Full wwPDB X-ray Structure Validation Report (i)

Aug 23, 2026 – 06:36 pm BST

PDB ID	:	8PNO / pdb_00008pno
Title	:	The MgF3(H2O) transition state analog complex of E. coli YihX
Authors	:	Baumann, P.; Zappala, D.; Jin, Y.
Deposited on	:	2023-06-30
Resolution	:	2.20 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/XrayValidationReportHelp
with specific help available everywhere you see the (i) symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

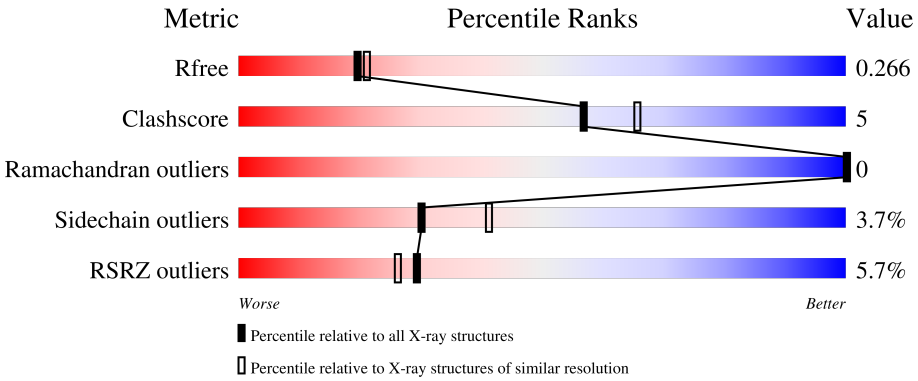
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	1.8.4, CSD as541be (2020)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Buster-report	:	wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.015 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.50

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
X-RAY DIFFRACTION

The reported resolution of this entry is 2.20 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	180053	6164 (2.20-2.20)
Clashscore	190562	6851 (2.20-2.20)
Ramachandran outliers	187476	6768 (2.20-2.20)
Sidechain outliers	187428	6769 (2.20-2.20)
RSRZ outliers	180081	6166 (2.20-2.20)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower 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 <=5% The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	202	6% 84% 14% .
1	B	202	5% 89% 9% .

2 Entry composition (i)

There are 10 unique types of molecules in this entry. The entry contains 3539 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, 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.

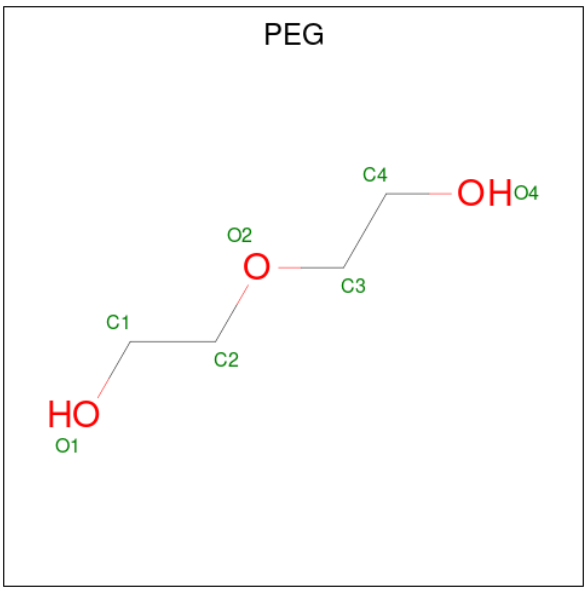
- Molecule 1 is a protein called Alpha-D-glucose 1-phosphate phosphatase YihX.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	202	Total	C	N	O	S	0	0	0
			1631	1043	279	302	7			
1	B	199	Total	C	N	O	S	0	0	0
			1604	1026	274	297	7			

There are 6 discrepancies between the modelled and reference sequences:

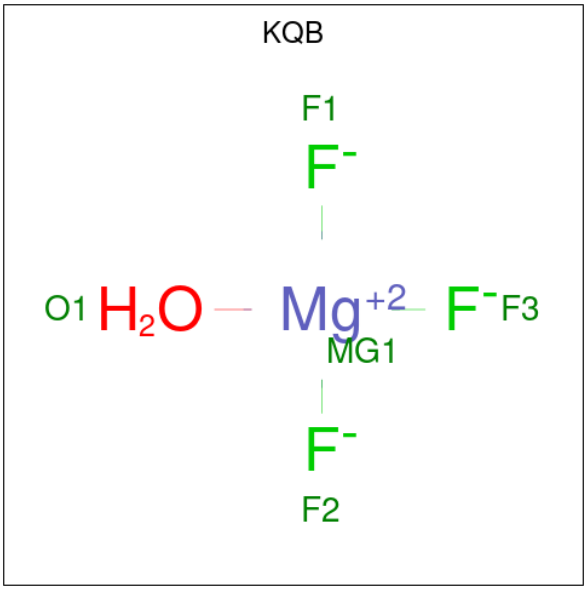
Chain	Residue	Modelled	Actual	Comment	Reference
A	200	LEU	-	expression tag	UNP P0A8Y3
A	201	GLU	-	expression tag	UNP P0A8Y3
A	202	HIS	-	expression tag	UNP P0A8Y3
B	200	LEU	-	expression tag	UNP P0A8Y3
B	201	GLU	-	expression tag	UNP P0A8Y3
B	202	HIS	-	expression tag	UNP P0A8Y3

- Molecule 2 is DI(HYDROXYETHYL)ETHER (CCD ID: PEG) (formula: $C_4H_{10}O_3$).



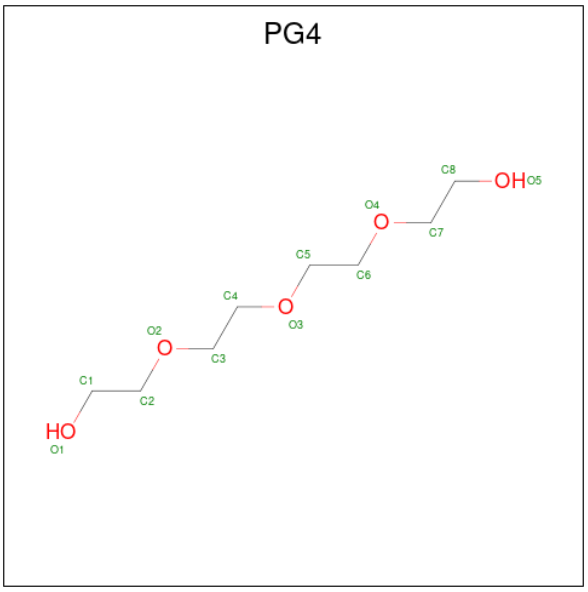
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
2	A	1	Total C O 7 4 3	0	0
2	B	1	Total C O 7 4 3	0	0

- Molecule 3 is trifluoromagnesate monohydrate (CCD ID: KQB) (formula: F_3H_2MgO) (labeled as "Ligand of Interest" by depositor).



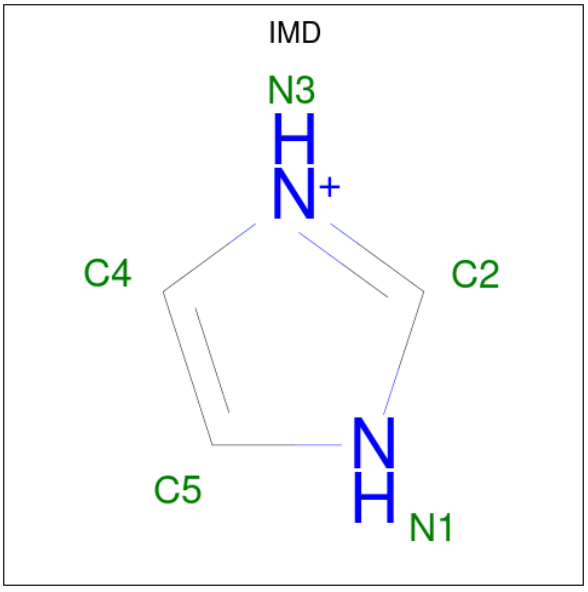
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
3	A	1	Total F Mg O 5 3 1 1	0	0
3	B	1	Total F Mg O 5 3 1 1	0	0

- Molecule 4 is TETRAETHYLENE GLYCOL (CCD ID: PG4) (formula: $C_8H_{18}O_5$).



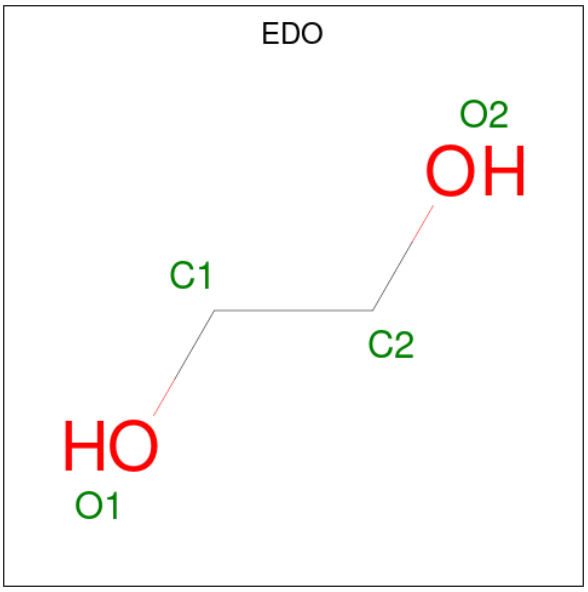
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
4	A	1	Total C O 13 8 5	0	0

- Molecule 5 is IMIDAZOLE (CCD ID: IMD) (formula: $C_3H_5N_2$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
5	A	1	Total C N 5 3 2	0	0

- Molecule 6 is 1,2-ETHANEDIOL (CCD ID: EDO) (formula: $C_2H_6O_2$).

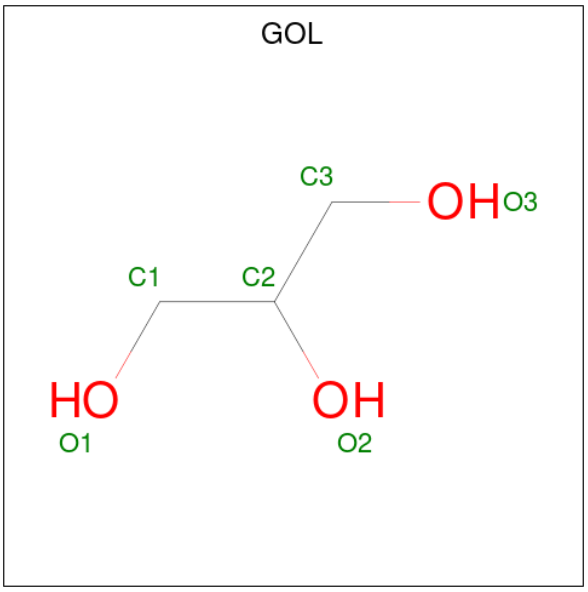


Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
6	A	1	Total C O 4 2 2	0	0
6	B	1	Total C O 4 2 2	0	0

- Molecule 7 is MAGNESIUM ION (CCD ID: MG) (formula: Mg) (labeled as "Ligand of Interest" by depositor).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
7	A	1	Total Mg 1 1	0	0
7	B	1	Total Mg 1 1	0	0

- Molecule 8 is GLYCEROL (CCD ID: GOL) (formula: $C_3H_8O_3$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
8	A	1	Total C O 6 3 3	0	0
8	A	1	Total C O 6 3 3	0	0
8	B	1	Total C O 6 3 3	0	0

- Molecule 9 is CALCIUM ION (CCD ID: CA) (formula: Ca).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
9	A	1	Total Ca 1 1	0	0
9	B	1	Total Ca 1 1	0	0

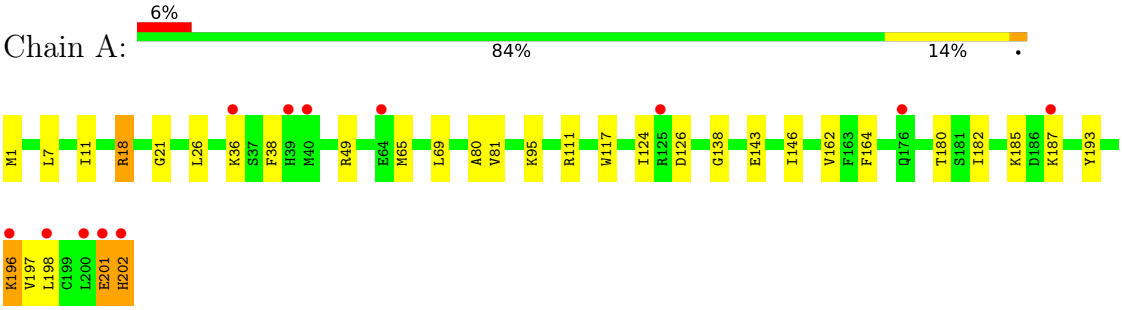
- Molecule 10 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
10	A	114	Total O 114 114	0	0
10	B	117	Total O 118 118	0	1

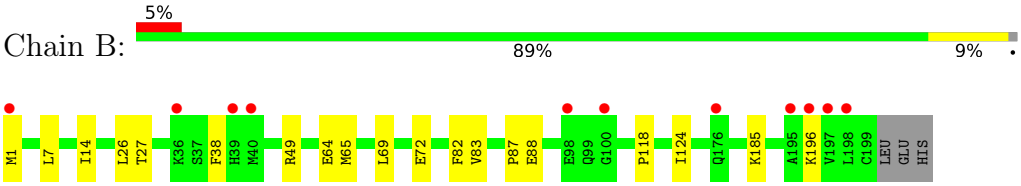
3 Residue-property plots (i)

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

• Molecule 1: Alpha-D-glucose 1-phosphate phosphatase YihX



• Molecule 1: Alpha-D-glucose 1-phosphate phosphatase YihX



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α, β, γ	67.26Å 79.33Å 80.30Å 90.00° 108.52° 90.00°	Depositor
Resolution (Å)	59.04 – 2.20 59.04 – 2.20	Depositor EDS
% Data completeness (in resolution range)	99.9 (59.04-2.20) 99.9 (59.04-2.20)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.80 (at 2.20Å)	Xtriage
Refinement program	REFMAC 5.8.0352	Depositor
R, R_{free}	0.212 , 0.257 0.223 , 0.266	Depositor DCC
R_{free} test set	2023 reflections (4.96%)	wwPDB-VP
Wilson B-factor (Å^2)	31.5	Xtriage
Anisotropy	0.246	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.35 , 38.4	EDS
L-test for twinning[2]	$< \|L\| > = 0.50$, $< L^2 > = 0.34$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.94	EDS
Total number of atoms	3539	wwPDB-VP
Average B, all atoms (Å^2)	42.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 16.48% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

[2] Theoretical values of $< |L| >$, $< L^2 >$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: MG, PG4, IMD, EDO, KQB, CA, GOL, PEG

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	0.60	0/1673	1.07	0/2270
1	B	0.60	0/1645	1.07	0/2232
All	All	0.60	0/3318	1.07	0/4502

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

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

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

All (2) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	18	ARG	Sidechain
1	B	49	ARG	Sidechain

5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	1631	0	1578	19	0
1	B	1604	0	1554	9	0
2	A	7	0	10	0	0
2	B	7	0	10	1	0
3	A	5	0	0	0	0
3	B	5	0	0	0	0
4	A	13	0	18	5	0
5	A	5	0	5	0	0
6	A	4	0	6	0	0
6	B	4	0	6	0	0
7	A	1	0	0	0	0
7	B	1	0	0	0	0
8	A	12	0	16	1	0
8	B	6	0	8	0	0
9	A	1	0	0	0	0
9	B	1	0	0	0	0
10	A	114	0	0	2	0
10	B	118	0	0	1	0
All	All	3539	0	3211	30	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 5.

All (30) 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:A:18:ARG:HE	4:A:303:PG4:C7	2.16	0.59
1:B:38:PHE:HB2	1:B:65:MET:HE3	1.85	0.58
1:A:7:LEU:HD11	1:A:124:ILE:HD13	1.87	0.56
1:A:38:PHE:HB2	1:A:65:MET:HE3	1.89	0.55
1:A:126:ASP:HB3	10:A:499:HOH:O	2.07	0.53
1:A:193:TYR:O	1:A:197:VAL:HG23	2.09	0.53
1:B:14:ILE:HG21	2:B:304:PEG:H42	1.92	0.52
1:B:14:ILE:HA	1:B:82:PHE:O	2.11	0.51
1:A:21:GLY:HA2	4:A:303:PG4:H21	1.92	0.51
1:A:18:ARG:HD3	4:A:303:PG4:H61	1.94	0.49
1:A:49:ARG:O	1:A:138:GLY:HA2	2.12	0.49
1:A:18:ARG:HE	4:A:303:PG4:H72	1.77	0.49
1:A:26:LEU:HD23	1:A:69:LEU:HD22	1.97	0.46
1:B:26:LEU:HD23	1:B:69:LEU:HD22	1.97	0.46
1:A:196:LYS:HA	1:A:196:LYS:HE2	1.98	0.46
1:B:7:LEU:HD11	1:B:124:ILE:HD13	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:27:THR:CG2	1:B:69:LEU:HD21	2.47	0.45
1:B:87:PRO:HD2	1:B:88:GLU:OE1	2.17	0.45
1:A:143:GLU:O	1:A:146:ILE:HG22	2.17	0.45
1:A:26:LEU:HD23	1:A:69:LEU:CD2	2.48	0.44
1:A:7:LEU:HD12	1:A:11:ILE:HB	1.99	0.43
8:A:307:GOL:H12	10:A:472:HOH:O	2.18	0.43
4:A:303:PG4:H41	4:A:303:PG4:H62	1.81	0.43
1:B:83:VAL:HG11	1:B:118:PRO:HG3	2.01	0.42
1:A:111:ARG:HG3	1:A:117:TRP:HB2	2.01	0.42
1:A:164:PHE:CD1	1:A:182:ILE:HB	2.54	0.42
1:A:201:GLU:HG2	1:A:202:HIS:N	2.34	0.42
1:A:162:VAL:HA	1:A:180:THR:O	2.21	0.41
1:A:80:ALA:O	1:A:81:VAL:C	2.64	0.41
1:B:72:GLU:HG2	10:B:503:HOH:O	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 X-ray entries followed by that with respect to entries of similar resolution.

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	200/202 (99%)	194 (97%)	6 (3%)	0	100	100
1	B	197/202 (98%)	192 (98%)	5 (2%)	0	100	100
All	All	397/404 (98%)	386 (97%)	11 (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 X-ray entries followed by that with respect to entries of similar resolution.

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	175/175 (100%)	166 (95%)	9 (5%)	21 27
1	B	172/175 (98%)	168 (98%)	4 (2%)	44 59
All	All	347/350 (99%)	334 (96%)	13 (4%)	30 41

All (13) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	1	MET
1	A	36	LYS
1	A	95	LYS
1	A	185	LYS
1	A	187	LYS
1	A	196	LYS
1	A	198	LEU
1	A	201	GLU
1	A	202	HIS
1	B	1	MET
1	B	64	GLU
1	B	185	LYS
1	B	196	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. There are no such sidechains identified.

5.3.3 RNA (i)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 15 ligands modelled in this entry, 4 are monoatomic - leaving 11 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	$\#\|Z\| > 2$
2	PEG	A	301	-	6,6,6	0.40	0	5,5,5	0.23	0
8	GOL	A	308	-	5,5,5	0.32	0	5,5,5	0.70	0
5	IMD	A	304	-	5,5,5	0.47	0	5,5,5	0.46	0
3	KQB	B	302	1,10	0,4,4	-	-	-		
6	EDO	A	305	-	3,3,3	0.19	0	2,2,2	0.31	0
2	PEG	B	304	-	6,6,6	0.36	0	5,5,5	0.22	0
6	EDO	B	303	-	3,3,3	0.22	0	2,2,2	0.39	0
3	KQB	A	302	1,10	0,4,4	-	-	-		
8	GOL	A	307	-	5,5,5	0.23	0	5,5,5	0.56	0
8	GOL	B	301	-	5,5,5	0.12	0	5,5,5	0.36	0
4	PG4	A	303	-	12,12,12	0.40	0	11,11,11	0.43	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	PEG	A	301	-	-	2/4/4/4	-
8	GOL	A	308	-	-	2/4/4/4	-
5	IMD	A	304	-	-	-	0/1/1/1
6	EDO	A	305	-	-	1/1/1/1	-
2	PEG	B	304	-	-	3/4/4/4	-
6	EDO	B	303	-	-	1/1/1/1	-
8	GOL	A	307	-	-	4/4/4/4	-
8	GOL	B	301	-	-	1/4/4/4	-
4	PG4	A	303	-	-	8/10/10/10	-

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

All (22) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
8	A	308	GOL	C1-C2-C3-O3
4	A	303	PG4	O2-C3-C4-O3
4	A	303	PG4	O4-C7-C8-O5
8	A	307	GOL	O1-C1-C2-O2
8	A	307	GOL	O1-C1-C2-C3
8	A	308	GOL	O2-C2-C3-O3
4	A	303	PG4	C1-C2-O2-C3
4	A	303	PG4	C6-C5-O3-C4
2	A	301	PEG	C1-C2-O2-C3
2	A	301	PEG	O1-C1-C2-O2
2	B	304	PEG	O1-C1-C2-O2
4	A	303	PG4	C8-C7-O4-C6
8	A	307	GOL	C1-C2-C3-O3
4	A	303	PG4	O3-C5-C6-O4
2	B	304	PEG	C4-C3-O2-C2
4	A	303	PG4	O1-C1-C2-O2
6	B	303	EDO	O1-C1-C2-O2
8	B	301	GOL	C1-C2-C3-O3
8	A	307	GOL	O2-C2-C3-O3
2	B	304	PEG	C1-C2-O2-C3
6	A	305	EDO	O1-C1-C2-O2
4	A	303	PG4	C4-C3-O2-C2

There are no ring outliers.

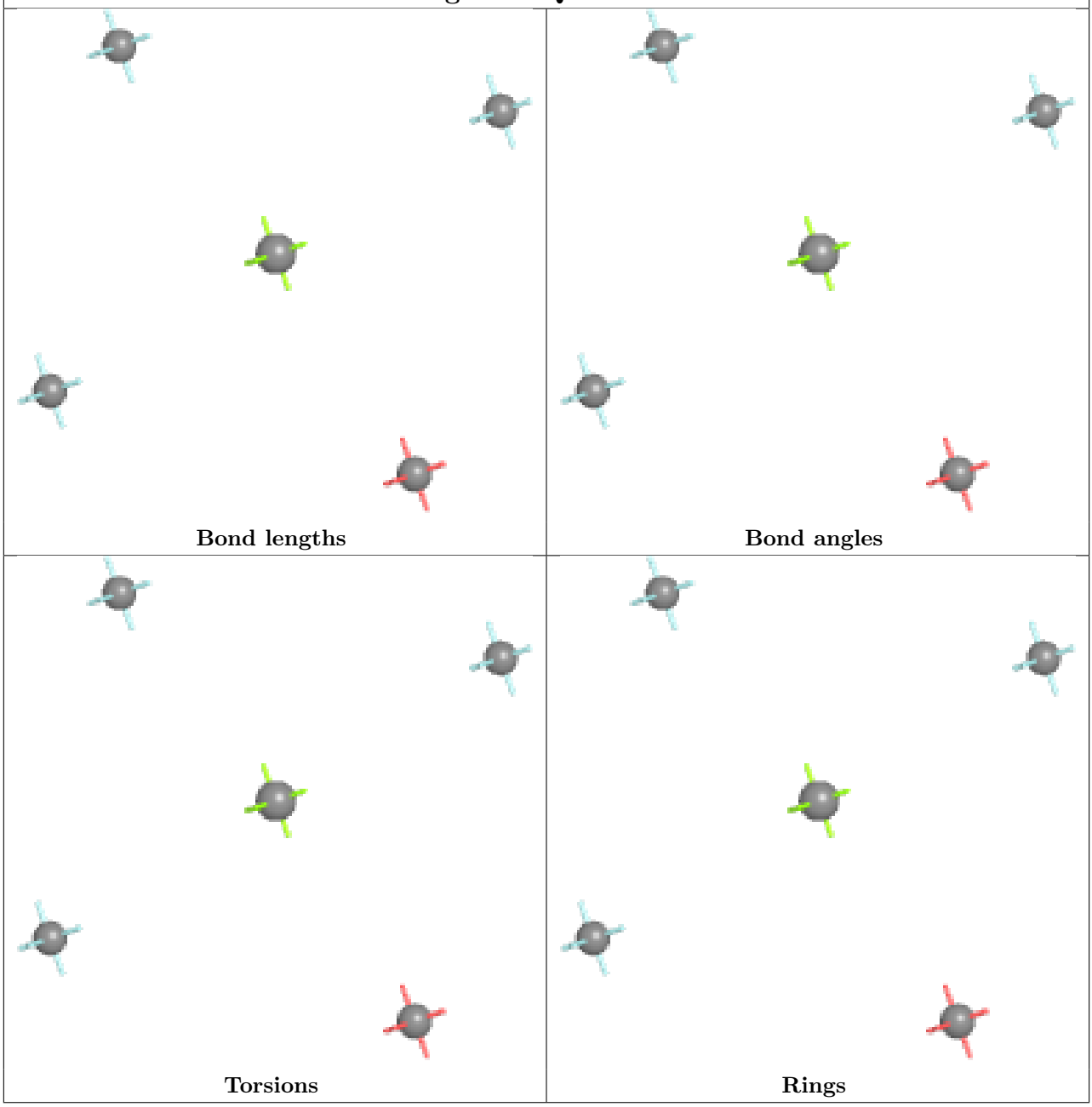
3 monomers are involved in 7 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	B	304	PEG	1	0
8	A	307	GOL	1	0
4	A	303	PG4	5	0

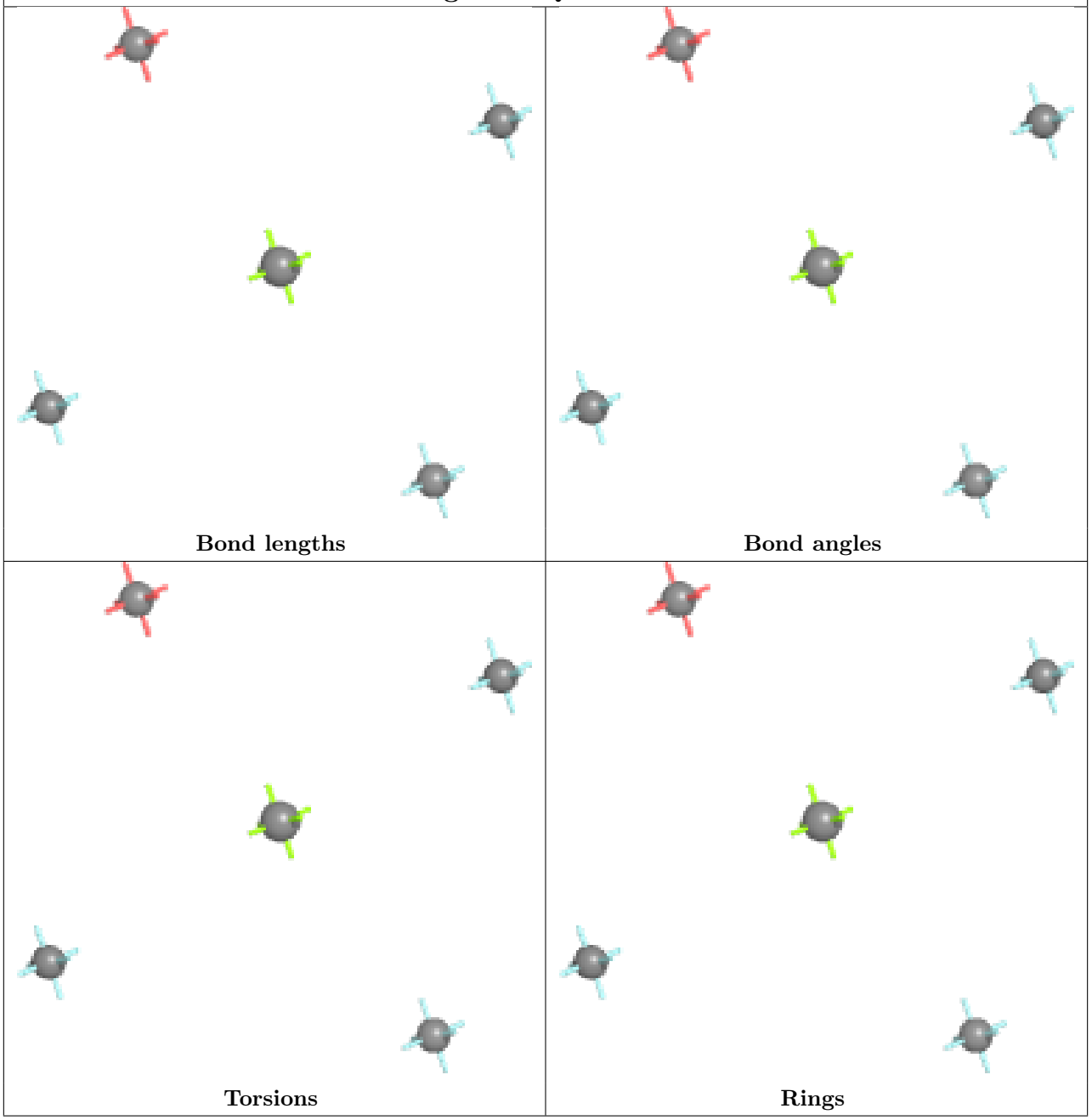
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less then 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.

Ligand KQB B 302



Ligand KQB A 302



5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

In the following table, the column labelled '#RSRZ> 2' contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95^{th} percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q< 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å^2)	Q<0.9
1	A	202/202 (100%)	0.41	12 (5%)	28	25	28, 39, 68, 113	0
1	B	199/202 (98%)	0.32	11 (5%)	30	27	27, 38, 65, 99	0
All	All	401/404 (99%)	0.37	23 (5%)	29	26	27, 38, 66, 113	0

All (23) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	A	196	LYS	5.4
1	A	202	HIS	4.8
1	A	40	MET	4.4
1	B	39	HIS	4.2
1	B	40	MET	4.1
1	A	39	HIS	4.1
1	B	198	LEU	3.5
1	B	195	ALA	3.4
1	A	36	LYS	3.1
1	B	196	LYS	3.0
1	A	64	GLU	2.8
1	B	36	LYS	2.7
1	A	187	LYS	2.6
1	A	201	GLU	2.5
1	A	198	LEU	2.5
1	B	176	GLN	2.4
1	A	200	LEU	2.4
1	B	100	GLY	2.3
1	A	125	ARG	2.2
1	A	176	GLN	2.2
1	B	197	VAL	2.2
1	B	98	GLU	2.1
1	B	1	MET	2.1

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

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

6.3 Carbohydrates (i)

There are no oligosaccharides in this entry.

6.4 Ligands (i)

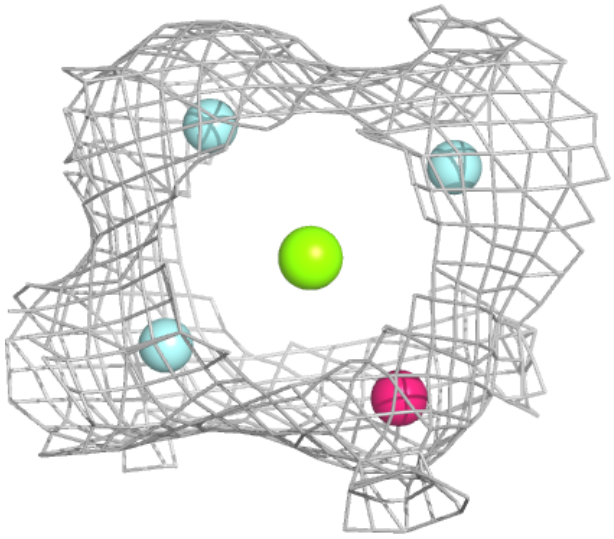
In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

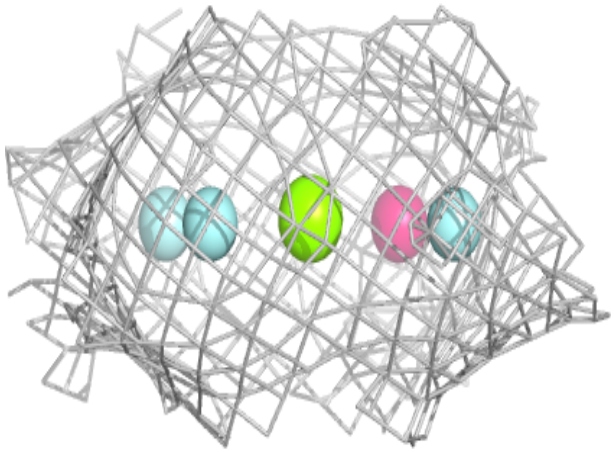
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
4	PG4	A	303	13/13	0.81	0.23	54,60,69,71	0
5	IMD	A	304	5/5	0.82	0.26	75,75,78,80	0
8	GOL	A	308	6/6	0.83	0.20	44,56,56,62	0
2	PEG	A	301	7/7	0.87	0.19	34,54,62,62	0
8	GOL	B	301	6/6	0.87	0.20	51,54,61,62	0
6	EDO	B	303	4/4	0.88	0.20	45,47,50,51	0
6	EDO	A	305	4/4	0.90	0.15	39,46,46,47	0
8	GOL	A	307	6/6	0.90	0.15	40,43,47,49	0
2	PEG	B	304	7/7	0.91	0.17	40,59,67,69	0
3	KQB	B	302	5/5	0.98	0.05	27,28,34,35	0
3	KQB	A	302	5/5	0.98	0.04	30,31,34,35	0
7	MG	B	305	1/1	0.99	0.05	36,36,36,36	0
9	CA	B	306	1/1	0.99	0.02	29,29,29,29	0
9	CA	A	309	1/1	1.00	0.01	33,33,33,33	0
7	MG	A	306	1/1	1.00	0.07	35,35,35,35	0

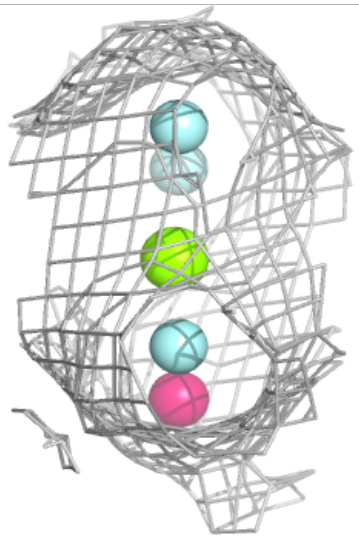
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.

Electron density around KQB B 302:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

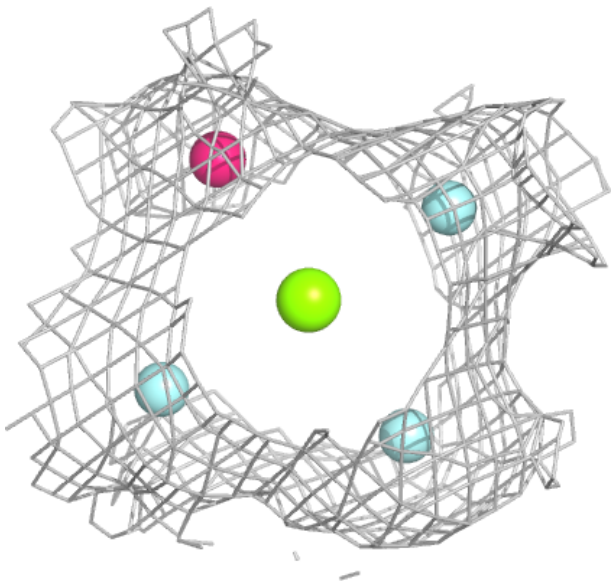


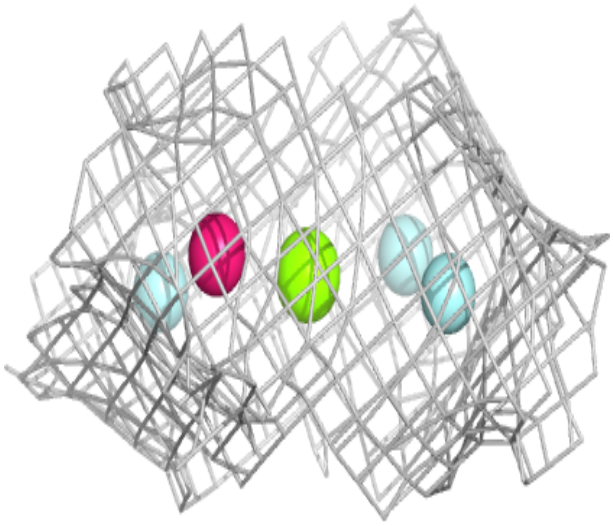


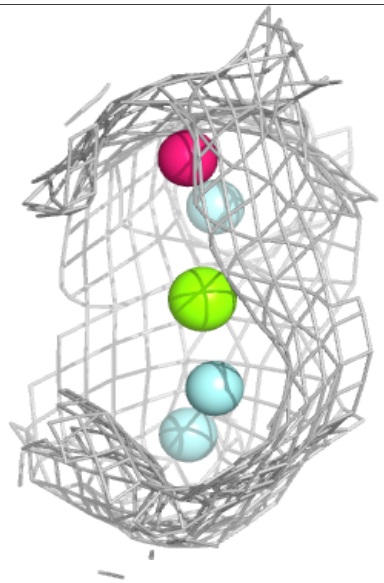


Electron density around KQB A 302:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

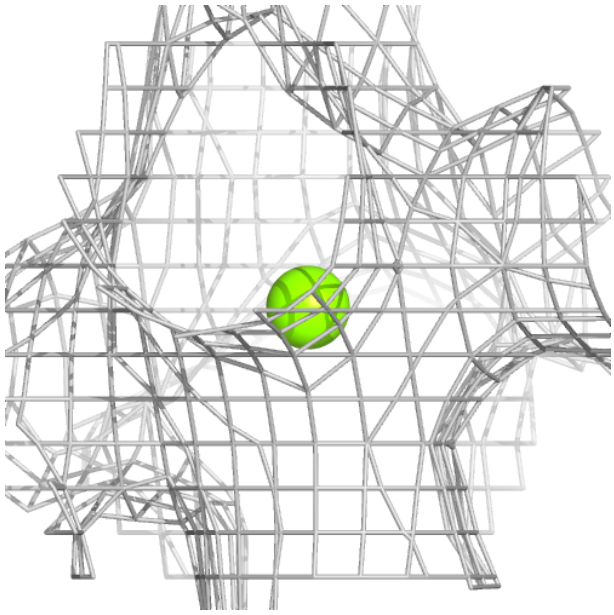


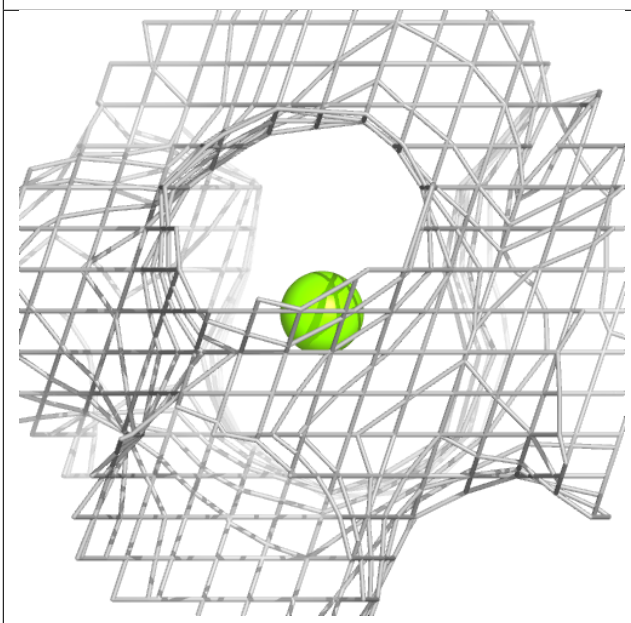




Electron density around MG B 305:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

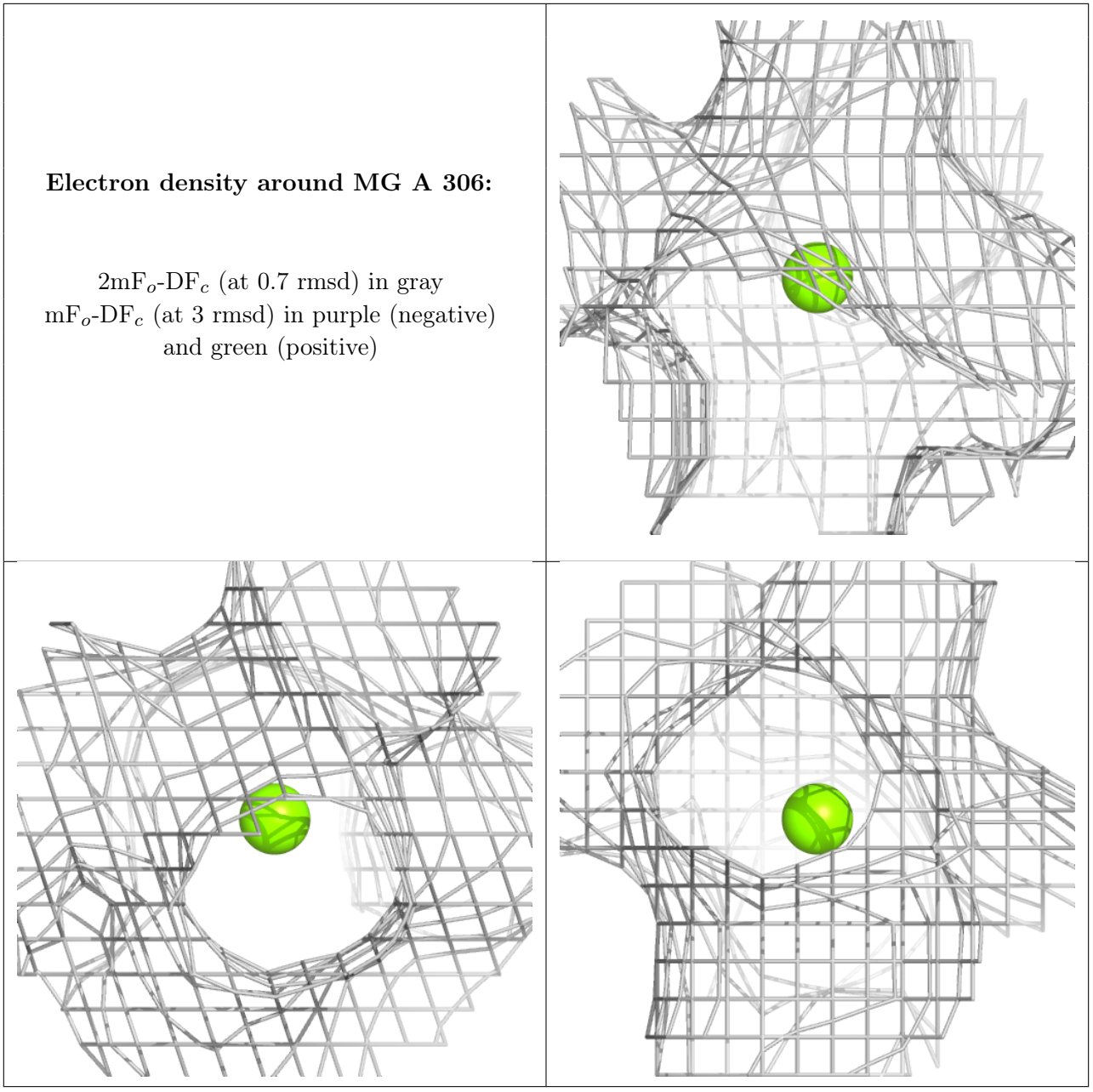






Electron density around MG A 306:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



6.5 Other polymers (i)

There are no such residues in this entry.