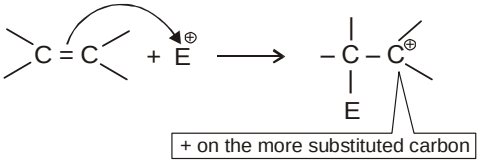
• Points to remember in Alkene & Alkyne

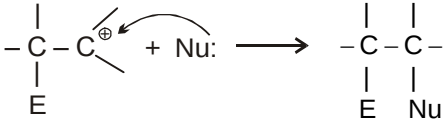
Characteristic reaction of Alkene & Alkyne is Electrophilic addition reaction.

Mechanism

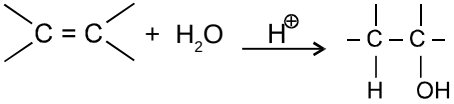
Step 1 : Attack of the electrophile on π bond forms a carbocation.



Step 2 : Attack by a nucleophile gives the product of addition.

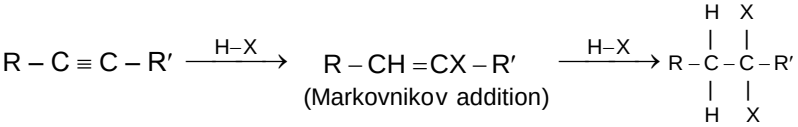


e.g. (a) Addition of water



(Markovnikov orientation)

(b) Addition of hydrogen halides (where HX = HCl, HBr, HI)



Note: When electrophiles are: Cl^+, Br^+, I^+, NO_2^+ or Hg^{2+} then stereochemistry is important and major product is formed by anti addition.