W O R L D W I D E

wwPDB

P R O T E I N   D A T A   B A N K

wwPDB X-ray Structure Validation Summary Report ⓘ

Oct 24, 2023 – 04:50 PM EDT

PDB ID	:	3AZA
Title	:	Beta-Hydroxyacyl-Acyl Carrier Protein Dehydratase (FabZ) from Plasmodium falciparum in complex with NAS91-10
Authors	:	Maity, K.; Venkata, B.S.; Kapoor, N.; Surolia, N.; Surolia, A.; Suguna, K.
Deposited on	:	2011-05-21
Resolution	:	2.70 Å(reported)

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

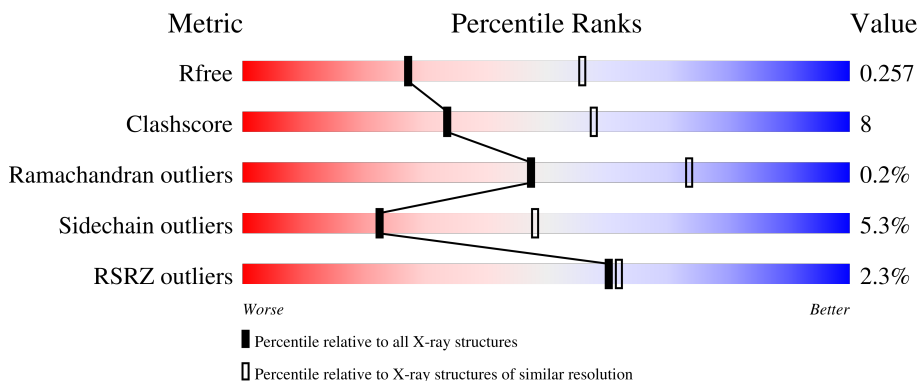|		
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.36
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & 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:
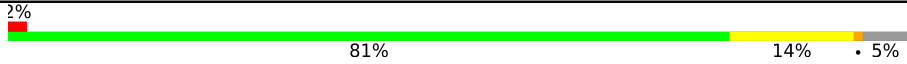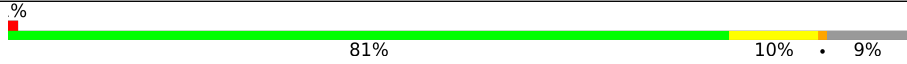*X-RAY DIFFRACTION*

The reported resolution of this entry is 2.70 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	Percentile Ranks	Value
Rfree		0.257
Clashscore		8
Ramachandran outliers		0.2%
Sidechain outliers		5.3%
RSRZ outliers		2.3%

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	2808 (2.70-2.70)
Clashscore	141614	3122 (2.70-2.70)
Ramachandran outliers	138981	3069 (2.70-2.70)
Sidechain outliers	138945	3069 (2.70-2.70)
RSRZ outliers	127900	2737 (2.70-2.70)

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 <=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	154	2% — 81% / 14% · 5%
1	B	154	% — 81% / 10% · 9%
1	C	154	% — 79% / 14% · 6%
1	D	154	% — 81% / 12% · 6%
1	E	154	79% / 12% · 8%

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Mol	Chain	Length	Quality of chain
1	F	154	75% 19% 5%
1	G	154	5% 76% 18% 5%
1	H	154	3% 71% 19% 8%
1	I	154	77% 17% 6%
1	J	154	% 75% 19% 6%
1	K	154	5% 75% 18% 8%
1	L	154	5% 75% 19% 5%
1	M	154	% 77% 17% 5%
1	N	154	% 75% 16% 8%
1	O	154	79% 14% 6%
1	P	154	3% 75% 19% 6%
1	Q	154	2% 71% 19% 8%
1	R	154	% 74% 20% 5%
1	S	154	3% 79% 16% 5%
1	T	154	3% 76% 14% 8%
1	U	154	6% 71% 22% 6%
1	V	154	3% 73% 18% 9%
1	W	154	% 68% 23% 8%
1	X	154	6% 77% 18% 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
3	KM0	B	2	-	-	X	-
3	KM0	C	3	-	-	X	-
3	KM0	D	1	-	-	X	-
3	KM0	M	4	-	-	X	-
3	KM0	O	5	-	-	X	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
3	KM0	P	6	-	-	X	-
3	KM0	Q	7	-	-	X	-
3	KM0	U	8	-	-	X	-

2 Entry composition ⓘ

There are 4 unique types of molecules in this entry. The entry contains 27042 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 Beta-hydroxyacyl-ACP dehydratase.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	146	Total	C	N	O	S	0	0	0
			1125	732	184	204	5			
1	B	140	Total	C	N	O	S	0	0	0
			1082	704	179	194	5			
1	C	144	Total	C	N	O	S	0	1	0
			1127	733	188	201	5			
1	D	144	Total	C	N	O	S	0	0	0
			1093	709	179	200	5			
1	E	142	Total	C	N	O	S	0	0	0
			1103	719	181	198	5			
1	F	146	Total	C	N	O	S	0	0	0
			1127	731	186	205	5			
1	G	146	Total	C	N	O	S	0	0	0
			1125	732	184	204	5			
1	H	141	Total	C	N	O	S	0	0	0
			1094	713	180	196	5			
1	I	144	Total	C	N	O	S	0	0	0
			1116	727	184	200	5			
1	J	144	Total	C	N	O	S	0	0	0
			1096	710	180	201	5			
1	K	142	Total	C	N	O	S	0	0	0
			1103	719	181	198	5			
1	L	146	Total	C	N	O	S	0	0	0
			1127	731	186	205	5			
1	M	146	Total	C	N	O	S	0	0	0
			1125	732	184	204	5			
1	N	141	Total	C	N	O	S	0	0	0
			1094	713	180	196	5			
1	O	144	Total	C	N	O	S	0	0	0
			1116	727	184	200	5			
1	P	144	Total	C	N	O	S	0	0	0
			1096	710	180	201	5			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	Q	142	Total	C	N	O	S	0	0	0
			1103	719	181	198	5			
1	R	146	Total	C	N	O	S	0	0	0
			1127	731	186	205	5			
1	S	146	Total	C	N	O	S	0	0	0
			1125	732	184	204	5			
1	T	141	Total	C	N	O	S	0	0	0
			1094	713	180	196	5			
1	U	144	Total	C	N	O	S	0	0	0
			1116	727	184	200	5			
1	V	140	Total	C	N	O	S	0	0	0
			1075	699	176	195	5			
1	W	142	Total	C	N	O	S	0	0	0
			1103	719	181	198	5			
1	X	146	Total	C	N	O	S	0	1	0
			1131	732	186	208	5			

There are 96 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	77	GLY	-	expression tag	UNP Q965D7
A	78	SER	-	expression tag	UNP Q965D7
A	79	HIS	-	expression tag	UNP Q965D7
A	80	MET	-	expression tag	UNP Q965D7
B	77	GLY	-	expression tag	UNP Q965D7
B	78	SER	-	expression tag	UNP Q965D7
B	79	HIS	-	expression tag	UNP Q965D7
B	80	MET	-	expression tag	UNP Q965D7
C	77	GLY	-	expression tag	UNP Q965D7
C	78	SER	-	expression tag	UNP Q965D7
C	79	HIS	-	expression tag	UNP Q965D7
C	80	MET	-	expression tag	UNP Q965D7
D	77	GLY	-	expression tag	UNP Q965D7
D	78	SER	-	expression tag	UNP Q965D7
D	79	HIS	-	expression tag	UNP Q965D7
D	80	MET	-	expression tag	UNP Q965D7
E	77	GLY	-	expression tag	UNP Q965D7
E	78	SER	-	expression tag	UNP Q965D7
E	79	HIS	-	expression tag	UNP Q965D7
E	80	MET	-	expression tag	UNP Q965D7
F	77	GLY	-	expression tag	UNP Q965D7
F	78	SER	-	expression tag	UNP Q965D7
F	79	HIS	-	expression tag	UNP Q965D7

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Chain	Residue	Modelled	Actual	Comment	Reference
F	80	MET	-	expression tag	UNP Q965D7
G	77	GLY	-	expression tag	UNP Q965D7
G	78	SER	-	expression tag	UNP Q965D7
G	79	HIS	-	expression tag	UNP Q965D7
G	80	MET	-	expression tag	UNP Q965D7
H	77	GLY	-	expression tag	UNP Q965D7
H	78	SER	-	expression tag	UNP Q965D7
H	79	HIS	-	expression tag	UNP Q965D7
H	80	MET	-	expression tag	UNP Q965D7
I	77	GLY	-	expression tag	UNP Q965D7
I	78	SER	-	expression tag	UNP Q965D7
I	79	HIS	-	expression tag	UNP Q965D7
I	80	MET	-	expression tag	UNP Q965D7
J	77	GLY	-	expression tag	UNP Q965D7
J	78	SER	-	expression tag	UNP Q965D7
J	79	HIS	-	expression tag	UNP Q965D7
J	80	MET	-	expression tag	UNP Q965D7
K	77	GLY	-	expression tag	UNP Q965D7
K	78	SER	-	expression tag	UNP Q965D7
K	79	HIS	-	expression tag	UNP Q965D7
K	80	MET	-	expression tag	UNP Q965D7
L	77	GLY	-	expression tag	UNP Q965D7
L	78	SER	-	expression tag	UNP Q965D7
L	79	HIS	-	expression tag	UNP Q965D7
L	80	MET	-	expression tag	UNP Q965D7
M	77	GLY	-	expression tag	UNP Q965D7
M	78	SER	-	expression tag	UNP Q965D7
M	79	HIS	-	expression tag	UNP Q965D7
M	80	MET	-	expression tag	UNP Q965D7
N	77	GLY	-	expression tag	UNP Q965D7
N	78	SER	-	expression tag	UNP Q965D7
N	79	HIS	-	expression tag	UNP Q965D7
N	80	MET	-	expression tag	UNP Q965D7
O	77	GLY	-	expression tag	UNP Q965D7
O	78	SER	-	expression tag	UNP Q965D7
O	79	HIS	-	expression tag	UNP Q965D7
O	80	MET	-	expression tag	UNP Q965D7
P	77	GLY	-	expression tag	UNP Q965D7
P	78	SER	-	expression tag	UNP Q965D7
P	79	HIS	-	expression tag	UNP Q965D7
P	80	MET	-	expression tag	UNP Q965D7
Q	77	GLY	-	expression tag	UNP Q965D7

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Chain	Residue	Modelled	Actual	Comment	Reference
Q	78	SER	-	expression tag	UNP Q965D7
Q	79	HIS	-	expression tag	UNP Q965D7
Q	80	MET	-	expression tag	UNP Q965D7
R	77	GLY	-	expression tag	UNP Q965D7
R	78	SER	-	expression tag	UNP Q965D7
R	79	HIS	-	expression tag	UNP Q965D7
R	80	MET	-	expression tag	UNP Q965D7
S	77	GLY	-	expression tag	UNP Q965D7
S	78	SER	-	expression tag	UNP Q965D7
S	79	HIS	-	expression tag	UNP Q965D7
S	80	MET	-	expression tag	UNP Q965D7
T	77	GLY	-	expression tag	UNP Q965D7
T	78	SER	-	expression tag	UNP Q965D7
T	79	HIS	-	expression tag	UNP Q965D7
T	80	MET	-	expression tag	UNP Q965D7
U	77	GLY	-	expression tag	UNP Q965D7
U	78	SER	-	expression tag	UNP Q965D7
U	79	HIS	-	expression tag	UNP Q965D7
U	80	MET	-	expression tag	UNP Q965D7
V	77	GLY	-	expression tag	UNP Q965D7
V	78	SER	-	expression tag	UNP Q965D7
V	79	HIS	-	expression tag	UNP Q965D7
V	80	MET	-	expression tag	UNP Q965D7
W	77	GLY	-	expression tag	UNP Q965D7
W	78	SER	-	expression tag	UNP Q965D7
W	79	HIS	-	expression tag	UNP Q965D7
W	80	MET	-	expression tag	UNP Q965D7
X	77	GLY	-	expression tag	UNP Q965D7
X	78	SER	-	expression tag	UNP Q965D7
X	79	HIS	-	expression tag	UNP Q965D7
X	80	MET	-	expression tag	UNP Q965D7

- Molecule 2 is GLYCEROL (three-letter code: GOL) (formula: $C_3H_8O_3$).

GOL
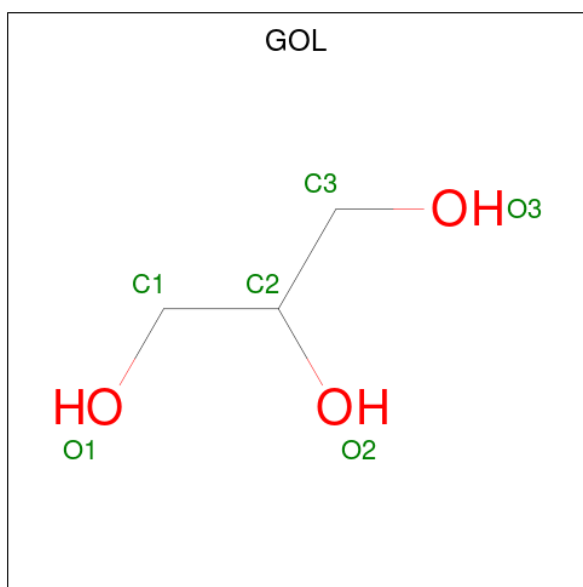
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
2	A	1	Total 6	C 3	O 3	0	0
2	C	1	Total 6	C 3	O 3	0	0
2	E	1	Total 6	C 3	O 3	0	0
2	G	1	Total 6	C 3	O 3	0	0
2	J	1	Total 6	C 3	O 3	0	0
2	N	1	Total 6	C 3	O 3	0	0
2	P	1	Total 6	C 3	O 3	0	0
2	Q	1	Total 6	C 3	O 3	0	0
2	T	1	Total 6	C 3	O 3	0	0
2	V	1	Total 6	C 3	O 3	0	0
2	W	1	Total 6	C 3	O 3	0	0

- Molecule 3 is 8-(benzyloxy)-5-chloroquinoline (three-letter code: KM0) (formula: $C_{16}H_{12}ClNO$).

KM0

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
3	B	1	Total	C	Cl	N	O	0	0
			19	16	1	1	1		
3	C	1	Total	C	Cl	N	O	0	0
			19	16	1	1	1		
3	D	1	Total	C	Cl	N	O	0	0
			19	16	1	1	1		
3	M	1	Total	C	Cl	N	O	0	0
			19	16	1	1	1		
3	O	1	Total	C	Cl	N	O	0	0
			19	16	1	1	1		
3	P	1	Total	C	Cl	N	O	0	0
			19	16	1	1	1		
3	Q	1	Total	C	Cl	N	O	0	0
			19	16	1	1	1		
3	U	1	Total	C	Cl	N	O	0	0
			19	16	1	1	1		

- Molecule 4 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
4	A	5	Total	O	0	0
			5	5		
4	B	11	Total	O	0	0
			11	11		
4	C	13	Total	O	0	0
			13	13		
4	D	8	Total	O	0	0
			8	8		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
4	E	12	Total 12	O 12	0	0
4	F	13	Total 13	O 13	0	0
4	G	4	Total 4	O 4	0	0
4	H	11	Total 11	O 11	0	0
4	I	5	Total 5	O 5	0	0
4	J	9	Total 9	O 9	0	0
4	K	11	Total 11	O 11	0	0
4	L	8	Total 8	O 8	0	0
4	M	12	Total 12	O 12	0	0
4	N	8	Total 8	O 8	0	0
4	O	12	Total 12	O 12	0	0
4	P	4	Total 4	O 4	0	0
4	Q	3	Total 3	O 3	0	0
4	R	8	Total 8	O 8	0	0
4	S	6	Total 6	O 6	0	0
4	T	10	Total 10	O 10	0	0
4	U	11	Total 11	O 11	0	0
4	V	2	Total 2	O 2	0	0
4	W	7	Total 7	O 7	0	0
4	X	8	Total 8	O 8	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: Beta-hydroxyacyl-ACP dehydratase
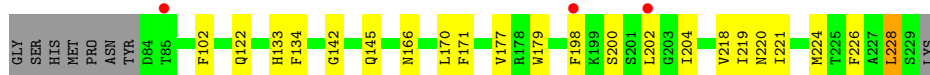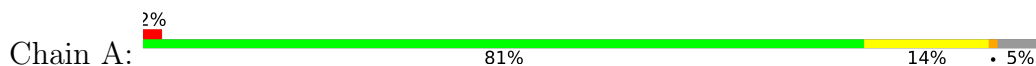
- Molecule 1: Beta-hydroxyacyl-ACP dehydratase
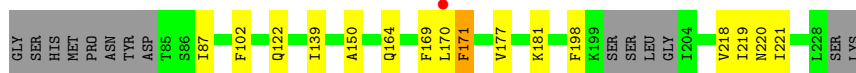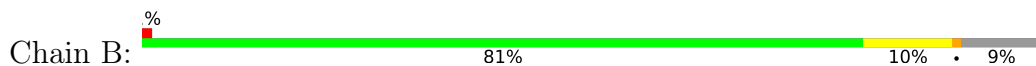
- Molecule 1: Beta-hydroxyacyl-ACP dehydratase
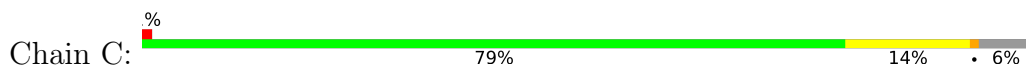
- Molecule 1: Beta-hydroxyacyl-ACP dehydratase
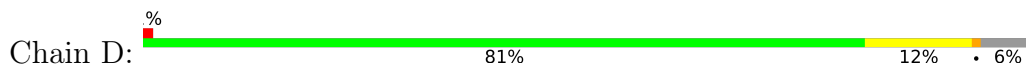
- Molecule 1: Beta-hydroxyacyl-ACP dehydratase
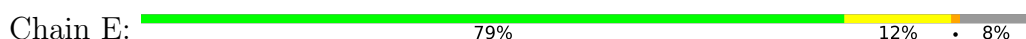
- Molecule 1: Beta-hydroxyacyl-ACP dehydratase

Chain F:
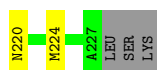
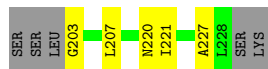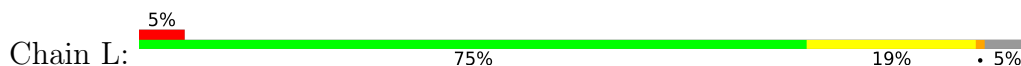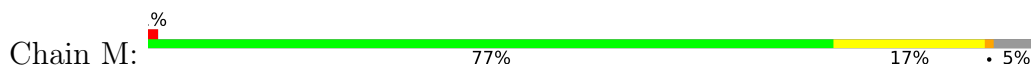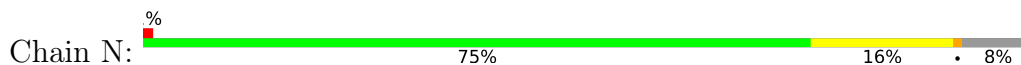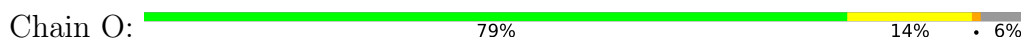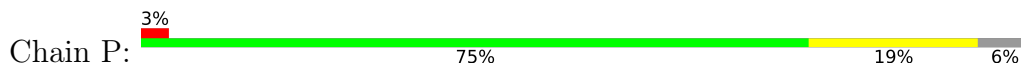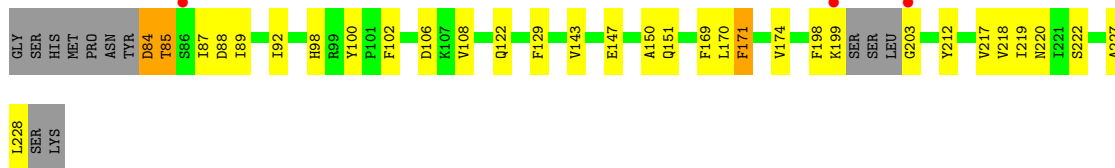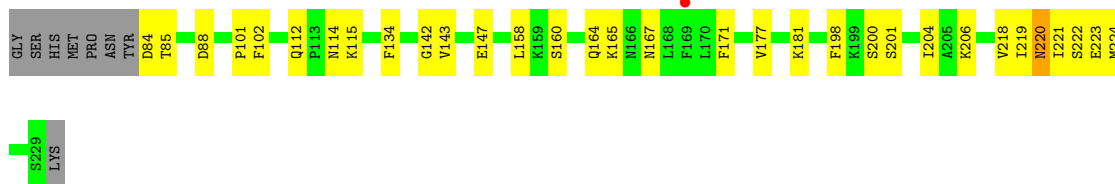75%   19%   • 5%

GLY SER HIS MET PRO ASN TYR D84 T85 S86 F102 Q122 I146 A153 Q164 K165 F169 L170 F171 V174 V177 R178 W179 K180 K181 F198 K199 S200 S201 L202 G203 K206 L207 V218 I219 N220 I221 S222 E223 F226 A227 L228 S229 LYS

● Molecule 1: Beta-hydroxyacyl-ACP dehydratase

5%

Chain G:

76%   18%   • 5%

GLY SER HIS MET PRO ASN TYR D84 D88 I89 P97 F102 Y110 M111 Q112 K115 Q122 N126 E127 P128 F129 G132 H133 F134 P135 Q136 E147 L152 Q164 K165 N166 N167 L168 F169 L170 F171 V177 K181 M191 F198 L202 G203 V218

I219 N220 I221 M224 L228 S229 LYS

● Molecule 1: Beta-hydroxyacyl-ACP dehydratase

3%

Chain H:

71%   19%   • 8%

GLY SER HIS MET PRO ASN TYR ASP T85 S86 I87 D88 I89 P97 H98 R99 F102 V108 I109 I118 S124 T125 N126 F130 F134 P135 Q136 K137 Q138 I139 M140 P141 G142 V143 L149 A150 A153 D162 L168 F171 V177 F198 K199 SER SER LEU

GLY I204 L207 G211 V218 I221 F226 S229 LYS

● Molecule 1: Beta-hydroxyacyl-ACP dehydratase

Chain I:

77%   17%   6%

GLY SER HIS MET PRO ASN TYR ASP T85 S86 I87 H98 R99 F102 V108 Q112 P113 Q122 E147 Q151 L168 F171 A172 D175 G176 V177 K181 T188 F198 L207 Y212 V213 N214 V217 V218 I221 M224 A227 L228 SER LYS

● Molecule 1: Beta-hydroxyacyl-ACP dehydratase

•%

Chain J:

75%   19%   6%

GLY SER HIS MET PRO ASN TYR D84 T85 S86 I87 D91 L96 P97 H98 F102 L103 L104 M111 I117 Q122 T125 N126 E127 P128 H133 P141 E147 L168 F171 V174 V177 K181 P185 F198 K199 I204 L207 V218 I219
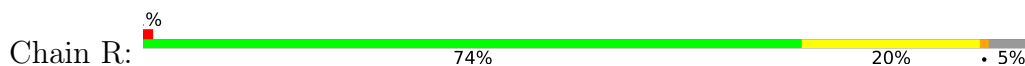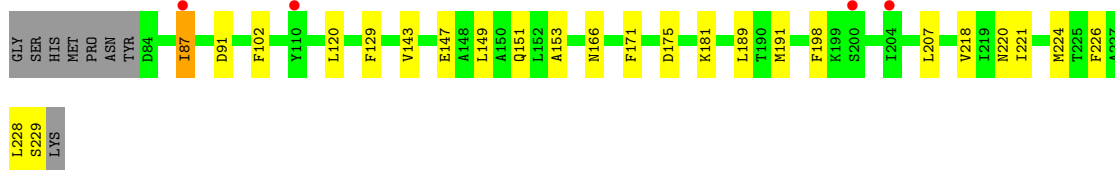
N220 M224 A227 LEU SER LYS

● Molecule 1: Beta-hydroxyacyl-ACP dehydratase

5%

Chain K:

75%   18%   8%

GLY SER HIS MET PRO ASN TYR D84 T85 S86 I87 D88 I92 H98 F102 L103 V108 Q122 E127 H133 Q136 P141 G142 V143 I146 A153 G154 I155 Q164 K165 N166 N167 L168 F169 L170 F171 V177 V183 L184 P185 L195 I196 S197 F198 K199

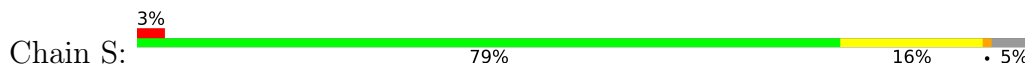SER SER LEU G203 L207 N220 I221 A227 L228 SER LYS

• Molecule 1: Beta-hydroxyacyl-ACP dehydratase

Chain L:

5%
75% 19% 5%

GLY SER HIS MET PRO ASN TYR D84 T85 S86 I87 D88 I89 E90 D91 I92 L96 P97 H98 R99 Y100 P101 F102 K107 V110 M111 Q112 K115 H133 Q136 P141 G142 V143 I146 Q151 L168 F171 V177 K181 I196 S197 F198 S200 I204
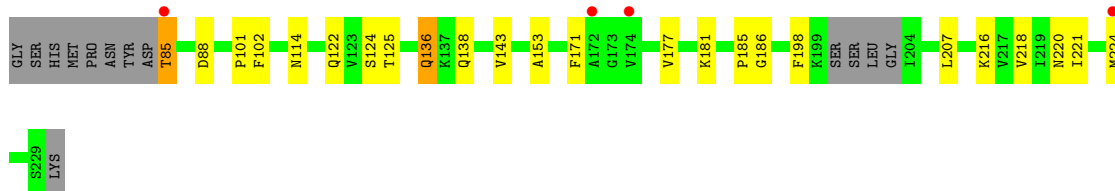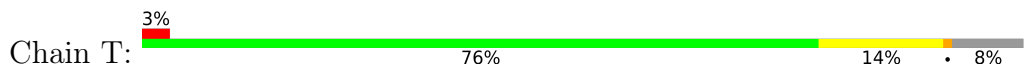
Y212 V218 I221 S229 LYS

• Molecule 1: Beta-hydroxyacyl-ACP dehydratase

Chain M:

%
77% 17% 5%

GLY SER HIS MET PRO ASN TYR D84 I87 D91 H98 F102 I118 E127 F134 V143 I146 A150 Q151 N166 F169 L170 F171 F198 L202 G203 I204 A205 K206 Y212 V213 N214 V217 V218 I219 N220 I221 S222 E223 M224 T225 L228 S229

LYS

• Molecule 1: Beta-hydroxyacyl-ACP dehydratase

Chain N:

%
75% 16% 8%

GLY SER HIS MET PRO ASN TYR ASP T85 S86 I87 D88 D91 I92 H98 F102 Q122 V123 S124 T125 N126 E127 P128 N131 G132 H133 F134 I139 G142 Q151 C157 N166 N167 L168 F169 L170 F171 F198 K199 SER LEU GLY I204 L207 V210

N220 F226 S229 LYS

• Molecule 1: Beta-hydroxyacyl-ACP dehydratase

Chain O:

79% 14% 6%

GLY SER HIS MET PRO ASN TYR ASP T85 S86 I87 D88 I89 E90 D91 I92 F102 V108 H133 F134 G142 A150 Q151 F169 L170 F171 D175 G176 V177 K181 F198 L202 K206 V218 I221 S222 E223 L228 SER LYS

• Molecule 1: Beta-hydroxyacyl-ACP dehydratase
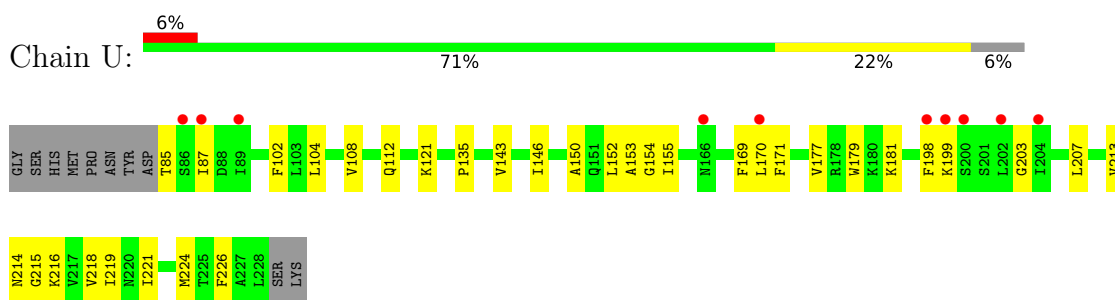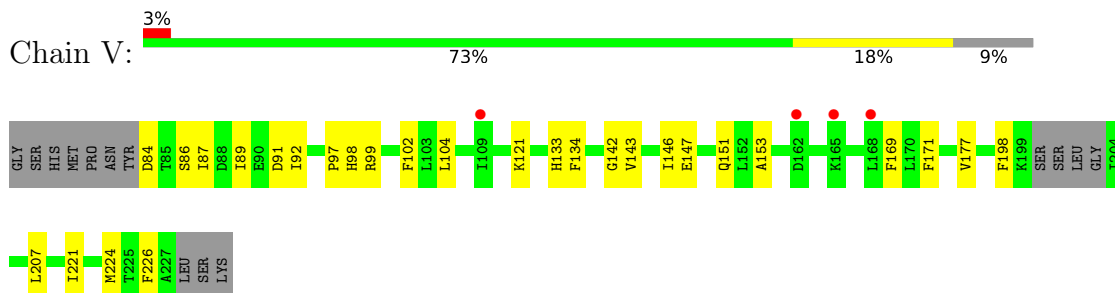
Chain P:

3%
75% 19% 6%

• Molecule 1: Beta-hydroxyacyl-ACP dehydratase

Chain Q:

• Molecule 1: Beta-hydroxyacyl-ACP dehydratase

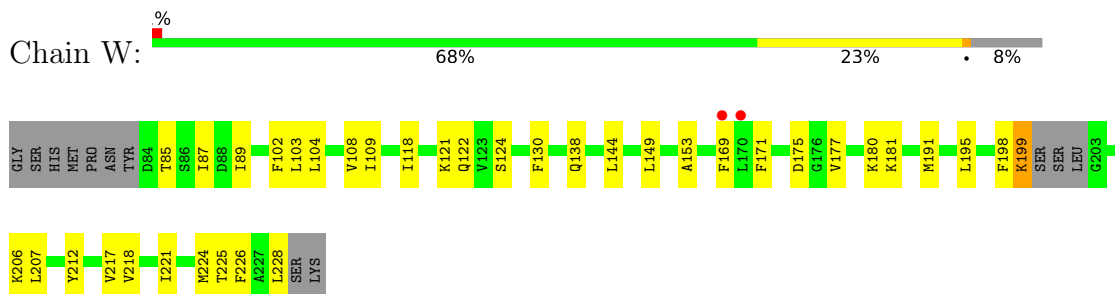Chain R:

• Molecule 1: Beta-hydroxyacyl-ACP dehydratase

Chain S:

• Molecule 1: Beta-hydroxyacyl-ACP dehydratase

Chain T:

• Molecule 1: Beta-hydroxyacyl-ACP dehydratase

Chain U:

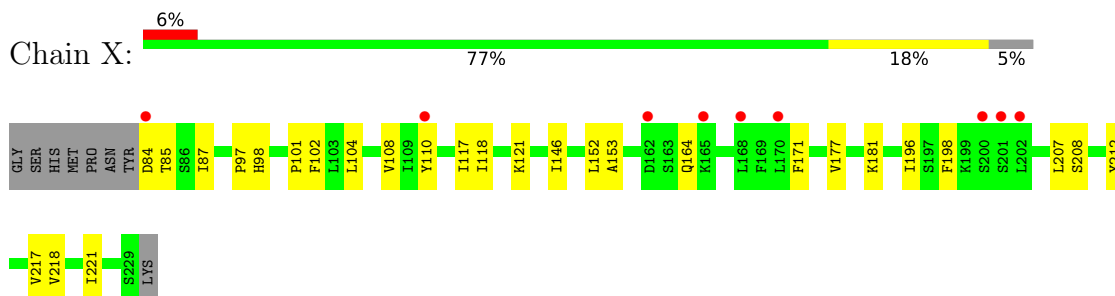• Molecule 1: Beta-hydroxyacyl-ACP dehydratase

Chain V:

• Molecule 1: Beta-hydroxyacyl-ACP dehydratase

Chain W:

• Molecule 1: Beta-hydroxyacyl-ACP dehydratase

Chain X:

4   Data and refinement statistics ⓘ

Property	Value	Source
Space group	I 41	Depositor
Cell constants a, b, c, α, β, γ	219.21Å 219.21Å 156.63Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	51.91 – 2.70 51.91 – 2.70	Depositor EDS
% Data completeness (in resolution range)	99.8 (51.91-2.70) 99.9 (51.91-2.70)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	0.15	Depositor
$< I/\sigma(I) >$ [1]	2.53 (at 2.69Å)	Xtriage
Refinement program	REFMAC 5.5.0109	Depositor
R, R_{free}	0.222 , 0.273 0.220 , 0.257	Depositor DCC
R_{free} test set	5067 reflections (5.00%)	wwPDB-VP
Wilson B-factor (Å^2)	52.5	Xtriage
Anisotropy	0.381	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.33 , 15.7	EDS
L-test for twinning[2]	$< |L| > = 0.39, < L^2 > = 0.21$	Xtriage
Estimated twinning fraction	0.457 for -k,-h,-l	Xtriage
Reported twinning fraction	0.504 for H, K, L 0.496 for -H, K, -L	Depositor
Outliers	0 of 101367 reflections	Xtriage
F_o,F_c correlation	0.91	EDS
Total number of atoms	27042	wwPDB-VP
Average B, all atoms (Å^2)	46.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The analyses of the Patterson function reveals a significant off-origin peak that is 30.41 % of the origin peak, indicating pseudo-translational symmetry. The chance of finding a peak of this or larger height randomly in a structure without pseudo-translational symmetry is equal to 1.3151e-03.*

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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 (i)

5.1 Standard geometry (i)

Bond lengths and bond angles in the following residue types are not validated in this section: KM0, 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	0.50	0/1147	0.56	0/1553
1	B	0.51	0/1102	0.55	0/1491
1	C	0.46	0/1149	0.57	0/1553
1	D	0.50	0/1115	0.57	0/1512
1	E	0.45	0/1124	0.53	0/1520
1	F	0.46	1/1149 (0.1%)	0.54	0/1554
1	G	0.44	0/1147	0.52	0/1553
1	H	0.50	0/1115	0.55	0/1508
1	I	0.46	0/1138	0.54	0/1539
1	J	0.48	0/1118	0.54	0/1516
1	K	0.47	0/1124	0.53	0/1520
1	L	0.51	0/1149	0.54	0/1554
1	M	0.46	0/1147	0.58	0/1553
1	N	0.50	0/1115	0.54	0/1508
1	O	0.43	0/1138	0.56	0/1539
1	P	0.46	0/1118	0.56	0/1516
1	Q	0.42	0/1124	0.57	1/1520 (0.1%)
1	R	0.48	0/1149	0.56	0/1554
1	S	0.50	1/1147 (0.1%)	0.55	0/1553
1	T	0.50	1/1115 (0.1%)	0.52	0/1508
1	U	0.52	0/1138	0.54	0/1539
1	V	0.46	0/1096	0.54	0/1485
1	W	0.51	0/1124	0.55	0/1520
1	X	0.53	0/1153	0.55	0/1561
All	All	0.48	3/27141 (0.0%)	0.55	1/36729 (0.0%)

All (3) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	S	229	SER	CB-OG	5.92	1.50	1.42
1	F	181	LYS	CD-CE	5.52	1.65	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	T	136	GLN	CG-CD	5.11	1.62	1.51

All (1) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Q	85	THR	N-CA-C	-5.59	95.92	111.00

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	1125	0	1165	15	0
1	B	1082	0	1121	22	0
1	C	1127	0	1176	24	0
1	D	1093	0	1104	22	0
1	E	1103	0	1144	13	0
1	F	1127	0	1164	14	0
1	G	1125	0	1165	26	0
1	H	1094	0	1133	17	0
1	I	1116	0	1164	15	0
1	J	1096	0	1108	17	0
1	K	1103	0	1144	13	0
1	L	1127	0	1164	17	0
1	M	1125	0	1165	26	0
1	N	1094	0	1133	17	0
1	O	1116	0	1164	25	0
1	P	1096	0	1108	32	0
1	Q	1103	0	1144	28	0
1	R	1127	0	1164	16	0
1	S	1125	0	1165	14	0
1	T	1094	0	1133	17	0
1	U	1116	0	1164	32	0
1	V	1075	0	1092	29	0
1	W	1103	0	1144	23	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	X	1131	0	1156	14	0
2	A	6	0	8	0	0
2	C	6	0	8	1	0
2	E	6	0	8	0	0
2	G	6	0	8	1	0
2	J	6	0	8	0	0
2	N	6	0	8	1	0
2	P	6	0	8	0	0
2	Q	6	0	8	3	0
2	T	6	0	8	3	0
2	V	6	0	8	0	0
2	W	6	0	8	1	0
3	B	19	0	12	22	0
3	C	19	0	12	17	0
3	D	19	0	12	18	0
3	M	19	0	12	15	0
3	O	19	0	12	24	0
3	P	19	0	12	23	0
3	Q	19	0	12	16	0
3	U	19	0	12	25	0
4	A	5	0	0	0	0
4	B	11	0	0	0	0
4	C	13	0	0	0	0
4	D	8	0	0	0	0
4	E	12	0	0	1	0
4	F	13	0	0	1	0
4	G	4	0	0	1	0
4	H	11	0	0	0	0
4	I	5	0	0	0	0
4	J	9	0	0	0	0
4	K	11	0	0	0	0
4	L	8	0	0	1	0
4	M	12	0	0	1	0
4	N	8	0	0	0	0
4	O	12	0	0	0	0
4	P	4	0	0	0	0
4	Q	3	0	0	0	0
4	R	8	0	0	0	0
4	S	6	0	0	0	0
4	T	10	0	0	1	0
4	U	11	0	0	0	0
4	V	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
4	W	7	0	0	1	0
4	X	8	0	0	0	0
All	All	27042	0	27668	462	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 8.

The worst 5 of 462 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:150:ALA:CB	3:C:3:KM0:H17	1.62	1.27
1:O:150:ALA:HB1	3:O:5:KM0:C17	1.77	1.14
1:P:150:ALA:CB	3:P:6:KM0:H17	1.76	1.14
1:D:150:ALA:HB1	3:D:1:KM0:H17	1.21	1.13
1:U:150:ALA:HB1	3:U:8:KM0:H17	1.23	1.12

There are no symmetry-related clashes.

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	A	144/154 (94%)	132 (92%)	11 (8%)	1 (1%)	22	46
1	B	136/154 (88%)	125 (92%)	11 (8%)	0	100	100
1	C	143/154 (93%)	132 (92%)	11 (8%)	0	100	100
1	D	142/154 (92%)	129 (91%)	12 (8%)	1 (1%)	22	46
1	E	138/154 (90%)	130 (94%)	8 (6%)	0	100	100
1	F	144/154 (94%)	132 (92%)	11 (8%)	1 (1%)	22	46
1	G	144/154 (94%)	135 (94%)	9 (6%)	0	100	100
1	H	137/154 (89%)	128 (93%)	9 (7%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	I	142/154 (92%)	132 (93%)	10 (7%)	0	100	100
1	J	142/154 (92%)	129 (91%)	12 (8%)	1 (1%)	22	46
1	K	138/154 (90%)	132 (96%)	6 (4%)	0	100	100
1	L	144/154 (94%)	130 (90%)	13 (9%)	1 (1%)	22	46
1	M	144/154 (94%)	133 (92%)	11 (8%)	0	100	100
1	N	137/154 (89%)	131 (96%)	6 (4%)	0	100	100
1	O	142/154 (92%)	132 (93%)	10 (7%)	0	100	100
1	P	142/154 (92%)	129 (91%)	12 (8%)	1 (1%)	22	46
1	Q	138/154 (90%)	129 (94%)	9 (6%)	0	100	100
1	R	144/154 (94%)	137 (95%)	7 (5%)	0	100	100
1	S	144/154 (94%)	134 (93%)	10 (7%)	0	100	100
1	T	137/154 (89%)	127 (93%)	10 (7%)	0	100	100
1	U	142/154 (92%)	131 (92%)	11 (8%)	0	100	100
1	V	136/154 (88%)	124 (91%)	12 (9%)	0	100	100
1	W	138/154 (90%)	127 (92%)	11 (8%)	0	100	100
1	X	145/154 (94%)	137 (94%)	8 (6%)	0	100	100
All	All	3383/3696 (92%)	3137 (93%)	240 (7%)	6 (0%)	47	73

5 of 6 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	D	204	ILE
1	J	204	ILE
1	P	204	ILE
1	A	200	SER
1	F	200	SER

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	126/135 (93%)	121 (96%)	5 (4%)	31	60
1	B	120/135 (89%)	114 (95%)	6 (5%)	24	51
1	C	126/135 (93%)	120 (95%)	6 (5%)	25	53
1	D	119/135 (88%)	114 (96%)	5 (4%)	30	58
1	E	123/135 (91%)	115 (94%)	8 (6%)	17	38
1	F	126/135 (93%)	117 (93%)	9 (7%)	14	34
1	G	126/135 (93%)	117 (93%)	9 (7%)	14	34
1	H	122/135 (90%)	114 (93%)	8 (7%)	16	38
1	I	125/135 (93%)	120 (96%)	5 (4%)	31	60
1	J	120/135 (89%)	116 (97%)	4 (3%)	38	67
1	K	123/135 (91%)	116 (94%)	7 (6%)	20	44
1	L	126/135 (93%)	119 (94%)	7 (6%)	21	45
1	M	126/135 (93%)	120 (95%)	6 (5%)	25	53
1	N	122/135 (90%)	117 (96%)	5 (4%)	30	59
1	O	125/135 (93%)	119 (95%)	6 (5%)	25	53
1	P	120/135 (89%)	114 (95%)	6 (5%)	24	51
1	Q	123/135 (91%)	113 (92%)	10 (8%)	11	27
1	R	126/135 (93%)	113 (90%)	13 (10%)	7	16
1	S	126/135 (93%)	120 (95%)	6 (5%)	25	53
1	T	122/135 (90%)	116 (95%)	6 (5%)	25	52
1	U	125/135 (93%)	120 (96%)	5 (4%)	31	60
1	V	118/135 (87%)	115 (98%)	3 (2%)	47	76
1	W	123/135 (91%)	116 (94%)	7 (6%)	20	44
1	X	126/135 (93%)	121 (96%)	5 (4%)	31	60
All	All	2964/3240 (92%)	2807 (95%)	157 (5%)	22	48

5 of 157 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	R	102	PHE
1	V	171	PHE
1	R	198	PHE
1	S	220	ASN
1	W	199	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 18 such sidechains are listed below:

Mol	Chain	Res	Type
1	P	145	GLN
1	U	112	GLN
1	T	114	ASN
1	K	164	GLN
1	N	220	ASN

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 ⓘ

19 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	GOL	E	3	-	5,5,5	0.38	0	5,5,5	0.37	0
3	KM0	D	1	-	21,21,21	1.19	1 (4%)	28,28,28	1.69	6 (21%)
2	GOL	A	2	-	5,5,5	0.34	0	5,5,5	0.29	0
3	KM0	P	6	-	21,21,21	1.17	2 (9%)	28,28,28	1.76	6 (21%)
3	KM0	O	5	-	21,21,21	1.32	2 (9%)	28,28,28	1.54	5 (17%)
2	GOL	C	1	-	5,5,5	0.32	0	5,5,5	0.44	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
2	GOL	P	7	-	5,5,5	0.34	0	5,5,5	0.28	0
3	KM0	B	2	-	21,21,21	1.22	2 (9%)	28,28,28	1.70	9 (32%)
2	GOL	G	4	-	5,5,5	0.42	0	5,5,5	0.35	0
2	GOL	Q	8	-	5,5,5	0.29	0	5,5,5	0.34	0
2	GOL	N	6	-	5,5,5	0.34	0	5,5,5	0.22	0
2	GOL	V	10	-	5,5,5	0.39	0	5,5,5	0.23	0
2	GOL	W	11	-	5,5,5	0.38	0	5,5,5	0.36	0
3	KM0	M	4	-	21,21,21	1.23	2 (9%)	28,28,28	1.79	9 (32%)
3	KM0	U	8	-	21,21,21	1.21	2 (9%)	28,28,28	1.84	8 (28%)
2	GOL	J	5	-	5,5,5	0.44	0	5,5,5	0.82	0
3	KM0	Q	7	-	21,21,21	1.05	2 (9%)	28,28,28	1.50	6 (21%)
2	GOL	T	9	-	5,5,5	0.32	0	5,5,5	0.39	0
3	KM0	C	3	-	21,21,21	1.33	2 (9%)	28,28,28	1.65	9 (32%)

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.

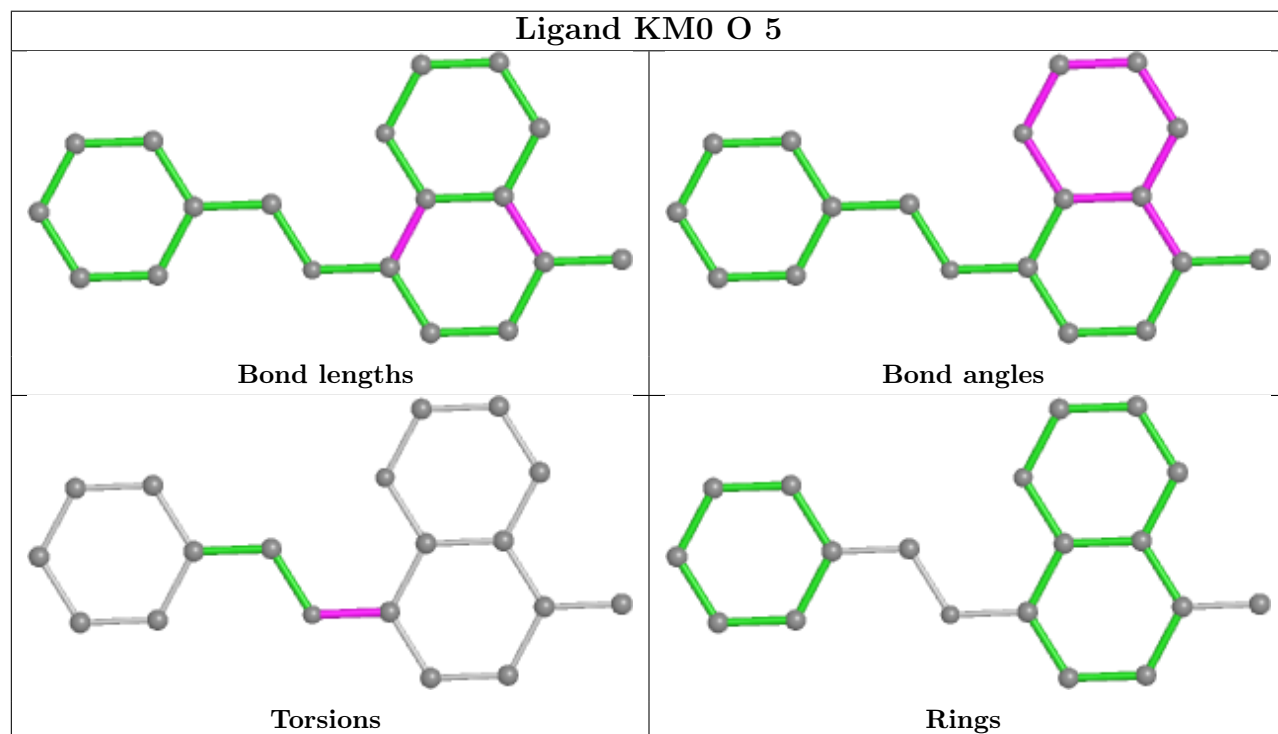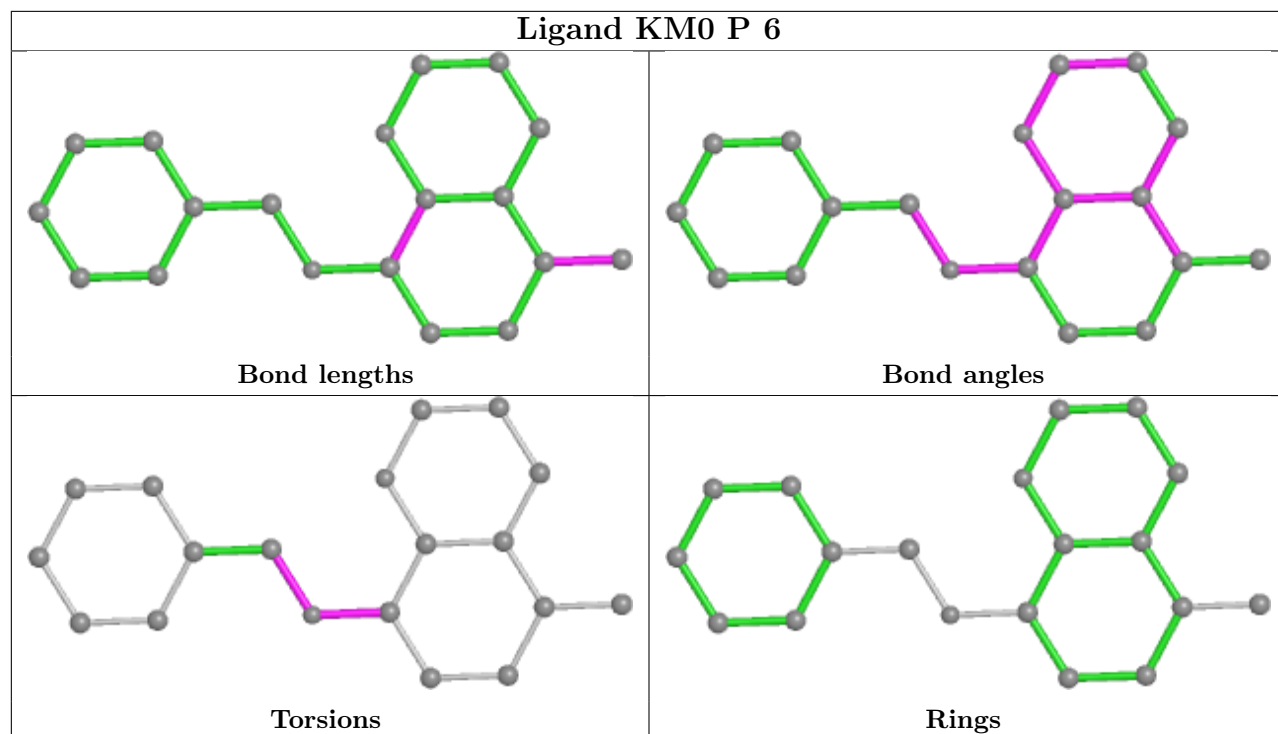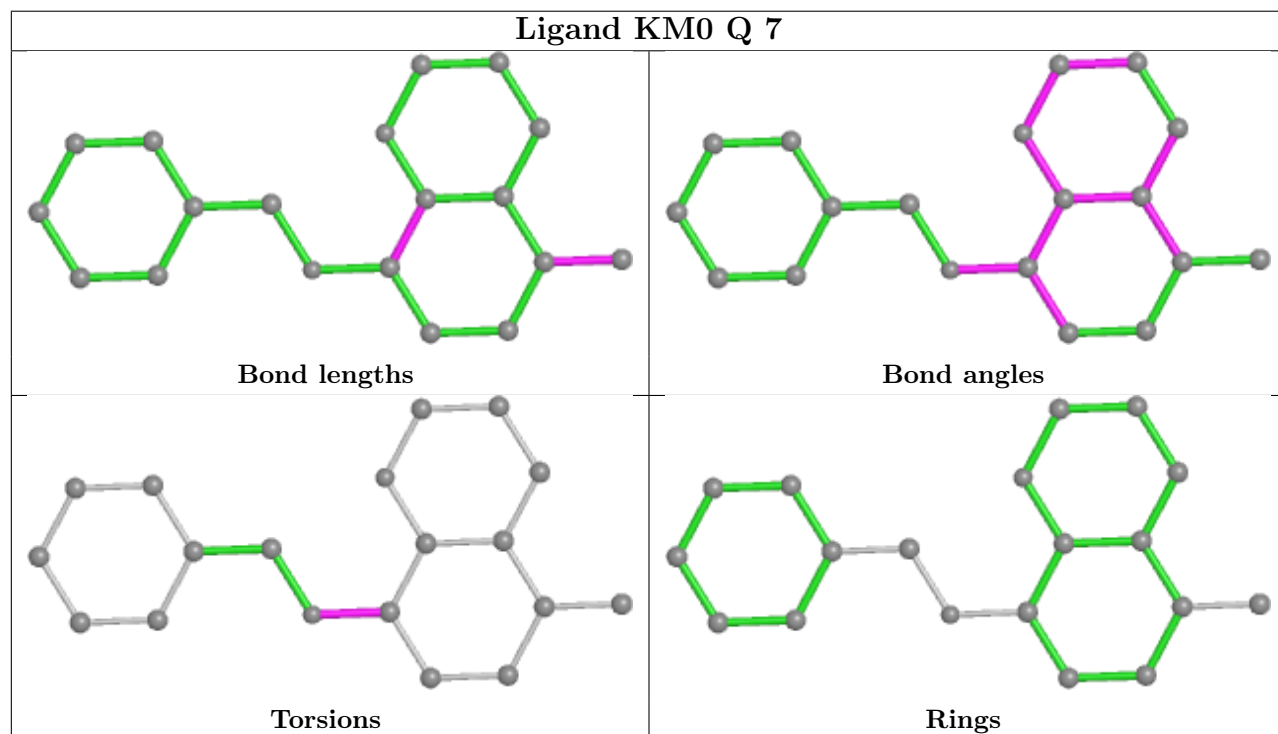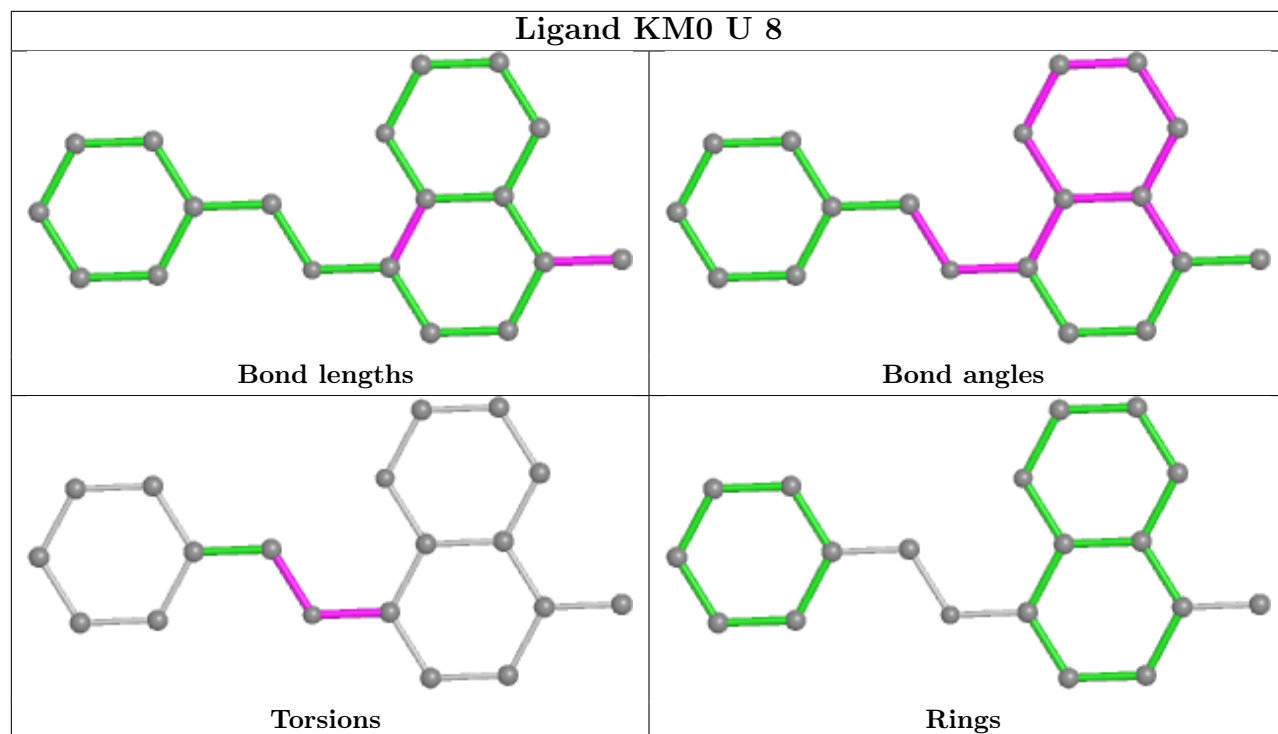| Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
2	GOL	E	3	-	-	4/4/4/4	-
3	KM0	D	1	-	-	3/5/5/5	0/3/3/3
2	GOL	A	2	-	-	2/4/4/4	-
3	KM0	P	6	-	-	3/5/5/5	0/3/3/3
3	KM0	O	5	-	-	2/5/5/5	0/3/3/3
2	GOL	C	1	-	-	2/4/4/4	-
2	GOL	P	7	-	-	2/4/4/4	-
3	KM0	B	2	-	-	2/5/5/5	0/3/3/3
2	GOL	G	4	-	-	2/4/4/4	-
2	GOL	Q	8	-	-	2/4/4/4	-
2	GOL	N	6	-	-	0/4/4/4	-
2	GOL	V	10	-	-	2/4/4/4	-
2	GOL	W	11	-	-	4/4/4/4	-
3	KM0	M	4	-	-	2/5/5/5	0/3/3/3
3	KM0	U	8	-	-	3/5/5/5	0/3/3/3
2	GOL	J	5	-	-	2/4/4/4	-
3	KM0	Q	7	-	-	2/5/5/5	0/3/3/3
2	GOL	T	9	-	-	4/4/4/4	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	KM0	C	3	-	-	2/5/5/5	0/3/3/3

The worst 5 of 15 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	C	3	KM0	C9-C14	-3.78	1.37	1.42
3	O	5	KM0	C9-C14	-3.78	1.37	1.42
3	M	4	KM0	C9-C14	-3.23	1.38	1.42
3	B	2	KM0	C9-C14	-3.21	1.38	1.42
3	D	1	KM0	C9-C14	-3.19	1.38	1.42

The worst 5 of 58 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	P	6	KM0	O8-C9-C14	4.11	120.21	115.16
3	Q	7	KM0	O8-C9-C14	3.89	119.94	115.16
3	M	4	KM0	C12-C13-C14	3.81	121.32	117.39
3	M	4	KM0	C7-O8-C9	3.76	122.84	117.56
3	U	8	KM0	C7-O8-C9	3.76	122.84	117.56

There are no chirality outliers.

5 of 45 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	A	2	GOL	O1-C1-C2-C3
2	C	1	GOL	C1-C2-C3-O3
2	E	3	GOL	O1-C1-C2-C3
2	E	3	GOL	C1-C2-C3-O3
2	J	5	GOL	C1-C2-C3-O3

There are no ring outliers.

14 monomers are involved in 170 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	D	1	KM0	18	0
3	P	6	KM0	23	0
3	O	5	KM0	24	0
2	C	1	GOL	1	0
3	B	2	KM0	22	0
2	G	4	GOL	1	0
2	Q	8	GOL	3	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	N	6	GOL	1	0
2	W	11	GOL	1	0
3	M	4	KM0	15	0
3	U	8	KM0	25	0
3	Q	7	KM0	16	0
2	T	9	GOL	3	0
3	C	3	KM0	17	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 KM0 D 1

Bond lengths　　　　　　　　　　Bond angles

Torsions　　　　　　　　　　Rings

Ligand KM0 P 6

Bond lengths

Bond angles

Torsions

Rings

Ligand KM0 O 5

Bond lengths

Bond angles

Torsions

Rings

Ligand KM0 B 2

Bond lengths

Bond angles

Torsions

Rings

Ligand KM0 M 4

Bond lengths

Bond angles

Torsions

Rings

Ligand KM0 U 8

Bond lengths

Bond angles

Torsions

Rings

Ligand KM0 Q 7

Bond lengths

Bond angles

Torsions

Rings

Ligand KM0 C 3
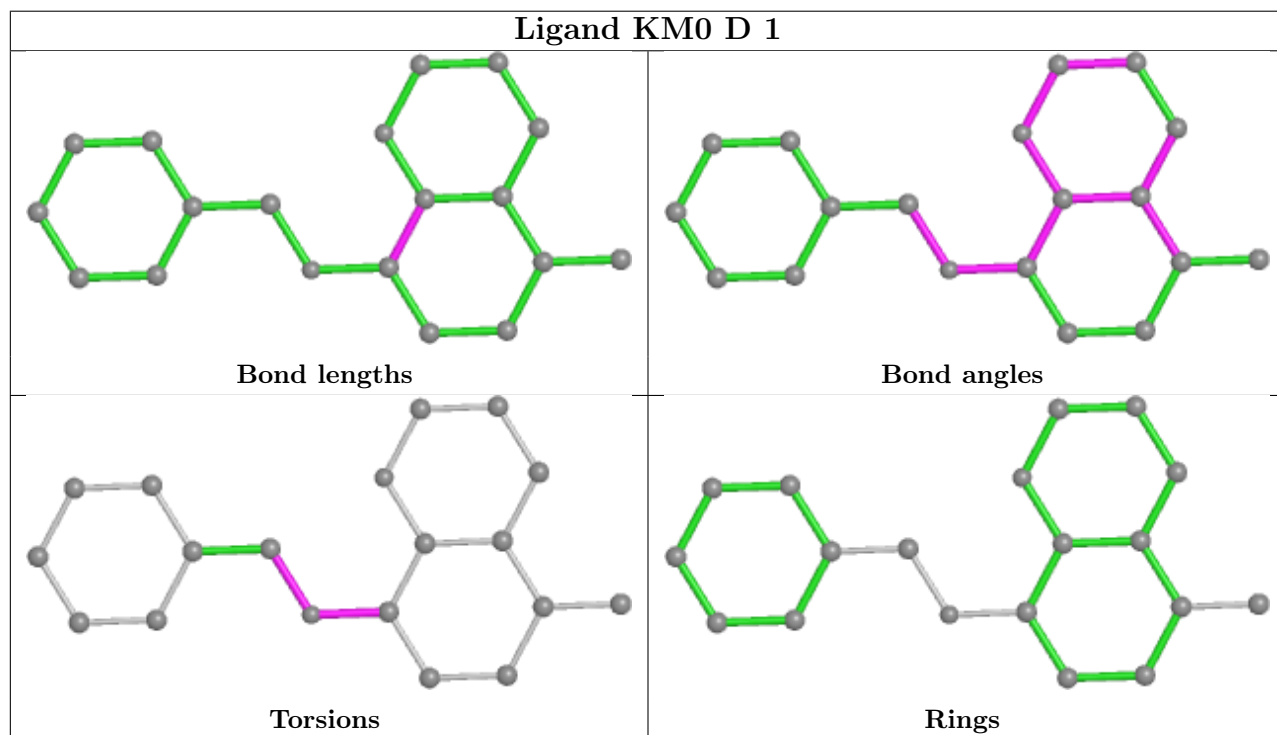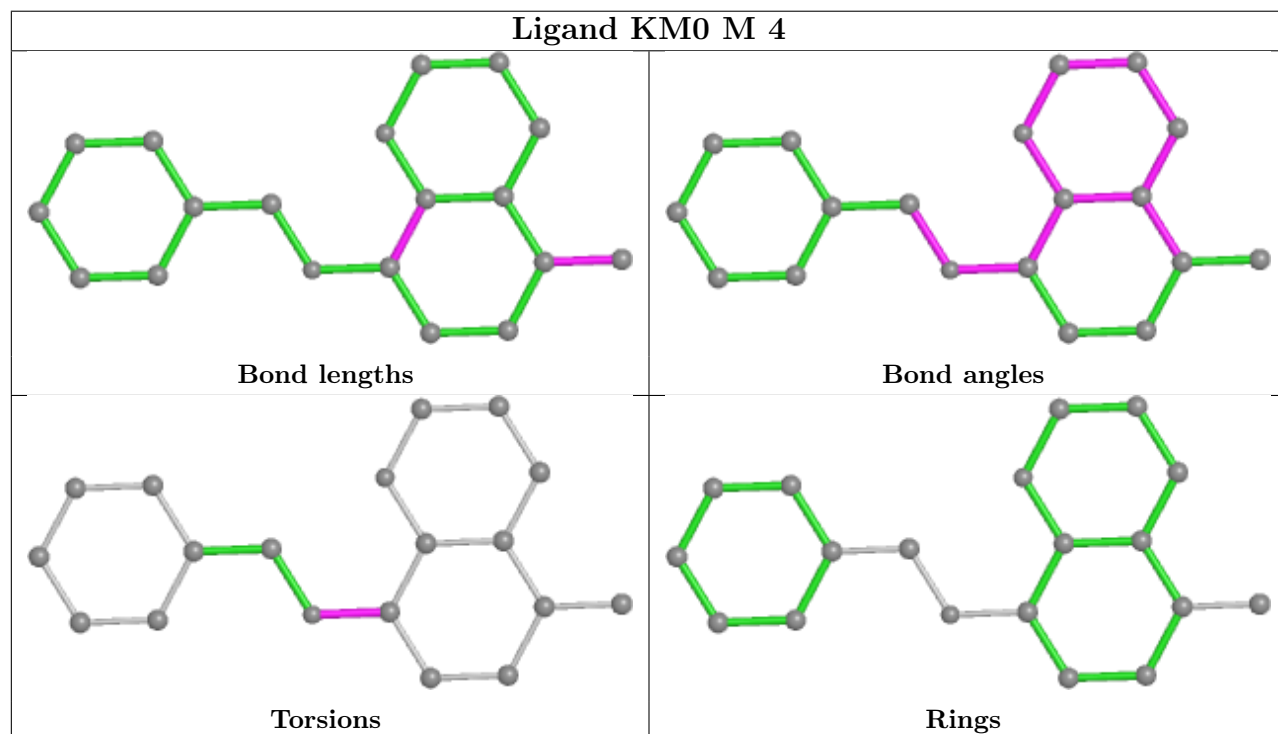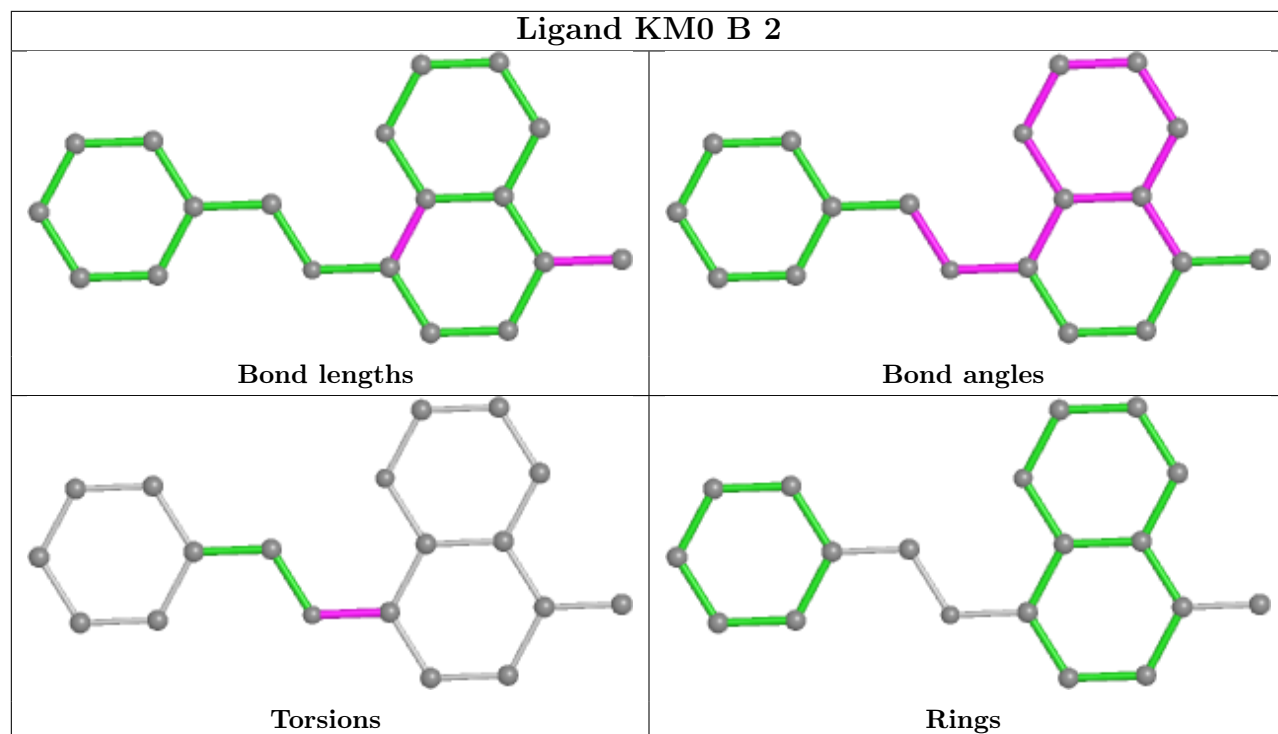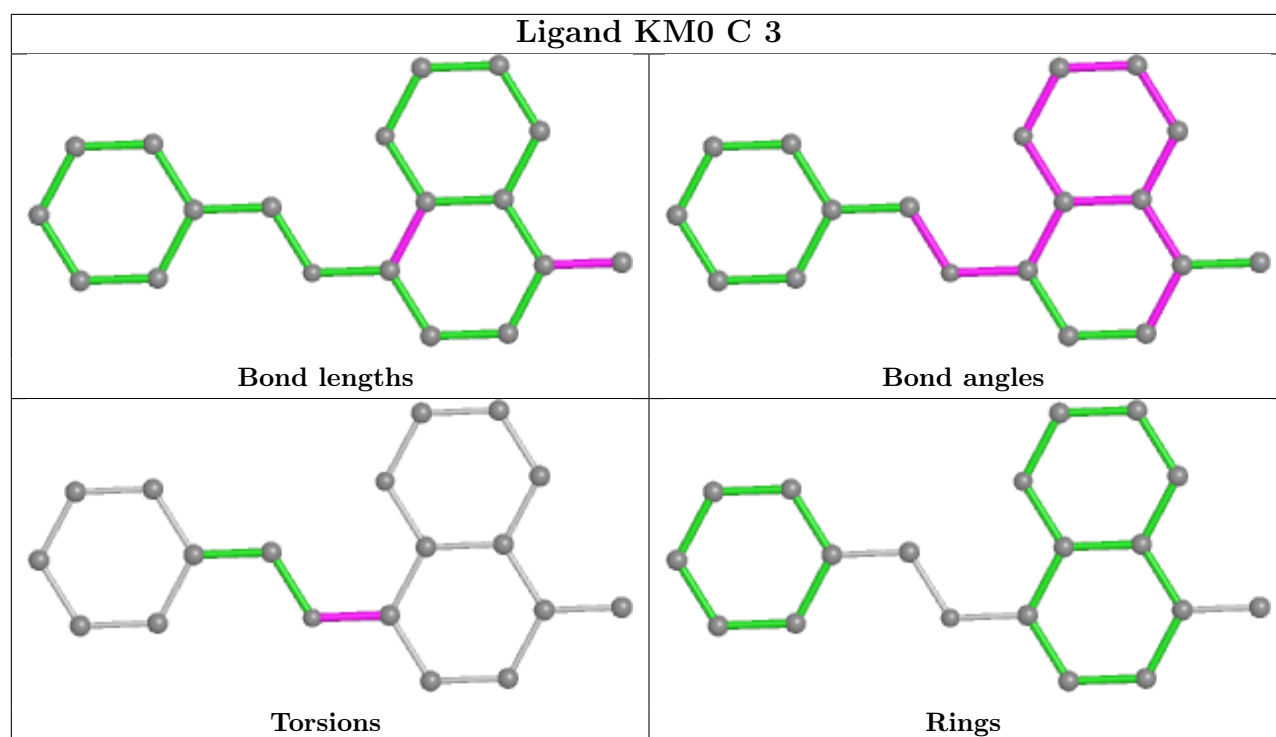
5.7 Other polymers ⓘ

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	146/154 (94%)	0.17	3 (2%)	63	65	31, 46, 64, 70	0
1	B	140/154 (90%)	0.03	1 (0%)	87	89	31, 45, 62, 65	0
1	C	144/154 (93%)	0.24	1 (0%)	87	89	31, 45, 64, 65	0
1	D	144/154 (93%)	0.05	2 (1%)	75	77	31, 45, 64, 65	1 (0%)
1	E	142/154 (92%)	0.03	0	100	100	31, 45, 62, 65	0
1	F	146/154 (94%)	0.18	0	100	100	31, 45, 63, 65	0
1	G	146/154 (94%)	0.18	7 (4%)	30	28	34, 47, 62, 66	0
1	H	141/154 (91%)	0.25	5 (3%)	44	44	35, 46, 62, 66	0
1	I	144/154 (93%)	0.07	0	100	100	34, 47, 62, 66	0
1	J	144/154 (93%)	0.20	2 (1%)	75	77	35, 47, 64, 69	1 (0%)
1	K	142/154 (92%)	0.33	7 (4%)	29	28	34, 46, 62, 66	0
1	L	146/154 (94%)	0.36	7 (4%)	30	28	35, 47, 65, 75	0
1	M	146/154 (94%)	0.06	1 (0%)	87	89	32, 46, 63, 66	0
1	N	141/154 (91%)	0.10	2 (1%)	75	77	32, 46, 62, 65	0
1	O	144/154 (93%)	0.12	0	100	100	32, 45, 62, 65	0
1	P	144/154 (93%)	0.11	4 (2%)	53	54	32, 46, 64, 66	1 (0%)
1	Q	142/154 (92%)	0.13	3 (2%)	63	65	32, 46, 62, 68	0
1	R	146/154 (94%)	0.12	1 (0%)	87	89	31, 45, 62, 66	0
1	S	146/154 (94%)	0.12	4 (2%)	54	55	35, 47, 63, 66	0
1	T	141/154 (91%)	0.09	4 (2%)	53	54	35, 47, 63, 65	0
1	U	144/154 (93%)	0.38	10 (6%)	16	15	35, 47, 64, 71	0
1	V	140/154 (90%)	0.08	4 (2%)	51	52	34, 47, 64, 66	1 (0%)
1	W	142/154 (92%)	0.27	2 (1%)	75	77	35, 47, 64, 68	0
1	X	146/154 (94%)	0.44	9 (6%)	20	19	34, 47, 63, 65	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å²)	Q<0.9
All	All	3447/3696 (93%)	0.17	79 (2%)	60	62	31, 46, 64, 75	4 (0%)

The worst 5 of 79 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	L	168	LEU	5.4
1	V	162	ASP	4.2
1	P	110	TYR	4.0
1	U	170	LEU	3.8
1	U	166	ASN	3.5

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.

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(Å²)	Q<0.9
3	KM0	C	3	19/19	0.89	0.27	52,56,60,60	0
3	KM0	P	6	19/19	0.89	0.21	43,53,57,58	0
3	KM0	U	8	19/19	0.89	0.29	44,54,58,59	0
2	GOL	C	1	6/6	0.90	0.24	41,42,45,46	0
2	GOL	N	6	6/6	0.91	0.17	38,40,41,42	0
3	KM0	Q	7	19/19	0.91	0.26	46,51,55,55	0
3	KM0	O	5	19/19	0.91	0.20	35,45,50,50	0
2	GOL	T	9	6/6	0.92	0.14	42,47,50,52	0
3	KM0	B	2	19/19	0.92	0.27	37,46,53,54	4
2	GOL	A	2	6/6	0.92	0.18	36,41,43,44	0
3	KM0	D	1	19/19	0.92	0.20	45,52,59,59	0
2	GOL	P	7	6/6	0.93	0.17	39,43,46,49	0
2	GOL	J	5	6/6	0.94	0.14	33,34,36,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
3	KM0	M	4	19/19	0.94	0.22	48,51,54,54	0
2	GOL	W	11	6/6	0.94	0.31	27,31,37,41	0
2	GOL	E	3	6/6	0.97	0.20	18,27,30,38	0
2	GOL	Q	8	6/6	0.97	0.16	17,23,25,27	0
2	GOL	G	4	6/6	0.97	0.16	37,38,38,39	0
2	GOL	V	10	6/6	0.98	0.16	23,28,30,33	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 KM0 C 3:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
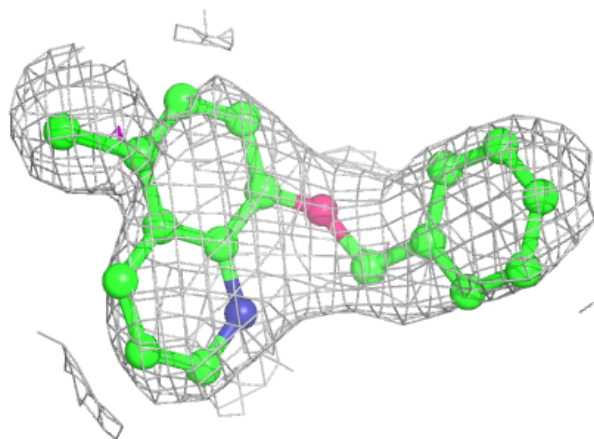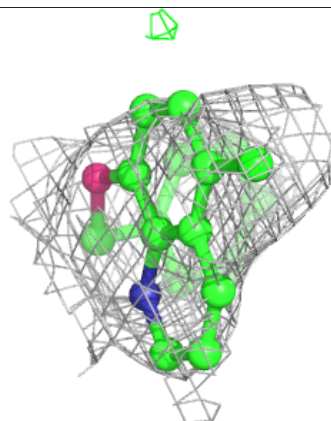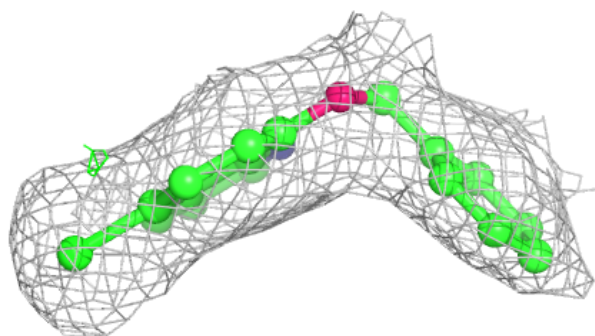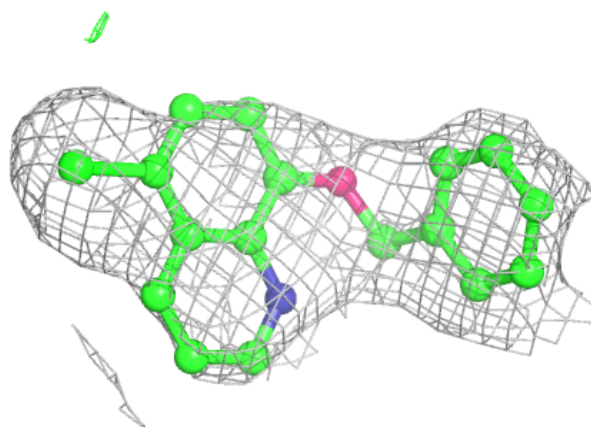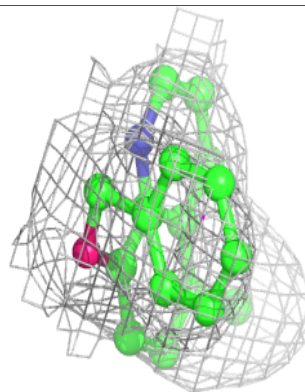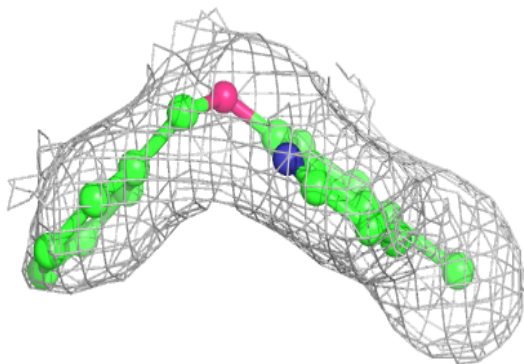mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative) and green (positive)
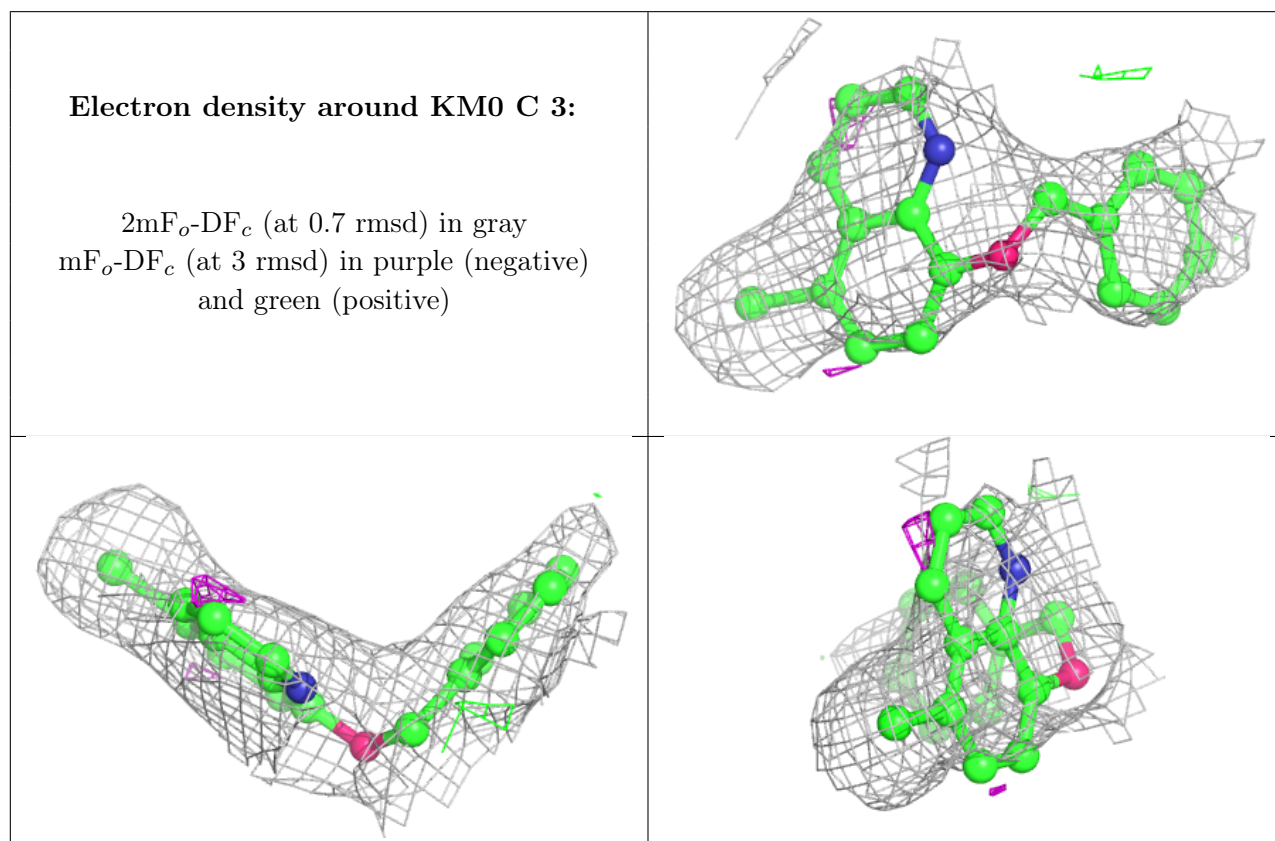
Electron density around KM0 P 6:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
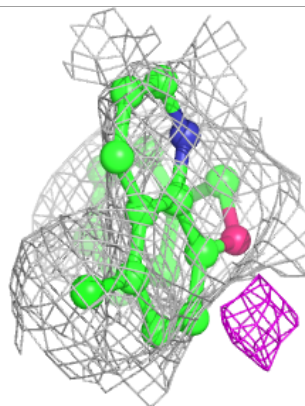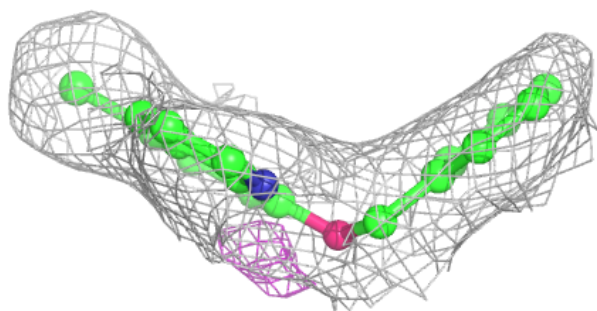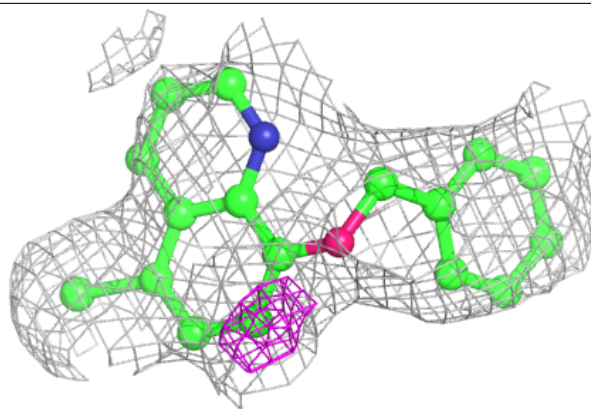
Electron density around KM0 U 8:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
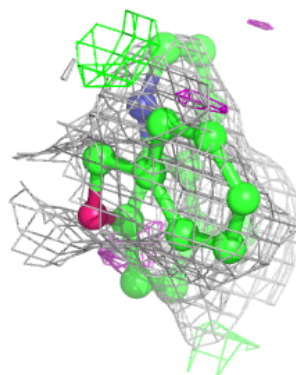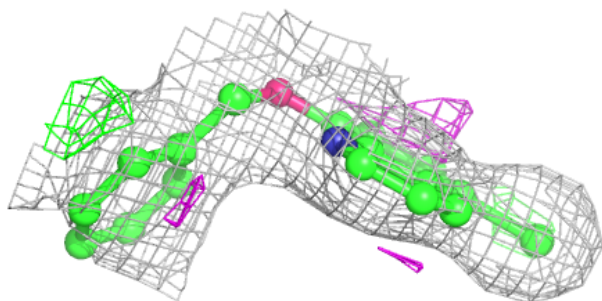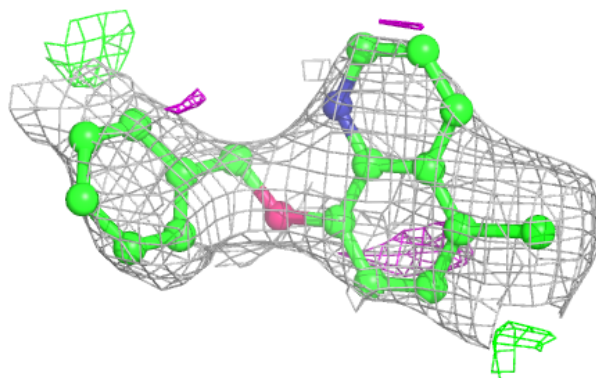
Electron density around KM0 Q 7:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
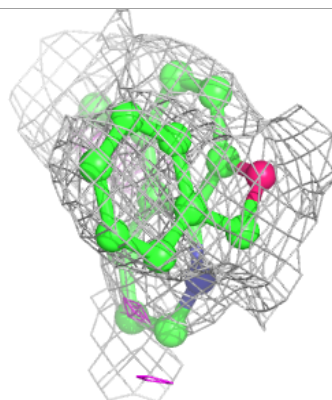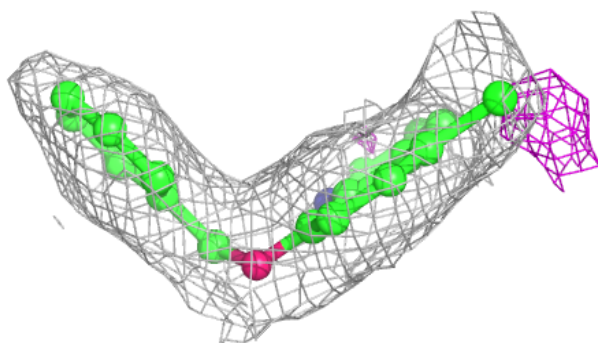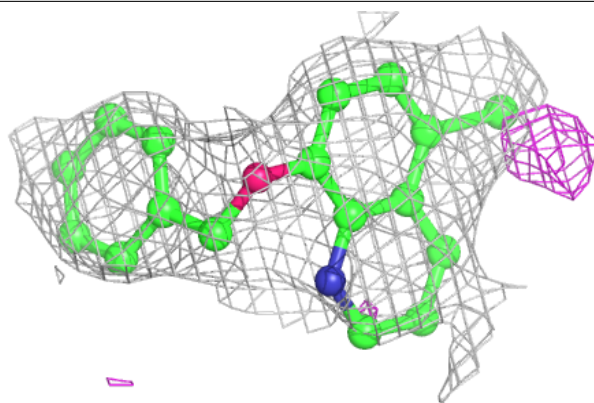
Electron density around KM0 O 5:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
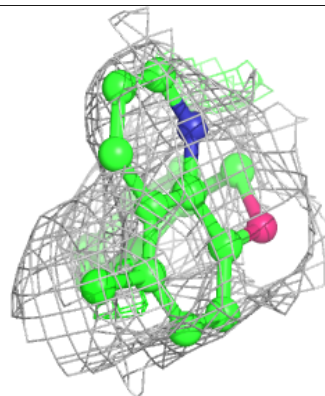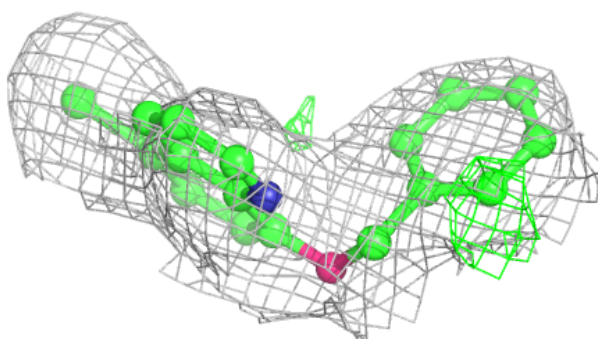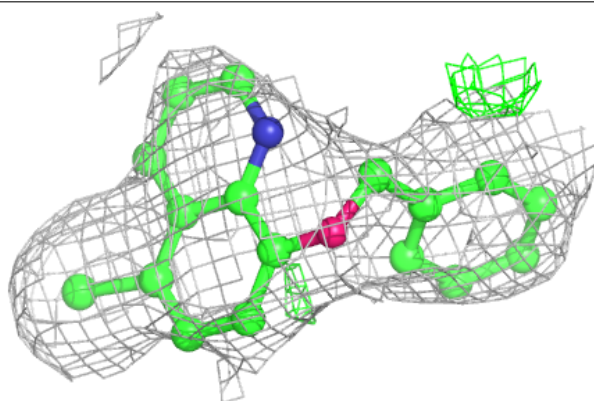
Electron density around KM0 B 2:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
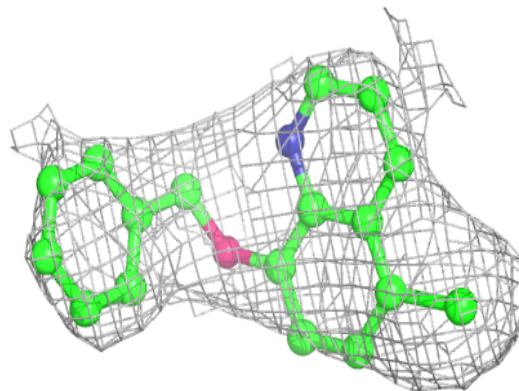and green (positive)
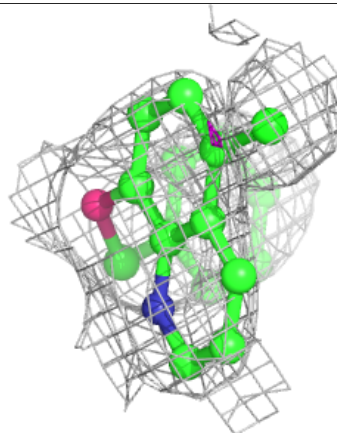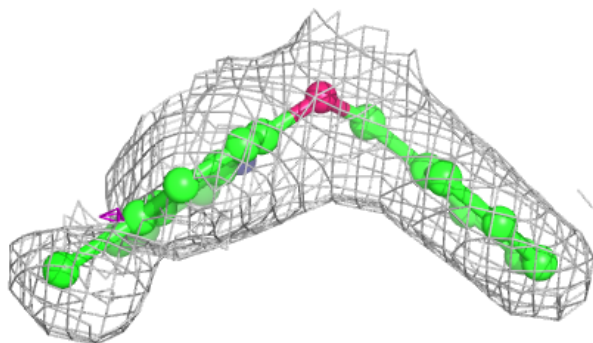
Electron density around KM0 D 1:

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

Electron density around KM0 M 4:

$2mF_o$-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.