(21) **Today**

Sections 4.3 – 4.8 Stability of Cycloalkanes and Conformations of Cyclohexanes

Sections 5.1 – 5.5
Chirality and Determining the Configuration of Chiral Centers

Next Class (22)

Sections 5.1 – 5.5
Chirality and Determining the Configuration of Chiral Centers

(23) **Second Class from Today**

Sections 5.1 – 5.5
Chirality and Determining the Configuration of Chiral Centers

Sections 5.6 – 5.12
Diastereomers, N,P, and S, and Prochirality

Third Class from Today (24)

Sections 5.1 – 5.5
Chirality and Determining the Configuration of Chiral Centers

Sections 5.6 – 5.12
Diastereomers, N,P, and S, and Prochirality

Office hours on Thursday, October 24 Rescheduled.

Office hours today extended to 12:25.

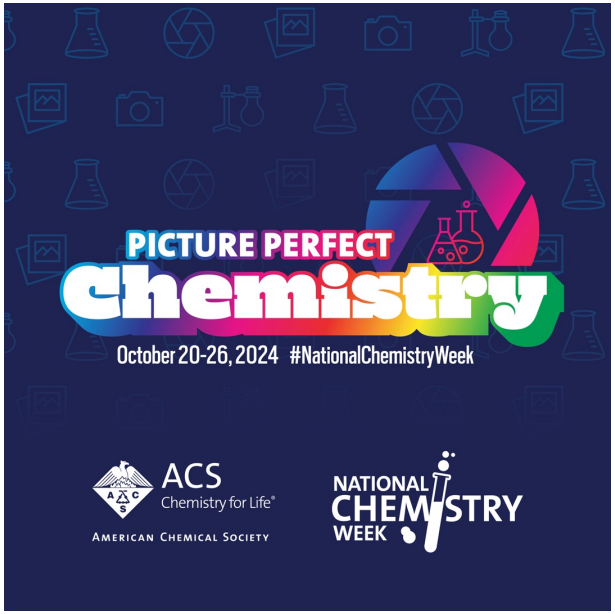
Office hours on Friday, October 25 extended to 12:25.

Please hand in reworked test 1.

Join us for Trivia, Giveaways, Food, and a Fun Night of Science!

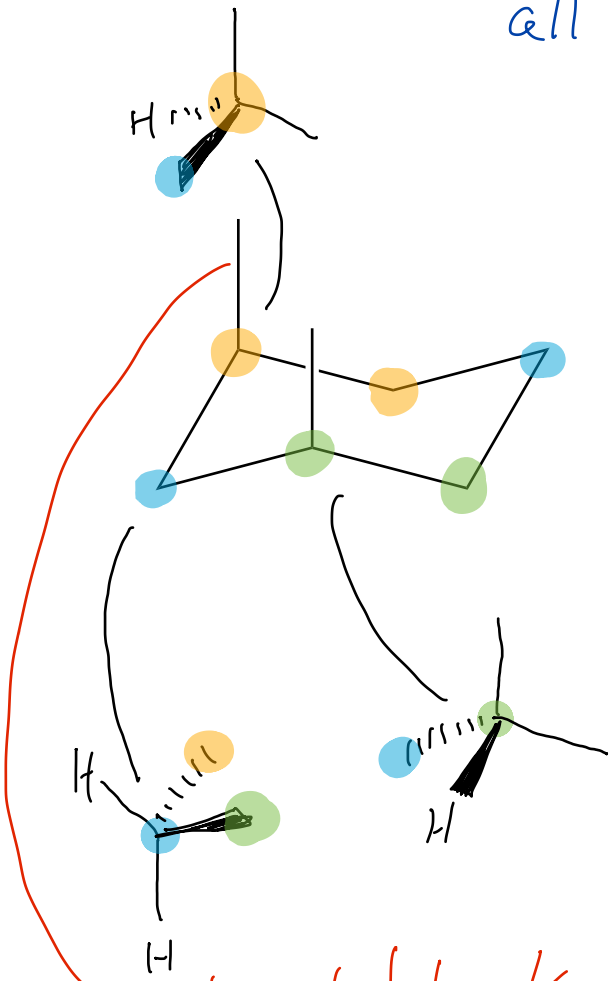
Questions?
aevanoskicole@westfield.ma.edu

Date: Weds. 10/23 (Mole Day!)
Time: 6:45 – 8pm
Where: Wilson Auditorium A-130



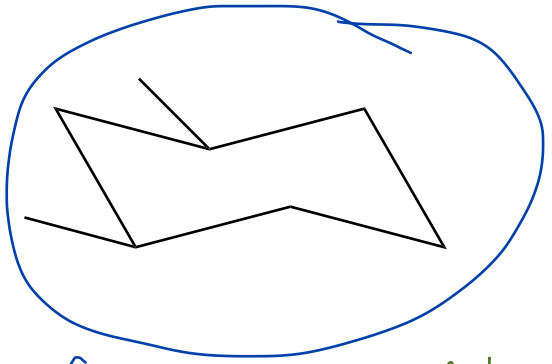
all ax → eq + all eq → ax

- in plane of screen
- in front of screen
- behind screen



partial rotation around C-C bonds

"ring flip"



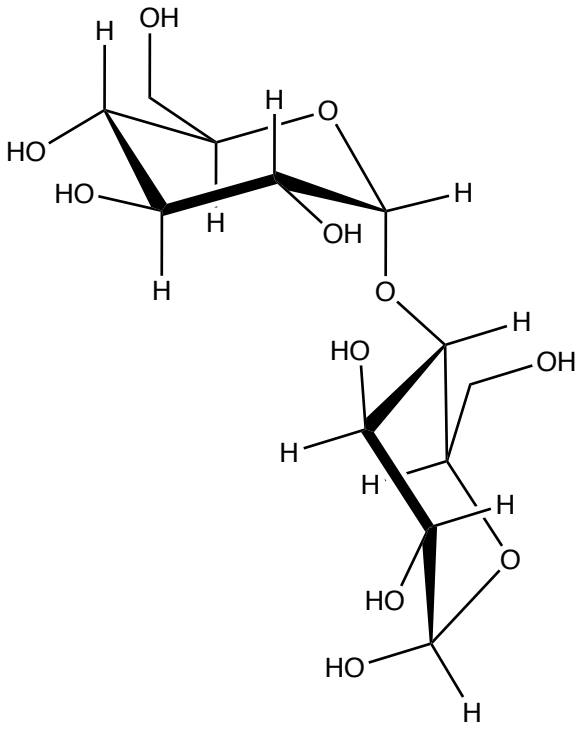
placing substituents in equitorial positions lessens the gauche interactions and eliminates axial axial interactions

- axial substituents experience $e^- - e^-$ repulsion with other axial groups
- axial substituents experience more gauche interactions

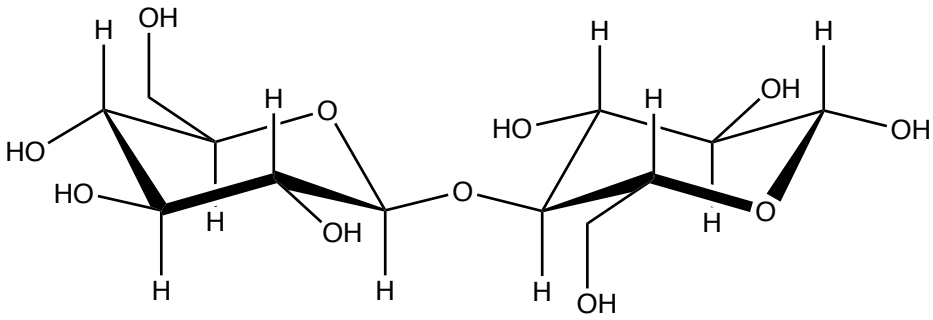
Low E conformation is the ___ ? this one

https://www.westfield.ma.edu/cmasi/organic/cyclohexanes/sub_cyclohexanes-plain.html

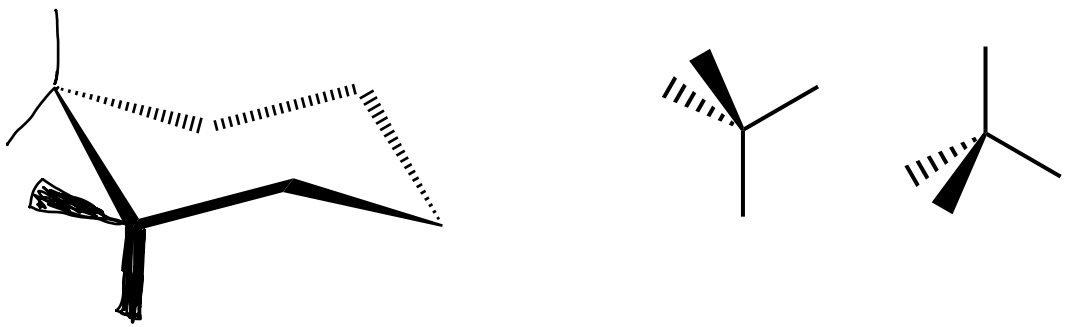
This stuff is relevant in drug design and in the biochemistry of sugars



α-1,4 linkage



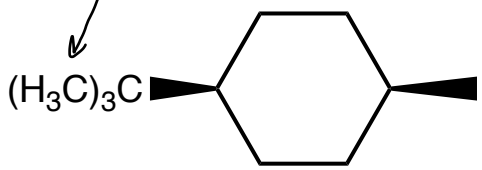
β-1,4 linkage

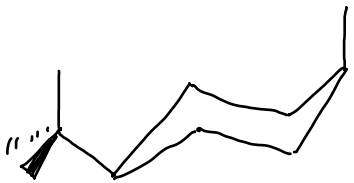


Things to keep in mind while drawing cyclohexane conformations

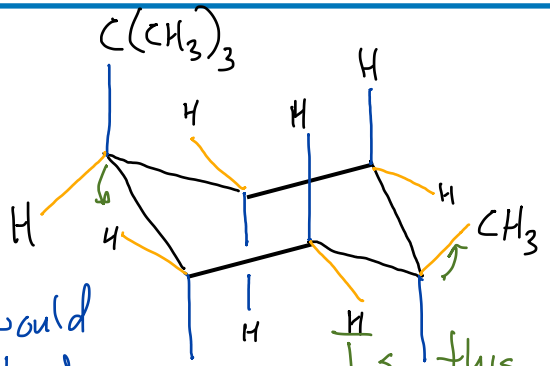
1. draw 2 || lines
2. draw triangle up
3. draw triangle down
4. identify axial positions
5. identify equatorial positions

t-butyl group

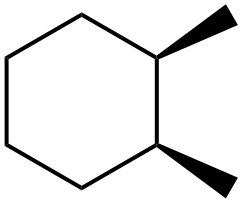


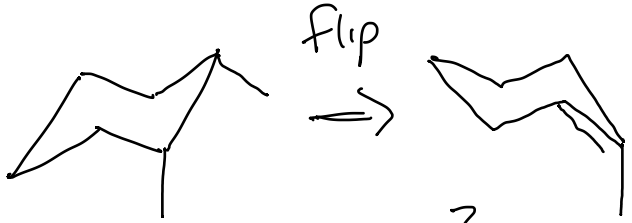


axial H would be straight down, so eq t-butyl is up



Is this the lowest E conformation? No

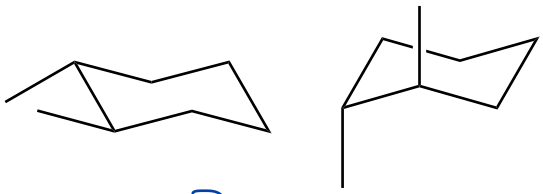




lowest E conformation? yes

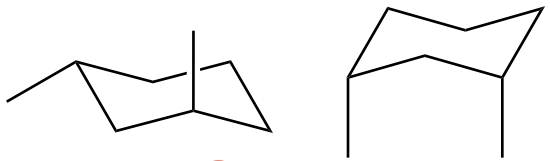
there is a lower E configuration. the trans configuration would have a lower E conformation. It's also a different molecule

low E di equitorial CH_3



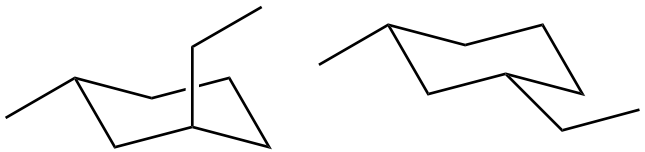
conformations

lower E



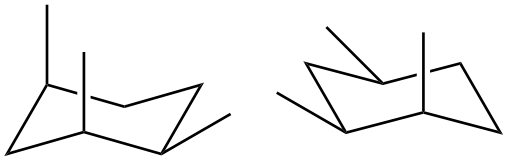
configurations

lower E



configurations

low E



conformations

conformations

can be interconverted by ring flips

configurations

cannot be interconverted by ring flips