



## Full wwPDB EM Validation Report ⓘ

Mar 8, 2026 – 04:36 AM UTC

PDB ID : 7O7O / pdb\_00007o7o  
EMDB ID : EMD-12751  
Title : (h-alpha2M)4 semiactivated II state  
Authors : Luque, D.; Goulas, T.; Mata, C.P.; Mendes, S.R.; Gomis-Ruth, F.X.; Caston, J.R.  
Deposited on : 2021-04-13  
Resolution : 4.80 Å(reported)

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

We welcome your comments at [validation@mail.wwpdb.org](mailto:validation@mail.wwpdb.org)

A user guide is available at

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

The types of validation reports are described at

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

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

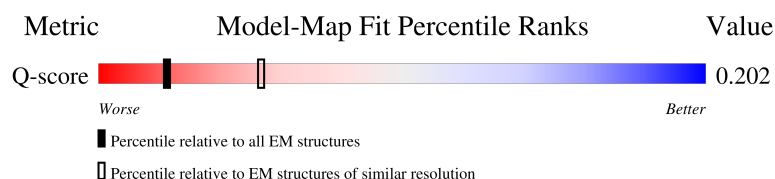
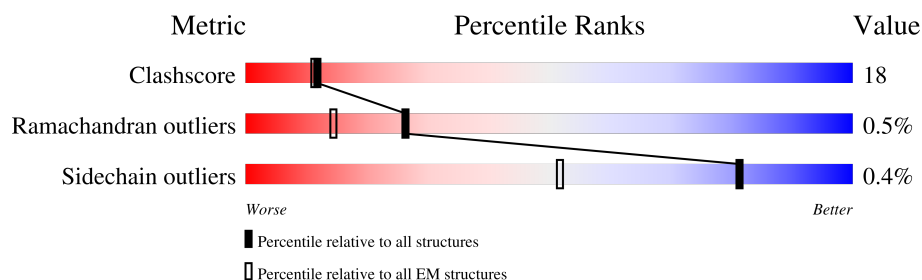
EMDB validation analysis : 0.0.1.dev132  
Mogul : 2022.3.0, CSD as543be (2022)  
MolProbity : 4-5-2 with Phenix2.0  
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)  
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)  
MapQ : 1.9.13  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.49

# 1 Overall quality at a glance

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

The reported resolution of this entry is 4.80 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	1575 ( 4.30 - 5.30 )

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

Mol	Chain	Length	Quality of chain
1	A	1474	<div> <div>45%</div> <div>58%</div> <div>28%</div> <div>13%</div> </div>
1	B	1474	<div> <div>25%</div> <div>59%</div> <div>35%</div> <div>..</div> </div>
1	C	1474	<div> <div>45%</div> <div>58%</div> <div>28%</div> <div>13%</div> </div>
1	D	1474	<div> <div>25%</div> <div>59%</div> <div>35%</div> <div>..</div> </div>

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Mol	Chain	Length	Quality of chain
2	E	2	<div>100%</div> <div>50%50%</div>
2	G	2	<div>100%</div> <div>50%50%</div>
2	J	2	<div>100%</div> <div>100%</div>
2	K	2	<div>100%</div> <div>50%50%</div>
2	M	2	<div>100%</div> <div>50%50%</div>
2	P	2	<div>100%</div> <div>100%</div>
3	F	4	<div>100%</div> <div>25%75%</div>
3	H	4	<div>100%</div> <div>25%50%25%</div>
3	L	4	<div>100%</div> <div>25%25%50%</div>
3	N	4	<div>100%</div> <div>25%50%25%</div>
4	I	3	<div>67%</div> <div>33%33%33%</div>
4	O	3	<div>67%</div> <div>33%33%33%</div>

## 2 Entry composition [i](#)

There are 5 unique types of molecules in this entry. The entry contains 42642 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called Alpha-2-macroglobulin.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	1278	Total	C	N	O	S	0	0
			9968	6336	1674	1915	43		
1	B	1410	Total	C	N	O	S	0	0
			11004	6999	1840	2117	48		
1	C	1278	Total	C	N	O	S	0	0
			9968	6336	1674	1915	43		
1	D	1410	Total	C	N	O	S	0	0
			11004	6999	1840	2117	48		

- Molecule 2 is an oligosaccharide called 2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose.



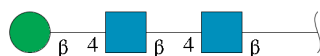
Mol	Chain	Residues	Atoms				AltConf	Trace
2	E	2	Total	C	N	O	0	0
			28	16	2	10		
2	G	2	Total	C	N	O	0	0
			28	16	2	10		
2	J	2	Total	C	N	O	0	0
			28	16	2	10		
2	K	2	Total	C	N	O	0	0
			28	16	2	10		
2	M	2	Total	C	N	O	0	0
			28	16	2	10		
2	P	2	Total	C	N	O	0	0
			28	16	2	10		

- Molecule 3 is an oligosaccharide called alpha-D-mannopyranose-(1-6)-beta-D-mannopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose.



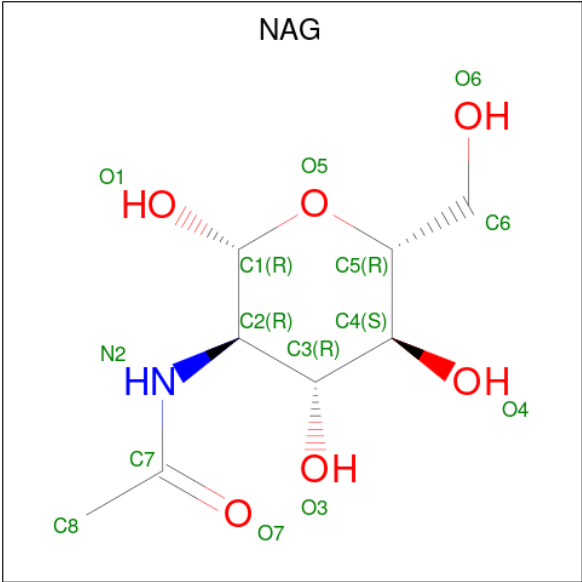
Mol	Chain	Residues	Atoms				AltConf	Trace
3	F	4	Total	C	N	O	0	0
			50	28	2	20		
3	H	4	Total	C	N	O	0	0
			50	28	2	20		
3	L	4	Total	C	N	O	0	0
			50	28	2	20		
3	N	4	Total	C	N	O	0	0
			50	28	2	20		

- Molecule 4 is an oligosaccharide called beta-D-mannopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose.



Mol	Chain	Residues	Atoms				AltConf	Trace
4	I	3	Total	C	N	O	0	0
			39	22	2	15		
4	O	3	Total	C	N	O	0	0
			39	22	2	15		

- Molecule 5 is 2-acetamido-2-deoxy-beta-D-glucopyranose (CCD ID: NAG) (formula: C<sub>8</sub>H<sub>15</sub>NO<sub>6</sub>).



Mol	Chain	Residues	Atoms				AltConf
5	A	1	Total	C	N	O	0
			14	8	1	5	
5	A	1	Total	C	N	O	0
			14	8	1	5	
5	A	1	Total	C	N	O	0
			14	8	1	5	
5	A	1	Total	C	N	O	0
			14	8	1	5	
5	A	1	Total	C	N	O	0
			14	8	1	5	
5	B	1	Total	C	N	O	0
			14	8	1	5	
5	B	1	Total	C	N	O	0
			14	8	1	5	
5	B	1	Total	C	N	O	0
			14	8	1	5	
5	B	1	Total	C	N	O	0
			14	8	1	5	
5	C	1	Total	C	N	O	0
			14	8	1	5	
5	C	1	Total	C	N	O	0
			14	8	1	5	
5	C	1	Total	C	N	O	0
			14	8	1	5	
5	C	1	Total	C	N	O	0
			14	8	1	5	
5	C	1	Total	C	N	O	0
			14	8	1	5	

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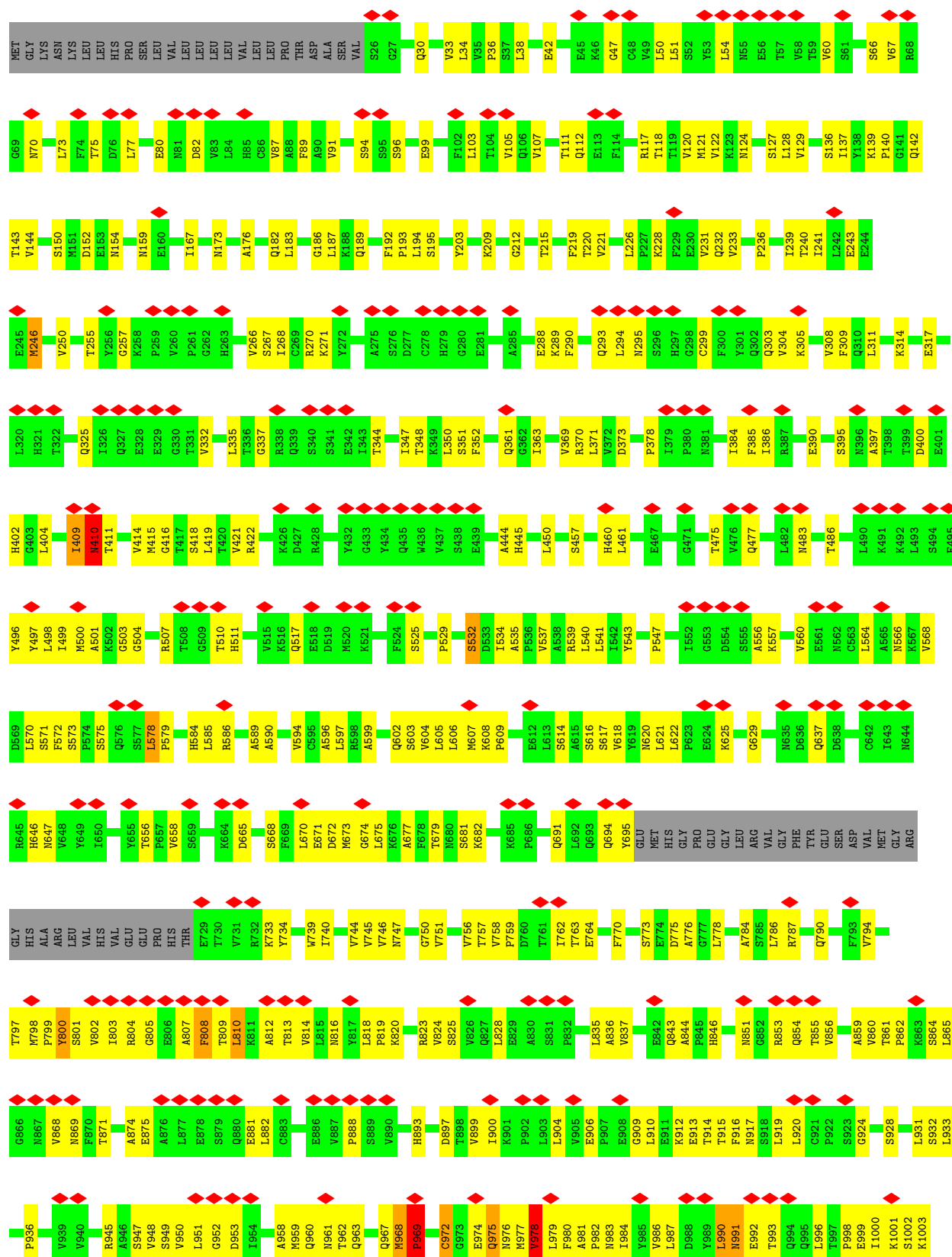
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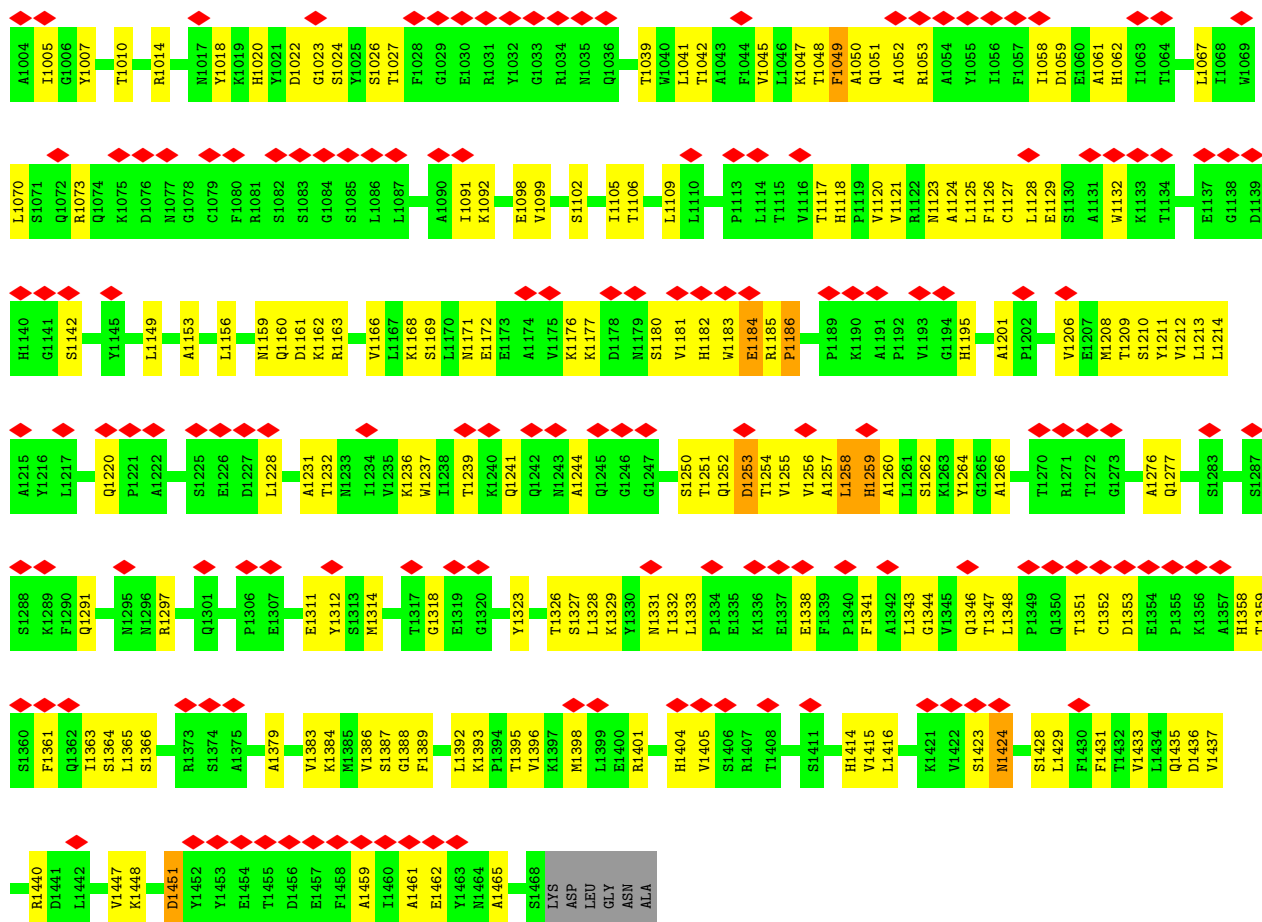
Mol	Chain	Residues	Atoms				AltConf
5	D	1	Total	C	N	O	0
			14	8	1	5	
5	D	1	Total	C	N	O	0
			14	8	1	5	
5	D	1	Total	C	N	O	0
			14	8	1	5	
5	D	1	Total	C	N	O	0
			14	8	1	5	



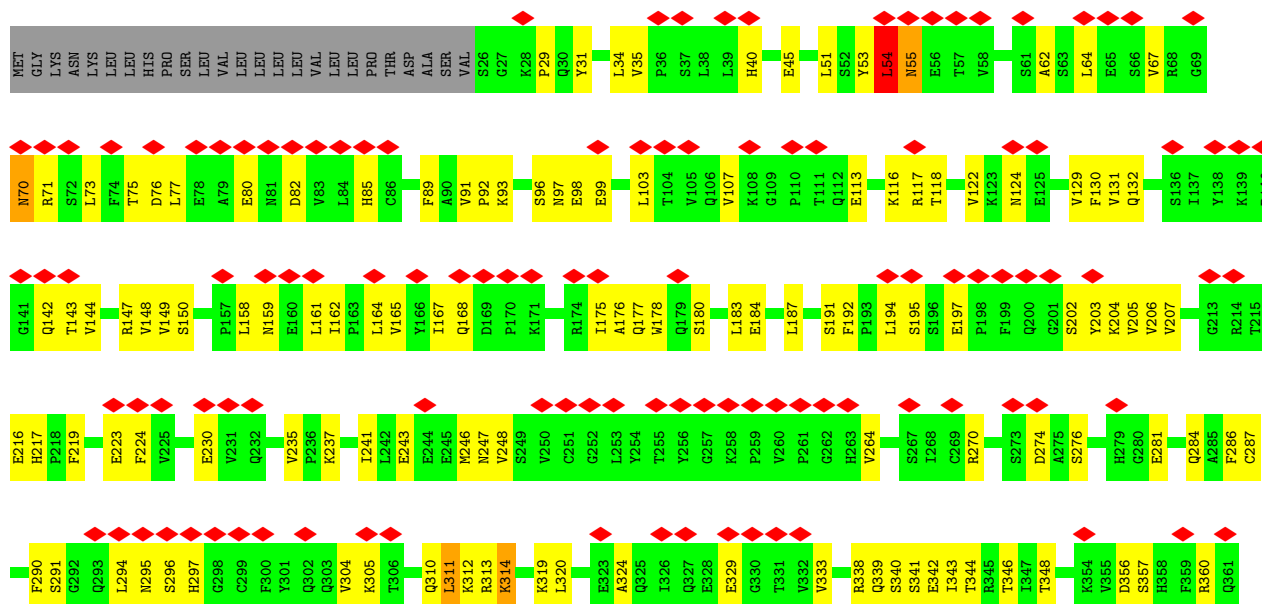
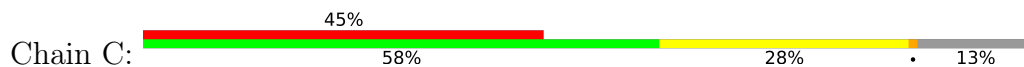


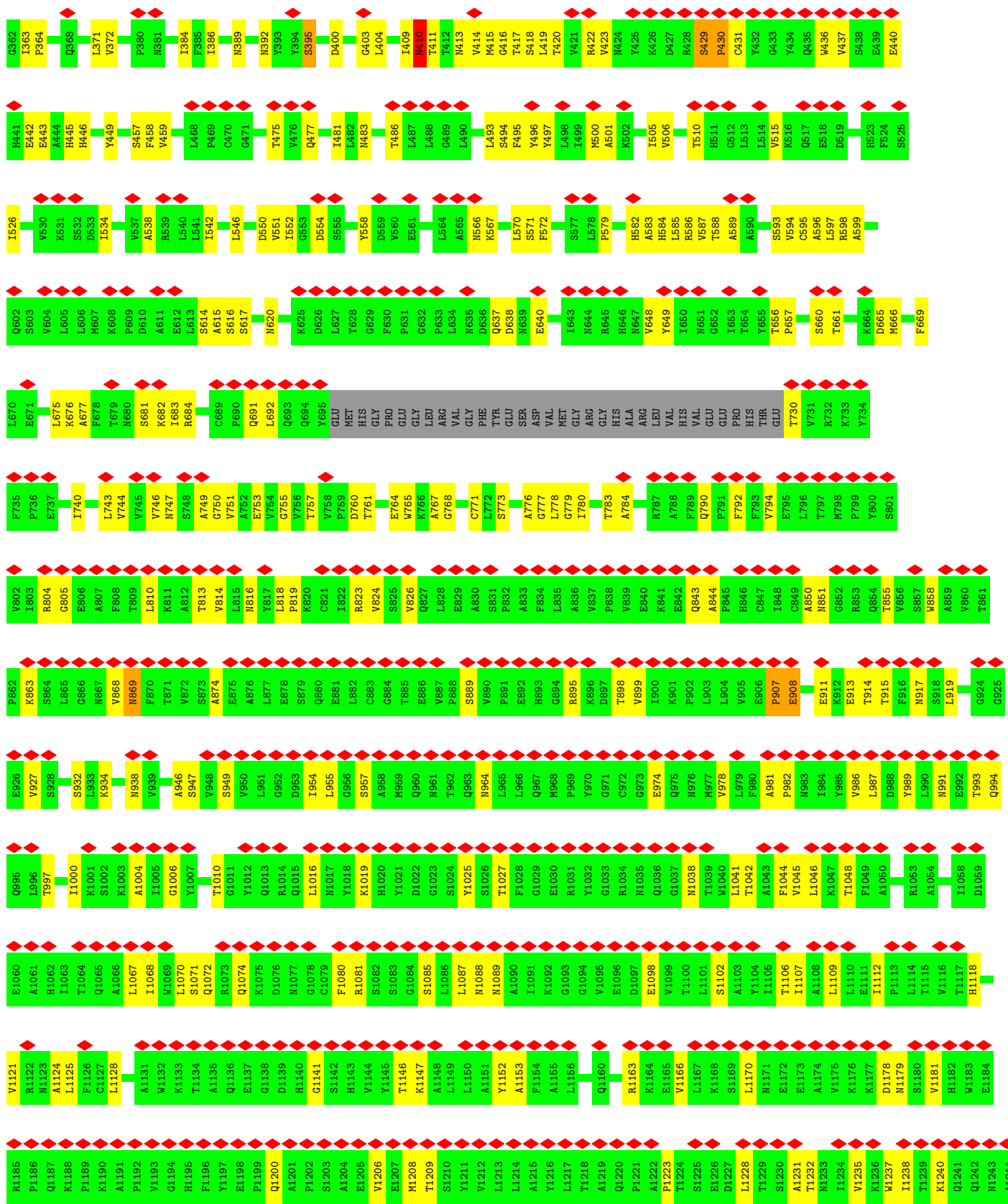


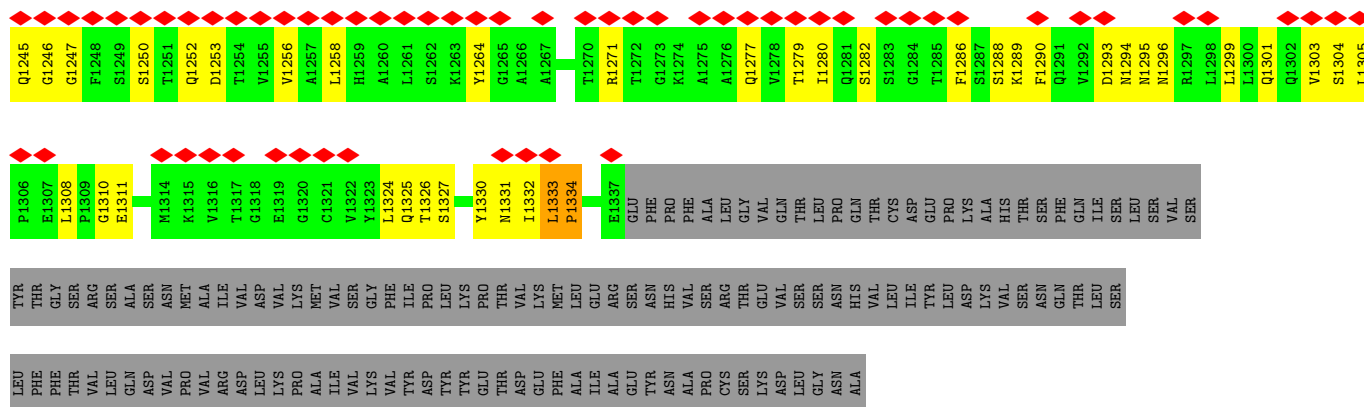




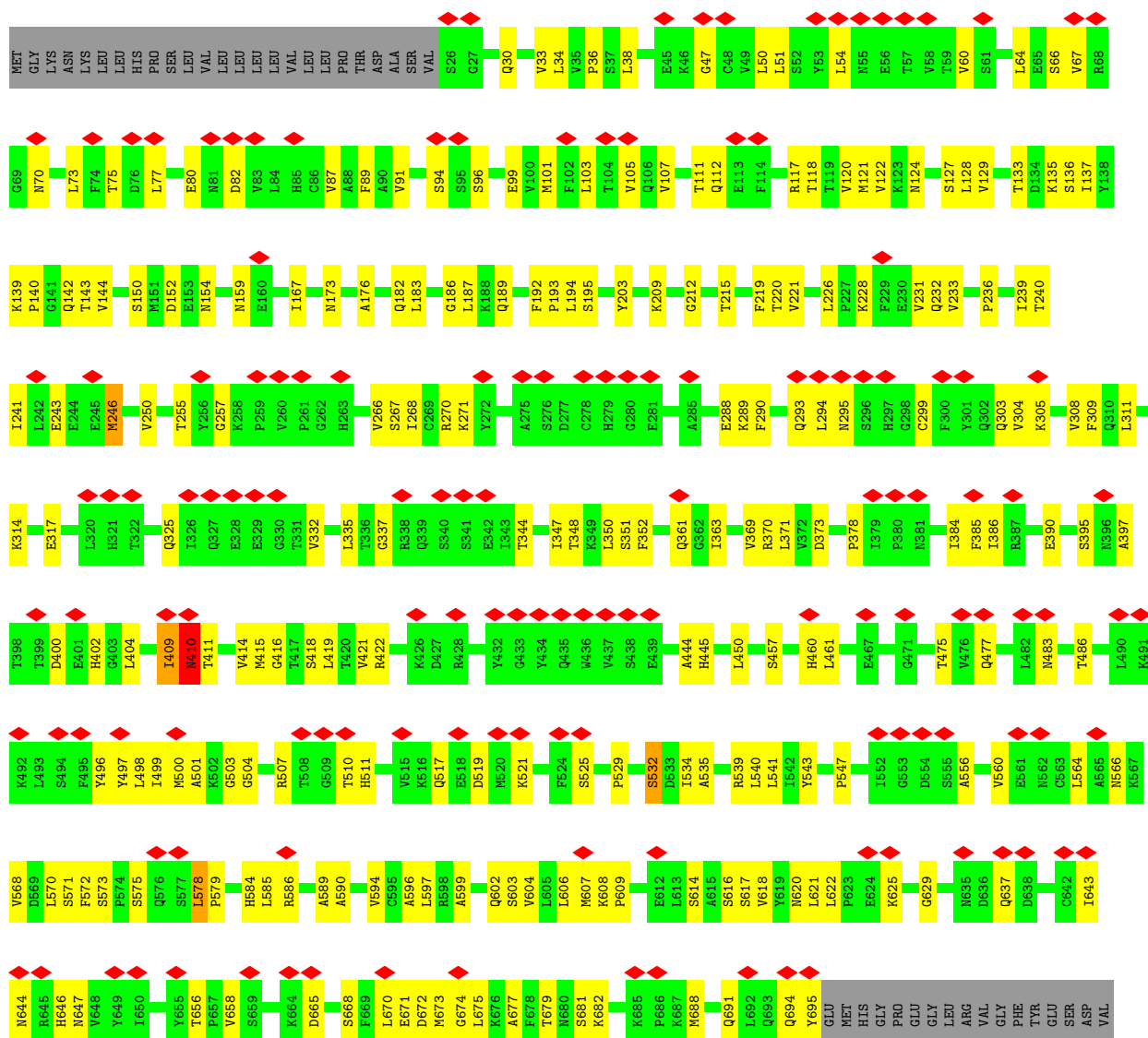
### • Molecule 1: Alpha-2-macroglobulin

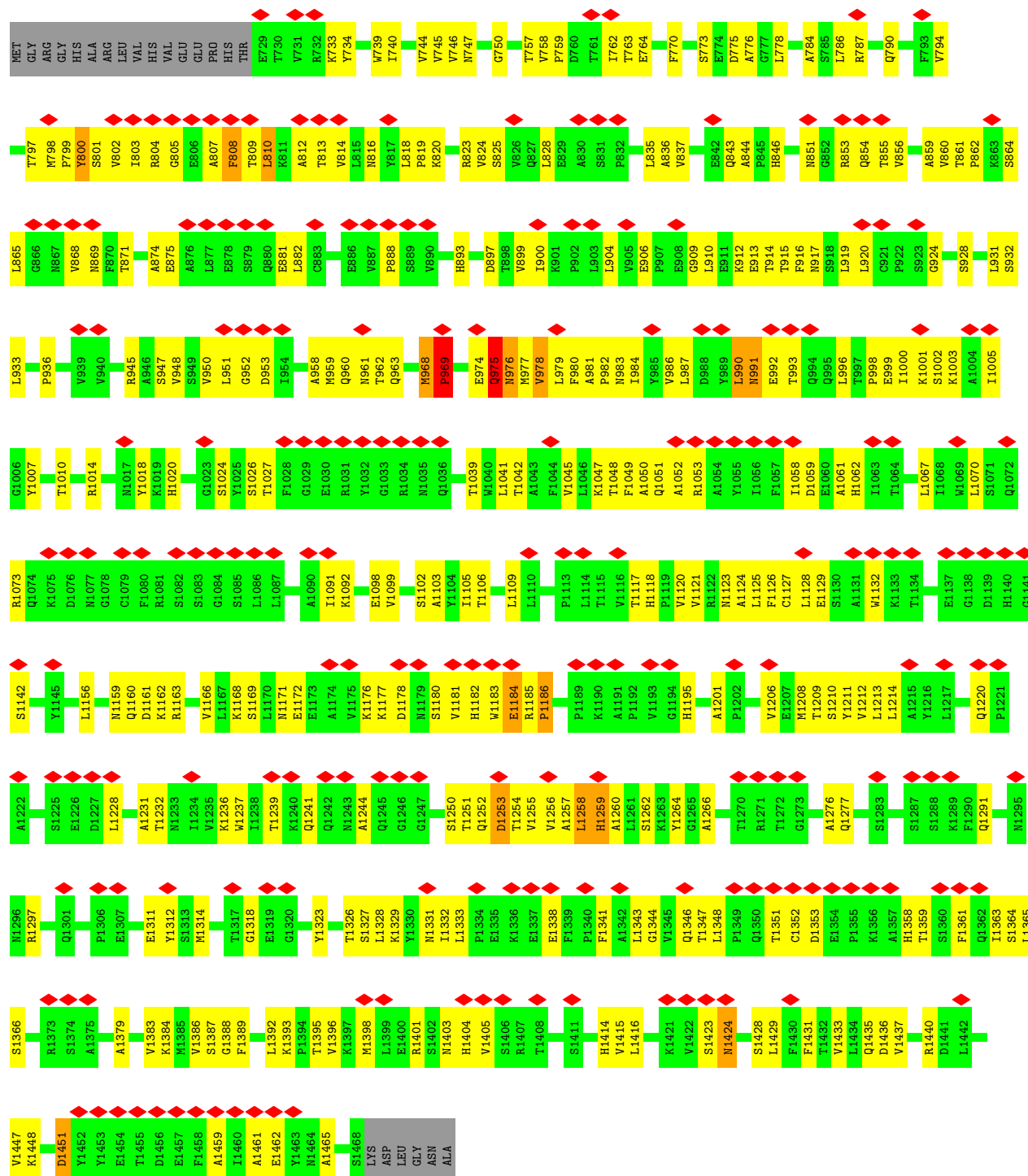






• Molecule 1: Alpha-2-macroglobulin





• Molecule 2: 2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose



Chain E:



- Molecule 2: 2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose



- Molecule 2: 2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose



- Molecule 2: 2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose



- Molecule 2: 2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose

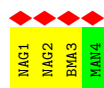


- Molecule 2: 2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose

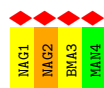


- Molecule 3: alpha-D-mannopyranose-(1-6)-beta-D-mannopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose

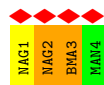
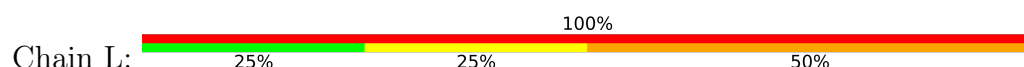




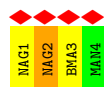
- Molecule 3: alpha-D-mannopyranose-(1-6)-beta-D-mannopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose



- Molecule 3: alpha-D-mannopyranose-(1-6)-beta-D-mannopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose



- Molecule 3: alpha-D-mannopyranose-(1-6)-beta-D-mannopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose



- Molecule 4: beta-D-mannopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose



- Molecule 4: beta-D-mannopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose





## 4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C2	Depositor
Number of particles used	185640	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	NONE	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ( $e^-/\text{\AA}^2$ )	39.6	Depositor
Minimum defocus (nm)	1000	Depositor
Maximum defocus (nm)	3250	Depositor
Magnification	47775	Depositor
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	0.066	Depositor
Minimum map value	-0.002	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.002	Depositor
Recommended contour level	0.0135	Depositor
Map size ( $\text{\AA}$ )	335.04, 335.04, 335.04	wwPDB
Map dimensions	320, 320, 320	wwPDB
Map angles ( $^\circ$ )	90.0, 90.0, 90.0	wwPDB
Pixel spacing ( $\text{\AA}$ )	1.047, 1.047, 1.047	Depositor

## 5 Model quality [i](#)

### 5.1 Standard geometry [i](#)

Bond lengths and bond angles in the following residue types are not validated in this section: MAN, NAG, BMA

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z  > 5$	RMSZ	$\# Z  > 5$
1	A	0.57	6/10189 (0.1%)	0.64	12/13842 (0.1%)
1	B	0.61	10/11249 (0.1%)	0.82	25/15286 (0.2%)
1	C	0.57	6/10189 (0.1%)	0.64	12/13842 (0.1%)
1	D	0.62	10/11249 (0.1%)	0.81	24/15286 (0.2%)
All	All	0.60	32/42876 (0.1%)	0.74	73/58256 (0.1%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	3
1	C	0	3
All	All	0	6

All (32) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	54	LEU	C-N	-35.51	0.86	1.33
1	C	54	LEU	C-N	-35.51	0.86	1.33
1	D	978	VAL	C-N	22.61	1.61	1.33
1	A	868	VAL	C-N	-20.52	1.05	1.33
1	C	868	VAL	C-N	-20.52	1.05	1.33
1	B	990	LEU	C-N	-18.73	1.08	1.33
1	D	990	LEU	C-N	-18.73	1.08	1.33
1	D	969	PRO	N-CA	17.94	1.70	1.47
1	B	969	PRO	N-CA	17.80	1.70	1.47
1	B	978	VAL	C-N	15.69	1.53	1.33
1	D	968	MET	C-N	14.78	1.68	1.33
1	B	968	MET	C-N	14.77	1.68	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	409	ILE	C-N	-12.15	1.16	1.33
1	C	409	ILE	C-N	-12.15	1.16	1.33
1	B	409	ILE	C-N	11.06	1.48	1.33
1	D	409	ILE	C-N	11.06	1.48	1.33
1	B	246	MET	C-N	9.38	1.49	1.33
1	D	246	MET	C-N	9.38	1.49	1.33
1	B	70	ASN	C-N	8.33	1.48	1.33
1	D	70	ASN	C-N	8.33	1.48	1.33
1	B	395	SER	C-N	-8.04	1.23	1.33
1	D	395	SER	C-N	-8.04	1.23	1.33
1	B	54	LEU	C-N	7.77	1.42	1.33
1	D	54	LEU	C-N	7.77	1.42	1.33
1	A	991	ASN	C-N	-7.12	1.24	1.33
1	C	991	ASN	C-N	-7.12	1.24	1.33
1	B	869	ASN	C-N	6.89	1.42	1.33
1	D	869	ASN	C-N	6.89	1.42	1.33
1	A	869	ASN	C-N	6.47	1.42	1.33
1	C	869	ASN	C-N	6.47	1.42	1.33
1	A	395	SER	C-N	5.99	1.41	1.33
1	C	395	SER	C-N	5.99	1.41	1.33

All (73) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	990	LEU	O-C-N	20.86	143.56	122.07
1	D	990	LEU	O-C-N	20.86	143.56	122.07
1	B	990	LEU	CA-C-N	-15.62	94.14	122.09
1	B	990	LEU	C-N-CA	-15.62	94.14	122.09
1	D	990	LEU	CA-C-N	-15.62	94.14	122.09
1	D	990	LEU	C-N-CA	-15.62	94.14	122.09
1	B	968	MET	CA-C-N	14.73	138.25	119.84
1	B	968	MET	C-N-CA	14.73	138.25	119.84
1	D	968	MET	CA-C-N	14.61	138.10	119.84
1	D	968	MET	C-N-CA	14.61	138.10	119.84
1	B	991	ASN	CA-C-N	13.95	140.74	120.38
1	B	991	ASN	C-N-CA	13.95	140.74	120.38
1	D	991	ASN	CA-C-N	13.95	140.74	120.38
1	D	991	ASN	C-N-CA	13.95	140.74	120.38
1	A	54	LEU	CA-C-N	-13.05	104.99	123.00
1	A	54	LEU	C-N-CA	-13.05	104.99	123.00
1	C	54	LEU	CA-C-N	-13.05	104.99	123.00
1	C	54	LEU	C-N-CA	-13.05	104.99	123.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	410	ASN	O-C-N	-12.75	107.42	122.97
1	D	410	ASN	O-C-N	-12.75	107.42	122.97
1	B	975	GLN	CG-CD-OE1	-12.20	96.40	120.80
1	B	991	ASN	O-C-N	-11.88	105.48	122.36
1	D	991	ASN	O-C-N	-11.88	105.48	122.36
1	A	410	ASN	O-C-N	-11.73	109.47	122.85
1	C	410	ASN	O-C-N	-11.73	109.47	122.85
1	B	410	ASN	CA-C-N	11.66	141.19	123.23
1	B	410	ASN	C-N-CA	11.66	141.19	123.23
1	D	410	ASN	CA-C-N	11.66	141.19	123.23
1	D	410	ASN	C-N-CA	11.66	141.19	123.23
1	D	975	GLN	CG-CD-OE1	-9.91	100.99	120.80
1	A	1334	PRO	N-CA-C	-9.19	101.09	113.40
1	C	1334	PRO	N-CA-C	-9.19	101.09	113.40
1	B	1259	HIS	N-CA-C	-8.96	101.89	113.17
1	D	1259	HIS	N-CA-C	-8.96	101.89	113.17
1	B	1423	SER	O-C-N	8.59	133.75	123.27
1	D	1423	SER	O-C-N	8.59	133.75	123.27
1	D	969	PRO	CA-N-CD	-8.50	100.10	112.00
1	B	969	PRO	CA-N-CD	-8.46	100.16	112.00
1	A	409	ILE	O-C-N	8.45	131.96	123.18
1	C	409	ILE	O-C-N	8.45	131.96	123.18
1	B	1049	PHE	N-CA-C	-7.15	103.53	111.82
1	D	1049	PHE	N-CA-C	-7.15	103.53	111.82
1	B	1424	ASN	N-CA-C	-6.68	105.28	113.50
1	D	1424	ASN	N-CA-C	-6.68	105.28	113.50
1	B	972	CYS	CB-CA-C	-6.66	98.11	111.17
1	B	578	LEU	CA-C-N	6.65	127.18	119.47
1	B	578	LEU	C-N-CA	6.65	127.18	119.47
1	D	578	LEU	CA-C-N	6.65	127.18	119.47
1	D	578	LEU	C-N-CA	6.65	127.18	119.47
1	A	429	SER	CA-C-N	6.45	127.91	119.84
1	A	429	SER	C-N-CA	6.45	127.91	119.84
1	C	429	SER	CA-C-N	6.45	127.91	119.84
1	C	429	SER	C-N-CA	6.45	127.91	119.84
1	B	54	LEU	O-C-N	6.15	130.50	123.12
1	D	54	LEU	O-C-N	6.15	130.50	123.12
1	B	868	VAL	O-C-N	6.14	129.87	123.05
1	D	868	VAL	O-C-N	6.14	129.87	123.05
1	A	907	PRO	N-CA-C	6.01	120.07	110.21
1	C	907	PRO	N-CA-C	6.01	120.07	110.21
1	B	1423	SER	CA-C-N	-5.76	111.95	121.92

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	1423	SER	C-N-CA	-5.76	111.95	121.92
1	D	1423	SER	CA-C-N	-5.76	111.95	121.92
1	D	1423	SER	C-N-CA	-5.76	111.95	121.92
1	A	55	ASN	CA-C-N	5.63	131.04	122.37
1	A	55	ASN	C-N-CA	5.63	131.04	122.37
1	C	55	ASN	CA-C-N	5.63	131.04	122.37
1	C	55	ASN	C-N-CA	5.63	131.04	122.37
1	B	1258	LEU	N-CA-C	-5.49	105.89	112.59
1	D	1258	LEU	N-CA-C	-5.49	105.89	112.59
1	A	409	ILE	CA-C-N	-5.45	109.88	121.32
1	A	409	ILE	C-N-CA	-5.45	109.88	121.32
1	C	409	ILE	CA-C-N	-5.45	109.88	121.32
1	C	409	ILE	C-N-CA	-5.45	109.88	121.32

There are no chirality outliers.

All (6) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	410	ASN	Mainchain
1	A	54	LEU	Mainchain
1	A	869	ASN	Mainchain
1	C	410	ASN	Mainchain
1	C	54	LEU	Mainchain
1	C	869	ASN	Mainchain

## 5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	9968	0	9864	324	0
1	B	11004	0	10889	420	0
1	C	9968	0	9864	324	0
1	D	11004	0	10889	425	0
2	E	28	0	25	2	0
2	G	28	0	25	1	0
2	J	28	0	25	0	0
2	K	28	0	25	2	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	M	28	0	25	1	0
2	P	28	0	25	0	0
3	F	50	0	43	0	0
3	H	50	0	43	3	0
3	L	50	0	43	1	0
3	N	50	0	43	3	0
4	I	39	0	34	1	0
4	O	39	0	34	2	0
5	A	70	0	65	0	0
5	B	56	0	52	1	0
5	C	70	0	65	0	0
5	D	56	0	52	1	0
All	All	42642	0	42130	1487	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 18.

All (1487) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:968:MET:C	1:D:969:PRO:N	1.68	1.51
1:C:54:LEU:C	1:C:55:ASN:CA	1.87	1.47
1:B:968:MET:C	1:B:969:PRO:N	1.68	1.47
1:D:969:PRO:N	1:D:969:PRO:CA	1.70	1.45
1:A:54:LEU:C	1:A:55:ASN:CA	1.87	1.44
1:B:969:PRO:N	1:B:969:PRO:CA	1.70	1.41
1:C:54:LEU:CA	1:C:55:ASN:N	2.01	1.23
1:B:969:PRO:CD	1:B:979:LEU:HD11	1.67	1.23
1:A:54:LEU:CA	1:A:55:ASN:N	2.01	1.22
1:D:969:PRO:CD	1:D:979:LEU:HD11	1.80	1.12
1:B:969:PRO:HD3	1:B:979:LEU:HD11	1.33	1.08
1:D:969:PRO:HD3	1:D:979:LEU:HD11	1.26	1.06
1:A:54:LEU:O	1:A:55:ASN:N	1.86	1.06
1:C:54:LEU:O	1:C:55:ASN:N	1.86	1.05
1:A:310:GLN:HG3	1:A:312:LYS:HB2	1.41	1.03
1:C:310:GLN:HG3	1:C:312:LYS:HB2	1.41	1.03
1:B:969:PRO:HD2	1:B:979:LEU:HD11	1.38	0.99
1:D:976:ASN:OD1	1:D:1014:ARG:NH1	1.96	0.97
1:C:54:LEU:C	1:C:55:ASN:N	0.86	0.96
1:A:54:LEU:C	1:A:55:ASN:N	0.86	0.96
1:B:614:SER:HG	1:B:616:SER:HG	0.96	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:614:SER:HG	1:D:616:SER:HG	1.11	0.90
1:C:54:LEU:C	1:C:55:ASN:HA	2.00	0.87
1:D:733:LYS:NZ	1:D:734:TYR:O	2.09	0.85
1:A:54:LEU:C	1:A:55:ASN:HA	2.00	0.85
1:B:733:LYS:NZ	1:B:734:TYR:O	2.09	0.85
1:A:567:LYS:NZ	1:A:588:THR:OG1	2.10	0.84
1:C:567:LYS:NZ	1:C:588:THR:OG1	2.10	0.83
1:A:54:LEU:O	1:A:55:ASN:CA	2.25	0.83
1:A:954:ILE:HD11	1:A:993:THR:HG22	1.58	0.82
1:B:805:GLY:O	1:B:1440:ARG:NH2	2.12	0.82
1:C:954:ILE:HD11	1:C:993:THR:HG22	1.58	0.82
1:D:805:GLY:O	1:D:1440:ARG:NH2	2.12	0.82
1:C:823:ARG:NH1	1:C:824:VAL:O	2.13	0.82
1:A:823:ARG:NH1	1:A:824:VAL:O	2.13	0.81
1:D:969:PRO:HD3	1:D:979:LEU:CD1	2.11	0.81
1:D:978:VAL:HG12	1:D:1091:ILE:HD12	1.63	0.81
1:A:917:ASN:ND2	1:A:1324:LEU:O	2.14	0.81
1:D:915:THR:OG1	1:D:1326:THR:O	1.99	0.81
1:B:969:PRO:CD	1:B:979:LEU:CD1	2.54	0.81
1:C:917:ASN:ND2	1:C:1324:LEU:O	2.14	0.80
1:B:758:VAL:HG13	1:B:758:VAL:O	1.81	0.80
1:D:794:VAL:HG22	1:D:814:VAL:HG22	1.63	0.79
1:A:994:GLN:NE2	1:A:1271:ARG:O	2.16	0.79
1:B:127:SER:O	1:B:209:LYS:NZ	2.17	0.78
1:D:758:VAL:HG13	1:D:758:VAL:O	1.81	0.78
1:C:571:SER:OG	1:C:586:ARG:O	2.01	0.78
1:C:235:VAL:O	1:C:237:LYS:NZ	2.16	0.78
1:A:235:VAL:O	1:A:237:LYS:NZ	2.16	0.78
1:D:860:VAL:HG22	1:D:862:PRO:HD3	1.65	0.78
1:B:794:VAL:HG22	1:B:814:VAL:HG22	1.63	0.78
1:C:994:GLN:NE2	1:C:1271:ARG:O	2.16	0.78
1:B:915:THR:OG1	1:B:1326:THR:O	1.99	0.78
1:B:608:LYS:NZ	1:B:609:PRO:O	2.17	0.78
1:D:969:PRO:CD	1:D:979:LEU:CD1	2.62	0.78
1:B:475:THR:O	1:B:477:GLN:NE2	2.18	0.77
1:D:127:SER:O	1:D:209:LYS:NZ	2.17	0.77
1:D:969:PRO:HD2	1:D:979:LEU:HD11	1.64	0.77
1:A:495:PHE:O	1:A:510:THR:OG1	2.01	0.77
1:A:570:LEU:HD22	1:A:784:ALA:HB3	1.67	0.77
1:B:568:VAL:HG23	1:B:589:ALA:HB2	1.65	0.77
1:D:475:THR:O	1:D:477:GLN:NE2	2.18	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:814:VAL:HG11	1:A:824:VAL:HG21	1.67	0.77
1:D:568:VAL:HG23	1:D:589:ALA:HB2	1.65	0.77
1:D:608:LYS:NZ	1:D:609:PRO:O	2.17	0.77
1:A:144:VAL:O	1:A:191:SER:OG	2.03	0.76
1:B:1159:ASN:O	1:B:1162:LYS:NZ	2.19	0.76
1:C:310:GLN:CG	1:C:312:LYS:HB2	2.16	0.76
1:A:1208:MET:SD	1:A:1209:THR:OG1	2.42	0.76
1:A:571:SER:OG	1:A:586:ARG:O	2.01	0.76
1:C:570:LEU:HD22	1:C:784:ALA:HB3	1.67	0.76
1:B:860:VAL:HG22	1:B:862:PRO:HD3	1.65	0.76
1:A:586:ARG:NH1	1:A:749:ALA:O	2.19	0.76
1:C:54:LEU:O	1:C:55:ASN:CA	2.25	0.76
1:C:144:VAL:O	1:C:191:SER:OG	2.03	0.75
1:C:814:VAL:HG11	1:C:824:VAL:HG21	1.67	0.75
1:D:1177:LYS:N	1:D:1180:SER:O	2.18	0.75
1:D:1250:SER:OG	1:D:1251:THR:N	2.17	0.75
1:A:310:GLN:CG	1:A:312:LYS:HB2	2.16	0.75
1:C:586:ARG:NH1	1:C:749:ALA:O	2.19	0.75
1:B:969:PRO:HD2	1:B:979:LEU:CD1	2.14	0.74
1:D:1159:ASN:O	1:D:1162:LYS:NZ	2.19	0.74
1:C:495:PHE:O	1:C:510:THR:OG1	2.01	0.74
1:B:1177:LYS:N	1:B:1180:SER:O	2.18	0.74
1:D:1176:LYS:NZ	1:D:1177:LYS:O	2.20	0.74
1:A:195:SER:OG	1:A:197:GLU:OE1	2.06	0.74
1:D:94:SER:OG	1:D:124:ASN:ND2	2.21	0.74
1:C:1208:MET:SD	1:C:1209:THR:OG1	2.42	0.74
1:B:400:ASP:OD1	1:B:404:LEU:N	2.21	0.74
1:B:1250:SER:OG	1:B:1251:THR:N	2.17	0.74
1:D:975:GLN:O	1:D:978:VAL:HG22	1.87	0.74
1:B:94:SER:OG	1:B:124:ASN:ND2	2.21	0.73
1:C:54:LEU:CB	1:C:55:ASN:N	2.51	0.73
1:D:400:ASP:OD1	1:D:404:LEU:N	2.21	0.73
1:D:739:TRP:CD1	1:D:758:VAL:HB	2.24	0.73
1:D:816:ASN:O	1:D:851:ASN:N	2.21	0.73
1:B:739:TRP:CD1	1:B:758:VAL:HB	2.24	0.73
1:B:816:ASN:O	1:B:851:ASN:N	2.21	0.73
1:B:1176:LYS:NZ	1:B:1177:LYS:O	2.20	0.73
1:D:270:ARG:NH1	1:D:309:PHE:O	2.22	0.73
1:B:270:ARG:NH1	1:B:309:PHE:O	2.22	0.72
1:A:54:LEU:CB	1:A:55:ASN:N	2.51	0.72
1:C:195:SER:OG	1:C:197:GLU:OE1	2.06	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:959:MET:SD	1:D:959:MET:N	2.62	0.72
1:A:584:HIS:ND1	1:A:753:GLU:O	2.23	0.72
1:A:614:SER:O	1:A:617:SER:OG	2.08	0.71
1:B:1346:GLN:NE2	1:B:1348:LEU:O	2.23	0.71
1:B:959:MET:SD	1:B:959:MET:N	2.62	0.71
1:D:1346:GLN:NE2	1:D:1348:LEU:O	2.23	0.71
1:C:584:HIS:ND1	1:C:753:GLU:O	2.23	0.71
1:A:1106:THR:HG21	1:A:1124:ALA:HB2	1.72	0.71
1:C:1067:LEU:HD23	1:C:1070:LEU:HD12	1.73	0.71
1:A:1125:LEU:HD23	1:A:1128:LEU:HD12	1.73	0.71
1:B:352:PHE:HA	1:B:369:VAL:HG22	1.73	0.71
1:C:614:SER:O	1:C:617:SER:OG	2.08	0.70
1:A:418:SER:OG	1:A:445:HIS:NE2	2.24	0.70
1:B:800:TYR:O	1:B:802:VAL:HG13	1.91	0.70
1:D:352:PHE:HA	1:D:369:VAL:HG22	1.73	0.70
1:B:1236:LYS:O	1:B:1239:THR:OG1	2.06	0.70
1:D:773:SER:OG	1:D:775:ASP:OD1	2.06	0.70
1:A:1333:LEU:N	1:A:1334:PRO:CD	2.55	0.70
1:D:603:SER:OG	1:D:764:GLU:OE1	2.10	0.70
1:D:800:TYR:O	1:D:802:VAL:HG13	1.91	0.70
1:C:418:SER:OG	1:C:445:HIS:NE2	2.24	0.70
1:C:760:ASP:OD1	1:C:790:GLN:N	2.25	0.70
1:C:1125:LEU:HD23	1:C:1128:LEU:HD12	1.73	0.70
1:D:816:ASN:ND2	1:D:820:LYS:O	2.25	0.69
1:A:760:ASP:OD1	1:A:790:GLN:N	2.25	0.69
1:B:816:ASN:ND2	1:B:820:LYS:O	2.25	0.69
1:C:1106:THR:HG21	1:C:1124:ALA:HB2	1.72	0.69
1:C:1333:LEU:N	1:C:1334:PRO:CD	2.55	0.69
1:D:1125:LEU:O	1:D:1129:GLU:N	2.24	0.69
1:B:1125:LEU:O	1:B:1129:GLU:N	2.24	0.69
1:D:94:SER:OG	1:D:96:SER:O	2.11	0.69
1:B:603:SER:OG	1:B:764:GLU:OE1	2.10	0.69
1:C:1208:MET:SD	1:C:1209:THR:N	2.65	0.69
1:A:1067:LEU:HD23	1:A:1070:LEU:HD12	1.73	0.69
1:B:773:SER:OG	1:B:775:ASP:OD1	2.06	0.69
1:B:810:LEU:N	1:B:810:LEU:HD23	2.07	0.69
1:D:599:ALA:HB3	1:D:740:ILE:HB	1.75	0.69
1:B:159:ASN:OD1	1:B:186:GLY:N	2.26	0.69
1:B:599:ALA:HB3	1:B:740:ILE:HB	1.75	0.69
1:B:1020:HIS:N	1:B:1024:SER:O	2.26	0.69
1:B:1059:ASP:OD1	1:B:1062:HIS:N	2.25	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:810:LEU:N	1:D:810:LEU:HD23	2.07	0.69
1:D:1059:ASP:OD1	1:D:1062:HIS:N	2.25	0.69
1:C:747:ASN:ND2	1:C:750:GLY:O	2.26	0.69
1:A:1208:MET:SD	1:A:1209:THR:N	2.65	0.68
1:B:843:GLN:NE2	1:B:844:ALA:O	2.26	0.68
1:A:989:TYR:O	1:A:993:THR:HG23	1.93	0.68
1:C:579:PRO:O	1:C:757:THR:OG1	2.07	0.68
1:D:843:GLN:NE2	1:D:844:ALA:O	2.26	0.68
1:C:64:LEU:HG	1:C:103:LEU:HD13	1.75	0.68
1:C:914:THR:HG23	1:C:1330:TYR:OH	1.94	0.68
1:D:928:SER:OG	1:D:1314:MET:O	2.07	0.68
1:D:1020:HIS:N	1:D:1024:SER:O	2.26	0.68
1:C:989:TYR:O	1:C:993:THR:HG23	1.93	0.68
1:D:159:ASN:OD1	1:D:186:GLY:N	2.26	0.68
1:A:579:PRO:O	1:A:757:THR:OG1	2.07	0.68
1:A:747:ASN:ND2	1:A:750:GLY:O	2.26	0.68
1:B:507:ARG:NH2	1:B:532:SER:O	2.27	0.68
1:D:810:LEU:HD23	1:D:810:LEU:H	1.59	0.68
1:A:270:ARG:N	1:A:286:PHE:O	2.27	0.68
1:B:507:ARG:NH1	1:B:529:PRO:O	2.27	0.68
1:C:932:SER:OG	1:C:1311:GLU:OE2	2.07	0.68
1:D:507:ARG:NH1	1:D:529:PRO:O	2.27	0.67
1:D:1344:GLY:O	1:D:1366:SER:N	2.27	0.67
1:D:507:ARG:NH2	1:D:532:SER:O	2.27	0.67
1:D:620:ASN:O	1:D:625:LYS:NZ	2.23	0.67
1:B:501:ALA:N	1:B:504:GLY:O	2.28	0.67
1:A:914:THR:HG23	1:A:1330:TYR:OH	1.94	0.67
1:B:167:ILE:HD12	1:B:176:ALA:HB3	1.76	0.67
1:B:1343:LEU:H	1:B:1461:ALA:HB3	1.60	0.67
1:B:1344:GLY:O	1:B:1366:SER:N	2.27	0.67
1:C:1016:LEU:O	1:C:1019:LYS:NZ	2.24	0.67
1:D:501:ALA:N	1:D:504:GLY:O	2.28	0.67
1:D:1343:LEU:H	1:D:1461:ALA:HB3	1.60	0.67
1:A:1016:LEU:O	1:A:1019:LYS:NZ	2.24	0.67
1:D:1363:ILE:HG22	1:D:1365:LEU:HD11	1.77	0.67
1:B:1363:ILE:HG22	1:B:1365:LEU:HD11	1.77	0.67
1:B:810:LEU:HD23	1:B:810:LEU:H	1.59	0.67
1:B:564:LEU:HD11	1:B:778:LEU:HD21	1.76	0.66
1:B:969:PRO:N	1:B:969:PRO:C	2.53	0.66
1:D:167:ILE:HD12	1:D:176:ALA:HB3	1.76	0.66
1:B:912:LYS:HD2	1:B:1183:TRP:HZ3	1.60	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:564:LEU:HD11	1:D:778:LEU:HD21	1.76	0.66
1:A:64:LEU:HG	1:A:103:LEU:HD13	1.75	0.66
1:C:132:GLN:N	1:C:132:GLN:OE1	2.29	0.66
1:C:270:ARG:N	1:C:286:PHE:O	2.27	0.66
1:D:1236:LYS:O	1:D:1239:THR:OG1	2.06	0.66
1:B:620:ASN:O	1:B:625:LYS:NZ	2.23	0.66
1:D:77:LEU:HD22	1:D:87:VAL:HG11	1.78	0.66
1:A:457:SER:OG	1:A:483:ASN:N	2.29	0.66
1:D:978:VAL:O	1:D:982:PRO:HD2	1.96	0.66
1:B:976:ASN:OD1	1:B:1014:ARG:NH1	2.28	0.66
1:C:457:SER:OG	1:C:483:ASN:N	2.29	0.66
1:A:597:LEU:HD13	1:A:744:VAL:HG22	1.78	0.66
1:B:540:LEU:O	1:B:556:ALA:N	2.28	0.66
1:A:132:GLN:N	1:A:132:GLN:OE1	2.29	0.66
1:A:415:MET:SD	1:A:416:GLY:N	2.69	0.66
1:A:551:VAL:HG13	1:A:683:ILE:HD11	1.78	0.66
1:B:77:LEU:HD22	1:B:87:VAL:HG11	1.78	0.66
1:C:415:MET:SD	1:C:416:GLY:N	2.69	0.66
1:D:540:LEU:O	1:D:556:ALA:N	2.28	0.65
1:A:348:THR:OG1	1:A:442:GLU:N	2.29	0.65
1:B:94:SER:OG	1:B:96:SER:O	2.11	0.65
1:C:348:THR:OG1	1:C:442:GLU:N	2.29	0.65
1:C:551:VAL:HG13	1:C:683:ILE:HD11	1.78	0.65
1:D:617:SER:O	1:D:621:LEU:N	2.27	0.65
1:D:622:LEU:O	1:D:625:LYS:NZ	2.26	0.65
1:A:546:LEU:HD12	1:A:550:ASP:HB2	1.78	0.65
1:D:182:GLN:NE2	1:D:183:LEU:O	2.29	0.65
1:D:1118:HIS:O	1:D:1121:VAL:HG22	1.96	0.65
1:C:546:LEU:HD12	1:C:550:ASP:HB2	1.78	0.65
1:C:614:SER:OG	1:C:616:SER:OG	2.14	0.65
1:B:617:SER:O	1:B:621:LEU:N	2.27	0.65
1:A:614:SER:OG	1:A:616:SER:OG	2.14	0.65
1:D:564:LEU:HD11	1:D:778:LEU:CD2	2.27	0.65
1:D:1156:LEU:O	1:D:1220:GLN:NE2	2.29	0.65
1:B:1118:HIS:O	1:B:1121:VAL:HG22	1.96	0.65
1:C:1098:GLU:OE1	1:C:1098:GLU:N	2.29	0.65
1:D:950:VAL:HG23	1:D:1323:TYR:O	1.96	0.65
1:B:182:GLN:NE2	1:B:183:LEU:O	2.29	0.65
1:B:564:LEU:HD11	1:B:778:LEU:CD2	2.27	0.65
1:B:1091:ILE:HG23	1:B:1092:LYS:HG2	1.79	0.65
1:B:950:VAL:HG23	1:B:1323:TYR:O	1.96	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1156:LEU:O	1:B:1220:GLN:NE2	2.29	0.65
1:B:1184:GLU:OE2	1:B:1184:GLU:HA	1.97	0.65
1:C:1250:SER:OG	1:C:1253:ASP:OD1	2.15	0.65
1:D:912:LYS:HD2	1:D:1183:TRP:HZ3	1.60	0.65
1:C:597:LEU:HD13	1:C:744:VAL:HG22	1.78	0.65
1:A:314:LYS:HB2	1:A:314:LYS:NZ	2.13	0.64
1:C:934:LYS:O	1:C:1308:LEU:HD21	1.98	0.64
1:D:1091:ILE:HG23	1:D:1092:LYS:HG2	1.79	0.64
1:A:657:PRO:O	1:D:656:THR:HG21	1.96	0.64
1:A:1098:GLU:N	1:A:1098:GLU:OE1	2.29	0.64
1:C:1333:LEU:N	1:C:1334:PRO:HD2	2.12	0.64
1:A:1250:SER:OG	1:A:1253:ASP:OD1	2.15	0.64
1:A:1333:LEU:N	1:A:1334:PRO:HD2	2.12	0.64
1:B:347:ILE:HG22	1:B:348:THR:HG23	1.80	0.64
1:C:392:ASN:ND2	1:C:413:ASN:OD1	2.30	0.64
1:B:195:SER:OG	1:B:1244:ALA:O	2.07	0.64
1:C:71:ARG:NH2	1:C:92:PRO:O	2.31	0.64
1:D:694:GLN:NE2	1:D:695:TYR:O	2.31	0.64
1:B:694:GLN:NE2	1:B:695:TYR:O	2.31	0.64
1:B:825:SER:N	1:B:875:GLU:O	2.31	0.64
1:C:168:GLN:N	1:C:204:LYS:O	2.31	0.64
1:B:418:SER:OG	1:B:445:HIS:NE2	2.31	0.63
1:B:1415:VAL:C	1:B:1416:LEU:HD12	2.23	0.63
1:A:168:GLN:N	1:A:204:LYS:O	2.31	0.63
1:B:928:SER:OG	1:B:1314:MET:O	2.07	0.63
1:B:1388:GLY:O	1:B:1436:ASP:N	2.32	0.63
1:A:71:ARG:NH2	1:A:92:PRO:O	2.31	0.63
1:A:392:ASN:ND2	1:A:413:ASN:OD1	2.30	0.63
1:A:934:LYS:O	1:A:1308:LEU:HD21	1.98	0.63
1:C:314:LYS:HB2	1:C:314:LYS:NZ	2.13	0.63
1:D:1415:VAL:C	1:D:1416:LEU:HD12	2.23	0.63
1:A:117:ARG:NH2	1:C:1074:GLN:OE1	2.32	0.63
1:A:1074:GLN:OE1	1:C:117:ARG:NH2	2.32	0.63
1:D:1184:GLU:OE2	1:D:1184:GLU:HA	1.97	0.63
1:D:418:SER:OG	1:D:445:HIS:NE2	2.31	0.63
1:C:314:LYS:HB2	1:C:314:LYS:HZ3	1.62	0.63
1:D:757:THR:O	1:D:759:PRO:HD3	1.98	0.63
1:D:1388:GLY:O	1:D:1436:ASP:N	2.32	0.63
1:A:82:ASP:O	1:A:496:TYR:OH	2.16	0.63
1:D:75:THR:HG21	1:D:89:PHE:CD1	2.34	0.63
1:B:656:THR:HG21	1:C:657:PRO:O	1.96	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:142:GLN:O	1:D:194:LEU:N	2.31	0.62
1:D:347:ILE:HG22	1:D:348:THR:HG23	1.80	0.62
1:D:992:GLU:OE2	1:D:1266:ALA:N	2.31	0.62
1:A:360:ARG:NH2	1:A:459:VAL:O	2.32	0.62
1:D:825:SER:N	1:D:875:GLU:O	2.31	0.62
1:D:914:THR:O	1:D:1328:LEU:N	2.32	0.62
1:B:142:GLN:O	1:B:194:LEU:N	2.31	0.62
1:D:195:SER:OG	1:D:1244:ALA:O	2.07	0.62
1:B:575:SER:OG	1:B:787:ARG:O	2.17	0.62
1:B:914:THR:O	1:B:1328:LEU:N	2.32	0.62
1:A:313:ARG:O	1:A:313:ARG:NH1	2.26	0.62
1:B:622:LEU:O	1:B:625:LYS:NZ	2.26	0.62
1:B:757:THR:O	1:B:759:PRO:HD3	1.98	0.62
1:A:62:ALA:HB1	1:A:103:LEU:HD11	1.82	0.62
1:A:932:SER:OG	1:A:1311:GLU:OE2	2.07	0.62
1:B:75:THR:HG21	1:B:89:PHE:CD1	2.34	0.62
1:B:801:SER:OG	1:B:904:LEU:HD23	2.00	0.62
1:B:992:GLU:OE2	1:B:1266:ALA:N	2.31	0.62
1:C:360:ARG:NH2	1:C:459:VAL:O	2.32	0.62
1:D:801:SER:OG	1:D:904:LEU:HD23	2.00	0.62
1:B:73:LEU:HD12	1:B:91:VAL:HG12	1.82	0.62
1:B:1364:SER:C	1:B:1365:LEU:HD12	2.25	0.62
1:A:1228:LEU:O	1:A:1232:THR:HG23	2.00	0.62
1:B:540:LEU:N	1:B:556:ALA:O	2.33	0.62
1:B:1401:ARG:NH2	1:B:1428:SER:O	2.33	0.62
1:D:73:LEU:HD12	1:D:91:VAL:HG12	1.82	0.62
1:C:62:ALA:HB1	1:C:103:LEU:HD11	1.82	0.61
1:C:1228:LEU:O	1:C:1232:THR:HG23	2.00	0.61
1:D:575:SER:OG	1:D:787:ARG:O	2.17	0.61
1:D:602:GLN:O	1:D:606:LEU:N	2.31	0.61
1:D:1026:SER:OG	1:D:1027:THR:N	2.32	0.61
1:D:1250:SER:HB3	1:D:1253:ASP:HB2	1.82	0.61
1:A:1080:PHE:N	1:A:1102:SER:OG	2.32	0.61
1:B:1106:THR:HG21	1:B:1124:ALA:HB3	1.82	0.61
1:A:826:VAL:HG22	1:A:858:TRP:HH2	1.63	0.61
1:C:344:THR:OG1	1:C:346:THR:O	2.18	0.61
1:C:826:VAL:HG22	1:C:858:TRP:HH2	1.63	0.61
1:D:80:GLU:OE1	1:D:80:GLU:N	2.33	0.61
1:A:311:LEU:HG	1:A:311:LEU:O	2.00	0.61
1:C:98:GLU:OE2	1:C:124:ASN:N	2.33	0.61
1:C:311:LEU:HG	1:C:311:LEU:O	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1206:VAL:HG13	1:A:1238:ILE:HG23	1.83	0.61
1:B:370:ARG:HB3	1:B:404:LEU:HD23	1.83	0.61
1:C:82:ASP:O	1:C:496:TYR:OH	2.16	0.61
1:C:202:SER:OG	1:C:219:PHE:O	2.19	0.61
1:D:136:SER:O	1:D:220:THR:N	2.34	0.61
1:B:415:MET:SD	1:B:416:GLY:N	2.73	0.61
1:B:874:ALA:O	1:B:897:ASP:N	2.34	0.61
1:C:1080:PHE:N	1:C:1102:SER:OG	2.32	0.61
1:C:1282:SER:OG	1:C:1311:GLU:O	2.13	0.61
1:D:540:LEU:N	1:D:556:ALA:O	2.33	0.61
1:B:1026:SER:OG	1:B:1027:THR:N	2.32	0.61
1:B:1258:LEU:O	1:B:1262:SER:OG	2.17	0.61
1:B:1364:SER:OG	1:B:1429:LEU:O	2.17	0.61
1:B:1365:LEU:HD13	1:B:1431:PHE:HE1	1.66	0.61
1:D:762:ILE:HD13	1:D:790:GLN:H	1.64	0.61
1:B:80:GLU:OE1	1:B:80:GLU:N	2.33	0.61
1:B:762:ILE:HD13	1:B:790:GLN:H	1.64	0.61
1:B:1341:PHE:O	1:B:1461:ALA:HB2	2.01	0.61
1:D:539:ARG:NH1	1:D:672:ASP:O	2.34	0.61
1:D:969:PRO:N	1:D:969:PRO:C	2.56	0.61
1:D:1106:THR:HG21	1:D:1124:ALA:HB3	1.82	0.61
1:D:1364:SER:C	1:D:1365:LEU:HD12	2.25	0.61
1:B:129:VAL:HG23	1:B:215:THR:HG21	1.83	0.60
1:D:129:VAL:HG23	1:D:215:THR:HG21	1.83	0.60
1:D:874:ALA:O	1:D:897:ASP:N	2.34	0.60
1:C:276:SER:OG	1:C:281:GLU:OE2	2.19	0.60
1:C:313:ARG:O	1:C:313:ARG:NH1	2.26	0.60
1:A:98:GLU:OE2	1:A:124:ASN:N	2.33	0.60
1:A:320:LEU:HD11	1:A:341:SER:OG	2.01	0.60
1:B:30:GLN:O	1:B:51:LEU:HD12	2.01	0.60
1:D:415:MET:SD	1:D:416:GLY:N	2.73	0.60
1:D:823:ARG:NH1	1:D:846:HIS:O	2.35	0.60
1:D:947:SER:OG	1:D:948:VAL:N	2.35	0.60
1:B:912:LYS:HD2	1:B:1183:TRP:CZ3	2.36	0.60
1:B:915:THR:OG1	1:B:916:PHE:N	2.34	0.60
1:D:568:VAL:CG2	1:D:589:ALA:HB2	2.32	0.60
1:D:665:ASP:OD1	1:D:668:SER:N	2.34	0.60
1:B:293:GLN:NE2	1:B:294:LEU:O	2.35	0.60
1:B:823:ARG:NH1	1:B:846:HIS:O	2.35	0.60
1:B:117:ARG:O	1:B:637:GLN:NE2	2.35	0.60
1:B:136:SER:O	1:B:220:THR:N	2.34	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:293:GLN:NE2	1:D:294:LEU:O	2.35	0.60
1:D:813:THR:HG22	1:D:854:GLN:O	2.02	0.60
1:A:113:GLU:N	1:A:113:GLU:OE1	2.35	0.60
1:A:344:THR:OG1	1:A:346:THR:O	2.18	0.60
1:B:998:PRO:O	1:B:1002:SER:N	2.34	0.60
1:C:1206:VAL:HG13	1:C:1238:ILE:HG23	1.83	0.60
1:A:314:LYS:HB2	1:A:314:LYS:HZ3	1.66	0.60
1:A:1107:ILE:HD12	1:A:1153:ALA:HA	1.84	0.60
1:B:665:ASP:OD1	1:B:668:SER:N	2.34	0.60
1:B:813:THR:HG22	1:B:854:GLN:O	2.02	0.60
1:C:755:GLY:O	1:C:757:THR:HG23	2.02	0.60
1:D:616:SER:O	1:D:620:ASN:ND2	2.35	0.60
1:A:202:SER:OG	1:A:219:PHE:O	2.19	0.60
1:A:356:ASP:OD1	1:A:357:SER:N	2.35	0.60
1:B:539:ARG:NH1	1:B:672:ASP:O	2.34	0.60
1:B:976:ASN:HD21	1:B:1014:ARG:CZ	2.15	0.60
1:C:113:GLU:N	1:C:113:GLU:OE1	2.35	0.60
1:C:1044:PHE:O	1:C:1048:THR:HG23	2.02	0.60
1:D:912:LYS:HD2	1:D:1183:TRP:CZ3	2.36	0.60
1:D:977:MET:HA	1:D:980:PHE:CE2	2.37	0.60
1:D:1341:PHE:O	1:D:1461:ALA:HB2	2.01	0.60
1:B:616:SER:O	1:B:620:ASN:ND2	2.35	0.60
1:B:1250:SER:HB3	1:B:1253:ASP:HB2	1.82	0.60
1:C:320:LEU:HD11	1:C:341:SER:OG	2.01	0.60
1:D:1401:ARG:NH2	1:D:1428:SER:O	2.33	0.60
1:A:810:LEU:N	1:A:858:TRP:O	2.35	0.59
1:C:889:SER:O	1:C:895:ARG:NH2	2.34	0.59
1:D:1365:LEU:HD13	1:D:1431:PHE:HE1	1.66	0.59
1:A:755:GLY:O	1:A:757:THR:HG23	2.02	0.59
1:B:34:LEU:HD13	1:B:677:ALA:HB2	1.84	0.59
1:B:1182:HIS:CE1	1:B:1183:TRP:HB3	2.38	0.59
1:C:419:LEU:N	1:C:446:HIS:O	2.35	0.59
1:A:889:SER:O	1:A:895:ARG:NH2	2.34	0.59
1:B:255:THR:HG23	1:B:257:GLY:H	1.67	0.59
1:D:910:LEU:N	1:D:1332:ILE:O	2.36	0.59
1:B:947:SER:OG	1:B:948:VAL:N	2.35	0.59
1:B:1392:LEU:O	1:B:1395:THR:OG1	2.14	0.59
1:C:681:SER:OG	1:C:682:LYS:N	2.36	0.59
1:D:34:LEU:HD13	1:D:677:ALA:HB2	1.84	0.59
1:D:117:ARG:O	1:D:637:GLN:NE2	2.35	0.59
1:D:370:ARG:HB3	1:D:404:LEU:HD23	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1161:ASP:OD1	1:D:1161:ASP:N	2.36	0.59
3:H:2:NAG:C8	3:H:2:NAG:H3	2.33	0.59
1:A:276:SER:OG	1:A:281:GLU:OE2	2.19	0.59
1:C:585:LEU:HD23	1:C:586:ARG:N	2.17	0.59
1:D:974:GLU:HG2	1:D:1027:THR:HG21	1.83	0.59
1:C:356:ASP:OD1	1:C:357:SER:N	2.35	0.59
1:A:414:VAL:HG12	1:D:647:ASN:HA	1.83	0.59
1:A:419:LEU:N	1:A:446:HIS:O	2.35	0.59
1:B:1048:THR:O	1:B:1052:ALA:N	2.34	0.59
1:B:1347:THR:HA	1:B:1363:ILE:HG23	1.85	0.59
1:D:1365:LEU:HD13	1:D:1431:PHE:CE1	2.38	0.59
3:N:2:NAG:H3	3:N:2:NAG:C8	2.33	0.59
1:D:30:GLN:O	1:D:51:LEU:HD12	2.01	0.59
1:A:167:ILE:HA	1:A:205:VAL:HG12	1.85	0.59
1:A:947:SER:O	1:A:1327:SER:N	2.36	0.59
1:C:691:GLN:N	1:C:691:GLN:OE1	2.36	0.59
1:A:1044:PHE:O	1:A:1048:THR:HG23	2.02	0.59
1:B:152:ASP:OD1	1:B:154:ASN:N	2.35	0.59
1:B:568:VAL:CG2	1:B:589:ALA:HB2	2.32	0.59
1:C:400:ASP:OD1	1:C:404:LEU:N	2.33	0.59
1:D:255:THR:HG23	1:D:257:GLY:H	1.67	0.59
1:D:998:PRO:O	1:D:1002:SER:N	2.34	0.59
1:A:596:ALA:HA	1:A:743:LEU:HD23	1.85	0.58
1:B:647:ASN:HA	1:C:414:VAL:HG12	1.83	0.58
1:B:969:PRO:HD3	1:B:979:LEU:CD1	2.19	0.58
1:C:589:ALA:HB3	1:C:746:VAL:HG21	1.85	0.58
1:D:152:ASP:OD1	1:D:154:ASN:N	2.35	0.58
1:B:267:SER:OG	1:B:289:LYS:NZ	2.36	0.58
1:B:999:GLU:O	1:B:1003:LYS:N	2.36	0.58
1:D:810:LEU:HD21	1:D:860:VAL:HG12	1.85	0.58
1:B:679:THR:HG22	1:B:681:SER:H	1.69	0.58
1:B:980:PHE:CE1	1:B:1041:LEU:HD23	2.39	0.58
1:B:1365:LEU:HD13	1:B:1431:PHE:CE1	2.38	0.58
1:C:596:ALA:HA	1:C:743:LEU:HD23	1.85	0.58
1:C:648:VAL:HG13	1:C:656:THR:O	2.04	0.58
1:C:810:LEU:N	1:C:858:TRP:O	2.35	0.58
1:D:919:LEU:HD23	1:D:920:LEU:N	2.18	0.58
1:B:571:SER:O	1:B:586:ARG:N	2.36	0.58
1:B:910:LEU:N	1:B:1332:ILE:O	2.36	0.58
1:B:931:LEU:O	1:B:1312:TYR:N	2.36	0.58
1:A:954:ILE:CG2	1:A:955:LEU:HD12	2.34	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:912:LYS:NZ	1:B:913:GLU:O	2.34	0.58
1:B:919:LEU:HD23	1:B:920:LEU:N	2.18	0.58
1:D:571:SER:O	1:D:586:ARG:N	2.36	0.58
1:D:871:THR:HG22	1:D:900:ILE:HG23	1.86	0.58
1:D:1098:GLU:O	1:D:1102:SER:N	2.36	0.58
1:D:1182:HIS:CE1	1:D:1183:TRP:HB3	2.38	0.58
1:A:585:LEU:HD23	1:A:586:ARG:N	2.17	0.58
1:B:871:THR:HG22	1:B:900:ILE:HG23	1.86	0.58
1:C:167:ILE:HA	1:C:205:VAL:HG12	1.85	0.58
1:D:614:SER:OG	1:D:616:SER:OG	2.08	0.58
1:D:912:LYS:NZ	1:D:913:GLU:O	2.34	0.58
1:D:1347:THR:HA	1:D:1363:ILE:HG23	1.85	0.58
1:C:1107:ILE:HD12	1:C:1153:ALA:HA	1.84	0.58
1:D:797:THR:HG21	1:D:809:THR:HG23	1.85	0.58
1:D:823:ARG:NH1	1:D:824:VAL:O	2.37	0.58
1:B:810:LEU:HD21	1:B:860:VAL:HG12	1.85	0.58
1:D:931:LEU:O	1:D:1312:TYR:N	2.36	0.58
1:D:977:MET:HA	1:D:980:PHE:CZ	2.39	0.58
1:A:691:GLN:N	1:A:691:GLN:OE1	2.36	0.58
1:B:231:VAL:HG23	1:B:335:LEU:HD13	1.86	0.58
1:B:602:GLN:O	1:B:606:LEU:N	2.31	0.58
1:D:1258:LEU:O	1:D:1262:SER:OG	2.17	0.58
1:B:945:ARG:O	1:B:1329:LYS:N	2.37	0.58
1:C:420:THR:OG1	1:C:422:ARG:NE	2.35	0.58
1:D:267:SER:OG	1:D:289:LYS:NZ	2.36	0.58
1:D:1048:THR:O	1:D:1052:ALA:N	2.34	0.58
1:C:230:GLU:HA	1:C:333:VAL:HG11	1.86	0.57
1:A:197:GLU:OE1	1:A:197:GLU:N	2.37	0.57
1:A:804:ARG:HB2	1:A:908:GLU:H	1.69	0.57
1:B:1050:ALA:HB1	1:B:1053:ARG:NH1	2.19	0.57
1:B:1161:ASP:OD1	1:B:1161:ASP:N	2.36	0.57
1:C:197:GLU:OE1	1:C:197:GLU:N	2.37	0.57
1:D:231:VAL:HG23	1:D:335:LEU:HD13	1.86	0.57
1:D:945:ARG:O	1:D:1329:LYS:N	2.37	0.57
1:A:400:ASP:OD1	1:A:404:LEU:N	2.33	0.57
1:B:596:ALA:N	1:B:770:PHE:O	2.35	0.57
1:B:797:THR:HG21	1:B:809:THR:HG23	1.85	0.57
1:B:823:ARG:NH1	1:B:824:VAL:O	2.37	0.57
1:D:66:SER:OG	1:D:67:VAL:N	2.37	0.57
1:D:596:ALA:N	1:D:770:PHE:O	2.35	0.57
1:D:980:PHE:CE1	1:D:1041:LEU:HD23	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:290:PHE:CE2	1:A:304:VAL:HG12	2.40	0.57
1:C:346:THR:OG1	1:C:440:GLU:O	2.19	0.57
1:C:804:ARG:HB2	1:C:908:GLU:H	1.69	0.57
1:D:385:PHE:N	1:D:422:ARG:O	2.37	0.57
1:D:915:THR:OG1	1:D:916:PHE:N	2.34	0.57
1:D:999:GLU:O	1:D:1003:LYS:N	2.36	0.57
1:D:1365:LEU:HB2	1:D:1429:LEU:HD11	1.87	0.57
1:B:103:LEU:N	1:B:118:THR:O	2.38	0.57
1:D:1364:SER:OG	1:D:1429:LEU:O	2.17	0.57
1:B:266:VAL:CG2	1:B:268:ILE:HG23	2.34	0.57
1:C:161:LEU:HD12	1:C:180:SER:HB3	1.87	0.57
1:A:589:ALA:HB3	1:A:746:VAL:HG21	1.85	0.57
1:C:422:ARG:NH2	1:C:443:GLU:OE1	2.38	0.57
1:D:679:THR:HG22	1:D:681:SER:H	1.69	0.57
1:C:150:SER:OG	1:C:158:LEU:O	2.23	0.57
1:C:792:PHE:HE2	1:C:874:ALA:HB1	1.70	0.57
1:D:139:LYS:NZ	1:D:140:PRO:O	2.32	0.57
1:D:597:LEU:HD11	1:D:744:VAL:HG22	1.85	0.57
1:D:812:ALA:N	1:D:856:VAL:O	2.37	0.57
1:D:1050:ALA:HB1	1:D:1053:ARG:NH1	2.19	0.57
1:A:681:SER:OG	1:A:682:LYS:N	2.36	0.57
1:B:1039:THR:HG21	1:B:1105:ILE:HG22	1.87	0.57
1:D:924:GLY:N	1:D:1318:GLY:O	2.37	0.57
1:A:422:ARG:NH2	1:A:443:GLU:OE1	2.38	0.57
1:A:792:PHE:HE2	1:A:874:ALA:HB1	1.70	0.57
1:B:385:PHE:N	1:B:422:ARG:O	2.37	0.57
1:B:1099:VAL:O	1:B:1102:SER:OG	2.10	0.57
1:C:814:VAL:HG11	1:C:824:VAL:CG2	2.35	0.57
1:D:836:ALA:HA	1:D:860:VAL:HG23	1.86	0.57
1:A:80:GLU:OE2	1:A:80:GLU:N	2.37	0.56
1:A:551:VAL:CG1	1:A:683:ILE:HD11	2.35	0.56
1:A:987:LEU:HD21	1:A:1004:ALA:HB1	1.87	0.56
1:B:139:LYS:NZ	1:B:140:PRO:O	2.32	0.56
1:B:597:LEU:HD11	1:B:744:VAL:HG22	1.85	0.56
1:C:80:GLU:OE2	1:C:80:GLU:N	2.37	0.56
1:C:616:SER:O	1:C:620:ASN:ND2	2.38	0.56
1:B:1451:ASP:OD1	1:B:1451:ASP:N	2.38	0.56
1:C:947:SER:O	1:C:1327:SER:N	2.36	0.56
1:C:954:ILE:CG2	1:C:955:LEU:HD12	2.34	0.56
1:C:987:LEU:HD21	1:C:1004:ALA:HB1	1.87	0.56
1:A:648:VAL:HG13	1:A:656:THR:O	2.04	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:66:SER:OG	1:B:67:VAL:N	2.37	0.56
1:B:614:SER:OG	1:B:617:SER:N	2.33	0.56
1:D:266:VAL:CG2	1:D:268:ILE:HG23	2.34	0.56
1:D:457:SER:HG	1:D:483:ASN:N	2.03	0.56
1:D:1128:LEU:O	1:D:1128:LEU:HD23	2.05	0.56
1:D:1451:ASP:N	1:D:1451:ASP:OD1	2.38	0.56
1:A:386:ILE:N	1:A:395:SER:O	2.38	0.56
1:A:570:LEU:HD22	1:A:784:ALA:CB	2.35	0.56
1:A:616:SER:O	1:A:620:ASN:ND2	2.38	0.56
1:A:660:SER:OG	1:A:661:THR:N	2.38	0.56
1:B:836:ALA:HA	1:B:860:VAL:HG23	1.86	0.56
1:C:570:LEU:HD22	1:C:784:ALA:CB	2.35	0.56
1:A:814:VAL:HG11	1:A:824:VAL:CG2	2.35	0.56
1:A:1280:ILE:N	1:A:1288:SER:O	2.38	0.56
1:C:290:PHE:CE2	1:C:304:VAL:HG12	2.40	0.56
1:C:386:ILE:N	1:C:395:SER:O	2.38	0.56
1:C:1280:ILE:N	1:C:1288:SER:O	2.38	0.56
1:D:968:MET:C	1:D:969:PRO:CD	2.75	0.56
1:A:1106:THR:HG21	1:A:1124:ALA:CB	2.35	0.56
1:B:1365:LEU:HB2	1:B:1429:LEU:HD11	1.87	0.56
1:C:771:CYS:O	1:C:779:GLY:N	2.39	0.56
1:A:356:ASP:O	1:A:446:HIS:NE2	2.39	0.56
1:A:1282:SER:OG	1:A:1311:GLU:O	2.13	0.56
1:B:232:GLN:O	1:B:250:VAL:HG13	2.06	0.56
1:B:457:SER:HG	1:B:483:ASN:N	2.04	0.56
1:B:812:ALA:N	1:B:856:VAL:O	2.37	0.56
1:B:924:GLY:N	1:B:1318:GLY:O	2.37	0.56
1:D:1213:LEU:HD23	1:D:1260:ALA:HA	1.88	0.56
1:A:1295:ASN:OD1	1:A:1296:ASN:N	2.39	0.56
1:B:1128:LEU:O	1:B:1128:LEU:HD23	2.05	0.56
1:C:551:VAL:CG1	1:C:683:ILE:HD11	2.35	0.56
1:A:230:GLU:HA	1:A:333:VAL:HG11	1.86	0.56
1:C:660:SER:OG	1:C:661:THR:N	2.38	0.56
1:A:161:LEU:HD12	1:A:180:SER:HB3	1.87	0.56
1:B:1311:GLU:N	1:B:1311:GLU:OE1	2.39	0.56
1:C:637:GLN:O	1:C:684:ARG:NH1	2.39	0.56
1:C:764:GLU:OE1	1:C:764:GLU:N	2.39	0.56
1:C:911:GLU:N	1:C:911:GLU:OE1	2.39	0.56
1:C:1295:ASN:OD1	1:C:1296:ASN:N	2.39	0.56
1:B:572:PHE:CD2	1:B:786:LEU:HD12	2.42	0.55
1:B:968:MET:C	1:B:969:PRO:CD	2.75	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:363:ILE:HD12	1:C:364:PRO:HD2	1.87	0.55
1:D:978:VAL:HG12	1:D:1091:ILE:CD1	2.34	0.55
1:A:932:SER:OG	1:A:1310:GLY:N	2.40	0.55
1:B:952:GLY:N	1:B:1297:ARG:O	2.39	0.55
1:A:150:SER:OG	1:A:158:LEU:O	2.23	0.55
1:A:771:CYS:O	1:A:779:GLY:N	2.39	0.55
1:C:116:LYS:NZ	1:C:677:ALA:O	2.38	0.55
1:C:768:GLY:HA2	1:C:783:THR:HG22	1.88	0.55
1:D:614:SER:OG	1:D:617:SER:N	2.33	0.55
1:A:363:ILE:HD12	1:A:364:PRO:HD2	1.87	0.55
1:A:911:GLU:N	1:A:911:GLU:OE1	2.39	0.55
1:C:304:VAL:O	1:C:305:LYS:NZ	2.35	0.55
1:D:1311:GLU:N	1:D:1311:GLU:OE1	2.39	0.55
1:A:420:THR:OG1	1:A:422:ARG:NE	2.35	0.55
1:A:1147:LYS:HD3	1:A:1170:LEU:HD21	1.89	0.55
1:C:311:LEU:N	1:C:311:LEU:HD23	2.21	0.55
1:D:232:GLN:O	1:D:250:VAL:HG13	2.06	0.55
1:D:288:GLU:OE1	1:D:288:GLU:N	2.40	0.55
1:D:952:GLY:N	1:D:1297:ARG:O	2.39	0.55
1:D:1250:SER:CB	1:D:1253:ASP:HB2	2.37	0.55
1:A:637:GLN:O	1:A:684:ARG:NH1	2.39	0.55
1:A:764:GLU:N	1:A:764:GLU:OE1	2.39	0.55
1:B:288:GLU:N	1:B:288:GLU:OE1	2.40	0.55
1:C:1147:LYS:HD3	1:C:1170:LEU:HD21	1.89	0.55
1:A:1042:THR:HA	1:A:1045:VAL:HG22	1.89	0.55
1:C:356:ASP:O	1:C:446:HIS:NE2	2.39	0.55
1:A:640:GLU:N	1:A:640:GLU:OE1	2.40	0.55
1:C:320:LEU:HD12	1:C:338:ARG:HB3	1.88	0.55
1:D:977:MET:HE3	1:D:1027:THR:HA	1.88	0.55
1:D:1039:THR:HG21	1:D:1105:ILE:HG22	1.87	0.55
1:A:311:LEU:N	1:A:311:LEU:HD23	2.21	0.55
1:A:987:LEU:HD21	1:A:1004:ALA:CB	2.37	0.55
1:C:1106:THR:HG21	1:C:1124:ALA:CB	2.35	0.55
1:A:1085:SER:HA	1:C:692:LEU:HD11	1.89	0.55
1:A:320:LEU:HD12	1:A:338:ARG:HB3	1.88	0.54
1:B:173:ASN:N	1:B:173:ASN:OD1	2.40	0.54
1:B:1098:GLU:O	1:B:1102:SER:N	2.36	0.54
1:B:1176:LYS:HB3	1:B:1181:VAL:HG12	1.89	0.54
1:B:1213:LEU:HD23	1:B:1260:ALA:HA	1.88	0.54
1:C:1332:ILE:O	1:C:1333:LEU:HB2	2.07	0.54
1:D:103:LEU:N	1:D:118:THR:O	2.38	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:384:ILE:HD12	1:D:421:VAL:HG11	1.89	0.54
1:B:1255:VAL:HG23	1:B:1256:VAL:HG23	1.90	0.54
1:C:274:ASP:OD2	1:D:314:LYS:N	2.40	0.54
1:B:758:VAL:O	1:B:758:VAL:CG1	2.52	0.54
1:C:312:LYS:HD3	1:C:313:ARG:N	2.23	0.54
1:D:874:ALA:N	1:D:897:ASP:O	2.40	0.54
1:A:595:CYS:N	1:A:744:VAL:O	2.38	0.54
1:A:768:GLY:HA2	1:A:783:THR:HG22	1.88	0.54
1:B:384:ILE:HD12	1:B:421:VAL:HG11	1.89	0.54
1:D:189:GLN:OE1	1:D:189:GLN:N	2.38	0.54
1:A:296:SER:OG	1:A:297:HIS:N	2.40	0.54
1:A:1107:ILE:HD13	1:A:1152:TYR:CD2	2.42	0.54
1:B:960:GLN:N	1:B:960:GLN:OE1	2.41	0.54
1:C:932:SER:OG	1:C:1310:GLY:N	2.40	0.54
1:C:1107:ILE:HD13	1:C:1152:TYR:CD2	2.42	0.54
1:D:572:PHE:CD2	1:D:786:LEU:HD12	2.42	0.54
1:A:666:MET:HB3	1:A:683:ILE:HD12	1.90	0.54
1:A:1332:ILE:O	1:A:1333:LEU:HB2	2.07	0.54
1:A:1332:ILE:C	1:A:1334:PRO:HD3	2.33	0.54
1:C:666:MET:HB3	1:C:683:ILE:HD12	1.90	0.54
1:D:1255:VAL:HG23	1:D:1256:VAL:HG23	1.90	0.54
1:B:418:SER:C	1:B:419:LEU:HD12	2.32	0.54
1:B:798:MET:HE1	1:B:800:TYR:HD1	1.72	0.54
1:A:486:THR:HG21	1:A:515:VAL:HG21	1.90	0.54
1:C:497:TYR:CE1	1:C:526:ILE:HD11	2.43	0.54
1:D:386:ILE:HA	1:D:421:VAL:HG22	1.89	0.54
1:A:116:LYS:NZ	1:A:677:ALA:O	2.38	0.54
1:C:546:LEU:HD12	1:C:550:ASP:CB	2.38	0.54
1:C:1042:THR:HA	1:C:1045:VAL:HG22	1.89	0.54
1:D:137:ILE:HD11	1:D:607:MET:HE3	1.89	0.54
1:D:173:ASN:N	1:D:173:ASN:OD1	2.40	0.54
1:D:798:MET:HE1	1:D:800:TYR:HD1	1.72	0.54
1:A:692:LEU:HD11	1:C:1085:SER:HA	1.89	0.54
1:B:137:ILE:HD11	1:B:607:MET:HE3	1.89	0.54
1:C:486:THR:HG21	1:C:515:VAL:HG21	1.90	0.54
1:C:987:LEU:HD21	1:C:1004:ALA:CB	2.37	0.54
1:D:418:SER:C	1:D:419:LEU:HD12	2.32	0.54
1:A:329:GLU:OE2	1:A:855:THR:OG1	2.20	0.53
1:B:1383:VAL:HG23	1:B:1414:HIS:HA	1.90	0.53
1:A:34:LEU:C	1:A:675:LEU:HD23	2.33	0.53
1:A:597:LEU:HD22	1:A:744:VAL:HG11	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:975:GLN:CD	1:B:975:GLN:H	2.15	0.53
1:B:1253:ASP:O	1:B:1256:VAL:N	2.41	0.53
1:C:34:LEU:C	1:C:675:LEU:HD23	2.33	0.53
1:A:546:LEU:HD12	1:A:550:ASP:CB	2.38	0.53
1:B:874:ALA:N	1:B:897:ASP:O	2.40	0.53
1:C:296:SER:OG	1:C:297:HIS:N	2.40	0.53
1:D:226:LEU:O	1:D:228:LYS:NZ	2.33	0.53
1:D:670:LEU:O	1:D:674:GLY:N	2.41	0.53
1:A:954:ILE:HG23	1:A:955:LEU:HD12	1.91	0.53
1:B:1393:LYS:O	1:B:1396:VAL:N	2.40	0.53
1:D:167:ILE:HD12	1:D:176:ALA:CB	2.38	0.53
1:A:583:ALA:HB3	1:A:757:THR:HG21	1.91	0.53
1:B:120:VAL:C	1:B:121:MET:HE2	2.34	0.53
1:B:167:ILE:HD12	1:B:176:ALA:CB	2.38	0.53
1:B:1250:SER:CB	1:B:1253:ASP:HB2	2.37	0.53
1:C:583:ALA:HB3	1:C:757:THR:HG21	1.91	0.53
1:A:274:ASP:OD2	1:B:314:LYS:N	2.40	0.53
1:A:312:LYS:HD3	1:A:313:ARG:N	2.23	0.53
1:A:497:TYR:CE1	1:A:526:ILE:HD11	2.43	0.53
1:C:595:CYS:N	1:C:744:VAL:O	2.38	0.53
1:C:615:ALA:HB2	1:C:780:ILE:HG21	1.91	0.53
1:D:1176:LYS:HB3	1:D:1181:VAL:HG12	1.89	0.53
1:B:457:SER:OG	1:B:483:ASN:N	2.40	0.53
1:B:983:ASN:O	1:B:986:VAL:HG22	2.09	0.53
1:A:792:PHE:CE2	1:A:874:ALA:HB1	2.44	0.53
1:B:239:ILE:HD13	1:B:246:MET:HE3	1.91	0.53
1:D:120:VAL:C	1:D:121:MET:HE2	2.34	0.53
1:D:1393:LYS:O	1:D:1396:VAL:N	2.40	0.53
1:A:615:ALA:HB2	1:A:780:ILE:HG21	1.91	0.52
1:B:30:GLN:NE2	1:B:547:PRO:O	2.42	0.52
1:B:916:PHE:HB3	1:B:931:LEU:HD11	1.91	0.52
1:B:959:MET:O	1:B:962:THR:OG1	2.20	0.52
1:C:597:LEU:HD22	1:C:744:VAL:HG11	1.90	0.52
1:D:271:LYS:N	1:D:317:GLU:O	2.41	0.52
1:B:271:LYS:N	1:B:317:GLU:O	2.41	0.52
1:C:1332:ILE:C	1:C:1334:PRO:HD3	2.33	0.52
1:D:34:LEU:HD12	1:D:675:LEU:HD11	1.91	0.52
1:D:1208:MET:O	1:D:1212:VAL:HG23	2.10	0.52
1:D:30:GLN:NE2	1:D:547:PRO:O	2.42	0.52
1:D:570:LEU:HB2	1:D:585:LEU:HD11	1.91	0.52
1:D:1383:VAL:HG23	1:D:1414:HIS:HA	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:916:PHE:HB3	1:D:931:LEU:HD11	1.91	0.52
1:A:500:MET:SD	1:A:506:VAL:N	2.80	0.52
1:B:670:LEU:O	1:B:674:GLY:N	2.41	0.52
1:C:640:GLU:OE1	1:C:640:GLU:N	2.40	0.52
1:D:647:ASN:O	1:D:691:GLN:NE2	2.43	0.52
1:D:983:ASN:O	1:D:986:VAL:HG22	2.09	0.52
1:D:1392:LEU:O	1:D:1395:THR:OG1	2.14	0.52
1:B:647:ASN:O	1:B:691:GLN:NE2	2.43	0.52
1:B:746:VAL:HG22	1:B:747:ASN:O	2.10	0.52
1:C:792:PHE:CE2	1:C:874:ALA:HB1	2.44	0.52
1:D:1099:VAL:O	1:D:1102:SER:OG	2.10	0.52
1:C:954:ILE:HG23	1:C:955:LEU:HD12	1.91	0.52
1:A:237:LYS:O	1:A:338:ARG:NH1	2.43	0.52
1:A:599:ALA:HB3	1:A:740:ILE:H	1.75	0.52
1:B:386:ILE:HA	1:B:421:VAL:HG22	1.89	0.52
1:B:665:ASP:O	1:B:668:SER:OG	2.19	0.52
1:B:881:GLU:C	1:B:882:LEU:HD12	2.34	0.52
1:D:835:LEU:HB2	1:D:861:THR:HG23	1.92	0.52
1:D:881:GLU:C	1:D:882:LEU:HD12	2.34	0.52
1:A:304:VAL:O	1:A:305:LYS:NZ	2.35	0.52
1:A:570:LEU:HD11	1:A:767:ALA:HB3	1.92	0.52
1:A:1068:ILE:HG22	1:C:67:VAL:HG21	1.92	0.52
1:B:570:LEU:HB2	1:B:585:LEU:HD11	1.91	0.52
1:B:871:THR:CG2	1:B:900:ILE:HG23	2.40	0.52
1:C:237:LYS:O	1:C:338:ARG:NH1	2.43	0.52
1:A:67:VAL:HG21	1:C:1068:ILE:HG22	1.92	0.51
1:A:148:VAL:HG22	1:A:149:VAL:H	1.76	0.51
1:A:949:SER:OG	1:A:1325:GLN:O	2.19	0.51
1:D:239:ILE:HD13	1:D:246:MET:HE3	1.91	0.51
1:D:499:ILE:HD13	1:D:507:ARG:HB2	1.93	0.51
1:A:264:VAL:HG23	1:A:291:SER:HA	1.92	0.51
1:B:363:ILE:O	1:B:411:THR:HG21	2.10	0.51
1:B:658:VAL:HA	1:C:656:THR:HG22	1.92	0.51
1:D:203:TYR:O	1:D:219:PHE:N	2.39	0.51
1:D:1253:ASP:O	1:D:1256:VAL:N	2.41	0.51
1:A:400:ASP:OD1	1:A:403:GLY:N	2.44	0.51
1:C:284:GLN:NE2	1:C:287:CYS:SG	2.84	0.51
1:D:373:ASP:OD1	1:D:373:ASP:N	2.43	0.51
1:D:1252:GLN:O	1:D:1254:THR:N	2.44	0.51
1:B:1252:GLN:O	1:B:1254:THR:N	2.44	0.51
1:D:566:ASN:HD21	1:D:589:ALA:HB1	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:284:GLN:NE2	1:A:287:CYS:SG	2.84	0.51
1:A:1245:GLN:NE2	1:A:1247:GLY:O	2.44	0.51
1:B:36:PRO:HB3	1:B:500:MET:HE1	1.93	0.51
1:B:1208:MET:O	1:B:1212:VAL:HG23	2.10	0.51
1:C:54:LEU:O	1:C:55:ASN:HA	2.02	0.51
1:C:183:LEU:HD11	1:C:187:LEU:HA	1.91	0.51
1:C:371:LEU:HD23	1:C:372:VAL:N	2.26	0.51
1:C:1252:GLN:O	1:C:1256:VAL:HG22	2.11	0.51
1:D:36:PRO:HB3	1:D:500:MET:HE1	1.93	0.51
1:D:1338:GLU:OE1	1:D:1338:GLU:N	2.44	0.51
1:A:131:VAL:O	1:A:217:HIS:NE2	2.44	0.51
1:A:1252:GLN:O	1:A:1256:VAL:HG22	2.11	0.51
1:B:34:LEU:HD12	1:B:675:LEU:HD11	1.91	0.51
1:B:189:GLN:OE1	1:B:189:GLN:N	2.38	0.51
1:B:566:ASN:HD21	1:B:589:ALA:HB1	1.75	0.51
1:C:570:LEU:HD11	1:C:767:ALA:HB3	1.92	0.51
1:D:746:VAL:HG22	1:D:747:ASN:O	2.10	0.51
1:A:183:LEU:HD11	1:A:187:LEU:HA	1.91	0.51
1:A:429:SER:O	1:A:431:CYS:N	2.43	0.51
1:A:843:GLN:NE2	1:A:844:ALA:O	2.44	0.51
1:C:773:SER:N	1:C:777:GLY:O	2.40	0.51
1:D:960:GLN:OE1	1:D:960:GLN:N	2.41	0.51
1:A:746:VAL:HG22	1:A:747:ASN:O	2.11	0.51
1:C:148:VAL:HG22	1:C:149:VAL:H	1.76	0.51
1:D:99:GLU:O	1:D:122:VAL:HG22	2.10	0.51
1:D:363:ILE:O	1:D:411:THR:HG21	2.10	0.51
1:D:1185:ARG:HB3	1:D:1186:PRO:HD2	1.92	0.51
1:A:493:LEU:HD12	1:A:494:SER:H	1.76	0.51
1:B:99:GLU:O	1:B:122:VAL:HG22	2.10	0.51
1:C:429:SER:O	1:C:431:CYS:N	2.43	0.51
1:C:538:ALA:O	1:C:558:TYR:N	2.43	0.51
1:D:295:ASN:ND2	1:D:299:CYS:O	2.44	0.51
1:D:864:SER:C	1:D:865:LEU:HD22	2.36	0.51
1:D:978:VAL:HB	1:D:1252:GLN:NE2	2.26	0.51
1:A:311:LEU:HD23	1:A:311:LEU:H	1.76	0.51
1:B:203:TYR:O	1:B:219:PHE:N	2.39	0.51
1:B:864:SER:C	1:B:865:LEU:HD22	2.36	0.51
1:C:400:ASP:OD1	1:C:403:GLY:N	2.44	0.51
1:C:843:GLN:NE2	1:C:844:ALA:O	2.44	0.51
1:A:371:LEU:HD23	1:A:372:VAL:N	2.26	0.50
1:B:47:GLY:N	1:B:87:VAL:O	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:371:LEU:HD23	1:B:378:PRO:HB3	1.93	0.50
1:C:131:VAL:O	1:C:217:HIS:NE2	2.44	0.50
1:D:1361:PHE:CE2	1:D:1363:ILE:HD11	2.46	0.50
1:A:656:THR:HG22	1:D:658:VAL:HA	1.92	0.50
1:B:390:GLU:OE1	1:B:390:GLU:HA	2.11	0.50
1:D:570:LEU:HD21	1:D:784:ALA:HB3	1.93	0.50
1:B:1361:PHE:CE2	1:B:1363:ILE:HD11	2.46	0.50
1:C:1163:ARG:HA	1:C:1166:VAL:HG12	1.93	0.50
1:D:871:THR:CG2	1:D:900:ILE:HG23	2.40	0.50
1:A:974:GLU:O	1:A:978:VAL:HG23	2.12	0.50
1:B:763:THR:OG1	1:B:764:GLU:OE1	2.28	0.50
1:C:598:ARG:N	1:C:768:GLY:O	2.45	0.50
1:A:96:SER:OG	1:A:97:ASN:N	2.44	0.50
1:A:773:SER:N	1:A:777:GLY:O	2.40	0.50
1:B:499:ILE:HD13	1:B:507:ARG:HB2	1.93	0.50
1:B:1237:TRP:O	1:B:1241:GLN:N	2.45	0.50
1:B:1338:GLU:N	1:B:1338:GLU:OE1	2.44	0.50
1:D:969:PRO:HD2	1:D:979:LEU:CD1	2.33	0.50
1:A:312:LYS:HD3	1:A:313:ARG:H	1.77	0.50
1:A:665:ASP:OD1	1:A:666:MET:N	2.45	0.50
1:B:47:GLY:O	1:B:87:VAL:N	2.45	0.50
1:B:1352:CYS:SG	1:B:1358:HIS:N	2.85	0.50
1:D:1252:GLN:O	1:D:1255:VAL:HG22	2.12	0.50
1:A:143:THR:HG23	1:A:192:PHE:C	2.37	0.50
1:A:598:ARG:N	1:A:768:GLY:O	2.45	0.50
1:B:295:ASN:ND2	1:B:299:CYS:O	2.44	0.50
1:B:1185:ARG:HB3	1:B:1186:PRO:HD2	1.92	0.50
1:B:1210:SER:OG	1:B:1211:TYR:N	2.45	0.50
1:C:599:ALA:HB3	1:C:740:ILE:H	1.75	0.50
1:D:763:THR:OG1	1:D:764:GLU:OE1	2.28	0.50
1:D:1210:SER:OG	1:D:1211:TYR:N	2.45	0.50
1:A:241:ILE:HD13	1:A:343:ILE:CG2	2.42	0.50
1:B:570:LEU:HD21	1:B:784:ALA:HB3	1.93	0.50
1:B:835:LEU:HB2	1:B:861:THR:HG23	1.92	0.50
1:B:837:VAL:N	1:B:859:ALA:O	2.45	0.50
1:C:143:THR:HG23	1:C:192:PHE:C	2.37	0.50
1:C:814:VAL:CG1	1:C:824:VAL:HG11	2.41	0.50
1:A:143:THR:HG22	1:A:191:SER:OG	2.12	0.50
1:B:325:GLN:HA	1:B:332:VAL:HG13	1.94	0.50
1:B:373:ASP:OD1	1:B:373:ASP:N	2.43	0.50
1:B:1160:GLN:OE1	1:B:1160:GLN:N	2.42	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:143:THR:HG22	1:C:191:SER:OG	2.12	0.50
1:C:493:LEU:HD12	1:C:494:SER:H	1.76	0.50
1:C:666:MET:HE3	1:C:669:PHE:CB	2.42	0.50
1:C:746:VAL:HG22	1:C:747:ASN:O	2.11	0.50
1:D:1291:GLN:N	1:D:1291:GLN:OE1	2.45	0.50
1:A:538:ALA:O	1:A:558:TYR:N	2.43	0.49
1:A:570:LEU:HA	1:A:587:VAL:HG22	1.93	0.49
1:B:266:VAL:HG22	1:B:268:ILE:HG23	1.94	0.49
1:C:241:ILE:HD13	1:C:343:ILE:CG2	2.42	0.49
1:D:325:GLN:HA	1:D:332:VAL:HG13	1.94	0.49
1:B:932:SER:C	1:B:933:LEU:HD12	2.38	0.49
1:B:1386:VAL:HG12	1:B:1387:SER:H	1.77	0.49
1:C:1046:LEU:HD21	1:C:1067:LEU:HD21	1.94	0.49
1:D:47:GLY:O	1:D:87:VAL:N	2.45	0.49
1:D:1214:LEU:HD21	1:D:1259:HIS:CE1	2.47	0.49
1:B:679:THR:HG22	1:B:681:SER:N	2.27	0.49
1:B:948:VAL:O	1:B:949:SER:OG	2.25	0.49
1:C:329:GLU:OE2	1:C:855:THR:OG1	2.20	0.49
1:D:910:LEU:O	1:D:1332:ILE:N	2.41	0.49
1:D:1386:VAL:HG12	1:D:1387:SER:H	1.77	0.49
1:A:666:MET:HB3	1:A:683:ILE:HG23	1.95	0.49
1:A:666:MET:HE3	1:A:669:PHE:CB	2.42	0.49
1:A:1163:ARG:HA	1:A:1166:VAL:HG12	1.93	0.49
1:B:77:LEU:CD2	1:B:87:VAL:HG11	2.41	0.49
1:D:837:VAL:N	1:D:859:ALA:O	2.45	0.49
1:D:1109:LEU:HD12	1:D:1117:THR:HG23	1.94	0.49
1:A:814:VAL:CG1	1:A:824:VAL:HG11	2.41	0.49
1:B:1214:LEU:HD21	1:B:1259:HIS:CE1	2.47	0.49
1:C:264:VAL:HG23	1:C:291:SER:HA	1.92	0.49
1:C:570:LEU:HA	1:C:587:VAL:HG22	1.93	0.49
1:A:54:LEU:O	1:A:55:ASN:HA	2.02	0.49
1:A:176:ALA:HB1	1:A:178:TRP:CZ3	2.48	0.49
1:B:351:SER:O	1:B:369:VAL:HG13	2.13	0.49
1:C:142:GLN:O	1:C:194:LEU:N	2.44	0.49
1:C:311:LEU:HD23	1:C:311:LEU:H	1.76	0.49
1:C:665:ASP:OD1	1:C:666:MET:N	2.45	0.49
1:C:974:GLU:O	1:C:978:VAL:HG23	2.12	0.49
1:D:519:ASP:OD1	1:D:521:LYS:NZ	2.31	0.49
1:D:1160:GLN:OE1	1:D:1160:GLN:N	2.42	0.49
1:D:1237:TRP:O	1:D:1241:GLN:N	2.45	0.49
1:D:1352:CYS:SG	1:D:1358:HIS:N	2.85	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:951:LEU:HD21	1:B:953:ASP:OD2	2.12	0.49
1:B:1398:MET:CG	1:B:1415:VAL:HG13	2.43	0.49
1:C:666:MET:HB3	1:C:683:ILE:HG23	1.95	0.49
1:D:209:LYS:O	1:D:212:GLY:N	2.46	0.49
1:D:266:VAL:HG22	1:D:268:ILE:HG23	1.94	0.49
1:D:1128:LEU:O	1:D:1132:TRP:N	2.43	0.49
1:A:45:GLU:O	1:A:89:PHE:N	2.45	0.49
1:A:414:VAL:HG13	1:D:646:HIS:ND1	2.28	0.49
1:A:946:ALA:O	1:A:1305:LEU:N	2.46	0.49
1:B:1252:GLN:O	1:B:1255:VAL:HG22	2.12	0.49
1:D:371:LEU:HD23	1:D:378:PRO:HB3	1.93	0.49
1:D:390:GLU:OE1	1:D:390:GLU:HA	2.11	0.49
1:B:209:LYS:O	1:B:212:GLY:N	2.46	0.49
1:C:45:GLU:O	1:C:89:PHE:N	2.45	0.49
1:D:932:SER:C	1:D:933:LEU:HD12	2.38	0.49
1:D:1276:ALA:O	1:D:1277:GLN:NE2	2.46	0.49
1:A:314:LYS:NZ	1:A:314:LYS:CB	2.76	0.49
1:A:582:HIS:O	1:A:582:HIS:ND1	2.44	0.49
1:A:794:VAL:HG23	1:A:813:THR:O	2.13	0.49
1:B:51:LEU:O	1:B:82:ASP:N	2.42	0.49
1:B:1291:GLN:OE1	1:B:1291:GLN:N	2.45	0.49
1:B:1448:LYS:HE2	1:B:1462:GLU:HA	1.95	0.49
1:C:96:SER:OG	1:C:97:ASN:N	2.44	0.49
1:D:47:GLY:N	1:D:87:VAL:O	2.44	0.49
1:D:77:LEU:CD2	1:D:87:VAL:HG11	2.41	0.49
1:D:241:ILE:HD12	1:D:347:ILE:HG13	1.95	0.49
1:D:951:LEU:HD21	1:D:953:ASP:OD2	2.12	0.49
2:E:2:NAG:H3	2:E:2:NAG:H82	1.95	0.49
1:B:646:HIS:ND1	1:C:414:VAL:HG13	2.28	0.48
1:A:1046:LEU:HD21	1:A:1067:LEU:HD21	1.94	0.48
1:B:1128:LEU:O	1:B:1132:TRP:N	2.43	0.48
1:B:1109:LEU:HD12	1:B:1117:THR:HG23	1.94	0.48
1:B:1276:ALA:O	1:B:1277:GLN:NE2	2.46	0.48
1:C:946:ALA:O	1:C:1305:LEU:N	2.46	0.48
1:D:679:THR:HG22	1:D:681:SER:N	2.27	0.48
1:D:1398:MET:CG	1:D:1415:VAL:HG13	2.43	0.48
1:A:142:GLN:O	1:A:194:LEU:N	2.44	0.48
1:A:954:ILE:O	1:A:957:SER:OG	2.30	0.48
1:A:1332:ILE:C	1:A:1334:PRO:CD	2.87	0.48
1:B:804:ARG:CZ	1:B:865:LEU:HD21	2.43	0.48
1:C:176:ALA:HB1	1:C:178:TRP:CZ3	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:976:ASN:O	1:D:980:PHE:CD2	2.67	0.48
1:A:247:ASN:OD1	1:A:248:VAL:N	2.47	0.48
1:A:410:ASN:C	1:A:411:THR:HG23	2.38	0.48
1:B:775:ASP:OD1	1:B:776:ALA:N	2.46	0.48
1:D:747:ASN:OD1	1:D:750:GLY:N	2.47	0.48
1:B:747:ASN:OD1	1:B:750:GLY:N	2.47	0.48
1:B:1073:ARG:HH22	1:B:1105:ILE:HG21	1.78	0.48
1:C:410:ASN:C	1:C:411:THR:HG23	2.38	0.48
1:C:794:VAL:HG23	1:C:813:THR:O	2.13	0.48
1:D:1124:ALA:O	1:D:1128:LEU:N	2.42	0.48
1:B:241:ILE:HD12	1:B:347:ILE:HG13	1.95	0.48
1:C:1178:ASP:OD1	1:C:1179:ASN:N	2.47	0.48
1:C:1332:ILE:C	1:C:1334:PRO:CD	2.87	0.48
1:D:457:SER:OG	1:D:483:ASN:N	2.40	0.48
1:C:70:ASN:O	1:C:70:ASN:ND2	2.47	0.48
1:C:264:VAL:HG12	1:C:324:ALA:HA	1.95	0.48
1:C:582:HIS:O	1:C:582:HIS:ND1	2.44	0.48
1:C:1245:GLN:NE2	1:C:1247:GLY:O	2.44	0.48
1:D:351:SER:O	1:D:369:VAL:HG13	2.13	0.48
1:D:1000:ILE:HG23	1:D:1001:LYS:HD3	1.95	0.48
1:D:1073:ARG:HH22	1:D:1105:ILE:HG21	1.78	0.48
2:K:2:NAG:H82	2:K:2:NAG:H3	1.95	0.48
1:A:85:HIS:O	1:A:85:HIS:ND1	2.47	0.48
1:A:1178:ASP:OD1	1:A:1179:ASN:N	2.47	0.48
1:C:312:LYS:HD3	1:C:313:ARG:H	1.77	0.48
1:D:497:TYR:C	1:D:498:LEU:HD22	2.39	0.48
1:D:775:ASP:OD1	1:D:776:ALA:N	2.46	0.48
1:A:751:VAL:HG22	1:A:753:GLU:CG	2.44	0.48
1:B:1000:ILE:HG23	1:B:1001:LYS:HD3	1.95	0.48
1:D:804:ARG:CZ	1:D:865:LEU:HD21	2.43	0.48
1:D:1007:TYR:O	1:D:1010:THR:OG1	2.17	0.48
1:A:62:ALA:N	1:A:75:THR:O	2.44	0.47
1:A:264:VAL:HG12	1:A:324:ALA:HA	1.95	0.47
1:A:914:THR:HG22	1:A:1178:ASP:HB2	1.96	0.47
1:B:241:ILE:O	1:B:243:GLU:N	2.47	0.47
1:B:810:LEU:H	1:B:810:LEU:CD2	2.26	0.47
1:C:314:LYS:NZ	1:C:314:LYS:CB	2.76	0.47
1:C:751:VAL:HG22	1:C:753:GLU:CG	2.44	0.47
1:D:51:LEU:O	1:D:82:ASP:N	2.42	0.47
1:D:1123:ASN:O	1:D:1126:PHE:N	2.46	0.47
1:A:70:ASN:ND2	1:A:70:ASN:O	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1252:GLN:O	1:B:1253:ASP:C	2.56	0.47
1:C:554:ASP:OD1	1:C:554:ASP:N	2.47	0.47
1:A:1025:TYR:O	1:A:1041:LEU:HD22	2.14	0.47
1:B:1067:LEU:O	1:B:1070:LEU:N	2.45	0.47
1:C:64:LEU:HD12	1:C:73:LEU:HD22	1.96	0.47
1:C:570:LEU:HG	1:C:587:VAL:HG22	1.96	0.47
1:C:914:THR:HG22	1:C:1178:ASP:HB2	1.96	0.47
1:D:1252:GLN:O	1:D:1253:ASP:C	2.56	0.47
1:A:805:GLY:HA3	1:A:908:GLU:O	2.14	0.47
1:B:497:TYR:C	1:B:498:LEU:HD22	2.39	0.47
1:B:967:GLN:O	1:B:969:PRO:HD3	2.15	0.47
1:D:828:LEU:HG	1:D:871:THR:O	2.15	0.47
1:D:1039:THR:HA	1:D:1042:THR:HG22	1.96	0.47
1:B:572:PHE:CG	1:B:786:LEU:HD12	2.50	0.47
1:D:799:PRO:O	1:D:800:TYR:HB2	2.14	0.47
1:B:410:ASN:HD22	1:B:410:ASN:HA	1.54	0.47
1:B:975:GLN:CD	1:B:975:GLN:N	2.72	0.47
1:C:247:ASN:OD1	1:C:248:VAL:N	2.47	0.47
1:C:500:MET:SD	1:C:506:VAL:N	2.80	0.47
1:C:805:GLY:HA3	1:C:908:GLU:O	2.14	0.47
1:C:1025:TYR:O	1:C:1041:LEU:HD22	2.14	0.47
1:D:233:VAL:HA	1:D:250:VAL:HG22	1.96	0.47
1:D:241:ILE:O	1:D:243:GLU:N	2.47	0.47
1:D:1448:LYS:HE2	1:D:1462:GLU:HA	1.95	0.47
1:A:819:PRO:HA	1:A:850:ALA:HB2	1.96	0.47
1:B:233:VAL:HA	1:B:250:VAL:HG22	1.96	0.47
1:B:802:VAL:O	1:B:906:GLU:N	2.46	0.47
1:B:961:ASN:ND2	1:B:1241:GLN:OE1	2.45	0.47
1:C:85:HIS:O	1:C:85:HIS:ND1	2.47	0.47
1:C:147:ARG:HB3	1:C:187:LEU:HD13	1.97	0.47
1:C:595:CYS:O	1:C:744:VAL:N	2.40	0.47
1:C:816:ASN:OD1	1:C:818:LEU:N	2.46	0.47
1:C:949:SER:OG	1:C:1325:GLN:O	2.19	0.47
1:C:1231:ALA:O	1:C:1235:VAL:HG23	2.14	0.47
1:D:594:VAL:HG12	1:D:745:VAL:HG22	1.96	0.47
1:D:1341:PHE:CB	1:D:1459:ALA:HB1	2.45	0.47
1:A:311:LEU:H	1:A:311:LEU:CD2	2.28	0.47
1:A:570:LEU:HG	1:A:587:VAL:HG22	1.96	0.47
1:C:1232:THR:HG22	1:C:1264:TYR:OH	2.15	0.47
1:D:1059:ASP:CG	1:D:1061:ALA:HB3	2.40	0.47
1:D:1067:LEU:O	1:D:1070:LEU:N	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:554:ASP:N	1:A:554:ASP:OD1	2.47	0.47
1:B:599:ALA:HB3	1:B:740:ILE:CB	2.44	0.47
1:B:1228:LEU:O	1:B:1231:ALA:N	2.47	0.47
1:C:1027:THR:HG21	1:C:1087:LEU:HD21	1.97	0.47
1:D:607:MET:HE1	1:D:733:LYS:CD	2.45	0.47
1:D:968:MET:HA	1:D:969:PRO:HD2	1.97	0.47
1:A:162:ILE:O	1:A:180:SER:N	2.43	0.47
1:A:313:ARG:O	1:A:313:ARG:HD2	2.15	0.47
1:A:1231:ALA:O	1:A:1235:VAL:HG23	2.14	0.47
1:B:594:VAL:HG12	1:B:745:VAL:HG22	1.96	0.47
1:C:570:LEU:HD23	1:C:571:SER:N	2.30	0.47
1:D:853:ARG:HH11	1:D:855:THR:HG23	1.79	0.47
1:D:1228:LEU:O	1:D:1231:ALA:N	2.47	0.47
1:A:546:LEU:N	1:A:550:ASP:O	2.41	0.46
1:A:747:ASN:OD1	1:A:749:ALA:N	2.47	0.46
1:A:1277:GLN:NE2	1:A:1290:PHE:O	2.49	0.46
1:B:828:LEU:HG	1:B:871:THR:O	2.15	0.46
1:B:967:GLN:O	1:B:969:PRO:CD	2.63	0.46
1:B:993:THR:HG21	1:B:996:LEU:HB2	1.97	0.46
1:B:1059:ASP:CG	1:B:1061:ALA:HB3	2.40	0.46
1:B:1341:PHE:CB	1:B:1459:ALA:HB1	2.45	0.46
1:D:572:PHE:CG	1:D:786:LEU:HD12	2.50	0.46
1:A:1118:HIS:HB3	1:A:1121:VAL:HG12	1.97	0.46
1:B:144:VAL:N	1:B:192:PHE:O	2.49	0.46
1:B:799:PRO:O	1:B:800:TYR:HB2	2.14	0.46
1:C:819:PRO:HA	1:C:850:ALA:HB2	1.96	0.46
1:A:595:CYS:O	1:A:744:VAL:N	2.40	0.46
1:A:1232:THR:HG22	1:A:1264:TYR:OH	2.15	0.46
1:B:111:THR:HG23	1:B:112:GLN:HG2	1.98	0.46
1:B:607:MET:HE1	1:B:733:LYS:CD	2.45	0.46
1:B:853:ARG:HH11	1:B:855:THR:HG23	1.79	0.46
1:B:1398:MET:HG3	1:B:1415:VAL:HG13	1.97	0.46
1:D:60:VAL:HG12	1:D:107:VAL:HA	1.98	0.46
1:D:144:VAL:N	1:D:192:PHE:O	2.49	0.46
1:A:147:ARG:HB3	1:A:187:LEU:HD13	1.97	0.46
1:A:1072:GLN:O	1:C:637:GLN:NE2	2.48	0.46
1:A:1141:GLY:O	1:A:1146:THR:OG1	2.32	0.46
1:B:1039:THR:HA	1:B:1042:THR:HG22	1.96	0.46
1:B:1166:VAL:O	1:B:1169:SER:OG	2.31	0.46
1:D:143:THR:HA	1:D:193:PRO:HA	1.98	0.46
1:D:993:THR:HG21	1:D:996:LEU:HB2	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:964:ASN:ND2	1:A:1246:GLY:O	2.48	0.46
1:D:823:ARG:HH12	1:D:846:HIS:HA	1.80	0.46
1:D:981:ALA:HB3	1:D:982:PRO:CD	2.46	0.46
1:B:617:SER:O	1:B:620:ASN:N	2.49	0.46
1:C:1277:GLN:NE2	1:C:1290:PHE:O	2.49	0.46
1:D:1232:THR:HG22	1:D:1264:TYR:OH	2.16	0.46
1:A:570:LEU:HD23	1:A:571:SER:N	2.30	0.46
1:A:637:GLN:NE2	1:C:1072:GLN:O	2.48	0.46
1:A:1279:THR:HG23	1:A:1289:LYS:HG2	1.98	0.46
1:B:143:THR:HA	1:B:193:PRO:HA	1.98	0.46
1:C:1141:GLY:O	1:C:1146:THR:OG1	2.32	0.46
1:D:1042:THR:HA	1:D:1045:VAL:HG12	1.98	0.46
1:D:1404:HIS:O	1:D:1405:VAL:HG13	2.16	0.46
1:A:1027:THR:HG21	1:A:1087:LEU:HD21	1.97	0.46
1:C:62:ALA:N	1:C:75:THR:O	2.44	0.46
1:C:313:ARG:O	1:C:313:ARG:HD2	2.15	0.46
1:C:826:VAL:HG22	1:C:858:TRP:CH2	2.48	0.46
1:D:127:SER:C	1:D:128:LEU:HD22	2.41	0.46
1:B:823:ARG:HH12	1:B:846:HIS:HA	1.80	0.46
1:C:964:ASN:ND2	1:C:1246:GLY:O	2.48	0.46
1:D:111:THR:HG23	1:D:112:GLN:HG2	1.98	0.46
1:D:1398:MET:HG3	1:D:1415:VAL:HG13	1.97	0.46
1:B:1232:THR:HG22	1:B:1264:TYR:OH	2.16	0.46
1:C:1118:HIS:HB3	1:C:1121:VAL:HG12	1.97	0.46
1:D:335:LEU:HD23	1:D:337:GLY:N	2.31	0.46
1:D:810:LEU:H	1:D:810:LEU:CD2	2.26	0.46
1:A:40:HIS:O	1:A:91:VAL:HG21	2.16	0.45
1:A:907:PRO:O	1:A:908:GLU:HB2	2.16	0.45
1:A:938:ASN:HB2	1:A:1334:PRO:CB	2.46	0.45
1:A:986:VAL:HG13	1:A:1258:LEU:HD21	1.98	0.45
1:B:183:LEU:HD13	1:B:186:GLY:HA2	1.98	0.45
1:B:335:LEU:HD23	1:B:337:GLY:N	2.31	0.45
1:B:668:SER:O	1:B:671:GLU:N	2.49	0.45
1:B:808:PHE:CE2	1:B:810:LEU:HB3	2.51	0.45
1:C:747:ASN:OD1	1:C:749:ALA:N	2.47	0.45
1:C:938:ASN:HB2	1:C:1334:PRO:CB	2.46	0.45
1:C:1279:THR:HG23	1:C:1289:LYS:CG	2.46	0.45
1:D:1160:GLN:O	1:D:1163:ARG:N	2.47	0.45
1:A:64:LEU:HD12	1:A:73:LEU:HD22	1.96	0.45
1:B:60:VAL:HG12	1:B:107:VAL:HA	1.98	0.45
1:B:604:VAL:HG23	1:B:607:MET:CE	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:223:GLU:OE2	1:C:224:PHE:N	2.49	0.45
1:C:311:LEU:H	1:C:311:LEU:CD2	2.28	0.45
1:A:223:GLU:OE2	1:A:224:PHE:N	2.49	0.45
1:B:981:ALA:HB3	1:B:982:PRO:CD	2.46	0.45
1:C:986:VAL:HG13	1:C:1258:LEU:HD21	1.98	0.45
1:D:808:PHE:CE2	1:D:810:LEU:HB3	2.51	0.45
1:A:826:VAL:HG22	1:A:858:TRP:CH2	2.48	0.45
1:B:1007:TYR:O	1:B:1010:THR:OG1	2.17	0.45
1:B:1124:ALA:O	1:B:1128:LEU:N	2.42	0.45
1:C:593:SER:OG	1:C:594:VAL:N	2.50	0.45
1:D:183:LEU:HD13	1:D:186:GLY:HA2	1.98	0.45
1:D:604:VAL:HG23	1:D:607:MET:CE	2.47	0.45
1:D:1363:ILE:HG22	1:D:1365:LEU:CD1	2.44	0.45
1:A:1279:THR:HG23	1:A:1289:LYS:CG	2.46	0.45
1:D:571:SER:N	1:D:586:ARG:O	2.49	0.45
1:D:668:SER:O	1:D:671:GLU:N	2.49	0.45
1:A:804:ARG:NE	1:A:863:LYS:O	2.50	0.45
1:B:127:SER:C	1:B:128:LEU:HD22	2.41	0.45
1:B:681:SER:OG	1:B:682:LYS:N	2.50	0.45
1:B:958:ALA:HB1	1:B:960:GLN:OE1	2.16	0.45
1:B:977:MET:HA	1:B:980:PHE:CE2	2.51	0.45
1:B:984:ILE:CG2	1:B:1048:THR:HB	2.47	0.45
1:D:167:ILE:CD1	1:D:176:ALA:HB3	2.46	0.45
1:B:963:GLN:O	1:B:1244:ALA:HB1	2.16	0.45
1:B:1042:THR:HA	1:B:1045:VAL:HG12	1.98	0.45
1:B:1404:HIS:O	1:B:1405:VAL:HG13	2.16	0.45
1:C:954:ILE:O	1:C:957:SER:OG	2.30	0.45
1:D:963:GLN:O	1:D:1244:ALA:HB1	2.16	0.45
1:D:984:ILE:CG2	1:D:1048:THR:HB	2.47	0.45
1:D:1201:ALA:HB3	1:D:1379:ALA:CB	2.47	0.45
1:A:384:ILE:HG22	1:A:423:VAL:HB	1.99	0.45
1:A:457:SER:OG	1:A:483:ASN:O	2.35	0.45
1:B:325:GLN:OE1	1:B:325:GLN:N	2.50	0.45
1:B:486:THR:HG22	1:B:517:GLN:HA	1.98	0.45
1:B:540:LEU:HD12	1:B:541:LEU:H	1.82	0.45
1:B:993:THR:HG21	1:B:996:LEU:CB	2.47	0.45
1:B:1383:VAL:HG23	1:B:1383:VAL:O	2.17	0.45
1:C:773:SER:OG	1:C:777:GLY:N	2.45	0.45
1:D:1383:VAL:HG23	1:D:1383:VAL:O	2.17	0.45
1:B:571:SER:N	1:B:586:ARG:O	2.49	0.45
1:C:761:THR:O	1:C:761:THR:HG23	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:794:VAL:O	1:C:899:VAL:HG21	2.17	0.45
1:C:1071:SER:O	1:C:1074:GLN:NE2	2.50	0.45
1:C:1279:THR:HG23	1:C:1289:LYS:HG2	1.98	0.45
1:D:665:ASP:O	1:D:668:SER:OG	2.19	0.45
1:D:959:MET:HB2	1:D:962:THR:HG21	1.99	0.45
1:C:167:ILE:HB	1:C:175:ILE:HB	1.99	0.45
1:C:913:GLU:CD	1:C:915:THR:HG22	2.43	0.45
1:D:599:ALA:HB3	1:D:740:ILE:CB	2.44	0.45
1:D:958:ALA:HB1	1:D:960:GLN:OE1	2.16	0.45
1:A:206:VAL:HG13	1:A:216:GLU:HG3	1.98	0.44
1:A:294:LEU:HD23	1:A:295:ASN:O	2.18	0.44
1:B:350:LEU:HD12	1:B:351:SER:N	2.32	0.44
1:C:161:LEU:HD12	1:C:180:SER:CB	2.47	0.44
1:D:350:LEU:HD12	1:D:351:SER:N	2.32	0.44
1:D:617:SER:OG	1:D:618:VAL:N	2.49	0.44
1:D:1185:ARG:O	1:D:1186:PRO:C	2.60	0.44
1:A:161:LEU:HD12	1:A:180:SER:CB	2.47	0.44
1:A:773:SER:OG	1:A:777:GLY:N	2.45	0.44
1:B:246:MET:O	1:B:304:VAL:N	2.46	0.44
1:B:617:SER:OG	1:B:618:VAL:N	2.49	0.44
1:C:40:HIS:O	1:C:91:VAL:HG21	2.16	0.44
1:D:325:GLN:N	1:D:325:GLN:OE1	2.50	0.44
1:D:681:SER:OG	1:D:682:LYS:N	2.50	0.44
1:A:118:THR:HG21	1:A:676:LYS:HD2	1.99	0.44
1:B:486:THR:HG23	1:B:517:GLN:OE1	2.18	0.44
1:B:1201:ALA:HB3	1:B:1379:ALA:CB	2.47	0.44
1:B:1206:VAL:HG13	1:B:1257:ALA:HA	2.00	0.44
1:C:118:THR:HG21	1:C:676:LYS:HD2	1.99	0.44
1:C:804:ARG:NE	1:C:863:LYS:O	2.50	0.44
1:C:938:ASN:HB2	1:C:1334:PRO:HB2	1.99	0.44
1:D:486:THR:HG22	1:D:517:GLN:HA	1.98	0.44
1:D:540:LEU:HD12	1:D:541:LEU:H	1.82	0.44
1:A:566:ASN:ND2	1:A:778:LEU:O	2.44	0.44
1:B:50:LEU:HD11	1:B:543:TYR:CE1	2.52	0.44
1:B:1185:ARG:O	1:B:1186:PRO:C	2.60	0.44
1:B:1211:TYR:HA	1:B:1214:LEU:HD12	1.99	0.44
1:B:1363:ILE:HG22	1:B:1365:LEU:CD1	2.44	0.44
1:C:816:ASN:O	1:C:851:ASN:N	2.49	0.44
1:C:907:PRO:O	1:C:908:GLU:HB2	2.16	0.44
1:A:638:ASP:OD2	1:C:1081:ARG:NH1	2.50	0.44
1:A:1071:SER:O	1:A:1074:GLN:NE2	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1160:GLN:O	1:B:1163:ARG:N	2.47	0.44
1:C:206:VAL:HG13	1:C:216:GLU:HG3	1.98	0.44
1:C:493:LEU:HD12	1:C:494:SER:N	2.33	0.44
1:C:1006:GLY:O	1:C:1010:THR:OG1	2.36	0.44
1:C:1089:ASN:ND2	1:C:1200:GLN:OE1	2.51	0.44
1:D:486:THR:HG23	1:D:517:GLN:OE1	2.18	0.44
1:D:881:GLU:N	1:D:881:GLU:OE1	2.48	0.44
1:D:976:ASN:HD21	1:D:1014:ARG:CZ	2.31	0.44
1:A:649:TYR:HA	1:D:414:VAL:HG11	2.00	0.44
1:A:761:THR:HG23	1:A:761:THR:O	2.17	0.44
1:A:1081:ARG:NH1	1:C:638:ASP:OD2	2.50	0.44
1:D:1099:VAL:HG13	1:D:1127:CYS:HB3	2.00	0.44
1:D:1403:ASN:OD1	1:D:1403:ASN:N	2.50	0.44
4:I:1:NAG:H62	4:I:2:NAG:HN2	1.83	0.44
1:A:794:VAL:O	1:A:899:VAL:HG21	2.17	0.44
1:A:913:GLU:CD	1:A:915:THR:HG22	2.43	0.44
1:A:1006:GLY:O	1:A:1010:THR:OG1	2.36	0.44
1:B:573:SER:OG	1:B:584:HIS:N	2.51	0.44
1:B:590:ALA:O	1:B:746:VAL:HG11	2.18	0.44
1:C:384:ILE:HG22	1:C:423:VAL:HB	1.99	0.44
1:D:129:VAL:HG12	1:D:150:SER:CB	2.48	0.44
1:D:303:GLN:HG2	2:M:1:NAG:H2	1.99	0.44
1:A:938:ASN:HB2	1:A:1334:PRO:HB2	1.99	0.44
1:B:386:ILE:HA	1:B:421:VAL:HG13	2.00	0.44
1:B:881:GLU:N	1:B:881:GLU:OE1	2.48	0.44
1:C:294:LEU:HD23	1:C:295:ASN:O	2.18	0.44
1:D:38:LEU:HD23	1:D:503:GLY:HA3	2.00	0.44
1:D:917:ASN:ND2	1:D:1172:GLU:O	2.51	0.44
1:D:993:THR:HG21	1:D:996:LEU:CB	2.47	0.44
3:L:2:NAG:H4	3:L:3:BMA:H2	1.71	0.44
1:A:1301:GLN:N	1:A:1301:GLN:OE1	2.51	0.44
1:B:917:ASN:ND2	1:B:1172:GLU:O	2.51	0.44
1:B:1047:LYS:O	1:B:1050:ALA:HB3	2.17	0.44
1:B:1048:THR:HA	1:B:1051:GLN:HB2	2.00	0.44
1:C:767:ALA:O	1:C:783:THR:HG22	2.18	0.44
1:C:1301:GLN:OE1	1:C:1301:GLN:N	2.51	0.44
1:D:617:SER:O	1:D:620:ASN:N	2.49	0.44
1:D:1059:ASP:OD1	1:D:1061:ALA:HB3	2.18	0.44
1:D:1166:VAL:O	1:D:1169:SER:OG	2.31	0.44
1:D:1208:MET:SD	1:D:1209:THR:N	2.91	0.44
1:A:167:ILE:HB	1:A:175:ILE:HB	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:730:THR:N	1:A:898:THR:HG21	2.32	0.43
1:A:913:GLU:OE2	1:A:915:THR:N	2.49	0.43
1:B:303:GLN:HG2	2:G:1:NAG:H2	1.99	0.43
1:B:959:MET:HB2	1:B:962:THR:HG21	1.99	0.43
1:C:666:MET:HE3	1:C:669:PHE:HB2	1.99	0.43
1:D:50:LEU:HD11	1:D:543:TYR:CE1	2.52	0.43
2:E:1:NAG:H4	2:E:2:NAG:H2	1.58	0.43
1:A:908:GLU:HB2	1:A:1331:ASN:ND2	2.33	0.43
1:B:386:ILE:HD11	1:B:397:ALA:HB3	2.00	0.43
1:B:1208:MET:SD	1:B:1209:THR:N	2.91	0.43
1:C:730:THR:N	1:C:898:THR:HG21	2.32	0.43
1:D:959:MET:O	1:D:962:THR:OG1	2.20	0.43
1:A:165:VAL:HG23	1:A:177:GLN:HA	2.01	0.43
1:A:595:CYS:HA	1:A:771:CYS:HA	2.00	0.43
1:B:1059:ASP:OD1	1:B:1061:ALA:HB3	2.18	0.43
1:C:319:LYS:HA	1:C:339:GLN:HA	2.01	0.43
1:C:364:PRO:HB3	1:C:410:ASN:HA	2.00	0.43
1:C:436:TRP:CE3	1:C:437:VAL:HG22	2.53	0.43
1:C:1088:ASN:OD1	1:C:1088:ASN:N	2.52	0.43
1:D:236:PRO:HB2	1:D:246:MET:HE2	2.00	0.43
1:A:915:THR:HG21	1:A:1326:THR:HB	2.00	0.43
1:A:1089:ASN:ND2	1:A:1200:GLN:OE1	2.51	0.43
1:B:129:VAL:HG12	1:B:150:SER:CB	2.48	0.43
1:B:579:PRO:HG2	1:B:893:HIS:NE2	2.34	0.43
1:C:457:SER:O	1:C:552:ILE:HD13	2.18	0.43
1:C:908:GLU:HB2	1:C:1331:ASN:ND2	2.33	0.43
1:C:1293:ASP:OD1	1:C:1294:ASN:N	2.51	0.43
1:D:629:GLY:N	1:D:671:GLU:O	2.51	0.43
1:A:486:THR:HG21	1:A:515:VAL:CG2	2.48	0.43
1:A:1293:ASP:OD1	1:A:1294:ASN:N	2.51	0.43
1:D:386:ILE:HA	1:D:421:VAL:HG13	2.00	0.43
1:D:573:SER:OG	1:D:584:HIS:N	2.51	0.43
1:D:807:ALA:HA	1:D:860:VAL:O	2.19	0.43
1:D:1014:ARG:O	1:D:1018:TYR:N	2.51	0.43
1:D:1211:TYR:HA	1:D:1214:LEU:HD12	1.99	0.43
1:A:129:VAL:HG23	1:A:148:VAL:HG22	2.01	0.43
1:A:593:SER:OG	1:A:594:VAL:N	2.50	0.43
1:A:889:SER:OG	1:A:895:ARG:NH2	2.51	0.43
1:C:915:THR:HG21	1:C:1326:THR:HB	2.00	0.43
1:D:590:ALA:O	1:D:746:VAL:HG11	2.18	0.43
1:D:1168:LYS:O	1:D:1171:ASN:N	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1347:THR:HG21	1:D:1465:ALA:HA	2.01	0.43
1:A:164:LEU:HD23	1:A:207:VAL:HA	2.01	0.43
1:A:457:SER:O	1:A:552:ILE:HD13	2.18	0.43
1:A:458:PHE:CE1	1:A:481:ILE:HD13	2.54	0.43
1:A:666:MET:HE3	1:A:669:PHE:HB2	1.99	0.43
1:A:1181:VAL:HG21	1:A:1240:LYS:CE	2.49	0.43
1:B:266:VAL:HG21	1:B:268:ILE:HG23	1.99	0.43
1:B:370:ARG:NE	1:B:402:HIS:O	2.52	0.43
1:B:1168:LYS:O	1:B:1171:ASN:N	2.51	0.43
1:C:129:VAL:HG23	1:C:148:VAL:HG22	2.01	0.43
1:C:165:VAL:HG23	1:C:177:GLN:HA	2.01	0.43
1:C:1181:VAL:HG21	1:C:1240:LYS:CE	2.49	0.43
1:D:386:ILE:HD11	1:D:397:ALA:HB3	2.00	0.43
4:O:1:NAG:H62	4:O:2:NAG:HN2	1.83	0.43
1:A:436:TRP:CE3	1:A:437:VAL:HG22	2.53	0.43
1:B:1099:VAL:HG13	1:B:1127:CYS:HB3	2.00	0.43
1:C:493:LEU:HD11	1:C:495:PHE:CE1	2.54	0.43
1:D:763:THR:HG23	1:D:764:GLU:O	2.19	0.43
1:D:1142:SER:O	1:D:1195:HIS:HB3	2.19	0.43
1:D:1206:VAL:HG13	1:D:1257:ALA:HA	2.00	0.43
3:N:2:NAG:H3	3:N:2:NAG:H82	1.99	0.43
1:A:493:LEU:HD12	1:A:494:SER:N	2.33	0.43
1:A:767:ALA:O	1:A:783:THR:HG22	2.18	0.43
1:B:475:THR:O	1:B:475:THR:HG23	2.19	0.43
1:B:807:ALA:HA	1:B:860:VAL:O	2.19	0.43
1:B:1050:ALA:O	1:B:1053:ARG:NH1	2.52	0.43
1:B:1142:SER:O	1:B:1195:HIS:HB3	2.19	0.43
1:C:889:SER:OG	1:C:895:ARG:NH2	2.51	0.43
1:C:997:THR:OG1	1:C:1000:ILE:HG22	2.19	0.43
1:C:1181:VAL:HG22	1:C:1237:TRP:CE2	2.54	0.43
1:D:1326:THR:HG22	1:D:1327:SER:N	2.34	0.43
1:A:816:ASN:O	1:A:851:ASN:N	2.49	0.43
1:A:816:ASN:OD1	1:A:818:LEU:N	2.46	0.43
1:B:38:LEU:HD23	1:B:503:GLY:HA3	2.00	0.43
1:B:987:LEU:HD11	1:B:1005:ILE:HD12	2.01	0.43
1:B:1123:ASN:O	1:B:1126:PHE:N	2.46	0.43
1:B:1387:SER:OG	1:B:1388:GLY:N	2.52	0.43
1:C:29:PRO:HA	1:C:53:TYR:HB2	2.01	0.43
1:C:486:THR:HG21	1:C:515:VAL:CG2	2.48	0.43
1:D:810:LEU:CD2	1:D:860:VAL:HG12	2.49	0.43
1:D:1047:LYS:O	1:D:1050:ALA:HB3	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1048:THR:HA	1:D:1051:GLN:HB2	2.00	0.43
2:K:1:NAG:H4	2:K:2:NAG:H2	1.58	0.43
1:A:364:PRO:HB3	1:A:410:ASN:HA	2.00	0.42
1:A:997:THR:OG1	1:A:1000:ILE:HG22	2.19	0.42
1:B:176:ALA:HB2	1:B:192:PHE:CE1	2.54	0.42
1:B:414:VAL:HG11	1:C:649:TYR:HA	2.00	0.42
1:B:763:THR:HG23	1:B:764:GLU:O	2.19	0.42
1:B:1149:LEU:O	1:B:1153:ALA:N	2.38	0.42
1:B:1347:THR:HG21	1:B:1465:ALA:HA	2.01	0.42
1:C:458:PHE:CE1	1:C:481:ILE:HD13	2.54	0.42
1:C:546:LEU:N	1:C:550:ASP:O	2.41	0.42
1:D:370:ARG:NE	1:D:402:HIS:O	2.52	0.42
1:D:1178:ASP:OD1	1:D:1178:ASP:N	2.52	0.42
1:B:167:ILE:CD1	1:B:176:ALA:HB3	2.46	0.42
1:C:164:LEU:HD23	1:C:207:VAL:HA	2.01	0.42
1:C:773:SER:OG	1:C:776:ALA:HB3	2.19	0.42
1:C:1038:ASN:O	1:C:1042:THR:OG1	2.21	0.42
1:D:176:ALA:HB2	1:D:192:PHE:CE1	2.54	0.42
1:D:266:VAL:HG21	1:D:268:ILE:HG23	1.99	0.42
1:D:410:ASN:HD22	1:D:410:ASN:HA	1.54	0.42
1:D:460:HIS:C	1:D:461:LEU:HD12	2.44	0.42
1:D:794:VAL:HG21	1:D:899:VAL:HG21	2.01	0.42
1:A:773:SER:OG	1:A:776:ALA:HB3	2.19	0.42
1:B:460:HIS:C	1:B:461:LEU:HD12	2.44	0.42
1:B:794:VAL:HG21	1:B:899:VAL:HG21	2.01	0.42
1:B:818:LEU:HD12	1:B:819:PRO:CD	2.49	0.42
1:C:340:SER:O	1:C:342:GLU:N	2.52	0.42
3:H:2:NAG:H3	3:H:2:NAG:H82	1.99	0.42
1:A:751:VAL:HG22	1:A:753:GLU:HG2	2.02	0.42
1:B:226:LEU:O	1:B:228:LYS:NZ	2.33	0.42
1:B:810:LEU:CD2	1:B:860:VAL:HG12	2.49	0.42
1:B:910:LEU:O	1:B:1332:ILE:N	2.41	0.42
1:B:1045:VAL:O	1:B:1049:PHE:N	2.48	0.42
1:C:202:SER:OG	1:C:203:TYR:N	2.53	0.42
1:D:361:GLN:OE1	1:D:361:GLN:N	2.52	0.42
1:D:1437:VAL:O	1:D:1437:VAL:HG13	2.19	0.42
1:A:310:GLN:C	1:A:312:LYS:H	2.28	0.42
1:B:236:PRO:HB2	1:B:246:MET:HE2	2.00	0.42
1:B:305:LYS:NZ	1:B:308:VAL:HG13	2.34	0.42
1:B:361:GLN:OE1	1:B:361:GLN:N	2.52	0.42
1:B:739:TRP:NE1	1:B:756:VAL:O	2.51	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:475:THR:O	1:C:477:GLN:NE2	2.53	0.42
1:C:746:VAL:HG23	1:C:750:GLY:C	2.45	0.42
1:D:305:LYS:NZ	1:D:308:VAL:HG13	2.34	0.42
1:D:961:ASN:ND2	1:D:1241:GLN:OE1	2.45	0.42
1:D:1050:ALA:O	1:D:1053:ARG:NH1	2.52	0.42
1:D:1251:THR:OG1	1:D:1252:GLN:N	2.53	0.42
1:A:202:SER:OG	1:A:203:TYR:N	2.53	0.42
1:A:1181:VAL:HG22	1:A:1237:TRP:CE2	2.54	0.42
1:B:629:GLY:N	1:B:671:GLU:O	2.51	0.42
1:B:1251:THR:OG1	1:B:1252:GLN:N	2.53	0.42
1:C:595:CYS:HA	1:C:771:CYS:HA	2.00	0.42
1:D:246:MET:O	1:D:304:VAL:N	2.46	0.42
1:D:818:LEU:HD12	1:D:819:PRO:CD	2.49	0.42
1:D:1109:LEU:HB3	1:D:1117:THR:HG23	2.01	0.42
1:A:475:THR:O	1:A:477:GLN:NE2	2.53	0.42
1:A:746:VAL:HG23	1:A:750:GLY:C	2.45	0.42
1:B:77:LEU:HD13	1:B:87:VAL:HG11	2.01	0.42
1:B:982:PRO:CG	1:B:1255:VAL:HG21	2.50	0.42
1:C:751:VAL:HG22	1:C:753:GLU:HG2	2.02	0.42
1:A:981:ALA:HB3	1:A:982:PRO:HD3	2.01	0.42
1:C:566:ASN:ND2	1:C:778:LEU:O	2.44	0.42
1:C:599:ALA:HB1	1:C:765:TRP:HZ3	1.84	0.42
1:D:579:PRO:HG2	1:D:893:HIS:NE2	2.34	0.42
1:D:1387:SER:OG	1:D:1388:GLY:N	2.52	0.42
1:A:493:LEU:HD11	1:A:495:PHE:CE1	2.54	0.42
1:A:599:ALA:HB1	1:A:765:TRP:HZ3	1.84	0.42
1:B:578:LEU:N	1:B:579:PRO:HD2	2.35	0.42
1:D:311:LEU:HD12	1:D:311:LEU:O	2.19	0.42
1:D:1117:THR:O	1:D:1120:VAL:N	2.52	0.42
1:D:1351:THR:OG1	1:D:1353:ASP:OD1	2.36	0.42
1:A:129:VAL:HG22	1:A:130:PHE:N	2.35	0.42
1:A:319:LYS:HA	1:A:339:GLN:HA	2.01	0.42
1:B:290:PHE:CG	1:B:304:VAL:HG12	2.55	0.42
1:B:1109:LEU:HB3	1:B:1117:THR:HG23	2.01	0.42
1:B:1326:THR:HG22	1:B:1327:SER:N	2.34	0.42
1:C:919:LEU:O	1:C:927:VAL:HG11	2.20	0.42
1:D:475:THR:O	1:D:475:THR:HG23	2.19	0.42
1:A:954:ILE:CD1	1:A:993:THR:HG22	2.41	0.41
1:B:311:LEU:HD12	1:B:311:LEU:O	2.19	0.41
1:B:972:CYS:HB2	1:B:974:GLU:H	1.85	0.41
1:B:1437:VAL:O	1:B:1437:VAL:HG13	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1286:PHE:HE1	1:C:1303:VAL:HG21	1.85	0.41
1:D:133:THR:OG1	1:D:135:LYS:O	2.32	0.41
1:D:982:PRO:CG	1:D:1255:VAL:HG21	2.50	0.41
1:A:919:LEU:O	1:A:927:VAL:HG11	2.20	0.41
1:B:240:THR:HA	1:B:344:THR:HG21	2.02	0.41
1:B:835:LEU:N	1:B:835:LEU:HD12	2.35	0.41
1:C:572:PHE:HA	1:C:585:LEU:HG	2.01	0.41
1:C:1109:LEU:HD12	1:C:1112:ILE:HD12	2.02	0.41
1:D:240:THR:HA	1:D:344:THR:HG21	2.02	0.41
1:A:340:SER:O	1:A:342:GLU:N	2.52	0.41
1:A:501:ALA:HB2	1:A:534:ILE:HG23	2.03	0.41
1:B:350:LEU:CD1	1:B:444:ALA:HB2	2.51	0.41
1:B:1047:LYS:HG3	1:B:1048:THR:N	2.35	0.41
1:C:310:GLN:C	1:C:312:LYS:H	2.28	0.41
1:C:981:ALA:HB3	1:C:982:PRO:HD3	2.01	0.41
1:D:77:LEU:HD13	1:D:87:VAL:HG11	2.01	0.41
1:D:496:TYR:HD2	1:D:510:THR:HG22	1.86	0.41
1:D:987:LEU:HD11	1:D:1005:ILE:HD12	2.01	0.41
5:D:2003:NAG:H83	5:D:2003:NAG:H2	1.85	0.41
1:A:31:TYR:HB3	1:A:51:LEU:HD13	2.02	0.41
1:A:505:ILE:HD11	1:A:675:LEU:HD21	2.02	0.41
1:B:818:LEU:HD12	1:B:819:PRO:HD2	2.01	0.41
1:B:982:PRO:HG2	1:B:1255:VAL:HG21	2.01	0.41
1:B:1014:ARG:O	1:B:1018:TYR:N	2.51	0.41
1:B:1022:ASP:OD1	1:B:1023:GLY:N	2.54	0.41
1:C:76:ASP:OD1	1:C:77:LEU:N	2.54	0.41
1:C:457:SER:OG	1:C:483:ASN:O	2.35	0.41
1:C:501:ALA:HB2	1:C:534:ILE:HG23	2.03	0.41
1:C:1299:LEU:HD11	1:C:1301:GLN:NE2	2.36	0.41
1:D:220:THR:HG22	1:D:221:VAL:N	2.36	0.41
1:D:758:VAL:O	1:D:758:VAL:CG1	2.52	0.41
1:D:910:LEU:HB2	1:D:1333:LEU:HD23	2.02	0.41
3:N:1:NAG:O3	3:N:1:NAG:C7	2.69	0.41
1:A:29:PRO:HA	1:A:53:TYR:HB2	2.01	0.41
1:A:243:GLU:OE2	1:A:246:MET:HE1	2.21	0.41
1:B:461:LEU:HD12	1:B:461:LEU:N	2.36	0.41
1:B:910:LEU:HB2	1:B:1333:LEU:HD23	2.02	0.41
1:D:290:PHE:CG	1:D:304:VAL:HG12	2.55	0.41
1:D:461:LEU:HD12	1:D:461:LEU:N	2.36	0.41
1:D:578:LEU:N	1:D:579:PRO:HD2	2.35	0.41
1:D:594:VAL:HG12	1:D:745:VAL:CG2	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1341:PHE:HB3	1:D:1459:ALA:O	2.21	0.41
1:A:159:ASN:ND2	1:A:184:GLU:O	2.50	0.41
1:A:497:TYR:CD1	1:A:526:ILE:HD11	2.56	0.41
1:B:183:LEU:HD22	1:B:187:LEU:CA	2.51	0.41
1:B:496:TYR:HD2	1:B:510:THR:HG22	1.86	0.41
1:C:129:VAL:HG22	1:C:130:PHE:N	2.35	0.41
1:D:350:LEU:CD1	1:D:444:ALA:HB2	2.51	0.41
1:D:534:ILE:HG23	1:D:560:VAL:HG11	2.02	0.41
1:D:1359:THR:HG23	1:D:1435:GLN:H	1.85	0.41
1:A:31:TYR:CE2	1:A:107:VAL:HG21	2.56	0.41
1:A:76:ASP:OD1	1:A:77:LEU:N	2.54	0.41
1:A:310:GLN:C	1:A:312:LYS:N	2.78	0.41
1:A:311:LEU:N	1:A:311:LEU:CD2	2.84	0.41
1:A:572:PHE:HA	1:A:585:LEU:HG	2.01	0.41
1:B:33:VAL:HG11	1:B:105:VAL:HG11	2.03	0.41
1:B:534:ILE:HG23	1:B:560:VAL:HG11	2.02	0.41
1:B:975:GLN:O	1:B:978:VAL:HG22	2.21	0.41
1:B:1447:VAL:HG13	1:B:1447:VAL:O	2.20	0.41
1:D:33:VAL:HG11	1:D:105:VAL:HG11	2.03	0.41
1:D:909:GLY:O	1:D:1331:ASN:ND2	2.54	0.41
1:D:982:PRO:HG2	1:D:1255:VAL:HG21	2.01	0.41
1:D:1047:LYS:HG3	1:D:1048:THR:N	2.35	0.41
1:D:1384:LYS:H	1:D:1447:VAL:HG11	1.85	0.41
1:A:266:VAL:HG13	1:A:322:THR:HA	2.03	0.41
1:A:495:PHE:CB	1:A:542:ILE:HD11	2.50	0.41
1:A:1088:ASN:OD1	1:A:1088:ASN:N	2.52	0.41
1:A:1286:PHE:HE1	1:A:1303:VAL:HG21	1.85	0.41
1:B:409:ILE:HD13	1:B:419:LEU:HD21	2.03	0.41
1:B:909:GLY:O	1:B:1331:ASN:ND2	2.54	0.41
1:C:415:MET:HE1	1:C:449:TYR:CE2	2.56	0.41
1:D:535:ALA:O	1:D:560:VAL:HG21	2.20	0.41
1:D:802:VAL:O	1:D:906:GLU:N	2.46	0.41
1:D:1447:VAL:O	1:D:1447:VAL:HG13	2.20	0.41
1:A:350:LEU:HD12	1:A:444:ALA:HB2	2.03	0.41
1:A:1109:LEU:HD12	1:A:1112:ILE:HD12	2.02	0.41
1:B:511:HIS:NE2	1:B:525:SER:OG	2.54	0.41
1:B:803:ILE:HG22	1:B:804:ARG:N	2.35	0.41
1:B:1341:PHE:HB3	1:B:1459:ALA:O	2.21	0.41
1:B:1359:THR:HG23	1:B:1435:GLN:H	1.85	0.41
1:B:1389:PHE:CD1	1:B:1433:VAL:HG21	2.56	0.41
5:B:2004:NAG:O3	5:B:2004:NAG:C7	2.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:159:ASN:ND2	1:C:184:GLU:O	2.50	0.41
1:C:505:ILE:HD11	1:C:675:LEU:HD21	2.02	0.41
1:D:64:LEU:HD11	1:D:101:MET:CB	2.51	0.41
1:D:183:LEU:HD22	1:D:187:LEU:CA	2.51	0.41
1:D:236:PRO:HD2	1:D:246:MET:HE2	2.03	0.41
1:D:409:ILE:HD13	1:D:419:LEU:HD21	2.03	0.41
1:D:617:SER:C	1:D:621:LEU:HD23	2.46	0.41
1:D:803:ILE:HG22	1:D:804:ARG:N	2.35	0.41
1:D:818:LEU:HD12	1:D:819:PRO:HD2	2.01	0.41
1:D:1058:ILE:HD11	1:D:1062:HIS:HB3	2.03	0.41
1:D:1361:PHE:HE2	1:D:1363:ILE:HD11	1.85	0.41
1:D:1389:PHE:CD1	1:D:1433:VAL:HG21	2.56	0.41
1:A:148:VAL:HG22	1:A:149:VAL:N	2.36	0.41
1:B:1058:ILE:HD11	1:B:1062:HIS:HB3	2.03	0.41
1:B:1351:THR:OG1	1:B:1353:ASP:OD1	2.36	0.41
1:C:31:TYR:CE2	1:C:107:VAL:HG21	2.56	0.41
1:C:162:ILE:O	1:C:180:SER:N	2.43	0.41
1:C:243:GLU:OE2	1:C:246:MET:HE1	2.21	0.41
1:A:931:LEU:O	1:A:932:SER:OG	2.39	0.40
1:A:1053:ARG:NH2	1:A:1056:ILE:O	2.54	0.40
1:B:361:GLN:HB3	1:B:450:LEU:HD11	2.03	0.40
1:B:535:ALA:O	1:B:560:VAL:HG21	2.20	0.40
1:B:594:VAL:HG12	1:B:745:VAL:CG2	2.51	0.40
1:B:919:LEU:HD23	1:B:920:LEU:C	2.46	0.40
1:B:1117:THR:O	1:B:1120:VAL:N	2.52	0.40
1:C:35:VAL:HG23	1:C:676:LYS:HG2	2.04	0.40
1:D:835:LEU:HD12	1:D:835:LEU:N	2.35	0.40
1:D:961:ASN:O	1:D:1258:LEU:HD21	2.21	0.40
1:B:42:GLU:N	1:B:91:VAL:O	2.49	0.40
1:B:236:PRO:HD2	1:B:246:MET:HE2	2.03	0.40
1:B:539:ARG:HB3	1:B:673:MET:HE1	2.03	0.40
1:B:617:SER:C	1:B:621:LEU:HD23	2.46	0.40
1:C:310:GLN:C	1:C:312:LYS:N	2.78	0.40
1:C:495:PHE:CB	1:C:542:ILE:HD11	2.50	0.40
1:C:1206:VAL:HG13	1:C:1238:ILE:CG2	2.51	0.40
1:D:361:GLN:HB3	1:D:450:LEU:HD11	2.03	0.40
1:D:539:ARG:HB3	1:D:673:MET:HE1	2.03	0.40
1:D:1103:ALA:O	1:D:1106:THR:OG1	2.36	0.40
3:H:1:NAG:C7	3:H:1:NAG:O3	2.69	0.40
1:B:823:ARG:NH1	1:B:846:HIS:HA	2.37	0.40
1:B:990:LEU:HD12	1:B:991:ASN:N	2.37	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1384:LYS:H	1:B:1447:VAL:HG11	1.85	0.40
1:C:497:TYR:CD1	1:C:526:ILE:HD11	2.56	0.40
1:C:1304:SER:C	1:C:1305:LEU:HD22	2.46	0.40
1:D:64:LEU:HD11	1:D:101:MET:O	2.21	0.40
1:D:644:ASN:HA	1:D:688:MET:HE3	2.04	0.40
1:D:990:LEU:HD12	1:D:991:ASN:N	2.37	0.40
1:A:415:MET:HE1	1:A:449:TYR:CE2	2.56	0.40
1:A:599:ALA:HB1	1:A:765:TRP:CZ3	2.57	0.40
1:A:1299:LEU:HD11	1:A:1301:GLN:NE2	2.36	0.40
1:B:220:THR:HG22	1:B:221:VAL:N	2.36	0.40
1:B:602:GLN:O	1:B:605:LEU:N	2.55	0.40
1:B:961:ASN:O	1:B:1258:LEU:HD21	2.21	0.40
1:B:1050:ALA:HB1	1:B:1053:ARG:HH11	1.85	0.40
1:C:148:VAL:HG22	1:C:149:VAL:N	2.36	0.40
1:C:389:ASN:O	1:C:417:THR:OG1	2.39	0.40
1:D:75:THR:HG21	1:D:89:PHE:CG	2.57	0.40
1:D:643:ILE:HG22	1:D:643:ILE:O	2.21	0.40
1:D:919:LEU:HD23	1:D:920:LEU:C	2.46	0.40
1:D:977:MET:HE3	1:D:1027:THR:CA	2.50	0.40
1:A:913:GLU:OE2	1:A:914:THR:N	2.55	0.40
1:A:1304:SER:C	1:A:1305:LEU:HD22	2.46	0.40
1:B:537:VAL:HG21	1:B:557:LYS:CE	2.52	0.40
1:B:570:LEU:HD12	1:B:571:SER:HA	2.03	0.40
1:B:746:VAL:HG23	1:B:751:VAL:H	1.87	0.40
1:C:29:PRO:CB	1:C:51:LEU:HD11	2.52	0.40
1:C:31:TYR:HB3	1:C:51:LEU:HD13	2.02	0.40
1:C:99:GLU:H	1:C:122:VAL:HG22	1.86	0.40
1:C:320:LEU:HD12	1:C:338:ARG:HD2	2.04	0.40
1:C:1223:PRO:HB2	1:C:1228:LEU:HD21	2.03	0.40
1:D:511:HIS:NE2	1:D:525:SER:OG	2.54	0.40
4:O:1:NAG:H3	4:O:1:NAG:H83	2.03	0.40

There are no symmetry-related clashes.

## 5.3 Torsion angles

### 5.3.1 Protein backbone

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	1274/1474 (86%)	1067 (84%)	203 (16%)	4 (0%)	36	71
1	B	1406/1474 (95%)	1135 (81%)	263 (19%)	8 (1%)	21	58
1	C	1274/1474 (86%)	1067 (84%)	203 (16%)	4 (0%)	36	71
1	D	1406/1474 (95%)	1134 (81%)	263 (19%)	9 (1%)	21	58
All	All	5360/5896 (91%)	4403 (82%)	932 (17%)	25 (0%)	26	63

All (25) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	430	PRO
1	A	908	GLU
1	A	1333	LEU
1	B	800	TYR
1	B	808	PHE
1	B	1186	PRO
1	B	1253	ASP
1	C	430	PRO
1	C	908	GLU
1	C	1333	LEU
1	D	800	TYR
1	D	808	PHE
1	D	1186	PRO
1	D	1253	ASP
1	A	311	LEU
1	C	311	LEU
1	B	532	SER
1	D	532	SER
1	B	936	PRO
1	D	936	PRO
1	B	969	PRO
1	D	976	ASN
1	D	969	PRO
1	B	888	PRO
1	D	888	PRO

### 5.3.2 Protein sidechains ⓘ

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 EM 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	1115/1290 (86%)	1111 (100%)	4 (0%)	84	83
1	B	1236/1290 (96%)	1230 (100%)	6 (0%)	81	82
1	C	1115/1290 (86%)	1111 (100%)	4 (0%)	84	83
1	D	1236/1290 (96%)	1230 (100%)	6 (0%)	81	82
All	All	4702/5160 (91%)	4682 (100%)	20 (0%)	81	83

All (20) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	70	ASN
1	A	93	LYS
1	A	314	LYS
1	A	430	PRO
1	B	410	ASN
1	B	810	LEU
1	B	978	VAL
1	B	1184	GLU
1	B	1424	ASN
1	B	1451	ASP
1	C	70	ASN
1	C	93	LYS
1	C	314	LYS
1	C	430	PRO
1	D	410	ASN
1	D	810	LEU
1	D	975	GLN
1	D	1184	GLU
1	D	1424	ASN
1	D	1451	ASP

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (35) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	232	GLN
1	A	392	ASN
1	A	637	GLN
1	A	917	ASN
1	A	983	ASN
1	A	1077	ASN
1	A	1118	HIS
1	A	1136	GLN
1	A	1252	GLN
1	A	1277	GLN
1	B	132	GLN
1	B	310	GLN
1	B	406	GLN
1	B	584	HIS
1	B	1015	GLN
1	B	1035	ASN
1	B	1077	ASN
1	B	1413	ASN
1	B	1435	GLN
1	C	392	ASN
1	C	917	ASN
1	C	983	ASN
1	C	995	GLN
1	C	1077	ASN
1	C	1136	GLN
1	C	1252	GLN
1	D	132	GLN
1	D	310	GLN
1	D	406	GLN
1	D	584	HIS
1	D	1015	GLN
1	D	1035	ASN
1	D	1065	GLN
1	D	1077	ASN
1	D	1435	GLN

### 5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

## 5.4 Non-standard residues in protein, DNA, RNA chains ⓘ

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

## 5.5 Carbohydrates ⓘ

34 monosaccharides are modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. 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  $|Z| > 2$  is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z  > 2$	Counts	RMSZ	$\# Z  > 2$
2	NAG	E	1	1,2	14,14,15	0.34	0	17,19,21	0.75	0
2	NAG	E	2	2	14,14,15	0.38	0	17,19,21	0.92	1 (5%)
3	NAG	F	1	1,3	14,14,15	0.45	0	17,19,21	1.37	2 (11%)
3	NAG	F	2	3	14,14,15	0.35	0	17,19,21	1.12	2 (11%)
3	BMA	F	3	3	11,11,12	0.25	0	15,15,17	0.99	1 (6%)
3	MAN	F	4	3	11,11,12	0.24	0	15,15,17	0.56	0
2	NAG	G	1	1,2	14,14,15	0.31	0	17,19,21	1.14	3 (17%)
2	NAG	G	2	2	14,14,15	0.30	0	17,19,21	0.82	0
3	NAG	H	1	1,3	14,14,15	0.38	0	17,19,21	0.52	0
3	NAG	H	2	3	14,14,15	0.39	0	17,19,21	1.09	1 (5%)
3	BMA	H	3	3	11,11,12	0.22	0	15,15,17	0.72	1 (6%)
3	MAN	H	4	3	11,11,12	0.23	0	15,15,17	0.48	0
4	NAG	I	1	1,4	14,14,15	0.51	0	17,19,21	1.21	1 (5%)
4	NAG	I	2	4	14,14,15	0.33	0	17,19,21	0.54	0
4	BMA	I	3	4	11,11,12	0.20	0	15,15,17	0.54	0
2	NAG	J	1	1,2	14,14,15	0.31	0	17,19,21	0.53	0
2	NAG	J	2	2	14,14,15	0.31	0	17,19,21	0.46	0
2	NAG	K	1	1,2	14,14,15	0.34	0	17,19,21	0.75	0
2	NAG	K	2	2	14,14,15	0.38	0	17,19,21	0.92	1 (5%)
3	NAG	L	1	1,3	14,14,15	0.45	0	17,19,21	1.37	2 (11%)
3	NAG	L	2	3	14,14,15	0.35	0	17,19,21	1.12	2 (11%)
3	BMA	L	3	3	11,11,12	0.25	0	15,15,17	0.99	1 (6%)
3	MAN	L	4	3	11,11,12	0.24	0	15,15,17	0.56	0
2	NAG	M	1	1,2	14,14,15	0.31	0	17,19,21	1.14	3 (17%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
2	NAG	M	2	2	14,14,15	0.30	0	17,19,21	0.82	0
3	NAG	N	1	1,3	14,14,15	0.38	0	17,19,21	0.52	0
3	NAG	N	2	3	14,14,15	0.39	0	17,19,21	1.09	1 (5%)
3	BMA	N	3	3	11,11,12	0.22	0	15,15,17	0.72	1 (6%)
3	MAN	N	4	3	11,11,12	0.23	0	15,15,17	0.48	0
4	NAG	O	1	1,4	14,14,15	0.51	0	17,19,21	1.21	1 (5%)
4	NAG	O	2	4	14,14,15	0.33	0	17,19,21	0.54	0
4	BMA	O	3	4	11,11,12	0.20	0	15,15,17	0.54	0
2	NAG	P	1	1,2	14,14,15	0.31	0	17,19,21	0.53	0
2	NAG	P	2	2	14,14,15	0.31	0	17,19,21	0.46	0

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
2	NAG	E	1	1,2	-	2/6/23/26	0/1/1/1
2	NAG	E	2	2	-	3/6/23/26	0/1/1/1
3	NAG	F	1	1,3	-	5/6/23/26	0/1/1/1
3	NAG	F	2	3	-	3/6/23/26	0/1/1/1
3	BMA	F	3	3	-	0/2/19/22	0/1/1/1
3	MAN	F	4	3	-	0/2/19/22	0/1/1/1
2	NAG	G	1	1,2	-	2/6/23/26	0/1/1/1
2	NAG	G	2	2	-	2/6/23/26	0/1/1/1
3	NAG	H	1	1,3	-	3/6/23/26	0/1/1/1
3	NAG	H	2	3	-	3/6/23/26	0/1/1/1
3	BMA	H	3	3	-	1/2/19/22	0/1/1/1
3	MAN	H	4	3	-	1/2/19/22	0/1/1/1
4	NAG	I	1	1,4	-	3/6/23/26	0/1/1/1
4	NAG	I	2	4	-	4/6/23/26	0/1/1/1
4	BMA	I	3	4	-	1/2/19/22	0/1/1/1
2	NAG	J	1	1,2	-	4/6/23/26	0/1/1/1
2	NAG	J	2	2	-	3/6/23/26	0/1/1/1
2	NAG	K	1	1,2	-	2/6/23/26	0/1/1/1
2	NAG	K	2	2	-	3/6/23/26	0/1/1/1
3	NAG	L	1	1,3	-	5/6/23/26	0/1/1/1
3	NAG	L	2	3	-	3/6/23/26	0/1/1/1

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	BMA	L	3	3	-	0/2/19/22	0/1/1/1
3	MAN	L	4	3	-	0/2/19/22	0/1/1/1
2	NAG	M	1	1,2	-	2/6/23/26	0/1/1/1
2	NAG	M	2	2	-	2/6/23/26	0/1/1/1
3	NAG	N	1	1,3	-	3/6/23/26	0/1/1/1
3	NAG	N	2	3	-	3/6/23/26	0/1/1/1
3	BMA	N	3	3	-	1/2/19/22	0/1/1/1
3	MAN	N	4	3	-	1/2/19/22	0/1/1/1
4	NAG	O	1	1,4	-	3/6/23/26	0/1/1/1
4	NAG	O	2	4	-	4/6/23/26	0/1/1/1
4	BMA	O	3	4	-	1/2/19/22	0/1/1/1
2	NAG	P	1	1,2	-	4/6/23/26	0/1/1/1
2	NAG	P	2	2	-	3/6/23/26	0/1/1/1

There are no bond length outliers.

All (24) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	H	2	NAG	C1-O5-C5	3.46	116.83	112.19
3	N	2	NAG	C1-O5-C5	3.46	116.83	112.19
3	F	1	NAG	C3-C4-C5	3.43	116.46	110.23
3	L	1	NAG	C3-C4-C5	3.43	116.46	110.23
4	I	1	NAG	C3-C4-C5	3.10	115.86	110.23
4	O	1	NAG	C3-C4-C5	3.10	115.86	110.23
3	F	1	NAG	O5-C5-C4	2.70	117.39	110.83
3	L	1	NAG	O5-C5-C4	2.70	117.39	110.83
2	G	1	NAG	O5-C1-C2	-2.69	107.13	111.29
2	M	1	NAG	O5-C1-C2	-2.69	107.13	111.29
2	E	2	NAG	C1-O5-C5	2.63	115.71	112.19
2	K	2	NAG	C1-O5-C5	2.63	115.71	112.19
2	G	1	NAG	C4-C3-C2	-2.31	107.63	111.02
2	M	1	NAG	C4-C3-C2	-2.31	107.63	111.02
2	G	1	NAG	C2-N2-C7	-2.18	119.98	122.90
2	M	1	NAG	C2-N2-C7	-2.18	119.98	122.90
3	F	2	NAG	O5-C1-C2	-2.14	107.97	111.29
3	L	2	NAG	O5-C1-C2	-2.14	107.97	111.29
3	F	3	BMA	C1-O5-C5	2.10	115.00	112.19
3	L	3	BMA	C1-O5-C5	2.10	115.00	112.19
3	H	3	BMA	C1-O5-C5	2.09	114.99	112.19
3	N	3	BMA	C1-O5-C5	2.09	114.99	112.19

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	F	2	NAG	C1-O5-C5	2.06	114.94	112.19
3	L	2	NAG	C1-O5-C5	2.06	114.94	112.19

There are no chirality outliers.

All (80) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	E	1	NAG	C8-C7-N2-C2
2	E	1	NAG	O7-C7-N2-C2
2	E	2	NAG	C1-C2-N2-C7
2	E	2	NAG	C8-C7-N2-C2
2	E	2	NAG	O7-C7-N2-C2
2	G	1	NAG	C8-C7-N2-C2
2	G	1	NAG	O7-C7-N2-C2
2	G	2	NAG	C8-C7-N2-C2
2	G	2	NAG	O7-C7-N2-C2
2	J	1	NAG	C1-C2-N2-C7
2	J	2	NAG	C1-C2-N2-C7
2	K	1	NAG	C8-C7-N2-C2
2	K	1	NAG	O7-C7-N2-C2
2	K	2	NAG	C1-C2-N2-C7
2	K	2	NAG	C8-C7-N2-C2
2	K	2	NAG	O7-C7-N2-C2
2	M	1	NAG	C8-C7-N2-C2
2	M	1	NAG	O7-C7-N2-C2
2	M	2	NAG	C8-C7-N2-C2
2	M	2	NAG	O7-C7-N2-C2
2	P	1	NAG	C1-C2-N2-C7
2	P	2	NAG	C1-C2-N2-C7
3	F	1	NAG	C3-C2-N2-C7
3	F	1	NAG	C8-C7-N2-C2
3	F	1	NAG	O7-C7-N2-C2
3	H	1	NAG	C3-C2-N2-C7
3	H	1	NAG	C8-C7-N2-C2
3	H	1	NAG	O7-C7-N2-C2
3	H	2	NAG	C1-C2-N2-C7
3	H	2	NAG	C8-C7-N2-C2
3	H	2	NAG	O7-C7-N2-C2
3	L	1	NAG	C3-C2-N2-C7
3	L	1	NAG	C8-C7-N2-C2
3	L	1	NAG	O7-C7-N2-C2
3	N	1	NAG	C3-C2-N2-C7

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Mol	Chain	Res	Type	Atoms
3	N	1	NAG	C8-C7-N2-C2
3	N	1	NAG	O7-C7-N2-C2
3	N	2	NAG	C1-C2-N2-C7
3	N	2	NAG	C8-C7-N2-C2
3	N	2	NAG	O7-C7-N2-C2
4	I	1	NAG	C3-C2-N2-C7
4	I	1	NAG	C8-C7-N2-C2
4	I	1	NAG	O7-C7-N2-C2
4	I	2	NAG	C8-C7-N2-C2
4	I	2	NAG	O7-C7-N2-C2
4	O	1	NAG	C3-C2-N2-C7
4	O	1	NAG	C8-C7-N2-C2
4	O	1	NAG	O7-C7-N2-C2
4	O	2	NAG	C8-C7-N2-C2
4	O	2	NAG	O7-C7-N2-C2
3	F	1	NAG	C4-C5-C6-O6
3	L	1	NAG	C4-C5-C6-O6
3	F	1	NAG	O5-C5-C6-O6
3	L	1	NAG	O5-C5-C6-O6
2	J	2	NAG	C8-C7-N2-C2
2	J	2	NAG	O7-C7-N2-C2
2	P	2	NAG	C8-C7-N2-C2
2	P	2	NAG	O7-C7-N2-C2
3	F	2	NAG	C8-C7-N2-C2
3	F	2	NAG	O7-C7-N2-C2
3	L	2	NAG	C8-C7-N2-C2
3	L	2	NAG	O7-C7-N2-C2
2	J	1	NAG	O5-C5-C6-O6
2	P	1	NAG	O5-C5-C6-O6
2	J	1	NAG	C8-C7-N2-C2
2	P	1	NAG	C8-C7-N2-C2
3	H	4	MAN	O5-C5-C6-O6
3	N	4	MAN	O5-C5-C6-O6
3	F	2	NAG	O5-C5-C6-O6
3	L	2	NAG	O5-C5-C6-O6
4	I	3	BMA	O5-C5-C6-O6
4	O	3	BMA	O5-C5-C6-O6
3	H	3	BMA	O5-C5-C6-O6
3	N	3	BMA	O5-C5-C6-O6
2	J	1	NAG	O7-C7-N2-C2
2	P	1	NAG	O7-C7-N2-C2
4	I	2	NAG	C3-C2-N2-C7

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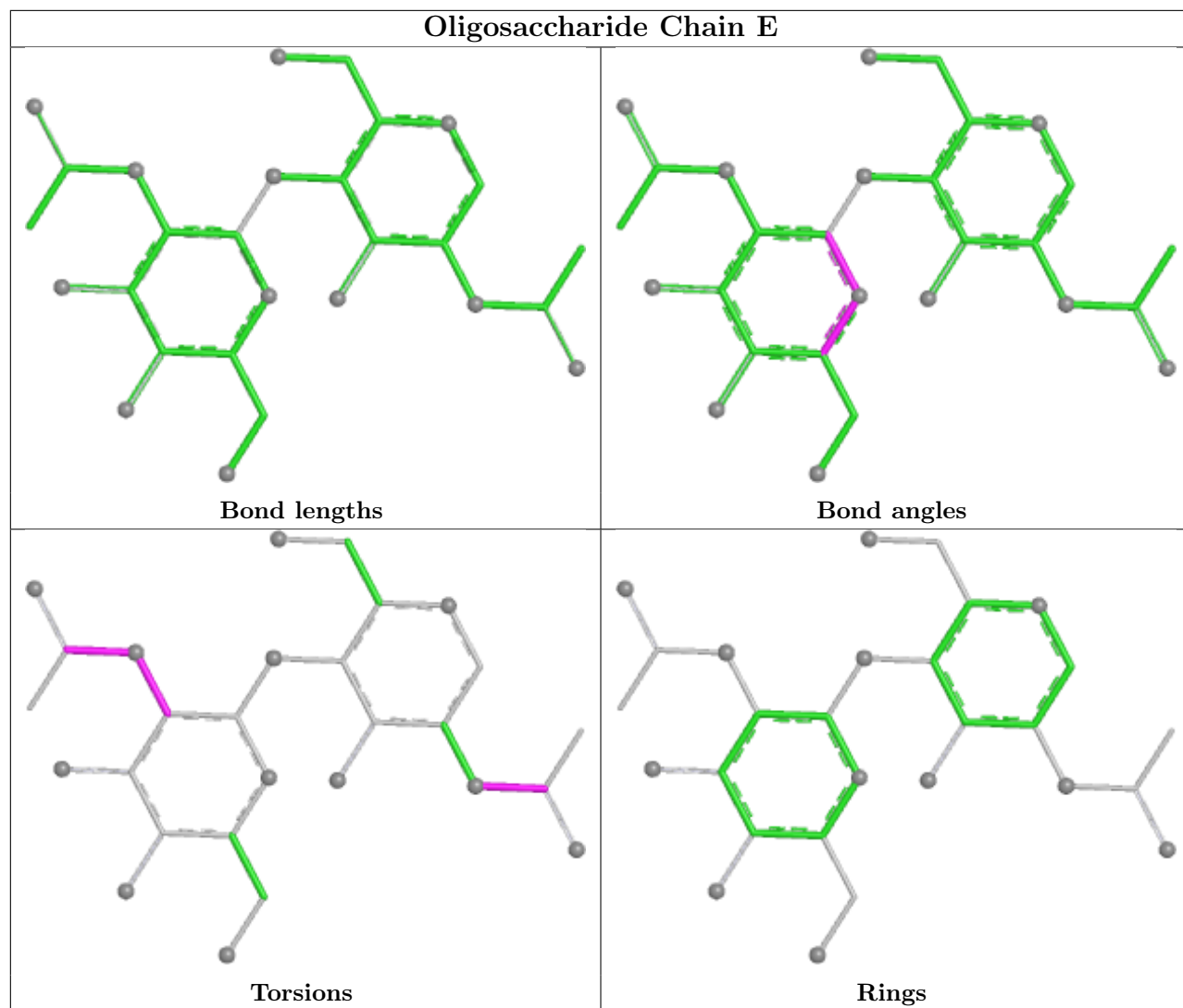
Mol	Chain	Res	Type	Atoms
4	O	2	NAG	C3-C2-N2-C7
4	I	2	NAG	C1-C2-N2-C7
4	O	2	NAG	C1-C2-N2-C7

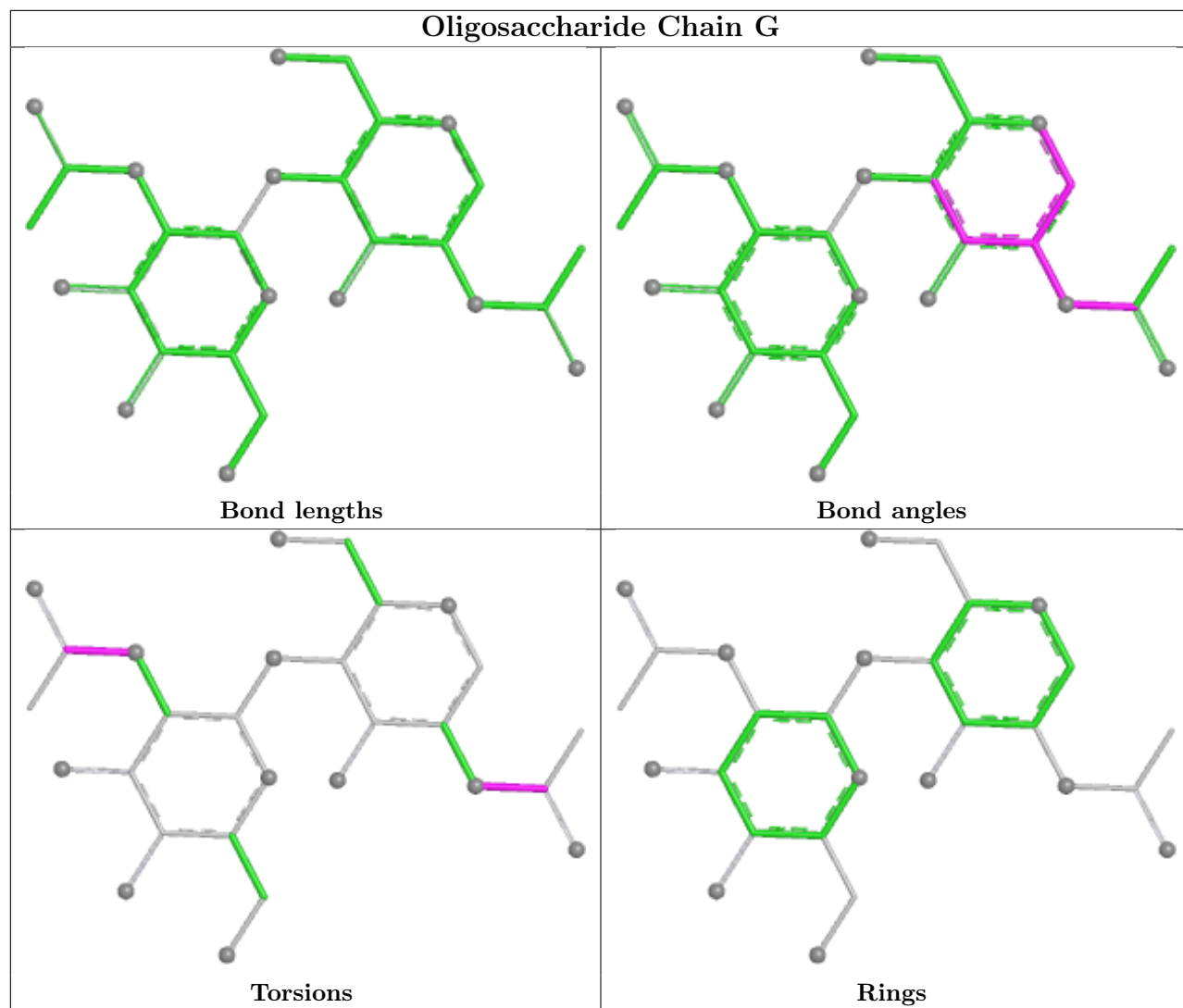
There are no ring outliers.

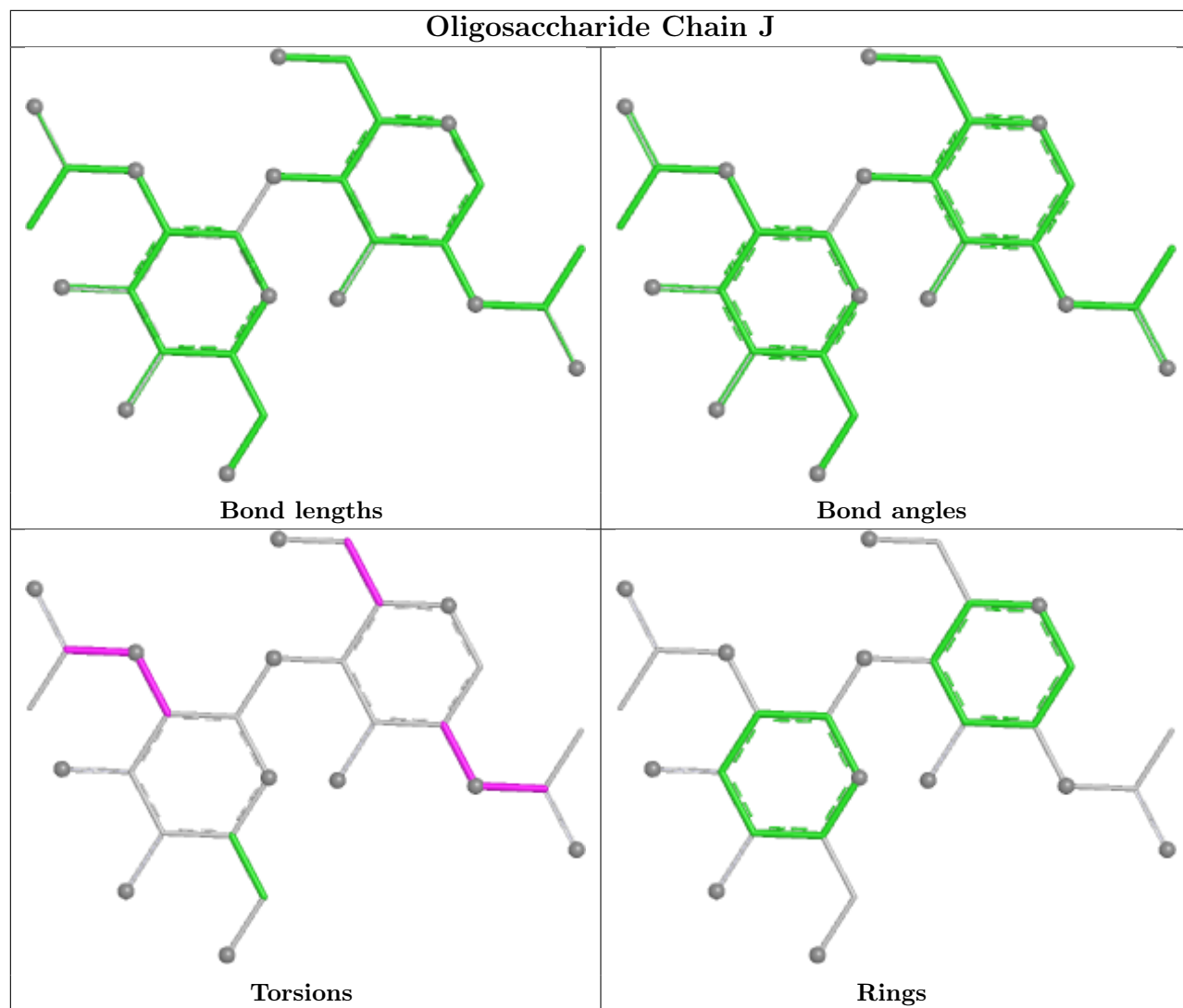
16 monomers are involved in 16 short contacts:

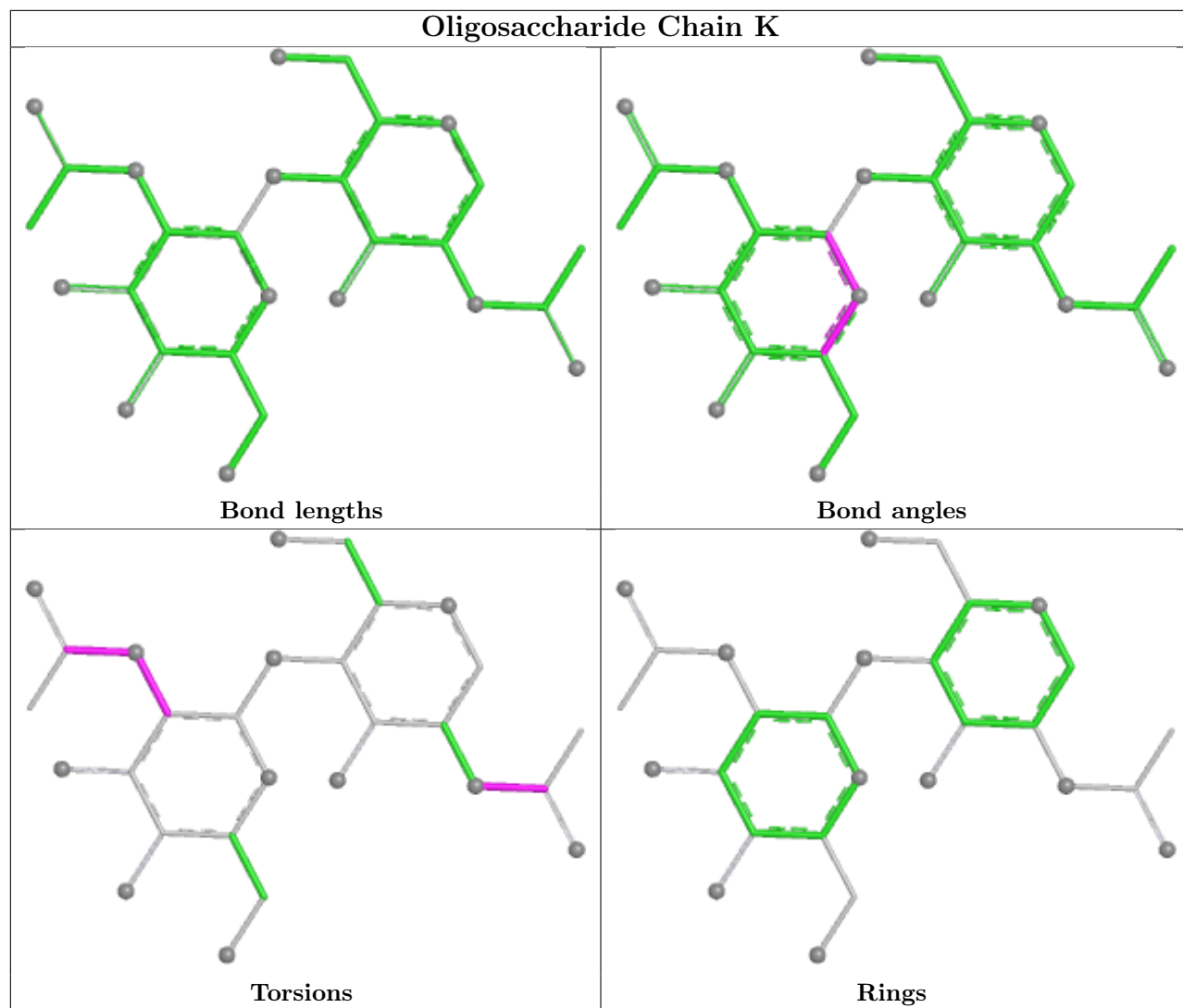
Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	L	3	BMA	1	0
2	K	2	NAG	2	0
4	I	2	NAG	1	0
2	K	1	NAG	1	0
2	M	1	NAG	1	0
3	H	1	NAG	1	0
4	I	1	NAG	1	0
4	O	1	NAG	2	0
3	N	1	NAG	1	0
3	H	2	NAG	2	0
3	L	2	NAG	1	0
2	G	1	NAG	1	0
4	O	2	NAG	1	0
2	E	1	NAG	1	0
3	N	2	NAG	2	0
2	E	2	NAG	2	0

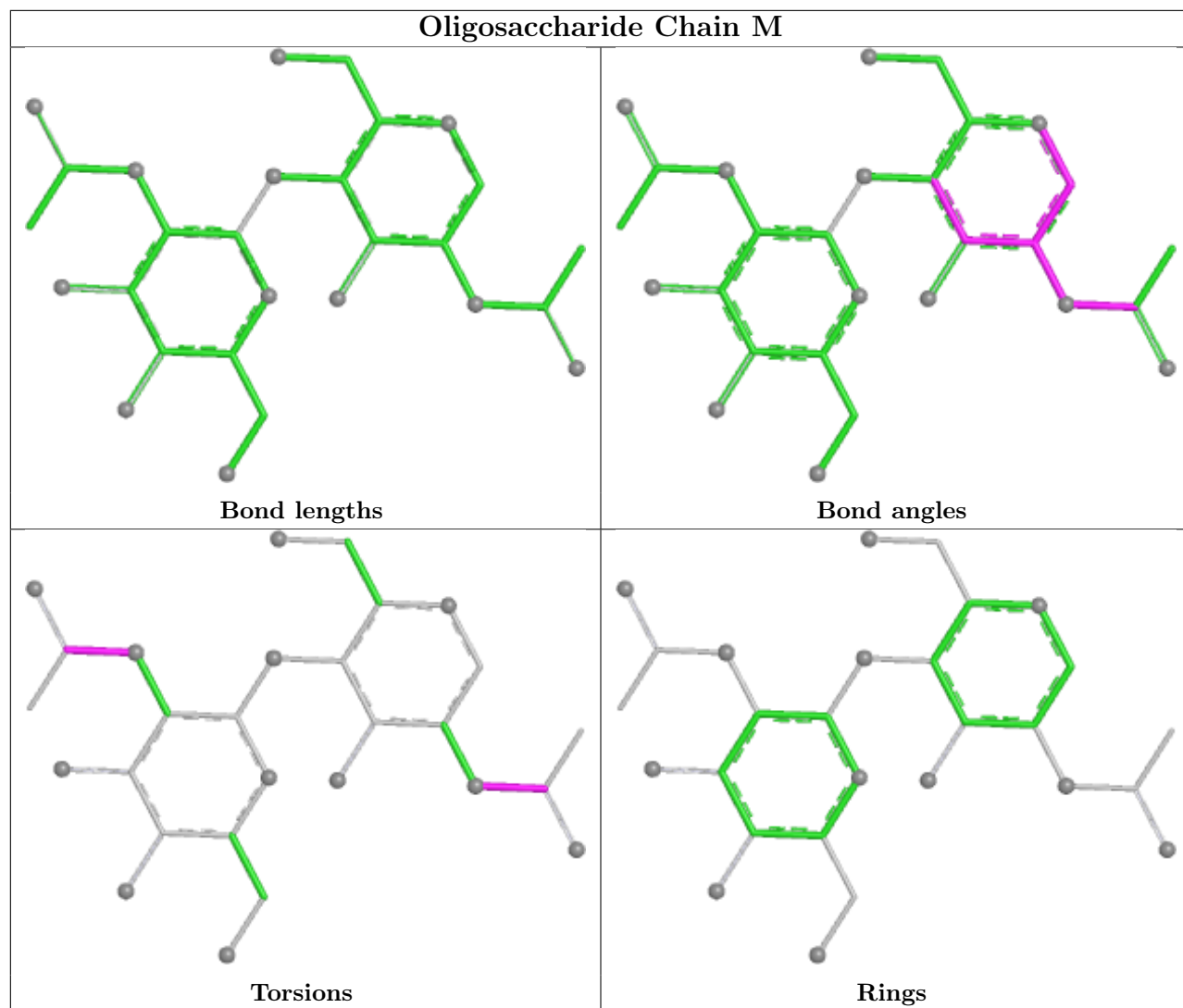
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for oligosaccharide.



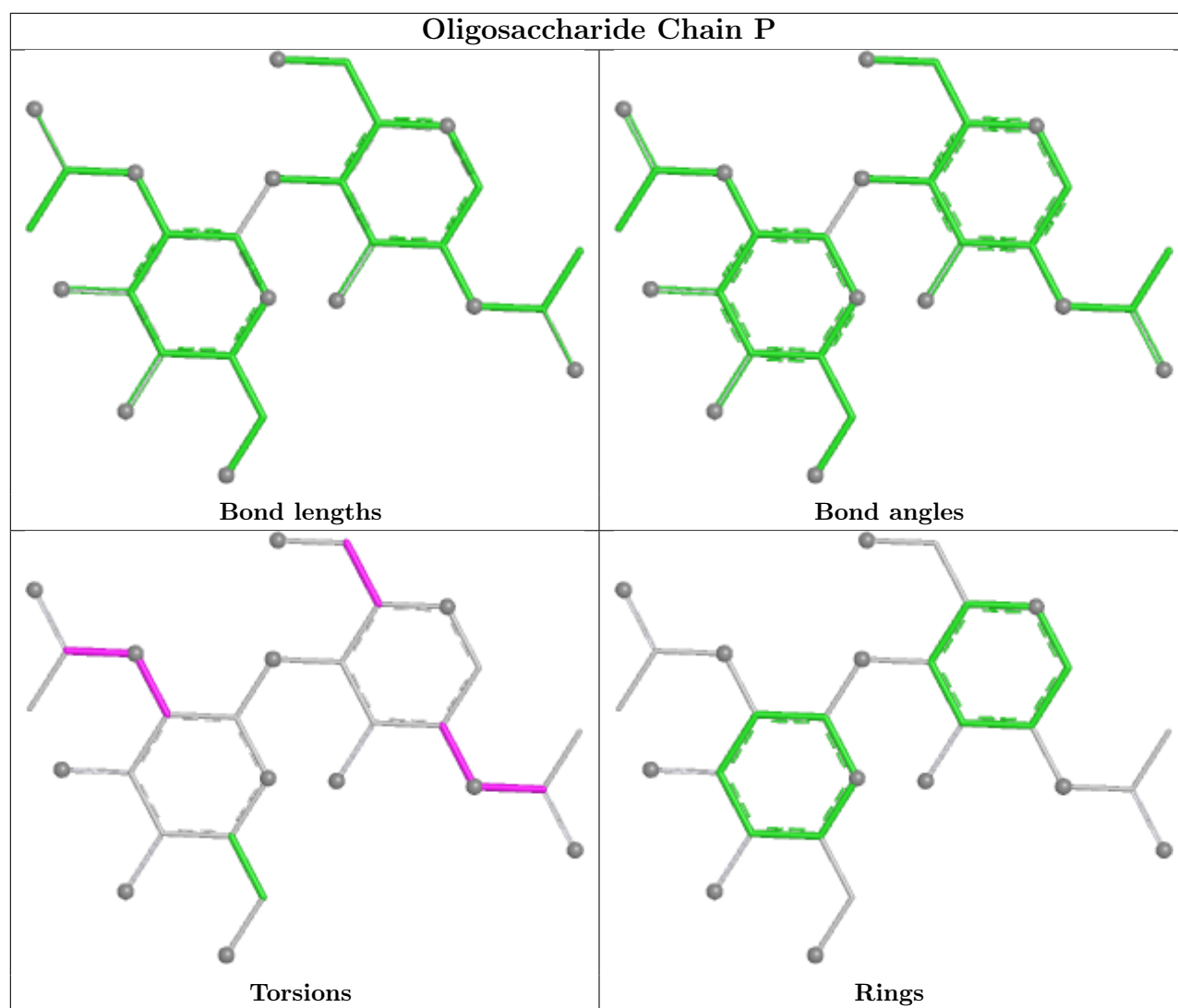


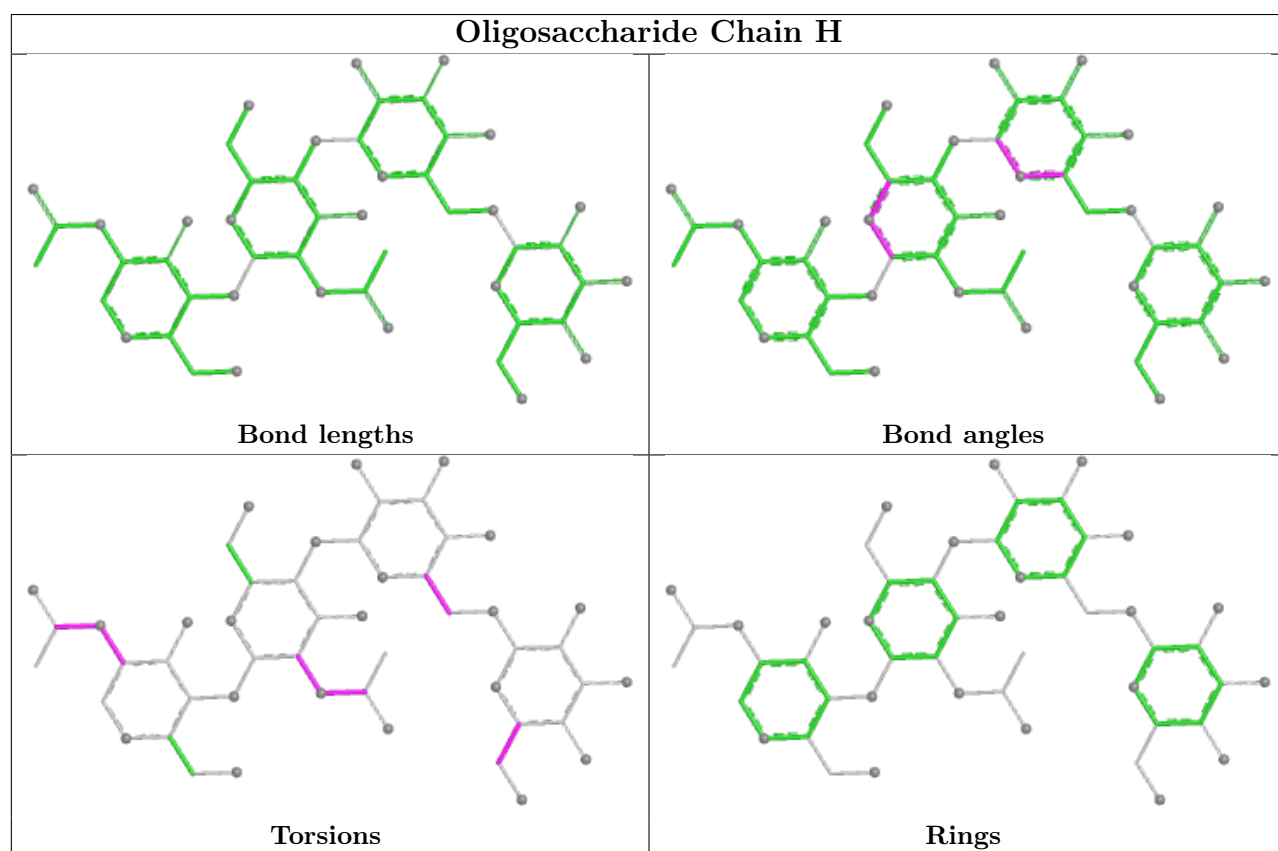
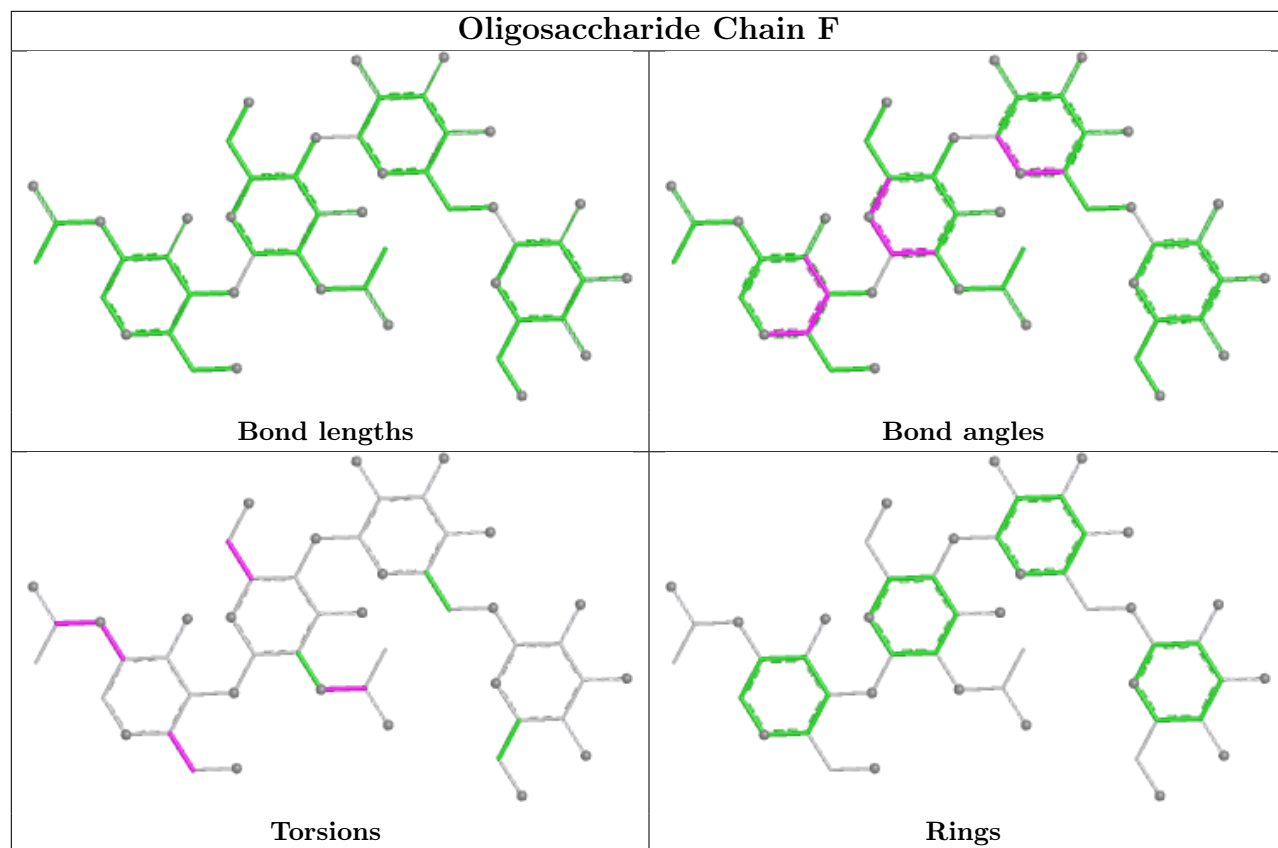


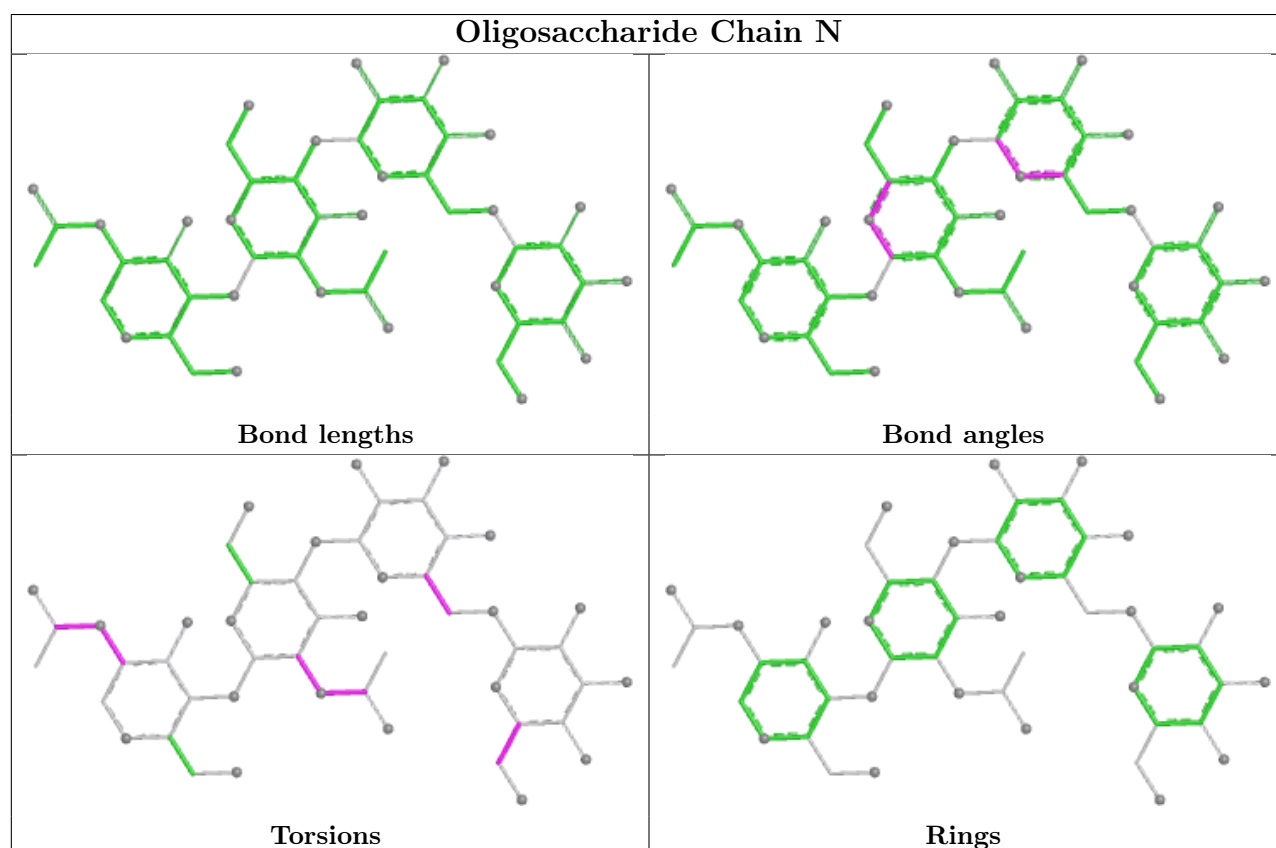
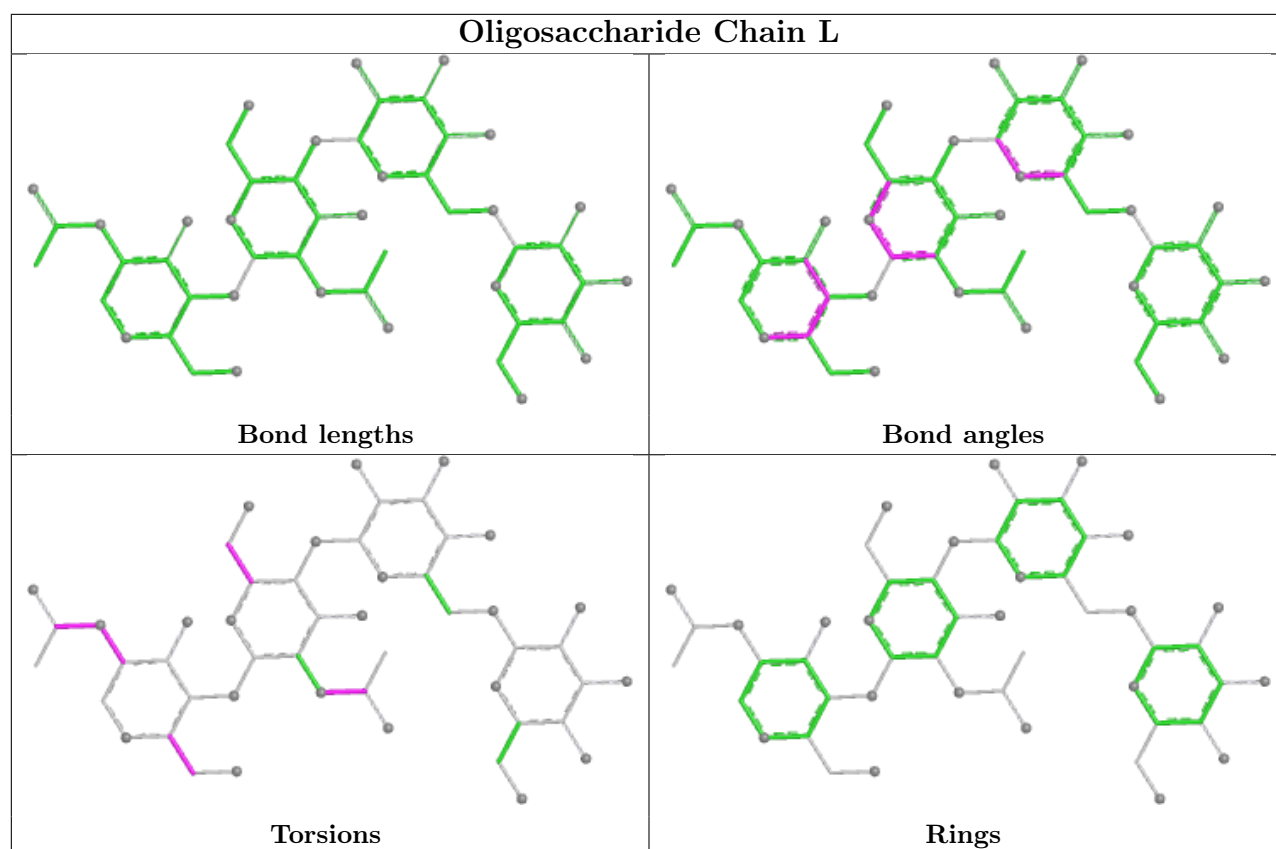


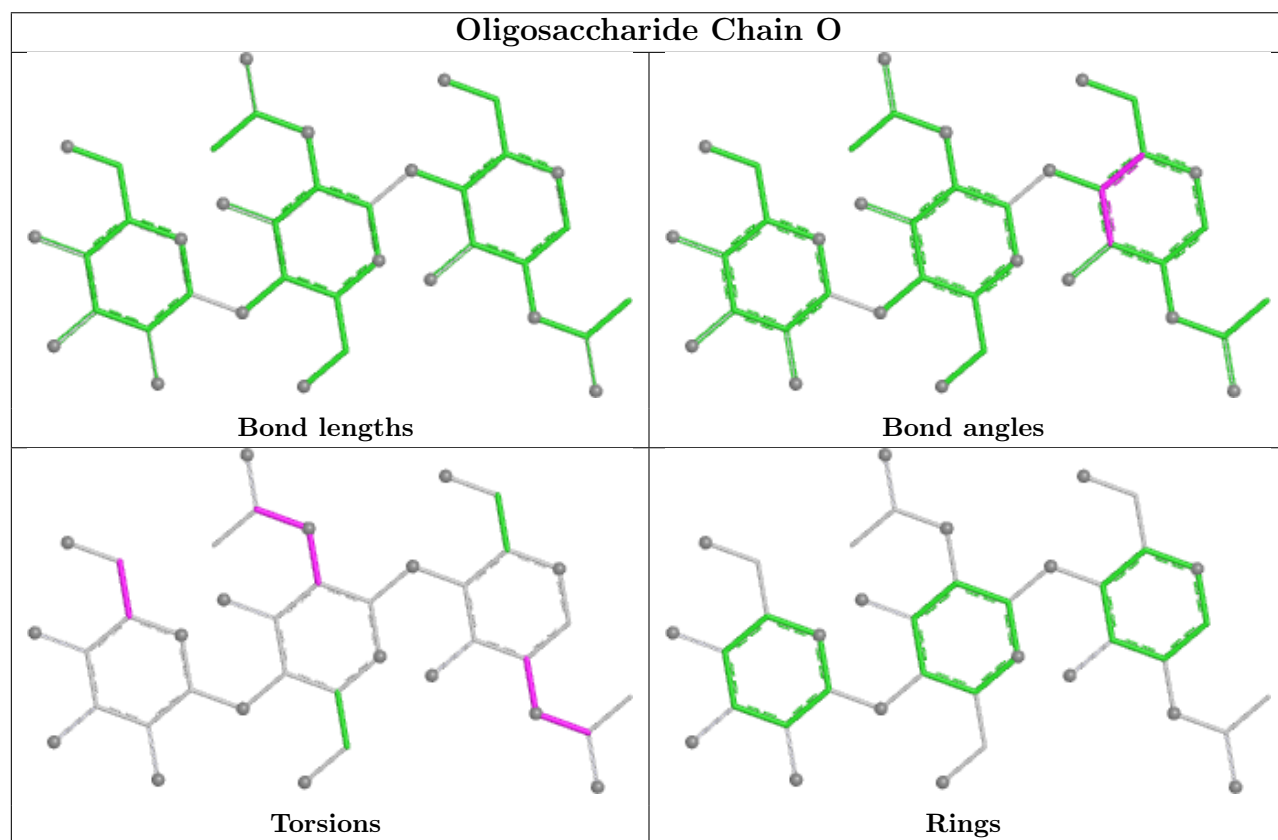
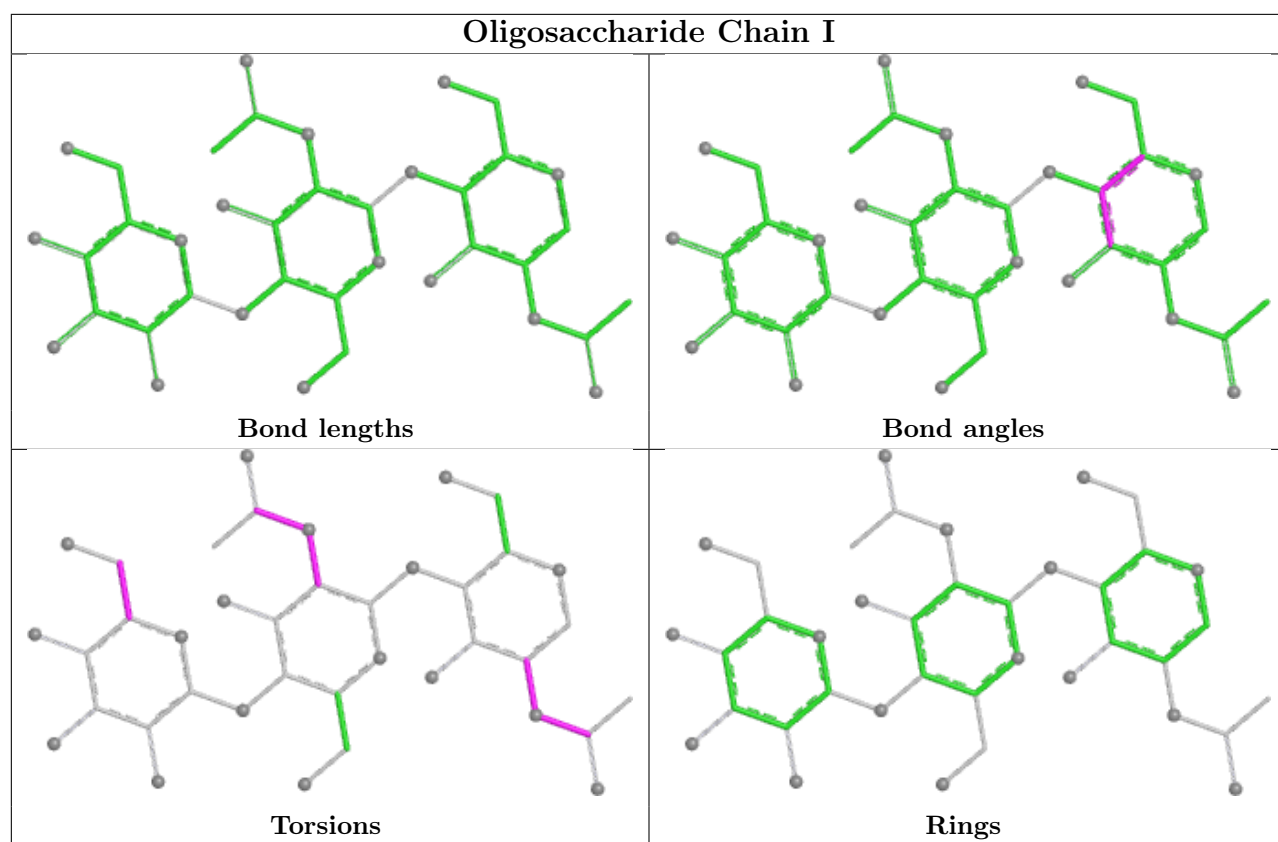












## 5.6 Ligand geometry

18 ligands are modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. 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  $|Z| > 2$  is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
5	NAG	C	2004	1	14,14,15	0.35	0	17,19,21	0.72	1 (5%)
5	NAG	B	2004	1	14,14,15	0.36	0	17,19,21	0.90	1 (5%)
5	NAG	B	2003	1	14,14,15	0.31	0	17,19,21	0.71	0
5	NAG	A	2002	1	14,14,15	1.87	4 (28%)	17,19,21	0.92	0
5	NAG	A	2005	1	14,14,15	0.30	0	17,19,21	0.60	0
5	NAG	A	2004	1	14,14,15	0.35	0	17,19,21	0.72	1 (5%)
5	NAG	C	2002	1	14,14,15	1.87	4 (28%)	17,19,21	0.92	0
5	NAG	C	2001	1	14,14,15	1.88	3 (21%)	17,19,21	1.12	2 (11%)
5	NAG	B	2001	1	14,14,15	0.27	0	17,19,21	1.27	2 (11%)
5	NAG	C	2005	1	14,14,15	0.30	0	17,19,21	0.60	0
5	NAG	D	2002	1	14,14,15	0.34	0	17,19,21	0.75	1 (5%)
5	NAG	D	2001	1	14,14,15	0.27	0	17,19,21	1.27	2 (11%)
5	NAG	D	2004	1	14,14,15	0.36	0	17,19,21	0.90	1 (5%)
5	NAG	A	2001	1	14,14,15	1.88	3 (21%)	17,19,21	1.12	2 (11%)
5	NAG	A	2003	1	14,14,15	0.30	0	17,19,21	0.71	0
5	NAG	C	2003	1	14,14,15	0.30	0	17,19,21	0.71	0
5	NAG	D	2003	1	14,14,15	0.31	0	17,19,21	0.71	0
5	NAG	B	2002	1	14,14,15	0.34	0	17,19,21	0.75	1 (5%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
5	NAG	C	2004	1	-	1/6/23/26	0/1/1/1
5	NAG	B	2004	1	-	5/6/23/26	0/1/1/1
5	NAG	B	2003	1	-	2/6/23/26	0/1/1/1

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
5	NAG	A	2002	1	-	4/6/23/26	0/1/1/1
5	NAG	A	2005	1	-	2/6/23/26	0/1/1/1
5	NAG	A	2004	1	-	1/6/23/26	0/1/1/1
5	NAG	C	2002	1	-	4/6/23/26	0/1/1/1
5	NAG	C	2001	1	-	0/6/23/26	0/1/1/1
5	NAG	B	2001	1	-	2/6/23/26	0/1/1/1
5	NAG	C	2005	1	-	2/6/23/26	0/1/1/1
5	NAG	D	2002	1	-	4/6/23/26	0/1/1/1
5	NAG	D	2001	1	-	2/6/23/26	0/1/1/1
5	NAG	D	2004	1	-	5/6/23/26	0/1/1/1
5	NAG	A	2001	1	-	0/6/23/26	0/1/1/1
5	NAG	A	2003	1	-	2/6/23/26	0/1/1/1
5	NAG	C	2003	1	-	2/6/23/26	0/1/1/1
5	NAG	D	2003	1	-	2/6/23/26	0/1/1/1
5	NAG	B	2002	1	-	4/6/23/26	0/1/1/1

All (14) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	A	2001	NAG	O5-C1	4.08	1.50	1.43
5	C	2001	NAG	O5-C1	4.08	1.50	1.43
5	A	2002	NAG	O5-C1	3.78	1.50	1.43
5	C	2002	NAG	O5-C1	3.78	1.50	1.43
5	A	2002	NAG	C7-N2	3.59	1.45	1.34
5	C	2002	NAG	C7-N2	3.59	1.45	1.34
5	A	2001	NAG	C7-N2	3.48	1.45	1.34
5	C	2001	NAG	C7-N2	3.48	1.45	1.34
5	A	2002	NAG	C2-N2	2.35	1.50	1.46
5	C	2002	NAG	C2-N2	2.35	1.50	1.46
5	A	2001	NAG	C2-N2	2.18	1.49	1.46
5	C	2001	NAG	C2-N2	2.18	1.49	1.46
5	A	2002	NAG	C3-C2	-2.08	1.48	1.52
5	C	2002	NAG	C3-C2	-2.08	1.48	1.52

All (14) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	2001	NAG	C1-O5-C5	3.91	117.42	112.19
5	D	2001	NAG	C1-O5-C5	3.91	117.42	112.19

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	2004	NAG	C1-O5-C5	2.50	115.54	112.19
5	D	2004	NAG	C1-O5-C5	2.50	115.54	112.19
5	A	2001	NAG	C2-N2-C7	-2.44	119.63	122.90
5	C	2001	NAG	C2-N2-C7	-2.44	119.63	122.90
5	A	2001	NAG	C8-C7-N2	2.32	119.96	116.12
5	C	2001	NAG	C8-C7-N2	2.32	119.96	116.12
5	A	2004	NAG	C1-O5-C5	2.28	115.24	112.19
5	C	2004	NAG	C1-O5-C5	2.28	115.24	112.19
5	B	2001	NAG	C4-C3-C2	-2.15	107.87	111.02
5	D	2001	NAG	C4-C3-C2	-2.15	107.87	111.02
5	B	2002	NAG	C1-O5-C5	2.00	114.87	112.19
5	D	2002	NAG	C1-O5-C5	2.00	114.87	112.19

There are no chirality outliers.

All (44) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
5	A	2003	NAG	O7-C7-N2-C2
5	B	2002	NAG	C3-C2-N2-C7
5	B	2002	NAG	C8-C7-N2-C2
5	B	2002	NAG	O7-C7-N2-C2
5	B	2003	NAG	C8-C7-N2-C2
5	B	2003	NAG	O7-C7-N2-C2
5	B	2004	NAG	C3-C2-N2-C7
5	B	2004	NAG	C8-C7-N2-C2
5	B	2004	NAG	O7-C7-N2-C2
5	C	2003	NAG	O7-C7-N2-C2
5	D	2002	NAG	C3-C2-N2-C7
5	D	2002	NAG	C8-C7-N2-C2
5	D	2002	NAG	O7-C7-N2-C2
5	D	2003	NAG	C8-C7-N2-C2
5	D	2003	NAG	O7-C7-N2-C2
5	D	2004	NAG	C3-C2-N2-C7
5	D	2004	NAG	C8-C7-N2-C2
5	D	2004	NAG	O7-C7-N2-C2
5	A	2003	NAG	C8-C7-N2-C2
5	A	2005	NAG	C8-C7-N2-C2
5	C	2003	NAG	C8-C7-N2-C2
5	C	2005	NAG	C8-C7-N2-C2
5	A	2005	NAG	O7-C7-N2-C2
5	C	2005	NAG	O7-C7-N2-C2
5	A	2002	NAG	O5-C5-C6-O6

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Mol	Chain	Res	Type	Atoms
5	C	2002	NAG	O5-C5-C6-O6
5	A	2002	NAG	C4-C5-C6-O6
5	C	2002	NAG	C4-C5-C6-O6
5	B	2004	NAG	C4-C5-C6-O6
5	D	2004	NAG	C4-C5-C6-O6
5	B	2002	NAG	O5-C5-C6-O6
5	D	2002	NAG	O5-C5-C6-O6
5	A	2004	NAG	O5-C5-C6-O6
5	C	2004	NAG	O5-C5-C6-O6
5	B	2004	NAG	O5-C5-C6-O6
5	D	2004	NAG	O5-C5-C6-O6
5	B	2001	NAG	C1-C2-N2-C7
5	D	2001	NAG	C1-C2-N2-C7
5	A	2002	NAG	C3-C2-N2-C7
5	C	2002	NAG	C3-C2-N2-C7
5	A	2002	NAG	C1-C2-N2-C7
5	C	2002	NAG	C1-C2-N2-C7
5	B	2001	NAG	C3-C2-N2-C7
5	D	2001	NAG	C3-C2-N2-C7

There are no ring outliers.

2 monomers are involved in 2 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
5	B	2004	NAG	1	0
5	D	2003	NAG	1	0

## 5.7 Other polymers [i](#)

There are no such residues in this entry.

## 5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
1	D	3
1	A	3
1	C	3
1	B	2



All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	B	968:MET	C	969:PRO	N	1.68
1	D	968:MET	C	969:PRO	N	1.68
1	D	978:VAL	C	979:LEU	N	1.61
1	A	409:ILE	C	410:ASN	N	1.16
1	C	409:ILE	C	410:ASN	N	1.16
1	B	990:LEU	C	991:ASN	N	1.08
1	D	990:LEU	C	991:ASN	N	1.08
1	A	868:VAL	C	869:ASN	N	1.05
1	C	868:VAL	C	869:ASN	N	1.05
1	A	54:LEU	C	55:ASN	N	0.86
1	C	54:LEU	C	55:ASN	N	0.86

## 6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-12751. These allow visual inspection of the internal detail of the map and identification of artifacts.

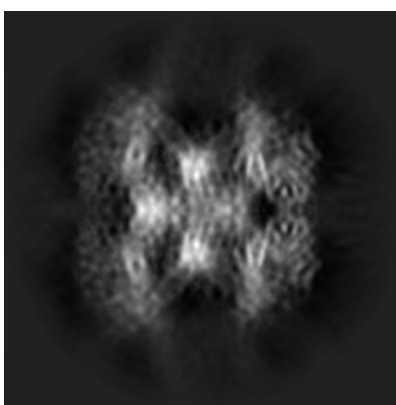
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

### 6.1 Orthogonal projections [i](#)

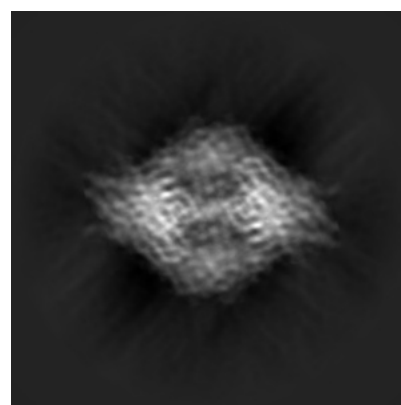
#### 6.1.1 Primary map



X



Y

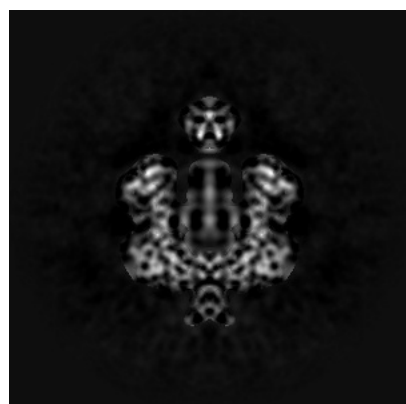


Z

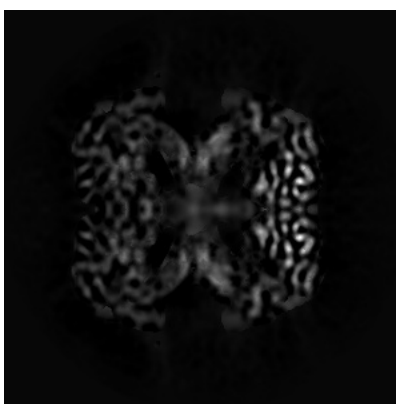
The images above show the map projected in three orthogonal directions.

### 6.2 Central slices [i](#)

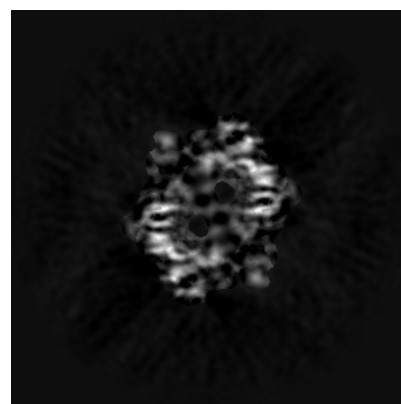
#### 6.2.1 Primary map



X Index: 160



Y Index: 160



Z Index: 160

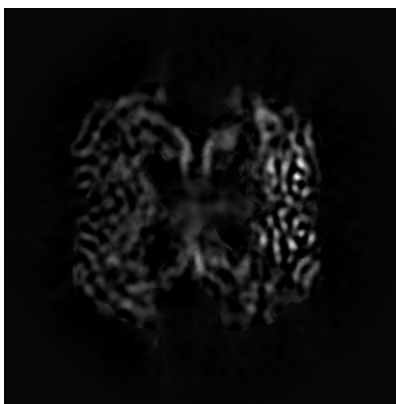
The images above show central slices of the map in three orthogonal directions.

## 6.3 Largest variance slices [i](#)

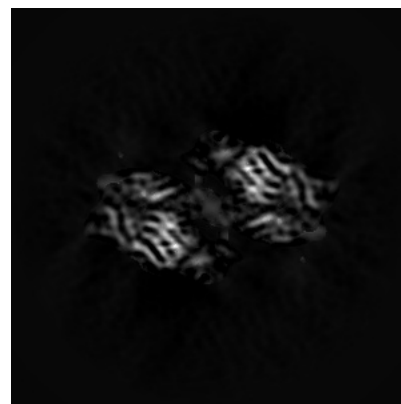
### 6.3.1 Primary map



X Index: 196



Y Index: 157

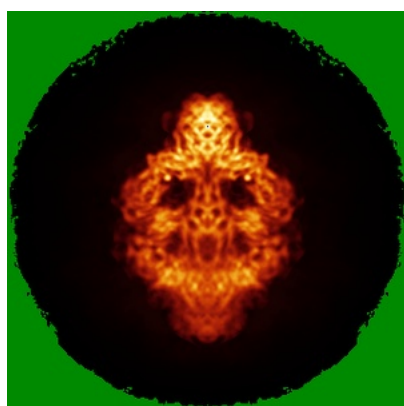


Z Index: 196

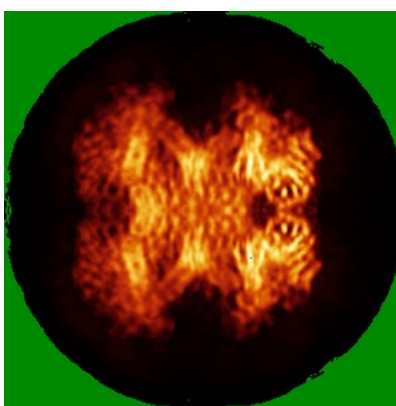
The images above show the largest variance slices of the map in three orthogonal directions.

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

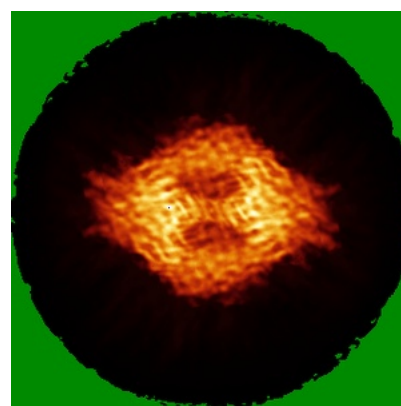
### 6.4.1 Primary map



X



Y

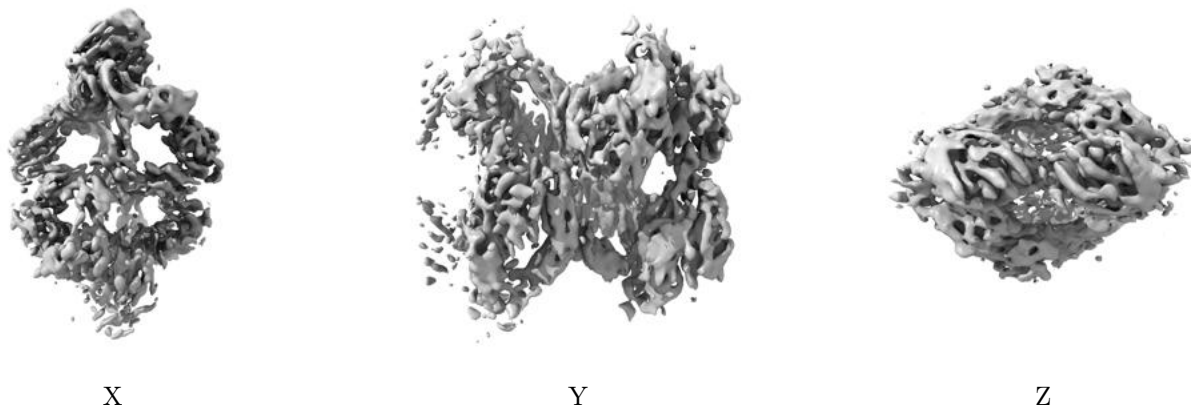


Z

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

## 6.5 Orthogonal surface views [i](#)

### 6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.0135. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

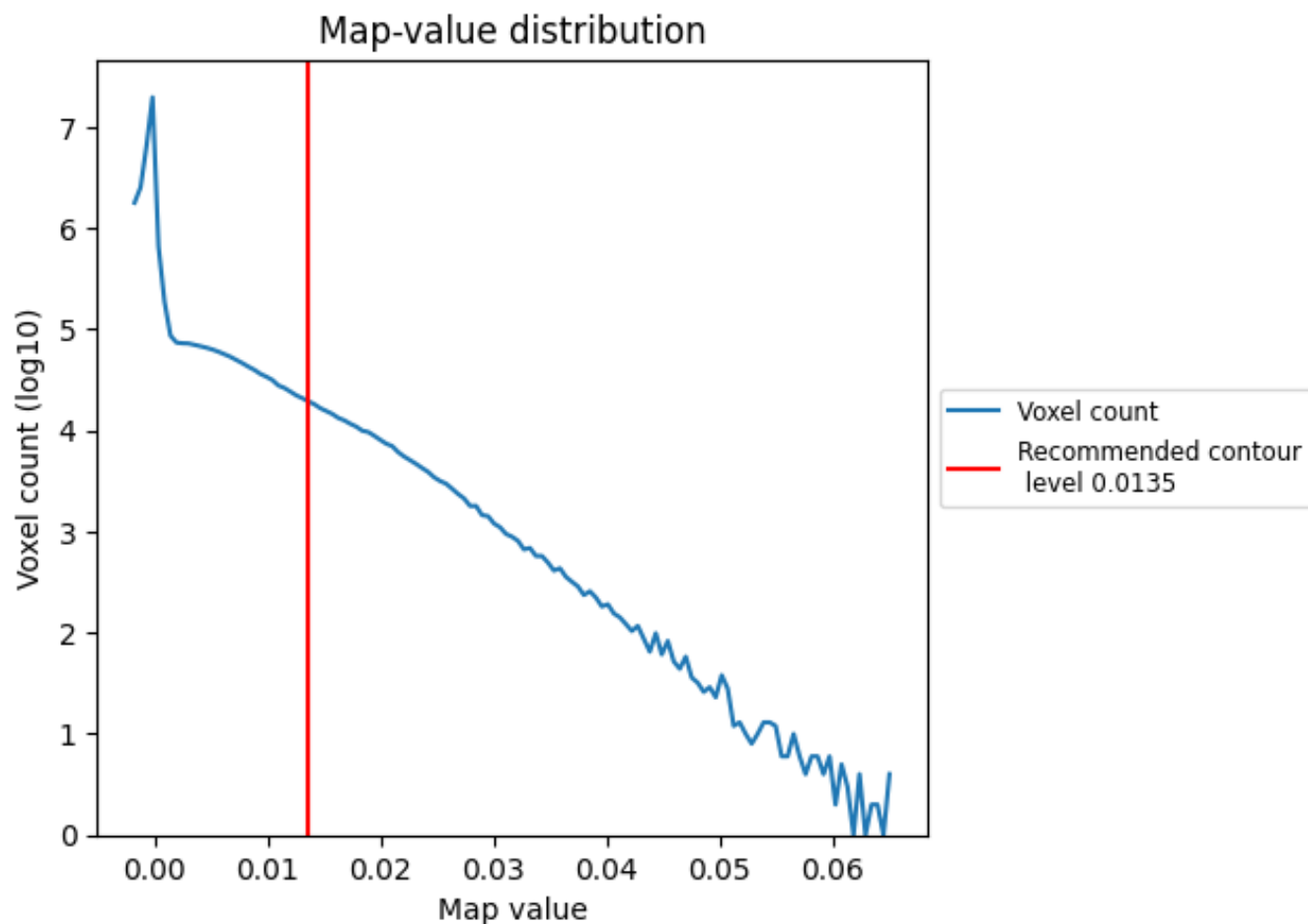
## 6.6 Mask visualisation [i](#)

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

## 7 Map analysis [i](#)

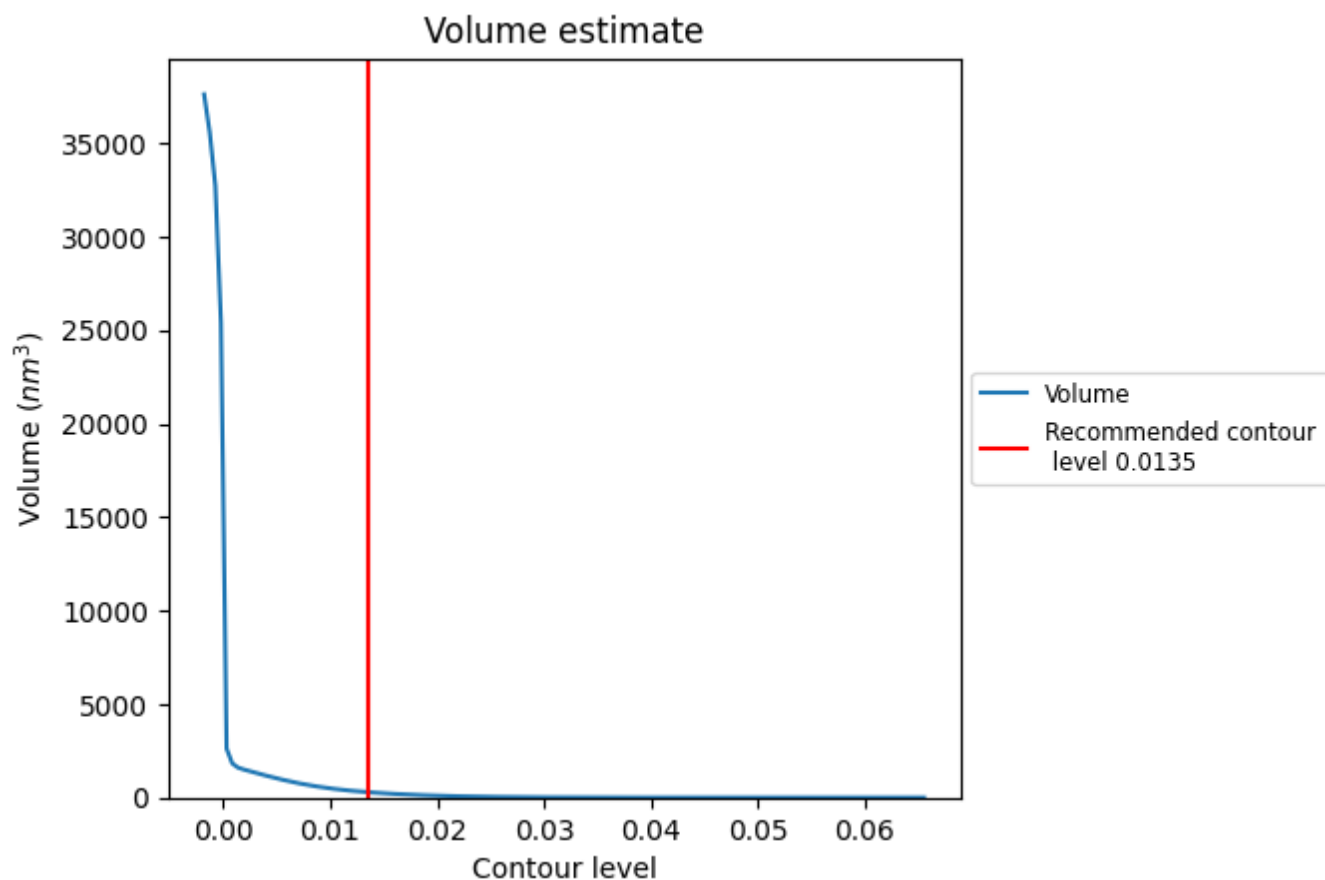
This section contains the results of statistical analysis of the map.

### 7.1 Map-value distribution [i](#)



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

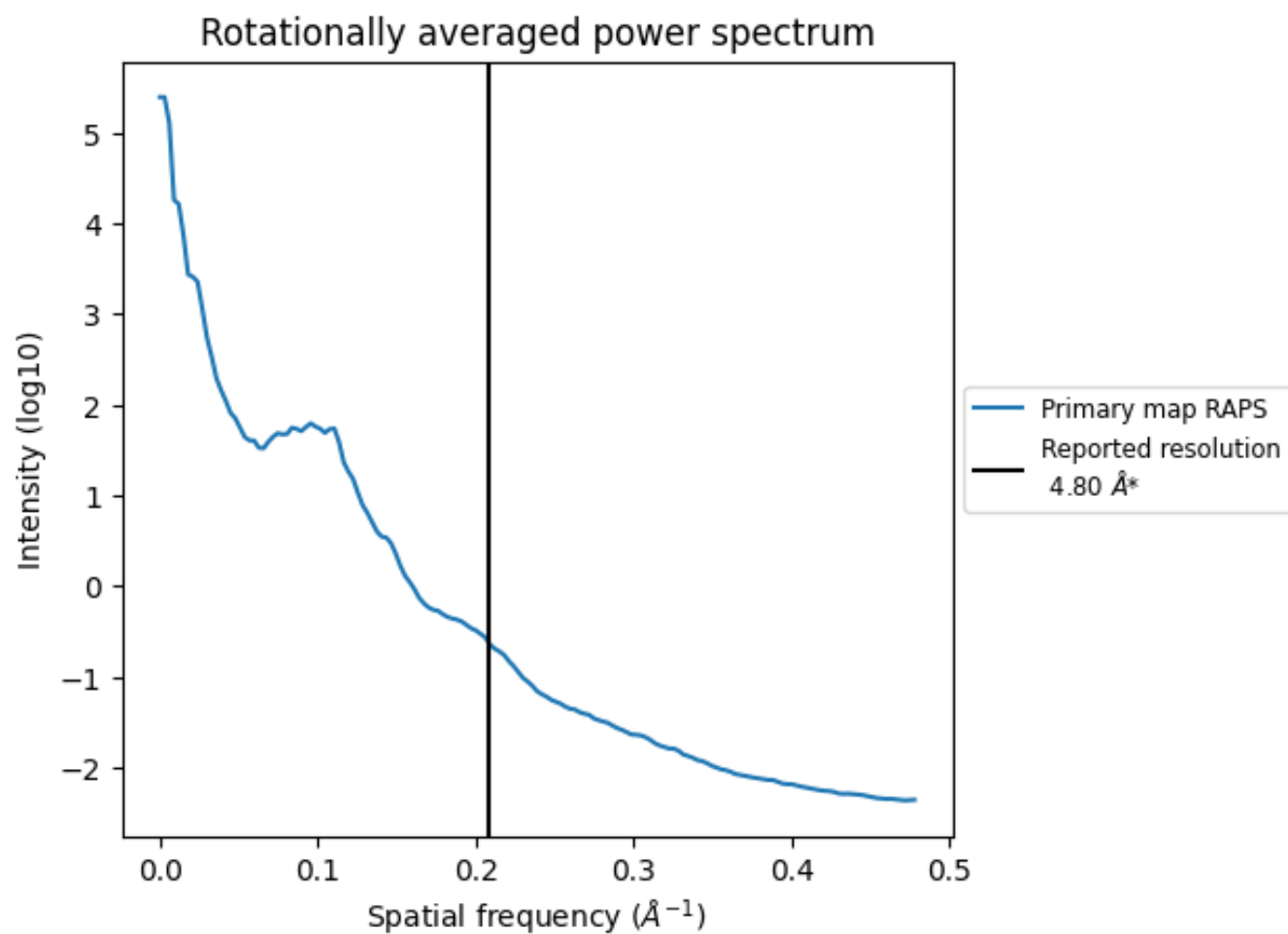
## 7.2 Volume estimate [i](#)



The volume at the recommended contour level is 289 nm<sup>3</sup>; this corresponds to an approximate mass of 261 kDa.

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

### 7.3 Rotationally averaged power spectrum ⓘ



\*Reported resolution corresponds to spatial frequency of 0.208 Å<sup>-1</sup>

## 8 Fourier-Shell correlation

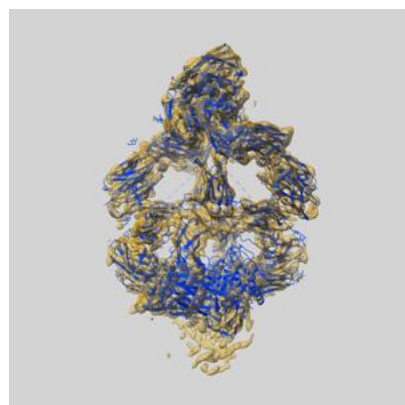
This section was not generated. No FSC curve or half-maps provided.



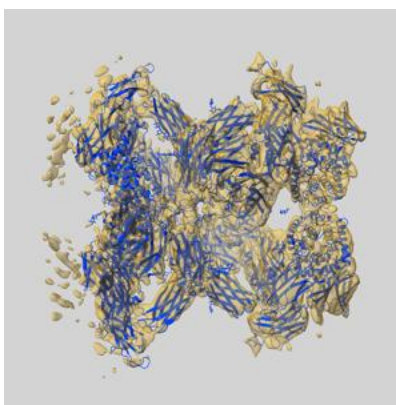
## 9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-12751 and PDB model 7O7O. Per-residue inclusion information can be found in section 3 on page 8.

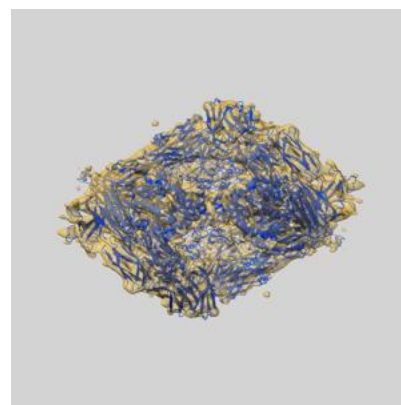
### 9.1 Map-model overlay [i](#)



X



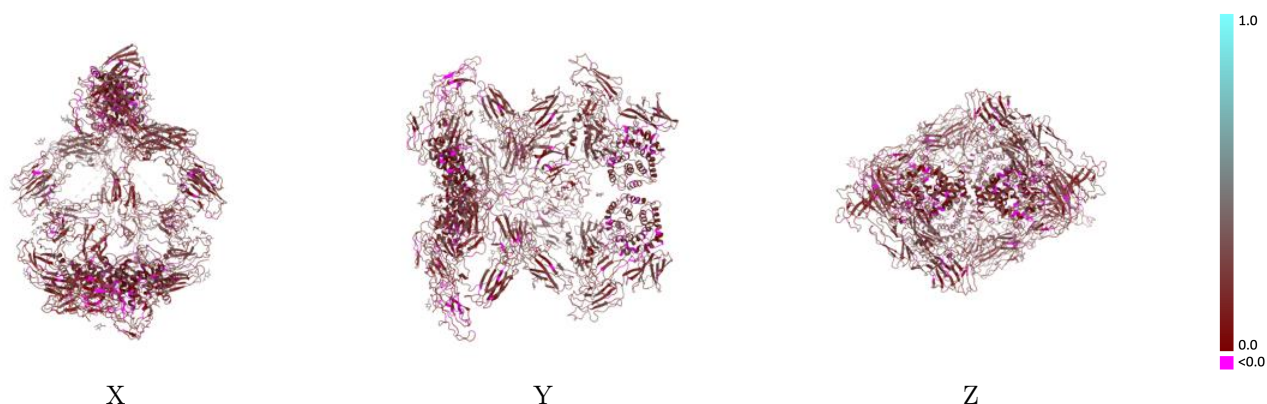
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.0135 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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

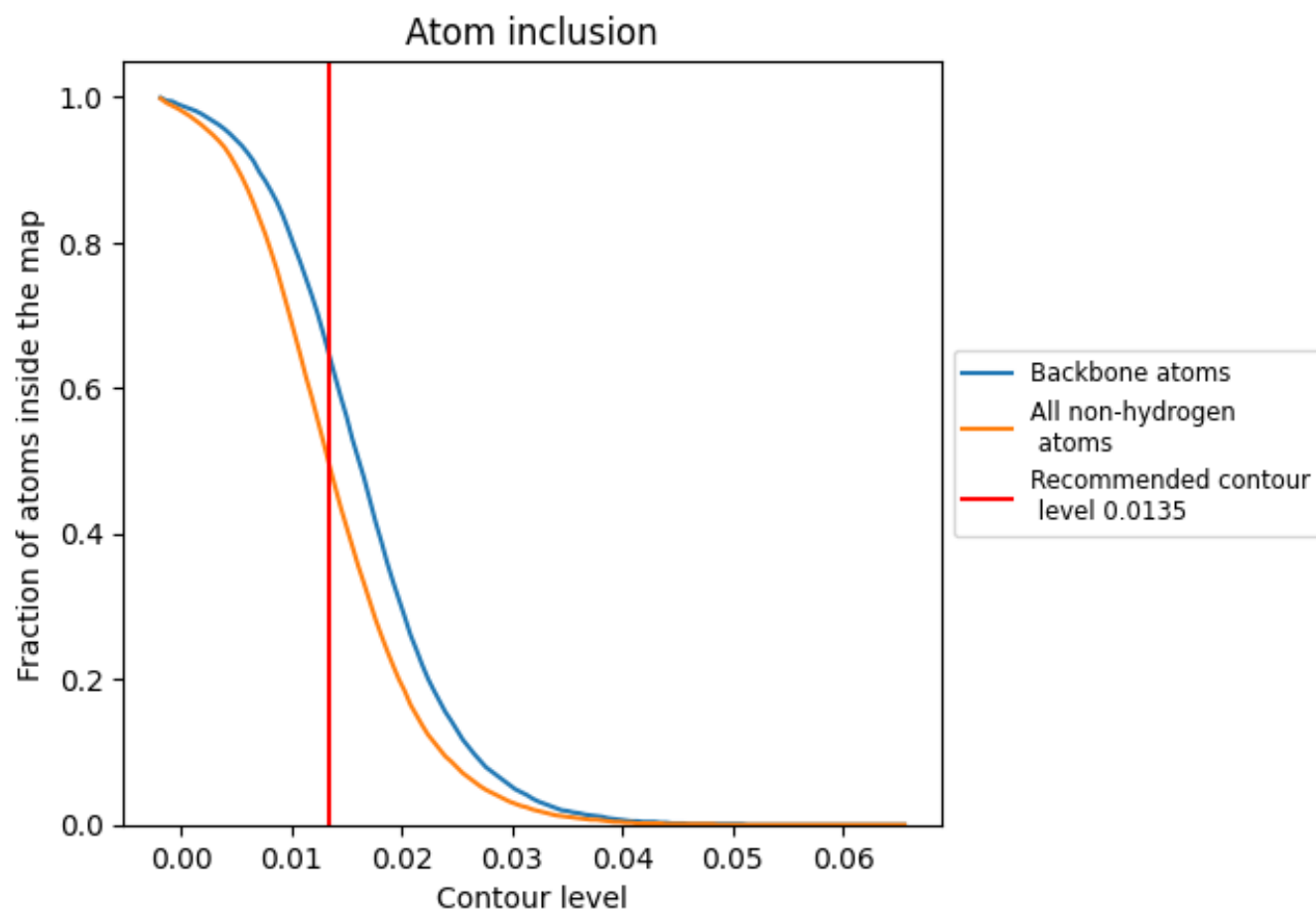


The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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

This section was not generated.



































## 9.4 Atom inclusion [i](#)



At the recommended contour level, 64% of all backbone atoms, 49% of all non-hydrogen atoms, are inside the map.

## 9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.0135) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.4930	 0.2020
A	 0.4020	 0.1870
B	 0.5850	 0.2120
C	 0.4020	 0.1870
D	 0.5850	 0.2130
E	 0.0000	 0.2450
F	 0.0000	 0.3070
G	 0.0360	 0.2760
H	 0.0400	 0.3530
I	 0.1540	 0.3740
J	 0.0000	 0.3980
K	 0.0000	 0.2530
L	 0.0000	 0.3110
M	 0.0360	 0.2790
N	 0.0400	 0.3510
O	 0.1540	 0.3790
P	 0.0000	 0.4000

