Full wwPDB X-ray Structure Validation Report (i)

Jan 20, 2024 – 10:57 pm GMT

PDB ID	:	6ZMC
Title	:	Structure of the tRNA-Monooxygenase enzyme MiaE frozen under 2000 bar using the high pressure freezing method
Authors	:	Carpentier, P.; Atta, M.
Deposited on	:	2020-07-02
Resolution	:	2.50 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	:	1.8.4, CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.36
buster-report	:	1.1.7 (2018)
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 ⓘ

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

The reported resolution of this entry is 2.50 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.

- Percentile relative to all X-ray structures
- Percentile relative to X-ray structures of similar resolution
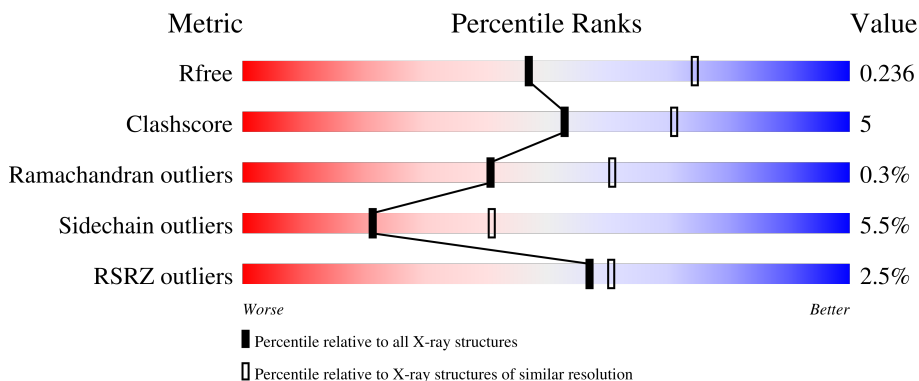
Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	4661 (2.50-2.50)
Clashscore	141614	5346 (2.50-2.50)
Ramachandran outliers	138981	5231 (2.50-2.50)
Sidechain outliers	138945	5233 (2.50-2.50)
RSRZ outliers	127900	4559 (2.50-2.50)

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	B	200	2% ... 80% ... 16% ·
1	C	200	3% ... 84% ... 14% ·

2 Entry composition ⓘ

There are 9 unique types of molecules in this entry. The entry contains 3309 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 tRNA hydroxylase.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	B	199	Total 1600	C 1012	N 291	O 290	S 7	60	3	0
1	C	200	Total 1600	C 1015	N 291	O 287	S 7	54	3	0

- Molecule 2 is FE (III) ION (three-letter code: FE) (formula: Fe) (labeled as "Ligand of Interest" by depositor).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
2	B	2	Total 2	Fe 2	0	0
2	C	2	Total 2	Fe 2	0	0

- Molecule 3 is CHLORIDE ION (three-letter code: CL) (formula: Cl).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	B	1	Total 1	Cl 1	0	0

- Molecule 4 is CALCIUM ION (three-letter code: CA) (formula: Ca).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
4	B	2	Total 2	Ca 2	0	0

- Molecule 5 is 2-AMINO-2-HYDROXYMETHYL-PROPANE-1,3-DIOL (three-letter code: TRS) (formula: $C_4H_{12}NO_3$).

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
5	B	1	Total	C	N	O	0	0
			8	4	1	3		
5	C	1	Total	C	N	O	0	0
			8	4	1	3		

- Molecule 6 is TETRAETHYLENE GLYCOL (three-letter code: PG4) (formula: $C_8H_{18}O_5$).

Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
6	B	1	Total	C	O	0	0
			13	8	5		
6	B	1	Total	C	O	0	0
			13	8	5		

- Molecule 7 is ARGON (three-letter code: AR) (formula: Ar).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
7	C	1	Total 1	Ar 1	0	0

- Molecule 8 is DI(HYDROXYETHYL)ETHER (three-letter code: PEG) (formula: $C_4H_{10}O_3$).
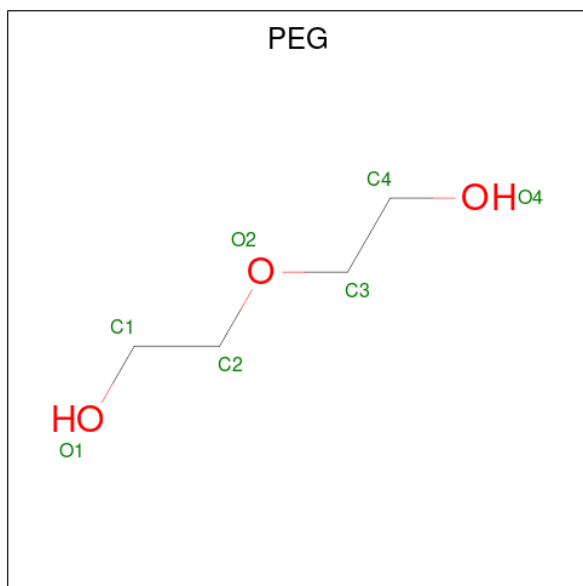
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
8	C	1	Total 7	C 4	O 3	0	0

- Molecule 9 is water.

| Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
9	B	22	Total 22	O 22	0	0
9	C	30	Total 30	O 30	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: tRNA hydroxylase

Chain B:

• Molecule 1: tRNA hydroxylase

Chain C:
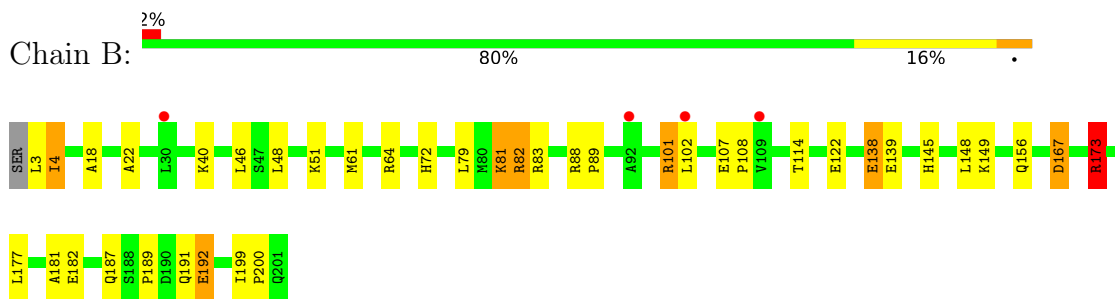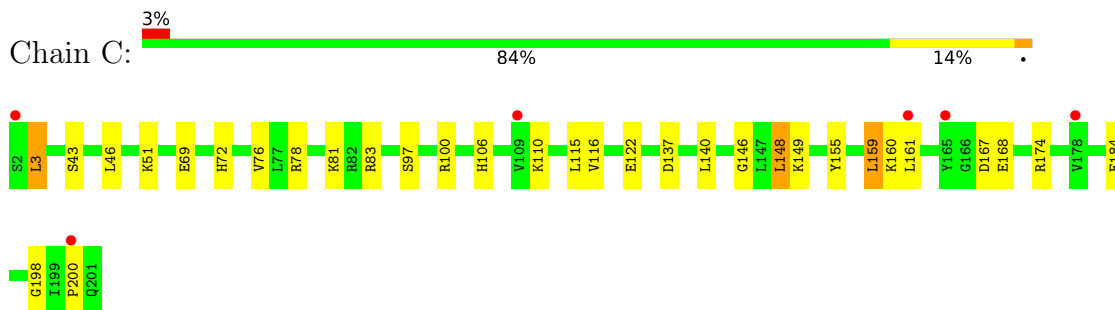
4 Data and refinement statistics ⓘ

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, α, β, γ	117.39Å 51.91Å 78.98Å 90.00° 90.36° 90.00°	Depositor
Resolution (Å)	47.52 – 2.50 47.47 – 2.50	Depositor EDS
% Data completeness (in resolution range)	99.3 (47.52-2.50) 99.3 (47.47-2.50)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.01 (at 2.48Å)	Xtriage
Refinement program	REFMAC 5.8.0257	Depositor
R, R_{free}	0.182 , 0.245 0.190 , 0.236	Depositor DCC
R_{free} test set	829 reflections (4.96%)	wwPDB-VP
Wilson B-factor (Å^2)	68.7	Xtriage
Anisotropy	0.027	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.34 , 58.2	EDS
L-test for twinning[2]	$< |L| > = 0.50, < L^2 > = 0.33$	Xtriage
Estimated twinning fraction	0.007 for -h,-k,l	Xtriage
F_o,F_c correlation	0.97	EDS
Total number of atoms	3309	wwPDB-VP
Average B, all atoms (Å^2)	79.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 6.05% 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: CL, AR, PG4, FE, TRS, PEG, CA

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	B	1.31	11/1632 (0.7%)	1.25	13/2209 (0.6%)
1	C	1.07	9/1638 (0.5%)	0.88	5/2214 (0.2%)
All	All	1.19	20/3270 (0.6%)	1.08	18/4423 (0.4%)

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	B	0	1

All (20) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	40	LYS	CD-CE	-24.30	0.90	1.51
1	B	138	GLU	CB-CG	-23.61	1.07	1.52
1	C	149	LYS	CG-CD	-19.09	0.87	1.52
1	B	192	GLU	CB-CG	-15.89	1.22	1.52
1	C	168	GLU	CB-CG	-13.19	1.27	1.52
1	B	167	ASP	CB-CG	12.97	1.78	1.51
1	C	110	LYS	CD-CE	-12.93	1.19	1.51
1	C	160	LYS	CB-CG	-11.54	1.21	1.52
1	B	173	ARG	CD-NE	-10.52	1.28	1.46
1	B	81	LYS	CG-CD	-8.78	1.22	1.52
1	B	101	ARG	CB-CG	-7.94	1.31	1.52
1	C	3	LEU	CB-CG	-7.75	1.30	1.52
1	C	51	LYS	CG-CD	-7.49	1.26	1.52
1	B	149	LYS	CB-CG	6.50	1.70	1.52
1	B	51	LYS	CG-CD	-6.44	1.30	1.52
1	C	106	HIS	CA-CB	-6.29	1.40	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	79	LEU	CG-CD1	-6.20	1.28	1.51
1	B	61	MET	CG-SD	-5.69	1.66	1.81
1	C	167	ASP	CB-CG	5.60	1.63	1.51
1	C	100	ARG	CG-CD	-5.46	1.38	1.51

All (18) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	82	ARG	NE-CZ-NH2	-24.45	108.07	120.30
1	B	82	ARG	NE-CZ-NH1	19.38	129.99	120.30
1	B	167	ASP	CB-CG-OD1	-16.21	103.71	118.30
1	B	167	ASP	CB-CG-OD2	15.73	132.46	118.30
1	B	138	GLU	CA-CB-CG	9.70	134.75	113.40
1	B	192	GLU	CB-CG-CD	-9.39	88.84	114.20
1	B	79	LEU	CB-CG-CD1	8.97	126.25	111.00
1	B	40	LYS	CG-CD-CE	8.17	136.41	111.90
1	C	51	LYS	CB-CG-CD	7.38	130.78	111.60
1	B	51	LYS	CB-CG-CD	6.83	129.35	111.60
1	B	149	LYS	CA-CB-CG	-6.67	98.71	113.40
1	C	168	GLU	CA-CB-CG	6.44	127.56	113.40
1	C	3	LEU	CA-CB-CG	5.92	128.92	115.30
1	C	100	ARG	CB-CG-CD	5.72	126.47	111.60
1	C	160	LYS	CA-CB-CG	5.39	125.25	113.40
1	B	61	MET	CB-CG-SD	5.26	128.18	112.40
1	B	192	GLU	CA-CB-CG	5.19	124.83	113.40
1	B	138	GLU	CB-CG-CD	5.07	127.89	114.20

There are no chirality outliers.

All (1) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	B	82	ARG	Sidechain

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	B	1600	0	1603	19	0
1	C	1600	0	1607	15	0
2	B	2	0	0	0	0
2	C	2	0	0	0	0
3	B	1	0	0	0	0
4	B	2	0	0	0	0
5	B	8	0	12	3	0
5	C	8	0	11	3	0
6	B	26	0	36	1	0
7	C	1	0	0	0	0
8	C	7	0	10	1	0
9	B	22	0	0	3	1
9	C	30	0	0	2	0
All	All	3309	0	3279	34	1

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 (34) 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:69:GLU:OE2	9:C:402:HOH:O	1.93	0.86
1:B:182:GLU:OE2	9:B:401:HOH:O	1.97	0.83
1:C:78:ARG:CZ	9:C:420:HOH:O	2.33	0.76
1:C:198:GLY:O	1:C:200:PRO:HD3	1.97	0.64
1:C:122:GLU:CD	5:C:303:TRS:HO3	2.02	0.63
1:B:189:PRO:HA	1:B:199:ILE:O	2.00	0.62
1:B:102:LEU:HD11	1:B:181:ALA:CB	2.28	0.62
1:C:122:GLU:OE2	5:C:303:TRS:O3	2.16	0.61
1:C:83[B]:ARG:NH2	1:C:137:ASP:OD1	2.33	0.59
1:B:187:GLN:O	1:B:199:ILE:HD12	2.03	0.58
1:B:122:GLU:OE1	5:B:306:TRS:O2	2.25	0.55
1:B:22:ALA:HB2	1:B:200:PRO:HG3	1.89	0.55
1:B:83:ARG:NH2	1:B:139:GLU:OE2	2.35	0.55
1:B:72:HIS:HE1	9:B:412:HOH:O	1.84	0.54
1:B:122:GLU:CD	5:B:306:TRS:O2	2.47	0.52
1:B:122:GLU:OE2	5:B:306:TRS:O2	2.27	0.52
1:C:72:HIS:O	1:C:76:VAL:HG23	2.11	0.50
1:B:4:ILE:HG21	1:B:156:GLN:HG2	1.94	0.50
1:C:148:LEU:C	1:C:148:LEU:HD23	2.32	0.49
6:B:308:PG4:H12	9:B:416:HOH:O	2.13	0.48
1:B:18:ALA:HB3	1:B:199:ILE:HG23	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:107:GLU:HG3	1:B:108:PRO:HA	1.99	0.45
1:B:177:LEU:O	1:B:177:LEU:HD12	2.17	0.45
1:C:122:GLU:CD	5:C:303:TRS:O3	2.55	0.45
1:C:116:VAL:HG11	1:C:174:ARG:HG3	1.99	0.44
1:B:145:HIS:O	1:B:148:LEU:HB2	2.18	0.44
1:C:115:LEU:HD22	1:C:161:LEU:HD23	1.99	0.44
1:C:146:GLY:HA3	8:C:305:PEG:H21	2.00	0.44
1:B:46:LEU:HD12	1:C:46:LEU:HD12	2.00	0.43
1:B:88[B]:ARG:HA	1:B:89:PRO:HD3	1.95	0.42
1:C:83[B]:ARG:HH22	1:C:137:ASP:CG	2.20	0.42
1:B:48:LEU:HD21	1:B:114:THR:HG21	2.02	0.41
1:B:173:ARG:HA	1:B:173:ARG:HD3	1.88	0.41
1:C:159:LEU:HD23	1:C:159:LEU:HA	1.96	0.41

All (1) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:B:410:HOH:O	9:B:410:HOH:O[2_555]	1.17	1.03

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

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	B	200/200 (100%)	192 (96%)	7 (4%)	1 (0%)	29	48
1	C	201/200 (100%)	192 (96%)	9 (4%)	0	100	100
All	All	401/400 (100%)	384 (96%)	16 (4%)	1 (0%)	41	68

All (1) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	B	4	ILE

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	B	167/167 (100%)	158 (95%)	9 (5%)	22	42
1	C	166/167 (99%)	156 (94%)	10 (6%)	19	37
All	All	333/334 (100%)	314 (94%)	19 (6%)	21	39

All (19) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	B	3	LEU
1	B	64	ARG
1	B	81	LYS
1	B	101	ARG
1	B	138	GLU
1	B	167	ASP
1	B	173	ARG
1	B	191	GLN
1	B	192	GLU
1	C	3	LEU
1	C	43	SER
1	C	81	LYS
1	C	97[A]	SER
1	C	97[B]	SER
1	C	140	LEU
1	C	148	LEU
1	C	155	TYR
1	C	159	LEU
1	C	184	GLU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (2) such sidechains are listed below:

Mol	Chain	Res	Type
1	B	73	HIS
1	B	135	HIS

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 ⓘ

There are no monosaccharides in this entry.

5.6 Ligand geometry ⓘ

Of 13 ligands modelled in this entry, 8 are monoatomic - leaving 5 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#|Z| > 2$	Counts	RMSZ	$\#|Z| > 2$
6	PG4	B	307	-	12,12,12	0.26	0	11,11,11	0.15	0
5	TRS	B	306	2	7,7,7	0.27	0	9,9,9	0.43	0
8	PEG	C	305	-	6,6,6	0.36	0	5,5,5	0.21	0
5	TRS	C	303	2	7,7,7	0.28	0	9,9,9	0.31	0
6	PG4	B	308	-	12,12,12	0.35	0	11,11,11	0.21	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
6	PG4	B	307	-	-	8/10/10/10	-
5	TRS	B	306	2	-	4/9/9/9	-
8	PEG	C	305	-	-	0/4/4/4	-
5	TRS	C	303	2	-	3/9/9/9	-
6	PG4	B	308	-	-	4/10/10/10	-

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

All (19) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
5	B	306	TRS	C3-C-C2-O2
5	B	306	TRS	N-C-C2-O2
5	C	303	TRS	C1-C-C3-O3
5	C	303	TRS	C2-C-C3-O3
5	C	303	TRS	N-C-C3-O3
6	B	307	PG4	O3-C5-C6-O4
6	B	308	PG4	O1-C1-C2-O2
6	B	307	PG4	O1-C1-C2-O2
5	B	306	TRS	C1-C-C2-O2
6	B	308	PG4	O2-C3-C4-O3
6	B	308	PG4	O4-C7-C8-O5
6	B	307	PG4	O4-C7-C8-O5
6	B	307	PG4	C8-C7-O4-C6
6	B	308	PG4	C4-C3-O2-C2
6	B	307	PG4	C5-C6-O4-C7
5	B	306	TRS	C2-C-C1-O1
6	B	307	PG4	C6-C5-O3-C4
6	B	307	PG4	C4-C3-O2-C2
6	B	307	PG4	O2-C3-C4-O3

There are no ring outliers.

4 monomers are involved in 8 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
5	B	306	TRS	3	0
8	C	305	PEG	1	0
5	C	303	TRS	3	0
6	B	308	PG4	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(Å²)	Q<0.9
1	B	199/200 (99%)	0.14	4 (2%)	65	68	54, 78, 112, 131	18 (9%)
1	C	200/200 (100%)	0.21	6 (3%)	50	53	55, 70, 110, 136	16 (8%)
All	All	399/400 (99%)	0.17	10 (2%)	57	61	54, 74, 112, 136	34 (8%)

All (10) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	C	200	PRO	4.3
1	C	2	SER	3.8
1	C	178	VAL	2.9
1	C	109	VAL	2.9
1	B	102	LEU	2.6
1	B	109	VAL	2.5
1	C	165	TYR	2.3
1	B	92	ALA	2.3
1	C	161	LEU	2.2
1	B	30	LEU	2.1

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 ⓘ

There are no monosaccharides in this entry.

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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
6	PG4	B	308	13/13	0.72	0.21	94,108,118,119	0
8	PEG	C	305	7/7	0.82	0.19	91,92,98,103	0
2	FE	B	301	1/1	0.84	0.06	82,82,82,82	0
6	PG4	B	307	13/13	0.89	0.26	90,95,104,107	0
5	TRS	B	306	8/8	0.91	0.15	68,84,97,104	0
5	TRS	C	303	8/8	0.92	0.16	63,72,88,96	0
2	FE	C	302	1/1	0.93	0.03	73,73,73,73	0
7	AR	C	304	1/1	0.95	0.18	89,89,89,89	0
3	CL	B	303	1/1	0.96	0.14	74,74,74,74	0
4	CA	B	305	1/1	0.96	0.11	127,127,127,127	0
2	FE	B	302	1/1	0.97	0.03	79,79,79,79	0
4	CA	B	304	1/1	0.99	0.14	66,66,66,66	0
2	FE	C	301	1/1	0.99	0.05	62,62,62,62	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.
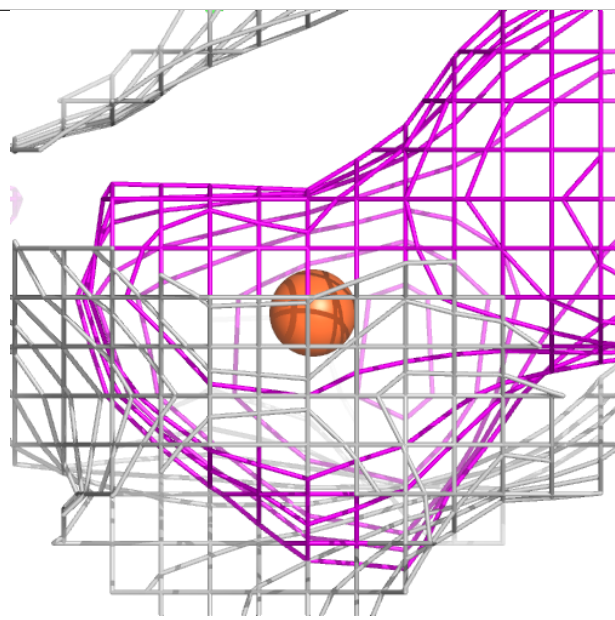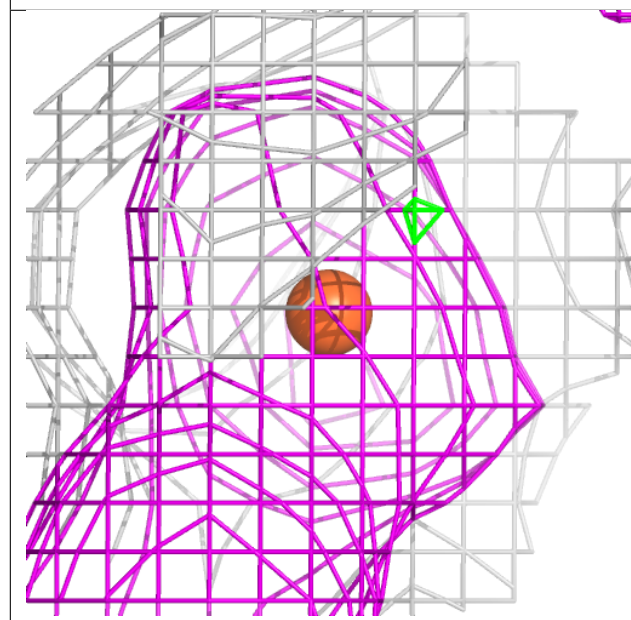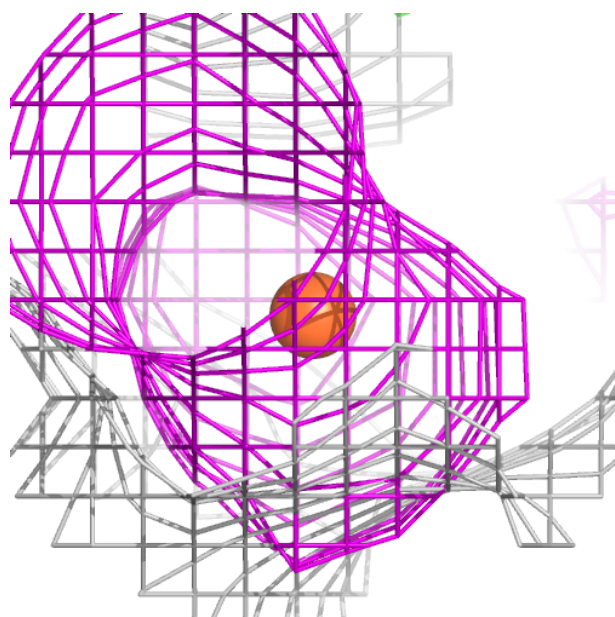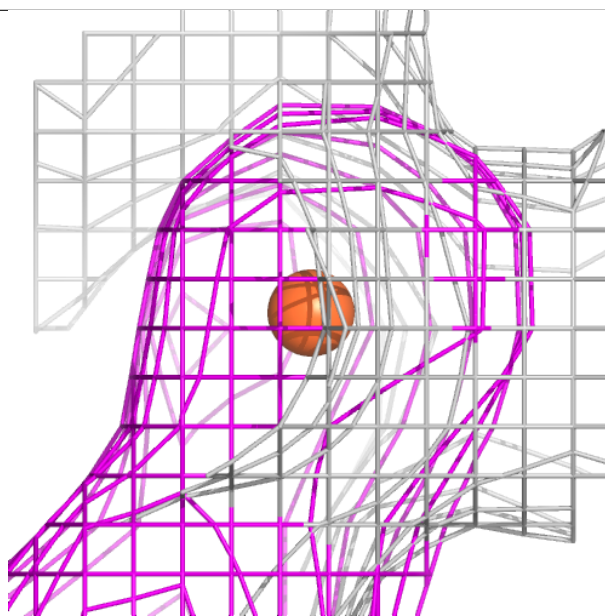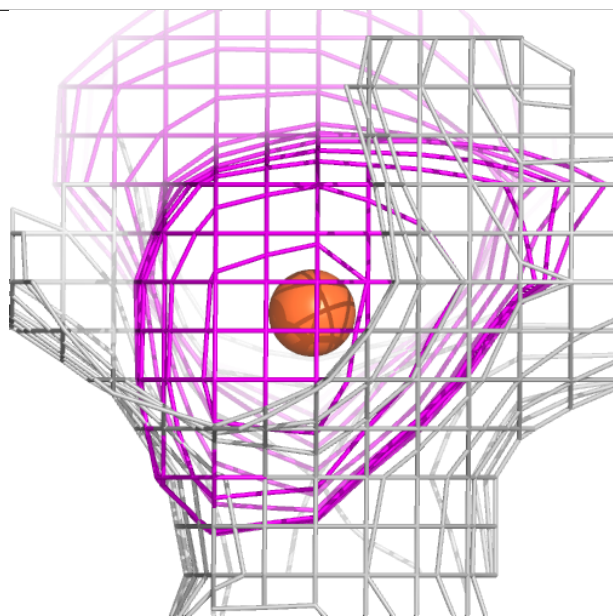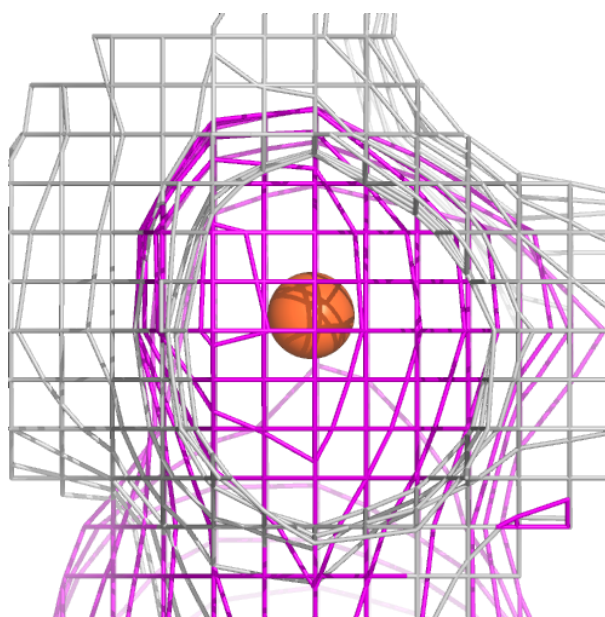
Electron density around FE B 301:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
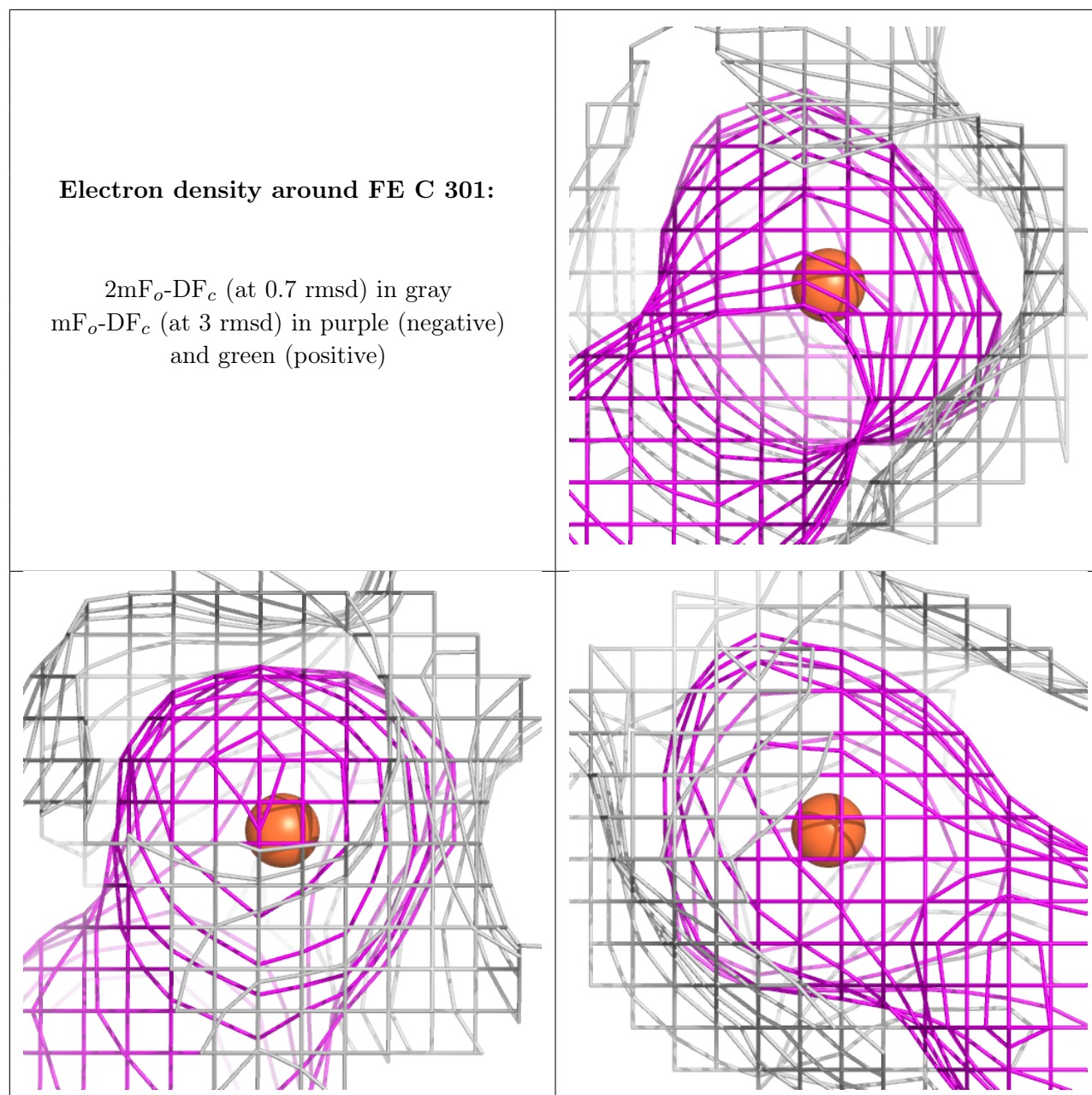and green (positive)
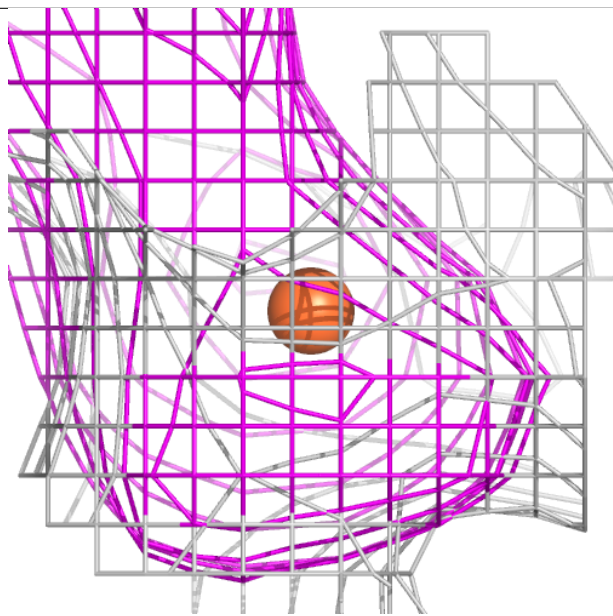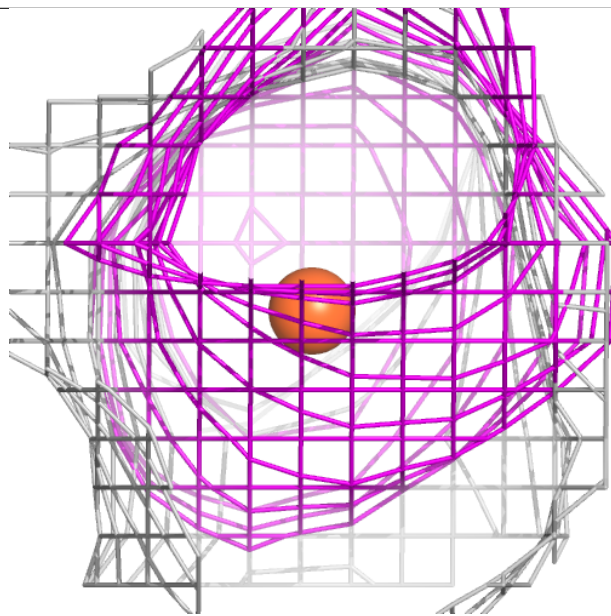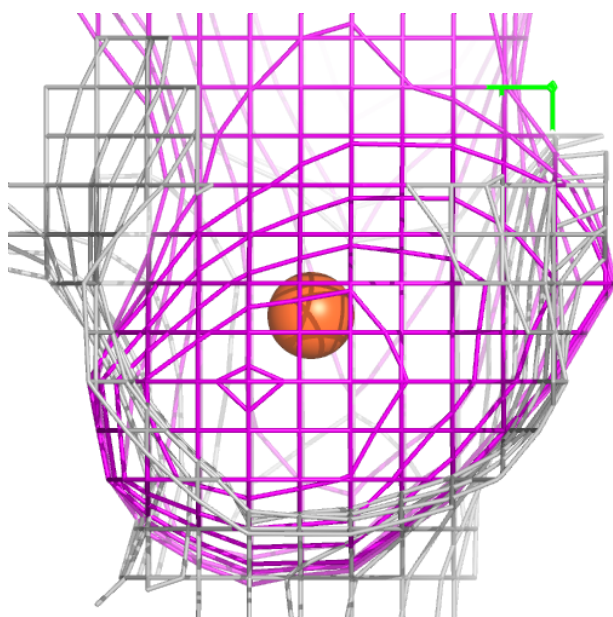
Electron density around FE C 302:

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

Electron density around FE B 302:

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

Electron density around FE C 301:

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

6.5 Other polymers ⓘ

There are no such residues in this entry.