wwPDB X-ray Structure Validation Summary Report (i)

Oct 16, 2023 – 10:14 AM EDT

PDB ID	:	2DV9
Title	:	Crystal structure of peanut lectin GAL-BETA-1,3-GAL complex
Authors	:	Natchiar, S.K.; Srinivas, O.; Mitra, N.; Surolia, A.; Jayaraman, N.; Vijayan, M.
Deposited on	:	2006-07-30
Resolution	:	2.48 Å(reported)

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

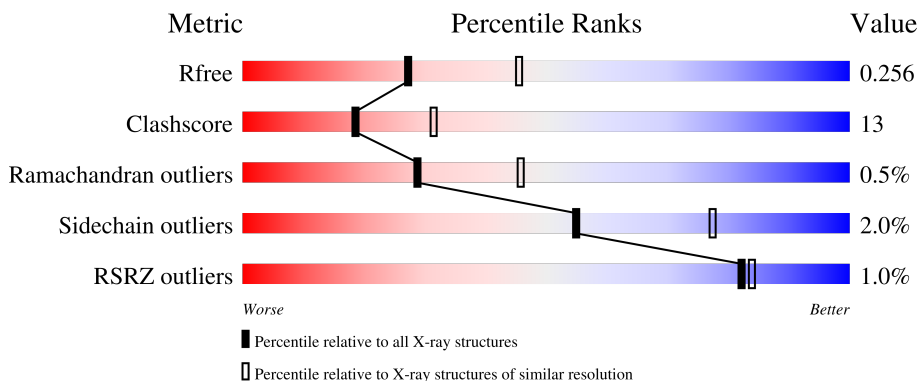|		
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.36
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.36

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 2.48 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.
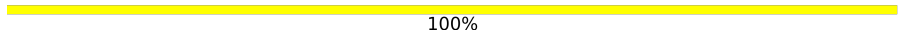
Metric	Percentile Ranks	Value
Rfree		0.256
Clashscore		13
Ramachandran outliers		0.5%
Sidechain outliers		2.0%
RSRZ outliers		1.0%

Worse   *Better*

▋ Percentile relative to all X-ray structures

▯ Percentile relative to X-ray structures of similar resolution

Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	5857 (2.50-2.46)
Clashscore	141614	6594 (2.50-2.46)
Ramachandran outliers	138981	6469 (2.50-2.46)
Sidechain outliers	138945	6471 (2.50-2.46)
RSRZ outliers	127900	5738 (2.50-2.46)

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	236	71% 26% • •
1	B	236	79% 17% • •
1	C	236	68% 29% • •
1	D	236	77% 21% •
2	E	2	100%

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Mol	Chain	Length	Quality of chain
2	F	2	50% / 50%
2	G	2	50% / 50%
2	H	2	100%

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

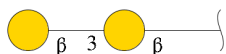| Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
2	GAL	E	1	X	-	-	-
2	GAL	F	1	X	-	-	-
2	GAL	G	1	X	-	-	-
2	GAL	H	1	X	-	-	-

2 Entry composition ⓘ

There are 6 unique types of molecules in this entry. The entry contains 7880 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 Galactose-binding lectin.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	232	Total 1743	C 1102	N 287	O 352	S 2	8	0	0
1	B	232	Total 1743	C 1102	N 287	O 352	S 2	4	0	0
1	C	232	Total 1743	C 1102	N 287	O 352	S 2	13	0	0
1	D	232	Total 1743	C 1102	N 287	O 352	S 2	0	0	0

- Molecule 2 is an oligosaccharide called beta-D-galactopyranose-(1-3)-beta-D-galactopyranose.

Mol	Chain	Residues	Atoms			ZeroOcc	AltConf	Trace
2	E	2	Total 23	C 12	O 11	0	0	0
2	F	2	Total 23	C 12	O 11	0	0	0
2	G	2	Total 23	C 12	O 11	0	0	0
2	H	2	Total 23	C 12	O 11	0	0	0

- Molecule 3 is CALCIUM ION (three-letter code: CA) (formula: Ca).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	A	1	Total 1	Ca 1	0	0

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W O R L D W I D E
wwPDB
PROTEIN DATA BANK

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	B	1	Total 1	Ca 1	0	0
3	C	1	Total 1	Ca 1	0	0
3	D	1	Total 1	Ca 1	0	0

- Molecule 4 is MANGANESE (II) ION (three-letter code: MN) (formula: Mn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
4	A	1	Total 1	Mn 1	0	0
4	B	1	Total 1	Mn 1	0	0
4	C	1	Total 1	Mn 1	0	0
4	D	1	Total 1	Mn 1	0	0

- Molecule 5 is SULFATE ION (three-letter code: SO4) (formula: O_4S).
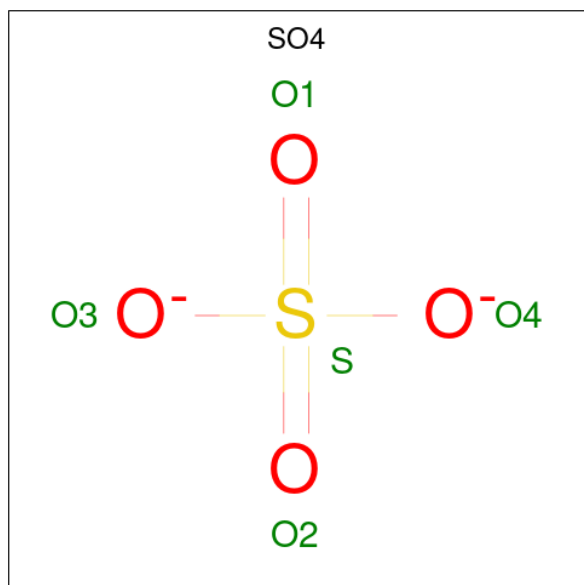
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
5	B	1	Total 5	O 4	S 1	0	0
5	C	1	Total 5	O 4	S 1	0	0

• Molecule 6 is water.

| Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
6	A	223	Total 223	O 223	0	0
6	B	251	Total 251	O 251	0	0
6	C	155	Total 155	O 155	0	0
6	D	169	Total 169	O 169	0	0

3 Residue-property plots ⓘ

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.
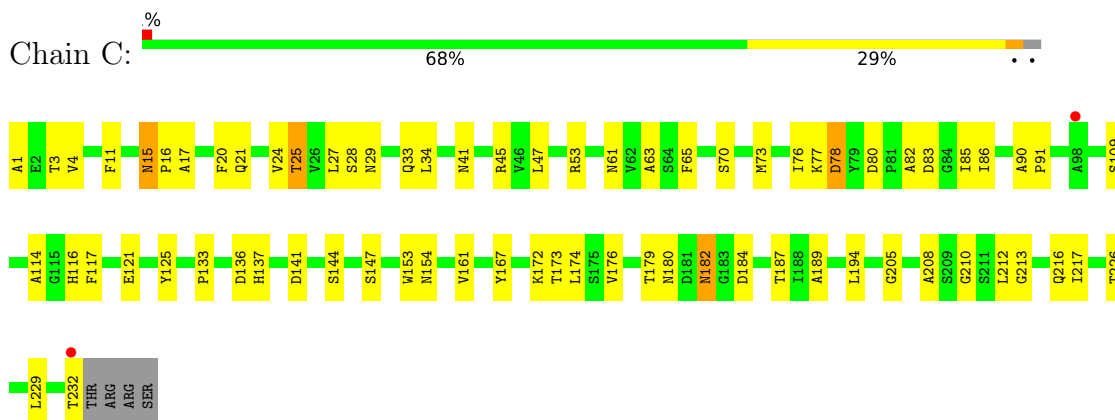
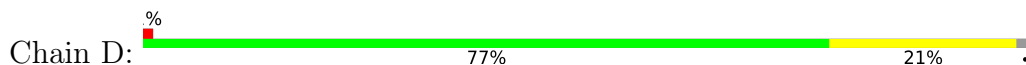- Molecule 1: Galactose-binding lectin
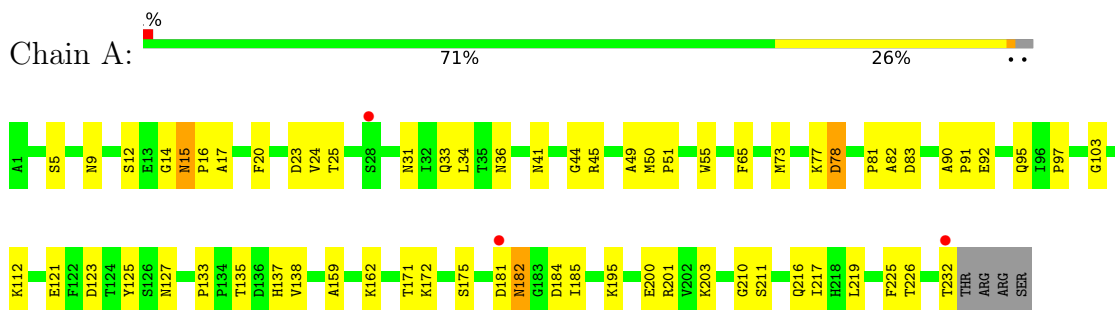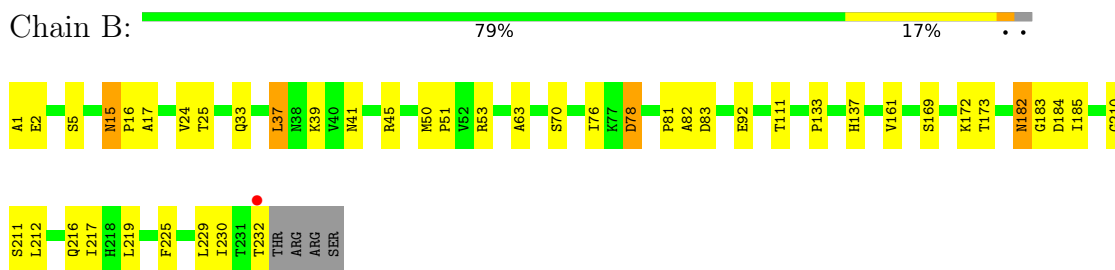
- Molecule 1: Galactose-binding lectin

- Molecule 1: Galactose-binding lectin

- Molecule 1: Galactose-binding lectin

A1 S12 E13 G14 N15 I18 V24 T25 V26 L27 S28 N29 Q33 L37 N38 K39 V40 N41 V46 I54 W55 G60 A63 S64 F65 K74 D75 I76 K77 P81 A82 D83 S109 A114 E121 F122 D123 P133 H137 V138 W153 N154

I166 Y167 D168 S169 N180 D181 N182 G183 D184 I185 L194 K195 S211 L212 Q216 I217 F225 T226 I230 T231 T232 THR ARG ARG SER
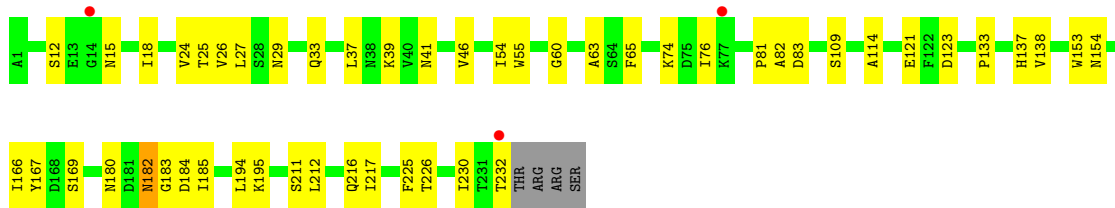
• Molecule 2: beta-D-galactopyranose-(1-3)-beta-D-galactopyranose

Chain E:

100%

GAL1 GAL2

• Molecule 2: beta-D-galactopyranose-(1-3)-beta-D-galactopyranose

Chain F:

50% 50%

GAL1 GAL2

• Molecule 2: beta-D-galactopyranose-(1-3)-beta-D-galactopyranose

Chain G:

50% 50%

GAL1 GAL2

• Molecule 2: beta-D-galactopyranose-(1-3)-beta-D-galactopyranose

Chain H:

100%

GAL1 GAL2

4 Data and refinement statistics ⓘ

Property	Value	Source
Space group	P 21 21 2	Depositor
Cell constants a, b, c, α, β, γ	127.77Å 124.91Å 76.28Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	19.89 – 2.48 19.89 – 2.48	Depositor EDS
% Data completeness (in resolution range)	98.0 (19.89-2.48) 98.1 (19.89-2.48)	Depositor EDS
R_{merge}	0.15	Depositor
R_{sym}	0.16	Depositor
$< I/\sigma(I) >$ [1]	3.37 (at 2.47Å)	Xtriage
Refinement program	CNS 1.1	Depositor
R, R_{free}	0.204 , 0.257 0.206 , 0.256	Depositor DCC
R_{free} test set	2137 reflections (4.96%)	wwPDB-VP
Wilson B-factor (Å^2)	34.1	Xtriage
Anisotropy	0.632	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.29 , 54.4	EDS
L-test for twinning[2]	$< |L| > = 0.49, < L^2 > = 0.33$	Xtriage
Estimated twinning fraction	0.008 for k,h,-l	Xtriage
F_o,F_c correlation	0.94	EDS
Total number of atoms	7880	wwPDB-VP
Average B, all atoms (Å^2)	33.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 4.46% of the height of the origin peak. No significant pseudotranslation is detected.*

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[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: CA, GAL, SO4, MN

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	0.35	0/1779	0.65	0/2426
1	B	0.35	0/1779	0.66	0/2426
1	C	0.36	0/1779	0.66	0/2426
1	D	0.36	0/1779	0.66	0/2426
All	All	0.35	0/7116	0.66	0/9704

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 ⓘ

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	1743	0	1699	62	0
1	B	1743	0	1699	41	0
1	C	1743	0	1699	59	0
1	D	1743	0	1699	43	0
2	E	23	0	21	0	0
2	F	23	0	21	1	0
2	G	23	0	21	1	0
2	H	23	0	21	0	0
3	A	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	B	1	0	0	0	0
3	C	1	0	0	0	0
3	D	1	0	0	0	0
4	A	1	0	0	0	0
4	B	1	0	0	0	0
4	C	1	0	0	0	0
4	D	1	0	0	0	0
5	B	5	0	0	0	0
5	C	5	0	0	1	0
6	A	223	0	0	11	0
6	B	251	0	0	8	0
6	C	155	0	0	4	0
6	D	169	0	0	1	0
All	All	7880	0	6880	183	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 13.

The worst 5 of 183 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:C:29:ASN:HA	1:D:217:ILE:HD13	1.40	1.03
1:C:217:ILE:HD13	1:D:29:ASN:HA	1.58	0.86
1:C:29:ASN:HA	1:D:217:ILE:CD1	2.16	0.75
1:D:182:ASN:ND2	1:D:184:ASP:H	1.89	0.70
1:C:27:LEU:HD21	1:C:33:GLN:NE2	2.06	0.70

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	230/236 (98%)	223 (97%)	6 (3%)	1 (0%)	34	52
1	B	230/236 (98%)	218 (95%)	11 (5%)	1 (0%)	34	52
1	C	230/236 (98%)	210 (91%)	18 (8%)	2 (1%)	17	29
1	D	230/236 (98%)	217 (94%)	12 (5%)	1 (0%)	34	52
All	All	920/944 (98%)	868 (94%)	47 (5%)	5 (0%)	29	46

All (5) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	C	17	ALA
1	C	147	SER
1	D	81	PRO
1	A	81	PRO
1	B	81	PRO

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all 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	197/201 (98%)	193 (98%)	4 (2%)	55	77
1	B	197/201 (98%)	193 (98%)	4 (2%)	55	77
1	C	197/201 (98%)	191 (97%)	6 (3%)	41	65
1	D	197/201 (98%)	195 (99%)	2 (1%)	76	89
All	All	788/804 (98%)	772 (98%)	16 (2%)	55	77

5 of 16 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	D	15	ASN
1	C	182	ASN
1	C	11	PHE
1	C	136	ASP
1	B	182	ASN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 29 such sidechains are listed below:

Mol	Chain	Res	Type
1	C	15	ASN
1	D	182	ASN
1	C	41	ASN
1	D	41	ASN
1	C	33	GLN

5.3.3   RNA ⓘ

There are no RNA molecules in this entry.

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

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

5.5   Carbohydrates ⓘ

8 monosaccharides are modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
2	GAL	E	1	2	12,12,12	1.84	4 (33%)	17,17,17	1.64	3 (17%)
2	GAL	E	2	2	11,11,12	2.21	3 (27%)	15,15,17	3.04	5 (33%)
2	GAL	F	1	2	12,12,12	1.89	4 (33%)	17,17,17	1.59	3 (17%)
2	GAL	F	2	2	11,11,12	2.29	4 (36%)	15,15,17	3.01	4 (26%)
2	GAL	G	1	2	12,12,12	1.90	4 (33%)	17,17,17	1.60	4 (23%)
2	GAL	G	2	2	11,11,12	2.14	3 (27%)	15,15,17	3.04	5 (33%)
2	GAL	H	1	2	12,12,12	1.87	4 (33%)	17,17,17	1.57	3 (17%)
2	GAL	H	2	2	11,11,12	2.07	3 (27%)	15,15,17	3.07	5 (33%)

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	GAL	E	1	2	1/1/5/5	2/2/22/22	0/1/1/1
2	GAL	E	2	2	-	0/2/19/22	0/1/1/1
2	GAL	F	1	2	1/1/5/5	2/2/22/22	0/1/1/1
2	GAL	F	2	2	-	0/2/19/22	0/1/1/1
2	GAL	G	1	2	1/1/5/5	2/2/22/22	0/1/1/1
2	GAL	G	2	2	-	0/2/19/22	0/1/1/1
2	GAL	H	1	2	1/1/5/5	2/2/22/22	0/1/1/1
2	GAL	H	2	2	-	0/2/19/22	0/1/1/1

The worst 5 of 29 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	F	2	GAL	O5-C1	4.58	1.51	1.43
2	E	2	GAL	O5-C1	4.46	1.50	1.43
2	F	2	GAL	O5-C5	4.25	1.52	1.43
2	G	2	GAL	O5-C1	4.14	1.50	1.43
2	E	2	GAL	O5-C5	4.12	1.51	1.43

The worst 5 of 32 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	H	2	GAL	C6-C5-C4	7.45	130.46	113.00
2	G	2	GAL	O6-C6-C5	7.33	136.43	111.29
2	F	2	GAL	O6-C6-C5	7.30	136.34	111.29
2	E	2	GAL	O6-C6-C5	7.28	136.26	111.29
2	H	2	GAL	O6-C6-C5	7.23	136.10	111.29

All (4) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
2	E	1	GAL	C1
2	F	1	GAL	C1
2	G	1	GAL	C1
2	H	1	GAL	C1

5 of 8 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	E	1	GAL	O5-C5-C6-O6
2	H	1	GAL	O5-C5-C6-O6
2	G	1	GAL	O5-C5-C6-O6
2	E	1	GAL	C4-C5-C6-O6
2	F	1	GAL	O5-C5-C6-O6

There are no ring outliers.

2 monomers are involved in 2 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	F	1	GAL	1	0
2	G	2	GAL	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 oligosaccharide.

Oligosaccharide Chain E

Bond lengths

Bond angles

Torsions

Rings

Oligosaccharide Chain F

Bond lengths

Bond angles

Torsions

Rings

Oligosaccharide Chain G

Bond lengths

Bond angles

Torsions

Rings

Oligosaccharide Chain H

Bond lengths

Bond angles

Torsions

Rings
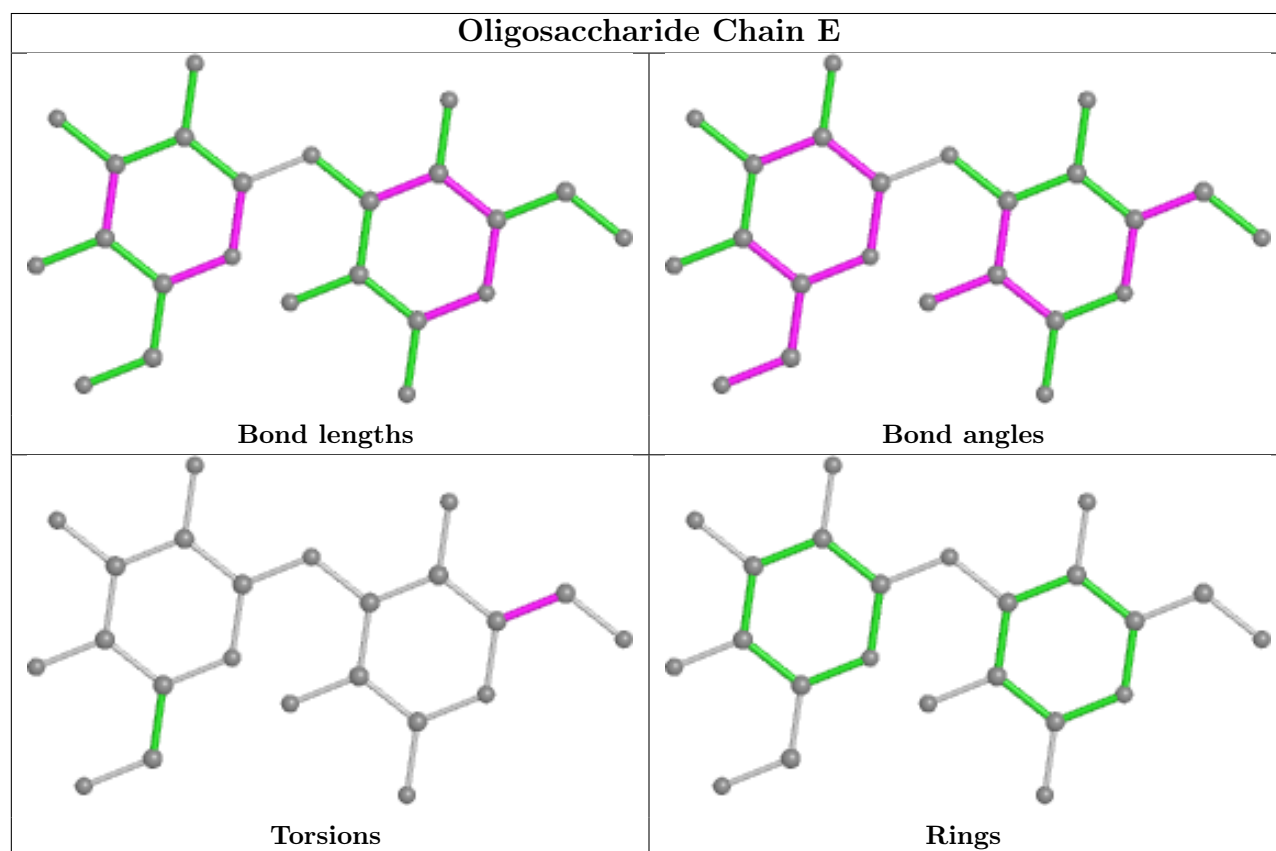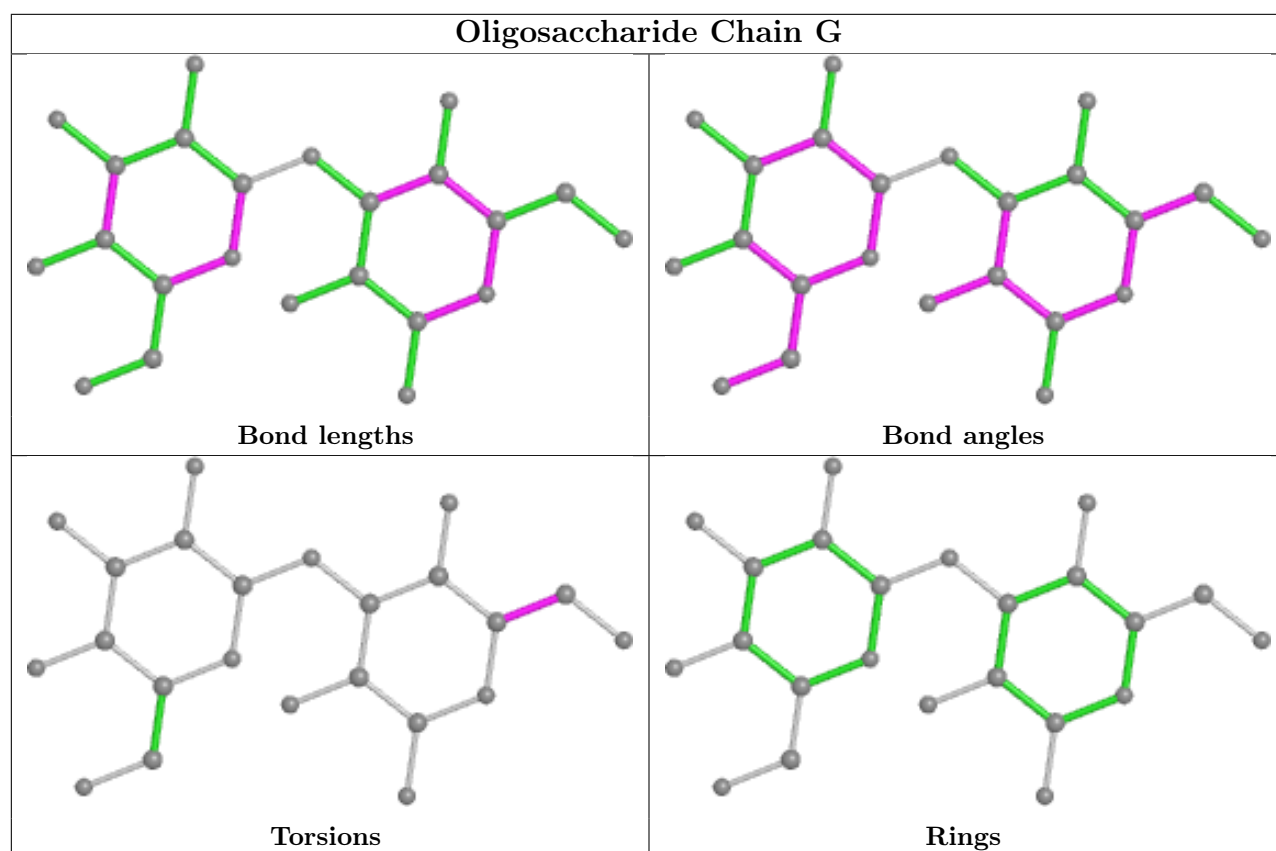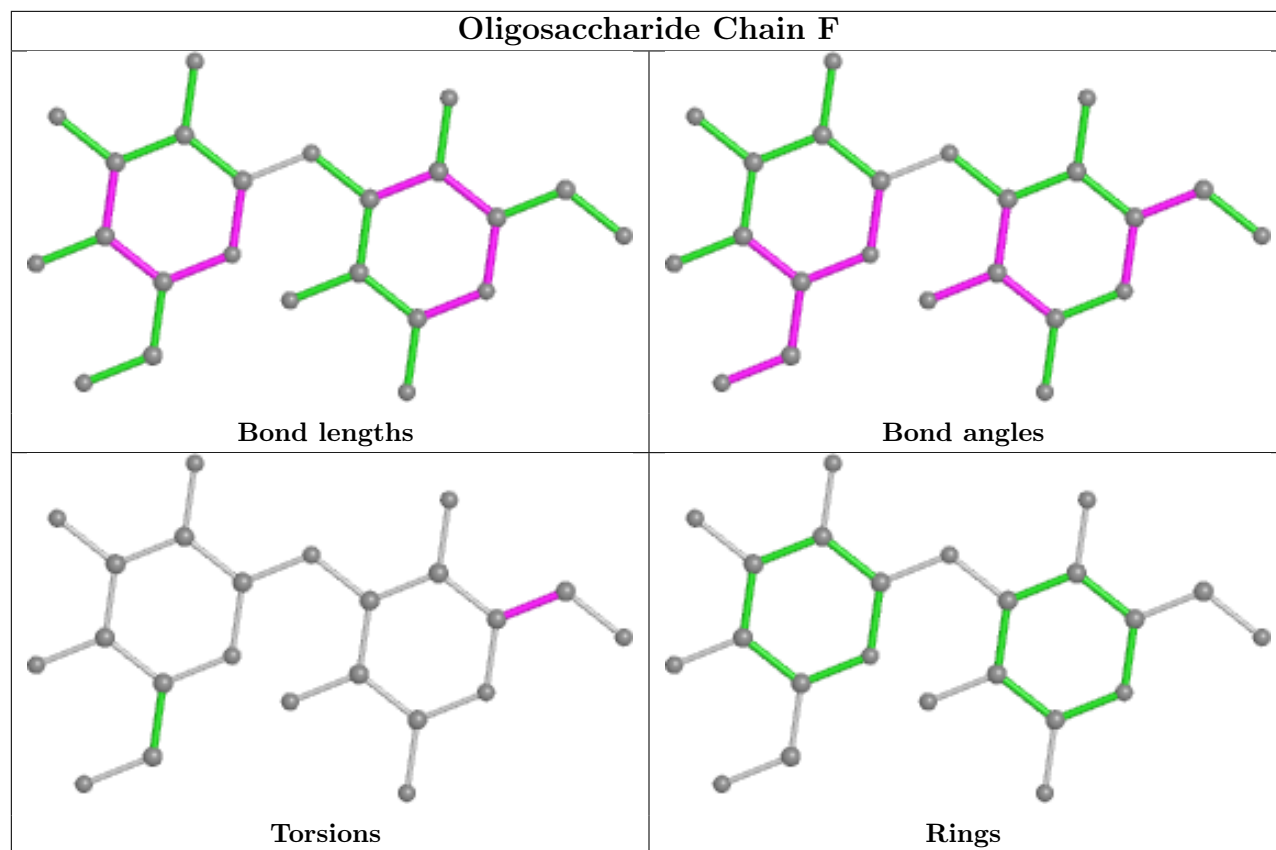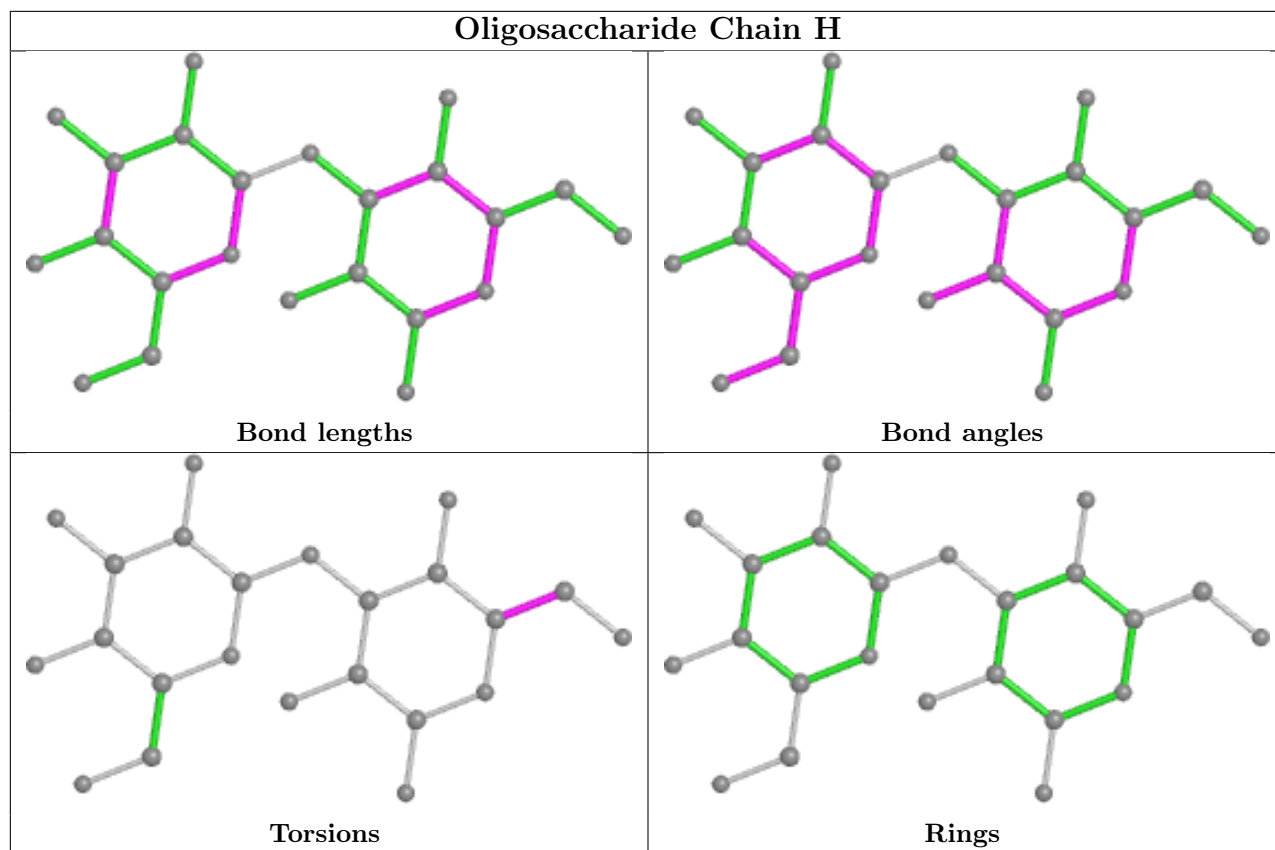
5.6 Ligand geometry ⓘ

Of 10 ligands modelled in this entry, 8 are monoatomic - leaving 2 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	$\#|Z| > 2$
5	SO4	B	1243	-	4,4,4	0.24	0	6,6,6	0.09	0
5	SO4	C	2243	-	4,4,4	0.26	0	6,6,6	0.08	0

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

1 monomer is involved in 1 short contact:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
5	C	2243	SO4	1	0

5.7 Other polymers ⓘ

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	232/236 (98%)	-0.47	3 (1%)	77	78	18, 30, 43, 65	2 (0%)
1	B	232/236 (98%)	-0.55	1 (0%)	92	93	19, 28, 41, 64	1 (0%)
1	C	232/236 (98%)	-0.18	2 (0%)	84	86	20, 34, 54, 64	5 (2%)
1	D	232/236 (98%)	-0.39	3 (1%)	77	78	19, 31, 50, 70	0
All	All	928/944 (98%)	-0.40	9 (0%)	82	84	18, 31, 49, 70	8 (0%)

The worst 5 of 9 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	B	232	THR	7.4
1	C	232	THR	5.2
1	D	232	THR	5.1
1	A	232	THR	4.1
1	A	28	SER	3.0

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

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

6.3 Carbohydrates ⓘ

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.
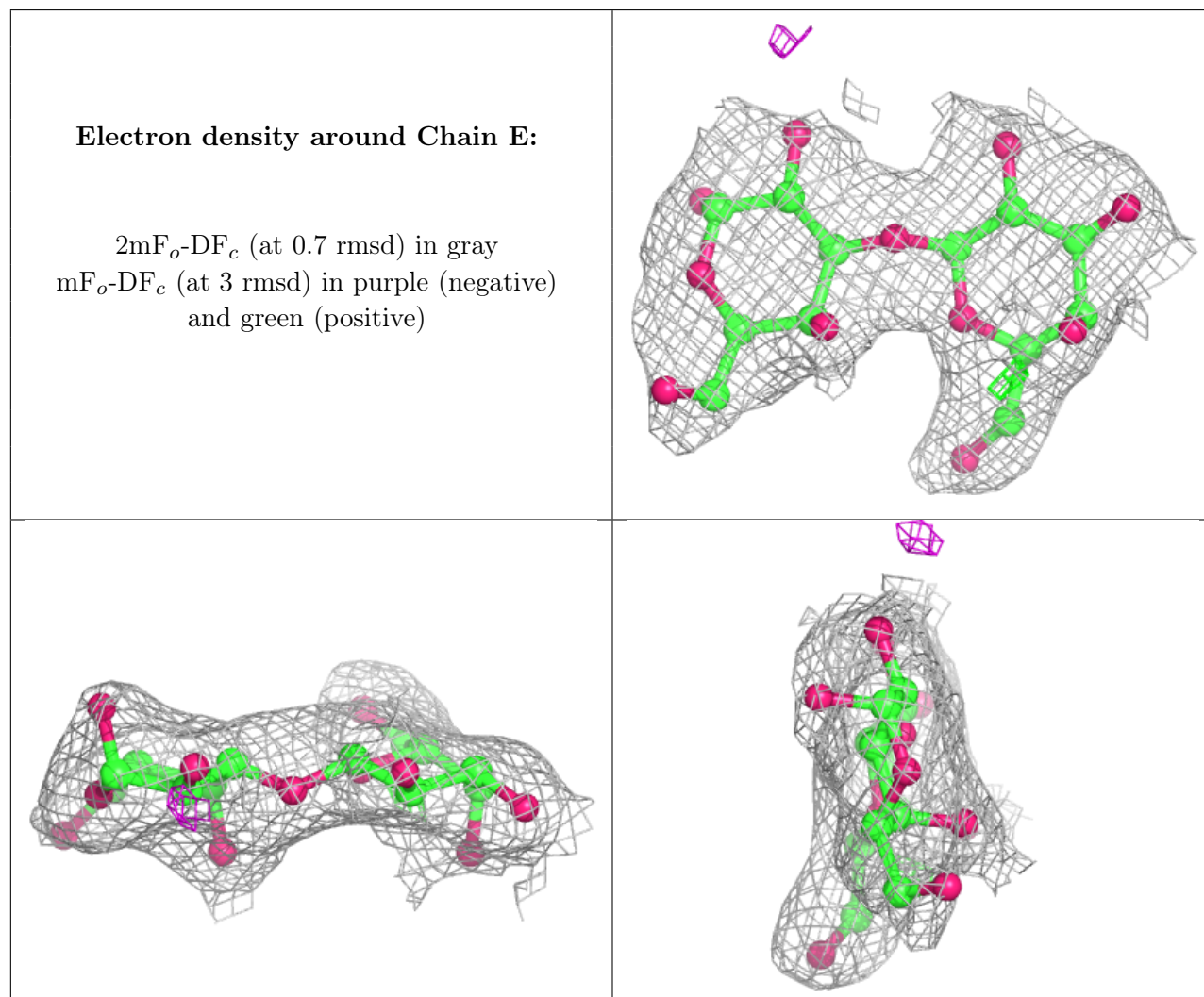
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
2	GAL	G	1	12/12	0.80	0.36	83,84,86,88	0
2	GAL	F	1	12/12	0.83	0.21	45,51,55,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($Å^2$)	Q<0.9
2	GAL	G	2	11/12	0.83	0.21	75,79,80,81	0
2	GAL	H	1	12/12	0.85	0.27	52,54,57,59	0
2	GAL	E	1	12/12	0.86	0.21	46,54,57,58	0
2	GAL	F	2	11/12	0.92	0.13	34,40,42,43	0
2	GAL	E	2	11/12	0.94	0.13	35,42,44,45	0
2	GAL	H	2	11/12	0.95	0.12	44,48,49,49	0

The following is a graphical depiction of the model fit to experimental electron density for oligosaccharide. Each fit is shown from different orientation to approximate a three-dimensional view.
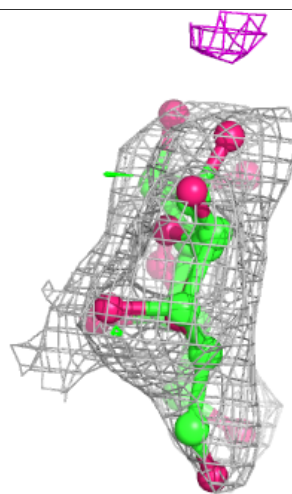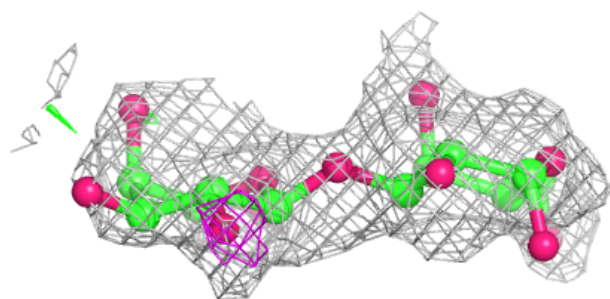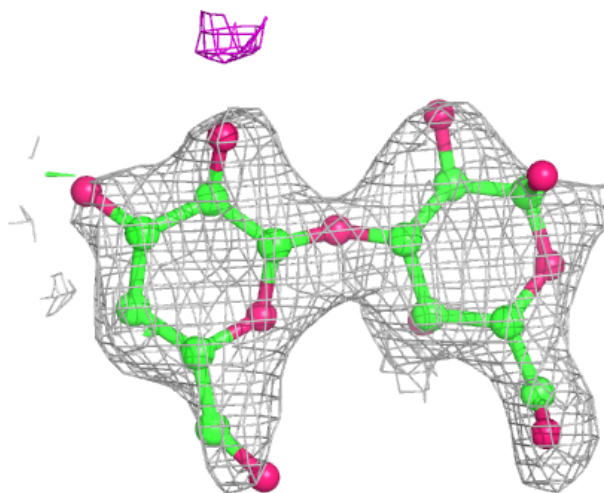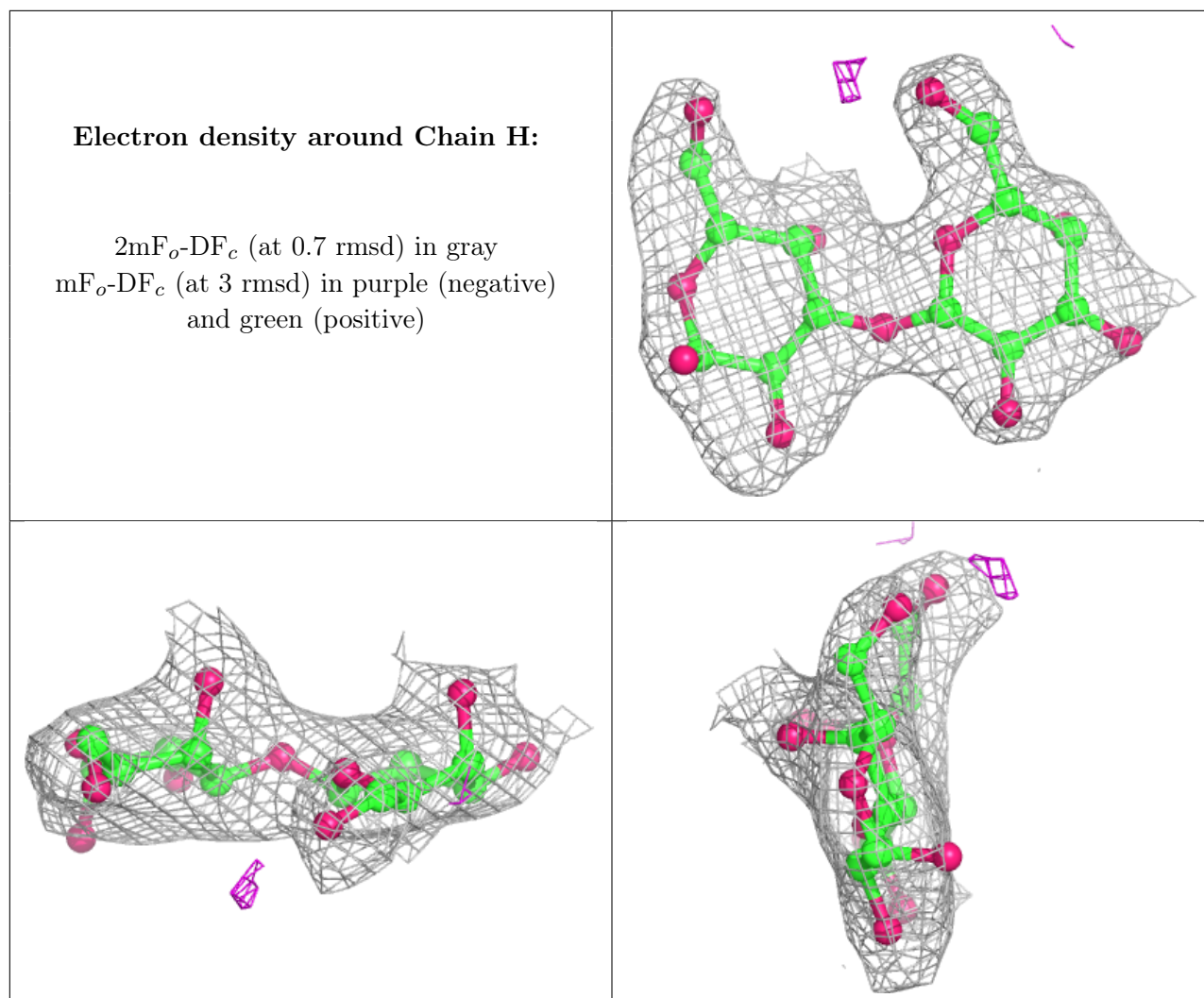
Electron density around Chain E:

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

Electron density around Chain F:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
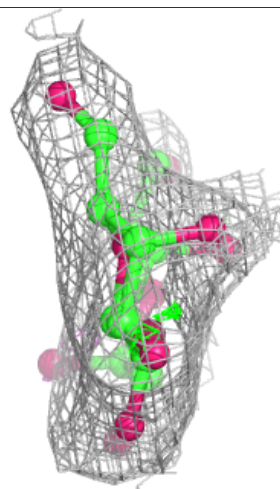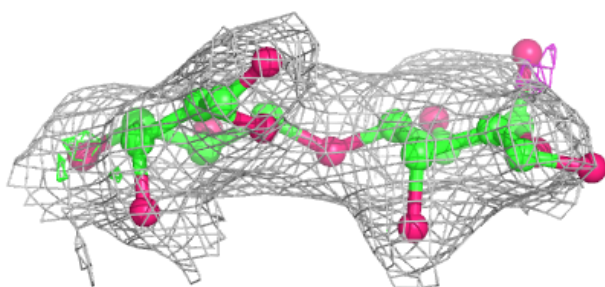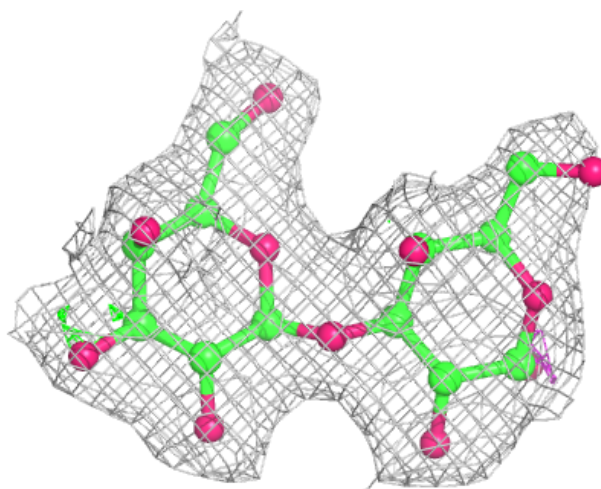
Electron density around Chain G:

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

Electron density around Chain H:

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

6.4 Ligands ⓘ

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
3	CA	C	237	1/1	0.95	0.12	40,40,40,40	0
4	MN	A	238	1/1	0.95	0.03	45,45,45,45	0
4	MN	D	238	1/1	0.95	0.03	49,49,49,49	0
4	MN	B	238	1/1	0.97	0.03	39,39,39,39	0
3	CA	D	237	1/1	0.97	0.18	31,31,31,31	0
3	CA	A	237	1/1	0.98	0.18	36,36,36,36	0
5	SO4	B	1243	5/5	0.98	0.10	59,59,60,61	0
5	SO4	C	2243	5/5	0.98	0.23	51,51,53,53	0
4	MN	C	238	1/1	0.99	0.03	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
3	CA	B	237	1/1	0.99	0.16	25,25,25,25	0

6.5   Other polymers ⓘ

There are no such residues in this entry.