

Chapter 2. Conformations, Advanced Practice

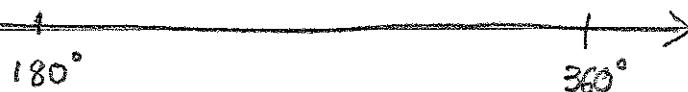
1. Draw all cis and trans isomers of dichloropentane.

2. Draw the potential energy curve for the rotation of  $\alpha$ -methylbutane

about its  $\text{C}_2\text{-C}_3$  bond. Draw Newman projections for each maximum and minimum.

	$\sim$ energy cost (kJ/mol)
$\text{H} \leftrightarrow \text{H}$ eclipsed	4
$\text{H} \leftrightarrow \text{Me}$ eclipsed	6
$\text{Me} \leftrightarrow \text{Me}$ eclipsed	11
$\text{Me} \leftrightarrow \text{Me}$ gauche	4

Energy



3. Draw both conformers of each of the following molecules & determine which conformer is more stable.

a. cis-1-ethyl- $\alpha$ -methylcyclohexane

b. trans-1,3-diphenylcyclohexane

