



## wwPDB EM Validation Summary Report ⓘ

Sep 20, 2025 – 08:27 am BST

PDB ID : 8RH5 / pdb\_00008rh5  
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 wwPDB EM Validation Summary Report for a publicly released PDB entry.

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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

EMDB validation analysis : 0.0.1.dev129  
Mogul : 1.8.4, CSD as541be (2020)  
MolProbity : 4-5-2 with Phenix2.0  
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)  
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)  
MapQ : 1.9.13  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.46

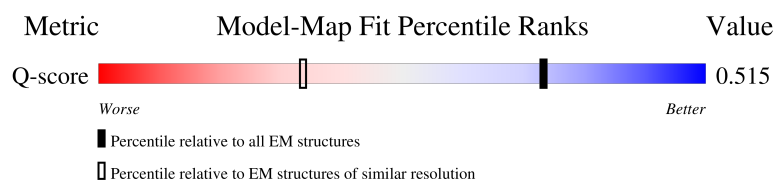
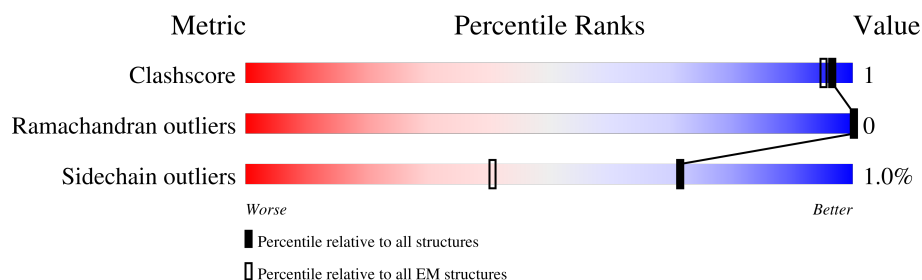
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 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.



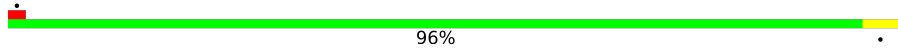
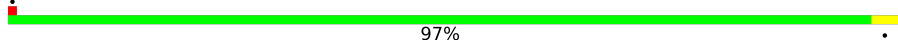
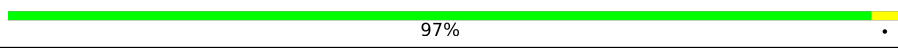
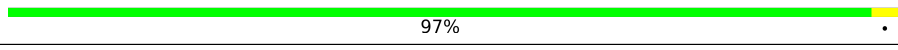
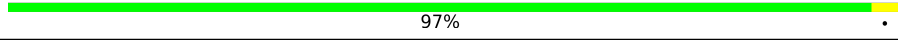
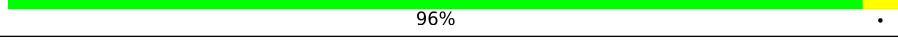
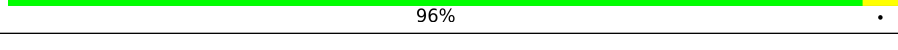
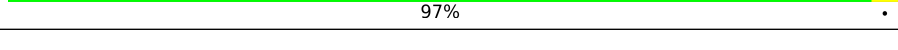
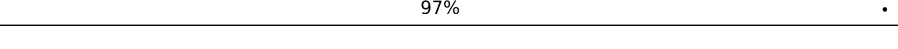
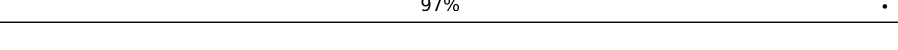
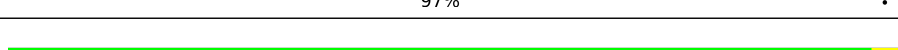
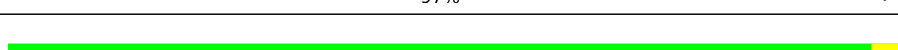
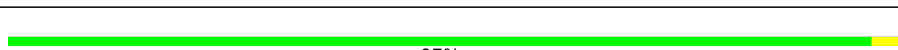
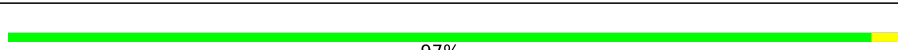
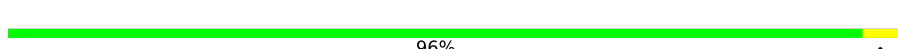
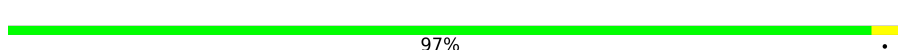
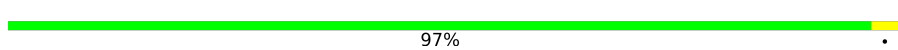
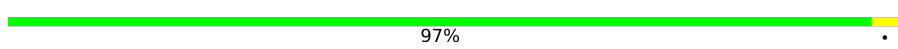
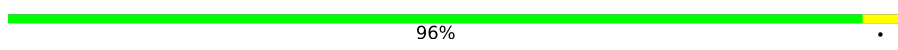
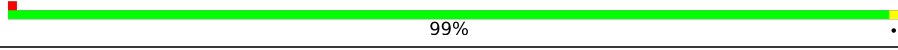
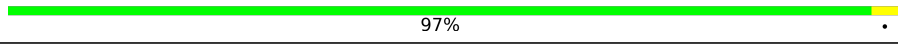
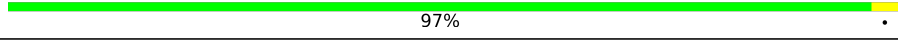
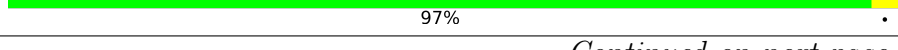
| Metric                | Whole archive<br>(#Entries) | EM structures<br>(#Entries) | Similar EM resolution<br>(#Entries, resolution range(Å)) |
|-----------------------|-----------------------------|-----------------------------|----------------------------------------------------------|
| Clashscore            | 210492                      | 15764                       | -                                                        |
| Ramachandran outliers | 207382                      | 16835                       | -                                                        |
| Sidechain outliers    | 206894                      | 16415                       | -                                                        |
| Q-score               | -                           | 25397                       | 7403 ( 2.04 - 3.04 )                                     |

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  $\geq 3$ , 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  $\leq 5\%$ . 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   | A     | 230    | <div> <div>9%</div> <div>96%</div> <div>.</div> </div> |
| 1   | B     | 230    | <div> <div>6%</div> <div>97%</div> <div>.</div> </div> |
| 1   | C     | 230    | <div> <div>5%</div> <div>97%</div> <div>.</div> </div> |
| 1   | D     | 230    | <div> <div>.</div> <div>97%</div> <div>.</div> </div>  |

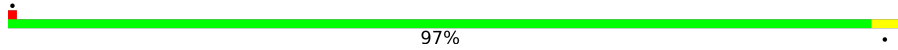
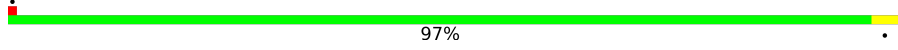
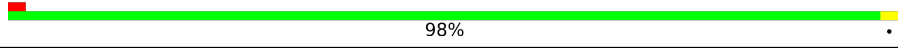
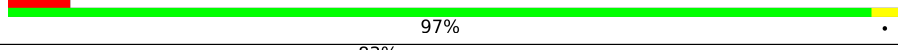
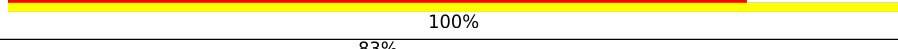
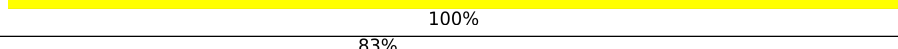
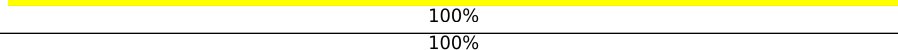
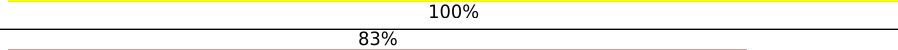
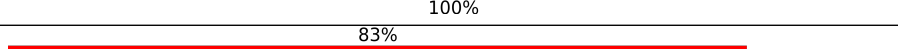
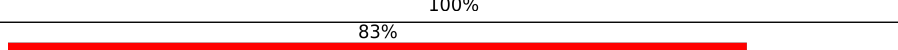
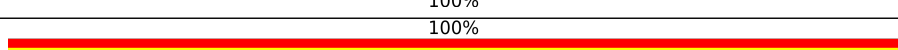
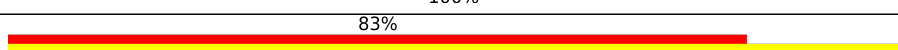
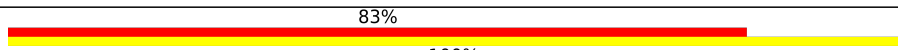
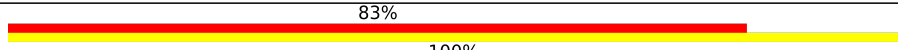
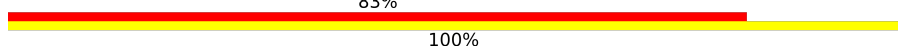
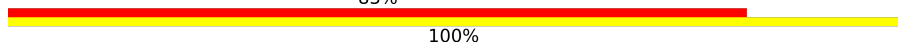
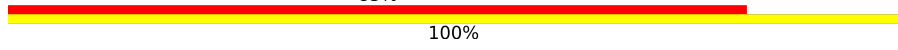
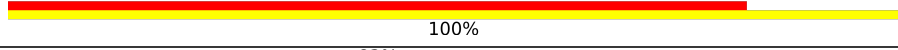
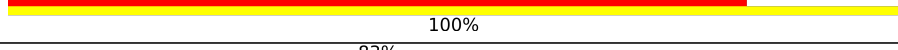
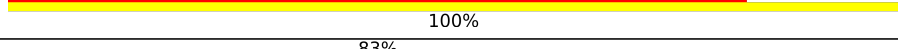
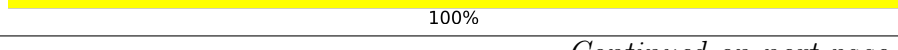
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| Mol | Chain | Length | Quality of chain                                                                         |
|-----|-------|--------|------------------------------------------------------------------------------------------|
| 1   | E     | 230    |  96%   |
| 1   | F     | 230    |  97%   |
| 1   | G     | 230    |  97%   |
| 1   | H     | 230    |  97%   |
| 1   | I     | 230    |  97%   |
| 1   | J     | 230    |  96%   |
| 1   | K     | 230    |  96%   |
| 1   | L     | 230    |  97%   |
| 1   | M     | 230    |  97%   |
| 1   | N     | 230    |  97%   |
| 1   | O     | 230    |  97%   |
| 1   | P     | 230    |  97% |
| 1   | Q     | 230    |  97% |
| 1   | R     | 230    |  97% |
| 1   | S     | 230    |  97% |
| 1   | T     | 230    |  97% |
| 1   | U     | 230    |  96% |
| 1   | V     | 230    |  97% |
| 1   | W     | 230    |  97% |
| 1   | X     | 230    |  97% |
| 1   | Y     | 230    |  96% |
| 1   | Z     | 230    |  99% |
| 1   | a     | 230    |  97% |
| 1   | b     | 230    |  97% |
| 1   | c     | 230    |  97% |

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| Mol | Chain | Length | Quality of chain                                                                                 |
|-----|-------|--------|--------------------------------------------------------------------------------------------------|
| 1   | d     | 230    |  97%           |
| 1   | e     | 230    |  97%           |
| 1   | f     | 230    |  98%           |
| 1   | g     | 230    |  97%           |
| 2   | 2     | 6      |  83%<br>100%   |
| 2   | 3A    | 6      |  83%<br>100%   |
| 2   | 4B    | 6      |  83%<br>100%   |
| 2   | 5C    | 6      |  100%          |
| 2   | 9     | 6      |  83%<br>100%   |
| 2   | AB    | 6      |  83%<br>100%   |
| 2   | BC    | 6      |  83%<br>100%   |
| 2   | CD    | 6      |  100%        |
| 2   | GA    | 6      |  83%<br>100% |
| 2   | HB    | 6      |  83%<br>100% |
| 2   | IC    | 6      |  83%<br>100% |
| 2   | NA    | 6      |  83%<br>100% |
| 2   | OB    | 6      |  83%<br>100% |
| 2   | PC    | 6      |  83%<br>100% |
| 2   | UA    | 6      |  83%<br>100% |
| 2   | VB    | 6      |  83%<br>100% |
| 2   | WC    | 6      |  83%<br>100% |
| 2   | bA    | 6      |  83%<br>100% |
| 2   | cB    | 6      |  83%<br>100% |
| 2   | dC    | 6      |  83%<br>100% |
| 2   | h     | 6      |  83%<br>100% |

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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 2   | iA    | 6      | 83%<br>100%      |
| 2   | jB    | 6      | 83%<br>100%      |
| 2   | kC    | 6      | 83%<br>100%      |
| 2   | o     | 6      | 83%<br>100%      |
| 2   | pA    | 6      | 83%<br>100%      |
| 2   | qB    | 6      | 83%<br>100%      |
| 2   | rC    | 6      | 83%<br>100%      |
| 2   | v     | 6      | 83%<br>100%      |
| 2   | wA    | 6      | 83%<br>100%      |
| 2   | xB    | 6      | 83%<br>100%      |
| 2   | yC    | 6      | 100%<br>100%     |
| 3   | 0     | 5      | 60%<br>100%      |
| 3   | 0B    | 5      | 60%<br>100%      |
| 3   | 0C    | 5      | 60%<br>100%      |
| 3   | 1A    | 5      | 60%<br>100%      |
| 3   | 1C    | 5      | 60%<br>100%      |
| 3   | 2B    | 5      | 60%<br>100%      |
| 3   | 3C    | 5      | 60%<br>100%      |
| 3   | 4     | 5      | 60%<br>100%      |
| 3   | 5     | 5      | 60%<br>100%      |
| 3   | 5A    | 5      | 60%<br>100%      |
| 3   | 6A    | 5      | 60%<br>100%      |
| 3   | 6B    | 5      | 60%<br>100%      |
| 3   | 7     | 5      | 60%<br>100%      |
| 3   | 7B    | 5      | 60%<br>100%      |

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| Mol | Chain | Length | Quality of chain |      |
|-----|-------|--------|------------------|------|
| 3   | 7C    | 5      | 60%              | 100% |
| 3   | 8A    | 5      | 60%              | 100% |
| 3   | 8C    | 5      | 60%              | 100% |
| 3   | 9B    | 5      | 60%              | 100% |
| 3   | AD    | 5      | 60%              | 100% |
| 3   | BA    | 5      | 60%              | 100% |
| 3   | CA    | 5      | 60%              | 100% |
| 3   | CB    | 5      | 60%              | 100% |
| 3   | DB    | 5      | 60%              | 100% |
| 3   | DC    | 5      | 60%              | 100% |
| 3   | EA    | 5      | 60%              | 100% |
| 3   | EC    | 5      | 60%              | 100% |
| 3   | ED    | 5      | 80%              | 100% |
| 3   | FB    | 5      | 60%              | 100% |
| 3   | FD    | 5      | 60%              | 100% |
| 3   | GC    | 5      | 60%              | 100% |
| 3   | HD    | 5      | 80%              | 100% |
| 3   | IA    | 5      | 60%              | 100% |
| 3   | JA    | 5      | 60%              | 100% |
| 3   | JB    | 5      | 60%              | 100% |
| 3   | KB    | 5      | 60%              | 100% |
| 3   | KC    | 5      | 60%              | 100% |
| 3   | LA    | 5      | 60%              | 100% |
| 3   | LC    | 5      | 60%              | 100% |
| 3   | MB    | 5      | 60%              | 100% |

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| Mol | Chain | Length | Quality of chain |      |
|-----|-------|--------|------------------|------|
| 3   | NC    | 5      | 60%              | 100% |
| 3   | PA    | 5      | 60%              | 100% |
| 3   | QA    | 5      | 60%              | 100% |
| 3   | QB    | 5      | 60%              | 100% |
| 3   | RB    | 5      | 60%              | 100% |
| 3   | RC    | 5      | 60%              | 100% |
| 3   | SA    | 5      | 60%              | 100% |
| 3   | SC    | 5      | 60%              | 100% |
| 3   | TB    | 5      | 60%              | 100% |
| 3   | UC    | 5      | 60%              | 100% |
| 3   | WA    | 5      | 60%              | 100% |
| 3   | XA    | 5      | 60%              | 100% |
| 3   | XB    | 5      | 60%              | 100% |
| 3   | YB    | 5      | 60%              | 100% |
| 3   | YC    | 5      | 60%              | 100% |
| 3   | ZA    | 5      | 60%              | 100% |
| 3   | ZC    | 5      | 60%              | 100% |
| 3   | aB    | 5      | 60%              | 100% |
| 3   | bC    | 5      | 60%              | 100% |
| 3   | dA    | 5      | 60%              | 100% |
| 3   | eA    | 5      | 60%              | 100% |
| 3   | eB    | 5      | 60%              | 100% |
| 3   | fB    | 5      | 60%              | 100% |
| 3   | fC    | 5      | 60%              | 100% |
| 3   | gA    | 5      | 60%              | 100% |

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| Mol | Chain | Length | Quality of chain |      |
|-----|-------|--------|------------------|------|
| 3   | gC    | 5      | 60%              | 100% |
| 3   | hB    | 5      | 60%              | 100% |
| 3   | iC    | 5      | 60%              | 100% |
| 3   | j     | 5      | 60%              | 100% |
| 3   | k     | 5      | 60%              | 100% |
| 3   | kA    | 5      | 60%              | 100% |
| 3   | lA    | 5      | 60%              | 100% |
| 3   | lB    | 5      | 60%              | 100% |
| 3   | m     | 5      | 60%              | 100% |
| 3   | mB    | 5      | 60%              | 100% |
| 3   | mC    | 5      | 60%              | 100% |
| 3   | nA    | 5      | 60%              | 100% |
| 3   | nC    | 5      | 60%              | 100% |
| 3   | oB    | 5      | 60%              | 100% |
| 3   | pC    | 5      | 60%              | 100% |
| 3   | q     | 5      | 60%              | 100% |
| 3   | r     | 5      | 60%              | 100% |
| 3   | rA    | 5      | 60%              | 100% |
| 3   | sA    | 5      | 60%              | 100% |
| 3   | sB    | 5      | 60%              | 100% |
| 3   | t     | 5      | 60%              | 100% |
| 3   | tB    | 5      | 60%              | 100% |
| 3   | tC    | 5      | 60%              | 100% |
| 3   | uA    | 5      | 60%              | 100% |
| 3   | uC    | 5      | 60%              | 100% |

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| Mol | Chain | Length | Quality of chain |      |
|-----|-------|--------|------------------|------|
| 3   | vB    | 5      | 60%              | 100% |
| 3   | wC    | 5      | 60%              | 100% |
| 3   | x     | 5      | 60%              | 100% |
| 3   | y     | 5      | 60%              | 100% |
| 3   | yA    | 5      | 60%              | 100% |
| 3   | zA    | 5      | 60%              | 100% |
| 3   | zB    | 5      | 60%              | 100% |
| 4   | 0A    | 4      | 50%              | 100% |
| 4   | 1     | 4      | 50%              | 100% |
| 4   | 1B    | 4      | 50%              | 100% |
| 4   | 2A    | 4      | 50%              | 100% |
| 4   | 2C    | 4      | 75%              | 100% |
| 4   | 3B    | 4      | 50%              | 100% |
| 4   | 4C    | 4      | 50%              | 100% |
| 4   | 6     | 4      | 50%              | 100% |
| 4   | 7A    | 4      | 50%              | 100% |
| 4   | 8     | 4      | 50%              | 100% |
| 4   | 8B    | 4      | 50%              | 100% |
| 4   | 9A    | 4      | 50%              | 100% |
| 4   | 9C    | 4      | 75%              | 100% |
| 4   | AC    | 4      | 50%              | 100% |
| 4   | BD    | 4      | 50%              | 100% |
| 4   | DA    | 4      | 50%              | 100% |
| 4   | EB    | 4      | 50%              | 100% |
| 4   | FA    | 4      | 50%              | 100% |

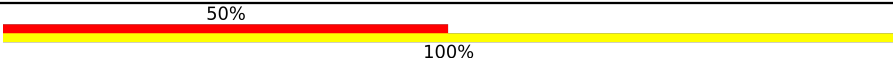
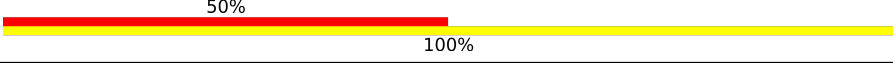
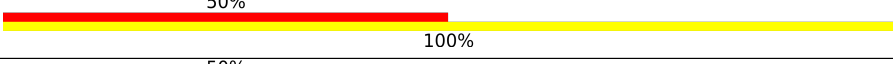
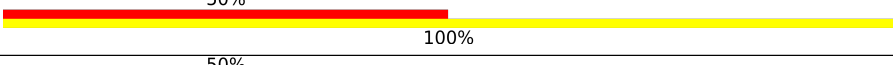
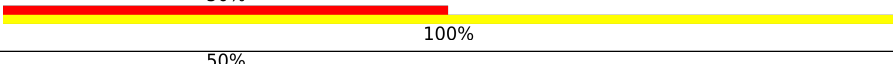
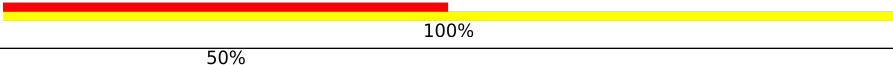
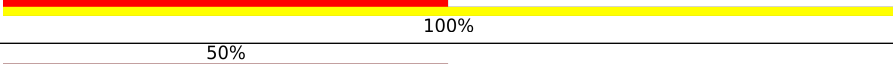
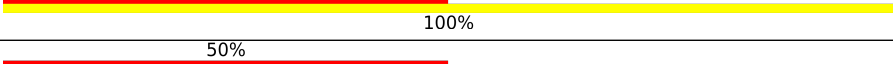
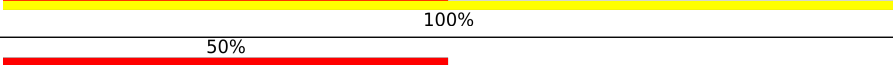
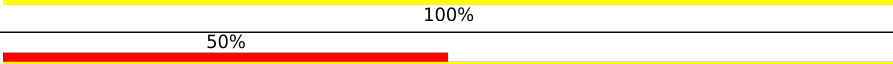
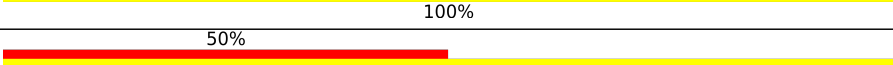
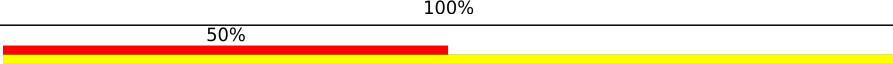
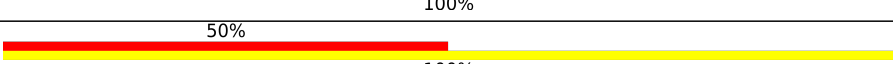
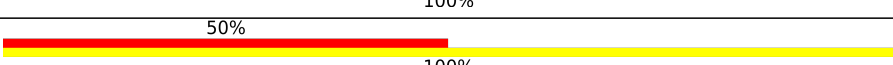
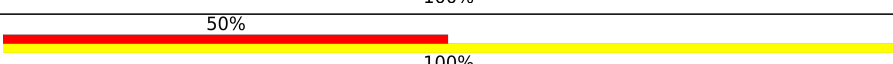
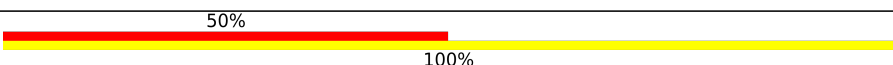
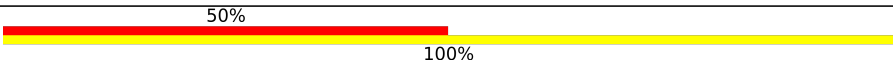
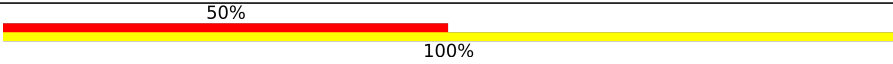
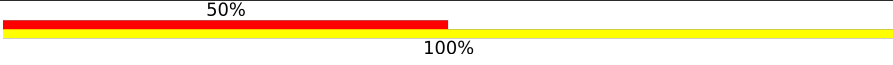
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| Mol | Chain | Length | Quality of chain |      |
|-----|-------|--------|------------------|------|
| 4   | FC    | 4      | 50%              | 100% |
| 4   | GB    | 4      | 50%              | 100% |
| 4   | GD    | 4      | 75%              | 100% |
| 4   | HC    | 4      | 50%              | 100% |
| 4   | ID    | 4      | 75%              | 100% |
| 4   | KA    | 4      | 50%              | 100% |
| 4   | LB    | 4      | 50%              | 100% |
| 4   | MA    | 4      | 50%              | 100% |
| 4   | MC    | 4      | 50%              | 100% |
| 4   | NB    | 4      | 50%              | 100% |
| 4   | OC    | 4      | 50%              | 100% |
| 4   | RA    | 4      | 50%              | 100% |
| 4   | SB    | 4      | 50%              | 100% |
| 4   | TA    | 4      | 50%              | 100% |
| 4   | TC    | 4      | 50%              | 100% |
| 4   | UB    | 4      | 50%              | 100% |
| 4   | VC    | 4      | 50%              | 100% |
| 4   | YA    | 4      | 50%              | 100% |
| 4   | ZB    | 4      | 50%              | 100% |
| 4   | aA    | 4      | 50%              | 100% |
| 4   | aC    | 4      | 50%              | 100% |
| 4   | bB    | 4      | 50%              | 100% |
| 4   | cC    | 4      | 50%              | 100% |
| 4   | fA    | 4      | 50%              | 100% |
| 4   | gB    | 4      | 50%              | 100% |

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| Mol | Chain | Length | Quality of chain                                                                     |  |
|-----|-------|--------|--------------------------------------------------------------------------------------|--|
| 4   | hA    | 4      |    |  |
| 4   | hC    | 4      |    |  |
| 4   | iB    | 4      |    |  |
| 4   | jC    | 4      |    |  |
| 4   | l     | 4      |    |  |
| 4   | mA    | 4      |    |  |
| 4   | n     | 4      |    |  |
| 4   | nB    | 4      |    |  |
| 4   | oA    | 4      |    |  |
| 4   | oC    | 4      |    |  |
| 4   | pB    | 4      |    |  |
| 4   | qC    | 4      |   |  |
| 4   | s     | 4      |  |  |
| 4   | tA    | 4      |  |  |
| 4   | u     | 4      |  |  |
| 4   | uB    | 4      |  |  |
| 4   | vA    | 4      |  |  |
| 4   | vC    | 4      |  |  |
| 4   | wB    | 4      |  |  |
| 4   | xC    | 4      |  |  |
| 4   | z     | 4      |  |  |

## 2 Entry composition

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.

- Molecule 1 is a protein called Oxiplasma meridianum archaellum.

| Mol | Chain | Residues | Atoms |      |     |     |   | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|---|---------|-------|
| 1   | Z     | 230      | Total | C    | N   | O   | S | 0       | 0     |
|     |       |          | 1678  | 1048 | 279 | 347 | 4 |         |       |
| 1   | V     | 230      | Total | C    | N   | O   | S | 0       | 0     |
|     |       |          | 1678  | 1048 | 279 | 347 | 4 |         |       |
| 1   | A     | 230      | Total | C    | N   | O   | S | 0       | 0     |
|     |       |          | 1678  | 1048 | 279 | 347 | 4 |         |       |
| 1   | B     | 230      | Total | C    | N   | O   | S | 0       | 0     |
|     |       |          | 1678  | 1048 | 279 | 347 | 4 |         |       |
| 1   | C     | 230      | Total | C    | N   | O   | S | 0       | 0     |
|     |       |          | 1678  | 1048 | 279 | 347 | 4 |         |       |
| 1   | D     | 230      | Total | C    | N   | O   | S | 0       | 0     |
|     |       |          | 1678  | 1048 | 279 | 347 | 4 |         |       |
| 1   | E     | 230      | Total | C    | N   | O   | S | 0       | 0     |
|     |       |          | 1678  | 1048 | 279 | 347 | 4 |         |       |
| 1   | F     | 230      | Total | C    | N   | O   | S | 0       | 0     |
|     |       |          | 1678  | 1048 | 279 | 347 | 4 |         |       |
| 1   | G     | 230      | Total | C    | N   | O   | S | 0       | 0     |
|     |       |          | 1678  | 1048 | 279 | 347 | 4 |         |       |
| 1   | H     | 230      | Total | C    | N   | O   | S | 0       | 0     |
|     |       |          | 1678  | 1048 | 279 | 347 | 4 |         |       |
| 1   | I     | 230      | Total | C    | N   | O   | S | 0       | 0     |
|     |       |          | 1678  | 1048 | 279 | 347 | 4 |         |       |
| 1   | J     | 230      | Total | C    | N   | O   | S | 0       | 0     |
|     |       |          | 1678  | 1048 | 279 | 347 | 4 |         |       |
| 1   | K     | 230      | Total | C    | N   | O   | S | 0       | 0     |
|     |       |          | 1678  | 1048 | 279 | 347 | 4 |         |       |
| 1   | L     | 230      | Total | C    | N   | O   | S | 0       | 0     |
|     |       |          | 1678  | 1048 | 279 | 347 | 4 |         |       |
| 1   | M     | 230      | Total | C    | N   | O   | S | 0       | 0     |
|     |       |          | 1678  | 1048 | 279 | 347 | 4 |         |       |
| 1   | N     | 230      | Total | C    | N   | O   | S | 0       | 0     |
|     |       |          | 1678  | 1048 | 279 | 347 | 4 |         |       |
| 1   | O     | 230      | Total | C    | N   | O   | S | 0       | 0     |
|     |       |          | 1678  | 1048 | 279 | 347 | 4 |         |       |

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| Mol | Chain | Residues | Atoms |      |     |     |   | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|---|---------|-------|
| 1   | P     | 230      | Total | C    | N   | O   | S | 0       | 0     |
|     |       |          | 1678  | 1048 | 279 | 347 | 4 |         |       |
| 1   | Q     | 230      | Total | C    | N   | O   | S | 0       | 0     |
|     |       |          | 1678  | 1048 | 279 | 347 | 4 |         |       |
| 1   | R     | 230      | Total | C    | N   | O   | S | 0       | 0     |
|     |       |          | 1678  | 1048 | 279 | 347 | 4 |         |       |
| 1   | S     | 230      | Total | C    | N   | O   | S | 0       | 0     |
|     |       |          | 1678  | 1048 | 279 | 347 | 4 |         |       |
| 1   | T     | 230      | Total | C    | N   | O   | S | 0       | 0     |
|     |       |          | 1678  | 1048 | 279 | 347 | 4 |         |       |
| 1   | U     | 230      | Total | C    | N   | O   | S | 0       | 0     |
|     |       |          | 1678  | 1048 | 279 | 347 | 4 |         |       |
| 1   | W     | 230      | Total | C    | N   | O   | S | 0       | 0     |
|     |       |          | 1678  | 1048 | 279 | 347 | 4 |         |       |
| 1   | X     | 230      | Total | C    | N   | O   | S | 0       | 0     |
|     |       |          | 1678  | 1048 | 279 | 347 | 4 |         |       |
| 1   | Y     | 230      | Total | C    | N   | O   | S | 0       | 0     |
|     |       |          | 1678  | 1048 | 279 | 347 | 4 |         |       |
| 1   | a     | 230      | Total | C    | N   | O   | S | 0       | 0     |
|     |       |          | 1678  | 1048 | 279 | 347 | 4 |         |       |
| 1   | b     | 230      | Total | C    | N   | O   | S | 0       | 0     |
|     |       |          | 1678  | 1048 | 279 | 347 | 4 |         |       |
| 1   | c     | 230      | Total | C    | N   | O   | S | 0       | 0     |
|     |       |          | 1678  | 1048 | 279 | 347 | 4 |         |       |
| 1   | d     | 230      | Total | C    | N   | O   | S | 0       | 0     |
|     |       |          | 1678  | 1048 | 279 | 347 | 4 |         |       |
| 1   | e     | 230      | Total | C    | N   | O   | S | 0       | 0     |
|     |       |          | 1678  | 1048 | 279 | 347 | 4 |         |       |
| 1   | f     | 230      | Total | C    | N   | O   | S | 0       | 0     |
|     |       |          | 1678  | 1048 | 279 | 347 | 4 |         |       |
| 1   | g     | 230      | Total | C    | N   | O   | S | 0       | 0     |
|     |       |          | 1678  | 1048 | 279 | 347 | 4 |         |       |

- 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 | Atoms |    |    |   | AltConf | Trace |
|-----|-------|----------|-------|----|----|---|---------|-------|
| 2   | h     | 6        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 71    | 37 | 33 | 1 |         |       |
| 2   | o     | 6        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 71    | 37 | 33 | 1 |         |       |

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| Mol | Chain | Residues | Atoms       |         |         |        | AltConf | Trace |
|-----|-------|----------|-------------|---------|---------|--------|---------|-------|
| 2   | v     | 6        | Total<br>71 | C<br>37 | O<br>33 | S<br>1 | 0       | 0     |
| 2   | 2     | 6        | Total<br>71 | C<br>37 | O<br>33 | S<br>1 | 0       | 0     |
| 2   | 9     | 6        | Total<br>71 | C<br>37 | O<br>33 | S<br>1 | 0       | 0     |
| 2   | GA    | 6        | Total<br>71 | C<br>37 | O<br>33 | S<br>1 | 0       | 0     |
| 2   | NA    | 6        | Total<br>71 | C<br>37 | O<br>33 | S<br>1 | 0       | 0     |
| 2   | UA    | 6        | Total<br>71 | C<br>37 | O<br>33 | S<br>1 | 0       | 0     |
| 2   | bA    | 6        | Total<br>71 | C<br>37 | O<br>33 | S<br>1 | 0       | 0     |
| 2   | iA    | 6        | Total<br>71 | C<br>37 | O<br>33 | S<br>1 | 0       | 0     |
| 2   | pA    | 6        | Total<br>71 | C<br>37 | O<br>33 | S<br>1 | 0       | 0     |
| 2   | wA    | 6        | Total<br>71 | C<br>37 | O<br>33 | S<br>1 | 0       | 0     |
| 2   | 3A    | 6        | Total<br>71 | C<br>37 | O<br>33 | S<br>1 | 0       | 0     |
| 2   | AB    | 6        | Total<br>71 | C<br>37 | O<br>33 | S<br>1 | 0       | 0     |
| 2   | HB    | 6        | Total<br>71 | C<br>37 | O<br>33 | S<br>1 | 0       | 0     |
| 2   | OB    | 6        | Total<br>71 | C<br>37 | O<br>33 | S<br>1 | 0       | 0     |
| 2   | VB    | 6        | Total<br>71 | C<br>37 | O<br>33 | S<br>1 | 0       | 0     |
| 2   | cB    | 6        | Total<br>71 | C<br>37 | O<br>33 | S<br>1 | 0       | 0     |
| 2   | jB    | 6        | Total<br>71 | C<br>37 | O<br>33 | S<br>1 | 0       | 0     |
| 2   | qB    | 6        | Total<br>71 | C<br>37 | O<br>33 | S<br>1 | 0       | 0     |
| 2   | xB    | 6        | Total<br>71 | C<br>37 | O<br>33 | S<br>1 | 0       | 0     |
| 2   | 4B    | 6        | Total<br>71 | C<br>37 | O<br>33 | S<br>1 | 0       | 0     |
| 2   | BC    | 6        | Total<br>71 | C<br>37 | O<br>33 | S<br>1 | 0       | 0     |

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| Mol | Chain | Residues | Atoms |    |    |   | AltConf | Trace |
|-----|-------|----------|-------|----|----|---|---------|-------|
| 2   | IC    | 6        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 71    | 37 | 33 | 1 |         |       |
| 2   | PC    | 6        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 71    | 37 | 33 | 1 |         |       |
| 2   | WC    | 6        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 71    | 37 | 33 | 1 |         |       |
| 2   | dC    | 6        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 71    | 37 | 33 | 1 |         |       |
| 2   | kC    | 6        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 71    | 37 | 33 | 1 |         |       |
| 2   | rC    | 6        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 71    | 37 | 33 | 1 |         |       |
| 2   | yC    | 6        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 71    | 37 | 33 | 1 |         |       |
| 2   | 5C    | 6        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 71    | 37 | 33 | 1 |         |       |
| 2   | CD    | 6        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 71    | 37 | 33 | 1 |         |       |

- Molecule 3 is an oligosaccharide called L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[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 |
|-----|-------|----------|-------|----|----|---|---------|-------|
| 3   | j     | 5        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 60    | 31 | 28 | 1 |         |       |
| 3   | k     | 5        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 60    | 31 | 28 | 1 |         |       |
| 3   | m     | 5        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 60    | 31 | 28 | 1 |         |       |
| 3   | q     | 5        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 60    | 31 | 28 | 1 |         |       |
| 3   | r     | 5        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 60    | 31 | 28 | 1 |         |       |
| 3   | t     | 5        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 60    | 31 | 28 | 1 |         |       |
| 3   | x     | 5        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 60    | 31 | 28 | 1 |         |       |
| 3   | y     | 5        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 60    | 31 | 28 | 1 |         |       |
| 3   | 0     | 5        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 60    | 31 | 28 | 1 |         |       |

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| Mol | Chain | Residues | Atoms       |         |         |        | AltConf | Trace |
|-----|-------|----------|-------------|---------|---------|--------|---------|-------|
| 3   | 4     | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | 5     | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | 7     | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | BA    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | CA    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | EA    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | IA    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | JA    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | LA    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | PA    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | QA    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | SA    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | WA    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | XA    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | ZA    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | dA    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | eA    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | gA    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | kA    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | lA    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | nA    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |

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| Mol | Chain | Residues | Atoms       |         |         |        | AltConf | Trace |
|-----|-------|----------|-------------|---------|---------|--------|---------|-------|
| 3   | rA    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | sA    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | uA    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | yA    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | zA    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | 1A    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | 5A    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | 6A    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | 8A    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | CB    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | DB    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | FB    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | JB    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | KB    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | MB    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | QB    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | RB    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | TB    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | XB    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | YB    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | aB    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |

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| Mol | Chain | Residues | Atoms       |         |         |        | AltConf | Trace |
|-----|-------|----------|-------------|---------|---------|--------|---------|-------|
| 3   | eB    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | fB    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | hB    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | lB    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | mB    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | oB    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | sB    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | tB    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | vB    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | zB    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | 0B    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | 2B    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | 6B    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | 7B    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | 9B    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | DC    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | EC    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | GC    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | KC    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | LC    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | NC    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |

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| Mol | Chain | Residues | Atoms       |         |         |        | AltConf | Trace |
|-----|-------|----------|-------------|---------|---------|--------|---------|-------|
| 3   | RC    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | SC    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | UC    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | YC    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | ZC    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | bC    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | fC    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | gC    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | iC    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | mC    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | nC    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | pC    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | tC    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | uC    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | wC    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | 0C    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | 1C    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | 3C    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | 7C    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | 8C    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |
| 3   | AD    | 5        | Total<br>60 | C<br>31 | O<br>28 | S<br>1 | 0       | 0     |

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| Mol | Chain | Residues | Atoms |    |    |   | AltConf | Trace |
|-----|-------|----------|-------|----|----|---|---------|-------|
| 3   | ED    | 5        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 60    | 31 | 28 | 1 |         |       |
| 3   | FD    | 5        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 60    | 31 | 28 | 1 |         |       |
| 3   | HD    | 5        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 60    | 31 | 28 | 1 |         |       |

- 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   | l     | 4        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 47    | 24 | 22 | 1 |         |       |
| 4   | n     | 4        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 47    | 24 | 22 | 1 |         |       |
| 4   | s     | 4        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 47    | 24 | 22 | 1 |         |       |
| 4   | u     | 4        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 47    | 24 | 22 | 1 |         |       |
| 4   | z     | 4        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 47    | 24 | 22 | 1 |         |       |
| 4   | 1     | 4        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 47    | 24 | 22 | 1 |         |       |
| 4   | 6     | 4        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 47    | 24 | 22 | 1 |         |       |
| 4   | 8     | 4        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 47    | 24 | 22 | 1 |         |       |
| 4   | DA    | 4        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 47    | 24 | 22 | 1 |         |       |
| 4   | FA    | 4        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 47    | 24 | 22 | 1 |         |       |
| 4   | KA    | 4        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 47    | 24 | 22 | 1 |         |       |
| 4   | MA    | 4        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 47    | 24 | 22 | 1 |         |       |
| 4   | RA    | 4        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 47    | 24 | 22 | 1 |         |       |
| 4   | TA    | 4        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 47    | 24 | 22 | 1 |         |       |
| 4   | YA    | 4        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 47    | 24 | 22 | 1 |         |       |
| 4   | aA    | 4        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 47    | 24 | 22 | 1 |         |       |

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| Mol | Chain | Residues | Atoms       |         |         |        | AltConf | Trace |
|-----|-------|----------|-------------|---------|---------|--------|---------|-------|
| 4   | fA    | 4        | Total<br>47 | C<br>24 | O<br>22 | S<br>1 | 0       | 0     |
| 4   | hA    | 4        | Total<br>47 | C<br>24 | O<br>22 | S<br>1 | 0       | 0     |
| 4   | mA    | 4        | Total<br>47 | C<br>24 | O<br>22 | S<br>1 | 0       | 0     |
| 4   | oA    | 4        | Total<br>47 | C<br>24 | O<br>22 | S<br>1 | 0       | 0     |
| 4   | tA    | 4        | Total<br>47 | C<br>24 | O<br>22 | S<br>1 | 0       | 0     |
| 4   | vA    | 4        | Total<br>47 | C<br>24 | O<br>22 | S<br>1 | 0       | 0     |
| 4   | 0A    | 4        | Total<br>47 | C<br>24 | O<br>22 | S<br>1 | 0       | 0     |
| 4   | 2A    | 4        | Total<br>47 | C<br>24 | O<br>22 | S<br>1 | 0       | 0     |
| 4   | 7A    | 4        | Total<br>47 | C<br>24 | O<br>22 | S<br>1 | 0       | 0     |
| 4   | 9A    | 4        | Total<br>47 | C<br>24 | O<br>22 | S<br>1 | 0       | 0     |
| 4   | EB    | 4        | Total<br>47 | C<br>24 | O<br>22 | S<br>1 | 0       | 0     |
| 4   | GB    | 4        | Total<br>47 | C<br>24 | O<br>22 | S<br>1 | 0       | 0     |
| 4   | LB    | 4        | Total<br>47 | C<br>24 | O<br>22 | S<br>1 | 0       | 0     |
| 4   | NB    | 4        | Total<br>47 | C<br>24 | O<br>22 | S<br>1 | 0       | 0     |
| 4   | SB    | 4        | Total<br>47 | C<br>24 | O<br>22 | S<br>1 | 0       | 0     |
| 4   | UB    | 4        | Total<br>47 | C<br>24 | O<br>22 | S<br>1 | 0       | 0     |
| 4   | ZB    | 4        | Total<br>47 | C<br>24 | O<br>22 | S<br>1 | 0       | 0     |
| 4   | bB    | 4        | Total<br>47 | C<br>24 | O<br>22 | S<br>1 | 0       | 0     |
| 4   | gB    | 4        | Total<br>47 | C<br>24 | O<br>22 | S<br>1 | 0       | 0     |
| 4   | iB    | 4        | Total<br>47 | C<br>24 | O<br>22 | S<br>1 | 0       | 0     |
| 4   | nB    | 4        | Total<br>47 | C<br>24 | O<br>22 | S<br>1 | 0       | 0     |

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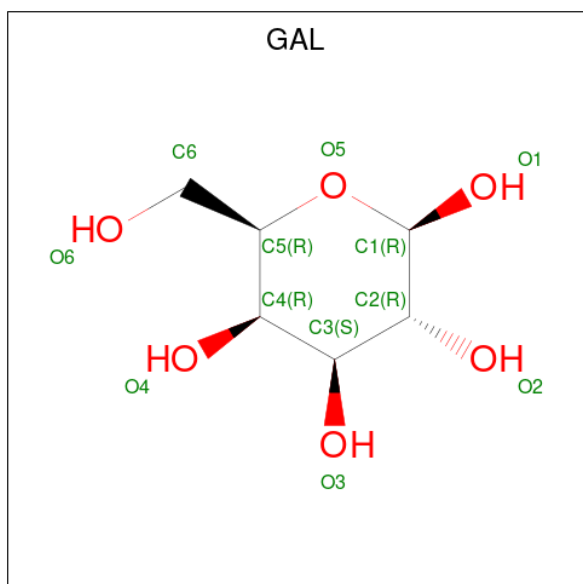
| Mol | Chain | Residues | Atoms       |         |         |        | AltConf | Trace |
|-----|-------|----------|-------------|---------|---------|--------|---------|-------|
| 4   | pB    | 4        | Total<br>47 | C<br>24 | O<br>22 | S<br>1 | 0       | 0     |
| 4   | uB    | 4        | Total<br>47 | C<br>24 | O<br>22 | S<br>1 | 0       | 0     |
| 4   | wB    | 4        | Total<br>47 | C<br>24 | O<br>22 | S<br>1 | 0       | 0     |
| 4   | 1B    | 4        | Total<br>47 | C<br>24 | O<br>22 | S<br>1 | 0       | 0     |
| 4   | 3B    | 4        | Total<br>47 | C<br>24 | O<br>22 | S<br>1 | 0       | 0     |
| 4   | 8B    | 4        | Total<br>47 | C<br>24 | O<br>22 | S<br>1 | 0       | 0     |
| 4   | AC    | 4        | Total<br>47 | C<br>24 | O<br>22 | S<br>1 | 0       | 0     |
| 4   | FC    | 4        | Total<br>47 | C<br>24 | O<br>22 | S<br>1 | 0       | 0     |
| 4   | HC    | 4        | Total<br>47 | C<br>24 | O<br>22 | S<br>1 | 0       | 0     |
| 4   | MC    | 4        | Total<br>47 | C<br>24 | O<br>22 | S<br>1 | 0       | 0     |
| 4   | OC    | 4        | Total<br>47 | C<br>24 | O<br>22 | S<br>1 | 0       | 0     |
| 4   | TC    | 4        | Total<br>47 | C<br>24 | O<br>22 | S<br>1 | 0       | 0     |
| 4   | VC    | 4        | Total<br>47 | C<br>24 | O<br>22 | S<br>1 | 0       | 0     |
| 4   | aC    | 4        | Total<br>47 | C<br>24 | O<br>22 | S<br>1 | 0       | 0     |
| 4   | cC    | 4        | Total<br>47 | C<br>24 | O<br>22 | S<br>1 | 0       | 0     |
| 4   | hC    | 4        | Total<br>47 | C<br>24 | O<br>22 | S<br>1 | 0       | 0     |
| 4   | jC    | 4        | Total<br>47 | C<br>24 | O<br>22 | S<br>1 | 0       | 0     |
| 4   | oC    | 4        | Total<br>47 | C<br>24 | O<br>22 | S<br>1 | 0       | 0     |
| 4   | qC    | 4        | Total<br>47 | C<br>24 | O<br>22 | S<br>1 | 0       | 0     |
| 4   | vC    | 4        | Total<br>47 | C<br>24 | O<br>22 | S<br>1 | 0       | 0     |
| 4   | xC    | 4        | Total<br>47 | C<br>24 | O<br>22 | S<br>1 | 0       | 0     |

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| Mol | Chain | Residues | Atoms |    |    |   | AltConf | Trace |
|-----|-------|----------|-------|----|----|---|---------|-------|
| 4   | 2C    | 4        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 47    | 24 | 22 | 1 |         |       |
| 4   | 4C    | 4        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 47    | 24 | 22 | 1 |         |       |
| 4   | 9C    | 4        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 47    | 24 | 22 | 1 |         |       |
| 4   | BD    | 4        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 47    | 24 | 22 | 1 |         |       |
| 4   | GD    | 4        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 47    | 24 | 22 | 1 |         |       |
| 4   | ID    | 4        | Total | C  | O  | S | 0       | 0     |
|     |       |          | 47    | 24 | 22 | 1 |         |       |

- Molecule 5 is beta-D-galactopyranose (CCD ID: GAL) (formula: C<sub>6</sub>H<sub>12</sub>O<sub>6</sub>).



| Mol | Chain | Residues | Atoms |   |   | AltConf |
|-----|-------|----------|-------|---|---|---------|
| 5   | V     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | V     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | A     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | A     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | B     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |

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| Mol | Chain | Residues | Atoms |   |   | AltConf |
|-----|-------|----------|-------|---|---|---------|
| 5   | B     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | C     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | C     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | D     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | D     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | E     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | E     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | F     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | F     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | G     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | G     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | H     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | H     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | I     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | I     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | J     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | J     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | K     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | K     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | L     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | L     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |

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| Mol | Chain | Residues | Atoms |   |   | AltConf |
|-----|-------|----------|-------|---|---|---------|
| 5   | M     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | M     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | N     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | N     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | O     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | O     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | P     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | P     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | Q     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | Q     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | R     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | R     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | S     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | S     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | T     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | T     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | U     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | U     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | W     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | W     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | X     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |

*Continued on next page...*

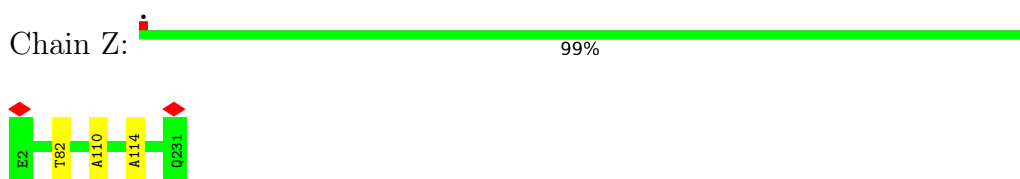
*Continued from previous page...*

| Mol | Chain | Residues | Atoms |   |   | AltConf |
|-----|-------|----------|-------|---|---|---------|
| 5   | X     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | Y     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | Y     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | a     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 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   | c     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | c     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | d     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | d     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | e     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | e     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | f     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | f     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | g     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |
| 5   | g     | 1        | Total | C | O | 0       |
|     |       |          | 11    | 6 | 5 |         |

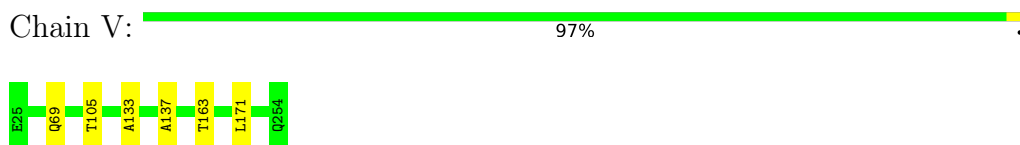
### 3 Residue-property plots [i](#)

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.

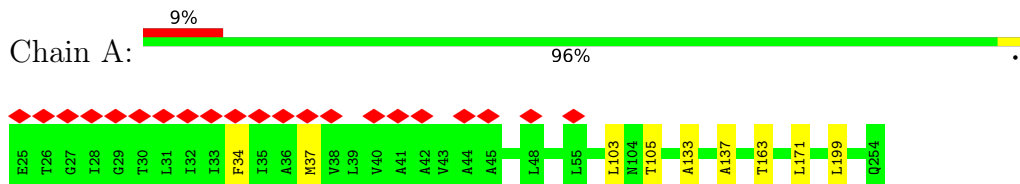
- Molecule 1: *Oxiplasma meridianum* archaeellum



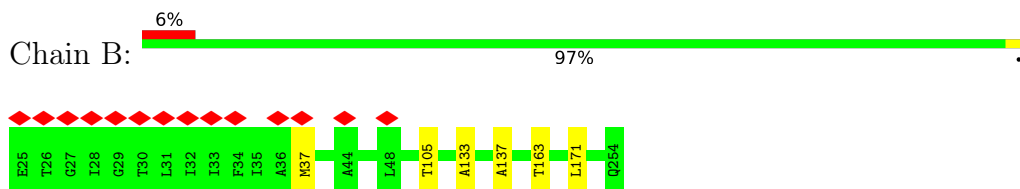
- Molecule 1: *Oxiplasma meridianum* archaeellum



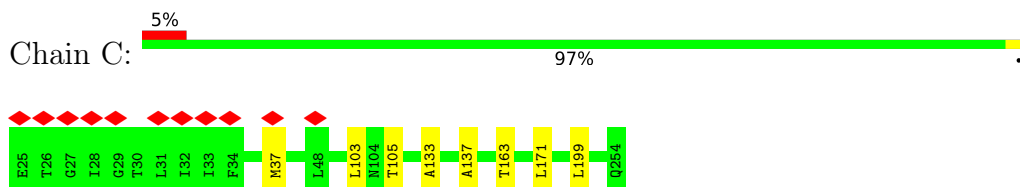
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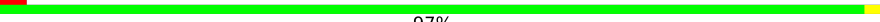
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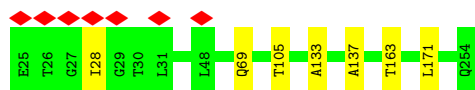


- Molecule 1: *Oxiplasma meridianum* archaeellum

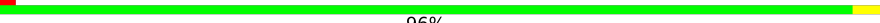


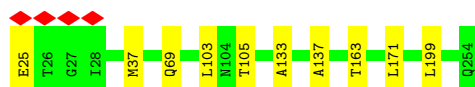
- Molecule 1: *Oxiplasma meridianum* archaeellum

Chain D:  97%

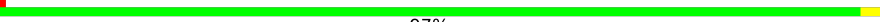


- Molecule 1: *Oxiplasma meridianum* archaeellum

Chain E:  96%

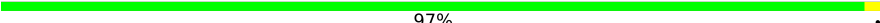


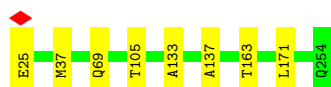
- Molecule 1: *Oxiplasma meridianum* archaeellum

Chain F:  97%

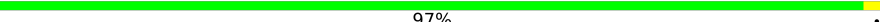


- Molecule 1: *Oxiplasma meridianum* archaeellum

Chain G:  97%



- Molecule 1: *Oxiplasma meridianum* archaeellum

Chain H:  97%

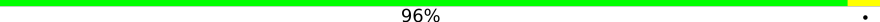


- Molecule 1: *Oxiplasma meridianum* archaeellum

Chain I:  97%



- Molecule 1: *Oxiplasma meridianum* archaeellum

Chain J:  96%



- Molecule 1: *Oxiplasma meridianum* archaeellum

Chain K: 96%



- Molecule 1: *Oxiplasma meridianum* archaeellum

Chain L: 97%



- Molecule 1: *Oxiplasma meridianum* archaeellum

Chain M: 97%



- Molecule 1: *Oxiplasma meridianum* archaeellum

Chain N: 97%



- Molecule 1: *Oxiplasma meridianum* archaeellum

Chain O: 97%



- Molecule 1: *Oxiplasma meridianum* archaeellum

Chain P: 97%

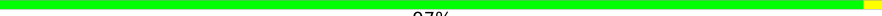


- Molecule 1: *Oxiplasma meridianum* archaeellum

Chain Q:  97% .



- Molecule 1: *Oxiplasma meridianum* archaeellum

Chain R:  97% .

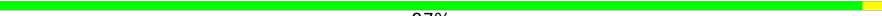


- Molecule 1: *Oxiplasma meridianum* archaeellum

Chain S:  97% .

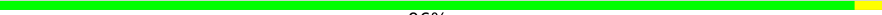


- Molecule 1: *Oxiplasma meridianum* archaeellum

Chain T:  97% .



- Molecule 1: *Oxiplasma meridianum* archaeellum

Chain U:  96% .

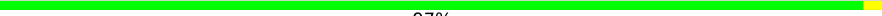


- Molecule 1: *Oxiplasma meridianum* archaeellum

Chain W:  97% .

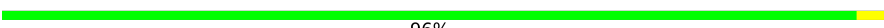


- Molecule 1: *Oxiplasma meridianum* archaeellum

Chain X:  97% .



- Molecule 1: *Oxiplasma meridianum* archaeellum

Chain Y:  96%

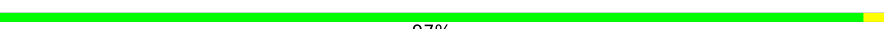


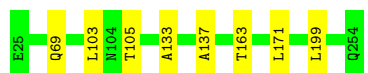
- Molecule 1: *Oxiplasma meridianum* archaeellum

Chain a:  97%

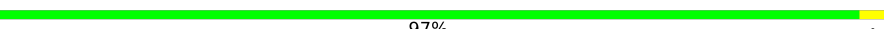


- Molecule 1: *Oxiplasma meridianum* archaeellum

Chain b:  97%

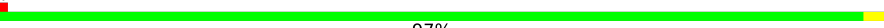


- Molecule 1: *Oxiplasma meridianum* archaeellum

Chain c:  97%

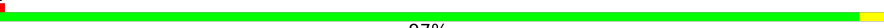


- Molecule 1: *Oxiplasma meridianum* archaeellum

Chain d:  97%

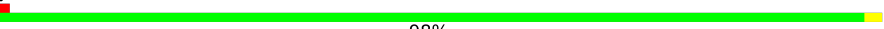


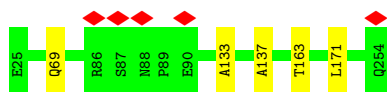
- Molecule 1: *Oxiplasma meridianum* archaeellum

Chain e:  97%



- Molecule 1: *Oxiplasma meridianum* archaeellum

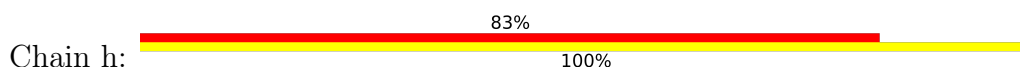
Chain f:  98%



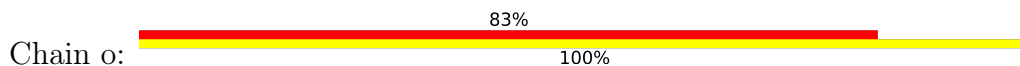
- Molecule 1: *Oxiplasma meridianum* archaeellum



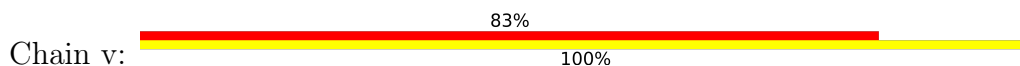
- Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-galacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose



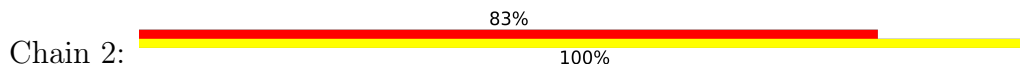
- Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-galacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose



- Molecule 2: 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

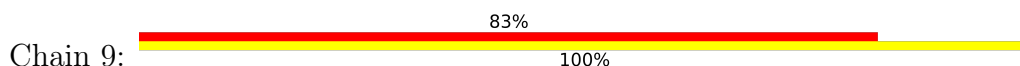


- Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-galacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

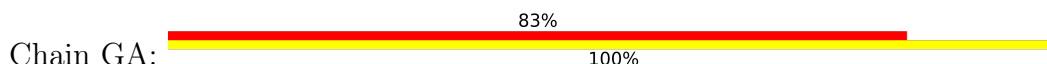




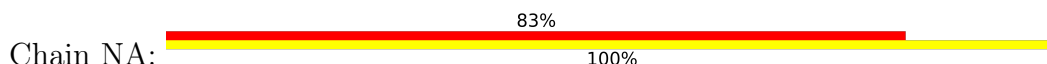
- Molecule 2:  $\alpha$ -D-mannopyranose-(1-6)- $\alpha$ -D-mannopyranose-(1-3)-[L-glycero- $\alpha$ -D-galacto-heptopyranose-(1-2)]6-deoxy-6-sulfo- $\beta$ -D-galacto-heptopyranose-(1-4)- $\beta$ -D-glucopyranose-(1-3)- $\beta$ -D-galactopyranose



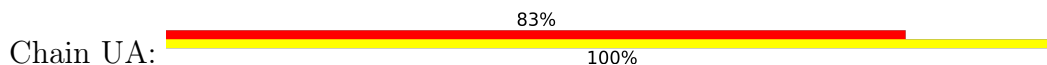
- Molecule 2:  $\alpha$ -D-mannopyranose-(1-6)- $\alpha$ -D-mannopyranose-(1-3)-[L-glycero- $\alpha$ -D-galacto-heptopyranose-(1-2)]6-deoxy-6-sulfo- $\beta$ -D-galacto-heptopyranose-(1-4)- $\beta$ -D-glucopyranose-(1-3)- $\beta$ -D-galactopyranose



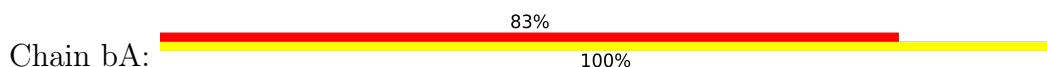
- Molecule 2:  $\alpha$ -D-mannopyranose-(1-6)- $\alpha$ -D-mannopyranose-(1-3)-[L-glycero- $\alpha$ -D-galacto-heptopyranose-(1-2)]6-deoxy-6-sulfo- $\beta$ -D-galacto-heptopyranose-(1-4)- $\beta$ -D-glucopyranose-(1-3)- $\beta$ -D-galactopyranose



- Molecule 2:  $\alpha$ -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

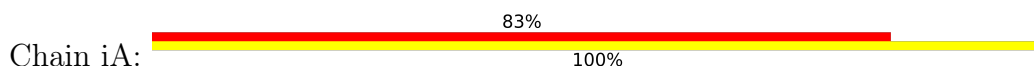


- Molecule 2:  $\alpha$ -D-mannopyranose-(1-6)- $\alpha$ -D-mannopyranose-(1-3)-[L-glycero- $\alpha$ -D-galacto-heptopyranose-(1-2)]6-deoxy-6-sulfo- $\beta$ -D-galacto-heptopyranose-(1-4)- $\beta$ -D-glucopyranose-(1-3)- $\beta$ -D-galactopyranose

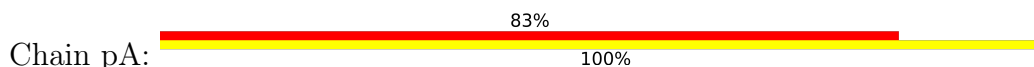




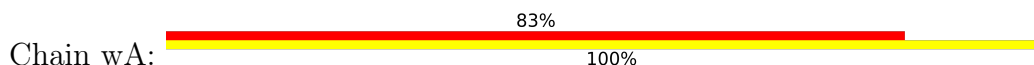
- Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-galacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose



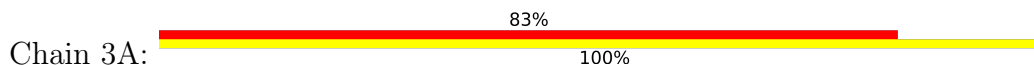
- Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-galacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose



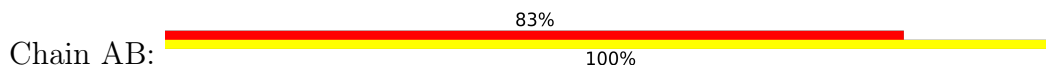
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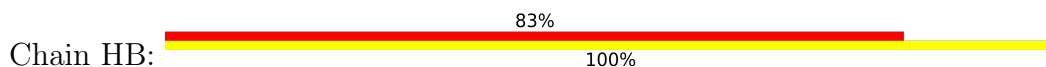
- Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-galacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose



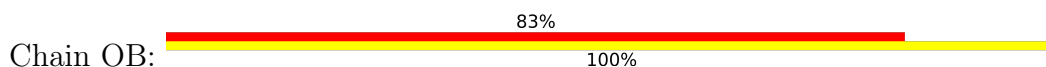
- Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-galacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose



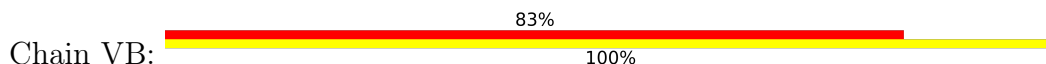
- Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-galacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose



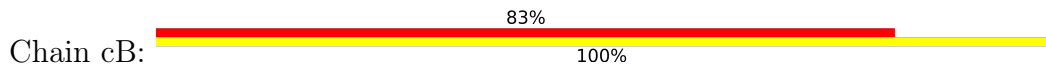
- Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-galacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose



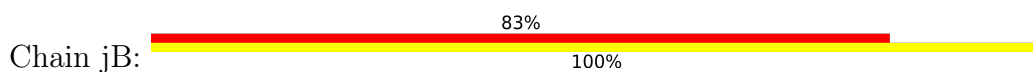
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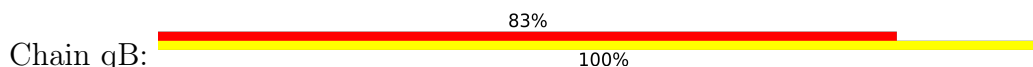
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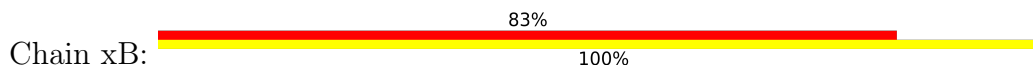
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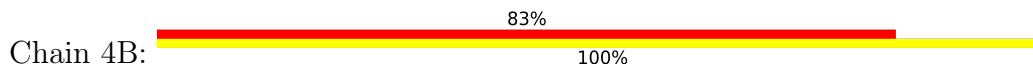
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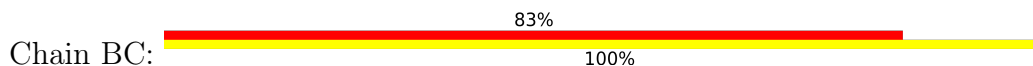
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• Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-galacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

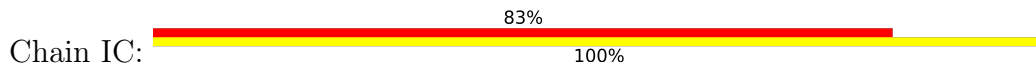


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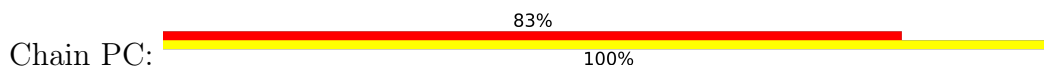


• Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-galacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

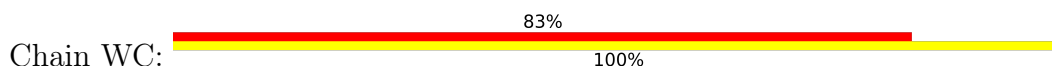
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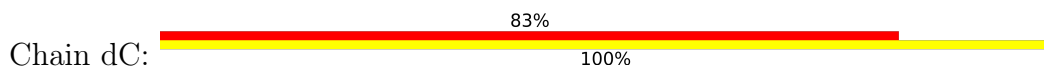
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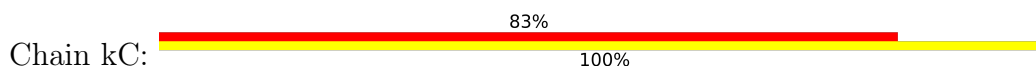
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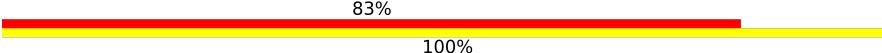
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• Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-galacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose



- Molecule 2: 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

Chain rC: 



- Molecule 2: 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

Chain yC: 

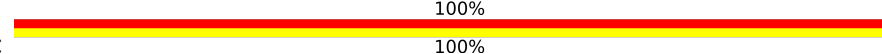


- Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-galacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

Chain 5C: 

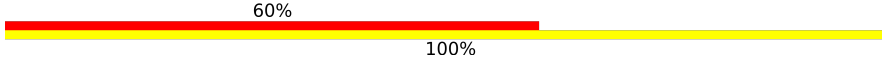


- Molecule 2: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose-(1-3)-[L-glycero-alpha-D-galacto-heptopyranose-(1-2)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

Chain CD: 



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

Chain j: 



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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

Chain WA: 



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

Chain XA: 



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

Chain ZA: 



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

Chain dA: 



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

Chain eA: 



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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

Chain DC: 



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

Chain EC: 



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

Chain GC: 



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

Chain KC: 



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

Chain LC: 



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

Chain NC: 



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

Chain RC: 

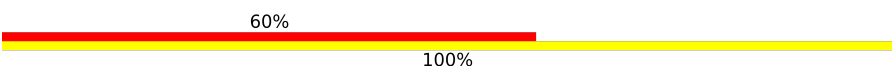


- Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

Chain SC: 

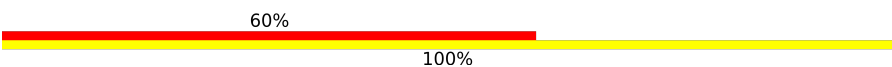


- Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

Chain UC: 



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

Chain YC: 



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



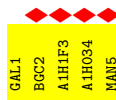
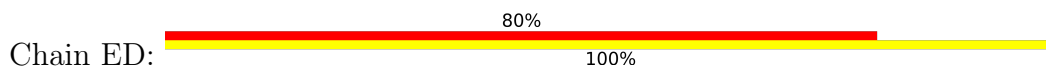
- Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose



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



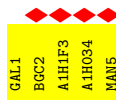
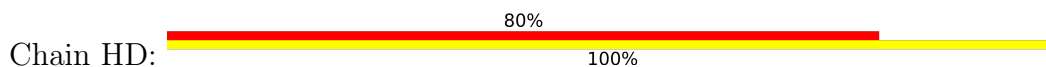
- Molecule 3: L-glycero-alpha-D-galacto-heptopyranose-(1-2)-[alpha-D-mannopyranose-(1-3)]6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose



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



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

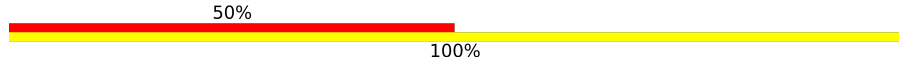


- Molecule 4: alpha-D-mannopyranose-(1-3)-6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

Chain l: 



- 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 n: 

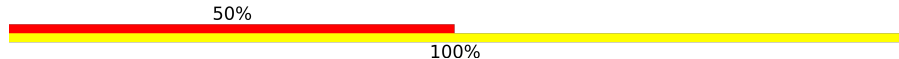


- Molecule 4: alpha-D-mannopyranose-(1-3)-6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

Chain s: 

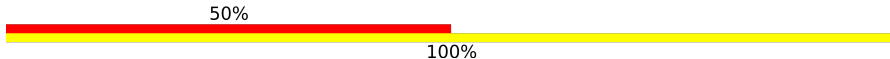


- Molecule 4: alpha-D-mannopyranose-(1-3)-6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

Chain u: 



- 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 z: 



- 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 1: 



- 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



- 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



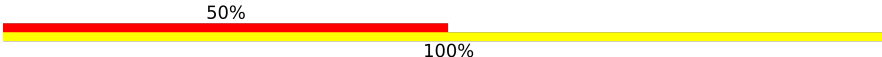
- Molecule 4: alpha-D-mannopyranose-(1-3)-6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose



- 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

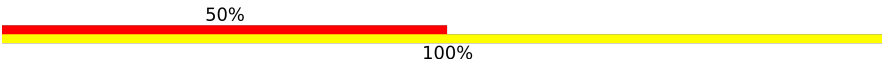


- Molecule 4: alpha-D-mannopyranose-(1-3)-6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

Chain MA: 



- 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 RA: 

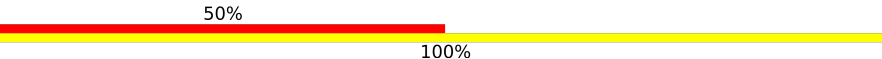


- Molecule 4: alpha-D-mannopyranose-(1-3)-6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

Chain TA: 

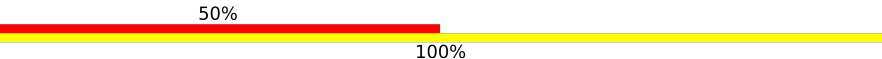


- Molecule 4: alpha-D-mannopyranose-(1-3)-6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose

Chain YA: 



- 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 aA: 



- 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 fA: 



- 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



- 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



- 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



- 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



- 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



- 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



- 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



- 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



- 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



- 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



- 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





- 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



- 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



- 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



- 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



- 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



- 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



- 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



- 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



- 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



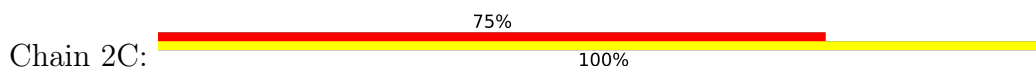
- Molecule 4: alpha-D-mannopyranose-(1-3)-6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose



- 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



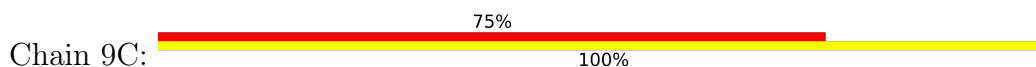
- Molecule 4: alpha-D-mannopyranose-(1-3)-6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose



- 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

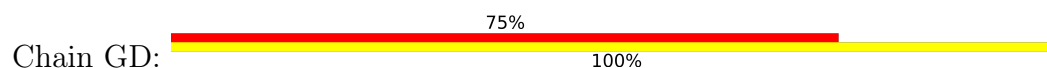




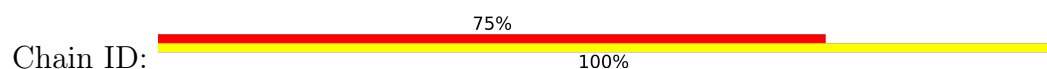
- Molecule 4: alpha-D-mannopyranose-(1-3)-6-deoxy-6-sulfo-beta-D-galacto-heptopyranose-(1-4)-beta-D-glucopyranose-(1-3)-beta-D-galactopyranose



- 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



- 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



## 4 Experimental information

| Property                             | Value                                               | Source    |
|--------------------------------------|-----------------------------------------------------|-----------|
| EM reconstruction method             | HELICAL                                             | Depositor |
| Imposed symmetry                     | HELICAL, twist=107.922°, rise=5.641 Å, axial sym=C1 | Depositor |
| Number of segments used              | 1374113                                             | Depositor |
| Resolution determination method      | FSC 0.143 CUT-OFF                                   | Depositor |
| CTF correction method                | PHASE FLIPPING AND AMPLITUDE CORRECTION             | Depositor |
| 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 (°)                       | 90.0, 90.0, 90.0                                    | wwPDB     |
| Pixel spacing (Å)                    | 1.05, 1.05, 1.05                                    | Depositor |

## 5 Model quality

### 5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: MAN, A1H03, GAL, A1H1F, BGC

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with  $|Z| > 5$  is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

| Mol | Chain | Bond lengths |             | Bond angles |             |
|-----|-------|--------------|-------------|-------------|-------------|
|     |       | RMSZ         | $\# Z  > 5$ | RMSZ        | $\# Z  > 5$ |
| 1   | A     | 0.48         | 0/1701      | 1.01        | 0/2325      |
| 1   | B     | 0.48         | 0/1701      | 1.00        | 0/2325      |
| 1   | C     | 0.47         | 0/1701      | 1.01        | 0/2325      |
| 1   | D     | 0.47         | 0/1701      | 1.01        | 0/2325      |
| 1   | E     | 0.47         | 0/1701      | 1.01        | 0/2325      |
| 1   | F     | 0.47         | 0/1701      | 1.00        | 0/2325      |
| 1   | G     | 0.47         | 0/1701      | 1.01        | 0/2325      |
| 1   | H     | 0.48         | 0/1701      | 1.01        | 0/2325      |
| 1   | I     | 0.47         | 0/1701      | 1.00        | 0/2325      |
| 1   | J     | 0.48         | 0/1701      | 1.00        | 0/2325      |
| 1   | K     | 0.48         | 0/1701      | 1.00        | 0/2325      |
| 1   | L     | 0.48         | 0/1701      | 1.00        | 0/2325      |
| 1   | M     | 0.48         | 0/1701      | 1.00        | 0/2325      |
| 1   | N     | 0.48         | 0/1701      | 1.00        | 0/2325      |
| 1   | O     | 0.48         | 0/1701      | 1.00        | 0/2325      |
| 1   | P     | 0.48         | 0/1701      | 1.01        | 0/2325      |
| 1   | Q     | 0.48         | 0/1701      | 1.00        | 0/2325      |
| 1   | R     | 0.47         | 0/1701      | 1.01        | 0/2325      |
| 1   | S     | 0.47         | 0/1701      | 1.01        | 0/2325      |
| 1   | T     | 0.48         | 0/1701      | 1.01        | 0/2325      |
| 1   | U     | 0.48         | 0/1701      | 1.00        | 0/2325      |
| 1   | V     | 0.47         | 0/1701      | 1.00        | 0/2325      |
| 1   | W     | 0.48         | 0/1701      | 1.00        | 0/2325      |
| 1   | X     | 0.48         | 0/1701      | 1.00        | 0/2325      |
| 1   | Y     | 0.47         | 0/1701      | 1.00        | 0/2325      |
| 1   | Z     | 0.48         | 0/1701      | 1.01        | 0/2325      |
| 1   | a     | 0.48         | 0/1701      | 1.01        | 0/2325      |
| 1   | b     | 0.48         | 0/1701      | 1.00        | 0/2325      |
| 1   | c     | 0.47         | 0/1701      | 1.01        | 0/2325      |
| 1   | d     | 0.47         | 0/1701      | 1.01        | 0/2325      |
| 1   | e     | 0.47         | 0/1701      | 1.01        | 0/2325      |
| 1   | f     | 0.47         | 0/1701      | 1.00        | 0/2325      |

| Mol | Chain | Bond lengths |         | Bond angles |         |
|-----|-------|--------------|---------|-------------|---------|
|     |       | RMSZ         | # Z  >5 | RMSZ        | # Z  >5 |
| 1   | g     | 0.48         | 0/1701  | 1.01        | 0/2325  |
| All | All   | 0.48         | 0/56133 | 1.01        | 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](#)

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 1   | A     | 1678  | 0        | 1676     | 5       | 0            |
| 1   | B     | 1678  | 0        | 1676     | 3       | 0            |
| 1   | C     | 1678  | 0        | 1676     | 4       | 0            |
| 1   | D     | 1678  | 0        | 1676     | 4       | 0            |
| 1   | E     | 1678  | 0        | 1676     | 6       | 0            |
| 1   | F     | 1678  | 0        | 1676     | 5       | 0            |
| 1   | G     | 1678  | 0        | 1676     | 5       | 0            |
| 1   | H     | 1678  | 0        | 1676     | 4       | 0            |
| 1   | I     | 1678  | 0        | 1676     | 4       | 0            |
| 1   | J     | 1678  | 0        | 1676     | 5       | 0            |
| 1   | K     | 1678  | 0        | 1676     | 5       | 0            |
| 1   | L     | 1678  | 0        | 1676     | 3       | 0            |
| 1   | M     | 1678  | 0        | 1676     | 4       | 0            |
| 1   | N     | 1678  | 0        | 1676     | 3       | 0            |
| 1   | O     | 1678  | 0        | 1676     | 4       | 0            |
| 1   | P     | 1678  | 0        | 1676     | 3       | 0            |
| 1   | Q     | 1678  | 0        | 1676     | 3       | 0            |
| 1   | R     | 1678  | 0        | 1676     | 4       | 0            |
| 1   | S     | 1678  | 0        | 1676     | 3       | 0            |
| 1   | T     | 1678  | 0        | 1676     | 4       | 0            |
| 1   | U     | 1678  | 0        | 1676     | 5       | 0            |
| 1   | V     | 1678  | 0        | 1676     | 3       | 0            |
| 1   | W     | 1678  | 0        | 1676     | 4       | 0            |
| 1   | X     | 1678  | 0        | 1676     | 3       | 0            |

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| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 1   | Y     | 1678  | 0        | 1676     | 5       | 0            |
| 1   | Z     | 1678  | 0        | 1684     | 2       | 0            |
| 1   | a     | 1678  | 0        | 1676     | 4       | 0            |
| 1   | b     | 1678  | 0        | 1676     | 4       | 0            |
| 1   | c     | 1678  | 0        | 1676     | 3       | 0            |
| 1   | d     | 1678  | 0        | 1676     | 4       | 0            |
| 1   | e     | 1678  | 0        | 1676     | 3       | 0            |
| 1   | f     | 1678  | 0        | 1676     | 2       | 0            |
| 1   | g     | 1678  | 0        | 1676     | 3       | 0            |
| 2   | 2     | 71    | 0        | 37       | 0       | 0            |
| 2   | 3A    | 71    | 0        | 37       | 0       | 0            |
| 2   | 4B    | 71    | 0        | 37       | 0       | 0            |
| 2   | 5C    | 71    | 0        | 37       | 0       | 0            |
| 2   | 9     | 71    | 0        | 37       | 0       | 0            |
| 2   | AB    | 71    | 0        | 37       | 0       | 0            |
| 2   | BC    | 71    | 0        | 37       | 0       | 0            |
| 2   | CD    | 71    | 0        | 37       | 0       | 0            |
| 2   | GA    | 71    | 0        | 37       | 0       | 0            |
| 2   | HB    | 71    | 0        | 37       | 0       | 0            |
| 2   | IC    | 71    | 0        | 37       | 0       | 0            |
| 2   | NA    | 71    | 0        | 37       | 0       | 0            |
| 2   | OB    | 71    | 0        | 37       | 0       | 0            |
| 2   | PC    | 71    | 0        | 37       | 0       | 0            |
| 2   | UA    | 71    | 0        | 37       | 0       | 0            |
| 2   | VB    | 71    | 0        | 37       | 0       | 0            |
| 2   | WC    | 71    | 0        | 37       | 0       | 0            |
| 2   | bA    | 71    | 0        | 37       | 0       | 0            |
| 2   | cB    | 71    | 0        | 37       | 0       | 0            |
| 2   | dC    | 71    | 0        | 37       | 0       | 0            |
| 2   | h     | 71    | 0        | 37       | 0       | 0            |
| 2   | iA    | 71    | 0        | 37       | 0       | 0            |
| 2   | jB    | 71    | 0        | 37       | 0       | 0            |
| 2   | kC    | 71    | 0        | 37       | 0       | 0            |
| 2   | o     | 71    | 0        | 37       | 0       | 0            |
| 2   | pA    | 71    | 0        | 37       | 0       | 0            |
| 2   | qB    | 71    | 0        | 37       | 0       | 0            |
| 2   | rC    | 71    | 0        | 37       | 0       | 0            |
| 2   | v     | 71    | 0        | 37       | 0       | 0            |
| 2   | wA    | 71    | 0        | 37       | 0       | 0            |
| 2   | xB    | 71    | 0        | 37       | 0       | 0            |
| 2   | yC    | 71    | 0        | 37       | 0       | 0            |
| 3   | 0     | 60    | 0        | 28       | 0       | 0            |

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| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 3   | 0B    | 60    | 0        | 28       | 0       | 0            |
| 3   | 0C    | 60    | 0        | 28       | 0       | 0            |
| 3   | 1A    | 60    | 0        | 28       | 0       | 0            |
| 3   | 1C    | 60    | 0        | 28       | 0       | 0            |
| 3   | 2B    | 60    | 0        | 28       | 0       | 0            |
| 3   | 3C    | 60    | 0        | 28       | 0       | 0            |
| 3   | 4     | 60    | 0        | 28       | 0       | 0            |
| 3   | 5     | 60    | 0        | 28       | 0       | 0            |
| 3   | 5A    | 60    | 0        | 28       | 0       | 0            |
| 3   | 6A    | 60    | 0        | 28       | 0       | 0            |
| 3   | 6B    | 60    | 0        | 28       | 0       | 0            |
| 3   | 7     | 60    | 0        | 28       | 0       | 0            |
| 3   | 7B    | 60    | 0        | 28       | 0       | 0            |
| 3   | 7C    | 60    | 0        | 28       | 0       | 0            |
| 3   | 8A    | 60    | 0        | 28       | 0       | 0            |
| 3   | 8C    | 60    | 0        | 28       | 0       | 0            |
| 3   | 9B    | 60    | 0        | 28       | 0       | 0            |
| 3   | AD    | 60    | 0        | 28       | 0       | 0            |
| 3   | BA    | 60    | 0        | 28       | 0       | 0            |
| 3   | CA    | 60    | 0        | 28       | 0       | 0            |
| 3   | CB    | 60    | 0        | 28       | 0       | 0            |
| 3   | DB    | 60    | 0        | 28       | 0       | 0            |
| 3   | DC    | 60    | 0        | 28       | 0       | 0            |
| 3   | EA    | 60    | 0        | 28       | 0       | 0            |
| 3   | EC    | 60    | 0        | 28       | 0       | 0            |
| 3   | ED    | 60    | 0        | 28       | 0       | 0            |
| 3   | FB    | 60    | 0        | 28       | 0       | 0            |
| 3   | FD    | 60    | 0        | 28       | 0       | 0            |
| 3   | GC    | 60    | 0        | 28       | 0       | 0            |
| 3   | HD    | 60    | 0        | 28       | 0       | 0            |
| 3   | IA    | 60    | 0        | 28       | 0       | 0            |
| 3   | JA    | 60    | 0        | 28       | 0       | 0            |
| 3   | JB    | 60    | 0        | 28       | 0       | 0            |
| 3   | KB    | 60    | 0        | 28       | 0       | 0            |
| 3   | KC    | 60    | 0        | 28       | 0       | 0            |
| 3   | LA    | 60    | 0        | 28       | 0       | 0            |
| 3   | LC    | 60    | 0        | 28       | 0       | 0            |
| 3   | MB    | 60    | 0        | 28       | 0       | 0            |
| 3   | NC    | 60    | 0        | 28       | 0       | 0            |
| 3   | PA    | 60    | 0        | 28       | 0       | 0            |
| 3   | QA    | 60    | 0        | 28       | 0       | 0            |
| 3   | QB    | 60    | 0        | 28       | 0       | 0            |

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| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 3   | RB    | 60    | 0        | 28       | 0       | 0            |
| 3   | RC    | 60    | 0        | 28       | 0       | 0            |
| 3   | SA    | 60    | 0        | 28       | 0       | 0            |
| 3   | SC    | 60    | 0        | 28       | 0       | 0            |
| 3   | TB    | 60    | 0        | 28       | 0       | 0            |
| 3   | UC    | 60    | 0        | 28       | 0       | 0            |
| 3   | WA    | 60    | 0        | 28       | 0       | 0            |
| 3   | XA    | 60    | 0        | 28       | 0       | 0            |
| 3   | XB    | 60    | 0        | 28       | 0       | 0            |
| 3   | YB    | 60    | 0        | 28       | 0       | 0            |
| 3   | YC    | 60    | 0        | 28       | 0       | 0            |
| 3   | ZA    | 60    | 0        | 28       | 0       | 0            |
| 3   | ZC    | 60    | 0        | 28       | 0       | 0            |
| 3   | aB    | 60    | 0        | 28       | 0       | 0            |
| 3   | bC    | 60    | 0        | 28       | 0       | 0            |
| 3   | dA    | 60    | 0        | 28       | 0       | 0            |
| 3   | eA    | 60    | 0        | 28       | 0       | 0            |
| 3   | eB    | 60    | 0        | 28       | 0       | 0            |
| 3   | fB    | 60    | 0        | 28       | 0       | 0            |
| 3   | fC    | 60    | 0        | 28       | 0       | 0            |
| 3   | gA    | 60    | 0        | 28       | 0       | 0            |
| 3   | gC    | 60    | 0        | 28       | 0       | 0            |
| 3   | hB    | 60    | 0        | 28       | 0       | 0            |
| 3   | iC    | 60    | 0        | 28       | 0       | 0            |
| 3   | j     | 60    | 0        | 28       | 0       | 0            |
| 3   | k     | 60    | 0        | 28       | 0       | 0            |
| 3   | kA    | 60    | 0        | 28       | 0       | 0            |
| 3   | lA    | 60    | 0        | 28       | 0       | 0            |
| 3   | lB    | 60    | 0        | 28       | 0       | 0            |
| 3   | m     | 60    | 0        | 28       | 0       | 0            |
| 3   | mB    | 60    | 0        | 28       | 0       | 0            |
| 3   | mC    | 60    | 0        | 28       | 0       | 0            |
| 3   | nA    | 60    | 0        | 28       | 0       | 0            |
| 3   | nC    | 60    | 0        | 28       | 0       | 0            |
| 3   | oB    | 60    | 0        | 28       | 0       | 0            |
| 3   | pC    | 60    | 0        | 28       | 0       | 0            |
| 3   | q     | 60    | 0        | 28       | 0       | 0            |
| 3   | r     | 60    | 0        | 28       | 0       | 0            |
| 3   | rA    | 60    | 0        | 28       | 0       | 0            |
| 3   | sA    | 60    | 0        | 28       | 0       | 0            |
| 3   | sB    | 60    | 0        | 28       | 0       | 0            |
| 3   | t     | 60    | 0        | 28       | 0       | 0            |

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| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 3   | tB    | 60    | 0        | 28       | 0       | 0            |
| 3   | tC    | 60    | 0        | 28       | 0       | 0            |
| 3   | uA    | 60    | 0        | 28       | 0       | 0            |
| 3   | uC    | 60    | 0        | 28       | 0       | 0            |
| 3   | vB    | 60    | 0        | 28       | 0       | 0            |
| 3   | wC    | 60    | 0        | 28       | 0       | 0            |
| 3   | x     | 60    | 0        | 28       | 0       | 0            |
| 3   | y     | 60    | 0        | 28       | 0       | 0            |
| 3   | yA    | 60    | 0        | 28       | 0       | 0            |
| 3   | zA    | 60    | 0        | 28       | 0       | 0            |
| 3   | zB    | 60    | 0        | 28       | 0       | 0            |
| 4   | 0A    | 47    | 0        | 28       | 0       | 0            |
| 4   | 1     | 47    | 0        | 28       | 0       | 0            |
| 4   | 1B    | 47    | 0        | 28       | 0       | 0            |
| 4   | 2A    | 47    | 0        | 28       | 0       | 0            |
| 4   | 2C    | 47    | 0        | 28       | 0       | 0            |
| 4   | 3B    | 47    | 0        | 28       | 0       | 0            |
| 4   | 4C    | 47    | 0        | 28       | 0       | 0            |
| 4   | 6     | 47    | 0        | 28       | 0       | 0            |
| 4   | 7A    | 47    | 0        | 28       | 0       | 0            |
| 4   | 8     | 47    | 0        | 28       | 0       | 0            |
| 4   | 8B    | 47    | 0        | 28       | 0       | 0            |
| 4   | 9A    | 47    | 0        | 28       | 0       | 0            |
| 4   | 9C    | 47    | 0        | 28       | 0       | 0            |
| 4   | AC    | 47    | 0        | 28       | 0       | 0            |
| 4   | BD    | 47    | 0        | 28       | 0       | 0            |
| 4   | DA    | 47    | 0        | 28       | 0       | 0            |
| 4   | EB    | 47    | 0        | 28       | 0       | 0            |
| 4   | FA    | 47    | 0        | 28       | 0       | 0            |
| 4   | FC    | 47    | 0        | 28       | 0       | 0            |
| 4   | GB    | 47    | 0        | 28       | 0       | 0            |
| 4   | GD    | 47    | 0        | 28       | 0       | 0            |
| 4   | HC    | 47    | 0        | 28       | 0       | 0            |
| 4   | ID    | 47    | 0        | 28       | 0       | 0            |
| 4   | KA    | 47    | 0        | 28       | 0       | 0            |
| 4   | LB    | 47    | 0        | 28       | 0       | 0            |
| 4   | MA    | 47    | 0        | 28       | 0       | 0            |
| 4   | MC    | 47    | 0        | 28       | 0       | 0            |
| 4   | NB    | 47    | 0        | 28       | 0       | 0            |
| 4   | OC    | 47    | 0        | 28       | 0       | 0            |
| 4   | RA    | 47    | 0        | 28       | 0       | 0            |
| 4   | SB    | 47    | 0        | 28       | 0       | 0            |

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| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 4   | TA    | 47    | 0        | 28       | 0       | 0            |
| 4   | TC    | 47    | 0        | 28       | 0       | 0            |
| 4   | UB    | 47    | 0        | 28       | 0       | 0            |
| 4   | VC    | 47    | 0        | 28       | 0       | 0            |
| 4   | YA    | 47    | 0        | 28       | 0       | 0            |
| 4   | ZB    | 47    | 0        | 28       | 0       | 0            |
| 4   | aA    | 47    | 0        | 28       | 0       | 0            |
| 4   | aC    | 47    | 0        | 28       | 0       | 0            |
| 4   | bB    | 47    | 0        | 28       | 0       | 0            |
| 4   | cC    | 47    | 0        | 28       | 0       | 0            |
| 4   | fA    | 47    | 0        | 28       | 0       | 0            |
| 4   | gB    | 47    | 0        | 28       | 0       | 0            |
| 4   | hA    | 47    | 0        | 28       | 0       | 0            |
| 4   | hC    | 47    | 0        | 28       | 0       | 0            |
| 4   | iB    | 47    | 0        | 28       | 0       | 0            |
| 4   | jC    | 47    | 0        | 28       | 0       | 0            |
| 4   | l     | 47    | 0        | 28       | 0       | 0            |
| 4   | mA    | 47    | 0        | 28       | 0       | 0            |
| 4   | n     | 47    | 0        | 28       | 0       | 0            |
| 4   | nB    | 47    | 0        | 28       | 0       | 0            |
| 4   | oA    | 47    | 0        | 28       | 0       | 0            |
| 4   | oC    | 47    | 0        | 28       | 0       | 0            |
| 4   | pB    | 47    | 0        | 28       | 0       | 0            |
| 4   | qC    | 47    | 0        | 28       | 0       | 0            |
| 4   | s     | 47    | 0        | 28       | 0       | 0            |
| 4   | tA    | 47    | 0        | 28       | 0       | 0            |
| 4   | u     | 47    | 0        | 28       | 0       | 0            |
| 4   | uB    | 47    | 0        | 28       | 0       | 0            |
| 4   | vA    | 47    | 0        | 28       | 0       | 0            |
| 4   | vC    | 47    | 0        | 28       | 0       | 0            |
| 4   | wB    | 47    | 0        | 28       | 0       | 0            |
| 4   | xC    | 47    | 0        | 28       | 0       | 0            |
| 4   | z     | 47    | 0        | 28       | 0       | 0            |
| 5   | A     | 22    | 0        | 20       | 0       | 0            |
| 5   | B     | 22    | 0        | 20       | 0       | 0            |
| 5   | C     | 22    | 0        | 20       | 0       | 0            |
| 5   | D     | 22    | 0        | 20       | 0       | 0            |
| 5   | E     | 22    | 0        | 20       | 0       | 0            |
| 5   | F     | 22    | 0        | 20       | 0       | 0            |
| 5   | G     | 22    | 0        | 20       | 0       | 0            |
| 5   | H     | 22    | 0        | 20       | 0       | 0            |
| 5   | I     | 22    | 0        | 20       | 0       | 0            |

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| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 5   | J     | 22    | 0        | 20       | 0       | 0            |
| 5   | K     | 22    | 0        | 20       | 0       | 0            |
| 5   | L     | 22    | 0        | 20       | 0       | 0            |
| 5   | M     | 22    | 0        | 20       | 0       | 0            |
| 5   | N     | 22    | 0        | 20       | 0       | 0            |
| 5   | O     | 22    | 0        | 20       | 0       | 0            |
| 5   | P     | 22    | 0        | 20       | 0       | 0            |
| 5   | Q     | 22    | 0        | 20       | 0       | 0            |
| 5   | R     | 22    | 0        | 20       | 0       | 0            |
| 5   | S     | 22    | 0        | 20       | 0       | 0            |
| 5   | T     | 22    | 0        | 20       | 0       | 0            |
| 5   | U     | 22    | 0        | 20       | 0       | 0            |
| 5   | V     | 22    | 0        | 20       | 0       | 0            |
| 5   | W     | 22    | 0        | 20       | 0       | 0            |
| 5   | X     | 22    | 0        | 20       | 0       | 0            |
| 5   | Y     | 22    | 0        | 20       | 0       | 0            |
| 5   | a     | 22    | 0        | 20       | 0       | 0            |
| 5   | b     | 22    | 0        | 20       | 0       | 0            |
| 5   | c     | 22    | 0        | 20       | 0       | 0            |
| 5   | d     | 22    | 0        | 20       | 0       | 0            |
| 5   | e     | 22    | 0        | 20       | 0       | 0            |
| 5   | f     | 22    | 0        | 20       | 0       | 0            |
| 5   | g     | 22    | 0        | 20       | 0       | 0            |
| All | All   | 67118 | 0        | 61620    | 88      | 0            |

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 1.

The worst 5 of 88 close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

| Atom-1           | Atom-2         | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|----------------|--------------------------|-------------------|
| 1:A:105:THR:HG21 | 1:D:69:GLN:HG3 | 1.90                     | 0.53              |
| 1:A:37:MET:SD    | 1:E:25:GLU:HB2 | 2.52                     | 0.50              |
| 1:d:105:THR:HG21 | 1:g:69:GLN:HG3 | 1.95                     | 0.48              |
| 1:E:105:THR:HG21 | 1:H:69:GLN:HG3 | 1.97                     | 0.47              |
| 1:a:105:THR:HG21 | 1:d:69:GLN:HG3 | 1.95                     | 0.47              |

There are no symmetry-related clashes.

## 5.3 Torsion angles

### 5.3.1 Protein backbone

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all 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   | A     | 228/230 (99%) | 220 (96%) | 8 (4%)  | 0        | 100         | 100 |
| 1   | B     | 228/230 (99%) | 220 (96%) | 8 (4%)  | 0        | 100         | 100 |
| 1   | C     | 228/230 (99%) | 220 (96%) | 8 (4%)  | 0        | 100         | 100 |
| 1   | D     | 228/230 (99%) | 220 (96%) | 8 (4%)  | 0        | 100         | 100 |
| 1   | E     | 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   | H     | 228/230 (99%) | 220 (96%) | 8 (4%)  | 0        | 100         | 100 |
| 1   | I     | 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 |
| 1   | M     | 228/230 (99%) | 220 (96%) | 8 (4%)  | 0        | 100         | 100 |
| 1   | N     | 228/230 (99%) | 220 (96%) | 8 (4%)  | 0        | 100         | 100 |
| 1   | O     | 228/230 (99%) | 220 (96%) | 8 (4%)  | 0        | 100         | 100 |
| 1   | P     | 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   | T     | 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   | X     | 228/230 (99%) | 220 (96%) | 8 (4%)  | 0        | 100         | 100 |
| 1   | Y     | 228/230 (99%) | 220 (96%) | 8 (4%)  | 0        | 100         | 100 |

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| Mol | Chain | Analysed        | Favoured   | Allowed  | Outliers | Percentiles |     |
|-----|-------|-----------------|------------|----------|----------|-------------|-----|
| 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   | c     | 228/230 (99%)   | 220 (96%)  | 8 (4%)   | 0        | 100         | 100 |
| 1   | d     | 228/230 (99%)   | 220 (96%)  | 8 (4%)   | 0        | 100         | 100 |
| 1   | e     | 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 ⓘ

In the following table, the Percentiles column shows the percent sidechain 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 | Percentiles |    |
|-----|-------|----------------|-----------|----------|-------------|----|
| 1   | A     | 193/193 (100%) | 191 (99%) | 2 (1%)   | 73          | 84 |
| 1   | B     | 193/193 (100%) | 191 (99%) | 2 (1%)   | 73          | 84 |
| 1   | C     | 193/193 (100%) | 191 (99%) | 2 (1%)   | 73          | 84 |
| 1   | D     | 193/193 (100%) | 191 (99%) | 2 (1%)   | 73          | 84 |
| 1   | E     | 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   | H     | 193/193 (100%) | 191 (99%) | 2 (1%)   | 73          | 84 |
| 1   | I     | 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   | M     | 193/193 (100%) | 191 (99%) | 2 (1%)   | 73          | 84 |

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| Mol | Chain | Analysed         | Rotameric  | Outliers | Percentiles |     |
|-----|-------|------------------|------------|----------|-------------|-----|
| 1   | N     | 193/193 (100%)   | 191 (99%)  | 2 (1%)   | 73          | 84  |
| 1   | O     | 193/193 (100%)   | 191 (99%)  | 2 (1%)   | 73          | 84  |
| 1   | P     | 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   | T     | 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   | X     | 193/193 (100%)   | 191 (99%)  | 2 (1%)   | 73          | 84  |
| 1   | Y     | 193/193 (100%)   | 191 (99%)  | 2 (1%)   | 73          | 84  |
| 1   | Z     | 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   | c     | 193/193 (100%)   | 191 (99%)  | 2 (1%)   | 73          | 84  |
| 1   | d     | 193/193 (100%)   | 191 (99%)  | 2 (1%)   | 73          | 84  |
| 1   | e     | 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  |
| All | All   | 6369/6369 (100%) | 6305 (99%) | 64 (1%)  | 71          | 84  |

5 of 64 residues with a non-rotameric sidechain are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1   | d     | 171 | LEU  |
| 1   | e     | 171 | LEU  |
| 1   | L     | 163 | THR  |
| 1   | K     | 171 | LEU  |
| 1   | f     | 163 | THR  |

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 177 such sidechains are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1   | S     | 122 | GLN  |
| 1   | Y     | 57  | GLN  |
| 1   | T     | 57  | GLN  |
| 1   | U     | 254 | GLN  |
| 1   | a     | 65  | GLN  |

### 5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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

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

## 5.5 Carbohydrates ⓘ

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).

| Mol | Type  | Chain | Res | Link | Bond lengths |      |             | Bond angles |      |             |
|-----|-------|-------|-----|------|--------------|------|-------------|-------------|------|-------------|
|     |       |       |     |      | 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   | 1,4  | 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%)     |

| Mol | Type  | Chain | Res | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|-------|-------|-----|------|--------------|------|----------|-------------|------|----------|
|     |       |       |     |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 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   | 0C    | 2   | 3    | 11,11,12     | 0.62 | 0        | 15,15,17    | 1.27 | 2 (13%)  |
| 3   | A1H1F | 0C    | 3   | 3    | 13,14,15     | 1.20 | 1 (7%)   | 18,21,23    | 1.88 | 6 (33%)  |
| 3   | A1H03 | 0C    | 4   | 3    | 13,13,14     | 0.71 | 0        | 17,18,20    | 0.96 | 2 (11%)  |
| 3   | MAN   | 0C    | 5   | 3    | 11,11,12     | 0.66 | 0        | 15,15,17    | 1.51 | 2 (13%)  |
| 4   | GAL   | 1     | 1   | 1,4  | 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%)  |
| 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   | 1,4  | 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   | 1,4  | 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%)   |

| Mol | Type  | Chain | Res | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|-------|-------|-----|------|--------------|------|----------|-------------|------|----------|
|     |       |       |     |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 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   | 1,4  | 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%)  |
| 2   | A1H03 | 3A    | 6   | 2    | 13,13,14     | 0.81 | 0        | 17,18,20    | 1.10 | 3 (17%)  |
| 4   | GAL   | 3B    | 1   | 1,4  | 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 | 6 (33%)  |
| 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%)  |

| Mol | Type  | Chain | Res | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|-------|-------|-----|------|--------------|------|----------|-------------|------|----------|
|     |       |       |     |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 4   | GAL   | 4C    | 1   | 1,4  | 11,11,12     | 0.68 | 0        | 15,15,17    | 1.46 | 2 (13%)  |
| 4   | BGC   | 4C    | 2   | 4    | 11,11,12     | 0.58 | 0        | 15,15,17    | 1.05 | 2 (13%)  |
| 4   | A1H1F | 4C    | 3   | 4    | 13,14,15     | 1.06 | 1 (7%)   | 18,21,23    | 1.43 | 3 (16%)  |
| 4   | MAN   | 4C    | 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%)  |
| 2   | GAL   | 5C    | 1   | 2,1  | 11,11,12     | 0.68 | 0        | 15,15,17    | 1.14 | 2 (13%)  |
| 2   | BGC   | 5C    | 2   | 2    | 11,11,12     | 0.66 | 0        | 15,15,17    | 1.21 | 3 (20%)  |
| 2   | A1H1F | 5C    | 3   | 2    | 13,14,15     | 1.11 | 1 (7%)   | 18,21,23    | 1.45 | 3 (16%)  |
| 2   | MAN   | 5C    | 4   | 2    | 11,11,12     | 0.62 | 0        | 15,15,17    | 1.41 | 1 (6%)   |
| 2   | MAN   | 5C    | 5   | 2    | 11,11,12     | 0.64 | 0        | 15,15,17    | 1.91 | 3 (20%)  |
| 2   | A1H03 | 5C    | 6   | 2    | 13,13,14     | 0.80 | 0        | 17,18,20    | 1.11 | 3 (17%)  |
| 4   | GAL   | 6     | 1   | 1,4  | 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 | 6 (33%)  |
| 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%)  |

| Mol | Type  | Chain | Res | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|-------|-------|-----|------|--------------|------|----------|-------------|------|----------|
|     |       |       |     |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 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   | 1,4  | 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%)  |
| 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 | 7C    | 4   | 3    | 13,13,14     | 0.72 | 0        | 17,18,20    | 0.96 | 2 (11%)  |
| 3   | MAN   | 7C    | 5   | 3    | 11,11,12     | 0.65 | 0        | 15,15,17    | 1.52 | 2 (13%)  |
| 4   | GAL   | 8     | 1   | 1,4  | 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   | 1,4  | 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%)  |

| Mol | Type  | Chain | Res | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|-------|-------|-----|------|--------------|------|----------|-------------|------|----------|
|     |       |       |     |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 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   | 1,4  | 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%)  |
| 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   | 9C    | 1   | 1,4  | 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   | 1,4  | 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%)  |

| Mol | Type  | Chain | Res | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|-------|-------|-----|------|--------------|------|----------|-------------|------|----------|
|     |       |       |     |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 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   | 1,4  | 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%)  |
| 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 | 1 (6%)   |
| 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 | 6 (33%)  |
| 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   | 1,4  | 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%)  |

| Mol | Type  | Chain | Res | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|-------|-------|-----|------|--------------|------|----------|-------------|------|----------|
|     |       |       |     |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 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 | 6 (33%)  |
| 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%)  |
| 3   | MAN   | EA    | 5   | 3    | 11,11,12     | 0.65 | 0        | 15,15,17    | 1.19 | 2 (13%)  |
| 4   | GAL   | EB    | 1   | 1,4  | 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 | 6 (33%)  |
| 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   | 1,4  | 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%)  |

| Mol | Type  | Chain | Res | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|-------|-------|-----|------|--------------|------|----------|-------------|------|----------|
|     |       |       |     |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 3   | A1H1F | FB    | 3   | 3    | 13,14,15     | 1.13 | 1 (7%)   | 18,21,23    | 1.40 | 3 (16%)  |
| 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   | 1,4  | 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%)  |
| 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   | 1,4  | 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   | 1,4  | 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%)   |

| Mol | Type  | Chain | Res | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|-------|-------|-----|------|--------------|------|----------|-------------|------|----------|
|     |       |       |     |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 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   | 1,4  | 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 | HC    | 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%)  |
| 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   | 1,4  | 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 | 6 (33%)  |
| 3   | A1H03 | JB    | 4   | 3    | 13,13,14     | 0.74 | 0        | 17,18,20    | 0.95 | 2 (11%)  |

| Mol | Type  | Chain | Res | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|-------|-------|-----|------|--------------|------|----------|-------------|------|----------|
|     |       |       |     |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 3   | MAN   | JB    | 5   | 3    | 11,11,12     | 0.65 | 0        | 15,15,17    | 1.51 | 2 (13%)  |
| 4   | GAL   | KA    | 1   | 1,4  | 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%)  |
| 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   | 1,4  | 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   | 1,4  | 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%)  |

| Mol | Type  | Chain | Res | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|-------|-------|-----|------|--------------|------|----------|-------------|------|----------|
|     |       |       |     |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 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   | 1,4  | 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   | 1,4  | 11,11,12     | 0.68 | 0        | 15,15,17    | 1.46 | 2 (13%)  |
| 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   | 1,4  | 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 | 6 (33%)  |

| Mol | Type  | Chain | Res | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|-------|-------|-----|------|--------------|------|----------|-------------|------|----------|
|     |       |       |     |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 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%)  |
| 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 | 6 (33%)  |
| 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   | 1,4  | 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%)  |

| Mol | Type  | Chain | Res | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|-------|-------|-----|------|--------------|------|----------|-------------|------|----------|
|     |       |       |     |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 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   | 1,4  | 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   | 1,4  | 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%)  |
| 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   | TB    | 2   | 3    | 11,11,12     | 0.61 | 0        | 15,15,17    | 1.43 | 3 (20%)  |
| 3   | A1H1F | TB    | 3   | 3    | 13,14,15     | 1.14 | 1 (7%)   | 18,21,23    | 1.40 | 3 (16%)  |
| 3   | A1H03 | TB    | 4   | 3    | 13,13,14     | 0.71 | 0        | 17,18,20    | 0.92 | 2 (11%)  |
| 3   | MAN   | TB    | 5   | 3    | 11,11,12     | 0.65 | 0        | 15,15,17    | 1.19 | 2 (13%)  |
| 4   | GAL   | TC    | 1   | 1,4  | 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   | 1,4  | 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%)  |

| Mol | Type  | Chain | Res | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|-------|-------|-----|------|--------------|------|----------|-------------|------|----------|
|     |       |       |     |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 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   | 1,4  | 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%)   |
| 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%)  |

| Mol | Type  | Chain | Res | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|-------|-------|-----|------|--------------|------|----------|-------------|------|----------|
|     |       |       |     |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 4   | GAL   | YA    | 1   | 1,4  | 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%)  |
| 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   | 1,4  | 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   | 1,4  | 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%)  |

| Mol | Type  | Chain | Res | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|-------|-------|-----|------|--------------|------|----------|-------------|------|----------|
|     |       |       |     |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 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   | 1,4  | 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   | 1,4  | 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%)  |
| 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   | 1,4  | 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 | 6 (33%)  |
| 3   | A1H03 | dA    | 4   | 3    | 13,13,14     | 0.71 | 0        | 17,18,20    | 0.95 | 2 (11%)  |

| Mol | Type  | Chain | Res | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|-------|-------|-----|------|--------------|------|----------|-------------|------|----------|
|     |       |       |     |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 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%)  |
| 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   | 1,4  | 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%)  |

| Mol | Type  | Chain | Res | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|-------|-------|-----|------|--------------|------|----------|-------------|------|----------|
|     |       |       |     |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 3   | MAN   | gA    | 5   | 3    | 11,11,12     | 0.64 | 0        | 15,15,17    | 1.20 | 2 (13%)  |
| 4   | GAL   | gB    | 1   | 1,4  | 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%)   |
| 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   | 1,4  | 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   | 1,4  | 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%)  |

| Mol | Type  | Chain | Res | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|-------|-------|-----|------|--------------|------|----------|-------------|------|----------|
|     |       |       |     |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 4   | GAL   | iB    | 1   | 1,4  | 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%)  |
| 2   | GAL   | jB    | 1   | 2,1  | 11,11,12     | 0.68 | 0        | 15,15,17    | 1.13 | 2 (13%)  |
| 2   | BGC   | jB    | 2   | 2    | 11,11,12     | 0.65 | 0        | 15,15,17    | 1.22 | 3 (20%)  |
| 2   | A1H1F | jB    | 3   | 2    | 13,14,15     | 1.11 | 1 (7%)   | 18,21,23    | 1.45 | 3 (16%)  |
| 2   | MAN   | jB    | 4   | 2    | 11,11,12     | 0.62 | 0        | 15,15,17    | 1.40 | 1 (6%)   |
| 2   | MAN   | jB    | 5   | 2    | 11,11,12     | 0.65 | 0        | 15,15,17    | 1.90 | 3 (20%)  |
| 2   | A1H03 | jB    | 6   | 2    | 13,13,14     | 0.81 | 0        | 17,18,20    | 1.10 | 3 (17%)  |
| 4   | GAL   | jC    | 1   | 1,4  | 11,11,12     | 0.67 | 0        | 15,15,17    | 1.47 | 2 (13%)  |
| 4   | BGC   | jC    | 2   | 4    | 11,11,12     | 0.58 | 0        | 15,15,17    | 1.06 | 2 (13%)  |
| 4   | A1H1F | jC    | 3   | 4    | 13,14,15     | 1.07 | 1 (7%)   | 18,21,23    | 1.43 | 3 (16%)  |
| 4   | MAN   | jC    | 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 | 6 (33%)  |
| 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%)  |

| Mol | Type  | Chain | Res | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|-------|-------|-----|------|--------------|------|----------|-------------|------|----------|
|     |       |       |     |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 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   | l     | 1   | 1,4  | 11,11,12     | 0.69 | 0        | 15,15,17    | 1.32 | 3 (20%)  |
| 4   | BGC   | l     | 2   | 4    | 11,11,12     | 0.66 | 0        | 15,15,17    | 1.07 | 2 (13%)  |
| 4   | A1H1F | l     | 3   | 4    | 13,14,15     | 1.14 | 1 (7%)   | 18,21,23    | 2.33 | 5 (27%)  |
| 4   | MAN   | l     | 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%)   |
| 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   | 1,4  | 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%)  |

| Mol | Type  | Chain | Res | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|-------|-------|-----|------|--------------|------|----------|-------------|------|----------|
|     |       |       |     |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 3   | A1H1F | mC    | 3   | 3    | 13,14,15     | 1.21 | 2 (15%)  | 18,21,23    | 1.88 | 6 (33%)  |
| 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   | 1,4  | 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   | 1,4  | 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%)  |
| 4   | A1H1F | nB    | 3   | 4    | 13,14,15     | 1.14 | 1 (7%)   | 18,21,23    | 2.33 | 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 | 3 (16%)  |
| 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   | o     | 1   | 2,1  | 11,11,12     | 0.67 | 0        | 15,15,17    | 1.14 | 2 (13%)  |
| 2   | BGC   | o     | 2   | 2    | 11,11,12     | 0.66 | 0        | 15,15,17    | 1.21 | 3 (20%)  |
| 2   | A1H1F | o     | 3   | 2    | 13,14,15     | 1.11 | 1 (7%)   | 18,21,23    | 1.45 | 3 (16%)  |
| 2   | MAN   | o     | 4   | 2    | 11,11,12     | 0.64 | 0        | 15,15,17    | 1.40 | 1 (6%)   |
| 2   | MAN   | o     | 5   | 2    | 11,11,12     | 0.64 | 0        | 15,15,17    | 1.91 | 3 (20%)  |
| 2   | A1H03 | o     | 6   | 2    | 13,13,14     | 0.81 | 0        | 17,18,20    | 1.11 | 3 (17%)  |
| 4   | GAL   | oA    | 1   | 1,4  | 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%)  |

| Mol | Type  | Chain | Res | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|-------|-------|-----|------|--------------|------|----------|-------------|------|----------|
|     |       |       |     |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 3   | MAN   | oB    | 5   | 3    | 11,11,12     | 0.66 | 0        | 15,15,17    | 1.19 | 2 (13%)  |
| 4   | GAL   | oC    | 1   | 1,4  | 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   | pA    | 1   | 2,1  | 11,11,12     | 0.69 | 0        | 15,15,17    | 1.14 | 2 (13%)  |
| 2   | BGC   | pA    | 2   | 2    | 11,11,12     | 0.65 | 0        | 15,15,17    | 1.21 | 3 (20%)  |
| 2   | A1H1F | pA    | 3   | 2    | 13,14,15     | 1.12 | 1 (7%)   | 18,21,23    | 1.45 | 3 (16%)  |
| 2   | MAN   | pA    | 4   | 2    | 11,11,12     | 0.63 | 0        | 15,15,17    | 1.40 | 1 (6%)   |
| 2   | MAN   | pA    | 5   | 2    | 11,11,12     | 0.64 | 0        | 15,15,17    | 1.91 | 3 (20%)  |
| 2   | A1H03 | pA    | 6   | 2    | 13,13,14     | 0.81 | 0        | 17,18,20    | 1.11 | 3 (17%)  |
| 4   | GAL   | pB    | 1   | 1,4  | 11,11,12     | 0.66 | 0        | 15,15,17    | 1.47 | 2 (13%)  |
| 4   | BGC   | pB    | 2   | 4    | 11,11,12     | 0.58 | 0        | 15,15,17    | 1.06 | 2 (13%)  |
| 4   | A1H1F | pB    | 3   | 4    | 13,14,15     | 1.07 | 1 (7%)   | 18,21,23    | 1.43 | 3 (16%)  |
| 4   | MAN   | pB    | 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 | 6 (33%)  |
| 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   | 1,4  | 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%)   |

| Mol | Type  | Chain | Res | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|-------|-------|-----|------|--------------|------|----------|-------------|------|----------|
|     |       |       |     |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 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 | 6 (33%)  |
| 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%)   |
| 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   | 1,4  | 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 | 5 (27%)  |
| 4   | MAN   | s     | 4   | 4    | 11,11,12     | 0.65 | 0        | 15,15,17    | 1.49 | 3 (20%)  |
| 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 | 6 (33%)  |
| 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%)  |

| Mol | Type  | Chain | Res | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|-------|-------|-----|------|--------------|------|----------|-------------|------|----------|
|     |       |       |     |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 4   | GAL   | tA    | 1   | 1,4  | 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%)  |
| 4   | GAL   | u     | 1   | 1,4  | 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   | 1,4  | 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%)  |

| Mol | Type  | Chain | Res | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|-------|-------|-----|------|--------------|------|----------|-------------|------|----------|
|     |       |       |     |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 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   | 1,4  | 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   | 1,4  | 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%)  |
| 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   | 1,4  | 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 | x     | 4   | 3    | 13,13,14     | 0.72 | 0        | 17,18,20    | 0.95 | 2 (11%)  |

| Mol | Type  | Chain | Res | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|-------|-------|-----|------|--------------|------|----------|-------------|------|----------|
|     |       |       |     |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 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   | 1,4  | 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   | y     | 1   | 3,1  | 11,11,12     | 0.61 | 0        | 15,15,17    | 0.98 | 1 (6%)   |
| 3   | BGC   | y     | 2   | 3    | 11,11,12     | 0.62 | 0        | 15,15,17    | 1.49 | 3 (20%)  |
| 3   | A1H1F | y     | 3   | 3    | 13,14,15     | 1.14 | 1 (7%)   | 18,21,23    | 1.65 | 3 (16%)  |
| 3   | A1H03 | y     | 4   | 3    | 13,13,14     | 0.70 | 0        | 17,18,20    | 1.03 | 2 (11%)  |
| 3   | MAN   | y     | 5   | 3    | 11,11,12     | 0.62 | 0        | 15,15,17    | 1.17 | 1 (6%)   |
| 3   | GAL   | yA    | 1   | 3,1  | 11,11,12     | 0.68 | 0        | 15,15,17    | 1.28 | 3 (20%)  |
| 3   | BGC   | yA    | 2   | 3    | 11,11,12     | 0.62 | 0        | 15,15,17    | 1.27 | 2 (13%)  |
| 3   | A1H1F | yA    | 3   | 3    | 13,14,15     | 1.21 | 2 (15%)  | 18,21,23    | 1.87 | 6 (33%)  |
| 3   | A1H03 | yA    | 4   | 3    | 13,13,14     | 0.72 | 0        | 17,18,20    | 0.95 | 2 (11%)  |
| 3   | MAN   | yA    | 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   | 1,4  | 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%)  |

| Mol | Type  | Chain | Res | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|-------|-------|-----|------|--------------|------|----------|-------------|------|----------|
|     |       |       |     |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 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 |
| 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    | -       | 1/2/19/22 | 0/1/1/1 |
| 4   | GAL   | 0A    | 1   | 1,4  | -       | 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   | 1,4  | -       | 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 |

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| Mol | Type  | Chain | Res | Link | Chirals | Torsions  | Rings   |
|-----|-------|-------|-----|------|---------|-----------|---------|
| 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   | 1,4  | -       | 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 |
| 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   | 1,4  | -       | 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   | 1,4  | -       | 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   | 1,4  | -       | 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 |

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| Mol | Type  | Chain | Res | Link | Chirals | Torsions  | Rings   |
|-----|-------|-------|-----|------|---------|-----------|---------|
| 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 |
| 2   | A1H03 | 4B    | 6   | 2    | -       | 0/6/23/26 | 0/1/1/1 |
| 4   | GAL   | 4C    | 1   | 1,4  | -       | 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   | 1,4  | -       | 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 |

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| Mol | Type  | Chain | Res | Link | Chirals | Torsions  | Rings   |
|-----|-------|-------|-----|------|---------|-----------|---------|
| 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 |
| 3   | MAN   | 7     | 5   | 3    | -       | 1/2/19/22 | 0/1/1/1 |
| 4   | GAL   | 7A    | 1   | 1,4  | -       | 1/2/19/22 | 0/1/1/1 |
| 4   | BGC   | 7A    | 2   | 4    | -       | 0/2/19/22 | 0/1/1/1 |
| 4   | A1H1F | 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   | 1,4  | -       | 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 |

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| Mol | Type  | Chain | Res | Link | Chirals | Torsions  | Rings   |
|-----|-------|-------|-----|------|---------|-----------|---------|
| 4   | GAL   | 8B    | 1   | 1,4  | -       | 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 |
| 4   | GAL   | 9A    | 1   | 1,4  | -       | 1/2/19/22 | 0/1/1/1 |
| 4   | BGC   | 9A    | 2   | 4    | -       | 2/2/19/22 | 0/1/1/1 |
| 4   | A1H1F | 9A    | 3   | 4    | -       | 1/5/22/25 | 0/1/1/1 |
| 4   | MAN   | 9A    | 4   | 4    | -       | 2/2/19/22 | 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   | 1,4  | -       | 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   | 1,4  | -       | 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 |

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| Mol | Type  | Chain | Res | Link | Chirals | Torsions  | Rings   |
|-----|-------|-------|-----|------|---------|-----------|---------|
| 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   | 1,4  | -       | 1/2/19/22 | 0/1/1/1 |
| 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   | 1,4  | -       | 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 |

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| Mol | Type  | Chain | Res | Link | Chirals | Torsions  | Rings   |
|-----|-------|-------|-----|------|---------|-----------|---------|
| 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   | 1,4  | -       | 1/2/19/22 | 0/1/1/1 |
| 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   | 1,4  | -       | 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   | 1,4  | -       | 1/2/19/22 | 0/1/1/1 |
| 4   | BGC   | FC    | 2   | 4    | -       | 0/2/19/22 | 0/1/1/1 |

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| Mol | Type  | Chain | Res | Link | Chirals | Torsions  | Rings   |
|-----|-------|-------|-----|------|---------|-----------|---------|
| 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   | 1,4  | -       | 1/2/19/22 | 0/1/1/1 |
| 4   | BGC   | GB    | 2   | 4    | -       | 2/2/19/22 | 0/1/1/1 |
| 4   | A1H1F | GB    | 3   | 4    | -       | 1/5/22/25 | 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    | -       | 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   | 1,4  | -       | 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   | 1,4  | -       | 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 |

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| Mol | Type  | Chain | Res | Link | Chirals | Torsions  | Rings   |
|-----|-------|-------|-----|------|---------|-----------|---------|
| 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   | 1,4  | -       | 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 |
| 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   | 1,4  | -       | 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 |

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| Mol | Type  | Chain | Res | Link | Chirals | Torsions  | Rings   |
|-----|-------|-------|-----|------|---------|-----------|---------|
| 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   | 1,4  | -       | 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 |
| 4   | GAL   | MA    | 1   | 1,4  | -       | 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   | 1,4  | -       | 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   | 1,4  | -       | 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 |

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| Mol | Type  | Chain | Res | Link | Chirals | Torsions  | Rings   |
|-----|-------|-------|-----|------|---------|-----------|---------|
| 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   | 1,4  | -       | 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 |
| 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   | 1,4  | -       | 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 |

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| Mol | Type  | Chain | Res | Link | Chirals | Torsions  | Rings   |
|-----|-------|-------|-----|------|---------|-----------|---------|
| 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 |
| 4   | GAL   | SB    | 1   | 1,4  | -       | 1/2/19/22 | 0/1/1/1 |
| 4   | BGC   | SB    | 2   | 4    | -       | 0/2/19/22 | 0/1/1/1 |
| 4   | A1H1F | 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   | TA    | 1   | 1,4  | -       | 1/2/19/22 | 0/1/1/1 |
| 4   | BGC   | TA    | 2   | 4    | -       | 2/2/19/22 | 0/1/1/1 |
| 4   | A1H1F | TA    | 3   | 4    | -       | 1/5/22/25 | 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    | -       | 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   | 1,4  | -       | 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 |

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| Mol | Type  | Chain | Res | Link | Chirals | Torsions  | Rings   |
|-----|-------|-------|-----|------|---------|-----------|---------|
| 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   | 1,4  | -       | 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 |
| 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   | 1,4  | -       | 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 |

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| Mol | Type  | Chain | Res | Link | Chirals | Torsions  | Rings   |
|-----|-------|-------|-----|------|---------|-----------|---------|
| 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   | 1,4  | -       | 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 |
| 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   | 1,4  | -       | 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   | 1,4  | -       | 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 |

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| Mol | Type  | Chain | Res | Link | Chirals | Torsions  | Rings   |
|-----|-------|-------|-----|------|---------|-----------|---------|
| 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   | 1,4  | -       | 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    | -       | 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   | 1,4  | -       | 1/2/19/22 | 0/1/1/1 |
| 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 |
| 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   | 1,4  | -       | 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    | -       | 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    | -       | 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 |

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| Mol | Type  | Chain | Res | Link | Chirals | Torsions  | Rings   |
|-----|-------|-------|-----|------|---------|-----------|---------|
| 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    | -       | 2/5/22/25 | 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   | 1,4  | -       | 1/2/19/22 | 0/1/1/1 |
| 4   | BGC   | fA    | 2   | 4    | -       | 0/2/19/22 | 0/1/1/1 |
| 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   | 1,4  | -       | 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 |

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| Mol | Type  | Chain | Res | Link | Chirals | Torsions  | Rings   |
|-----|-------|-------|-----|------|---------|-----------|---------|
| 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   | 1,4  | -       | 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 |
| 3   | A1H03 | hB    | 4   | 3    | -       | 0/6/23/26 | 0/1/1/1 |
| 3   | MAN   | hB    | 5   | 3    | -       | 1/2/19/22 | 0/1/1/1 |
| 4   | GAL   | hC    | 1   | 1,4  | -       | 1/2/19/22 | 0/1/1/1 |
| 4   | BGC   | hC    | 2   | 4    | -       | 0/2/19/22 | 0/1/1/1 |
| 4   | A1H1F | hC    | 3   | 4    | -       | 0/5/22/25 | 0/1/1/1 |
| 4   | MAN   | hC    | 4   | 4    | -       | 2/2/19/22 | 0/1/1/1 |
| 2   | GAL   | iA    | 1   | 2,1  | -       | 1/2/19/22 | 0/1/1/1 |
| 2   | BGC   | iA    | 2   | 2    | -       | 0/2/19/22 | 0/1/1/1 |
| 2   | A1H1F | iA    | 3   | 2    | -       | 2/5/22/25 | 0/1/1/1 |
| 2   | MAN   | iA    | 4   | 2    | -       | 0/2/19/22 | 0/1/1/1 |
| 2   | MAN   | iA    | 5   | 2    | -       | 0/2/19/22 | 1/1/1/1 |
| 2   | A1H03 | iA    | 6   | 2    | -       | 0/6/23/26 | 0/1/1/1 |
| 4   | GAL   | iB    | 1   | 1,4  | -       | 1/2/19/22 | 0/1/1/1 |
| 4   | BGC   | iB    | 2   | 4    | -       | 2/2/19/22 | 0/1/1/1 |
| 4   | A1H1F | iB    | 3   | 4    | -       | 1/5/22/25 | 0/1/1/1 |
| 4   | MAN   | iB    | 4   | 4    | -       | 2/2/19/22 | 0/1/1/1 |
| 3   | GAL   | iC    | 1   | 3,1  | -       | 0/2/19/22 | 0/1/1/1 |
| 3   | BGC   | iC    | 2   | 3    | -       | 0/2/19/22 | 0/1/1/1 |
| 3   | A1H1F | iC    | 3   | 3    | -       | 2/5/22/25 | 0/1/1/1 |
| 3   | A1H03 | iC    | 4   | 3    | -       | 0/6/23/26 | 0/1/1/1 |
| 3   | MAN   | iC    | 5   | 3    | -       | 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 |

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| Mol | Type  | Chain | Res | Link | Chirals | Torsions  | Rings   |
|-----|-------|-------|-----|------|---------|-----------|---------|
| 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   | jB    | 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   | jB    | 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   | 1,4  | -       | 1/2/19/22 | 0/1/1/1 |
| 4   | BGC   | jC    | 2   | 4    | -       | 2/2/19/22 | 0/1/1/1 |
| 4   | A1H1F | jC    | 3   | 4    | -       | 1/5/22/25 | 0/1/1/1 |
| 4   | MAN   | jC    | 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 |
| 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   | l     | 1   | 1,4  | -       | 1/2/19/22 | 0/1/1/1 |
| 4   | BGC   | l     | 2   | 4    | -       | 0/2/19/22 | 0/1/1/1 |
| 4   | A1H1F | l     | 3   | 4    | -       | 0/5/22/25 | 0/1/1/1 |
| 4   | MAN   | l     | 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 |

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| Mol | Type  | Chain | Res | Link | Chirals | Torsions  | Rings   |
|-----|-------|-------|-----|------|---------|-----------|---------|
| 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   | 1,4  | -       | 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 | 0/1/1/1 |
| 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 |
| 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   | 1,4  | -       | 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   | 1,4  | -       | 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 |

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| Mol | Type  | Chain | Res | Link | Chirals | Torsions  | Rings   |
|-----|-------|-------|-----|------|---------|-----------|---------|
| 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   | o     | 1   | 2,1  | -       | 1/2/19/22 | 0/1/1/1 |
| 2   | BGC   | o     | 2   | 2    | -       | 0/2/19/22 | 0/1/1/1 |
| 2   | A1H1F | o     | 3   | 2    | -       | 2/5/22/25 | 0/1/1/1 |
| 2   | MAN   | o     | 4   | 2    | -       | 0/2/19/22 | 0/1/1/1 |
| 2   | MAN   | o     | 5   | 2    | -       | 0/2/19/22 | 1/1/1/1 |
| 2   | A1H03 | o     | 6   | 2    | -       | 0/6/23/26 | 0/1/1/1 |
| 4   | GAL   | oA    | 1   | 1,4  | -       | 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 |
| 4   | GAL   | oC    | 1   | 1,4  | -       | 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    | -       | 2/2/19/22 | 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 | pA    | 3   | 2    | -       | 2/5/22/25 | 0/1/1/1 |
| 2   | MAN   | pA    | 4   | 2    | -       | 0/2/19/22 | 0/1/1/1 |
| 2   | MAN   | pA    | 5   | 2    | -       | 0/2/19/22 | 1/1/1/1 |
| 2   | A1H03 | pA    | 6   | 2    | -       | 0/6/23/26 | 0/1/1/1 |
| 4   | GAL   | pB    | 1   | 1,4  | -       | 1/2/19/22 | 0/1/1/1 |
| 4   | BGC   | pB    | 2   | 4    | -       | 2/2/19/22 | 0/1/1/1 |
| 4   | A1H1F | pB    | 3   | 4    | -       | 1/5/22/25 | 0/1/1/1 |
| 4   | MAN   | pB    | 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 |

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| Mol | Type  | Chain | Res | Link | Chirals | Torsions  | Rings   |
|-----|-------|-------|-----|------|---------|-----------|---------|
| 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   | 1,4  | -       | 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 |
| 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   | 1,4  | -       | 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 |

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| Mol | Type  | Chain | Res | Link | Chirals | Torsions  | Rings   |
|-----|-------|-------|-----|------|---------|-----------|---------|
| 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   | 1,4  | -       | 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 |
| 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   | 1,4  | -       | 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   | 1,4  | -       | 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 |

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| Mol | Type  | Chain | Res | Link | Chirals | Torsions  | Rings   |
|-----|-------|-------|-----|------|---------|-----------|---------|
| 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   | 1,4  | -       | 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    | -       | 1/2/19/22 | 0/1/1/1 |
| 4   | GAL   | vC    | 1   | 1,4  | -       | 1/2/19/22 | 0/1/1/1 |
| 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   | 1,4  | -       | 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    | -       | 2/5/22/25 | 0/1/1/1 |
| 3   | A1H03 | x     | 4   | 3    | -       | 0/6/23/26 | 0/1/1/1 |

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| Mol | Type  | Chain | Res | Link | Chirals | Torsions  | Rings   |
|-----|-------|-------|-----|------|---------|-----------|---------|
| 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   | 1,4  | -       | 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   | y     | 1   | 3,1  | -       | 0/2/19/22 | 0/1/1/1 |
| 3   | BGC   | y     | 2   | 3    | -       | 2/2/19/22 | 0/1/1/1 |
| 3   | A1H1F | y     | 3   | 3    | -       | 0/5/22/25 | 0/1/1/1 |
| 3   | A1H03 | y     | 4   | 3    | -       | 0/6/23/26 | 0/1/1/1 |
| 3   | MAN   | y     | 5   | 3    | -       | 2/2/19/22 | 0/1/1/1 |
| 3   | GAL   | yA    | 1   | 3,1  | -       | 2/2/19/22 | 0/1/1/1 |
| 3   | BGC   | yA    | 2   | 3    | -       | 0/2/19/22 | 0/1/1/1 |
| 3   | A1H1F | yA    | 3   | 3    | -       | 2/5/22/25 | 0/1/1/1 |
| 3   | A1H03 | yA    | 4   | 3    | -       | 0/6/23/26 | 0/1/1/1 |
| 3   | MAN   | yA    | 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   | yC    | 5   | 2    | -       | 0/2/19/22 | 1/1/1/1 |
| 2   | A1H03 | yC    | 6   | 2    | -       | 0/6/23/26 | 0/1/1/1 |
| 4   | GAL   | z     | 1   | 1,4  | -       | 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 |

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| Mol | Type  | Chain | Res | Link | Chirals | Torsions  | Rings   |
|-----|-------|-------|-----|------|---------|-----------|---------|
| 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 |

The worst 5 of 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     |

The worst 5 of 2326 bond angle outliers are listed below:

| Mol | Chain | Res | Type  | Atoms    | Z    | Observed(°) | Ideal(°) |
|-----|-------|-----|-------|----------|------|-------------|----------|
| 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   |

There are no chirality outliers.

5 of 768 torsion outliers are listed below:

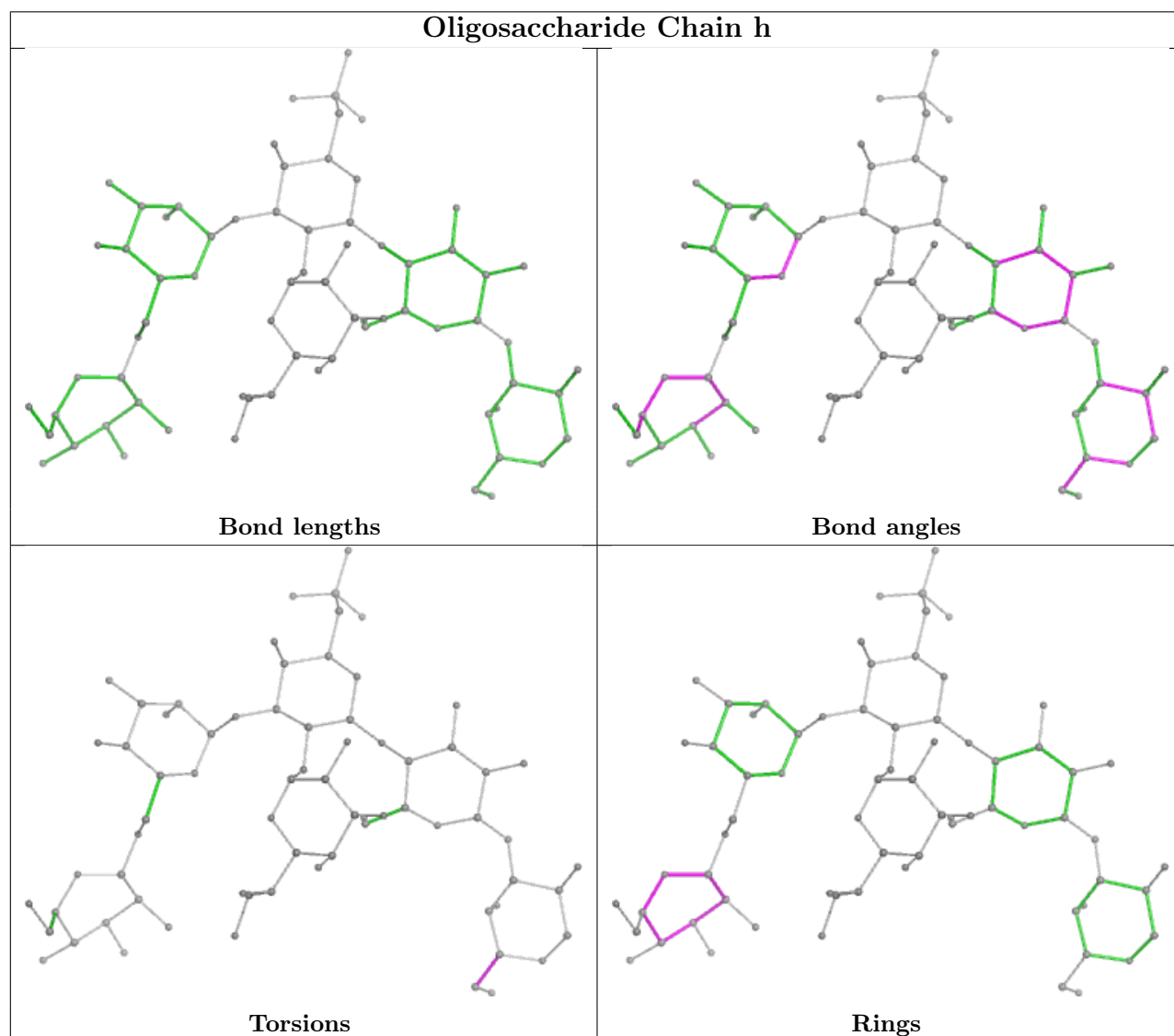
| Mol | Chain | Res | Type  | Atoms       |
|-----|-------|-----|-------|-------------|
| 2   | h     | 3   | A1H1F | O5-C5-C6-S6 |
| 2   | o     | 3   | A1H1F | O5-C5-C6-S6 |
| 2   | v     | 3   | A1H1F | O5-C5-C6-S6 |
| 2   | 2     | 3   | A1H1F | O5-C5-C6-S6 |
| 2   | 9     | 3   | A1H1F | O5-C5-C6-S6 |

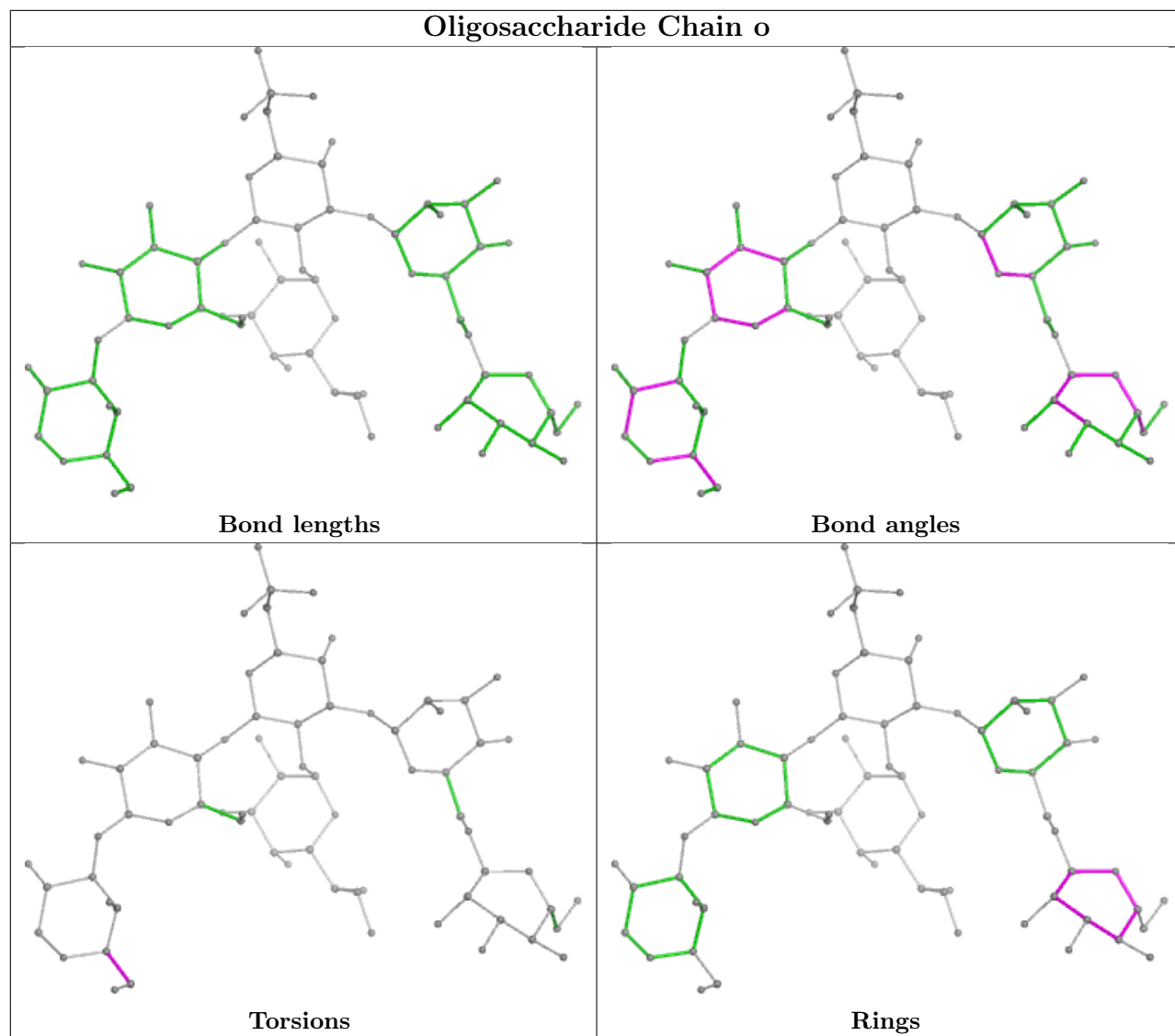
5 of 32 ring outliers are listed below:

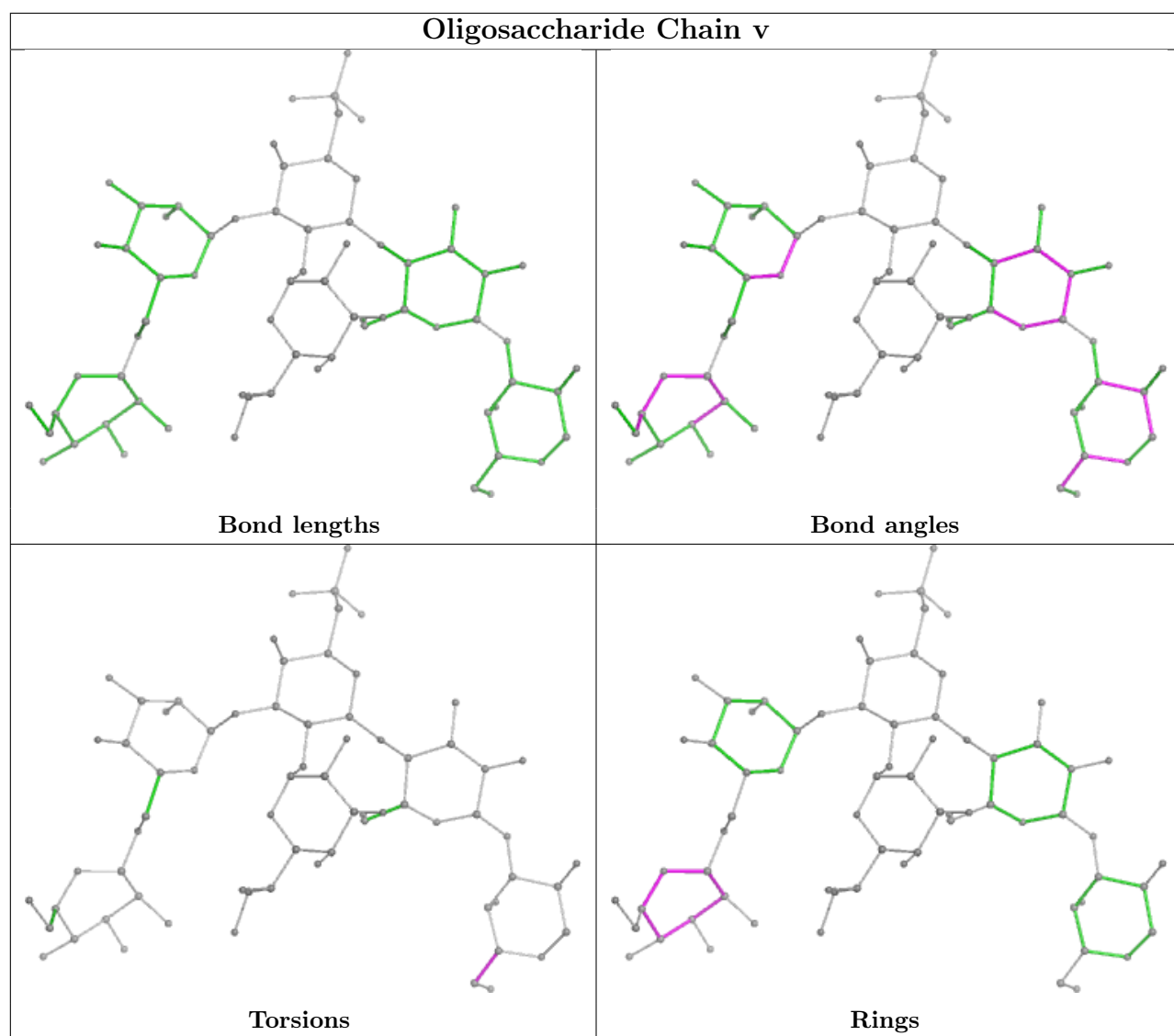
| Mol | Chain | Res | Type | Atoms             |
|-----|-------|-----|------|-------------------|
| 2   | BC    | 5   | MAN  | C1-C2-C3-C4-C5-O5 |
| 2   | UA    | 5   | MAN  | C1-C2-C3-C4-C5-O5 |
| 2   | HB    | 5   | MAN  | C1-C2-C3-C4-C5-O5 |
| 2   | pA    | 5   | MAN  | C1-C2-C3-C4-C5-O5 |
| 2   | rC    | 5   | MAN  | C1-C2-C3-C4-C5-O5 |

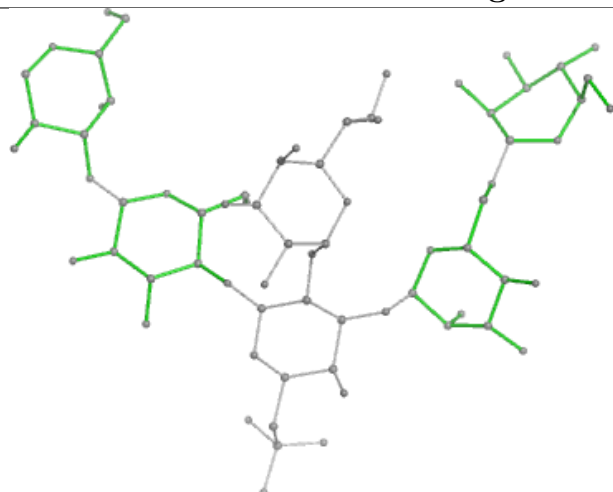
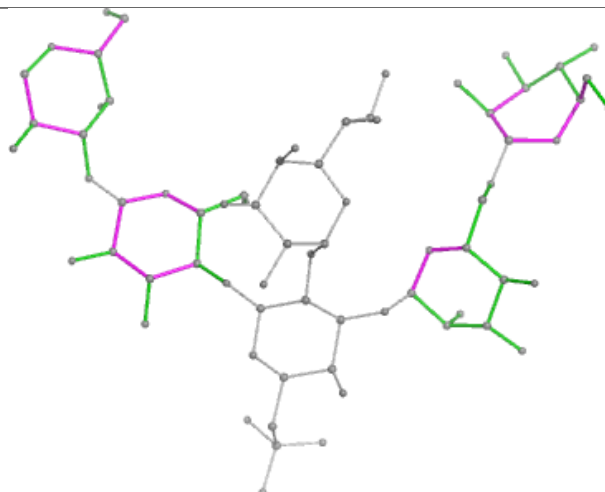
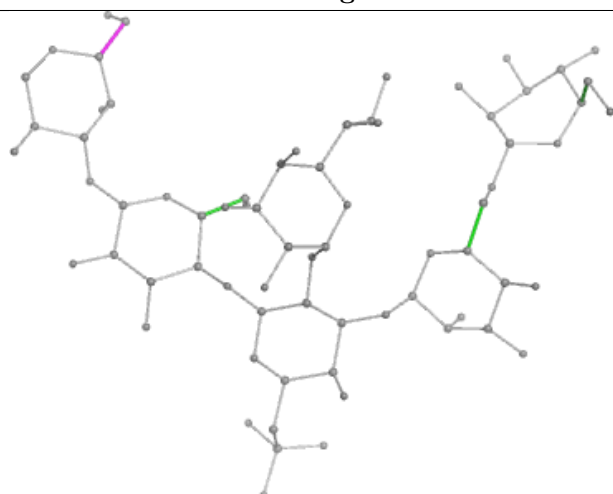
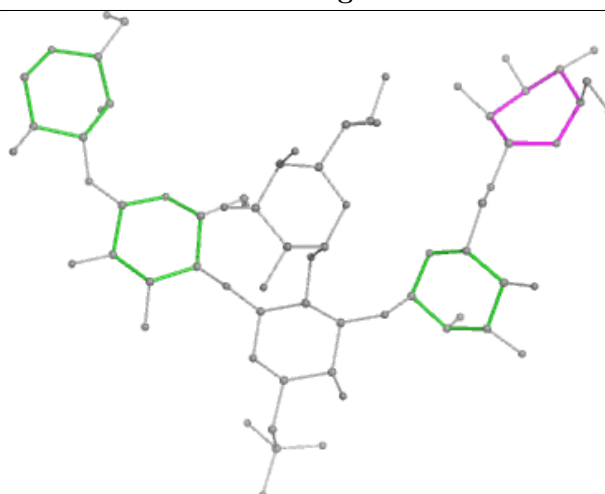
No monomer is involved in short contacts.

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

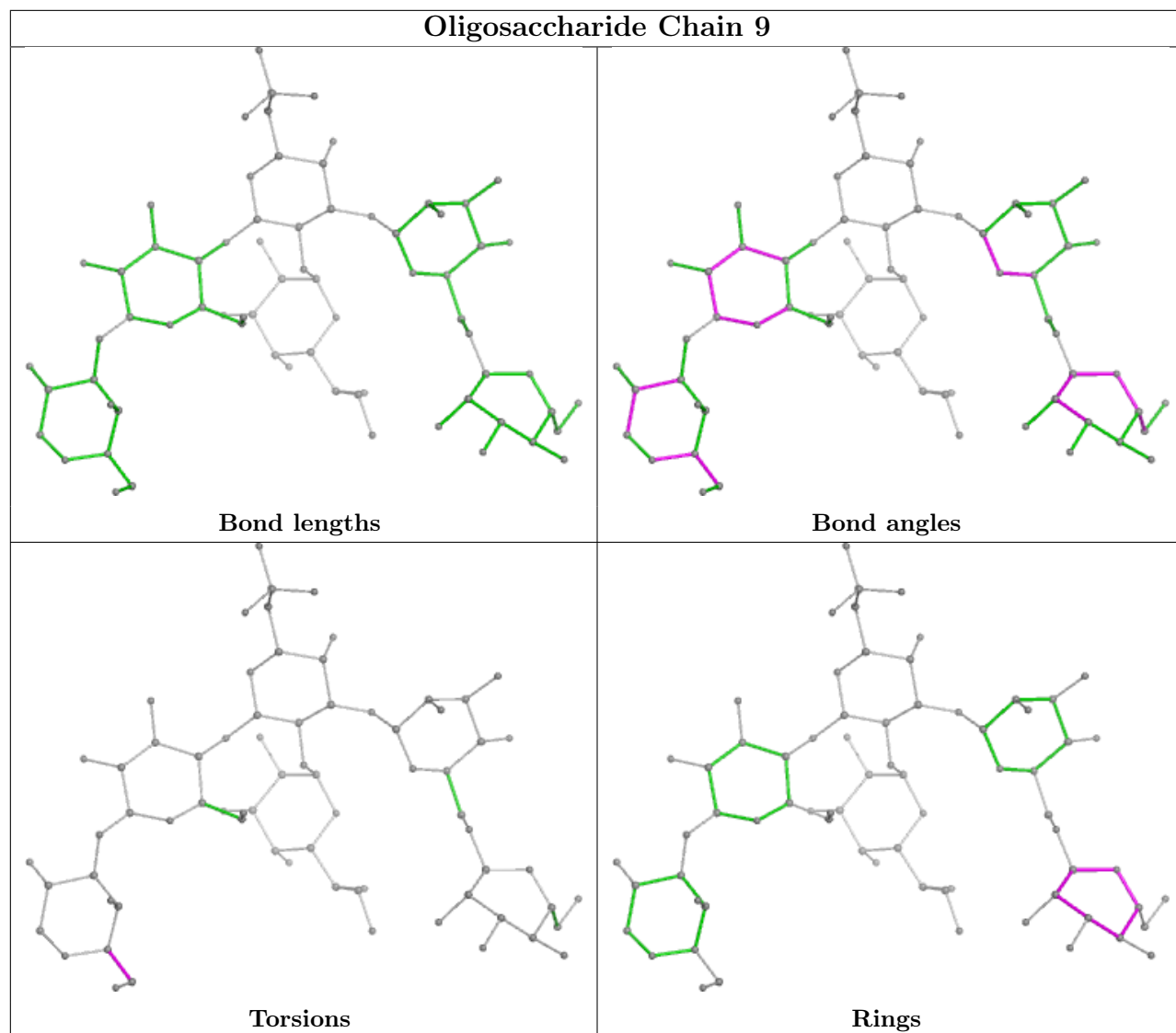


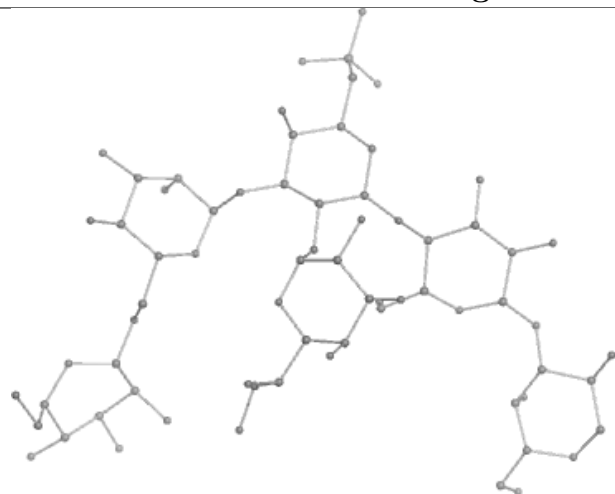
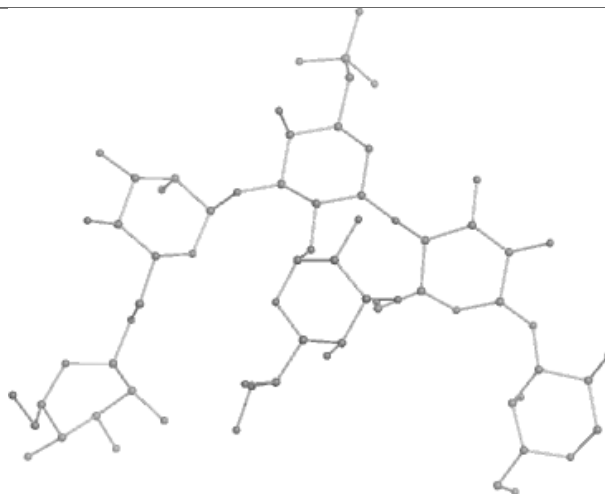
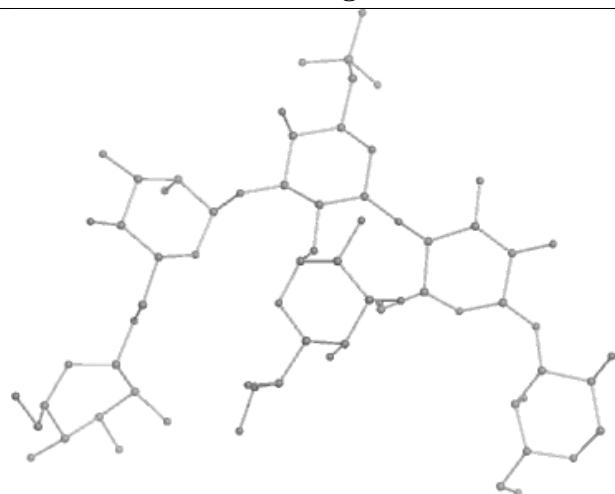
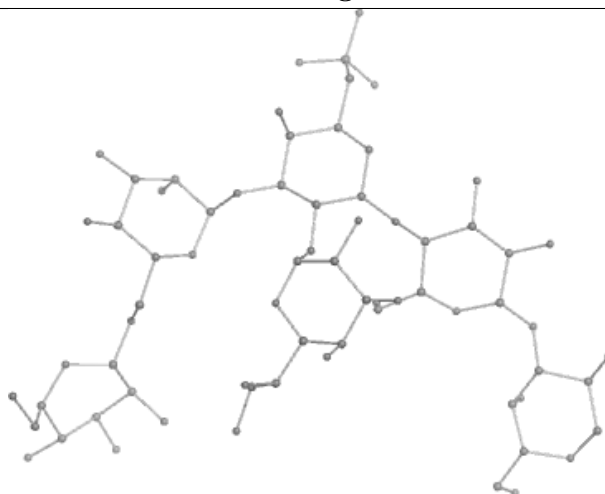


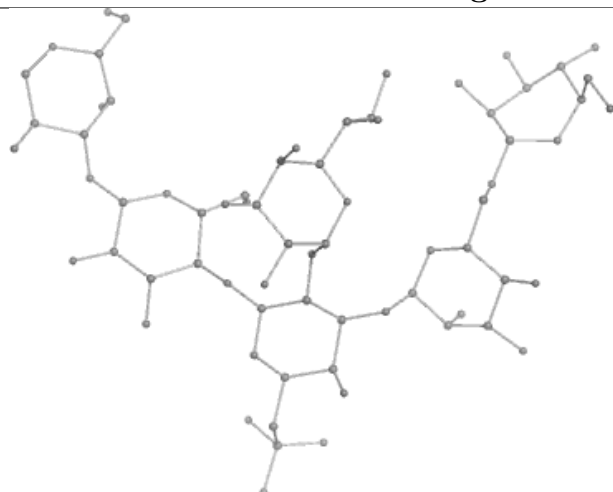
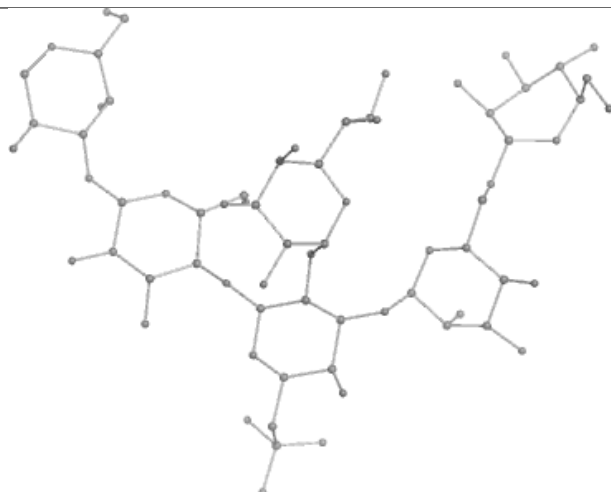
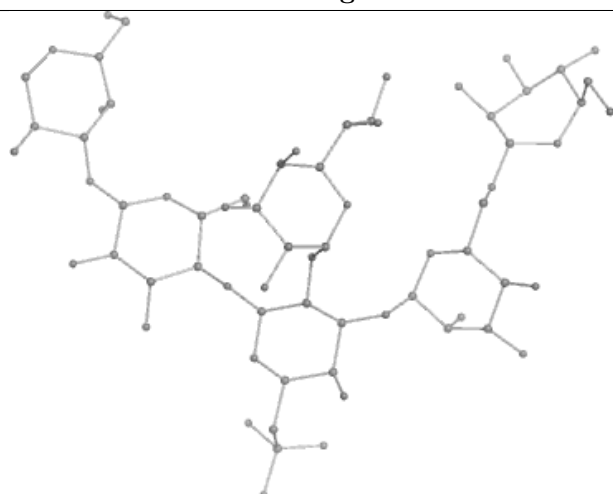
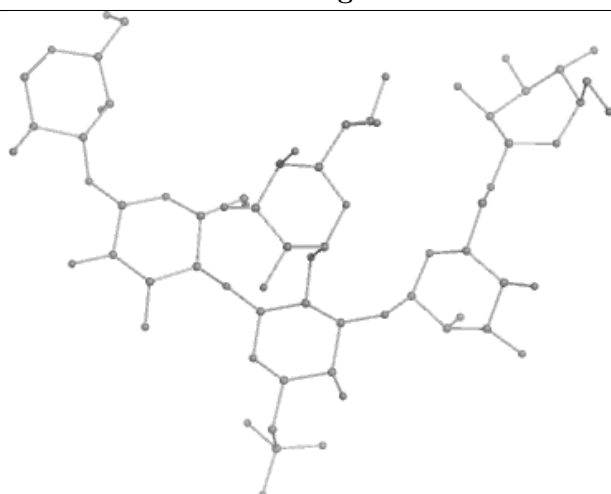


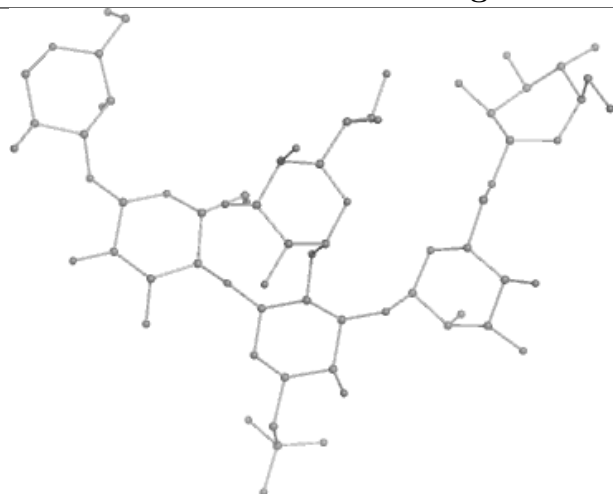
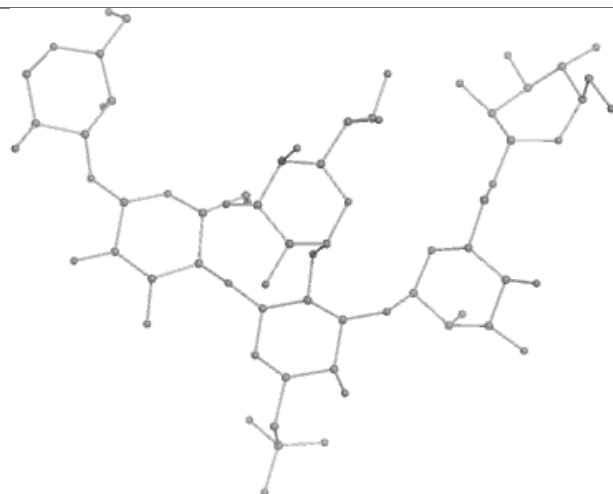
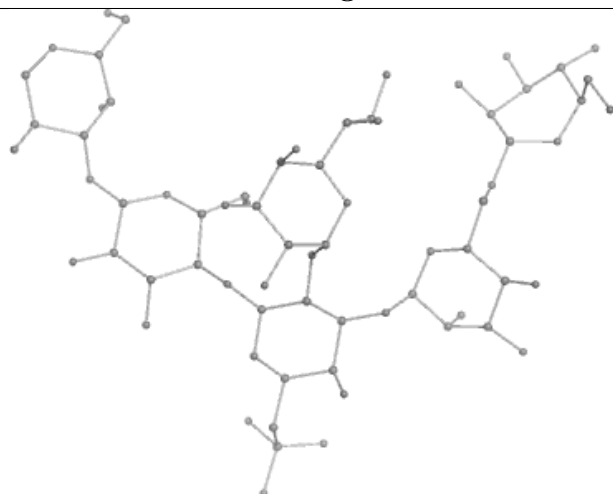
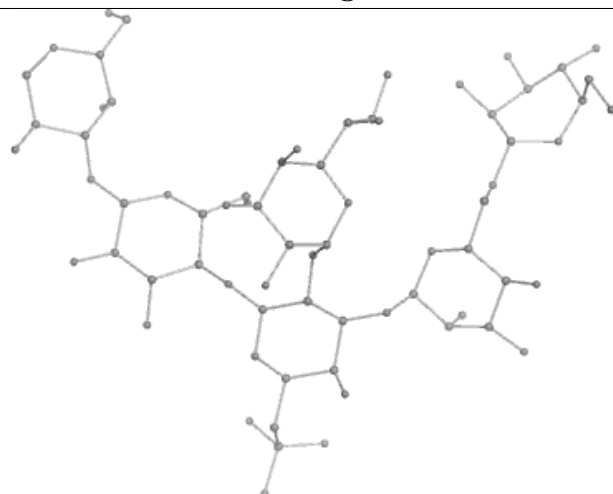
**Oligosaccharide Chain 2****Bond lengths****Bond angles****Torsions****Rings**

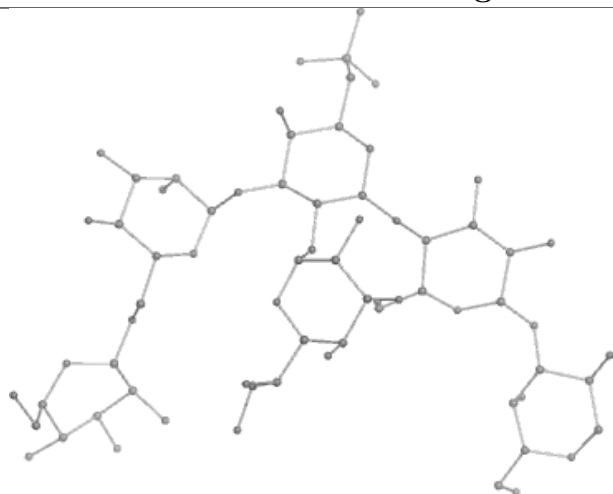
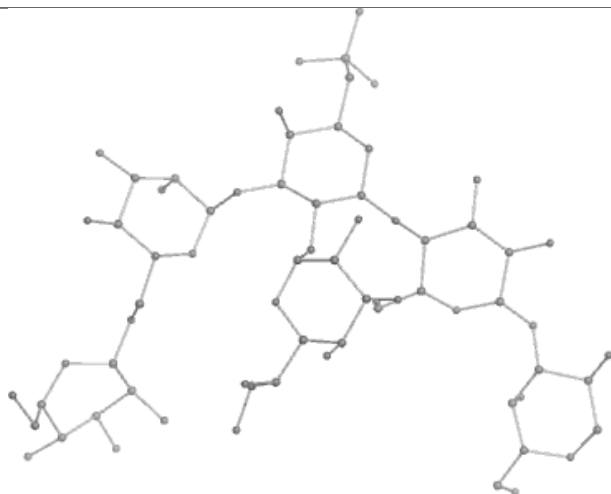
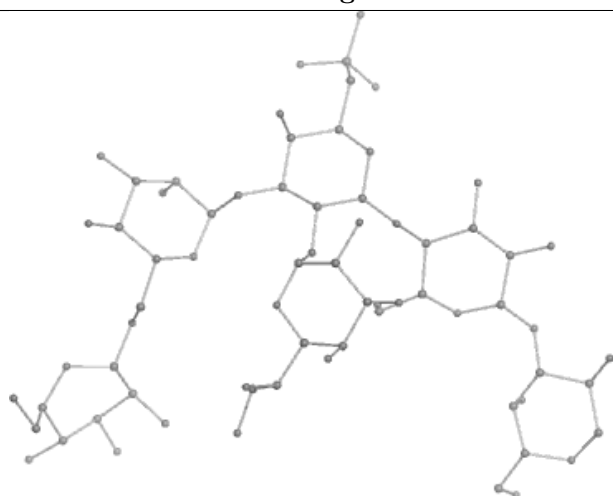
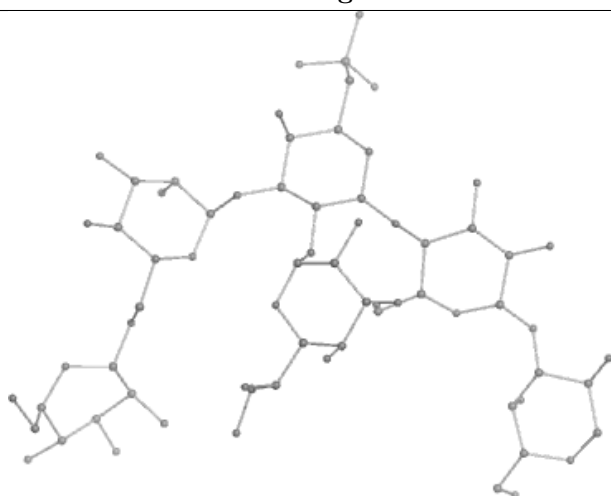
## Oligosaccharide Chain 9

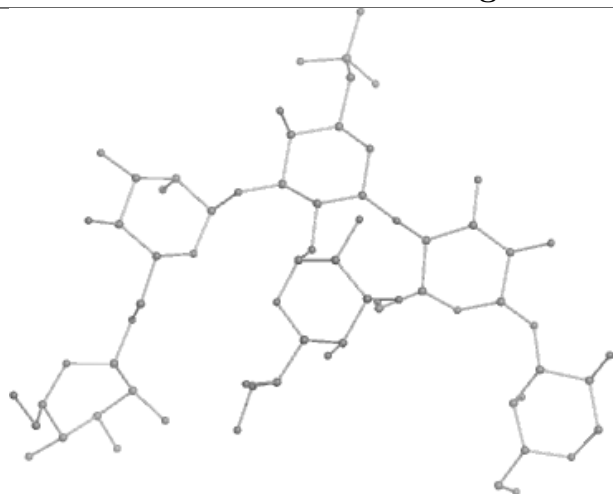
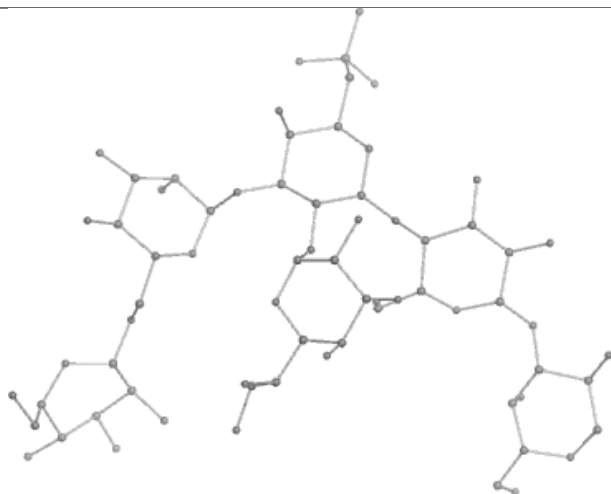
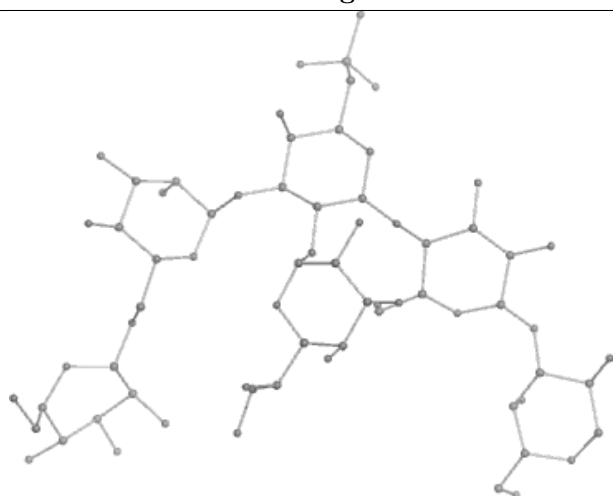
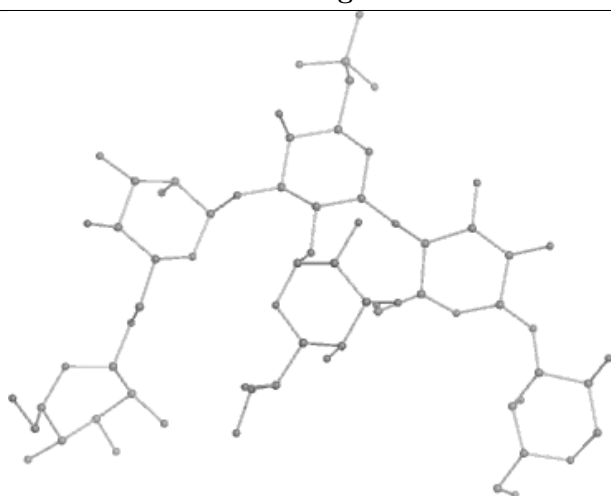


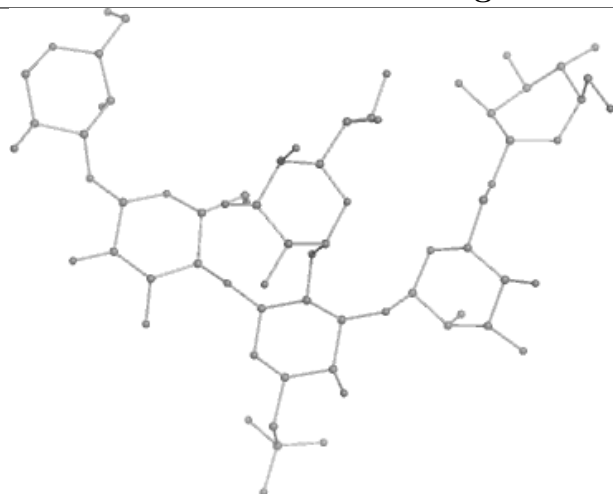
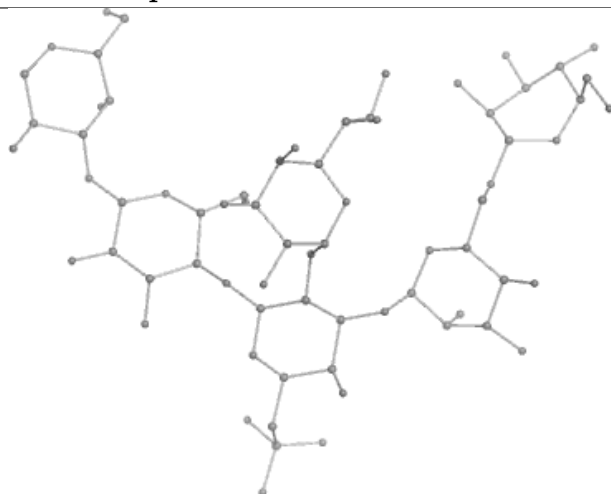
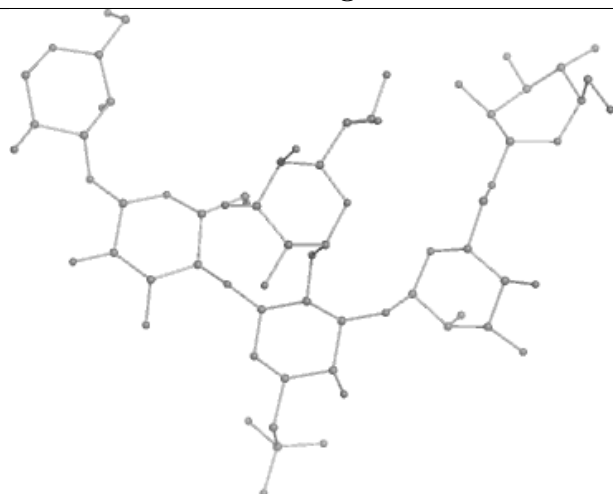
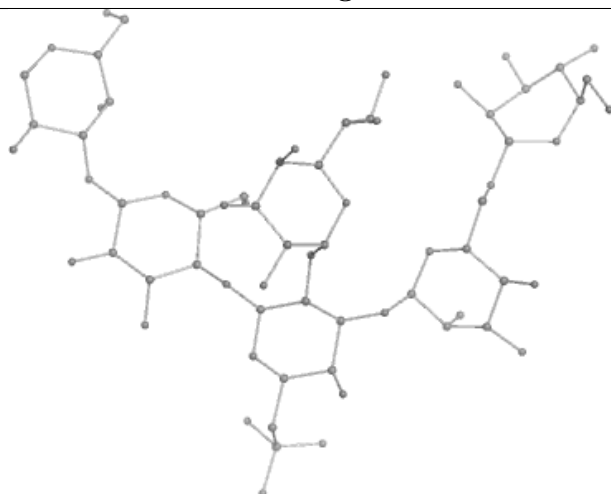
**Oligosaccharide Chain GA****Bond lengths****Bond angles****Torsions****Rings**

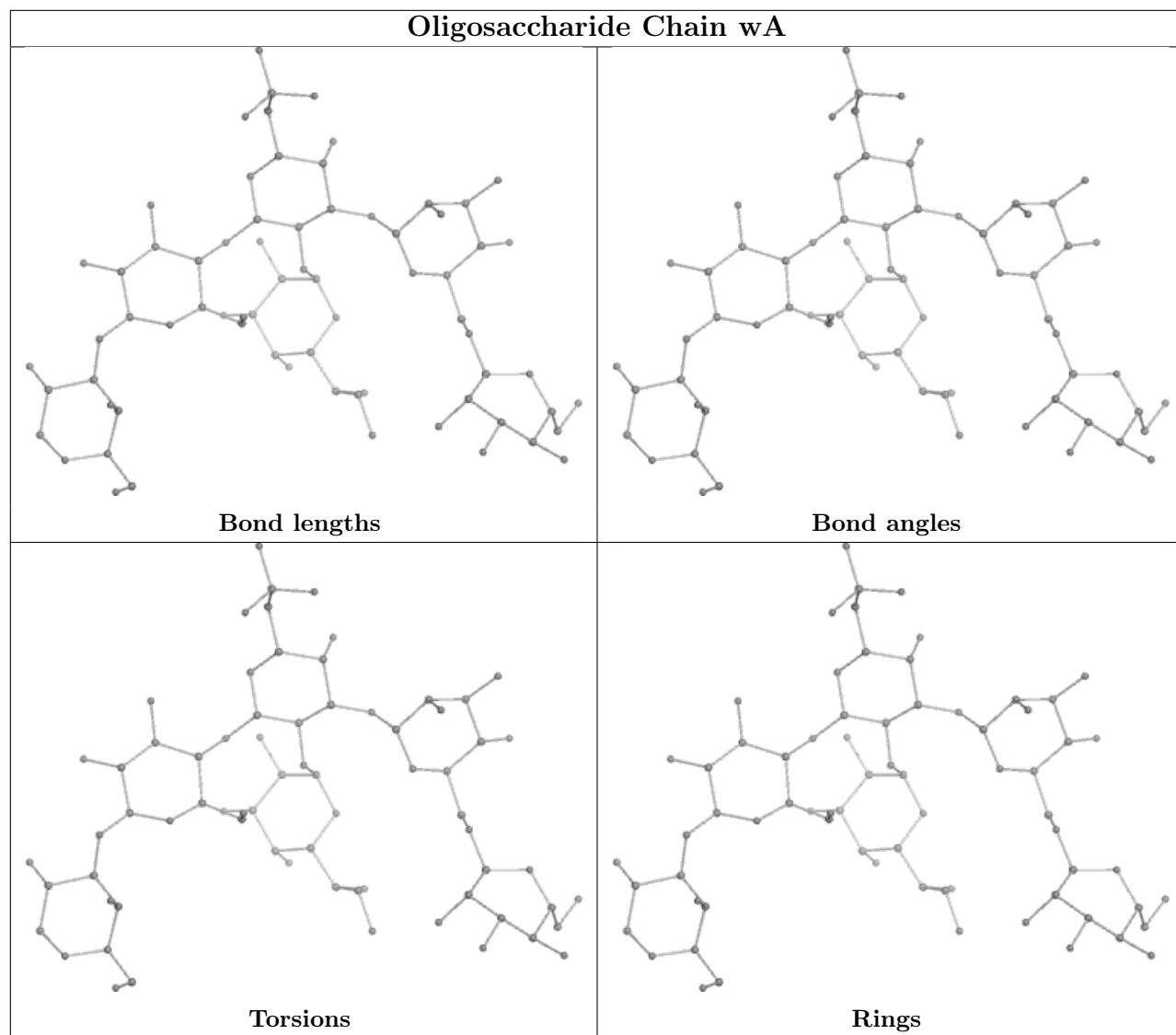
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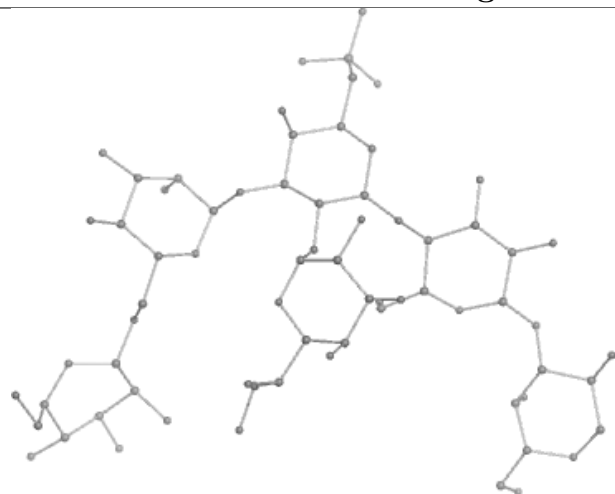
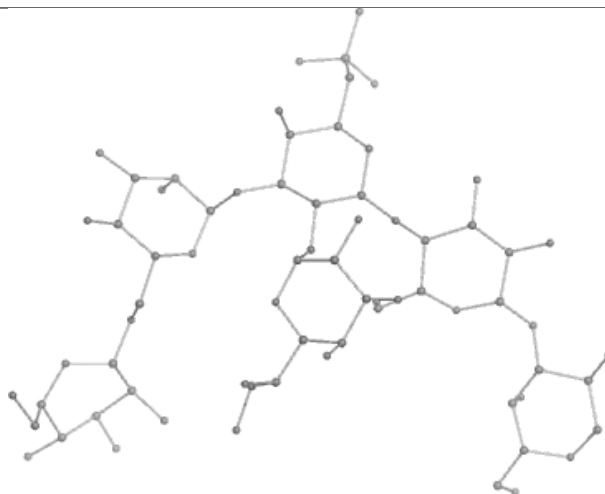
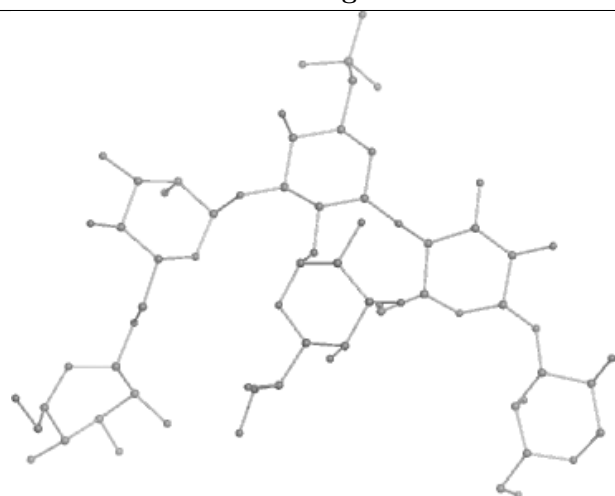
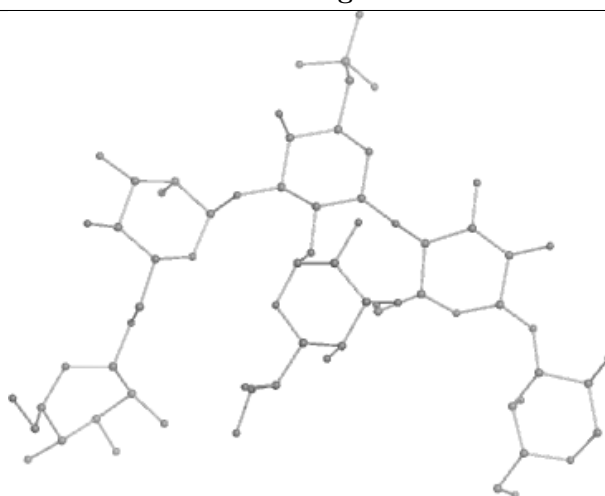
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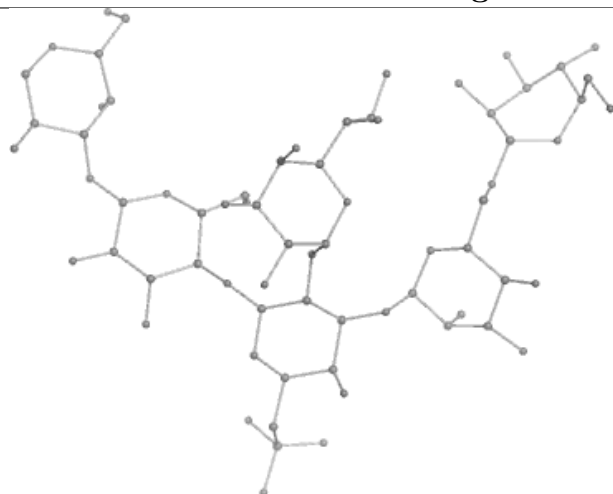
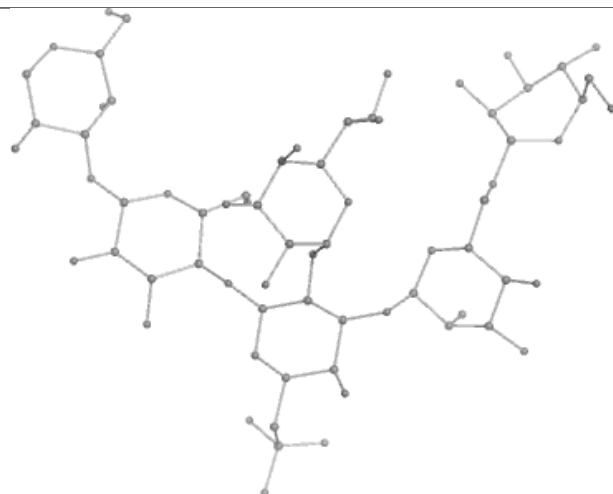
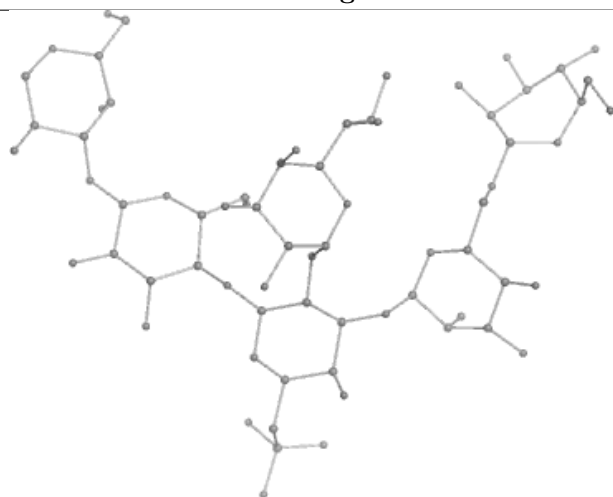
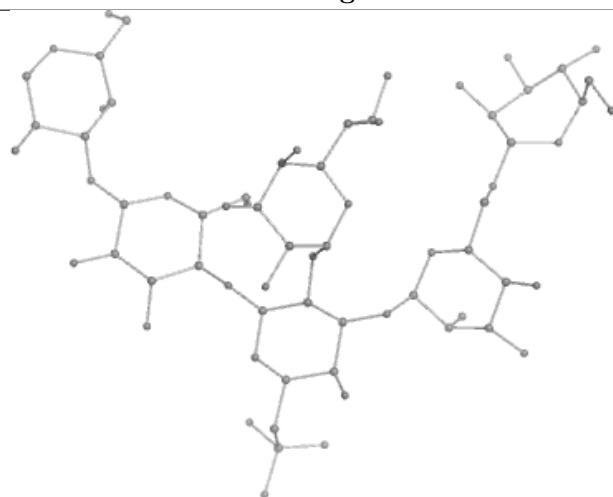
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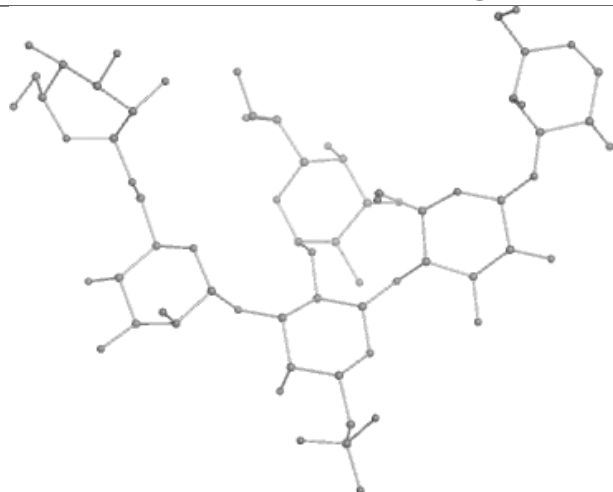
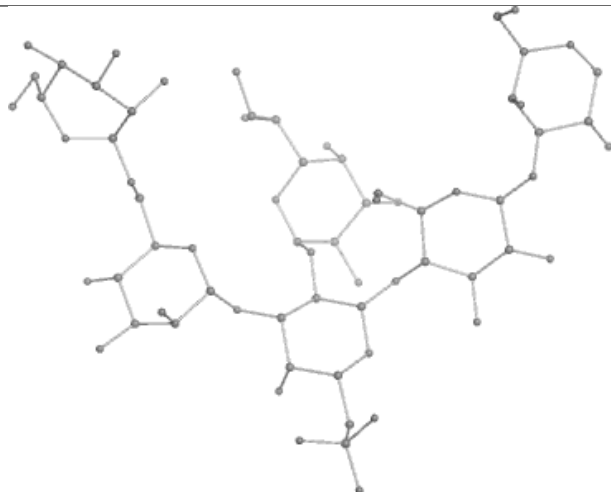
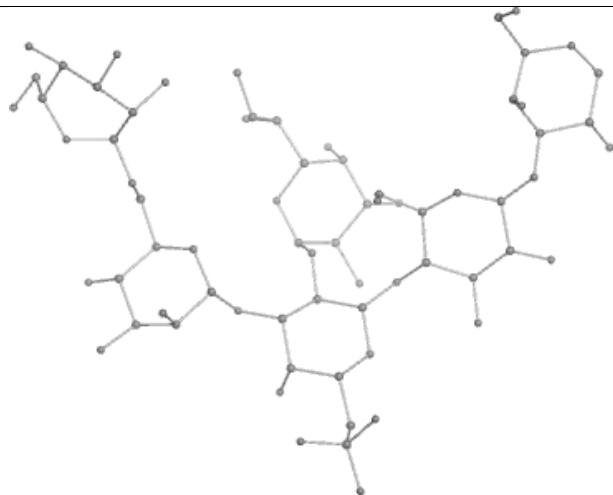
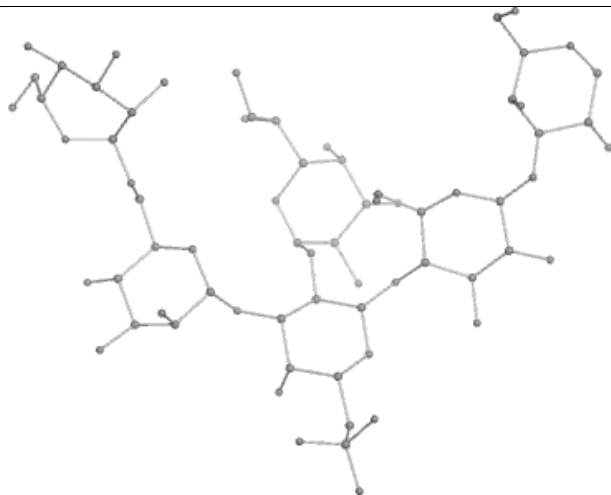
**Oligosaccharide Chain iA****Bond lengths****Bond angles****Torsions****Rings**

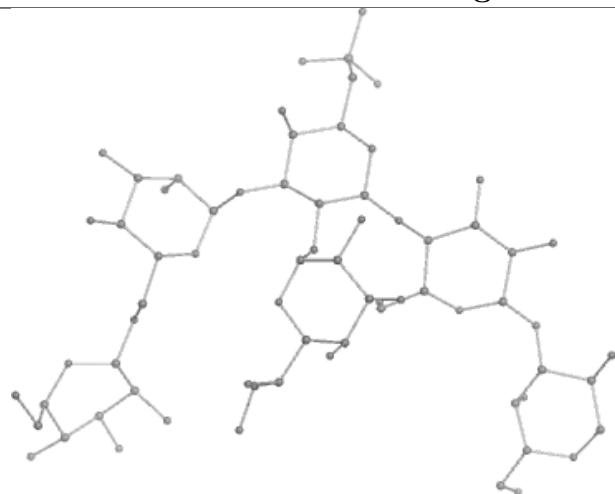
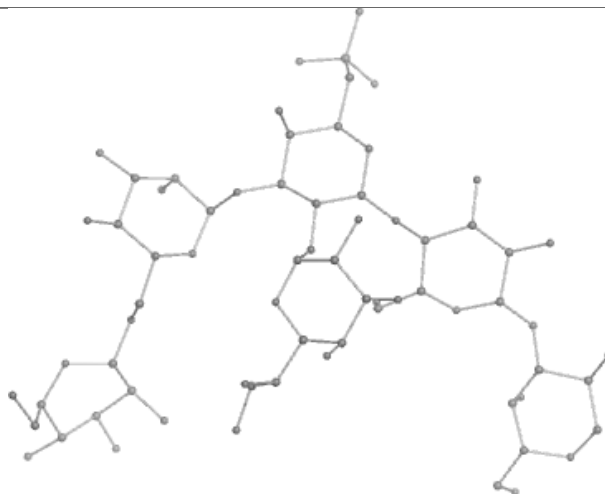
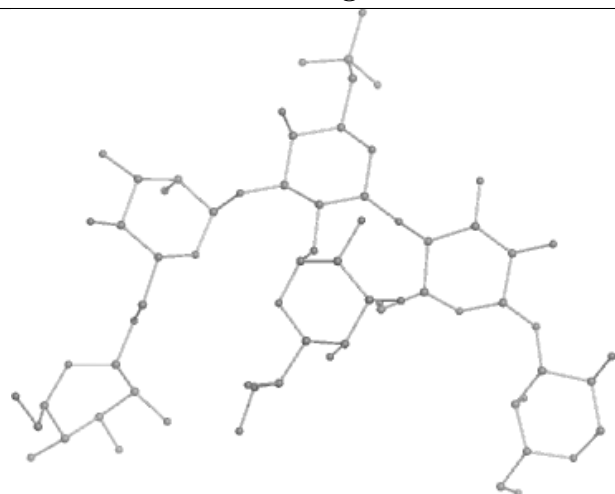
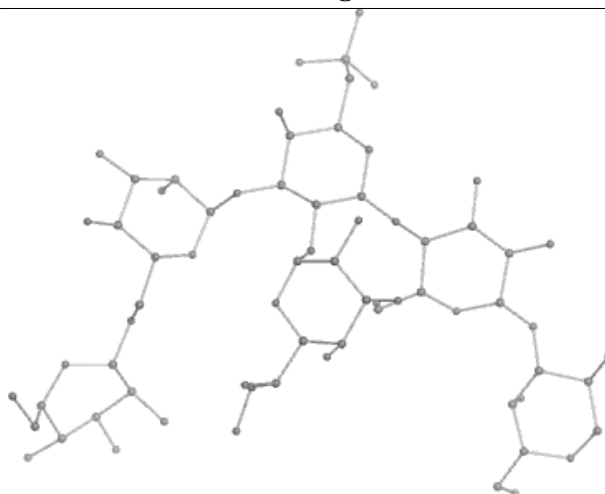
**Oligosaccharide Chain pA****Bond lengths****Bond angles****Torsions****Rings**

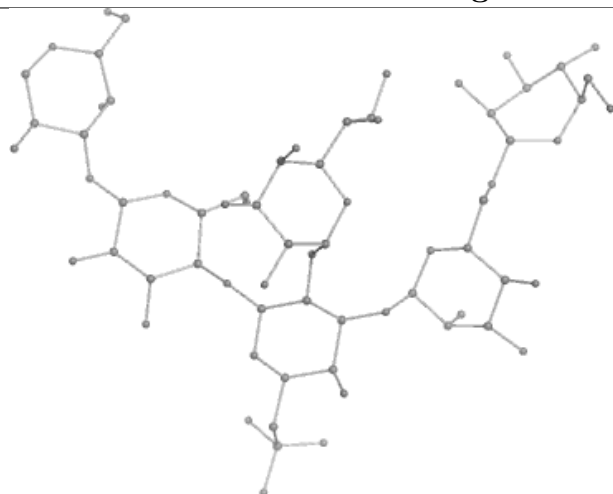
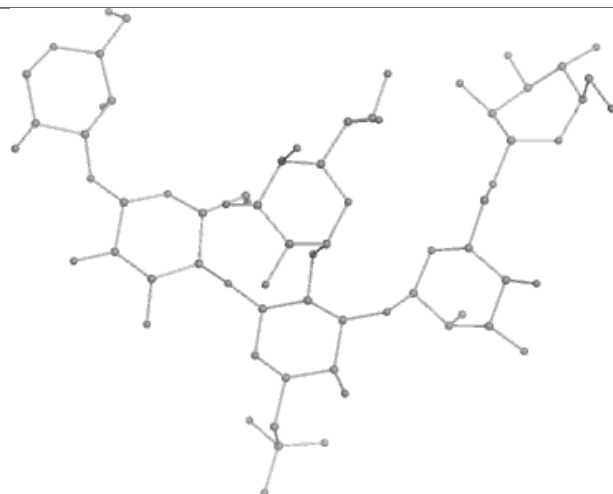
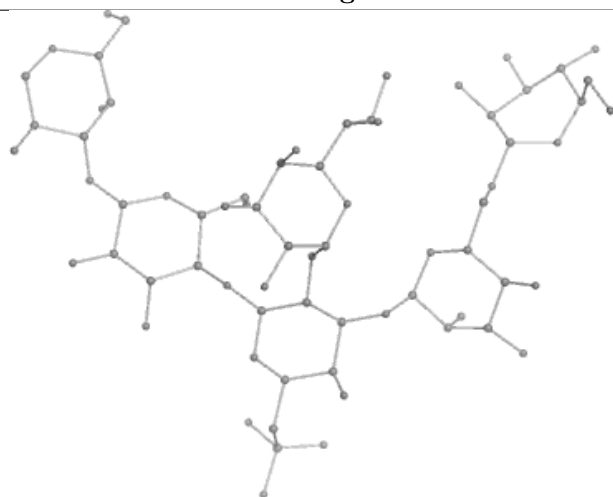
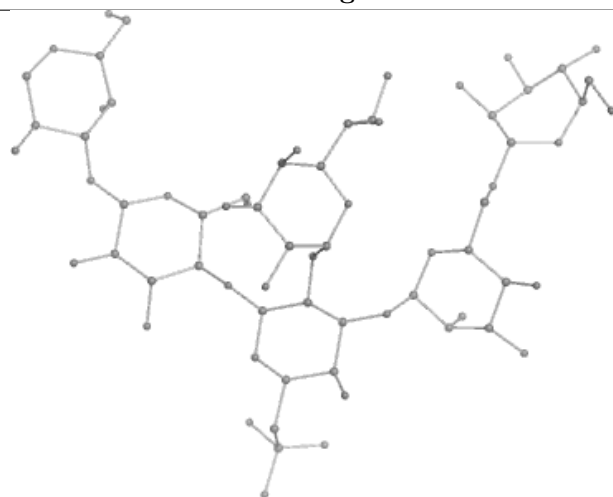


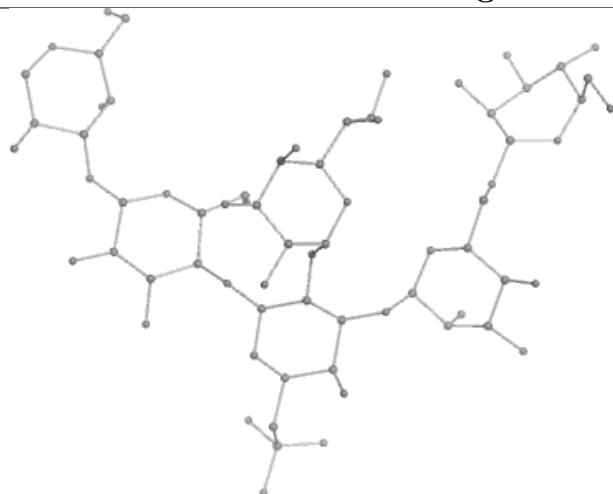
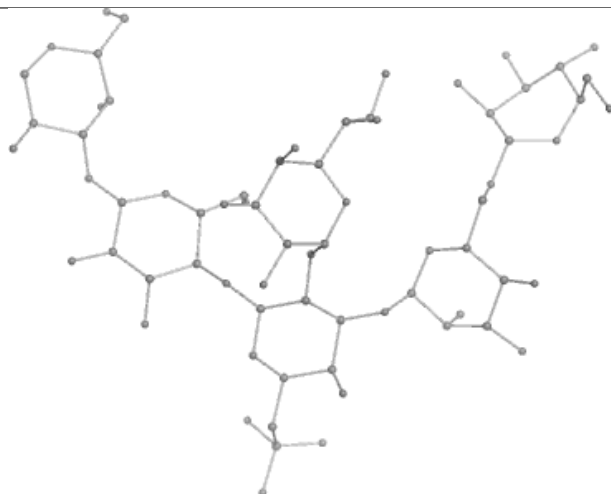
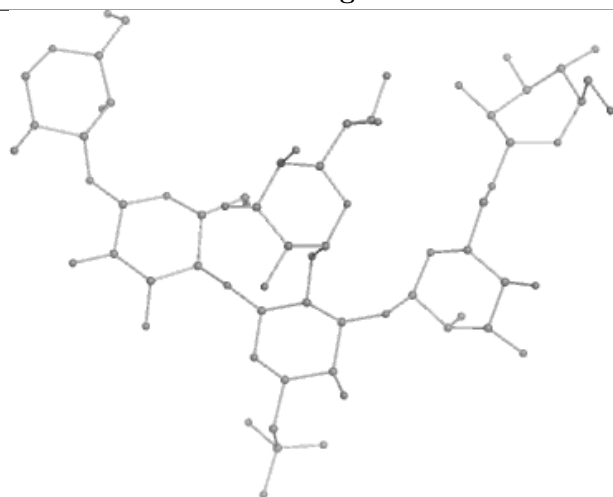
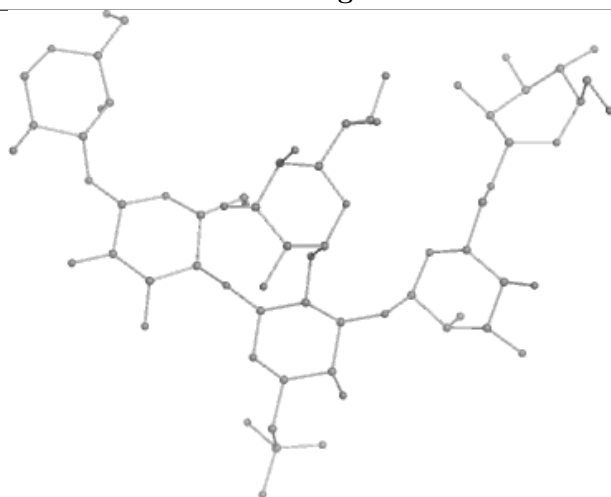
**Oligosaccharide Chain 3A****Bond lengths****Bond angles****Torsions****Rings**

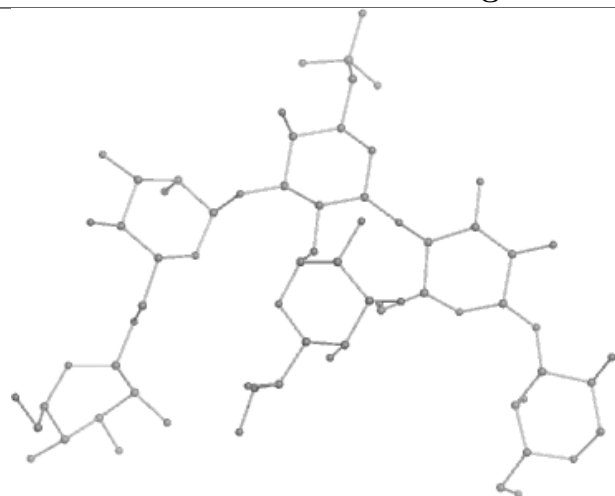
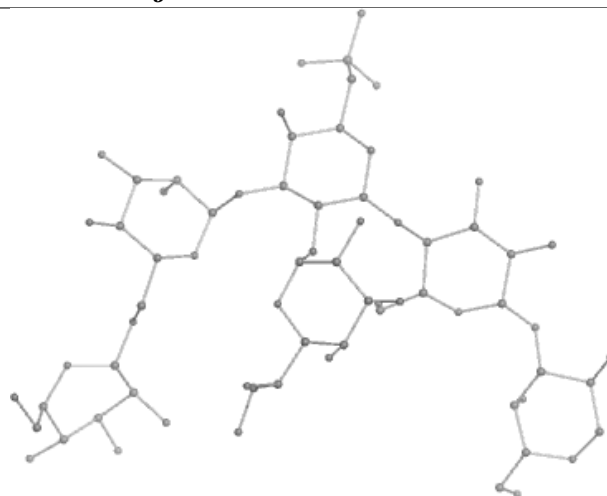
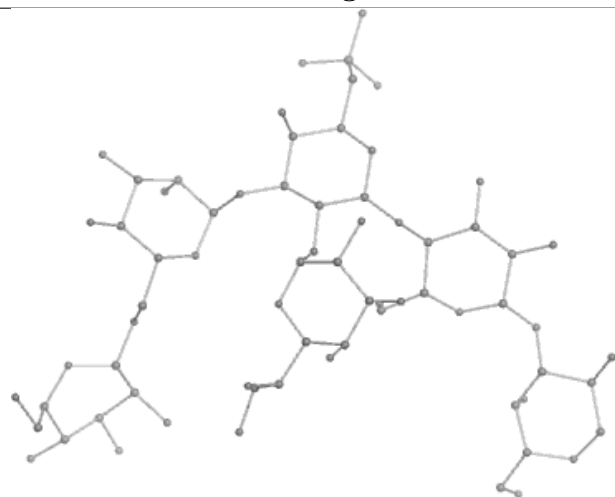
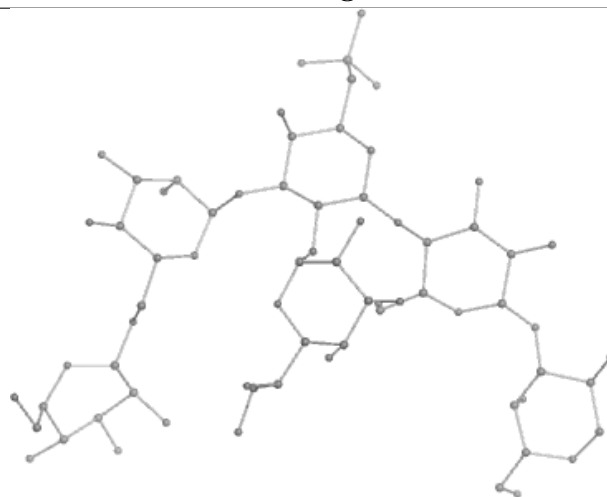
**Oligosaccharide Chain AB****Bond lengths****Bond angles****Torsions****Rings**

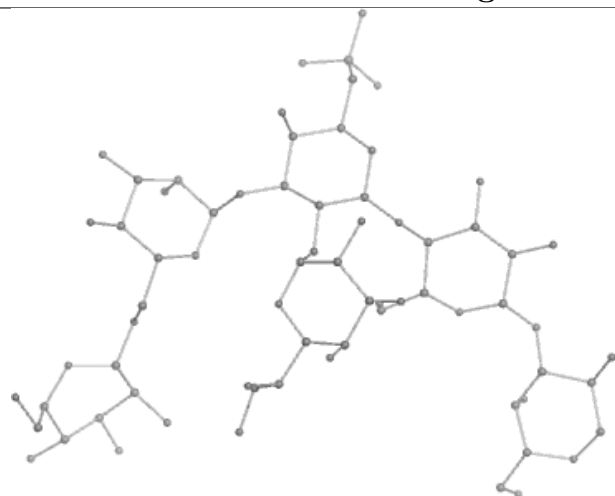
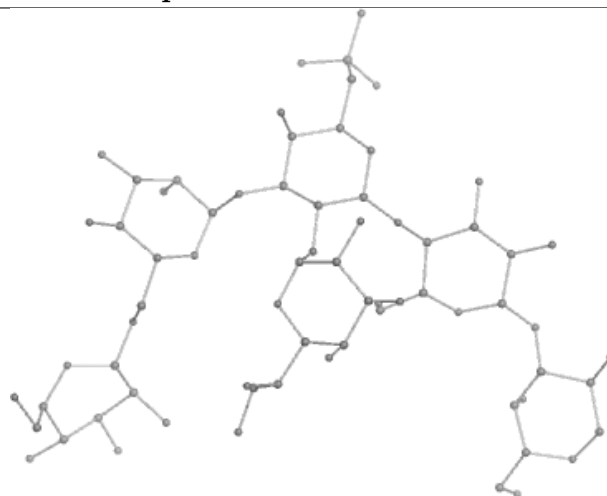
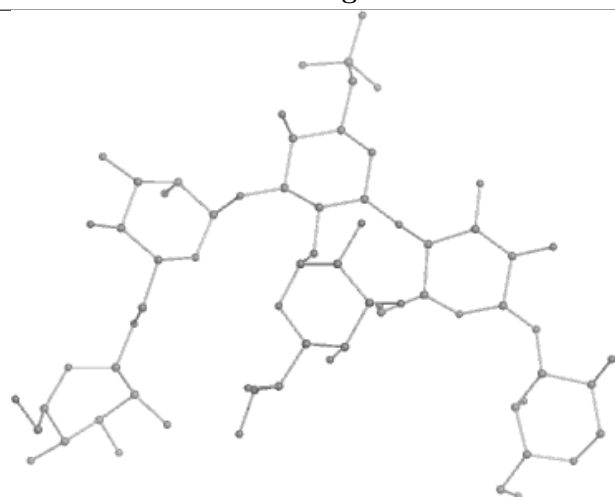
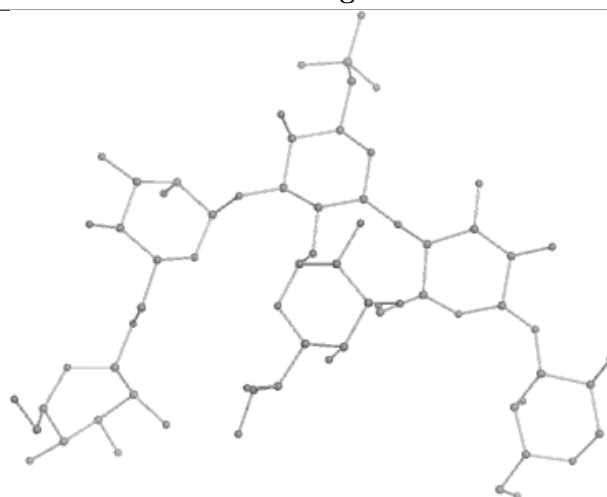
**Oligosaccharide Chain HB****Bond lengths****Bond angles****Torsions****Rings**

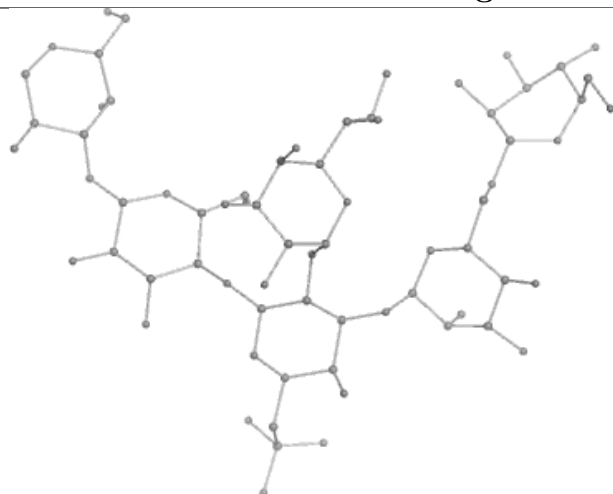
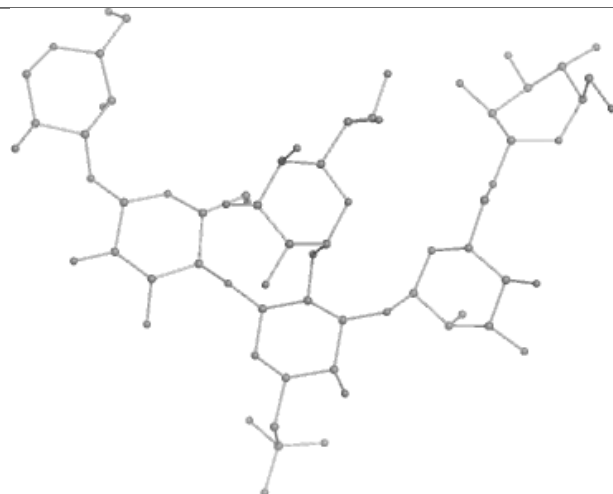
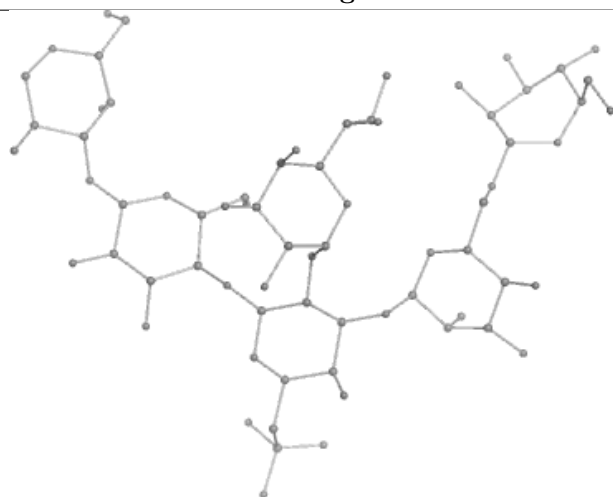
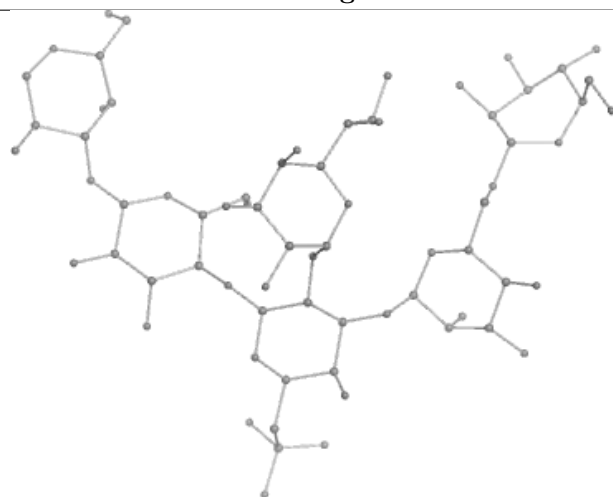
**Oligosaccharide Chain OB****Bond lengths****Bond angles****Torsions****Rings**

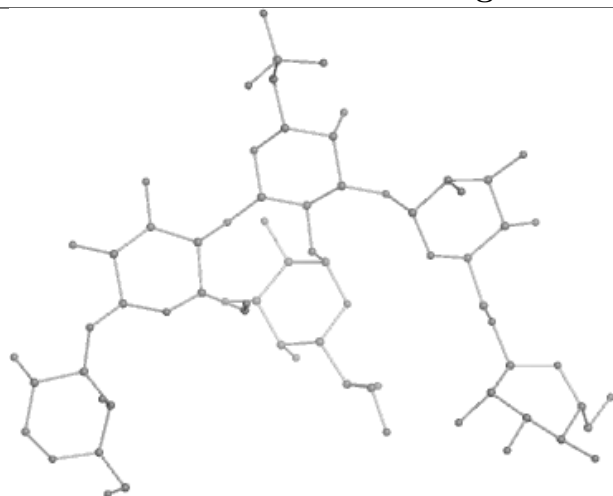
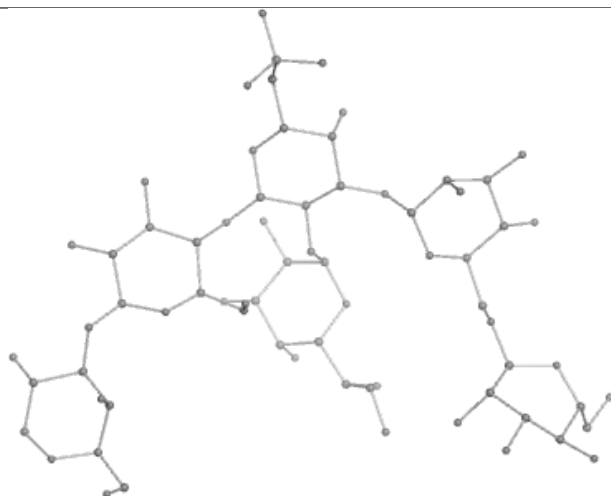
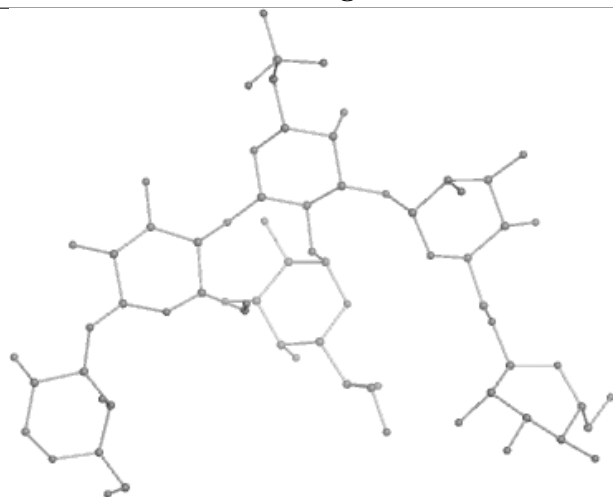
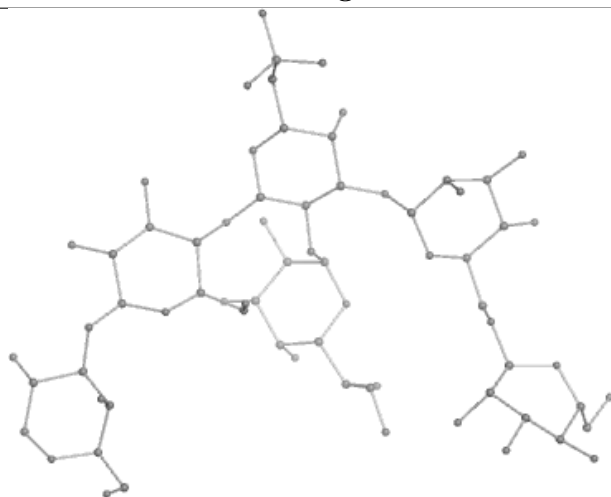
**Oligosaccharide Chain VB****Bond lengths****Bond angles****Torsions****Rings**

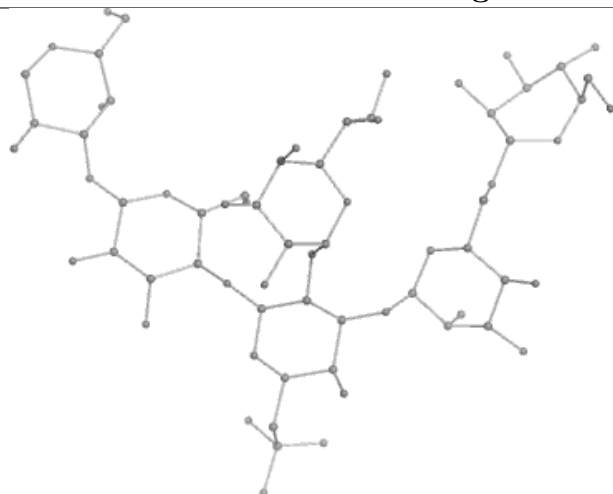
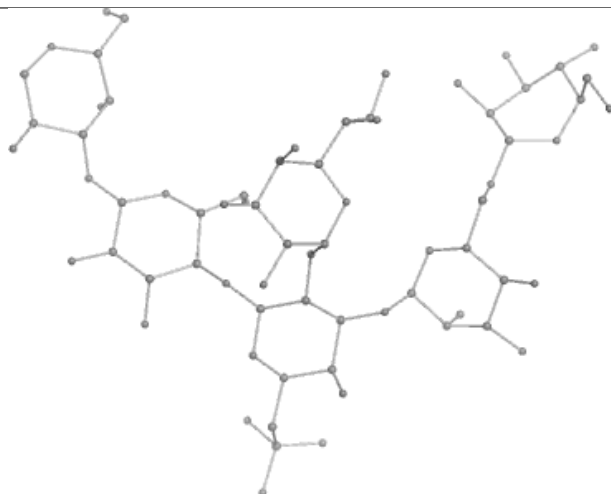
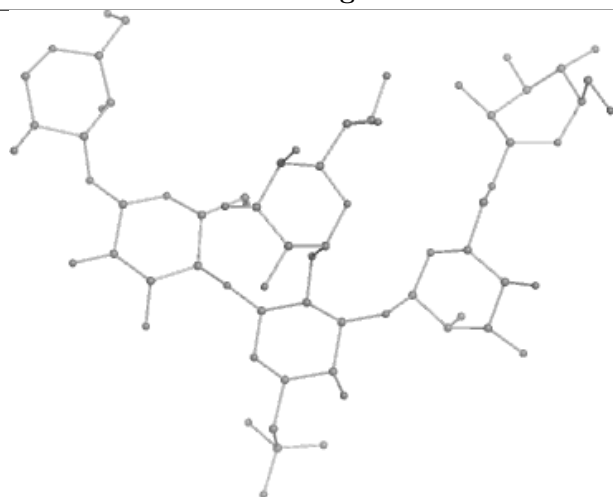
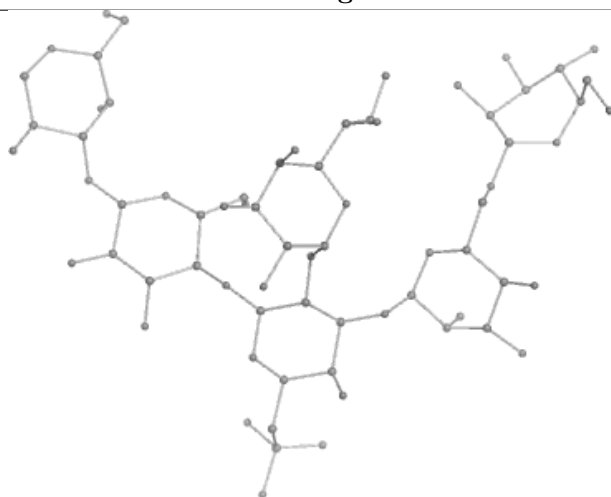
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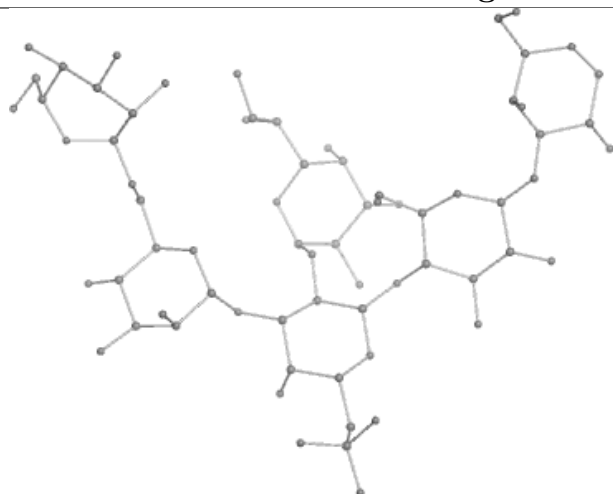
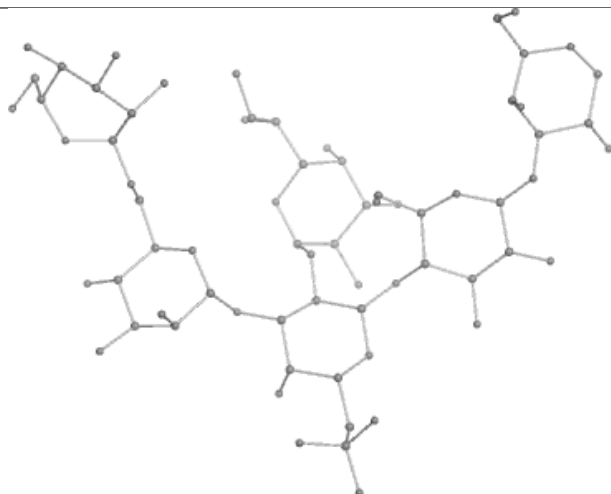
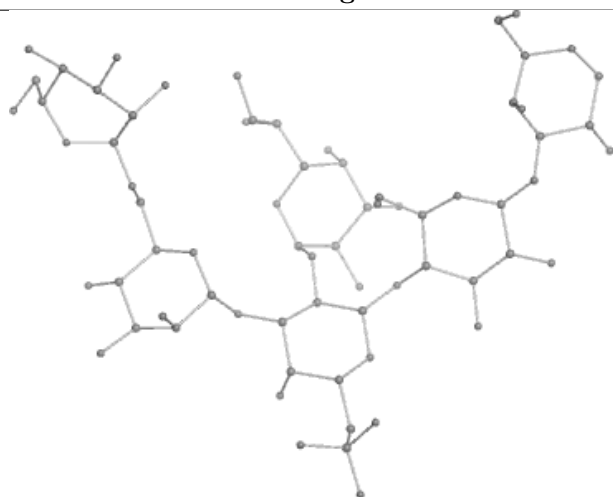
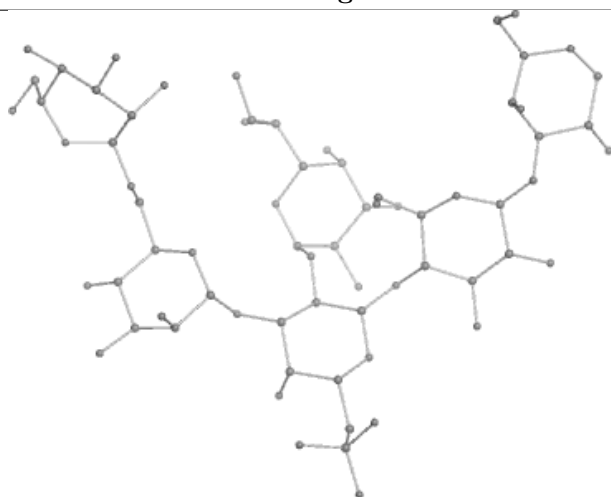
**Oligosaccharide Chain jB****Bond lengths****Bond angles****Torsions****Rings**

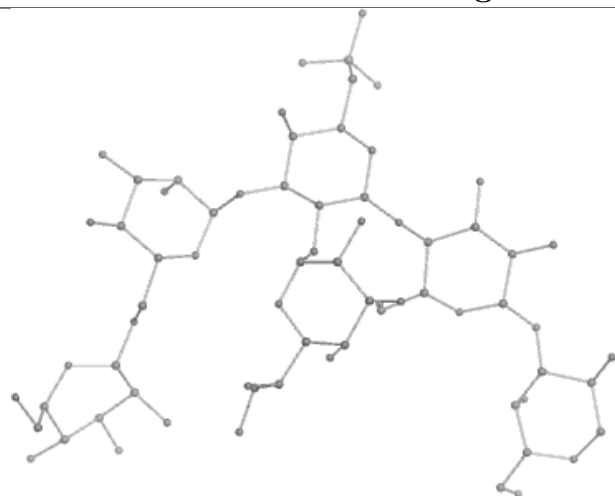
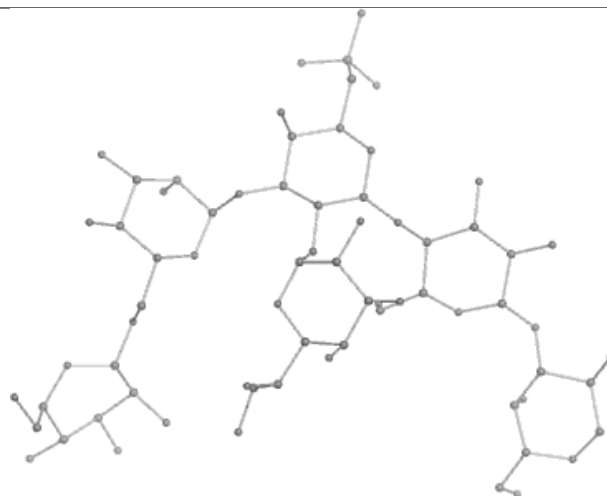
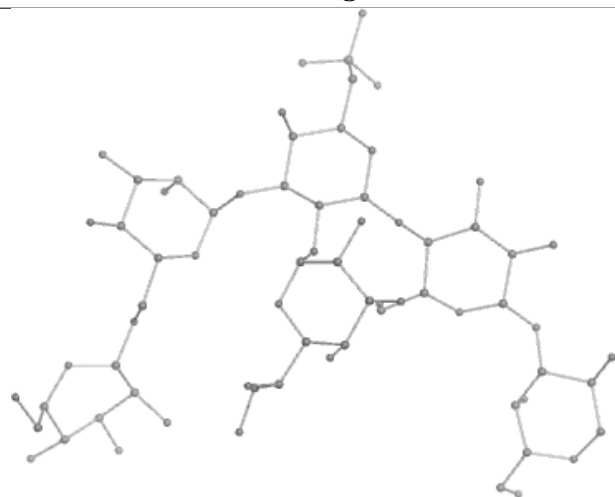
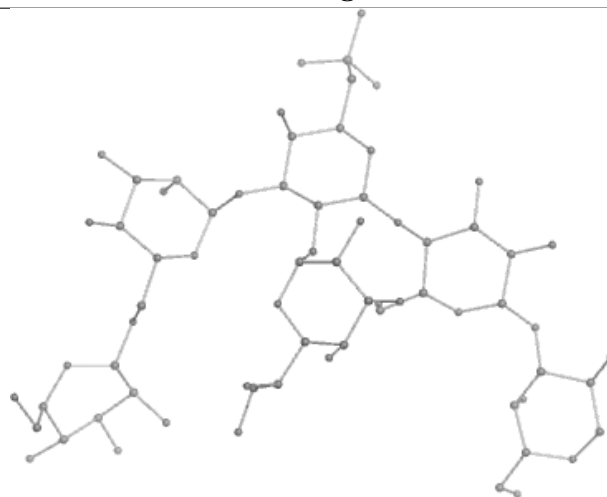
**Oligosaccharide Chain qB****Bond lengths****Bond angles****Torsions****Rings**

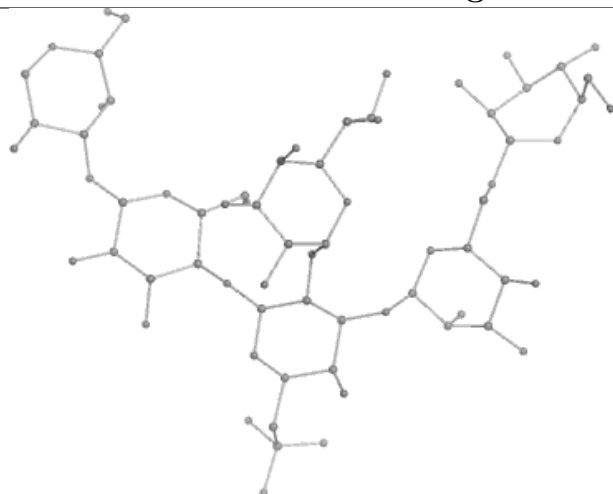
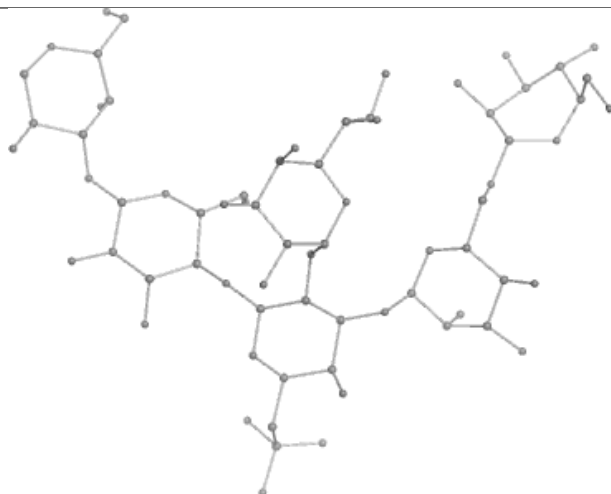
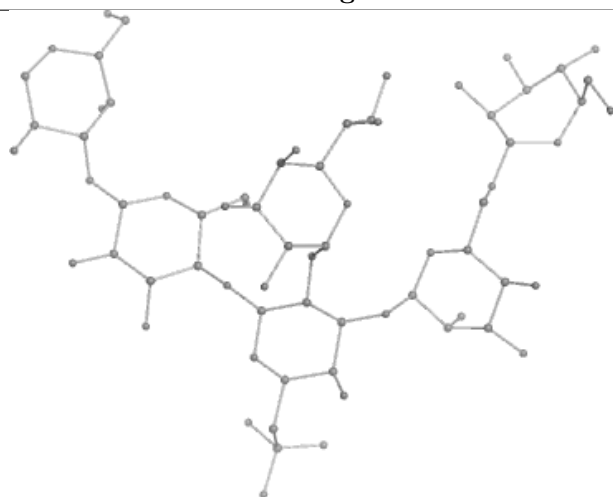
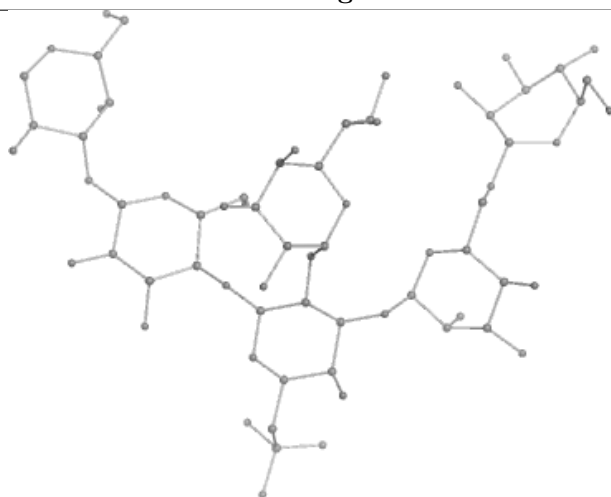
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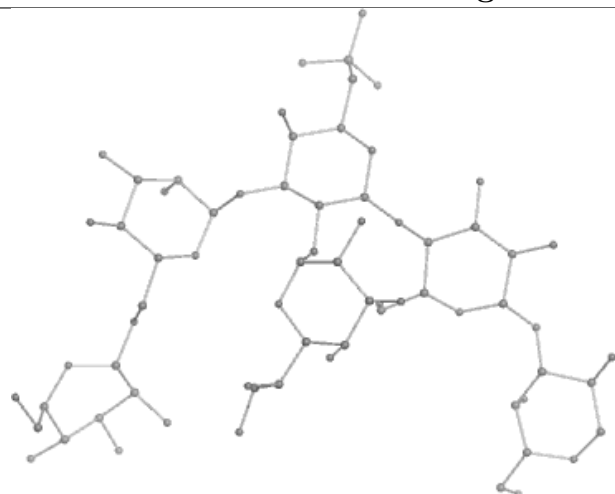
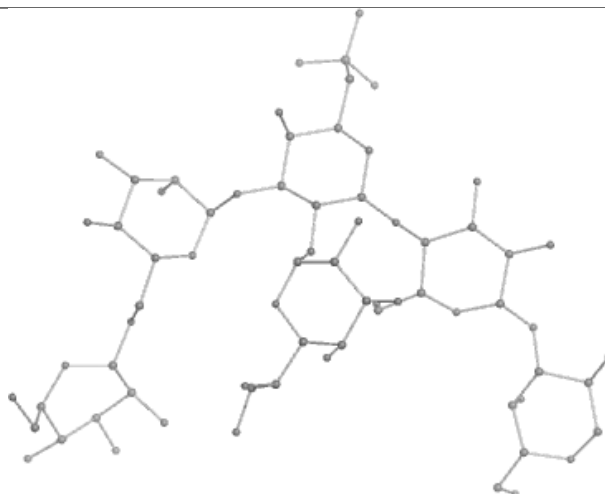
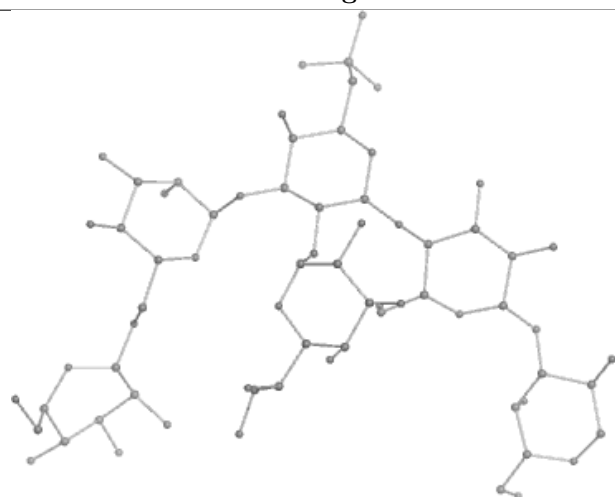
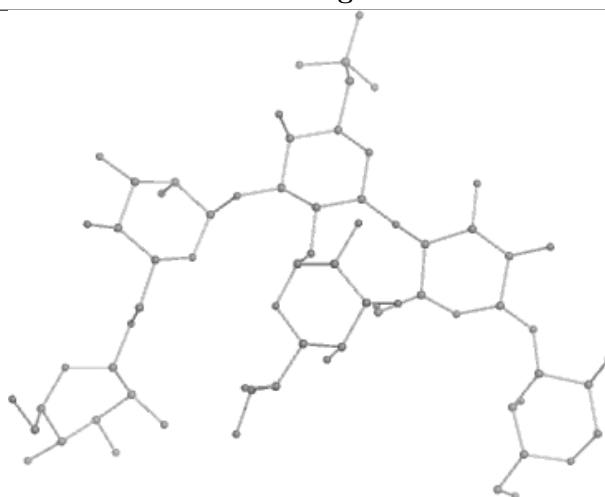
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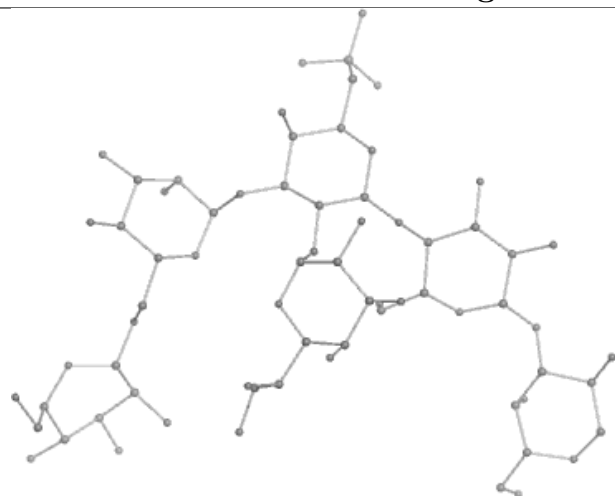
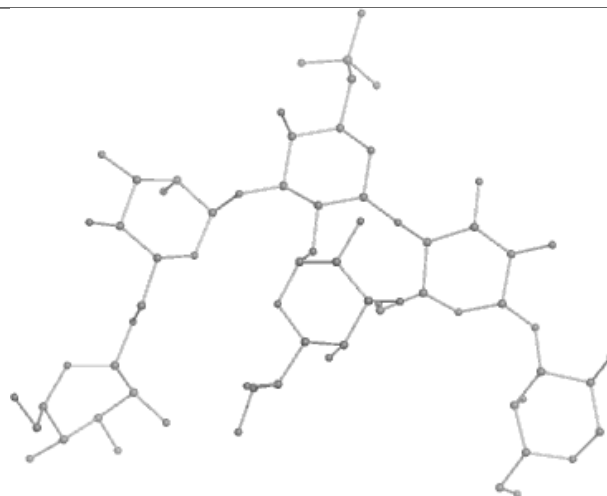
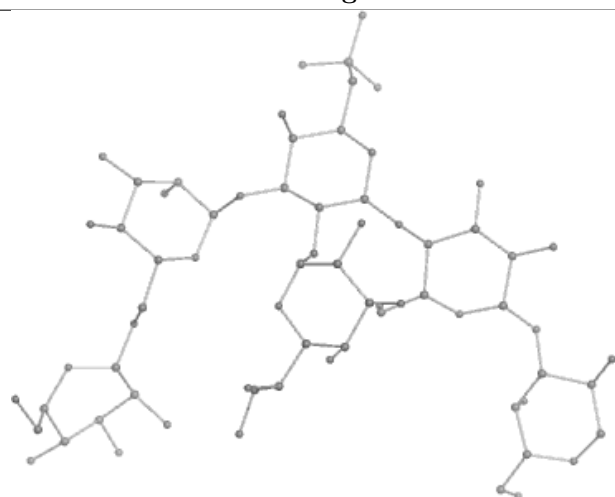
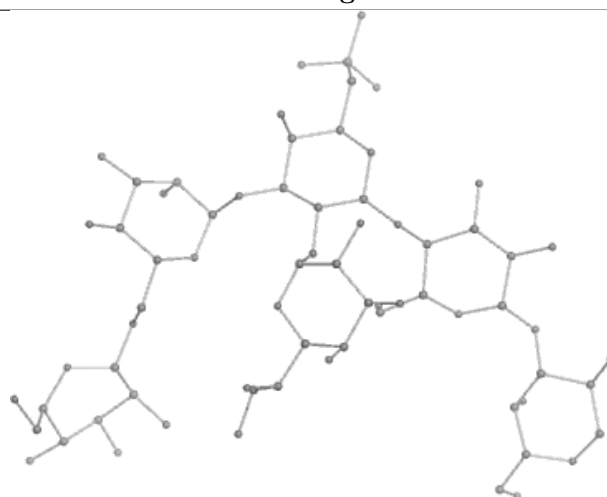
**Oligosaccharide Chain BC****Bond lengths****Bond angles****Torsions****Rings**

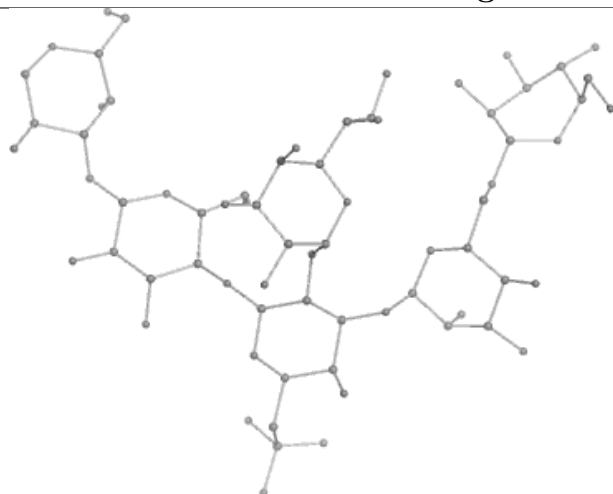
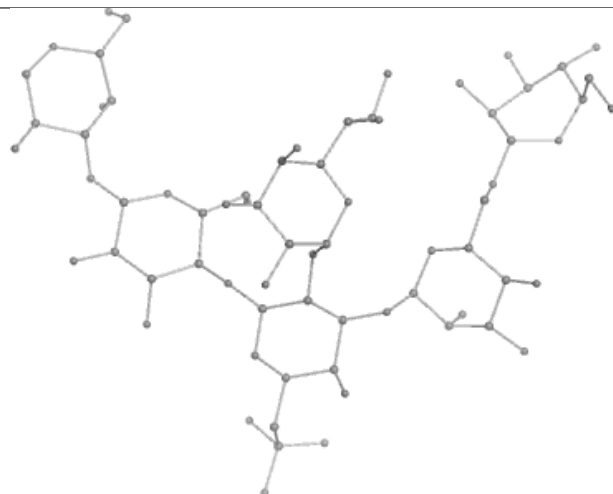
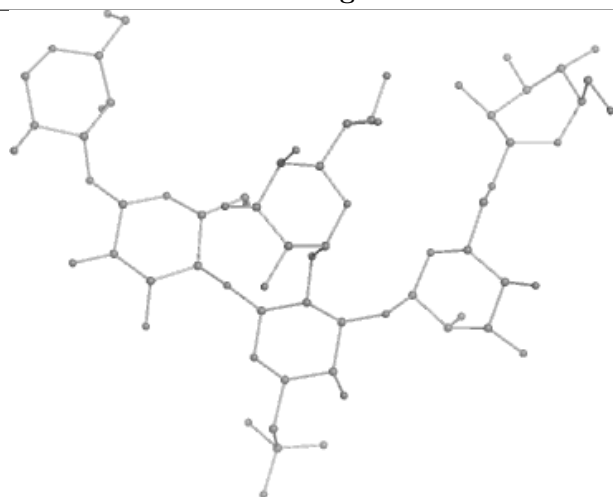
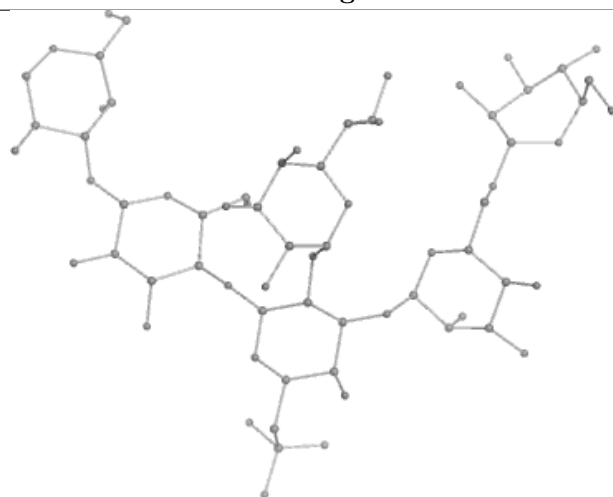
**Oligosaccharide Chain IC****Bond lengths****Bond angles****Torsions****Rings**

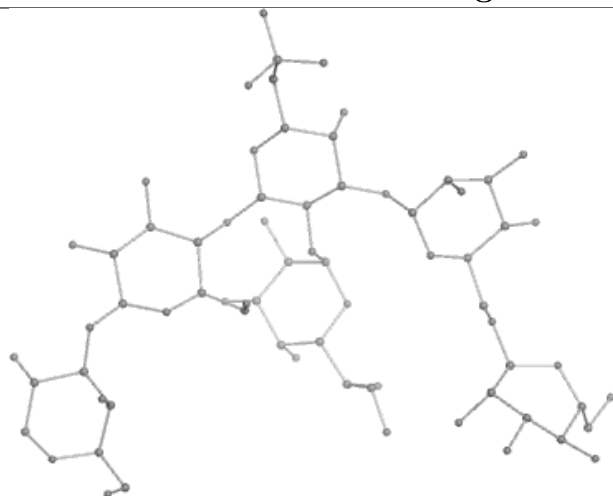
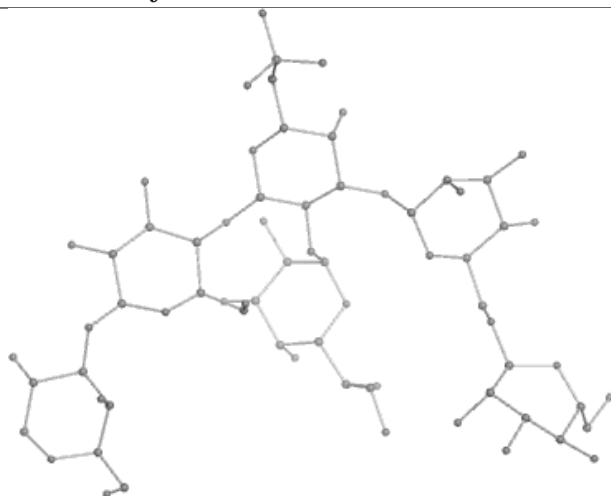
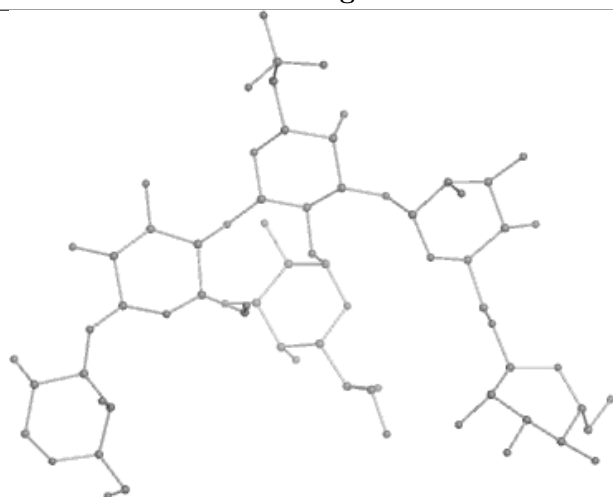
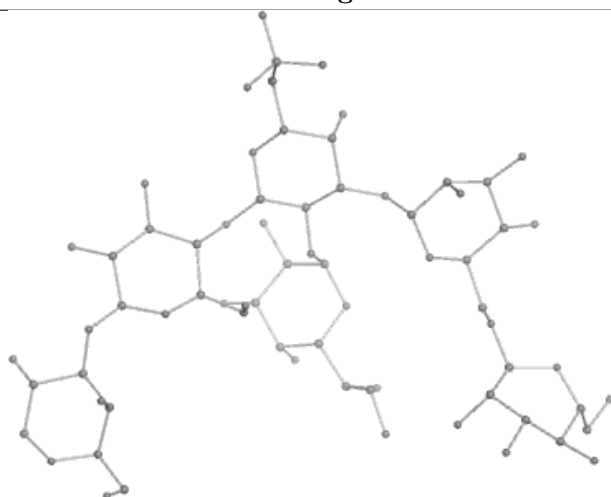
**Oligosaccharide Chain PC****Bond lengths****Bond angles****Torsions****Rings**

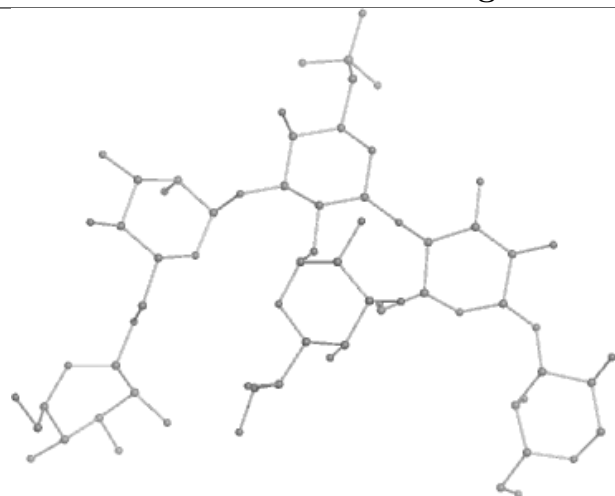
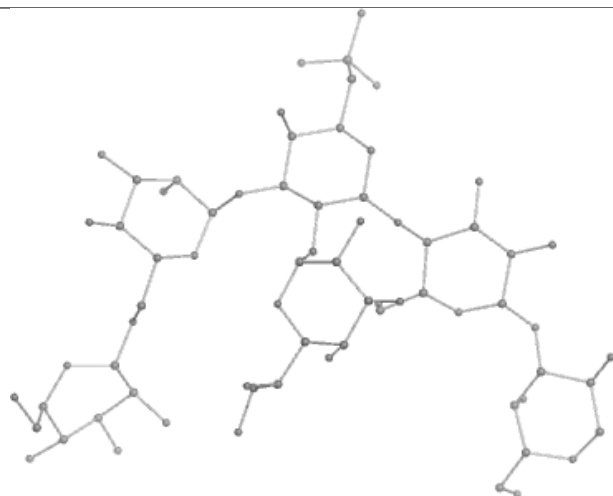
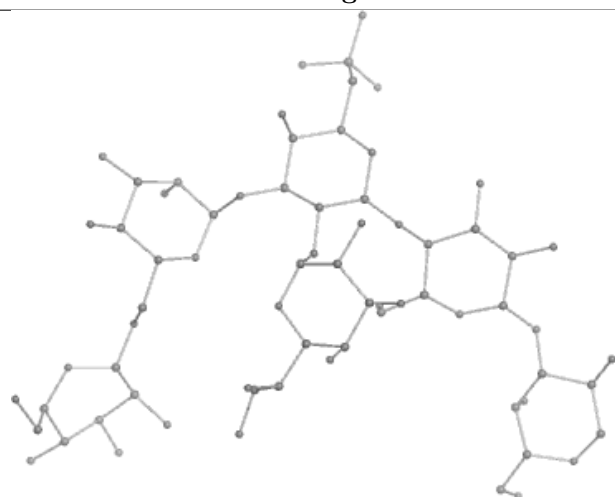
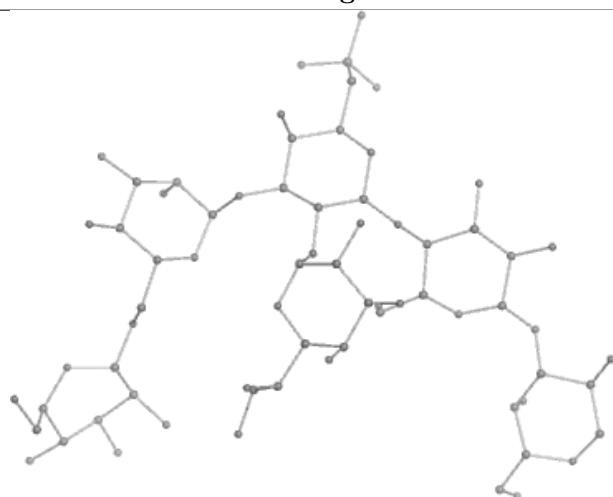
**Oligosaccharide Chain WC****Bond lengths****Bond angles****Torsions****Rings**

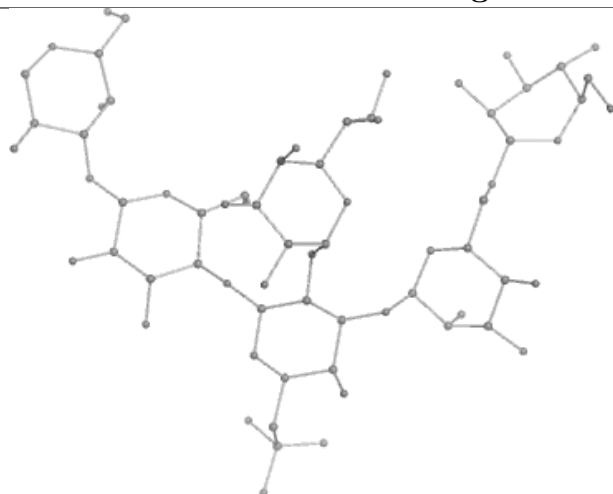
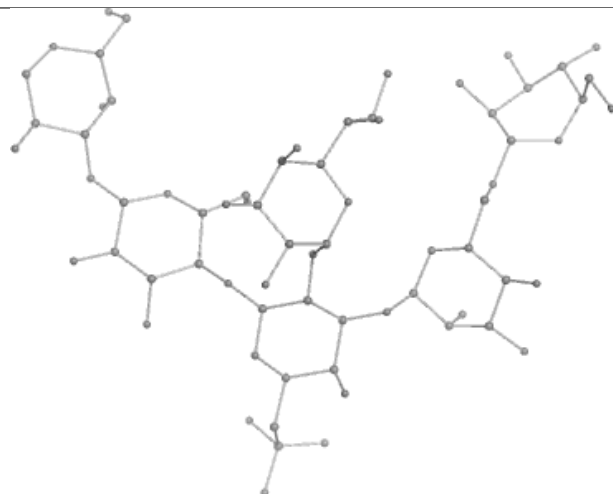
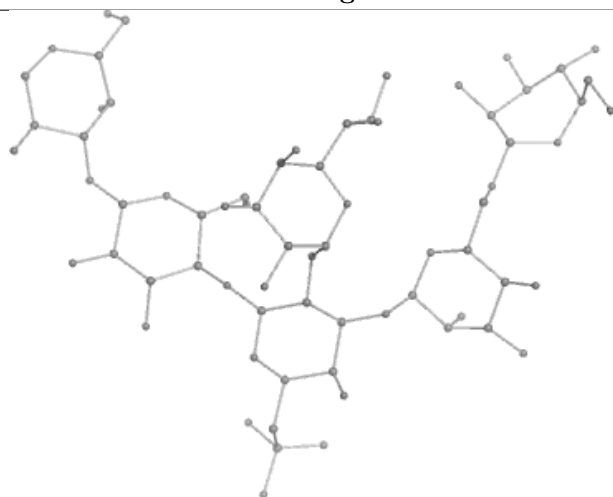
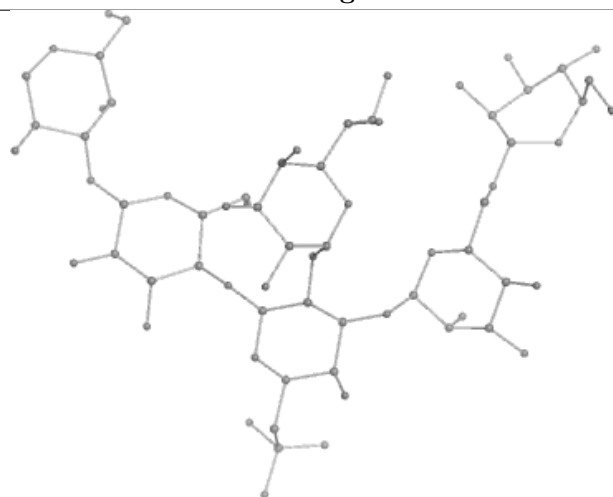
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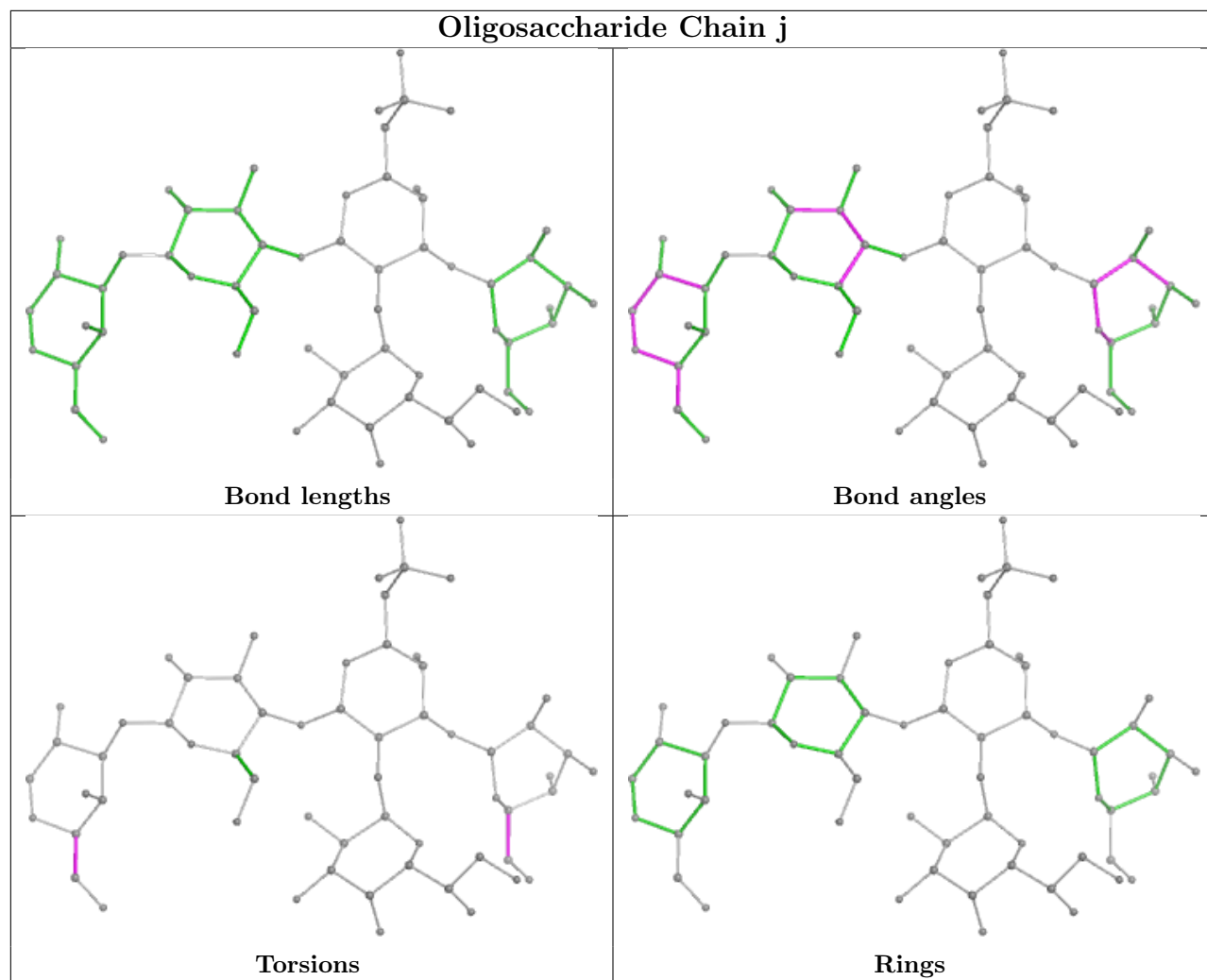
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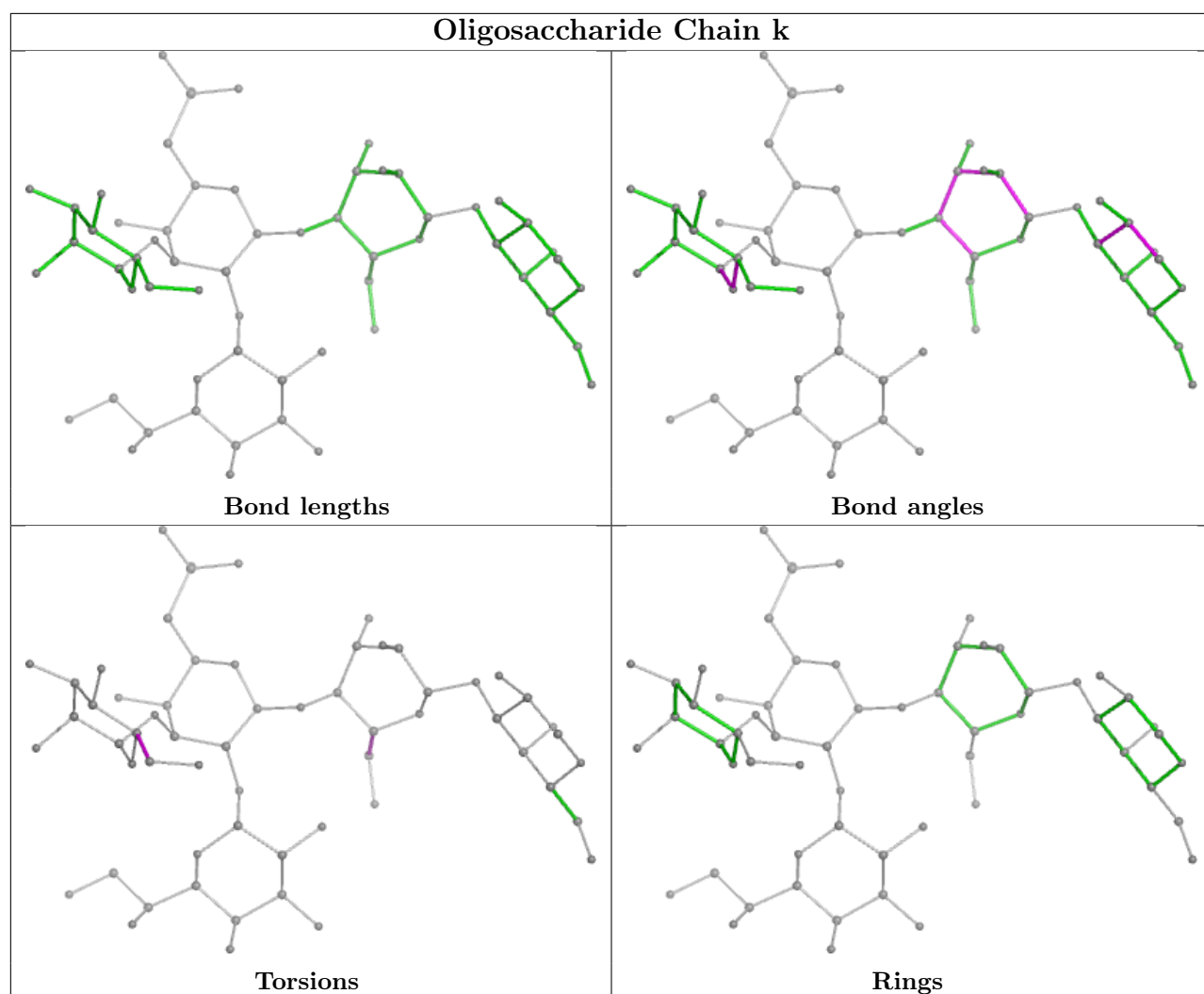
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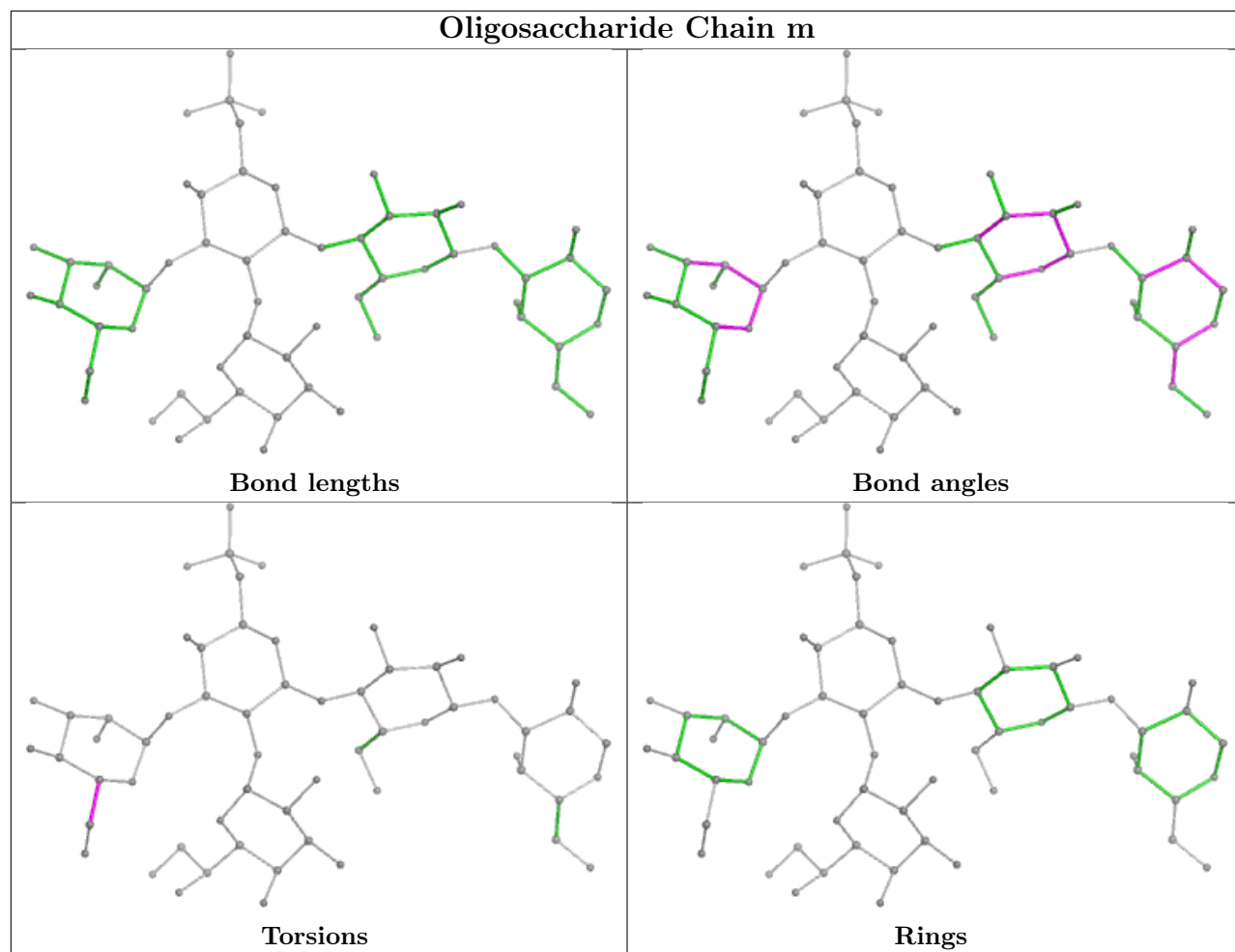
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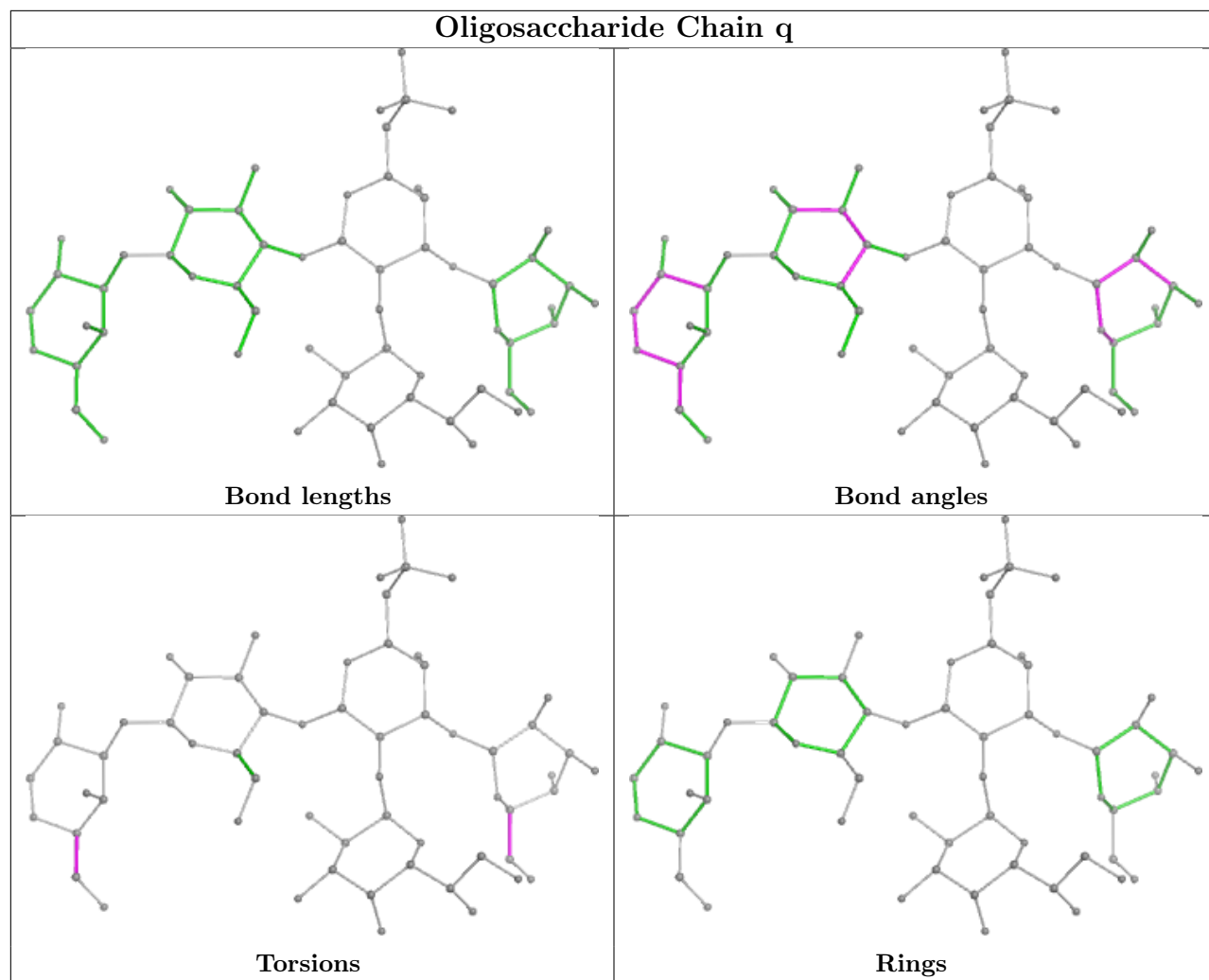
**Oligosaccharide Chain 5C****Bond lengths****Bond angles****Torsions****Rings**

**Oligosaccharide Chain CD****Bond lengths****Bond angles****Torsions****Rings**

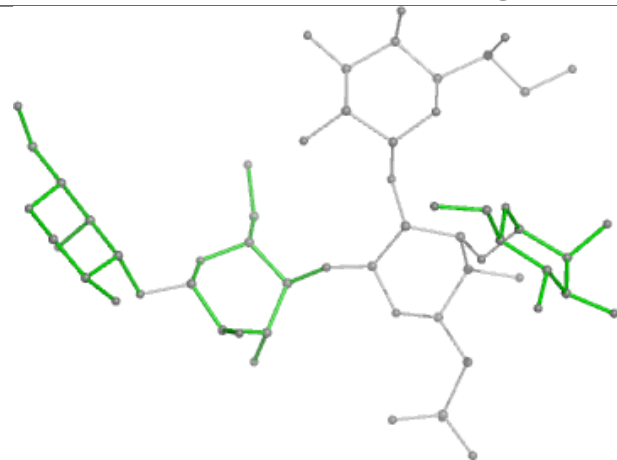




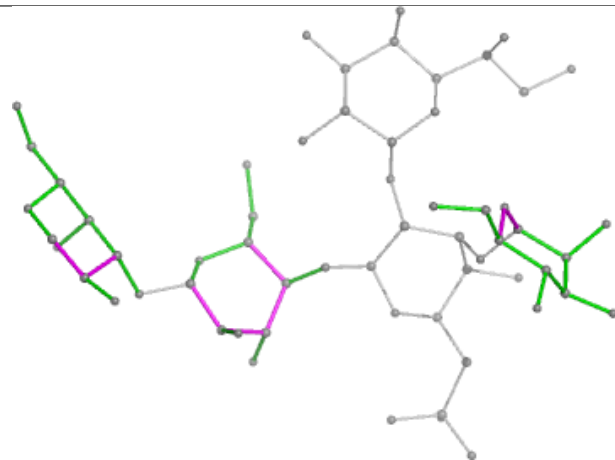




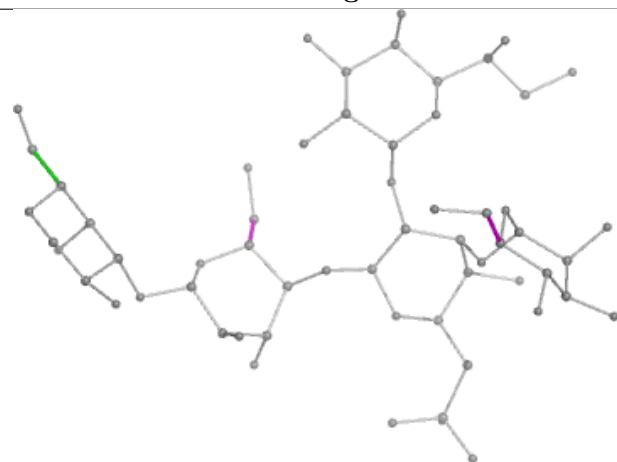
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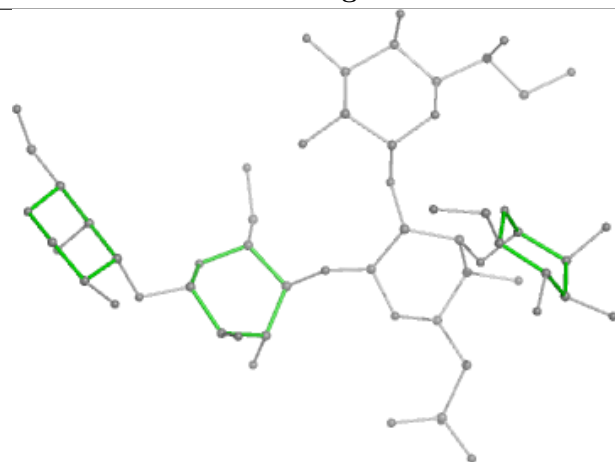
Bond lengths



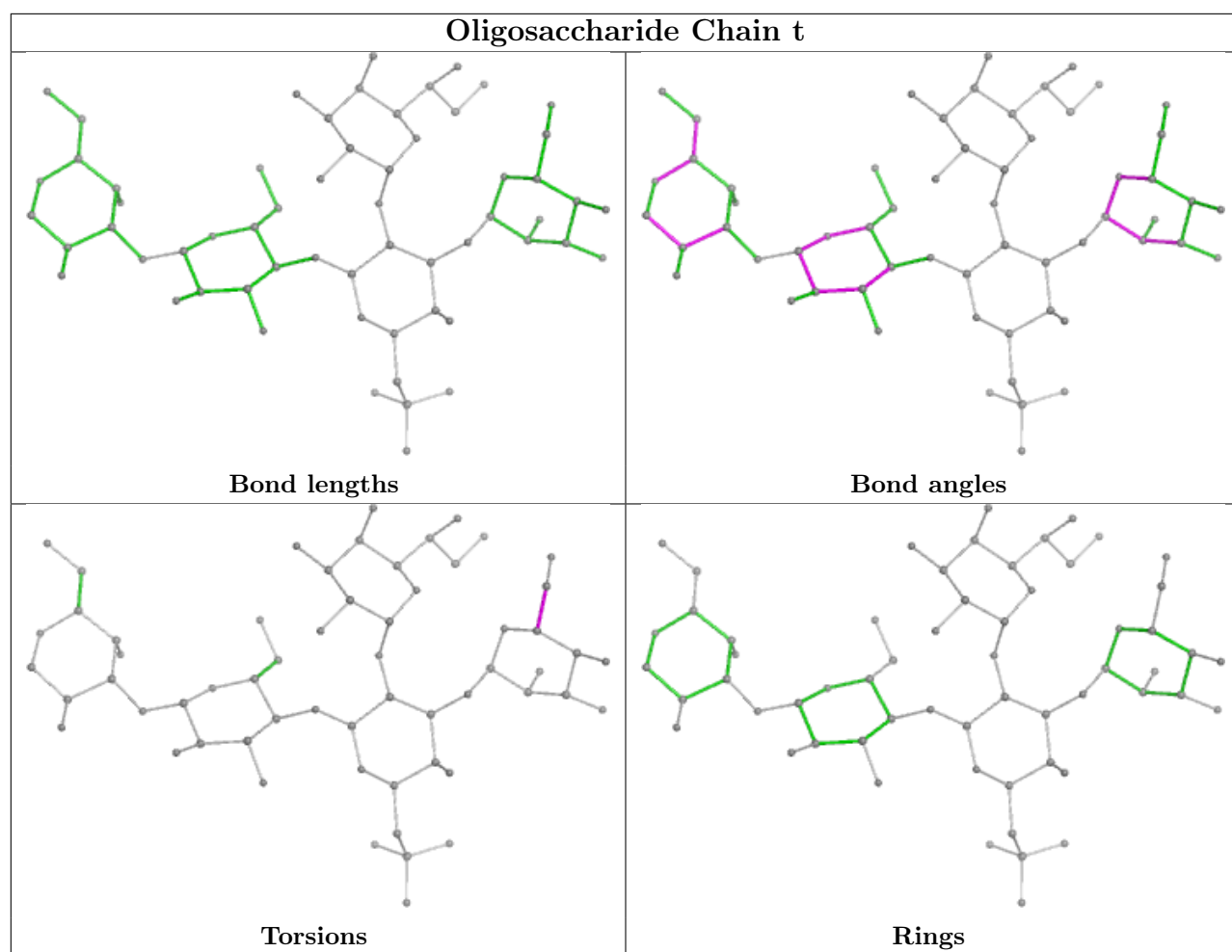
Bond angles

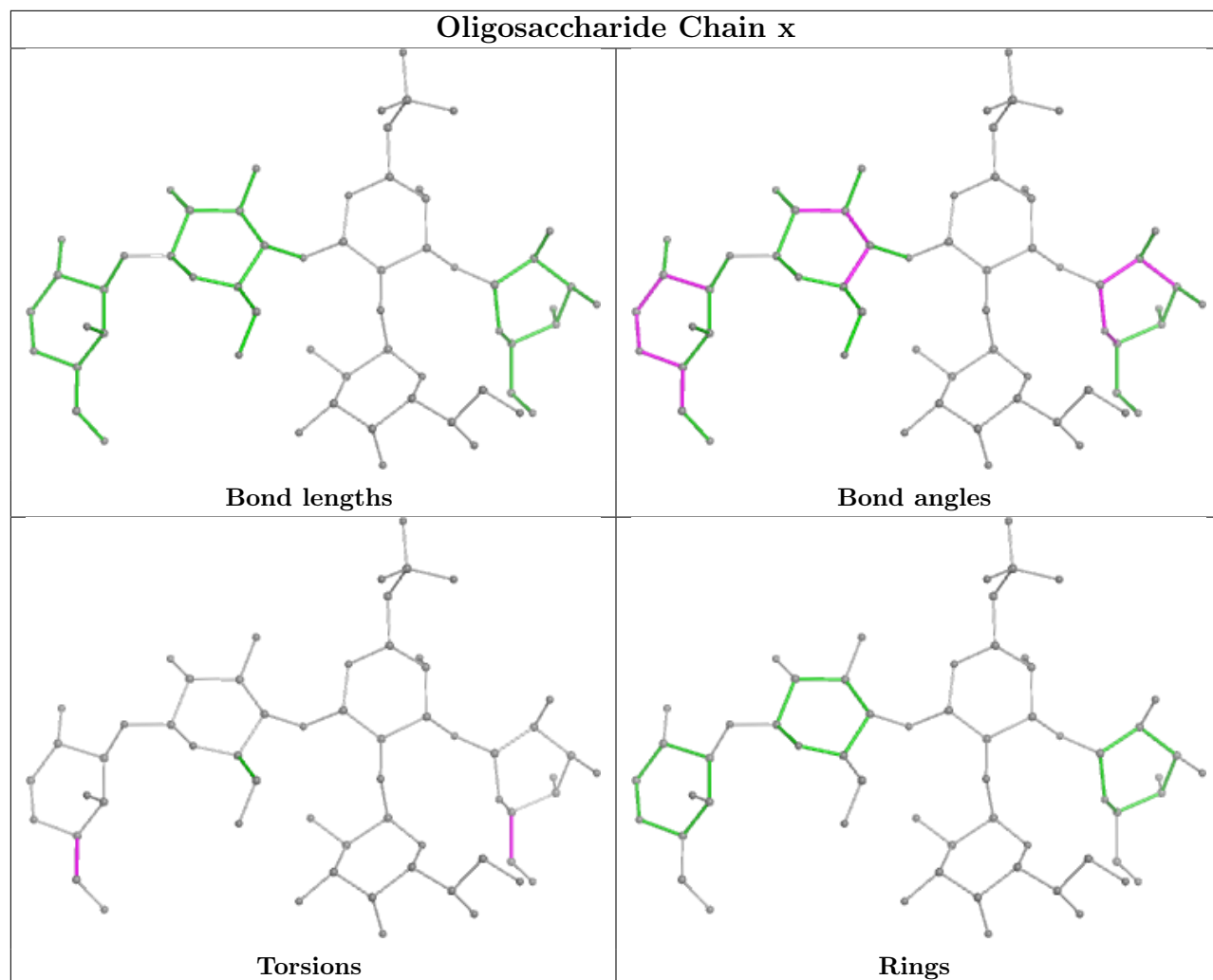


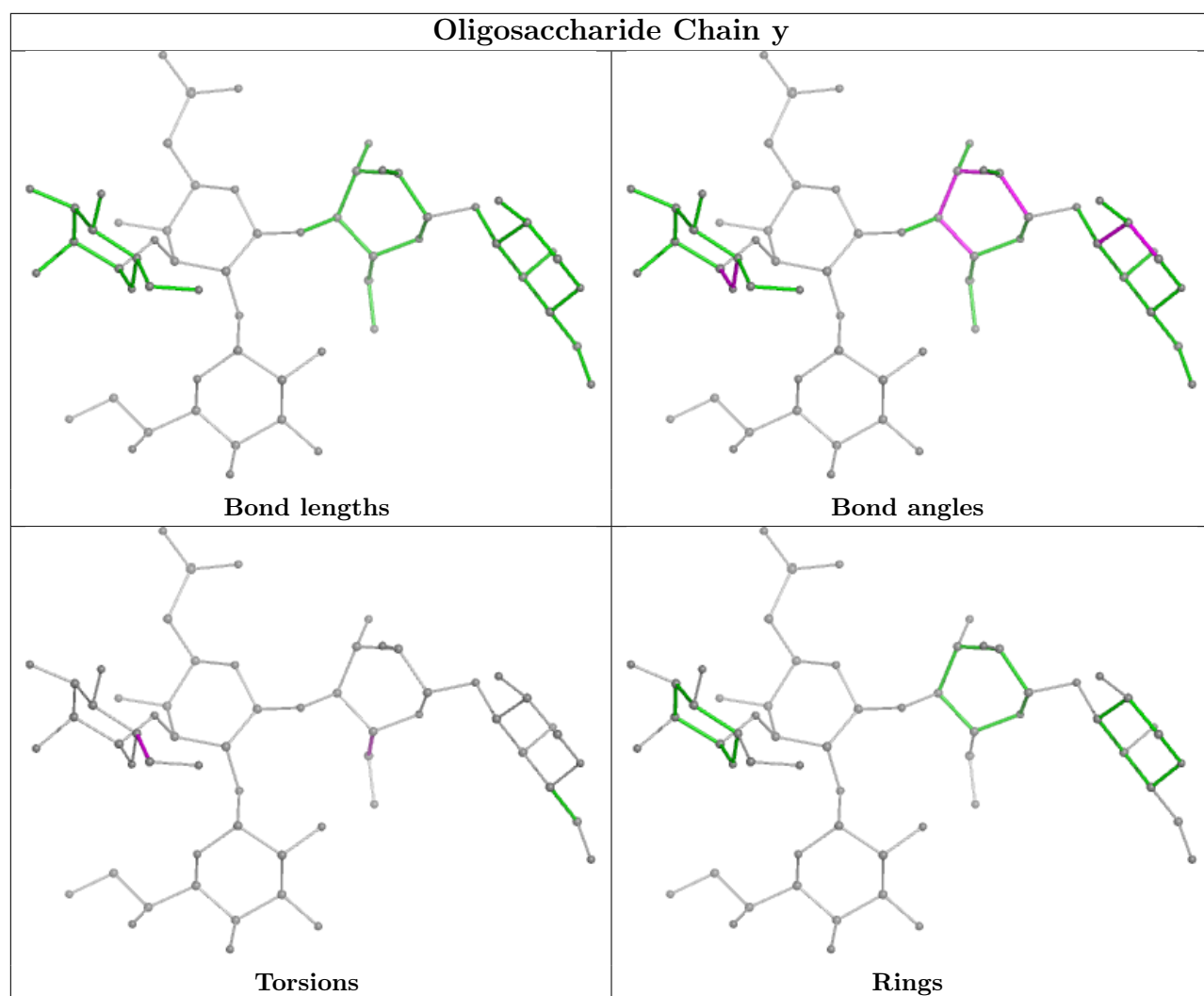
Torsions

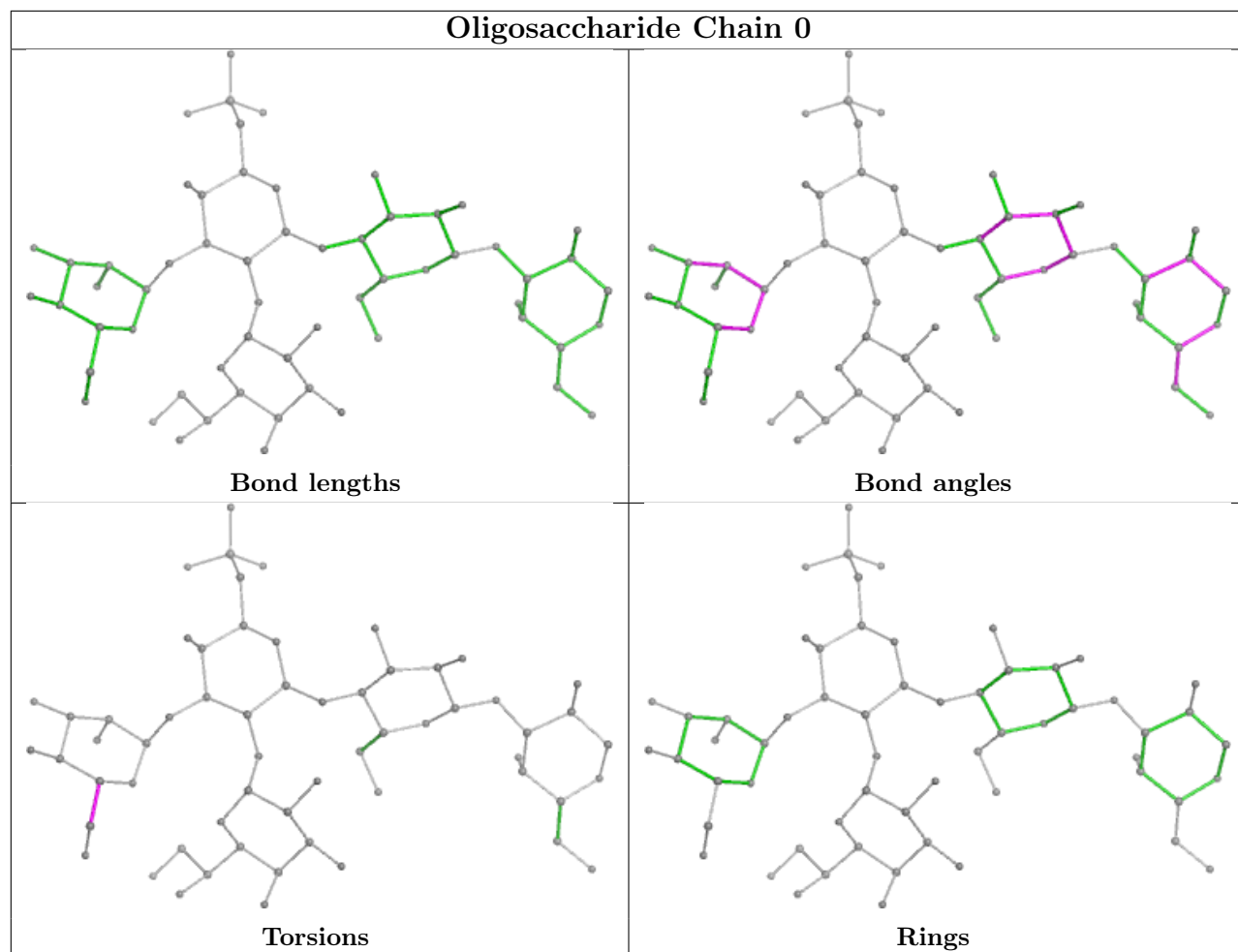


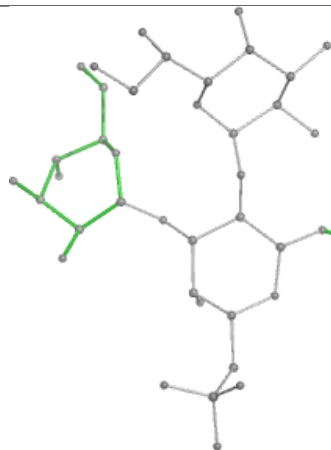
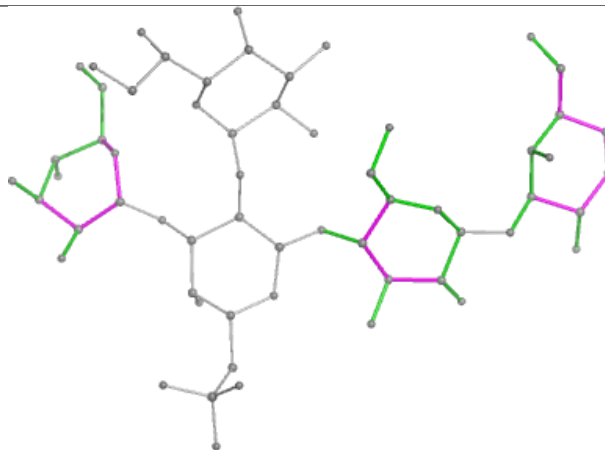
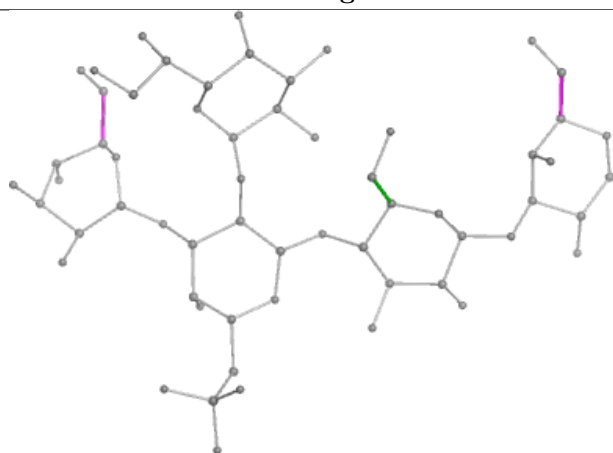
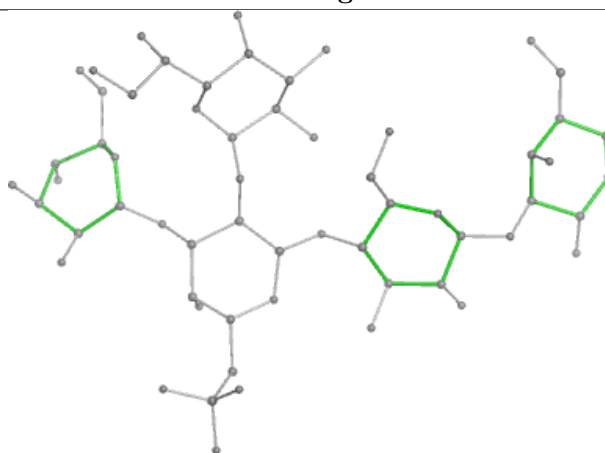
Rings



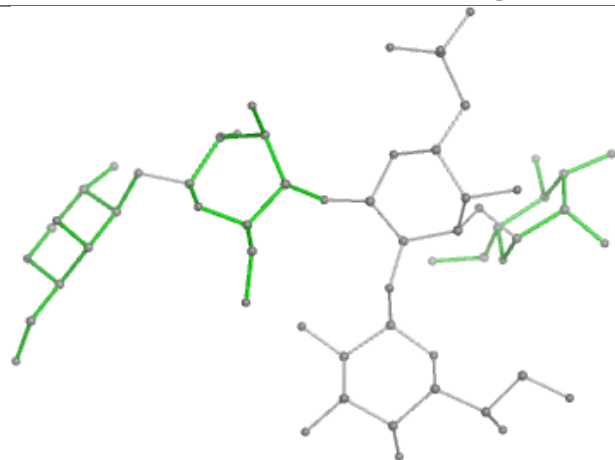




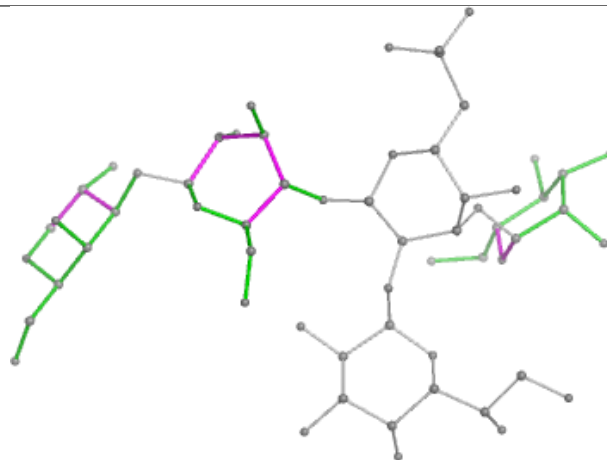


**Oligosaccharide Chain 4****Bond lengths****Bond angles****Torsions****Rings**

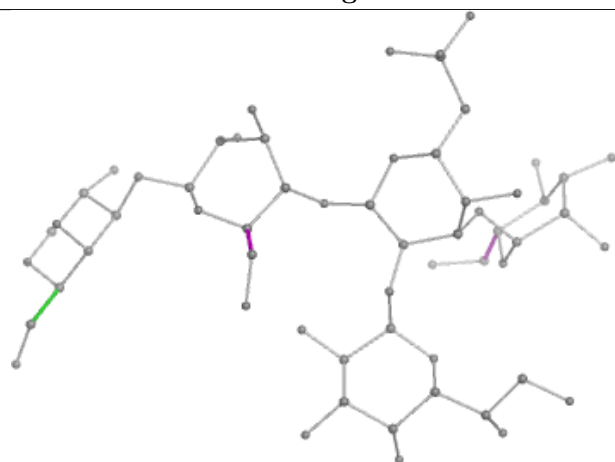
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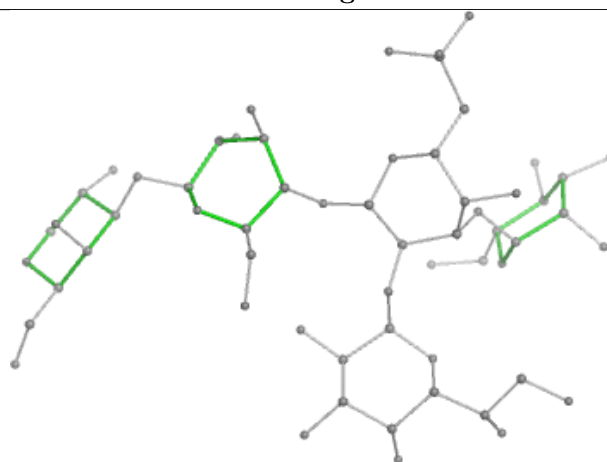
Bond lengths



Bond angles

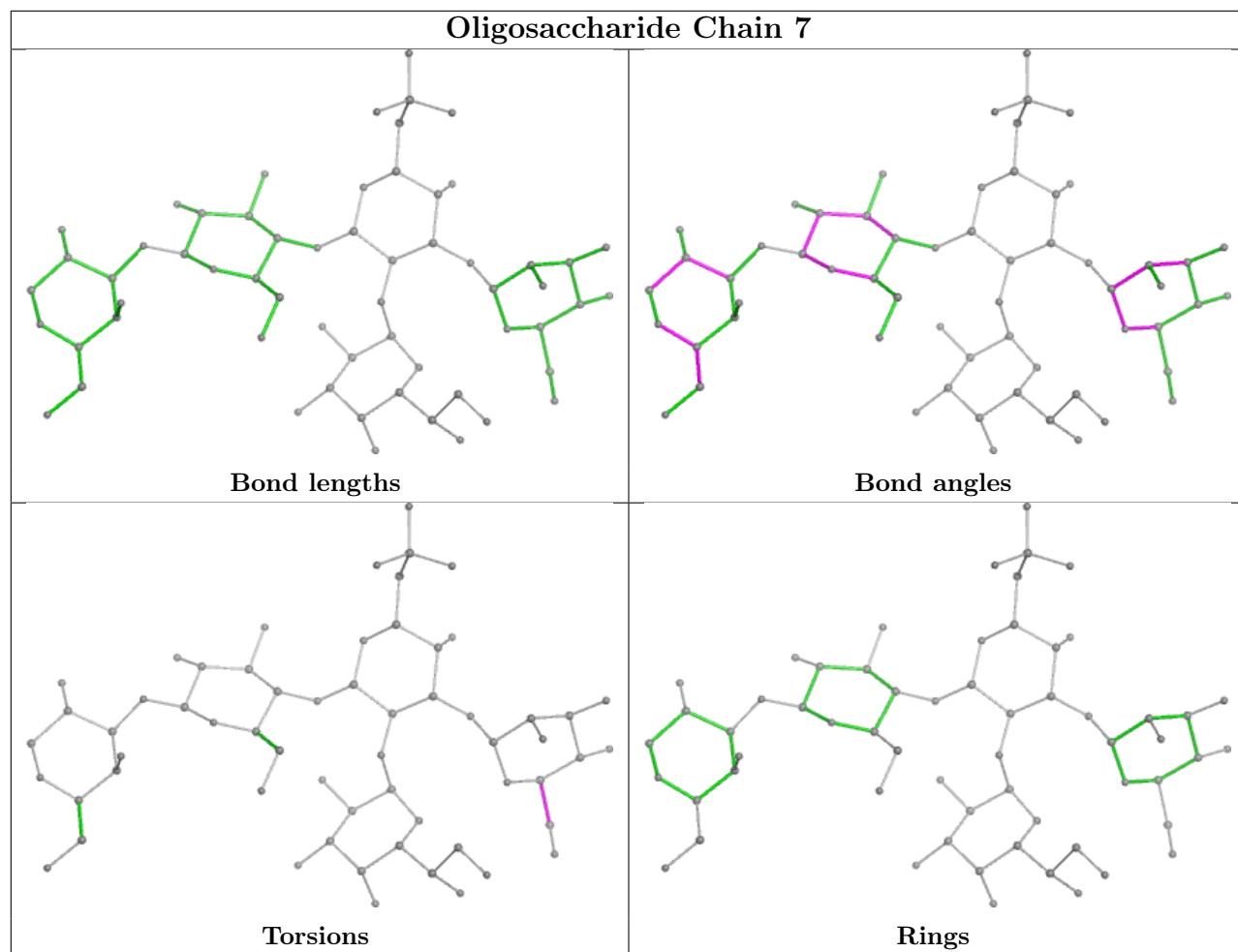


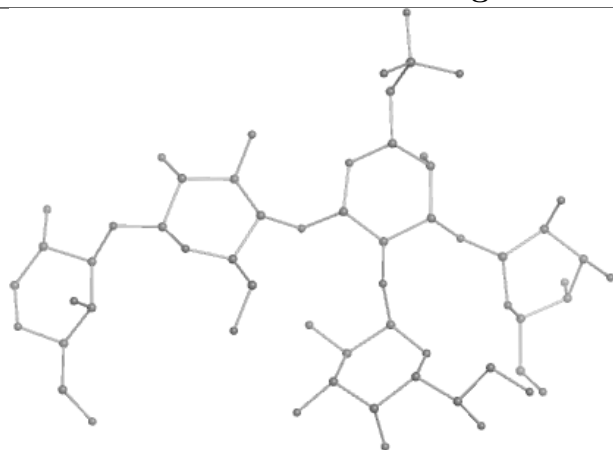
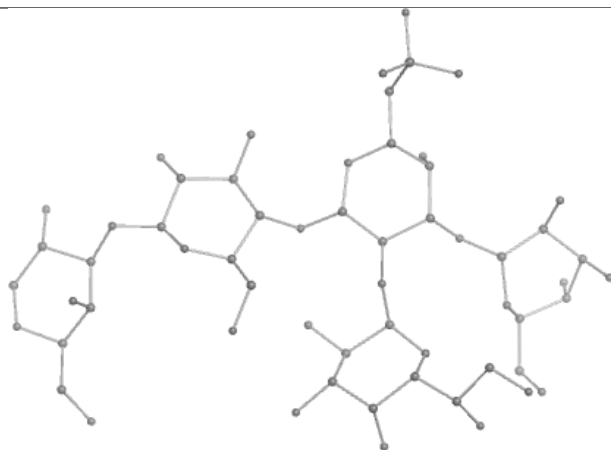
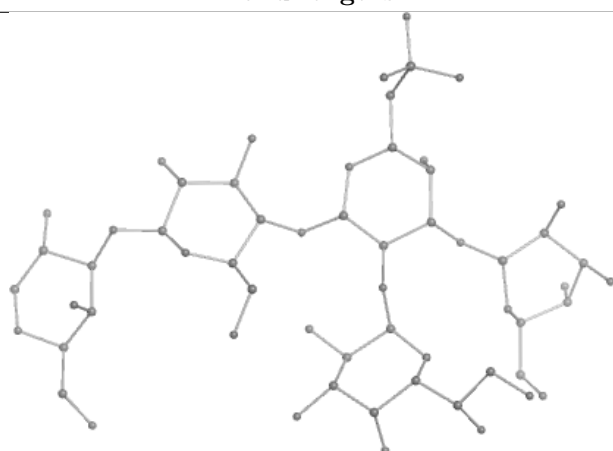
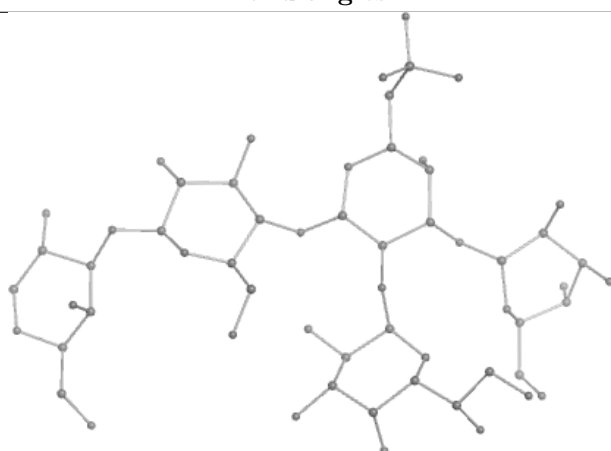
Torsions

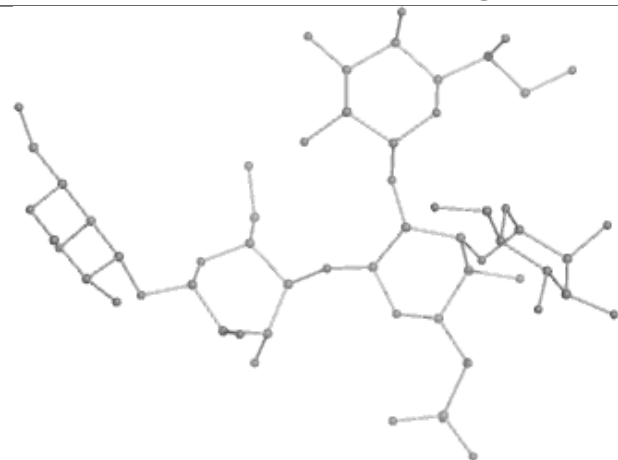
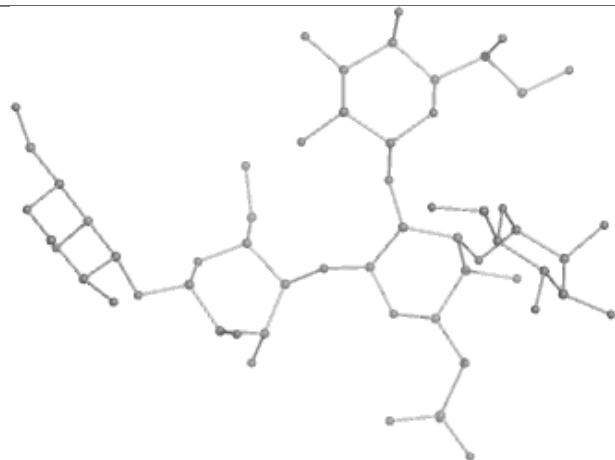
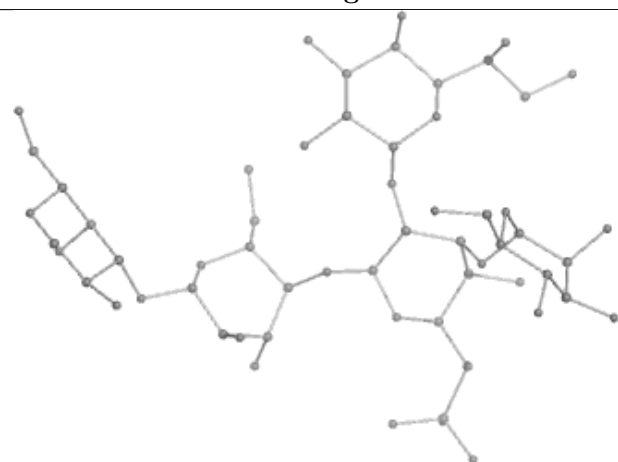
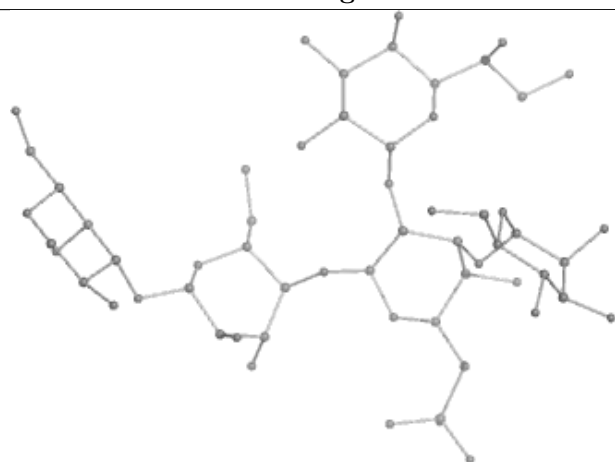


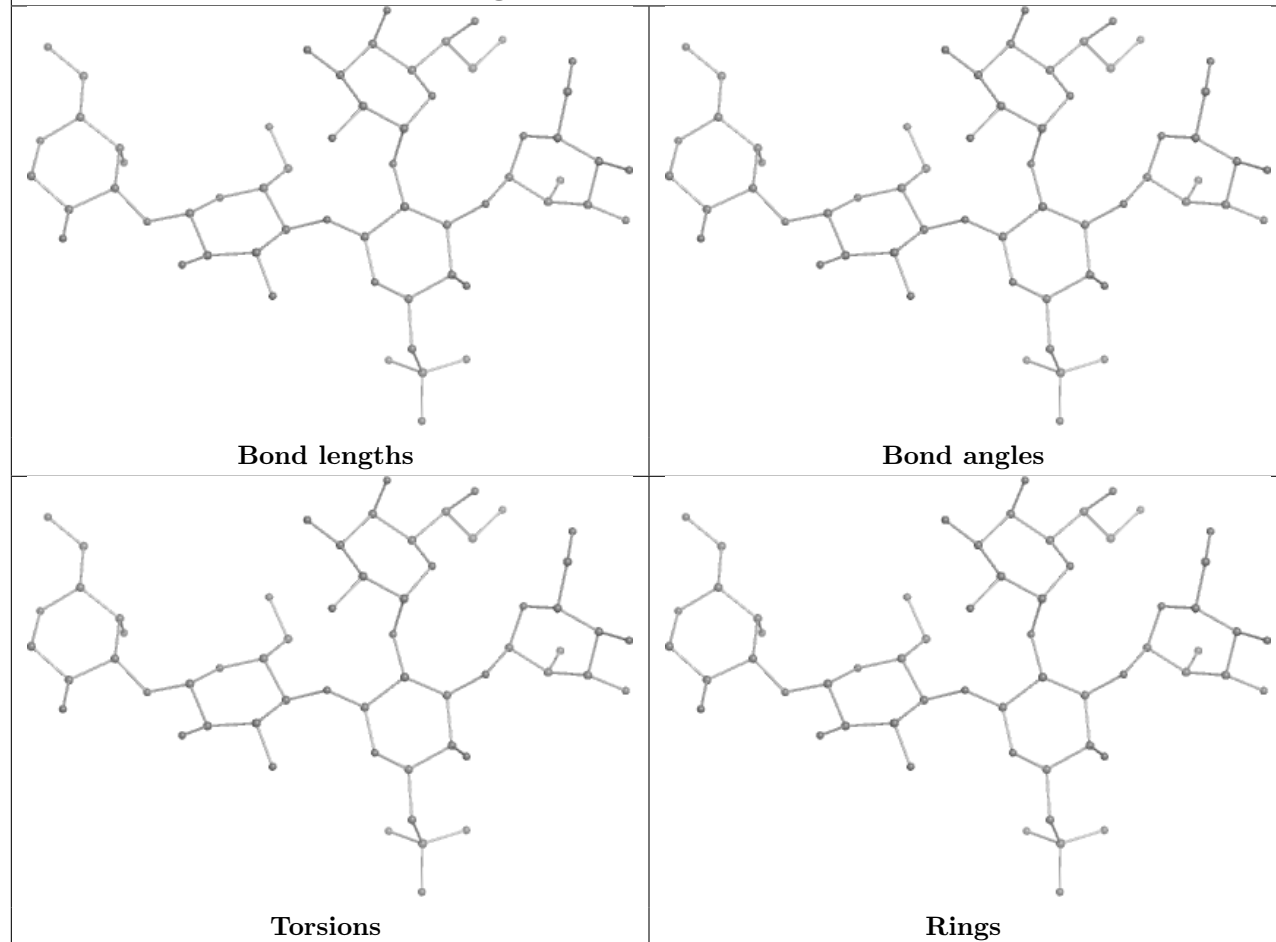
Rings

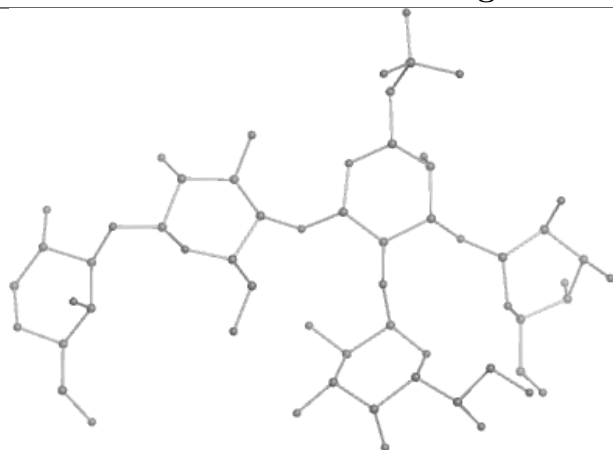
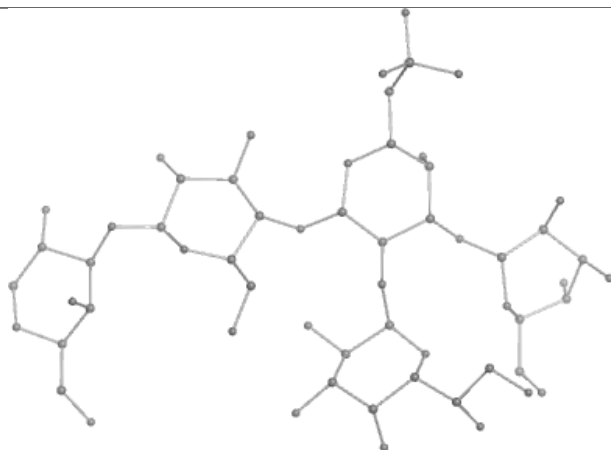
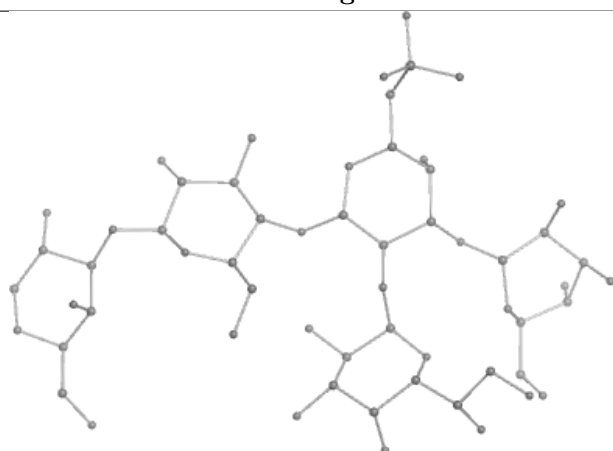
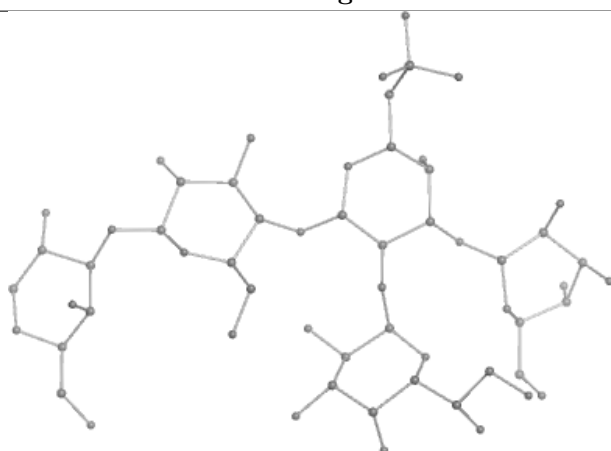
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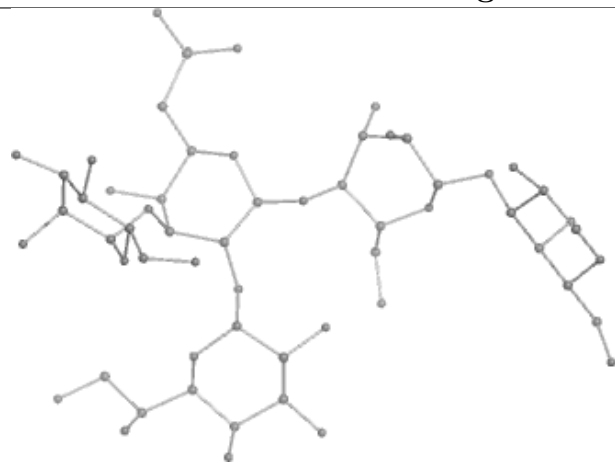
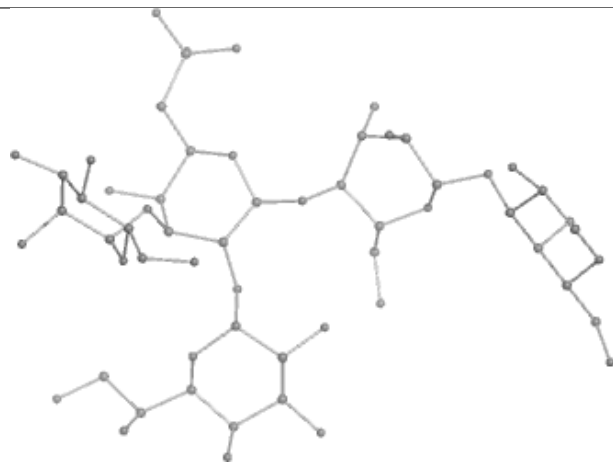
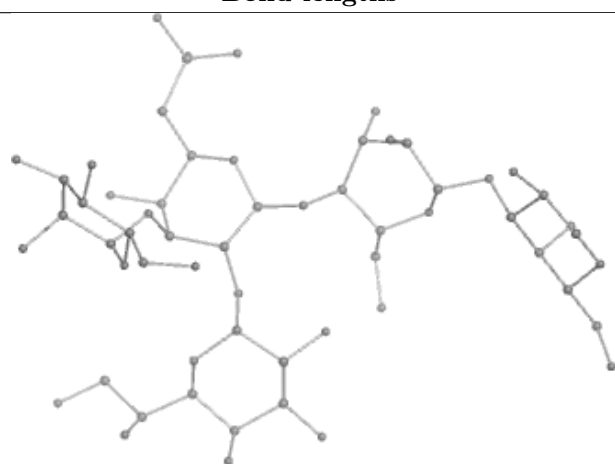
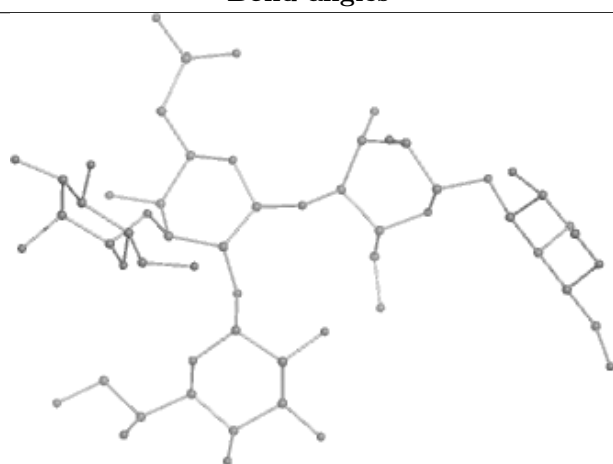


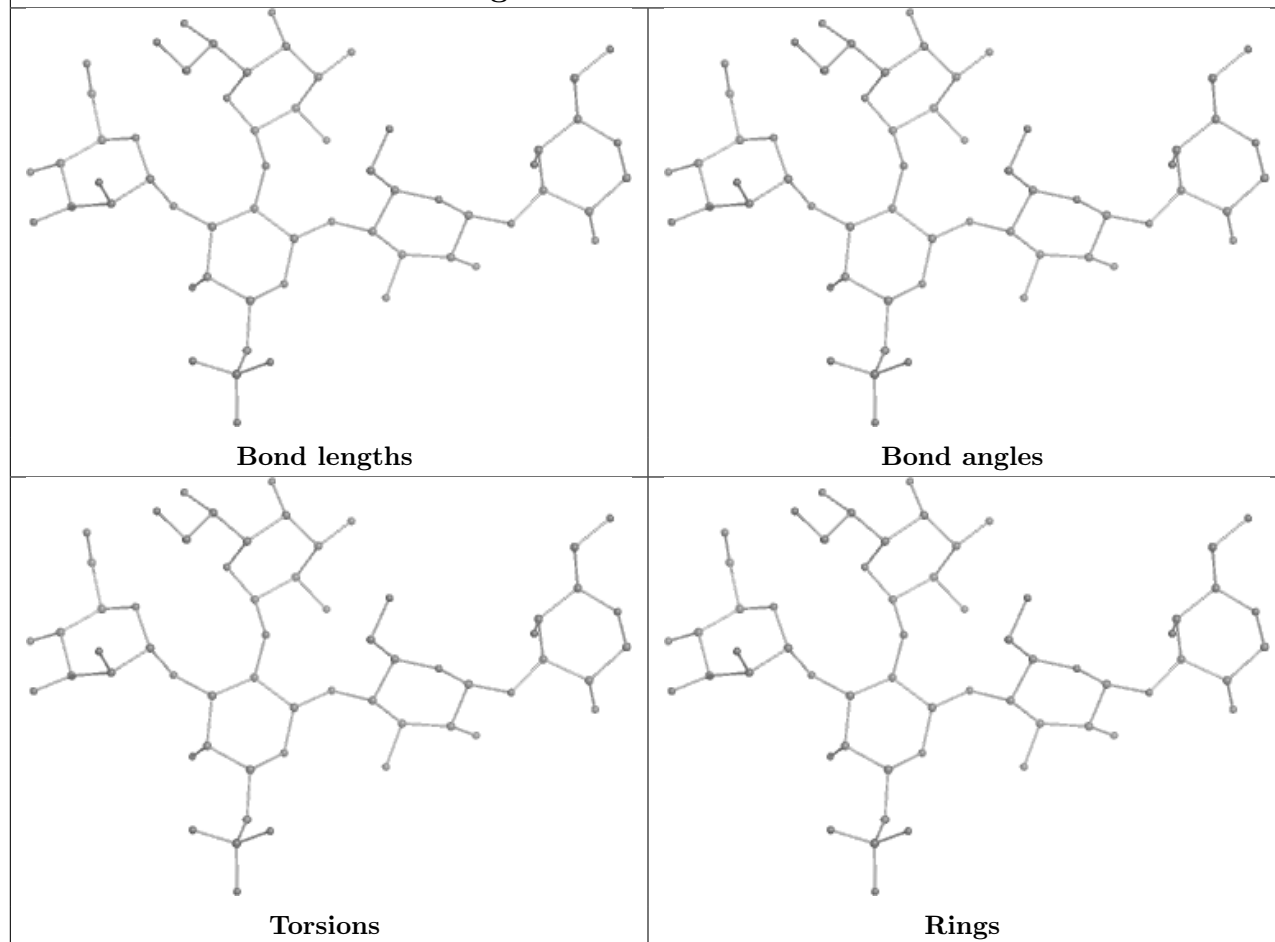
**Oligosaccharide Chain BA****Bond lengths****Bond angles****Torsions****Rings**

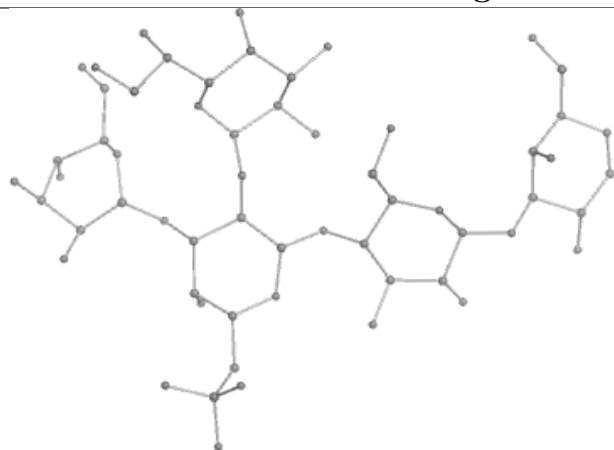
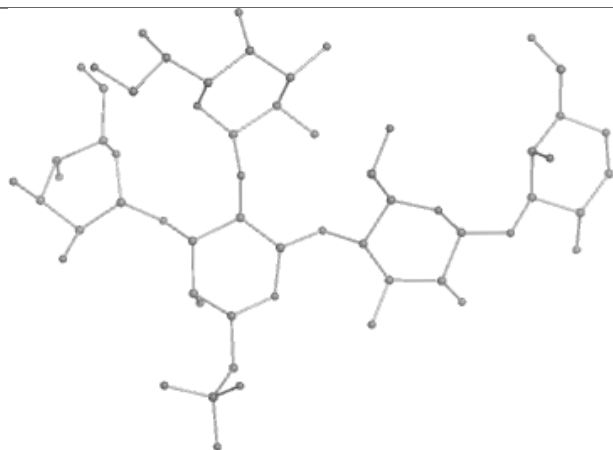
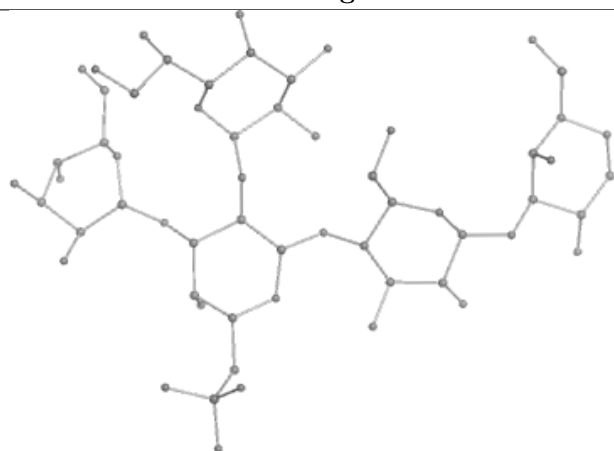
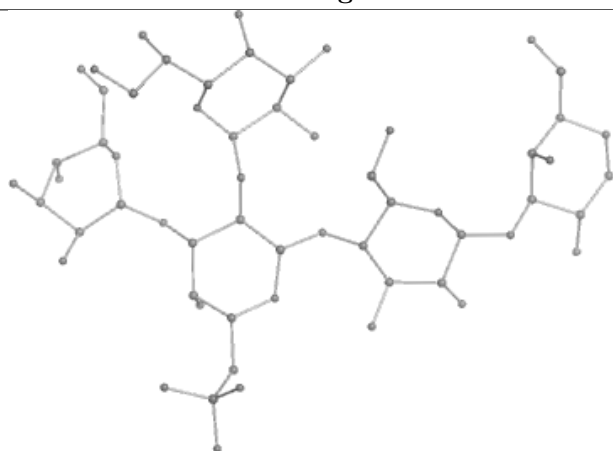
**Oligosaccharide Chain CA****Bond lengths****Bond angles****Torsions****Rings**

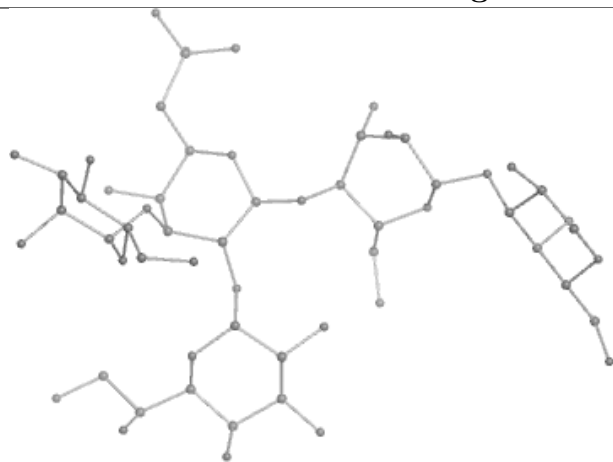
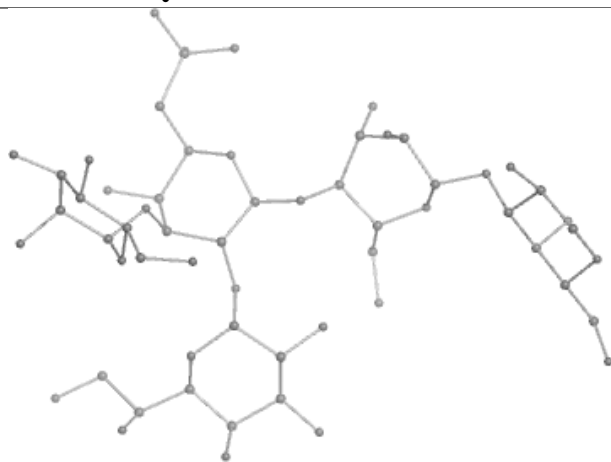
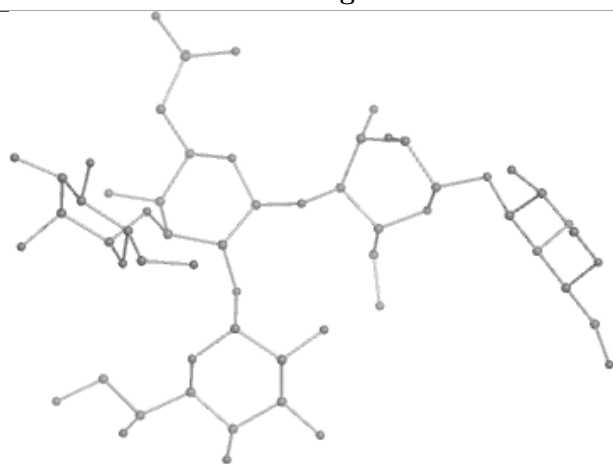
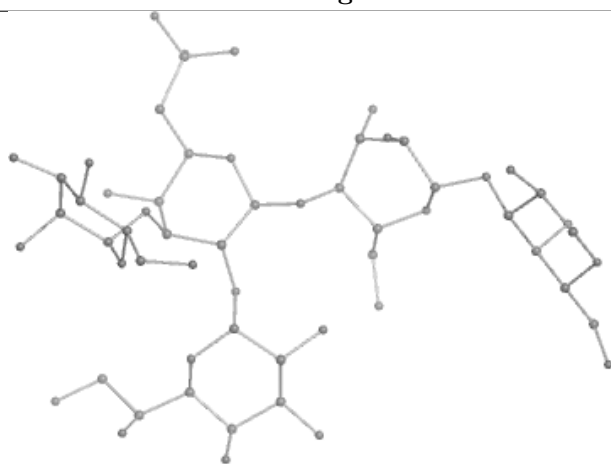
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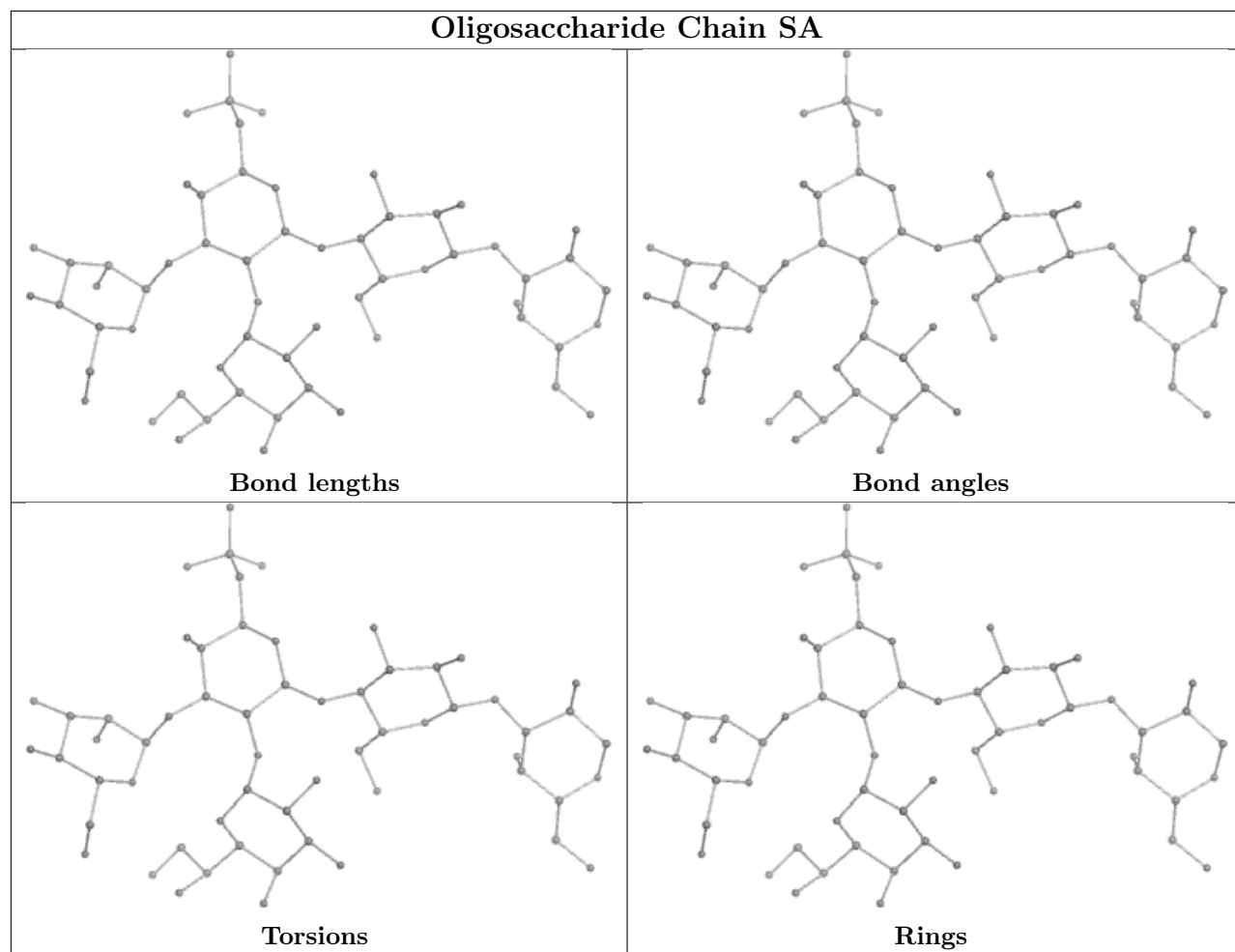
**Oligosaccharide Chain IA****Bond lengths****Bond angles****Torsions****Rings**

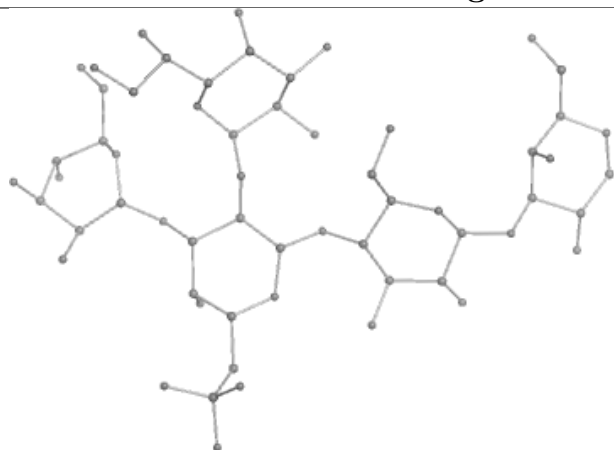
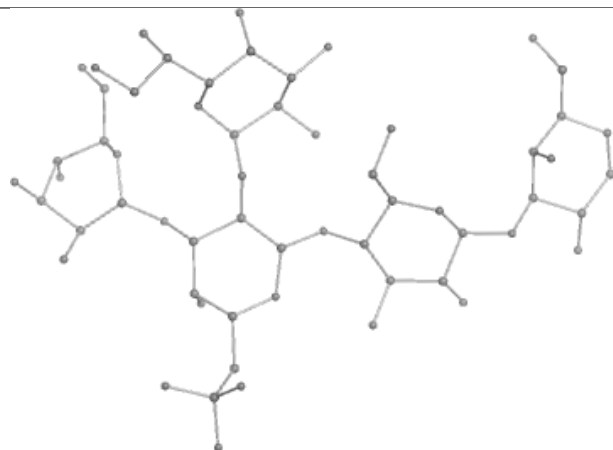
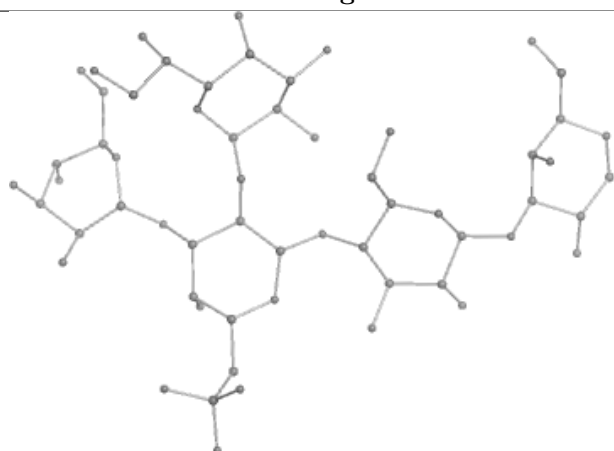
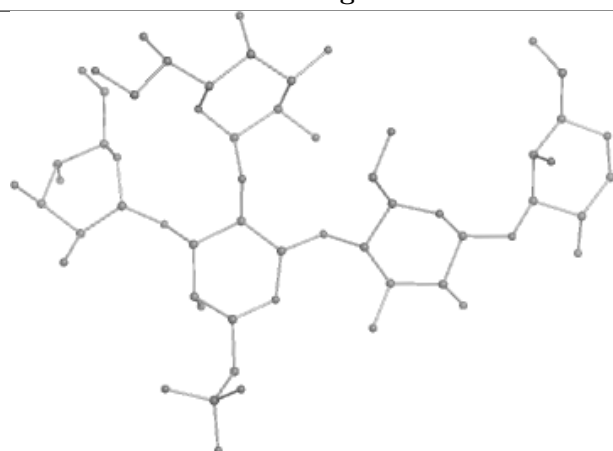
**Oligosaccharide Chain JA****Bond lengths****Bond angles****Torsions****Rings**

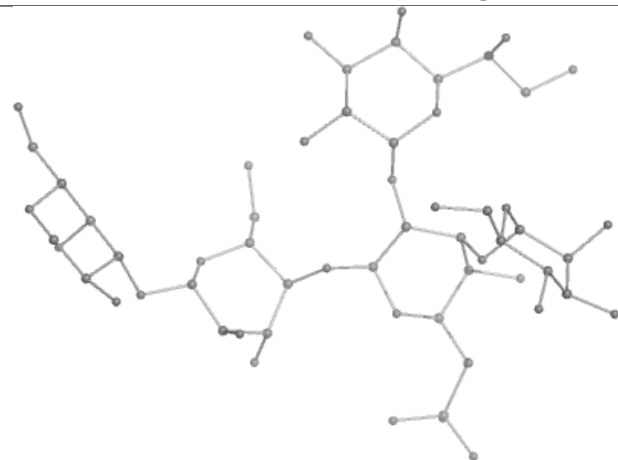
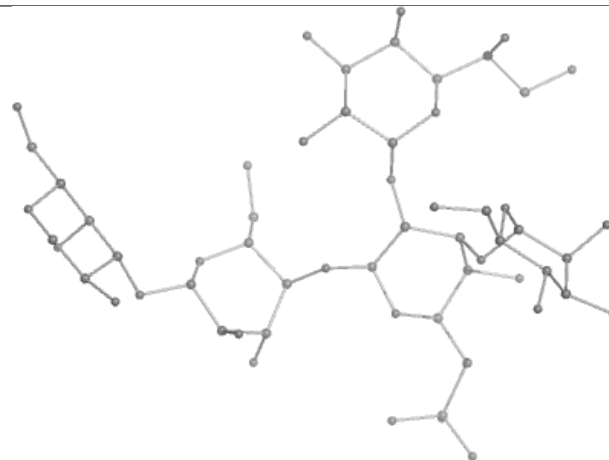
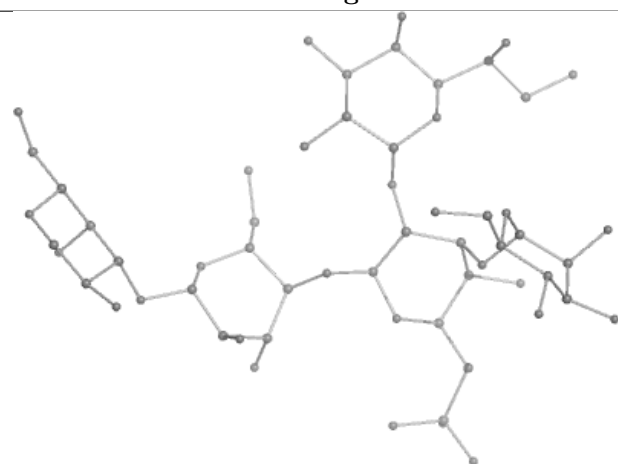
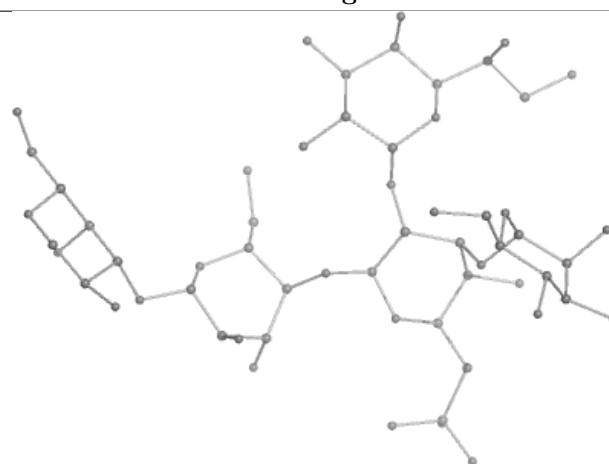
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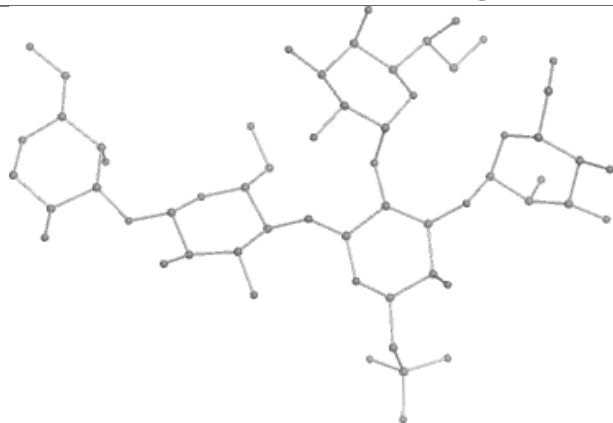
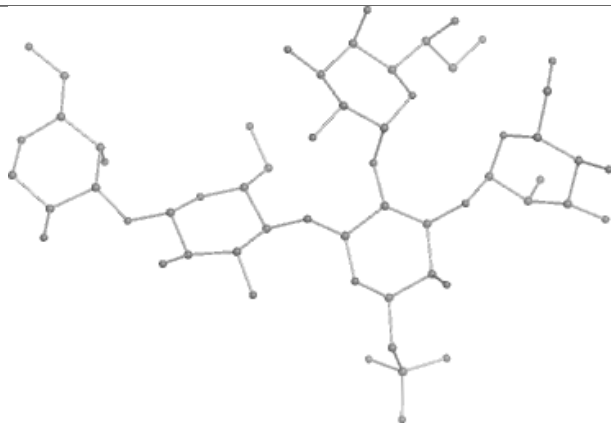
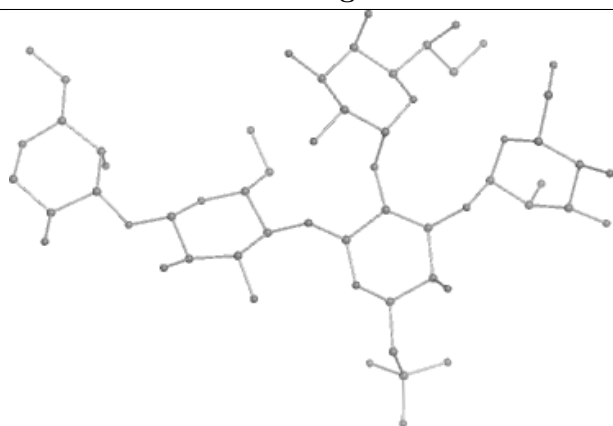
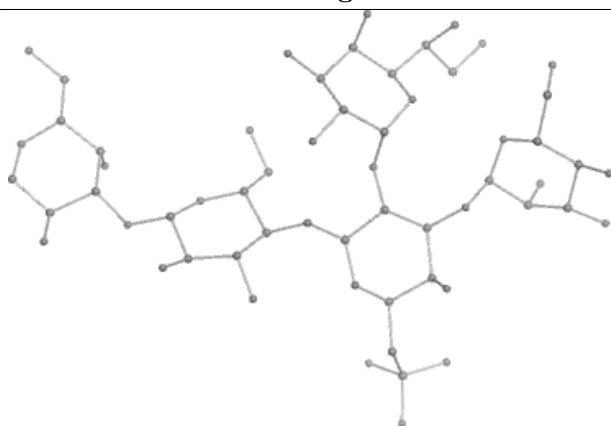
**Oligosaccharide Chain PA****Bond lengths****Bond angles****Torsions****Rings**

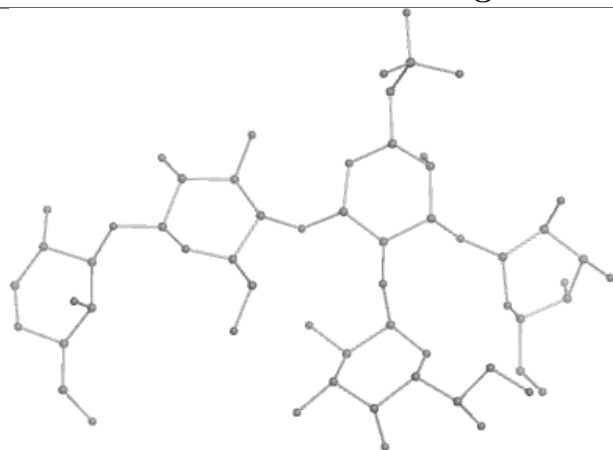
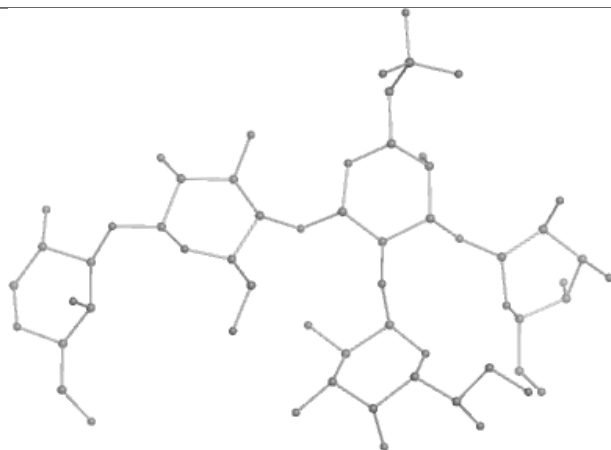
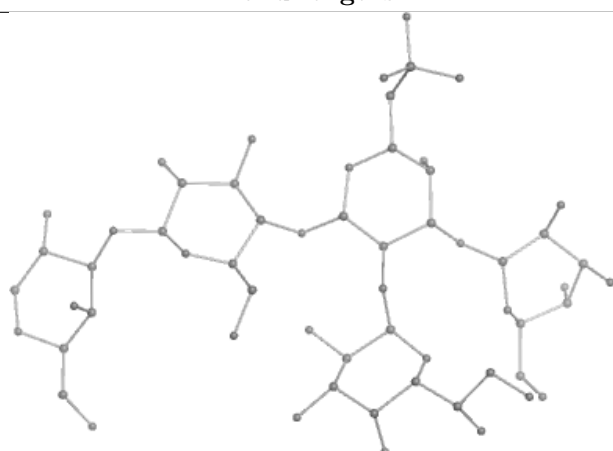
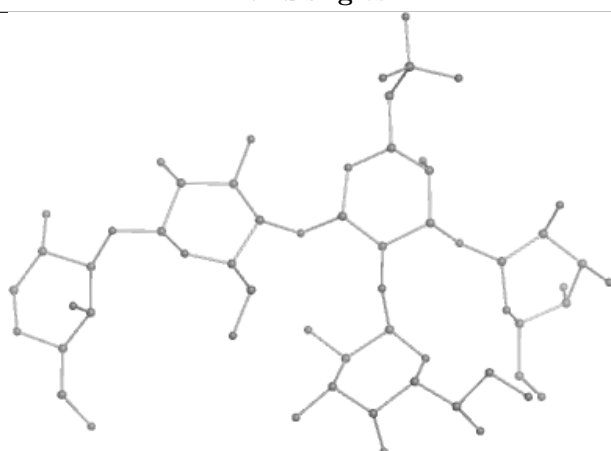
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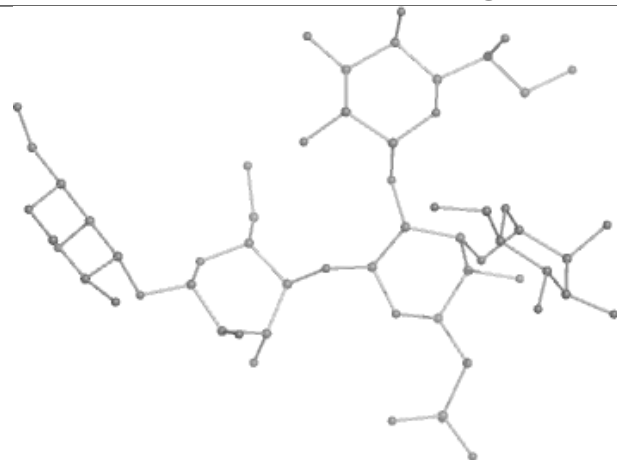
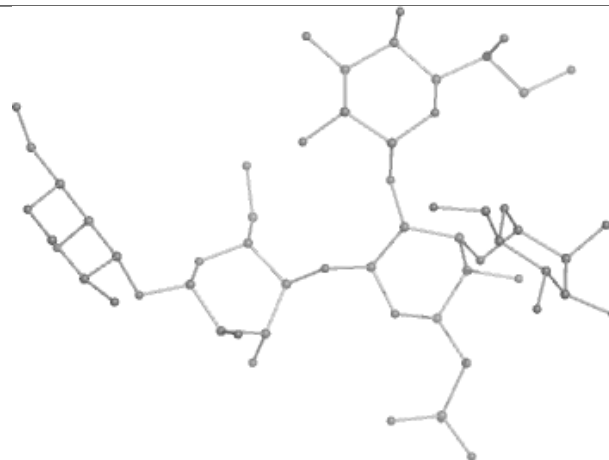
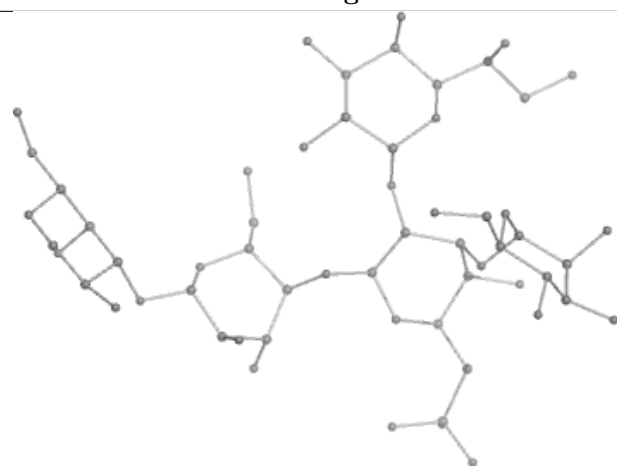
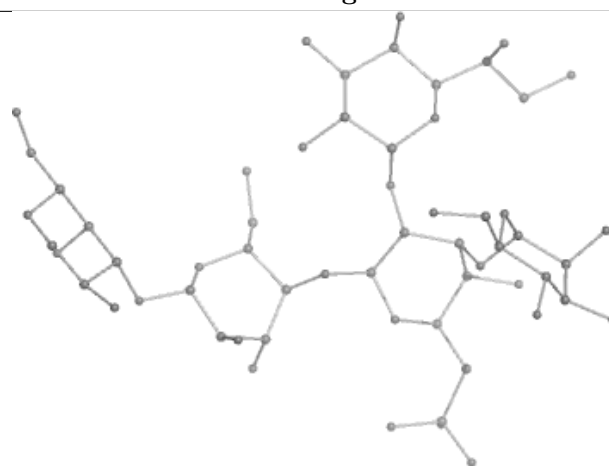


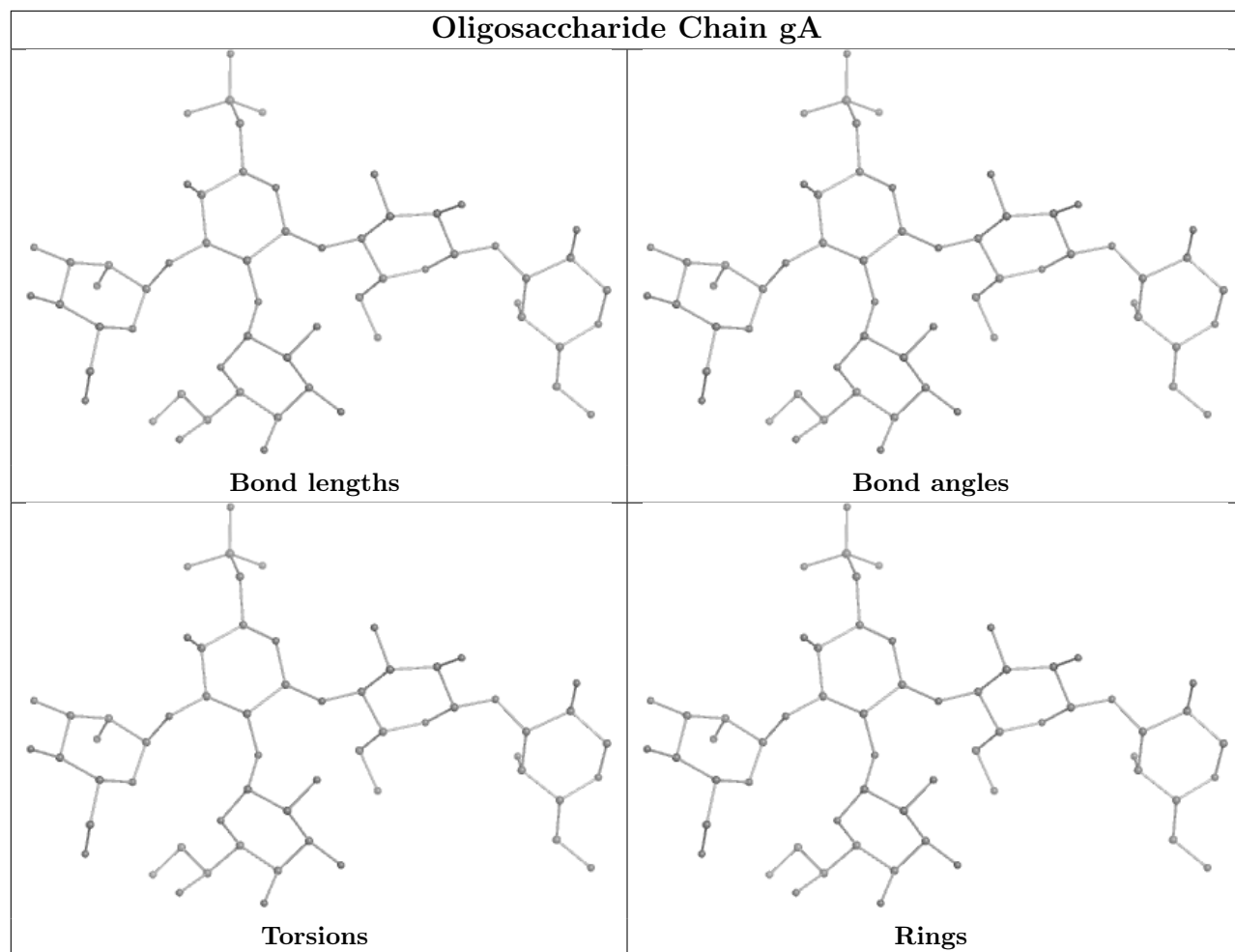
**Oligosaccharide Chain WA****Bond lengths****Bond angles****Torsions****Rings**

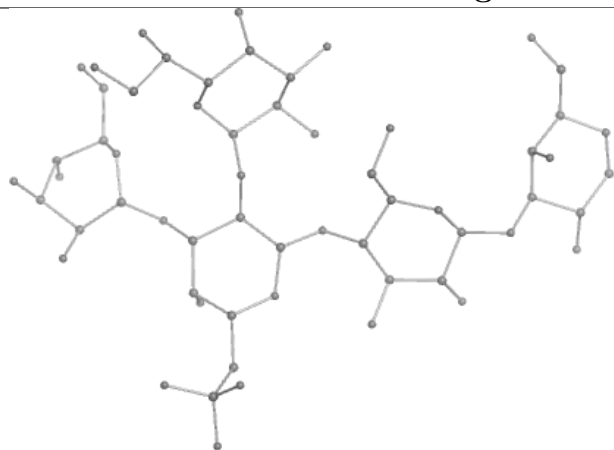
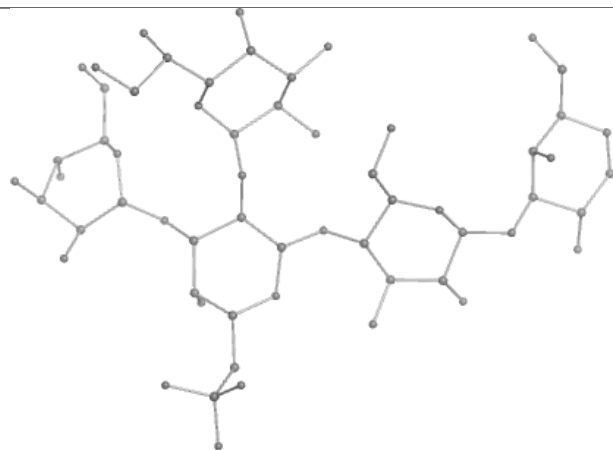
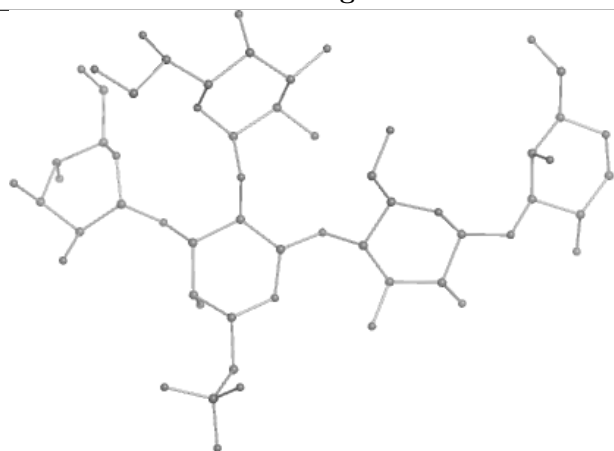
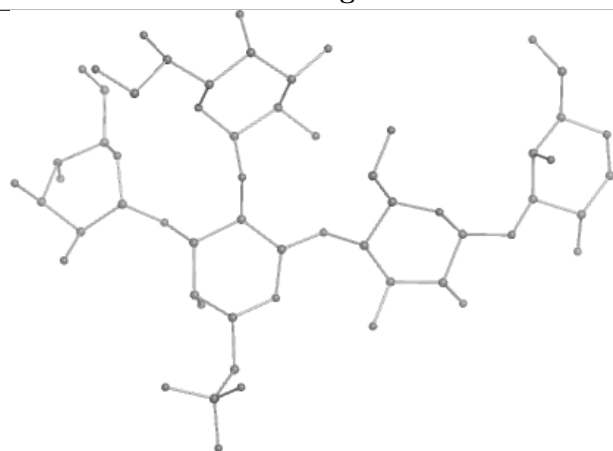
**Oligosaccharide Chain XA****Bond lengths****Bond angles****Torsions****Rings**

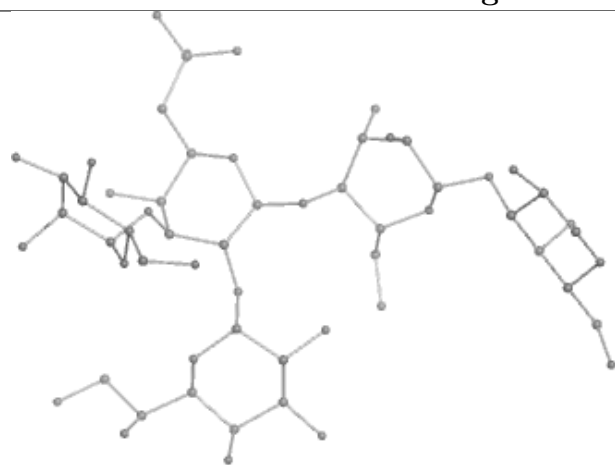
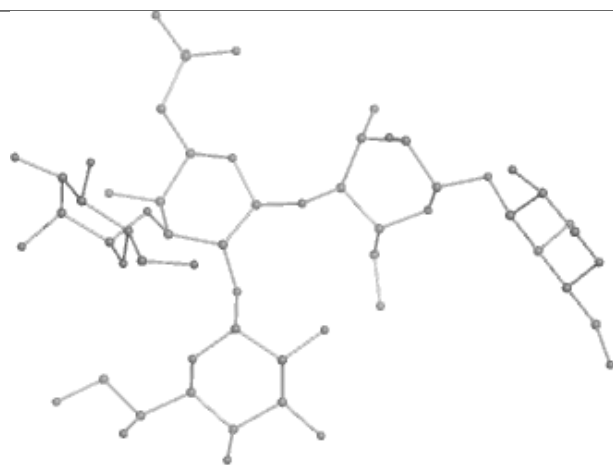
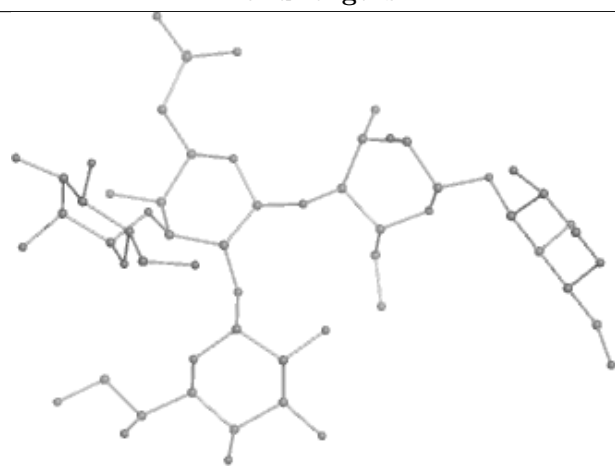
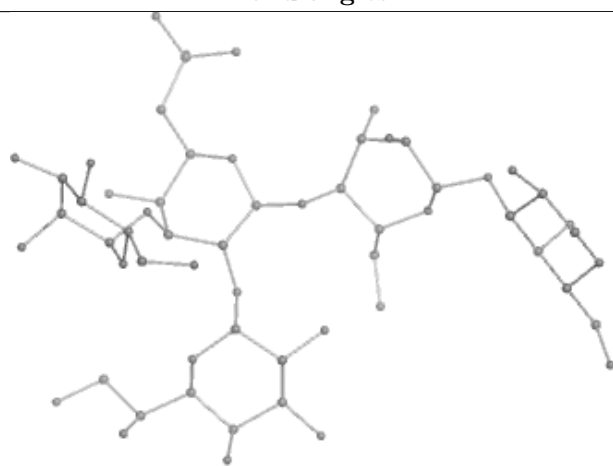
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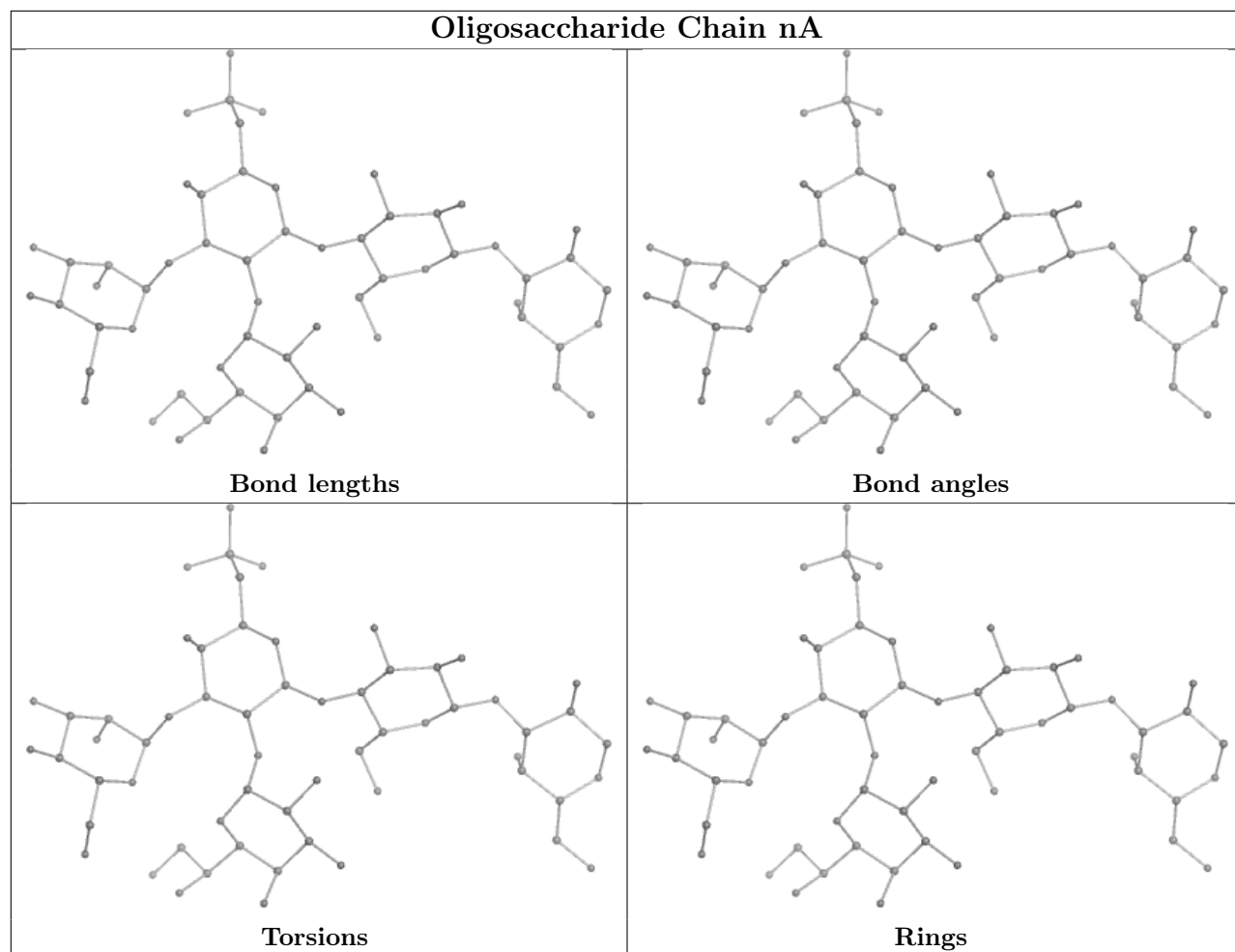
**Oligosaccharide Chain dA****Bond lengths****Bond angles****Torsions****Rings**

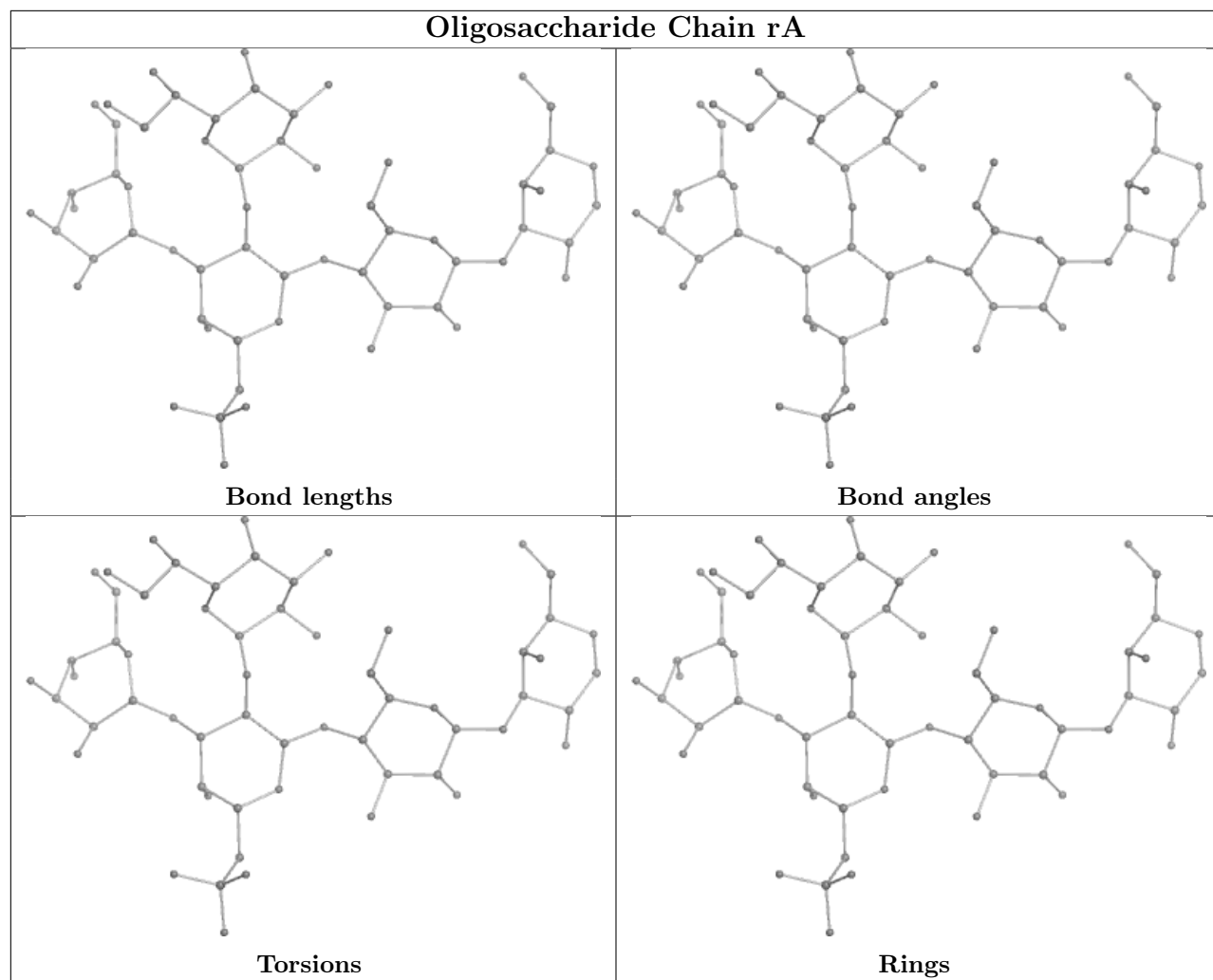
**Oligosaccharide Chain eA****Bond lengths****Bond angles****Torsions****Rings**

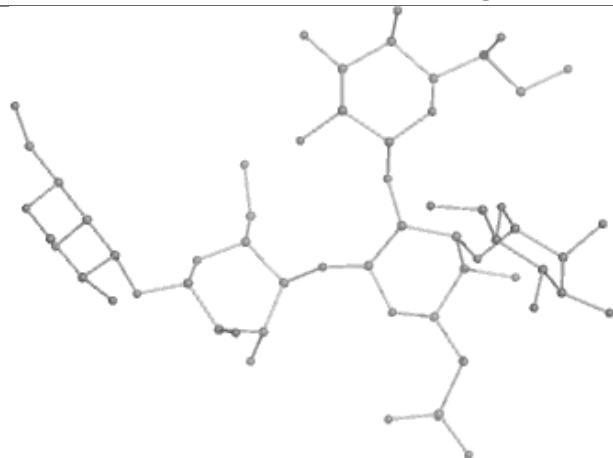
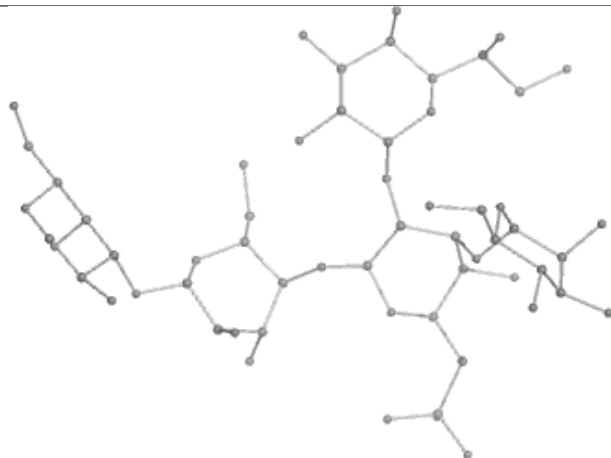
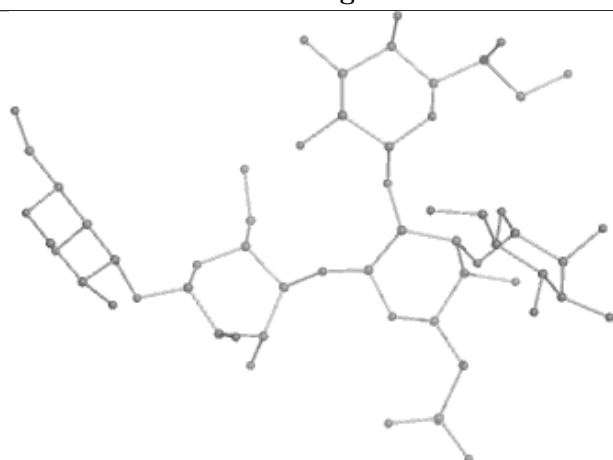
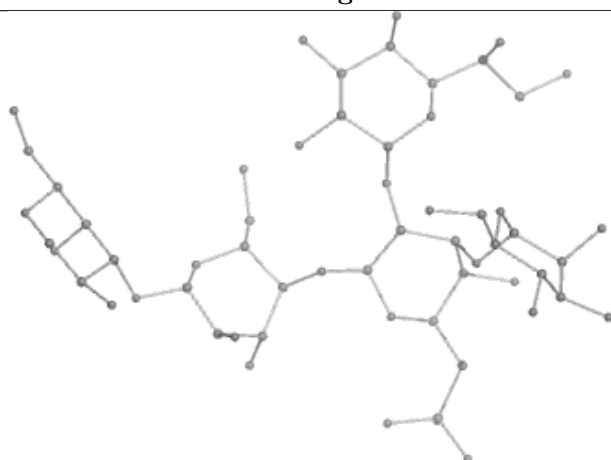


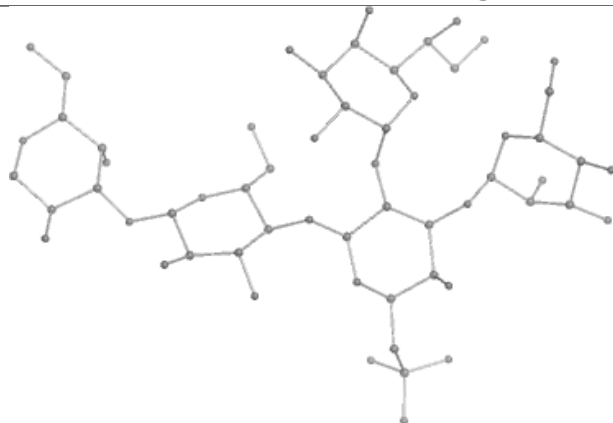
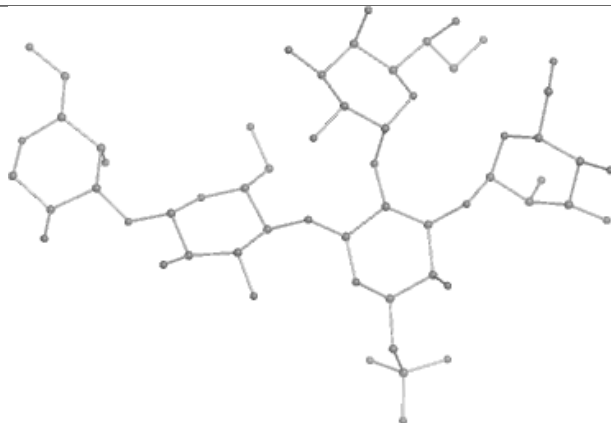
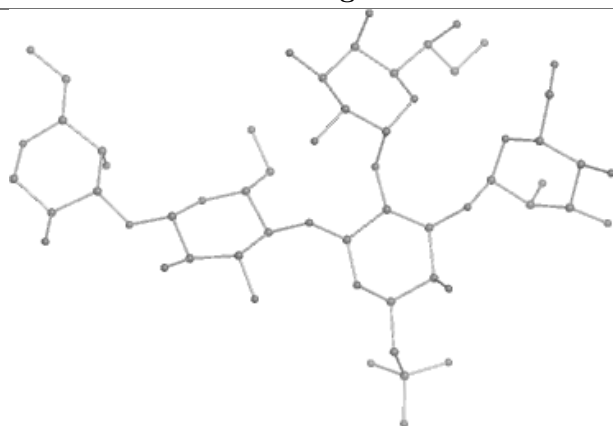
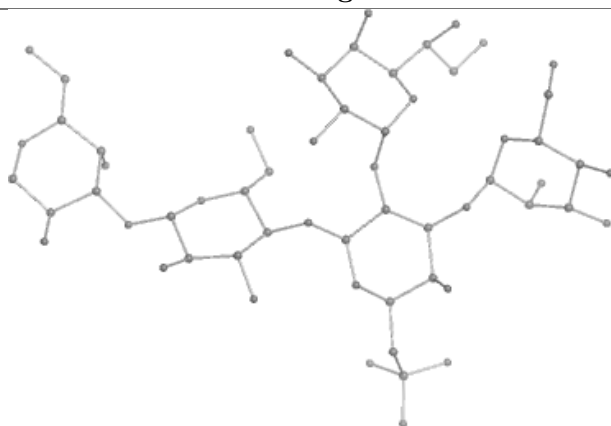
**Oligosaccharide Chain kA****Bond lengths****Bond angles****Torsions****Rings**

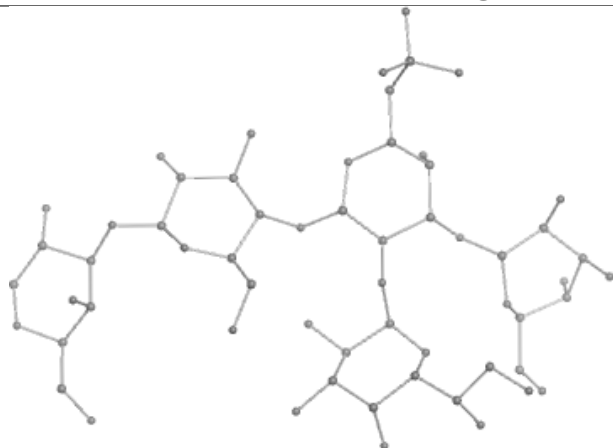
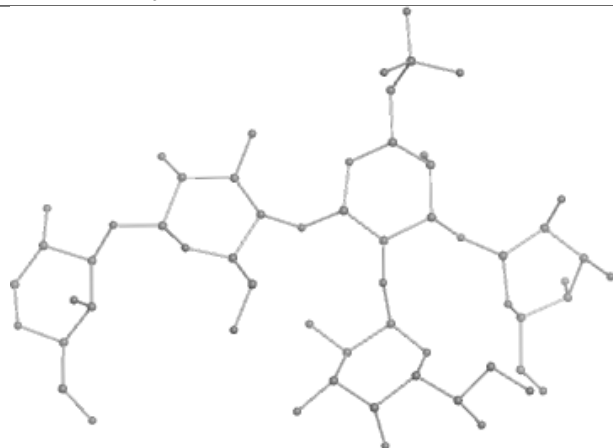
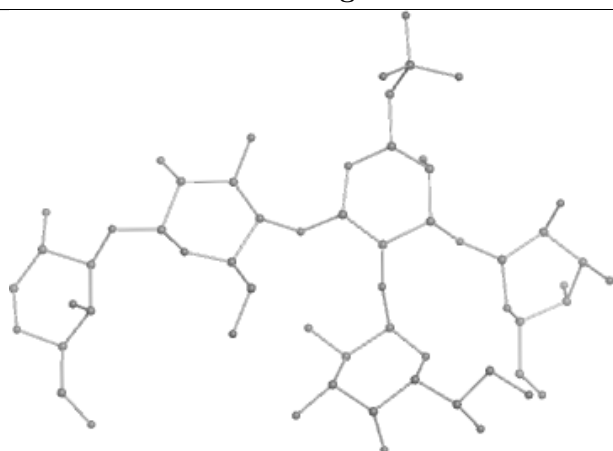
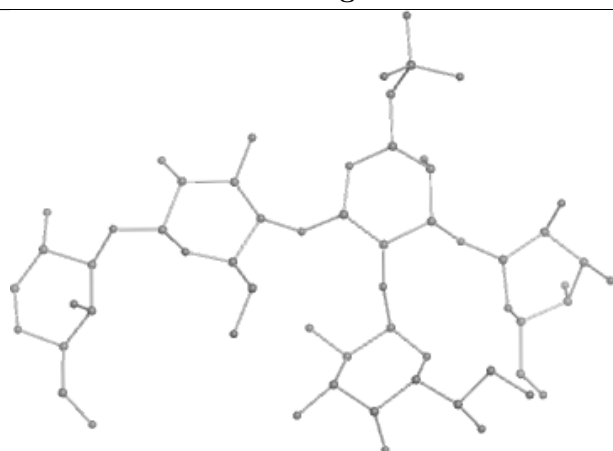
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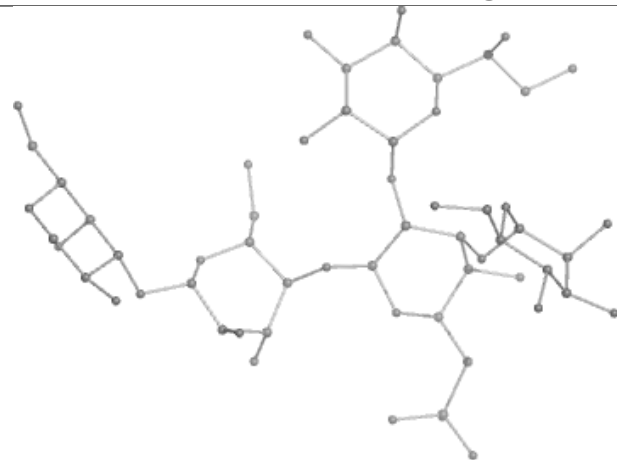
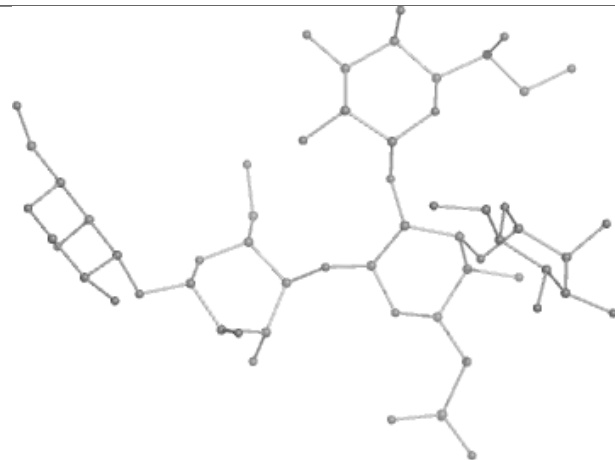
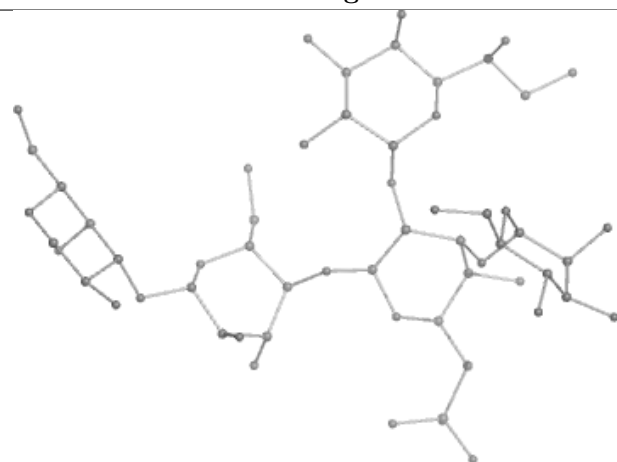
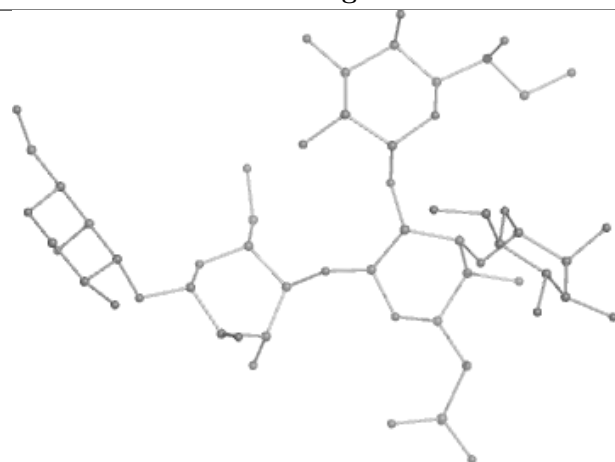


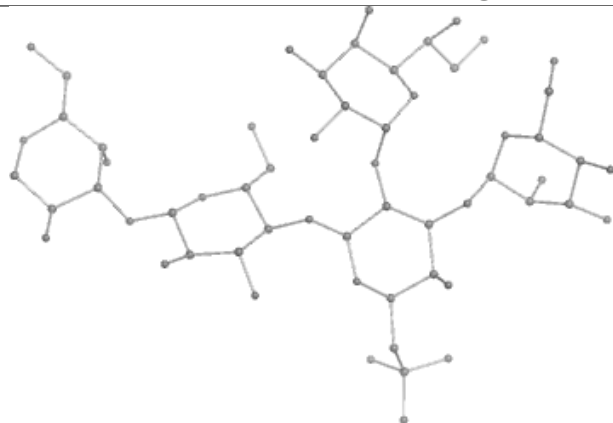
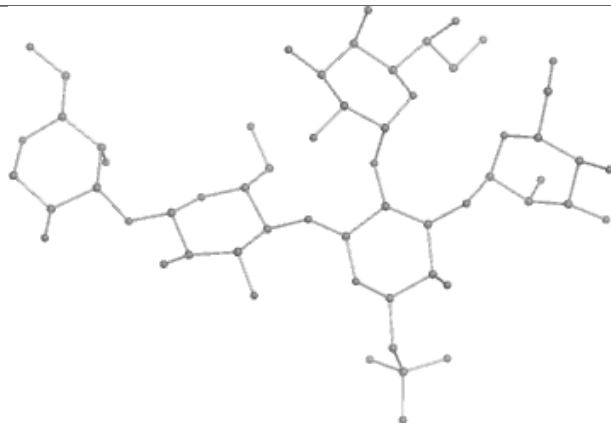
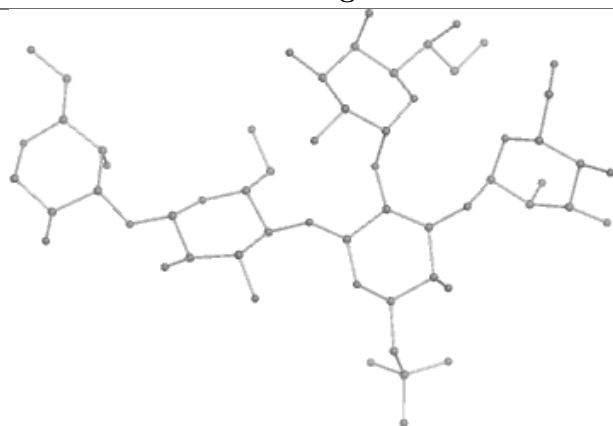
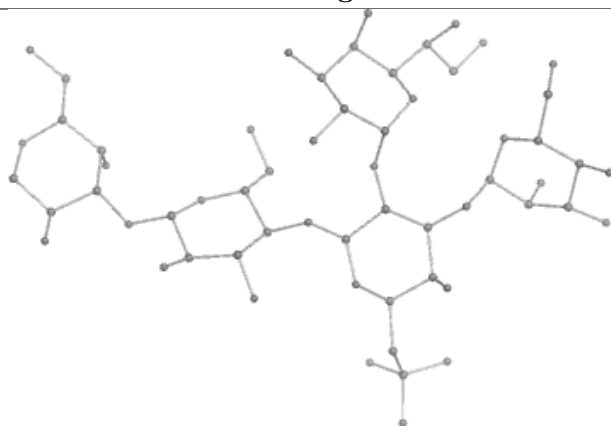


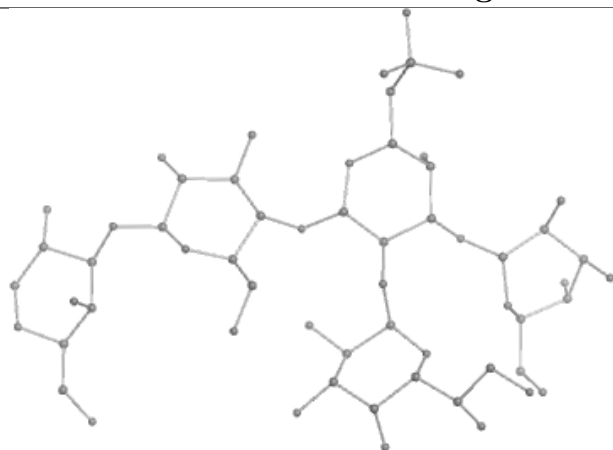
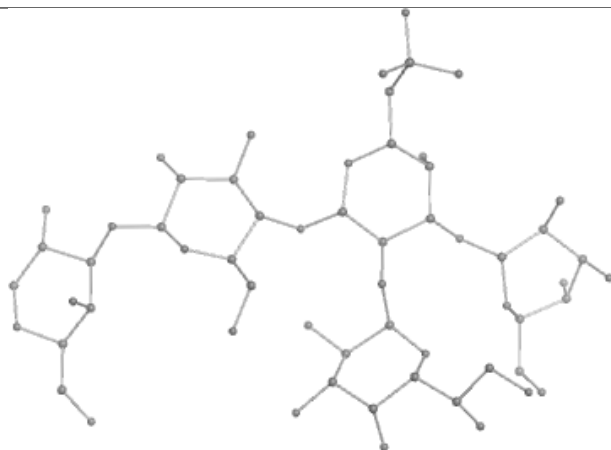
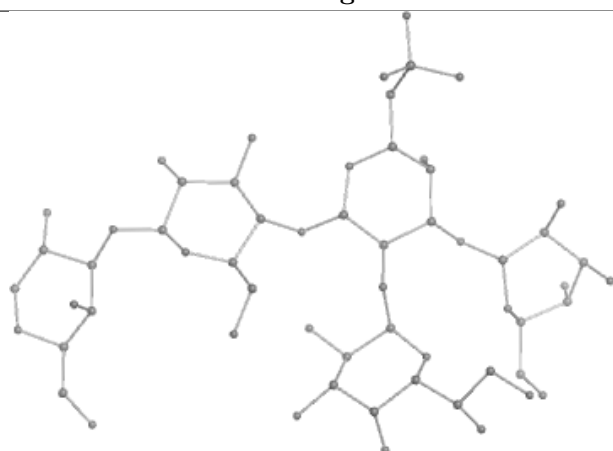
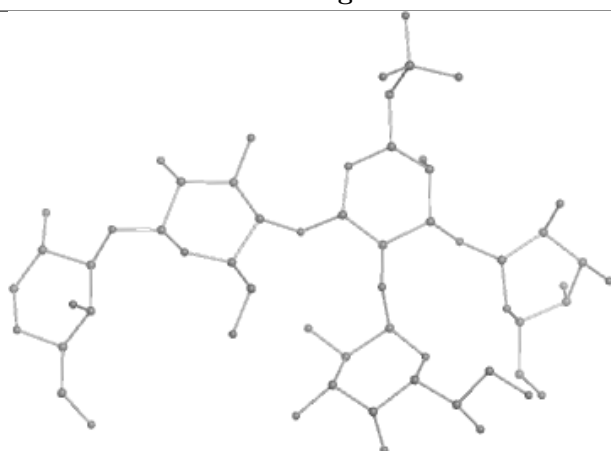
**Oligosaccharide Chain sA****Bond lengths****Bond angles****Torsions****Rings**

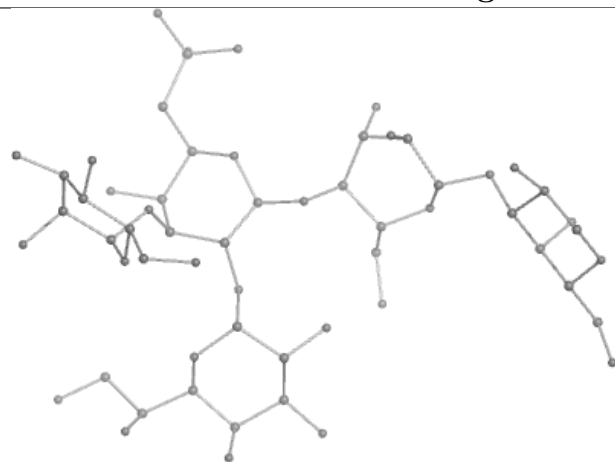
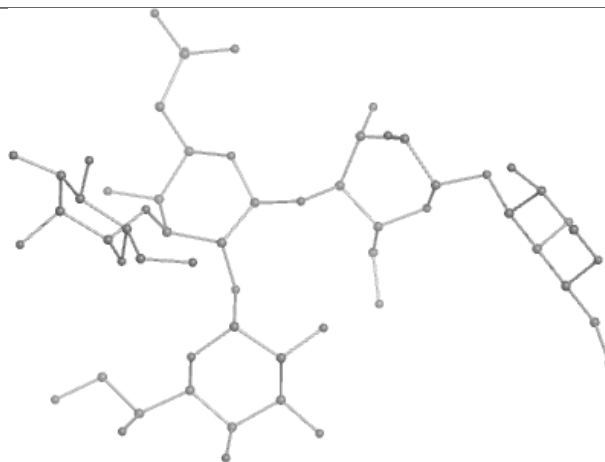
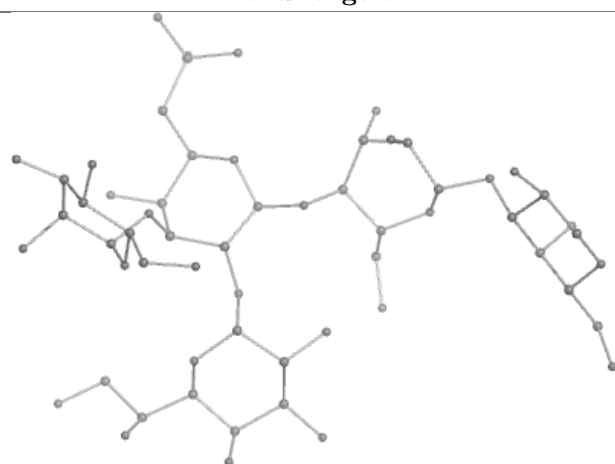
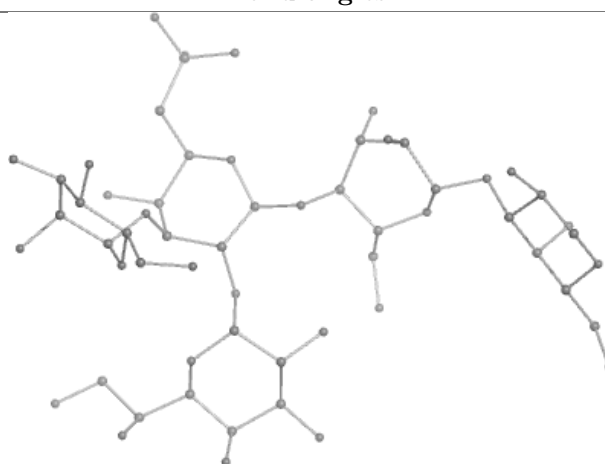
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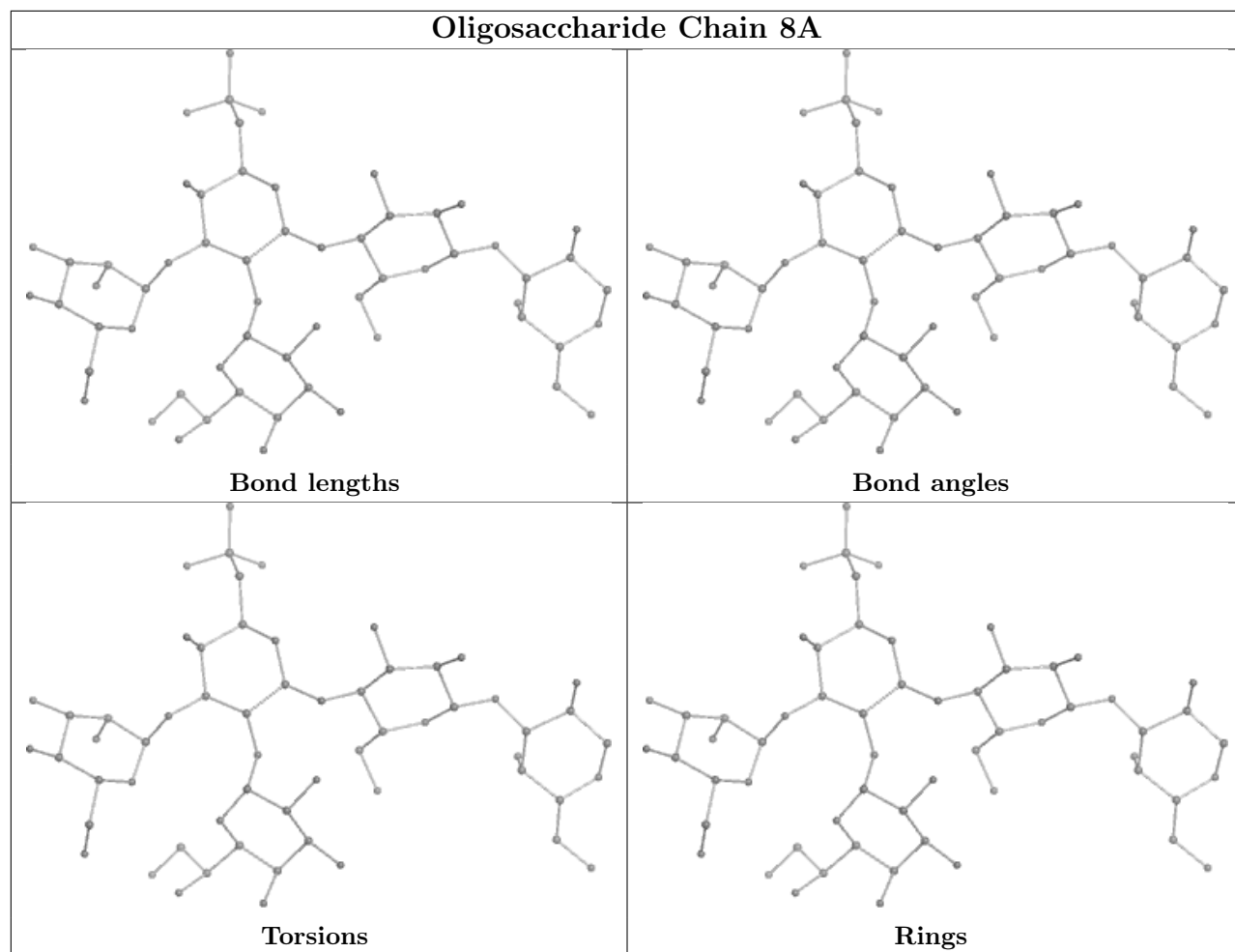
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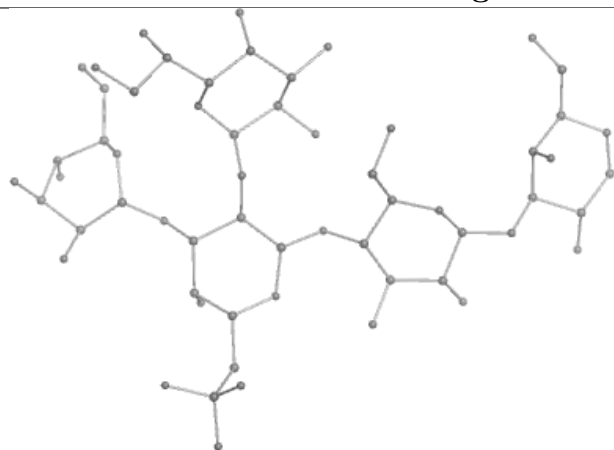
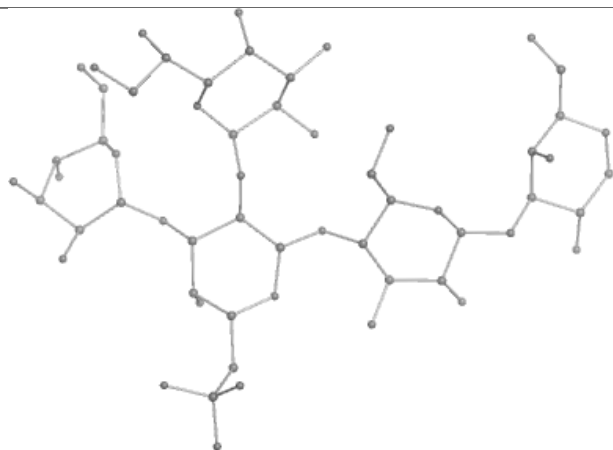
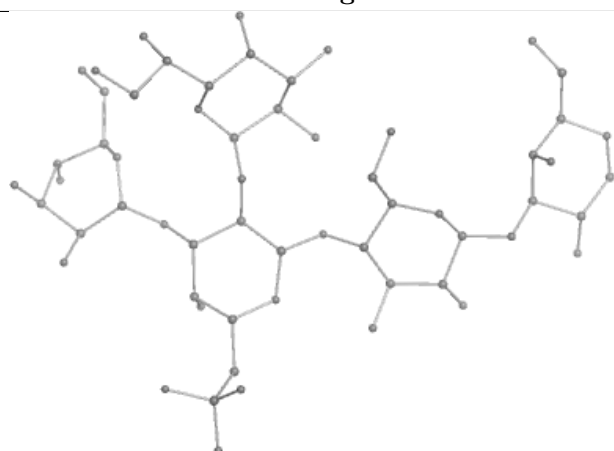
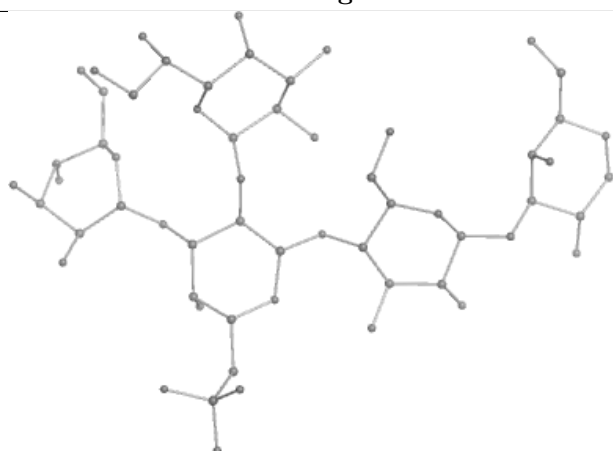
**Oligosaccharide Chain zA****Bond lengths****Bond angles****Torsions****Rings**

**Oligosaccharide Chain 1A****Bond lengths****Bond angles****Torsions****Rings**

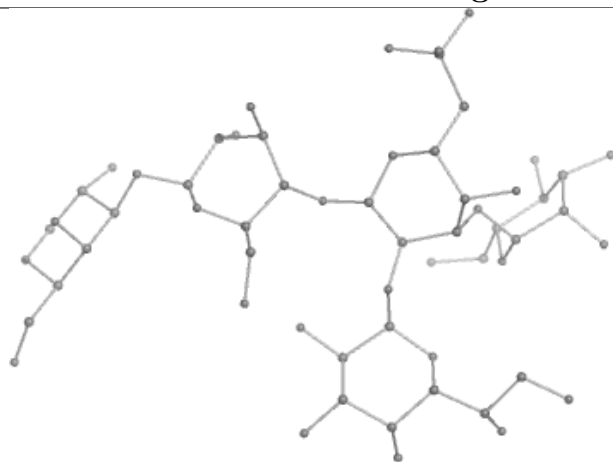
**Oligosaccharide Chain 5A****Bond lengths****Bond angles****Torsions****Rings**

**Oligosaccharide Chain 6A****Bond lengths****Bond angles****Torsions****Rings**

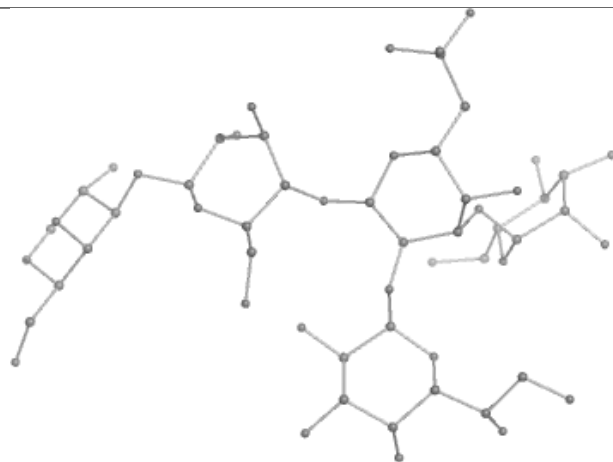
**Oligosaccharide Chain 8A**

**Oligosaccharide Chain CB****Bond lengths****Bond angles****Torsions****Rings**

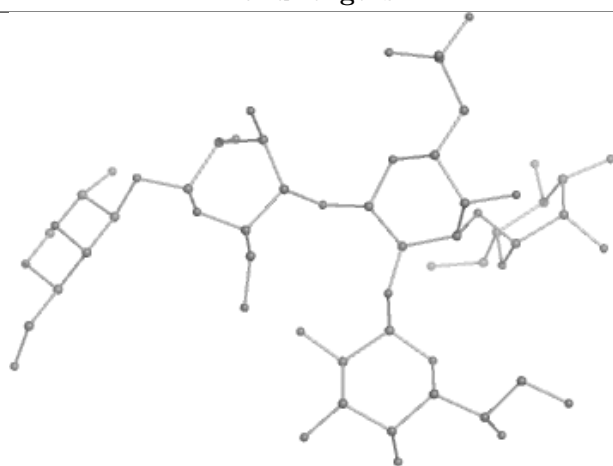
## Oligosaccharide Chain DB



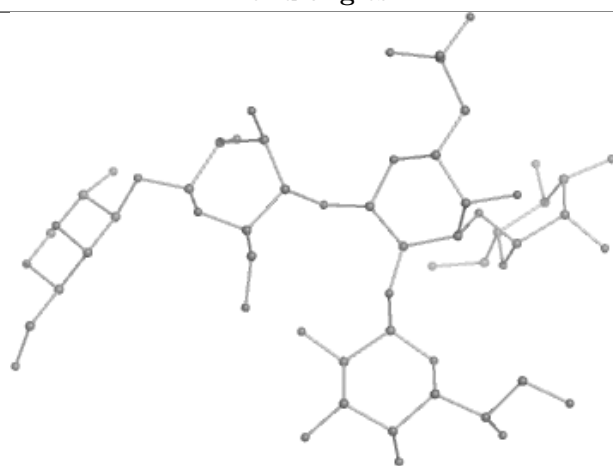
Bond lengths



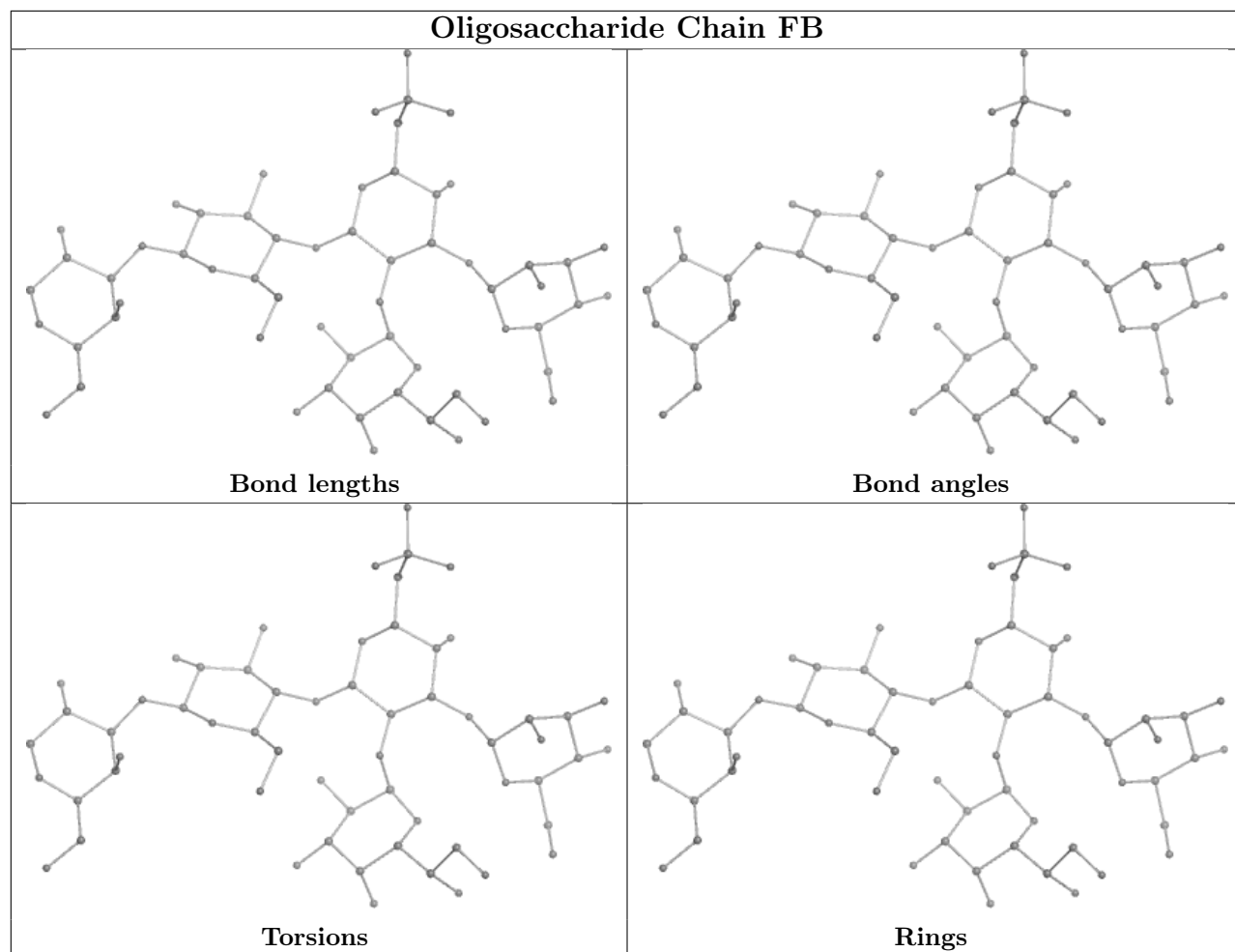
Bond angles

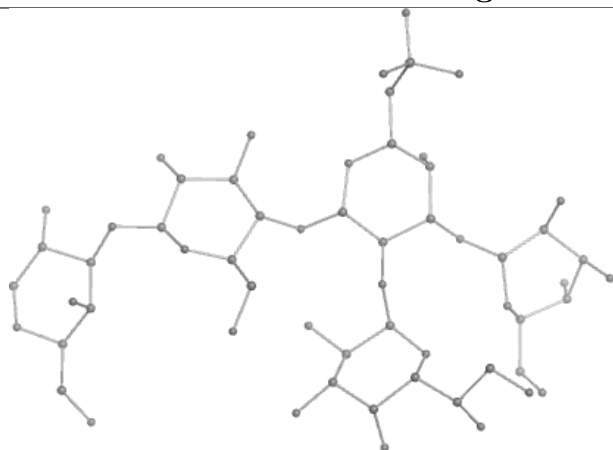
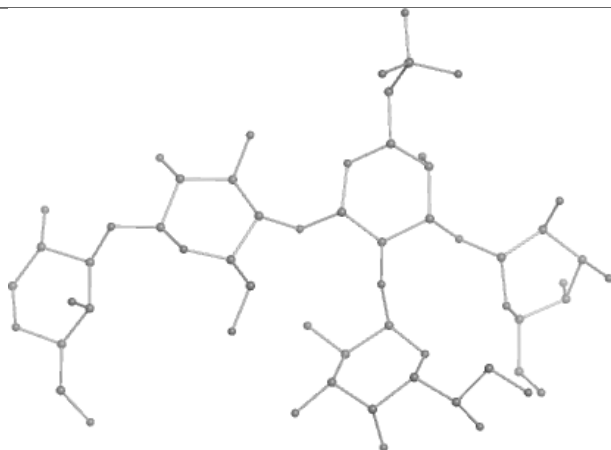
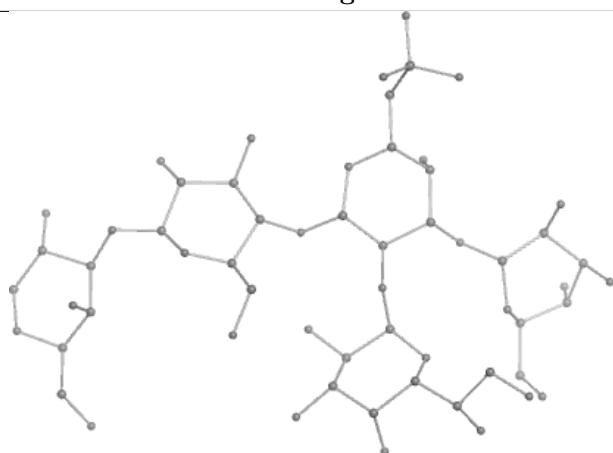
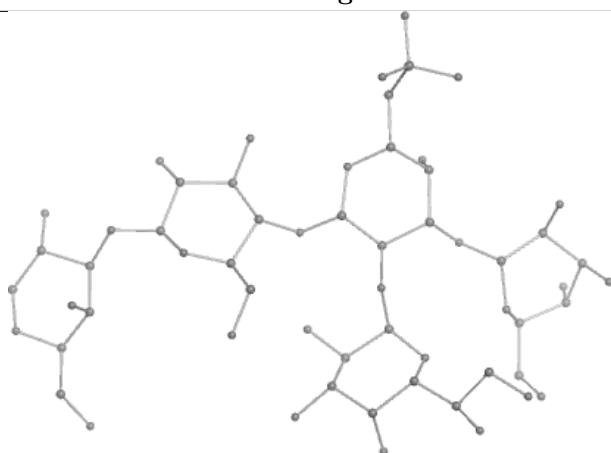


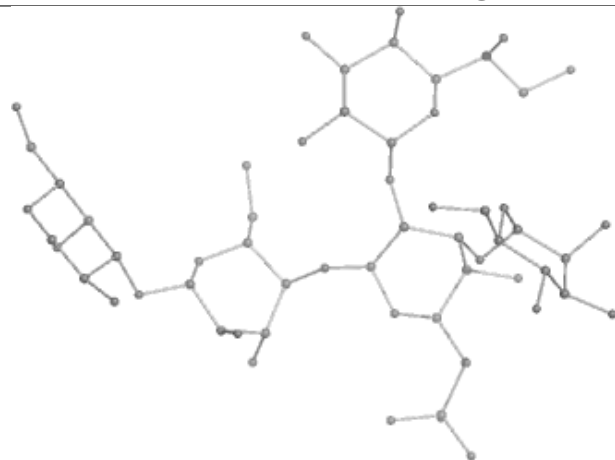
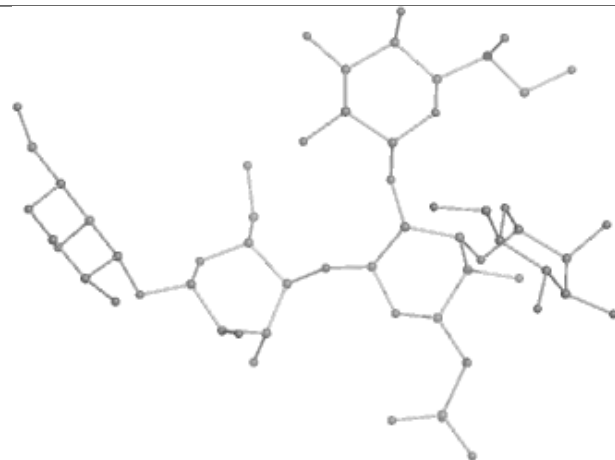
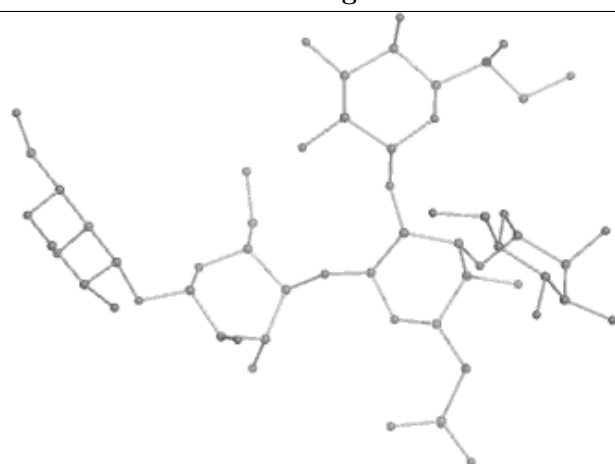
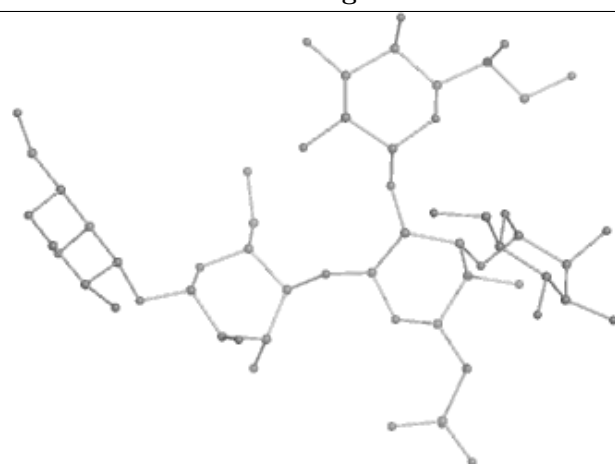
Torsions

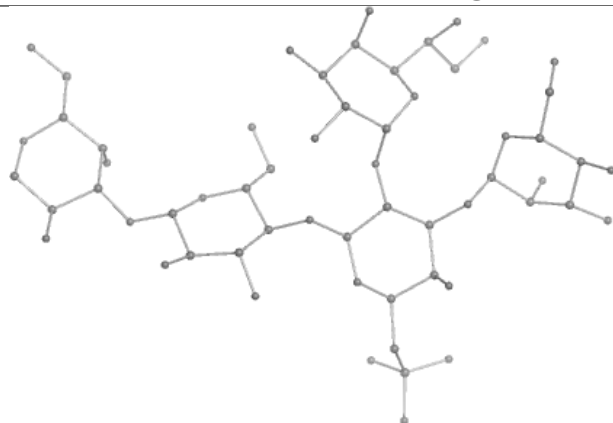
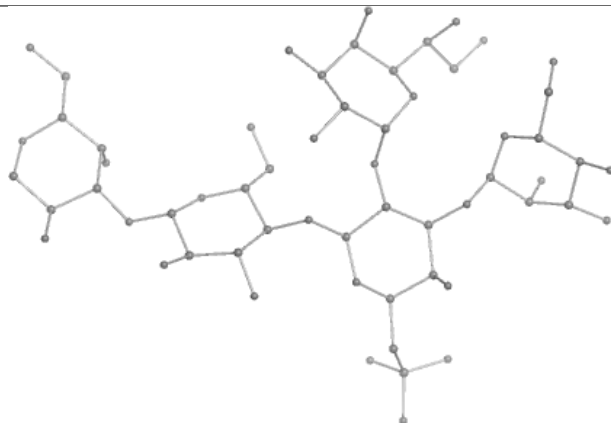
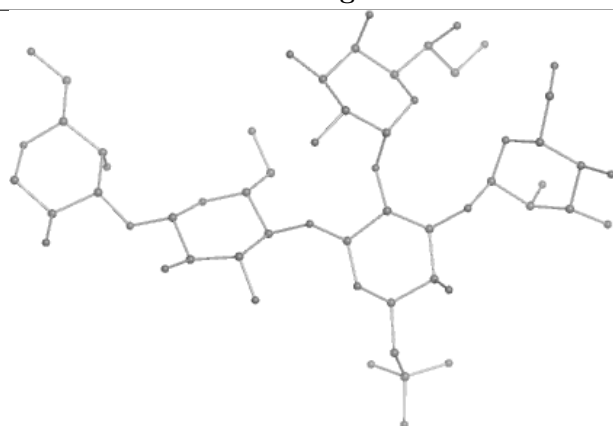
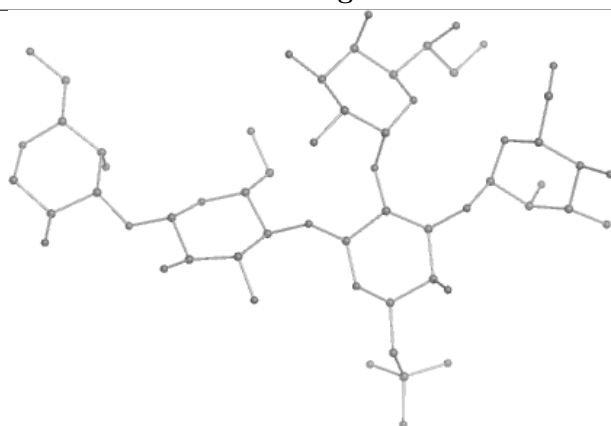


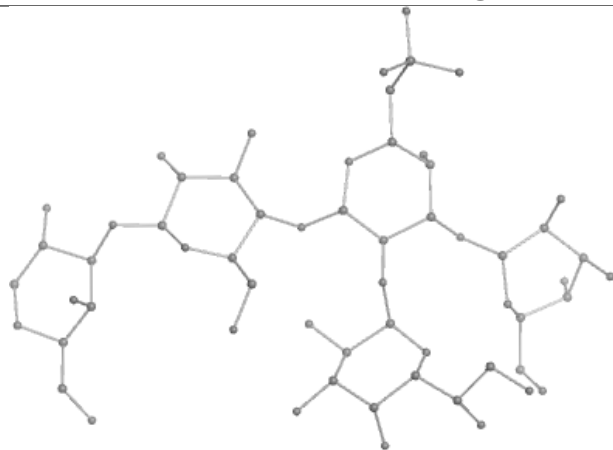
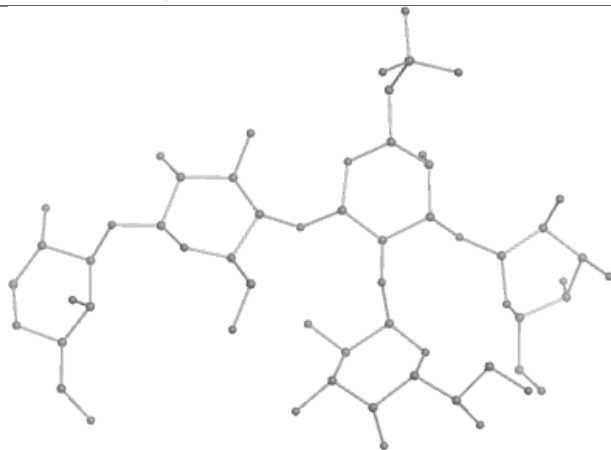
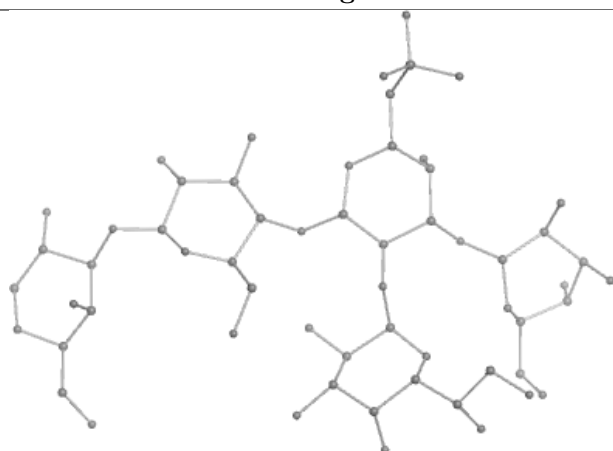
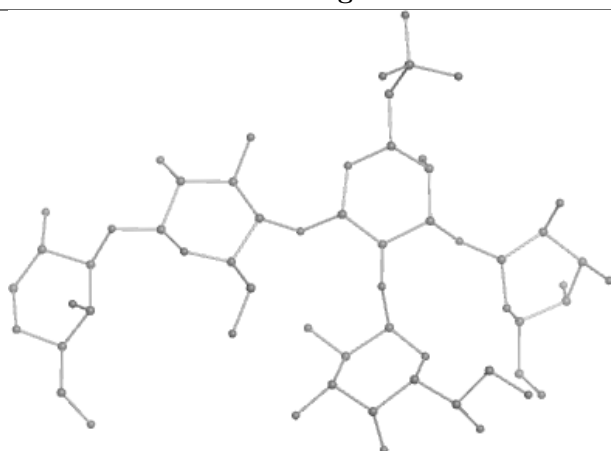
Rings

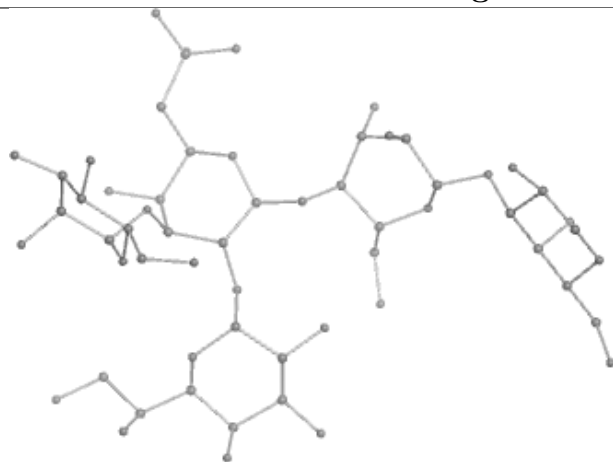
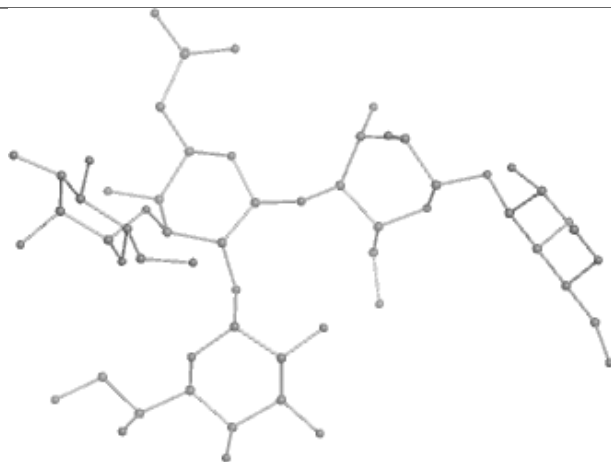
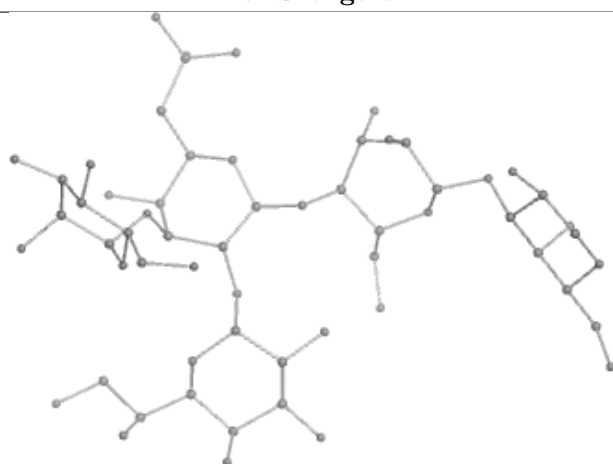
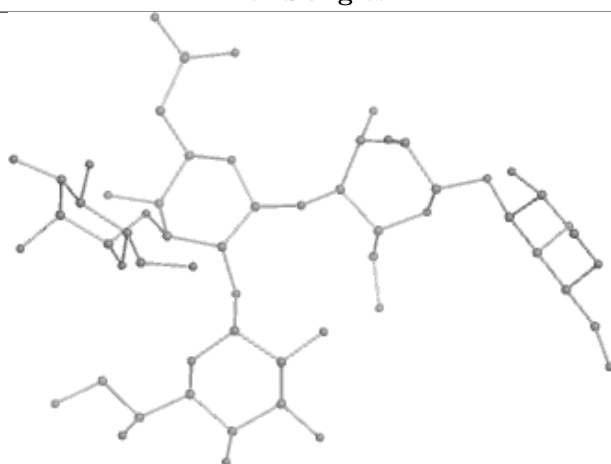


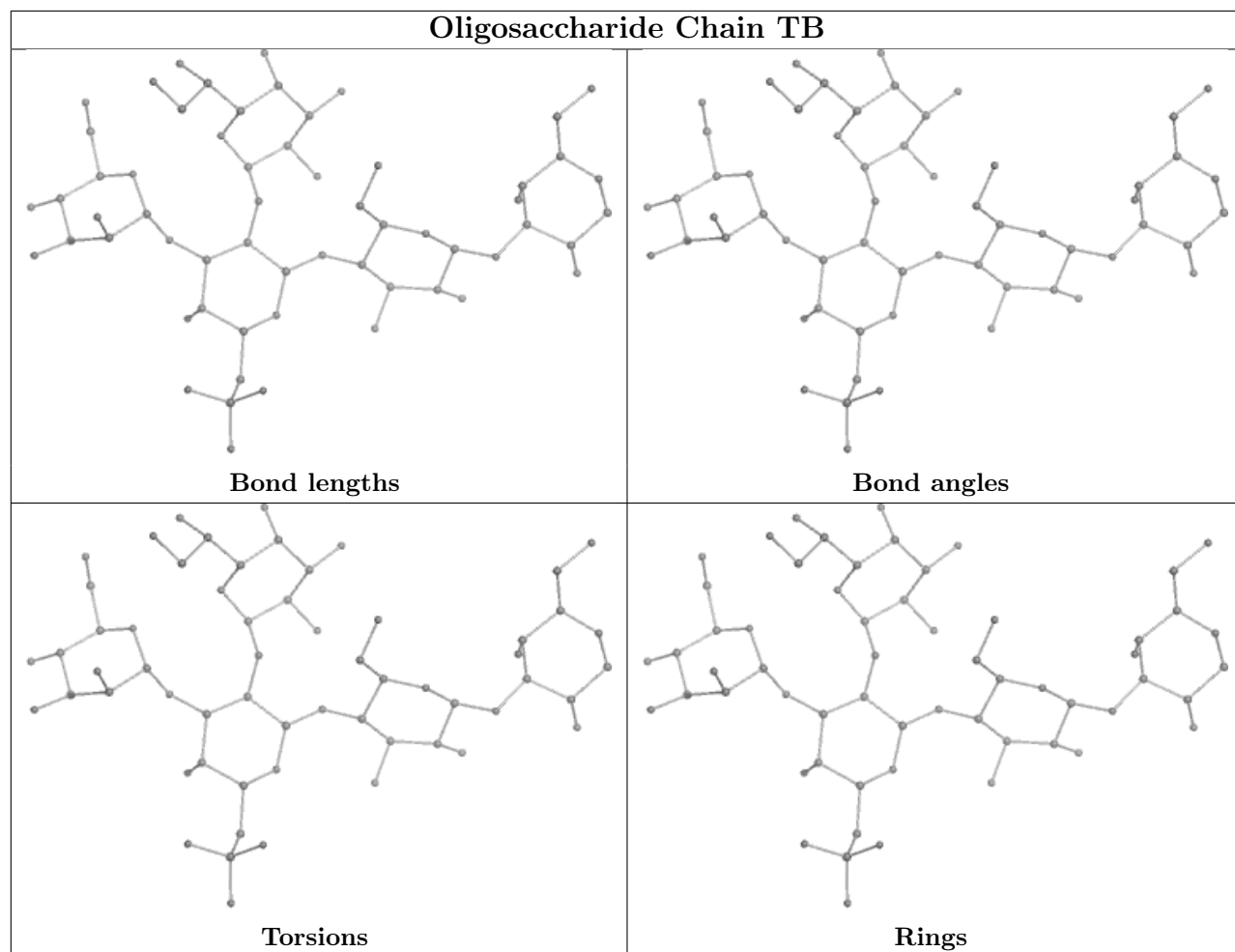
**Oligosaccharide Chain JB****Bond lengths****Bond angles****Torsions****Rings**

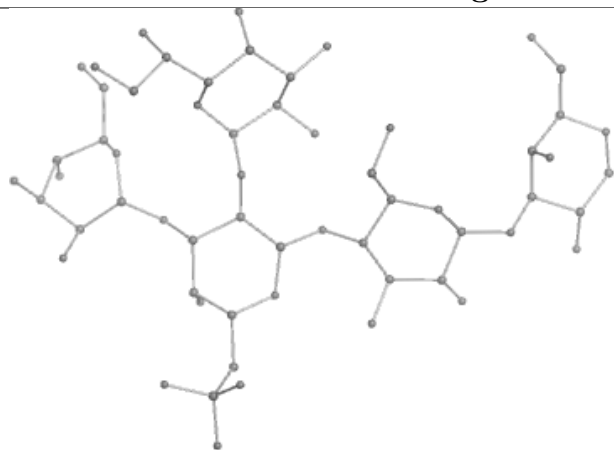
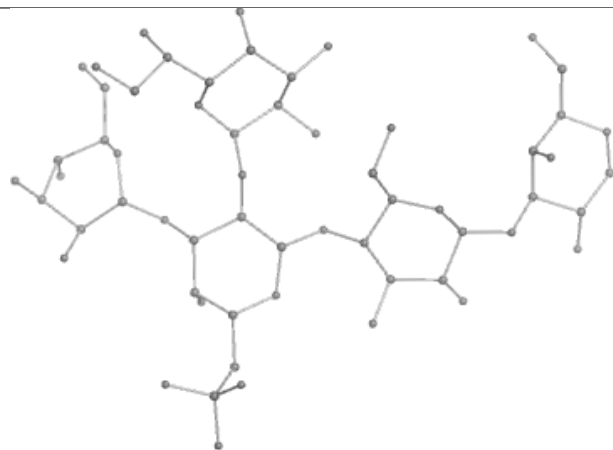
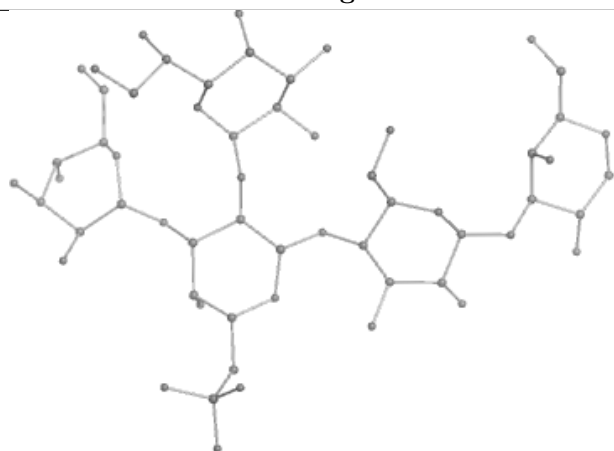
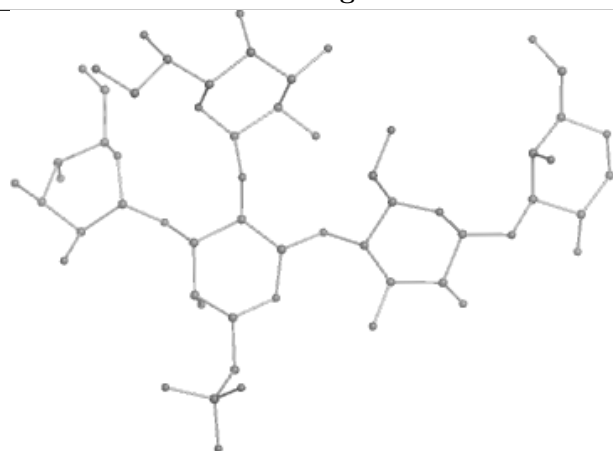
**Oligosaccharide Chain KB****Bond lengths****Bond angles****Torsions****Rings**

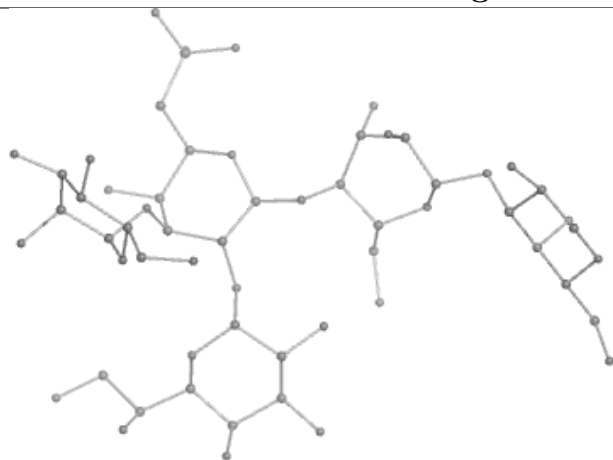
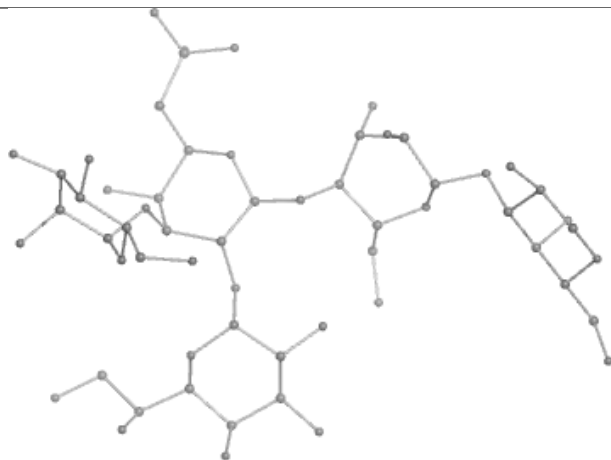
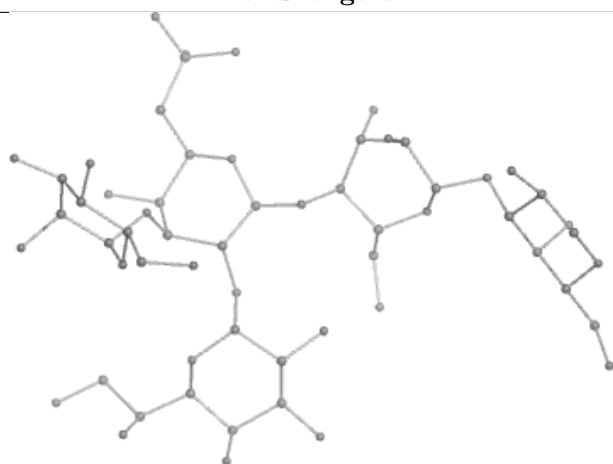
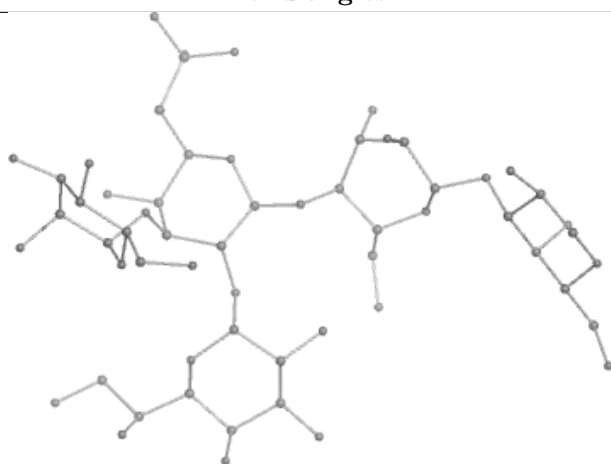
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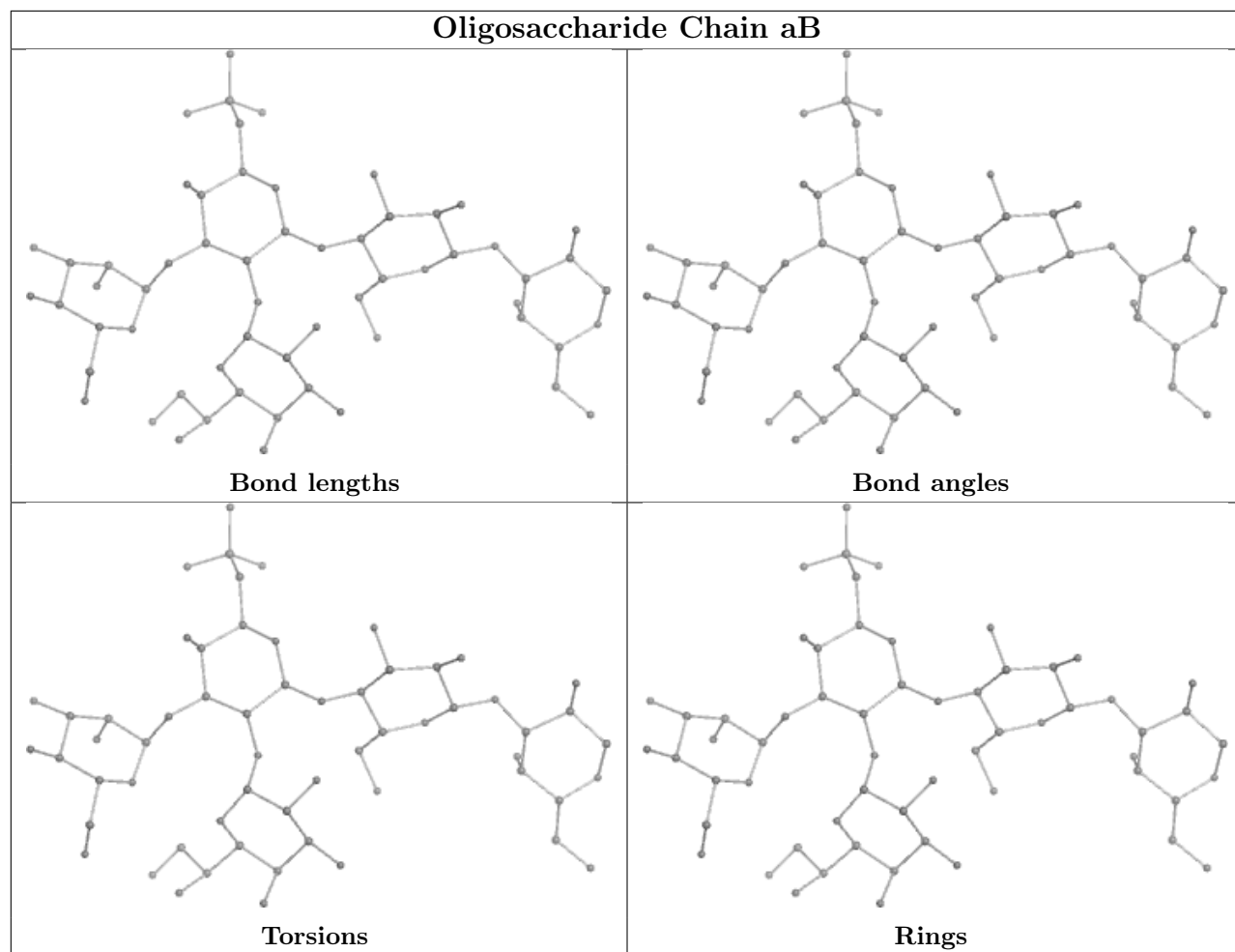
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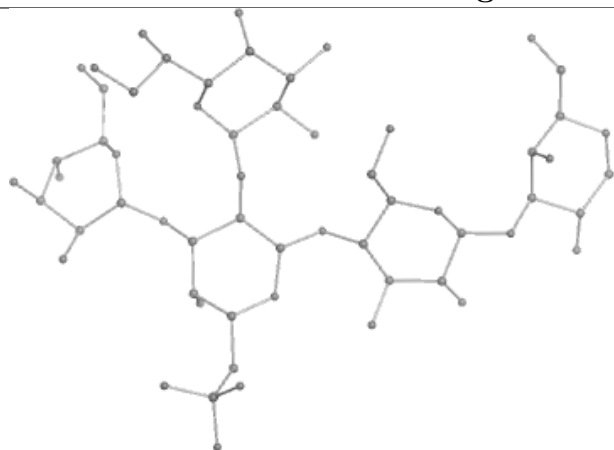
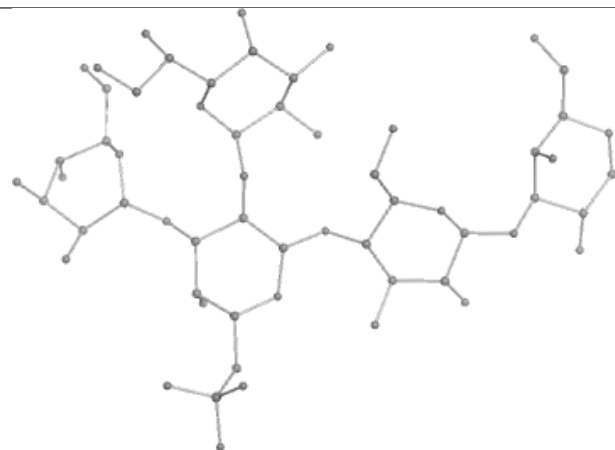
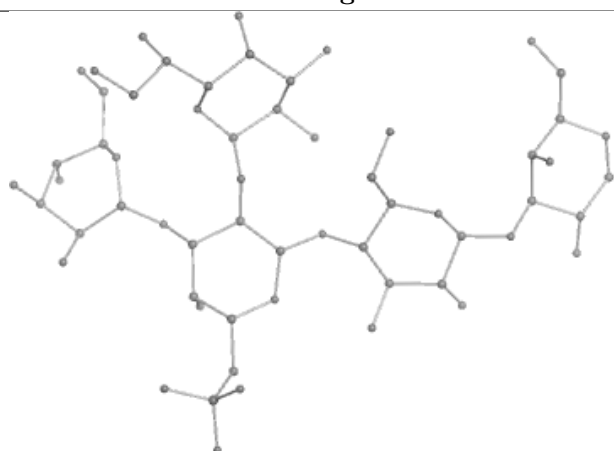
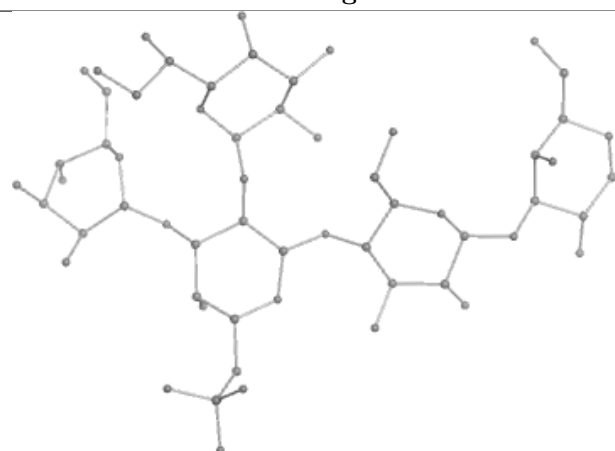
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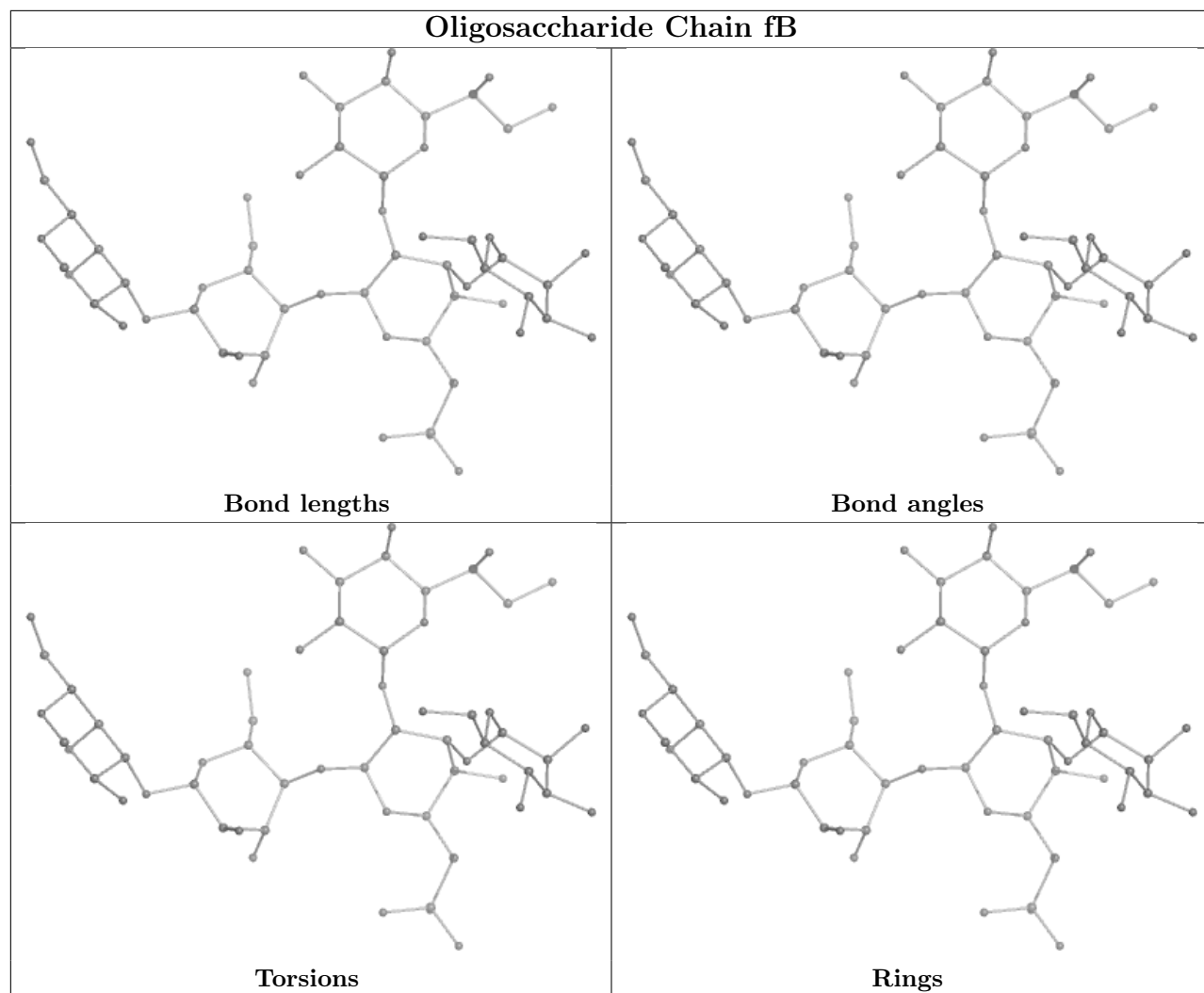
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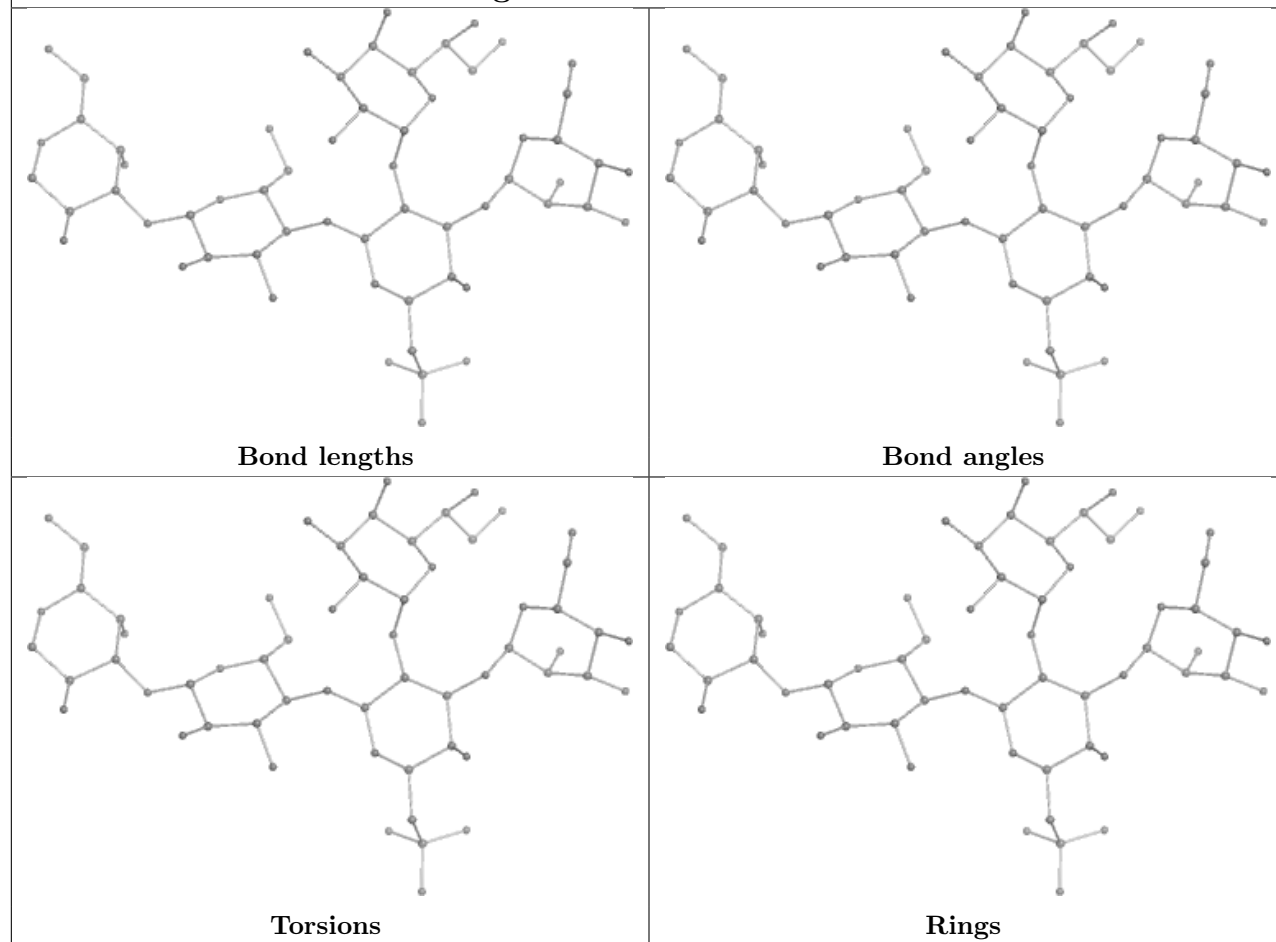
**Oligosaccharide Chain XB****Bond lengths****Bond angles****Torsions****Rings**

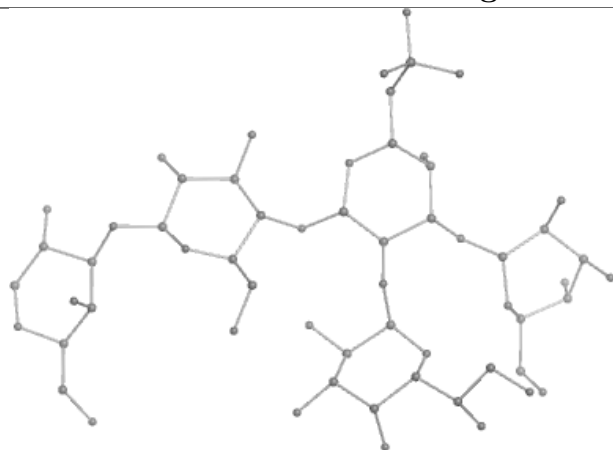
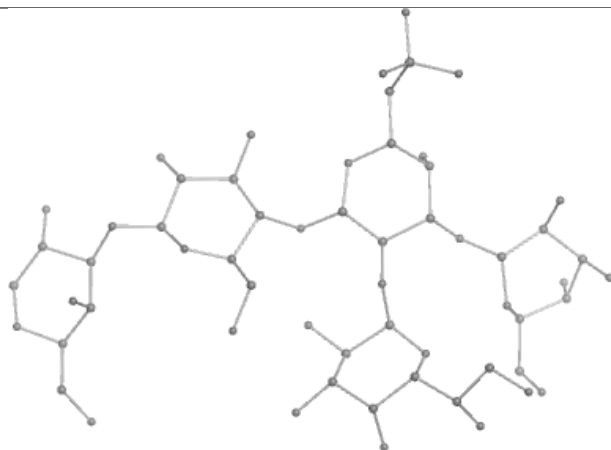
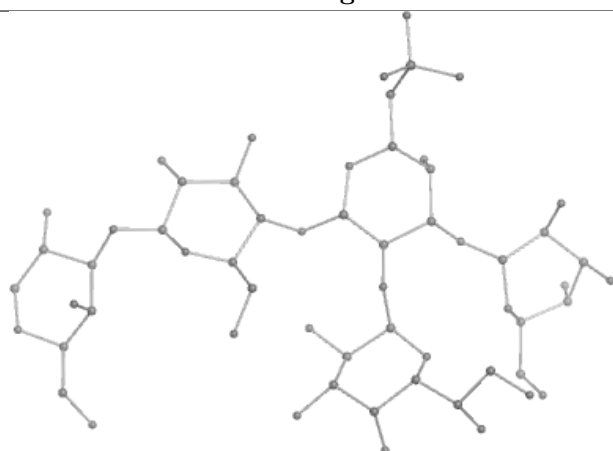
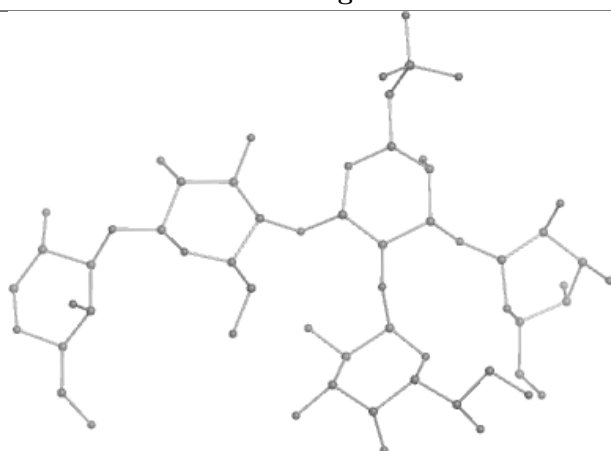
**Oligosaccharide Chain YB****Bond lengths****Bond angles****Torsions****Rings**

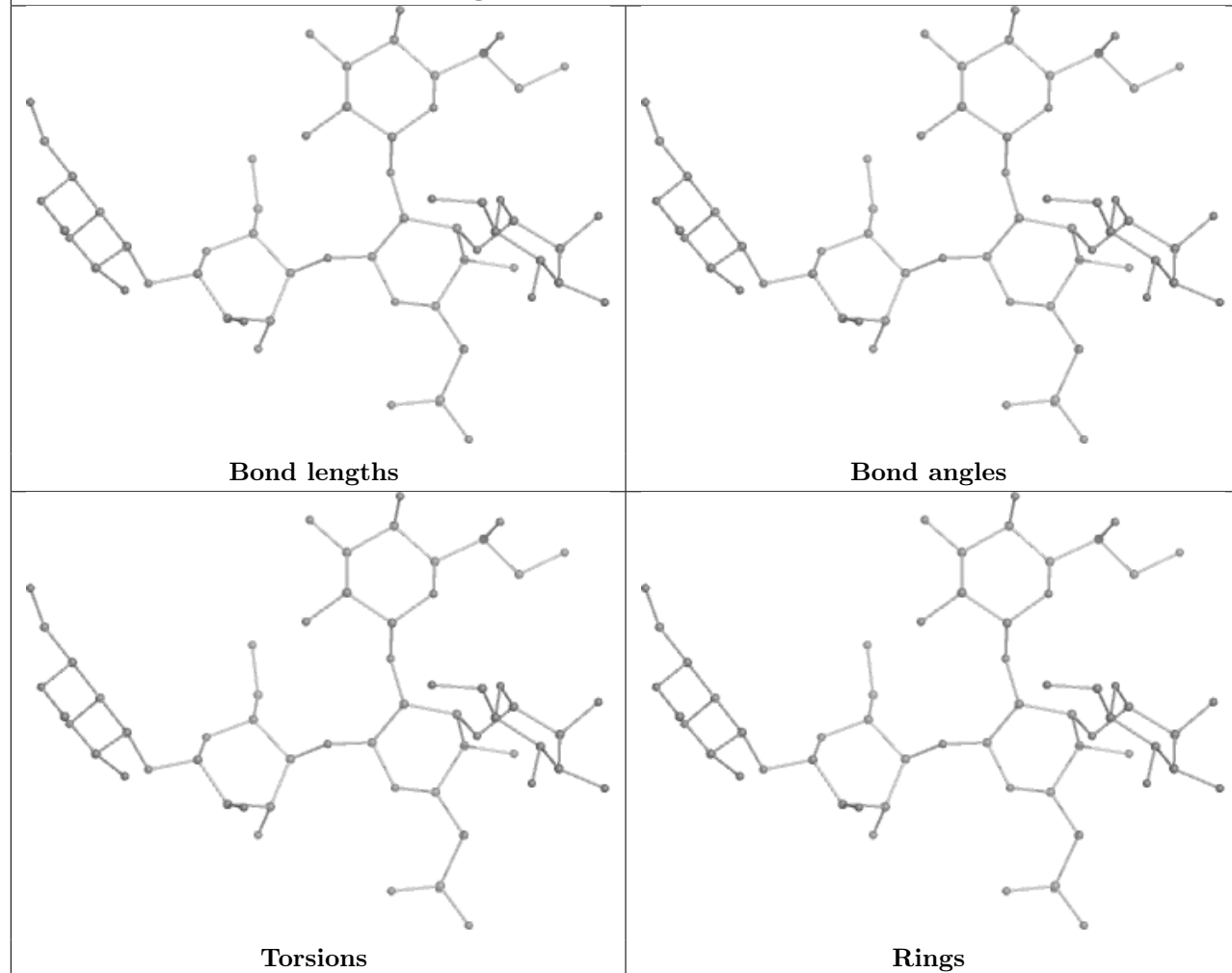


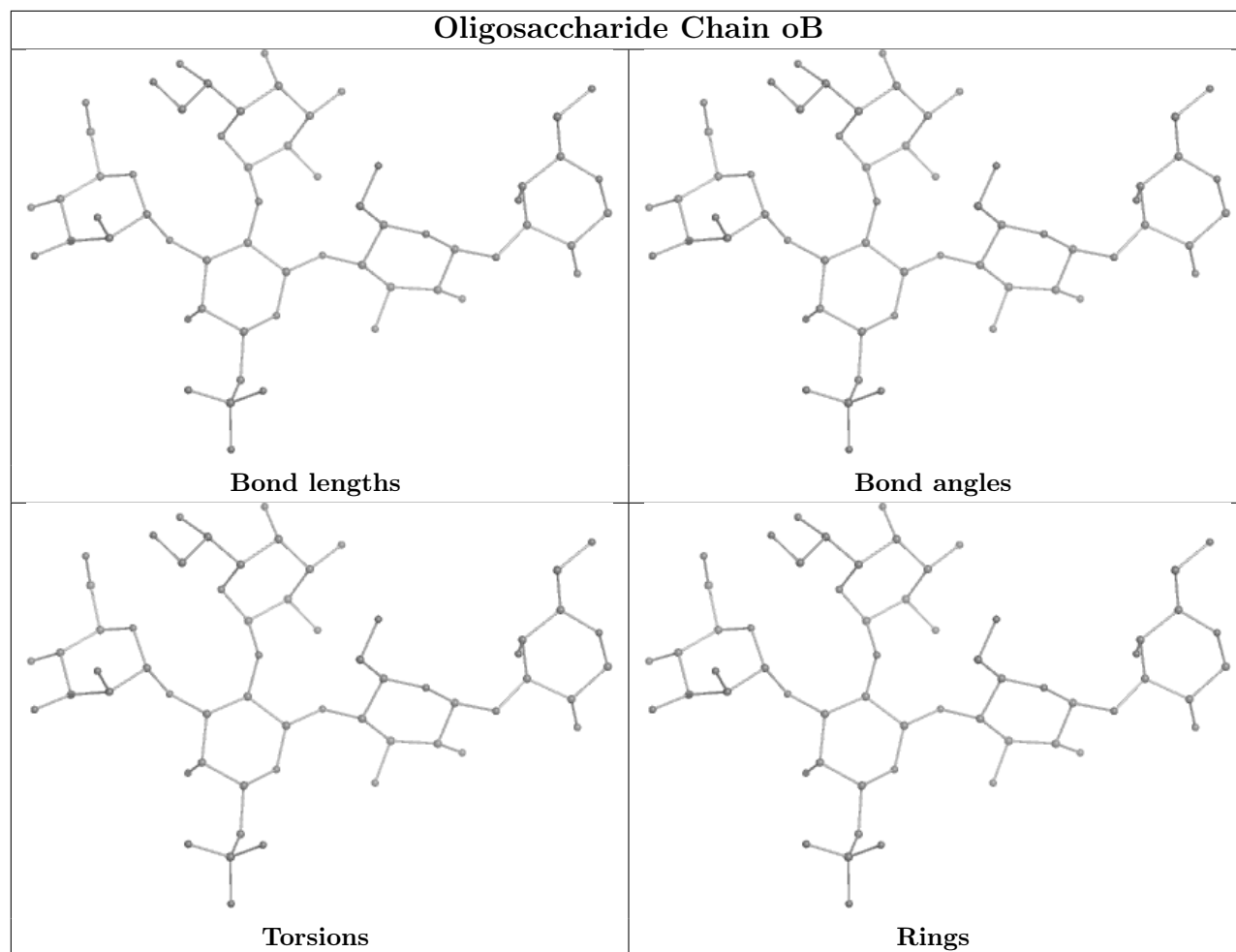
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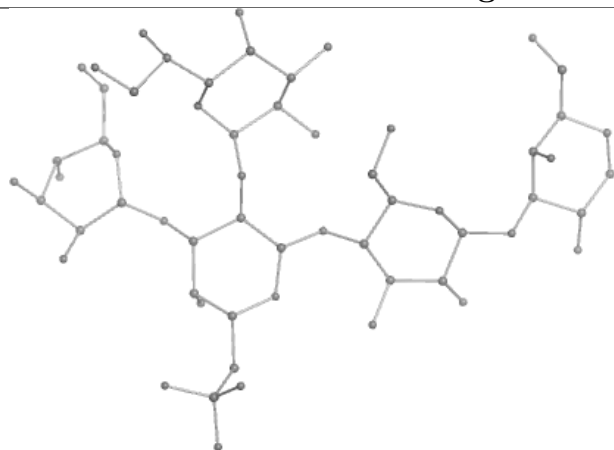
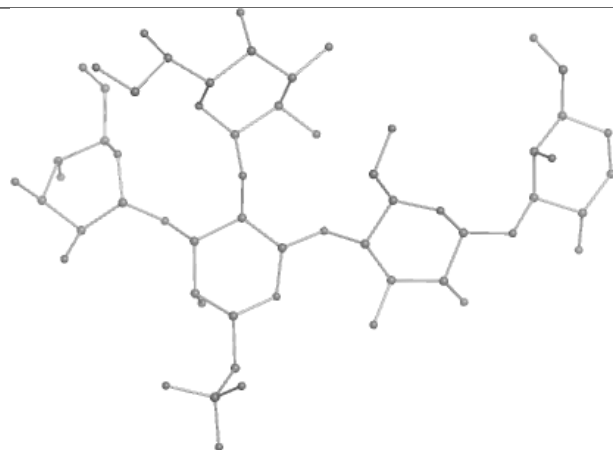
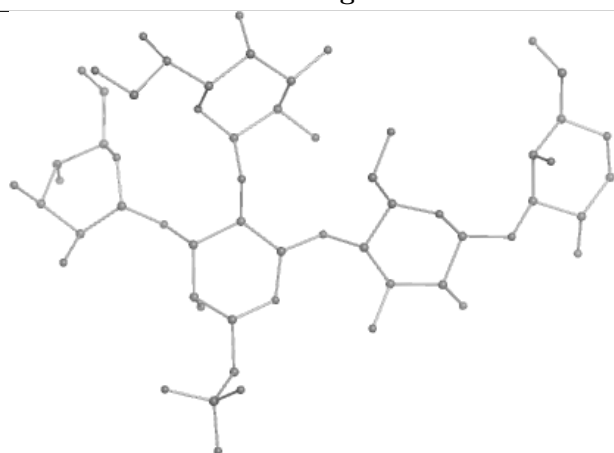
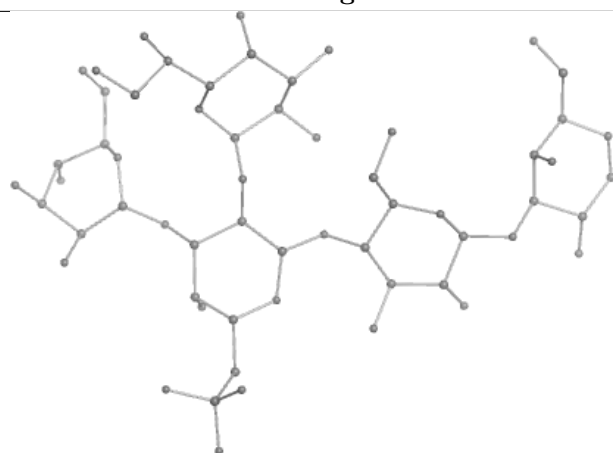


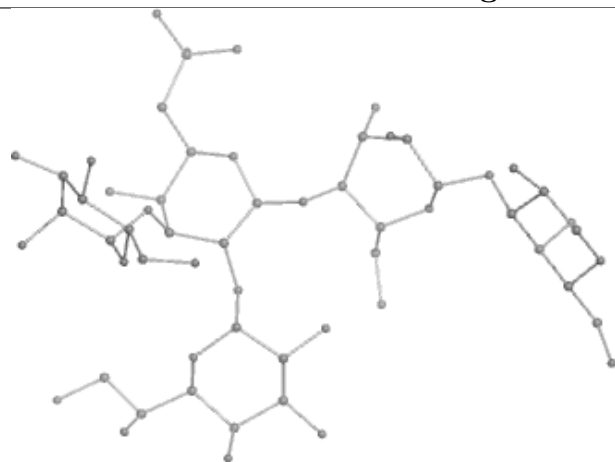
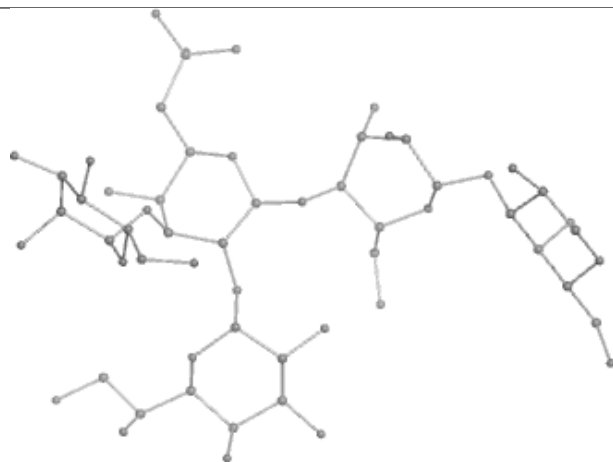
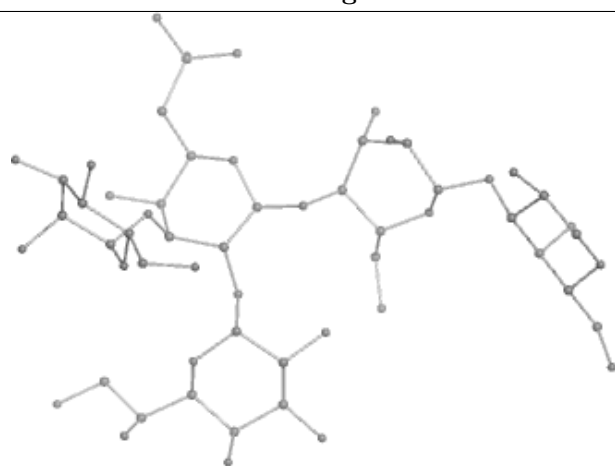
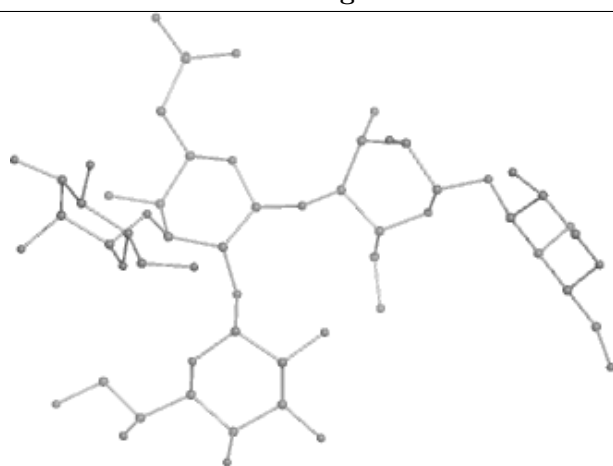
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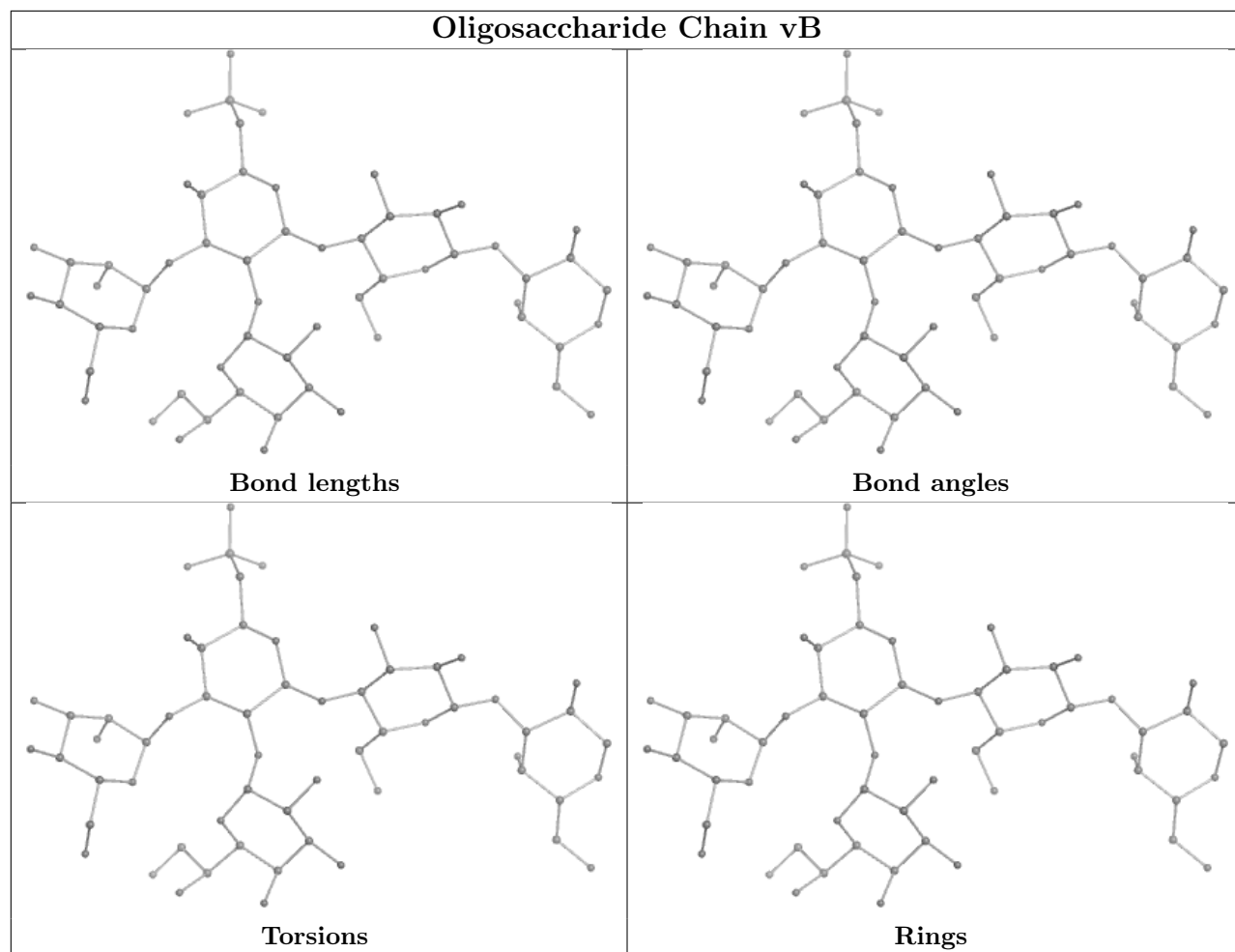
**Oligosaccharide Chain 1B****Bond lengths****Bond angles****Torsions****Rings**

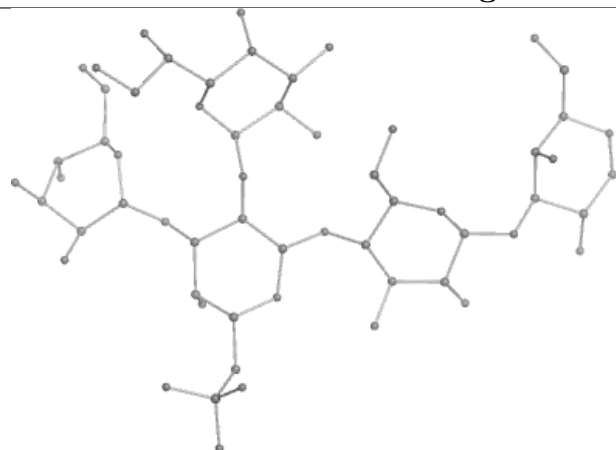
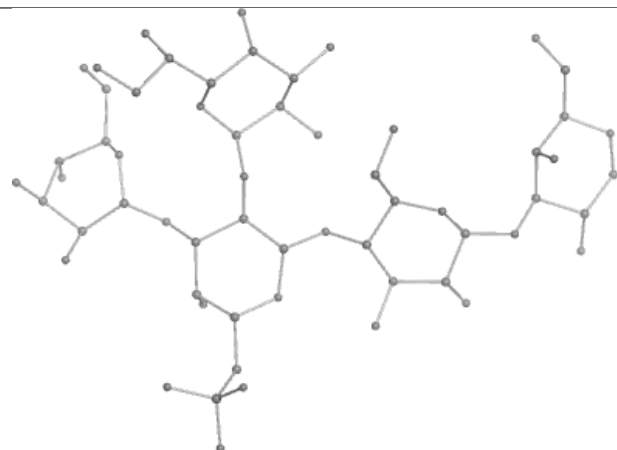
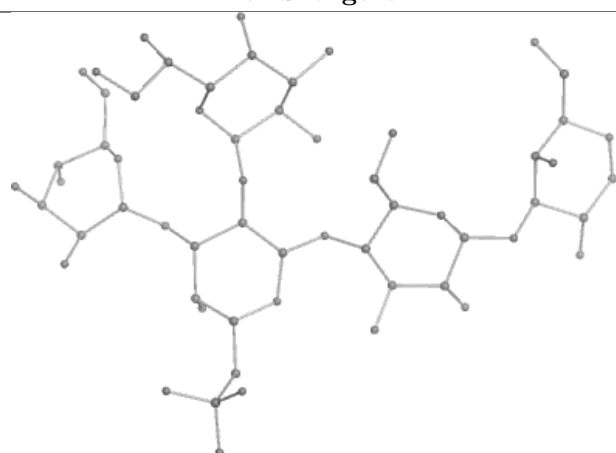
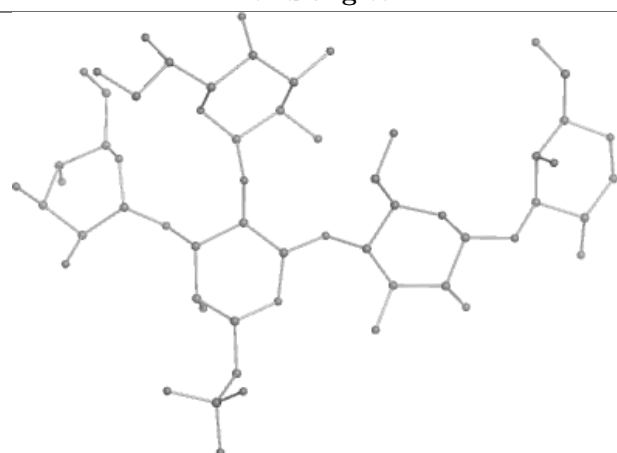
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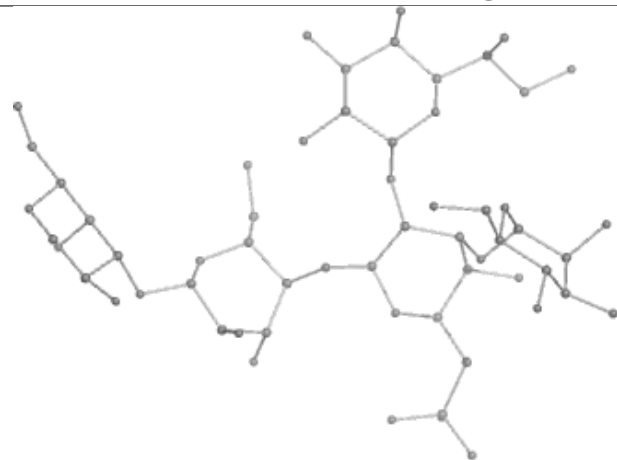
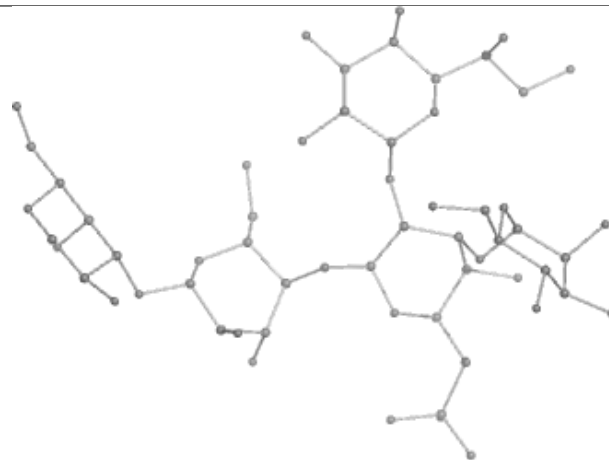
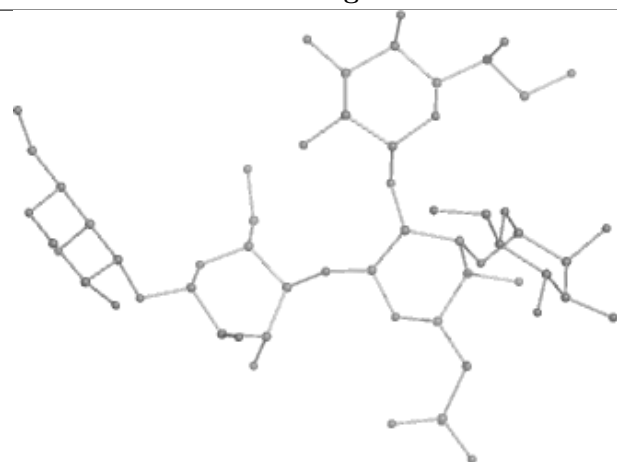
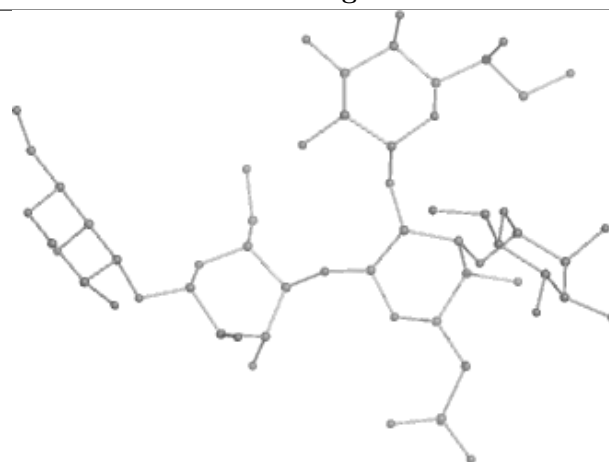


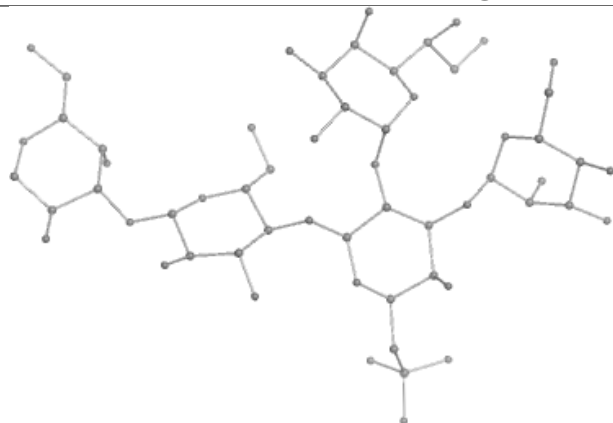
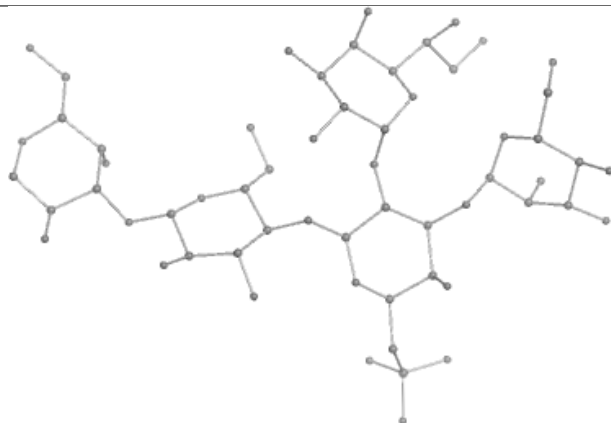
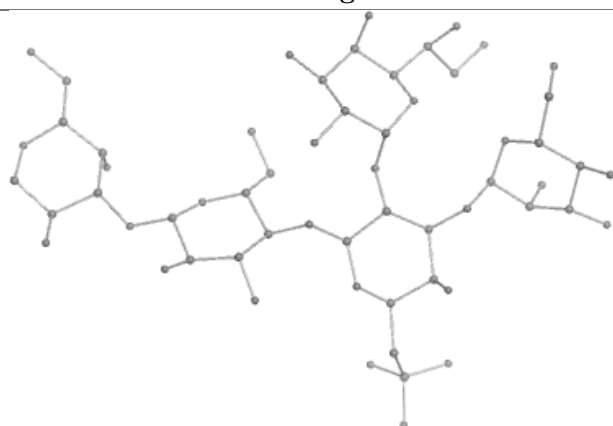
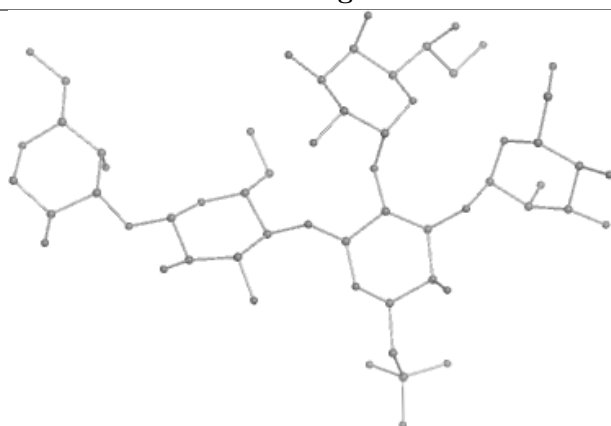
**Oligosaccharide Chain sB****Bond lengths****Bond angles****Torsions****Rings**

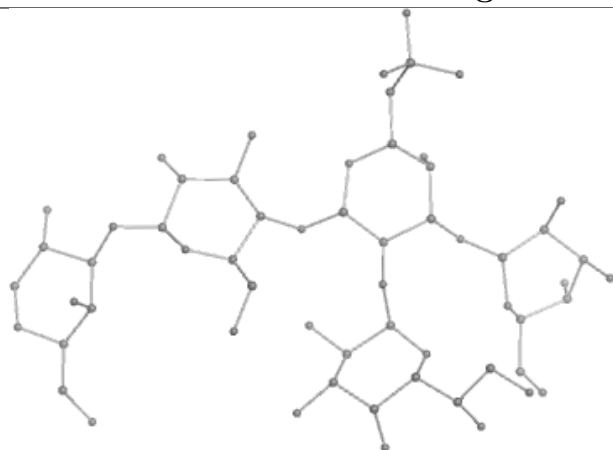
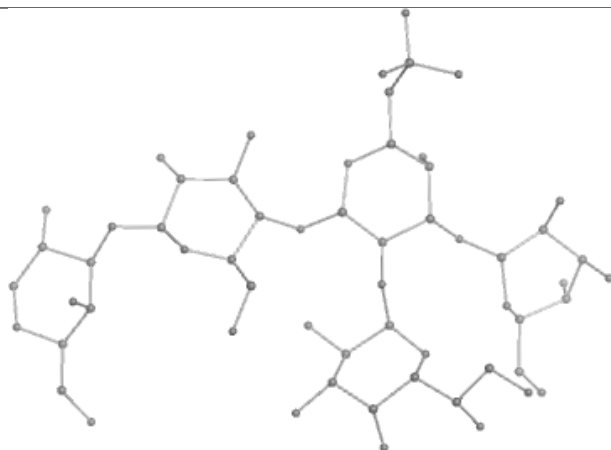
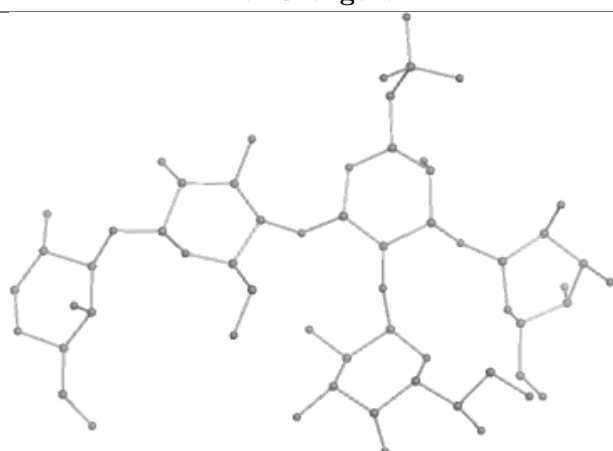
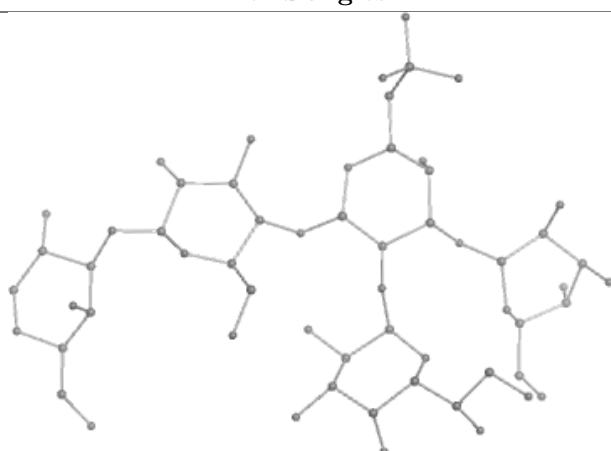
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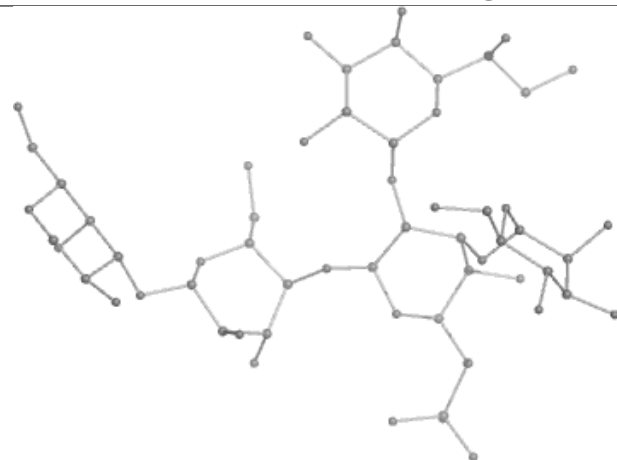
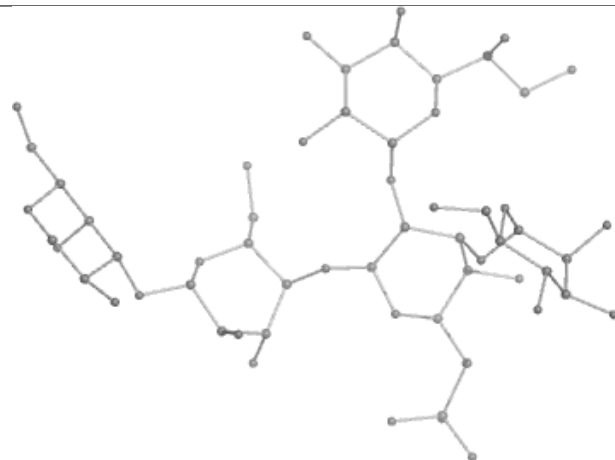
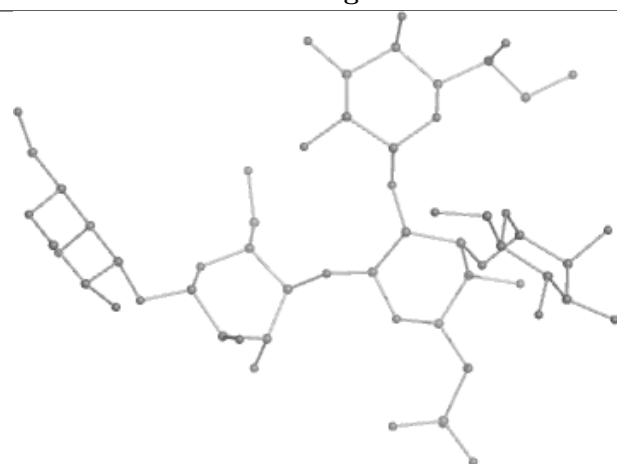
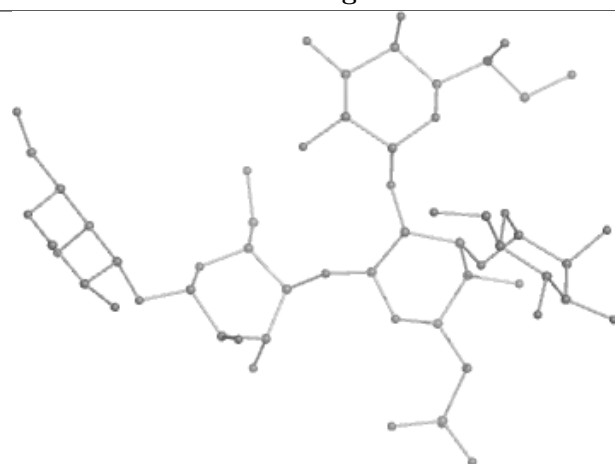


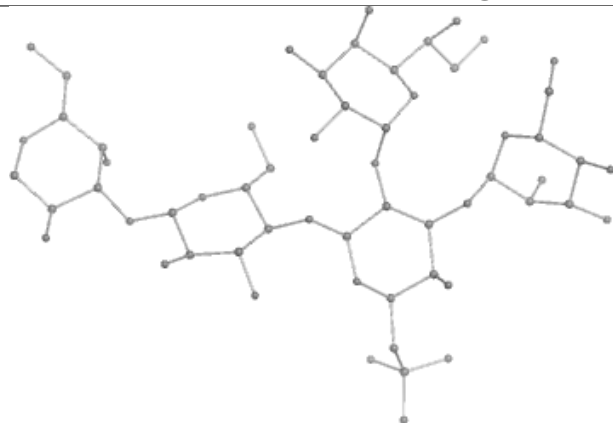
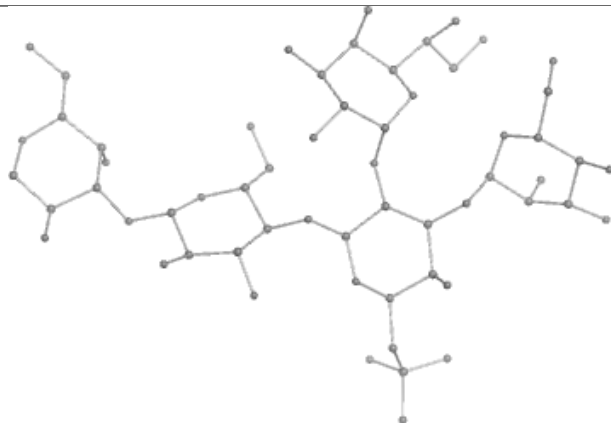
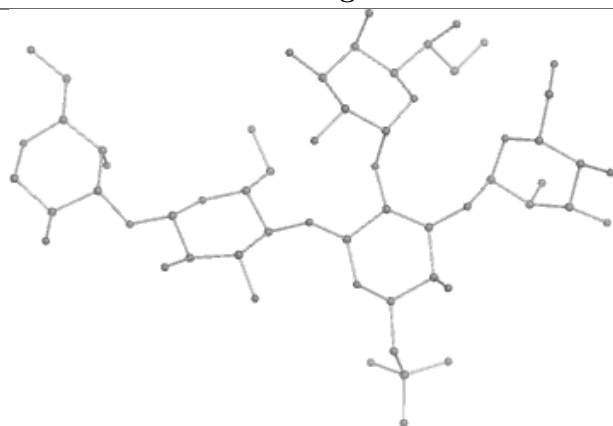
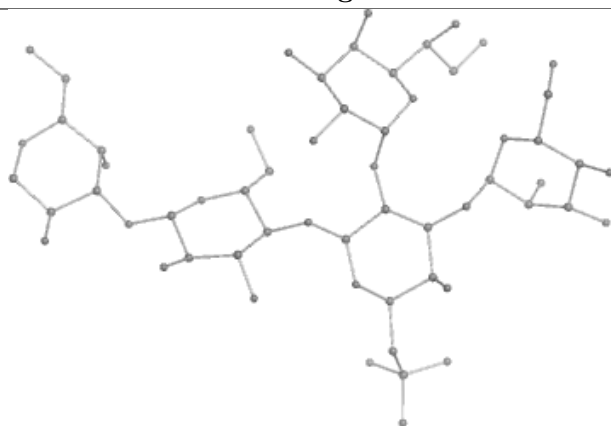
**Oligosaccharide Chain zB****Bond lengths****Bond angles****Torsions****Rings**

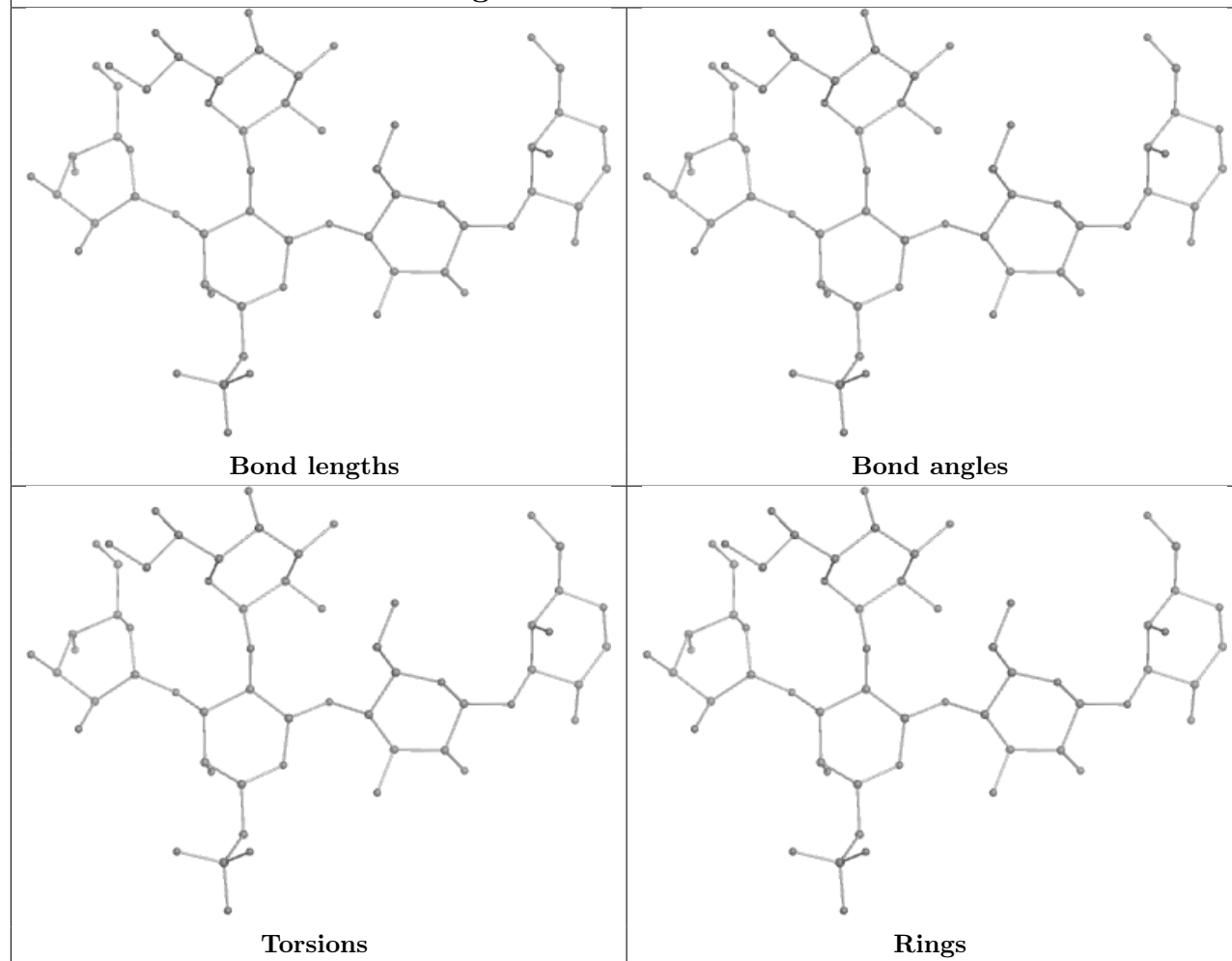
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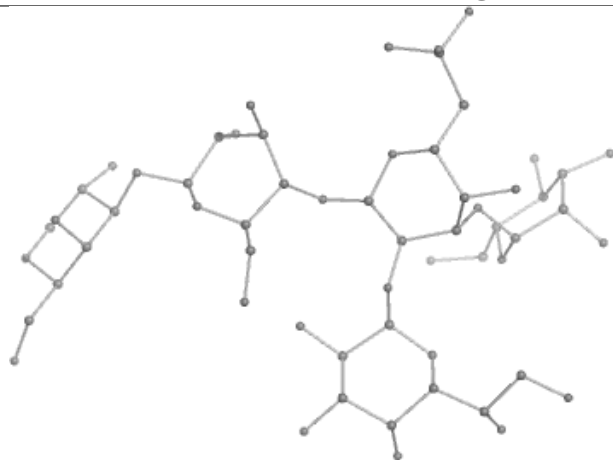
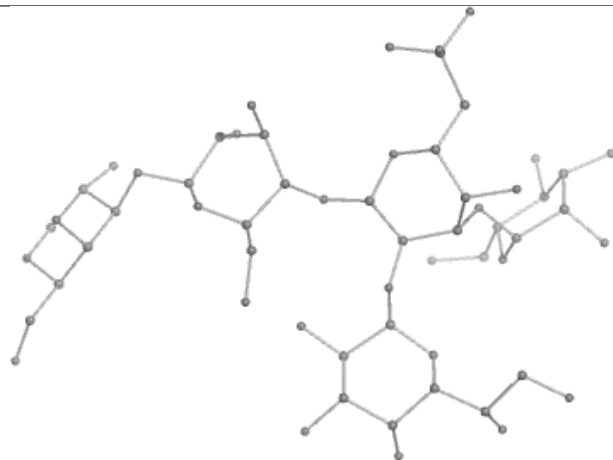
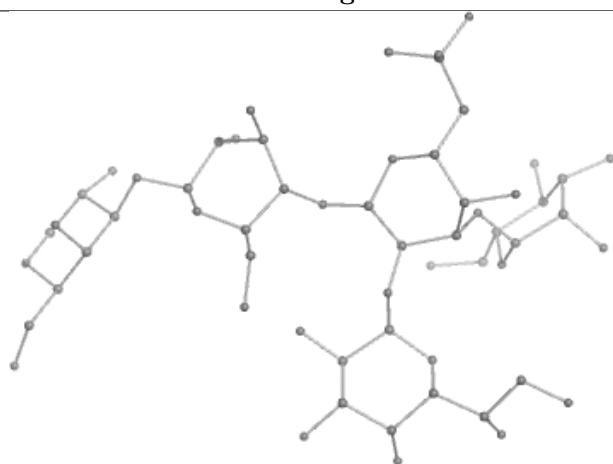
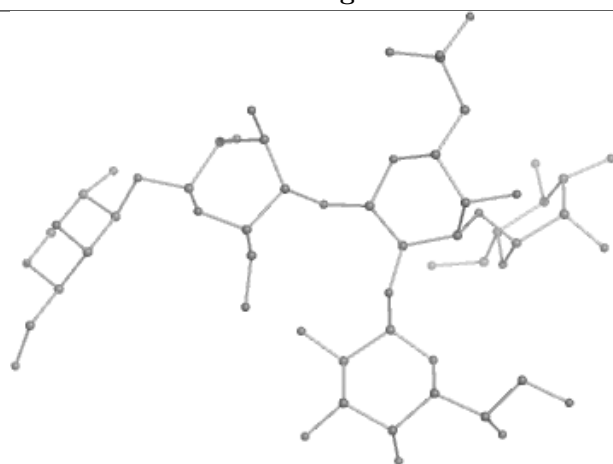
**Oligosaccharide Chain 2B****Bond lengths****Bond angles****Torsions****Rings**

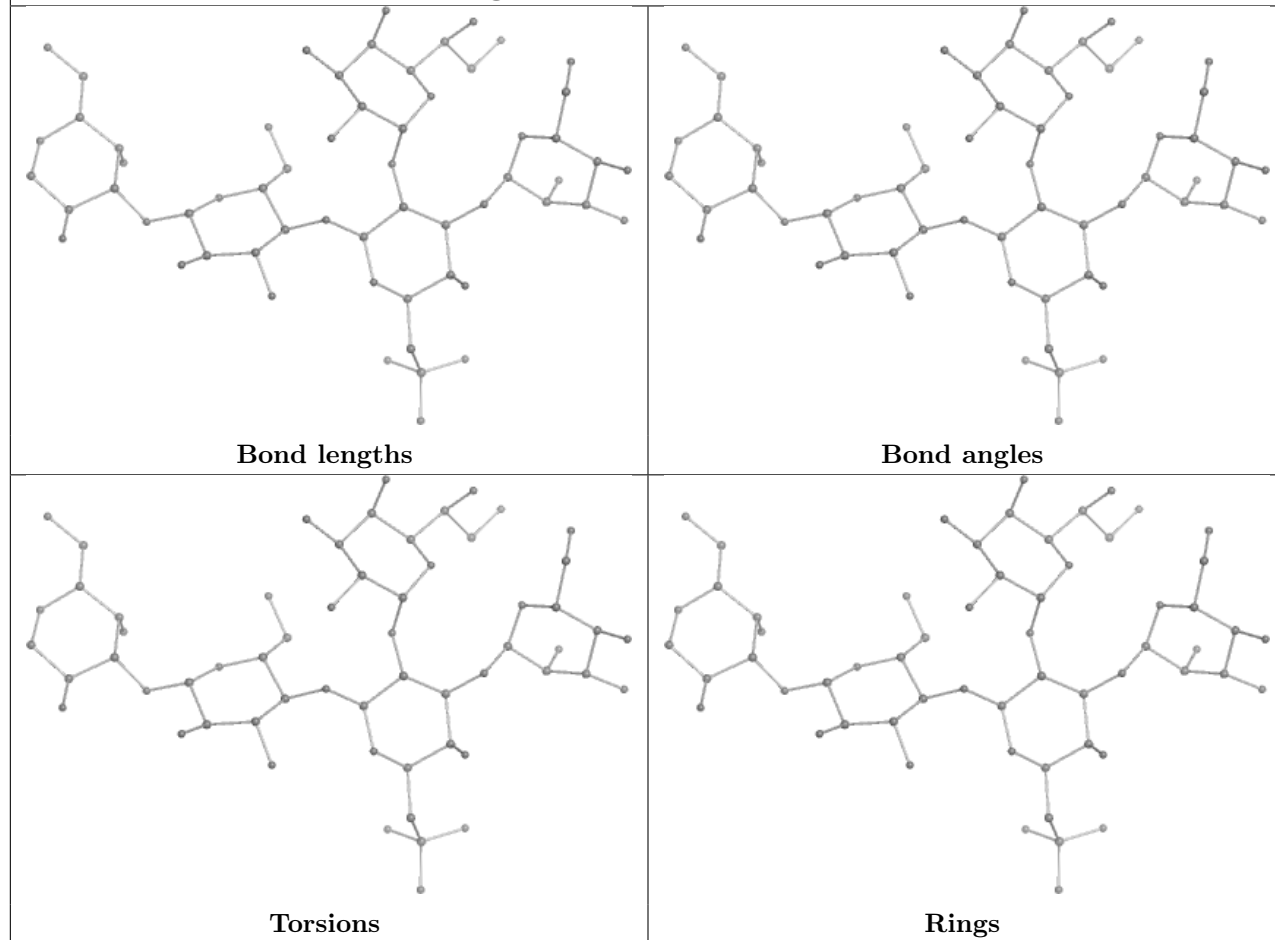
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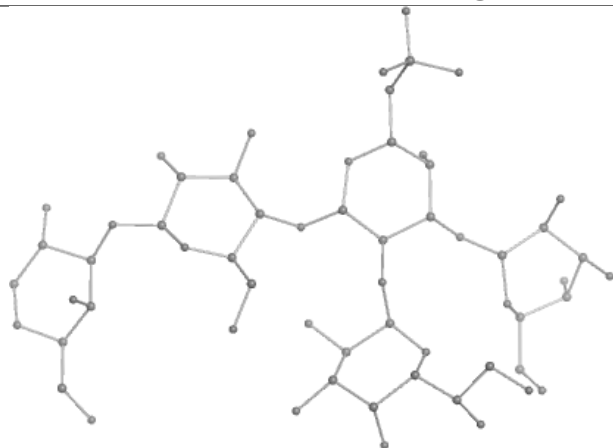
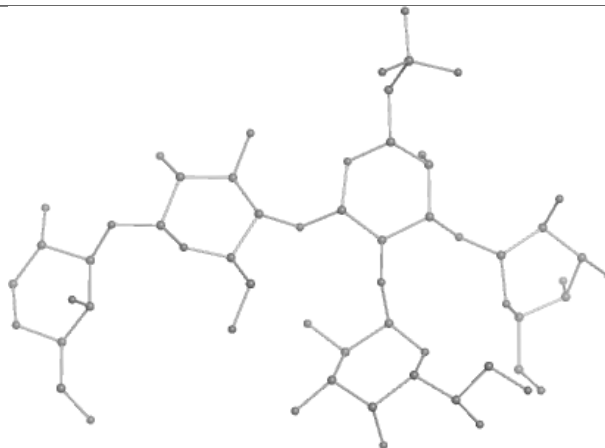
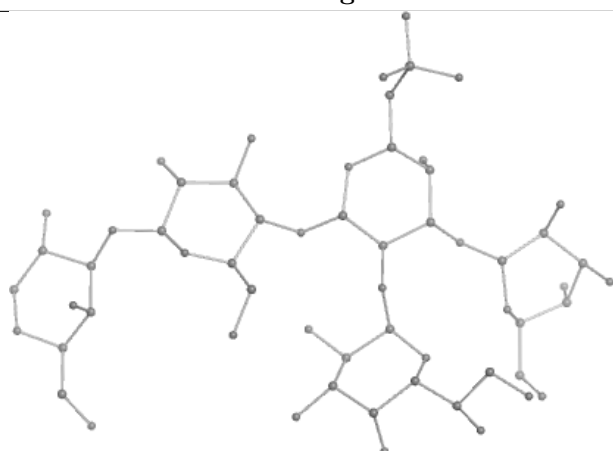
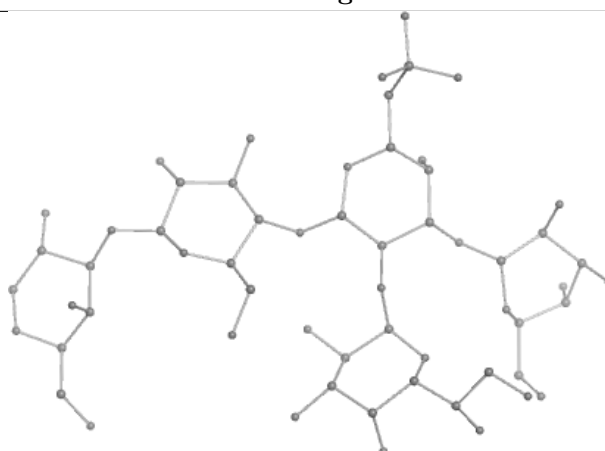
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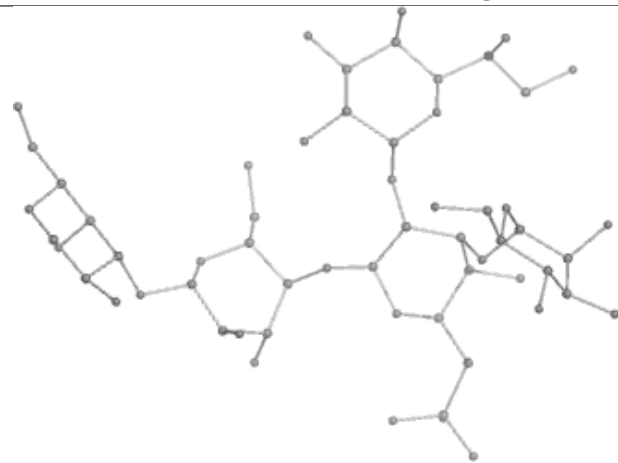
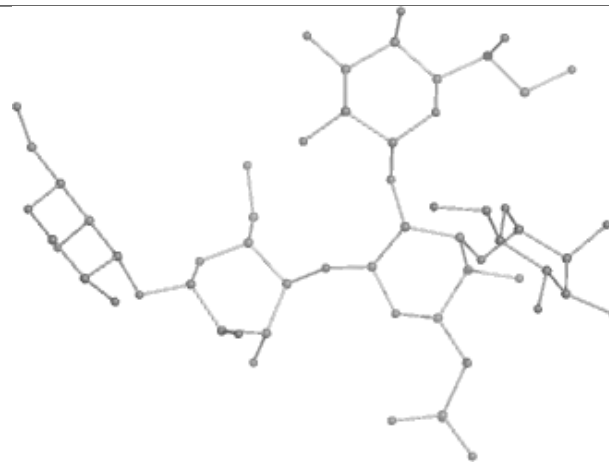
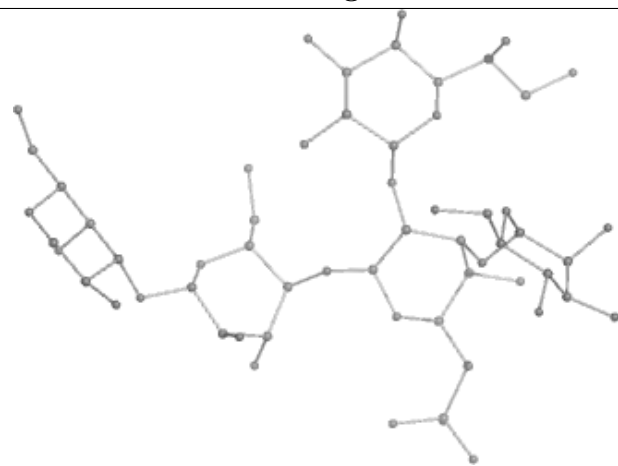
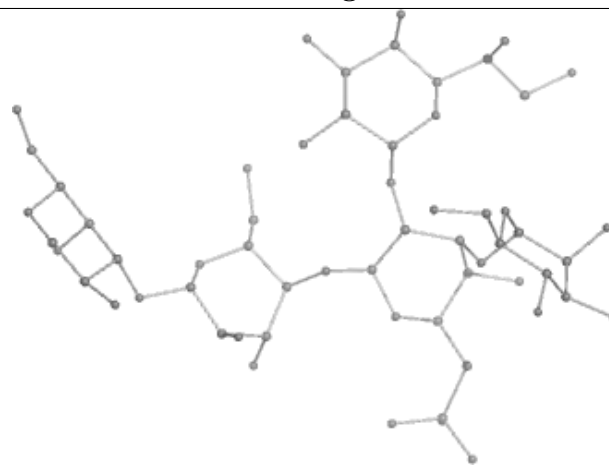
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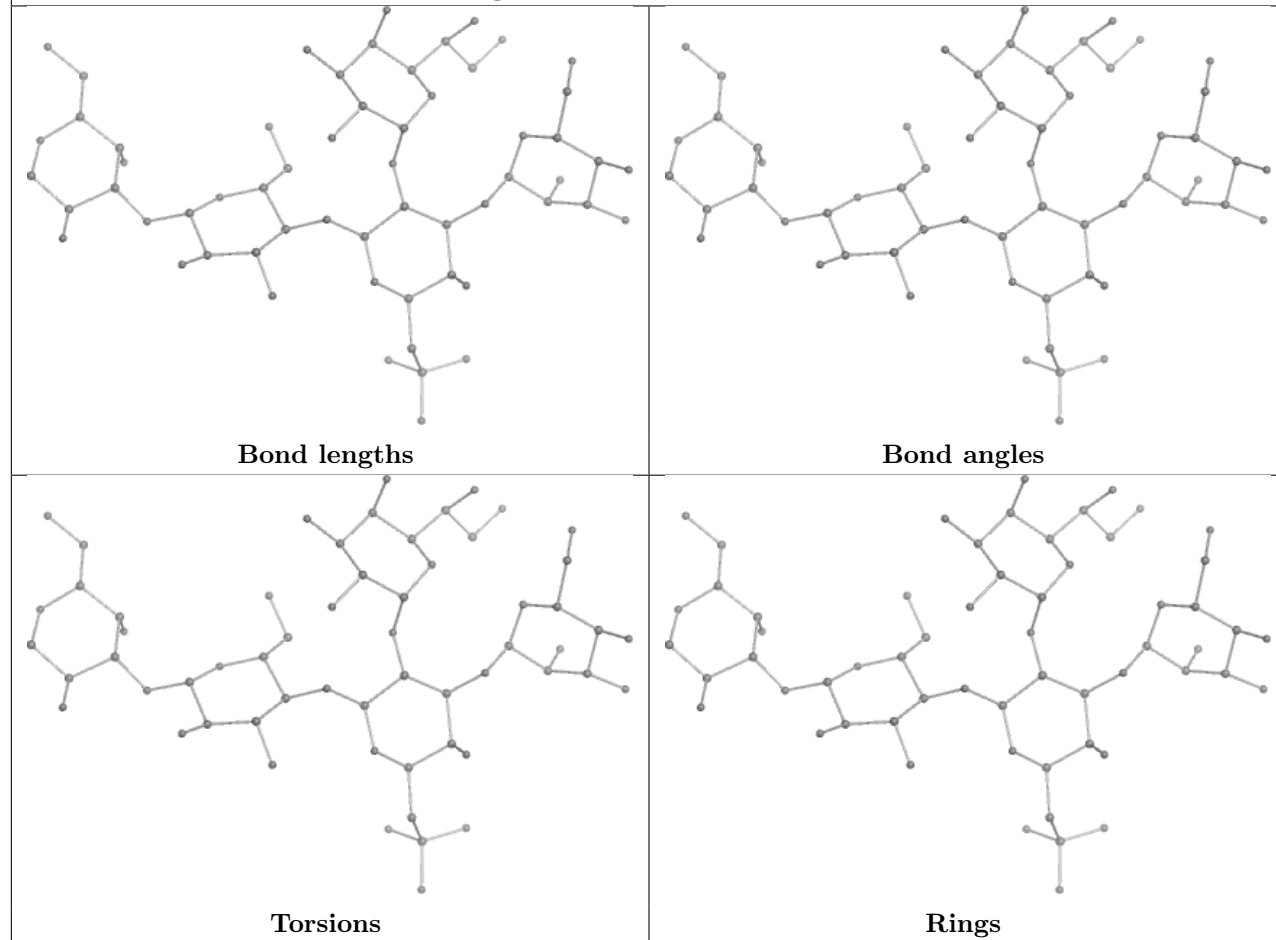
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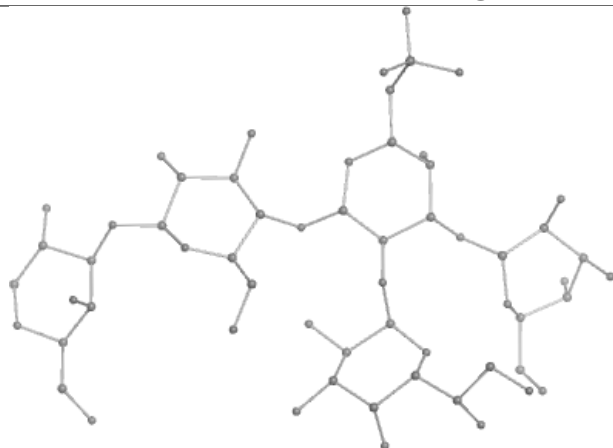
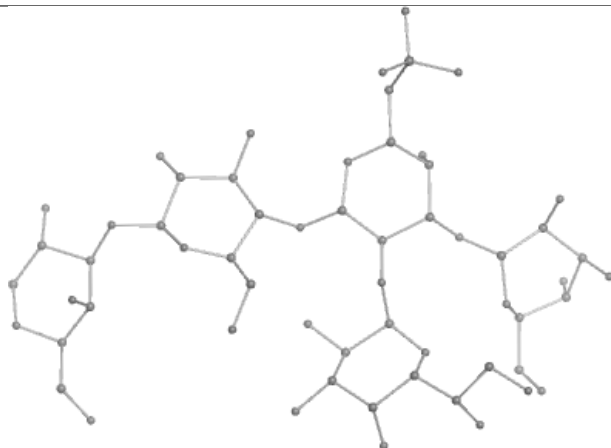
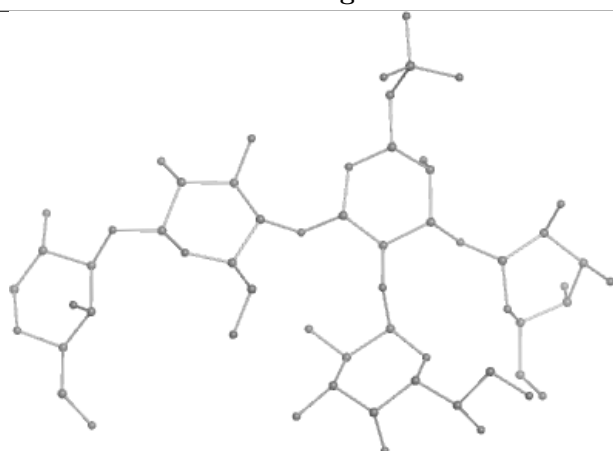
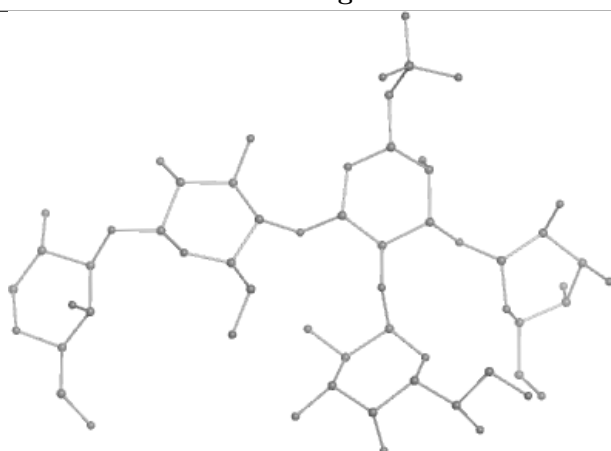
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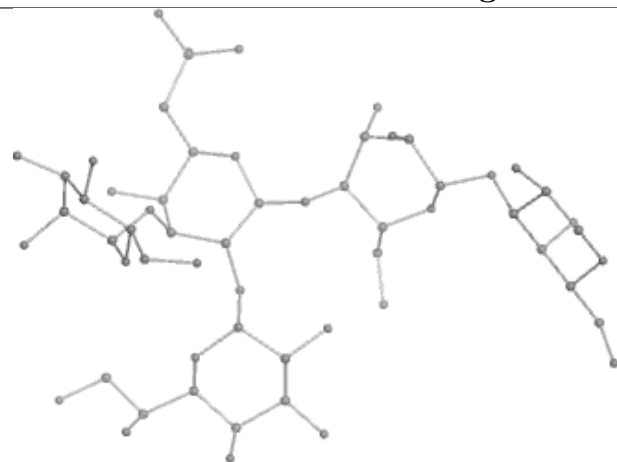
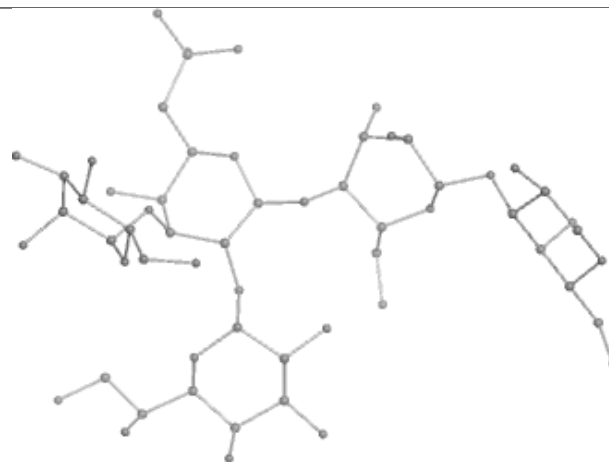
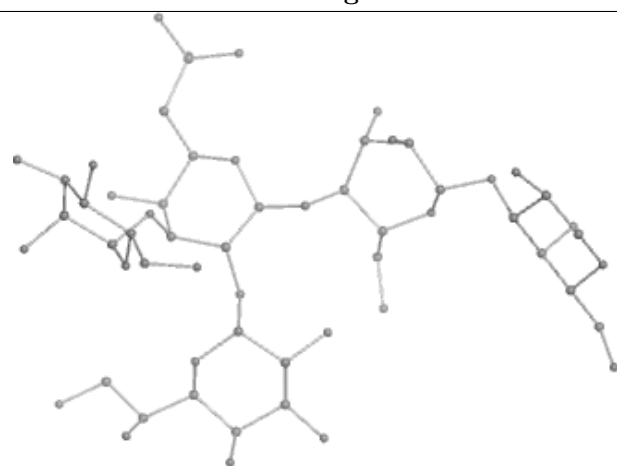
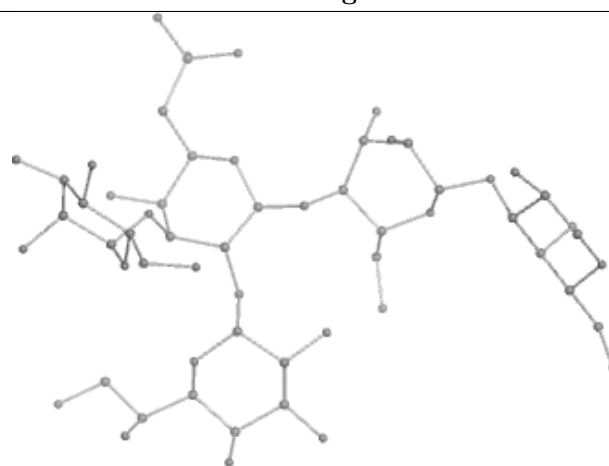
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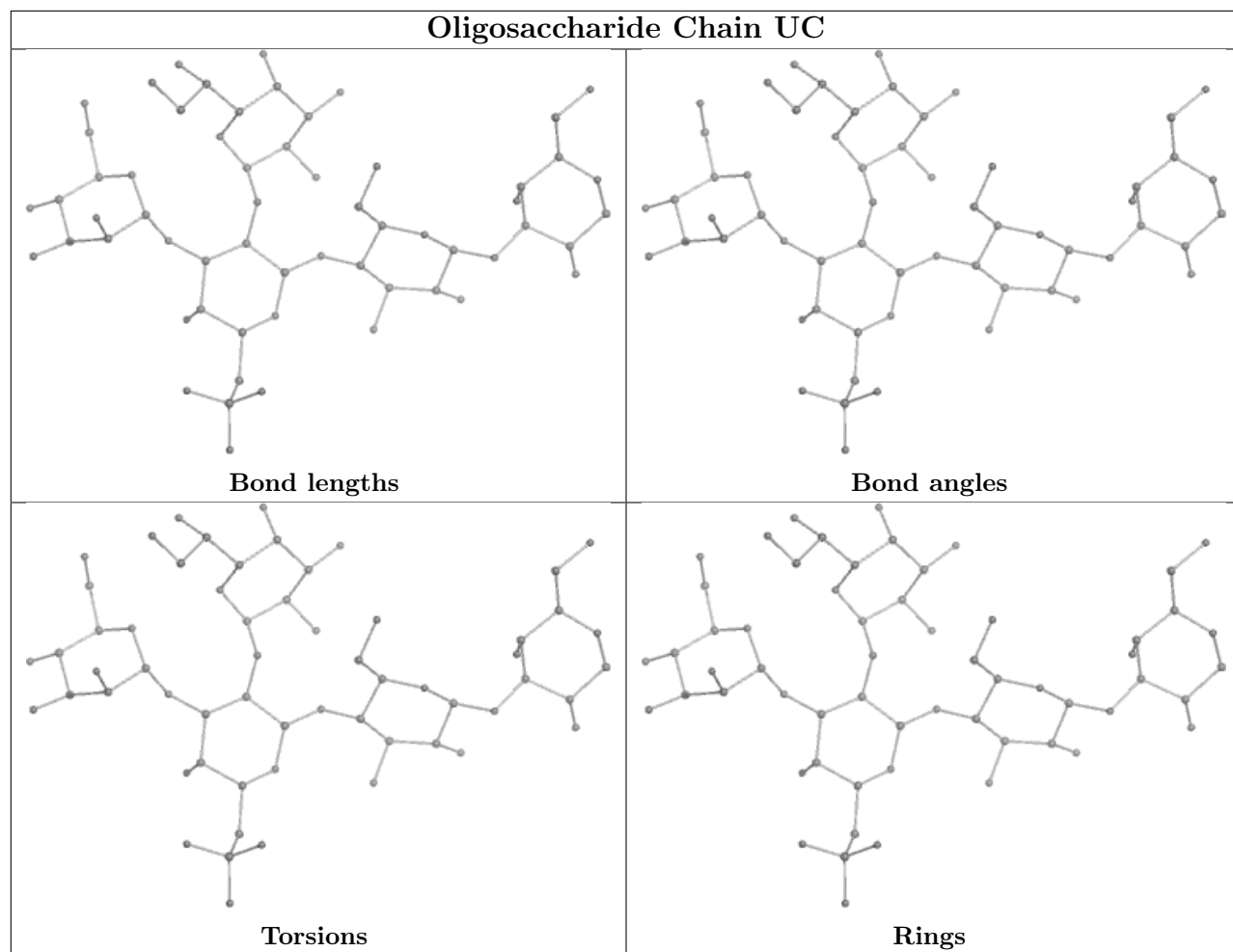
**Oligosaccharide Chain KC****Bond lengths****Bond angles****Torsions****Rings**

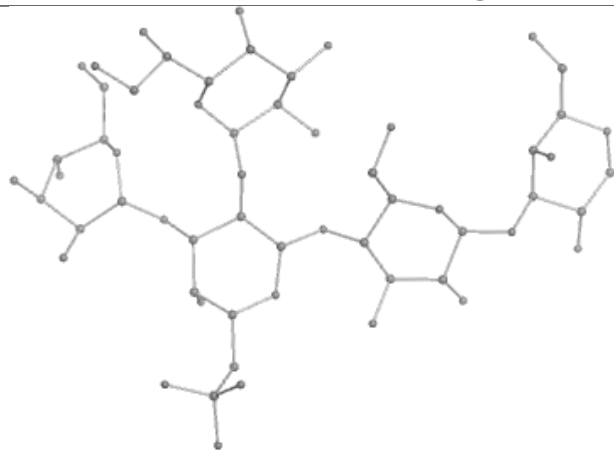
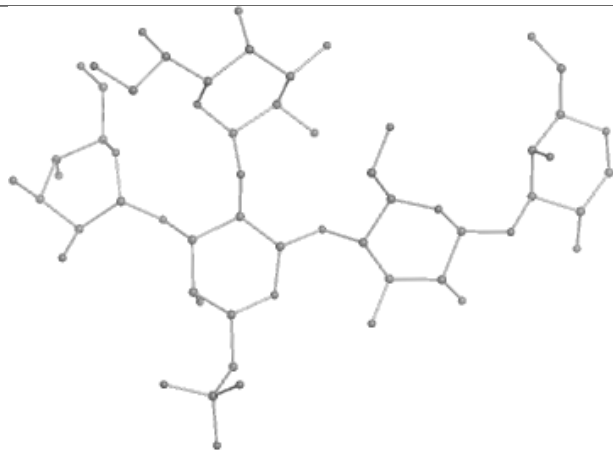
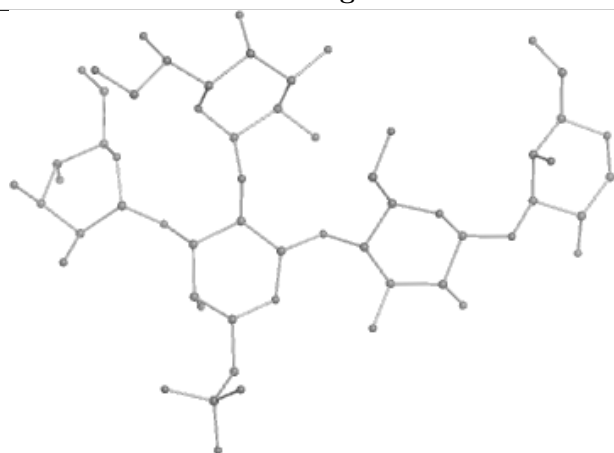
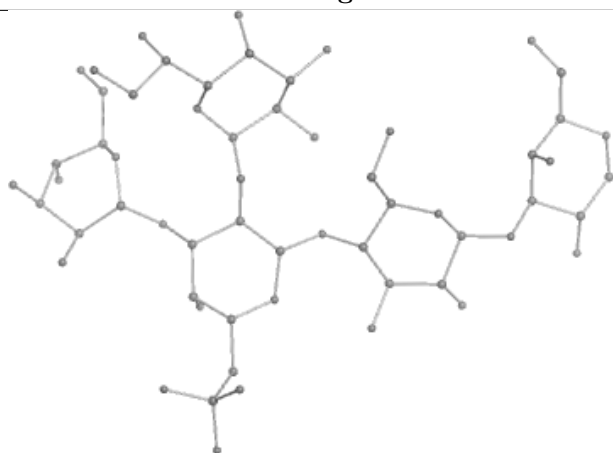
**Oligosaccharide Chain LC****Bond lengths****Bond angles****Torsions****Rings**

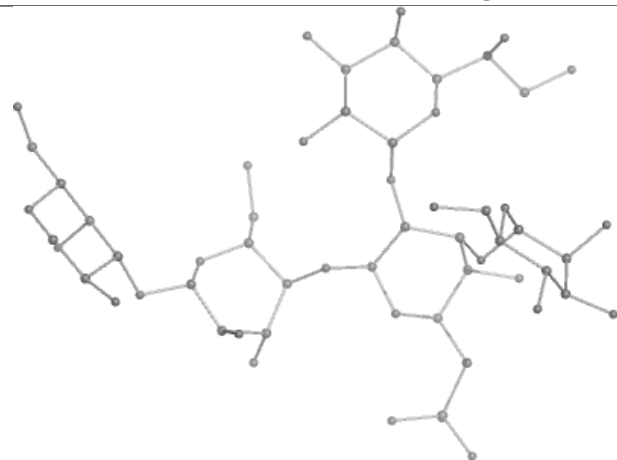
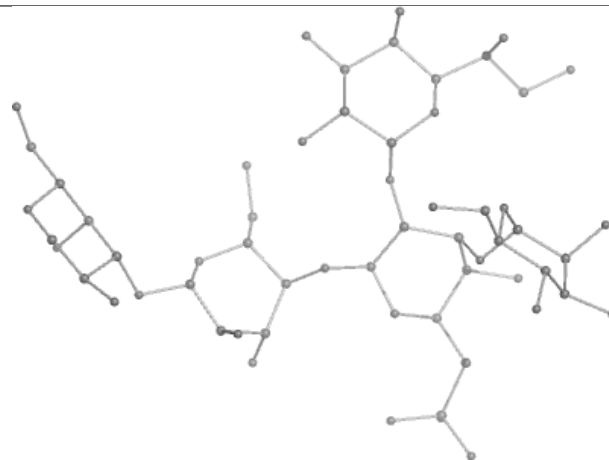
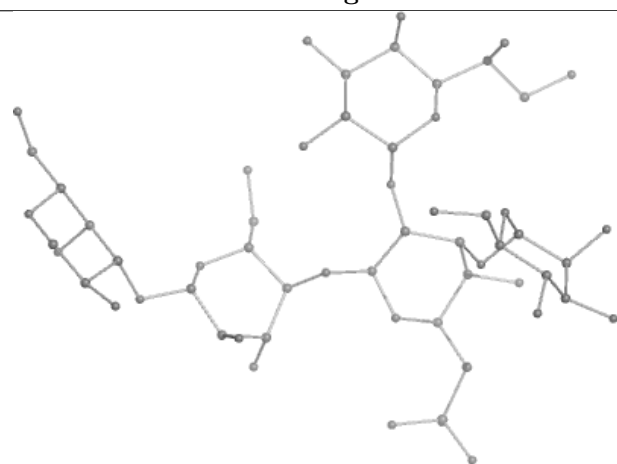
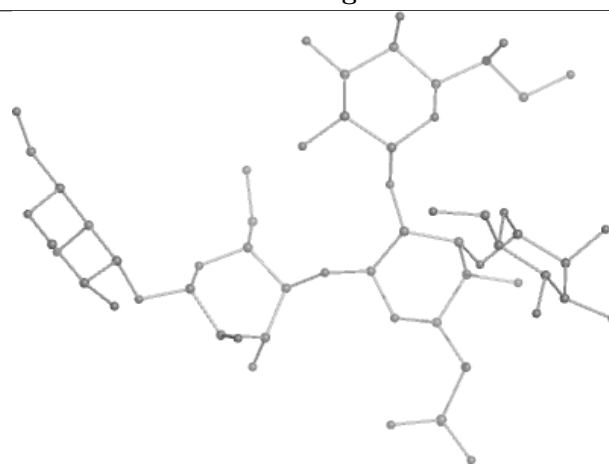
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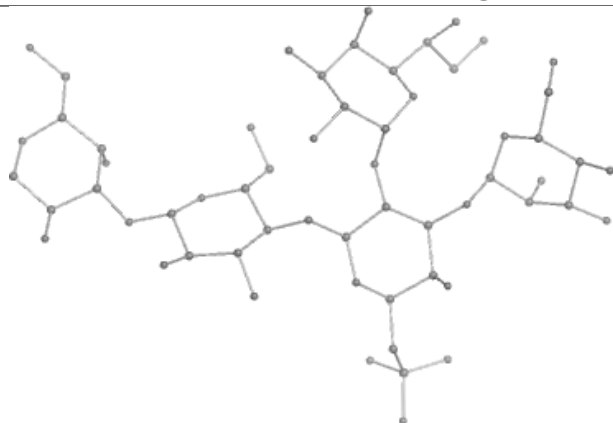
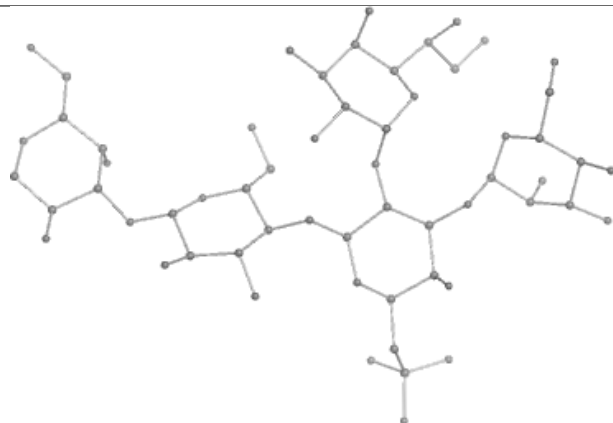
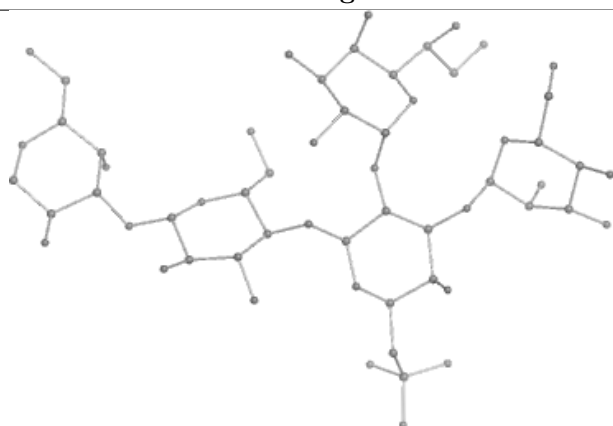
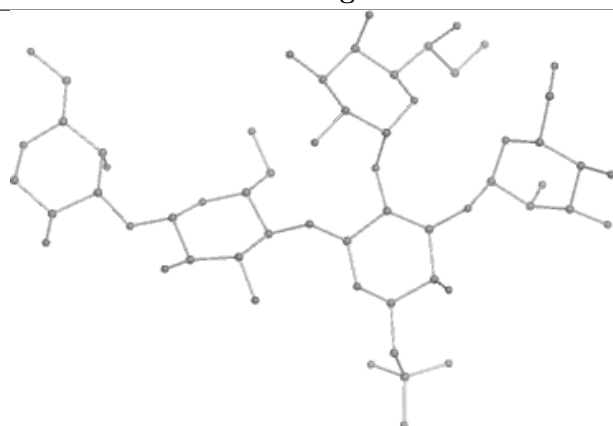
**Oligosaccharide Chain RC****Bond lengths****Bond angles****Torsions****Rings**

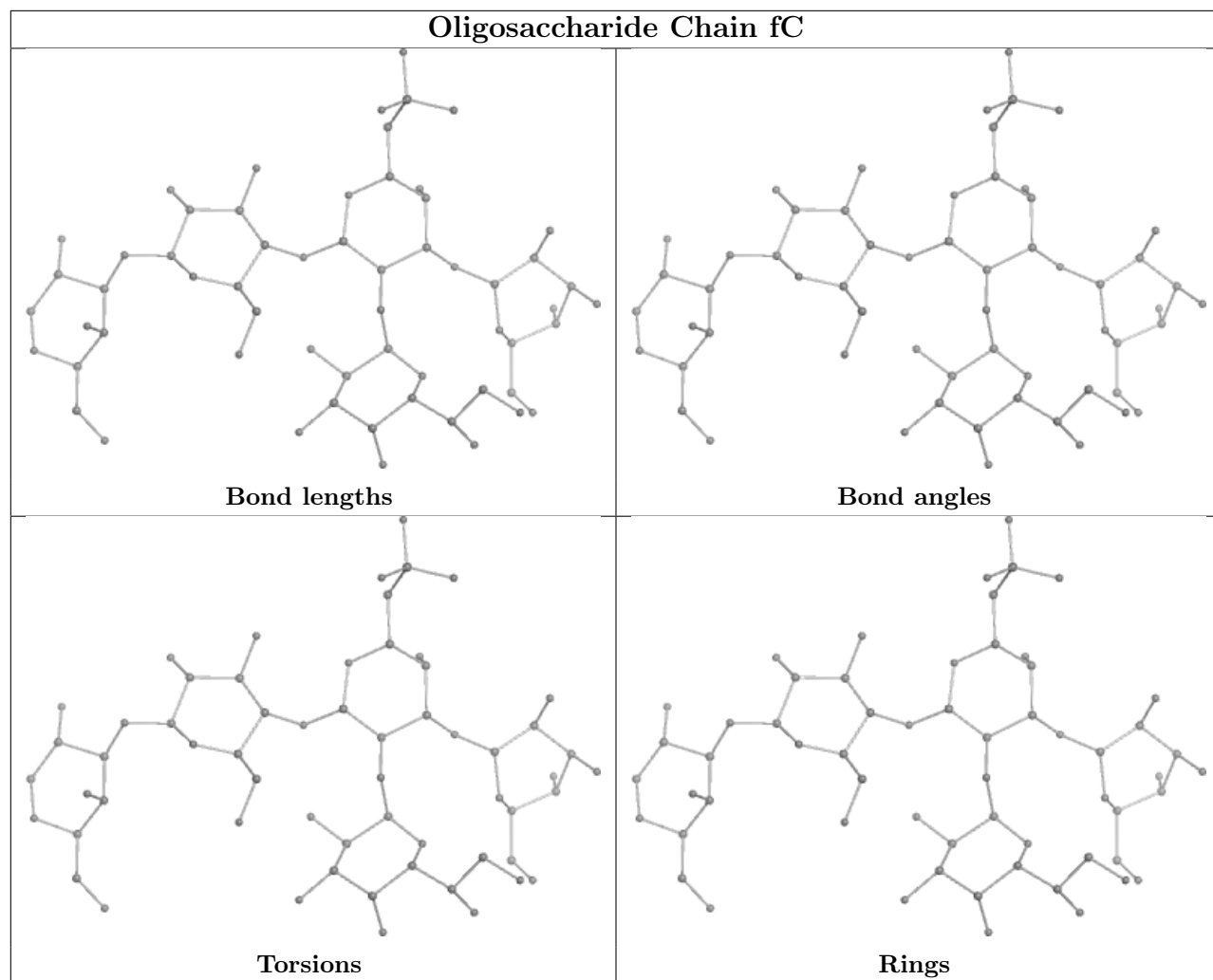
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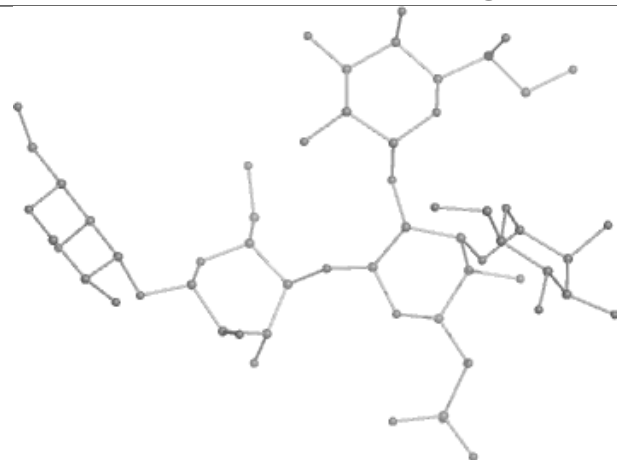
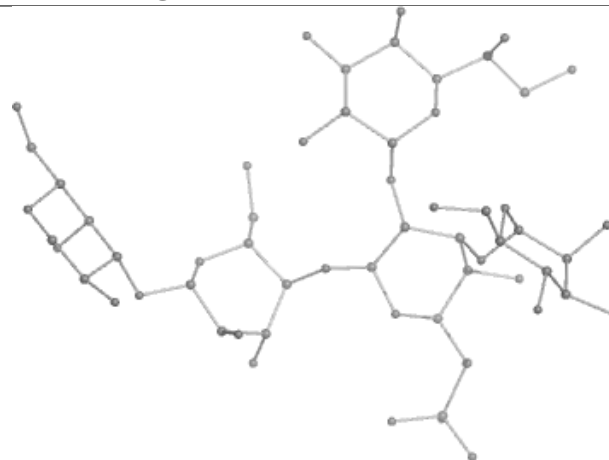
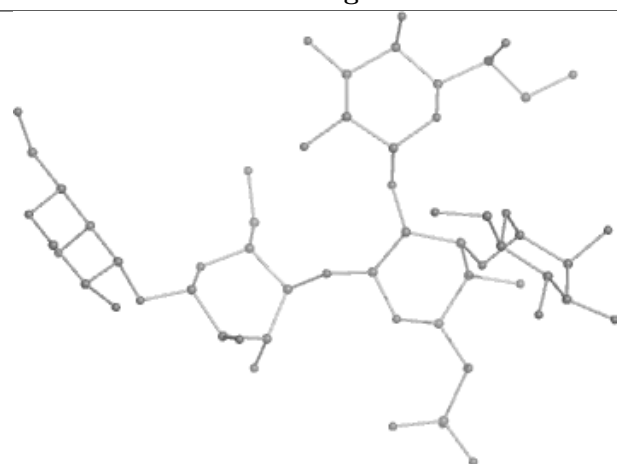
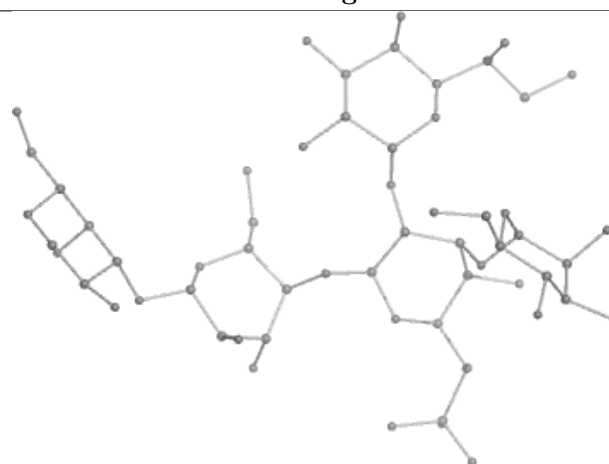
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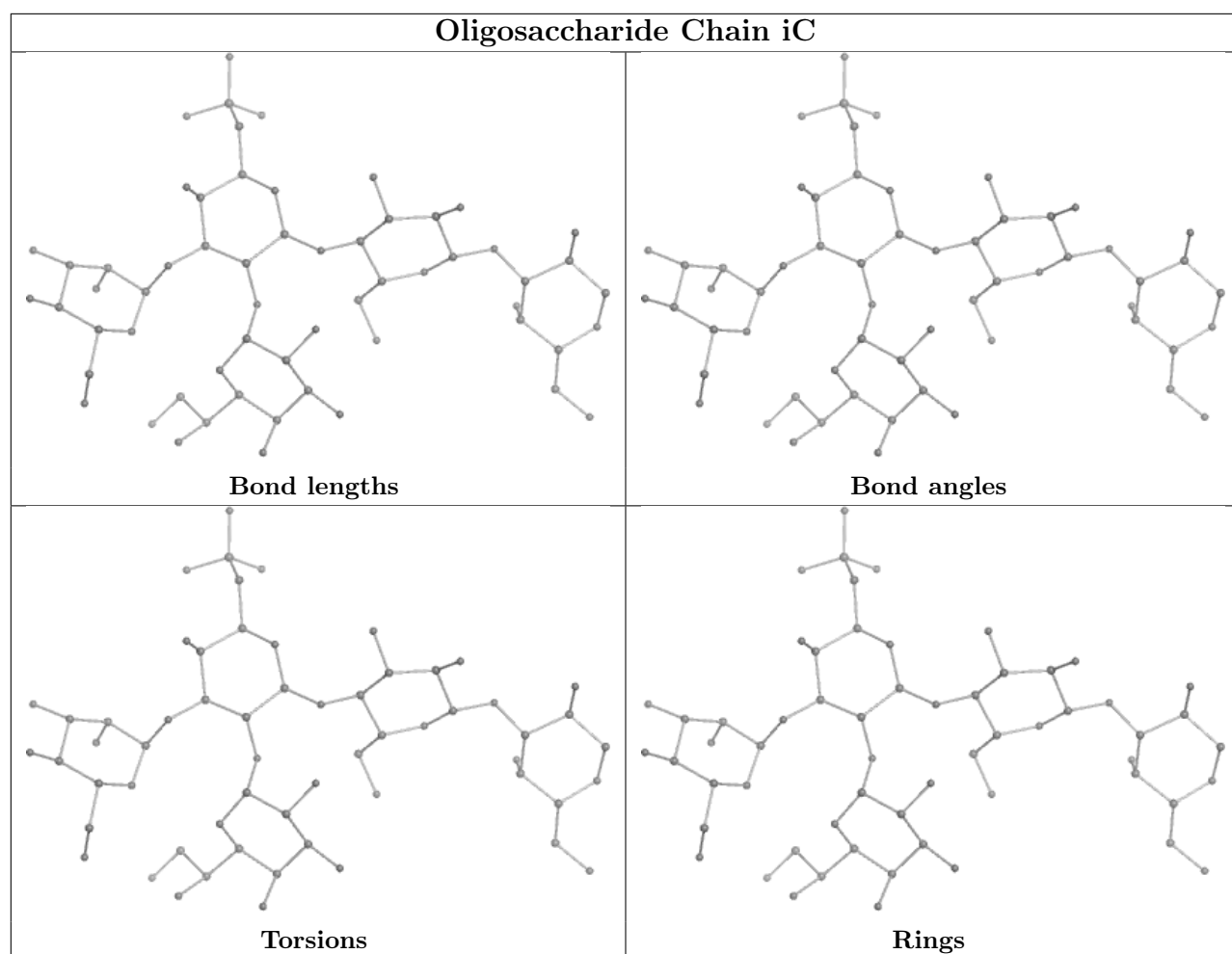
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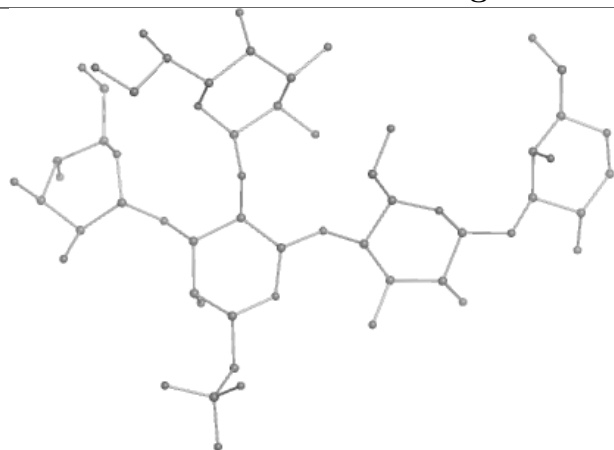
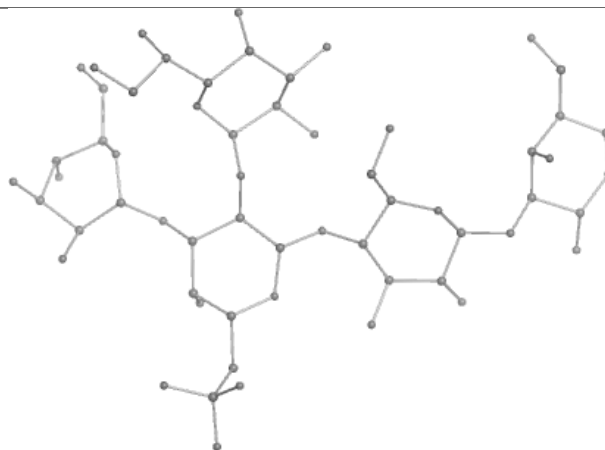
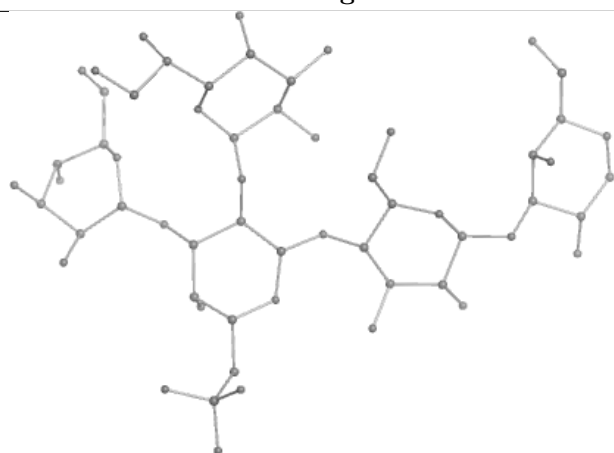
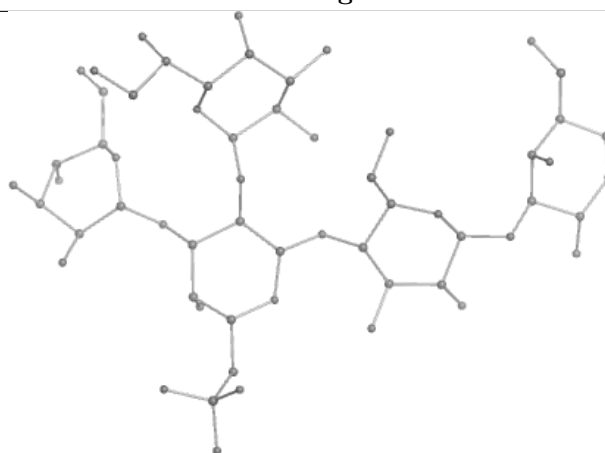
**Oligosaccharide Chain ZC****Bond lengths****Bond angles****Torsions****Rings**

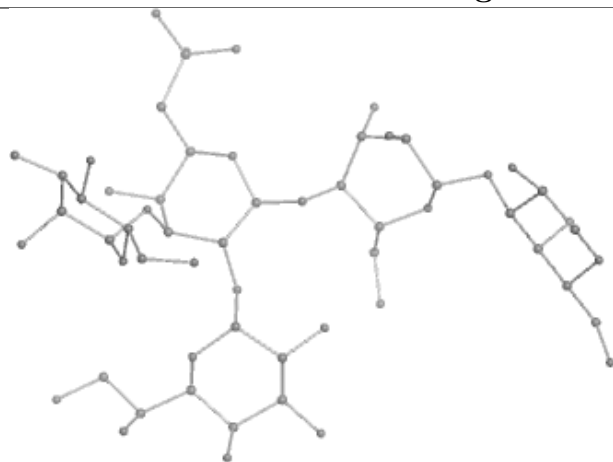
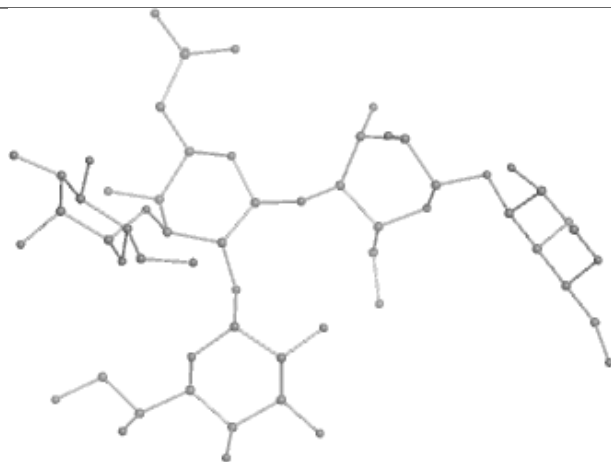
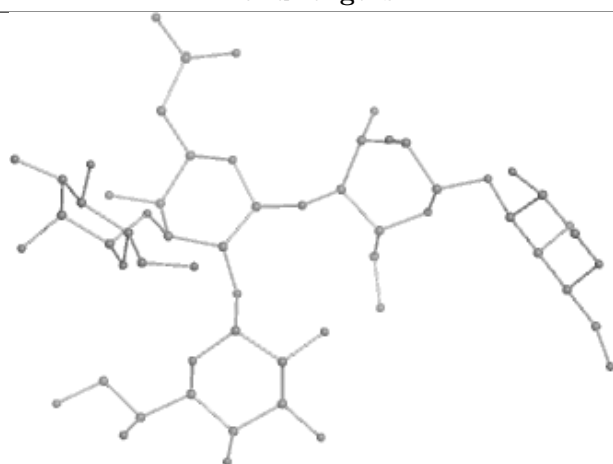
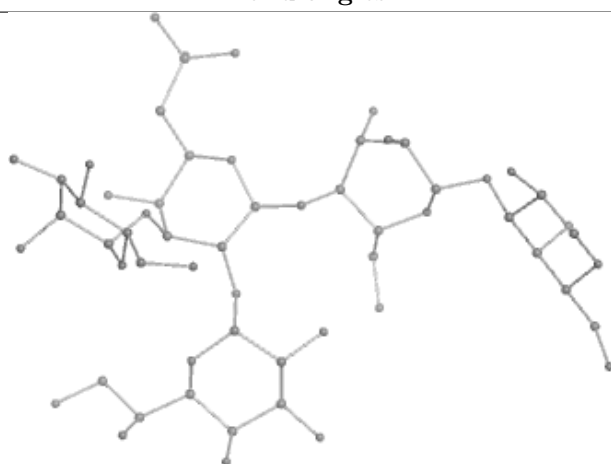
**Oligosaccharide Chain bC****Bond lengths****Bond angles****Torsions****Rings**

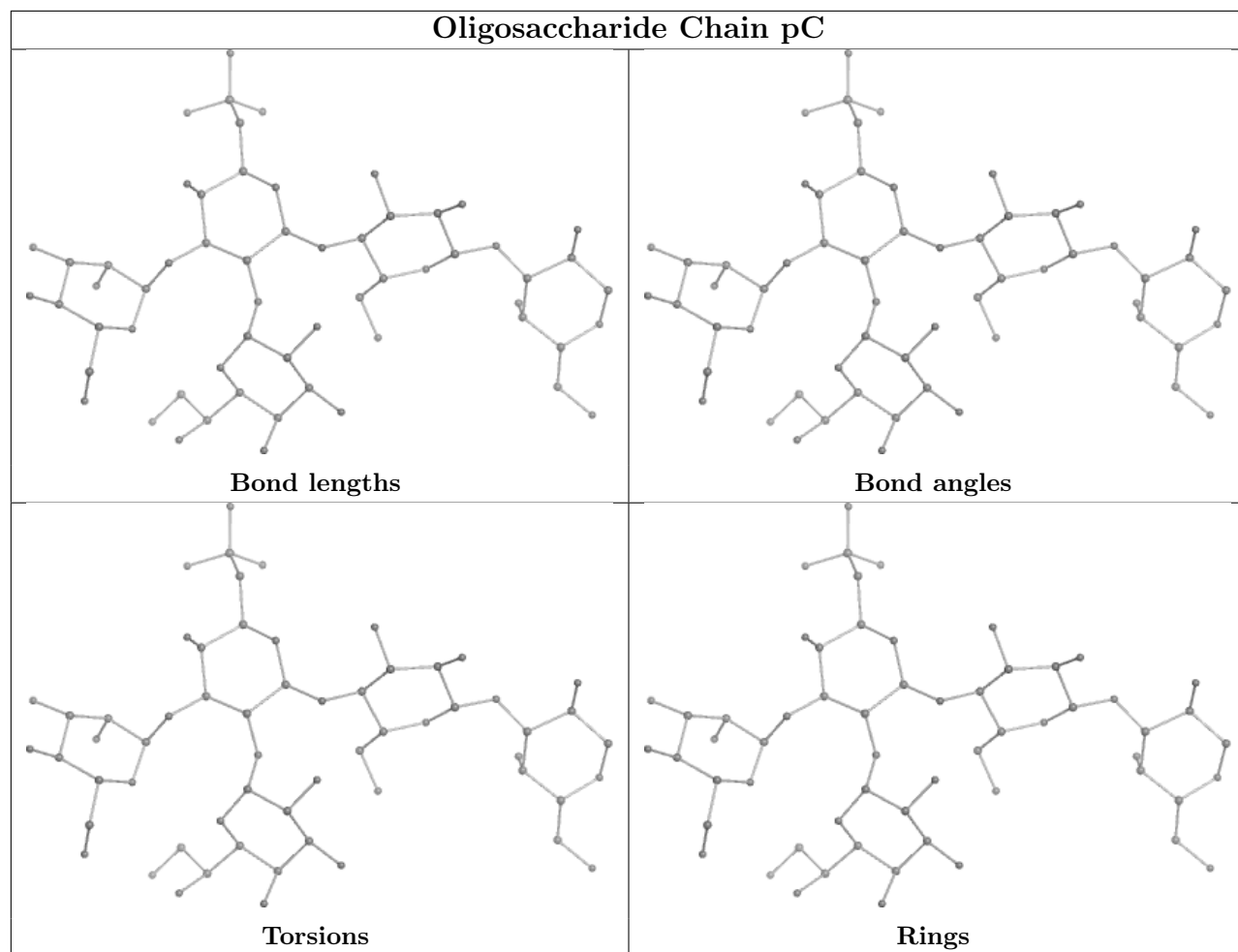


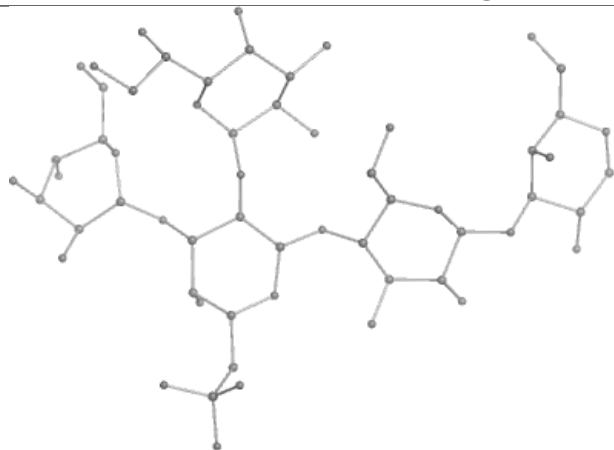
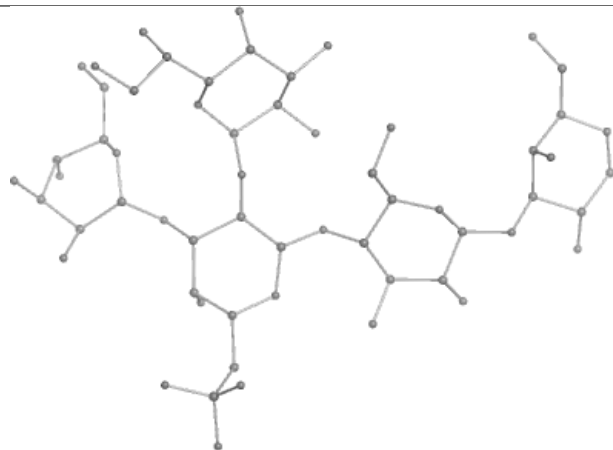
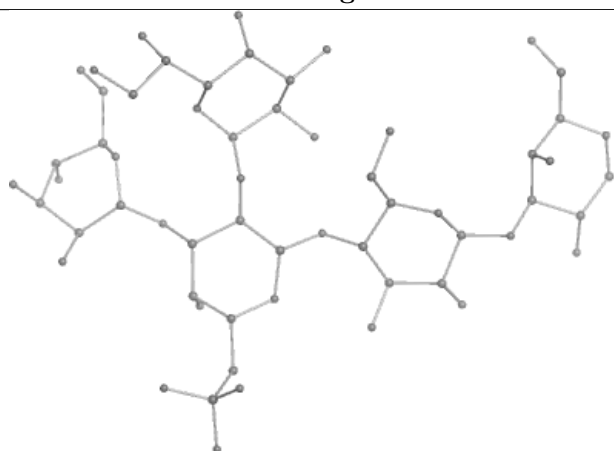
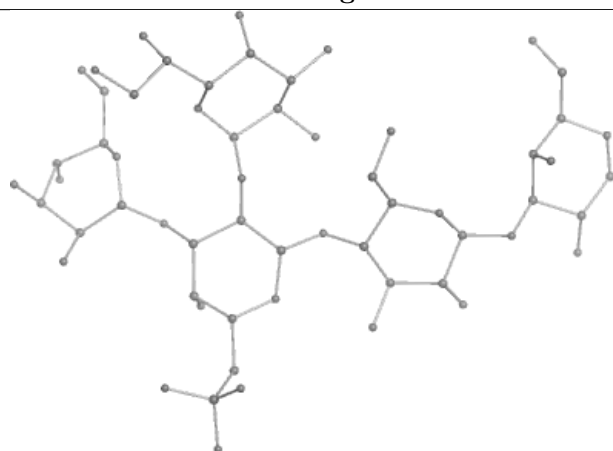
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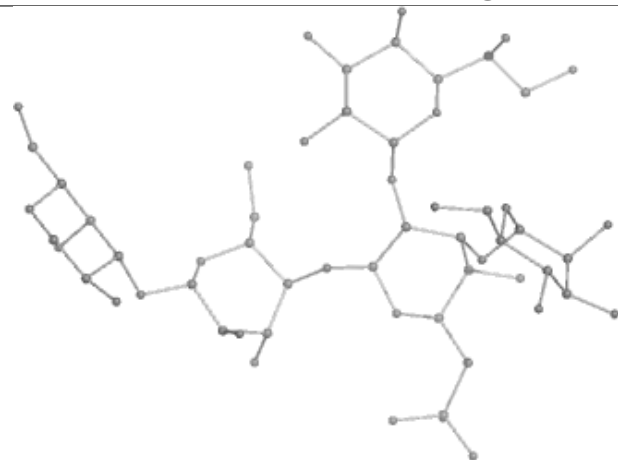
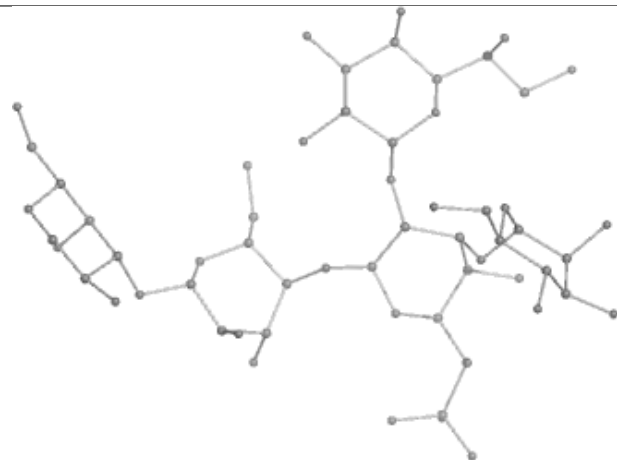
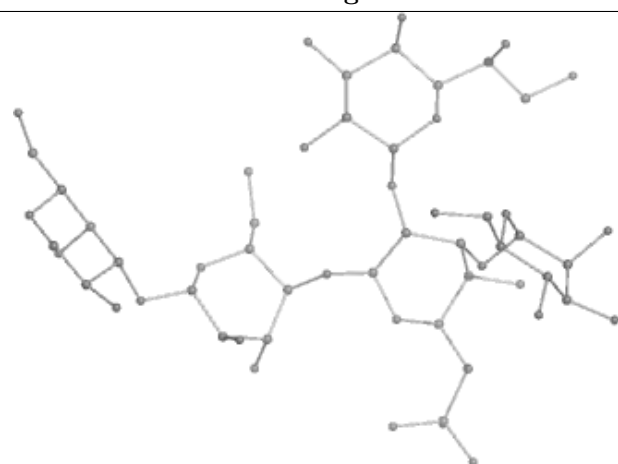
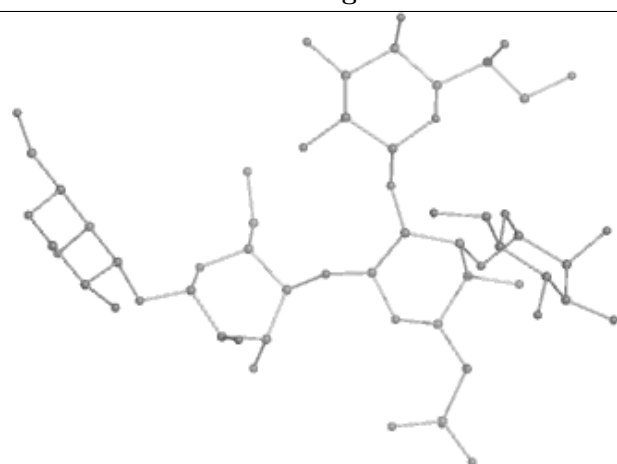


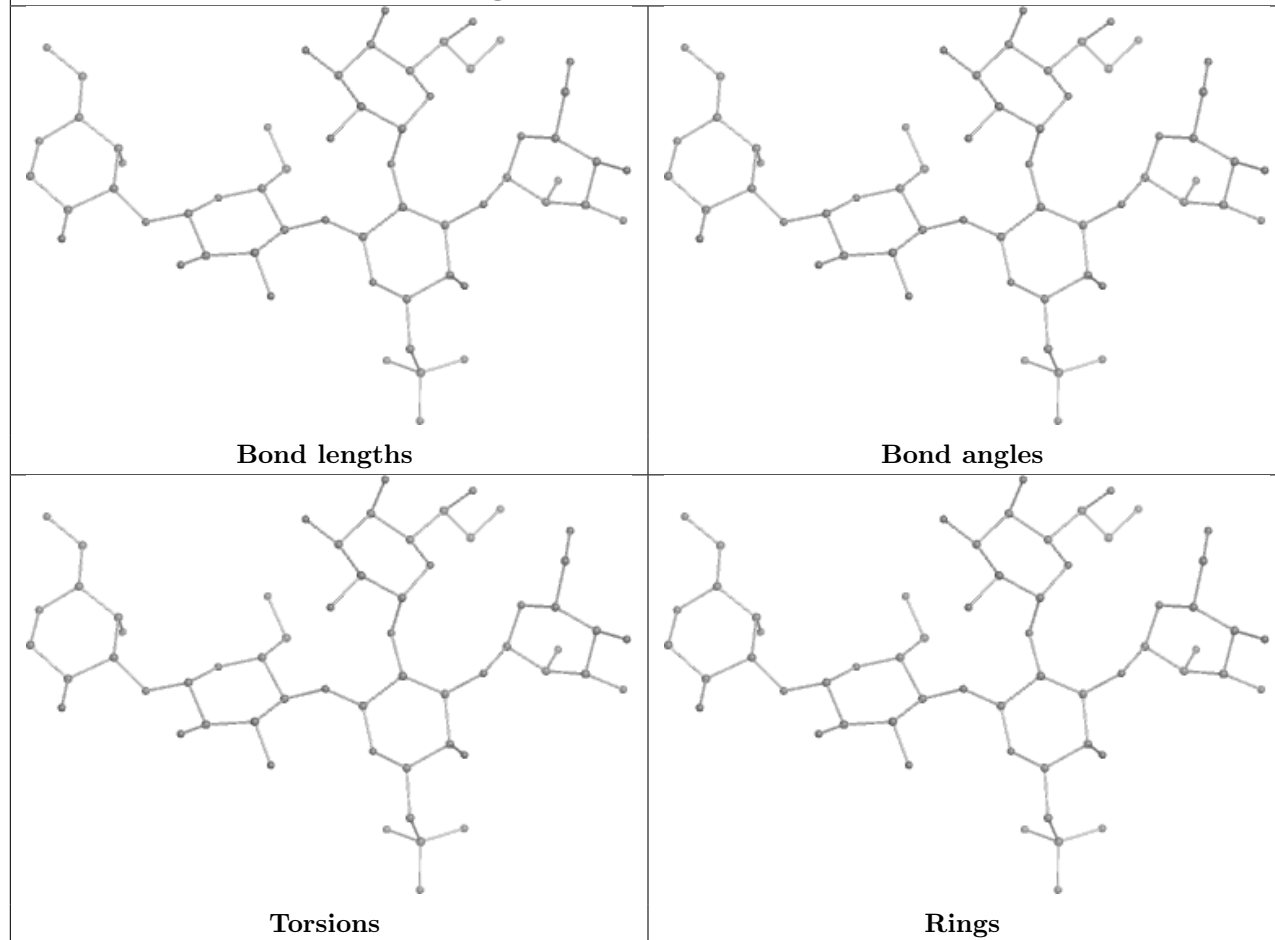
**Oligosaccharide Chain mC****Bond lengths****Bond angles****Torsions****Rings**

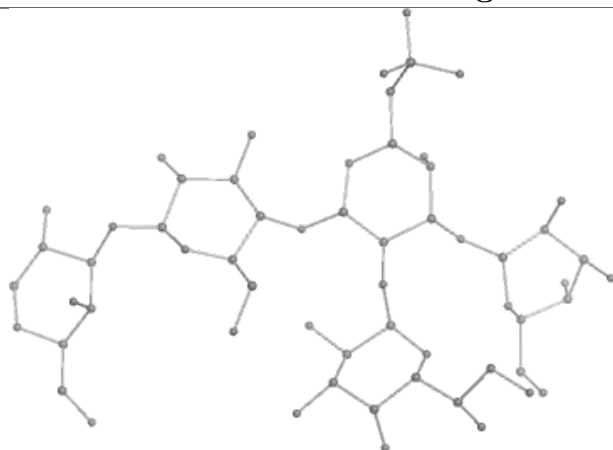
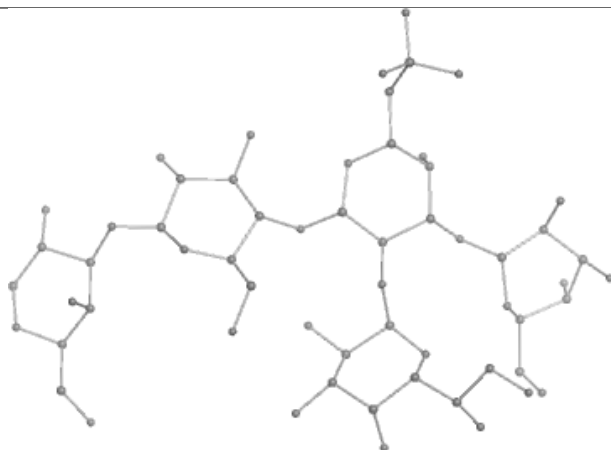
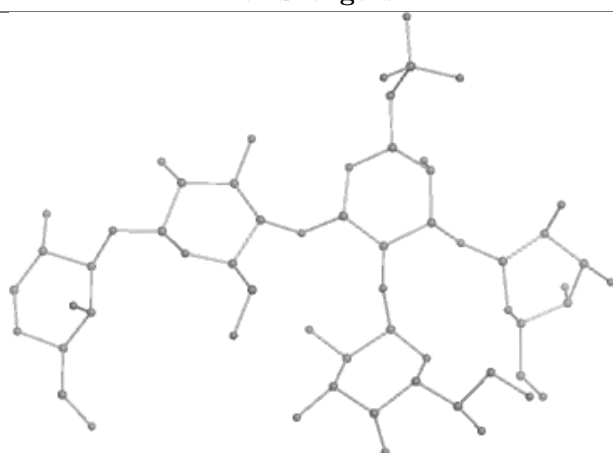
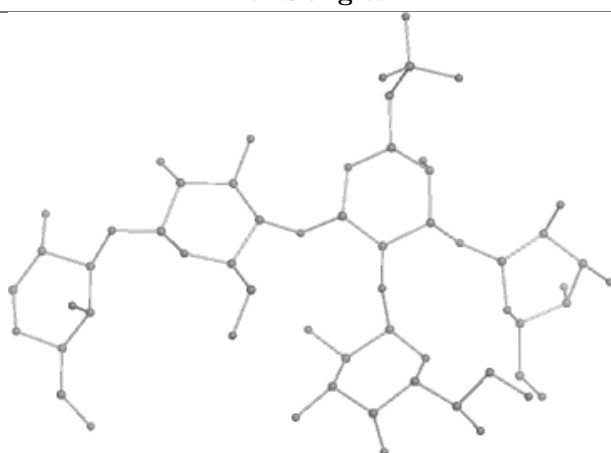
**Oligosaccharide Chain nC****Bond lengths****Bond angles****Torsions****Rings**

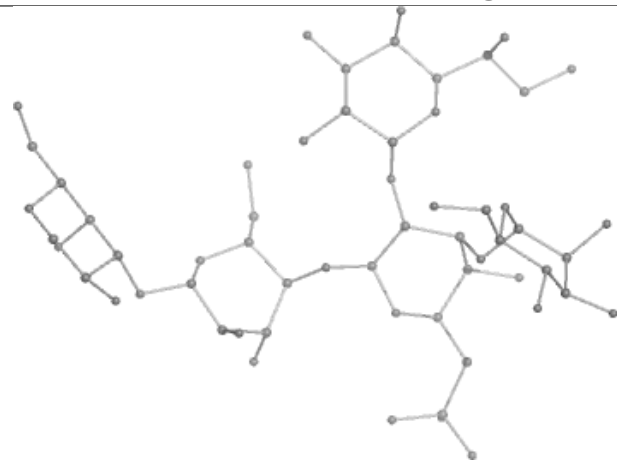
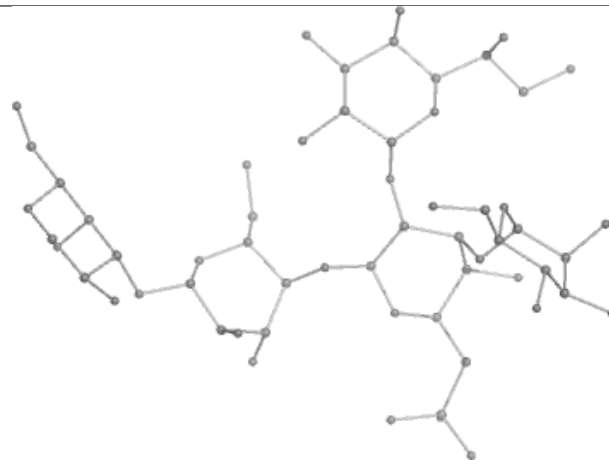
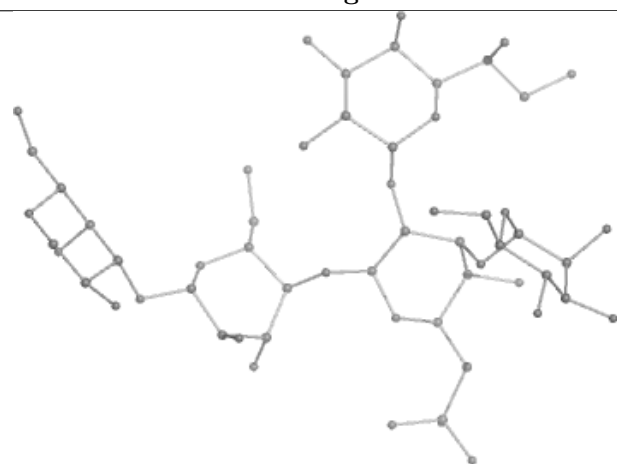
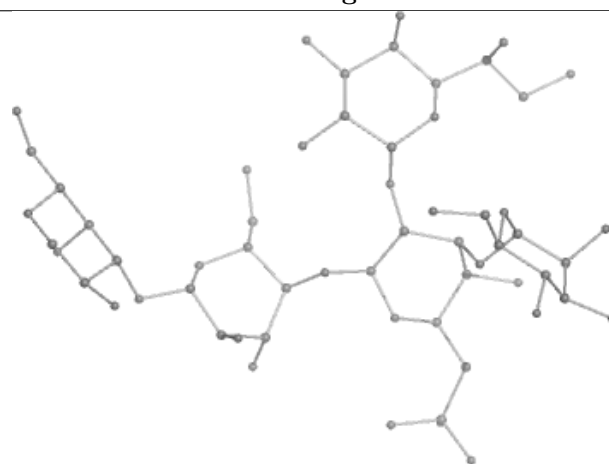


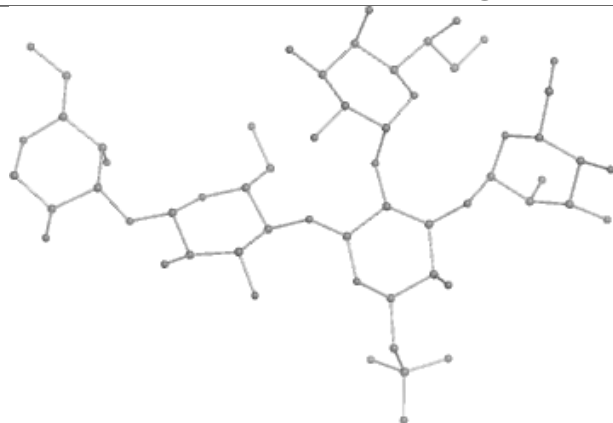
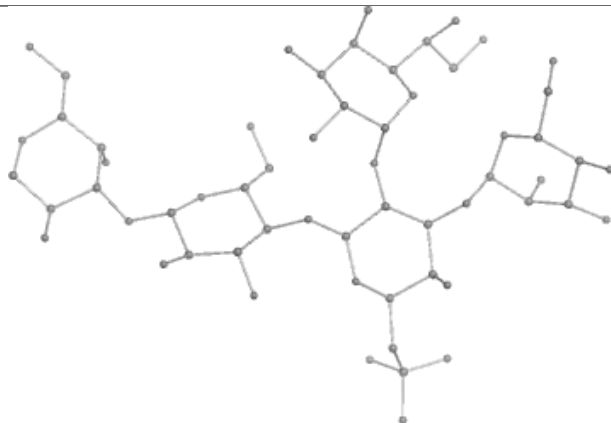
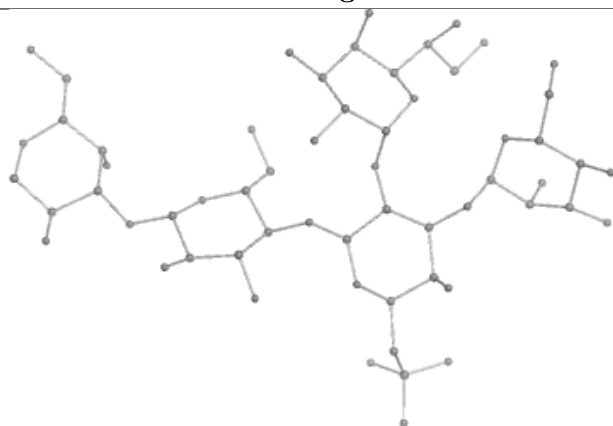
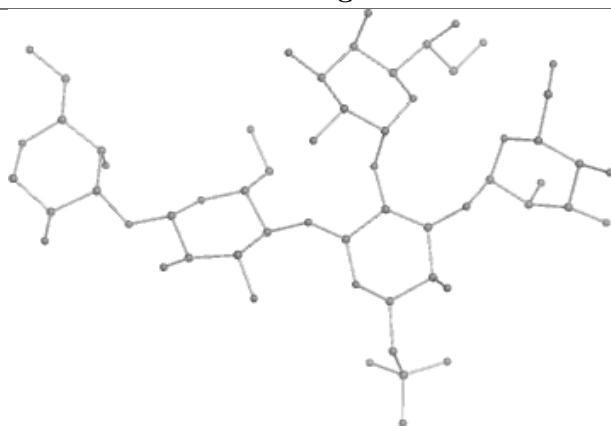
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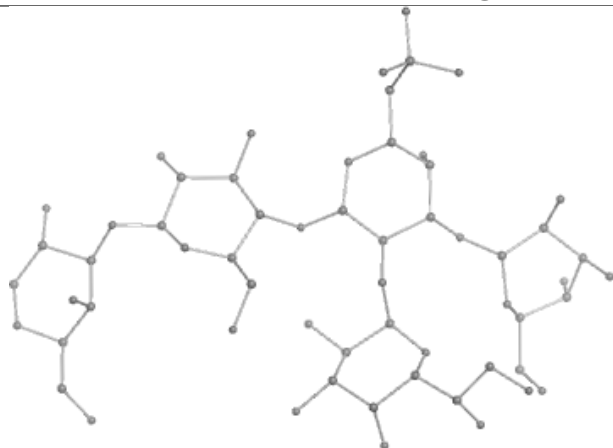
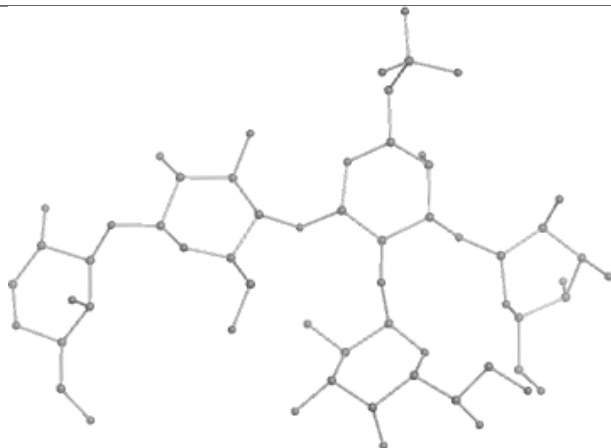
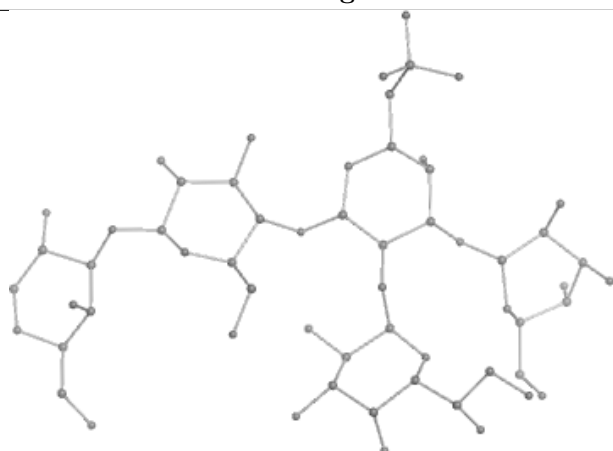
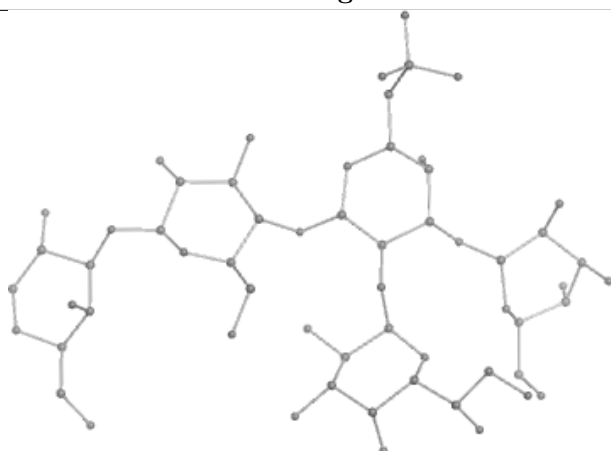
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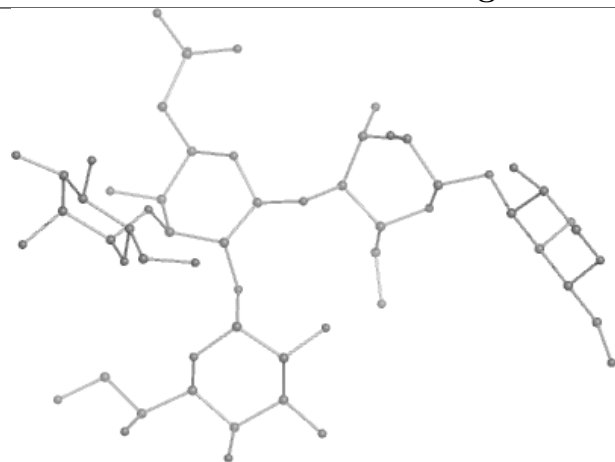
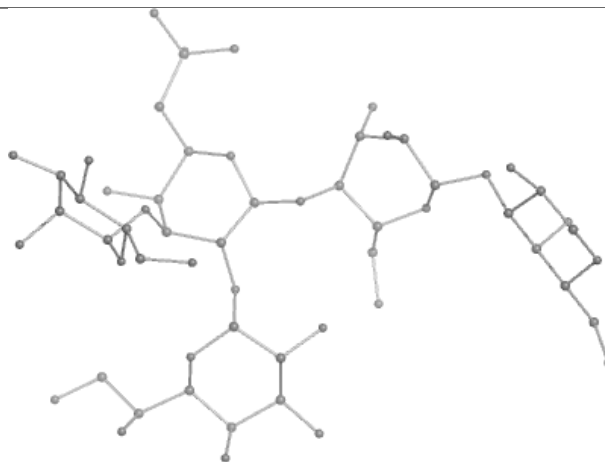
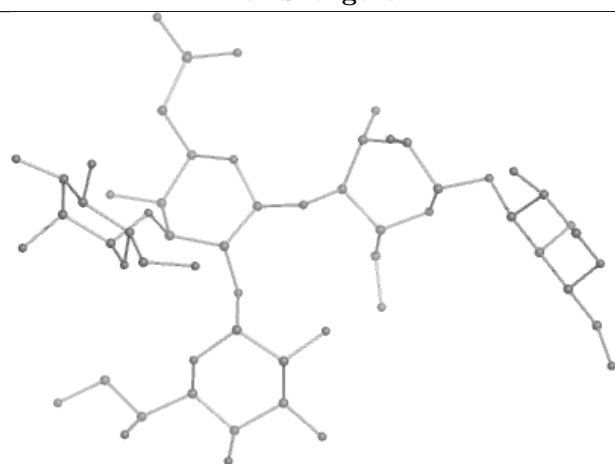
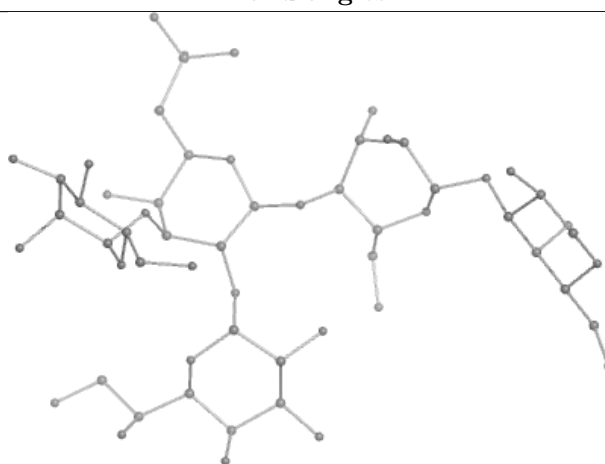
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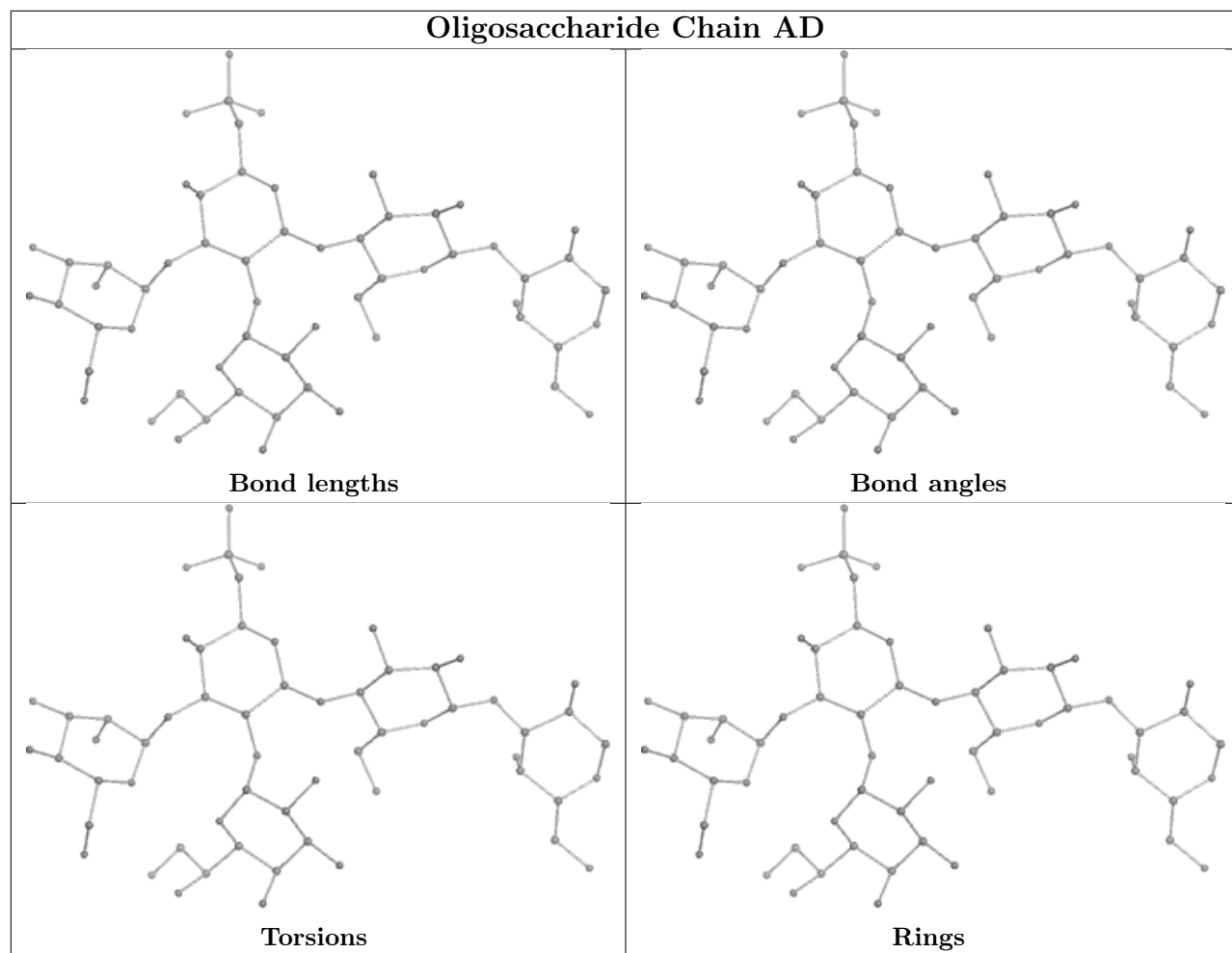
**Oligosaccharide Chain 0C****Bond lengths****Bond angles****Torsions****Rings**

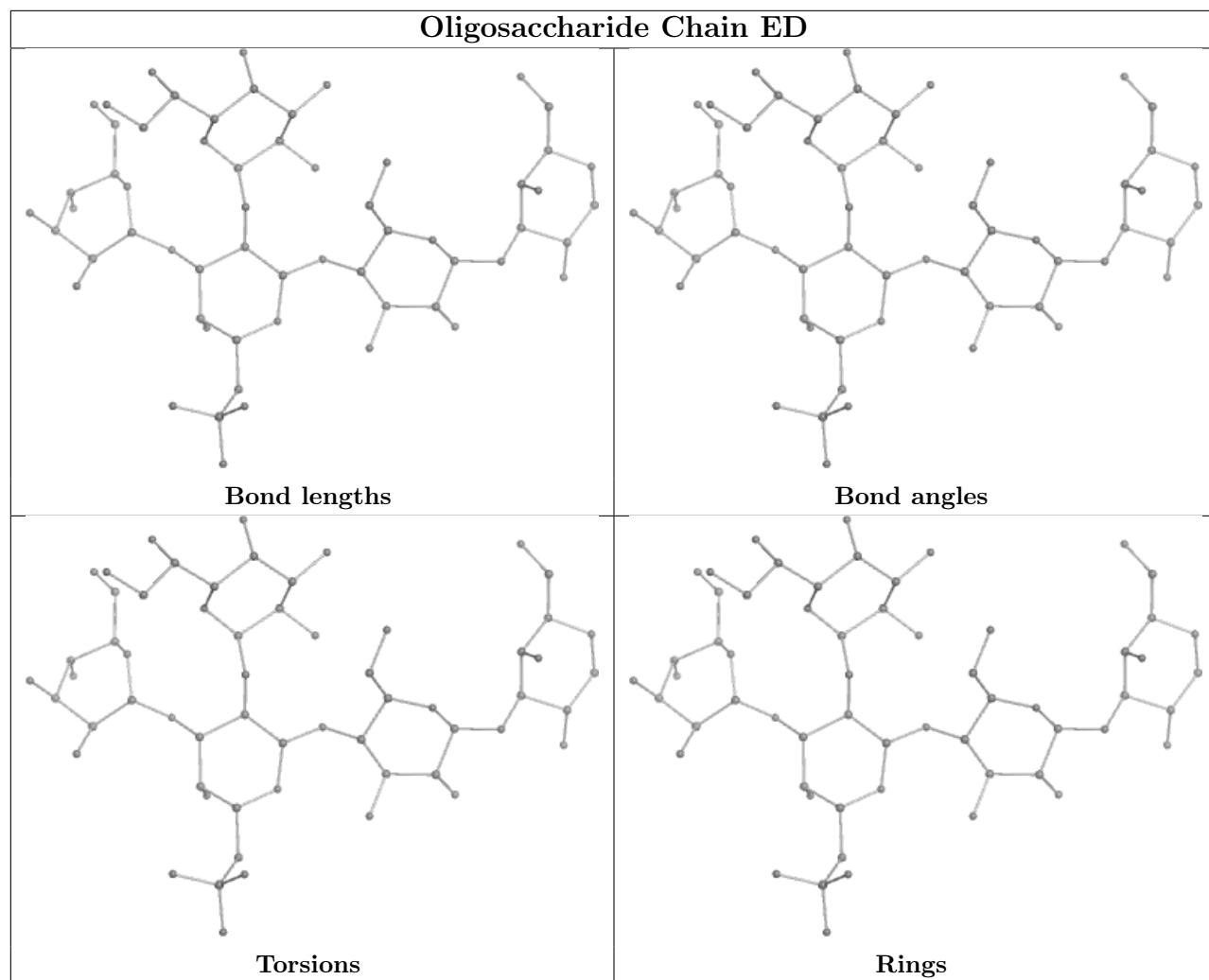
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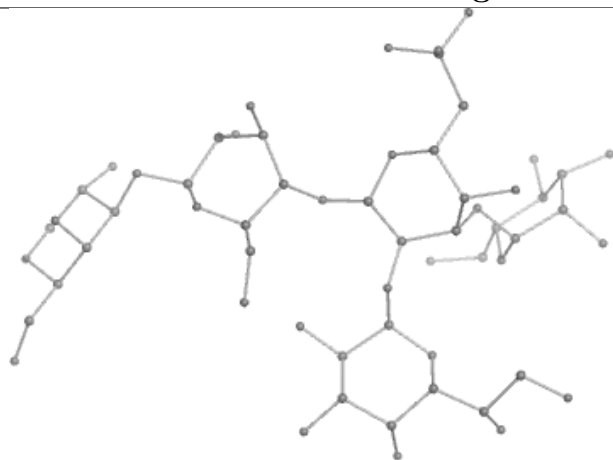
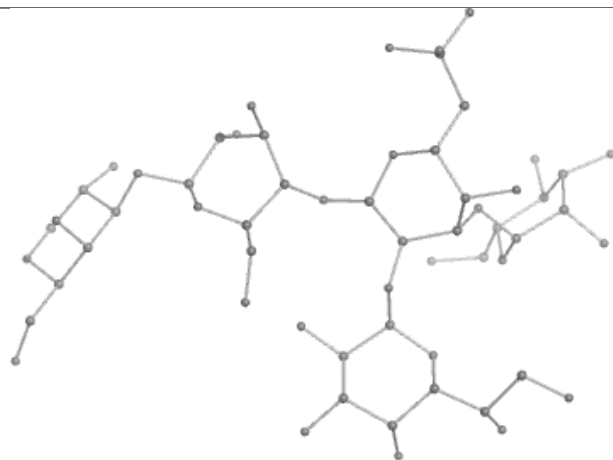
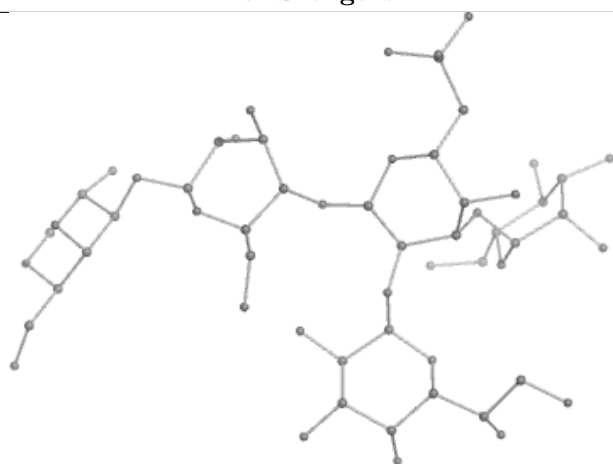
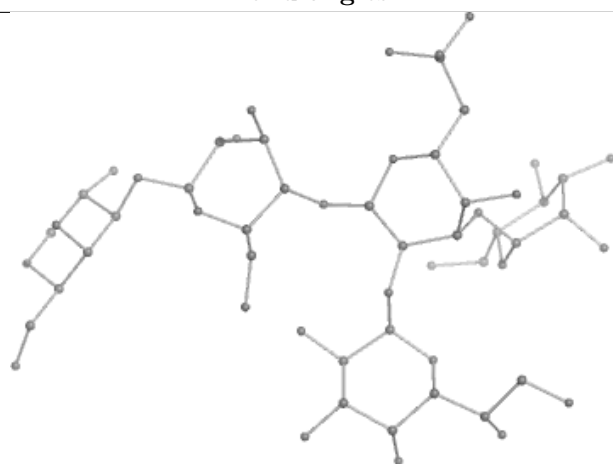
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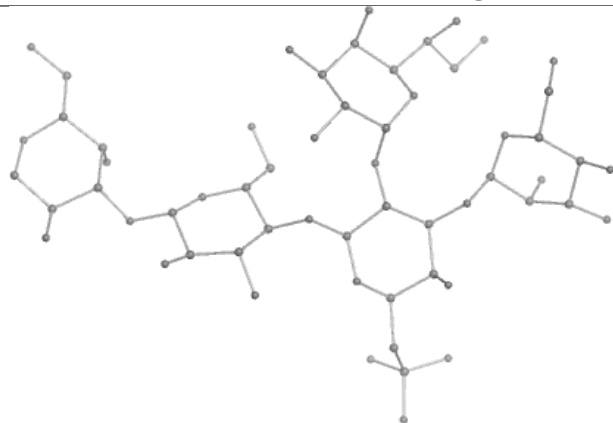
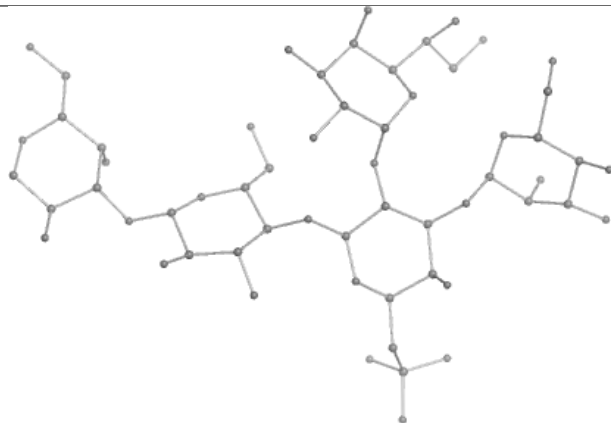
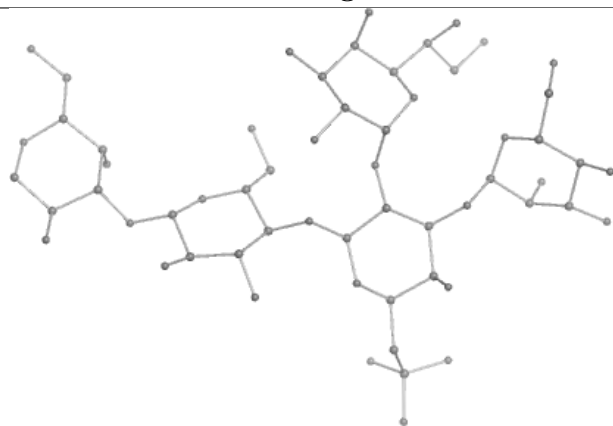
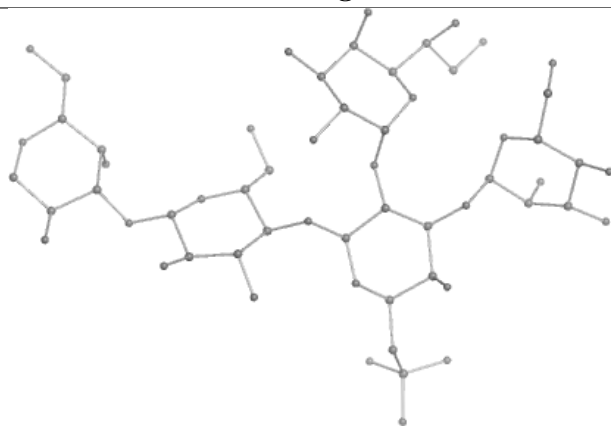
**Oligosaccharide Chain 7C****Bond lengths****Bond angles****Torsions****Rings**

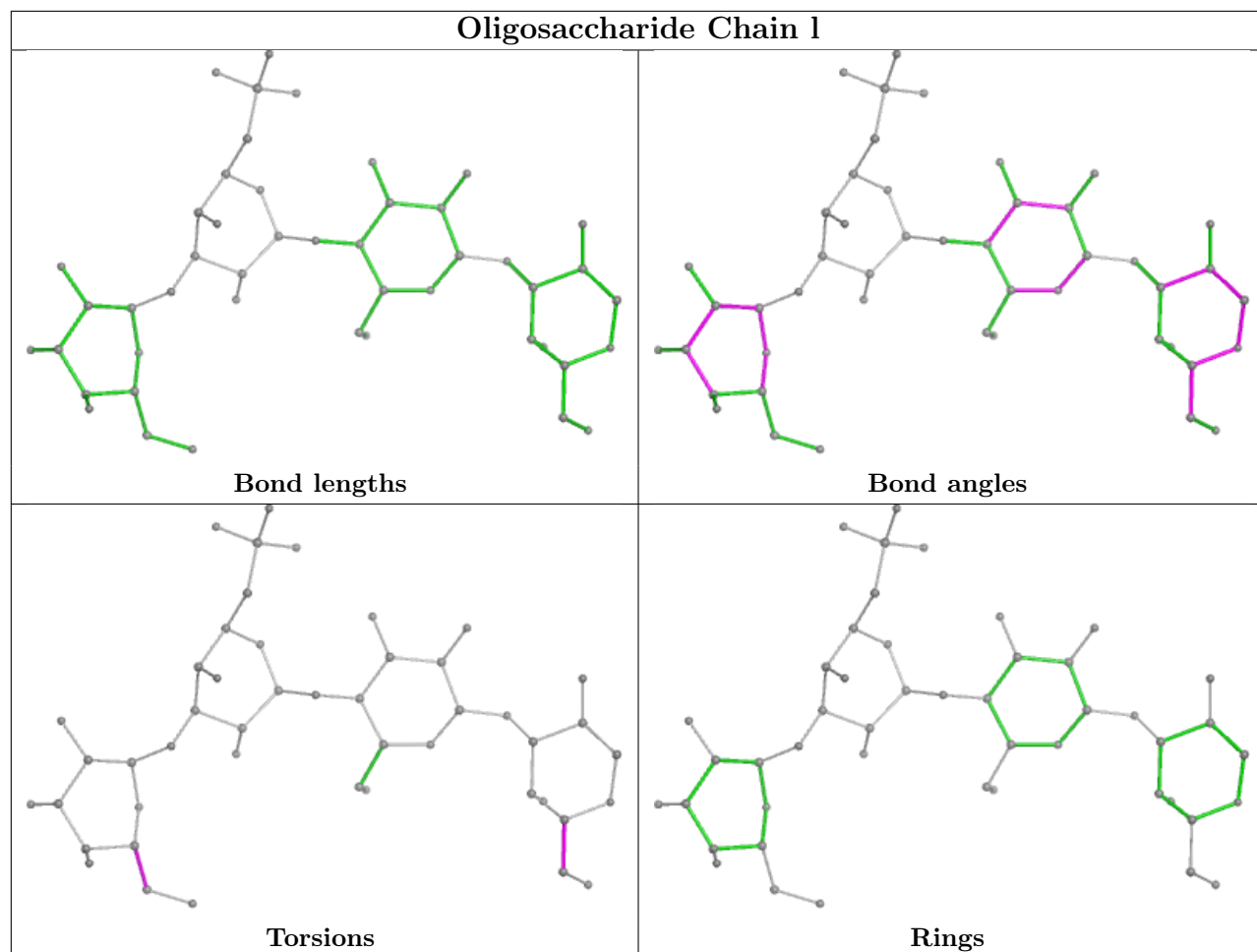
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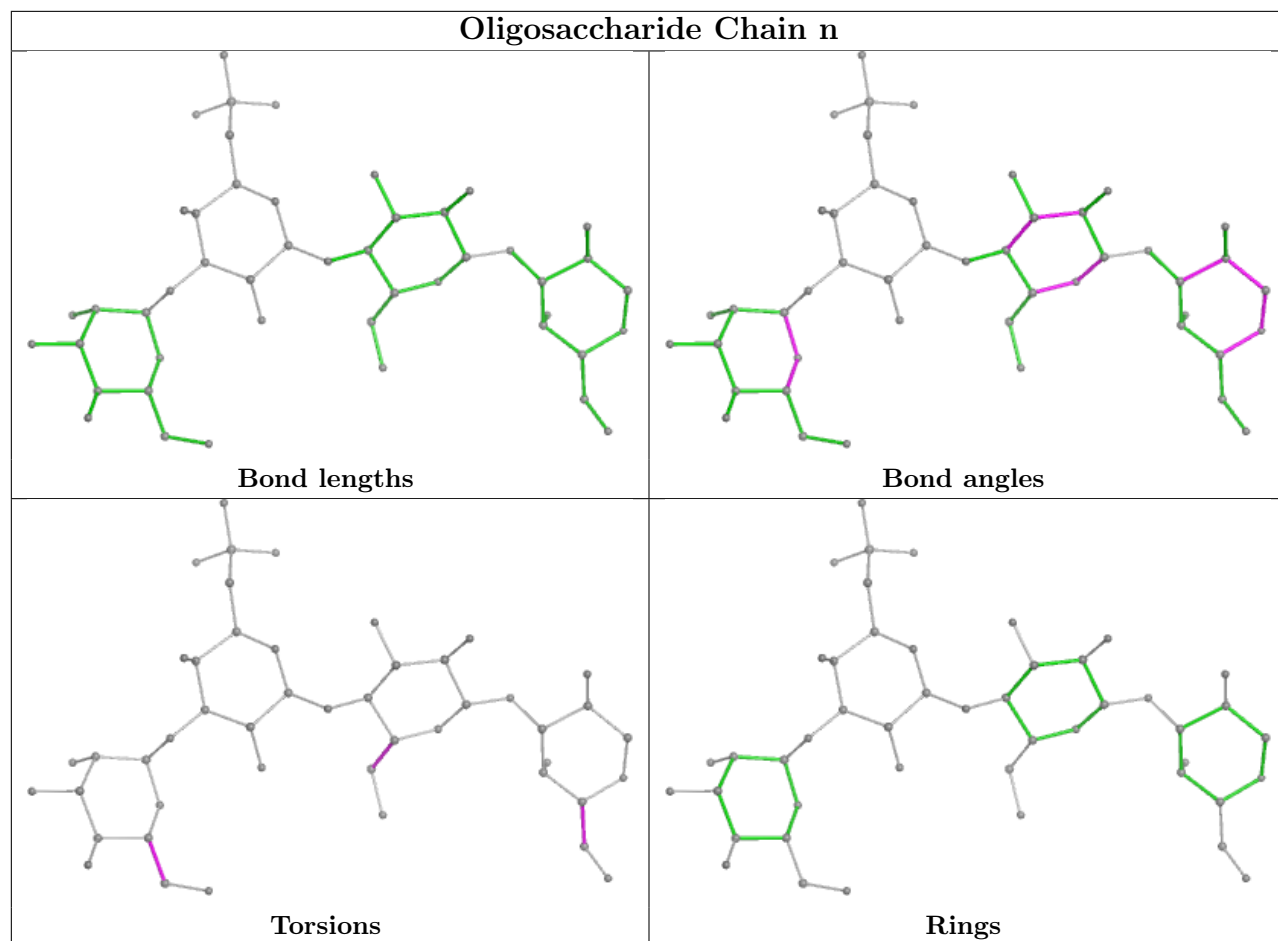
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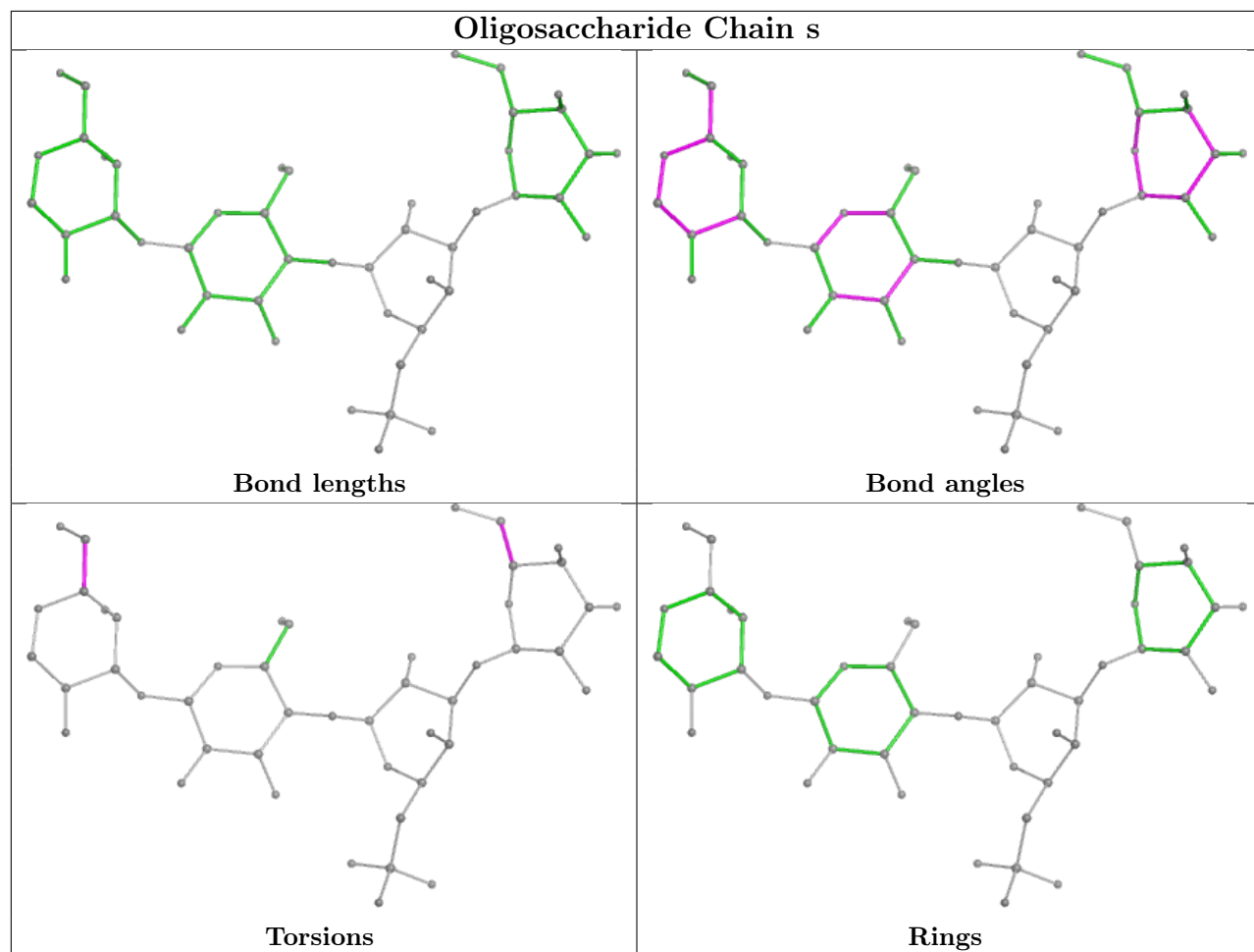
**Oligosaccharide Chain ED**

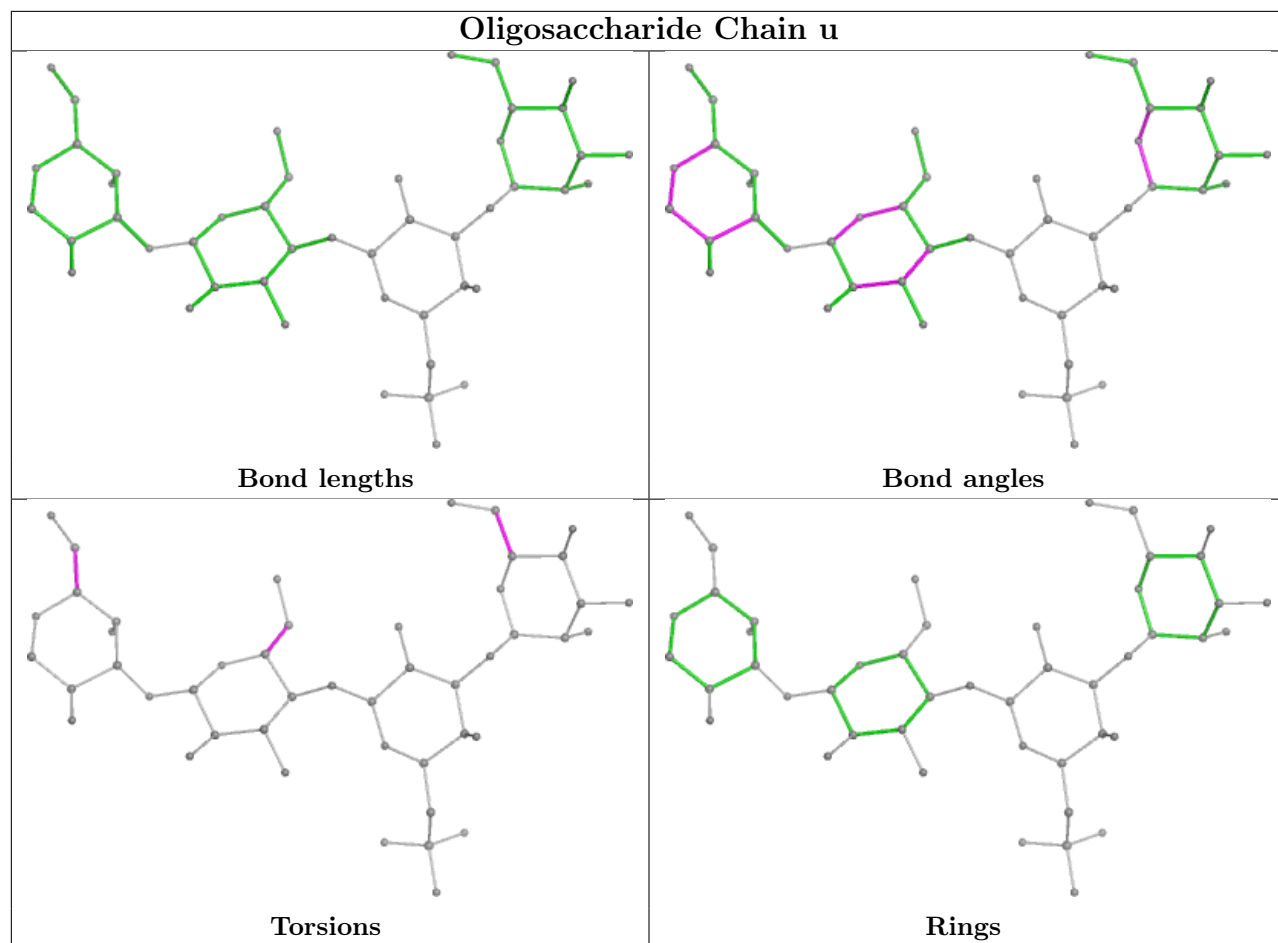
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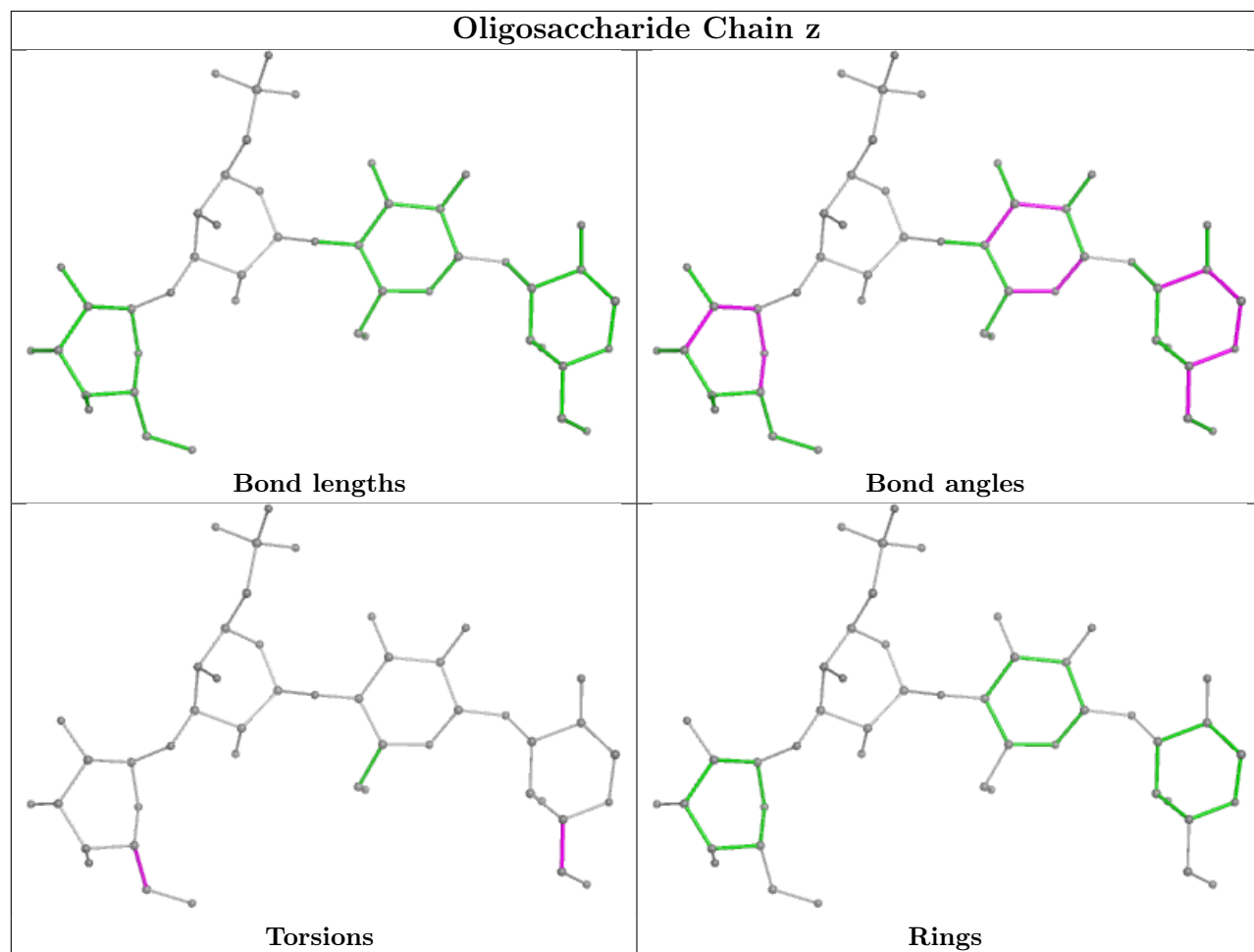
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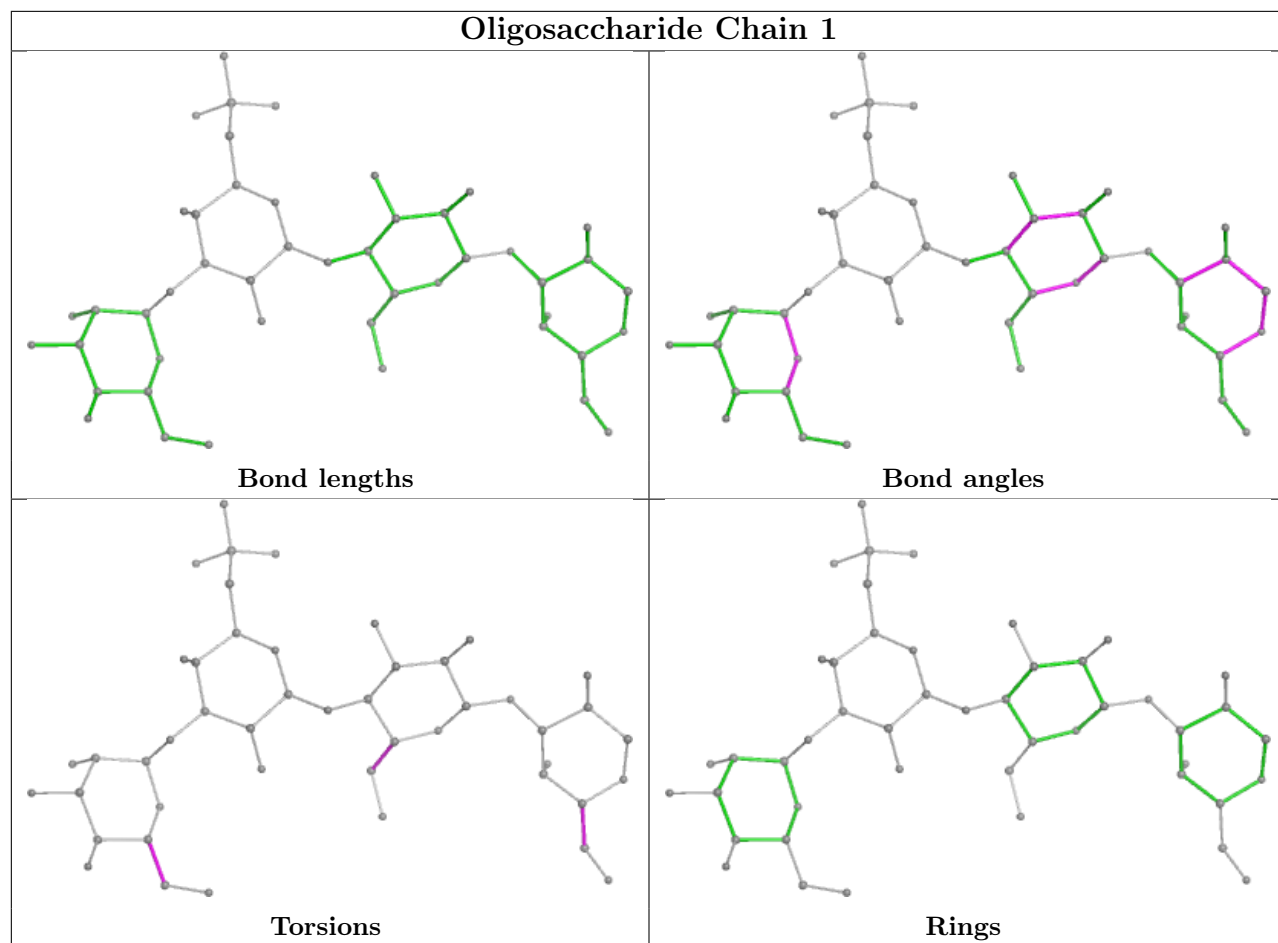




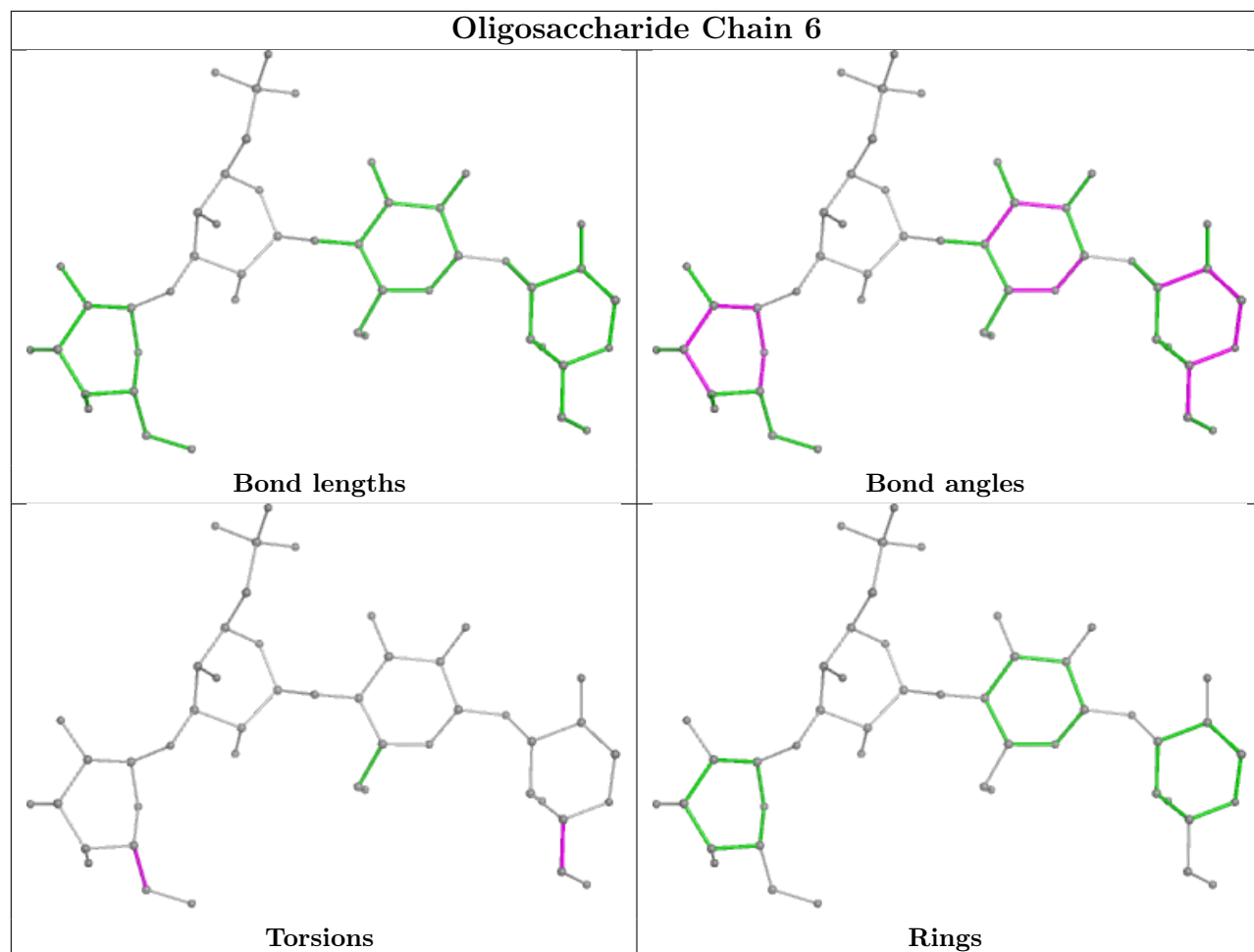


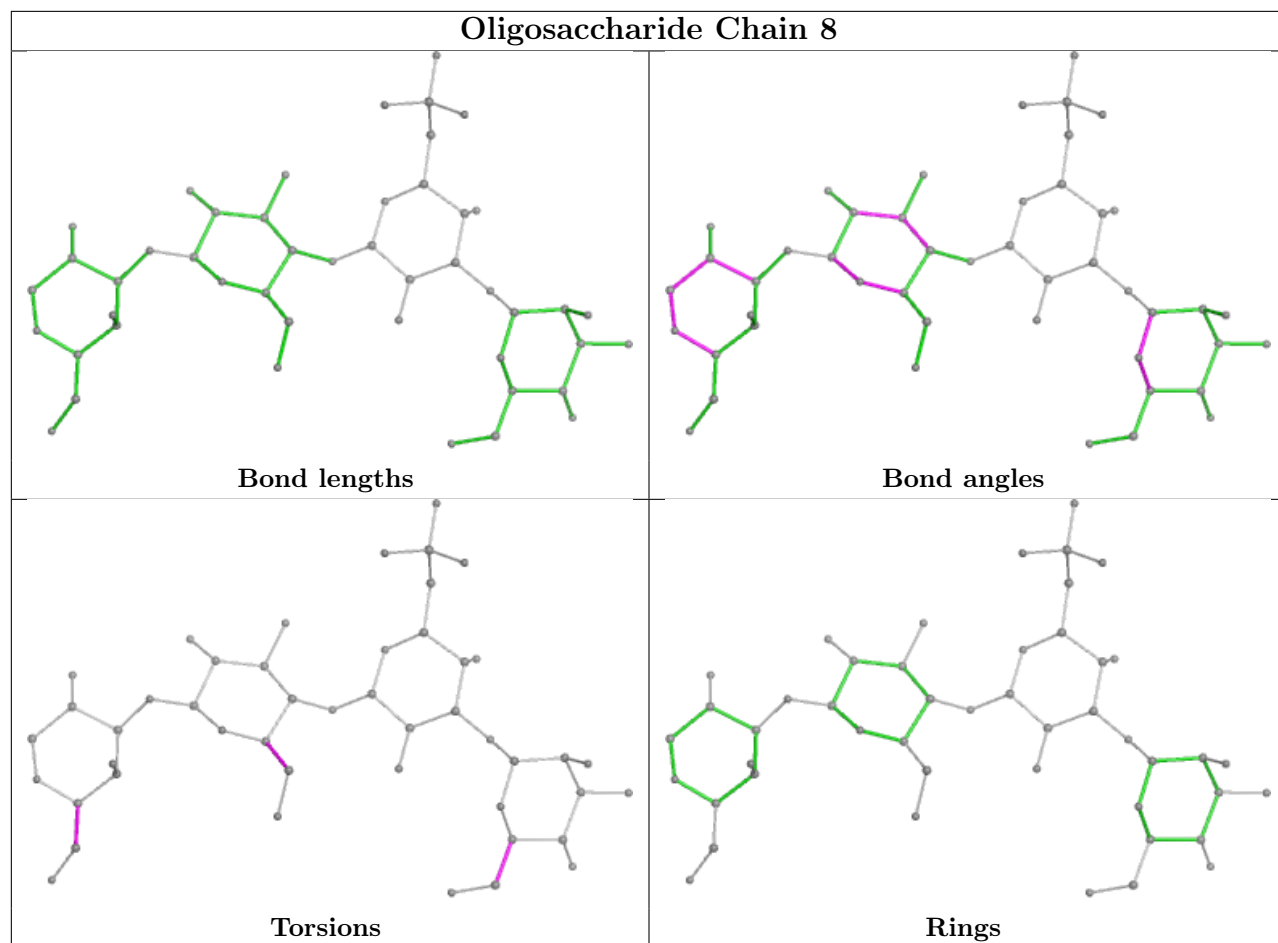


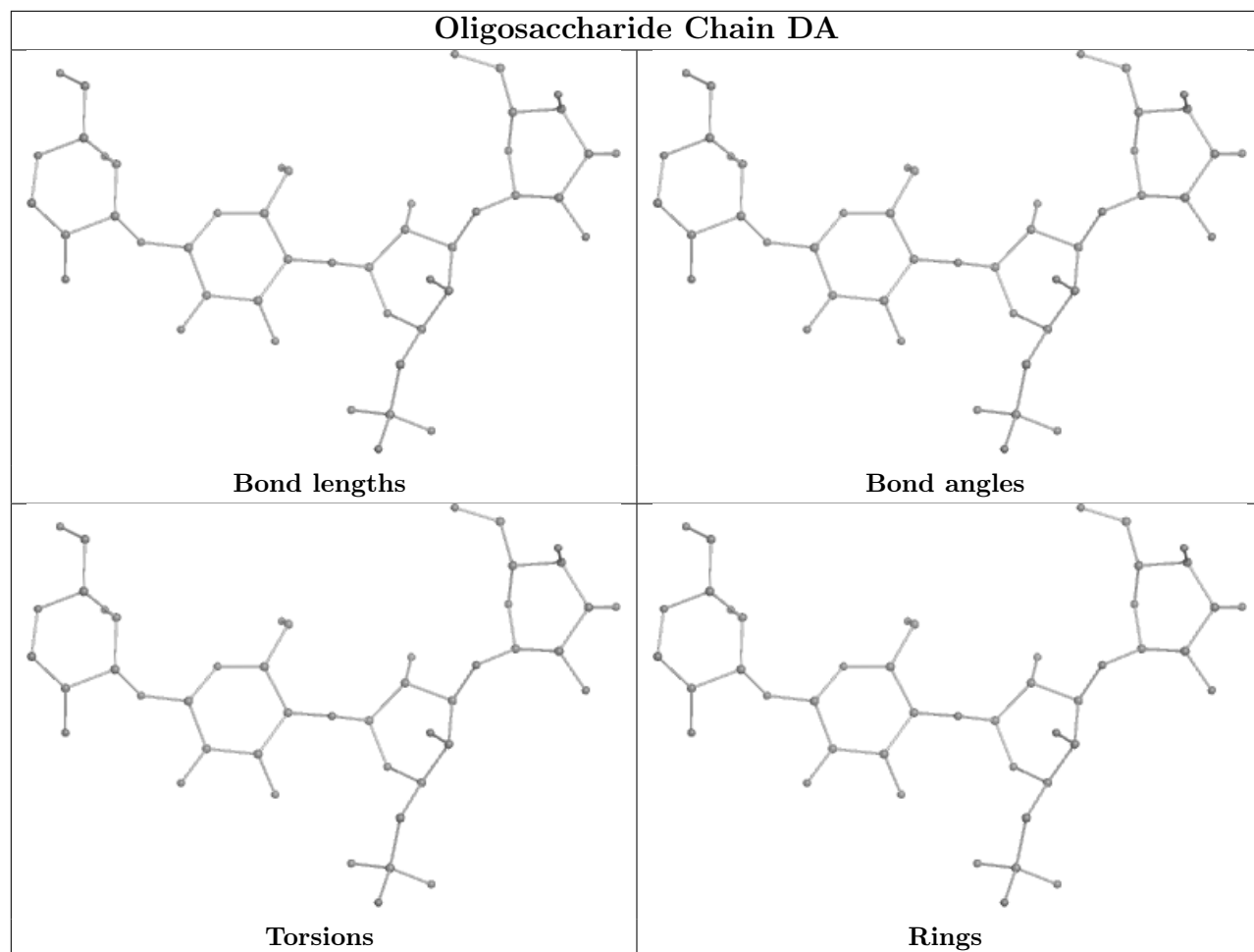


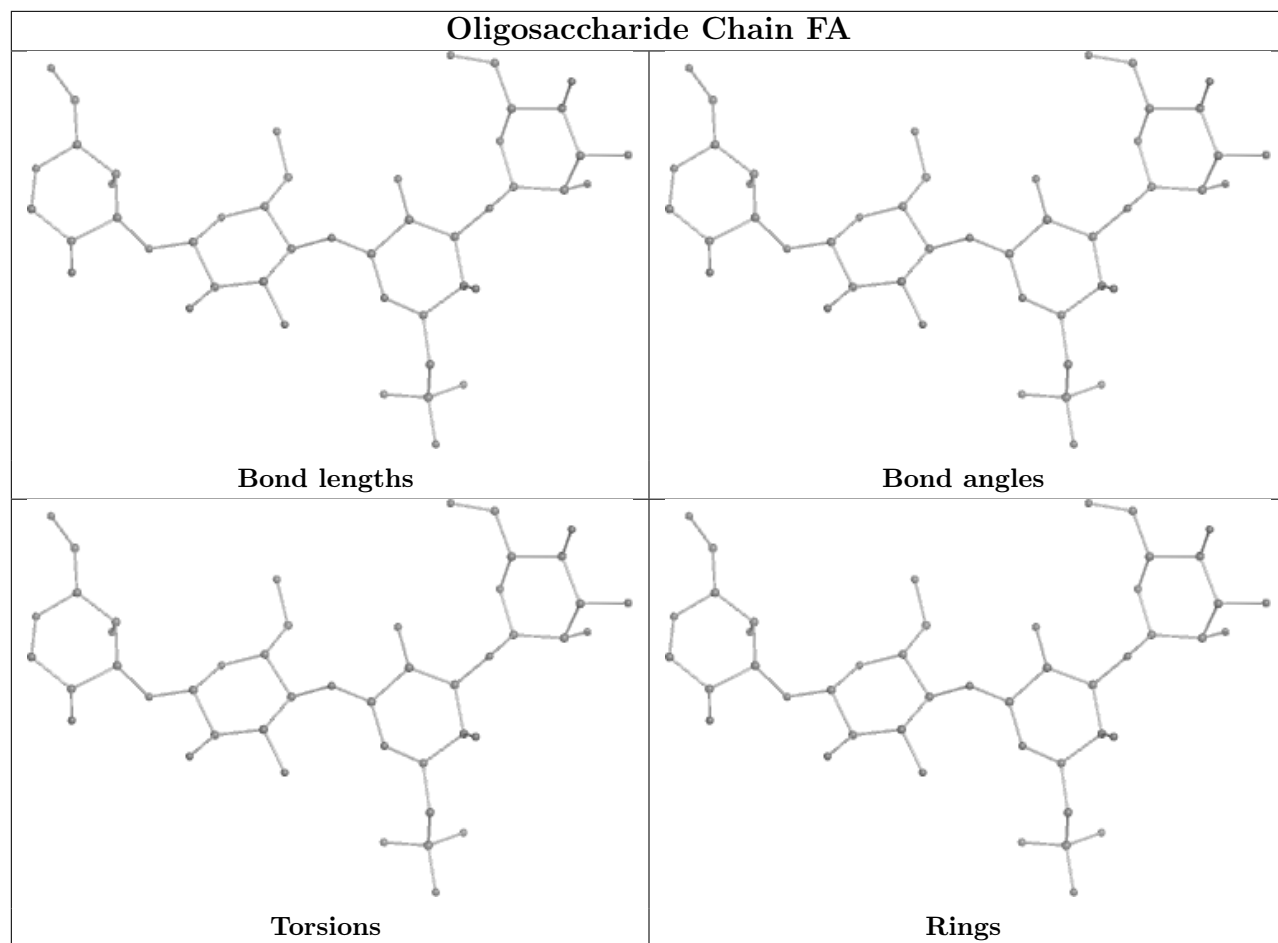


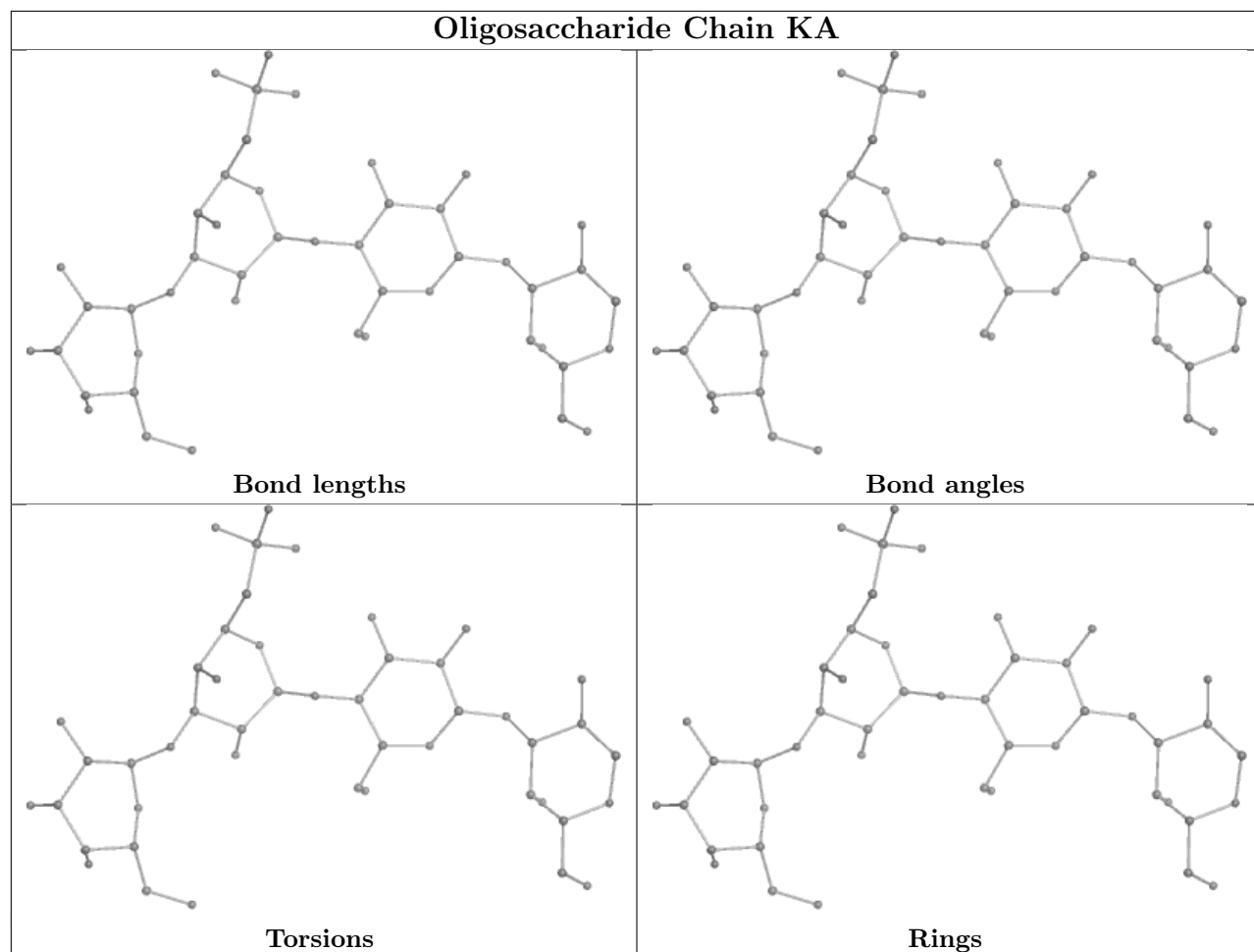
## Oligosaccharide Chain 6

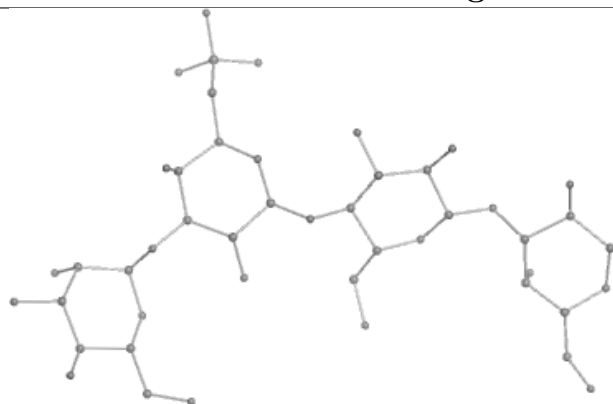
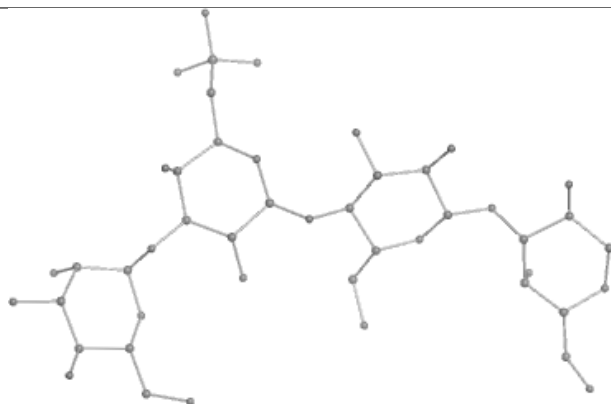
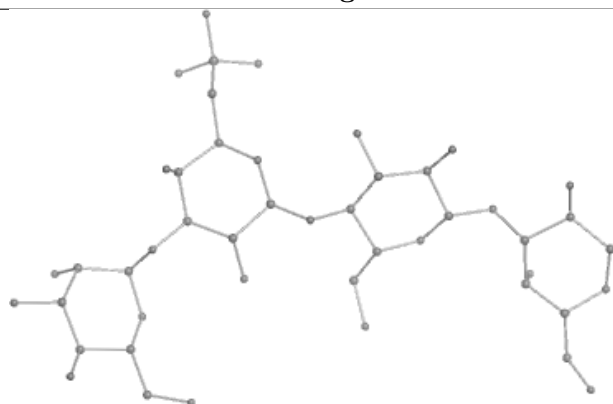
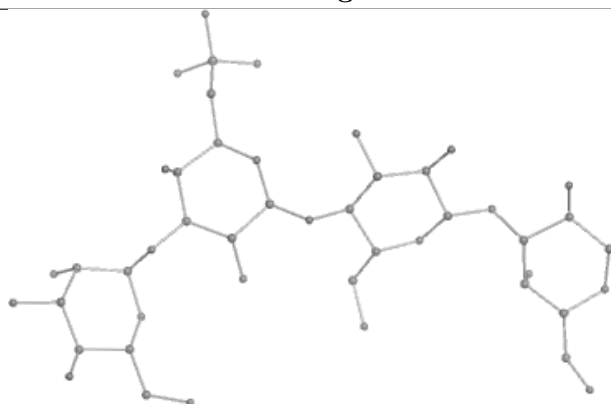


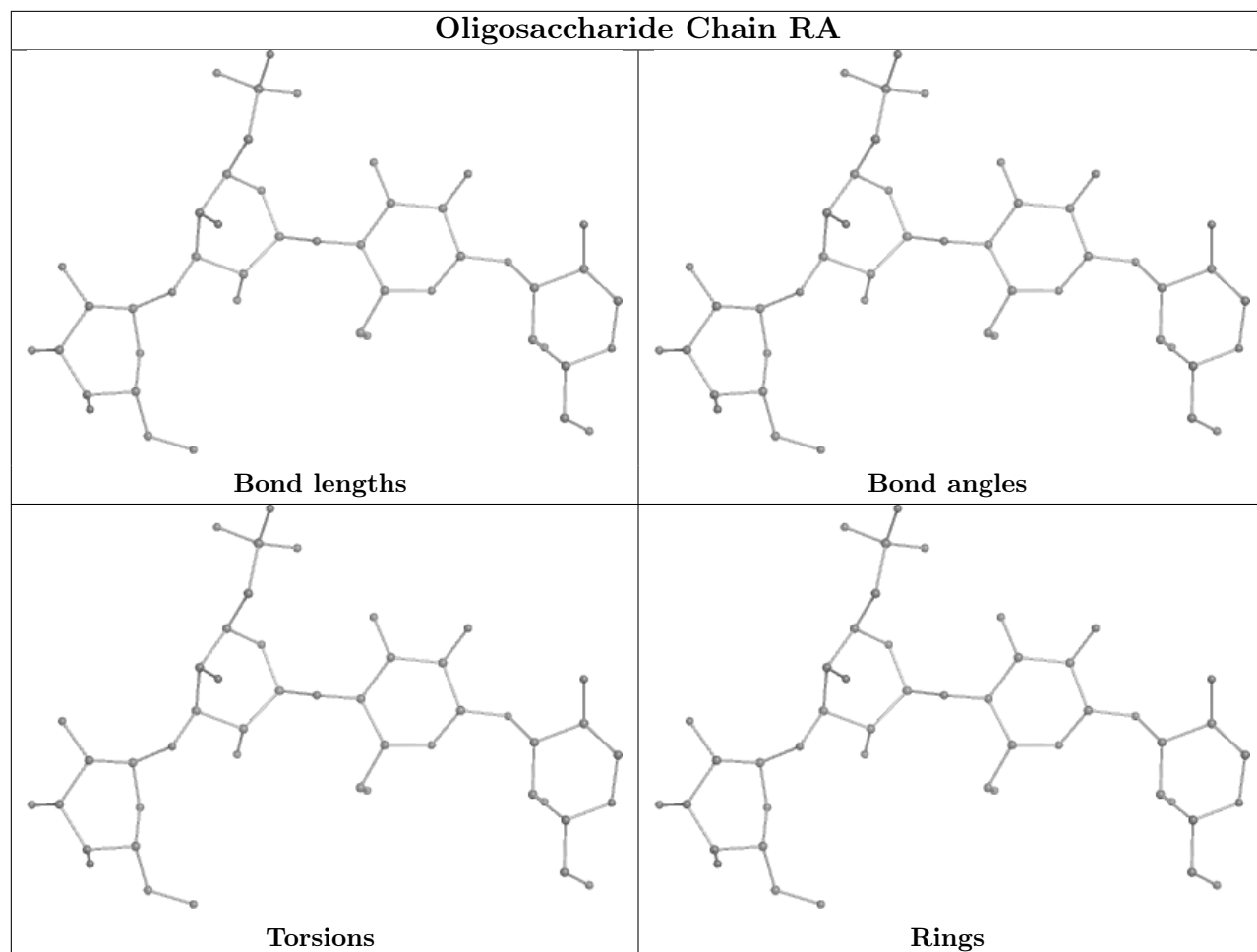


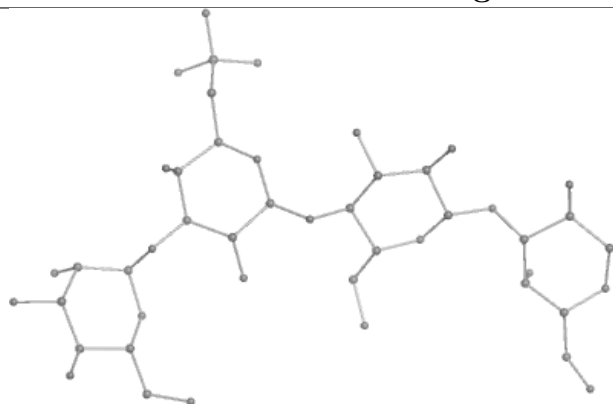
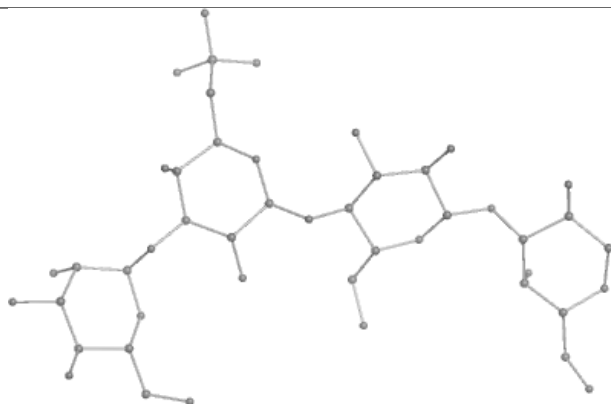
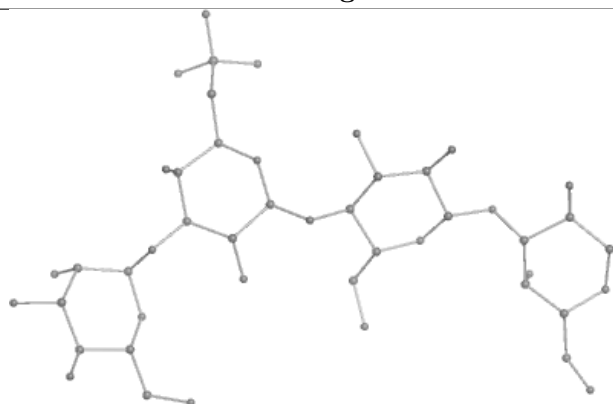
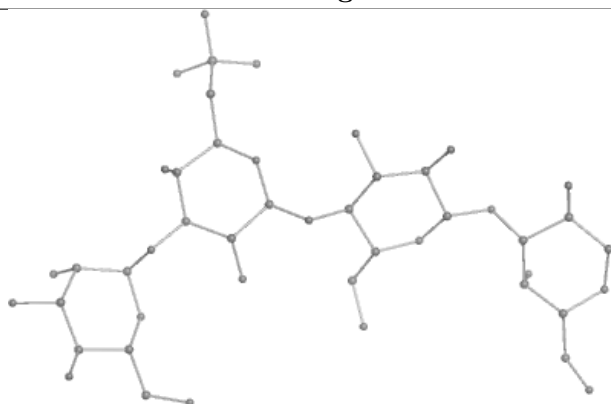
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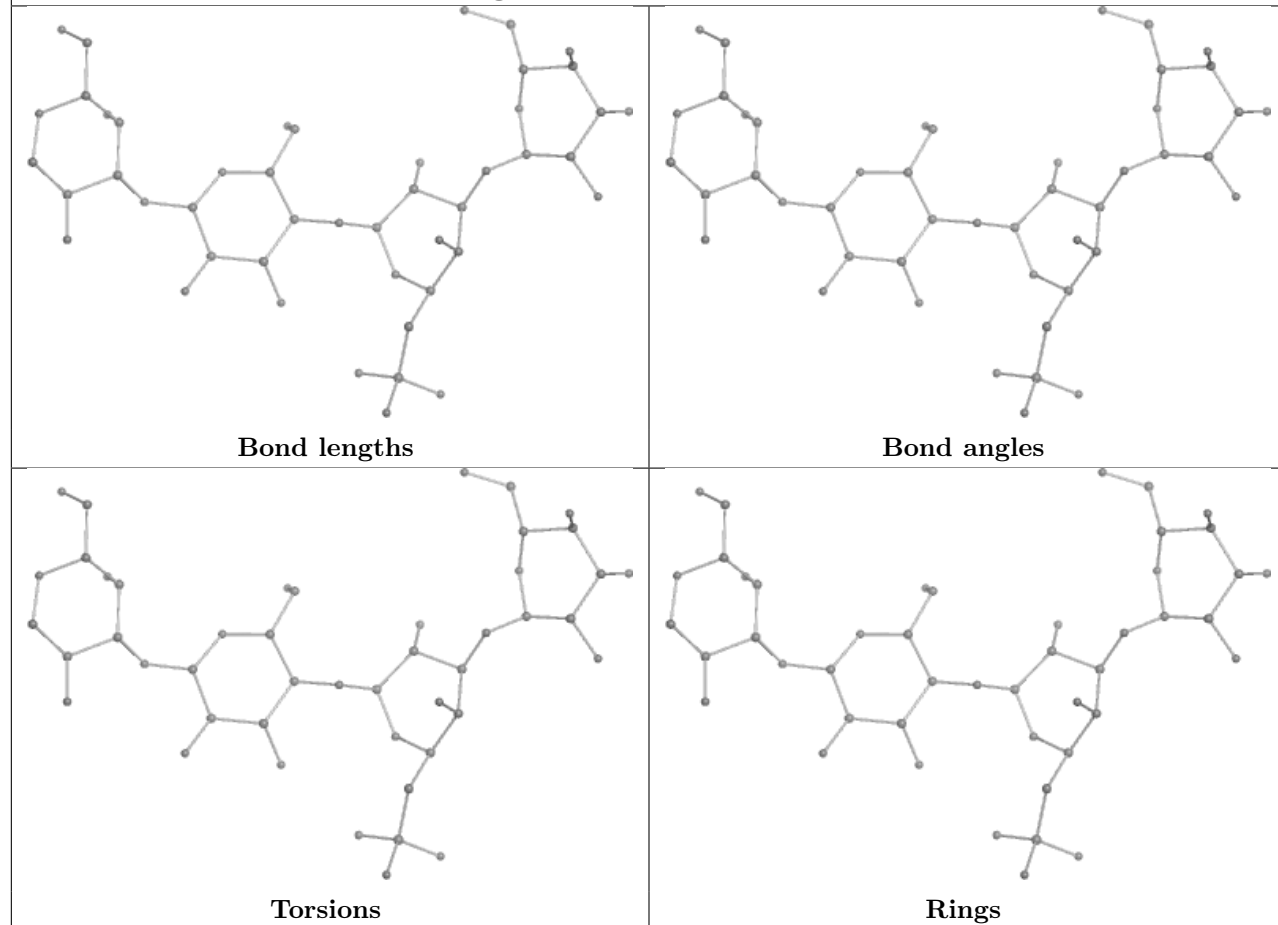


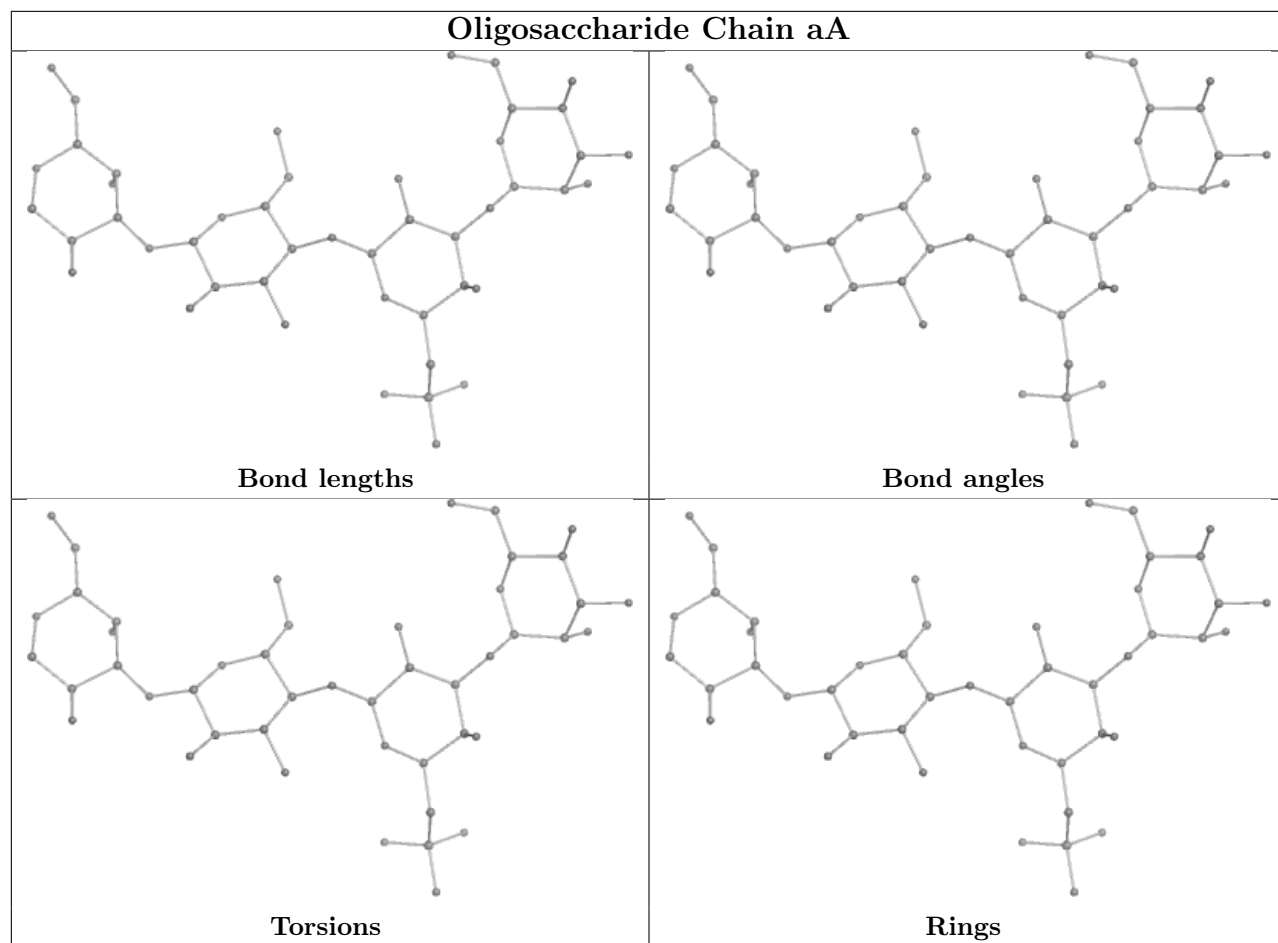
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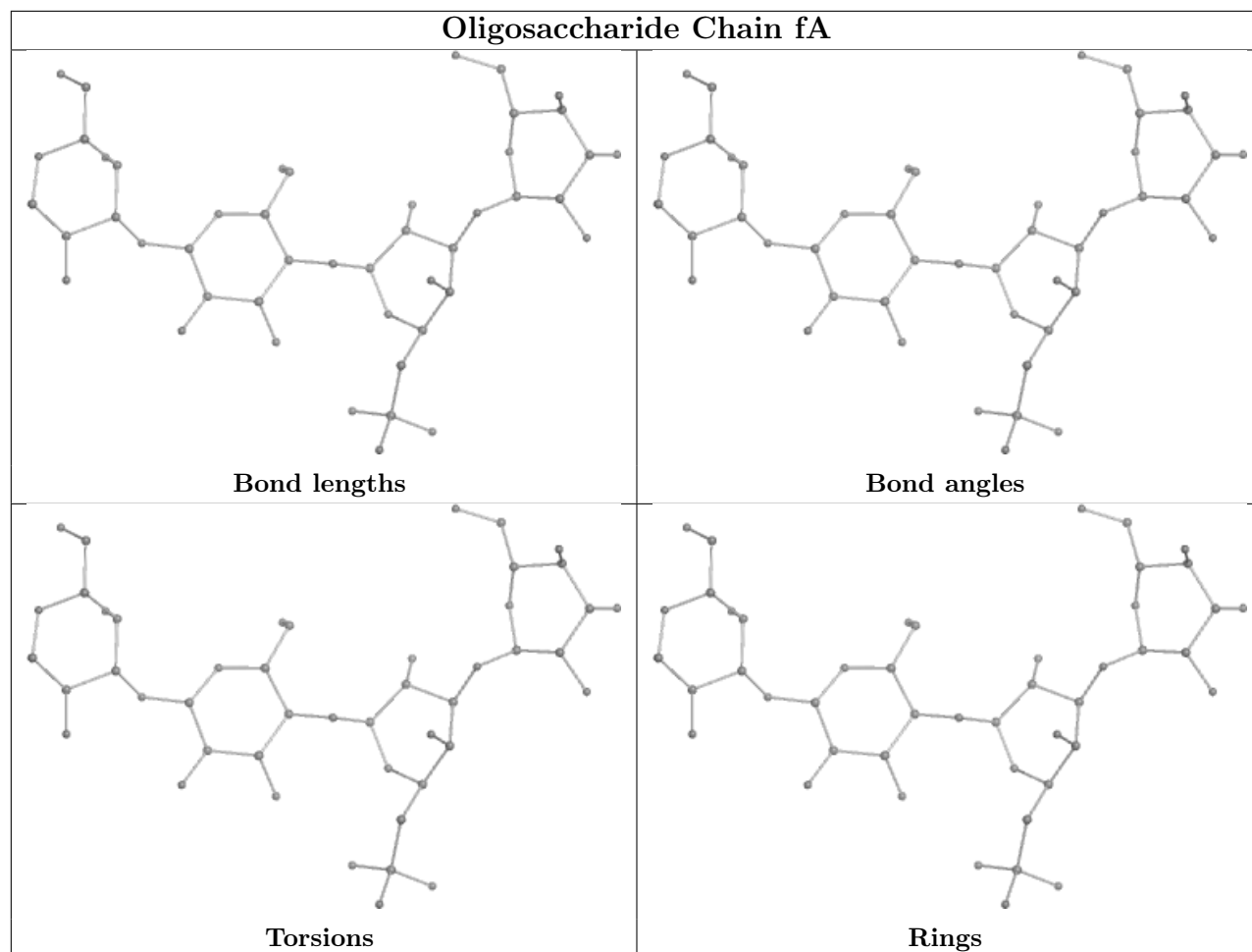
**Oligosaccharide Chain MA****Bond lengths****Bond angles****Torsions****Rings**

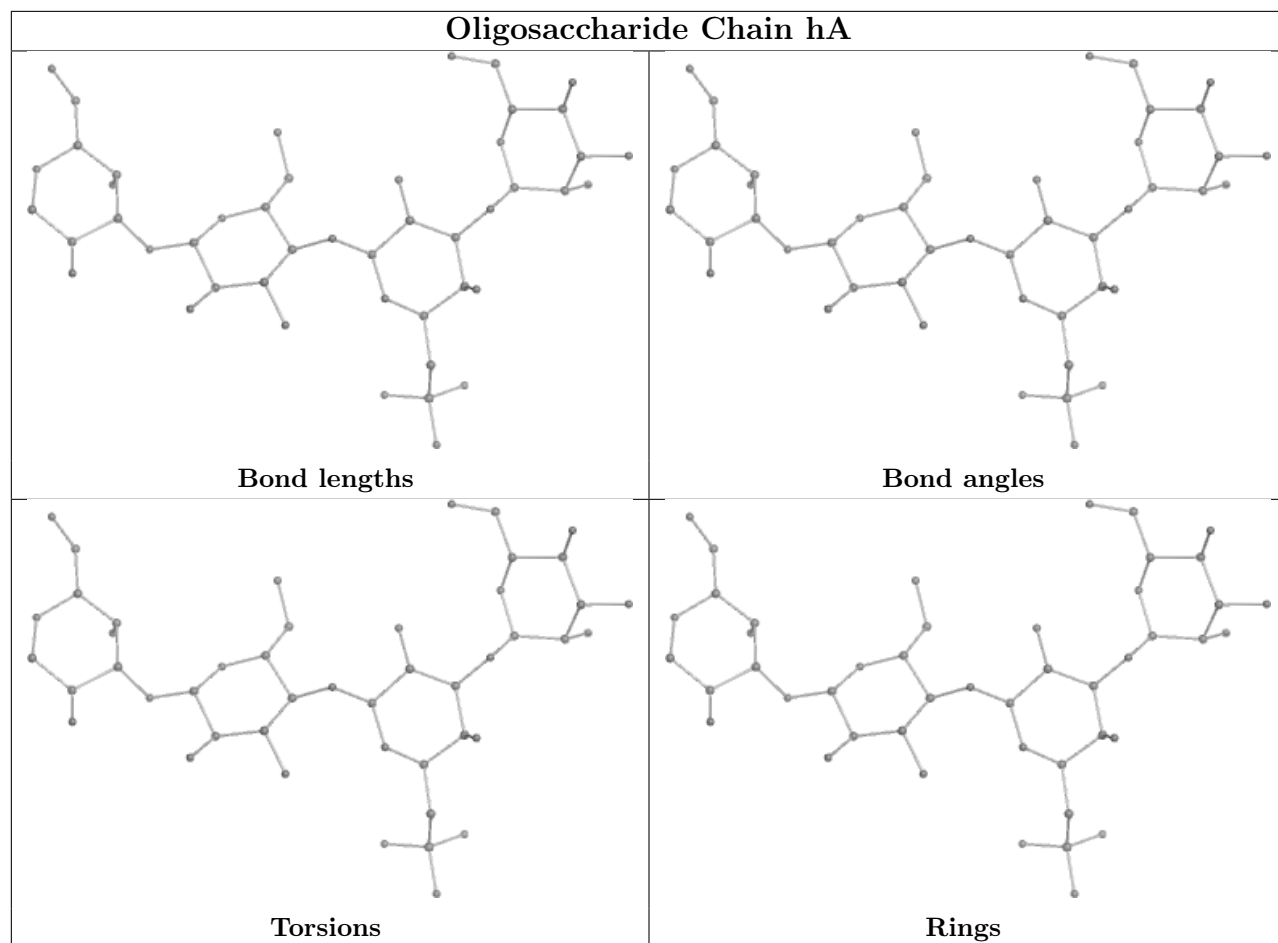
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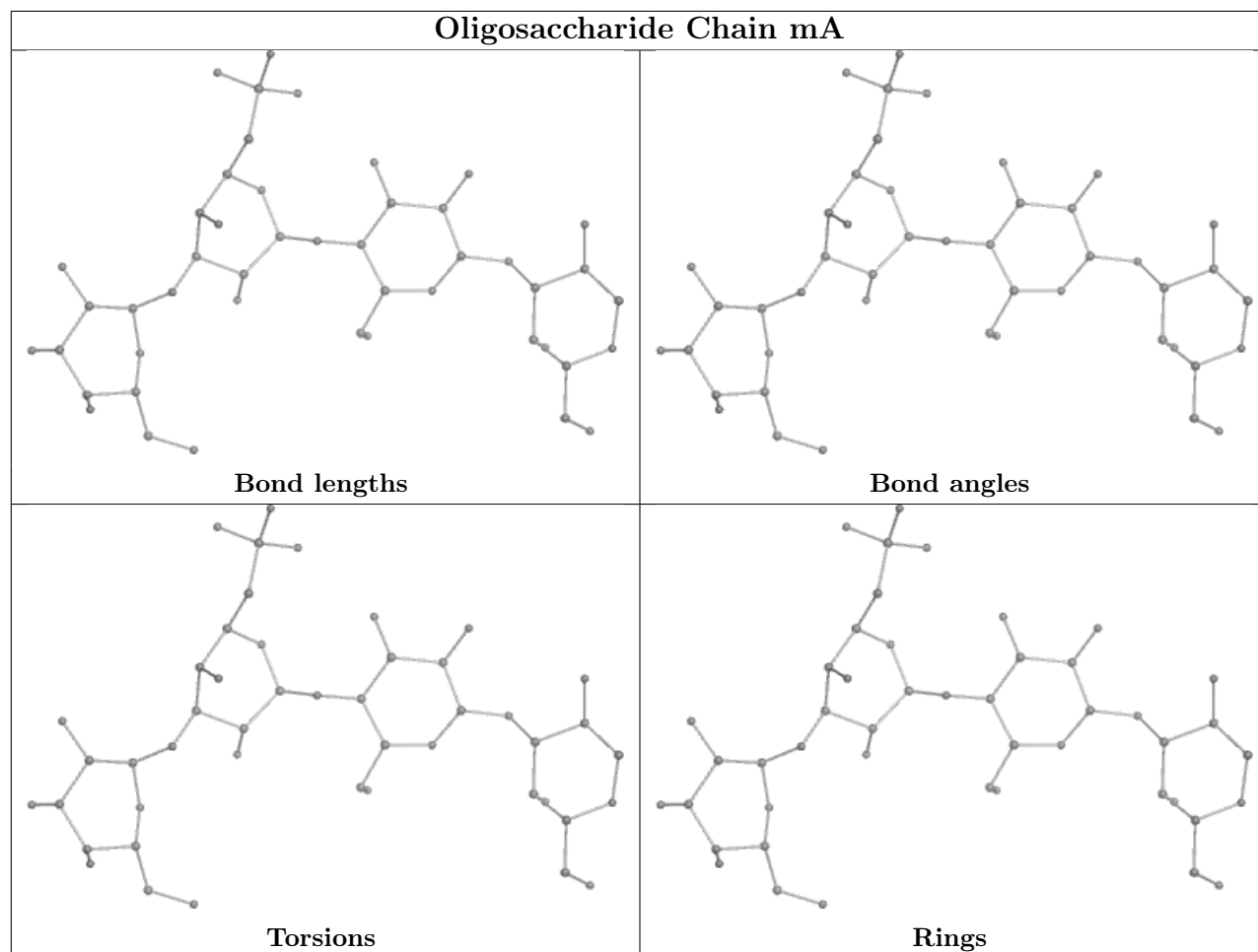
**Oligosaccharide Chain TA****Bond lengths****Bond angles****Torsions****Rings**

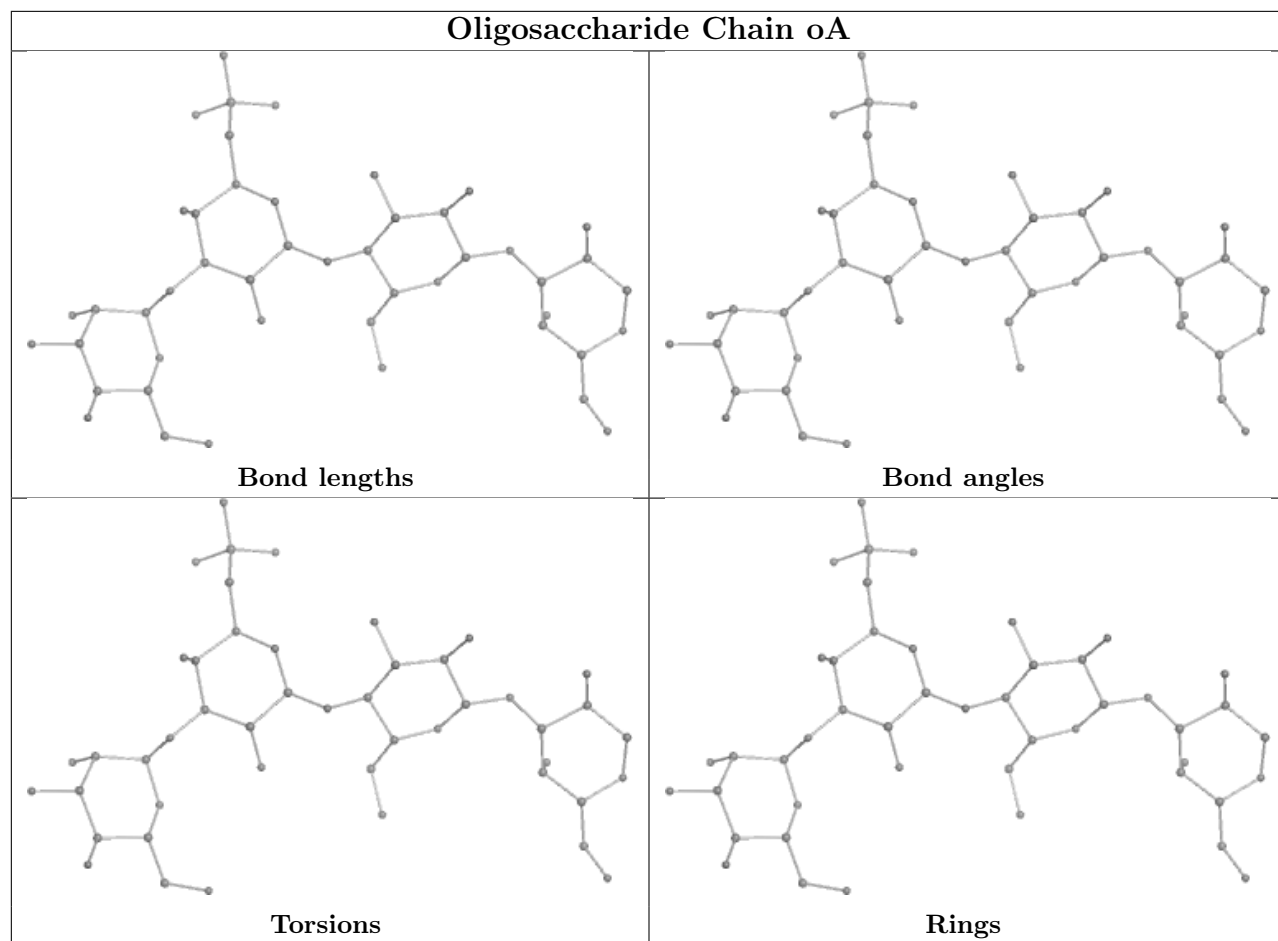
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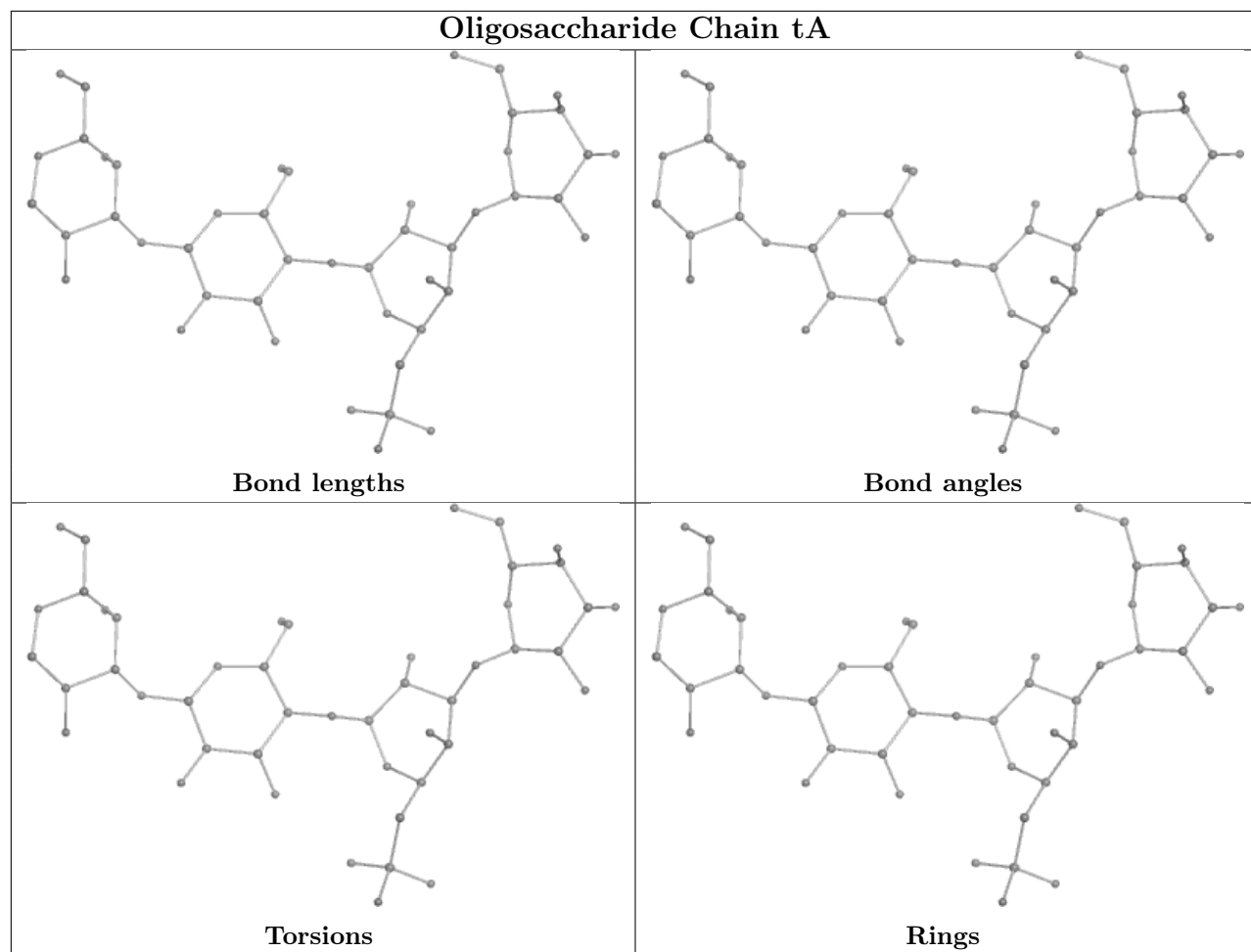


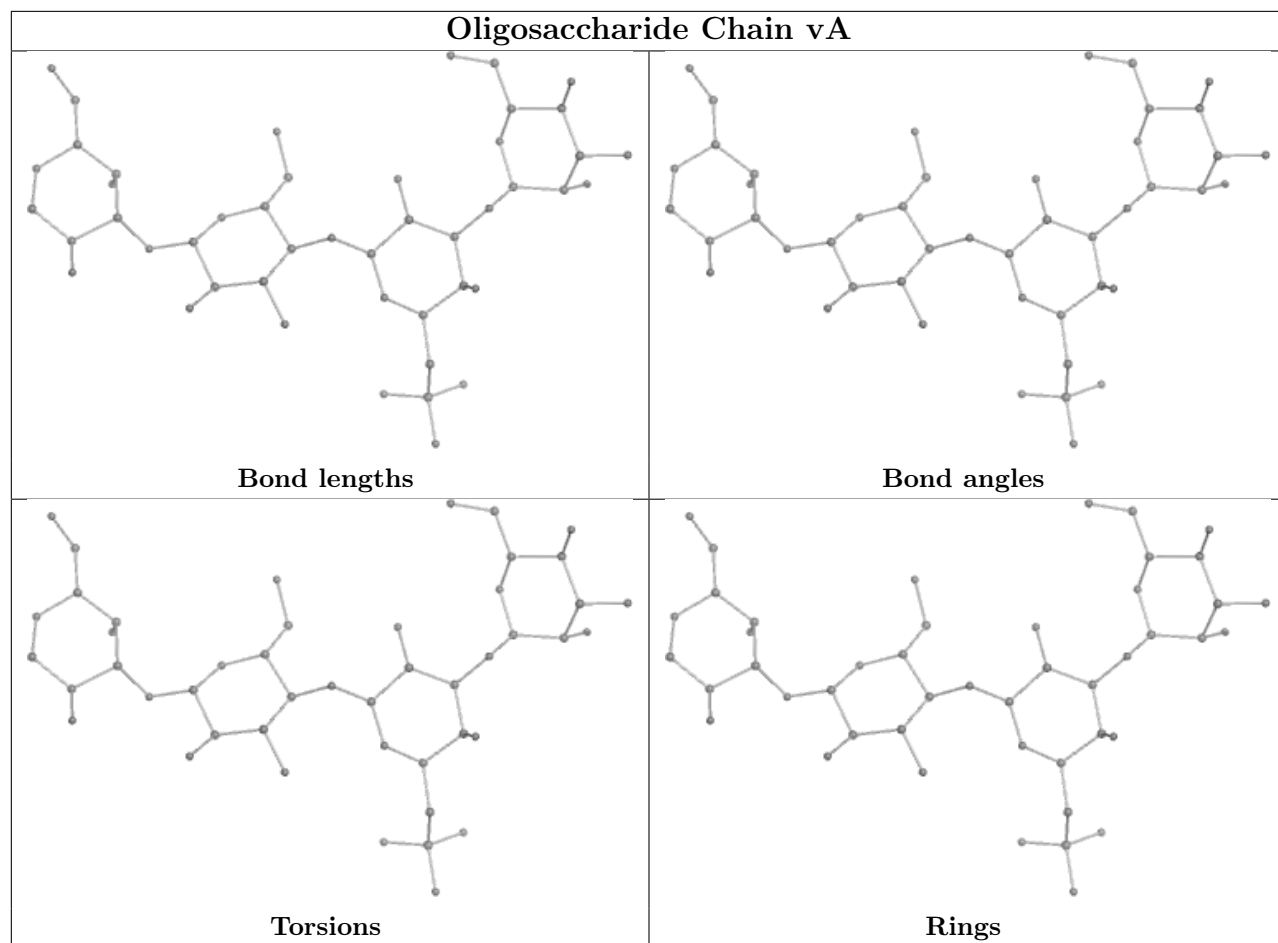


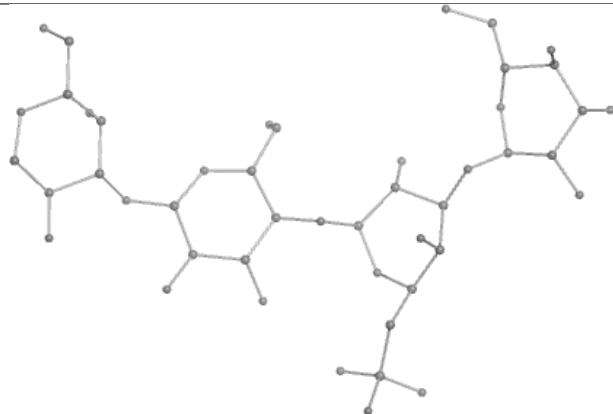
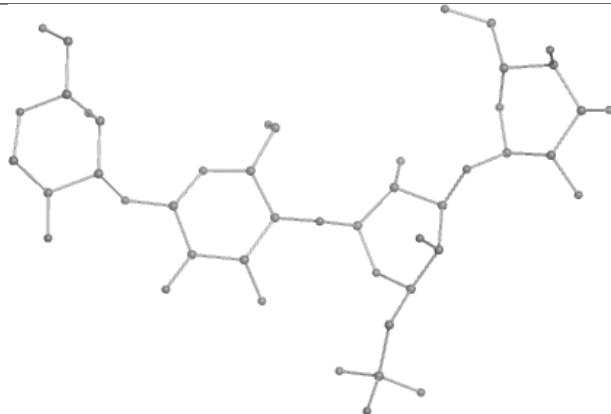
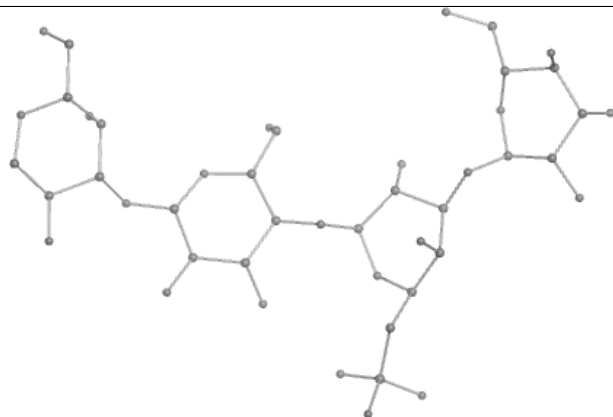
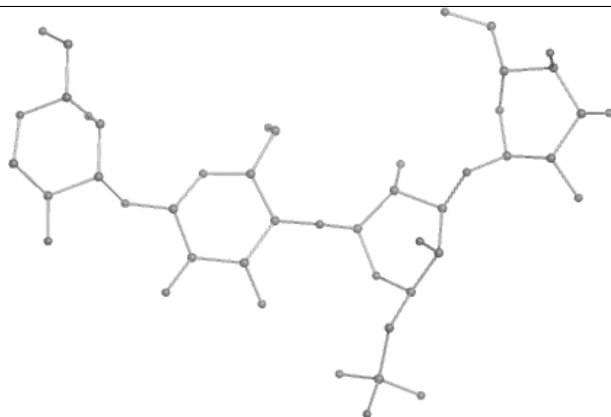


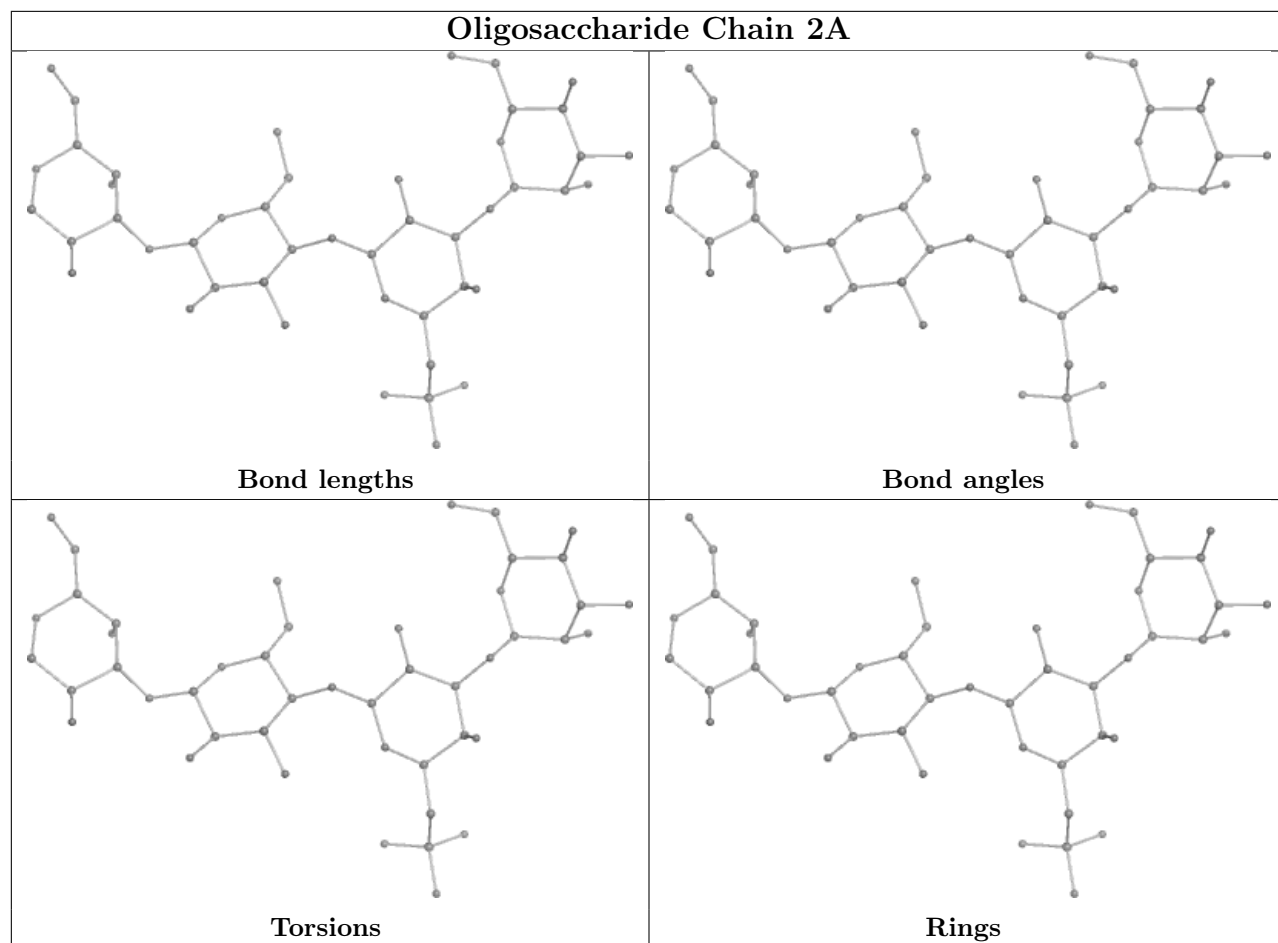
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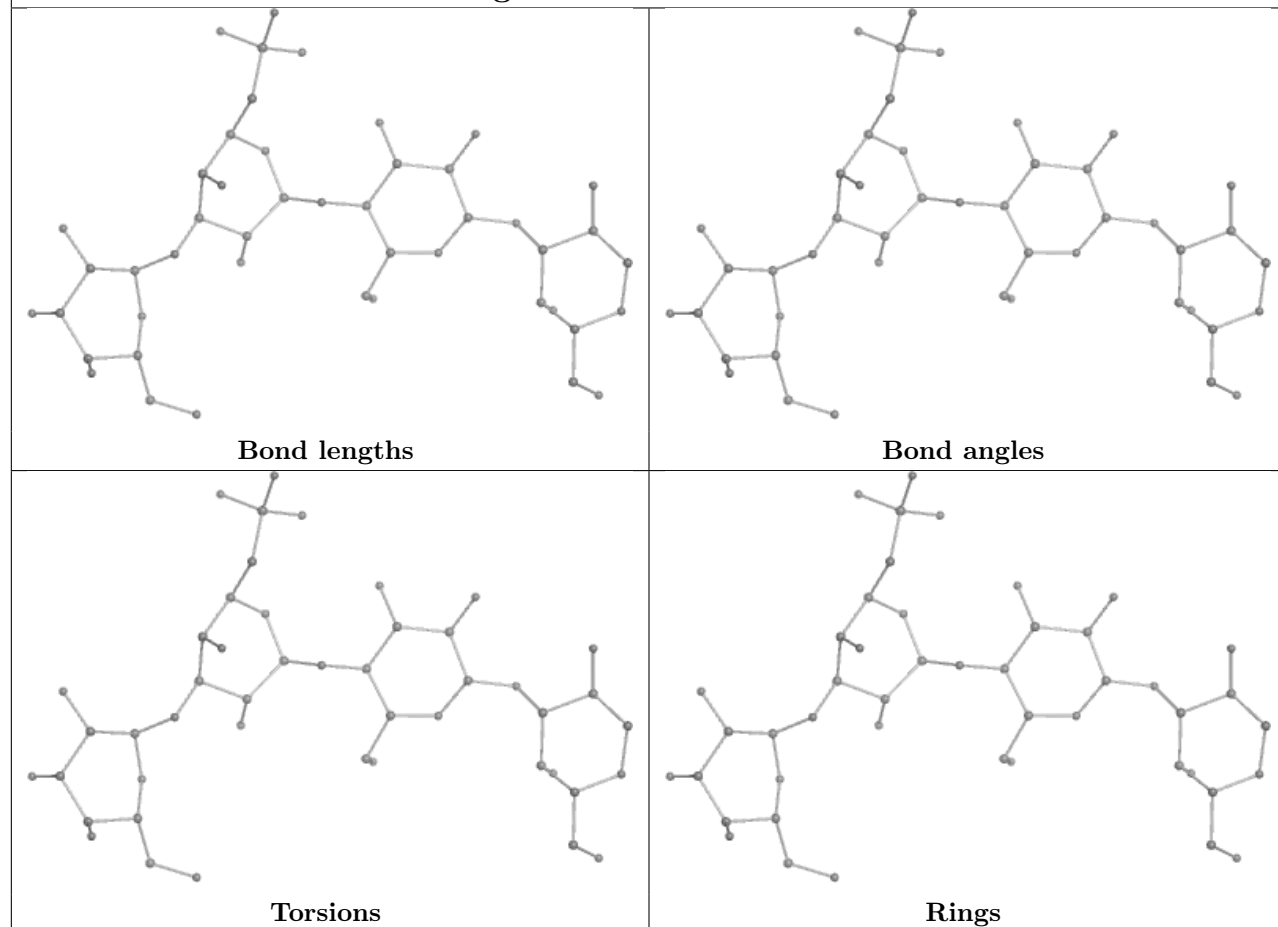


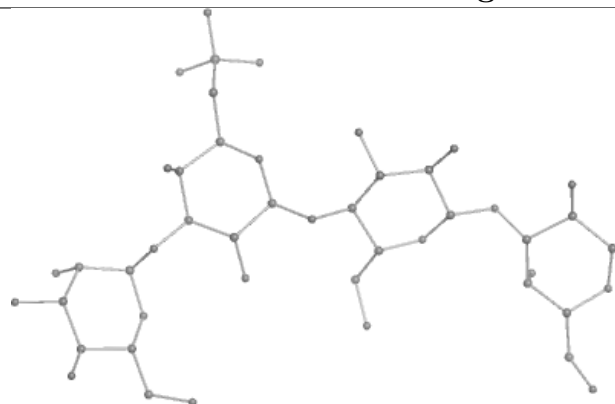
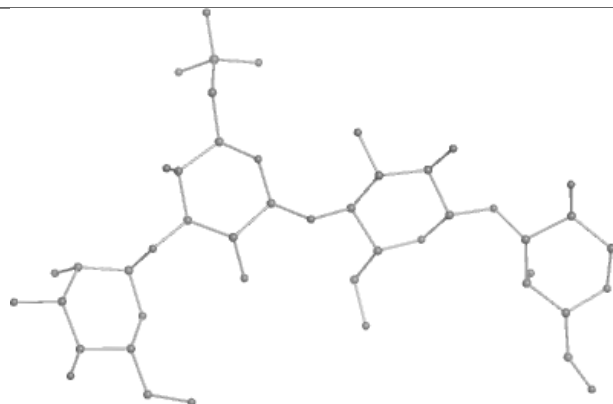
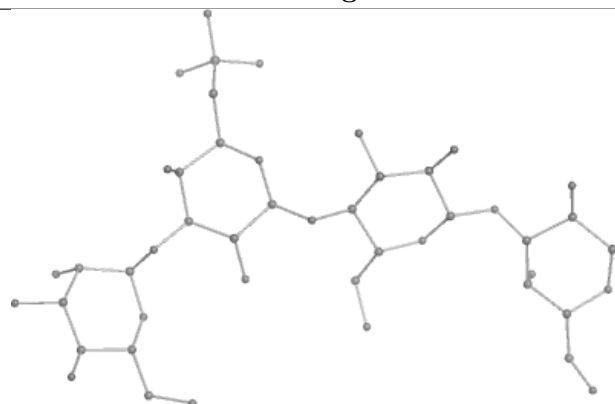
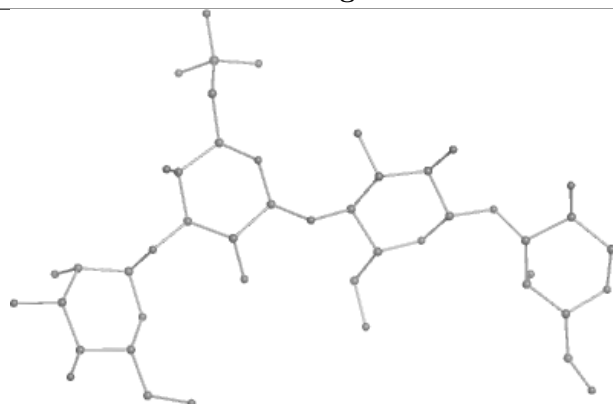


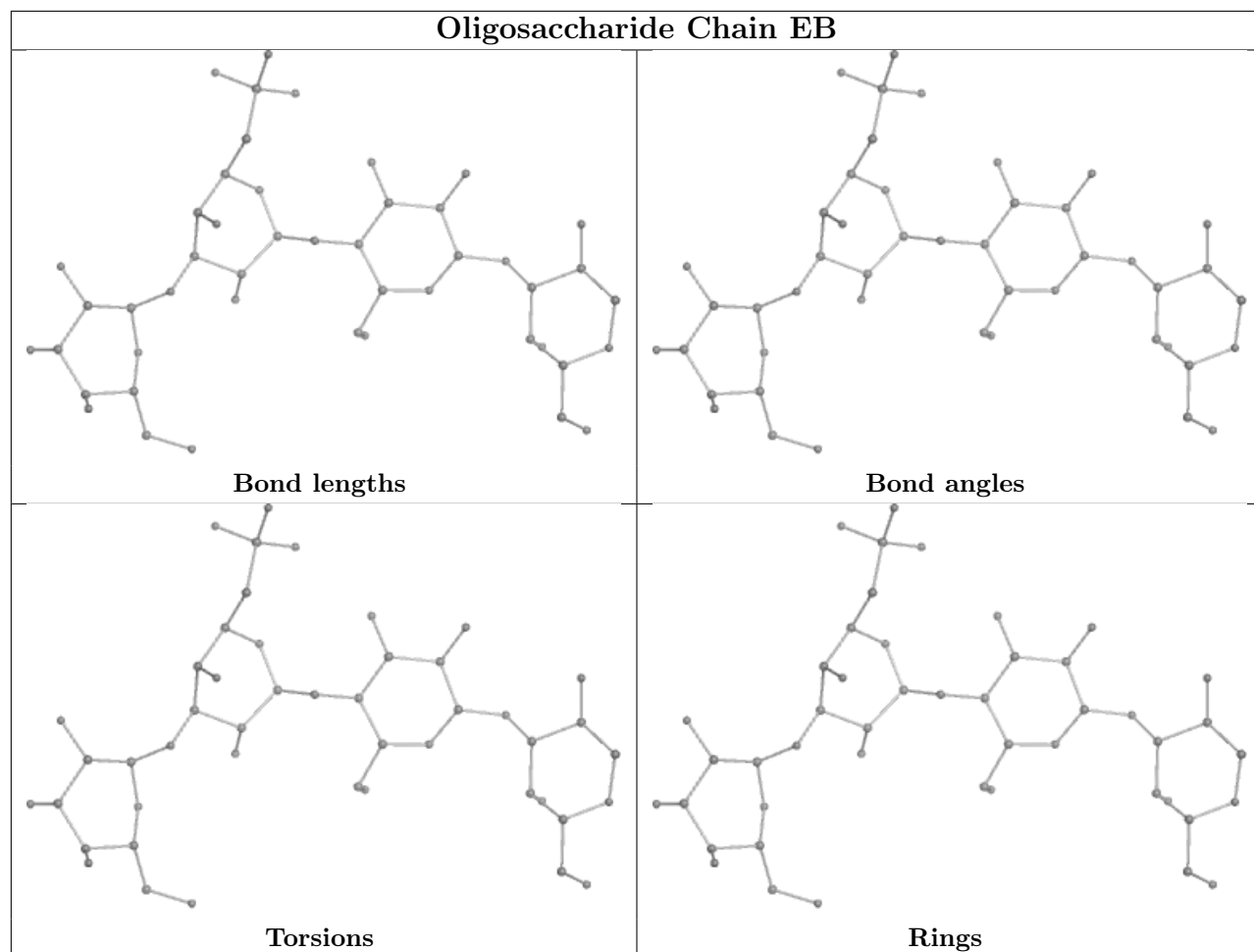


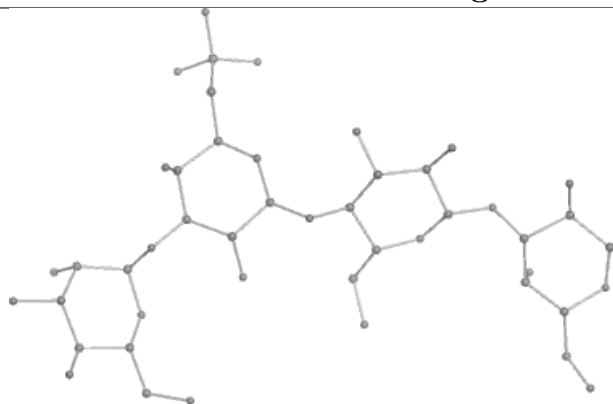
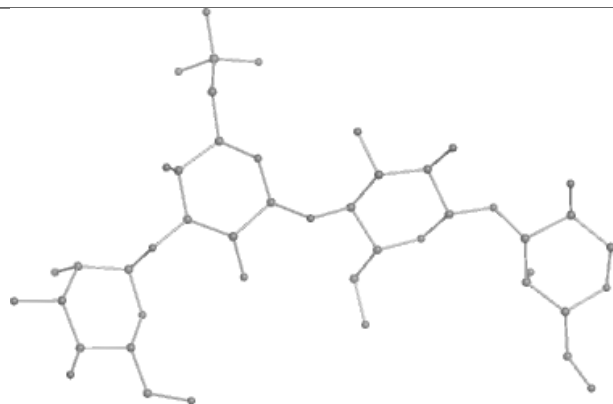
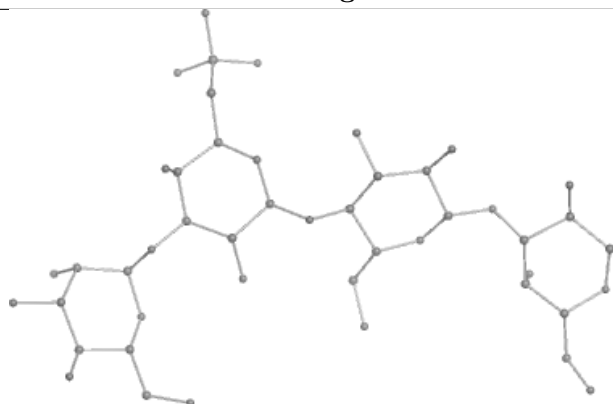
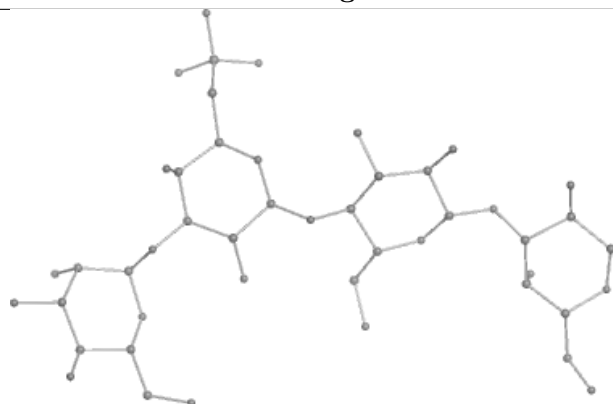
**Oligosaccharide Chain 0A****Bond lengths****Bond angles****Torsions****Rings**

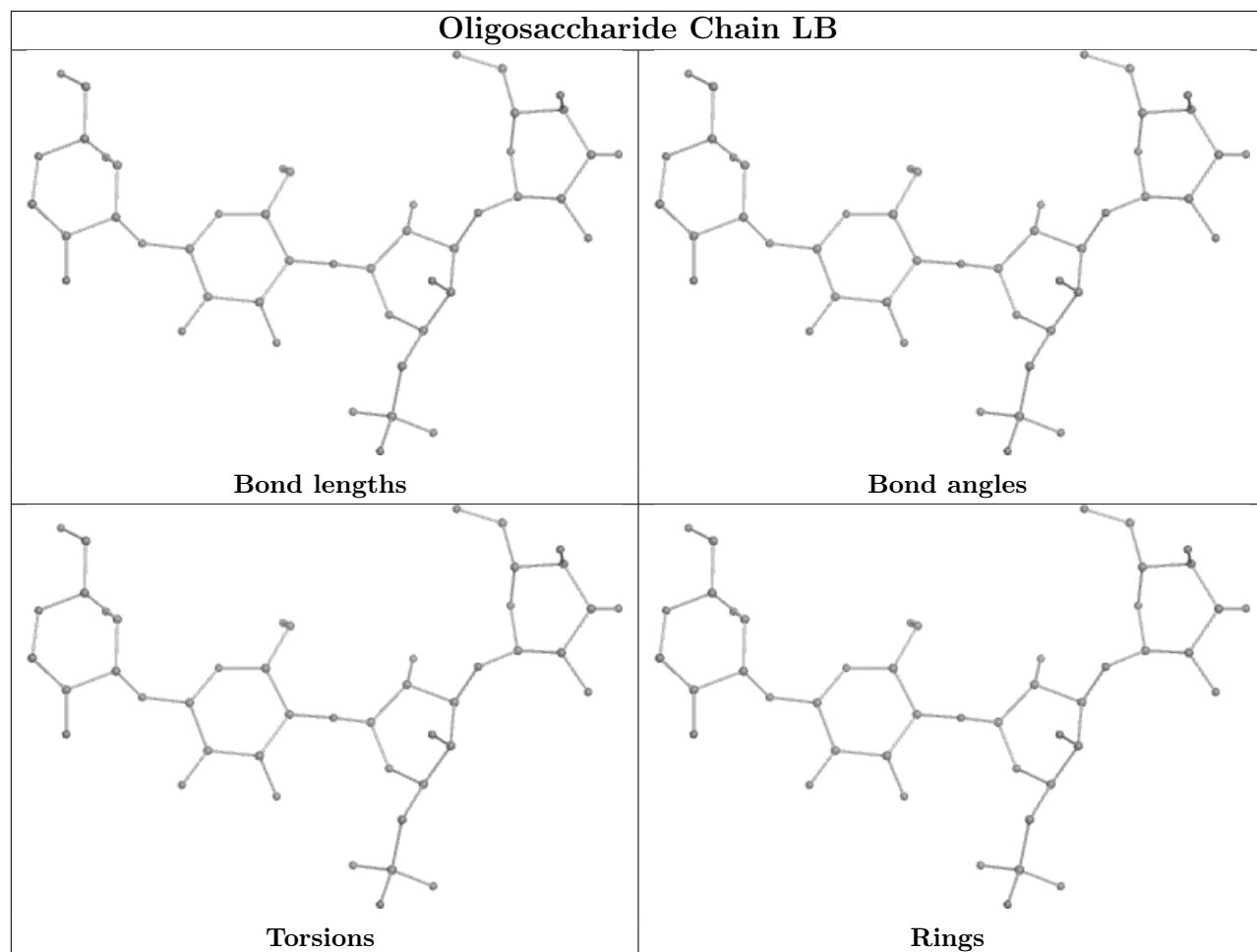


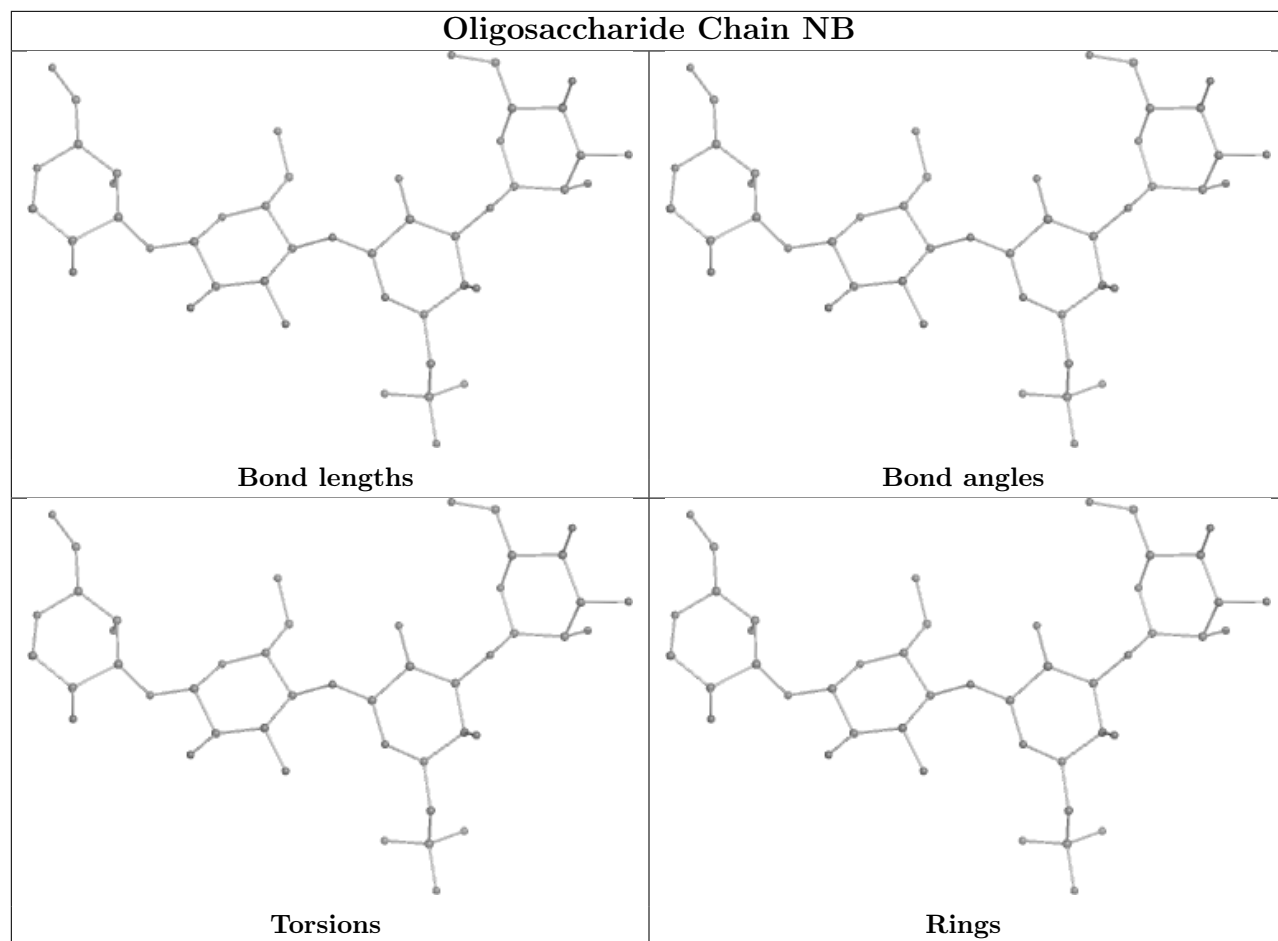
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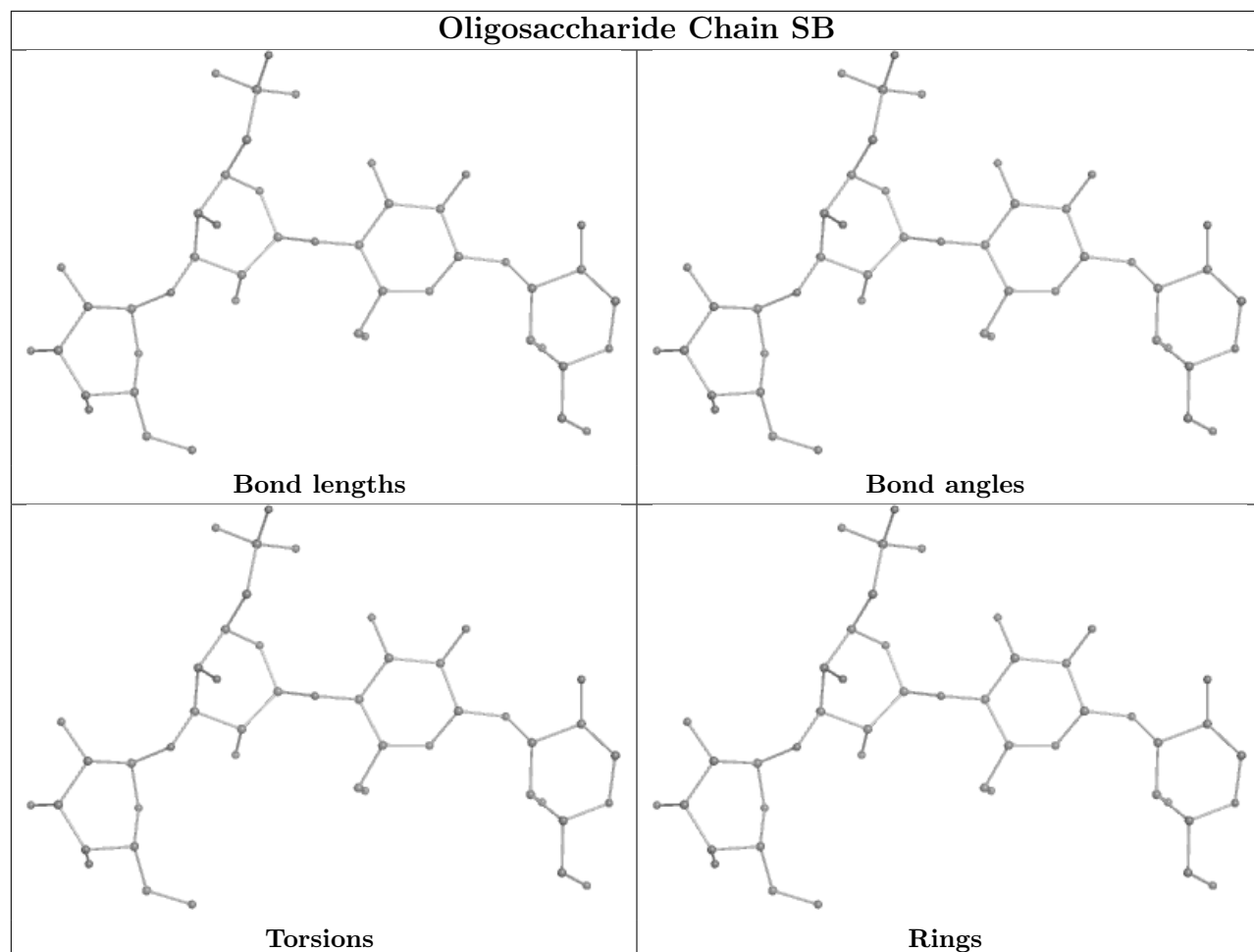
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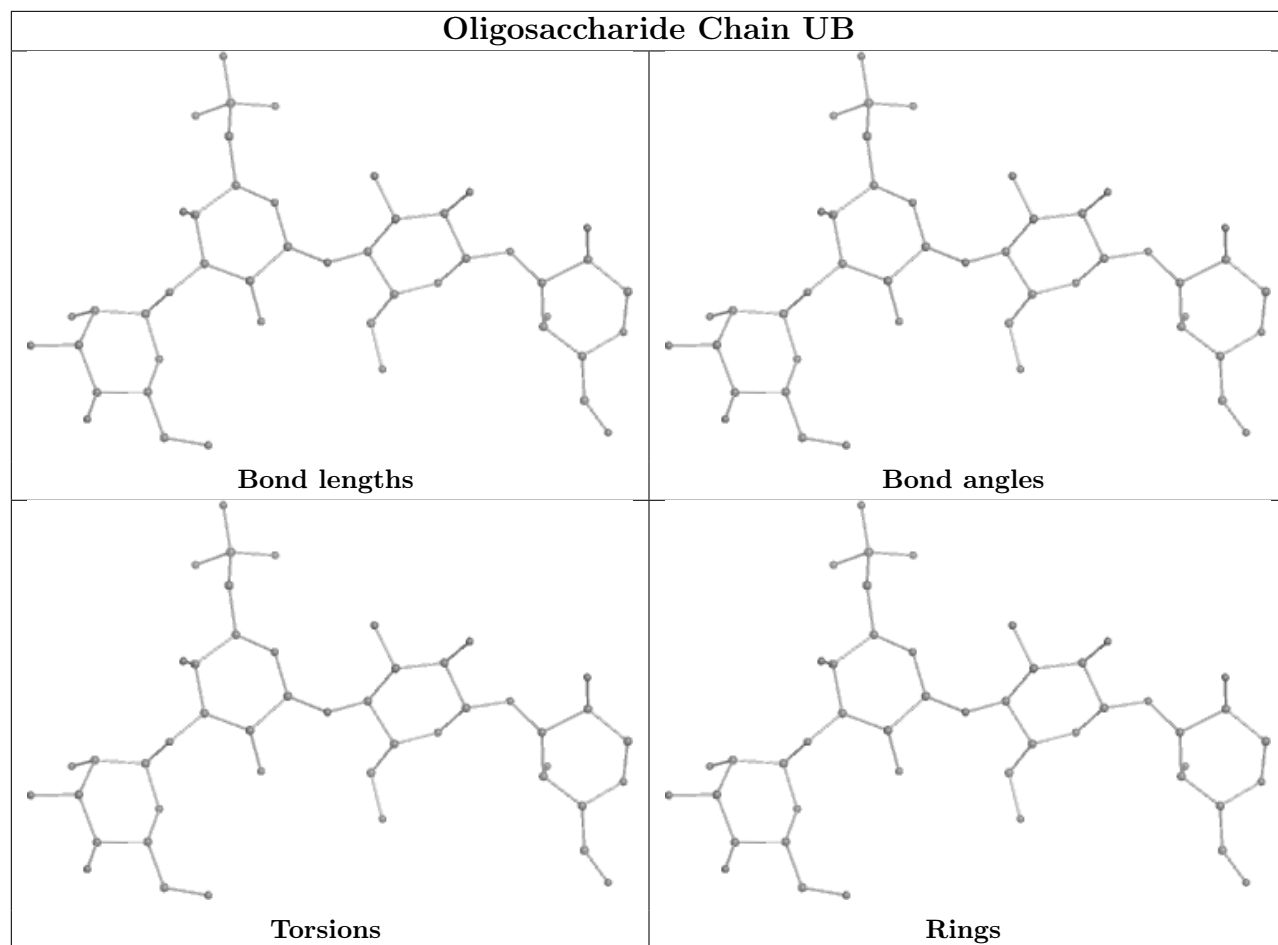
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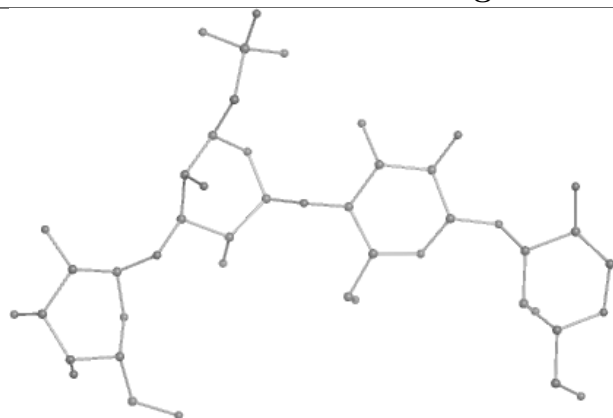
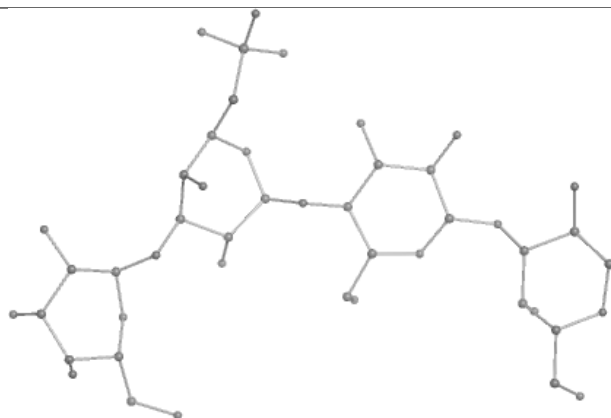
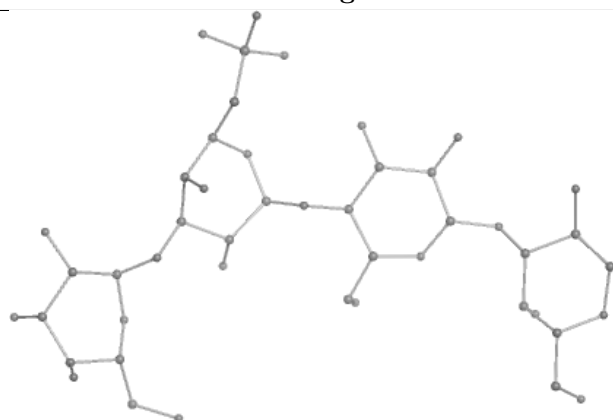
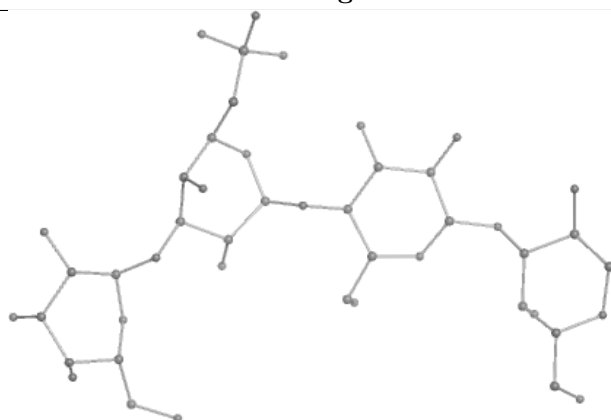
**Oligosaccharide Chain GB****Bond lengths****Bond angles****Torsions****Rings**

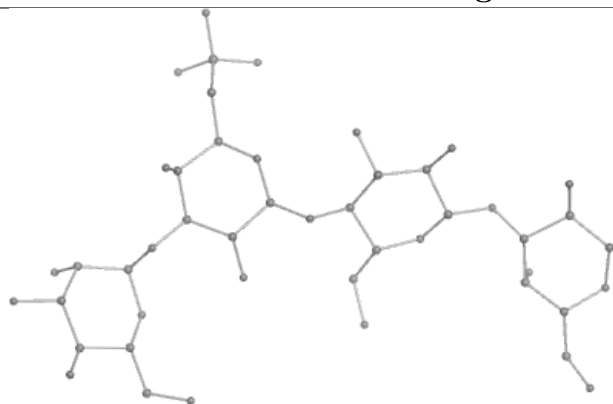
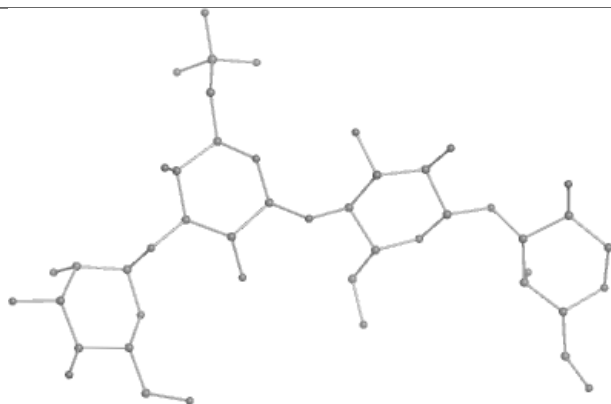
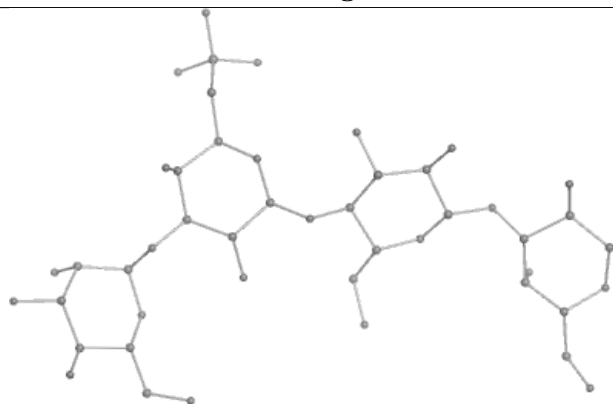
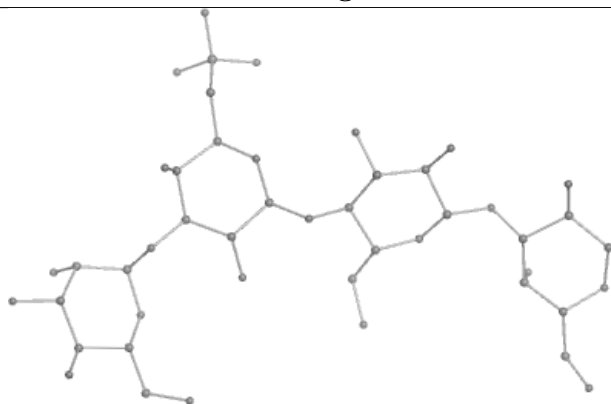


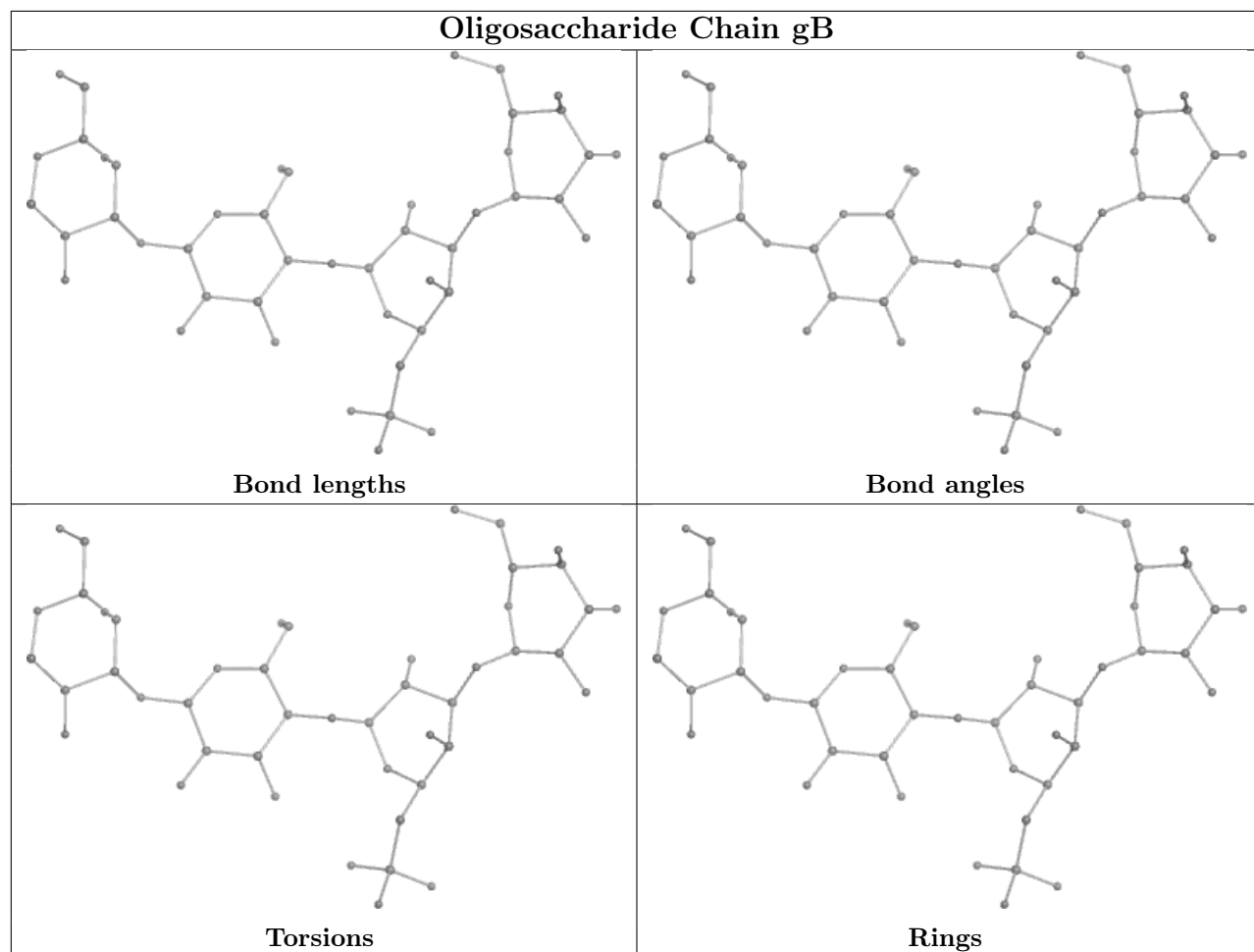


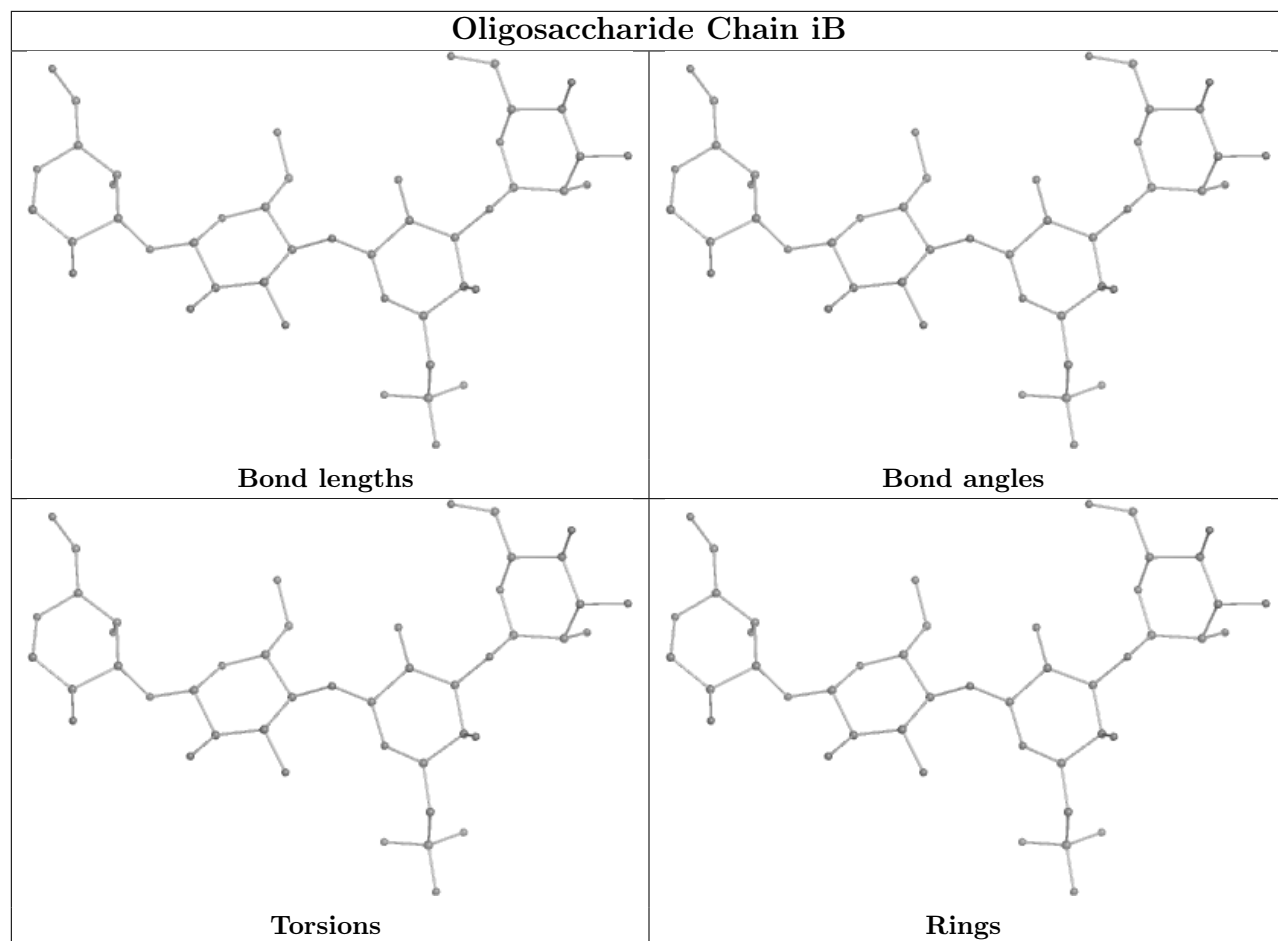
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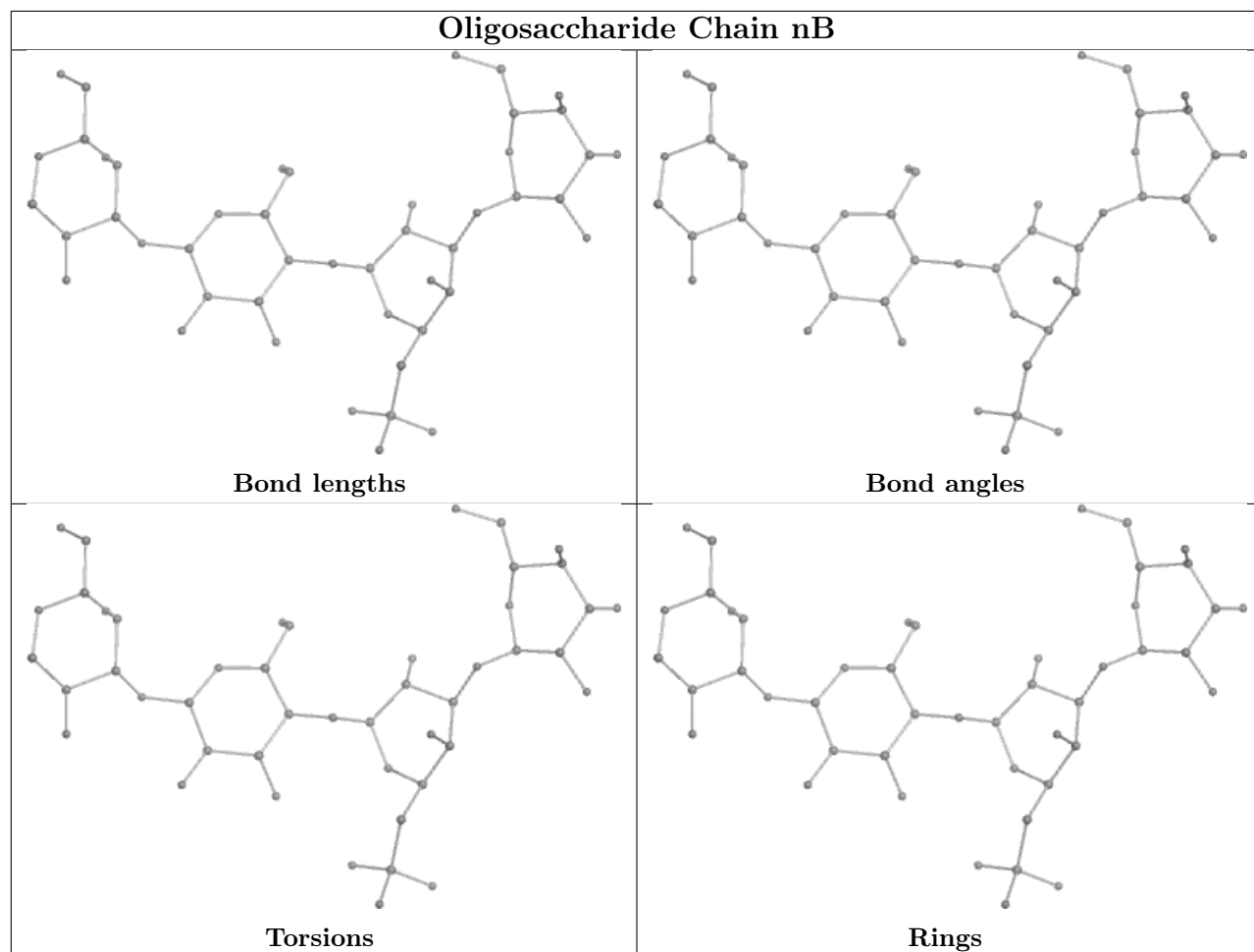


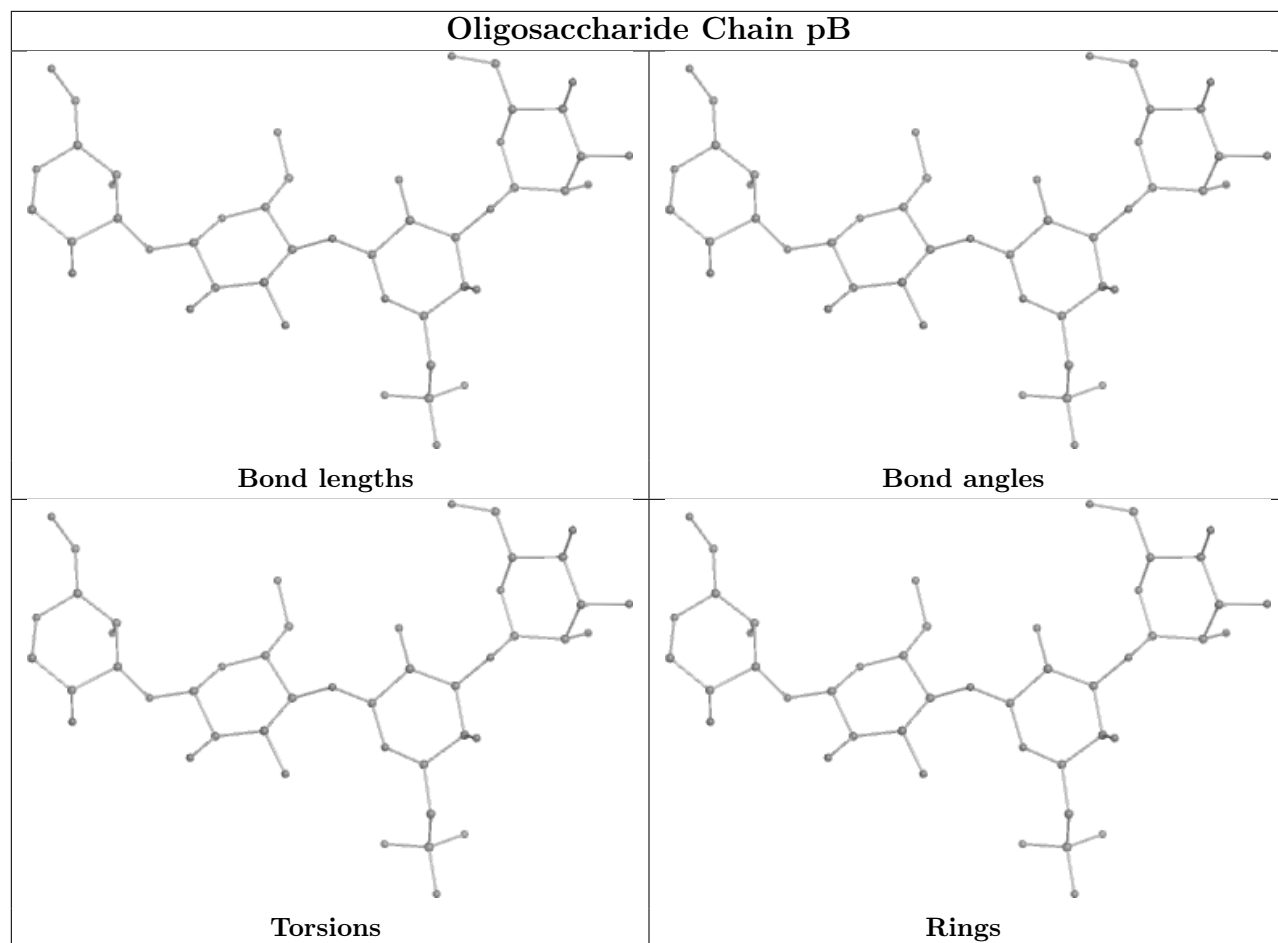
**Oligosaccharide Chain ZB****Bond lengths****Bond angles****Torsions****Rings**

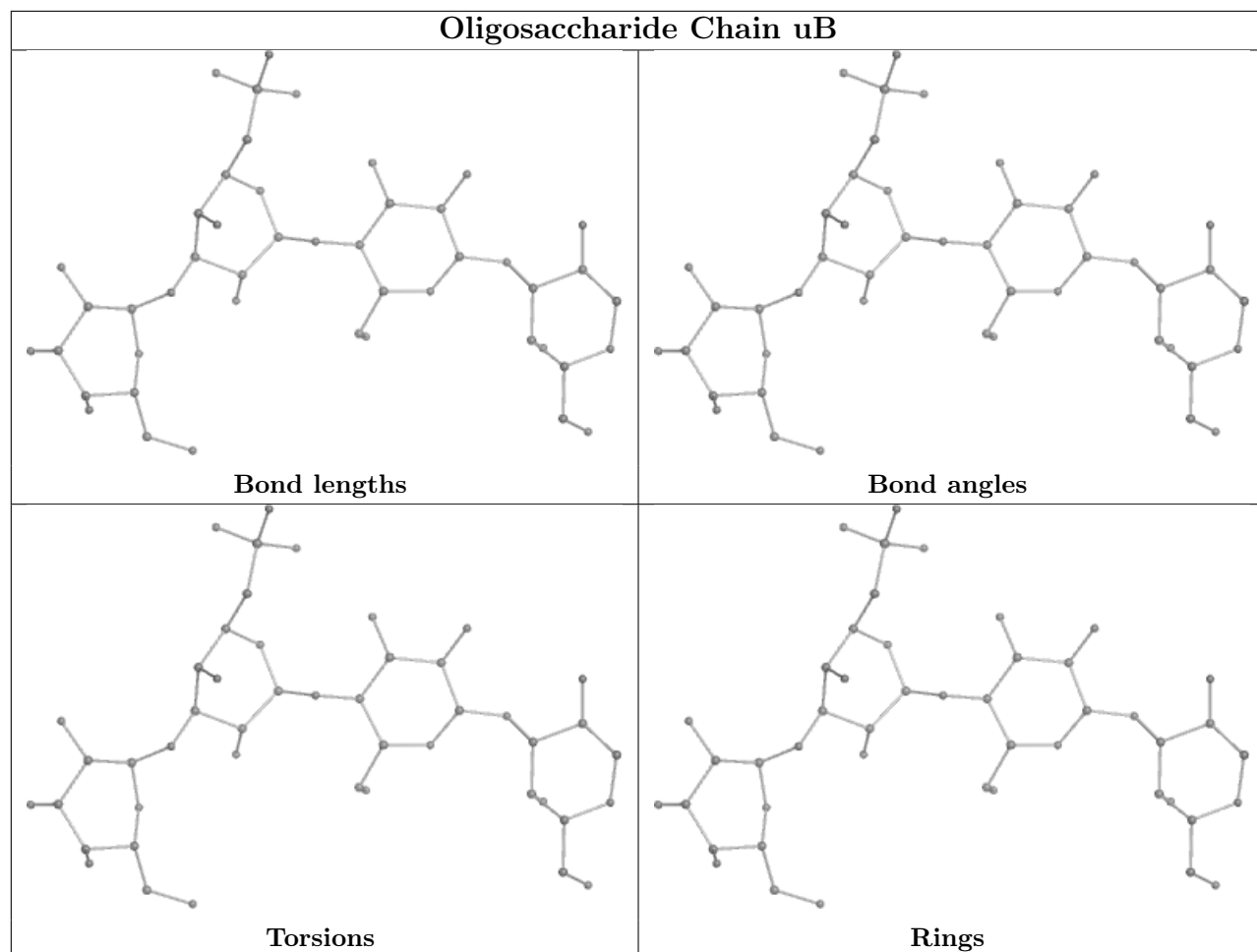
**Oligosaccharide Chain bB****Bond lengths****Bond angles****Torsions****Rings**

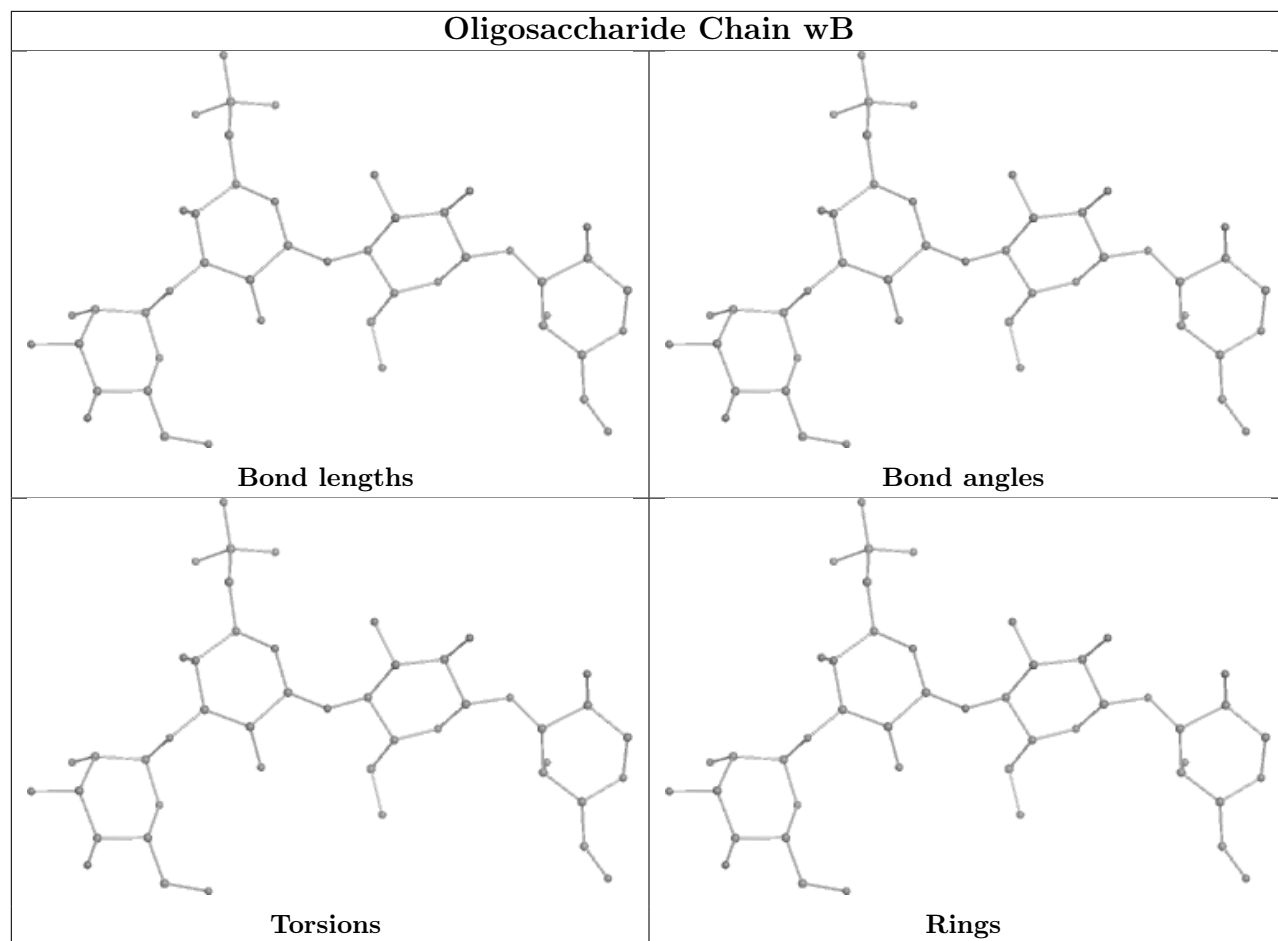


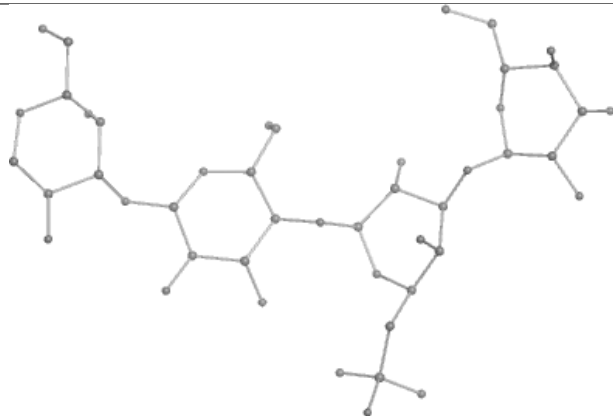
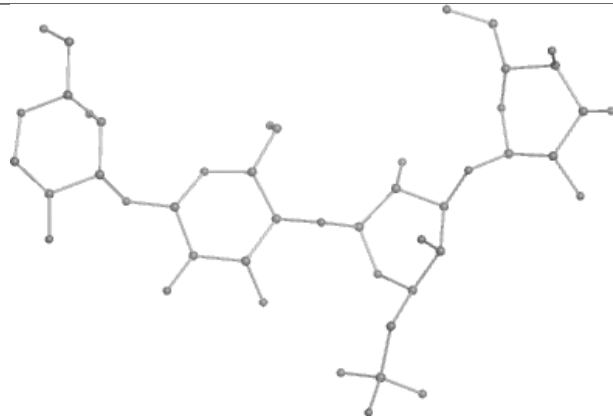
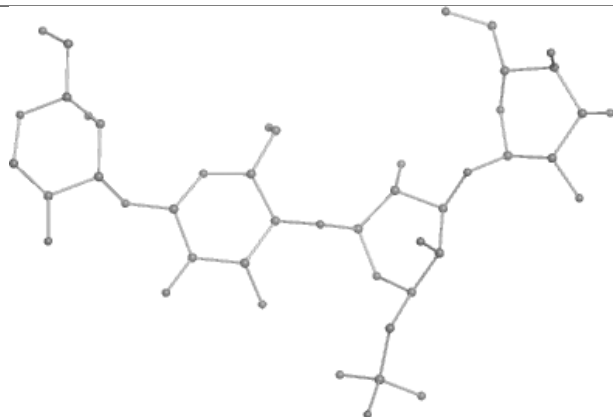
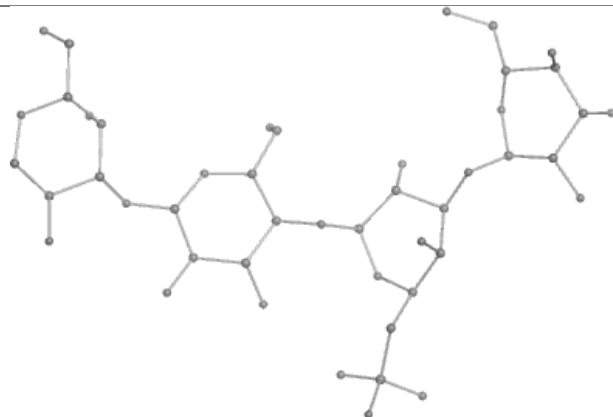


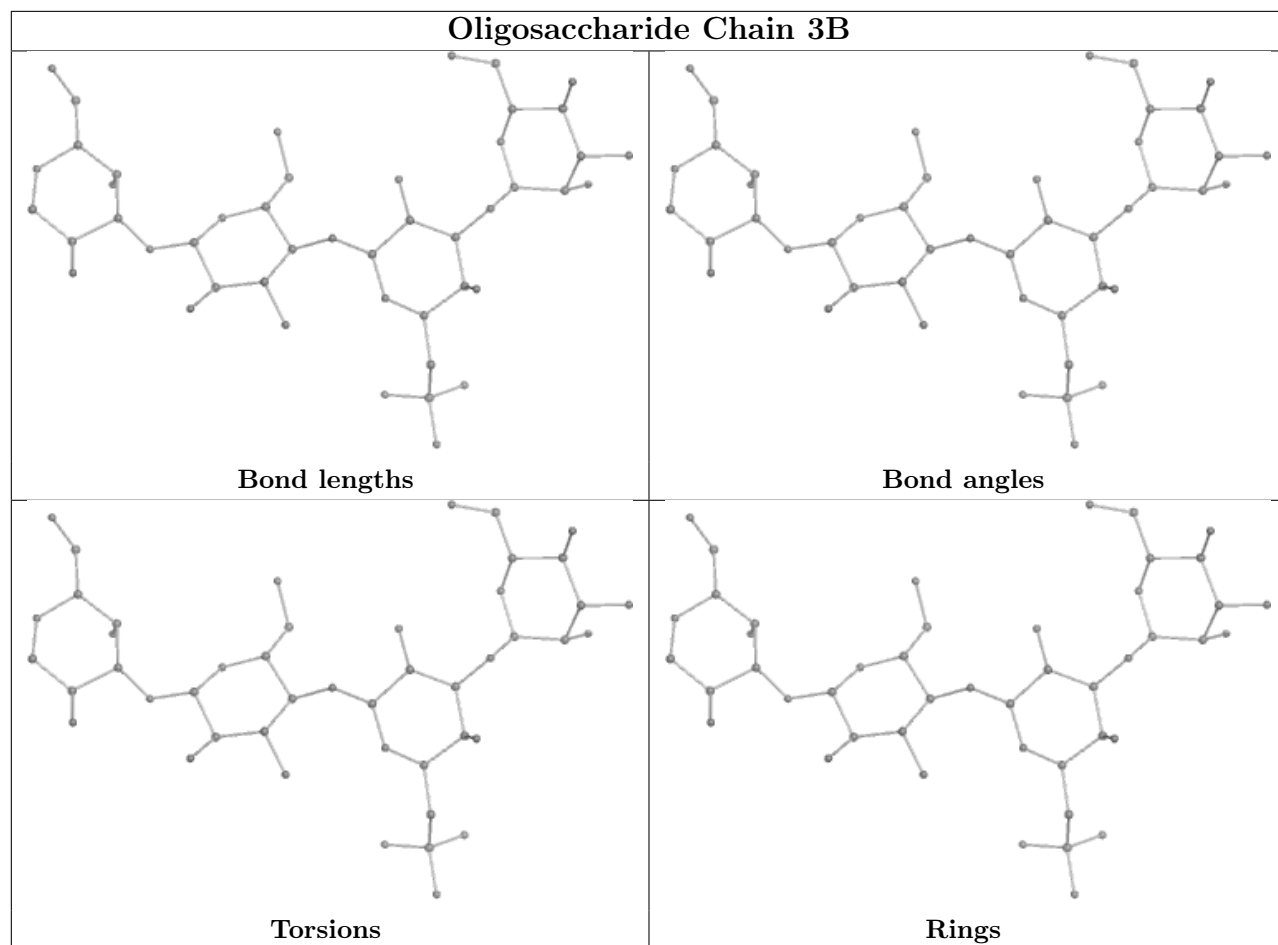


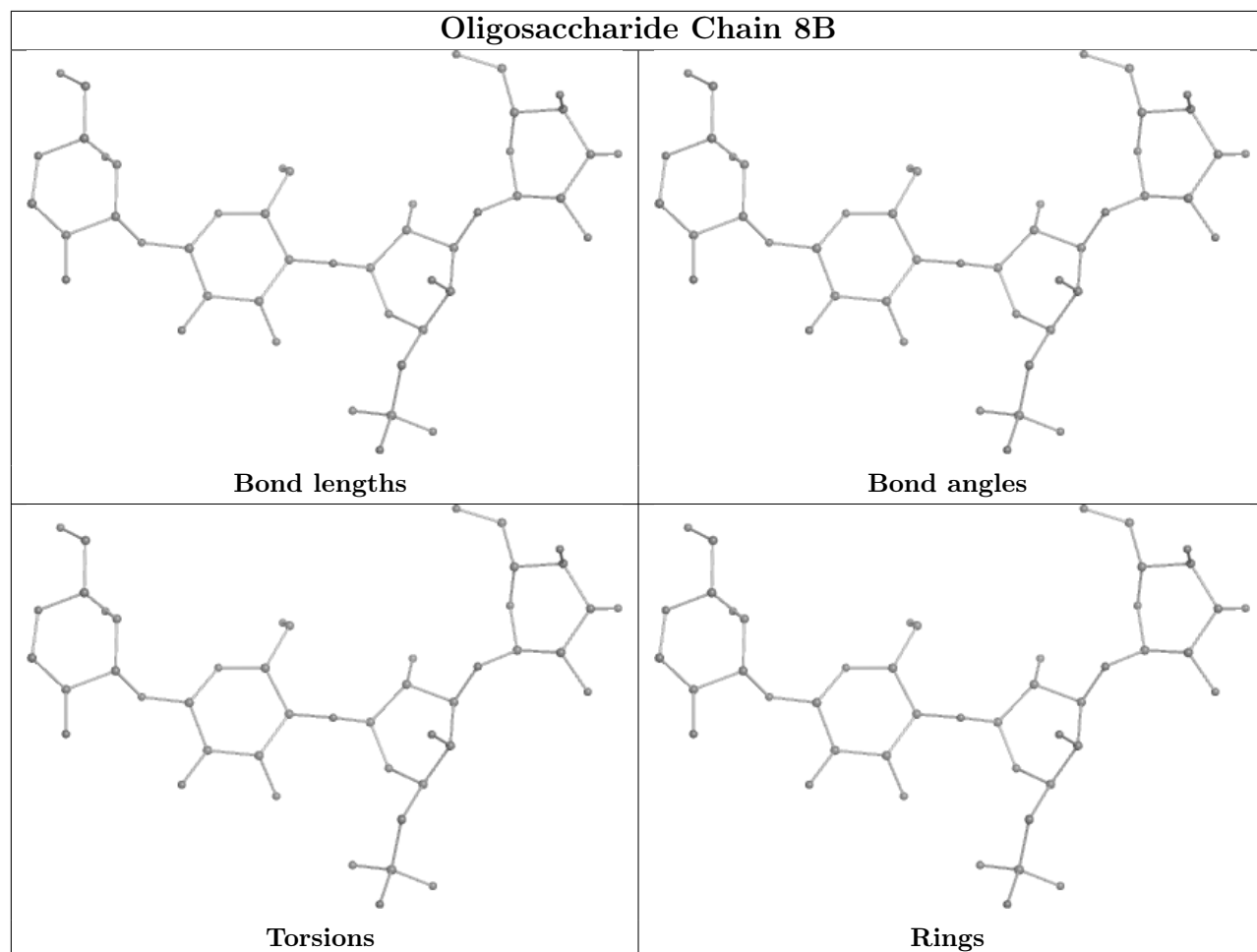


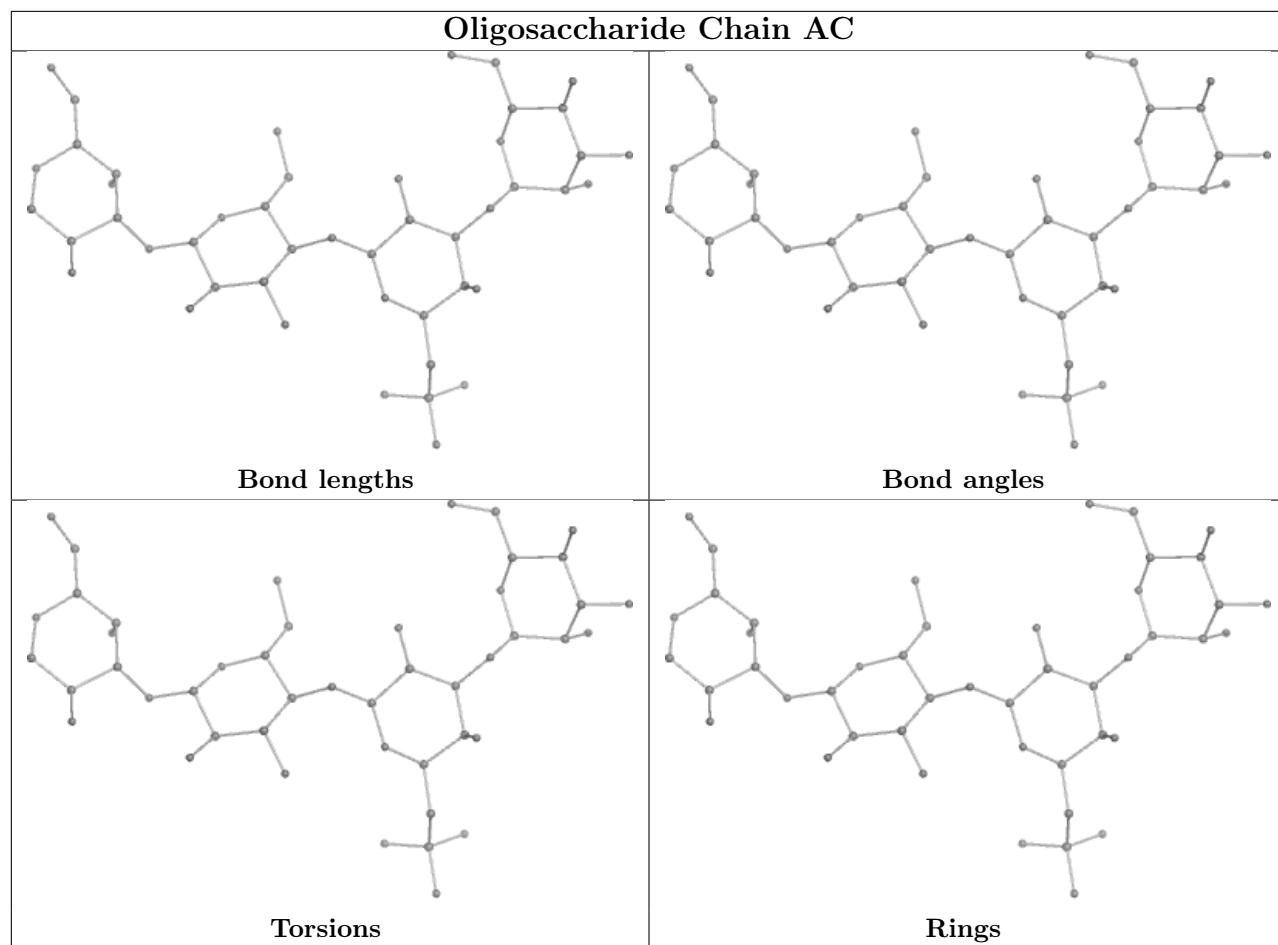
**Oligosaccharide Chain uB**

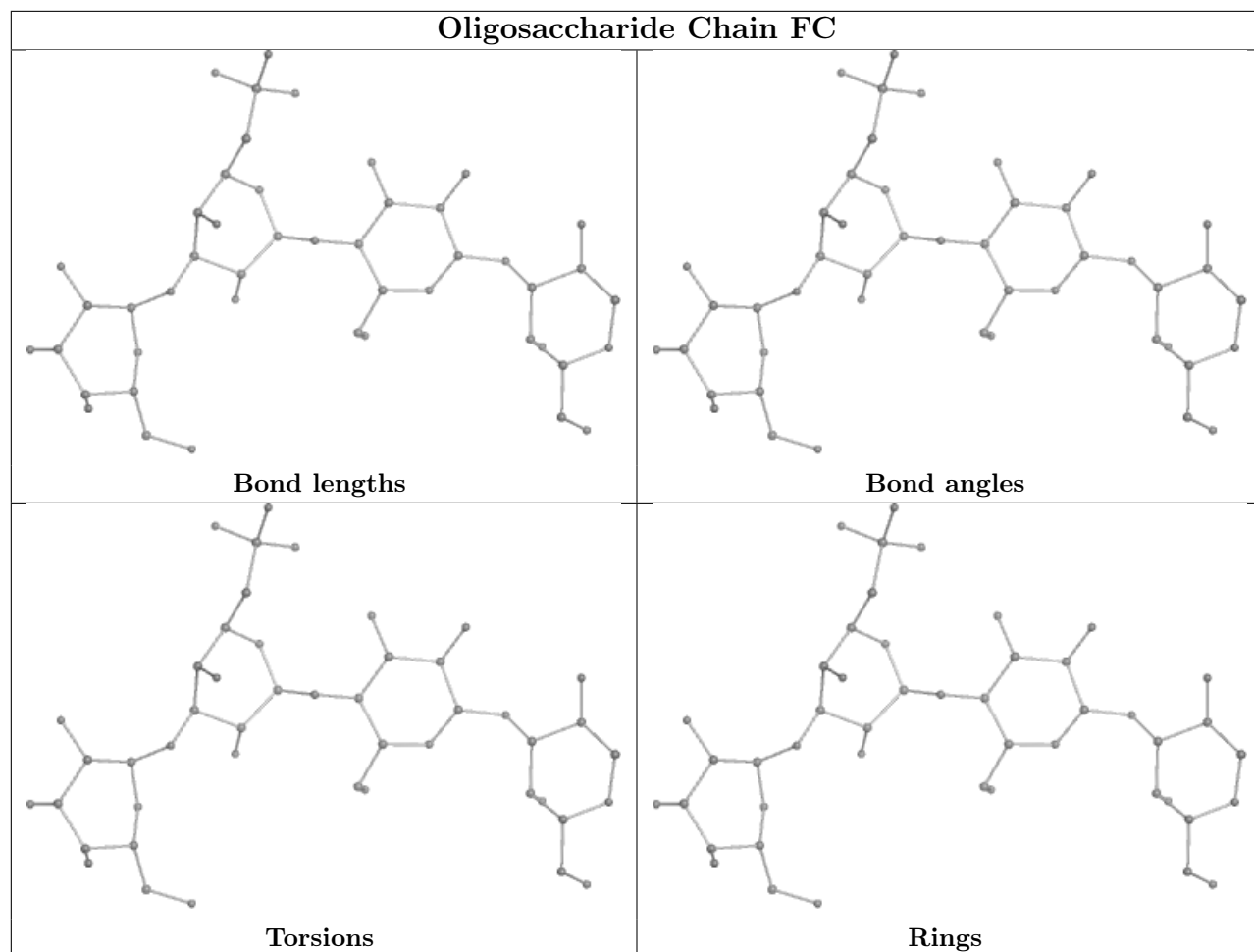


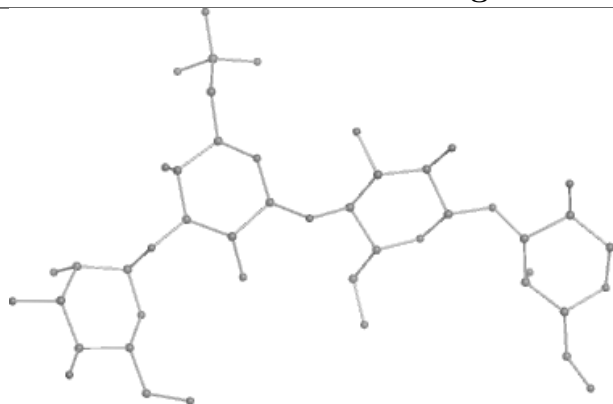
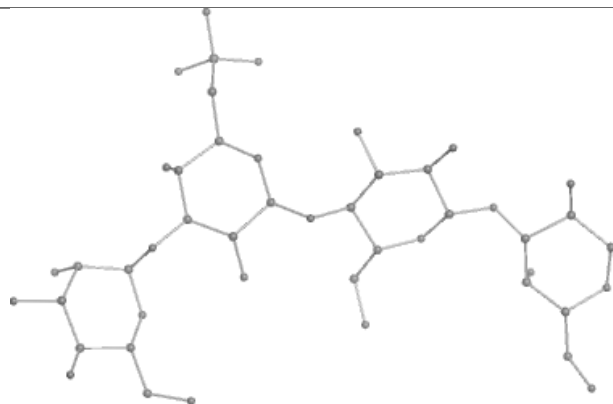
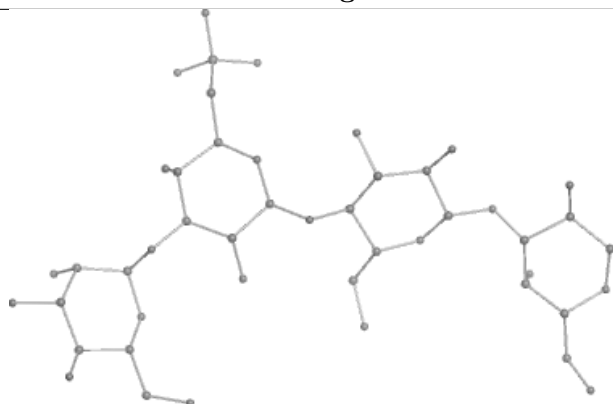
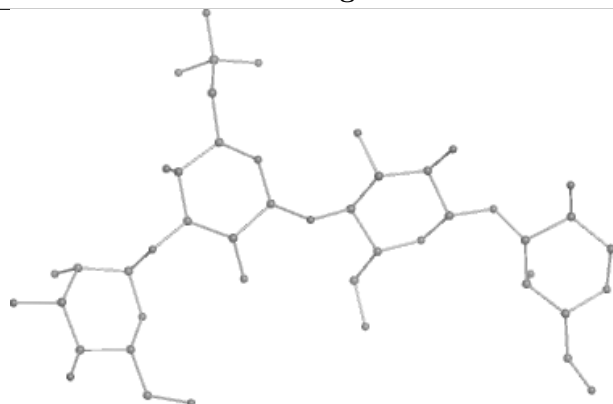
**Oligosaccharide Chain 1B****Bond lengths****Bond angles****Torsions****Rings**

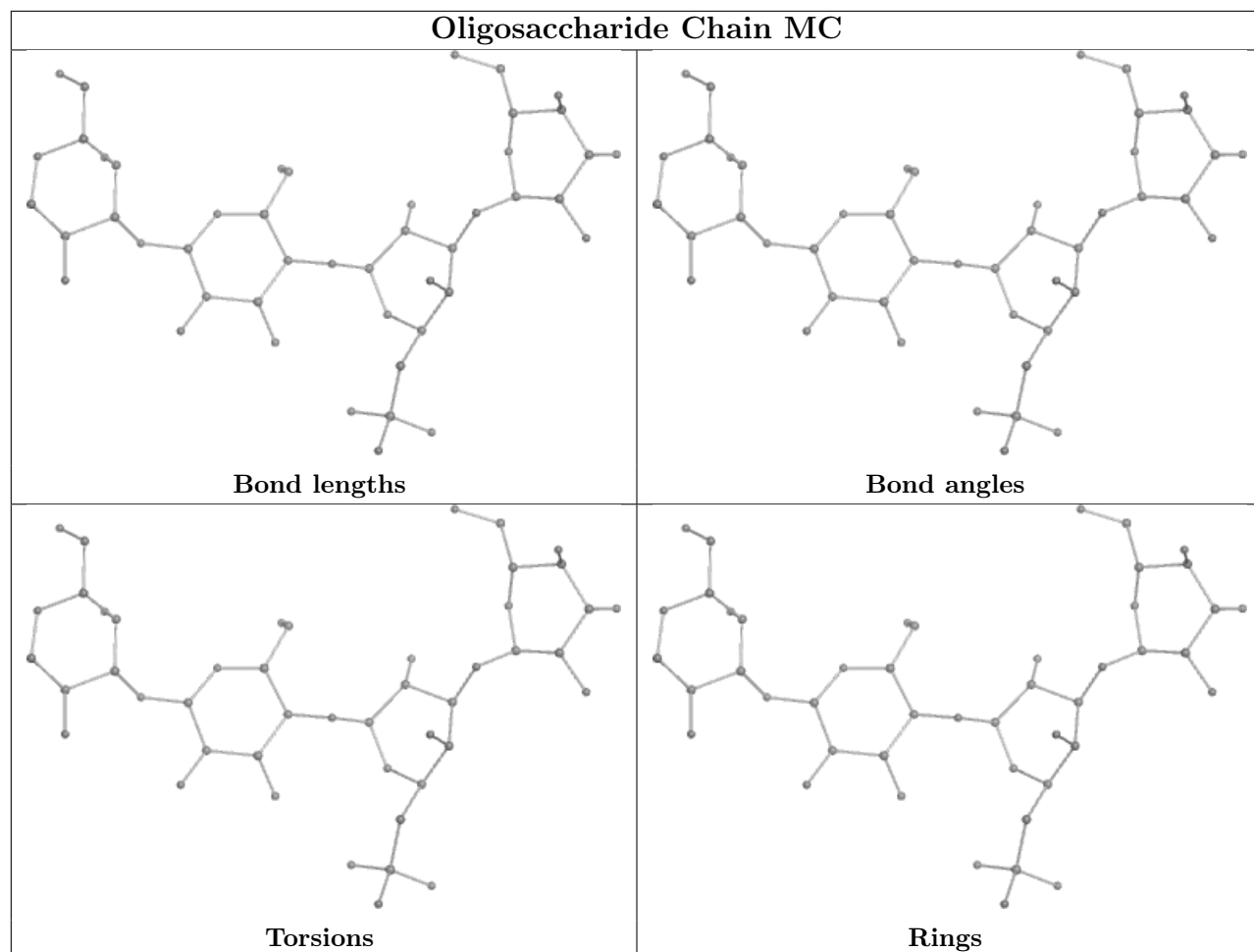


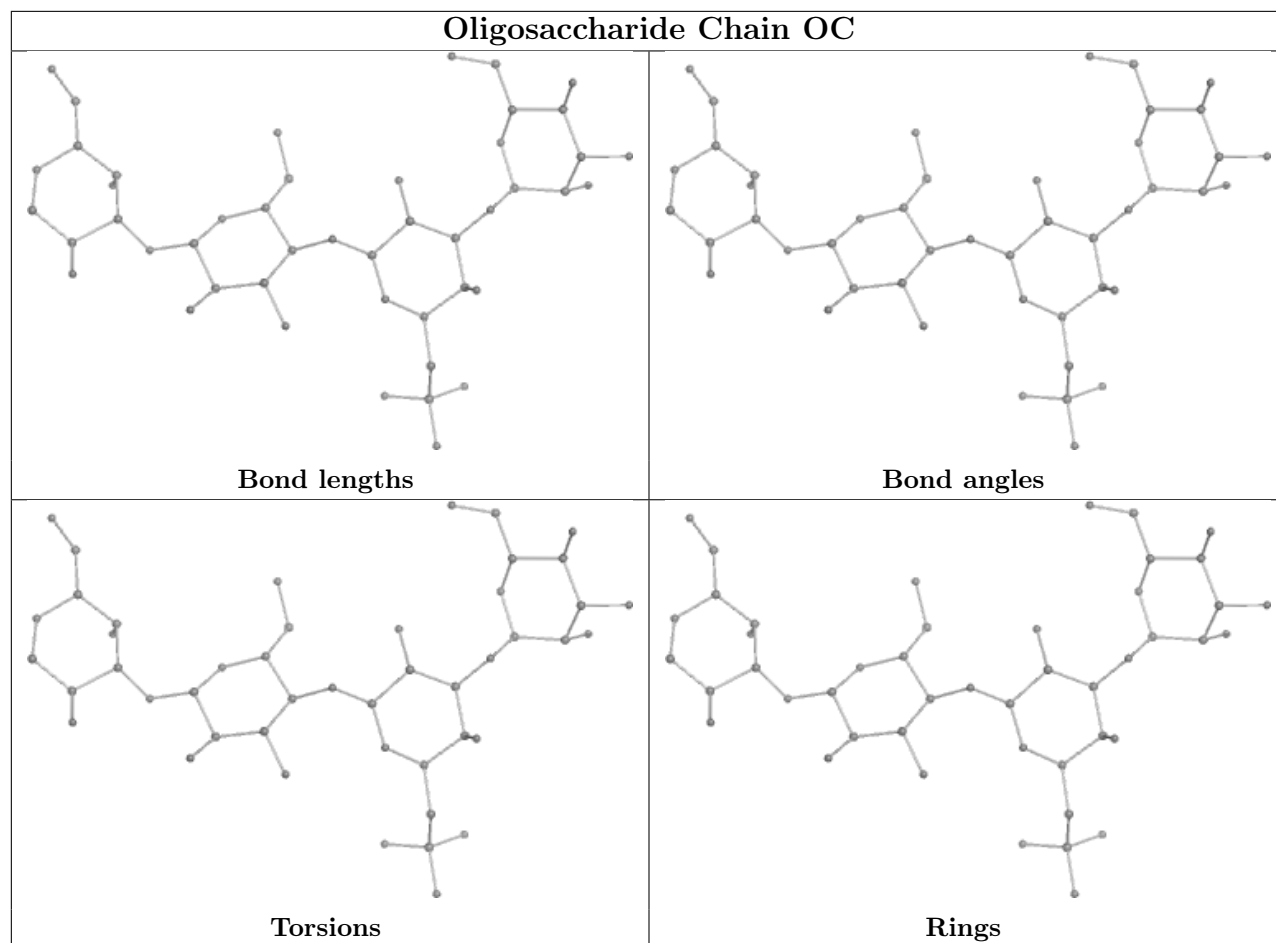


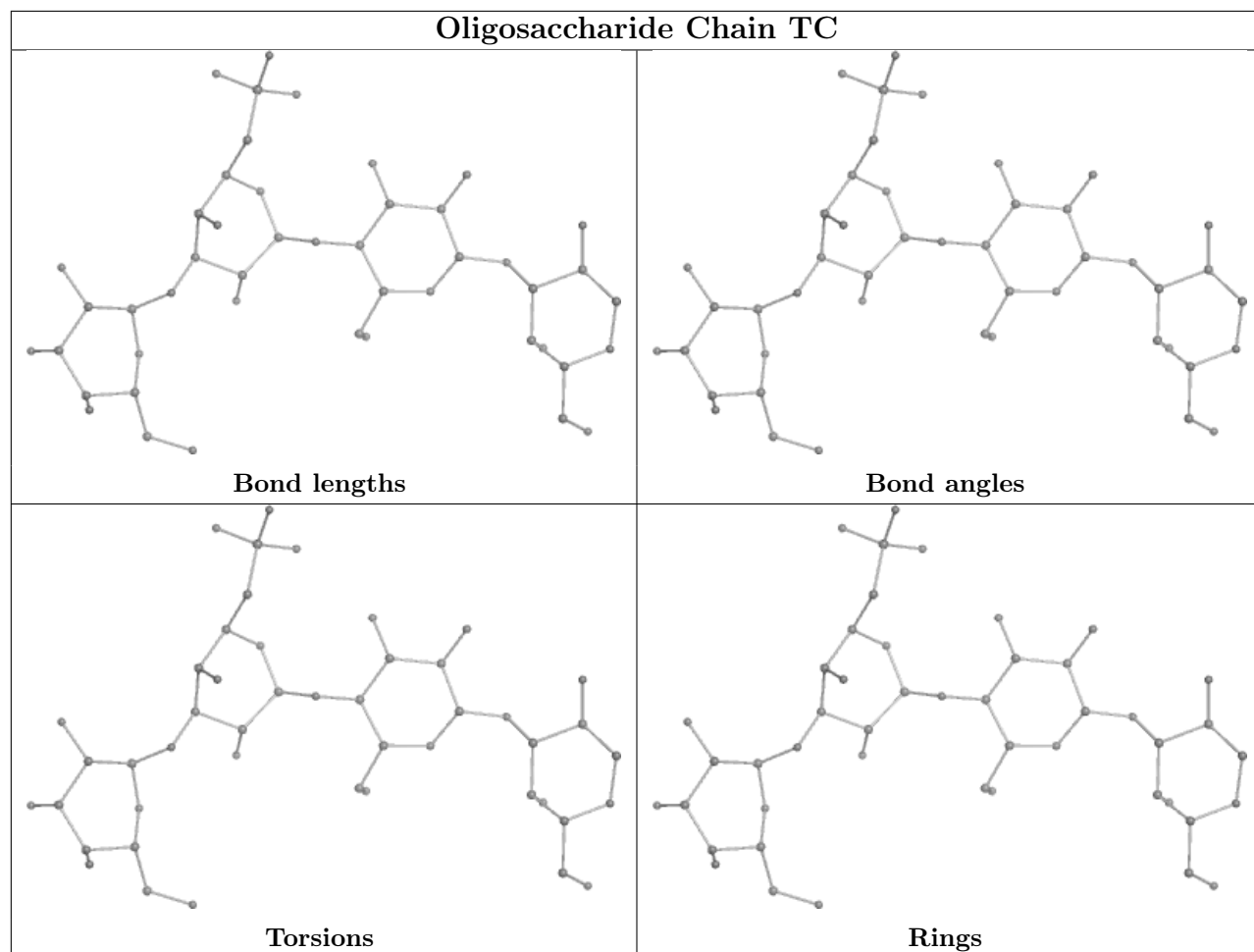


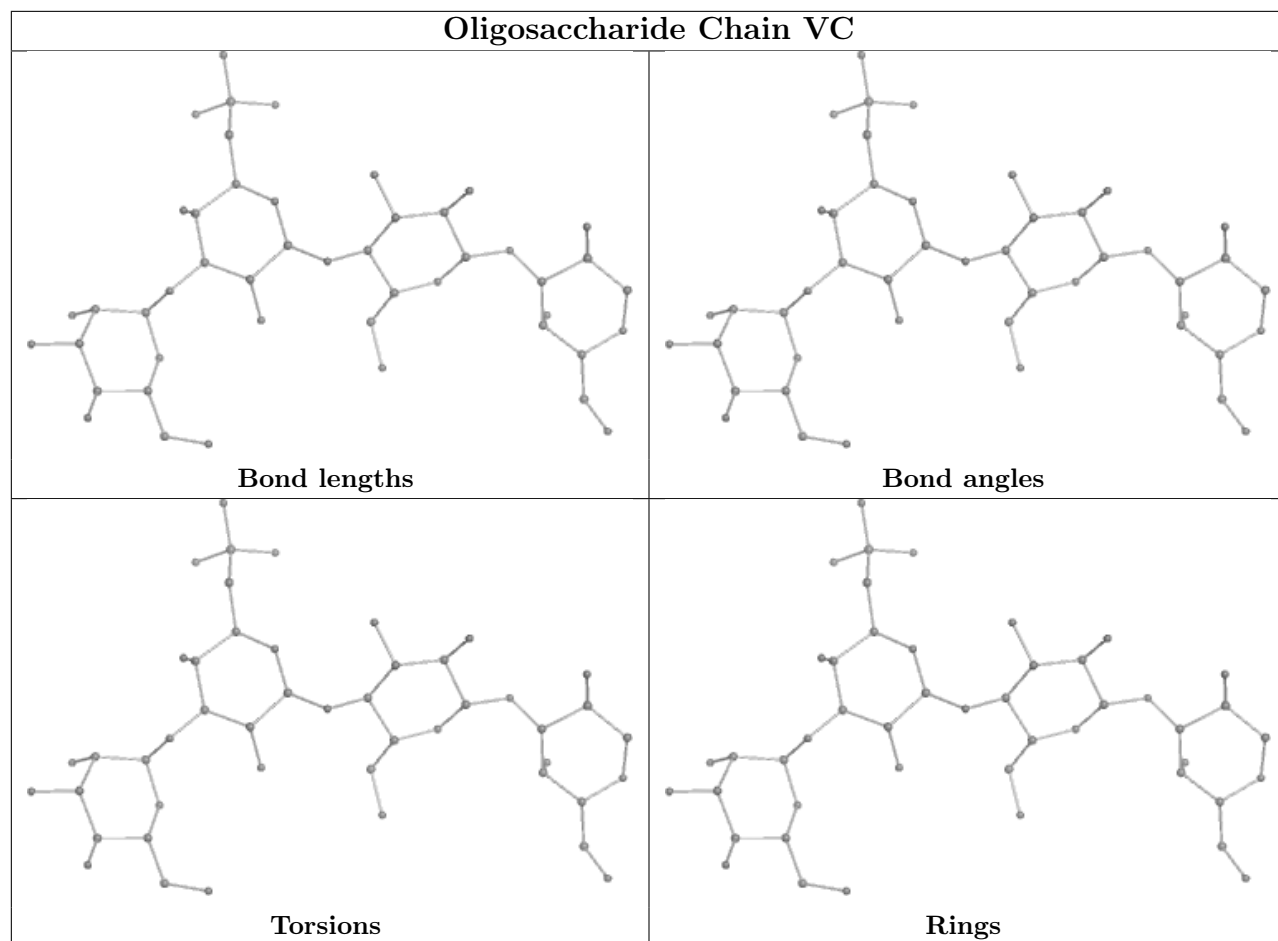
**Oligosaccharide Chain FC**

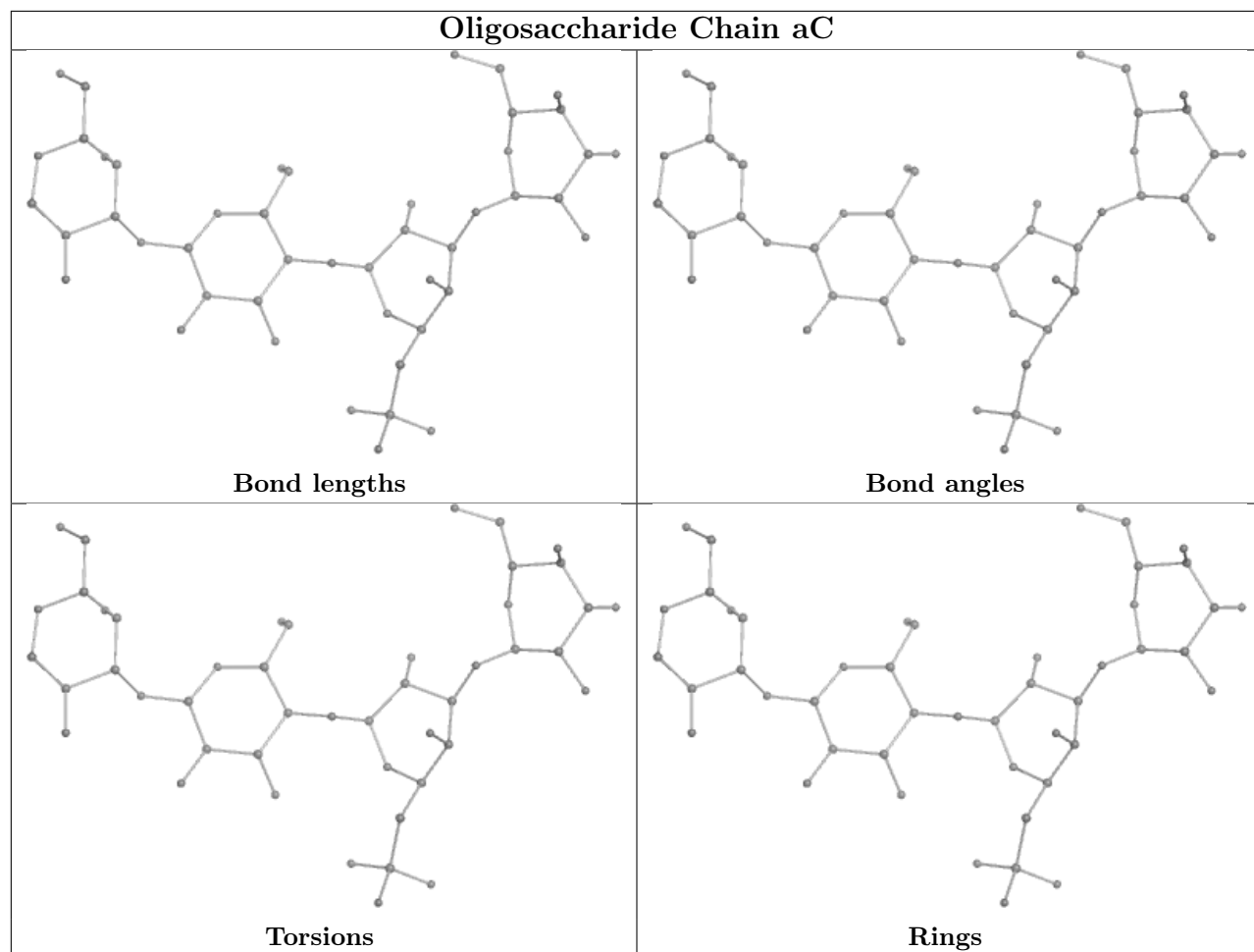
**Oligosaccharide Chain HC****Bond lengths****Bond angles****Torsions****Rings**

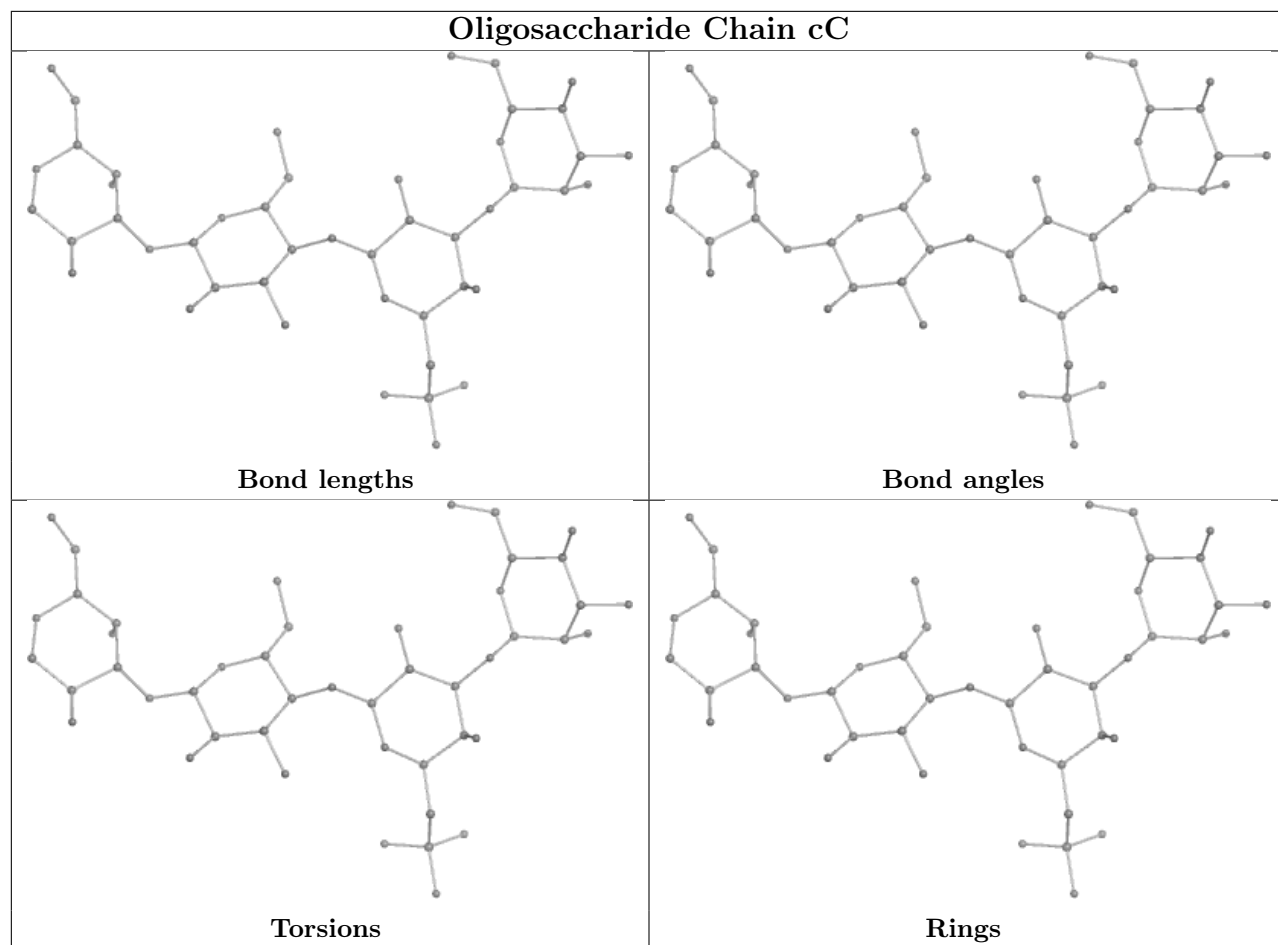


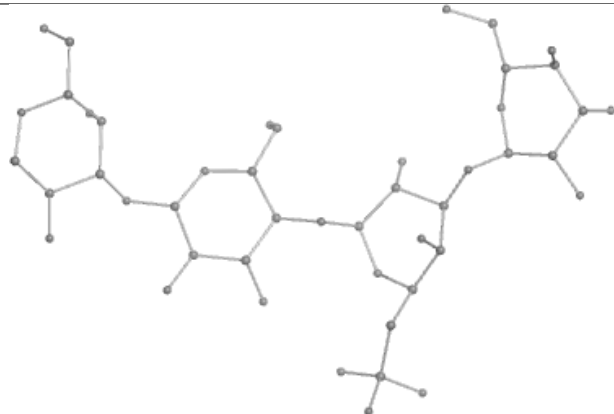
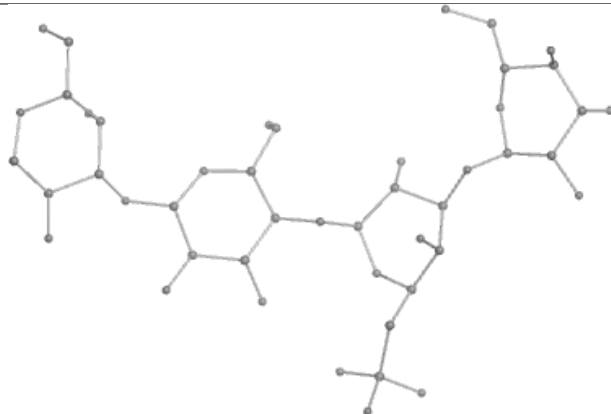
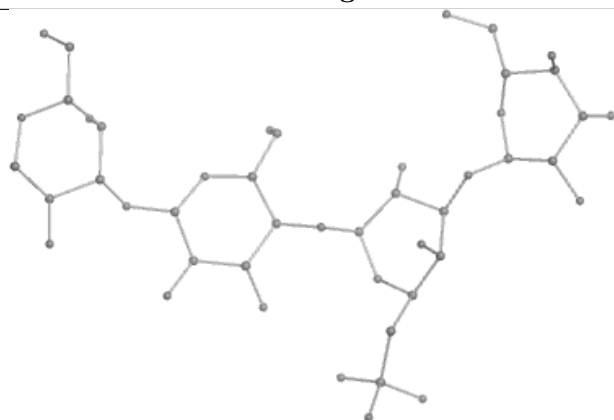
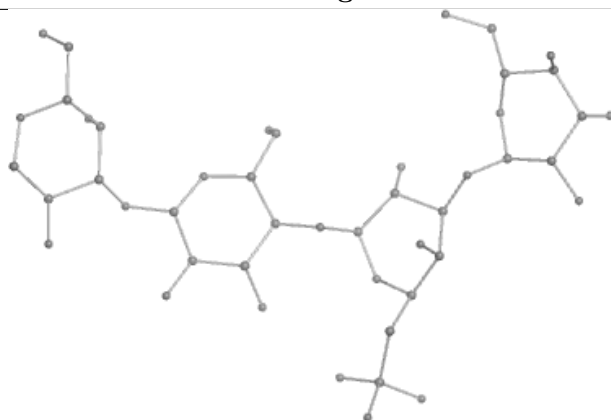


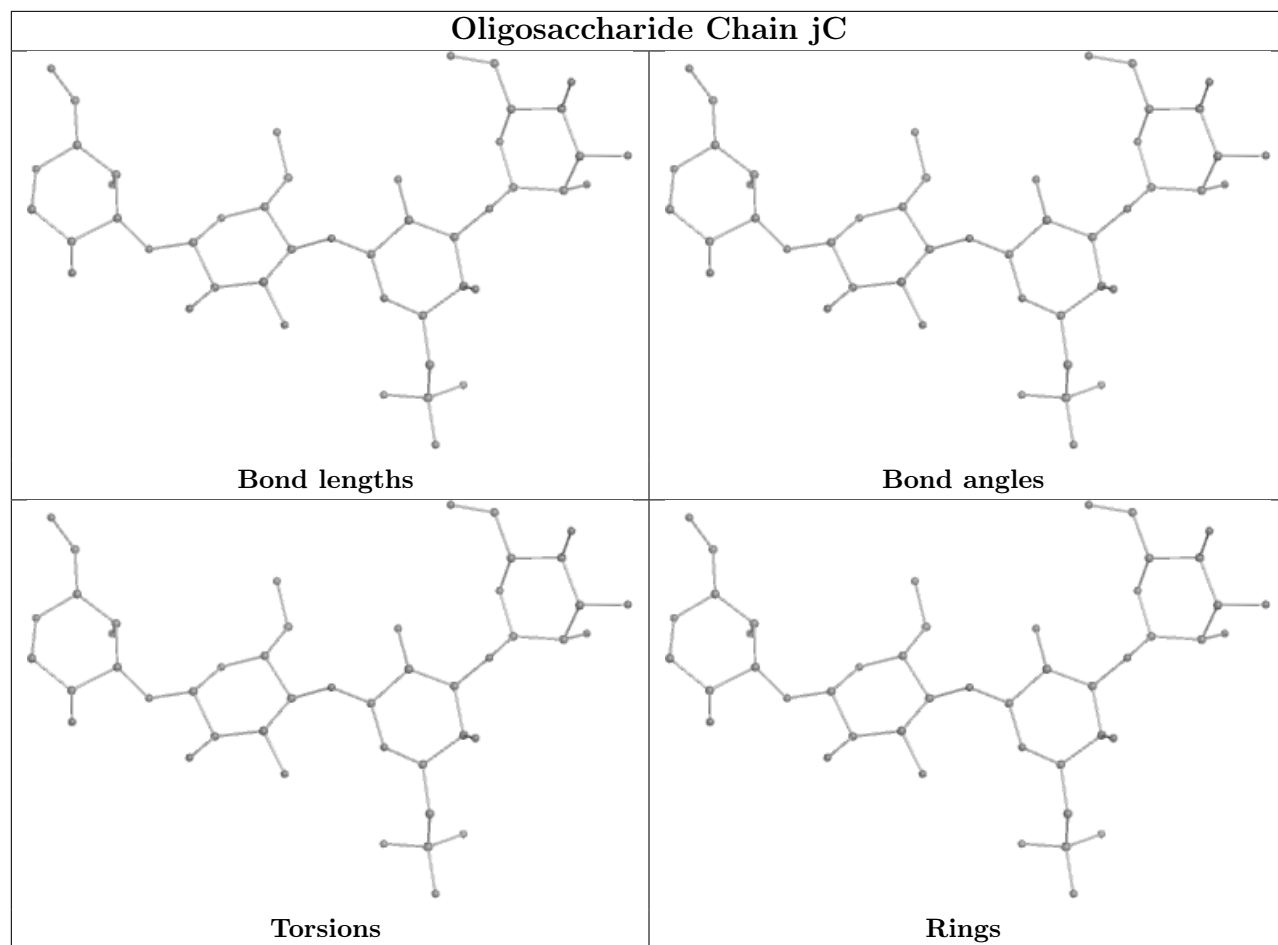
**Oligosaccharide Chain TC**

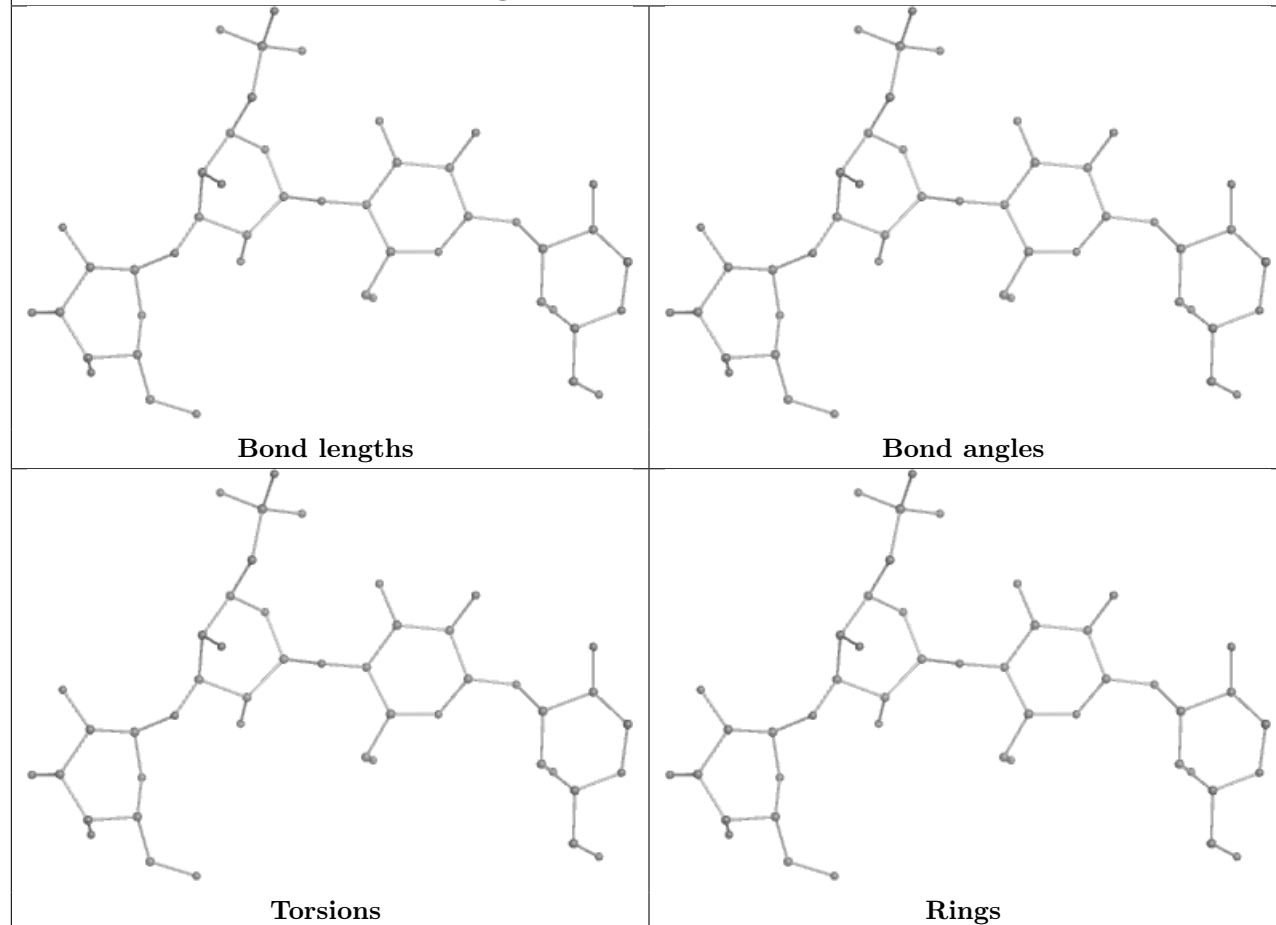
**Oligosaccharide Chain VC**

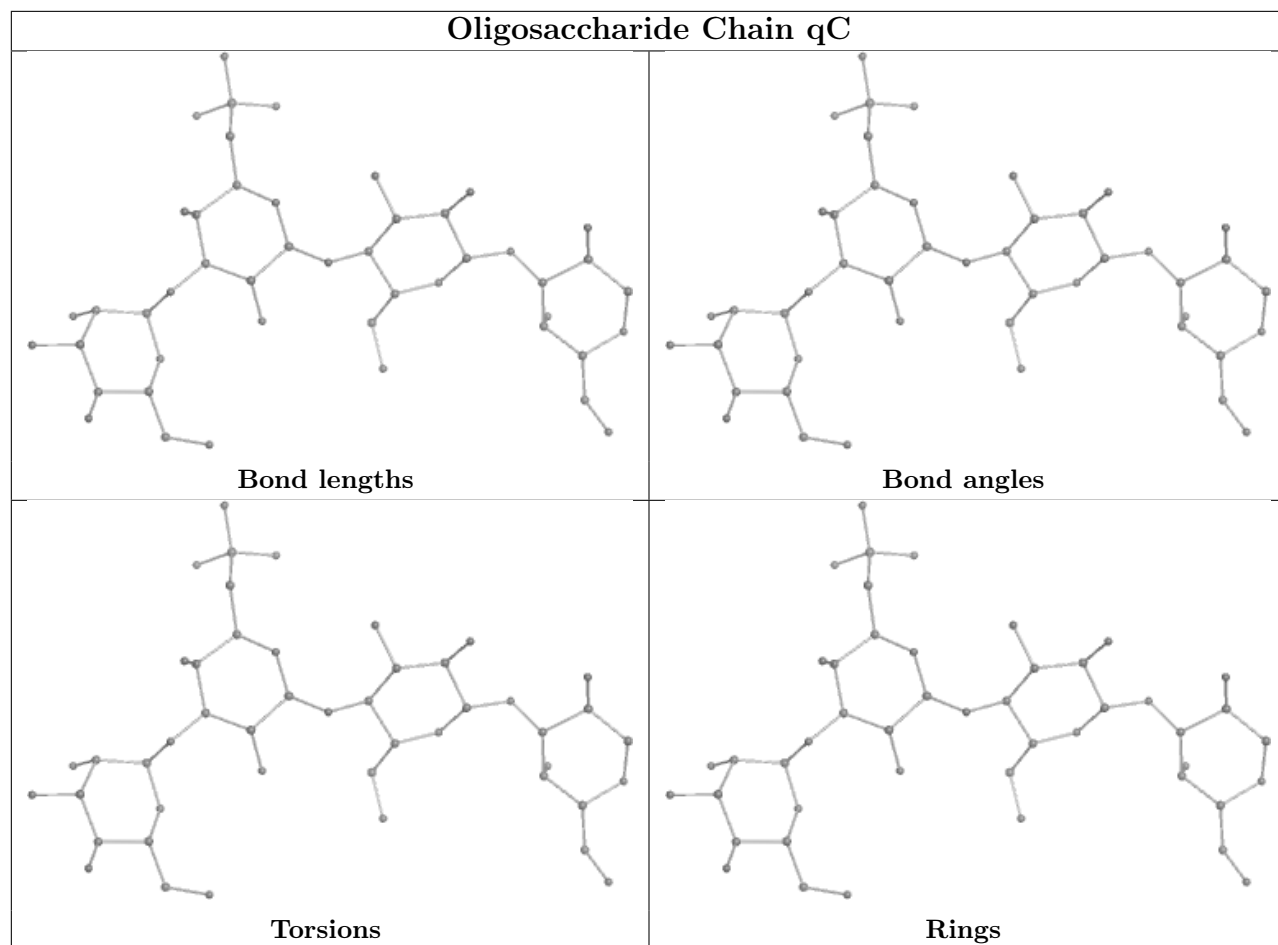


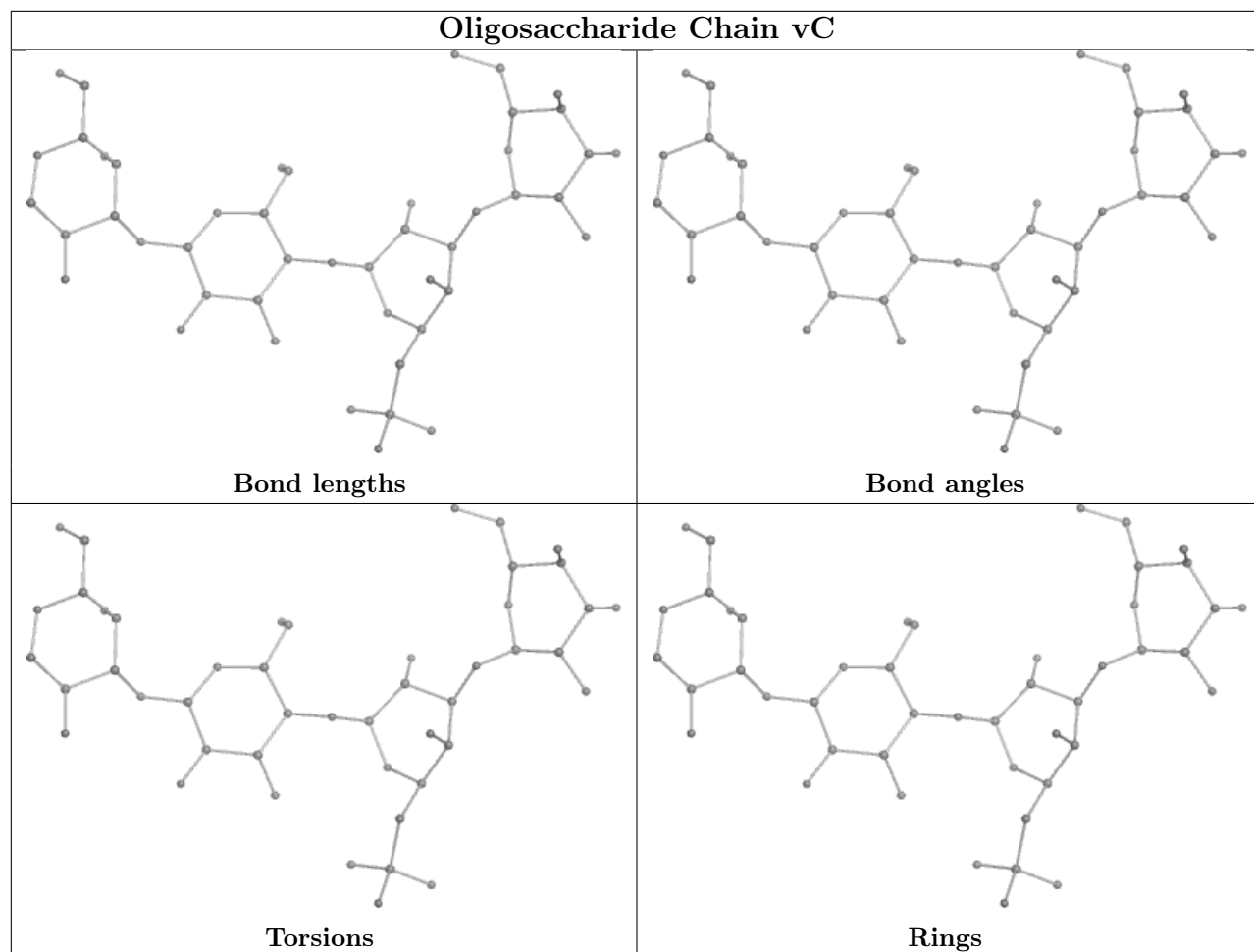


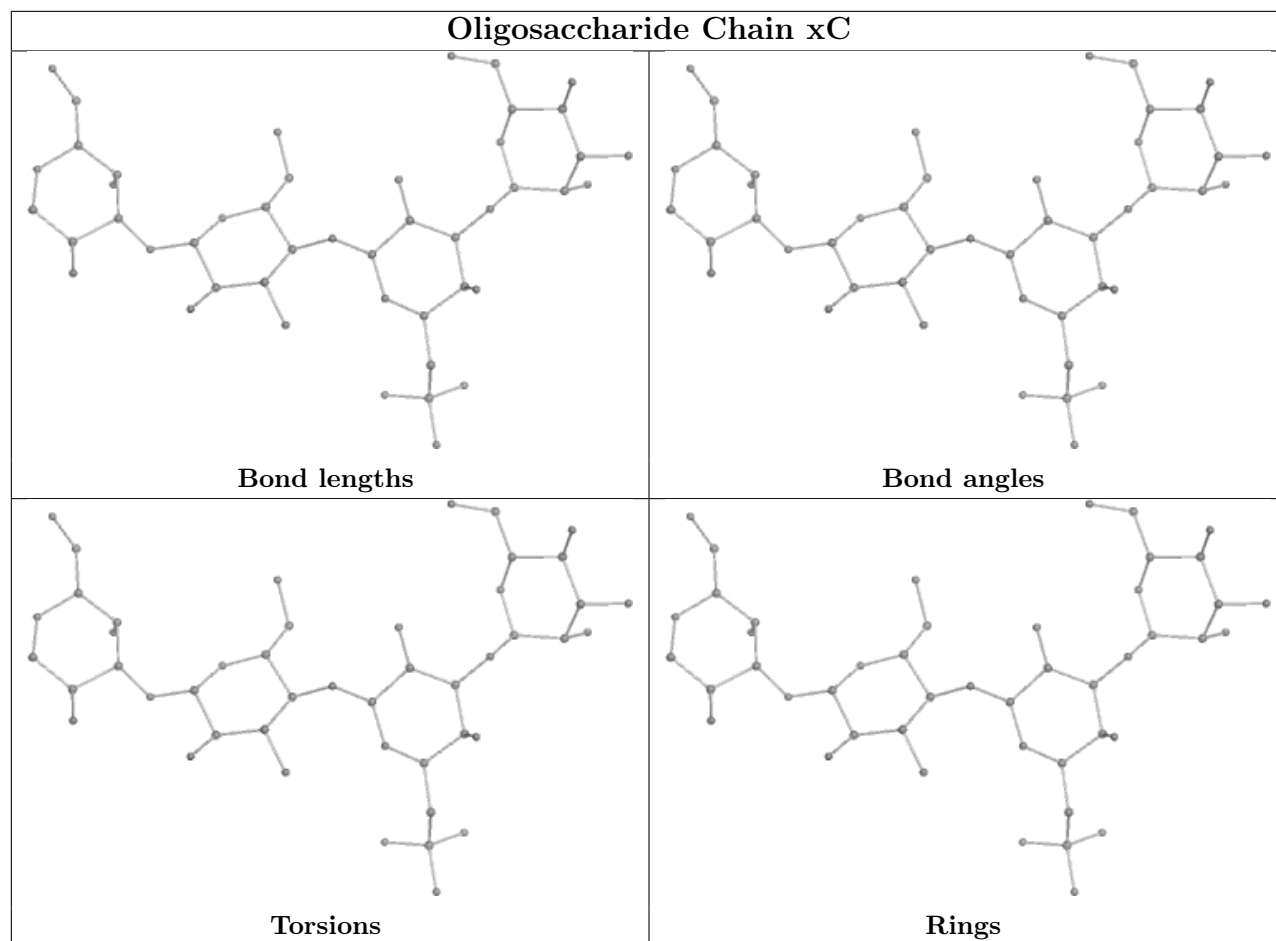
**Oligosaccharide Chain hC****Bond lengths****Bond angles****Torsions****Rings**

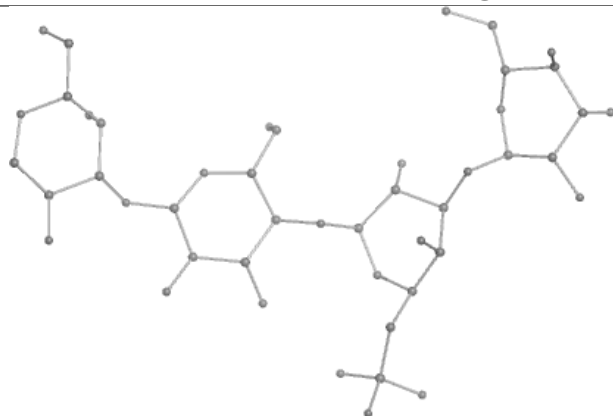
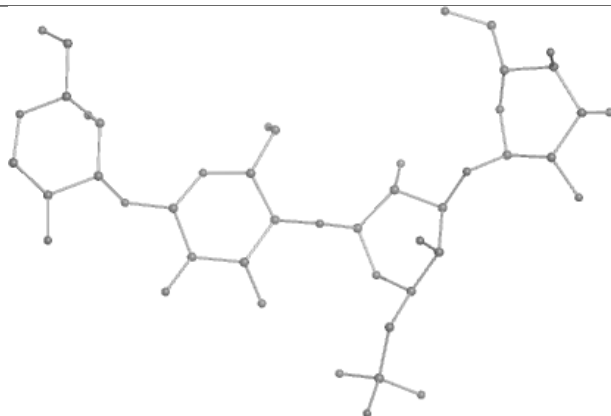
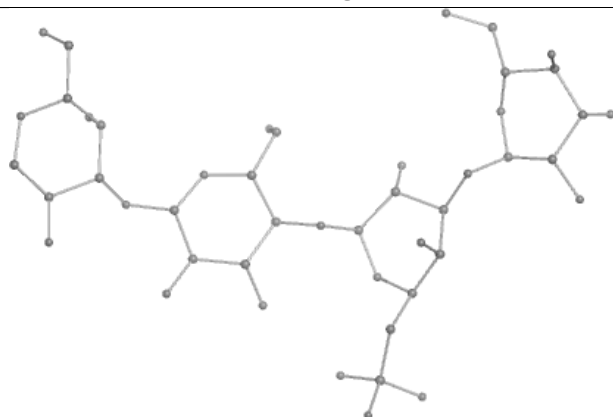
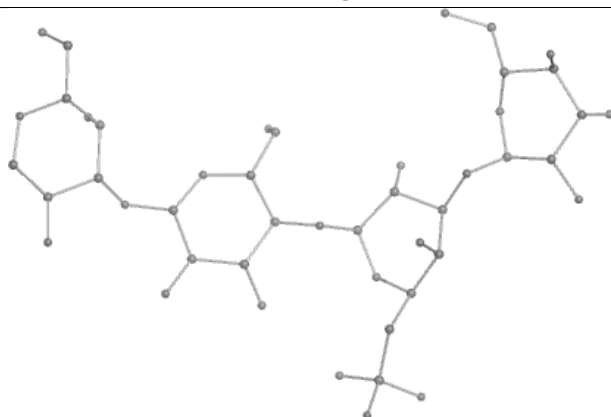


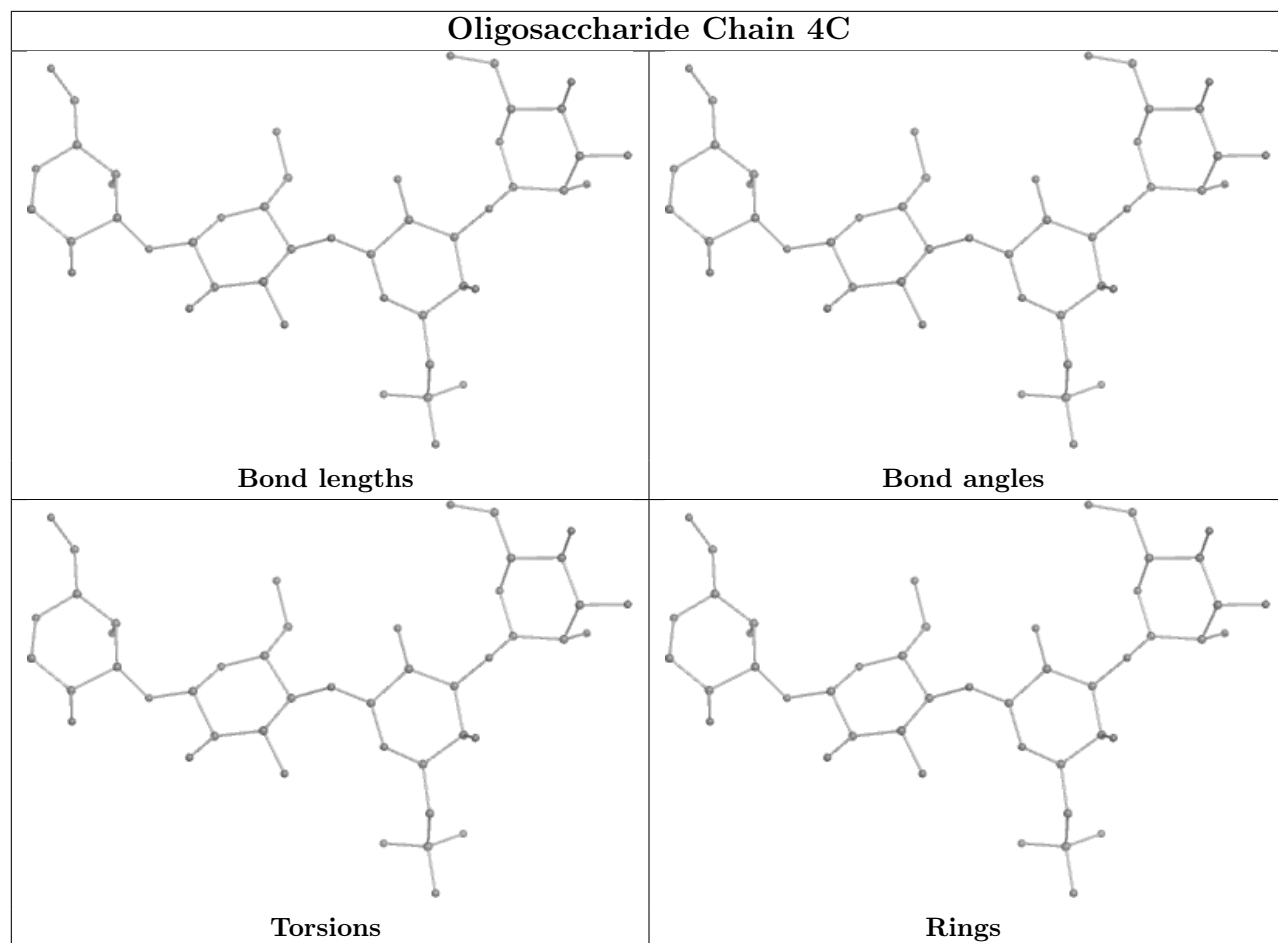
**Oligosaccharide Chain oC**

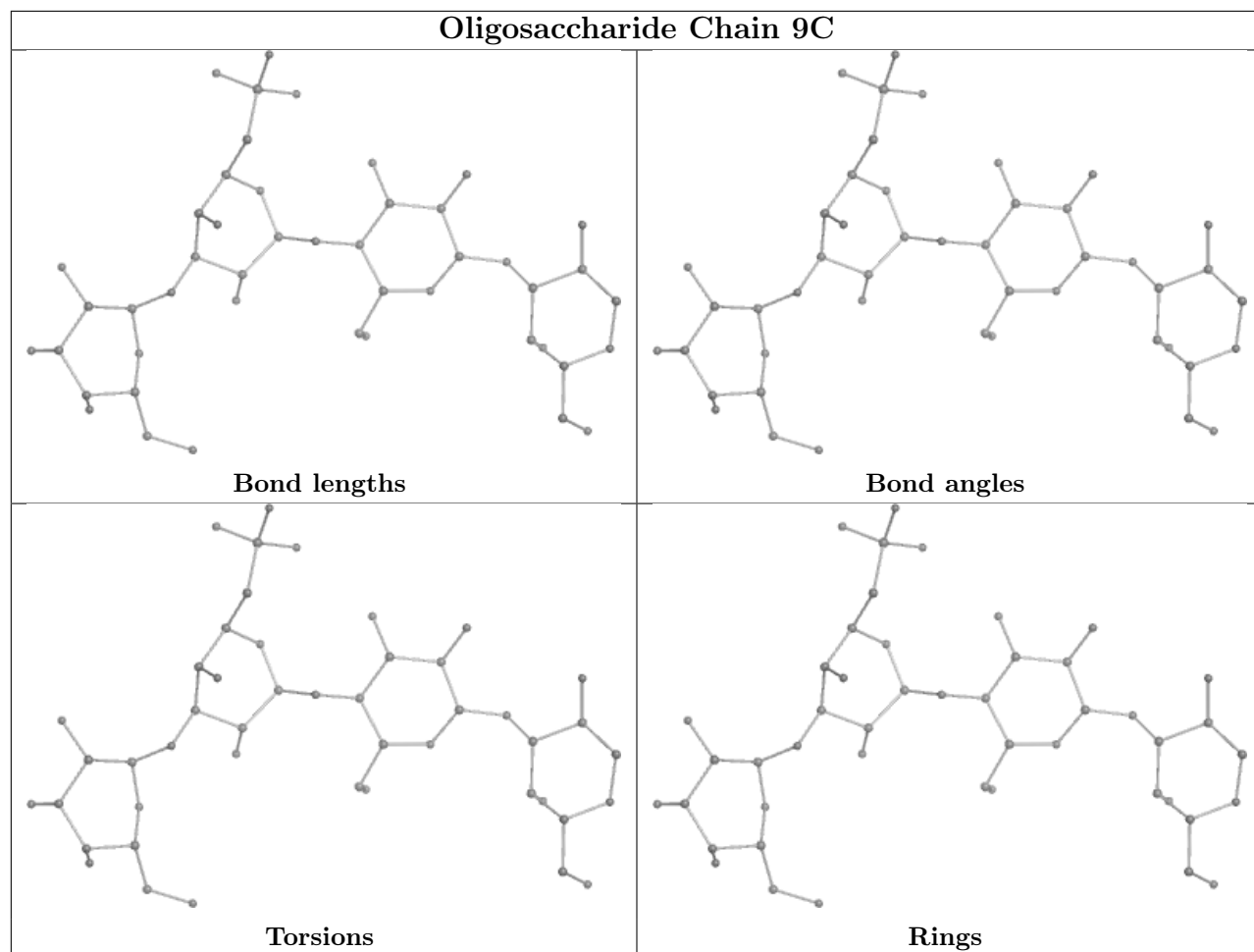


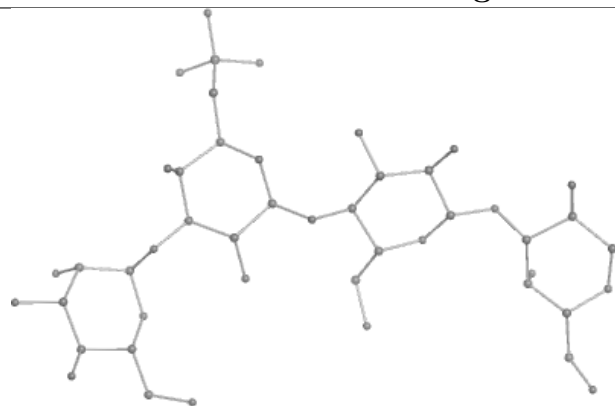
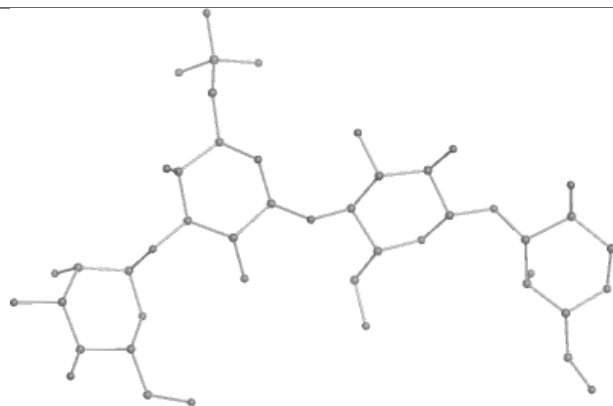
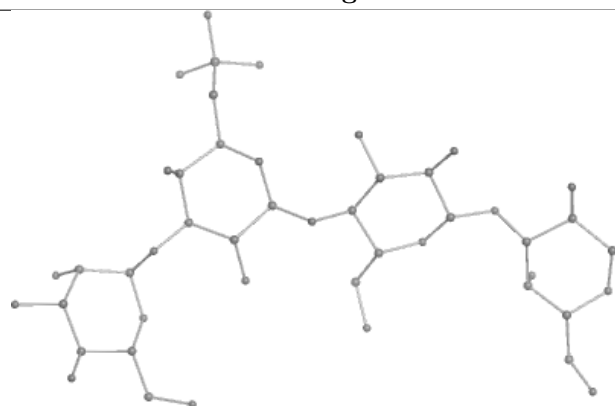
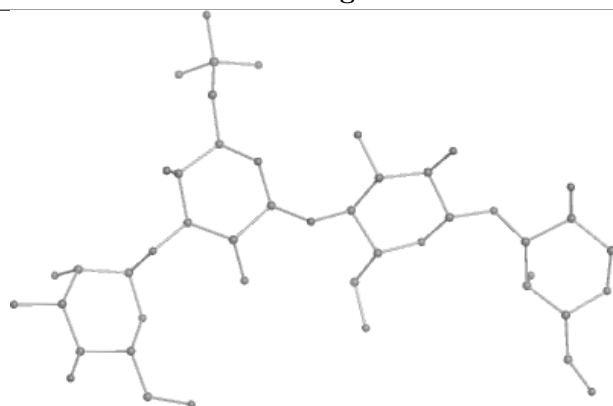


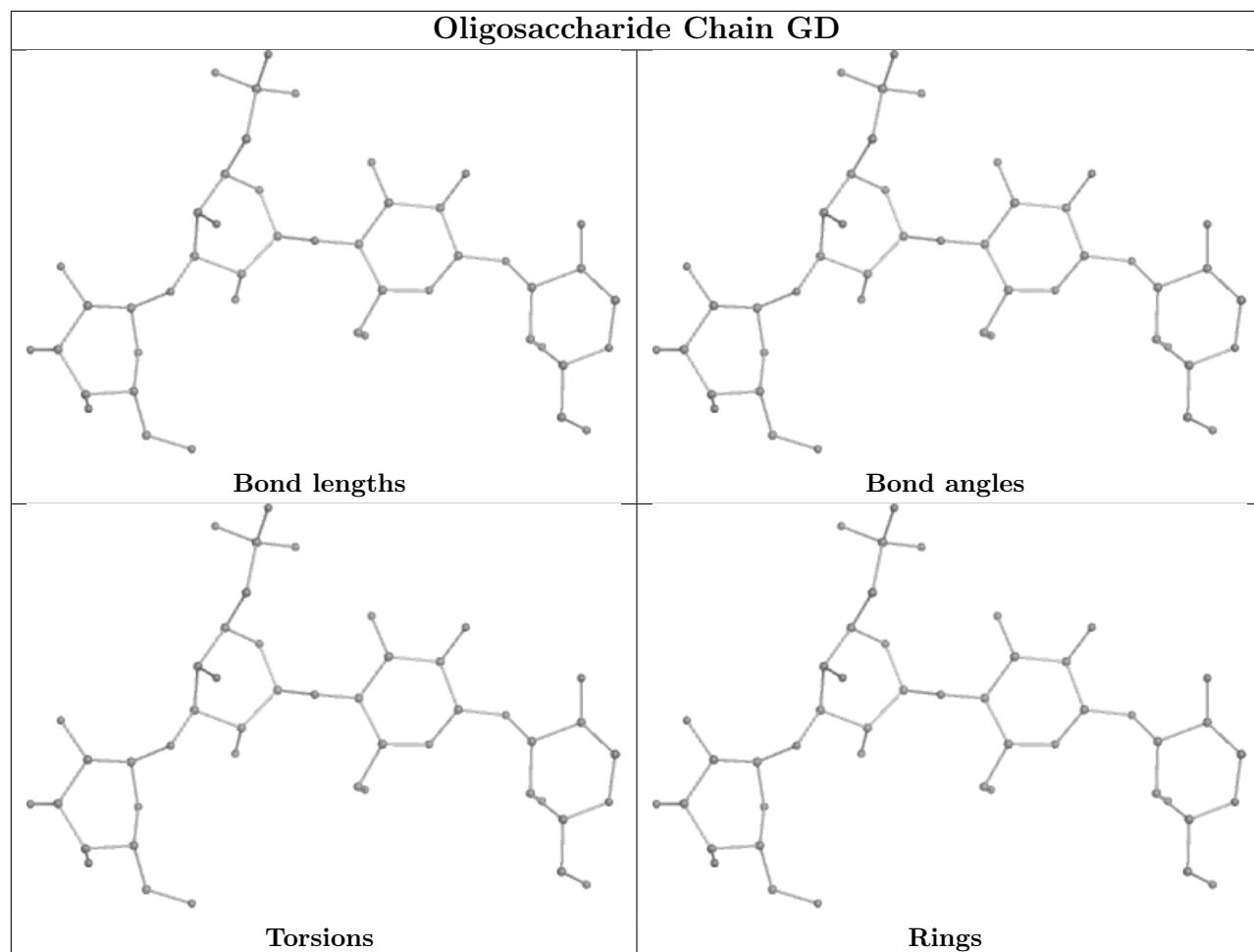


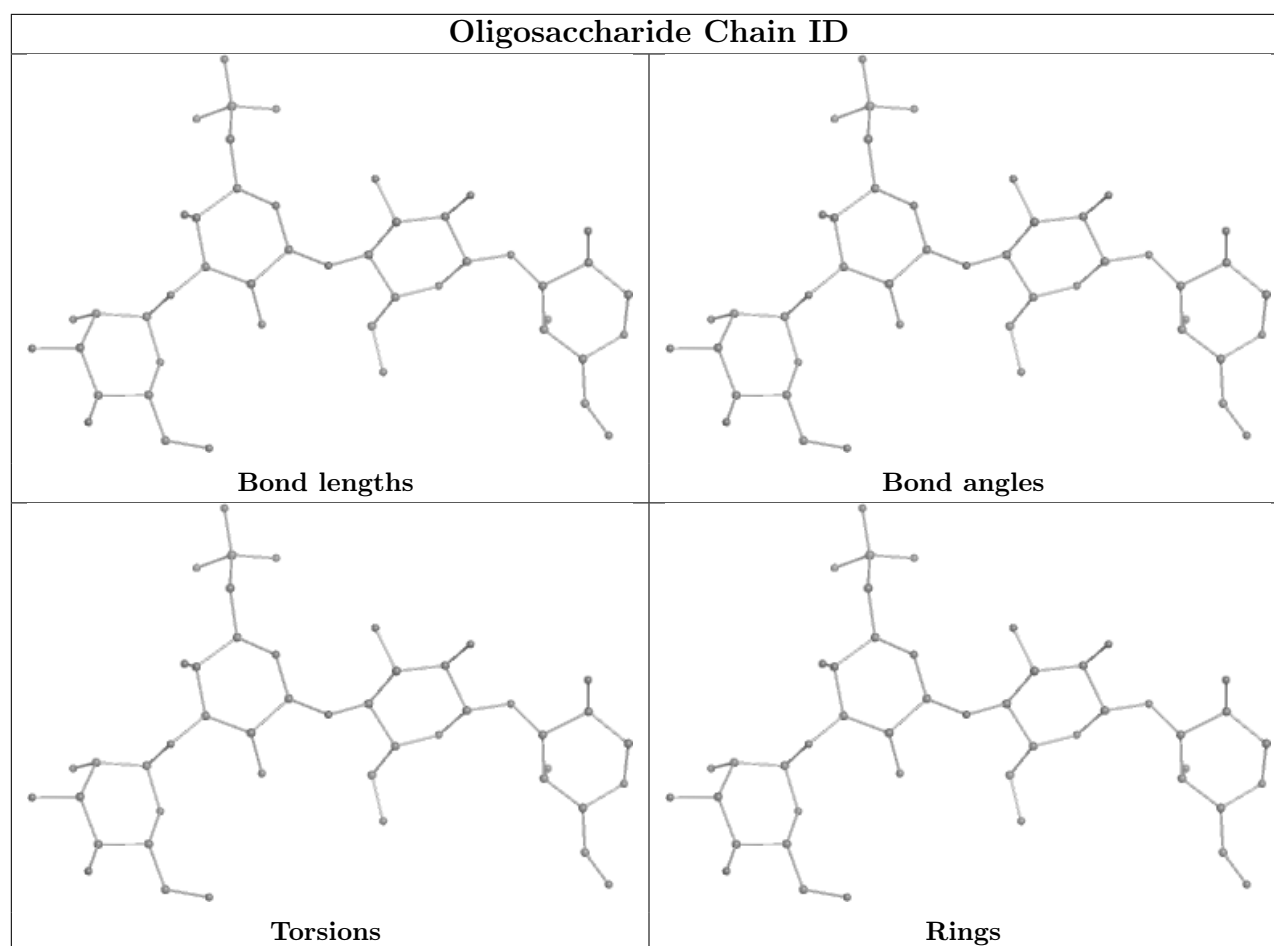
**Oligosaccharide Chain 2C****Bond lengths****Bond angles****Torsions****Rings**



**Oligosaccharide Chain 9C**

**Oligosaccharide Chain BD****Bond lengths****Bond angles****Torsions****Rings**

**Oligosaccharide Chain GD**



## 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).

| Mol | Type | Chain | Res | Link | Bond lengths |      |             | Bond angles |      |             |
|-----|------|-------|-----|------|--------------|------|-------------|-------------|------|-------------|
|     |      |       |     |      | Counts       | RMSZ | $\# Z  > 2$ | Counts      | RMSZ | $\# Z  > 2$ |
| 5   | GAL  | O     | 311 | 1    | 11,11,12     | 0.60 | 0           | 15,15,17    | 0.85 | 0           |
| 5   | GAL  | I     | 310 | 1    | 11,11,12     | 0.58 | 0           | 15,15,17    | 0.89 | 0           |
| 5   | GAL  | T     | 310 | 1    | 11,11,12     | 0.59 | 0           | 15,15,17    | 0.89 | 0           |
| 5   | GAL  | C     | 311 | 1    | 11,11,12     | 0.59 | 0           | 15,15,17    | 0.88 | 0           |
| 5   | GAL  | c     | 311 | 1    | 11,11,12     | 0.59 | 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  | H     | 309 | 1    | 11,11,12     | 0.59 | 0           | 15,15,17    | 0.86 | 0           |

| Mol | Type | Chain | Res | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|------|-------|-----|------|--------------|------|----------|-------------|------|----------|
|     |      |       |     |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 5   | GAL  | J     | 310 | 1    | 11,11,12     | 0.60 | 0        | 15,15,17    | 0.89 | 0        |
| 5   | GAL  | E     | 309 | 1    | 11,11,12     | 0.60 | 0        | 15,15,17    | 0.85 | 0        |
| 5   | GAL  | G     | 310 | 1    | 11,11,12     | 0.58 | 0        | 15,15,17    | 0.90 | 0        |
| 5   | GAL  | V     | 309 | 1    | 11,11,12     | 0.58 | 0        | 15,15,17    | 0.89 | 0        |
| 5   | GAL  | N     | 310 | 1    | 11,11,12     | 0.59 | 0        | 15,15,17    | 0.89 | 0        |
| 5   | GAL  | U     | 310 | 1    | 11,11,12     | 0.58 | 0        | 15,15,17    | 0.89 | 0        |
| 5   | GAL  | a     | 311 | 1    | 11,11,12     | 0.59 | 0        | 15,15,17    | 0.88 | 0        |
| 5   | GAL  | C     | 310 | 1    | 11,11,12     | 0.61 | 0        | 15,15,17    | 0.85 | 0        |
| 5   | GAL  | D     | 309 | 1    | 11,11,12     | 0.60 | 0        | 15,15,17    | 0.85 | 0        |
| 5   | GAL  | F     | 310 | 1    | 11,11,12     | 0.58 | 0        | 15,15,17    | 0.89 | 0        |
| 5   | GAL  | X     | 309 | 1    | 11,11,12     | 0.60 | 0        | 15,15,17    | 0.85 | 0        |
| 5   | GAL  | W     | 309 | 1    | 11,11,12     | 0.59 | 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  | Y     | 310 | 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  | R     | 309 | 1    | 11,11,12     | 0.61 | 0        | 15,15,17    | 0.85 | 0        |
| 5   | GAL  | G     | 309 | 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  | Y     | 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    | 0.89 | 0        |
| 5   | GAL  | F     | 309 | 1    | 11,11,12     | 0.60 | 0        | 15,15,17    | 0.85 | 0        |
| 5   | GAL  | E     | 310 | 1    | 11,11,12     | 0.58 | 0        | 15,15,17    | 0.90 | 0        |
| 5   | GAL  | S     | 309 | 1    | 11,11,12     | 0.60 | 0        | 15,15,17    | 0.86 | 0        |
| 5   | GAL  | B     | 310 | 1    | 11,11,12     | 0.59 | 0        | 15,15,17    | 0.86 | 0        |
| 5   | GAL  | e     | 311 | 1    | 11,11,12     | 0.59 | 0        | 15,15,17    | 0.89 | 0        |
| 5   | GAL  | D     | 310 | 1    | 11,11,12     | 0.58 | 0        | 15,15,17    | 0.90 | 0        |
| 5   | GAL  | b     | 310 | 1    | 11,11,12     | 0.60 | 0        | 15,15,17    | 0.85 | 0        |
| 5   | GAL  | L     | 309 | 1    | 11,11,12     | 0.60 | 0        | 15,15,17    | 0.85 | 0        |
| 5   | GAL  | T     | 309 | 1    | 11,11,12     | 0.60 | 0        | 15,15,17    | 0.84 | 0        |
| 5   | GAL  | P     | 310 | 1    | 11,11,12     | 0.59 | 0        | 15,15,17    | 0.88 | 0        |
| 5   | GAL  | Q     | 309 | 1    | 11,11,12     | 0.60 | 0        | 15,15,17    | 0.84 | 0        |
| 5   | GAL  | f     | 311 | 1    | 11,11,12     | 0.59 | 0        | 15,15,17    | 0.88 | 0        |
| 5   | GAL  | I     | 309 | 1    | 11,11,12     | 0.60 | 0        | 15,15,17    | 0.85 | 0        |
| 5   | GAL  | g     | 309 | 1    | 11,11,12     | 0.59 | 0        | 15,15,17    | 0.85 | 0        |
| 5   | GAL  | P     | 309 | 1    | 11,11,12     | 0.60 | 0        | 15,15,17    | 0.84 | 0        |
| 5   | GAL  | a     | 310 | 1    | 11,11,12     | 0.60 | 0        | 15,15,17    | 0.86 | 0        |
| 5   | GAL  | X     | 310 | 1    | 11,11,12     | 0.58 | 0        | 15,15,17    | 0.89 | 0        |
| 5   | GAL  | e     | 310 | 1    | 11,11,12     | 0.59 | 0        | 15,15,17    | 0.85 | 0        |
| 5   | GAL  | J     | 309 | 1    | 11,11,12     | 0.61 | 0        | 15,15,17    | 0.85 | 0        |
| 5   | GAL  | M     | 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  | c     | 310 | 1    | 11,11,12     | 0.61 | 0        | 15,15,17    | 0.85 | 0        |
| 5   | GAL  | K     | 310 | 1    | 11,11,12     | 0.59 | 0        | 15,15,17    | 0.89 | 0        |

| Mol | Type | Chain | Res | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|------|-------|-----|------|--------------|------|----------|-------------|------|----------|
|     |      |       |     |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 5   | GAL  | f     | 310 | 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        |
| 5   | GAL  | L     | 310 | 1    | 11,11,12     | 0.58 | 0        | 15,15,17    | 0.89 | 0        |
| 5   | GAL  | Q     | 310 | 1    | 11,11,12     | 0.57 | 0        | 15,15,17    | 0.89 | 0        |
| 5   | GAL  | d     | 310 | 1    | 11,11,12     | 0.60 | 0        | 15,15,17    | 0.85 | 0        |
| 5   | GAL  | g     | 310 | 1    | 11,11,12     | 0.59 | 0        | 15,15,17    | 0.90 | 0        |
| 5   | GAL  | d     | 311 | 1    | 11,11,12     | 0.59 | 0        | 15,15,17    | 0.89 | 0        |
| 5   | GAL  | U     | 309 | 1    | 11,11,12     | 0.60 | 0        | 15,15,17    | 0.84 | 0        |
| 5   | GAL  | V     | 308 | 1    | 11,11,12     | 0.60 | 0        | 15,15,17    | 0.85 | 0        |
| 5   | GAL  | H     | 310 | 1    | 11,11,12     | 0.59 | 0        | 15,15,17    | 0.89 | 0        |
| 5   | GAL  | M     | 310 | 1    | 11,11,12     | 0.58 | 0        | 15,15,17    | 0.89 | 0        |
| 5   | GAL  | O     | 312 | 1    | 11,11,12     | 0.58 | 0        | 15,15,17    | 0.89 | 0        |
| 5   | GAL  | B     | 311 | 1    | 11,11,12     | 0.57 | 0        | 15,15,17    | 0.90 | 0        |
| 5   | GAL  | N     | 309 | 1    | 11,11,12     | 0.59 | 0        | 15,15,17    | 0.85 | 0        |

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

| Mol | Type | Chain | Res | Link | Chirals | Torsions  | Rings   |
|-----|------|-------|-----|------|---------|-----------|---------|
| 5   | GAL  | O     | 311 | 1    | -       | 0/2/19/22 | 0/1/1/1 |
| 5   | GAL  | I     | 310 | 1    | -       | 0/2/19/22 | 0/1/1/1 |
| 5   | GAL  | T     | 310 | 1    | -       | 0/2/19/22 | 0/1/1/1 |
| 5   | GAL  | C     | 311 | 1    | -       | 0/2/19/22 | 0/1/1/1 |
| 5   | GAL  | c     | 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  | H     | 309 | 1    | -       | 0/2/19/22 | 0/1/1/1 |
| 5   | GAL  | J     | 310 | 1    | -       | 0/2/19/22 | 0/1/1/1 |
| 5   | GAL  | E     | 309 | 1    | -       | 0/2/19/22 | 0/1/1/1 |
| 5   | GAL  | G     | 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  | N     | 310 | 1    | -       | 0/2/19/22 | 0/1/1/1 |
| 5   | GAL  | U     | 310 | 1    | -       | 0/2/19/22 | 0/1/1/1 |
| 5   | GAL  | a     | 311 | 1    | -       | 0/2/19/22 | 0/1/1/1 |
| 5   | GAL  | C     | 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  | F     | 310 | 1    | -       | 0/2/19/22 | 0/1/1/1 |
| 5   | GAL  | X     | 309 | 1    | -       | 0/2/19/22 | 0/1/1/1 |
| 5   | GAL  | W     | 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  | Y     | 310 | 1    | -       | 0/2/19/22 | 0/1/1/1 |
| 5   | GAL  | R     | 310 | 1    | -       | 0/2/19/22 | 0/1/1/1 |

*Continued on next page...*

*Continued from previous page...*

| Mol | Type | Chain | Res | Link | Chirals | Torsions  | Rings   |
|-----|------|-------|-----|------|---------|-----------|---------|
| 5   | GAL  | R     | 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  | A     | 310 | 1    | -       | 0/2/19/22 | 0/1/1/1 |
| 5   | GAL  | Y     | 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  | F     | 309 | 1    | -       | 0/2/19/22 | 0/1/1/1 |
| 5   | GAL  | E     | 310 | 1    | -       | 0/2/19/22 | 0/1/1/1 |
| 5   | GAL  | S     | 309 | 1    | -       | 0/2/19/22 | 0/1/1/1 |
| 5   | GAL  | B     | 310 | 1    | -       | 0/2/19/22 | 0/1/1/1 |
| 5   | GAL  | e     | 311 | 1    | -       | 0/2/19/22 | 0/1/1/1 |
| 5   | GAL  | D     | 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  | L     | 309 | 1    | -       | 0/2/19/22 | 0/1/1/1 |
| 5   | GAL  | T     | 309 | 1    | -       | 0/2/19/22 | 0/1/1/1 |
| 5   | GAL  | P     | 310 | 1    | -       | 0/2/19/22 | 0/1/1/1 |
| 5   | GAL  | Q     | 309 | 1    | -       | 0/2/19/22 | 0/1/1/1 |
| 5   | GAL  | f     | 311 | 1    | -       | 0/2/19/22 | 0/1/1/1 |
| 5   | GAL  | I     | 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  | P     | 309 | 1    | -       | 0/2/19/22 | 0/1/1/1 |
| 5   | GAL  | a     | 310 | 1    | -       | 0/2/19/22 | 0/1/1/1 |
| 5   | GAL  | X     | 310 | 1    | -       | 0/2/19/22 | 0/1/1/1 |
| 5   | GAL  | e     | 310 | 1    | -       | 0/2/19/22 | 0/1/1/1 |
| 5   | GAL  | J     | 309 | 1    | -       | 0/2/19/22 | 0/1/1/1 |
| 5   | GAL  | M     | 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  | c     | 310 | 1    | -       | 0/2/19/22 | 0/1/1/1 |
| 5   | GAL  | K     | 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  | K     | 309 | 1    | -       | 0/2/19/22 | 0/1/1/1 |
| 5   | GAL  | L     | 310 | 1    | -       | 0/2/19/22 | 0/1/1/1 |
| 5   | GAL  | Q     | 310 | 1    | -       | 0/2/19/22 | 0/1/1/1 |
| 5   | GAL  | d     | 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  | d     | 311 | 1    | -       | 0/2/19/22 | 0/1/1/1 |
| 5   | GAL  | U     | 309 | 1    | -       | 0/2/19/22 | 0/1/1/1 |
| 5   | GAL  | V     | 308 | 1    | -       | 0/2/19/22 | 0/1/1/1 |
| 5   | GAL  | H     | 310 | 1    | -       | 0/2/19/22 | 0/1/1/1 |
| 5   | GAL  | M     | 310 | 1    | -       | 0/2/19/22 | 0/1/1/1 |
| 5   | GAL  | O     | 312 | 1    | -       | 0/2/19/22 | 0/1/1/1 |
| 5   | GAL  | B     | 311 | 1    | -       | 0/2/19/22 | 0/1/1/1 |
| 5   | GAL  | N     | 309 | 1    | -       | 0/2/19/22 | 0/1/1/1 |

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.

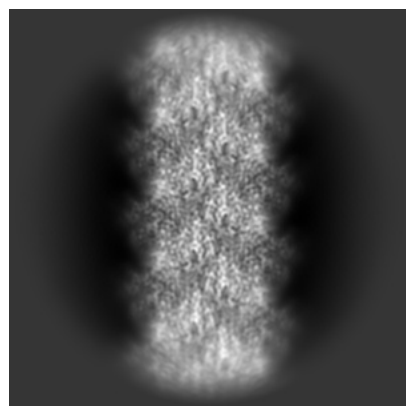
## 6 Map visualisation [i](#)

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.

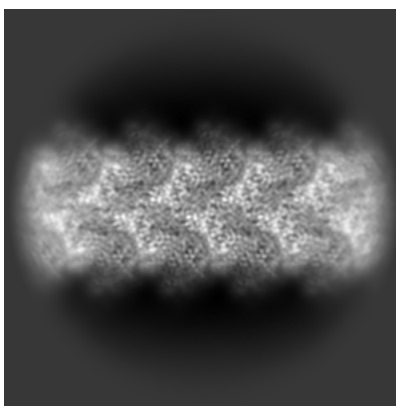
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

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

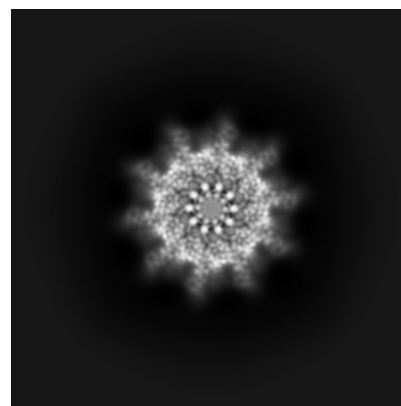
#### 6.1.1 Primary map



X

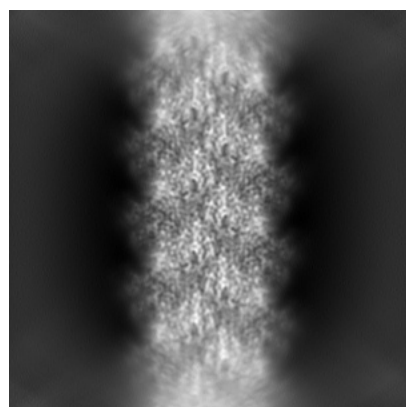


Y

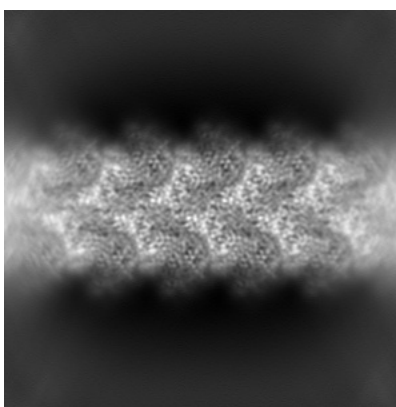


Z

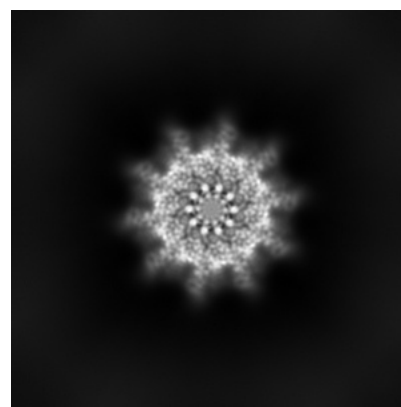
#### 6.1.2 Raw map



X



Y

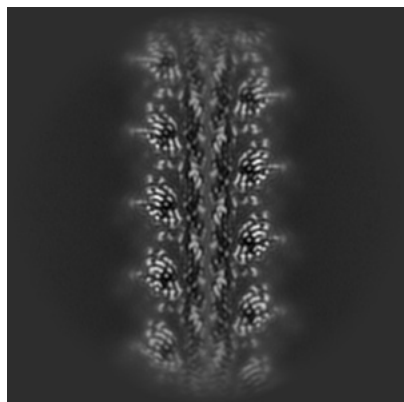


Z

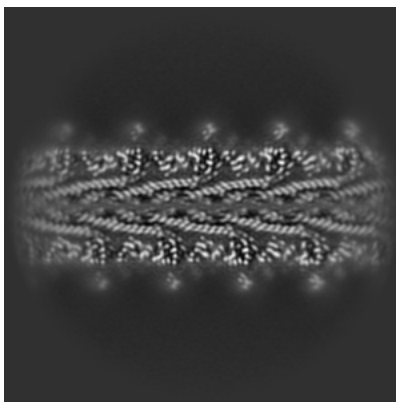
The images above show the map projected in three orthogonal directions.

## 6.2 Central slices [i](#)

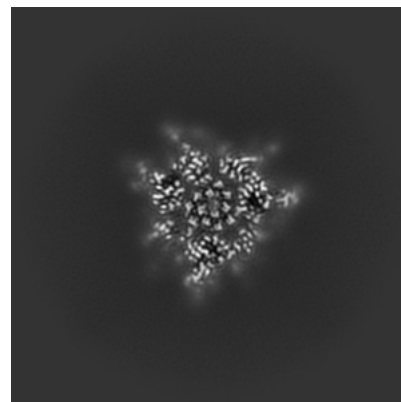
### 6.2.1 Primary map



X Index: 150

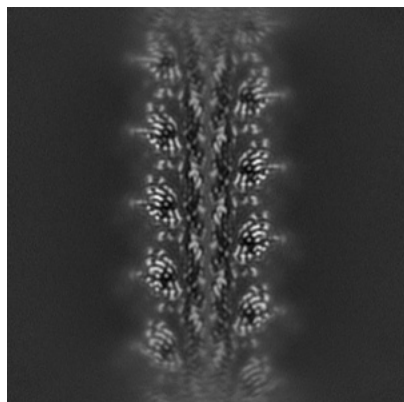


Y Index: 150

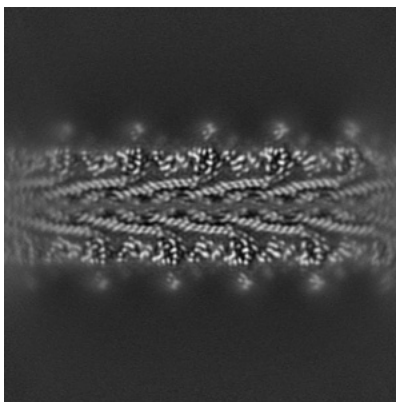


Z Index: 150

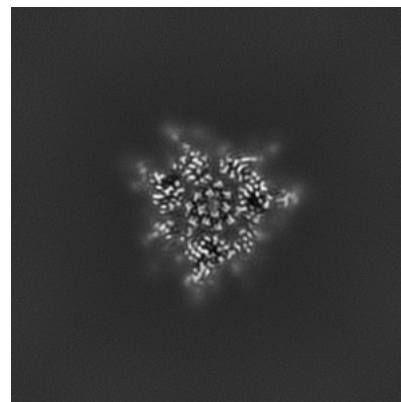
### 6.2.2 Raw map



X Index: 150



Y Index: 150

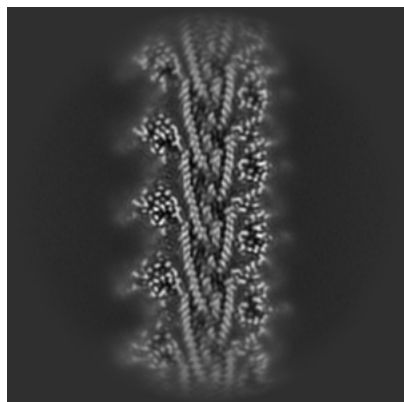


Z Index: 150

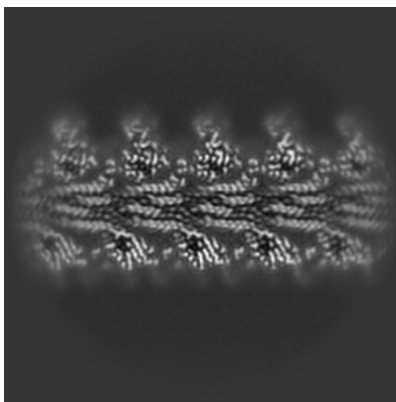
The images above show central slices of the map in three orthogonal directions.

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

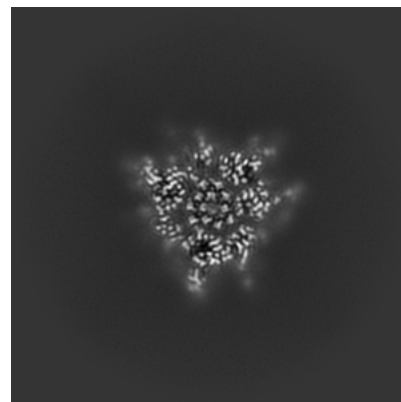
### 6.3.1 Primary map



X Index: 145

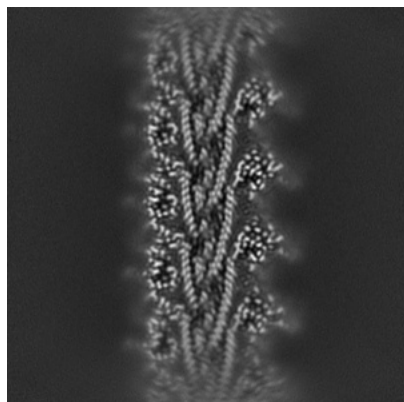


Y Index: 161

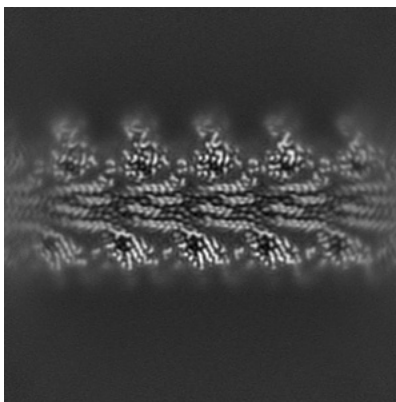


Z Index: 145

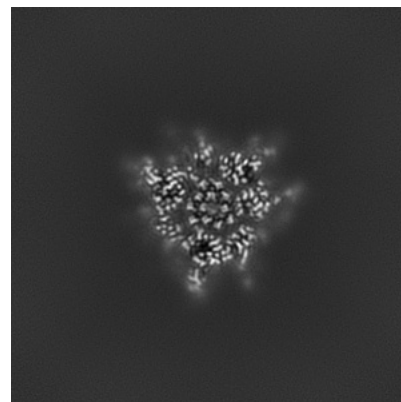
### 6.3.2 Raw map



X Index: 155



Y Index: 161

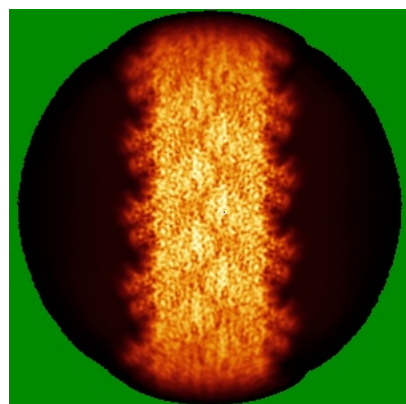


Z Index: 145

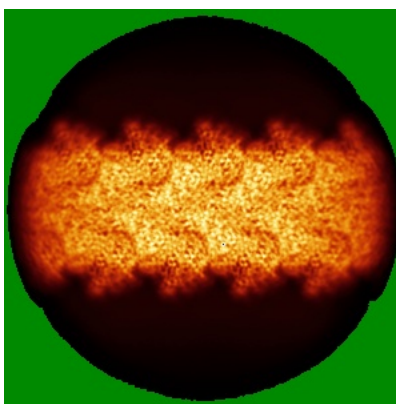
The images above show the largest variance slices of the map in three orthogonal directions.

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

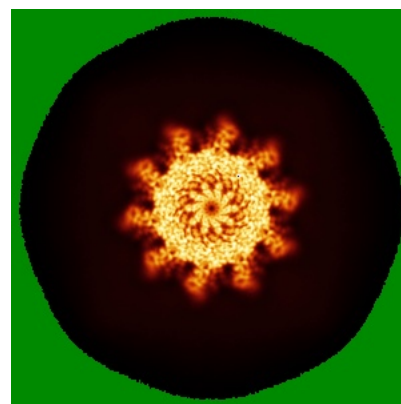
### 6.4.1 Primary map



X

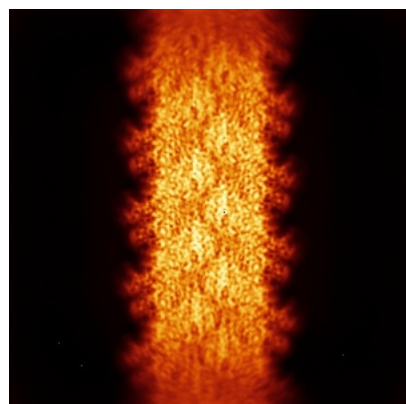


Y

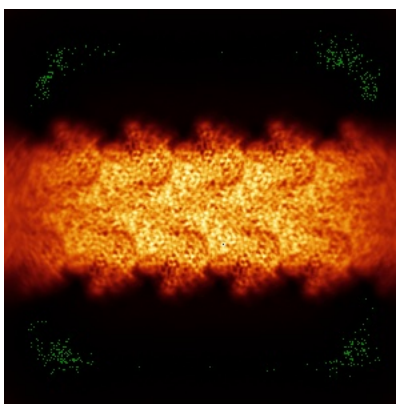


Z

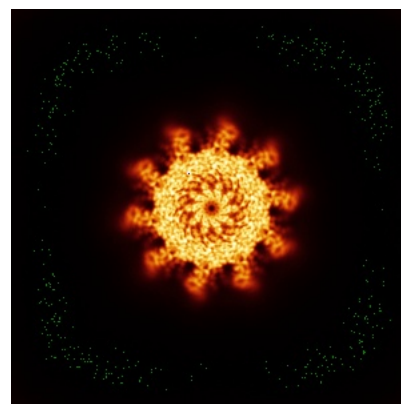
### 6.4.2 Raw map



X



Y

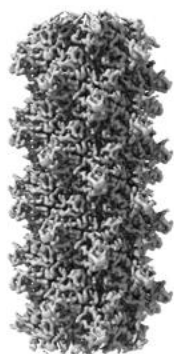


Z

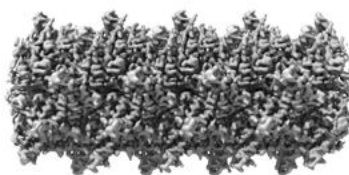
The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

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

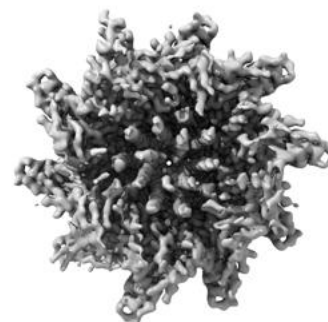
### 6.5.1 Primary map



X



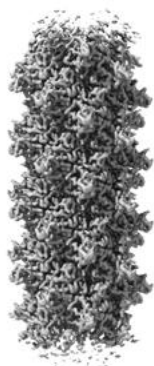
Y



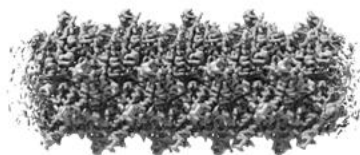
Z

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



X



Y



Z

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.

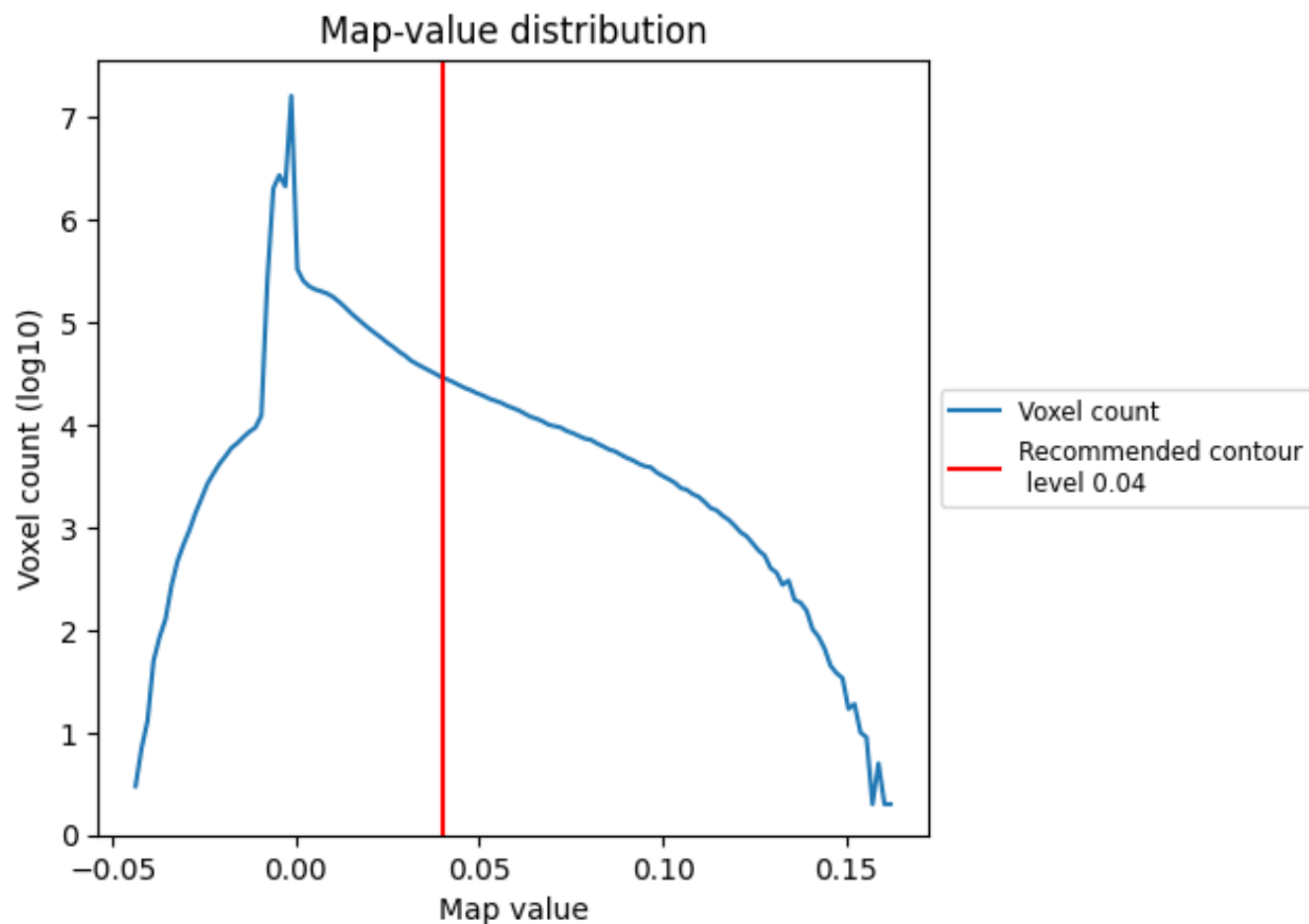
## 6.6 Mask visualisation [i](#)

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

## 7 Map analysis [i](#)

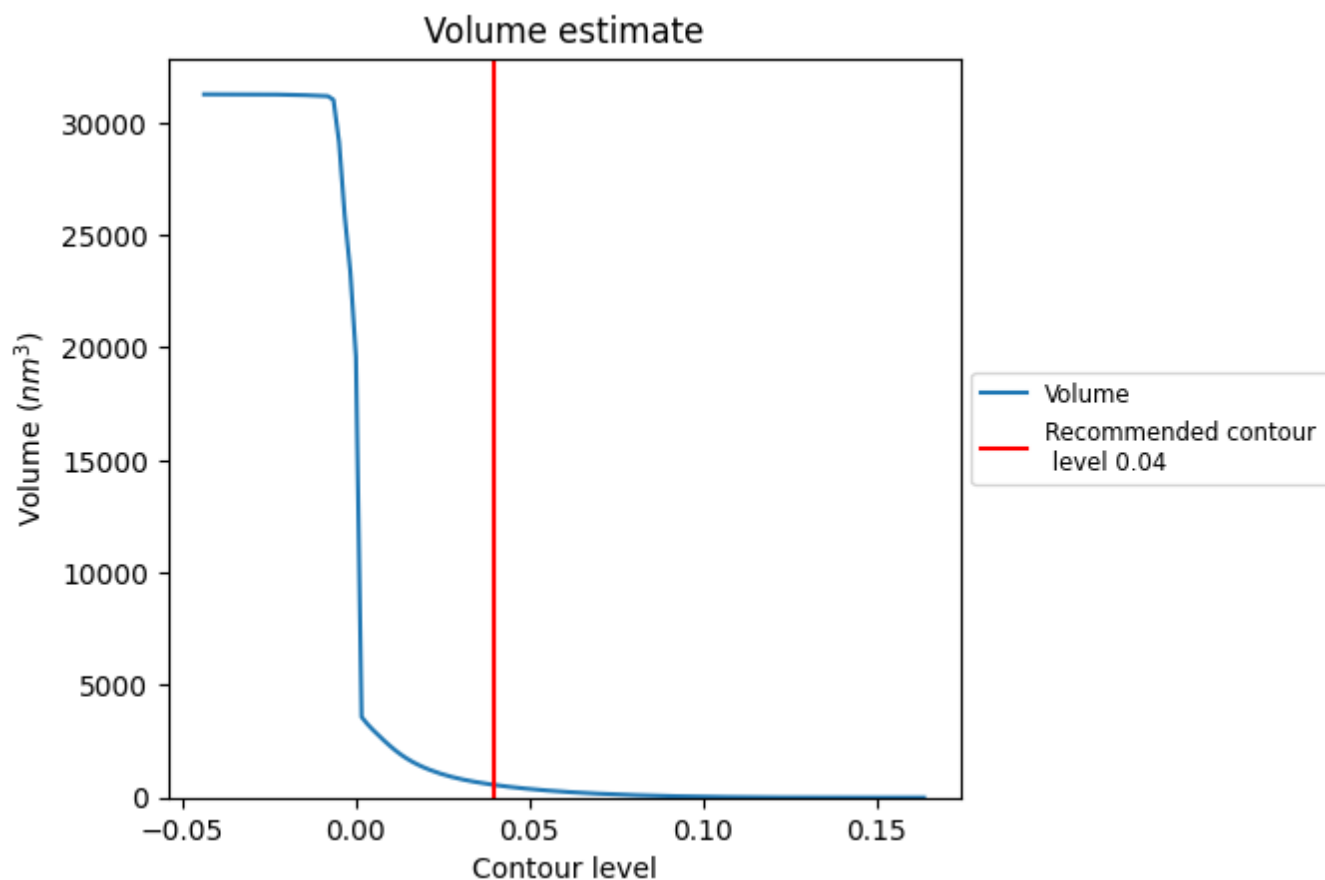
This section contains the results of statistical analysis of the map.

### 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.

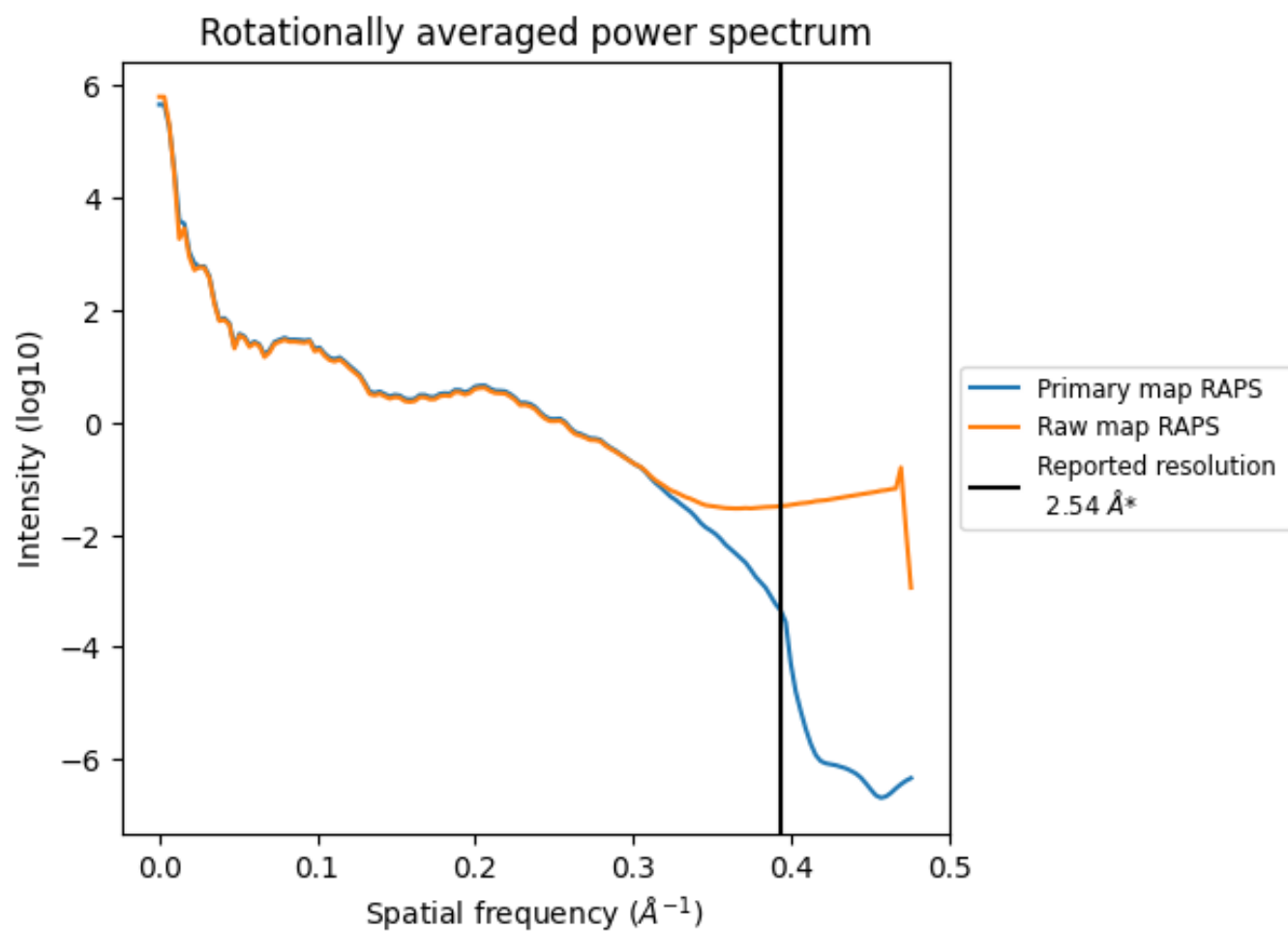
## 7.2 Volume estimate [i](#)



The volume at the recommended contour level is 560 nm<sup>3</sup>; 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 ⓘ

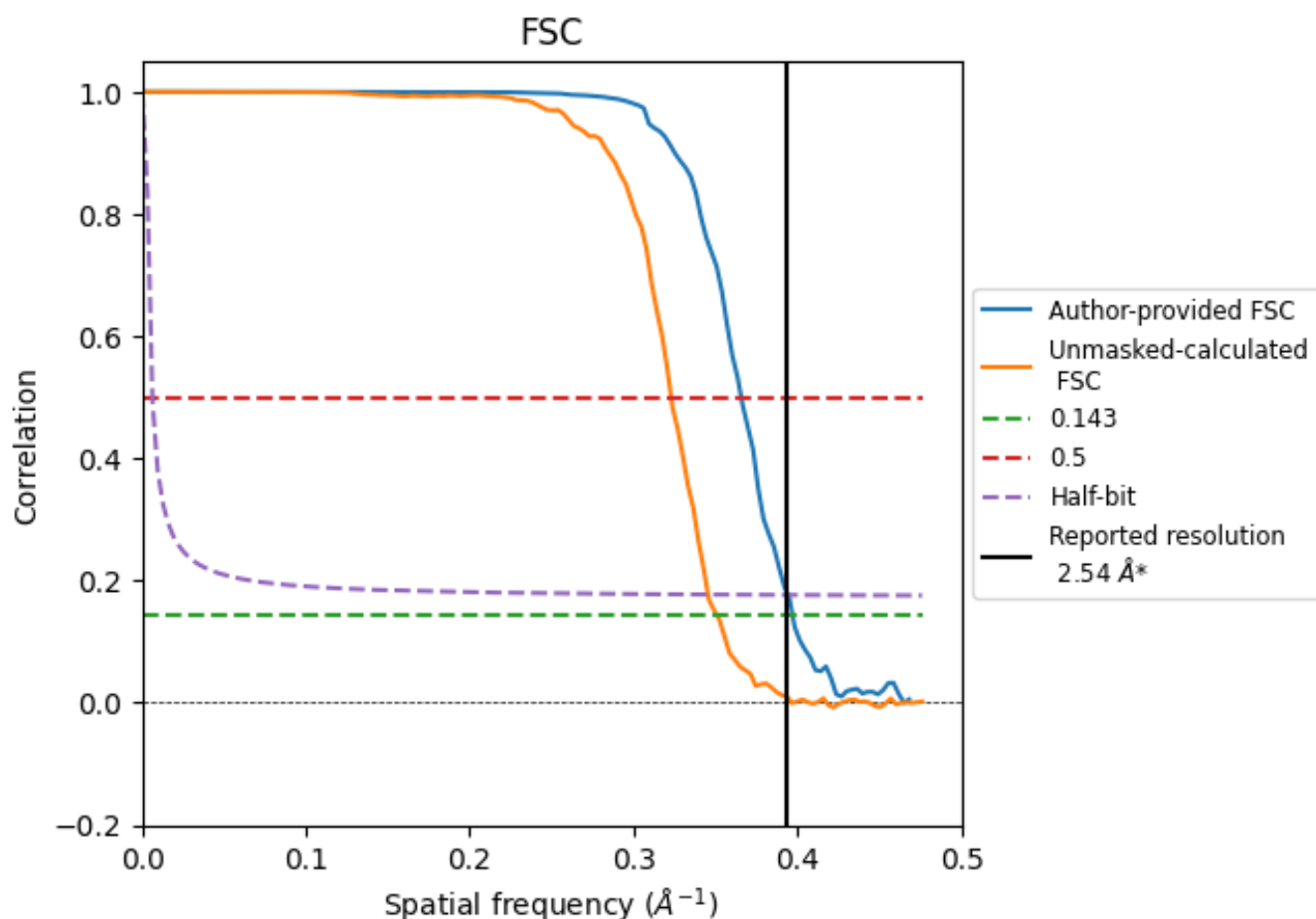


\*Reported resolution corresponds to spatial frequency of  $0.394 \text{ Å}^{-1}$

## 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  $\text{\AA}^{-1}$

## 8.2 Resolution estimates [i](#)

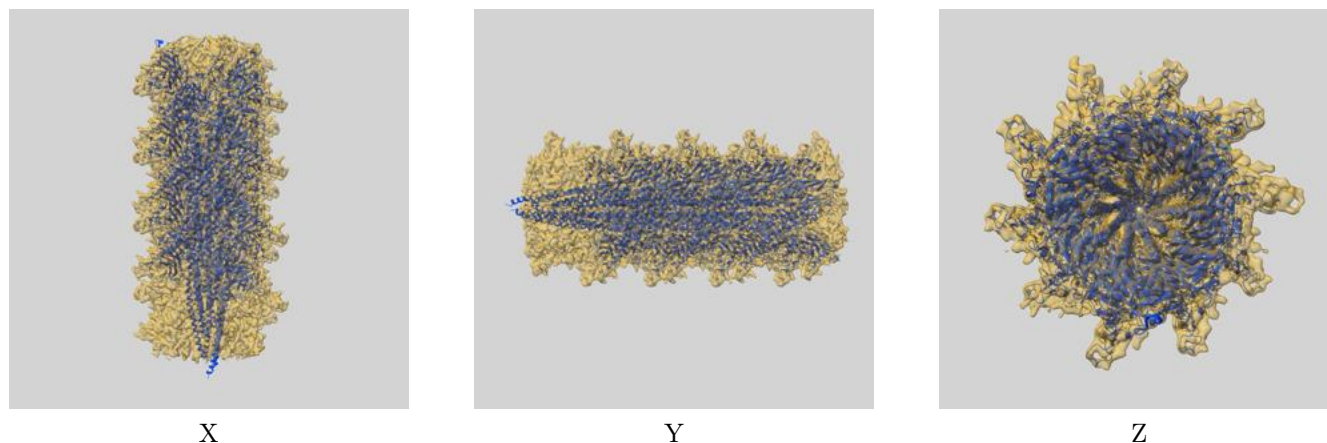
| Resolution estimate (Å)   | Estimation criterion (FSC cut-off) |      |          |
|---------------------------|------------------------------------|------|----------|
|                           | 0.143                              | 0.5  | Half-bit |
| Reported by author        | 2.54                               | -    | -        |
| 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](#)

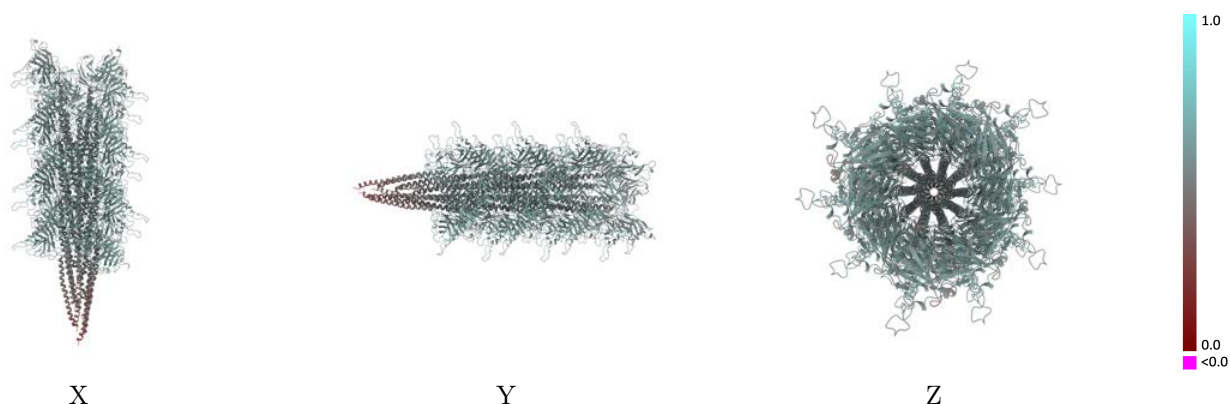
This section contains information regarding the fit between EMDB map EMD-19168 and PDB model 8RH5. Per-residue inclusion information can be found in section [3](#) on page [27](#).

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



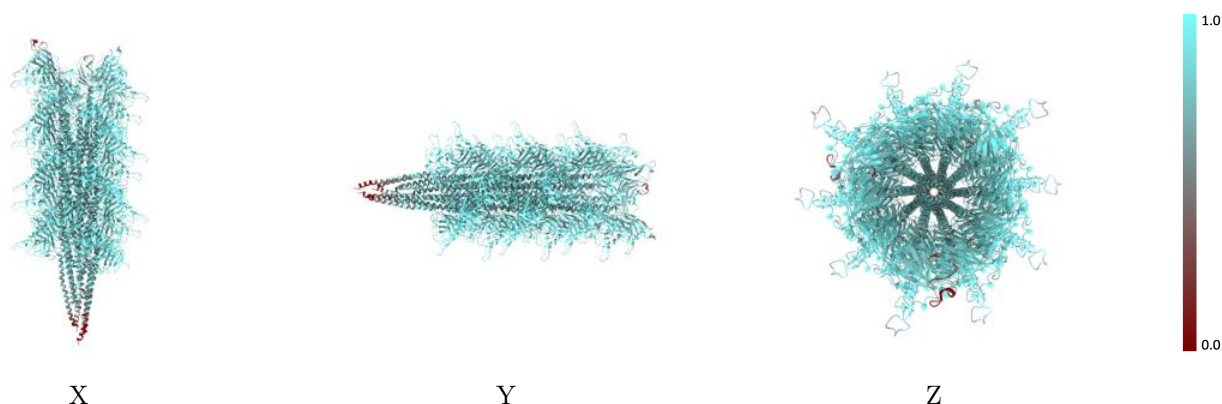
The images above show the 3D surface view of the map at the recommended contour level 0.04 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



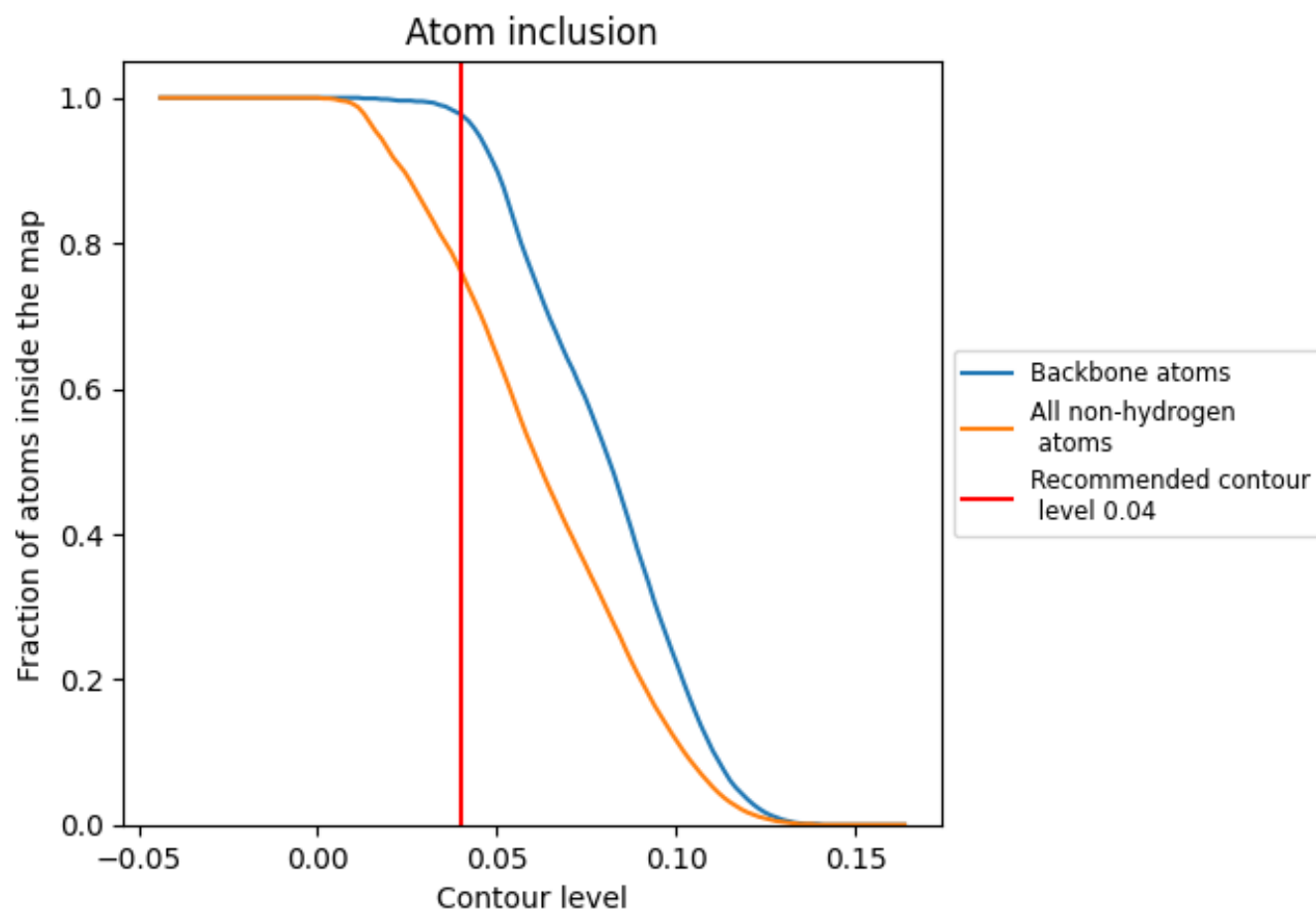
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

## 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 ⓘ

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.

| Chain | Atom inclusion                                                                             | Q-score                                                                                    |
|-------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| All   |  0.7610   |  0.5150   |
| 0     |  0.3170   |  0.3410   |
| 0A    |  0.3400   |  0.3680   |
| 0B    |  0.3170   |  0.3230   |
| 0C    |  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   |
| 2B    |  0.3330   |  0.3320   |
| 2C    |  0.2340   |  0.3230   |
| 3A    |  0.1270   |  0.2540   |
| 3B    |  0.3830  |  0.4200  |
| 3C    |  0.2500 |  0.3090 |
| 4     |  0.3830 |  0.2650 |
| 4B    |  0.0990 |  0.2730 |
| 4C    |  0.3190 |  0.3840 |
| 5     |  0.3330 |  0.3090 |
| 5A    |  0.4170 |  0.2680 |
| 5C    |  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 |
| 7C    |  0.3000 |  0.2680 |
| 8     |  0.3620 |  0.4010 |
| 8A    |  0.3330 |  0.3410 |
| 8B    |  0.3400 |  0.3660 |
| 8C    |  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   |
| A     |  0.7910   |  0.5260   |
| AB    |  0.1270   |  0.2460   |
| AC    |  0.4040   |  0.4180   |
| AD    |  0.2500   |  0.3090   |
| B     |  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 |
| H     |  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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*Continued from previous page...*

| 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   |
| M     |  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   |
| O     |  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 |
| T     |  0.8820 |  0.5670 |
| TA    |  0.4250 |  0.4120 |
| TB    |  0.3330 |  0.3380 |
| TC    |  0.3400 |  0.3610 |
| U     |  0.8800 |  0.5670 |
| UA    |  0.1270 |  0.2840 |
| UB    |  0.4250 |  0.4200 |

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| Chain | Atom inclusion                                                                             | Q-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   |
| X     |  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 |
| c     |  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 |
| e     |  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                                                                             | Q-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   |
| jB    |  0.1270   |  0.2590   |
| jC    |  0.3400   |  0.4020   |
| k     |  0.3170   |  0.3070   |
| kA    |  0.4000   |  0.2650   |
| kC    |  0.0850   |  0.2230   |
| l     |  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 |
| o     |  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 |
| t     |  0.3170 |  0.3300 |

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| 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   |
| x     |  0.4000   |  0.2640   |
| xB    |  0.1130   |  0.2650   |
| xC    |  0.3190   |  0.3790   |
| y     |  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 |