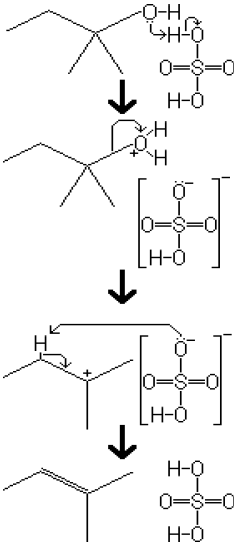
Alkene Synthesis of an Alcohol



Reactants – Tertiary Alcohol, conc. H_2SO_4
Products – Alkene, H_2O, H2SO4

Electron Movement

1. E2 Reaction – The electrons of the alcohol's oxygen attack one of the hydrogen atoms from the sulfuric acid. The water attached to the compound acts as a good leaving group and is removed. A negatively charged hydrogen sulfate ion attacks a proton on the most branched beta carbon, and the electrons are distributed to the carbon-carbon bond, resulting in an alkene.