



Full wwPDB EM Validation Report ⓘ

Nov 16, 2022 – 10:58 PM EST

PDB ID : 6WIV
EMDB ID : EMD-21685
Title : Structure of human GABA(B) receptor in an inactive state
Authors : Park, J.; Fu, Z.; Frangaj, A.; Liu, J.; Mosyak, L.; Shen, T.; Slavkovich, V.N.; Ray, K.M.; Taura, J.; Cao, B.; Geng, Y.; Zuo, H.; Kou, Y.; Grassucci, R.; Chen, S.; Liu, Z.; Lin, X.; Williams, J.P.; Rice, W.J.; Eng, E.T.; Huang, R.K.; Soni, R.K.; Kloss, B.; Yu, Z.; Javitch, J.A.; Hendrickson, W.A.; Slesinger, P.A.; Quick, M.; Graziano, J.; Yu, H.; Fiehn, O.; Clarke, O.B.; Frank, J.; Fan, Q.R.
Deposited on : 2020-04-10
Resolution : 3.30 Å (reported)
Based on initial model : 4MQE

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

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

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

EMDB validation analysis : 0.0.1.dev43
Mogul : 1.8.5 (274361), CSD as541be (2020)
MolProbity : 4.02b-467
buster-report : 1.1.7 (2018)
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ : 1.9.9
Ideal geometry (proteins) : Engh & Huber (2001)

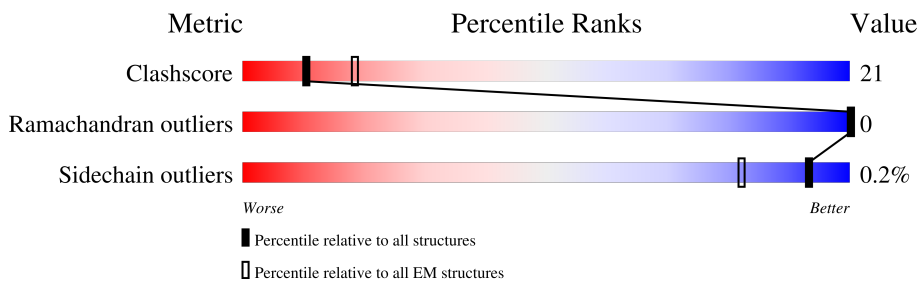
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 3.30 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)
Clashscore	158937	4297
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826

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

Mol	Chain	Length	Quality of chain
1	A	810	 51% 33% 16%
2	B	827	 46% 35% 19%

Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
 Validation Pipeline (wwPDB-VP) : 2.31.2

2 Entry composition [i](#)

There are 7 unique types of molecules in this entry. The entry contains 11206 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 Gamma-aminobutyric acid type B receptor subunit 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	A	681	5427	3514	903	985	25	0	0

There are 8 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	803	ASP	-	expression tag	UNP Q9UBS5
A	804	TYR	-	expression tag	UNP Q9UBS5
A	805	LYS	-	expression tag	UNP Q9UBS5
A	806	ASP	-	expression tag	UNP Q9UBS5
A	807	ASP	-	expression tag	UNP Q9UBS5
A	808	ASP	-	expression tag	UNP Q9UBS5
A	809	ASP	-	expression tag	UNP Q9UBS5
A	810	LYS	-	expression tag	UNP Q9UBS5

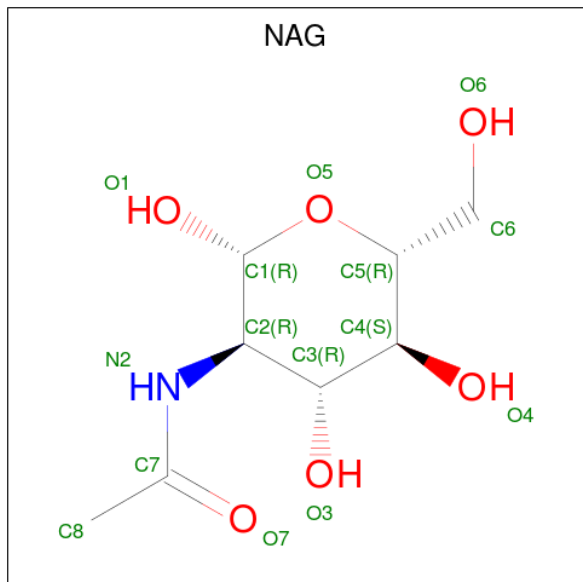
- Molecule 2 is a protein called Gamma-aminobutyric acid type B receptor subunit 2.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	B	671	5333	3456	882	959	36	0	0

There are 8 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
B	820	ASP	-	expression tag	UNP O75899
B	821	TYR	-	expression tag	UNP O75899
B	822	LYS	-	expression tag	UNP O75899
B	823	ASP	-	expression tag	UNP O75899
B	824	ASP	-	expression tag	UNP O75899
B	825	ASP	-	expression tag	UNP O75899
B	826	ASP	-	expression tag	UNP O75899
B	827	LYS	-	expression tag	UNP O75899

- Molecule 3 is 2-acetamido-2-deoxy-beta-D-glucopyranose (three-letter code: NAG) (formula: $C_8H_{15}NO_6$) (labeled as "Ligand of Interest" by depositor).

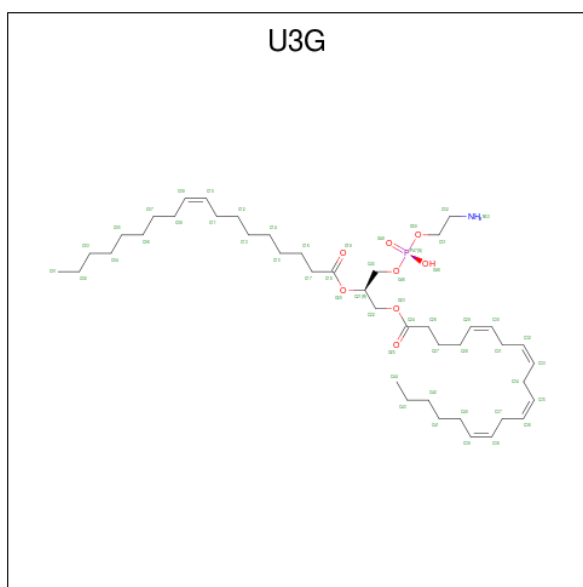


Mol	Chain	Residues	Atoms				AltConf
			Total	C	N	O	
3	A	1	42	24	3	15	0
3	A	1	42	24	3	15	0
3	A	1	42	24	3	15	0
3	B	1	14	8	1	5	0

- Molecule 4 is CALCIUM ION (three-letter code: CA) (formula: Ca) (labeled as "Ligand of Interest" by depositor).

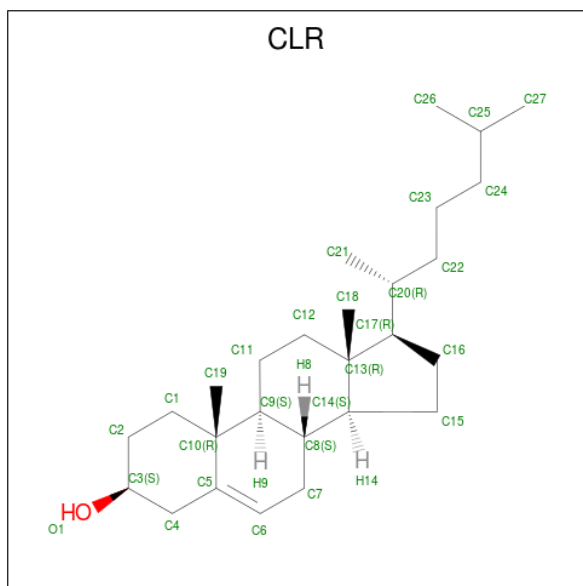
Mol	Chain	Residues	Atoms		AltConf
			Total	Ca	
4	A	1	1	1	0

- Molecule 5 is (2R)-3-{[(S)-(2-aminoethoxy)(hydroxy)phosphoryl]oxy}-2-{[(9Z)-octadec-9-enoyl]oxy}propyl (5Z,8Z,11Z,14Z)-icosa-5,8,11,14-tetraenoate (three-letter code: U3G) (formula: $C_{43}H_{76}NO_8P$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms					AltConf
5	A	1	Total	C	N	O	P	0
			53	43	1	8	1	

- Molecule 6 is CHOLESTEROL (three-letter code: CLR) (formula: $C_{27}H_{46}O$) (labeled as "Ligand of Interest" by depositor).



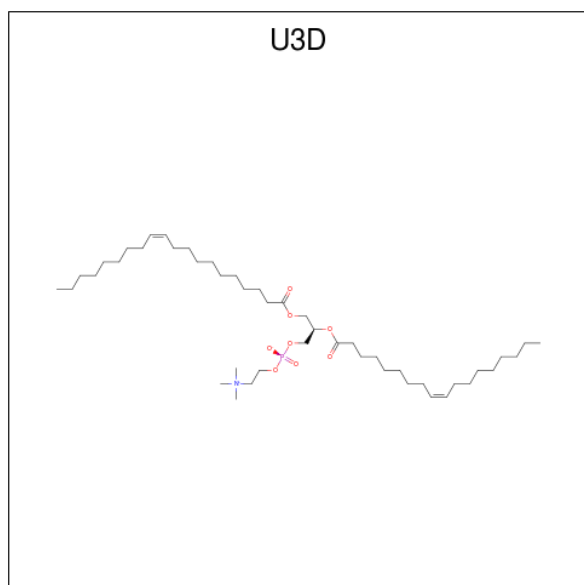
Mol	Chain	Residues	Atoms			AltConf
6	A	1	Total	C	O	0
			112	108	4	
6	A	1	Total	C	O	0
			112	108	4	

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Mol	Chain	Residues	Atoms			AltConf
			Total	C	O	
6	A	1	112	108	4	0
6	A	1	112	108	4	0
6	B	1	168	162	6	0
6	B	1	168	162	6	0
6	B	1	168	162	6	0
6	B	1	168	162	6	0
6	B	1	168	162	6	0
6	B	1	168	162	6	0

- Molecule 7 is [(2R)-3-[(Z)-icos-11-enoyl]oxy-2-[(Z)-octadec-9-enoyl]oxypropyl] 2-(trimethylazaniumyl)ethyl phosphate (three-letter code: U3D) (formula: C₄₆H₈₈NO₈P) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
7	B	1	56	46	1	8	1	0



MET	L61	C937	L307	I398	H493	H579	M650	L744	LEU
ALA	M62	T238	L308	I407	L500	M584	T651	L747	ASP
SER	P63	S239	M311	M407	N503	VAL	M652	R748	LYS
PRO	L64	V240	G312	T412	N503	LYS	T653	T749	ASP
ARG	T65	K241	G313	G413	N512	MET	I655	ASN	LEU
SER	K66	K242	Y314	Q414	S516	LYS	T659	PRO	GLU
SER	E67	K244	E320	R422	M519	LYS	Y663	ASP	VAL
GLY	V68	Q245	P321	T425	N520	ILE	K664	ALA	THR
GLN	G74	N246	L322	T426	N521	ILE	G665	ALA	MET
PRO	V77	D247	L322	K427	L522	LYS	L666	GLN	GLN
PRO	V81	V248	K325	F428	L525	ASP	G666	ASN	GLN
PRO	V81	R249	Q326	T429	G526	ASP	T678	ARG	ASP
PRO	V81	I250	I327	F429	Y531	GLU	R679	THR	THR
PRO	A84	F255	K328	T429	L532	LEU	N680	PHE	ASP
PRO	I85	D256	K328	Q430	L524	LEU	G681	THR	ASP
PRO	I85	Q257	K333	Q430	L524	LEU	N680	GLN	ASP
PRO	E86	N258	T334	F431	G526	LEU	V681	PHE	ASP
PRO	Q87	M259	T334	Q432	Y531	LEU	G602	THR	ASP
ALA	I88	K166	Q337	D433	A532	LEU	G603	GLN	ASP
ALA	R89	K167	Q337	D433	S533	LEU	M604	ASN	ASP
ARG	N90	Y171	E341	K438	L534	LEU	L605	GLN	ASP
ARG	E91	F172	E341	V439	L536	LEU	L606	LYS	ASP
LEU	S92	F172	R346	Y442	F536	LEU	I607	GLU	LYS
LEU	L93	T175	S347	M443	F537	LEU	G608	ASP	
LEU	L94	C266	S347	A444	D540	LEU	L609	SER	
LEU	R95	A267	P351	A444	S545	LEU	C610	LYS	
LEU	P96	Y268	P351	L449	E546	LEU	I611	THR	
LEU	Y87	E269	H855	E450	K547	LEU	L612	THR	
PRO	F98	N271	H855	I451	T548	LEU	I613	THR	
PRO	L99	M272	Y359	I456	F549	LEU	G614	SER	
LEU	D100	S275	D360	I456	E550	LEU	M615	VAL	
LEU	L101	Q278	G361	Q459	T551	LEU	D619	THR	
LEU	R102	Q78	I362	G460	L552	LEU	P620	SER	
LEU	L103	T202	H863	K465	V555	LEU	L621	VAL	
ALA	Y104	Q203	V364	D466	R556	LEU	R622	VAL	
PRO	D109	D204	I365	K467	T557	LEU	R623	ASN	
GLY	N110	Y285	T368	T468	E558	LEU	E626	GLN	
ALA	A111	E286	L369	T469	M559	LEU	K627	ALA	
TRP	GLY	P287	Q370	I470	L560	LEU	Y628	THR	
TRP	TRP	S288	R371	L471	T561	LEU	E631	SER	
ALA	L114	E210	T375	E472	V562	LEU	P632	LEU	
ARG	F117	D214	L376	L474	G563	LEU	G636	GLY	
GLY	Y118	L215	HIS	Q473	V564	LEU	R637	LEU	
ALA	I121	V218	ALA	L474	T566	LEU	G636	LEU	
PRO	I121	L219	SER	R475	T566	LEU	R637	LEU	
ARG	M126	V219	SER	K476	T566	LEU	D638	LEU	
PRO	H127	L224	ALA	I477	A567	LEU	I639	LEU	
PRO	L128	T224	ALA	S478	F568	LEU	S640	LEU	
SER	M129	ALA	HIS	L479	F568	LEU	I641	LEU	
SER	V130	ALA	HIS	P480	M571	LEU	R642	LEU	
SER	F131	SER	GLN	ARG	F572	LEU	G642	ARG	
SER	G132	SER	ARG	L484	A573	LEU	I738	ARG	
SER	P54	SER	ARG	L485	K574	LEU	T735	ARG	
SER	P55	SER	ARG	S486	R577	LEU	I736	ARG	
SER	L56	SER	ARG	I490	V578	LEU	L736	ARG	
SER	S87	SER	ARG			LEU	F739	ARG	
SER	S87	SER	ARG			LEU	F740	ARG	
SER	I58	SER	ARG			LEU	V741	ARG	
SER	M59	SER	ARG			LEU	P742	ARG	
SER	G60	SER	ARG			LEU	K743	ARG	

4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	233737	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	85	Depositor
Minimum defocus (nm)	-500	Depositor
Maximum defocus (nm)	-2000	Depositor
Magnification	130000	Depositor
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	5.170	Depositor
Minimum map value	-0.294	Depositor
Average map value	0.017	Depositor
Map value standard deviation	0.080	Depositor
Recommended contour level	0.5	Depositor
Map size (Å)	281.6, 281.6, 281.6	wwPDB
Map dimensions	256, 256, 256	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.1, 1.1, 1.1	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: NAG, U3D, CA, CLR, U3G

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	0.30	0/5562	0.42	0/7554
2	B	0.29	0/5452	0.42	0/7386
All	All	0.29	0/11014	0.42	0/14940

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

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	5427	0	5425	221	0
2	B	5333	0	5401	253	0
3	A	42	0	39	2	0
3	B	14	0	13	0	0
4	A	1	0	0	0	0
5	A	53	0	0	1	0
6	A	112	0	184	12	0
6	B	168	0	276	6	0
7	B	56	0	0	1	0
All	All	11206	0	11338	475	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 21.

All (475) 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)
2:B:628:TYR:HB2	2:B:643:PRO:HG2	1.45	0.97
2:B:526:GLY:HA3	2:B:567:ALA:HB2	1.48	0.96
1:A:146:ILE:HD13	1:A:165:THR:HB	1.48	0.94
2:B:198:VAL:HG12	2:B:250:ILE:HB	1.51	0.92
2:B:522:LEU:HD21	2:B:601:VAL:HG11	1.54	0.90
1:A:529:PRO:HB2	1:A:549:ARG:HG3	1.52	0.89
2:B:270:GLU:HB2	2:B:272:MET:HG3	1.55	0.87
1:A:664:LEU:HD23	1:A:696:ALA:HA	1.58	0.84
2:B:250:ILE:HD12	2:B:278:GLN:HB3	1.58	0.84
2:B:631:GLU:HG2	2:B:632:PRO:HD3	1.65	0.79
2:B:313:GLY:HA2	2:B:430:GLN:HE21	1.47	0.79
1:A:588:LEU:HD12	1:A:589:GLU:HG3	1.66	0.78
2:B:206:GLN:HE21	2:B:210:GLU:HG2	1.48	0.78
1:A:65:TRP:HZ2	1:A:349:GLU:HG3	1.48	0.77
1:A:134:THR:HG22	1:A:157:LEU:HD21	1.66	0.76
2:B:61:LEU:HD23	2:B:104:TYR:HB2	1.67	0.76
1:A:532:LEU:HD11	1:A:545:VAL:HG11	1.68	0.76
1:A:81:ASP:OD2	1:A:354:TYR:OH	2.04	0.75
2:B:566:THR:HG22	2:B:605:LEU:HD21	1.68	0.75
1:A:557:PHE:HZ	1:A:664:LEU:HD11	1.52	0.74
2:B:578:VAL:HG23	2:B:686:LEU:HD12	1.69	0.74
1:A:703:ALA:HB3	1:A:704:PRO:HD3	1.70	0.74
2:B:240:VAL:HG12	2:B:270:GLU:HG3	1.70	0.74
1:A:733:VAL:HG13	1:A:737:VAL:HG21	1.70	0.73
2:B:56:LEU:HD22	2:B:128:LEU:HD11	1.72	0.72
2:B:709:VAL:HG11	2:B:723:ILE:HG21	1.71	0.72
2:B:704:ILE:HG13	6:B:908:CLR:H261	1.72	0.72
2:B:619:ASP:O	2:B:650:ASN:ND2	2.22	0.71
2:B:503:ASN:ND2	2:B:521:ASN:OD1	2.24	0.71
1:A:141:ARG:NH2	2:B:109:ASP:OD1	2.23	0.71
2:B:65:THR:HG22	2:B:67:GLU:H	1.55	0.69
2:B:407:ASN:OD1	2:B:414:GLN:NE2	2.24	0.69
2:B:191:LYS:HE2	2:B:224:ILE:HD11	1.72	0.69
1:A:248:LEU:HA	1:A:276:ILE:HD11	1.74	0.69
1:A:261:VAL:HG13	1:A:266:LEU:HB2	1.75	0.69
1:A:571:VAL:HG12	1:A:674:THR:HG21	1.74	0.68
2:B:699:VAL:HG23	2:B:735:THR:HG21	1.74	0.68
2:B:531:TYR:O	2:B:534:ILE:HG22	1.94	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:556:ARG:HA	2:B:559:ILE:HG22	1.76	0.67
1:A:50:ARG:HA	1:A:91:ASP:O	1.95	0.66
1:A:528:PHE:HB2	1:A:529:PRO:HD3	1.77	0.66
1:A:388:ILE:HD11	3:A:902:NAG:H82	1.77	0.66
1:A:682:ILE:HG22	1:A:685:HIS:HB3	1.78	0.66
1:A:190:LYS:HA	1:A:218:ILE:HG23	1.76	0.66
1:A:713:GLN:OE1	1:A:713:GLN:N	2.28	0.66
1:A:206:LEU:O	1:A:210:GLU:HG2	1.96	0.66
2:B:304:ARG:HH11	2:B:308:LEU:HD12	1.61	0.65
1:A:92:TYR:OH	1:A:379:GLU:OE1	2.11	0.65
2:B:639:ILE:HG22	2:B:641:ILE:HD11	1.79	0.65
1:A:53:VAL:HG11	1:A:378:LEU:HD21	1.79	0.65
2:B:520:ASN:O	2:B:524:ILE:HD12	1.97	0.65
1:A:486:ILE:O	1:A:490:VAL:HG23	1.97	0.64
2:B:486:SER:O	2:B:490:ILE:HG13	1.97	0.64
2:B:89:ARG:NH2	2:B:99:LEU:O	2.30	0.64
2:B:58:ILE:HD11	2:B:99:LEU:HD11	1.80	0.64
2:B:154:LEU:HD11	2:B:175:THR:HG23	1.80	0.63
2:B:143:ALA:HA	2:B:146:LEU:HD12	1.81	0.63
1:A:130:SER:O	1:A:134:THR:HG23	1.99	0.63
1:A:596:THR:HA	6:A:909:CLR:H72	1.79	0.63
1:A:499:ASN:O	1:A:502:VAL:HG12	1.99	0.63
1:A:483:SER:O	1:A:487:VAL:HG23	1.99	0.63
2:B:485:LEU:HD13	2:B:725:ALA:HB3	1.81	0.63
1:A:68:GLY:HA2	1:A:71:CYS:HB2	1.80	0.62
1:A:113:TYR:HB2	2:B:118:TYR:CE1	2.34	0.62
1:A:423:GLU:HG2	1:A:432:LYS:HA	1.80	0.62
1:A:232:VAL:HG12	1:A:233:PRO:HD3	1.81	0.62
2:B:259:MET:O	2:B:263:VAL:HG23	1.99	0.62
2:B:87:GLN:OE1	2:B:359:TYR:OH	2.14	0.62
2:B:236:PRO:O	2:B:240:VAL:HG23	2.00	0.62
2:B:731:CYS:O	2:B:735:THR:HG23	2.00	0.61
2:B:465:LYS:NZ	2:B:468:THR:HA	2.15	0.61
1:A:729:TYR:O	1:A:733:VAL:HG23	1.99	0.61
1:A:542:PHE:HE2	1:A:644:CYS:HB3	1.66	0.61
1:A:329:PHE:HE2	1:A:351:PRO:HG3	1.65	0.61
2:B:364:VAL:O	2:B:368:THR:OG1	2.11	0.60
1:A:571:VAL:CG1	1:A:674:THR:HG21	2.31	0.60
2:B:143:ALA:HA	2:B:146:LEU:CD1	2.31	0.60
1:A:638:LEU:HD12	1:A:639:PRO:HD2	1.83	0.60
2:B:465:LYS:HE2	2:B:469:ILE:H	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:479:LEU:HB3	2:B:480:PRO:HD3	1.84	0.60
1:A:386:GLN:HG2	1:A:390:ASP:OD1	2.01	0.60
2:B:64:LEU:HD11	2:B:103:LEU:HG	1.83	0.60
1:A:421:LEU:HD11	1:A:432:LYS:HB3	1.82	0.60
1:A:558:SER:HB2	1:A:604:ASP:OD1	2.01	0.60
2:B:574:LYS:HD3	2:B:692:ILE:HD13	1.84	0.60
2:B:550:GLU:OE2	2:B:622:ARG:HG2	2.02	0.59
1:A:330:VAL:O	1:A:334:THR:HG23	2.02	0.59
2:B:596:LYS:O	2:B:600:ILE:HG13	2.01	0.59
2:B:650:ASN:H	2:B:653:MET:HB2	1.66	0.59
2:B:655:ILE:O	2:B:659:ILE:HG23	2.02	0.59
1:A:737:VAL:HB	1:A:738:PRO:HD3	1.85	0.59
2:B:626:GLU:OE1	2:B:627:LYS:N	2.35	0.59
1:A:588:LEU:CD1	1:A:589:GLU:HG3	2.33	0.59
1:A:437:ASP:HB3	1:A:442:ASP:OD1	2.03	0.58
2:B:536:LEU:CD1	2:B:552:LEU:HD12	2.33	0.58
1:A:187:TRP:CD1	1:A:456:PRO:HG3	2.37	0.58
2:B:477:ILE:N	2:B:540:ASP:OD1	2.36	0.58
1:A:555:LEU:O	1:A:559:LEU:HG	2.04	0.58
2:B:685:ALA:O	2:B:686:LEU:HD23	2.03	0.58
2:B:562:VAL:HA	2:B:565:THR:HG22	1.86	0.58
1:A:284:PHE:CE2	1:A:285:LYS:HE3	2.39	0.58
1:A:258:PHE:CD1	1:A:302:VAL:HG12	2.39	0.58
2:B:439:VAL:HB	2:B:456:ILE:CG2	2.34	0.58
2:B:566:THR:CG2	2:B:605:LEU:HD21	2.33	0.58
2:B:85:ILE:HD13	2:B:362:ILE:HG21	1.86	0.57
1:A:513:ASN:HD22	1:A:735:LEU:HD23	1.69	0.57
2:B:63:PRO:O	2:B:74:GLY:HA3	2.03	0.57
2:B:741:VAL:O	2:B:744:LEU:HG	2.05	0.57
1:A:258:PHE:CZ	1:A:275:LEU:HD11	2.40	0.57
2:B:470:ILE:HG22	2:B:640:SER:OG	2.04	0.57
2:B:534:ILE:HD11	2:B:725:ALA:CA	2.34	0.57
1:A:430:TYR:O	1:A:431:LYS:HD3	2.05	0.57
1:A:615:ASP:OD2	1:A:647:ARG:HG2	2.04	0.57
1:A:231:ALA:O	1:A:235:LYS:HG3	2.05	0.57
2:B:394:THR:O	2:B:398:ILE:HG13	2.04	0.57
2:B:536:LEU:HD11	2:B:552:LEU:HD12	1.86	0.57
2:B:534:ILE:HD11	2:B:725:ALA:HA	1.87	0.57
2:B:603:GLY:O	2:B:607:ILE:HG13	2.05	0.57
1:A:557:PHE:CZ	1:A:664:LEU:HD11	2.38	0.56
2:B:215:LEU:O	2:B:219:LEU:HG	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:240:VAL:HG21	2:B:266:CYS:HB3	1.87	0.56
2:B:709:VAL:CG1	2:B:723:ILE:HG21	2.35	0.56
2:B:204:ASP:OD1	2:B:231:SER:HB3	2.04	0.56
1:A:57:ALA:CB	1:A:96:LEU:HD11	2.35	0.56
2:B:175:THR:O	2:B:422:ARG:NH1	2.37	0.56
1:A:320:SER:HB2	1:A:403:GLY:HA2	1.87	0.56
1:A:529:PRO:O	1:A:549:ARG:HD2	2.06	0.56
2:B:412:THR:OG1	2:B:422:ARG:NH2	2.36	0.56
2:B:520:ASN:HB3	2:B:740:PHE:CZ	2.41	0.56
1:A:537:ILE:HG22	1:A:538:GLY:O	2.05	0.56
1:A:513:ASN:ND2	1:A:735:LEU:HD23	2.19	0.56
2:B:95:ARG:HG3	2:B:96:PRO:HA	1.88	0.56
1:A:651:THR:HA	6:A:906:CLR:C19	2.35	0.56
2:B:564:TYR:CE2	2:B:664:LYS:HD3	2.40	0.56
1:A:474:LEU:HD13	1:A:714:ASP:OD1	2.06	0.56
1:A:609:ALA:O	1:A:613:ILE:HG12	2.05	0.55
2:B:304:ARG:NH1	2:B:308:LEU:HD12	2.21	0.55
1:A:150:TYR:O	1:A:170:HIS:HB2	2.06	0.55
1:A:298:MET:O	1:A:302:VAL:HG22	2.06	0.55
1:A:731:THR:HG21	5:A:905:U3G:C01	2.36	0.55
2:B:81:VAL:O	2:B:85:ILE:HG12	2.05	0.55
2:B:117:PHE:CZ	2:B:121:ILE:HD11	2.41	0.55
2:B:519:MET:HB2	2:B:574:LYS:HE2	1.87	0.55
2:B:678:THR:O	2:B:681:VAL:HG12	2.07	0.55
1:A:542:PHE:CE2	1:A:644:CYS:HB3	2.41	0.55
1:A:65:TRP:CH2	1:A:67:GLY:HA3	2.42	0.55
2:B:578:VAL:CG2	2:B:686:LEU:HD12	2.36	0.55
2:B:161:PRO:HB3	2:B:180:ASN:ND2	2.21	0.55
2:B:627:LYS:HG2	2:B:644:LEU:HD13	1.89	0.55
1:A:67:GLY:HA2	1:A:346:GLY:HA3	1.89	0.55
1:A:340:HIS:HB2	1:A:343:GLU:OE1	2.06	0.54
1:A:532:LEU:HD13	1:A:537:ILE:HG12	1.88	0.54
2:B:346:ARG:NH1	2:B:351:PRO:HD3	2.23	0.54
1:A:561:TYR:OH	1:A:664:LEU:HA	2.08	0.54
2:B:490:ILE:HG12	2:B:535:PHE:HZ	1.73	0.54
2:B:579:HIS:HB2	2:B:678:THR:HG21	1.90	0.54
2:B:715:ASP:OD2	2:B:716:GLN:HG3	2.07	0.54
1:A:123:ILE:HD11	1:A:364:LEU:HD11	1.89	0.54
2:B:524:ILE:HG13	2:B:736:LEU:HD11	1.89	0.54
2:B:512:ILE:HD13	2:B:743:LYS:HD3	1.90	0.54
1:A:532:LEU:HD11	1:A:545:VAL:CG1	2.37	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:57:ALA:HB2	1:A:96:LEU:HD11	1.90	0.53
1:A:192:ILE:HD13	1:A:218:ILE:HG21	1.89	0.53
2:B:609:LEU:O	2:B:613:ILE:HG22	2.08	0.53
2:B:228:ASP:OD1	2:B:246:ASN:ND2	2.40	0.53
2:B:236:PRO:CB	2:B:263:VAL:HG22	2.38	0.53
2:B:244:LYS:HD2	2:B:270:GLU:HB3	1.90	0.53
2:B:314:TYR:CE1	2:B:431:PHE:HB2	2.44	0.53
1:A:599:LEU:O	1:A:603:MET:HG3	2.07	0.53
1:A:649:MET:HG2	1:A:653:LEU:HD23	1.90	0.53
1:A:230:PRO:O	1:A:233:PRO:HD2	2.09	0.53
1:A:595:ALA:O	1:A:599:LEU:HD23	2.09	0.53
2:B:55:PRO:HB3	2:B:98:PHE:CZ	2.43	0.53
2:B:425:THR:O	2:B:426:ILE:HD13	2.08	0.53
2:B:465:LYS:HZ1	2:B:468:THR:HA	1.72	0.53
1:A:230:PRO:O	1:A:234:VAL:HG13	2.08	0.53
1:A:248:LEU:HD23	1:A:276:ILE:HD11	1.90	0.53
1:A:615:ASP:OD2	1:A:646:SER:HB2	2.09	0.53
2:B:240:VAL:CG1	2:B:270:GLU:HG3	2.38	0.53
2:B:557:THR:OG1	7:B:902:U3D:O21	2.27	0.53
2:B:477:ILE:HB	2:B:540:ASP:HB2	1.91	0.52
2:B:516:SER:OG	2:B:519:MET:HG2	2.09	0.52
2:B:577:ARG:HG3	2:B:597:LEU:HD21	1.90	0.52
1:A:532:LEU:HD13	1:A:537:ILE:CG1	2.40	0.52
2:B:574:LYS:HD3	2:B:692:ILE:CD1	2.39	0.52
2:B:548:THR:O	2:B:552:LEU:HD23	2.09	0.52
1:A:53:VAL:HG13	1:A:123:ILE:HG21	1.91	0.52
1:A:665:LEU:HD22	6:A:907:CLR:H25	1.91	0.52
2:B:607:ILE:O	2:B:611:ILE:HG13	2.10	0.52
2:B:240:VAL:HG21	2:B:266:CYS:CB	2.40	0.51
1:A:267:PHE:CE2	1:A:300:GLU:HG2	2.45	0.51
2:B:91:GLU:HB2	2:B:93:LEU:CD1	2.41	0.51
2:B:533:SER:OG	2:B:560:LEU:HB2	2.09	0.51
2:B:701:ILE:O	2:B:705:ILE:HG12	2.10	0.51
2:B:500:LEU:HB2	2:B:524:ILE:HG21	1.92	0.51
2:B:474:LEU:HD23	2:B:475:ARG:O	2.11	0.51
2:B:480:PRO:O	2:B:484:ILE:HG22	2.10	0.51
1:A:231:ALA:O	1:A:234:VAL:HG22	2.11	0.51
1:A:238:LYS:NZ	1:A:264:GLU:O	2.25	0.51
2:B:737:CYS:SG	2:B:741:VAL:HG21	2.51	0.51
1:A:59:PHE:HD1	1:A:150:TYR:HH	1.58	0.51
1:A:402:GLU:OE2	1:A:407:HIS:ND1	2.41	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:177:ASN:OD1	1:A:209:LEU:HD13	2.11	0.51
1:A:223:ARG:O	1:A:224:GLN:NE2	2.40	0.51
1:A:610:ILE:HG22	1:A:652:TRP:HH2	1.75	0.50
2:B:485:LEU:HD13	2:B:725:ALA:CB	2.41	0.50
1:A:49:GLU:HG3	1:A:51:ARG:CZ	2.40	0.50
1:A:123:ILE:CD1	1:A:364:LEU:HD11	2.40	0.50
1:A:230:PRO:C	1:A:233:PRO:HD2	2.32	0.50
2:B:493:MET:HE2	2:B:531:TYR:HB3	1.93	0.50
1:A:78:ALA:HB2	1:A:354:TYR:CD1	2.46	0.50
1:A:303:GLU:HA	1:A:425:LEU:HD23	1.94	0.50
2:B:58:ILE:CD1	2:B:99:LEU:HD11	2.41	0.50
1:A:53:VAL:CG1	1:A:123:ILE:HD13	2.42	0.50
2:B:204:ASP:OD2	2:B:233:SER:OG	2.23	0.50
2:B:546:GLU:OE1	2:B:623:ARG:NE	2.45	0.50
1:A:530:LEU:HD23	1:A:530:LEU:O	2.12	0.50
2:B:545:SER:OG	2:B:546:GLU:N	2.43	0.50
2:B:649:GLU:HB2	2:B:653:MET:CE	2.41	0.50
2:B:439:VAL:HB	2:B:456:ILE:HG22	1.94	0.50
2:B:551:THR:O	2:B:555:VAL:HG23	2.12	0.50
1:A:70:ALA:HB2	1:A:344:THR:CG2	2.41	0.50
1:A:127:PRO:HG3	1:A:136:VAL:HG21	1.94	0.50
1:A:294:THR:HG22	1:A:297:GLU:CD	2.31	0.50
1:A:615:ASP:CG	1:A:646:SER:HB2	2.31	0.50
2:B:328:LYS:HZ1	2:B:333:LYS:HA	1.75	0.50
1:A:179:THR:CG2	1:A:422:ILE:HD11	2.42	0.49
1:A:192:ILE:O	1:A:220:ILE:HA	2.12	0.49
1:A:443:LEU:HD21	1:A:445:TRP:CE3	2.47	0.49
1:A:511:ASN:ND2	1:A:594:TYR:OH	2.31	0.49
1:A:606:LEU:O	1:A:610:ILE:HG12	2.12	0.49
2:B:522:LEU:CD2	2:B:601:VAL:HG11	2.34	0.49
2:B:623:ARG:NH1	2:B:646:GLU:OE2	2.45	0.49
2:B:65:THR:O	2:B:68:VAL:HG12	2.12	0.49
2:B:126:ASN:ND2	2:B:388:PHE:O	2.45	0.49
1:A:269:LYS:HA	1:A:452:ILE:HD12	1.94	0.49
2:B:142:ILE:O	2:B:146:LEU:HG	2.12	0.49
1:A:299:THR:O	1:A:303:GLU:HB2	2.13	0.49
2:B:321:PRO:O	2:B:322:LEU:HD23	2.12	0.49
2:B:470:ILE:HG22	2:B:640:SER:HG	1.78	0.49
2:B:605:LEU:O	2:B:609:LEU:HD13	2.12	0.49
1:A:77:MET:HE2	1:A:336:ARG:HD3	1.95	0.49
1:A:302:VAL:HG23	1:A:425:LEU:CD2	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:329:PHE:CE2	1:A:351:PRO:HG3	2.46	0.49
2:B:573:ALA:HB1	2:B:597:LEU:HD23	1.94	0.49
2:B:524:ILE:HD11	2:B:740:PHE:CE2	2.48	0.49
2:B:532:ALA:O	2:B:536:LEU:HD23	2.12	0.49
2:B:534:ILE:HA	2:B:537:PHE:CE1	2.47	0.49
1:A:270:LYS:HE2	1:A:634:ASP:CG	2.33	0.49
2:B:474:LEU:HD11	2:B:646:GLU:OE1	2.13	0.49
1:A:629:PRO:HG3	1:A:637:ILE:CD1	2.43	0.49
2:B:346:ARG:HD2	2:B:346:ARG:O	2.13	0.49
2:B:568:PHE:CE1	2:B:696:VAL:HG23	2.48	0.49
1:A:537:ILE:HG13	1:A:545:VAL:HG21	1.94	0.48
1:A:655:ILE:HG22	6:A:906:CLR:H183	1.95	0.48
2:B:250:ILE:CD1	2:B:278:GLN:HB3	2.38	0.48
1:A:355:ASP:OD1	1:A:404:VAL:HG22	2.13	0.48
2:B:693:GLY:O	2:B:696:VAL:HG12	2.13	0.48
1:A:129:CYS:O	1:A:133:SER:HB2	2.12	0.48
2:B:129:MET:HG3	2:B:152:VAL:HG13	1.93	0.48
1:A:169:THR:O	1:A:416:ARG:HD3	2.14	0.48
1:A:333:LEU:HG	1:A:337:LEU:HD13	1.96	0.48
1:A:134:THR:HG22	1:A:157:LEU:CD2	2.39	0.48
1:A:508:SER:OG	1:A:684:ASP:OD1	2.13	0.48
1:A:641:LEU:HD11	1:A:713:GLN:HB3	1.95	0.48
2:B:243:LEU:O	2:B:248:VAL:HG22	2.14	0.48
2:B:247:ASP:OD1	2:B:249:ARG:NH2	2.44	0.48
2:B:255:PHE:CE2	2:B:260:ALA:HA	2.49	0.48
2:B:466:ASP:OD1	2:B:466:ASP:N	2.46	0.48
1:A:704:PRO:O	1:A:708:ILE:HG12	2.13	0.48
2:B:449:LEU:HG	2:B:451:ILE:HD11	1.94	0.48
2:B:639:ILE:CG2	2:B:641:ILE:HD11	2.43	0.48
1:A:132:VAL:O	1:A:136:VAL:HG13	2.14	0.48
2:B:334:THR:HG23	2:B:337:GLN:H	1.78	0.48
1:A:178:PRO:HG3	1:A:212:ARG:CZ	2.43	0.48
1:A:199:THR:O	1:A:203:THR:OG1	2.22	0.48
1:A:673:GLU:OE2	2:B:579:HIS:NE2	2.29	0.48
2:B:663:TYR:HA	6:B:903:CLR:H271	1.96	0.48
2:B:523:ILE:HD11	2:B:571:MET:HG3	1.96	0.48
2:B:62:MET:SD	2:B:103:LEU:HD11	2.54	0.47
2:B:290:TRP:CD1	2:B:291:GLU:HG3	2.49	0.47
2:B:154:LEU:HD11	2:B:175:THR:CG2	2.43	0.47
2:B:470:ILE:O	2:B:470:ILE:HG13	2.14	0.47
1:A:222:PHE:HD2	1:A:237:LEU:HD23	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:377:ARG:N	1:A:379:GLU:OE1	2.47	0.47
1:A:397:ASN:OD1	3:A:903:NAG:N2	2.47	0.47
2:B:62:MET:CG	2:B:103:LEU:HD11	2.45	0.47
2:B:183:ASN:HB2	2:B:184:PRO:HD3	1.97	0.47
1:A:179:THR:HG23	1:A:422:ILE:HD11	1.97	0.47
1:A:400:SER:OG	1:A:409:VAL:HG12	2.15	0.47
1:A:469:PHE:CD1	1:A:535:TYR:HB2	2.49	0.47
1:A:649:MET:O	1:A:653:LEU:HG	2.15	0.47
2:B:95:ARG:CG	2:B:96:PRO:HA	2.45	0.47
2:B:114:LEU:HG	2:B:118:TYR:CE2	2.49	0.47
2:B:136:PRO:HA	2:B:139:THR:HG22	1.96	0.47
6:A:907:CLR:H261	2:B:666:LEU:HD13	1.96	0.47
6:A:909:CLR:H183	6:A:909:CLR:H212	1.97	0.47
2:B:61:LEU:CD1	2:B:142:ILE:HD13	2.45	0.47
1:A:72:GLN:HB3	1:A:73:PRO:HD3	1.97	0.47
1:A:411:ASP:OD1	1:A:415:SER:N	2.48	0.47
1:A:571:VAL:HG23	1:A:682:ILE:HD12	1.97	0.47
2:B:129:MET:HG3	2:B:152:VAL:O	2.15	0.47
2:B:371:ARG:O	2:B:375:THR:HG23	2.15	0.47
1:A:651:THR:HA	6:A:906:CLR:H192	1.97	0.46
2:B:602:GLY:O	2:B:606:LEU:HD23	2.15	0.46
1:A:603:MET:O	1:A:607:THR:HG23	2.14	0.46
2:B:60:GLY:HA2	2:B:131:PHE:O	2.15	0.46
1:A:232:VAL:CG1	1:A:233:PRO:HD3	2.43	0.46
2:B:631:GLU:HG2	2:B:632:PRO:CD	2.40	0.46
1:A:735:LEU:O	1:A:739:LYS:HE2	2.15	0.46
2:B:700:GLY:O	2:B:704:ILE:HG12	2.16	0.46
2:B:290:TRP:HB3	2:B:311:MET:HE3	1.98	0.46
1:A:56:GLY:O	1:A:125:LEU:HA	2.16	0.46
2:B:699:VAL:CG2	2:B:735:THR:HG21	2.43	0.46
1:A:358:TRP:O	1:A:362:LEU:HG	2.16	0.46
1:A:630:LYS:HG3	1:A:631:GLU:H	1.79	0.46
1:A:697:VAL:HG22	6:A:908:CLR:H161	1.98	0.46
1:A:495:PHE:CZ	1:A:740:MET:HA	2.51	0.46
2:B:360:ASP:O	2:B:364:VAL:HG23	2.15	0.46
1:A:59:PHE:HE2	1:A:96:LEU:HD21	1.81	0.46
2:B:238:THR:O	2:B:241:LYS:HG2	2.15	0.46
1:A:65:TRP:CZ3	1:A:67:GLY:HA3	2.52	0.45
1:A:459:ASP:OD1	1:A:459:ASP:N	2.50	0.45
1:A:660:LYS:O	1:A:664:LEU:HD13	2.17	0.45
1:A:114:GLU:O	1:A:118:ASN:HB2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:668:ILE:HD11	1:A:696:ALA:HB3	1.99	0.45
2:B:429:THR:HG22	2:B:438:LYS:HA	1.97	0.45
2:B:290:TRP:HB3	2:B:311:MET:CE	2.46	0.45
2:B:303:LEU:HB2	2:B:306:ASN:HD22	1.82	0.45
2:B:650:ASN:N	2:B:653:MET:HB2	2.31	0.45
2:B:134:VAL:HG22	2:B:157:ALA:HB3	1.98	0.45
6:B:904:CLR:H183	6:B:904:CLR:H212	1.98	0.45
2:B:275:SER:N	2:B:459:GLN:OE1	2.50	0.45
2:B:325:LYS:HD3	2:B:327:ILE:HD11	1.99	0.45
2:B:387:ASP:OD1	2:B:387:ASP:N	2.50	0.45
1:A:183:LEU:HD11	1:A:422:ILE:HG21	1.97	0.45
2:B:520:ASN:HB3	2:B:740:PHE:HZ	1.81	0.45
2:B:729:ILE:O	2:B:733:THR:HG22	2.17	0.45
1:A:275:LEU:HD12	1:A:305:HIS:CE1	2.51	0.44
2:B:166:LYS:HA	2:B:166:LYS:HD3	1.74	0.44
6:B:903:CLR:H183	6:B:903:CLR:H212	1.98	0.44
2:B:84:ALA:HB2	2:B:359:TYR:CD1	2.52	0.44
2:B:449:LEU:HG	2:B:451:ILE:CD1	2.47	0.44
2:B:320:GLU:OE1	2:B:427:LYS:HB2	2.18	0.44
1:A:377:ARG:NH2	1:A:391:GLN:HE22	2.15	0.44
1:A:127:PRO:HG3	1:A:136:VAL:CG2	2.47	0.44
6:A:907:CLR:H183	6:A:907:CLR:H212	2.00	0.44
2:B:214:ASP:O	2:B:218:VAL:HG23	2.18	0.44
1:A:53:VAL:HG21	1:A:378:LEU:HD21	1.98	0.44
1:A:321:ILE:HG12	1:A:402:GLU:O	2.17	0.44
1:A:511:ASN:O	1:A:515:LEU:HG	2.18	0.44
1:A:629:PRO:HG3	1:A:637:ILE:HD12	1.99	0.44
2:B:465:LYS:HE3	2:B:638:ASP:CG	2.38	0.44
2:B:743:LYS:O	2:B:747:LEU:HD23	2.18	0.44
6:B:907:CLR:H121	6:B:907:CLR:H212	1.99	0.44
1:A:222:PHE:CZ	1:A:236:ASN:HB3	2.52	0.44
1:A:183:LEU:HD23	1:A:183:LEU:HA	1.90	0.44
1:A:294:THR:HG22	1:A:297:GLU:OE1	2.18	0.44
2:B:573:ALA:HB1	2:B:597:LEU:CD2	2.48	0.44
2:B:627:LYS:HG2	2:B:644:LEU:CD1	2.48	0.44
2:B:701:ILE:HG22	2:B:702:MET:CE	2.48	0.44
1:A:722:LEU:HA	1:A:722:LEU:HD23	1.67	0.43
2:B:503:ASN:HB2	2:B:740:PHE:HE1	1.83	0.43
2:B:536:LEU:HB3	2:B:556:ARG:HB2	2.00	0.43
1:A:532:LEU:CD1	1:A:545:VAL:HG11	2.43	0.43
1:A:674:THR:CG2	1:A:677:VAL:HB	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:100:ASP:OD2	2:B:102:ARG:NH1	2.51	0.43
2:B:163:LEU:HD13	2:B:172:PHE:CE2	2.52	0.43
1:A:270:LYS:HE2	1:A:634:ASP:OD2	2.18	0.43
1:A:400:SER:HA	1:A:409:VAL:HG12	1.99	0.43
1:A:502:VAL:O	1:A:506:GLN:HB2	2.17	0.43
1:A:612:GLN:O	1:A:616:PRO:HG3	2.18	0.43
2:B:615:TRP:HE1	2:B:650:ASN:HD22	1.66	0.43
1:A:222:PHE:CD2	1:A:237:LEU:HD23	2.53	0.43
1:A:260:GLU:O	1:A:264:GLU:HG2	2.18	0.43
1:A:455:SER:HB2	1:A:456:PRO:HD2	2.00	0.43
1:A:470:LEU:HD12	1:A:471:SER:H	1.84	0.43
2:B:230:GLU:OE2	2:B:242:LYS:HB3	2.18	0.43
2:B:472:GLU:O	2:B:472:GLU:HG3	2.18	0.43
2:B:442:TYR:CZ	2:B:444:ALA:HA	2.54	0.43
2:B:449:LEU:CD2	2:B:451:ILE:HD11	2.49	0.43
1:A:186:LYS:O	1:A:186:LYS:HG3	2.18	0.43
2:B:152:VAL:HG23	2:B:171:TYR:O	2.19	0.43
2:B:163:LEU:HD13	2:B:172:PHE:CZ	2.53	0.43
2:B:473:GLN:HG2	2:B:641:ILE:HG21	1.99	0.43
2:B:534:ILE:CD1	2:B:729:ILE:HG13	2.49	0.43
1:A:70:ALA:HB2	1:A:344:THR:HG21	1.99	0.43
2:B:132:GLY:HA2	2:B:156:PHE:CE2	2.54	0.43
2:B:228:ASP:OD2	2:B:230:GLU:HG2	2.19	0.43
2:B:288:SER:HA	2:B:290:TRP:CH2	2.53	0.43
2:B:473:GLN:HG2	2:B:641:ILE:CG2	2.49	0.43
2:B:534:ILE:HD11	2:B:725:ALA:HB1	2.01	0.43
1:A:367:THR:OG1	1:A:368:SER:N	2.52	0.43
2:B:93:LEU:HB3	2:B:370:GLN:NE2	2.33	0.43
2:B:456:ILE:O	2:B:456:ILE:HG13	2.18	0.43
2:B:639:ILE:HG22	2:B:641:ILE:CD1	2.48	0.43
2:B:649:GLU:HB2	2:B:653:MET:HE2	2.01	0.43
1:A:177:ASN:HB2	1:A:178:PRO:HD3	2.00	0.43
2:B:465:LYS:HG2	2:B:638:ASP:OD2	2.18	0.43
1:A:597:VAL:O	1:A:601:VAL:HG23	2.19	0.42
1:A:571:VAL:CG2	1:A:682:ILE:HD12	2.49	0.42
2:B:56:LEU:HD22	2:B:128:LEU:CD1	2.45	0.42
1:A:168:ARG:NH2	1:A:172:SER:HB2	2.34	0.42
2:B:328:LYS:HZ2	2:B:334:THR:H	1.65	0.42
1:A:635:VAL:O	1:A:635:VAL:HG23	2.20	0.42
1:A:139:ALA:CB	2:B:114:LEU:HD23	2.50	0.42
1:A:142:MET:HG2	2:B:111:ALA:HB1	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:294:THR:HG22	1:A:297:GLU:CG	2.49	0.42
1:A:630:LYS:HA	1:A:630:LYS:HD2	1.81	0.42
2:B:146:LEU:HD11	2:B:153:GLN:HB2	2.02	0.42
2:B:325:LYS:HB3	2:B:327:ILE:HG13	2.02	0.42
1:A:123:ILE:HG21	1:A:378:LEU:HD11	2.02	0.42
1:A:138:GLU:OE2	2:B:110:ASN:ND2	2.52	0.42
1:A:709:LEU:O	1:A:716:ALA:HB2	2.20	0.42
1:A:88:ILE:HG23	1:A:89:LEU:H	1.84	0.42
1:A:489:ALA:HB2	1:A:732:LEU:HD11	2.02	0.42
2:B:313:GLY:HA2	2:B:430:GLN:NE2	2.26	0.42
2:B:333:LYS:HD3	2:B:341:GLU:OE2	2.20	0.42
2:B:524:ILE:HD11	2:B:740:PHE:CZ	2.55	0.42
1:A:54:TYR:CZ	1:A:120:PRO:HG3	2.55	0.42
6:A:906:CLR:H121	6:A:906:CLR:H212	2.02	0.42
2:B:735:THR:O	2:B:739:VAL:HG23	2.20	0.42
1:A:224:GLN:HB3	1:A:233:PRO:HB3	2.02	0.42
1:A:230:PRO:CB	1:A:257:VAL:HG22	2.50	0.42
1:A:243:ARG:HH21	1:A:461:THR:CG2	2.33	0.42
1:A:364:LEU:O	1:A:368:SER:N	2.52	0.42
2:B:679:ARG:H	2:B:679:ARG:HG3	1.74	0.42
2:B:77:VAL:HG12	2:B:355:HIS:HA	2.02	0.41
2:B:412:THR:CB	2:B:422:ARG:HH22	2.32	0.41
2:B:475:ARG:HD2	2:B:717:PRO:HG3	2.02	0.41
1:A:306:ILE:HD13	1:A:424:GLN:HG3	2.00	0.41
2:B:307:LEU:HD12	2:B:307:LEU:HA	1.86	0.41
2:B:493:MET:HE2	2:B:531:TYR:CB	2.51	0.41
2:B:702:MET:CB	2:B:731:CYS:HB2	2.51	0.41
6:B:906:CLR:H121	6:B:906:CLR:H212	2.01	0.41
2:B:202:THR:HG22	2:B:203:GLN:O	2.21	0.41
1:A:123:ILE:HD12	1:A:364:LEU:HD21	2.02	0.41
1:A:462:LEU:CD1	1:A:464:ILE:HG13	2.50	0.41
1:A:696:ALA:O	1:A:700:LEU:HG	2.20	0.41
2:B:264:PHE:CE1	2:B:311:MET:HA	2.55	0.41
1:A:65:TRP:CZ2	1:A:349:GLU:HG3	2.40	0.41
1:A:633:ILE:O	1:A:635:VAL:N	2.54	0.41
1:A:651:THR:HA	6:A:906:CLR:H193	2.02	0.41
2:B:257:GLN:NE2	2:B:286:GLU:OE1	2.53	0.41
2:B:136:PRO:HA	2:B:139:THR:CG2	2.51	0.41
2:B:652:HIS:O	2:B:655:ILE:HG22	2.21	0.41
1:A:674:THR:HG22	1:A:674:THR:O	2.21	0.41
2:B:61:LEU:HD13	2:B:142:ILE:HD13	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:534:ILE:HD11	2:B:725:ALA:CB	2.51	0.41
1:A:53:VAL:HG21	1:A:378:LEU:CD2	2.51	0.41
1:A:181:VAL:HA	1:A:184:PHE:CD2	2.56	0.41
1:A:189:TRP:HA	1:A:459:ASP:HB3	2.03	0.41
2:B:58:ILE:O	2:B:101:LEU:HD12	2.20	0.41
2:B:130:VAL:O	2:B:153:GLN:HA	2.21	0.41
2:B:136:PRO:HB3	2:B:160:THR:HG21	2.03	0.41
2:B:281:ILE:HD12	2:B:285:TYR:HE2	1.85	0.41
1:A:126:MET:HA	1:A:148:LEU:O	2.21	0.41
1:A:261:VAL:O	1:A:265:ARG:N	2.53	0.41
2:B:167:LYS:HD3	2:B:167:LYS:HA	1.92	0.41
1:A:542:PHE:N	1:A:543:PRO:HD2	2.35	0.40
2:B:287:PRO:O	2:B:288:SER:OG	2.36	0.40
1:A:599:LEU:HG	6:A:909:CLR:H71	2.03	0.40
2:B:230:GLU:HG3	2:B:243:LEU:HG	2.03	0.40
2:B:365:ILE:O	2:B:368:THR:HB	2.21	0.40
2:B:442:TYR:CE2	2:B:444:ALA:HB2	2.56	0.40
1:A:331:GLU:OE2	1:A:335:LYS:HG2	2.21	0.40
1:A:670:LEU:HD23	1:A:670:LEU:HA	1.89	0.40
1:A:682:ILE:CG2	1:A:685:HIS:HB3	2.48	0.40
1:A:743:LEU:HA	1:A:743:LEU:HD23	1.77	0.40
2:B:649:GLU:HB2	2:B:653:MET:HE3	2.03	0.40
1:A:555:LEU:HD23	1:A:555:LEU:HA	1.78	0.40
2:B:621:LEU:H	2:B:621:LEU:HD12	1.87	0.40
1:A:178:PRO:HG3	1:A:212:ARG:NH1	2.37	0.40
2:B:268:TYR:CZ	2:B:306:ASN:HB3	2.57	0.40
2:B:477:ILE:HG12	2:B:540:ASP:OD1	2.21	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	675/810 (83%)	653 (97%)	22 (3%)	0	100	100
2	B	663/827 (80%)	643 (97%)	20 (3%)	0	100	100
All	All	1338/1637 (82%)	1296 (97%)	42 (3%)	0	100	100

There are no Ramachandran outliers to report.

5.3.2 Protein sidechains [i](#)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all 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	592/703 (84%)	591 (100%)	1 (0%)	93	97
2	B	586/725 (81%)	585 (100%)	1 (0%)	93	97
All	All	1178/1428 (82%)	1176 (100%)	2 (0%)	93	97

All (2) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	293	CYS
2	B	547	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (17) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	72	GLN
1	A	144	ASN
1	A	159	ASN
1	A	196	GLN
1	A	391	GLN
1	A	499	ASN
1	A	513	ASN
1	A	514	ASN
2	B	206	GLN
2	B	246	ASN
2	B	278	GLN

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Mol	Chain	Res	Type
2	B	414	GLN
2	B	453	ASN
2	B	503	ASN
2	B	616	GLN
2	B	687	ASN
2	B	698	ASN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 17 ligands modelled in this entry, 1 is monoatomic - leaving 16 for Mogul analysis.

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
6	CLR	B	907	-	31,31,31	0.79	1 (3%)	48,48,48	1.20	4 (8%)
3	NAG	B	901	2	14,14,15	0.17	0	17,19,21	0.38	0
6	CLR	B	908	-	31,31,31	0.80	0	48,48,48	1.06	4 (8%)
6	CLR	A	907	-	31,31,31	0.75	0	48,48,48	1.08	3 (6%)
6	CLR	B	906	-	31,31,31	0.82	1 (3%)	48,48,48	1.19	5 (10%)
7	U3D	B	902	-	55,55,55	1.38	8 (14%)	61,63,63	0.87	3 (4%)
3	NAG	A	902	1	14,14,15	0.20	0	17,19,21	0.49	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
6	CLR	B	905	-	31,31,31	0.66	0	48,48,48	1.04	2 (4%)
6	CLR	B	903	-	31,31,31	0.70	0	48,48,48	1.12	4 (8%)
6	CLR	A	908	-	31,31,31	0.65	0	48,48,48	1.02	3 (6%)
6	CLR	A	909	-	31,31,31	0.71	0	48,48,48	1.05	2 (4%)
3	NAG	A	901	1	14,14,15	0.21	0	17,19,21	0.45	0
6	CLR	B	904	-	31,31,31	0.72	0	48,48,48	1.02	3 (6%)
6	CLR	A	906	-	31,31,31	0.80	1 (3%)	48,48,48	1.23	5 (10%)
3	NAG	A	903	1	14,14,15	0.36	0	17,19,21	0.46	0
5	U3G	A	905	-	52,52,52	1.15	3 (5%)	55,57,57	0.82	2 (3%)

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
6	CLR	B	907	-	-	2/10/68/68	0/4/4/4
3	NAG	B	901	2	-	4/6/23/26	0/1/1/1
6	CLR	B	908	-	-	3/10/68/68	0/4/4/4
6	CLR	A	907	-	-	3/10/68/68	0/4/4/4
6	CLR	B	906	-	-	0/10/68/68	0/4/4/4
7	U3D	B	902	-	-	28/59/59/59	-
3	NAG	A	902	1	-	2/6/23/26	0/1/1/1
6	CLR	B	905	-	-	0/10/68/68	0/4/4/4
6	CLR	B	903	-	-	1/10/68/68	0/4/4/4
6	CLR	A	908	-	-	3/10/68/68	0/4/4/4
6	CLR	A	909	-	-	0/10/68/68	0/4/4/4
3	NAG	A	901	1	-	2/6/23/26	0/1/1/1
6	CLR	B	904	-	-	1/10/68/68	0/4/4/4
6	CLR	A	906	-	-	0/10/68/68	0/4/4/4
3	NAG	A	903	1	-	3/6/23/26	0/1/1/1
5	U3G	A	905	-	-	24/56/56/56	-

All (14) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	B	902	U3D	O37-C38	3.92	1.45	1.34
7	B	902	U3D	O22-C20	3.50	1.43	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	A	905	U3G	O23-C24	3.25	1.42	1.33
7	B	902	U3D	C40-C38	2.89	1.59	1.50
5	A	905	U3G	O20-C21	-2.84	1.39	1.46
5	A	905	U3G	O20-C18	2.84	1.42	1.34
7	B	902	U3D	C41-C40	2.64	1.61	1.52
7	B	902	U3D	O37-C24	-2.37	1.40	1.46
6	A	906	CLR	C20-C17	2.32	1.58	1.54
6	B	907	CLR	C18-C13	2.14	1.58	1.54
7	B	902	U3D	P27-O30	2.12	1.67	1.59
6	B	906	CLR	C20-C17	2.05	1.58	1.54
7	B	902	U3D	C32-C31	2.01	1.57	1.51
7	B	902	U3D	P27-O26	2.00	1.67	1.59

All (40) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	B	902	U3D	O37-C38-C40	4.10	120.34	111.50
5	A	905	U3G	O20-C18-C17	3.33	118.68	111.50
6	A	906	CLR	C8-C7-C6	-3.05	108.35	112.73
6	B	907	CLR	C8-C7-C6	-3.02	108.39	112.73
6	A	906	CLR	C10-C9-C8	-3.00	108.24	112.73
6	B	903	CLR	C7-C8-C9	2.88	113.20	109.71
6	B	907	CLR	C10-C9-C8	-2.76	108.59	112.73
6	A	907	CLR	C4-C5-C6	-2.75	116.64	120.61
6	B	903	CLR	C14-C8-C9	-2.68	105.50	109.09
6	B	906	CLR	C10-C9-C8	-2.59	108.85	112.73
7	B	902	U3D	O22-C20-C19	2.53	119.85	111.91
5	A	905	U3G	O23-C24-C26	2.49	119.74	111.91
6	A	909	CLR	C8-C7-C6	-2.48	109.17	112.73
6	A	906	CLR	C13-C17-C20	-2.46	115.63	119.49
6	B	906	CLR	C13-C17-C20	-2.43	115.68	119.49
6	B	908	CLR	C8-C7-C6	-2.42	109.25	112.73
6	B	905	CLR	C2-C3-C4	-2.42	106.99	110.31
6	B	906	CLR	C8-C7-C6	-2.37	109.33	112.73
6	A	906	CLR	C11-C9-C8	2.36	115.16	111.75
6	B	906	CLR	C23-C22-C20	-2.36	108.25	115.03
6	A	906	CLR	C23-C22-C20	-2.34	108.32	115.03
6	B	904	CLR	C21-C20-C22	-2.33	106.71	110.36
6	B	903	CLR	C4-C5-C6	-2.30	117.30	120.61
6	A	907	CLR	C10-C9-C8	-2.26	109.35	112.73
6	B	907	CLR	C23-C22-C20	-2.25	108.56	115.03
6	B	905	CLR	C4-C5-C6	-2.25	117.36	120.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	A	908	CLR	C8-C7-C6	-2.23	109.52	112.73
6	B	904	CLR	C10-C9-C8	-2.22	109.40	112.73
6	A	908	CLR	C10-C9-C8	-2.18	109.46	112.73
6	A	908	CLR	C2-C3-C4	-2.17	107.33	110.31
6	B	906	CLR	C11-C9-C8	2.16	114.87	111.75
6	B	903	CLR	C11-C9-C8	-2.15	108.66	111.75
6	A	907	CLR	C7-C8-C14	-2.14	107.80	110.91
6	B	908	CLR	C4-C5-C6	-2.14	117.53	120.61
6	B	904	CLR	C8-C7-C6	-2.07	109.77	112.73
6	B	908	CLR	C10-C9-C8	-2.05	109.66	112.73
7	B	902	U3D	C24-O37-C38	-2.05	112.74	117.79
6	B	907	CLR	C4-C5-C6	-2.04	117.67	120.61
6	A	909	CLR	C2-C3-C4	-2.03	107.52	110.31
6	B	908	CLR	C13-C17-C20	-2.00	116.35	119.49

There are no chirality outliers.

All (76) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
5	A	905	U3G	C45-O46-P47-O49
7	B	902	U3D	C25-O26-P27-O29
7	B	902	U3D	C31-O30-P27-O28
5	A	905	U3G	O25-C24-O23-C22
5	A	905	U3G	C26-C24-O23-C22
3	B	901	NAG	O5-C5-C6-O6
7	B	902	U3D	C19-C20-O22-C23
3	A	901	NAG	C4-C5-C6-O6
3	B	901	NAG	C4-C5-C6-O6
3	A	901	NAG	O5-C5-C6-O6
3	A	903	NAG	C4-C5-C6-O6
6	A	907	CLR	C17-C20-C22-C23
6	B	908	CLR	C17-C20-C22-C23
7	B	902	U3D	O21-C20-O22-C23
6	B	908	CLR	C21-C20-C22-C23
6	A	908	CLR	C17-C20-C22-C23
3	B	901	NAG	C8-C7-N2-C2
3	B	901	NAG	O7-C7-N2-C2
6	A	907	CLR	C21-C20-C22-C23
6	A	907	CLR	C22-C23-C24-C25
6	A	908	CLR	C21-C20-C22-C23
6	B	908	CLR	C22-C23-C24-C25
7	B	902	U3D	C31-O30-P27-O26

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Mol	Chain	Res	Type	Atoms
3	A	903	NAG	O5-C5-C6-O6
5	A	905	U3G	C39-C40-C41-C42
6	B	907	CLR	C17-C20-C22-C23
5	A	905	U3G	C14-C15-C16-C17
7	B	902	U3D	C13-C14-C15-C16
7	B	902	U3D	C51-C52-C53-C54
5	A	905	U3G	C24-C26-C27-C28
5	A	905	U3G	C26-C27-C28-C29
5	A	905	U3G	C11-C12-C13-C14
7	B	902	U3D	C42-C43-C44-C45
6	B	907	CLR	C21-C20-C22-C23
5	A	905	U3G	C04-C05-C06-C07
5	A	905	U3G	C41-C42-C43-C44
7	B	902	U3D	C40-C38-O37-C24
7	B	902	U3D	C11-C12-C13-C14
7	B	902	U3D	O39-C38-O37-C24
7	B	902	U3D	C04-C05-C06-C07
7	B	902	U3D	C50-C51-C52-C53
7	B	902	U3D	C48-C49-C50-C51
5	A	905	U3G	O20-C21-C22-O23
5	A	905	U3G	C15-C16-C17-C18
7	B	902	U3D	C41-C42-C43-C44
3	A	902	NAG	C4-C5-C6-O6
5	A	905	U3G	C32-C33-C34-C35
5	A	905	U3G	C33-C34-C35-C36
7	B	902	U3D	O22-C23-C24-O37
3	A	902	NAG	O5-C5-C6-O6
7	B	902	U3D	C15-C16-C17-C18
5	A	905	U3G	C51-O50-P47-O46
6	B	903	CLR	C20-C22-C23-C24
7	B	902	U3D	O30-C31-C32-N33
5	A	905	U3G	C05-C06-C07-C08
5	A	905	U3G	C45-C21-C22-O23
6	B	904	CLR	C16-C17-C20-C22
6	A	908	CLR	C22-C23-C24-C25
3	A	903	NAG	C1-C2-N2-C7
7	B	902	U3D	C43-C44-C45-C46
5	A	905	U3G	C29-C30-C31-C32
5	A	905	U3G	C35-C36-C37-C38
7	B	902	U3D	C40-C41-C42-C43
7	B	902	U3D	C45-C46-C47-C48
7	B	902	U3D	C09-C10-C11-C12

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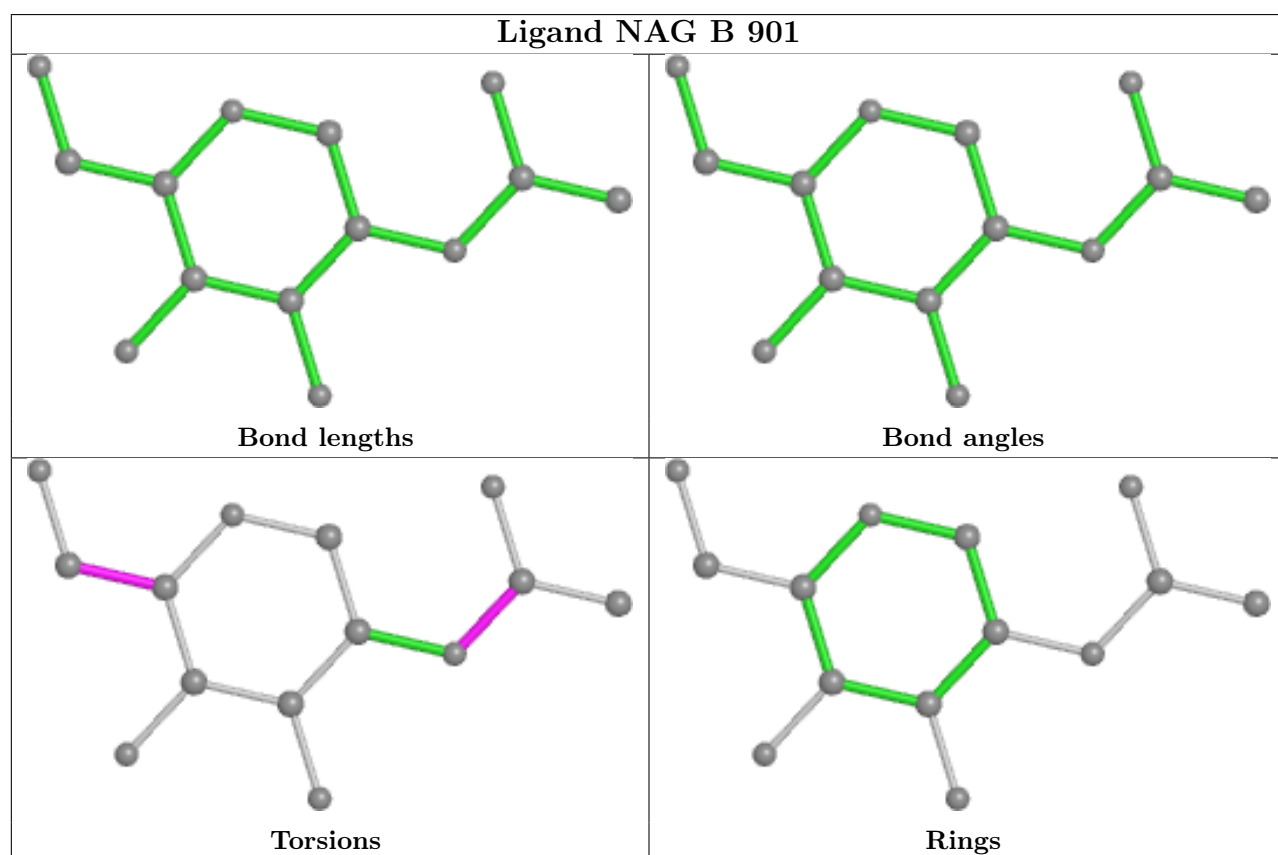
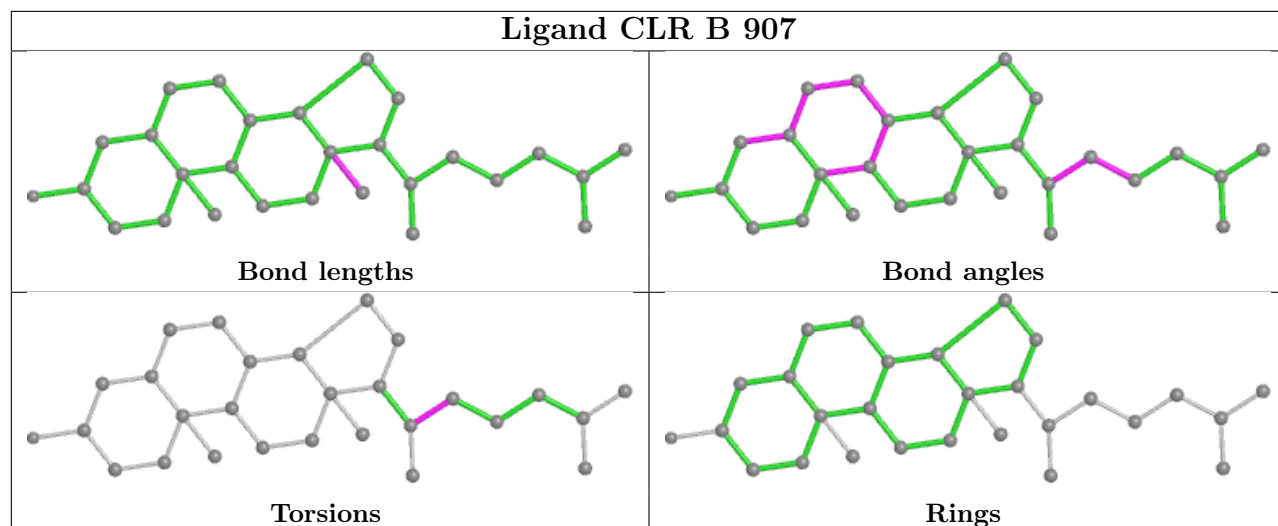
Mol	Chain	Res	Type	Atoms
5	A	905	U3G	C09-C10-C11-C12
7	B	902	U3D	C07-C08-C09-C10
7	B	902	U3D	O22-C23-C24-C25
7	B	902	U3D	C18-C19-C20-O22
5	A	905	U3G	C38-C39-C40-C41
5	A	905	U3G	C16-C17-C18-O20
7	B	902	U3D	C18-C19-C20-O21
7	B	902	U3D	C32-C31-O30-P27
5	A	905	U3G	C16-C17-C18-O19
5	A	905	U3G	O23-C24-C26-C27
7	B	902	U3D	C14-C15-C16-C17

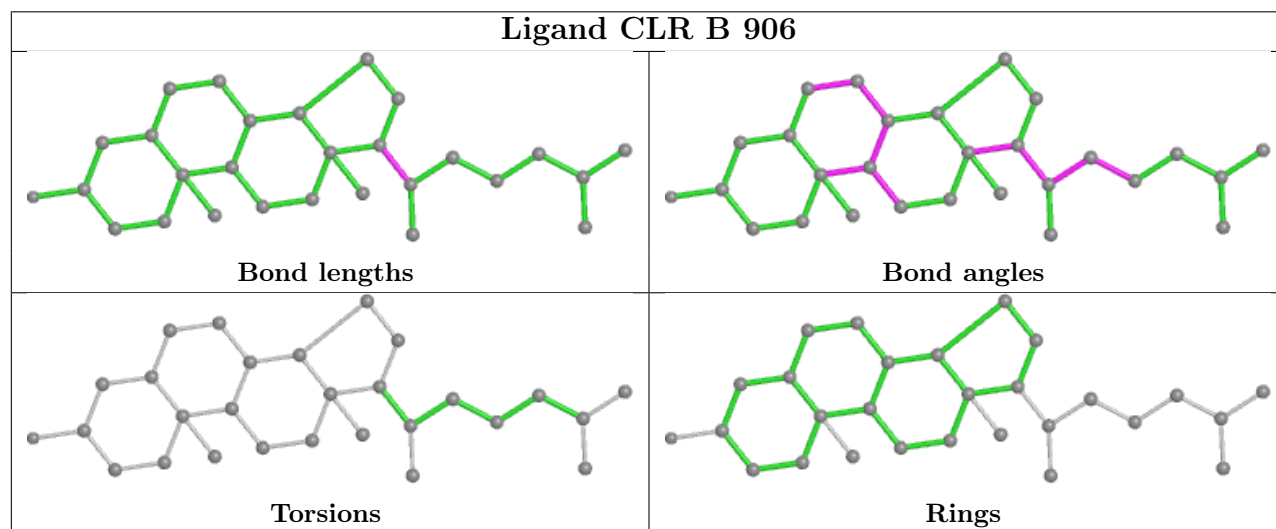
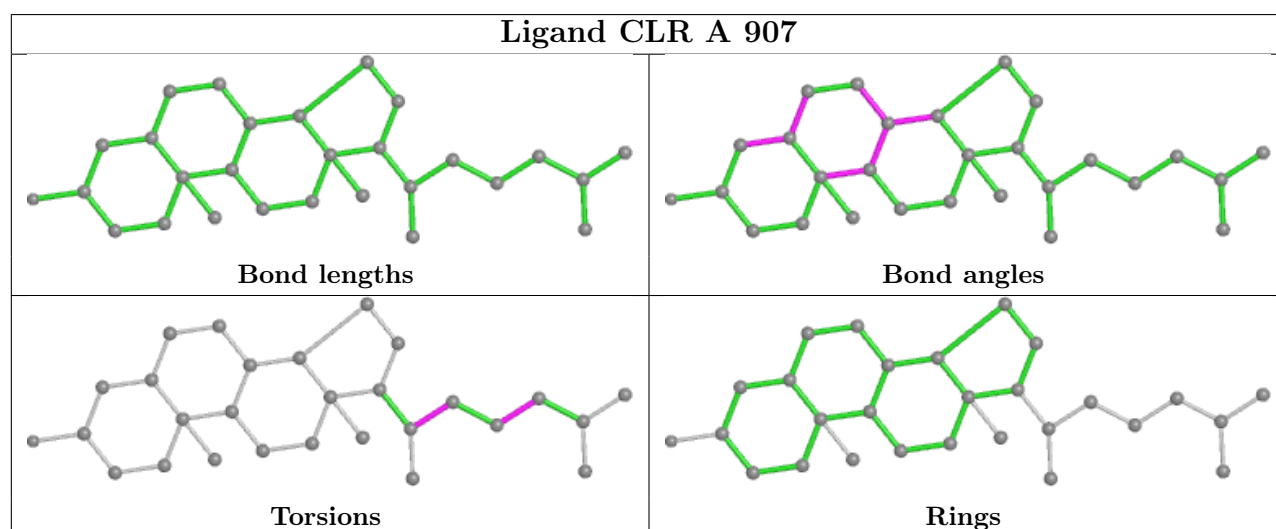
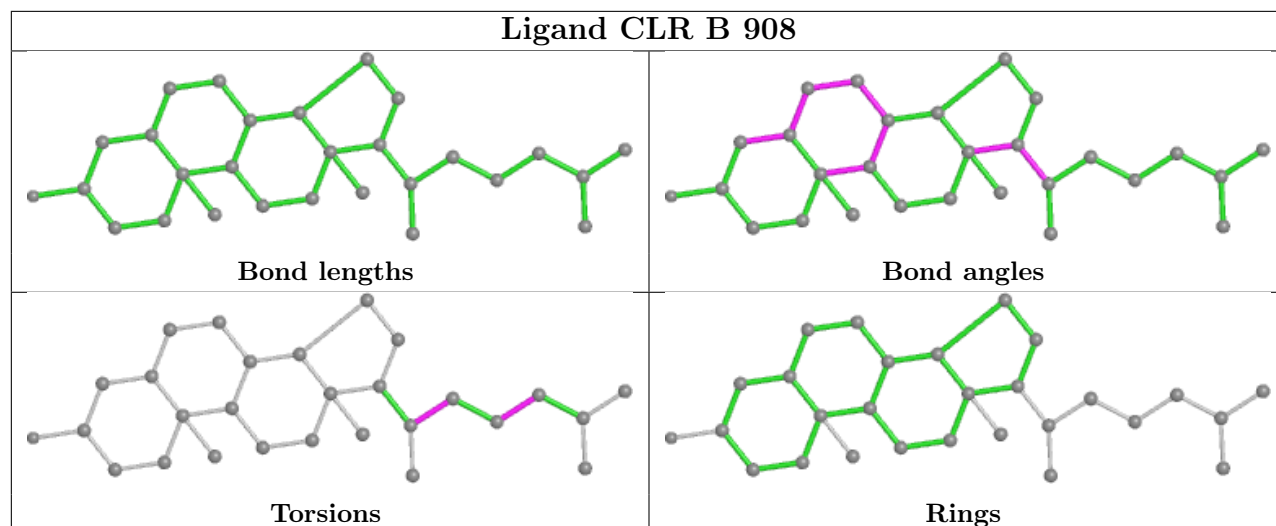
There are no ring outliers.

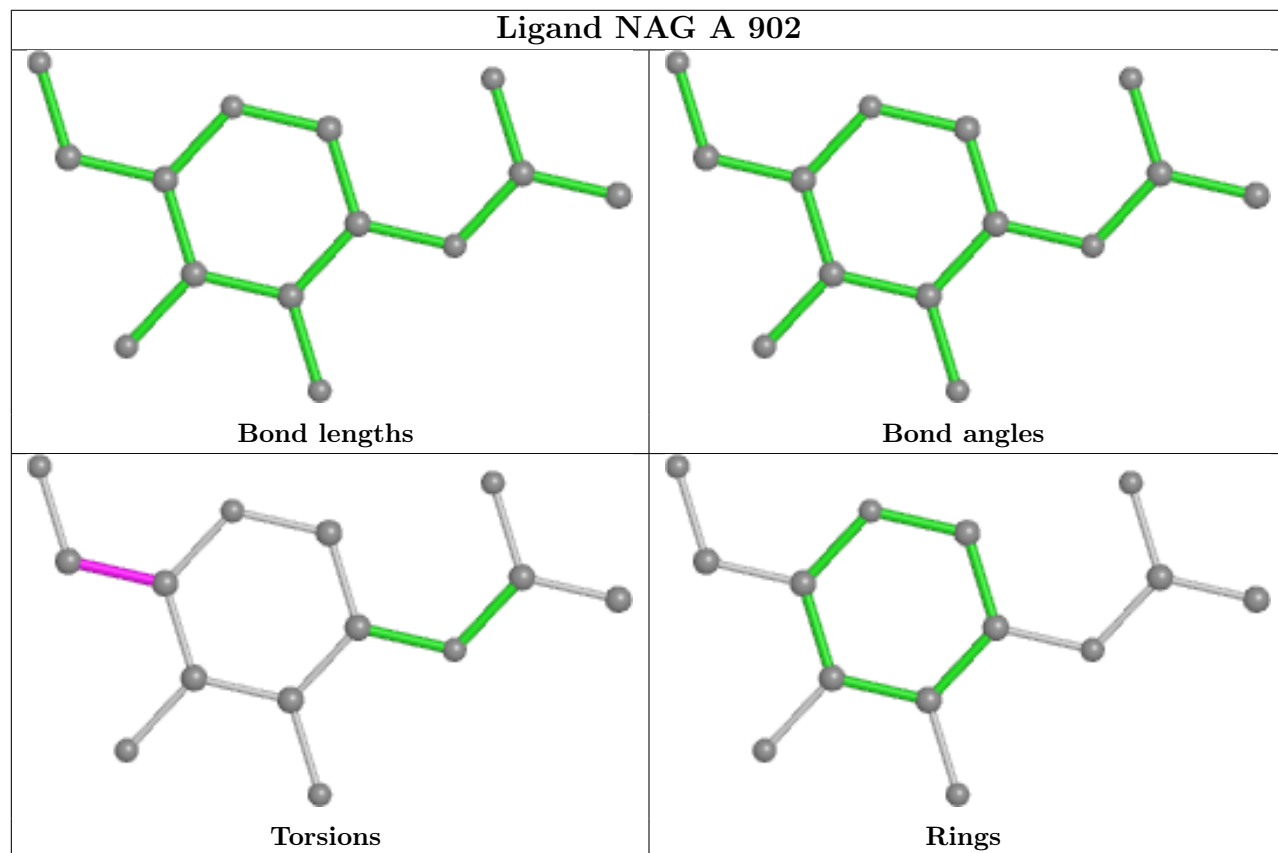
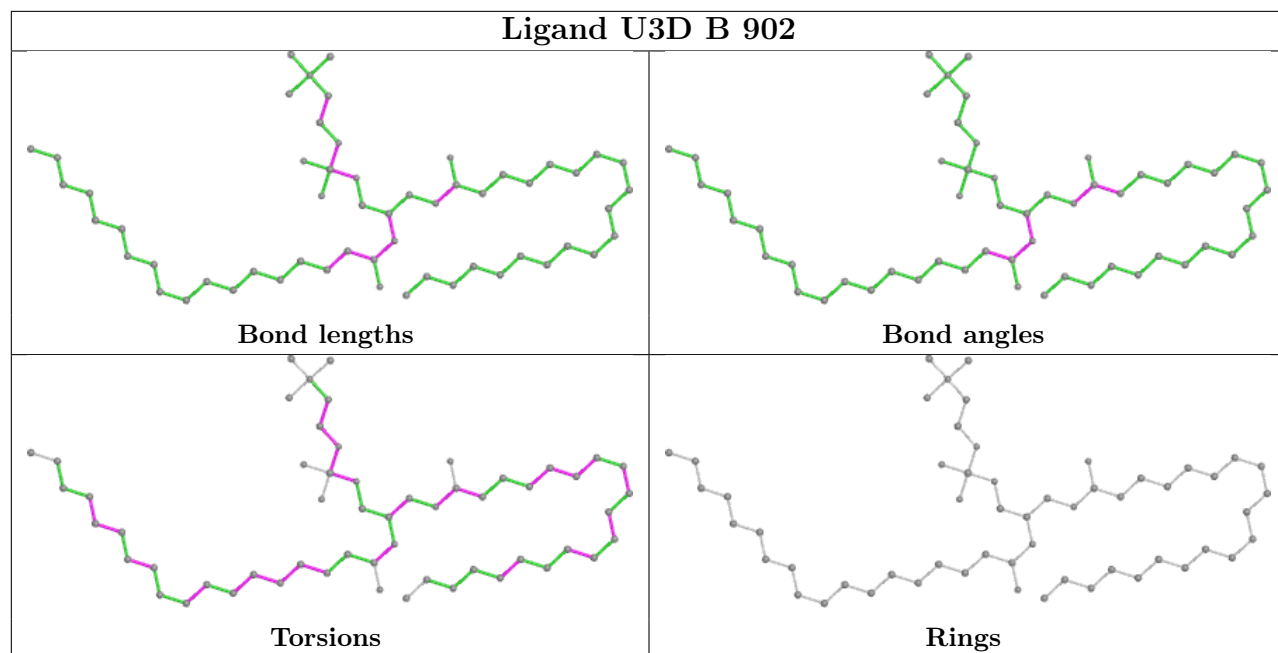
13 monomers are involved in 22 short contacts:

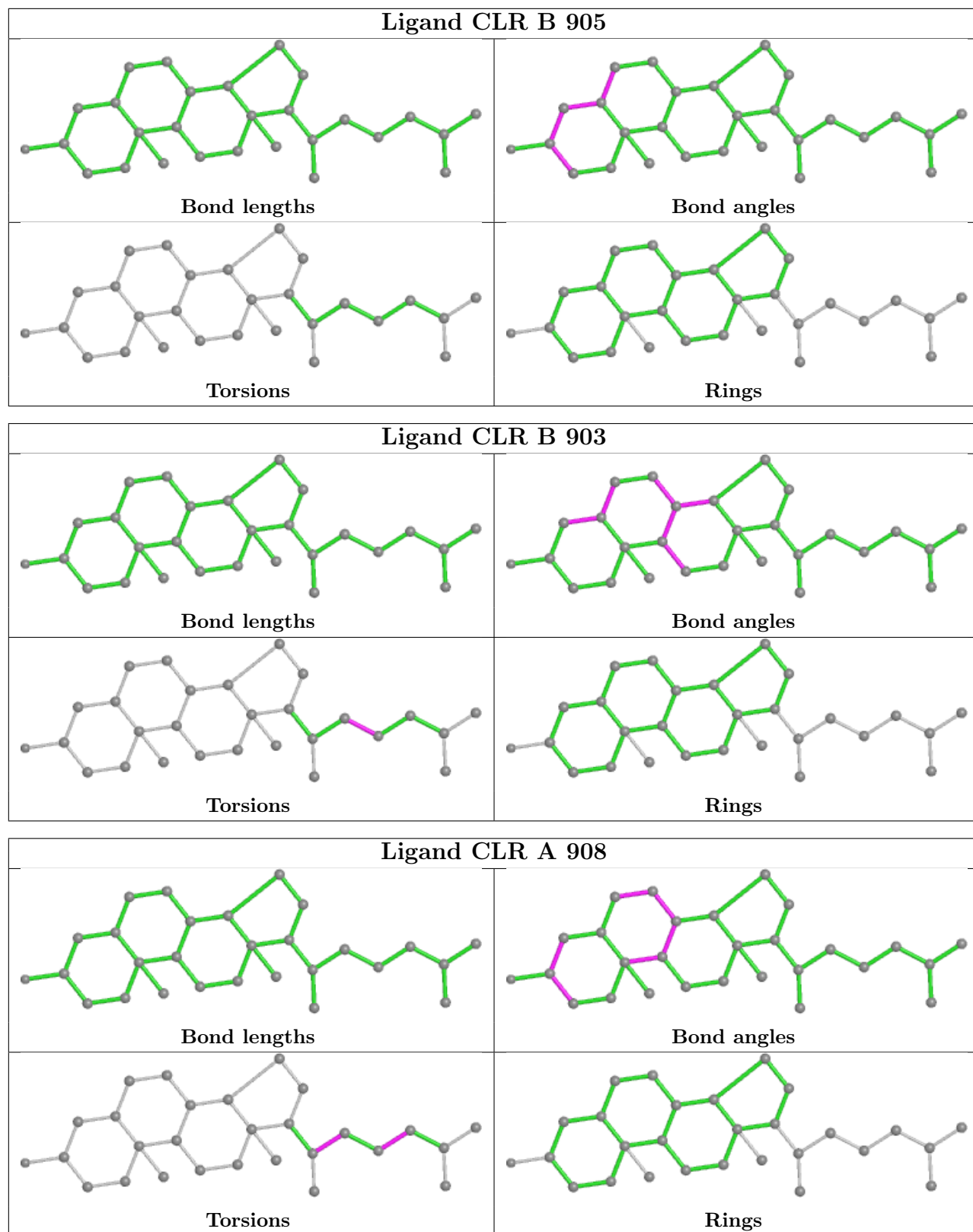
Mol	Chain	Res	Type	Clashes	Symm-Clashes
6	B	907	CLR	1	0
6	B	908	CLR	1	0
6	A	907	CLR	3	0
6	B	906	CLR	1	0
7	B	902	U3D	1	0
3	A	902	NAG	1	0
6	B	903	CLR	2	0
6	A	908	CLR	1	0
6	A	909	CLR	3	0
6	B	904	CLR	1	0
6	A	906	CLR	5	0
3	A	903	NAG	1	0
5	A	905	U3G	1	0

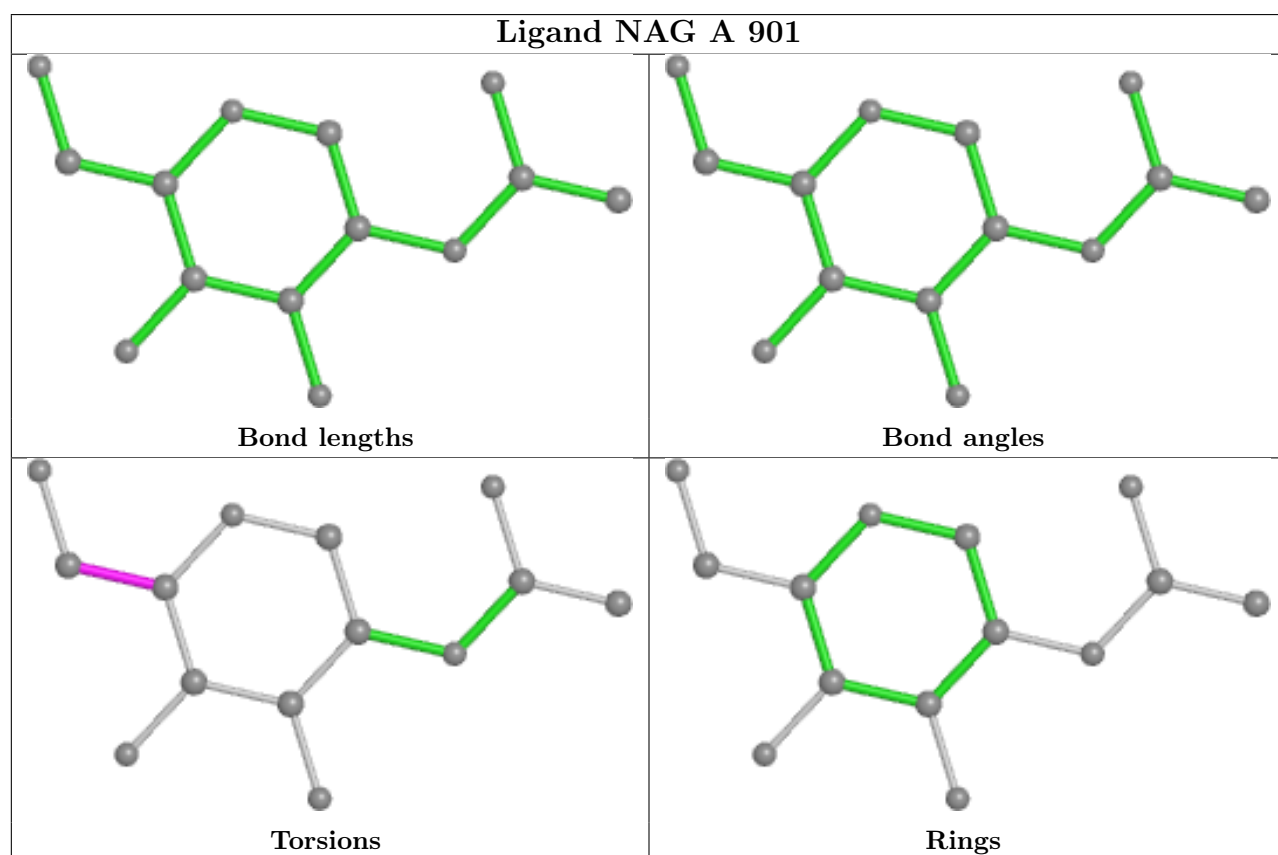
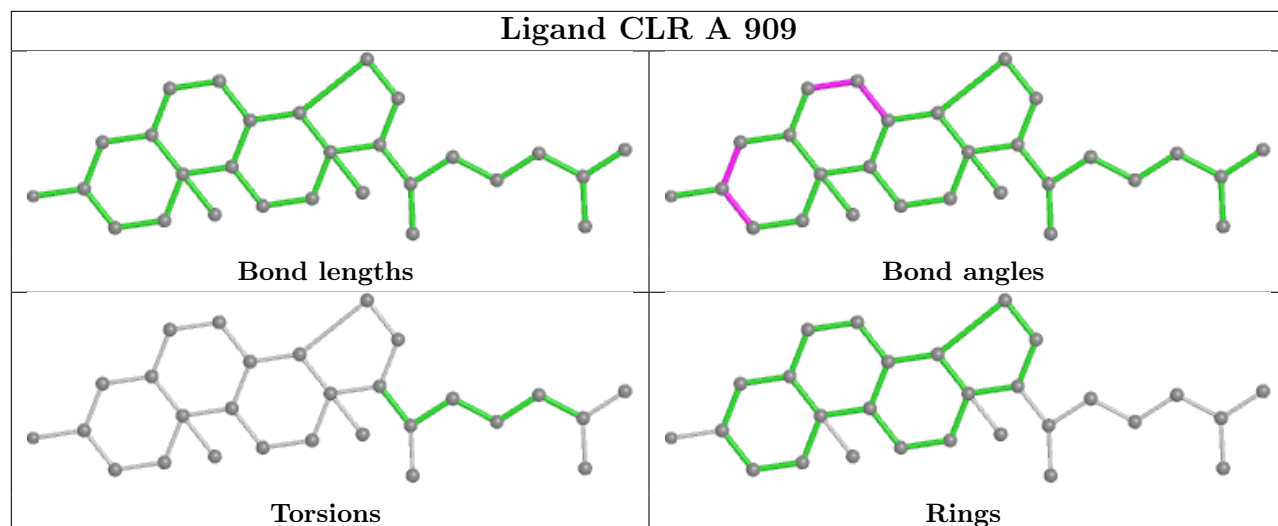
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

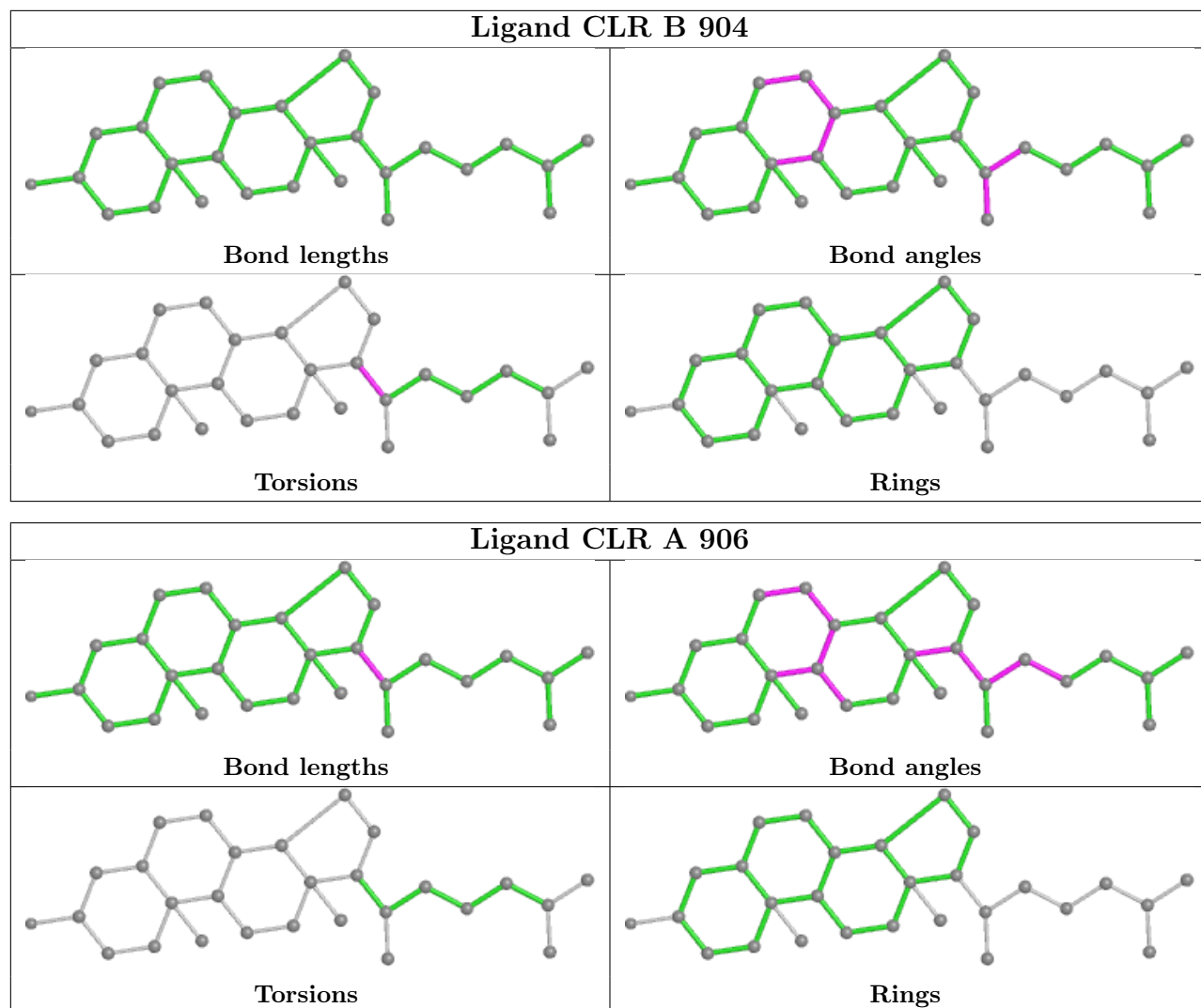


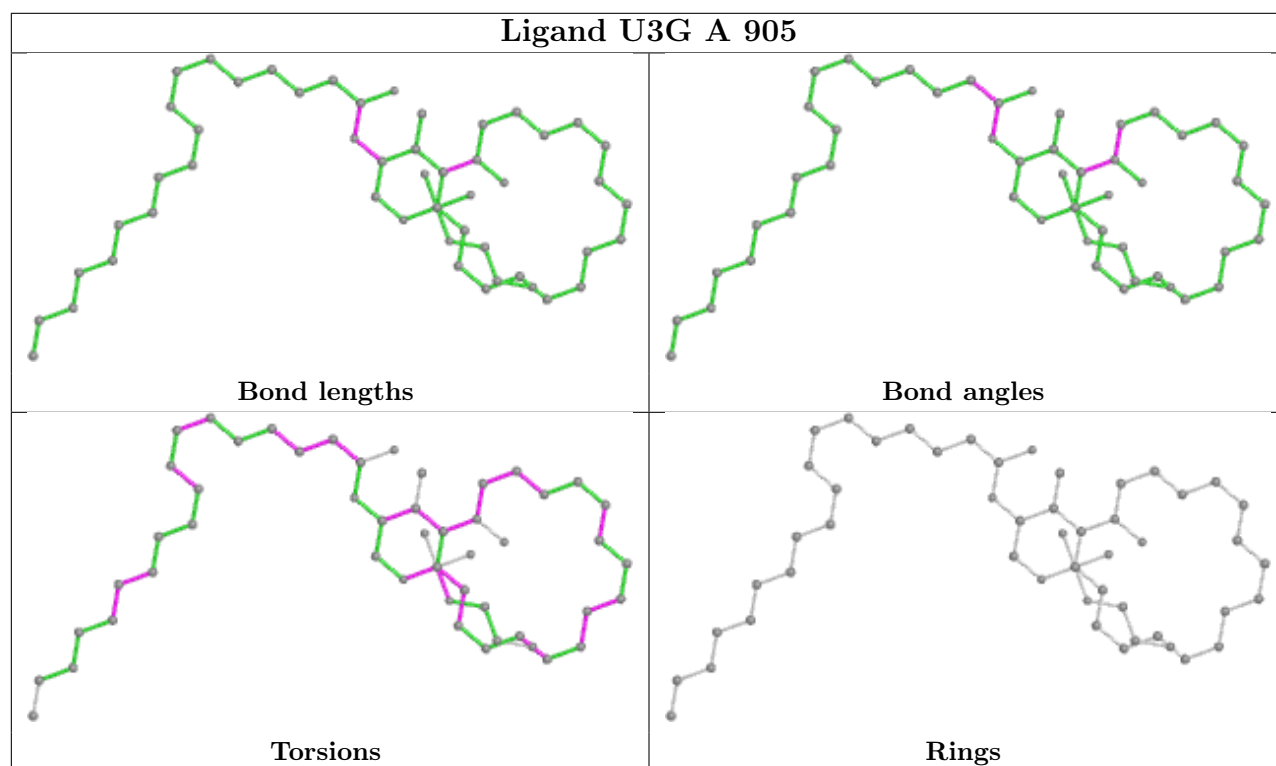
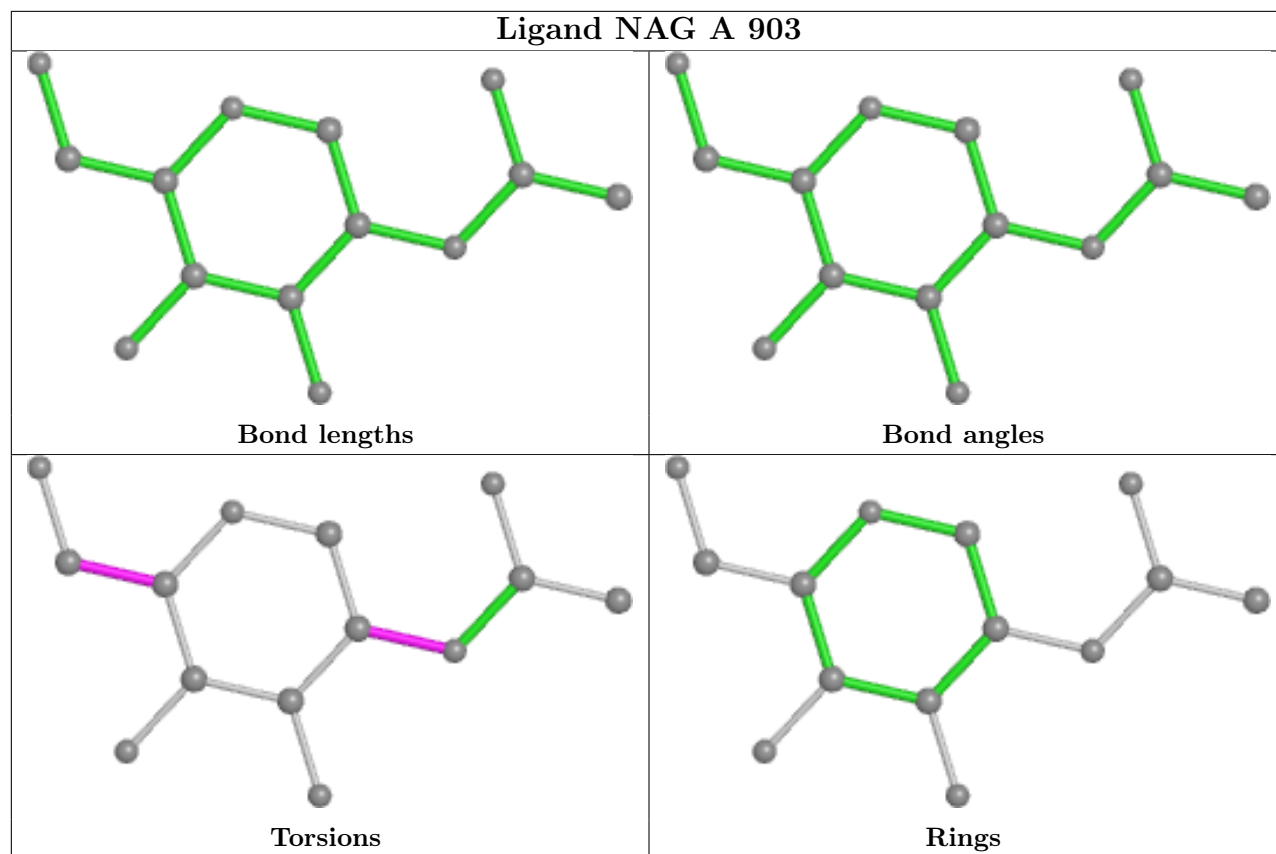












5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

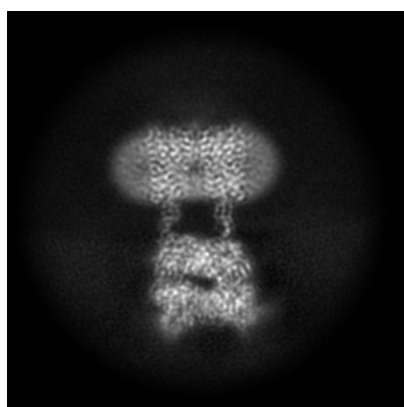
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-21685. These allow visual inspection of the internal detail of the map and identification of artifacts.

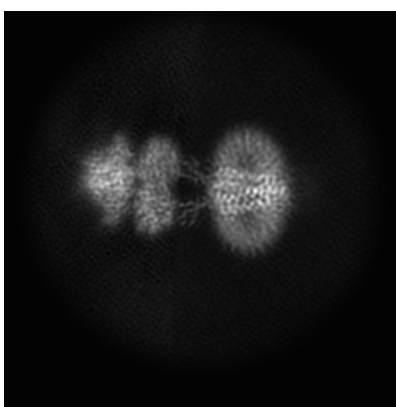
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

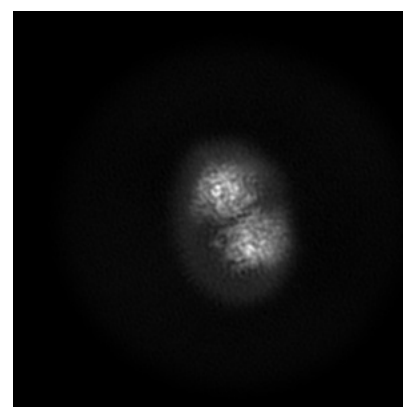
6.1.1 Primary map



X



Y



Z

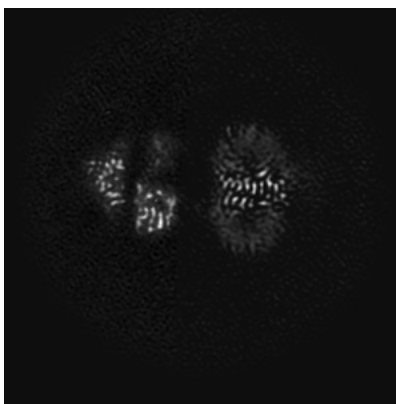
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

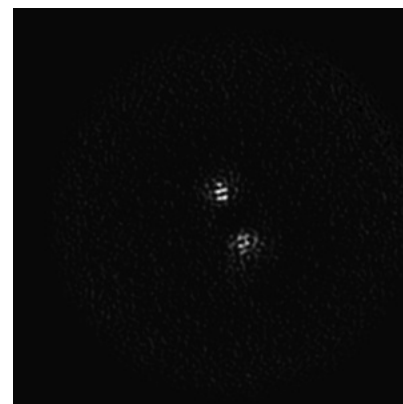
6.2.1 Primary map



X Index: 128



Y Index: 128

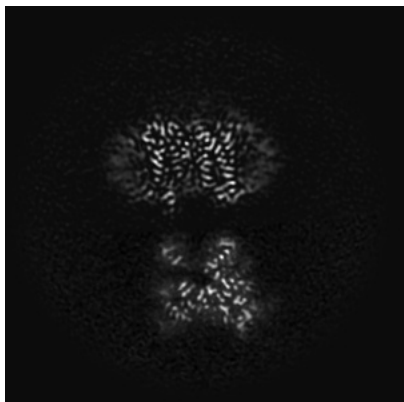


Z Index: 128

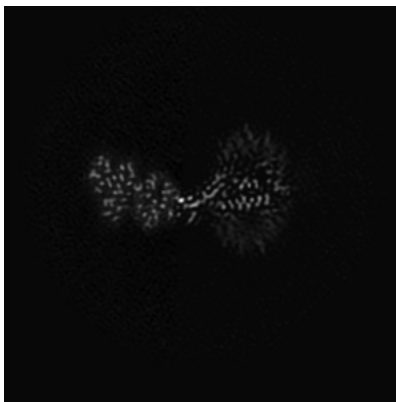
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

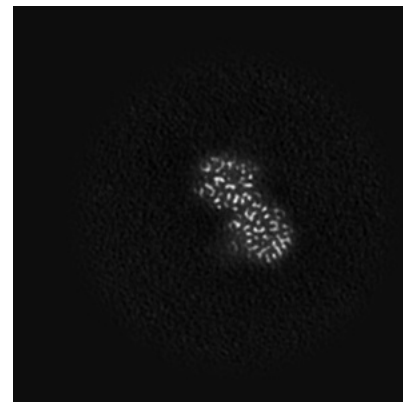
6.3.1 Primary map



X Index: 142



Y Index: 139

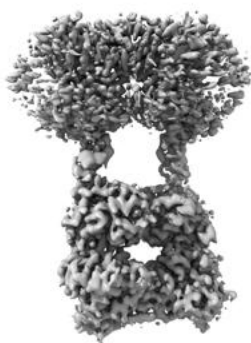


Z Index: 73

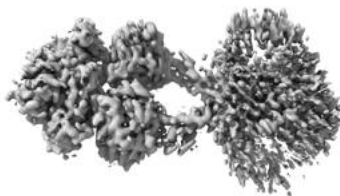
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal surface views [i](#)

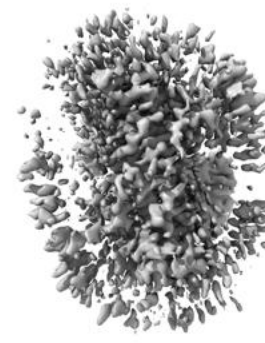
6.4.1 Primary map



X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.5. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

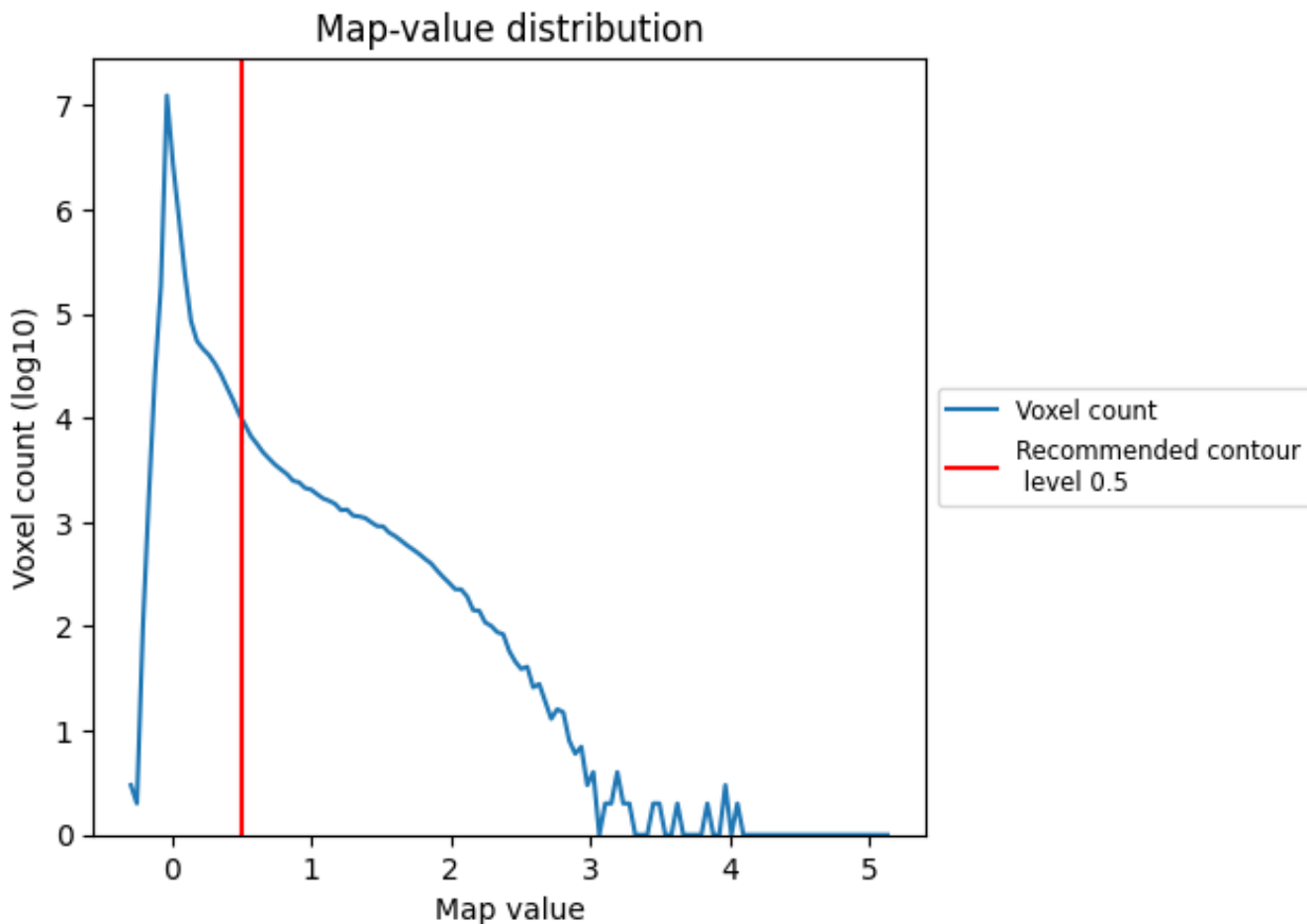
6.5 Mask visualisation

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

7 Map analysis [i](#)

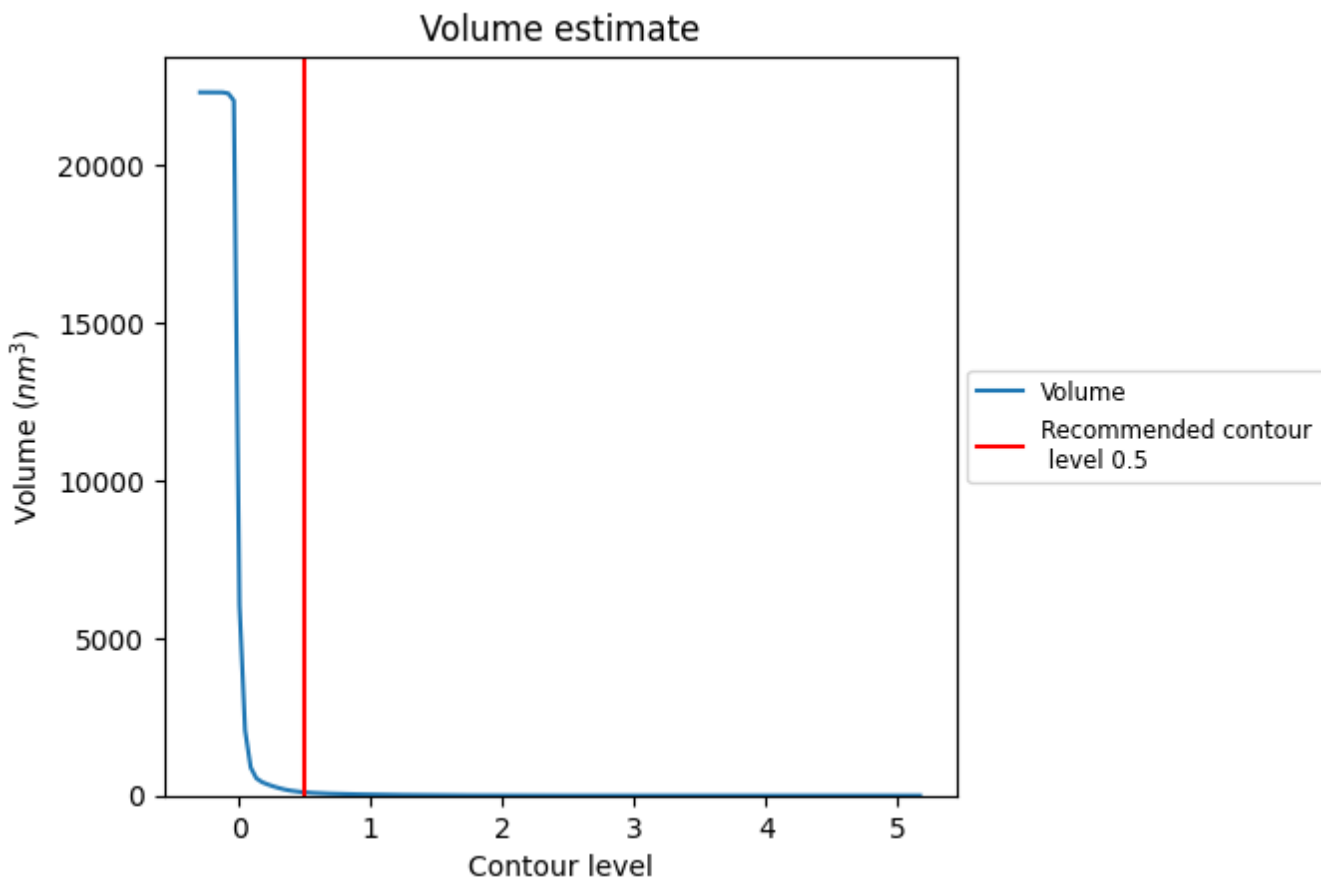
This section contains the results of statistical analysis of the map.

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.

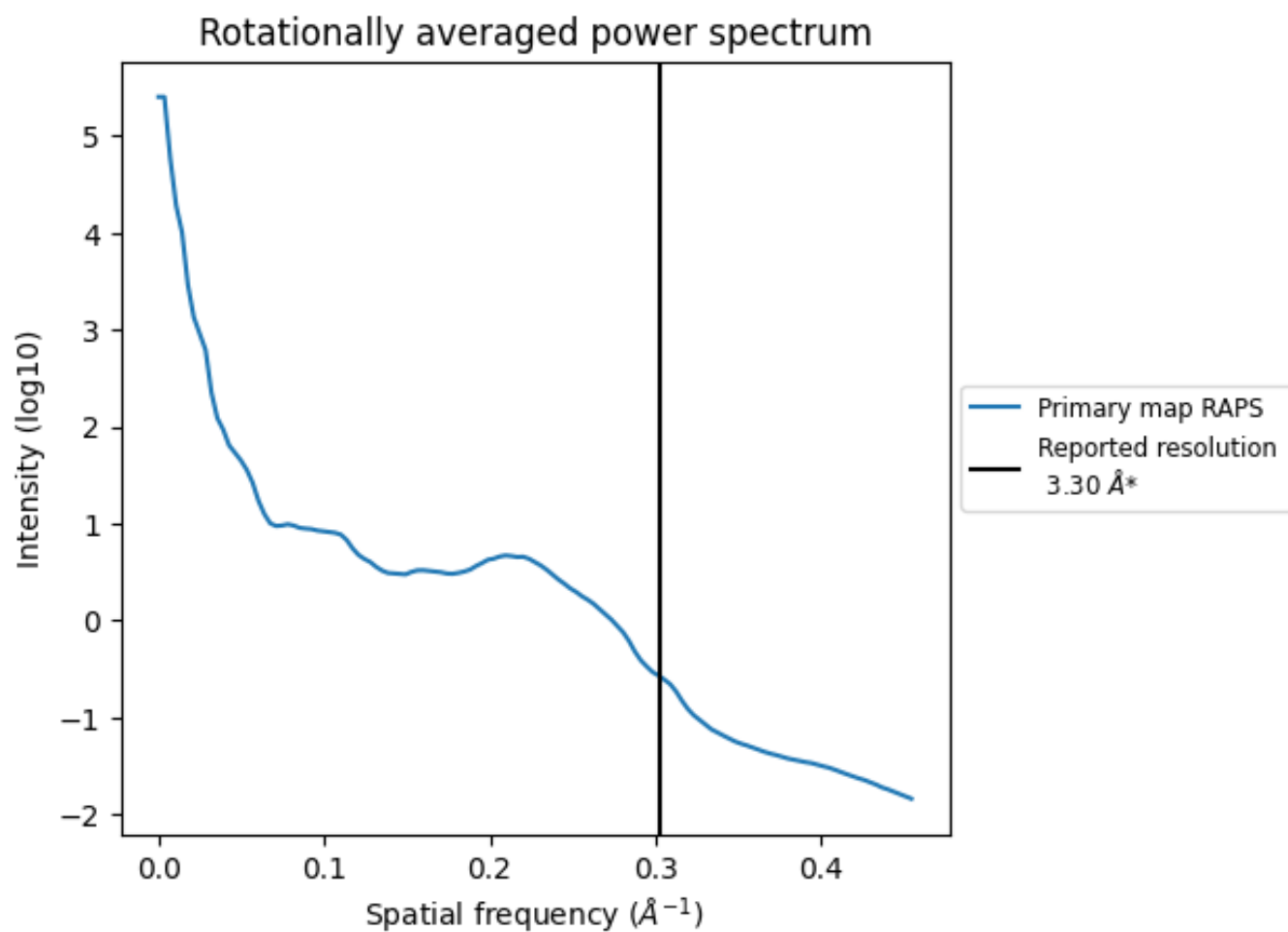
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 103 nm^3 ; this corresponds to an approximate mass of 93 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 [i](#)



*Reported resolution corresponds to spatial frequency of 0.303 Å⁻¹

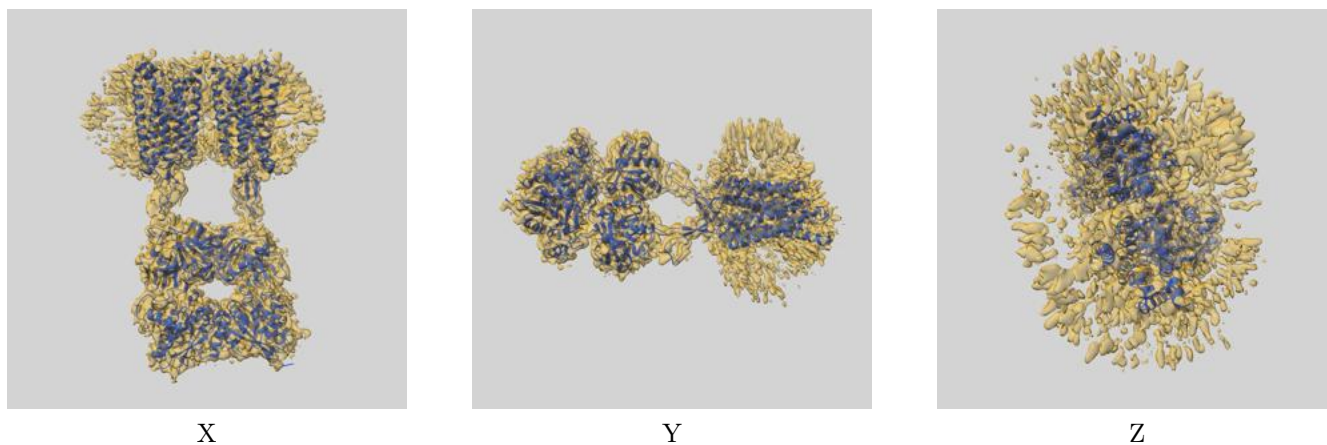
8 Fourier-Shell correlation

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

9 Map-model fit [i](#)

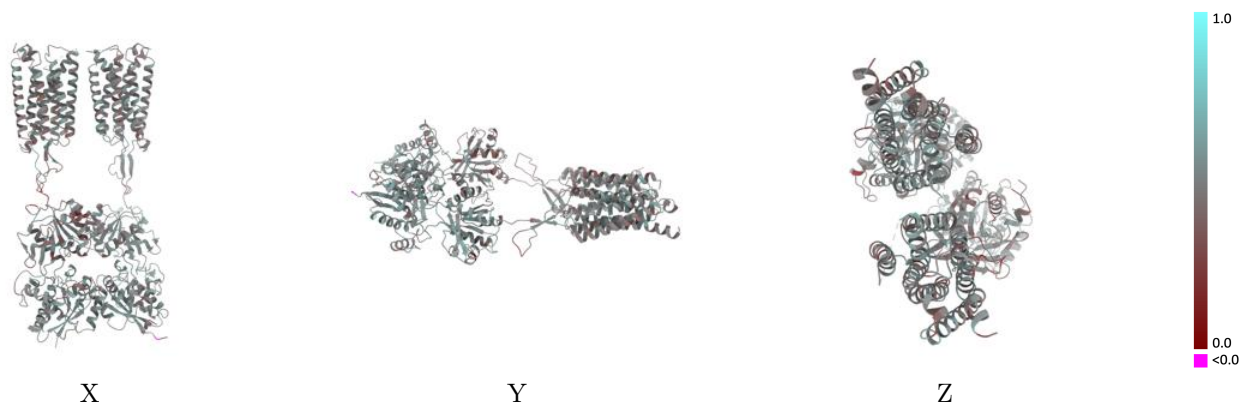
This section contains information regarding the fit between EMDB map EMD-21685 and PDB model 6WIV. Per-residue inclusion information can be found in section 3 on page 7.

9.1 Map-model overlay [i](#)



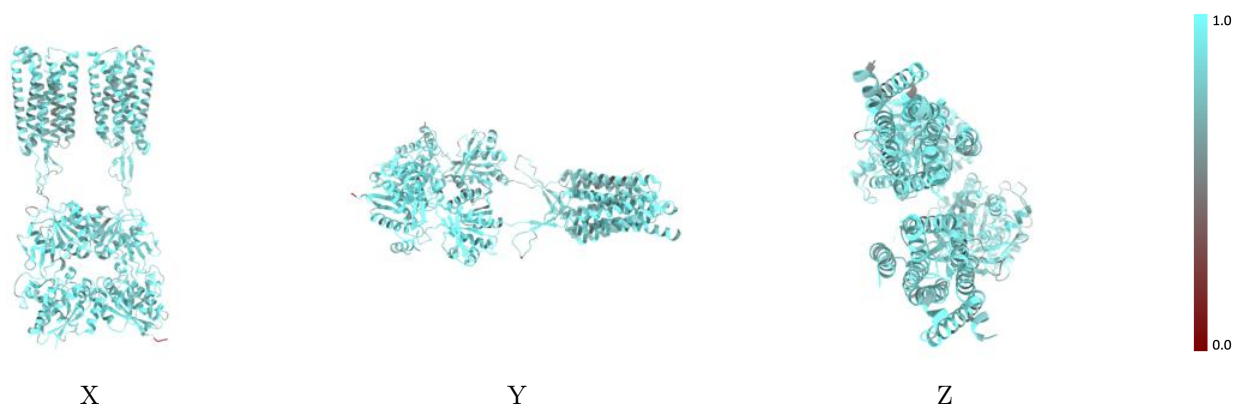
The images above show the 3D surface view of the map at the recommended contour level 0.5 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



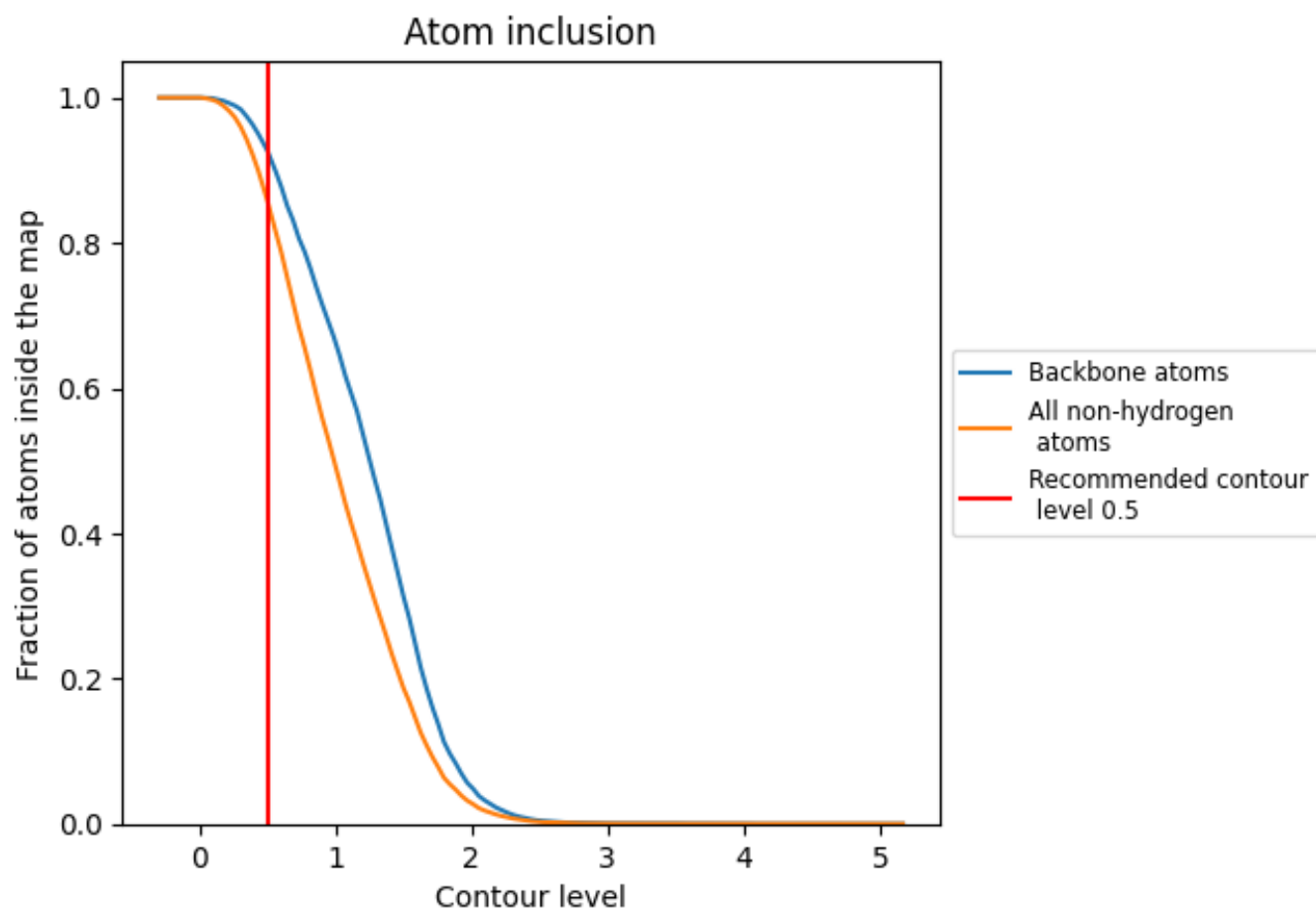
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.5).


9.4 Atom inclusion [i](#)



At the recommended contour level, 93% of all backbone atoms, 86% 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 (0.5) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.8577	 0.4860
A	 0.8729	 0.4960
B	 0.8423	 0.4750

