



Full wwPDB EM Validation Report ⓘ

Mar 8, 2026 – 06:12 AM UTC

PDB ID : 5ARH / pdb_00005arh
EMDB ID : EMD-3166
Title : Bovine mitochondrial ATP synthase state 2a
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 : 7.20 Å (reported)
Based on initial models : 2XND, 2CLY, 2WSS

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:

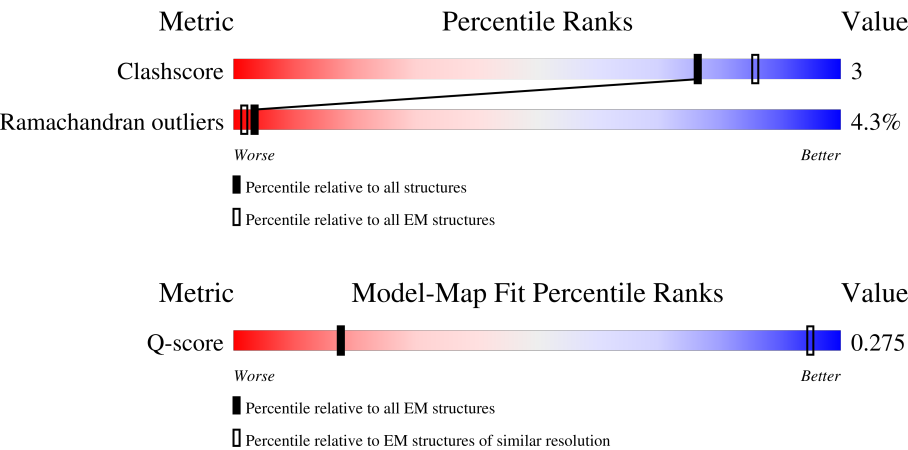
EMDB validation analysis : 0.0.1.dev132
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & 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 7.20 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.



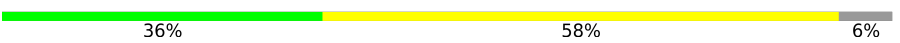
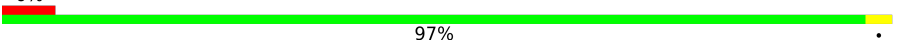
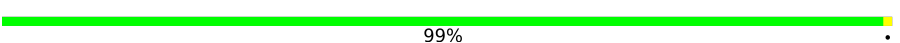
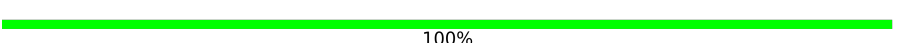
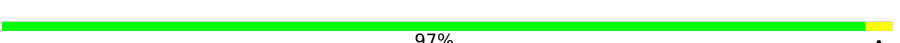
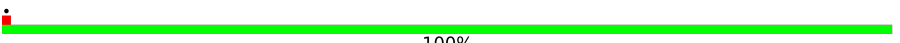
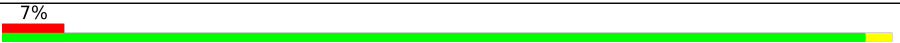
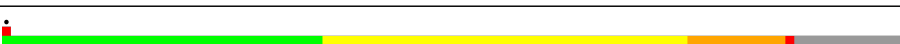
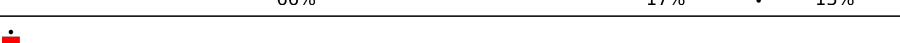
Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Q-score	-	25397	444 (6.70 - 7.70)

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	49% 46% .
1	B	510	48% 43% . 6%
1	C	510	41% 52% . 5%
2	D	482	42% 52% . .
2	E	482	45% 49% . .

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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 18544 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	121	Total	C	N	O	0	0
			484	242	121	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		

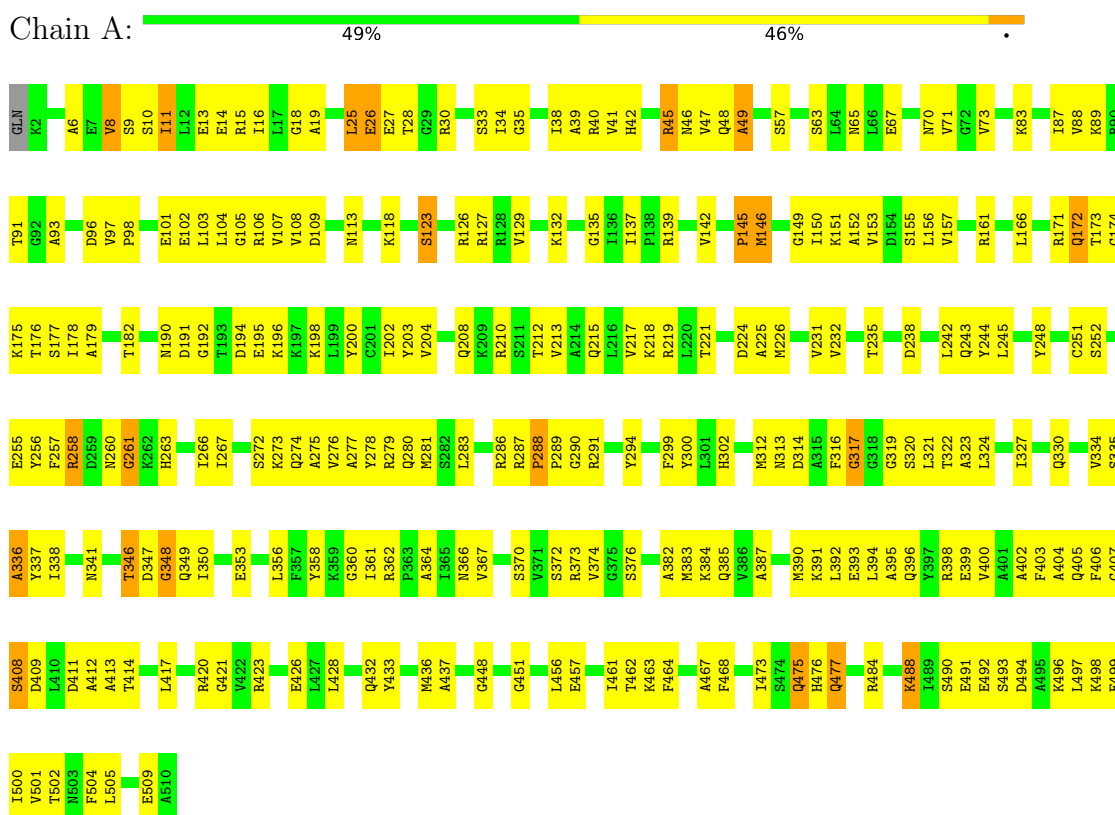
- Molecule 11 is a protein called ATP SYNTHASE SUBUNIT BETA, MITOCHONDRIAL.

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

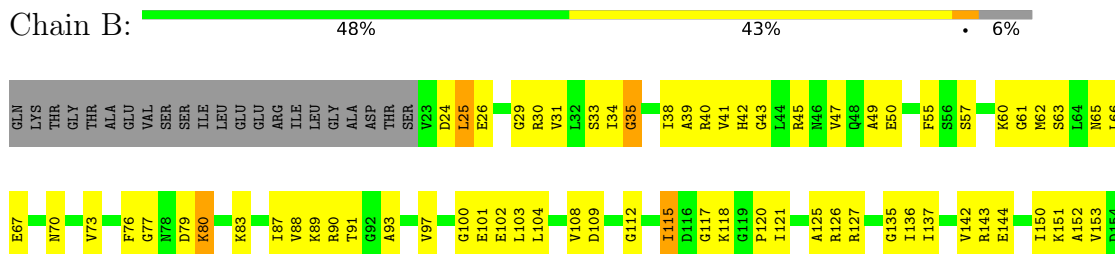
3 Residue-property plots

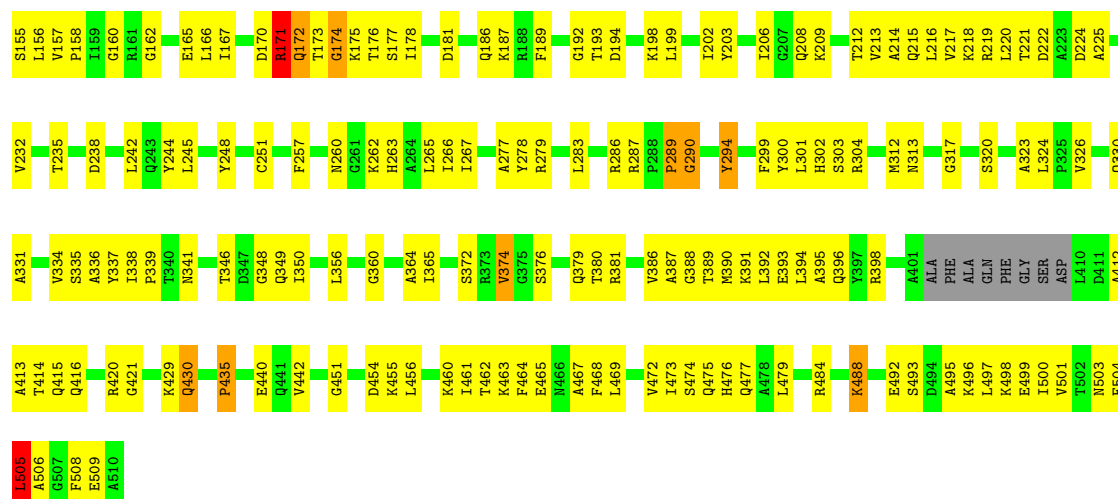
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion 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



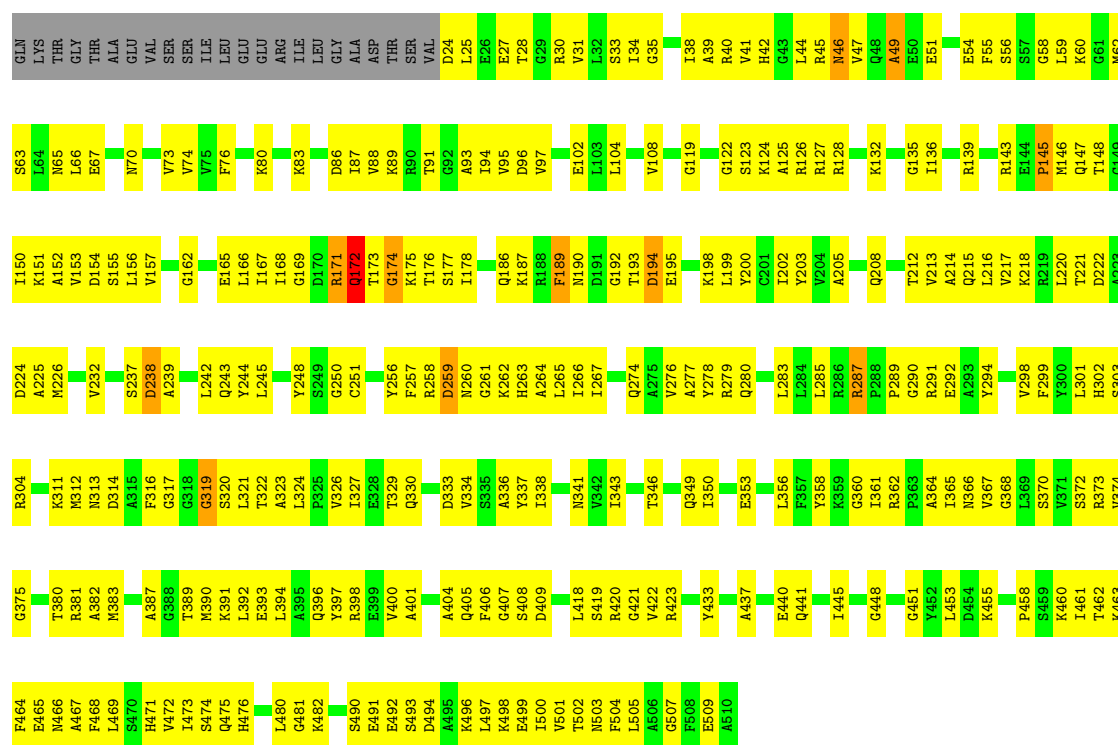
• Molecule 1: ATP SYNTHASE SUBUNIT ALPHA, MITOCHONDRIAL





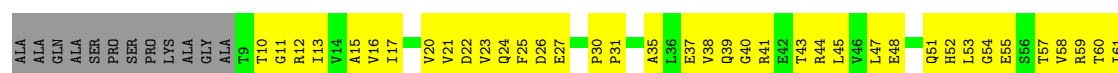
• Molecule 1: ATP SYNTHASE SUBUNIT ALPHA, MITOCHONDRIAL

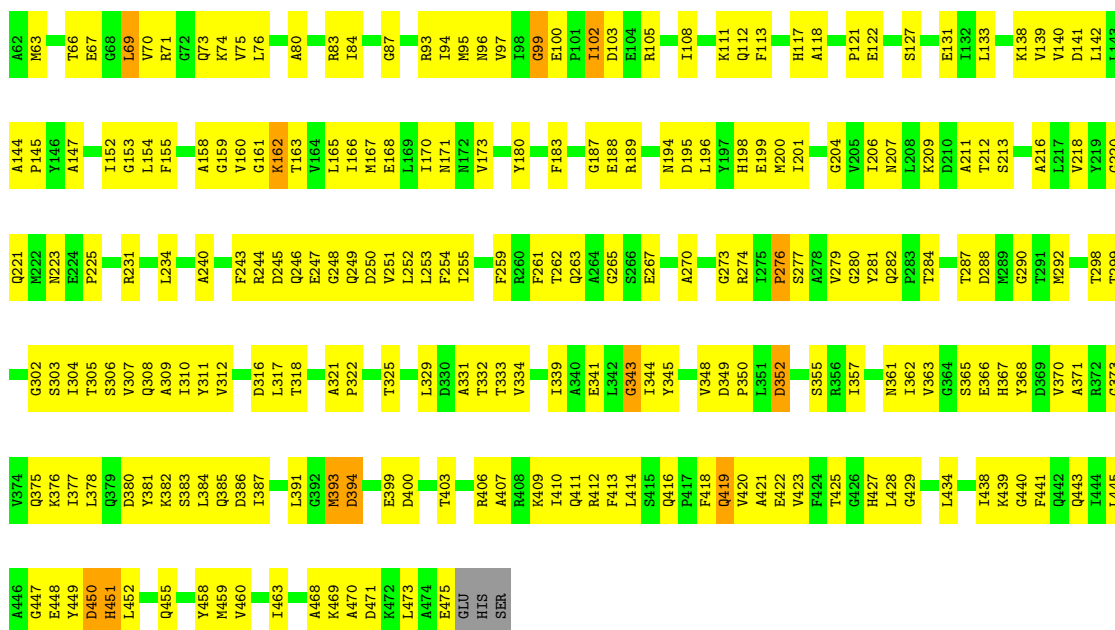
Chain C: 41% 52% 5%



• Molecule 2: ATP SYNTHASE SUBUNIT BETA, MITOCHONDRIAL

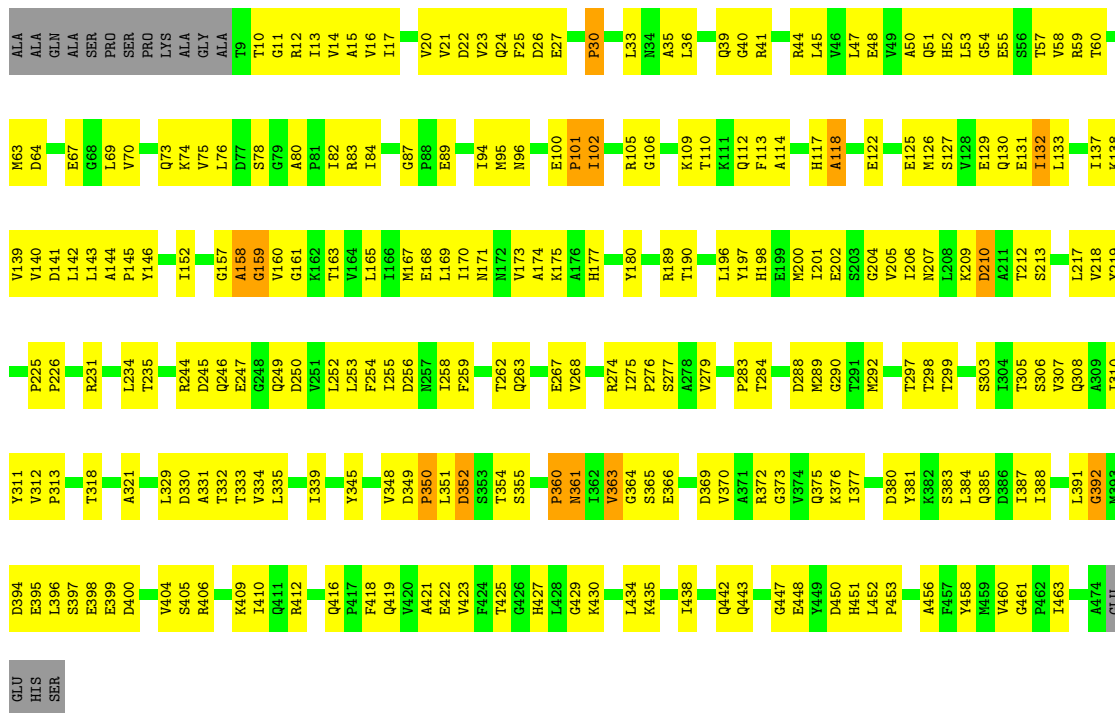
Chain D: 42% 52% 5%





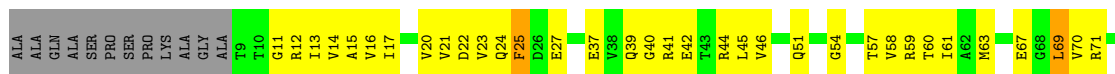
• Molecule 2: ATP SYNTHASE SUBUNIT BETA, MITOCHONDRIAL

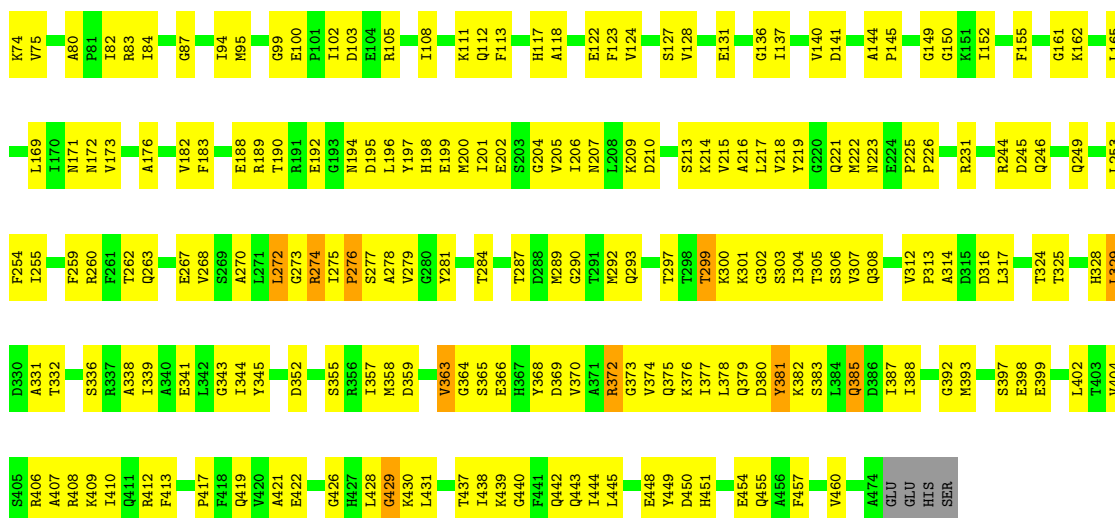
Chain E: 45% 49%



• Molecule 2: ATP SYNTHASE SUBUNIT BETA, MITOCHONDRIAL

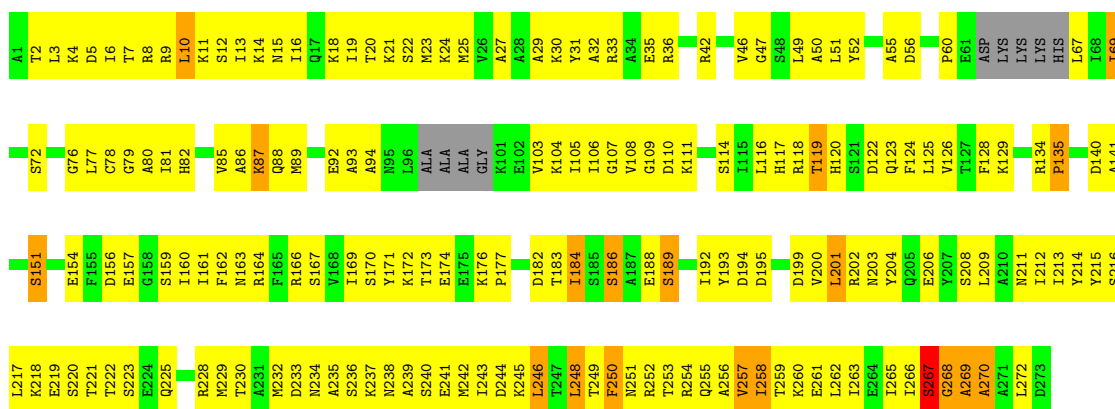
Chain F: 48% 46%





• Molecule 3: ATP SYNTHASE SUBUNIT GAMMA, MITOCHONDRIAL

Chain G: 31% 59% 7%



• Molecule 4: ATP SYNTHASE SUBUNIT DELTA, MITOCHONDRIAL

Chain H: 33% 57% 10%



• Molecule 5: ATP SYNTHASE SUBUNIT EPSILON, MITOCHONDRIAL

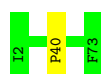
Chain I: 36% 58% 6%



- 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

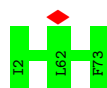


There are no outlier residues recorded for this chain.

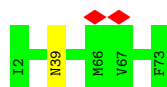
- Molecule 6: ATP SYNTHASE F(0) COMPLEX SUBUNIT C1, MITOCHONDRIAL



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

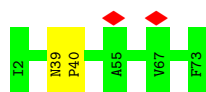


- Molecule 6: ATP SYNTHASE F(0) COMPLEX SUBUNIT C1, MITOCHONDRIAL

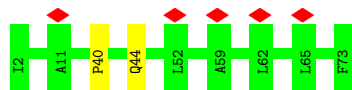


- Molecule 6: ATP SYNTHASE F(0) COMPLEX SUBUNIT C1, MITOCHONDRIAL

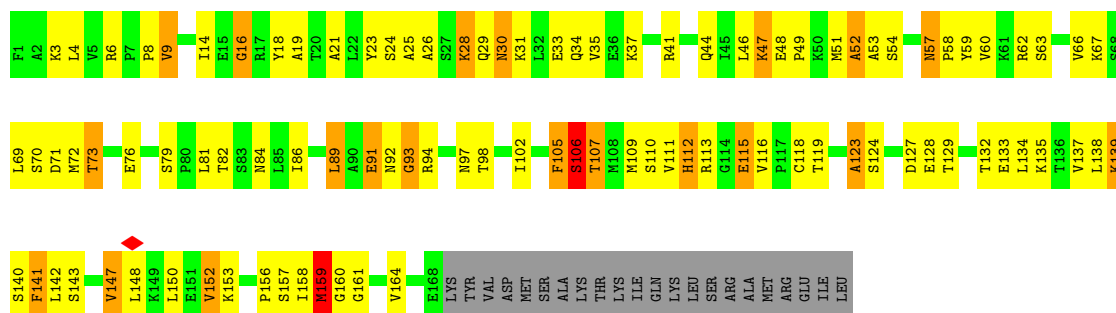




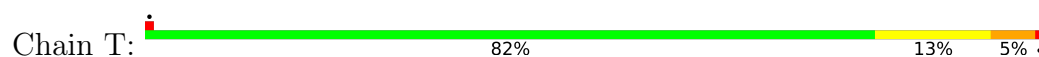
- Molecule 6: ATP SYNTHASE F(0) COMPLEX SUBUNIT C1, MITOCHONDRIAL



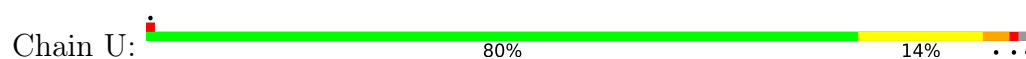
- Molecule 7: ATP SYNTHASE SUBUNIT O, MITOCHONDRIAL



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



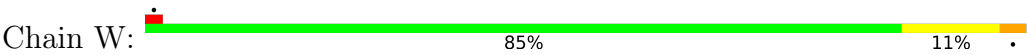
- Molecule 9: ATP SYNTHASE SUBUNIT D, MITOCHONDRIAL



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



- Molecule 11: ATP SYNTHASE SUBUNIT BETA, MITOCHONDRIAL



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	19250	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	0.469	Depositor
Minimum map value	-0.097	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	3.00	204/2034 (10.0%)	2.52	149/2541 (5.9%)
1	B	3.08	197/1916 (10.3%)	2.36	109/2392 (4.6%)
1	C	3.17	238/1946 (12.2%)	2.49	120/2431 (4.9%)
2	D	3.12	222/1866 (11.9%)	2.53	140/2331 (6.0%)
2	E	3.02	188/1862 (10.1%)	2.54	135/2326 (5.8%)
2	F	3.10	191/1862 (10.3%)	2.51	138/2326 (5.9%)
3	G	3.55	169/1050 (16.1%)	2.68	101/1308 (7.7%)
4	H	3.42	78/522 (14.9%)	2.66	59/651 (9.1%)
5	I	3.34	27/186 (14.5%)	2.74	12/231 (5.2%)
6	J	0.51	0/287	1.01	0/357
6	K	0.50	0/287	0.99	0/357
6	L	0.51	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	3.16	60/668 (9.0%)	3.11	85/834 (10.2%)
8	T	1.48	9/696 (1.3%)	2.00	21/867 (2.4%)
9	U	1.11	1/483 (0.2%)	1.99	10/602 (1.7%)
10	V	1.16	3/264 (1.1%)	1.76	2/329 (0.6%)
11	W	1.30	3/868 (0.3%)	1.92	30/1082 (2.8%)
All	All	2.77	1590/18519 (8.6%)	2.34	1111/23107 (4.8%)

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

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

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Mol	Chain	#Chirality outliers	#Planarity outliers
2	E	0	6
2	F	0	2
7	S	0	8
8	T	0	15
9	U	0	15
10	V	0	9
11	W	0	15
All	All	0	75

All (1590) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	S	107	THR	CA-C	27.31	1.89	1.52
3	G	248	LEU	CA-C	-13.42	1.41	1.52
3	G	252	ARG	CA-C	-13.09	1.36	1.52
2	D	361	ASN	CA-C	-12.96	1.43	1.52
3	G	261	GLU	CA-C	-12.37	1.35	1.52
4	H	28	PHE	CA-C	-12.35	1.37	1.52
8	T	28	ILE	N-CA	11.95	1.61	1.46
7	S	107	THR	N-CA	11.91	1.61	1.46
1	A	97	VAL	CA-C	-11.54	1.43	1.52
3	G	266	ILE	CA-C	-11.44	1.37	1.52
1	A	499	GLU	CA-C	-11.16	1.38	1.52
2	F	429	GLY	CA-C	-11.04	1.39	1.52
2	E	12	ARG	CA-C	-10.98	1.39	1.52
1	C	172	GLN	CA-C	-10.76	1.38	1.52
3	G	15	ASN	CA-C	-10.58	1.39	1.52
2	D	153	GLY	CA-C	-10.49	1.44	1.52
2	E	112	GLN	CA-C	-10.47	1.40	1.52
8	T	28	ILE	CA-C	-10.26	1.39	1.52
5	I	13	ARG	CA-C	-10.06	1.40	1.52
4	H	131	ILE	CA-C	-10.05	1.40	1.52
4	H	19	THR	CA-C	-10.00	1.40	1.52
1	C	499	GLU	CA-C	-9.92	1.40	1.52
3	G	257	VAL	CA-C	-9.86	1.40	1.52
2	E	57	THR	CA-C	-9.81	1.40	1.52
4	H	91	GLN	CA-C	-9.79	1.41	1.52
2	D	254	PHE	CA-C	-9.72	1.40	1.52
2	F	11	GLY	CA-C	-9.71	1.43	1.52
3	G	159	SER	CA-C	-9.70	1.40	1.52
1	C	312	MET	CA-C	-9.69	1.41	1.52
1	C	302	HIS	CA-C	-9.68	1.39	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	F	244	ARG	CA-C	-9.63	1.40	1.52
1	C	263	HIS	CA-C	-9.61	1.41	1.52
3	G	33	ARG	CA-C	-9.59	1.40	1.52
2	E	23	VAL	CA-C	-9.44	1.41	1.52
1	B	500	ILE	CA-C	-9.37	1.41	1.52
7	S	73	THR	CA-C	9.36	1.64	1.52
2	D	375	GLN	CA-C	-9.29	1.40	1.52
3	G	193	TYR	CA-C	-9.29	1.41	1.52
2	D	200	MET	CA-C	-9.28	1.40	1.52
3	G	11	LYS	CA-C	-9.24	1.41	1.52
5	I	15	SER	CA-C	-9.24	1.40	1.52
1	B	499	GLU	CA-C	-9.21	1.41	1.52
1	C	301	LEU	CA-C	-9.19	1.40	1.52
4	H	135	ILE	CA-C	-9.15	1.42	1.52
11	W	175	GLY	N-CA	-9.15	1.32	1.45
2	E	41	ARG	CA-C	-9.14	1.43	1.53
2	E	74	LYS	CA-C	-9.12	1.41	1.52
1	A	299	PHE	CA-C	-9.04	1.41	1.52
2	F	12	ARG	CA-C	-8.93	1.41	1.52
1	C	497	LEU	CA-C	-8.90	1.41	1.52
2	F	308	GLN	CA-C	-8.88	1.42	1.52
7	S	35	VAL	CA-C	-8.88	1.43	1.52
5	I	14	TYR	N-CA	-8.87	1.36	1.46
1	C	299	PHE	CA-C	-8.86	1.41	1.52
1	B	301	LEU	CA-C	-8.85	1.41	1.52
3	G	241	GLU	CA-C	-8.84	1.41	1.52
2	E	51	GLN	CA-C	-8.83	1.42	1.52
1	A	302	HIS	CA-C	-8.83	1.40	1.52
2	F	369	ASP	CA-C	-8.79	1.41	1.52
2	F	449	TYR	CA-C	-8.77	1.42	1.52
3	G	258	ILE	CA-C	-8.76	1.41	1.52
1	A	277	ALA	CA-C	-8.76	1.41	1.52
2	F	372	ARG	CA-C	-8.72	1.40	1.52
1	C	498	LYS	CA-C	-8.69	1.41	1.52
1	A	46	ASN	CA-C	-8.68	1.42	1.52
1	A	279	ARG	CA-C	-8.65	1.41	1.52
2	E	11	GLY	CA-C	-8.57	1.44	1.52
3	G	234	ASN	CA-C	-8.54	1.42	1.52
2	F	74	LYS	CA-C	-8.52	1.41	1.52
3	G	252	ARG	N-CA	-8.52	1.36	1.46
2	D	12	ARG	CA-C	-8.49	1.42	1.52
1	A	88	VAL	CA-C	-8.48	1.42	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	D	57	THR	CA-C	-8.47	1.42	1.52
2	F	41	ARG	CA-C	-8.46	1.43	1.53
3	G	244	ASP	CA-C	-8.43	1.41	1.52
2	E	25	PHE	CA-C	-8.41	1.42	1.52
2	F	274	ARG	CA-C	-8.40	1.41	1.52
1	C	202	ILE	CA-C	-8.40	1.41	1.52
2	D	376	LYS	N-CA	-8.39	1.36	1.46
3	G	36	ARG	CA-C	-8.38	1.42	1.52
1	C	493	SER	CA-C	-8.37	1.41	1.52
2	E	334	VAL	CA-C	-8.35	1.42	1.52
2	F	198	HIS	CA-C	-8.33	1.41	1.52
1	C	421	GLY	CA-C	-8.31	1.43	1.52
3	G	261	GLU	N-CA	-8.31	1.35	1.46
1	A	203	TYR	CA-C	-8.31	1.42	1.52
2	F	253	LEU	CA-C	-8.29	1.42	1.52
3	G	12	SER	CA-C	-8.27	1.41	1.52
3	G	16	ILE	CA-C	-8.27	1.42	1.52
2	F	83	ARG	CA-C	-8.27	1.42	1.52
2	F	380	ASP	CA-C	-8.25	1.42	1.52
2	E	274	ARG	CA-C	-8.24	1.42	1.53
2	F	173	VAL	CA-C	-8.24	1.42	1.52
2	D	262	THR	CA-C	-8.22	1.42	1.52
2	F	325	THR	CA-C	-8.19	1.41	1.52
2	F	59	ARG	CA-C	-8.18	1.42	1.52
1	B	153	VAL	CA-C	-8.17	1.43	1.52
4	H	29	ASN	CA-C	-8.17	1.44	1.53
1	A	212	THR	CA-C	-8.16	1.42	1.52
3	G	16	ILE	N-CA	-8.16	1.37	1.46
2	D	83	ARG	CA-C	-8.16	1.42	1.52
3	G	255	GLN	CA-C	-8.16	1.42	1.52
3	G	259	THR	CA-C	-8.15	1.42	1.52
5	I	18	CYS	CA-C	-8.15	1.42	1.52
3	G	174	GLU	CA-C	-8.12	1.42	1.52
1	A	278	TYR	N-CA	-8.11	1.36	1.46
1	B	212	THR	CA-C	-8.11	1.42	1.52
1	C	481	GLY	CA-C	-8.11	1.42	1.51
2	F	246	GLN	CA-C	-8.09	1.42	1.52
1	A	464	PHE	CA-C	-8.07	1.42	1.52
1	A	492	GLU	CA-C	-8.07	1.42	1.52
7	S	106	SER	C-N	-8.07	1.22	1.33
3	G	256	ALA	CA-C	-8.06	1.42	1.52
2	D	74	LYS	CA-C	-8.05	1.42	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	70	ASN	CA-C	-8.05	1.43	1.52
4	H	94	ALA	CA-C	-8.04	1.43	1.52
2	E	13	ILE	CA-C	-8.03	1.44	1.52
2	D	25	PHE	CA-C	-8.03	1.43	1.52
2	E	21	VAL	CA-C	-8.02	1.42	1.52
1	C	494	ASP	CA-C	-8.01	1.42	1.52
1	B	454	ASP	CA-C	-8.01	1.44	1.53
2	F	225	PRO	CA-C	-8.00	1.46	1.52
1	C	41	VAL	CA-C	-7.99	1.42	1.52
2	D	152	ILE	CA-C	-7.97	1.43	1.52
2	E	231	ARG	CA-C	-7.97	1.42	1.52
3	G	42	ARG	CA-C	-7.97	1.43	1.52
4	H	51	HIS	CA-C	-7.96	1.43	1.52
2	E	20	VAL	CA-C	-7.96	1.42	1.52
2	F	51	GLN	CA-C	-7.94	1.43	1.52
1	A	41	VAL	CA-C	-7.93	1.42	1.52
1	A	171	ARG	CA-C	-7.93	1.43	1.52
4	H	20	PHE	N-CA	-7.93	1.36	1.46
2	D	70	VAL	CA-C	-7.93	1.43	1.52
2	E	60	THR	CA-C	-7.92	1.42	1.52
1	B	220	LEU	CA-C	-7.92	1.42	1.52
2	D	173	VAL	CA-C	-7.92	1.42	1.52
3	G	201	LEU	CA-C	-7.91	1.42	1.52
3	G	254	ARG	CA-C	-7.90	1.42	1.52
1	C	156	LEU	CA-C	-7.89	1.42	1.52
2	D	311	TYR	CA-C	-7.89	1.42	1.52
2	F	24	GLN	CA-C	-7.88	1.43	1.52
7	S	23	TYR	CA-C	-7.88	1.41	1.52
1	C	97	VAL	CA-C	-7.88	1.44	1.52
2	F	23	VAL	CA-C	-7.87	1.43	1.52
9	U	97	SER	N-CA	-7.86	1.36	1.46
2	D	20	VAL	CA-C	-7.86	1.42	1.52
7	S	21	ALA	CA-C	-7.85	1.42	1.52
1	B	245	LEU	CA-C	-7.84	1.42	1.52
1	A	202	ILE	CA-C	-7.84	1.42	1.52
1	A	70	ASN	CA-C	-7.83	1.43	1.52
2	F	189	ARG	CA-C	-7.83	1.42	1.52
1	B	505	LEU	CA-C	-7.82	1.42	1.52
2	E	58	VAL	N-CA	-7.80	1.37	1.46
1	C	150	ILE	CA-C	-7.79	1.42	1.52
1	B	33	SER	CA-C	-7.79	1.42	1.52
3	G	109	GLY	CA-C	-7.79	1.43	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	336	ALA	CA-C	-7.76	1.42	1.52
1	B	395	ALA	CA-C	-7.76	1.43	1.52
2	E	213	SER	CA-C	-7.76	1.42	1.52
1	B	248	TYR	CA-C	-7.76	1.42	1.52
2	F	45	LEU	CA-C	-7.75	1.43	1.53
2	E	306	SER	CA-C	-7.75	1.43	1.52
2	E	109	LYS	CA-C	-7.75	1.43	1.52
4	H	136	GLU	CA-C	-7.75	1.42	1.52
1	C	31	VAL	CA-C	-7.74	1.44	1.52
2	E	244	ARG	CA-C	-7.74	1.43	1.52
2	F	408	ARG	N-CA	-7.73	1.36	1.46
4	H	19	THR	N-CA	-7.72	1.37	1.46
2	F	375	GLN	CA-C	-7.72	1.42	1.52
1	B	349	GLN	CA-C	-7.71	1.43	1.52
2	E	253	LEU	CA-C	-7.71	1.43	1.52
2	D	95	MET	CA-C	-7.70	1.43	1.52
2	D	17	ILE	CA-C	-7.70	1.43	1.52
11	W	174	ILE	CA-C	-7.70	1.43	1.52
2	E	140	VAL	CA-C	-7.69	1.43	1.52
2	D	67	GLU	CA-C	-7.69	1.43	1.52
2	F	95	MET	CA-C	-7.68	1.43	1.52
3	G	249	THR	CA-C	-7.67	1.42	1.52
2	F	140	VAL	CA-C	-7.67	1.43	1.52
2	D	54	GLY	CA-C	-7.67	1.43	1.52
1	C	381	ARG	CA-C	-7.66	1.42	1.52
2	F	57	THR	CA-C	-7.66	1.43	1.52
1	A	217	VAL	CA-C	-7.65	1.43	1.52
2	F	363	VAL	CA-C	-7.65	1.43	1.52
2	D	459	MET	CA-C	-7.64	1.44	1.53
7	S	107	THR	C-N	7.63	1.43	1.33
1	B	390	MET	CA-C	-7.63	1.43	1.52
4	H	83	THR	CA-C	-7.62	1.43	1.52
4	H	58	LEU	CA-C	-7.62	1.43	1.52
1	A	337	TYR	CA-C	-7.61	1.43	1.52
5	I	43	LYS	CA-C	-7.61	1.43	1.52
1	B	312	MET	CA-C	-7.59	1.43	1.52
5	I	16	GLN	CA-C	-7.59	1.42	1.52
1	C	30	ARG	CA-C	-7.58	1.43	1.52
1	C	475	GLN	CA-C	-7.58	1.43	1.53
2	E	334	VAL	N-CA	-7.58	1.36	1.46
1	C	257	PHE	CA-C	-7.58	1.43	1.52
2	E	48	GLU	CA-C	-7.58	1.43	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	473	ILE	CA-C	-7.57	1.43	1.52
4	H	72	THR	CA-C	-7.57	1.43	1.52
1	B	262	LYS	CA-C	-7.57	1.43	1.52
2	F	290	GLY	CA-C	-7.57	1.43	1.52
2	E	17	ILE	CA-C	-7.56	1.43	1.52
2	D	52	HIS	CA-C	-7.56	1.43	1.52
7	S	81	LEU	CA-C	-7.56	1.46	1.52
1	A	500	ILE	CA-C	-7.54	1.43	1.52
1	B	25	LEU	CA-C	-7.54	1.42	1.52
1	C	217	VAL	CA-C	-7.53	1.43	1.52
2	F	373	GLY	CA-C	-7.52	1.44	1.52
1	A	176	THR	N-CA	-7.52	1.37	1.46
1	C	333	ASP	CA-C	-7.52	1.43	1.53
1	C	341	ASN	CA-C	-7.51	1.43	1.52
1	B	504	PHE	CA-C	-7.50	1.43	1.52
2	D	76	LEU	CA-C	-7.50	1.43	1.52
2	E	410	ILE	CA-C	-7.49	1.43	1.52
3	G	265	ILE	CA-C	-7.49	1.43	1.52
1	B	41	VAL	CA-C	-7.48	1.43	1.52
2	E	139	VAL	N-CA	-7.48	1.37	1.46
3	G	20	THR	CA-C	-7.48	1.43	1.52
2	F	231	ARG	CA-C	-7.47	1.42	1.52
5	I	20	LYS	CA-C	-7.47	1.43	1.52
1	B	350	ILE	CA-C	-7.46	1.44	1.52
2	F	218	VAL	CA-C	-7.46	1.43	1.52
1	A	172	GLN	CA-C	-7.45	1.42	1.52
2	D	23	VAL	CA-C	-7.45	1.43	1.52
3	G	237	LYS	CA-C	-7.45	1.43	1.52
2	F	376	LYS	CA-C	-7.44	1.43	1.52
2	E	262	THR	CA-C	-7.44	1.43	1.52
1	C	65	ASN	CA-C	-7.43	1.43	1.52
5	I	19	ALA	CA-C	-7.43	1.43	1.52
7	S	84	ASN	CA-C	-7.43	1.42	1.52
2	E	58	VAL	CA-C	-7.41	1.44	1.52
3	G	2	THR	CA-C	-7.41	1.43	1.52
1	A	127	ARG	CA-C	-7.40	1.43	1.52
1	C	187	LYS	CA-C	-7.39	1.43	1.52
1	B	464	PHE	CA-C	-7.39	1.43	1.52
7	S	57	ASN	CA-C	-7.38	1.43	1.52
3	G	248	LEU	N-CA	-7.37	1.37	1.46
1	B	286	ARG	CA-C	-7.37	1.43	1.53
7	S	67	LYS	CA-C	-7.36	1.43	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	D	449	TYR	CA-C	-7.35	1.43	1.52
2	D	312	VAL	N-CA	-7.34	1.37	1.46
1	A	153	VAL	CA-C	-7.34	1.44	1.52
1	A	501	VAL	CA-C	-7.34	1.43	1.52
1	C	279	ARG	CA-C	-7.33	1.43	1.52
2	D	198	HIS	CA-C	-7.33	1.42	1.52
2	D	376	LYS	CA-C	-7.32	1.43	1.52
1	A	494	ASP	CA-C	-7.31	1.43	1.52
7	S	81	LEU	N-CA	-7.30	1.40	1.47
2	D	421	ALA	CA-C	-7.30	1.43	1.53
4	H	48	LEU	CA-C	-7.29	1.43	1.52
1	A	324	LEU	CA-C	-7.29	1.45	1.52
2	D	399	GLU	CA-C	-7.28	1.43	1.52
2	D	427	HIS	CA-C	-7.28	1.43	1.52
3	G	206	GLU	CA-C	-7.28	1.43	1.52
2	E	349	ASP	C-N	-7.27	1.27	1.33
1	B	498	LYS	CA-C	-7.26	1.43	1.52
2	E	24	GLN	CA-C	-7.26	1.44	1.52
2	E	95	MET	CA-C	-7.25	1.44	1.52
7	S	141	PHE	CA-C	-7.25	1.41	1.52
2	F	84	ILE	CA-C	-7.25	1.44	1.52
1	A	203	TYR	N-CA	-7.25	1.37	1.46
1	C	422	VAL	CA-C	-7.25	1.43	1.52
2	F	61	ILE	N-CA	-7.25	1.37	1.46
1	C	176	THR	N-CA	-7.24	1.37	1.46
2	F	196	LEU	CA-C	-7.24	1.43	1.52
2	D	253	LEU	CA-C	-7.23	1.44	1.52
2	D	113	PHE	CA-C	-7.23	1.44	1.52
1	B	155	SER	CA-C	-7.22	1.43	1.53
3	G	129	LYS	CA-C	-7.22	1.43	1.52
1	A	497	LEU	CA-C	-7.21	1.43	1.52
1	B	266	ILE	CA-C	-7.21	1.44	1.52
2	E	350	PRO	CA-C	-7.21	1.45	1.52
1	C	153	VAL	CA-C	-7.20	1.44	1.52
1	C	127	ARG	CA-C	-7.20	1.43	1.52
1	A	498	LYS	CA-C	-7.20	1.43	1.52
2	D	259	PHE	N-CA	-7.19	1.37	1.46
1	B	30	ARG	CA-C	-7.19	1.43	1.52
2	E	129	GLU	CA-C	-7.18	1.44	1.52
1	B	302	HIS	CA-C	-7.18	1.42	1.52
2	D	11	GLY	CA-C	-7.17	1.46	1.52
1	A	42	HIS	CA-C	-7.17	1.43	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	E	200	MET	CA-C	-7.17	1.43	1.52
2	E	421	ALA	CA-C	-7.17	1.43	1.52
3	G	5	ASP	CA-C	-7.17	1.43	1.52
2	D	140	VAL	CA-C	-7.16	1.44	1.52
3	G	212	ILE	CA-C	-7.16	1.43	1.52
1	B	73	VAL	CA-C	-7.15	1.43	1.52
1	B	336	ALA	CA-C	-7.14	1.43	1.52
1	A	89	LYS	CA-C	-7.14	1.44	1.52
2	F	117	HIS	CA-C	-7.14	1.44	1.52
1	A	38	ILE	CA-C	-7.13	1.43	1.52
1	C	349	GLN	CA-C	-7.13	1.43	1.52
1	C	203	TYR	CA-C	-7.12	1.44	1.52
2	E	225	PRO	CA-C	-7.12	1.45	1.52
2	D	13	ILE	CA-C	-7.12	1.45	1.52
2	D	21	VAL	CA-C	-7.12	1.43	1.52
1	A	33	SER	CA-C	-7.11	1.43	1.52
1	B	217	VAL	CA-C	-7.11	1.43	1.52
1	C	303	SER	CA-C	-7.11	1.43	1.52
2	E	59	ARG	CA-C	-7.11	1.44	1.52
4	H	111	ASN	CA-C	-7.11	1.43	1.52
1	B	501	VAL	CA-C	-7.11	1.44	1.52
1	C	151	LYS	CA-C	-7.10	1.43	1.52
1	A	219	ARG	CA-C	-7.10	1.43	1.52
1	A	505	LEU	CA-C	-7.10	1.43	1.52
2	D	281	TYR	CA-C	-7.09	1.43	1.52
2	E	277	SER	CA-C	-7.09	1.44	1.53
2	F	60	THR	CA-C	-7.09	1.43	1.52
4	H	75	TYR	CA-C	-7.09	1.43	1.52
1	B	215	GLN	CA-C	-7.09	1.43	1.52
1	B	495	ALA	CA-C	-7.08	1.43	1.52
8	T	24	THR	N-CA	-7.08	1.37	1.46
2	F	80	ALA	CA-C	-7.08	1.44	1.52
2	D	471	ASP	CA-C	-7.08	1.43	1.52
2	F	94	ILE	CA-C	-7.06	1.43	1.52
2	E	448	GLU	CA-C	-7.05	1.43	1.52
2	F	329	LEU	CA-C	-7.05	1.44	1.52
4	H	124	ASP	CA-C	-7.05	1.44	1.52
2	D	141	ASP	CA-C	-7.05	1.43	1.52
1	B	263	HIS	CA-C	-7.05	1.44	1.52
2	D	75	VAL	CA-C	-7.05	1.44	1.52
1	C	358	TYR	CA-C	-7.04	1.43	1.52
2	E	217	LEU	CA-C	-7.04	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	242	LEU	CA-C	-7.03	1.43	1.52
2	F	61	ILE	CA-C	-7.03	1.44	1.52
2	F	366	GLU	CA-C	-7.02	1.44	1.52
1	C	322	THR	CA-C	-7.02	1.44	1.52
1	C	245	LEU	CA-C	-7.01	1.43	1.52
1	C	473	ILE	CA-C	-7.01	1.44	1.52
1	C	59	LEU	CA-C	-7.01	1.44	1.52
2	F	430	LYS	CA-C	-7.00	1.44	1.52
1	C	42	HIS	N-CA	-7.00	1.37	1.46
2	E	406	ARG	CA-C	-6.99	1.44	1.52
2	F	382	LYS	CA-C	-6.98	1.43	1.52
3	G	263	ILE	CA-C	-6.98	1.44	1.52
1	A	210	ARG	CA-C	-6.97	1.43	1.52
3	G	2	THR	N-CA	-6.97	1.37	1.46
1	C	314	ASP	CA-C	-6.96	1.43	1.52
4	H	29	ASN	N-CA	-6.96	1.38	1.46
2	E	380	ASP	CA-C	-6.96	1.43	1.52
2	D	406	ARG	CA-C	-6.96	1.43	1.52
2	F	25	PHE	CA-C	-6.96	1.44	1.52
1	C	38	ILE	CA-C	-6.95	1.43	1.52
1	B	465	GLU	CA-C	-6.95	1.43	1.52
3	G	32	ALA	CA-C	-6.95	1.44	1.52
1	B	420	ARG	CA-C	-6.92	1.43	1.52
1	C	171	ARG	CA-C	-6.92	1.43	1.52
1	A	97	VAL	N-CA	-6.92	1.40	1.46
2	E	139	VAL	CA-C	-6.92	1.44	1.52
2	F	438	ILE	CA-C	-6.92	1.43	1.52
3	G	219	GLU	CA-C	-6.92	1.43	1.52
2	F	144	ALA	CA-C	-6.91	1.45	1.52
2	F	268	VAL	CA-C	-6.90	1.42	1.52
4	H	133	ILE	CA-C	-6.90	1.44	1.52
2	D	452	LEU	N-CA	-6.88	1.41	1.46
2	F	219	TYR	CA-C	-6.88	1.44	1.52
7	S	91	GLU	CA-C	-6.88	1.44	1.52
2	D	16	VAL	CA-C	-6.88	1.43	1.52
2	D	255	ILE	CA-C	-6.88	1.43	1.52
2	E	83	ARG	CA-C	-6.88	1.44	1.52
2	F	37	GLU	CA-C	-6.88	1.44	1.52
3	G	23	MET	N-CA	-6.88	1.37	1.46
1	B	189	PHE	CA-C	-6.87	1.43	1.52
2	D	138	LYS	CA-C	-6.87	1.44	1.52
2	F	299	THR	CA-C	-6.87	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	D	394	ASP	CA-C	-6.86	1.43	1.52
2	D	384	LEU	CA-C	-6.85	1.43	1.52
1	B	299	PHE	CA-C	-6.85	1.44	1.52
2	E	245	ASP	CA-C	-6.84	1.43	1.52
1	A	8	VAL	N-CA	-6.84	1.39	1.46
2	D	21	VAL	N-CA	-6.84	1.38	1.46
1	C	88	VAL	CA-C	-6.83	1.44	1.52
1	B	65	ASN	CA-C	-6.83	1.44	1.52
3	G	208	SER	CA-C	-6.83	1.43	1.52
1	B	381	ARG	CA-C	-6.83	1.44	1.52
3	G	259	THR	N-CA	-6.83	1.38	1.46
2	D	306	SER	CA-C	-6.83	1.44	1.52
2	D	411	GLN	CA-C	-6.82	1.43	1.52
2	F	21	VAL	CA-C	-6.82	1.44	1.52
2	E	331	ALA	CA-C	-6.81	1.43	1.52
4	H	53	PRO	CA-C	-6.81	1.44	1.52
1	C	361	ILE	CA-C	-6.81	1.44	1.52
4	H	128	ARG	CA-C	-6.80	1.44	1.52
1	C	393	GLU	CA-C	-6.80	1.43	1.52
1	C	394	LEU	CA-C	-6.80	1.43	1.52
1	B	62	MET	CA-C	-6.80	1.44	1.52
1	B	337	TYR	CA-C	-6.80	1.44	1.52
1	A	39	ALA	CA-C	-6.79	1.44	1.52
2	D	162	LYS	CA-C	-6.79	1.44	1.52
3	G	250	PHE	CA-C	-6.79	1.43	1.52
1	B	34	ILE	CA-C	-6.78	1.44	1.52
3	G	164	ARG	CA-C	-6.78	1.44	1.52
1	C	492	GLU	CA-C	-6.78	1.44	1.52
2	D	263	GLN	N-CA	-6.78	1.38	1.46
1	C	503	ASN	CA-C	-6.78	1.43	1.52
2	D	251	VAL	CA-C	-6.77	1.44	1.52
1	B	294	TYR	CA-C	-6.77	1.44	1.53
1	C	213	VAL	N-CA	-6.77	1.38	1.46
3	G	163	ASN	CA-C	-6.77	1.44	1.52
3	G	265	ILE	N-CA	-6.75	1.38	1.46
1	A	244	TYR	N-CA	-6.75	1.38	1.46
2	F	217	LEU	CA-C	-6.74	1.44	1.52
1	B	166	LEU	CA-C	-6.73	1.44	1.52
2	E	400	ASP	N-CA	-6.73	1.38	1.46
1	B	503	ASN	CA-C	-6.73	1.44	1.52
2	E	54	GLY	CA-C	-6.73	1.45	1.52
1	B	287	ARG	N-CA	-6.73	1.37	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	176	THR	N-CA	-6.72	1.38	1.46
1	A	221	THR	CA-C	-6.72	1.44	1.52
2	F	448	GLU	CA-C	-6.71	1.43	1.52
3	G	33	ARG	N-CA	-6.71	1.38	1.46
2	F	379	GLN	CA-C	-6.71	1.43	1.52
4	H	109	LYS	CA-C	-6.71	1.44	1.52
2	D	61	ILE	CA-C	-6.70	1.44	1.52
2	E	167	MET	CA-C	-6.70	1.44	1.52
1	A	320	SER	CA-C	-6.70	1.44	1.52
2	D	370	VAL	CA-C	-6.70	1.44	1.52
2	E	311	TYR	CA-C	-6.70	1.44	1.52
1	C	441	GLN	N-CA	-6.70	1.38	1.46
1	A	40	ARG	CA-C	-6.70	1.44	1.52
1	C	356	LEU	CA-C	-6.69	1.44	1.52
2	D	308	GLN	CA-C	-6.69	1.44	1.52
1	B	87	ILE	CA-C	-6.69	1.45	1.52
2	D	250	ASP	CA-C	-6.68	1.44	1.52
3	G	14	LYS	N-CA	-6.68	1.38	1.46
2	E	234	LEU	CA-C	-6.68	1.44	1.52
2	D	263	GLN	CA-C	-6.68	1.44	1.52
3	G	192	ILE	CA-C	-6.67	1.44	1.52
2	E	45	LEU	CA-C	-6.67	1.44	1.53
2	F	344	ILE	CA-C	-6.67	1.45	1.52
1	A	370	SER	CA-C	-6.67	1.44	1.52
1	C	212	THR	CA-C	-6.67	1.44	1.52
3	G	213	ILE	CA-C	-6.67	1.44	1.52
4	H	99	THR	CA-C	-6.67	1.44	1.52
2	D	60	THR	CA-C	-6.66	1.44	1.52
1	C	502	THR	CA-C	-6.66	1.44	1.52
2	F	122	GLU	CA-C	-6.66	1.44	1.53
3	G	269	ALA	N-CA	-6.65	1.37	1.46
5	I	2	ALA	CA-C	-6.65	1.43	1.52
1	A	30	ARG	CA-C	-6.65	1.44	1.52
2	E	254	PHE	CA-C	-6.65	1.44	1.52
1	B	67	GLU	C-N	-6.65	1.27	1.34
1	B	257	PHE	CA-C	-6.64	1.44	1.52
2	D	58	VAL	N-CA	-6.64	1.38	1.46
7	S	33	GLU	CA-C	-6.64	1.44	1.52
1	B	265	LEU	CA-C	-6.64	1.44	1.52
2	E	305	THR	CA-C	-6.64	1.44	1.52
3	G	167	SER	CA-C	-6.64	1.44	1.52
2	E	33	LEU	CA-C	-6.63	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	461	ILE	CA-C	-6.63	1.44	1.52
1	B	219	ARG	CA-C	-6.63	1.44	1.52
2	F	152	ILE	CA-C	-6.62	1.44	1.52
2	F	412	ARG	CA-C	-6.62	1.43	1.52
1	A	294	TYR	CA-C	-6.62	1.44	1.52
1	C	501	VAL	CA-C	-6.61	1.44	1.52
2	D	245	ASP	CA-C	-6.61	1.44	1.52
1	C	265	LEU	CA-C	-6.61	1.44	1.52
2	F	82	ILE	CA-C	-6.60	1.44	1.52
1	B	324	LEU	CA-C	-6.59	1.46	1.52
2	F	15	ALA	CA-C	-6.59	1.44	1.52
1	A	34	ILE	N-CA	-6.58	1.38	1.46
1	A	161	ARG	CA-C	-6.57	1.44	1.52
2	F	14	VAL	CA-C	-6.57	1.45	1.53
5	I	38	SER	CA-C	-6.57	1.45	1.53
1	B	213	VAL	N-CA	-6.57	1.38	1.46
1	C	146	MET	CA-C	-6.56	1.44	1.52
2	F	200	MET	CA-C	-6.56	1.44	1.52
1	A	409	ASP	CA-C	-6.56	1.44	1.52
1	B	337	TYR	N-CA	-6.56	1.38	1.46
1	B	421	GLY	CA-C	-6.56	1.45	1.52
1	B	475	GLN	CA-C	-6.56	1.45	1.53
2	F	254	PHE	CA-C	-6.56	1.44	1.52
1	C	193	THR	CA-C	-6.55	1.46	1.53
4	H	25	GLN	CA-C	-6.55	1.44	1.52
2	D	155	PHE	CA-C	-6.55	1.44	1.52
1	A	461	ILE	CA-C	-6.55	1.44	1.52
2	D	443	GLN	CA-C	-6.55	1.44	1.52
2	D	199	GLU	N-CA	-6.54	1.38	1.46
1	C	277	ALA	CA-C	-6.54	1.44	1.52
3	G	228	ARG	CA-C	-6.54	1.44	1.52
1	C	128	ARG	CA-C	-6.53	1.44	1.52
2	D	131	GLU	CA-C	-6.53	1.44	1.52
1	A	48	GLN	CA-C	-6.53	1.44	1.52
2	D	167	MET	CA-C	-6.53	1.44	1.52
2	E	375	GLN	CA-C	-6.53	1.44	1.52
2	E	21	VAL	N-CA	-6.52	1.38	1.46
1	C	323	ALA	CA-C	-6.52	1.44	1.52
1	A	280	GLN	N-CA	-6.51	1.38	1.46
2	D	292	MET	CA-C	-6.51	1.44	1.53
3	G	245	LYS	CA-C	-6.51	1.44	1.52
1	C	126	ARG	CA-C	-6.51	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	G	31	TYR	N-CA	-6.51	1.38	1.46
4	H	113	GLU	CA-C	-6.51	1.44	1.52
7	S	86	ILE	CA-C	-6.51	1.45	1.52
1	A	151	LYS	CA-C	-6.50	1.44	1.52
1	B	38	ILE	CA-C	-6.50	1.44	1.52
2	E	409	LYS	CA-C	-6.50	1.44	1.52
3	G	166	ARG	CA-C	-6.50	1.44	1.52
2	E	158	ALA	CA-C	-6.49	1.44	1.52
3	G	211	ASN	CA-C	-6.49	1.44	1.52
1	C	387	ALA	CA-C	-6.49	1.44	1.52
4	H	142	VAL	CA-C	-6.49	1.43	1.52
1	A	126	ARG	CA-C	-6.49	1.44	1.52
2	D	290	GLY	CA-C	-6.49	1.45	1.52
1	C	67	GLU	C-N	-6.48	1.26	1.34
2	F	24	GLN	N-CA	-6.48	1.38	1.46
2	F	364	GLY	CA-C	-6.48	1.42	1.51
1	C	472	VAL	CA-C	-6.48	1.43	1.52
1	B	499	GLU	N-CA	-6.48	1.38	1.46
1	A	208	GLN	CA-C	-6.47	1.44	1.52
1	C	248	TYR	CA-C	-6.47	1.44	1.52
2	F	13	ILE	CA-C	-6.47	1.45	1.52
1	C	86	ASP	CA-C	-6.47	1.44	1.52
2	D	287	THR	CA-C	-6.47	1.44	1.52
4	H	71	THR	CA-C	-6.47	1.44	1.52
2	D	409	LYS	CA-C	-6.46	1.44	1.52
3	G	214	TYR	N-CA	-6.46	1.38	1.46
1	C	147	GLN	CA-C	-6.46	1.45	1.52
3	G	22	SER	CA-C	-6.46	1.44	1.52
1	B	97	VAL	CA-C	-6.46	1.46	1.52
2	F	182	VAL	CA-C	-6.46	1.44	1.52
1	C	123	SER	CA-C	-6.46	1.44	1.52
1	B	172	GLN	CA-C	-6.45	1.44	1.52
1	B	456	LEU	CA-C	-6.45	1.45	1.52
1	C	320	SER	CA-C	-6.45	1.44	1.52
1	C	460	LYS	CA-C	-6.45	1.43	1.52
2	F	17	ILE	CA-C	-6.45	1.44	1.52
2	F	188	GLU	CA-C	-6.45	1.44	1.52
1	B	39	ALA	CA-C	-6.44	1.44	1.52
1	C	330	GLN	CA-C	-6.44	1.44	1.52
2	D	75	VAL	N-CA	-6.44	1.38	1.46
2	D	410	ILE	CA-C	-6.44	1.45	1.52
1	A	213	VAL	N-CA	-6.43	1.38	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	F	194	ASN	CA-C	-6.43	1.44	1.52
1	C	396	GLN	CA-C	-6.43	1.44	1.52
1	A	182	THR	CA-C	-6.43	1.44	1.52
1	C	299	PHE	N-CA	-6.43	1.38	1.46
3	G	251	ASN	N-CA	-6.43	1.37	1.46
1	C	505	LEU	CA-C	-6.42	1.44	1.52
2	F	113	PHE	CA-C	-6.42	1.45	1.52
1	A	356	LEU	CA-C	-6.42	1.44	1.52
1	B	277	ALA	CA-C	-6.42	1.44	1.52
2	E	312	VAL	CA-C	-6.42	1.46	1.52
4	H	97	ALA	CA-C	-6.42	1.45	1.52
2	D	382	LYS	CA-C	-6.42	1.44	1.52
1	A	34	ILE	CA-C	-6.41	1.44	1.52
1	C	280	GLN	N-CA	-6.41	1.38	1.46
2	D	244	ARG	CA-C	-6.41	1.44	1.52
2	E	12	ARG	N-CA	-6.41	1.38	1.46
1	B	468	PHE	CA-C	-6.41	1.44	1.52
2	E	246	GLN	CA-C	-6.41	1.44	1.52
7	S	157	SER	CA-C	-6.41	1.44	1.52
2	D	333	THR	CA-C	-6.41	1.45	1.52
7	S	97	ASN	CA-C	-6.41	1.44	1.52
1	A	493	SER	CA-C	-6.40	1.44	1.52
1	C	152	ALA	CA-C	-6.40	1.44	1.52
1	C	194	ASP	CA-C	-6.40	1.44	1.52
1	B	393	GLU	CA-C	-6.40	1.44	1.52
1	C	263	HIS	N-CA	-6.39	1.38	1.46
2	F	275	ILE	N-CA	-6.39	1.40	1.47
1	C	93	ALA	CA-C	-6.39	1.44	1.52
2	F	289	MET	N-CA	-6.39	1.38	1.46
3	G	225	GLN	CA-C	-6.38	1.44	1.52
1	C	186	GLN	CA-C	-6.38	1.43	1.52
3	G	128	PHE	CA-C	-6.38	1.44	1.52
2	E	169	LEU	CA-C	-6.37	1.44	1.52
2	E	412	ARG	CA-C	-6.37	1.44	1.52
3	G	172	LYS	N-CA	-6.37	1.38	1.46
3	G	267	SER	CA-C	-6.37	1.44	1.52
2	E	22	ASP	N-CA	-6.37	1.38	1.46
1	A	245	LEU	CA-C	-6.36	1.44	1.52
1	C	63	SER	CA-C	-6.36	1.44	1.52
3	G	7	THR	CA-C	-6.36	1.44	1.52
2	E	333	THR	CA-C	-6.36	1.45	1.52
1	A	353	GLU	CA-C	-6.36	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	326	VAL	N-CA	-6.35	1.39	1.46
1	B	356	LEU	CA-C	-6.34	1.44	1.52
3	G	18	LYS	CA-C	-6.34	1.44	1.52
3	G	30	LYS	CA-C	-6.34	1.44	1.52
3	G	260	LYS	CA-C	-6.34	1.43	1.52
2	F	207	ASN	CA-C	-6.34	1.45	1.52
1	C	469	LEU	N-CA	-6.33	1.38	1.46
4	H	112	LEU	CA-C	-6.33	1.44	1.52
1	C	380	THR	CA-C	-6.33	1.45	1.52
1	A	26	GLU	CA-C	-6.33	1.44	1.52
1	C	139	ARG	CA-C	-6.33	1.45	1.52
4	H	66	HIS	CA-C	-6.33	1.44	1.52
3	G	239	ALA	CA-C	-6.32	1.44	1.52
1	A	394	LEU	CA-C	-6.32	1.44	1.52
2	F	385	GLN	CA-C	-6.32	1.44	1.52
4	H	132	GLN	CA-C	-6.32	1.44	1.52
1	A	399	GLU	CA-C	-6.32	1.44	1.52
1	B	476	HIS	CA-C	-6.32	1.43	1.52
2	E	430	LYS	CA-C	-6.32	1.45	1.52
1	A	312	MET	CA-C	-6.30	1.44	1.53
3	G	29	ALA	CA-C	-6.30	1.44	1.52
1	A	323	ALA	CA-C	-6.30	1.45	1.52
1	C	35	GLY	CA-C	-6.30	1.43	1.51
2	F	12	ARG	N-CA	-6.29	1.38	1.46
3	G	272	LEU	CA-C	-6.29	1.44	1.52
1	B	394	LEU	CA-C	-6.29	1.44	1.52
2	D	386	ASP	CA-C	-6.29	1.44	1.52
1	A	65	ASN	CA-C	-6.29	1.45	1.52
1	A	509	GLU	CA-C	-6.29	1.44	1.52
1	B	389	THR	N-CA	-6.29	1.38	1.46
2	D	80	ALA	CA-C	-6.29	1.45	1.52
2	D	321	ALA	N-CA	-6.29	1.41	1.46
1	A	248	TYR	CA-C	-6.28	1.44	1.52
3	G	51	LEU	CA-C	-6.28	1.43	1.52
7	S	119	THR	CA-C	-6.28	1.46	1.52
1	B	392	LEU	N-CA	-6.28	1.38	1.46
1	B	142	VAL	CA-C	-6.28	1.44	1.52
3	G	4	LYS	CA-C	-6.28	1.44	1.52
2	D	377	ILE	CA-C	-6.28	1.44	1.52
2	E	376	LYS	N-CA	-6.27	1.39	1.46
3	G	220	SER	CA-C	-6.27	1.44	1.52
2	F	409	LYS	CA-C	-6.27	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	G	157	GLU	N-CA	-6.27	1.38	1.46
1	C	362	ARG	CA-C	-6.27	1.47	1.52
2	F	197	TYR	CA-C	-6.27	1.44	1.52
1	A	70	ASN	N-CA	-6.26	1.38	1.46
1	C	392	LEU	N-CA	-6.26	1.38	1.46
4	H	117	SER	CA-C	-6.26	1.45	1.52
1	A	195	GLU	CA-C	-6.25	1.44	1.52
4	H	40	THR	CA-C	-6.25	1.44	1.53
2	D	367	HIS	N-CA	-6.25	1.38	1.46
1	C	496	LYS	CA-C	-6.25	1.44	1.52
4	H	130	GLU	CA-C	-6.25	1.44	1.52
4	H	63	VAL	CA-C	-6.25	1.45	1.52
1	C	175	LYS	CA-C	-6.25	1.44	1.52
2	F	105	ARG	CA-C	-6.25	1.44	1.53
3	G	172	LYS	CA-C	-6.25	1.45	1.52
2	F	263	GLN	CA-C	-6.24	1.44	1.52
3	G	170	SER	CA-C	-6.24	1.44	1.52
4	H	65	VAL	CA-C	-6.24	1.44	1.52
3	G	25	MET	CA-C	-6.24	1.44	1.52
2	D	199	GLU	CA-C	-6.24	1.44	1.52
3	G	169	ILE	N-CA	-6.24	1.38	1.46
1	C	157	VAL	CA-C	-6.24	1.46	1.52
2	D	53	LEU	CA-C	-6.24	1.44	1.52
3	G	129	LYS	N-CA	-6.23	1.38	1.45
1	B	302	HIS	N-CA	-6.23	1.38	1.46
2	E	332	THR	CA-C	-6.23	1.45	1.52
1	B	167	ILE	CA-C	-6.22	1.44	1.52
2	D	361	ASN	N-CA	-6.22	1.39	1.46
1	A	499	GLU	N-CA	-6.22	1.38	1.46
1	B	330	GLN	CA-C	-6.22	1.45	1.52
1	A	276	VAL	CA-C	-6.21	1.45	1.52
1	A	392	LEU	N-CA	-6.21	1.38	1.46
2	D	39	GLN	CA-C	-6.21	1.44	1.52
2	F	365	SER	CA-C	-6.21	1.44	1.52
1	A	89	LYS	N-CA	-6.21	1.38	1.46
1	B	165	GLU	CA-C	-6.20	1.44	1.52
3	G	245	LYS	N-CA	-6.20	1.39	1.46
7	S	94	ARG	CA-C	-6.20	1.47	1.52
1	C	469	LEU	CA-C	-6.20	1.45	1.52
1	C	208	GLN	CA-C	-6.20	1.45	1.52
1	C	67	GLU	CA-C	-6.20	1.44	1.52
1	C	199	LEU	CA-C	-6.20	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	D	332	THR	CA-C	-6.20	1.45	1.52
2	F	60	THR	N-CA	-6.20	1.37	1.45
2	E	131	GLU	CA-C	-6.20	1.45	1.52
3	G	141	ALA	CA-C	-6.20	1.44	1.52
2	F	378	LEU	CA-C	-6.19	1.44	1.52
4	H	47	ILE	CA-C	-6.19	1.45	1.52
1	B	341	ASN	CA-C	-6.19	1.44	1.52
2	E	95	MET	N-CA	-6.19	1.38	1.45
1	C	500	ILE	N-CA	-6.19	1.39	1.46
4	H	137	ALA	CA-C	-6.19	1.45	1.52
1	A	87	ILE	CA-C	-6.19	1.45	1.52
1	A	358	TYR	CA-C	-6.19	1.44	1.52
7	S	41	ARG	CA-C	-6.19	1.45	1.52
1	C	280	GLN	CA-C	-6.18	1.44	1.52
1	A	286	ARG	CA-C	-6.18	1.45	1.52
1	B	156	LEU	CA-C	-6.18	1.44	1.52
2	D	139	VAL	N-CA	-6.17	1.39	1.46
2	D	387	ILE	N-CA	-6.17	1.39	1.46
2	D	94	ILE	CA-C	-6.17	1.44	1.52
1	B	89	LYS	CA-C	-6.17	1.45	1.52
1	A	9	SER	CA-C	-6.17	1.46	1.53
2	D	246	GLN	CA-C	-6.16	1.45	1.52
1	A	257	PHE	CA-C	-6.16	1.44	1.52
1	B	144	GLU	CA-C	-6.16	1.46	1.53
3	G	21	LYS	N-CA	-6.15	1.38	1.46
2	D	371	ALA	CA-C	-6.15	1.45	1.52
2	D	51	GLN	CA-C	-6.15	1.45	1.52
4	H	67	ALA	CA-C	-6.15	1.45	1.52
1	A	463	LYS	N-CA	-6.14	1.38	1.46
2	E	307	VAL	CA-C	-6.14	1.44	1.52
2	F	200	MET	N-CA	-6.14	1.38	1.46
4	H	20	PHE	CA-C	-6.14	1.45	1.52
1	A	387	ALA	CA-C	-6.14	1.44	1.52
7	S	34	GLN	CA-C	-6.14	1.44	1.52
1	B	214	ALA	CA-C	-6.13	1.45	1.52
2	D	371	ALA	N-CA	-6.13	1.39	1.46
2	D	252	LEU	CA-C	-6.13	1.45	1.52
2	F	259	PHE	N-CA	-6.13	1.39	1.46
1	B	479	LEU	CA-C	-6.13	1.44	1.52
1	A	242	LEU	CA-C	-6.13	1.44	1.52
2	D	48	GLU	CA-C	-6.13	1.45	1.52
2	D	449	TYR	N-CA	-6.13	1.39	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	G	202	ARG	CA-C	-6.12	1.44	1.52
1	B	492	GLU	CA-C	-6.12	1.45	1.52
2	E	137	ILE	CA-C	-6.12	1.45	1.52
1	C	34	ILE	CA-C	-6.12	1.44	1.52
2	F	58	VAL	N-CA	-6.12	1.39	1.46
1	B	463	LYS	N-CA	-6.11	1.39	1.46
2	D	407	ALA	CA-C	-6.11	1.44	1.52
4	H	45	PHE	N-CA	-6.11	1.39	1.46
1	C	222	ASP	CA-C	-6.11	1.45	1.52
2	E	168	GLU	N-CA	-6.11	1.39	1.46
5	I	12	ILE	CA-C	-6.11	1.45	1.52
4	H	92	LEU	CA-C	-6.10	1.45	1.52
1	C	174	GLY	N-CA	-6.10	1.36	1.45
2	E	212	THR	CA-C	-6.10	1.45	1.52
3	G	258	ILE	N-CA	-6.10	1.38	1.46
2	F	201	ILE	CA-C	-6.09	1.45	1.52
3	G	13	ILE	CA-C	-6.09	1.43	1.52
1	C	62	MET	CA-C	-6.09	1.45	1.52
4	H	91	GLN	N-CA	-6.09	1.38	1.46
4	H	135	ILE	N-CA	-6.09	1.39	1.46
7	S	142	LEU	CA-C	-6.09	1.45	1.52
2	D	441	PHE	CA-C	-6.09	1.45	1.52
7	S	98	THR	N-CA	-6.09	1.40	1.46
2	F	289	MET	CA-C	-6.08	1.45	1.52
2	E	94	ILE	CA-C	-6.08	1.45	1.52
7	S	37	LYS	CA-C	-6.08	1.44	1.52
2	D	344	ILE	CA-C	-6.08	1.46	1.52
1	A	383	MET	N-CA	-6.08	1.39	1.46
1	C	89	LYS	CA-C	-6.07	1.45	1.52
2	D	380	ASP	CA-C	-6.07	1.45	1.52
3	G	87	LYS	CA-C	-6.07	1.44	1.52
1	C	338	ILE	CA-C	-6.07	1.47	1.52
2	F	195	ASP	CA-C	-6.06	1.45	1.52
4	H	56	GLN	CA-C	-6.06	1.45	1.52
3	G	215	TYR	CA-C	-6.06	1.45	1.52
1	C	499	GLU	N-CA	-6.05	1.39	1.46
2	F	313	PRO	CA-C	-6.05	1.46	1.52
5	I	14	TYR	CA-C	-6.05	1.45	1.52
2	F	20	VAL	CA-C	-6.05	1.45	1.52
2	F	199	GLU	CA-C	-6.05	1.44	1.52
7	S	112	HIS	N-CA	-6.05	1.38	1.46
1	A	362	ARG	CA-C	-6.04	1.48	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	G	269	ALA	CA-C	-6.04	1.44	1.52
1	C	243	GLN	CA-C	-6.04	1.45	1.52
4	H	27	PHE	CA-C	-6.04	1.45	1.52
1	B	218	LYS	CA-C	-6.04	1.45	1.52
4	H	112	LEU	N-CA	-6.04	1.39	1.46
1	C	60	LYS	CA-C	-6.04	1.45	1.52
1	B	151	LYS	CA-C	-6.03	1.45	1.52
2	E	196	LEU	CA-C	-6.03	1.45	1.52
3	G	107	GLY	CA-C	-6.02	1.43	1.51
2	E	434	LEU	CA-C	-6.02	1.45	1.52
1	A	468	PHE	CA-C	-6.01	1.45	1.52
3	G	171	TYR	CA-C	-6.01	1.45	1.52
2	E	101	PRO	CA-C	-6.01	1.45	1.52
1	B	278	TYR	N-CA	-6.01	1.39	1.46
2	D	24	GLN	N-CA	-6.01	1.38	1.46
2	E	259	PHE	N-CA	-6.01	1.39	1.46
2	F	332	THR	CA-C	-6.01	1.45	1.52
1	A	218	LYS	N-CA	-6.00	1.39	1.46
1	B	469	LEU	CA-C	-6.00	1.45	1.52
2	D	367	HIS	CA-C	-6.00	1.45	1.52
2	D	234	LEU	CA-C	-6.00	1.45	1.52
2	F	210	ASP	CA-C	-6.00	1.45	1.52
3	G	254	ARG	N-CA	-6.00	1.39	1.46
1	C	167	ILE	CA-C	-5.99	1.45	1.52
2	F	202	GLU	CA-C	-5.99	1.45	1.52
1	A	215	GLN	CA-C	-5.98	1.45	1.52
1	A	231	VAL	CA-C	-5.98	1.45	1.52
1	C	464	PHE	CA-C	-5.98	1.45	1.52
2	E	52	HIS	CA-C	-5.98	1.45	1.53
1	A	47	VAL	CA-C	-5.97	1.45	1.52
2	D	15	ALA	CA-C	-5.97	1.45	1.52
2	D	303	SER	CA-C	-5.97	1.45	1.52
1	A	157	VAL	CA-C	-5.97	1.46	1.52
1	B	221	THR	N-CA	-5.97	1.39	1.46
1	A	476	HIS	CA-C	-5.97	1.43	1.52
1	B	235	THR	CA-C	-5.97	1.45	1.53
1	A	73	VAL	CA-C	-5.96	1.44	1.52
1	A	156	LEU	CA-C	-5.96	1.44	1.52
1	B	278	TYR	CA-C	-5.96	1.45	1.52
2	D	61	ILE	N-CA	-5.96	1.39	1.46
1	B	167	ILE	N-CA	-5.96	1.39	1.46
2	D	189	ARG	CA-C	-5.96	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	395	ALA	CA-C	-5.95	1.45	1.52
2	E	290	GLY	CA-C	-5.95	1.45	1.52
1	A	63	SER	CA-C	-5.95	1.45	1.52
2	F	100	GLU	CA-C	-5.95	1.45	1.53
1	B	504	PHE	N-CA	-5.94	1.39	1.46
2	E	289	MET	CA-C	-5.94	1.45	1.52
2	E	268	VAL	CA-C	-5.94	1.45	1.52
7	S	30	ASN	CA-C	-5.93	1.45	1.53
1	C	418	LEU	CA-C	-5.93	1.45	1.52
1	A	400	VAL	CA-C	-5.93	1.45	1.53
1	C	390	MET	CA-C	-5.93	1.45	1.52
1	A	194	ASP	CA-C	-5.93	1.45	1.52
2	E	443	GLN	CA-C	-5.93	1.45	1.52
3	G	108	VAL	CA-C	-5.92	1.45	1.52
7	S	31	LYS	N-CA	-5.92	1.39	1.46
1	A	218	LYS	CA-C	-5.92	1.45	1.52
1	C	216	LEU	CA-C	-5.92	1.45	1.52
2	D	196	LEU	CA-C	-5.92	1.45	1.52
1	B	171	ARG	CA-C	-5.92	1.44	1.52
1	C	39	ALA	N-CA	-5.92	1.39	1.46
7	S	139	LYS	CA-C	-5.92	1.45	1.52
2	F	399	GLU	CA-C	-5.92	1.45	1.52
1	B	497	LEU	CA-C	-5.91	1.45	1.52
2	E	22	ASP	CA-C	-5.91	1.45	1.52
2	E	349	ASP	N-CA	-5.91	1.40	1.46
1	A	275	ALA	CA-C	-5.91	1.45	1.52
1	C	370	SER	CA-C	-5.91	1.45	1.52
2	D	381	TYR	CA-C	-5.91	1.45	1.52
2	D	418	PHE	CA-C	-5.90	1.45	1.52
2	F	192	GLU	CA-C	-5.90	1.44	1.52
7	S	116	VAL	CA-C	-5.90	1.48	1.53
2	E	289	MET	N-CA	-5.90	1.39	1.46
2	F	183	PHE	CA-C	-5.90	1.45	1.52
3	G	120	HIS	CA-C	-5.90	1.46	1.53
1	A	496	LYS	CA-C	-5.89	1.45	1.52
1	C	262	LYS	CA-C	-5.89	1.44	1.52
2	D	54	GLY	N-CA	-5.89	1.40	1.45
2	D	416	GLN	CA-C	-5.89	1.46	1.52
1	B	40	ARG	CA-C	-5.89	1.45	1.52
2	F	207	ASN	N-CA	-5.89	1.39	1.46
1	C	256	TYR	CA-C	-5.88	1.45	1.52
3	G	110	ASP	CA-C	-5.88	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	I	43	LYS	N-CA	-5.88	1.39	1.45
3	G	69	ILE	CA-C	-5.88	1.45	1.52
1	C	74	VAL	CA-C	-5.88	1.46	1.52
2	F	377	ILE	CA-C	-5.88	1.45	1.52
1	A	477	GLN	N-CA	-5.88	1.39	1.46
1	B	76	PHE	CA-C	-5.88	1.46	1.53
2	D	38	VAL	CA-C	-5.88	1.46	1.52
7	S	6	ARG	N-CA	-5.88	1.41	1.46
2	E	213	SER	N-CA	-5.88	1.38	1.46
2	D	334	VAL	CA-C	-5.87	1.45	1.52
1	A	88	VAL	N-CA	-5.87	1.39	1.46
1	A	243	GLN	CA-C	-5.87	1.45	1.52
2	F	407	ALA	CA-C	-5.87	1.45	1.52
4	H	127	THR	CA-C	-5.87	1.45	1.52
1	C	39	ALA	CA-C	-5.87	1.45	1.52
2	F	267	GLU	CA-C	-5.87	1.45	1.52
1	C	34	ILE	N-CA	-5.86	1.39	1.46
2	E	284	THR	CA-C	-5.86	1.44	1.52
3	G	105	ILE	CA-C	-5.86	1.45	1.52
4	H	92	LEU	N-CA	-5.86	1.39	1.46
2	D	35	ALA	CA-C	-5.86	1.45	1.52
2	E	312	VAL	N-CA	-5.86	1.39	1.46
2	D	399	GLU	N-CA	-5.86	1.38	1.46
7	S	73	THR	C-N	5.86	1.41	1.33
1	B	339	PRO	CA-C	-5.85	1.43	1.52
2	D	41	ARG	CA-C	-5.85	1.45	1.52
2	D	419	GLN	CA-C	-5.85	1.44	1.52
1	C	244	TYR	N-CA	-5.85	1.39	1.46
1	C	465	GLU	CA-C	-5.85	1.45	1.52
2	F	277	SER	CA-C	-5.85	1.45	1.52
7	S	134	LEU	N-CA	-5.85	1.38	1.46
2	E	114	ALA	CA-C	-5.84	1.45	1.52
2	E	250	ASP	CA-C	-5.84	1.45	1.53
2	D	194	ASN	CA-C	-5.84	1.45	1.52
2	D	312	VAL	CA-C	-5.84	1.46	1.52
2	E	15	ALA	CA-C	-5.84	1.45	1.52
3	G	233	ASP	CA-C	-5.84	1.45	1.52
2	D	139	VAL	CA-C	-5.83	1.45	1.52
1	B	299	PHE	N-CA	-5.83	1.39	1.46
1	C	468	PHE	CA-C	-5.83	1.45	1.52
2	F	46	VAL	N-CA	-5.83	1.39	1.46
2	E	36	LEU	CA-C	-5.83	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	350	ILE	N-CA	-5.83	1.38	1.46
2	D	144	ALA	N-CA	-5.83	1.40	1.46
2	E	366	GLU	CA-C	-5.83	1.45	1.52
2	F	58	VAL	CA-C	-5.83	1.45	1.52
3	G	235	ALA	N-CA	-5.83	1.39	1.46
1	B	199	LEU	CA-C	-5.83	1.45	1.52
1	C	33	SER	CA-C	-5.82	1.45	1.52
7	S	158	ILE	CA-C	-5.82	1.46	1.52
1	A	321	LEU	CA-C	-5.82	1.45	1.52
1	C	500	ILE	CA-C	-5.82	1.45	1.52
1	A	324	LEU	N-CA	-5.82	1.40	1.46
2	D	325	THR	CA-C	-5.82	1.45	1.52
2	E	263	GLN	N-CA	-5.82	1.39	1.46
3	G	162	PHE	CA-C	-5.82	1.45	1.52
2	D	93	ARG	CA-C	-5.81	1.45	1.52
1	A	166	LEU	CA-C	-5.81	1.45	1.52
1	B	203	TYR	N-CA	-5.81	1.39	1.46
11	W	175	GLY	CA-C	-5.81	1.43	1.51
1	C	361	ILE	N-CA	-5.80	1.39	1.46
1	A	45	ARG	CA-C	-5.80	1.45	1.53
1	B	221	THR	CA-C	-5.80	1.45	1.52
1	B	157	VAL	N-CA	-5.80	1.39	1.46
1	B	469	LEU	N-CA	-5.80	1.39	1.46
1	B	508	PHE	N-CA	-5.80	1.38	1.46
3	G	233	ASP	N-CA	-5.80	1.39	1.46
3	G	204	TYR	CA-C	-5.79	1.45	1.52
2	F	364	GLY	N-CA	-5.79	1.36	1.45
5	I	19	ALA	N-CA	-5.79	1.39	1.46
1	A	366	ASN	CA-C	-5.79	1.45	1.52
2	E	70	VAL	CA-C	-5.79	1.46	1.52
8	T	88	ARG	CA-C	-5.79	1.45	1.52
2	F	293	GLN	CA-C	-5.79	1.45	1.52
2	F	84	ILE	N-CA	-5.79	1.40	1.46
3	G	103	VAL	CA-C	-5.79	1.46	1.52
4	H	36	VAL	CA-C	-5.78	1.45	1.52
1	B	460	LYS	CA-C	-5.78	1.44	1.52
2	F	124	VAL	N-CA	-5.78	1.38	1.46
1	B	267	ILE	N-CA	-5.78	1.39	1.46
1	C	203	TYR	N-CA	-5.78	1.39	1.46
2	D	288	ASP	CA-C	-5.78	1.45	1.52
1	B	198	LYS	CA-C	-5.78	1.45	1.52
2	F	381	TYR	CA-C	-5.77	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	34	ILE	N-CA	-5.77	1.39	1.46
1	C	292	GLU	CA-C	-5.77	1.45	1.53
4	H	104	ASP	CA-C	-5.77	1.45	1.52
7	S	37	LYS	N-CA	-5.77	1.38	1.46
1	C	420	ARG	CA-C	-5.76	1.45	1.52
2	D	284	THR	CA-C	-5.76	1.44	1.52
1	B	421	GLY	N-CA	-5.76	1.38	1.45
1	A	361	ILE	CA-C	-5.76	1.45	1.52
1	C	301	LEU	N-CA	-5.76	1.39	1.46
1	C	476	HIS	CA-C	-5.76	1.43	1.52
4	H	44	ALA	CA-C	-5.76	1.45	1.52
10	V	70	GLU	C-N	-5.76	1.25	1.33
2	D	383	SER	CA-C	-5.76	1.45	1.52
3	G	157	GLU	CA-C	-5.76	1.45	1.52
2	F	381	TYR	N-CA	-5.76	1.39	1.46
3	G	217	LEU	CA-C	-5.76	1.45	1.52
7	S	118	CYS	CA-C	-5.75	1.45	1.52
1	B	290	GLY	N-CA	-5.75	1.40	1.45
2	D	352	ASP	CA-C	-5.75	1.45	1.52
1	B	413	ALA	CA-C	-5.75	1.45	1.52
1	C	440	GLU	CA-C	-5.75	1.45	1.52
3	G	12	SER	N-CA	-5.75	1.39	1.46
1	A	104	LEU	CA-C	-5.75	1.45	1.52
1	C	267	ILE	N-CA	-5.75	1.39	1.46
2	D	163	THR	N-CA	-5.75	1.39	1.46
2	E	299	THR	CA-C	-5.75	1.46	1.53
1	B	303	SER	CA-C	-5.74	1.45	1.52
2	E	268	VAL	N-CA	-5.74	1.39	1.46
2	F	316	ASP	CA-C	-5.74	1.45	1.52
3	G	243	ILE	CA-C	-5.74	1.45	1.52
2	F	70	VAL	CA-C	-5.74	1.45	1.52
7	S	44	GLN	CA-C	-5.74	1.45	1.52
10	V	30	VAL	CA-C	-5.74	1.45	1.52
2	F	268	VAL	N-CA	-5.73	1.38	1.46
5	I	36	LYS	N-CA	-5.73	1.39	1.46
1	A	25	LEU	CA-C	-5.73	1.45	1.52
1	B	467	ALA	CA-C	-5.73	1.45	1.52
5	I	11	TYR	CA-C	-5.73	1.45	1.52
1	C	463	LYS	CA-C	-5.73	1.45	1.52
7	S	105	PHE	N-CA	-5.73	1.39	1.46
1	A	11	ILE	CA-C	-5.72	1.45	1.52
1	B	24	ASP	N-CA	-5.72	1.39	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	E	138	LYS	CA-C	-5.72	1.45	1.52
3	G	89	MET	CA-C	-5.72	1.44	1.52
2	E	206	ILE	CA-C	-5.72	1.45	1.52
1	A	267	ILE	CA-C	-5.72	1.45	1.52
1	C	166	LEU	CA-C	-5.72	1.45	1.52
1	A	330	GLN	CA-C	-5.72	1.46	1.52
1	C	54	GLU	CA-C	-5.72	1.45	1.52
1	C	366	ASN	CA-C	-5.72	1.45	1.52
3	G	10	LEU	CA-C	-5.71	1.45	1.52
2	E	196	LEU	N-CA	-5.71	1.39	1.46
2	F	284	THR	CA-C	-5.71	1.44	1.52
2	D	439	LYS	CA-C	-5.71	1.45	1.52
4	H	134	ARG	CA-C	-5.71	1.45	1.52
1	C	389	THR	CA-C	-5.71	1.45	1.52
1	B	202	ILE	CA-C	-5.70	1.45	1.52
1	B	488	LYS	CA-C	-5.70	1.45	1.52
1	C	40	ARG	CA-C	-5.70	1.45	1.52
1	C	154	ASP	CA-C	-5.70	1.44	1.52
1	B	108	VAL	CA-C	-5.70	1.46	1.52
1	B	66	LEU	N-CA	-5.70	1.39	1.46
3	G	176	LYS	CA-C	-5.70	1.45	1.52
1	C	221	THR	CA-C	-5.69	1.45	1.52
2	F	341	GLU	CA-C	-5.69	1.45	1.52
7	S	26	ALA	CA-C	-5.69	1.45	1.52
1	C	278	TYR	CA-C	-5.69	1.45	1.52
2	E	370	VAL	CA-C	-5.69	1.45	1.52
1	A	451	GLY	CA-C	-5.68	1.43	1.51
2	E	218	VAL	N-CA	-5.68	1.39	1.46
1	C	136	ILE	CA-C	-5.68	1.46	1.52
2	E	427	HIS	CA-C	-5.68	1.45	1.52
1	C	66	LEU	CA-C	-5.68	1.45	1.53
2	F	410	ILE	CA-C	-5.68	1.45	1.52
5	I	16	GLN	N-CA	-5.68	1.39	1.46
2	D	387	ILE	CA-C	-5.68	1.45	1.52
2	F	95	MET	N-CA	-5.67	1.38	1.45
2	F	413	PHE	N-CA	-5.67	1.39	1.46
3	G	106	ILE	CA-C	-5.67	1.45	1.52
8	T	99	ILE	CA-C	-5.67	1.46	1.52
1	C	324	LEU	CA-C	-5.66	1.47	1.52
2	F	206	ILE	CA-C	-5.66	1.45	1.52
1	A	346	THR	CA-C	-5.66	1.45	1.53
2	D	304	ILE	CA-C	-5.66	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	383	MET	N-CA	-5.66	1.39	1.46
2	D	413	PHE	N-CA	-5.66	1.39	1.46
2	F	67	GLU	CA-C	-5.66	1.45	1.52
2	E	198	HIS	CA-C	-5.66	1.45	1.52
1	A	341	ASN	CA-C	-5.65	1.45	1.52
1	B	326	VAL	N-CA	-5.65	1.39	1.46
4	H	129	ALA	CA-C	-5.65	1.45	1.52
2	E	170	ILE	CA-C	-5.65	1.46	1.52
1	B	31	VAL	CA-C	-5.65	1.46	1.53
1	C	337	TYR	CA-C	-5.64	1.45	1.52
3	G	253	THR	N-CA	-5.64	1.39	1.46
2	E	47	LEU	CA-C	-5.64	1.45	1.52
1	C	88	VAL	N-CA	-5.63	1.39	1.46
1	A	108	VAL	CA-C	-5.63	1.45	1.52
1	C	480	LEU	CA-C	-5.63	1.45	1.52
2	D	259	PHE	CA-C	-5.62	1.45	1.52
2	E	423	VAL	N-CA	-5.62	1.39	1.46
1	C	302	HIS	N-CA	-5.62	1.38	1.46
7	S	137	VAL	N-CA	-5.62	1.39	1.46
1	B	279	ARG	CA-C	-5.62	1.45	1.52
1	A	142	VAL	CA-C	-5.62	1.46	1.52
1	B	416	GLN	CA-C	-5.62	1.45	1.52
2	D	373	GLY	CA-C	-5.62	1.45	1.52
2	F	150	GLY	CA-C	-5.62	1.47	1.52
5	I	5	ARG	N-CA	-5.61	1.40	1.46
5	I	22	VAL	CA-C	-5.61	1.45	1.52
4	H	118	GLU	N-CA	-5.61	1.39	1.46
2	D	412	ARG	CA-C	-5.61	1.45	1.52
1	B	287	ARG	CA-C	-5.61	1.45	1.52
2	D	168	GLU	N-CA	-5.61	1.39	1.46
1	A	152	ALA	CA-C	-5.60	1.45	1.52
1	C	51	GLU	CA-C	-5.60	1.45	1.52
2	F	339	ILE	CA-C	-5.60	1.45	1.52
3	G	186	SER	CA-C	-5.60	1.46	1.52
2	D	391	LEU	CA-C	-5.59	1.45	1.52
2	E	117	HIS	CA-C	-5.59	1.45	1.53
3	G	256	ALA	N-CA	-5.59	1.39	1.46
1	B	137	ILE	N-CA	-5.59	1.39	1.46
1	C	165	GLU	CA-C	-5.59	1.46	1.52
1	A	35	GLY	CA-C	-5.59	1.44	1.51
1	A	421	GLY	CA-C	-5.59	1.46	1.52
2	F	421	ALA	CA-C	-5.59	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	291	ARG	CA-C	-5.58	1.45	1.52
1	A	251	CYS	N-CA	-5.58	1.39	1.46
1	A	390	MET	CA-C	-5.58	1.45	1.52
1	B	150	ILE	CA-C	-5.58	1.45	1.52
1	C	152	ALA	N-CA	-5.58	1.39	1.46
2	D	384	LEU	N-CA	-5.58	1.38	1.46
1	B	451	GLY	CA-C	-5.58	1.44	1.51
1	B	394	LEU	N-CA	-5.58	1.39	1.46
2	D	171	ASN	N-CA	-5.57	1.39	1.46
2	D	299	THR	CA-C	-5.57	1.45	1.53
1	A	96	ASP	CA-C	-5.57	1.45	1.52
1	C	213	VAL	CA-C	-5.57	1.45	1.52
3	G	184	ILE	CA-C	-5.57	1.45	1.53
3	G	262	LEU	N-CA	-5.57	1.39	1.46
2	E	331	ALA	N-CA	-5.57	1.39	1.46
2	E	321	ALA	N-CA	-5.56	1.42	1.46
1	B	391	LYS	CA-C	-5.56	1.45	1.52
2	D	302	GLY	CA-C	-5.56	1.44	1.52
2	E	435	LYS	CA-C	-5.56	1.45	1.52
2	F	171	ASN	N-CA	-5.55	1.39	1.46
1	A	179	ALA	CA-C	-5.55	1.45	1.52
1	C	497	LEU	N-CA	-5.55	1.39	1.46
2	E	133	LEU	N-CA	-5.55	1.40	1.46
1	C	448	GLY	CA-C	-5.55	1.45	1.52
2	F	83	ARG	N-CA	-5.55	1.39	1.46
7	S	25	ALA	CA-C	-5.55	1.45	1.52
1	B	70	ASN	CA-C	-5.55	1.46	1.52
1	B	389	THR	CA-C	-5.55	1.45	1.52
2	D	450	ASP	CA-C	-5.55	1.45	1.52
2	F	197	TYR	N-CA	-5.55	1.39	1.46
2	F	292	MET	CA-C	-5.55	1.45	1.53
1	B	39	ALA	N-CA	-5.54	1.39	1.46
4	H	46	GLY	CA-C	-5.54	1.44	1.51
2	E	361	ASN	CA-C	-5.54	1.45	1.52
3	G	8	ARG	CA-C	-5.54	1.45	1.52
1	C	474	SER	N-CA	-5.54	1.39	1.46
1	B	283	LEU	CA-C	-5.54	1.45	1.52
1	C	87	ILE	CA-C	-5.54	1.46	1.52
2	D	195	ASP	CA-C	-5.54	1.45	1.52
1	A	300	TYR	N-CA	-5.54	1.39	1.46
1	A	423	ARG	CA-C	-5.53	1.45	1.52
1	A	266	ILE	CA-C	-5.53	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	61	GLY	CA-C	-5.53	1.45	1.51
1	C	55	PHE	CA-C	-5.53	1.45	1.53
1	C	303	SER	N-CA	-5.53	1.39	1.46
2	F	215	VAL	CA-C	-5.53	1.45	1.52
2	E	335	LEU	CA-C	-5.53	1.46	1.52
1	C	463	LYS	N-CA	-5.52	1.39	1.46
1	A	322	THR	CA-C	-5.52	1.45	1.52
1	A	408	SER	CA-C	-5.52	1.45	1.52
1	B	472	VAL	CA-C	-5.52	1.44	1.52
3	G	126	VAL	CA-C	-5.52	1.45	1.52
1	B	152	ALA	CA-C	-5.52	1.45	1.52
1	B	477	GLN	N-CA	-5.52	1.39	1.46
3	G	263	ILE	N-CA	-5.52	1.40	1.46
2	E	152	ILE	CA-C	-5.52	1.46	1.52
1	A	468	PHE	N-CA	-5.52	1.39	1.46
1	B	244	TYR	N-CA	-5.52	1.39	1.46
1	B	396	GLN	CA-C	-5.52	1.45	1.52
1	B	29	GLY	N-CA	-5.51	1.39	1.45
1	B	414	THR	N-CA	-5.51	1.39	1.46
1	C	96	ASP	CA-C	-5.51	1.45	1.52
2	D	105	ARG	N-CA	-5.51	1.41	1.46
1	C	220	LEU	CA-C	-5.51	1.45	1.52
2	D	261	PHE	CA-C	-5.51	1.45	1.52
1	A	106	ARG	CA-C	-5.50	1.46	1.52
1	A	382	ALA	CA-C	-5.50	1.45	1.52
3	G	123	GLN	CA-C	-5.50	1.44	1.52
3	G	173	THR	N-CA	-5.50	1.39	1.46
1	C	287	ARG	CA-C	-5.50	1.46	1.53
1	C	451	GLY	CA-C	-5.50	1.44	1.51
2	E	292	MET	N-CA	-5.50	1.39	1.46
5	I	35	MET	CA-C	-5.50	1.45	1.52
1	C	218	LYS	N-CA	-5.50	1.39	1.46
1	A	299	PHE	N-CA	-5.50	1.39	1.46
1	B	186	GLN	CA-C	-5.49	1.45	1.52
4	H	33	VAL	N-CA	-5.49	1.39	1.46
1	B	479	LEU	N-CA	-5.49	1.39	1.46
1	B	203	TYR	CA-C	-5.49	1.46	1.52
1	B	415	GLN	CA-C	-5.49	1.45	1.52
1	C	391	LYS	CA-C	-5.49	1.45	1.52
2	D	247	GLU	CA-C	-5.49	1.45	1.52
2	F	22	ASP	CA-C	-5.49	1.46	1.52
2	F	442	GLN	CA-C	-5.49	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	G	218	LYS	CA-C	-5.49	1.45	1.52
1	A	27	GLU	CA-C	-5.49	1.45	1.52
2	D	165	LEU	CA-C	-5.48	1.45	1.52
1	B	320	SER	CA-C	-5.48	1.45	1.52
2	D	400	ASP	N-CA	-5.48	1.39	1.46
3	G	249	THR	N-CA	-5.48	1.39	1.46
7	S	135	LYS	CA-C	-5.48	1.45	1.52
1	C	251	CYS	N-CA	-5.48	1.39	1.46
2	D	74	LYS	N-CA	-5.48	1.38	1.46
2	E	339	ILE	CA-C	-5.48	1.45	1.52
1	B	70	ASN	N-CA	-5.48	1.39	1.46
2	D	448	GLU	CA-C	-5.48	1.45	1.52
7	S	72	MET	C-N	5.48	1.40	1.33
2	D	366	GLU	CA-C	-5.47	1.46	1.52
2	E	171	ASN	N-CA	-5.47	1.39	1.46
1	C	94	ILE	CA-C	-5.47	1.46	1.52
1	C	466	ASN	CA-C	-5.47	1.45	1.52
2	F	307	VAL	CA-C	-5.47	1.45	1.52
1	B	178	ILE	N-CA	-5.46	1.40	1.46
1	C	329	THR	CA-C	-5.46	1.45	1.52
1	C	155	SER	N-CA	-5.46	1.39	1.46
2	E	350	PRO	N-CA	-5.46	1.43	1.47
2	F	71	ARG	CA-C	-5.46	1.45	1.52
2	E	255	ILE	CA-C	-5.46	1.45	1.52
8	T	29	SER	N-CA	-5.46	1.39	1.46
1	B	157	VAL	CA-C	-5.46	1.47	1.52
2	F	440	GLY	CA-C	-5.46	1.45	1.51
3	G	250	PHE	N-CA	-5.46	1.39	1.46
3	G	255	GLN	N-CA	-5.46	1.39	1.46
1	A	198	LYS	CA-C	-5.46	1.46	1.53
2	F	445	LEU	CA-C	-5.46	1.45	1.52
2	F	460	VAL	CA-C	-5.46	1.48	1.52
5	I	10	SER	CA-C	-5.46	1.46	1.52
5	I	13	ARG	N-CA	-5.46	1.39	1.46
2	D	445	LEU	CA-C	-5.45	1.45	1.52
3	G	240	SER	N-CA	-5.45	1.39	1.46
4	H	138	ASN	CA-C	-5.45	1.45	1.52
1	A	426	GLU	CA-C	-5.45	1.45	1.52
2	F	428	LEU	CA-C	-5.45	1.45	1.53
2	D	73	GLN	CA-C	-5.45	1.46	1.52
1	A	49	ALA	N-CA	-5.45	1.39	1.46
1	B	474	SER	N-CA	-5.45	1.40	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	256	TYR	N-CA	-5.45	1.39	1.46
1	A	177	SER	CA-C	-5.45	1.45	1.52
1	B	266	ILE	N-CA	-5.45	1.40	1.46
2	E	460	VAL	CA-C	-5.45	1.46	1.52
1	B	465	GLU	N-CA	-5.44	1.39	1.46
1	A	462	THR	CA-C	-5.44	1.45	1.52
2	E	422	GLU	CA-C	-5.44	1.45	1.52
2	E	24	GLN	N-CA	-5.44	1.39	1.46
2	F	270	ALA	CA-C	-5.44	1.46	1.52
3	G	253	THR	CA-C	-5.44	1.45	1.52
2	F	430	LYS	N-CA	-5.44	1.39	1.45
7	S	89	LEU	CA-C	-5.44	1.45	1.52
2	D	243	PHE	CA-C	-5.43	1.45	1.52
2	F	287	THR	CA-C	-5.43	1.45	1.52
7	S	143	SER	N-CA	-5.43	1.39	1.46
2	E	385	GLN	CA-C	-5.43	1.45	1.52
2	F	69	LEU	CA-C	-5.43	1.46	1.52
2	E	197	TYR	CA-C	-5.43	1.45	1.52
1	A	155	SER	CA-C	-5.43	1.46	1.53
1	B	493	SER	CA-C	-5.43	1.45	1.52
7	S	28	LYS	CA-C	-5.43	1.46	1.52
1	A	321	LEU	N-CA	-5.43	1.39	1.46
1	C	200	TYR	CA-C	-5.43	1.46	1.52
1	A	71	VAL	N-CA	-5.42	1.39	1.46
1	B	63	SER	CA-C	-5.42	1.46	1.52
1	C	49	ALA	CA-C	-5.42	1.45	1.52
2	E	333	THR	N-CA	-5.42	1.40	1.46
4	H	84	VAL	CA-C	-5.42	1.45	1.52
1	C	346	THR	CA-C	-5.42	1.45	1.53
2	F	292	MET	N-CA	-5.42	1.39	1.46
2	D	333	THR	N-CA	-5.42	1.40	1.46
4	H	130	GLU	N-CA	-5.42	1.39	1.46
2	E	308	GLN	N-CA	-5.42	1.39	1.46
1	A	108	VAL	N-CA	-5.41	1.39	1.46
1	B	216	LEU	CA-C	-5.41	1.46	1.52
2	E	399	GLU	CA-C	-5.41	1.46	1.52
1	C	242	LEU	CA-C	-5.41	1.45	1.52
2	E	76	LEU	CA-C	-5.41	1.46	1.52
1	B	356	LEU	N-CA	-5.41	1.40	1.46
4	H	35	GLN	CA-C	-5.41	1.45	1.52
1	B	126	ARG	CA-C	-5.41	1.46	1.52
3	G	6	ILE	N-CA	-5.41	1.40	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	F	165	LEU	CA-C	-5.40	1.46	1.52
3	G	20	THR	N-CA	-5.40	1.39	1.46
4	H	62	LEU	CA-C	-5.40	1.46	1.52
1	A	398	ARG	CA-C	-5.40	1.45	1.52
1	B	335	SER	CA-C	-5.40	1.45	1.52
1	C	264	ALA	N-CA	-5.40	1.39	1.45
1	A	137	ILE	CA-C	-5.40	1.47	1.52
2	E	207	ASN	CA-C	-5.40	1.46	1.52
1	A	334	VAL	N-CA	-5.40	1.41	1.46
1	B	496	LYS	CA-C	-5.40	1.45	1.52
2	E	458	TYR	CA-C	-5.40	1.45	1.52
1	B	194	ASP	CA-C	-5.39	1.46	1.52
1	C	63	SER	N-CA	-5.39	1.39	1.46
1	A	338	ILE	N-CA	-5.39	1.40	1.46
2	F	245	ASP	CA-C	-5.39	1.45	1.52
1	B	88	VAL	CA-C	-5.39	1.46	1.52
1	C	398	ARG	CA-C	-5.39	1.45	1.52
2	D	159	GLY	CA-C	-5.39	1.44	1.51
2	D	84	ILE	CA-C	-5.39	1.46	1.52
1	C	467	ALA	CA-C	-5.38	1.46	1.52
2	E	122	GLU	CA-C	-5.38	1.45	1.52
1	A	290	GLY	CA-C	-5.38	1.44	1.51
1	B	398	ARG	CA-C	-5.38	1.45	1.52
2	D	349	ASP	CA-C	-5.38	1.46	1.52
2	F	137	ILE	CA-C	-5.38	1.46	1.52
3	G	242	MET	CA-C	-5.38	1.45	1.52
2	D	385	GLN	CA-C	-5.38	1.45	1.52
7	S	134	LEU	CA-C	-5.38	1.45	1.52
1	A	501	VAL	N-CA	-5.37	1.40	1.46
1	C	445	ILE	CA-C	-5.37	1.46	1.52
5	I	23	ARG	CA-C	-5.37	1.45	1.52
7	S	158	ILE	N-CA	-5.37	1.40	1.46
2	E	373	GLY	CA-C	-5.37	1.46	1.52
2	D	10	THR	CA-C	-5.37	1.46	1.52
1	A	473	ILE	CA-C	-5.37	1.46	1.52
1	A	500	ILE	N-CA	-5.37	1.40	1.46
1	A	16	ILE	CA-C	-5.37	1.46	1.52
1	C	251	CYS	CA-C	-5.37	1.46	1.52
3	G	216	SER	CA-C	-5.36	1.45	1.52
1	A	47	VAL	N-CA	-5.36	1.39	1.46
2	E	130	GLN	N-CA	-5.36	1.40	1.46
4	H	134	ARG	N-CA	-5.36	1.39	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	200	TYR	CA-C	-5.36	1.46	1.52
1	C	394	LEU	N-CA	-5.36	1.39	1.46
2	D	201	ILE	N-CA	-5.36	1.40	1.46
4	H	128	ARG	N-CA	-5.36	1.40	1.46
7	S	159	MET	N-CA	-5.36	1.39	1.46
2	E	132	ILE	CA-C	-5.35	1.46	1.52
3	G	5	ASP	N-CA	-5.35	1.40	1.46
2	D	37	GLU	CA-C	-5.35	1.46	1.52
3	G	202	ARG	N-CA	-5.35	1.39	1.46
1	C	155	SER	CA-C	-5.35	1.46	1.53
1	C	276	VAL	CA-C	-5.35	1.46	1.52
1	C	419	SER	CA-C	-5.35	1.46	1.52
7	S	51	MET	CA-C	-5.35	1.45	1.52
1	A	67	GLU	C-N	-5.34	1.28	1.34
2	F	249	GLN	CA-C	-5.34	1.45	1.52
1	A	283	LEU	CA-C	-5.34	1.46	1.52
2	D	27	GLU	N-CA	-5.34	1.39	1.46
2	E	381	TYR	N-CA	-5.34	1.39	1.46
5	I	44	ILE	CA-C	-5.34	1.46	1.52
3	G	14	LYS	CA-C	-5.34	1.46	1.52
1	A	113	ASN	CA-C	-5.34	1.46	1.52
1	C	265	LEU	N-CA	-5.34	1.40	1.46
2	D	165	LEU	N-CA	-5.34	1.40	1.46
2	F	255	ILE	CA-C	-5.33	1.45	1.52
1	A	280	GLN	CA-C	-5.33	1.45	1.52
1	B	93	ALA	CA-C	-5.33	1.46	1.52
3	G	237	LYS	N-CA	-5.33	1.39	1.46
8	T	92	PHE	C-N	-5.33	1.26	1.33
1	A	263	HIS	CA-C	-5.33	1.46	1.52
1	A	107	VAL	CA-C	-5.33	1.45	1.52
1	B	380	THR	CA-C	-5.33	1.45	1.52
2	D	71	ARG	N-CA	-5.33	1.39	1.46
2	D	183	PHE	N-CA	-5.33	1.39	1.46
2	D	274	ARG	CA-C	-5.33	1.46	1.53
2	F	281	TYR	CA-C	-5.33	1.45	1.52
7	S	105	PHE	CA-C	-5.33	1.46	1.52
1	C	73	VAL	CA-C	-5.33	1.45	1.52
1	C	127	ARG	N-CA	-5.33	1.39	1.46
1	C	198	LYS	CA-C	-5.33	1.45	1.52
1	C	266	ILE	CA-C	-5.33	1.46	1.52
1	C	330	GLN	N-CA	-5.33	1.39	1.46
2	D	166	ILE	CA-C	-5.33	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	G	203	ASN	CA-C	-5.33	1.44	1.52
4	H	93	LEU	CA-C	-5.33	1.46	1.53
1	A	123	SER	CA-C	-5.32	1.45	1.52
1	A	414	THR	N-CA	-5.32	1.39	1.46
2	D	331	ALA	CA-C	-5.32	1.45	1.52
2	F	402	LEU	CA-C	-5.32	1.46	1.52
1	B	42	HIS	CA-C	-5.32	1.45	1.52
1	C	70	ASN	N-CA	-5.32	1.40	1.46
3	G	232	MET	CA-C	-5.32	1.45	1.52
4	H	35	GLN	N-CA	-5.32	1.39	1.46
4	H	57	VAL	N-CA	-5.32	1.39	1.46
3	G	125	LEU	CA-C	-5.31	1.47	1.52
1	A	349	GLN	CA-C	-5.31	1.46	1.52
2	D	381	TYR	N-CA	-5.31	1.40	1.46
2	E	165	LEU	CA-C	-5.31	1.46	1.52
1	B	199	LEU	N-CA	-5.30	1.40	1.46
1	C	132	LYS	CA-C	-5.30	1.46	1.52
1	C	382	ALA	CA-C	-5.30	1.46	1.52
2	D	414	LEU	CA-C	-5.30	1.45	1.52
2	E	377	ILE	CA-C	-5.30	1.46	1.52
2	F	365	SER	N-CA	-5.30	1.39	1.46
2	F	16	VAL	CA-C	-5.30	1.45	1.52
3	G	116	LEU	CA-C	-5.30	1.46	1.52
8	T	152	ILE	N-CA	-5.30	1.39	1.46
2	D	161	GLY	N-CA	-5.29	1.37	1.45
2	E	226	PRO	CA-C	-5.29	1.44	1.52
2	E	53	LEU	CA-C	-5.29	1.45	1.52
2	D	378	LEU	CA-C	-5.29	1.46	1.52
2	F	272	LEU	CA-C	-5.29	1.45	1.52
2	F	328	HIS	CA-C	-5.29	1.44	1.52
2	F	345	TYR	N-CA	-5.29	1.40	1.46
4	H	125	GLU	CA-C	-5.29	1.45	1.52
1	C	304	ARG	N-CA	-5.29	1.39	1.46
1	C	350	ILE	CA-C	-5.28	1.47	1.52
2	E	175	LYS	N-CA	-5.28	1.40	1.46
2	E	313	PRO	CA-C	-5.28	1.46	1.52
1	B	90	ARG	CA-C	-5.28	1.46	1.52
1	C	104	LEU	CA-C	-5.28	1.46	1.52
2	D	305	THR	N-CA	-5.28	1.39	1.46
2	D	334	VAL	N-CA	-5.28	1.39	1.46
2	D	168	GLU	CA-C	-5.28	1.45	1.52
3	G	77	LEU	CA-C	-5.28	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	440	GLU	CA-C	-5.27	1.46	1.52
1	C	189	PHE	CA-C	-5.27	1.45	1.52
1	C	274	GLN	CA-C	-5.27	1.46	1.52
1	C	324	LEU	N-CA	-5.27	1.40	1.46
4	H	54	THR	N-CA	-5.27	1.39	1.46
1	C	108	VAL	CA-C	-5.27	1.46	1.52
2	E	80	ALA	CA-C	-5.27	1.46	1.52
2	E	189	ARG	CA-C	-5.27	1.46	1.52
2	E	363	VAL	CA-C	-5.27	1.46	1.52
2	F	71	ARG	N-CA	-5.27	1.39	1.46
3	G	229	MET	CA-C	-5.27	1.46	1.52
7	S	33	GLU	N-CA	-5.27	1.39	1.46
1	A	178	ILE	CA-C	-5.27	1.46	1.52
1	B	429	LYS	CA-C	-5.26	1.45	1.53
1	B	222	ASP	CA-C	-5.26	1.46	1.52
1	C	462	THR	CA-C	-5.26	1.46	1.52
2	D	206	ILE	N-CA	-5.26	1.40	1.46
1	A	384	LYS	CA-C	-5.26	1.46	1.52
2	E	288	ASP	CA-C	-5.26	1.45	1.52
2	E	308	GLN	CA-C	-5.26	1.46	1.52
1	A	338	ILE	CA-C	-5.26	1.48	1.52
1	A	204	VAL	N-CA	-5.26	1.40	1.46
1	B	508	PHE	CA-C	-5.26	1.45	1.52
1	A	391	LYS	CA-C	-5.25	1.46	1.52
2	F	111	LYS	CA-C	-5.25	1.46	1.52
8	T	93	ASP	N-CA	-5.25	1.39	1.46
1	A	502	THR	CA-C	-5.25	1.46	1.52
1	A	504	PHE	CA-C	-5.25	1.46	1.52
3	G	267	SER	N-CA	-5.25	1.39	1.46
2	E	252	LEU	CA-C	-5.25	1.46	1.52
2	F	262	THR	CA-C	-5.25	1.46	1.52
1	B	42	HIS	N-CA	-5.25	1.39	1.46
1	C	312	MET	N-CA	-5.25	1.39	1.45
1	B	462	THR	CA-C	-5.25	1.46	1.52
3	G	220	SER	N-CA	-5.25	1.40	1.46
3	G	24	LYS	N-CA	-5.24	1.40	1.46
2	E	256	ASP	CA-C	-5.24	1.47	1.53
2	E	365	SER	CA-C	-5.24	1.45	1.52
2	E	423	VAL	CA-C	-5.24	1.46	1.52
4	H	63	VAL	N-CA	-5.23	1.40	1.46
2	D	434	LEU	CA-C	-5.23	1.46	1.52
3	G	266	ILE	N-CA	-5.23	1.38	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	174	GLY	N-CA	-5.23	1.38	1.45
1	A	467	ALA	CA-C	-5.23	1.46	1.52
2	D	365	SER	CA-C	-5.23	1.45	1.52
3	G	222	THR	CA-C	-5.23	1.46	1.52
3	G	223	SER	CA-C	-5.23	1.46	1.52
2	E	82	ILE	CA-C	-5.22	1.46	1.52
4	H	48	LEU	N-CA	-5.22	1.39	1.45
1	A	272	SER	CA-C	-5.22	1.46	1.52
2	E	405	SER	N-CA	-5.22	1.40	1.46
1	A	484	ARG	CA-C	-5.22	1.46	1.52
1	B	55	PHE	CA-C	-5.22	1.46	1.52
1	C	259	ASP	CA-C	-5.22	1.45	1.52
7	S	115	GLU	C-N	5.22	1.38	1.33
2	D	339	ILE	CA-C	-5.21	1.46	1.52
1	C	264	ALA	CA-C	-5.21	1.46	1.52
2	D	231	ARG	CA-C	-5.21	1.45	1.52
2	E	180	TYR	CA-C	-5.21	1.46	1.52
7	S	69	LEU	CA-C	-5.21	1.45	1.52
2	D	368	TYR	CA-C	-5.21	1.46	1.52
1	A	367	VAL	CA-C	-5.20	1.46	1.52
1	C	226	MET	CA-C	-5.20	1.45	1.52
2	D	99	GLY	CA-C	-5.20	1.44	1.51
1	C	199	LEU	N-CA	-5.20	1.39	1.46
1	A	361	ILE	N-CA	-5.20	1.39	1.46
1	B	323	ALA	CA-C	-5.19	1.46	1.52
2	D	440	GLY	CA-C	-5.19	1.44	1.51
5	I	12	ILE	N-CA	-5.19	1.40	1.46
2	D	152	ILE	N-CA	-5.19	1.40	1.46
1	C	482	LYS	N-CA	-5.19	1.40	1.46
2	D	206	ILE	CA-C	-5.19	1.46	1.52
2	F	42	GLU	CA-C	-5.19	1.46	1.52
3	G	246	LEU	CA-C	-5.19	1.45	1.52
1	A	267	ILE	N-CA	-5.18	1.39	1.46
2	D	407	ALA	N-CA	-5.18	1.40	1.46
2	E	351	LEU	N-CA	-5.18	1.40	1.46
3	G	229	MET	N-CA	-5.18	1.40	1.46
1	C	177	SER	CA-C	-5.18	1.45	1.52
1	A	146	MET	CA-C	-5.18	1.45	1.52
2	E	141	ASP	CA-C	-5.18	1.46	1.52
7	S	19	ALA	CA-C	-5.18	1.46	1.52
1	C	311	LYS	CA-C	-5.17	1.46	1.52
1	C	367	VAL	CA-C	-5.17	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	D	386	ASP	N-CA	-5.17	1.39	1.46
2	E	39	GLN	CA-C	-5.17	1.46	1.52
2	E	418	PHE	CA-C	-5.17	1.47	1.53
3	G	19	ILE	CA-C	-5.17	1.46	1.52
1	B	60	LYS	CA-C	-5.17	1.46	1.52
1	B	87	ILE	N-CA	-5.17	1.40	1.46
1	B	461	ILE	N-CA	-5.17	1.40	1.46
2	F	226	PRO	CA-C	-5.17	1.44	1.52
1	A	428	LEU	CA-C	-5.17	1.45	1.52
1	B	442	VAL	CA-C	-5.17	1.46	1.52
1	C	215	GLN	CA-C	-5.17	1.46	1.52
2	D	47	LEU	CA-C	-5.17	1.46	1.52
7	S	34	GLN	N-CA	-5.17	1.40	1.46
1	B	251	CYS	N-CA	-5.16	1.40	1.46
2	F	172	ASN	CA-C	-5.16	1.45	1.52
3	G	242	MET	N-CA	-5.16	1.40	1.46
4	H	132	GLN	N-CA	-5.16	1.40	1.46
1	C	294	TYR	CA-C	-5.16	1.45	1.52
2	E	384	LEU	CA-C	-5.16	1.45	1.52
1	C	397	TYR	CA-C	-5.16	1.46	1.52
3	G	230	THR	CA-C	-5.16	1.46	1.52
1	C	291	ARG	CA-C	-5.16	1.46	1.52
2	F	253	LEU	N-CA	-5.16	1.40	1.46
3	G	236	SER	CA-C	-5.16	1.45	1.52
4	H	94	ALA	N-CA	-5.15	1.39	1.46
1	A	39	ALA	N-CA	-5.15	1.40	1.46
2	D	403	THR	CA-C	-5.15	1.45	1.52
2	F	429	GLY	N-CA	-5.15	1.40	1.44
1	C	214	ALA	CA-C	-5.15	1.46	1.52
3	G	3	LEU	N-CA	-5.15	1.39	1.46
1	A	152	ALA	N-CA	-5.15	1.40	1.46
1	C	418	LEU	N-CA	-5.15	1.40	1.46
1	C	266	ILE	N-CA	-5.14	1.40	1.46
2	E	381	TYR	CA-C	-5.14	1.46	1.52
2	E	113	PHE	CA-C	-5.14	1.46	1.52
2	F	274	ARG	N-CA	-5.14	1.39	1.45
10	V	67	PRO	N-CA	-5.14	1.40	1.47
3	G	35	GLU	N-CA	-5.14	1.40	1.46
1	C	172	GLN	N-CA	-5.14	1.39	1.46
2	F	455	GLN	CA-C	-5.14	1.45	1.52
3	G	18	LYS	N-CA	-5.14	1.40	1.46
1	A	261	GLY	CA-C	-5.13	1.44	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	475	GLN	CA-C	-5.13	1.46	1.52
1	C	471	HIS	N-CA	-5.13	1.40	1.46
1	A	10	SER	CA-C	-5.13	1.46	1.52
2	D	22	ASP	N-CA	-5.13	1.39	1.46
2	D	45	LEU	CA-C	-5.13	1.46	1.52
3	G	140	ASP	CA-C	-5.13	1.46	1.52
2	E	369	ASP	CA-C	-5.13	1.46	1.52
2	F	141	ASP	N-CA	-5.13	1.40	1.46
4	H	26	VAL	CA-C	-5.13	1.46	1.52
1	A	393	GLU	CA-C	-5.13	1.45	1.52
2	D	308	GLN	N-CA	-5.13	1.40	1.46
1	B	187	LYS	N-CA	-5.12	1.40	1.46
1	B	477	GLN	CA-C	-5.12	1.45	1.52
2	E	102	ILE	N-CA	-5.12	1.40	1.46
1	A	396	GLN	CA-C	-5.12	1.46	1.52
3	G	30	LYS	N-CA	-5.12	1.40	1.46
2	D	316	ASP	CA-C	-5.12	1.46	1.52
2	E	10	THR	CA-C	-5.12	1.46	1.52
2	F	284	THR	N-CA	-5.12	1.39	1.46
1	A	314	ASP	CA-C	-5.12	1.46	1.52
7	S	66	VAL	CA-C	-5.12	1.46	1.52
2	F	406	ARG	CA-C	-5.12	1.46	1.52
1	B	35	GLY	CA-C	-5.12	1.44	1.51
1	B	181	ASP	CA-C	-5.12	1.45	1.52
3	G	218	LYS	N-CA	-5.12	1.39	1.46
1	A	150	ILE	CA-C	-5.11	1.46	1.52
1	B	245	LEU	N-CA	-5.11	1.40	1.46
2	D	470	ALA	CA-C	-5.11	1.46	1.52
2	D	410	ILE	N-CA	-5.11	1.40	1.46
2	E	258	ILE	CA-C	-5.11	1.45	1.52
2	F	260	ARG	CA-C	-5.11	1.45	1.52
1	B	398	ARG	N-CA	-5.11	1.40	1.46
2	E	404	VAL	CA-C	-5.11	1.46	1.52
1	A	281	MET	N-CA	-5.10	1.40	1.46
1	A	403	PHE	CA-C	-5.10	1.46	1.53
1	C	178	ILE	CA-C	-5.10	1.46	1.52
2	E	67	GLU	CA-C	-5.10	1.46	1.52
2	E	142	LEU	CA-C	-5.10	1.46	1.52
2	F	378	LEU	N-CA	-5.10	1.40	1.46
3	G	86	ALA	CA-C	-5.10	1.46	1.52
2	D	117	HIS	CA-C	-5.10	1.46	1.52
2	D	213	SER	CA-C	-5.10	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	D	66	THR	CA-C	-5.10	1.45	1.53
2	D	309	ALA	CA-C	-5.10	1.46	1.52
3	G	221	THR	N-CA	-5.10	1.40	1.46
2	F	131	GLU	CA-C	-5.10	1.46	1.52
1	C	316	PHE	CA-C	-5.09	1.46	1.52
2	E	218	VAL	CA-C	-5.09	1.46	1.52
2	F	303	SER	CA-C	-5.09	1.46	1.52
2	F	305	THR	CA-C	-5.09	1.46	1.52
1	A	42	HIS	N-CA	-5.09	1.39	1.46
2	E	421	ALA	N-CA	-5.09	1.40	1.46
5	I	3	TYR	N-CA	-5.09	1.42	1.47
2	E	329	LEU	CA-C	-5.09	1.46	1.52
1	C	471	HIS	CA-C	-5.09	1.46	1.52
3	G	160	ILE	N-CA	-5.09	1.39	1.46
1	A	255	GLU	CA-C	-5.08	1.45	1.52
1	C	250	GLY	CA-C	-5.08	1.46	1.52
5	I	15	SER	N-CA	-5.08	1.40	1.46
2	F	305	THR	N-CA	-5.08	1.39	1.46
2	F	413	PHE	CA-C	-5.08	1.45	1.52
2	F	213	SER	N-CA	-5.08	1.40	1.46
1	C	494	ASP	N-CA	-5.08	1.40	1.46
1	C	87	ILE	N-CA	-5.08	1.40	1.46
1	A	175	LYS	CA-C	-5.07	1.46	1.52
1	A	273	LYS	N-CA	-5.07	1.39	1.46
2	D	225	PRO	CA-C	-5.07	1.47	1.52
2	E	383	SER	CA-C	-5.07	1.46	1.52
2	E	409	LYS	N-CA	-5.07	1.40	1.46
1	B	208	GLN	CA-C	-5.07	1.46	1.52
1	C	174	GLY	CA-C	-5.07	1.44	1.51
2	E	144	ALA	N-CA	-5.07	1.41	1.46
3	G	114	SER	N-CA	-5.07	1.40	1.46
2	D	460	VAL	CA-C	-5.07	1.46	1.52
2	D	322	PRO	CA-C	-5.06	1.44	1.52
3	G	27	ALA	CA-C	-5.06	1.46	1.52
3	G	204	TYR	N-CA	-5.06	1.39	1.46
1	B	468	PHE	N-CA	-5.06	1.40	1.46
2	D	267	GLU	CA-C	-5.06	1.46	1.52
2	E	75	VAL	N-CA	-5.06	1.40	1.46
2	F	388	ILE	CA-C	-5.06	1.46	1.52
2	D	363	VAL	CA-C	-5.06	1.46	1.52
2	E	438	ILE	CA-C	-5.06	1.46	1.52
2	F	443	GLN	CA-C	-5.06	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	348	GLY	CA-C	-5.06	1.46	1.52
2	D	310	ILE	CA-C	-5.06	1.46	1.52
2	E	355	SER	CA-C	-5.05	1.46	1.52
1	C	423	ARG	N-CA	-5.05	1.40	1.46
1	A	67	GLU	CA-C	-5.05	1.45	1.52
1	A	448	GLY	CA-C	-5.05	1.44	1.51
1	B	326	VAL	CA-C	-5.05	1.46	1.52
2	F	373	GLY	N-CA	-5.05	1.39	1.45
4	H	96	GLU	CA-C	-5.05	1.46	1.52
1	B	304	ARG	N-CA	-5.05	1.40	1.46
2	E	145	PRO	CA-C	-5.05	1.47	1.52
4	H	24	THR	N-CA	-5.05	1.40	1.46
1	B	484	ARG	CA-C	-5.04	1.46	1.52
2	D	170	ILE	N-CA	-5.04	1.40	1.46
2	E	202	GLU	CA-C	-5.04	1.46	1.52
2	D	69	LEU	CA-C	-5.04	1.46	1.52
2	D	70	VAL	N-CA	-5.04	1.40	1.46
2	D	469	LYS	N-CA	-5.04	1.40	1.46
2	D	329	LEU	CA-C	-5.04	1.46	1.53
2	E	13	ILE	N-CA	-5.04	1.40	1.46
2	E	57	THR	N-CA	-5.04	1.39	1.46
2	F	278	ALA	CA-C	-5.04	1.46	1.52
2	D	458	TYR	CA-C	-5.03	1.46	1.52
2	F	398	GLU	CA-C	-5.03	1.45	1.52
1	C	465	GLU	N-CA	-5.03	1.40	1.46
2	D	292	MET	N-CA	-5.03	1.39	1.46
1	C	343	ILE	CA-C	-5.03	1.46	1.52
2	F	169	LEU	CA-C	-5.03	1.46	1.52
2	E	52	HIS	N-CA	-5.02	1.39	1.46
2	D	213	SER	N-CA	-5.02	1.40	1.46
2	E	416	GLN	CA-C	-5.02	1.47	1.52
2	F	306	SER	CA-C	-5.02	1.46	1.52
2	D	188	GLU	CA-C	-5.02	1.46	1.52
2	F	339	ILE	N-CA	-5.02	1.40	1.46
2	F	404	VAL	CA-C	-5.02	1.46	1.52
1	C	168	ILE	N-CA	-5.02	1.40	1.46
1	C	283	LEU	CA-C	-5.02	1.46	1.52
3	G	72	SER	CA-C	-5.02	1.46	1.52
1	B	267	ILE	CA-C	-5.01	1.46	1.52
2	F	75	VAL	CA-C	-5.01	1.46	1.52
1	A	274	GLN	CA-C	-5.01	1.46	1.52
7	S	24	SER	N-CA	-5.01	1.39	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	D	344	ILE	N-CA	-5.01	1.40	1.46
2	D	362	ILE	CA-C	-5.01	1.46	1.52
7	S	76	GLU	CA-C	-5.01	1.45	1.53
2	D	154	LEU	CA-C	-5.01	1.46	1.53
2	D	307	VAL	CA-C	-5.00	1.46	1.52
4	H	18	PHE	CA-C	-5.00	1.46	1.52

All (1111) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	S	106	SER	CA-C-N	-21.49	80.49	121.54
7	S	106	SER	C-N-CA	-21.49	80.49	121.54
7	S	106	SER	O-C-N	-15.82	101.55	122.59
2	D	399	GLU	N-CA-C	-13.96	95.67	113.12
8	T	89	HIS	N-CA-C	-13.91	94.05	111.02
7	S	73	THR	N-CA-C	13.43	125.44	111.07
5	I	7	ALA	N-CA-C	-13.01	97.16	113.55
2	E	398	GLU	N-CA-C	12.90	126.78	111.82
1	C	313	ASN	CA-C-N	12.85	137.50	120.28
1	C	313	ASN	C-N-CA	12.85	137.50	120.28
1	A	411	ASP	CA-C-N	12.29	137.15	120.44
1	A	411	ASP	C-N-CA	12.29	137.15	120.44
2	D	16	VAL	N-CA-C	-12.26	89.63	107.77
7	S	160	GLY	N-CA-C	12.08	127.23	112.73
7	S	107	THR	CA-C-N	12.07	142.45	121.80
7	S	107	THR	C-N-CA	12.07	142.45	121.80
1	C	91	THR	N-CA-C	-11.92	98.84	113.50
1	A	313	ASN	CA-C-N	11.83	136.13	120.28
1	A	313	ASN	C-N-CA	11.83	136.13	120.28
4	H	45	PHE	N-CA-C	-11.48	91.13	108.46
1	A	67	GLU	N-CA-C	-11.42	95.44	110.40
2	D	449	TYR	N-CA-C	-11.41	89.63	108.34
2	D	54	GLY	N-CA-C	-11.38	100.44	112.04
1	A	412	ALA	N-CA-C	11.33	123.38	111.14
3	G	186	SER	N-CA-C	-11.17	98.42	112.72
2	F	80	ALA	N-CA-C	-11.16	98.14	108.07
1	C	504	PHE	CA-C-N	11.06	134.82	120.44
1	C	504	PHE	C-N-CA	11.06	134.82	120.44
1	B	91	THR	N-CA-C	-11.06	99.89	113.50
2	E	41	ARG	CA-C-N	10.94	135.31	120.54
2	E	41	ARG	C-N-CA	10.94	135.31	120.54
1	B	334	VAL	CA-C-N	10.89	134.87	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	334	VAL	C-N-CA	10.89	134.87	120.28
2	E	54	GLY	N-CA-C	-10.74	101.09	112.04
2	F	302	GLY	N-CA-C	-10.73	100.72	111.56
2	F	359	ASP	N-CA-C	-10.72	98.57	108.22
1	A	10	SER	N-CA-C	-10.62	99.06	113.18
2	D	20	VAL	N-CA-C	-10.45	92.65	107.80
1	C	194	ASP	N-CA-C	-10.41	88.63	110.80
4	H	43	GLY	N-CA-C	-10.39	88.56	113.18
2	D	41	ARG	CA-C-N	10.35	133.89	120.44
2	D	41	ARG	C-N-CA	10.35	133.89	120.44
2	E	80	ALA	N-CA-C	-10.22	98.98	108.07
2	E	22	ASP	N-CA-C	-10.20	92.11	108.73
1	C	490	SER	CA-C-N	10.19	134.34	120.38
1	C	490	SER	C-N-CA	10.19	134.34	120.38
2	E	448	GLU	N-CA-C	-10.14	100.91	113.38
1	A	366	ASN	CA-C-N	10.07	134.25	120.46
1	A	366	ASN	C-N-CA	10.07	134.25	120.46
7	S	52	ALA	CA-C-N	10.05	140.75	122.06
7	S	52	ALA	C-N-CA	10.05	140.75	122.06
1	C	368	GLY	N-CA-C	-10.00	102.27	114.66
3	G	125	LEU	N-CA-C	-9.96	99.97	112.72
1	B	337	TYR	N-CA-C	-9.87	100.51	111.07
1	C	337	TYR	N-CA-C	-9.56	100.84	111.07
1	C	35	GLY	N-CA-C	-9.49	90.68	113.18
2	D	21	VAL	N-CA-C	-9.45	94.89	108.11
2	D	80	ALA	N-CA-C	-9.41	99.69	108.07
2	F	369	ASP	N-CA-C	9.35	121.55	111.36
2	F	54	GLY	N-CA-C	-9.34	99.75	111.70
7	S	107	THR	N-CA-C	9.33	130.68	110.80
1	A	102	GLU	N-CA-C	-9.33	102.03	112.57
1	A	337	TYR	N-CA-C	-9.31	101.11	111.07
2	F	59	ARG	N-CA-C	-9.28	94.55	109.76
2	D	352	ASP	N-CA-C	-9.24	104.08	114.62
2	F	41	ARG	CA-C-N	9.19	132.95	120.54
2	F	41	ARG	C-N-CA	9.19	132.95	120.54
1	A	173	THR	N-CA-C	-9.18	101.64	112.92
11	W	179	LEU	N-CA-C	-9.17	101.86	113.23
2	E	213	SER	N-CA-C	-9.15	93.10	108.75
1	A	88	VAL	N-CA-C	-9.14	95.31	108.11
3	G	4	LYS	CA-C-N	9.14	132.88	120.54
3	G	4	LYS	C-N-CA	9.14	132.88	120.54
5	I	28	THR	CA-C-N	9.12	134.50	120.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	I	28	THR	C-N-CA	9.12	134.50	120.82
2	F	249	GLN	N-CA-C	9.11	123.76	110.28
2	D	84	ILE	N-CA-C	-9.09	101.74	109.19
2	D	422	GLU	N-CA-C	-9.06	101.49	112.54
2	E	311	TYR	N-CA-C	-8.98	94.68	108.96
7	S	158	ILE	N-CA-C	-8.96	97.06	108.89
1	B	25	LEU	N-CA-C	-8.96	91.72	110.80
2	E	174	ALA	CA-C-N	8.93	132.78	120.63
2	E	174	ALA	C-N-CA	8.93	132.78	120.63
5	I	27	LYS	CA-C-N	8.93	132.97	120.29
5	I	27	LYS	C-N-CA	8.93	132.97	120.29
1	A	96	ASP	N-CA-C	-8.92	95.85	109.41
1	A	175	LYS	N-CA-C	-8.92	101.56	111.28
2	F	225	PRO	O-C-N	8.91	125.34	121.15
1	A	404	ALA	N-CA-C	-8.90	104.47	114.62
8	T	88	ARG	CA-C-O	-8.90	110.36	120.24
5	I	34	ALA	N-CA-C	8.85	121.82	111.02
2	F	84	ILE	N-CA-C	-8.85	101.94	109.19
1	C	336	ALA	CA-C-N	8.83	131.92	120.44
1	C	336	ALA	C-N-CA	8.83	131.92	120.44
2	E	125	GLU	N-CA-C	8.80	124.02	113.28
2	D	17	ILE	N-CA-C	-8.77	91.00	106.61
1	A	321	LEU	N-CA-C	-8.75	93.99	108.34
2	E	160	VAL	N-CA-C	-8.73	102.32	110.53
2	F	272	LEU	N-CA-C	-8.72	101.63	112.88
2	F	387	ILE	CA-C-N	8.72	132.40	120.46
2	F	387	ILE	C-N-CA	8.72	132.40	120.46
1	B	508	PHE	N-CA-C	-8.71	92.25	110.80
2	F	25	PHE	N-CA-C	-8.69	95.08	109.24
3	G	188	GLU	CA-C-N	8.68	138.13	121.54
3	G	188	GLU	C-N-CA	8.68	138.13	121.54
1	A	225	ALA	CA-C-N	8.63	132.71	120.28
1	A	225	ALA	C-N-CA	8.63	132.71	120.28
11	W	174	ILE	O-C-N	8.63	130.24	121.87
1	C	25	LEU	N-CA-C	-8.62	102.90	112.72
1	A	194	ASP	N-CA-C	-8.60	95.28	108.96
1	C	67	GLU	N-CA-C	-8.60	97.42	110.50
1	C	173	THR	N-CA-C	-8.57	102.74	113.02
2	E	355	SER	N-CA-C	-8.57	93.05	108.48
7	S	124	SER	N-CA-C	-8.56	102.15	112.59
1	C	330	GLN	N-CA-C	-8.56	94.12	108.75
8	T	27	ALA	CA-C-N	8.53	137.33	121.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	T	27	ALA	C-N-CA	8.53	137.33	121.97
3	G	46	VAL	CA-C-N	8.52	129.62	119.99
3	G	46	VAL	C-N-CA	8.52	129.62	119.99
9	U	8	ILE	N-CA-C	-8.47	96.31	108.17
8	T	100	ALA	N-CA-C	-8.47	101.08	111.33
2	E	463	ILE	CA-C-N	8.42	131.91	120.38
2	E	463	ILE	C-N-CA	8.42	131.91	120.38
1	B	100	GLY	N-CA-C	-8.37	99.16	110.20
1	B	30	ARG	N-CA-C	-8.35	95.79	109.40
2	E	209	LYS	N-CA-C	-8.35	102.65	112.92
1	C	174	GLY	N-CA-C	-8.34	102.24	115.08
2	F	24	GLN	N-CA-C	-8.32	95.67	109.07
1	B	348	GLY	N-CA-C	-8.30	103.05	111.85
1	A	504	PHE	CA-C-N	8.28	131.21	120.44
1	A	504	PHE	C-N-CA	8.28	131.21	120.44
3	G	78	CYS	N-CA-C	-8.28	93.16	110.80
7	S	119	THR	N-CA-C	-8.28	102.12	112.72
2	F	111	LYS	N-CA-C	-8.24	105.22	114.62
1	C	195	GLU	CA-C-N	8.23	134.47	120.72
1	C	195	GLU	C-N-CA	8.23	134.47	120.72
1	C	260	ASN	N-CA-C	-8.22	101.07	112.25
2	D	420	VAL	N-CA-C	-8.20	105.50	113.53
8	T	92	PHE	CA-C-O	8.19	129.36	120.10
2	E	159	GLY	N-CA-C	-8.19	103.72	115.27
2	E	138	LYS	CA-C-N	8.18	131.67	120.46
2	E	138	LYS	C-N-CA	8.18	131.67	120.46
2	F	103	ASP	N-CA-C	-8.13	103.56	113.97
3	G	248	LEU	N-CA-C	-8.12	101.00	112.13
1	B	509	GLU	N-CA-C	-8.11	102.52	111.36
1	B	313	ASN	CA-C-N	8.11	131.95	120.28
1	B	313	ASN	C-N-CA	8.11	131.95	120.28
3	G	81	ILE	CA-C-N	8.10	131.46	120.44
3	G	81	ILE	C-N-CA	8.10	131.46	120.44
2	D	118	ALA	N-CA-C	-8.10	96.40	108.79
8	T	88	ARG	O-C-N	8.09	132.74	122.23
1	B	473	ILE	N-CA-C	-8.08	102.66	110.42
2	E	330	ASP	N-CA-C	-8.06	103.58	113.41
3	G	151	SER	N-CA-C	-8.02	93.72	110.80
2	F	100	GLU	N-CA-C	-8.00	99.99	110.07
7	S	9	VAL	CA-C-N	8.00	136.10	121.70
7	S	9	VAL	C-N-CA	8.00	136.10	121.70
1	C	334	VAL	CA-C-N	8.00	131.33	120.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	334	VAL	C-N-CA	8.00	131.33	120.38
2	D	332	THR	N-CA-C	-7.97	96.41	109.40
2	F	205	VAL	N-CA-C	-7.97	103.42	113.22
2	D	280	GLY	N-CA-C	-7.96	105.61	115.08
7	S	72	MET	CA-C-N	7.96	130.78	120.44
7	S	72	MET	C-N-CA	7.96	130.78	120.44
2	F	364	GLY	CA-C-N	7.95	135.06	121.14
2	F	364	GLY	C-N-CA	7.95	135.06	121.14
1	B	330	GLN	N-CA-C	-7.95	96.79	109.59
1	A	123	SER	N-CA-C	-7.93	93.90	110.80
2	F	149	GLY	CA-C-N	7.93	127.64	120.10
2	F	149	GLY	C-N-CA	7.93	127.64	120.10
2	F	345	TYR	N-CA-C	-7.92	92.24	109.11
1	A	491	GLU	CA-C-N	7.92	131.21	120.44
1	A	491	GLU	C-N-CA	7.92	131.21	120.44
3	G	72	SER	N-CA-C	-7.91	97.70	108.38
1	A	15	ARG	CA-C-N	7.88	130.55	120.70
1	A	15	ARG	C-N-CA	7.88	130.55	120.70
1	B	336	ALA	CA-C-N	7.88	130.68	120.44
1	B	336	ALA	C-N-CA	7.88	130.68	120.44
1	A	225	ALA	N-CA-C	-7.87	103.68	113.28
1	C	88	VAL	N-CA-C	-7.87	97.16	108.17
2	D	112	GLN	N-CA-C	-7.85	96.43	109.46
11	W	133	THR	O-C-N	-7.85	112.30	121.32
1	C	267	ILE	N-CA-C	-7.84	96.30	107.75
3	G	111	LYS	N-CA-C	-7.83	103.70	113.18
2	E	118	ALA	N-CA-C	-7.83	94.13	110.80
3	G	172	LYS	CA-C-N	7.82	132.60	121.02
3	G	172	LYS	C-N-CA	7.82	132.60	121.02
2	E	57	THR	N-CA-C	-7.82	96.66	109.40
2	D	22	ASP	N-CA-C	-7.80	96.02	108.73
3	G	85	VAL	CA-C-N	7.78	131.04	120.54
3	G	85	VAL	C-N-CA	7.78	131.04	120.54
3	G	124	PHE	N-CA-C	-7.77	99.02	110.52
1	B	112	GLY	N-CA-C	-7.75	102.37	115.08
1	C	407	GLY	N-CA-C	-7.74	94.83	113.18
2	E	14	VAL	N-CA-C	-7.72	105.24	112.96
2	E	212	THR	N-CA-C	-7.72	95.44	108.26
4	H	32	ASN	CA-C-N	7.71	135.06	122.64
4	H	32	ASN	C-N-CA	7.71	135.06	122.64
2	F	128	VAL	N-CA-C	7.71	119.40	110.62
3	G	177	PRO	N-CA-C	-7.70	96.60	112.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	G	135	PRO	N-CA-C	7.70	120.09	110.70
1	A	126	ARG	N-CA-C	-7.69	97.63	109.24
2	F	399	GLU	N-CA-C	-7.68	102.99	111.36
2	F	60	THR	N-CA-C	-7.68	97.74	109.41
7	S	44	GLN	CA-C-N	7.68	133.69	120.86
7	S	44	GLN	C-N-CA	7.68	133.69	120.86
4	H	40	THR	N-CA-C	-7.67	99.47	110.59
1	C	119	GLY	N-CA-C	-7.66	96.71	112.34
3	G	160	ILE	N-CA-C	-7.66	96.57	107.75
2	E	16	VAL	N-CA-C	-7.64	96.46	107.77
1	A	57	SER	N-CA-C	-7.62	103.88	113.02
3	G	189	SER	CA-C-N	7.62	130.49	120.28
3	G	189	SER	C-N-CA	7.62	130.49	120.28
1	A	288	PRO	N-CA-C	7.61	119.98	110.70
2	E	366	GLU	CA-C-N	7.60	130.79	120.54
2	E	366	GLU	C-N-CA	7.60	130.79	120.54
1	B	160	GLY	N-CA-C	-7.57	101.98	112.13
3	G	80	ALA	CA-C-N	7.56	130.35	120.60
3	G	80	ALA	C-N-CA	7.56	130.35	120.60
2	D	26	ASP	N-CA-C	-7.55	104.09	113.38
1	A	402	ALA	N-CA-C	7.55	120.17	111.11
2	E	25	PHE	N-CA-C	-7.54	97.45	109.59
2	F	20	VAL	N-CA-C	-7.54	96.87	107.80
4	H	137	ALA	N-CA-C	-7.51	103.03	111.07
1	C	496	LYS	CA-C-N	7.51	130.20	120.44
1	C	496	LYS	C-N-CA	7.51	130.20	120.44
2	E	204	GLY	N-CA-C	-7.49	104.89	115.30
1	C	353	GLU	CA-C-N	7.47	130.29	120.28
1	C	353	GLU	C-N-CA	7.47	130.29	120.28
3	G	60	PRO	N-CA-C	-7.46	106.04	114.92
1	B	194	ASP	CA-C-N	7.45	130.26	120.28
1	B	194	ASP	C-N-CA	7.45	130.26	120.28
7	S	133	GLU	N-CA-C	-7.43	101.70	111.74
1	B	118	LYS	N-CA-C	-7.43	102.75	112.41
7	S	16	GLY	N-CA-C	-7.42	105.59	115.32
1	A	407	GLY	N-CA-C	-7.42	101.99	112.60
2	D	438	ILE	CA-C-N	7.42	130.08	120.44
2	D	438	ILE	C-N-CA	7.42	130.08	120.44
2	D	75	VAL	N-CA-C	-7.41	97.42	108.46
2	E	59	ARG	N-CA-C	-7.40	97.68	109.59
1	A	412	ALA	CA-C-N	7.40	131.91	120.82
1	A	412	ALA	C-N-CA	7.40	131.91	120.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	E	110	THR	N-CA-C	-7.39	98.17	109.41
3	G	118	ARG	CA-C-N	7.36	135.60	121.54
3	G	118	ARG	C-N-CA	7.36	135.60	121.54
2	D	311	TYR	N-CA-C	-7.36	98.57	110.20
2	E	334	VAL	N-CA-C	-7.35	97.14	107.80
1	C	42	HIS	CA-C-N	7.33	135.79	121.41
1	C	42	HIS	C-N-CA	7.33	135.79	121.41
1	A	360	GLY	N-CA-C	-7.33	105.96	114.69
1	A	174	GLY	N-CA-C	-7.33	102.32	114.48
2	E	21	VAL	N-CA-C	-7.33	97.86	108.11
3	G	104	LYS	N-CA-C	-7.32	96.61	109.06
7	S	49	PRO	CA-C-N	7.32	129.96	120.44
7	S	49	PRO	C-N-CA	7.32	129.96	120.44
7	S	54	SER	N-CA-C	-7.32	103.31	112.90
1	B	287	ARG	N-CA-C	-7.32	96.38	108.23
2	D	225	PRO	CA-C-N	7.30	126.84	119.24
2	D	225	PRO	C-N-CA	7.30	126.84	119.24
1	C	263	HIS	N-CA-C	-7.30	96.51	108.41
3	G	171	TYR	N-CA-C	-7.29	98.00	109.07
1	C	122	GLY	N-CA-C	-7.28	104.30	115.66
2	D	276	PRO	N-CA-C	-7.28	97.48	112.47
2	E	105	ARG	N-CA-C	-7.24	104.82	112.93
1	B	260	ASN	N-CA-C	-7.24	102.41	112.25
2	F	336	SER	CA-C-O	7.23	128.17	120.36
2	D	204	GLY	N-CA-C	-7.23	104.61	115.32
1	C	327	ILE	N-CA-C	-7.23	97.75	108.45
7	S	82	THR	N-CA-C	-7.22	104.44	113.18
2	E	40	GLY	N-CA-C	-7.22	105.25	115.43
8	T	92	PHE	N-CA-C	7.22	120.01	111.71
2	D	44	ARG	N-CA-C	-7.20	98.23	109.25
2	F	292	MET	N-CA-C	-7.20	101.67	112.04
8	T	104	GLU	O-C-N	7.19	129.86	122.09
1	A	420	ARG	CA-C-N	7.19	127.92	119.94
1	A	420	ARG	C-N-CA	7.19	127.92	119.94
2	E	421	ALA	N-CA-C	-7.19	101.64	111.56
4	H	124	ASP	N-CA-C	-7.18	98.22	109.72
2	D	161	GLY	N-CA-C	-7.18	96.17	113.18
1	C	264	ALA	N-CA-C	-7.17	98.53	109.85
1	B	125	ALA	N-CA-C	-7.17	99.92	110.52
1	B	360	GLY	N-CA-C	-7.16	106.17	114.69
1	C	408	SER	CA-C-N	7.16	135.21	121.54
1	C	408	SER	C-N-CA	7.16	135.21	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	I	43	LYS	N-CA-C	-7.16	99.33	110.42
2	D	52	HIS	N-CA-C	-7.16	95.96	108.20
1	B	225	ALA	N-CA-C	-7.16	104.02	112.89
2	D	273	GLY	N-CA-C	-7.15	105.85	115.36
2	F	21	VAL	N-CA-C	-7.15	98.10	108.11
1	B	135	GLY	CA-C-N	7.14	130.24	120.46
1	B	135	GLY	C-N-CA	7.14	130.24	120.46
1	B	294	TYR	CA-C-O	-7.12	114.21	120.19
1	A	432	GLN	N-CA-C	-7.11	97.36	109.24
2	E	392	GLY	N-CA-C	7.08	120.43	110.38
4	H	92	LEU	N-CA-C	-7.07	97.00	108.52
1	A	287	ARG	CA-C-N	7.06	127.66	120.38
1	A	287	ARG	C-N-CA	7.06	127.66	120.38
3	G	156	ASP	N-CA-C	-7.06	102.78	112.03
8	T	89	HIS	CA-C-O	-7.06	113.30	121.07
1	B	386	VAL	N-CA-C	-7.05	105.75	111.81
2	F	380	ASP	N-CA-C	-7.05	103.67	111.36
2	D	70	VAL	N-CA-C	-7.04	98.33	108.53
1	C	46	ASN	N-CA-C	-7.02	104.86	113.50
1	B	372	SER	N-CA-C	-7.01	95.53	108.02
2	E	425	THR	N-CA-C	7.00	120.30	111.69
2	F	370	VAL	N-CA-C	-6.99	103.66	110.72
3	G	108	VAL	N-CA-C	-6.99	97.78	107.99
2	D	317	LEU	CA-C-N	6.99	129.64	120.28
2	D	317	LEU	C-N-CA	6.99	129.64	120.28
3	G	77	LEU	CA-C-N	6.98	134.87	121.54
3	G	77	LEU	C-N-CA	6.98	134.87	121.54
1	A	8	VAL	N-CA-C	-6.98	98.77	108.12
3	G	193	TYR	N-CA-C	-6.97	95.72	107.99
2	E	351	LEU	N-CA-C	-6.97	105.58	112.97
1	A	353	GLU	CA-C-N	6.97	129.62	120.28
1	A	353	GLU	C-N-CA	6.97	129.62	120.28
1	B	206	ILE	N-CA-C	-6.97	97.70	107.80
4	H	48	LEU	N-CA-C	-6.96	99.62	110.42
3	G	52	TYR	N-CA-C	-6.94	103.72	111.28
1	B	162	GLY	N-CA-C	-6.94	105.65	115.43
2	E	218	VAL	N-CA-C	-6.93	98.14	108.12
2	D	251	VAL	N-CA-C	-6.93	98.34	108.87
2	F	304	ILE	CA-C-N	6.92	132.27	122.72
2	F	304	ILE	C-N-CA	6.92	132.27	122.72
2	E	349	ASP	N-CA-C	-6.92	93.58	108.93
7	S	67	LYS	CA-C-N	6.91	131.19	120.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	S	67	LYS	C-N-CA	6.91	131.19	120.82
1	C	279	ARG	CA-C-N	6.91	129.87	120.54
1	C	279	ARG	C-N-CA	6.91	129.87	120.54
2	D	304	ILE	N-CA-C	-6.89	96.33	107.28
2	F	105	ARG	N-CA-C	-6.89	100.10	109.54
1	B	504	PHE	CA-C-N	6.88	134.68	121.54
1	B	504	PHE	C-N-CA	6.88	134.68	121.54
1	C	299	PHE	N-CA-C	-6.86	103.04	111.40
1	B	300	TYR	CA-C-N	6.85	129.79	120.54
1	B	300	TYR	C-N-CA	6.85	129.79	120.54
10	V	7	PRO	O-C-N	-6.85	113.39	122.64
2	F	23	VAL	N-CA-C	-6.84	98.63	108.48
4	H	27	PHE	N-CA-C	-6.84	103.58	112.68
2	E	219	TYR	N-CA-C	-6.84	97.82	109.24
1	B	290	GLY	CA-C-N	6.82	132.21	121.56
1	B	290	GLY	C-N-CA	6.82	132.21	121.56
10	V	67	PRO	N-CA-C	6.82	126.51	112.47
3	G	183	THR	N-CA-C	6.81	118.78	111.36
1	A	35	GLY	N-CA-C	-6.81	97.04	113.18
2	F	273	GLY	N-CA-C	-6.81	106.41	115.40
3	G	268	GLY	N-CA-C	-6.80	97.07	113.18
2	D	455	GLN	N-CA-C	6.79	118.34	111.07
1	A	175	LYS	CA-C-N	6.78	129.66	120.44
1	A	175	LYS	C-N-CA	6.78	129.66	120.44
2	F	439	LYS	N-CA-C	-6.77	103.82	111.07
1	B	476	HIS	CA-C-N	6.77	130.26	120.38
1	B	476	HIS	C-N-CA	6.77	130.26	120.38
1	B	289	PRO	N-CA-C	-6.76	98.53	112.47
3	G	154	GLU	N-CA-C	-6.76	96.40	110.80
3	G	10	LEU	CA-C-N	6.75	130.18	120.79
3	G	10	LEU	C-N-CA	6.75	130.18	120.79
1	C	400	VAL	N-CA-C	-6.74	104.92	113.22
4	H	36	VAL	N-CA-C	-6.74	98.32	108.17
7	S	51	MET	N-CA-C	-6.74	99.92	109.96
1	B	158	PRO	N-CA-C	-6.73	99.81	111.32
1	B	67	GLU	N-CA-C	-6.73	100.28	110.50
7	S	53	ALA	N-CA-C	-6.73	105.07	113.28
1	A	437	ALA	CA-C-N	6.72	129.66	120.46
1	A	437	ALA	C-N-CA	6.72	129.66	120.46
2	D	108	ILE	N-CA-C	-6.71	98.84	109.17
2	D	187	GLY	N-CA-C	-6.71	105.98	115.30
1	B	506	ALA	CA-C-N	6.71	134.55	121.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	506	ALA	C-N-CA	6.71	134.55	121.41
2	D	25	PHE	N-CA-C	-6.71	98.28	109.07
4	H	84	VAL	N-CA-C	-6.71	96.62	107.28
4	H	67	ALA	CA-C-O	-6.70	113.36	120.80
1	A	362	ARG	N-CA-C	-6.70	95.52	108.45
11	W	147	ILE	CA-C-O	-6.70	113.61	121.05
1	C	321	LEU	N-CA-C	-6.70	96.21	107.80
1	B	174	GLY	N-CA-C	-6.70	105.99	115.30
2	F	225	PRO	CA-C-N	6.69	126.20	119.24
2	F	225	PRO	C-N-CA	6.69	126.20	119.24
7	S	71	ASP	CA-C-N	6.69	134.31	121.54
7	S	71	ASP	C-N-CA	6.69	134.31	121.54
2	F	221	GLN	CA-C-N	6.66	134.27	121.54
2	F	221	GLN	C-N-CA	6.66	134.27	121.54
11	W	207	ALA	CA-C-N	6.65	129.19	120.28
11	W	207	ALA	C-N-CA	6.65	129.19	120.28
1	A	413	ALA	CA-C-N	6.64	130.41	120.31
1	A	413	ALA	C-N-CA	6.64	130.41	120.31
2	D	211	ALA	N-CA-C	-6.64	104.75	112.92
1	A	28	THR	N-CA-C	-6.64	99.25	109.14
2	D	255	ILE	N-CA-C	-6.64	97.95	107.77
1	B	80	LYS	CA-C-N	6.62	131.77	120.72
1	B	80	LYS	C-N-CA	6.62	131.77	120.72
2	F	457	PHE	N-CA-C	-6.62	105.03	113.23
5	I	5	ARG	N-CA-C	-6.62	102.55	112.54
3	G	204	TYR	CA-C-N	6.61	129.44	120.38
3	G	204	TYR	C-N-CA	6.61	129.44	120.38
1	B	40	ARG	N-CA-C	-6.61	98.49	109.46
2	E	350	PRO	N-CA-C	-6.61	105.33	114.98
1	C	225	ALA	CA-C-N	6.60	129.79	120.28
1	C	225	ALA	C-N-CA	6.60	129.79	120.28
2	E	298	THR	N-CA-C	-6.60	96.47	108.02
2	F	162	LYS	N-CA-C	-6.58	104.02	111.07
7	S	123	ALA	N-CA-C	-6.57	96.80	110.80
2	E	365	SER	CA-C-N	6.57	128.98	120.44
2	E	365	SER	C-N-CA	6.57	128.98	120.44
2	E	461	GLY	N-CA-C	-6.55	98.97	112.34
2	E	133	LEU	N-CA-C	-6.55	96.36	108.02
8	T	21	THR	CA-C-N	6.54	126.45	119.85
8	T	21	THR	C-N-CA	6.54	126.45	119.85
1	C	125	ALA	N-CA-C	-6.54	100.85	110.52
2	D	213	SER	N-CA-C	-6.53	99.75	109.15

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	H	91	GLN	N-CA-C	-6.53	97.42	108.26
1	A	299	PHE	N-CA-C	-6.53	104.09	111.14
2	F	155	PHE	N-CA-C	-6.53	99.89	110.20
1	B	156	LEU	N-CA-C	-6.52	105.48	113.50
1	A	89	LYS	N-CA-C	-6.52	98.77	109.40
1	B	79	ASP	CA-C-N	6.52	133.99	121.54
1	B	79	ASP	C-N-CA	6.52	133.99	121.54
2	F	428	LEU	N-CA-C	-6.51	102.13	110.53
3	G	52	TYR	CA-C-N	6.51	129.84	120.79
3	G	52	TYR	C-N-CA	6.51	129.84	120.79
1	C	461	ILE	N-CA-C	-6.51	104.17	110.42
1	A	336	ALA	N-CA-C	-6.51	96.94	110.80
2	D	262	THR	CA-C-N	6.50	128.89	120.44
2	D	262	THR	C-N-CA	6.50	128.89	120.44
1	C	265	LEU	N-CA-C	-6.49	97.70	108.34
1	B	435	PRO	N-CA-C	-6.49	99.11	112.47
2	F	201	ILE	CA-C-N	6.49	129.29	120.54
2	F	201	ILE	C-N-CA	6.49	129.29	120.54
2	E	130	GLN	N-CA-C	-6.47	96.99	108.13
1	A	212	THR	N-CA-C	-6.47	104.31	111.36
1	A	348	GLY	N-CA-C	-6.46	105.00	111.85
1	B	387	ALA	N-CA-C	6.46	118.40	111.36
2	E	63	MET	N-CA-C	-6.46	105.98	114.31
2	F	324	THR	CA-C-N	6.46	129.58	120.28
2	F	324	THR	C-N-CA	6.46	129.58	120.28
2	F	95	MET	N-CA-C	-6.45	99.66	109.85
11	W	166	ALA	CA-C-N	6.45	127.14	119.98
11	W	166	ALA	C-N-CA	6.45	127.14	119.98
1	A	336	ALA	CA-C-N	6.44	128.81	120.44
1	A	336	ALA	C-N-CA	6.44	128.81	120.44
2	F	397	SER	CA-C-N	6.43	129.54	120.28
2	F	397	SER	C-N-CA	6.43	129.54	120.28
3	G	167	SER	N-CA-C	-6.43	98.37	108.14
1	A	257	PHE	CA-C-N	6.43	128.80	120.44
1	A	257	PHE	C-N-CA	6.43	128.80	120.44
3	G	215	TYR	CA-C-N	6.42	129.18	120.38
3	G	215	TYR	C-N-CA	6.42	129.18	120.38
2	D	425	THR	N-CA-C	6.42	119.59	111.69
3	G	182	ASP	CA-C-N	6.42	129.41	120.29
3	G	182	ASP	C-N-CA	6.42	129.41	120.29
2	D	292	MET	N-CA-C	-6.42	102.80	112.04
2	E	50	ALA	N-CA-C	-6.42	105.35	113.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	E	30	PRO	N-CA-C	-6.42	102.87	110.70
4	H	104	ASP	CA-C-N	6.41	128.77	120.44
4	H	104	ASP	C-N-CA	6.41	128.77	120.44
1	B	38	ILE	N-CA-C	-6.40	98.40	107.75
1	A	145	PRO	N-CA-C	-6.40	99.29	112.47
11	W	152	GLN	CA-C-N	6.40	126.89	119.47
11	W	152	GLN	C-N-CA	6.40	126.89	119.47
2	E	26	ASP	N-CA-C	-6.40	104.09	112.41
1	A	405	GLN	N-CA-C	-6.39	102.89	112.54
1	A	457	GLU	N-CA-C	-6.39	99.67	109.64
1	C	362	ARG	N-CA-C	-6.38	94.83	107.91
2	F	99	GLY	N-CA-C	-6.38	106.43	115.43
2	F	317	LEU	CA-C-N	6.37	128.72	120.44
2	F	317	LEU	C-N-CA	6.37	128.72	120.44
2	D	463	ILE	CA-C-N	6.37	129.10	120.38
2	D	463	ILE	C-N-CA	6.37	129.10	120.38
2	F	189	ARG	N-CA-C	-6.36	101.07	110.48
1	A	139	ARG	N-CA-C	-6.36	101.37	110.59
2	D	105	ARG	N-CA-C	-6.36	102.76	112.99
1	A	347	ASP	N-CA-C	-6.35	105.39	112.57
1	A	399	GLU	CA-C-N	-6.34	112.54	121.55
1	A	399	GLU	C-N-CA	-6.34	112.54	121.55
2	E	87	GLY	CA-C-N	6.34	126.03	119.82
2	E	87	GLY	C-N-CA	6.34	126.03	119.82
2	E	190	THR	CA-C-N	6.34	129.06	120.38
2	E	190	THR	C-N-CA	6.34	129.06	120.38
2	E	283	PRO	O-C-N	6.34	129.53	122.24
1	A	83	LYS	N-CA-C	-6.34	97.91	108.75
1	C	58	GLY	N-CA-C	-6.34	106.93	115.36
3	G	8	ARG	N-CA-C	-6.34	104.29	111.07
2	D	103	ASP	N-CA-C	-6.32	104.39	111.28
2	E	13	ILE	CA-C-N	-6.32	114.69	121.84
2	E	13	ILE	C-N-CA	-6.32	114.69	121.84
7	S	142	LEU	N-CA-C	-6.32	104.47	111.36
7	S	3	LYS	CA-C-N	6.32	133.62	121.54
7	S	3	LYS	C-N-CA	6.32	133.62	121.54
1	B	70	ASN	N-CA-C	-6.32	99.37	108.60
2	F	376	LYS	N-CA-C	-6.32	104.31	111.07
1	C	509	GLU	N-CA-C	-6.32	97.34	110.80
1	A	157	VAL	N-CA-C	-6.31	95.24	108.88
1	A	256	TYR	CA-C-N	6.30	128.73	120.28
1	A	256	TYR	C-N-CA	6.30	128.73	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	D	59	ARG	N-CA-C	-6.30	99.45	109.59
1	B	412	ALA	N-CA-C	6.30	118.15	111.28
3	G	94	ALA	CA-C-N	6.30	129.55	120.79
3	G	94	ALA	C-N-CA	6.30	129.55	120.79
3	G	204	TYR	N-CA-C	-6.30	97.39	110.80
1	C	401	ALA	N-CA-C	-6.29	104.50	111.36
2	F	444	ILE	CA-C-N	6.29	128.71	120.28
2	F	444	ILE	C-N-CA	6.29	128.71	120.28
9	U	9	ASP	CA-C-N	-6.29	109.83	120.58
9	U	9	ASP	C-N-CA	-6.29	109.83	120.58
1	A	373	ARG	CA-C-N	6.29	133.29	121.97
1	A	373	ARG	C-N-CA	6.29	133.29	121.97
2	D	27	GLU	N-CA-C	-6.29	96.86	108.24
2	E	451	HIS	N-CA-C	6.29	124.19	110.80
1	C	157	VAL	N-CA-C	-6.28	95.32	108.88
2	E	12	ARG	N-CA-C	-6.28	98.76	109.24
1	C	102	GLU	N-CA-C	-6.27	105.45	113.23
1	A	38	ILE	N-CA-C	-6.27	97.31	107.28
1	C	290	GLY	CA-C-N	6.27	131.34	121.56
1	C	290	GLY	C-N-CA	6.27	131.34	121.56
2	D	318	THR	N-CA-C	-6.27	104.45	111.28
1	C	372	SER	N-CA-C	-6.26	96.88	108.02
3	G	266	ILE	N-CA-C	-6.26	96.73	107.24
7	S	81	LEU	N-CA-C	-6.26	104.45	113.21
1	A	350	ILE	CA-C-N	6.25	131.01	122.19
1	A	350	ILE	C-N-CA	6.25	131.01	122.19
2	D	102	ILE	CA-C-N	6.25	128.66	120.28
2	D	102	ILE	C-N-CA	6.25	128.66	120.28
2	F	87	GLY	CA-C-N	6.25	125.95	119.82
2	F	87	GLY	C-N-CA	6.25	125.95	119.82
1	C	80	LYS	N-CA-C	-6.25	105.15	112.89
1	B	143	ARG	N-CA-C	-6.24	97.50	110.80
1	A	118	LYS	N-CA-C	-6.24	104.56	111.36
2	D	142	LEU	N-CA-C	-6.23	104.41	111.07
1	B	317	GLY	N-CA-C	-6.22	106.66	115.30
2	E	27	GLU	N-CA-C	-6.21	99.86	109.24
1	C	175	LYS	N-CA-C	-6.21	104.42	111.07
2	E	456	ALA	N-CA-C	-6.21	104.43	111.14
2	F	108	ILE	N-CA-C	-6.21	99.35	108.97
2	F	422	GLU	N-CA-C	-6.21	104.97	112.54
3	G	248	LEU	CA-C-N	6.20	128.88	120.38
3	G	248	LEU	C-N-CA	6.20	128.88	120.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	G	24	LYS	N-CA-C	6.20	117.83	111.14
2	D	51	GLN	N-CA-C	-6.19	99.64	109.23
2	F	136	GLY	N-CA-C	-6.18	106.61	115.64
4	H	72	THR	N-CA-C	-6.18	98.31	108.76
2	F	83	ARG	N-CA-C	-6.18	99.64	109.59
1	A	97	VAL	N-CA-C	-6.18	101.04	108.45
3	G	82	HIS	N-CA-C	-6.18	104.47	111.14
8	T	31	ILE	CA-C-N	6.17	126.78	120.00
8	T	31	ILE	C-N-CA	6.17	126.78	120.00
4	H	130	GLU	N-CA-C	6.16	118.00	111.28
4	H	46	GLY	N-CA-C	-6.15	98.60	113.18
1	A	26	GLU	N-CA-C	-6.15	106.32	113.88
1	B	199	LEU	N-CA-C	-6.15	98.39	108.41
3	G	20	THR	N-CA-C	-6.14	104.67	111.36
1	A	39	ALA	N-CA-C	-6.14	98.51	108.52
1	A	492	GLU	N-CA-C	-6.13	104.52	111.14
2	D	145	PRO	N-CA-C	-6.13	99.85	112.47
2	D	96	ASN	CA-C-N	6.12	129.16	120.53
2	D	96	ASN	C-N-CA	6.12	129.16	120.53
2	F	438	ILE	CA-C-N	6.11	128.39	120.44
2	F	438	ILE	C-N-CA	6.11	128.39	120.44
1	C	239	ALA	N-CA-C	-6.11	100.05	109.76
7	S	128	GLU	CA-C-N	6.10	133.20	121.54
7	S	128	GLU	C-N-CA	6.10	133.20	121.54
2	D	428	LEU	N-CA-C	-6.10	100.97	110.42
1	B	488	LYS	N-CA-C	-6.09	97.82	110.80
3	G	110	ASP	N-CA-C	-6.08	105.15	113.30
2	F	127	SER	N-CA-C	-6.08	94.99	107.70
7	S	132	THR	CA-C-N	6.07	130.75	122.19
7	S	132	THR	C-N-CA	6.07	130.75	122.19
2	D	63	MET	N-CA-C	-6.07	106.48	114.31
2	D	111	LYS	N-CA-C	6.07	120.19	113.21
1	C	237	SER	CA-C-N	6.06	133.11	121.54
1	C	237	SER	C-N-CA	6.06	133.11	121.54
3	G	246	LEU	N-CA-C	6.06	118.66	111.33
2	D	270	ALA	CA-C-N	6.05	129.50	120.31
2	D	270	ALA	C-N-CA	6.05	129.50	120.31
1	A	400	VAL	N-CA-C	-6.04	104.52	113.39
1	B	335	SER	N-CA-C	-6.03	104.71	111.28
1	A	376	SER	N-CA-C	6.02	117.92	111.36
1	C	373	ARG	N-CA-C	-6.02	105.19	112.54
7	S	138	LEU	CA-C-N	6.02	128.35	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	S	138	LEU	C-N-CA	6.02	128.35	120.28
2	D	11	GLY	N-CA-C	-6.01	102.37	111.14
2	D	410	ILE	CA-C-N	6.01	128.61	120.38
2	D	410	ILE	C-N-CA	6.01	128.61	120.38
2	F	204	GLY	N-CA-C	-6.01	104.55	114.76
1	B	173	THR	N-CA-C	-6.00	106.21	112.93
1	C	40	ARG	N-CA-C	-6.00	99.51	109.46
2	E	78	SER	N-CA-C	-5.99	105.93	113.18
1	C	162	GLY	CA-C-N	5.99	130.91	121.56
1	C	162	GLY	C-N-CA	5.99	130.91	121.56
2	D	361	ASN	N-CA-C	-5.99	101.91	111.02
3	G	56	ASP	N-CA-C	-5.99	101.66	110.52
2	D	40	GLY	N-CA-C	-5.99	106.46	115.32
2	E	20	VAL	N-CA-C	-5.98	99.13	107.80
2	E	24	GLN	CA-C-N	5.98	131.61	122.93
2	E	24	GLN	C-N-CA	5.98	131.61	122.93
1	B	192	GLY	N-CA-C	-5.97	102.38	112.77
2	D	331	ALA	N-CA-C	-5.97	98.88	108.55
1	A	135	GLY	CA-C-N	5.97	128.16	120.70
1	A	135	GLY	C-N-CA	5.97	128.16	120.70
2	D	209	LYS	N-CA-C	-5.97	105.57	114.64
11	W	180	ALA	N-CA-C	-5.97	104.35	111.69
7	S	26	ALA	N-CA-C	-5.97	104.70	111.14
1	B	380	THR	N-CA-C	-5.96	100.28	109.76
1	C	491	GLU	CA-C-N	5.96	128.19	120.44
1	C	491	GLU	C-N-CA	5.96	128.19	120.44
1	A	98	PRO	N-CA-C	-5.96	101.84	111.19
2	D	133	LEU	N-CA-C	-5.96	101.65	110.46
2	E	463	ILE	N-CA-C	5.95	118.49	111.05
2	F	214	LYS	N-CA-C	-5.95	105.21	112.88
1	B	175	LYS	N-CA-C	-5.95	104.80	111.28
4	H	135	ILE	CA-C-N	5.94	128.51	120.38
4	H	135	ILE	C-N-CA	5.94	128.51	120.38
2	F	451	HIS	N-CA-C	-5.93	105.22	112.88
1	C	45	ARG	CA-C-N	5.92	132.16	121.92
1	C	45	ARG	C-N-CA	5.92	132.16	121.92
11	W	189	ALA	CA-C-O	-5.92	113.42	120.10
4	H	131	ILE	CA-C-N	5.91	128.48	120.38
4	H	131	ILE	C-N-CA	5.91	128.48	120.38
4	H	129	ALA	CA-C-N	5.91	128.20	120.28
4	H	129	ALA	C-N-CA	5.91	128.20	120.28
2	F	277	SER	CA-C-N	5.91	129.67	120.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	F	277	SER	C-N-CA	5.91	129.67	120.75
2	D	343	GLY	N-CA-C	-5.90	107.25	114.92
4	H	85	ASN	N-CA-C	-5.90	102.03	110.59
1	B	267	ILE	N-CA-C	-5.90	99.14	107.75
7	S	94	ARG	N-CA-C	-5.89	104.96	113.21
2	E	21	VAL	CA-C-O	5.88	126.57	120.39
5	I	8	GLY	CA-C-N	5.88	132.77	121.54
5	I	8	GLY	C-N-CA	5.88	132.77	121.54
1	B	364	ALA	CA-C-N	5.87	132.54	121.97
1	B	364	ALA	C-N-CA	5.87	132.54	121.97
2	D	248	GLY	CA-C-N	5.87	132.76	121.54
2	D	248	GLY	C-N-CA	5.87	132.76	121.54
1	A	372	SER	N-CA-C	-5.87	97.57	108.02
11	W	64	LYS	N-CA-C	5.87	120.06	113.01
1	C	190	ASN	N-CA-C	-5.87	105.61	112.89
4	H	99	THR	N-CA-C	-5.87	101.60	110.28
1	A	316	PHE	N-CA-C	-5.86	105.44	112.59
2	E	180	TYR	N-CA-C	-5.86	97.67	107.80
2	E	418	PHE	CA-C-N	5.85	128.60	120.29
2	E	418	PHE	C-N-CA	5.85	128.60	120.29
2	E	422	GLU	N-CA-C	-5.85	105.04	111.82
3	G	174	GLU	CA-C-N	5.85	131.94	122.29
3	G	174	GLU	C-N-CA	5.85	131.94	122.29
7	S	134	LEU	N-CA-C	-5.85	98.35	110.80
3	G	119	THR	N-CA-C	-5.84	98.36	110.80
1	C	237	SER	N-CA-C	5.84	117.33	110.97
2	D	427	HIS	N-CA-C	-5.83	100.27	108.96
1	A	287	ARG	N-CA-C	-5.82	102.32	109.65
7	S	58	PRO	CA-C-N	5.80	130.80	122.21
7	S	58	PRO	C-N-CA	5.80	130.80	122.21
2	F	374	VAL	CA-C-N	5.80	128.53	120.29
2	F	374	VAL	C-N-CA	5.80	128.53	120.29
2	D	121	PRO	CA-C-O	-5.80	115.02	121.23
2	D	428	LEU	CA-C-N	5.79	128.94	122.69
2	D	428	LEU	C-N-CA	5.79	128.94	122.69
2	E	205	VAL	N-CA-C	-5.79	103.69	111.44
7	S	102	ILE	CA-C-N	5.79	129.50	120.82
7	S	102	ILE	C-N-CA	5.79	129.50	120.82
4	H	67	ALA	CA-C-N	5.78	132.59	121.54
4	H	67	ALA	C-N-CA	5.78	132.59	121.54
3	G	255	GLN	CA-C-N	5.78	128.34	120.54
3	G	255	GLN	C-N-CA	5.78	128.34	120.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	333	ASP	CA-C-N	5.78	129.77	120.30
1	C	333	ASP	C-N-CA	5.78	129.77	120.30
2	D	43	THR	N-CA-C	-5.77	101.09	110.20
1	B	193	THR	N-CA-C	-5.76	103.99	111.71
1	B	120	PRO	CA-C-N	5.76	132.34	121.97
1	B	120	PRO	C-N-CA	5.76	132.34	121.97
11	W	223	HIS	CA-C-N	5.76	129.07	120.31
11	W	223	HIS	C-N-CA	5.76	129.07	120.31
2	E	143	LEU	N-CA-C	-5.76	106.39	113.41
1	B	77	GLY	N-CA-C	-5.76	102.92	110.29
1	C	34	ILE	CA-C-O	5.76	126.80	120.64
2	D	393	MET	N-CA-C	-5.75	98.54	110.80
2	E	24	GLN	N-CA-C	-5.75	99.81	109.07
2	E	52	HIS	N-CA-C	-5.75	97.06	107.75
1	A	258	ARG	N-CA-C	-5.75	104.92	111.07
2	E	96	ASN	N-CA-C	-5.75	100.92	109.94
2	F	426	GLY	N-CA-C	-5.75	106.23	115.08
2	F	276	PRO	N-CA-C	-5.74	100.64	112.47
2	E	364	GLY	N-CA-C	-5.74	99.58	113.18
2	E	318	THR	N-CA-C	-5.73	105.54	112.54
1	B	117	GLY	N-CA-C	-5.73	104.08	114.46
7	S	47	LYS	N-CA-C	5.73	123.00	110.80
1	A	364	ALA	CA-C-N	5.72	132.27	121.97
1	A	364	ALA	C-N-CA	5.72	132.27	121.97
1	C	458	PRO	N-CA-C	5.72	122.28	113.75
2	F	249	GLN	CA-C-N	5.72	131.44	122.17
2	F	249	GLN	C-N-CA	5.72	131.44	122.17
1	A	93	ALA	CA-C-N	5.72	129.16	120.13
1	A	93	ALA	C-N-CA	5.72	129.16	120.13
1	B	43	GLY	N-CA-C	-5.71	99.65	113.18
2	E	173	VAL	N-CA-C	5.71	116.36	110.82
9	U	1	ARG	CA-C-N	5.71	128.39	120.29
9	U	1	ARG	C-N-CA	5.71	128.39	120.29
2	F	22	ASP	N-CA-C	-5.71	99.94	109.24
2	F	112	GLN	N-CA-C	-5.70	100.52	109.25
4	H	124	ASP	CA-C-N	5.70	128.24	120.54
4	H	124	ASP	C-N-CA	5.70	128.24	120.54
2	D	298	THR	N-CA-C	-5.69	97.91	107.99
3	G	122	ASP	N-CA-C	-5.69	106.47	113.41
1	C	225	ALA	N-CA-C	-5.68	105.84	112.89
11	W	160	LEU	CA-C-O	5.68	126.51	119.97
2	D	100	GLU	N-CA-C	-5.68	99.03	108.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	E	201	ILE	CA-C-N	5.68	128.20	120.54
2	E	201	ILE	C-N-CA	5.68	128.20	120.54
2	E	225	PRO	CA-C-N	5.66	125.13	119.24
2	E	225	PRO	C-N-CA	5.66	125.13	119.24
4	H	100	LEU	CA-C-N	5.66	132.35	121.54
4	H	100	LEU	C-N-CA	5.66	132.35	121.54
1	B	102	GLU	N-CA-C	-5.66	105.12	113.61
5	I	11	TYR	N-CA-C	-5.66	105.11	111.28
2	F	145	PRO	N-CA-C	-5.65	102.27	110.80
3	G	7	THR	CA-C-N	5.65	127.78	120.44
3	G	7	THR	C-N-CA	5.65	127.78	120.44
1	C	298	VAL	N-CA-C	-5.65	104.65	112.50
2	F	213	SER	N-CA-C	-5.65	99.92	108.67
1	B	346	THR	N-CA-C	5.64	117.61	110.33
2	F	297	THR	CA-C-N	5.64	131.86	122.73
2	F	297	THR	C-N-CA	5.64	131.86	122.73
1	B	170	ASP	CA-C-N	5.63	132.30	121.54
1	B	170	ASP	C-N-CA	5.63	132.30	121.54
11	W	103	GLY	CA-C-N	5.63	131.00	121.14
11	W	103	GLY	C-N-CA	5.63	131.00	121.14
4	H	57	VAL	N-CA-C	-5.63	100.32	108.71
1	C	238	ASP	N-CA-C	5.62	122.78	110.80
2	D	216	ALA	N-CA-C	-5.62	100.54	109.76
2	F	118	ALA	N-CA-C	-5.62	100.81	109.52
1	A	192	GLY	N-CA-C	-5.62	103.37	112.31
4	H	93	LEU	N-CA-C	-5.62	95.96	107.70
2	E	17	ILE	N-CA-C	-5.62	96.61	106.61
7	S	127	ASP	N-CA-C	-5.61	100.18	108.99
1	A	191	ASP	N-CA-C	-5.61	106.44	113.28
2	D	240	ALA	CA-C-N	5.61	127.79	120.28
2	D	240	ALA	C-N-CA	5.61	127.79	120.28
2	E	387	ILE	CA-C-N	5.61	129.82	120.62
2	E	387	ILE	C-N-CA	5.61	129.82	120.62
1	C	421	GLY	CA-C-N	5.61	128.14	120.46
1	C	421	GLY	C-N-CA	5.61	128.14	120.46
2	D	370	VAL	N-CA-C	-5.61	105.06	110.72
2	E	177	HIS	N-CA-C	-5.60	105.21	113.61
3	G	76	GLY	N-CA-C	-5.60	102.47	111.59
1	A	322	THR	N-CA-C	-5.58	100.60	109.76
1	A	335	SER	N-CA-C	-5.58	106.24	113.16
2	F	343	GLY	N-CA-C	-5.58	107.61	115.32
2	D	30	PRO	CA-C-N	5.58	126.82	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	D	30	PRO	C-N-CA	5.58	126.82	119.84
3	G	129	LYS	CA-C-N	5.58	132.20	121.54
3	G	129	LYS	C-N-CA	5.58	132.20	121.54
7	S	147	VAL	N-CA-C	-5.58	97.73	109.34
2	F	63	MET	N-CA-C	-5.58	106.36	114.12
1	C	203	TYR	N-CA-C	-5.57	98.27	108.02
7	S	33	GLU	CA-C-N	5.57	128.00	120.38
7	S	33	GLU	C-N-CA	5.57	128.00	120.38
4	H	23	PRO	CA-C-N	5.56	128.19	120.29
4	H	23	PRO	C-N-CA	5.56	128.19	120.29
2	D	421	ALA	CA-C-N	5.56	130.01	120.72
2	D	421	ALA	C-N-CA	5.56	130.01	120.72
4	H	134	ARG	CA-C-N	5.56	127.65	120.70
4	H	134	ARG	C-N-CA	5.56	127.65	120.70
1	B	127	ARG	N-CA-C	-5.56	99.55	108.55
1	C	404	ALA	CA-C-N	5.55	132.14	121.54
1	C	404	ALA	C-N-CA	5.55	132.14	121.54
1	A	202	ILE	N-CA-C	-5.54	99.57	107.77
2	E	64	ASP	CA-C-N	5.54	126.48	120.44
2	E	64	ASP	C-N-CA	5.54	126.48	120.44
2	F	14	VAL	N-CA-C	-5.54	107.42	112.96
2	F	216	ALA	N-CA-C	-5.54	100.68	109.76
1	A	70	ASN	N-CA-C	-5.53	100.52	108.60
2	D	96	ASN	N-CA-C	-5.53	102.27	110.46
1	B	503	ASN	CA-C-N	5.53	127.63	120.44
1	B	503	ASN	C-N-CA	5.53	127.63	120.44
2	D	223	ASN	N-CA-C	-5.53	106.12	112.92
2	E	95	MET	N-CA-C	-5.52	100.89	109.72
1	A	175	LYS	CA-C-O	5.52	126.40	120.55
8	T	26	SER	N-CA-C	5.52	117.10	111.14
9	U	89	ALA	CA-C-N	5.52	127.93	120.65
9	U	89	ALA	C-N-CA	5.52	127.93	120.65
2	E	416	GLN	N-CA-C	-5.52	100.58	109.40
1	C	148	THR	N-CA-C	-5.51	107.80	114.75
2	E	447	GLY	N-CA-C	-5.51	104.48	114.46
7	S	147	VAL	CA-C-N	5.51	132.07	121.54
7	S	147	VAL	C-N-CA	5.51	132.07	121.54
1	C	398	ARG	N-CA-C	-5.51	105.35	111.36
1	A	10	SER	CA-C-N	5.51	131.89	121.97
1	A	10	SER	C-N-CA	5.51	131.89	121.97
1	C	28	THR	N-CA-C	5.50	117.55	109.24
1	A	338	ILE	CA-C-O	-5.50	115.00	118.69

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	31	VAL	N-CA-C	-5.50	101.59	108.84
2	F	329	LEU	N-CA-C	-5.49	100.82	109.50
2	F	277	SER	N-CA-C	-5.49	99.11	110.80
3	G	106	ILE	N-CA-C	-5.49	100.28	108.46
2	E	423	VAL	N-CA-C	-5.48	105.03	110.62
1	A	252	SER	N-CA-C	5.48	116.93	111.07
2	F	383	SER	N-CA-C	-5.48	105.39	111.36
3	G	159	SER	CA-C-N	-5.48	115.81	123.10
3	G	159	SER	C-N-CA	-5.48	115.81	123.10
11	W	178	THR	CA-C-N	5.48	131.30	121.66
11	W	178	THR	C-N-CA	5.48	131.30	121.66
4	H	141	LEU	CA-C-N	5.48	129.28	120.30
4	H	141	LEU	C-N-CA	5.48	129.28	120.30
2	E	20	VAL	CA-C-N	-5.47	115.97	123.14
2	E	20	VAL	C-N-CA	-5.47	115.97	123.14
2	F	410	ILE	CA-C-N	5.47	127.93	120.54
2	F	410	ILE	C-N-CA	5.47	127.93	120.54
3	G	2	THR	N-CA-C	-5.47	99.99	108.42
1	C	437	ALA	CA-C-N	5.47	127.95	120.46
1	C	437	ALA	C-N-CA	5.47	127.95	120.46
2	F	437	THR	CA-C-N	5.46	128.18	120.42
2	F	437	THR	C-N-CA	5.46	128.18	120.42
3	G	249	THR	CA-C-N	5.46	131.97	121.54
3	G	249	THR	C-N-CA	5.46	131.97	121.54
1	A	496	LYS	CA-C-N	5.46	127.53	120.44
1	A	496	LYS	C-N-CA	5.46	127.53	120.44
11	W	155	ALA	CA-C-N	5.45	128.60	120.31
11	W	155	ALA	C-N-CA	5.45	128.60	120.31
7	S	97	ASN	N-CA-C	-5.45	106.55	114.12
2	F	275	ILE	N-CA-C	-5.45	103.95	109.02
1	B	170	ASP	N-CA-C	5.44	117.79	109.95
2	D	198	HIS	N-CA-C	-5.44	105.51	111.82
7	S	97	ASN	CA-C-N	5.44	127.76	120.58
7	S	97	ASN	C-N-CA	5.44	127.76	120.58
1	A	91	THR	N-CA-C	-5.44	106.32	113.17
3	G	163	ASN	CA-C-N	-5.43	114.97	122.30
3	G	163	ASN	C-N-CA	-5.43	114.97	122.30
1	A	129	VAL	N-CA-C	-5.43	105.68	113.07
2	E	275	ILE	CA-C-N	5.43	126.62	119.84
2	E	275	ILE	C-N-CA	5.43	126.62	119.84
2	F	419	GLN	N-CA-C	-5.42	105.02	111.69
4	H	114	LYS	CA-C-N	5.42	127.49	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	H	114	LYS	C-N-CA	5.42	127.49	120.44
1	A	406	PHE	N-CA-C	-5.42	99.25	110.80
1	C	232	VAL	N-CA-C	-5.42	100.61	108.36
3	G	2	THR	CA-C-N	5.42	131.90	121.54
3	G	2	THR	C-N-CA	5.42	131.90	121.54
1	B	430	GLN	N-CA-C	-5.42	99.25	110.80
2	D	207	ASN	N-CA-C	-5.42	99.48	108.75
2	D	355	SER	N-CA-C	-5.42	98.73	108.48
2	E	75	VAL	N-CA-C	-5.41	100.69	108.48
2	E	360	PRO	CA-C-N	5.41	131.88	121.54
2	E	360	PRO	C-N-CA	5.41	131.88	121.54
3	G	22	SER	CA-C-O	5.41	126.50	120.82
2	D	349	ASP	N-CA-C	-5.41	98.79	108.47
2	F	40	GLY	N-CA-C	-5.41	105.57	114.76
11	W	90	HIS	O-C-N	-5.41	117.31	123.48
2	D	345	TYR	N-CA-C	-5.41	97.86	109.81
2	F	254	PHE	N-CA-C	-5.40	99.92	108.73
2	F	359	ASP	O-C-N	-5.40	116.80	121.71
2	E	399	GLU	CA-C-N	5.39	127.51	120.28
2	E	399	GLU	C-N-CA	5.39	127.51	120.28
2	D	158	ALA	N-CA-C	5.39	122.29	110.80
2	E	84	ILE	N-CA-C	-5.39	104.77	109.19
2	D	83	ARG	N-CA-C	-5.39	100.62	109.40
8	T	170	LEU	CA-C-O	-5.39	114.84	120.55
1	C	135	GLY	CA-C-N	5.39	127.35	120.56
1	C	135	GLY	C-N-CA	5.39	127.35	120.56
2	D	189	ARG	N-CA-C	-5.38	98.97	108.23
2	F	338	ALA	CA-C-N	5.38	128.06	120.42
2	F	338	ALA	C-N-CA	5.38	128.06	120.42
2	D	87	GLY	CA-C-N	5.38	125.05	119.56
2	D	87	GLY	C-N-CA	5.38	125.05	119.56
1	A	317	GLY	N-CA-C	-5.38	107.56	115.30
7	S	35	VAL	N-CA-C	-5.37	107.19	111.81
2	F	245	ASP	N-CA-C	-5.37	105.08	111.69
2	E	303	SER	CA-C-N	-5.37	115.94	123.13
2	E	303	SER	C-N-CA	-5.37	115.94	123.13
4	H	61	GLY	N-CA-C	-5.37	100.46	113.18
2	F	439	LYS	CA-C-N	5.37	126.05	119.99
2	F	439	LYS	C-N-CA	5.37	126.05	119.99
1	A	232	VAL	N-CA-C	-5.36	100.69	108.36
11	W	152	GLN	CA-C-O	-5.36	112.82	120.16
3	G	67	LEU	CA-C-N	5.36	129.75	121.71

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	G	67	LEU	C-N-CA	5.36	129.75	121.71
1	B	115	ILE	CA-C-N	5.36	127.72	120.38
1	B	115	ILE	C-N-CA	5.36	127.72	120.38
7	S	62	ARG	CA-C-N	5.35	127.40	120.44
7	S	62	ARG	C-N-CA	5.35	127.40	120.44
2	F	284	THR	N-CA-C	-5.34	106.35	112.92
1	B	80	LYS	N-CA-C	-5.34	99.42	110.80
1	C	507	GLY	CA-C-N	5.34	127.97	120.28
1	C	507	GLY	C-N-CA	5.34	127.97	120.28
1	B	505	LEU	N-CA-C	-5.34	99.43	110.80
2	D	312	VAL	N-CA-C	-5.33	97.36	108.88
2	F	392	GLY	N-CA-C	-5.33	100.54	113.18
7	S	67	LYS	N-CA-C	-5.33	105.61	113.61
1	C	375	GLY	CA-C-N	5.33	128.41	120.31
1	C	375	GLY	C-N-CA	5.33	128.41	120.31
1	B	83	LYS	N-CA-C	-5.32	101.03	108.96
2	E	157	GLY	N-CA-C	-5.31	100.59	113.18
2	E	283	PRO	CA-C-N	5.31	131.28	122.73
2	E	283	PRO	C-N-CA	5.31	131.28	122.73
2	D	220	GLY	CA-C-N	5.31	131.68	121.54
2	D	220	GLY	C-N-CA	5.31	131.68	121.54
2	E	267	GLU	N-CA-C	-5.31	105.57	111.36
1	A	488	LYS	N-CA-C	-5.31	99.50	110.80
4	H	90	VAL	N-CA-C	-5.30	100.56	108.46
4	H	98	VAL	CA-C-N	5.30	128.40	120.87
4	H	98	VAL	C-N-CA	5.30	128.40	120.87
1	A	417	LEU	CA-C-N	5.30	127.33	120.44
1	A	417	LEU	C-N-CA	5.30	127.33	120.44
1	C	187	LYS	CA-C-O	-5.30	115.23	120.90
1	A	190	ASN	N-CA-C	-5.30	106.32	112.89
1	B	232	VAL	N-CA-C	-5.30	100.79	108.36
2	F	161	GLY	N-CA-C	-5.30	100.63	113.18
2	E	35	ALA	N-CA-C	-5.29	101.34	109.76
3	G	184	ILE	N-CA-C	-5.29	105.61	113.39
2	F	455	GLN	N-CA-C	-5.29	106.60	113.16
7	S	31	LYS	N-CA-C	-5.29	106.69	112.72
3	G	162	PHE	CA-C-N	-5.29	115.97	122.84
3	G	162	PHE	C-N-CA	-5.29	115.97	122.84
2	D	54	GLY	CA-C-N	5.28	131.63	121.54
2	D	54	GLY	C-N-CA	5.28	131.63	121.54
2	F	454	GLU	CA-C-N	5.27	131.93	122.38
2	F	454	GLU	C-N-CA	5.27	131.93	122.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	330	GLN	N-CA-C	-5.27	98.68	107.80
1	C	124	LYS	N-CA-C	-5.26	105.18	113.02
1	B	177	SER	CA-C-N	5.26	127.19	120.56
1	B	177	SER	C-N-CA	5.26	127.19	120.56
1	B	279	ARG	CA-C-N	5.25	127.64	120.54
1	B	279	ARG	C-N-CA	5.25	127.64	120.54
1	C	104	LEU	N-CA-C	-5.25	98.11	107.98
3	G	79	GLY	N-CA-C	-5.25	106.78	112.08
4	H	127	THR	CA-C-N	5.25	127.27	120.44
4	H	127	THR	C-N-CA	5.25	127.27	120.44
9	U	16	ILE	CA-C-O	5.25	124.89	120.22
7	S	112	HIS	CA-C-N	5.25	130.48	121.87
7	S	112	HIS	C-N-CA	5.25	130.48	121.87
2	D	163	THR	N-CA-C	-5.24	105.64	111.36
2	E	36	LEU	N-CA-C	-5.24	101.61	109.95
2	D	451	HIS	N-CA-C	-5.24	99.64	110.80
3	G	47	GLY	CA-C-N	5.24	127.56	120.38
3	G	47	GLY	C-N-CA	5.24	127.56	120.38
2	F	331	ALA	N-CA-C	-5.24	100.07	108.55
1	B	388	GLY	CA-C-O	5.23	126.44	121.05
3	G	238	ASN	CA-C-O	5.23	126.31	120.82
2	F	149	GLY	N-CA-C	-5.23	107.78	114.37
1	A	196	LYS	N-CA-C	-5.23	105.58	111.28
2	E	109	LYS	N-CA-C	-5.23	99.93	108.76
1	B	104	LEU	N-CA-C	-5.22	101.26	109.25
1	B	102	GLU	CA-C-N	5.22	131.51	121.18
1	B	102	GLU	C-N-CA	5.22	131.51	121.18
7	S	46	LEU	CA-C-N	5.21	131.50	121.54
7	S	46	LEU	C-N-CA	5.21	131.50	121.54
1	A	19	ALA	N-CA-C	-5.21	102.18	109.69
2	D	333	THR	N-CA-C	-5.21	98.90	108.02
2	E	442	GLN	CA-C-N	5.21	127.53	120.44
2	E	442	GLN	C-N-CA	5.21	127.53	120.44
1	A	260	ASN	N-CA-C	-5.21	103.79	111.81
1	C	316	PHE	CA-C-N	5.21	129.84	120.77
1	C	316	PHE	C-N-CA	5.21	129.84	120.77
2	F	39	GLN	N-CA-C	-5.21	101.21	109.96
7	S	86	ILE	N-CA-C	-5.21	105.53	110.42
2	E	262	THR	N-CA-C	-5.21	105.69	111.36
2	E	310	ILE	N-CA-C	-5.21	100.07	107.77
3	G	161	ILE	N-CA-C	-5.21	100.25	107.80
5	I	45	VAL	N-CA-C	-5.20	98.52	109.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	E	268	VAL	N-CA-C	-5.20	105.53	110.42
8	T	162	ALA	CA-C-O	-5.20	115.36	120.82
2	F	128	VAL	CA-C-O	-5.20	115.65	121.05
2	D	122	GLU	CA-C-N	5.19	127.24	120.28
2	D	122	GLU	C-N-CA	5.19	127.24	120.28
1	B	220	LEU	CA-C-N	5.19	127.23	120.28
1	B	220	LEU	C-N-CA	5.19	127.23	120.28
1	B	338	ILE	CA-C-O	-5.19	114.44	118.85
2	D	76	LEU	N-CA-C	-5.19	99.96	108.41
2	F	190	THR	N-CA-C	-5.19	105.05	111.33
1	A	500	ILE	CA-C-N	5.18	127.09	120.56
1	A	500	ILE	C-N-CA	5.18	127.09	120.56
3	G	49	LEU	CA-C-N	5.18	131.43	121.54
3	G	49	LEU	C-N-CA	5.18	131.43	121.54
2	F	365	SER	CA-C-N	-5.17	113.71	120.44
2	F	365	SER	C-N-CA	-5.17	113.71	120.44
7	S	134	LEU	CA-C-N	5.17	127.21	120.28
7	S	134	LEU	C-N-CA	5.17	127.21	120.28
1	A	327	ILE	N-CA-C	-5.17	100.80	108.45
2	E	106	GLY	N-CA-C	-5.17	101.79	112.34
1	A	109	ASP	CA-C-N	5.17	127.21	120.28
1	A	109	ASP	C-N-CA	5.17	127.21	120.28
2	D	370	VAL	CA-C-N	5.17	127.16	120.44
2	D	370	VAL	C-N-CA	5.17	127.16	120.44
2	E	76	LEU	N-CA-C	-5.17	99.98	108.41
1	C	195	GLU	N-CA-C	-5.17	107.11	113.41
3	G	209	LEU	N-CA-C	-5.17	105.73	111.36
1	A	488	LYS	CA-C-N	5.16	131.26	121.97
1	A	488	LYS	C-N-CA	5.16	131.26	121.97
1	B	109	ASP	N-CA-C	-5.16	103.87	110.53
1	C	83	LYS	CA-C-N	5.16	128.41	120.82
1	C	83	LYS	C-N-CA	5.16	128.41	120.82
7	S	141	PHE	N-CA-C	-5.16	108.00	114.56
1	C	151	LYS	CA-C-N	5.16	127.45	120.38
1	C	151	LYS	C-N-CA	5.16	127.45	120.38
7	S	63	SER	N-CA-C	-5.16	105.55	111.07
1	A	366	ASN	N-CA-C	-5.16	99.00	108.02
2	E	171	ASN	CA-C-N	-5.16	112.97	120.29
2	E	171	ASN	C-N-CA	-5.16	112.97	120.29
11	W	109	TRP	CA-C-N	5.15	128.14	120.31
11	W	109	TRP	C-N-CA	5.15	128.14	120.31
8	T	26	SER	CA-C-O	-5.15	115.39	120.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	334	VAL	N-CA-C	-5.15	108.27	113.47
2	D	252	LEU	N-CA-C	-5.15	100.84	109.24
2	F	17	ILE	N-CA-C	-5.15	98.27	107.18
2	E	89	GLU	CA-C-N	5.15	129.43	120.68
2	E	89	GLU	C-N-CA	5.15	129.43	120.68
1	A	476	HIS	CA-C-N	5.14	127.43	120.38
1	A	476	HIS	C-N-CA	5.14	127.43	120.38
2	D	307	VAL	N-CA-C	-5.14	100.24	107.75
2	F	357	ILE	N-CA-C	-5.14	106.90	113.22
2	D	447	GLY	CA-C-N	5.14	128.82	120.60
2	D	447	GLY	C-N-CA	5.14	128.82	120.60
2	E	345	TYR	N-CA-C	-5.14	98.46	109.81
2	E	47	LEU	N-CA-C	-5.13	100.80	109.07
8	T	120	ASN	CA-C-O	5.13	125.99	120.55
2	D	265	GLY	N-CA-C	5.13	118.85	112.64
1	B	50	GLU	CA-C-N	-5.13	114.17	121.50
1	B	50	GLU	C-N-CA	-5.13	114.17	121.50
2	F	249	GLN	CA-C-O	5.13	126.91	121.16
9	U	82	LYS	N-CA-C	5.13	121.72	110.80
1	C	364	ALA	N-CA-C	-5.12	106.72	113.17
2	D	212	THR	CA-C-N	5.12	129.64	121.66
2	D	212	THR	C-N-CA	5.12	129.64	121.66
1	A	385	GLN	CA-C-N	-5.12	116.31	122.35
1	A	385	GLN	C-N-CA	-5.12	116.31	122.35
1	C	76	PHE	N-CA-C	-5.12	99.45	108.20
1	C	205	ALA	CA-C-N	5.12	129.53	123.19
1	C	205	ALA	C-N-CA	5.12	129.53	123.19
2	D	423	VAL	N-CA-C	-5.12	105.55	110.72
2	D	463	ILE	N-CA-C	5.12	117.44	111.05
1	C	360	GLY	N-CA-C	-5.11	107.62	116.01
7	S	18	TYR	N-CA-C	5.11	116.66	111.14
1	B	73	VAL	N-CA-C	-5.11	100.29	107.75
4	H	54	THR	N-CA-C	-5.11	100.55	108.42
7	S	26	ALA	CA-C-N	5.11	127.89	120.79
7	S	26	ALA	C-N-CA	5.11	127.89	120.79
7	S	72	MET	CA-C-O	-5.10	113.21	120.51
2	E	372	ARG	N-CA-C	5.10	117.58	111.71
11	W	17	LEU	CA-C-N	5.10	124.72	119.05
11	W	17	LEU	C-N-CA	5.10	124.72	119.05
2	F	303	SER	CA-C-N	-5.10	116.30	123.13
2	F	303	SER	C-N-CA	-5.10	116.30	123.13
2	D	127	SER	N-CA-C	-5.10	102.10	109.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	H	71	THR	CA-C-N	-5.10	114.89	122.74
4	H	71	THR	C-N-CA	-5.10	114.89	122.74
1	B	103	LEU	N-CA-C	-5.09	106.90	113.01
2	E	23	VAL	N-CA-C	-5.09	100.87	108.46
2	F	393	MET	CA-C-N	5.09	131.27	121.54
2	F	393	MET	C-N-CA	5.09	131.27	121.54
2	D	20	VAL	CA-C-N	-5.08	116.48	123.14
2	D	20	VAL	C-N-CA	-5.08	116.48	123.14
2	F	61	ILE	N-CA-C	-5.08	100.99	108.11
8	T	28	ILE	CA-C-O	-5.08	114.43	120.78
9	U	9	ASP	CA-C-O	-5.08	113.24	120.51
2	F	352	ASP	N-CA-C	-5.08	108.11	114.56
7	S	109	MET	CA-C-N	-5.08	112.23	120.72
7	S	109	MET	C-N-CA	-5.08	112.23	120.72
1	A	47	VAL	N-CA-C	-5.08	98.77	109.34
1	A	198	LYS	N-CA-C	-5.08	97.08	107.70
1	C	195	GLU	CA-C-O	5.08	125.15	119.41
1	C	239	ALA	CA-C-N	5.08	126.44	120.09
1	C	239	ALA	C-N-CA	5.08	126.44	120.09
1	C	381	ARG	CA-C-O	-5.08	115.17	120.55
1	A	500	ILE	O-C-N	5.08	126.89	121.91
4	H	86	ALA	CA-C-N	5.08	128.42	120.75
4	H	86	ALA	C-N-CA	5.08	128.42	120.75
2	D	250	ASP	N-CA-C	-5.08	99.50	108.23
7	S	48	GLU	N-CA-C	-5.08	103.56	110.36
2	D	406	ARG	CA-C-N	5.07	127.07	120.28
2	D	406	ARG	C-N-CA	5.07	127.07	120.28
4	H	49	ALA	N-CA-C	-5.07	105.75	111.28
2	F	374	VAL	N-CA-C	5.07	115.29	110.53
4	H	18	PHE	CA-C-O	5.07	125.90	120.38
4	H	22	SER	N-CA-C	-5.07	98.61	109.81
8	T	29	SER	N-CA-C	5.07	118.23	111.75
7	S	164	VAL	N-CA-C	-5.06	105.61	110.72
1	C	145	PRO	N-CA-C	-5.06	102.05	112.47
2	E	210	ASP	N-CA-C	-5.06	100.02	110.80
2	E	235	THR	CA-C-N	5.06	125.59	119.98
2	E	235	THR	C-N-CA	5.06	125.59	119.98
1	A	274	GLN	CA-C-N	5.05	127.05	120.28
1	A	274	GLN	C-N-CA	5.05	127.05	120.28
2	D	147	ALA	N-CA-C	-5.05	101.46	109.59
2	D	218	VAL	N-CA-C	-5.05	100.85	108.12
2	F	431	LEU	N-CA-C	-5.04	101.62	109.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	366	ASN	N-CA-C	-5.04	99.20	108.02
3	G	172	LYS	N-CA-C	-5.04	99.77	108.69
1	A	46	ASN	N-CA-C	-5.04	100.31	108.52
2	F	123	PHE	CA-C-O	5.03	125.88	120.55
2	F	222	MET	CA-C-N	5.03	131.15	121.54
2	F	222	MET	C-N-CA	5.03	131.15	121.54
2	D	30	PRO	N-CA-C	-5.03	104.57	110.70
1	B	136	ILE	N-CA-C	-5.03	105.49	110.62
1	A	490	SER	CA-C-N	5.02	127.26	120.38
1	A	490	SER	C-N-CA	5.02	127.26	120.38
2	F	314	ALA	N-CA-C	-5.02	106.73	112.86
2	E	399	GLU	CA-C-O	5.02	125.87	120.70
11	W	106	ILE	CA-C-N	5.02	125.04	119.32
11	W	106	ILE	C-N-CA	5.02	125.04	119.32
1	A	174	GLY	CA-C-N	5.02	127.00	120.28
1	A	174	GLY	C-N-CA	5.02	127.00	120.28
4	H	95	GLU	N-CA-C	-5.02	105.46	111.03
2	D	468	ALA	CA-C-N	5.01	127.50	120.28
2	D	468	ALA	C-N-CA	5.01	127.50	120.28
7	S	110	SER	CA-C-N	5.01	129.36	121.09
7	S	110	SER	C-N-CA	5.01	129.36	121.09
1	A	456	LEU	N-CA-C	5.01	116.40	110.19
1	B	497	LEU	N-CA-C	5.01	116.55	111.14
4	H	67	ALA	N-CA-C	-5.01	101.55	109.76
7	S	135	LYS	CA-C-N	5.01	127.30	120.54
7	S	135	LYS	C-N-CA	5.01	127.30	120.54
1	A	132	LYS	CA-C-N	5.00	127.76	120.51
1	A	132	LYS	C-N-CA	5.00	127.76	120.51
2	D	305	THR	N-CA-C	-5.00	100.58	108.73

There are no chirality outliers.

All (75) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	336	ALA	Peptide
1	B	379	GLN	Mainchain
1	B	505	LEU	Mainchain
1	C	169	GLY	Mainchain
1	C	24	ASP	Mainchain
2	E	101	PRO	Mainchain
2	E	354	THR	Mainchain,Peptide
2	E	397	SER	Mainchain

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Mol	Chain	Res	Type	Group
2	E	453	PRO	Mainchain,Peptide
2	F	25	PHE	Mainchain
2	F	329	LEU	Mainchain
7	S	106	SER	Mainchain,Peptide
7	S	152	VAL	Peptide
7	S	156	PRO	Peptide
7	S	159	MET	Mainchain
7	S	161	GLY	Mainchain
7	S	70	SER	Peptide
7	S	73	THR	Peptide
8	T	101	MET	Mainchain
8	T	108	ARG	Mainchain
8	T	132	MET	Mainchain
8	T	138	GLU	Mainchain
8	T	148	VAL	Mainchain,Peptide
8	T	162	ALA	Mainchain
8	T	172	SER	Peptide
8	T	173	LYS	Peptide
8	T	25	PHE	Mainchain
8	T	27	ALA	Peptide
8	T	28	ILE	Mainchain
8	T	32	GLY	Mainchain
8	T	89	HIS	Mainchain
8	T	90	TYR	Mainchain
9	U	11	VAL	Mainchain
9	U	110	GLN	Mainchain
9	U	12	ALA	Mainchain
9	U	13	PHE	Mainchain,Peptide
9	U	16	ILE	Mainchain
9	U	17	ILE	Mainchain
9	U	41	THR	Mainchain
9	U	61	ALA	Mainchain
9	U	82	LYS	Mainchain,Peptide
9	U	83	TYR	Mainchain
9	U	93	GLU	Mainchain
9	U	96	LYS	Mainchain
9	U	97	SER	Mainchain
10	V	14	ASP	Mainchain
10	V	27	GLY	Peptide
10	V	28	GLY	Peptide
10	V	35	GLU	Mainchain
10	V	5	LEU	Mainchain

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Mol	Chain	Res	Type	Group
10	V	57	ASN	Mainchain
10	V	6	ASP	Mainchain,Peptide
10	V	8	VAL	Mainchain
11	W	10	ILE	Mainchain
11	W	132	GLY	Mainchain
11	W	133	THR	Mainchain
11	W	167	GLY	Mainchain
11	W	174	ILE	Peptide
11	W	175	GLY	Peptide
11	W	177	ALA	Mainchain
11	W	179	LEU	Mainchain
11	W	189	ALA	Mainchain
11	W	193	PHE	Mainchain
11	W	196	LEU	Mainchain
11	W	35	ASN	Peptide
11	W	63	SER	Mainchain
11	W	64	LYS	Mainchain
11	W	90	HIS	Mainchain

5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	2035	0	589	12	0
1	B	1918	0	553	7	0
1	C	1947	0	563	8	0
2	D	1867	0	533	8	0
2	E	1863	0	532	8	0
2	F	1863	0	532	8	0
3	G	1053	0	283	4	0
4	H	523	0	140	2	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

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
6	P	288	0	92	1	0
6	Q	288	0	92	0	0
7	S	669	0	179	13	0
8	T	697	0	182	5	0
9	U	484	0	121	1	0
10	V	265	0	68	0	0
11	W	869	0	226	3	0
All	All	18544	0	5290	72	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 (72) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S:107:THR:C	7:S:107:THR:CA	1.89	1.43
7:S:106:SER:O	7:S:107:THR:C	2.22	0.82
4:H:50:ALA:O	6:P:39:ASN:C	2.31	0.74
1:B:49:ALA:H	2:F:69:LEU:H	1.36	0.74
11:W:172:HIS:O	11:W:175:GLY:HA3	1.93	0.69
2:D:160:VAL:H	2:D:162:LYS:H	1.47	0.62
3:G:267:SER:H	3:G:270:ALA:H	1.52	0.58
3:G:267:SER:H	3:G:270:ALA:N	2.03	0.57
2:F:417:PRO:C	2:F:429:GLY:HA2	2.31	0.56
2:D:473:LEU:C	2:D:475:GLU:H	2.14	0.56
1:A:6:ALA:C	1:A:8:VAL:H	2.14	0.54
2:E:159:GLY:N	2:E:163:THR:H	2.06	0.54
1:C:172:GLN:C	1:C:174:GLY:H	2.16	0.54
1:C:261:GLY:HA2	1:C:317:GLY:HA3	1.89	0.54
7:S:28:LYS:C	7:S:30:ASN:H	2.17	0.52
1:A:49:ALA:H	2:E:69:LEU:N	2.08	0.52
8:T:24:THR:C	11:W:176:GLY:HA2	2.35	0.51
1:C:285:LEU:C	1:C:287:ARG:H	2.19	0.50
3:G:184:ILE:C	3:G:186:SER:H	2.19	0.49
8:T:89:HIS:O	8:T:90:TYR:C	2.55	0.49
7:S:14:ILE:C	7:S:16:GLY:H	2.19	0.49
8:T:24:THR:CA	11:W:176:GLY:HA2	2.42	0.49
1:A:261:GLY:HA3	1:A:317:GLY:HA3	1.94	0.48
1:A:26:GLU:CA	1:A:45:ARG:H	2.26	0.48
1:C:49:ALA:H	2:D:69:LEU:N	2.11	0.48
2:D:419:GLN:CA	2:D:429:GLY:H	2.27	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S:107:THR:CA	7:S:112:HIS:CA	2.91	0.48
1:C:189:PHE:C	1:C:192:GLY:H	2.23	0.47
7:S:111:VAL:C	7:S:113:ARG:H	2.23	0.46
1:C:44:LEU:C	1:C:46:ASN:H	2.24	0.46
7:S:57:ASN:C	7:S:59:TYR:H	2.24	0.46
1:B:172:GLN:C	1:B:174:GLY:H	2.24	0.45
1:A:261:GLY:CA	1:A:317:GLY:HA3	2.46	0.45
2:E:350:PRO:C	2:E:352:ASP:H	2.25	0.45
2:E:419:GLN:H	2:E:429:GLY:H	1.63	0.45
7:S:105:PHE:O	7:S:107:THR:CA	2.65	0.45
2:E:419:GLN:N	2:E:429:GLY:H	2.15	0.45
8:T:28:ILE:O	8:T:29:SER:C	2.59	0.44
1:A:408:SER:H	2:E:392:GLY:C	2.26	0.44
8:T:99:ILE:O	8:T:100:ALA:C	2.60	0.44
2:E:388:ILE:C	2:E:391:LEU:H	2.25	0.44
2:D:341:GLU:C	2:D:343:GLY:H	2.25	0.44
1:A:101:GLU:C	1:A:103:LEU:H	2.26	0.43
2:F:368:TYR:O	2:F:372:ARG:N	2.51	0.43
2:D:160:VAL:N	2:D:162:LYS:H	2.14	0.43
2:F:272:LEU:C	2:F:274:ARG:H	2.25	0.43
1:B:49:ALA:H	2:F:69:LEU:N	2.11	0.43
3:G:246:LEU:C	3:G:248:LEU:H	2.25	0.43
1:A:475:GLN:C	1:A:477:GLN:H	2.25	0.43
7:S:91:GLU:C	7:S:93:GLY:H	2.26	0.43
2:D:350:PRO:C	2:D:352:ASP:H	2.27	0.43
2:F:381:TYR:O	2:F:385:GLN:N	2.51	0.42
2:D:97:VAL:C	2:D:99:GLY:H	2.26	0.42
4:H:87:ASP:C	4:H:89:SER:H	2.27	0.42
7:S:105:PHE:C	7:S:107:THR:N	2.75	0.42
7:S:105:PHE:O	7:S:107:THR:N	2.53	0.42
1:B:374:VAL:C	1:B:376:SER:H	2.28	0.41
2:E:247:GLU:C	2:E:249:GLN:H	2.28	0.41
7:S:139:LYS:C	7:S:141:PHE:H	2.29	0.41
1:A:105:GLY:HA2	1:A:226:MET:O	2.21	0.41
1:A:149:GLY:HA3	1:A:436:MET:H	1.85	0.41
9:U:96:LYS:O	9:U:97:SER:C	2.61	0.41
1:B:171:ARG:O	1:B:172:GLN:C	2.65	0.40
2:F:299:THR:C	2:F:301:LYS:H	2.29	0.40
2:F:355:SER:C	2:F:358:MET:H	2.28	0.40
7:S:89:LEU:O	7:S:93:GLY:HA2	2.21	0.40
1:A:346:THR:C	1:A:348:GLY:H	2.29	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:259:ASP:C	1:C:261:GLY:H	2.28	0.40
1:A:258:ARG:O	1:A:319:GLY:HA3	2.22	0.40
1:B:25:LEU:C	1:B:45:ARG:H	2.29	0.40
1:B:290:GLY:H	1:B:294:TYR:C	2.30	0.40
1:C:258:ARG:O	1:C:319:GLY:HA3	2.21	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	507/510 (99%)	455 (90%)	35 (7%)	17 (3%)	3	21
1	B	476/510 (93%)	428 (90%)	27 (6%)	21 (4%)	2	17
1	C	485/510 (95%)	431 (89%)	33 (7%)	21 (4%)	2	17
2	D	465/482 (96%)	418 (90%)	31 (7%)	16 (3%)	3	21
2	E	464/482 (96%)	411 (89%)	26 (6%)	27 (6%)	1	14
2	F	464/482 (96%)	419 (90%)	33 (7%)	12 (3%)	4	25
3	G	258/273 (94%)	198 (77%)	33 (13%)	27 (10%)	0	6
4	H	129/146 (88%)	115 (89%)	11 (8%)	3 (2%)	5	28
5	I	45/50 (90%)	31 (69%)	11 (24%)	3 (7%)	1	12
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

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
6	Q	70/72 (97%)	61 (87%)	7 (10%)	2 (3%)	3	23
7	S	166/190 (87%)	107 (64%)	38 (23%)	21 (13%)	0	4
8	T	172/174 (99%)	158 (92%)	9 (5%)	5 (3%)	3	23
9	U	119/124 (96%)	94 (79%)	19 (16%)	6 (5%)	1	16
10	V	65/77 (84%)	48 (74%)	10 (15%)	7 (11%)	0	6
11	W	215/217 (99%)	186 (86%)	25 (12%)	4 (2%)	6	32
All	All	4590/4803 (96%)	3996 (87%)	395 (9%)	199 (4%)	3	17

All (199) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	13	GLU
1	A	14	GLU
1	A	224	ASP
1	A	238	ASP
1	A	374	VAL
1	B	57	SER
1	B	171	ARG
1	B	289	PRO
1	B	331	ALA
1	B	455	LYS
1	C	27	GLU
1	C	238	ASP
1	C	289	PRO
1	C	405	GLN
1	C	409	ASP
2	D	31	PRO
2	D	102	ILE
2	D	249	GLN
2	D	277	SER
2	D	282	GLN
2	D	393	MET
2	D	450	ASP
2	D	451	HIS
2	E	118	ALA
2	E	158	ALA
2	E	276	PRO
2	E	348	VAL
2	E	360	PRO
2	E	395	GLU

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Mol	Chain	Res	Type
2	E	450	ASP
2	F	276	PRO
3	G	50	ALA
3	G	55	ALA
3	G	119	THR
3	G	151	SER
3	G	189	SER
3	G	199	ASP
3	G	250	PHE
4	H	68	GLU
4	H	101	ASP
5	I	9	LEU
7	S	29	GLN
7	S	47	LYS
7	S	79	SER
7	S	93	GLY
7	S	123	ALA
7	S	153	LYS
7	S	159	MET
8	T	151	SER
9	U	83	TYR
9	U	84	THR
9	U	98	CYS
10	V	26	SER
10	V	67	PRO
11	W	175	GLY
11	W	176	GLY
1	A	488	LYS
1	B	80	LYS
1	B	224	ASP
1	B	238	ASP
1	B	374	VAL
1	B	430	GLN
1	B	488	LYS
1	B	505	LEU
1	C	47	VAL
1	C	172	GLN
1	C	224	ASP
1	C	319	GLY
1	C	365	ILE
1	C	374	VAL
1	C	433	TYR

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Mol	Chain	Res	Type
1	C	455	LYS
2	D	55	GLU
2	D	348	VAL
2	E	132	ILE
2	E	210	ASP
2	E	297	THR
2	E	394	ASP
2	E	396	LEU
2	F	27	GLU
2	F	176	ALA
2	F	209	LYS
2	F	223	ASN
3	G	9	ARG
3	G	87	LYS
3	G	93	ALA
3	G	194	ASP
3	G	200	VAL
3	G	257	VAL
5	I	6	GLN
5	I	42	ILE
7	S	115	GLU
7	S	147	VAL
7	S	148	LEU
7	S	150	LEU
8	T	147	ARG
9	U	49	ILE
10	V	30	VAL
10	V	32	ALA
1	A	11	ILE
1	A	25	LEU
1	A	123	SER
1	A	146	MET
1	B	26	GLU
1	B	35	GLY
1	B	101	GLU
1	C	406	PHE
1	C	453	LEU
2	E	44	ARG
2	E	73	GLN
2	E	100	GLU
2	E	361	ASN
2	F	102	ILE

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Mol	Chain	Res	Type
2	F	300	LYS
2	F	450	ASP
3	G	10	LEU
3	G	134	ARG
3	G	267	SER
3	G	269	ALA
6	J	45	GLN
7	S	4	LEU
7	S	106	SER
7	S	129	THR
9	U	99	ALA
1	A	18	GLY
1	A	172	GLN
1	A	289	PRO
1	A	433	TYR
1	B	209	LYS
1	B	365	ILE
1	B	435	PRO
1	C	56	SER
1	C	95	VAL
1	C	143	ARG
1	C	145	PRO
1	C	171	ARG
2	D	180	TYR
2	D	221	GLN
2	D	276	PRO
2	D	357	ILE
2	E	30	PRO
2	E	55	GLU
2	E	102	ILE
2	E	126	MET
2	E	146	TYR
2	E	352	ASP
3	G	88	GLN
3	G	92	GLU
3	G	117	HIS
3	G	135	PRO
3	G	195	ASP
3	G	258	ILE
3	G	268	GLY
3	G	270	ALA
6	P	40	PRO

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Mol	Chain	Res	Type
6	Q	44	GLN
7	S	9	VAL
7	S	52	ALA
7	S	60	VAL
7	S	92	ASN
8	T	171	LEU
9	U	47	PRO
11	W	36	ARG
1	A	145	PRO
1	C	194	ASP
2	D	394	ASP
2	E	127	SER
2	E	161	GLY
2	E	452	LEU
2	F	44	ARG
2	F	279	VAL
2	F	312	VAL
2	F	363	VAL
3	G	201	LEU
6	O	39	ASN
7	S	140	SER
10	V	6	ASP
10	V	53	LYS
11	W	40	ASN
1	A	235	THR
2	D	279	VAL
3	G	69	ILE
7	S	8	PRO
8	T	19	VAL
1	B	47	VAL
2	E	279	VAL
6	M	40	PRO
7	S	152	VAL
1	A	288	PRO
1	B	121	ILE
4	H	39	PRO
1	B	115	ILE
2	E	363	VAL
6	J	40	PRO
6	M	71	ILE
8	T	148	VAL
10	V	34	PRO

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Mol	Chain	Res	Type
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-3166. These allow visual inspection of the internal detail of the map and identification of artifacts.

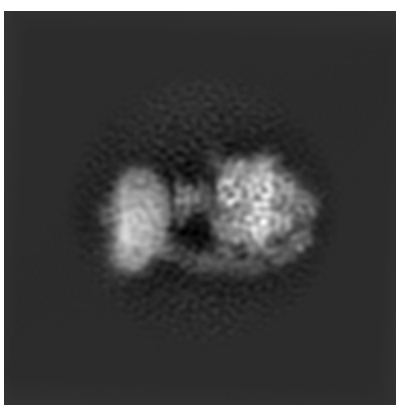
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

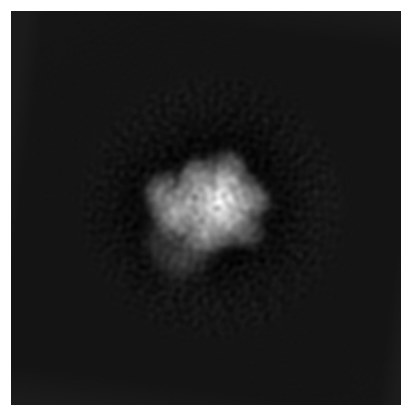
6.1.1 Primary map



X



Y



Z

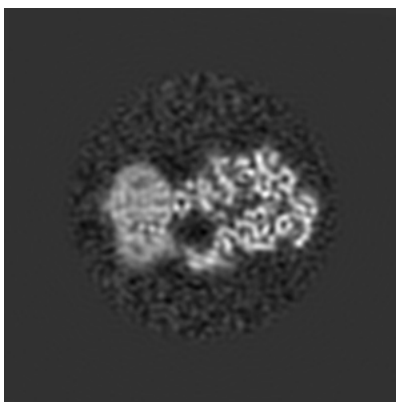
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

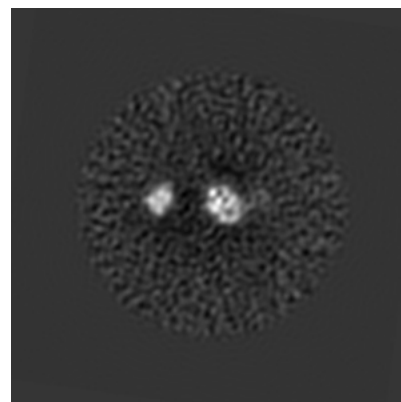
6.2.1 Primary map



X Index: 128



Y Index: 128



Z Index: 128

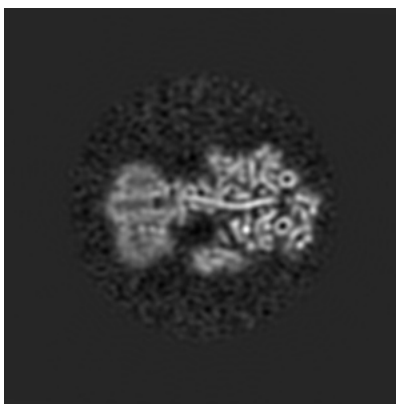
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

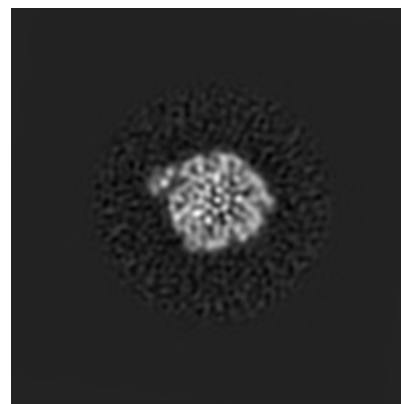
6.3.1 Primary map



X Index: 133



Y Index: 132

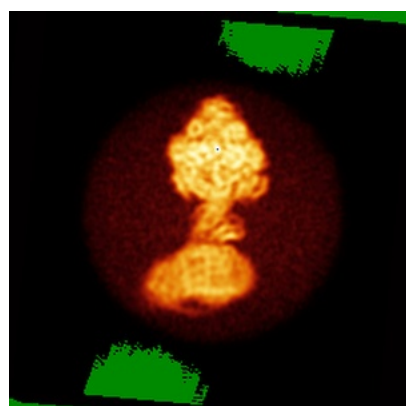


Z Index: 166

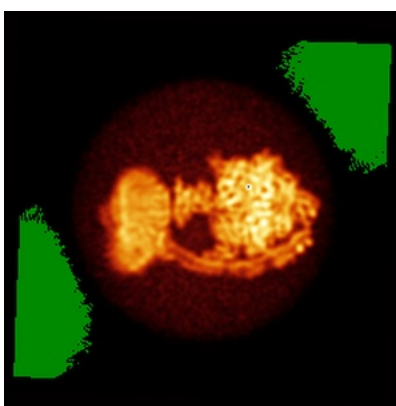
The images above show the largest variance slices of the map in three orthogonal directions.

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

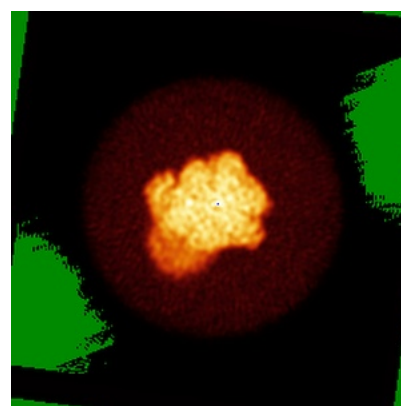
6.4.1 Primary map



X



Y

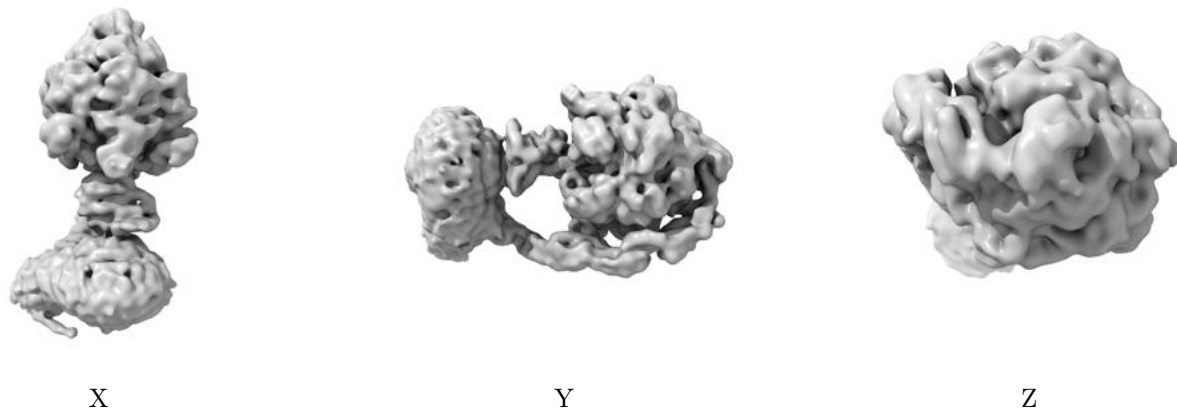


Z

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.

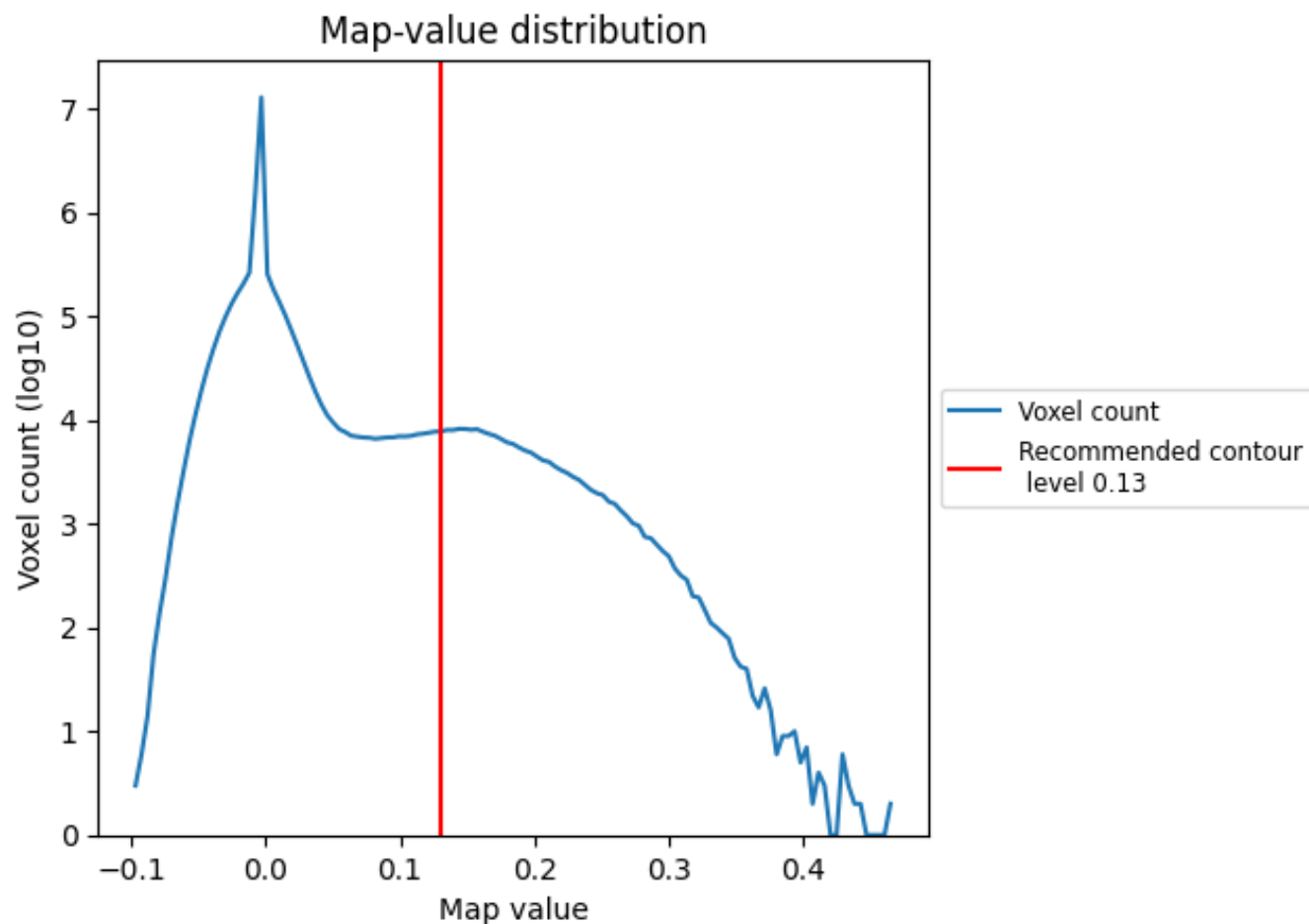
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

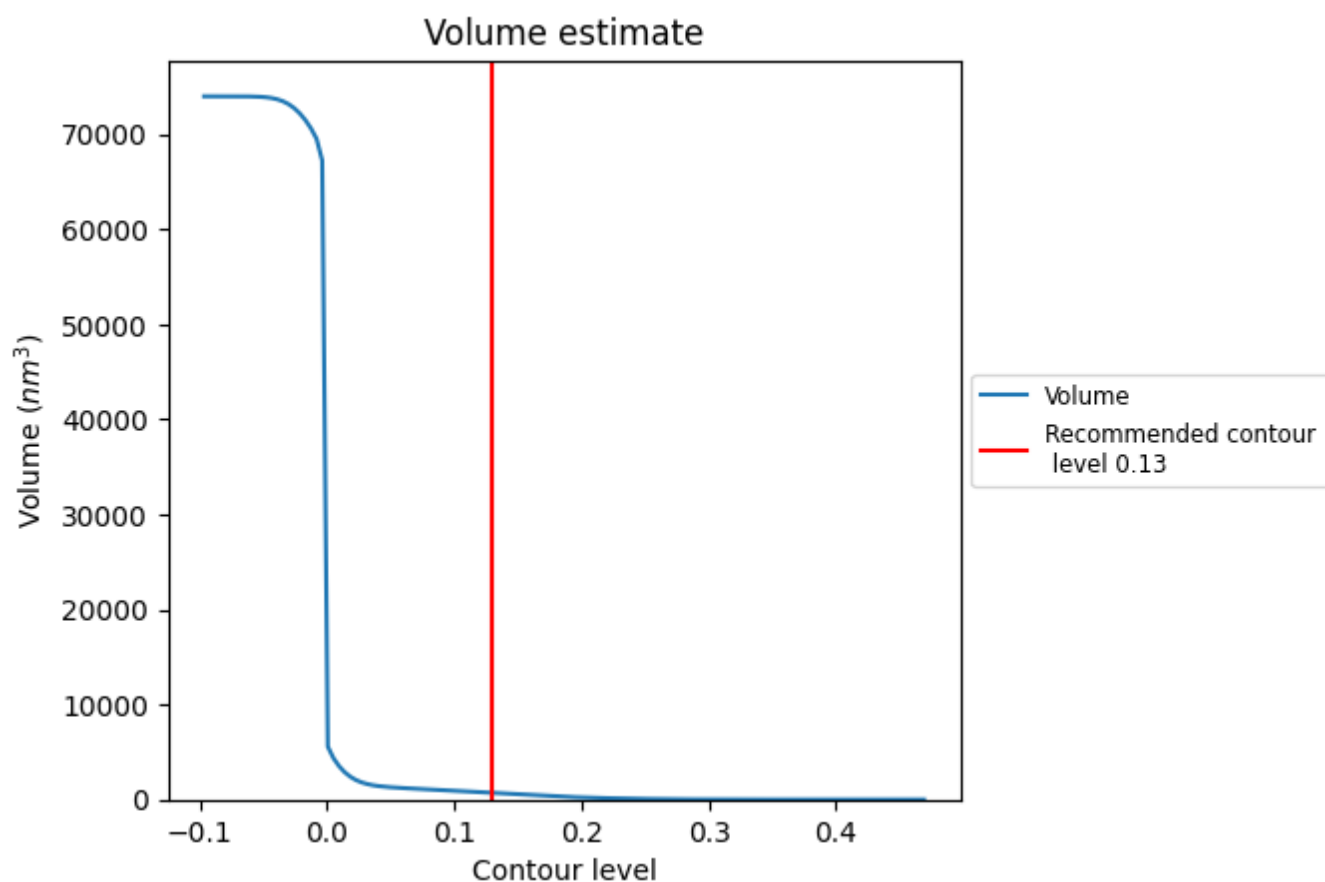
This section contains the results of statistical analysis of the map.

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.

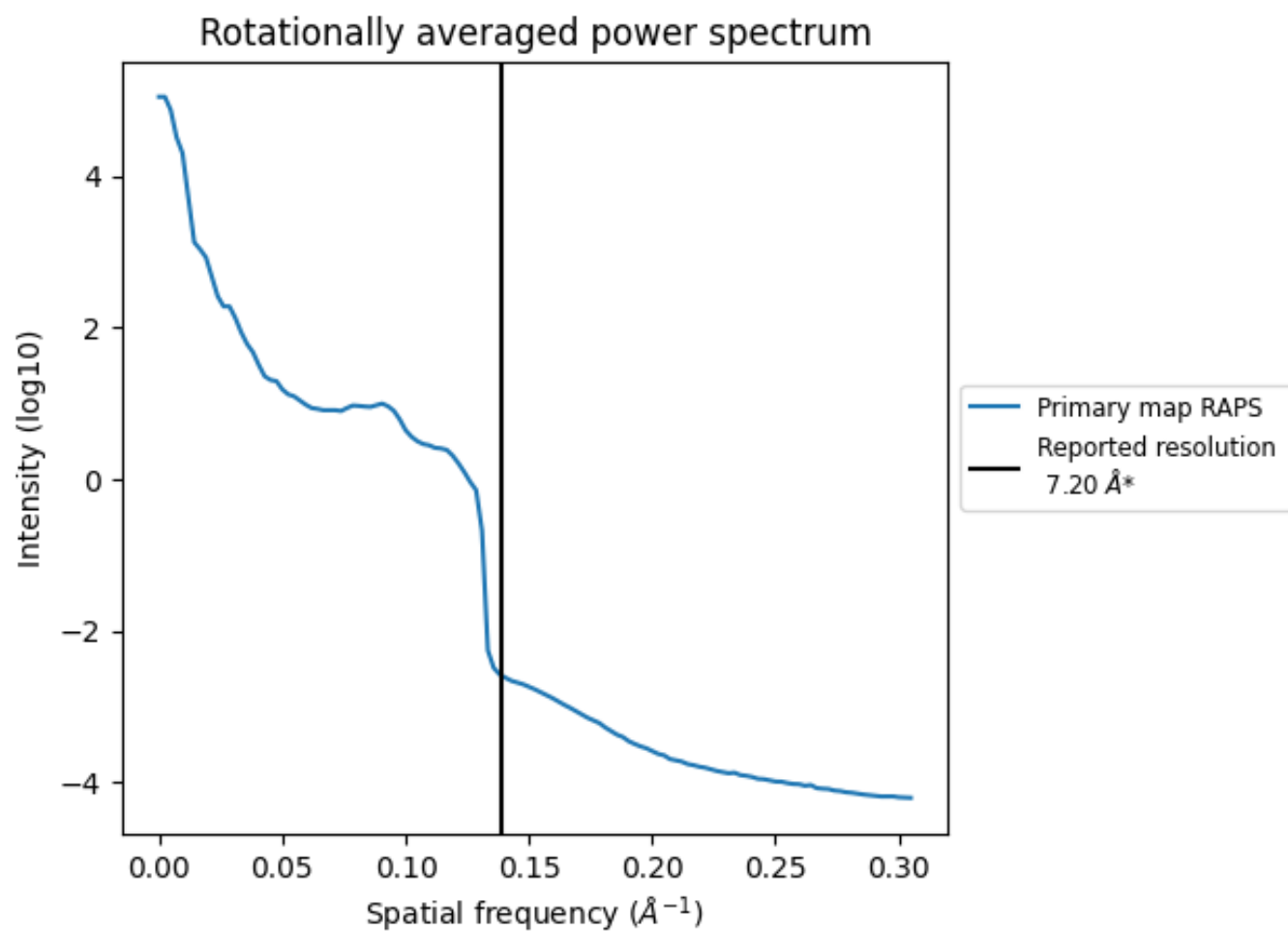
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 719 nm³; this corresponds to an approximate mass of 649 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 0.139 Å⁻¹

8 Fourier-Shell correlation ⓘ

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

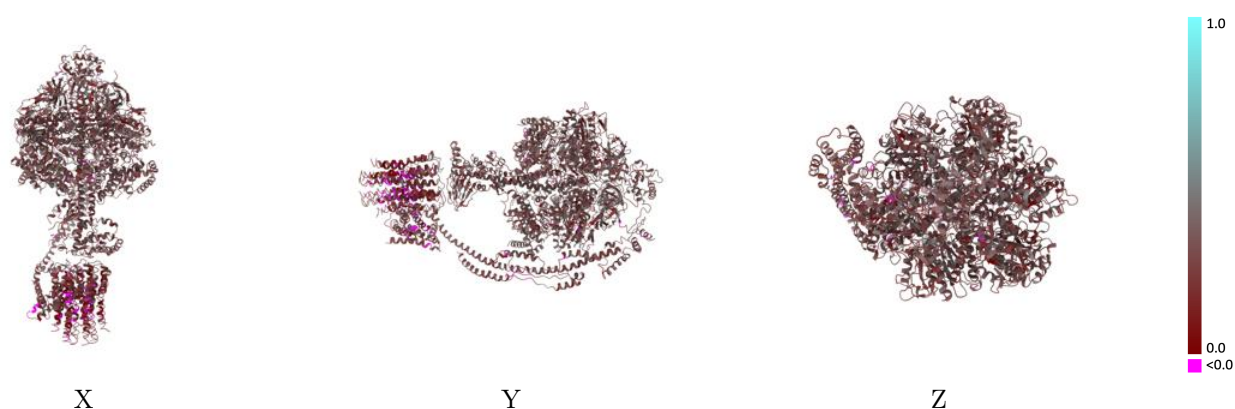
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-3166 and PDB model 5ARH. Per-residue inclusion information can be found in section 3 on page 7.

9.1 Map-model overlay [i](#)

This section was not generated.

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

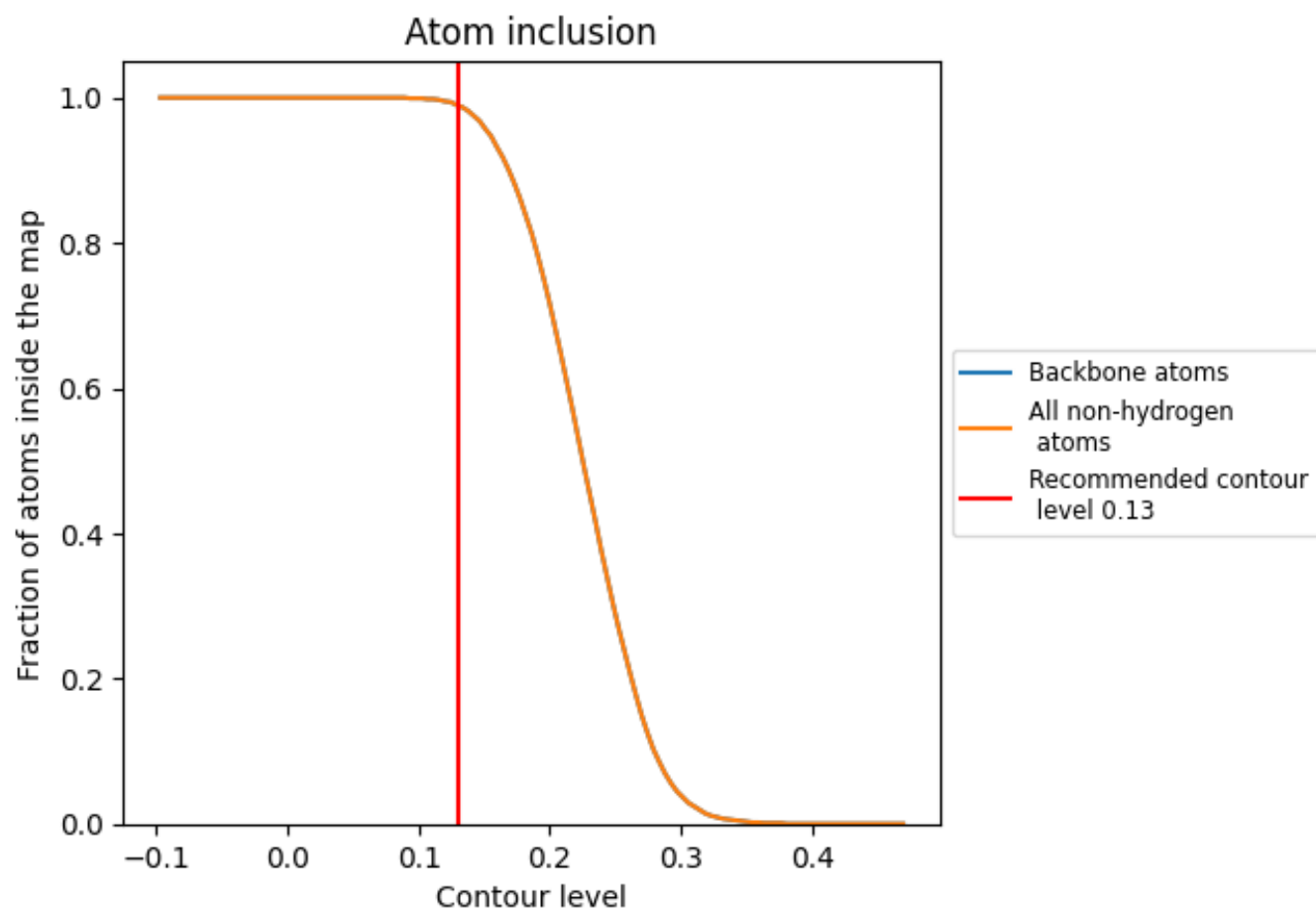


The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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

This section was not generated.

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	 0.9890	 0.2750
A	 0.9980	 0.2970
B	 1.0000	 0.3060
C	 0.9960	 0.3070
D	 1.0000	 0.3030
E	 1.0000	 0.2970
F	 0.9970	 0.3040
G	 0.9990	 0.3040
H	 0.9980	 0.3040
I	 1.0000	 0.2980
J	 0.9310	 0.1290
K	 0.9720	 0.1270
L	 0.9830	 0.1870
M	 0.9790	 0.1510
N	 0.9830	 0.1950
O	 0.9620	 0.1240
P	 0.9620	 0.1740
Q	 0.9130	 0.1290
S	 0.9930	 0.3050
T	 0.9910	 0.2830
U	 0.9730	 0.2470
V	 0.8830	 0.2370
W	 0.9630	 0.1780

