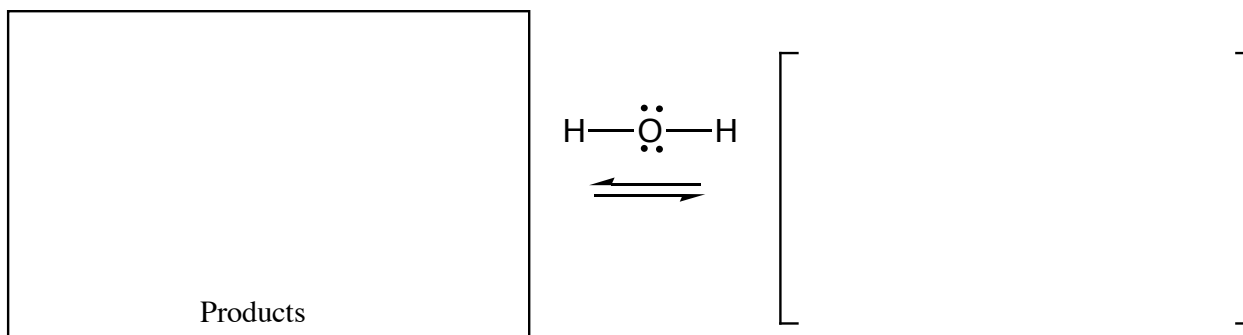
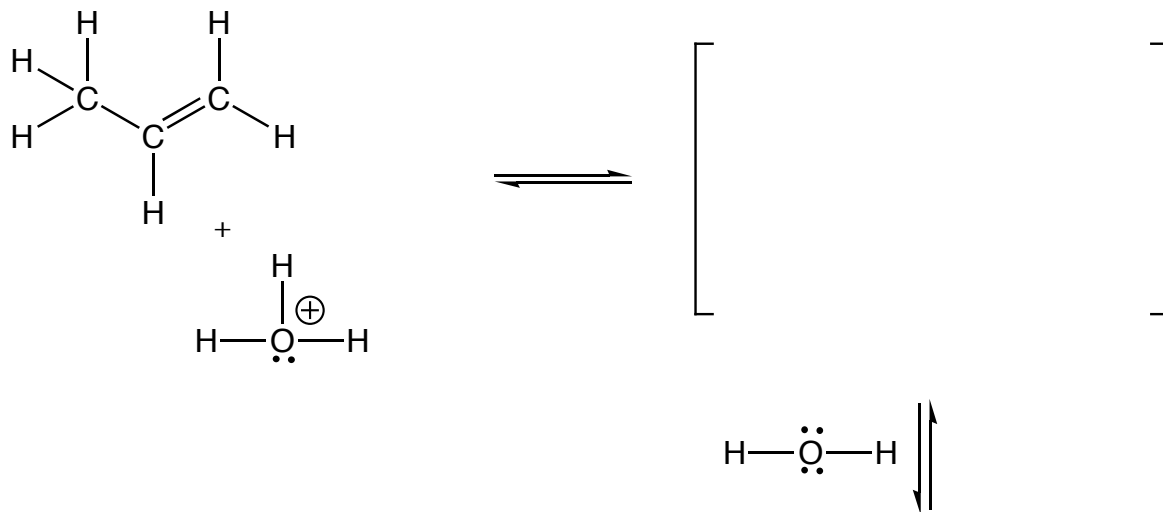
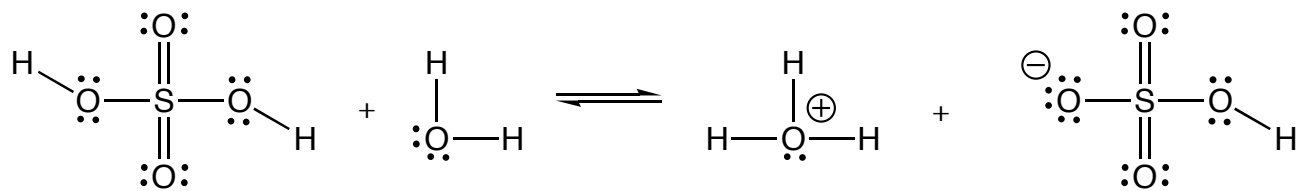


Acid-catalyzed Hydration of an Alkene

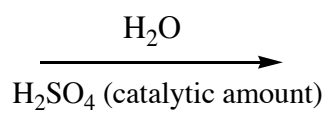
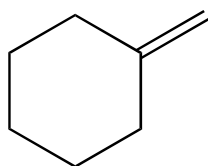


Summary:

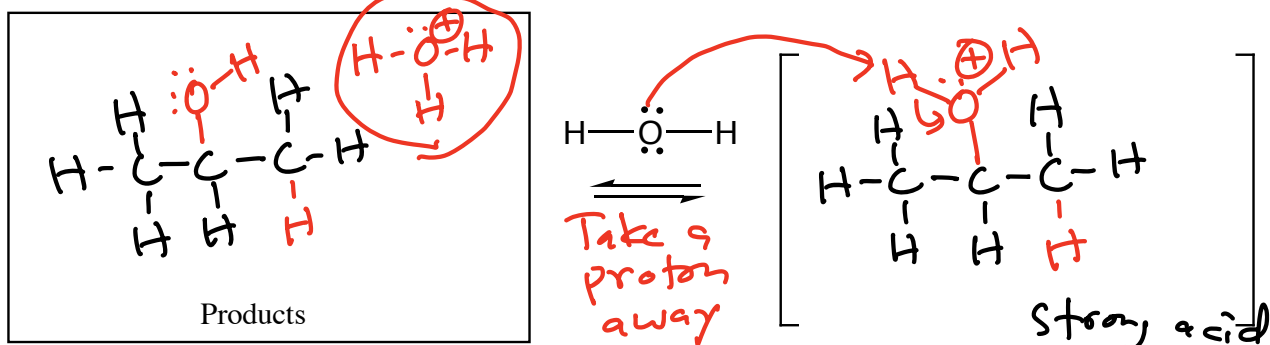
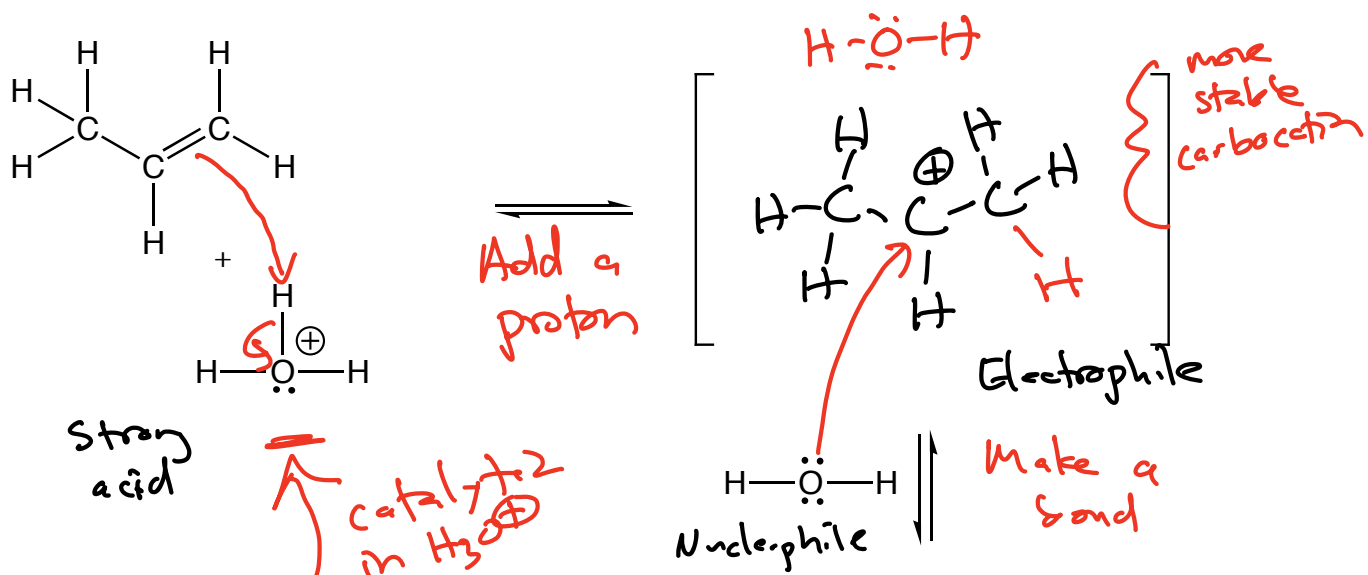
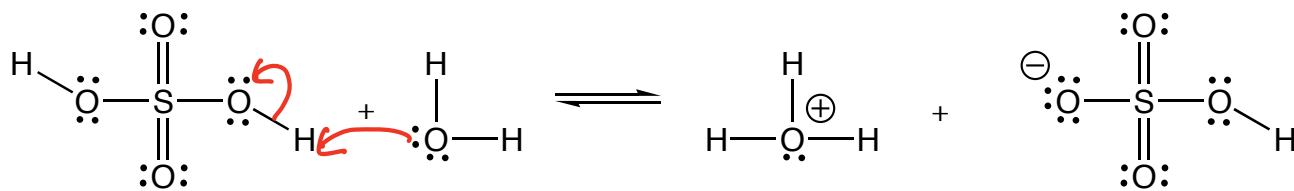
Regiochemistry:

Stereochemistry:

Example:



Acid-catalyzed Hydration of an Alkene

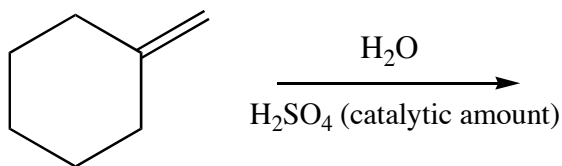


Summary:

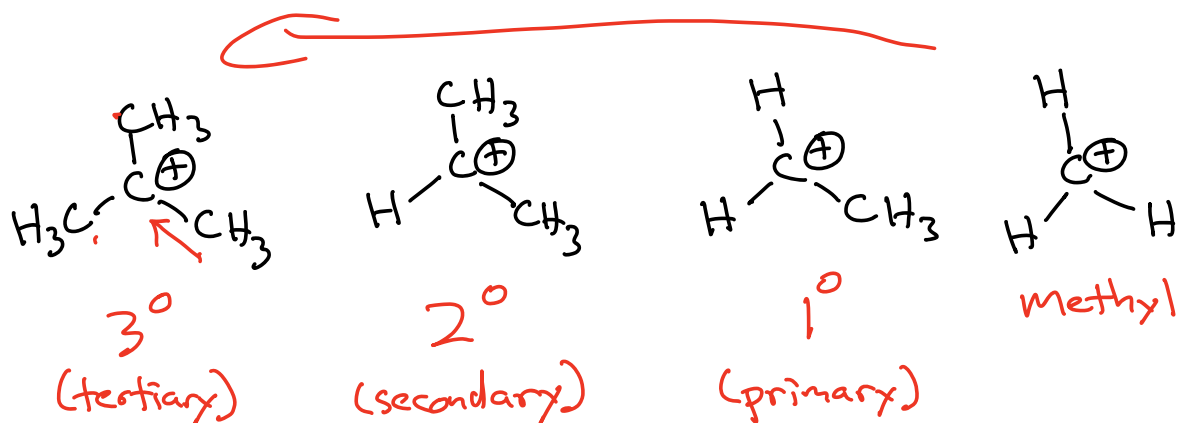
Regiochemistry:

Stereochemistry:

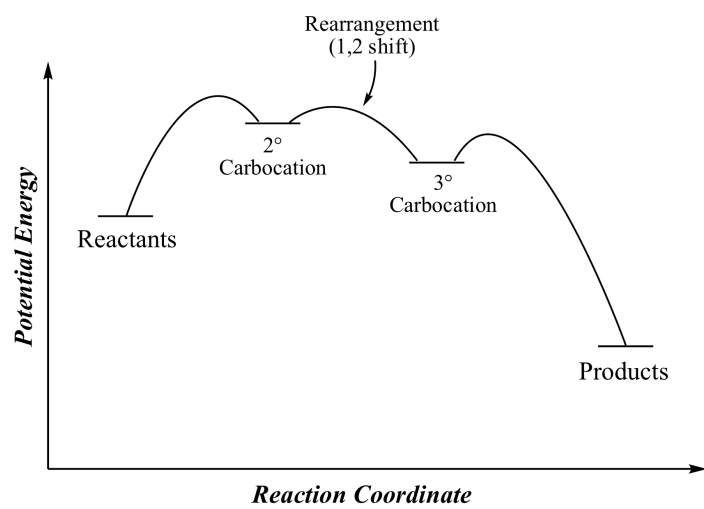
Example:



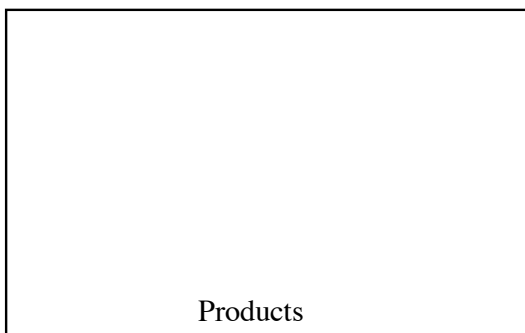
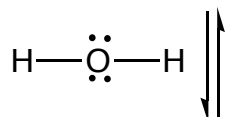
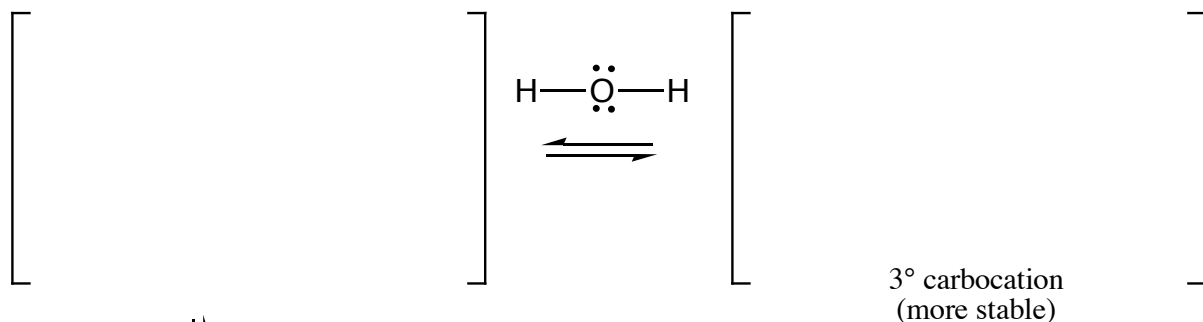
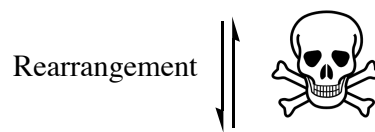
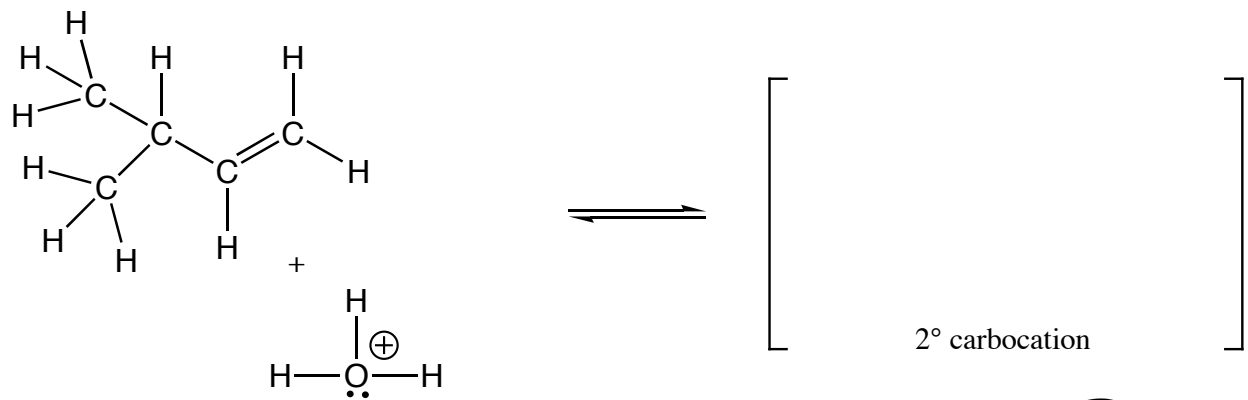
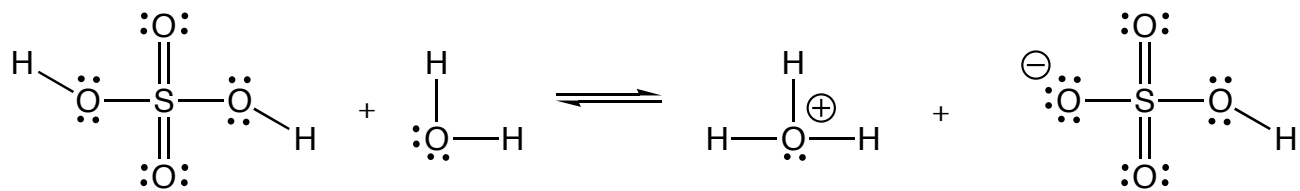
Carbocation stability \rightarrow the more C atoms bonded to the C^{\oplus} the more stable



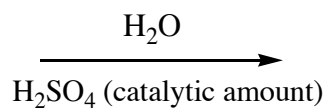
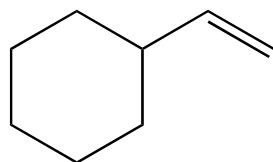
Markovnikov's Rule \rightarrow For alkene reactions involving a carbocation intermediate the nucleophile (ex. $:\ddot{Br}^{\ominus}$) will make a bond to the more substituted C atom \rightarrow derived from the more stable carbocation



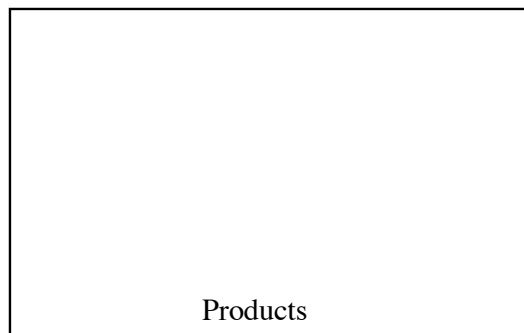
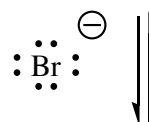
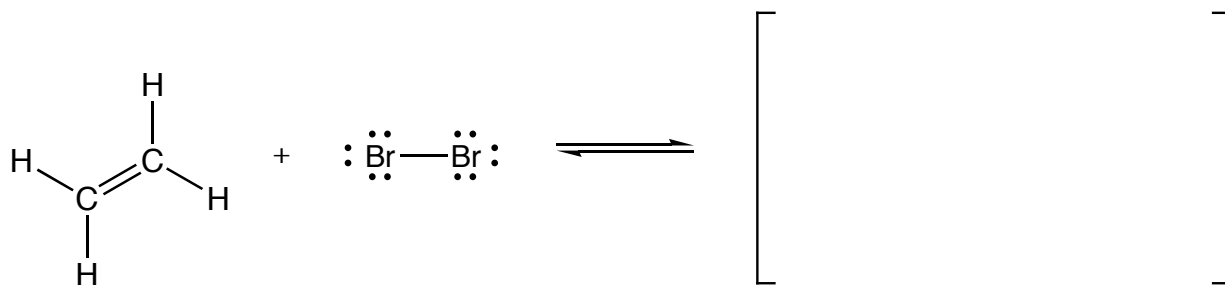
Cation Rearrangement



Example:



Alkene Halogenation

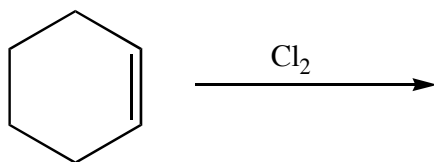


Summary:

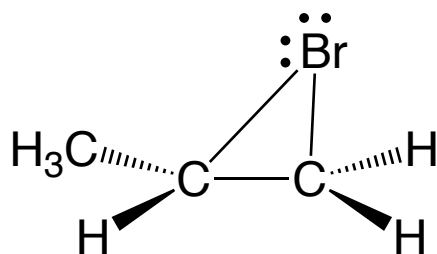
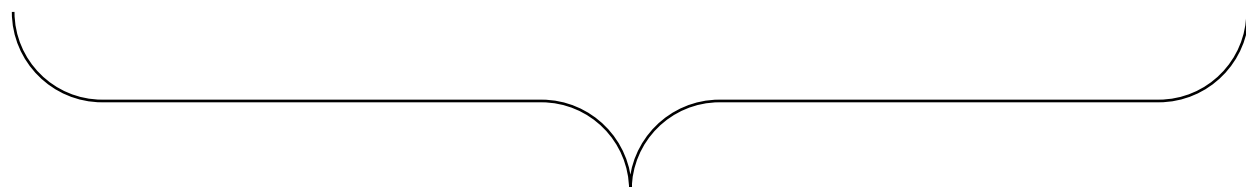
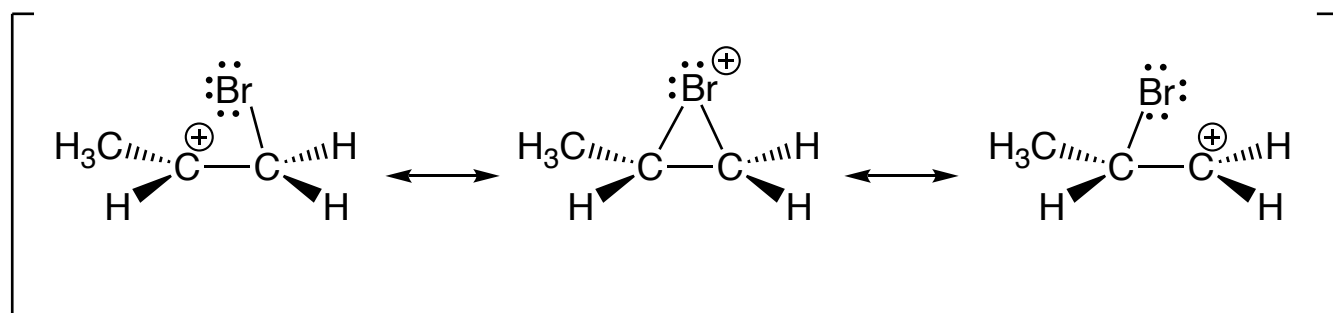
Regiochemistry:

Stereochemistry:

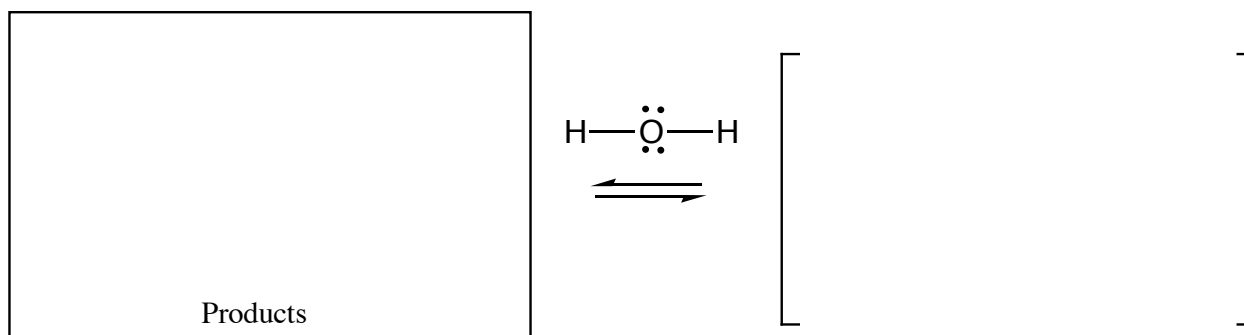
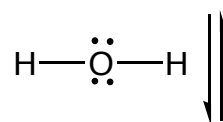
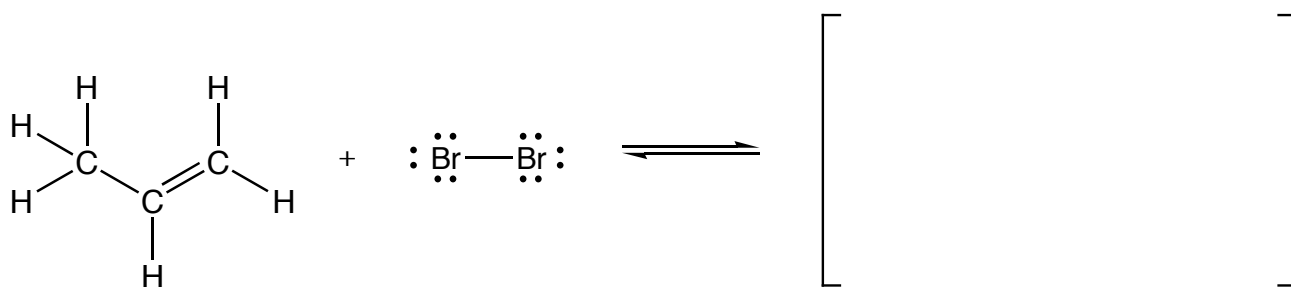
Example:



How to think about unsymmetrical halonium ions



Alkene Hydrohalogenation

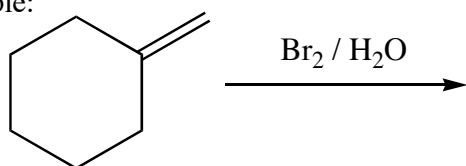


Summary:

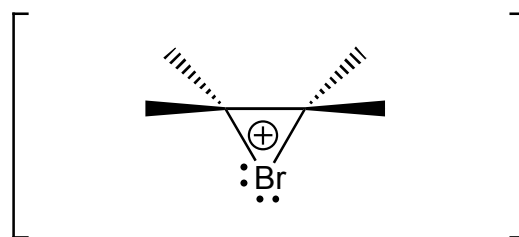
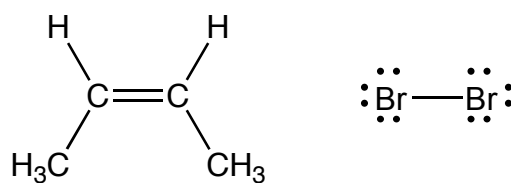
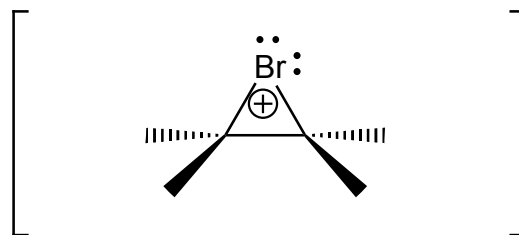
Regiochemistry:

Stereochemistry:

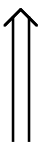
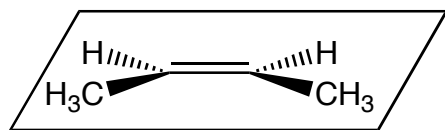
Example:



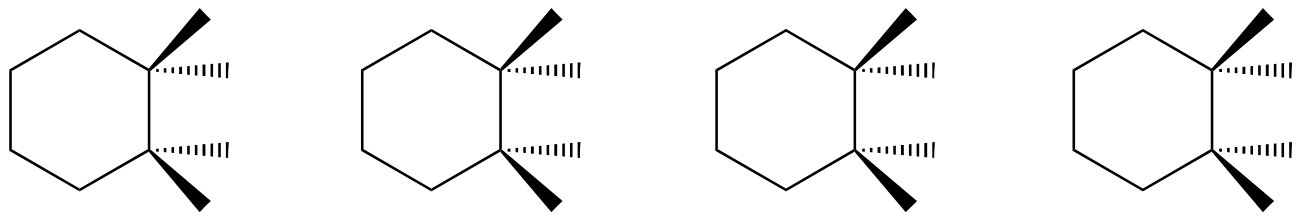




Attack from the top face

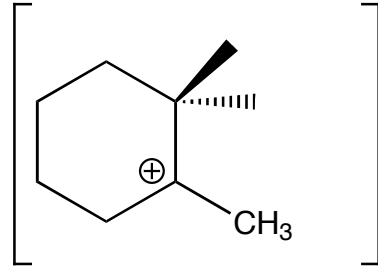
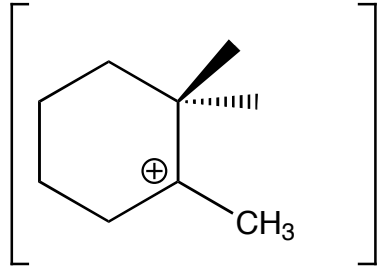


Attack from the bottom face



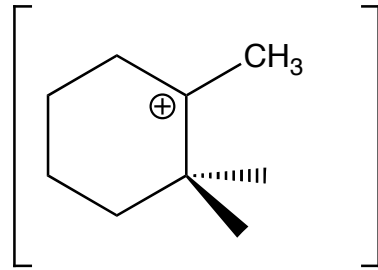
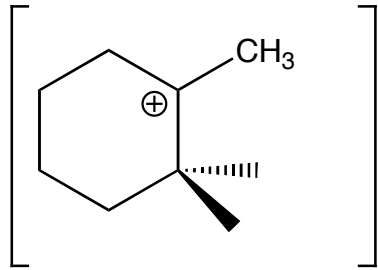
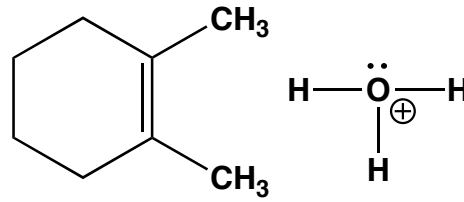
H_2O ↙ *Two mechanism steps* ↘ H_2O

H_2O ↙ *Two mechanism steps* ↘ H_2O



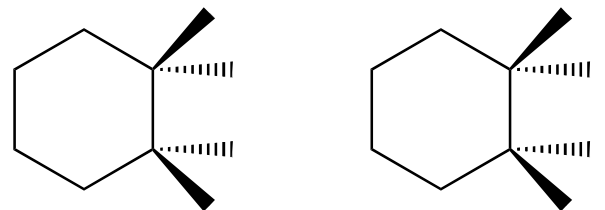
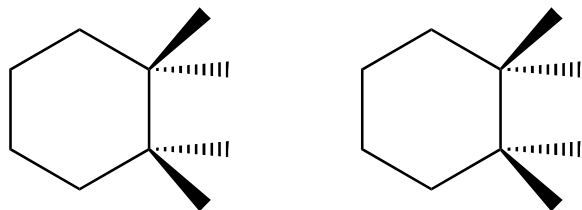
H atom adds to top face

H atom adds to bottom face

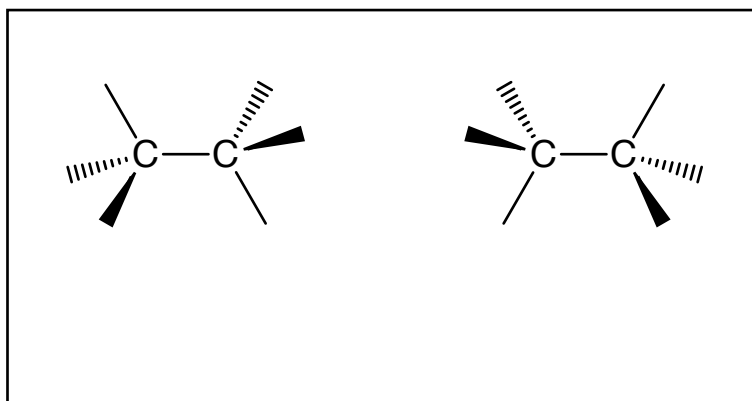
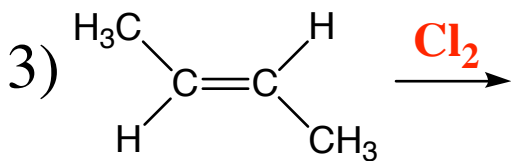
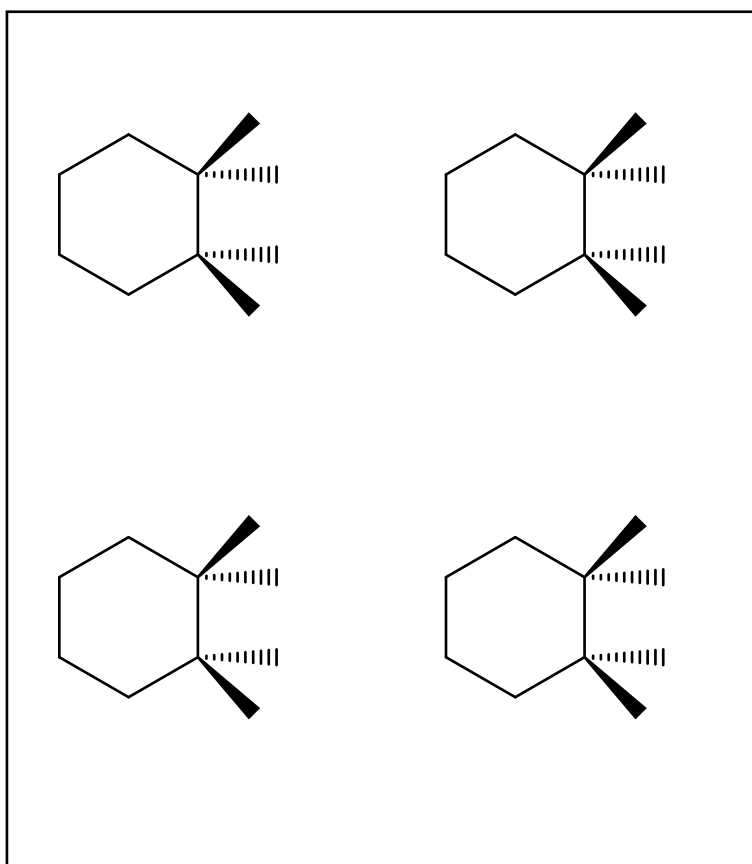
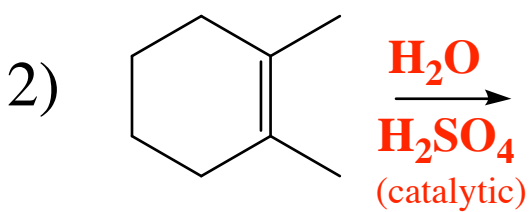
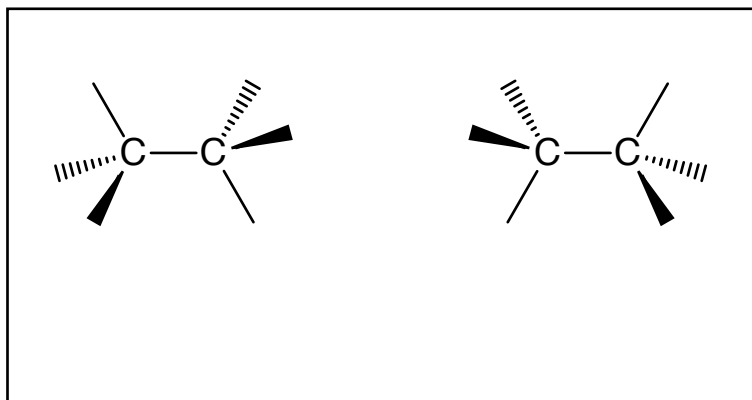
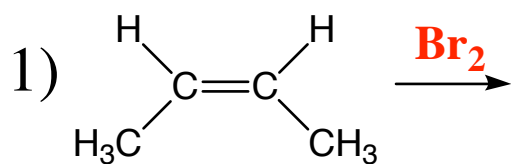


H_2O ↙ *Two mechanism steps* ↘ H_2O

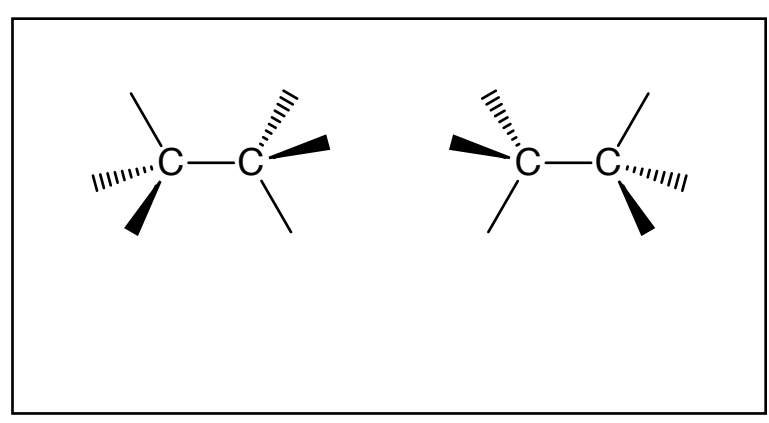
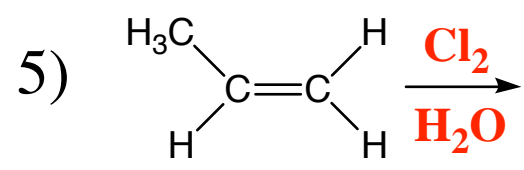
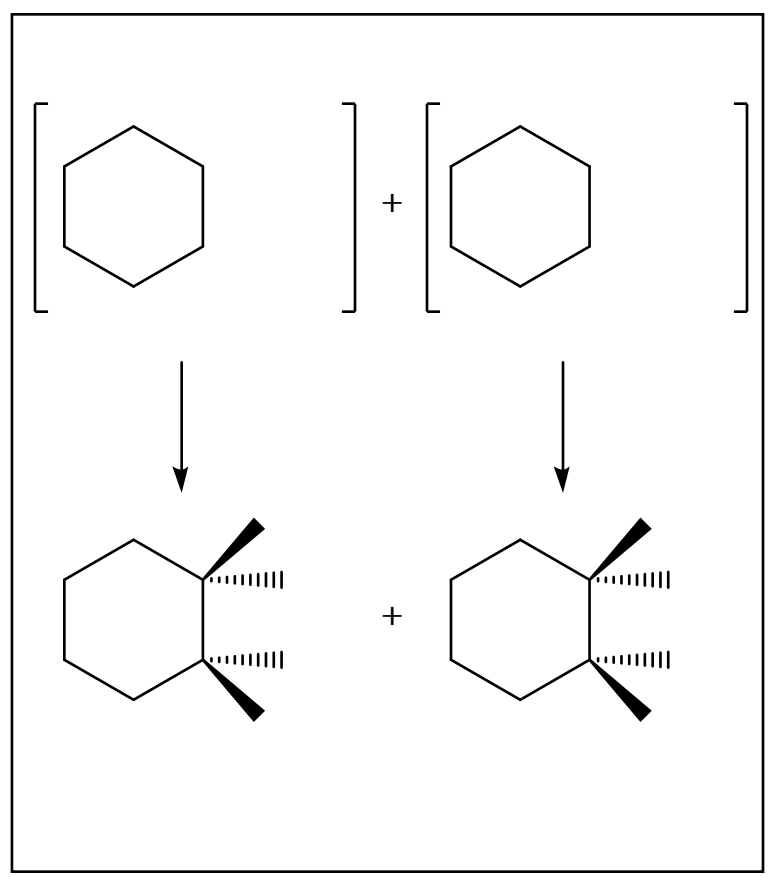
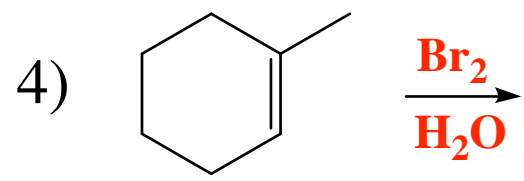
H_2O ↙ *Two mechanism steps* ↘ H_2O



Examples



More Examples



Nurse

[nɜrs] noun

lifesaving superhero, patient,
smile bringing, kind, lives to heal.
Kind of a big deal.

nurse

[nɜrs] *noun*

the first person you see after saying, "hold my beer and watch this!"

Nature of the reaction; what is the starting material/product? (i.e. alkene converted to an alcohol)

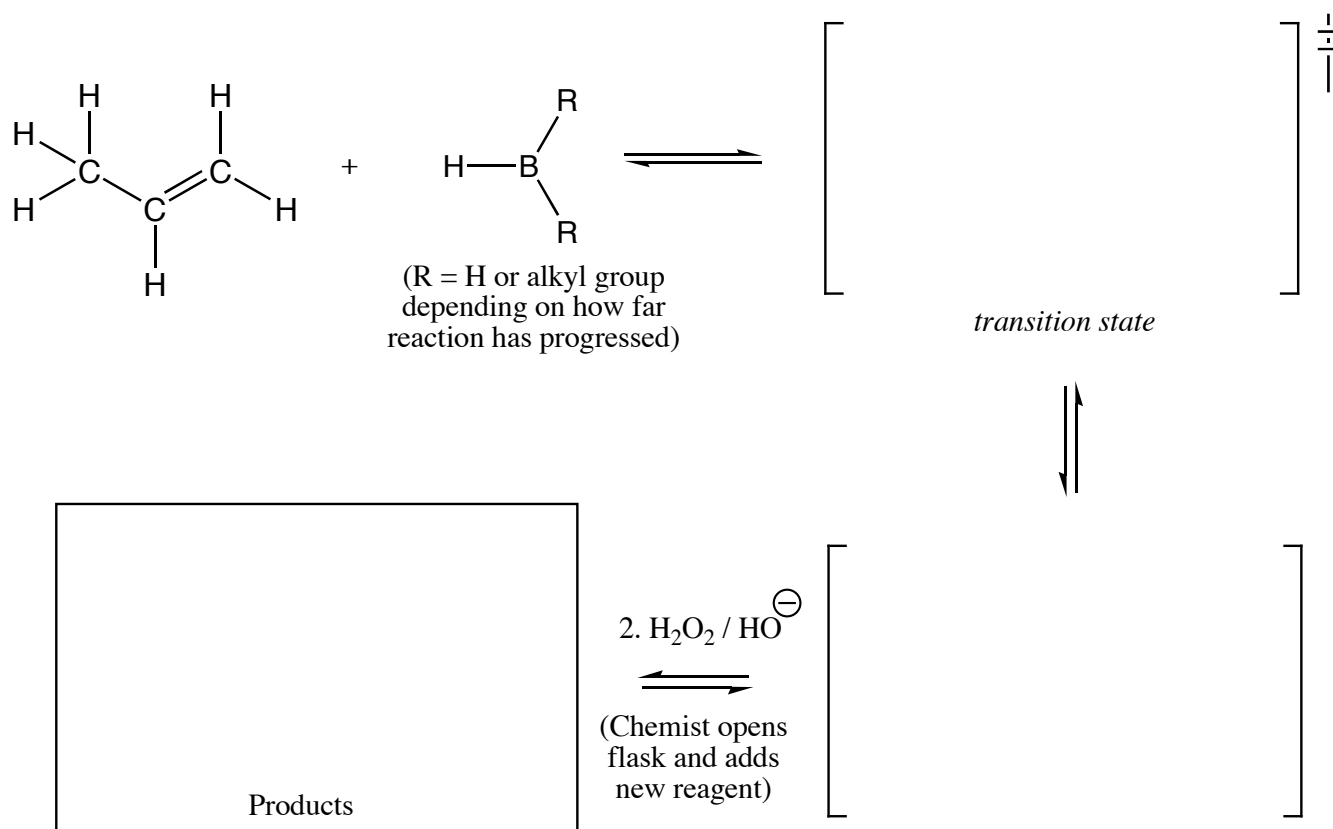
Intermediate (or "Important transition state" if applicable) of the reaction, the key to the mechanism (carbocation, halonium ion, etc.)

Reagents Learn the exact way to designate the reagents for each reaction

Regiochemistry What is the regiochemistry of addition? (Markovnikov, non-Markovnikov, etc.)

Stereochemistry of addition (anti, syn or mixed)

Hydroboration-Oxidation



Summary:

Regiochemistry:

Stereochemistry:

Example:

