

Chemistry 333R

Week 4 Group Questions

1. Draw cyclohexane in the chair conformation and show all equatorial hydrogens clearly.
Draw a second picture to show all axial hydrogens.
2. Draw cyclohexane in the boat conformation. Denote all eclipsing interactions and any interactions that cause steric strain.
3. Draw the two possible chair conformations of *cis*-1,4-dimethylcyclohexane. Clearly denote all 1,3-diaxial interactions for both conformations. Calculate the total strain energy for each conformation. Circle the more stable conformation. Finally, determine the ratio of the two conformations at room temperature. Repeat the exercise for *trans*-1,4-dimethylcyclohexane.