

Dec 21, 2024 – 04:15 pm GMT

PDB ID	:	8RH5
EMDB ID	:	EMD-19168
Title	:	Oxiplasma meridianum archaellum
Authors	:	Isupov, M.N.; Gaines, M.; Daum, B.; McLaren, M.
Deposited on	:	2023-12-14
Resolution	:	2.54 Å(reported)

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

We welcome your comments at *validation@mail.wwpdb.org* A user guide is available at https://www.wwpdb.org/validation/2017/EMValidationReportHelp with specific help available everywhere you see the (i) symbol.

The types of validation reports are described at http://www.wwpdb.org/validation/2017/FAQs#types.

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

EMDB validation analysis	:	0.0.1.dev113
Mogul	:	1.8.4, CSD as541be (2020)
MolProbity	:	4.02b-467
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.40

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure: $ELECTRON\ MICROSCOPY$

The reported resolution of this entry is 2.54 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.



Ramachandran outliers20738216835Sidechain outliers20689416415		(#Entries)	(#Entries)
Sidechain outliers 206894 16415	Ramachandran outliers	207382	16835
	Sidechain outliers	206894	16415

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the 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 EM map (all-atom inclusion < 40%). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	А	230	9%
1	В	230	<mark>6%</mark> 99%
1	С	230	<u> </u>
1	D	230	99% ·
1	Е	230	99% ·
1	F	230	99% ·
1	G	230	99% •
1	Н	230	99% •
1	Ι	230	99% •



Mol	Chain	Length	Quality of chain
1	J	230	99%
1	K	230	99% .
1	L	230	99% .
1	М	230	99%
1	Ν	230	99%
1	О	230	99%
1	Р	230	99%
1	Q	230	99%
1	R	230	99%
1	S	230	99%
1	Т	230	99%
1	U	230	99%
1	V	230	99%
1	W	230	99%
1	Х	230	99%
1	Y	230	99%
1	Z	230	100%
1	a	230	99%
1	b	230	99%
1	с	230	99%
1	d	230	99%
1	е	230	99%
1	f	230	99%
1	g	230	99%
2	2	6	100%



Mol	Chain	Length	Quality of chain
0	2 4	6	83%
	3A	0	100% 83%
2	4B	6	100%
		6	100%
2	5C	6	100%
2	9	6	100%
			83%
2	AB	6	100%
2	BC	6	83%
	DO	0	100%
2	CD	6	100%
0	C A	C	83%
2	GA	0	100%
2	HB	6	100%
			83%
2	IC	6	100%
2	NA	6	100%
	1111	0	83%
2	OB	6	100%
9	DC	6	83%
	10	0	83%
2	UA	6	100%
	UD	0	83%
2	VB	0	100%
2	WC	6	100%
			83%
2	bA	6	100%
2	cB	6	83%
	CD	0	83%
2	dC	6	100%
0	1	C	83%
2	n	0	100%
2	iA	6	100%
			83%
2	jВ	6	100%
2	kC	6	100%
	KU	0	83%
2	О	6	100%
		C	83%
2	pА	6	100%



Mol	Chain	Length	Quality of chain
0	a D	6	83%
2	qв	0	100% 83%
2	m rC	6	100%
			83%
2	V	6	100%
2	wΑ	6	63%
	W11	0	83%
2	xВ	6	100%
0	C	6	100%
2	уC	0	100%
3	0	5	100%
			60%
3	0B	5	100%
3	0C	5	100%
			60%
3	1A	5	100%
2	10	Б	60%
3	10		60%
3	$2\mathrm{B}$	5	100%
		~	60%
3	3C	5	100%
3	4	5	100%
			60%
3	5	5	100%
3	5A	5	60%
- 5		011	
3	6A	5	100%
9	CD	F	60%
3	0B	б	100%
3	7	5	100%
			60%
3	7B	5	100%
3	7C	5	100%
0		0	60%
3	8A	5	100%
2	°C		60%
3	00	0	60%
3	9B	5	100%
	1.5		60%
3	AD	5	100%



Conti	nued fron	n previous	page
Mol	Chain	Length	Quality of chain
			60%
3	BA	5	100%
0	C A	-	60%
3	CA	G	100%
3	CB	5	100%
0	СD	0	60%
3	DB	5	100%
			60%
3	DC	5	100%
	D 4	F	60%
3	EA	б	100%
3	\mathbf{FC}	5	100%
0		0	80%
3	ED	5	100%
			60%
3	FB	5	100%
_			60%
3	FD	5	100%
0	aa	-	60%
3	GC	G	100%
3	НД	5	1000/
		0	60%
3	IA	5	100%
			60%
3	JA	5	100%
			60%
3	JB	5	100%
0	VD	-	60%
3	КВ	G	100%
3	KC	5	100%
	<u> </u>	0	60%
3	LA	5	100%
			60%
3	LC	5	100%
			60%
3	MB	5	100%
	NO	F	60%
3	NC	G	100%
્ર	PΔ	5	100%
<u> </u>	іл	0	60%
3	QA	5	100%
	~	~	60%
3	QB	5	100%
			60%
3	RB	5	100%



Mol Chain Length Quality of chain 3 RC 5 60% 3 SA 5 60% 3 SC 5 60% 3 SC 5 60% 3 SC 5 60% 3 TB 5 60% 3 TB 5 60% 3 TC 5 60% 3 TA 5 60% 3 WA 5 60% 3 XA 5 60% 3 XB 5 60% 3 XB 5 60% 3 YB 5 60% 3 YB 5 60% 3 YB 5 60% 3 YC 5 60% 3 AC 5 60% 3 AC 5 60% 3 AA	Conti	nued fron	n previous	page
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3 ZC 5 60% 3 AB 5 100% 3 bC 5 60% 3 bC 5 60% 3 dA 5 100% 3 dA 5 100% 3 eA 5 100% 3 eB 5 100% 3 fB 5 100% 3 fB 5 100% 3 fC 5 60% 3 gA 5 100% 3 gC 5 60% 3 gC 5 100% 3 hB 5 100% 3 iC 5 60% 3 iC 5 100% 3 j 5 60%	0		0	60%
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	3	ZC	5	100%
3 aB 5 100% 3 bC 5 100% 3 dA 5 60% 3 dA 5 100% 3 eA 5 100% 3 eB 5 100% 3 eB 5 100% 3 fB 5 60% 3 fB 5 60% 3 fC 5 100% 3 gA 5 100% 3 gC 5 100% 3 gC 5 100% 3 hB 5 100% 3 iC 5 100% 3 iC 5 100% 3 j 5 60% 3 k 5 100%				60%
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3 bC 5 100% 3 dA 5 60% 3 eA 5 60% 3 eB 5 100% 3 eB 5 100% 3 fB 5 100% 3 fB 5 100% 3 fB 5 100% 3 fC 5 100% 3 gA 5 100% 3 gC 5 100% 3 gC 5 100% 3 hB 5 100% 3 iC 5 100% 3 j 5 100% 3 j 5 100% 3 j 5 60% 3 j 5 100% 3 j 5 100% 3 j 5 100%		1.0	F	60%
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3 eA 5 $60%$ 3 eB 5 $60%$ 3 eB 5 $60%$ 3 fB 5 $60%$ 3 fC 5 $60%$ 3 fC 5 $100%$ 3 gA 5 $100%$ 3 gC 5 $100%$ 3 gC 5 $100%$ 3 hB 5 $100%$ 3 iC 5 $60%$ 3 iC 5 $100%$ 3 j 5 $60%$ 3 j 5 $60%$ 3 j 5 $60%$ 3 j 5 $60%$ 3 k 5 $100%$	3	dA	5	100%
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$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	3	eA	5	100%
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				60%
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	3	eB	5	100%
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		æ	-	60%
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	3	tΒ	5	100%
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	3	fC	5	100%
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	5	10	0	60%
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	3	gA	5	100%
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		0		60%
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	3	gC	5	100%
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3 k 5 100%		J	0	60%
	3	k	5	100%



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Mol	Chain	Length	Quality of chain						
			60%						
3	kA	5	100%						
2	1.4	F	60%						
3	IA	G	100%						
3	IB	5	100%						
		<u> </u>	60%						
3	m	5	100%						
			60%						
3	mB	5	100%						
9	mC	F	60%						
3	mo		60%						
3	nA	5	100%						
			60%						
3	nC	5	100%						
		_	60%						
3	oB	5	100%						
9	ъC	F	60%						
3	pC		100%						
3	a	5	100%						
	9	<u> </u>	60%						
3	r	5	100%						
			60%						
3	rA	5	100%						
9	αÅ	F	60%						
3	SA		100%						
3	sB	5	100%						
	~2		60%						
3	\mathbf{t}	5	100%						
	_		60%						
3	tB	5	100%						
9	+C	F	60%						
3	tC	tU	tU	ιU	ιU		ιU	0	100%
3	uА	5	100%						
		<u> </u>	60%						
3	uC	5	100%						
	_		60%						
3	vB	5	100%						
9		Ĕ	6U%						
3	wu	0	100%						
3	x	5	100%						
<u> </u>			60%						
3	У	5	100%						
			60%						
3	yА	5	100%						



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Mol	Chain	Length	Quality of chain			
			60%			
3	zA	5	100%			
0	Б	~	60%			
3	zB	5	100%			
4	0.4	4	50%			
4	UA	4	100%			
Δ	1	4	100%			
Т	1	Т	50%			
4	1B	4	100%			
			50%			
4	2A	4	100%			
			75%			
4	2C	4	100%			
	- 7		50%			
4	3B	4	100%			
4	10		50%			
4	4C	4	100%			
4	C	4	50%			
4	0	4	100%			
4	7Λ	4	50%			
4	(A	4	50%			
Δ	8	4	100%			
1	0	1	50%			
4	8B	B 4	100%			
_			50%			
4	9A	4	100%			
			75%			
4	9C	4	100%			
			50%			
4	AC	4	100%			
4	מת		50%			
4	BD	4	100%			
4	D۸	4	30%			
4		DA	DA	DA	4	100%
Δ	\mathbf{EB}	4	100%			
		D	UD	Т	50%	
4	FA	4	100%			
_				50%		
4	FC	4	100%			
			50%			
4	GB	4	100%			
			75%			
4	GD	4	100%			
			50%			
4	HC	4	100%			
А		1	/5%			
4	ID	4	100%			



Mol	Chain	Length	Quality of chain
			50%
4	KA	4	100%
			50%
4	LB	4	100%
			50%
4	MA	4	100%
			50%
4	MC	4	100%
			50%
4	NB	4	100%
			50%
4	OC	4	100%
			50%
4	$\mathbf{R}\mathbf{A}$	4	100%
			50%
4	SB	4	100%
			50%
4	TA	4	100%
			50%
4	TC	4	100%
			50%
4	UB	4	100%
			50%
4	VC	4	100%
			50%
4	YA	4	100%
			50%
4	ZB	4	100%
			50%
4	aA	4	100%
			50%
4	aC	4 aC 4	100%
4	bB	4	100%
-	~2	-	50%
4	cC	4	100%
			50%
4	fA	4	100%
-		-	50%
4	σB	4	100%
1	85		50%
4	hΑ	4	100%
Т	117.1	Т	50%
Δ	hC	4	100%
7	шU		50%
1	I ;P	1	100%
<u>+</u>		±	50%
1	4 :0	4	
4	JO		100% 50%
4	1	4	
4	1	4	100%



Mol	Chain	Length	Quality of chain	
			50%	
4	mA	4	100%	
4		4	50%	
4	11	4	100%	
4	nB	4	100%	
			50%	
4	oA	4	100%	
	a		50%	
4	oC	4	100%	
4	рB	4	50%	
4	ръ	4	50%	
4	qC	4	100%	
	1		50%	-
4	\mathbf{S}	4	100%	
4		4	50%	
4	tA	4	100%	
1	11	1	1000/	
т	u	т	50%	_
4	uB	4	100%	
			50%	-
4	vA	4	100%	
4	C	4	50%	
4	vC	4	100%	
4	wB	4	100%	
T		Т	50%	_
4	хC	4	100%	
			50%	_
4	Z	4	100%	



2 Entry composition (i)

There are 5 unique types of molecules in this entry. The entry contains 67118 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.

Mol	Chain	Residues		At	oms			AltConf	Trace
1	Z	230	Total	С	N	0	S	0	0
			1678	1048	279	347	4		
1	V	230	Total	С	Ν	Ο	\mathbf{S}	0	0
-	•	200	1678	1048	279	347	4	Ŭ	Ŭ
1	А	230	Total	\mathbf{C}	Ν	Ο	\mathbf{S}	0	0
		200	1678	1048	279	347	4		0
1	В	230	Total	\mathbf{C}	Ν	Ο	\mathbf{S}	0	0
1	D	200	1678	1048	279	347	4	0	0
1	С	220	Total	\mathbf{C}	Ν	Ο	\mathbf{S}	0	0
1	U	230	1678	1048	279	347	4	0	0
1	п	220	Total	С	Ν	0	S	0	0
1	D	230	1678	1048	279	347	4	0	0
1	F	920	Total	С	Ν	0	S	0	0
	Ľ	230	1678	1048	279	347	4	0	0
1	F	220	Total	С	Ν	0	S	0	0
	Г	230	1678	1048	279	347	4	0	0
1	a	020	Total	С	Ν	0	S	0	0
	G	230	1678	1048	279	347	4	0	0
1	тт	020	Total	С	Ν	0	S	0	0
	П	230	1678	1048	279	347	4	0	0
	т	220	Total	С	Ν	0	S	0	0
1	1	230	1678	1048	279	347	4	0	0
	т	220	Total	С	Ν	0	S	0	0
1	J	230	1678	1048	279	347	4	0	0
	т.	220	Total	С	Ν	0	S	0	0
1	K	230	1678	1048	279	347	4	0	0
-	т	220	Total	С	Ν	0	S	0	0
1	L	230	1678	1048	279	347	4	0	0
		220	Total	С	Ν	0	S		0
	М	230	1678	1048	279	347	4	0	0
	2.1	220	Total	С	Ν	0	S		0
	IN	230	1678	1048	279	347	4	0	0
-	6		Total	С	Ν	0	S	6	6
	U U	230	1678	1048	279	347	4	0	0

• Molecule 1 is a protein called Oxiplasma meridianum archaellum.



Mol	Chain	Residues		Ate	AltConf	Trace			
1	D	230	Total	С	Ν	Ο	S	0	0
1	1	230	1678	1048	279	347	4	0	0
1	0	220	Total	С	Ν	0	S	0	0
1	Q	230	1678	1048	279	347	4	0	0
1	D	220	Total	С	Ν	0	S	0	0
1	n	230	1678	1048	279	347	4	0	0
1	C	220	Total	С	Ν	0	S	0	0
1	G	230	1678	1048	279	347	4	0	0
1	Т	230	Total	С	Ν	0	\mathbf{S}	0	0
1	T	230	1678	1048	279	347	4	0	0
1	II	230	Total	С	Ν	0	S	0	0
1	U	230	1678	1048	279	347	4	0	0
1	W	230	Total	С	Ν	0	S	0	0
1	vv	230	1678	1048	279	347	4	0	0
1	v	230	Total	С	Ν	0	S	0	0
1	Λ		1678	1048	279	347	4	0	0
1	v	230	Total	С	Ν	0	S	0	0
1	1	230	1678	1048	279	347	4	0	0
1	0	230	Total	С	Ν	Ο	S	0	0
1	a	230	1678	1048	279	347	4	0	0
1	h	220	Total	С	Ν	0	S	0	0
1	U	230	1678	1048	279	347	4	0	0
1	0	230	Total	С	Ν	0	\mathbf{S}	0	0
1	C	230	1678	1048	279	347	4	0	0
1	d	230	Total	С	Ν	0	\mathbf{S}	0	0
1	u	230	1678	1048	279	347	4	0	0
1	0	230	Total	С	Ν	0	\mathbf{S}	0	0
1	е	230	1678	1048	279	347	4	0	0
1	1 f	230	Total	С	Ν	0	S	0	0
1		230	1678	1048	279	347	4	0	0
1	1 g	g 230	Total	С	Ν	0	S	0	0
T			1678	1048	279	347	4		0

• Molecule 2 is an oligosaccharide called alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-galacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose.

Mol	Chain	Residues	At	oms		AltConf	Trace
0	h	6	Total (C C) S	0	0
	11	0	71 3	37 3	31	0	0
0	0	6	Total (C C) S	0	0
Z	0		71 3	37 3	3 1	0	0



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$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Mol	Chain	Residues	A	Aton	ns		AltConf	Trace
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	0		6	Total	С	0	S	0	0
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		V	0	71	37	33	1	0	0
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	0	0	6	Total	С	Ο	S	0	0
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		2	0	71	37	33	1	0	0
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	2	0	6	Total	С	Ο	\mathbf{S}	0	0
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		5	0	71	37	33	1	0	0
2 Ori 71 37 33 1 0 0 2 NA 6 Total C 0 0 2 UA 6 Total C 0 0 2 UA 6 Total C 0 0 2 UA 6 Total C 0 S 2 bA 6 Total C 0 S 0 0 2 bA 6 Total C 0 S 0 0 2 bA 6 Total C 0 S 0 0 2 pA 6 Total C 0 S 0 0 2 mA 6 Total C 0 S 0 0 2 wA 6 Total C 0 S 0 0 2 wA 6 Total C 0 S 0 0 2 AB 6	2	GA	6	Total	\mathbf{C}	Ο	\mathbf{S}	0	0
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		GII	0	71	37	33	1	0	0
2 IA 6 71 37 33 1 6 6 2 UA 6 Total C O S 0 0 2 bA 6 Total C O S 0 0 2 bA 6 Total C O S 0 0 2 iA 6 Total C O S 0 0 2 pA 6 Total C O S 0 0 2 pA 6 Total C O S 0 0 2 pA 6 Total C O S 0 0 2 wA 6 Total C O S 0 0 2 AB 6 Total C O S 0 0 2 AB 6 Total C O S 0 0 2 MB 6 Total	2	NA	6	Total	С	Ο	\mathbf{S}	0	0
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		1111	Ŭ	71	37	33	1	0	
2 6 71 37 33 1 6 71 37 33 1 0 0 2 bA 6 71 37 33 1 0 0 2 iA 6 71 37 33 1 0 0 2 iA 6 71 37 33 1 0 0 2 pA 6 71 37 33 1 0 0 2 pA 6 71 37 33 1 0 0 2 wA 6 71 37 33 1 0 0 2 AB 6 71 37 33 1 0 0 2 AB 6 71 37 33 1 0 0 0 2 AB 6 71 37 33 1 0 0 0 <	2	UA	6	Total	С	Ο	\mathbf{S}	0	0
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		011		71	37	33	1	Ŭ	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	2	bA	6	Total	С	Ο	\mathbf{S}	0	0
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				71	37	33	1	Ŭ	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	2	iA	6	Total	С	Ο	S	0	0
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			-	71	37	33	1	-	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2	рA	6	Total	C	0	S	0	0
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		r		71	37	33	1	_	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2	wA	6	Total	С	0	S	0	0
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				71	37	33	1		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2	3A	6	Total	C	0	S	0	0
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				71	37	33	1 		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2	AB	6	Total	C	0	S	0	0
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				71	37	33	<u> </u>		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2	HB	6	Total	C	0	S	0	0
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$					$\frac{3}{0}$	33	1		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2	OB	6	10tal	0	$\frac{1}{2}$	5	0	0
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				(1 Tetal	$\frac{3}{C}$	<u> </u>	1 C		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	2	VB	6	10tal 71	0 27	$\frac{1}{2}$	5 1	0	0
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$					$\frac{3}{C}$	<u></u>	<u> </u>		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	2	cB	6	10tal 71	$\frac{0}{27}$	$\frac{1}{22}$	С 1	0	0
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				Total	$\frac{31}{C}$	<u> </u>			
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	2	jВ	6	10tai 71	27	22	ວ 1	0	0
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				71 Total	$\frac{31}{C}$	<u> </u>			
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	2	qB	6	71	$\frac{0}{37}$	33 0	ວ 1	0	0
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				Total	<u> </u>	<u> </u>	<u>г</u>		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2	xB	6	71	37	33	1	0	0
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				Total	<u> </u>	0	S		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2	4B	6	71	37	33	1	0	0
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$				Total	<u> </u>	0	<u>-</u> S		
	2	BC	6	71	37	33	1	0	0



Mol	Chain	Residues	A	Aton	ns		AltConf	Trace
0	IC	6	Total	С	0	S	0	0
	IC	0	71	37	33	1	0	0
9	PC	6	Total	С	Ο	\mathbf{S}	0	0
	10	0	71	37	33	1	0	0
2	WC	6	Total	С	Ο	\mathbf{S}	0	0
2	WO	0	71	37	33	1	0	0
2	dC	6	Total	С	Ο	\mathbf{S}	0	0
2	uU	0	71	37	33	1	0	0
2	kC	6	Total	С	Ο	\mathbf{S}	0	0
2	ĸO	0	71	37	33	1	0	0
2	rC	6	Total	С	Ο	\mathbf{S}	0	0
2	10	0	71	37	33	1	0	0
2	vC	6	Total	С	Ο	\mathbf{S}	0	0
	уC	0	71	37	33	1	0	0
2	5C	6	Total	С	Ο	\mathbf{S}	0	0
		0	71	37	33	1		
2	CD	6	Total	С	Ο	\mathbf{S}	0	0
Z	CD	$CD \qquad 6$	71	37	33	1		

• Molecule 3 is an oligosaccharide called L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alph a-D-mannopyranose-(1-3)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-gluco pyranose-(1-3)-beta-D-galactopyranose.

Mol	Chain	Residues	A	Aton	ns		AltConf	Trace
2	÷	5	Total	С	Ο	S	0	0
0	J	5	60	31	28	1	0	0
3	ŀ	5	Total	С	Ο	\mathbf{S}	0	0
0	K	0	60	31	28	1	0	0
3	m	5	Total	С	Ο	\mathbf{S}	0	0
0	111	0	60	31	28	1	0	0
3	a	5	Total	С	Ο	\mathbf{S}	0	0
0	Ч	0	60	31	28	1	0	0
3	r	5	Total	С	Ο	\mathbf{S}	0	0
0	1	0	60	31	28	1	0	0
3	+	5	Total	С	Ο	\mathbf{S}	0	0
0	U	0	60	31	28	1	0	0
3	v	5	Total	С	Ο	\mathbf{S}	0	0
0	л	0	60	31	28	1	0	0
3	V	5	Total	С	Ō	\mathbf{S}	0	0
0	У	5	60	31	28	1	0	0
3	0	5	Total	С	Ō	S	0	0
ঠ	U	0 5	60	31	28	1	0	0



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3 4 5 Total C 0 S 0 0 3 5 5 5 60 31 28 1 0 0 3 7 5 70tal C 0 0 0 3 BA 5 70tal C 0 0 0 3 CA 5 70tal C 0 0 0 3 EA 5 70tal C 0 0 0 3 IA 5 70tal C 0 0 0 3 JA 5 70tal C 0 0 0 3 JA 5 70tal C 0 0 0 3 JA 5 <t< th=""><th>Mol</th><th>Chain</th><th>Residues</th><th>A</th><th>Aton</th><th>ns</th><th></th><th>AltConf</th><th>Trace</th></t<>	Mol	Chain	Residues	A	Aton	ns		AltConf	Trace
3 4 5 60 31 28 1 0 0 3 5 5 7 Total C 0 0 3 7 5 60 31 28 1 0 0 3 7 5 60 31 28 1 0 0 3 7 5 60 31 28 1 0 0 3 7 5 70tal C 0 5 0 0 3 CA 5 70tal C 0 5 0 0 3 EA 5 70tal C 0 5 0 0 3 IA 5 70tal C 0 5 0 0 3 JA 5 70tal C 0 5 0 0 3 JA 5 70tal C 0 5 0 0 3 JA 5 70tal C 0 <td>9</td> <td>4</td> <td>F</td> <td>Total</td> <td>С</td> <td>Ο</td> <td>S</td> <td>0</td> <td>0</td>	9	4	F	Total	С	Ο	S	0	0
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	3	4	G	60	31	28	1	0	0
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	2	5	5	Total	С	Ο	S	0	0
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	3	5	5	60	31	28	1	0	0
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	3	7	5	Total	С	Ο	S	0	0
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	0	1	0	60	31	28	1	0	0
BA B 60 31 28 1 0 0 3 CA 5 60 31 28 1 0 0 3 EA 5 60 31 28 1 0 0 3 EA 5 60 31 28 1 0 0 3 IA 5 60 31 28 1 0 0 3 IA 5 60 31 28 1 0 0 3 JA 5 $70tal$ C O S 0 0 3 JA 5 $70tal$ C O S 0 0 3 JA 5 $70tal$ C O S 0 0 3 PA 5 $70tal$ C O S 0 0 3 QA 5 $70tal$ C O S 0 0 3 SA 5 $70tal$ C O S	3	BA	5	Total	\mathbf{C}	Ο	\mathbf{S}	0	0
3 CA 5 Total C O S 0 0 3 EA 5 60 31 28 1 0 0 3 IA 5 60 31 28 1 0 0 3 IA 5 60 31 28 1 0 0 3 IA 5 $70tal$ C 0 S 0 0 3 JA 5 $70tal$ C 0 S 0 0 3 JA 5 $70tal$ C 0 S 0 0 3 JA 5 $70tal$ C 0 S 0 0 3 PA 5 $70tal$ C 0 S 0 0 3 PA 5 $70tal$ C 0 S 0 0 3 SA 5 $70tal$ C 0 S 0 0 3 XA 5 <t< td=""><td>0</td><td>DI</td><td>0</td><td>60</td><td>31</td><td>28</td><td>1</td><td>0</td><td>0</td></t<>	0	DI	0	60	31	28	1	0	0
o o <tho< th=""> <tho< th=""> <tho< th=""></tho<></tho<></tho<>	3	CA	5	Total	С	Ο	\mathbf{S}	0	0
3 EA 5 Total C O S 0 0 3 IA 5 60 31 28 1 0 0 3 JA 5 $70tal$ C O S 0 0 3 JA 5 $70tal$ C O S 0 0 3 JA 5 $70tal$ C O S 0 0 3 LA 5 $70tal$ C O S 0 0 3 PA 5 $70tal$ C O S 0 0 3 PA 5 $70tal$ C O S 0 0 3 QA 5 $70tal$ C O S 0 0 3 SA 5 $70tal$ C O S 0 0 3 WA 5 $70tal$ C O S 0 0 3 AA 5		011	0	60	31	28	1	0	0
3 IA 5 60 31 28 1 6 6 3 IA 5 Total C O 0 3 JA 5 Total C O 0 3 LA 5 Total C O 0 3 PA 5 Total C O 0 3 PA 5 Total C O 0 3 QA 5 Total C O 0 3 SA 5 Total C O 0 3 SA 5 Total C O 0 3 WA 5 Total C O 0 3 XA 5 Total C O 0 <td>3</td> <td>EA</td> <td>5</td> <td>Total</td> <td>С</td> <td>Ο</td> <td>\mathbf{S}</td> <td>0</td> <td>0</td>	3	EA	5	Total	С	Ο	\mathbf{S}	0	0
3 IA 5 Total C O S 0 0 3 JA 5 60 31 28 1 0 0 3 JA 5 $70tal$ C O S 0 0 3 LA 5 $70tal$ C O S 0 0 3 PA 5 $70tal$ C O S 0 0 3 PA 5 $70tal$ C O S 0 0 3 QA 5 $70tal$ C O S 0 0 3 SA 5 $70tal$ C O S 0 0 3 SA 5 $70tal$ C O S 0 0 3 WA 5 $70tal$ C O S 0 0 3 XA 5 $70tal$ C O S 0 0 3 dA 5		LII		60	31	28	1	Ŭ	
3 JA 5 60 31 28 1 6 6 3 JA 5 Total C 0 0 3 LA 5 Total C 0 0 3 LA 5 Total C 0 0 3 LA 5 Total C 0 0 3 PA 5 Total C 0 0 3 PA 5 Total C 0 0 3 QA 5 Total C 0 0 3 QA 5 Total C 0 0 3 QA 5 Total C 0 0 3 SA 5 Total C 0 0 3 WA 5 Total C 0 0 3 XA 5 Total C 0 0 3 dA 5 Total C 0 0 <td>3</td> <td>IA</td> <td>5</td> <td>Total</td> <td>С</td> <td>Ο</td> <td>\mathbf{S}</td> <td>0</td> <td>0</td>	3	IA	5	Total	С	Ο	\mathbf{S}	0	0
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				60	31	28	1	Ŭ	Ŭ
3 LA 5 60 31 28 1 5 0 0 3 LA 5 Total C O S 0 0 3 PA 5 Total C O S 0 0 3 PA 5 Total C O S 0 0 3 PA 5 Total C O S 0 0 3 QA 5 Total C O S 0 0 3 QA 5 Total C O S 0 0 3 SA 5 Total C O S 0 0 3 WA 5 Total C O S 0 0 3 XA 5 Total C O S 0 0 3 ZA 5 Total C O S 0 0 3 dA 5 <th< td=""><td>3</td><td>JA</td><td>5</td><td>Total</td><td>С</td><td>Ο</td><td>S</td><td>0</td><td>0</td></th<>	3	JA	5	Total	С	Ο	S	0	0
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				60	31	28	1	Ŭ	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	3	LA	5	Total	С	0	S	0	0
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				60	31	28	1		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	3	PA	5	Total	С	0	S	0	0
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				60	31	28	1		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	3	QA	5	Total	C	0	S	0	0
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				60 T + 1	31	28	1 		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	3	SA	5	Total	C	0	S	0	0
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				60 TL 1	31	28			
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	3	WA	5	Total	C	0	S	0	0
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				60 Tutul	$\frac{31}{C}$	28	1		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	3	XA	5	fotal	01	0		0	0
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				00 Tetal	$\frac{31}{C}$	28	1 C		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	3	ZA	5	fotal	\bigcirc 21	0 90	0 1	0	0
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				Total	$\frac{51}{C}$	20			
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	3	dA	5	10tai 60	21	0 20	ວ 1	0	0
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				Total	$\frac{31}{C}$	20	<u> </u>		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	3	eA	5	10tai 60	21	$\frac{0}{28}$	1	0	0
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				Total	- <u>C</u>		- 		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	3	gA	5	10tai 60	21	28	1	0	0
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				Total	C		S		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	3	kA	5	60	31	28	1	0	0
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				Total	<u> </u>	0	$\frac{1}{S}$		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	3	lA	5	60	31	28	1	0	0
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$				Total	<u>C</u>	0	$\frac{1}{S}$		
	3	nA	5	60	31	28	1	0	0



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Mol	Chain	Residues	A	Aton	ns		AltConf	Trace
2	4	F	Total	С	0	S	0	0
3	ГА	G	60	31	28	1	0	0
		-	Total	С	0	S	0	0
3	SA	G	60	31	28	1	0	0
		-	Total	С	0	S	0	0
3	uA	G	60	31	28	1	0	0
2	٨	٣	Total	С	0	S	0	0
3	yА	G	60	31	28	1	0	0
2		٣	Total	С	0	S	0	0
3	ZA	G	60	31	28	1	0	0
2	1 \	F	Total	С	0	S	0	0
3	IA	5	60	31	28	1	0	0
2	۶A	F	Total	С	0	S	0	0
3	ЪА	5	60	31	28	1	0	0
2	εA	F	Total	С	0	S	0	0
3	0A	5	60	31	28	1	0	0
9	0 1	F	Total	С	Ο	S	0	0
<u></u> Э	оA	5	60	31	28	1	0	0
9	CP	F	Total	С	Ο	S	0	0
່ <u>ບ</u>	UD UD	5	60	31	28	1	0	0
3	DB	5	Total	С	0	S	0	0
5		0	60	31	28	1	0	0
3	FB	5	Total	С	0	\mathbf{S}	0	0
J	ГD	5	60	31	28	1	0	0
3	IB	5	Total	С	Ο	\mathbf{S}	0	0
5	10	0	60	31	28	1	0	0
3	KB	5	Total	С	Ο	\mathbf{S}	0	0
5	ND	0	60	31	28	1	0	0
3	MB	5	Total	С	Ο	\mathbf{S}	0	0
0	MID	0	60	31	28	1	0	0
3	OB	5	Total	С	Ο	\mathbf{S}	0	0
0	ųр	0	60	31	28	1	0	0
3	BB	5	Total	С	Ο	\mathbf{S}	0	0
0		0	60	31	28	1	0	0
3	TB	5	Total	С	Ο	\mathbf{S}	0	0
		0	60	31	28	1		
3	XB	5	Total	\mathbf{C}	Ο	\mathbf{S}	0	0
			60	31	28	1		
3	YB	5	Total	С	Ο	\mathbf{S}	0	0
			60	31	28	1		
3	aB	5	Total	С	Ο	\mathbf{S}	0	0
			60	31	28	1		



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Mol	Chain	Residues	A	Aton	ns		AltConf	Trace
2	D	F	Total	С	0	S	0	0
3	ев	G	60	31	28	1	0	0
	ന	-	Total	С	0	S	0	0
3	IB	б	60	31	28	1	0	0
		~	Total	С	0	S	0	0
3	hB	б	60	31	28	1	0	0
	תו	-	Total	С	0	S	0	0
3	IB	G	60	31	28	1	0	0
2	П	F	Total	С	0	S	0	0
3	mB	G	60	31	28	1	0	0
2	- D	F	Total	С	Ο	S	0	0
3	OB	G	60	31	28	1	0	0
2	~D	F	Total	С	0	S	0	0
3	SD	5	60	31	28	1	0	0
2	+D	F	Total	С	Ο	S	0	0
3	ίD	5	60	31	28	1	0	0
2	D	5	Total	С	Ο	S	0	0
3	VD	5	60	31	28	1	0	0
2	-D	F	Total	С	Ο	S	0	0
3	ZD	5	60	31	28	1	0	0
2	ΛP	5	Total	С	0	S	0	0
່ງ	UD	5	60	31	28	1	0	0
3	υB	5	Total	С	0	S	0	0
5	2D	5	60	31	28	1	0	0
3	6B	Б	Total	С	Ο	\mathbf{S}	0	0
5	0D	5	60	31	28	1	0	0
3	7B	5	Total	С	Ο	\mathbf{S}	0	0
5		5	60	31	28	1	0	0
3	0R	5	Total	С	Ο	\mathbf{S}	0	0
0	50	0	60	31	28	1	0	0
3	DC	5	Total	С	Ο	\mathbf{S}	0	0
	DC	0	60	31	28	1	0	0
3	EC	5	Total	С	Ο	\mathbf{S}	0	0
0	LO	0	60	31	28	1	0	0
3	GC	5	Total	С	Ο	\mathbf{S}	0	0
		5	60	31	28	1		
3	KC	5	Total	\mathbf{C}	Ο	\mathbf{S}	0	0
		, , , , , , , , , , , , , , , , , , ,	60	31	28	1		
3	LC	5	Total	С	Ο	\mathbf{S}	0	0
		, ,	60	31	28	1		
3	NC	5	Total	С	Ο	S	0	0
			60	31	28	1		



Continued from previous page...

Mol	Chain	Residues	A	Aton	ns		AltConf	Trace
2	DC	F	Total	С	Ο	S	0	0
3	RC	G	60	31	28	1	0	0
	na	F	Total	С	0	S	0	0
3	SC	Э	60	31	28	1	0	0
	ца	-	Total	С	0	S	0	0
3	UC	Э	60	31	28	1	0	0
	VO	-	Total	С	0	S	0	0
3	YC	G	60	31	28	1	0	0
2	70	F	Total	С	Ο	S	0	0
3	ZC	G	60	31	28	1	0	0
2	ЪC	F	Total	С	Ο	S	0	0
3	Ja	Э	60	31	28	1	0	0
2	fC	F	Total	С	Ο	S	0	0
3	IC	5	60	31	28	1	0	0
2	- C	F	Total	С	Ο	S	0	0
3	gC	5	60	31	28	1	0	0
2	iC	E.	Total	С	Ο	S	0	0
3	IC	5	60	31	28	1	0	0
2	D and	F	Total	С	Ο	S	0	0
3	me	5	60	31	28	1	0	0
2	nC	Б	Total	С	Ο	S	0	0
່ <u>ບ</u>	no	5	60	31	28	1	0	0
3	nC	5	Total	С	Ο	S	0	0
5	pC	5	60	31	28	1	0	0
3	+C	Б	Total	С	Ο	\mathbf{S}	0	0
5	ιU		60	31	28	1	0	0
3	uС	5	Total	С	Ο	\mathbf{S}	0	0
5	uU	5	60	31	28	1	0	0
3	wC	5	Total	С	Ο	\mathbf{S}	0	0
0	we	0	60	31	28	1	0	0
3	0C	5	Total	С	Ο	\mathbf{S}	0	0
0	00	0	60	31	28	1	0	0
3	1C	5	Total	С	Ο	\mathbf{S}	0	0
0	10	0	60	31	28	1	0	0
3	3C	5	Total	С	Ο	\mathbf{S}	0	0
		0	60	31	28	1		
3	7C	5	Total	\mathbf{C}	Ο	\mathbf{S}	0	0
		ý	60	31	28	1		
3	8C	5	Total	С	Ο	\mathbf{S}	0	0
		, ,	60	31	28	1		
3	AD	5	Total	С	Ο	\mathbf{S}	0	0
			60	31	28	1		



Continued from precious page										
\mathbf{Mol}	Chain	Residues	Α	ton	ıs	AltConf	Trace			
2	FD	К	Total	С	Ο	S	0	0		
5	ЪD	5	60	31	28	1	0	0		
2	БD	Б	Total	С	Ο	S	0	0		
5	ΓD	5	60	31	28	1	0	0		
2	ПП	Б	Total	С	Ο	S	0	0		
3	HD	0	60	31	28	1	0	0		

• Molecule 4 is an oligosaccharide called alpha-D-mannopyranose-(1-3)-6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose.

Mol	Chain	Residues	Atoms			AltConf	Trace	
4	1	4	Total	С	Ο	S	0	0
4	1	4	47	24	22	1	0	0
4		4	Total	С	Ο	S	0	0
4	11	4	47	24	22	1	0	0
4	G	4	Total	С	Ο	S	0	0
4	S	4	47	24	22	1	0	0
4		4	Total	С	Ο	S	0	0
4	u	4	47	24	22	1	0	0
4	7	4	Total	С	0	S	0	0
4	Z	4	47	24	22	1	0	0
4	1	4	Total	С	Ο	S	0	0
4	L	4	47	24	22	1	0	
1	6	4	Total	С	Ο	S	0	0
4	0	1	47	24	22	1	0	
1	8	4	Total	С	Ο	\mathbf{S}	0	0
T	0	Ŧ	47	24	22	1	0	
1	DA	4	Total	С	Ο	\mathbf{S}	0	0
T	DI	Ŧ	47	24	22	1	0	
1	FΔ	4	Total	С	Ο	\mathbf{S}	0	0
T	171	Ŧ	47	24	22	1	0	
1	KΔ	4	Total	\mathbf{C}	Ο	\mathbf{S}	0	0
	1111		47	24	22	1	0	0
1	МΔ	4	Total	\mathbf{C}	Ο	\mathbf{S}	0	0
	10171	Ŧ	47	24	22	1	0	0
4	ΒA	4	Total	С	Ο	\mathbf{S}	0	0
T	10/1	Ŧ	47	24	22	1	0	0
4	ТА	4	Total	\mathbf{C}	Ο	\mathbf{S}	0	0
	111	Т	47	24	22	1	0	0
4	VΔ	4	Total	\mathbf{C}	Ο	S	0	
	111	т	47	24	22	1		
4	aА	4	Total	\mathbf{C}	Ο	S	0	
–	ал	±	47	24	22	1		



Continued from previous page...

Mol	Chain	Residues	A	Aton	ns		AltConf	Trace
4	C A	4	Total	С	Ο	S	0	0
4	IA	4	47	24	22	1	0	0
4	1 4	4	Total	С	0	S	0	0
4	hA	4	47	24	22	1	0	0
4		4	Total	С	0	S	0	
4	mA	4	47	24	22	1	0	0
4		4	Total	С	0	S	0	0
4	оA	4	47	24	22	1	0	0
4		4	Total	С	Ο	S	0	0
4	τA	4	47	24	22	1	0	0
4	٨	4	Total	С	0	S	0	0
4	VA	4	47	24	22	1	0	0
4	0.4	4	Total	С	Ο	S	0	0
4	UA	4	47	24	22	1	0	0
4	24	4	Total	С	Ο	S	0	0
4	ZA	4	47	24	22	1	0	
4	7 1	4	Total	С	Ο	S	0	0
4	(A	4	47	24	22	1	0	
4	0.4	4	Total	С	Ο	S	0	0
4	9A	4	47	24	22	1	0	0
4	FP	4	Total	С	Ο	S	0	0
4	ED	4	47	24	22	1	0	
4	CB	4	Total	С	Ο	\mathbf{S}	0	0
4	GD	4	47	24	22	1	0	
4	LB	4	Total	С	Ο	\mathbf{S}	0	0
		1	47	24	22	1	0	
4	NB	4	Total	С	Ο	\mathbf{S}	0	0
т	ND	Ŧ	47	24	22	1	0	0
4	SB	4	Total	С	Ο	\mathbf{S}	0	0
	50	Ŧ	47	24	22	1	0	0
	UB	4	Total	\mathbf{C}	Ο	\mathbf{S}	0	0
	ΟD	Ŧ	47	24	22	1	0	0
	ZB	4	Total	\mathbf{C}	Ο	\mathbf{S}	0	0
		Т	47	24	22	1	0	0
	hR	4	Total	\mathbf{C}	Ο	\mathbf{S}	0	0
		Ť	47	24	22	1		
4	σR	4	Total	\mathbf{C}	Ο	\mathbf{S}	0	0
	5.0	÷	47	24	22	1		0
4	iB	4	Total	С	Ο	\mathbf{S}	0	0
		Ť	47	24	22	1		
4	nB	4	Total	С	Ο	S	0	0
		1	47	24	22	1		



Continued from previous page...

Mol	Chain	Residues	A	Aton	ns		AltConf	Trace
4	Б	4	Total	С	0	S	0	0
4	рв	4	47	24	22	1	0	0
4	D	4	Total	С	0	S	0	0
4	uB	4	47	24	22	1	0	0
	D	4	Total	С	0	S	0	0
4	wВ	4	47	24	22	1	0	0
4	1D	4	Total	С	0	S	0	0
4	IB	4	47	24	22	1	0	0
4	лD	4	Total	С	0	S	0	0
4	3B	4	47	24	22	1	0	0
4	OD	4	Total	С	0	S	0	0
4	8B	4	47	24	22	1	0	0
4	AC	4	Total	С	Ο	S	0	0
4	AC	4	47	24	22	1	0	0
4	FC	4	Total	С	Ο	S	0	0
4	FC	4	47	24	22	1	0	
4	ис	4	Total	С	Ο	S	0	0
4	пС	4	47	24	22	1	0	
4	MC	4	Total	С	Ο	S	0	0
4	MC	4	47	24	22	1	0	
4	00	4	Total	С	Ο	S	0	0
4	00	4	47	24	22	1	0	
4	тС	4	Total	С	Ο	S	0	0
4	10	4	47	24	22	1	0	
4	VC	4	Total	С	Ο	S	0	0
4	VC	4	47	24	22	1	0	
4	ъС	4	Total	С	Ο	\mathbf{S}	0	0
4	aU	4	47	24	22	1	0	0
4	сC	4	Total	С	Ο	\mathbf{S}	0	0
	tt	1	47	24	22	1	0	0
4	hC	4	Total	С	Ο	\mathbf{S}	0	0
т	щ	-1	47	24	22	1	0	0
4	iC	4	Total	С	Ο	\mathbf{S}	0	0
т	JO	-1	47	24	22	1	0	0
4	$_{0}C$	4	Total	С	Ο	S	0	0
		Ŧ	47	24	22	1		
	пС	4	Total	\mathbf{C}	Ο	S	0	
Т	40 	т	47	24	22	1	U U	U
4	vC	4	Total	\mathbf{C}	Ο	\mathbf{S}	0	0
- T	•0	Ŧ	47	24	22	1	0	
4	xC	4	Total	\mathbf{C}	Ο	S	0	0
T	л	1	47	24	22	1		



Mol	Chain	Residues	Atoms	AltConf Trace	e
4	20	4	Total C O S	0 0	
-1	20	1	47 24 22 1	0 0	
4	40	4	Total C O S	0 0	
-1	40	4	47 24 22 1	0 0	0
4	0C	4	Total C O S	0 0	
-1	30	1	47 24 22 1	0 0	0
4	BD	4	Total C O S	0 0	
-1	DD	1	47 24 22 1	0 0	
4	CD	4	Total C O S	0 0	
-1	GD	1	47 24 22 1	0 0	
4	ID	4	Total C O S	0 0	
	ID	±	47 24 22 1		

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• Molecule 5 is beta-D-galactopyranose (three-letter code: GAL) (formula: $C_6H_{12}O_6$).



Mol	Chain	Residues	Atoms	AltConf
5	V	1	Total C O 11 6 5	0
5	V	1	Total C O 11 6 5	0
5	А	1	Total C O 11 6 5	0
5	А	1	$\begin{array}{ccc} \text{Total} \text{C} \text{O} \\ 11 6 5 \end{array}$	0
5	В	1	$\begin{array}{ccc} \text{Total} \text{C} \text{O} \\ 11 6 5 \end{array}$	0



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Mol	Chain	Residues	Atoms	AltConf
5	В	1	Total C O	0
5	С	1	$\begin{array}{ccc} \text{Total} & \text{C} & \text{O} \\ 11 & 6 & 5 \end{array}$	0
			Total C O	
5	С	1	$\begin{array}{ccc} 100 a \\ 11 & 6 & 5 \end{array}$	0
5	D	1	Total C O	0
		-	11 6 5	Ŭ
5	D	1	Total C O	0
5	Ε	1	$\begin{array}{ccc} 1 \text{ fotal } C & O \\ 11 & 6 & 5 \end{array}$	0
			Total C O	
5	Ε	1	$10001 \\ 11 \\ 6 \\ 5$	0
			Total C O	
5	F,	1	11 6 5	0
	Б	1	Total C O	0
5	F	1	11 6 5	0
F	C	1	Total C O	0
G	G	L	11 6 5	0
5	C	1	Total C O	0
0	6	1	11 6 5	0
5	Н	1	Total C O	0
	**	1	11 6 5	0
5	Н	1	Total C O	0
		_	11 6 5	
5	Ι	1	Total C O	0
5	Ι	1	10tal C U	0
			$\begin{array}{ccc} 11 & 0 & 0 \\ \hline T_{a}t_{a}l & C & 0 \\ \end{array}$	
5	J	1	$\begin{array}{cccc} 100 & 0 \\ 11 & 6 & 5 \end{array}$	0
			Total C O	
5	J	1	$100a1 \\ 0 \\ 0 \\ 11 \\ 6 \\ 5$	0
			Total C O	6
5	K	1	11 6 5	0
	T/	1	Total C O	0
б	n		11 6 5	U
۲	т	1	Total C O	0
			11 6 5	0
5	T	1	Total C O	0
5			11 6 5	0



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Mol	Chain	Residues	Atoms	AltConf
5	М	1	Total C O 11 6 5	0
5	М	1	Total C O 11 6 5	0
5	Ν	1	Total C O 11 6 5	0
5	Ν	1	Total C O 11 6 5	0
5	О	1	Total C O 11 6 5	0
5	О	1	Total C O 11 6 5	0
5	Р	1	Total C O 11 6 5	0
5	Р	1	Total C O 11 6 5	0
5	Q	1	Total C O 11 6 5	0
5	Q	1	Total C O 11 6 5	0
5	R	1	Total C O 11 6 5	0
5	R	1	Total C O 11 6 5	0
5	S	1	Total C O 11 6 5	0
5	S	1	Total C O 11 6 5	0
5	Т	1	Total C O 11 6 5	0
5	Т	1	Total C O 11 6 5	0
5	U	1	Total C O 11 6 5	0
5	U	1	Total C O 11 6 5	0
5	W	1	Total C O 11 6 5	0
5	W	1	Total C O 11 6 5	0
5	Х	1	Total C O 11 6 5	0



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Mol	Chain	Residues	Atoms	AltConf
Б	v	1	Total C O	0
5	Λ	L	11 6 5	0
5	v	1	Total C O	0
0	L	T	11 6 5	0
5	V	1	Total C O	0
0	1	1	11 6 5	0
5	a	1	Total C O	0
		-	11 6 5	Ŭ
5	a	1	Total C O	0
		_	11 6 5	
5	b	1	Total C O	0
		_	11 6 5	
5	b	1	Total C O	0
		_	11 6 5	
5	с	1	Total C O	0
			11 6 5	
5	с	1	Total C O	0
			$\begin{array}{ccc} 11 & 6 & 5 \\ \hline \end{array}$	
5	d	1	Total C O	0
			$\begin{array}{ccc} 11 & 6 & 5 \\ \hline \end{array}$	
5	d	1	Total C O	0
5	е	1	Total C U	0
5	е	1	10tal C O	0
			$\begin{array}{ccc} 11 & 0 & 0 \\ T_{\text{otal}} & C & 0 \end{array}$	
5	f	1	$\begin{array}{cccc} 10tal & C & O \\ 11 & 6 & 5 \end{array}$	0
			Tatal C O	
5	f	1	$\begin{array}{cccc} 10tal & C & O \\ 11 & 6 & 5 \end{array}$	0
			$\begin{array}{ccc} 11 & 0 & 0 \\ \hline T_{atal} & C & 0 \\ \end{array}$	
5	g	1	$11 \varepsilon \nabla$	0
			$\begin{array}{ccc} 11 & 0 & 0 \\ \hline Total & C & O \end{array}$	
5	g	1		0
]



3 Residue-property plots (i)

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map 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 diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). 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: Oxiplasma meridianum archaellum





• Molecule 1: Oxiplasma meridianum archaellum







• Molecule 1: Oxiplasma meridianum archaellum

Chain K: 99%	·
• Molecule 1: Oxiplasma meridianum archaellum	
Chain L: 99%	·
\bullet Molecule 1: Oxiplasma meridianum archaellum	
Chain M: 99%	·
E255 11 15 12 17 1 12 1	
• Molecule 1: Oxiplasma meridianum archaellum	
Chain N: 99%	·
• Molecule 1: Oxiplasma meridianum archaellum	
Chain O: 99%	
E255 11 1 12 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
\bullet Molecule 1: Oxiplasma meridianum archaellum	
Chain P: 99%	·
E25 1121 1713 1713 1713 1713 1713 1713 1713 1713 1713 1713 1713 1714 1713 1714 1714 1714 1714 1774 1	

• Molecule 1: Oxiplasma meridianum archaellum



Chain Q:	99% .
E25 1163 L171 Q254	
• Molecule 1	Oxiplasma meridianum archaellum
Chain R:	99% .
E25 1163 1171 0254	
• Molecule 1	: Oxiplasma meridianum archaellum
Chain S:	99% .
E25	
• Molecule 1	Oxiplasma meridianum archaellum
Chain T:	99% .
E25	
• Molecule 1	Oxiplasma meridianum archaellum
Chain U:	99% .
E25	
• Molecule 1	: Oxiplasma meridianum archaellum
Chain W:	99%
E25 T163 L171 Q254	
• Molecule 1	Oxiplasma meridianum archaellum
Chain X:	99% .
E26	



• Molecule 1: Oxiplasma meridianum archaellum Chain Y: 99% • Molecule 1: Oxiplasma meridianum archaellum Chain a: 99% • Molecule 1: Oxiplasma meridianum archaellum Chain b: 99% • Molecule 1: Oxiplasma meridianum archaellum Chain c: 99% • Molecule 1: Oxiplasma meridianum archaellum Chain d: 99% • Molecule 1: Oxiplasma meridianum archaellum Chain e: 99% • Molecule 1: Oxiplasma meridianum archaellum Chain f: 99%





• Molecule 1: Oxiplasma meridianum archaellum



• Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-ga lacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose ose-(1-3)-beta-D-galactopyranose

8	3%
Chain h:	100%

11 12 10 10 10 10 10 10 10 10 10 10 10 10 10	

• Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-ga lacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose ose-(1-3)-beta-D-galactopyranose

	83%	_
Chain o:	100%	

GAL1 BGC2 A1H1F3 MAN4 MAN5 A1H036 A1H036		

• Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-ga lacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

	83%	
Chain v:	100%	
<u>ور</u> ع		
GAL1 BGC2 A1H11 MAN4 MAN5 A1H03 A1H03		

 \bullet Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-ga lacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

	83%	
Chain 2:	100%	





Chain bA:

• Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-ga lacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose ose-(1-3)-beta-D-galactopyranose

	83%	
Chain 9:	100%	
GAL1 BGC2 A1H1F3 MAN4 MAN5 A1H036		

 \bullet Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-ga lacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

	83%	
Chain GA:	100%	
L1 C2 H1F3 N4 N5 H036		
GA BG A1 MA MA A1 A1		

• Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-ga lacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose ose-(1-3)-beta-D-galactopyranose

					83%	
С	ha	in	Ν	A	100%	
	••		•	•		
AL1	GC2 1H1E	ANA A	AN5	1H03(
9	<u>а</u> <	A M	Ξ	A		

 \bullet Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-ga lacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

	83%	
Chain UA:	100%	

L1 C2 H1F3 N4 N5 H036		
GA BG MA MA A1 A1		

 \bullet Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-ga lacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose



• Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-ga lacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose ose-(1-3)-beta-D-galactopyranose

	83%	
Chain iA:	100%	
GAL1 BGC2 A1H1F MAN4 MAN5 A1H03		

• Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-ga lacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

	83%
Chain pA:	100%

L1 C2 H1F3 N4 N5 H036	

• Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-ga lacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose ose-(1-3)-beta-D-galactopyranose



 \bullet Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-ga lacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose



 \bullet Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-ga lacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose



	83%			
Chain AB:	100%			
GAL1 BGC2 A1H1F3 MAN4 MAN5 A1H036				
• Molecule lacto-hepto	2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyran pyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopy	nose-(1-3)-[I ranose-(1-4	-glycero-alpha-)-beta-D-glucop	D-ga yran

ose-(1-3)-beta-D-galactopyranose

		83%	
Ch	ain HB:	100%	
•	***		
	E E		
GAL1 BGC2	A 1H1 MAN4 MAN5 MAN5 A 1H0		

• Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-ga lacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose ose-(1-3)-beta-D-galactopyranose

Chain OB:

83%



 \bullet Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-ga lacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

	83%	
Chain VB:	100%	
AL 1 3C2 1H1F3 AN4 AN5 AN5 1H036		
P M M P G		

• Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-ga lacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

	83%	
Chain cB:	100%	

1 2 1F3 5 036 036		
GAL BGC A1H MAN MAN A1H		

• Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-ga lacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose





• Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-ga lacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyran ose-(1-3)-beta-D-galactopyranose

	83%	
Chain qB:	100%	
GAL1 BGC2 A1H1F MAN4 MAN5 A1H03 A1H03		

• Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-ga lacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

	83%
Chain xB:	100%

L1 C2 H1F3 N4 N5 H036 H036	
GA BG A1 MA MA A1 A1	

• Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-ga lacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose ose-(1-3)-beta-D-galactopyranose

83%			
Chain 4B:	100%		

L1 C2 N4 N5 H1F3 N0 S6 H036			
A 1 BC BC A 1 A 1 A 1 A 1 A 1 A 1 A 1 A 1 A 1 A			

• Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-ga lacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose ose-(1-3)-beta-D-galactopyranose

83%				
Chain BC:	100%			

L1 KC2 N4 N5 N5 H036				
GA BC A1 MA MA A1 A1				

• Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-ga lacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyran


ose-(1-3)-beta-D-galactopyranose



• Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-ga lacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose ose-(1-3)-beta-D-galactopyranose

	83%	
Chain PC:	100%	

GAL1 BGC2 A1H1F3 MAN4 A1H036 A1H036		

83%

• Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-ga lacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose ose-(1-3)-beta-D-galactopyranose

100%

Chain WC:



• Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-ga lacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose ose-(1-3)-beta-D-galactopyranose

					83%	
С	ha	in	d	lC:	100%	
	• •	2				
AL 1	GC2	HTHT	AN4	1H03		
G	́а «	A M		A		

83%

 \bullet Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-ga lacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

Chain kC:

100%





• Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-ga lacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose ose-(1-3)-beta-D-galactopyranose

	83%	
Chain rC:	100%	
GAL1 BGC2 A1H1F: MAN4 MAN5 A1H03		

• Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-ga lacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

	100%	
Chain yC:	100%	

• Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-ga lacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

100% Chain 5C: 100%

• Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-ga lacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose ose-(1-3)-beta-D-galactopyranose

	100%
Chain CD:	100%

L1 C2 H1F3 N4 N5 H036	

	60%
Chain j:	100%

AL1 SGC2 V1H1F3 V1H034 V1H034 V1H034	
	W O P L D W L D F



	60%
Chain k:	100%

GAL1 BGC2 A1H1F3 A1H034 MAN5	

 $\label{eq:constraint} \bullet \mbox{Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose$

	60%	
Chain m:	100%	

L1 C2 H1F3 H034 N5		
GA BG A1 A1 MA		

60%

 \bullet Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose

100%

Chain q:



 $\label{eq:constraint} \bullet \mbox{ Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose$

60% Chain r: 100%

	60%	
Chain t:	100%	
GAL1 BGC2 A1H1F3 A1H034 MAN5		

	60%
Chain x:	100%

L1 C2 H1F3 H034 N5	
GA BG A1 A1 A1 MA	

 $\label{eq:constraint} \bullet \mbox{Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose$

	60%	
Chain y:	100%	

11 22 11 F3 10 34 N5		
GAI BG(A11 A11 A11 MA1 MA1		

60%

 $\label{eq:constraint} \bullet \mbox{Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose$

Chain 0:





 $\label{eq:constraint} \bullet \mbox{Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose$

60% Chain 4: 100%

	60%	
Chain 5:	100%	
GAL1 BGC2 A1H1F3 A1H034 MAN5		

	60%
Chain 7:	100%

L1 C2 H1F3 H034 N5	
GAI BGA A11 A11 MAI	

 $\label{eq:constraint} \bullet \mbox{Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose$

Chain BA:		
	100%	

C2 H1F3 N5 N5		

 $\label{eq:constraint} \bullet \mbox{ Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose$

60% Chain CA: 100%

60%

 \bullet Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose

Chain EA:









	60%		
Chain JA:		100%	
3AL1 BGC2 A1H1F A1H033 MAN5 MAN5			

 $\label{eq:constraint} \bullet \mbox{Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose$

	60%	
Chain LA:	100%	

L 1F3 034 5		
GAL BGC5 BGC5 A1H A1H MANE		

60%

 \bullet Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose

100%

Chain PA:



 • Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)] 6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose

60% Chain QA: 100%



60% Chain WA: 100%

 $\label{eq:constraint} \bullet \mbox{Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose$

Chain XA: 100%	

 $\label{eq:constraint} \bullet \mbox{ Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose$

100%

100%

Chain ZA:



 \bullet Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose

Chain dA:



 \bullet Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose



60%



	60%	
Chain gA:	100%	
		
GAL1 BGC2 A1H1F3 A1H034 MAN5 MAN5		

 $\label{eq:constraint} \bullet \mbox{Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose$

	60%	
Chain kA:	100%	
60 44		
GAL1 BGC2 A1H1F A1H03 A1H03 MAN5		

60%

 \bullet Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose

100%

Chain lA:



 $\label{eq:constraint} \bullet \mbox{Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose$

60% Chain nA: 100%

	60%	
Chain rA:	100%	
GAL1 BGC2 A1H1F3 A1H034 MAN5		



	60%	
Chain sA:	100')%
		
<mark>GAL1</mark> BGC2 A1H1F3 A1H034 MAN5 MAN5		

 $\label{eq:constraint} \bullet \mbox{Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose$

	60%		
Chain uA:		100%	

11 11 11 103 103 103 103 103 103 103 103			

 \bullet Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose

60% Chain yA: 100%

 \bullet Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose

	60%
Chain zA:	100%

11 22 11F3 1034 15	
GAL BGC A1H A1H A1H A1H MAN	

	60%	
Chain 1A:	100%	
GAL1 BGC2 A1H1F3 A1H034 MAN5		



	60%	
Chain 5A:	100%	
•••		
GAL1 BGC2 A1H1F3 A1H034 MAN5		

 $\label{eq:constraint} \bullet \mbox{Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose$

	60%	_
Chain 6A:	100%	

34 34		

 \bullet Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose

60% Chain 8A: 100%

60%

 $\label{eq:constraint} \bullet \mbox{ Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose$

Chain CB:

100%







	60%	
Chain FB:	100%	

L1 C2 H1F3 H034 N5		
A1 A1 MA		

 $\label{eq:constraint} \bullet \mbox{Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose$

	60%	
Chain JB:	100%	

11 22 11F3 1034 N5		
GAI A 11 A 11 A 11 MAI		

60%

60%

 $\label{eq:constraint} \bullet \mbox{ Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose$

100%

Chain KB:



 $\label{eq:constraint} \bullet \mbox{Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose$

Chain MB:









	60%		
Chain RB:		100%	

L1 C2 H1F3 H034 N5			
A 1 A 1 A 1 A 1 A 1 A 1 A 1 A 1 A 1 A 1			

 $\label{eq:constraint} \bullet \mbox{Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose$

	60%	_
Chain TB:	100%	_
AL 1 GC 2 1H 1F C 1H 03 AN 5		

60%

60%

 \bullet Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose

100%

100%

Chain XB:



 \bullet Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose

Chain YB:







	60%		
Chain eB:		100%	

GAL1 BGC2 A 1H1F3 A 1H034 MAN5 MAN5			

• Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyran ose

	60%
Chain fB:	100%
F3 34	
GAL1 BGC2 A1H11 A1H00 MAN5 MAN5	

• Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyran ose

60% Chain hB: 100%

60%

• Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyran ose

100%

Chain lB:





Chain oB: 100%		60%	
	Chain oB:	100%	

ALT 3C2 AND AND AND	AL 1 3C2 1H1F3 1H034 1H034 AN5		

 $\label{eq:constraint} \bullet \mbox{Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose$

	60%	
Chain sB:	100%	
•••		
AL1 GC2 1H1F3 1H034 AN5		

 \bullet Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose

60% Chain tB: 100%

60%

 • Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)] 6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose

Chain vB:









	60%	
Chain 0B:	100%	

L1 C2 H1F3 H034 N5		
GA BG A1 A1 MA		

 $\label{eq:constraint} \bullet \mbox{Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose$

	60%	_
Chain 2B:	100%	_
•••		
1 22 1034 15		

60%

60%

 \bullet Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose

100%

100%

Chain 6B:



 • Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)] 6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose

Chain 7B:





	60%		
Chain DC:		100%	

3AL1 8GC2 A1H1F3 A1H034 MAN5 MAN5			

 $\label{eq:constraint} \bullet \mbox{Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose$

	60%	
Chain EC:	100%	
1 1 1 2 2 3 1 5		

 \bullet Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose

60% Chain GC: 100%

60%

 \bullet Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose

100%

Chain KC:







	60%		
Chain NC:		100%	

3AL1 BGC2 A1H1F3 A1H034 MAN5 MAN5			

 $\label{eq:constraint} \bullet \mbox{Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose$

	60%		
Chain RC:		100%	
ω 4			
AL1 5GC2 1H1F 1H03 1AN5			

 • Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)] 6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose

60% Chain SC: 100%

60%

 \bullet Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose

100%

Chain UC:







	60%	
Chain ZC:	10	0%
AL1 GC2 1H1F3 1H034 AN5		

 $\label{eq:constraint} \bullet \mbox{Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose$

	60%
Chain bC:	100%

L1 11F3 H1F3 H034 N5	

 • Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)] 6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose

60% Chain fC: 100%

60%

GAL1 BGC2 A1H1F3 A1H034 MAN5

 $\label{eq:constraint} \bullet \mbox{ Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose$

100%

Chain gC:



	60%	_
Chain iC:	100%	
GAL1 BGC2 A1H1F3 A1H034 MAN5		



	60%
Chain mC:	100%

1 2 1F3 034 5	
GAL BGC A1H A1H A1H MAN	

 $\label{eq:constraint} \bullet \mbox{Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose$

	60%	
Chain nC:	100%	
₩ 4		
ALLI 3GC2 11H1F 11H03 11H03 1AN5 1AN5		

 $\label{eq:constraint} \bullet \mbox{ Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose$

60% Chain pC: 100%

 \bullet Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose

	60%	
Chain tC:	100%	

L1 C2 H1F3 H034 N5 N5		
GA A1 A1 MA		

	60%
Chain uC:	100%
GAL1 BGC2 A1H1F3 A1H034 MAN5	



	60%		
Chain wC:		100%	
m 4			
3AL1 3GC2 A1H1F A1H03 A1H03 MAN5 MAN5			

 $\label{eq:constraint} \bullet \mbox{Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose$

	60%	
Chain 0C:	100%	
AL1 GC2 1H1F3 1H034 AN5		

60%

60%

 \bullet Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose

100%

Chain 1C:



 • Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)] 6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose

Chain 3C:









	60%	
Chain 8C:	100%	
•••		
GAL1 BGC2 A1H1F3 A1H034 MAN5 MAN5		

 $\label{eq:constraint} \bullet \mbox{Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose$

	60%
Chain AD:	100%

1 2 1F3 034 5	
GAL A1H A1H A1H MAN	

80%

60%

 $\label{eq:constraint} \bullet \mbox{Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose$

100%

Chain ED:



 \bullet Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-de oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose ose

Chain FD:





	80%
Chain HD:	100%

GAL1 BGC2 A1H1F3 A1H034 MAN5	







• Molecule 4: alpha-D-mannopyranose-(1-3)-6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose





• Molecule 4: alpha-D-mannopyranose-(1-3)-6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

1	50%
Chain z:	100%
*	
11 11 14	
GAI BGC A1F MAN	

50%

Chain 1:







 \bullet Molecule 4: alpha-D-mannopyranose-(1-3)-6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

	50%	
Chain 8:	1(00%
••		
LL1 SC2 H1F3 N4		
BC BC		

• Molecule 4: alpha-D-mannopyranose-(1-3)-6-de
oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

	50%	_
Chain DA:	1	00%
m		
SAL1 8GC2 A1H1F AN4 AN4		

• Molecule 4: alpha-D-mannopyranose-(1-3)-6-de
oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

	50%	
Chain FA:	100	0%
••		
AL4 3C2 4N4 4N4		
BCC M/		

 \bullet Molecule 4: alpha-D-mannopyranose-(1-3)-6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

	50%	
Chain KA:	10	0%
en la constante de la constante		
3AL1 3GC2 41H1F 4AN4 MAN4		







• Molecule 4: alpha-D-mannopyranose-(1-3)-6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose





50% Chain aA: 100%

50%

• Molecule 4: alpha-D-mannopyranose-(1-3)-6-de
oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

Chain fA:

100%





	50%
Chain hA:	100%
e e e e e e e e e e e e e e e e e e e	
GAL1 BGC2 A1H11 MAN4 MAN4	

• Molecule 4: alpha-D-mannopyranose-(1-3)-6-de
oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

	50%	
Chain mA:	100%	
*		
111 111 14		
BGGA A11 MAI		

• Molecule 4: alpha-D-mannopyranose-(1-3)-6-de
oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

	50%	
Chain oA:	100%	
GAL1 BGC2 A1H1F3 MAN4		

	50%
Chain tA:	100%
AL1 GC2 1H1F; AN4	
A A B G	

• Molecule 4: alpha-D-mannopyranose-(1-3)-6-de
oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

Chain vA:	50%)%
GAL1 BGC2 A1H1F3 MAN4		







• Molecule 4: alpha-D-mannopyranose-(1-3)-6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose





	50%	
Chain EB:	10	0%
••		
11 22 11F3 14		
GAI BGC A1F MAN		

 $\bullet \ Molecule \ 4: \ alpha-D-mannopyranose-(1-3)-6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose$

Chain GB: 100%





	50%	
Chain LB:	100%	
5 F F 3		
BGCC BGCC MAN MAN		

• Molecule 4: alpha-D-mannopyranose-(1-3)-6-de
oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

	50%
Chain NB:	100%
* *	
1 7 7 7 7	
GAL BGC A1H MAN	

	50%	
Chain SB:	100)%
*		
GAL1 BGC2 A1H1F3 MAN4 MAN4		

 \bullet Molecule 4: alpha-D-mannopyranose-(1-3)-6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

	50%	
Chain UB:		100%
* *		
AL1 GC2 1H1F3 AN4 AN4		
D D D D D D D D D D D D D D D D D D D		

 \bullet Molecule 4: alpha-D-mannopyranose-(1-3)-6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

	50%	
Chain ZB:	10	00%
••		
L1 C2 H1F3 N4		
GAI BG A11 MAI		







 \bullet Molecule 4: alpha-D-mannopyranose-(1-3)-6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose





	50%
Chain pB:	100%
* *	
102 102 111 104	
BC A1	
• Molecule 4: alpha D m	oppopurances (1.2) 6 decry 6 culto hoto D galacto

 \bullet Molecule 4: alpha-D-mannopyranose-(1-3)-6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

Chain uB: 100%





GAL BGC A1H MAN

	50%		
Chain wB:		100%	
••			

• Molecule 4: alpha-D-mannopyranose-(1-3)-6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

	50%	
Chain 1B:	1	00%
*		
11 22 11F3 14		
GAI BGC A1F MAR		

• Molecule 4: alpha-D-mannopyranose-(1-3)-6-de
oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

	50%
Chain 3	B: 100%
••	
GAL1 BGC2 A1H1F3 MAN4	

• Molecule 4: alpha-D-mannopyranose-(1-3)-6-de
oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

	50%	
Chain 8B:	10	- 00%
al1 3c2 1H1F3 AN4 AN4		

 \bullet Molecule 4: alpha-D-mannopyranose-(1-3)-6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

	50%
Chain AC:	100%
*	
111 111 111 111 111	
BGGA A11 MAI	
GAL BIGC: MAN	







• Molecule 4: alpha-D-mannopyranose-(1-3)-6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose





• Molecule 4: alpha-D-mannopyranose-(1-3)-6-de
oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose



Chain VC: 100%





	50%
Chain aC:	100%
e و	
GAL1 BGC2 A1H1F MAN4 MAN4	

• Molecule 4: alpha-D-mannopyranose-(1-3)-6-de
oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

	50%
Chain cC:	100%
* *	
11 11 14 14	
GAI BGC A1F MAN	

• Molecule 4: alpha-D-mannopyranose-(1-3)-6-de
oxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

	50%		
Chain hC:		100%	
• •			
GAL1 BGC2 A1H1F MAN4 MAN4			

 \bullet Molecule 4: alpha-D-mannopyranose-(1-3)-6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

	50%
Chain jC:	100%
3AL1 3GC2 41H1F3 4AN4 4AN4	

	50%	
Chain oC:	100%	
••		
GAL1 BGC2 MAN4 MAN4		



_	50%	
Chain qC:	10)%
••		
GAL1 BGC2 A1H1F3 MAN4		

 \bullet Molecule 4: alpha-D-mannopyranose-(1-3)-6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

	50%
Chain vC:	100%
* *	
L1 C2 H1F3 N4	

 \bullet Molecule 4: alpha-D-mannopyranose-(1-3)-6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

	50%	
Chain xC:	100%	
m		
44L1 86C2 1411F 14N4		



	50%
Chain 4C:	100%
AL1 GC2 1H1F: AN4	

75% Chain 9C: 100%



	50%	
Chain BD:	100%	
••		
AL1 BC2 LH1F3 AN4		

	75%	
Chain GD:	100%	

11 22 11F3 14		
GA1 BGC A11 MA1		

75% Chain ID: 100%





4 Experimental information (i)

Property	Value	Source	
EM reconstruction method	HELICAL	Depositor	
Imposed symmetry	HELICAL, twist= 107.922° , rise= 5.641 Å,	Depositor	
	axial sym= $C1$		
Number of segments used	1374113	Depositor	
Resolution determination method	FSC 0.143 CUT-OFF	Depositor	
CTF correction method	PHASE FLIPPING AND AMPLITUDE	Depositor	
	CORRECTION		
Microscope	FEI TALOS ARCTICA	Depositor	
Voltage (kV)	200	Depositor	
Electron dose $(e^-/\text{\AA}^2)$	51.45	Depositor	
Minimum defocus (nm)	800	Depositor	
Maximum defocus (nm)	2000	Depositor	
Magnification	Not provided		
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor	
Maximum map value	0.164	Depositor	
Minimum map value	-0.044	Depositor	
Average map value	0.001	Depositor	
Map value standard deviation	0.011	Depositor	
Recommended contour level	0.04	Depositor	
Map size (Å)	315.0, 315.0, 315.0	wwPDB	
Map dimensions	300, 300, 300	wwPDB	
Map angles $(^{\circ})$	90.0, 90.0, 90.0	wwPDB	
Pixel spacing (Å)	1.05, 1.05, 1.05	Depositor	



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: MAN, A1H1F, BGC, A1H03, GAL

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	А	0.28	0/1701	0.57	0/2325	
1	В	0.28	0/1701	0.57	0/2325	
1	С	0.28	0/1701	0.57	0/2325	
1	D	0.28	0/1701	0.57	0/2325	
1	Е	0.28	0/1701	0.57	0/2325	
1	F	0.28	0/1701	0.57	0/2325	
1	G	0.28	0/1701	0.57	0/2325	
1	Н	0.28	0/1701	0.57	0/2325	
1	Ι	0.28	0/1701	0.57	0/2325	
1	J	0.28	0/1701	0.57	0/2325	
1	К	0.28	0/1701	0.57	0/2325	
1	L	0.28	0/1701	0.57	0/2325	
1	М	0.28	0/1701	0.57	0/2325	
1	N	0.28	0/1701	0.57	0/2325	
1	0	0.28	0/1701	0.57	0/2325	
1	Р	0.28	0/1701	0.57	0/2325	
1	Q	0.28	0/1701	0.57	0/2325	
1	R	0.28	0/1701	0.57	0/2325	
1	S	0.28	0/1701	0.57	0/2325	
1	Т	0.28	0/1701	0.57	0/2325	
1	U	0.28	0/1701	0.57	0/2325	
1	V	0.28	0/1701	0.57	0/2325	
1	W	0.28	0/1701	0.57	0/2325	
1	Х	0.28	0/1701	0.57	0/2325	
1	Y	0.28	0/1701	0.57	0/2325	
1	Ζ	0.28	0/1701	0.57	0/2325	
1	a	0.28	0/1701	0.57	0/2325	
1	b	0.28	0/1701	0.57	0/2325	
1	с	0.28	0/1701	0.57	0/2325	
1	d	0.28	0/1701	0.57	0/2325	
1	е	0.28	0/1701	0.57	0/2325	
1	f	0.28	0/1701	0.57	0/2325	



Mol	Chain	Bond	lengths	Bond angles		
		RMSZ	# Z > 5	RMSZ	# Z > 5	
1	g	0.28	0/1701	0.57	0/2325	
All	All	0.28	0/56133	0.57	0/76725	

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts (i)

Due to software issues we are unable to calculate clashes - this section is therefore empty.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

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	А	228/230~(99%)	220 (96%)	8 (4%)	0	100	100
1	В	228/230~(99%)	220 (96%)	8 (4%)	0	100	100
1	С	228/230~(99%)	220 (96%)	8 (4%)	0	100	100
1	D	228/230~(99%)	220 (96%)	8 (4%)	0	100	100
1	Е	228/230~(99%)	220 (96%)	8 (4%)	0	100	100
1	F	228/230~(99%)	220 (96%)	8 (4%)	0	100	100
1	G	228/230~(99%)	220 (96%)	8 (4%)	0	100	100
1	Н	228/230~(99%)	220 (96%)	8 (4%)	0	100	100
1	Ι	228/230~(99%)	220 (96%)	8 (4%)	0	100	100
1	J	228/230~(99%)	220 (96%)	8 (4%)	0	100	100
1	K	228/230~(99%)	220 (96%)	8 (4%)	0	100	100
1	L	228/230~(99%)	220 (96%)	8 (4%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Perce	ntiles
1	М	228/230~(99%)	220 (96%)	8 (4%)	0	100	100
1	N	228/230~(99%)	220 (96%)	8 (4%)	0	100	100
1	Ο	228/230~(99%)	220 (96%)	8 (4%)	0	100	100
1	Р	228/230~(99%)	220 (96%)	8 (4%)	0	100	100
1	Q	228/230~(99%)	220 (96%)	8 (4%)	0	100	100
1	R	228/230~(99%)	220 (96%)	8 (4%)	0	100	100
1	S	228/230~(99%)	220 (96%)	8 (4%)	0	100	100
1	Т	228/230~(99%)	220 (96%)	8 (4%)	0	100	100
1	U	228/230~(99%)	220 (96%)	8 (4%)	0	100	100
1	V	228/230~(99%)	220 (96%)	8 (4%)	0	100	100
1	W	228/230~(99%)	220 (96%)	8 (4%)	0	100	100
1	Х	228/230~(99%)	220 (96%)	8 (4%)	0	100	100
1	Y	228/230~(99%)	220 (96%)	8 (4%)	0	100	100
1	Z	228/230~(99%)	223 (98%)	5 (2%)	0	100	100
1	a	228/230~(99%)	220 (96%)	8 (4%)	0	100	100
1	b	228/230~(99%)	220 (96%)	8 (4%)	0	100	100
1	с	228/230~(99%)	220 (96%)	8 (4%)	0	100	100
1	d	228/230~(99%)	220 (96%)	8 (4%)	0	100	100
1	е	228/230~(99%)	220 (96%)	8 (4%)	0	100	100
1	f	228/230~(99%)	220 (96%)	8 (4%)	0	100	100
1	g	228/230~(99%)	220 (96%)	8 (4%)	0	100	100
All	All	7524/7590~(99%)	7263 (96%)	261 (4%)	0	100	100

There are no Ramachandran outliers to report.

5.3.2 Protein sidechains (i)

In the following table, the Percentiles column shows the percent side chain outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

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	Perce	ntiles
1	А	193/193~(100%)	191~(99%)	2(1%)	73	84
1	В	193/193~(100%)	191~(99%)	2(1%)	73	84
1	С	193/193~(100%)	191~(99%)	2(1%)	73	84
1	D	193/193~(100%)	191 (99%)	2 (1%)	73	84
1	Е	193/193~(100%)	191 (99%)	2 (1%)	73	84
1	F	193/193~(100%)	191 (99%)	2 (1%)	73	84
1	G	193/193~(100%)	191~(99%)	2(1%)	73	84
1	Н	193/193~(100%)	191 (99%)	2(1%)	73	84
1	Ι	193/193~(100%)	191~(99%)	2(1%)	73	84
1	J	193/193~(100%)	191 (99%)	2(1%)	73	84
1	K	193/193~(100%)	191 (99%)	2 (1%)	73	84
1	L	193/193~(100%)	191 (99%)	2(1%)	73	84
1	М	193/193~(100%)	191 (99%)	2 (1%)	73	84
1	Ν	193/193~(100%)	191 (99%)	2 (1%)	73	84
1	О	193/193~(100%)	191 (99%)	2 (1%)	73	84
1	Р	193/193~(100%)	191 (99%)	2 (1%)	73	84
1	Q	193/193~(100%)	191 (99%)	2 (1%)	73	84
1	R	193/193~(100%)	191 (99%)	2 (1%)	73	84
1	S	193/193~(100%)	191 (99%)	2 (1%)	73	84
1	Т	193/193~(100%)	191 (99%)	2(1%)	73	84
1	U	193/193~(100%)	191 (99%)	2 (1%)	73	84
1	V	193/193~(100%)	191 (99%)	2 (1%)	73	84
1	W	193/193~(100%)	191 (99%)	2 (1%)	73	84
1	Х	193/193~(100%)	191 (99%)	2 (1%)	73	84
1	Y	193/193~(100%)	191 (99%)	2 (1%)	73	84
1	Ζ	193/193~(100%)	193 (100%)	0	100	100
1	a	193/193~(100%)	191 (99%)	2 (1%)	73	84
1	b	193/193~(100%)	191 (99%)	2 (1%)	73	84
1	с	193/193~(100%)	191 (99%)	2 (1%)	73	84
1	d	193/193~(100%)	191 (99%)	2 (1%)	73	84
1	е	193/193~(100%)	191~(99%)	2 (1%)	73	84
1	f	193/193~(100%)	191 (99%)	2(1%)	73	84



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Mol	Chain	Analysed	Rotameric	Outliers	Percentile	es
1	g	193/193~(100%)	191~(99%)	2(1%)	73 84	
All	All	6369/6369~(100%)	6305~(99%)	64 (1%)	71 84	

All (64) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	V	163	THR
1	V	171	LEU
1	А	163	THR
1	А	171	LEU
1	В	163	THR
1	В	171	LEU
1	С	163	THR
1	С	171	LEU
1	D	163	THR
1	D	171	LEU
1	Е	163	THR
1	Е	171	LEU
1	F	163	THR
1	F	171	LEU
1	G	163	THR
1	G	171	LEU
1	Н	163	THR
1	Н	171	LEU
1	Ι	163	THR
1	Ι	171	LEU
1	J	163	THR
1	J	171	LEU
1	K	163	THR
1	K	171	LEU
1	L	163	THR
1	L	171	LEU
1	М	163	THR
1	М	171	LEU
1	N	163	THR
1	N	171	LEU
1	0	163	THR
1	0	171	LEU
1	Р	163	THR
1	Р	171	LEU
1	Q	163	THR
1	Q	171	LEU



Mol	Chain	Res	Type
1	R	163	THR
1	R	171	LEU
1	S	163	THR
1	S	171	LEU
1	Т	163	THR
1	Т	171	LEU
1	U	163	THR
1	U	171	LEU
1	W	163	THR
1	W	171	LEU
1	Х	163	THR
1	Х	171	LEU
1	Y	163	THR
1	Y	171	LEU
1	a	163	THR
1	a	171	LEU
1	b	163	THR
1	b	171	LEU
1	с	163	THR
1	с	171	LEU
1	d	163	THR
1	d	171	LEU
1	е	163	THR
1	е	171	LEU
1	f	163	THR
1	f	171	LEU
1	g	163	THR
1	g	171	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. There are no such sidechains identified.

5.3.3 RNA (i)

There are no RNA molecules in this entry.

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

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



5.5 Carbohydrates (i)

928 monosaccharides are modelled in this entry.

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

Mal	Tuno	Chain	Dog	Link	Bo	ond leng	\mathbf{ths}	В	ond ang	les
WIOI	Type	Ullalli	nes	LIIIK	Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
3	GAL	0	1	3,1	$11,\!11,\!12$	0.67	0	$15,\!15,\!17$	1.17	2 (13%)
3	BGC	0	2	3	$11,\!11,\!12$	0.61	0	$15,\!15,\!17$	1.42	3 (20%)
3	A1H1F	0	3	3	$13,\!14,\!15$	1.14	1 (7%)	18,21,23	1.40	3 (16%)
3	A1H03	0	4	3	13,13,14	0.72	0	17,18,20	0.91	2 (11%)
3	MAN	0	5	3	11,11,12	0.65	0	$15,\!15,\!17$	1.18	2 (13%)
4	GAL	0A	1	4,1	11,11,12	0.69	0	$15,\!15,\!17$	1.32	3 (20%)
4	BGC	0A	2	4	11,11,12	0.66	0	$15,\!15,\!17$	1.06	2 (13%)
4	A1H1F	0A	3	4	13,14,15	1.14	1 (7%)	18,21,23	2.33	5 (27%)
4	MAN	0A	4	4	11,11,12	0.65	0	$15,\!15,\!17$	1.50	3 (20%)
3	GAL	0B	1	3,1	11,11,12	0.62	0	$15,\!15,\!17$	0.98	1 (6%)
3	BGC	0B	2	3	11,11,12	0.62	0	$15,\!15,\!17$	1.49	3 (20%)
3	A1H1F	0B	3	3	13,14,15	1.15	1 (7%)	18,21,23	1.64	3 (16%)
3	A1H03	0B	4	3	13,13,14	0.71	0	17,18,20	1.03	2 (11%)
3	MAN	0B	5	3	11,11,12	0.61	0	$15,\!15,\!17$	1.18	1 (6%)
3	GAL	0C	1	3,1	11,11,12	0.67	0	$15,\!15,\!17$	1.28	3 (20%)
3	BGC	$0\mathrm{C}$	2	3	11,11,12	0.62	0	$15,\!15,\!17$	1.27	2 (13%)
3	A1H1F	$0\mathrm{C}$	3	3	13,14,15	1.20	1 (7%)	18,21,23	1.88	<mark>6 (33%)</mark>
3	A1H03	$0\mathrm{C}$	4	3	13,13,14	0.71	0	17,18,20	0.96	2 (11%)
3	MAN	$0\mathrm{C}$	5	3	11,11,12	0.66	0	$15,\!15,\!17$	1.51	2 (13%)
4	GAL	1	1	4,1	11,11,12	0.68	0	$15,\!15,\!17$	1.46	2 (13%)
4	BGC	1	2	4	11,11,12	0.58	0	$15,\!15,\!17$	1.06	2 (13%)
4	A1H1F	1	3	4	13,14,15	1.07	1 (7%)	18,21,23	1.43	3 (16%)
4	MAN	1	4	4	11,11,12	0.58	0	$15,\!15,\!17$	1.19	1 (6%)
3	GAL	1A	1	3,1	11,11,12	0.66	0	$15,\!15,\!17$	1.17	2 (13%)
3	BGC	1A	2	3	11,11,12	0.60	0	$15,\!15,\!17$	1.44	3 (20%)
3	A1H1F	1A	3	3	13,14,15	1.13	1 (7%)	18,21,23	1.40	3 (16%)



Mal	Turne	Chain	Dec	Tiple	Bo	ond leng	ths	В	ond ang	les
	туре	Chain	nes		Counts	RMSZ	# Z >2	Counts	RMSZ	# Z >2
3	A1H03	1A	4	3	13,13,14	0.72	0	$17,\!18,\!20$	0.91	2 (11%)
3	MAN	1A	5	3	11,11,12	0.64	0	$15,\!15,\!17$	1.19	2 (13%)
4	GAL	1B	1	4,1	11,11,12	0.69	0	$15,\!15,\!17$	1.33	3 (20%)
4	BGC	1B	2	4	$11,\!11,\!12$	0.66	0	$15,\!15,\!17$	1.06	2 (13%)
4	A1H1F	1B	3	4	13,14,15	1.14	1 (7%)	$18,\!21,\!23$	2.34	5 (27%)
4	MAN	1B	4	4	11,11,12	0.64	0	$15,\!15,\!17$	1.50	3 (20%)
3	GAL	1C	1	3,1	11,11,12	0.62	0	$15,\!15,\!17$	0.98	1 (6%)
3	BGC	1C	2	3	11,11,12	0.62	0	$15,\!15,\!17$	1.49	3 (20%)
3	A1H1F	1C	3	3	13,14,15	1.15	1 (7%)	18,21,23	1.65	3 (16%)
3	A1H03	1C	4	3	13,13,14	0.71	0	17,18,20	1.03	2 (11%)
3	MAN	1C	5	3	11,11,12	0.62	0	$15,\!15,\!17$	1.17	1 (6%)
2	GAL	2	1	2,1	11,11,12	0.68	0	$15,\!15,\!17$	1.15	2 (13%)
2	BGC	2	2	2	11,11,12	0.66	0	$15,\!15,\!17$	1.21	3 (20%)
2	A1H1F	2	3	2	13,14,15	1.11	1 (7%)	18,21,23	1.44	3 (16%)
2	MAN	2	4	2	11,11,12	0.63	0	$15,\!15,\!17$	1.40	1 (6%)
2	MAN	2	5	2	11,11,12	0.65	0	$15,\!15,\!17$	1.90	3 (20%)
2	A1H03	2	6	2	13,13,14	0.81	0	17,18,20	1.10	3 (17%)
4	GAL	2A	1	4,1	11,11,12	0.68	0	$15,\!15,\!17$	1.46	2 (13%)
4	BGC	2A	2	4	11,11,12	0.59	0	$15,\!15,\!17$	1.06	2 (13%)
4	A1H1F	2A	3	4	13,14,15	1.07	1 (7%)	18,21,23	1.43	3 (16%)
4	MAN	2A	4	4	11,11,12	0.59	0	$15,\!15,\!17$	1.20	1 (6%)
3	GAL	2B	1	3,1	11,11,12	0.67	0	$15,\!15,\!17$	1.17	2 (13%)
3	BGC	2B	2	3	11,11,12	0.61	0	$15,\!15,\!17$	1.43	3 (20%)
3	A1H1F	2B	3	3	13,14,15	1.14	1 (7%)	18,21,23	1.39	3 (16%)
3	A1H03	2B	4	3	13,13,14	0.72	0	17,18,20	0.91	2 (11%)
3	MAN	2B	5	3	11,11,12	0.65	0	$15,\!15,\!17$	1.19	2 (13%)
4	GAL	2C	1	4,1	11,11,12	0.70	0	$15,\!15,\!17$	1.32	3 (20%)
4	BGC	2C	2	4	11,11,12	0.66	0	$15,\!15,\!17$	1.07	2 (13%)
4	A1H1F	2C	3	4	13,14,15	1.14	1 (7%)	18,21,23	2.33	5 (27%)
4	MAN	2C	4	4	11,11,12	0.65	0	15,15,17	1.49	2 (13%)
2	GAL	3A	1	2,1	11,11,12	0.68	0	15,15,17	1.15	2 (13%)
2	BGC	3A	2	2	11,11,12	0.66	0	15,15,17	1.21	3 (20%)
2	A1H1F	3A	3	2	13,14,15	1.11	1 (7%)	18,21,23	1.44	3 (16%)
2	MAN	3A	4	2	11,11,12	0.63	0	15,15,17	1.41	1 (6%)
2	MAN	3A	5	2	11,11,12	0.65	0	$15,\!15,\!17$	1.91	3 (20%)



Mal	Turne	Chain	Dec	Tiple	Bond lengths		В	ond ang	les	
	Type	Ullalli	nes		Counts	RMSZ	# Z >2	Counts	RMSZ	# Z >2
2	A1H03	3A	6	2	13,13,14	0.81	0	17,18,20	1.10	3 (17%)
4	GAL	3B	1	4,1	11,11,12	0.66	0	$15,\!15,\!17$	1.46	2 (13%)
4	BGC	3B	2	4	11,11,12	0.59	0	$15,\!15,\!17$	1.06	2 (13%)
4	A1H1F	3B	3	4	$13,\!14,\!15$	1.07	1 (7%)	$18,\!21,\!23$	1.42	3 (16%)
4	MAN	3B	4	4	11,11,12	0.59	0	$15,\!15,\!17$	1.20	1 (6%)
3	GAL	3C	1	3,1	11,11,12	0.67	0	$15,\!15,\!17$	1.18	2 (13%)
3	BGC	3C	2	3	11,11,12	0.61	0	$15,\!15,\!17$	1.44	3 (20%)
3	A1H1F	3C	3	3	13,14,15	1.13	1 (7%)	18,21,23	1.39	3 (16%)
3	A1H03	3C	4	3	13,13,14	0.71	0	17,18,20	0.91	2 (11%)
3	MAN	3C	5	3	11,11,12	0.64	0	$15,\!15,\!17$	1.19	2 (13%)
3	GAL	4	1	3,1	11,11,12	0.67	0	$15,\!15,\!17$	1.27	3 (20%)
3	BGC	4	2	3	11,11,12	0.62	0	$15,\!15,\!17$	1.26	2 (13%)
3	A1H1F	4	3	3	13,14,15	1.20	1 (7%)	18,21,23	1.88	<mark>6 (33%)</mark>
3	A1H03	4	4	3	13,13,14	0.72	0	17,18,20	0.95	2 (11%)
3	MAN	4	5	3	11,11,12	0.65	0	$15,\!15,\!17$	1.51	2 (13%)
2	GAL	4B	1	2,1	11,11,12	0.68	0	$15,\!15,\!17$	1.14	2 (13%)
2	BGC	4B	2	2	11,11,12	0.65	0	$15,\!15,\!17$	1.22	3 (20%)
2	A1H1F	4B	3	2	13,14,15	1.11	1 (7%)	18,21,23	1.45	3 (16%)
2	MAN	4B	4	2	11,11,12	0.62	0	$15,\!15,\!17$	1.39	1 (6%)
2	MAN	4B	5	2	11,11,12	0.66	0	$15,\!15,\!17$	1.90	3 (20%)
2	A1H03	4B	6	2	13,13,14	0.81	0	17,18,20	1.11	3 (17%)
4	GAL	4C	1	4,1	11,11,12	0.68	0	$15,\!15,\!17$	1.46	2 (13%)
4	BGC	$4\mathrm{C}$	2	4	11,11,12	0.58	0	$15,\!15,\!17$	1.05	2 (13%)
4	A1H1F	$4\mathrm{C}$	3	4	13,14,15	1.06	1 (7%)	18,21,23	1.43	3 (16%)
4	MAN	$4\mathrm{C}$	4	4	11,11,12	0.59	0	$15,\!15,\!17$	1.19	1 (6%)
3	GAL	5	1	3,1	11,11,12	0.60	0	$15,\!15,\!17$	0.99	1 (6%)
3	BGC	5	2	3	11,11,12	0.63	0	$15,\!15,\!17$	1.49	3 (20%)
3	A1H1F	5	3	3	13,14,15	1.14	1 (7%)	18,21,23	1.64	3 (16%)
3	A1H03	5	4	3	13,13,14	0.72	0	17,18,20	1.03	2 (11%)
3	MAN	5	5	3	11,11,12	0.61	0	15,15,17	1.19	1 (6%)
3	GAL	5A	1	3,1	11,11,12	0.67	0	15,15,17	1.28	3 (20%)
3	BGC	5A	2	3	11,11,12	0.62	0	15,15,17	1.27	2 (13%)
3	A1H1F	5A	3	3	13,14,15	1.20	1 (7%)	18,21,23	1.88	6 (33%)
3	A1H03	5A	4	3	13,13,14	0.72	0	17,18,20	0.95	2 (11%)
3	MAN	5A	5	3	11,11,12	0.66	0	$15,\!15,\!17$	1.52	2 (13%)



Mal	Turne	Chain	Dec	Tiple	Bo	ond leng	ths	В	ond ang	les
	Type	Ullalli	nes		Counts	RMSZ	# Z >2	Counts	RMSZ	# Z >2
2	GAL	$5\mathrm{C}$	1	2,1	11,11,12	0.68	0	$15,\!15,\!17$	1.14	2 (13%)
2	BGC	$5\mathrm{C}$	2	2	11,11,12	0.66	0	$15,\!15,\!17$	1.21	<mark>3 (20%)</mark>
2	A1H1F	$5\mathrm{C}$	3	2	$13,\!14,\!15$	1.11	1 (7%)	$18,\!21,\!23$	1.45	<mark>3 (16%)</mark>
2	MAN	$5\mathrm{C}$	4	2	$11,\!11,\!12$	0.62	0	$15,\!15,\!17$	1.41	1 (6%)
2	MAN	$5\mathrm{C}$	5	2	11,11,12	0.64	0	$15,\!15,\!17$	1.91	<mark>3 (20%)</mark>
2	A1H03	$5\mathrm{C}$	6	2	13,13,14	0.80	0	$17,\!18,\!20$	1.11	<mark>3 (17%)</mark>
4	GAL	6	1	4,1	11,11,12	0.68	0	$15,\!15,\!17$	1.33	3 (20%)
4	BGC	6	2	4	11,11,12	0.66	0	$15,\!15,\!17$	1.07	2 (13%)
4	A1H1F	6	3	4	13,14,15	1.14	1 (7%)	18,21,23	2.34	5 (27%)
4	MAN	6	4	4	11,11,12	0.64	0	$15,\!15,\!17$	1.49	3 (20%)
3	GAL	6A	1	3,1	11,11,12	0.61	0	$15,\!15,\!17$	0.98	1 (6%)
3	BGC	6A	2	3	11,11,12	0.62	0	$15,\!15,\!17$	1.49	3 (20%)
3	A1H1F	6A	3	3	13,14,15	1.15	1 (7%)	18,21,23	1.64	3 (16%)
3	A1H03	6A	4	3	13,13,14	0.70	0	17,18,20	1.03	2 (11%)
3	MAN	6A	5	3	11,11,12	0.62	0	$15,\!15,\!17$	1.18	1 (6%)
3	GAL	6B	1	3,1	11,11,12	0.67	0	$15,\!15,\!17$	1.28	3 (20%)
3	BGC	6B	2	3	11,11,12	0.60	0	$15,\!15,\!17$	1.27	2 (13%)
3	A1H1F	6B	3	3	13,14,15	1.20	1 (7%)	18,21,23	1.88	<mark>6 (33%)</mark>
3	A1H03	6B	4	3	13,13,14	0.72	0	17,18,20	0.95	2 (11%)
3	MAN	6B	5	3	11,11,12	0.65	0	$15,\!15,\!17$	1.52	2 (13%)
3	GAL	7	1	3,1	11,11,12	0.68	0	$15,\!15,\!17$	1.17	2 (13%)
3	BGC	7	2	3	11,11,12	0.60	0	$15,\!15,\!17$	1.44	3 (20%)
3	A1H1F	7	3	3	13,14,15	1.14	1 (7%)	18,21,23	1.40	3 (16%)
3	A1H03	7	4	3	13,13,14	0.73	0	17,18,20	0.91	2 (11%)
3	MAN	7	5	3	11,11,12	0.65	0	$15,\!15,\!17$	1.19	2 (13%)
4	GAL	7A	1	4,1	11,11,12	0.69	0	$15,\!15,\!17$	1.32	3 (20%)
4	BGC	7A	2	4	11,11,12	0.66	0	$15,\!15,\!17$	1.08	2 (13%)
4	A1H1F	7A	3	4	13,14,15	1.14	1 (7%)	18,21,23	2.33	5 (27%)
4	MAN	7A	4	4	11,11,12	0.64	0	$15,\!15,\!17$	1.50	3 (20%)
3	GAL	7B	1	3,1	11,11,12	0.61	0	$15,\!15,\!17$	0.98	1 (6%)
3	BGC	7B	2	3	11,11,12	0.62	0	$15,\!15,\!17$	1.49	3 (20%)
3	A1H1F	7B	3	3	13,14,15	1.15	1 (7%)	18,21,23	1.65	3 (16%)
3	A1H03	7B	4	3	13,13,14	0.70	0	17,18,20	1.03	2 (11%)
3	MAN	7B	5	3	11,11,12	0.61	0	15,15,17	1.17	1 (6%)
3	GAL	7C	1	3,1	11,11,12	0.67	0	$15,\!15,\!17$	1.27	3 (20%)



Mol	Tuno	Chain	Dog	Link	Bond lengths		В	ond ang	les	
	туре	Chain	nes		Counts	RMSZ	# Z >2	Counts	RMSZ	# Z >2
3	BGC	7C	2	3	11,11,12	0.61	0	$15,\!15,\!17$	1.26	2 (13%)
3	A1H1F	7C	3	3	13,14,15	1.20	1 (7%)	18,21,23	1.88	6 (33%)
3	A1H03	$7\mathrm{C}$	4	3	13,13,14	0.72	0	$17,\!18,\!20$	0.96	2 (11%)
3	MAN	$7\mathrm{C}$	5	3	$11,\!11,\!12$	0.65	0	$15,\!15,\!17$	1.52	2 (13%)
4	GAL	8	1	4,1	11,11,12	0.67	0	$15,\!15,\!17$	1.46	2 (13%)
4	BGC	8	2	4	11,11,12	0.59	0	$15,\!15,\!17$	1.06	2 (13%)
4	A1H1F	8	3	4	13,14,15	1.06	1 (7%)	$18,\!21,\!23$	1.43	3 (16%)
4	MAN	8	4	4	11,11,12	0.59	0	$15,\!15,\!17$	1.18	1 (6%)
3	GAL	8A	1	3,1	11,11,12	0.67	0	$15,\!15,\!17$	1.17	2 (13%)
3	BGC	8A	2	3	11,11,12	0.59	0	$15,\!15,\!17$	1.44	3 (20%)
3	A1H1F	8A	3	3	13,14,15	1.13	1 (7%)	18,21,23	1.39	3 (16%)
3	A1H03	8A	4	3	13,13,14	0.71	0	17,18,20	0.92	2 (11%)
3	MAN	8A	5	3	11,11,12	0.66	0	$15,\!15,\!17$	1.19	2 (13%)
4	GAL	8B	1	4,1	11,11,12	0.69	0	$15,\!15,\!17$	1.33	3 (20%)
4	BGC	8B	2	4	11,11,12	0.66	0	$15,\!15,\!17$	1.07	2 (13%)
4	A1H1F	8B	3	4	13,14,15	1.15	1 (7%)	18,21,23	2.34	5 (27%)
4	MAN	8B	4	4	11,11,12	0.64	0	$15,\!15,\!17$	1.50	3 (20%)
3	GAL	8C	1	3,1	11,11,12	0.60	0	$15,\!15,\!17$	0.99	1 (6%)
3	BGC	8C	2	3	11,11,12	0.62	0	$15,\!15,\!17$	1.49	3 (20%)
3	A1H1F	8C	3	3	13,14,15	1.15	1 (7%)	18,21,23	1.64	3 (16%)
3	A1H03	8C	4	3	13,13,14	0.71	0	17,18,20	1.03	2 (11%)
3	MAN	8C	5	3	11,11,12	0.61	0	$15,\!15,\!17$	1.18	1 (6%)
2	GAL	9	1	2,1	11,11,12	0.68	0	$15,\!15,\!17$	1.14	2 (13%)
2	BGC	9	2	2	11,11,12	0.66	0	$15,\!15,\!17$	1.20	3 (20%)
2	A1H1F	9	3	2	13,14,15	1.11	1 (7%)	18,21,23	1.45	3 (16%)
2	MAN	9	4	2	11,11,12	0.63	0	$15,\!15,\!17$	1.41	1 (6%)
2	MAN	9	5	2	11,11,12	0.65	0	$15,\!15,\!17$	1.90	3 (20%)
2	A1H03	9	6	2	13,13,14	0.81	0	17,18,20	1.11	3 (17%)
4	GAL	9A	1	4,1	11,11,12	0.66	0	15,15,17	1.46	2 (13%)
4	BGC	9A	2	4	11,11,12	0.58	0	15,15,17	1.05	2 (13%)
4	A1H1F	9A	3	4	13,14,15	1.07	1 (7%)	18,21,23	1.43	3 (16%)
4	MAN	9A	4	4	11,11,12	0.60	0	15,15,17	1.19	1 (6%)
3	GAL	9B	1	3,1	11,11,12	0.67	0	15,15,17	1.17	2 (13%)
3	BGC	9B	2	3	11,11,12	0.60	0	15,15,17	1.43	3 (20%)
3	A1H1F	9B	3	3	13,14,15	1.14	1 (7%)	18,21,23	1.40	3 (16%)



Mal	Trme	Chain	Dec	Tinle	Bo	ond leng	ths	В	ond ang	les
	туре	Unam	nes		Counts	RMSZ	# Z >2	Counts	RMSZ	# Z >2
3	A1H03	9B	4	3	13,13,14	0.72	0	17,18,20	0.91	2 (11%)
3	MAN	9B	5	3	11,11,12	0.65	0	$15,\!15,\!17$	1.19	2 (13%)
4	GAL	$9\mathrm{C}$	1	4,1	$11,\!11,\!12$	0.69	0	$15,\!15,\!17$	1.32	3 (20%)
4	BGC	9C	2	4	11,11,12	0.65	0	$15,\!15,\!17$	1.07	2 (13%)
4	A1H1F	9C	3	4	13,14,15	1.14	1 (7%)	18,21,23	2.33	5 (27%)
4	MAN	9C	4	4	11,11,12	0.64	0	$15,\!15,\!17$	1.50	2 (13%)
2	GAL	AB	1	2,1	11,11,12	0.67	0	$15,\!15,\!17$	1.14	2 (13%)
2	BGC	AB	2	2	11,11,12	0.65	0	$15,\!15,\!17$	1.21	3 (20%)
2	A1H1F	AB	3	2	13,14,15	1.11	1 (7%)	18,21,23	1.44	3 (16%)
2	MAN	AB	4	2	11,11,12	0.63	0	$15,\!15,\!17$	1.41	1 (6%)
2	MAN	AB	5	2	11,11,12	0.64	0	$15,\!15,\!17$	1.90	3 (20%)
2	A1H03	AB	6	2	13,13,14	0.81	0	17,18,20	1.11	3 (17%)
4	GAL	AC	1	4,1	11,11,12	0.67	0	$15,\!15,\!17$	1.47	2 (13%)
4	BGC	AC	2	4	11,11,12	0.58	0	$15,\!15,\!17$	1.05	2 (13%)
4	A1H1F	AC	3	4	13,14,15	1.07	1 (7%)	18,21,23	1.43	3 (16%)
4	MAN	AC	4	4	11,11,12	0.59	0	15,15,17	1.20	1 (6%)
3	GAL	AD	1	3,1	11,11,12	0.67	0	15,15,17	1.17	2 (13%)
3	BGC	AD	2	3	11,11,12	0.61	0	15,15,17	1.43	3 (20%)
3	A1H1F	AD	3	3	13,14,15	1.14	1 (7%)	18,21,23	1.40	3 (16%)
3	A1H03	AD	4	3	13,13,14	0.71	0	17,18,20	0.92	2 (11%)
3	MAN	AD	5	3	11,11,12	0.65	0	$15,\!15,\!17$	1.19	2 (13%)
3	GAL	BA	1	3,1	11,11,12	0.68	0	$15,\!15,\!17$	1.27	3 (20%)
3	BGC	BA	2	3	11,11,12	0.61	0	15,15,17	1.26	2 (13%)
3	A1H1F	BA	3	3	13,14,15	1.20	1 (7%)	18,21,23	1.88	6 (33%)
3	A1H03	BA	4	3	13,13,14	0.72	0	17,18,20	0.95	2 (11%)
3	MAN	BA	5	3	11,11,12	0.65	0	$15,\!15,\!17$	1.51	2 (13%)
2	GAL	BC	1	2,1	11,11,12	0.68	0	$15,\!15,\!17$	1.15	2 (13%)
2	BGC	BC	2	2	11,11,12	0.66	0	$15,\!15,\!17$	1.21	3 (20%)
2	A1H1F	BC	3	2	13,14,15	1.10	1 (7%)	18,21,23	1.44	3 (16%)
2	MAN	BC	4	2	11,11,12	0.63	0	$15,\!15,\!17$	1.40	1 (6%)
2	MAN	BC	5	2	11,11,12	0.64	0	15,15,17	1.90	3 (20%)
2	A1H03	BC	6	2	13,13,14	0.81	0	17,18,20	1.11	3 (17%)
4	GAL	BD	1	4,1	11,11,12	0.67	0	$15,\!15,\!17$	1.46	2 (13%)
4	BGC	BD	2	4	11,11,12	0.59	0	$15,\!15,\!17$	1.05	2 (13%)
4	A1H1F	BD	3	4	13,14,15	1.07	1 (7%)	18,21,23	1.43	3 (16%)



Mal	Turne	Chain	Dec	Tiple	Bo	ond leng	ths	В	ond ang	les
	туре	Unam	nes		Counts	RMSZ	# Z >2	Counts	RMSZ	# Z >2
4	MAN	BD	4	4	11,11,12	0.60	0	$15,\!15,\!17$	1.18	1 (6%)
3	GAL	CA	1	3,1	11,11,12	0.62	0	$15,\!15,\!17$	0.98	1 (6%)
3	BGC	CA	2	3	11,11,12	0.62	0	$15,\!15,\!17$	1.49	3 (20%)
3	A1H1F	CA	3	3	$13,\!14,\!15$	1.15	1 (7%)	$18,\!21,\!23$	1.64	3 (16%)
3	A1H03	CA	4	3	13,13,14	0.70	0	17,18,20	1.03	2 (11%)
3	MAN	CA	5	3	11,11,12	0.61	0	$15,\!15,\!17$	1.18	<mark>1 (6%)</mark>
3	GAL	CB	1	3,1	11,11,12	0.67	0	$15,\!15,\!17$	1.28	3 (20%)
3	BGC	CB	2	3	11,11,12	0.62	0	$15,\!15,\!17$	1.26	2 (13%)
3	A1H1F	CB	3	3	13,14,15	1.21	1 (7%)	18,21,23	1.88	<mark>6 (33%)</mark>
3	A1H03	CB	4	3	13,13,14	0.72	0	17,18,20	0.95	2 (11%)
3	MAN	CB	5	3	11,11,12	0.65	0	$15,\!15,\!17$	1.52	2 (13%)
2	GAL	CD	1	2,1	11,11,12	0.67	0	$15,\!15,\!17$	1.15	2 (13%)
2	BGC	CD	2	2	11,11,12	0.66	0	$15,\!15,\!17$	1.21	3 (20%)
2	A1H1F	CD	3	2	13,14,15	1.12	1 (7%)	18,21,23	1.45	3 (16%)
2	MAN	CD	4	2	11,11,12	0.63	0	$15,\!15,\!17$	1.40	1 (6%)
2	MAN	CD	5	2	11,11,12	0.65	0	$15,\!15,\!17$	1.90	3 (20%)
2	A1H03	CD	6	2	13,13,14	0.81	0	17,18,20	1.11	3 (17%)
4	GAL	DA	1	4,1	11,11,12	0.68	0	$15,\!15,\!17$	1.33	3 (20%)
4	BGC	DA	2	4	11,11,12	0.66	0	$15,\!15,\!17$	1.07	2 (13%)
4	A1H1F	DA	3	4	13,14,15	1.14	1 (7%)	18,21,23	2.34	5 (27%)
4	MAN	DA	4	4	11,11,12	0.64	0	$15,\!15,\!17$	1.50	2 (13%)
3	GAL	DB	1	3,1	11,11,12	0.61	0	$15,\!15,\!17$	0.97	1 (6%)
3	BGC	DB	2	3	11,11,12	0.64	0	$15,\!15,\!17$	1.48	3 (20%)
3	A1H1F	DB	3	3	13,14,15	1.15	1 (7%)	18,21,23	1.65	3 (16%)
3	A1H03	DB	4	3	13,13,14	0.69	0	17,18,20	1.03	2 (11%)
3	MAN	DB	5	3	11,11,12	0.62	0	$15,\!15,\!17$	1.18	1 (6%)
3	GAL	DC	1	3,1	11,11,12	0.67	0	15,15,17	1.27	3 (20%)
3	BGC	DC	2	3	11,11,12	0.62	0	$15,\!15,\!17$	1.27	2 (13%)
3	A1H1F	DC	3	3	13,14,15	1.20	1 (7%)	18,21,23	1.89	<mark>6 (33%)</mark>
3	A1H03	DC	4	3	13,13,14	0.72	0	17,18,20	0.95	2 (11%)
3	MAN	DC	5	3	11,11,12	0.65	0	$15,\!15,\!17$	1.52	2 (13%)
3	GAL	EA	1	3,1	11,11,12	0.66	0	15,15,17	1.17	2 (13%)
3	BGC	EA	2	3	11,11,12	0.60	0	$15,\!15,\!17$	1.43	3 (20%)
3	A1H1F	EA	3	3	13,14,15	1.14	1 (7%)	18,21,23	1.40	3 (16%)
3	A1H03	EA	4	3	13,13,14	0.71	0	17,18,20	0.91	2 (11%)



Mal	Trme	Chain	Dec	Tinle	Bo	ond leng	ths	В	ond ang	les
	туре	Unam	nes		Counts	RMSZ	# Z >2	Counts	RMSZ	# Z >2
3	MAN	EA	5	3	11,11,12	0.65	0	$15,\!15,\!17$	1.19	2 (13%)
4	GAL	EB	1	4,1	11,11,12	0.69	0	$15,\!15,\!17$	1.32	3 (20%)
4	BGC	EB	2	4	$11,\!11,\!12$	0.65	0	$15,\!15,\!17$	1.07	2 (13%)
4	A1H1F	EB	3	4	$13,\!14,\!15$	1.14	1 (7%)	18,21,23	2.34	5 (27%)
4	MAN	EB	4	4	11,11,12	0.63	0	$15,\!15,\!17$	1.50	2 (13%)
3	GAL	EC	1	3,1	11,11,12	0.62	0	$15,\!15,\!17$	0.97	1 (6%)
3	BGC	EC	2	3	11,11,12	0.63	0	$15,\!15,\!17$	1.49	3 (20%)
3	A1H1F	EC	3	3	13,14,15	1.15	1 (7%)	18,21,23	1.64	3 (16%)
3	A1H03	EC	4	3	13,13,14	0.70	0	17,18,20	1.03	2 (11%)
3	MAN	EC	5	3	11,11,12	0.61	0	$15,\!15,\!17$	1.18	1 (6%)
3	GAL	ED	1	3,1	11,11,12	0.67	0	15,15,17	1.28	3 (20%)
3	BGC	ED	2	3	11,11,12	0.60	0	15,15,17	1.27	2 (13%)
3	A1H1F	ED	3	3	13,14,15	1.20	1 (7%)	18,21,23	1.88	<mark>6 (33%)</mark>
3	A1H03	ED	4	3	13,13,14	0.72	0	17,18,20	0.96	2 (11%)
3	MAN	ED	5	3	11,11,12	0.65	0	$15,\!15,\!17$	1.51	2 (13%)
4	GAL	FA	1	4,1	11,11,12	0.66	0	$15,\!15,\!17$	1.47	2 (13%)
4	BGC	FA	2	4	11,11,12	0.59	0	$15,\!15,\!17$	1.06	2 (13%)
4	A1H1F	FA	3	4	13,14,15	1.07	1 (7%)	18,21,23	1.43	3 (16%)
4	MAN	FA	4	4	11,11,12	0.59	0	$15,\!15,\!17$	1.20	1 (6%)
3	GAL	FB	1	3,1	11,11,12	0.67	0	$15,\!15,\!17$	1.17	2 (13%)
3	BGC	FB	2	3	11,11,12	0.61	0	$15,\!15,\!17$	1.43	3 (20%)
3	A1H1F	FB	3	3	13,14,15	1.13	1 (7%)	18,21,23	1.40	<mark>3 (16%)</mark>
3	A1H03	FB	4	3	13,13,14	0.71	0	17,18,20	0.91	2 (11%)
3	MAN	FB	5	3	11,11,12	0.65	0	$15,\!15,\!17$	1.19	2 (13%)
4	GAL	FC	1	4,1	11,11,12	0.68	0	$15,\!15,\!17$	1.32	3 (20%)
4	BGC	FC	2	4	11,11,12	0.65	0	$15,\!15,\!17$	1.06	2 (13%)
4	A1H1F	FC	3	4	13,14,15	1.14	1 (7%)	18,21,23	2.33	5 (27%)
4	MAN	FC	4	4	11,11,12	0.64	0	15,15,17	1.50	3 (20%)
3	GAL	FD	1	3,1	11,11,12	0.62	0	$15,\!15,\!17$	0.98	1 (6%)
3	BGC	FD	2	3	11,11,12	0.63	0	15,15,17	1.49	3 (20%)
3	A1H1F	FD	3	3	13,14,15	1.14	1 (7%)	18,21,23	1.64	3 (16%)
3	A1H03	FD	4	3	13,13,14	0.71	0	17,18,20	1.03	2 (11%)
3	MAN	FD	5	3	11,11,12	0.61	0	15,15,17	1.19	1 (6%)
2	GAL	GA	1	2,1	11,11,12	0.68	0	15,15,17	1.14	2 (13%)
2	BGC	GA	2	2	11,11,12	0.66	0	15,15,17	1.20	3 (20%)



Mol	Tuno	Chain	Dog	Link	Bo	ond leng	ths	В	ond ang	les
	Type	Ullalli	nes		Counts	RMSZ	# Z >2	Counts	RMSZ	# Z >2
2	A1H1F	GA	3	2	13,14,15	1.11	1 (7%)	18,21,23	1.45	3 (16%)
2	MAN	GA	4	2	11,11,12	0.63	0	$15,\!15,\!17$	1.41	1 (6%)
2	MAN	GA	5	2	11,11,12	0.65	0	$15,\!15,\!17$	1.91	3 (20%)
2	A1H03	GA	6	2	$13,\!13,\!14$	0.81	0	$17,\!18,\!20$	1.11	3 (17%)
4	GAL	GB	1	4,1	11,11,12	0.67	0	$15,\!15,\!17$	1.46	2 (13%)
4	BGC	GB	2	4	11,11,12	0.58	0	$15,\!15,\!17$	1.06	2 (13%)
4	A1H1F	GB	3	4	13,14,15	1.07	1 (7%)	18,21,23	1.43	3 (16%)
4	MAN	GB	4	4	11,11,12	0.59	0	$15,\!15,\!17$	1.20	1 (6%)
3	GAL	GC	1	3,1	11,11,12	0.67	0	$15,\!15,\!17$	1.18	2 (13%)
3	BGC	GC	2	3	11,11,12	0.60	0	$15,\!15,\!17$	1.44	3 (20%)
3	A1H1F	GC	3	3	13,14,15	1.14	1 (7%)	18,21,23	1.40	3 (16%)
3	A1H03	GC	4	3	13,13,14	0.72	0	17,18,20	0.91	2 (11%)
3	MAN	GC	5	3	11,11,12	0.65	0	$15,\!15,\!17$	1.19	2 (13%)
4	GAL	GD	1	4,1	11,11,12	0.68	0	$15,\!15,\!17$	1.32	3 (20%)
4	BGC	GD	2	4	11,11,12	0.65	0	$15,\!15,\!17$	1.07	2 (13%)
4	A1H1F	GD	3	4	13,14,15	1.14	1 (7%)	18,21,23	2.33	5 (27%)
4	MAN	GD	4	4	11,11,12	0.64	0	$15,\!15,\!17$	1.50	2 (13%)
2	GAL	HB	1	2,1	11,11,12	0.68	0	$15,\!15,\!17$	1.14	2 (13%)
2	BGC	HB	2	2	11,11,12	0.65	0	$15,\!15,\!17$	1.21	3 (20%)
2	A1H1F	HB	3	2	13,14,15	1.11	1 (7%)	18,21,23	1.45	3 (16%)
2	MAN	HB	4	2	11,11,12	0.63	0	$15,\!15,\!17$	1.40	1 (6%)
2	MAN	HB	5	2	11,11,12	0.65	0	$15,\!15,\!17$	1.91	3 (20%)
2	A1H03	HB	6	2	13,13,14	0.81	0	17,18,20	1.11	3 (17%)
4	GAL	HC	1	4,1	11,11,12	0.67	0	$15,\!15,\!17$	1.47	2 (13%)
4	BGC	HC	2	4	11,11,12	0.58	0	$15,\!15,\!17$	1.05	2 (13%)
4	A1H1F	НС	3	4	13,14,15	1.07	1 (7%)	18,21,23	1.42	3 (16%)
4	MAN	HC	4	4	11,11,12	0.59	0	15,15,17	1.19	1 (6%)
3	GAL	HD	1	3,1	11,11,12	0.67	0	15,15,17	1.18	2 (13%)
3	BGC	HD	2	3	11,11,12	0.60	0	15,15,17	1.43	3 (20%)
3	A1H1F	HD	3	3	13,14,15	1.14	1 (7%)	18,21,23	1.40	3 (16%)
3	A1H03	HD	4	3	13,13,14	0.72	0	17,18,20	0.91	2 (11%)
3	MAN	HD	5	3	11,11,12	0.65	0	15,15,17	1.20	2 (13%)
3	GAL	IA	1	3,1	11,11,12	0.67	0	15,15,17	1.28	3 (20%)
3	BGC	IA	2	3	11,11,12	0.61	0	15,15,17	1.27	2 (13%)
3	A1H1F	IA	3	3	13,14,15	1.21	1 (7%)	18,21,23	1.87	6 (33%)



Mal	Turne	Chain	Dec	Tink	Bo	ond leng	ths	B	ond ang	les
WIOI	Туре	Chain	nes	LIIIK	Counts	RMSZ	# Z >2	Counts	RMSZ	# Z > 2
3	A1H03	IA	4	3	13,13,14	0.72	0	17,18,20	0.96	2 (11%)
3	MAN	IA	5	3	11,11,12	0.66	0	$15,\!15,\!17$	1.51	2 (13%)
2	GAL	IC	1	2,1	$11,\!11,\!12$	0.68	0	$15,\!15,\!17$	1.14	2 (13%)
2	BGC	IC	2	2	11,11,12	0.65	0	$15,\!15,\!17$	1.21	3 (20%)
2	A1H1F	IC	3	2	13,14,15	1.11	1 (7%)	18,21,23	1.44	3 (16%)
2	MAN	IC	4	2	11,11,12	0.63	0	$15,\!15,\!17$	1.41	1 (6%)
2	MAN	IC	5	2	11,11,12	0.64	0	15,15,17	1.91	3 (20%)
2	A1H03	IC	6	2	13,13,14	0.80	0	17,18,20	1.11	3 (17%)
4	GAL	ID	1	4,1	11,11,12	0.67	0	15,15,17	1.46	2 (13%)
4	BGC	ID	2	4	11,11,12	0.58	0	15,15,17	1.06	2 (13%)
4	A1H1F	ID	3	4	13,14,15	1.07	1 (7%)	18,21,23	1.43	3 (16%)
4	MAN	ID	4	4	11,11,12	0.60	0	15,15,17	1.19	1 (6%)
3	GAL	JA	1	3,1	11,11,12	0.61	0	15,15,17	0.98	1 (6%)
3	BGC	JA	2	3	11,11,12	0.63	0	15,15,17	1.49	3 (20%)
3	A1H1F	JA	3	3	13,14,15	1.14	1 (7%)	18,21,23	1.65	3 (16%)
3	A1H03	JA	4	3	13,13,14	0.71	0	17,18,20	1.03	2 (11%)
3	MAN	JA	5	3	11,11,12	0.62	0	$15,\!15,\!17$	1.17	1 (6%)
3	GAL	JB	1	3,1	11,11,12	0.67	0	15,15,17	1.27	3 (20%)
3	BGC	JB	2	3	11,11,12	0.61	0	15,15,17	1.27	2 (13%)
3	A1H1F	JB	3	3	13,14,15	1.20	1 (7%)	18,21,23	1.88	<mark>6 (33%)</mark>
3	A1H03	JB	4	3	13,13,14	0.74	0	17,18,20	0.95	2 (11%)
3	MAN	JB	5	3	11,11,12	0.65	0	$15,\!15,\!17$	1.51	2 (13%)
4	GAL	KA	1	4,1	11,11,12	0.69	0	15,15,17	1.31	3 (20%)
4	BGC	KA	2	4	11,11,12	0.65	0	$15,\!15,\!17$	1.07	2 (13%)
4	A1H1F	KA	3	4	13,14,15	1.15	1 (7%)	18,21,23	2.33	5 (27%)
4	MAN	KA	4	4	11,11,12	0.65	0	15,15,17	1.49	3 (20%)
3	GAL	KB	1	3,1	11,11,12	0.60	0	15,15,17	0.98	1 (6%)
3	BGC	KB	2	3	11,11,12	0.63	0	15,15,17	1.49	3 (20%)
3	A1H1F	KB	3	3	13,14,15	1.15	1 (7%)	18,21,23	1.64	3 (16%)
3	A1H03	KB	4	3	13,13,14	0.70	0	17,18,20	1.03	2 (11%)
3	MAN	KB	5	3	11,11,12	0.61	0	15,15,17	1.18	1 (6%)
3	GAL	KC	1	3,1	11,11,12	0.67	0	15,15,17	1.28	3 (20%)
3	BGC	KC	2	3	11,11,12	0.62	0	15,15,17	1.26	2 (13%)
3	A1H1F	KC	3	3	13,14,15	1.20	1 (7%)	18,21,23	1.88	6 (33%)
3	A1H03	KC	4	3	13,13,14	0.72	0	17,18,20	0.95	2 (11%)



Mal	Turne	Chain	Dec	Tiple	$\mathbf{mk} \mid \frac{\mathbf{Bond \ leng}}{\mathbf{Counts}} \mid \mathbf{RMSZ} \mid$		ths	> 2 Counts RMSZ $# Z $		les
	туре	Chain	nes		Counts	RMSZ	# Z >2	Counts	RMSZ	# Z >2
3	MAN	KC	5	3	11,11,12	0.65	0	$15,\!15,\!17$	1.52	2 (13%)
3	GAL	LA	1	3,1	11,11,12	0.67	0	$15,\!15,\!17$	1.17	2 (13%)
3	BGC	LA	2	3	11,11,12	0.60	0	$15,\!15,\!17$	1.43	3 (20%)
3	A1H1F	LA	3	3	$13,\!14,\!15$	1.13	1 (7%)	$18,\!21,\!23$	1.40	3 (16%)
3	A1H03	LA	4	3	13,13,14	0.72	0	$17,\!18,\!20$	0.91	2 (11%)
3	MAN	LA	5	3	11,11,12	0.65	0	$15,\!15,\!17$	1.19	2 (13%)
4	GAL	LB	1	4,1	11,11,12	0.69	0	$15,\!15,\!17$	1.33	3 (20%)
4	BGC	LB	2	4	11,11,12	0.67	0	$15,\!15,\!17$	1.07	2 (13%)
4	A1H1F	LB	3	4	13,14,15	1.14	1 (7%)	18,21,23	2.33	5 (27%)
4	MAN	LB	4	4	11,11,12	0.64	0	$15,\!15,\!17$	1.51	2 (13%)
3	GAL	LC	1	3,1	11,11,12	0.61	0	$15,\!15,\!17$	0.98	1 (6%)
3	BGC	LC	2	3	11,11,12	0.62	0	$15,\!15,\!17$	1.48	3 (20%)
3	A1H1F	LC	3	3	13,14,15	1.14	1 (7%)	18,21,23	1.65	3 (16%)
3	A1H03	LC	4	3	13,13,14	0.71	0	17,18,20	1.03	2 (11%)
3	MAN	LC	5	3	11,11,12	0.61	0	$15,\!15,\!17$	1.18	1 (6%)
4	GAL	MA	1	4,1	11,11,12	0.66	0	$15,\!15,\!17$	1.46	2 (13%)
4	BGC	MA	2	4	11,11,12	0.58	0	$15,\!15,\!17$	1.05	2 (13%)
4	A1H1F	MA	3	4	13,14,15	1.07	1 (7%)	18,21,23	1.43	3 (16%)
4	MAN	MA	4	4	11,11,12	0.58	0	$15,\!15,\!17$	1.19	1 (6%)
3	GAL	MB	1	3,1	11,11,12	0.67	0	$15,\!15,\!17$	1.17	2 (13%)
3	BGC	MB	2	3	11,11,12	0.61	0	$15,\!15,\!17$	1.43	3 (20%)
3	A1H1F	MB	3	3	13,14,15	1.13	1 (7%)	18,21,23	1.39	3 (16%)
3	A1H03	MB	4	3	13,13,14	0.72	0	17,18,20	0.91	2 (11%)
3	MAN	MB	5	3	11,11,12	0.64	0	$15,\!15,\!17$	1.20	2 (13%)
4	GAL	MC	1	4,1	11,11,12	0.69	0	$15,\!15,\!17$	1.31	3 (20%)
4	BGC	MC	2	4	11,11,12	0.65	0	$15,\!15,\!17$	1.07	2 (13%)
4	A1H1F	MC	3	4	13,14,15	1.15	1 (7%)	18,21,23	2.33	5 (27%)
4	MAN	MC	4	4	11,11,12	0.64	0	$15,\!15,\!17$	1.50	3 (20%)
2	GAL	NA	1	2,1	11,11,12	0.68	0	15,15,17	1.14	2 (13%)
2	BGC	NA	2	2	11,11,12	0.66	0	$15,\!15,\!17$	1.20	3 (20%)
2	A1H1F	NA	3	2	13,14,15	1.11	1 (7%)	18,21,23	1.45	3 (16%)
2	MAN	NA	4	2	11,11,12	0.62	0	15,15,17	1.41	1 (6%)
2	MAN	NA	5	2	11,11,12	0.65	0	$15,\!15,\!17$	1.90	3 (20%)
2	A1H03	NA	6	2	13,13,14	0.80	0	17,18,20	1.11	3 (17%)
4	GAL	NB	1	4,1	11,11,12	0.68	0	15,15,17	1.46	2 (13%)



Mal	Turne	Chain	Dec	Tink	Bo	ond leng	ths	B	ond ang	les
	туре	Chain	nes		Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
4	BGC	NB	2	4	$11,\!11,\!12$	0.58	0	$15,\!15,\!17$	1.05	2 (13%)
4	A1H1F	NB	3	4	$13,\!14,\!15$	1.06	1 (7%)	18,21,23	1.43	3 (16%)
4	MAN	NB	4	4	11,11,12	0.59	0	$15,\!15,\!17$	1.18	1 (6%)
3	GAL	NC	1	3,1	11,11,12	0.67	0	$15,\!15,\!17$	1.17	2 (13%)
3	BGC	NC	2	3	11,11,12	0.60	0	$15,\!15,\!17$	1.44	3 (20%)
3	A1H1F	NC	3	3	13,14,15	1.14	1 (7%)	18,21,23	1.40	3 (16%)
3	A1H03	NC	4	3	13,13,14	0.72	0	17,18,20	0.91	2 (11%)
3	MAN	NC	5	3	11,11,12	0.64	0	$15,\!15,\!17$	1.19	2 (13%)
2	GAL	OB	1	2,1	11,11,12	0.68	0	$15,\!15,\!17$	1.14	2 (13%)
2	BGC	OB	2	2	11,11,12	0.66	0	15,15,17	1.21	3 (20%)
2	A1H1F	OB	3	2	13,14,15	1.11	1 (7%)	18,21,23	1.45	3 (16%)
2	MAN	OB	4	2	11,11,12	0.63	0	15,15,17	1.40	1 (6%)
2	MAN	OB	5	2	11,11,12	0.64	0	15,15,17	1.91	3 (20%)
2	A1H03	OB	6	2	13,13,14	0.80	0	17,18,20	1.11	3 (17%)
4	GAL	OC	1	4,1	11,11,12	0.67	0	$15,\!15,\!17$	1.46	2 (13%)
4	BGC	OC	2	4	11,11,12	0.58	0	$15,\!15,\!17$	1.06	2 (13%)
4	A1H1F	OC	3	4	13,14,15	1.07	1 (7%)	18,21,23	1.42	3 (16%)
4	MAN	OC	4	4	11,11,12	0.59	0	15,15,17	1.19	1 (6%)
3	GAL	PA	1	3,1	11,11,12	0.67	0	$15,\!15,\!17$	1.28	3 (20%)
3	BGC	PA	2	3	11,11,12	0.62	0	$15,\!15,\!17$	1.27	2 (13%)
3	A1H1F	PA	3	3	13,14,15	1.20	1 (7%)	18,21,23	1.88	<mark>6 (33%)</mark>
3	A1H03	PA	4	3	13,13,14	0.72	0	17,18,20	0.95	2 (11%)
3	MAN	PA	5	3	11,11,12	0.65	0	$15,\!15,\!17$	1.52	2 (13%)
2	GAL	PC	1	2,1	11,11,12	0.68	0	15,15,17	1.14	2 (13%)
2	BGC	PC	2	2	11,11,12	0.67	0	$15,\!15,\!17$	1.20	3 (20%)
2	A1H1F	PC	3	2	13,14,15	1.11	1 (7%)	18,21,23	1.45	3 (16%)
2	MAN	PC	4	2	11,11,12	0.63	0	$15,\!15,\!17$	1.40	1 (6%)
2	MAN	PC	5	2	11,11,12	0.65	0	15,15,17	1.90	3 (20%)
2	A1H03	PC	6	2	13,13,14	0.80	0	17,18,20	1.11	3 (17%)
3	GAL	QA	1	3,1	11,11,12	0.61	0	$15,\!15,\!17$	0.99	1 (6%)
3	BGC	QA	2	3	11,11,12	0.63	0	$15,\!15,\!17$	1.48	3 (20%)
3	A1H1F	QA	3	3	13,14,15	1.15	1 (7%)	18,21,23	1.65	3 (16%)
3	A1H03	QA	4	3	13,13,14	0.71	0	17,18,20	1.03	2 (11%)
3	MAN	QA	5	3	11,11,12	0.61	0	$15,\!15,\!17$	1.18	1 (6%)
3	GAL	QB	1	3,1	11,11,12	0.67	0	$15,\!15,\!17$	1.28	3 (20%)



Mal	Turne	Chain	Dec	Tiple	Bo	ond leng	ths	B	ond ang	les
	туре	Chain	nes		Counts	RMSZ	# Z >2	Counts	RMSZ	# Z > 2
3	BGC	QB	2	3	11,11,12	0.61	0	15,15,17	1.27	2 (13%)
3	A1H1F	QB	3	3	13,14,15	1.21	1 (7%)	18,21,23	1.88	<mark>6 (33%)</mark>
3	A1H03	QB	4	3	13,13,14	0.73	0	17,18,20	0.95	2 (11%)
3	MAN	QB	5	3	$11,\!11,\!12$	0.64	0	$15,\!15,\!17$	1.52	2 (13%)
4	GAL	RA	1	4,1	$11,\!11,\!12$	0.69	0	$15,\!15,\!17$	1.32	3 (20%)
4	BGC	RA	2	4	11,11,12	0.65	0	$15,\!15,\!17$	1.07	2 (13%)
4	A1H1F	RA	3	4	13,14,15	1.14	1 (7%)	18,21,23	2.33	5 (27%)
4	MAN	RA	4	4	11,11,12	0.65	0	$15,\!15,\!17$	1.50	3 (20%)
3	GAL	RB	1	3,1	11,11,12	0.61	0	$15,\!15,\!17$	0.98	1 (6%)
3	BGC	RB	2	3	11,11,12	0.63	0	$15,\!15,\!17$	1.48	3 (20%)
3	A1H1F	RB	3	3	13,14,15	1.15	1 (7%)	18,21,23	1.65	3 (16%)
3	A1H03	RB	4	3	13,13,14	0.70	0	17,18,20	1.04	2 (11%)
3	MAN	RB	5	3	11,11,12	0.62	0	$15,\!15,\!17$	1.17	1 (6%)
3	GAL	RC	1	3,1	11,11,12	0.66	0	15,15,17	1.28	3 (20%)
3	BGC	RC	2	3	11,11,12	0.62	0	$15,\!15,\!17$	1.26	2 (13%)
3	A1H1F	RC	3	3	13,14,15	1.21	1 (7%)	18,21,23	1.89	6 (33%)
3	A1H03	RC	4	3	13,13,14	0.72	0	17,18,20	0.95	2 (11%)
3	MAN	RC	5	3	11,11,12	0.65	0	$15,\!15,\!17$	1.51	2 (13%)
3	GAL	SA	1	3,1	11,11,12	0.67	0	$15,\!15,\!17$	1.18	2 (13%)
3	BGC	SA	2	3	11,11,12	0.61	0	$15,\!15,\!17$	1.44	3 (20%)
3	A1H1F	SA	3	3	13,14,15	1.14	1 (7%)	18,21,23	1.40	3 (16%)
3	A1H03	SA	4	3	13,13,14	0.73	0	17,18,20	0.91	2 (11%)
3	MAN	SA	5	3	11,11,12	0.65	0	15,15,17	1.19	2 (13%)
4	GAL	SB	1	4,1	11,11,12	0.68	0	$15,\!15,\!17$	1.33	3 (20%)
4	BGC	SB	2	4	11,11,12	0.66	0	$15,\!15,\!17$	1.06	2 (13%)
4	A1H1F	SB	3	4	13,14,15	1.14	1 (7%)	18,21,23	2.33	5 (27%)
4	MAN	SB	4	4	11,11,12	0.64	0	15,15,17	1.50	2 (13%)
3	GAL	SC	1	3,1	11,11,12	0.62	0	15,15,17	0.97	1 (6%)
3	BGC	SC	2	3	11,11,12	0.62	0	15,15,17	1.48	3 (20%)
3	A1H1F	SC	3	3	13,14,15	1.14	1 (7%)	18,21,23	1.64	3 (16%)
3	A1H03	SC	4	3	13,13,14	0.71	0	17,18,20	1.03	2 (11%)
3	MAN	SC	5	3	11,11,12	0.61	0	15,15,17	1.19	1 (6%)
4	GAL	TA	1	4,1	11,11,12	0.67	0	15,15,17	1.47	2 (13%)
4	BGC	TA	2	4	11,11,12	0.59	0	15,15,17	1.06	2 (13%)
4	A1H1F	TA	3	4	13,14,15	1.07	1 (7%)	18,21,23	1.43	3 (16%)



Mal	Turne	Chain	Dec	Tiple	Bo	ond leng	ths	В	ond ang	les
	туре	Chain	nes		Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z >2
4	MAN	TA	4	4	11,11,12	0.59	0	$15,\!15,\!17$	1.19	1 (6%)
3	GAL	TB	1	3,1	11,11,12	0.67	0	$15,\!15,\!17$	1.18	2 (13%)
3	BGC	ΤB	2	3	11,11,12	0.61	0	$15,\!15,\!17$	1.43	3 (20%)
3	A1H1F	ΤB	3	3	$13,\!14,\!15$	1.14	1 (7%)	$18,\!21,\!23$	1.40	3 (16%)
3	A1H03	ΤB	4	3	13,13,14	0.71	0	17,18,20	0.92	2 (11%)
3	MAN	ΤВ	5	3	11,11,12	0.65	0	$15,\!15,\!17$	1.19	2 (13%)
4	GAL	TC	1	4,1	11,11,12	0.69	0	$15,\!15,\!17$	1.31	3 (20%)
4	BGC	TC	2	4	11,11,12	0.66	0	$15,\!15,\!17$	1.07	2 (13%)
4	A1H1F	TC	3	4	13,14,15	1.14	1 (7%)	18,21,23	2.34	5 (27%)
4	MAN	TC	4	4	11,11,12	0.65	0	$15,\!15,\!17$	1.50	3 (20%)
2	GAL	UA	1	2,1	11,11,12	0.68	0	$15,\!15,\!17$	1.14	2 (13%)
2	BGC	UA	2	2	11,11,12	0.65	0	$15,\!15,\!17$	1.22	3 (20%)
2	A1H1F	UA	3	2	13,14,15	1.11	1 (7%)	18,21,23	1.45	3 (16%)
2	MAN	UA	4	2	11,11,12	0.62	0	$15,\!15,\!17$	1.40	1 (6%)
2	MAN	UA	5	2	11,11,12	0.65	0	$15,\!15,\!17$	1.90	3 (20%)
2	A1H03	UA	6	2	13,13,14	0.81	0	17,18,20	1.11	3 (17%)
4	GAL	UB	1	4,1	11,11,12	0.68	0	$15,\!15,\!17$	1.45	2 (13%)
4	BGC	UB	2	4	11,11,12	0.58	0	15,15,17	1.06	2 (13%)
4	A1H1F	UB	3	4	13,14,15	1.07	1 (7%)	18,21,23	1.43	3 (16%)
4	MAN	UB	4	4	11,11,12	0.60	0	15,15,17	1.18	1 (6%)
3	GAL	UC	1	3,1	11,11,12	0.67	0	$15,\!15,\!17$	1.18	2 (13%)
3	BGC	UC	2	3	11,11,12	0.59	0	$15,\!15,\!17$	1.44	3 (20%)
3	A1H1F	UC	3	3	13,14,15	1.14	1 (7%)	18,21,23	1.40	3 (16%)
3	A1H03	UC	4	3	13,13,14	0.72	0	17,18,20	0.91	2 (11%)
3	MAN	UC	5	3	11,11,12	0.65	0	$15,\!15,\!17$	1.19	2 (13%)
2	GAL	VB	1	2,1	11,11,12	0.68	0	15,15,17	1.14	2 (13%)
2	BGC	VB	2	2	11,11,12	0.65	0	15,15,17	1.22	3 (20%)
2	A1H1F	VB	3	2	13,14,15	1.11	1 (7%)	18,21,23	1.45	3 (16%)
2	MAN	VB	4	2	11,11,12	0.63	0	15,15,17	1.40	1 (6%)
2	MAN	VB	5	2	11,11,12	0.64	0	15,15,17	1.90	3 (20%)
2	A1H03	VB	6	2	13,13,14	0.80	0	17,18,20	1.11	3 (17%)
4	GAL	VC	1	4,1	11,11,12	0.67	0	15,15,17	1.46	2 (13%)
4	BGC	VC	2	4	11,11,12	0.58	0	15,15,17	1.06	2 (13%)
4	A1H1F	VC	3	4	13,14,15	1.06	1 (7%)	18,21,23	1.43	3 (16%)
4	MAN	VC	4	4	11,11,12	0.58	0	15,15,17	1.20	1 (6%)



Mal	Trime	Chain	Dec	Tinle	Bo	ond leng	ths	В	ond ang	les
	Type	Chain	nes		Counts	RMSZ	# Z >2	Counts	RMSZ	# Z >2
3	GAL	WA	1	3,1	11,11,12	0.67	0	$15,\!15,\!17$	1.28	3 (20%)
3	BGC	WA	2	3	11,11,12	0.61	0	$15,\!15,\!17$	1.27	2 (13%)
3	A1H1F	WA	3	3	$13,\!14,\!15$	1.20	1 (7%)	$18,\!21,\!23$	1.88	6 (33%)
3	A1H03	WA	4	3	13,13,14	0.72	0	17,18,20	0.95	2 (11%)
3	MAN	WA	5	3	11,11,12	0.65	0	$15,\!15,\!17$	1.51	2 (13%)
2	GAL	WC	1	2,1	11,11,12	0.68	0	$15,\!15,\!17$	1.14	2 (13%)
2	BGC	WC	2	2	11,11,12	0.66	0	$15,\!15,\!17$	1.21	3 (20%)
2	A1H1F	WC	3	2	13,14,15	1.10	1 (7%)	18,21,23	1.44	3 (16%)
2	MAN	WC	4	2	11,11,12	0.63	0	$15,\!15,\!17$	1.40	1 (6%)
2	MAN	WC	5	2	11,11,12	0.65	0	$15,\!15,\!17$	1.91	3 (20%)
2	A1H03	WC	6	2	13,13,14	0.80	0	17,18,20	1.11	3 (17%)
3	GAL	XA	1	3,1	11,11,12	0.62	0	$15,\!15,\!17$	0.98	1 (6%)
3	BGC	XA	2	3	11,11,12	0.62	0	$15,\!15,\!17$	1.49	3 (20%)
3	A1H1F	XA	3	3	13,14,15	1.15	1 (7%)	18,21,23	1.65	3 (16%)
3	A1H03	XA	4	3	13,13,14	0.70	0	17,18,20	1.04	2 (11%)
3	MAN	XA	5	3	11,11,12	0.62	0	$15,\!15,\!17$	1.18	1 (6%)
3	GAL	XB	1	3,1	11,11,12	0.67	0	$15,\!15,\!17$	1.27	3 (20%)
3	BGC	XB	2	3	11,11,12	0.61	0	$15,\!15,\!17$	1.27	2 (13%)
3	A1H1F	XB	3	3	13,14,15	1.21	1 (7%)	18,21,23	1.88	6 (33%)
3	A1H03	XB	4	3	13,13,14	0.72	0	17,18,20	0.95	2 (11%)
3	MAN	XB	5	3	11,11,12	0.64	0	$15,\!15,\!17$	1.52	2 (13%)
4	GAL	YA	1	4,1	11,11,12	0.69	0	$15,\!15,\!17$	1.32	3 (20%)
4	BGC	YA	2	4	11,11,12	0.66	0	$15,\!15,\!17$	1.07	2 (13%)
4	A1H1F	YA	3	4	13,14,15	1.14	1 (7%)	18,21,23	2.33	5 (27%)
4	MAN	YA	4	4	11,11,12	0.65	0	$15,\!15,\!17$	1.49	3 (20%)
3	GAL	YB	1	3,1	11,11,12	0.62	0	$15,\!15,\!17$	0.98	1 (6%)
3	BGC	YB	2	3	11,11,12	0.63	0	$15,\!15,\!17$	1.48	3 (20%)
3	A1H1F	YB	3	3	13,14,15	1.15	1 (7%)	18,21,23	1.65	3 (16%)
3	A1H03	YB	4	3	13,13,14	0.71	0	17,18,20	1.04	2 (11%)
3	MAN	YB	5	3	11,11,12	0.61	0	$15,\!15,\!17$	1.18	1 (6%)
3	GAL	YC	1	3,1	11,11,12	0.67	0	$15,\!15,\!17$	1.27	3 (20%)
3	BGC	YC	2	3	11,11,12	0.62	0	$15,\!15,\!17$	1.27	2 (13%)
3	A1H1F	YC	3	3	13,14,15	1.20	1 (7%)	18,21,23	1.88	6 (33%)
3	A1H03	YC	4	3	13,13,14	0.72	0	17,18,20	0.96	2 (11%)
3	MAN	YC	5	3	11,11,12	0.65	0	$15,\!15,\!17$	1.51	2 (13%)



Mal	Trime	Chain	Dec	Tinle	Bo	ond leng	ths	В	ond ang	les
WIOI	Туре	Chain	nes		Counts	RMSZ	# Z >2	Counts	RMSZ	# Z > 2
3	GAL	ZA	1	3,1	11,11,12	0.67	0	$15,\!15,\!17$	1.18	2 (13%)
3	BGC	ZA	2	3	11,11,12	0.61	0	$15,\!15,\!17$	1.43	3 (20%)
3	A1H1F	ZA	3	3	$13,\!14,\!15$	1.14	1 (7%)	$18,\!21,\!23$	1.40	3 (16%)
3	A1H03	ZA	4	3	13,13,14	0.71	0	17,18,20	0.91	2 (11%)
3	MAN	ZA	5	3	11,11,12	0.64	0	$15,\!15,\!17$	1.20	2 (13%)
4	GAL	ZB	1	4,1	11,11,12	0.69	0	$15,\!15,\!17$	1.33	3 (20%)
4	BGC	ZB	2	4	11,11,12	0.66	0	$15,\!15,\!17$	1.07	2 (13%)
4	A1H1F	ZB	3	4	13,14,15	1.14	1 (7%)	18,21,23	2.33	5 (27%)
4	MAN	ZB	4	4	11,11,12	0.65	0	$15,\!15,\!17$	1.50	2 (13%)
3	GAL	ZC	1	3,1	11,11,12	0.62	0	$15,\!15,\!17$	0.98	1 (6%)
3	BGC	ZC	2	3	11,11,12	0.63	0	$15,\!15,\!17$	1.48	3 (20%)
3	A1H1F	ZC	3	3	13,14,15	1.14	1 (7%)	18,21,23	1.65	3 (16%)
3	A1H03	ZC	4	3	13,13,14	0.70	0	17,18,20	1.03	2 (11%)
3	MAN	ZC	5	3	11,11,12	0.62	0	$15,\!15,\!17$	1.18	1 (6%)
4	GAL	aA	1	4,1	11,11,12	0.67	0	$15,\!15,\!17$	1.46	2 (13%)
4	BGC	aA	2	4	11,11,12	0.58	0	$15,\!15,\!17$	1.06	2 (13%)
4	A1H1F	aA	3	4	13,14,15	1.07	1 (7%)	18,21,23	1.43	3 (16%)
4	MAN	aA	4	4	11,11,12	0.59	0	$15,\!15,\!17$	1.19	1 (6%)
3	GAL	aB	1	3,1	11,11,12	0.68	0	$15,\!15,\!17$	1.17	2 (13%)
3	BGC	aB	2	3	11,11,12	0.60	0	$15,\!15,\!17$	1.43	3 (20%)
3	A1H1F	aB	3	3	13,14,15	1.14	1 (7%)	18,21,23	1.40	3 (16%)
3	A1H03	aB	4	3	13,13,14	0.72	0	17,18,20	0.91	2 (11%)
3	MAN	aB	5	3	11,11,12	0.64	0	$15,\!15,\!17$	1.19	2 (13%)
4	GAL	aC	1	4,1	11,11,12	0.70	0	$15,\!15,\!17$	1.32	3 (20%)
4	BGC	aC	2	4	11,11,12	0.65	0	$15,\!15,\!17$	1.07	2 (13%)
4	A1H1F	aC	3	4	13,14,15	1.14	1 (7%)	18,21,23	2.33	5 (27%)
4	MAN	aC	4	4	11,11,12	0.65	0	15,15,17	1.50	3 (20%)
2	GAL	bA	1	2,1	11,11,12	0.68	0	15,15,17	1.14	2 (13%)
2	BGC	bA	2	2	11,11,12	0.65	0	15,15,17	1.21	3 (20%)
2	A1H1F	bA	3	2	13,14,15	1.11	1 (7%)	18,21,23	1.45	3 (16%)
2	MAN	bA	4	2	11,11,12	0.63	0	15,15,17	1.40	1 (6%)
2	MAN	bA	5	2	11,11,12	0.65	0	15,15,17	1.90	3 (20%)
2	A1H03	bA	6	2	13,13,14	0.81	0	17,18,20	1.11	3 (17%)
4	GAL	bB	1	4,1	11,11,12	0.67	0	15,15,17	1.46	2 (13%)
4	BGC	bB	2	4	11,11,12	0.59	0	15,15,17	1.06	2 (13%)



Mal	Turne	Chain	Dec	Tiple	Bo	ond leng	ths	В	ond ang	les
NIOI	туре	Chain	nes		Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
4	A1H1F	bB	3	4	$13,\!14,\!15$	1.07	1 (7%)	18,21,23	1.43	3 (16%)
4	MAN	bB	4	4	$11,\!11,\!12$	0.59	0	$15,\!15,\!17$	1.19	1 (6%)
3	GAL	bC	1	3,1	$11,\!11,\!12$	0.67	0	$15,\!15,\!17$	1.17	2 (13%)
3	BGC	bC	2	3	11,11,12	0.61	0	$15,\!15,\!17$	1.43	3 (20%)
3	A1H1F	bC	3	3	13,14,15	1.13	1 (7%)	18,21,23	1.40	3 (16%)
3	A1H03	bC	4	3	13,13,14	0.72	0	17,18,20	0.92	2 (11%)
3	MAN	bC	5	3	11,11,12	0.65	0	$15,\!15,\!17$	1.19	2 (13%)
2	GAL	cB	1	2,1	11,11,12	0.67	0	$15,\!15,\!17$	1.15	2 (13%)
2	BGC	cB	2	2	11,11,12	0.66	0	$15,\!15,\!17$	1.21	3 (20%)
2	A1H1F	cB	3	2	13,14,15	1.12	1 (7%)	18,21,23	1.45	3 (16%)
2	MAN	cB	4	2	11,11,12	0.63	0	$15,\!15,\!17$	1.40	1 (6%)
2	MAN	cB	5	2	11,11,12	0.66	0	15,15,17	1.90	3 (20%)
2	A1H03	cB	6	2	13,13,14	0.80	0	17,18,20	1.11	3 (17%)
4	GAL	cC	1	4,1	11,11,12	0.66	0	$15,\!15,\!17$	1.46	2 (13%)
4	BGC	cC	2	4	11,11,12	0.59	0	$15,\!15,\!17$	1.05	2 (13%)
4	A1H1F	cC	3	4	13,14,15	1.07	1 (7%)	18,21,23	1.43	3 (16%)
4	MAN	cC	4	4	11,11,12	0.59	0	$15,\!15,\!17$	1.19	1 (6%)
3	GAL	dA	1	3,1	11,11,12	0.67	0	$15,\!15,\!17$	1.28	3 (20%)
3	BGC	dA	2	3	11,11,12	0.62	0	$15,\!15,\!17$	1.27	2 (13%)
3	A1H1F	dA	3	3	13,14,15	1.21	1 (7%)	18,21,23	1.88	<mark>6 (33%)</mark>
3	A1H03	dA	4	3	13,13,14	0.71	0	17,18,20	0.95	2 (11%)
3	MAN	dA	5	3	11,11,12	0.65	0	$15,\!15,\!17$	1.52	2 (13%)
2	GAL	dC	1	2,1	11,11,12	0.68	0	$15,\!15,\!17$	1.14	2 (13%)
2	BGC	dC	2	2	11,11,12	0.66	0	$15,\!15,\!17$	1.21	3 (20%)
2	A1H1F	dC	3	2	13,14,15	1.11	1 (7%)	18,21,23	1.44	3 (16%)
2	MAN	dC	4	2	11,11,12	0.63	0	$15,\!15,\!17$	1.41	1 (6%)
2	MAN	dC	5	2	11,11,12	0.64	0	$15,\!15,\!17$	1.91	3 (20%)
2	A1H03	dC	6	2	13,13,14	0.82	0	17,18,20	1.11	3 (17%)
3	GAL	eA	1	3,1	11,11,12	0.62	0	$15,\!15,\!17$	0.99	1 (6%)
3	BGC	eA	2	3	11,11,12	0.63	0	15,15,17	1.49	3 (20%)
3	A1H1F	eA	3	3	13,14,15	1.15	1 (7%)	18,21,23	1.64	3 (16%)
3	A1H03	eA	4	3	13,13,14	0.71	0	17,18,20	1.03	2 (11%)
3	MAN	eA	5	3	11,11,12	0.61	0	15,15,17	1.18	1 (6%)
3	GAL	eB	1	3,1	11,11,12	0.68	0	15,15,17	1.27	3 (20%)
3	BGC	eB	2	3	11,11,12	0.62	0	15,15,17	1.27	2 (13%)



Mal	Turne	Chain	Dec	Tiple	binkBond lengthsBondCounts $ $ RMSZ $ $ $\# Z > 2$ Counts $ $ RM			ond ang	ond angles		
	туре	Chain	nes		Counts	RMSZ	# Z >2	Counts	RMSZ	# Z >2	
3	A1H1F	eB	3	3	13, 14, 15	1.20	1 (7%)	18,21,23	1.88	6 (33%)	
3	A1H03	eB	4	3	13,13,14	0.73	0	$17,\!18,\!20$	0.95	2 (11%)	
3	MAN	eB	5	3	$11,\!11,\!12$	0.66	0	$15,\!15,\!17$	1.51	2 (13%)	
4	GAL	fA	1	4,1	$11,\!11,\!12$	0.70	0	$15,\!15,\!17$	1.31	3 (20%)	
4	BGC	fA	2	4	11,11,12	0.65	0	$15,\!15,\!17$	1.07	2 (13%)	
4	A1H1F	fA	3	4	13,14,15	1.14	1 (7%)	18,21,23	2.33	5 (27%)	
4	MAN	fA	4	4	11,11,12	0.64	0	$15,\!15,\!17$	1.50	3 (20%)	
3	GAL	fB	1	3,1	11,11,12	0.62	0	$15,\!15,\!17$	0.98	1 (6%)	
3	BGC	fB	2	3	11,11,12	0.62	0	$15,\!15,\!17$	1.49	3 (20%)	
3	A1H1F	fB	3	3	13,14,15	1.15	1 (7%)	18,21,23	1.64	3 (16%)	
3	A1H03	fB	4	3	13,13,14	0.70	0	17,18,20	1.04	2 (11%)	
3	MAN	fB	5	3	11,11,12	0.61	0	15,15,17	1.19	1 (6%)	
3	GAL	fC	1	3,1	11,11,12	0.66	0	$15,\!15,\!17$	1.29	3 (20%)	
3	BGC	fC	2	3	11,11,12	0.62	0	$15,\!15,\!17$	1.26	2 (13%)	
3	A1H1F	fC	3	3	13,14,15	1.20	1 (7%)	18,21,23	1.88	6 (33%)	
3	A1H03	fC	4	3	13,13,14	0.72	0	17,18,20	0.96	2 (11%)	
3	MAN	fC	5	3	11,11,12	0.65	0	$15,\!15,\!17$	1.51	2 (13%)	
3	GAL	gA	1	3,1	11,11,12	0.67	0	$15,\!15,\!17$	1.17	2 (13%)	
3	BGC	gA	2	3	11,11,12	0.60	0	$15,\!15,\!17$	1.44	3 (20%)	
3	A1H1F	gA	3	3	13,14,15	1.14	1 (7%)	18,21,23	1.40	3 (16%)	
3	A1H03	gA	4	3	13,13,14	0.72	0	17,18,20	0.91	2 (11%)	
3	MAN	gA	5	3	11,11,12	0.64	0	$15,\!15,\!17$	1.20	2 (13%)	
4	GAL	gB	1	4,1	11,11,12	0.69	0	$15,\!15,\!17$	1.33	3 (20%)	
4	BGC	gB	2	4	11,11,12	0.65	0	$15,\!15,\!17$	1.07	2 (13%)	
4	A1H1F	gB	3	4	13,14,15	1.14	1 (7%)	18,21,23	2.34	5 (27%)	
4	MAN	gB	4	4	11,11,12	0.65	0	$15,\!15,\!17$	1.50	2 (13%)	
3	GAL	gC	1	3,1	11,11,12	0.60	0	$15,\!15,\!17$	0.99	1 (6%)	
3	BGC	gC	2	3	11,11,12	0.62	0	15,15,17	1.49	3 (20%)	
3	A1H1F	gC	3	3	13,14,15	1.14	1 (7%)	18,21,23	1.64	3 (16%)	
3	A1H03	gC	4	3	13,13,14	0.70	0	17,18,20	1.04	2 (11%)	
3	MAN	gC	5	3	11,11,12	0.62	0	15,15,17	1.18	1 (6%)	
2	GAL	h	1	2,1	11,11,12	0.68	0	15,15,17	1.14	2 (13%)	
2	BGC	h	2	2	11,11,12	0.66	0	15,15,17	1.21	3 (20%)	
2	A1H1F	h	3	2	13,14,15	1.11	1 (7%)	18,21,23	1.45	3 (16%)	
2	MAN	h	4	2	11,11,12	0.63	0	15,15,17	1.40	1 (6%)	



Mal	Turne	Chain	Dec	Tiple	Bo	ond leng	ths	В	ond ang	les
	Type	Ullalli	nes		Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z >2
2	MAN	h	5	2	11,11,12	0.65	0	$15,\!15,\!17$	1.90	3 (20%)
2	A1H03	h	6	2	13,13,14	0.81	0	17,18,20	1.11	3 (17%)
4	GAL	hA	1	4,1	$11,\!11,\!12$	0.67	0	$15,\!15,\!17$	1.46	2 (13%)
4	BGC	hA	2	4	$11,\!11,\!12$	0.59	0	$15,\!15,\!17$	1.05	2 (13%)
4	A1H1F	hA	3	4	$13,\!14,\!15$	1.07	1 (7%)	18,21,23	1.42	3 (16%)
4	MAN	hA	4	4	11,11,12	0.59	0	$15,\!15,\!17$	1.19	1 (6%)
3	GAL	hB	1	3,1	11,11,12	0.68	0	$15,\!15,\!17$	1.17	2 (13%)
3	BGC	hB	2	3	$11,\!11,\!12$	0.60	0	$15,\!15,\!17$	1.43	3 (20%)
3	A1H1F	hB	3	3	13,14,15	1.15	1 (7%)	18,21,23	1.40	3 (16%)
3	A1H03	hB	4	3	13,13,14	0.71	0	17,18,20	0.92	2 (11%)
3	MAN	hB	5	3	11,11,12	0.64	0	$15,\!15,\!17$	1.20	2 (13%)
4	GAL	hC	1	4,1	11,11,12	0.69	0	$15,\!15,\!17$	1.33	3 (20%)
4	BGC	hC	2	4	11,11,12	0.65	0	$15,\!15,\!17$	1.06	2 (13%)
4	A1H1F	hC	3	4	13,14,15	1.15	1 (7%)	18,21,23	2.33	5 (27%)
4	MAN	hC	4	4	11,11,12	0.65	0	$15,\!15,\!17$	1.50	2 (13%)
2	GAL	iA	1	2,1	11,11,12	0.68	0	$15,\!15,\!17$	1.14	2 (13%)
2	BGC	iA	2	2	11,11,12	0.66	0	$15,\!15,\!17$	1.21	3 (20%)
2	A1H1F	iA	3	2	13,14,15	1.11	1 (7%)	18,21,23	1.45	3 (16%)
2	MAN	iA	4	2	11,11,12	0.63	0	$15,\!15,\!17$	1.41	1 (6%)
2	MAN	iA	5	2	11,11,12	0.65	0	15,15,17	1.90	3 (20%)
2	A1H03	iA	6	2	13,13,14	0.81	0	17,18,20	1.10	3 (17%)
4	GAL	iB	1	4,1	11,11,12	0.67	0	$15,\!15,\!17$	1.45	2 (13%)
4	BGC	iB	2	4	11,11,12	0.58	0	$15,\!15,\!17$	1.06	2 (13%)
4	A1H1F	iB	3	4	13,14,15	1.07	1 (7%)	18,21,23	1.43	3 (16%)
4	MAN	iB	4	4	11,11,12	0.57	0	$15,\!15,\!17$	1.19	1 (6%)
3	GAL	iC	1	3,1	11,11,12	0.68	0	$15,\!15,\!17$	1.17	2 (13%)
3	BGC	iC	2	3	11,11,12	0.60	0	$15,\!15,\!17$	1.44	3 (20%)
3	A1H1F	iC	3	3	13,14,15	1.13	1 (7%)	18,21,23	1.39	3 (16%)
3	A1H03	iC	4	3	13,13,14	0.72	0	17,18,20	0.91	2 (11%)
3	MAN	iC	5	3	11,11,12	0.66	0	$15,\!15,\!17$	1.19	2 (13%)
3	GAL	j	1	3,1	11,11,12	0.67	0	15,15,17	1.28	3 (20%)
3	BGC	j	2	3	11,11,12	0.61	0	$15,\!15,\!17$	1.27	2 (13%)
3	A1H1F	j	3	3	13,14,15	1.20	1 (7%)	18,21,23	1.88	6 (33%)
3	A1H03	j	4	3	13,13,14	0.72	0	17,18,20	0.95	2 (11%)
3	MAN	j	5	3	11,11,12	0.65	0	$15,\!15,\!17$	1.52	2 (13%)



Mal	Turne	Chain	Dec	Link Bond lengths Bond angles		les				
	туре	Unam	nes		Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
2	GAL	jВ	1	2,1	11,11,12	0.68	0	$15,\!15,\!17$	1.13	2 (13%)
2	BGC	jВ	2	2	11,11,12	0.65	0	$15,\!15,\!17$	1.22	3 (20%)
2	A1H1F	jВ	3	2	$13,\!14,\!15$	1.11	1 (7%)	18,21,23	1.45	3 (16%)
2	MAN	jВ	4	2	$11,\!11,\!12$	0.62	0	$15,\!15,\!17$	1.40	1 (6%)
2	MAN	jВ	5	2	$11,\!11,\!12$	0.65	0	$15,\!15,\!17$	1.90	3 (20%)
2	A1H03	jВ	6	2	13,13,14	0.81	0	17,18,20	1.10	3 (17%)
4	GAL	jС	1	4,1	11,11,12	0.67	0	$15,\!15,\!17$	1.47	2 (13%)
4	BGC	jС	2	4	11,11,12	0.58	0	$15,\!15,\!17$	1.06	2 (13%)
4	A1H1F	jС	3	4	13,14,15	1.07	1 (7%)	18,21,23	1.43	3 (16%)
4	MAN	jС	4	4	11,11,12	0.58	0	$15,\!15,\!17$	1.19	1 (6%)
3	GAL	k	1	3,1	11,11,12	0.61	0	15,15,17	0.98	1 (6%)
3	BGC	k	2	3	11,11,12	0.62	0	15,15,17	1.49	3 (20%)
3	A1H1F	k	3	3	13,14,15	1.15	1 (7%)	18,21,23	1.65	3 (16%)
3	A1H03	k	4	3	13,13,14	0.70	0	17,18,20	1.03	2 (11%)
3	MAN	k	5	3	11,11,12	0.61	0	$15,\!15,\!17$	1.18	1 (6%)
3	GAL	kA	1	3,1	11,11,12	0.67	0	$15,\!15,\!17$	1.28	3 (20%)
3	BGC	kA	2	3	11,11,12	0.61	0	$15,\!15,\!17$	1.26	2 (13%)
3	A1H1F	kA	3	3	13,14,15	1.20	1 (7%)	18,21,23	1.88	<mark>6 (33%)</mark>
3	A1H03	kA	4	3	13,13,14	0.71	0	17,18,20	0.96	2 (11%)
3	MAN	kA	5	3	11,11,12	0.65	0	$15,\!15,\!17$	1.51	2 (13%)
2	GAL	kC	1	2,1	11,11,12	0.67	0	15,15,17	1.15	2 (13%)
2	BGC	kC	2	2	11,11,12	0.66	0	15,15,17	1.22	3 (20%)
2	A1H1F	kC	3	2	13,14,15	1.11	1 (7%)	18,21,23	1.44	3 (16%)
2	MAN	kC	4	2	11,11,12	0.62	0	15,15,17	1.40	1 (6%)
2	MAN	kC	5	2	11,11,12	0.65	0	$15,\!15,\!17$	1.90	3 (20%)
2	A1H03	kC	6	2	13,13,14	0.81	0	17,18,20	1.11	3 (17%)
4	GAL	1	1	4,1	11,11,12	0.69	0	$15,\!15,\!17$	1.32	3 (20%)
4	BGC	1	2	4	11,11,12	0.66	0	15,15,17	1.07	2 (13%)
4	A1H1F	1	3	4	13,14,15	1.14	1 (7%)	18,21,23	2.33	5 (27%)
4	MAN	1	4	4	11,11,12	0.64	0	$15,\!15,\!17$	1.50	3 (20%)
3	GAL	lA	1	3,1	11,11,12	0.62	0	$15,\!15,\!17$	0.98	1 (6%)
3	BGC	lA	2	3	11,11,12	0.64	0	$15,\!15,\!17$	1.49	3 (20%)
3	A1H1F	lA	3	3	13,14,15	1.15	1 (7%)	18,21,23	1.65	3 (16%)
3	A1H03	lA	4	3	13,13,14	0.71	0	17,18,20	1.03	2 (11%)
3	MAN	lA	5	3	11,11,12	0.61	0	15,15,17	1.18	1 (6%)



Mal	Turne	Chain	Dec	Tiple	Bo	ond leng	ths	В	ond ang	les
	Type	Ullalli	nes		Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z >2
3	GAL	lB	1	3,1	11,11,12	0.68	0	$15,\!15,\!17$	1.27	3 (20%)
3	BGC	lB	2	3	11,11,12	0.62	0	$15,\!15,\!17$	1.27	2 (13%)
3	A1H1F	lB	3	3	$13,\!14,\!15$	1.21	2 (15%)	18,21,23	1.88	6 (33%)
3	A1H03	lB	4	3	13,13,14	0.72	0	$17,\!18,\!20$	0.95	2 (11%)
3	MAN	lB	5	3	$11,\!11,\!12$	0.65	0	$15,\!15,\!17$	1.51	2 (13%)
3	GAL	m	1	3,1	11,11,12	0.67	0	$15,\!15,\!17$	1.17	2 (13%)
3	BGC	m	2	3	11,11,12	0.60	0	$15,\!15,\!17$	1.43	3 (20%)
3	A1H1F	m	3	3	13,14,15	1.14	1 (7%)	18,21,23	1.40	3 (16%)
3	A1H03	m	4	3	13,13,14	0.72	0	17,18,20	0.91	2 (11%)
3	MAN	m	5	3	11,11,12	0.65	0	$15,\!15,\!17$	1.19	2 (13%)
4	GAL	mA	1	4,1	11,11,12	0.69	0	15,15,17	1.33	3 (20%)
4	BGC	mA	2	4	11,11,12	0.65	0	15,15,17	1.07	2 (13%)
4	A1H1F	mA	3	4	13,14,15	1.14	1 (7%)	18,21,23	2.34	5 (27%)
4	MAN	mA	4	4	11,11,12	0.64	0	$15,\!15,\!17$	1.50	3 (20%)
3	GAL	mB	1	3,1	11,11,12	0.61	0	$15,\!15,\!17$	0.99	1 (6%)
3	BGC	mB	2	3	11,11,12	0.62	0	$15,\!15,\!17$	1.49	3 (20%)
3	A1H1F	mB	3	3	13,14,15	1.15	1 (7%)	18,21,23	1.65	3 (16%)
3	A1H03	mB	4	3	13,13,14	0.70	0	17,18,20	1.04	2 (11%)
3	MAN	mB	5	3	11,11,12	0.62	0	$15,\!15,\!17$	1.19	1 (6%)
3	GAL	mC	1	3,1	11,11,12	0.67	0	$15,\!15,\!17$	1.28	3 (20%)
3	BGC	mC	2	3	11,11,12	0.62	0	$15,\!15,\!17$	1.26	2 (13%)
3	A1H1F	mC	3	3	13,14,15	1.21	2 (15%)	18,21,23	1.88	<mark>6 (33%)</mark>
3	A1H03	mC	4	3	13,13,14	0.71	0	17,18,20	0.96	2 (11%)
3	MAN	mC	5	3	11,11,12	0.65	0	$15,\!15,\!17$	1.51	2 (13%)
4	GAL	n	1	4,1	11,11,12	0.67	0	$15,\!15,\!17$	1.46	2 (13%)
4	BGC	n	2	4	11,11,12	0.58	0	$15,\!15,\!17$	1.06	2 (13%)
4	A1H1F	n	3	4	13,14,15	1.07	1 (7%)	18,21,23	1.42	3 (16%)
4	MAN	n	4	4	11,11,12	0.59	0	$15,\!15,\!17$	1.19	1 (6%)
3	GAL	nA	1	3,1	11,11,12	0.67	0	$15,\!15,\!17$	1.17	2 (13%)
3	BGC	nA	2	3	11,11,12	0.61	0	15,15,17	1.43	3 (20%)
3	A1H1F	nA	3	3	13,14,15	1.14	1 (7%)	18,21,23	1.40	3 (16%)
3	A1H03	nA	4	3	13,13,14	0.71	0	17,18,20	0.91	2 (11%)
3	MAN	nA	5	3	11,11,12	0.64	0	15,15,17	1.19	2 (13%)
4	GAL	nB	1	4,1	11,11,12	0.69	0	15,15,17	1.32	3 (20%)
4	BGC	nB	2	4	11,11,12	0.65	0	15,15,17	1.08	2 (13%)



Mol	Type	Chain	Dog	Link	Bo	ond leng	ths	B	ond ang	les
	туре	Unam	nes	LIIIK	Counts	RMSZ	# Z >2	Counts	RMSZ	# Z >2
4	A1H1F	nB	3	4	13,14,15	1.14	1 (7%)	18,21,23	<mark>2.33</mark>	5 (27%)
4	MAN	nB	4	4	11,11,12	0.64	0	$15,\!15,\!17$	1.50	3 (20%)
3	GAL	nC	1	3,1	11,11,12	0.61	0	$15,\!15,\!17$	0.98	1 (6%)
3	BGC	nC	2	3	$11,\!11,\!12$	0.62	0	$15,\!15,\!17$	1.49	3 (20%)
3	A1H1F	nC	3	3	13,14,15	1.15	1 (7%)	18,21,23	1.65	<mark>3 (16%)</mark>
3	A1H03	nC	4	3	13,13,14	0.71	0	17,18,20	1.03	2 (11%)
3	MAN	nC	5	3	11,11,12	0.61	0	$15,\!15,\!17$	1.17	1 (6%)
2	GAL	0	1	2,1	11,11,12	0.67	0	$15,\!15,\!17$	1.14	2 (13%)
2	BGC	0	2	2	11,11,12	0.66	0	$15,\!15,\!17$	1.21	3 (20%)
2	A1H1F	0	3	2	13,14,15	1.11	1 (7%)	18,21,23	1.45	3 (16%)
2	MAN	0	4	2	11,11,12	0.64	0	$15,\!15,\!17$	1.40	1 (6%)
2	MAN	0	5	2	11,11,12	0.64	0	$15,\!15,\!17$	1.91	3 (20%)
2	A1H03	0	6	2	13,13,14	0.81	0	17,18,20	1.11	3 (17%)
4	GAL	oA	1	4,1	11,11,12	0.66	0	15,15,17	1.47	2 (13%)
4	BGC	oA	2	4	11,11,12	0.57	0	$15,\!15,\!17$	1.05	2 (13%)
4	A1H1F	oA	3	4	13,14,15	1.07	1 (7%)	18,21,23	1.42	3 (16%)
4	MAN	oA	4	4	11,11,12	0.59	0	$15,\!15,\!17$	1.20	1 (6%)
3	GAL	oB	1	3,1	11,11,12	0.68	0	$15,\!15,\!17$	1.17	2 (13%)
3	BGC	oB	2	3	11,11,12	0.61	0	$15,\!15,\!17$	1.43	3 (20%)
3	A1H1F	oB	3	3	13,14,15	1.14	1 (7%)	18,21,23	1.40	3 (16%)
3	A1H03	oB	4	3	13,13,14	0.71	0	17,18,20	0.92	2 (11%)
3	MAN	oB	5	3	11,11,12	0.66	0	15,15,17	1.19	2 (13%)
4	GAL	oC	1	4,1	11,11,12	0.70	0	15,15,17	1.32	3 (20%)
4	BGC	oC	2	4	11,11,12	0.66	0	15,15,17	1.06	2 (13%)
4	A1H1F	oC	3	4	13,14,15	1.14	1 (7%)	18,21,23	2.33	5 (27%)
4	MAN	oC	4	4	11,11,12	0.65	0	$15,\!15,\!17$	1.50	4 (26%)
2	GAL	рА	1	2,1	11,11,12	0.69	0	$15,\!15,\!17$	1.14	2 (13%)
2	BGC	рА	2	2	11,11,12	0.65	0	$15,\!15,\!17$	1.21	3 (20%)
2	A1H1F	pА	3	2	13,14,15	1.12	1 (7%)	18,21,23	1.45	3 (16%)
2	MAN	рА	4	2	11,11,12	0.63	0	$15,\!15,\!17$	1.40	1 (6%)
2	MAN	pА	5	2	11,11,12	0.64	0	$15,\!15,\!17$	1.91	3 (20%)
2	A1H03	рА	6	2	13,13,14	0.81	0	17,18,20	1.11	3 (17%)
4	GAL	pВ	1	4,1	11,11,12	0.66	0	$15,\!15,\!17$	1.47	2 (13%)
4	BGC	pВ	2	4	11,11,12	0.58	0	$15,\!15,\!17$	1.06	2 (13%)
4	A1H1F	pВ	3	4	13,14,15	1.07	1 (7%)	18,21,23	1.43	3 (16%)



Mal	Trime	Chain	Dec	Tinle	Bo	ond leng	ths	В	ond ang	les
NIOI	туре	Chain	nes		Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z >2
4	MAN	pВ	4	4	11,11,12	0.59	0	$15,\!15,\!17$	1.19	1 (6%)
3	GAL	pC	1	3,1	11,11,12	0.67	0	$15,\!15,\!17$	1.18	2 (13%)
3	BGC	pC	2	3	$11,\!11,\!12$	0.61	0	$15,\!15,\!17$	1.44	3 (20%)
3	A1H1F	pC	3	3	$13,\!14,\!15$	1.14	1 (7%)	18,21,23	1.39	3 (16%)
3	A1H03	pC	4	3	13,13,14	0.71	0	17,18,20	0.92	2 (11%)
3	MAN	pC	5	3	11,11,12	0.64	0	$15,\!15,\!17$	1.19	2 (13%)
3	GAL	q	1	3,1	11,11,12	0.68	0	$15,\!15,\!17$	1.27	3 (20%)
3	BGC	q	2	3	11,11,12	0.62	0	15,15,17	1.27	2 (13%)
3	A1H1F	q	3	3	13,14,15	1.20	1 (7%)	18,21,23	1.87	<mark>6 (33%)</mark>
3	A1H03	q	4	3	13,13,14	0.72	0	17,18,20	0.95	2 (11%)
3	MAN	q	5	3	11,11,12	0.65	0	15,15,17	1.52	2 (13%)
2	GAL	qB	1	2,1	11,11,12	0.68	0	15,15,17	1.14	2 (13%)
2	BGC	qB	2	2	11,11,12	0.65	0	15,15,17	1.22	3 (20%)
2	A1H1F	qB	3	2	13,14,15	1.11	1 (7%)	18,21,23	1.45	3 (16%)
2	MAN	qB	4	2	11,11,12	0.64	0	15, 15, 17	1.40	1 (6%)
2	MAN	qB	5	2	11,11,12	0.64	0	15,15,17	1.90	3 (20%)
2	A1H03	qB	6	2	13,13,14	0.81	0	17,18,20	1.10	3 (17%)
4	GAL	qC	1	4,1	11,11,12	0.67	0	15,15,17	1.46	2 (13%)
4	BGC	qC	2	4	11,11,12	0.58	0	15,15,17	1.06	2 (13%)
4	A1H1F	qC	3	4	13,14,15	1.07	1 (7%)	18,21,23	1.42	3 (16%)
4	MAN	qC	4	4	11,11,12	0.59	0	15,15,17	1.19	1 (6%)
3	GAL	r	1	3,1	11,11,12	0.62	0	15,15,17	0.98	1 (6%)
3	BGC	r	2	3	11,11,12	0.62	0	15,15,17	1.49	3 (20%)
3	A1H1F	r	3	3	13,14,15	1.14	1 (7%)	18,21,23	1.65	3 (16%)
3	A1H03	r	4	3	13,13,14	0.70	0	17,18,20	1.03	2 (11%)
3	MAN	r	5	3	11,11,12	0.61	0	15,15,17	1.18	1 (6%)
3	GAL	rA	1	3,1	11,11,12	0.67	0	15,15,17	1.27	3 (20%)
3	BGC	rA	2	3	11,11,12	0.61	0	15,15,17	1.27	2 (13%)
3	A1H1F	rA	3	3	13,14,15	1.21	1 (7%)	18,21,23	1.88	<mark>6 (33%)</mark>
3	A1H03	rA	4	3	13,13,14	0.72	0	17,18,20	0.96	2 (11%)
3	MAN	rA	5	3	11,11,12	0.66	0	15,15,17	1.52	2 (13%)
2	GAL	rC	1	2,1	11,11,12	0.67	0	15,15,17	1.14	2 (13%)
2	BGC	rC	2	2	11,11,12	0.66	0	15,15,17	1.21	3 (20%)
2	A1H1F	rC	3	2	13,14,15	1.11	1 (7%)	18,21,23	1.44	3 (16%)
2	MAN	rC	4	2	11,11,12	0.62	0	15,15,17	1.41	1 (6%)



Mal	Turne	Chain	Dec	Tiple	Bo	ond leng	ths	В	ond ang	les
NIOI	туре	Chain	nes		Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z >2
2	MAN	rC	5	2	$11,\!11,\!12$	0.65	0	$15,\!15,\!17$	1.90	3 (20%)
2	A1H03	rC	6	2	13,13,14	0.81	0	$17,\!18,\!20$	1.11	3 (17%)
4	GAL	s	1	4,1	11,11,12	0.69	0	$15,\!15,\!17$	1.33	3 (20%)
4	BGC	s	2	4	11,11,12	0.65	0	$15,\!15,\!17$	1.07	2 (13%)
4	A1H1F	s	3	4	13,14,15	1.14	1 (7%)	18,21,23	2.33	<mark>5 (27%)</mark>
4	MAN	s	4	4	11,11,12	0.65	0	$15,\!15,\!17$	1.49	<mark>3 (20%)</mark>
3	GAL	sA	1	3,1	11,11,12	0.61	0	$15,\!15,\!17$	0.98	1 (6%)
3	BGC	sA	2	3	11,11,12	0.62	0	$15,\!15,\!17$	1.49	3 (20%)
3	A1H1F	sA	3	3	13,14,15	1.15	1 (7%)	18,21,23	1.65	3 (16%)
3	A1H03	sA	4	3	13,13,14	0.70	0	17,18,20	1.03	2 (11%)
3	MAN	sA	5	3	11,11,12	0.61	0	$15,\!15,\!17$	1.18	1 (6%)
3	GAL	sB	1	3,1	11,11,12	0.67	0	$15,\!15,\!17$	1.28	3 (20%)
3	BGC	sB	2	3	11,11,12	0.60	0	$15,\!15,\!17$	1.26	2 (13%)
3	A1H1F	sB	3	3	13,14,15	1.21	1 (7%)	18,21,23	1.88	<mark>6 (33%)</mark>
3	A1H03	sB	4	3	13,13,14	0.71	0	17,18,20	0.95	2 (11%)
3	MAN	sB	5	3	11,11,12	0.65	0	$15,\!15,\!17$	1.51	2 (13%)
3	GAL	t	1	3,1	11,11,12	0.66	0	$15,\!15,\!17$	1.18	2 (13%)
3	BGC	t	2	3	11,11,12	0.60	0	$15,\!15,\!17$	1.43	3 (20%)
3	A1H1F	t	3	3	13,14,15	1.14	1 (7%)	18,21,23	1.40	3 (16%)
3	A1H03	t	4	3	13,13,14	0.71	0	17,18,20	0.92	2 (11%)
3	MAN	t	5	3	11,11,12	0.66	0	$15,\!15,\!17$	1.19	2 (13%)
4	GAL	tA	1	4,1	11,11,12	0.69	0	$15,\!15,\!17$	1.32	3 (20%)
4	BGC	tA	2	4	11,11,12	0.66	0	$15,\!15,\!17$	1.06	2 (13%)
4	A1H1F	tA	3	4	13,14,15	1.14	1 (7%)	18,21,23	2.34	5 (27%)
4	MAN	tA	4	4	11,11,12	0.65	0	$15,\!15,\!17$	1.50	3 (20%)
3	GAL	tB	1	3,1	11,11,12	0.61	0	$15,\!15,\!17$	0.98	1 (6%)
3	BGC	tB	2	3	11,11,12	0.62	0	$15,\!15,\!17$	1.49	3 (20%)
3	A1H1F	tB	3	3	13,14,15	1.15	1 (7%)	18,21,23	1.64	3 (16%)
3	A1H03	tB	4	3	13,13,14	0.71	0	17,18,20	1.04	2 (11%)
3	MAN	tB	5	3	11,11,12	0.61	0	$15,\!15,\!17$	1.18	1 (6%)
3	GAL	tC	1	3,1	11,11,12	0.68	0	15,15,17	1.28	3 (20%)
3	BGC	tC	2	3	11,11,12	0.61	0	15,15,17	1.26	2 (13%)
3	A1H1F	tC	3	3	13,14,15	1.20	1 (7%)	18,21,23	1.88	6 (33%)
3	A1H03	tC	4	3	13,13,14	0.72	0	17,18,20	0.95	2 (11%)
3	MAN	tC	5	3	11,11,12	0.65	0	15,15,17	1.52	2 (13%)



Mol	Tuno	Chain	Dog	Link	Link Bond lengths Bond angles		les			
	туре	Chain	nes		Counts	RMSZ	# Z >2	Counts	RMSZ	# Z >2
4	GAL	u	1	4,1	11,11,12	0.68	0	$15,\!15,\!17$	1.47	2 (13%)
4	BGC	u	2	4	11,11,12	0.58	0	$15,\!15,\!17$	1.06	2 (13%)
4	A1H1F	u	3	4	$13,\!14,\!15$	1.06	1 (7%)	18,21,23	1.43	3 (16%)
4	MAN	u	4	4	$11,\!11,\!12$	0.59	0	$15,\!15,\!17$	1.19	1 (6%)
3	GAL	uA	1	3,1	$11,\!11,\!12$	0.67	0	$15,\!15,\!17$	1.18	2 (13%)
3	BGC	uA	2	3	11,11,12	0.61	0	$15,\!15,\!17$	1.43	3 (20%)
3	A1H1F	uA	3	3	13,14,15	1.14	1 (7%)	18,21,23	1.39	3 (16%)
3	A1H03	uA	4	3	13,13,14	0.71	0	17,18,20	0.91	2 (11%)
3	MAN	uA	5	3	11,11,12	0.66	0	$15,\!15,\!17$	1.18	2 (13%)
4	GAL	uB	1	4,1	11,11,12	0.70	0	$15,\!15,\!17$	1.31	3 (20%)
4	BGC	uB	2	4	11,11,12	0.65	0	$15,\!15,\!17$	1.07	2 (13%)
4	A1H1F	uB	3	4	13,14,15	1.14	1 (7%)	18,21,23	2.33	5 (27%)
4	MAN	uB	4	4	11,11,12	0.64	0	$15,\!15,\!17$	1.50	4 (26%)
3	GAL	uC	1	3,1	11,11,12	0.62	0	$15,\!15,\!17$	0.99	1 (6%)
3	BGC	uC	2	3	11,11,12	0.63	0	$15,\!15,\!17$	1.49	3 (20%)
3	A1H1F	uC	3	3	13,14,15	1.15	1 (7%)	18,21,23	1.65	3 (16%)
3	A1H03	uC	4	3	13,13,14	0.71	0	17,18,20	1.03	2 (11%)
3	MAN	uC	5	3	11,11,12	0.62	0	$15,\!15,\!17$	1.18	1 (6%)
2	GAL	V	1	2,1	11,11,12	0.68	0	15,15,17	1.14	2 (13%)
2	BGC	V	2	2	11,11,12	0.66	0	$15,\!15,\!17$	1.21	3 (20%)
2	A1H1F	V	3	2	13,14,15	1.11	1 (7%)	18,21,23	1.44	3 (16%)
2	MAN	V	4	2	11,11,12	0.63	0	$15,\!15,\!17$	1.40	1 (6%)
2	MAN	V	5	2	11,11,12	0.64	0	$15,\!15,\!17$	1.91	3 (20%)
2	A1H03	V	6	2	13,13,14	0.82	0	17,18,20	1.10	3 (17%)
4	GAL	vA	1	4,1	11,11,12	0.66	0	$15,\!15,\!17$	1.47	2 (13%)
4	BGC	vA	2	4	11,11,12	0.58	0	$15,\!15,\!17$	1.05	2 (13%)
4	A1H1F	vA	3	4	13,14,15	1.06	1 (7%)	18,21,23	1.42	3 (16%)
4	MAN	vA	4	4	11,11,12	0.59	0	$15,\!15,\!17$	1.19	1 (6%)
3	GAL	vB	1	3,1	11,11,12	0.67	0	$15,\!15,\!17$	1.18	2 (13%)
3	BGC	vB	2	3	11,11,12	0.60	0	15,15,17	1.43	3 (20%)
3	A1H1F	vB	3	3	13,14,15	1.14	1 (7%)	18,21,23	1.40	3 (16%)
3	A1H03	vB	4	3	13,13,14	0.71	0	17,18,20	0.92	2 (11%)
3	MAN	vB	5	3	11,11,12	0.65	0	15,15,17	1.19	2 (13%)
4	GAL	vC	1	4,1	11,11,12	0.69	0	15,15,17	1.32	3 (20%)
4	BGC	vC	2	4	11,11,12	0.66	0	15,15,17	1.06	2 (13%)



Mal	Turne	Chain	Dec	Tiple	Bo	ond leng	ths	B	ond ang	les
	Type	Chan	nes		Counts	RMSZ	# Z >2	Counts	RMSZ	# Z >2
4	A1H1F	vC	3	4	$13,\!14,\!15$	1.14	1 (7%)	18,21,23	2.34	5 (27%)
4	MAN	vC	4	4	$11,\!11,\!12$	0.65	0	$15,\!15,\!17$	1.50	2 (13%)
2	GAL	wA	1	2,1	$11,\!11,\!12$	0.69	0	$15,\!15,\!17$	1.14	2 (13%)
2	BGC	wA	2	2	$11,\!11,\!12$	0.65	0	$15,\!15,\!17$	1.22	3 (20%)
2	A1H1F	wA	3	2	$13,\!14,\!15$	1.11	1 (7%)	18,21,23	1.44	3 (16%)
2	MAN	wA	4	2	11,11,12	0.63	0	$15,\!15,\!17$	1.40	1 (6%)
2	MAN	wA	5	2	11,11,12	0.65	0	$15,\!15,\!17$	1.90	3 (20%)
2	A1H03	wA	6	2	13,13,14	0.80	0	17,18,20	1.11	3 (17%)
4	GAL	wB	1	4,1	11,11,12	0.68	0	$15,\!15,\!17$	1.46	2 (13%)
4	BGC	wB	2	4	11,11,12	0.58	0	$15,\!15,\!17$	1.06	2 (13%)
4	A1H1F	wB	3	4	13,14,15	1.07	1 (7%)	18,21,23	1.43	3 (16%)
4	MAN	wB	4	4	11,11,12	0.59	0	$15,\!15,\!17$	1.18	1 (6%)
3	GAL	wC	1	3,1	11,11,12	0.68	0	$15,\!15,\!17$	1.17	2 (13%)
3	BGC	wC	2	3	11,11,12	0.61	0	$15,\!15,\!17$	1.44	3 (20%)
3	A1H1F	wC	3	3	13,14,15	1.14	1 (7%)	18,21,23	1.40	3 (16%)
3	A1H03	wC	4	3	13,13,14	0.71	0	17,18,20	0.91	2 (11%)
3	MAN	wC	5	3	11,11,12	0.64	0	$15,\!15,\!17$	1.19	2 (13%)
3	GAL	x	1	3,1	11,11,12	0.67	0	15,15,17	1.29	3 (20%)
3	BGC	x	2	3	11,11,12	0.62	0	15,15,17	1.27	2 (13%)
3	A1H1F	x	3	3	13,14,15	1.20	1 (7%)	18,21,23	1.88	6 (33%)
3	A1H03	х	4	3	13,13,14	0.72	0	17,18,20	0.95	2 (11%)
3	MAN	x	5	3	11,11,12	0.65	0	15,15,17	1.51	2 (13%)
2	GAL	xB	1	2,1	11,11,12	0.68	0	$15,\!15,\!17$	1.14	2 (13%)
2	BGC	xB	2	2	11,11,12	0.66	0	15,15,17	1.21	3 (20%)
2	A1H1F	xB	3	2	13,14,15	1.10	1 (7%)	18,21,23	1.44	3 (16%)
2	MAN	xB	4	2	11,11,12	0.62	0	15,15,17	1.41	1 (6%)
2	MAN	xB	5	2	11,11,12	0.65	0	15,15,17	1.91	3 (20%)
2	A1H03	xB	6	2	13,13,14	0.80	0	17,18,20	1.11	3 (17%)
4	GAL	xC	1	4,1	11,11,12	0.68	0	15,15,17	1.47	2 (13%)
4	BGC	xC	2	4	11,11,12	0.59	0	15,15,17	1.05	2 (13%)
4	A1H1F	xC	3	4	13,14,15	1.07	1 (7%)	18,21,23	1.42	3 (16%)
4	MAN	xC	4	4	11,11,12	0.59	0	15,15,17	1.19	1 (6%)
3	GAL	у	1	3,1	11,11,12	0.61	0	15,15,17	0.98	1 (6%)
3	BGC	у	2	3	11,11,12	0.62	0	15,15,17	1.49	3 (20%)
3	A1H1F	у	3	3	13,14,15	1.14	1 (7%)	18,21,23	1.65	3 (16%)



Mal	Tuno	Chain	Dog	Link	Bo	ond leng	ths	Bond angles		les
	Type	Chain	nes		Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
3	A1H03	У	4	3	13,13,14	0.70	0	$17,\!18,\!20$	1.03	2 (11%)
3	MAN	У	5	3	11,11,12	0.62	0	$15,\!15,\!17$	1.17	1 (6%)
3	GAL	yА	1	3,1	11,11,12	0.68	0	$15,\!15,\!17$	1.28	3 (20%)
3	BGC	yА	2	3	11,11,12	0.62	0	$15,\!15,\!17$	1.27	2 (13%)
3	A1H1F	yА	3	3	13,14,15	1.21	2 (15%)	18,21,23	1.87	6 (33%)
3	A1H03	yА	4	3	13,13,14	0.72	0	17,18,20	0.95	2 (11%)
3	MAN	yА	5	3	11,11,12	0.66	0	$15,\!15,\!17$	1.52	2 (13%)
2	GAL	yC	1	2,1	11,11,12	0.68	0	$15,\!15,\!17$	1.14	2 (13%)
2	BGC	yC	2	2	11,11,12	0.66	0	$15,\!15,\!17$	1.21	3 (20%)
2	A1H1F	yC	3	2	13,14,15	1.11	1 (7%)	18,21,23	1.45	3 (16%)
2	MAN	yC	4	2	11,11,12	0.63	0	$15,\!15,\!17$	1.41	1 (6%)
2	MAN	yC	5	2	11,11,12	0.65	0	$15,\!15,\!17$	1.90	3 (20%)
2	A1H03	yC	6	2	13,13,14	0.80	0	17,18,20	1.11	3 (17%)
4	GAL	Z	1	4,1	11,11,12	0.69	0	$15,\!15,\!17$	1.32	3 (20%)
4	BGC	Z	2	4	11,11,12	0.66	0	$15,\!15,\!17$	1.07	2 (13%)
4	A1H1F	Z	3	4	13,14,15	1.14	1 (7%)	18,21,23	2.34	5 (27%)
4	MAN	Z	4	4	11,11,12	0.64	0	$15,\!15,\!17$	1.49	2 (13%)
3	GAL	zA	1	3,1	11,11,12	0.62	0	$15,\!15,\!17$	0.97	1 (6%)
3	BGC	zA	2	3	11,11,12	0.62	0	$15,\!15,\!17$	1.49	3 (20%)
3	A1H1F	zA	3	3	13,14,15	1.15	1 (7%)	18,21,23	1.65	3 (16%)
3	A1H03	zA	4	3	13,13,14	0.70	0	17,18,20	1.04	2 (11%)
3	MAN	zA	5	3	11,11,12	0.61	0	$15,\!15,\!17$	1.17	1 (6%)
3	GAL	zB	1	3,1	11,11,12	0.67	0	$15,\!15,\!17$	1.27	3 (20%)
3	BGC	zB	2	3	11,11,12	0.63	0	$15,\!15,\!17$	1.26	2 (13%)
3	A1H1F	zB	3	3	13,14,15	1.20	1 (7%)	18,21,23	1.88	6 (33%)
3	A1H03	zB	4	3	13,13,14	0.72	0	17,18,20	0.96	2 (11%)
3	MAN	zB	5	3	11,11,12	0.65	0	$15,\!15,\!17$	1.51	2 (13%)

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
3	GAL	0	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	0	2	3	-	0/2/19/22	0/1/1/1



Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	A1H1F	0	3	3	_	2/5/22/25	0/1/1/1
3	A1H03	0	4	3	_	0/6/23/26	0/1/1/1
3	MAN	0	5	3	-	$\frac{3/3/23/23}{1/2/19/22}$	0/1/1/1
4	GAL	0A	1	4,1	_	1/2/19/22	0/1/1/1
4	BGC	0A	2	4	-	0/2/19/22	0/1/1/1
4	A1H1F	0A	3	4	-	0/5/22/25	0/1/1/1
4	MAN	0A	4	4	-	2/2/19/22	0/1/1/1
3	GAL	0B	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	0B	2	3	-	2/2/19/22	0/1/1/1
3	A1H1F	0B	3	3	-	0/5/22/25	0/1/1/1
3	A1H03	0B	4	3	-	0/6/23/26	0/1/1/1
3	MAN	0B	5	3	-	2/2/19/22	0/1/1/1
3	GAL	0C	1	3,1	_	2/2/19/22	0/1/1/1
3	BGC	0C	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	0C	3	3	_	2/5/22/25	0/1/1/1
3	A1H03	0C	4	3	_	0/6/23/26	0/1/1/1
3	MAN	0C	5	3	-	1/2/19/22	0/1/1/1
4	GAL	1	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	1	2	4	-	2/2/19/22	0/1/1/1
4	A1H1F	1	3	4	-	1/5/22/25	0/1/1/1
4	MAN	1	4	4	-	2/2/19/22	0/1/1/1
3	GAL	1A	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	1A	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	1A	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	1A	4	3	-	0/6/23/26	0/1/1/1
3	MAN	1A	5	3	-	1/2/19/22	0/1/1/1
4	GAL	1B	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	1B	2	4	-	0/2/19/22	0/1/1/1
4	A1H1F	1B	3	4	-	0/5/22/25	0/1/1/1
4	MAN	1B	4	4	-	2/2/19/22	0/1/1/1
3	GAL	1C	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	1C	2	3	-	2/2/19/22	0/1/1/1
3	A1H1F	1C	3	3	-	0/5/22/25	0/1/1/1
3	A1H03	1C	4	3	-	0/6/23/26	0/1/1/1
3	MAN	1C	5	3	-	2/2/19/22	0/1/1/1
2	GAL	2	1	2,1	-	1/2/19/22	0/1/1/1
2	BGC	2	2	2	-	0/2/19/22	0/1/1/1
2	A1H1F	2	3	2	-	2/5/22/25	0/1/1/1
2	MAN	2	4	2	-	0/2/19/22	0/1/1/1



Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
2	MAN	2	5	2	-	0/2/19/22	1/1/1/1
2	A1H03	2	6	2	-	0/6/23/26	0/1/1/1
4	GAL	2A	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	2A	2	4	-	2/2/19/22	0/1/1/1
4	A1H1F	2A	3	4	-	1/5/22/25	0/1/1/1
4	MAN	2A	4	4	-	2/2/19/22	0/1/1/1
3	GAL	2B	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	2B	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	2B	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	2B	4	3	-	0/6/23/26	0/1/1/1
3	MAN	2B	5	3	-	1/2/19/22	0/1/1/1
4	GAL	2C	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	2C	2	4	-	0/2/19/22	0/1/1/1
4	A1H1F	2C	3	4	-	0/5/22/25	0/1/1/1
4	MAN	2C	4	4	-	2/2/19/22	0/1/1/1
2	GAL	3A	1	2,1	-	1/2/19/22	0/1/1/1
2	BGC	3A	2	2	-	0/2/19/22	0/1/1/1
2	A1H1F	3A	3	2	-	2/5/22/25	0/1/1/1
2	MAN	3A	4	2	-	0/2/19/22	0/1/1/1
2	MAN	3A	5	2	-	0/2/19/22	1/1/1/1
2	A1H03	3A	6	2	-	0/6/23/26	0/1/1/1
4	GAL	3B	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	3B	2	4	-	2/2/19/22	0/1/1/1
4	A1H1F	3B	3	4	-	1/5/22/25	0/1/1/1
4	MAN	3B	4	4	-	2/2/19/22	0/1/1/1
3	GAL	3C	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	3C	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	3C	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	3C	4	3	-	0/6/23/26	0/1/1/1
3	MAN	3C	5	3	-	1/2/19/22	0/1/1/1
3	GAL	4	1	3,1	-	2/2/19/22	0/1/1/1
3	BGC	4	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	4	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	4	4	3	-	0/6/23/26	0/1/1/1
3	MAN	4	5	3	-	1/2/19/22	0/1/1/1
2	GAL	4B	1	2,1	-	1/2/19/22	0/1/1/1
2	BGC	4B	2	2	-	0/2/19/22	0/1/1/1
2	A1H1F	4B	3	2	-	2/5/22/25	0/1/1/1
2	MAN	4B	4	2	-	0/2/19/22	0/1/1/1
2	MAN	4B	5	2	-	0/2/19/22	1/1/1/1



Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
2	A1H03	4B	6	2	-	0/6/23/26	0/1/1/1
4	GAL	4C	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	4C	2	4	-	2/2/19/22	0/1/1/1
4	A1H1F	4C	3	4	-	1/5/22/25	0/1/1/1
4	MAN	4C	4	4	-	2/2/19/22	0/1/1/1
3	GAL	5	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	5	2	3	-	2/2/19/22	0/1/1/1
3	A1H1F	5	3	3	-	0/5/22/25	0/1/1/1
3	A1H03	5	4	3	-	0/6/23/26	0/1/1/1
3	MAN	5	5	3	-	2/2/19/22	0/1/1/1
3	GAL	5A	1	3,1	-	2/2/19/22	0/1/1/1
3	BGC	5A	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	5A	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	5A	4	3	_	0/6/23/26	0/1/1/1
3	MAN	5A	5	3	-	1/2/19/22	0/1/1/1
2	GAL	5C	1	2,1	-	1/2/19/22	0/1/1/1
2	BGC	5C	2	2	-	0/2/19/22	0/1/1/1
2	A1H1F	5C	3	2	-	2/5/22/25	0/1/1/1
2	MAN	5C	4	2	-	0/2/19/22	0/1/1/1
2	MAN	5C	5	2	-	0/2/19/22	1/1/1/1
2	A1H03	5C	6	2	-	0/6/23/26	0/1/1/1
4	GAL	6	1	4,1	_	1/2/19/22	0/1/1/1
4	BGC	6	2	4	-	0/2/19/22	0/1/1/1
4	A1H1F	6	3	4	_	0/5/22/25	0/1/1/1
4	MAN	6	4	4	-	2/2/19/22	0/1/1/1
3	GAL	6A	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	6A	2	3	-	2/2/19/22	0/1/1/1
3	A1H1F	6A	3	3	-	0/5/22/25	0/1/1/1
3	A1H03	6A	4	3	-	0/6/23/26	0/1/1/1
3	MAN	6A	5	3	-	2/2/19/22	0/1/1/1
3	GAL	6B	1	3,1	-	2/2/19/22	0/1/1/1
3	BGC	6B	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	6B	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	6B	4	3	_	0/6/23/26	0/1/1/1
3	MAN	6B	5	3	-	1/2/19/22	0/1/1/1
3	GAL	7	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	7	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	7	3	3	_	2/5/22/25	0/1/1/1
3	A1H03	7	4	3	-	0/6/23/26	0/1/1/1



Continuea from previous page										
Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings			
3	MAN	7	5	3	-	1/2/19/22	0/1/1/1			
4	GAL	7A	1	4,1	-	1/2/19/22	0/1/1/1			
4	BGC	7A	2	4	-	0/2/19/22	0/1/1/1			
4	AIHIF	7A	3	4	-	0/5/22/25	0/1/1/1			
4	MAN	7A	4	4	-	2/2/19/22	0/1/1/1			
3	GAL	7B	1	3,1	-	0/2/19/22	0/1/1/1			
3	BGC	7B	2	3	-	2/2/19/22	0/1/1/1			
3	A1H1F	7B	3	3	-	0/5/22/25	0/1/1/1			
3	A1H03	7B	4	3	-	0/6/23/26	0/1/1/1			
3	MAN	7B	5	3	-	2/2/19/22	0/1/1/1			
3	GAL	7C	1	3,1	-	2/2/19/22	0/1/1/1			
3	BGC	7C	2	3	-	0/2/19/22	0/1/1/1			
3	A1H1F	7C	3	3	-	2/5/22/25	0/1/1/1			
3	A1H03	7C	4	3	-	0/6/23/26	0/1/1/1			
3	MAN	7C	5	3	-	1/2/19/22	0/1/1/1			
4	GAL	8	1	4,1	-	1/2/19/22	0/1/1/1			
4	BGC	8	2	4	-	2/2/19/22	0/1/1/1			
4	A1H1F	8	3	4	_	1/5/22/25	0/1/1/1			
4	MAN	8	4	4	-	2/2/19/22	0/1/1/1			
3	GAL	8A	1	3,1	-	0/2/19/22	0/1/1/1			
3	BGC	8A	2	3	-	0/2/19/22	0/1/1/1			
3	A1H1F	8A	3	3	-	2/5/22/25	0/1/1/1			
3	A1H03	8A	4	3	-	0/6/23/26	0/1/1/1			
3	MAN	8A	5	3	-	1/2/19/22	0/1/1/1			
4	GAL	8B	1	4,1	_	1/2/19/22	0/1/1/1			
4	BGC	8B	2	4	-	0/2/19/22	0/1/1/1			
4	A1H1F	8B	3	4	-	0/5/22/25	0/1/1/1			
4	MAN	8B	4	4	-	2/2/19/22	0/1/1/1			
3	GAL	8C	1	3,1	-	0/2/19/22	0/1/1/1			
3	BGC	8C	2	3	-	2/2/19/22	0/1/1/1			
3	A1H1F	8C	3	3	-	0/5/22/25	0/1/1/1			
3	A1H03	8C	4	3	-	0/6/23/26	0/1/1/1			
3	MAN	8C	5	3	-	2/2/19/22	0/1/1/1			
2	GAL	9	1	2,1	-	1/2/19/22	0/1/1/1			
2	BGC	9	2	2	-	0/2/19/22	0/1/1/1			
2	A1H1F	9	3	2	-	2/5/22/25	0/1/1/1			
2	MAN	9	4	2	-	0/2/19/22	0/1/1/1			
2	MAN	9	5	2	-	0/2/19/22	1/1/1/1			
2	A1H03	9	6	2	-	0/6/23/26	0/1/1/1			

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Mol	Tvpe	Chain	Res	Link	Chirals	Torsions	Rings
4	GAL	9A	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	9A	2	4	-	$\frac{2}{2}/\frac{2}{19}/22$	0/1/1/1
4	A1H1F	9A	3	4	-	1/5/22/25	0/1/1/1
4	MAN	9A	4	4	-	$\frac{2}{2}/\frac{2}{19}/22$	0/1/1/1
3	GAL	9B	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	9B	2	3	_	0/2/19/22	0/1/1/1
3	A1H1F	9B	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	9B	4	3	-	0/6/23/26	0/1/1/1
3	MAN	9B	5	3	-	1/2/19/22	0/1/1/1
4	GAL	9C	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	9C	2	4	-	0/2/19/22	0/1/1/1
4	A1H1F	9C	3	4	-	0/5/22/25	0/1/1/1
4	MAN	9C	4	4	-	2/2/19/22	0/1/1/1
2	GAL	AB	1	2,1	-	1/2/19/22	0/1/1/1
2	BGC	AB	2	2	-	0/2/19/22	0/1/1/1
2	A1H1F	AB	3	2	-	2/5/22/25	0/1/1/1
2	MAN	AB	4	2	-	0/2/19/22	0/1/1/1
2	MAN	AB	5	2	-	0/2/19/22	1/1/1/1
2	A1H03	AB	6	2	-	0/6/23/26	0/1/1/1
4	GAL	AC	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	AC	2	4	-	2/2/19/22	0/1/1/1
4	A1H1F	AC	3	4	-	1/5/22/25	0/1/1/1
4	MAN	AC	4	4	-	2/2/19/22	0/1/1/1
3	GAL	AD	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	AD	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	AD	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	AD	4	3	-	0/6/23/26	0/1/1/1
3	MAN	AD	5	3	-	1/2/19/22	0/1/1/1
3	GAL	BA	1	3,1	-	2/2/19/22	0/1/1/1
3	BGC	BA	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	BA	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	BA	4	3	-	0/6/23/26	0/1/1/1
3	MAN	BA	5	3	-	1/2/19/22	0/1/1/1
2	GAL	BC	1	2,1	-	1/2/19/22	0/1/1/1
2	BGC	BC	2	2	-	0/2/19/22	0/1/1/1
2	A1H1F	BC	3	2	-	2/5/22/25	0/1/1/1
2	MAN	BC	4	2	-	0/2/19/22	0/1/1/1
2	MAN	BC	5	2	-	0/2/19/22	1/1/1/1
2	A1H03	BC	6	2	-	0/6/23/26	0/1/1/1
4	GAL	BD	1	4,1	-	1/2/19/22	0/1/1/1


Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
4	BGC	BD	2	4	-	2/2/19/22	0/1/1/1
4	A1H1F	BD	3	4	-	1/5/22/25	0/1/1/1
4	MAN	BD	4	4	-	2/2/19/22	0/1/1/1
3	GAL	CA	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	CA	2	3	-	2/2/19/22	0/1/1/1
3	A1H1F	CA	3	3	-	0/5/22/25	0/1/1/1
3	A1H03	CA	4	3	-	0/6/23/26	0/1/1/1
3	MAN	CA	5	3	-	2/2/19/22	0/1/1/1
3	GAL	CB	1	3,1	-	2/2/19/22	0/1/1/1
3	BGC	CB	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	CB	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	CB	4	3	-	0/6/23/26	0/1/1/1
3	MAN	CB	5	3	-	1/2/19/22	0/1/1/1
2	GAL	CD	1	2,1	-	1/2/19/22	0/1/1/1
2	BGC	CD	2	2	-	0/2/19/22	0/1/1/1
2	A1H1F	CD	3	2	-	2/5/22/25	0/1/1/1
2	MAN	CD	4	2	-	0/2/19/22	0/1/1/1
2	MAN	CD	5	2	-	0/2/19/22	1/1/1/1
2	A1H03	CD	6	2	-	0/6/23/26	0/1/1/1
4	GAL	DA	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	DA	2	4	-	0/2/19/22	0/1/1/1
4	A1H1F	DA	3	4	-	0/5/22/25	0/1/1/1
4	MAN	DA	4	4	-	2/2/19/22	0/1/1/1
3	GAL	DB	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	DB	2	3	-	2/2/19/22	0/1/1/1
3	A1H1F	DB	3	3	-	0/5/22/25	0/1/1/1
3	A1H03	DB	4	3	-	0/6/23/26	0/1/1/1
3	MAN	DB	5	3	-	2/2/19/22	0/1/1/1
3	GAL	DC	1	3,1	-	2/2/19/22	0/1/1/1
3	BGC	DC	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	DC	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	DC	4	3	-	0/6/23/26	0/1/1/1
3	MAN	DC	5	3	-	1/2/19/22	0/1/1/1
3	GAL	EA	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	EA	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	EA	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	EA	4	3	-	0/6/23/26	0/1/1/1
3	MAN	EA	5	3	-	1/2/19/22	0/1/1/1
4	GAL	EB	1	4,1	_	1/2/19/22	0/1/1/1



Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
4	BGC	EB	2	4	_	0/2/19/22	0/1/1/1
4	A1H1F	EB	3	4	-	0/5/22/25	0/1/1/1
4	MAN	EB	4	4	-	2/2/19/22	0/1/1/1
3	GAL	EC	1	3,1	_	0/2/19/22	0/1/1/1
3	BGC	EC	2	3	-	2/2/19/22	0/1/1/1
3	A1H1F	EC	3	3	-	0/5/22/25	0/1/1/1
3	A1H03	EC	4	3	-	0/6/23/26	0/1/1/1
3	MAN	EC	5	3	-	2/2/19/22	0/1/1/1
3	GAL	ED	1	3,1	-	2/2/19/22	0/1/1/1
3	BGC	ED	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	ED	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	ED	4	3	-	0/6/23/26	0/1/1/1
3	MAN	ED	5	3	-	1/2/19/22	0/1/1/1
4	GAL	FA	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	FA	2	4	-	2/2/19/22	0/1/1/1
4	A1H1F	FA	3	4	-	1/5/22/25	0/1/1/1
4	MAN	FA	4	4	-	2/2/19/22	0/1/1/1
3	GAL	FB	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	FB	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	FB	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	FB	4	3	-	0/6/23/26	0/1/1/1
3	MAN	FB	5	3	-	1/2/19/22	0/1/1/1
4	GAL	FC	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	FC	2	4	-	0/2/19/22	0/1/1/1
4	A1H1F	FC	3	4	-	0/5/22/25	0/1/1/1
4	MAN	FC	4	4	-	2/2/19/22	0/1/1/1
3	GAL	FD	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	FD	2	3	-	2/2/19/22	0/1/1/1
3	A1H1F	FD	3	3	-	0/5/22/25	0/1/1/1
3	A1H03	FD	4	3	-	0/6/23/26	0/1/1/1
3	MAN	FD	5	3	-	2/2/19/22	0/1/1/1
2	GAL	GA	1	2,1	-	1/2/19/22	0/1/1/1
2	BGC	GA	2	2	-	0/2/19/22	0/1/1/1
2	A1H1F	GA	3	2	-	2/5/22/25	0/1/1/1
2	MAN	GA	4	2	-	0/2/19/22	0/1/1/1
2	MAN	GA	5	2	-	0/2/19/22	1/1/1/1
2	A1H03	GA	6	2	-	0/6/23/26	0/1/1/1
4	GAL	GB	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	GB	2	4	-	2/2/19/22	0/1/1/1



Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
4	A1H1F	GB	3	4	-	1/5/22/25	0/1/1/1
4	MAN	GB	4	4	-	$\frac{2}{2}/\frac{19}{22}$	0/1/1/1
3	GAL	GC	1	3.1	-	0/2/19/22	0/1/1/1
3	BGC	GC	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	GC	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	GC	4	3	_	0/6/23/26	0/1/1/1
3	MAN	GC	5	3	-	1/2/19/22	0/1/1/1
4	GAL	GD	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	GD	2	4	-	0/2/19/22	0/1/1/1
4	A1H1F	GD	3	4	-	0/5/22/25	0/1/1/1
4	MAN	GD	4	4	-	2/2/19/22	0/1/1/1
2	GAL	HB	1	2,1	-	1/2/19/22	0/1/1/1
2	BGC	HB	2	2	-	0/2/19/22	0/1/1/1
2	A1H1F	HB	3	2	-	2/5/22/25	0/1/1/1
2	MAN	HB	4	2	-	0/2/19/22	0/1/1/1
2	MAN	HB	5	2	-	0/2/19/22	1/1/1/1
2	A1H03	HB	6	2	-	0/6/23/26	0/1/1/1
4	GAL	HC	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	HC	2	4	-	2/2/19/22	0/1/1/1
4	A1H1F	HC	3	4	-	1/5/22/25	0/1/1/1
4	MAN	HC	4	4	-	2/2/19/22	0/1/1/1
3	GAL	HD	1	3,1	_	0/2/19/22	0/1/1/1
3	BGC	HD	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	HD	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	HD	4	3	_	0/6/23/26	0/1/1/1
3	MAN	HD	5	3	-	1/2/19/22	0/1/1/1
3	GAL	IA	1	3,1	-	2/2/19/22	0/1/1/1
3	BGC	IA	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	IA	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	IA	4	3	-	0/6/23/26	0/1/1/1
3	MAN	IA	5	3	-	1/2/19/22	0/1/1/1
2	GAL	IC	1	2,1	-	1/2/19/22	0/1/1/1
2	BGC	IC	2	2	-	0/2/19/22	0/1/1/1
2	A1H1F	IC	3	2	-	2/5/22/25	0/1/1/1
2	MAN	IC	4	2	-	0/2/19/22	0/1/1/1
2	MAN	IC	5	2	-	0/2/19/22	1/1/1/1
2	A1H03	IC	6	2	-	0/6/23/26	0/1/1/1
4	GAL	ID	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	ID	2	4	-	2/2/19/22	0/1/1/1
4	A1H1F	ID	3	4	-	1/5/22/25	0/1/1/1



Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
4	MAN	ID	4	4	_	2/2/19/22	0/1/1/1
3	GAL	JA	1	3,1	_	0/2/19/22	0/1/1/1
3	BGC	JA	2	3	_	2/2/19/22	0/1/1/1
3	A1H1F	JA	3	3	_	0/5/22/25	0/1/1/1
3	A1H03	JA	4	3	-	0/6/23/26	0/1/1/1
3	MAN	JA	5	3	-	2/2/19/22	0/1/1/1
3	GAL	JB	1	3,1	-	2/2/19/22	0/1/1/1
3	BGC	JB	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	JB	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	JB	4	3	-	0/6/23/26	0/1/1/1
3	MAN	JB	5	3	-	1/2/19/22	0/1/1/1
4	GAL	KA	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	KA	2	4	-	0/2/19/22	0/1/1/1
4	A1H1F	KA	3	4	-	0/5/22/25	0/1/1/1
4	MAN	KA	4	4	-	2/2/19/22	0/1/1/1
3	GAL	KB	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	KB	2	3	-	2/2/19/22	0/1/1/1
3	A1H1F	KB	3	3	-	0/5/22/25	0/1/1/1
3	A1H03	KB	4	3	_	0/6/23/26	0/1/1/1
3	MAN	KB	5	3	-	2/2/19/22	0/1/1/1
3	GAL	KC	1	3,1	-	2/2/19/22	0/1/1/1
3	BGC	KC	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	KC	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	KC	4	3	-	0/6/23/26	0/1/1/1
3	MAN	KC	5	3	-	1/2/19/22	0/1/1/1
3	GAL	LA	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	LA	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	LA	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	LA	4	3	-	0/6/23/26	0/1/1/1
3	MAN	LA	5	3	-	1/2/19/22	0/1/1/1
4	GAL	LB	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	LB	2	4	-	0/2/19/22	0/1/1/1
4	A1H1F	LB	3	4	-	0/5/22/25	0/1/1/1
4	MAN	LB	4	4	-	2/2/19/22	0/1/1/1
3	GAL	LC	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	LC	2	3	-	2/2/19/22	0/1/1/1
3	A1H1F	LC	3	3	-	0/5/22/25	0/1/1/1
3	A1H03	LC	4	3	-	0/6/23/26	0/1/1/1
3	MAN	LC	5	3	-	2/2/19/22	0/1/1/1



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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
4	GAL	MA	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	MA	2	4	-	2/2/19/22	0/1/1/1
4	A1H1F	MA	3	4	-	1/5/22/25	0/1/1/1
4	MAN	MA	4	4	-	2/2/19/22	0/1/1/1
3	GAL	MB	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	MB	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	MB	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	MB	4	3	-	0/6/23/26	0/1/1/1
3	MAN	MB	5	3	-	1/2/19/22	0/1/1/1
4	GAL	MC	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	MC	2	4	-	0/2/19/22	0/1/1/1
4	A1H1F	MC	3	4	-	0/5/22/25	0/1/1/1
4	MAN	MC	4	4	-	2/2/19/22	0/1/1/1
2	GAL	NA	1	2,1	-	1/2/19/22	0/1/1/1
2	BGC	NA	2	2	-	0/2/19/22	0/1/1/1
2	A1H1F	NA	3	2	-	2/5/22/25	0/1/1/1
2	MAN	NA	4	2	-	0/2/19/22	0/1/1/1
2	MAN	NA	5	2	-	0/2/19/22	1/1/1/1
2	A1H03	NA	6	2	-	0/6/23/26	0/1/1/1
4	GAL	NB	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	NB	2	4	-	2/2/19/22	0/1/1/1
4	A1H1F	NB	3	4	-	1/5/22/25	0/1/1/1
4	MAN	NB	4	4	-	2/2/19/22	0/1/1/1
3	GAL	NC	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	NC	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	NC	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	NC	4	3	-	0/6/23/26	0/1/1/1
3	MAN	NC	5	3	-	1/2/19/22	0/1/1/1
2	GAL	OB	1	2,1	-	1/2/19/22	0/1/1/1
2	BGC	OB	2	2	-	0/2/19/22	0/1/1/1
2	A1H1F	OB	3	2	-	2/5/22/25	0/1/1/1
2	MAN	OB	4	2	-	0/2/19/22	0/1/1/1
2	MAN	OB	5	2	-	0/2/19/22	1/1/1/1
2	A1H03	OB	6	2	-	0/6/23/26	0/1/1/1
4	GAL	OC	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	OC	2	4	-	2/2/19/22	0/1/1/1
4	A1H1F	OC	3	4	-	1/5/22/25	0/1/1/1
4	MAN	OC	4	4	-	2/2/19/22	0/1/1/1
3	GAL	PA	1	3,1	-	2/2/19/22	0/1/1/1

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	BGC	PA	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	PA	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	PA	4	3	-	0/6/23/26	0/1/1/1
3	MAN	PA	5	3	-	1/2/19/22	0/1/1/1
2	GAL	PC	1	2,1	-	1/2/19/22	0/1/1/1
2	BGC	PC	2	2	-	0/2/19/22	0/1/1/1
2	A1H1F	PC	3	2	-	2/5/22/25	0/1/1/1
2	MAN	PC	4	2	-	0/2/19/22	0/1/1/1
2	MAN	PC	5	2	-	0/2/19/22	1/1/1/1
2	A1H03	PC	6	2	-	0/6/23/26	0/1/1/1
3	GAL	QA	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	QA	2	3	-	2/2/19/22	0/1/1/1
3	A1H1F	QA	3	3	-	0/5/22/25	0/1/1/1
3	A1H03	QA	4	3	-	0/6/23/26	0/1/1/1
3	MAN	QA	5	3	-	2/2/19/22	0/1/1/1
3	GAL	QB	1	3,1	-	2/2/19/22	0/1/1/1
3	BGC	QB	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	QB	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	QB	4	3	-	0/6/23/26	0/1/1/1
3	MAN	QB	5	3	-	1/2/19/22	0/1/1/1
4	GAL	RA	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	RA	2	4	-	0/2/19/22	0/1/1/1
4	A1H1F	RA	3	4	-	0/5/22/25	0/1/1/1
4	MAN	RA	4	4	-	2/2/19/22	0/1/1/1
3	GAL	RB	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	RB	2	3	-	2/2/19/22	0/1/1/1
3	A1H1F	RB	3	3	-	0/5/22/25	0/1/1/1
3	A1H03	RB	4	3	-	0/6/23/26	0/1/1/1
3	MAN	RB	5	3	-	2/2/19/22	0/1/1/1
3	GAL	RC	1	3,1	-	2/2/19/22	0/1/1/1
3	BGC	RC	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	RC	3	3	_	2/5/22/25	0/1/1/1
3	A1H03	RC	4	3	-	0/6/23/26	0/1/1/1
3	MAN	RC	5	3	-	1/2/19/22	0/1/1/1
3	GAL	SA	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	SA	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	SA	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	SA	4	3	-	0/6/23/26	0/1/1/1
3	MAN	SA	5	3	-	1/2/19/22	0/1/1/1



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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
4	GAL	SB	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	SB	2	4	-	$\frac{0/2}{19/22}$	0/1/1/1
4	AIHIF	SB	3	4	-	0/5/22/25	0/1/1/1
4	MAN	SB	4	4	-	2/2/19/22	0/1/1/1
3	GAL	SC	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	SC	2	3	-	2/2/19/22	0/1/1/1
3	A1H1F	SC	3	3	-	0/5/22/25	0/1/1/1
3	A1H03	SC	4	3	-	0/6/23/26	0/1/1/1
3	MAN	SC	5	3	-	2/2/19/22	0/1/1/1
4	GAL	ТА	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	TA	2	4	-	2/2/19/22	0/1/1/1
4	A1H1F	ТА	3	4	-	1/5/22/25	0/1/1/1
4	MAN	ТА	4	4	-	2/2/19/22	0/1/1/1
3	GAL	TB	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	TB	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	TB	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	TB	4	3	-	0/6/23/26	0/1/1/1
3	MAN	TB	5	3	-	1/2/19/22	0/1/1/1
4	GAL	TC	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	TC	2	4	-	0/2/19/22	0/1/1/1
4	A1H1F	TC	3	4	-	0/5/22/25	0/1/1/1
4	MAN	TC	4	4	-	2/2/19/22	0/1/1/1
2	GAL	UA	1	2,1	-	1/2/19/22	0/1/1/1
2	BGC	UA	2	2	-	0/2/19/22	0/1/1/1
2	A1H1F	UA	3	2	-	2/5/22/25	0/1/1/1
2	MAN	UA	4	2	-	0/2/19/22	0/1/1/1
2	MAN	UA	5	2	-	0/2/19/22	1/1/1/1
2	A1H03	UA	6	2	-	0/6/23/26	0/1/1/1
4	GAL	UB	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	UB	2	4	-	2/2/19/22	0/1/1/1
4	A1H1F	UB	3	4	-	1/5/22/25	0/1/1/1
4	MAN	UB	4	4	-	2/2/19/22	0/1/1/1
3	GAL	UC	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	UC	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	UC	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	UC	4	3	-	0/6/23/26	0/1/1/1
3	MAN	UC	5	3	-	1/2/19/22	0/1/1/1
2	GAL	VB	1	2,1	-	1/2/19/22	0/1/1/1
2	BGC	VB	2	2	-	0/2/19/22	0/1/1/1

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
2	A1H1F	VB	3	2	_	2/5/22/25	0/1/1/1
2	MAN	VB	4	2	-	0/2/19/22	0/1/1/1
2	MAN	VB	5	2	-	0/2/19/22	1/1/1/1
2	A1H03	VB	6	2	-	0/6/23/26	0/1/1/1
4	GAL	VC	1	4,1	_	1/2/19/22	0/1/1/1
4	BGC	VC	2	4	-	2/2/19/22	0/1/1/1
4	A1H1F	VC	3	4	-	1/5/22/25	0/1/1/1
4	MAN	VC	4	4	-	2/2/19/22	0/1/1/1
3	GAL	WA	1	3,1	-	2/2/19/22	0/1/1/1
3	BGC	WA	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	WA	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	WA	4	3	-	0/6/23/26	0/1/1/1
3	MAN	WA	5	3	-	1/2/19/22	0/1/1/1
2	GAL	WC	1	2,1	-	1/2/19/22	0/1/1/1
2	BGC	WC	2	2	-	0/2/19/22	0/1/1/1
2	A1H1F	WC	3	2	-	2/5/22/25	0/1/1/1
2	MAN	WC	4	2	-	0/2/19/22	0/1/1/1
2	MAN	WC	5	2	-	0/2/19/22	1/1/1/1
2	A1H03	WC	6	2	-	0/6/23/26	0/1/1/1
3	GAL	XA	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	XA	2	3	-	2/2/19/22	0/1/1/1
3	A1H1F	XA	3	3	-	0/5/22/25	0/1/1/1
3	A1H03	XA	4	3	-	0/6/23/26	0/1/1/1
3	MAN	XA	5	3	-	2/2/19/22	0/1/1/1
3	GAL	XB	1	3,1	-	2/2/19/22	0/1/1/1
3	BGC	XB	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	XB	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	XB	4	3	-	0/6/23/26	0/1/1/1
3	MAN	XB	5	3	-	1/2/19/22	0/1/1/1
4	GAL	YA	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	YA	2	4	-	0/2/19/22	0/1/1/1
4	A1H1F	YA	3	4	-	0/5/22/25	0/1/1/1
4	MAN	YA	4	4	-	2/2/19/22	0/1/1/1
3	GAL	YB	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	YB	2	3	-	2/2/19/22	0/1/1/1
3	A1H1F	YB	3	3	-	0/5/22/25	0/1/1/1
3	A1H03	YB	4	3	-	0/6/23/26	0/1/1/1
3	MAN	YB	5	3	-	2/2/19/22	0/1/1/1
3	GAL	YC	1	3,1	-	2/2/19/22	0/1/1/1



Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	BGC	YC	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	YC	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	YC	4	3	-	0/6/23/26	0/1/1/1
3	MAN	YC	5	3	-	1/2/19/22	0/1/1/1
3	GAL	ZA	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	ZA	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	ZA	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	ZA	4	3	-	0/6/23/26	0/1/1/1
3	MAN	ZA	5	3	-	1/2/19/22	0/1/1/1
4	GAL	ZB	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	ZB	2	4	-	0/2/19/22	0/1/1/1
4	A1H1F	ZB	3	4	-	0/5/22/25	0/1/1/1
4	MAN	ZB	4	4	-	2/2/19/22	0/1/1/1
3	GAL	ZC	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	ZC	2	3	-	2/2/19/22	0/1/1/1
3	A1H1F	ZC	3	3	-	0/5/22/25	0/1/1/1
3	A1H03	ZC	4	3	-	0/6/23/26	0/1/1/1
3	MAN	ZC	5	3	-	2/2/19/22	0/1/1/1
4	GAL	aA	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	aA	2	4	-	2/2/19/22	0/1/1/1
4	A1H1F	aA	3	4	-	1/5/22/25	0/1/1/1
4	MAN	aA	4	4	-	2/2/19/22	0/1/1/1
3	GAL	aB	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	aB	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	aB	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	aB	4	3	-	0/6/23/26	0/1/1/1
3	MAN	aB	5	3	-	1/2/19/22	0/1/1/1
4	GAL	aC	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	aC	2	4	-	0/2/19/22	0/1/1/1
4	A1H1F	aC	3	4	-	0/5/22/25	0/1/1/1
4	MAN	aC	4	4	-	2/2/19/22	0/1/1/1
2	GAL	bA	1	2,1	-	1/2/19/22	0/1/1/1
2	BGC	bA	2	2	-	0/2/19/22	0/1/1/1
2	A1H1F	bA	3	2	-	2/5/22/25	0/1/1/1
2	MAN	bA	4	2	-	0/2/19/22	0/1/1/1
2	MAN	bA	5	2	-	$\overline{0/2/19/22}$	1/1/1/1
2	A1H03	bA	6	2	-	0/6/23/26	0/1/1/1
4	GAL	bB	1	$4,\overline{1}$	-	1/2/19/22	$0/1/\overline{1/1}$
4	BGC	bB	2	4	-	2/2/19/22	0/1/1/1
4	A1H1F	bB	3	4	-	1/5/22/25	0/1/1/1

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
4	MAN	bB	4	4	-	2/2/19/22	0/1/1/1
3	GAL	bC	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	bC	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	bC	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	bC	4	3	-	0/6/23/26	0/1/1/1
3	MAN	bC	5	3	_	1/2/19/22	0/1/1/1
2	GAL	cB	1	2,1	-	1/2/19/22	0/1/1/1
2	BGC	cB	2	2	-	0/2/19/22	0/1/1/1
2	A1H1F	cB	3	2	-	2/5/22/25	0/1/1/1
2	MAN	cB	4	2	-	0/2/19/22	0/1/1/1
2	MAN	cB	5	2	-	0/2/19/22	1/1/1/1
2	A1H03	cB	6	2	-	0/6/23/26	0/1/1/1
4	GAL	cC	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	cC	2	4	-	2/2/19/22	0/1/1/1
4	A1H1F	cC	3	4	-	1/5/22/25	0/1/1/1
4	MAN	cC	4	4	-	2/2/19/22	0/1/1/1
3	GAL	dA	1	3,1	_	2/2/19/22	0/1/1/1
3	BGC	dA	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	dA	3	3	-	$\frac{2}{5}/22/25$	0/1/1/1
3	A1H03	dA	4	3	_	0/6/23/26	0/1/1/1
3	MAN	dA	5	3	-	$\frac{1/2}{19/22}$	0/1/1/1
2	GAL	dC	1	2,1	-	1/2/19/22	0/1/1/1
2	BGC	dC	2	2	-	0/2/19/22	0/1/1/1
2	A1H1F	dC	3	2	-	2/5/22/25	0/1/1/1
2	MAN	dC	4	2	-	0/2/19/22	0/1/1/1
2	MAN	dC	5	2	-	0/2/19/22	1/1/1/1
2	A1H03	dC	6	2	_	0/6/23/26	0/1/1/1
3	GAL	eA	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	eA	2	3	-	2/2/19/22	0/1/1/1
3	A1H1F	eA	3	3	-	0/5/22/25	0/1/1/1
3	A1H03	eA	4	3	-	0/6/23/26	0/1/1/1
3	MAN	eA	5	3	-	2/2/19/22	0/1/1/1
3	GAL	eB	1	3,1	_	2/2/19/22	0/1/1/1
3	BGC	eB	2	3	_	0/2/19/22	0/1/1/1
3	A1H1F	eB	3	3	_	$\frac{2}{5}/\frac{22}{25}$	0/1/1/1
3	A1H03	eB	4	3	_	0/6/23/26	0/1/1/1
3	MAN	eB	5	3	-	1/2/19/22	0/1/1/1
4	GAL	fA	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	fA	2	4	-	0/2/19/22	0/1/1/1



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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
4	A1H1F	fA	3	4	-	0/5/22/25	0/1/1/1
4	MAN	fA	4	4	-	2/2/19/22	0/1/1/1
3	GAL	fB	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	fB	2	3	-	2/2/19/22	0/1/1/1
3	A1H1F	fB	3	3	-	0/5/22/25	0/1/1/1
3	A1H03	fB	4	3	-	0/6/23/26	0/1/1/1
3	MAN	fB	5	3	-	2/2/19/22	0/1/1/1
3	GAL	fC	1	3,1	-	2/2/19/22	0/1/1/1
3	BGC	fC	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	fC	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	fC	4	3	-	0/6/23/26	0/1/1/1
3	MAN	fC	5	3	-	1/2/19/22	0/1/1/1
3	GAL	gA	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	gA	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	gA	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	gA	4	3	-	0/6/23/26	0/1/1/1
3	MAN	gA	5	3	-	1/2/19/22	0/1/1/1
4	GAL	gB	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	gB	2	4	-	0/2/19/22	0/1/1/1
4	A1H1F	gB	3	4	-	0/5/22/25	0/1/1/1
4	MAN	gB	4	4	-	2/2/19/22	0/1/1/1
3	GAL	gC	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	gC	2	3	-	2/2/19/22	0/1/1/1
3	A1H1F	gC	3	3	-	0/5/22/25	0/1/1/1
3	A1H03	gC	4	3	-	0/6/23/26	0/1/1/1
3	MAN	gC	5	3	-	2/2/19/22	0/1/1/1
2	GAL	h	1	2,1	-	1/2/19/22	0/1/1/1
2	BGC	h	2	2	-	0/2/19/22	0/1/1/1
2	A1H1F	h	3	2	-	2/5/22/25	0/1/1/1
2	MAN	h	4	2	-	0/2/19/22	0/1/1/1
2	MAN	h	5	2	-	0/2/19/22	1/1/1/1
2	A1H03	h	6	2	-	0/6/23/26	0/1/1/1
4	GAL	hA	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	hA	2	4	-	2/2/19/22	0/1/1/1
4	A1H1F	hA	3	4	-	1/5/22/25	0/1/1/1
4	MAN	hA	4	4	-	2/2/19/22	0/1/1/1
3	GAL	hB	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	hB	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	hB	3	3	-	2/5/22/25	0/1/1/1



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Mol	Type	Chain	Res		Chirals	Torsions	Rings
3	AIH03	hB	4	3	-	$\frac{0/6}{23/26}$	0/1/1/1
3	MAN	hB	5	3	-	$\frac{1/2}{19/22}$	0/1/1/1
4	GAL	hC	1	4,1	-	$\frac{1/2}{19/22}$	0/1/1/1
4		hC	$\frac{2}{3}$	4	-	$\frac{0/2}{19/22}$	0/1/1/1
4	MAN	hC		4	-	$\frac{0}{3}\frac{2}{210}\frac{22}{20}$	0/1/1/1
4			4	4	-	<u>2/2/19/22</u> 1/2/10/22	0/1/1/1
$\frac{2}{2}$	GAL BCC	i A	1	2,1	-	$\frac{1/2}{19/22}$	0/1/1/1
				2	-	0/2/19/22	0/1/1/1
	MAN				-	2/3/22/23 0/2/10/22	0/1/1/1
$\frac{2}{2}$	MAN	i A	4	$\frac{2}{2}$	-	$\frac{0/2}{19/22}$	0/1/1/1 1/1/1/1
$\frac{2}{2}$	Δ1H03	i A	5	$\frac{2}{2}$	-	0/2/19/22 0/6/23/26	$\frac{1}{1}$
	CAL.	iB	1	<u> </u>	_	$\frac{0}{0}\frac{23}{20}$ $\frac{1}{2}\frac{10}{22}$	0/1/1/1
4	BCC	iB	2	4,1		$\frac{1}{2}$	0/1/1/1
4		iB	2	-=	_	$\frac{2/2}{15/22}$	0/1/1/1
4	MAN	;D	<u> </u>	4	-	$\frac{1}{3}$	0/1/1/1
4		ID ;C	4	4	-	2/2/19/22	0/1/1/1
う う	GAL	iC	1	3,1	-	0/2/19/22 0/2/10/22	0/1/1/1
ວ 		iC		ა ე	-	0/2/19/22	0/1/1/1
3	AIHIF		3	3	-	2/3/22/23	0/1/1/1
3	AIH03 MAN	iC	4	3	-	$\frac{0/6}{23/26}$	0/1/1/1
3	MAN	·	0	্য ১	-	1/2/19/22	0/1/1/1
3	GAL	J	1	3,1	-	2/2/19/22	0/1/1/1
3	BGC	j	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	j	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	j	4	3	-	0/6/23/26	0/1/1/1
3	MAN	j	5	3	-	1/2/19/22	0/1/1/1
2	GAL	jB	1	2,1	-	1/2/19/22	0/1/1/1
2	BGC	jВ	2	2	-	0/2/19/22	0/1/1/1
2	A1H1F	jB	3	2	-	2/5/22/25	0/1/1/1
2	MAN	jВ	4	2	-	0/2/19/22	0/1/1/1
2	MAN	jB	5	2	-	0/2/19/22	1/1/1/1
2	A1H03	jB	6	2	-	0/6/23/26	0/1/1/1
4	GAL	jC	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	jC	2	4	-	2/2/19/22	0/1/1/1
4	A1H1F	jС	3	4	-	1/5/22/25	0/1/1/1
4	MAN	jС	4	4	-	2/2/19/22	0/1/1/1
3	GAL	k	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	k	2	3	-	2/2/19/22	0/1/1/1
3	A1H1F	k	3	3	-	0/5/22/25	0/1/1/1
3	A1H03	k	4	3	-	0/6/23/26	0/1/1/1



Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	MAN	k	5	3	-	2/2/19/22	0/1/1/1
3	GAL	kA	1	3,1	-	2/2/19/22	0/1/1/1
3	BGC	kA	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	kA	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	kA	4	3	-	0/6/23/26	0/1/1/1
3	MAN	kA	5	3	-	1/2/19/22	0/1/1/1
2	GAL	kC	1	2,1	-	1/2/19/22	0/1/1/1
2	BGC	kC	2	2	-	0/2/19/22	0/1/1/1
2	A1H1F	kC	3	2	-	2/5/22/25	0/1/1/1
2	MAN	kC	4	2	-	0/2/19/22	0/1/1/1
2	MAN	kC	5	2	-	0/2/19/22	1/1/1/1
2	A1H03	kC	6	2	-	0/6/23/26	0/1/1/1
4	GAL	1	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	1	2	4	-	0/2/19/22	0/1/1/1
4	A1H1F	1	3	4	-	0/5/22/25	0/1/1/1
4	MAN	1	4	4	-	2/2/19/22	0/1/1/1
3	GAL	lA	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	lA	2	3	-	2/2/19/22	0/1/1/1
3	A1H1F	lA	3	3	-	0/5/22/25	0/1/1/1
3	A1H03	lA	4	3	-	0/6/23/26	0/1/1/1
3	MAN	lA	5	3	-	2/2/19/22	0/1/1/1
3	GAL	lB	1	3,1	-	2/2/19/22	0/1/1/1
3	BGC	lB	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	lB	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	lB	4	3	-	0/6/23/26	0/1/1/1
3	MAN	lB	5	3	-	1/2/19/22	0/1/1/1
3	GAL	m	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	m	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	m	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	m	4	3	-	0/6/23/26	0/1/1/1
3	MAN	m	5	3	-	1/2/19/22	0/1/1/1
4	GAL	mA	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	mA	2	4	-	0/2/19/22	0/1/1/1
4	A1H1F	mA	3	4	-	0/5/22/25	0/1/1/1
4	MAN	mA	4	4	-	2/2/19/22	0/1/1/1
3	GAL	mB	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	mB	2	3	-	2/2/19/22	$0/1/\overline{1/1}$
3	A1H1F	mB	3	3	-	0/5/22/25	0/1/1/1
3	A1H03	mB	4	3	-	0/6/23/26	0/1/1/1



Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	MAN	mB	5	3	-	2/2/19/22	0/1/1/1
3	GAL	mC	1	3,1	_	2/2/19/22	0/1/1/1
3	BGC	mC	2	3	_	0/2/19/22	0/1/1/1
3	A1H1F	mC	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	mC	4	3	-	0/6/23/26	0/1/1/1
3	MAN	mC	5	3	-	1/2/19/22	0/1/1/1
4	GAL	n	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	n	2	4	-	2/2/19/22	0/1/1/1
4	A1H1F	n	3	4	-	1/5/22/25	0/1/1/1
4	MAN	n	4	4	-	2/2/19/22	0/1/1/1
3	GAL	nA	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	nA	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	nA	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	nA	4	3	-	0/6/23/26	0/1/1/1
3	MAN	nA	5	3	-	1/2/19/22	0/1/1/1
4	GAL	nB	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	nB	2	4	-	0/2/19/22	0/1/1/1
4	A1H1F	nB	3	4	-	0/5/22/25	0/1/1/1
4	MAN	nB	4	4	-	2/2/19/22	0/1/1/1
3	GAL	nC	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	nC	2	3	-	2/2/19/22	0/1/1/1
3	A1H1F	nC	3	3	-	0/5/22/25	0/1/1/1
3	A1H03	nC	4	3	-	0/6/23/26	0/1/1/1
3	MAN	nC	5	3	-	2/2/19/22	0/1/1/1
2	GAL	0	1	2,1	-	1/2/19/22	0/1/1/1
2	BGC	0	2	2	-	0/2/19/22	0/1/1/1
2	A1H1F	О	3	2	-	2/5/22/25	0/1/1/1
2	MAN	0	4	2	-	0/2/19/22	0/1/1/1
2	MAN	0	5	2	-	0/2/19/22	1/1/1/1
2	A1H03	0	6	2	-	0/6/23/26	0/1/1/1
4	GAL	oA	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	oA	2	4	-	2/2/19/22	0/1/1/1
4	A1H1F	oA	3	4	-	1/5/22/25	0/1/1/1
4	MAN	oA	4	4	-	2/2/19/22	0/1/1/1
3	GAL	oB	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	oB	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	oB	3	3	_	2/5/22/25	0/1/1/1
3	A1H03	oB	4	3	-	0/6/23/26	0/1/1/1
3	MAN	oB	5	3	_	1/2/19/22	0/1/1/1



Mol	Tvpe		Res	Link	Chirals	Torsions	Rings
4	GAL	oC	1	4.1	_	1/2/19/22	0/1/1/1
4	BGC	oC	2	4	_	0/2/19/22	0/1/1/1
4	A1H1F	oC	3	4	_	0/5/22/25	0/1/1/1
4	MAN	oC	4	4	_	$\frac{2}{2}/\frac{2}{19}/22$	0/1/1/1
2	GAL	pA	1	2,1	-	1/2/19/22	0/1/1/1
2	BGC	pA	2	2	-	0/2/19/22	0/1/1/1
2	A1H1F	рА	3	2	-	2/5/22/25	0/1/1/1
2	MAN	pА	4	2	-	0/2/19/22	0/1/1/1
2	MAN	pА	5	2	_	0/2/19/22	1/1/1/1
2	A1H03	pА	6	2	-	0/6/23/26	0/1/1/1
4	GAL	pВ	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	pВ	2	4	-	2/2/19/22	0/1/1/1
4	A1H1F	pВ	3	4	-	1/5/22/25	0/1/1/1
4	MAN	pВ	4	4	-	2/2/19/22	0/1/1/1
3	GAL	pC	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	pC	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	pC	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	pC	4	3	-	0/6/23/26	0/1/1/1
3	MAN	pC	5	3	-	1/2/19/22	0/1/1/1
3	GAL	q	1	3,1	-	2/2/19/22	0/1/1/1
3	BGC	q	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	q	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	q	4	3	-	0/6/23/26	0/1/1/1
3	MAN	q	5	3	-	1/2/19/22	0/1/1/1
2	GAL	qB	1	2,1	-	1/2/19/22	0/1/1/1
2	BGC	qB	2	2	-	0/2/19/22	0/1/1/1
2	A1H1F	qB	3	2	-	2/5/22/25	0/1/1/1
2	MAN	qB	4	2	-	0/2/19/22	0/1/1/1
2	MAN	qB	5	2	-	0/2/19/22	1/1/1/1
2	A1H03	qB	6	2	-	0/6/23/26	0/1/1/1
4	GAL	qC	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	qC	2	4	-	2/2/19/22	0/1/1/1
4	A1H1F	qC	3	4	-	1/5/22/25	0/1/1/1
4	MAN	qC	4	4	-	2/2/19/22	0/1/1/1
3	GAL	r	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	r	2	3	_	2/2/19/22	0/1/1/1
3	A1H1F	r	3	3	-	0/5/22/25	0/1/1/1
3	A1H03	r	4	3	-	0/6/23/26	0/1/1/1
3	MAN	r	5	3	_	2/2/19/22	0/1/1/1



Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	GAL	rA	1	3,1	-	2/2/19/22	0/1/1/1
3	BGC	rA	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	rA	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	rA	4	3	-	0/6/23/26	0/1/1/1
3	MAN	rA	5	3	-	1/2/19/22	0/1/1/1
2	GAL	rC	1	2,1	-	1/2/19/22	0/1/1/1
2	BGC	rC	2	2	-	0/2/19/22	0/1/1/1
2	A1H1F	rC	3	2	-	2/5/22/25	0/1/1/1
2	MAN	rC	4	2	-	0/2/19/22	0/1/1/1
2	MAN	rC	5	2	-	0/2/19/22	1/1/1/1
2	A1H03	rC	6	2	-	0/6/23/26	0/1/1/1
4	GAL	s	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	S	2	4	-	0/2/19/22	0/1/1/1
4	A1H1F	S	3	4	-	0/5/22/25	0/1/1/1
4	MAN	s	4	4	-	2/2/19/22	0/1/1/1
3	GAL	sA	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	sA	2	3	-	2/2/19/22	0/1/1/1
3	A1H1F	sA	3	3	-	0/5/22/25	0/1/1/1
3	A1H03	sA	4	3	-	0/6/23/26	0/1/1/1
3	MAN	sA	5	3	-	2/2/19/22	0/1/1/1
3	GAL	sB	1	3,1	-	2/2/19/22	0/1/1/1
3	BGC	sB	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	sB	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	sB	4	3	-	0/6/23/26	0/1/1/1
3	MAN	sB	5	3	-	1/2/19/22	0/1/1/1
3	GAL	t	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	t	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	t	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	t	4	3	-	0/6/23/26	0/1/1/1
3	MAN	t	5	3	-	1/2/19/22	0/1/1/1
4	GAL	tA	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	tA	2	4	-	0/2/19/22	0/1/1/1
4	A1H1F	tA	3	4	-	0/5/22/25	0/1/1/1
4	MAN	tA	4	4	-	2/2/19/22	0/1/1/1
3	GAL	tB	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	tB	2	3	-	2/2/19/22	0/1/1/1
3	A1H1F	tB	3	3	-	0/5/22/25	0/1/1/1
3	A1H03	tB	4	3	-	0/6/23/26	0/1/1/1
3	MAN	tB	5	3	-	2/2/19/22	0/1/1/1

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	GAL	tC	1	3,1	-	2/2/19/22	0/1/1/1
3	BGC	tC	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	tC	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	tC	4	3	-	0/6/23/26	0/1/1/1
3	MAN	tC	5	3	-	1/2/19/22	0/1/1/1
4	GAL	u	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	u	2	4	-	2/2/19/22	0/1/1/1
4	A1H1F	u	3	4	-	1/5/22/25	0/1/1/1
4	MAN	u	4	4	-	2/2/19/22	0/1/1/1
3	GAL	uA	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	uA	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	uA	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	uA	4	3	-	0/6/23/26	0/1/1/1
3	MAN	uA	5	3	-	1/2/19/22	0/1/1/1
4	GAL	uB	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	uB	2	4	-	0/2/19/22	0/1/1/1
4	A1H1F	uB	3	4	-	0/5/22/25	0/1/1/1
4	MAN	uB	4	4	-	2/2/19/22	0/1/1/1
3	GAL	uC	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	uC	2	3	-	2/2/19/22	0/1/1/1
3	A1H1F	uC	3	3	-	0/5/22/25	0/1/1/1
3	A1H03	uC	4	3	-	0/6/23/26	0/1/1/1
3	MAN	uC	5	3	-	2/2/19/22	0/1/1/1
2	GAL	V	1	2,1	-	1/2/19/22	0/1/1/1
2	BGC	v	2	2	-	0/2/19/22	0/1/1/1
2	A1H1F	v	3	2	-	2/5/22/25	0/1/1/1
2	MAN	v	4	2	-	0/2/19/22	0/1/1/1
2	MAN	v	5	2	-	0/2/19/22	1/1/1/1
2	A1H03	V	6	2	-	0/6/23/26	0/1/1/1
4	GAL	vA	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	vA	2	4	-	2/2/19/22	0/1/1/1
4	A1H1F	vA	3	4	-	1/5/22/25	0/1/1/1
4	MAN	vA	4	4	-	2/2/19/22	0/1/1/1
3	GAL	vB	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	vB	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	vB	3	3	_	2/5/22/25	0/1/1/1
3	A1H03	vB	4	3	-	0/6/23/26	0/1/1/1
3	MAN	vB	5	3	-	$1/2/\overline{19/22}$	0/1/1/1
4	GAL	l vC	1	4,1	-	1/2/19/22	0/1/1/1



Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
4	BGC	vC	2	4	-	0/2/19/22	0/1/1/1
4	A1H1F	vC	3	4	-	0/5/22/25	0/1/1/1
4	MAN	vC	4	4	-	2/2/19/22	0/1/1/1
2	GAL	wA	1	2,1	-	1/2/19/22	0/1/1/1
2	BGC	wA	2	2	-	0/2/19/22	0/1/1/1
2	A1H1F	wA	3	2	-	2/5/22/25	0/1/1/1
2	MAN	wA	4	2	-	0/2/19/22	0/1/1/1
2	MAN	wA	5	2	-	0/2/19/22	1/1/1/1
2	A1H03	wA	6	2	-	0/6/23/26	0/1/1/1
4	GAL	wB	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	wB	2	4	-	2/2/19/22	0/1/1/1
4	A1H1F	wB	3	4	-	1/5/22/25	0/1/1/1
4	MAN	wB	4	4	-	2/2/19/22	0/1/1/1
3	GAL	wC	1	3,1	_	0/2/19/22	0/1/1/1
3	BGC	wC	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	wC	3	3	_	2/5/22/25	0/1/1/1
3	A1H03	wC	4	3	-	0/6/23/26	0/1/1/1
3	MAN	wC	5	3	-	1/2/19/22	0/1/1/1
3	GAL	x	1	3,1	-	2/2/19/22	0/1/1/1
3	BGC	x	2	3	_	0/2/19/22	0/1/1/1
3	A1H1F	x	3	3	_	$\frac{2}{5}/22/25$	0/1/1/1
3	A1H03	X	4	3	_	0/6/23/26	0/1/1/1
3	MAN	x	5	3	_	1/2/19/22	0/1/1/1
2	GAL	xB	1	2,1	-	1/2/19/22	0/1/1/1
2	BGC	xB	2	2	-	0/2/19/22	0/1/1/1
2	A1H1F	xB	3	2	-	2/5/22/25	0/1/1/1
2	MAN	xB	4	2	-	0/2/19/22	0/1/1/1
2	MAN	xB	5	2	-	0/2/19/22	1/1/1/1
2	A1H03	xB	6	2	-	0/6/23/26	0/1/1/1
4	GAL	xC	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	xC	2	4	-	2/2/19/22	0/1/1/1
4	A1H1F	xC	3	4	-	1/5/22/25	0/1/1/1
4	MAN	xC	4	4	-	2/2/19/22	0/1/1/1
3	GAL	у	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	у	2	3	-	2/2/19/22	0/1/1/1
3	A1H1F	у	3	3	-	0/5/22/25	0/1/1/1
3	A1H03	У	4	3	-	0/6/23/26	0/1/1/1
3	MAN	у	5	3	-	2/2/19/22	0/1/1/1
3	GAL	yA	1	3,1	-	2/2/19/22	0/1/1/1



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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	BGC	yА	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	yА	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	yА	4	3	_	0/6/23/26	0/1/1/1
3	MAN	yА	5	3	-	1/2/19/22	0/1/1/1
2	GAL	yC	1	2,1	-	1/2/19/22	0/1/1/1
2	BGC	yC	2	2	-	0/2/19/22	0/1/1/1
2	A1H1F	yC	3	2	-	2/5/22/25	0/1/1/1
2	MAN	yC	4	2	-	0/2/19/22	0/1/1/1
2	MAN	уC	5	2	_	0/2/19/22	1/1/1/1
2	A1H03	уC	6	2	-	0/6/23/26	0/1/1/1
4	GAL	Z	1	4,1	-	1/2/19/22	0/1/1/1
4	BGC	Z	2	4	-	0/2/19/22	0/1/1/1
4	A1H1F	Z	3	4	-	0/5/22/25	0/1/1/1
4	MAN	Z	4	4	-	2/2/19/22	0/1/1/1
3	GAL	zA	1	3,1	-	0/2/19/22	0/1/1/1
3	BGC	zA	2	3	-	2/2/19/22	0/1/1/1
3	A1H1F	zA	3	3	-	0/5/22/25	0/1/1/1
3	A1H03	zA	4	3	-	0/6/23/26	0/1/1/1
3	MAN	zA	5	3	-	2/2/19/22	0/1/1/1
3	GAL	zB	1	3,1	-	2/2/19/22	0/1/1/1
3	BGC	zB	2	3	-	0/2/19/22	0/1/1/1
3	A1H1F	zB	3	3	-	2/5/22/25	0/1/1/1
3	A1H03	zB	4	3	-	0/6/23/26	0/1/1/1
3	MAN	zB	5	3	-	1/2/19/22	0/1/1/1

All (195) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	8B	3	A1H1F	C6-S6	-2.84	1.66	1.77
4	KA	3	A1H1F	C6-S6	-2.83	1.66	1.77
4	FC	3	A1H1F	C6-S6	-2.82	1.67	1.77
4	TC	3	A1H1F	C6-S6	-2.82	1.67	1.77
4	1B	3	A1H1F	C6-S6	-2.81	1.67	1.77
4	1	3	A1H1F	C6-S6	-2.81	1.67	1.77
4	aC	3	A1H1F	C6-S6	-2.81	1.67	1.77
4	hC	3	A1H1F	C6-S6	-2.81	1.67	1.77
4	SB	3	A1H1F	C6-S6	-2.81	1.67	1.77
4	nB	3	A1H1F	C6-S6	-2.81	1.67	1.77
4	6	3	A1H1F	C6-S6	-2.81	1.67	1.77
4	DA	3	A1H1F	C6-S6	-2.81	1.67	1.77
4	MC	3	A1H1F	C6-S6	-2.81	1.67	1.77

Mol	Chain	Res	Tvpe	Atoms	Z	Observed(Å)	Ideal(Å)
4	uB	3	A1H1F	C6-S6	-2.81	1.67	1.77
4	EB	3	A1H1F	C6-S6	-2.81	1.67	1.77
4	Z	3	A1H1F	C6-S6	-2.81	1.67	1.77
4	LB	3	A1H1F	C6-S6	-2.81	1.67	1.77
4	ZB	3	A1H1F	C6-S6	-2.81	1.67	1.77
4	gB	3	A1H1F	C6-S6	-2.81	1.67	1.77
4	cC	3	A1H1F	C6-S6	-2.81	1.67	1.77
4	vC	3	A1H1F	C6-S6	-2.81	1.67	1.77
4	fA	3	A1H1F	C6-S6	-2.81	1.67	1.77
4	tA	3	A1H1F	C6-S6	-2.81	1.67	1.77
4	oC	3	A1H1F	C6-S6	-2.81	1.67	1.77
4	RA	3	A1H1F	C6-S6	-2.80	1.67	1.77
4	s	3	A1H1F	C6-S6	-2.80	1.67	1.77
2	jВ	3	A1H1F	C6-S6	-2.80	1.67	1.77
4	YA	3	A1H1F	C6-S6	-2.80	1.67	1.77
4	7A	3	A1H1F	C6-S6	-2.80	1.67	1.77
4	mA	3	A1H1F	C6-S6	-2.80	1.67	1.77
4	0A	3	A1H1F	C6-S6	-2.80	1.67	1.77
4	2C	3	A1H1F	C6-S6	-2.80	1.67	1.77
4	9C	3	A1H1F	C6-S6	-2.80	1.67	1.77
3	JB	3	A1H1F	C6-S6	-2.80	1.67	1.77
2	cB	3	A1H1F	C6-S6	-2.79	1.67	1.77
3	CB	3	A1H1F	C6-S6	-2.79	1.67	1.77
4	1	3	A1H1F	C6-S6	-2.79	1.67	1.77
3	DC	3	A1H1F	C6-S6	-2.79	1.67	1.77
2	qB	3	A1H1F	C6-S6	-2.79	1.67	1.77
3	0C	3	A1H1F	C6-S6	-2.79	1.67	1.77
4	TA	3	A1H1F	C6-S6	-2.79	1.67	1.77
2	pА	3	A1H1F	C6-S6	-2.79	1.67	1.77
4	aA	3	A1H1F	C6-S6	-2.79	1.67	1.77
4	MA	3	A1H1F	C6-S6	-2.79	1.67	1.77
4	GD	3	A1H1F	C6-S6	-2.79	1.67	1.77
2	yC	3	A1H1F	C6-S6	-2.79	1.67	1.77
4	hA	3	A1H1F	C6-S6	-2.79	1.67	1.77
4	9A	3	A1H1F	C6-S6	-2.79	1.67	1.77
4	oA	3	A1H1F	C6-S6	-2.79	1.67	1.77
4	8	3	AIHIF	C6-S6	-2.79	1.67	1.77
$\frac{2}{2}$	PC	3	AIHIF	C6-S6	-2.79	1.67	1.77
3	QA	3	AIHIF	C6-S6	-2.79	1.07	
4	2A CD	3	AIHIF	C6-S6	-2.79	1.67	
2		3	AIHIF	<u>C6-S6</u>	-2.79	1.67	
J	aA	1 3	AIHIF	00-50	-Z.(9	1.07	1 1.((



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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)	
3	zA	3	A1H1F	C6-S6	-2.79	1.67	1.77	
4	FA	3	A1H1F	C6-S6	-2.79	1.67	1.77	
2	GA	3	A1H1F	C6-S6	-2.79	1.67	1.77	
3	1C	3	A1H1F	C6-S6	-2.79	1.67	1.77	
3	tB	3	A1H1F	C6-S6	-2.79	1.67	1.77	
4	GB	3	A1H1F	C6-S6	-2.79	1.67	1.77	
4	NB	3	A1H1F	C6-S6	-2.79	1.67	1.77	
4	UB	3	A1H1F	C6-S6	-2.79	1.67	1.77	
3	YB	3	A1H1F	C6-S6	-2.78	1.67	1.77	
2	HB	3	A1H1F	C6-S6	-2.78	1.67	1.77	
3	rA	3	A1H1F	C6-S6	-2.78	1.67	1.77	
3	RC	3	A1H1F	C6-S6	-2.78	1.67	1.77	
4	pВ	3	A1H1F	C6-S6	-2.78	1.67	1.77	
4	ID	3	A1H1F	C6-S6	-2.78	1.67	1.77	
4	bB	3	A1H1F	C6-S6	-2.78	1.67	1.77	
4	iB	3	A1H1F	C6-S6	-2.78	1.67	1.77	
4	3B	3	A1H1F	C6-S6	-2.78	1.67	1.77	
3	CA	3	A1H1F	C6-S6	-2.78	1.67	1.77	
3	uC	3	A1H1F	C6-S6	-2.78	1.67	1.77	
4	AC	3	A1H1F	C6-S6	-2.78	1.67	1.77	
4	wB	3	A1H1F	C6-S6	-2.78	1.67	1.77	
4	n	3	A1H1F	C6-S6	-2.78	1.67	1.77	
4	jС	3	A1H1F	C6-S6	-2.78	1.67	1.77	
3	XA	3	A1H1F	C6-S6	-2.78	1.67	1.77	
4	OC	3	A1H1F	C6-S6	-2.78	1.67	1.77	
2	UA	3	A1H1F	C6-S6	-2.78	1.67	1.77	
4	VC	3	A1H1F	C6-S6	-2.78	1.67	1.77	
4	xC	3	A1H1F	C6-S6	-2.78	1.67	1.77	
3	kA	3	A1H1F	C6-S6	-2.78	1.67	1.77	
3	KC	3	A1H1F	C6-S6	-2.78	1.67	1.77	
4	4C	3	A1H1F	C6-S6	-2.78	1.67	1.77	
4	qC	3	A1H1F	C6-S6	-2.78	1.67	1.77	
4	BD	3	A1H1F	C6-S6	-2.78	1.67	1.77	
4	HC	3	A1H1F	C6-S6	-2.78	1.67	1.77	
3	yА	3	A1H1F	C6-S6	-2.78	1.67	1.77	
3	DB	3	A1H1F	C6-S6	-2.78	1.67	1.77	
3	RB	3	A1H1F	C6-S6	-2.78	1.67	1.77	
3	KB	3	A1H1F	C6-S6	-2.78	1.67	1.77	
3	QB	3	A1H1F	C6-S6	-2.78	1.67	1.77	
3	0B	3	A1H1F	C6-S6	-2.78	1.67	1.77	
3	4	3	A1H1F	C6-S6	-2.78	1.67	1.77	
3	sA	3	A1H1F	C6-S6	-2.78	1.67	1.77	



Conti	mueu from previous page						
Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	rC	3	A1H1F	C6-S6	-2.78	1.67	1.77
2	iA	3	A1H1F	C6-S6	-2.78	1.67	1.77
3	mB	3	A1H1F	C6-S6	-2.78	1.67	1.77
2	AB	3	A1H1F	C6-S6	-2.78	1.67	1.77
2	3A	3	A1H1F	C6-S6	-2.78	1.67	1.77
3	XB	3	A1H1F	C6-S6	-2.78	1.67	1.77
2	h	3	A1H1F	C6-S6	-2.78	1.67	1.77
3	6A	3	A1H1F	C6-S6	-2.78	1.67	1.77
3	j	3	A1H1F	C6-S6	-2.78	1.67	1.77
3	7B	3	A1H1F	C6-S6	-2.78	1.67	1.77
3	r	3	A1H1F	C6-S6	-2.78	1.67	1.77
2	bA	3	A1H1F	C6-S6	-2.77	1.67	1.77
2	2	3	A1H1F	C6-S6	-2.77	1.67	1.77
3	PA	3	A1H1F	C6-S6	-2.77	1.67	1.77
3	lA	3	A1H1F	C6-S6	-2.77	1.67	1.77
3	sB	3	A1H1F	C6-S6	-2.77	1.67	1.77
2	wA	3	A1H1F	C6-S6	-2.77	1.67	1.77
3	k	3	A1H1F	C6-S6	-2.77	1.67	1.77
3	6B	3	A1H1F	C6-S6	-2.77	1.67	1.77
3	eA	3	A1H1F	C6-S6	-2.77	1.67	1.77
3	nC	3	A1H1F	C6-S6	-2.77	1.67	1.77
2	9	3	A1H1F	C6-S6	-2.77	1.67	1.77
2	BC	3	A1H1F	C6-S6	-2.77	1.67	1.77
3	IA	3	A1H1F	C6-S6	-2.77	1.67	1.77
3	7C	3	A1H1F	C6-S6	-2.77	1.67	1.77
4	u	3	A1H1F	C6-S6	-2.77	1.67	1.77
2	0	3	A1H1F	C6-S6	-2.77	1.67	1.77
2	4B	3	A1H1F	C6-S6	-2.77	1.67	1.77
2	OB	3	A1H1F	C6-S6	-2.77	1.67	1.77
3	BA	3	A1H1F	C6-S6	-2.77	1.67	1.77
3	ED	3	A1H1F	C6-S6	-2.77	1.67	1.77
2	NA	3	A1H1F	C6-S6	-2.77	1.67	1.77
3	FD	3	A1H1F	C6-S6	-2.77	1.67	1.77
2	kC	3	A1H1F	C6-S6	-2.77	1.67	1.77
3	tC	3	A1H1F	C6-S6	-2.77	1.67	1.77
3	SC	3	A1H1F	C6-S6	-2.77	1.67	1.77
3	fB	3	A1H1F	C6-S6	-2.77	1.67	1.77
2	dC	3	A1H1F	C6-S6	-2.77	1.67	1.77
3	JA	3	A1H1F	C6-S6	-2.77	1.67	1.77
2	IC	3	A1H1F	C6-S6	-2.77	1.67	1.77
3	8C	3	A1H1F	C6-S6	-2.77	1.67	1.77
2	V	3	A1H1F	C6-S6	-2.77	1.67	1.77



Conti	unuea from previous page									
Mol	Chain	Res	Type	Atoms		Observed(Å)	Ideal(Å)			
3	eB	3	A1H1F	C6-S6	-2.77	1.67	1.77			
3	zB	3	A1H1F	C6-S6	-2.76	1.67	1.77			
3	mC	3	A1H1F	C6-S6	-2.76	1.67	1.77			
2	xB	3	A1H1F	C6-S6	-2.76	1.67	1.77			
3	EC	3	A1H1F	C6-S6	-2.76	1.67	1.77			
3	lB	3	A1H1F	C6-S6	-2.76	1.67	1.77			
2	VB	3	A1H1F	C6-S6	-2.76	1.67	1.77			
3	ZC	3	A1H1F	C6-S6	-2.76	1.67	1.77			
2	5C	3	A1H1F	C6-S6	-2.76	1.67	1.77			
3	fC	3	A1H1F	C6-S6	-2.76	1.67	1.77			
3	q	3	A1H1F	C6-S6	-2.76	1.67	1.77			
3	5A	3	A1H1F	C6-S6	-2.76	1.67	1.77			
4	vA	3	A1H1F	C6-S6	-2.76	1.67	1.77			
3	LC	3	A1H1F	C6-S6	-2.76	1.67	1.77			
2	WC	3	A1H1F	C6-S6	-2.76	1.67	1.77			
3	X	3	A1H1F	C6-S6	-2.76	1.67	1.77			
3	5	3	A1H1F	C6-S6	-2.76	1.67	1.77			
3	WA	3	A1H1F	C6-S6	-2.76	1.67	1.77			
3	YC	3	A1H1F	C6-S6	-2.76	1.67	1.77			
3	gC	3	A1H1F	C6-S6	-2.76	1.67	1.77			
3	у	3	A1H1F	C6-S6	-2.76	1.67	1.77			
3	hB	3	A1H1F	C6-S6	-2.75	1.67	1.77			
3	nA	3	A1H1F	C6-S6	-2.75	1.67	1.77			
3	TB	3	A1H1F	C6-S6	-2.74	1.67	1.77			
3	SA	3	A1H1F	C6-S6	-2.74	1.67	1.77			
3	AD	3	A1H1F	C6-S6	-2.74	1.67	1.77			
3	1A	3	A1H1F	C6-S6	-2.74	1.67	1.77			
3	vB	3	A1H1F	C6-S6	-2.74	1.67	1.77			
3	EA	3	A1H1F	C6-S6	-2.73	1.67	1.77			
3	NC	3	A1H1F	C6-S6	-2.73	1.67	1.77			
3	t	3	A1H1F	C6-S6	-2.73	1.67	1.77			
3	gA	3	A1H1F	C6-S6	-2.73	1.67	1.77			
3	bC	3	A1H1F	C6-S6	-2.73	1.67	1.77			
3	9B	3	A1H1F	C6-S6	-2.73	1.67	1.77			
3	GC	3	A1H1F	C6-S6	-2.73	1.67	1.77			
3	aB	3	A1H1F	C6-S6	-2.73	1.67	1.77			
3	0	3	A1H1F	C6-S6	-2.73	1.67	1.77			
3	MB	3	A1H1F	C6-S6	-2.73	1.67	1.77			
3	m	3	A1H1F	C6-S6	-2.72	1.67	1.77			
3	oB	3	A1H1F	C6-S6	-2.72	1.67	1.77			
3	uA	3	A1H1F	C6-S6	-2.72	1.67	1.77			
3	HD	3	A1H1F	C6-S6	-2.72	1.67	1.77			



Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	8A	3	A1H1F	C6-S6	-2.72	1.67	1.77
3	2B	3	A1H1F	C6-S6	-2.72	1.67	1.77
3	LA	3	A1H1F	C6-S6	-2.72	1.67	1.77
3	3C	3	A1H1F	C6-S6	-2.72	1.67	1.77
3	UC	3	A1H1F	C6-S6	-2.72	1.67	1.77
3	ZA	3	A1H1F	C6-S6	-2.72	1.67	1.77
3	FB	3	A1H1F	C6-S6	-2.72	1.67	1.77
3	7	3	A1H1F	C6-S6	-2.72	1.67	1.77
3	pC	3	A1H1F	C6-S6	-2.72	1.67	1.77
3	wC	3	A1H1F	C6-S6	-2.71	1.67	1.77
3	iC	3	A1H1F	C6-S6	-2.70	1.67	1.77
3	lB	3	A1H1F	C2-C3	2.02	1.55	1.52
3	yА	3	A1H1F	C2-C3	2.01	1.55	1.52
3	mC	3	A1H1F	C2-C3	2.01	1.55	1.52

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All (2326) bond angle outliers are l	listed below:
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Mol	Chain	Res	Type	Atoms	Z	$Observed(^{o})$	$Ideal(^{o})$
4	DA	3	A1H1F	C1-O5-C5	6.57	121.09	112.19
4	6	3	A1H1F	C1-O5-C5	6.55	121.06	112.19
4	8B	3	A1H1F	C1-O5-C5	6.55	121.06	112.19
4	nB	3	A1H1F	C1-O5-C5	6.55	121.06	112.19
4	KA	3	A1H1F	C1-O5-C5	6.54	121.06	112.19
4	TC	3	A1H1F	C1-O5-C5	6.54	121.06	112.19
4	mA	3	A1H1F	C1-O5-C5	6.54	121.05	112.19
4	0A	3	A1H1F	C1-O5-C5	6.54	121.05	112.19
4	9C	3	A1H1F	C1-O5-C5	6.54	121.05	112.19
4	Z	3	A1H1F	C1-O5-C5	6.54	121.05	112.19
4	tA	3	A1H1F	C1-O5-C5	6.53	121.05	112.19
4	1B	3	A1H1F	C1-O5-C5	6.53	121.05	112.19
4	EB	3	A1H1F	C1-O5-C5	6.53	121.04	112.19
4	MC	3	A1H1F	C1-O5-C5	6.53	121.03	112.19
4	SB	3	A1H1F	C1-O5-C5	6.52	121.03	112.19
4	vC	3	A1H1F	C1-O5-C5	6.52	121.03	112.19
4	GD	3	A1H1F	C1-O5-C5	6.52	121.03	112.19
4	2C	3	A1H1F	C1-O5-C5	6.52	121.02	112.19
4	1	3	A1H1F	C1-O5-C5	6.52	121.02	112.19
4	s	3	A1H1F	C1-O5-C5	6.51	121.02	112.19
4	gB	3	A1H1F	C1-O5-C5	6.51	121.02	112.19
4	fA	3	A1H1F	C1-O5-C5	6.51	121.01	112.19
4	YA	3	A1H1F	C1-O5-C5	6.51	121.01	112.19
4	7A	3	A1H1F	C1-O5-C5	6.51	121.01	112.19



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Mol	Chain	Res	Type	Atoms		$Observed(^{o})$	$Ideal(^{o})$
4	RA	3	A1H1F	C1-O5-C5	6.51	121.01	112.19
4	FC	3	A1H1F	C1-O5-C5	6.51	121.01	112.19
4	ZB	3	A1H1F	C1-O5-C5	6.51	121.01	112.19
4	oC	3	A1H1F	C1-O5-C5	6.50	121.00	112.19
4	uB	3	A1H1F	C1-O5-C5	6.50	121.00	112.19
4	LB	3	A1H1F	C1-O5-C5	6.50	121.00	112.19
4	aC	3	A1H1F	C1-O5-C5	6.50	121.00	112.19
4	hC	3	A1H1F	C1-O5-C5	6.48	120.97	112.19
2	OB	5	MAN	C1-O5-C5	5.64	119.83	112.19
2	pА	5	MAN	C1-O5-C5	5.64	119.83	112.19
2	0	5	MAN	C1-O5-C5	5.63	119.82	112.19
2	IC	5	MAN	C1-O5-C5	5.63	119.82	112.19
2	V	5	MAN	C1-O5-C5	5.63	119.81	112.19
2	dC	5	MAN	C1-O5-C5	5.63	119.81	112.19
2	kC	5	MAN	C1-O5-C5	5.63	119.81	112.19
2	3A	5	MAN	C1-O5-C5	5.62	119.81	112.19
2	HB	5	MAN	C1-O5-C5	5.62	119.81	112.19
2	5C	5	MAN	C1-O5-C5	5.62	119.81	112.19
2	iA	5	MAN	C1-O5-C5	5.62	119.81	112.19
2	GA	5	MAN	C1-O5-C5	5.62	119.80	112.19
2	WC	5	MAN	C1-O5-C5	5.62	119.80	112.19
2	xB	5	MAN	C1-O5-C5	5.61	119.80	112.19
2	2	5	MAN	C1-O5-C5	5.61	119.79	112.19
2	BC	5	MAN	C1-O5-C5	5.61	119.79	112.19
2	h	5	MAN	C1-O5-C5	5.61	119.79	112.19
2	PC	5	MAN	C1-O5-C5	5.60	119.78	112.19
2	cB	5	MAN	C1-O5-C5	5.60	119.78	112.19
2	4B	5	MAN	C1-O5-C5	5.60	119.78	112.19
2	CD	5	MAN	C1-O5-C5	5.60	119.78	112.19
2	NA	5	MAN	C1-O5-C5	5.60	119.78	112.19
2	UA	5	MAN	C1-O5-C5	5.59	119.77	112.19
2	AB	5	MAN	C1-O5-C5	5.59	119.77	112.19
2	jВ	5	MAN	C1-O5-C5	5.59	119.76	112.19
2	qB	5	MAN	C1-O5-C5	5.58	119.76	112.19
2	VB	5	MAN	C1-O5-C5	5.58	119.75	112.19
2	9	5	MAN	C1-O5-C5	5.58	119.75	112.19
2	wA	5	MAN	C1-O5-C5	5.58	119.75	112.19
2	rC	5	MAN	C1-O5-C5	5.57	119.74	112.19
2	yC	5	MAN	C1-O5-C5	5.57	119.74	112.19
2	bA	5	MAN	C1-O5-C5	5.57	119.73	112.19
2	AB	4	MAN	C1-O5-C5	4.45	118.23	112.19
2	NA	4	MAN	C1-O5-C5	4.45	118.22	112.19



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Mol	Chain	Res	Type	Atoms	Z	$\mathbf{Observed}(^{o})$	$Ideal(^{o})$
2	IC	4	MAN	C1-O5-C5	4.44	118.20	112.19
2	iA	4	MAN	C1-O5-C5	4.43	118.19	112.19
2	xB	4	MAN	C1-O5-C5	4.43	118.19	112.19
2	dC	4	MAN	C1-O5-C5	4.43	118.19	112.19
2	9	4	MAN	C1-O5-C5	4.43	118.19	112.19
2	GA	4	MAN	C1-O5-C5	4.43	118.19	112.19
2	rC	4	MAN	C1-O5-C5	4.43	118.19	112.19
2	5C	4	MAN	C1-O5-C5	4.42	118.19	112.19
2	2	4	MAN	C1-O5-C5	4.42	118.19	112.19
2	UA	4	MAN	C1-O5-C5	4.42	118.18	112.19
2	3A	4	MAN	C1-O5-C5	4.42	118.18	112.19
2	HB	4	MAN	C1-O5-C5	4.42	118.18	112.19
2	qB	4	MAN	C1-O5-C5	4.42	118.17	112.19
2	wA	4	MAN	C1-O5-C5	4.41	118.17	112.19
2	yC	4	MAN	C1-O5-C5	4.41	118.17	112.19
2	bA	4	MAN	C1-O5-C5	4.41	118.17	112.19
2	pА	4	MAN	C1-O5-C5	4.41	118.17	112.19
2	h	4	MAN	C1-O5-C5	4.41	118.17	112.19
2	VB	4	MAN	C1-O5-C5	4.41	118.17	112.19
2	jВ	4	MAN	C1-O5-C5	4.41	118.16	112.19
2	PC	4	MAN	C1-O5-C5	4.40	118.15	112.19
2	CD	4	MAN	C1-O5-C5	4.40	118.15	112.19
2	V	4	MAN	C1-O5-C5	4.40	118.15	112.19
2	0	4	MAN	C1-O5-C5	4.40	118.15	112.19
2	kC	4	MAN	C1-O5-C5	4.40	118.15	112.19
2	cB	4	MAN	C1-O5-C5	4.40	118.15	112.19
2	WC	4	MAN	C1-O5-C5	4.39	118.14	112.19
2	4B	4	MAN	C1-O5-C5	4.38	118.13	112.19
2	BC	4	MAN	C1-O5-C5	4.38	118.13	112.19
2	OB	4	MAN	C1-O5-C5	4.38	118.12	112.19
3	dA	3	A1H1F	C1-C2-C3	4.28	114.93	109.67
3	Х	3	A1H1F	C1-C2-C3	4.27	114.91	109.67
3	eB	3	A1H1F	C1-C2-C3	4.26	114.91	109.67
3	RC	3	A1H1F	C1-C2-C3	4.26	114.90	109.67
3	4	3	A1H1F	C1-C2-C3	4.26	114.90	109.67
3	5A	3	A1H1F	C1-C2-C3	4.25	114.89	109.67
3	JB	3	A1H1F	C1-C2-C3	4.25	114.89	109.67
3	WA	3	A1H1F	C1-C2-C3	4.25	114.89	109.67
3	ED	3	A1H1F	C1-C2-C3	4.25	114.89	109.67
3	zB	3	A1H1F	C1-C2-C3	4.25	114.89	109.67
3	DC	3	A1H1F	C1-C2-C3	4.25	114.89	109.67
3	fC	3	A1H1F	C1-C2-C3	4.25	114.89	109.67

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Mol	Chain	Res	Type	Atoms	Z	$Observed(^{o})$	$Ideal(^{o})$
3	lB	3	A1H1F	C1-C2-C3	4.24	114.88	109.67
3	tC	3	A1H1F	C1-C2-C3	4.24	114.88	109.67
3	j	3	A1H1F	C1-C2-C3	4.24	114.88	109.67
3	q	3	A1H1F	C1-C2-C3	4.24	114.88	109.67
3	mC	3	A1H1F	C1-C2-C3	4.24	114.88	109.67
3	PA	3	A1H1F	C1-C2-C3	4.24	114.88	109.67
3	BA	3	A1H1F	C1-C2-C3	4.24	114.87	109.67
3	QB	3	A1H1F	C1-C2-C3	4.24	114.87	109.67
3	yА	3	A1H1F	C1-C2-C3	4.24	114.87	109.67
3	kA	3	A1H1F	C1-C2-C3	4.23	114.87	109.67
3	7C	3	A1H1F	C1-C2-C3	4.23	114.87	109.67
3	sB	3	A1H1F	C1-C2-C3	4.23	114.87	109.67
3	6B	3	A1H1F	C1-C2-C3	4.23	114.87	109.67
3	rA	3	A1H1F	C1-C2-C3	4.23	114.86	109.67
3	KC	3	A1H1F	C1-C2-C3	4.23	114.86	109.67
3	XB	3	A1H1F	C1-C2-C3	4.23	114.86	109.67
3	CB	3	A1H1F	C1-C2-C3	4.23	114.86	109.67
3	YC	3	A1H1F	C1-C2-C3	4.23	114.86	109.67
3	0C	3	A1H1F	C1-C2-C3	4.22	114.86	109.67
3	IA	3	A1H1F	C1-C2-C3	4.20	114.83	109.67
4	tA	3	A1H1F	C1-C2-C3	4.19	114.81	109.67
4	oC	3	A1H1F	C1-C2-C3	4.16	114.78	109.67
4	gB	3	A1H1F	C1-C2-C3	4.16	114.77	109.67
4	MC	3	A1H1F	C1-C2-C3	4.15	114.76	109.67
4	6	3	A1H1F	C1-C2-C3	4.14	114.76	109.67
4	SB	3	A1H1F	C1-C2-C3	4.14	114.76	109.67
4	TC	3	A1H1F	C1-C2-C3	4.14	114.76	109.67
4	mA	3	A1H1F	C1-C2-C3	4.14	114.76	109.67
4	vC	3	A1H1F	C1-C2-C3	4.14	114.75	109.67
4	Z	3	A1H1F	C1-C2-C3	4.14	114.75	109.67
4	1B	3	A1H1F	C1-C2-C3	4.14	114.75	109.67
4	ZB	3	A1H1F	C1-C2-C3	4.13	114.75	109.67
4	9C	3	A1H1F	C1-C2-C3	4.13	114.75	109.67
4	7A	3	A1H1F	C1-C2-C3	4.13	114.74	109.67
4	EB	3	A1H1F	C1-C2-C3	4.13	114.74	109.67
4	FC	3	A1H1F	C1-C2-C3	4.13	114.74	109.67
4	RA	3	A1H1F	C1-C2-C3	4.13	114.74	109.67
4	GD	3	A1H1F	C1-C2-C3	4.13	114.74	109.67
4	2C	3	A1H1F	C1-C2-C3	4.13	114.74	109.67
4	1	3	A1H1F	C1-C2-C3	4.12	114.73	109.67
4	fA	3	A1H1F	C1-C2-C3	4.12	114.73	109.67
4	nB	3	A1H1F	C1-C2-C3	4.12	114.73	109.67



Mol	Chain	Res	Type	Atoms	Z	$Observed(^{o})$	$Ideal(^{o})$
4	DA	3	A1H1F	C1-C2-C3	4.12	114.73	109.67
4	aC	3	A1H1F	C1-C2-C3	4.12	114.73	109.67
4	uB	3	A1H1F	C1-C2-C3	4.11	114.72	109.67
4	KA	3	A1H1F	C1-C2-C3	4.11	114.71	109.67
4	8B	3	A1H1F	C1-C2-C3	4.11	114.71	109.67
4	hC	3	A1H1F	C1-C2-C3	4.10	114.71	109.67
4	S	3	A1H1F	C1-C2-C3	4.09	114.70	109.67
4	LB	3	A1H1F	C1-C2-C3	4.09	114.70	109.67
4	YA	3	A1H1F	C1-C2-C3	4.09	114.70	109.67
4	0A	3	A1H1F	C1-C2-C3	4.08	114.69	109.67
4	jС	1	GAL	C1-C2-C3	3.95	114.53	109.67
4	HC	1	GAL	C1-C2-C3	3.95	114.52	109.67
4	AC	1	GAL	C1-C2-C3	3.94	114.52	109.67
4	FA	1	GAL	C1-C2-C3	3.94	114.51	109.67
4	oA	1	GAL	C1-C2-C3	3.94	114.51	109.67
4	BD	1	GAL	C1-C2-C3	3.94	114.51	109.67
4	pВ	1	GAL	C1-C2-C3	3.94	114.50	109.67
4	OC	1	GAL	C1-C2-C3	3.94	114.50	109.67
4	1	1	GAL	C1-C2-C3	3.93	114.50	109.67
4	MA	1	GAL	C1-C2-C3	3.93	114.49	109.67
4	TA	1	GAL	C1-C2-C3	3.93	114.49	109.67
4	cC	1	GAL	C1-C2-C3	3.93	114.49	109.67
4	vA	1	GAL	C1-C2-C3	3.92	114.49	109.67
4	u	1	GAL	C1-C2-C3	3.92	114.49	109.67
4	VC	1	GAL	C1-C2-C3	3.92	114.49	109.67
4	9A	1	GAL	C1-C2-C3	3.92	114.49	109.67
4	3B	1	GAL	C1-C2-C3	3.92	114.49	109.67
4	хC	1	GAL	C1-C2-C3	3.92	114.49	109.67
4	4C	1	GAL	C1-C2-C3	3.92	114.49	109.67
4	n	1	GAL	C1-C2-C3	3.92	114.48	109.67
4	GB	1	GAL	C1-C2-C3	3.92	114.48	109.67
4	qC	1	GAL	C1-C2-C3	3.91	114.48	109.67
4	NB	1	GAL	C1-C2-C3	3.91	114.48	109.67
4	ID	1	GAL	C1-C2-C3	3.91	114.47	109.67
4	8	1	GAL	C1-C2-C3	3.91	114.47	109.67
4	hA	1	GAL	C1-C2-C3	3.91	114.47	109.67
4	bB	1	GAL	C1-C2-C3	3.91	114.47	109.67
4	aA	1	GAL	C1-C2-C3	3.90	114.46	109.67
4	2A	1	GAL	C1-C2-C3	3.89	114.45	109.67
4	UB	1	GAL	C1-C2-C3	3.89	114.44	109.67
4	wB	1	GAL	C1-C2-C3	3.88	114.44	109.67
4	iB	1	GAL	C1-C2-C3	3.88	114.44	109.67



Mol	Chain	Res	Type	Atoms	Z	$Observed(^{o})$	$Ideal(^{o})$
3	q	5	MAN	C1-C2-C3	3.65	114.15	109.67
3	XB	5	MAN	C1-C2-C3	3.64	114.14	109.67
4	VC	4	MAN	C1-O5-C5	3.63	117.12	112.19
3	DC	5	MAN	C1-C2-C3	3.63	114.13	109.67
4	GB	4	MAN	C1-O5-C5	3.63	117.11	112.19
4	AC	4	MAN	C1-O5-C5	3.63	117.11	112.19
3	QB	5	MAN	C1-C2-C3	3.62	114.12	109.67
4	FA	4	MAN	C1-O5-C5	3.62	117.10	112.19
4	oA	4	MAN	C1-O5-C5	3.62	117.10	112.19
4	3B	4	MAN	C1-O5-C5	3.62	117.10	112.19
3	dA	5	MAN	C1-C2-C3	3.62	114.11	109.67
4	hA	4	MAN	C1-O5-C5	3.62	117.09	112.19
4	ID	4	MAN	C1-O5-C5	3.62	117.09	112.19
3	JB	5	MAN	C1-C2-C3	3.61	114.11	109.67
3	PA	5	MAN	C1-C2-C3	3.61	114.11	109.67
3	6B	5	MAN	C1-C2-C3	3.61	114.11	109.67
3	mC	5	MAN	C1-C2-C3	3.61	114.11	109.67
3	rA	5	MAN	C1-C2-C3	3.61	114.11	109.67
3	7C	5	MAN	C1-C2-C3	3.61	114.11	109.67
4	2A	4	MAN	C1-O5-C5	3.61	117.09	112.19
3	WA	5	MAN	C1-C2-C3	3.61	114.10	109.67
3	lB	5	MAN	C1-C2-C3	3.61	114.10	109.67
3	eB	5	MAN	C1-C2-C3	3.61	114.10	109.67
3	0C	5	MAN	C1-C2-C3	3.61	114.10	109.67
3	CB	5	MAN	C1-C2-C3	3.61	114.10	109.67
3	j	5	MAN	C1-C2-C3	3.60	114.10	109.67
3	sB	5	MAN	C1-C2-C3	3.60	114.10	109.67
4	n	4	MAN	C1-O5-C5	3.60	117.07	112.19
4	u	4	MAN	C1-O5-C5	3.60	117.07	112.19
4	bB	4	MAN	C1-O5-C5	3.60	117.07	112.19
4	pВ	4	MAN	C1-O5-C5	3.60	117.07	112.19
3	fC	5	MAN	C1-C2-C3	3.60	114.09	109.67
4	MA	4	MAN	C1-O5-C5	3.60	117.07	112.19
3	BA	5	MAN	C1-C2-C3	3.60	114.09	109.67
4	ТА	4	MAN	C1-O5-C5	3.60	117.07	112.19
3	ED	5	MAN	C1-C2-C3	3.60	114.09	109.67
4	cC	4	MAN	C1-O5-C5	3.60	117.07	112.19
3	5A	5	MAN	C1-C2-C3	3.60	114.09	109.67
3	RC	5	MAN	C1-C2-C3	3.60	114.09	109.67
3	tC	5	MAN	C1-C2-C3	3.60	114.09	109.67
4	9A	4	MAN	$C1-O5-\overline{C5}$	$3.6\overline{0}$	$117.0\overline{6}$	112.19
4	xC	4	MAN	C1-O5-C5	3.60	117.06	112.19



Mol	Chain	Res	Type	Atoms	Z	$Observed(^{o})$	$Ideal(^{o})$
3	kA	5	MAN	C1-C2-C3	3.60	114.08	109.67
4	vA	4	MAN	C1-O5-C5	3.59	117.06	112.19
4	HC	4	MAN	C1-O5-C5	3.59	117.06	112.19
4	OC	4	MAN	C1-O5-C5	3.59	117.06	112.19
3	KC	5	MAN	C1-C2-C3	3.59	114.08	109.67
4	qC	4	MAN	C1-O5-C5	3.59	117.05	112.19
4	iB	4	MAN	C1-O5-C5	3.59	117.05	112.19
3	IA	5	MAN	C1-C2-C3	3.58	114.07	109.67
3	yА	5	MAN	C1-C2-C3	3.58	114.07	109.67
4	jС	4	MAN	C1-O5-C5	3.58	117.05	112.19
4	UB	4	MAN	C1-O5-C5	3.58	117.04	112.19
4	4C	4	MAN	C1-O5-C5	3.58	117.04	112.19
4	8	4	MAN	C1-O5-C5	3.58	117.04	112.19
4	1	4	MAN	C1-O5-C5	3.58	117.04	112.19
4	aA	4	MAN	C1-O5-C5	3.57	117.03	112.19
4	BD	4	MAN	C1-O5-C5	3.57	117.03	112.19
3	YC	5	MAN	C1-C2-C3	3.57	114.06	109.67
3	4	5	MAN	C1-C2-C3	3.57	114.06	109.67
3	zB	5	MAN	C1-C2-C3	3.57	114.06	109.67
3	Х	5	MAN	C1-C2-C3	3.56	114.04	109.67
4	wB	4	MAN	C1-O5-C5	3.55	117.01	112.19
4	NB	4	MAN	C1-O5-C5	3.54	116.99	112.19
3	tB	2	BGC	C1-C2-C3	3.53	114.01	109.67
3	7B	2	BGC	C1-C2-C3	3.52	114.00	109.67
3	sA	2	BGC	C1-C2-C3	3.52	114.00	109.67
3	1C	2	BGC	C1-C2-C3	3.52	113.99	109.67
3	8C	2	BGC	C1-C2-C3	3.52	113.99	109.67
3	mB	5	MAN	C1-O5-C5	3.51	116.95	112.19
3	CA	2	BGC	C1-C2-C3	3.51	113.98	109.67
3	mB	2	BGC	C1-C2-C3	3.51	113.98	109.67
3	uC	2	BGC	C1-C2-C3	3.51	113.98	109.67
3	SC	5	MAN	C1-O5-C5	3.51	116.94	112.19
3	eA	2	BGC	C1-C2-C3	3.51	113.97	109.67
3	0B	2	BGC	C1-C2-C3	3.50	113.97	109.67
3	EC	2	BGC	C1-C2-C3	3.50	113.97	109.67
3	FD	2	BGC	C1-C2-C3	3.50	113.97	109.67
3	YB	5	MAN	C1-O5-C5	3.50	116.94	112.19
3	5	2	BGC	C1-C2-C3	3.50	113.97	109.67
4	LB	4	MAN	C1-C2-C3	3.50	113.97	109.67
3	KB	2	BGC	C1-C2-C3	3.50	113.97	109.67
3	XA	2	BGC	C1-C2-C3	3.50	113.97	109.67
3	LC	2	BGC	C1-C2-C3	3.50	113.97	109.67



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Mol	Chain	Res	Type	Atoms		$Observed(^{o})$	$Ideal(^{o})$
3	JA	2	BGC	C1-C2-C3	3.50	113.96	109.67
3	k	2	BGC	C1-C2-C3	3.50	113.96	109.67
4	9C	4	MAN	C1-C2-C3	3.49	113.96	109.67
4	GD	4	MAN	C1-C2-C3	3.49	113.96	109.67
3	У	2	BGC	C1-C2-C3	3.49	113.96	109.67
3	r	2	BGC	C1-C2-C3	3.49	113.96	109.67
3	fB	2	BGC	C1-C2-C3	3.49	113.96	109.67
3	gC	2	BGC	C1-C2-C3	3.49	113.96	109.67
4	ZB	4	MAN	C1-C2-C3	3.49	113.96	109.67
3	FD	5	MAN	C1-O5-C5	3.49	116.92	112.19
3	zA	2	BGC	C1-C2-C3	3.49	113.96	109.67
3	6A	2	BGC	C1-C2-C3	3.49	113.96	109.67
4	tA	4	MAN	C1-C2-C3	3.49	113.96	109.67
3	5	5	MAN	C1-O5-C5	3.49	116.92	112.19
4	1B	4	MAN	C1-C2-C3	3.49	113.96	109.67
3	sA	5	MAN	C1-O5-C5	3.49	116.92	112.19
3	fB	5	MAN	C1-O5-C5	3.49	116.92	112.19
3	lA	2	BGC	C1-C2-C3	3.49	113.95	109.67
4	DA	4	MAN	C1-C2-C3	3.49	113.95	109.67
4	SB	4	MAN	C1-C2-C3	3.49	113.95	109.67
4	vC	4	MAN	C1-C2-C3	3.49	113.95	109.67
3	0B	5	MAN	C1-O5-C5	3.49	116.92	112.19
3	nC	2	BGC	C1-C2-C3	3.49	113.95	109.67
4	EB	4	MAN	C1-C2-C3	3.49	113.95	109.67
4	nB	4	MAN	C1-C2-C3	3.48	113.95	109.67
3	QA	5	MAN	C1-O5-C5	3.48	116.91	112.19
4	aC	4	MAN	C1-C2-C3	3.48	113.95	109.67
3	gC	5	MAN	C1-O5-C5	3.48	116.91	112.19
3	YB	2	BGC	C1-C2-C3	3.48	113.95	109.67
4	l	4	MAN	C1-C2-C3	3.48	113.94	109.67
4	7A	4	MAN	C1-C2-C3	3.48	113.94	109.67
4	MC	4	MAN	C1-C2-C3	3.48	113.94	109.67
4	Z	4	MAN	C1-C2-C3	3.48	113.94	109.67
4	RA	4	MAN	C1-C2-C3	3.48	113.94	109.67
3	KB	5	MAN	C1-O5-C5	3.48	116.90	112.19
4	8B	4	MAN	C1-C2-C3	3.48	113.94	109.67
3	CA	5	MAN	C1-O5-C5	3.47	116.90	112.19
3	DB	2	BGC	C1-C2-C3	3.47	113.94	109.67
3	SC	2	BGC	C1-C2-C3	3.47	113.94	109.67
3	6A	5	MAN	C1-O5-C5	3.47	116.90	112.19
3	RB	2	BGC	C1-C2-C3	$3.\overline{47}$	113.93	109.67
3	XA	5	MAN	C1-O5-C5	3.47	116.90	112.19



Mol	Chain	Res	Type	Atoms	Z	$Observed(^{o})$	$Ideal(^{o})$
3	DB	5	MAN	C1-O5-C5	3.47	116.90	112.19
3	LC	5	MAN	C1-O5-C5	3.47	116.90	112.19
3	uC	5	MAN	C1-O5-C5	3.47	116.90	112.19
3	QA	2	BGC	C1-C2-C3	3.47	113.93	109.67
4	mA	4	MAN	C1-C2-C3	3.47	113.93	109.67
3	ZC	5	MAN	C1-O5-C5	3.47	116.89	112.19
3	k	5	MAN	C1-O5-C5	3.47	116.89	112.19
3	8C	5	MAN	C1-O5-C5	3.47	116.89	112.19
4	KA	4	MAN	C1-C2-C3	3.46	113.92	109.67
4	FC	4	MAN	C1-C2-C3	3.46	113.92	109.67
4	0A	4	MAN	C1-C2-C3	3.46	113.92	109.67
4	gB	4	MAN	C1-C2-C3	3.46	113.92	109.67
4	TC	4	MAN	C1-C2-C3	3.46	113.92	109.67
4	2C	4	MAN	C1-C2-C3	3.46	113.92	109.67
4	hC	4	MAN	C1-C2-C3	3.46	113.92	109.67
4	6	4	MAN	C1-C2-C3	3.46	113.92	109.67
4	fA	4	MAN	C1-C2-C3	3.46	113.92	109.67
4	uB	4	MAN	C1-C2-C3	3.46	113.92	109.67
3	eA	5	MAN	C1-O5-C5	3.46	116.88	112.19
3	nC	5	MAN	C1-O5-C5	3.46	116.88	112.19
4	oC	4	MAN	C1-C2-C3	3.46	113.92	109.67
3	tB	5	MAN	C1-O5-C5	3.46	116.88	112.19
3	ZC	2	BGC	C1-C2-C3	3.46	113.92	109.67
3	7B	5	MAN	C1-O5-C5	3.46	116.88	112.19
3	1C	5	MAN	C1-O5-C5	3.46	116.87	112.19
3	EC	5	MAN	C1-O5-C5	3.45	116.87	112.19
3	у	5	MAN	C1-O5-C5	3.45	116.87	112.19
4	1B	1	GAL	C1-C2-C3	3.45	113.90	109.67
3	r	5	MAN	C1-O5-C5	3.45	116.86	112.19
4	S	4	MAN	C1-C2-C3	3.45	113.90	109.67
3	JA	5	MAN	C1-O5-C5	3.45	116.86	112.19
3	lA	5	MAN	C1-O5-C5	3.44	116.86	112.19
3	RB	5	MAN	C1-O5-C5	3.44	116.86	112.19
4	YA	4	MAN	C1-C2-C3	3.44	113.90	109.67
4	gB	1	GAL	C1-C2-C3	3.44	113.89	109.67
4	DA	1	GAL	C1-C2-C3	3.43	113.89	109.67
4	nB	1	GAL	C1-C2-C3	3.43	113.89	109.67
3	zA	5	MAN	C1-O5-C5	3.43	116.84	112.19
4	hC	1	GAL	C1-C2-C3	3.43	113.88	109.67
4	SB	1	GAL	C1-C2-C3	3.43	113.88	109.67
4	Z	1	GAL	C1-C2-C3	3.43	113.88	109.67
4	vC	1	GAL	C1-C2-C3	3.43	113.88	109.67



Mol	Chain	Res	Type	Atoms	Z	$Observed(^{o})$	$Ideal(^{o})$
3	uC	3	A1H1F	C1-O5-C5	3.43	116.83	112.19
4	mA	1	GAL	C1-C2-C3	3.42	113.88	109.67
4	ZB	1	GAL	C1-C2-C3	3.42	113.88	109.67
3	7B	3	A1H1F	C1-O5-C5	3.42	116.83	112.19
3	у	3	A1H1F	C1-O5-C5	3.42	116.83	112.19
3	mB	3	A1H1F	C1-O5-C5	3.42	116.83	112.19
4	7A	1	GAL	C1-C2-C3	3.42	113.87	109.67
3	lA	3	A1H1F	C1-O5-C5	3.42	116.83	112.19
3	sA	3	A1H1F	C1-O5-C5	3.42	116.83	112.19
4	6	1	GAL	C1-C2-C3	3.42	113.87	109.67
4	0A	1	GAL	C1-C2-C3	3.42	113.87	109.67
3	QA	3	A1H1F	C1-O5-C5	3.42	116.82	112.19
4	s	1	GAL	C1-C2-C3	3.42	113.86	109.67
4	RA	1	GAL	C1-C2-C3	3.41	113.86	109.67
4	EB	1	GAL	C1-C2-C3	3.41	113.86	109.67
4	FC	1	GAL	C1-C2-C3	3.41	113.86	109.67
3	DB	3	A1H1F	C1-O5-C5	3.41	116.82	112.19
3	RB	3	A1H1F	C1-O5-C5	3.41	116.82	112.19
3	ZC	3	A1H1F	C1-O5-C5	3.41	116.82	112.19
4	LB	1	GAL	C1-C2-C3	3.41	113.86	109.67
4	l	1	GAL	C1-C2-C3	3.41	113.86	109.67
4	oC	1	GAL	C1-C2-C3	3.41	113.86	109.67
3	zA	3	A1H1F	C1-O5-C5	3.41	116.81	112.19
4	aC	1	GAL	C1-C2-C3	3.41	113.85	109.67
4	9C	1	GAL	C1-C2-C3	3.41	113.85	109.67
4	GD	1	GAL	C1-C2-C3	3.41	113.85	109.67
4	MC	1	GAL	C1-C2-C3	3.40	113.85	109.67
3	YB	3	A1H1F	C1-O5-C5	3.40	116.80	112.19
4	fA	1	GAL	C1-C2-C3	3.40	113.84	109.67
4	8B	1	GAL	C1-C2-C3	3.40	113.84	109.67
3	6A	3	A1H1F	C1-O5-C5	3.40	116.80	112.19
3	$8\mathrm{C}$	3	A1H1F	C1-O5-C5	3.40	116.80	112.19
3	fB	3	A1H1F	C1-O5-C5	3.40	116.79	112.19
4	$2\mathrm{C}$	1	GAL	C1-C2-C3	3.40	113.84	109.67
3	FD	3	A1H1F	C1-O5-C5	3.39	116.79	112.19
4	YA	1	GAL	C1-C2-C3	3.39	113.84	109.67
3	k	3	A1H1F	C1-O5-C5	3.39	116.78	112.19
3	XA	3	A1H1F	C1-O5-C5	3.39	116.78	112.19
3	EC	3	A1H1F	C1-O5-C5	3.39	116.78	112.19
3	nC	3	A1H1F	C1-O5-C5	3.39	116.78	112.19
4	KA	1	GAL	C1-C2-C3	3.39	113.83	109.67
3	5	3	A1H1F	C1-O5-C5	3.39	116.78	112.19



Mol	Chain	Res	Type	Atoms	Z	$Observed(^{o})$	$Ideal(^{o})$
3	LC	3	A1H1F	C1-O5-C5	3.39	116.78	112.19
4	uB	1	GAL	C1-C2-C3	3.39	113.83	109.67
3	r	3	A1H1F	C1-O5-C5	3.38	116.78	112.19
4	tA	1	GAL	C1-C2-C3	3.38	113.82	109.67
3	KB	3	A1H1F	C1-O5-C5	3.38	116.77	112.19
3	JA	3	A1H1F	C1-O5-C5	3.38	116.77	112.19
3	CA	3	A1H1F	C1-O5-C5	3.38	116.77	112.19
4	TC	1	GAL	C1-C2-C3	3.37	113.81	109.67
3	tB	3	A1H1F	C1-O5-C5	3.37	116.76	112.19
3	1C	3	A1H1F	C1-O5-C5	3.37	116.76	112.19
3	eA	3	A1H1F	C1-O5-C5	3.37	116.76	112.19
3	0B	3	A1H1F	C1-O5-C5	3.37	116.75	112.19
3	SC	3	A1H1F	C1-O5-C5	3.37	116.75	112.19
3	gC	3	A1H1F	C1-O5-C5	3.36	116.74	112.19
3	sB	3	A1H1F	C1-O5-C5	3.32	116.70	112.19
3	6B	3	A1H1F	C1-O5-C5	3.32	116.69	112.19
4	hC	3	A1H1F	O3S6-S6-C6	3.32	110.88	106.94
3	YB	3	A1H1F	O3S6-S6-C6	3.32	110.88	106.94
4	vC	3	A1H1F	O3S6-S6-C6	3.32	110.88	106.94
4	FC	3	A1H1F	O3S6-S6-C6	3.31	110.88	106.94
3	RC	3	A1H1F	C1-O5-C5	3.31	116.68	112.19
3	tC	3	A1H1F	C1-O5-C5	3.31	116.68	112.19
3	rA	3	A1H1F	C1-O5-C5	3.31	116.68	112.19
3	KC	3	A1H1F	C1-O5-C5	3.31	116.68	112.19
4	uB	3	A1H1F	O3S6-S6-C6	3.31	110.88	106.94
3	4	3	A1H1F	C1-O5-C5	3.31	116.68	112.19
3	kA	3	A1H1F	C1-O5-C5	3.31	116.68	112.19
3	SA	2	BGC	C1-O5-C5	3.31	116.68	112.19
4	Z	3	A1H1F	O3S6-S6-C6	3.31	110.87	106.94
4	fA	3	A1H1F	O3S6-S6-C6	3.31	110.87	106.94
4	EB	3	A1H1F	O3S6-S6-C6	3.31	110.87	106.94
4	6	3	A1H1F	O3S6-S6-C6	3.31	110.87	106.94
3	fC	3	A1H1F	C1-O5-C5	3.31	116.67	112.19
4	s	3	A1H1F	O3S6-S6-C6	3.31	110.87	106.94
4	gB	3	A1H1F	O3S6-S6-C6	3.31	110.87	106.94
3	JB	3	A1H1F	C1-O5-C5	3.31	116.67	112.19
3	pC	2	BGC	C1-O5-C5	3.31	116.67	112.19
4	DA	3	A1H1F	O3S6-S6-C6	3.31	110.87	106.94
4	KA	3	A1H1F	O3S6-S6-C6	3.30	110.87	106.94
4	TC	3	A1H1F	O3S6-S6-C6	3.30	110.87	106.94
4	tA	3	A1H1F	O3S6-S6-C6	3.30	110.86	106.94
3	BA	3	A1H1F	C1-O5-C5	3.30	116.67	112.19

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Mol	Chain	Res	Type	Atoms	Z	$Observed(^{o})$	$Ideal(^{o})$
4	1B	3	A1H1F	O3S6-S6-C6	3.30	110.86	106.94
4	aC	3	A1H1F	O3S6-S6-C6	3.30	110.86	106.94
3	mC	3	A1H1F	C1-O5-C5	3.30	116.66	112.19
3	3C	2	BGC	C1-O5-C5	3.30	116.66	112.19
4	1	3	A1H1F	O3S6-S6-C6	3.30	110.86	106.94
4	SB	3	A1H1F	O3S6-S6-C6	3.30	110.86	106.94
4	nB	3	A1H1F	O3S6-S6-C6	3.30	110.86	106.94
3	WA	3	A1H1F	C1-O5-C5	3.30	116.66	112.19
3	1A	2	BGC	C1-O5-C5	3.30	116.66	112.19
4	8B	3	A1H1F	O3S6-S6-C6	3.30	110.86	106.94
3	XB	3	A1H1F	C1-O5-C5	3.30	116.66	112.19
3	GC	2	BGC	C1-O5-C5	3.30	116.66	112.19
4	9C	3	A1H1F	O3S6-S6-C6	3.30	110.86	106.94
3	j	3	A1H1F	C1-O5-C5	3.30	116.66	112.19
3	YC	3	A1H1F	C1-O5-C5	3.30	116.66	112.19
3	UC	2	BGC	C1-O5-C5	3.29	116.66	112.19
3	5A	3	A1H1F	C1-O5-C5	3.29	116.66	112.19
3	wC	2	BGC	C1-O5-C5	3.29	116.65	112.19
3	CB	3	A1H1F	C1-O5-C5	3.29	116.65	112.19
3	7C	3	A1H1F	C1-O5-C5	3.29	116.65	112.19
3	uC	3	A1H1F	O3S6-S6-C6	3.29	110.85	106.94
3	Х	3	A1H1F	C1-O5-C5	3.29	116.65	112.19
3	HD	2	BGC	C1-O5-C5	3.29	116.65	112.19
3	7	2	BGC	C1-O5-C5	3.29	116.65	112.19
3	DC	3	A1H1F	C1-O5-C5	3.29	116.65	112.19
3	0C	3	A1H1F	C1-O5-C5	3.29	116.65	112.19
3	PA	3	A1H1F	C1-O5-C5	3.29	116.64	112.19
3	fB	3	A1H1F	O3S6-S6-C6	3.28	110.84	106.94
3	7B	3	A1H1F	O3S6-S6-C6	3.28	110.84	106.94
4	oC	3	A1H1F	O3S6-S6-C6	3.28	110.84	106.94
3	eB	3	A1H1F	C1-O5-C5	3.28	116.64	112.19
3	iC	2	BGC	C1-O5-C5	3.28	116.64	112.19
3	sA	3	A1H1F	O3S6-S6-C6	3.28	110.84	106.94
3	dA	3	A1H1F	C1-O5-C5	3.28	116.64	112.19
3	r	3	A1H1F	O3S6-S6-C6	3.28	110.84	106.94
3	q	3	A1H1F	C1-O5-C5	3.28	116.64	112.19
3	lB	3	A1H1F	C1-O5-C5	3.28	116.64	112.19
3	ED	3	A1H1F	C1-O5-C5	3.28	116.64	112.19
3	RB	3	A1H1F	O3S6-S6-C6	3.28	110.84	106.94
4	RA	3	A1H1F	03S6-S6-C6	3.28	110.84	106.94
4	ZB	3	A1H1F	O3S6-S6-C6	3.28	110.84	106.94
3	QB	3	A1H1F	C1-O5-C5	3.28	116.64	112.19



Mol	Chain	Res	Type	Atoms	Z	$Observed(^{o})$	$Ideal(^{o})$
3	zA	3	A1H1F	O3S6-S6-C6	3.28	110.84	106.94
4	2C	3	A1H1F	O3S6-S6-C6	3.28	110.84	106.94
3	1C	3	A1H1F	O3S6-S6-C6	3.28	110.83	106.94
3	NC	2	BGC	C1-O5-C5	3.28	116.63	112.19
3	m	2	BGC	C1-O5-C5	3.28	116.63	112.19
3	FB	2	BGC	C1-O5-C5	3.27	116.63	112.19
3	zB	3	A1H1F	C1-O5-C5	3.27	116.63	112.19
3	tB	3	A1H1F	O3S6-S6-C6	3.27	110.83	106.94
3	gA	2	BGC	C1-O5-C5	3.27	116.63	112.19
3	nA	2	BGC	C1-O5-C5	3.27	116.63	112.19
3	oB	2	BGC	C1-O5-C5	3.27	116.63	112.19
3	9B	2	BGC	C1-O5-C5	3.27	116.63	112.19
4	LB	3	A1H1F	O3S6-S6-C6	3.27	110.83	106.94
3	У	3	A1H1F	O3S6-S6-C6	3.27	110.83	106.94
3	ZC	3	A1H1F	O3S6-S6-C6	3.27	110.83	106.94
3	JA	3	A1H1F	O3S6-S6-C6	3.27	110.83	106.94
4	YA	3	A1H1F	O3S6-S6-C6	3.27	110.83	106.94
4	0A	3	A1H1F	O3S6-S6-C6	3.27	110.83	106.94
4	MC	3	A1H1F	O3S6-S6-C6	3.27	110.83	106.94
3	lA	3	A1H1F	O3S6-S6-C6	3.27	110.83	106.94
3	DB	3	A1H1F	O3S6-S6-C6	3.27	110.83	106.94
3	SC	3	A1H1F	O3S6-S6-C6	3.27	110.83	106.94
3	yА	3	A1H1F	C1-O5-C5	3.27	116.62	112.19
3	nC	3	A1H1F	O3S6-S6-C6	3.27	110.82	106.94
3	8A	2	BGC	C1-O5-C5	3.27	116.62	112.19
3	LC	3	A1H1F	O3S6-S6-C6	3.27	110.82	106.94
3	vB	2	BGC	C1-O5-C5	3.27	116.62	112.19
3	k	3	A1H1F	O3S6-S6-C6	3.26	110.82	106.94
3	gC	3	A1H1F	O3S6-S6-C6	3.26	110.82	106.94
3	t	2	BGC	C1-O5-C5	3.26	116.61	112.19
3	MB	2	BGC	C1-O5-C5	3.26	116.61	112.19
3	hB	2	BGC	C1-O5-C5	3.26	116.61	112.19
4	7A	3	A1H1F	O3S6-S6-C6	3.26	110.82	106.94
3	ZA	2	BGC	C1-O5-C5	3.26	116.61	112.19
3	ΤB	2	BGC	C1-O5-C5	3.26	116.61	112.19
4	mA	3	A1H1F	O3S6-S6-C6	3.26	110.81	106.94
3	DC	2	BGC	C2-C3-C4	3.26	116.54	110.89
3	AD	2	BGC	C1-O5-C5	3.26	116.61	112.19
3	QA	3	A1H1F	O3S6-S6-C6	3.26	110.81	106.94
3	aB	2	BGC	C1-O5-C5	$3.2\overline{6}$	116.61	112.19
3	mB	3	A1H1F	O3S6-S6-C6	$3.\overline{26}$	110.81	106.94
3	rA	2	BGC	C2-C3-C4	3.26	116.53	110.89


Mol	Chain	Res	Type	Atoms	Z	$Observed(^{o})$	$Ideal(^{o})$
3	2B	2	BGC	C1-O5-C5	3.26	116.61	112.19
3	6B	2	BGC	C2-C3-C4	3.26	116.53	110.89
3	EC	3	A1H1F	O3S6-S6-C6	3.26	110.81	106.94
3	FD	3	A1H1F	O3S6-S6-C6	3.26	110.81	106.94
3	uA	2	BGC	C1-O5-C5	3.26	116.60	112.19
3	lB	2	BGC	C2-C3-C4	3.25	116.53	110.89
3	ED	2	BGC	C2-C3-C4	3.25	116.52	110.89
3	0B	3	A1H1F	O3S6-S6-C6	3.25	110.80	106.94
3	CA	3	A1H1F	O3S6-S6-C6	3.25	110.80	106.94
3	$0\mathrm{C}$	2	BGC	C2-C3-C4	3.25	116.52	110.89
3	WA	2	BGC	C2-C3-C4	3.25	116.52	110.89
3	8C	3	A1H1F	O3S6-S6-C6	3.25	110.80	106.94
3	XA	3	A1H1F	O3S6-S6-C6	3.25	110.80	106.94
3	LA	2	BGC	C1-O5-C5	3.25	116.59	112.19
3	eA	3	A1H1F	O3S6-S6-C6	3.25	110.80	106.94
3	bC	2	BGC	C1-O5-C5	3.25	116.59	112.19
3	YC	2	BGC	C2-C3-C4	3.25	116.51	110.89
3	0	2	BGC	C1-O5-C5	3.25	116.59	112.19
3	IA	3	A1H1F	C1-O5-C5	3.25	116.59	112.19
3	yА	2	BGC	C2-C3-C4	3.24	116.51	110.89
4	GD	3	A1H1F	O3S6-S6-C6	3.24	110.80	106.94
3	CB	2	BGC	C2-C3-C4	3.24	116.51	110.89
3	tC	2	BGC	C2-C3-C4	3.24	116.51	110.89
3	EA	2	BGC	C1-O5-C5	3.24	116.59	112.19
3	5	3	A1H1F	O3S6-S6-C6	3.24	110.79	106.94
3	QB	2	BGC	C2-C3-C4	3.24	116.50	110.89
3	PA	2	BGC	C2-C3-C4	3.24	116.50	110.89
3	j	2	BGC	C2-C3-C4	3.24	116.50	110.89
3	mC	2	BGC	C2-C3-C4	3.24	116.50	110.89
3	dA	2	BGC	C2-C3-C4	3.24	116.50	110.89
3	BA	2	BGC	C2-C3-C4	3.24	116.50	110.89
3	zB	2	BGC	C2-C3-C4	3.24	116.50	110.89
3	5A	2	BGC	C2-C3-C4	3.24	116.49	110.89
3	KB	3	A1H1F	O3S6-S6-C6	3.24	110.78	106.94
3	IA	2	BGC	C2-C3-C4	3.23	116.49	110.89
3	6A	3	A1H1F	O3S6-S6-C6	3.23	110.78	106.94
3	kA	2	BGC	C2-C3-C4	3.23	116.48	110.89
3	XB	2	BGC	C2-C3-C4	3.23	116.48	110.89
3	KC	2	BGC	C2-C3-C4	3.23	116.48	110.89
3	eВ	2	BGC	C2-C3-C4	3.23	116.48	110.89
3	$7\mathrm{C}$	2	BGC	C2-C3-C4	3.23	116.48	110.89
3	sB	2	BGC	C2-C3-C4	3.23	116.48	110.89



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Mol	Chain	Res	Type	Atoms	Z	$Observed(^{o})$	$Ideal(^{o})$
3	Х	2	BGC	C2-C3-C4	3.23	116.48	110.89
3	fC	2	BGC	C2-C3-C4	3.22	116.47	110.89
3	JB	2	BGC	C2-C3-C4	3.22	116.47	110.89
3	4	2	BGC	C2-C3-C4	3.22	116.46	110.89
3	q	2	BGC	C2-C3-C4	3.21	116.45	110.89
3	RC	2	BGC	C2-C3-C4	3.21	116.45	110.89
3	vB	1	GAL	C1-C2-C3	3.18	113.57	109.67
3	t	1	GAL	C1-C2-C3	3.17	113.57	109.67
3	HD	1	GAL	C1-C2-C3	3.17	113.56	109.67
3	EA	1	GAL	C1-C2-C3	3.16	113.56	109.67
3	pC	1	GAL	C1-C2-C3	3.16	113.56	109.67
3	UC	1	GAL	C1-C2-C3	3.16	113.55	109.67
3	SA	1	GAL	C1-C2-C3	3.16	113.55	109.67
3	NC	1	GAL	C1-C2-C3	3.16	113.55	109.67
3	bC	1	GAL	C1-C2-C3	3.15	113.54	109.67
3	3C	1	GAL	C1-C2-C3	3.15	113.54	109.67
3	1A	1	GAL	C1-C2-C3	3.15	113.54	109.67
3	MB	1	GAL	C1-C2-C3	3.15	113.54	109.67
3	ZA	1	GAL	C1-C2-C3	3.15	113.53	109.67
3	m	1	GAL	C1-C2-C3	3.14	113.53	109.67
3	hB	5	MAN	C1-O5-C5	3.14	116.45	112.19
3	FB	1	GAL	C1-C2-C3	3.14	113.53	109.67
3	GC	1	GAL	C1-C2-C3	3.14	113.53	109.67
3	1A	2	BGC	C1-C2-C3	3.14	113.52	109.67
3	oB	1	GAL	C1-C2-C3	3.14	113.52	109.67
3	iC	1	GAL	C1-C2-C3	3.14	113.52	109.67
3	MB	5	MAN	C1-O5-C5	3.14	116.44	112.19
3	TB	1	GAL	C1-C2-C3	3.13	113.52	109.67
3	2B	1	GAL	C1-C2-C3	3.13	113.52	109.67
3	uA	1	GAL	C1-C2-C3	3.13	113.52	109.67
3	6A	2	BGC	C2-C3-C4	3.13	116.31	110.89
3	SC	2	BGC	C2-C3-C4	3.13	116.31	110.89
3	hB	1	GAL	C1-C2-C3	3.13	113.51	109.67
3	9B	1	GAL	C1-C2-C3	3.13	113.51	109.67
3	gC	2	BGC	C2-C3-C4	3.13	116.31	110.89
3	7	1	GAL	C1-C2-C3	3.13	113.51	109.67
3	AD	1	GAL	C1-C2-C3	3.13	113.51	109.67
3	LA	1	GAL	C1-C2-C3	3.13	113.51	109.67
3	gA	5	MAN	C1-O5-C5	3.13	116.43	112.19
3	8A	1	GAL	C1-C2-C3	3.13	113.51	109.67
3	gA	1	GAL	C1-C2-C3	3.13	113.51	109.67
3	wC	1	GAL	C1-C2-C3	3.13	113.51	109.67



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Mol	Chain	Res	Type	Atoms	Z	$Observed(^{o})$	$Ideal(^{o})$
3	0	1	GAL	C1-C2-C3	3.12	113.51	109.67
3	FB	5	MAN	C1-O5-C5	3.12	116.42	112.19
3	CA	2	BGC	C2-C3-C4	3.12	116.30	110.89
3	fB	2	BGC	C2-C3-C4	3.12	116.29	110.89
3	aB	1	GAL	C1-C2-C3	3.12	113.50	109.67
3	r	2	BGC	C2-C3-C4	3.12	116.29	110.89
3	RB	2	BGC	C2-C3-C4	3.12	116.29	110.89
3	nC	2	BGC	C2-C3-C4	3.12	116.29	110.89
3	HD	5	MAN	C1-O5-C5	3.12	116.41	112.19
3	7	2	BGC	C1-C2-C3	3.12	113.50	109.67
3	MB	2	BGC	C1-C2-C3	3.12	113.50	109.67
3	fB	4	A1H03	C1-C2-C3	3.12	113.50	109.67
3	5	2	BGC	C2-C3-C4	3.11	116.28	110.89
3	gA	2	BGC	C1-C2-C3	3.11	113.49	109.67
3	UC	5	MAN	C1-O5-C5	3.11	116.41	112.19
3	8C	2	BGC	C2-C3-C4	3.11	116.28	110.89
3	ZA	5	MAN	C1-O5-C5	3.11	116.41	112.19
3	у	2	BGC	C2-C3-C4	3.11	116.28	110.89
3	NC	5	MAN	C1-O5-C5	3.11	116.41	112.19
3	mB	2	BGC	C2-C3-C4	3.11	116.28	110.89
3	t	5	MAN	C1-O5-C5	3.11	116.41	112.19
3	XA	4	A1H03	C1-C2-C3	3.11	113.49	109.67
3	DB	2	BGC	C2-C3-C4	3.11	116.28	110.89
3	JA	4	A1H03	C1-C2-C3	3.11	113.49	109.67
3	8A	2	BGC	C1-C2-C3	3.11	113.49	109.67
3	k	2	BGC	C2-C3-C4	3.11	116.27	110.89
3	TB	5	MAN	C1-O5-C5	3.11	116.40	112.19
3	iC	5	MAN	C1-O5-C5	3.11	116.40	112.19
3	ZC	2	BGC	C2-C3-C4	3.11	116.27	110.89
3	aB	5	MAN	C1-O5-C5	3.11	116.40	112.19
3	ZA	2	BGC	C1-C2-C3	3.10	113.48	109.67
3	YB	4	A1H03	C1-C2-C3	3.10	113.48	109.67
3	pC	2	BGC	C1-C2-C3	3.10	113.48	109.67
3	lA	2	BGC	C2-C3-C4	3.10	116.27	110.89
3	m	5	MAN	C1-O5-C5	3.10	116.40	112.19
3	bC	5	MAN	C1-O5-C5	3.10	116.40	112.19
3	1C	2	BGC	C2-C3-C4	3.10	116.26	110.89
3	FD	2	BGC	C2-C3-C4	3.10	116.26	110.89
3	1A	5	MAN	C1-O5-C5	3.10	116.39	112.19
3	EC	2	BGC	C2-C3-C4	3.10	116.26	110.89
3	gC	4	A1H03	C1-C2-C3	3.10	113.48	109.67
3	QA	2	BGC	C2-C3-C4	3.10	116.26	110.89



Mol	Chain	Res	Type	Atoms	Z	$Observed(^{o})$	$Ideal(^{o})$
3	zA	2	BGC	C2-C3-C4	3.10	116.26	110.89
3	wC	5	MAN	C1-O5-C5	3.10	116.39	112.19
3	JA	2	BGC	C2-C3-C4	3.10	116.26	110.89
3	nA	1	GAL	C1-C2-C3	3.10	113.48	109.67
3	KB	2	BGC	C2-C3-C4	3.10	116.26	110.89
3	8A	5	MAN	C1-O5-C5	3.10	116.39	112.19
3	9B	3	A1H1F	O2S6-S6-C6	3.10	110.62	106.94
3	7B	2	BGC	C2-C3-C4	3.10	116.26	110.89
3	у	4	A1H03	C1-C2-C3	3.10	113.47	109.67
3	GC	5	MAN	C1-O5-C5	3.10	116.39	112.19
3	sA	2	BGC	C2-C3-C4	3.10	116.25	110.89
3	UC	2	BGC	C1-C2-C3	3.10	113.47	109.67
3	oB	5	MAN	C1-O5-C5	3.10	116.39	112.19
3	eA	2	BGC	C2-C3-C4	3.10	116.25	110.89
3	lA	4	A1H03	C1-C2-C3	3.10	113.47	109.67
3	XA	2	BGC	C2-C3-C4	3.10	116.25	110.89
3	vB	5	MAN	C1-O5-C5	3.09	116.39	112.19
3	YB	2	BGC	C2-C3-C4	3.09	116.25	110.89
3	0B	2	BGC	C2-C3-C4	3.09	116.25	110.89
3	RB	4	A1H03	C1-C2-C3	3.09	113.47	109.67
3	hB	2	BGC	C1-C2-C3	3.09	113.47	109.67
3	7B	4	A1H03	C1-C2-C3	3.09	113.47	109.67
3	LC	4	A1H03	C1-C2-C3	3.09	113.47	109.67
3	aB	2	BGC	C1-C2-C3	3.09	113.47	109.67
3	EA	2	BGC	C1-C2-C3	3.09	113.47	109.67
3	tB	4	A1H03	C1-C2-C3	3.09	113.47	109.67
3	iC	2	BGC	C1-C2-C3	3.09	113.47	109.67
3	9B	5	MAN	C1-O5-C5	3.09	116.38	112.19
3	GC	2	BGC	C1-C2-C3	3.09	113.46	109.67
3	8C	4	A1H03	C1-C2-C3	3.09	113.46	109.67
3	pC	5	MAN	C1-O5-C5	3.09	116.38	112.19
3	uC	2	BGC	C2-C3-C4	3.09	116.24	110.89
3	2B	5	MAN	C1-O5-C5	3.09	116.38	112.19
3	m	2	BGC	C1-C2-C3	3.09	113.46	109.67
3	3C	5	MAN	C1-O5-C5	3.09	116.37	112.19
3	tB	2	BGC	C2-C3-C4	3.09	116.24	110.89
3	LC	2	BGC	C2-C3-C4	3.09	116.24	110.89
3	eA	4	A1H03	C1-C2-C3	3.09	113.46	109.67
3	t	2	BGC	C1-C2-C3	3.08	113.46	109.67
3	AD	2	BGC	C1-C2-C3	3.08	113.46	109.67
3	nA	5	MAN	C1-O5-C5	3.08	116.37	112.19
3	2B	2	BGC	C1-C2-C3	3.08	113.46	109.67



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Mol	Chain	\mathbf{Res}	Type	Atoms	Z	$Observed(^{o})$	$Ideal(^{o})$
3	3C	2	BGC	C1-C2-C3	3.08	113.46	109.67
3	LA	5	MAN	C1-O5-C5	3.08	116.37	112.19
3	QA	4	A1H03	C1-C2-C3	3.08	113.46	109.67
3	SA	2	BGC	C1-C2-C3	3.08	113.46	109.67
3	zA	4	A1H03	C1-C2-C3	3.08	113.46	109.67
3	k	4	A1H03	C1-C2-C3	3.08	113.45	109.67
3	CA	4	A1H03	C1-C2-C3	3.08	113.45	109.67
3	9B	2	BGC	C1-C2-C3	3.08	113.45	109.67
3	EC	4	A1H03	C1-C2-C3	3.08	113.45	109.67
3	wC	2	BGC	C1-C2-C3	3.08	113.45	109.67
3	FD	4	A1H03	C1-C2-C3	3.08	113.45	109.67
3	SA	3	A1H1F	O2S6-S6-C6	3.08	110.60	106.94
3	LA	2	BGC	C1-C2-C3	3.08	113.45	109.67
3	1C	4	A1H03	C1-C2-C3	3.08	113.45	109.67
3	AD	5	MAN	C1-O5-C5	3.08	116.36	112.19
3	DB	4	A1H03	C1-C2-C3	3.08	113.45	109.67
3	NC	2	BGC	C1-C2-C3	3.08	113.45	109.67
3	r	4	A1H03	C1-C2-C3	3.08	113.45	109.67
3	6A	4	A1H03	C1-C2-C3	3.08	113.45	109.67
3	uA	5	MAN	C1-O5-C5	3.08	116.36	112.19
3	mB	4	A1H03	C1-C2-C3	3.08	113.45	109.67
3	nC	4	A1H03	C1-C2-C3	3.08	113.45	109.67
3	oB	2	BGC	C1-C2-C3	3.07	113.44	109.67
3	SA	5	MAN	C1-O5-C5	3.07	116.36	112.19
3	uA	2	BGC	C1-C2-C3	3.07	113.44	109.67
3	FB	2	BGC	C1-C2-C3	3.07	113.44	109.67
3	uC	4	A1H03	C1-C2-C3	3.07	113.44	109.67
3	\mathbf{SC}	4	A1H03	C1-C2-C3	3.07	113.44	109.67
2	pА	3	A1H1F	O1S6-S6-C6	3.07	110.63	105.74
3	nA	3	A1H1F	O2S6-S6-C6	3.07	110.59	106.94
3	EA	5	MAN	C1-O5-C5	3.07	116.35	112.19
3	ZA	3	A1H1F	O2S6-S6-C6	3.07	110.58	106.94
3	7	5	MAN	C1-O5-C5	3.07	116.34	112.19
2	jВ	3	A1H1F	O1S6-S6-C6	3.06	110.62	105.74
3	vB	3	A1H1F	O2S6-S6-C6	3.06	110.58	106.94
3	0B	4	A1H03	C1-C2-C3	$3.0\overline{6}$	113.43	109.67
2	5C	3	A1H1F	O1S6-S6-C6	3.06	110.62	105.74
3	5	4	A1H03	C1-C2-C3	3.06	113.43	109.67
3	HD	2	BGC	C1-C2-C3	3.06	113.43	109.67
3	nA	2	BGC	C1-C2-C3	3.06	113.43	109.67
3	ZC	4	A1H03	C1-C2-C3	3.06	113.43	109.67
2	NA	3	A1H1F	O1S6-S6-C6	3.06	110.61	105.74



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Mol	Chain	Res	Type	Atoms Z		$Observed(^{o})$	$Ideal(^{o})$
3	TB	2	BGC	C1-C2-C3	3.06	113.42	109.67
3	EA	3	A1H1F	O2S6-S6-C6	3.06	110.57	106.94
3	hB	3	A1H1F	O2S6-S6-C6	3.06	110.57	106.94
3	0	5	MAN	C1-O5-C5	3.06	116.33	112.19
2	4B	3	A1H1F	O1S6-S6-C6	3.06	110.61	105.74
2	PC	3	A1H1F	O1S6-S6-C6	3.06	110.61	105.74
3	bC	2	BGC	C1-C2-C3	3.05	113.42	109.67
2	cB	3	A1H1F	O1S6-S6-C6	3.05	110.61	105.74
3	pC	3	A1H1F	O2S6-S6-C6	3.05	110.57	106.94
3	HD	3	A1H1F	O2S6-S6-C6	3.05	110.57	106.94
3	gA	3	A1H1F	O2S6-S6-C6	3.05	110.57	106.94
3	sA	4	A1H03	C1-C2-C3	3.05	113.42	109.67
2	OB	3	A1H1F	O1S6-S6-C6	3.05	110.60	105.74
3	t	3	A1H1F	O2S6-S6-C6	3.05	110.56	106.94
3	0	2	BGC	C1-C2-C3	3.05	113.42	109.67
2	HB	3	A1H1F	O1S6-S6-C6	3.05	110.60	105.74
3	NC	3	A1H1F	O2S6-S6-C6	3.05	110.56	106.94
2	qB	3	A1H1F	O1S6-S6-C6	3.05	110.60	105.74
3	0	3	A1H1F	O2S6-S6-C6	3.05	110.56	106.94
3	KB	4	A1H03	C1-C2-C3	3.05	113.41	109.67
3	m	3	A1H1F	O2S6-S6-C6	3.05	110.56	106.94
2	9	3	A1H1F	O1S6-S6-C6	3.05	110.60	105.74
3	UC	3	A1H1F	O2S6-S6-C6	3.05	110.56	106.94
3	vB	2	BGC	C1-C2-C3	3.05	113.41	109.67
3	1A	3	A1H1F	O2S6-S6-C6	3.05	110.56	106.94
3	FB	3	A1H1F	O2S6-S6-C6	3.05	110.56	106.94
3	bC	3	A1H1F	O2S6-S6-C6	3.05	110.56	106.94
2	уC	3	A1H1F	O1S6-S6-C6	3.04	110.59	105.74
2	AB	3	A1H1F	O1S6-S6-C6	3.04	110.59	105.74
2	dC	3	A1H1F	O1S6-S6-C6	3.04	110.59	105.74
2	rC	3	A1H1F	O1S6-S6-C6	3.04	110.59	105.74
2	CD	3	A1H1F	O1S6-S6-C6	3.04	110.59	105.74
3	LA	3	A1H1F	O2S6-S6-C6	3.04	110.56	106.94
3	aB	3	A1H1F	O2S6-S6-C6	3.04	110.56	106.94
3	oВ	3	A1H1F	O2S6-S6-C6	3.04	110.55	106.94
3	wC	3	A1H1F	O2S6-S6-C6	3.04	110.55	106.94
2	0	3	A1H1F	O1S6-S6-C6	3.04	110.59	105.74
3	GC	3	A1H1F	O2S6-S6-C6	3.04	$110.5\overline{5}$	106.94
2	iA	3	A1H1F	O1S6-S6-C6	3.04	110.58	105.74
2	3A	3	A1H1F	O1S6-S6-C6	3.04	110.58	105.74
2	VB	3	A1H1F	O1S6-S6-C6	3.04	110.58	105.74
2	h	3	A1H1F	O1S6-S6-C6	3.04	110.58	105.74



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Mol	Chain	Res	Type	Atoms	Z	$Observed(^{o})$	$Ideal(^{o})$
2	xB	3	A1H1F	O1S6-S6-C6	3.04	110.58	105.74
2	BC	3	A1H1F	O1S6-S6-C6	3.04	110.58	105.74
2	V	3	A1H1F	O1S6-S6-C6	3.04	110.58	105.74
3	uA	3	A1H1F	O2S6-S6-C6	3.03	110.54	106.94
2	wA	3	A1H1F	O1S6-S6-C6	3.03	110.57	105.74
2	bA	3	A1H1F	O1S6-S6-C6	3.03	110.57	105.74
2	2	3	A1H1F	O1S6-S6-C6	3.03	110.57	105.74
2	UA	3	A1H1F	O1S6-S6-C6	3.03	110.57	105.74
2	IC	3	A1H1F	O1S6-S6-C6	3.03	110.57	105.74
3	MB	3	A1H1F	O2S6-S6-C6	3.03	110.54	106.94
3	2B	3	A1H1F	O2S6-S6-C6	3.03	110.54	106.94
2	GA	3	A1H1F	O1S6-S6-C6	3.03	110.56	105.74
2	WC	3	A1H1F	O1S6-S6-C6	3.02	110.56	105.74
3	AD	3	A1H1F	O2S6-S6-C6	3.02	110.53	106.94
3	7	3	A1H1F	O2S6-S6-C6	3.02	110.53	106.94
3	TB	3	A1H1F	O2S6-S6-C6	3.02	110.53	106.94
3	iC	3	A1H1F	O2S6-S6-C6	3.02	110.53	106.94
2	kC	3	A1H1F	O1S6-S6-C6	3.01	110.54	105.74
3	3C	3	A1H1F	O2S6-S6-C6	3.01	110.51	106.94
3	8A	3	A1H1F	O2S6-S6-C6	2.99	110.50	106.94
3	RC	1	GAL	C1-C2-C3	2.98	113.33	109.67
3	5A	1	GAL	C1-C2-C3	2.98	113.33	109.67
3	PA	1	GAL	C1-C2-C3	2.98	113.33	109.67
3	CB	1	GAL	C1-C2-C3	2.98	113.33	109.67
3	0C	1	GAL	C1-C2-C3	2.97	113.31	109.67
3	fC	1	GAL	C1-C2-C3	2.97	113.31	109.67
3	eB	1	GAL	C1-C2-C3	2.96	113.31	109.67
3	dA	1	GAL	C1-C2-C3	2.96	113.31	109.67
3	mC	1	GAL	C1-C2-C3	2.96	113.31	109.67
3	WA	1	GAL	C1-C2-C3	2.96	113.30	109.67
3	$7\mathrm{C}$	1	GAL	C1-C2-C3	2.96	113.30	109.67
3	q	1	GAL	C1-C2-C3	2.96	113.30	109.67
3	QB	1	GAL	C1-C2-C3	2.96	113.30	109.67
3	XB	1	GAL	C1-C2-C3	2.96	113.30	109.67
3	YC	1	GAL	C1-C2-C3	2.96	113.30	109.67
3	IA	1	GAL	C1-C2-C3	2.95	113.30	109.67
3	tC	1	GAL	C1-C2-C3	2.95	113.30	109.67
3	х	1	GAL	C1-C2-C3	2.95	113.29	109.67
3	j	1	GAL	C1-C2-C3	2.95	113.29	109.67
3	rA	1	GAL	C1-C2-C3	2.95	113.29	109.67
3	ED	1	GAL	C1-C2-C3	2.95	113.29	109.67
3	kA	1	GAL	C1-C2-C3	2.95	113.29	109.67



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Mol	Chain	Res	Type	Atoms	Z	$Observed(^{o})$	$Ideal(^{o})$
3	6B	1	GAL	C1-C2-C3	2.95	113.29	109.67
3	KC	1	GAL	C1-C2-C3	2.94	113.28	109.67
3	7	3	A1H1F	O1S6-S6-C6	2.94	110.43	105.74
2	UA	3	A1H1F	O3S6-S6-C6	2.94	110.44	106.94
3	sB	1	GAL	C1-C2-C3	2.94	113.28	109.67
3	DC	1	GAL	C1-C2-C3	2.94	113.28	109.67
4	cC	3	A1H1F	O2S6-S6-C6	2.94	110.43	106.94
3	yА	1	GAL	C1-C2-C3	2.94	113.27	109.67
2	bA	3	A1H1F	O3S6-S6-C6	2.93	110.43	106.94
2	CD	3	A1H1F	O3S6-S6-C6	2.93	110.42	106.94
2	HB	3	A1H1F	O3S6-S6-C6	2.93	110.42	106.94
3	UC	3	A1H1F	O1S6-S6-C6	2.93	110.41	105.74
2	NA	3	A1H1F	O3S6-S6-C6	2.93	110.42	106.94
3	4	1	GAL	C1-C2-C3	2.93	113.26	109.67
2	9	3	A1H1F	O3S6-S6-C6	2.93	110.42	106.94
3	zB	1	GAL	C1-C2-C3	2.93	113.26	109.67
3	oB	3	A1H1F	O1S6-S6-C6	2.92	110.40	105.74
3	BA	1	GAL	C1-C2-C3	2.92	113.26	109.67
3	gA	3	A1H1F	O1S6-S6-C6	2.92	110.40	105.74
2	V	3	A1H1F	O3S6-S6-C6	2.92	110.41	106.94
3	hB	3	A1H1F	O1S6-S6-C6	2.92	110.40	105.74
3	SA	3	A1H1F	O1S6-S6-C6	2.92	110.39	105.74
2	jВ	3	A1H1F	O3S6-S6-C6	2.92	110.41	106.94
4	FA	3	A1H1F	O2S6-S6-C6	2.92	110.41	106.94
4	FA	1	GAL	C1-O5-C5	2.92	116.15	112.19
3	1A	3	A1H1F	O1S6-S6-C6	2.92	110.39	105.74
3	MB	3	A1H1F	O1S6-S6-C6	2.92	110.39	105.74
3	ΤB	3	A1H1F	O1S6-S6-C6	2.92	110.39	105.74
2	qB	3	A1H1F	O3S6-S6-C6	2.92	110.41	106.94
4	bB	3	A1H1F	O2S6-S6-C6	2.92	110.41	106.94
3	uA	3	A1H1F	O1S6-S6-C6	2.92	110.39	105.74
2	PC	3	A1H1F	O3S6-S6-C6	2.92	110.41	106.94
4	LB	4	MAN	C1-O5-C5	2.92	116.14	112.19
4	wB	3	A1H1F	O2S6-S6-C6	2.92	110.41	106.94
3	wC	3	A1H1F	O1S6-S6-C6	2.92	110.39	105.74
2	h	3	A1H1F	O3S6-S6-C6	2.92	110.41	106.94
3	AD	3	A1H1F	O1S6-S6-C6	2.92	110.39	105.74
2	iA	3	A1H1F	O3S6-S6-C6	2.92	110.40	106.94
3	vB	3	A1H1F	O1S6-S6-C6	2.91	110.39	105.74
3	lB	1	GAL	C1-C2-C3	2.91	113.25	109.67
3	NC	3	A1H1F	O1S6-S6-C6	2.91	110.38	105.74
3	nA	3	A1H1F	O1S6-S6-C6	2.91	110.38	105.74



Mol	Chain	Res	Type	Atoms	\mathbf{Z}	$\mathbf{Observed}(^{o})$	$Ideal(^{o})$
4	oA	1	GAL	C1-O5-C5	2.91	116.14	112.19
2	0	3	A1H1F	O3S6-S6-C6	2.91	110.40	106.94
2	cB	3	A1H1F	O3S6-S6-C6	2.91	110.40	106.94
3	JB	1	GAL	C1-C2-C3	2.91	113.24	109.67
4	gB	4	MAN	C1-O5-C5	2.91	116.13	112.19
4	iB	3	A1H1F	O2S6-S6-C6	2.91	110.40	106.94
4	u	1	GAL	C1-O5-C5	2.91	116.13	112.19
4	TC	4	MAN	C1-O5-C5	2.91	116.13	112.19
3	bC	3	A1H1F	O1S6-S6-C6	2.91	110.38	105.74
3	m	3	A1H1F	O1S6-S6-C6	2.91	110.37	105.74
3	2B	3	A1H1F	O1S6-S6-C6	2.91	110.37	105.74
2	wA	3	A1H1F	O3S6-S6-C6	2.91	110.39	106.94
2	WC	3	A1H1F	O3S6-S6-C6	2.91	110.39	106.94
2	kC	3	A1H1F	O3S6-S6-C6	2.91	110.39	106.94
2	GA	3	A1H1F	O3S6-S6-C6	2.91	110.39	106.94
2	рА	3	A1H1F	O3S6-S6-C6	2.91	110.39	106.94
3	GC	3	A1H1F	O1S6-S6-C6	2.91	110.37	105.74
3	FB	3	A1H1F	O1S6-S6-C6	2.91	110.37	105.74
2	IC	3	A1H1F	O3S6-S6-C6	2.91	110.39	106.94
4	vA	1	GAL	C1-O5-C5	2.91	116.13	112.19
3	tC	5	MAN	C1-O5-C5	2.90	116.13	112.19
4	ZB	4	MAN	C1-O5-C5	2.90	116.13	112.19
3	aB	3	A1H1F	O1S6-S6-C6	2.90	110.37	105.74
3	iC	3	A1H1F	O1S6-S6-C6	2.90	110.37	105.74
4	ТА	1	GAL	C1-O5-C5	2.90	116.13	112.19
3	t	3	A1H1F	O1S6-S6-C6	2.90	110.37	105.74
4	xC	1	GAL	C1-O5-C5	2.90	116.12	112.19
4	mA	4	MAN	C1-O5-C5	2.90	116.12	112.19
4	HC	1	GAL	C1-O5-C5	2.90	116.12	112.19
4	qC	3	A1H1F	O2S6-S6-C6	2.90	110.38	106.94
3	9B	3	A1H1F	O1S6-S6-C6	2.90	110.36	105.74
4	pВ	1	GAL	C1-O5-C5	2.90	116.12	112.19
3	HD	3	A1H1F	O1S6-S6-C6	2.90	110.36	105.74
4	SB	4	MAN	C1-O5-C5	2.90	116.12	112.19
2	4B	3	A1H1F	O3S6-S6-C6	2.90	110.38	106.94
3	LA	3	A1H1F	O1S6-S6-C6	2.90	110.36	105.74
3	pC	3	A1H1F	01S6-S6-C6	2.90	110.36	105.74
4	AC	1	GAL	C1-O5-C5	2.90	116.11	112.19
4	4C	1	GAL	C1-O5-C5	2.90	116.11	112.19
3	8A	3	A1H1F	O1S6-S6-C6	2.90	110.35	105.74
2	3A	3	A1H1F	O3S6-S6-C6	2.89	110.38	106.94
2	OB	3	A1H1F	O3S6-S6-C6	2.89	110.38	106.94



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Mol	Chain	Res	Type	Atoms	Z	$Observed(^{o})$	$Ideal(^{o})$
3	3C	3	A1H1F	O1S6-S6-C6	2.89	110.35	105.74
3	rA	5	MAN	C1-O5-C5	2.89	116.11	112.19
4	BD	3	A1H1F	O2S6-S6-C6	2.89	110.38	106.94
4	0A	4	MAN	C1-O5-C5	2.89	116.11	112.19
2	VB	3	A1H1F	O3S6-S6-C6	2.89	110.38	106.94
4	nB	4	MAN	C1-O5-C5	2.89	116.11	112.19
2	xB	3	A1H1F	O3S6-S6-C6	2.89	110.38	106.94
2	BC	3	A1H1F	O3S6-S6-C6	2.89	110.38	106.94
3	0	3	A1H1F	O1S6-S6-C6	2.89	110.35	105.74
2	5C	3	A1H1F	O3S6-S6-C6	2.89	110.38	106.94
3	EA	3	A1H1F	O1S6-S6-C6	2.89	110.35	105.74
3	ZA	3	A1H1F	O1S6-S6-C6	2.89	110.35	105.74
4	YA	4	MAN	C1-O5-C5	2.89	116.11	112.19
4	NB	3	A1H1F	O2S6-S6-C6	2.89	110.37	106.94
3	XA	3	A1H1F	O2S6-S6-C6	2.89	110.37	106.94
4	8	3	A1H1F	O2S6-S6-C6	2.89	110.37	106.94
4	9A	1	GAL	C1-O5-C5	2.89	116.11	112.19
4	bB	1	GAL	C1-O5-C5	2.89	116.11	112.19
4	2A	3	A1H1F	O2S6-S6-C6	2.89	110.37	106.94
3	5A	5	MAN	C1-O5-C5	2.89	116.10	112.19
2	dC	3	A1H1F	O3S6-S6-C6	2.89	110.37	106.94
4	uB	4	MAN	C1-O5-C5	2.89	116.10	112.19
4	7A	4	MAN	C1-O5-C5	2.89	116.10	112.19
3	zA	3	A1H1F	O2S6-S6-C6	2.89	110.37	106.94
3	0B	3	A1H1F	O2S6-S6-C6	2.89	110.37	106.94
3	7C	5	MAN	C1-O5-C5	2.89	116.10	112.19
4	n	1	GAL	C1-O5-C5	2.89	116.10	112.19
3	5	3	A1H1F	O2S6-S6-C6	2.88	110.37	106.94
4	3B	3	A1H1F	O2S6-S6-C6	2.88	110.37	106.94
4	n	3	A1H1F	O2S6-S6-C6	2.88	110.36	106.94
3	JA	3	A1H1F	O2S6-S6-C6	2.88	110.36	106.94
4	9A	3	A1H1F	O2S6-S6-C6	2.88	110.36	106.94
4	GB	3	A1H1F	O2S6-S6-C6	2.88	110.36	106.94
4	UB	3	A1H1F	O2S6-S6-C6	2.88	110.36	106.94
4	HC	3	A1H1F	O2S6-S6-C6	2.88	110.36	106.94
4	4C	3	A1H1F	02S6-S6-C6	2.88	110.36	106.94
4	2A	1	GAL	C1-O5-C5	2.88	116.10	112.19
2	rC	3	A1H1F	O3S6-S6-C6	2.88	110.36	106.94
3	IA	5	MAN	C1-O5-C5	2.88	116.09	112.19
4	hC	4	MAN	C1-O5-C5	2.88	116.09	112.19
2	AB	3	A1H1F	03S6-S6-C6	2.88	110.36	106.94
4	hA	3	A1H1F	$O2S\overline{6-S6-C6}$	2.88	110.36	106.94



Mol	Chain	Res	Type	Atoms	Z	$Observed(^{o})$	$Ideal(^{o})$
4	EB	4	MAN	C1-O5-C5	2.88	116.09	112.19
4	GB	1	GAL	C1-O5-C5	2.88	116.09	112.19
4	NB	1	GAL	C1-O5-C5	2.88	116.09	112.19
4	MC	4	MAN	C1-O5-C5	2.88	116.09	112.19
2	2	3	A1H1F	O3S6-S6-C6	2.88	110.36	106.94
4	1	3	A1H1F	O2S6-S6-C6	2.88	110.36	106.94
3	yА	5	MAN	C1-O5-C5	2.88	116.09	112.19
3	CB	5	MAN	C1-O5-C5	2.88	116.09	112.19
4	1	1	GAL	C1-O5-C5	2.88	116.09	112.19
4	qC	1	GAL	C1-O5-C5	2.88	116.09	112.19
2	уC	3	A1H1F	O3S6-S6-C6	2.88	110.36	106.94
4	vA	3	A1H1F	O2S6-S6-C6	2.88	110.36	106.94
4	tA	4	MAN	C1-O5-C5	2.88	116.09	112.19
4	FC	4	MAN	C1-O5-C5	2.88	116.09	112.19
4	MA	3	A1H1F	O2S6-S6-C6	2.88	110.36	106.94
4	AC	3	A1H1F	O2S6-S6-C6	2.88	110.36	106.94
4	1	4	MAN	C1-O5-C5	2.88	116.09	112.19
4	RA	4	MAN	C1-O5-C5	2.88	116.09	112.19
4	wB	1	GAL	C1-O5-C5	2.88	116.09	112.19
3	JB	5	MAN	C1-O5-C5	2.88	116.09	112.19
3	QB	5	MAN	C1-O5-C5	2.88	116.09	112.19
4	MA	1	GAL	C1-O5-C5	2.88	116.09	112.19
4	jC	1	GAL	C1-O5-C5	2.88	116.09	112.19
4	OC	3	A1H1F	O2S6-S6-C6	2.88	110.36	106.94
4	OC	1	GAL	C1-O5-C5	2.87	116.09	112.19
4	cC	1	GAL	C1-O5-C5	2.87	116.09	112.19
3	CA	3	A1H1F	O2S6-S6-C6	2.87	110.36	106.94
4	oA	3	A1H1F	O2S6-S6-C6	2.87	110.36	106.94
4	xC	3	A1H1F	O2S6-S6-C6	2.87	110.36	106.94
4	jС	3	A1H1F	O2S6-S6-C6	2.87	110.35	106.94
4	6	4	MAN	C1-O5-C5	2.87	116.08	112.19
4	DA	4	MAN	C1-O5-C5	2.87	116.08	112.19
4	aA	1	GAL	C1-O5-C5	2.87	116.08	112.19
4	VC	1	GAL	C1-O5-C5	2.87	116.08	112.19
4	vC	4	MAN	C1-O5-C5	2.87	116.08	112.19
3	DC	5	MAN	C1-O5-C5	2.87	116.08	112.19
3	KC	5	MAN	C1-O5-C5	2.87	116.08	112.19
4	ID	3	A1H1F	O2S6-S6-C6	2.87	110.35	106.94
3	gC	3	A1H1F	O2S6-S6-C6	2.87	110.35	106.94
3	6B	5	MAN	C1-O5-C5	2.87	116.08	112.19
4	fA	4	MAN	C1-O5-C5	2.87	116.08	112.19
3	XB	3	A1H1F	O1S6-S6-C6	2.87	110.31	105.74

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Mol	Chain	Res	Type	Atoms	Z	$Observed(^{o})$	$Ideal(^{o})$
4	hA	1	GAL	C1-O5-C5	2.87	116.08	112.19
4	1B	4	MAN	C1-O5-C5	2.87	116.08	112.19
4	oC	4	MAN	C1-O5-C5	2.87	116.08	112.19
4	9C	4	MAN	C1-O5-C5	2.87	116.08	112.19
3	EC	3	A1H1F	O2S6-S6-C6	2.87	110.35	106.94
3	1C	3	A1H1F	O2S6-S6-C6	2.87	110.35	106.94
4	VC	3	A1H1F	O2S6-S6-C6	2.87	110.35	106.94
4	aC	4	MAN	C1-O5-C5	2.87	116.08	112.19
4	pВ	3	A1H1F	O2S6-S6-C6	2.87	110.35	106.94
3	dA	5	MAN	C1-O5-C5	2.87	116.08	112.19
4	iB	1	GAL	C1-O5-C5	2.87	116.08	112.19
4	8B	4	MAN	C1-O5-C5	2.87	116.08	112.19
3	KB	3	A1H1F	O2S6-S6-C6	2.87	110.34	106.94
4	TA	3	A1H1F	O2S6-S6-C6	2.86	110.34	106.94
3	j	5	MAN	C1-O5-C5	2.86	116.07	112.19
3	q	5	MAN	C1-O5-C5	2.86	116.07	112.19
4	3B	1	GAL	C1-O5-C5	2.86	116.07	112.19
3	nC	3	A1H1F	O2S6-S6-C6	2.86	110.34	106.94
4	ID	1	GAL	C1-O5-C5	2.86	116.07	112.19
3	6A	3	A1H1F	O2S6-S6-C6	2.86	110.34	106.94
4	u	3	A1H1F	O2S6-S6-C6	2.86	110.34	106.94
4	aA	3	A1H1F	O2S6-S6-C6	2.86	110.34	106.94
3	lA	3	A1H1F	O2S6-S6-C6	2.86	110.34	106.94
3	LC	3	A1H1F	O2S6-S6-C6	2.86	110.34	106.94
3	8C	3	A1H1F	O2S6-S6-C6	2.86	110.34	106.94
3	sA	3	A1H1F	O2S6-S6-C6	2.86	110.34	106.94
3	4	5	MAN	C1-O5-C5	2.86	116.07	112.19
4	BD	1	GAL	C1-O5-C5	2.86	116.07	112.19
3	eA	3	A1H1F	O2S6-S6-C6	2.86	110.34	106.94
3	RB	3	A1H1F	O2S6-S6-C6	2.86	110.34	106.94
3	0C	3	A1H1F	O1S6-S6-C6	2.86	110.30	105.74
4	8	1	GAL	C1-O5-C5	2.86	116.06	112.19
3	IA	3	A1H1F	O1S6-S6-C6	2.86	110.29	105.74
4	UB	1	GAL	C1-O5-C5	2.86	116.06	112.19
3	r	3	A1H1F	O2S6-S6-C6	2.86	110.33	106.94
3	7B	3	A1H1F	O2S6-S6-C6	2.86	110.33	106.94
4	Z	4	MAN	C1-O5-C5	2.86	116.06	112.19
3	k	3	A1H1F	O2S6-S6-C6	2.86	110.33	106.94
3	QB	3	A1H1F	O1S6-S6-C6	2.85	110.29	105.74
3	7C	3	A1H1F	O1S6-S6-C6	2.85	110.29	105.74
3	lB	5	MAN	C1-O5-C5	2.85	116.06	112.19
3	zB	5	MAN	C1-O5-C5	2.85	116.06	112.19



Mol	Chain	Res	Type	Atoms	Z	$Observed(^{o})$	$Ideal(^{o})$
4	2C	4	MAN	C1-O5-C5	2.85	116.06	112.19
4	KA	4	MAN	C1-O5-C5	2.85	116.06	112.19
3	PA	5	MAN	C1-O5-C5	2.85	116.06	112.19
3	WA	5	MAN	C1-O5-C5	2.85	116.06	112.19
3	YB	3	A1H1F	O2S6-S6-C6	2.85	110.33	106.94
3	SC	3	A1H1F	O2S6-S6-C6	2.85	110.33	106.94
3	BA	3	A1H1F	O1S6-S6-C6	2.85	110.28	105.74
3	QA	3	A1H1F	O2S6-S6-C6	2.85	110.33	106.94
3	tB	3	A1H1F	O2S6-S6-C6	2.85	110.33	106.94
3	ZC	3	A1H1F	O2S6-S6-C6	2.85	110.33	106.94
3	RC	5	MAN	C1-O5-C5	2.85	116.05	112.19
3	mC	5	MAN	C1-O5-C5	2.85	116.05	112.19
4	S	4	MAN	C1-O5-C5	2.85	116.05	112.19
3	YC	5	MAN	C1-O5-C5	2.85	116.05	112.19
3	6B	3	A1H1F	O1S6-S6-C6	2.85	110.28	105.74
3	0C	5	MAN	C1-O5-C5	2.85	116.05	112.19
3	rA	3	A1H1F	O1S6-S6-C6	2.85	110.28	105.74
3	DC	3	A1H1F	O1S6-S6-C6	2.85	110.28	105.74
3	lB	3	A1H1F	O1S6-S6-C6	2.85	110.28	105.74
3	mB	3	A1H1F	O2S6-S6-C6	2.84	110.32	106.94
3	eB	5	MAN	C1-O5-C5	2.84	116.05	112.19
3	PA	3	A1H1F	O1S6-S6-C6	2.84	110.27	105.74
3	kA	5	MAN	C1-O5-C5	2.84	116.04	112.19
3	XB	5	MAN	C1-O5-C5	2.84	116.04	112.19
3	RC	3	A1H1F	O1S6-S6-C6	2.84	110.27	105.74
3	dA	3	A1H1F	O1S6-S6-C6	2.84	110.27	105.74
3	CB	3	A1H1F	O1S6-S6-C6	2.84	110.26	105.74
3	kA	3	A1H1F	O1S6-S6-C6	2.84	110.26	105.74
3	JB	3	A1H1F	O1S6-S6-C6	2.84	110.26	105.74
3	KC	3	A1H1F	O1S6-S6-C6	2.84	110.26	105.74
3	ED	5	MAN	C1-O5-C5	2.84	116.03	112.19
4	GD	4	MAN	C1-O5-C5	2.84	116.03	112.19
3	j	3	A1H1F	O1S6-S6-C6	2.84	110.26	105.74
3	Х	5	MAN	C1-O5-C5	2.84	116.03	112.19
3	sB	5	MAN	C1-O5-C5	2.83	116.03	112.19
3	zB	3	A1H1F	O1S6-S6-C6	2.83	110.26	105.74
3	sB	3	A1H1F	01S6-S6-C6	2.83	110.25	105.74
3	DB	3	A1H1F	O2S6-S6-C6	2.83	110.30	106.94
3	5A	3	A1H1F	01S6-S6-C6	2.83	110.25	105.74
3	fC	3	A1H1F	01S6-S6-C6	2.83	110.25	105.74
3	tC	3	A1H1F	O1S6-S6-C6	2.83	110.25	105.74
3	х	3	A1H1F	O1S6-S6-C6	2.83	110.25	105.74

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Mol	Chain	Res	Type	Atoms	Z	$Observed(^{o})$	$Ideal(^{o})$
3	у	3	A1H1F	O2S6-S6-C6	2.83	110.30	106.94
3	ED	3	A1H1F	O1S6-S6-C6	2.83	110.24	105.74
3	YC	3	A1H1F	O1S6-S6-C6	2.82	110.24	105.74
3	mC	3	A1H1F	O1S6-S6-C6	2.82	110.24	105.74
3	fB	3	A1H1F	O2S6-S6-C6	2.82	110.29	106.94
3	uC	3	A1H1F	O2S6-S6-C6	2.82	110.29	106.94
3	fC	5	MAN	C1-O5-C5	2.82	116.02	112.19
3	BA	5	MAN	C1-O5-C5	2.82	116.01	112.19
3	4	3	A1H1F	O1S6-S6-C6	2.82	110.23	105.74
3	FD	3	A1H1F	O2S6-S6-C6	2.82	110.29	106.94
2	wA	5	MAN	C1-C2-C3	2.82	113.13	109.67
3	yА	3	A1H1F	O1S6-S6-C6	2.81	110.22	105.74
2	bA	5	MAN	C1-C2-C3	2.81	113.12	109.67
2	xВ	5	MAN	C1-C2-C3	2.81	113.12	109.67
3	q	3	A1H1F	O1S6-S6-C6	2.81	110.22	105.74
2	CD	5	MAN	C1-C2-C3	2.81	113.12	109.67
3	WA	3	A1H1F	O1S6-S6-C6	2.81	110.21	105.74
3	eB	3	A1H1F	O1S6-S6-C6	2.80	110.21	105.74
2	yC	5	MAN	C1-C2-C3	2.80	113.11	109.67
2	IC	5	MAN	C1-C2-C3	2.80	113.11	109.67
2	V	5	MAN	C1-C2-C3	2.79	113.10	109.67
2	WC	5	MAN	C1-C2-C3	2.79	113.10	109.67
2	BC	5	MAN	C1-C2-C3	2.79	113.10	109.67
4	oA	3	A1H1F	C1-C2-C3	2.79	113.10	109.67
2	qB	5	MAN	C1-C2-C3	2.79	113.09	109.67
4	u	3	A1H1F	C1-C2-C3	2.79	113.09	109.67
2	AB	5	MAN	C1-C2-C3	2.78	113.09	109.67
2	jВ	5	MAN	C1-C2-C3	2.78	113.09	109.67
4	aA	3	A1H1F	C1-C2-C3	2.78	113.09	109.67
2	rC	5	MAN	C1-C2-C3	2.78	113.09	109.67
2	NA	5	MAN	C1-C2-C3	2.78	113.09	109.67
4	OC	3	A1H1F	C1-C2-C3	2.78	113.09	109.67
2	h	5	MAN	C1-C2-C3	2.78	113.08	109.67
4	qC	3	A1H1F	C1-C2-C3	2.78	113.08	109.67
4	VC	3	A1H1F	O3S6-S6-C6	2.78	110.24	106.94
2	9	5	MAN	C1-C2-C3	2.78	113.08	109.67
2	iA	5	MAN	C1-C2-C3	2.78	113.08	109.67
4	2A	3	A1H1F	C1-C2-C3	2.78	113.08	109.67
2	kC	5	MAN	C1-C2-C3	2.77	113.08	109.67
2	VB	5	MAN	C1-C2-C3	2.77	113.08	109.67
4	VC	3	A1H1F	C1-C2-C3	2.77	113.07	109.67
2	2	5	MAN	C1-C2-C3	2.77	113.07	109.67



Mol	Chain	Res	Type	Atoms	Z	$Observed(^{o})$	$Ideal(^{o})$
2	dC	5	MAN	C1-C2-C3	2.77	113.07	109.67
4	AC	3	A1H1F	C1-C2-C3	2.77	113.07	109.67
2	3A	5	MAN	C1-C2-C3	2.77	113.07	109.67
4	vA	3	A1H1F	C1-C2-C3	2.77	113.07	109.67
2	UA	5	MAN	C1-C2-C3	2.77	113.07	109.67
2	4B	5	MAN	C1-C2-C3	2.77	113.07	109.67
4	u	3	A1H1F	O3S6-S6-C6	2.77	110.23	106.94
2	0	5	MAN	C1-C2-C3	2.77	113.06	109.67
2	рА	5	MAN	C1-C2-C3	2.77	113.06	109.67
4	8	3	A1H1F	C1-C2-C3	2.77	113.06	109.67
4	FA	3	A1H1F	C1-C2-C3	2.77	113.06	109.67
4	9A	3	A1H1F	C1-C2-C3	2.77	113.06	109.67
4	bB	3	A1H1F	O3S6-S6-C6	2.76	110.22	106.94
2	cB	5	MAN	C1-C2-C3	2.76	113.06	109.67
4	jС	3	A1H1F	C1-C2-C3	2.76	113.06	109.67
4	4C	3	A1H1F	C1-C2-C3	2.76	113.06	109.67
4	pВ	3	A1H1F	O3S6-S6-C6	2.76	110.22	106.94
2	$5\mathrm{C}$	5	MAN	C1-C2-C3	2.76	113.06	109.67
2	PC	5	MAN	C1-C2-C3	2.76	113.06	109.67
2	GA	5	MAN	C1-C2-C3	2.76	113.06	109.67
4	1	3	A1H1F	O3S6-S6-C6	2.76	110.22	106.94
4	iB	3	A1H1F	C1-C2-C3	2.76	113.06	109.67
4	MA	3	A1H1F	C1-C2-C3	2.76	113.06	109.67
4	UB	3	A1H1F	O3S6-S6-C6	2.76	110.22	106.94
2	3A	1	GAL	C1-C2-C3	2.76	113.06	109.67
2	HB	5	MAN	C1-C2-C3	2.76	113.06	109.67
4	ID	3	A1H1F	C1-C2-C3	2.76	113.06	109.67
4	hA	3	A1H1F	O3S6-S6-C6	2.76	110.21	106.94
4	GB	3	A1H1F	O3S6-S6-C6	2.76	110.21	106.94
4	3B	3	A1H1F	C1-C2-C3	2.76	113.05	109.67
4	n	3	A1H1F	C1-C2-C3	2.75	113.05	109.67
4	cC	3	A1H1F	C1-C2-C3	2.75	113.05	109.67
4	NB	3	A1H1F	C1-C2-C3	2.75	113.05	109.67
4	9A	3	A1H1F	O3S6-S6-C6	2.75	110.21	106.94
2	2	1	GAL	C1-C2-C3	2.75	113.05	109.67
4	pВ	3	A1H1F	C1-C2-C3	2.75	113.05	109.67
4	NB	3	A1H1F	O3S6-S6-C6	2.75	110.21	106.94
4	jC	3	A1H1F	O3S6-S6-C6	2.75	110.21	106.94
4	BD	3	A1H1F	C1-C2-C3	2.75	113.04	109.67
4	TA	3	A1H1F	O3S6-S6-C6	2.75	110.20	106.94
4	ID	3	A1H1F	O3S6-S6-C6	2.75	110.20	106.94
2	OB	5	MAN	C1-C2-C3	2.75	113.04	109.67



Mol	Chain	Res	Type	Atoms	\mathbf{Z}	$Observed(^{o})$	$Ideal(^{o})$
4	ТА	3	A1H1F	C1-C2-C3	2.74	113.04	109.67
4	UB	3	A1H1F	C1-C2-C3	2.74	113.04	109.67
4	$4\mathrm{C}$	3	A1H1F	O3S6-S6-C6	2.74	110.20	106.94
4	bB	3	A1H1F	C1-C2-C3	2.74	113.03	109.67
4	wB	3	A1H1F	O3S6-S6-C6	2.74	110.20	106.94
4	2A	3	A1H1F	O3S6-S6-C6	2.74	110.19	106.94
4	GB	3	A1H1F	C1-C2-C3	2.74	113.03	109.67
4	n	3	A1H1F	O3S6-S6-C6	2.74	110.19	106.94
4	aA	3	A1H1F	O3S6-S6-C6	2.74	110.19	106.94
4	AC	3	A1H1F	O3S6-S6-C6	2.74	110.19	106.94
4	cC	3	A1H1F	O3S6-S6-C6	2.74	110.19	106.94
4	1	3	A1H1F	C1-C2-C3	2.74	113.03	109.67
4	хC	3	A1H1F	O3S6-S6-C6	2.74	110.19	106.94
4	hA	3	A1H1F	C1-C2-C3	2.74	113.03	109.67
4	OC	3	A1H1F	O3S6-S6-C6	2.73	110.19	106.94
2	WC	1	GAL	C1-C2-C3	2.73	113.03	109.67
2	dC	1	GAL	C1-C2-C3	2.73	113.03	109.67
4	HC	3	A1H1F	C1-C2-C3	2.73	113.02	109.67
4	MA	3	A1H1F	O3S6-S6-C6	2.73	110.18	106.94
2	GA	1	GAL	C1-C2-C3	2.73	113.02	109.67
2	BC	1	GAL	C1-C2-C3	2.73	113.02	109.67
4	8	3	A1H1F	O3S6-S6-C6	2.73	110.18	106.94
4	3B	3	A1H1F	O3S6-S6-C6	2.73	110.18	106.94
4	FA	3	A1H1F	O3S6-S6-C6	2.73	110.18	106.94
4	хC	3	A1H1F	C1-C2-C3	2.73	113.02	109.67
2	4B	1	GAL	C1-C2-C3	2.73	113.02	109.67
2	PC	1	GAL	C1-C2-C3	2.73	113.02	109.67
4	BD	3	A1H1F	O3S6-S6-C6	2.73	110.18	106.94
2	0	1	GAL	C1-C2-C3	2.72	113.01	109.67
2	xВ	1	GAL	C1-C2-C3	2.72	113.01	109.67
2	HB	1	GAL	C1-C2-C3	2.72	113.01	109.67
2	kC	1	GAL	C1-C2-C3	2.72	113.01	109.67
2	h	1	GAL	C1-C2-C3	2.72	113.01	109.67
2	UA	1	GAL	C1-C2-C3	2.72	113.01	109.67
2	cВ	1	GAL	C1-C2-C3	2.72	113.01	109.67
2	рА	1	GAL	C1-C2-C3	2.72	113.01	109.67
2	wA	1	GAL	C1-C2-C3	2.72	113.01	109.67
4	wB	3	A1H1F	C1-C2-C3	2.72	113.01	109.67
4	iB	3	A1H1F	O3S6-S6-C6	2.72	110.17	106.94
2	OB	1	GAL	C1-C2-C3	2.71	113.00	109.67
2	5C	1	GAL	C1-C2-C3	2.71	113.00	109.67
2	AB	1	GAL	C1-C2-C3	2.71	113.00	109.67



Mol	Chain	Res	Type	Atoms	Z	$Observed(^{o})$	$Ideal(^{o})$
4	HC	3	A1H1F	O3S6-S6-C6	2.71	110.16	106.94
4	oA	3	A1H1F	O3S6-S6-C6	2.71	110.16	106.94
2	VB	1	GAL	C1-C2-C3	2.71	112.99	109.67
2	bA	1	GAL	C1-C2-C3	2.71	112.99	109.67
4	vA	3	A1H1F	O3S6-S6-C6	2.70	110.15	106.94
2	CD	1	GAL	C1-C2-C3	2.70	112.99	109.67
2	V	1	GAL	C1-C2-C3	2.70	112.99	109.67
2	iA	1	GAL	C1-C2-C3	2.70	112.99	109.67
2	qB	1	GAL	C1-C2-C3	2.70	112.99	109.67
2	jВ	1	GAL	C1-C2-C3	2.70	112.98	109.67
3	dA	3	A1H1F	O2S6-S6-C6	2.70	110.15	106.94
2	IC	1	GAL	C1-C2-C3	2.70	112.98	109.67
2	NA	1	GAL	C1-C2-C3	2.70	112.98	109.67
2	yC	1	GAL	C1-C2-C3	2.70	112.98	109.67
2	rC	1	GAL	C1-C2-C3	2.69	112.98	109.67
4	qC	3	A1H1F	O3S6-S6-C6	2.69	110.14	106.94
3	mC	3	A1H1F	O2S6-S6-C6	2.69	110.14	106.94
3	JB	3	A1H1F	O2S6-S6-C6	2.69	110.14	106.94
2	9	1	GAL	C1-C2-C3	2.69	112.97	109.67
3	DC	3	A1H1F	O2S6-S6-C6	2.69	110.14	106.94
3	PA	3	A1H1F	O2S6-S6-C6	2.69	110.13	106.94
3	RC	3	A1H1F	O2S6-S6-C6	2.68	110.13	106.94
3	rA	3	A1H1F	O2S6-S6-C6	2.68	110.13	106.94
3	5A	3	A1H1F	O2S6-S6-C6	2.68	110.13	106.94
3	Х	3	A1H1F	O2S6-S6-C6	2.68	110.12	106.94
3	WA	3	A1H1F	O2S6-S6-C6	2.68	110.12	106.94
3	IA	3	A1H1F	O2S6-S6-C6	2.67	110.12	106.94
3	kA	3	A1H1F	O2S6-S6-C6	2.67	110.12	106.94
3	yА	3	A1H1F	O2S6-S6-C6	2.67	110.12	106.94
3	tC	3	A1H1F	O2S6-S6-C6	2.67	110.12	106.94
3	fC	3	A1H1F	O2S6-S6-C6	2.67	110.11	106.94
3	4	3	A1H1F	O2S6-S6-C6	2.67	110.11	106.94
3	YC	3	A1H1F	O2S6-S6-C6	2.67	110.11	106.94
3	lB	3	A1H1F	O2S6-S6-C6	2.67	110.11	106.94
3	j	3	A1H1F	O2S6-S6-C6	2.67	110.11	106.94
3	sB	3	A1H1F	O2S6-S6-C6	$2.\overline{66}$	110.11	106.94
3	KC	3	A1H1F	O2S6-S6-C6	2.66	110.10	106.94
3	0C	3	A1H1F	O2S6-S6-C6	2.66	110.10	106.94
3	QB	3	A1H1F	O2S6-S6-C6	2.66	110.10	106.94
3	zB	3	A1H1F	O2S6-S6-C6	2.66	110.10	106.94
3	ED	3	A1H1F	O2S6-S6-C6	2.66	110.10	106.94
3	BA	3	A1H1F	O2S6-S6-C6	2.65	110.09	106.94



\mathbf{Mol}	Chain	\mathbf{Res}	Type	Atoms	\mathbf{Z}	$Observed(^{o})$	$Ideal(^{o})$
3	CB	3	A1H1F	O2S6-S6-C6	2.65	110.09	106.94
3	6B	3	A1H1F	O2S6-S6-C6	2.65	110.09	106.94
3	7C	3	A1H1F	O2S6-S6-C6	2.65	110.09	106.94
3	XB	3	A1H1F	O2S6-S6-C6	2.64	110.08	106.94
3	q	3	A1H1F	O2S6-S6-C6	2.64	110.08	106.94
3	0C	4	A1H03	C1-O5-C5	2.64	115.81	111.48
3	rA	4	A1H03	C1-O5-C5	2.64	115.80	111.48
3	kA	4	A1H03	C1-O5-C5	2.64	115.80	111.48
3	eB	3	A1H1F	O2S6-S6-C6	2.64	110.07	106.94
3	7C	4	A1H03	C1-O5-C5	2.64	115.80	111.48
3	tC	4	A1H03	C1-O5-C5	2.63	115.79	111.48
3	IA	4	A1H03	C1-O5-C5	2.63	115.78	111.48
3	6B	4	A1H03	C1-O5-C5	2.63	115.78	111.48
3	RC	4	A1H03	C1-O5-C5	2.63	115.78	111.48
3	QB	4	A1H03	C1-O5-C5	2.62	115.78	111.48
3	zB	4	A1H03	C1-O5-C5	2.62	115.78	111.48
3	j	4	A1H03	C1-O5-C5	2.62	115.77	111.48
3	CB	4	A1H03	C1-O5-C5	2.62	115.77	111.48
3	YC	4	A1H03	C1-O5-C5	2.62	115.77	111.48
3	mC	4	A1H03	C1-O5-C5	2.62	115.77	111.48
3	sB	4	A1H03	C1-O5-C5	2.62	115.77	111.48
3	PA	4	A1H03	C1-O5-C5	2.62	115.77	111.48
3	ED	4	A1H03	C1-O5-C5	2.62	115.76	111.48
3	JB	4	A1H03	C1-O5-C5	2.61	115.76	111.48
3	fC	4	A1H03	C1-O5-C5	2.61	115.76	111.48
3	4	4	A1H03	C1-O5-C5	2.61	115.76	111.48
3	BA	4	A1H03	C1-O5-C5	2.61	115.76	111.48
3	dA	4	A1H03	C1-O5-C5	2.61	115.76	111.48
3	DC	4	A1H03	C1-O5-C5	2.61	115.76	111.48
3	KC	4	A1H03	C1-O5-C5	2.61	115.76	111.48
3	WA	4	A1H03	C1-O5-C5	2.61	115.76	111.48
3	yА	4	A1H03	C1-O5-C5	2.61	115.76	111.48
3	XB	4	A1H03	C1-O5-C5	2.61	115.76	111.48
3	eB	4	A1H03	C1-O5-C5	2.61	115.75	111.48
3	lB	4	A1H03	C1-O5-C5	2.61	115.75	111.48
3	Х	1	GAL	C1-O5-C5	2.61	115.73	112.19
3	x	4	A1H03	C1-O5-C5	2.60	115.74	111.48
2	VB	2	BGC	C1-O5-C5	2.60	115.71	112.19
4	8B	3	A1H1F	O2S6-S6-C6	2.59	110.02	106.94
3	5A	4	A1H03	C1-O5-C5	2.59	115.72	111.48
3	fC	1	GAL	C1-O5-C5	2.59	115.69	112.19
4	uB	3	A1H1F	O2S6-S6-C6	2.58	110.01	106.94

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\mathbf{Mol}	Chain	Res	Type	Atoms	Z	$Observed(^{o})$	$Ideal(^{o})$
3	q	4	A1H03	C1-O5-C5	2.58	115.71	111.48
3	CB	1	GAL	C1-O5-C5	2.58	115.69	112.19
2	kC	2	BGC	C1-O5-C5	2.58	115.68	112.19
3	KC	1	GAL	C1-O5-C5	2.58	115.68	112.19
3	ED	1	GAL	C1-O5-C5	2.58	115.68	112.19
4	DA	3	A1H1F	O2S6-S6-C6	2.57	110.00	106.94
3	JB	1	GAL	C1-O5-C5	2.57	115.68	112.19
4	ZB	3	A1H1F	O2S6-S6-C6	2.57	110.00	106.94
4	6	3	A1H1F	O2S6-S6-C6	2.57	110.00	106.94
4	TC	3	A1H1F	O2S6-S6-C6	2.57	110.00	106.94
3	IA	1	GAL	C1-O5-C5	2.57	115.68	112.19
2	UA	2	BGC	C1-O5-C5	2.57	115.67	112.19
3	yА	1	GAL	C1-O5-C5	2.57	115.67	112.19
3	sB	1	GAL	C1-O5-C5	2.57	115.67	112.19
3	5A	1	GAL	C1-O5-C5	2.57	115.67	112.19
2	qB	2	BGC	C1-O5-C5	2.57	115.67	112.19
3	RC	1	GAL	C1-O5-C5	2.57	115.67	112.19
4	MC	3	A1H1F	O2S6-S6-C6	2.57	109.99	106.94
2	cB	2	BGC	C1-O5-C5	2.57	115.67	112.19
2	jВ	2	BGC	C1-O5-C5	2.57	115.67	112.19
2	dC	2	BGC	C1-O5-C5	2.57	115.67	112.19
3	kA	1	GAL	C1-O5-C5	2.56	115.67	112.19
3	tC	1	GAL	C1-O5-C5	2.56	115.67	112.19
2	rC	2	BGC	C1-O5-C5	2.56	115.66	112.19
3	BA	1	GAL	C1-O5-C5	2.56	115.66	112.19
3	mC	1	GAL	C1-O5-C5	2.56	115.66	112.19
4	vC	3	A1H1F	O2S6-S6-C6	2.56	109.98	106.94
3	PA	1	GAL	C1-O5-C5	2.56	115.66	112.19
4	7A	3	A1H1F	O2S6-S6-C6	2.56	109.98	106.94
2	iA	2	BGC	C1-O5-C5	2.56	115.66	112.19
2	4B	2	BGC	C1-O5-C5	2.56	115.66	112.19
3	j	1	GAL	C1-O5-C5	2.56	115.66	112.19
3	7C	1	GAL	C1-O5-C5	2.56	115.65	112.19
4	fA	3	A1H1F	O2S6-S6-C6	2.55	109.97	106.94
2	V	2	BGC	C1-O5-C5	2.55	115.65	112.19
2	wA	2	BGC	C1-O5-C5	2.55	115.65	112.19
2	AB	2	BGC	C1-O5-C5	2.55	115.65	112.19
3	dA	1	GAL	C1-O5-C5	2.55	115.65	112.19
4	SB	3	A1H1F	O2S6-S6-C6	2.55	109.97	106.94
2	bA	2	BGC	C1-O5-C5	2.55	115.65	112.19
4	1	3	A1H1F	O2S6-S6-C6	2.55	109.97	106.94
4	9C	3	A1H1F	O2S6-S6-C6	2.55	109.97	106.94

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Mol	Chain	Res	Type	Atoms	Z	$Observed(^{o})$	$Ideal(^{o})$
4	GD	3	A1H1F	O2S6-S6-C6	2.55	109.97	106.94
2	BC	2	BGC	C1-O5-C5	2.55	115.65	112.19
3	0C	1	GAL	C1-O5-C5	2.55	115.65	112.19
4	2C	3	A1H1F	O2S6-S6-C6	2.55	109.97	106.94
2	0	2	BGC	C1-O5-C5	2.55	115.65	112.19
3	6B	1	GAL	C1-O5-C5	2.55	115.65	112.19
4	mA	3	A1H1F	O2S6-S6-C6	2.55	109.97	106.94
4	FC	3	A1H1F	O2S6-S6-C6	2.55	109.97	106.94
3	eB	1	GAL	C1-O5-C5	2.55	115.64	112.19
2	xB	2	BGC	C1-O5-C5	2.55	115.64	112.19
2	IC	2	BGC	C1-O5-C5	2.55	115.64	112.19
3	WA	1	GAL	C1-O5-C5	2.55	115.64	112.19
2	3A	2	BGC	C1-O5-C5	2.55	115.64	112.19
3	YC	1	GAL	C1-O5-C5	2.55	115.64	112.19
2	h	2	BGC	C1-O5-C5	2.54	115.64	112.19
2	2	2	BGC	C1-O5-C5	2.54	115.64	112.19
3	q	1	GAL	C1-O5-C5	2.54	115.64	112.19
3	QB	1	GAL	C1-O5-C5	2.54	115.64	112.19
4	YA	3	A1H1F	O5-C1-C2	2.54	114.70	110.77
2	CD	2	BGC	C1-O5-C5	2.54	115.64	112.19
3	zB	1	GAL	C1-O5-C5	2.54	115.64	112.19
4	1B	3	A1H1F	O2S6-S6-C6	2.54	109.96	106.94
4	hC	3	A1H1F	O5-C1-C2	2.54	114.69	110.77
2	уC	2	BGC	C1-O5-C5	2.54	115.64	112.19
3	4	1	GAL	C1-O5-C5	2.54	115.64	112.19
4	KA	3	A1H1F	O2S6-S6-C6	2.54	109.96	106.94
4	hC	3	A1H1F	O2S6-S6-C6	2.54	109.96	106.94
3	rA	1	GAL	C1-O5-C5	2.54	115.63	112.19
3	lB	1	GAL	C1-O5-C5	2.54	115.63	112.19
4	YA	3	A1H1F	O2S6-S6-C6	2.54	109.95	106.94
4	LB	3	A1H1F	O2S6-S6-C6	2.54	109.95	106.94
4	gB	3	A1H1F	O2S6-S6-C6	2.54	109.95	106.94
4	Z	3	A1H1F	O2S6-S6-C6	2.54	109.95	106.94
4	tA	3	A1H1F	O2S6-S6-C6	2.54	109.95	106.94
2	5C	2	BGC	C1-O5-C5	2.53	115.63	112.19
2	pА	2	BGC	C1-O5-C5	2.53	115.62	112.19
4	RA	3	A1H1F	O2S6-S6-C6	2.53	109.95	106.94
4	nB	3	A1H1F	O2S6-S6-C6	2.53	109.95	106.94
2	OB	2	BGC	C1-O5-C5	2.53	115.62	112.19
4	LB	3	A1H1F	O5-C1-C2	2.53	114.67	110.77
4	EB	3	A1H1F	O2S6-S6-C6	2.53	109.94	106.94
3	DC	1	GAL	C1-O5-C5	2.53	115.61	112.19



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Mol	Chain	Res	Type	Atoms	Z	$Observed(^{o})$	$Ideal(^{o})$
3	Х	1	GAL	O5-C5-C6	2.53	111.16	107.20
4	aC	3	A1H1F	O2S6-S6-C6	2.52	109.94	106.94
3	XB	1	GAL	C1-O5-C5	2.52	115.61	112.19
2	PC	2	BGC	C1-O5-C5	2.52	115.61	112.19
3	fC	1	GAL	O5-C5-C6	2.52	111.16	107.20
2	WC	2	BGC	C1-O5-C5	2.52	115.61	112.19
2	GA	2	BGC	C1-O5-C5	2.52	115.61	112.19
4	0A	3	A1H1F	O2S6-S6-C6	2.52	109.93	106.94
4	s	3	A1H1F	O5-C1-C2	2.52	114.66	110.77
4	s	3	A1H1F	O2S6-S6-C6	2.52	109.93	106.94
3	RC	1	GAL	O5-C5-C6	2.52	111.15	107.20
4	oC	3	A1H1F	O2S6-S6-C6	2.52	109.93	106.94
2	NA	2	BGC	C1-O5-C5	2.52	115.60	112.19
4	2C	3	A1H1F	O5-C1-C2	2.51	114.65	110.77
2	pА	2	BGC	C2-C3-C4	2.51	115.25	110.89
3	sB	1	GAL	O5-C5-C6	2.51	111.14	107.20
4	1B	3	A1H1F	O5-C1-C2	2.51	114.65	110.77
4	0A	3	A1H1F	O5-C1-C2	2.51	114.65	110.77
3	5A	1	GAL	O5-C5-C6	2.51	111.14	107.20
4	uB	3	A1H1F	O5-C1-C2	2.51	114.65	110.77
3	6B	1	GAL	O5-C5-C6	2.51	111.14	107.20
2	HB	2	BGC	C1-O5-C5	2.51	115.59	112.19
4	EB	3	A1H1F	O5-C1-C2	2.51	114.64	110.77
4	ZB	3	A1H1F	O5-C1-C2	2.51	114.64	110.77
3	JB	1	GAL	O5-C5-C6	2.51	111.14	107.20
4	FC	3	A1H1F	O5-C1-C2	2.51	114.64	110.77
4	GD	3	A1H1F	O5-C1-C2	2.51	114.64	110.77
3	$0\mathrm{C}$	1	GAL	O5-C5-C6	2.51	111.13	107.20
4	RA	3	A1H1F	O5-C1-C2	2.51	114.64	110.77
2	AB	2	BGC	C2-C3-C4	2.51	115.23	110.89
2	уC	2	BGC	C2-C3-C4	2.51	115.23	110.89
3	PA	1	GAL	O5-C5-C6	2.50	111.13	107.20
3	ED	1	GAL	O5-C5-C6	2.50	111.13	107.20
2	9	2	BGC	C1-O5-C5	2.50	115.58	112.19
4	TC	3	A1H1F	O5-C1-C2	2.50	114.64	110.77
4	aC	3	A1H1F	O5-C1-C2	2.50	114.64	110.77
3	dA	1	GAL	O5-C5-C6	2.50	111.13	107.20
4	1	3	A1H1F	O5-C1-C2	2.50	114.63	110.77
3	yА	1	GAL	O5-C5-C6	$2.5\overline{0}$	111.12	107.20
2	4B	2	BGC	C2-C3-C4	2.50	115.22	110.89
3	WA	1	GAL	O5-C5-C6	2.50	111.12	107.20
3	QB	1	GAL	O5-C5-C6	2.50	111.12	107.20



Mol	Chain	Res	Type	Atoms	Z	$Observed(^{o})$	$Ideal(^{o})$
3	CB	1	GAL	O5-C5-C6	2.50	111.12	107.20
2	IC	2	BGC	C2-C3-C4	2.50	115.22	110.89
4	MC	3	A1H1F	O5-C1-C2	2.50	114.63	110.77
4	vC	3	A1H1F	O5-C1-C2	2.50	114.63	110.77
3	IA	1	GAL	O5-C5-C6	2.50	111.12	107.20
3	BA	1	GAL	O5-C5-C6	2.50	111.12	107.20
3	KC	1	GAL	O5-C5-C6	2.50	111.12	107.20
2	HB	2	BGC	C2-C3-C4	2.50	115.22	110.89
3	lB	1	GAL	O5-C5-C6	2.49	111.11	107.20
4	Z	3	A1H1F	O5-C1-C2	2.49	114.62	110.77
4	SB	3	A1H1F	O5-C1-C2	2.49	114.62	110.77
3	zB	1	GAL	O5-C5-C6	2.49	111.11	107.20
2	UA	2	BGC	C2-C3-C4	2.49	115.21	110.89
3	j	1	GAL	O5-C5-C6	2.49	111.11	107.20
2	$5\mathrm{C}$	2	BGC	C2-C3-C4	2.49	115.21	110.89
4	7A	3	A1H1F	O5-C1-C2	2.49	114.62	110.77
3	4	1	GAL	O5-C5-C6	2.49	111.11	107.20
2	bA	2	BGC	C2-C3-C4	2.49	115.21	110.89
3	kA	1	GAL	O5-C5-C6	2.49	111.11	107.20
4	mA	3	A1H1F	O5-C1-C2	2.49	114.61	110.77
4	8B	3	A1H1F	O5-C1-C2	2.49	114.61	110.77
2	cB	1	GAL	O5-C5-C6	2.49	111.11	107.20
4	fA	3	A1H1F	O5-C1-C2	2.49	114.61	110.77
4	gB	3	A1H1F	O5-C1-C2	2.49	114.61	110.77
3	XB	1	GAL	O5-C5-C6	2.49	111.11	107.20
3	tC	1	GAL	O5-C5-C6	2.49	111.11	107.20
2	wA	2	BGC	C2-C3-C4	2.49	115.20	110.89
4	nB	3	A1H1F	O5-C1-C2	2.49	114.61	110.77
2	qB	2	BGC	C2-C3-C4	2.49	115.20	110.89
2	BC	2	BGC	C2-C3-C4	2.49	115.20	110.89
3	q	1	GAL	O5-C5-C6	2.49	111.10	107.20
2	NA	2	BGC	C2-C3-C4	2.49	115.20	110.89
2	jВ	2	BGC	C2-C3-C4	2.49	115.20	110.89
2	9	2	BGC	C2-C3-C4	2.49	115.20	110.89
3	YC	1	GAL	O5-C5-C6	2.49	111.10	107.20
2	iA	2	BGC	C2-C3-C4	2.48	115.19	110.89
4	DA	3	A1H1F	O5-C1-C2	2.48	114.61	110.77
3	rA	1	GAL	O5-C5-C6	$2.4\overline{8}$	111.10	107.20
4	9C	3	A1H1F	O5-C1-C2	$2.4\overline{8}$	114.60	110.77
2	PC	2	BGC	C2-C3-C4	$2.4\overline{8}$	115.19	110.89
3	DC	1	GAL	O5-C5-C6	2.48	111.10	107.20
3	mC	1	GAL	O5-C5-C6	2.48	111.10	107.20



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Mol	Chain	Res	Type	Atoms		$Observed(^{o})$	$Ideal(^{o})$
2	3A	2	BGC	C2-C3-C4	2.48	115.19	110.89
2	OB	2	BGC	C2-C3-C4	2.48	115.19	110.89
2	CD	1	GAL	O5-C5-C6	2.48	111.09	107.20
4	qC	2	BGC	C1-O5-C5	2.48	115.55	112.19
4	oC	3	A1H1F	O5-C1-C2	2.48	114.60	110.77
2	2	2	BGC	C2-C3-C4	2.48	115.19	110.89
2	h	2	BGC	C2-C3-C4	2.48	115.19	110.89
2	bA	1	GAL	O5-C5-C6	2.48	111.09	107.20
2	9	1	GAL	O5-C5-C6	2.48	111.09	107.20
2	dC	2	BGC	C2-C3-C4	2.48	115.18	110.89
4	jС	2	BGC	C1-O5-C5	2.48	115.55	112.19
4	6	3	A1H1F	O5-C1-C2	2.48	114.59	110.77
2	V	2	BGC	C2-C3-C4	2.48	115.18	110.89
2	rC	2	BGC	C2-C3-C4	2.48	115.18	110.89
4	GB	2	BGC	C1-O5-C5	2.48	115.55	112.19
2	kC	2	BGC	C2-C3-C4	2.47	115.18	110.89
2	V	1	GAL	O5-C5-C6	2.47	111.08	107.20
2	yC	1	GAL	O5-C5-C6	2.47	111.08	107.20
4	KA	3	A1H1F	O5-C1-C2	2.47	114.59	110.77
2	cB	2	BGC	C2-C3-C4	2.47	115.17	110.89
2	wA	1	GAL	O5-C5-C6	2.47	111.08	107.20
2	$5\mathrm{C}$	1	GAL	O5-C5-C6	2.47	111.08	107.20
2	GA	2	BGC	C2-C3-C4	2.47	115.17	110.89
4	tA	3	A1H1F	O5-C1-C2	2.47	114.59	110.77
2	3A	1	GAL	O5-C5-C6	2.47	111.08	107.20
4	wB	2	BGC	C1-O5-C5	2.47	115.54	112.19
2	2	1	GAL	O5-C5-C6	2.47	111.08	107.20
2	iA	1	GAL	O5-C5-C6	2.47	111.08	107.20
4	6	1	GAL	C1-O5-C5	2.47	115.54	112.19
2	GA	5	MAN	O5-C5-C6	2.47	111.08	107.20
2	0	2	BGC	C2-C3-C4	2.47	115.17	110.89
2	WC	2	BGC	C2-C3-C4	2.47	115.17	110.89
2	rC	1	GAL	O5-C5-C6	2.47	111.08	107.20
4	2A	2	BGC	C1-O5-C5	2.47	115.54	112.19
2	CD	2	BGC	C2-C3-C4	2.47	115.17	110.89
2	kC	1	GAL	O5-C5-C6	2.47	111.07	107.20
2	BC	1	GAL	O5-C5-C6	2.47	111.07	107.20
4	mA	1	GAL	C1-O5-C5	2.47	115.53	112.19
4	gB	1	GAL	C1-O5-C5	2.47	$115.5\overline{3}$	112.19
2	VB	2	BGC	C2-C3-C4	2.47	115.16	110.89
3	7C	1	GAL	O5-C5-C6	2.46	111.07	107.20
4	FA	2	BGC	C1-O5-C5	2.46	115.53	112.19



2

4

4

3

2

2

2

4

GA

6

hC

IA

VB

AB

BC

mA

1

1

1

3

1

5

5

1

GAL

GAL

GAL

A1H1F

GAL

MAN

MAN

GAL

O5-C5-C6

O5-C5-C6

C1-O5-C5

O5-C1-C2

O5-C5-C6

O5-C5-C6

O5-C5-C6

O5-C5-C6

Ideal(°) 110.24 107.20 107.20107.20 107.20 112.19112.19 110.89 107.20 112.19 112.19112.19 107.20110.24112.19 112.19107.20 107.20 112.19 107.20112.19 112.19 112.19 112.19110.24 107.20107.20 107.20 112.19107.20112.19 107.20 107.20 112.19

Mol	Chain	Res	Type	Atoms		Observed(^o)
3	tB	2	BGC	C3-C4-C5	2.46	114.64
2	OB	1	GAL	O5-C5-C6	2.46	111.07
2	qB	1	GAL	O5-C5-C6	2.46	111.07
2	xB	1	GAL	O5-C5-C6	2.46	111.07
2	NA	5	MAN	O5-C5-C6	2.46	111.06
4	VC	2	BGC	C1-O5-C5	2.46	115.53
4	9C	1	GAL	C1-O5-C5	2.46	115.53
2	xB	2	BGC	C2-C3-C4	2.46	115.15
3	eB	1	GAL	O5-C5-C6	2.46	111.06
4	8B	1	GAL	C1-O5-C5	2.46	115.53
4	OC	2	BGC	C1-O5-C5	2.46	115.53
4	YA	1	GAL	C1-O5-C5	2.46	115.52
2	h	1	GAL	O5-C5-C6	2.46	111.06
3	nC	2	BGC	C3-C4-C5	2.46	114.62
4	s	1	GAL	C1-O5-C5	2.46	115.52
4	8	2	BGC	C1-O5-C5	2.46	115.52
2	0	1	GAL	O5-C5-C6	2.46	111.06
2	AB	1	GAL	O5-C5-C6	2.46	111.06
4	ID	2	BGC	C1-O5-C5	2.46	115.52
2	0	5	MAN	O5-C5-C6	2.46	111.05
4	RA	1	GAL	C1-O5-C5	2.46	115.52
4	UB	2	BGC	C1-O5-C5	2.46	115.52
4	u	2	BGC	C1-O5-C5	2.45	115.52
4	bB	2	BGC	C1-O5-C5	2.45	115.52
3	uC	2	BGC	C3-C4-C5	2.45	114.62
2	NA	1	GAL	O5-C5-C6	2.45	111.05
4	LB	1	GAL	O5-C5-C6	2.45	111.05
4	gB	1	GAL	O5-C5-C6	2.45	111.05
4	iB	2	BGC	C1-O5-C5	2.45	115.52
2	IC	1	GAL	O5-C5-C6	2.45	111.05
4	LB	1	GAL	C1-O5-C5	2.45	115.51
2	xB	5	MAN	O5-C5-C6	2.45	111.05
2	4B	1	GAL	O5-C5-C6	2.45	111.04
4	FC	1	GAL	C1-O5-C5	2.45	115.51

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111.04

111.04

115.51

114.55

111.04

111.04

111.04

111.04

107.20

107.20

112.19

110.77

107.20

107.20

107.20

107.20



2.45

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2.45

Mol	Chain	Res	Type	Atoms	Z	$Observed(^{o})$	$Ideal(^{o})$
4	n	2	BGC	C1-O5-C5	2.45	115.51	112.19
4	DA	1	GAL	C1-O5-C5	2.45	115.51	112.19
4	ZB	1	GAL	C1-O5-C5	2.45	115.51	112.19
4	xC	2	BGC	C1-O5-C5	2.45	115.51	112.19
4	YA	1	GAL	O5-C5-C6	2.45	111.04	107.20
4	SB	1	GAL	O5-C5-C6	2.45	111.04	107.20
3	0B	2	BGC	C3-C4-C5	2.45	114.60	110.24
2	UA	1	GAL	O5-C5-C6	2.45	111.04	107.20
3	uA	2	BGC	C2-C3-C4	2.45	115.13	110.89
3	zA	2	BGC	C3-C4-C5	2.45	114.60	110.24
2	IC	5	MAN	O5-C5-C6	2.45	111.04	107.20
3	YC	3	A1H1F	O5-C1-C2	2.44	114.55	110.77
3	eA	2	BGC	C3-C4-C5	2.44	114.60	110.24
2	cB	5	MAN	O5-C5-C6	2.44	111.04	107.20
2	bA	5	MAN	O5-C5-C6	2.44	111.03	107.20
2	3A	5	MAN	O5-C5-C6	2.44	111.03	107.20
2	4B	5	MAN	O5-C5-C6	2.44	111.03	107.20
4	hA	2	BGC	C1-O5-C5	2.44	115.50	112.19
4	pВ	2	BGC	C1-O5-C5	2.44	115.50	112.19
4	3B	2	BGC	C1-O5-C5	2.44	115.50	112.19
2	qB	5	MAN	O5-C5-C6	2.44	111.03	107.20
3	KB	2	BGC	C3-C4-C5	2.44	114.60	110.24
4	TA	2	BGC	C1-O5-C5	2.44	115.50	112.19
4	aA	2	BGC	C1-O5-C5	2.44	115.50	112.19
4	GD	1	GAL	O5-C5-C6	2.44	111.03	107.20
3	QA	2	BGC	C3-C4-C5	2.44	114.59	110.24
2	V	5	MAN	O5-C5-C6	2.44	111.03	107.20
2	2	5	MAN	O5-C5-C6	2.44	111.03	107.20
2	HB	1	GAL	O5-C5-C6	2.44	111.03	107.20
2	HB	5	MAN	O5-C5-C6	2.44	111.03	107.20
2	PC	1	GAL	O5-C5-C6	2.44	111.03	107.20
3	\mathbf{t}	2	BGC	C2-C3-C4	2.44	115.12	110.89
4	1	2	BGC	C1-O5-C5	2.44	115.50	112.19
2	OB	5	MAN	O5-C5-C6	2.44	111.03	107.20
2	PC	5	MAN	O5-C5-C6	2.44	111.03	107.20
3	UC	2	BGC	C2-C3-C4	2.44	115.12	110.89
4	SB	1	GAL	C1-O5-C5	2.44	115.50	112.19
4	ZB	1	GAL	O5-C5-C6	2.44	111.03	107.20
4	vC	1	GAL	C1-O5-C5	2.44	115.50	112.19
2	pА	1	GAL	O5-C5-C6	2.44	111.03	107.20
2	jВ	1	GAL	O5-C5-C6	2.44	111.03	107.20
2	dC	5	MAN	O5-C5-C6	2.44	111.03	107.20



4

vA

2

BGC

Mol	Chain	Res	Type	Atoms	Z	$Observed(^{o})$	$Ideal(^{o})$
4	8B	1	GAL	O5-C5-C6	2.44	111.03	107.20
3	DB	2	BGC	C3-C4-C5	2.44	114.59	110.24
3	YB	2	BGC	C3-C4-C5	2.44	114.59	110.24
3	7B	2	BGC	C3-C4-C5	2.44	114.59	110.24
3	CB	3	A1H1F	O5-C1-C2	2.44	114.54	110.77
3	5	2	BGC	C3-C4-C5	2.44	114.59	110.24
2	dC	1	GAL	O5-C5-C6	2.44	111.03	107.20
2	CD	5	MAN	O5-C5-C6	2.44	111.03	107.20
2	h	5	MAN	O5-C5-C6	2.44	111.03	107.20
4	s	1	GAL	O5-C5-C6	2.44	111.03	107.20
3	BA	3	A1H1F	O5-C1-C2	2.44	114.53	110.77
3	JA	2	BGC	C3-C4-C5	2.44	114.59	110.24
2	9	5	MAN	O5-C5-C6	2.44	111.02	107.20
4	1B	1	GAL	C1-O5-C5	2.44	115.49	112.19
3	7C	3	A1H1F	O5-C1-C2	2.44	114.53	110.77
3	ED	3	A1H1F	O5-C1-C2	2.44	114.53	110.77
4	BD	2	BGC	C1-O5-C5	2.44	115.49	112.19
2	WC	1	GAL	O5-C5-C6	2.44	111.02	107.20
4	MA	2	BGC	C1-O5-C5	2.43	115.49	112.19
3	NC	2	BGC	C2-C3-C4	2.43	115.11	110.89
3	LC	2	BGC	C3-C4-C5	2.43	114.58	110.24
3	9B	2	BGC	C2-C3-C4	2.43	115.11	110.89
3	kA	3	A1H1F	O5-C1-C2	2.43	114.53	110.77
3	XB	3	A1H1F	O5-C1-C2	2.43	114.53	110.77
3	r	2	BGC	C3-C4-C5	2.43	114.58	110.24
3	fB	2	BGC	C3-C4-C5	2.43	114.58	110.24
2	pА	5	MAN	O5-C5-C6	2.43	111.02	107.20
4	1	1	GAL	C1-O5-C5	2.43	115.49	112.19
4	Z	1	GAL	C1-O5-C5	2.43	115.49	112.19
3	mC	3	A1H1F	O5-C1-C2	2.43	114.53	110.77
4	oA	2	BGC	C1-O5-C5	2.43	115.49	112.19
4	aC	1	GAL	C1-O5-C5	2.43	115.49	112.19
3	HD	2	BGC	C2-C3-C4	2.43	115.10	110.89
4	tA	1	GAL	C1-O5-C5	2.43	115.49	112.19
2	wA	5	MAN	O5-C5-C6	2.43	111.02	107.20
4	hC	1	GAL	O5-C5-C6	2.43	111.02	107.20
3	fC	3	A1H1F	O5-C1-C2	2.43	114.52	110.77
3	tC	3	A1H1F	O5-C1-C2	2.43	114.52	110.77
4	GD	1	GAL	C1-O5-C5	2.43	115.49	112.19
3	bC	2	BGC	C2-C3-C4	2.43	115.10	110.89
2	yC	5	MAN	O5-C5-C6	2.43	111.02	107.20

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112.19

115.48



2.43

C1-O5-C5

Mol	Chain	Res	Type	Atoms	Z	$Observed(^{o})$	$Ideal(^{o})$
3	4	3	A1H1F	O5-C1-C2	2.43	114.52	110.77
4	AC	2	BGC	C1-O5-C5	2.43	115.48	112.19
3	ZC	2	BGC	C3-C4-C5	2.43	114.57	110.24
4	RA	1	GAL	O5-C5-C6	2.43	111.01	107.20
4	nB	1	GAL	C1-O5-C5	2.43	115.48	112.19
3	k	2	BGC	C3-C4-C5	2.43	114.57	110.24
4	HC	2	BGC	C1-O5-C5	2.43	115.48	112.19
4	DA	1	GAL	O5-C5-C6	2.43	111.01	107.20
4	FC	1	GAL	O5-C5-C6	2.43	111.01	107.20
3	yА	3	A1H1F	O5-C1-C2	2.43	114.52	110.77
4	7A	1	GAL	C1-O5-C5	2.43	115.48	112.19
4	cC	2	BGC	C1-O5-C5	2.43	115.48	112.19
3	iC	2	BGC	C2-C3-C4	2.43	115.09	110.89
3	lA	2	BGC	C3-C4-C5	2.43	114.57	110.24
3	6A	2	BGC	C3-C4-C5	2.43	114.57	110.24
2	UA	5	MAN	O5-C5-C6	2.43	111.01	107.20
2	jВ	5	MAN	O5-C5-C6	2.43	111.01	107.20
3	j	3	A1H1F	O5-C1-C2	2.43	114.52	110.77
3	rA	3	A1H1F	O5-C1-C2	2.43	114.52	110.77
3	DC	3	A1H1F	O5-C1-C2	2.43	114.52	110.77
3	aB	2	BGC	C2-C3-C4	2.43	115.09	110.89
3	3C	2	BGC	C2-C3-C4	2.43	115.09	110.89
4	0A	1	GAL	C1-O5-C5	2.43	115.48	112.19
4	9C	1	GAL	O5-C5-C6	2.43	111.01	107.20
3	mB	2	BGC	C3-C4-C5	2.43	114.56	110.24
3	8A	2	BGC	C2-C3-C4	2.42	115.09	110.89
3	8C	2	BGC	C3-C4-C5	2.42	114.56	110.24
4	1	1	GAL	O5-C5-C6	2.42	111.00	107.20
4	vC	1	GAL	O5-C5-C6	2.42	111.00	107.20
4	EB	1	GAL	C1-O5-C5	2.42	115.48	112.19
4	2C	1	GAL	C1-O5-C5	2.42	115.48	112.19
3	m	2	BGC	C2-C3-C4	2.42	115.09	110.89
3	LA	2	BGC	C2-C3-C4	2.42	115.09	110.89
3	dA	3	A1H1F	O5-C1-C2	2.42	114.51	110.77
3	RB	2	BGC	C3-C4-C5	2.42	114.56	110.24
3	EC	2	BGC	C3-C4-C5	2.42	114.56	110.24
3	FD	2	BGC	C3-C4-C5	2.42	114.56	110.24
3	sA	2	BGC	C3-C4-C5	2.42	114.56	110.24
3	SC	2	BGC	C3-C4-C5	2.42	114.56	110.24
2	rC	5	MAN	O5-C5-C6	2.42	111.00	107.20
2	xB	6	A1H03	C1-O5-C5	2.42	115.45	111.48
3	vB	2	BGC	C2-C3-C4	2.42	115.09	110.89



Mol	Chain	Res	Type	Atoms	Z	$Observed(^{o})$	$Ideal(^{o})$
4	4C	2	BGC	C1-O5-C5	2.42	115.47	112.19
3	JB	3	A1H1F	O5-C1-C2	2.42	114.51	110.77
3	0C	3	A1H1F	O5-C1-C2	2.42	114.51	110.77
3	TB	2	BGC	C2-C3-C4	2.42	115.09	110.89
3	1C	2	BGC	C3-C4-C5	2.42	114.56	110.24
4	oC	1	GAL	C1-O5-C5	2.42	115.47	112.19
3	PA	3	A1H1F	O5-C1-C2	2.42	114.51	110.77
2	WC	5	MAN	O5-C5-C6	2.42	111.00	107.20
4	EB	1	GAL	O5-C5-C6	2.42	111.00	107.20
3	GC	2	BGC	C2-C3-C4	2.42	115.08	110.89
3	XA	2	BGC	C3-C4-C5	2.42	114.56	110.24
2	5C	5	MAN	O5-C5-C6	2.42	111.00	107.20
3	SA	2	BGC	C2-C3-C4	2.42	115.08	110.89
3	gC	2	BGC	C3-C4-C5	2.42	114.55	110.24
3	MB	2	BGC	C2-C3-C4	2.42	115.08	110.89
2	NA	6	A1H03	C1-O5-C5	2.42	115.44	111.48
3	1A	2	BGC	C2-C3-C4	2.42	115.08	110.89
3	RC	3	A1H1F	O5-C1-C2	2.42	114.50	110.77
4	7A	1	GAL	O5-C5-C6	2.42	110.99	107.20
4	nB	1	GAL	O5-C5-C6	2.42	110.99	107.20
3	EA	2	BGC	C2-C3-C4	2.42	115.08	110.89
2	UA	6	A1H03	C1-O5-C5	2.42	115.44	111.48
4	fA	1	GAL	C1-O5-C5	2.42	115.47	112.19
4	TC	1	GAL	C1-O5-C5	2.42	115.47	112.19
4	TC	1	GAL	O5-C5-C6	2.42	110.99	107.20
4	tA	1	GAL	O5-C5-C6	2.42	110.99	107.20
4	oC	1	GAL	O5-C5-C6	2.42	110.99	107.20
4	9A	2	BGC	C1-O5-C5	2.41	115.46	112.19
3	QB	3	A1H1F	O5-C1-C2	2.41	114.50	110.77
2	iA	5	MAN	O5-C5-C6	2.41	110.99	107.20
3	sB	3	A1H1F	O5-C1-C2	2.41	114.50	110.77
4	MC	1	GAL	O5-C5-C6	2.41	110.99	107.20
4	2C	1	GAL	O5-C5-C6	2.41	110.99	107.20
3	У	2	BGC	C3-C4-C5	2.41	114.54	110.24
4	1B	1	GAL	O5-C5-C6	2.41	110.99	107.20
3	0	2	BGC	C2-C3-C4	2.41	115.07	110.89
3	nA	2	BGC	C2-C3-C4	2.41	115.07	110.89
3	5A	3	A1H1F	O5-C1-C2	2.41	114.49	110.77
2	VB	5	MAN	O5-C5-C6	2.41	110.98	107.20
4	0A	1	GAL	O5-C5-C6	2.41	110.98	107.20
3	eB	3	A1H1F	O5-C1-C2	2.41	114.49	110.77
3	lB	3	A1H1F	O5-C1-C2	2.41	114.49	110.77



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Mol	Chain	Res	Type	Atoms		$Observed(^{o})$	$Ideal(^{o})$
2	4B	6	A1H03	C1-O5-C5	2.41	115.42	111.48
2	HB	6	A1H03	C1-O5-C5	2.41	115.42	111.48
3	CA	2	BGC	C3-C4-C5	2.41	114.53	110.24
3	Х	3	A1H1F	O5-C1-C2	2.41	114.49	110.77
2	kC	5	MAN	O5-C5-C6	2.41	110.98	107.20
2	3A	6	A1H03	C1-O5-C5	2.41	115.42	111.48
3	oB	2	BGC	C2-C3-C4	2.41	115.06	110.89
3	pC	2	BGC	C2-C3-C4	2.41	115.06	110.89
3	6B	3	A1H1F	O5-C1-C2	2.41	114.49	110.77
2	rC	6	A1H03	C1-O5-C5	2.41	115.42	111.48
3	AD	2	BGC	C2-C3-C4	2.41	115.06	110.89
2	dC	6	A1H03	O2-C2-C1	2.41	114.08	109.15
4	aC	1	GAL	O5-C5-C6	2.41	110.98	107.20
4	Z	1	GAL	O5-C5-C6	2.41	110.97	107.20
3	wC	2	BGC	C2-C3-C4	2.40	115.06	110.89
2	GA	6	A1H03	C1-O5-C5	2.40	115.42	111.48
3	gA	2	BGC	C2-C3-C4	2.40	115.06	110.89
2	PC	6	A1H03	C1-O5-C5	2.40	115.42	111.48
3	KC	3	A1H1F	O5-C1-C2	2.40	114.48	110.77
2	kC	6	A1H03	O2-C2-C1	2.40	114.07	109.15
2	OB	6	A1H03	C1-O5-C5	2.40	115.42	111.48
2	WC	6	A1H03	O2-C2-C1	2.40	114.07	109.15
4	NB	2	BGC	C1-O5-C5	2.40	115.45	112.19
3	ZA	2	BGC	C2-C3-C4	2.40	115.05	110.89
2	WC	6	A1H03	C1-O5-C5	2.40	115.41	111.48
4	fA	1	GAL	O5-C5-C6	2.40	110.97	107.20
2	AB	6	A1H03	C1-O5-C5	2.40	115.41	111.48
4	uB	1	GAL	O5-C5-C6	2.40	110.97	107.20
3	zB	3	A1H1F	O5-C1-C2	2.40	114.48	110.77
4	MC	1	GAL	C1-O5-C5	2.40	115.44	112.19
3	hB	2	BGC	C2-C3-C4	2.40	115.05	110.89
3	2B	2	BGC	C2-C3-C4	2.40	115.05	110.89
2	GA	6	A1H03	O2-C2-C1	2.40	114.06	109.15
4	KA	1	GAL	C1-O5-C5	2.40	115.44	112.19
3	7	2	BGC	C2-C3-C4	2.40	115.05	110.89
3	FΒ	2	BGC	C2-C3-C4	2.40	115.05	110.89
4	KA	1	GAL	O5-C5-C6	2.40	110.97	107.20
2	AB	6	A1H03	O2-C2-C1	2.40	114.06	$109.\overline{15}$
4	uB	1	GAL	C1-O5-C5	2.40	115.44	112.19
2	рА	6	A1H03	C1-O5-C5	2.40	115.41	111.48
2	IC	6	A1H03	O2-C2-C1	2.40	114.05	109.15
2	CD	6	A1H03	O2-C2-C1	2.40	114.05	109.15



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Mol	Chain	Res	Type	Atoms	Z	$Observed(^{o})$	$Ideal(^{o})$
2	cB	6	A1H03	C1-O5-C5	2.40	115.40	111.48
2	CD	6	A1H03	C1-O5-C5	2.40	115.40	111.48
2	VB	6	A1H03	O2-C2-C1	2.40	114.05	109.15
2	2	6	A1H03	C1-O5-C5	2.39	115.40	111.48
4	7A	2	BGC	C1-O5-C5	2.39	115.44	112.19
4	9C	2	BGC	C1-O5-C5	2.39	115.44	112.19
3	WA	3	A1H1F	O5-C1-C2	2.39	114.47	110.77
3	q	3	A1H1F	O5-C1-C2	2.39	114.47	110.77
2	bA	6	A1H03	O2-C2-C1	2.39	114.05	109.15
2	h	6	A1H03	C1-O5-C5	2.39	115.40	111.48
2	9	6	A1H03	C1-O5-C5	2.39	115.40	111.48
2	UA	6	A1H03	O2-C2-C1	2.39	114.05	109.15
2	yC	6	A1H03	O2-C2-C1	2.39	114.05	109.15
2	3A	6	A1H03	O2-C2-C1	2.39	114.04	109.15
2	$5\mathrm{C}$	6	A1H03	O2-C2-C1	2.39	114.04	109.15
2	2	6	A1H03	O2-C2-C1	2.39	114.04	109.15
2	iA	6	A1H03	O2-C2-C1	2.39	114.04	109.15
2	HB	6	A1H03	O2-C2-C1	2.39	114.04	109.15
2	qB	6	A1H03	C1-O5-C5	2.39	115.39	111.48
2	IC	6	A1H03	C1-O5-C5	2.39	115.39	111.48
2	qB	6	A1H03	O2-C2-C1	2.39	114.04	109.15
2	BC	6	A1H03	O2-C2-C1	2.39	114.04	109.15
2	BC	6	A1H03	C1-O5-C5	2.39	115.39	111.48
2	h	6	A1H03	O2-C2-C1	2.39	114.03	109.15
2	5C	6	A1H03	C1-O5-C5	2.38	115.39	111.48
2	wA	6	A1H03	O2-C2-C1	2.38	114.03	109.15
2	OB	6	A1H03	O2-C2-C1	2.38	114.03	109.15
2	rC	6	A1H03	O2-C2-C1	2.38	114.03	109.15
2	cB	6	A1H03	O2-C2-C1	2.38	114.03	109.15
2	0	6	A1H03	C1-O5-C5	2.38	115.38	111.48
2	wA	6	A1H03	C1-O5-C5	2.38	115.38	111.48
2	bA	6	A1H03	C1-O5-C5	2.38	115.38	111.48
4	nB	2	BGC	C1-O5-C5	2.38	115.42	112.19
2	dC	6	A1H03	C1-O5-C5	2.38	115.38	111.48
2	0	6	A1H03	O2-C2-C1	2.38	114.03	109.15
4	ZB	2	BGC	C1-O5-C5	2.38	115.42	112.19
2	4B	6	A1H03	O2-C2-C1	2.38	114.02	109.15
4	LB	2	BGC	C1-O5-C5	2.38	115.42	112.19
4	uB	2	BGC	C1-O5-C5	2.38	115.42	112.19
2	yC	6	A1H03	C1-O5-C5	2.38	115.38	111.48
2	V	6	A1H03	O2-C2-C1	2.38	114.02	109.15
2	iA	6	A1H03	C1-O5-C5	2.38	115.38	111.48



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Mol	Chain	Res	Type	Atoms	Z	$Observed(^{o})$	$Ideal(^{o})$
2	jВ	6	A1H03	C1-O5-C5	2.38	115.38	111.48
2	9	6	A1H03	O2-C2-C1	2.38	114.02	109.15
2	xB	6	A1H03	O2-C2-C1	2.38	114.02	109.15
4	8B	2	BGC	C1-O5-C5	2.38	115.41	112.19
2	kC	6	A1H03	C1-O5-C5	2.38	115.37	111.48
2	pА	6	A1H03	O2-C2-C1	2.38	114.01	109.15
4	RA	2	BGC	C1-O5-C5	2.38	115.41	112.19
2	V	6	A1H03	C1-O5-C5	2.37	115.37	111.48
2	jВ	6	A1H03	O2-C2-C1	2.37	114.00	109.15
4	Z	2	BGC	C1-O5-C5	2.37	115.41	112.19
2	PC	6	A1H03	O2-C2-C1	2.37	114.00	109.15
4	YA	2	BGC	C1-O5-C5	2.37	115.40	112.19
4	EB	2	BGC	C1-O5-C5	2.37	115.40	112.19
2	VB	6	A1H03	C1-O5-C5	2.37	115.36	111.48
4	s	2	BGC	C1-O5-C5	2.37	115.40	112.19
4	mA	2	BGC	C1-O5-C5	2.37	115.40	112.19
4	6	2	BGC	C1-O5-C5	2.36	115.40	112.19
2	NA	6	A1H03	O2-C2-C1	2.36	113.99	109.15
4	DA	2	BGC	C1-O5-C5	2.36	115.39	112.19
4	fA	2	BGC	C1-O5-C5	2.36	115.39	112.19
4	aC	2	BGC	C1-O5-C5	2.36	115.39	112.19
4	1	2	BGC	C1-O5-C5	2.36	115.39	112.19
4	$2\mathrm{C}$	2	BGC	C1-O5-C5	2.36	115.39	112.19
4	1B	2	BGC	C1-O5-C5	2.35	115.38	112.19
4	MC	2	BGC	C1-O5-C5	2.35	115.37	112.19
4	TC	2	BGC	C1-O5-C5	2.35	115.37	112.19
4	0A	2	BGC	C1-O5-C5	2.34	115.37	112.19
4	KA	2	BGC	C1-O5-C5	2.34	115.37	112.19
4	GD	2	BGC	C1-O5-C5	2.34	115.36	112.19
4	SB	2	BGC	C1-O5-C5	2.34	115.36	112.19
4	vC	2	BGC	C1-O5-C5	2.34	115.36	112.19
4	FC	2	BGC	C1-O5-C5	2.34	115.36	112.19
4	gB	2	BGC	C1-O5-C5	2.33	115.35	112.19
4	hC	2	BGC	C1-O5-C5	2.33	115.34	112.19
4	tA	2	BGC	C1-O5-C5	2.33	115.34	112.19
4	oC	2	BGC	C1-O5-C5	2.33	115.34	112.19
3	hB	4	A1H03	C1-O5-C5	2.30	115.25	111.48
3	8A	4	A1H03	C1-O5-C5	2.30	115.24	111.48
3	t	4	A1H03	C1-O5-C5	2.29	115.24	111.48
3	oB	4	A1H03	C1-O5-C5	2.29	115.24	111.48
3	FB	4	A1H03	C1-O5-C5	2.29	115.23	111.48
3	AD	4	A1H03	C1-O5-C5	2.29	115.23	111.48



Mol	Chain	Res	Type	Atoms	Z	$Observed(^{o})$	$Ideal(^{o})$
3	MB	4	A1H03	C1-O5-C5	2.29	115.23	111.48
3	HD	4	A1H03	C1-O5-C5	2.29	115.23	111.48
3	2B	4	A1H03	C1-O5-C5	2.29	115.23	111.48
3	NC	4	A1H03	C1-O5-C5	2.29	115.23	111.48
3	pC	4	A1H03	C1-O5-C5	2.29	115.22	111.48
3	wC	4	A1H03	C1-O5-C5	2.29	115.22	111.48
3	vB	4	A1H03	C1-O5-C5	2.28	115.22	111.48
3	uA	4	A1H03	C1-O5-C5	2.28	115.22	111.48
3	GC	4	A1H03	C1-O5-C5	2.28	115.21	111.48
3	ZA	4	A1H03	C1-O5-C5	2.27	115.20	111.48
3	ΤB	4	A1H03	C1-O5-C5	2.27	115.20	111.48
3	m	4	A1H03	C1-O5-C5	2.27	115.20	111.48
3	1A	4	A1H03	C1-O5-C5	2.27	115.20	111.48
3	SA	4	A1H03	C1-O5-C5	2.27	115.19	111.48
3	nA	4	A1H03	C1-O5-C5	2.27	115.19	111.48
3	bC	4	A1H03	C1-O5-C5	2.27	115.19	111.48
3	gA	4	A1H03	C1-O5-C5	2.27	115.19	111.48
3	iC	4	A1H03	C1-O5-C5	2.26	115.18	111.48
4	gB	2	BGC	C2-C3-C4	2.26	114.81	110.89
3	7	4	A1H03	C1-O5-C5	2.26	115.18	111.48
3	0	4	A1H03	C1-O5-C5	2.26	115.17	111.48
3	9B	4	A1H03	C1-O5-C5	2.26	115.17	111.48
3	3C	4	A1H03	C1-O5-C5	2.26	115.17	111.48
3	EA	4	A1H03	C1-O5-C5	2.25	115.17	111.48
4	KA	2	BGC	C2-C3-C4	2.25	114.79	110.89
3	UC	4	A1H03	C1-O5-C5	2.25	115.17	111.48
3	LA	4	A1H03	C1-O5-C5	2.25	115.17	111.48
4	DA	2	BGC	C2-C3-C4	2.25	114.79	110.89
3	рC	4	A1H03	C1-C2-C3	2.25	112.43	109.67
3	JB	2	BGC	C3-C4-C5	2.24	114.24	110.24
3	Х	2	BGC	C3-C4-C5	2.24	114.24	110.24
4	EB	2	BGC	C2-C3-C4	2.24	114.77	110.89
3	t	4	A1H03	C1-C2-C3	2.24	112.42	109.67
3	0C	2	BGC	C3-C4-C5	2.24	114.23	110.24
3	UC	4	A1H03	C1-C2-C3	2.24	112.42	109.67
3	aB	4	A1H03	C1-O5-C5	2.24	115.15	111.48
4	nB	2	BGC	C2-C3-C4	2.24	114.77	110.89
4	MC	2	BGC	C2-C3-C4	2.24	114.77	110.89
3	q	2	BGC	C3-C4-C5	2.24	114.23	110.24
3	6B	2	BGC	C3-C4-C5	2.24	114.23	110.24
3	eB	2	BGC	C3-C4-C5	2.24	114.23	110.24
3	iC	4	A1H03	C1-C2-C3	2.24	112.42	109.67



Mol	Chain	Res	Type	Atoms		$Observed(^{o})$	$Ideal(^{o})$
4	fA	2	BGC	C2-C3-C4	2.24	114.76	110.89
4	ZB	2	BGC	C2-C3-C4	2.24	114.76	110.89
3	PA	2	BGC	C3-C4-C5	2.23	114.22	110.24
3	7C	2	BGC	C3-C4-C5	2.23	114.22	110.24
3	BA	2	BGC	C3-C4-C5	2.23	114.22	110.24
3	4	2	BGC	C3-C4-C5	2.23	114.22	110.24
3	QB	2	BGC	C3-C4-C5	2.23	114.22	110.24
3	1A	4	A1H03	C1-C2-C3	2.23	112.41	109.67
4	uB	2	BGC	C2-C3-C4	2.23	114.76	110.89
3	CB	2	BGC	C3-C4-C5	2.23	114.22	110.24
3	TB	1	GAL	O5-C5-C6	2.23	110.70	107.20
4	GD	2	BGC	C2-C3-C4	2.23	114.76	110.89
4	mA	2	BGC	C2-C3-C4	2.23	114.75	110.89
3	KC	2	BGC	C3-C4-C5	2.23	114.22	110.24
4	aC	2	BGC	C2-C3-C4	2.23	114.75	110.89
3	TB	4	A1H03	C1-C2-C3	2.23	112.41	109.67
2	9	3	A1H1F	O2-C2-C3	2.23	114.61	110.14
3	YC	2	BGC	C3-C4-C5	2.23	114.22	110.24
4	1	2	BGC	C2-C3-C4	2.23	114.75	110.89
3	DC	2	BGC	C3-C4-C5	2.23	114.21	110.24
4	0A	2	BGC	C2-C3-C4	2.23	114.75	110.89
4	8B	2	BGC	C2-C3-C4	2.23	114.75	110.89
4	hC	2	BGC	C2-C3-C4	2.23	114.75	110.89
3	kA	2	BGC	C3-C4-C5	2.23	114.21	110.24
3	sB	2	BGC	C3-C4-C5	2.23	114.21	110.24
3	RC	2	BGC	C3-C4-C5	2.23	114.21	110.24
3	tC	2	BGC	C3-C4-C5	2.23	114.21	110.24
3	uA	4	A1H03	C1-C2-C3	2.23	112.40	109.67
3	uA	1	GAL	O5-C5-C6	2.22	110.69	107.20
3	ZA	1	GAL	O5-C5-C6	2.22	110.69	107.20
2	5C	3	A1H1F	O2-C2-C3	2.22	114.59	110.14
3	j	2	BGC	C3-C4-C5	2.22	114.21	110.24
3	5A	2	BGC	C3-C4-C5	2.22	114.21	110.24
3	LA	1	GAL	O5-C5-C6	2.22	110.69	107.20
3	EA	4	A1H03	C1-C2-C3	2.22	112.40	109.67
4	RA	2	BGC	C2-C3-C4	2.22	114.74	110.89
4	tA	2	BGC	C2-C3-C4	2.22	$1\overline{14.74}$	110.89
4	LB	2	BGC	C2-C3-C4	2.22	114.74	110.89
3	gA	4	A1H03	C1-C2-C3	2.22	112.40	109.67
3	t	1	GAL	O5-C5-C6	2.22	110.69	107.20
3	IA	2	BGC	C3-C4-C5	2.22	114.20	110.24
3	vB	4	A1H03	C1-C2-C3	2.22	112.40	109.67

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Mol	Chain	Res	Type	Atoms	Z	$Observed(^{o})$	$Ideal(^{o})$
3	dA	2	BGC	C3-C4-C5	2.22	114.20	110.24
4	9C	2	BGC	C2-C3-C4	2.22	114.74	110.89
4	vC	2	BGC	C2-C3-C4	2.22	114.74	110.89
2	cB	3	A1H1F	O2-C2-C3	2.22	114.58	110.14
4	YA	2	BGC	C2-C3-C4	2.22	114.73	110.89
3	WA	2	BGC	C3-C4-C5	2.22	114.20	110.24
4	FC	2	BGC	C2-C3-C4	2.22	114.73	110.89
3	yА	2	BGC	C3-C4-C5	2.22	114.19	110.24
3	zB	2	BGC	C3-C4-C5	2.22	114.19	110.24
2	yC	3	A1H1F	O2-C2-C3	2.22	114.58	110.14
2	рА	3	A1H1F	O2-C2-C3	2.22	114.58	110.14
4	6	2	BGC	C2-C3-C4	2.22	114.73	110.89
4	SB	2	BGC	C2-C3-C4	2.22	114.73	110.89
3	oB	4	A1H03	C1-C2-C3	2.22	112.39	109.67
3	9B	1	GAL	O5-C5-C6	2.22	110.68	107.20
2	WC	3	A1H1F	O2-C2-C3	2.22	114.58	110.14
3	lB	2	BGC	C3-C4-C5	2.22	114.19	110.24
3	MB	4	A1H03	C1-C2-C3	2.22	112.39	109.67
3	XB	2	BGC	C3-C4-C5	2.21	114.19	110.24
3	UC	1	GAL	O5-C5-C6	2.21	110.68	107.20
3	mC	2	BGC	C3-C4-C5	2.21	114.19	110.24
3	GC	1	GAL	O5-C5-C6	2.21	110.67	107.20
2	GA	3	A1H1F	O2-C2-C3	2.21	114.57	110.14
3	bC	4	A1H03	C1-C2-C3	2.21	112.39	109.67
4	TC	2	BGC	C2-C3-C4	2.21	114.72	110.89
4	s	2	BGC	C2-C3-C4	2.21	114.72	110.89
4	1B	2	BGC	C2-C3-C4	2.21	114.72	110.89
4	2C	2	BGC	C2-C3-C4	2.21	114.72	110.89
3	rA	2	BGC	C3-C4-C5	2.21	114.18	110.24
2	jВ	3	A1H1F	O2-C2-C3	2.21	114.57	110.14
2	AB	3	A1H1F	O2-C2-C3	2.21	114.57	110.14
2	qB	3	A1H1F	O2-C2-C3	2.21	114.57	110.14
3	SA	1	GAL	O5-C5-C6	2.21	110.67	107.20
4	oC	2	BGC	C2-C3-C4	2.21	114.72	110.89
3	GC	4	A1H03	C1-C2-C3	2.21	112.38	109.67
3	3C	4	A1H03	C1-C2-C3	2.21	112.38	109.67
2	OB	3	A1H1F	O2-C2-C3	2.21	114.56	110.14
4	7A	2	BGC	C2-C3-C4	2.21	114.72	110.89
3	m	1	GAL	O5-C5-C6	2.21	110.67	107.20
3	MB	1	GAL	O5-C5-C6	2.21	110.67	107.20
3	wC	1	GAL	O5-C5-C6	2.21	110.67	107.20

GAL

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O5-C5-C6

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Mol	Chain	Res	Type	Atoms		$Observed(^{o})$	$Ideal(^{o})$
3	ED	2	BGC	C3-C4-C5	2.21	114.18	110.24
4	Z	2	BGC	C2-C3-C4	2.21	114.72	110.89
3	m	4	A1H03	C1-C2-C3	2.21	112.38	109.67
3	aB	4	A1H03	C1-C2-C3	2.21	112.38	109.67
3	gA	1	GAL	O5-C5-C6	2.21	110.67	107.20
3	AD	4	A1H03	C1-C2-C3	2.21	112.38	109.67
3	8A	4	A1H03	C1-C2-C3	2.20	112.38	109.67
2	0	3	A1H1F	O2-C2-C3	2.20	114.55	110.14
3	pC	1	GAL	O5-C5-C6	2.20	110.66	107.20
3	hB	4	A1H03	C1-C2-C3	2.20	112.38	109.67
2	v	3	A1H1F	O2-C2-C3	2.20	114.55	110.14
2	PC	3	A1H1F	O2-C2-C3	2.20	114.55	110.14
3	ZA	4	A1H03	C1-C2-C3	2.20	112.37	109.67
2	xB	3	A1H1F	O2-C2-C3	2.20	114.55	110.14
3	2B	1	GAL	O5-C5-C6	2.20	110.66	107.20
2	h	3	A1H1F	O2-C2-C3	2.20	114.55	110.14
2	BC	3	A1H1F	O2-C2-C3	2.20	114.55	110.14
2	VB	3	A1H1F	O2-C2-C3	2.20	114.55	110.14
3	0	1	GAL	O5-C5-C6	2.20	110.66	107.20
3	nA	1	GAL	O5-C5-C6	2.20	110.65	107.20
3	wC	4	A1H03	C1-C2-C3	2.20	112.37	109.67
3	fC	2	BGC	C3-C4-C5	2.20	114.16	110.24
3	8A	1	GAL	O5-C5-C6	2.20	110.65	107.20
3	vB	1	GAL	O5-C5-C6	2.20	110.65	107.20
2	NA	3	A1H1F	O2-C2-C3	2.20	114.54	110.14
3	EA	1	GAL	O5-C5-C6	2.20	110.65	107.20
3	oB	1	GAL	O5-C5-C6	2.20	110.65	107.20
2	wA	3	A1H1F	O2-C2-C3	2.20	114.54	110.14
2	rC	3	A1H1F	O2-C2-C3	2.20	114.54	110.14
2	4B	3	A1H1F	O2-C2-C3	2.20	114.54	110.14
2	IC	3	A1H1F	O2-C2-C3	2.20	114.54	110.14
2	CD	3	A1H1F	O2-C2-C3	2.19	114.53	110.14
3	NC	1	GAL	O5-C5-C6	2.19	110.64	107.20
3	7	1	GAL	O5-C5-C6	2.19	110.64	107.20
2	3A	3	A1H1F	O2-C2-C3	2.19	114.53	110.14
2	HB	3	A1H1F	O2-C2-C3	2.19	114.53	110.14
2	kC	3	A1H1F	O2-C2-C3	2.19	114.53	110.14
3	HD	1	GAL	O5-C5-C6	2.19	110.64	107.20
2	2	3	A1H1F	O2-C2-C3	2.19	114.53	110.14
3	7	4	A1H03	C1-C2-C3	2.19	112.36	109.67
3	2B	4	A1H03	C1-C2-C3	2.19	112.36	109.67
3	nA	4	A1H03	C1-C2-C3	2.19	112.36	109.67



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Mol	Chain	Res	Type	Atoms		$Observed(^{o})$	$Ideal(^{o})$
3	0	4	A1H03	C1-C2-C3	2.19	112.36	109.67
3	LA	4	A1H03	C1-C2-C3	2.19	112.36	109.67
3	FB	4	A1H03	C1-C2-C3	2.19	112.36	109.67
3	AD	1	GAL	O5-C5-C6	2.19	110.63	107.20
3	SA	4	A1H03	C1-C2-C3	2.19	112.35	109.67
3	FB	1	GAL	O5-C5-C6	2.19	110.63	107.20
2	dC	3	A1H1F	O2-C2-C3	2.19	114.52	110.14
3	1A	1	GAL	O5-C5-C6	2.19	110.63	107.20
2	iA	3	A1H1F	O2-C2-C3	2.18	114.52	110.14
3	aB	1	GAL	O5-C5-C6	2.18	110.63	107.20
3	hB	1	GAL	O5-C5-C6	2.18	110.63	107.20
3	iC	1	GAL	O5-C5-C6	2.18	110.63	107.20
3	NC	4	A1H03	C1-C2-C3	2.18	112.35	109.67
3	bC	1	GAL	O5-C5-C6	2.18	110.62	107.20
3	9B	4	A1H03	C1-C2-C3	2.18	112.34	109.67
3	HD	4	A1H03	C1-C2-C3	2.18	112.34	109.67
2	UA	3	A1H1F	O2-C2-C3	2.17	114.49	110.14
2	bA	3	A1H1F	O2-C2-C3	2.17	114.49	110.14
3	gC	4	A1H03	C1-O5-C5	2.17	115.03	111.48
3	XA	4	A1H03	C1-O5-C5	2.17	115.03	111.48
3	mB	4	A1H03	C1-O5-C5	2.16	115.02	111.48
3	tB	4	A1H03	C1-O5-C5	2.16	115.02	111.48
3	RB	4	A1H03	C1-O5-C5	2.16	115.01	111.48
2	VB	2	BGC	C1-C2-C3	2.15	112.31	109.67
4	oA	2	BGC	C2-C3-C4	2.15	114.62	110.89
4	ID	2	BGC	C2-C3-C4	2.15	114.62	110.89
4	OC	2	BGC	C2-C3-C4	2.15	114.61	110.89
2	jВ	2	BGC	C1-C2-C3	2.15	112.31	109.67
3	DB	4	A1H03	C1-O5-C5	2.15	115.00	111.48
4	vA	2	BGC	C2-C3-C4	2.15	114.61	110.89
3	7B	4	A1H03	C1-O5-C5	2.14	114.99	111.48
3	EC	4	A1H03	C1-O5-C5	2.14	114.99	111.48
3	ZC	4	A1H03	C1-O5-C5	2.14	114.99	111.48
3	zA	4	A1H03	C1-O5-C5	2.14	114.99	111.48
4	AC	2	BGC	C2-C3-C4	2.14	114.60	110.89
3	У	4	A1H03	C1-O5-C5	2.14	114.99	111.48
4	GB	2	BGC	C2-C3-C4	2.14	114.60	110.89
3	YB	4	A1H03	C1-O5-C5	2.14	114.98	111.48
2	wA	2	BGC	C1-C2-C3	2.14	112.30	109.67
3	5	4	A1H03	C1-O5-C5	2.14	114.98	111.48
2	xB	2	BGC	C1-C2-C3	2.14	112.29	109.67
4	iB	2	BGC	C2-C3-C4	2.14	114.59	110.89


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Mol	Chain	Res	Type	Atoms		$Observed(^{o})$	$Ideal(^{o})$
3	k	4	A1H03	C1-O5-C5	2.14	114.98	111.48
2	BC	2	BGC	C1-C2-C3	2.13	112.29	109.67
3	eA	4	A1H03	C1-O5-C5	2.13	114.97	111.48
2	0	2	BGC	C1-C2-C3	2.13	112.29	109.67
4	jС	2	BGC	C2-C3-C4	2.13	114.58	110.89
4	qC	2	BGC	C2-C3-C4	2.13	114.58	110.89
4	aA	2	BGC	C2-C3-C4	2.13	114.58	110.89
4	4C	2	BGC	C2-C3-C4	2.13	114.58	110.89
3	nC	4	A1H03	C1-O5-C5	2.13	114.97	111.48
4	cC	2	BGC	C2-C3-C4	2.13	114.58	110.89
3	JA	4	A1H03	C1-O5-C5	2.13	114.97	111.48
2	iA	2	BGC	C1-C2-C3	2.13	112.28	109.67
2	4B	2	BGC	C1-C2-C3	2.13	112.28	109.67
3	QA	4	A1H03	C1-O5-C5	2.13	114.97	111.48
4	2A	2	BGC	C2-C3-C4	2.13	114.58	110.89
4	wB	2	BGC	C2-C3-C4	2.13	114.58	110.89
3	sA	4	A1H03	C1-O5-C5	2.13	114.97	111.48
3	uC	4	A1H03	C1-O5-C5	2.13	114.97	111.48
2	WC	2	BGC	C1-C2-C3	2.13	112.28	109.67
3	fB	4	A1H03	C1-O5-C5	2.13	114.97	111.48
4	VC	2	BGC	C2-C3-C4	2.13	114.58	110.89
4	hA	2	BGC	C2-C3-C4	2.13	114.58	110.89
2	CD	2	BGC	C1-C2-C3	2.13	112.28	109.67
4	n	2	BGC	C2-C3-C4	2.13	114.58	110.89
4	UB	2	BGC	C2-C3-C4	2.13	114.57	110.89
4	BD	2	BGC	C2-C3-C4	2.13	114.57	110.89
3	KB	4	A1H03	C1-O5-C5	2.13	114.96	111.48
4	1	2	BGC	C2-C3-C4	2.12	114.57	110.89
2	3A	2	BGC	C1-C2-C3	2.12	112.28	109.67
4	bB	2	BGC	C2-C3-C4	2.12	114.57	110.89
2	IC	2	BGC	C1-C2-C3	2.12	112.28	109.67
4	FA	2	BGC	C2-C3-C4	2.12	114.57	110.89
4	9A	2	BGC	C2-C3-C4	2.12	114.57	110.89
2	dC	2	BGC	C1-C2-C3	2.12	112.27	109.67
2	h	2	BGC	C1-C2-C3	2.12	112.27	109.67
2	OB	2	BGC	C1-C2-C3	2.12	112.27	109.67
2	qB	2	BGC	C1-C2-C3	2.12	112.27	109.67
4	pВ	2	BGC	C2-C3-C4	2.12	114.56	110.89
3	CA	4	A1H03	C1-O5-C5	2.12	114.95	111.48
3	lĀ	4	A1H03	C1-O5-C5	2.12	114.95	111.48
2	UA	2	BGC	C1-C2-C3	2.12	112.27	109.67
3	0B	4	A1H03	C1-O5-C5	2.12	114.94	111.48



Mol	Chain	Res	Type	Atoms	Z	$Observed(^{o})$	$Ideal(^{o})$
2	NA	6	A1H03	O5-C1-C2	-2.11	107.51	110.77
2	2	2	BGC	C1-C2-C3	2.11	112.27	109.67
3	SC	4	A1H03	C1-O5-C5	2.11	114.94	111.48
3	8C	4	A1H03	C1-O5-C5	2.11	114.94	111.48
3	r	4	A1H03	C1-O5-C5	2.11	114.94	111.48
2	kC	2	BGC	C1-C2-C3	2.11	112.26	109.67
4	8	2	BGC	C2-C3-C4	2.11	114.55	110.89
4	ТА	2	BGC	C2-C3-C4	2.11	114.55	110.89
3	6A	4	A1H03	C1-O5-C5	2.11	114.94	111.48
2	cB	2	BGC	C1-C2-C3	2.11	112.26	109.67
4	xC	2	BGC	C2-C3-C4	2.11	114.55	110.89
4	u	2	BGC	C2-C3-C4	2.11	114.55	110.89
2	bA	2	BGC	C1-C2-C3	2.11	112.26	109.67
3	LC	4	A1H03	C1-O5-C5	2.11	114.94	111.48
4	NB	2	BGC	C2-C3-C4	2.11	114.55	110.89
4	HC	2	BGC	C2-C3-C4	2.11	114.55	110.89
2	AB	2	BGC	C1-C2-C3	2.11	112.26	109.67
3	8C	1	GAL	C1-C2-C3	2.11	112.26	109.67
2	V	2	BGC	C1-C2-C3	2.11	112.26	109.67
3	FD	4	A1H03	C1-O5-C5	2.11	114.93	111.48
3	1C	4	A1H03	C1-O5-C5	2.11	114.93	111.48
4	3B	2	BGC	C2-C3-C4	2.10	114.54	110.89
2	HB	2	BGC	C1-C2-C3	2.10	112.25	109.67
3	gC	1	GAL	C1-C2-C3	2.10	112.25	109.67
2	OB	6	A1H03	O5-C1-C2	-2.10	107.53	110.77
2	GA	2	BGC	C1-C2-C3	2.10	112.25	109.67
2	PC	2	BGC	C1-C2-C3	2.10	112.25	109.67
3	mC	4	A1H03	C1-C2-C3	2.10	112.25	109.67
2	cB	6	A1H03	O5-C1-C2	-2.10	107.53	110.77
2	xB	6	A1H03	O5-C1-C2	-2.10	107.53	110.77
2	rC	6	A1H03	O5-C1-C2	-2.10	107.53	110.77
2	iA	6	A1H03	O5-C1-C2	-2.10	107.53	110.77
2	pА	6	A1H03	O5-C1-C2	-2.10	107.53	110.77
2	PC	6	A1H03	O5-C1-C2	-2.10	107.54	110.77
2	rC	2	BGC	C1-C2-C3	2.10	112.24	109.67
3	uC	1	GAL	C1-C2-C3	2.10	112.24	109.67
2	wA	6	A1H03	O5-C1-C2	-2.10	107.54	110.77
2	0	6	A1H03	O5-C1-C2	-2.09	107.54	110.77
2	kC	6	A1H03	O5-C1-C2	-2.09	107.54	110.77
4	MA	2	BGC	C2-C3-C4	2.09	114.52	110.89
3	rA	4	A1H03	C1-C2-C3	2.09	112.24	109.67
2	IC	6	A1H03	O5-C1-C2	-2.09	107.54	110.77



Mol	Chain	Res	Type	Atoms		$Observed(^{o})$	$ $ Ideal(o)
2	HB	6	A1H03	O5-C1-C2	-2.09	107.54	110.77
2	9	2	BGC	C1-C2-C3	2.09	112.24	109.67
3	GC	5	MAN	C1-C2-C3	2.09	112.24	109.67
2	pА	2	BGC	C1-C2-C3	2.09	112.23	109.67
2	5C	6	A1H03	O5-C1-C2	-2.09	107.55	110.77
2	AB	6	A1H03	O5-C1-C2	-2.09	107.55	110.77
2	NA	2	BGC	C1-C2-C3	2.09	112.23	109.67
3	lB	4	A1H03	C1-C2-C3	2.09	112.23	109.67
3	mB	1	GAL	C1-C2-C3	2.09	112.23	109.67
2	jВ	6	A1H03	O5-C1-C2	-2.09	107.55	110.77
2	h	6	A1H03	O5-C1-C2	-2.09	107.55	110.77
2	yC	2	BGC	C1-C2-C3	2.09	112.23	109.67
3	XA	1	GAL	C1-C2-C3	2.09	112.23	109.67
3	tB	1	GAL	C1-C2-C3	2.09	112.23	109.67
2	WC	6	A1H03	O5-C1-C2	-2.09	107.55	110.77
2	V	6	A1H03	O5-C1-C2	-2.09	107.55	110.77
3	5	1	GAL	C1-C2-C3	2.09	112.23	109.67
3	7B	1	GAL	C1-C2-C3	2.08	112.23	109.67
2	bA	6	A1H03	O5-C1-C2	-2.08	107.56	110.77
3	FD	1	GAL	C1-C2-C3	2.08	112.23	109.67
2	GA	6	A1H03	O5-C1-C2	-2.08	107.56	110.77
2	VB	6	A1H03	O5-C1-C2	-2.08	107.56	110.77
2	yC	6	A1H03	O5-C1-C2	-2.08	107.56	110.77
3	PA	4	A1H03	C1-C2-C3	2.08	112.22	109.67
3	SA	5	MAN	C1-C2-C3	2.08	112.22	109.67
3	у	1	GAL	C1-C2-C3	2.08	112.22	109.67
2	UA	6	A1H03	O5-C1-C2	-2.08	107.57	110.77
2	dC	6	A1H03	O5-C1-C2	-2.08	107.57	110.77
2	CD	6	A1H03	O5-C1-C2	-2.08	107.57	110.77
3	gA	5	MAN	C1-C2-C3	2.07	112.22	109.67
3	RB	1	GAL	C1-C2-C3	2.07	112.22	109.67
3	nC	1	GAL	C1-C2-C3	2.07	112.22	109.67
3	7	5	MAN	C1-C2-C3	2.07	112.21	109.67
3	fC	4	A1H03	C1-C2-C3	2.07	112.21	109.67
3	k	1	GAL	C1-C2-C3	2.07	112.21	109.67
3	KB	1	GAL	C1-C2-C3	2.07	112.21	109.67
3	LC	1	GAL	C1-C2-C3	2.07	112.21	109.67
2	9	6	A1H03	O5-C1-C2	-2.07	107.57	110.77
2	4B	6	A1H03	O5-C1-C2	-2.07	107.58	110.77
2	$5\mathrm{C}$	2	BGC	C1-C2-C3	2.07	112.21	109.67
3	eB	4	A1H03	C1-C2-C3	2.07	112.21	109.67
3	zB	4	A1H03	C1-C2-C3	2.07	112.21	109.67



Mol	Chain	\mathbf{Res}	Type	Atoms		$Observed(^{o})$	$ $ Ideal(o)
3	JA	1	GAL	C1-C2-C3	2.07	112.21	109.67
3	sA	1	GAL	C1-C2-C3	2.07	112.21	109.67
3	TB	5	MAN	C1-C2-C3	2.07	112.21	109.67
3	SC	1	GAL	C1-C2-C3	2.07	112.21	109.67
2	BC	6	A1H03	O5-C1-C2	-2.07	107.58	110.77
3	DC	4	A1H03	C1-C2-C3	2.07	112.21	109.67
3	QA	1	GAL	C1-C2-C3	2.07	112.21	109.67
3	6A	1	GAL	C1-C2-C3	2.07	112.21	109.67
3	XB	4	A1H03	C1-C2-C3	2.07	112.21	109.67
3	1C	1	GAL	C1-C2-C3	2.07	112.21	109.67
3	PA	3	A1H1F	C2-C3-C4	2.07	114.47	110.89
3	CA	1	GAL	C1-C2-C3	2.07	112.20	109.67
3	fC	3	A1H1F	C2-C3-C4	2.06	114.47	110.89
2	2	6	A1H03	O5-C1-C2	-2.06	107.58	110.77
3	EA	5	MAN	C1-C2-C3	2.06	112.20	109.67
3	CB	4	A1H03	C1-C2-C3	2.06	112.20	109.67
3	9B	5	MAN	C1-C2-C3	2.06	112.20	109.67
3	vB	5	MAN	C1-C2-C3	2.06	112.20	109.67
3	JB	4	A1H03	C1-C2-C3	2.06	112.20	109.67
3	bC	3	A1H1F	C1-C2-C3	2.06	112.20	109.67
3	0C	4	A1H03	C1-C2-C3	2.06	112.20	109.67
3	EC	1	GAL	C1-C2-C3	2.06	112.20	109.67
3	YC	4	A1H03	C1-C2-C3	2.06	112.20	109.67
3	pC	5	MAN	C1-C2-C3	2.06	112.20	109.67
2	qB	6	A1H03	O5-C1-C2	-2.06	107.59	110.77
3	q	4	A1H03	C1-C2-C3	2.06	112.20	109.67
3	r	1	GAL	C1-C2-C3	2.06	112.20	109.67
3	X	4	A1H03	C1-C2-C3	2.06	112.20	109.67
3	TB	3	A1H1F	C1-C2-C3	2.06	112.20	109.67
3	hB	5	MAN	C1-C2-C3	2.06	112.20	109.67
3	ZC	1	GAL	C1-C2-C3	2.06	112.20	109.67
3	WA	3	A1H1F	C2-C3-C4	2.06	114.46	110.89
3	1A	5	MAN	C1-C2-C3	2.06	112.20	109.67
3	HD	5	MAN	C1-C2-C3	2.06	112.20	109.67
3	FB	3	A1H1F	C1-C2-C3	2.06	112.19	109.67
3	kA	3	A1H1F	C2-C3-C4	2.06	114.45	110.89
3	LA	5	MAN	C1-C2-C3	2.06	112.19	109.67
3	dA	4	A1H03	C1-C2-C3	2.06	112.19	109.67
3	kA	4	A1H03	C1-C2-C3	2.06	112.19	109.67
3	lA	1	GAL	C1-C2-C3	2.06	112.19	109.67
3	aB	5	MAN	C1-C2-C3	2.06	112.19	109.67
3	0B	1	GAL	C1-C2-C3	2.06	112.19	109.67

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Mol	Chain	Res	Type	Atoms	Z	$Observed(^{o})$	$Ideal(^{o})$
3	j	4	A1H03	C1-C2-C3	2.06	112.19	109.67
3	yА	4	A1H03	C1-C2-C3	2.06	112.19	109.67
3	fB	1	GAL	C1-C2-C3	2.06	112.19	109.67
3	MB	5	MAN	C1-C2-C3	2.06	112.19	109.67
3	5A	4	A1H03	C1-C2-C3	2.05	112.19	109.67
3	vB	3	A1H1F	C1-C2-C3	2.05	112.19	109.67
3	RC	4	A1H03	C1-C2-C3	2.05	112.19	109.67
2	3A	6	A1H03	O5-C1-C2	-2.05	107.60	110.77
3	XB	3	A1H1F	C2-C3-C4	2.05	114.45	110.89
3	m	5	MAN	C1-C2-C3	2.05	112.19	109.67
3	QB	4	A1H03	C1-C2-C3	2.05	112.19	109.67
3	CB	3	A1H1F	C2-C3-C4	2.05	114.45	110.89
3	rA	3	A1H1F	C2-C3-C4	2.05	114.44	110.89
3	KC	4	A1H03	C1-C2-C3	2.05	112.19	109.67
3	ED	4	A1H03	C1-C2-C3	2.05	112.19	109.67
3	4	4	A1H03	C1-C2-C3	2.05	112.19	109.67
3	q	3	A1H1F	C2-C3-C4	2.05	114.44	110.89
3	QB	3	A1H1F	C2-C3-C4	2.05	114.44	110.89
3	HD	3	A1H1F	C1-C2-C3	2.05	112.19	109.67
3	KC	3	A1H1F	C2-C3-C4	2.05	114.44	110.89
3	ZA	5	MAN	C1-C2-C3	2.05	112.18	109.67
3	bC	5	MAN	C1-C2-C3	2.05	112.18	109.67
3	3C	5	MAN	C1-C2-C3	2.05	112.18	109.67
3	AD	3	A1H1F	C1-C2-C3	2.05	112.18	109.67
3	eA	1	GAL	C1-C2-C3	2.05	112.18	109.67
3	YB	1	GAL	C1-C2-C3	2.05	112.18	109.67
3	hB	3	A1H1F	C1-C2-C3	2.05	112.18	109.67
3	BA	4	A1H03	C1-C2-C3	2.05	112.18	109.67
3	WA	4	A1H03	C1-C2-C3	2.05	112.18	109.67
3	nA	5	MAN	C1-C2-C3	2.05	112.18	109.67
3	AD	5	MAN	C1-C2-C3	2.05	112.18	109.67
3	tC	4	A1H03	C1-C2-C3	2.05	112.18	109.67
3	yА	3	A1H1F	C2-C3-C4	2.05	114.43	110.89
3	zB	3	A1H1F	C2-C3-C4	2.05	114.43	110.89
3	tC	3	A1H1F	C2-C3-C4	2.05	114.43	110.89
3	IA	3	A1H1F	C2-C3-C4	2.04	114.43	110.89
3	6B	3	A1H1F	C2-C3-C4	2.04	114.43	110.89
3	wC	5	MAN	C1-C2-C3	2.04	112.18	109.67
3	LA	3	A1H1F	C1-C2-C3	2.04	112.18	109.67
3	NC	5	MAN	C1-C2-C3	2.04	112.18	109.67
3	j	3	A1H1F	C2-C3-C4	2.04	114.43	110.89
3	BA	3	A1H1F	C2-C3-C4	2.04	114.43	110.89



\mathbf{Mol}	Chain	\mathbf{Res}	Type	Atoms		$\mathbf{Observed}(^{o})$	$ $ Ideal(o)
3	UC	3	A1H1F	C1-C2-C3	2.04	112.17	109.67
3	UC	5	MAN	C1-C2-C3	2.04	112.17	109.67
3	DC	3	A1H1F	C2-C3-C4	2.04	114.43	110.89
3	RC	3	A1H1F	C2-C3-C4	2.04	114.43	110.89
3	7C	3	A1H1F	C2-C3-C4	2.04	114.43	110.89
3	0C	3	A1H1F	C2-C3-C4	2.04	114.43	110.89
3	FB	5	MAN	C1-C2-C3	2.04	112.17	109.67
3	sB	4	A1H03	C1-C2-C3	2.04	112.17	109.67
3	9B	3	A1H1F	C1-C2-C3	2.04	112.17	109.67
3	aB	3	A1H1F	C1-C2-C3	2.04	112.17	109.67
3	oB	5	MAN	C1-C2-C3	2.04	112.17	109.67
3	wC	3	A1H1F	C1-C2-C3	2.04	112.17	109.67
3	t	3	A1H1F	C1-C2-C3	2.04	112.17	109.67
3	t	5	MAN	C1-C2-C3	2.04	112.17	109.67
3	0	3	A1H1F	C1-C2-C3	2.04	112.17	109.67
3	sB	3	A1H1F	C2-C3-C4	2.03	114.42	110.89
3	uA	5	MAN	C1-C2-C3	2.03	112.17	109.67
3	iC	5	MAN	C1-C2-C3	2.03	112.17	109.67
3	IA	4	A1H03	C1-C2-C3	2.03	112.17	109.67
3	GC	3	A1H1F	C1-C2-C3	2.03	112.17	109.67
3	Х	3	A1H1F	C2-C3-C4	2.03	114.41	110.89
3	JB	3	A1H1F	C2-C3-C4	2.03	114.41	110.89
3	SA	3	A1H1F	C1-C2-C3	2.03	112.17	109.67
3	4	3	A1H1F	C2-C3-C4	2.03	114.41	110.89
3	YC	3	A1H1F	C2-C3-C4	2.03	114.41	110.89
3	mC	3	A1H1F	C2-C3-C4	2.03	114.41	110.89
3	6B	4	A1H03	C1-C2-C3	2.03	112.16	109.67
3	iC	3	A1H1F	C1-C2-C3	2.03	112.16	109.67
3	3C	3	A1H1F	C1-C2-C3	2.03	112.16	109.67
3	m	3	A1H1F	C1-C2-C3	2.03	112.16	109.67
3	uA	3	A1H1F	C1-C2-C3	2.03	112.16	109.67
3	1A	3	A1H1F	C1-C2-C3	2.03	112.16	109.67
3	zA	1	GAL	C1-C2-C3	2.03	112.16	109.67
3	ED	3	A1H1F	C2-C3-C4	2.03	114.41	110.89
3	eB	3	A1H1F	C2-C3-C4	2.03	114.41	110.89
3	8A	3	A1H1F	C1-C2-C3	2.03	112.16	109.67
3	gA	3	A1H1F	C1-C2-C3	2.03	112.16	109.67
3	0	5	MAN	C1-C2-C3	$2.0\overline{2}$	$112.1\overline{5}$	109.67
3	nA	3	A1H1F	C1-C2-C3	2.02	112.15	109.67
3	7C	4	A1H03	C1-C2-C3	2.02	$112.1\overline{5}$	109.67
3	EA	3	A1H1F	C1-C2-C3	2.02	112.15	109.67
3	DB	1	GAL	C1-C2-C3	2.02	112.15	109.67

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Mol	Chain	Res	Type	Atoms	Z	$Observed(^{o})$	$Ideal(^{o})$
4	fA	4	MAN	C2-C3-C4	2.02	114.39	110.89
4	nB	4	MAN	C2-C3-C4	2.02	114.39	110.89
4	FC	4	MAN	C2-C3-C4	2.02	114.39	110.89
3	ZA	3	A1H1F	C1-C2-C3	2.02	112.15	109.67
3	5A	3	A1H1F	C2-C3-C4	2.02	114.39	110.89
4	1B	4	MAN	C2-C3-C4	2.02	114.39	110.89
3	7	3	A1H1F	C1-C2-C3	2.02	112.14	109.67
3	oB	3	A1H1F	C1-C2-C3	2.02	112.14	109.67
4	8B	4	MAN	C2-C3-C4	2.02	114.38	110.89
3	NC	3	A1H1F	C1-C2-C3	2.02	112.14	109.67
3	lB	3	A1H1F	C2-C3-C4	2.02	114.38	110.89
4	RA	4	MAN	C2-C3-C4	2.02	114.38	110.89
3	2B	3	A1H1F	C1-C2-C3	2.01	112.14	109.67
3	8A	5	MAN	C1-C2-C3	2.01	112.14	109.67
3	dA	3	A1H1F	C2-C3-C4	2.01	114.38	110.89
4	KA	4	MAN	C2-C3-C4	2.01	114.38	110.89
4	oC	4	MAN	C3-C4-C5	2.01	113.83	110.24
3	pC	3	A1H1F	C1-C2-C3	2.01	112.14	109.67
4	tA	4	MAN	C2-C3-C4	2.01	114.37	110.89
4	YA	4	MAN	C2-C3-C4	2.01	114.37	110.89
4	0A	4	MAN	C2-C3-C4	2.01	114.37	110.89
3	MB	3	A1H1F	C1-C2-C3	2.01	112.13	109.67
4	uB	4	MAN	C2-C3-C4	2.01	114.37	110.89
4	mA	4	MAN	C2-C3-C4	2.00	114.36	110.89
4	aC	4	MAN	C2-C3-C4	2.00	114.36	110.89
3	2B	5	MAN	C1-C2-C3	2.00	112.13	109.67
4	oC	4	MAN	C2-C3-C4	2.00	114.36	110.89
4	uB	4	MAN	C3-C4-C5	2.00	113.81	110.24
4	TC	4	MAN	C3-C4-C5	2.00	113.81	110.24
4	6	4	MAN	C2-C3-C4	2.00	114.36	110.89
4	MC	4	MAN	C2-C3-C4	2.00	114.36	110.89
4	1	4	MAN	C2-C3-C4	2.00	114.36	110.89
4	S	4	MAN	C2-C3-C4	2.00	114.36	110.89
4	7A	4	MAN	C2-C3-C4	2.00	114.36	110.89

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There are no chirality outliers.

All (768) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	h	3	A1H1F	O5-C5-C6-S6
2	0	3	A1H1F	O5-C5-C6-S6
2	V	3	A1H1F	O5-C5-C6-S6



EMD-19168, 8RH5	
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Mol	Chain	Res	Type	Atoms
2	2	3	A1H1F	O5-C5-C6-S6
2	9	3	A1H1F	05-C5-C6-S6
2	GA	3	A1H1F	05-C5-C6-S6
2	NA	3	A1H1F	05-C5-C6-S6
2	UA	3	A1H1F	05-C5-C6-S6
2	bA	3	A1H1F	05-C5-C6-S6
2	iA	3	A1H1F	05-C5-C6-S6
2	pA	3	A1H1F	05-C5-C6-S6
2	wA	3	A1H1F	05-C5-C6-S6
2	3A	3	A1H1F	05-C5-C6-S6
2	AB	3	A1H1F	05-C5-C6-S6
2	HB	3	A1H1F	05-C5-C6-S6
2	OB	3	A1H1F	05-C5-C6-S6
2	VB	3	A1H1F	05-C5-C6-S6
2	cB	3	A1H1F	05-C5-C6-S6
2	iB	3	A1H1F	05-C5-C6-S6
2	aB	3	A1H1F	05-C5-C6-S6
2	xB	3	A1H1F	05-C5-C6-S6
2	4B	3	A1H1F	05-C5-C6-S6
2	BC	3	A1H1F	05-C5-C6-S6
2	IC	3	A1H1F	05-C5-C6-S6
2	PC	3	A1H1F	05-C5-C6-S6
2	WC	3	A1H1F	05-C5-C6-S6
2	dC	3	A1H1F	O5-C5-C6-S6
2	kC	3	A1H1F	05-C5-C6-S6
2	rC	3	A1H1F	05-C5-C6-S6
2	vC	3	A1H1F	O5-C5-C6-S6
2	5C	3	A1H1F	O5-C5-C6-S6
2	CD	3	A1H1F	O5-C5-C6-S6
3	j	3	A1H1F	O5-C5-C6-S6
3	m	3	A1H1F	O5-C5-C6-S6
3	q	3	A1H1F	O5-C5-C6-S6
3	t	3	A1H1F	O5-C5-C6-S6
3	х	3	A1H1F	O5-C5-C6-S6
3	0	3	A1H1F	O5-C5-C6-S6
3	4	3	A1H1F	O5-C5-C6-S6
3	7	3	A1H1F	O5-C5-C6-S6
3	BA	3	A1H1F	O5-C5-C6-S6
3	EA	3	A1H1F	O5-C5-C6-S6
3	IA	3	A1H1F	O5-C5-C6-S6
3	LA	3	A1H1F	O5-C5-C6-S6
3	PA	3	A1H1F	O5-C5-C6-S6

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EMD-19168, 8RH5	
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Mol	Chain	Bee	Type	Atoms
20101	Chain CA	11 0 5	ліціг	
ა ე	SA WA	ა ე		$\bigcirc 00 - \bigcirc 00 - 00 - \bigcirc 00 -$
う う	VVA 7 A	び う		05 - 05 - 06 - 50
3		3	AIHIF	05-05-00-50
3	dA	3	AIHIF	05-C5-C6-S6
3	gA	3	AIHIF	05-C5-C6-S6
3	kA	3	AIHIF	O5-C5-C6-S6
3	nA	3	AlHlF	O5-C5-C6-S6
3	rA	3	A1H1F	O5-C5-C6-S6
3	uA	3	A1H1F	O5-C5-C6-S6
3	yА	3	A1H1F	O5-C5-C6-S6
3	1A	3	A1H1F	O5-C5-C6-S6
3	5A	3	A1H1F	O5-C5-C6-S6
3	8A	3	A1H1F	O5-C5-C6-S6
3	CB	3	A1H1F	O5-C5-C6-S6
3	FB	3	A1H1F	O5-C5-C6-S6
3	JB	3	A1H1F	O5-C5-C6-S6
3	MB	3	A1H1F	O5-C5-C6-S6
3	QB	3	A1H1F	O5-C5-C6-S6
3	TB	3	A1H1F	O5-C5-C6-S6
3	XB	3	A1H1F	O5-C5-C6-S6
3	aB	3	A1H1F	O5-C5-C6-S6
3	eB	3	A1H1F	O5-C5-C6-S6
3	hB	3	A1H1F	O5-C5-C6-S6
3	lB	3	A1H1F	O5-C5-C6-S6
3	oB	3	A1H1F	O5-C5-C6-S6
3	sB	3	A1H1F	O5-C5-C6-S6
3	vB	3	A1H1F	O5-C5-C6-S6
3	zB	3	A1H1F	O5-C5-C6-S6
3	2B	3	A1H1F	O5-C5-C6-S6
3	6B	3	A1H1F	O5-C5-C6-S6
3	9B	3	A1H1F	O5-C5-C6-S6
3	DC	3	A1H1F	O5-C5-C6-S6
3	GC	3	A1H1F	O5-C5-C6-S6
3	KC	3	A1H1F	O5-C5-C6-S6
3	NC	3	A1H1F	O5-C5-C6-S6
3	RC	3	A1H1F	O5-C5-C6-S6
3	UC	3	A1H1F	O5-C5-C6-S6
3	YC	3	A1H1F	O5-C5-C6-S6
3	bC	3	A1H1F	05-C5-C6-S6
3	fC	3	A1H1F	05-C5-C6-S6
3	iC	3	A1H1F	05-C5-C6-S6
3	mC	3	A1H1F	05-C5-C6-S6

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Mol	Chain	Res	Type	Atoms
3	рC	3	A1H1F	O5-C5-C6-S6
3	tC	3	A1H1F	O5-C5-C6-S6
3	wC	3	A1H1F	O5-C5-C6-S6
3	0C	3	A1H1F	O5-C5-C6-S6
3	3C	3	A1H1F	O5-C5-C6-S6
3	7C	3	A1H1F	O5-C5-C6-S6
3	AD	3	A1H1F	O5-C5-C6-S6
3	ED	3	A1H1F	O5-C5-C6-S6
3	HD	3	A1H1F	O5-C5-C6-S6
3	j	1	GAL	O5-C5-C6-O6
3	q	1	GAL	O5-C5-C6-O6
3	4	1	GAL	O5-C5-C6-O6
3	BA	1	GAL	O5-C5-C6-O6
3	IA	1	GAL	O5-C5-C6-O6
3	PA	1	GAL	O5-C5-C6-O6
3	WA	1	GAL	O5-C5-C6-O6
3	dA	1	GAL	O5-C5-C6-O6
3	rA	1	GAL	O5-C5-C6-O6
3	yА	1	GAL	O5-C5-C6-O6
3	5A	1	GAL	O5-C5-C6-O6
3	CB	1	GAL	O5-C5-C6-O6
3	JB	1	GAL	O5-C5-C6-O6
3	QB	1	GAL	O5-C5-C6-O6
3	XB	1	GAL	O5-C5-C6-O6
3	eB	1	GAL	O5-C5-C6-O6
3	sB	1	GAL	O5-C5-C6-O6
3	zB	1	GAL	O5-C5-C6-O6
3	6B	1	GAL	O5-C5-C6-O6
3	DC	1	GAL	O5-C5-C6-O6
3	RC	1	GAL	O5-C5-C6-O6
3	YC	1	GAL	05-C5-C6-O6
3	fC	1	GAL	05-C5-C6-O6
3	mC	1	GAL	O5-C5-C6-O6
3	tC	1	GAL	O5-C5-C6-O6
3	7C	1	GAL	05-C5-C6-O6
3	ED	1	GAL	05-C5-C6-O6
4	1	4	MAN	C4-C5-C6-O6
4	S	4	MAN	C4-C5-C6-O6
4	Z	4	MAN	C4-C5-C6-O6
4	6	4	MAN	C4-C5-C6-O6
4	DA	4	MAN	C4-C5-C6-O6
4	KA	4	MAN	C4-C5-C6-O6

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Mal	Choin	Poe		Atoma
		nes	туре	Atoms
4	KA	4	MAN	C4-C5-C6-O6
4	YA CA	4	MAN	C4-C5-C6-O6
4	İA 🔒	4	MAN	C4-C5-C6-O6
4	mA	4	MAN	C4-C5-C6-O6
4	tA	4	MAN	C4-C5-C6-O6
4	0A	4	MAN	C4-C5-C6-O6
4	7A	4	MAN	C4-C5-C6-O6
4	EB	4	MAN	C4-C5-C6-O6
4	LB	4	MAN	C4-C5-C6-O6
4	SB	4	MAN	C4-C5-C6-O6
4	ZB	4	MAN	C4-C5-C6-O6
4	gB	4	MAN	C4-C5-C6-O6
4	nB	4	MAN	C4-C5-C6-O6
4	uB	4	MAN	C4-C5-C6-O6
4	1B	4	MAN	C4-C5-C6-O6
4	8B	4	MAN	C4-C5-C6-O6
4	FC	4	MAN	C4-C5-C6-O6
4	MC	4	MAN	C4-C5-C6-O6
4	TC	4	MAN	C4-C5-C6-O6
4	aC	4	MAN	C4-C5-C6-O6
4	hC	4	MAN	C4-C5-C6-O6
4	oC	4	MAN	C4-C5-C6-O6
4	vC	4	MAN	C4-C5-C6-O6
4	2C	4	MAN	C4-C5-C6-O6
4	9C	4	MAN	C4-C5-C6-O6
4	GD	4	MAN	C4-C5-C6-O6
3	Х	1	GAL	O5-C5-C6-O6
3	kA	1	GAL	O5-C5-C6-O6
3	lB	1	GAL	O5-C5-C6-O6
3	KC	1	GAL	O5-C5-C6-O6
3	0C	1	GAL	O5-C5-C6-O6
3	k	2	BGC	C4-C5-C6-O6
3	r	2	BGC	C4-C5-C6-O6
3	y	2	BGC	C4-C5-C6-O6
3	5	2	BGC	C4-C5-C6-O6
3	CA	2	BGC	C4-C5-C6-O6
3	JA	2	BGC	C4-C5-C6-O6
3	QA	2	BGC	C4-C5-C6-O6
3	XA	2	BGC	C4-C5-C6-O6
3	eA	2	BGC	C4-C5-C6-O6
3	lA	2	BGC	C4-C5-C6-O6
3	sA	2	BGC	C4-C5-C6-O6



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IVIOI	Chain	Res	Type	Atoms
3	ZA	2	BGC	C4-C5-C6-O6
3	6A	2	BGC	C4-C5-C6-O6
3	DB	2	BGC	C4-C5-C6-O6
3	KB	2	BGC	C4-C5-C6-O6
3	RB	2	BGC	C4-C5-C6-O6
3	YB	2	BGC	C4-C5-C6-O6
3	fB	2	BGC	C4-C5-C6-O6
3	mB	2	BGC	C4-C5-C6-O6
3	tB	2	BGC	C4-C5-C6-O6
3	0B	2	BGC	C4-C5-C6-O6
3	7B	2	BGC	C4-C5-C6-O6
3	EC	2	BGC	C4-C5-C6-O6
3	LC	2	BGC	C4-C5-C6-O6
3	SC	2	BGC	C4-C5-C6-O6
3	ZC	2	BGC	C4-C5-C6-O6
3	gC	2	BGC	C4-C5-C6-O6
3	nC	2	BGC	C4-C5-C6-O6
3	uC	2	BGC	C4-C5-C6-O6
3	1C	2	BGC	C4-C5-C6-O6
3	8C	2	BGC	C4-C5-C6-O6
3	FD	2	BGC	C4-C5-C6-O6
4	1	4	MAN	O5-C5-C6-O6
4	s	4	MAN	O5-C5-C6-O6
4	Z	4	MAN	O5-C5-C6-O6
4	6	4	MAN	O5-C5-C6-O6
4	DA	4	MAN	O5-C5-C6-O6
4	KA	4	MAN	O5-C5-C6-O6
4	RA	4	MAN	O5-C5-C6-O6
4	YA	4	MAN	O5-C5-C6-O6
4	fA	4	MAN	O5-C5-C6-O6
4	mA	4	MAN	O5-C5-C6-O6
4	tA	4	MAN	O5-C5-C6-O6
4	0A	4	MAN	O5-C5-C6-O6
4	7A	4	MAN	O5-C5-C6-O6
4	EB	4	MAN	O5-C5-C6-O6
4	LB	4	MAN	O5-C5-C6-O6
4	SB	4	MAN	O5-C5-C6-O6
4	ZB	4	MAN	O5-C5-C6-O6
4	gB	4	MAN	O5-C5-C6-O6
4	nB	4	MAN	O5-C5-C6-O6
4	uB	4	MAN	O5-C5-C6-O6
4	1B	4	MAN	05-C5-C6-O6



Mol	Chain	Res	Type	Atoms
4	8B	4	MAN	O5-C5-C6-O6
4	FC	4	MAN	O5-C5-C6-O6
4	MC	4	MAN	O5-C5-C6-O6
4	TC	4	MAN	O5-C5-C6-O6
4	aC	4	MAN	O5-C5-C6-O6
4	hC	4	MAN	O5-C5-C6-O6
4	oC	4	MAN	O5-C5-C6-O6
4	vC	4	MAN	O5-C5-C6-O6
4	2C	4	MAN	O5-C5-C6-O6
4	9C	4	MAN	O5-C5-C6-O6
4	GD	4	MAN	O5-C5-C6-O6
3	i	1	GAL	C4-C5-C6-O6
3	q	1	GAL	C4-C5-C6-O6
3	X	1	GAL	C4-C5-C6-O6
3	BA	1	GAL	C4-C5-C6-O6
3	IA	1	GAL	C4-C5-C6-O6
3	PA	1	GAL	C4-C5-C6-O6
3	WA	1	GAL	C4-C5-C6-O6
3	dA	1	GAL	C4-C5-C6-O6
3	rA	1	GAL	C4-C5-C6-O6
3	vA	1	GAL	C4-C5-C6-O6
3	5A	1	GAL	C4-C5-C6-O6
3	СВ	1	GAL	C4-C5-C6-O6
3	JB	1	GAL	C4-C5-C6-O6
3	QB	1	GAL	C4-C5-C6-O6
3	XB	1	GAL	C4-C5-C6-O6
3	eB	1	GAL	C4-C5-C6-O6
3	lB	1	GAL	C4-C5-C6-O6
3	sB	1	GAL	C4-C5-C6-O6
3	6B	1	GAL	C4-C5-C6-O6
3	DC	1	GAL	C4-C5-C6-O6
3	KC	1	GAL	C4-C5-C6-O6
3	RC	1	GAL	C4-C5-C6-O6
3	YC	1	GAL	C4-C5-C6-O6
3	fC	1	GAL	C4-C5-C6-O6
3	mC	1	GAL	C4-C5-C6-O6
3	tC	1	GAL	C4-C5-C6-O6
3	0C	1	GAL	C4-C5-C6-O6
3	7C	1	GAL	C4-C5-C6-O6
3	ED	1	GAL	C4-C5-C6-O6
4	MA	4	MAN	C4-C5-C6-O6
4	hA	4	MAN	C4-C5-C6-O6

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Mol	Chain	Res	Type	Atoms
4	2A	4	MAN	C4-C5-C6-O6
4	GB	4	MAN	C4-C5-C6-O6
4	NB	4	MAN	C4-C5-C6-O6
4	UB	4	MAN	C4-C5-C6-O6
4	iB	4	MAN	C4-C5-C6-O6
4	3B	4	MAN	C4-C5-C6-O6
4	AC	4	MAN	C4-C5-C6-O6
4	qC	4	MAN	C4-C5-C6-O6
4	4C	4	MAN	C4-C5-C6-O6
4	ID	4	MAN	C4-C5-C6-O6
3	4	1	GAL	C4-C5-C6-O6
3	kA	1	GAL	C4-C5-C6-O6
3	zB	1	GAL	C4-C5-C6-O6
4	n	4	MAN	C4-C5-C6-O6
4	u	4	MAN	C4-C5-C6-O6
4	1	4	MAN	C4-C5-C6-O6
4	8	4	MAN	C4-C5-C6-O6
4	FA	4	MAN	C4-C5-C6-O6
4	ТА	4	MAN	C4-C5-C6-O6
4	aA	4	MAN	C4-C5-C6-O6
4	oA	4	MAN	C4-C5-C6-O6
4	vA	4	MAN	C4-C5-C6-O6
4	9A	4	MAN	C4-C5-C6-O6
4	bB	4	MAN	C4-C5-C6-O6
4	pВ	4	MAN	C4-C5-C6-O6
4	wB	4	MAN	C4-C5-C6-O6
4	HC	4	MAN	C4-C5-C6-O6
4	OC	4	MAN	C4-C5-C6-O6
4	VC	4	MAN	C4-C5-C6-O6
4	cC	4	MAN	C4-C5-C6-O6
4	jС	4	MAN	C4-C5-C6-O6
4	xC	4	MAN	C4-C5-C6-O6
4	BD	4	MAN	C4-C5-C6-O6
3	k	5	MAN	C4-C5-C6-O6
3	У	5	MAN	C4-C5-C6-O6
3	zA	5	MAN	C4-C5-C6-O6
3	6A	5	MAN	C4-C5-C6-O6
3	KB	5	MAN	C4-C5-C6-O6
3	YB	5	MAN	C4-C5-C6-O6
3	fB	5	MAN	C4-C5-C6-O6
3	mB	5	MAN	C4-C5-C6-O6
3	0B	5	MAN	C4-C5-C6-O6

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\mathbf{Mol}	Chain	\mathbf{Res}	Type	Atoms
3	7B	5	MAN	C4-C5-C6-O6
3	uC	5	MAN	C4-C5-C6-O6
3	FD	5	MAN	C4-C5-C6-O6
3	DB	2	BGC	O5-C5-C6-O6
3	SC	2	BGC	O5-C5-C6-O6
3	r	5	MAN	C4-C5-C6-O6
3	5	5	MAN	C4-C5-C6-O6
3	CA	5	MAN	C4-C5-C6-O6
3	JA	5	MAN	C4-C5-C6-O6
3	QA	5	MAN	C4-C5-C6-O6
3	XA	5	MAN	C4-C5-C6-O6
3	eA	5	MAN	C4-C5-C6-O6
3	lA	5	MAN	C4-C5-C6-O6
3	sA	5	MAN	C4-C5-C6-O6
3	DB	5	MAN	C4-C5-C6-O6
3	RB	5	MAN	C4-C5-C6-O6
3	tB	5	MAN	C4-C5-C6-O6
3	EC	5	MAN	C4-C5-C6-O6
3	LC	5	MAN	C4-C5-C6-O6
3	SC	5	MAN	C4-C5-C6-O6
3	ZC	5	MAN	C4-C5-C6-O6
3	gC	5	MAN	C4-C5-C6-O6
3	nC	5	MAN	C4-C5-C6-O6
3	1C	5	MAN	C4-C5-C6-O6
3	8C	5	MAN	C4-C5-C6-O6
3	k	2	BGC	O5-C5-C6-O6
3	r	2	BGC	O5-C5-C6-O6
3	у	2	BGC	O5-C5-C6-O6
3	5	2	BGC	O5-C5-C6-O6
3	CA	2	BGC	O5-C5-C6-O6
3	JA	2	BGC	O5-C5-C6-O6
3	QA	2	BGC	O5-C5-C6-O6
3	XA	2	BGC	O5-C5-C6-O6
3	eA	2	BGC	O5-C5-C6-O6
3	lA	2	BGC	O5-C5-C6-O6
3	sA	2	BGC	O5-C5-C6-O6
3	zA	2	BGC	O5-C5-C6-O6
3	6A	2	BGC	O5-C5-C6-O6
3	KB	2	BGC	O5-C5-C6-O6
3	RB	2	BGC	O5-C5-C6-O6
3	YB	2	BGC	O5-C5-C6-O6
3	fB	2	BGC	05-C5-C6-O6



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Mol	Chain	Res	Type	Atoms
2	mR		BCC	05-C5, C6, 06
3	+B	2	BCC	05-05-00-00
3 3	0B	2	BCC	05-05-00-00
່ <u>ວ</u>	0D 7D	2	PCC	05-05-06-06
3 2	TD FC	2	BCC	05-05-00
ა ე	EC	2		$O_{2}-C_{2}-C_{2}-C_{2}$
<u> </u>		2	BGC	05-05-00-00
<u>র</u>	ZC	2	BGC	05-C5-C6-O6
3	gC	2	BGC	05-05-06-06
3	nC	2	BGC	05-C5-C6-06
3	uC	2	BGC	05-C5-C6-O6
3	1C	2	BGC	O5-C5-C6-O6
3	8C	2	BGC	O5-C5-C6-O6
3	FD	2	BGC	05-C5-C6-O6
4	aA	2	BGC	C4-C5-C6-O6
4	oA	2	BGC	C4-C5-C6-O6
4	vA	2	BGC	C4-C5-C6-O6
4	bB	2	BGC	C4-C5-C6-O6
4	wB	2	BGC	C4-C5-C6-O6
4	3B	2	BGC	C4-C5-C6-O6
4	cC	2	BGC	C4-C5-C6-O6
4	xC	2	BGC	C4-C5-C6-O6
4	ID	2	BGC	C4-C5-C6-O6
4	u	4	MAN	O5-C5-C6-O6
4	oA	4	MAN	O5-C5-C6-O6
4	vA	4	MAN	O5-C5-C6-O6
4	9A	4	MAN	O5-C5-C6-O6
4	NB	4	MAN	O5-C5-C6-O6
4	jC	4	MAN	O5-C5-C6-O6
4	qC	4	MAN	O5-C5-C6-O6
4	n	2	BGC	C4-C5-C6-O6
4	u	2	BGC	C4-C5-C6-O6
4	1	2	BGC	C4-C5-C6-O6
4	8	2	BGC	C4-C5-C6-O6
4	FA	2	BGC	C4-C5-C6-O6
4	MA	2	BGC	C4-C5-C6-O6
4	ТА	2	BGC	C4-C5-C6-O6
4	hA	2	BGC	C4-C5-C6-O6
4	2A	2	BGC	C4-C5-C6-O6
4	9A	2	BGC	C4-C5-C6-O6
4	GB	2	BGC	C4-C5-C6-O6
4	NB	2	BGC	C4-C5-C6-O6
4	UB	2	BGC	C4-C5-C6-O6

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EMD-19168,	8RH5
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Mol	Chain	Res	Type	Atoms
4	iB	2	BGC	C4-C5-C6-O6
4	nB	2	BGC	C4-C5-C6-O6
4	AC	2	BGC	C4-C5-C6-O6
4	HC	2	BGC	C4-C5-C6-O6
4	OC	2	BGC	C4-C5-C6-O6
4	VC	2	BGC	C4-C5-C6-O6
4	iC	2	BGC	C4-C5-C6-O6
4	aC	2	BGC	C4-C5-C6-O6
4	4C	2	BGC	C4-C5-C6-O6
4	BD	2	BGC	C4-C5-C6-O6
4	aA	4	MAN	05-C5-C6-O6
4	GB	4	MAN	05-C5-C6-O6
4	xC	4	MAN	05-C5-C6-O6
4	n	4	MAN	05-C5-C6-O6
4	8	4	MAN	05-C5-C6-O6
4	MA	4	MAN	05-C5-C6-O6
4	hA	4	MAN	05-C5-C6-O6
4	UB	4	MAN	05-C5-C6-O6
4	iB	4	MAN	05-C5-C6-O6
4	wB	4	MAN	05 - C5 - C6 - O6
4	3B	4	MAN	05-C5-C6-O6
4	AC	4	MAN	05 c5 c6 00 05-C5-C6-06
4	OC	4	MAN	05-C5-C6-O6
4	VC	4	MAN	05-C5-C6-O6
4	4C	4	MAN	05-C5-C6-O6
4	BD	4	MAN	05-C5-C6-O6
4	ID	4	MAN	05-C5-C6-O6
4	1	4	MAN	05-C5-C6-O6
4	FA	4	MAN	O5-C5-C6-O6
4	ТА	4	MAN	O5-C5-C6-O6
4	2A	4	MAN	O5-C5-C6-O6
4	bB	4	MAN	O5-C5-C6-O6
4	pB	4	MAN	O5-C5-C6-O6
4	HC	4	MAN	O5-C5-C6-O6
4	cC	4	MAN	O5-C5-C6-O6
3	k	5	MAN	O5-C5-C6-O6
3	r	5	MAN	O5-C5-C6-O6
3	v	5	MAN	O5-C5-C6-O6
3	5	5	MAN	O5-C5-C6-O6
3	CA	5	MAN	O5-C5-C6-O6
3	JA	5	MAN	O5-C5-C6-O6
3	QA	5	MAN	05-C5-C6-O6

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Mol	Chain	Res	Type	Atoms
3	XA	5	MAN	O5-C5-C6-O6
3	eA	5	MAN	O5-C5-C6-O6
3	lA	5	MAN	O5-C5-C6-O6
3	sA	5	MAN	O5-C5-C6-O6
3	zA	5	MAN	O5-C5-C6-O6
3	6A	5	MAN	O5-C5-C6-O6
3	DB	5	MAN	O5-C5-C6-O6
3	KB	5	MAN	O5-C5-C6-O6
3	RB	5	MAN	O5-C5-C6-O6
3	YB	5	MAN	O5-C5-C6-O6
3	fB	5	MAN	O5-C5-C6-O6
3	mB	5	MAN	O5-C5-C6-O6
3	tB	5	MAN	O5-C5-C6-O6
3	0B	5	MAN	05-C5-C6-O6
3	7B	5	MAN	O5-C5-C6-O6
3	EC	5	MAN	O5-C5-C6-O6
3	LC	5	MAN	O5-C5-C6-O6
3	SC	5	MAN	O5-C5-C6-O6
3	ZC	5	MAN	O5-C5-C6-O6
3	gC	5	MAN	O5-C5-C6-O6
3	nC	5	MAN	O5-C5-C6-O6
3	uC	5	MAN	O5-C5-C6-O6
3	1C	5	MAN	O5-C5-C6-O6
3	8C	5	MAN	O5-C5-C6-O6
3	FD	5	MAN	O5-C5-C6-O6
3	Х	5	MAN	C4-C5-C6-O6
3	BA	5	MAN	C4-C5-C6-O6
3	IA	5	MAN	C4-C5-C6-O6
3	PA	5	MAN	C4-C5-C6-O6
3	WA	5	MAN	C4-C5-C6-O6
3	dA	5	MAN	C4-C5-C6-O6
3	kA	5	MAN	C4-C5-C6-O6
3	sB	5	MAN	C4-C5-C6-O6
3	6B	5	MAN	C4-C5-C6-O6
3	fC	5	MAN	C4-C5-C6-O6
3	tC	5	MAN	C4-C5-C6-O6
3	7C	5	MAN	C4-C5-C6-O6
3	5A	5	MAN	C4-C5-C6-O6
3	j	5	MAN	C4-C5-C6-O6
3	q	5	MAN	C4-C5-C6-O6
3	4	5	MAN	C4-C5-C6-O6
3	rA	5	MAN	C4-C5-C6-O6

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Mol	Chain	Res	Type	Atoms
3	vA	5	MAN	C4-C5-C6-O6
3	CB	5	MAN	C4-C5-C6-O6
3	JB	5	MAN	C4-C5-C6-O6
3	XB	5	MAN	C4-C5-C6-O6
3	lB	5	MAN	C4-C5-C6-O6
3	zB	5	MAN	C4-C5-C6-O6
3	DC	5	MAN	C4-C5-C6-O6
3	KC	5	MAN	C4-C5-C6-O6
3	RC	5	MAN	C4-C5-C6-O6
3	YC	5	MAN	C4-C5-C6-O6
3	mC	5	MAN	C4-C5-C6-O6
3	0C	5	MAN	C4-C5-C6-O6
3	ED	5	MAN	C4-C5-C6-O6
3	QB	5	MAN	C4-C5-C6-O6
3	eB	5	MAN	C4-C5-C6-O6
2	h	3	A1H1F	C4-C5-C6-S6
2	0	3	A1H1F	C4-C5-C6-S6
2	v	3	A1H1F	C4-C5-C6-S6
2	2	3	A1H1F	C4-C5-C6-S6
2	9	3	A1H1F	C4-C5-C6-S6
2	GA	3	A1H1F	C4-C5-C6-S6
2	NA	3	A1H1F	C4-C5-C6-S6
2	UA	3	A1H1F	C4-C5-C6-S6
2	bA	3	A1H1F	C4-C5-C6-S6
2	iA	3	A1H1F	C4-C5-C6-S6
2	pА	3	A1H1F	C4-C5-C6-S6
2	wA	3	A1H1F	C4-C5-C6-S6
2	3A	3	A1H1F	C4-C5-C6-S6
2	AB	3	A1H1F	C4-C5-C6-S6
2	HB	3	A1H1F	C4-C5-C6-S6
2	OB	3	A1H1F	C4-C5-C6-S6
2	VB	3	A1H1F	C4-C5-C6-S6
2	cB	3	A1H1F	C4-C5-C6-S6
2	jВ	3	A1H1F	C4-C5-C6-S6
2	qB	3	A1H1F	C4-C5-C6-S6
2	xB	3	A1H1F	C4-C5-C6-S6
2	4B	3	A1H1F	C4-C5-C6-S6
2	BC	3	A1H1F	C4-C5-C6-S6
2	IC	3	A1H1F	C4-C5-C6-S6
2	PC	3	A1H1F	C4-C5-C6-S6
2	WC	3	A1H1F	C4-C5-C6-S6
2	dC	3	A1H1F	C4-C5-C6-S6

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Mol	Chain	Res	Type	Atoms
2	kC	3	A1H1F	C4-C5-C6-S6
2	rC	3	A1H1F	C4-C5-C6-S6
2	vC	3	A1H1F	C4-C5-C6-S6
2	5C	3	A1H1F	C4-C5-C6-S6
2	CD	3	A1H1F	C4-C5-C6-S6
3	i	3	A1H1F	C4-C5-C6-S6
3	m	3	A1H1F	C4-C5-C6-S6
3	q	3	A1H1F	C4-C5-C6-S6
3	t	3	A1H1F	C4-C5-C6-S6
3	X	3	A1H1F	C4-C5-C6-S6
3	0	3	A1H1F	C4-C5-C6-S6
3	4	3	A1H1F	C4-C5-C6-S6
3	7	3	A1H1F	C4-C5-C6-S6
3	BA	3	A1H1F	C4-C5-C6-S6
3	EA	3	A1H1F	C4-C5-C6-S6
3	IA	3	A1H1F	C4-C5-C6-S6
3	LA	3	A1H1F	C4-C5-C6-S6
3	PA	3	A1H1F	C4-C5-C6-S6
3	SA	3	A1H1F	C4-C5-C6-S6
3	WA	3	A1H1F	C4-C5-C6-S6
3	ZA	3	A1H1F	C4-C5-C6-S6
3	dA	3	A1H1F	C4-C5-C6-S6
3	gA	3	A1H1F	C4-C5-C6-S6
3	kA	3	A1H1F	C4-C5-C6-S6
3	nA	3	A1H1F	C4-C5-C6-S6
3	rA	3	A1H1F	C4-C5-C6-S6
3	uA	3	A1H1F	C4-C5-C6-S6
3	yА	3	A1H1F	C4-C5-C6-S6
3	1A	3	A1H1F	C4-C5-C6-S6
3	5A	3	A1H1F	C4-C5-C6-S6
3	8A	3	A1H1F	C4-C5-C6-S6
3	CB	3	A1H1F	C4-C5-C6-S6
3	FB	3	A1H1F	C4-C5-C6-S6
3	JB	3	A1H1F	C4-C5-C6-S6
3	MB	3	A1H1F	C4-C5-C6-S6
3	QB	3	A1H1F	C4-C5-C6-S6
3	TB	3	A1H1F	C4-C5-C6-S6
3	XB	3	A1H1F	C4-C5-C6-S6
3	aB	3	A1H1F	C4-C5-C6-S6
3	eB	3	A1H1F	C4-C5-C6-S6
3	hB	3	A1H1F	C4-C5-C6-S6
3	lB	3	A1H1F	C4-C5-C6-S6

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Mol	Chain	Bos		Atoms
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<u>う</u>	SB D	<u>う</u>	AIHIF	C4-C5-C6-S6
3	VB	3	AIHIF	C4-C5-C6-S6
3	zB	3	AIHIF	C4-C5-C6-S6
3	2B	3	AIHIF	C4-C5-C6-S6
3	6B	3	AIHIF	C4-C5-C6-S6
3	9B	3	A1H1F	C4-C5-C6-S6
3	DC	3	A1H1F	C4-C5-C6-S6
3	GC	3	A1H1F	C4-C5-C6-S6
3	KC	3	A1H1F	C4-C5-C6-S6
3	NC	3	A1H1F	C4-C5-C6-S6
3	RC	3	A1H1F	C4-C5-C6-S6
3	UC	3	A1H1F	C4-C5-C6-S6
3	YC	3	A1H1F	C4-C5-C6-S6
3	bC	3	A1H1F	C4-C5-C6-S6
3	fC	3	A1H1F	C4-C5-C6-S6
3	iC	3	A1H1F	C4-C5-C6-S6
3	mC	3	A1H1F	C4-C5-C6-S6
3	pC	3	A1H1F	C4-C5-C6-S6
3	tC	3	A1H1F	C4-C5-C6-S6
3	wC	3	A1H1F	C4-C5-C6-S6
3	0C	3	A1H1F	C4-C5-C6-S6
3	3C	3	A1H1F	C4-C5-C6-S6
3	7C	3	A1H1F	C4-C5-C6-S6
3	AD	3	A1H1F	C4-C5-C6-S6
3	ED	3	A1H1F	C4-C5-C6-S6
3	HD	3	A1H1F	C4-C5-C6-S6
4	ТА	2	BGC	O5-C5-C6-O6
4	2A	2	BGC	O5-C5-C6-O6
4	wB	2	BGC	O5-C5-C6-O6
4	3B	2	BGC	O5-C5-C6-O6
4	xC	2	BGC	O5-C5-C6-O6
4	vA	2	BGC	O5-C5-C6-O6
4	1	2	BGC	O5-C5-C6-O6
4	8	2	BGC	O5-C5-C6-O6
4	MA	2	BGC	O5-C5-C6-O6
4	oA	2	BGC	O5-C5-C6-O6
4	bB	2	BGC	O5-C5-C6-O6
4	iC	2	BGC	05-C5-C6-O6
4	n n	2	BGC	05-C5-C6-O6
4	GB	2	BGC	05-C5-C6-O6
4	UB	2	BGC	05-C5-C6-O6

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	Unain	Kes	Type	Atoms
4	pB	2	BGC	05-C5-C6-O6
4	AC	2	BGC	O5-C5-C6-O6
4	OC	2	BGC	O5-C5-C6-O6
4	aA	2	BGC	O5-C5-C6-O6
4	hA	2	BGC	O5-C5-C6-O6
4	9A	2	BGC	O5-C5-C6-O6
4	NB	2	BGC	O5-C5-C6-O6
4	iB	2	BGC	O5-C5-C6-O6
4	HC	2	BGC	O5-C5-C6-O6
4	VC	2	BGC	O5-C5-C6-O6
4	cC	2	BGC	O5-C5-C6-O6
4	qC	2	BGC	O5-C5-C6-O6
4	4C	2	BGC	O5-C5-C6-O6
4	BD	2	BGC	O5-C5-C6-O6
4	ID	2	BGC	O5-C5-C6-O6
4	u	2	BGC	O5-C5-C6-O6
4	FA	2	BGC	O5-C5-C6-O6
2	9	1	GAL	C4-C5-C6-O6
2	yC	1	GAL	C4-C5-C6-O6
2	AB	1	GAL	C4-C5-C6-O6
2	cB	1	GAL	C4-C5-C6-O6
2	IC	1	GAL	C4-C5-C6-O6
2	CD	1	GAL	C4-C5-C6-O6
2	iA	1	GAL	C4-C5-C6-O6
2	pА	1	GAL	C4-C5-C6-O6
2	wA	1	GAL	C4-C5-C6-O6
2	3A	1	GAL	C4-C5-C6-O6
2	OB	1	GAL	C4-C5-C6-O6
2	PC	1	GAL	C4-C5-C6-O6
2	h	1	GAL	C4-C5-C6-O6
2	v	1	GAL	C4-C5-C6-O6
2	2	1	GAL	C4-C5-C6-O6
2	GA	1	GAL	C4-C5-C6-O6
2	bA	1	GAL	C4-C5-C6-O6
2	VB	1	GAL	C4-C5-C6-O6
2	xB	1	GAL	C4-C5-C6-O6
2	BC	1	GAL	C4-C5-C6-O6
2	kC	1	GAL	C4-C5-C6-O6
2	rC	1	GAL	C4-C5-C6-O6
2	5C	1	GAL	C4-C5-C6-O6
2	0	1	GAL	C4-C5-C6-O6
2	NA	1	GAL	C4-C5-C6-O6



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Mol	Chain	Res	Type	Atoms
2	jВ	1	GAL	C4-C5-C6-O6
2	UA	1	GAL	C4-C5-C6-O6
2	qB	1	GAL	C4-C5-C6-O6
2	4B	1	GAL	C4-C5-C6-O6
3	t	5	MAN	C4-C5-C6-O6
3	ZA	5	MAN	C4-C5-C6-O6
3	nA	5	MAN	C4-C5-C6-O6
2	HB	1	GAL	C4-C5-C6-O6
2	WC	1	GAL	C4-C5-C6-O6
2	dC	1	GAL	C4-C5-C6-O6
3	7	5	MAN	C4-C5-C6-O6
3	gA	5	MAN	C4-C5-C6-O6
3	hB	5	MAN	C4-C5-C6-O6
3	oB	5	MAN	C4-C5-C6-O6
3	2B	5	MAN	C4-C5-C6-O6
3	bC	5	MAN	C4-C5-C6-O6
3	m	5	MAN	C4-C5-C6-O6
3	LA	5	MAN	C4-C5-C6-O6
3	SA	5	MAN	C4-C5-C6-O6
3	uA	5	MAN	C4-C5-C6-O6
3	1A	5	MAN	C4-C5-C6-O6
3	aB	5	MAN	C4-C5-C6-O6
3	UC	5	MAN	C4-C5-C6-O6
3	iC	5	MAN	C4-C5-C6-O6
3	wC	5	MAN	C4-C5-C6-O6
3	AD	5	MAN	C4-C5-C6-O6
3	HD	5	MAN	C4-C5-C6-O6
3	0	5	MAN	C4-C5-C6-O6
3	EA	5	MAN	C4-C5-C6-O6
3	8A	5	MAN	C4-C5-C6-O6
3	FB	5	MAN	C4-C5-C6-O6
3	MB	5	MAN	C4-C5-C6-O6
3	TB	5	MAN	C4-C5-C6-O6
3	vB	5	MAN	C4-C5-C6-O6
3	9B	5	MAN	C4-C5-C6-O6
3	GC	5	MAN	C4-C5-C6-O6
3	NC	5	MAN	C4-C5-C6-O6
3	pC	5	MAN	C4-C5-C6-O6
3	3C	5	MAN	C4-C5-C6-O6
4	1	1	GAL	C4-C5-C6-O6
4	RA	1	GAL	C4-C5-C6-O6
4	fA	1	GAL	C4-C5-C6-O6



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Mol	Chain	Res	Type	Atoms
4	7A	1	GAL	C4-C5-C6-O6
4	EB	1	GAL	C4-C5-C6-O6
4	LB	1	GAL	C4-C5-C6-O6
4	SB	1	GAL	C4-C5-C6-O6
4	MC	1	GAL	C4-C5-C6-O6
4	TC	1	GAL	C4-C5-C6-O6
4	hC	1	GAL	C4-C5-C6-O6
4	oC	1	GAL	C4-C5-C6-O6
4	GD	1	GAL	C4-C5-C6-O6
4	s	1	GAL	C4-C5-C6-O6
4	Z	1	GAL	C4-C5-C6-O6
4	6	1	GAL	C4-C5-C6-O6
4	DA	1	GAL	C4-C5-C6-O6
4	KA	1	GAL	C4-C5-C6-O6
4	YA	1	GAL	C4-C5-C6-O6
4	mA	1	GAL	C4-C5-C6-O6
4	0A	1	GAL	C4-C5-C6-O6
4	ZB	1	GAL	C4-C5-C6-O6
4	gB	1	GAL	C4-C5-C6-O6
4	nB	1	GAL	C4-C5-C6-O6
4	uB	1	GAL	C4-C5-C6-O6
4	1B	1	GAL	C4-C5-C6-O6
4	8B	1	GAL	C4-C5-C6-O6
4	FC	1	GAL	C4-C5-C6-O6
4	aC	1	GAL	C4-C5-C6-O6
4	vC	1	GAL	C4-C5-C6-O6
4	9C	1	GAL	C4-C5-C6-O6
4	2C	1	GAL	C4-C5-C6-O6
4	tA	1	GAL	C4-C5-C6-O6
4	FA	1	GAL	C4-C5-C6-O6
4	u	1	GAL	C4-C5-C6-O6
4	hA	1	GAL	C4-C5-C6-O6
4	n	1	GAL	C4-C5-C6-O6
4	8	1	GAL	C4-C5-C6-O6
4	ТА	1	GAL	C4-C5-C6-O6
4	aA	1	GAL	C4-C5-C6-O6
4	vA	1	GAL	C4-C5-C6-O6
4	GB	1	GAL	C4-C5-C6-O6
4	NB	1	GAL	C4-C5-C6-O6
4	bB	1	GAL	C4-C5-C6-O6
4	pВ	1	GAL	C4-C5-C6-O6
4	AC	1	GAL	C4-C5-C6-O6

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Mol	Chain	Res	Type	Atoms
4	НС	1	GAL	C4-C5-C6-O6
4	VC	1	GAL	C4-C5-C6-O6
4	cC	1	GAL	C4-C5-C6-O6
4	jC	1	GAL	C4-C5-C6-O6
4	4C	1	GAL	C4-C5-C6-O6
4	ID	1	GAL	C4-C5-C6-O6
4	oA	1	GAL	C4-C5-C6-O6
4	OC	1	GAL	C4-C5-C6-O6
4	2A	1	GAL	C4-C5-C6-O6
4	9A	1	GAL	C4-C5-C6-O6
4	wB	1	GAL	C4-C5-C6-O6
4	3B	1	GAL	C4-C5-C6-O6
4	xC	1	GAL	C4-C5-C6-O6
4	BD	1	GAL	C4-C5-C6-O6
4	MA	1	GAL	C4-C5-C6-O6
4	UB	1	GAL	C4-C5-C6-O6
4	iB	1	GAL	C4-C5-C6-O6
4	1	1	GAL	C4-C5-C6-O6
4	qC	1	GAL	C4-C5-C6-O6
4	n	3	A1H1F	O5-C5-C6-S6
4	u	3	A1H1F	O5-C5-C6-S6
4	1	3	A1H1F	O5-C5-C6-S6
4	8	3	A1H1F	O5-C5-C6-S6
4	FA	3	A1H1F	O5-C5-C6-S6
4	MA	3	A1H1F	O5-C5-C6-S6
4	TA	3	A1H1F	O5-C5-C6-S6
4	aA	3	A1H1F	O5-C5-C6-S6
4	hA	3	A1H1F	O5-C5-C6-S6
4	oA	3	A1H1F	O5-C5-C6-S6
4	vA	3	A1H1F	O5-C5-C6-S6
4	2A	3	A1H1F	O5-C5-C6-S6
4	9A	3	A1H1F	O5-C5-C6-S6
4	GB	3	A1H1F	O5-C5-C6-S6
4	NB	3	A1H1F	O5-C5-C6-S6
4	UB	3	A1H1F	O5-C5-C6-S6
4	bB	3	A1H1F	O5-C5-C6-S6
4	iB	3	A1H1F	O5-C5-C6-S6
4	pВ	3	A1H1F	O5-C5-C6-S6
4	wB	3	A1H1F	O5-C5-C6-S6
4	3B	3	A1H1F	O5-C5-C6-S6
4	AC	3	A1H1F	O5-C5-C6-S6
4	НС	3	A1H1F	O5-C5-C6-S6

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Mol	Chain	Res	Type	Atoms
4	OC	3	A1H1F	O5-C5-C6-S6
4	VC	3	A1H1F	O5-C5-C6-S6
4	cC	3	A1H1F	O5-C5-C6-S6
4	jС	3	A1H1F	O5-C5-C6-S6
4	qC	3	A1H1F	O5-C5-C6-S6
4	xC	3	A1H1F	O5-C5-C6-S6
4	4C	3	A1H1F	O5-C5-C6-S6
4	BD	3	A1H1F	O5-C5-C6-S6
4	ID	3	A1H1F	O5-C5-C6-S6

Continued from previous page...

All (32) ring outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	BC	5	MAN	C1-C2-C3-C4-C5-O5
2	UA	5	MAN	C1-C2-C3-C4-C5-O5
2	HB	5	MAN	C1-C2-C3-C4-C5-O5
2	pА	5	MAN	C1-C2-C3-C4-C5-O5
2	rC	5	MAN	C1-C2-C3-C4-C5-O5
2	IC	5	MAN	C1-C2-C3-C4-C5-O5
2	0	5	MAN	C1-C2-C3-C4-C5-O5
2	AB	5	MAN	C1-C2-C3-C4-C5-O5
2	qB	5	MAN	C1-C2-C3-C4-C5-O5
2	уC	5	MAN	C1-C2-C3-C4-C5-O5
2	4B	5	MAN	C1-C2-C3-C4-C5-O5
2	VB	5	MAN	C1-C2-C3-C4-C5-O5
2	bA	5	MAN	C1-C2-C3-C4-C5-O5
2	iA	5	MAN	C1-C2-C3-C4-C5-O5
2	h	5	MAN	C1-C2-C3-C4-C5-O5
2	5C	5	MAN	C1-C2-C3-C4-C5-O5
2	kC	5	MAN	C1-C2-C3-C4-C5-O5
2	9	5	MAN	C1-C2-C3-C4-C5-O5
2	NA	5	MAN	C1-C2-C3-C4-C5-O5
2	dC	5	MAN	C1-C2-C3-C4-C5-O5
2	CD	5	MAN	C1-C2-C3-C4-C5-O5
2	V	5	MAN	C1-C2-C3-C4-C5-O5
2	jВ	5	MAN	C1-C2-C3-C4-C5-O5
2	3A	5	MAN	C1-C2-C3-C4-C5-O5
2	xB	5	MAN	C1-C2-C3-C4-C5-O5
2	wA	5	MAN	C1-C2-C3-C4-C5-O5
2	2	5	MAN	C1-C2-C3-C4-C5-O5
2	GA	5	MAN	C1-C2-C3-C4-C5-O5
2	cB	5	MAN	C1-C2-C3-C4-C5-O5



Contr	Continued from pretious page							
Mol	Chain	\mathbf{Res}	Type	Atoms				
2	PC	5	MAN	C1-C2-C3-C4-C5-O5				
2	WC	5	MAN	C1-C2-C3-C4-C5-O5				
2	OB	5	MAN	C1-C2-C3-C4-C5-O5				

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No monomer is involved in short contacts.

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for oligosaccharide.





















































































































































































































































































































































































































































































































































































































































































































































































5.6 Ligand geometry (i)

64 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).

Mal	Turne	Chain	Dec	Tinle	Bo	ond leng	\mathbf{ths}	B	ond ang	gles
INIOI	туре	Chain	nes	LINK	Counts	RMSZ	# Z >2	Counts	RMSZ	# Z >2
5	GAL	V	308	1	11,11,12	0.60	0	15,15,17	0.85	0
5	GAL	U	309	1	11,11,12	0.60	0	15,15,17	0.84	0
5	GAL	G	309	1	11,11,12	0.60	0	15,15,17	0.85	0
5	GAL	S	309	1	11,11,12	0.60	0	15,15,17	0.86	0
5	GAL	М	309	1	11,11,12	0.60	0	15,15,17	0.85	0
5	GAL	Е	309	1	11,11,12	0.60	0	15,15,17	0.85	0
5	GAL	K	309	1	11,11,12	0.59	0	15,15,17	0.85	0



7.6	T	<u> </u>	Ъ	T • 1	Bo	ond leng	ths	Bond angles		
Mol	Type	Chain	Res	Link	Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
5	GAL	А	311	1	11,11,12	0.59	0	$15,\!15,\!17$	0.89	0
5	GAL	Х	309	1	11,11,12	0.60	0	15,15,17	0.85	0
5	GAL	Р	310	1	11,11,12	0.59	0	$15,\!15,\!17$	0.88	0
5	GAL	Р	309	1	11,11,12	0.60	0	15,15,17	0.84	0
5	GAL	U	310	1	11,11,12	0.58	0	$15,\!15,\!17$	0.89	0
5	GAL	0	312	1	11,11,12	0.58	0	$15,\!15,\!17$	0.89	0
5	GAL	G	310	1	11,11,12	0.58	0	$15,\!15,\!17$	0.90	0
5	GAL	D	309	1	11,11,12	0.60	0	$15,\!15,\!17$	0.85	0
5	GAL	Е	310	1	11,11,12	0.58	0	$15,\!15,\!17$	0.90	0
5	GAL	В	311	1	11,11,12	0.57	0	$15,\!15,\!17$	0.90	0
5	GAL	W	310	1	11,11,12	0.58	0	$15,\!15,\!17$	0.89	0
5	GAL	F	309	1	11,11,12	0.60	0	$15,\!15,\!17$	0.85	0
5	GAL	S	310	1	11,11,12	0.58	0	$15,\!15,\!17$	0.89	0
5	GAL	с	310	1	11,11,12	0.61	0	$15,\!15,\!17$	0.85	0
5	GAL	N	310	1	11,11,12	0.59	0	$15,\!15,\!17$	0.89	0
5	GAL	Ι	309	1	11,11,12	0.60	0	$15,\!15,\!17$	0.85	0
5	GAL	b	311	1	11,11,12	0.59	0	$15,\!15,\!17$	0.89	0
5	GAL	f	311	1	11,11,12	0.59	0	$15,\!15,\!17$	0.88	0
5	GAL	Q	310	1	11,11,12	0.57	0	15,15,17	0.89	0
5	GAL	е	310	1	11,11,12	0.59	0	$15,\!15,\!17$	0.85	0
5	GAL	J	310	1	11,11,12	0.60	0	$15,\!15,\!17$	0.89	0
5	GAL	М	310	1	11,11,12	0.58	0	$15,\!15,\!17$	0.89	0
5	GAL	g	309	1	11,11,12	0.59	0	$15,\!15,\!17$	0.85	0
5	GAL	Х	310	1	11,11,12	0.58	0	$15,\!15,\!17$	0.89	0
5	GAL	F	310	1	11,11,12	0.58	0	$15,\!15,\!17$	0.89	0
5	GAL	Т	309	1	11,11,12	0.60	0	$15,\!15,\!17$	0.84	0
5	GAL	D	310	1	11,11,12	0.58	0	$15,\!15,\!17$	0.90	0
5	GAL	е	311	1	11,11,12	0.59	0	$15,\!15,\!17$	0.89	0
5	GAL	K	310	1	11,11,12	0.59	0	$15,\!15,\!17$	0.89	0
5	GAL	W	309	1	11,11,12	0.59	0	$15,\!15,\!17$	0.85	0
5	GAL	С	311	1	11,11,12	0.59	0	$15,\!15,\!17$	0.88	0
5	GAL	Y	310	1	11,11,12	0.59	0	$15,\!15,\!17$	0.88	0
5	GAL	Т	310	1	11,11,12	0.59	0	$15,\!15,\!17$	0.89	0
5	GAL	g	310	1	11,11,12	0.59	0	$15,\!15,\!17$	0.90	0
5	GAL	с	311	1	11,11,12	0.59	0	$15,\!15,\!17$	0.90	0
5	GAL	А	310	1	11,11,12	0.60	0	$15,\!15,\!17$	0.86	0
5	GAL	Ι	310	1	11,11,12	0.58	0	$15,\!15,\!17$	0.89	0
5	GAL	L	309	1	11,11,12	0.60	0	15, 15, 17	0.85	0
5	GAL	R	309	1	11,11,12	0.61	0	$15,\!15,\!17$	0.85	0
5	GAL	d	310	1	11,11,12	0.60	0	15, 15, 17	0.85	0
5	GAL	V	309	1	11,11,12	0.58	0	$15,\!15,\!17$	0.89	0
5	GAL	Q	309	1	11,11,12	0.60	0	$15,\!15,\!17$	0.84	0
5	GAL	Y	309	1	11,11,12	0.59	0	15, 15, 17	0.85	0



Mal	Trune	Chain	Dec	T inl.	Bo	ond leng	ths	В	ond ang	les
	туре	Chain	nes		Counts	RMSZ	# Z >2	Counts	RMSZ	# Z > 2
5	GAL	J	309	1	11,11,12	0.61	0	$15,\!15,\!17$	0.85	0
5	GAL	d	311	1	11,11,12	0.59	0	$15,\!15,\!17$	0.89	0
5	GAL	0	311	1	11,11,12	0.60	0	$15,\!15,\!17$	0.85	0
5	GAL	a	310	1	11,11,12	0.60	0	$15,\!15,\!17$	0.86	0
5	GAL	Н	310	1	11,11,12	0.59	0	$15,\!15,\!17$	0.89	0
5	GAL	N	309	1	11,11,12	0.59	0	$15,\!15,\!17$	0.85	0
5	GAL	a	311	1	11,11,12	0.59	0	$15,\!15,\!17$	0.88	0
5	GAL	R	310	1	11,11,12	0.58	0	$15,\!15,\!17$	0.89	0
5	GAL	b	310	1	11,11,12	0.60	0	$15,\!15,\!17$	0.85	0
5	GAL	f	310	1	11,11,12	0.60	0	$15,\!15,\!17$	0.85	0
5	GAL	С	310	1	11,11,12	0.61	0	$15,\!15,\!17$	0.85	0
5	GAL	L	310	1	11,11,12	0.58	0	$15,\!15,\!17$	0.89	0
5	GAL	Н	309	1	11,11,12	0.59	0	$15,\!15,\!17$	0.86	0
5	GAL	В	310	1	11,11,12	0.59	0	15,15,17	0.86	0

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	\mathbf{Res}	Link	Chirals	Torsions	Rings
5	GAL	V	308	1	-	0/2/19/22	0/1/1/1
5	GAL	U	309	1	-	0/2/19/22	0/1/1/1
5	GAL	G	309	1	-	0/2/19/22	0/1/1/1
5	GAL	S	309	1	-	0/2/19/22	0/1/1/1
5	GAL	М	309	1	-	0/2/19/22	0/1/1/1
5	GAL	Е	309	1	-	0/2/19/22	0/1/1/1
5	GAL	Κ	309	1	-	0/2/19/22	0/1/1/1
5	GAL	А	311	1	-	0/2/19/22	0/1/1/1
5	GAL	Х	309	1	-	0/2/19/22	0/1/1/1
5	GAL	Р	310	1	-	0/2/19/22	0/1/1/1
5	GAL	Р	309	1	-	0/2/19/22	0/1/1/1
5	GAL	U	310	1	-	0/2/19/22	0/1/1/1
5	GAL	0	312	1	-	0/2/19/22	0/1/1/1
5	GAL	G	310	1	-	0/2/19/22	0/1/1/1
5	GAL	D	309	1	-	0/2/19/22	0/1/1/1
5	GAL	Е	310	1	-	0/2/19/22	0/1/1/1
5	GAL	В	311	1	-	0/2/19/22	0/1/1/1
5	GAL	W	310	1	-	0/2/19/22	0/1/1/1
5	GAL	F	309	1	-	0/2/19/22	0/1/1/1
5	GAL	S	310	1	-	0/2/19/22	0/1/1/1
5	GAL	с	310	1	-	0/2/19/22	0/1/1/1
5	GAL	N	310	1	-	0/2/19/22	0/1/1/1



OOnu	naca jio	ni previoi	is puye	• • •			
Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
5	GAL	Ι	309	1	-	0/2/19/22	0/1/1/1
5	GAL	b	311	1	-	0/2/19/22	0/1/1/1
5	GAL	f	311	1	-	0/2/19/22	0/1/1/1
5	GAL	Q	310	1	-	0/2/19/22	0/1/1/1
5	GAL	е	310	1	-	0/2/19/22	0/1/1/1
5	GAL	J	310	1	-	0/2/19/22	0/1/1/1
5	GAL	М	310	1	-	0/2/19/22	0/1/1/1
5	GAL	g	309	1	-	0/2/19/22	0/1/1/1
5	GAL	Х	310	1	-	0/2/19/22	0/1/1/1
5	GAL	F	310	1	-	0/2/19/22	0/1/1/1
5	GAL	Т	309	1	-	0/2/19/22	0/1/1/1
5	GAL	D	310	1	-	0/2/19/22	0/1/1/1
5	GAL	е	311	1	-	0/2/19/22	0/1/1/1
5	GAL	K	310	1	-	0/2/19/22	0/1/1/1
5	GAL	W	309	1	-	0/2/19/22	0/1/1/1
5	GAL	С	311	1	-	0/2/19/22	0/1/1/1
5	GAL	Y	310	1	-	0/2/19/22	0/1/1/1
5	GAL	Т	310	1	-	0/2/19/22	0/1/1/1
5	GAL	g	310	1	-	0/2/19/22	0/1/1/1
5	GAL	с	311	1	-	0/2/19/22	0/1/1/1
5	GAL	А	310	1	-	0/2/19/22	0/1/1/1
5	GAL	Ι	310	1	-	0/2/19/22	0/1/1/1
5	GAL	L	309	1	-	0/2/19/22	0/1/1/1
5	GAL	R	309	1	-	0/2/19/22	0/1/1/1
5	GAL	d	310	1	-	0/2/19/22	0/1/1/1
5	GAL	V	309	1	-	0/2/19/22	0/1/1/1
5	GAL	Q	309	1	-	0/2/19/22	0/1/1/1
5	GAL	Y	309	1	-	0/2/19/22	0/1/1/1
5	GAL	J	309	1	-	0/2/19/22	0/1/1/1
5	GAL	d	311	1	-	0/2/19/22	0/1/1/1
5	GAL	0	311	1	-	0/2/19/22	0/1/1/1
5	GAL	a	310	1	-	0/2/19/22	0/1/1/1
5	GAL	Н	310	1	-	0/2/19/22	0/1/1/1
5	GAL	N	309	1	-	0/2/19/22	0/1/1/1
5	GAL	a	311	1	-	0/2/19/22	0/1/1/1
5	GAL	R	310	1	-	0/2/19/22	0/1/1/1
5	GAL	b	310	1	-	0/2/19/22	0/1/1/1
5	GAL	f	310	1	-	0/2/19/22	0/1/1/1
5	GAL	C	310	1	-	0/2/19/22	0/1/1/1
5	GAL	L	310	1	-	0/2/19/22	0/1/1/1
5	GAL	H	309	1	-	0/2/19/22	0/1/1/1
5	GAL	B	310	1	-	0/2/19/22	0/1/1/1

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There are no bond length outliers. There are no bond angle outliers. There are no chirality outliers. There are no torsion outliers. There are no ring outliers. No monomer is involved in short contacts.

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.



6 Map visualisation (i)

This section contains visualisations of the EMDB entry EMD-19168. These allow visual inspection of the internal detail of the map and identification of artifacts.

Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections (i)

6.1.1 Primary map



6.1.2 Raw map



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



6.2 Central slices (i)

6.2.1 Primary map



X Index: 150





Z Index: 150

6.2.2 Raw map



X Index: 150

Y Index: 150



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



6.3 Largest variance slices (i)

6.3.1 Primary map



X Index: 145



Z Index: 145

6.3.2 Raw map



X Index: 155

Y Index: 161



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



6.4 Orthogonal standard-deviation projections (False-color) (i)

6.4.1 Primary map



6.4.2 Raw map



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.



6.5 Orthogonal surface views (i)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.04. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.5.2 Raw map



These images show the 3D surface of the raw map. The raw map's contour level was selected so that its surface encloses the same volume as the primary map does at its recommended contour level.

6.6 Mask visualisation (i)

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



7 Map analysis (i)

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

7.1 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.



7.2 Volume estimate (i)



The volume at the recommended contour level is 560 nm^3 ; this corresponds to an approximate mass of 506 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.



7.3 Rotationally averaged power spectrum (i)



*Reported resolution corresponds to spatial frequency of 0.394 ${\rm \AA^{-1}}$



8 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.

8.1 FSC (i)



*Reported resolution corresponds to spatial frequency of 0.394 $\mathrm{\AA^{-1}}$



8.2 Resolution estimates (i)

$\mathbf{Bosolution} \text{ ostimato } (\mathbf{\hat{\lambda}})$	Estim	Estimation criterion (FSC cut-off)			
Resolution estimate (A)	0.143	0.5	Half-bit		
Reported by author	2.54	-	-		
Author-provided FSC curve	2.52	2.73	2.54		
Unmasked-calculated*	2.85	3.10	2.89		

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 2.85 differs from the reported value 2.54 by more than 10 %



9 Map-model fit (i)

This section contains information regarding the fit between EMDB map EMD-19168 and PDB model 8RH5. Per-residue inclusion information can be found in section 3 on page 27.

9.1 Map-model overlay (i)



The images above show the 3D surface view of the map at the recommended contour level 0.04 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.



9.2 Q-score mapped to coordinate model (i)



The images above show the model with each residue coloured according 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.

9.3 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 (0.04).



9.4 Atom inclusion (i)



At the recommended contour level, 98% of all backbone atoms, 76% of all non-hydrogen atoms, are inside the map.



9.5 Map-model fit summary (i)

The table lists the average atom inclusion at the recommended contour level (0.04) and Q-score for the entire model and for each chain.

\mathbf{Chain}	Atom inclusion	$\mathbf{Q} extsf{-score}$
All	0.7610	0.5150
0	0.3170	0.3410
0A	0.3400	0.3680
0B	0.3170	0.3230
$0\mathrm{C}$	0.3330	0.2700
1	0.3620	0.4000
1A	0.3500	0.3350
1B	0.3400	0.3510
1C	0.3170	0.3010
2	0.1270	0.2820
2A	0.4470	0.4220
$2\mathrm{B}$	0.3330	0.3320
$2\mathrm{C}$	0.2340	0.3230
3A	0.1270	0.2540
3B	0.3830	0.4200
3C	0.2500	0.3090
4	0.3830	0.2650
$4\mathrm{B}$	0.0990	0.2730
$4\mathrm{C}$	0.3190	0.3840
5	0.3330	0.3090
5A	0.4170	0.2680
$5\mathrm{C}$	0.0000	0.1600
6	0.3400	0.3450
6A	0.3170	0.3180
6B	0.4170	0.2720
7	0.3000	0.3440
7A	0.3400	0.3660
7B	0.3170	0.3040
$7\mathrm{C}$	0.3000	0.2680
8	0.3620	0.4010
8A	0.3330	0.3410
$8\overline{\mathrm{B}}$	0.3400	0.3660
$8\overline{\mathrm{C}}$	0.3000	0.3100
9	0.1270	0.2710
9A	0.4250	0.4160

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Chain	Atom inclusion	Q-score
9B	0.3330	0.3290
9C	0.1920	0.3140
А	0.7910	0.5260
AB	0.1270	0.2460
AC	0.4040	0.4180
AD	0.2500	0.3090
В	0.8110	0.5310
BA	0.4000	0.2690
BC	0.0850	0.2820
BD	0.3190	0.3800
C	0.8260	0.5400
CA	0.3170	0.3030
CB	0.4170	0.2660
CD	0.0000	0.0960
D	0.8380	0.5430
DA	0.3400	0.3460
DB	0.3170	0.3130
DC	0.4000	0.2650
E	0.8510	0.5500
EA	0.3330	0.3410
EB	0.3400	0.3660
EC	0.3170	0.3170
ED	0.2000	0.2590
F	0.8600	0.5530
FA	0.4040	0.4180
FB	0.3330	0.3470
FC	0.3400	0.3490
FD	0.3000	0.3100
G	0.8670	0.5550
GA	0.1270	0.2850
GB	0.4890	0.4160
GC	0.3170	0.3270
GD	0.1920	0.3030
Н	0.8700	0.5600
HB	0.1270	0.2400
HC	0.3830	0.4150
HD	0.1830	0.2810
I	0.8740	0.5610
IA	0.4000	0.2690
IC	0.0850	0.2720
ID	0.2340	0.3700
J	0.8770	0.5650



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Chain	Atom inclusion	Q-score
JA	0.3330	0.3030
JB	0.4000	0.2670
K	0.8810	0.5670
KA	0.3400	0.3620
KB	0.3170	0.3020
KC	0.4000	0.2660
L	0.8830	0.5650
LA	0.3330	0.3440
LB	0.3400	0.3640
LC	0.3330	0.3040
М	0.8860	0.5690
MA	0.3830	0.4140
MB	0.3330	0.3380
MC	0.3400	0.3570
N	0.8870	0.5680
NA	0.1270	0.2790
NB	0.4040	0.4200
NC	0.3000	0.3250
0	0.8840	0.5690
OB	0.1270	0.2420
OC	0.4040	0.4220
P	0.8840	0.5710
PA	0.4000	0.2710
PC	0.0850	0.2680
Q	0.8860	0.5700
QA	0.3330	0.3110
QB	0.4000	0.2760
R	0.8870	0.5690
RA	0.3400	0.3590
RB	0.3170	0.3270
RC	0.4000	0.2760
S	0.8840	0.5700
SA	0.3330	0.3440
SB	0.3400	0.3710
SC	0.3330	0.3140
	0.8820	0.5670
TA	0.4250	0.4120
TB	0.3330	0.3380
TC	0.3400	0.3610
	0.8800	0.5670
UA	0.1270	0.2840
UB	0.4250	0.4200



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Chain	Atom inclusion	$\mathbf{Q} extsf{-score}$
UC	0.2830	0.3210
V	0.8800	0.5660
VB	0.1130	0.2420
VC	0.3830	0.4050
W	0.8740	0.5640
WA	0.4000	0.2670
WC	0.0850	0.2600
Х	0.8710	0.5620
XA	0.3330	0.3100
XB	0.4000	0.2640
Y	0.8650	0.5600
YA	0.3400	0.3560
YB	0.3170	0.3150
YC	0.4000	0.2700
Z	0.8640	0.5580
ZA	0.3170	0.3400
ZB	0.3400	0.3630
ZC	0.3170	0.3110
a	0.8540	0.5530
aA	0.4470	0.4150
aB	0.3330	0.3400
aC	0.3190	0.3530
b	0.8440	0.5490
bA	0.1270	0.2840
bB	0.4250	0.4170
bC	0.2830	0.3240
с	0.8290	0.5450
cB	0.1270	0.2550
cC	0.3620	0.3930
d	0.8130	0.5410
dA	0.4000	0.2720
dC	0.0850	0.2390
е	0.7970	0.5340
eA	0.3170	0.2960
eB	0.4170	0.2700
f	0.7730	0.5260
fA	0.3400	0.3610
fB	0.3170	0.3160
fC	0.3830	0.2700
g	0.7170	0.5180
gA	0.3500	0.3470
gB	0.3400	0.3620



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Chain	Atom inclusion	$\mathbf{Q} extsf{-score}$
gC	0.3170	0.3010
h	0.0990	0.2790
hA	0.4250	0.4230
hB	0.3330	0.3270
hC	0.2980	0.3420
iA	0.1270	0.2660
iB	0.3830	0.4140
iC	0.2670	0.3170
j	0.4000	0.2670
jВ	0.1270	0.2590
jC	0.3400	0.4020
k	0.3170	0.3070
kA	0.4000	0.2650
kC	0.0850	0.2230
1	0.3400	0.3510
lA	0.3170	0.3110
lB	0.4170	0.2710
m	0.3170	0.3290
mA	0.3400	0.3720
mB	0.3170	0.3040
mC	0.3670	0.2730
n	0.4040	0.4130
nA	0.3330	0.3570
nB	0.3400	0.3550
nC	0.3170	0.3080
0	0.1130	0.2630
oA	0.4040	0.4210
oB	0.3330	0.3220
oC	0.2980	0.3500
pA	0.1270	0.2630
pB	0.4250	0.4310
pC	0.2670	0.3300
q	0.3830	0.2690
qB	0.1130	0.2630
qC	0.3400	0.3960
r	0.3000	0.2950
rA	0.4170	0.2600
rC	0.0850	0.1990
S	0.3400	0.3510
sA	0.3170	0.3190
sB	0.4170	0.2670
\mathbf{t}	0.3170	0.3300



Chain	Atom inclusion	Q-score
tA	0.3400	0.3600
tB	0.3170	0.3060
tC	0.3500	0.2650
u	0.3620	0.4000
uA	0.3330	0.3460
uB	0.3400	0.3660
uC	0.3170	0.3180
V	0.1270	0.2810
vA	0.4680	0.4240
vB	0.3330	0.3390
vC	0.2770	0.3270
wA	0.1270	0.2510
wB	0.4250	0.4190
wC	0.2670	0.3100
Х	0.4000	0.2640
xB	0.1130	0.2650
xC	0.3190	0.3790
У	0.3000	0.3060
yA	0.3830	0.2630
yC	0.0280	0.1730
Z	0.3400	0.3490
zA	0.3330	0.3050
zB	0.4000	0.2660

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