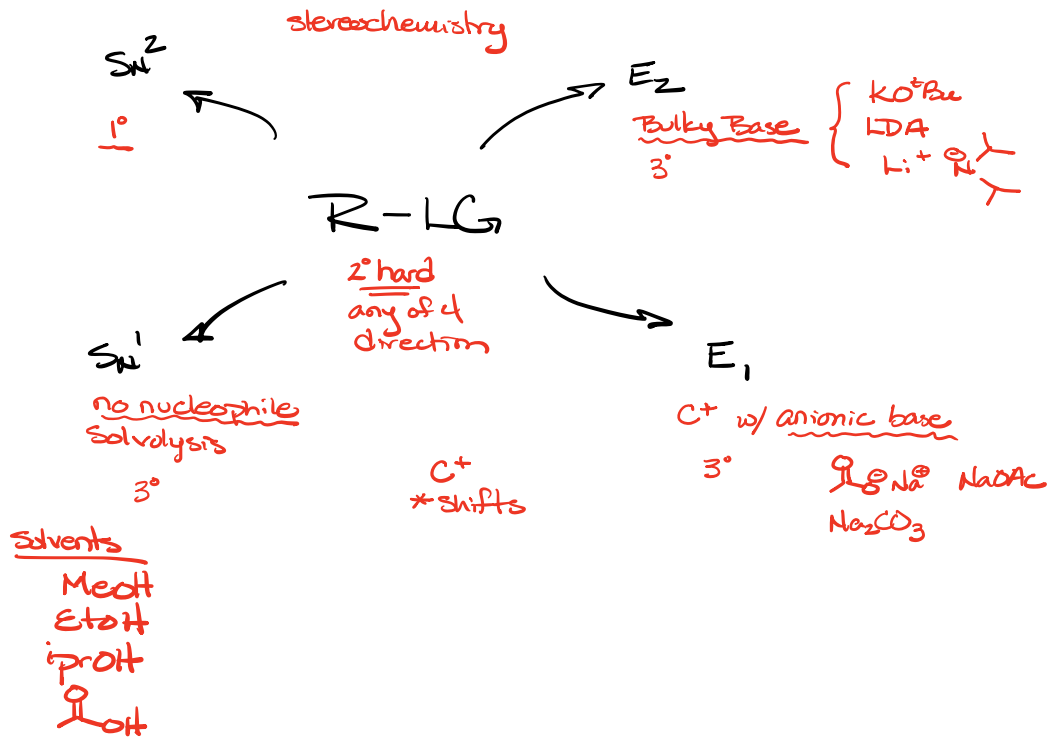


SN¹/SN²/E₂/E₁ Close Out



Chapter 8 - Alkene

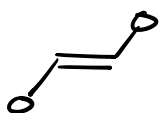
Nomenclature

Stability

Reactivity

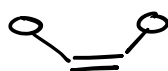
Formation

Nomenclature



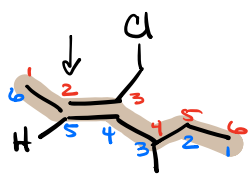
trans
(E)

E = entgegen
"opposite"



cis
(Z)

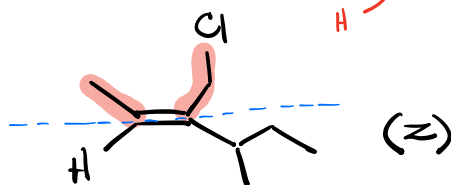
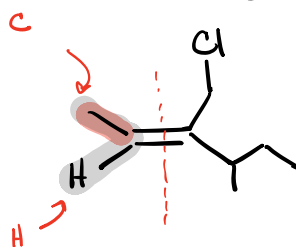
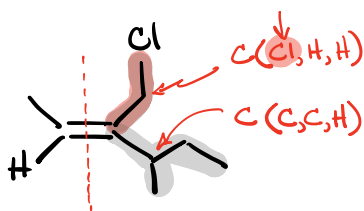
Z = Zusammen
"together"

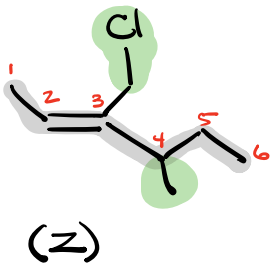


① longest carbon chain to include alkene

② alkene gets lowest possible #

③ Cahn-Ingold-Prelog Rules





④ Identify Substituents

⑤ Construct name

3-(1-chloromethyl)

4-methyl

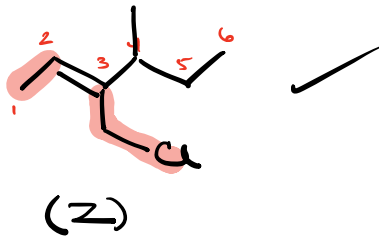
2-ene

(Z)

hexane[→]ene

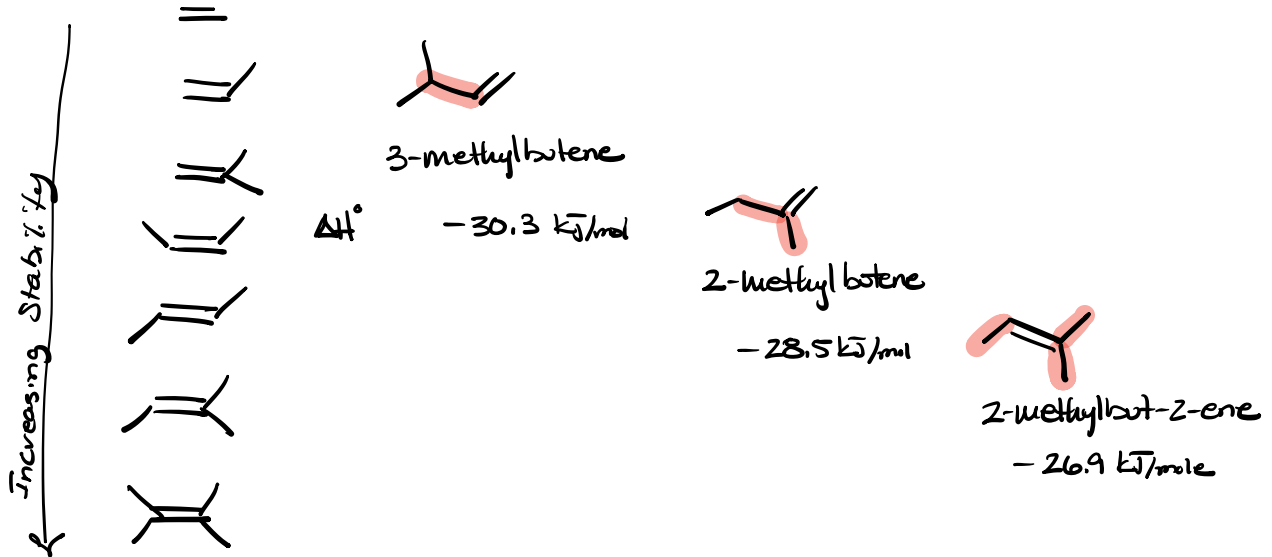
(Z)-3-(1-chloromethyl)-4-methyl-hex-2-ene

Stereo
Substituents
Chain
Functional group



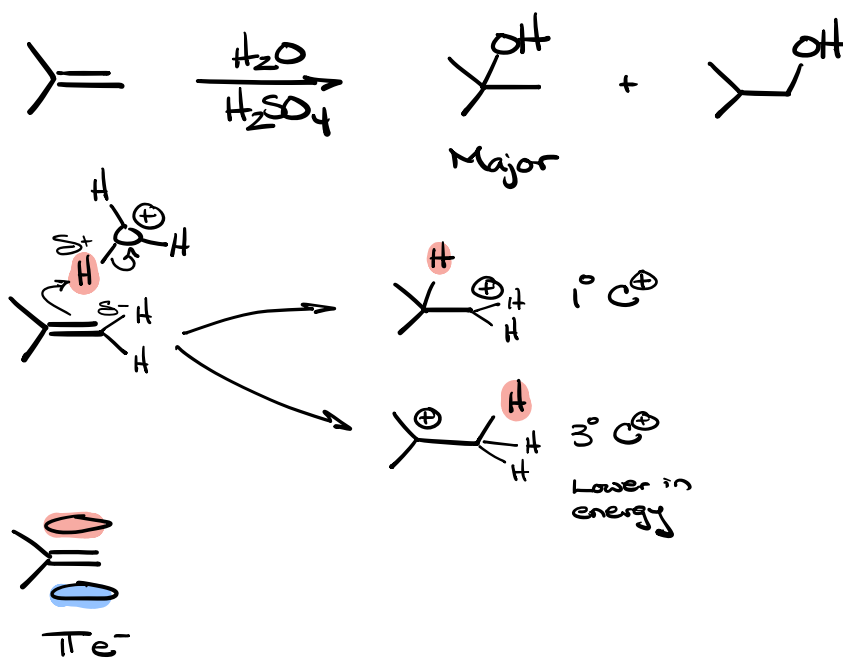
Stability of Alkenes

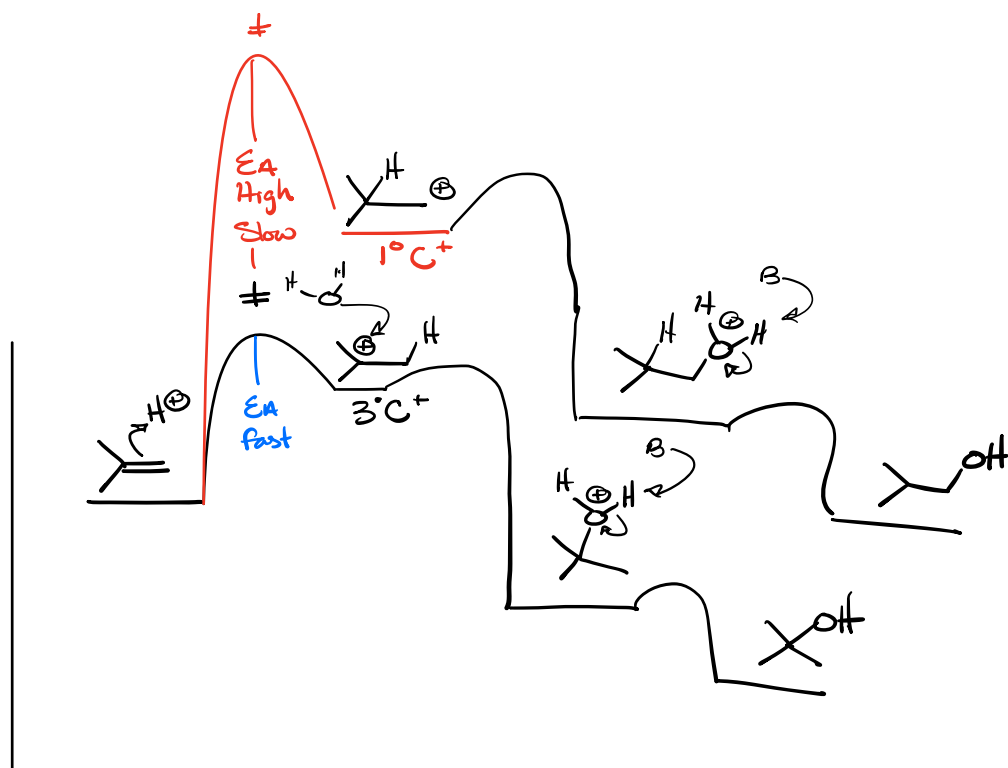
The more substituted the more stable



C + H

Hydration of Alkene

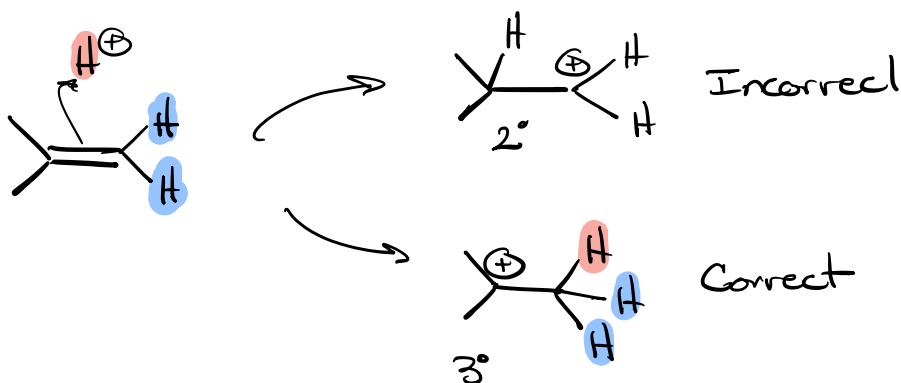


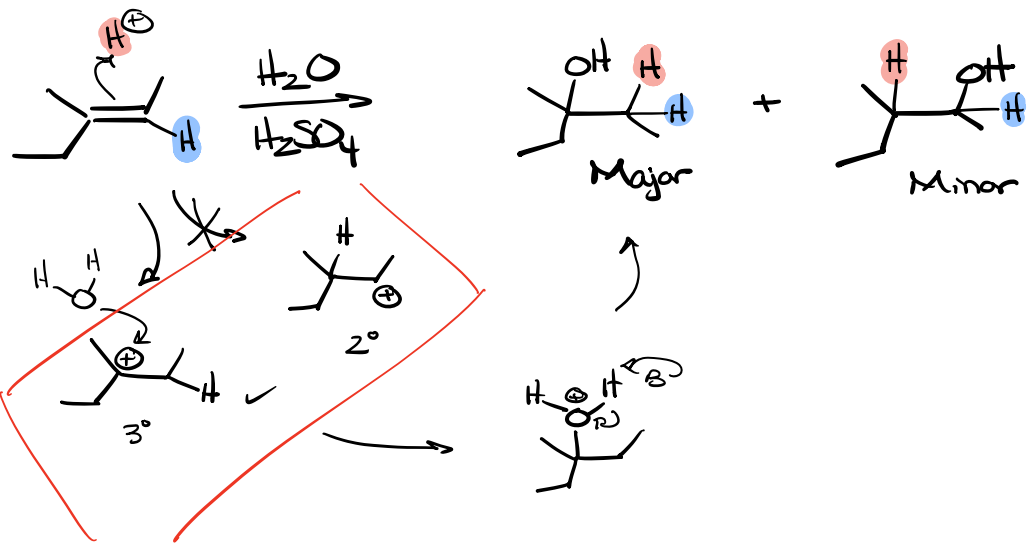


Markovnikov Addition

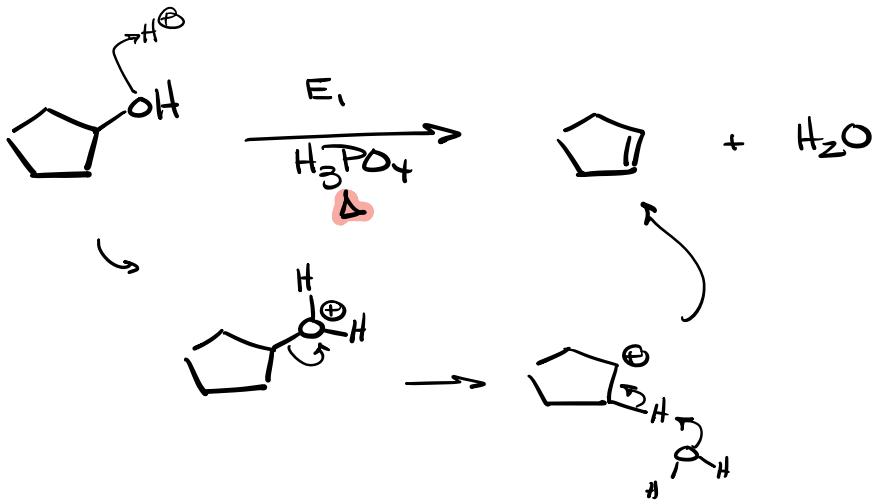
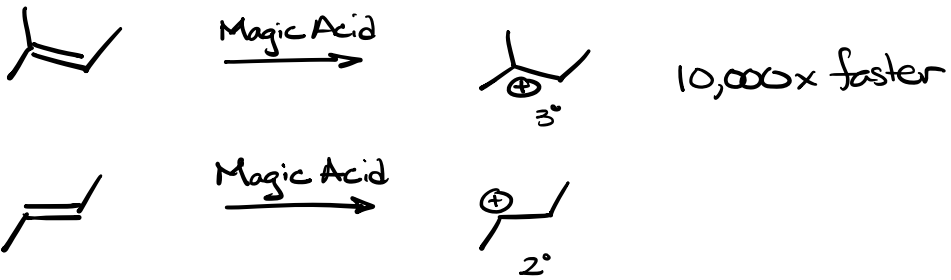
Markovnikov's Rule

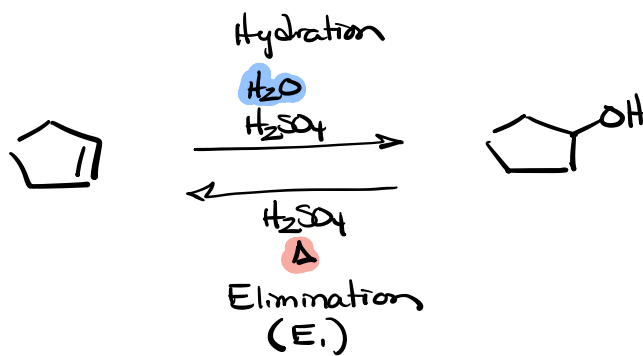
- "The Rich get Richer"
- The side that has the most hydrogens will get the hydrogen



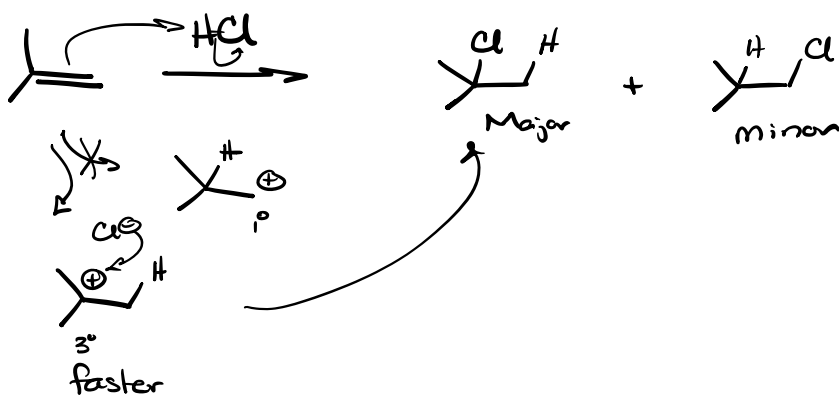


Always go with more stable C^+

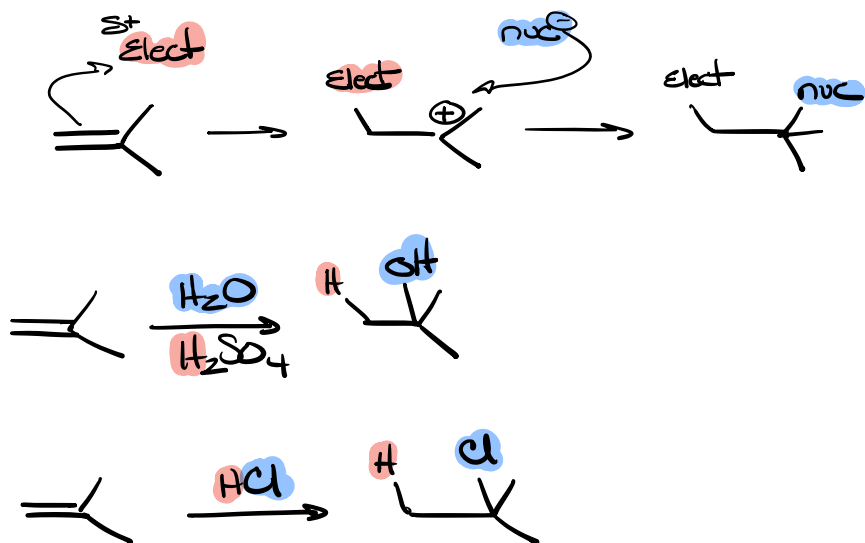




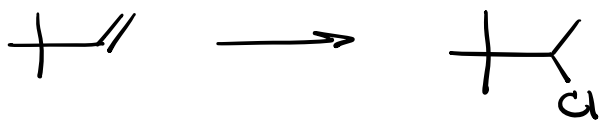
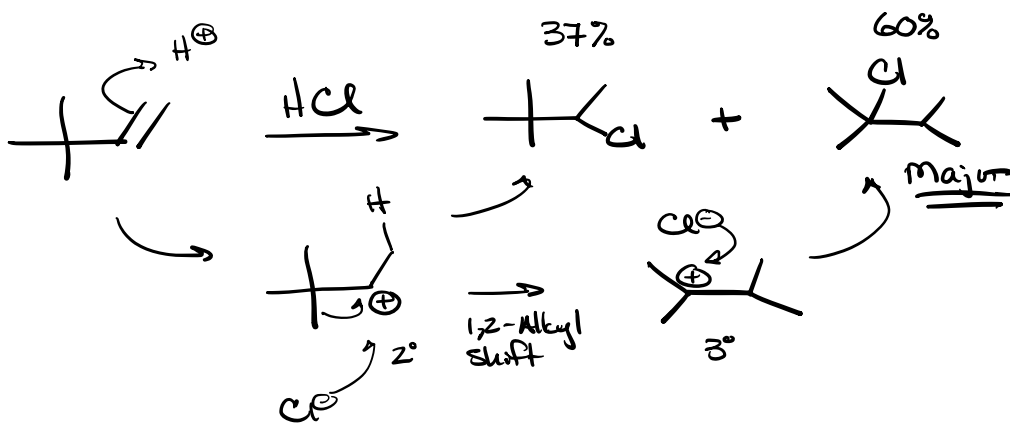
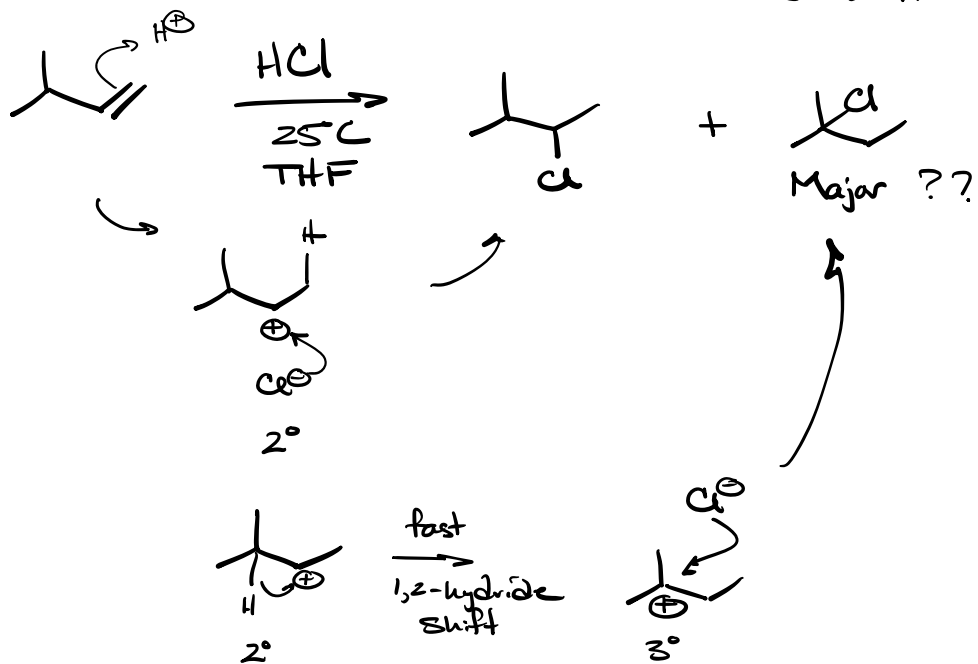
Addition of Acid



Electrophilic Addition to Alkene

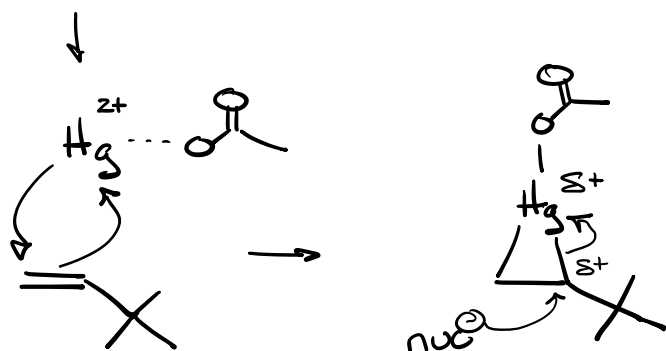
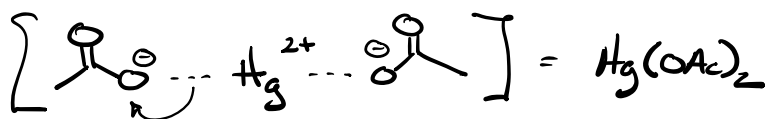
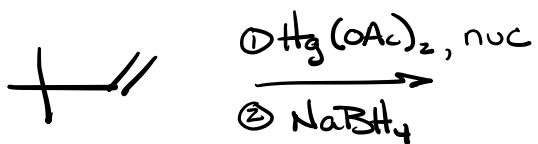


Watch for 1,2-hydride & 1,2-alkyl shift anytime
 there is C^+ formation (S_N1 , E_1 , electrophilic add)

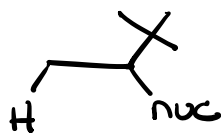


How can we make this major?

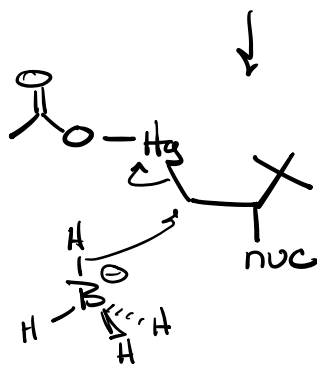
Oxymercuration - Demercuration

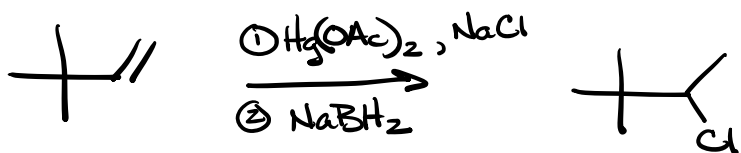
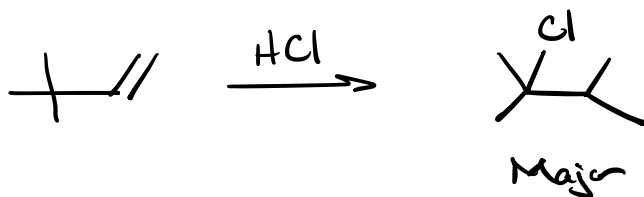


Now no alkyl or
hydride shift.



no shifts





1 & 2 means 2 Rxns
 not placed in R3 flask at
 same time

