Full wwPDB NMR Structure Validation Report (i)

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PDB ID	:	6XRG
BMRB ID	:	30772
Title	:	Abl 1b isoform inactive2 state
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Deposited on	:	2020-07-12

This is a Full wwPDB NMR Structure 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/NMRValidationReportHelp
with specific help available everywhere you see the (i) 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 (i)) were used in the production of this report:

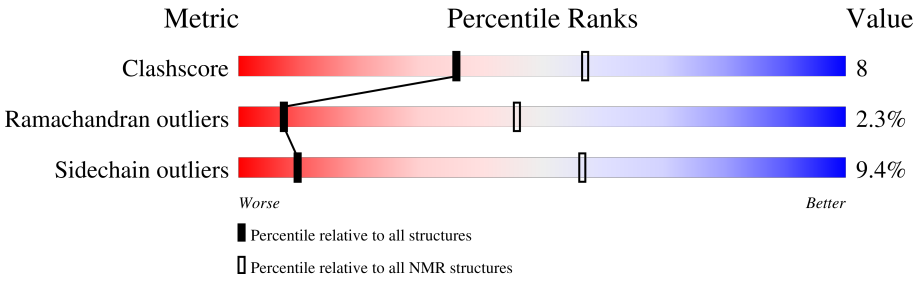
MolProbity	:	4.02b-467
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
wwPDB-RCI	:	v_1n_11_5_13_A (Berjanski et al., 2005)
PANAV	:	Wang et al. (2010)
wwPDB-ShiftChecker	:	v1.2
BMRB Restraints Analysis	:	v1.2
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.40

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
SOLUTION NMR

The overall completeness of chemical shifts assignment is 14%.

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)	NMR archive (#Entries)
Clashscore	210492	14027
Ramachandran outliers	207382	12486
Sidechain outliers	206894	12463

The table below summarises the geometric issues observed across the polymeric chains and their fit to the experimental data. The red, orange, yellow and green segments indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria. A cyan segment indicates the fraction of residues that are not part of the well-defined cores, and 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 <=5%

Mol	Chain	Length	Quality of chain
1	A	287	70% 15% • 13%

2 Ensemble composition and analysis

This entry contains 20 models. Model 6 is the overall representative, medoid model (most similar to other models). The authors have identified model 1 as representative, based on the following criterion: *lowest energy*.

The following residues are included in the computation of the global validation metrics.

Well-defined (core) protein residues			
Well-defined core	**Residue range (total)**	**Backbone RMSD (Å)**	**Medoid model**
1	A:254-A:406, A:422-A:517 (249)	0.93	6

Ill-defined regions of proteins are excluded from the global statistics.

Ligands and non-protein polymers are included in the analysis.

The models can be grouped into 2 clusters. No single-model clusters were found.

Cluster number	Models
1	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 17, 18, 20
2	16, 19

3 Entry composition (i)

There is only 1 type of molecule in this entry. The entry contains 4633 atoms, of which 2293 are hydrogens and 0 are deuteriums.

- Molecule 1 is a protein called Tyrosine-protein kinase ABL1.

Mol	Chain	Residues	Atoms						Trace
1	A	287	Total	C	H	N	O	S	0
			4633	1504	2293	379	441	16	

There are 3 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	269	GLU	GLY	engineered mutation	UNP P00519
A	309	LEU	MET	engineered mutation	UNP P00519
A	408	TYR	THR	engineered mutation	UNP P00519

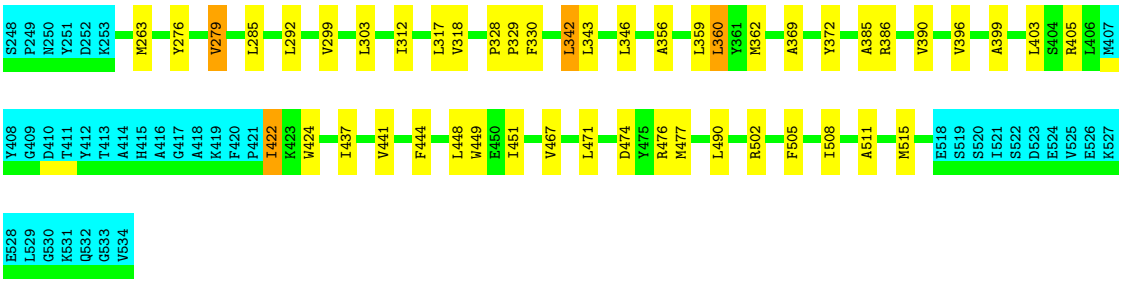
4 Residue-property plots (i)

4.1 Average score per residue in the NMR ensemble

These plots are provided for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic is the same as shown in the summary in section 1 of this report. The second graphic shows the sequence where residues are colour-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. Stretches of 2 or more consecutive residues without any outliers are shown as green connectors. Residues which are classified as ill-defined in the NMR ensemble, are shown in cyan with an underline colour-coded according to the previous scheme. Residues which were present in the experimental sample, but not modelled in the final structure are shown in grey.

• Molecule 1: Tyrosine-protein kinase ABL1

Chain A:



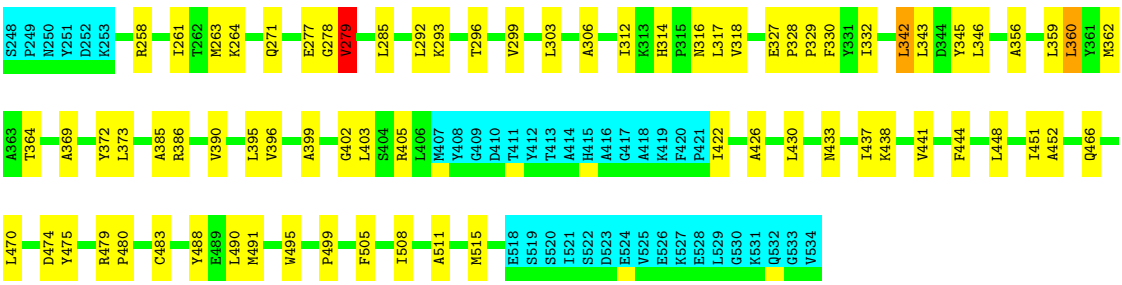
4.2 Scores per residue for each member of the ensemble

Colouring as in section 4.1 above.

4.2.1 Score per residue for model 1

• Molecule 1: Tyrosine-protein kinase ABL1

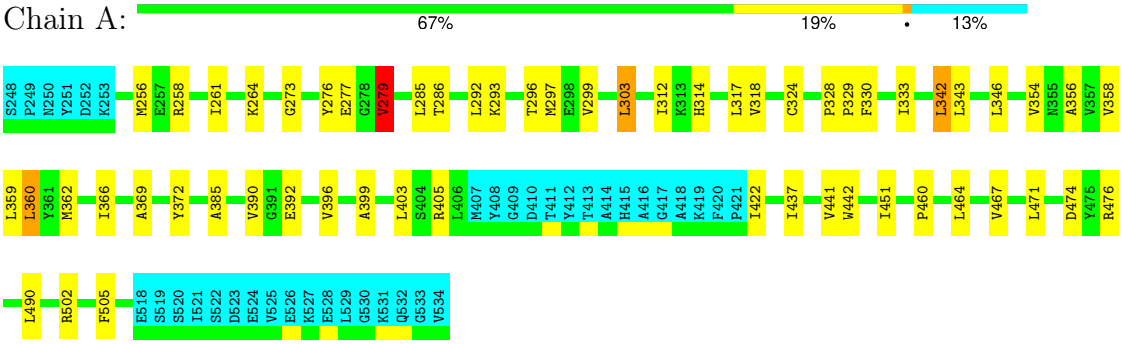
Chain A:



4.2.2 Score per residue for model 2

• Molecule 1: Tyrosine-protein kinase ABL1

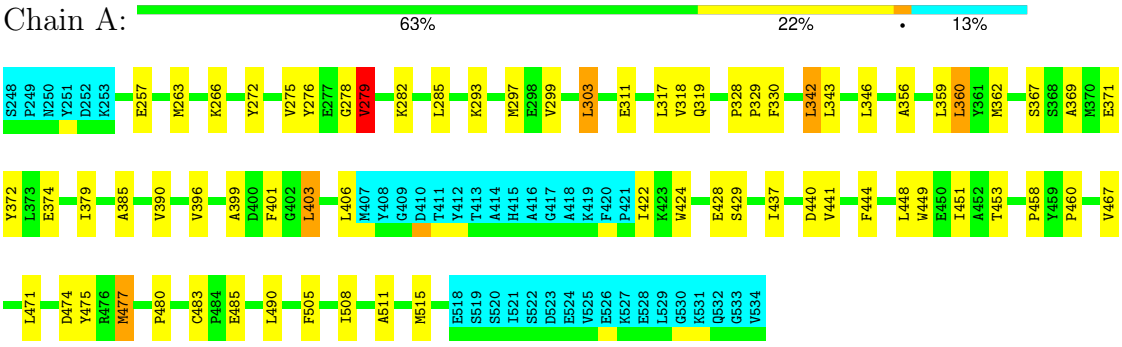
Chain A:



4.2.3 Score per residue for model 3

• Molecule 1: Tyrosine-protein kinase ABL1

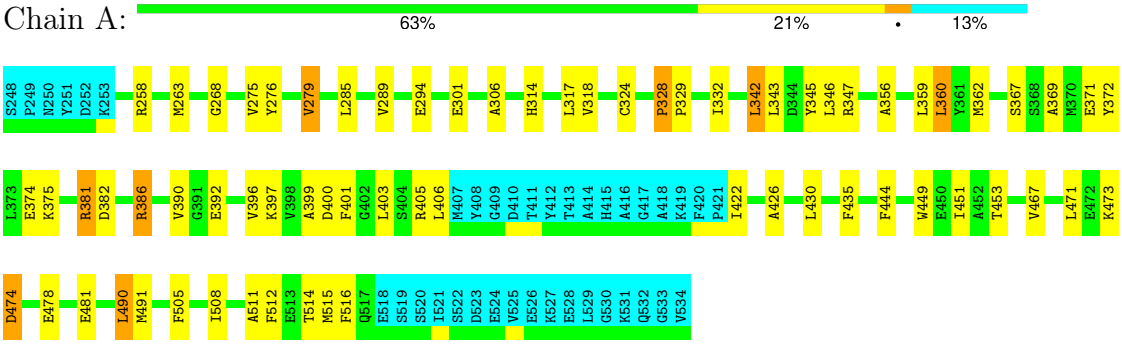
Chain A:



4.2.4 Score per residue for model 4

• Molecule 1: Tyrosine-protein kinase ABL1

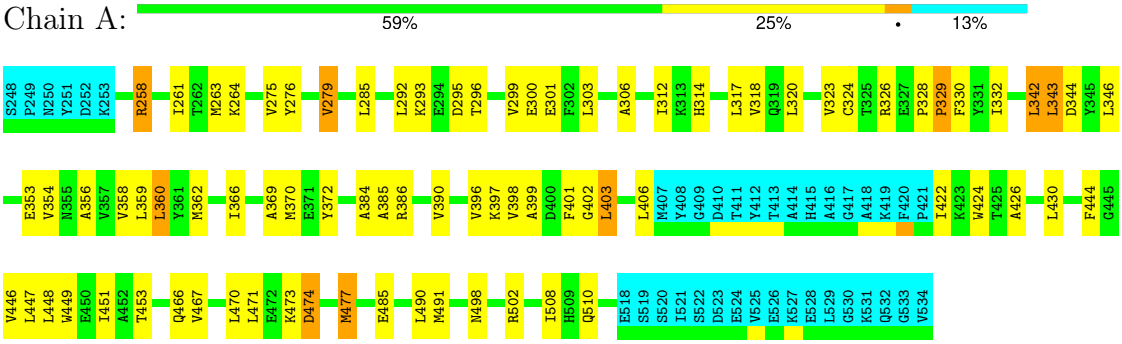
Chain A:



4.2.5 Score per residue for model 5

• Molecule 1: Tyrosine-protein kinase ABL1

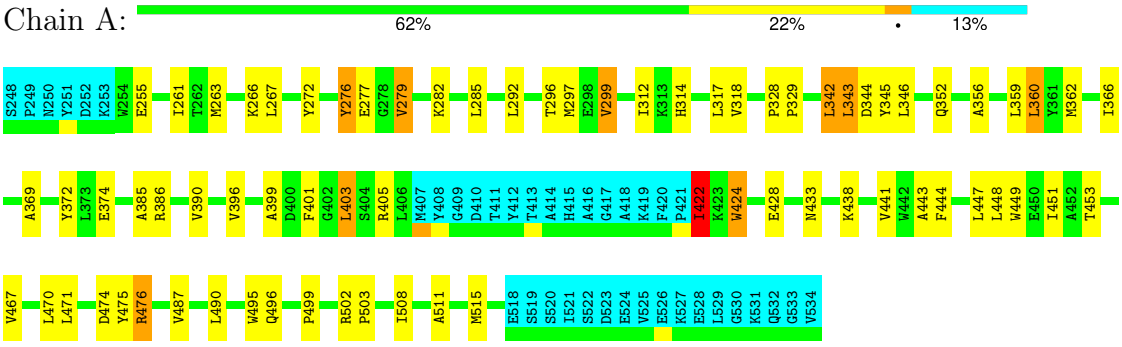
Chain A:



4.2.6 Score per residue for model 6 (medoid)

• Molecule 1: Tyrosine-protein kinase ABL1

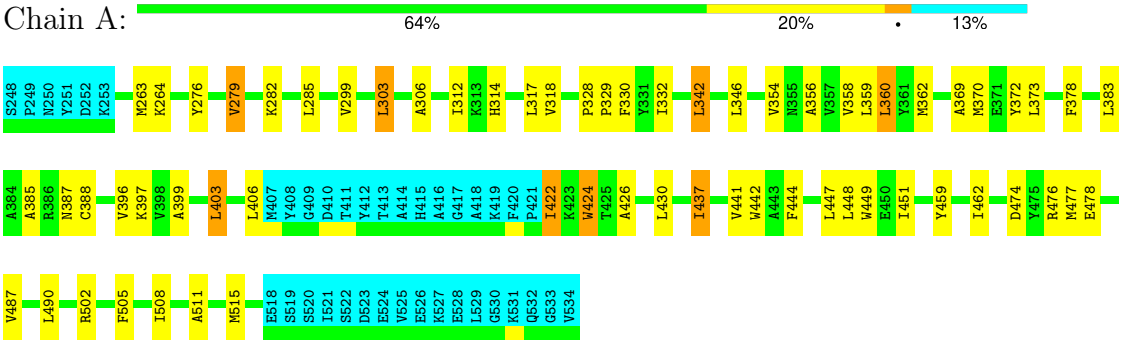
Chain A:



4.2.7 Score per residue for model 7

• Molecule 1: Tyrosine-protein kinase ABL1

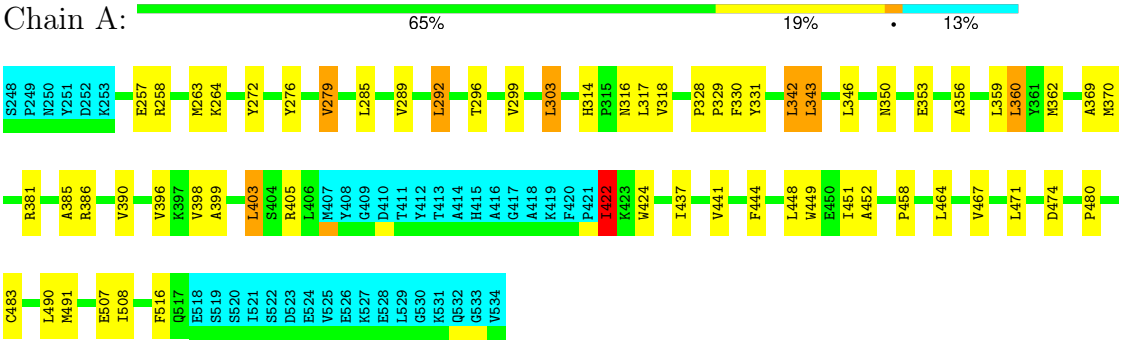
Chain A:



4.2.8 Score per residue for model 8

• Molecule 1: Tyrosine-protein kinase ABL1

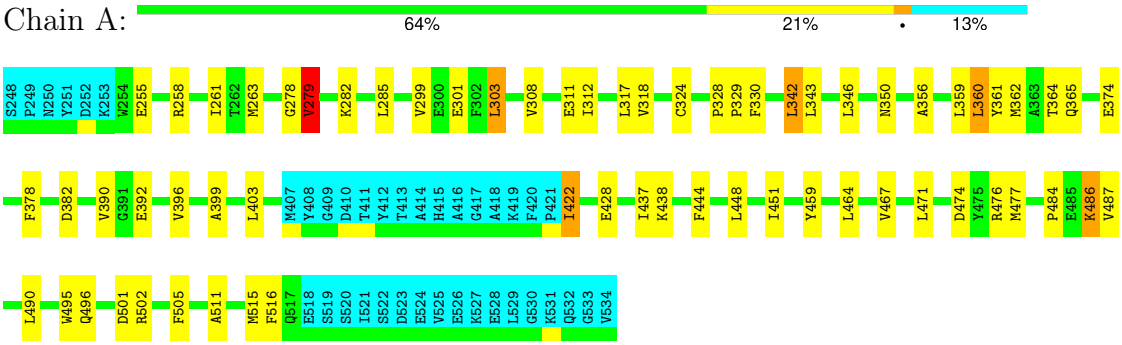
Chain A:



4.2.9 Score per residue for model 9

• Molecule 1: Tyrosine-protein kinase ABL1

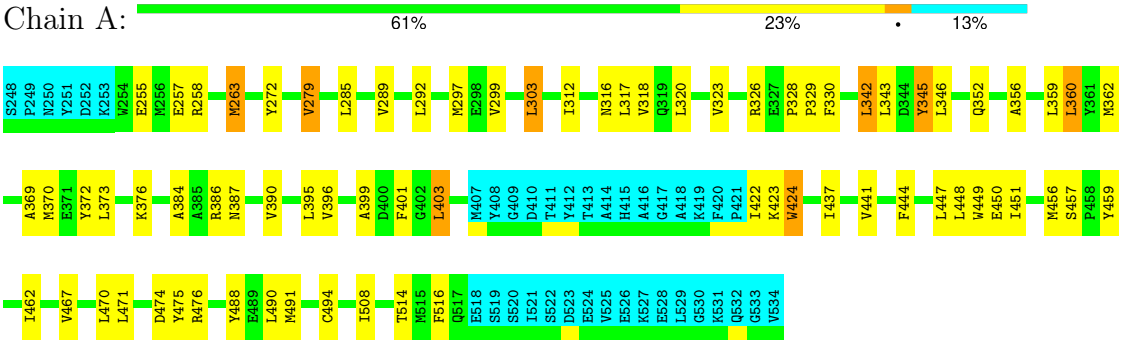
Chain A:



4.2.10 Score per residue for model 10

• Molecule 1: Tyrosine-protein kinase ABL1

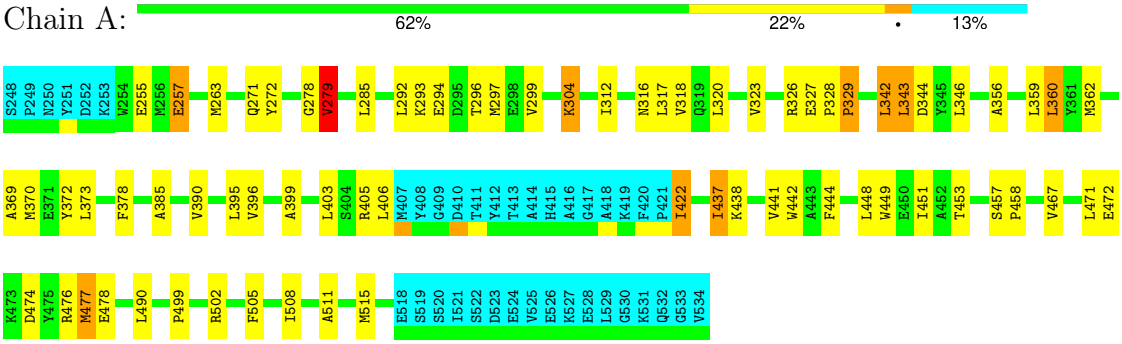
Chain A:



4.2.11 Score per residue for model 11

• Molecule 1: Tyrosine-protein kinase ABL1

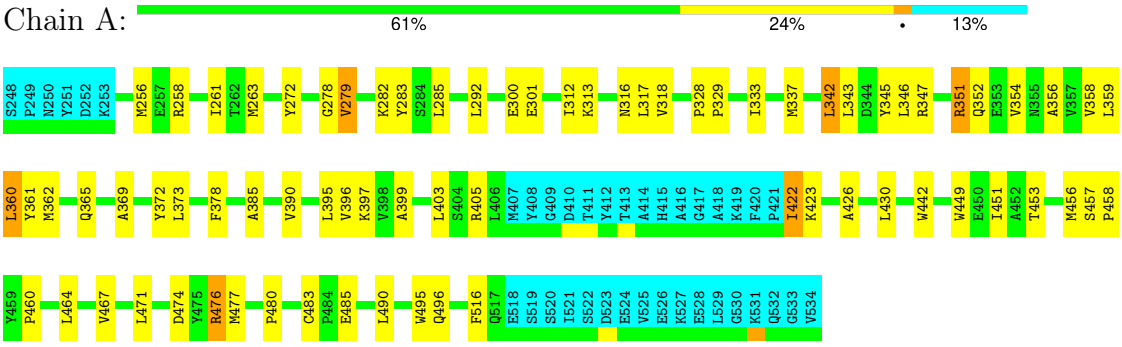
Chain A:



4.2.12 Score per residue for model 12

• Molecule 1: Tyrosine-protein kinase ABL1

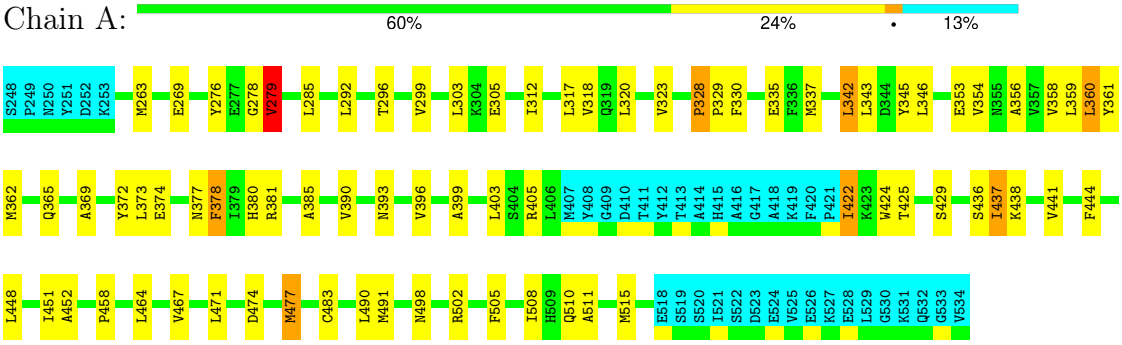
Chain A:



4.2.13 Score per residue for model 13

• Molecule 1: Tyrosine-protein kinase ABL1

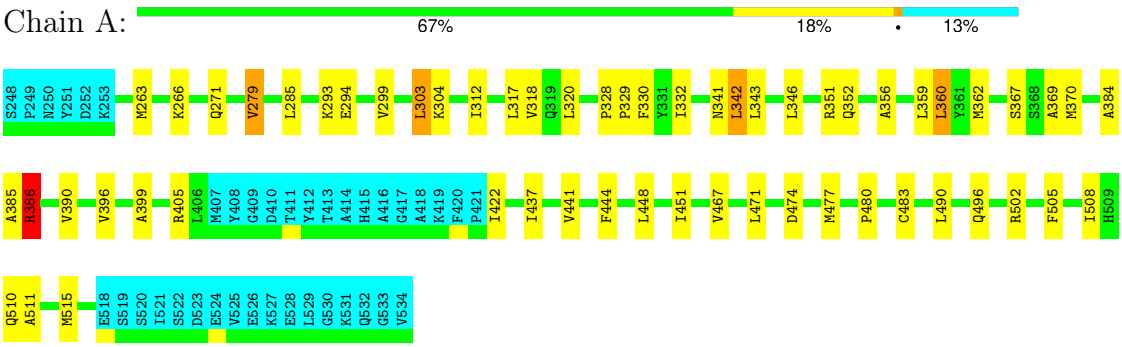
Chain A:



4.2.14 Score per residue for model 14

• Molecule 1: Tyrosine-protein kinase ABL1

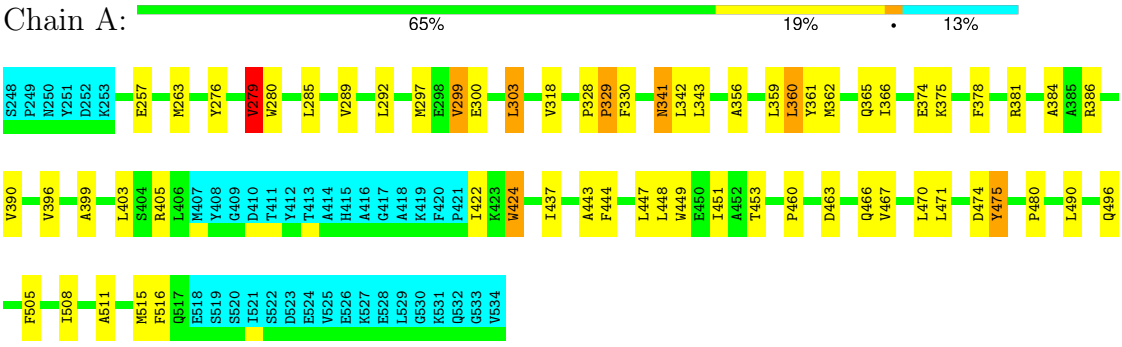
Chain A:



4.2.15 Score per residue for model 15

• Molecule 1: Tyrosine-protein kinase ABL1

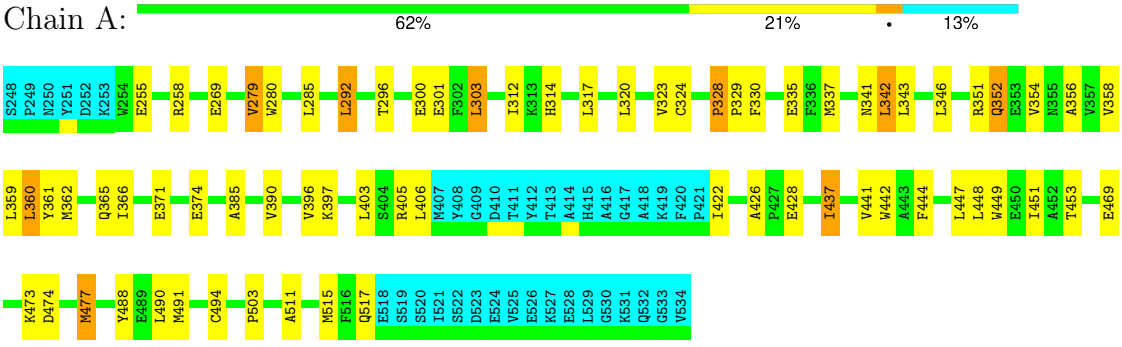
Chain A:



4.2.16 Score per residue for model 16

• Molecule 1: Tyrosine-protein kinase ABL1

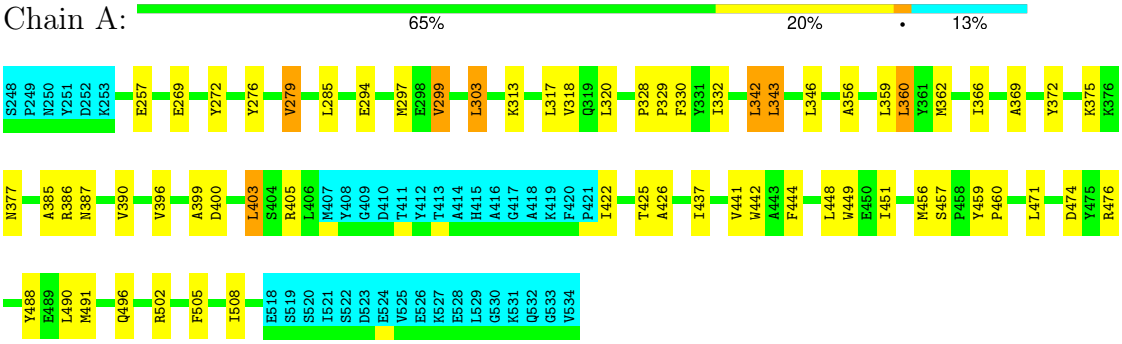
Chain A:



4.2.17 Score per residue for model 17

• Molecule 1: Tyrosine-protein kinase ABL1

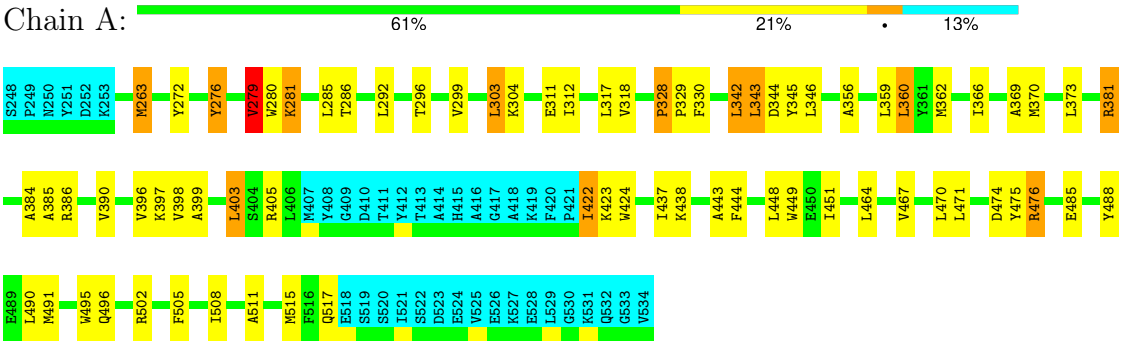
Chain A:



4.2.18 Score per residue for model 18

• Molecule 1: Tyrosine-protein kinase ABL1

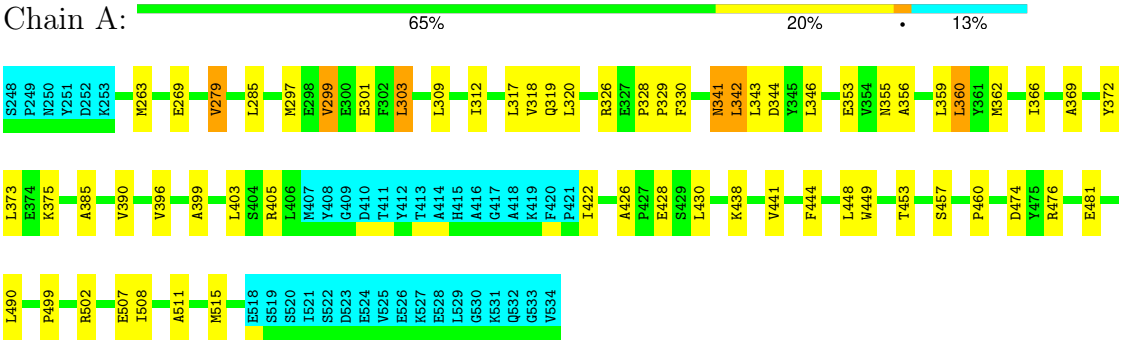
Chain A:



4.2.19 Score per residue for model 19

• Molecule 1: Tyrosine-protein kinase ABL1

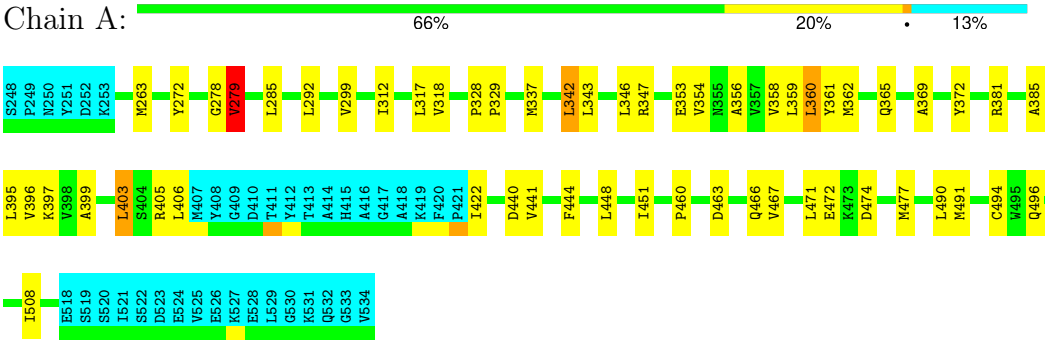
Chain A:



4.2.20 Score per residue for model 20

• Molecule 1: Tyrosine-protein kinase ABL1

Chain A:



5 Refinement protocol and experimental data overview

The models were refined using the following method: *molecular dynamics*.

Of the 100 calculated structures, 20 were deposited, based on the following criterion: *target function*.

The following table shows the software used for structure solution, optimisation and refinement.

Software name	Classification	Version
CNS	refinement	
CYANA	structure calculation	
TALOS	geometry optimization	
PSVS	refinement	

The following table shows chemical shift validation statistics as aggregates over all chemical shift files. Detailed validation can be found in section 7 of this report.

Chemical shift file(s)	working_cs.cif
Number of chemical shift lists	1
Total number of shifts	553
Number of shifts mapped to atoms	553
Number of unparsed shifts	0
Number of shifts with mapping errors	0
Number of shifts with mapping warnings	0
Assignment completeness (well-defined parts)	14%

6 Model quality

6.1 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 (average) root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#Z>5	RMSZ	#Z>5
1	A	0.89±0.01	0±0/2101 (0.0± 0.0%)	0.73±0.01	0±0/2846 (0.0± 0.0%)
All	All	0.89	2/42020 (0.0%)	0.73	1/56920 (0.0%)

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	Planarity
1	A	0.0±0.0	0.2±0.4
All	All	0	4

All unique bond outliers are listed below.

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)	Models	
								Worst	Total
1	A	424	TRP	NE1-CE2	-5.77	1.30	1.37	8	2

All unique angle outliers are listed below.

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})	Models	
								Worst	Total
1	A	386	ARG	NE-CZ-NH1	5.84	123.22	120.30	14	1

There are no chirality outliers.

All unique planar outliers are listed below. They are sorted by the frequency of occurrence in the ensemble.

Mol	Chain	Res	Type	Group	Models (Total)
1	A	328	PRO	Peptide	3
1	A	402	GLY	Peptide	1

6.2 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 each 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 averaged over the ensemble.

Mol	Chain	Non-H	H(model)	H(added)	Clashes
1	A	2048	2021	2016	31±5
All	All	40960	40420	40320	619

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 8.

All unique clashes are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:317:LEU:HD21	1:A:369:ALA:HB1	0.69	1.63	1	16
1:A:297:MET:HB2	1:A:299:VAL:HG12	0.67	1.65	15	2
1:A:312:ILE:HD11	1:A:317:LEU:HD22	0.67	1.66	12	14
1:A:458:PRO:HA	1:A:477:MET:SD	0.65	2.32	12	1
1:A:303:LEU:HD22	1:A:330:PHE:CZ	0.62	2.29	5	15
1:A:292:LEU:HD12	1:A:296:THR:HG21	0.61	1.73	2	9
1:A:403:LEU:HD12	1:A:403:LEU:H	0.61	1.55	10	1
1:A:359:LEU:HD22	1:A:451:ILE:HG23	0.61	1.72	18	14
1:A:362:MET:HB2	1:A:396:VAL:HG23	0.61	1.73	9	2
1:A:359:LEU:HA	1:A:362:MET:SD	0.61	2.36	5	15
1:A:256:MET:SD	1:A:333:ILE:HG21	0.61	2.36	12	2
1:A:390:VAL:HG22	1:A:396:VAL:HG22	0.60	1.71	1	19
1:A:385:ALA:HA	1:A:388:CYS:SG	0.60	2.36	7	1
1:A:370:MET:SD	1:A:398:VAL:HG11	0.60	2.37	18	3
1:A:312:ILE:HD12	1:A:373:LEU:HD21	0.59	1.74	13	3
1:A:386:ARG:HH22	1:A:400:ASP:HA	0.59	1.57	4	1
1:A:318:VAL:HG21	1:A:399:ALA:HB2	0.59	1.73	10	19
1:A:362:MET:HG3	1:A:396:VAL:HG21	0.59	1.73	16	1
1:A:449:TRP:CE3	1:A:491:MET:SD	0.58	2.96	10	4
1:A:386:ARG:NH2	1:A:400:ASP:HA	0.58	2.14	4	1
1:A:386:ARG:HG3	1:A:403:LEU:HD13	0.58	1.75	6	4
1:A:403:LEU:HD22	1:A:406:LEU:HD22	0.57	1.75	7	3
1:A:477:MET:SD	1:A:495:TRP:CZ2	0.57	2.97	9	1
1:A:258:ARG:HB3	1:A:324:CYS:SG	0.57	2.40	5	1
1:A:452:ALA:HB1	1:A:483:CYS:SG	0.57	2.39	8	3
1:A:491:MET:HA	1:A:494:CYS:SG	0.57	2.38	16	3
1:A:438:LYS:HD3	1:A:499:PRO:HB3	0.57	1.76	1	1

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:297:MET:HG3	1:A:299:VAL:HG12	0.56	1.77	19	1
1:A:384:ALA:HB1	1:A:386:ARG:HH11	0.56	1.61	14	1
1:A:456:MET:SD	1:A:460:PRO:HG3	0.56	2.41	17	1
1:A:423:LYS:HG3	1:A:467:VAL:HG21	0.56	1.76	12	1
1:A:441:VAL:HG13	1:A:508:ILE:HD11	0.56	1.77	17	3
1:A:422:ILE:HG12	1:A:430:LEU:HD22	0.55	1.77	12	2
1:A:341:ASN:ND2	1:A:344:ASP:HB3	0.55	2.16	19	1
1:A:342:LEU:HB3	1:A:385:ALA:HB1	0.55	1.78	6	14
1:A:320:LEU:HD21	1:A:323:VAL:HG23	0.55	1.79	5	5
1:A:258:ARG:HB2	1:A:324:CYS:SG	0.54	2.42	4	4
1:A:441:VAL:HG11	1:A:503:PRO:O	0.54	2.03	6	2
1:A:480:PRO:HB2	1:A:483:CYS:SG	0.54	2.43	14	2
1:A:422:ILE:HG23	1:A:464:LEU:HD21	0.54	1.80	12	1
1:A:356:ALA:O	1:A:360:LEU:HD22	0.53	2.04	18	20
1:A:467:VAL:O	1:A:471:LEU:HG	0.53	2.04	13	15
1:A:261:ILE:HG22	1:A:263:MET:SD	0.53	2.44	6	5
1:A:374:GLU:HB2	1:A:437:ILE:HG13	0.53	1.80	16	1
1:A:441:VAL:HG11	1:A:502:ARG:HE	0.53	1.64	14	1
1:A:370:MET:SD	1:A:373:LEU:HG	0.53	2.44	11	1
1:A:422:ILE:HG12	1:A:425:THR:HB	0.52	1.79	13	1
1:A:384:ALA:HA	1:A:424:TRP:CH2	0.52	2.39	10	3
1:A:488:TYR:HA	1:A:491:MET:SD	0.52	2.44	17	3
1:A:386:ARG:NE	1:A:403:LEU:HD13	0.52	2.20	10	1
1:A:437:ILE:HD11	1:A:505:PHE:HE2	0.52	1.63	9	1
1:A:386:ARG:HG2	1:A:403:LEU:HD22	0.52	1.81	10	1
1:A:437:ILE:HG23	1:A:438:LYS:HD2	0.52	1.82	18	1
1:A:441:VAL:HG22	1:A:505:PHE:CE2	0.51	2.39	14	6
1:A:272:TYR:HB3	1:A:292:LEU:HA	0.51	1.80	6	7
1:A:488:TYR:HA	1:A:491:MET:HG2	0.51	1.83	1	1
1:A:463:ASP:HB2	1:A:466:GLN:HG2	0.51	1.82	15	1
1:A:442:TRP:HB2	1:A:502:ARG:HH22	0.51	1.64	2	1
1:A:312:ILE:HD12	1:A:373:LEU:HD11	0.50	1.82	11	1
1:A:337:MET:SD	1:A:397:LYS:HE2	0.50	2.46	16	1
1:A:316:ASN:HA	1:A:395:LEU:HD21	0.50	1.84	12	4
1:A:424:TRP:CZ3	1:A:443:ALA:HB1	0.50	2.40	6	2
1:A:401:PHE:HD2	1:A:403:LEU:HD21	0.50	1.65	6	1
1:A:486:LYS:HB3	1:A:515:MET:HG2	0.50	1.82	9	1
1:A:343:LEU:HD23	1:A:344:ASP:H	0.50	1.65	11	3
1:A:480:PRO:HG2	1:A:483:CYS:SG	0.50	2.47	12	1
1:A:477:MET:HG3	1:A:491:MET:SD	0.50	2.47	13	1
1:A:422:ILE:HG12	1:A:464:LEU:HD11	0.49	1.84	18	1

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:496:GLN:HG3	1:A:501:ASP:HB3	0.49	1.82	9	1
1:A:436:SER:HB2	1:A:438:LYS:HG2	0.49	1.84	13	1
1:A:444:PHE:O	1:A:448:LEU:HG	0.49	2.07	8	17
1:A:273:GLY:HA2	1:A:293:LYS:HE3	0.49	1.85	2	1
1:A:425:THR:HA	1:A:442:TRP:CH2	0.49	2.41	17	1
1:A:438:LYS:HD3	1:A:499:PRO:HB2	0.49	1.83	19	1
1:A:359:LEU:HD23	1:A:362:MET:SD	0.49	2.47	12	5
1:A:278:GLY:O	1:A:279:VAL:HG13	0.49	2.08	13	7
1:A:337:MET:SD	1:A:397:LYS:HD2	0.49	2.48	20	2
1:A:320:LEU:HD11	1:A:332:ILE:HB	0.49	1.83	14	2
1:A:342:LEU:O	1:A:346:LEU:HG	0.49	2.08	3	15
1:A:444:PHE:HE2	1:A:508:ILE:HG21	0.49	1.68	11	8
1:A:345:TYR:CD2	1:A:390:VAL:HG21	0.49	2.42	1	7
1:A:449:TRP:O	1:A:453:THR:HG22	0.49	2.08	6	9
1:A:256:MET:SD	1:A:261:ILE:HG21	0.48	2.48	2	1
1:A:466:GLN:HG3	1:A:470:LEU:HD23	0.48	1.83	5	1
1:A:424:TRP:HH2	1:A:447:LEU:HD13	0.48	1.68	10	1
1:A:369:ALA:O	1:A:372:TYR:HB3	0.48	2.08	6	9
1:A:263:MET:HE1	1:A:289:VAL:HG21	0.48	1.85	15	3
1:A:267:LEU:H	1:A:276:TYR:HA	0.48	1.68	6	1
1:A:511:ALA:O	1:A:515:MET:HG3	0.48	2.09	14	13
1:A:314:HIS:HB3	1:A:317:LEU:HD12	0.48	1.83	8	1
1:A:487:VAL:HG22	1:A:515:MET:SD	0.48	2.48	6	1
1:A:341:ASN:HB3	1:A:386:ARG:HA	0.48	1.85	14	1
1:A:463:ASP:HB3	1:A:466:GLN:HE21	0.48	1.68	20	1
1:A:354:VAL:HG13	1:A:358:VAL:HB	0.48	1.86	16	7
1:A:362:MET:HB2	1:A:396:VAL:HG21	0.48	1.85	15	8
1:A:370:MET:HA	1:A:373:LEU:HD13	0.48	1.85	7	3
1:A:444:PHE:CE2	1:A:508:ILE:HG21	0.48	2.44	17	9
1:A:442:TRP:HB2	1:A:502:ARG:NH2	0.48	2.23	2	1
1:A:379:ILE:HD11	1:A:440:ASP:HB2	0.48	1.84	3	1
1:A:306:ALA:HB2	1:A:332:ILE:HG21	0.48	1.86	4	4
1:A:424:TRP:HH2	1:A:447:LEU:HB2	0.48	1.69	6	3
1:A:292:LEU:H	1:A:292:LEU:HD23	0.47	1.69	15	2
1:A:505:PHE:HD1	1:A:508:ILE:HD12	0.47	1.70	7	3
1:A:403:LEU:HD22	1:A:406:LEU:HD13	0.47	1.86	3	1
1:A:275:VAL:HG21	1:A:401:PHE:HB3	0.47	1.85	3	3
1:A:456:MET:SD	1:A:457:SER:O	0.47	2.73	10	3
1:A:401:PHE:HB2	1:A:403:LEU:HG	0.47	1.87	10	2
1:A:426:ALA:O	1:A:430:LEU:HG	0.46	2.10	5	5
1:A:297:MET:SD	1:A:297:MET:N	0.46	2.88	2	3

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:343:LEU:HA	1:A:346:LEU:HD12	0.46	1.87	17	2
1:A:367:SER:HA	1:A:505:PHE:HD1	0.46	1.70	3	3
1:A:384:ALA:HB1	1:A:386:ARG:NH1	0.46	2.24	14	1
1:A:303:LEU:HD22	1:A:330:PHE:CE2	0.46	2.45	16	5
1:A:459:TYR:HB3	1:A:462:ILE:HD11	0.46	1.86	10	2
1:A:381:ARG:HH22	1:A:443:ALA:HB2	0.46	1.70	18	1
1:A:470:LEU:HD13	1:A:475:TYR:CD1	0.46	2.45	6	5
1:A:312:ILE:HG13	1:A:317:LEU:HD13	0.46	1.88	12	2
1:A:437:ILE:O	1:A:441:VAL:HG23	0.46	2.11	2	9
1:A:361:TYR:O	1:A:365:GLN:HG2	0.45	2.11	13	6
1:A:342:LEU:HD12	1:A:346:LEU:HD11	0.45	1.87	11	7
1:A:386:ARG:HD2	1:A:403:LEU:HD22	0.45	1.87	6	1
1:A:380:HIS:ND1	1:A:381:ARG:N	0.45	2.65	13	1
1:A:359:LEU:HD22	1:A:451:ILE:CG2	0.45	2.42	3	9
1:A:343:LEU:HD22	1:A:344:ASP:N	0.45	2.26	6	1
1:A:341:ASN:N	1:A:341:ASN:HD22	0.45	2.09	15	1
1:A:362:MET:HB2	1:A:396:VAL:CG2	0.45	2.42	12	7
1:A:343:LEU:HD23	1:A:386:ARG:HH21	0.45	1.72	15	1
1:A:459:TYR:CE1	1:A:471:LEU:HD21	0.45	2.47	17	2
1:A:477:MET:SD	1:A:477:MET:N	0.45	2.89	16	2
1:A:314:HIS:HB2	1:A:317:LEU:HB2	0.45	1.88	16	1
1:A:264:LYS:HB2	1:A:277:GLU:HG3	0.45	1.88	2	2
1:A:342:LEU:HB2	1:A:385:ALA:O	0.45	2.12	1	2
1:A:444:PHE:HB2	1:A:505:PHE:HE1	0.45	1.72	17	1
1:A:387:ASN:HB3	1:A:403:LEU:HD11	0.44	1.89	10	1
1:A:375:LYS:HE2	1:A:375:LYS:HA	0.44	1.90	4	1
1:A:304:LYS:HA	1:A:304:LYS:HE3	0.44	1.89	11	1
1:A:449:TRP:CE2	1:A:477:MET:HG2	0.44	2.48	7	1
1:A:257:GLU:HG2	1:A:327:GLU:HG3	0.44	1.87	11	1
1:A:480:PRO:HB2	1:A:483:CYS:HB3	0.44	1.88	8	1
1:A:442:TRP:CD1	1:A:495:TRP:HA	0.44	2.48	12	1
1:A:335:GLU:HG2	1:A:337:MET:SD	0.44	2.53	13	2
1:A:469:GLU:O	1:A:473:LYS:HG2	0.44	2.13	16	1
1:A:426:ALA:HB2	1:A:442:TRP:CD2	0.43	2.47	17	1
1:A:466:GLN:O	1:A:470:LEU:HG	0.43	2.13	1	1
1:A:491:MET:SD	1:A:495:TRP:CH2	0.43	3.11	1	1
1:A:362:MET:O	1:A:366:ILE:HG13	0.43	2.14	6	6
1:A:437:ILE:HD11	1:A:505:PHE:CD2	0.43	2.48	1	1
1:A:263:MET:SD	1:A:276:TYR:CE1	0.43	3.12	18	1
1:A:383:LEU:HA	1:A:387:ASN:HD21	0.43	1.74	7	1
1:A:343:LEU:HB2	1:A:386:ARG:NH2	0.43	2.28	1	1

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:372:TYR:HD2	1:A:373:LEU:HD12	0.43	1.73	12	1
1:A:303:LEU:N	1:A:303:LEU:HD23	0.43	2.28	14	1
1:A:490:LEU:HD21	1:A:512:PHE:CZ	0.43	2.48	4	1
1:A:424:TRP:CH2	1:A:458:PRO:HG3	0.43	2.49	13	1
1:A:318:VAL:CG2	1:A:399:ALA:HB2	0.43	2.44	15	5
1:A:426:ALA:HB2	1:A:442:TRP:HB3	0.43	1.90	7	1
1:A:422:ILE:HG13	1:A:464:LEU:HD21	0.43	1.91	9	1
1:A:271:GLN:HG3	1:A:402:GLY:HA3	0.42	1.91	1	1
1:A:487:VAL:HA	1:A:515:MET:HE1	0.42	1.91	7	1
1:A:308:VAL:O	1:A:311:GLU:HG2	0.42	2.14	9	1
1:A:438:LYS:HD2	1:A:499:PRO:HB2	0.42	1.91	6	1
1:A:317:LEU:CD2	1:A:369:ALA:HB1	0.42	2.44	12	2
1:A:351:ARG:HD3	1:A:352:GLN:H	0.42	1.73	12	1
1:A:370:MET:HB3	1:A:505:PHE:CD1	0.42	2.50	14	1
1:A:381:ARG:HG2	1:A:435:PHE:CD1	0.42	2.50	4	1
1:A:385:ALA:N	1:A:447:LEU:HD13	0.42	2.30	5	2
1:A:496:GLN:NE2	1:A:502:ARG:HB2	0.42	2.30	14	1
1:A:366:ILE:HD11	1:A:396:VAL:HG11	0.42	1.91	17	3
1:A:476:ARG:HA	1:A:495:TRP:CZ3	0.42	2.49	6	2
1:A:312:ILE:HD13	1:A:317:LEU:HD13	0.42	1.91	16	1
1:A:457:SER:HB2	1:A:460:PRO:HB3	0.42	1.92	19	2
1:A:279:VAL:HG13	1:A:286:THR:HA	0.42	1.92	18	2
1:A:484:PRO:HG2	1:A:487:VAL:HG23	0.42	1.92	9	1
1:A:496:GLN:HG2	1:A:502:ARG:HB2	0.42	1.91	17	1
1:A:422:ILE:HG21	1:A:464:LEU:HD11	0.42	1.92	8	1
1:A:282:LYS:HG2	1:A:283:TYR:H	0.42	1.74	12	1
1:A:343:LEU:HB2	1:A:386:ARG:HH21	0.42	1.75	1	1
1:A:268:GLY:HA3	1:A:406:LEU:HD12	0.42	1.92	4	1
1:A:316:ASN:ND2	1:A:369:ALA:HB2	0.42	2.30	8	1
1:A:272:TYR:O	1:A:293:LYS:HG3	0.41	2.14	3	1
1:A:449:TRP:CZ2	1:A:477:MET:HG3	0.41	2.50	3	1
1:A:279:VAL:HB	1:A:280:TRP:H	0.41	1.63	15	1
1:A:426:ALA:HB2	1:A:442:TRP:CE3	0.41	2.50	16	1
1:A:473:LYS:O	1:A:474:ASP:HB2	0.41	2.16	4	2
1:A:437:ILE:HD11	1:A:505:PHE:CE2	0.41	2.50	15	1
1:A:449:TRP:HB2	1:A:491:MET:SD	0.41	2.56	8	2
1:A:289:VAL:HG11	1:A:331:TYR:HD2	0.41	1.75	8	1
1:A:442:TRP:HZ2	1:A:471:LEU:HD22	0.41	1.75	11	1
1:A:351:ARG:HD2	1:A:352:GLN:N	0.41	2.30	14	2
1:A:281:LYS:HD3	1:A:281:LYS:H	0.41	1.75	18	1
1:A:428:GLU:HG3	1:A:429:SER:N	0.41	2.31	3	1

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:511:ALA:O	1:A:514:THR:HB	0.41	2.16	4	1
1:A:293:LYS:NZ	1:A:295:ASP:HB3	0.41	2.31	5	1
1:A:387:ASN:HB2	1:A:400:ASP:HA	0.41	1.91	17	1
1:A:309:LEU:HB3	1:A:320:LEU:HB2	0.41	1.93	19	1
1:A:496:GLN:O	1:A:502:ARG:HD2	0.41	2.16	20	1
1:A:449:TRP:CH2	1:A:480:PRO:HD3	0.41	2.51	15	1
1:A:384:ALA:HA	1:A:424:TRP:CZ3	0.41	2.51	18	1
1:A:343:LEU:HD23	1:A:386:ARG:HE	0.40	1.75	1	1
1:A:446:VAL:HG13	1:A:477:MET:HE1	0.40	1.94	5	1
1:A:297:MET:HB3	1:A:299:VAL:HG12	0.40	1.93	17	1
1:A:496:GLN:HB3	1:A:502:ARG:HH21	0.40	1.76	18	1
1:A:373:LEU:HB3	1:A:378:PHE:CD1	0.40	2.52	13	1
1:A:375:LYS:NZ	1:A:375:LYS:HB2	0.40	2.30	19	1
1:A:303:LEU:HD23	1:A:303:LEU:N	0.40	2.31	7	1
1:A:384:ALA:HB2	1:A:424:TRP:CZ2	0.40	2.52	5	1
1:A:422:ILE:HD12	1:A:464:LEU:HD11	0.40	1.92	12	1

6.3 Torsion angles (i)

6.3.1 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 NMR 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	249/287 (87%)	231±2 (93±1%)	12±2 (5±1%)	6±1 (2±0%)	7	46
All	All	4980/5740 (87%)	4616 (93%)	250 (5%)	114 (2%)	7	46

All 11 unique Ramachandran outliers are listed below. They are sorted by the frequency of occurrence in the ensemble.

Mol	Chain	Res	Type	Models (Total)
1	A	279	VAL	20
1	A	328	PRO	20
1	A	329	PRO	20
1	A	474	ASP	20
1	A	299	VAL	17
1	A	301	GLU	6

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Mol	Chain	Res	Type	Models (Total)
1	A	460	PRO	5
1	A	422	ILE	3
1	A	499	PRO	1
1	A	300	GLU	1
1	A	517	GLN	1

6.3.2 Protein sidechains (i)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all NMR entries. The Analysed column shows the number of residues for which the sidechain conformation was analysed and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	221/252 (88%)	200±3 (91±1%)	21±3 (9±1%)	10	56
All	All	4420/5040 (88%)	4006 (91%)	414 (9%)	10	56

All 89 unique residues with a non-rotameric sidechain are listed below. They are sorted by the frequency of occurrence in the ensemble.

Mol	Chain	Res	Type	Models (Total)
1	A	285	LEU	20
1	A	342	LEU	20
1	A	360	LEU	20
1	A	422	ILE	20
1	A	490	LEU	20
1	A	279	VAL	19
1	A	403	LEU	19
1	A	343	LEU	16
1	A	405	ARG	15
1	A	303	LEU	12
1	A	276	TYR	11
1	A	476	ARG	10
1	A	263	MET	10
1	A	477	MET	7
1	A	502	ARG	7
1	A	314	HIS	6
1	A	257	GLU	6
1	A	374	GLU	6
1	A	516	PHE	6
1	A	378	PHE	6

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Mol	Chain	Res	Type	Models (Total)
1	A	258	ARG	5
1	A	381	ARG	5
1	A	353	GLU	5
1	A	437	ILE	5
1	A	372	TYR	4
1	A	282	LYS	4
1	A	485	GLU	4
1	A	294	GLU	4
1	A	397	LYS	4
1	A	326	ARG	4
1	A	428	GLU	4
1	A	269	GLU	4
1	A	293	LYS	3
1	A	392	GLU	3
1	A	266	LYS	3
1	A	371	GLU	3
1	A	347	ARG	3
1	A	386	ARG	3
1	A	478	GLU	3
1	A	264	LYS	3
1	A	300	GLU	3
1	A	329	PRO	3
1	A	510	GLN	3
1	A	352	GLN	3
1	A	424	TRP	3
1	A	496	GLN	3
1	A	304	LYS	3
1	A	341	ASN	3
1	A	364	THR	2
1	A	433	ASN	2
1	A	311	GLU	2
1	A	319	GLN	2
1	A	475	TYR	2
1	A	481	GLU	2
1	A	498	ASN	2
1	A	292	LEU	2
1	A	350	ASN	2
1	A	507	GLU	2
1	A	438	LYS	2
1	A	271	GLN	2
1	A	472	GLU	2
1	A	313	LYS	2

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Mol	Chain	Res	Type	Models (Total)
1	A	377	ASN	2
1	A	375	LYS	2
1	A	280	TRP	2
1	A	327	GLU	1
1	A	479	ARG	1
1	A	277	GLU	1
1	A	382	ASP	1
1	A	486	LYS	1
1	A	255	GLU	1
1	A	297	MET	1
1	A	345	TYR	1
1	A	376	LYS	1
1	A	423	LYS	1
1	A	450	GLU	1
1	A	514	THR	1
1	A	351	ARG	1
1	A	305	GLU	1
1	A	429	SER	1
1	A	406	LEU	1
1	A	488	TYR	1
1	A	272	TYR	1
1	A	281	LYS	1
1	A	328	PRO	1
1	A	517	GLN	1
1	A	355	ASN	1
1	A	395	LEU	1
1	A	440	ASP	1

6.3.3 RNA (i)

There are no RNA molecules in this entry.

6.4 Non-standard residues in protein, DNA, RNA chains (i)

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

6.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

6.6 Ligand geometry

There are no ligands in this entry.

6.7 Other polymers

There are no such molecules in this entry.

6.8 Polymer linkage issues

There are no chain breaks in this entry.

7 Chemical shift validation

The completeness of assignment taking into account all chemical shift lists is 14% for the well-defined parts and 14% for the entire structure.

7.1 Chemical shift list 1

File name: working_cs.cif

Chemical shift list name: *07112020_inactive2_BMRB.cs.str*

7.1.1 Bookkeeping

The following table shows the results of parsing the chemical shift list and reports the number of nuclei with statistically unusual chemical shifts.

Total number of shifts	553
Number of shifts mapped to atoms	553
Number of unparsed shifts	0
Number of shifts with mapping errors	0
Number of shifts with mapping warnings	0
Number of shift outliers (ShiftChecker)	3

7.1.2 Chemical shift referencing

No chemical shift referencing corrections were calculated (not enough data).

7.1.3 Completeness of resonance assignments

The following table shows the completeness of the chemical shift assignments for the well-defined regions of the structure. The overall completeness is 14%, i.e. 505 atoms were assigned a chemical shift out of a possible 3524. 0 out of 44 assigned methyl groups (LEU and VAL) were assigned stereospecifically.

	Total	^{1}H	^{13}C	^{15}N
Backbone	0/1237 (0%)	0/500 (0%)	0/498 (0%)	0/239 (0%)
Sidechain	452/1937 (23%)	339/1260 (27%)	113/610 (19%)	0/67 (0%)
Aromatic	53/350 (15%)	39/168 (23%)	14/165 (8%)	0/17 (0%)
Overall	505/3524 (14%)	378/1928 (20%)	127/1273 (10%)	0/323 (0%)

The following table shows the completeness of the chemical shift assignments for the full structure. The overall completeness is 14%, i.e. 553 atoms were assigned a chemical shift out of a possible 3993. 0 out of 47 assigned methyl groups (LEU and VAL) were assigned stereospecifically.

	Total	^{1}H	^{13}C	^{15}N
Backbone	0/1427 (0%)	0/578 (0%)	0/574 (0%)	0/275 (0%)
Sidechain	500/2171 (23%)	375/1410 (27%)	125/688 (18%)	0/73 (0%)
Aromatic	53/395 (13%)	39/189 (21%)	14/187 (7%)	0/19 (0%)
Overall	553/3993 (14%)	414/2177 (19%)	139/1449 (10%)	0/367 (0%)

7.1.4 Statistically unusual chemical shifts (i)

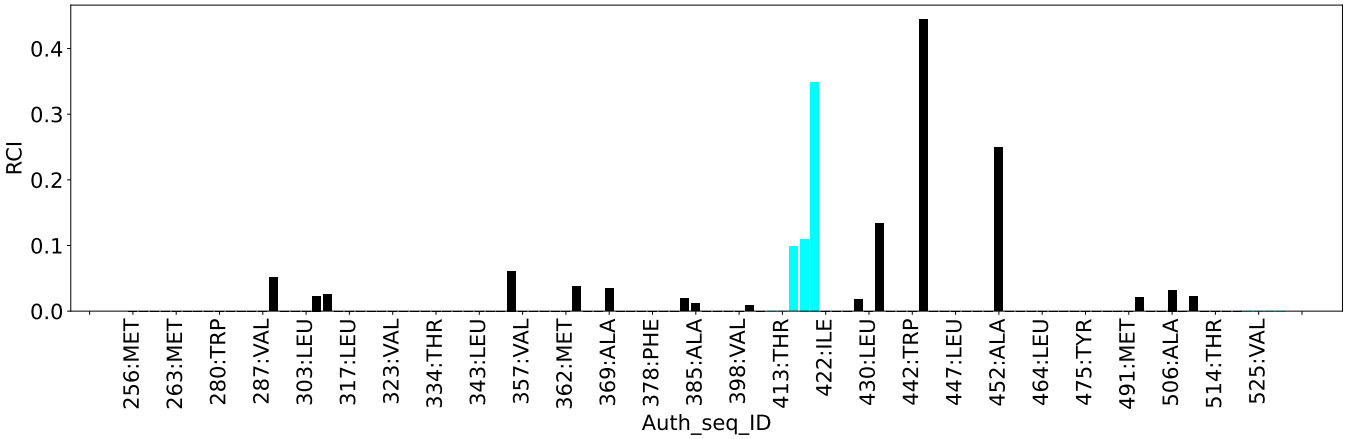
The following table lists the statistically unusual chemical shifts. These are statistical measures, and large deviations from the mean do not necessarily imply incorrect assignments. Molecules containing paramagnetic centres or hemes are expected to give rise to anomalous chemical shifts.

List Id	Chain	Res	Type	Atom	Shift, *ppm*	Expected range, *ppm*	Z-score
1	A	453	THR	HG21	-0.20	0.08 – 2.19	-6.4
1	A	453	THR	HG22	-0.20	0.08 – 2.19	-6.4
1	A	453	THR	HG23	-0.20	0.08 – 2.19	-6.4

7.1.5 Random Coil Index (RCI) plots (i)

The image below reports *random coil index* values for the protein chains in the structure. The height of each bar gives a probability of a given residue to be disordered, as predicted from the available chemical shifts and the amino acid sequence. A value above 0.2 is an indication of significant predicted disorder. The colour of the bar shows whether the residue is in the well-defined core (black) or in the ill-defined residue ranges (cyan), as described in section 2 on ensemble composition.If well-defined core and ill-defined regions are not identified then it is shown as gray bars.

Random coil index (RCI) for chain A:



8 NMR restraints analysis

8.1 Conformationally restricting restraints

The following table provides the summary of experimentally observed NMR restraints in different categories. Restraints are classified into different categories based on the sequence separation of the atoms involved.

Description	Value
Total distance restraints	744
Intra-residue (|i-j|=0)	0
Sequential (|i-j|=1)	33
Medium range (|i-j|>1 and |i-j|<5)	154
Long range (|i-j|≥5)	527
Inter-chain	0
Hydrogen bond restraints	30
Disulfide bond restraints	0
Total dihedral-angle restraints	496
Number of unmapped restraints	0
Number of restraints per residue	4.3
Number of long range restraints per residue[1]	1.8

[1]Long range hydrogen bonds and disulfide bonds are counted as long range restraints while calculating the number of long range restraints per residue

8.2 Residual restraint violations

This section provides the overview of the restraint violations analysis. The violations are binned as small, medium and large violations based on its absolute value. Average number of violations per model is calculated by dividing the total number of violations in each bin by the size of the ensemble.

8.2.1 Average number of distance violations per model

Distance violations less than 0.1 Å
are not included in the calculation.

Bins (Å)	Average number of violations per model	Max (Å)
0.1-0.2 (Small)	3.5	0.2
0.2-0.5 (Medium)	0.3	0.47
>0.5 (Large)	0.3	1.57

8.2.2 Average number of dihedral-angle violations per model (i)

Dihedral-angle violations less than 1° are not included in the calculation.

Bins (°)	Average number of violations per model	Max (°)
1.0-10.0 (Small)	31.6	9.91
10.0-20.0 (Medium)	0.8	17.66
>20.0 (Large)	None	None

9 Distance violation analysis (i)

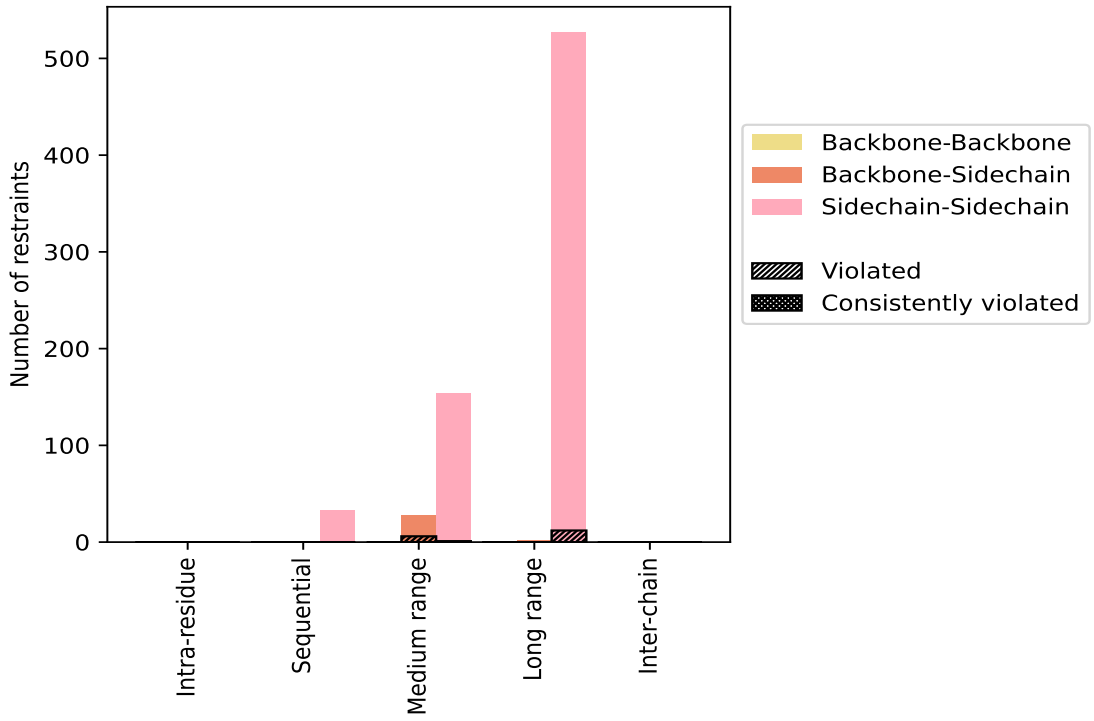
9.1 Summary of distance violations (i)

The following table shows the summary of distance violations in different restraint categories based on the sequence separation of the atoms involved. Each category is further sub-divided into three sub-categories based on the atoms involved. Violations less than 0.1 Å are not included in the statistics.

Restraints type	Count	%[1]	Violated[3]			Consistently Violated[4]		
			Count	%[2]	%[1]	Count	%[2]	%[1]
Intra-residue (|i-j|=0)	0	0.0	0	0.0	0.0	0	0.0	0.0
Backbone-Backbone	0	0.0	0	0.0	0.0	0	0.0	0.0
Backbone-Sidechain	0	0.0	0	0.0	0.0	0	0.0	0.0
Sidechain-Sidechain	0	0.0	0	0.0	0.0	0	0.0	0.0
Sequential (|i-j|=1)	33	4.4	0	0.0	0.0	0	0.0	0.0
Backbone-Backbone	0	0.0	0	0.0	0.0	0	0.0	0.0
Backbone-Sidechain	0	0.0	0	0.0	0.0	0	0.0	0.0
Sidechain-Sidechain	33	4.4	0	0.0	0.0	0	0.0	0.0
Medium range (|i-j|>1 & |i-j|<5)	154	20.7	1	0.6	0.1	0	0.0	0.0
Backbone-Backbone	0	0.0	0	0.0	0.0	0	0.0	0.0
Backbone-Sidechain	0	0.0	0	0.0	0.0	0	0.0	0.0
Sidechain-Sidechain	154	20.7	1	0.6	0.1	0	0.0	0.0
Long range (|i-j|≥5)	527	70.8	12	2.3	1.6	0	0.0	0.0
Backbone-Backbone	0	0.0	0	0.0	0.0	0	0.0	0.0
Backbone-Sidechain	0	0.0	0	0.0	0.0	0	0.0	0.0
Sidechain-Sidechain	527	70.8	12	2.3	1.6	0	0.0	0.0
Inter-chain	0	0.0	0	0.0	0.0	0	0.0	0.0
Backbone-Backbone	0	0.0	0	0.0	0.0	0	0.0	0.0
Backbone-Sidechain	0	0.0	0	0.0	0.0	0	0.0	0.0
Sidechain-Sidechain	0	0.0	0	0.0	0.0	0	0.0	0.0
Hydrogen bond	30	4.0	6	20.0	0.8	0	0.0	0.0
Disulfide bond	0	0.0	0	0.0	0.0	0	0.0	0.0
Total	744	100.0	19	2.6	2.6	0	0.0	0.0
Backbone-Backbone	0	0.0	0	0.0	0.0	0	0.0	0.0
Backbone-Sidechain	30	4.0	6	20.0	0.8	0	0.0	0.0
Sidechain-Sidechain	714	96.0	13	1.8	1.7	0	0.0	0.0

[1] percentage calculated with respect to the total number of distance restraints, [2] percentage calculated with respect to the number of restraints in a particular restraint category, [3] violated in at least one model, [4] violated in all the models

9.1.1 Bar chart : Distribution of distance restraints and violations



Violated and consistently violated restraints are shown using different hatch patterns in their respective categories. The hydrogen bonds and disulfied bonds are counted in their appropriate category on the x-axis

9.2 Distance violation statistics for each model

The following table provides the distance violation statistics for each model in the ensemble. Violations less than 0.1 Å
are not included in the statistics.

Model ID	Number of violations						Mean (Å)	Max (Å)	SD[6] (Å)	Median (Å)
	IR[1]	SQ[2]	MR[3]	LR[4]	IC[5]	Total				
1	0	0	1	5	0	6	0.2	0.36	0.08	0.19
2	0	0	3	1	0	4	0.12	0.14	0.02	0.13
3	0	0	2	5	0	7	0.13	0.19	0.03	0.12
4	0	0	1	4	0	5	0.24	0.66	0.21	0.14
5	0	0	1	4	0	5	0.23	0.61	0.19	0.12
6	0	0	2	2	0	4	0.13	0.16	0.02	0.14
7	0	0	2	3	0	5	0.23	0.47	0.13	0.17
8	0	0	1	4	0	5	0.38	1.38	0.5	0.13
9	0	0	3	2	0	5	0.16	0.31	0.08	0.13
10	0	0	1	3	0	4	0.3	0.8	0.29	0.15

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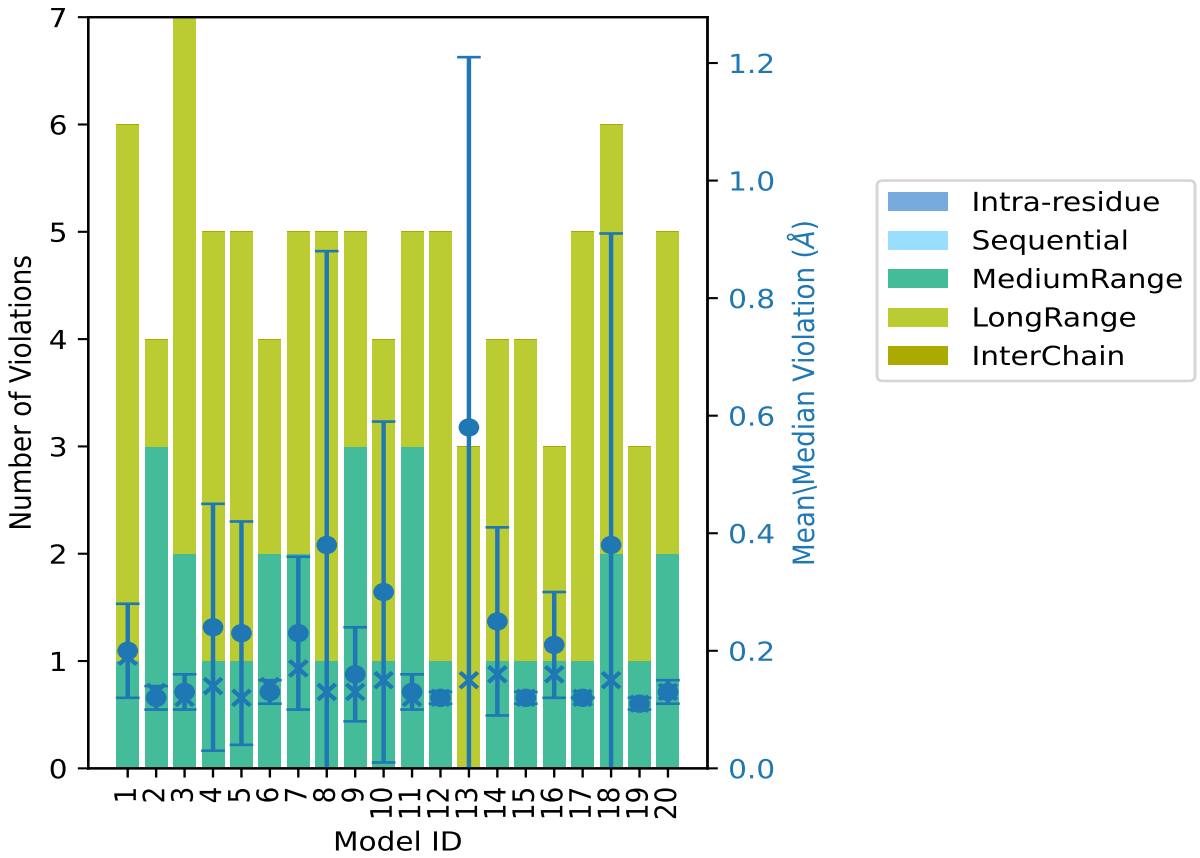
Model ID	Number of violations						Mean (Å)	Max (Å)	SD[6] (Å)	Median (Å)
	IR[1]	SQ[2]	MR[3]	LR[4]	IC[5]	Total				
11	0	0	3	2	0	5	0.13	0.2	0.03	0.12
12	0	0	1	4	0	5	0.12	0.15	0.01	0.12
13	0	0	0	3	0	3	0.58	1.47	0.63	0.15
14	0	0	1	3	0	4	0.25	0.52	0.16	0.16
15	0	0	1	3	0	4	0.12	0.13	0.01	0.12
16	0	0	1	2	0	3	0.21	0.34	0.09	0.16
17	0	0	1	4	0	5	0.12	0.13	0.0	0.12
18	0	0	2	4	0	6	0.38	1.57	0.53	0.15
19	0	0	1	2	0	3	0.11	0.12	0.01	0.11
20	0	0	2	3	0	5	0.13	0.16	0.02	0.13

[1]Intra-residue restraints, [2]Sequential restraints, [3]Medium range restraints, [4]Long range restraints, [5]Inter-chain restraints, [6]Standard deviation

9.2.1 Bar graph : Distance Violation statistics for each model



The mean(dot),median(x) and the standard deviation are shown in blue with respect to the y axis on the right

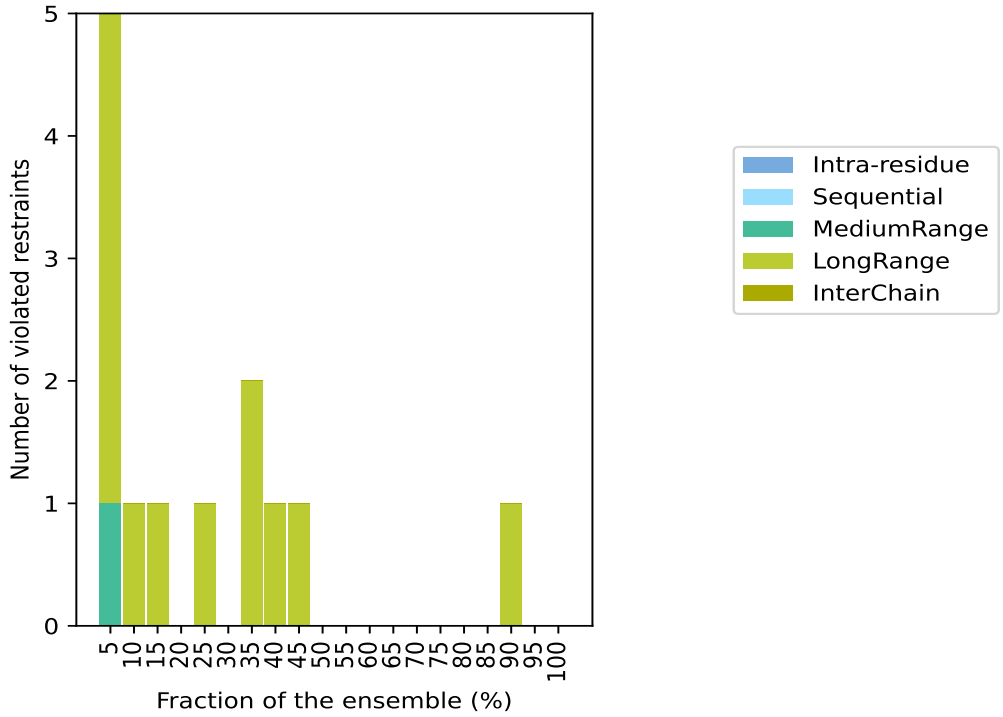
9.3 Distance violation statistics for the ensemble (i)

Violation analysis may find that some restraints are violated in few models and some are violated in most of models. The following table provides this information as number of violated restraints for a given fraction of the ensemble. In total, 701(IR:0, SQ:33, MR:153, LR:515, IC:0) restraints are not violated in the ensemble.

Number of violated restraints						Fraction of the ensemble	
IR[1]	SQ[2]	MR[3]	LR[4]	IC[5]	Total	Count[6]	%
0	0	1	4	0	5	1	5.0
0	0	0	1	0	1	2	10.0
0	0	0	1	0	1	3	15.0
0	0	0	0	0	0	4	20.0
0	0	0	1	0	1	5	25.0
0	0	0	0	0	0	6	30.0
0	0	0	2	0	2	7	35.0
0	0	0	1	0	1	8	40.0
0	0	0	1	0	1	9	45.0
0	0	0	0	0	0	10	50.0
0	0	0	0	0	0	11	55.0
0	0	0	0	0	0	12	60.0
0	0	0	0	0	0	13	65.0
0	0	0	0	0	0	14	70.0
0	0	0	0	0	0	15	75.0
0	0	0	0	0	0	16	80.0
0	0	0	0	0	0	17	85.0
0	0	0	1	0	1	18	90.0
0	0	0	0	0	0	19	95.0
0	0	0	0	0	0	20	100.0

[1]Intra-residue restraints, [2]Sequential restraints, [3]Medium range restraints, [4]Long range restraints, [5]Inter-chain restraints, [6] Number of models with violations

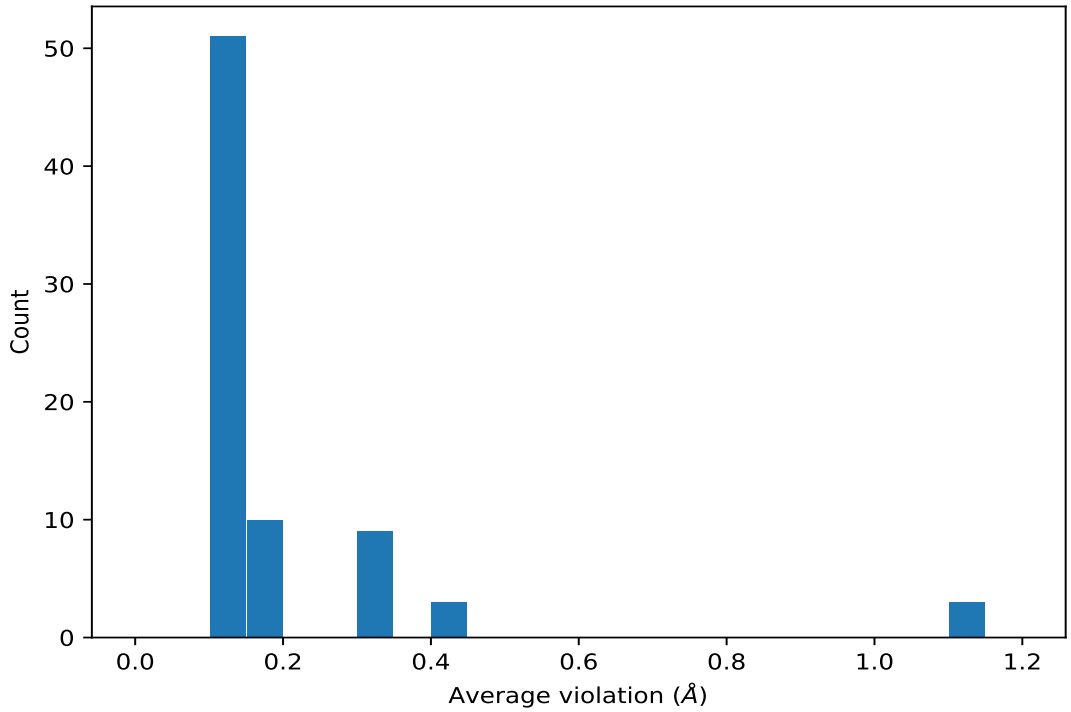
9.3.1 Bar graph : Distance violation statistics for the ensemble



9.4 Most violated distance restraints in the ensemble

9.4.1 Histogram : Distribution of mean distance violations

The following histogram shows the distribution of the average value of the violation. The average is calculated for each restraint that is violated in more than one model over all the violated models in the ensemble



9.4.2 Table: Most violated distance restraints (i)

The following table provides the mean and the standard deviation of theviolation for each restraint sorted by number of violated models and the mean value. The Key (restraint list ID, restraint ID) is the unique identifier for a given restraint. Rows with same key represent combinatorial or ambiguous restraints and are counted as a single restraint.

Key	Atom-1	Atom-2	Models[1]	Mean (Å)	SD[1] (Å)	Median (Å)
(1,30)	1:368:A:SER:O	1:372:A:TYR:H	18	0.15	0.02	0.15
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG21	18	0.14	0.02	0.14
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG22	18	0.14	0.02	0.14
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG23	18	0.14	0.02	0.14
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG21	18	0.14	0.02	0.14
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG22	18	0.14	0.02	0.14
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG23	18	0.14	0.02	0.14
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG21	18	0.14	0.02	0.14
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG22	18	0.14	0.02	0.14
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG23	18	0.14	0.02	0.14
(2,446)	1:317:A:LEU:HD21	1:369:A:ALA:HB1	9	0.15	0.04	0.13
(2,446)	1:317:A:LEU:HD21	1:369:A:ALA:HB2	9	0.15	0.04	0.13
(2,446)	1:317:A:LEU:HD21	1:369:A:ALA:HB3	9	0.15	0.04	0.13
(2,446)	1:317:A:LEU:HD22	1:369:A:ALA:HB1	9	0.15	0.04	0.13
(2,446)	1:317:A:LEU:HD22	1:369:A:ALA:HB2	9	0.15	0.04	0.13
(2,446)	1:317:A:LEU:HD22	1:369:A:ALA:HB3	9	0.15	0.04	0.13

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Key	Atom-1	Atom-2	Models[1]	Mean (Å)	SD[1] (Å)	Median (Å)
(2,446)	1:317:A:LEU:HD23	1:369:A:ALA:HB1	9	0.15	0.04	0.13
(2,446)	1:317:A:LEU:HD23	1:369:A:ALA:HB2	9	0.15	0.04	0.13
(2,446)	1:317:A:LEU:HD23	1:369:A:ALA:HB3	9	0.15	0.04	0.13
(2,695)	1:318:A:VAL:HG11	1:399:A:ALA:HB1	8	0.12	0.01	0.12
(2,695)	1:318:A:VAL:HG11	1:399:A:ALA:HB2	8	0.12	0.01	0.12
(2,695)	1:318:A:VAL:HG11	1:399:A:ALA:HB3	8	0.12	0.01	0.12
(2,695)	1:318:A:VAL:HG12	1:399:A:ALA:HB1	8	0.12	0.01	0.12
(2,695)	1:318:A:VAL:HG12	1:399:A:ALA:HB2	8	0.12	0.01	0.12
(2,695)	1:318:A:VAL:HG12	1:399:A:ALA:HB3	8	0.12	0.01	0.12
(2,695)	1:318:A:VAL:HG13	1:399:A:ALA:HB1	8	0.12	0.01	0.12
(2,695)	1:318:A:VAL:HG13	1:399:A:ALA:HB2	8	0.12	0.01	0.12
(2,695)	1:318:A:VAL:HG13	1:399:A:ALA:HB3	8	0.12	0.01	0.12
(2,695)	1:318:A:VAL:HG21	1:399:A:ALA:HB1	8	0.12	0.01	0.12
(2,695)	1:318:A:VAL:HG21	1:399:A:ALA:HB2	8	0.12	0.01	0.12
(2,695)	1:318:A:VAL:HG21	1:399:A:ALA:HB3	8	0.12	0.01	0.12
(2,695)	1:318:A:VAL:HG22	1:399:A:ALA:HB1	8	0.12	0.01	0.12
(2,695)	1:318:A:VAL:HG22	1:399:A:ALA:HB2	8	0.12	0.01	0.12
(2,695)	1:318:A:VAL:HG22	1:399:A:ALA:HB3	8	0.12	0.01	0.12
(2,695)	1:318:A:VAL:HG23	1:399:A:ALA:HB1	8	0.12	0.01	0.12
(2,695)	1:318:A:VAL:HG23	1:399:A:ALA:HB2	8	0.12	0.01	0.12
(2,695)	1:318:A:VAL:HG23	1:399:A:ALA:HB3	8	0.12	0.01	0.12
(2,420)	1:446:A:VAL:HG11	1:456:A:MET:HE1	7	0.3	0.15	0.31
(2,420)	1:446:A:VAL:HG11	1:456:A:MET:HE2	7	0.3	0.15	0.31
(2,420)	1:446:A:VAL:HG11	1:456:A:MET:HE3	7	0.3	0.15	0.31
(2,420)	1:446:A:VAL:HG12	1:456:A:MET:HE1	7	0.3	0.15	0.31
(2,420)	1:446:A:VAL:HG12	1:456:A:MET:HE2	7	0.3	0.15	0.31
(2,420)	1:446:A:VAL:HG12	1:456:A:MET:HE3	7	0.3	0.15	0.31
(2,420)	1:446:A:VAL:HG13	1:456:A:MET:HE1	7	0.3	0.15	0.31
(2,420)	1:446:A:VAL:HG13	1:456:A:MET:HE2	7	0.3	0.15	0.31
(2,420)	1:446:A:VAL:HG13	1:456:A:MET:HE3	7	0.3	0.15	0.31
(2,693)	1:318:A:VAL:HG11	1:337:A:MET:HE1	7	0.13	0.02	0.12
(2,693)	1:318:A:VAL:HG11	1:337:A:MET:HE2	7	0.13	0.02	0.12
(2,693)	1:318:A:VAL:HG11	1:337:A:MET:HE3	7	0.13	0.02	0.12
(2,693)	1:318:A:VAL:HG12	1:337:A:MET:HE1	7	0.13	0.02	0.12
(2,693)	1:318:A:VAL:HG12	1:337:A:MET:HE2	7	0.13	0.02	0.12
(2,693)	1:318:A:VAL:HG12	1:337:A:MET:HE3	7	0.13	0.02	0.12
(2,693)	1:318:A:VAL:HG13	1:337:A:MET:HE1	7	0.13	0.02	0.12
(2,693)	1:318:A:VAL:HG13	1:337:A:MET:HE2	7	0.13	0.02	0.12
(2,693)	1:318:A:VAL:HG13	1:337:A:MET:HE3	7	0.13	0.02	0.12
(2,693)	1:318:A:VAL:HG21	1:337:A:MET:HE1	7	0.13	0.02	0.12
(2,693)	1:318:A:VAL:HG21	1:337:A:MET:HE2	7	0.13	0.02	0.12
(2,693)	1:318:A:VAL:HG21	1:337:A:MET:HE3	7	0.13	0.02	0.12

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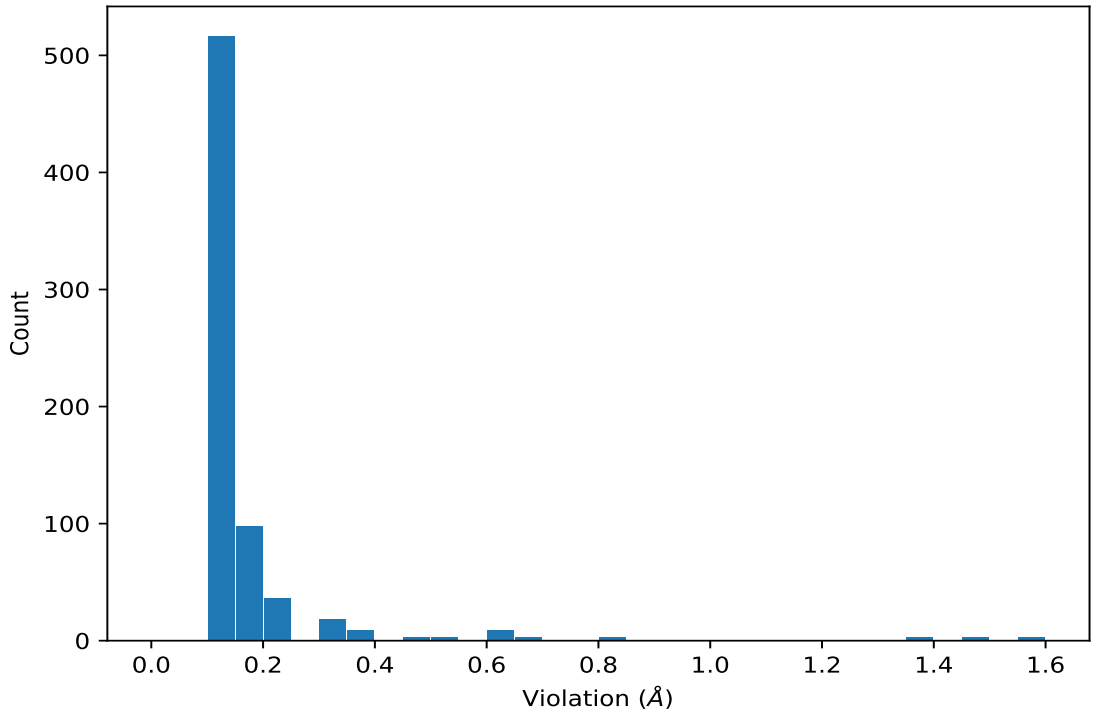
Key	Atom-1	Atom-2	Models[1]	Mean (Å)	SD[1] (Å)	Median (Å)
(2,693)	1:318:A:VAL:HG22	1:337:A:MET:HE1	7	0.13	0.02	0.12
(2,693)	1:318:A:VAL:HG22	1:337:A:MET:HE2	7	0.13	0.02	0.12
(2,693)	1:318:A:VAL:HG22	1:337:A:MET:HE3	7	0.13	0.02	0.12
(2,693)	1:318:A:VAL:HG23	1:337:A:MET:HE1	7	0.13	0.02	0.12
(2,693)	1:318:A:VAL:HG23	1:337:A:MET:HE2	7	0.13	0.02	0.12
(2,693)	1:318:A:VAL:HG23	1:337:A:MET:HE3	7	0.13	0.02	0.12
(2,678)	1:370:A:MET:HE1	1:505:A:PHE:HE1	5	1.14	0.43	1.38
(2,678)	1:370:A:MET:HE2	1:505:A:PHE:HE1	5	1.14	0.43	1.38
(2,678)	1:370:A:MET:HE3	1:505:A:PHE:HE1	5	1.14	0.43	1.38
(1,4)	1:355:A:ASN:O	1:359:A:LEU:H	4	0.12	0.01	0.12
(2,679)	1:441:A:VAL:HG21	1:505:A:PHE:HE1	3	0.43	0.23	0.52
(2,679)	1:441:A:VAL:HG22	1:505:A:PHE:HE1	3	0.43	0.23	0.52
(2,679)	1:441:A:VAL:HG23	1:505:A:PHE:HE1	3	0.43	0.23	0.52
(1,6)	1:356:A:ALA:O	1:360:A:LEU:H	3	0.11	0.0	0.11
(2,355)	1:342:A:LEU:HD11	1:396:A:VAL:CG2	2	0.11	0.0	0.11
(2,355)	1:342:A:LEU:HD12	1:396:A:VAL:CG2	2	0.11	0.0	0.11
(2,355)	1:342:A:LEU:HD13	1:396:A:VAL:CG2	2	0.11	0.0	0.11
(1,28)	1:367:A:SER:O	1:371:A:GLU:H	2	0.11	0.0	0.11

[1]Number of violated models, [2]Standard deviation

9.5 All violated distance restraints (i)

9.5.1 Histogram : Distribution of distance violations (i)

The following histogram shows the distribution of the absolute value of the violation for all violated restraints in the ensemble.



9.5.2 Table : All distance violations (i)

The following table lists the absolute value of the violation for each restraint in the ensemble sorted by its value. The Key (restraint list ID, restraint ID) is the unique identifier for a given restraint. Rows with same key represent combinatorial or ambiguous restraints and are counted as a single restraint.

Key	Atom-1	Atom-2	Model ID	Violation (Å)
(2,678)	1:370:A:MET:HE1	1:505:A:PHE:HE1	18	1.57
(2,678)	1:370:A:MET:HE2	1:505:A:PHE:HE1	18	1.57
(2,678)	1:370:A:MET:HE3	1:505:A:PHE:HE1	18	1.57
(2,678)	1:370:A:MET:HE1	1:505:A:PHE:HE1	13	1.47
(2,678)	1:370:A:MET:HE2	1:505:A:PHE:HE1	13	1.47
(2,678)	1:370:A:MET:HE3	1:505:A:PHE:HE1	13	1.47
(2,678)	1:370:A:MET:HE1	1:505:A:PHE:HE1	8	1.38
(2,678)	1:370:A:MET:HE2	1:505:A:PHE:HE1	8	1.38
(2,678)	1:370:A:MET:HE3	1:505:A:PHE:HE1	8	1.38
(2,678)	1:370:A:MET:HE1	1:505:A:PHE:HE1	10	0.8
(2,678)	1:370:A:MET:HE2	1:505:A:PHE:HE1	10	0.8
(2,678)	1:370:A:MET:HE3	1:505:A:PHE:HE1	10	0.8
(2,679)	1:441:A:VAL:HG21	1:505:A:PHE:HE1	4	0.66
(2,679)	1:441:A:VAL:HG22	1:505:A:PHE:HE1	4	0.66
(2,679)	1:441:A:VAL:HG23	1:505:A:PHE:HE1	4	0.66
(2,420)	1:446:A:VAL:HG11	1:456:A:MET:HE1	5	0.61

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(2,420)	1:446:A:VAL:HG11	1:456:A:MET:HE2	5	0.61
(2,420)	1:446:A:VAL:HG11	1:456:A:MET:HE3	5	0.61
(2,420)	1:446:A:VAL:HG12	1:456:A:MET:HE1	5	0.61
(2,420)	1:446:A:VAL:HG12	1:456:A:MET:HE2	5	0.61
(2,420)	1:446:A:VAL:HG12	1:456:A:MET:HE3	5	0.61
(2,420)	1:446:A:VAL:HG13	1:456:A:MET:HE1	5	0.61
(2,420)	1:446:A:VAL:HG13	1:456:A:MET:HE2	5	0.61
(2,420)	1:446:A:VAL:HG13	1:456:A:MET:HE3	5	0.61
(2,679)	1:441:A:VAL:HG21	1:505:A:PHE:HE1	14	0.52
(2,679)	1:441:A:VAL:HG22	1:505:A:PHE:HE1	14	0.52
(2,679)	1:441:A:VAL:HG23	1:505:A:PHE:HE1	14	0.52
(2,678)	1:370:A:MET:HE1	1:505:A:PHE:HE1	7	0.47
(2,678)	1:370:A:MET:HE2	1:505:A:PHE:HE1	7	0.47
(2,678)	1:370:A:MET:HE3	1:505:A:PHE:HE1	7	0.47
(2,420)	1:446:A:VAL:HG11	1:456:A:MET:HE1	1	0.36
(2,420)	1:446:A:VAL:HG11	1:456:A:MET:HE2	1	0.36
(2,420)	1:446:A:VAL:HG11	1:456:A:MET:HE3	1	0.36
(2,420)	1:446:A:VAL:HG12	1:456:A:MET:HE1	1	0.36
(2,420)	1:446:A:VAL:HG12	1:456:A:MET:HE2	1	0.36
(2,420)	1:446:A:VAL:HG12	1:456:A:MET:HE3	1	0.36
(2,420)	1:446:A:VAL:HG13	1:456:A:MET:HE1	1	0.36
(2,420)	1:446:A:VAL:HG13	1:456:A:MET:HE2	1	0.36
(2,420)	1:446:A:VAL:HG13	1:456:A:MET:HE3	1	0.36
(2,420)	1:446:A:VAL:HG11	1:456:A:MET:HE1	16	0.34
(2,420)	1:446:A:VAL:HG11	1:456:A:MET:HE2	16	0.34
(2,420)	1:446:A:VAL:HG11	1:456:A:MET:HE3	16	0.34
(2,420)	1:446:A:VAL:HG12	1:456:A:MET:HE1	16	0.34
(2,420)	1:446:A:VAL:HG12	1:456:A:MET:HE2	16	0.34
(2,420)	1:446:A:VAL:HG12	1:456:A:MET:HE3	16	0.34
(2,420)	1:446:A:VAL:HG13	1:456:A:MET:HE1	16	0.34
(2,420)	1:446:A:VAL:HG13	1:456:A:MET:HE2	16	0.34
(2,420)	1:446:A:VAL:HG13	1:456:A:MET:HE3	16	0.34
(2,420)	1:446:A:VAL:HG11	1:456:A:MET:HE1	9	0.31
(2,420)	1:446:A:VAL:HG11	1:456:A:MET:HE2	9	0.31
(2,420)	1:446:A:VAL:HG11	1:456:A:MET:HE3	9	0.31
(2,420)	1:446:A:VAL:HG12	1:456:A:MET:HE1	9	0.31
(2,420)	1:446:A:VAL:HG12	1:456:A:MET:HE2	9	0.31
(2,420)	1:446:A:VAL:HG12	1:456:A:MET:HE3	9	0.31
(2,420)	1:446:A:VAL:HG13	1:456:A:MET:HE1	9	0.31
(2,420)	1:446:A:VAL:HG13	1:456:A:MET:HE2	9	0.31
(2,420)	1:446:A:VAL:HG13	1:456:A:MET:HE3	9	0.31
(2,446)	1:317:A:LEU:HD21	1:369:A:ALA:HB1	1	0.23

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(2,446)	1:317:A:LEU:HD21	1:369:A:ALA:HB2	1	0.23
(2,446)	1:317:A:LEU:HD21	1:369:A:ALA:HB3	1	0.23
(2,446)	1:317:A:LEU:HD22	1:369:A:ALA:HB1	1	0.23
(2,446)	1:317:A:LEU:HD22	1:369:A:ALA:HB2	1	0.23
(2,446)	1:317:A:LEU:HD22	1:369:A:ALA:HB3	1	0.23
(2,446)	1:317:A:LEU:HD23	1:369:A:ALA:HB1	1	0.23
(2,446)	1:317:A:LEU:HD23	1:369:A:ALA:HB2	1	0.23
(2,446)	1:317:A:LEU:HD23	1:369:A:ALA:HB3	1	0.23
(2,420)	1:446:A:VAL:HG11	1:456:A:MET:HE1	7	0.23
(2,420)	1:446:A:VAL:HG11	1:456:A:MET:HE2	7	0.23
(2,420)	1:446:A:VAL:HG11	1:456:A:MET:HE3	7	0.23
(2,420)	1:446:A:VAL:HG12	1:456:A:MET:HE1	7	0.23
(2,420)	1:446:A:VAL:HG12	1:456:A:MET:HE2	7	0.23
(2,420)	1:446:A:VAL:HG12	1:456:A:MET:HE3	7	0.23
(2,420)	1:446:A:VAL:HG13	1:456:A:MET:HE1	7	0.23
(2,420)	1:446:A:VAL:HG13	1:456:A:MET:HE2	7	0.23
(2,420)	1:446:A:VAL:HG13	1:456:A:MET:HE3	7	0.23
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG21	1	0.2
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG22	1	0.2
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG23	1	0.2
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG21	1	0.2
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG22	1	0.2
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG23	1	0.2
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG21	1	0.2
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG22	1	0.2
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG23	1	0.2
(2,446)	1:317:A:LEU:HD21	1:369:A:ALA:HB1	11	0.2
(2,446)	1:317:A:LEU:HD21	1:369:A:ALA:HB2	11	0.2
(2,446)	1:317:A:LEU:HD21	1:369:A:ALA:HB3	11	0.2
(2,446)	1:317:A:LEU:HD22	1:369:A:ALA:HB1	11	0.2
(2,446)	1:317:A:LEU:HD22	1:369:A:ALA:HB2	11	0.2
(2,446)	1:317:A:LEU:HD22	1:369:A:ALA:HB3	11	0.2
(2,446)	1:317:A:LEU:HD23	1:369:A:ALA:HB1	11	0.2
(2,446)	1:317:A:LEU:HD23	1:369:A:ALA:HB2	11	0.2
(2,446)	1:317:A:LEU:HD23	1:369:A:ALA:HB3	11	0.2
(1,30)	1:368:A:SER:O	1:372:A:TYR:H	3	0.19
(1,30)	1:368:A:SER:O	1:372:A:TYR:H	5	0.19
(2,710)	1:525:A:VAL:HG11	1:529:A:LEU:HD11	1	0.18
(2,710)	1:525:A:VAL:HG11	1:529:A:LEU:HD12	1	0.18
(2,710)	1:525:A:VAL:HG11	1:529:A:LEU:HD13	1	0.18
(2,710)	1:525:A:VAL:HG11	1:529:A:LEU:HD21	1	0.18
(2,710)	1:525:A:VAL:HG11	1:529:A:LEU:HD22	1	0.18

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(2,710)	1:525:A:VAL:HG11	1:529:A:LEU:HD23	1	0.18
(2,710)	1:525:A:VAL:HG12	1:529:A:LEU:HD11	1	0.18
(2,710)	1:525:A:VAL:HG12	1:529:A:LEU:HD12	1	0.18
(2,710)	1:525:A:VAL:HG12	1:529:A:LEU:HD13	1	0.18
(2,710)	1:525:A:VAL:HG12	1:529:A:LEU:HD21	1	0.18
(2,710)	1:525:A:VAL:HG12	1:529:A:LEU:HD22	1	0.18
(2,710)	1:525:A:VAL:HG12	1:529:A:LEU:HD23	1	0.18
(2,710)	1:525:A:VAL:HG13	1:529:A:LEU:HD11	1	0.18
(2,710)	1:525:A:VAL:HG13	1:529:A:LEU:HD12	1	0.18
(2,710)	1:525:A:VAL:HG13	1:529:A:LEU:HD13	1	0.18
(2,710)	1:525:A:VAL:HG13	1:529:A:LEU:HD21	1	0.18
(2,710)	1:525:A:VAL:HG13	1:529:A:LEU:HD22	1	0.18
(2,710)	1:525:A:VAL:HG13	1:529:A:LEU:HD23	1	0.18
(2,710)	1:525:A:VAL:HG21	1:529:A:LEU:HD11	1	0.18
(2,710)	1:525:A:VAL:HG21	1:529:A:LEU:HD12	1	0.18
(2,710)	1:525:A:VAL:HG21	1:529:A:LEU:HD13	1	0.18
(2,710)	1:525:A:VAL:HG21	1:529:A:LEU:HD21	1	0.18
(2,710)	1:525:A:VAL:HG21	1:529:A:LEU:HD22	1	0.18
(2,710)	1:525:A:VAL:HG21	1:529:A:LEU:HD23	1	0.18
(2,710)	1:525:A:VAL:HG22	1:529:A:LEU:HD11	1	0.18
(2,710)	1:525:A:VAL:HG22	1:529:A:LEU:HD12	1	0.18
(2,710)	1:525:A:VAL:HG22	1:529:A:LEU:HD13	1	0.18
(2,710)	1:525:A:VAL:HG22	1:529:A:LEU:HD21	1	0.18
(2,710)	1:525:A:VAL:HG22	1:529:A:LEU:HD22	1	0.18
(2,710)	1:525:A:VAL:HG22	1:529:A:LEU:HD23	1	0.18
(2,710)	1:525:A:VAL:HG23	1:529:A:LEU:HD11	1	0.18
(2,710)	1:525:A:VAL:HG23	1:529:A:LEU:HD12	1	0.18
(2,710)	1:525:A:VAL:HG23	1:529:A:LEU:HD13	1	0.18
(2,710)	1:525:A:VAL:HG23	1:529:A:LEU:HD21	1	0.18
(2,710)	1:525:A:VAL:HG23	1:529:A:LEU:HD22	1	0.18
(2,710)	1:525:A:VAL:HG23	1:529:A:LEU:HD23	1	0.18
(1,30)	1:368:A:SER:O	1:372:A:TYR:H	7	0.17
(1,30)	1:368:A:SER:O	1:372:A:TYR:H	8	0.17
(1,30)	1:368:A:SER:O	1:372:A:TYR:H	14	0.17
(2,693)	1:318:A:VAL:HG11	1:337:A:MET:HE1	16	0.16
(2,693)	1:318:A:VAL:HG11	1:337:A:MET:HE2	16	0.16
(2,693)	1:318:A:VAL:HG11	1:337:A:MET:HE3	16	0.16
(2,693)	1:318:A:VAL:HG12	1:337:A:MET:HE1	16	0.16
(2,693)	1:318:A:VAL:HG12	1:337:A:MET:HE2	16	0.16
(2,693)	1:318:A:VAL:HG12	1:337:A:MET:HE3	16	0.16
(2,693)	1:318:A:VAL:HG13	1:337:A:MET:HE1	16	0.16
(2,693)	1:318:A:VAL:HG13	1:337:A:MET:HE2	16	0.16

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(2,693)	1:318:A:VAL:HG13	1:337:A:MET:HE3	16	0.16
(2,693)	1:318:A:VAL:HG21	1:337:A:MET:HE1	16	0.16
(2,693)	1:318:A:VAL:HG21	1:337:A:MET:HE2	16	0.16
(2,693)	1:318:A:VAL:HG21	1:337:A:MET:HE3	16	0.16
(2,693)	1:318:A:VAL:HG22	1:337:A:MET:HE1	16	0.16
(2,693)	1:318:A:VAL:HG22	1:337:A:MET:HE2	16	0.16
(2,693)	1:318:A:VAL:HG22	1:337:A:MET:HE3	16	0.16
(2,693)	1:318:A:VAL:HG23	1:337:A:MET:HE1	16	0.16
(2,693)	1:318:A:VAL:HG23	1:337:A:MET:HE2	16	0.16
(2,693)	1:318:A:VAL:HG23	1:337:A:MET:HE3	16	0.16
(2,661)	1:416:A:ALA:HB1	1:430:A:LEU:HD21	7	0.16
(2,661)	1:416:A:ALA:HB1	1:430:A:LEU:HD22	7	0.16
(2,661)	1:416:A:ALA:HB1	1:430:A:LEU:HD23	7	0.16
(2,661)	1:416:A:ALA:HB2	1:430:A:LEU:HD21	7	0.16
(2,661)	1:416:A:ALA:HB2	1:430:A:LEU:HD22	7	0.16
(2,661)	1:416:A:ALA:HB2	1:430:A:LEU:HD23	7	0.16
(2,661)	1:416:A:ALA:HB3	1:430:A:LEU:HD21	7	0.16
(2,661)	1:416:A:ALA:HB3	1:430:A:LEU:HD22	7	0.16
(2,661)	1:416:A:ALA:HB3	1:430:A:LEU:HD23	7	0.16
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG21	14	0.16
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG22	14	0.16
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG23	14	0.16
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG21	14	0.16
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG22	14	0.16
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG23	14	0.16
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG21	14	0.16
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG22	14	0.16
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG23	14	0.16
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG21	18	0.16
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG22	18	0.16
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG23	18	0.16
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG21	18	0.16
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG22	18	0.16
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG23	18	0.16
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG21	18	0.16
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG22	18	0.16
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG23	18	0.16
(2,418)	1:456:A:MET:HE1	1:477:A:MET:HE1	20	0.16
(2,418)	1:456:A:MET:HE1	1:477:A:MET:HE2	20	0.16
(2,418)	1:456:A:MET:HE1	1:477:A:MET:HE3	20	0.16
(2,418)	1:456:A:MET:HE2	1:477:A:MET:HE1	20	0.16
(2,418)	1:456:A:MET:HE2	1:477:A:MET:HE2	20	0.16

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(2,418)	1:456:A:MET:HE2	1:477:A:MET:HE3	20	0.16
(2,418)	1:456:A:MET:HE3	1:477:A:MET:HE1	20	0.16
(2,418)	1:456:A:MET:HE3	1:477:A:MET:HE2	20	0.16
(2,418)	1:456:A:MET:HE3	1:477:A:MET:HE3	20	0.16
(1,30)	1:368:A:SER:O	1:372:A:TYR:H	4	0.16
(1,30)	1:368:A:SER:O	1:372:A:TYR:H	6	0.16
(1,30)	1:368:A:SER:O	1:372:A:TYR:H	10	0.16
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG21	12	0.15
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG22	12	0.15
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG23	12	0.15
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG21	12	0.15
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG22	12	0.15
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG23	12	0.15
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG21	12	0.15
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG22	12	0.15
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG23	12	0.15
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG21	13	0.15
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG22	13	0.15
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG23	13	0.15
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG21	13	0.15
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG22	13	0.15
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG23	13	0.15
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG21	13	0.15
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG22	13	0.15
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG23	13	0.15
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG21	20	0.15
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG22	20	0.15
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG23	20	0.15
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG21	20	0.15
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG22	20	0.15
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG23	20	0.15
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG21	20	0.15
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG22	20	0.15
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG23	20	0.15
(2,446)	1:317:A:LEU:HD21	1:369:A:ALA:HB1	18	0.15
(2,446)	1:317:A:LEU:HD21	1:369:A:ALA:HB2	18	0.15
(2,446)	1:317:A:LEU:HD21	1:369:A:ALA:HB3	18	0.15
(2,446)	1:317:A:LEU:HD22	1:369:A:ALA:HB1	18	0.15
(2,446)	1:317:A:LEU:HD22	1:369:A:ALA:HB2	18	0.15
(2,446)	1:317:A:LEU:HD22	1:369:A:ALA:HB3	18	0.15
(2,446)	1:317:A:LEU:HD23	1:369:A:ALA:HB1	18	0.15
(2,446)	1:317:A:LEU:HD23	1:369:A:ALA:HB2	18	0.15

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(2,446)	1:317:A:LEU:HD23	1:369:A:ALA:HB3	18	0.15
(2,420)	1:446:A:VAL:HG11	1:456:A:MET:HE1	3	0.15
(2,420)	1:446:A:VAL:HG11	1:456:A:MET:HE2	3	0.15
(2,420)	1:446:A:VAL:HG11	1:456:A:MET:HE3	3	0.15
(2,420)	1:446:A:VAL:HG12	1:456:A:MET:HE1	3	0.15
(2,420)	1:446:A:VAL:HG12	1:456:A:MET:HE2	3	0.15
(2,420)	1:446:A:VAL:HG12	1:456:A:MET:HE3	3	0.15
(2,420)	1:446:A:VAL:HG13	1:456:A:MET:HE1	3	0.15
(2,420)	1:446:A:VAL:HG13	1:456:A:MET:HE2	3	0.15
(2,420)	1:446:A:VAL:HG13	1:456:A:MET:HE3	3	0.15
(1,30)	1:368:A:SER:O	1:372:A:TYR:H	18	0.15
(2,695)	1:318:A:VAL:HG11	1:399:A:ALA:HB1	18	0.14
(2,695)	1:318:A:VAL:HG11	1:399:A:ALA:HB2	18	0.14
(2,695)	1:318:A:VAL:HG11	1:399:A:ALA:HB3	18	0.14
(2,695)	1:318:A:VAL:HG12	1:399:A:ALA:HB1	18	0.14
(2,695)	1:318:A:VAL:HG12	1:399:A:ALA:HB2	18	0.14
(2,695)	1:318:A:VAL:HG12	1:399:A:ALA:HB3	18	0.14
(2,695)	1:318:A:VAL:HG13	1:399:A:ALA:HB1	18	0.14
(2,695)	1:318:A:VAL:HG13	1:399:A:ALA:HB2	18	0.14
(2,695)	1:318:A:VAL:HG13	1:399:A:ALA:HB3	18	0.14
(2,695)	1:318:A:VAL:HG21	1:399:A:ALA:HB1	18	0.14
(2,695)	1:318:A:VAL:HG21	1:399:A:ALA:HB2	18	0.14
(2,695)	1:318:A:VAL:HG21	1:399:A:ALA:HB3	18	0.14
(2,695)	1:318:A:VAL:HG22	1:399:A:ALA:HB1	18	0.14
(2,695)	1:318:A:VAL:HG22	1:399:A:ALA:HB2	18	0.14
(2,695)	1:318:A:VAL:HG22	1:399:A:ALA:HB3	18	0.14
(2,695)	1:318:A:VAL:HG23	1:399:A:ALA:HB1	18	0.14
(2,695)	1:318:A:VAL:HG23	1:399:A:ALA:HB2	18	0.14
(2,695)	1:318:A:VAL:HG23	1:399:A:ALA:HB3	18	0.14
(2,693)	1:318:A:VAL:HG11	1:337:A:MET:HE1	4	0.14
(2,693)	1:318:A:VAL:HG11	1:337:A:MET:HE2	4	0.14
(2,693)	1:318:A:VAL:HG11	1:337:A:MET:HE3	4	0.14
(2,693)	1:318:A:VAL:HG12	1:337:A:MET:HE1	4	0.14
(2,693)	1:318:A:VAL:HG12	1:337:A:MET:HE2	4	0.14
(2,693)	1:318:A:VAL:HG12	1:337:A:MET:HE3	4	0.14
(2,693)	1:318:A:VAL:HG13	1:337:A:MET:HE1	4	0.14
(2,693)	1:318:A:VAL:HG13	1:337:A:MET:HE2	4	0.14
(2,693)	1:318:A:VAL:HG13	1:337:A:MET:HE3	4	0.14
(2,693)	1:318:A:VAL:HG21	1:337:A:MET:HE1	4	0.14
(2,693)	1:318:A:VAL:HG21	1:337:A:MET:HE2	4	0.14
(2,693)	1:318:A:VAL:HG21	1:337:A:MET:HE3	4	0.14
(2,693)	1:318:A:VAL:HG22	1:337:A:MET:HE1	4	0.14

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(2,693)	1:318:A:VAL:HG22	1:337:A:MET:HE2	4	0.14
(2,693)	1:318:A:VAL:HG22	1:337:A:MET:HE3	4	0.14
(2,693)	1:318:A:VAL:HG23	1:337:A:MET:HE1	4	0.14
(2,693)	1:318:A:VAL:HG23	1:337:A:MET:HE2	4	0.14
(2,693)	1:318:A:VAL:HG23	1:337:A:MET:HE3	4	0.14
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG21	2	0.14
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG22	2	0.14
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG23	2	0.14
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG21	2	0.14
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG22	2	0.14
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG23	2	0.14
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG21	2	0.14
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG22	2	0.14
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG23	2	0.14
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG21	3	0.14
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG22	3	0.14
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG23	3	0.14
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG21	3	0.14
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG22	3	0.14
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG23	3	0.14
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG21	3	0.14
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG22	3	0.14
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG23	3	0.14
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG21	6	0.14
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG22	6	0.14
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG23	6	0.14
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG21	6	0.14
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG22	6	0.14
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG23	6	0.14
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG21	6	0.14
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG22	6	0.14
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG23	6	0.14
(2,446)	1:317:A:LEU:HD21	1:369:A:ALA:HB1	14	0.14
(2,446)	1:317:A:LEU:HD21	1:369:A:ALA:HB2	14	0.14
(2,446)	1:317:A:LEU:HD21	1:369:A:ALA:HB3	14	0.14
(2,446)	1:317:A:LEU:HD22	1:369:A:ALA:HB1	14	0.14
(2,446)	1:317:A:LEU:HD22	1:369:A:ALA:HB2	14	0.14
(2,446)	1:317:A:LEU:HD22	1:369:A:ALA:HB3	14	0.14
(2,446)	1:317:A:LEU:HD23	1:369:A:ALA:HB1	14	0.14
(2,446)	1:317:A:LEU:HD23	1:369:A:ALA:HB2	14	0.14
(2,446)	1:317:A:LEU:HD23	1:369:A:ALA:HB3	14	0.14
(1,30)	1:368:A:SER:O	1:372:A:TYR:H	2	0.14

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,4)	1:355:A:ASN:O	1:359:A:LEU:H	9	0.14
(2,695)	1:318:A:VAL:HG11	1:399:A:ALA:HB1	6	0.13
(2,695)	1:318:A:VAL:HG11	1:399:A:ALA:HB2	6	0.13
(2,695)	1:318:A:VAL:HG11	1:399:A:ALA:HB3	6	0.13
(2,695)	1:318:A:VAL:HG12	1:399:A:ALA:HB1	6	0.13
(2,695)	1:318:A:VAL:HG12	1:399:A:ALA:HB2	6	0.13
(2,695)	1:318:A:VAL:HG12	1:399:A:ALA:HB3	6	0.13
(2,695)	1:318:A:VAL:HG13	1:399:A:ALA:HB1	6	0.13
(2,695)	1:318:A:VAL:HG13	1:399:A:ALA:HB2	6	0.13
(2,695)	1:318:A:VAL:HG13	1:399:A:ALA:HB3	6	0.13
(2,695)	1:318:A:VAL:HG21	1:399:A:ALA:HB1	6	0.13
(2,695)	1:318:A:VAL:HG21	1:399:A:ALA:HB2	6	0.13
(2,695)	1:318:A:VAL:HG21	1:399:A:ALA:HB3	6	0.13
(2,695)	1:318:A:VAL:HG22	1:399:A:ALA:HB1	6	0.13
(2,695)	1:318:A:VAL:HG22	1:399:A:ALA:HB2	6	0.13
(2,695)	1:318:A:VAL:HG22	1:399:A:ALA:HB3	6	0.13
(2,695)	1:318:A:VAL:HG23	1:399:A:ALA:HB1	6	0.13
(2,695)	1:318:A:VAL:HG23	1:399:A:ALA:HB2	6	0.13
(2,695)	1:318:A:VAL:HG23	1:399:A:ALA:HB3	6	0.13
(2,695)	1:318:A:VAL:HG11	1:399:A:ALA:HB1	10	0.13
(2,695)	1:318:A:VAL:HG11	1:399:A:ALA:HB2	10	0.13
(2,695)	1:318:A:VAL:HG11	1:399:A:ALA:HB3	10	0.13
(2,695)	1:318:A:VAL:HG12	1:399:A:ALA:HB1	10	0.13
(2,695)	1:318:A:VAL:HG12	1:399:A:ALA:HB2	10	0.13
(2,695)	1:318:A:VAL:HG12	1:399:A:ALA:HB3	10	0.13
(2,695)	1:318:A:VAL:HG13	1:399:A:ALA:HB1	10	0.13
(2,695)	1:318:A:VAL:HG13	1:399:A:ALA:HB2	10	0.13
(2,695)	1:318:A:VAL:HG13	1:399:A:ALA:HB3	10	0.13
(2,695)	1:318:A:VAL:HG21	1:399:A:ALA:HB1	10	0.13
(2,695)	1:318:A:VAL:HG21	1:399:A:ALA:HB2	10	0.13
(2,695)	1:318:A:VAL:HG21	1:399:A:ALA:HB3	10	0.13
(2,695)	1:318:A:VAL:HG22	1:399:A:ALA:HB1	10	0.13
(2,695)	1:318:A:VAL:HG22	1:399:A:ALA:HB2	10	0.13
(2,695)	1:318:A:VAL:HG22	1:399:A:ALA:HB3	10	0.13
(2,695)	1:318:A:VAL:HG23	1:399:A:ALA:HB1	10	0.13
(2,695)	1:318:A:VAL:HG23	1:399:A:ALA:HB2	10	0.13
(2,695)	1:318:A:VAL:HG23	1:399:A:ALA:HB3	10	0.13
(2,693)	1:318:A:VAL:HG11	1:337:A:MET:HE1	15	0.13
(2,693)	1:318:A:VAL:HG11	1:337:A:MET:HE2	15	0.13
(2,693)	1:318:A:VAL:HG11	1:337:A:MET:HE3	15	0.13
(2,693)	1:318:A:VAL:HG12	1:337:A:MET:HE1	15	0.13
(2,693)	1:318:A:VAL:HG12	1:337:A:MET:HE2	15	0.13

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(2,693)	1:318:A:VAL:HG12	1:337:A:MET:HE3	15	0.13
(2,693)	1:318:A:VAL:HG13	1:337:A:MET:HE1	15	0.13
(2,693)	1:318:A:VAL:HG13	1:337:A:MET:HE2	15	0.13
(2,693)	1:318:A:VAL:HG13	1:337:A:MET:HE3	15	0.13
(2,693)	1:318:A:VAL:HG21	1:337:A:MET:HE1	15	0.13
(2,693)	1:318:A:VAL:HG21	1:337:A:MET:HE2	15	0.13
(2,693)	1:318:A:VAL:HG21	1:337:A:MET:HE3	15	0.13
(2,693)	1:318:A:VAL:HG22	1:337:A:MET:HE1	15	0.13
(2,693)	1:318:A:VAL:HG22	1:337:A:MET:HE2	15	0.13
(2,693)	1:318:A:VAL:HG22	1:337:A:MET:HE3	15	0.13
(2,693)	1:318:A:VAL:HG23	1:337:A:MET:HE1	15	0.13
(2,693)	1:318:A:VAL:HG23	1:337:A:MET:HE2	15	0.13
(2,693)	1:318:A:VAL:HG23	1:337:A:MET:HE3	15	0.13
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG21	4	0.13
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG22	4	0.13
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG23	4	0.13
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG21	4	0.13
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG22	4	0.13
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG23	4	0.13
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG21	4	0.13
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG22	4	0.13
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG23	4	0.13
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG21	8	0.13
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG22	8	0.13
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG23	8	0.13
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG21	8	0.13
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG22	8	0.13
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG23	8	0.13
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG21	8	0.13
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG22	8	0.13
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG23	8	0.13
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG21	9	0.13
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG22	9	0.13
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG23	9	0.13
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG21	9	0.13
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG22	9	0.13
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG23	9	0.13
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG21	9	0.13
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG22	9	0.13
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG23	9	0.13
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG21	17	0.13
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG22	17	0.13

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG23	17	0.13
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG21	17	0.13
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG22	17	0.13
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG23	17	0.13
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG21	17	0.13
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG22	17	0.13
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG23	17	0.13
(2,446)	1:317:A:LEU:HD21	1:369:A:ALA:HB1	12	0.13
(2,446)	1:317:A:LEU:HD21	1:369:A:ALA:HB2	12	0.13
(2,446)	1:317:A:LEU:HD21	1:369:A:ALA:HB3	12	0.13
(2,446)	1:317:A:LEU:HD22	1:369:A:ALA:HB1	12	0.13
(2,446)	1:317:A:LEU:HD22	1:369:A:ALA:HB2	12	0.13
(2,446)	1:317:A:LEU:HD22	1:369:A:ALA:HB3	12	0.13
(2,446)	1:317:A:LEU:HD23	1:369:A:ALA:HB1	12	0.13
(2,446)	1:317:A:LEU:HD23	1:369:A:ALA:HB2	12	0.13
(2,446)	1:317:A:LEU:HD23	1:369:A:ALA:HB3	12	0.13
(2,420)	1:446:A:VAL:HG11	1:456:A:MET:HE1	17	0.13
(2,420)	1:446:A:VAL:HG11	1:456:A:MET:HE2	17	0.13
(2,420)	1:446:A:VAL:HG11	1:456:A:MET:HE3	17	0.13
(2,420)	1:446:A:VAL:HG12	1:456:A:MET:HE1	17	0.13
(2,420)	1:446:A:VAL:HG12	1:456:A:MET:HE2	17	0.13
(2,420)	1:446:A:VAL:HG12	1:456:A:MET:HE3	17	0.13
(2,420)	1:446:A:VAL:HG13	1:456:A:MET:HE1	17	0.13
(2,420)	1:446:A:VAL:HG13	1:456:A:MET:HE2	17	0.13
(2,420)	1:446:A:VAL:HG13	1:456:A:MET:HE3	17	0.13
(1,30)	1:368:A:SER:O	1:372:A:TYR:H	9	0.13
(1,30)	1:368:A:SER:O	1:372:A:TYR:H	11	0.13
(1,30)	1:368:A:SER:O	1:372:A:TYR:H	15	0.13
(1,30)	1:368:A:SER:O	1:372:A:TYR:H	16	0.13
(1,30)	1:368:A:SER:O	1:372:A:TYR:H	20	0.13
(2,695)	1:318:A:VAL:HG11	1:399:A:ALA:HB1	12	0.12
(2,695)	1:318:A:VAL:HG11	1:399:A:ALA:HB2	12	0.12
(2,695)	1:318:A:VAL:HG11	1:399:A:ALA:HB3	12	0.12
(2,695)	1:318:A:VAL:HG12	1:399:A:ALA:HB1	12	0.12
(2,695)	1:318:A:VAL:HG12	1:399:A:ALA:HB2	12	0.12
(2,695)	1:318:A:VAL:HG12	1:399:A:ALA:HB3	12	0.12
(2,695)	1:318:A:VAL:HG13	1:399:A:ALA:HB1	12	0.12
(2,695)	1:318:A:VAL:HG13	1:399:A:ALA:HB2	12	0.12
(2,695)	1:318:A:VAL:HG13	1:399:A:ALA:HB3	12	0.12
(2,695)	1:318:A:VAL:HG21	1:399:A:ALA:HB1	12	0.12
(2,695)	1:318:A:VAL:HG21	1:399:A:ALA:HB2	12	0.12
(2,695)	1:318:A:VAL:HG21	1:399:A:ALA:HB3	12	0.12

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(2,695)	1:318:A:VAL:HG22	1:399:A:ALA:HB1	12	0.12
(2,695)	1:318:A:VAL:HG22	1:399:A:ALA:HB2	12	0.12
(2,695)	1:318:A:VAL:HG22	1:399:A:ALA:HB3	12	0.12
(2,695)	1:318:A:VAL:HG23	1:399:A:ALA:HB1	12	0.12
(2,695)	1:318:A:VAL:HG23	1:399:A:ALA:HB2	12	0.12
(2,695)	1:318:A:VAL:HG23	1:399:A:ALA:HB3	12	0.12
(2,695)	1:318:A:VAL:HG11	1:399:A:ALA:HB1	15	0.12
(2,695)	1:318:A:VAL:HG11	1:399:A:ALA:HB2	15	0.12
(2,695)	1:318:A:VAL:HG11	1:399:A:ALA:HB3	15	0.12
(2,695)	1:318:A:VAL:HG12	1:399:A:ALA:HB1	15	0.12
(2,695)	1:318:A:VAL:HG12	1:399:A:ALA:HB2	15	0.12
(2,695)	1:318:A:VAL:HG12	1:399:A:ALA:HB3	15	0.12
(2,695)	1:318:A:VAL:HG13	1:399:A:ALA:HB1	15	0.12
(2,695)	1:318:A:VAL:HG13	1:399:A:ALA:HB2	15	0.12
(2,695)	1:318:A:VAL:HG13	1:399:A:ALA:HB3	15	0.12
(2,695)	1:318:A:VAL:HG21	1:399:A:ALA:HB1	15	0.12
(2,695)	1:318:A:VAL:HG21	1:399:A:ALA:HB2	15	0.12
(2,695)	1:318:A:VAL:HG21	1:399:A:ALA:HB3	15	0.12
(2,695)	1:318:A:VAL:HG22	1:399:A:ALA:HB1	15	0.12
(2,695)	1:318:A:VAL:HG22	1:399:A:ALA:HB2	15	0.12
(2,695)	1:318:A:VAL:HG22	1:399:A:ALA:HB3	15	0.12
(2,695)	1:318:A:VAL:HG23	1:399:A:ALA:HB1	15	0.12
(2,695)	1:318:A:VAL:HG23	1:399:A:ALA:HB2	15	0.12
(2,695)	1:318:A:VAL:HG23	1:399:A:ALA:HB3	15	0.12
(2,695)	1:318:A:VAL:HG11	1:399:A:ALA:HB1	17	0.12
(2,695)	1:318:A:VAL:HG11	1:399:A:ALA:HB2	17	0.12
(2,695)	1:318:A:VAL:HG11	1:399:A:ALA:HB3	17	0.12
(2,695)	1:318:A:VAL:HG12	1:399:A:ALA:HB1	17	0.12
(2,695)	1:318:A:VAL:HG12	1:399:A:ALA:HB2	17	0.12
(2,695)	1:318:A:VAL:HG12	1:399:A:ALA:HB3	17	0.12
(2,695)	1:318:A:VAL:HG13	1:399:A:ALA:HB1	17	0.12
(2,695)	1:318:A:VAL:HG13	1:399:A:ALA:HB2	17	0.12
(2,695)	1:318:A:VAL:HG13	1:399:A:ALA:HB3	17	0.12
(2,695)	1:318:A:VAL:HG21	1:399:A:ALA:HB1	17	0.12
(2,695)	1:318:A:VAL:HG21	1:399:A:ALA:HB2	17	0.12
(2,695)	1:318:A:VAL:HG21	1:399:A:ALA:HB3	17	0.12
(2,695)	1:318:A:VAL:HG22	1:399:A:ALA:HB1	17	0.12
(2,695)	1:318:A:VAL:HG22	1:399:A:ALA:HB2	17	0.12
(2,695)	1:318:A:VAL:HG22	1:399:A:ALA:HB3	17	0.12
(2,695)	1:318:A:VAL:HG23	1:399:A:ALA:HB1	17	0.12
(2,695)	1:318:A:VAL:HG23	1:399:A:ALA:HB2	17	0.12
(2,695)	1:318:A:VAL:HG23	1:399:A:ALA:HB3	17	0.12

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(2,693)	1:318:A:VAL:HG11	1:337:A:MET:HE1	20	0.12
(2,693)	1:318:A:VAL:HG11	1:337:A:MET:HE2	20	0.12
(2,693)	1:318:A:VAL:HG11	1:337:A:MET:HE3	20	0.12
(2,693)	1:318:A:VAL:HG12	1:337:A:MET:HE1	20	0.12
(2,693)	1:318:A:VAL:HG12	1:337:A:MET:HE2	20	0.12
(2,693)	1:318:A:VAL:HG12	1:337:A:MET:HE3	20	0.12
(2,693)	1:318:A:VAL:HG13	1:337:A:MET:HE1	20	0.12
(2,693)	1:318:A:VAL:HG13	1:337:A:MET:HE2	20	0.12
(2,693)	1:318:A:VAL:HG13	1:337:A:MET:HE3	20	0.12
(2,693)	1:318:A:VAL:HG21	1:337:A:MET:HE1	20	0.12
(2,693)	1:318:A:VAL:HG21	1:337:A:MET:HE2	20	0.12
(2,693)	1:318:A:VAL:HG21	1:337:A:MET:HE3	20	0.12
(2,693)	1:318:A:VAL:HG22	1:337:A:MET:HE1	20	0.12
(2,693)	1:318:A:VAL:HG22	1:337:A:MET:HE2	20	0.12
(2,693)	1:318:A:VAL:HG22	1:337:A:MET:HE3	20	0.12
(2,693)	1:318:A:VAL:HG23	1:337:A:MET:HE1	20	0.12
(2,693)	1:318:A:VAL:HG23	1:337:A:MET:HE2	20	0.12
(2,693)	1:318:A:VAL:HG23	1:337:A:MET:HE3	20	0.12
(2,679)	1:441:A:VAL:HG21	1:505:A:PHE:HE1	3	0.12
(2,679)	1:441:A:VAL:HG22	1:505:A:PHE:HE1	3	0.12
(2,679)	1:441:A:VAL:HG23	1:505:A:PHE:HE1	3	0.12
(2,629)	1:441:A:VAL:HG11	1:508:A:ILE:HD11	17	0.12
(2,629)	1:441:A:VAL:HG11	1:508:A:ILE:HD12	17	0.12
(2,629)	1:441:A:VAL:HG11	1:508:A:ILE:HD13	17	0.12
(2,629)	1:441:A:VAL:HG12	1:508:A:ILE:HD11	17	0.12
(2,629)	1:441:A:VAL:HG12	1:508:A:ILE:HD12	17	0.12
(2,629)	1:441:A:VAL:HG12	1:508:A:ILE:HD13	17	0.12
(2,629)	1:441:A:VAL:HG13	1:508:A:ILE:HD11	17	0.12
(2,629)	1:441:A:VAL:HG13	1:508:A:ILE:HD12	17	0.12
(2,629)	1:441:A:VAL:HG13	1:508:A:ILE:HD13	17	0.12
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG21	5	0.12
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG22	5	0.12
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG23	5	0.12
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG21	5	0.12
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG22	5	0.12
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG23	5	0.12
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG21	5	0.12
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG22	5	0.12
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG23	5	0.12
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG21	11	0.12
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG22	11	0.12
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG23	11	0.12

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG21	11	0.12
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG22	11	0.12
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG23	11	0.12
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG21	11	0.12
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG22	11	0.12
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG23	11	0.12
(2,446)	1:317:A:LEU:HD21	1:369:A:ALA:HB1	3	0.12
(2,446)	1:317:A:LEU:HD21	1:369:A:ALA:HB2	3	0.12
(2,446)	1:317:A:LEU:HD21	1:369:A:ALA:HB3	3	0.12
(2,446)	1:317:A:LEU:HD22	1:369:A:ALA:HB1	3	0.12
(2,446)	1:317:A:LEU:HD22	1:369:A:ALA:HB2	3	0.12
(2,446)	1:317:A:LEU:HD22	1:369:A:ALA:HB3	3	0.12
(2,446)	1:317:A:LEU:HD23	1:369:A:ALA:HB1	3	0.12
(2,446)	1:317:A:LEU:HD23	1:369:A:ALA:HB2	3	0.12
(2,446)	1:317:A:LEU:HD23	1:369:A:ALA:HB3	3	0.12
(2,446)	1:317:A:LEU:HD21	1:369:A:ALA:HB1	13	0.12
(2,446)	1:317:A:LEU:HD21	1:369:A:ALA:HB2	13	0.12
(2,446)	1:317:A:LEU:HD21	1:369:A:ALA:HB3	13	0.12
(2,446)	1:317:A:LEU:HD22	1:369:A:ALA:HB1	13	0.12
(2,446)	1:317:A:LEU:HD22	1:369:A:ALA:HB2	13	0.12
(2,446)	1:317:A:LEU:HD22	1:369:A:ALA:HB3	13	0.12
(2,446)	1:317:A:LEU:HD23	1:369:A:ALA:HB1	13	0.12
(2,446)	1:317:A:LEU:HD23	1:369:A:ALA:HB2	13	0.12
(2,446)	1:317:A:LEU:HD23	1:369:A:ALA:HB3	13	0.12
(1,30)	1:368:A:SER:O	1:372:A:TYR:H	17	0.12
(1,30)	1:368:A:SER:O	1:372:A:TYR:H	19	0.12
(1,4)	1:355:A:ASN:O	1:359:A:LEU:H	2	0.12
(2,695)	1:318:A:VAL:HG11	1:399:A:ALA:HB1	1	0.11
(2,695)	1:318:A:VAL:HG11	1:399:A:ALA:HB2	1	0.11
(2,695)	1:318:A:VAL:HG11	1:399:A:ALA:HB3	1	0.11
(2,695)	1:318:A:VAL:HG12	1:399:A:ALA:HB1	1	0.11
(2,695)	1:318:A:VAL:HG12	1:399:A:ALA:HB2	1	0.11
(2,695)	1:318:A:VAL:HG12	1:399:A:ALA:HB3	1	0.11
(2,695)	1:318:A:VAL:HG13	1:399:A:ALA:HB1	1	0.11
(2,695)	1:318:A:VAL:HG13	1:399:A:ALA:HB2	1	0.11
(2,695)	1:318:A:VAL:HG13	1:399:A:ALA:HB3	1	0.11
(2,695)	1:318:A:VAL:HG21	1:399:A:ALA:HB1	1	0.11
(2,695)	1:318:A:VAL:HG21	1:399:A:ALA:HB2	1	0.11
(2,695)	1:318:A:VAL:HG21	1:399:A:ALA:HB3	1	0.11
(2,695)	1:318:A:VAL:HG22	1:399:A:ALA:HB1	1	0.11
(2,695)	1:318:A:VAL:HG22	1:399:A:ALA:HB2	1	0.11
(2,695)	1:318:A:VAL:HG22	1:399:A:ALA:HB3	1	0.11

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(2,695)	1:318:A:VAL:HG23	1:399:A:ALA:HB1	1	0.11
(2,695)	1:318:A:VAL:HG23	1:399:A:ALA:HB2	1	0.11
(2,695)	1:318:A:VAL:HG23	1:399:A:ALA:HB3	1	0.11
(2,693)	1:318:A:VAL:HG11	1:337:A:MET:HE1	1	0.11
(2,693)	1:318:A:VAL:HG11	1:337:A:MET:HE2	1	0.11
(2,693)	1:318:A:VAL:HG11	1:337:A:MET:HE3	1	0.11
(2,693)	1:318:A:VAL:HG12	1:337:A:MET:HE1	1	0.11
(2,693)	1:318:A:VAL:HG12	1:337:A:MET:HE2	1	0.11
(2,693)	1:318:A:VAL:HG12	1:337:A:MET:HE3	1	0.11
(2,693)	1:318:A:VAL:HG13	1:337:A:MET:HE1	1	0.11
(2,693)	1:318:A:VAL:HG13	1:337:A:MET:HE2	1	0.11
(2,693)	1:318:A:VAL:HG13	1:337:A:MET:HE3	1	0.11
(2,693)	1:318:A:VAL:HG21	1:337:A:MET:HE1	1	0.11
(2,693)	1:318:A:VAL:HG21	1:337:A:MET:HE2	1	0.11
(2,693)	1:318:A:VAL:HG21	1:337:A:MET:HE3	1	0.11
(2,693)	1:318:A:VAL:HG22	1:337:A:MET:HE1	1	0.11
(2,693)	1:318:A:VAL:HG22	1:337:A:MET:HE2	1	0.11
(2,693)	1:318:A:VAL:HG22	1:337:A:MET:HE3	1	0.11
(2,693)	1:318:A:VAL:HG23	1:337:A:MET:HE1	1	0.11
(2,693)	1:318:A:VAL:HG23	1:337:A:MET:HE2	1	0.11
(2,693)	1:318:A:VAL:HG23	1:337:A:MET:HE3	1	0.11
(2,693)	1:318:A:VAL:HG11	1:337:A:MET:HE1	12	0.11
(2,693)	1:318:A:VAL:HG11	1:337:A:MET:HE2	12	0.11
(2,693)	1:318:A:VAL:HG11	1:337:A:MET:HE3	12	0.11
(2,693)	1:318:A:VAL:HG12	1:337:A:MET:HE1	12	0.11
(2,693)	1:318:A:VAL:HG12	1:337:A:MET:HE2	12	0.11
(2,693)	1:318:A:VAL:HG12	1:337:A:MET:HE3	12	0.11
(2,693)	1:318:A:VAL:HG13	1:337:A:MET:HE1	12	0.11
(2,693)	1:318:A:VAL:HG13	1:337:A:MET:HE2	12	0.11
(2,693)	1:318:A:VAL:HG13	1:337:A:MET:HE3	12	0.11
(2,693)	1:318:A:VAL:HG21	1:337:A:MET:HE1	12	0.11
(2,693)	1:318:A:VAL:HG21	1:337:A:MET:HE2	12	0.11
(2,693)	1:318:A:VAL:HG21	1:337:A:MET:HE3	12	0.11
(2,693)	1:318:A:VAL:HG22	1:337:A:MET:HE1	12	0.11
(2,693)	1:318:A:VAL:HG22	1:337:A:MET:HE2	12	0.11
(2,693)	1:318:A:VAL:HG22	1:337:A:MET:HE3	12	0.11
(2,693)	1:318:A:VAL:HG23	1:337:A:MET:HE1	12	0.11
(2,693)	1:318:A:VAL:HG23	1:337:A:MET:HE2	12	0.11
(2,693)	1:318:A:VAL:HG23	1:337:A:MET:HE3	12	0.11
(2,693)	1:318:A:VAL:HG11	1:337:A:MET:HE1	19	0.11
(2,693)	1:318:A:VAL:HG11	1:337:A:MET:HE2	19	0.11
(2,693)	1:318:A:VAL:HG11	1:337:A:MET:HE3	19	0.11

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(2,693)	1:318:A:VAL:HG12	1:337:A:MET:HE1	19	0.11
(2,693)	1:318:A:VAL:HG12	1:337:A:MET:HE2	19	0.11
(2,693)	1:318:A:VAL:HG12	1:337:A:MET:HE3	19	0.11
(2,693)	1:318:A:VAL:HG13	1:337:A:MET:HE1	19	0.11
(2,693)	1:318:A:VAL:HG13	1:337:A:MET:HE2	19	0.11
(2,693)	1:318:A:VAL:HG13	1:337:A:MET:HE3	19	0.11
(2,693)	1:318:A:VAL:HG21	1:337:A:MET:HE1	19	0.11
(2,693)	1:318:A:VAL:HG21	1:337:A:MET:HE2	19	0.11
(2,693)	1:318:A:VAL:HG21	1:337:A:MET:HE3	19	0.11
(2,693)	1:318:A:VAL:HG22	1:337:A:MET:HE1	19	0.11
(2,693)	1:318:A:VAL:HG22	1:337:A:MET:HE2	19	0.11
(2,693)	1:318:A:VAL:HG22	1:337:A:MET:HE3	19	0.11
(2,693)	1:318:A:VAL:HG23	1:337:A:MET:HE1	19	0.11
(2,693)	1:318:A:VAL:HG23	1:337:A:MET:HE2	19	0.11
(2,693)	1:318:A:VAL:HG23	1:337:A:MET:HE3	19	0.11
(2,446)	1:317:A:LEU:HD21	1:369:A:ALA:HB1	5	0.11
(2,446)	1:317:A:LEU:HD21	1:369:A:ALA:HB2	5	0.11
(2,446)	1:317:A:LEU:HD21	1:369:A:ALA:HB3	5	0.11
(2,446)	1:317:A:LEU:HD22	1:369:A:ALA:HB1	5	0.11
(2,446)	1:317:A:LEU:HD22	1:369:A:ALA:HB2	5	0.11
(2,446)	1:317:A:LEU:HD22	1:369:A:ALA:HB3	5	0.11
(2,446)	1:317:A:LEU:HD23	1:369:A:ALA:HB1	5	0.11
(2,446)	1:317:A:LEU:HD23	1:369:A:ALA:HB2	5	0.11
(2,446)	1:317:A:LEU:HD23	1:369:A:ALA:HB3	5	0.11
(2,446)	1:317:A:LEU:HD21	1:369:A:ALA:HB1	8	0.11
(2,446)	1:317:A:LEU:HD21	1:369:A:ALA:HB2	8	0.11
(2,446)	1:317:A:LEU:HD21	1:369:A:ALA:HB3	8	0.11
(2,446)	1:317:A:LEU:HD22	1:369:A:ALA:HB1	8	0.11
(2,446)	1:317:A:LEU:HD22	1:369:A:ALA:HB2	8	0.11
(2,446)	1:317:A:LEU:HD22	1:369:A:ALA:HB3	8	0.11
(2,446)	1:317:A:LEU:HD23	1:369:A:ALA:HB1	8	0.11
(2,446)	1:317:A:LEU:HD23	1:369:A:ALA:HB2	8	0.11
(2,446)	1:317:A:LEU:HD23	1:369:A:ALA:HB3	8	0.11
(2,355)	1:342:A:LEU:HD11	1:396:A:VAL:CG2	3	0.11
(2,355)	1:342:A:LEU:HD12	1:396:A:VAL:CG2	3	0.11
(2,355)	1:342:A:LEU:HD13	1:396:A:VAL:CG2	3	0.11
(2,355)	1:342:A:LEU:HD11	1:396:A:VAL:CG2	4	0.11
(2,355)	1:342:A:LEU:HD12	1:396:A:VAL:CG2	4	0.11
(2,355)	1:342:A:LEU:HD13	1:396:A:VAL:CG2	4	0.11
(1,30)	1:368:A:SER:O	1:372:A:TYR:H	12	0.11
(1,28)	1:367:A:SER:O	1:371:A:GLU:H	20	0.11
(1,6)	1:356:A:ALA:O	1:360:A:LEU:H	7	0.11

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,6)	1:356:A:ALA:O	1:360:A:LEU:H	11	0.11
(1,4)	1:355:A:ASN:O	1:359:A:LEU:H	11	0.11
(2,695)	1:318:A:VAL:HG11	1:399:A:ALA:HB1	8	0.1
(2,695)	1:318:A:VAL:HG11	1:399:A:ALA:HB2	8	0.1
(2,695)	1:318:A:VAL:HG11	1:399:A:ALA:HB3	8	0.1
(2,695)	1:318:A:VAL:HG12	1:399:A:ALA:HB1	8	0.1
(2,695)	1:318:A:VAL:HG12	1:399:A:ALA:HB2	8	0.1
(2,695)	1:318:A:VAL:HG12	1:399:A:ALA:HB3	8	0.1
(2,695)	1:318:A:VAL:HG13	1:399:A:ALA:HB1	8	0.1
(2,695)	1:318:A:VAL:HG13	1:399:A:ALA:HB2	8	0.1
(2,695)	1:318:A:VAL:HG13	1:399:A:ALA:HB3	8	0.1
(2,695)	1:318:A:VAL:HG21	1:399:A:ALA:HB1	8	0.1
(2,695)	1:318:A:VAL:HG21	1:399:A:ALA:HB2	8	0.1
(2,695)	1:318:A:VAL:HG21	1:399:A:ALA:HB3	8	0.1
(2,695)	1:318:A:VAL:HG22	1:399:A:ALA:HB1	8	0.1
(2,695)	1:318:A:VAL:HG22	1:399:A:ALA:HB2	8	0.1
(2,695)	1:318:A:VAL:HG22	1:399:A:ALA:HB3	8	0.1
(2,695)	1:318:A:VAL:HG23	1:399:A:ALA:HB1	8	0.1
(2,695)	1:318:A:VAL:HG23	1:399:A:ALA:HB2	8	0.1
(2,695)	1:318:A:VAL:HG23	1:399:A:ALA:HB3	8	0.1
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG21	10	0.1
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG22	10	0.1
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG23	10	0.1
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG21	10	0.1
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG22	10	0.1
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG23	10	0.1
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG21	10	0.1
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG22	10	0.1
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG23	10	0.1
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG21	15	0.1
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG22	15	0.1
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG23	15	0.1
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG21	15	0.1
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG22	15	0.1
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG23	15	0.1
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG21	15	0.1
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG22	15	0.1
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG23	15	0.1
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG21	19	0.1
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG22	19	0.1
(2,609)	1:390:A:VAL:HG21	1:396:A:VAL:HG23	19	0.1
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG21	19	0.1

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG22	19	0.1
(2,609)	1:390:A:VAL:HG22	1:396:A:VAL:HG23	19	0.1
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG21	19	0.1
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG22	19	0.1
(2,609)	1:390:A:VAL:HG23	1:396:A:VAL:HG23	19	0.1
(2,422)	1:446:A:VAL:HG11	1:477:A:MET:HE1	5	0.1
(2,422)	1:446:A:VAL:HG11	1:477:A:MET:HE2	5	0.1
(2,422)	1:446:A:VAL:HG11	1:477:A:MET:HE3	5	0.1
(2,422)	1:446:A:VAL:HG12	1:477:A:MET:HE1	5	0.1
(2,422)	1:446:A:VAL:HG12	1:477:A:MET:HE2	5	0.1
(2,422)	1:446:A:VAL:HG12	1:477:A:MET:HE3	5	0.1
(2,422)	1:446:A:VAL:HG13	1:477:A:MET:HE1	5	0.1
(2,422)	1:446:A:VAL:HG13	1:477:A:MET:HE2	5	0.1
(2,422)	1:446:A:VAL:HG13	1:477:A:MET:HE3	5	0.1
(1,29)	1:368:A:SER:O	1:372:A:TYR:N	3	0.1
(1,28)	1:367:A:SER:O	1:371:A:GLU:H	2	0.1
(1,16)	1:361:A:TYR:O	1:365:A:GLN:H	18	0.1
(1,6)	1:356:A:ALA:O	1:360:A:LEU:H	9	0.1
(1,4)	1:355:A:ASN:O	1:359:A:LEU:H	6	0.1

10 Dihedral-angle violation analysis

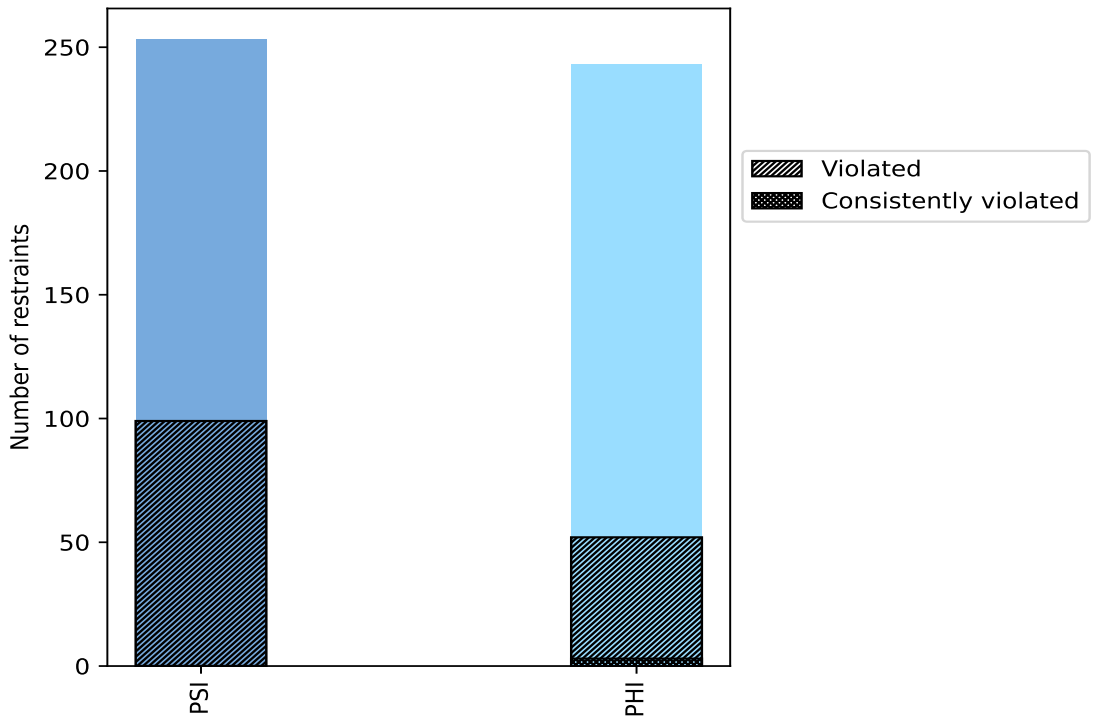
10.1 Summary of dihedral-angle violations

The following table provides the summary of dihedral-angle violations in different dihedral-angle types. Violations less than 1° are not included in the calculation.

Angle type	Count	%[1]	Violated[3]			Consistently Violated[4]		
			Count	%[2]	%[1]	Count	%[2]	%[1]
PSI	253	51.0	99	39.1	20.0	0	0.0	0.0
PHI	243	49.0	52	21.4	10.5	3	1.2	0.6
Total	496	100.0	151	30.4	30.4	3	0.6	0.6

[1] percentage calculated with respect to total number of dihedral-angle restraints, [2] percentage calculated with respect to number of restraints in a particular dihedral-angle type, [3] violated in at least one model, [4] violated in all the models

10.1.1 Bar chart : Distribution of dihedral-angles and violations



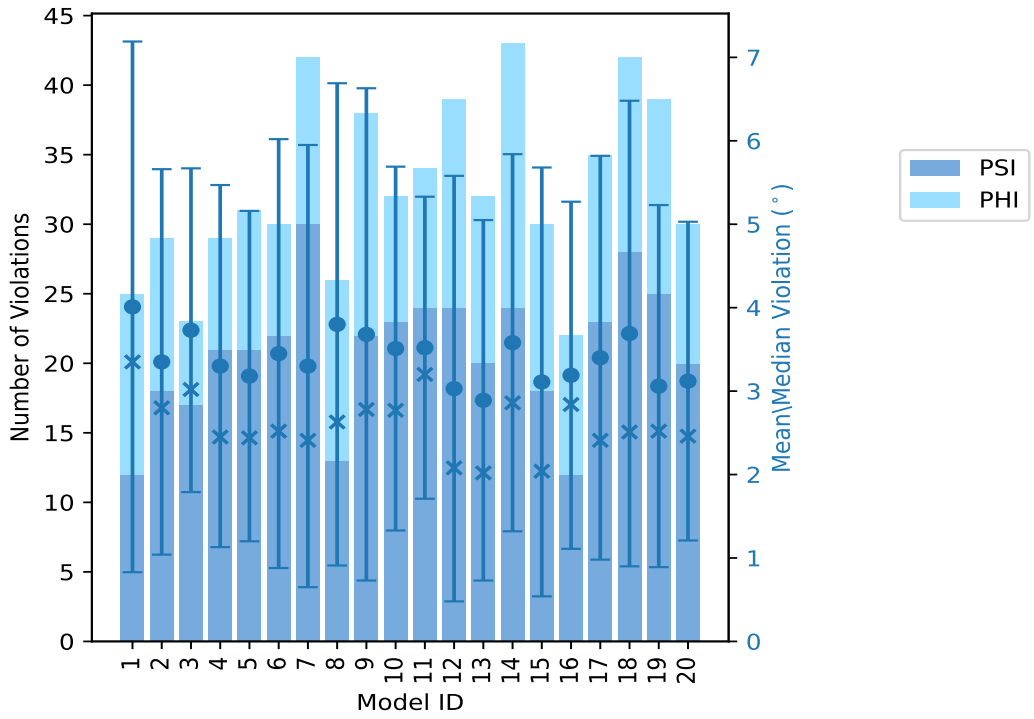
Violated and consistently violated restraints are shown using different hatch patterns in their respective categories

10.2 Dihedral-angle violation statistics for each model (i)

The following table provides the dihedral-angle violation statistics for each model in the ensemble. Violations less than 1° are not included in the statistics.

Model ID	Number of violations			Mean (°)	Max (°)	SD (°)	Median (°)
	PSI	PHI	Total				
1	12	13	25	4.01	17.3	3.18	3.35
2	18	11	29	3.35	9.77	2.31	2.8
3	17	6	23	3.73	7.86	1.94	3.02
4	21	8	29	3.3	10.86	2.17	2.45
5	21	10	31	3.18	8.44	1.98	2.44
6	22	8	30	3.45	9.91	2.57	2.52
7	30	12	42	3.3	14.37	2.65	2.41
8	13	13	26	3.8	10.9	2.89	2.63
9	22	16	38	3.68	17.66	2.95	2.78
10	23	9	32	3.51	8.92	2.18	2.77
11	24	10	34	3.52	10.07	1.81	3.2
12	24	15	39	3.03	15.08	2.55	2.08
13	20	12	32	2.89	9.3	2.16	2.02
14	24	19	43	3.58	11.29	2.26	2.86
15	18	12	30	3.11	12.42	2.57	2.04
16	12	10	22	3.19	10.71	2.08	2.84
17	23	12	35	3.4	10.51	2.42	2.41
18	28	14	42	3.69	11.38	2.79	2.51
19	25	14	39	3.06	12.86	2.17	2.52
20	20	10	30	3.12	9.17	1.91	2.46

10.2.1 Bar graph : Dihedral violation statistics for each model



The mean(dot),median(x) and the standard deviation are shown in blue with respect to the y axis on the right

10.3 Dihedral-angle violation statistics for the ensemble

Violation analysis may find that some restraints are violated in very few models and some are violated in most of models. The following table provides this information as number of violated restraints for a given fraction of ensemble.

Number of violated restraints			Fraction of the ensemble	
PSI	PHI	Total	Count[1]	%
29	21	50	1	5.0
15	8	23	2	10.0
11	4	15	3	15.0
9	6	15	4	20.0
12	1	13	5	25.0
4	1	5	6	30.0
4	2	6	7	35.0
3	2	5	8	40.0
2	1	3	9	45.0
3	0	3	10	50.0
1	0	1	11	55.0

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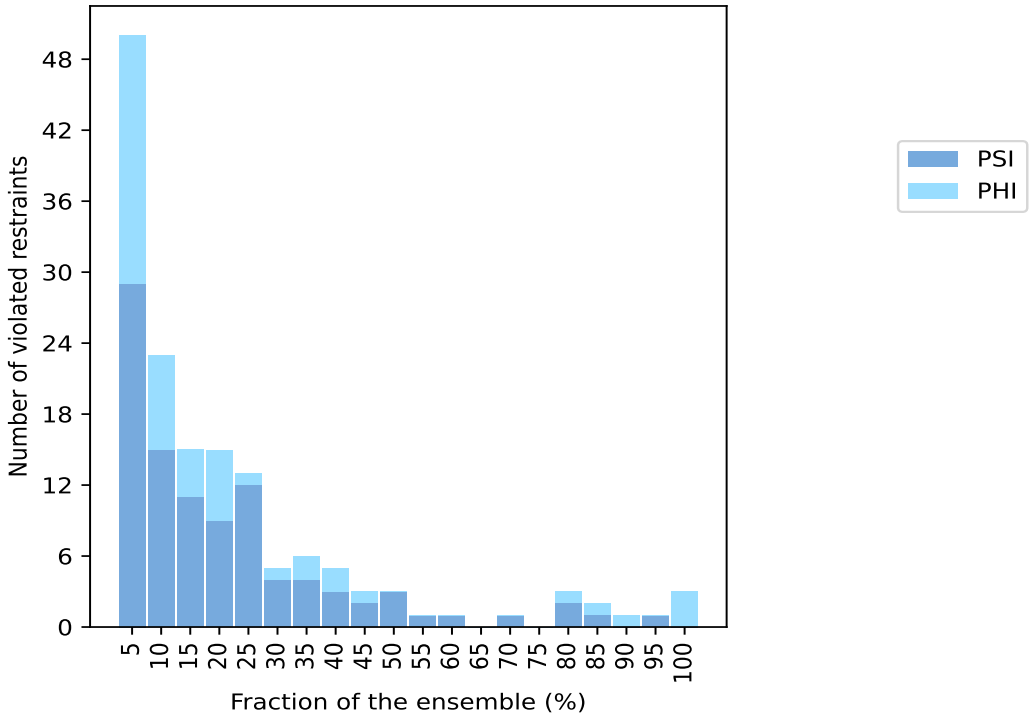
Number of violated restraints			Fraction of the ensemble	
PSI	PHI	Total	Count[1]	%
1	0	1	12	60.0
0	0	0	13	65.0
1	0	1	14	70.0
0	0	0	15	75.0
2	1	3	16	80.0
1	1	2	17	85.0
0	1	1	18	90.0
1	0	1	19	95.0
0	3	3	20	100.0

[1] Number of models with violations

10.3.1 Bar graph : Dihedral-angle Violation statistics for the ensemble

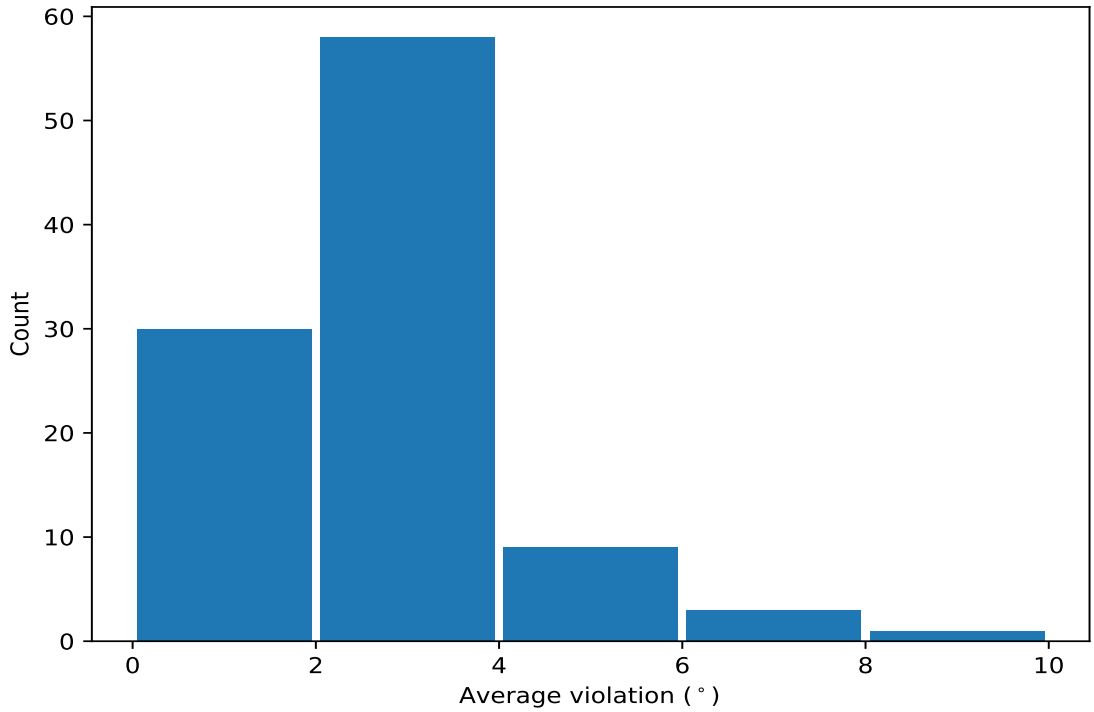


10.4 Most violated dihedral-angle restraints in the ensemble

10.4.1 Histogram : Distribution of mean dihedral-angle violations

The following histogram shows the distribution of the average value of the violation. The average is calculated for each restraint that is violated in more than one model over all the violated models

in the ensemble



10.4.2 Table: Most violated dihedral-angle restraints

The following table provides the mean and the standard deviation of the violation for each restraint sorted by number of violated models and the mean value. The Key (restraint list ID, restraint ID) is the unique identifier for a given restraint.

Key	Atom-1	Atom-2	Atom-3	Atom-4	Models[1]	Mean	SD[2]	Median
(1,147)	1:398:A:VAL:C	1:399:A:ALA:N	1:399:A:ALA:CA	1:399:A:ALA:C	20	8.7	1.84	8.64
(1,148)	1:400:A:ASP:C	1:401:A:PHE:N	1:401:A:PHE:CA	1:401:A:PHE:C	20	6.08	2.36	5.58
(1,30)	1:278:A:GLY:C	1:279:A:VAL:N	1:279:A:VAL:CA	1:279:A:VAL:C	20	5.49	1.85	5.22
(1,394)	1:400:A:ASP:N	1:400:A:ASP:CA	1:400:A:ASP:C	1:401:A:PHE:N	19	4.49	1.82	4.38
(1,151)	1:404:A:SER:C	1:405:A:ARG:N	1:405:A:ARG:CA	1:405:A:ARG:C	18	7.54	3.11	8.15
(1,155)	1:410:A:ASP:C	1:411:A:THR:N	1:411:A:THR:CA	1:411:A:THR:C	17	6.95	5.33	4.98
(1,365)	1:369:A:ALA:N	1:369:A:ALA:CA	1:369:A:ALA:C	1:370:A:MET:N	17	2.68	1.08	2.46
(1,338)	1:342:A:LEU:N	1:342:A:LEU:CA	1:342:A:LEU:C	1:343:A:LEU:N	16	4.51	1.37	4.23
(1,296)	1:300:A:GLU:N	1:300:A:GLU:CA	1:300:A:GLU:C	1:301:A:GLU:N	16	3.26	1.15	3.07
(1,38)	1:286:A:THR:C	1:287:A:VAL:N	1:287:A:VAL:CA	1:287:A:VAL:C	16	2.22	0.53	2.08
(1,294)	1:298:A:GLU:N	1:298:A:GLU:CA	1:298:A:GLU:C	1:299:A:VAL:N	14	4.5	1.87	4.25
(1,295)	1:299:A:VAL:N	1:299:A:VAL:CA	1:299:A:VAL:C	1:300:A:GLU:N	12	2.23	1.15	1.92
(1,339)	1:343:A:LEU:N	1:343:A:LEU:CA	1:343:A:LEU:C	1:344:A:ASP:N	11	2.6	1.1	2.34
(1,314)	1:318:A:VAL:N	1:318:A:VAL:CA	1:318:A:VAL:C	1:319:A:GLN:N	10	3.15	1.74	3.12
(1,398)	1:404:A:SER:N	1:404:A:SER:CA	1:404:A:SER:C	1:405:A:ARG:N	10	2.79	1.15	2.66
(1,283)	1:287:A:VAL:N	1:287:A:VAL:CA	1:287:A:VAL:C	1:288:A:ALA:N	10	1.55	0.35	1.52
(1,149)	1:402:A:GLY:C	1:403:A:LEU:N	1:403:A:LEU:CA	1:403:A:LEU:C	9	3.51	1.4	3.0
(1,293)	1:297:A:MET:N	1:297:A:MET:CA	1:297:A:MET:C	1:298:A:GLU:N	9	2.46	1.42	2.15
(1,323)	1:327:A:GLU:N	1:327:A:GLU:CA	1:327:A:GLU:C	1:328:A:PRO:N	9	2.17	1.35	1.68
(1,484)	1:504:A:SER:N	1:504:A:SER:CA	1:504:A:SER:C	1:505:A:PHE:N	8	3.99	0.83	3.72

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Key	Atom-1	Atom-2	Atom-3	Atom-4	Models[1]	Mean	SD[2]	Median
(1,12)	1:260:A:ASP:C	1:261:A:ILE:N	1:261:A:ILE:CA	1:261:A:ILE:C	8	3.24	0.76	3.14
(1,456)	1:476:A:ARG:N	1:476:A:ARG:CA	1:476:A:ARG:C	1:477:A:MET:N	8	2.92	1.46	2.25
(1,31)	1:279:A:VAL:C	1:280:A:TRP:N	1:280:A:TRP:CA	1:280:A:TRP:C	8	2.29	0.98	2.08
(1,292)	1:296:A:THR:N	1:296:A:THR:CA	1:296:A:THR:C	1:297:A:MET:N	8	2.1	0.91	1.86
(1,6)	1:254:A:TRP:C	1:255:A:GLU:N	1:255:A:GLU:CA	1:255:A:GLU:C	7	5.84	0.93	5.95
(1,376)	1:380:A:HIS:N	1:380:A:HIS:CA	1:380:A:HIS:C	1:381:A:ARG:N	7	4.71	3.73	3.17
(1,478)	1:498:A:ASN:N	1:498:A:ASN:CA	1:498:A:ASN:C	1:499:A:PRO:N	7	3.21	1.35	2.97
(1,401)	1:409:A:GLY:N	1:409:A:GLY:CA	1:409:A:GLY:C	1:410:A:ASP:N	7	3.13	1.17	3.48
(1,189)	1:456:A:MET:C	1:457:A:SER:N	1:457:A:SER:CA	1:457:A:SER:C	7	2.65	1.12	2.35
(1,494)	1:514:A:THR:N	1:514:A:THR:CA	1:514:A:THR:C	1:515:A:MET:N	7	2.06	1.16	1.64
(1,379)	1:383:A:LEU:N	1:383:A:LEU:CA	1:383:A:LEU:C	1:384:A:ALA:N	6	3.83	0.69	3.84
(1,482)	1:502:A:ARG:N	1:502:A:ARG:CA	1:502:A:ARG:C	1:503:A:PRO:N	6	3.54	2.0	2.69
(1,325)	1:329:A:PRO:N	1:329:A:PRO:CA	1:329:A:PRO:C	1:330:A:PHE:N	6	2.22	0.6	2.32
(1,50)	1:298:A:GLU:C	1:299:A:VAL:N	1:299:A:VAL:CA	1:299:A:VAL:C	6	1.88	0.44	1.99
(1,464)	1:484:A:PRO:N	1:484:A:PRO:CA	1:484:A:PRO:C	1:485:A:GLU:N	6	1.85	0.42	1.94
(1,397)	1:403:A:LEU:N	1:403:A:LEU:CA	1:403:A:LEU:C	1:404:A:SER:N	5	4.55	1.78	5.03
(1,457)	1:477:A:MET:N	1:477:A:MET:CA	1:477:A:MET:C	1:478:A:GLU:N	5	3.26	1.62	2.81
(1,251)	1:255:A:GLU:N	1:255:A:GLU:CA	1:255:A:GLU:C	1:256:A:MET:N	5	3.25	0.32	3.28
(1,488)	1:508:A:ILE:N	1:508:A:ILE:CA	1:508:A:ILE:C	1:509:A:HIS:N	5	3.24	1.77	2.34
(1,414)	1:434:A:LYS:N	1:434:A:LYS:CA	1:434:A:LYS:C	1:435:A:PHE:N	5	3.17	1.67	2.1
(1,437)	1:457:A:SER:N	1:457:A:SER:CA	1:457:A:SER:C	1:458:A:PRO:N	5	2.86	1.22	2.82
(1,402)	1:412:A:TYR:N	1:412:A:TYR:CA	1:412:A:TYR:C	1:413:A:THR:N	5	2.8	1.25	2.7
(1,485)	1:505:A:PHE:N	1:505:A:PHE:CA	1:505:A:PHE:C	1:506:A:ALA:N	5	2.76	0.68	2.67
(1,326)	1:330:A:PHE:N	1:330:A:PHE:CA	1:330:A:PHE:C	1:331:A:TYR:N	5	2.25	0.71	2.62
(1,374)	1:378:A:PHE:N	1:378:A:PHE:CA	1:378:A:PHE:C	1:379:A:ILE:N	5	2.25	0.87	2.18
(1,150)	1:403:A:LEU:C	1:404:A:SER:N	1:404:A:SER:CA	1:404:A:SER:C	5	2.16	0.65	2.55
(1,357)	1:361:A:TYR:N	1:361:A:TYR:CA	1:361:A:TYR:C	1:362:A:MET:N	5	2.12	1.41	1.44
(1,403)	1:423:A:LYS:N	1:423:A:LYS:CA	1:423:A:LYS:C	1:424:A:TRP:N	5	1.86	0.77	1.49
(1,475)	1:495:A:TRP:N	1:495:A:TRP:CA	1:495:A:TRP:C	1:496:A:GLN:N	4	5.28	3.16	3.73
(1,404)	1:424:A:TRP:N	1:424:A:TRP:CA	1:424:A:TRP:C	1:425:A:THR:N	4	4.53	2.12	3.72
(1,154)	1:409:A:GLY:C	1:410:A:ASP:N	1:410:A:ASP:CA	1:410:A:ASP:C	4	3.86	1.7	4.33
(1,307)	1:311:A:GLU:N	1:311:A:GLU:CA	1:311:A:GLU:C	1:312:A:ILE:N	4	2.76	1.29	2.72
(1,269)	1:273:A:GLY:N	1:273:A:GLY:CA	1:273:A:GLY:C	1:274:A:GLU:N	4	2.59	1.71	1.78
(1,287)	1:291:A:THR:N	1:291:A:THR:CA	1:291:A:THR:C	1:292:A:LEU:N	4	2.56	1.09	2.53
(1,271)	1:275:A:VAL:N	1:275:A:VAL:CA	1:275:A:VAL:C	1:276:A:TYR:N	4	2.36	0.83	2.13
(1,7)	1:255:A:GLU:C	1:256:A:MET:N	1:256:A:MET:CA	1:256:A:MET:C	4	2.34	0.77	2.16
(1,64)	1:312:A:ILE:C	1:313:A:LYS:N	1:313:A:LYS:CA	1:313:A:LYS:C	4	1.98	0.67	1.92
(1,483)	1:503:A:PRO:N	1:503:A:PRO:CA	1:503:A:PRO:C	1:504:A:SER:N	4	1.78	0.64	1.48
(1,434)	1:454:A:TYR:N	1:454:A:TYR:CA	1:454:A:TYR:C	1:455:A:GLY:N	4	1.74	0.62	1.7
(1,242)	1:515:A:MET:C	1:516:A:PHE:N	1:516:A:PHE:CA	1:516:A:PHE:C	4	1.74	0.53	1.81
(1,204)	1:473:A:LYS:C	1:474:A:ASP:N	1:474:A:ASP:CA	1:474:A:ASP:C	4	1.74	0.66	1.47
(1,409)	1:429:A:SER:N	1:429:A:SER:CA	1:429:A:SER:C	1:430:A:LEU:N	4	1.72	0.28	1.76
(1,197)	1:466:A:GLN:C	1:467:A:VAL:N	1:467:A:VAL:CA	1:467:A:VAL:C	4	1.39	0.17	1.46
(1,377)	1:381:A:ARG:N	1:381:A:ARG:CA	1:381:A:ARG:C	1:382:A:ASP:N	3	3.8	2.38	3.4
(1,130)	1:381:A:ARG:C	1:382:A:ASP:N	1:382:A:ASP:CA	1:382:A:ASP:C	3	3.28	1.61	2.36
(1,124)	1:375:A:LYS:C	1:376:A:LYS:N	1:376:A:LYS:CA	1:376:A:LYS:C	3	2.9	0.84	2.66
(1,274)	1:278:A:GLY:N	1:278:A:GLY:CA	1:278:A:GLY:C	1:279:A:VAL:N	3	2.89	0.98	2.62
(1,205)	1:474:A:ASP:C	1:475:A:TYR:N	1:475:A:TYR:CA	1:475:A:TYR:C	3	2.82	0.89	2.45
(1,453)	1:473:A:LYS:N	1:473:A:LYS:CA	1:473:A:LYS:C	1:474:A:ASP:N	3	2.53	1.02	2.75
(1,495)	1:515:A:MET:N	1:515:A:MET:CA	1:515:A:MET:C	1:516:A:PHE:N	3	2.32	1.0	1.91
(1,459)	1:479:A:ARG:N	1:479:A:ARG:CA	1:479:A:ARG:C	1:480:A:PRO:N	3	2.31	1.32	1.56

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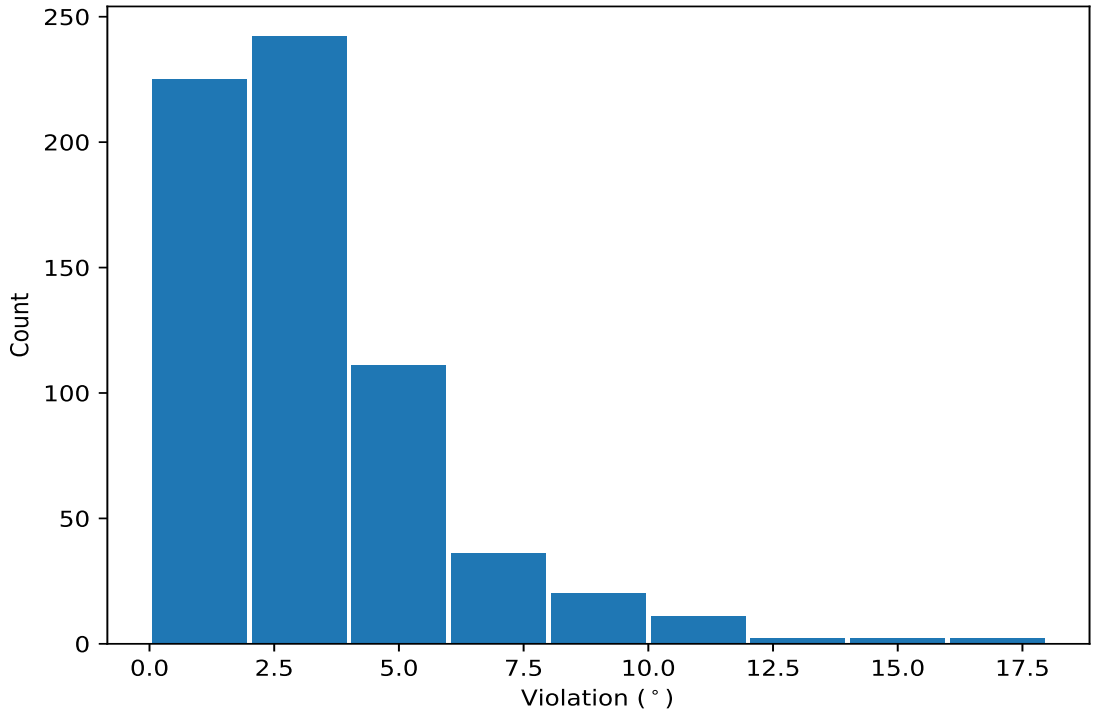
Key	Atom-1	Atom-2	Atom-3	Atom-4	Models[1]	Mean	SD[2]	Median
(1,395)	1:401:A:PHE:N	1:401:A:PHE:CA	1:401:A:PHE:C	1:402:A:GLY:N	3	2.29	0.36	2.06
(1,393)	1:397:A:LYS:N	1:397:A:LYS:CA	1:397:A:LYS:C	1:398:A:VAL:N	3	2.27	0.72	2.49
(1,43)	1:291:A:THR:C	1:292:A:LEU:N	1:292:A:LEU:CA	1:292:A:LEU:C	3	2.24	1.03	1.69
(1,252)	1:256:A:MET:N	1:256:A:MET:CA	1:256:A:MET:C	1:257:A:GLU:N	3	1.94	0.43	2.23
(1,378)	1:382:A:ASP:N	1:382:A:ASP:CA	1:382:A:ASP:C	1:383:A:LEU:N	3	1.76	0.31	1.56
(1,412)	1:432:A:TYR:N	1:432:A:TYR:CA	1:432:A:TYR:C	1:433:A:ASN:N	3	1.6	0.27	1.72
(1,331)	1:335:A:GLU:N	1:335:A:GLU:CA	1:335:A:GLU:C	1:336:A:PHE:N	3	1.5	0.56	1.11
(1,157)	1:423:A:LYS:C	1:424:A:TRP:N	1:424:A:TRP:CA	1:424:A:TRP:C	2	3.14	1.5	3.14
(1,248)	1:252:A:ASP:N	1:252:A:ASP:CA	1:252:A:ASP:C	1:253:A:LYS:N	2	2.96	0.39	2.96
(1,396)	1:402:A:GLY:N	1:402:A:GLY:CA	1:402:A:GLY:C	1:403:A:LEU:N	2	2.67	1.1	2.67
(1,132)	1:383:A:LEU:C	1:384:A:ALA:N	1:384:A:ALA:CA	1:384:A:ALA:C	2	2.25	0.13	2.25
(1,305)	1:309:A:LEU:N	1:309:A:LEU:CA	1:309:A:LEU:C	1:310:A:LYS:N	2	2.22	1.2	2.22
(1,420)	1:440:A:ASP:N	1:440:A:ASP:CA	1:440:A:ASP:C	1:441:A:VAL:N	2	2.05	0.48	2.05
(1,246)	1:250:A:ASN:N	1:250:A:ASN:CA	1:250:A:ASN:C	1:251:A:TYR:N	2	2.04	0.77	2.04
(1,458)	1:478:A:GLU:N	1:478:A:GLU:CA	1:478:A:GLU:C	1:479:A:ARG:N	2	2.0	0.44	2.0
(1,309)	1:313:A:LYS:N	1:313:A:LYS:CA	1:313:A:LYS:C	1:314:A:HIS:N	2	1.92	0.35	1.92
(1,84)	1:335:A:GLU:C	1:336:A:PHE:N	1:336:A:PHE:CA	1:336:A:PHE:C	2	1.81	0.2	1.81
(1,53)	1:301:A:GLU:C	1:302:A:PHE:N	1:302:A:PHE:CA	1:302:A:PHE:C	2	1.8	0.08	1.8
(1,471)	1:491:A:MET:N	1:491:A:MET:CA	1:491:A:MET:C	1:492:A:ARG:N	2	1.79	0.37	1.79
(1,371)	1:375:A:LYS:N	1:375:A:LYS:CA	1:375:A:LYS:C	1:376:A:LYS:N	2	1.68	0.44	1.68
(1,382)	1:386:A:ARG:N	1:386:A:ARG:CA	1:386:A:ARG:C	1:387:A:ASN:N	2	1.64	0.26	1.64
(1,2)	1:250:A:ASN:C	1:251:A:TYR:N	1:251:A:TYR:CA	1:251:A:TYR:C	2	1.56	0.48	1.56
(1,8)	1:256:A:MET:C	1:257:A:GLU:N	1:257:A:GLU:CA	1:257:A:GLU:C	2	1.52	0.01	1.52
(1,336)	1:340:A:GLY:N	1:340:A:GLY:CA	1:340:A:GLY:C	1:341:A:ASN:N	2	1.52	0.28	1.52
(1,267)	1:271:A:GLN:N	1:271:A:GLN:CA	1:271:A:GLN:C	1:272:A:TYR:N	2	1.5	0.1	1.5
(1,95)	1:346:A:LEU:C	1:347:A:ARG:N	1:347:A:ARG:CA	1:347:A:ARG:C	2	1.42	0.16	1.42
(1,366)	1:370:A:MET:N	1:370:A:MET:CA	1:370:A:MET:C	1:371:A:GLU:N	2	1.42	0.09	1.42
(1,312)	1:316:A:ASN:N	1:316:A:ASN:CA	1:316:A:ASN:C	1:317:A:LEU:N	2	1.08	0.07	1.08
(1,473)	1:493:A:ALA:N	1:493:A:ALA:CA	1:493:A:ALA:C	1:494:A:CYS:N	2	1.08	0.04	1.08
(1,16)	1:264:A:LYS:C	1:265:A:HIS:N	1:265:A:HIS:CA	1:265:A:HIS:C	2	1.08	0.05	1.08

[1] Number of violated models, [2]Standard deviation, All angle values are in degree (°)

10.5 All violated dihedral-angle restraints (i)

10.5.1 Histogram : Distribution of violations (i)

The following histogram shows the distribution of the absolute value of the violation for all violated restraints in the ensemble.



10.5.2 Table: All violated dihedral-angle restraints

The following table lists the absolute value of the violation for each restraint in the ensemble sorted by its value. The Key (restraint list ID, restraint ID) is the unique identifier for a given restraint.

Key	Atom-1	Atom-2	Atom-3	Atom-4	Model ID	Violation (°)
(1,155)	1:410:A:ASP:C	1:411:A:THR:N	1:411:A:THR:CA	1:411:A:THR:C	9	17.66
(1,155)	1:410:A:ASP:C	1:411:A:THR:N	1:411:A:THR:CA	1:411:A:THR:C	1	17.3
(1,155)	1:410:A:ASP:C	1:411:A:THR:N	1:411:A:THR:CA	1:411:A:THR:C	12	15.08
(1,155)	1:410:A:ASP:C	1:411:A:THR:N	1:411:A:THR:CA	1:411:A:THR:C	7	14.37
(1,151)	1:404:A:SER:C	1:405:A:ARG:N	1:405:A:ARG:CA	1:405:A:ARG:C	19	12.86
(1,147)	1:398:A:VAL:C	1:399:A:ALA:N	1:399:A:ALA:CA	1:399:A:ALA:C	15	12.42
(1,147)	1:398:A:VAL:C	1:399:A:ALA:N	1:399:A:ALA:CA	1:399:A:ALA:C	18	11.38
(1,147)	1:398:A:VAL:C	1:399:A:ALA:N	1:399:A:ALA:CA	1:399:A:ALA:C	7	11.34
(1,376)	1:380:A:HIS:N	1:380:A:HIS:CA	1:380:A:HIS:C	1:381:A:ARG:N	14	11.29
(1,148)	1:400:A:ASP:C	1:401:A:PHE:N	1:401:A:PHE:CA	1:401:A:PHE:C	18	11.15
(1,148)	1:400:A:ASP:C	1:401:A:PHE:N	1:401:A:PHE:CA	1:401:A:PHE:C	8	10.9
(1,151)	1:404:A:SER:C	1:405:A:ARG:N	1:405:A:ARG:CA	1:405:A:ARG:C	4	10.86
(1,151)	1:404:A:SER:C	1:405:A:ARG:N	1:405:A:ARG:CA	1:405:A:ARG:C	16	10.71
(1,475)	1:495:A:TRP:N	1:495:A:TRP:CA	1:495:A:TRP:C	1:496:A:GLN:N	18	10.67
(1,147)	1:398:A:VAL:C	1:399:A:ALA:N	1:399:A:ALA:CA	1:399:A:ALA:C	17	10.51
(1,151)	1:404:A:SER:C	1:405:A:ARG:N	1:405:A:ARG:CA	1:405:A:ARG:C	11	10.07
(1,147)	1:398:A:VAL:C	1:399:A:ALA:N	1:399:A:ALA:CA	1:399:A:ALA:C	8	10.03
(1,30)	1:278:A:GLY:C	1:279:A:VAL:N	1:279:A:VAL:CA	1:279:A:VAL:C	6	9.91
(1,151)	1:404:A:SER:C	1:405:A:ARG:N	1:405:A:ARG:CA	1:405:A:ARG:C	15	9.88
(1,151)	1:404:A:SER:C	1:405:A:ARG:N	1:405:A:ARG:CA	1:405:A:ARG:C	2	9.77
(1,147)	1:398:A:VAL:C	1:399:A:ALA:N	1:399:A:ALA:CA	1:399:A:ALA:C	6	9.67

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Key	Atom-1	Atom-2	Atom-3	Atom-4	Model ID	Violation (°)
(1,151)	1:404:A:SER:C	1:405:A:ARG:N	1:405:A:ARG:CA	1:405:A:ARG:C	17	9.65
(1,151)	1:404:A:SER:C	1:405:A:ARG:N	1:405:A:ARG:CA	1:405:A:ARG:C	8	9.35
(1,147)	1:398:A:VAL:C	1:399:A:ALA:N	1:399:A:ALA:CA	1:399:A:ALA:C	2	9.31
(1,156)	1:422:A:ILE:C	1:423:A:LYS:N	1:423:A:LYS:CA	1:423:A:LYS:C	13	9.3
(1,147)	1:398:A:VAL:C	1:399:A:ALA:N	1:399:A:ALA:CA	1:399:A:ALA:C	20	9.17
(1,151)	1:404:A:SER:C	1:405:A:ARG:N	1:405:A:ARG:CA	1:405:A:ARG:C	6	9.11
(1,147)	1:398:A:VAL:C	1:399:A:ALA:N	1:399:A:ALA:CA	1:399:A:ALA:C	10	8.92
(1,148)	1:400:A:ASP:C	1:401:A:PHE:N	1:401:A:PHE:CA	1:401:A:PHE:C	6	8.85
(1,147)	1:398:A:VAL:C	1:399:A:ALA:N	1:399:A:ALA:CA	1:399:A:ALA:C	9	8.85
(1,147)	1:398:A:VAL:C	1:399:A:ALA:N	1:399:A:ALA:CA	1:399:A:ALA:C	4	8.44
(1,30)	1:278:A:GLY:C	1:279:A:VAL:N	1:279:A:VAL:CA	1:279:A:VAL:C	5	8.44
(1,147)	1:398:A:VAL:C	1:399:A:ALA:N	1:399:A:ALA:CA	1:399:A:ALA:C	5	8.3
(1,148)	1:400:A:ASP:C	1:401:A:PHE:N	1:401:A:PHE:CA	1:401:A:PHE:C	14	8.14
(1,294)	1:298:A:GLU:N	1:298:A:GLU:CA	1:298:A:GLU:C	1:299:A:VAL:N	14	8.1
(1,404)	1:424:A:TRP:N	1:424:A:TRP:CA	1:424:A:TRP:C	1:425:A:THR:N	20	8.08
(1,394)	1:400:A:ASP:N	1:400:A:ASP:CA	1:400:A:ASP:C	1:401:A:PHE:N	18	8.05
(1,147)	1:398:A:VAL:C	1:399:A:ALA:N	1:399:A:ALA:CA	1:399:A:ALA:C	12	7.99
(1,376)	1:380:A:HIS:N	1:380:A:HIS:CA	1:380:A:HIS:C	1:381:A:ARG:N	18	7.97
(1,148)	1:400:A:ASP:C	1:401:A:PHE:N	1:401:A:PHE:CA	1:401:A:PHE:C	17	7.96
(1,30)	1:278:A:GLY:C	1:279:A:VAL:N	1:279:A:VAL:CA	1:279:A:VAL:C	2	7.95
(1,148)	1:400:A:ASP:C	1:401:A:PHE:N	1:401:A:PHE:CA	1:401:A:PHE:C	10	7.94
(1,147)	1:398:A:VAL:C	1:399:A:ALA:N	1:399:A:ALA:CA	1:399:A:ALA:C	1	7.9
(1,147)	1:398:A:VAL:C	1:399:A:ALA:N	1:399:A:ALA:CA	1:399:A:ALA:C	3	7.86
(1,147)	1:398:A:VAL:C	1:399:A:ALA:N	1:399:A:ALA:CA	1:399:A:ALA:C	14	7.81
(1,294)	1:298:A:GLU:N	1:298:A:GLU:CA	1:298:A:GLU:C	1:299:A:VAL:N	8	7.74
(1,338)	1:342:A:LEU:N	1:342:A:LEU:CA	1:342:A:LEU:C	1:343:A:LEU:N	10	7.68
(1,394)	1:400:A:ASP:N	1:400:A:ASP:CA	1:400:A:ASP:C	1:401:A:PHE:N	9	7.31
(1,6)	1:254:A:TRP:C	1:255:A:GLU:N	1:255:A:GLU:CA	1:255:A:GLU:C	19	7.26
(1,151)	1:404:A:SER:C	1:405:A:ARG:N	1:405:A:ARG:CA	1:405:A:ARG:C	13	7.2
(1,151)	1:404:A:SER:C	1:405:A:ARG:N	1:405:A:ARG:CA	1:405:A:ARG:C	12	7.15
(1,155)	1:410:A:ASP:C	1:411:A:THR:N	1:411:A:THR:CA	1:411:A:THR:C	18	7.06
(1,147)	1:398:A:VAL:C	1:399:A:ALA:N	1:399:A:ALA:CA	1:399:A:ALA:C	13	6.96
(1,30)	1:278:A:GLY:C	1:279:A:VAL:N	1:279:A:VAL:CA	1:279:A:VAL:C	17	6.92
(1,338)	1:342:A:LEU:N	1:342:A:LEU:CA	1:342:A:LEU:C	1:343:A:LEU:N	7	6.91
(1,397)	1:403:A:LEU:N	1:403:A:LEU:CA	1:403:A:LEU:C	1:404:A:SER:N	10	6.9
(1,377)	1:381:A:ARG:N	1:381:A:ARG:CA	1:381:A:ARG:C	1:382:A:ASP:N	14	6.89
(1,155)	1:410:A:ASP:C	1:411:A:THR:N	1:411:A:THR:CA	1:411:A:THR:C	10	6.86
(1,6)	1:254:A:TRP:C	1:255:A:GLU:N	1:255:A:GLU:CA	1:255:A:GLU:C	18	6.86
(1,376)	1:380:A:HIS:N	1:380:A:HIS:CA	1:380:A:HIS:C	1:381:A:ARG:N	15	6.85
(1,30)	1:278:A:GLY:C	1:279:A:VAL:N	1:279:A:VAL:CA	1:279:A:VAL:C	3	6.8
(1,30)	1:278:A:GLY:C	1:279:A:VAL:N	1:279:A:VAL:CA	1:279:A:VAL:C	8	6.55
(1,482)	1:502:A:ARG:N	1:502:A:ARG:CA	1:502:A:ARG:C	1:503:A:PRO:N	3	6.54
(1,147)	1:398:A:VAL:C	1:399:A:ALA:N	1:399:A:ALA:CA	1:399:A:ALA:C	19	6.48
(1,148)	1:400:A:ASP:C	1:401:A:PHE:N	1:401:A:PHE:CA	1:401:A:PHE:C	13	6.43
(1,314)	1:318:A:VAL:N	1:318:A:VAL:CA	1:318:A:VAL:C	1:319:A:GLN:N	4	6.39
(1,148)	1:400:A:ASP:C	1:401:A:PHE:N	1:401:A:PHE:CA	1:401:A:PHE:C	15	6.39
(1,294)	1:298:A:GLU:N	1:298:A:GLU:CA	1:298:A:GLU:C	1:299:A:VAL:N	7	6.29
(1,151)	1:404:A:SER:C	1:405:A:ARG:N	1:405:A:ARG:CA	1:405:A:ARG:C	18	6.18
(1,394)	1:400:A:ASP:N	1:400:A:ASP:CA	1:400:A:ASP:C	1:401:A:PHE:N	1	6.09
(1,6)	1:254:A:TRP:C	1:255:A:GLU:N	1:255:A:GLU:CA	1:255:A:GLU:C	9	6.02
(1,394)	1:400:A:ASP:N	1:400:A:ASP:CA	1:400:A:ASP:C	1:401:A:PHE:N	7	6.01

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Key	Atom-1	Atom-2	Atom-3	Atom-4	Model ID	Violation (°)
(1,293)	1:297:A:MET:N	1:297:A:MET:CA	1:297:A:MET:C	1:298:A:GLU:N	18	6.0
(1,394)	1:400:A:ASP:N	1:400:A:ASP:CA	1:400:A:ASP:C	1:401:A:PHE:N	10	5.99
(1,482)	1:502:A:ARG:N	1:502:A:ARG:CA	1:502:A:ARG:C	1:503:A:PRO:N	11	5.95
(1,148)	1:400:A:ASP:C	1:401:A:PHE:N	1:401:A:PHE:CA	1:401:A:PHE:C	7	5.95
(1,6)	1:254:A:TRP:C	1:255:A:GLU:N	1:255:A:GLU:CA	1:255:A:GLU:C	17	5.95
(1,148)	1:400:A:ASP:C	1:401:A:PHE:N	1:401:A:PHE:CA	1:401:A:PHE:C	9	5.93
(1,155)	1:410:A:ASP:C	1:411:A:THR:N	1:411:A:THR:CA	1:411:A:THR:C	2	5.89
(1,414)	1:434:A:LYS:N	1:434:A:LYS:CA	1:434:A:LYS:C	1:435:A:PHE:N	9	5.88
(1,30)	1:278:A:GLY:C	1:279:A:VAL:N	1:279:A:VAL:CA	1:279:A:VAL:C	11	5.88
(1,457)	1:477:A:MET:N	1:477:A:MET:CA	1:477:A:MET:C	1:478:A:GLU:N	11	5.83
(1,151)	1:404:A:SER:C	1:405:A:ARG:N	1:405:A:ARG:CA	1:405:A:ARG:C	3	5.78
(1,394)	1:400:A:ASP:N	1:400:A:ASP:CA	1:400:A:ASP:C	1:401:A:PHE:N	8	5.76
(1,338)	1:342:A:LEU:N	1:342:A:LEU:CA	1:342:A:LEU:C	1:343:A:LEU:N	17	5.7
(1,478)	1:498:A:ASN:N	1:498:A:ASN:CA	1:498:A:ASN:C	1:499:A:PRO:N	19	5.69
(1,394)	1:400:A:ASP:N	1:400:A:ASP:CA	1:400:A:ASP:C	1:401:A:PHE:N	5	5.68
(1,323)	1:327:A:GLU:N	1:327:A:GLU:CA	1:327:A:GLU:C	1:328:A:PRO:N	14	5.68
(1,154)	1:409:A:GLY:C	1:410:A:ASP:N	1:410:A:ASP:CA	1:410:A:ASP:C	1	5.64
(1,488)	1:508:A:ILE:N	1:508:A:ILE:CA	1:508:A:ILE:C	1:509:A:HIS:N	12	5.58
(1,155)	1:410:A:ASP:C	1:411:A:THR:N	1:411:A:THR:CA	1:411:A:THR:C	6	5.58
(1,397)	1:403:A:LEU:N	1:403:A:LEU:CA	1:403:A:LEU:C	1:404:A:SER:N	20	5.56
(1,130)	1:381:A:ARG:C	1:382:A:ASP:N	1:382:A:ASP:CA	1:382:A:ASP:C	14	5.54
(1,269)	1:273:A:GLY:N	1:273:A:GLY:CA	1:273:A:GLY:C	1:274:A:GLU:N	9	5.53
(1,147)	1:398:A:VAL:C	1:399:A:ALA:N	1:399:A:ALA:CA	1:399:A:ALA:C	11	5.5
(1,484)	1:504:A:SER:N	1:504:A:SER:CA	1:504:A:SER:C	1:505:A:PHE:N	5	5.48
(1,30)	1:278:A:GLY:C	1:279:A:VAL:N	1:279:A:VAL:CA	1:279:A:VAL:C	7	5.48
(1,30)	1:278:A:GLY:C	1:279:A:VAL:N	1:279:A:VAL:CA	1:279:A:VAL:C	10	5.47
(1,394)	1:400:A:ASP:N	1:400:A:ASP:CA	1:400:A:ASP:C	1:401:A:PHE:N	20	5.46
(1,294)	1:298:A:GLU:N	1:298:A:GLU:CA	1:298:A:GLU:C	1:299:A:VAL:N	3	5.45
(1,314)	1:318:A:VAL:N	1:318:A:VAL:CA	1:318:A:VAL:C	1:319:A:GLN:N	11	5.44
(1,149)	1:402:A:GLY:C	1:403:A:LEU:N	1:403:A:LEU:CA	1:403:A:LEU:C	5	5.41
(1,338)	1:342:A:LEU:N	1:342:A:LEU:CA	1:342:A:LEU:C	1:343:A:LEU:N	13	5.4
(1,456)	1:476:A:ARG:N	1:476:A:ARG:CA	1:476:A:ARG:C	1:477:A:MET:N	1	5.39
(1,365)	1:369:A:ALA:N	1:369:A:ALA:CA	1:369:A:ALA:C	1:370:A:MET:N	18	5.36
(1,189)	1:456:A:MET:C	1:457:A:SER:N	1:457:A:SER:CA	1:457:A:SER:C	16	5.31
(1,338)	1:342:A:LEU:N	1:342:A:LEU:CA	1:342:A:LEU:C	1:343:A:LEU:N	3	5.29
(1,149)	1:402:A:GLY:C	1:403:A:LEU:N	1:403:A:LEU:CA	1:403:A:LEU:C	14	5.27
(1,149)	1:402:A:GLY:C	1:403:A:LEU:N	1:403:A:LEU:CA	1:403:A:LEU:C	17	5.27
(1,30)	1:278:A:GLY:C	1:279:A:VAL:N	1:279:A:VAL:CA	1:279:A:VAL:C	13	5.26
(1,147)	1:398:A:VAL:C	1:399:A:ALA:N	1:399:A:ALA:CA	1:399:A:ALA:C	16	5.25
(1,148)	1:400:A:ASP:C	1:401:A:PHE:N	1:401:A:PHE:CA	1:401:A:PHE:C	3	5.23
(1,6)	1:254:A:TRP:C	1:255:A:GLU:N	1:255:A:GLU:CA	1:255:A:GLU:C	8	5.23
(1,401)	1:409:A:GLY:N	1:409:A:GLY:CA	1:409:A:GLY:C	1:410:A:ASP:N	5	5.21
(1,6)	1:254:A:TRP:C	1:255:A:GLU:N	1:255:A:GLU:CA	1:255:A:GLU:C	14	5.21
(1,30)	1:278:A:GLY:C	1:279:A:VAL:N	1:279:A:VAL:CA	1:279:A:VAL:C	4	5.18
(1,488)	1:508:A:ILE:N	1:508:A:ILE:CA	1:508:A:ILE:C	1:509:A:HIS:N	7	5.16
(1,30)	1:278:A:GLY:C	1:279:A:VAL:N	1:279:A:VAL:CA	1:279:A:VAL:C	14	5.11
(1,484)	1:504:A:SER:N	1:504:A:SER:CA	1:504:A:SER:C	1:505:A:PHE:N	3	5.1
(1,294)	1:298:A:GLU:N	1:298:A:GLU:CA	1:298:A:GLU:C	1:299:A:VAL:N	13	5.1
(1,148)	1:400:A:ASP:C	1:401:A:PHE:N	1:401:A:PHE:CA	1:401:A:PHE:C	12	5.07
(1,402)	1:412:A:TYR:N	1:412:A:TYR:CA	1:412:A:TYR:C	1:413:A:THR:N	17	5.06
(1,148)	1:400:A:ASP:C	1:401:A:PHE:N	1:401:A:PHE:CA	1:401:A:PHE:C	4	5.06

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Key	Atom-1	Atom-2	Atom-3	Atom-4	Model ID	Violation (°)
(1,30)	1:278:A:GLY:C	1:279:A:VAL:N	1:279:A:VAL:CA	1:279:A:VAL:C	16	5.05
(1,296)	1:300:A:GLU:N	1:300:A:GLU:CA	1:300:A:GLU:C	1:301:A:GLU:N	5	5.04
(1,456)	1:476:A:ARG:N	1:476:A:ARG:CA	1:476:A:ARG:C	1:477:A:MET:N	2	5.03
(1,397)	1:403:A:LEU:N	1:403:A:LEU:CA	1:403:A:LEU:C	1:404:A:SER:N	14	5.03
(1,394)	1:400:A:ASP:N	1:400:A:ASP:CA	1:400:A:ASP:C	1:401:A:PHE:N	17	5.0
(1,338)	1:342:A:LEU:N	1:342:A:LEU:CA	1:342:A:LEU:C	1:343:A:LEU:N	5	4.99
(1,155)	1:410:A:ASP:C	1:411:A:THR:N	1:411:A:THR:CA	1:411:A:THR:C	19	4.98
(1,151)	1:404:A:SER:C	1:405:A:ARG:N	1:405:A:ARG:CA	1:405:A:ARG:C	1	4.96
(1,357)	1:361:A:TYR:N	1:361:A:TYR:CA	1:361:A:TYR:C	1:362:A:MET:N	9	4.94
(1,296)	1:300:A:GLU:N	1:300:A:GLU:CA	1:300:A:GLU:C	1:301:A:GLU:N	9	4.94
(1,151)	1:404:A:SER:C	1:405:A:ARG:N	1:405:A:ARG:CA	1:405:A:ARG:C	14	4.93
(1,437)	1:457:A:SER:N	1:457:A:SER:CA	1:457:A:SER:C	1:458:A:PRO:N	3	4.91
(1,294)	1:298:A:GLU:N	1:298:A:GLU:CA	1:298:A:GLU:C	1:299:A:VAL:N	11	4.91
(1,296)	1:300:A:GLU:N	1:300:A:GLU:CA	1:300:A:GLU:C	1:301:A:GLU:N	4	4.84
(1,154)	1:409:A:GLY:C	1:410:A:ASP:N	1:410:A:ASP:CA	1:410:A:ASP:C	7	4.82
(1,379)	1:383:A:LEU:N	1:383:A:LEU:CA	1:383:A:LEU:C	1:384:A:ALA:N	9	4.8
(1,148)	1:400:A:ASP:C	1:401:A:PHE:N	1:401:A:PHE:CA	1:401:A:PHE:C	11	4.79
(1,494)	1:514:A:THR:N	1:514:A:THR:CA	1:514:A:THR:C	1:515:A:MET:N	14	4.78
(1,295)	1:299:A:VAL:N	1:299:A:VAL:CA	1:299:A:VAL:C	1:300:A:GLU:N	2	4.75
(1,294)	1:298:A:GLU:N	1:298:A:GLU:CA	1:298:A:GLU:C	1:299:A:VAL:N	18	4.75
(1,12)	1:260:A:ASP:C	1:261:A:ILE:N	1:261:A:ILE:CA	1:261:A:ILE:C	9	4.74
(1,339)	1:343:A:LEU:N	1:343:A:LEU:CA	1:343:A:LEU:C	1:344:A:ASP:N	10	4.73
(1,338)	1:342:A:LEU:N	1:342:A:LEU:CA	1:342:A:LEU:C	1:343:A:LEU:N	18	4.71
(1,399)	1:405:A:ARG:N	1:405:A:ARG:CA	1:405:A:ARG:C	1:406:A:LEU:N	4	4.64
(1,157)	1:423:A:LYS:C	1:424:A:TRP:N	1:424:A:TRP:CA	1:424:A:TRP:C	8	4.64
(1,478)	1:498:A:ASN:N	1:498:A:ASN:CA	1:498:A:ASN:C	1:499:A:PRO:N	11	4.62
(1,398)	1:404:A:SER:N	1:404:A:SER:CA	1:404:A:SER:C	1:405:A:ARG:N	19	4.6
(1,307)	1:311:A:GLU:N	1:311:A:GLU:CA	1:311:A:GLU:C	1:312:A:ILE:N	12	4.58
(1,295)	1:299:A:VAL:N	1:299:A:VAL:CA	1:299:A:VAL:C	1:300:A:GLU:N	16	4.57
(1,30)	1:278:A:GLY:C	1:279:A:VAL:N	1:279:A:VAL:CA	1:279:A:VAL:C	20	4.54
(1,30)	1:278:A:GLY:C	1:279:A:VAL:N	1:279:A:VAL:CA	1:279:A:VAL:C	15	4.51
(1,296)	1:300:A:GLU:N	1:300:A:GLU:CA	1:300:A:GLU:C	1:301:A:GLU:N	1	4.48
(1,338)	1:342:A:LEU:N	1:342:A:LEU:CA	1:342:A:LEU:C	1:343:A:LEU:N	20	4.47
(1,148)	1:400:A:ASP:C	1:401:A:PHE:N	1:401:A:PHE:CA	1:401:A:PHE:C	1	4.47
(1,30)	1:278:A:GLY:C	1:279:A:VAL:N	1:279:A:VAL:CA	1:279:A:VAL:C	1	4.44
(1,365)	1:369:A:ALA:N	1:369:A:ALA:CA	1:369:A:ALA:C	1:370:A:MET:N	10	4.43
(1,475)	1:495:A:TRP:N	1:495:A:TRP:CA	1:495:A:TRP:C	1:496:A:GLN:N	17	4.4
(1,379)	1:383:A:LEU:N	1:383:A:LEU:CA	1:383:A:LEU:C	1:384:A:ALA:N	1	4.4
(1,394)	1:400:A:ASP:N	1:400:A:ASP:CA	1:400:A:ASP:C	1:401:A:PHE:N	6	4.38
(1,6)	1:254:A:TRP:C	1:255:A:GLU:N	1:255:A:GLU:CA	1:255:A:GLU:C	15	4.38
(1,414)	1:434:A:LYS:N	1:434:A:LYS:CA	1:434:A:LYS:C	1:435:A:PHE:N	13	4.37
(1,314)	1:318:A:VAL:N	1:318:A:VAL:CA	1:318:A:VAL:C	1:319:A:GLN:N	5	4.37
(1,339)	1:343:A:LEU:N	1:343:A:LEU:CA	1:343:A:LEU:C	1:344:A:ASP:N	12	4.31
(1,148)	1:400:A:ASP:C	1:401:A:PHE:N	1:401:A:PHE:CA	1:401:A:PHE:C	20	4.3
(1,457)	1:477:A:MET:N	1:477:A:MET:CA	1:477:A:MET:C	1:478:A:GLU:N	6	4.27
(1,394)	1:400:A:ASP:N	1:400:A:ASP:CA	1:400:A:ASP:C	1:401:A:PHE:N	2	4.24
(1,274)	1:278:A:GLY:N	1:278:A:GLY:CA	1:278:A:GLY:C	1:279:A:VAL:N	6	4.21
(1,484)	1:504:A:SER:N	1:504:A:SER:CA	1:504:A:SER:C	1:505:A:PHE:N	17	4.17
(1,459)	1:479:A:ARG:N	1:479:A:ARG:CA	1:479:A:ARG:C	1:480:A:PRO:N	9	4.16
(1,404)	1:424:A:TRP:N	1:424:A:TRP:CA	1:424:A:TRP:C	1:425:A:THR:N	3	4.14
(1,379)	1:383:A:LEU:N	1:383:A:LEU:CA	1:383:A:LEU:C	1:384:A:ALA:N	19	4.09

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Key	Atom-1	Atom-2	Atom-3	Atom-4	Model ID	Violation (°)
(1,296)	1:300:A:GLU:N	1:300:A:GLU:CA	1:300:A:GLU:C	1:301:A:GLU:N	12	4.07
(1,148)	1:400:A:ASP:C	1:401:A:PHE:N	1:401:A:PHE:CA	1:401:A:PHE:C	19	4.07
(1,110)	1:361:A:TYR:C	1:362:A:MET:N	1:362:A:MET:CA	1:362:A:MET:C	9	4.07
(1,30)	1:278:A:GLY:C	1:279:A:VAL:N	1:279:A:VAL:CA	1:279:A:VAL:C	18	4.06
(1,436)	1:456:A:MET:N	1:456:A:MET:CA	1:456:A:MET:C	1:457:A:SER:N	2	4.05
(1,205)	1:474:A:ASP:C	1:475:A:TYR:N	1:475:A:TYR:CA	1:475:A:TYR:C	11	4.05
(1,124)	1:375:A:LYS:C	1:376:A:LYS:N	1:376:A:LYS:CA	1:376:A:LYS:C	10	4.02
(1,365)	1:369:A:ALA:N	1:369:A:ALA:CA	1:369:A:ALA:C	1:370:A:MET:N	8	4.0
(1,338)	1:342:A:LEU:N	1:342:A:LEU:CA	1:342:A:LEU:C	1:343:A:LEU:N	8	4.0
(1,287)	1:291:A:THR:N	1:291:A:THR:CA	1:291:A:THR:C	1:292:A:LEU:N	14	4.0
(1,398)	1:404:A:SER:N	1:404:A:SER:CA	1:404:A:SER:C	1:405:A:ARG:N	12	3.95
(1,31)	1:279:A:VAL:C	1:280:A:TRP:N	1:280:A:TRP:CA	1:280:A:TRP:C	11	3.95
(1,401)	1:409:A:GLY:N	1:409:A:GLY:CA	1:409:A:GLY:C	1:410:A:ASP:N	1	3.91
(1,338)	1:342:A:LEU:N	1:342:A:LEU:CA	1:342:A:LEU:C	1:343:A:LEU:N	19	3.88
(1,454)	1:474:A:ASP:N	1:474:A:ASP:CA	1:474:A:ASP:C	1:475:A:TYR:N	11	3.87
(1,398)	1:404:A:SER:N	1:404:A:SER:CA	1:404:A:SER:C	1:405:A:ARG:N	17	3.86
(1,398)	1:404:A:SER:N	1:404:A:SER:CA	1:404:A:SER:C	1:405:A:ARG:N	16	3.85
(1,154)	1:409:A:GLY:C	1:410:A:ASP:N	1:410:A:ASP:CA	1:410:A:ASP:C	9	3.84
(1,374)	1:378:A:PHE:N	1:378:A:PHE:CA	1:378:A:PHE:C	1:379:A:ILE:N	18	3.83
(1,484)	1:504:A:SER:N	1:504:A:SER:CA	1:504:A:SER:C	1:505:A:PHE:N	19	3.82
(1,31)	1:279:A:VAL:C	1:280:A:TRP:N	1:280:A:TRP:CA	1:280:A:TRP:C	14	3.81
(1,485)	1:505:A:PHE:N	1:505:A:PHE:CA	1:505:A:PHE:C	1:506:A:ALA:N	11	3.78
(1,396)	1:402:A:GLY:N	1:402:A:GLY:CA	1:402:A:GLY:C	1:403:A:LEU:N	14	3.77
(1,296)	1:300:A:GLU:N	1:300:A:GLU:CA	1:300:A:GLU:C	1:301:A:GLU:N	20	3.76
(1,294)	1:298:A:GLU:N	1:298:A:GLU:CA	1:298:A:GLU:C	1:299:A:VAL:N	10	3.75
(1,296)	1:300:A:GLU:N	1:300:A:GLU:CA	1:300:A:GLU:C	1:301:A:GLU:N	10	3.72
(1,251)	1:255:A:GLU:N	1:255:A:GLU:CA	1:255:A:GLU:C	1:256:A:MET:N	12	3.72
(1,12)	1:260:A:ASP:C	1:261:A:ILE:N	1:261:A:ILE:CA	1:261:A:ILE:C	7	3.72
(1,495)	1:515:A:MET:N	1:515:A:MET:CA	1:515:A:MET:C	1:516:A:PHE:N	2	3.7
(1,257)	1:261:A:ILE:N	1:261:A:ILE:CA	1:261:A:ILE:C	1:262:A:THR:N	8	3.69
(1,271)	1:275:A:VAL:N	1:275:A:VAL:CA	1:275:A:VAL:C	1:276:A:TYR:N	12	3.68
(1,43)	1:291:A:THR:C	1:292:A:LEU:N	1:292:A:LEU:CA	1:292:A:LEU:C	14	3.68
(1,394)	1:400:A:ASP:N	1:400:A:ASP:CA	1:400:A:ASP:C	1:401:A:PHE:N	3	3.67
(1,148)	1:400:A:ASP:C	1:401:A:PHE:N	1:401:A:PHE:CA	1:401:A:PHE:C	2	3.67
(1,453)	1:473:A:LYS:N	1:473:A:LYS:CA	1:473:A:LYS:C	1:474:A:ASP:N	4	3.65
(1,155)	1:410:A:ASP:C	1:411:A:THR:N	1:411:A:THR:CA	1:411:A:THR:C	15	3.65
(1,484)	1:504:A:SER:N	1:504:A:SER:CA	1:504:A:SER:C	1:505:A:PHE:N	12	3.63
(1,294)	1:298:A:GLU:N	1:298:A:GLU:CA	1:298:A:GLU:C	1:299:A:VAL:N	20	3.63
(1,484)	1:504:A:SER:N	1:504:A:SER:CA	1:504:A:SER:C	1:505:A:PHE:N	10	3.62
(1,365)	1:369:A:ALA:N	1:369:A:ALA:CA	1:369:A:ALA:C	1:370:A:MET:N	7	3.61
(1,379)	1:383:A:LEU:N	1:383:A:LEU:CA	1:383:A:LEU:C	1:384:A:ALA:N	11	3.6
(1,292)	1:296:A:THR:N	1:296:A:THR:CA	1:296:A:THR:C	1:297:A:MET:N	19	3.6
(1,30)	1:278:A:GLY:C	1:279:A:VAL:N	1:279:A:VAL:CA	1:279:A:VAL:C	19	3.6
(1,456)	1:476:A:ARG:N	1:476:A:ARG:CA	1:476:A:ARG:C	1:477:A:MET:N	5	3.58
(1,294)	1:298:A:GLU:N	1:298:A:GLU:CA	1:298:A:GLU:C	1:299:A:VAL:N	17	3.58
(1,155)	1:410:A:ASP:C	1:411:A:THR:N	1:411:A:THR:CA	1:411:A:THR:C	20	3.58
(1,12)	1:260:A:ASP:C	1:261:A:ILE:N	1:261:A:ILE:CA	1:261:A:ILE:C	12	3.58
(1,338)	1:342:A:LEU:N	1:342:A:LEU:CA	1:342:A:LEU:C	1:343:A:LEU:N	6	3.57
(1,7)	1:255:A:GLU:C	1:256:A:MET:N	1:256:A:MET:CA	1:256:A:MET:C	1	3.55
(1,314)	1:318:A:VAL:N	1:318:A:VAL:CA	1:318:A:VAL:C	1:319:A:GLN:N	16	3.53
(1,397)	1:403:A:LEU:N	1:403:A:LEU:CA	1:403:A:LEU:C	1:404:A:SER:N	6	3.52

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Key	Atom-1	Atom-2	Atom-3	Atom-4	Model ID	Violation (°)
(1,401)	1:409:A:GLY:N	1:409:A:GLY:CA	1:409:A:GLY:C	1:410:A:ASP:N	7	3.5
(1,394)	1:400:A:ASP:N	1:400:A:ASP:CA	1:400:A:ASP:C	1:401:A:PHE:N	4	3.5
(1,401)	1:409:A:GLY:N	1:409:A:GLY:CA	1:409:A:GLY:C	1:410:A:ASP:N	9	3.48
(1,155)	1:410:A:ASP:C	1:411:A:THR:N	1:411:A:THR:CA	1:411:A:THR:C	13	3.48
(1,338)	1:342:A:LEU:N	1:342:A:LEU:CA	1:342:A:LEU:C	1:343:A:LEU:N	14	3.47
(1,149)	1:402:A:GLY:C	1:403:A:LEU:N	1:403:A:LEU:CA	1:403:A:LEU:C	10	3.45
(1,155)	1:410:A:ASP:C	1:411:A:THR:N	1:411:A:THR:CA	1:411:A:THR:C	11	3.44
(1,305)	1:309:A:LEU:N	1:309:A:LEU:CA	1:309:A:LEU:C	1:310:A:LYS:N	9	3.41
(1,379)	1:383:A:LEU:N	1:383:A:LEU:CA	1:383:A:LEU:C	1:384:A:ALA:N	5	3.4
(1,377)	1:381:A:ARG:N	1:381:A:ARG:CA	1:381:A:ARG:C	1:382:A:ASP:N	18	3.4
(1,403)	1:423:A:LYS:N	1:423:A:LYS:CA	1:423:A:LYS:C	1:424:A:TRP:N	8	3.36
(1,314)	1:318:A:VAL:N	1:318:A:VAL:CA	1:318:A:VAL:C	1:319:A:GLN:N	2	3.36
(1,293)	1:297:A:MET:N	1:297:A:MET:CA	1:297:A:MET:C	1:298:A:GLU:N	6	3.36
(1,251)	1:255:A:GLU:N	1:255:A:GLU:CA	1:255:A:GLU:C	1:256:A:MET:N	1	3.35
(1,248)	1:252:A:ASP:N	1:252:A:ASP:CA	1:252:A:ASP:C	1:253:A:LYS:N	19	3.35
(1,292)	1:296:A:THR:N	1:296:A:THR:CA	1:296:A:THR:C	1:297:A:MET:N	6	3.34
(1,151)	1:404:A:SER:C	1:405:A:ARG:N	1:405:A:ARG:CA	1:405:A:ARG:C	9	3.34
(1,38)	1:286:A:THR:C	1:287:A:VAL:N	1:287:A:VAL:CA	1:287:A:VAL:C	11	3.31
(1,404)	1:424:A:TRP:N	1:424:A:TRP:CA	1:424:A:TRP:C	1:425:A:THR:N	2	3.29
(1,251)	1:255:A:GLU:N	1:255:A:GLU:CA	1:255:A:GLU:C	1:256:A:MET:N	7	3.28
(1,485)	1:505:A:PHE:N	1:505:A:PHE:CA	1:505:A:PHE:C	1:506:A:ALA:N	7	3.26
(1,394)	1:400:A:ASP:N	1:400:A:ASP:CA	1:400:A:ASP:C	1:401:A:PHE:N	19	3.26
(1,339)	1:343:A:LEU:N	1:343:A:LEU:CA	1:343:A:LEU:C	1:344:A:ASP:N	20	3.26
(1,48)	1:296:A:THR:C	1:297:A:MET:N	1:297:A:MET:CA	1:297:A:MET:C	20	3.24
(1,12)	1:260:A:ASP:C	1:261:A:ILE:N	1:261:A:ILE:CA	1:261:A:ILE:C	11	3.24
(1,338)	1:342:A:LEU:N	1:342:A:LEU:CA	1:342:A:LEU:C	1:343:A:LEU:N	2	3.21
(1,294)	1:298:A:GLU:N	1:298:A:GLU:CA	1:298:A:GLU:C	1:299:A:VAL:N	5	3.21
(1,482)	1:502:A:ARG:N	1:502:A:ARG:CA	1:502:A:ARG:C	1:503:A:PRO:N	19	3.17
(1,376)	1:380:A:HIS:N	1:380:A:HIS:CA	1:380:A:HIS:C	1:381:A:ARG:N	9	3.17
(1,296)	1:300:A:GLU:N	1:300:A:GLU:CA	1:300:A:GLU:C	1:301:A:GLU:N	7	3.17
(1,365)	1:369:A:ALA:N	1:369:A:ALA:CA	1:369:A:ALA:C	1:370:A:MET:N	11	3.16
(1,287)	1:291:A:THR:N	1:291:A:THR:CA	1:291:A:THR:C	1:292:A:LEU:N	17	3.16
(1,251)	1:255:A:GLU:N	1:255:A:GLU:CA	1:255:A:GLU:C	1:256:A:MET:N	11	3.15
(1,478)	1:498:A:ASN:N	1:498:A:ASN:CA	1:498:A:ASN:C	1:499:A:PRO:N	15	3.1
(1,325)	1:329:A:PRO:N	1:329:A:PRO:CA	1:329:A:PRO:C	1:330:A:PHE:N	15	3.1
(1,437)	1:457:A:SER:N	1:457:A:SER:CA	1:457:A:SER:C	1:458:A:PRO:N	11	3.07
(1,484)	1:504:A:SER:N	1:504:A:SER:CA	1:504:A:SER:C	1:505:A:PHE:N	18	3.06
(1,475)	1:495:A:TRP:N	1:495:A:TRP:CA	1:495:A:TRP:C	1:496:A:GLN:N	7	3.06
(1,12)	1:260:A:ASP:C	1:261:A:ILE:N	1:261:A:ILE:CA	1:261:A:ILE:C	14	3.05
(1,484)	1:504:A:SER:N	1:504:A:SER:CA	1:504:A:SER:C	1:505:A:PHE:N	11	3.04
(1,338)	1:342:A:LEU:N	1:342:A:LEU:CA	1:342:A:LEU:C	1:343:A:LEU:N	4	3.04
(1,307)	1:311:A:GLU:N	1:311:A:GLU:CA	1:311:A:GLU:C	1:312:A:ILE:N	14	3.04
(1,339)	1:343:A:LEU:N	1:343:A:LEU:CA	1:343:A:LEU:C	1:344:A:ASP:N	13	3.02
(1,326)	1:330:A:PHE:N	1:330:A:PHE:CA	1:330:A:PHE:C	1:331:A:TYR:N	3	3.02
(1,322)	1:326:A:ARG:N	1:326:A:ARG:CA	1:326:A:ARG:C	1:327:A:GLU:N	12	3.02
(1,38)	1:286:A:THR:C	1:287:A:VAL:N	1:287:A:VAL:CA	1:287:A:VAL:C	4	3.02
(1,393)	1:397:A:LYS:N	1:397:A:LYS:CA	1:397:A:LYS:C	1:398:A:VAL:N	17	3.01
(1,338)	1:342:A:LEU:N	1:342:A:LEU:CA	1:342:A:LEU:C	1:343:A:LEU:N	11	3.01
(1,149)	1:402:A:GLY:C	1:403:A:LEU:N	1:403:A:LEU:CA	1:403:A:LEU:C	15	3.0
(1,475)	1:495:A:TRP:N	1:495:A:TRP:CA	1:495:A:TRP:C	1:496:A:GLN:N	14	2.98
(1,155)	1:410:A:ASP:C	1:411:A:THR:N	1:411:A:THR:CA	1:411:A:THR:C	16	2.98

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Key	Atom-1	Atom-2	Atom-3	Atom-4	Model ID	Violation (°)
(1,64)	1:312:A:ILE:C	1:313:A:LYS:N	1:313:A:LYS:CA	1:313:A:LYS:C	4	2.98
(1,12)	1:260:A:ASP:C	1:261:A:ILE:N	1:261:A:ILE:CA	1:261:A:ILE:C	17	2.98
(1,478)	1:498:A:ASN:N	1:498:A:ASN:CA	1:498:A:ASN:C	1:499:A:PRO:N	10	2.97
(1,358)	1:362:A:MET:N	1:362:A:MET:CA	1:362:A:MET:C	1:363:A:ALA:N	16	2.97
(1,296)	1:300:A:GLU:N	1:300:A:GLU:CA	1:300:A:GLU:C	1:301:A:GLU:N	3	2.97
(1,229)	1:501:A:ASP:C	1:502:A:ARG:N	1:502:A:ARG:CA	1:502:A:ARG:C	9	2.93
(1,402)	1:412:A:TYR:N	1:412:A:TYR:CA	1:412:A:TYR:C	1:413:A:THR:N	20	2.92
(1,338)	1:342:A:LEU:N	1:342:A:LEU:CA	1:342:A:LEU:C	1:343:A:LEU:N	16	2.9
(1,314)	1:318:A:VAL:N	1:318:A:VAL:CA	1:318:A:VAL:C	1:319:A:GLN:N	18	2.89
(1,483)	1:503:A:PRO:N	1:503:A:PRO:CA	1:503:A:PRO:C	1:504:A:SER:N	7	2.88
(1,150)	1:403:A:LEU:C	1:404:A:SER:N	1:404:A:SER:CA	1:404:A:SER:C	7	2.88
(1,149)	1:402:A:GLY:C	1:403:A:LEU:N	1:403:A:LEU:CA	1:403:A:LEU:C	2	2.88
(1,148)	1:400:A:ASP:C	1:401:A:PHE:N	1:401:A:PHE:CA	1:401:A:PHE:C	16	2.87
(1,204)	1:473:A:LYS:C	1:474:A:ASP:N	1:474:A:ASP:CA	1:474:A:ASP:C	14	2.86
(1,437)	1:457:A:SER:N	1:457:A:SER:CA	1:457:A:SER:C	1:458:A:PRO:N	10	2.82
(1,398)	1:404:A:SER:N	1:404:A:SER:CA	1:404:A:SER:C	1:405:A:ARG:N	1	2.82
(1,457)	1:477:A:MET:N	1:477:A:MET:CA	1:477:A:MET:C	1:478:A:GLU:N	4	2.81
(1,339)	1:343:A:LEU:N	1:343:A:LEU:CA	1:343:A:LEU:C	1:344:A:ASP:N	5	2.81
(1,246)	1:250:A:ASN:N	1:250:A:ASN:CA	1:250:A:ASN:C	1:251:A:TYR:N	16	2.81
(1,395)	1:401:A:PHE:N	1:401:A:PHE:CA	1:401:A:PHE:C	1:402:A:GLY:N	18	2.8
(1,38)	1:286:A:THR:C	1:287:A:VAL:N	1:287:A:VAL:CA	1:287:A:VAL:C	2	2.8
(1,296)	1:300:A:GLU:N	1:300:A:GLU:CA	1:300:A:GLU:C	1:301:A:GLU:N	16	2.77
(1,296)	1:300:A:GLU:N	1:300:A:GLU:CA	1:300:A:GLU:C	1:301:A:GLU:N	8	2.76
(1,453)	1:473:A:LYS:N	1:473:A:LYS:CA	1:473:A:LYS:C	1:474:A:ASP:N	11	2.75
(1,251)	1:255:A:GLU:N	1:255:A:GLU:CA	1:255:A:GLU:C	1:256:A:MET:N	13	2.73
(1,326)	1:330:A:PHE:N	1:330:A:PHE:CA	1:330:A:PHE:C	1:331:A:TYR:N	4	2.72
(1,38)	1:286:A:THR:C	1:287:A:VAL:N	1:287:A:VAL:CA	1:287:A:VAL:C	10	2.72
(1,155)	1:410:A:ASP:C	1:411:A:THR:N	1:411:A:THR:CA	1:411:A:THR:C	14	2.71
(1,402)	1:412:A:TYR:N	1:412:A:TYR:CA	1:412:A:TYR:C	1:413:A:THR:N	6	2.7
(1,379)	1:383:A:LEU:N	1:383:A:LEU:CA	1:383:A:LEU:C	1:384:A:ALA:N	12	2.7
(1,323)	1:327:A:GLU:N	1:327:A:GLU:CA	1:327:A:GLU:C	1:328:A:PRO:N	19	2.68
(1,149)	1:402:A:GLY:C	1:403:A:LEU:N	1:403:A:LEU:CA	1:403:A:LEU:C	19	2.68
(1,485)	1:505:A:PHE:N	1:505:A:PHE:CA	1:505:A:PHE:C	1:506:A:ALA:N	10	2.67
(1,394)	1:400:A:ASP:N	1:400:A:ASP:CA	1:400:A:ASP:C	1:401:A:PHE:N	14	2.67
(1,293)	1:297:A:MET:N	1:297:A:MET:CA	1:297:A:MET:C	1:298:A:GLU:N	20	2.67
(1,124)	1:375:A:LYS:C	1:376:A:LYS:N	1:376:A:LYS:CA	1:376:A:LYS:C	18	2.66
(1,365)	1:369:A:ALA:N	1:369:A:ALA:CA	1:369:A:ALA:C	1:370:A:MET:N	3	2.64
(1,294)	1:298:A:GLU:N	1:298:A:GLU:CA	1:298:A:GLU:C	1:299:A:VAL:N	19	2.64
(1,30)	1:278:A:GLY:C	1:279:A:VAL:N	1:279:A:VAL:CA	1:279:A:VAL:C	9	2.64
(1,326)	1:330:A:PHE:N	1:330:A:PHE:CA	1:330:A:PHE:C	1:331:A:TYR:N	7	2.62
(1,274)	1:278:A:GLY:N	1:278:A:GLY:CA	1:278:A:GLY:C	1:279:A:VAL:N	17	2.62
(1,404)	1:424:A:TRP:N	1:424:A:TRP:CA	1:424:A:TRP:C	1:425:A:THR:N	6	2.61
(1,347)	1:351:A:ARG:N	1:351:A:ARG:CA	1:351:A:ARG:C	1:352:A:GLN:N	19	2.6
(1,150)	1:403:A:LEU:C	1:404:A:SER:N	1:404:A:SER:CA	1:404:A:SER:C	6	2.59
(1,248)	1:252:A:ASP:N	1:252:A:ASP:CA	1:252:A:ASP:C	1:253:A:LYS:N	18	2.57
(1,150)	1:403:A:LEU:C	1:404:A:SER:N	1:404:A:SER:CA	1:404:A:SER:C	16	2.55
(1,365)	1:369:A:ALA:N	1:369:A:ALA:CA	1:369:A:ALA:C	1:370:A:MET:N	14	2.54
(1,296)	1:300:A:GLU:N	1:300:A:GLU:CA	1:300:A:GLU:C	1:301:A:GLU:N	11	2.54
(1,420)	1:440:A:ASP:N	1:440:A:ASP:CA	1:440:A:ASP:C	1:441:A:VAL:N	18	2.53
(1,325)	1:329:A:PRO:N	1:329:A:PRO:CA	1:329:A:PRO:C	1:330:A:PHE:N	7	2.53
(1,38)	1:286:A:THR:C	1:287:A:VAL:N	1:287:A:VAL:CA	1:287:A:VAL:C	20	2.53

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Key	Atom-1	Atom-2	Atom-3	Atom-4	Model ID	Violation (°)
(1,455)	1:475:A:TYR:N	1:475:A:TYR:CA	1:475:A:TYR:C	1:476:A:ARG:N	9	2.52
(1,189)	1:456:A:MET:C	1:457:A:SER:N	1:457:A:SER:CA	1:457:A:SER:C	14	2.52
(1,12)	1:260:A:ASP:C	1:261:A:ILE:N	1:261:A:ILE:CA	1:261:A:ILE:C	19	2.52
(1,434)	1:454:A:TYR:N	1:454:A:TYR:CA	1:454:A:TYR:C	1:455:A:GLY:N	18	2.5
(1,398)	1:404:A:SER:N	1:404:A:SER:CA	1:404:A:SER:C	1:405:A:ARG:N	8	2.5
(1,365)	1:369:A:ALA:N	1:369:A:ALA:CA	1:369:A:ALA:C	1:370:A:MET:N	5	2.5
(1,148)	1:400:A:ASP:C	1:401:A:PHE:N	1:401:A:PHE:CA	1:401:A:PHE:C	5	2.5
(1,394)	1:400:A:ASP:N	1:400:A:ASP:CA	1:400:A:ASP:C	1:401:A:PHE:N	15	2.49
(1,393)	1:397:A:LYS:N	1:397:A:LYS:CA	1:397:A:LYS:C	1:398:A:VAL:N	14	2.49
(1,295)	1:299:A:VAL:N	1:299:A:VAL:CA	1:299:A:VAL:C	1:300:A:GLU:N	13	2.49
(1,365)	1:369:A:ALA:N	1:369:A:ALA:CA	1:369:A:ALA:C	1:370:A:MET:N	1	2.46
(1,464)	1:484:A:PRO:N	1:484:A:PRO:CA	1:484:A:PRO:C	1:485:A:GLU:N	4	2.45
(1,400)	1:406:A:LEU:N	1:406:A:LEU:CA	1:406:A:LEU:C	1:407:A:MET:N	9	2.45
(1,365)	1:369:A:ALA:N	1:369:A:ALA:CA	1:369:A:ALA:C	1:370:A:MET:N	6	2.45
(1,205)	1:474:A:ASP:C	1:475:A:TYR:N	1:475:A:TYR:CA	1:475:A:TYR:C	1	2.45
(1,50)	1:298:A:GLU:C	1:299:A:VAL:N	1:299:A:VAL:CA	1:299:A:VAL:C	5	2.44
(1,458)	1:478:A:GLU:N	1:478:A:GLU:CA	1:478:A:GLU:C	1:479:A:ARG:N	9	2.43
(1,415)	1:435:A:PHE:N	1:435:A:PHE:CA	1:435:A:PHE:C	1:436:A:SER:N	13	2.43
(1,7)	1:255:A:GLU:C	1:256:A:MET:N	1:256:A:MET:CA	1:256:A:MET:C	3	2.42
(1,271)	1:275:A:VAL:N	1:275:A:VAL:CA	1:275:A:VAL:C	1:276:A:TYR:N	2	2.41
(1,149)	1:402:A:GLY:C	1:403:A:LEU:N	1:403:A:LEU:CA	1:403:A:LEU:C	18	2.41
(1,38)	1:286:A:THR:C	1:287:A:VAL:N	1:287:A:VAL:CA	1:287:A:VAL:C	7	2.41
(1,38)	1:286:A:THR:C	1:287:A:VAL:N	1:287:A:VAL:CA	1:287:A:VAL:C	17	2.41
(1,307)	1:311:A:GLU:N	1:311:A:GLU:CA	1:311:A:GLU:C	1:312:A:ILE:N	7	2.4
(1,292)	1:296:A:THR:N	1:296:A:THR:CA	1:296:A:THR:C	1:297:A:MET:N	4	2.4
(1,466)	1:486:A:LYS:N	1:486:A:LYS:CA	1:486:A:LYS:C	1:487:A:VAL:N	20	2.39
(1,437)	1:457:A:SER:N	1:457:A:SER:CA	1:457:A:SER:C	1:458:A:PRO:N	20	2.38
(1,132)	1:383:A:LEU:C	1:384:A:ALA:N	1:384:A:ALA:CA	1:384:A:ALA:C	4	2.38
(1,478)	1:498:A:ASN:N	1:498:A:ASN:CA	1:498:A:ASN:C	1:499:A:PRO:N	20	2.37
(1,189)	1:456:A:MET:C	1:457:A:SER:N	1:457:A:SER:CA	1:457:A:SER:C	1	2.37
(1,153)	1:408:A:TYR:C	1:409:A:GLY:N	1:409:A:GLY:CA	1:409:A:GLY:C	9	2.36
(1,130)	1:381:A:ARG:C	1:382:A:ASP:N	1:382:A:ASP:CA	1:382:A:ASP:C	9	2.36
(1,189)	1:456:A:MET:C	1:457:A:SER:N	1:457:A:SER:CA	1:457:A:SER:C	5	2.35
(1,189)	1:456:A:MET:C	1:457:A:SER:N	1:457:A:SER:CA	1:457:A:SER:C	19	2.35
(1,488)	1:508:A:ILE:N	1:508:A:ILE:CA	1:508:A:ILE:C	1:509:A:HIS:N	3	2.34
(1,456)	1:476:A:ARG:N	1:476:A:ARG:CA	1:476:A:ARG:C	1:477:A:MET:N	7	2.34
(1,339)	1:343:A:LEU:N	1:343:A:LEU:CA	1:343:A:LEU:C	1:344:A:ASP:N	6	2.34
(1,292)	1:296:A:THR:N	1:296:A:THR:CA	1:296:A:THR:C	1:297:A:MET:N	13	2.33
(1,207)	1:476:A:ARG:C	1:477:A:MET:N	1:477:A:MET:CA	1:477:A:MET:C	2	2.33
(1,31)	1:279:A:VAL:C	1:280:A:TRP:N	1:280:A:TRP:CA	1:280:A:TRP:C	2	2.33
(1,374)	1:378:A:PHE:N	1:378:A:PHE:CA	1:378:A:PHE:C	1:379:A:ILE:N	14	2.32
(1,325)	1:329:A:PRO:N	1:329:A:PRO:CA	1:329:A:PRO:C	1:330:A:PHE:N	9	2.32
(1,325)	1:329:A:PRO:N	1:329:A:PRO:CA	1:329:A:PRO:C	1:330:A:PHE:N	13	2.32
(1,365)	1:369:A:ALA:N	1:369:A:ALA:CA	1:369:A:ALA:C	1:370:A:MET:N	2	2.31
(1,242)	1:515:A:MET:C	1:516:A:PHE:N	1:516:A:PHE:CA	1:516:A:PHE:C	4	2.31
(1,416)	1:436:A:SER:N	1:436:A:SER:CA	1:436:A:SER:C	1:437:A:ILE:N	15	2.3
(1,293)	1:297:A:MET:N	1:297:A:MET:CA	1:297:A:MET:C	1:298:A:GLU:N	4	2.3
(1,331)	1:335:A:GLU:N	1:335:A:GLU:CA	1:335:A:GLU:C	1:336:A:PHE:N	5	2.29
(1,461)	1:481:A:GLU:N	1:481:A:GLU:CA	1:481:A:GLU:C	1:482:A:GLY:N	8	2.28
(1,309)	1:313:A:LYS:N	1:313:A:LYS:CA	1:313:A:LYS:C	1:314:A:HIS:N	17	2.28
(1,250)	1:254:A:TRP:N	1:254:A:TRP:CA	1:254:A:TRP:C	1:255:A:GLU:N	17	2.28

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Key	Atom-1	Atom-2	Atom-3	Atom-4	Model ID	Violation (°)
(1,401)	1:409:A:GLY:N	1:409:A:GLY:CA	1:409:A:GLY:C	1:410:A:ASP:N	12	2.27
(1,323)	1:327:A:GLU:N	1:327:A:GLU:CA	1:327:A:GLU:C	1:328:A:PRO:N	12	2.26
(1,252)	1:256:A:MET:N	1:256:A:MET:CA	1:256:A:MET:C	1:257:A:GLU:N	15	2.26
(1,50)	1:298:A:GLU:C	1:299:A:VAL:N	1:299:A:VAL:CA	1:299:A:VAL:C	7	2.25
(1,394)	1:400:A:ASP:N	1:400:A:ASP:CA	1:400:A:ASP:C	1:401:A:PHE:N	12	2.24
(1,27)	1:275:A:VAL:C	1:276:A:TYR:N	1:276:A:TYR:CA	1:276:A:TYR:C	18	2.24
(1,252)	1:256:A:MET:N	1:256:A:MET:CA	1:256:A:MET:C	1:257:A:GLU:N	18	2.23
(1,482)	1:502:A:ARG:N	1:502:A:ARG:CA	1:502:A:ARG:C	1:503:A:PRO:N	18	2.21
(1,434)	1:454:A:TYR:N	1:454:A:TYR:CA	1:454:A:TYR:C	1:455:A:GLY:N	6	2.2
(1,378)	1:382:A:ASP:N	1:382:A:ASP:CA	1:382:A:ASP:C	1:383:A:LEU:N	5	2.2
(1,323)	1:327:A:GLU:N	1:327:A:GLU:CA	1:327:A:GLU:C	1:328:A:PRO:N	10	2.19
(1,242)	1:515:A:MET:C	1:516:A:PHE:N	1:516:A:PHE:CA	1:516:A:PHE:C	19	2.19
(1,38)	1:286:A:THR:C	1:287:A:VAL:N	1:287:A:VAL:CA	1:287:A:VAL:C	13	2.19
(1,374)	1:378:A:PHE:N	1:378:A:PHE:CA	1:378:A:PHE:C	1:379:A:ILE:N	7	2.18
(1,471)	1:491:A:MET:N	1:491:A:MET:CA	1:491:A:MET:C	1:492:A:ARG:N	1	2.16
(1,457)	1:477:A:MET:N	1:477:A:MET:CA	1:477:A:MET:C	1:478:A:GLU:N	12	2.16
(1,456)	1:476:A:ARG:N	1:476:A:ARG:CA	1:476:A:ARG:C	1:477:A:MET:N	3	2.16
(1,295)	1:299:A:VAL:N	1:299:A:VAL:CA	1:299:A:VAL:C	1:300:A:GLU:N	5	2.16
(1,293)	1:297:A:MET:N	1:297:A:MET:CA	1:297:A:MET:C	1:298:A:GLU:N	10	2.15
(1,283)	1:287:A:VAL:N	1:287:A:VAL:CA	1:287:A:VAL:C	1:288:A:ALA:N	11	2.15
(1,151)	1:404:A:SER:C	1:405:A:ARG:N	1:405:A:ARG:CA	1:405:A:ARG:C	7	2.15
(1,365)	1:369:A:ALA:N	1:369:A:ALA:CA	1:369:A:ALA:C	1:370:A:MET:N	17	2.14
(1,394)	1:400:A:ASP:N	1:400:A:ASP:CA	1:400:A:ASP:C	1:401:A:PHE:N	11	2.13
(1,371)	1:375:A:LYS:N	1:375:A:LYS:CA	1:375:A:LYS:C	1:376:A:LYS:N	18	2.13
(1,296)	1:300:A:GLU:N	1:300:A:GLU:CA	1:300:A:GLU:C	1:301:A:GLU:N	15	2.13
(1,98)	1:349:A:CYS:C	1:350:A:ASN:N	1:350:A:ASN:CA	1:350:A:ASN:C	1	2.13
(1,132)	1:383:A:LEU:C	1:384:A:ALA:N	1:384:A:ALA:CA	1:384:A:ALA:C	19	2.12
(1,482)	1:502:A:ARG:N	1:502:A:ARG:CA	1:502:A:ARG:C	1:503:A:PRO:N	5	2.1
(1,414)	1:434:A:LYS:N	1:434:A:LYS:CA	1:434:A:LYS:C	1:435:A:PHE:N	4	2.1
(1,295)	1:299:A:VAL:N	1:299:A:VAL:CA	1:299:A:VAL:C	1:300:A:GLU:N	11	2.1
(1,494)	1:514:A:THR:N	1:514:A:THR:CA	1:514:A:THR:C	1:515:A:MET:N	17	2.08
(1,464)	1:484:A:PRO:N	1:484:A:PRO:CA	1:484:A:PRO:C	1:485:A:GLU:N	19	2.08
(1,31)	1:279:A:VAL:C	1:280:A:TRP:N	1:280:A:TRP:CA	1:280:A:TRP:C	1	2.08
(1,31)	1:279:A:VAL:C	1:280:A:TRP:N	1:280:A:TRP:CA	1:280:A:TRP:C	12	2.08
(1,283)	1:287:A:VAL:N	1:287:A:VAL:CA	1:287:A:VAL:C	1:288:A:ALA:N	9	2.07
(1,50)	1:298:A:GLU:C	1:299:A:VAL:N	1:299:A:VAL:CA	1:299:A:VAL:C	14	2.07
(1,30)	1:278:A:GLY:C	1:279:A:VAL:N	1:279:A:VAL:CA	1:279:A:VAL:C	12	2.07
(1,12)	1:260:A:ASP:C	1:261:A:ILE:N	1:261:A:ILE:CA	1:261:A:ILE:C	18	2.07
(1,485)	1:505:A:PHE:N	1:505:A:PHE:CA	1:505:A:PHE:C	1:506:A:ALA:N	14	2.06
(1,395)	1:401:A:PHE:N	1:401:A:PHE:CA	1:401:A:PHE:C	1:402:A:GLY:N	10	2.06
(1,464)	1:484:A:PRO:N	1:484:A:PRO:CA	1:484:A:PRO:C	1:485:A:GLU:N	15	2.05
(1,409)	1:429:A:SER:N	1:429:A:SER:CA	1:429:A:SER:C	1:430:A:LEU:N	10	2.05
(1,2)	1:250:A:ASN:C	1:251:A:TYR:N	1:251:A:TYR:CA	1:251:A:TYR:C	16	2.04
(1,485)	1:505:A:PHE:N	1:505:A:PHE:CA	1:505:A:PHE:C	1:506:A:ALA:N	19	2.03
(1,189)	1:456:A:MET:C	1:457:A:SER:N	1:457:A:SER:CA	1:457:A:SER:C	15	2.02
(1,124)	1:375:A:LYS:C	1:376:A:LYS:N	1:376:A:LYS:CA	1:376:A:LYS:C	14	2.01
(1,84)	1:335:A:GLU:C	1:336:A:PHE:N	1:336:A:PHE:CA	1:336:A:PHE:C	7	2.01
(1,395)	1:401:A:PHE:N	1:401:A:PHE:CA	1:401:A:PHE:C	1:402:A:GLY:N	6	2.0
(1,494)	1:514:A:THR:N	1:514:A:THR:CA	1:514:A:THR:C	1:515:A:MET:N	3	1.98
(1,478)	1:498:A:ASN:N	1:498:A:ASN:CA	1:498:A:ASN:C	1:499:A:PRO:N	7	1.98
(1,294)	1:298:A:GLU:N	1:298:A:GLU:CA	1:298:A:GLU:C	1:299:A:VAL:N	9	1.97

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Key	Atom-1	Atom-2	Atom-3	Atom-4	Model ID	Violation (°)
(1,38)	1:286:A:THR:C	1:287:A:VAL:N	1:287:A:VAL:CA	1:287:A:VAL:C	1	1.97
(1,479)	1:499:A:PRO:N	1:499:A:PRO:CA	1:499:A:PRO:C	1:500:A:SER:N	14	1.96
(1,402)	1:412:A:TYR:N	1:412:A:TYR:CA	1:412:A:TYR:C	1:413:A:THR:N	18	1.96
(1,398)	1:404:A:SER:N	1:404:A:SER:CA	1:404:A:SER:C	1:405:A:ARG:N	15	1.96
(1,205)	1:474:A:ASP:C	1:475:A:TYR:N	1:475:A:TYR:CA	1:475:A:TYR:C	12	1.96
(1,64)	1:312:A:ILE:C	1:313:A:LYS:N	1:313:A:LYS:CA	1:313:A:LYS:C	12	1.96
(1,295)	1:299:A:VAL:N	1:299:A:VAL:CA	1:299:A:VAL:C	1:300:A:GLU:N	14	1.95
(1,130)	1:381:A:ARG:C	1:382:A:ASP:N	1:382:A:ASP:CA	1:382:A:ASP:C	18	1.94
(1,155)	1:410:A:ASP:C	1:411:A:THR:N	1:411:A:THR:CA	1:411:A:THR:C	5	1.93
(1,495)	1:515:A:MET:N	1:515:A:MET:CA	1:515:A:MET:C	1:516:A:PHE:N	8	1.91
(1,227)	1:499:A:PRO:C	1:500:A:SER:N	1:500:A:SER:CA	1:500:A:SER:C	2	1.91
(1,50)	1:298:A:GLU:C	1:299:A:VAL:N	1:299:A:VAL:CA	1:299:A:VAL:C	11	1.91
(1,7)	1:255:A:GLU:C	1:256:A:MET:N	1:256:A:MET:CA	1:256:A:MET:C	12	1.91
(1,382)	1:386:A:ARG:N	1:386:A:ARG:CA	1:386:A:ARG:C	1:387:A:ASN:N	4	1.9
(1,295)	1:299:A:VAL:N	1:299:A:VAL:CA	1:299:A:VAL:C	1:300:A:GLU:N	10	1.9
(1,287)	1:291:A:THR:N	1:291:A:THR:CA	1:291:A:THR:C	1:292:A:LEU:N	19	1.9
(1,409)	1:429:A:SER:N	1:429:A:SER:CA	1:429:A:SER:C	1:430:A:LEU:N	20	1.89
(1,339)	1:343:A:LEU:N	1:343:A:LEU:CA	1:343:A:LEU:C	1:344:A:ASP:N	4	1.89
(1,222)	1:493:A:ALA:C	1:494:A:CYS:N	1:494:A:CYS:CA	1:494:A:CYS:C	15	1.89
(1,38)	1:286:A:THR:C	1:287:A:VAL:N	1:287:A:VAL:CA	1:287:A:VAL:C	3	1.89
(1,64)	1:312:A:ILE:C	1:313:A:LYS:N	1:313:A:LYS:CA	1:313:A:LYS:C	6	1.88
(1,325)	1:329:A:PRO:N	1:329:A:PRO:CA	1:329:A:PRO:C	1:330:A:PHE:N	18	1.87
(1,53)	1:301:A:GLU:C	1:302:A:PHE:N	1:302:A:PHE:CA	1:302:A:PHE:C	20	1.87
(1,488)	1:508:A:ILE:N	1:508:A:ILE:CA	1:508:A:ILE:C	1:509:A:HIS:N	18	1.85
(1,412)	1:432:A:TYR:N	1:432:A:TYR:CA	1:432:A:TYR:C	1:433:A:ASN:N	13	1.85
(1,365)	1:369:A:ALA:N	1:369:A:ALA:CA	1:369:A:ALA:C	1:370:A:MET:N	20	1.85
(1,274)	1:278:A:GLY:N	1:278:A:GLY:CA	1:278:A:GLY:C	1:279:A:VAL:N	14	1.85
(1,271)	1:275:A:VAL:N	1:275:A:VAL:CA	1:275:A:VAL:C	1:276:A:TYR:N	4	1.85
(1,3)	1:251:A:TYR:C	1:252:A:ASP:N	1:252:A:ASP:CA	1:252:A:ASP:C	8	1.85
(1,464)	1:484:A:PRO:N	1:484:A:PRO:CA	1:484:A:PRO:C	1:485:A:GLU:N	1	1.84
(1,456)	1:476:A:ARG:N	1:476:A:ARG:CA	1:476:A:ARG:C	1:477:A:MET:N	12	1.84
(1,294)	1:298:A:GLU:N	1:298:A:GLU:CA	1:298:A:GLU:C	1:299:A:VAL:N	2	1.84
(1,38)	1:286:A:THR:C	1:287:A:VAL:N	1:287:A:VAL:CA	1:287:A:VAL:C	15	1.84
(1,285)	1:289:A:VAL:N	1:289:A:VAL:CA	1:289:A:VAL:C	1:290:A:LYS:N	12	1.83
(1,38)	1:286:A:THR:C	1:287:A:VAL:N	1:287:A:VAL:CA	1:287:A:VAL:C	6	1.83
(1,401)	1:409:A:GLY:N	1:409:A:GLY:CA	1:409:A:GLY:C	1:410:A:ASP:N	15	1.82
(1,326)	1:330:A:PHE:N	1:330:A:PHE:CA	1:330:A:PHE:C	1:331:A:TYR:N	19	1.82
(1,151)	1:404:A:SER:C	1:405:A:ARG:N	1:405:A:ARG:CA	1:405:A:ARG:C	20	1.82
(1,398)	1:404:A:SER:N	1:404:A:SER:CA	1:404:A:SER:C	1:405:A:ARG:N	7	1.81
(1,283)	1:287:A:VAL:N	1:287:A:VAL:CA	1:287:A:VAL:C	1:288:A:ALA:N	19	1.81
(1,414)	1:434:A:LYS:N	1:434:A:LYS:CA	1:434:A:LYS:C	1:435:A:PHE:N	14	1.8
(1,336)	1:340:A:GLY:N	1:340:A:GLY:CA	1:340:A:GLY:C	1:341:A:ASN:N	4	1.8
(1,293)	1:297:A:MET:N	1:297:A:MET:CA	1:297:A:MET:C	1:298:A:GLU:N	5	1.8
(1,269)	1:273:A:GLY:N	1:273:A:GLY:CA	1:273:A:GLY:C	1:274:A:GLU:N	15	1.8
(1,403)	1:423:A:LYS:N	1:423:A:LYS:CA	1:423:A:LYS:C	1:424:A:TRP:N	15	1.79
(1,339)	1:343:A:LEU:N	1:343:A:LEU:CA	1:343:A:LEU:C	1:344:A:ASP:N	2	1.79
(1,296)	1:300:A:GLU:N	1:300:A:GLU:CA	1:300:A:GLU:C	1:301:A:GLU:N	18	1.79
(1,38)	1:286:A:THR:C	1:287:A:VAL:N	1:287:A:VAL:CA	1:287:A:VAL:C	5	1.79
(1,296)	1:300:A:GLU:N	1:300:A:GLU:CA	1:300:A:GLU:C	1:301:A:GLU:N	6	1.77
(1,401)	1:409:A:GLY:N	1:409:A:GLY:CA	1:409:A:GLY:C	1:410:A:ASP:N	8	1.75
(1,373)	1:377:A:ASN:N	1:377:A:ASN:CA	1:377:A:ASN:C	1:378:A:PHE:N	3	1.75

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Key	Atom-1	Atom-2	Atom-3	Atom-4	Model ID	Violation (°)
(1,339)	1:343:A:LEU:N	1:343:A:LEU:CA	1:343:A:LEU:C	1:344:A:ASP:N	7	1.75
(1,269)	1:273:A:GLY:N	1:273:A:GLY:CA	1:273:A:GLY:C	1:274:A:GLU:N	10	1.75
(1,414)	1:434:A:LYS:N	1:434:A:LYS:CA	1:434:A:LYS:C	1:435:A:PHE:N	10	1.72
(1,412)	1:432:A:TYR:N	1:432:A:TYR:CA	1:432:A:TYR:C	1:433:A:ASN:N	4	1.72
(1,397)	1:403:A:LEU:N	1:403:A:LEU:CA	1:403:A:LEU:C	1:404:A:SER:N	11	1.72
(1,53)	1:301:A:GLU:C	1:302:A:PHE:N	1:302:A:PHE:CA	1:302:A:PHE:C	10	1.72
(1,38)	1:286:A:THR:C	1:287:A:VAL:N	1:287:A:VAL:CA	1:287:A:VAL:C	12	1.72
(1,478)	1:498:A:ASN:N	1:498:A:ASN:CA	1:498:A:ASN:C	1:499:A:PRO:N	9	1.71
(1,365)	1:369:A:ALA:N	1:369:A:ALA:CA	1:369:A:ALA:C	1:370:A:MET:N	9	1.71
(1,43)	1:291:A:THR:C	1:292:A:LEU:N	1:292:A:LEU:CA	1:292:A:LEU:C	19	1.69
(1,323)	1:327:A:GLU:N	1:327:A:GLU:CA	1:327:A:GLU:C	1:328:A:PRO:N	11	1.68
(1,38)	1:286:A:THR:C	1:287:A:VAL:N	1:287:A:VAL:CA	1:287:A:VAL:C	16	1.67
(1,494)	1:514:A:THR:N	1:514:A:THR:CA	1:514:A:THR:C	1:515:A:MET:N	6	1.64
(1,409)	1:429:A:SER:N	1:429:A:SER:CA	1:429:A:SER:C	1:430:A:LEU:N	16	1.63
(1,323)	1:327:A:GLU:N	1:327:A:GLU:CA	1:327:A:GLU:C	1:328:A:PRO:N	6	1.63
(1,314)	1:318:A:VAL:N	1:318:A:VAL:CA	1:318:A:VAL:C	1:319:A:GLN:N	20	1.63
(1,157)	1:423:A:LYS:C	1:424:A:TRP:N	1:424:A:TRP:CA	1:424:A:TRP:C	13	1.63
(1,155)	1:410:A:ASP:C	1:411:A:THR:N	1:411:A:THR:CA	1:411:A:THR:C	8	1.63
(1,295)	1:299:A:VAL:N	1:299:A:VAL:CA	1:299:A:VAL:C	1:300:A:GLU:N	15	1.62
(1,283)	1:287:A:VAL:N	1:287:A:VAL:CA	1:287:A:VAL:C	1:288:A:ALA:N	13	1.62
(1,223)	1:494:A:CYS:C	1:495:A:TRP:N	1:495:A:TRP:CA	1:495:A:TRP:C	15	1.62
(1,9)	1:257:A:GLU:C	1:258:A:ARG:N	1:258:A:ARG:CA	1:258:A:ARG:C	14	1.62
(1,494)	1:514:A:THR:N	1:514:A:THR:CA	1:514:A:THR:C	1:515:A:MET:N	15	1.61
(1,376)	1:380:A:HIS:N	1:380:A:HIS:CA	1:380:A:HIS:C	1:381:A:ARG:N	7	1.61
(1,314)	1:318:A:VAL:N	1:318:A:VAL:CA	1:318:A:VAL:C	1:319:A:GLN:N	7	1.61
(1,297)	1:301:A:GLU:N	1:301:A:GLU:CA	1:301:A:GLU:C	1:302:A:PHE:N	5	1.61
(1,189)	1:456:A:MET:C	1:457:A:SER:N	1:457:A:SER:CA	1:457:A:SER:C	9	1.61
(1,84)	1:335:A:GLU:C	1:336:A:PHE:N	1:336:A:PHE:CA	1:336:A:PHE:C	12	1.61
(1,283)	1:287:A:VAL:N	1:287:A:VAL:CA	1:287:A:VAL:C	1:288:A:ALA:N	12	1.59
(1,267)	1:271:A:GLN:N	1:271:A:GLN:CA	1:271:A:GLN:C	1:272:A:TYR:N	13	1.59
(1,95)	1:346:A:LEU:C	1:347:A:ARG:N	1:347:A:ARG:CA	1:347:A:ARG:C	17	1.58
(1,456)	1:476:A:ARG:N	1:476:A:ARG:CA	1:476:A:ARG:C	1:477:A:MET:N	6	1.57
(1,420)	1:440:A:ASP:N	1:440:A:ASP:CA	1:440:A:ASP:C	1:441:A:VAL:N	7	1.57
(1,396)	1:402:A:GLY:N	1:402:A:GLY:CA	1:402:A:GLY:C	1:403:A:LEU:N	10	1.57
(1,309)	1:313:A:LYS:N	1:313:A:LYS:CA	1:313:A:LYS:C	1:314:A:HIS:N	6	1.57
(1,143)	1:394:A:HIS:C	1:395:A:LEU:N	1:395:A:LEU:CA	1:395:A:LEU:C	20	1.57
(1,459)	1:479:A:ARG:N	1:479:A:ARG:CA	1:479:A:ARG:C	1:480:A:PRO:N	13	1.56
(1,458)	1:478:A:GLU:N	1:478:A:GLU:CA	1:478:A:GLU:C	1:479:A:ARG:N	4	1.56
(1,378)	1:382:A:ASP:N	1:382:A:ASP:CA	1:382:A:ASP:C	1:383:A:LEU:N	19	1.56
(1,374)	1:378:A:PHE:N	1:378:A:PHE:CA	1:378:A:PHE:C	1:379:A:ILE:N	12	1.56
(1,365)	1:369:A:ALA:N	1:369:A:ALA:CA	1:369:A:ALA:C	1:370:A:MET:N	15	1.56
(1,278)	1:282:A:LYS:N	1:282:A:LYS:CA	1:282:A:LYS:C	1:283:A:TYR:N	16	1.56
(1,275)	1:279:A:VAL:N	1:279:A:VAL:CA	1:279:A:VAL:C	1:280:A:TRP:N	19	1.56
(1,460)	1:480:A:PRO:N	1:480:A:PRO:CA	1:480:A:PRO:C	1:481:A:GLU:N	2	1.55
(1,150)	1:403:A:LEU:C	1:404:A:SER:N	1:404:A:SER:CA	1:404:A:SER:C	1	1.55
(1,293)	1:297:A:MET:N	1:297:A:MET:CA	1:297:A:MET:C	1:298:A:GLU:N	7	1.54
(1,204)	1:473:A:LYS:C	1:474:A:ASP:N	1:474:A:ASP:CA	1:474:A:ASP:C	9	1.54
(1,464)	1:484:A:PRO:N	1:484:A:PRO:CA	1:484:A:PRO:C	1:485:A:GLU:N	17	1.53
(1,357)	1:361:A:TYR:N	1:361:A:TYR:CA	1:361:A:TYR:C	1:362:A:MET:N	19	1.53
(1,197)	1:466:A:GLN:C	1:467:A:VAL:N	1:467:A:VAL:CA	1:467:A:VAL:C	10	1.53
(1,8)	1:256:A:MET:C	1:257:A:GLU:N	1:257:A:GLU:CA	1:257:A:GLU:C	17	1.53

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Key	Atom-1	Atom-2	Atom-3	Atom-4	Model ID	Violation (°)
(1,197)	1:466:A:GLN:C	1:467:A:VAL:N	1:467:A:VAL:CA	1:467:A:VAL:C	8	1.52
(1,378)	1:382:A:ASP:N	1:382:A:ASP:CA	1:382:A:ASP:C	1:383:A:LEU:N	20	1.51
(1,366)	1:370:A:MET:N	1:370:A:MET:CA	1:370:A:MET:C	1:371:A:GLU:N	11	1.51
(1,365)	1:369:A:ALA:N	1:369:A:ALA:CA	1:369:A:ALA:C	1:370:A:MET:N	12	1.51
(1,271)	1:275:A:VAL:N	1:275:A:VAL:CA	1:275:A:VAL:C	1:276:A:TYR:N	18	1.51
(1,8)	1:256:A:MET:C	1:257:A:GLU:N	1:257:A:GLU:CA	1:257:A:GLU:C	14	1.51
(1,483)	1:503:A:PRO:N	1:503:A:PRO:CA	1:503:A:PRO:C	1:504:A:SER:N	17	1.5
(1,367)	1:371:A:GLU:N	1:371:A:GLU:CA	1:371:A:GLU:C	1:372:A:TYR:N	3	1.5
(1,7)	1:255:A:GLU:C	1:256:A:MET:N	1:256:A:MET:CA	1:256:A:MET:C	16	1.5
(1,456)	1:476:A:ARG:N	1:476:A:ARG:CA	1:476:A:ARG:C	1:477:A:MET:N	17	1.49
(1,403)	1:423:A:LYS:N	1:423:A:LYS:CA	1:423:A:LYS:C	1:424:A:TRP:N	20	1.49
(1,31)	1:279:A:VAL:C	1:280:A:TRP:N	1:280:A:TRP:CA	1:280:A:TRP:C	13	1.47
(1,483)	1:503:A:PRO:N	1:503:A:PRO:CA	1:503:A:PRO:C	1:504:A:SER:N	19	1.46
(1,295)	1:299:A:VAL:N	1:299:A:VAL:CA	1:299:A:VAL:C	1:300:A:GLU:N	12	1.46
(1,146)	1:397:A:LYS:C	1:398:A:VAL:N	1:398:A:VAL:CA	1:398:A:VAL:C	17	1.46
(1,357)	1:361:A:TYR:N	1:361:A:TYR:CA	1:361:A:TYR:C	1:362:A:MET:N	12	1.44
(1,339)	1:343:A:LEU:N	1:343:A:LEU:CA	1:343:A:LEU:C	1:344:A:ASP:N	17	1.44
(1,296)	1:300:A:GLU:N	1:300:A:GLU:CA	1:300:A:GLU:C	1:301:A:GLU:N	17	1.44
(1,283)	1:287:A:VAL:N	1:287:A:VAL:CA	1:287:A:VAL:C	1:288:A:ALA:N	20	1.44
(1,357)	1:361:A:TYR:N	1:361:A:TYR:CA	1:361:A:TYR:C	1:362:A:MET:N	20	1.43
(1,242)	1:515:A:MET:C	1:516:A:PHE:N	1:516:A:PHE:CA	1:516:A:PHE:C	9	1.43
(1,38)	1:286:A:THR:C	1:287:A:VAL:N	1:287:A:VAL:CA	1:287:A:VAL:C	18	1.43
(1,471)	1:491:A:MET:N	1:491:A:MET:CA	1:491:A:MET:C	1:492:A:ARG:N	19	1.42
(1,295)	1:299:A:VAL:N	1:299:A:VAL:CA	1:299:A:VAL:C	1:300:A:GLU:N	17	1.42
(1,398)	1:404:A:SER:N	1:404:A:SER:CA	1:404:A:SER:C	1:405:A:ARG:N	2	1.41
(1,394)	1:400:A:ASP:N	1:400:A:ASP:CA	1:400:A:ASP:C	1:401:A:PHE:N	16	1.41
(1,292)	1:296:A:THR:N	1:296:A:THR:CA	1:296:A:THR:C	1:297:A:MET:N	18	1.4
(1,267)	1:271:A:GLN:N	1:271:A:GLN:CA	1:271:A:GLN:C	1:272:A:TYR:N	18	1.4
(1,204)	1:473:A:LYS:C	1:474:A:ASP:N	1:474:A:ASP:CA	1:474:A:ASP:C	20	1.4
(1,197)	1:466:A:GLN:C	1:467:A:VAL:N	1:467:A:VAL:CA	1:467:A:VAL:C	15	1.39
(1,402)	1:412:A:TYR:N	1:412:A:TYR:CA	1:412:A:TYR:C	1:413:A:THR:N	7	1.38
(1,50)	1:298:A:GLU:C	1:299:A:VAL:N	1:299:A:VAL:CA	1:299:A:VAL:C	8	1.38
(1,382)	1:386:A:ARG:N	1:386:A:ARG:CA	1:386:A:ARG:C	1:387:A:ASN:N	10	1.37
(1,362)	1:366:A:ILE:N	1:366:A:ILE:CA	1:366:A:ILE:C	1:367:A:SER:N	6	1.37
(1,495)	1:515:A:MET:N	1:515:A:MET:CA	1:515:A:MET:C	1:516:A:PHE:N	10	1.36
(1,407)	1:427:A:PRO:N	1:427:A:PRO:CA	1:427:A:PRO:C	1:428:A:GLU:N	7	1.36
(1,374)	1:378:A:PHE:N	1:378:A:PHE:CA	1:378:A:PHE:C	1:379:A:ILE:N	15	1.35
(1,323)	1:327:A:GLU:N	1:327:A:GLU:CA	1:327:A:GLU:C	1:328:A:PRO:N	15	1.35
(1,43)	1:291:A:THR:C	1:292:A:LEU:N	1:292:A:LEU:CA	1:292:A:LEU:C	13	1.35
(1,252)	1:256:A:MET:N	1:256:A:MET:CA	1:256:A:MET:C	1:257:A:GLU:N	14	1.34
(1,467)	1:487:A:VAL:N	1:487:A:VAL:CA	1:487:A:VAL:C	1:488:A:TYR:N	4	1.33
(1,403)	1:423:A:LYS:N	1:423:A:LYS:CA	1:423:A:LYS:C	1:424:A:TRP:N	6	1.33
(1,403)	1:423:A:LYS:N	1:423:A:LYS:CA	1:423:A:LYS:C	1:424:A:TRP:N	9	1.33
(1,295)	1:299:A:VAL:N	1:299:A:VAL:CA	1:299:A:VAL:C	1:300:A:GLU:N	7	1.33
(1,1)	1:249:A:PRO:C	1:250:A:ASN:N	1:250:A:ASN:CA	1:250:A:ASN:C	14	1.33
(1,366)	1:370:A:MET:N	1:370:A:MET:CA	1:370:A:MET:C	1:371:A:GLU:N	7	1.32
(1,283)	1:287:A:VAL:N	1:287:A:VAL:CA	1:287:A:VAL:C	1:288:A:ALA:N	18	1.32
(1,31)	1:279:A:VAL:C	1:280:A:TRP:N	1:280:A:TRP:CA	1:280:A:TRP:C	8	1.32
(1,409)	1:429:A:SER:N	1:429:A:SER:CA	1:429:A:SER:C	1:430:A:LEU:N	4	1.31
(1,483)	1:503:A:PRO:N	1:503:A:PRO:CA	1:503:A:PRO:C	1:504:A:SER:N	5	1.3
(1,393)	1:397:A:LYS:N	1:397:A:LYS:CA	1:397:A:LYS:C	1:398:A:VAL:N	7	1.3

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Key	Atom-1	Atom-2	Atom-3	Atom-4	Model ID	Violation (°)
(1,292)	1:296:A:THR:N	1:296:A:THR:CA	1:296:A:THR:C	1:297:A:MET:N	10	1.3
(1,31)	1:279:A:VAL:C	1:280:A:TRP:N	1:280:A:TRP:CA	1:280:A:TRP:C	7	1.3
(1,283)	1:287:A:VAL:N	1:287:A:VAL:CA	1:287:A:VAL:C	1:288:A:ALA:N	16	1.29
(1,494)	1:514:A:THR:N	1:514:A:THR:CA	1:514:A:THR:C	1:515:A:MET:N	11	1.28
(1,488)	1:508:A:ILE:N	1:508:A:ILE:CA	1:508:A:ILE:C	1:509:A:HIS:N	5	1.28
(1,269)	1:273:A:GLY:N	1:273:A:GLY:CA	1:273:A:GLY:C	1:274:A:GLU:N	5	1.28
(1,482)	1:502:A:ARG:N	1:502:A:ARG:CA	1:502:A:ARG:C	1:503:A:PRO:N	14	1.27
(1,293)	1:297:A:MET:N	1:297:A:MET:CA	1:297:A:MET:C	1:298:A:GLU:N	3	1.27
(1,246)	1:250:A:ASN:N	1:250:A:ASN:CA	1:250:A:ASN:C	1:251:A:TYR:N	19	1.27
(1,95)	1:346:A:LEU:C	1:347:A:ARG:N	1:347:A:ARG:CA	1:347:A:ARG:C	8	1.27
(1,357)	1:361:A:TYR:N	1:361:A:TYR:CA	1:361:A:TYR:C	1:362:A:MET:N	17	1.26
(1,457)	1:477:A:MET:N	1:477:A:MET:CA	1:477:A:MET:C	1:478:A:GLU:N	13	1.25
(1,365)	1:369:A:ALA:N	1:369:A:ALA:CA	1:369:A:ALA:C	1:370:A:MET:N	13	1.25
(1,371)	1:375:A:LYS:N	1:375:A:LYS:CA	1:375:A:LYS:C	1:376:A:LYS:N	14	1.24
(1,339)	1:343:A:LEU:N	1:343:A:LEU:CA	1:343:A:LEU:C	1:344:A:ASP:N	18	1.24
(1,336)	1:340:A:GLY:N	1:340:A:GLY:CA	1:340:A:GLY:C	1:341:A:ASN:N	19	1.24
(1,292)	1:296:A:THR:N	1:296:A:THR:CA	1:296:A:THR:C	1:297:A:MET:N	20	1.24
(1,412)	1:432:A:TYR:N	1:432:A:TYR:CA	1:432:A:TYR:C	1:433:A:ASN:N	19	1.23
(1,150)	1:403:A:LEU:C	1:404:A:SER:N	1:404:A:SER:CA	1:404:A:SER:C	19	1.23
(1,477)	1:497:A:TRP:N	1:497:A:TRP:CA	1:497:A:TRP:C	1:498:A:ASN:N	13	1.22
(1,345)	1:349:A:CYS:N	1:349:A:CYS:CA	1:349:A:CYS:C	1:350:A:ASN:N	1	1.22
(1,50)	1:298:A:GLU:C	1:299:A:VAL:N	1:299:A:VAL:CA	1:299:A:VAL:C	17	1.21
(1,459)	1:479:A:ARG:N	1:479:A:ARG:CA	1:479:A:ARG:C	1:480:A:PRO:N	1	1.2
(1,434)	1:454:A:TYR:N	1:454:A:TYR:CA	1:454:A:TYR:C	1:455:A:GLY:N	4	1.2
(1,287)	1:291:A:THR:N	1:291:A:THR:CA	1:291:A:THR:C	1:292:A:LEU:N	13	1.2
(1,292)	1:296:A:THR:N	1:296:A:THR:CA	1:296:A:THR:C	1:297:A:MET:N	5	1.19
(1,149)	1:402:A:GLY:C	1:403:A:LEU:N	1:403:A:LEU:CA	1:403:A:LEU:C	8	1.19
(1,453)	1:473:A:LYS:N	1:473:A:LYS:CA	1:473:A:LYS:C	1:474:A:ASP:N	17	1.18
(1,398)	1:404:A:SER:N	1:404:A:SER:CA	1:404:A:SER:C	1:405:A:ARG:N	6	1.17
(1,314)	1:318:A:VAL:N	1:318:A:VAL:CA	1:318:A:VAL:C	1:319:A:GLN:N	9	1.16
(1,312)	1:316:A:ASN:N	1:316:A:ASN:CA	1:316:A:ASN:C	1:317:A:LEU:N	11	1.16
(1,283)	1:287:A:VAL:N	1:287:A:VAL:CA	1:287:A:VAL:C	1:288:A:ALA:N	14	1.16
(1,218)	1:489:A:GLU:C	1:490:A:LEU:N	1:490:A:LEU:CA	1:490:A:LEU:C	18	1.16
(1,11)	1:259:A:THR:C	1:260:A:ASP:N	1:260:A:ASP:CA	1:260:A:ASP:C	9	1.16
(1,325)	1:329:A:PRO:N	1:329:A:PRO:CA	1:329:A:PRO:C	1:330:A:PHE:N	12	1.15
(1,204)	1:473:A:LYS:C	1:474:A:ASP:N	1:474:A:ASP:CA	1:474:A:ASP:C	13	1.15
(1,464)	1:484:A:PRO:N	1:484:A:PRO:CA	1:484:A:PRO:C	1:485:A:GLU:N	2	1.14
(1,314)	1:318:A:VAL:N	1:318:A:VAL:CA	1:318:A:VAL:C	1:319:A:GLN:N	15	1.14
(1,473)	1:493:A:ALA:N	1:493:A:ALA:CA	1:493:A:ALA:C	1:494:A:CYS:N	18	1.13
(1,437)	1:457:A:SER:N	1:457:A:SER:CA	1:457:A:SER:C	1:458:A:PRO:N	8	1.13
(1,202)	1:471:A:LEU:C	1:472:A:GLU:N	1:472:A:GLU:CA	1:472:A:GLU:C	14	1.13
(1,154)	1:409:A:GLY:C	1:410:A:ASP:N	1:410:A:ASP:CA	1:410:A:ASP:C	12	1.13
(1,16)	1:264:A:LYS:C	1:265:A:HIS:N	1:265:A:HIS:CA	1:265:A:HIS:C	18	1.13
(1,377)	1:381:A:ARG:N	1:381:A:ARG:CA	1:381:A:ARG:C	1:382:A:ASP:N	7	1.11
(1,376)	1:380:A:HIS:N	1:380:A:HIS:CA	1:380:A:HIS:C	1:381:A:ARG:N	13	1.11
(1,331)	1:335:A:GLU:N	1:335:A:GLU:CA	1:335:A:GLU:C	1:336:A:PHE:N	17	1.11
(1,197)	1:466:A:GLN:C	1:467:A:VAL:N	1:467:A:VAL:CA	1:467:A:VAL:C	13	1.11
(1,405)	1:425:A:THR:N	1:425:A:THR:CA	1:425:A:THR:C	1:426:A:ALA:N	2	1.1
(1,331)	1:335:A:GLU:N	1:335:A:GLU:CA	1:335:A:GLU:C	1:336:A:PHE:N	7	1.1
(1,64)	1:312:A:ILE:C	1:313:A:LYS:N	1:313:A:LYS:CA	1:313:A:LYS:C	2	1.09
(1,2)	1:250:A:ASN:C	1:251:A:TYR:N	1:251:A:TYR:CA	1:251:A:TYR:C	19	1.09

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Key	Atom-1	Atom-2	Atom-3	Atom-4	Model ID	Violation (°)
(1,494)	1:514:A:THR:N	1:514:A:THR:CA	1:514:A:THR:C	1:515:A:MET:N	13	1.08
(1,28)	1:276:A:TYR:C	1:277:A:GLU:N	1:277:A:GLU:CA	1:277:A:GLU:C	12	1.08
(1,434)	1:454:A:TYR:N	1:454:A:TYR:CA	1:454:A:TYR:C	1:455:A:GLY:N	12	1.07
(1,326)	1:330:A:PHE:N	1:330:A:PHE:CA	1:330:A:PHE:C	1:331:A:TYR:N	6	1.06
(1,283)	1:287:A:VAL:N	1:287:A:VAL:CA	1:287:A:VAL:C	1:288:A:ALA:N	2	1.06
(1,323)	1:327:A:GLU:N	1:327:A:GLU:CA	1:327:A:GLU:C	1:328:A:PRO:N	13	1.05
(1,293)	1:297:A:MET:N	1:297:A:MET:CA	1:297:A:MET:C	1:298:A:GLU:N	9	1.05
(1,179)	1:446:A:VAL:C	1:447:A:LEU:N	1:447:A:LEU:CA	1:447:A:LEU:C	12	1.05
(1,473)	1:493:A:ALA:N	1:493:A:ALA:CA	1:493:A:ALA:C	1:494:A:CYS:N	10	1.04
(1,295)	1:299:A:VAL:N	1:299:A:VAL:CA	1:299:A:VAL:C	1:300:A:GLU:N	3	1.03
(1,242)	1:515:A:MET:C	1:516:A:PHE:N	1:516:A:PHE:CA	1:516:A:PHE:C	5	1.03
(1,16)	1:264:A:LYS:C	1:265:A:HIS:N	1:265:A:HIS:CA	1:265:A:HIS:C	5	1.03
(1,441)	1:461:A:GLY:N	1:461:A:GLY:CA	1:461:A:GLY:C	1:462:A:ILE:N	9	1.02
(1,305)	1:309:A:LEU:N	1:309:A:LEU:CA	1:309:A:LEU:C	1:310:A:LYS:N	12	1.02
(1,312)	1:316:A:ASN:N	1:316:A:ASN:CA	1:316:A:ASN:C	1:317:A:LEU:N	16	1.01
(1,376)	1:380:A:HIS:N	1:380:A:HIS:CA	1:380:A:HIS:C	1:381:A:ARG:N	2	1.0
(1,323)	1:327:A:GLU:N	1:327:A:GLU:CA	1:327:A:GLU:C	1:328:A:PRO:N	8	1.0
(1,307)	1:311:A:GLU:N	1:311:A:GLU:CA	1:311:A:GLU:C	1:312:A:ILE:N	11	1.0