL	N-CA	-8.15	1.36	1.46
2	E	400	ASP	N-CA	-8.14	1.36	1.46
1	B	127	ARG	CA-C	-8.12	1.42	1.52
2	E	84	ILE	CA-C	-8.12	1.43	1.52
2	E	59	ARG	CA-C	-8.10	1.43	1.52
2	F	249	GLN	CA-C	-8.09	1.42	1.52
2	F	51	GLN	CA-C	-8.09	1.42	1.52
1	B	157	VAL	N-CA	-8.07	1.40	1.46
2	D	368	TYR	N-CA	-8.06	1.36	1.46
1	A	41	VAL	CA-C	-8.06	1.42	1.52
1	C	89	LYS	CA-C	-8.04	1.42	1.52
1	B	299	PHE	CA-C	-8.04	1.42	1.52
1	C	503	ASN	CA-C	-8.03	1.42	1.52
1	A	505	LEU	CA-C	-8.03	1.42	1.52
1	B	500	ILE	CA-C	-8.03	1.43	1.52
1	B	219	ARG	CA-C	-8.01	1.42	1.52
2	F	253	LEU	CA-C	-8.01	1.43	1.52
2	F	308	GLN	CA-C	-8.01	1.43	1.52
2	E	80	ALA	N-CA	-8.00	1.38	1.46
2	D	367	HIS	CA-C	-8.00	1.42	1.52
2	E	290	GLY	CA-C	-7.99	1.43	1.52
3	G	217	LEU	CA-C	-7.98	1.42	1.52
7	S	118	CYS	CA-C	-7.98	1.43	1.52
3	G	170	SER	CA-C	-7.97	1.42	1.52
1	C	473	ILE	CA-C	-7.97	1.43	1.52
1	B	338	ILE	CA-C	-7.97	1.45	1.52
4	H	111	ASN	CA-C	-7.96	1.42	1.52
5	I	19	ALA	CA-C	-7.94	1.42	1.52
2	D	334	VAL	CA-C	-7.94	1.42	1.52
1	C	73	VAL	CA-C	-7.93	1.42	1.52
1	C	203	TYR	N-CA	-7.93	1.36	1.46
2	D	244	ARG	CA-C	-7.93	1.42	1.52
1	B	221	THR	CA-C	-7.92	1.42	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	257	PHE	CA-C	-7.91	1.42	1.52
3	G	174	GLU	N-CA	-7.91	1.36	1.45
1	B	176	THR	N-CA	-7.90	1.36	1.46
3	G	18	LYS	CA-C	-7.90	1.42	1.52
2	D	162	LYS	CA-C	-7.90	1.42	1.52
1	C	88	VAL	N-CA	-7.89	1.36	1.46
1	C	126	ARG	CA-C	-7.89	1.42	1.52
4	H	56	GLN	CA-C	-7.88	1.43	1.52
2	F	67	GLU	CA-C	-7.88	1.42	1.52
1	A	324	LEU	CA-C	-7.87	1.44	1.52
2	E	22	ASP	CA-C	-7.87	1.43	1.52
2	E	197	TYR	CA-C	-7.87	1.42	1.52
1	B	166	LEU	CA-C	-7.86	1.42	1.52
1	B	213	VAL	N-CA	-7.86	1.37	1.46
1	A	67	GLU	C-N	-7.85	1.26	1.34
2	E	51	GLN	CA-C	-7.85	1.43	1.52
1	A	493	SER	CA-C	-7.84	1.42	1.52
1	C	187	LYS	CA-C	-7.83	1.42	1.52
2	F	259	PHE	N-CA	-7.83	1.36	1.46
3	G	234	ASN	CA-C	-7.82	1.43	1.52
2	F	21	VAL	CA-C	-7.82	1.43	1.52
2	F	373	GLY	CA-C	-7.80	1.43	1.52
1	B	267	ILE	N-CA	-7.78	1.36	1.46
1	A	70	ASN	N-CA	-7.78	1.37	1.46
1	C	279	ARG	CA-C	-7.77	1.43	1.52
2	E	24	GLN	CA-C	-7.77	1.43	1.52
3	G	261	GLU	CA-C	-7.76	1.42	1.52
2	D	409	LYS	CA-C	-7.75	1.42	1.52
1	A	217	VAL	CA-C	-7.74	1.43	1.52
2	D	59	ARG	CA-C	-7.74	1.43	1.52
1	A	479	LEU	CA-C	-7.72	1.42	1.52
3	G	51	LEU	CA-C	-7.72	1.42	1.52
1	A	356	LEU	CA-C	-7.71	1.43	1.52
7	S	44	GLN	CA-C	-7.71	1.42	1.52
2	D	246	GLN	CA-C	-7.70	1.43	1.52
2	D	231	ARG	CA-C	-7.70	1.42	1.52
4	H	130	GLU	CA-C	-7.70	1.42	1.52
7	S	90	ALA	CA-C	-7.69	1.43	1.52
1	B	65	ASN	CA-C	-7.69	1.43	1.52
2	E	376	LYS	N-CA	-7.68	1.37	1.46
2	F	182	VAL	CA-C	-7.67	1.43	1.52
2	D	387	ILE	CA-C	-7.67	1.43	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	G	6	ILE	CA-C	-7.66	1.43	1.52
2	D	378	LEU	CA-C	-7.66	1.43	1.52
3	G	21	LYS	CA-C	-7.66	1.43	1.52
1	C	481	GLY	CA-C	-7.65	1.43	1.51
5	I	16	GLN	CA-C	-7.64	1.42	1.52
2	D	292	MET	CA-C	-7.64	1.43	1.53
1	B	212	THR	CA-C	-7.63	1.43	1.52
3	G	173	THR	CA-C	-7.62	1.42	1.52
3	G	163	ASN	CA-C	-7.62	1.43	1.52
1	B	27	GLU	CA-C	-7.61	1.42	1.52
2	F	370	VAL	CA-C	-7.61	1.43	1.52
2	F	404	VAL	CA-C	-7.60	1.43	1.52
1	C	30	ARG	CA-C	-7.60	1.43	1.52
2	D	74	LYS	CA-C	-7.60	1.43	1.52
3	G	128	PHE	CA-C	-7.59	1.43	1.52
2	D	467	VAL	CA-C	-7.59	1.43	1.52
1	C	394	LEU	CA-C	-7.59	1.42	1.52
3	G	162	PHE	CA-C	-7.59	1.43	1.52
1	A	502	THR	CA-C	-7.58	1.43	1.52
2	E	459	MET	CA-C	-7.58	1.46	1.53
2	D	421	ALA	CA-C	-7.58	1.44	1.53
1	A	351	PHE	CA-C	-7.57	1.43	1.52
3	G	155	PHE	CA-C	-7.57	1.43	1.52
2	E	80	ALA	CA-C	-7.56	1.43	1.52
1	A	202	ILE	CA-C	-7.56	1.43	1.52
1	C	277	ALA	CA-C	-7.55	1.43	1.52
1	C	457	GLU	CA-C	-7.55	1.44	1.52
1	B	286	ARG	CA-C	-7.55	1.42	1.53
1	C	370	SER	CA-C	-7.55	1.43	1.52
1	A	127	ARG	CA-C	-7.54	1.43	1.52
3	G	105	ILE	CA-C	-7.54	1.43	1.52
3	G	154	GLU	CA-C	-7.54	1.43	1.52
1	B	497	LEU	CA-C	-7.54	1.43	1.52
4	H	138	ASN	CA-C	-7.54	1.43	1.52
2	D	84	ILE	CA-C	-7.53	1.43	1.52
4	H	51	HIS	CA-C	-7.53	1.42	1.52
3	G	219	GLU	CA-C	-7.53	1.43	1.52
2	E	298	THR	CA-C	-7.52	1.43	1.52
2	D	21	VAL	CA-C	-7.52	1.43	1.52
1	B	258	ARG	CA-C	-7.51	1.43	1.52
2	F	377	ILE	CA-C	-7.51	1.43	1.52
2	E	244	ARG	CA-C	-7.51	1.43	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	108	VAL	CA-C	-7.51	1.43	1.52
1	B	33	SER	CA-C	-7.51	1.43	1.52
2	D	113	PHE	CA-C	-7.51	1.43	1.52
2	F	140	VAL	CA-C	-7.51	1.44	1.52
3	G	31	TYR	N-CA	-7.50	1.37	1.46
4	H	90	VAL	N-CA	-7.50	1.37	1.46
2	D	58	VAL	N-CA	-7.50	1.37	1.46
3	G	156	ASP	N-CA	-7.50	1.39	1.46
2	E	37	GLU	CA-C	-7.49	1.43	1.52
4	H	97	ALA	CA-C	-7.49	1.43	1.52
2	E	41	ARG	CA-C	-7.48	1.43	1.52
3	G	205	GLN	CA-C	-7.48	1.42	1.52
3	G	104	LYS	CA-C	-7.47	1.43	1.52
2	F	198	HIS	CA-C	-7.47	1.42	1.52
1	A	73	VAL	CA-C	-7.47	1.42	1.52
1	B	302	HIS	CA-C	-7.47	1.42	1.52
1	C	283	LEU	CA-C	-7.46	1.43	1.52
1	B	493	SER	CA-C	-7.46	1.43	1.52
1	C	504	PHE	CA-C	-7.46	1.43	1.52
2	E	352	ASP	CA-C	-7.46	1.43	1.53
4	H	58	LEU	CA-C	-7.46	1.43	1.52
1	B	469	LEU	CA-C	-7.45	1.43	1.52
7	S	107	THR	C-N	7.45	1.44	1.33
1	A	468	PHE	CA-C	-7.44	1.43	1.52
2	E	336	SER	CA-C	-7.44	1.43	1.52
3	G	7	THR	CA-C	-7.44	1.43	1.52
2	F	218	VAL	CA-C	-7.44	1.43	1.52
2	F	366	GLU	CA-C	-7.43	1.43	1.52
1	B	283	LEU	CA-C	-7.43	1.43	1.52
2	E	95	MET	CA-C	-7.43	1.43	1.52
1	A	430	GLN	CA-C	-7.42	1.43	1.52
2	E	213	SER	CA-C	-7.42	1.43	1.52
2	D	54	GLY	CA-C	-7.42	1.44	1.52
2	D	329	LEU	CA-C	-7.42	1.43	1.52
2	F	281	TYR	CA-C	-7.42	1.43	1.52
1	A	451	GLY	CA-C	-7.42	1.42	1.52
1	C	416	GLN	CA-C	-7.41	1.43	1.52
2	E	200	MET	CA-C	-7.40	1.43	1.52
1	A	294	TYR	CA-C	-7.39	1.43	1.52
1	C	31	VAL	CA-C	-7.39	1.44	1.53
3	G	9	ARG	CA-C	-7.39	1.42	1.52
4	H	65	VAL	CA-C	-7.39	1.43	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	60	LYS	CA-C	-7.38	1.43	1.52
4	H	91	GLN	CA-C	-7.38	1.44	1.52
1	B	202	ILE	CA-C	-7.38	1.43	1.52
1	B	147	GLN	CA-C	-7.37	1.43	1.52
2	D	13	ILE	CA-C	-7.37	1.44	1.52
2	E	47	LEU	CA-C	-7.37	1.44	1.52
1	C	171	ARG	CA-C	-7.37	1.42	1.52
1	C	260	ASN	CA-C	-7.37	1.44	1.53
1	B	291	ARG	CA-C	-7.36	1.43	1.52
2	E	139	VAL	N-CA	-7.36	1.37	1.46
1	C	280	GLN	CA-C	-7.36	1.43	1.52
1	B	150	ILE	CA-C	-7.36	1.43	1.52
2	D	140	VAL	CA-C	-7.35	1.44	1.52
2	D	254	PHE	CA-C	-7.35	1.43	1.52
1	C	258	ARG	CA-C	-7.35	1.43	1.52
2	F	278	ALA	CA-C	-7.35	1.43	1.52
1	C	214	ALA	CA-C	-7.34	1.43	1.52
1	B	218	LYS	CA-C	-7.32	1.43	1.52
1	B	350	ILE	CA-C	-7.32	1.44	1.52
2	F	378	LEU	CA-C	-7.32	1.43	1.52
1	A	473	ILE	CA-C	-7.32	1.44	1.52
1	C	418	LEU	CA-C	-7.31	1.43	1.52
7	S	67	LYS	CA-C	-7.30	1.45	1.53
1	A	299	PHE	N-CA	-7.30	1.37	1.46
2	F	95	MET	CA-C	-7.30	1.44	1.52
2	E	267	GLU	CA-C	-7.29	1.43	1.52
1	A	323	ALA	CA-C	-7.29	1.44	1.52
2	E	345	TYR	CA-C	-7.29	1.44	1.52
1	C	302	HIS	CA-C	-7.28	1.42	1.52
2	F	254	PHE	CA-C	-7.28	1.43	1.52
1	B	505	LEU	CA-C	-7.26	1.43	1.52
2	E	406	ARG	CA-C	-7.26	1.43	1.52
1	C	330	GLN	CA-C	-7.26	1.43	1.52
2	D	95	MET	CA-C	-7.25	1.44	1.52
2	F	24	GLN	N-CA	-7.25	1.37	1.46
3	G	86	ALA	CA-C	-7.25	1.43	1.52
2	F	200	MET	CA-C	-7.24	1.43	1.52
3	G	204	TYR	CA-C	-7.24	1.43	1.52
1	B	342	VAL	CA-C	-7.24	1.43	1.52
1	A	243	GLN	CA-C	-7.23	1.43	1.52
1	B	494	ASP	CA-C	-7.23	1.43	1.52
4	H	40	THR	CA-C	-7.23	1.43	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	E	152	ILE	CA-C	-7.22	1.44	1.52
2	E	250	ASP	CA-C	-7.22	1.43	1.52
2	E	259	PHE	N-CA	-7.22	1.37	1.46
1	C	128	ARG	CA-C	-7.22	1.43	1.52
3	G	171	TYR	CA-C	-7.22	1.43	1.52
7	S	102	ILE	CA-C	-7.22	1.43	1.52
3	G	204	TYR	N-CA	-7.21	1.36	1.46
3	G	218	LYS	CA-C	-7.21	1.43	1.52
5	I	12	ILE	CA-C	-7.21	1.44	1.52
7	S	141	PHE	CA-C	-7.21	1.43	1.52
1	B	87	ILE	N-CA	-7.21	1.37	1.46
1	C	39	ALA	CA-C	-7.20	1.43	1.52
3	G	211	ASN	CA-C	-7.20	1.43	1.52
2	F	80	ALA	CA-C	-7.19	1.44	1.52
1	A	476	HIS	CA-C	-7.19	1.43	1.52
2	E	140	VAL	CA-C	-7.19	1.44	1.52
1	A	496	LYS	CA-C	-7.19	1.43	1.52
1	A	414	THR	CA-C	-7.18	1.43	1.52
3	G	164	ARG	N-CA	-7.18	1.37	1.46
1	B	393	GLU	CA-C	-7.18	1.43	1.52
2	D	175	LYS	CA-C	-7.18	1.44	1.52
2	F	398	GLU	CA-C	-7.17	1.43	1.52
2	E	312	VAL	CA-C	-7.17	1.45	1.52
1	A	33	SER	CA-C	-7.17	1.43	1.52
3	G	15	ASN	CA-C	-7.17	1.43	1.52
2	F	54	GLY	CA-C	-7.17	1.44	1.52
2	F	126	MET	CA-C	-7.17	1.42	1.53
2	F	183	PHE	CA-C	-7.16	1.44	1.52
3	G	11	LYS	CA-C	-7.16	1.43	1.52
3	G	224	GLU	N-CA	-7.16	1.37	1.46
2	F	379	GLN	CA-C	-7.16	1.43	1.52
1	A	55	PHE	CA-C	-7.15	1.43	1.52
7	S	35	VAL	CA-C	-7.14	1.43	1.52
2	E	196	LEU	CA-C	-7.13	1.43	1.52
3	G	257	VAL	N-CA	-7.13	1.37	1.46
3	G	20	THR	CA-C	-7.13	1.43	1.52
4	H	29	ASN	CA-C	-7.13	1.44	1.52
4	H	75	TYR	CA-C	-7.13	1.43	1.52
7	S	37	LYS	CA-C	-7.13	1.43	1.52
1	B	502	THR	CA-C	-7.13	1.43	1.52
1	A	302	HIS	CA-C	-7.12	1.43	1.52
1	A	75	VAL	CA-C	-7.11	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	42	HIS	N-CA	-7.11	1.36	1.46
2	D	146	TYR	CA-C	-7.11	1.43	1.53
1	B	34	ILE	CA-C	-7.11	1.44	1.52
2	D	344	ILE	CA-C	-7.11	1.43	1.52
4	H	84	VAL	CA-C	-7.11	1.43	1.52
1	B	341	ASN	CA-C	-7.10	1.43	1.52
2	E	25	PHE	N-CA	-7.10	1.37	1.46
5	I	10	SER	CA-C	-7.10	1.43	1.52
1	A	203	TYR	CA-C	-7.10	1.44	1.52
1	B	165	GLU	CA-C	-7.08	1.43	1.52
2	F	375	GLN	CA-C	-7.08	1.43	1.52
7	S	118	CYS	N-CA	-7.07	1.37	1.46
3	G	241	GLU	CA-C	-7.07	1.43	1.52
1	C	146	MET	CA-C	-7.07	1.43	1.52
1	A	40	ARG	CA-C	-7.07	1.44	1.52
1	A	474	SER	N-CA	-7.06	1.38	1.46
1	B	87	ILE	CA-C	-7.05	1.44	1.52
2	D	259	PHE	N-CA	-7.05	1.37	1.46
2	F	26	ASP	CA-C	-7.05	1.44	1.52
4	H	18	PHE	CA-C	-7.05	1.44	1.52
3	G	223	SER	CA-C	-7.04	1.43	1.52
4	H	63	VAL	CA-C	-7.04	1.44	1.52
1	C	421	GLY	CA-C	-7.04	1.44	1.52
3	G	259	THR	N-CA	-7.04	1.38	1.46
4	H	82	VAL	CA-C	-7.04	1.44	1.52
1	B	171	ARG	CA-C	-7.03	1.43	1.52
1	C	127	ARG	CA-C	-7.03	1.43	1.52
2	E	246	GLN	CA-C	-7.03	1.44	1.53
1	A	35	GLY	N-CA	-7.03	1.35	1.45
1	C	172	GLN	CA-C	-7.02	1.43	1.52
1	C	46	ASN	CA-C	-7.01	1.43	1.52
7	S	117	PRO	CA-C	-7.01	1.44	1.52
2	D	378	LEU	N-CA	-7.01	1.37	1.46
1	A	495	ALA	CA-C	-7.01	1.43	1.52
3	G	250	PHE	CA-C	-7.01	1.43	1.52
1	C	167	ILE	CA-C	-7.01	1.44	1.52
1	C	351	PHE	CA-C	-7.01	1.44	1.52
5	I	18	CYS	CA-C	-7.01	1.44	1.52
1	B	492	GLU	CA-C	-7.00	1.44	1.52
4	H	66	HIS	CA-C	-7.00	1.43	1.52
2	D	104	GLU	CA-C	-7.00	1.45	1.53
1	A	203	TYR	N-CA	-6.99	1.38	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	151	LYS	CA-C	-6.99	1.44	1.52
2	E	375	GLN	CA-C	-6.99	1.43	1.52
1	B	104	LEU	CA-C	-6.98	1.44	1.52
1	A	498	LYS	N-CA	-6.98	1.37	1.46
1	B	153	VAL	CA-C	-6.97	1.44	1.52
2	F	188	GLU	CA-C	-6.97	1.43	1.53
3	G	232	MET	CA-C	-6.97	1.43	1.52
2	E	17	ILE	CA-C	-6.97	1.44	1.52
2	E	245	ASP	CA-C	-6.97	1.43	1.52
2	E	341	GLU	CA-C	-6.97	1.43	1.52
2	F	197	TYR	CA-C	-6.97	1.43	1.52
2	D	388	ILE	CA-C	-6.96	1.43	1.52
1	B	460	LYS	CA-C	-6.96	1.43	1.52
1	A	498	LYS	CA-C	-6.96	1.43	1.52
1	B	374	VAL	CA-C	-6.96	1.47	1.52
2	F	192	GLU	CA-C	-6.96	1.43	1.52
2	F	17	ILE	CA-C	-6.95	1.43	1.52
1	B	256	TYR	CA-C	-6.95	1.43	1.52
2	F	263	GLN	N-CA	-6.95	1.38	1.46
3	G	167	SER	CA-C	-6.94	1.44	1.52
2	E	364	GLY	CA-C	-6.94	1.46	1.52
2	F	24	GLN	CA-C	-6.94	1.44	1.52
2	D	16	VAL	CA-C	-6.94	1.43	1.52
1	A	153	VAL	CA-C	-6.92	1.44	1.52
4	H	142	VAL	CA-C	-6.92	1.42	1.52
2	F	83	ARG	CA-C	-6.92	1.44	1.52
1	B	336	ALA	N-CA	-6.92	1.37	1.45
3	G	206	GLU	CA-C	-6.91	1.43	1.52
1	A	277	ALA	CA-C	-6.91	1.44	1.52
1	B	265	LEU	CA-C	-6.91	1.44	1.52
1	A	312	MET	CA-C	-6.91	1.43	1.52
3	G	169	ILE	N-CA	-6.91	1.37	1.46
4	H	64	VAL	CA-C	-6.90	1.43	1.52
2	F	326	PHE	CA-C	-6.90	1.43	1.52
1	B	356	LEU	CA-C	-6.90	1.43	1.52
2	E	288	ASP	CA-C	-6.89	1.43	1.52
2	F	69	LEU	CA-C	-6.89	1.45	1.53
2	E	286	ALA	CA-C	-6.89	1.44	1.52
1	A	256	TYR	CA-C	-6.88	1.44	1.52
1	A	492	GLU	CA-C	-6.88	1.44	1.52
1	B	337	TYR	N-CA	-6.88	1.38	1.46
1	B	498	LYS	CA-C	-6.88	1.43	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	D	22	ASP	CA-C	-6.88	1.44	1.52
1	B	173	THR	CA-C	-6.88	1.43	1.52
2	F	16	VAL	CA-C	-6.87	1.43	1.52
4	H	115	ALA	CA-C	-6.87	1.44	1.52
5	I	45	VAL	N-CA	-6.86	1.38	1.46
1	C	176	THR	N-CA	-6.86	1.38	1.46
3	G	230	THR	CA-C	-6.86	1.44	1.52
2	E	10	THR	CA-C	-6.86	1.44	1.52
2	E	412	ARG	CA-C	-6.86	1.43	1.52
1	B	300	TYR	N-CA	-6.85	1.38	1.46
3	G	6	ILE	N-CA	-6.85	1.38	1.46
2	F	286	ALA	CA-C	-6.85	1.44	1.52
1	B	167	ILE	CA-C	-6.84	1.44	1.52
3	G	16	ILE	N-CA	-6.84	1.38	1.46
1	C	55	PHE	CA-C	-6.84	1.44	1.52
1	B	221	THR	N-CA	-6.84	1.38	1.46
1	B	338	ILE	N-CA	-6.83	1.38	1.46
3	G	130	GLU	CA-C	-6.83	1.43	1.52
1	A	39	ALA	N-CA	-6.83	1.37	1.46
1	C	93	ALA	CA-C	-6.83	1.44	1.52
2	D	325	THR	CA-C	-6.83	1.44	1.52
1	A	166	LEU	CA-C	-6.82	1.44	1.52
1	C	62	MET	CA-C	-6.82	1.44	1.52
2	D	443	GLN	CA-C	-6.81	1.44	1.52
1	B	346	THR	CA-C	-6.80	1.43	1.53
2	D	47	LEU	CA-C	-6.80	1.44	1.52
1	A	218	LYS	N-CA	-6.80	1.38	1.46
1	A	152	ALA	CA-C	-6.80	1.43	1.52
2	F	271	LEU	CA-C	-6.80	1.44	1.52
2	F	458	TYR	CA-C	-6.79	1.43	1.52
3	G	228	ARG	CA-C	-6.79	1.44	1.52
4	H	25	GLN	CA-C	-6.79	1.44	1.52
1	B	277	ALA	CA-C	-6.79	1.44	1.52
1	B	362	ARG	CA-C	-6.79	1.44	1.52
3	G	131	VAL	CA-C	-6.79	1.44	1.52
1	B	280	GLN	CA-C	-6.78	1.43	1.52
1	B	55	PHE	CA-C	-6.78	1.44	1.52
1	C	132	LYS	CA-C	-6.78	1.44	1.52
1	C	356	LEU	CA-C	-6.77	1.44	1.52
2	E	438	ILE	CA-C	-6.77	1.44	1.52
1	B	203	TYR	CA-C	-6.77	1.44	1.52
2	E	169	LEU	CA-C	-6.77	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	43	GLY	N-CA	-6.77	1.39	1.45
2	F	201	ILE	CA-C	-6.76	1.44	1.52
3	G	2	THR	CA-C	-6.76	1.43	1.52
7	S	25	ALA	CA-C	-6.76	1.44	1.52
1	C	175	LYS	CA-C	-6.76	1.44	1.52
1	B	394	LEU	N-CA	-6.76	1.37	1.46
2	F	262	THR	CA-C	-6.76	1.44	1.52
1	C	261	GLY	CA-C	-6.76	1.42	1.51
2	D	405	SER	CA-C	-6.76	1.44	1.52
1	A	62	MET	CA-C	-6.75	1.44	1.52
2	D	298	THR	CA-C	-6.75	1.44	1.52
1	A	39	ALA	CA-C	-6.75	1.44	1.52
3	G	271	ALA	CA-C	-6.75	1.43	1.52
1	A	16	ILE	CA-C	-6.74	1.45	1.52
3	G	172	LYS	N-CA	-6.74	1.37	1.46
1	C	94	ILE	CA-C	-6.74	1.44	1.52
7	S	32	LEU	N-CA	-6.74	1.38	1.46
7	S	86	ILE	CA-C	-6.74	1.45	1.52
2	E	24	GLN	N-CA	-6.74	1.38	1.46
3	G	21	LYS	N-CA	-6.74	1.38	1.46
1	C	387	ALA	CA-C	-6.73	1.44	1.52
2	D	23	VAL	CA-C	-6.73	1.44	1.52
2	D	334	VAL	N-CA	-6.73	1.38	1.46
2	D	80	ALA	N-CA	-6.72	1.39	1.46
2	D	306	SER	CA-C	-6.72	1.44	1.52
2	F	255	ILE	CA-C	-6.72	1.44	1.52
2	E	333	THR	CA-C	-6.72	1.44	1.52
1	C	383	MET	N-CA	-6.72	1.38	1.46
1	B	463	LYS	CA-C	-6.71	1.44	1.52
4	H	139	GLU	N-CA	-6.71	1.38	1.46
1	A	494	ASP	CA-C	-6.71	1.44	1.52
2	E	274	ARG	CA-C	-6.71	1.43	1.52
2	E	12	ARG	N-CA	-6.70	1.37	1.46
2	F	376	LYS	CA-C	-6.70	1.44	1.52
4	H	118	GLU	CA-C	-6.70	1.44	1.52
2	F	407	ALA	CA-C	-6.70	1.44	1.52
1	A	28	THR	N-CA	-6.70	1.37	1.45
1	B	324	LEU	N-CA	-6.70	1.39	1.46
2	F	84	ILE	CA-C	-6.70	1.44	1.52
2	D	197	TYR	CA-C	-6.69	1.44	1.52
2	F	243	PHE	CA-C	-6.69	1.43	1.52
1	C	321	LEU	N-CA	-6.69	1.38	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	E	23	VAL	N-CA	-6.69	1.38	1.46
1	C	244	TYR	N-CA	-6.69	1.38	1.46
2	F	139	VAL	N-CA	-6.68	1.38	1.46
2	E	201	ILE	CA-C	-6.68	1.45	1.52
2	F	152	ILE	CA-C	-6.68	1.44	1.52
2	F	234	LEU	CA-C	-6.68	1.44	1.52
3	G	8	ARG	CA-C	-6.68	1.44	1.52
1	C	224	ASP	CA-C	-6.68	1.43	1.52
2	E	430	LYS	CA-C	-6.67	1.44	1.52
2	E	36	LEU	CA-C	-6.67	1.44	1.52
1	A	65	ASN	CA-C	-6.67	1.44	1.52
1	A	150	ILE	CA-C	-6.67	1.44	1.52
2	E	421	ALA	CA-C	-6.67	1.44	1.52
2	D	306	SER	N-CA	-6.67	1.38	1.46
2	D	83	ARG	CA-C	-6.66	1.44	1.52
1	A	355	GLU	N-CA	-6.66	1.38	1.46
1	C	463	LYS	N-CA	-6.66	1.38	1.46
1	C	398	ARG	CA-C	-6.65	1.44	1.52
7	S	154	ILE	CA-C	-6.65	1.43	1.52
1	B	323	ALA	CA-C	-6.64	1.44	1.52
2	F	270	ALA	CA-C	-6.64	1.44	1.52
2	F	215	VAL	CA-C	-6.64	1.44	1.52
1	C	208	GLN	CA-C	-6.62	1.44	1.52
2	F	344	ILE	CA-C	-6.62	1.44	1.52
2	E	334	VAL	CA-C	-6.62	1.44	1.52
2	D	58	VAL	CA-C	-6.62	1.44	1.52
2	F	409	LYS	CA-C	-6.62	1.44	1.52
1	A	322	THR	CA-C	-6.61	1.44	1.52
2	E	71	ARG	CA-C	-6.61	1.44	1.52
3	G	30	LYS	CA-C	-6.61	1.44	1.52
2	E	13	ILE	CA-C	-6.61	1.45	1.52
2	E	449	TYR	CA-C	-6.61	1.44	1.53
2	F	183	PHE	N-CA	-6.61	1.38	1.46
1	B	264	ALA	CA-C	-6.60	1.44	1.52
2	D	386	ASP	N-CA	-6.60	1.37	1.46
2	D	198	HIS	CA-C	-6.60	1.43	1.52
1	B	199	LEU	CA-C	-6.60	1.44	1.52
4	H	20	PHE	CA-C	-6.60	1.44	1.52
2	F	307	VAL	CA-C	-6.58	1.44	1.52
2	F	371	ALA	N-CA	-6.58	1.38	1.46
2	F	302	GLY	CA-C	-6.58	1.45	1.52
1	C	217	VAL	CA-C	-6.58	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	F	325	THR	CA-C	-6.58	1.44	1.52
1	C	38	ILE	CA-C	-6.58	1.44	1.52
1	C	350	ILE	CA-C	-6.58	1.45	1.52
2	D	401	LYS	CA-C	-6.57	1.43	1.52
2	E	31	PRO	CA-C	-6.57	1.44	1.52
2	F	376	LYS	N-CA	-6.57	1.38	1.46
2	F	165	LEU	CA-C	-6.57	1.44	1.52
1	B	276	VAL	CA-C	-6.57	1.44	1.52
2	F	37	GLU	CA-C	-6.57	1.44	1.52
4	H	36	VAL	N-CA	-6.57	1.38	1.46
1	B	503	ASN	CA-C	-6.56	1.44	1.52
1	C	194	ASP	N-CA	-6.56	1.37	1.45
2	F	20	VAL	CA-C	-6.56	1.44	1.52
1	C	366	ASN	CA-C	-6.56	1.45	1.53
3	G	255	GLN	N-CA	-6.56	1.38	1.46
2	F	408	ARG	N-CA	-6.55	1.38	1.46
1	A	42	HIS	CA-C	-6.55	1.44	1.52
1	B	40	ARG	CA-C	-6.55	1.44	1.52
7	S	69	LEU	CA-C	-6.55	1.43	1.52
1	C	212	THR	CA-C	-6.54	1.44	1.52
1	C	322	THR	CA-C	-6.54	1.44	1.52
7	S	143	SER	CA-C	-6.54	1.44	1.52
1	C	390	MET	CA-C	-6.54	1.44	1.52
2	E	278	ALA	CA-C	-6.54	1.44	1.52
4	H	129	ALA	CA-C	-6.54	1.44	1.52
2	F	137	ILE	CA-C	-6.53	1.45	1.52
1	C	88	VAL	CA-C	-6.52	1.45	1.52
2	D	170	ILE	CA-C	-6.52	1.44	1.52
2	F	231	ARG	CA-C	-6.52	1.44	1.52
1	C	151	LYS	CA-C	-6.52	1.44	1.52
1	C	284	LEU	CA-C	-6.51	1.44	1.52
2	F	196	LEU	N-CA	-6.51	1.38	1.46
2	F	382	LYS	CA-C	-6.51	1.44	1.52
4	H	92	LEU	N-CA	-6.51	1.38	1.46
1	B	86	ASP	N-CA	-6.51	1.37	1.46
7	S	38	GLU	CA-C	-6.51	1.44	1.52
1	B	108	VAL	CA-C	-6.50	1.45	1.52
1	C	504	PHE	N-CA	-6.50	1.38	1.46
2	D	288	ASP	CA-C	-6.50	1.44	1.52
1	B	495	ALA	CA-C	-6.50	1.44	1.52
5	I	43	LYS	CA-C	-6.50	1.44	1.52
4	H	41	GLN	CA-C	-6.50	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	39	ALA	N-CA	-6.50	1.38	1.46
1	B	186	GLN	CA-C	-6.50	1.43	1.52
1	B	300	TYR	CA-C	-6.49	1.44	1.52
1	B	220	LEU	CA-C	-6.48	1.44	1.52
1	B	392	LEU	N-CA	-6.48	1.38	1.46
2	E	262	THR	CA-C	-6.48	1.44	1.52
1	C	382	ALA	CA-C	-6.48	1.44	1.52
2	F	267	GLU	CA-C	-6.48	1.44	1.52
2	E	192	GLU	CA-C	-6.48	1.44	1.52
2	D	24	GLN	N-CA	-6.47	1.38	1.46
1	A	463	LYS	CA-C	-6.47	1.44	1.52
1	B	42	HIS	N-CA	-6.47	1.38	1.46
3	G	43	VAL	CA-C	-6.47	1.44	1.52
4	H	119	LEU	CA-C	-6.47	1.44	1.52
1	A	367	VAL	CA-C	-6.46	1.44	1.52
3	G	39	LYS	N-CA	-6.46	1.41	1.46
1	C	276	VAL	CA-C	-6.46	1.45	1.52
7	S	156	PRO	CA-C	-6.46	1.43	1.52
1	A	215	GLN	CA-C	-6.45	1.44	1.52
1	C	349	GLN	CA-C	-6.45	1.44	1.52
3	G	270	ALA	CA-C	-6.45	1.44	1.52
1	A	71	VAL	N-CA	-6.45	1.38	1.46
4	H	126	ALA	CA-C	-6.45	1.44	1.52
1	B	469	LEU	N-CA	-6.45	1.38	1.46
2	D	17	ILE	CA-C	-6.45	1.44	1.52
1	A	483	ILE	CA-C	-6.45	1.44	1.52
2	D	361	ASN	CA-C	-6.45	1.44	1.52
1	B	43	GLY	CA-C	-6.44	1.45	1.52
2	F	141	ASP	CA-C	-6.44	1.44	1.52
2	D	12	ARG	N-CA	-6.44	1.38	1.46
2	E	20	VAL	CA-C	-6.44	1.44	1.52
4	H	35	GLN	CA-C	-6.44	1.44	1.52
8	T	93	ASP	CA-C	6.44	1.61	1.52
2	E	21	VAL	CA-C	-6.44	1.44	1.52
4	H	83	THR	N-CA	-6.43	1.38	1.46
1	B	38	ILE	CA-C	-6.43	1.44	1.52
3	G	52	TYR	CA-C	-6.43	1.44	1.52
2	D	207	ASN	CA-C	-6.43	1.44	1.52
1	C	213	VAL	CA-C	-6.42	1.44	1.52
2	E	409	LYS	CA-C	-6.42	1.44	1.52
3	G	220	SER	CA-C	-6.42	1.44	1.52
2	F	364	GLY	CA-C	-6.41	1.42	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	H	98	VAL	N-CA	-6.41	1.38	1.46
1	B	67	GLU	C-N	-6.41	1.26	1.34
1	C	52	MET	N-CA	-6.40	1.38	1.46
3	G	253	THR	CA-C	-6.39	1.44	1.52
2	E	368	TYR	N-CA	-6.39	1.38	1.46
3	G	208	SER	CA-C	-6.39	1.43	1.52
1	A	325	PRO	CA-C	-6.39	1.44	1.52
1	A	35	GLY	CA-C	-6.38	1.42	1.51
7	S	39	LEU	CA-C	-6.38	1.44	1.52
1	C	395	ALA	CA-C	-6.38	1.44	1.52
5	I	15	SER	N-CA	-6.38	1.38	1.46
1	B	381	ARG	CA-C	-6.38	1.44	1.52
3	G	87	LYS	N-CA	-6.38	1.38	1.46
1	A	338	ILE	N-CA	-6.38	1.39	1.46
1	A	139	ARG	N-CA	-6.37	1.38	1.46
2	E	167	MET	CA-C	-6.37	1.44	1.52
2	E	449	TYR	N-CA	-6.37	1.37	1.46
3	G	258	ILE	CA-C	-6.37	1.44	1.52
2	D	171	ASN	N-CA	-6.37	1.38	1.46
2	D	410	ILE	CA-C	-6.37	1.45	1.52
4	H	136	GLU	CA-C	-6.37	1.44	1.52
7	S	28	LYS	CA-C	-6.37	1.45	1.52
3	G	109	GLY	CA-C	-6.37	1.44	1.52
4	H	120	LEU	CA-C	-6.36	1.44	1.52
1	B	265	LEU	N-CA	-6.36	1.38	1.46
2	E	113	PHE	CA-C	-6.36	1.45	1.52
3	G	55	ALA	CA-C	-6.36	1.44	1.52
1	B	62	MET	CA-C	-6.36	1.44	1.52
1	B	128	ARG	CA-C	-6.36	1.44	1.52
1	C	248	TYR	CA-C	-6.36	1.44	1.52
1	A	354	THR	CA-C	-6.36	1.44	1.52
3	G	254	ARG	CA-C	-6.35	1.44	1.52
4	H	127	THR	CA-C	-6.35	1.44	1.52
2	D	196	LEU	CA-C	-6.35	1.44	1.52
2	F	94	ILE	CA-C	-6.35	1.44	1.52
1	C	51	GLU	CA-C	-6.34	1.44	1.52
1	C	474	SER	N-CA	-6.34	1.38	1.46
1	B	104	LEU	N-CA	-6.34	1.38	1.46
2	D	253	LEU	CA-C	-6.34	1.45	1.52
2	E	378	LEU	CA-C	-6.34	1.44	1.52
1	B	172	GLN	CA-C	-6.34	1.44	1.52
1	A	338	ILE	CA-C	-6.34	1.47	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	244	TYR	N-CA	-6.34	1.38	1.46
1	A	484	ARG	N-CA	-6.33	1.38	1.46
1	B	146	MET	CA-C	-6.33	1.44	1.52
3	G	117	HIS	CA-C	-6.33	1.46	1.53
3	G	213	ILE	CA-C	-6.33	1.44	1.52
2	E	35	ALA	CA-C	-6.33	1.44	1.52
2	D	188	GLU	CA-C	-6.33	1.44	1.53
1	C	60	LYS	CA-C	-6.32	1.44	1.52
3	G	212	ILE	CA-C	-6.32	1.44	1.52
1	B	66	LEU	CA-C	-6.32	1.44	1.52
1	B	432	GLN	CA-C	-6.32	1.44	1.52
2	D	274	ARG	CA-C	-6.32	1.44	1.53
1	A	402	ALA	CA-C	-6.32	1.44	1.52
1	C	152	ALA	CA-C	-6.31	1.44	1.52
7	S	59	TYR	N-CA	-6.31	1.39	1.46
1	A	283	LEU	CA-C	-6.30	1.44	1.52
2	D	155	PHE	CA-C	-6.30	1.44	1.52
1	A	87	ILE	CA-C	-6.29	1.45	1.52
2	E	60	THR	CA-C	-6.29	1.44	1.52
2	E	247	GLU	CA-C	-6.29	1.43	1.52
2	F	311	TYR	CA-C	-6.29	1.44	1.52
7	S	119	THR	N-CA	-6.29	1.38	1.45
2	D	439	LYS	N-CA	-6.28	1.39	1.46
4	H	36	VAL	CA-C	-6.28	1.45	1.52
2	D	345	TYR	N-CA	-6.28	1.40	1.46
2	D	376	LYS	CA-C	-6.28	1.44	1.52
2	F	383	SER	CA-C	-6.27	1.44	1.52
1	A	403	PHE	N-CA	-6.27	1.38	1.46
2	F	114	ALA	CA-C	-6.27	1.44	1.52
1	B	362	ARG	N-CA	-6.27	1.40	1.46
2	D	308	GLN	CA-C	-6.27	1.45	1.52
1	C	484	ARG	N-CA	-6.26	1.39	1.46
2	E	382	LYS	CA-C	-6.26	1.44	1.52
1	A	182	THR	CA-C	-6.26	1.44	1.52
2	F	412	ARG	CA-C	-6.26	1.44	1.52
1	B	389	THR	N-CA	-6.26	1.38	1.46
2	D	163	THR	N-CA	-6.25	1.38	1.46
3	G	29	ALA	CA-C	-6.25	1.44	1.52
2	E	76	LEU	CA-C	-6.25	1.45	1.52
1	C	341	ASN	CA-C	-6.24	1.45	1.52
2	F	195	ASP	CA-C	-6.24	1.44	1.52
1	C	323	ALA	CA-C	-6.24	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	E	378	LEU	N-CA	-6.24	1.38	1.46
1	A	27	GLU	CA-C	-6.24	1.44	1.52
1	B	303	SER	CA-C	-6.24	1.44	1.52
1	A	193	THR	CA-C	-6.24	1.45	1.52
1	B	461	ILE	CA-C	-6.23	1.45	1.52
2	F	450	ASP	CA-C	-6.23	1.44	1.52
2	D	367	HIS	N-CA	-6.22	1.39	1.46
3	G	255	GLN	CA-C	-6.22	1.44	1.52
1	B	54	GLU	CA-C	-6.22	1.44	1.52
2	F	138	LYS	CA-C	-6.22	1.45	1.52
2	E	218	VAL	CA-C	-6.22	1.45	1.52
1	A	428	LEU	CA-C	-6.22	1.44	1.52
1	C	108	VAL	CA-C	-6.22	1.45	1.52
5	I	44	ILE	N-CA	-6.22	1.38	1.47
1	C	54	GLU	CA-C	-6.21	1.44	1.52
2	F	21	VAL	N-CA	-6.21	1.39	1.46
2	E	235	THR	CA-C	-6.21	1.44	1.52
4	H	122	ALA	CA-C	-6.21	1.45	1.52
2	F	373	GLY	N-CA	-6.21	1.38	1.45
1	C	127	ARG	N-CA	-6.21	1.38	1.46
3	G	140	ASP	N-CA	-6.21	1.39	1.46
1	C	480	LEU	CA-C	-6.20	1.44	1.52
4	H	113	GLU	CA-C	-6.20	1.45	1.52
2	F	319	ASP	CA-C	-6.20	1.45	1.52
1	C	484	ARG	CA-C	-6.20	1.45	1.52
2	F	59	ARG	CA-C	-6.20	1.45	1.52
1	A	326	VAL	N-CA	-6.20	1.39	1.46
2	D	201	ILE	CA-C	-6.19	1.45	1.52
1	B	215	GLN	CA-C	-6.19	1.44	1.52
2	F	381	TYR	N-CA	-6.19	1.38	1.46
7	S	112	HIS	N-CA	-6.19	1.38	1.46
1	A	155	SER	CA-C	-6.18	1.45	1.53
2	E	292	MET	CA-C	-6.18	1.45	1.53
7	S	23	TYR	CA-C	-6.18	1.44	1.52
1	C	294	TYR	CA-C	-6.18	1.44	1.52
2	D	305	THR	CA-C	-6.18	1.45	1.52
7	S	70	SER	CA-C	-6.18	1.43	1.52
1	B	245	LEU	CA-C	-6.17	1.44	1.52
1	B	266	ILE	N-CA	-6.17	1.39	1.46
1	A	392	LEU	N-CA	-6.17	1.38	1.46
4	H	53	PRO	CA-C	-6.17	1.43	1.52
2	D	221	GLN	CA-C	-6.17	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	E	194	ASN	CA-C	-6.17	1.45	1.52
1	C	267	ILE	CA-C	-6.17	1.44	1.52
2	D	427	HIS	CA-C	-6.17	1.44	1.52
1	A	286	ARG	CA-C	-6.17	1.43	1.52
3	G	51	LEU	N-CA	-6.17	1.38	1.46
1	B	88	VAL	CA-C	-6.16	1.45	1.52
2	E	268	VAL	N-CA	-6.16	1.39	1.46
7	S	32	LEU	CA-C	-6.16	1.44	1.52
3	G	268	GLY	CA-C	-6.16	1.43	1.51
7	S	40	LEU	CA-C	-6.15	1.44	1.52
1	C	264	ALA	CA-C	-6.15	1.45	1.52
2	D	243	PHE	CA-C	-6.15	1.44	1.52
1	A	395	ALA	CA-C	-6.15	1.45	1.52
1	C	87	ILE	CA-C	-6.15	1.45	1.52
1	C	430	GLN	CA-C	-6.15	1.44	1.52
2	D	304	ILE	CA-C	-6.14	1.44	1.52
1	B	294	TYR	CA-C	-6.14	1.45	1.53
1	C	221	THR	CA-C	-6.14	1.44	1.52
2	E	376	LYS	CA-C	-6.14	1.45	1.52
1	C	173	THR	N-CA	-6.13	1.38	1.46
2	E	166	ILE	CA-C	-6.13	1.45	1.52
1	A	394	LEU	CA-C	-6.13	1.44	1.52
4	H	133	ILE	CA-C	-6.13	1.45	1.52
7	S	138	LEU	CA-C	-6.12	1.45	1.52
2	D	443	GLN	N-CA	-6.12	1.38	1.46
2	D	202	GLU	CA-C	-6.12	1.44	1.52
3	G	215	TYR	N-CA	-6.12	1.39	1.46
1	A	176	THR	N-CA	-6.11	1.38	1.46
1	A	208	GLN	CA-C	-6.11	1.45	1.52
2	E	338	ALA	CA-C	-6.11	1.44	1.52
1	A	500	ILE	N-CA	-6.11	1.39	1.46
3	G	16	ILE	CA-C	-6.11	1.45	1.52
1	B	214	ALA	CA-C	-6.11	1.45	1.52
1	A	276	VAL	CA-C	-6.11	1.45	1.52
4	H	89	SER	CA-C	-6.11	1.45	1.52
1	B	167	ILE	N-CA	-6.10	1.38	1.46
1	C	316	PHE	CA-C	-6.10	1.44	1.52
1	B	484	ARG	N-CA	-6.10	1.39	1.46
1	C	139	ARG	CA-C	-6.10	1.44	1.53
5	I	13	ARG	N-CA	-6.10	1.39	1.46
1	B	257	PHE	CA-C	-6.10	1.45	1.52
1	C	153	VAL	CA-C	-6.10	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	F	272	LEU	CA-C	-6.10	1.44	1.52
2	D	154	LEU	CA-C	-6.09	1.45	1.53
2	F	199	GLU	CA-C	-6.09	1.44	1.52
1	B	297	ASP	CA-C	-6.09	1.42	1.52
1	C	66	LEU	CA-C	-6.09	1.45	1.52
2	E	21	VAL	N-CA	-6.09	1.39	1.46
1	C	314	ASP	CA-C	-6.08	1.44	1.52
4	H	131	ILE	N-CA	-6.08	1.39	1.46
1	A	448	GLY	CA-C	-6.08	1.43	1.51
1	B	451	GLY	CA-C	-6.08	1.43	1.51
2	D	46	VAL	N-CA	-6.08	1.38	1.46
1	C	482	LYS	CA-C	-6.08	1.45	1.52
2	D	186	VAL	CA-C	-6.08	1.45	1.52
2	E	188	GLU	CA-C	-6.08	1.45	1.52
1	C	336	ALA	CA-C	-6.08	1.44	1.52
2	E	311	TYR	CA-C	-6.07	1.45	1.52
1	A	460	LYS	CA-C	-6.06	1.44	1.52
2	F	110	THR	CA-C	-6.06	1.44	1.52
1	B	203	TYR	N-CA	-6.06	1.39	1.46
1	C	479	LEU	N-CA	-6.06	1.39	1.46
1	B	26	GLU	CA-C	-6.05	1.44	1.52
1	B	429	LYS	CA-C	-6.05	1.44	1.53
2	D	386	ASP	CA-C	-6.05	1.44	1.52
2	D	12	ARG	CA-C	-6.05	1.45	1.52
1	B	330	GLN	CA-C	-6.05	1.45	1.52
2	F	194	ASN	CA-C	-6.05	1.45	1.52
5	I	19	ALA	N-CA	-6.05	1.39	1.46
1	C	403	PHE	CA-C	-6.04	1.45	1.52
1	C	399	GLU	CA-C	-6.04	1.44	1.52
2	D	408	ARG	CA-C	-6.04	1.45	1.52
2	D	165	LEU	N-CA	-6.03	1.39	1.46
1	B	383	MET	N-CA	-6.03	1.39	1.46
2	D	312	VAL	CA-C	-6.03	1.47	1.52
1	C	324	LEU	CA-C	-6.02	1.45	1.52
2	F	58	VAL	N-CA	-6.02	1.39	1.46
2	D	15	ALA	CA-C	-6.02	1.45	1.52
1	A	267	ILE	CA-C	-6.02	1.44	1.52
1	B	262	LYS	N-CA	-6.01	1.37	1.45
2	E	429	GLY	CA-C	-6.01	1.45	1.52
1	B	366	ASN	CA-C	-6.01	1.45	1.53
7	S	84	ASN	CA-C	-6.01	1.44	1.52
3	G	27	ALA	CA-C	-6.01	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	H	64	VAL	N-CA	-6.00	1.38	1.46
1	C	25	LEU	CA-C	-6.00	1.45	1.52
1	C	334	VAL	N-CA	-5.99	1.38	1.46
2	D	285	LEU	CA-C	-5.99	1.45	1.52
2	D	63	MET	CA-C	-5.99	1.45	1.52
2	D	407	ALA	CA-C	-5.99	1.45	1.52
2	E	439	LYS	CA-C	-5.99	1.45	1.52
7	S	95	LEU	N-CA	-5.99	1.39	1.46
1	C	299	PHE	N-CA	-5.98	1.39	1.46
2	D	287	THR	CA-C	-5.98	1.45	1.52
2	D	365	SER	CA-C	-5.98	1.44	1.52
1	B	463	LYS	N-CA	-5.98	1.39	1.46
1	C	153	VAL	N-CA	-5.97	1.39	1.46
2	E	224	GLU	CA-C	-5.97	1.46	1.52
1	B	316	PHE	CA-C	-5.96	1.44	1.52
1	C	97	VAL	N-CA	-5.96	1.40	1.46
1	B	301	LEU	N-CA	-5.96	1.39	1.46
2	F	268	VAL	CA-C	-5.96	1.44	1.52
3	G	24	LYS	CA-C	-5.96	1.45	1.52
2	E	163	THR	CA-C	-5.96	1.45	1.52
1	C	333	ASP	CA-C	-5.96	1.45	1.52
3	G	132	GLY	CA-C	-5.96	1.45	1.52
3	G	254	ARG	N-CA	-5.96	1.39	1.46
2	E	263	GLN	CA-C	-5.96	1.45	1.52
2	E	287	THR	CA-C	-5.95	1.45	1.52
1	B	342	VAL	N-CA	-5.95	1.39	1.46
1	C	210	ARG	CA-C	-5.95	1.45	1.52
2	D	95	MET	N-CA	-5.95	1.38	1.45
1	B	35	GLY	CA-C	-5.95	1.43	1.51
2	E	182	VAL	CA-C	-5.95	1.45	1.52
2	E	435	LYS	CA-C	-5.95	1.45	1.52
1	C	97	VAL	CA-C	-5.95	1.45	1.52
1	C	218	LYS	N-CA	-5.95	1.39	1.46
1	A	477	GLN	N-CA	-5.94	1.38	1.46
1	A	195	GLU	CA-C	-5.94	1.45	1.52
1	B	473	ILE	CA-C	-5.94	1.45	1.52
2	E	303	SER	CA-C	-5.94	1.45	1.52
2	E	254	PHE	CA-C	-5.94	1.45	1.52
2	D	400	ASP	N-CA	-5.94	1.39	1.46
3	G	14	LYS	CA-C	-5.94	1.45	1.52
1	A	216	LEU	CA-C	-5.93	1.45	1.52
1	A	271	LEU	N-CA	-5.93	1.38	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	126	ARG	CA-C	-5.93	1.45	1.52
2	E	189	ARG	CA-C	-5.93	1.45	1.52
2	E	190	THR	CA-C	-5.93	1.45	1.52
1	C	498	LYS	CA-C	-5.93	1.44	1.52
2	F	15	ALA	CA-C	-5.93	1.45	1.52
1	A	321	LEU	N-CA	-5.93	1.39	1.46
1	B	499	GLU	N-CA	-5.93	1.39	1.46
2	E	443	GLN	CA-C	-5.93	1.45	1.52
1	B	39	ALA	N-CA	-5.92	1.39	1.46
2	D	206	ILE	CA-C	-5.92	1.45	1.52
2	E	299	THR	CA-C	-5.92	1.45	1.53
1	B	302	HIS	N-CA	-5.92	1.38	1.46
2	D	70	VAL	CA-C	-5.92	1.46	1.52
1	B	47	VAL	N-CA	-5.92	1.39	1.46
1	C	245	LEU	CA-C	-5.92	1.45	1.52
2	F	292	MET	N-CA	-5.92	1.38	1.46
1	A	221	THR	CA-C	-5.92	1.45	1.52
1	B	215	GLN	N-CA	-5.92	1.39	1.46
1	B	336	ALA	CA-C	-5.92	1.45	1.52
1	A	34	ILE	N-CA	-5.92	1.39	1.46
1	A	173	THR	CA-C	-5.92	1.43	1.52
1	B	465	GLU	N-CA	-5.92	1.39	1.46
2	F	406	ARG	CA-C	-5.91	1.45	1.52
2	F	410	ILE	CA-C	-5.91	1.45	1.52
7	S	104	ALA	CA-C	-5.91	1.45	1.52
1	C	70	ASN	CA-C	-5.91	1.45	1.52
7	S	121	THR	CA-C	-5.91	1.47	1.53
3	G	199	ASP	CA-C	-5.91	1.44	1.52
1	C	96	ASP	CA-C	-5.91	1.45	1.52
1	A	502	THR	N-CA	-5.90	1.39	1.46
3	G	201	LEU	CA-C	-5.90	1.44	1.52
3	G	215	TYR	CA-C	-5.90	1.45	1.52
3	G	216	SER	CA-C	-5.90	1.45	1.52
1	A	319	GLY	CA-C	-5.90	1.43	1.51
2	D	455	GLN	CA-C	-5.89	1.44	1.52
2	E	48	GLU	CA-C	-5.89	1.45	1.52
1	A	5	THR	CA-C	-5.89	1.45	1.52
1	A	123	SER	CA-C	-5.89	1.45	1.52
1	A	140	ILE	CA-C	-5.89	1.45	1.52
2	D	245	ASP	CA-C	-5.89	1.45	1.52
2	F	253	LEU	N-CA	-5.89	1.39	1.46
2	F	399	GLU	CA-C	-5.89	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	D	406	ARG	CA-C	-5.89	1.45	1.52
1	A	324	LEU	N-CA	-5.89	1.40	1.46
1	C	499	GLU	N-CA	-5.89	1.39	1.46
3	G	5	ASP	CA-C	-5.89	1.45	1.52
3	G	266	ILE	N-CA	-5.89	1.38	1.46
2	F	384	LEU	N-CA	-5.88	1.38	1.46
1	C	383	MET	CA-C	-5.88	1.45	1.52
4	H	93	LEU	N-CA	-5.88	1.39	1.46
1	A	89	LYS	CA-C	-5.87	1.45	1.52
1	A	398	ARG	CA-C	-5.87	1.45	1.52
1	C	213	VAL	N-CA	-5.87	1.39	1.46
2	E	271	LEU	CA-C	-5.87	1.44	1.52
1	B	322	THR	CA-C	-5.87	1.45	1.52
1	A	465	GLU	CA-C	-5.87	1.45	1.52
1	B	205	ALA	CA-C	-5.87	1.45	1.52
7	S	78	PHE	CA-C	-5.87	1.46	1.53
1	B	311	LYS	CA-C	-5.86	1.45	1.52
3	G	84	SER	CA-C	-5.86	1.45	1.52
1	A	393	GLU	CA-C	-5.85	1.44	1.52
1	C	369	LEU	N-CA	-5.85	1.39	1.46
2	D	205	VAL	CA-C	-5.85	1.44	1.52
2	D	404	VAL	CA-C	-5.85	1.45	1.52
1	B	349	GLN	CA-C	-5.85	1.45	1.52
1	A	189	PHE	CA-C	-5.85	1.44	1.52
1	C	478	ALA	CA-C	-5.85	1.45	1.52
2	F	324	THR	CA-C	-5.85	1.45	1.52
1	B	24	ASP	N-CA	-5.84	1.38	1.46
2	D	385	GLN	CA-C	-5.84	1.44	1.52
1	A	258	ARG	CA-C	-5.84	1.45	1.52
1	B	98	PRO	N-CA	-5.84	1.40	1.47
1	B	466	ASN	CA-C	-5.84	1.45	1.52
2	E	33	LEU	CA-C	-5.84	1.44	1.52
1	B	142	VAL	CA-C	-5.83	1.46	1.52
1	C	370	SER	N-CA	-5.83	1.39	1.46
2	E	142	LEU	N-CA	-5.83	1.39	1.46
4	H	67	ALA	CA-C	-5.83	1.45	1.52
1	A	206	ILE	CA-C	-5.83	1.45	1.52
1	B	496	LYS	CA-C	-5.83	1.45	1.52
2	D	383	SER	CA-C	-5.83	1.45	1.52
2	D	412	ARG	N-CA	-5.83	1.38	1.46
2	F	395	GLU	CA-C	-5.83	1.44	1.52
1	C	305	LEU	N-CA	-5.82	1.39	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	H	141	LEU	CA-C	-5.82	1.45	1.52
5	I	11	TYR	CA-C	-5.82	1.45	1.52
1	C	451	GLY	CA-C	-5.82	1.43	1.51
2	D	344	ILE	N-CA	-5.82	1.39	1.46
2	F	368	TYR	CA-C	-5.82	1.45	1.52
1	C	329	THR	CA-C	-5.82	1.45	1.52
2	E	109	LYS	CA-C	-5.82	1.44	1.52
2	D	173	VAL	N-CA	-5.81	1.39	1.46
1	A	361	ILE	CA-C	-5.81	1.45	1.52
1	B	73	VAL	CA-C	-5.81	1.45	1.52
1	B	261	GLY	CA-C	-5.81	1.43	1.51
2	D	25	PHE	N-CA	-5.81	1.39	1.46
2	D	300	LYS	N-CA	-5.81	1.39	1.46
2	F	290	GLY	CA-C	-5.81	1.45	1.52
1	B	128	ARG	N-CA	-5.81	1.38	1.46
2	F	153	GLY	CA-C	-5.80	1.43	1.51
2	D	302	GLY	CA-C	-5.80	1.44	1.51
1	A	443	ALA	CA-C	-5.80	1.45	1.52
1	B	448	GLY	CA-C	-5.80	1.43	1.51
1	C	477	GLN	N-CA	-5.80	1.39	1.46
2	D	408	ARG	N-CA	-5.80	1.39	1.46
4	H	24	THR	N-CA	-5.80	1.38	1.46
4	H	47	ILE	CA-C	-5.80	1.46	1.52
1	A	301	LEU	N-CA	-5.79	1.39	1.46
2	E	318	THR	CA-C	-5.79	1.45	1.52
2	D	412	ARG	CA-C	-5.79	1.44	1.52
1	C	209	LYS	CA-C	-5.79	1.45	1.52
1	C	445	ILE	CA-C	-5.79	1.45	1.52
2	E	83	ARG	CA-C	-5.79	1.45	1.52
3	G	212	ILE	N-CA	-5.79	1.39	1.46
3	G	237	LYS	N-CA	-5.79	1.39	1.46
4	H	21	ALA	N-CA	-5.79	1.39	1.46
4	H	72	THR	CA-C	-5.79	1.45	1.52
7	S	123	ALA	CA-C	-5.79	1.45	1.52
3	G	117	HIS	N-CA	-5.79	1.39	1.46
2	F	391	LEU	CA-C	-5.78	1.44	1.52
2	E	419	GLN	CA-C	-5.78	1.45	1.52
1	A	88	VAL	CA-C	-5.78	1.45	1.52
2	D	442	GLN	CA-C	-5.78	1.44	1.52
2	E	410	ILE	CA-C	-5.78	1.45	1.52
1	A	136	ILE	CA-C	-5.78	1.45	1.52
2	D	271	LEU	CA-C	-5.78	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	E	471	ASP	CA-C	-5.77	1.45	1.52
1	B	59	LEU	CA-C	-5.77	1.45	1.52
1	C	303	SER	CA-C	-5.77	1.45	1.52
1	C	399	GLU	N-CA	-5.77	1.39	1.46
2	E	289	MET	N-CA	-5.77	1.39	1.46
2	F	165	LEU	N-CA	-5.77	1.39	1.46
3	G	3	LEU	N-CA	-5.77	1.38	1.46
5	I	17	ILE	N-CA	-5.76	1.38	1.46
10	V	70	GLU	C-N	-5.76	1.25	1.33
2	E	298	THR	N-CA	-5.76	1.39	1.46
7	S	83	SER	CA-C	-5.76	1.44	1.52
4	H	139	GLU	CA-C	-5.76	1.45	1.52
2	D	286	ALA	CA-C	-5.76	1.45	1.52
1	A	128	ARG	N-CA	-5.75	1.38	1.46
1	A	205	ALA	CA-C	-5.75	1.45	1.52
1	A	194	ASP	CA-C	-5.75	1.45	1.52
2	E	249	GLN	CA-C	-5.75	1.45	1.52
1	B	91	THR	CA-C	-5.75	1.45	1.52
1	B	169	GLY	CA-C	-5.75	1.44	1.51
2	F	357	ILE	N-CA	-5.75	1.39	1.46
1	B	156	LEU	CA-C	-5.75	1.45	1.52
2	F	13	ILE	CA-C	-5.75	1.46	1.52
1	C	156	LEU	CA-C	-5.75	1.45	1.52
1	C	147	GLN	CA-C	-5.75	1.45	1.52
2	F	249	GLN	N-CA	-5.75	1.39	1.46
3	G	229	MET	CA-C	-5.74	1.45	1.52
2	F	413	PHE	N-CA	-5.74	1.39	1.46
3	G	106	ILE	CA-C	-5.74	1.45	1.52
3	G	161	ILE	CA-C	-5.74	1.45	1.52
7	S	42	VAL	N-CA	-5.74	1.40	1.46
7	S	46	LEU	N-CA	-5.74	1.38	1.46
2	D	398	GLU	CA-C	-5.73	1.45	1.52
1	C	461	ILE	CA-C	-5.73	1.45	1.52
2	F	459	MET	CA-C	-5.73	1.45	1.53
4	H	54	THR	CA-C	-5.73	1.45	1.52
1	C	290	GLY	N-CA	-5.72	1.40	1.45
1	A	262	LYS	CA-C	-5.72	1.45	1.53
1	C	492	GLU	CA-C	-5.72	1.45	1.52
3	G	38	LEU	CA-C	-5.72	1.45	1.52
1	A	242	LEU	CA-C	-5.72	1.45	1.52
1	A	264	ALA	CA-C	-5.72	1.45	1.52
1	A	29	GLY	N-CA	-5.71	1.39	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	484	ARG	CA-C	-5.71	1.45	1.52
3	G	109	GLY	N-CA	-5.71	1.37	1.45
4	H	135	ILE	N-CA	-5.71	1.39	1.46
1	B	211	SER	CA-C	-5.71	1.45	1.52
1	A	314	ASP	CA-C	-5.71	1.45	1.52
1	C	86	ASP	CA-C	-5.71	1.45	1.52
3	G	269	ALA	CA-C	-5.71	1.45	1.52
1	B	89	LYS	CA-C	-5.70	1.45	1.52
2	D	213	SER	CA-C	-5.70	1.45	1.52
2	E	431	LEU	CA-C	-5.70	1.45	1.52
3	G	272	LEU	N-CA	-5.70	1.38	1.46
1	C	475	GLN	CA-C	-5.70	1.46	1.53
2	D	439	LYS	CA-C	-5.70	1.45	1.52
2	E	173	VAL	CA-C	-5.70	1.45	1.52
1	B	201	CYS	CA-C	-5.70	1.46	1.52
2	D	390	ILE	CA-C	-5.70	1.44	1.52
2	E	101	PRO	CA-C	-5.69	1.45	1.52
1	A	358	TYR	CA-C	-5.69	1.45	1.52
1	B	176	THR	CA-C	-5.69	1.45	1.52
1	B	219	ARG	N-CA	-5.69	1.39	1.46
1	B	256	TYR	N-CA	-5.69	1.39	1.46
2	F	403	THR	CA-C	-5.69	1.45	1.52
2	D	234	LEU	CA-C	-5.69	1.45	1.52
2	F	304	ILE	CA-C	-5.69	1.45	1.52
2	D	20	VAL	CA-C	-5.69	1.45	1.52
2	F	368	TYR	N-CA	-5.69	1.39	1.46
4	H	137	ALA	CA-C	-5.69	1.45	1.52
1	A	137	ILE	CA-C	-5.68	1.47	1.52
1	C	40	ARG	N-CA	-5.68	1.38	1.46
1	C	144	GLU	CA-C	-5.68	1.46	1.53
3	G	228	ARG	N-CA	-5.68	1.39	1.46
2	E	231	ARG	CA-C	-5.68	1.45	1.52
2	D	293	GLN	CA-C	-5.68	1.45	1.52
7	S	92	ASN	N-CA	-5.68	1.38	1.46
7	S	41	ARG	CA-C	-5.68	1.45	1.52
2	E	79	GLY	CA-C	-5.68	1.44	1.51
1	C	165	GLU	CA-C	-5.67	1.45	1.52
2	F	387	ILE	CA-C	-5.67	1.45	1.52
4	H	96	GLU	CA-C	-5.67	1.45	1.52
1	A	28	THR	CA-C	-5.67	1.45	1.52
1	B	389	THR	CA-C	-5.67	1.45	1.52
2	D	262	THR	CA-C	-5.67	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	G	209	LEU	CA-C	-5.67	1.45	1.52
4	H	66	HIS	N-CA	-5.67	1.38	1.46
1	A	320	SER	CA-C	-5.67	1.45	1.52
2	F	73	GLN	CA-C	-5.67	1.45	1.52
2	D	60	THR	N-CA	-5.67	1.38	1.45
2	E	306	SER	N-CA	-5.67	1.39	1.46
1	C	191	ASP	CA-C	-5.67	1.45	1.52
1	C	357	PHE	CA-C	-5.66	1.45	1.52
2	E	27	GLU	CA-C	-5.66	1.45	1.52
3	G	248	LEU	N-CA	-5.66	1.39	1.46
7	S	26	ALA	CA-C	-5.66	1.45	1.52
1	B	33	SER	N-CA	-5.66	1.38	1.45
3	G	245	LYS	N-CA	-5.66	1.39	1.46
1	B	357	PHE	N-CA	-5.66	1.39	1.46
4	H	117	SER	CA-C	-5.66	1.45	1.52
7	S	154	ILE	N-CA	-5.66	1.39	1.46
2	D	332	THR	CA-C	-5.65	1.45	1.52
2	F	186	VAL	CA-C	-5.65	1.45	1.52
1	B	218	LYS	N-CA	-5.65	1.39	1.46
1	A	88	VAL	N-CA	-5.65	1.39	1.46
1	C	416	GLN	N-CA	-5.65	1.39	1.46
2	F	341	GLU	CA-C	-5.65	1.45	1.52
3	G	192	ILE	N-CA	-5.65	1.38	1.46
3	G	131	VAL	N-CA	-5.65	1.39	1.46
2	F	329	LEU	CA-C	-5.64	1.45	1.52
3	G	175	GLU	CA-C	-5.64	1.45	1.52
4	H	74	LYS	CA-C	-5.64	1.46	1.52
1	A	214	ALA	CA-C	-5.64	1.45	1.52
1	B	24	ASP	CA-C	-5.64	1.45	1.52
2	D	289	MET	N-CA	-5.64	1.39	1.46
2	F	16	VAL	N-CA	-5.64	1.39	1.46
2	D	117	HIS	CA-C	-5.63	1.45	1.52
2	D	449	TYR	CA-C	-5.63	1.45	1.52
2	F	286	ALA	N-CA	-5.63	1.39	1.46
3	G	217	LEU	N-CA	-5.63	1.39	1.46
2	D	164	VAL	CA-C	-5.63	1.45	1.52
2	D	438	ILE	CA-C	-5.63	1.45	1.52
1	B	367	VAL	N-CA	-5.63	1.39	1.46
2	D	160	VAL	CA-C	-5.63	1.46	1.53
2	F	378	LEU	N-CA	-5.63	1.39	1.46
3	G	237	LYS	CA-C	-5.63	1.45	1.52
2	F	217	LEU	N-CA	-5.63	1.39	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	F	254	PHE	N-CA	-5.63	1.39	1.46
2	D	93	ARG	CA-C	-5.63	1.45	1.52
2	F	139	VAL	CA-C	-5.63	1.45	1.52
2	E	416	GLN	N-CA	-5.62	1.40	1.46
1	C	465	GLU	N-CA	-5.62	1.39	1.46
2	D	236	GLY	CA-C	-5.62	1.45	1.52
2	F	84	ILE	C-O	-5.62	1.20	1.24
2	F	154	LEU	N-CA	-5.62	1.39	1.46
1	B	483	ILE	CA-C	-5.62	1.45	1.52
1	C	483	ILE	CA-C	-5.62	1.45	1.52
2	F	163	THR	N-CA	-5.62	1.39	1.46
2	E	197	TYR	N-CA	-5.62	1.39	1.46
3	G	166	ARG	CA-C	-5.62	1.45	1.52
1	A	258	ARG	N-CA	-5.62	1.39	1.46
1	A	265	LEU	CA-C	-5.62	1.45	1.52
2	F	180	TYR	CA-C	-5.62	1.45	1.53
1	A	412	ALA	CA-C	-5.61	1.45	1.52
1	C	229	THR	CA-C	-5.61	1.45	1.52
1	A	418	LEU	CA-C	-5.61	1.45	1.52
2	E	353	SER	CA-C	-5.61	1.45	1.53
2	F	217	LEU	CA-C	-5.61	1.46	1.52
1	B	70	ASN	N-CA	-5.61	1.39	1.46
1	B	381	ARG	N-CA	-5.61	1.39	1.46
7	S	42	VAL	CA-C	-5.60	1.46	1.52
1	A	69	ASP	CA-C	-5.60	1.45	1.52
1	A	396	GLN	CA-C	-5.60	1.45	1.52
2	F	52	HIS	CA-C	-5.60	1.45	1.53
2	F	41	ARG	CA-C	-5.60	1.45	1.53
1	C	140	ILE	CA-C	-5.60	1.45	1.52
1	B	67	GLU	CA-C	-5.59	1.44	1.52
2	E	16	VAL	CA-C	-5.59	1.45	1.52
2	F	413	PHE	CA-C	-5.59	1.45	1.52
1	C	32	LEU	N-CA	-5.59	1.39	1.46
3	G	242	MET	CA-C	-5.59	1.45	1.52
2	E	392	GLY	CA-C	5.59	1.57	1.51
3	G	190	MET	CA-C	-5.59	1.45	1.52
2	E	387	ILE	CA-C	-5.59	1.46	1.52
1	C	150	ILE	CA-C	-5.59	1.45	1.52
1	C	189	PHE	CA-C	-5.59	1.45	1.52
1	C	412	ALA	CA-C	-5.59	1.45	1.52
2	D	470	ALA	CA-C	-5.59	1.45	1.52
3	G	114	SER	N-CA	-5.59	1.39	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	206	ILE	CA-C	-5.58	1.46	1.52
3	G	18	LYS	N-CA	-5.58	1.39	1.46
1	C	337	TYR	CA-C	-5.58	1.45	1.52
7	S	33	GLU	N-CA	-5.58	1.39	1.46
1	C	499	GLU	CA-C	-5.58	1.45	1.52
4	H	71	THR	CA-C	-5.58	1.45	1.52
1	B	446	TYR	CA-C	-5.58	1.45	1.52
1	B	263	HIS	N-CA	-5.58	1.39	1.46
2	D	183	PHE	N-CA	-5.58	1.39	1.46
2	E	160	VAL	CA-C	-5.58	1.45	1.52
2	D	450	ASP	CA-C	-5.58	1.45	1.52
2	F	177	HIS	CA-C	-5.57	1.45	1.53
7	S	85	LEU	CA-C	-5.57	1.44	1.52
2	F	75	VAL	CA-C	-5.57	1.45	1.52
1	A	260	ASN	CA-C	-5.57	1.46	1.53
1	B	260	ASN	CA-C	-5.57	1.46	1.53
1	C	256	TYR	CA-C	-5.57	1.45	1.52
2	F	256	ASP	N-CA	-5.57	1.40	1.46
1	B	217	VAL	N-CA	-5.56	1.39	1.46
3	G	165	PHE	CA-C	-5.56	1.46	1.52
2	F	306	SER	CA-C	-5.56	1.46	1.52
2	E	213	SER	N-CA	-5.56	1.39	1.46
8	T	105	VAL	CA-C	-5.56	1.45	1.52
1	C	242	LEU	CA-C	-5.55	1.45	1.52
2	D	320	PRO	CA-C	-5.55	1.44	1.52
1	C	369	LEU	CA-C	-5.55	1.43	1.52
2	E	114	ALA	CA-C	-5.55	1.45	1.52
2	F	226	PRO	CA-C	-5.55	1.44	1.52
4	H	40	THR	N-CA	-5.55	1.38	1.45
1	C	501	VAL	N-CA	-5.55	1.40	1.46
2	E	432	VAL	CA-C	-5.55	1.47	1.52
3	G	33	ARG	N-CA	-5.55	1.39	1.46
2	D	362	ILE	CA-C	-5.54	1.46	1.52
3	G	209	LEU	N-CA	-5.54	1.39	1.46
2	D	307	VAL	N-CA	-5.54	1.38	1.46
2	D	52	HIS	CA-C	-5.54	1.45	1.52
2	F	213	SER	CA-C	-5.54	1.45	1.53
5	I	12	ILE	N-CA	-5.54	1.40	1.46
2	D	366	GLU	CA-C	-5.54	1.46	1.52
2	E	254	PHE	N-CA	-5.54	1.39	1.46
1	C	299	PHE	CA-C	-5.53	1.45	1.52
1	C	471	HIS	CA-C	-5.53	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	D	284	THR	CA-C	-5.53	1.44	1.52
1	A	139	ARG	CA-C	-5.53	1.45	1.52
1	A	275	ALA	N-CA	-5.53	1.39	1.46
2	D	382	LYS	CA-C	-5.53	1.45	1.52
7	S	14	ILE	CA-C	-5.53	1.45	1.52
2	D	318	THR	CA-C	-5.53	1.45	1.52
1	A	465	GLU	N-CA	-5.53	1.39	1.46
1	B	216	LEU	N-CA	-5.53	1.39	1.46
2	D	73	GLN	CA-C	-5.53	1.45	1.52
2	E	162	LYS	CA-C	-5.52	1.46	1.52
1	C	63	SER	CA-C	-5.52	1.45	1.52
2	E	11	GLY	N-CA	-5.52	1.39	1.44
1	B	102	GLU	CA-C	-5.52	1.48	1.52
2	D	199	GLU	N-CA	-5.51	1.39	1.46
2	E	151	LYS	CA-C	-5.51	1.46	1.52
2	E	45	LEU	CA-C	-5.51	1.45	1.53
2	E	119	GLU	CA-C	-5.51	1.45	1.53
1	A	366	ASN	CA-C	-5.51	1.45	1.53
2	F	402	LEU	N-CA	-5.51	1.39	1.46
3	G	145	ALA	CA-C	-5.51	1.45	1.52
1	B	25	LEU	N-CA	-5.51	1.38	1.46
1	B	248	TYR	CA-C	-5.51	1.45	1.52
2	E	94	ILE	CA-C	-5.51	1.45	1.52
7	S	64	VAL	CA-C	-5.50	1.44	1.52
1	B	61	GLY	N-CA	-5.50	1.39	1.45
2	F	34	ASN	CA-C	-5.50	1.45	1.52
1	A	40	ARG	N-CA	-5.50	1.39	1.46
1	C	34	ILE	CA-C	-5.50	1.45	1.52
1	B	46	ASN	CA-C	-5.50	1.45	1.52
1	A	305	LEU	CA-C	-5.50	1.45	1.52
1	A	313	ASN	CA-C	-5.50	1.45	1.52
1	B	242	LEU	CA-C	-5.50	1.45	1.52
1	C	60	LYS	N-CA	-5.50	1.39	1.45
2	D	170	ILE	N-CA	-5.50	1.40	1.46
3	G	214	TYR	N-CA	-5.50	1.39	1.46
2	D	373	GLY	CA-C	-5.50	1.45	1.52
2	F	74	LYS	N-CA	-5.50	1.38	1.46
4	H	29	ASN	N-CA	-5.50	1.40	1.46
1	A	108	VAL	N-CA	-5.49	1.40	1.46
1	B	139	ARG	CA-C	-5.49	1.45	1.52
7	S	91	GLU	CA-C	-5.49	1.46	1.52
2	D	267	GLU	CA-C	-5.49	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	256	TYR	N-CA	-5.49	1.39	1.46
2	D	79	GLY	CA-C	-5.49	1.44	1.51
1	B	260	ASN	N-CA	-5.49	1.39	1.46
1	B	348	GLY	CA-C	-5.49	1.46	1.52
1	C	34	ILE	N-CA	-5.49	1.39	1.46
2	E	370	VAL	CA-C	-5.49	1.45	1.52
1	B	31	VAL	CA-C	-5.48	1.46	1.53
2	D	43	THR	CA-C	-5.48	1.45	1.52
2	F	151	LYS	CA-C	-5.48	1.46	1.52
1	A	154	ASP	CA-C	-5.48	1.45	1.52
1	B	462	THR	N-CA	-5.48	1.39	1.46
2	E	132	ILE	N-CA	-5.48	1.39	1.46
2	F	138	LYS	N-CA	-5.48	1.40	1.46
1	B	387	ALA	CA-C	-5.48	1.45	1.52
1	A	350	ILE	CA-C	-5.47	1.45	1.52
1	B	482	LYS	CA-C	-5.47	1.45	1.52
1	A	29	GLY	CA-C	-5.47	1.45	1.51
2	D	152	ILE	CA-C	-5.47	1.46	1.52
2	E	349	ASP	C-N	-5.47	1.27	1.34
1	B	500	ILE	N-CA	-5.47	1.40	1.46
2	E	393	MET	CA-C	-5.47	1.45	1.52
2	E	443	GLN	N-CA	-5.47	1.39	1.46
3	G	149	LEU	CA-C	-5.47	1.46	1.52
4	H	112	LEU	N-CA	-5.46	1.39	1.46
2	F	401	LYS	CA-C	-5.46	1.45	1.52
1	B	419	SER	CA-C	-5.46	1.45	1.52
3	G	218	LYS	N-CA	-5.46	1.39	1.46
3	G	231	ALA	CA-C	-5.46	1.45	1.52
1	B	320	SER	CA-C	-5.46	1.45	1.52
2	D	180	TYR	CA-C	-5.46	1.45	1.52
2	F	58	VAL	CA-C	-5.46	1.46	1.52
1	B	224	ASP	CA-C	-5.45	1.45	1.52
1	B	187	LYS	CA-C	-5.45	1.46	1.52
7	S	82	THR	CA-C	-5.45	1.45	1.52
2	D	371	ALA	N-CA	-5.45	1.39	1.46
7	S	24	SER	N-CA	-5.45	1.39	1.46
2	E	263	GLN	N-CA	-5.45	1.39	1.46
7	S	7	PRO	CA-C	-5.45	1.47	1.52
2	F	198	HIS	N-CA	-5.45	1.39	1.46
2	F	22	ASP	N-CA	-5.45	1.39	1.46
1	C	200	TYR	CA-C	-5.44	1.46	1.52
2	F	70	VAL	CA-C	-5.44	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	418	LEU	N-CA	-5.44	1.39	1.46
2	E	243	PHE	CA-C	-5.44	1.45	1.52
1	A	7	GLU	CA-C	-5.44	1.45	1.52
1	A	327	ILE	CA-C	-5.43	1.46	1.52
3	G	250	PHE	N-CA	-5.43	1.39	1.46
4	H	134	ARG	N-CA	-5.43	1.40	1.46
4	H	140	ALA	CA-C	-5.43	1.45	1.52
1	B	476	HIS	CA-C	-5.43	1.45	1.52
2	F	93	ARG	CA-C	-5.43	1.46	1.52
1	A	245	LEU	CA-C	-5.43	1.45	1.52
2	F	339	ILE	CA-C	-5.43	1.45	1.52
2	E	391	LEU	C-N	5.43	1.40	1.33
2	E	152	ILE	N-CA	-5.43	1.39	1.46
2	F	276	PRO	CA-C	-5.43	1.44	1.52
1	B	28	THR	CA-C	-5.42	1.45	1.52
2	D	385	GLN	C-N	-5.42	1.26	1.34
2	F	284	THR	CA-C	-5.42	1.44	1.52
1	C	292	GLU	CA-C	-5.42	1.45	1.53
2	D	242	TYR	N-CA	-5.42	1.40	1.46
2	D	38	VAL	CA-C	-5.42	1.46	1.52
2	D	277	SER	CA-C	-5.42	1.45	1.52
2	D	440	GLY	CA-C	-5.42	1.44	1.51
2	D	448	GLU	CA-C	-5.42	1.46	1.52
3	G	214	TYR	CA-C	-5.42	1.46	1.52
1	A	153	VAL	N-CA	-5.42	1.40	1.46
1	C	275	ALA	CA-C	-5.42	1.45	1.52
2	F	310	ILE	CA-C	-5.42	1.45	1.52
2	F	287	THR	CA-C	-5.42	1.45	1.52
2	F	63	MET	CA-C	-5.41	1.46	1.52
1	B	367	VAL	CA-C	-5.41	1.45	1.52
2	E	394	ASP	N-CA	-5.41	1.39	1.46
1	A	466	ASN	CA-C	-5.41	1.45	1.52
2	D	147	ALA	CA-C	-5.41	1.46	1.52
2	E	165	LEU	CA-C	-5.41	1.46	1.52
2	F	404	VAL	N-CA	-5.41	1.40	1.46
2	F	266	SER	CA-C	-5.40	1.45	1.52
2	D	391	LEU	CA-C	-5.40	1.45	1.52
2	E	301	LYS	CA-C	-5.40	1.45	1.52
3	G	193	TYR	CA-C	-5.40	1.45	1.52
1	C	204	VAL	N-CA	-5.40	1.40	1.46
2	D	395	GLU	C-N	5.40	1.41	1.33
4	H	125	GLU	CA-C	-5.40	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	I	5	ARG	CA-C	-5.40	1.45	1.52
1	C	131	LEU	CA-C	-5.40	1.46	1.52
3	G	142	SER	CA-C	-5.40	1.45	1.52
1	B	29	GLY	N-CA	-5.39	1.40	1.45
2	D	133	LEU	CA-C	-5.39	1.46	1.52
1	A	304	ARG	N-CA	-5.39	1.39	1.46
2	F	45	LEU	CA-C	-5.39	1.46	1.52
1	C	61	GLY	CA-C	-5.38	1.45	1.51
2	F	388	ILE	CA-C	-5.38	1.46	1.52
2	E	96	ASN	N-CA	-5.38	1.39	1.45
1	A	151	LYS	CA-C	-5.38	1.46	1.52
1	C	35	GLY	CA-C	-5.38	1.44	1.51
2	E	35	ALA	N-CA	-5.38	1.39	1.46
1	A	230	ILE	CA-C	-5.38	1.46	1.52
1	C	104	LEU	CA-C	-5.38	1.46	1.52
4	H	37	ASP	CA-C	-5.37	1.46	1.52
1	B	494	ASP	N-CA	-5.37	1.40	1.46
1	A	413	ALA	CA-C	-5.37	1.45	1.52
2	D	57	THR	N-CA	-5.37	1.39	1.46
1	B	264	ALA	N-CA	-5.36	1.39	1.45
2	D	61	ILE	CA-C	-5.36	1.46	1.52
2	F	212	THR	CA-C	-5.36	1.47	1.53
1	B	382	ALA	CA-C	-5.36	1.46	1.52
2	F	305	THR	CA-C	-5.36	1.46	1.52
4	H	132	GLN	CA-C	-5.36	1.45	1.52
1	B	28	THR	N-CA	-5.36	1.39	1.45
1	C	321	LEU	CA-C	-5.35	1.46	1.52
2	F	111	LYS	CA-C	-5.35	1.45	1.52
1	A	504	PHE	CA-C	-5.35	1.46	1.52
2	E	138	LYS	CA-C	-5.35	1.46	1.52
2	F	460	VAL	CA-C	-5.35	1.46	1.52
3	G	221	THR	CA-C	-5.35	1.45	1.52
1	B	61	GLY	CA-C	-5.35	1.46	1.51
1	B	303	SER	N-CA	-5.35	1.39	1.46
2	F	202	GLU	CA-C	-5.35	1.45	1.52
1	C	304	ARG	CA-C	-5.35	1.46	1.52
1	A	229	THR	CA-C	-5.34	1.46	1.52
2	D	13	ILE	N-CA	-5.34	1.40	1.46
2	F	344	ILE	N-CA	-5.34	1.40	1.46
4	H	72	THR	N-CA	-5.34	1.39	1.46
1	A	469	LEU	CA-C	-5.34	1.46	1.52
3	G	141	ALA	CA-C	-5.34	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	D	49	VAL	CA-C	-5.34	1.46	1.52
2	E	284	THR	CA-C	-5.34	1.44	1.52
2	E	161	GLY	CA-C	-5.34	1.44	1.51
1	C	287	ARG	C-N	-5.34	1.27	1.33
3	G	156	ASP	CA-C	-5.34	1.46	1.53
7	S	18	TYR	CA-C	-5.33	1.46	1.52
1	B	504	PHE	N-CA	-5.33	1.40	1.46
2	D	76	LEU	CA-C	-5.33	1.46	1.52
2	F	216	ALA	CA-C	-5.33	1.46	1.52
1	A	475	GLN	CA-C	-5.33	1.46	1.52
2	E	93	ARG	CA-C	-5.33	1.46	1.52
2	D	361	ASN	N-CA	-5.32	1.39	1.46
2	E	383	SER	N-CA	-5.32	1.39	1.46
1	C	314	ASP	N-CA	-5.32	1.39	1.46
1	A	268	TYR	CA-C	-5.32	1.46	1.52
1	C	54	GLU	N-CA	-5.32	1.39	1.46
1	C	258	ARG	N-CA	-5.32	1.40	1.46
2	E	144	ALA	N-CA	-5.32	1.41	1.46
2	E	421	ALA	N-CA	-5.32	1.39	1.46
2	D	447	GLY	CA-C	-5.32	1.43	1.51
1	B	48	GLN	CA-C	-5.32	1.46	1.52
1	B	277	ALA	N-CA	-5.32	1.40	1.46
1	B	488	LYS	N-CA	-5.32	1.39	1.46
3	G	229	MET	N-CA	-5.31	1.40	1.46
2	D	138	LYS	CA-C	-5.31	1.46	1.52
2	E	100	GLU	CA-C	-5.31	1.46	1.53
1	B	166	LEU	N-CA	-5.31	1.39	1.46
1	B	394	LEU	CA-C	-5.31	1.45	1.52
1	C	215	GLN	CA-C	-5.31	1.45	1.52
2	D	411	GLN	CA-C	-5.31	1.45	1.52
2	F	362	ILE	CA-C	-5.31	1.46	1.52
1	C	51	GLU	N-CA	-5.31	1.39	1.46
2	F	306	SER	N-CA	-5.31	1.39	1.46
3	G	111	LYS	CA-C	-5.31	1.45	1.52
1	B	495	ALA	N-CA	-5.30	1.39	1.46
1	C	405	GLN	N-CA	-5.30	1.39	1.46
2	D	44	ARG	CA-C	-5.30	1.45	1.52
2	D	105	ARG	CA-C	-5.30	1.46	1.53
2	E	245	ASP	N-CA	-5.30	1.39	1.46
3	G	169	ILE	CA-C	-5.30	1.46	1.52
4	H	32	ASN	CA-C	-5.30	1.45	1.52
1	C	278	TYR	N-CA	-5.30	1.40	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	F	10	THR	CA-C	-5.30	1.46	1.52
7	S	90	ALA	N-CA	-5.30	1.40	1.46
2	D	399	GLU	N-CA	-5.30	1.39	1.46
1	B	189	PHE	CA-C	-5.29	1.45	1.52
1	C	300	TYR	N-CA	-5.29	1.39	1.46
2	D	39	GLN	CA-C	-5.29	1.45	1.52
3	G	140	ASP	CA-C	-5.29	1.46	1.52
1	B	200	TYR	CA-C	-5.29	1.46	1.52
7	S	153	LYS	CA-C	-5.29	1.45	1.52
1	A	128	ARG	CA-C	-5.29	1.45	1.52
3	G	14	LYS	N-CA	-5.29	1.40	1.46
1	A	156	LEU	CA-C	-5.29	1.45	1.52
1	C	50	GLU	CA-C	-5.29	1.46	1.53
2	F	166	ILE	CA-C	-5.29	1.46	1.52
1	C	199	LEU	CA-C	-5.29	1.46	1.52
2	D	140	VAL	N-CA	-5.29	1.40	1.46
3	G	159	SER	CA-C	-5.29	1.46	1.52
1	A	280	GLN	CA-C	-5.28	1.45	1.52
2	F	70	VAL	N-CA	-5.28	1.39	1.46
1	C	123	SER	CA-C	-5.28	1.46	1.52
2	E	75	VAL	N-CA	-5.28	1.40	1.46
2	F	189	ARG	CA-C	-5.27	1.46	1.52
1	C	361	ILE	N-CA	-5.27	1.40	1.46
2	D	388	ILE	N-CA	-5.27	1.39	1.46
1	C	392	LEU	N-CA	-5.27	1.39	1.46
1	C	411	ASP	CA-C	-5.27	1.46	1.52
2	E	183	PHE	N-CA	-5.27	1.39	1.46
4	H	17	SER	N-CA	-5.27	1.40	1.46
1	A	222	ASP	CA-C	-5.26	1.46	1.52
1	C	469	LEU	N-CA	-5.26	1.40	1.46
2	D	405	SER	N-CA	-5.26	1.40	1.46
1	B	195	GLU	CA-C	-5.26	1.46	1.52
1	A	469	LEU	N-CA	-5.26	1.40	1.46
2	D	122	GLU	CA-C	-5.26	1.46	1.52
2	F	321	ALA	C-N	-5.26	1.27	1.33
1	B	99	VAL	N-CA	-5.26	1.40	1.46
2	D	52	HIS	N-CA	-5.26	1.39	1.46
2	D	207	ASN	N-CA	-5.26	1.39	1.46
2	E	26	ASP	N-CA	-5.26	1.39	1.46
2	E	442	GLN	CA-C	-5.26	1.46	1.52
2	E	253	LEU	N-CA	-5.26	1.40	1.46
3	G	233	ASP	CA-C	-5.26	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	I	2	ALA	CA-C	-5.26	1.46	1.53
1	A	212	THR	CA-C	-5.26	1.46	1.52
1	C	457	GLU	N-CA	-5.26	1.41	1.45
2	D	199	GLU	CA-C	-5.26	1.45	1.52
7	S	56	LEU	CA-C	-5.25	1.45	1.52
1	A	204	VAL	N-CA	-5.25	1.40	1.46
1	C	136	ILE	CA-C	-5.25	1.46	1.52
1	B	430	GLN	CA-C	-5.25	1.45	1.52
2	E	405	SER	CA-C	-5.25	1.46	1.52
1	A	187	LYS	CA-C	-5.25	1.46	1.52
1	B	501	VAL	N-CA	-5.25	1.40	1.46
2	F	62	ALA	CA-C	-5.25	1.46	1.52
2	E	398	GLU	CA-C	-5.25	1.45	1.52
3	G	8	ARG	N-CA	-5.25	1.40	1.46
3	G	187	ALA	CA-C	-5.25	1.46	1.52
3	G	244	ASP	CA-C	-5.25	1.45	1.52
4	H	73	SER	CA-C	-5.25	1.46	1.52
2	E	165	LEU	N-CA	-5.24	1.40	1.46
2	E	337	ARG	CA-C	-5.24	1.46	1.52
2	E	408	ARG	CA-C	-5.24	1.46	1.52
3	G	89	MET	CA-C	-5.23	1.46	1.52
1	A	330	GLN	CA-C	-5.23	1.46	1.52
1	A	485	THR	CA-C	-5.23	1.46	1.52
2	D	133	LEU	N-CA	-5.23	1.39	1.46
1	A	280	GLN	N-CA	-5.22	1.40	1.46
1	C	125	ALA	CA-C	-5.22	1.45	1.53
2	D	200	MET	CA-C	-5.22	1.46	1.52
1	A	161	ARG	CA-C	-5.22	1.46	1.52
1	C	53	VAL	CA-C	-5.22	1.46	1.53
2	D	26	ASP	N-CA	-5.22	1.39	1.46
2	D	363	VAL	CA-C	-5.22	1.45	1.52
1	B	178	ILE	N-CA	-5.22	1.40	1.46
1	B	497	LEU	N-CA	-5.21	1.40	1.46
1	B	390	MET	N-CA	-5.21	1.40	1.46
1	B	468	PHE	N-CA	-5.21	1.40	1.46
1	C	222	ASP	CA-C	-5.21	1.45	1.52
2	E	275	ILE	N-CA	-5.21	1.41	1.47
1	A	291	ARG	CA-C	-5.21	1.46	1.52
2	F	298	THR	CA-C	-5.21	1.46	1.52
1	C	178	ILE	CA-C	-5.21	1.46	1.52
1	C	404	ALA	CA-C	-5.21	1.46	1.52
2	D	263	GLN	N-CA	-5.21	1.40	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	H	126	ALA	N-CA	-5.21	1.40	1.46
2	E	155	PHE	N-CA	-5.21	1.39	1.45
2	E	367	HIS	CA-C	-5.20	1.46	1.52
1	B	85	GLY	CA-C	-5.20	1.44	1.51
2	D	224	GLU	CA-C	-5.20	1.44	1.52
2	D	339	ILE	CA-C	-5.20	1.46	1.52
3	G	203	ASN	CA-C	-5.20	1.44	1.52
2	F	244	ARG	N-CA	-5.20	1.39	1.46
2	E	339	ILE	CA-C	-5.20	1.46	1.52
1	C	291	ARG	CA-C	-5.19	1.46	1.52
2	E	407	ALA	N-CA	-5.19	1.40	1.46
1	A	359	LYS	N-CA	-5.19	1.39	1.46
1	B	106	ARG	CA-C	-5.19	1.46	1.52
7	S	107	THR	CA-C	5.19	1.59	1.52
2	F	166	ILE	N-CA	-5.19	1.40	1.46
1	A	294	TYR	N-CA	-5.18	1.38	1.46
2	F	269	SER	N-CA	-5.18	1.40	1.46
2	F	412	ARG	N-CA	-5.18	1.39	1.46
3	G	206	GLU	N-CA	-5.18	1.39	1.46
1	B	140	ILE	CA-C	-5.18	1.46	1.52
2	E	411	GLN	N-CA	-5.18	1.40	1.46
2	F	427	HIS	CA-C	-5.18	1.45	1.52
4	H	102	MET	CA-C	-5.18	1.46	1.52
1	A	326	VAL	CA-C	-5.18	1.46	1.52
1	C	220	LEU	CA-C	-5.17	1.46	1.52
4	H	59	ARG	CA-C	-5.17	1.45	1.52
4	H	109	LYS	N-CA	-5.17	1.40	1.46
1	A	471	HIS	N-CA	-5.17	1.40	1.46
1	B	290	GLY	CA-C	-5.17	1.44	1.51
1	C	394	LEU	N-CA	-5.17	1.39	1.46
2	E	334	VAL	N-CA	-5.17	1.40	1.46
2	E	363	VAL	CA-C	-5.17	1.46	1.52
1	B	123	SER	CA-C	-5.17	1.46	1.52
2	E	56	SER	CA-C	-5.17	1.46	1.53
2	E	292	MET	N-CA	-5.17	1.39	1.46
1	A	496	LYS	N-CA	-5.17	1.40	1.46
1	B	76	PHE	CA-C	-5.17	1.47	1.53
1	A	61	GLY	CA-C	-5.16	1.46	1.51
4	H	114	LYS	N-CA	-5.16	1.40	1.46
1	A	471	HIS	CA-C	-5.16	1.46	1.52
1	B	43	GLY	N-CA	-5.16	1.40	1.45
4	H	136	GLU	N-CA	-5.16	1.40	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	D	94	ILE	CA-C	-5.16	1.46	1.52
2	E	411	GLN	CA-C	-5.16	1.45	1.52
1	C	55	PHE	N-CA	-5.15	1.40	1.45
1	A	501	VAL	C-O	-5.15	1.18	1.24
1	C	497	LEU	CA-C	-5.15	1.46	1.52
2	D	137	ILE	CA-C	-5.15	1.46	1.52
2	D	466	ALA	CA-C	-5.15	1.46	1.52
1	B	194	ASP	N-CA	-5.15	1.39	1.46
2	F	371	ALA	CA-C	-5.15	1.46	1.52
1	A	464	PHE	N-CA	-5.14	1.40	1.46
1	C	324	LEU	N-CA	-5.14	1.41	1.46
2	E	343	GLY	CA-C	-5.14	1.44	1.51
1	A	41	VAL	N-CA	-5.14	1.40	1.46
1	A	248	TYR	CA-C	-5.14	1.46	1.52
7	S	104	ALA	N-CA	-5.14	1.40	1.46
1	C	173	THR	CA-C	-5.14	1.44	1.52
2	F	129	GLU	N-CA	-5.14	1.40	1.46
1	A	180	ILE	CA-C	-5.14	1.46	1.52
1	B	456	LEU	CA-C	-5.14	1.46	1.52
2	D	226	PRO	CA-C	-5.14	1.44	1.52
2	E	289	MET	CA-C	-5.14	1.46	1.52
2	E	402	LEU	CA-C	-5.13	1.46	1.52
2	F	197	TYR	N-CA	-5.13	1.40	1.46
1	C	193	THR	N-CA	-5.13	1.40	1.46
4	H	107	ALA	CA-C	-5.13	1.46	1.52
1	B	38	ILE	N-CA	-5.13	1.39	1.46
1	C	168	ILE	N-CA	-5.13	1.40	1.46
1	A	43	GLY	CA-C	-5.13	1.46	1.52
3	G	265	ILE	CA-C	-5.13	1.46	1.52
1	A	198	LYS	CA-C	-5.12	1.46	1.52
2	E	112	GLN	CA-C	-5.12	1.46	1.52
2	F	405	SER	N-CA	-5.12	1.40	1.46
1	B	136	ILE	CA-C	-5.12	1.46	1.52
1	B	439	GLU	CA-C	-5.12	1.46	1.52
2	E	305	THR	CA-C	-5.12	1.46	1.52
1	A	323	ALA	N-CA	-5.12	1.39	1.46
7	S	143	SER	N-CA	-5.12	1.39	1.45
1	B	218	LYS	C-O	-5.12	1.18	1.24
2	E	126	MET	N-CA	-5.12	1.39	1.46
2	F	164	VAL	CA-C	-5.12	1.46	1.52
1	B	243	GLN	CA-C	-5.11	1.46	1.52
1	C	367	VAL	CA-C	-5.11	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	E	316	ASP	CA-C	-5.11	1.46	1.52
1	B	479	LEU	CA-C	-5.11	1.46	1.52
1	C	355	GLU	CA-C	-5.11	1.45	1.52
1	C	509	GLU	CA-C	-5.11	1.46	1.52
2	F	252	LEU	CA-C	-5.11	1.46	1.52
2	F	268	VAL	N-CA	-5.11	1.40	1.46
1	A	66	LEU	CA-C	-5.11	1.46	1.53
5	I	6	GLN	CA-C	-5.11	1.46	1.52
7	S	37	LYS	N-CA	-5.11	1.39	1.46
1	A	75	VAL	N-CA	-5.11	1.39	1.46
2	D	241	GLU	CA-C	-5.11	1.46	1.52
2	E	144	ALA	CA-C	-5.11	1.46	1.52
2	F	303	SER	N-CA	-5.11	1.39	1.46
4	H	128	ARG	N-CA	-5.11	1.40	1.46
1	A	113	ASN	CA-C	-5.11	1.46	1.52
1	C	462	THR	N-CA	-5.11	1.40	1.46
1	A	104	LEU	CA-C	-5.10	1.46	1.52
2	F	49	VAL	CA-C	-5.10	1.47	1.52
1	B	39	ALA	CA-C	-5.10	1.46	1.52
2	F	384	LEU	CA-C	-5.10	1.45	1.52
7	S	103	SER	CA-C	-5.10	1.46	1.52
1	C	415	GLN	CA-C	-5.10	1.46	1.52
1	A	143	ARG	CA-C	-5.10	1.47	1.52
2	D	171	ASN	CA-C	-5.10	1.46	1.52
1	C	476	HIS	CA-C	-5.09	1.44	1.52
3	G	171	TYR	N-CA	-5.09	1.39	1.45
2	F	303	SER	CA-C	-5.09	1.46	1.52
7	S	16	GLY	N-CA	-5.09	1.38	1.45
2	E	236	GLY	CA-C	-5.09	1.46	1.52
3	G	32	ALA	CA-C	-5.09	1.46	1.52
1	A	74	VAL	CA-C	-5.08	1.47	1.52
1	A	378	ALA	N-CA	-5.08	1.39	1.46
2	F	305	THR	N-CA	-5.08	1.39	1.46
2	F	147	ALA	CA-C	-5.08	1.46	1.52
3	G	230	THR	N-CA	-5.08	1.40	1.46
1	A	66	LEU	N-CA	-5.07	1.39	1.46
1	B	138	PRO	CA-C	-5.07	1.45	1.52
1	C	465	GLU	CA-C	-5.07	1.46	1.52
2	E	257	ASN	CA-C	-5.07	1.42	1.52
2	D	100	GLU	CA-C	-5.07	1.46	1.52
2	D	278	ALA	CA-C	-5.07	1.46	1.52
4	H	46	GLY	CA-C	-5.07	1.44	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	E	286	ALA	N-CA	-5.06	1.40	1.46
7	S	55	LEU	CA-C	-5.06	1.46	1.52
2	F	82	ILE	CA-C	-5.06	1.45	1.52
2	F	213	SER	N-CA	-5.06	1.40	1.45
1	A	426	GLU	CA-C	-5.06	1.46	1.52
2	D	333	THR	N-CA	-5.06	1.40	1.46
4	H	62	LEU	CA-C	-5.06	1.46	1.52
1	C	140	ILE	N-CA	-5.06	1.40	1.46
1	C	226	MET	N-CA	-5.06	1.40	1.46
2	E	75	VAL	CA-C	-5.06	1.46	1.52
2	F	83	ARG	N-CA	-5.05	1.39	1.46
1	A	503	ASN	CA-C	-5.05	1.46	1.52
1	B	339	PRO	N-CA	-5.05	1.41	1.47
2	E	410	ILE	N-CA	-5.05	1.40	1.46
2	F	322	PRO	CA-C	-5.05	1.44	1.52
2	F	272	LEU	N-CA	-5.05	1.39	1.46
1	A	431	GLY	CA-C	-5.05	1.46	1.52
1	B	312	MET	N-CA	-5.05	1.39	1.45
2	E	61	ILE	CA-C	-5.05	1.46	1.52
2	E	412	ARG	N-CA	-5.05	1.40	1.46
1	B	34	ILE	N-CA	-5.05	1.40	1.46
1	C	76	PHE	CA-C	-5.04	1.46	1.52
2	D	114	ALA	CA-C	-5.04	1.46	1.52
2	E	96	ASN	CA-C	-5.04	1.46	1.53
1	C	505	LEU	CA-C	-5.04	1.46	1.52
2	D	326	PHE	N-CA	-5.04	1.40	1.46
1	A	337	TYR	N-CA	-5.04	1.40	1.46
1	B	241	PRO	CA-C	-5.04	1.44	1.52
2	E	125	GLU	CA-C	-5.04	1.45	1.52
1	A	462	THR	N-CA	-5.04	1.40	1.46
1	C	262	LYS	N-CA	-5.04	1.39	1.46
2	E	413	PHE	N-CA	-5.04	1.39	1.46
1	B	287	ARG	N-CA	-5.04	1.38	1.45
1	C	381	ARG	CA-C	-5.04	1.46	1.52
2	E	349	ASP	CA-C	-5.04	1.46	1.52
4	H	55	LEU	CA-C	-5.04	1.46	1.52
1	B	278	TYR	CA-C	-5.04	1.46	1.52
1	C	59	LEU	CA-C	-5.04	1.46	1.52
2	E	383	SER	CA-C	-5.04	1.46	1.52
1	A	301	LEU	CA-C	-5.03	1.46	1.52
1	A	430	GLN	N-CA	-5.03	1.40	1.46
3	G	244	ASP	N-CA	-5.03	1.40	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	414	THR	CA-C	-5.03	1.46	1.52
7	S	68	SER	CA-C	-5.03	1.46	1.52
1	A	467	ALA	CA-C	-5.03	1.46	1.52
2	D	402	LEU	N-CA	-5.03	1.40	1.46
1	C	266	ILE	CA-C	-5.03	1.46	1.52
2	E	304	ILE	CA-C	-5.03	1.46	1.52
7	S	139	LYS	CA-C	-5.03	1.46	1.52
3	G	236	SER	CA-C	-5.02	1.46	1.52
1	C	480	LEU	N-CA	-5.02	1.40	1.46
2	D	99	GLY	CA-C	-5.02	1.45	1.51
2	F	38	VAL	CA-C	-5.02	1.46	1.52
7	S	89	LEU	CA-C	-5.02	1.45	1.52
7	S	144	LYS	CA-C	-5.02	1.47	1.53
2	D	21	VAL	N-CA	-5.02	1.40	1.46
2	D	50	ALA	CA-C	-5.02	1.46	1.52
1	A	231	VAL	N-CA	-5.01	1.39	1.46
1	B	320	SER	N-CA	-5.01	1.39	1.45
2	E	371	ALA	N-CA	-5.01	1.40	1.46
2	F	247	GLU	CA-C	-5.01	1.44	1.52
3	G	43	VAL	N-CA	-5.01	1.40	1.46
1	A	183	ILE	N-CA	-5.01	1.40	1.46
1	B	71	VAL	N-CA	-5.01	1.40	1.46
1	C	251	CYS	CA-C	-5.01	1.46	1.52
1	C	260	ASN	N-CA	-5.01	1.40	1.46
2	D	307	VAL	CA-C	-5.01	1.46	1.52
2	E	171	ASN	N-CA	-5.01	1.40	1.46
1	A	399	GLU	CA-C	-5.01	1.45	1.52
1	B	313	ASN	CA-C	-5.01	1.46	1.53
2	F	56	SER	N-CA	-5.01	1.39	1.46
1	C	392	LEU	CA-C	-5.01	1.46	1.52
2	F	169	LEU	CA-C	-5.00	1.46	1.52
1	B	66	LEU	N-CA	-5.00	1.40	1.46
2	E	310	ILE	CA-C	-5.00	1.46	1.52
2	F	117	HIS	CA-C	-5.00	1.46	1.52
2	F	307	VAL	N-CA	-5.00	1.39	1.46
2	F	380	ASP	N-CA	-5.00	1.40	1.46

All (1273) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	U	121	ASN	O-C-N	-59.42	27.93	123.00
7	S	167	GLY	O-C-N	-48.27	45.78	123.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	S	110	SER	CA-C-N	20.00	153.84	120.64
7	S	110	SER	C-N-CA	20.00	153.84	120.64
8	T	93	ASP	N-CA-C	-16.40	89.65	112.45
2	E	80	ALA	N-CA-C	-15.29	94.46	108.07
2	D	399	GLU	N-CA-C	-15.12	94.96	113.41
1	B	25	LEU	N-CA-C	-13.88	93.11	110.88
2	D	80	ALA	N-CA-C	-13.72	95.86	108.07
1	A	362	ARG	N-CA-C	-13.56	89.95	109.62
7	S	107	THR	CA-C-N	12.57	145.54	121.54
7	S	107	THR	C-N-CA	12.57	145.54	121.54
2	F	20	VAL	N-CA-C	-12.14	90.19	107.80
1	A	327	ILE	N-CA-C	-12.10	90.70	108.12
3	G	139	GLY	CA-C-N	12.07	136.86	120.44
3	G	139	GLY	C-N-CA	12.07	136.86	120.44
1	A	405	GLN	N-CA-C	-11.99	98.37	113.23
7	S	31	LYS	N-CA-C	-11.96	100.29	112.97
2	F	27	GLU	N-CA-C	-11.89	96.17	110.44
1	C	91	THR	N-CA-C	-11.81	98.97	113.50
1	C	67	GLU	N-CA-C	-11.35	92.88	110.58
1	B	488	LYS	N-CA-C	-11.32	93.09	108.38
1	A	140	ILE	N-CA-C	-11.29	92.22	108.48
1	C	97	VAL	N-CA-C	-11.28	99.94	109.19
2	E	398	GLU	N-CA-C	11.19	124.58	111.71
3	G	132	GLY	N-CA-C	-11.05	100.77	112.04
5	I	42	ILE	N-CA-C	-11.04	92.71	108.17
7	S	150	LEU	N-CA-C	-10.99	90.31	108.34
2	F	162	LYS	N-CA-C	-10.72	99.60	111.07
1	B	387	ALA	N-CA-C	10.62	122.94	111.36
2	D	161	GLY	N-CA-C	-10.45	100.69	115.43
1	A	407	GLY	N-CA-C	10.36	126.68	112.17
2	D	54	GLY	N-CA-C	-10.32	101.51	112.04
2	E	210	ASP	N-CA-C	-10.27	88.93	110.80
4	H	36	VAL	N-CA-C	-10.27	93.18	108.17
1	C	287	ARG	N-CA-C	-10.14	94.83	110.14
2	E	298	THR	N-CA-C	-10.13	91.90	108.41
5	I	41	THR	CA-C-N	10.12	135.74	123.19
5	I	41	THR	C-N-CA	10.12	135.74	123.19
2	D	395	GLU	N-CA-C	-10.09	89.32	110.80
2	F	208	LEU	CA-C-N	10.09	137.22	121.19
2	F	208	LEU	C-N-CA	10.09	137.22	121.19
2	F	17	ILE	N-CA-C	-10.05	90.36	107.24
7	S	157	SER	N-CA-C	-9.97	100.52	112.89

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	E	24	GLN	N-CA-C	-9.97	93.02	109.07
1	B	377	ALA	N-CA-C	-9.89	101.99	114.56
1	C	313	ASN	CA-C-N	9.89	134.51	120.28
1	C	313	ASN	C-N-CA	9.89	134.51	120.28
2	F	383	SER	N-CA-C	-9.87	100.60	111.36
2	F	455	GLN	N-CA-C	-9.87	101.24	113.28
2	E	84	ILE	N-CA-C	-9.83	101.13	109.19
1	A	123	SER	N-CA-C	-9.76	92.99	108.90
3	G	110	ASP	N-CA-C	-9.71	101.12	113.16
2	F	370	VAL	N-CA-C	-9.65	100.97	110.72
2	E	23	VAL	N-CA-C	-9.64	94.60	108.48
1	B	38	ILE	N-CA-C	-9.60	93.73	107.75
1	B	267	ILE	N-CA-C	-9.59	93.75	107.75
2	E	173	VAL	N-CA-C	9.57	119.53	110.53
1	A	504	PHE	CA-C-N	9.51	132.80	120.44
1	A	504	PHE	C-N-CA	9.51	132.80	120.44
2	D	102	ILE	N-CA-C	-9.49	101.88	112.80
2	D	59	ARG	N-CA-C	-9.48	94.32	109.59
1	A	7	GLU	N-CA-C	-9.45	101.75	113.38
1	A	35	GLY	N-CA-C	-9.43	90.83	113.18
2	F	22	ASP	N-CA-C	-9.38	93.44	108.73
2	F	54	GLY	N-CA-C	-9.38	99.70	111.70
2	F	41	ARG	CA-C-N	9.37	132.61	120.44
2	F	41	ARG	C-N-CA	9.37	132.61	120.44
1	B	67	GLU	N-CA-C	-9.33	96.32	110.50
1	B	91	THR	N-CA-C	-9.30	102.07	113.97
1	A	96	ASP	N-CA-C	-9.16	95.48	109.14
1	C	219	ARG	N-CA-C	9.14	121.25	111.28
2	F	16	VAL	N-CA-C	-9.12	94.27	107.77
2	E	221	GLN	N-CA-C	9.11	121.61	110.41
8	T	121	ARG	N-CA-C	9.11	122.39	111.82
2	F	102	ILE	N-CA-C	-9.06	103.56	112.17
2	D	83	ARG	N-CA-C	-9.06	94.63	109.40
7	S	159	MET	N-CA-C	9.06	123.94	111.17
2	E	311	TYR	N-CA-C	-9.04	95.42	109.25
2	F	387	ILE	CA-C-N	9.03	132.84	120.46
2	F	387	ILE	C-N-CA	9.03	132.84	120.46
2	D	20	VAL	N-CA-C	-9.01	94.73	107.80
7	S	148	LEU	N-CA-C	9.01	123.64	112.47
2	F	365	SER	N-CA-C	9.01	124.06	112.89
2	F	255	ILE	N-CA-C	-9.00	94.44	107.77
4	H	76	PHE	N-CA-C	-8.97	94.78	109.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	F	21	VAL	N-CA-C	-8.95	95.58	108.11
2	D	201	ILE	CA-C-N	8.89	132.54	120.54
2	D	201	ILE	C-N-CA	8.89	132.54	120.54
2	F	345	TYR	N-CA-C	-8.87	90.21	109.11
3	G	248	LEU	CA-C-N	8.76	132.38	120.38
3	G	248	LEU	C-N-CA	8.76	132.38	120.38
3	G	134	ARG	N-CA-C	-8.76	90.46	109.81
7	S	86	ILE	N-CA-C	-8.72	102.22	110.42
2	D	366	GLU	CA-C-N	8.66	132.83	120.79
2	D	366	GLU	C-N-CA	8.66	132.83	120.79
1	A	170	ASP	N-CA-C	8.66	123.14	110.59
2	E	174	ALA	CA-C-N	8.59	131.99	120.65
2	E	174	ALA	C-N-CA	8.59	131.99	120.65
3	G	77	LEU	CA-C-N	8.59	137.95	121.54
3	G	77	LEU	C-N-CA	8.59	137.95	121.54
1	A	192	GLY	N-CA-C	-8.54	99.61	112.41
2	E	59	ARG	N-CA-C	-8.53	95.85	109.59
2	E	392	GLY	N-CA-C	8.53	123.62	110.91
1	B	348	GLY	N-CA-C	-8.52	102.82	111.85
2	D	351	LEU	N-CA-C	-8.51	102.80	113.02
3	G	228	ARG	CA-C-N	8.50	131.49	120.44
3	G	228	ARG	C-N-CA	8.50	131.49	120.44
2	F	422	GLU	N-CA-C	-8.50	102.17	112.54
3	G	156	ASP	N-CA-C	-8.48	99.33	112.99
1	B	125	ALA	N-CA-C	-8.45	98.01	110.52
2	F	210	ASP	N-CA-C	-8.44	96.21	109.72
3	G	164	ARG	CA-C-N	8.40	133.17	120.82
3	G	164	ARG	C-N-CA	8.40	133.17	120.82
2	E	40	GLY	N-CA-C	-8.40	103.04	115.72
7	S	25	ALA	N-CA-C	8.39	120.20	111.14
2	D	298	THR	N-CA-C	-8.39	93.09	108.02
2	F	254	PHE	N-CA-C	-8.38	95.58	109.24
1	C	173	THR	N-CA-C	-8.37	101.33	112.72
7	S	105	PHE	CA-C-N	8.36	131.83	120.38
7	S	105	PHE	C-N-CA	8.36	131.83	120.38
1	A	118	LYS	N-CA-C	-8.33	101.27	112.26
3	G	182	ASP	N-CA-C	-8.32	102.44	112.59
2	F	138	LYS	CA-C-N	8.31	131.85	120.46
2	F	138	LYS	C-N-CA	8.31	131.85	120.46
4	H	91	GLN	N-CA-C	-8.31	93.42	107.80
2	E	57	THR	N-CA-C	-8.29	95.39	109.24
5	I	45	VAL	CA-C-N	8.29	133.98	120.63

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	I	45	VAL	C-N-CA	8.29	133.98	120.63
2	E	112	GLN	N-CA-C	-8.26	95.94	109.40
2	F	399	GLU	N-CA-C	-8.26	102.36	111.36
2	D	84	ILE	N-CA-C	-8.25	102.42	109.19
2	F	201	ILE	CA-C-N	8.25	131.68	120.54
2	F	201	ILE	C-N-CA	8.25	131.68	120.54
7	S	118	CYS	N-CA-C	-8.25	95.29	108.73
1	C	146	MET	N-CA-C	-8.24	93.25	110.80
1	B	93	ALA	CA-C-N	8.24	132.36	120.91
1	B	93	ALA	C-N-CA	8.24	132.36	120.91
1	B	287	ARG	N-CA-C	-8.23	99.62	110.40
2	D	206	ILE	CA-C-N	8.20	132.51	120.87
2	D	206	ILE	C-N-CA	8.20	132.51	120.87
2	E	20	VAL	N-CA-C	-8.18	95.94	107.80
3	G	131	VAL	N-CA-C	-8.16	95.96	107.80
1	A	263	HIS	N-CA-C	-8.15	95.12	108.41
1	B	220	LEU	CA-C-N	8.11	131.15	120.28
1	B	220	LEU	C-N-CA	8.11	131.15	120.28
2	E	463	ILE	CA-C-N	8.11	131.49	120.38
2	E	463	ILE	C-N-CA	8.11	131.49	120.38
2	F	349	ASP	N-CA-C	-8.11	99.59	109.72
1	B	225	ALA	N-CA-C	-8.10	103.42	113.38
2	D	221	GLN	CA-C-N	8.10	130.97	120.44
2	D	221	GLN	C-N-CA	8.10	130.97	120.44
2	D	17	ILE	N-CA-C	-8.08	92.53	109.34
1	A	501	VAL	N-CA-C	-8.06	102.68	110.42
1	B	100	GLY	N-CA-C	-8.06	94.08	113.18
1	A	330	GLN	N-CA-C	-8.05	95.30	108.41
4	H	84	VAL	N-CA-C	-8.05	93.72	107.24
2	E	349	ASP	N-CA-C	-8.04	92.37	109.01
2	F	59	ARG	N-CA-C	-8.03	96.66	109.59
1	C	25	LEU	N-CA-C	-8.02	101.63	112.94
3	G	248	LEU	N-CA-C	-8.01	101.16	112.13
4	H	67	ALA	CA-C-N	8.00	136.82	121.54
4	H	67	ALA	C-N-CA	8.00	136.82	121.54
1	A	39	ALA	N-CA-C	-8.00	95.48	108.52
2	D	205	VAL	N-CA-C	-8.00	102.28	111.00
2	D	311	TYR	N-CA-C	-8.00	97.56	110.20
1	A	30	ARG	N-CA-C	-7.99	96.37	109.40
1	A	224	ASP	CA-C-N	7.98	135.84	120.99
1	A	224	ASP	C-N-CA	7.98	135.84	120.99
7	S	106	SER	CA-C-N	-7.98	106.30	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	S	106	SER	C-N-CA	-7.98	106.30	121.54
1	C	195	GLU	N-CA-C	-7.96	101.31	113.89
2	E	292	MET	N-CA-C	-7.95	100.59	112.04
1	C	35	GLY	N-CA-C	-7.95	94.35	113.18
2	D	16	VAL	N-CA-C	-7.93	96.03	107.77
1	C	88	VAL	N-CA-C	-7.93	97.07	108.17
3	G	125	LEU	N-CA-C	-7.93	102.39	112.93
2	F	307	VAL	N-CA-C	-7.91	94.70	107.28
2	D	390	ILE	N-CA-C	-7.91	104.81	113.43
1	B	288	PRO	N-CA-C	7.90	120.34	110.70
1	B	30	ARG	N-CA-C	-7.90	96.88	109.59
2	E	317	LEU	CA-C-N	7.90	130.86	120.28
2	E	317	LEU	C-N-CA	7.90	130.86	120.28
7	S	21	ALA	N-CA-C	-7.89	101.77	111.40
2	F	338	ALA	CA-C-N	7.89	131.62	120.42
2	F	338	ALA	C-N-CA	7.89	131.62	120.42
1	B	257	PHE	N-CA-C	7.88	119.95	111.36
1	C	77	GLY	N-CA-C	-7.87	100.41	112.84
2	F	274	ARG	N-CA-C	-7.84	96.62	109.40
1	A	8	VAL	CA-C-N	7.84	136.51	121.54
1	A	8	VAL	C-N-CA	7.84	136.51	121.54
2	D	106	GLY	CA-C-N	7.84	129.64	119.84
2	D	106	GLY	C-N-CA	7.84	129.64	119.84
1	A	83	LYS	N-CA-C	-7.83	96.69	108.99
2	D	393	MET	CA-C-N	7.83	136.50	121.54
2	D	393	MET	C-N-CA	7.83	136.50	121.54
1	A	174	GLY	N-CA-C	-7.83	104.51	115.32
2	E	336	SER	N-CA-C	-7.83	95.50	108.34
1	B	34	ILE	N-CA-C	-7.83	96.75	108.17
7	S	31	LYS	CA-C-N	7.77	131.03	120.54
7	S	31	LYS	C-N-CA	7.77	131.03	120.54
1	C	192	GLY	N-CA-C	-7.76	98.89	112.55
1	C	253	MET	N-CA-C	7.76	119.74	111.28
2	D	370	VAL	N-CA-C	-7.75	102.72	110.62
1	C	202	ILE	N-CA-C	-7.74	96.31	107.77
2	E	138	LYS	CA-C-N	7.74	131.07	120.46
2	E	138	LYS	C-N-CA	7.74	131.07	120.46
2	E	397	SER	N-CA-C	-7.74	94.24	108.02
7	S	53	ALA	N-CA-C	-7.74	103.09	112.54
8	T	97	ASN	O-C-N	7.74	130.36	122.08
3	G	141	ALA	CA-C-N	7.73	131.27	120.29
3	G	141	ALA	C-N-CA	7.73	131.27	120.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	E	64	ASP	CA-C-N	7.72	128.86	120.44
2	E	64	ASP	C-N-CA	7.72	128.86	120.44
1	C	327	ILE	N-CA-C	-7.72	97.03	108.45
2	E	83	ARG	N-CA-C	-7.72	96.82	109.40
1	C	419	SER	CA-C-N	7.71	130.95	120.54
1	C	419	SER	C-N-CA	7.71	130.95	120.54
1	A	202	ILE	N-CA-C	-7.71	96.36	107.77
2	D	118	ALA	N-CA-C	-7.68	97.04	108.79
2	E	450	ASP	N-CA-C	-7.67	94.47	110.80
2	D	385	GLN	CA-C-N	7.66	131.95	120.31
2	D	385	GLN	C-N-CA	7.66	131.95	120.31
7	S	119	THR	N-CA-C	-7.64	96.99	108.99
1	B	337	TYR	CA-C-N	7.64	125.05	120.24
1	B	337	TYR	C-N-CA	7.64	125.05	120.24
2	F	127	SER	N-CA-C	-7.63	95.11	108.23
1	B	313	ASN	CA-C-N	7.63	130.50	120.28
1	B	313	ASN	C-N-CA	7.63	130.50	120.28
1	A	338	ILE	N-CA-C	-7.62	103.21	112.35
7	S	9	VAL	CA-C-N	7.61	135.39	121.70
7	S	9	VAL	C-N-CA	7.61	135.39	121.70
2	D	210	ASP	N-CA-C	-7.60	97.02	109.40
1	C	215	GLN	N-CA-C	7.59	119.55	111.28
3	G	153	TYR	N-CA-C	-7.58	97.65	109.25
1	B	256	TYR	CA-C-O	-7.58	112.79	120.90
1	B	300	TYR	CA-C-N	7.57	130.76	120.54
1	B	300	TYR	C-N-CA	7.57	130.76	120.54
4	H	135	ILE	CA-C-N	7.55	130.73	120.38
4	H	135	ILE	C-N-CA	7.55	130.73	120.38
2	F	347	ALA	N-CA-C	-7.55	104.47	112.93
2	F	289	MET	CA-C-N	7.53	128.30	119.94
2	F	289	MET	C-N-CA	7.53	128.30	119.94
1	B	457	GLU	N-CA-C	-7.53	100.27	110.36
2	F	401	LYS	CA-C-N	7.52	130.67	120.44
2	F	401	LYS	C-N-CA	7.52	130.67	120.44
2	E	127	SER	N-CA-C	-7.52	101.27	111.87
2	D	391	LEU	N-CA-C	-7.51	103.43	112.59
2	E	151	LYS	N-CA-C	-7.51	96.98	109.07
1	C	61	GLY	N-CA-C	-7.49	96.50	110.73
1	C	239	ALA	N-CA-C	-7.49	98.42	110.32
7	S	124	SER	N-CA-C	-7.48	100.03	110.35
1	B	192	GLY	N-CA-C	-7.47	98.00	111.15
1	C	279	ARG	CA-C-N	7.47	130.63	120.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	279	ARG	C-N-CA	7.47	130.63	120.54
1	C	430	GLN	N-CA-C	-7.47	94.88	110.80
2	D	317	LEU	CA-C-N	7.47	131.18	120.79
2	D	317	LEU	C-N-CA	7.47	131.18	120.79
1	A	41	VAL	N-CA-C	-7.45	97.39	108.12
2	D	95	MET	N-CA-C	-7.45	98.08	109.85
1	A	500	ILE	CA-C-N	7.45	129.94	120.56
1	A	500	ILE	C-N-CA	7.45	129.94	120.56
1	B	96	ASP	N-CA-C	-7.43	98.11	109.41
1	B	357	PHE	CA-C-N	7.41	130.81	120.29
1	B	357	PHE	C-N-CA	7.41	130.81	120.29
1	C	42	HIS	CA-C-N	7.38	135.88	121.41
1	C	42	HIS	C-N-CA	7.38	135.88	121.41
2	E	149	GLY	N-CA-C	-7.38	105.69	114.48
1	C	104	LEU	N-CA-C	-7.37	97.24	108.67
2	E	423	VAL	N-CA-C	7.37	117.45	110.53
4	H	39	PRO	N-CA-C	-7.37	97.30	112.47
3	G	128	PHE	N-CA-C	-7.36	97.87	109.50
7	S	53	ALA	CA-C-N	7.36	131.86	120.82
7	S	53	ALA	C-N-CA	7.36	131.86	120.82
1	C	321	LEU	N-CA-C	-7.34	96.08	108.26
1	A	40	ARG	N-CA-C	-7.34	97.28	109.46
3	G	46	VAL	CA-C-N	7.33	128.08	119.94
3	G	46	VAL	C-N-CA	7.33	128.08	119.94
2	E	26	ASP	N-CA-C	-7.33	103.93	113.17
2	D	78	SER	N-CA-C	-7.33	104.33	113.20
4	H	57	VAL	N-CA-C	-7.33	97.79	108.71
2	F	213	SER	N-CA-C	-7.31	99.64	110.46
2	E	103	ASP	N-CA-C	-7.30	103.64	112.54
1	A	253	MET	N-CA-C	7.29	119.23	111.28
2	D	429	GLY	N-CA-C	-7.29	95.89	113.18
2	F	460	VAL	N-CA-C	-7.29	97.60	108.46
3	G	162	PHE	CA-C-N	-7.28	113.38	122.84
3	G	162	PHE	C-N-CA	-7.28	113.38	122.84
4	H	40	THR	N-CA-C	-7.28	98.67	109.81
1	B	335	SER	N-CA-C	-7.27	104.53	113.19
3	G	204	TYR	N-CA-C	-7.27	95.32	110.80
2	D	274	ARG	N-CA-C	-7.24	101.19	110.53
2	E	95	MET	N-CA-C	-7.24	98.14	109.72
7	S	73	THR	N-CA-C	7.22	120.21	111.40
1	A	322	THR	N-CA-C	-7.22	97.48	109.24
1	C	407	GLY	N-CA-C	-7.20	96.11	113.18

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	F	355	SER	N-CA-C	-7.19	95.54	108.48
1	C	368	GLY	N-CA-C	-7.18	104.11	112.73
1	B	42	HIS	CA-C-N	7.17	127.95	121.86
1	B	42	HIS	C-N-CA	7.17	127.95	121.86
3	G	94	ALA	N-CA-C	7.17	118.74	111.07
2	E	94	ILE	N-CA-C	-7.15	97.43	107.80
1	A	8	VAL	O-C-N	7.15	130.98	123.26
1	A	335	SER	N-CA-C	-7.15	103.49	111.71
2	E	54	GLY	N-CA-C	-7.15	103.68	112.33
1	B	88	VAL	N-CA-C	-7.13	98.13	108.11
1	C	237	SER	N-CA-C	-7.13	97.00	108.55
2	D	145	PRO	N-CA-C	-7.12	97.80	112.47
2	D	103	ASP	N-CA-C	-7.11	103.61	111.36
1	A	353	GLU	CA-C-O	7.11	127.86	120.40
1	C	41	VAL	N-CA-C	-7.10	97.89	108.12
1	B	175	LYS	CA-C-O	7.10	128.28	120.82
1	B	371	VAL	N-CA-C	-7.10	98.98	108.35
10	V	20	ARG	CA-C-O	-7.10	113.36	120.82
1	B	94	ILE	N-CA-C	-7.10	100.42	109.58
1	A	195	GLU	N-CA-C	-7.09	103.63	111.36
1	B	118	LYS	N-CA-C	-7.08	104.21	112.92
2	D	204	GLY	N-CA-C	-7.08	105.95	115.36
7	S	35	VAL	N-CA-C	-7.08	104.08	111.58
1	B	504	PHE	CA-C-N	7.08	135.06	121.54
1	B	504	PHE	C-N-CA	7.08	135.06	121.54
1	C	347	ASP	N-CA-C	-7.07	104.58	112.57
2	E	211	ALA	CA-C-N	7.07	135.05	121.54
2	E	211	ALA	C-N-CA	7.07	135.05	121.54
2	D	24	GLN	N-CA-C	-7.07	97.69	109.07
1	A	194	ASP	N-CA-C	-7.06	97.73	108.96
2	E	399	GLU	N-CA-C	-7.06	103.66	111.36
4	H	54	THR	CA-C-N	7.06	133.61	122.74
4	H	54	THR	C-N-CA	7.06	133.61	122.74
2	F	336	SER	CA-C-O	7.06	127.72	120.24
1	A	420	ARG	CA-C-N	7.05	127.77	119.94
1	A	420	ARG	C-N-CA	7.05	127.77	119.94
4	H	90	VAL	N-CA-C	-7.05	97.95	108.46
1	B	490	SER	CA-C-N	7.04	130.03	120.38
1	B	490	SER	C-N-CA	7.04	130.03	120.38
1	A	337	TYR	CA-C-N	7.04	125.96	120.33
1	A	337	TYR	C-N-CA	7.04	125.96	120.33
1	C	102	GLU	N-CA-C	-7.04	104.69	113.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	D	394	ASP	CA-C-N	7.04	134.99	121.54
2	D	394	ASP	C-N-CA	7.04	134.99	121.54
5	I	8	GLY	N-CA-C	-7.04	96.49	113.18
1	C	475	GLN	N-CA-C	7.03	122.32	111.56
1	C	376	SER	N-CA-C	7.03	119.98	111.82
2	F	410	ILE	N-CA-C	-7.03	103.45	110.62
2	E	426	GLY	N-CA-C	-7.02	105.37	115.27
1	B	489	ILE	N-CA-C	-7.01	98.23	108.89
1	C	322	THR	N-CA-C	-7.01	98.26	109.76
1	A	70	ASN	N-CA-C	-7.01	98.36	108.60
2	E	422	GLU	N-CA-C	-7.01	103.69	111.82
1	B	264	ALA	N-CA-C	-7.00	98.78	109.85
2	E	441	PHE	CA-C-N	7.00	129.66	120.28
2	E	441	PHE	C-N-CA	7.00	129.66	120.28
1	A	61	GLY	N-CA-C	-7.00	97.53	110.97
1	A	299	PHE	N-CA-C	-7.00	103.58	111.14
1	A	89	LYS	N-CA-C	-6.99	98.00	109.40
2	E	30	PRO	N-CA-C	-6.99	102.17	110.70
5	I	32	ALA	CA-C-N	6.99	131.89	120.63
5	I	32	ALA	C-N-CA	6.99	131.89	120.63
1	B	232	VAL	N-CA-C	-6.99	98.37	108.36
2	E	364	GLY	N-CA-C	-6.99	103.89	111.93
7	S	44	GLN	CA-C-N	6.99	132.53	120.86
7	S	44	GLN	C-N-CA	6.99	132.53	120.86
2	F	63	MET	N-CA-C	-6.97	103.34	112.41
7	S	51	MET	N-CA-C	-6.97	104.04	112.54
1	A	321	LEU	N-CA-C	-6.97	96.91	108.34
1	B	161	ARG	N-CA-C	-6.96	98.14	108.79
7	S	23	TYR	N-CA-C	-6.96	104.76	113.18
2	E	380	ASP	CA-C-N	6.95	129.59	120.28
2	E	380	ASP	C-N-CA	6.95	129.59	120.28
2	E	129	GLU	CA-C-N	6.94	133.36	122.26
2	E	129	GLU	C-N-CA	6.94	133.36	122.26
4	H	72	THR	N-CA-C	-6.93	97.05	108.76
2	F	433	PRO	CA-C-N	6.93	129.57	120.28
2	F	433	PRO	C-N-CA	6.93	129.57	120.28
1	B	290	GLY	N-CA-C	-6.93	96.76	113.18
4	H	77	VAL	N-CA-C	-6.93	97.57	108.86
1	A	115	ILE	CA-C-N	6.92	130.48	120.38
1	A	115	ILE	C-N-CA	6.92	130.48	120.38
2	D	96	ASN	N-CA-C	-6.92	96.07	110.80
2	D	60	THR	N-CA-C	-6.91	98.84	109.14

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	E	399	GLU	CA-C-N	6.91	129.42	120.44
2	E	399	GLU	C-N-CA	6.91	129.42	120.44
2	F	162	LYS	CA-C-N	6.91	129.54	120.28
2	F	162	LYS	C-N-CA	6.91	129.54	120.28
3	G	95	ASN	N-CA-C	6.91	119.45	111.02
4	H	93	LEU	N-CA-C	-6.90	93.28	107.70
1	A	288	PRO	CA-C-N	6.90	128.46	119.84
1	A	288	PRO	C-N-CA	6.90	128.46	119.84
2	F	225	PRO	CA-C-N	6.90	126.41	119.24
2	F	225	PRO	C-N-CA	6.90	126.41	119.24
2	F	12	ARG	N-CA-C	-6.89	97.73	109.24
2	D	25	PHE	N-CA-C	-6.89	98.50	109.59
1	A	341	ASN	CA-C-N	6.89	130.20	120.42
1	A	341	ASN	C-N-CA	6.89	130.20	120.42
2	E	42	GLU	N-CA-C	-6.88	105.68	112.97
2	D	41	ARG	CA-C-N	6.87	133.16	121.14
2	D	41	ARG	C-N-CA	6.87	133.16	121.14
4	H	52	VAL	O-C-N	-6.87	113.27	121.10
7	S	70	SER	O-C-N	-6.86	114.80	122.34
1	A	401	ALA	CA-C-N	6.85	129.77	120.38
1	A	401	ALA	C-N-CA	6.85	129.77	120.38
1	A	482	LYS	N-CA-C	6.85	118.83	111.36
1	C	290	GLY	CA-C-N	6.85	132.24	121.56
1	C	290	GLY	C-N-CA	6.85	132.24	121.56
2	E	25	PHE	N-CA-C	-6.84	98.58	109.59
1	C	454	ASP	CA-C-N	6.83	134.59	121.54
1	C	454	ASP	C-N-CA	6.83	134.59	121.54
1	B	338	ILE	N-CA-C	-6.83	102.71	112.61
3	G	114	SER	N-CA-C	-6.82	96.27	110.80
1	B	129	VAL	N-CA-C	-6.82	103.80	113.07
2	F	87	GLY	CA-C-N	6.82	126.50	119.82
2	F	87	GLY	C-N-CA	6.82	126.50	119.82
1	B	506	ALA	CA-C-N	6.81	134.76	121.41
1	B	506	ALA	C-N-CA	6.81	134.76	121.41
1	C	34	ILE	CA-C-O	6.80	127.92	120.64
1	B	169	GLY	N-CA-C	-6.80	100.77	110.63
2	D	343	GLY	N-CA-C	-6.80	106.99	115.08
2	E	225	PRO	CA-C-N	6.79	126.03	118.97
2	E	225	PRO	C-N-CA	6.79	126.03	118.97
1	B	58	GLY	CA-C-N	6.78	134.48	121.54
1	B	58	GLY	C-N-CA	6.78	134.48	121.54
8	T	170	LEU	O-C-N	-6.78	113.58	122.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	61	GLY	N-CA-C	-6.77	97.97	110.97
1	B	386	VAL	N-CA-C	-6.77	105.98	111.81
1	A	29	GLY	N-CA-C	-6.77	97.97	110.97
2	D	55	GLU	CA-C-N	6.77	132.03	122.08
2	D	55	GLU	C-N-CA	6.77	132.03	122.08
1	A	67	GLU	N-CA-C	-6.77	100.02	110.58
2	F	292	MET	N-CA-C	-6.76	102.30	112.04
1	A	467	ALA	CA-C-N	6.76	129.34	120.28
1	A	467	ALA	C-N-CA	6.76	129.34	120.28
2	E	66	THR	CA-C-N	6.76	134.45	121.54
2	E	66	THR	C-N-CA	6.76	134.45	121.54
2	E	359	ASP	N-CA-C	-6.75	102.06	108.13
2	E	304	ILE	N-CA-C	-6.75	96.55	107.28
2	D	282	GLN	N-CA-C	-6.74	99.87	109.24
2	F	120	ALA	CA-C-N	6.74	126.78	119.90
2	F	120	ALA	C-N-CA	6.74	126.78	119.90
2	F	393	MET	CA-C-N	6.74	129.99	120.28
2	F	393	MET	C-N-CA	6.74	129.99	120.28
4	H	23	PRO	CA-C-N	6.74	130.55	120.31
4	H	23	PRO	C-N-CA	6.74	130.55	120.31
1	A	400	VAL	N-CA-C	-6.74	103.49	113.39
2	F	218	VAL	N-CA-C	-6.72	98.44	108.12
8	T	23	GLU	CA-C-N	6.72	129.29	120.28
8	T	23	GLU	C-N-CA	6.72	129.29	120.28
1	B	321	LEU	N-CA-C	-6.72	97.32	108.34
1	C	290	GLY	N-CA-C	-6.72	100.08	110.77
2	E	133	LEU	N-CA-C	-6.72	100.27	110.14
1	A	94	ILE	N-CA-C	-6.71	102.73	110.05
2	E	281	TYR	CA-C-O	-6.71	112.98	120.70
2	F	103	ASP	N-CA-C	-6.71	104.36	112.54
3	G	92	GLU	CA-C-N	6.70	134.34	121.54
3	G	92	GLU	C-N-CA	6.70	134.34	121.54
9	U	45	LYS	CA-C-N	6.70	127.28	120.38
9	U	45	LYS	C-N-CA	6.70	127.28	120.38
2	E	106	GLY	CA-C-N	6.69	128.21	119.84
2	E	106	GLY	C-N-CA	6.69	128.21	119.84
2	E	186	VAL	CA-C-N	6.69	130.22	120.11
2	E	186	VAL	C-N-CA	6.69	130.22	120.11
2	D	115	ALA	N-CA-C	-6.69	99.12	109.76
1	C	452	TYR	N-CA-C	6.68	118.56	111.28
2	D	454	GLU	N-CA-C	-6.68	107.01	114.62
2	E	87	GLY	CA-C-N	6.68	126.37	119.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	E	87	GLY	C-N-CA	6.68	126.37	119.82
4	H	141	LEU	CA-C-N	6.68	131.25	120.30
4	H	141	LEU	C-N-CA	6.68	131.25	120.30
2	E	415	SER	CA-C-N	6.67	130.98	122.64
2	E	415	SER	C-N-CA	6.67	130.98	122.64
1	C	497	LEU	CA-C-N	6.67	129.51	120.38
1	C	497	LEU	C-N-CA	6.67	129.51	120.38
2	F	86	VAL	N-CA-C	-6.67	98.01	108.81
7	S	149	LYS	CA-C-N	6.67	132.17	122.77
7	S	149	LYS	C-N-CA	6.67	132.17	122.77
7	S	47	LYS	N-CA-C	6.66	124.99	110.80
1	A	303	SER	CA-C-N	6.66	129.75	120.29
1	A	303	SER	C-N-CA	6.66	129.75	120.29
4	H	22	SER	N-CA-C	-6.65	95.11	109.81
1	C	407	GLY	CA-C-N	6.65	134.24	121.54
1	C	407	GLY	C-N-CA	6.65	134.24	121.54
2	D	270	ALA	CA-C-N	6.65	130.41	120.31
2	D	270	ALA	C-N-CA	6.65	130.41	120.31
8	T	108	ARG	CA-C-N	6.64	129.18	120.28
8	T	108	ARG	C-N-CA	6.64	129.18	120.28
2	F	126	MET	N-CA-C	-6.64	100.69	110.52
2	E	345	TYR	N-CA-C	-6.64	94.39	108.73
3	G	109	GLY	N-CA-C	-6.64	96.17	111.04
3	G	271	ALA	N-CA-C	-6.64	96.66	110.80
2	D	149	GLY	N-CA-C	-6.63	105.75	115.63
1	C	51	GLU	N-CA-C	-6.63	99.22	109.76
2	D	211	ALA	N-CA-C	-6.63	104.14	111.36
2	F	161	GLY	N-CA-C	-6.63	102.47	114.46
1	B	360	GLY	N-CA-C	-6.62	105.91	114.85
4	H	20	PHE	N-CA-C	-6.62	97.48	108.34
2	D	213	SER	N-CA-C	-6.62	96.70	110.80
7	S	81	LEU	N-CA-C	-6.62	104.43	113.30
2	D	225	PRO	CA-C-N	6.61	126.12	119.24
2	D	225	PRO	C-N-CA	6.61	126.12	119.24
1	C	396	GLN	N-CA-C	6.61	118.56	111.36
4	H	21	ALA	N-CA-C	-6.60	98.69	108.79
1	A	382	ALA	N-CA-C	6.60	119.07	111.02
2	F	113	PHE	N-CA-C	-6.60	99.43	109.85
2	F	23	VAL	CA-C-N	-6.59	113.82	123.05
2	F	23	VAL	C-N-CA	-6.59	113.82	123.05
1	A	194	ASP	CA-C-N	6.59	129.65	120.29
1	A	194	ASP	C-N-CA	6.59	129.65	120.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	F	111	LYS	N-CA-C	-6.59	104.42	113.18
2	F	128	VAL	CA-C-N	6.59	132.06	122.77
2	F	128	VAL	C-N-CA	6.59	132.06	122.77
2	E	331	ALA	N-CA-C	-6.59	98.51	108.52
2	F	180	TYR	N-CA-C	-6.58	100.47	109.95
1	B	487	GLY	CA-C-N	6.58	133.02	122.10
1	B	487	GLY	C-N-CA	6.58	133.02	122.10
1	C	40	ARG	N-CA-C	-6.58	98.54	109.46
2	D	105	ARG	N-CA-C	-6.57	102.41	112.99
1	A	287	ARG	N-CA-C	-6.57	95.29	109.81
2	D	426	GLY	N-CA-C	-6.57	106.63	115.36
1	A	249	SER	CA-C-N	6.56	127.38	120.03
1	A	249	SER	C-N-CA	6.56	127.38	120.03
1	B	173	THR	N-CA-C	-6.56	96.83	110.80
1	C	193	THR	N-CA-C	-6.55	96.47	107.80
8	T	97	ASN	CA-C-N	6.55	129.06	120.28
8	T	97	ASN	C-N-CA	6.55	129.06	120.28
2	E	49	VAL	N-CA-C	-6.55	101.13	109.58
2	F	249	GLN	N-CA-C	6.54	119.72	110.23
1	C	372	SER	N-CA-C	-6.54	96.38	108.02
2	E	54	GLY	CA-C-N	6.54	131.68	122.46
2	E	54	GLY	C-N-CA	6.54	131.68	122.46
1	C	80	LYS	CA-C-N	6.53	128.93	120.44
1	C	80	LYS	C-N-CA	6.53	128.93	120.44
1	C	113	ASN	N-CA-C	-6.53	99.94	110.32
2	D	63	MET	CA-C-N	6.53	134.01	121.54
2	D	63	MET	C-N-CA	6.53	134.01	121.54
2	E	17	ILE	N-CA-C	-6.52	95.00	106.61
2	F	447	GLY	CA-C-N	6.52	129.34	120.54
2	F	447	GLY	C-N-CA	6.52	129.34	120.54
7	S	106	SER	O-C-N	-6.51	115.22	122.12
1	A	91	THR	N-CA-C	-6.50	105.08	114.12
5	I	45	VAL	N-CA-C	-6.50	99.78	107.70
2	D	246	GLN	N-CA-C	-6.50	103.48	111.40
1	B	299	PHE	N-CA-C	-6.49	104.13	111.14
2	D	273	GLY	N-CA-C	-6.49	106.72	115.36
3	G	167	SER	N-CA-C	-6.49	98.28	108.14
7	S	97	ASN	N-CA-C	-6.49	105.94	114.31
2	F	204	GLY	N-CA-C	-6.48	106.78	115.21
2	F	68	GLY	N-CA-C	-6.48	103.75	114.76
1	C	278	TYR	N-CA-C	6.48	118.34	111.28
4	H	92	LEU	N-CA-C	-6.48	98.64	109.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	263	HIS	N-CA-C	-6.47	97.87	108.41
1	A	112	GLY	N-CA-C	-6.46	102.78	114.46
2	F	361	ASN	N-CA-C	-6.46	104.89	112.89
2	E	273	GLY	N-CA-C	-6.45	97.89	113.18
7	S	70	SER	N-CA-C	-6.45	105.99	114.31
2	E	431	LEU	N-CA-C	-6.45	98.10	109.06
1	C	467	ALA	CA-C-N	6.44	128.91	120.28
1	C	467	ALA	C-N-CA	6.44	128.91	120.28
7	S	6	ARG	CA-C-N	6.44	127.01	120.38
7	S	6	ARG	C-N-CA	6.44	127.01	120.38
1	B	35	GLY	N-CA-C	-6.44	97.93	113.18
2	F	360	PRO	N-CA-C	-6.44	99.21	112.47
1	A	126	ARG	N-CA-C	-6.43	99.53	109.24
2	E	347	ALA	CA-C-N	6.43	133.55	121.97
2	E	347	ALA	C-N-CA	6.43	133.55	121.97
1	C	159	ILE	CA-C-N	6.43	128.19	122.47
1	C	159	ILE	C-N-CA	6.43	128.19	122.47
2	D	425	THR	N-CA-C	6.43	119.60	111.69
2	E	76	LEU	CA-C-N	6.43	129.88	120.82
2	E	76	LEU	C-N-CA	6.43	129.88	120.82
2	E	24	GLN	CA-C-N	6.42	132.23	122.93
2	E	24	GLN	C-N-CA	6.42	132.23	122.93
1	B	500	ILE	CA-C-N	6.41	128.64	120.56
1	B	500	ILE	C-N-CA	6.41	128.64	120.56
1	A	299	PHE	CA-C-O	-6.41	114.10	120.70
2	F	214	LYS	N-CA-C	-6.41	105.10	113.17
1	B	490	SER	N-CA-C	-6.41	99.26	109.76
1	A	432	GLN	N-CA-C	-6.40	99.20	109.96
2	D	189	ARG	CA-C-N	6.40	129.15	120.38
2	D	189	ARG	C-N-CA	6.40	129.15	120.38
2	E	438	ILE	CA-C-N	6.40	129.18	120.54
2	E	438	ILE	C-N-CA	6.40	129.18	120.54
2	E	136	GLY	N-CA-C	6.40	123.87	115.36
3	G	52	TYR	N-CA-C	-6.40	104.39	111.36
1	C	194	ASP	N-CA-C	-6.40	99.39	109.50
2	F	132	ILE	N-CA-C	6.38	117.66	109.30
1	A	345	ILE	N-CA-C	6.38	117.38	111.45
1	B	233	SER	CA-C-N	6.37	132.75	123.13
1	B	233	SER	C-N-CA	6.37	132.75	123.13
7	S	17	ARG	N-CA-C	-6.37	104.41	111.36
1	B	119	GLY	N-CA-C	-6.37	99.34	112.34
2	F	306	SER	CA-C-N	6.37	131.66	123.13

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	F	306	SER	C-N-CA	6.37	131.66	123.13
10	V	14	ASP	CA-C-O	-6.36	114.08	121.07
2	D	30	PRO	N-CA-C	-6.36	102.94	110.70
2	F	229	ARG	CA-C-N	6.36	128.80	120.28
2	F	229	ARG	C-N-CA	6.36	128.80	120.28
1	C	385	GLN	CA-C-N	-6.35	114.86	122.35
1	C	385	GLN	C-N-CA	-6.35	114.86	122.35
1	A	403	PHE	N-CA-C	-6.35	97.27	110.80
4	H	48	LEU	CA-C-N	6.35	133.66	121.54
4	H	48	LEU	C-N-CA	6.35	133.66	121.54
1	C	39	ALA	N-CA-C	-6.34	98.19	108.52
2	F	225	PRO	N-CA-C	-6.33	102.97	110.70
1	C	387	ALA	N-CA-C	6.32	118.25	111.36
2	D	29	LEU	N-CA-C	-6.32	99.78	109.64
1	B	482	LYS	N-CA-C	6.32	118.25	111.36
3	G	121	SER	N-CA-C	-6.30	105.65	113.15
1	B	40	ARG	N-CA-C	-6.30	99.00	109.46
1	A	74	VAL	N-CA-C	-6.29	100.59	108.89
2	E	182	VAL	N-CA-C	-6.28	99.11	108.46
1	A	45	ARG	N-CA-C	6.26	124.14	110.80
1	B	353	GLU	CA-C-N	6.26	128.67	120.28
1	B	353	GLU	C-N-CA	6.26	128.67	120.28
2	E	207	ASN	N-CA-C	-6.26	99.49	109.76
2	E	285	LEU	CA-C-N	6.26	129.17	120.29
2	E	285	LEU	C-N-CA	6.26	129.17	120.29
3	G	191	SER	CA-C-N	6.25	130.90	121.65
3	G	191	SER	C-N-CA	6.25	130.90	121.65
1	C	386	VAL	CA-C-N	6.25	129.16	120.29
1	C	386	VAL	C-N-CA	6.25	129.16	120.29
2	D	57	THR	N-CA-C	-6.24	99.22	109.40
2	E	55	GLU	CA-C-N	6.24	131.68	122.82
2	E	55	GLU	C-N-CA	6.24	131.68	122.82
1	C	274	GLN	CA-C-N	6.23	128.63	120.28
1	C	274	GLN	C-N-CA	6.23	128.63	120.28
3	G	174	GLU	N-CA-C	-6.22	100.50	110.14
1	C	125	ALA	N-CA-C	-6.22	101.32	110.52
1	A	505	LEU	N-CA-C	-6.21	104.42	111.07
2	F	183	PHE	N-CA-C	-6.21	98.78	108.90
2	F	318	THR	N-CA-C	-6.20	104.63	111.82
2	E	421	ALA	N-CA-C	-6.20	103.01	111.56
2	E	110	THR	N-CA-C	-6.20	101.31	110.48
4	H	41	GLN	CA-C-N	6.20	133.38	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	H	41	GLN	C-N-CA	6.20	133.38	121.54
2	F	452	LEU	CA-C-N	6.19	127.58	119.84
2	F	452	LEU	C-N-CA	6.19	127.58	119.84
2	E	330	ASP	N-CA-C	-6.19	105.41	114.39
1	A	145	PRO	N-CA-C	-6.19	99.72	112.47
2	E	105	ARG	N-CA-C	-6.19	105.30	112.92
1	B	429	LYS	N-CA-C	-6.18	102.20	110.55
2	D	407	ALA	N-CA-C	-6.18	104.54	111.28
2	E	399	GLU	CA-C-O	6.18	126.97	120.42
2	D	12	ARG	N-CA-C	-6.18	98.92	109.24
2	F	311	TYR	N-CA-C	-6.18	100.44	110.20
1	A	88	VAL	N-CA-C	-6.18	99.46	108.11
1	A	102	GLU	N-CA-C	-6.17	105.75	113.28
1	B	133	ALA	CA-C-N	6.17	127.55	119.84
1	B	133	ALA	C-N-CA	6.17	127.55	119.84
4	H	41	GLN	N-CA-C	-6.16	97.14	107.99
1	C	232	VAL	N-CA-C	-6.16	99.55	108.36
7	S	73	THR	CA-C-N	-6.16	113.76	123.12
7	S	73	THR	C-N-CA	-6.16	113.76	123.12
1	C	336	ALA	CA-C-N	6.14	128.43	120.44
1	C	336	ALA	C-N-CA	6.14	128.43	120.44
2	E	332	THR	N-CA-C	-6.14	98.61	109.06
7	S	144	LYS	N-CA-C	-6.14	95.83	108.18
2	D	42	GLU	N-CA-C	-6.14	105.28	112.89
1	C	509	GLU	N-CA-C	-6.14	97.72	110.80
1	A	232	VAL	N-CA-C	-6.13	99.59	108.36
1	A	27	GLU	N-CA-C	-6.13	104.29	112.94
2	D	422	GLU	N-CA-C	-6.13	105.06	112.54
9	U	9	ASP	CA-C-N	6.13	130.40	120.60
9	U	9	ASP	C-N-CA	6.13	130.40	120.60
1	A	267	ILE	N-CA-C	-6.12	98.81	107.75
4	H	86	ALA	CA-C-N	6.12	133.23	121.54
4	H	86	ALA	C-N-CA	6.12	133.23	121.54
3	G	127	THR	N-CA-C	-6.12	99.77	109.07
1	A	8	VAL	N-CA-C	-6.12	99.55	108.11
2	D	418	PHE	CA-C-N	6.11	133.22	121.54
2	D	418	PHE	C-N-CA	6.11	133.22	121.54
2	E	12	ARG	N-CA-C	-6.11	99.03	109.24
1	B	472	VAL	CA-C-N	6.11	128.25	120.56
1	B	472	VAL	C-N-CA	6.11	128.25	120.56
1	C	298	VAL	N-CA-C	-6.11	103.49	112.04
1	C	420	ARG	CA-C-N	6.11	126.72	119.94

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	420	ARG	C-N-CA	6.11	126.72	119.94
2	F	42	GLU	N-CA-C	-6.10	104.54	111.07
1	A	446	TYR	N-CA-C	6.10	118.43	111.11
1	A	122	GLY	N-CA-C	-6.09	98.73	113.18
1	B	289	PRO	N-CA-C	-6.08	99.95	112.47
2	E	394	ASP	N-CA-C	-6.07	97.88	110.80
1	A	260	ASN	N-CA-C	-6.06	102.47	111.81
1	B	111	LEU	N-CA-C	-6.06	105.64	113.16
2	D	225	PRO	N-CA-C	-6.06	103.31	110.70
2	D	452	LEU	O-C-N	6.06	125.50	121.14
7	S	76	GLU	N-CA-C	-6.06	104.60	112.23
8	T	92	PHE	N-CA-C	6.05	117.95	111.36
1	B	112	GLY	N-CA-C	-6.04	104.45	114.48
2	D	85	PRO	CA-C-O	-6.04	114.06	121.31
2	D	248	GLY	CA-C-N	6.04	129.88	120.75
2	D	248	GLY	C-N-CA	6.04	129.88	120.75
8	T	143	TRP	CA-C-N	6.04	128.69	120.77
8	T	143	TRP	C-N-CA	6.04	128.69	120.77
1	C	145	PRO	N-CA-C	-6.04	100.03	112.47
1	B	174	GLY	N-CA-C	-6.04	107.33	115.36
3	G	183	THR	CA-C-N	6.04	129.04	120.53
3	G	183	THR	C-N-CA	6.04	129.04	120.53
2	D	11	GLY	N-CA-C	-6.03	102.30	111.10
2	E	355	SER	N-CA-C	-6.03	98.44	108.75
4	H	137	ALA	CA-C-N	6.03	128.36	120.28
4	H	137	ALA	C-N-CA	6.03	128.36	120.28
1	C	115	ILE	CA-C-N	6.02	128.35	120.28
1	C	115	ILE	C-N-CA	6.02	128.35	120.28
1	C	370	SER	N-CA-C	-6.02	97.64	108.48
10	V	54	ALA	CA-C-N	6.02	133.04	121.54
10	V	54	ALA	C-N-CA	6.02	133.04	121.54
2	D	427	HIS	N-CA-C	6.02	119.29	109.24
1	B	372	SER	N-CA-C	-6.01	97.32	108.02
3	G	251	ASN	CA-C-N	6.01	128.61	120.44
3	G	251	ASN	C-N-CA	6.01	128.61	120.44
7	S	58	PRO	CA-C-N	6.01	131.10	122.21
7	S	58	PRO	C-N-CA	6.01	131.10	122.21
3	G	159	SER	N-CA-C	6.01	118.99	109.50
2	F	110	THR	N-CA-C	-6.00	98.01	110.80
1	A	430	GLN	N-CA-C	-6.00	98.29	108.26
5	I	28	THR	N-CA-C	6.00	123.59	110.80
1	C	480	LEU	CA-C-N	6.00	126.77	119.99

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	480	LEU	C-N-CA	6.00	126.77	119.99
1	B	265	LEU	N-CA-C	-6.00	98.62	108.76
2	E	310	ILE	N-CA-C	-6.00	98.89	107.77
1	B	294	TYR	CA-C-N	5.99	127.33	119.84
1	B	294	TYR	C-N-CA	5.99	127.33	119.84
2	E	449	TYR	N-CA-C	-5.99	95.82	107.62
2	E	248	GLY	CA-C-N	5.99	130.90	121.56
2	E	248	GLY	C-N-CA	5.99	130.90	121.56
3	G	82	HIS	N-CA-C	-5.98	104.68	111.14
2	E	289	MET	CA-C-N	5.98	126.58	119.94
2	E	289	MET	C-N-CA	5.98	126.58	119.94
1	B	454	ASP	CA-C-N	5.98	129.10	120.79
1	B	454	ASP	C-N-CA	5.98	129.10	120.79
2	D	126	MET	N-CA-C	-5.97	101.93	110.59
4	H	19	THR	CA-C-N	5.97	131.19	122.77
4	H	19	THR	C-N-CA	5.97	131.19	122.77
1	B	249	SER	CA-C-N	5.97	126.72	120.03
1	B	249	SER	C-N-CA	5.97	126.72	120.03
2	D	73	GLN	N-CA-C	5.97	118.47	110.35
2	D	467	VAL	N-CA-C	-5.97	104.92	110.53
1	A	162	GLY	N-CA-C	-5.97	106.85	114.37
1	C	337	TYR	N-CA-C	-5.97	104.69	111.07
2	E	35	ALA	N-CA-C	-5.96	100.28	109.76
7	S	26	ALA	N-CA-C	-5.96	104.70	111.14
10	V	13	VAL	CA-C-O	-5.96	115.07	121.27
8	T	108	ARG	CA-C-O	5.96	127.26	121.00
2	E	387	ILE	N-CA-C	-5.96	104.93	110.53
2	F	195	ASP	CA-C-N	5.96	128.75	120.29
2	F	195	ASP	C-N-CA	5.96	128.75	120.29
2	D	356	ARG	N-CA-C	-5.96	105.97	113.18
1	A	373	ARG	N-CA-C	-5.95	104.71	111.14
5	I	2	ALA	N-CA-C	-5.95	102.85	110.53
2	F	16	VAL	CA-C-N	-5.95	114.90	123.11
2	F	16	VAL	C-N-CA	-5.95	114.90	123.11
1	C	260	ASN	N-CA-C	-5.95	102.65	111.81
2	E	120	ALA	CA-C-N	5.94	127.26	119.84
2	E	120	ALA	C-N-CA	5.94	127.26	119.84
2	F	427	HIS	CA-C-N	5.94	130.16	121.31
2	F	427	HIS	C-N-CA	5.94	130.16	121.31
2	E	353	SER	N-CA-C	-5.94	96.71	107.75
7	S	135	LYS	CA-C-N	5.92	132.84	121.54
7	S	135	LYS	C-N-CA	5.92	132.84	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	D	182	VAL	N-CA-C	-5.91	99.65	108.46
3	G	237	LYS	N-CA-C	-5.91	104.92	111.36
1	C	487	GLY	N-CA-C	-5.90	106.81	115.30
1	A	497	LEU	N-CA-C	-5.90	104.76	111.07
2	F	40	GLY	N-CA-C	-5.90	105.41	115.08
2	D	355	SER	N-CA-C	-5.89	97.87	108.48
1	A	113	ASN	N-CA-C	-5.89	100.19	109.50
2	D	87	GLY	CA-C-N	5.89	125.59	119.82
2	D	87	GLY	C-N-CA	5.89	125.59	119.82
1	C	264	ALA	CA-C-N	5.88	131.80	122.74
1	C	264	ALA	C-N-CA	5.88	131.80	122.74
1	C	409	ASP	CA-C-N	5.88	132.78	121.54
1	C	409	ASP	C-N-CA	5.88	132.78	121.54
2	F	343	GLY	N-CA-C	-5.88	107.54	115.36
2	E	262	THR	N-CA-C	-5.88	104.95	111.36
2	F	80	ALA	N-CA-C	-5.87	102.84	108.07
2	E	138	LYS	CA-C-O	5.87	126.99	120.82
2	E	388	ILE	N-CA-C	5.87	116.61	110.62
4	H	78	SER	N-CA-C	-5.87	98.30	110.80
2	D	461	GLY	CA-C-N	5.87	127.17	119.84
2	D	461	GLY	C-N-CA	5.87	127.17	119.84
4	H	98	VAL	N-CA-C	-5.86	99.31	108.81
1	C	444	VAL	N-CA-C	-5.86	103.59	111.44
7	S	84	ASN	N-CA-C	-5.85	105.80	113.12
2	F	428	LEU	CA-C-N	5.85	128.06	122.27
2	F	428	LEU	C-N-CA	5.85	128.06	122.27
1	C	317	GLY	N-CA-C	-5.85	105.89	114.90
2	D	162	LYS	CA-C-O	5.84	126.95	120.82
1	B	243	GLN	CA-C-N	5.84	128.11	120.28
1	B	243	GLN	C-N-CA	5.84	128.11	120.28
1	A	300	TYR	CA-C-N	5.84	128.42	120.54
1	A	300	TYR	C-N-CA	5.84	128.42	120.54
4	H	122	ALA	N-CA-C	-5.84	100.77	110.17
7	S	16	GLY	N-CA-C	-5.84	99.34	113.18
3	G	55	ALA	N-CA-C	-5.83	98.37	110.80
4	H	18	PHE	CA-C-O	5.83	126.73	120.32
2	E	252	LEU	N-CA-C	-5.82	99.75	109.24
4	H	43	GLY	N-CA-C	-5.82	99.39	113.18
11	W	11	THR	CA-C-N	5.82	125.02	118.97
11	W	11	THR	C-N-CA	5.82	125.02	118.97
1	C	29	GLY	N-CA-C	-5.81	102.61	111.10
2	D	235	THR	CA-C-N	5.81	126.43	119.98

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	D	235	THR	C-N-CA	5.81	126.43	119.98
3	G	40	PRO	CA-C-N	5.81	128.33	120.38
3	G	40	PRO	C-N-CA	5.81	128.33	120.38
1	B	194	ASP	N-CA-C	-5.80	99.73	108.96
8	T	163	LYS	CA-C-N	5.80	128.52	120.63
8	T	163	LYS	C-N-CA	5.80	128.52	120.63
1	A	372	SER	N-CA-C	-5.80	97.69	108.02
2	E	343	GLY	CA-C-N	5.80	132.41	121.97
2	E	343	GLY	C-N-CA	5.80	132.41	121.97
1	B	157	VAL	N-CA-C	-5.80	101.81	107.55
1	C	100	GLY	N-CA-C	-5.80	102.75	110.58
1	A	379	GLN	CA-C-N	5.80	131.71	121.80
1	A	379	GLN	C-N-CA	5.80	131.71	121.80
1	B	92	GLY	CA-C-N	-5.80	114.24	122.94
1	B	92	GLY	C-N-CA	-5.80	114.24	122.94
1	A	10	SER	CA-C-N	5.79	132.40	121.97
1	A	10	SER	C-N-CA	5.79	132.40	121.97
1	C	398	ARG	N-CA-C	-5.79	105.05	111.36
2	F	463	ILE	CA-C-N	5.79	128.31	120.38
2	F	463	ILE	C-N-CA	5.79	128.31	120.38
1	A	143	ARG	N-CA-C	-5.78	105.33	112.72
2	F	25	PHE	N-CA-C	-5.77	100.29	109.59
2	F	37	GLU	N-CA-C	-5.77	99.77	109.07
1	B	477	GLN	CA-C-N	5.77	128.81	120.79
1	B	477	GLN	C-N-CA	5.77	128.81	120.79
1	B	430	GLN	N-CA-C	-5.76	98.54	110.80
4	H	105	LEU	N-CA-C	5.75	117.23	111.07
4	H	19	THR	N-CA-C	-5.74	99.16	108.52
1	B	171	ARG	CA-C-O	-5.73	112.31	120.51
1	B	70	ASN	N-CA-C	-5.73	100.24	108.60
2	D	220	GLY	CA-C-N	5.73	129.40	120.75
2	D	220	GLY	C-N-CA	5.73	129.40	120.75
1	A	150	ILE	N-CA-C	-5.72	99.25	107.78
1	A	100	GLY	N-CA-C	-5.72	103.08	110.69
2	D	162	LYS	N-CA-C	-5.72	104.95	111.07
1	A	373	ARG	CA-C-N	5.71	132.26	121.97
1	A	373	ARG	C-N-CA	5.71	132.26	121.97
1	A	444	VAL	N-CA-C	-5.71	103.79	111.44
2	E	32	ILE	N-CA-C	-5.71	103.83	110.05
2	F	418	PHE	CA-C-N	5.71	127.93	120.28
2	F	418	PHE	C-N-CA	5.71	127.93	120.28
1	A	75	VAL	N-CA-C	-5.71	100.20	108.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	D	43	THR	N-CA-C	-5.71	97.61	108.17
2	D	100	GLU	N-CA-C	-5.69	102.73	110.36
2	E	221	GLN	CA-C-N	5.69	128.18	120.38
2	E	221	GLN	C-N-CA	5.69	128.18	120.38
1	B	263	HIS	N-CA-C	-5.69	99.13	108.41
10	V	12	PHE	CA-C-O	-5.68	114.85	120.70
1	A	129	VAL	N-CA-C	-5.68	103.83	111.44
1	A	360	GLY	N-CA-C	-5.68	99.73	113.18
8	T	166	ALA	CA-C-O	-5.68	114.40	120.42
1	B	351	PHE	N-CA-C	5.67	118.78	109.76
2	E	306	SER	CA-C-N	5.67	130.73	123.13
2	E	306	SER	C-N-CA	5.67	130.73	123.13
1	B	49	ALA	CA-C-N	5.67	130.19	122.19
1	B	49	ALA	C-N-CA	5.67	130.19	122.19
4	H	101	ASP	N-CA-C	5.66	122.84	110.80
2	F	276	PRO	N-CA-C	-5.65	100.82	112.47
1	B	317	GLY	N-CA-C	-5.65	106.19	114.90
1	B	336	ALA	N-CA-C	-5.65	102.53	110.50
2	E	214	LYS	N-CA-C	-5.65	106.24	113.02
1	A	323	ALA	N-CA-C	-5.65	99.69	108.90
1	B	347	ASP	CA-C-N	5.65	130.42	122.57
1	B	347	ASP	C-N-CA	5.65	130.42	122.57
2	F	264	ALA	N-CA-C	5.65	117.11	111.07
3	G	171	TYR	N-CA-C	-5.65	100.49	109.07
1	C	214	ALA	CA-C-O	5.64	126.53	120.55
1	B	182	THR	CA-C-N	5.64	127.67	120.56
1	B	182	THR	C-N-CA	5.64	127.67	120.56
2	E	435	LYS	CA-C-N	5.64	128.88	120.31
2	E	435	LYS	C-N-CA	5.64	128.88	120.31
3	G	83	SER	CA-C-N	5.63	128.09	120.65
3	G	83	SER	C-N-CA	5.63	128.09	120.65
2	D	26	ASP	N-CA-C	-5.63	106.07	113.17
5	I	33	ASN	CA-C-N	5.63	128.62	120.79
5	I	33	ASN	C-N-CA	5.63	128.62	120.79
2	D	466	ALA	CA-C-N	5.63	127.77	120.56
2	D	466	ALA	C-N-CA	5.63	127.77	120.56
3	G	215	TYR	CA-C-N	5.63	127.76	120.44
3	G	215	TYR	C-N-CA	5.63	127.76	120.44
1	C	495	ALA	N-CA-C	-5.63	105.23	111.36
1	B	225	ALA	CA-C-N	5.62	128.38	120.28
1	B	225	ALA	C-N-CA	5.62	128.38	120.28
1	C	335	SER	CA-C-N	5.62	132.28	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	335	SER	C-N-CA	5.62	132.28	121.54
1	B	493	SER	CA-C-N	5.62	127.75	120.44
1	B	493	SER	C-N-CA	5.62	127.75	120.44
2	E	451	HIS	N-CA-C	-5.62	105.15	111.28
1	A	77	GLY	CA-C-N	5.62	132.27	121.54
1	A	77	GLY	C-N-CA	5.62	132.27	121.54
2	F	380	ASP	CA-C-N	5.62	127.81	120.28
2	F	380	ASP	C-N-CA	5.62	127.81	120.28
1	A	247	PRO	CA-C-N	5.61	128.26	120.29
1	A	247	PRO	C-N-CA	5.61	128.26	120.29
1	C	223	ALA	CA-C-N	5.61	132.26	121.54
1	C	223	ALA	C-N-CA	5.61	132.26	121.54
1	B	496	LYS	CA-C-N	5.61	127.73	120.44
1	B	496	LYS	C-N-CA	5.61	127.73	120.44
2	E	340	ALA	CA-C-N	5.61	128.83	120.31
2	E	340	ALA	C-N-CA	5.61	128.83	120.31
1	B	190	ASN	N-CA-C	-5.60	105.94	112.89
1	B	473	ILE	N-CA-C	-5.60	105.05	110.42
2	D	302	GLY	N-CA-C	-5.60	101.92	111.27
4	H	87	ASP	CA-C-N	5.59	130.06	120.72
4	H	87	ASP	C-N-CA	5.59	130.06	120.72
1	A	264	ALA	N-CA-C	-5.59	101.02	109.85
1	B	279	ARG	CA-C-N	5.59	128.08	120.54
1	B	279	ARG	C-N-CA	5.59	128.08	120.54
8	T	88	ARG	CA-C-O	-5.59	113.18	120.00
7	S	46	LEU	CA-C-N	5.58	132.20	121.54
7	S	46	LEU	C-N-CA	5.58	132.20	121.54
1	A	158	PRO	N-CA-C	-5.58	100.98	112.47
7	S	41	ARG	CA-C-N	5.58	127.80	120.60
7	S	41	ARG	C-N-CA	5.58	127.80	120.60
1	A	205	ALA	N-CA-C	-5.57	99.64	108.73
2	D	394	ASP	N-CA-C	5.57	122.67	110.80
1	A	34	ILE	CA-C-O	5.56	126.85	120.90
1	A	347	ASP	N-CA-C	-5.56	106.29	112.57
7	S	48	GLU	N-CA-C	-5.55	103.17	110.39
1	B	113	ASN	N-CA-C	-5.55	100.73	109.50
1	B	353	GLU	CA-C-O	5.55	126.40	120.46
7	S	109	MET	CA-C-N	5.55	132.13	121.54
7	S	109	MET	C-N-CA	5.55	132.13	121.54
1	C	45	ARG	N-CA-C	5.54	122.61	110.80
1	A	47	VAL	N-CA-C	5.54	120.86	109.34
1	A	417	LEU	CA-C-N	5.53	127.97	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	417	LEU	C-N-CA	5.53	127.97	120.44
1	C	493	SER	CA-C-N	5.53	127.96	120.38
1	C	493	SER	C-N-CA	5.53	127.96	120.38
2	D	278	ALA	N-CA-C	-5.53	102.09	110.28
1	A	56	SER	N-CA-C	-5.53	106.03	112.89
2	E	454	GLU	N-CA-C	5.53	120.00	112.04
2	E	448	GLU	N-CA-C	-5.53	104.79	113.02
1	C	169	GLY	CA-C-O	-5.52	116.24	121.87
2	D	400	ASP	N-CA-C	-5.52	105.17	111.07
2	E	44	ARG	N-CA-C	-5.52	98.28	107.99
2	F	409	LYS	CA-C-N	5.51	128.01	120.46
2	F	409	LYS	C-N-CA	5.51	128.01	120.46
1	B	328	GLU	N-CA-C	-5.51	99.75	108.73
1	C	225	ALA	N-CA-C	-5.51	106.40	113.01
2	D	63	MET	O-C-N	5.51	129.39	122.23
1	B	194	ASP	CA-C-N	5.51	128.11	120.29
1	B	194	ASP	C-N-CA	5.51	128.11	120.29
7	S	89	LEU	CA-C-N	5.51	127.60	120.44
7	S	89	LEU	C-N-CA	5.51	127.60	120.44
2	F	464	GLU	N-CA-C	5.51	117.99	111.33
1	A	58	GLY	CA-C-N	5.50	132.04	121.54
1	A	58	GLY	C-N-CA	5.50	132.04	121.54
4	H	131	ILE	N-CA-C	-5.50	105.36	110.53
1	C	89	LYS	N-CA-C	-5.50	100.44	109.40
2	F	316	ASP	N-CA-C	-5.50	100.06	109.24
8	T	148	VAL	CA-C-O	5.49	127.22	120.74
1	A	20	ASP	CA-C-N	5.49	132.03	121.54
1	A	20	ASP	C-N-CA	5.49	132.03	121.54
2	D	438	ILE	CA-C-N	5.49	127.57	120.44
2	D	438	ILE	C-N-CA	5.49	127.57	120.44
2	E	318	THR	N-CA-C	-5.49	105.30	111.28
2	E	36	LEU	N-CA-C	-5.48	100.94	109.72
2	D	111	LYS	CA-C-N	5.48	128.49	120.71
2	D	111	LYS	C-N-CA	5.48	128.49	120.71
2	F	105	ARG	N-CA-C	-5.48	103.76	110.61
2	F	392	GLY	N-CA-C	-5.48	105.53	112.65
4	H	135	ILE	O-C-N	5.48	127.28	121.91
1	B	478	ALA	CA-C-N	5.48	128.07	120.29
1	B	478	ALA	C-N-CA	5.48	128.07	120.29
7	S	79	SER	CA-C-N	5.48	126.69	119.84
7	S	79	SER	C-N-CA	5.48	126.69	119.84
2	D	398	GLU	CA-C-N	5.46	131.87	122.09

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	D	398	GLU	C-N-CA	5.46	131.87	122.09
2	E	100	GLU	N-CA-C	-5.46	103.18	110.07
1	A	146	MET	N-CA-C	-5.46	99.17	110.80
1	C	143	ARG	CA-C-N	5.46	128.98	120.68
1	C	143	ARG	C-N-CA	5.46	128.98	120.68
1	A	500	ILE	O-C-N	5.46	127.26	121.91
7	S	25	ALA	CA-C-N	5.45	127.86	120.44
7	S	25	ALA	C-N-CA	5.45	127.86	120.44
2	D	398	GLU	CA-C-O	5.45	126.54	119.95
2	F	11	GLY	N-CA-C	-5.45	103.19	111.14
2	D	156	GLY	N-CA-C	-5.44	100.28	113.18
2	F	285	LEU	CA-C-N	5.44	128.02	120.29
2	F	285	LEU	C-N-CA	5.44	128.02	120.29
2	E	189	ARG	N-CA-C	-5.44	100.92	109.25
2	E	209	LYS	N-CA-C	-5.44	106.49	113.02
2	F	317	LEU	CA-C-O	5.44	125.23	118.43
1	A	81	LEU	CA-C-N	5.43	131.75	121.97
1	A	81	LEU	C-N-CA	5.43	131.75	121.97
1	A	286	ARG	N-CA-C	-5.43	106.60	113.23
2	F	455	GLN	CA-C-N	5.43	127.56	120.28
2	F	455	GLN	C-N-CA	5.43	127.56	120.28
1	B	499	GLU	CA-C-N	5.43	127.40	120.56
1	B	499	GLU	C-N-CA	5.43	127.40	120.56
2	E	71	ARG	N-CA-C	-5.43	98.44	107.99
3	G	173	THR	N-CA-C	-5.43	101.88	109.96
1	B	438	ILE	N-CA-C	5.42	116.15	110.62
1	B	170	ASP	CA-C-N	5.42	131.89	121.54
1	B	170	ASP	C-N-CA	5.42	131.89	121.54
1	B	322	THR	N-CA-C	-5.42	100.41	109.24
2	E	410	ILE	CA-C-N	5.41	127.80	120.38
2	E	410	ILE	C-N-CA	5.41	127.80	120.38
2	E	96	ASN	N-CA-C	-5.41	101.47	109.86
2	E	21	VAL	N-CA-C	-5.41	100.54	108.11
8	T	89	HIS	CA-C-O	-5.41	115.32	121.00
1	B	476	HIS	CA-C-N	5.40	128.06	120.28
1	B	476	HIS	C-N-CA	5.40	128.06	120.28
1	C	360	GLY	N-CA-C	-5.40	107.34	114.95
8	T	166	ALA	O-C-N	-5.40	115.99	122.15
2	D	387	ILE	CA-C-N	5.40	129.00	120.47
2	D	387	ILE	C-N-CA	5.40	129.00	120.47
1	A	104	LEU	N-CA-C	-5.40	100.99	109.25
1	A	38	ILE	N-CA-C	-5.39	98.70	107.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	D	276	PRO	N-CA-C	-5.39	101.36	112.47
1	C	150	ILE	N-CA-C	-5.39	99.39	107.37
1	A	437	ALA	CA-C-N	5.39	127.84	120.46
1	A	437	ALA	C-N-CA	5.39	127.84	120.46
2	D	451	HIS	N-CA-C	-5.39	99.33	110.80
1	C	172	GLN	CA-C-O	5.38	128.21	120.51
1	A	353	GLU	O-C-N	-5.38	116.02	123.12
1	B	414	THR	CA-C-N	5.38	128.03	120.28
1	B	414	THR	C-N-CA	5.38	128.03	120.28
3	G	269	ALA	CA-C-N	-5.38	111.26	121.54
3	G	269	ALA	C-N-CA	-5.38	111.26	121.54
1	A	395	ALA	N-CA-C	-5.38	105.31	111.07
1	B	467	ALA	CA-C-N	5.37	127.48	120.28
1	B	467	ALA	C-N-CA	5.37	127.48	120.28
4	H	129	ALA	CA-C-N	5.37	127.48	120.28
4	H	129	ALA	C-N-CA	5.37	127.48	120.28
2	F	281	TYR	CA-C-O	-5.37	114.53	120.60
3	G	74	ASP	N-CA-C	-5.37	105.43	112.41
7	S	79	SER	CA-C-O	-5.37	112.80	120.16
10	V	12	PHE	N-CA-C	-5.37	105.34	111.14
2	E	122	GLU	CA-C-N	5.36	127.47	120.28
2	E	122	GLU	C-N-CA	5.36	127.47	120.28
2	F	368	TYR	CA-C-N	5.36	127.91	120.29
2	F	368	TYR	C-N-CA	5.36	127.91	120.29
1	A	343	ILE	N-CA-C	-5.36	105.16	110.62
3	G	39	LYS	CA-C-N	5.36	125.00	119.05
3	G	39	LYS	C-N-CA	5.36	125.00	119.05
2	E	137	ILE	CA-C-N	5.36	127.40	120.44
2	E	137	ILE	C-N-CA	5.36	127.40	120.44
8	T	23	GLU	CA-C-O	5.36	126.41	120.63
2	D	50	ALA	N-CA-C	-5.35	106.68	113.43
8	T	89	HIS	O-C-N	-5.35	116.47	122.03
2	E	99	GLY	N-CA-C	-5.35	108.25	115.36
1	A	365	ILE	N-CA-C	5.34	120.46	109.34
1	A	338	ILE	CA-C-O	-5.34	115.11	118.69
4	H	97	ALA	N-CA-C	-5.34	99.59	108.34
1	C	216	LEU	CA-C-N	5.33	128.05	120.53
1	C	216	LEU	C-N-CA	5.33	128.05	120.53
2	D	353	SER	N-CA-C	-5.33	101.09	109.25
2	D	340	ALA	CA-C-N	5.33	128.41	120.31
2	D	340	ALA	C-N-CA	5.33	128.41	120.31
3	G	93	ALA	N-CA-C	5.33	122.15	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	135	GLY	CA-C-N	5.33	127.27	120.56
1	B	135	GLY	C-N-CA	5.33	127.27	120.56
1	C	491	GLU	CA-C-N	5.32	127.36	120.44
1	C	491	GLU	C-N-CA	5.32	127.36	120.44
1	A	279	ARG	CA-C-N	5.32	127.72	120.54
1	A	279	ARG	C-N-CA	5.32	127.72	120.54
8	T	91	LEU	CA-C-N	5.32	127.84	120.29
8	T	91	LEU	C-N-CA	5.32	127.84	120.29
1	C	476	HIS	CA-C-N	5.32	127.94	120.28
1	C	476	HIS	C-N-CA	5.32	127.94	120.28
1	B	388	GLY	CA-C-O	5.31	126.52	121.05
1	B	314	ASP	CA-C-N	5.31	129.10	120.60
1	B	314	ASP	C-N-CA	5.31	129.10	120.60
2	D	91	LEU	N-CA-C	-5.31	103.13	110.35
2	F	398	GLU	N-CA-C	5.31	117.82	111.71
1	B	44	LEU	N-CA-C	5.31	119.59	113.38
8	T	98	ASN	N-CA-C	-5.31	105.50	111.28
1	A	430	GLN	CA-C-N	5.30	126.22	120.44
1	A	430	GLN	C-N-CA	5.30	126.22	120.44
1	C	400	VAL	N-CA-C	-5.30	106.69	113.22
1	A	44	LEU	CA-C-N	5.30	131.66	121.54
1	A	44	LEU	C-N-CA	5.30	131.66	121.54
1	A	347	ASP	CA-C-N	5.30	131.79	121.41
1	A	347	ASP	C-N-CA	5.30	131.79	121.41
1	C	299	PHE	N-CA-C	-5.29	105.42	111.14
2	D	284	THR	N-CA-C	-5.29	106.41	112.92
2	E	115	ALA	N-CA-C	-5.29	101.83	110.20
5	I	36	LYS	N-CA-C	-5.29	105.16	111.03
3	G	81	ILE	CA-C-N	5.29	127.63	120.44
3	G	81	ILE	C-N-CA	5.29	127.63	120.44
3	G	268	GLY	N-CA-C	-5.29	100.65	113.18
2	E	267	GLU	N-CA-C	-5.29	105.60	111.36
2	F	216	ALA	N-CA-C	-5.28	101.10	109.76
7	S	32	LEU	N-CA-C	-5.28	104.77	111.11
2	E	16	VAL	N-CA-C	-5.28	99.96	107.77
1	A	25	LEU	N-CA-C	-5.28	104.73	110.91
2	E	450	ASP	CA-C-N	5.28	127.35	120.28
2	E	450	ASP	C-N-CA	5.28	127.35	120.28
2	D	67	GLU	N-CA-C	5.28	118.12	110.42
1	A	156	LEU	N-CA-C	-5.27	107.02	113.50
4	H	29	ASN	CA-C-N	5.27	129.84	122.36
4	H	29	ASN	C-N-CA	5.27	129.84	122.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	66	LEU	N-CA-C	-5.27	99.19	108.20
2	D	27	GLU	N-CA-C	-5.27	100.45	107.88
2	E	243	PHE	N-CA-C	5.27	118.97	112.54
1	A	57	SER	N-CA-C	-5.26	106.70	113.02
2	F	20	VAL	CA-C-O	5.26	126.16	120.53
2	E	470	ALA	CA-C-N	5.26	127.76	120.29
2	E	470	ALA	C-N-CA	5.26	127.76	120.29
1	A	261	GLY	CA-C-N	5.26	129.75	120.87
1	A	261	GLY	C-N-CA	5.26	129.75	120.87
2	E	13	ILE	CA-C-N	-5.24	115.92	121.84
2	E	13	ILE	C-N-CA	-5.24	115.92	121.84
1	C	44	LEU	CA-C-N	5.24	131.55	121.54
1	C	44	LEU	C-N-CA	5.24	131.55	121.54
2	F	109	LYS	N-CA-C	-5.24	103.77	110.53
4	H	37	ASP	N-CA-C	-5.24	100.63	109.07
5	I	43	LYS	N-CA-C	-5.24	98.71	107.99
1	A	501	VAL	CA-C-N	5.24	127.30	120.28
1	A	501	VAL	C-N-CA	5.24	127.30	120.28
1	C	442	VAL	CA-C-N	5.24	127.25	120.44
1	C	442	VAL	C-N-CA	5.24	127.25	120.44
1	A	105	GLY	N-CA-C	-5.24	108.00	115.64
3	G	80	ALA	CA-C-N	5.24	127.35	120.60
3	G	80	ALA	C-N-CA	5.24	127.35	120.60
2	F	356	ARG	CA-C-N	5.23	131.39	121.97
2	F	356	ARG	C-N-CA	5.23	131.39	121.97
2	F	470	ALA	CA-C-N	5.23	127.72	120.29
2	F	470	ALA	C-N-CA	5.23	127.72	120.29
4	H	73	SER	CA-C-O	-5.23	115.11	121.28
1	C	48	GLN	N-CA-C	-5.23	101.45	109.76
1	C	55	PHE	CA-C-N	5.23	131.53	121.54
1	C	55	PHE	C-N-CA	5.23	131.53	121.54
3	G	273	ASP	N-CA-C	-5.23	96.36	111.00
2	E	89	GLU	CA-C-N	5.22	129.56	120.68
2	E	89	GLU	C-N-CA	5.22	129.56	120.68
1	C	365	ILE	N-CA-C	5.22	120.20	109.34
1	B	316	PHE	N-CA-C	-5.22	106.22	112.59
1	C	478	ALA	CA-C-N	5.22	127.70	120.29
1	C	478	ALA	C-N-CA	5.22	127.70	120.29
7	S	13	GLY	N-CA-C	-5.22	103.19	112.58
1	B	176	THR	N-CA-C	-5.21	105.51	111.14
2	F	82	ILE	CA-C-N	-5.21	115.38	122.93
2	F	82	ILE	C-N-CA	-5.21	115.38	122.93

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	334	VAL	CA-C-O	5.21	125.08	119.35
3	G	86	ALA	O-C-N	5.21	127.65	122.08
1	B	463	LYS	CA-C-N	5.21	127.21	120.44
1	B	463	LYS	C-N-CA	5.21	127.21	120.44
2	D	22	ASP	N-CA-C	-5.20	100.69	109.07
1	C	408	SER	N-CA-C	5.20	121.88	110.80
2	D	35	ALA	N-CA-C	-5.20	101.49	109.76
4	H	49	ALA	N-CA-C	5.20	121.87	110.80
1	C	30	ARG	N-CA-C	-5.19	101.69	109.95
7	S	20	THR	N-CA-C	5.19	118.71	112.38
2	F	303	SER	CA-C-N	-5.19	116.18	123.13
2	F	303	SER	C-N-CA	-5.19	116.18	123.13
7	S	45	ILE	CA-C-O	5.19	126.31	120.03
1	B	177	SER	CA-C-N	5.18	127.09	120.56
1	B	177	SER	C-N-CA	5.18	127.09	120.56
2	F	271	LEU	N-CA-C	-5.18	105.71	111.36
2	D	321	ALA	N-CA-C	-5.18	105.56	112.55
2	F	182	VAL	N-CA-C	-5.18	100.74	108.46
1	A	366	ASN	CA-C-N	5.18	127.55	120.46
1	A	366	ASN	C-N-CA	5.18	127.55	120.46
2	D	318	THR	N-CA-C	-5.17	104.71	111.02
1	C	227	LYS	N-CA-C	5.17	118.37	111.75
2	E	425	THR	N-CA-C	-5.17	105.33	111.69
1	B	24	ASP	CA-C-O	5.17	126.90	120.54
2	F	291	THR	CA-C-N	5.17	132.97	121.80
2	F	291	THR	C-N-CA	5.17	132.97	121.80
1	A	43	GLY	CA-C-N	5.16	131.40	121.54
1	A	43	GLY	C-N-CA	5.16	131.40	121.54
1	A	375	GLY	CA-C-N	5.16	127.62	120.29
1	A	375	GLY	C-N-CA	5.16	127.62	120.29
8	T	172	SER	N-CA-C	5.16	120.22	113.20
3	G	124	PHE	N-CA-C	-5.16	102.89	110.52
1	C	81	LEU	CA-C-N	5.16	127.52	120.35
1	C	81	LEU	C-N-CA	5.16	127.52	120.35
1	B	385	GLN	CA-C-N	-5.15	116.27	122.35
1	B	385	GLN	C-N-CA	-5.15	116.27	122.35
1	C	349	GLN	N-CA-C	-5.15	100.90	108.99
1	A	46	ASN	CA-C-N	5.15	131.24	121.97
1	A	46	ASN	C-N-CA	5.15	131.24	121.97
4	H	28	PHE	N-CA-C	-5.15	100.64	109.24
7	S	6	ARG	CA-C-O	-5.15	115.22	120.63
2	D	66	THR	N-CA-C	5.15	121.77	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	G	225	GLN	N-CA-C	5.15	117.79	111.82
2	D	307	VAL	N-CA-C	-5.15	99.10	107.28
7	S	10	GLN	CA-C-N	5.15	131.23	121.97
7	S	10	GLN	C-N-CA	5.15	131.23	121.97
2	F	84	ILE	N-CA-C	-5.14	104.97	109.19
3	G	77	LEU	O-C-N	5.14	127.25	122.00
2	D	359	ASP	O-C-N	-5.14	118.25	121.85
1	A	18	GLY	N-CA-C	-5.14	107.16	115.08
1	B	381	ARG	N-CA-C	5.14	116.88	111.28
2	F	61	ILE	N-CA-C	5.13	115.30	108.11
1	B	270	ASP	CA-C-N	5.13	129.29	120.72
1	B	270	ASP	C-N-CA	5.13	129.29	120.72
2	F	307	VAL	CA-C-N	-5.13	115.77	123.00
2	F	307	VAL	C-N-CA	-5.13	115.77	123.00
7	S	95	LEU	N-CA-C	5.13	116.95	111.36
2	F	75	VAL	CA-C-O	-5.13	114.93	120.67
2	F	396	LEU	N-CA-C	-5.13	101.57	109.52
3	G	251	ASN	O-C-N	5.13	129.41	122.59
1	B	102	GLU	N-CA-C	-5.12	106.04	113.21
2	F	340	ALA	CA-C-N	5.12	127.65	120.28
2	F	340	ALA	C-N-CA	5.12	127.65	120.28
2	E	66	THR	N-CA-C	5.12	115.87	108.34
3	G	178	ILE	N-CA-C	5.12	115.60	108.84
7	S	5	VAL	N-CA-C	-5.12	100.70	108.17
2	D	64	ASP	CA-C-N	5.11	129.02	122.83
2	D	64	ASP	C-N-CA	5.11	129.02	122.83
4	H	23	PRO	O-C-N	5.11	128.37	122.23
2	E	319	ASP	CA-C-N	5.11	125.15	119.32
2	E	319	ASP	C-N-CA	5.11	125.15	119.32
2	D	52	HIS	CA-C-O	5.11	125.86	120.54
1	B	444	VAL	N-CA-C	-5.10	104.60	111.44
1	B	377	ALA	CA-C-N	5.10	131.28	121.54
1	B	377	ALA	C-N-CA	5.10	131.28	121.54
7	S	102	ILE	N-CA-C	-5.10	105.87	110.82
1	C	208	GLN	CA-C-O	-5.09	115.48	120.98
2	F	324	THR	CA-C-N	5.09	127.11	120.28
2	F	324	THR	C-N-CA	5.09	127.11	120.28
9	U	69	LYS	CA-C-N	5.09	127.55	120.63
9	U	69	LYS	C-N-CA	5.09	127.55	120.63
1	A	26	GLU	N-CA-C	-5.09	108.82	114.62
1	C	96	ASP	N-CA-C	-5.09	101.56	109.14
3	G	156	ASP	CA-C-N	5.09	131.25	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	G	156	ASP	C-N-CA	5.09	131.25	121.54
1	C	92	GLY	N-CA-C	-5.08	107.07	114.90
2	E	41	ARG	CA-C-N	5.08	130.94	122.66
2	E	41	ARG	C-N-CA	5.08	130.94	122.66
1	A	176	THR	N-CA-C	-5.07	105.83	111.36
1	A	328	GLU	N-CA-C	-5.07	100.46	108.73
1	B	41	VAL	N-CA-C	-5.07	101.01	108.11
2	D	214	LYS	N-CA-C	-5.07	100.00	110.80
1	B	191	ASP	N-CA-C	-5.07	107.10	113.28
1	C	404	ALA	N-CA-C	-5.07	102.19	110.20
2	E	461	GLY	N-CA-C	-5.07	102.01	112.34
1	A	39	ALA	CA-C-O	5.06	125.89	120.32
1	C	120	PRO	CA-C-N	5.06	128.14	120.75
1	C	120	PRO	C-N-CA	5.06	128.14	120.75
5	I	28	THR	CA-C-N	5.06	127.31	120.38
5	I	28	THR	C-N-CA	5.06	127.31	120.38
1	C	119	GLY	N-CA-C	-5.06	102.02	112.34
1	A	412	ALA	CA-C-N	5.05	128.40	120.82
1	A	412	ALA	C-N-CA	5.05	128.40	120.82
1	A	148	THR	N-CA-C	-5.05	107.12	113.28
1	A	170	ASP	CA-C-N	5.05	131.18	121.54
1	A	170	ASP	C-N-CA	5.05	131.18	121.54
2	F	55	GLU	N-CA-C	-5.05	107.07	113.23
1	C	191	ASP	N-CA-C	-5.04	107.12	113.28
3	G	206	GLU	N-CA-C	-5.04	100.06	110.80
1	C	328	GLU	N-CA-C	-5.04	100.51	108.73
4	H	49	ALA	CA-C-N	5.04	131.16	121.54
4	H	49	ALA	C-N-CA	5.04	131.16	121.54
2	F	273	GLY	N-CA-C	-5.03	106.13	114.48
7	S	8	PRO	CA-C-O	-5.03	115.85	121.23
1	A	399	GLU	CA-C-N	-5.03	114.41	121.55
1	A	399	GLU	C-N-CA	-5.03	114.41	121.55
2	F	441	PHE	CA-C-N	5.03	127.02	120.28
2	F	441	PHE	C-N-CA	5.03	127.02	120.28
1	C	58	GLY	N-CA-C	-5.03	101.27	113.18
2	D	54	GLY	CA-C-N	5.03	131.14	121.54
2	D	54	GLY	C-N-CA	5.03	131.14	121.54
4	H	99	THR	N-CA-C	-5.03	102.84	110.28
7	S	26	ALA	CA-C-N	5.03	131.14	121.54
7	S	26	ALA	C-N-CA	5.03	131.14	121.54
2	E	226	PRO	CA-C-N	5.02	125.66	119.99
2	E	226	PRO	C-N-CA	5.02	125.66	119.99

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	E	462	PRO	CA-C-N	5.02	128.40	120.47
2	E	462	PRO	C-N-CA	5.02	128.40	120.47
7	S	116	VAL	N-CA-C	5.02	119.72	108.88
1	C	223	ALA	N-CA-C	-5.01	107.12	113.18
2	D	188	GLU	N-CA-C	-5.01	103.05	110.46
3	G	51	LEU	N-CA-C	-5.01	100.14	110.80
1	B	45	ARG	N-CA-C	5.00	121.46	110.80
4	H	46	GLY	N-CA-C	-5.00	101.32	113.18
1	A	510	ALA	N-CA-C	-5.00	97.00	111.00
2	D	441	PHE	CA-C-N	5.00	127.48	120.28
2	D	441	PHE	C-N-CA	5.00	127.48	120.28

There are no chirality outliers.

All (78) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	21	THR	Peptide
1	A	336	ALA	Peptide
1	A	35	GLY	Peptide
1	A	400	VAL	Mainchain
1	A	404	ALA	Mainchain
1	A	406	PHE	Mainchain
1	B	379	GLN	Peptide
1	B	505	LEU	Mainchain
1	C	169	GLY	Mainchain
2	D	160	VAL	Mainchain
2	D	205	VAL	Peptide
2	D	25	PHE	Mainchain
2	D	384	LEU	Mainchain
2	D	397	SER	Mainchain
2	D	72	GLY	Mainchain
2	E	249	GLN	Mainchain
2	E	25	PHE	Mainchain
2	E	397	SER	Mainchain
2	F	130	GLN	Mainchain
2	F	249	GLN	Peptide
3	G	92	GLU	Mainchain,Peptide
7	S	107	THR	Peptide
7	S	118	CYS	Mainchain
7	S	122	THR	Peptide
7	S	150	LEU	Mainchain,Peptide
7	S	151	GLU	Peptide

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Mol	Chain	Res	Type	Group
7	S	152	VAL	Peptide
7	S	156	PRO	Mainchain,Peptide
7	S	161	GLY	Mainchain
7	S	167	GLY	Mainchain
8	T	113	ARG	Mainchain
8	T	121	ARG	Mainchain
8	T	140	MET	Mainchain
8	T	144	VAL	Mainchain
8	T	149	VAL	Peptide
8	T	154	ALA	Peptide
8	T	155	GLN	Mainchain
8	T	158	LYS	Mainchain
8	T	166	ALA	Mainchain
8	T	168	LEU	Peptide
8	T	172	SER	Peptide
8	T	18	TYR	Mainchain
8	T	51	LYS	Mainchain
8	T	84	LEU	Mainchain
8	T	86	GLN	Mainchain
8	T	87	LYS	Mainchain
8	T	89	HIS	Mainchain
8	T	98	ASN	Mainchain
9	U	121	ASN	Mainchain
9	U	18	PRO	Mainchain
10	V	12	PHE	Mainchain
10	V	14	ASP	Mainchain
10	V	18	GLU	Mainchain
10	V	19	TYR	Mainchain
10	V	20	ARG	Mainchain
10	V	27	GLY	Peptide
10	V	29	PRO	Mainchain
10	V	32	ALA	Mainchain
10	V	33	GLY	Mainchain
10	V	35	GLU	Mainchain
10	V	49	GLN	Mainchain
10	V	50	MET	Peptide
10	V	54	ALA	Mainchain
10	V	56	MET	Mainchain
10	V	6	ASP	Mainchain,Peptide
10	V	63	THR	Mainchain
10	V	7	PRO	Mainchain,Peptide
10	V	70	GLU	Mainchain

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Mol	Chain	Res	Type	Group
11	W	176	GLY	Mainchain
11	W	35	ASN	Peptide
11	W	48	TRP	Mainchain
11	W	87	LEU	Mainchain
11	W	91	SER	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	2035	0	589	12	0
1	B	1918	0	553	18	0
1	C	1947	0	563	7	0
2	D	1867	0	533	8	0
2	E	1863	0	532	13	0
2	F	1863	0	532	8	0
3	G	1053	0	283	7	0
4	H	523	0	140	1	0
5	I	187	0	53	0	0
6	J	288	0	92	0	0
6	K	288	0	92	0	0
6	L	288	0	92	0	0
6	M	288	0	92	0	0
6	N	288	0	92	0	0
6	O	288	0	92	0	0
6	P	288	0	92	0	0
6	Q	288	0	92	0	0
7	S	669	0	179	8	0
8	T	697	0	182	2	0
9	U	485	0	121	0	0
10	V	265	0	68	0	0
11	W	869	0	226	0	0
All	All	18545	0	5290	82	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 3.

All (82) 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)
3:G:267:SER:H	3:G:271:ALA:H	1.25	0.82
1:B:49:ALA:H	2:F:69:LEU:H	1.33	0.74
1:A:149:GLY:HA3	1:A:436:MET:H	1.54	0.72
1:B:149:GLY:HA3	1:B:436:MET:H	1.56	0.71
7:S:106:SER:O	7:S:108:MET:N	2.28	0.66
1:B:173:THR:N	1:B:175:LYS:H	1.96	0.63
3:G:267:SER:H	3:G:271:ALA:N	1.93	0.63
7:S:30:ASN:C	7:S:32:LEU:H	2.06	0.61
3:G:167:SER:C	3:G:169:ILE:H	2.08	0.59
1:B:173:THR:H	1:B:175:LYS:H	1.51	0.59
1:A:223:ALA:C	1:A:225:ALA:H	2.10	0.59
2:D:160:VAL:H	2:D:162:LYS:H	1.52	0.56
2:D:473:LEU:C	2:D:475:GLU:H	2.15	0.54
2:E:84:ILE:H	2:E:114:ALA:H	1.55	0.54
7:S:28:LYS:C	7:S:30:ASN:H	2.15	0.54
2:E:450:ASP:H	2:E:452:LEU:H	1.57	0.53
2:F:127:SER:C	2:F:129:GLU:H	2.15	0.52
1:C:223:ALA:C	1:C:225:ALA:H	2.18	0.52
1:A:149:GLY:CA	1:A:436:MET:H	2.21	0.51
2:E:210:ASP:C	2:E:212:THR:H	2.16	0.51
2:D:160:VAL:N	2:D:162:LYS:H	2.10	0.49
2:F:382:LYS:C	2:F:385:GLN:H	2.21	0.49
7:S:93:GLY:C	7:S:95:LEU:H	2.21	0.48
2:E:208:LEU:C	2:E:210:ASP:H	2.22	0.48
2:E:247:GLU:C	2:E:249:GLN:H	2.22	0.47
2:F:448:GLU:C	2:F:450:ASP:H	2.21	0.47
1:A:9:SER:C	1:A:13:GLU:H	2.22	0.47
3:G:112:ILE:C	3:G:114:SER:H	2.22	0.46
1:B:102:GLU:C	1:B:104:LEU:H	2.23	0.46
1:B:260:ASN:C	1:B:262:LYS:H	2.23	0.46
2:D:342:LEU:C	2:D:344:ILE:H	2.22	0.46
7:S:115:GLU:N	7:S:127:ASP:H	2.13	0.45
7:S:95:LEU:C	7:S:97:ASN:H	2.25	0.45
1:B:149:GLY:CA	1:B:436:MET:H	2.25	0.45
1:C:475:GLN:C	1:C:477:GLN:H	2.24	0.45
2:D:350:PRO:C	2:D:352:ASP:H	2.24	0.45
3:G:120:HIS:C	3:G:122:ASP:H	2.24	0.45
3:G:67:LEU:C	3:G:158:GLY:HA3	2.42	0.44
2:E:41:ARG:C	2:E:43:THR:H	2.25	0.44
2:F:84:ILE:H	2:F:114:ALA:H	1.64	0.44
2:D:84:ILE:H	2:D:114:ALA:H	1.65	0.44
3:G:204:TYR:O	3:G:208:SER:N	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:211:ALA:C	2:E:213:SER:H	2.26	0.43
1:A:260:ASN:C	1:A:262:LYS:H	2.25	0.43
1:A:49:ALA:H	2:E:69:LEU:N	2.16	0.43
2:E:271:LEU:C	2:E:273:GLY:H	2.26	0.43
1:A:9:SER:O	1:A:11:ILE:N	2.51	0.43
1:B:258:ARG:O	1:B:319:GLY:HA3	2.18	0.43
1:B:351:PHE:H	1:B:370:SER:CA	2.32	0.43
1:B:353:GLU:H	1:B:365:ILE:CA	2.32	0.43
1:A:224:ASP:C	1:A:226:MET:H	2.27	0.42
1:B:283:LEU:C	1:B:286:ARG:H	2.26	0.42
1:C:258:ARG:O	1:C:319:GLY:HA3	2.19	0.42
8:T:104:GLU:O	8:T:105:VAL:C	2.60	0.42
2:E:341:GLU:C	2:E:343:GLY:H	2.27	0.42
1:B:31:VAL:H	1:B:85:GLY:C	2.27	0.42
1:B:84:GLU:C	1:B:86:ASP:H	2.28	0.42
2:E:450:ASP:H	2:E:452:LEU:N	2.17	0.42
8:T:166:ALA:O	8:T:170:LEU:N	2.51	0.42
1:C:353:GLU:H	1:C:365:ILE:C	2.28	0.42
1:A:25:LEU:C	1:A:28:THR:O	2.63	0.41
2:F:368:TYR:O	2:F:372:ARG:N	2.51	0.41
2:E:272:LEU:C	2:E:274:ARG:H	2.28	0.41
1:B:25:LEU:C	1:B:44:LEU:N	2.78	0.41
2:E:419:GLN:C	2:E:421:ALA:H	2.28	0.41
1:C:172:GLN:C	1:C:174:GLY:H	2.29	0.41
1:A:5:THR:C	1:A:7:GLU:H	2.28	0.41
1:C:260:ASN:C	1:C:262:LYS:H	2.29	0.41
1:C:283:LEU:C	1:C:286:ARG:H	2.29	0.41
2:F:159:GLY:C	2:F:161:GLY:H	2.29	0.41
4:H:107:ALA:O	4:H:111:ASN:N	2.53	0.41
1:A:257:PHE:C	1:A:260:ASN:H	2.29	0.41
7:S:148:LEU:C	7:S:153:LYS:H	2.29	0.41
2:D:155:PHE:N	2:D:333:THR:O	2.53	0.40
1:B:171:ARG:O	1:B:173:THR:N	2.54	0.40
1:A:189:PHE:C	1:A:192:GLY:H	2.29	0.40
1:B:161:ARG:C	1:B:163:GLN:H	2.29	0.40
1:B:261:GLY:HA2	1:B:317:GLY:C	2.46	0.40
2:D:247:GLU:C	2:D:249:GLN:H	2.29	0.40
2:F:11:GLY:HA2	2:F:24:GLN:O	2.22	0.40
7:S:106:SER:O	7:S:107:THR:C	2.54	0.40
1:B:171:ARG:O	1:B:172:GLN:C	2.65	0.40

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	507/510 (99%)	442 (87%)	41 (8%)	24 (5%)	2	16
1	B	476/510 (93%)	425 (89%)	30 (6%)	21 (4%)	2	17
1	C	485/510 (95%)	434 (90%)	31 (6%)	20 (4%)	2	18
2	D	465/482 (96%)	407 (88%)	38 (8%)	20 (4%)	2	17
2	E	464/482 (96%)	406 (88%)	34 (7%)	24 (5%)	1	15
2	F	464/482 (96%)	416 (90%)	31 (7%)	17 (4%)	2	20
3	G	258/273 (94%)	191 (74%)	33 (13%)	34 (13%)	0	4
4	H	129/146 (88%)	105 (81%)	12 (9%)	12 (9%)	0	8
5	I	45/50 (90%)	32 (71%)	8 (18%)	5 (11%)	0	5
6	J	70/72 (97%)	62 (89%)	6 (9%)	2 (3%)	3	23
6	K	70/72 (97%)	64 (91%)	5 (7%)	1 (1%)	9	40
6	L	70/72 (97%)	57 (81%)	13 (19%)	0	100	100
6	M	70/72 (97%)	64 (91%)	4 (6%)	2 (3%)	3	23
6	N	70/72 (97%)	61 (87%)	9 (13%)	0	100	100
6	O	70/72 (97%)	64 (91%)	5 (7%)	1 (1%)	9	40
6	P	70/72 (97%)	64 (91%)	5 (7%)	1 (1%)	9	40
6	Q	70/72 (97%)	61 (87%)	7 (10%)	2 (3%)	3	23
7	S	166/190 (87%)	107 (64%)	32 (19%)	27 (16%)	0	2
8	T	172/174 (99%)	152 (88%)	16 (9%)	4 (2%)	5	28
9	U	120/124 (97%)	108 (90%)	10 (8%)	2 (2%)	7	36
10	V	65/77 (84%)	51 (78%)	8 (12%)	6 (9%)	0	8
11	W	215/217 (99%)	193 (90%)	18 (8%)	4 (2%)	6	32
All	All	4591/4803 (96%)	3966 (86%)	396 (9%)	229 (5%)	3	16

All (229) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	9	SER
1	A	10	SER
1	A	13	GLU
1	A	14	GLU
1	A	20	ASP
1	A	45	ARG
1	A	47	VAL
1	A	59	LEU
1	A	78	ASN
1	A	84	GLU
1	A	238	ASP
1	A	361	ILE
1	A	365	ILE
1	A	374	VAL
1	B	45	ARG
1	B	57	SER
1	B	59	LEU
1	B	114	ALA
1	B	144	GLU
1	B	171	ARG
1	B	172	GLN
1	B	238	ASP
1	B	376	SER
1	C	289	PRO
1	C	365	ILE
1	C	374	VAL
1	C	408	SER
1	C	455	LYS
1	C	456	LEU
2	D	214	LYS
2	D	281	TYR
2	D	450	ASP
2	D	451	HIS
2	E	180	TYR
2	E	210	ASP
2	E	274	ARG
2	E	344	ILE
2	E	348	VAL
2	E	358	MET
2	F	67	GLU
2	F	277	SER
2	F	299	THR
2	F	364	GLY

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Mol	Chain	Res	Type
3	G	55	ALA
3	G	60	PRO
3	G	78	CYS
3	G	93	ALA
3	G	115	ILE
3	G	134	ARG
3	G	183	THR
3	G	186	SER
3	G	199	ASP
3	G	250	PHE
4	H	42	THR
4	H	45	PHE
4	H	49	ALA
4	H	50	ALA
4	H	51	HIS
4	H	52	VAL
4	H	68	GLU
4	H	69	ASP
4	H	87	ASP
4	H	95	GLU
4	H	101	ASP
5	I	28	THR
5	I	41	THR
7	S	10	GLN
7	S	11	ILE
7	S	47	LYS
7	S	50	LYS
7	S	75	LYS
7	S	80	PRO
7	S	109	MET
7	S	110	SER
7	S	126	LEU
7	S	136	THR
7	S	153	LYS
9	U	98	CYS
10	V	54	ALA
10	V	67	PRO
10	V	70	GLU
1	A	11	ILE
1	A	23	VAL
1	A	82	ILE
1	A	171	ARG

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Mol	Chain	Res	Type
1	B	46	ASN
1	B	82	ILE
1	B	84	GLU
1	B	115	ILE
1	B	143	ARG
1	B	209	LYS
1	B	224	ASP
1	B	289	PRO
1	B	505	LEU
1	C	26	GLU
1	C	44	LEU
1	C	45	ARG
1	C	115	ILE
1	C	143	ARG
1	C	172	GLN
1	C	209	LYS
2	D	28	GLY
2	D	107	PRO
2	D	179	GLY
2	D	212	THR
2	D	276	PRO
2	D	394	ASP
2	E	28	GLY
2	E	67	GLU
2	E	102	ILE
2	E	450	ASP
2	F	420	VAL
2	F	453	PRO
3	G	9	ARG
3	G	51	LEU
3	G	69	ILE
3	G	87	LYS
3	G	116	LEU
3	G	180	SER
3	G	185	SER
3	G	200	VAL
3	G	257	VAL
3	G	272	LEU
7	S	68	SER
7	S	114	GLY
7	S	158	ILE
8	T	147	ARG

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Mol	Chain	Res	Type
1	A	146	MET
1	A	289	PRO
1	B	37	GLY
1	B	508	PHE
1	C	68	PRO
1	C	171	ARG
1	C	238	ASP
1	C	430	GLN
2	D	55	GLU
2	D	209	LYS
2	D	462	PRO
2	E	212	THR
2	E	395	GLU
2	F	44	ARG
2	F	118	ALA
2	F	282	GLN
2	F	359	ASP
2	F	427	HIS
3	G	88	GLN
3	G	195	ASP
3	G	197	ASP
3	G	268	GLY
3	G	269	ALA
6	J	45	GLN
7	S	16	GLY
7	S	29	GLN
7	S	79	SER
10	V	55	ASP
11	W	36	ARG
1	A	136	ILE
1	A	209	LYS
1	C	57	SER
2	D	44	ARG
2	D	453	PRO
2	E	277	SER
2	E	447	GLY
2	F	101	PRO
3	G	72	SER
3	G	92	GLU
3	G	188	GLU
5	I	33	ASN
5	I	38	SER

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Mol	Chain	Res	Type
6	P	40	PRO
6	Q	44	GLN
7	S	61	LYS
7	S	77	LYS
8	T	149	VAL
8	T	170	LEU
11	W	40	ASN
1	A	145	PRO
1	C	59	LEU
2	D	33	LEU
2	E	276	PRO
2	E	396	LEU
2	F	33	LEU
2	F	360	PRO
3	G	10	LEU
3	G	133	ARG
3	G	201	LEU
3	G	258	ILE
4	H	39	PRO
6	O	39	ASN
7	S	14	ILE
7	S	92	ASN
7	S	128	GLU
7	S	148	LEU
10	V	31	ASP
11	W	92	PHE
2	D	64	ASP
2	D	213	SER
2	D	223	ASN
2	D	279	VAL
2	E	107	PRO
2	E	131	GLU
2	E	179	GLY
2	E	297	THR
3	G	118	ARG
6	M	40	PRO
9	U	45	LYS
1	A	115	ILE
2	E	161	GLY
2	E	279	VAL
2	F	279	VAL
7	S	116	VAL

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Mol	Chain	Res	Type
10	V	6	ASP
1	B	295	PRO
2	E	30	PRO
2	E	121	PRO
7	S	156	PRO
2	F	120	ALA
3	G	168	VAL
7	S	9	VAL
8	T	19	VAL
1	C	47	VAL
2	F	276	PRO
6	J	40	PRO
6	M	71	ILE
11	W	88	LEU
5	I	39	GLY
7	S	60	VAL
6	K	40	PRO
6	Q	40	PRO

5.3.2 Protein sidechains [i](#)

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

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

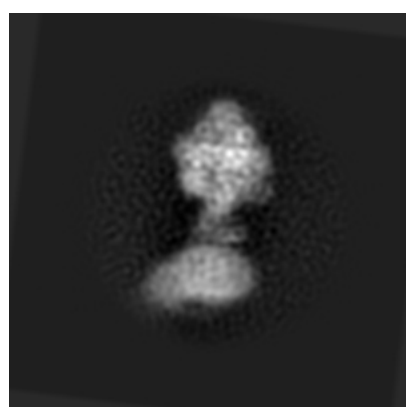
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-3167. These allow visual inspection of the internal detail of the map and identification of artifacts.

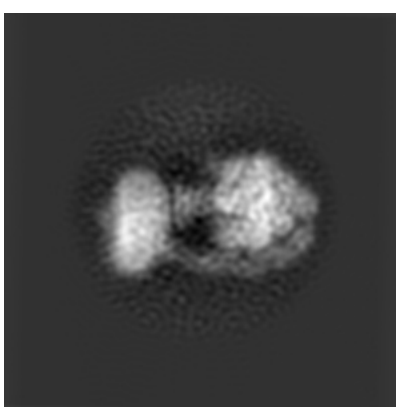
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

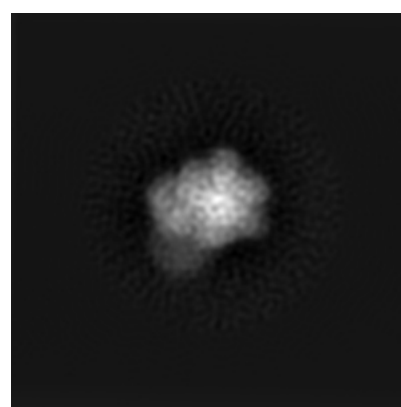
6.1.1 Primary map



X



Y



Z

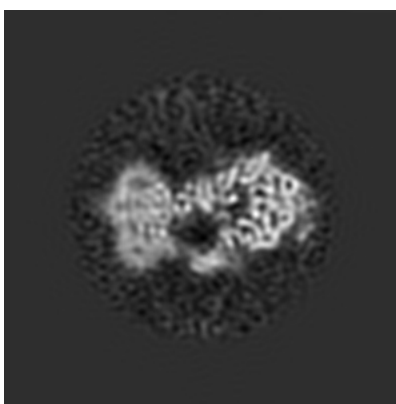
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

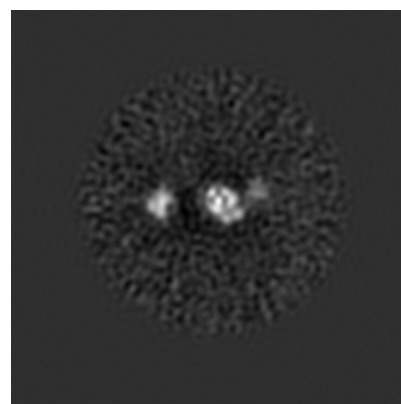
6.2.1 Primary map



X Index: 128



Y Index: 128



Z Index: 128

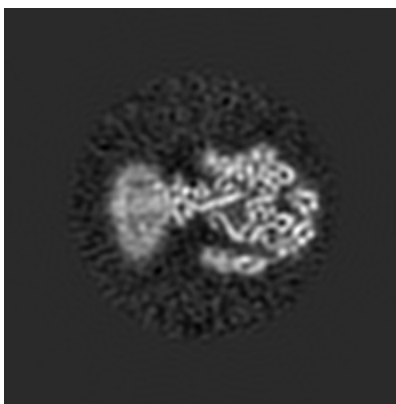
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

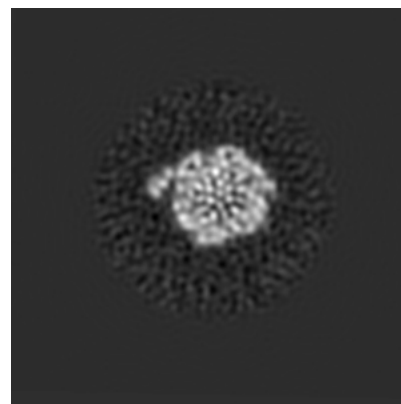
6.3.1 Primary map



X Index: 135



Y Index: 138

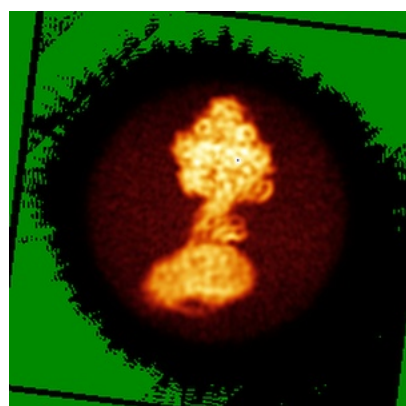


Z Index: 165

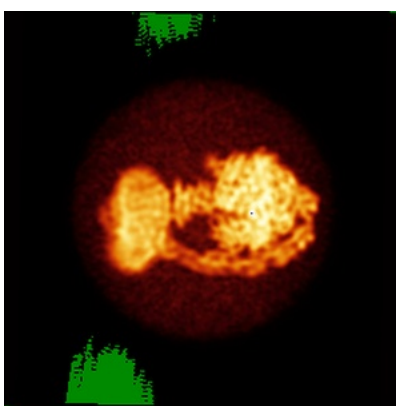
The images above show the largest variance slices of the map in three orthogonal directions.

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

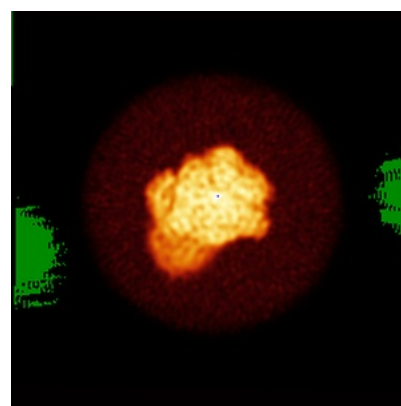
6.4.1 Primary map



X



Y

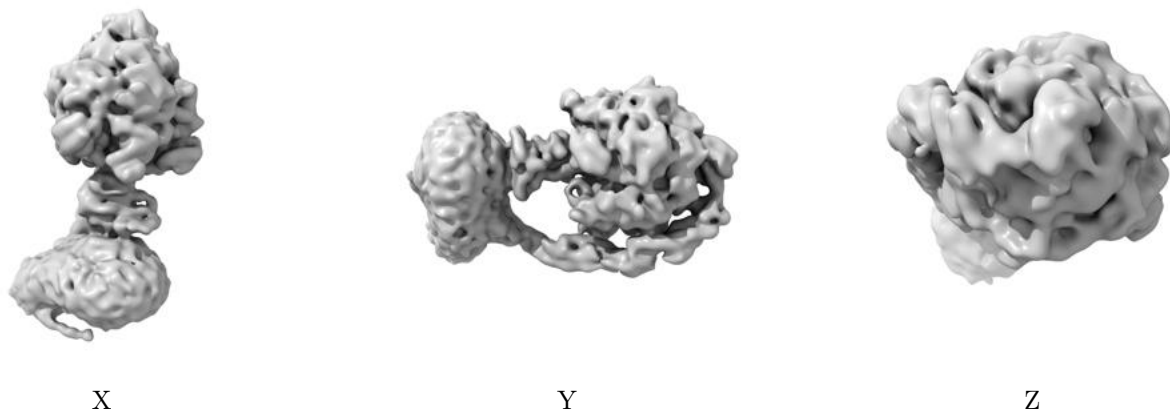


Z

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

6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.13. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

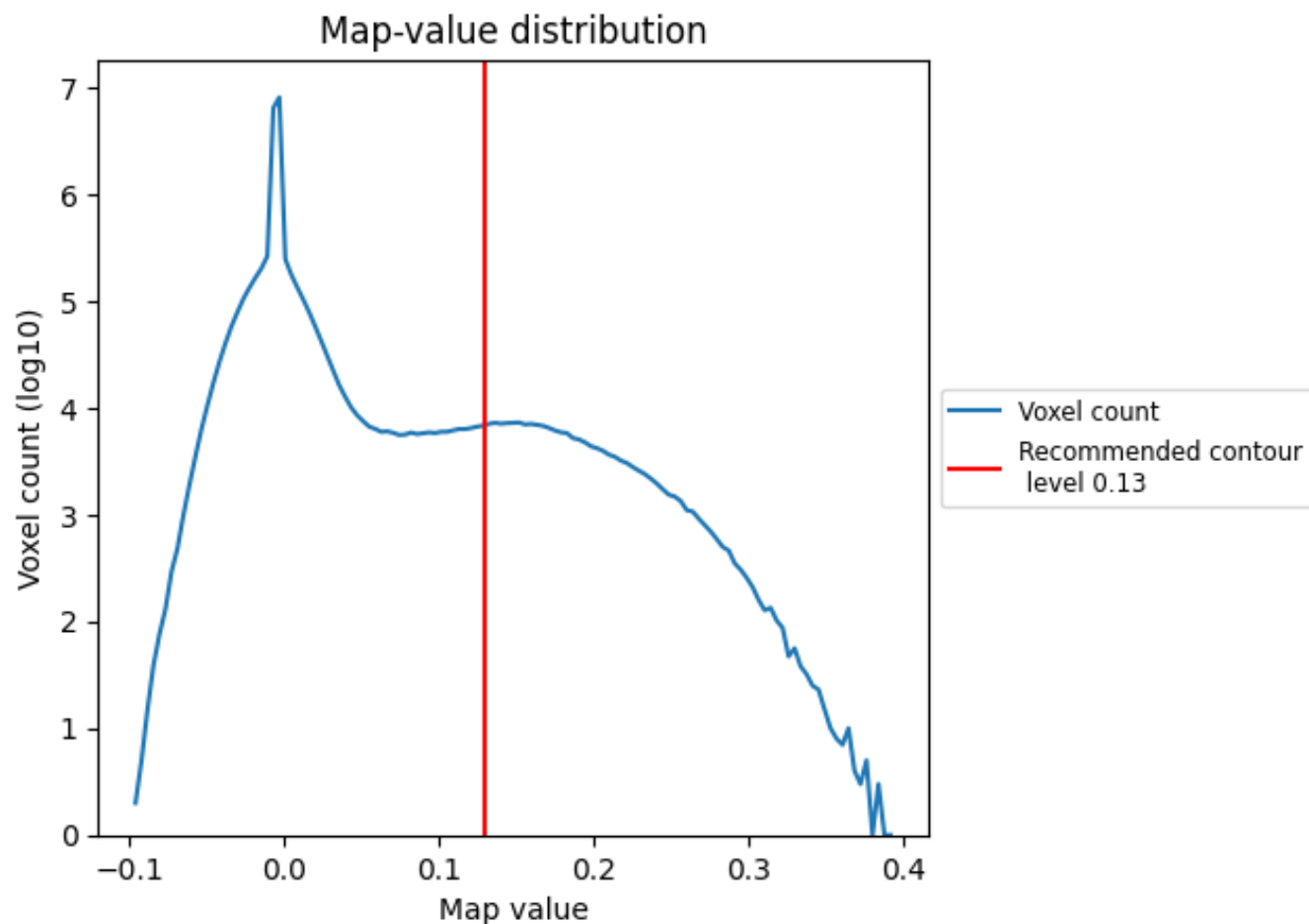
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

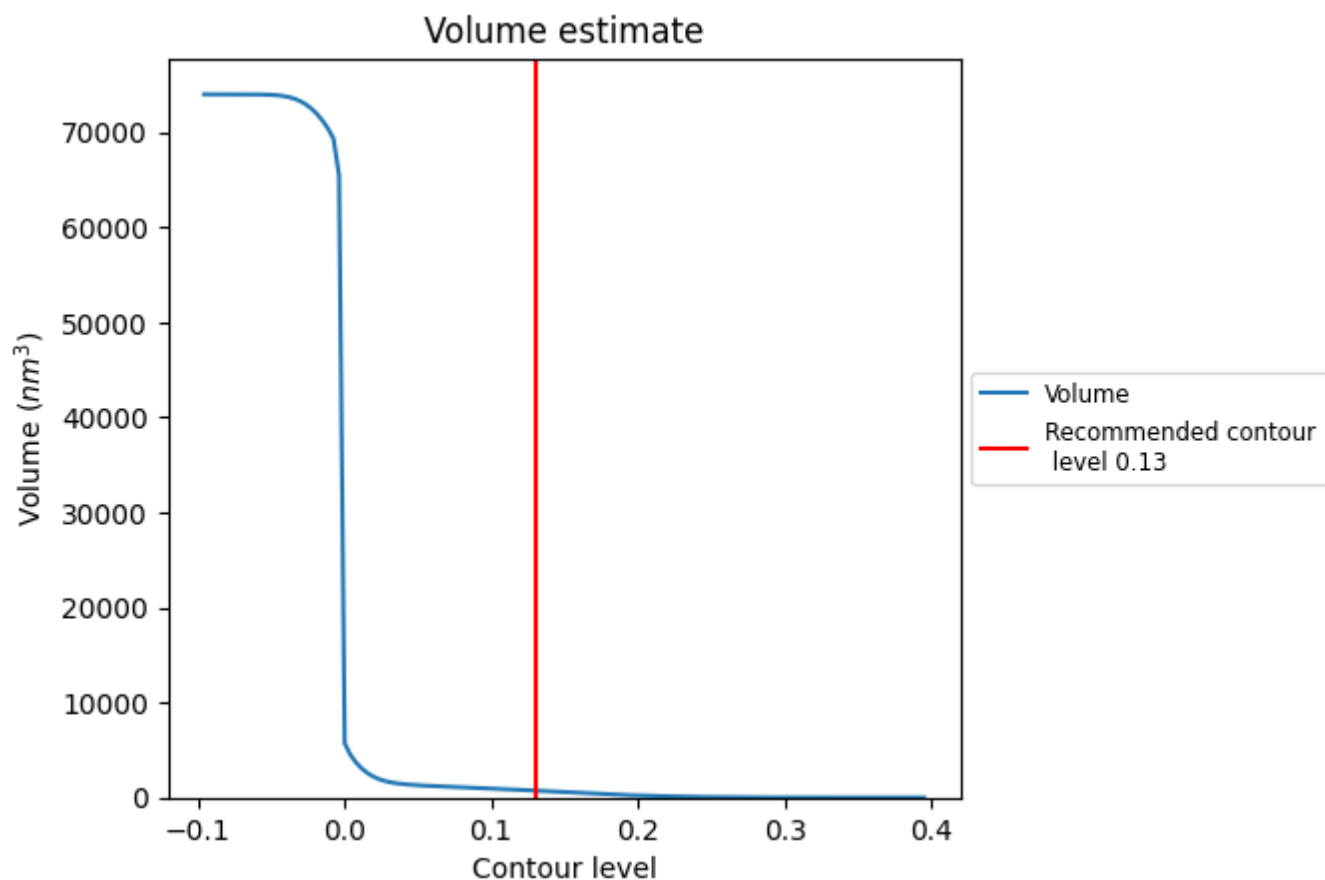
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

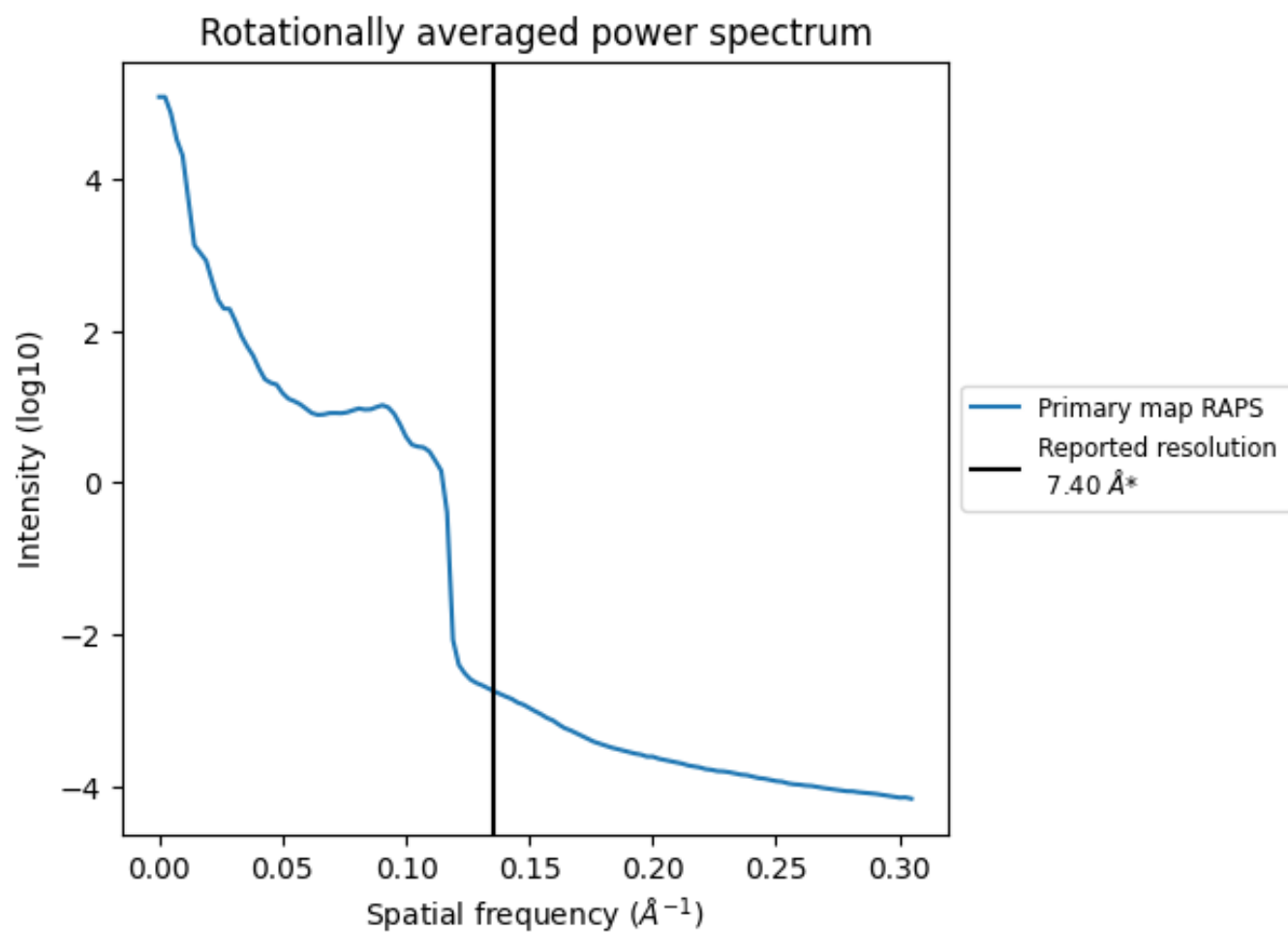
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 732 nm³; this corresponds to an approximate mass of 661 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum ⓘ



*Reported resolution corresponds to spatial frequency of 0.135 Å⁻¹

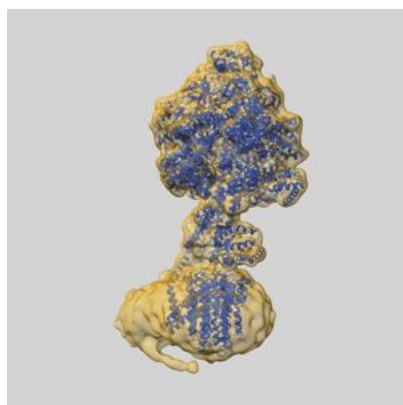
8 Fourier-Shell correlation ⓘ

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

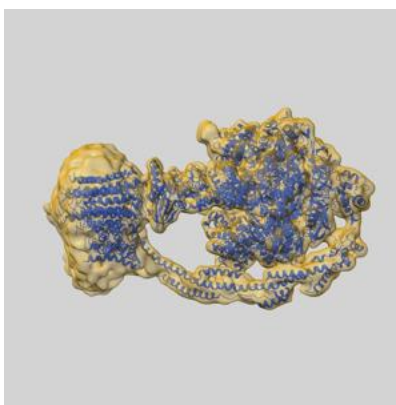
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-3167 and PDB model 5ARI. Per-residue inclusion information can be found in section [3](#) on page [7](#).

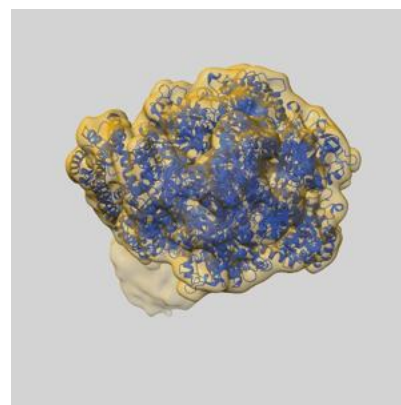
9.1 Map-model overlay [i](#)



X



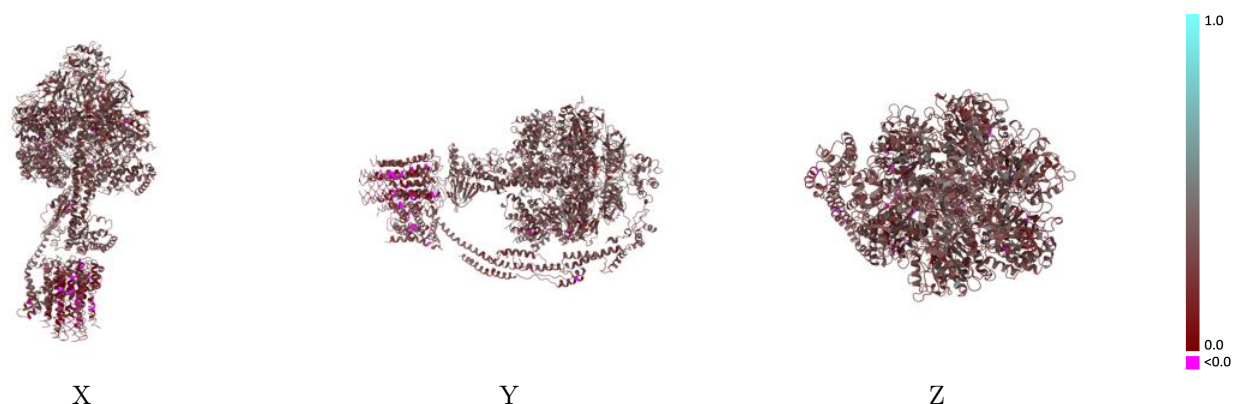
Y



Z

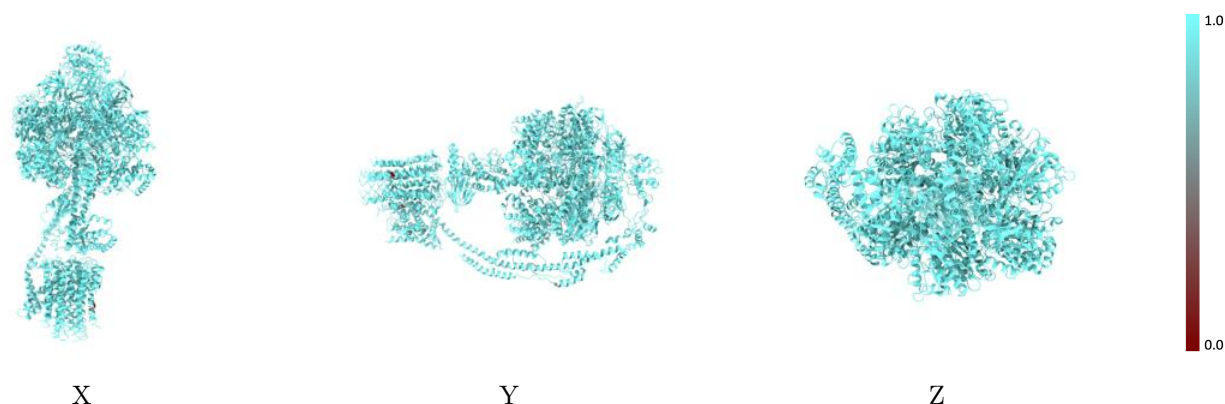
The images above show the 3D surface view of the map at the recommended contour level 0.13 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



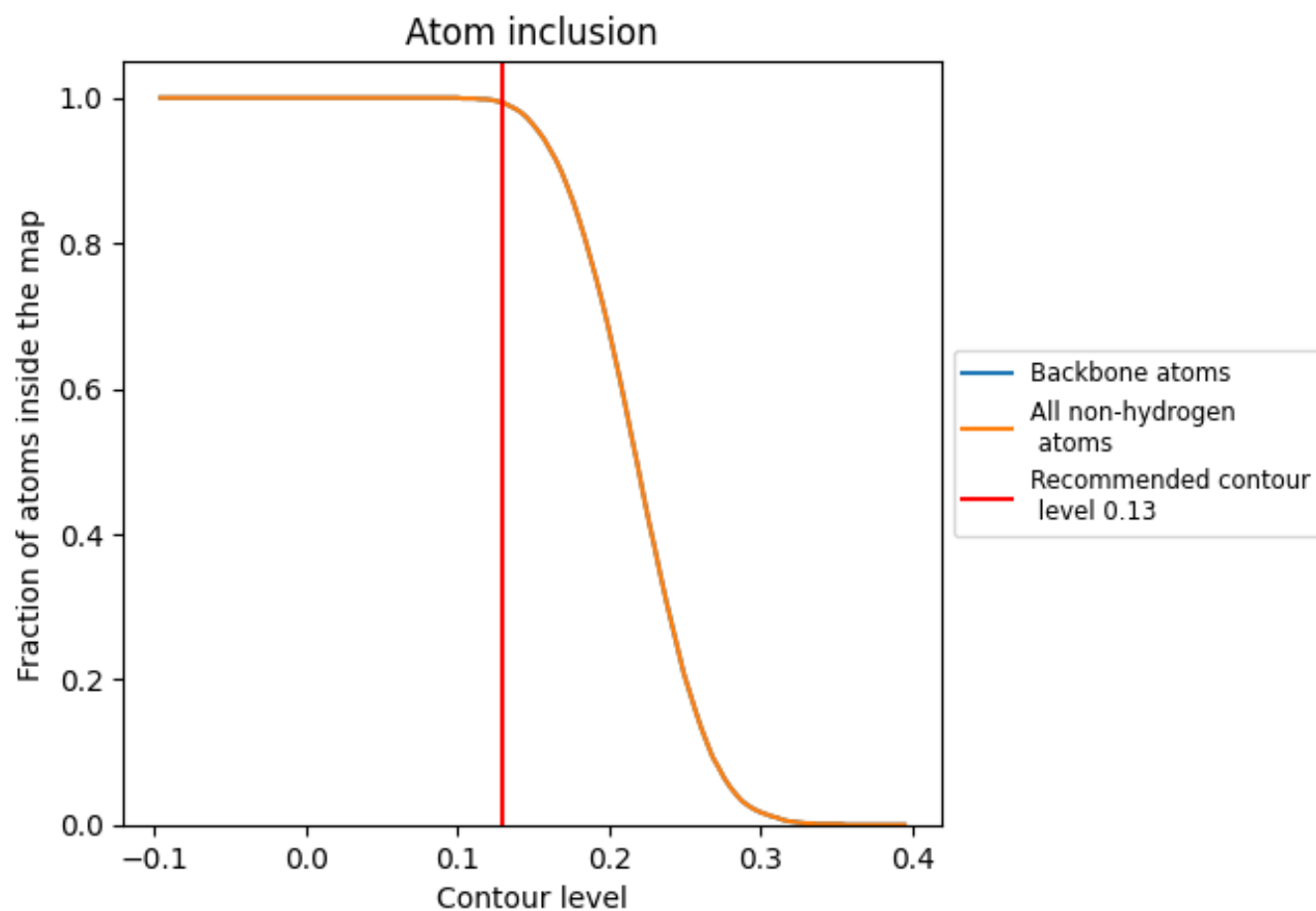
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.13).

9.4 Atom inclusion [i](#)



At the recommended contour level, 99% of all backbone atoms, 99% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary ⓘ

The table lists the average atom inclusion at the recommended contour level (0.13) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.9930	 0.2700
A	 0.9970	 0.2870
B	 0.9980	 0.2970
C	 0.9920	 0.2920
D	 0.9980	 0.2900
E	 0.9990	 0.2860
F	 0.9980	 0.2870
G	 0.9950	 0.2950
H	 0.9980	 0.3040
I	 0.9890	 0.2960
J	 0.9830	 0.1860
K	 0.9860	 0.1580
L	 0.9760	 0.1520
M	 0.9720	 0.1700
N	 0.9760	 0.1970
O	 0.9790	 0.1130
P	 0.9760	 0.1570
Q	 0.9900	 0.1860
S	 0.9970	 0.3020
T	 0.9990	 0.2890
U	 0.9610	 0.2150
V	 0.9930	 0.2760
W	 0.9780	 0.2130

