



## wwPDB EM Validation Summary Report ⓘ

Mar 12, 2026 – 09:38 PM UTC

PDB ID : 7AS5 / pdb\_00007as5  
EMDB ID : EMD-11170  
Title : 126 helix bundle DNA nanostructure  
Authors : Kube, M.; Kohler, F.; Feigl, E.; Nagel-Yuksel, B.; Willner, E.M.; Funke, J.J.; Gerling, T.; Stommer, P.; Honemann, M.N.; Martin, T.G.; Scheres, S.H.W.; Dietz, H.  
Deposited on : 2020-10-27  
Resolution : 9.80 Å(reported)

This is a wwPDB EM Validation Summary Report for a publicly released PDB entry.

We welcome your comments at [validation@mail.wwpdb.org](mailto:validation@mail.wwpdb.org)

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>

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>.

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

EMDB validation analysis : 0.0.1.dev132  
MolProbity : **FAILED**  
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)  
EM percentile statistics : **NOT EXECUTED**  
MapQ : 1.9.13  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.49

## 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 9.80 Å.

There are no overall percentile quality scores available for this entry.

MolProbity failed to run properly - the sequence quality summary graphics cannot be shown.

## 2 Entry composition

There are 455 unique types of molecules in this entry. The entry contains 662907 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, 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 DNA chain called SCAFFOLD STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
1	AA	7560	154518	73798	27731	45430	7559	0	0

- Molecule 2 is a DNA chain called SCAFFOLD STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
2	AB	7561	154665	73996	27107	46002	7560	0	1

- Molecule 3 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
3	AC	50	1020	495	156	320	49	0	0

- Molecule 4 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
4	AD	50	1036	497	187	303	49	0	0

- Molecule 5 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
5	AE	50	1013	494	154	316	49	0	0

- Molecule 6 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
6	AF	50	1011	494	151	317	49	0	0

- Molecule 7 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	AG	50	Total	C	N	O	P	0	0
			1011	495	147	320	49		

- Molecule 8 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	AH	50	Total	C	N	O	P	0	0
			1009	492	153	315	49		

- Molecule 9 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	AI	50	Total	C	N	O	P	0	0
			1015	495	150	321	49		

- Molecule 10 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	AJ	50	Total	C	N	O	P	0	0
			1028	498	165	316	49		

- Molecule 11 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	AK	50	Total	C	N	O	P	0	0
			1019	495	162	313	49		

- Molecule 12 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	AL	50	Total	C	N	O	P	0	0
			1016	493	158	316	49		

- Molecule 13 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	AM	50	Total	C	N	O	P	0	0
			1018	494	154	321	49		

- Molecule 14 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	AN	50	Total	C	N	O	P	0	0
			1006	489	153	315	49		

- Molecule 15 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	AO	50	Total	C	N	O	P	0	0
			1028	497	166	316	49		

- Molecule 16 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	AP	50	Total	C	N	O	P	0	0
			1005	489	150	317	49		

- Molecule 17 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	AQ	50	Total	C	N	O	P	0	0
			1023	494	166	314	49		

- Molecule 18 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	AR	50	Total	C	N	O	P	0	0
			1008	489	153	317	49		

- Molecule 19 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	AS	50	Total	C	N	O	P	0	0
			1010	492	150	319	49		

- Molecule 20 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	AT	50	Total	C	N	O	P	0	0
			1003	488	154	312	49		

- Molecule 21 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	AU	50	Total	C	N	O	P	0	0
			1011	494	148	320	49		

- Molecule 22 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	AV	50	Total	C	N	O	P	0	0
			1018	495	159	315	49		

- Molecule 23 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	AW	50	Total	C	N	O	P	0	0
			1020	495	159	317	49		

- Molecule 24 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	AX	50	Total	C	N	O	P	0	0
			1016	492	162	313	49		

- Molecule 25 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	AY	50	Total	C	N	O	P	0	0
			1008	489	153	317	49		

- Molecule 26 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	AZ	50	Total	C	N	O	P	0	0
			1007	489	156	313	49		

- Molecule 27 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	Aa	50	Total	C	N	O	P	0	0
			1012	493	152	318	49		

- Molecule 28 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	Ab	50	Total	C	N	O	P	0	0
			1008	492	153	314	49		

- Molecule 29 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	Ac	50	Total	C	N	O	P	0	0
			1027	496	170	312	49		

- Molecule 30 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	Ad	50	Total	C	N	O	P	0	0
			1017	494	157	317	49		

- Molecule 31 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	Ae	50	Total	C	N	O	P	0	0
			1017	493	158	317	49		

- Molecule 32 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	Af	50	Total	C	N	O	P	0	0
			1022	496	164	313	49		

- Molecule 33 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	Ag	50	Total	C	N	O	P	0	0
			1009	493	146	321	49		

- Molecule 34 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	Ah	50	Total	C	N	O	P	0	0
			1029	497	169	314	49		

- Molecule 35 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	Ai	50	Total	C	N	O	P	0	0
			1022	497	163	313	49		

- Molecule 36 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	Aj	50	Total	C	N	O	P	0	0
			1022	496	158	319	49		

- Molecule 37 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
37	Ak	50	Total	C	N	O	P	0	0
			997	487	140	321	49		

- Molecule 38 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
38	Al	50	Total	C	N	O	P	0	0
			1014	495	150	320	49		

- Molecule 39 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
39	Am	50	Total	C	N	O	P	0	0
			1013	493	158	313	49		

- Molecule 40 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
40	An	50	Total	C	N	O	P	0	0
			1022	495	168	310	49		

- Molecule 41 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
41	Ao	50	Total	C	N	O	P	0	0
			1015	492	168	306	49		

- Molecule 42 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
42	Ap	50	Total	C	N	O	P	0	0
			1016	495	159	313	49		

- Molecule 43 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
43	Aq	50	Total	C	N	O	P	0	0
			1021	494	169	309	49		

- Molecule 44 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
44	Ar	50	Total	C	N	O	P	0	0
			1015	495	153	318	49		

- Molecule 45 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
45	As	50	Total	C	N	O	P	0	0
			1023	496	167	311	49		

- Molecule 46 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
46	At	50	Total	C	N	O	P	0	0
			1012	494	154	315	49		

- Molecule 47 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
47	Au	50	Total	C	N	O	P	0	0
			1020	493	173	305	49		

- Molecule 48 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
48	Av	50	Total	C	N	O	P	0	0
			1009	492	153	315	49		

- Molecule 49 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
49	Aw	50	Total	C	N	O	P	0	0
			1009	491	157	312	49		

- Molecule 50 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
50	Ax	50	Total	C	N	O	P	0	0
			1004	489	144	322	49		

- Molecule 51 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
51	Ay	50	Total	C	N	O	P	0	0
			1010	492	156	313	49		

- Molecule 52 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
52	Az	50	Total	C	N	O	P	0	0
			1016	494	163	310	49		

- Molecule 53 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
53	A0	50	Total	C	N	O	P	0	0
			1018	495	168	306	49		

- Molecule 54 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
54	A1	50	Total	C	N	O	P	0	0
			1014	493	164	308	49		

- Molecule 55 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
55	A2	50	Total	C	N	O	P	0	0
			1017	495	159	314	49		

- Molecule 56 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
56	A3	50	Total	C	N	O	P	0	0
			1027	497	166	315	49		

- Molecule 57 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
57	A4	50	Total	C	N	O	P	0	0
			1024	495	162	318	49		

- Molecule 58 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
58	A5	50	Total	C	N	O	P	0	0
			1018	495	159	315	49		

- Molecule 59 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
59	A6	50	Total	C	N	O	P	0	0
			1007	494	148	316	49		

- Molecule 60 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
60	A7	50	Total	C	N	O	P	0	0
			1017	496	158	314	49		

- Molecule 61 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
61	A8	50	Total	C	N	O	P	0	0
			1031	494	181	307	49		

- Molecule 62 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
62	A9	50	Total	C	N	O	P	0	0
			1013	491	157	316	49		

- Molecule 63 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
63	BA	50	Total	C	N	O	P	0	0
			1020	494	160	317	49		

- Molecule 64 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
64	BB	50	Total	C	N	O	P	0	0
			1009	491	154	315	49		

- Molecule 65 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
65	BC	50	Total	C	N	O	P	0	0
			1036	498	180	309	49		

- Molecule 66 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
66	BD	50	Total	C	N	O	P	0	0
			1025	496	161	319	49		

- Molecule 67 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
67	BE	50	Total	C	N	O	P	0	0
			1013	495	150	319	49		

- Molecule 68 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
68	BF	49	Total	C	N	O	P	0	0
			991	472	191	280	48		

- Molecule 69 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
69	BG	49	Total	C	N	O	P	0	0
			998	475	182	293	48		

- Molecule 70 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
70	BH	49	Total	C	N	O	P	0	0
			996	480	177	291	48		

- Molecule 71 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
71	BI	49	Total	C	N	O	P	0	0
			995	474	183	290	48		

- Molecule 72 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
72	BJ	49	Total	C	N	O	P	0	0
			988	480	153	307	48		

- Molecule 73 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
73	BK	49	Total	C	N	O	P	0	0
			996	481	170	297	48		

- Molecule 74 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
74	BL	49	Total	C	N	O	P	0	0
			1009	483	183	295	48		

- Molecule 75 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
75	BM	49	Total	C	N	O	P	0	0
			1005	480	177	300	48		

- Molecule 76 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
76	BN	49	Total	C	N	O	P	0	0
			1013	481	203	281	48		

- Molecule 77 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
77	BO	49	Total	C	N	O	P	0	0
			1002	480	186	288	48		

- Molecule 78 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
78	BP	49	Total	C	N	O	P	0	0
			1006	481	197	280	48		

- Molecule 79 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
79	BQ	49	Total	C	N	O	P	0	0
			998	479	178	293	48		

- Molecule 80 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
80	BR	49	Total	C	N	O	P	0	0
			1015	484	194	289	48		

- Molecule 81 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
81	BS	49	Total	C	N	O	P	0	0
			998	478	176	296	48		

- Molecule 82 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
82	BT	49	Total	C	N	O	P	0	0
			995	481	170	296	48		

- Molecule 83 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
83	BU	49	Total	C	N	O	P	0	0
			1005	480	195	282	48		

- Molecule 84 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
84	BV	49	Total	C	N	O	P	0	0
			994	474	183	289	48		

- Molecule 85 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
85	BW	49	Total	C	N	O	P	0	0
			1010	482	190	290	48		

- Molecule 86 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
86	BX	49	Total	C	N	O	P	0	0
			999	480	186	285	48		

- Molecule 87 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
87	BY	49	Total	C	N	O	P	0	0
			1003	481	182	292	48		

- Molecule 88 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
88	BZ	49	Total	C	N	O	P	0	0
			1003	480	183	292	48		

- Molecule 89 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
89	Ba	49	Total	C	N	O	P	0	0
			1011	479	205	279	48		

- Molecule 90 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
90	Bb	49	Total	C	N	O	P	0	0
			991	483	150	310	48		

- Molecule 91 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
91	Bc	49	Total	C	N	O	P	0	0
			1010	481	188	293	48		

- Molecule 92 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
92	Bd	49	Total	C	N	O	P	0	0
			999	486	159	306	48		

- Molecule 93 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
93	Be	49	Total	C	N	O	P	0	0
			1007	479	193	287	48		

- Molecule 94 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
94	Bf	49	Total	C	N	O	P	0	0
			1005	481	185	291	48		

- Molecule 95 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
95	Bg	42	Total	C	N	O	P	0	0
			866	411	168	246	41		

- Molecule 96 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
96	Bh	42	Total	C	N	O	P	0	0
			864	414	162	247	41		

- Molecule 97 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
97	Bi	42	Total	C	N	O	P	0	0
			860	412	152	255	41		

- Molecule 98 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
98	Bj	42	Total	C	N	O	P	0	0
			871	414	183	233	41		

- Molecule 99 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
99	Bk	42	Total	C	N	O	P	0	0
			879	414	177	247	41		

- Molecule 100 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
100	Bl	42	Total	C	N	O	P	0	0
			858	413	148	256	41		

- Molecule 101 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
101	Bm	42	Total	C	N	O	P	0	0
			858	410	166	241	41		

- Molecule 102 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
102	Bn	42	Total	C	N	O	P	0	0
			872	411	171	249	41		

- Molecule 103 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
103	Bo	42	Total	C	N	O	P	0	0
			842	408	132	261	41		

- Molecule 104 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
104	Bp	42	Total	C	N	O	P	0	0
			858	413	142	262	41		

- Molecule 105 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
105	Bq	42	Total	C	N	O	P	0	0
			861	412	155	253	41		

- Molecule 106 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
106	Br	42	Total	C	N	O	P	0	0
			865	415	155	254	41		

- Molecule 107 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
107	Bs	42	Total	C	N	O	P	0	0
			849	413	136	259	41		

- Molecule 108 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
108	Bt	42	Total	C	N	O	P	0	0
			854	408	159	246	41		

- Molecule 109 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
109	Bu	42	Total	C	N	O	P	0	0
			855	407	166	241	41		

- Molecule 110 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
110	Bv	42	Total	C	N	O	P	0	0
			863	411	177	234	41		

- Molecule 111 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
111	Bw	42	Total	C	N	O	P	0	0
			853	413	145	254	41		

- Molecule 112 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
112	Bx	42	Total	C	N	O	P	0	0
			864	411	162	250	41		

- Molecule 113 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
113	By	42	Total	C	N	O	P	0	0
			864	417	156	250	41		

- Molecule 114 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
114	Bz	42	Total	C	N	O	P	0	0
			860	410	160	249	41		

- Molecule 115 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
115	B0	42	Total	C	N	O	P	0	0
			847	412	137	257	41		

- Molecule 116 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
116	B1	42	Total	C	N	O	P	0	0
			867	416	157	253	41		

- Molecule 117 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
117	B2	42	Total	C	N	O	P	0	0
			874	415	176	242	41		

- Molecule 118 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
118	B3	42	Total	C	N	O	P	0	0
			856	411	150	254	41		

- Molecule 119 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
119	B4	42	Total	C	N	O	P	0	0
			864	410	166	247	41		

- Molecule 120 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
120	B5	42	Total	C	N	O	P	0	0
			861	412	167	241	41		

- Molecule 121 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
121	B6	42	Total	C	N	O	P	0	0
			854	414	138	261	41		

- Molecule 122 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
122	B7	42	Total	C	N	O	P	0	0
			853	411	153	248	41		

- Molecule 123 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
123	B8	42	Total	C	N	O	P	0	0
			852	418	119	274	41		

- Molecule 124 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
124	B9	42	Total	C	N	O	P	0	0
			864	413	166	244	41		

- Molecule 125 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
125	CA	42	Total	C	N	O	P	0	0
			855	419	124	271	41		

- Molecule 126 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
126	CB	42	Total	C	N	O	P	0	0
			855	415	140	259	41		

- Molecule 127 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
127	CC	42	Total	C	N	O	P	0	0
			870	415	170	244	41		

- Molecule 128 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
128	CD	42	Total	C	N	O	P	0	0
			852	408	156	247	41		

- Molecule 129 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
129	CE	42	Total	C	N	O	P	0	0
			862	414	153	254	41		

- Molecule 130 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
130	CF	42	Total	C	N	O	P	0	0
			845	414	126	264	41		

- Molecule 131 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
131	CG	42	Total	C	N	O	P	0	0
			849	407	148	253	41		

- Molecule 132 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
132	CH	42	Total	C	N	O	P	0	0
			865	412	155	257	41		

- Molecule 133 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
133	CI	42	Total	C	N	O	P	0	0
			860	413	154	252	41		

- Molecule 134 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
134	CJ	42	Total	C	N	O	P	0	0
			859	418	131	269	41		

- Molecule 135 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
135	CK	42	Total	C	N	O	P	0	0
			844	413	115	275	41		

- Molecule 136 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
136	CL	42	Total	C	N	O	P	0	0
			851	409	149	252	41		

- Molecule 137 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
137	CM	42	Total	C	N	O	P	0	0
			858	410	160	247	41		

- Molecule 138 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
138	CN	42	Total	C	N	O	P	0	0
			854	416	127	270	41		

- Molecule 139 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
139	CO	42	Total	C	N	O	P	0	0
			853	405	162	245	41		

- Molecule 140 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
140	CP	42	Total	C	N	O	P	0	0
			857	412	149	255	41		

- Molecule 141 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
141	CQ	42	Total	C	N	O	P	0	0
			855	410	154	250	41		

- Molecule 142 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
142	CR	42	Total	C	N	O	P	0	0
			854	415	137	261	41		

- Molecule 143 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
143	CS	42	Total	C	N	O	P	0	0
			867	415	170	241	41		

- Molecule 144 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
144	CT	42	Total	C	N	O	P	0	0
			857	411	153	252	41		

- Molecule 145 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
145	CU	42	Total	C	N	O	P	0	0
			857	409	152	255	41		

- Molecule 146 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
146	CV	42	Total	C	N	O	P	0	0
			851	411	150	249	41		

- Molecule 147 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
147	CW	42	Total	C	N	O	P	0	0
			862	414	153	254	41		

- Molecule 148 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
148	CX	42	Total	C	N	O	P	0	0
			860	410	172	237	41		

- Molecule 149 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
149	CY	42	Total	C	N	O	P	0	0
			851	411	141	258	41		

- Molecule 150 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
150	CZ	42	Total	C	N	O	P	0	0
			852	408	150	253	41		

- Molecule 151 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
151	Ca	42	Total	C	N	O	P	0	0
			857	412	155	249	41		

- Molecule 152 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
152	Cb	42	Total	C	N	O	P	0	0
			850	405	159	245	41		

- Molecule 153 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
153	Cc	42	Total	C	N	O	P	0	0
			846	408	141	256	41		

- Molecule 154 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
154	Cd	42	Total	C	N	O	P	0	0
			861	411	153	256	41		

- Molecule 155 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
155	Ce	42	Total	C	N	O	P	0	0
			851	409	152	249	41		

- Molecule 156 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
156	Cf	42	Total	C	N	O	P	0	0
			855	411	150	253	41		

- Molecule 157 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
157	Cg	42	Total	C	N	O	P	0	0
			853	409	149	254	41		

- Molecule 158 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
158	Ch	42	Total	C	N	O	P	0	0
			862	412	161	248	41		

- Molecule 159 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
159	Ci	42	Total	C	N	O	P	0	0
			852	409	155	247	41		

- Molecule 160 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
160	Cj	42	Total	C	N	O	P	0	0
			853	410	154	248	41		

- Molecule 161 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
161	Ck	42	Total	C	N	O	P	0	0
			856	411	150	254	41		

- Molecule 162 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
162	Cl	42	Total	C	N	O	P	0	0
			863	411	162	249	41		

- Molecule 163 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
163	Cm	42	Total	C	N	O	P	0	0
			863	414	162	246	41		

- Molecule 164 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
164	Cn	42	Total	C	N	O	P	0	0
			842	406	137	258	41		

- Molecule 165 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
165	Co	42	Total	C	N	O	P	0	0
			867	412	176	238	41		

- Molecule 166 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
166	Cp	42	Total	C	N	O	P	0	0
			854	407	154	252	41		

- Molecule 167 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
167	Cq	42	Total	C	N	O	P	0	0
			869	415	167	246	41		

- Molecule 168 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
168	Cr	42	842	413	115	273	41	0	0

- Molecule 169 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
169	Cs	42	868	415	161	251	41	0	0

- Molecule 170 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
170	Ct	42	875	417	174	243	41	0	0

- Molecule 171 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
171	Cu	42	865	414	159	251	41	0	0

- Molecule 172 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
172	Cv	42	855	408	153	253	41	0	0

- Molecule 173 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
173	Cw	42	861	411	156	253	41	0	0

- Molecule 174 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
174	Cx	42	857	412	143	261	41	0	0

- Molecule 175 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
175	Cy	42	Total	C	N	O	P	0	0
			860	410	172	237	41		

- Molecule 176 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
176	Cz	42	Total	C	N	O	P	0	0
			854	410	151	252	41		

- Molecule 177 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
177	C0	42	Total	C	N	O	P	0	0
			856	409	158	248	41		

- Molecule 178 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
178	C1	42	Total	C	N	O	P	0	0
			866	416	166	243	41		

- Molecule 179 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
179	C2	42	Total	C	N	O	P	0	0
			857	411	150	255	41		

- Molecule 180 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
180	C3	42	Total	C	N	O	P	0	0
			863	411	159	252	41		

- Molecule 181 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
181	C4	42	Total	C	N	O	P	0	0
			853	411	156	245	41		

- Molecule 182 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
182	C5	42	Total	C	N	O	P	0	0
			860	406	170	243	41		

- Molecule 183 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
183	C6	42	Total	C	N	O	P	0	0
			861	414	153	253	41		

- Molecule 184 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
184	C7	42	Total	C	N	O	P	0	0
			856	411	153	251	41		

- Molecule 185 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
185	C8	42	Total	C	N	O	P	0	0
			859	408	162	248	41		

- Molecule 186 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
186	C9	42	Total	C	N	O	P	0	0
			867	415	161	250	41		

- Molecule 187 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
187	DA	42	Total	C	N	O	P	0	0
			864	411	171	241	41		

- Molecule 188 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
188	DB	42	Total	C	N	O	P	0	0
			859	411	159	248	41		

- Molecule 189 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
189	DC	42	Total	C	N	O	P	0	0
			843	410	127	265	41		

- Molecule 190 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
190	DD	42	Total	C	N	O	P	0	0
			841	404	148	248	41		

- Molecule 191 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
191	DE	42	Total	C	N	O	P	0	0
			846	408	144	253	41		

- Molecule 192 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
192	DF	42	Total	C	N	O	P	0	0
			882	417	183	241	41		

- Molecule 193 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
193	DG	42	Total	C	N	O	P	0	0
			847	411	141	254	41		

- Molecule 194 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
194	DH	42	Total	C	N	O	P	0	0
			865	412	164	248	41		

- Molecule 195 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
195	DI	42	Total	C	N	O	P	0	0
			863	412	161	249	41		

- Molecule 196 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
196	DJ	42	Total	C	N	O	P	0	0
			857	410	163	243	41		

- Molecule 197 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
197	DK	42	Total	C	N	O	P	0	0
			866	413	157	255	41		

- Molecule 198 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
198	DL	42	Total	C	N	O	P	0	0
			857	413	154	249	41		

- Molecule 199 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
199	DM	42	Total	C	N	O	P	0	0
			857	411	153	252	41		

- Molecule 200 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
200	DN	42	Total	C	N	O	P	0	0
			847	406	152	248	41		

- Molecule 201 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
201	DO	42	Total	C	N	O	P	0	0
			855	409	167	238	41		

- Molecule 202 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
202	DP	42	Total	C	N	O	P	0	0
			858	411	159	247	41		

- Molecule 203 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
203	DQ	42	Total	C	N	O	P	0	0
			856	411	153	251	41		

- Molecule 204 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
204	DR	42	Total	C	N	O	P	0	0
			865	418	152	254	41		

- Molecule 205 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
205	DS	42	Total	C	N	O	P	0	0
			872	417	165	249	41		

- Molecule 206 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
206	DT	42	Total	C	N	O	P	0	0
			842	405	150	246	41		

- Molecule 207 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
207	DU	42	Total	C	N	O	P	0	0
			853	412	146	254	41		

- Molecule 208 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
208	DV	42	Total	C	N	O	P	0	0
			851	407	154	249	41		

- Molecule 209 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
209	DW	42	Total	C	N	O	P	0	0
			864	414	162	247	41		

- Molecule 210 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
210	DX	42	856	412	149	254	41	0	0

- Molecule 211 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
211	DY	42	856	413	151	251	41	0	0

- Molecule 212 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
212	DZ	42	849	409	140	259	41	0	0

- Molecule 213 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
213	Da	42	855	409	161	244	41	0	0

- Molecule 214 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
214	Db	42	848	413	133	261	41	0	0

- Molecule 215 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
215	Dc	42	860	412	158	249	41	0	0

- Molecule 216 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
216	Dd	42	858	409	164	244	41	0	0

- Molecule 217 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
217	De	42	Total	C	N	O	P	0	0
			848	406	149	252	41		

- Molecule 218 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
218	Df	42	Total	C	N	O	P	0	0
			856	411	156	248	41		

- Molecule 219 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
219	Dg	42	Total	C	N	O	P	0	0
			852	410	160	241	41		

- Molecule 220 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
220	Dh	42	Total	C	N	O	P	0	0
			854	413	136	264	41		

- Molecule 221 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
221	Di	42	Total	C	N	O	P	0	0
			846	409	146	250	41		

- Molecule 222 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
222	Dj	42	Total	C	N	O	P	0	0
			869	416	163	249	41		

- Molecule 223 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
223	Dk	42	Total	C	N	O	P	0	0
			858	412	155	250	41		

- Molecule 224 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
224	Dl	42	Total	C	N	O	P	0	0
			847	406	158	242	41		

- Molecule 225 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
225	Dm	42	Total	C	N	O	P	0	0
			853	406	167	239	41		

- Molecule 226 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
226	Dn	42	Total	C	N	O	P	0	0
			868	416	175	236	41		

- Molecule 227 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
227	Do	42	Total	C	N	O	P	0	0
			863	411	168	243	41		

- Molecule 228 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
228	Dp	42	Total	C	N	O	P	0	0
			862	411	171	239	41		

- Molecule 229 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
229	Dq	42	Total	C	N	O	P	0	0
			857	412	155	249	41		

- Molecule 230 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
230	Dr	42	Total	C	N	O	P	0	0
			853	408	162	242	41		

- Molecule 231 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
231	Ds	42	Total	C	N	O	P	0	0
			864	412	158	253	41		

- Molecule 232 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
232	Dt	42	Total	C	N	O	P	0	0
			861	414	159	247	41		

- Molecule 233 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
233	Du	42	Total	C	N	O	P	0	0
			855	413	142	259	41		

- Molecule 234 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
234	Dv	42	Total	C	N	O	P	0	0
			862	411	171	239	41		

- Molecule 235 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
235	Dw	42	Total	C	N	O	P	0	0
			859	414	153	251	41		

- Molecule 236 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
236	Dx	42	Total	C	N	O	P	0	0
			860	410	166	243	41		

- Molecule 237 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
237	Dy	42	Total	C	N	O	P	0	0
			859	412	161	245	41		

- Molecule 238 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
238	Dz	42	Total	C	N	O	P	0	0
			847	409	143	254	41		

- Molecule 239 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
239	D0	42	Total	C	N	O	P	0	0
			870	413	169	247	41		

- Molecule 240 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
240	D1	42	Total	C	N	O	P	0	0
			865	414	159	251	41		

- Molecule 241 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
241	D2	42	Total	C	N	O	P	0	0
			854	408	165	240	41		

- Molecule 242 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
242	D3	42	Total	C	N	O	P	0	0
			872	416	172	243	41		

- Molecule 243 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
243	D4	42	Total	C	N	O	P	0	0
			859	412	158	248	41		

- Molecule 244 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
244	D5	42	Total	C	N	O	P	0	0
			870	412	179	238	41		

- Molecule 245 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
245	D6	39	Total	C	N	O	P	0	0
			785	383	115	249	38		

- Molecule 246 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
246	D7	39	Total	C	N	O	P	0	0
			788	380	133	237	38		

- Molecule 247 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
247	D8	39	Total	C	N	O	P	0	0
			791	383	124	246	38		

- Molecule 248 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
248	D9	36	Total	C	N	O	P	0	0
			722	354	102	231	35		

- Molecule 249 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
249	EA	36	Total	C	N	O	P	0	0
			713	352	92	234	35		

- Molecule 250 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
250	EB	35	Total	C	N	O	P	0	0
			718	342	138	204	34		

- Molecule 251 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
251	EC	35	Total	C	N	O	P	0	0
			724	346	155	189	34		

- Molecule 252 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
252	ED	35	Total	C	N	O	P	0	0
			722	342	147	199	34		

- Molecule 253 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
253	EE	35	Total	C	N	O	P	0	0
			711	342	123	212	34		

- Molecule 254 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
254	EF	35	Total	C	N	O	P	0	0
			720	345	135	206	34		

- Molecule 255 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
255	EG	35	Total	C	N	O	P	0	0
			715	344	133	204	34		

- Molecule 256 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
256	EH	35	Total	C	N	O	P	0	0
			705	340	113	218	34		

- Molecule 257 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
257	EI	35	Total	C	N	O	P	0	0
			715	342	135	204	34		

- Molecule 258 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
258	EJ	35	Total	C	N	O	P	0	0
			720	347	127	212	34		

- Molecule 259 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
259	EK	35	715	345	123	213	34	0	0

- Molecule 260 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
260	EL	35	722	346	137	205	34	0	0

- Molecule 261 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
261	EM	35	717	344	130	209	34	0	0

- Molecule 262 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
262	EN	35	707	345	108	220	34	0	0

- Molecule 263 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
263	EO	35	722	343	137	208	34	0	0

- Molecule 264 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
264	EP	35	719	342	138	205	34	0	0

- Molecule 265 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
265	EQ	35	709	342	132	201	34	0	0

- Molecule 266 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
266	ER	35	Total	C	N	O	P	0	0
			710	340	128	208	34		

- Molecule 267 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
267	ES	35	Total	C	N	O	P	0	0
			721	345	135	207	34		

- Molecule 268 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
268	ET	35	Total	C	N	O	P	0	0
			722	346	128	214	34		

- Molecule 269 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
269	EU	35	Total	C	N	O	P	0	0
			711	341	121	215	34		

- Molecule 270 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
270	EV	35	Total	C	N	O	P	0	0
			717	344	133	206	34		

- Molecule 271 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
271	EW	35	Total	C	N	O	P	0	0
			717	341	142	200	34		

- Molecule 272 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
272	EX	35	Total	C	N	O	P	0	0
			700	338	118	210	34		

- Molecule 273 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
273	EY	35	Total	C	N	O	P	0	0
			714	344	124	212	34		

- Molecule 274 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
274	EZ	35	Total	C	N	O	P	0	0
			721	345	135	207	34		

- Molecule 275 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
275	Ea	35	Total	C	N	O	P	0	0
			716	341	142	199	34		

- Molecule 276 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
276	Eb	35	Total	C	N	O	P	0	0
			724	345	153	192	34		

- Molecule 277 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
277	Ec	35	Total	C	N	O	P	0	0
			719	343	137	205	34		

- Molecule 278 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
278	Ed	35	Total	C	N	O	P	0	0
			726	344	154	194	34		

- Molecule 279 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
279	Ee	35	Total	C	N	O	P	0	0
			717	345	117	221	34		

- Molecule 280 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
280	Ef	35	717	346	122	215	34	0	0

- Molecule 281 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
281	Eg	35	714	341	130	209	34	0	0

- Molecule 282 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
282	Eh	35	711	341	130	206	34	0	0

- Molecule 283 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
283	Ei	35	720	342	147	197	34	0	0

- Molecule 284 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
284	Ej	35	722	344	142	202	34	0	0

- Molecule 285 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
285	Ek	35	704	344	103	223	34	0	0

- Molecule 286 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
286	El	35	711	342	129	206	34	0	0

- Molecule 287 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
287	Em	35	Total	C	N	O	P	0	0
			716	344	127	211	34		

- Molecule 288 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
288	En	35	Total	C	N	O	P	0	0
			717	347	121	215	34		

- Molecule 289 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
289	Eo	35	Total	C	N	O	P	0	0
			719	344	136	205	34		

- Molecule 290 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
290	Ep	35	Total	C	N	O	P	0	0
			718	344	133	207	34		

- Molecule 291 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
291	Eq	35	Total	C	N	O	P	0	0
			710	342	123	211	34		

- Molecule 292 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
292	Er	35	Total	C	N	O	P	0	0
			718	346	128	210	34		

- Molecule 293 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
293	Es	35	Total	C	N	O	P	0	0
			724	348	132	210	34		

- Molecule 294 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
294	Et	35	Total	C	N	O	P	0	0
			721	347	127	213	34		

- Molecule 295 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
295	Eu	35	Total	C	N	O	P	0	0
			712	341	139	198	34		

- Molecule 296 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
296	Ev	35	Total	C	N	O	P	0	0
			716	343	140	199	34		

- Molecule 297 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
297	Ew	35	Total	C	N	O	P	0	0
			725	346	140	205	34		

- Molecule 298 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
298	Ex	35	Total	C	N	O	P	0	0
			712	343	125	210	34		

- Molecule 299 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
299	Ey	35	Total	C	N	O	P	0	0
			716	343	140	199	34		

- Molecule 300 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
300	Ez	35	Total	C	N	O	P	0	0
			723	343	143	203	34		

- Molecule 301 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
301	E0	35	Total	C	N	O	P	0	0
			713	342	135	202	34		

- Molecule 302 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
302	E1	35	Total	C	N	O	P	0	0
			710	342	129	205	34		

- Molecule 303 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
303	E2	35	Total	C	N	O	P	0	0
			726	343	149	200	34		

- Molecule 304 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
304	E3	35	Total	C	N	O	P	0	0
			715	342	129	210	34		

- Molecule 305 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
305	E4	35	Total	C	N	O	P	0	0
			723	347	136	206	34		

- Molecule 306 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
306	E5	35	Total	C	N	O	P	0	0
			715	342	129	210	34		

- Molecule 307 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
307	E6	35	Total	C	N	O	P	0	0
			726	347	139	206	34		

- Molecule 308 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
308	E7	35	Total	C	N	O	P	0	0
			721	345	132	210	34		

- Molecule 309 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
309	E8	35	Total	C	N	O	P	0	0
			725	343	143	205	34		

- Molecule 310 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
310	E9	35	Total	C	N	O	P	0	0
			712	342	132	204	34		

- Molecule 311 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
311	FA	35	Total	C	N	O	P	0	0
			718	342	135	207	34		

- Molecule 312 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
312	FB	35	Total	C	N	O	P	0	0
			716	344	130	208	34		

- Molecule 313 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
313	FC	35	Total	C	N	O	P	0	0
			717	346	131	206	34		

- Molecule 314 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
314	FD	35	Total	C	N	O	P	0	0
			720	344	136	206	34		

- Molecule 315 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
315	FE	35	Total	C	N	O	P	0	0
			717	345	138	200	34		

- Molecule 316 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
316	FF	35	Total	C	N	O	P	0	0
			712	343	125	210	34		

- Molecule 317 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
317	FG	35	Total	C	N	O	P	0	0
			711	344	118	215	34		

- Molecule 318 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
318	FH	35	Total	C	N	O	P	0	0
			707	344	112	217	34		

- Molecule 319 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
319	FI	35	Total	C	N	O	P	0	0
			720	343	143	200	34		

- Molecule 320 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
320	FJ	35	Total	C	N	O	P	0	0
			724	344	148	198	34		

- Molecule 321 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
321	FK	35	Total	C	N	O	P	0	0
			710	344	118	214	34		

- Molecule 322 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
322	FL	35	Total	C	N	O	P	0	0
			718	344	136	204	34		

- Molecule 323 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
323	FM	35	Total	C	N	O	P	0	0
			711	339	132	206	34		

- Molecule 324 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
324	FN	35	Total	C	N	O	P	0	0
			707	345	105	223	34		

- Molecule 325 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
325	FO	35	Total	C	N	O	P	0	0
			708	344	118	212	34		

- Molecule 326 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
326	FP	35	Total	C	N	O	P	0	0
			708	340	125	209	34		

- Molecule 327 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
327	FQ	35	Total	C	N	O	P	0	0
			715	343	137	201	34		

- Molecule 328 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
328	FR	35	Total	C	N	O	P	0	0
			709	347	103	225	34		

- Molecule 329 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
329	FS	35	Total	C	N	O	P	0	0
			720	342	138	206	34		

- Molecule 330 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
330	FT	35	Total	C	N	O	P	0	0
			710	343	119	214	34		

- Molecule 331 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
331	FU	35	Total	C	N	O	P	0	0
			718	350	109	225	34		

- Molecule 332 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
332	FV	35	Total	C	N	O	P	0	0
			720	342	141	203	34		

- Molecule 333 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
333	FW	35	Total	C	N	O	P	0	0
			715	344	127	210	34		

- Molecule 334 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
334	FX	35	Total	C	N	O	P	0	0
			720	345	126	215	34		

- Molecule 335 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
335	FY	35	Total	C	N	O	P	0	0
			722	346	131	211	34		

- Molecule 336 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
336	FZ	35	Total	C	N	O	P	0	0
			734	348	156	196	34		

- Molecule 337 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
337	Fa	35	Total	C	N	O	P	0	0
			721	346	137	204	34		

- Molecule 338 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
338	Fb	35	Total	C	N	O	P	0	0
			712	343	125	210	34		

- Molecule 339 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
339	Fc	35	Total	C	N	O	P	0	0
			727	344	148	201	34		

- Molecule 340 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
340	Fd	33	Total	C	N	O	P	0	0
			684	323	145	184	32		

- Molecule 341 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
341	Fe	32	Total	C	N	O	P	0	0
			658	313	125	189	31		

- Molecule 342 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
342	Ff	32	Total	C	N	O	P	0	0
			644	315	96	202	31		

- Molecule 343 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
343	Fg	28	567	273	102	165	27	0	0

- Molecule 344 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
344	Fh	28	552	269	79	177	27	0	0

- Molecule 345 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
345	Fi	28	565	275	88	175	27	0	0

- Molecule 346 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
346	Fj	28	580	274	113	166	27	0	0

- Molecule 347 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
347	Fk	28	569	278	79	185	27	0	0

- Molecule 348 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
348	Fl	28	583	277	116	163	27	0	0

- Molecule 349 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
349	Fm	28	564	272	100	165	27	0	0

- Molecule 350 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
350	Fn	28	Total	C	N	O	P	0	0
			571	273	108	163	27		

- Molecule 351 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
351	Fo	28	Total	C	N	O	P	0	0
			569	273	96	173	27		

- Molecule 352 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
352	Fp	28	Total	C	N	O	P	0	0
			575	274	110	164	27		

- Molecule 353 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
353	Fq	28	Total	C	N	O	P	0	0
			570	275	94	174	27		

- Molecule 354 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
354	Fr	28	Total	C	N	O	P	0	0
			565	276	87	175	27		

- Molecule 355 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
355	Fs	28	Total	C	N	O	P	0	0
			576	276	108	165	27		

- Molecule 356 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
356	Ft	28	Total	C	N	O	P	0	0
			576	275	109	165	27		

- Molecule 357 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
357	Fu	28	572	275	103	167	27	0	0

- Molecule 358 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
358	Fv	28	570	276	90	177	27	0	0

- Molecule 359 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
359	Fw	28	571	272	106	166	27	0	0

- Molecule 360 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
360	Fx	28	562	274	92	169	27	0	0

- Molecule 361 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
361	Fy	28	571	274	104	166	27	0	0

- Molecule 362 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
362	Fz	28	571	276	102	166	27	0	0

- Molecule 363 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
363	F0	28	567	277	83	180	27	0	0

- Molecule 364 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
364	F1	28	578	276	111	164	27	0	0

- Molecule 365 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
365	F2	28	568	276	93	172	27	0	0

- Molecule 366 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
366	F3	28	579	277	110	165	27	0	0

- Molecule 367 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
367	F4	28	581	276	120	158	27	0	0

- Molecule 368 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
368	F5	28	563	274	92	170	27	0	0

- Molecule 369 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
369	F6	28	573	273	105	168	27	0	0

- Molecule 370 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
370	F7	28	566	276	87	176	27	0	0

- Molecule 371 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
371	F8	28	577	274	116	160	27	0	0

- Molecule 372 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
372	F9	28	565	276	90	172	27	0	0

- Molecule 373 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
373	GA	28	573	277	95	174	27	0	0

- Molecule 374 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
374	GB	28	573	278	97	171	27	0	0

- Molecule 375 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
375	GC	28	570	276	99	168	27	0	0

- Molecule 376 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
376	GD	28	566	273	93	173	27	0	0

- Molecule 377 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
377	GE	28	565	275	88	175	27	0	0

- Molecule 378 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
378	GF	28	Total	C	N	O	P	0	0
			566	272	103	164	27		

- Molecule 379 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
379	GG	28	Total	C	N	O	P	0	0
			567	272	103	165	27		

- Molecule 380 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
380	GH	28	Total	C	N	O	P	0	0
			561	275	85	174	27		

- Molecule 381 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
381	GI	28	Total	C	N	O	P	0	0
			565	272	103	163	27		

- Molecule 382 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
382	GJ	28	Total	C	N	O	P	0	0
			570	275	100	168	27		

- Molecule 383 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
383	GK	28	Total	C	N	O	P	0	0
			571	278	88	178	27		

- Molecule 384 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
384	GL	28	Total	C	N	O	P	0	0
			577	278	100	172	27		

- Molecule 385 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
385	GM	28	Total	C	N	O	P	0	0
			572	273	105	167	27		

- Molecule 386 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
386	GN	28	Total	C	N	O	P	0	0
			565	274	92	172	27		

- Molecule 387 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
387	GO	28	Total	C	N	O	P	0	0
			576	278	97	174	27		

- Molecule 388 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
388	GP	28	Total	C	N	O	P	0	0
			566	274	92	173	27		

- Molecule 389 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
389	GQ	28	Total	C	N	O	P	0	0
			560	272	82	179	27		

- Molecule 390 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
390	GR	28	Total	C	N	O	P	0	0
			573	274	101	171	27		

- Molecule 391 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
391	GS	28	Total	C	N	O	P	0	0
			568	273	102	166	27		

- Molecule 392 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
392	GT	28	Total	C	N	O	P	0	0
			581	276	117	161	27		

- Molecule 393 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
393	GU	28	Total	C	N	O	P	0	0
			577	274	119	157	27		

- Molecule 394 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
394	GV	28	Total	C	N	O	P	0	0
			575	274	110	164	27		

- Molecule 395 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
395	GW	28	Total	C	N	O	P	0	0
			565	271	107	160	27		

- Molecule 396 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
396	GX	28	Total	C	N	O	P	0	0
			570	271	110	162	27		

- Molecule 397 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
397	GY	28	Total	C	N	O	P	0	0
			568	275	91	175	27		

- Molecule 398 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
398	GZ	28	Total	C	N	O	P	0	0
			578	276	114	161	27		

- Molecule 399 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
399	Ga	28	560	269	100	164	27	0	0

- Molecule 400 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
400	Gb	28	568	275	94	172	27	0	0

- Molecule 401 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
401	Gc	28	564	275	88	174	27	0	0

- Molecule 402 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
402	Gd	28	564	275	88	174	27	0	0

- Molecule 403 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
403	Ge	28	562	273	84	178	27	0	0

- Molecule 404 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
404	Gf	28	564	276	90	171	27	0	0

- Molecule 405 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
405	Gg	28	583	278	112	166	27	0	0

- Molecule 406 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
406	Gh	28	569	271	110	161	27	0	0

- Molecule 407 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
407	Gi	28	572	277	95	173	27	0	0

- Molecule 408 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
408	Gj	28	578	276	117	158	27	0	0

- Molecule 409 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
409	Gk	28	571	277	95	172	27	0	0

- Molecule 410 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
410	Gl	28	577	279	96	175	27	0	0

- Molecule 411 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
411	Gm	28	573	277	95	174	27	0	0

- Molecule 412 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
412	Gn	28	566	277	83	179	27	0	0

- Molecule 413 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
413	Go	28	573	278	97	171	27	0	0

- Molecule 414 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
414	Gp	28	566	275	94	170	27	0	0

- Molecule 415 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
415	Gq	28	564	277	86	174	27	0	0

- Molecule 416 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
416	Gr	28	573	278	91	177	27	0	0

- Molecule 417 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
417	Gs	28	566	272	100	167	27	0	0

- Molecule 418 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
418	Gt	28	573	278	97	171	27	0	0

- Molecule 419 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
419	Gu	28	573	278	91	177	27	0	0

- Molecule 420 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
420	Gv	28	Total	C	N	O	P	0	0
			566	271	104	164	27		

- Molecule 421 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
421	Gw	28	Total	C	N	O	P	0	0
			565	277	86	175	27		

- Molecule 422 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
422	Gx	28	Total	C	N	O	P	0	0
			578	277	110	164	27		

- Molecule 423 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
423	Gy	28	Total	C	N	O	P	0	0
			575	279	96	173	27		

- Molecule 424 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
424	Gz	28	Total	C	N	O	P	0	0
			580	276	120	157	27		

- Molecule 425 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
425	G0	28	Total	C	N	O	P	0	0
			569	272	109	161	27		

- Molecule 426 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
426	G1	28	Total	C	N	O	P	0	0
			570	273	108	162	27		

- Molecule 427 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
427	G2	28	568	278	85	178	27	0	0

- Molecule 428 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
428	G3	28	566	275	94	170	27	0	0

- Molecule 429 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
429	G4	28	562	275	85	175	27	0	0

- Molecule 430 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
430	G5	28	574	276	105	166	27	0	0

- Molecule 431 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
431	G6	28	572	274	104	167	27	0	0

- Molecule 432 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
432	G7	28	569	271	104	167	27	0	0

- Molecule 433 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
433	G8	28	571	275	97	172	27	0	0

- Molecule 434 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
434	G9	28	Total	C	N	O	P	0	0
			564	269	106	162	27		

- Molecule 435 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
435	HA	28	Total	C	N	O	P	0	0
			575	274	113	161	27		

- Molecule 436 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
436	HB	28	Total	C	N	O	P	0	0
			573	275	103	168	27		

- Molecule 437 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
437	HC	21	Total	C	N	O	P	0	0
			418	206	58	134	20		

- Molecule 438 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
438	HD	21	Total	C	N	O	P	0	0
			436	209	85	122	20		

- Molecule 439 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
439	HE	21	Total	C	N	O	P	0	0
			425	206	76	123	20		

- Molecule 440 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
440	HF	21	Total	C	N	O	P	0	0
			425	209	61	135	20		

- Molecule 441 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
441	HG	21	425	206	70	129	20	0	0

- Molecule 442 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
442	HH	21	431	206	85	120	20	0	0

- Molecule 443 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
443	HI	21	418	205	59	134	20	0	0

- Molecule 444 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
444	HJ	21	428	208	71	129	20	0	0

- Molecule 445 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
445	HK	21	421	206	61	134	20	0	0

- Molecule 446 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
446	HL	21	435	207	90	118	20	0	0

- Molecule 447 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
447	HM	21	421	206	61	134	20	0	0

- Molecule 448 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
448	HN	21	426	205	74	127	20	0	0

- Molecule 449 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
449	HO	21	429	210	63	136	20	0	0

- Molecule 450 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
450	HP	21	431	209	79	123	20	0	0

- Molecule 451 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
451	HQ	21	432	208	77	127	20	0	0

- Molecule 452 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
452	HR	21	431	210	66	135	20	0	0

- Molecule 453 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
453	HS	21	430	207	72	131	20	0	0

- Molecule 454 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
454	HT	21	421	204	69	128	20	0	0

- Molecule 455 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
455	HU	19	393	189	69	117	18	0	0

MolProbity failed to run properly - this section is therefore empty.

### 3 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	122493	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ( $e^-/\text{\AA}^2$ )	50	Depositor
Minimum defocus (nm)	368.8	Depositor
Maximum defocus (nm)	3605.6	Depositor
Magnification	47000	Depositor
Image detector	FEI FALCON III (4k x 4k)	Depositor
Maximum map value	0.494	Depositor
Minimum map value	-0.185	Depositor
Average map value	0.001	Depositor
Map value standard deviation	0.026	Depositor
Recommended contour level	0.08	Depositor
Map size (Å)	834.0, 834.0, 834.0	wwPDB
Map dimensions	300, 300, 300	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	2.78, 2.78, 2.78	Depositor

## 4 Model quality [i](#)

### 4.1 Standard geometry [i](#)

MolProbity failed to run properly - this section is therefore empty.

### 4.2 Too-close contacts [i](#)

MolProbity failed to run properly - this section is therefore empty.

### 4.3 Torsion angles [i](#)

#### 4.3.1 Protein backbone [i](#)

MolProbity failed to run properly - this section is therefore empty.

#### 4.3.2 Protein sidechains [i](#)

MolProbity failed to run properly - this section is therefore empty.

#### 4.3.3 RNA [i](#)

MolProbity failed to run properly - this section is therefore empty.

### 4.4 Non-standard residues in protein, DNA, RNA chains [i](#)

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

### 4.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

### 4.6 Ligand geometry [i](#)

There are no ligands in this entry.

### 4.7 Other polymers [i](#)

There are no such residues in this entry.

## 4.8 Polymer linkage issues

There are no chain breaks in this entry.

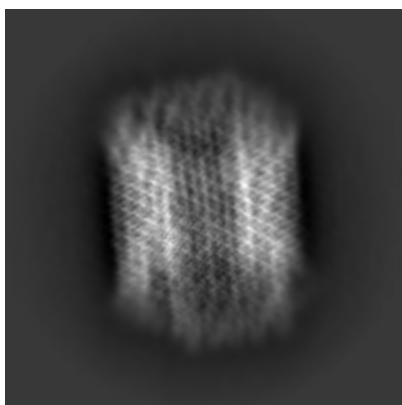
## 5 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-11170. These allow visual inspection of the internal detail of the map and identification of artifacts.

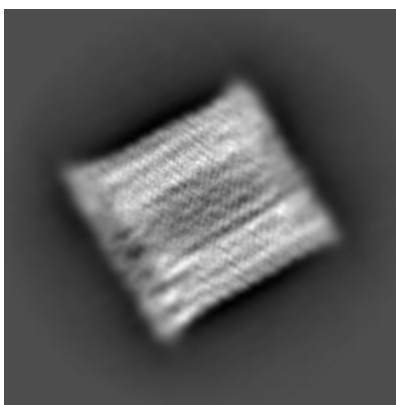
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

### 5.1 Orthogonal projections [i](#)

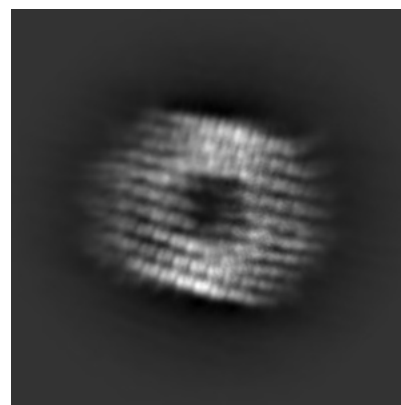
#### 5.1.1 Primary map



X



Y

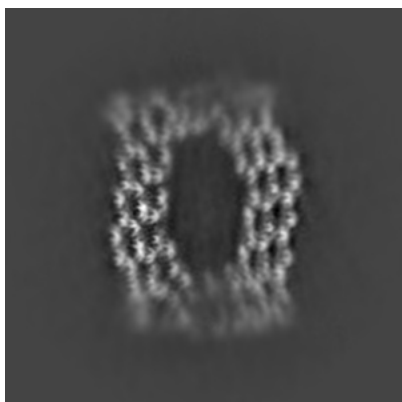


Z

The images above show the map projected in three orthogonal directions.

### 5.2 Central slices [i](#)

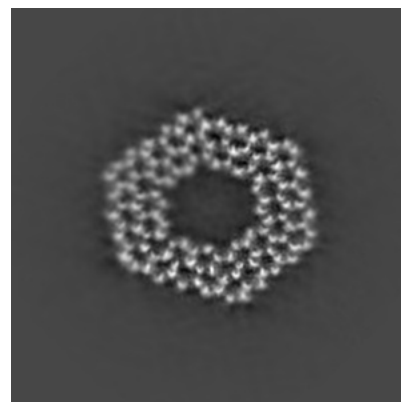
#### 5.2.1 Primary map



X Index: 150



Y Index: 150

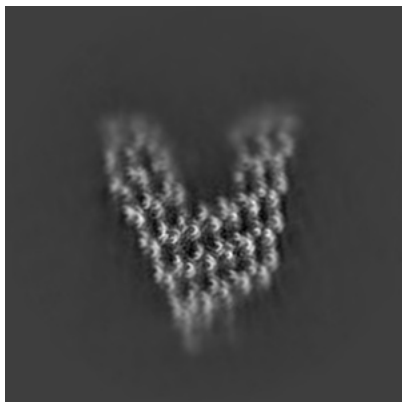


Z Index: 150

The images above show central slices of the map in three orthogonal directions.

### 5.3 Largest variance slices [i](#)

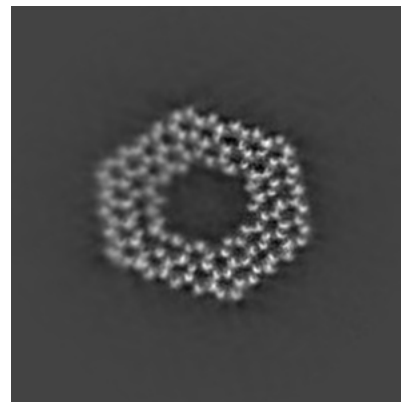
#### 5.3.1 Primary map



X Index: 183



Y Index: 104

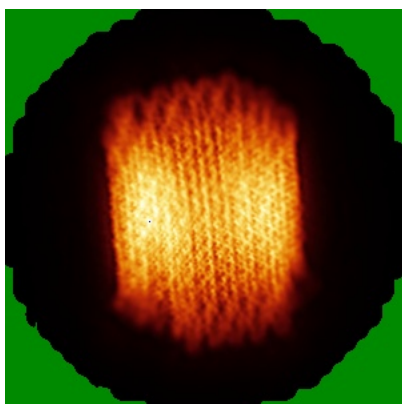


Z Index: 141

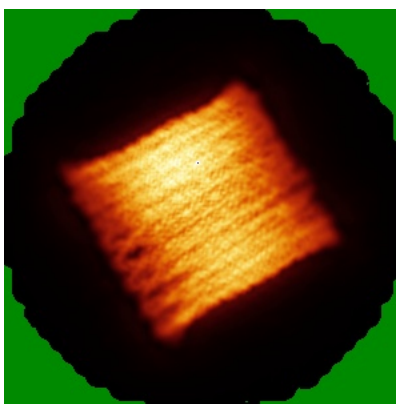
The images above show the largest variance slices of the map in three orthogonal directions.

### 5.4 Orthogonal standard-deviation projections (False-color) [i](#)

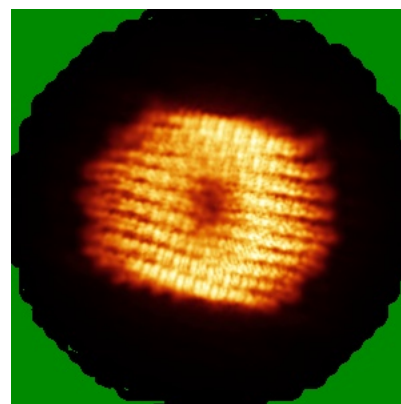
#### 5.4.1 Primary map



X



Y

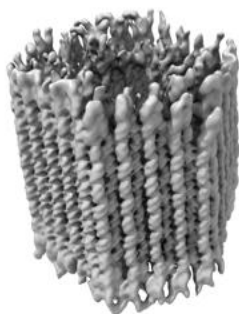


Z

The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

## 5.5 Orthogonal surface views [i](#)

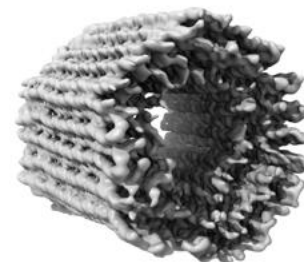
### 5.5.1 Primary map



X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.08. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

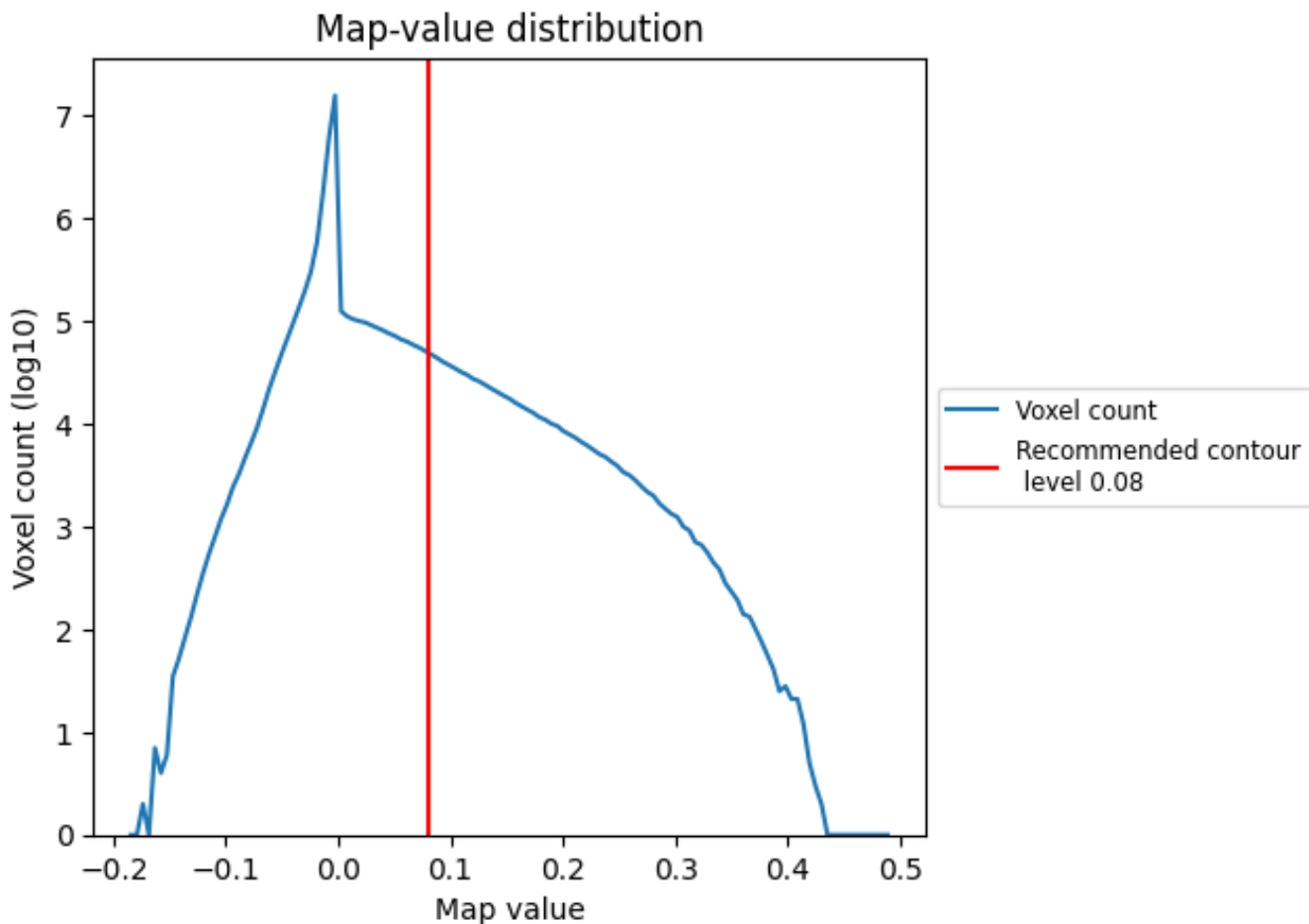
## 5.6 Mask visualisation [i](#)

This section was not generated. No masks/segmentation were deposited.

## 6 Map analysis [i](#)

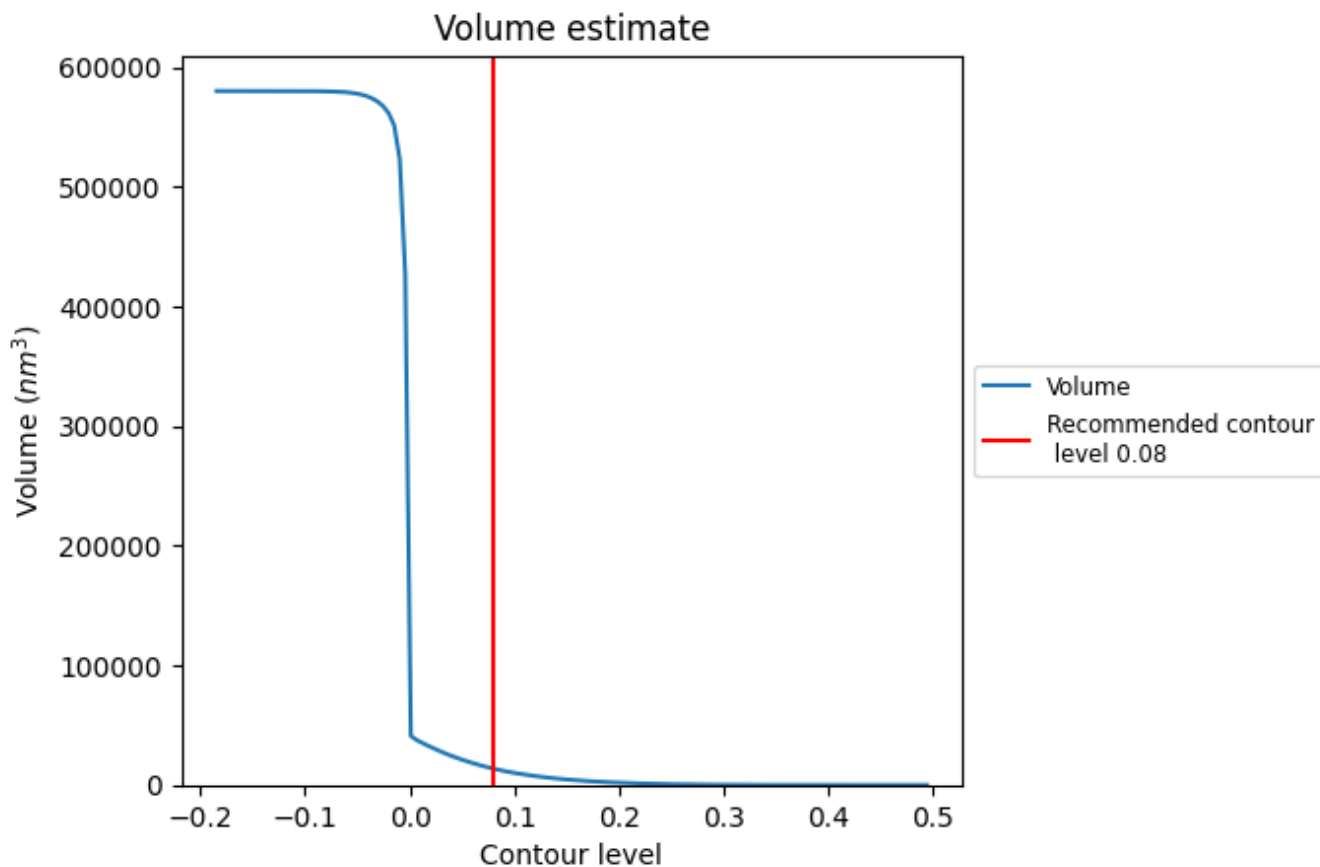
This section contains the results of statistical analysis of the map.

### 6.1 Map-value distribution [i](#)



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

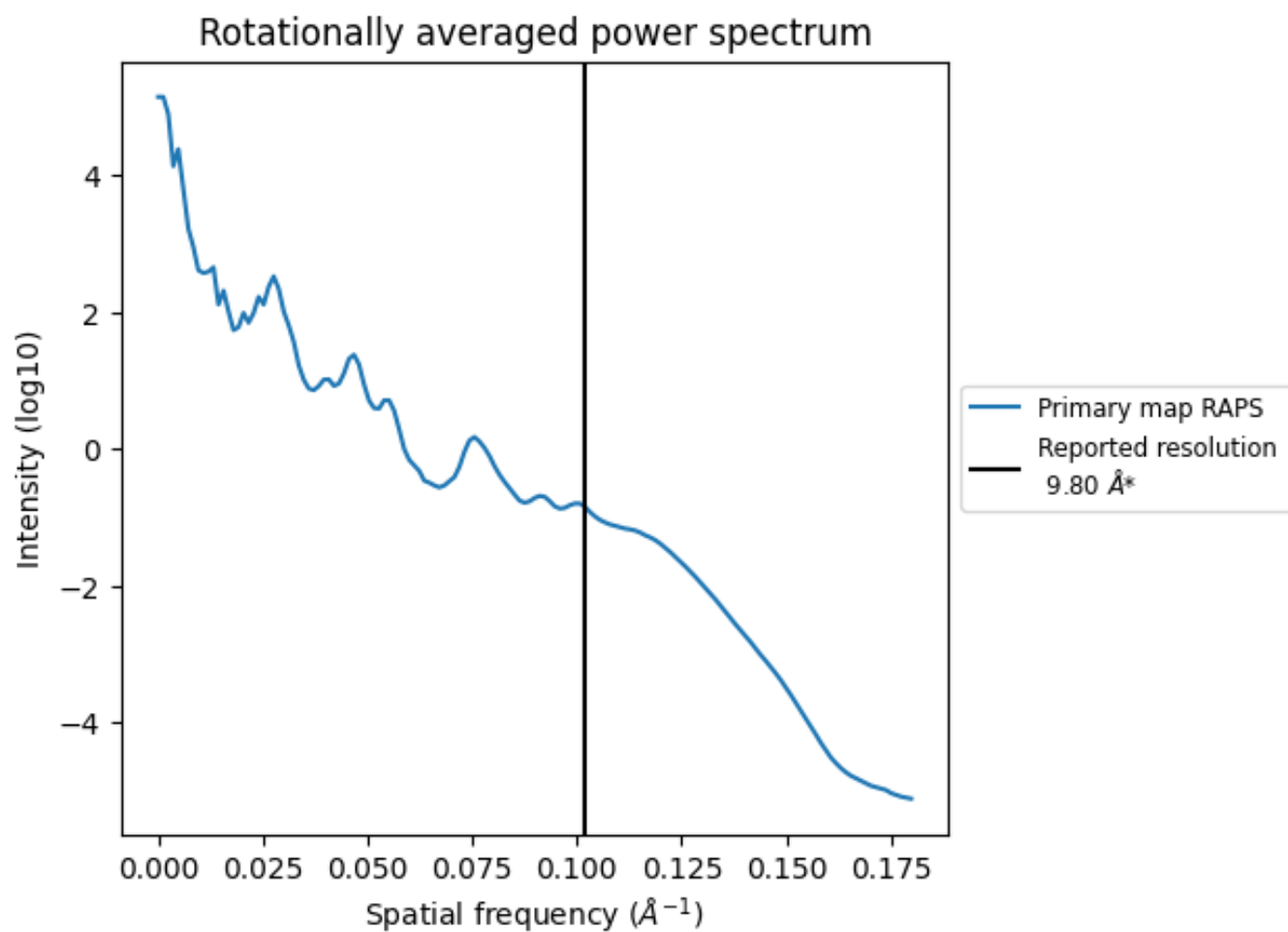
## 6.2 Volume estimate [\(i\)](#)



The volume at the recommended contour level is 13625  $\text{nm}^3$ ; this corresponds to an approximate mass of 12307 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

### 6.3 Rotationally averaged power spectrum [i](#)

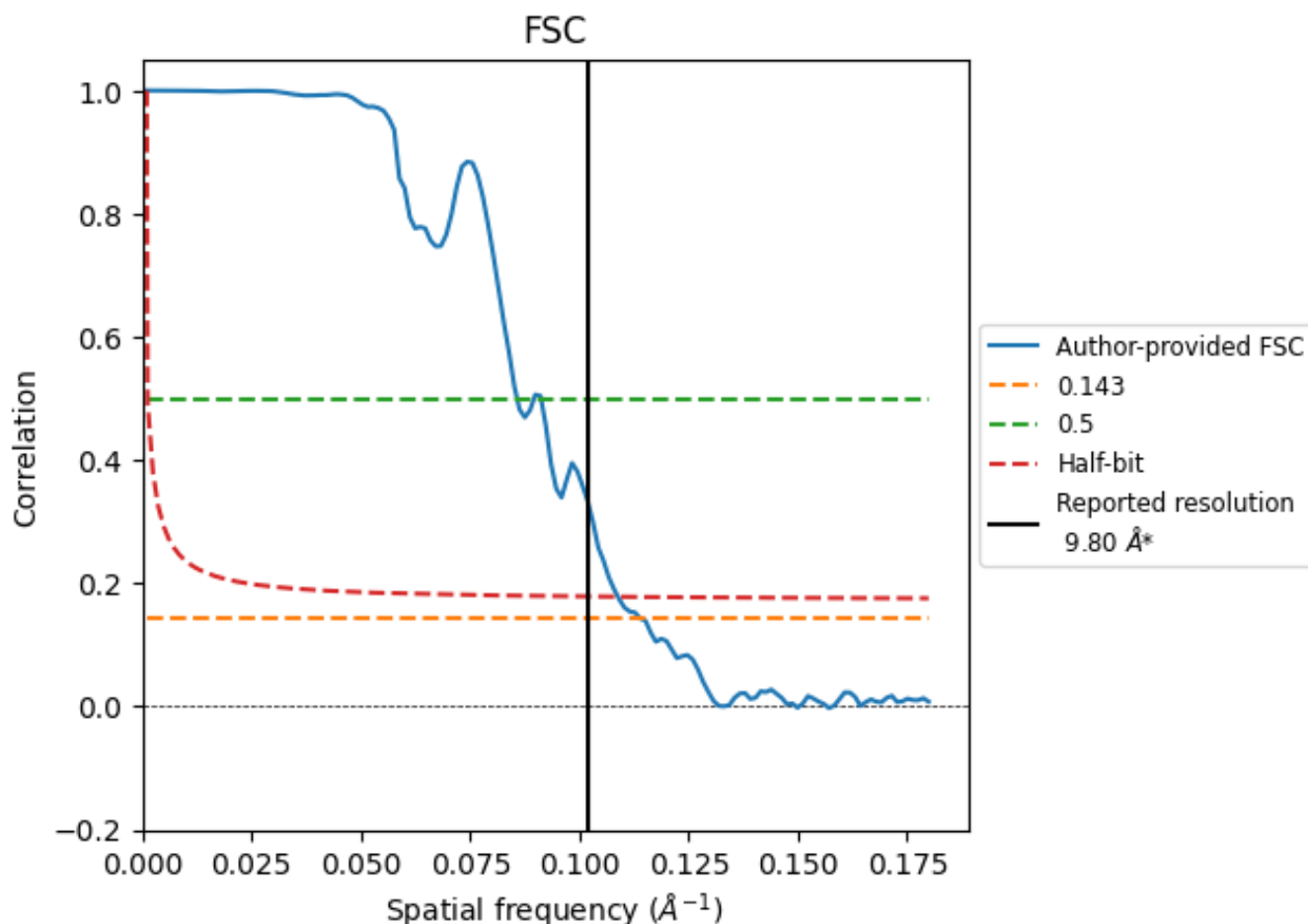


\*Reported resolution corresponds to spatial frequency of 0.102 Å<sup>-1</sup>

## 7 Fourier-Shell correlation [i](#)

Fourier-Shell Correlation (FSC) is the most commonly used method to estimate the resolution of single-particle and subtomogram-averaged maps. The shape of the curve depends on the imposed symmetry, mask and whether or not the two 3D reconstructions used were processed from a common reference. The reported resolution is shown as a black line. A curve is displayed for the half-bit criterion in addition to lines showing the 0.143 gold standard cut-off and 0.5 cut-off.

### 7.1 FSC [i](#)



\*Reported resolution corresponds to spatial frequency of 0.102 Å<sup>-1</sup>

## 7.2 Resolution estimates [i](#)

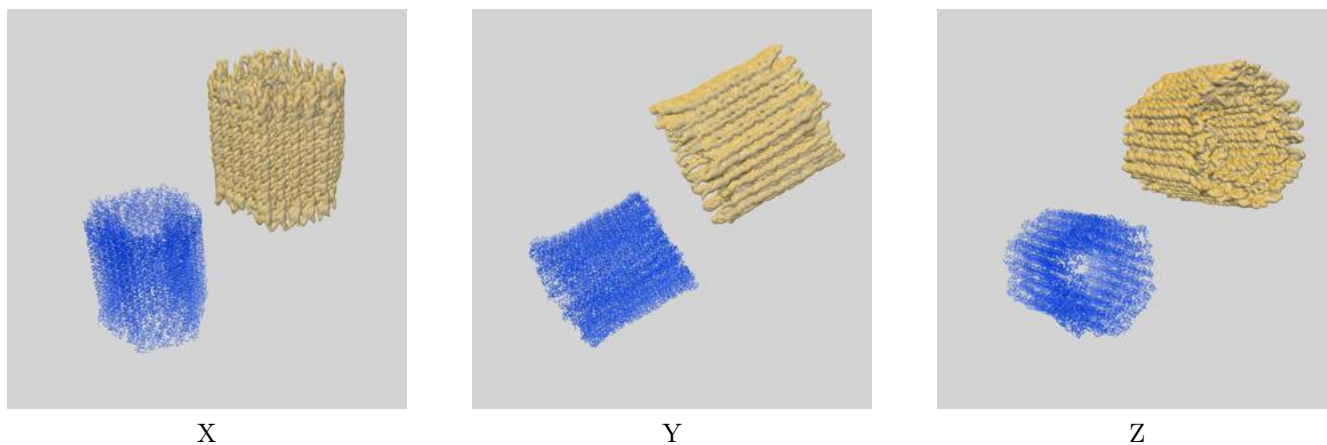
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	9.80	-	-
Author-provided FSC curve	8.78	11.66	9.19
Unmasked-calculated*	-	-	-

\*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from author-provided FSC intersecting FSC 0.143 CUT-OFF 8.78 differs from the reported value 9.8 by more than 10 %

## 8 Map-model fit [i](#)

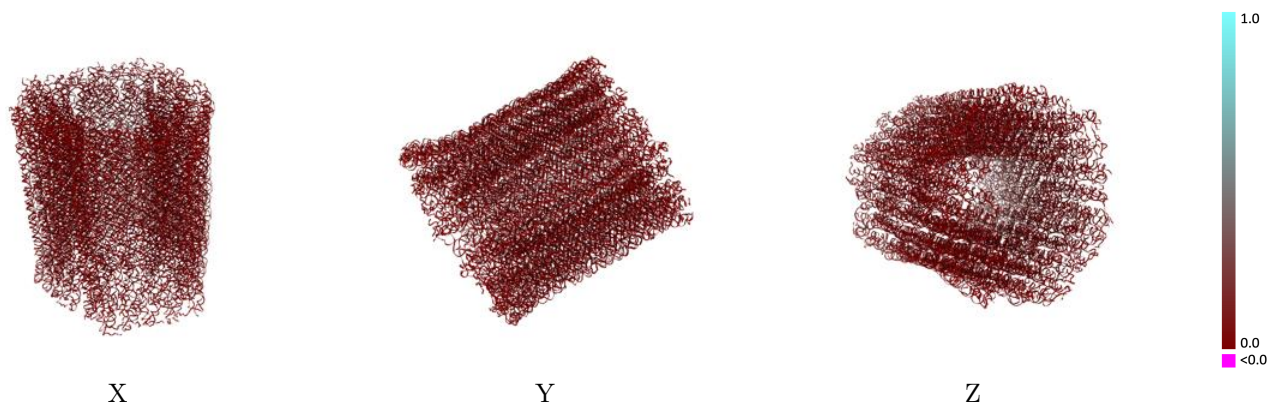
This section contains information regarding the fit between EMDB map EMD-11170 and PDB model 7AS5. Per-residue inclusion information can be found in section ?? on page ??.

### 8.1 Map-model overlay [i](#)



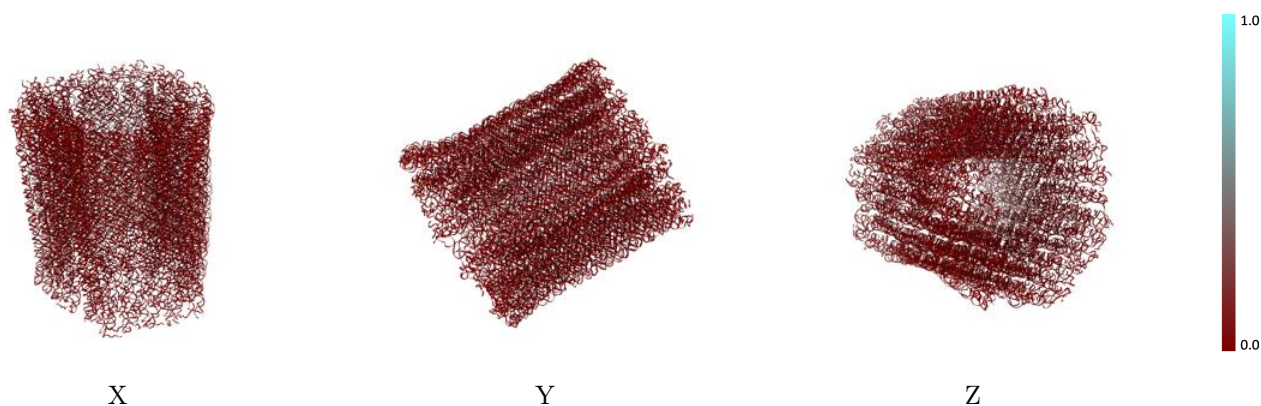
The images above show the 3D surface view of the map at the recommended contour level 0.08 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

## 8.2 Q-score mapped to coordinate model [i](#)



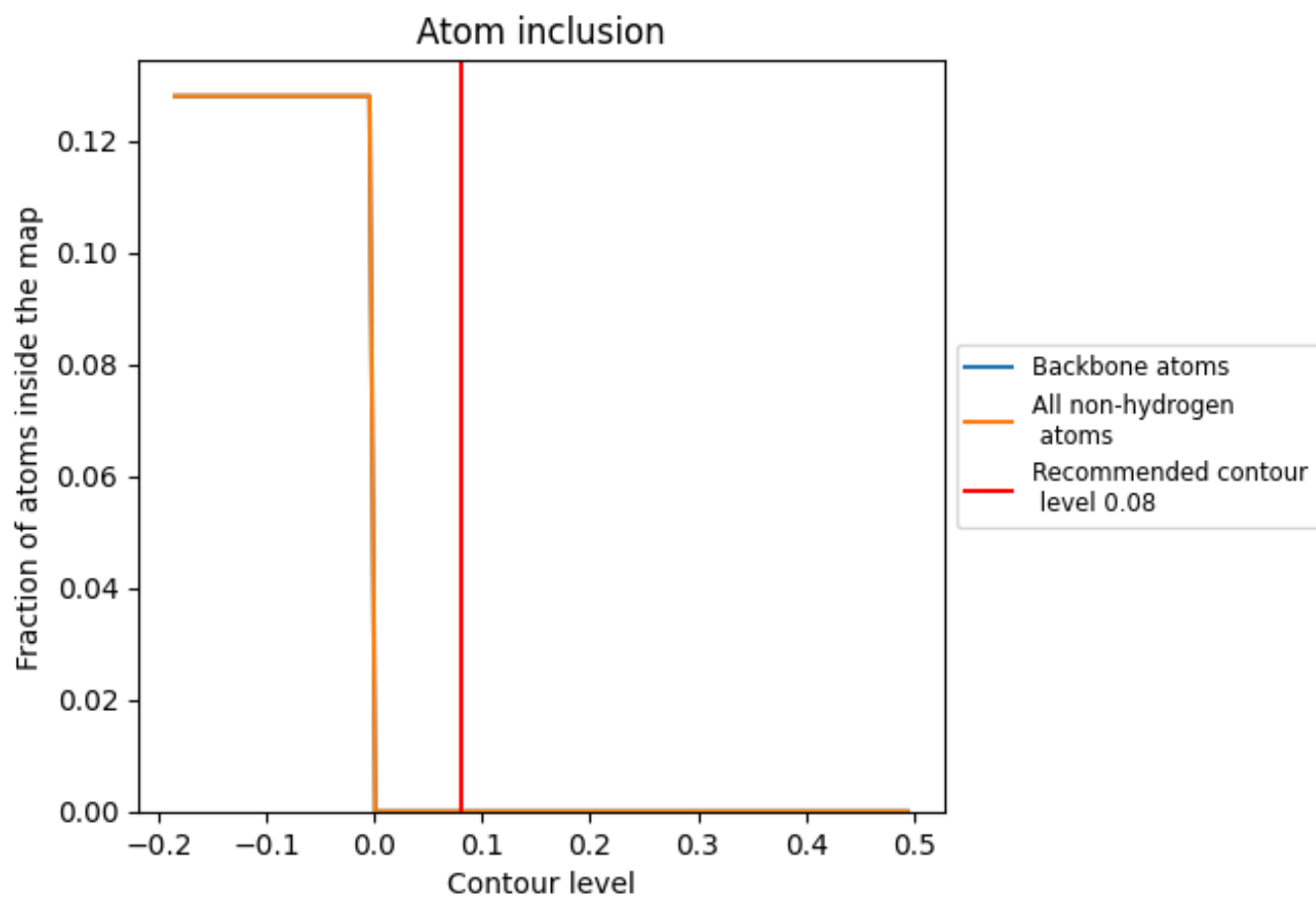
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

## 8.3 Atom inclusion mapped to coordinate model [i](#)



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.08).

## 8.4 Atom inclusion [i](#)



At the recommended contour level, 0% of all backbone atoms, 0% of all non-hydrogen atoms, are inside the map.

## 8.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.08) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.0000	0.0000
A0	0.0000	0.0000
A1	0.0000	0.0000
A2	0.0000	0.0000
A3	0.0000	0.0000
A4	0.0000	0.0000
A5	0.0000	0.0000
A6	0.0000	0.0000
A7	0.0000	0.0000
A8	0.0000	0.0000
A9	0.0000	0.0000
AA	0.0000	0.0000
AB	0.0000	0.0000
AC	0.0000	0.0000
AD	0.0000	0.0000
AE	0.0000	0.0000
AF	0.0000	0.0000
AG	0.0000	0.0000
AH	0.0000	0.0000
AI	0.0000	0.0000
AJ	0.0000	0.0000
AK	0.0000	0.0000
AL	0.0000	0.0000
AM	0.0000	0.0000
AN	0.0000	0.0000
AO	0.0000	0.0000
AP	0.0000	0.0000
AQ	0.0000	0.0000
AR	0.0000	0.0000
AS	0.0000	0.0000
AT	0.0000	0.0000
AU	0.0000	0.0000
AV	0.0000	0.0000
AW	0.0000	0.0000
AX	0.0000	0.0000



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Chain	Atom inclusion	Q-score
AY	0.0000	0.0000
AZ	0.0000	0.0000
Aa	0.0000	0.0000
Ab	0.0000	0.0000
Ac	0.0000	0.0000
Ad	0.0000	0.0000
Ae	0.0000	0.0000
Af	0.0000	0.0000
Ag	0.0000	0.0000
Ah	0.0000	0.0000
Ai	0.0000	0.0000
Aj	0.0000	0.0000
Ak	0.0000	0.0000
Al	0.0000	0.0000
Am	0.0000	0.0000
An	0.0000	0.0000
Ao	0.0000	0.0000
Ap	0.0000	0.0000
Aq	0.0000	0.0000
Ar	0.0000	0.0000
As	0.0000	0.0000
At	0.0000	0.0000
Au	0.0000	0.0000
Av	0.0000	0.0000
Aw	0.0000	0.0000
Ax	0.0000	0.0000
Ay	0.0000	0.0000
Az	0.0000	0.0000
B0	0.0000	0.0000
B1	0.0000	0.0000
B2	0.0000	0.0000
B3	0.0000	0.0000
B4	0.0000	0.0000
B5	0.0000	0.0000
B6	0.0000	0.0000
B7	0.0000	0.0000
B8	0.0000	0.0000
B9	0.0000	0.0000
BA	0.0000	0.0000
BB	0.0000	0.0000
BC	0.0000	0.0000
BD	0.0000	0.0000

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Chain	Atom inclusion	Q-score
BE	0.0000	0.0000
BF	0.0000	0.0000
BG	0.0000	0.0000
BH	0.0000	0.0000
BI	0.0000	0.0000
BJ	0.0000	0.0000
BK	0.0000	0.0000
BL	0.0000	0.0000
BM	0.0000	0.0000
BN	0.0000	0.0000
BO	0.0000	0.0000
BP	0.0000	0.0000
BQ	0.0000	0.0000
BR	0.0000	0.0000
BS	0.0000	0.0000
BT	0.0000	0.0000
BU	0.0000	0.0000
BV	0.0000	0.0000
BW	0.0000	0.0000
BX	0.0000	0.0000
BY	0.0000	0.0000
BZ	0.0000	0.0000
Ba	0.0000	0.0000
Bb	0.0000	0.0000
Bc	0.0000	0.0000
Bd	0.0000	0.0000
Be	0.0000	0.0000
Bf	0.0000	0.0000
Bg	0.0000	0.0000
Bh	0.0000	0.0000
Bi	0.0000	0.0000
Bj	0.0000	0.0000
Bk	0.0000	0.0000
Bl	0.0000	0.0000
Bm	0.0000	0.0000
Bn	0.0000	0.0000
Bo	0.0000	0.0000
Bp	0.0000	0.0000
Bq	0.0000	0.0000
Br	0.0000	0.0000
Bs	0.0000	0.0000
Bt	0.0000	0.0000

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Chain	Atom inclusion	Q-score
Bu	0.0000	0.0000
Bv	0.0000	0.0000
Bw	0.0000	0.0000
Bx	0.0000	0.0000
By	0.0000	0.0000
Bz	0.0000	0.0000
C0	0.0000	0.0000
C1	0.0000	0.0000
C2	0.0000	0.0000
C3	0.0000	0.0000
C4	0.0000	0.0000
C5	0.0000	0.0000
C6	0.0000	0.0000
C7	0.0000	0.0000
C8	0.0000	0.0000
C9	0.0000	0.0000
CA	0.0000	0.0000
CB	0.0000	0.0000
CC	0.0000	0.0000
CD	0.0000	0.0000
CE	0.0000	0.0000
CF	0.0000	0.0000
CG	0.0000	0.0000
CH	0.0000	0.0000
CI	0.0000	0.0000
CJ	0.0000	0.0000
CK	0.0000	0.0000
CL	0.0000	0.0000
CM	0.0000	0.0000
CN	0.0000	0.0000
CO	0.0000	0.0000
CP	0.0000	0.0000
CQ	0.0000	0.0000
CR	0.0000	0.0000
CS	0.0000	0.0000
CT	0.0000	0.0000
CU	0.0000	0.0000
CV	0.0000	0.0000
CW	0.0000	0.0000
CX	0.0000	0.0000
CY	0.0000	0.0000
CZ	0.0000	0.0000

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Chain	Atom inclusion	Q-score
Ca	0.0000	0.0000
Cb	0.0000	0.0000
Cc	0.0000	0.0000
Cd	0.0000	0.0000
Ce	0.0000	0.0000
Cf	0.0000	0.0000
Cg	0.0000	0.0000
Ch	0.0000	0.0000
Ci	0.0000	0.0000
Cj	0.0000	0.0000
Ck	0.0000	0.0000
Cl	0.0000	0.0000
Cm	0.0000	0.0000
Cn	0.0000	0.0000
Co	0.0000	0.0000
Cp	0.0000	0.0000
Cq	0.0000	0.0000
Cr	0.0000	0.0000
Cs	0.0000	0.0000
Ct	0.0000	0.0000
Cu	0.0000	0.0000
Cv	0.0000	0.0000
Cw	0.0000	0.0000
Cx	0.0000	0.0000
Cy	0.0000	0.0000
Cz	0.0000	0.0000
D0	0.0000	0.0000
D1	0.0000	0.0000
D2	0.0000	0.0000
D3	0.0000	0.0000
D4	0.0000	0.0000
D5	0.0000	0.0000
D6	0.0000	0.0000
D7	0.0000	0.0000
D8	0.0000	0.0000
D9	0.0000	0.0000
DA	0.0000	0.0000
DB	0.0000	0.0000
DC	0.0000	0.0000
DD	0.0000	0.0000
DE	0.0000	0.0000
DF	0.0000	0.0000

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Chain	Atom inclusion	Q-score
DG	■ 0.0000	■ 0.0000
DH	■ 0.0000	■ 0.0000
DI	■ 0.0000	■ 0.0000
DJ	■ 0.0000	■ 0.0000
DK	■ 0.0000	■ 0.0000
DL	■ 0.0000	■ 0.0000
DM	■ 0.0000	■ 0.0000
DN	■ 0.0000	■ 0.0000
DO	■ 0.0000	■ 0.0000
DP	■ 0.0000	■ 0.0000
DQ	■ 0.0000	■ 0.0000
DR	■ 0.0000	■ 0.0000
DS	■ 0.0000	■ 0.0000
DT	■ 0.0000	■ 0.0000
DU	■ 0.0000	■ 0.0000
DV	■ 0.0000	■ 0.0000
DW	■ 0.0000	■ 0.0000
DX	■ 0.0000	■ 0.0000
DY	■ 0.0000	■ 0.0000
DZ	■ 0.0000	■ 0.0000
Da	■ 0.0000	■ 0.0000
Db	■ 0.0000	■ 0.0000
Dc	■ 0.0000	■ 0.0000
Dd	■ 0.0000	■ 0.0000
De	■ 0.0000	■ 0.0000
Df	■ 0.0000	■ 0.0000
Dg	■ 0.0000	■ 0.0000
Dh	■ 0.0000	■ 0.0000
Di	■ 0.0000	■ 0.0000
Dj	■ 0.0000	■ 0.0000
Dk	■ 0.0000	■ 0.0000
Dl	■ 0.0000	■ 0.0000
Dm	■ 0.0000	■ 0.0000
Dn	■ 0.0000	■ 0.0000
Do	■ 0.0000	■ 0.0000
Dp	■ 0.0000	■ 0.0000
Dq	■ 0.0000	■ 0.0000
Dr	■ 0.0000	■ 0.0000
Ds	■ 0.0000	■ 0.0000
Dt	■ 0.0000	■ 0.0000
Du	■ 0.0000	■ 0.0000
Dv	■ 0.0000	■ 0.0000

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Chain	Atom inclusion	Q-score
Dw	0.0000	0.0000
Dx	0.0000	0.0000
Dy	0.0000	0.0000
Dz	0.0000	0.0000
E0	0.0000	0.0000
E1	0.0000	0.0000
E2	0.0000	0.0000
E3	0.0000	0.0000
E4	0.0000	0.0000
E5	0.0000	0.0000
E6	0.0000	0.0000
E7	0.0000	0.0000
E8	0.0000	0.0000
E9	0.0000	0.0000
EA	0.0000	0.0000
EB	0.0000	0.0000
EC	0.0000	0.0000
ED	0.0000	0.0000
EE	0.0000	0.0000
EF	0.0000	0.0000
EG	0.0000	0.0000
EH	0.0000	0.0000
EI	0.0000	0.0000
EJ	0.0000	0.0000
EK	0.0000	0.0000
EL	0.0000	0.0000
EM	0.0000	0.0000
EN	0.0000	0.0000
EO	0.0000	0.0000
EP	0.0000	0.0000
EQ	0.0000	0.0000
ER	0.0000	0.0000
ES	0.0000	0.0000
ET	0.0000	0.0000
EU	0.0000	0.0000
EV	0.0000	0.0000
EW	0.0000	0.0000
EX	0.0000	0.0000
EY	0.0000	0.0000
EZ	0.0000	0.0000
Ea	0.0000	0.0000
Eb	0.0000	0.0000

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Chain	Atom inclusion	Q-score
Ec	0.0000	0.0000
Ed	0.0000	0.0000
Ee	0.0000	0.0000
Ef	0.0000	0.0000
Eg	0.0000	0.0000
Eh	0.0000	0.0000
Ei	0.0000	0.0000
Ej	0.0000	0.0000
Ek	0.0000	0.0000
El	0.0000	0.0000
Em	0.0000	0.0000
En	0.0000	0.0000
Eo	0.0000	0.0000
Ep	0.0000	0.0000
Eq	0.0000	0.0000
Er	0.0000	0.0000
Es	0.0000	0.0000
Et	0.0000	0.0000
Eu	0.0000	0.0000
Ev	0.0000	0.0000
Ew	0.0000	0.0000
Ex	0.0000	0.0000
Ey	0.0000	0.0000
Ez	0.0000	0.0000
F0	0.0000	0.0000
F1	0.0000	0.0000
F2	0.0000	0.0000
F3	0.0000	0.0000
F4	0.0000	0.0000
F5	0.0000	0.0000
F6	0.0000	0.0000
F7	0.0000	0.0000
F8	0.0000	0.0000
F9	0.0000	0.0000
FA	0.0000	0.0000
FB	0.0000	0.0000
FC	0.0000	0.0000
FD	0.0000	0.0000
FE	0.0000	0.0000
FF	0.0000	0.0000
FG	0.0000	0.0000
FH	0.0000	0.0000

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Chain	Atom inclusion	Q-score
FI	■ 0.0000	■ 0.0000
FJ	■ 0.0000	■ 0.0000
FK	■ 0.0000	■ 0.0000
FL	■ 0.0000	■ 0.0000
FM	■ 0.0000	■ 0.0000
FN	■ 0.0000	■ 0.0000
FO	■ 0.0000	■ 0.0000
FP	■ 0.0000	■ 0.0000
FQ	■ 0.0000	■ 0.0000
FR	■ 0.0000	■ 0.0000
FS	■ 0.0000	■ 0.0000
FT	■ 0.0000	■ 0.0000
FU	■ 0.0000	■ 0.0000
FV	■ 0.0000	■ 0.0000
FW	■ 0.0000	■ 0.0000
FX	■ 0.0000	■ 0.0000
FY	■ 0.0000	■ 0.0000
FZ	■ 0.0000	■ 0.0000
Fa	■ 0.0000	■ 0.0000
Fb	■ 0.0000	■ 0.0000
Fc	■ 0.0000	■ 0.0000
Fd	■ 0.0000	■ 0.0000
Fe	■ 0.0000	■ 0.0000
Ff	■ 0.0000	■ 0.0000
Fg	■ 0.0000	■ 0.0000
Fh	■ 0.0000	■ 0.0000
Fi	■ 0.0000	■ 0.0000
Fj	■ 0.0000	■ 0.0000
Fk	■ 0.0000	■ 0.0000
Fl	■ 0.0000	■ 0.0000
Fm	■ 0.0000	■ 0.0000
Fn	■ 0.0000	■ 0.0000
Fo	■ 0.0000	■ 0.0000
Fp	■ 0.0000	■ 0.0000
Fq	■ 0.0000	■ 0.0000
Fr	■ 0.0000	■ 0.0000
Fs	■ 0.0000	■ 0.0000
Ft	■ 0.0000	■ 0.0000
Fu	■ 0.0000	■ 0.0000
Fv	■ 0.0000	■ 0.0000
Fw	■ 0.0000	■ 0.0000
Fx	■ 0.0000	■ 0.0000

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Chain	Atom inclusion	Q-score
Fy	■ 0.0000	■ 0.0000
Fz	■ 0.0000	■ 0.0000
G0	■ 0.0000	■ 0.0000
G1	■ 0.0000	■ 0.0000
G2	■ 0.0000	■ 0.0000
G3	■ 0.0000	■ 0.0000
G4	■ 0.0000	■ 0.0000
G5	■ 0.0000	■ 0.0000
G6	■ 0.0000	■ 0.0000
G7	■ 0.0000	■ 0.0000
G8	■ 0.0000	■ 0.0000
G9	■ 0.0000	■ 0.0000
GA	■ 0.0000	■ 0.0000
GB	■ 0.0000	■ 0.0000
GC	■ 0.0000	■ 0.0000
GD	■ 0.0000	■ 0.0000
GE	■ 0.0000	■ 0.0000
GF	■ 0.0000	■ 0.0000
GG	■ 0.0000	■ 0.0000
GH	■ 0.0000	■ 0.0000
GI	■ 0.0000	■ 0.0000
GJ	■ 0.0000	■ 0.0000
GK	■ 0.0000	■ 0.0000
GL	■ 0.0000	■ 0.0000
GM	■ 0.0000	■ 0.0000
GN	■ 0.0000	■ 0.0000
GO	■ 0.0000	■ 0.0000
GP	■ 0.0000	■ 0.0000
GQ	■ 0.0000	■ 0.0000
GR	■ 0.0000	■ 0.0000
GS	■ 0.0000	■ 0.0000
GT	■ 0.0000	■ 0.0000
GU	■ 0.0000	■ 0.0000
GV	■ 0.0000	■ 0.0000
GW	■ 0.0000	■ 0.0000
GX	■ 0.0000	■ 0.0000
GY	■ 0.0000	■ 0.0000
GZ	■ 0.0000	■ 0.0000
Ga	■ 0.0000	■ 0.0000
Gb	■ 0.0000	■ 0.0000
Gc	■ 0.0000	■ 0.0000
Gd	■ 0.0000	■ 0.0000



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Chain	Atom inclusion	Q-score
Ge	0.0000	0.0000
Gf	0.0000	0.0000
Gg	0.0000	0.0000
Gh	0.0000	0.0000
Gi	0.0000	0.0000
Gj	0.0000	0.0000
Gk	0.0000	0.0000
Gl	0.0000	0.0000
Gm	0.0000	0.0000
Gn	0.0000	0.0000
Go	0.0000	0.0000
Gp	0.0000	0.0000
Gq	0.0000	0.0000
Gr	0.0000	0.0000
Gs	0.0000	0.0000
Gt	0.0000	0.0000
Gu	0.0000	0.0000
Gv	0.0000	0.0000
Gw	0.0000	0.0000
Gx	0.0000	0.0000
Gy	0.0000	0.0000
Gz	0.0000	0.0000
HA	0.0000	0.0000
HB	0.0000	0.0000
HC	0.0000	0.0000
HD	0.0000	0.0000
HE	0.0000	0.0000
HF	0.0000	0.0000
HG	0.0000	0.0000
HH	0.0000	0.0000
HI	0.0000	0.0000
HJ	0.0000	0.0000
HK	0.0000	0.0000
HL	0.0000	0.0000
HM	0.0000	0.0000
HN	0.0000	0.0000
HO	0.0000	0.0000
HP	0.0000	0.0000
HQ	0.0000	0.0000
HR	0.0000	0.0000
HS	0.0000	0.0000
HT	0.0000	0.0000

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Chain	Atom inclusion	Q-score
HU	 0.0000	 0.0000