Full wwPDB X-ray Structure Validation Report ⓘ

Mar 10, 2025 – 02:43 PM EDT

PDB ID	:	9BCY
Title	:	Crystal structure of Mayaro virus capsid C-terminal domain
Authors	:	Bezerra, E.H.S.; Scorsato, V.; Tonoli, C.C.; Benedetti, C.E.; Marques, R.E.
Deposited on	:	2024-04-10
Resolution	:	1.18 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:

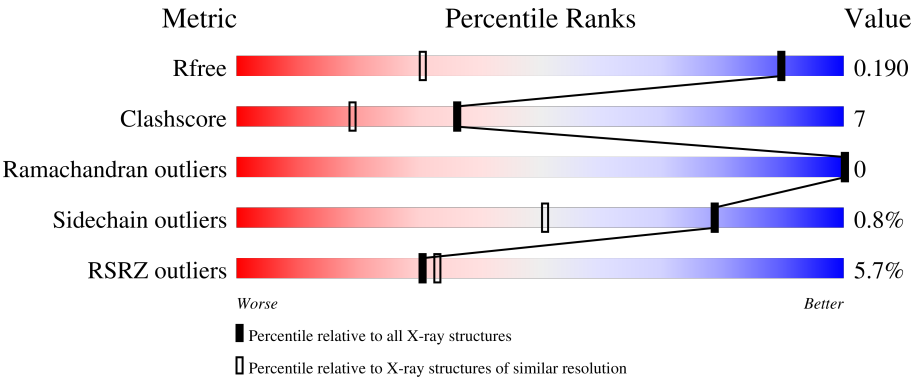
MolProbity	:	4.02b-467
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	1.21
EDS	:	3.0
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
CCP4	:	9.0.004 (Gargrove)
Density-Fitness	:	1.0.11
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.41.4

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 1.18 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}	164625	1569 (1.20-1.16)
Clashscore	180529	1711 (1.20-1.16)
Ramachandran outliers	177936	1657 (1.20-1.16)
Sidechain outliers	177891	1657 (1.20-1.16)
RSRZ outliers	164620	1568 (1.20-1.16)

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	AAA	157	2% 85% 10% 5%
1	BBB	157	9% 89% 5% • 5%

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	EDO	AAA	301	-	-	X	-
2	EDO	AAA	305	-	-	X	-
2	EDO	AAA	306	-	-	X	-

2 Entry composition

There are 3 unique types of molecules in this entry. The entry contains 2944 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.

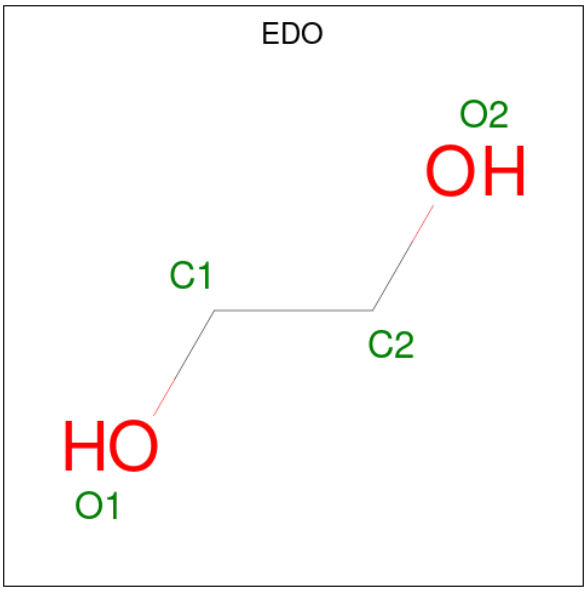
- Molecule 1 is a protein called Structural polyprotein.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	AAA	149	Total	C	N	O	S	0	13	0
			1225	773	209	235	8			
1	BBB	149	Total	C	N	O	S	0	9	0
			1198	758	207	226	7			

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
AAA	102	GLY	-	expression tag	UNP A0A515HFP9
AAA	103	HIS	-	expression tag	UNP A0A515HFP9
BBB	102	GLY	-	expression tag	UNP A0A515HFP9
BBB	103	HIS	-	expression tag	UNP A0A515HFP9

- Molecule 2 is 1,2-ETHANEDIOL (three-letter code: EDO) (formula: $C_2H_6O_2$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
2	AAA	1	Total C O 4 2 2	0	0
2	AAA	1	Total C O 4 2 2	0	0
2	AAA	1	Total C O 4 2 2	0	0
2	AAA	1	Total C O 4 2 2	0	0
2	AAA	1	Total C O 4 2 2	0	0
2	AAA	1	Total C O 4 2 2	0	0
2	BBB	1	Total C O 4 2 2	0	0
2	BBB	1	Total C O 4 2 2	0	0

- Molecule 3 is water.

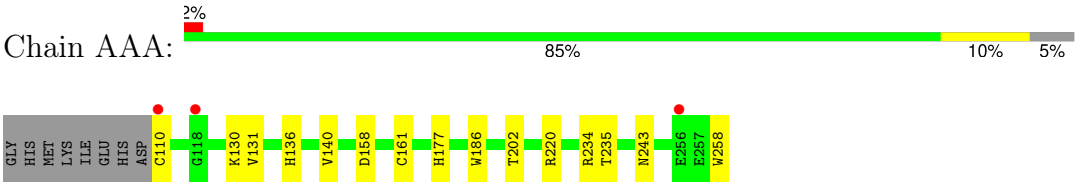
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
3	AAA	268	Total O 268 268	0	0
3	BBB	221	Total O 221 221	0	0

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.

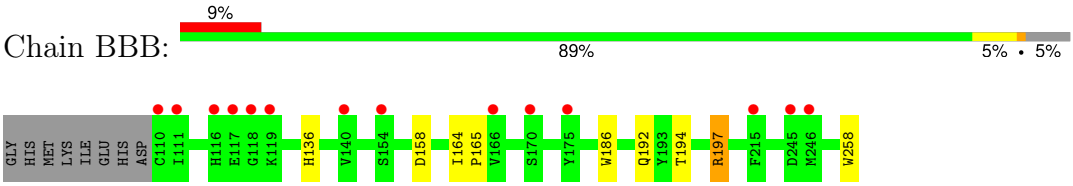
• Molecule 1: Structural polyprotein

Chain AAA:



• Molecule 1: Structural polyprotein

Chain BBB:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 1	Depositor
Cell constants a, b, c, α, β, γ	39.16Å 40.11Å 56.51Å 93.58° 94.40° 111.92°	Depositor
Resolution (Å)	37.06 – 1.18 37.06 – 1.18	Depositor EDS
% Data completeness (in resolution range)	93.1 (37.06-1.18) 93.1 (37.06-1.18)	Depositor EDS
R_{merge}	0.06	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	10.02 (at 1.18Å)	Xtriage
Refinement program	REFMAC 5.8.0258, PDB-REDO	Depositor
R, R_{free}	0.165 , 0.181 0.173 , 0.190	Depositor DCC
R_{free} test set	5002 reflections (5.05%)	wwPDB-VP
Wilson B-factor (Å^2)	9.6	Xtriage
Anisotropy	0.360	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.35 , 36.4	EDS
L-test for twinning[2]	$< \|L\| > = 0.49$, $< L^2 > = 0.33$	Xtriage
Estimated twinning fraction	0.009 for -k,-h,-l	Xtriage
F_o,F_c correlation	0.97	EDS
Total number of atoms	2944	wwPDB-VP
Average B, all atoms (Å^2)	15.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 8.60% 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: EDO

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	AAA	0.52	0/1271	0.73	0/1719
1	BBB	0.51	0/1235	0.70	2/1673 (0.1%)
All	All	0.52	0/2506	0.72	2/3392 (0.1%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	BBB	0	1

There are no bond length outliers.

All (2) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	BBB	197[A]	ARG	CD-NE-CZ	6.02	132.02	123.60
1	BBB	197[B]	ARG	CD-NE-CZ	6.02	132.02	123.60

There are no chirality outliers.

All (1) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	BBB	197[A]	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	AAA	1225	0	1212	21	0
1	BBB	1198	0	1191	8	0
2	AAA	24	0	36	19	0
2	BBB	8	0	12	0	0
3	AAA	268	0	0	10	0
3	BBB	221	0	0	1	0
All	All	2944	0	2451	35	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 7.

All (35) 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:BBB:192:GLN:HE21	1:BBB:194[B]:THR:HG21	1.44	0.83
1:AAA:136:HIS:HD2	1:AAA:158:ASP:OD2	1.66	0.77
1:BBB:136:HIS:HD2	1:BBB:158:ASP:OD2	1.69	0.75
1:AAA:110:CYS:N	2:AAA:302:EDO:HO1	1.86	0.73
1:AAA:243[B]:ASN:ND2	3:AAA:401:HOH:O	2.21	0.72
2:AAA:301:EDO:H22	3:AAA:477:HOH:O	1.89	0.72
2:AAA:301:EDO:C2	3:AAA:477:HOH:O	2.38	0.71
1:BBB:136:HIS:HE1	1:BBB:258:TRP:O	1.77	0.67
1:AAA:136:HIS:HE1	1:AAA:258:TRP:O	1.79	0.66
1:AAA:110:CYS:N	2:AAA:302:EDO:HO2	1.96	0.63
1:AAA:161[B]:CYS:SG	2:AAA:306:EDO:O2	2.53	0.62
1:BBB:192:GLN:HE21	1:BBB:194[B]:THR:CG2	2.12	0.61
1:AAA:140[A]:VAL:HG23	3:AAA:543:HOH:O	2.02	0.59
1:AAA:235:THR:OG1	2:AAA:305:EDO:C1	2.52	0.58
1:AAA:202:THR:HG23	2:AAA:305:EDO:H11	1.88	0.55
2:AAA:305:EDO:H22	3:AAA:533:HOH:O	2.11	0.51
1:AAA:220:ARG:NH2	3:AAA:402:HOH:O	2.43	0.51
1:BBB:194[B]:THR:HG22	3:BBB:566:HOH:O	2.11	0.50
1:AAA:161[B]:CYS:SG	2:AAA:306:EDO:C2	3.00	0.50
1:AAA:130:LYS:HE3	2:AAA:306:EDO:H21	1.95	0.48
1:AAA:235:THR:HG21	2:AAA:305:EDO:H12	1.96	0.48
2:AAA:304:EDO:H22	3:AAA:539:HOH:O	2.13	0.48
1:AAA:140[A]:VAL:HG22	2:AAA:301:EDO:O1	2.14	0.47
1:AAA:234:ARG:HH12	2:AAA:304:EDO:H22	1.81	0.46
1:AAA:177:HIS:HD2	3:AAA:571:HOH:O	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BBB:164[B]:ILE:HG22	1:BBB:165:PRO:O	2.17	0.45
1:AAA:202:THR:HA	2:AAA:305:EDO:H11	1.99	0.45
1:AAA:130:LYS:CE	2:AAA:306:EDO:H21	2.47	0.44
1:AAA:235:THR:OG1	2:AAA:305:EDO:H12	2.16	0.44
1:AAA:136:HIS:CD2	1:AAA:158:ASP:OD2	2.56	0.44
2:AAA:301:EDO:H21	3:AAA:477:HOH:O	2.12	0.44
1:BBB:136:HIS:CD2	1:BBB:158:ASP:OD2	2.60	0.43
1:BBB:192:GLN:NE2	1:BBB:194[B]:THR:HG21	2.21	0.43
2:AAA:304:EDO:C2	3:AAA:539:HOH:O	2.68	0.42
1:AAA:131:VAL:O	1:AAA:161[A]:CYS:HA	2.20	0.41

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	AAA	161/157 (102%)	161 (100%)	0	0	100	100
1	BBB	156/157 (99%)	155 (99%)	1 (1%)	0	100	100
All	All	317/314 (101%)	316 (100%)	1 (0%)	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	AAA	135/128 (106%)	134 (99%)	1 (1%)	81 55
1	BBB	130/128 (102%)	129 (99%)	1 (1%)	79 51
All	All	265/256 (104%)	263 (99%)	2 (1%)	79 51

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

Mol	Chain	Res	Type
1	AAA	186	TRP
1	BBB	186	TRP

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)

8 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	$\#\|Z\| > 2$
2	EDO	AAA	304	-	3,3,3	0.17	0	2,2,2	0.30	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
2	EDO	AAA	301	-	3,3,3	0.25	0	2,2,2	0.54	0
2	EDO	AAA	306	-	3,3,3	0.09	0	2,2,2	0.28	0
2	EDO	AAA	303	-	3,3,3	0.18	0	2,2,2	0.29	0
2	EDO	BBB	302	-	3,3,3	0.13	0	2,2,2	0.15	0
2	EDO	BBB	301	-	3,3,3	0.16	0	2,2,2	0.06	0
2	EDO	AAA	302	-	3,3,3	0.17	0	2,2,2	0.09	0
2	EDO	AAA	305	-	3,3,3	0.37	0	2,2,2	0.75	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	EDO	AAA	304	-	-	1/1/1/1	-
2	EDO	AAA	301	-	-	1/1/1/1	-
2	EDO	AAA	306	-	-	1/1/1/1	-
2	EDO	AAA	303	-	-	0/1/1/1	-
2	EDO	BBB	302	-	-	0/1/1/1	-
2	EDO	BBB	301	-	-	0/1/1/1	-
2	EDO	AAA	302	-	-	1/1/1/1	-
2	EDO	AAA	305	-	-	1/1/1/1	-

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

All (5) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	AAA	306	EDO	O1-C1-C2-O2
2	AAA	304	EDO	O1-C1-C2-O2
2	AAA	302	EDO	O1-C1-C2-O2
2	AAA	301	EDO	O1-C1-C2-O2
2	AAA	305	EDO	O1-C1-C2-O2

There are no ring outliers.

5 monomers are involved in 19 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	AAA	304	EDO	3	0

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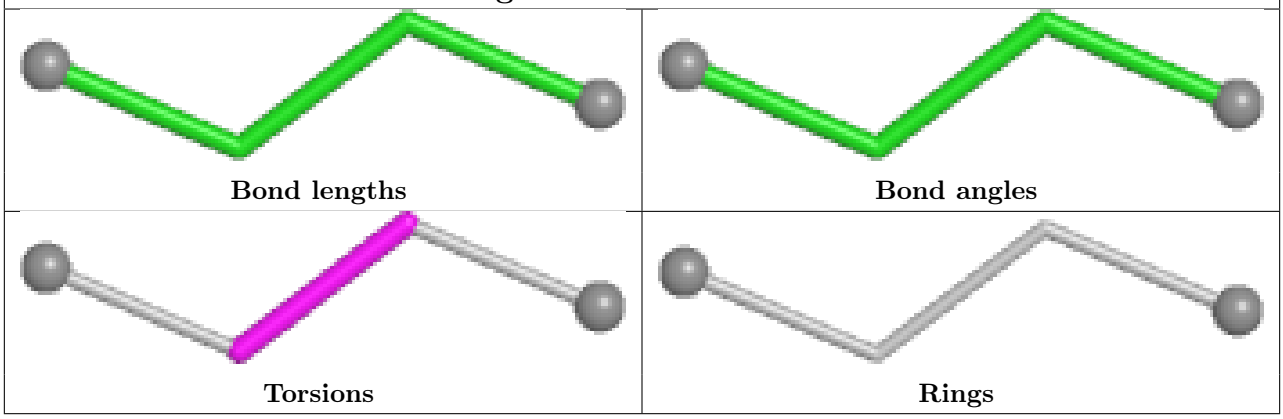
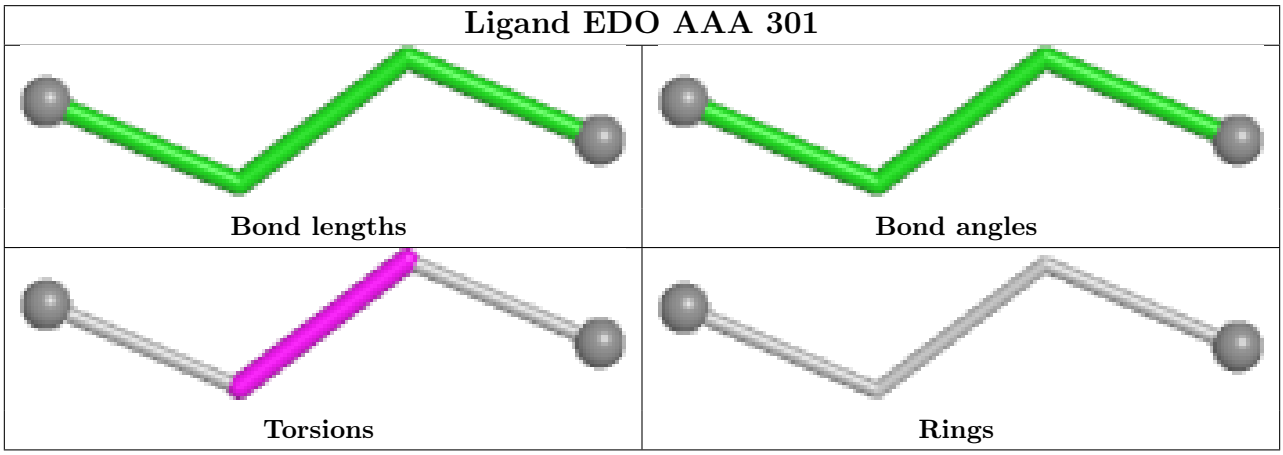
Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	AAA	301	EDO	4	0
2	AAA	306	EDO	4	0
2	AAA	302	EDO	2	0
2	AAA	305	EDO	6	0

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.

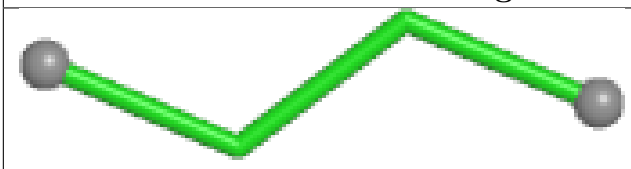
Ligand EDO AAA 304



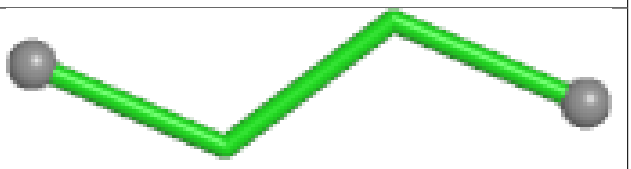
Ligand EDO AAA 301



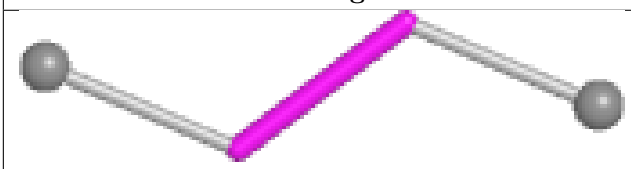
Ligand EDO AAA 306



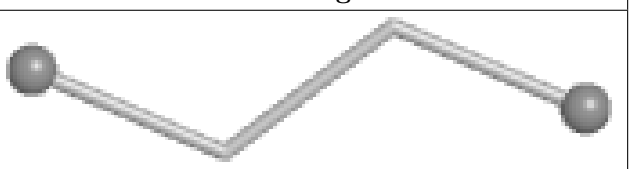
Bond lengths



Bond angles

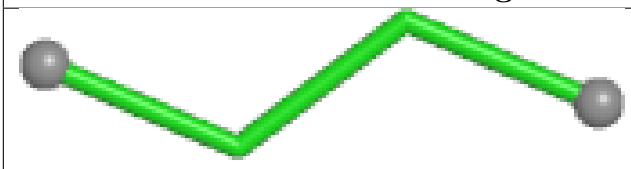


Torsions

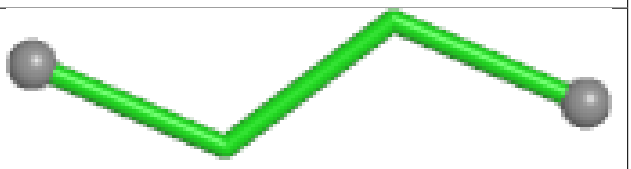


Rings

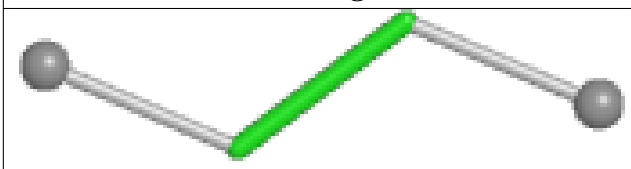
Ligand EDO AAA 303



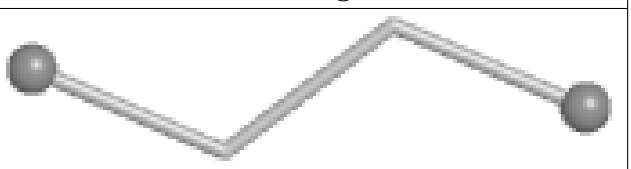
Bond lengths



Bond angles

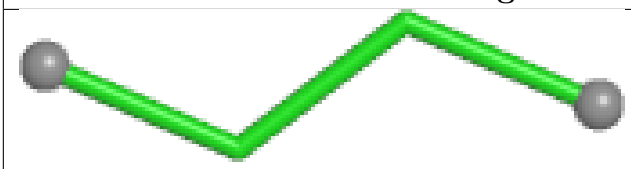


Torsions

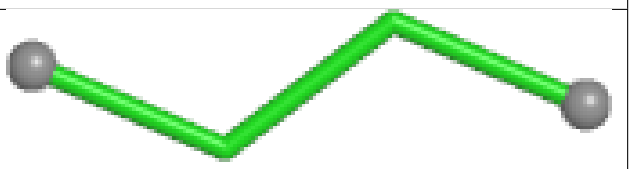


Rings

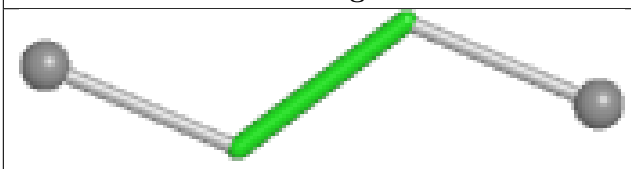
Ligand EDO BBB 302



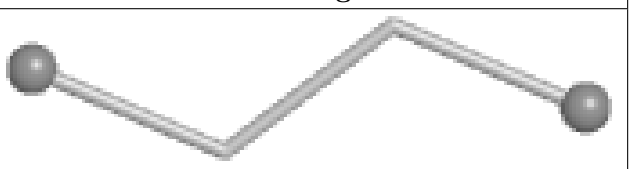
Bond lengths



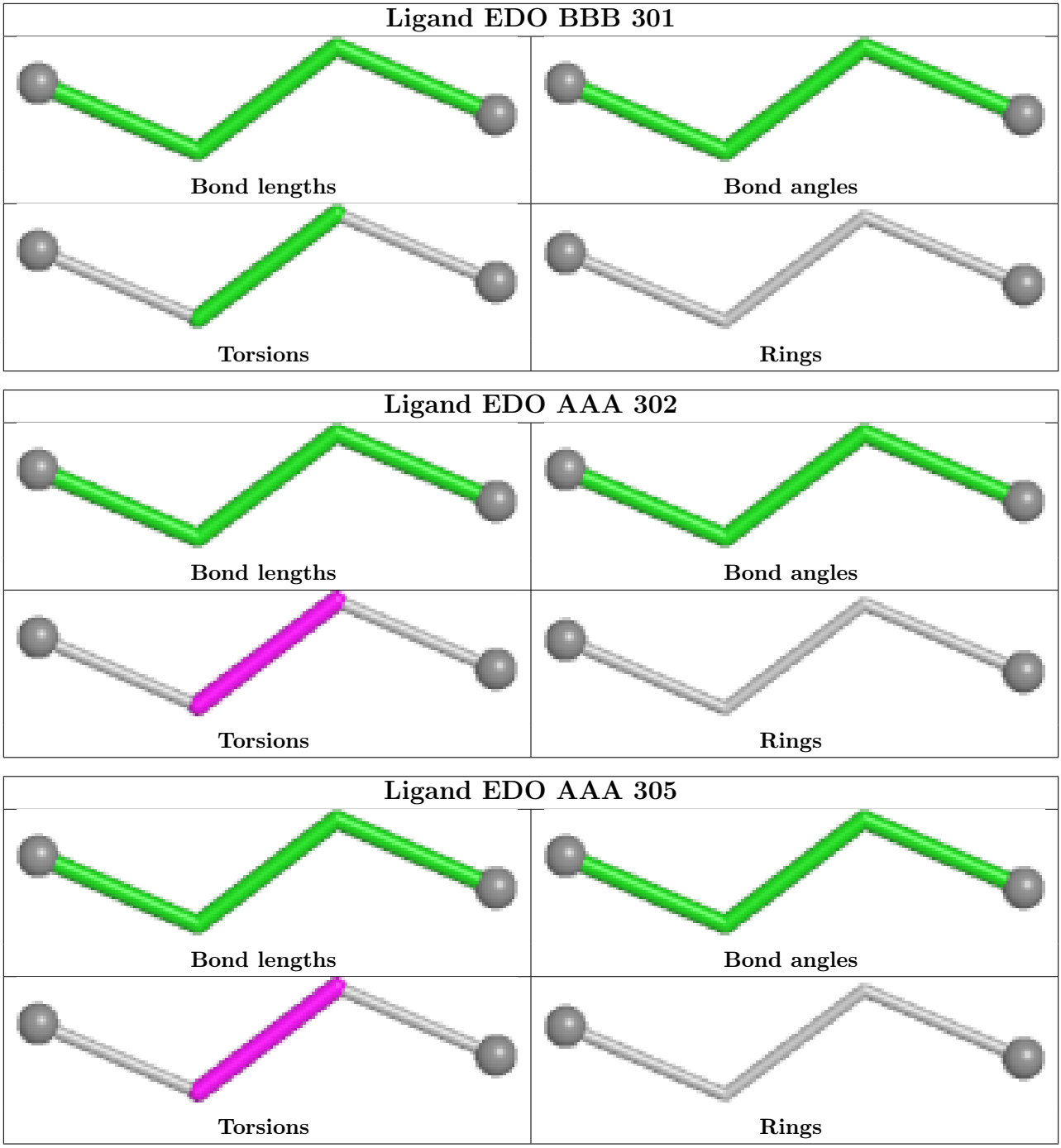
Bond angles



Torsions



Rings



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	AAA	149/157 (94%)	0.36	3 (2%)	64	68	4, 9, 16, 157	13 (8%)
1	BBB	149/157 (94%)	0.67	14 (9%)	15	17	5, 10, 21, 217	9 (6%)
All	All	298/314 (94%)	0.51	17 (5%)	30	33	4, 10, 20, 217	22 (7%)

All (17) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	AAA	110	CYS	21.3
1	BBB	118	GLY	14.3
1	BBB	245	ASP	6.4
1	BBB	117	GLU	6.0
1	BBB	110	CYS	3.7
1	BBB	119	LYS	3.3
1	BBB	111	ILE	3.2
1	BBB	140	VAL	2.7
1	BBB	246	MET	2.3
1	BBB	215	PHE	2.3
1	AAA	118	GLY	2.2
1	BBB	175	TYR	2.2
1	BBB	154	SER	2.2
1	AAA	256	GLU	2.1
1	BBB	166[A]	VAL	2.1
1	BBB	116	HIS	2.0
1	BBB	170[A]	SER	2.0

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 (i)

There are no monosaccharides in this entry.

6.4 Ligands (i)

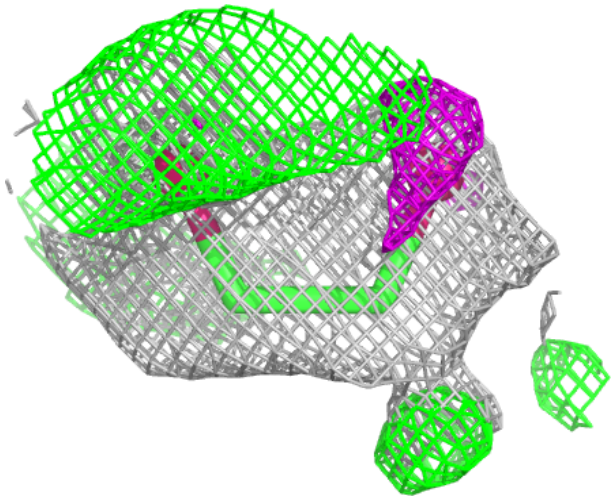
In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9'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

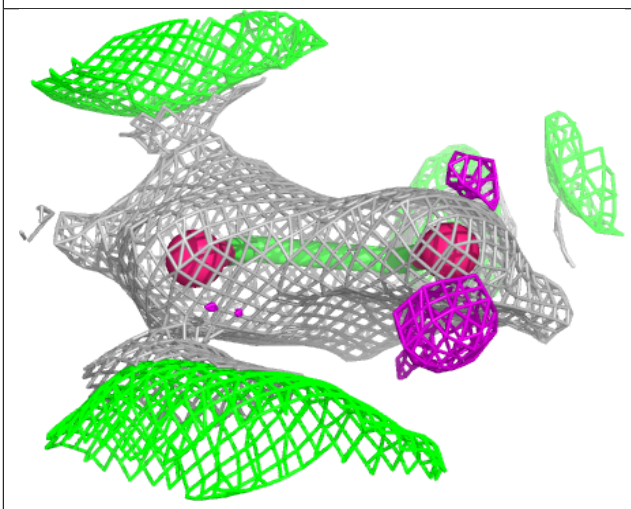
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
2	EDO	AAA	302	4/4	0.69	0.17	22,27,29,31	0
2	EDO	AAA	306	4/4	0.75	0.21	38,42,49,49	0
2	EDO	BBB	301	4/4	0.83	0.15	19,20,23,30	0
2	EDO	AAA	303	4/4	0.84	0.15	25,30,30,38	0
2	EDO	AAA	304	4/4	0.85	0.14	20,24,24,38	0
2	EDO	AAA	301	4/4	0.87	0.14	20,29,30,30	0
2	EDO	AAA	305	4/4	0.88	0.11	14,16,24,27	0
2	EDO	BBB	302	4/4	0.90	0.10	21,21,22,28	0

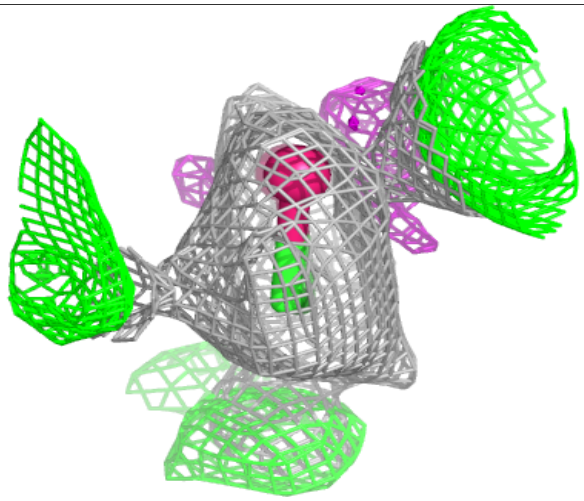
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation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

Electron density around EDO AAA 302:

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

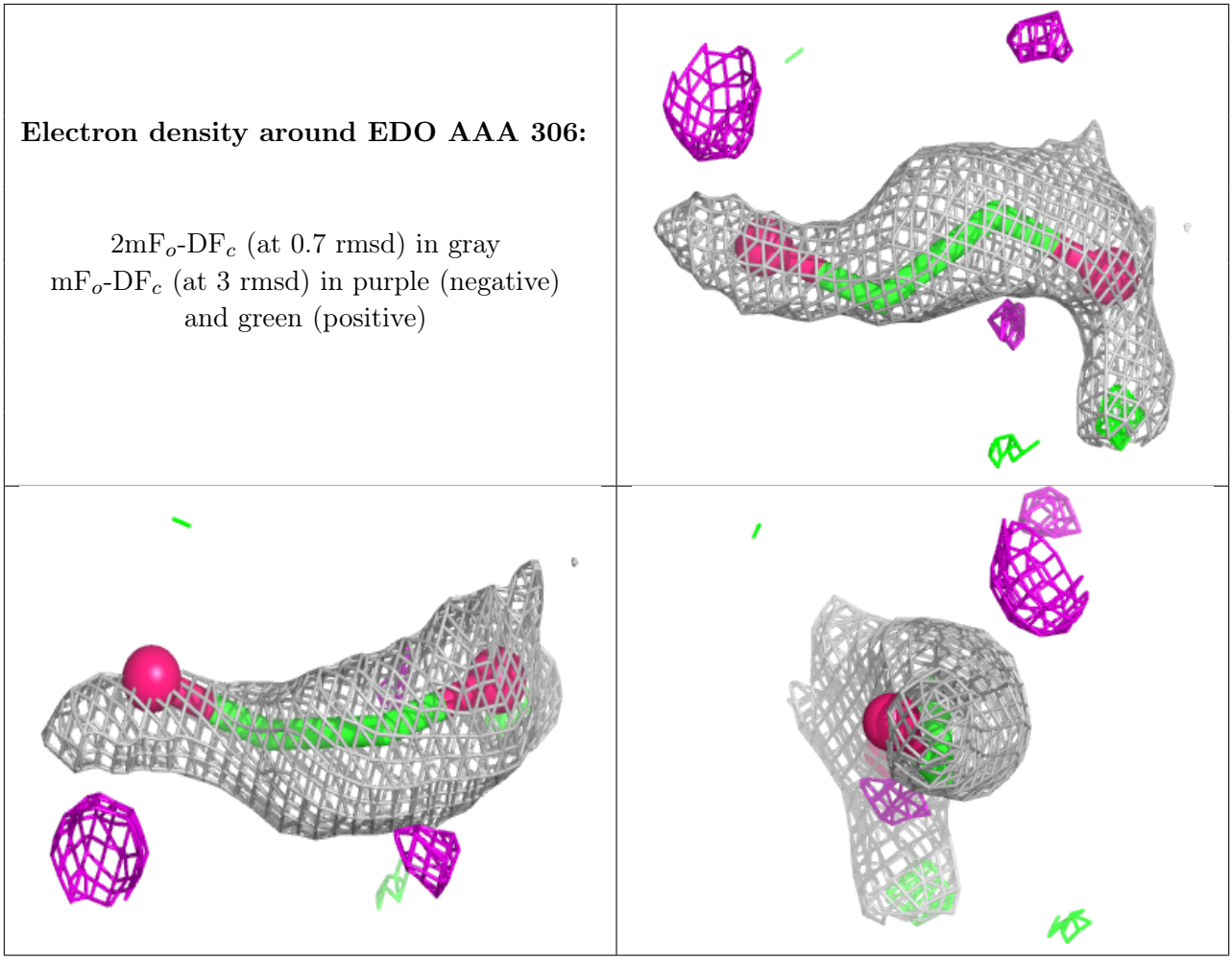






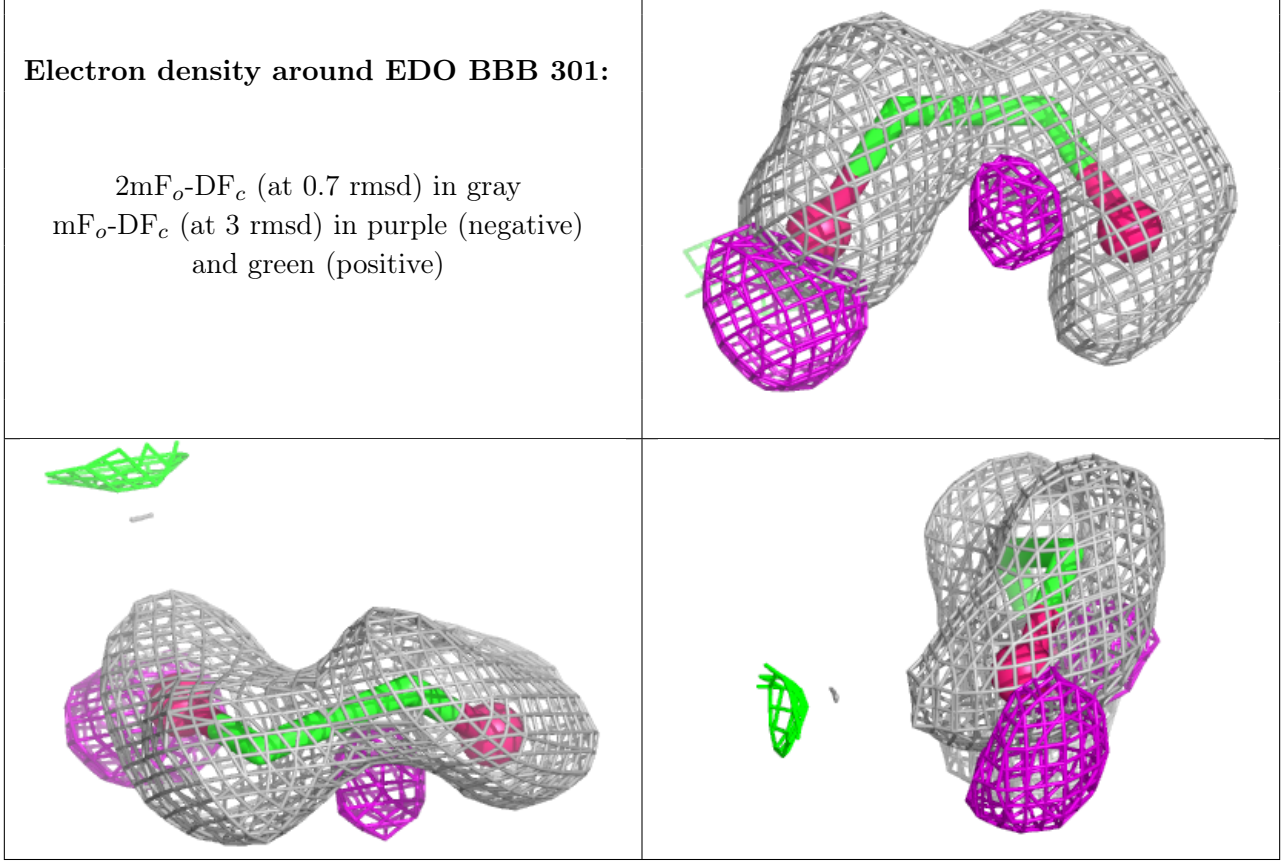
Electron density around EDO AAA 306:

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



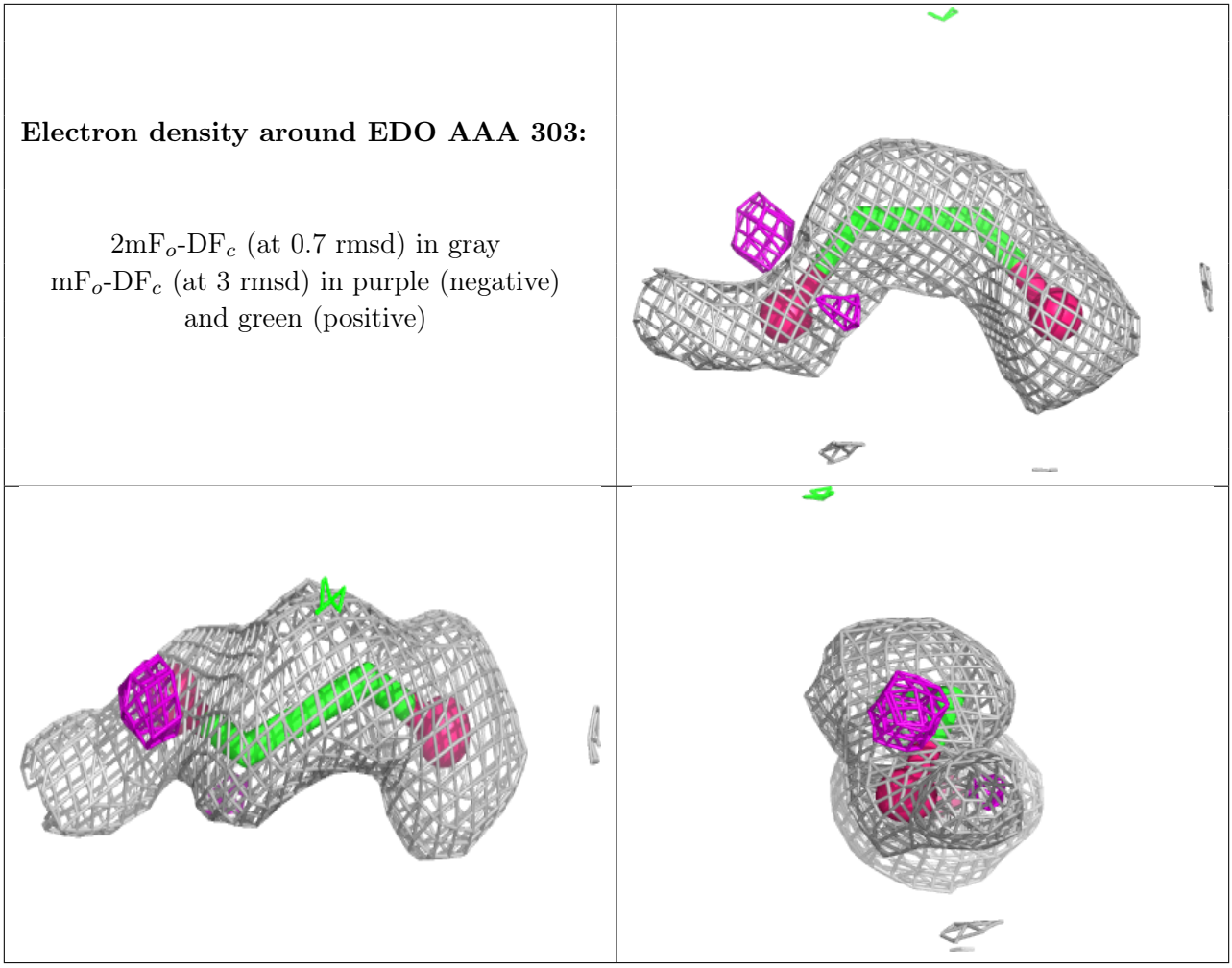
Electron density around EDO BBB 301:

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



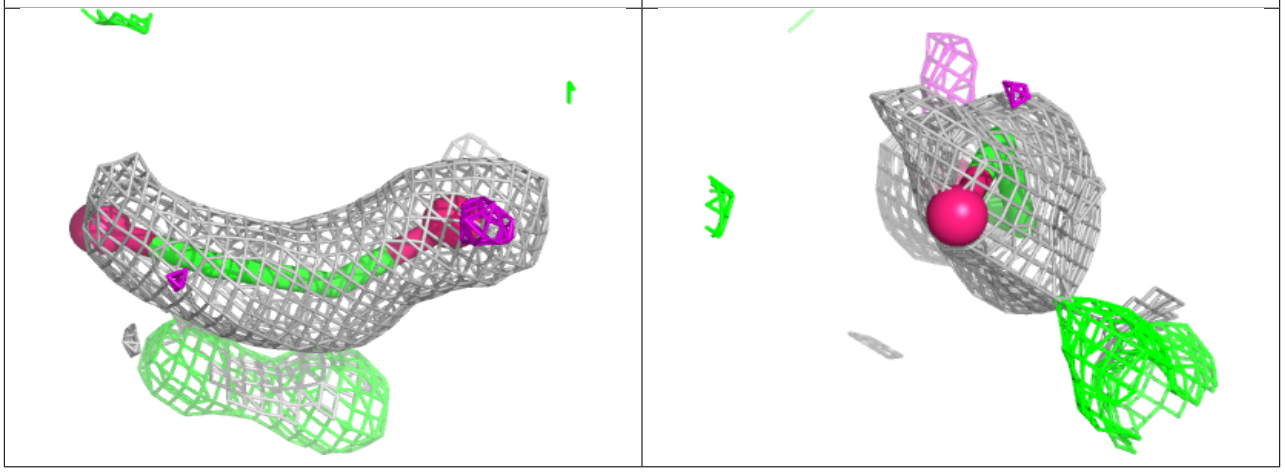
Electron density around EDO AAA 303:

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



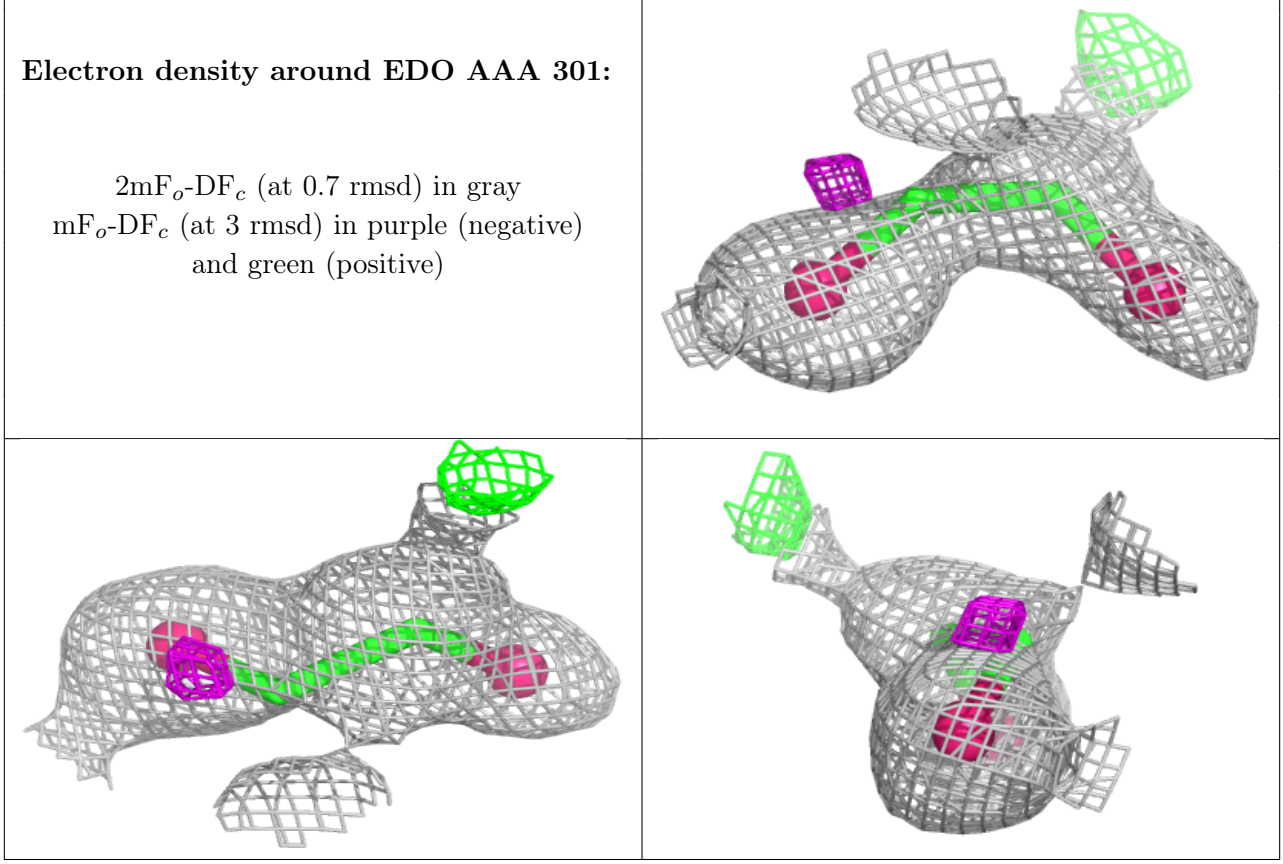
Electron density around EDO AAA 304:

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



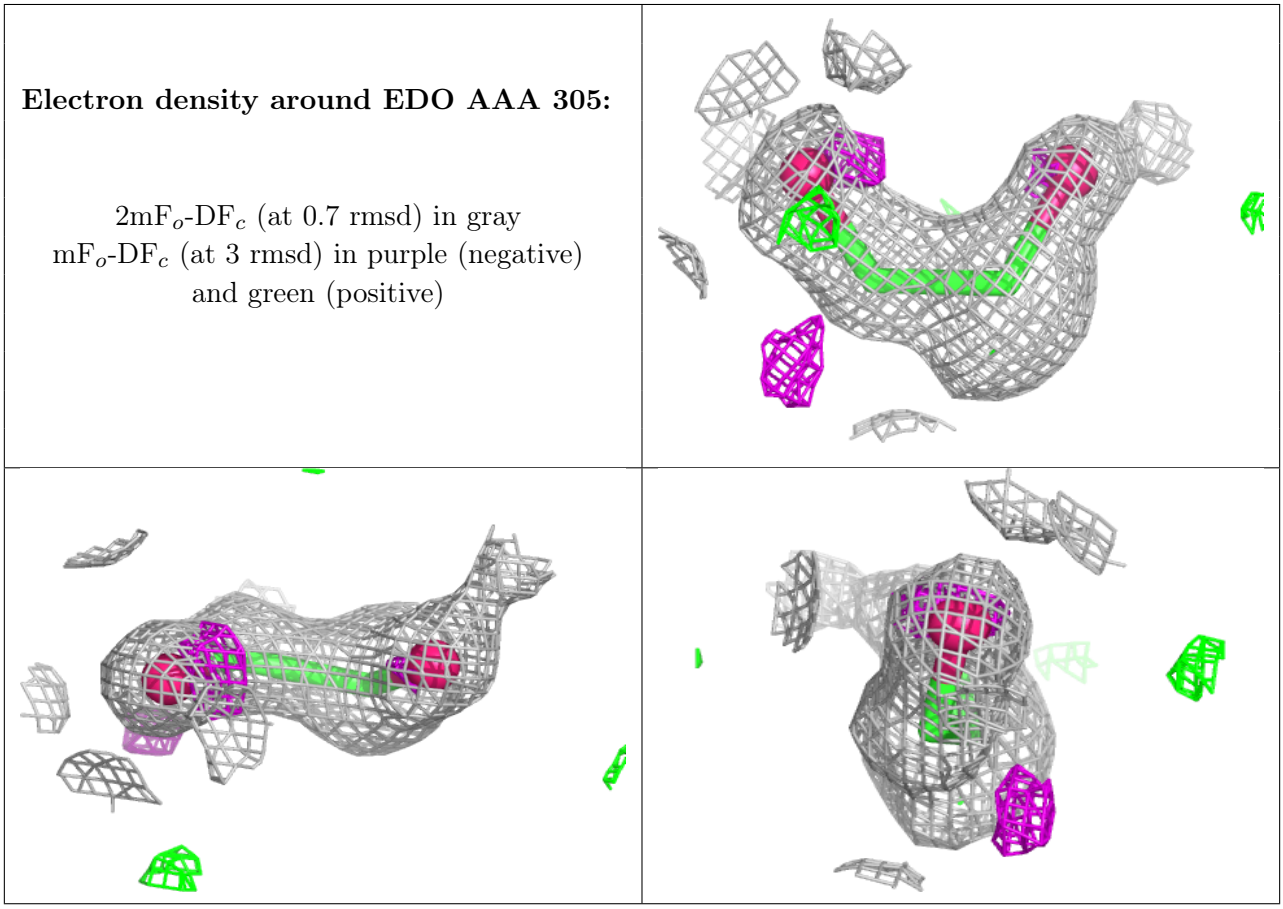
Electron density around EDO AAA 301:

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



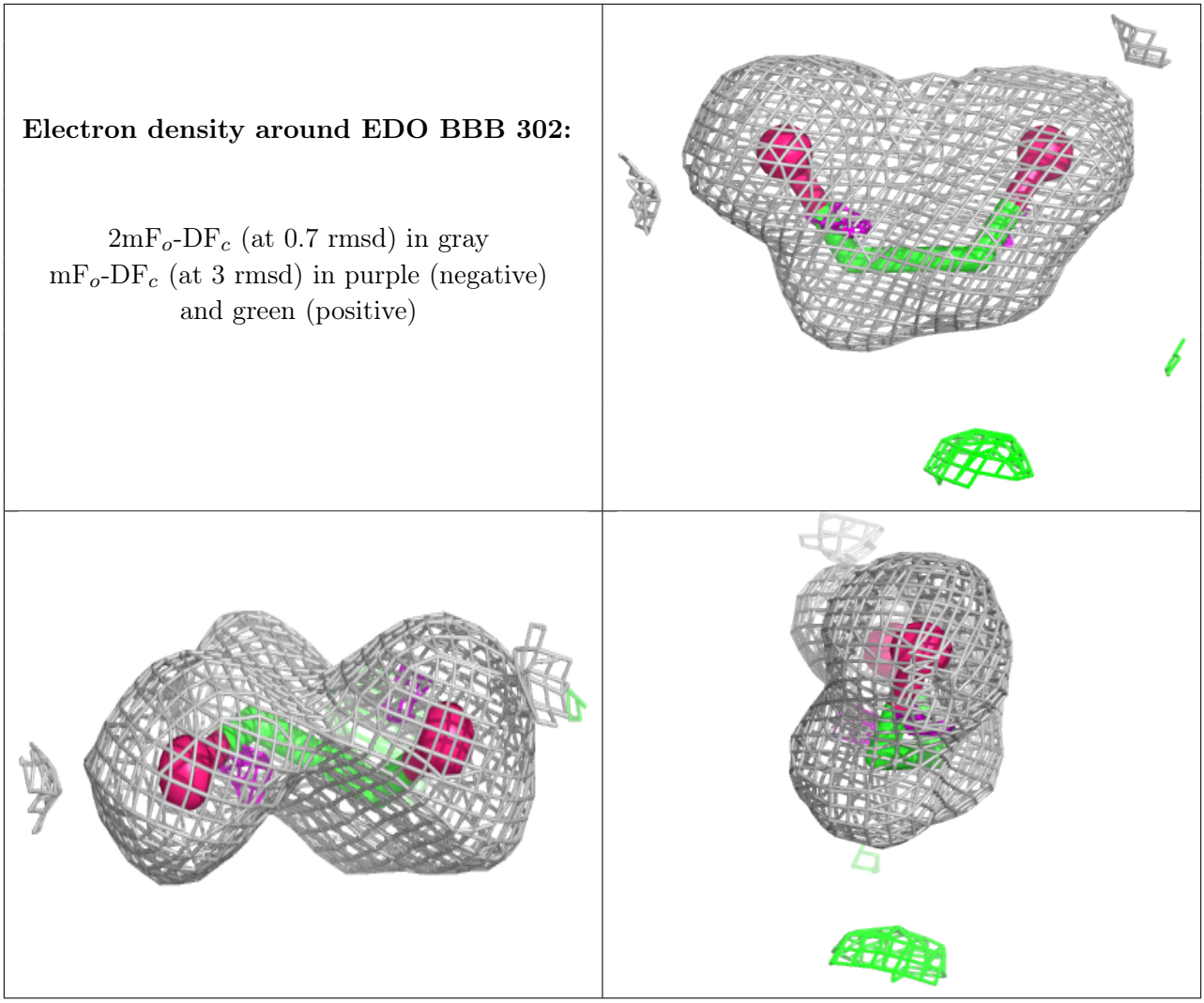
Electron density around EDO AAA 305:

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



Electron density around EDO BBB 302:

$2mF_o$-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

There are no such residues in this entry.