

الهكسان الحلقي ذو البديل الوحيد

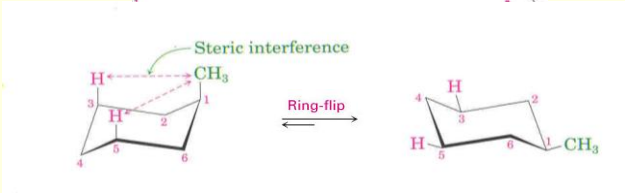
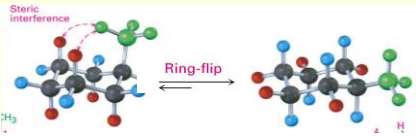
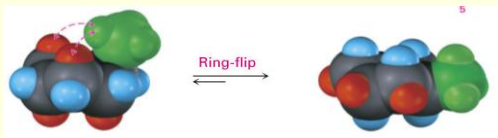
Mono substituted cyclohexane

1

Monosubstituted Cyclohexanes

Methylcyclohexane

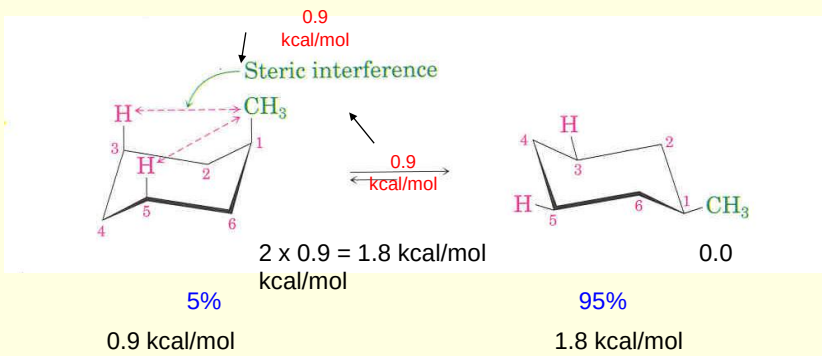
Axial Conformer $\rightleftharpoons$ Equatorial Conformer



4-2

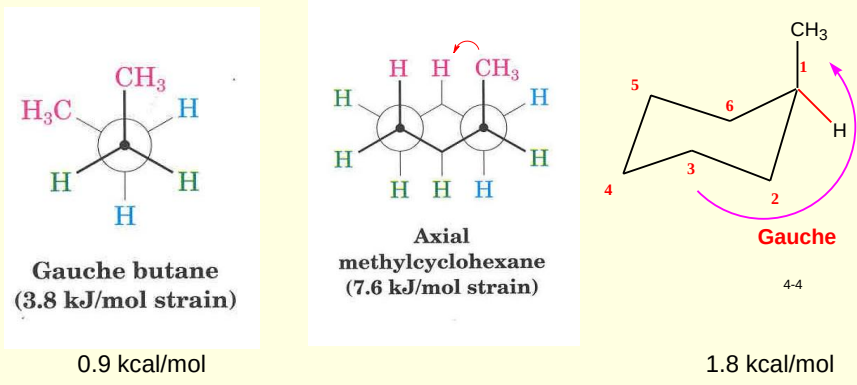
The equatorial conformer is **more stable by 1.8 kcal/mol** due to a steric interaction between the axial methyl and two axial hydrogens. These interactions are termed **1,3-diaxial interactions**.

سؤال / أيهم أكثر ثباتاً الوضع الأفقي أم الوضع العمودي للمركب 1-methylcyclohexane



4-3

These **1,3-diaxial interactions** are really **gauche interactions** in disguise! Remember that a gauche interaction for butane is worth 0.9 kcal/mol.



4-4

