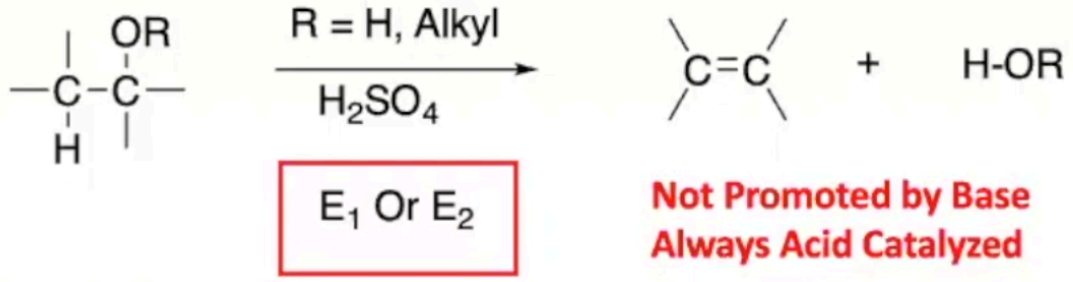
3) Dehydration

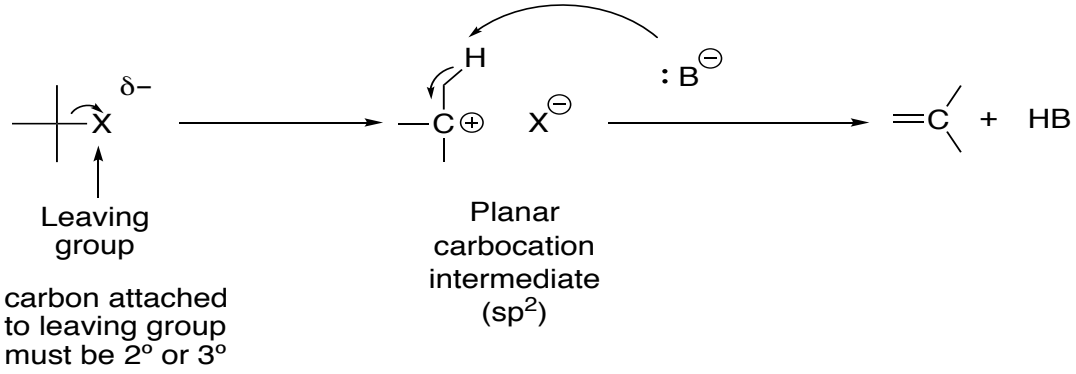


E_1 Or E_2

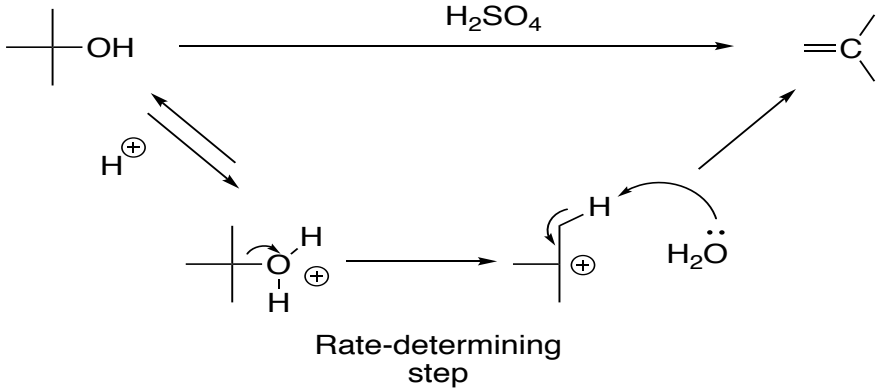
Not Promoted by Base
Always Acid Catalyzed

E_1 Reaction:

- Rate depends on one concentraion
- Not concerted (carbocation intermediate)
- Not stereospecific
- Favoured with leaving group being 3º

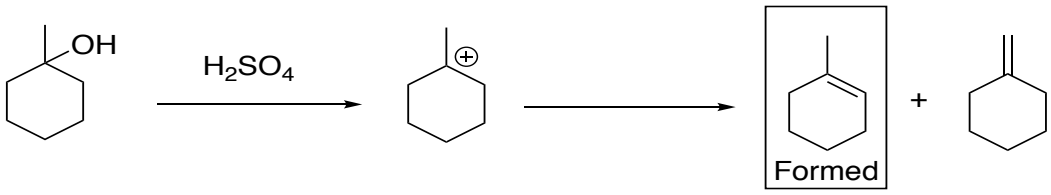


Example #1:

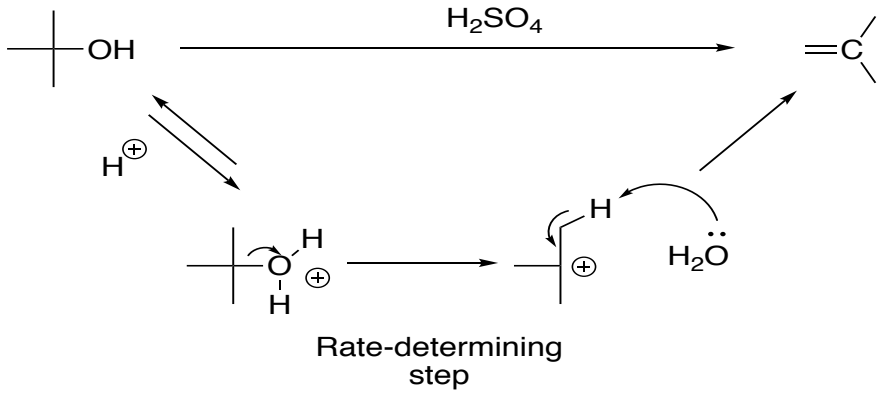


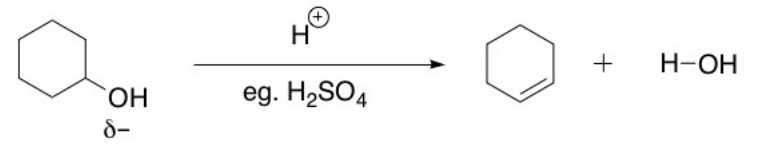
Zaitsev Rule: Get the more substituted alkene

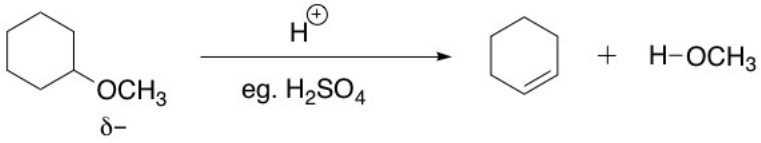
Example:



Example #1:

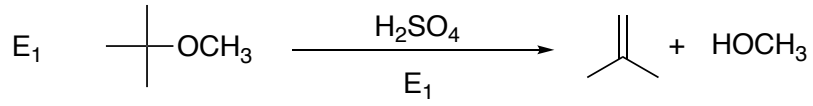




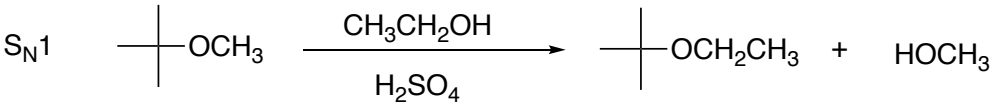


-OH and -OCH_3 are bad leaving groups and so these reactions would not occur spontaneously without an acid catalyst.

Example



vs.



Substitution	vs.	Elimination:
- Low Temp		- High Temp
- Weaker Base		- Stronger Base
- Dilute H^+		- Conc. H^+
- Leaving group on 1º carbon		- 2º, 3º
- Small Nucleophile		- Large Nucleophile