

Stereoisomerism

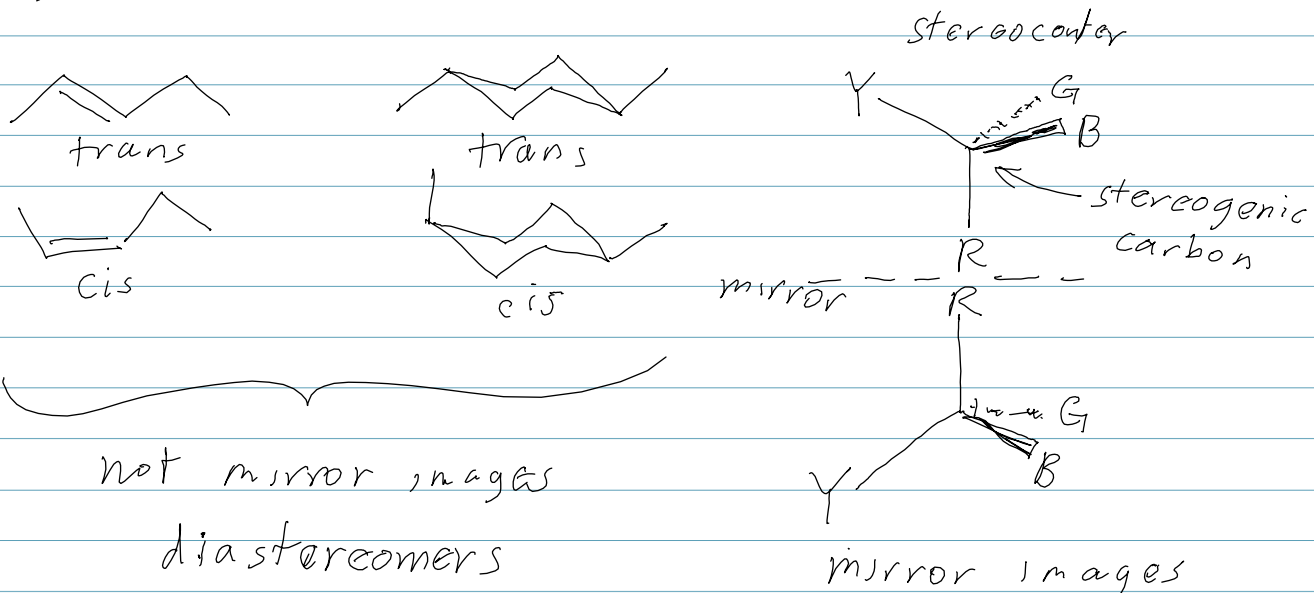
1) Terminology

Constitution \Rightarrow list of which atoms bonded to which
" -al isomers: same chem formulas, diff lists of bonds

Conformation \Rightarrow instantaneous shape of molecule
-determined by dihedral angles (C-C, C=C)
" -al isomers (conformers) \Rightarrow imprecise wording

Configuration \Rightarrow shape characteristics of bonds that persist
" -al isomers: same constitution
different configuration
 \hookrightarrow Stereoisomers

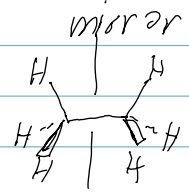
Configurational choices \Rightarrow pairs of stereoisomers



different \rightarrow mp, bp, density, color

enantiomers
same

Achiral cmpds: molecules their own mirror images



Chiral cmpds: one enantiomer

Rotates plane polarized light \Rightarrow optically active