



Full wwPDB X-ray Structure Validation Report ⓘ

Jun 29, 2026 – 04:16 pm BST

PDB ID : 9TLX / pdb_00009tlx
Title : Crystal structure of Brugia malayi DAF-12 ligand binding domain in complex with a coactivator peptide and delta4-dafachronic acid
Authors : Mallet, M.; le Maire, A.
Deposited on : 2025-12-11
Resolution : 1.70 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 ⓘ 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:

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

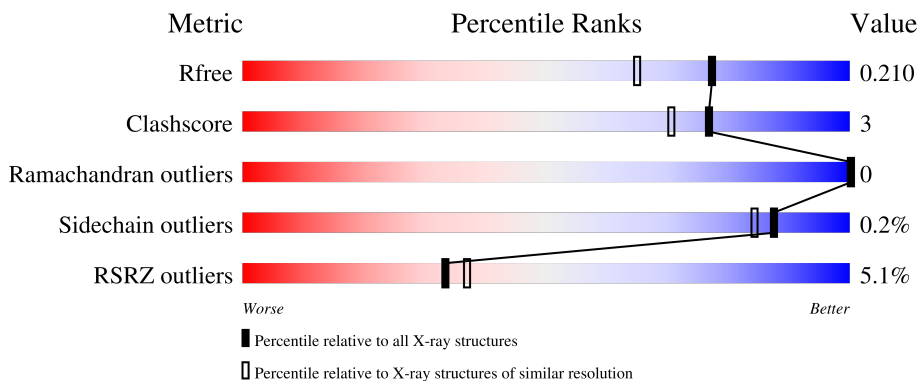
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 1.70 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	5551 (1.70-1.70)
Clashscore	190562	5924 (1.70-1.70)
Ramachandran outliers	187476	5846 (1.70-1.70)
Sidechain outliers	187428	5846 (1.70-1.70)
RSRZ outliers	180081	5554 (1.70-1.70)

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 $\leq 5\%$. 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	248	 4% 92% 7%
1	C	248	 4% 94% 6%
2	B	14	 21% 64% 7% 29%
2	D	14	 29% 79% 21%

2 Entry composition [i](#)

There are 6 unique types of molecules in this entry. The entry contains 4941 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 Nuclear receptor domain-containing protein.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	245	1991	1262	348	366	15	0	3	0
1	C	248	2010	1272	354	368	16	0	4	0

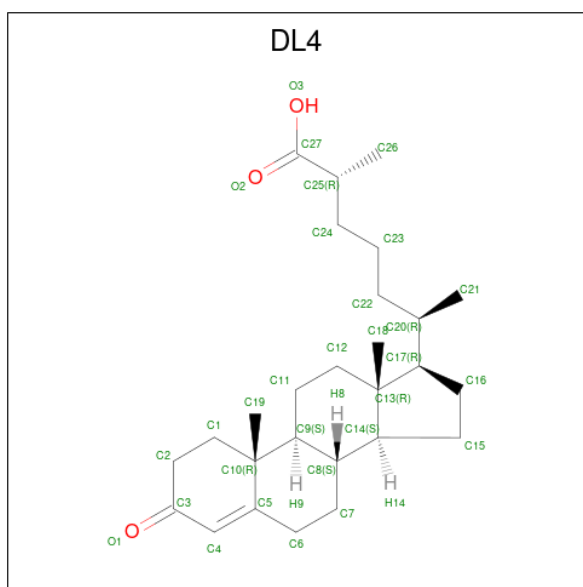
There are 10 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	-3	GLY	-	expression tag	UNP A0A4E9F2L4
A	-2	PRO	-	expression tag	UNP A0A4E9F2L4
A	-1	HIS	-	expression tag	UNP A0A4E9F2L4
A	0	MET	-	expression tag	UNP A0A4E9F2L4
A	840	HIS	ARG	engineered mutation	UNP A0A4E9F2L4
C	-3	GLY	-	expression tag	UNP A0A4E9F2L4
C	-2	PRO	-	expression tag	UNP A0A4E9F2L4
C	-1	HIS	-	expression tag	UNP A0A4E9F2L4
C	0	MET	-	expression tag	UNP A0A4E9F2L4
C	840	HIS	ARG	engineered mutation	UNP A0A4E9F2L4

- Molecule 2 is a protein called Peroxisome proliferator-activated receptor gamma coactivator 1-alpha.

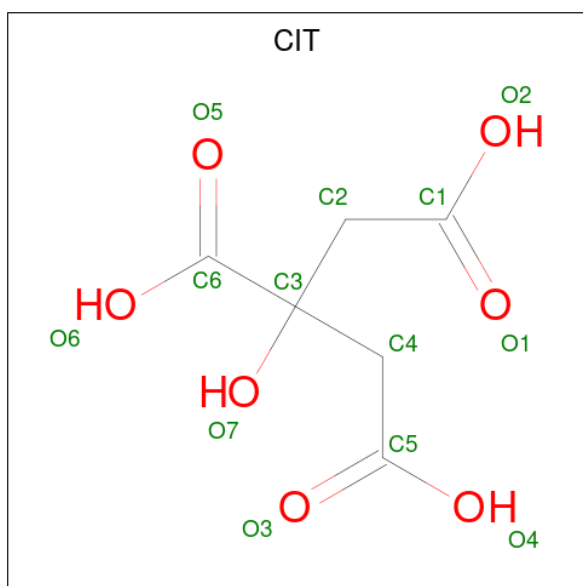
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
2	B	10	76	53	12	11	0	0	0
2	D	11	79	55	12	12	0	0	0

- Molecule 3 is (14beta,17alpha,25R)-3-oxocholest-4-en-26-oic acid (CCD ID: DL4) (formula: C₂₇H₄₂O₃).



Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	A	1	Total	C O	0	0
			30	27 3		
3	C	1	Total	C O	0	0
			30	27 3		

- Molecule 4 is CITRIC ACID (CCD ID: CIT) (formula: $C_6H_8O_7$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
4	A	1	Total	C O	0	1
			26	12 14		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
4	C	1	Total	C	O	0	1
			26	12	14		

- Molecule 5 is GLYCEROL (CCD ID: GOL) (formula: $C_3H_8O_3$) (labeled as "Ligand of Interest" by depositor).



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

- Molecule 6 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
6	A	311	Total	O	0	0
			311	311		
6	B	2	Total	O	0	0
			2	2		
6	C	317	Total	O	0	0
			317	317		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
6	D	13	Total 13	O 13	0	0

3 Residue-property plots [i](#)

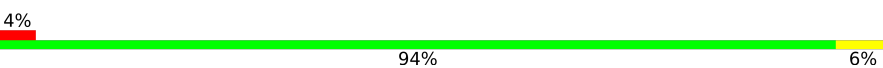
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. 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: Nuclear receptor domain-containing protein

Chain A: 



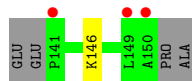
- Molecule 1: Nuclear receptor domain-containing protein

Chain C: 




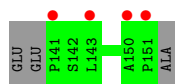
- Molecule 2: Peroxisome proliferator-activated receptor gamma coactivator 1-alpha

Chain B: 



- Molecule 2: Peroxisome proliferator-activated receptor gamma coactivator 1-alpha

Chain D: 



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	77.29Å 77.75Å 90.20Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	45.10 – 1.70 45.10 – 1.70	Depositor EDS
% Data completeness (in resolution range)	99.9 (45.10-1.70) 99.9 (45.10-1.70)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	2.27 (at 1.70Å)	Xtrriage
Refinement program	PHENIX 1.20.1_4487	Depositor
R, R_{free}	0.175 , 0.210 0.176 , 0.210	Depositor DCC
R_{free} test set	3048 reflections (5.04%)	wwPDB-VP
Wilson B-factor (Å ²)	17.3	Xtrriage
Anisotropy	0.242	Xtrriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.33 , 39.2	EDS
L-test for twinning ²	$\langle L \rangle = 0.50$, $\langle L^2 \rangle = 0.34$	Xtrriage
Estimated twinning fraction	0.011 for k,h,-l	Xtrriage
F_o, F_c correlation	0.96	EDS
Total number of atoms	4941	wwPDB-VP
Average B, all atoms (Å ²)	20.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 5.80% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

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: CIT, DL4, GOL

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	0.32	0/2034	0.56	0/2740
1	C	0.32	0/2052	0.56	0/2766
2	B	0.31	0/76	0.53	0/100
2	D	0.26	0/80	0.43	0/108
All	All	0.32	0/4242	0.56	0/5714

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	1991	0	2017	15	0
1	C	2010	0	2018	10	0
2	B	76	0	98	1	0
2	D	79	0	94	0	0
3	A	30	0	41	1	0
3	C	30	0	41	0	0
4	A	26	0	10	2	0
4	C	26	0	10	0	0
5	A	18	0	23	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
5	C	12	0	16	0	0
6	A	311	0	0	5	0
6	B	2	0	0	0	0
6	C	317	0	0	1	0
6	D	13	0	0	0	0
All	All	4941	0	4368	25	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 3.

All (25) 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:691:ARG:HE	4:A:902[A]:CIT:C6	2.14	0.60
1:A:729:ARG:NH1	6:A:1009:HOH:O	2.36	0.58
2:B:146:LYS:C	2:B:146:LYS:HD3	2.31	0.55
1:A:843:GLU:HG3	1:A:846:ARG:NH2	2.21	0.55
1:A:0:MET:N	6:A:1011:HOH:O	2.40	0.54
1:A:849:ARG:HG2	1:A:849:ARG:HH11	1.72	0.53
1:A:642:SER:OG	1:A:646:ARG:NH1	2.41	0.53
1:A:815:CYS:O	1:A:819:GLN:HG3	2.09	0.52
1:C:673:LYS:HE2	1:C:675:THR:O	2.10	0.52
1:A:665:SER:OG	1:C:829:MET:HG2	2.11	0.50
1:C:685:ILE:O	1:C:689:MET:HG3	2.16	0.46
1:A:688:THR:OG1	3:A:901:DL4:H25	2.15	0.46
1:C:729:ARG:HD3	1:C:738:ARG:O	2.16	0.46
1:A:784:LEU:HD23	1:A:784:LEU:HA	1.87	0.43
1:C:664:ASP:HB3	1:C:667:LYS:HG3	2.01	0.43
1:C:732:MET:HE1	1:C:773:GLU:HG3	2.01	0.42
1:C:731:ASP:OD2	1:C:738:ARG:NH1	2.49	0.42
1:A:674:VAL:HG23	6:A:1189:HOH:O	2.19	0.42
1:A:676:HIS:HD2	1:A:680[B]:ASP:OD2	2.03	0.42
1:A:809:ILE:HD12	6:A:1165:HOH:O	2.19	0.42
1:C:673:LYS:HE2	1:C:673:LYS:HB3	1.76	0.41
1:C:724:MET:HG2	1:C:793:LEU:CD1	2.51	0.41
1:A:666:ARG:NH1	6:A:1015:HOH:O	2.46	0.41
1:A:691:ARG:NE	4:A:902[A]:CIT:O5	2.47	0.40
1:C:770:LYS:NZ	6:C:1014:HOH:O	2.45	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	246/248 (99%)	244 (99%)	2 (1%)	0	100	100
1	C	250/248 (101%)	247 (99%)	3 (1%)	0	100	100
2	B	8/14 (57%)	8 (100%)	0	0	100	100
2	D	9/14 (64%)	9 (100%)	0	0	100	100
All	All	513/524 (98%)	508 (99%)	5 (1%)	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	219/223 (98%)	219 (100%)	0	100	100
1	C	219/223 (98%)	218 (100%)	1 (0%)	81	76
2	B	9/12 (75%)	9 (100%)	0	100	100
2	D	9/12 (75%)	9 (100%)	0	100	100
All	All	456/470 (97%)	455 (100%)	1 (0%)	87	84

All (1) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	C	725	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (4) such

sidechains are listed below:

Mol	Chain	Res	Type
1	A	707	GLN
1	A	853	GLN
1	C	755	GLN
1	C	819	GLN

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](#)

11 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	GOL	A	905	-	5,5,5	0.49	0	5,5,5	1.15	0
4	CIT	A	902[A]	-	12,12,12	1.58	1 (8%)	17,17,17	1.71	4 (23%)
4	CIT	C	903[A]	-	12,12,12	1.02	0	17,17,17	1.84	4 (23%)
4	CIT	C	903[B]	-	12,12,12	1.04	0	17,17,17	1.63	2 (11%)
3	DL4	A	901	-	33,33,33	0.51	0	51,51,51	1.27	6 (11%)
4	CIT	A	902[B]	-	12,12,12	1.12	0	17,17,17	1.93	4 (23%)
5	GOL	A	903	-	5,5,5	0.78	0	5,5,5	0.77	0
5	GOL	C	901	-	5,5,5	0.84	0	5,5,5	1.07	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
3	DL4	C	902	-	33,33,33	0.57	0	51,51,51	1.10	4 (7%)
5	GOL	A	904	-	5,5,5	0.98	0	5,5,5	1.00	0
5	GOL	C	904	-	5,5,5	1.05	0	5,5,5	0.91	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. '2' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
5	GOL	A	905	-	-	4/4/4/4	-
4	CIT	A	902[A]	-	-	2/16/16/16	-
4	CIT	C	903[A]	-	-	0/16/16/16	-
4	CIT	C	903[B]	-	-	0/16/16/16	-
3	DL4	A	901	-	-	3/14/72/72	0/4/4/4
4	CIT	A	902[B]	-	-	0/16/16/16	-
5	GOL	A	903	-	-	0/4/4/4	-
5	GOL	C	901	-	-	4/4/4/4	-
3	DL4	C	902	-	-	3/14/72/72	0/4/4/4
5	GOL	A	904	-	-	0/4/4/4	-
5	GOL	C	904	-	-	0/4/4/4	-

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	902[A]	CIT	C3-C6	-3.95	1.49	1.53

All (24) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	902[B]	CIT	O6-C6-C3	5.01	121.75	113.05
3	A	901	DL4	O2-C27-C25	-4.90	105.97	122.02
4	C	903[A]	CIT	O6-C6-C3	4.83	121.45	113.05
4	C	903[B]	CIT	O6-C6-C3	4.44	120.77	113.05
4	A	902[A]	CIT	C2-C3-C6	-4.30	100.87	110.11
3	C	902	DL4	O2-C27-C25	-4.06	108.72	122.02
3	A	901	DL4	O3-C27-C25	3.64	127.81	115.28
4	A	902[B]	CIT	C3-C2-C1	-3.33	105.75	113.81
3	A	901	DL4	C24-C25-C27	3.17	119.42	110.72
3	C	902	DL4	C26-C25-C24	2.94	118.77	111.33
3	C	902	DL4	O3-C27-C25	2.92	125.31	115.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	C	902	DL4	C24-C25-C27	2.74	118.25	110.72
4	A	902[B]	CIT	C3-C4-C5	-2.64	107.43	113.81
3	A	901	DL4	C26-C25-C24	2.58	117.85	111.33
4	A	902[B]	CIT	O5-C6-C3	-2.52	118.69	122.25
4	A	902[A]	CIT	O7-C3-C2	2.48	115.20	109.40
4	C	903[A]	CIT	O5-C6-C3	-2.45	118.78	122.25
4	C	903[A]	CIT	O4-C5-C4	2.45	122.22	114.35
4	C	903[A]	CIT	C3-C4-C5	-2.18	108.53	113.81
4	A	902[A]	CIT	O5-C6-C3	-2.17	119.18	122.25
4	A	902[A]	CIT	O4-C5-C4	2.15	121.25	114.35
3	A	901	DL4	C11-C9-C10	-2.09	110.33	113.08
4	C	903[B]	CIT	O4-C5-C4	2.06	120.96	114.35
3	A	901	DL4	C26-C25-C27	2.01	114.39	108.94

There are no chirality outliers.

All (16) torsion outliers are listed below:

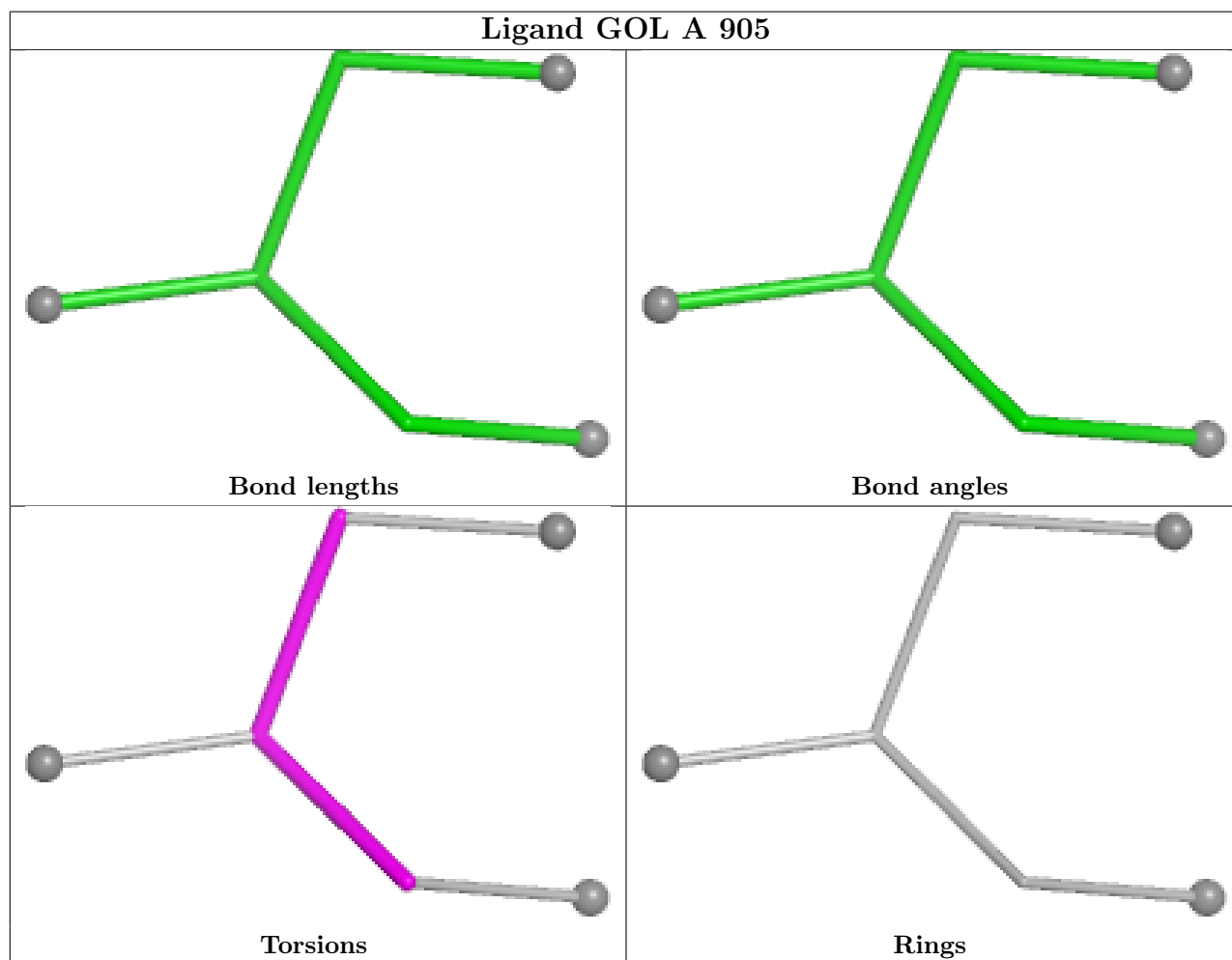
Mol	Chain	Res	Type	Atoms
3	A	901	DL4	C23-C24-C25-C27
3	C	902	DL4	C23-C24-C25-C27
5	C	901	GOL	O1-C1-C2-C3
5	A	905	GOL	C1-C2-C3-O3
5	C	901	GOL	C1-C2-C3-O3
5	C	901	GOL	O1-C1-C2-O2
5	C	901	GOL	O2-C2-C3-O3
3	C	902	DL4	C22-C23-C24-C25
3	A	901	DL4	C22-C23-C24-C25
3	C	902	DL4	C20-C22-C23-C24
5	A	905	GOL	O1-C1-C2-C3
5	A	905	GOL	O1-C1-C2-O2
4	A	902[A]	CIT	C3-C4-C5-O3
4	A	902[A]	CIT	C3-C4-C5-O4
5	A	905	GOL	O2-C2-C3-O3
3	A	901	DL4	C20-C22-C23-C24

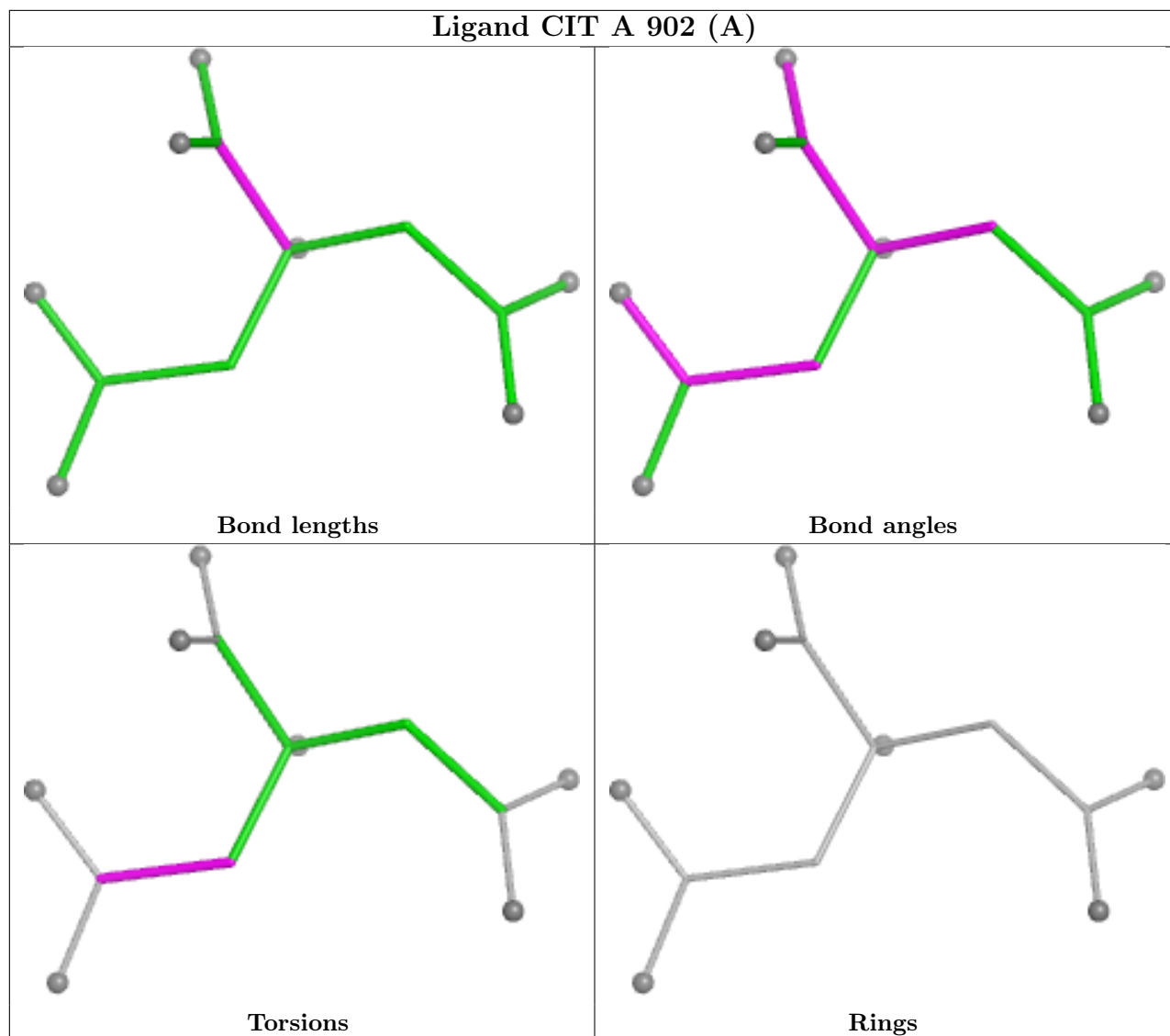
There are no ring outliers.

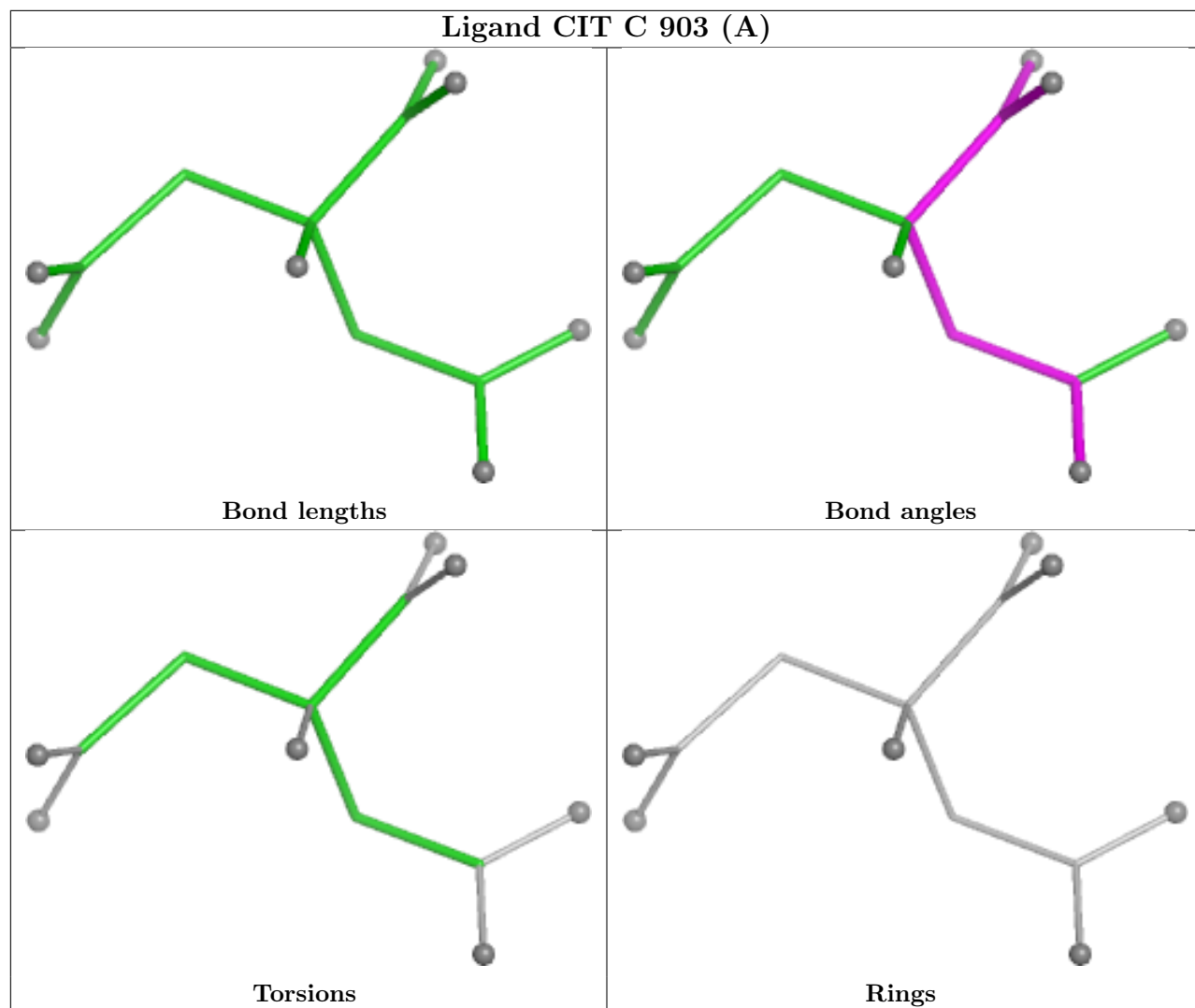
2 monomers are involved in 3 short contacts:

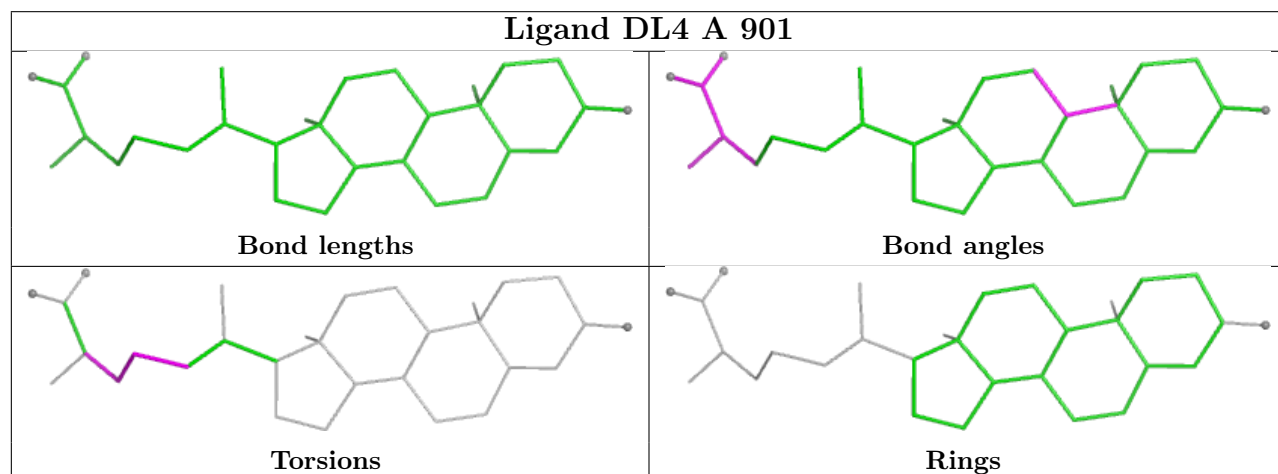
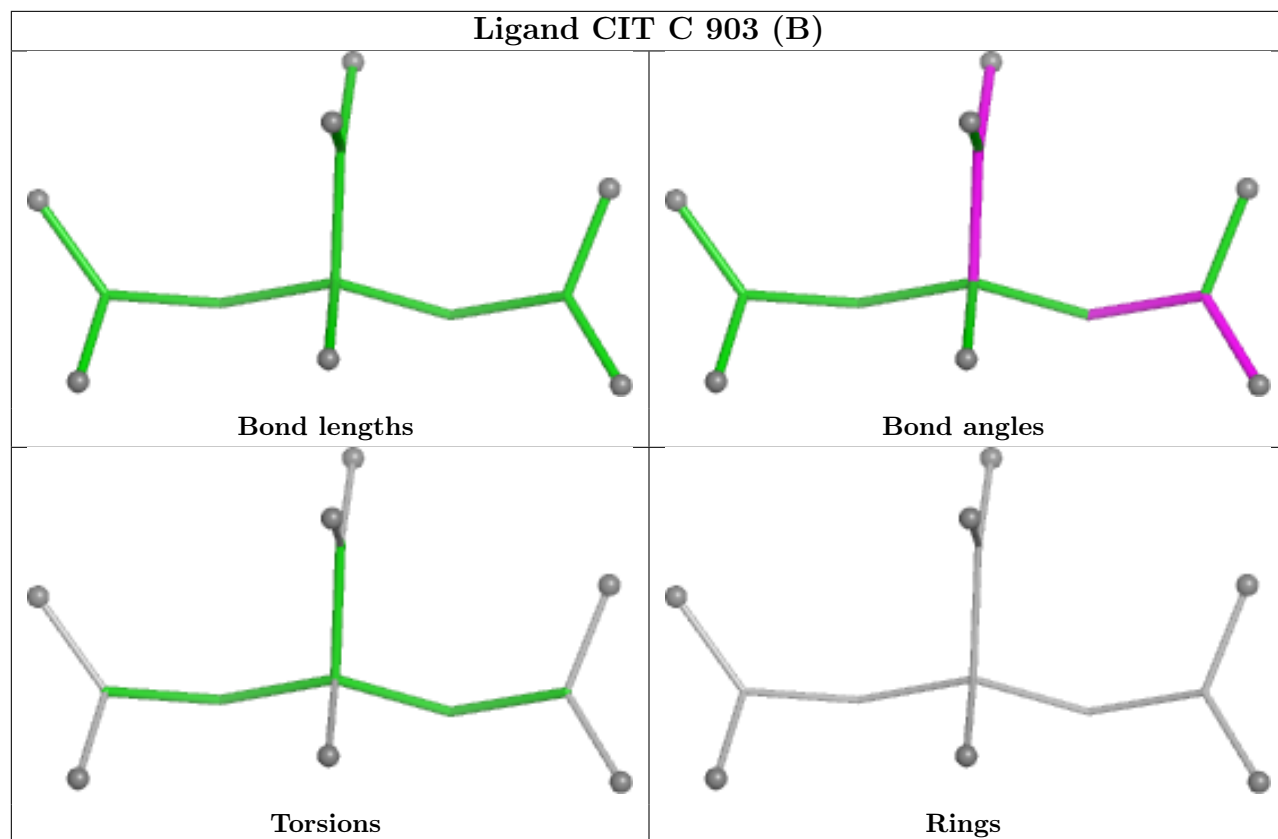
Mol	Chain	Res	Type	Clashes	Symm-Clashes
4	A	902[A]	CIT	2	0
3	A	901	DL4	1	0

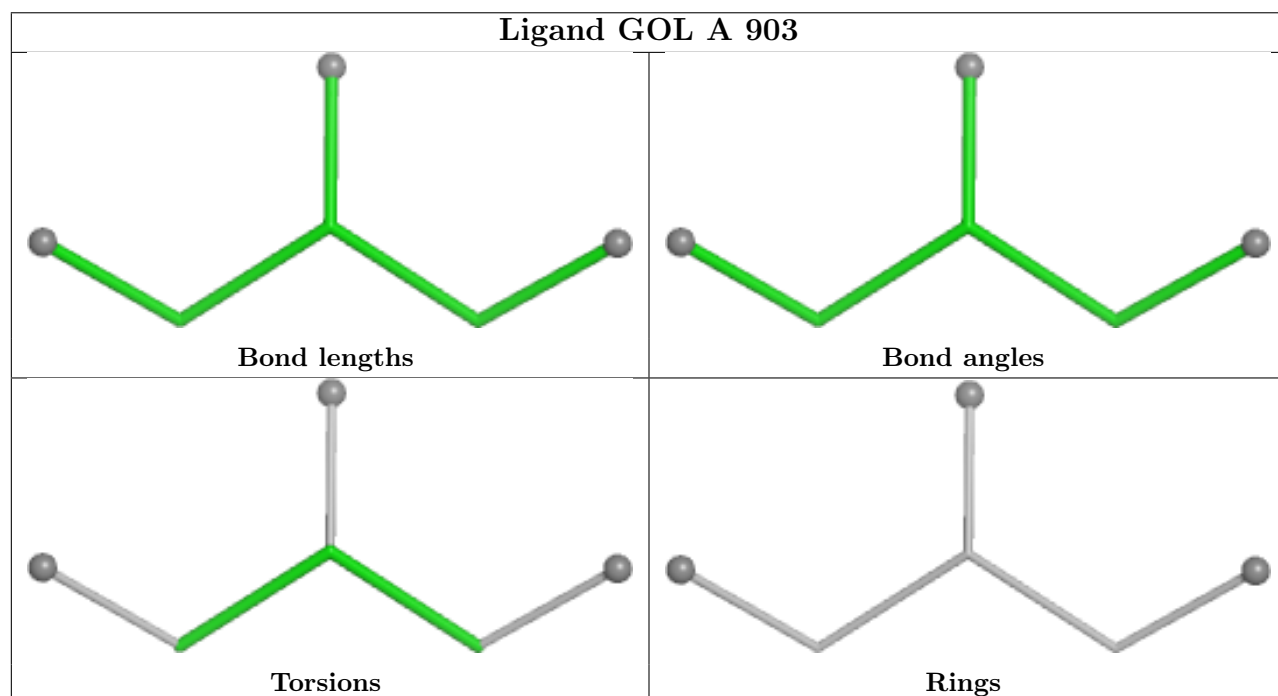
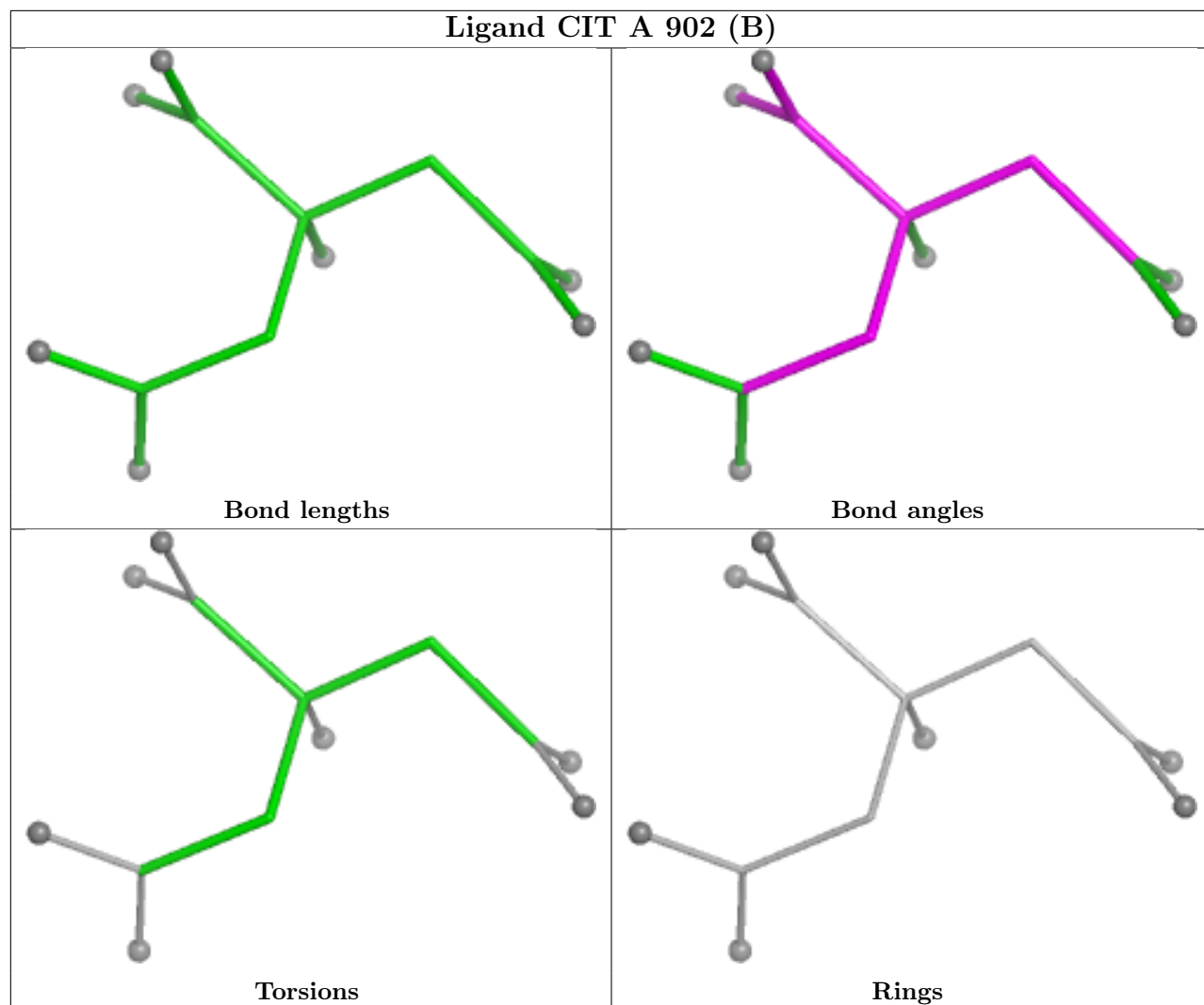
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included.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

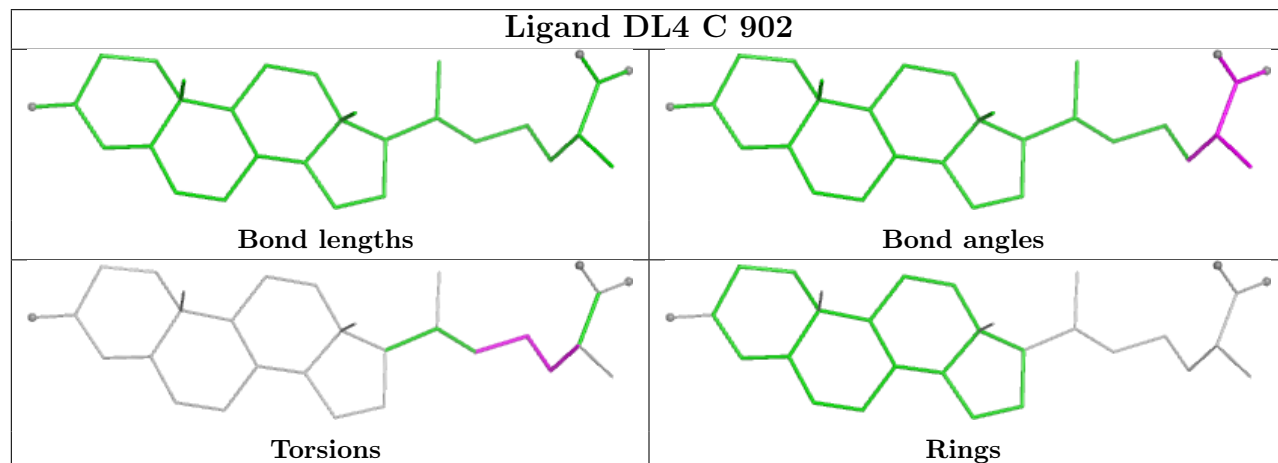
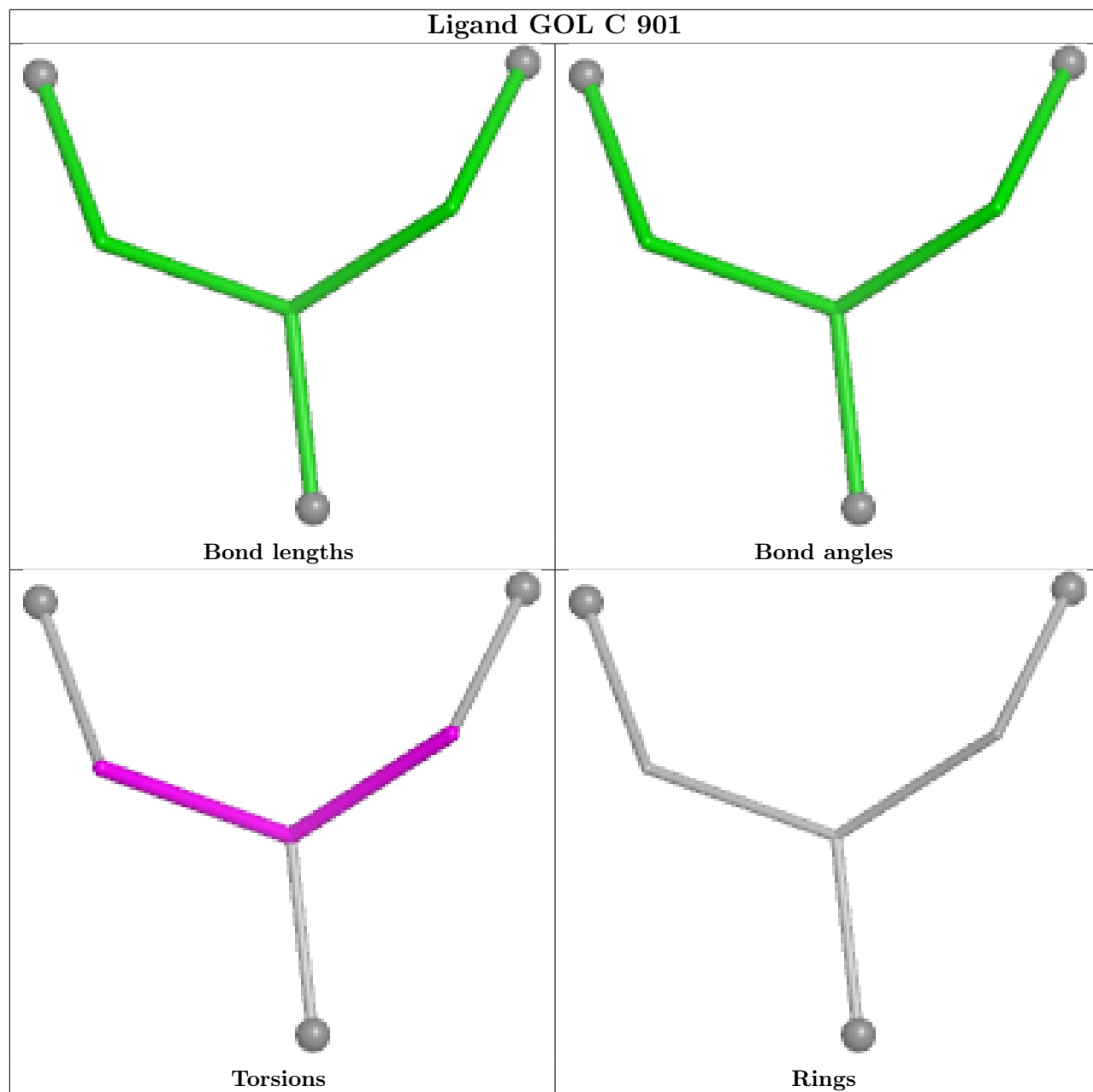


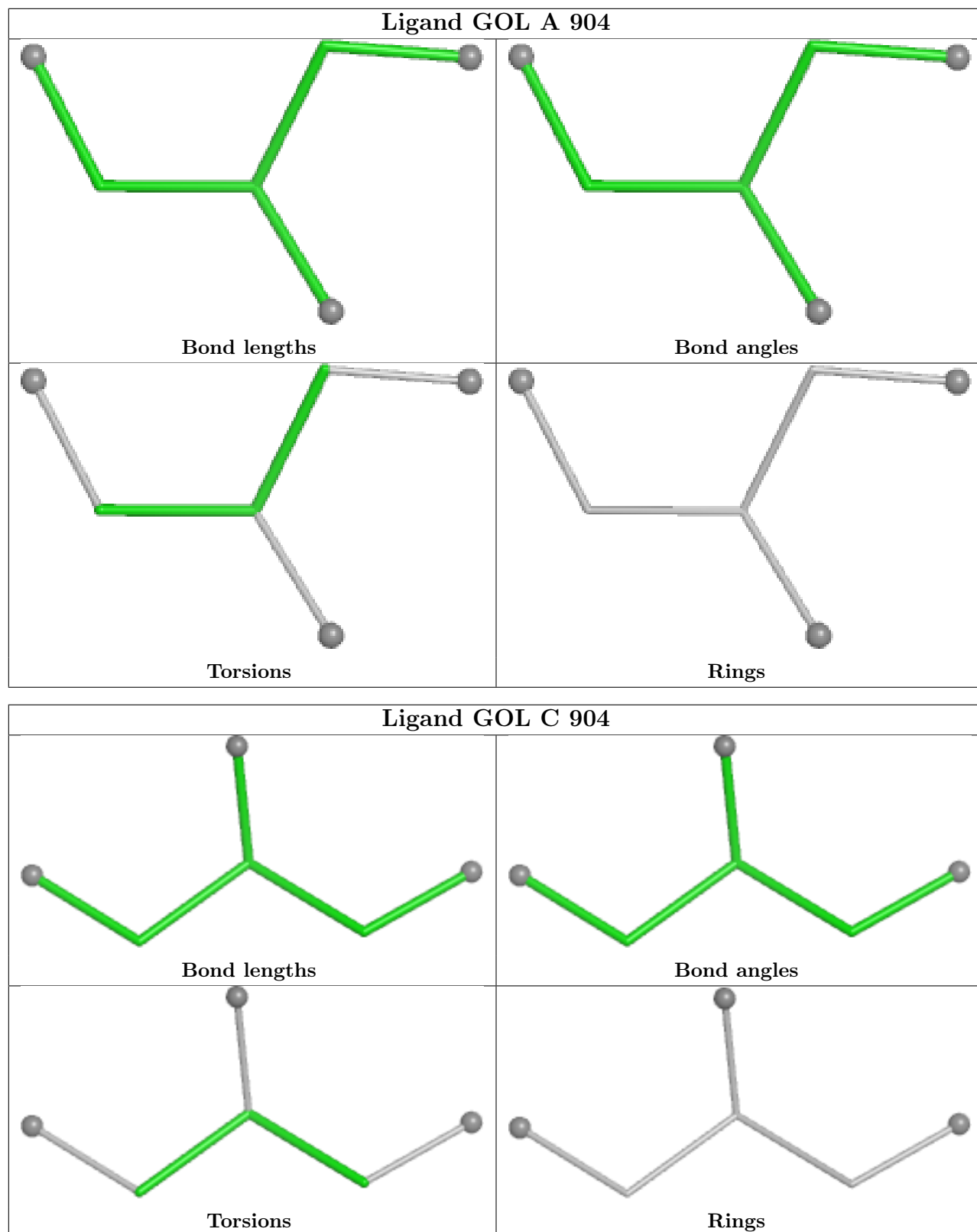












5.7 Other polymers [\(i\)](#)

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 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, 95th 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	245/248 (98%)	-0.11	10 (4%) 41 45	10, 16, 32, 52	3 (1%)
1	C	248/248 (100%)	-0.08	9 (3%) 46 50	8, 17, 35, 54	4 (1%)
2	B	10/14 (71%)	0.82	3 (30%) 1 1	20, 24, 34, 42	0
2	D	11/14 (78%)	1.71	4 (36%) 1 1	24, 31, 45, 48	0
All	All	514/524 (98%)	-0.04	26 (5%) 33 37	8, 17, 35, 54	7 (1%)

All (26) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
2	D	141	PRO	4.3
1	A	745	ASP	4.0
1	C	745	ASP	3.6
2	B	141	PRO	3.5
1	C	744	ASP	3.4
1	C	743	SER	3.4
1	C	674	VAL	3.3
1	C	675	THR	3.1
1	A	674	VAL	3.0
1	A	879	THR	3.0
2	D	151	PRO	2.8
2	D	150	ALA	2.7
1	A	675	THR	2.6
2	D	143	LEU	2.6
1	A	746	SER	2.6
1	C	759	GLY	2.5
2	B	150	ALA	2.5
1	C	879	THR	2.4
1	A	670	TYR	2.3
1	A	744	ASP	2.3
2	B	149	LEU	2.2

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Mol	Chain	Res	Type	RSRZ
1	C	665	SER	2.1
1	A	832	HIS	2.1
1	C	729	ARG	2.0
1	A	638	TYR	2.0
1	A	743	SER	2.0

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](#)

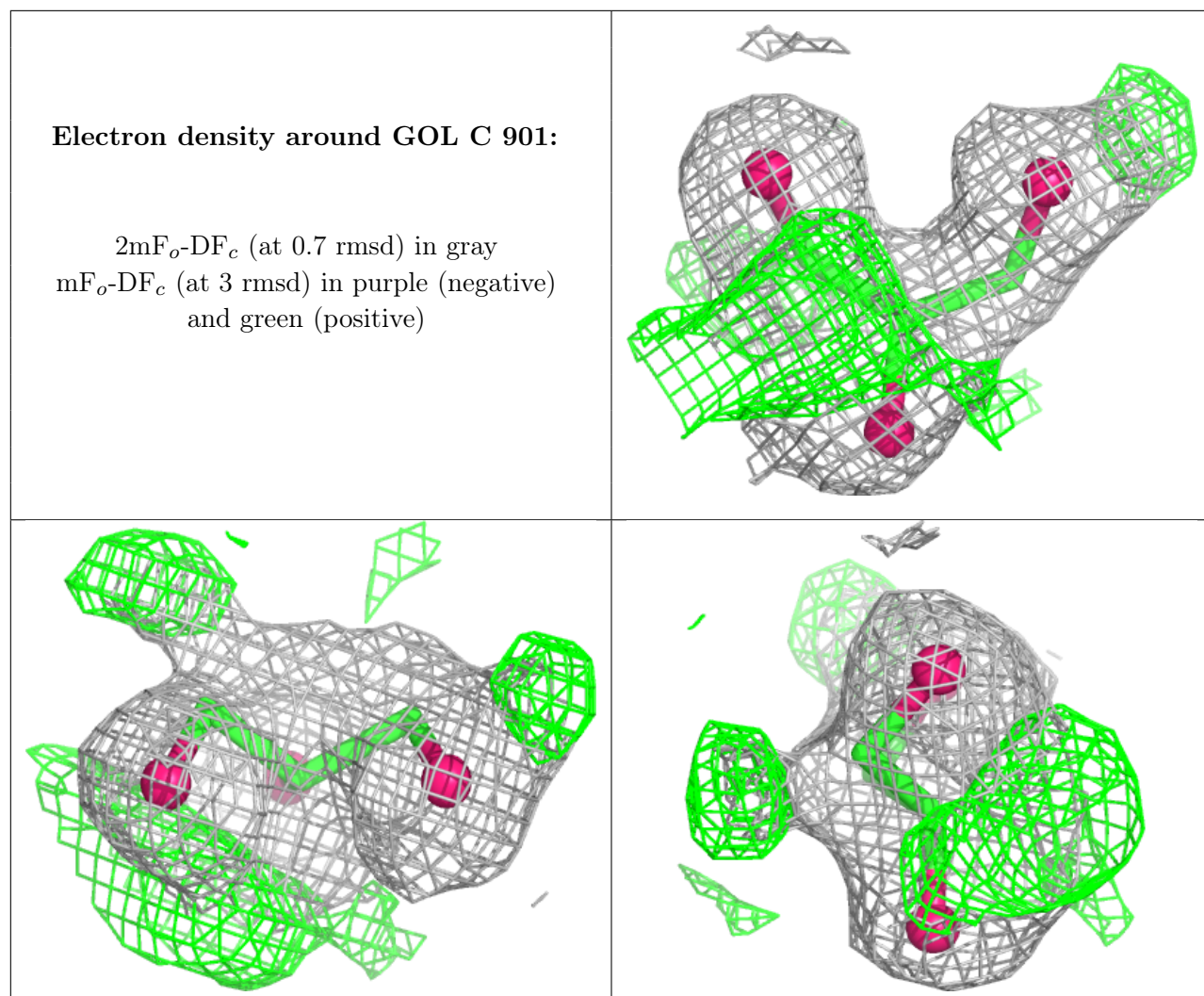
There are no oligosaccharides in this entry.

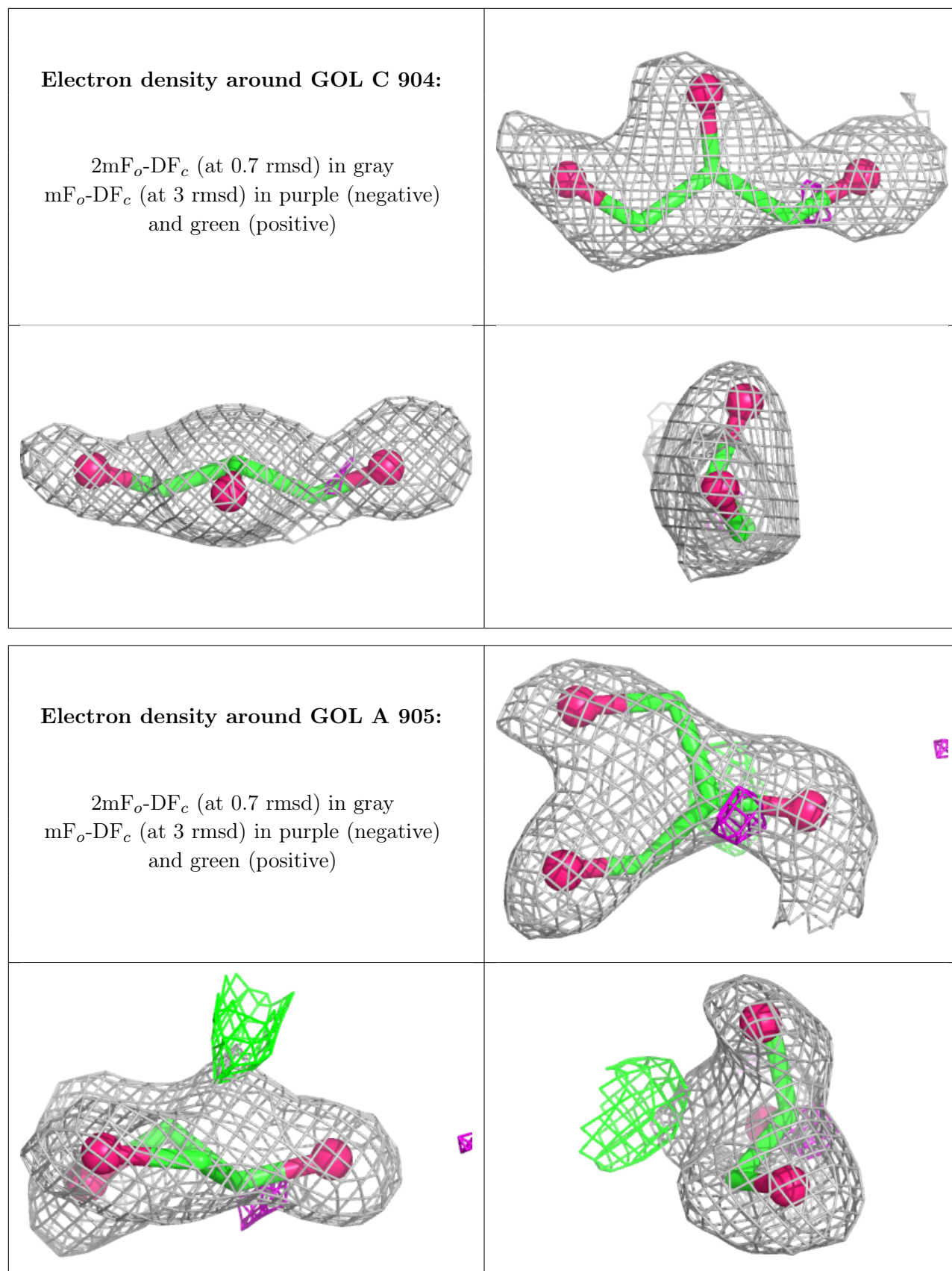
6.4 Ligands [i](#)

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, 95th 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
5	GOL	C	901	6/6	0.79	0.14	26,36,38,45	0
5	GOL	C	904	6/6	0.80	0.14	25,33,36,39	0
5	GOL	A	905	6/6	0.82	0.14	25,35,36,40	0
4	CIT	A	902[B]	13/13	0.86	0.12	10,14,18,20	13
4	CIT	A	902[A]	13/13	0.86	0.12	10,15,19,25	13
4	CIT	C	903[B]	13/13	0.92	0.08	18,22,26,26	13
4	CIT	C	903[A]	13/13	0.92	0.08	18,21,24,26	13
3	DL4	C	902	30/30	0.94	0.07	12,14,17,23	0
5	GOL	A	904	6/6	0.95	0.07	12,17,20,21	0
3	DL4	A	901	30/30	0.95	0.06	9,12,16,24	0
5	GOL	A	903	6/6	0.97	0.05	13,16,17,18	0

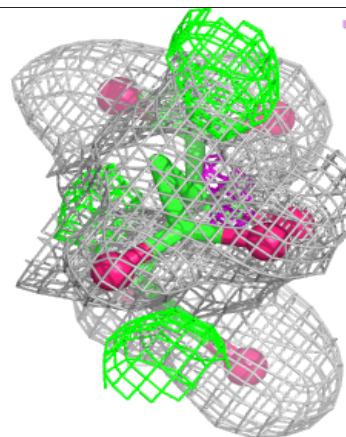
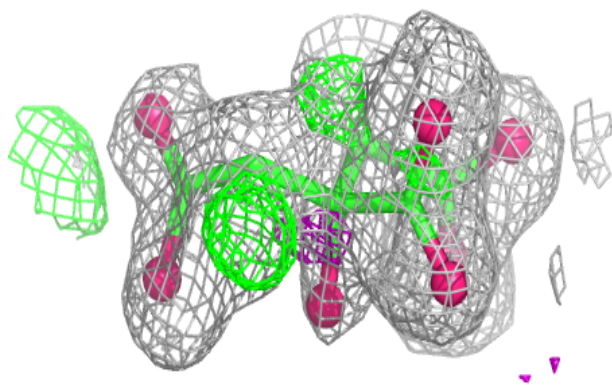
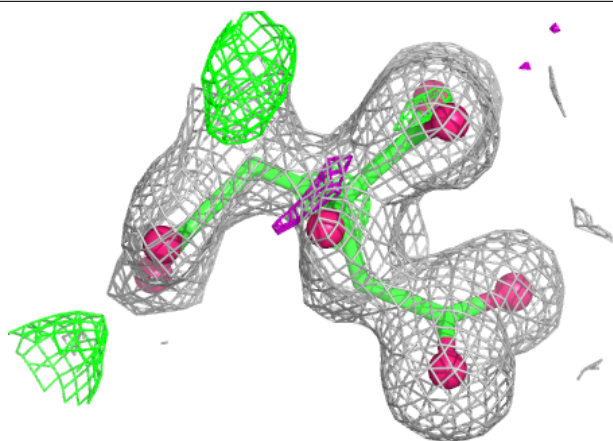
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation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





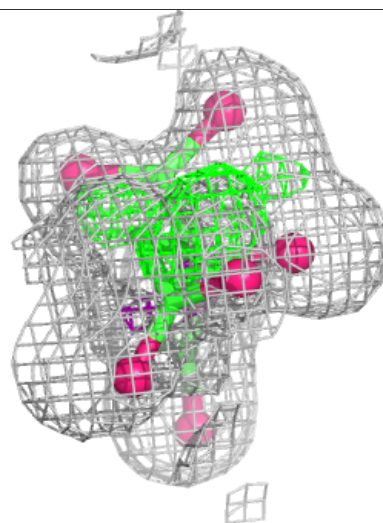
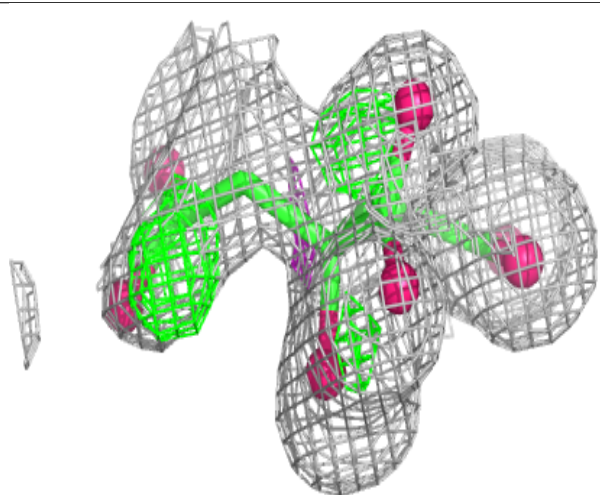
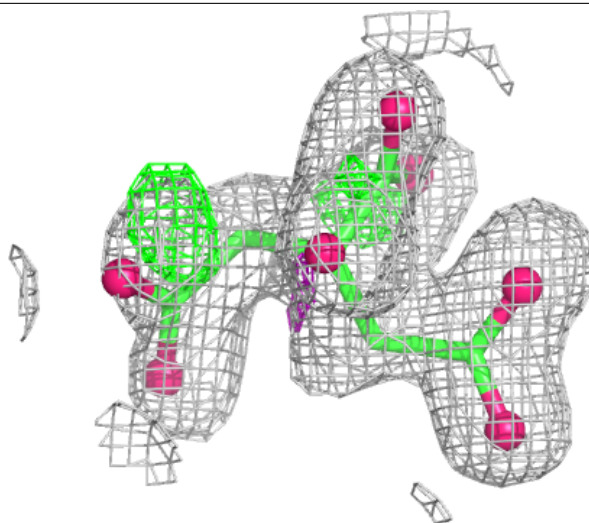
Electron density around CIT A 902 (B):

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



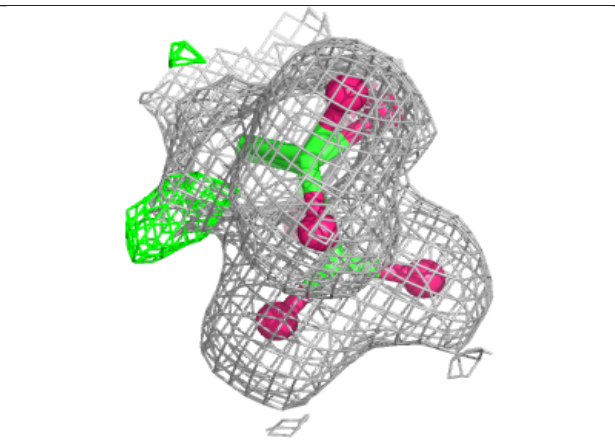
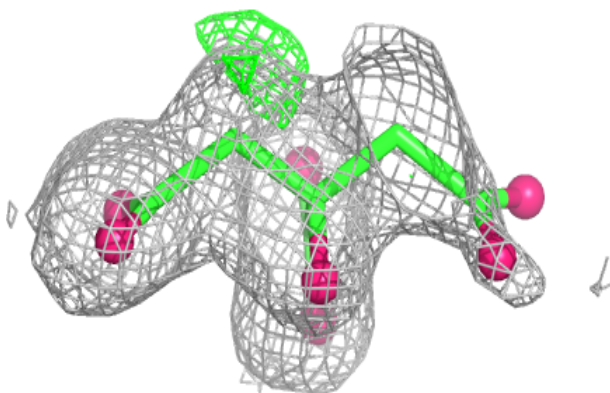
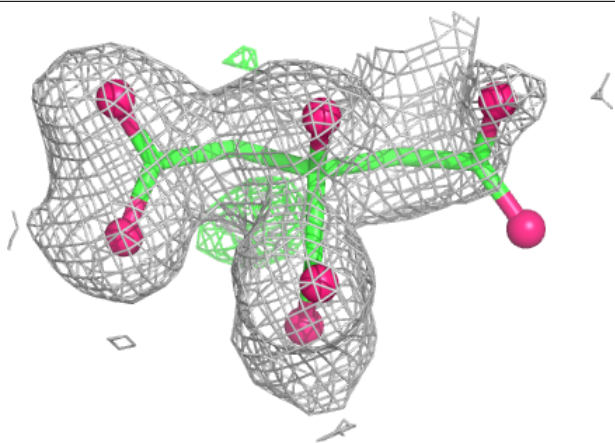
Electron density around CIT A 902 (A):

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



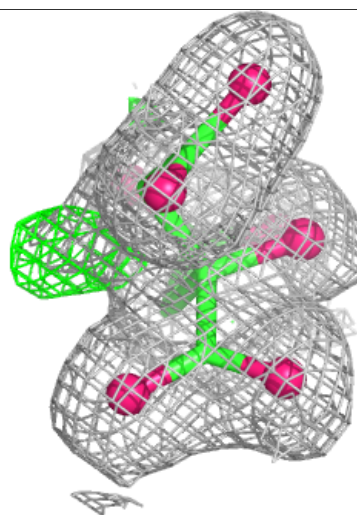
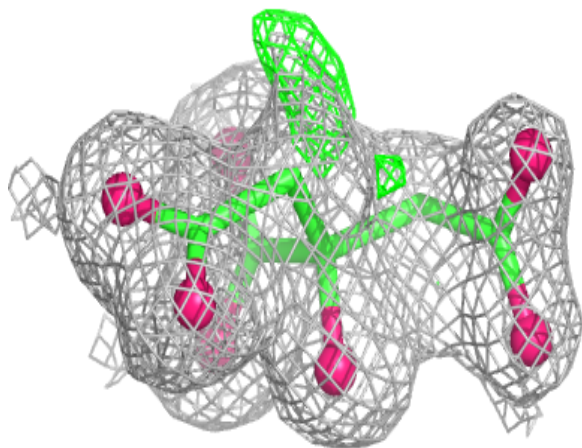
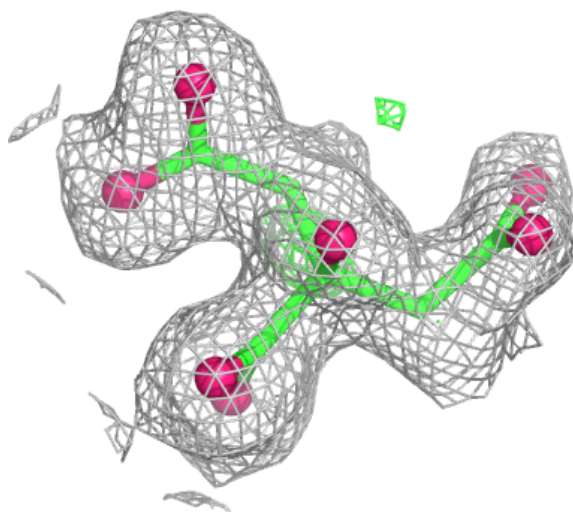
Electron density around CIT C 903 (B):

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



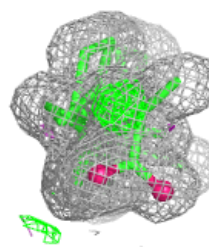
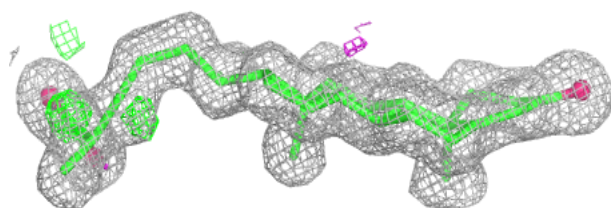
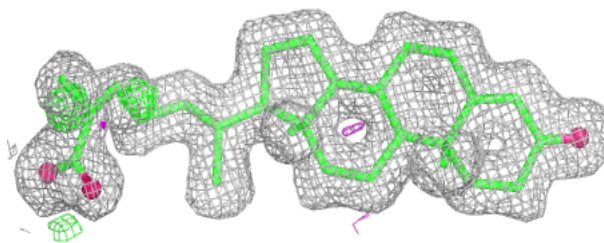
Electron density around CIT C 903 (A):

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



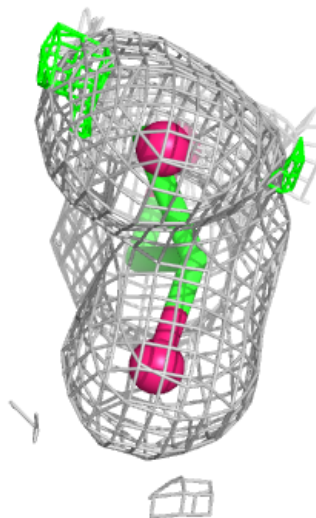
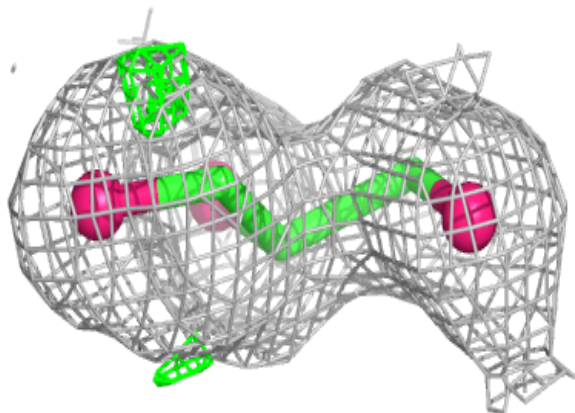
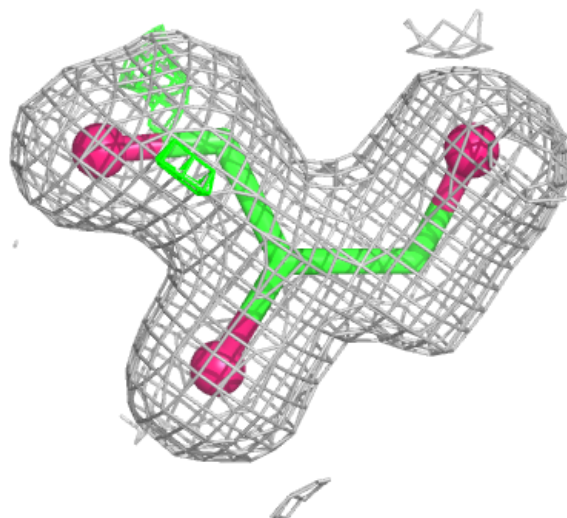
Electron density around DL4 C 902:

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



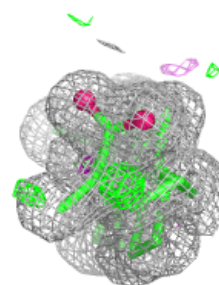
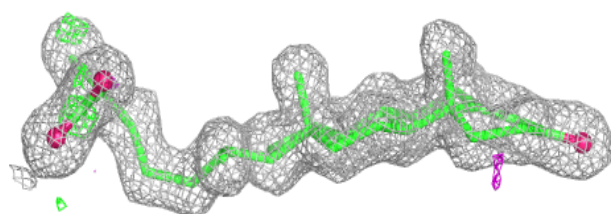
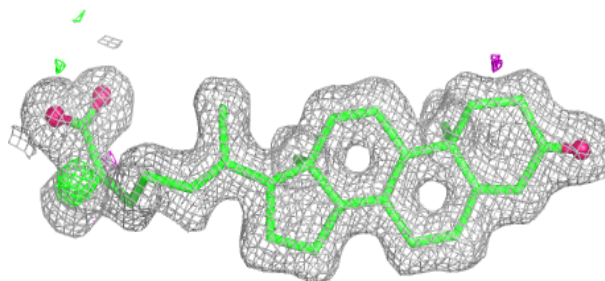
Electron density around GOL A 904:

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

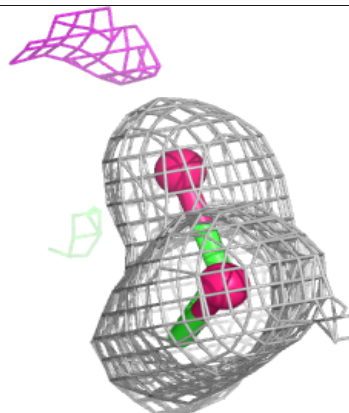
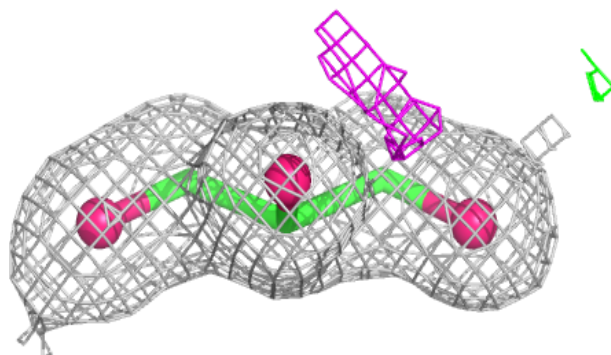
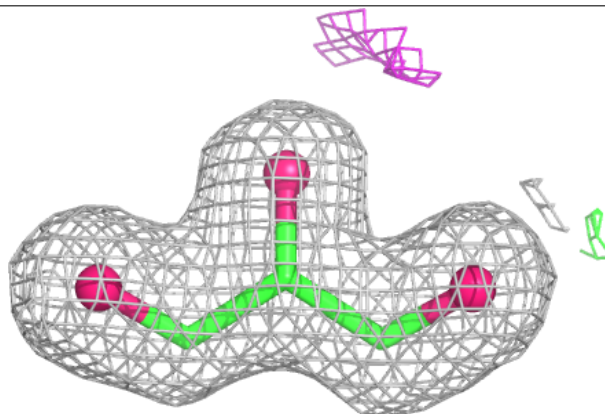


Electron density around DL4 A 901:

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

**Electron density around GOL A 903:**

$2mF_o-DF_c$ (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.