Chem 343 – Organic Reactions
Chapter 11
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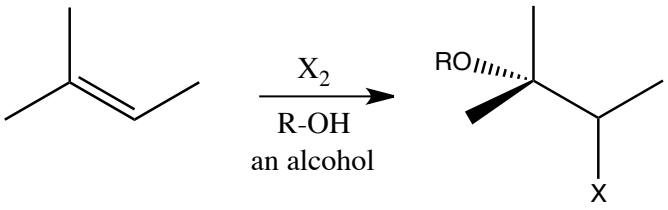
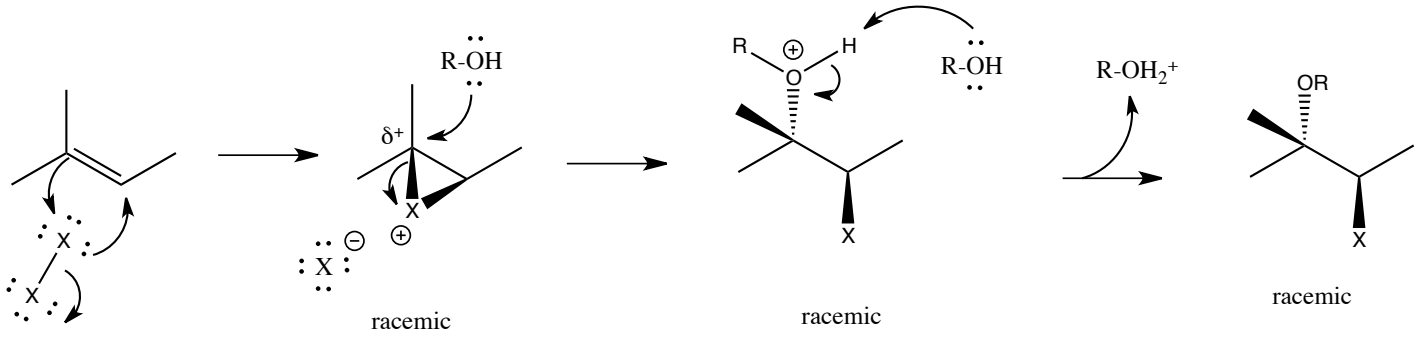
http://www.chem.wisc.edu/areas/clc (Resource page)
Alkene Reactions #5: Haloether Synthesis



X = Cl or Br

racemic

Mechanism



The process is an *anti* stereospecific addition. The three-membered ring halonium has a greater positive charge on the most substituted carbon atom therefore the nucleophile, in this case the alcohol solvent, attacks the side which has a greater positive charge. This works quite well with small chain alcohols. The reaction is also regioselective. The result is that the major product is a Markovnikov addition.