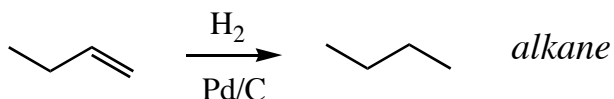


Reaction List - Ch 12

Reactions of Alkenes (II)

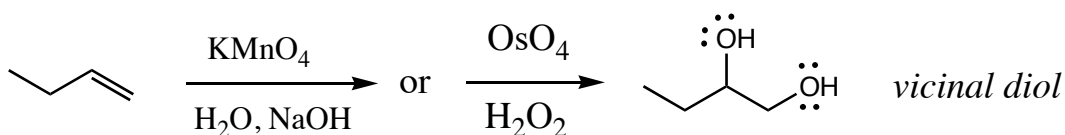
Catalytic Hydrogenation

H adds to both sides of C=C
excess hydrogen is always present
syn addition



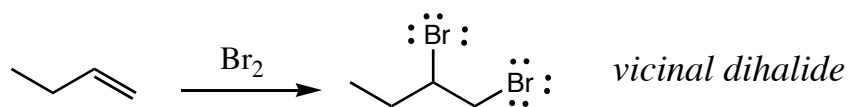
Hydroxylation

OH is added to both sides of C=C
syn addition



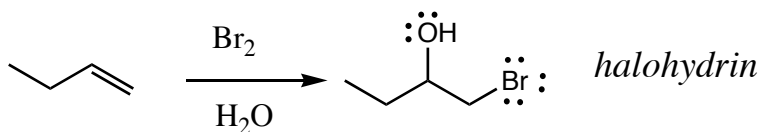
Addition of X_2

halogen is added to both sides of C=C
 Cl_2 or Br_2 may be used (diiodides are not very stable)
anti addition



Addition of X_2 with H_2O

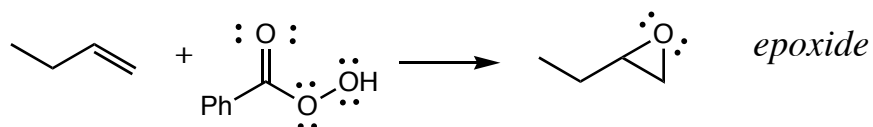
OH is added to more substituted side, halogen to less
 Cl_2 , Br_2 , or I_2 may be used
anti addition



Epoxidation

reagent may be abbreviated PhCO_3H

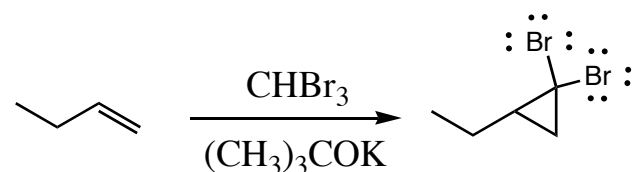
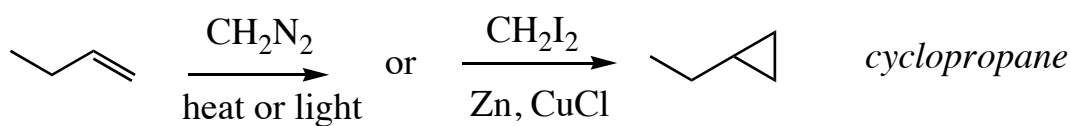
syn addition



Cyclopropanation

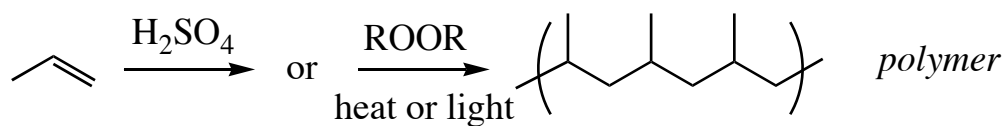
carbene is formed in each case

syn addition



Polymerization

acid creates carbocation; peroxide creates radical
carbocation or radical react with another alkene



Oxidative cleavage:

cyclic compounds give dicarbonyl compounds
if the $\text{C}=\text{C}$ is symmetrical, only one product is formed

