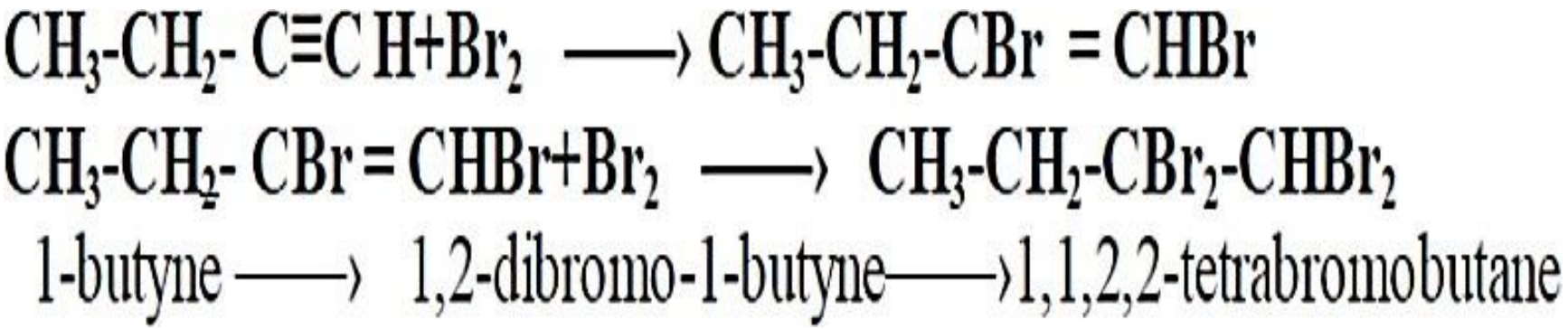
Reaction

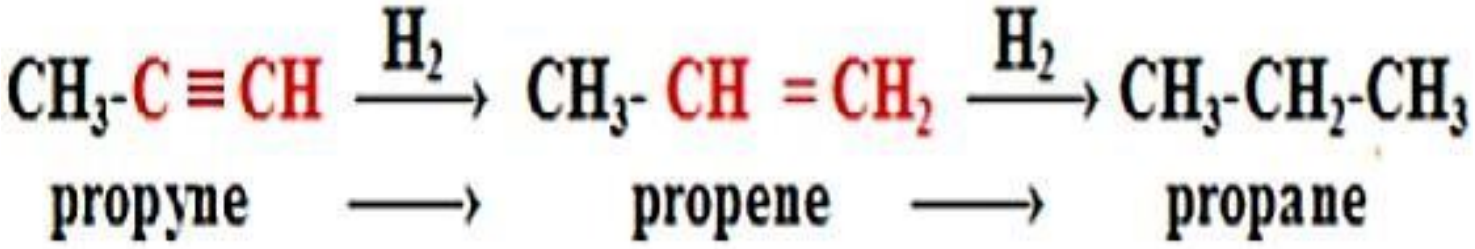
Most of the reactions of a Hornes are similar to those of alkenes. The same reagents that add to carbon-carbon double bond also add to carbon-carbon triple bond . But it is possible to add two molecules of reagent to each alkyne.

1-Addition of Halogens (Halogenation)



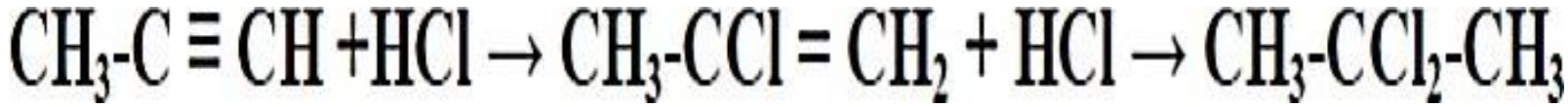
2- Addition of Dihydrogen (Hydrogenation)

The addition of H2 to alkyne is obtain by add the hydrogen gas to alkyne with uses the metal (Ni ,Pd , ...) catalysis to give alkene in first step an alkane in the second step



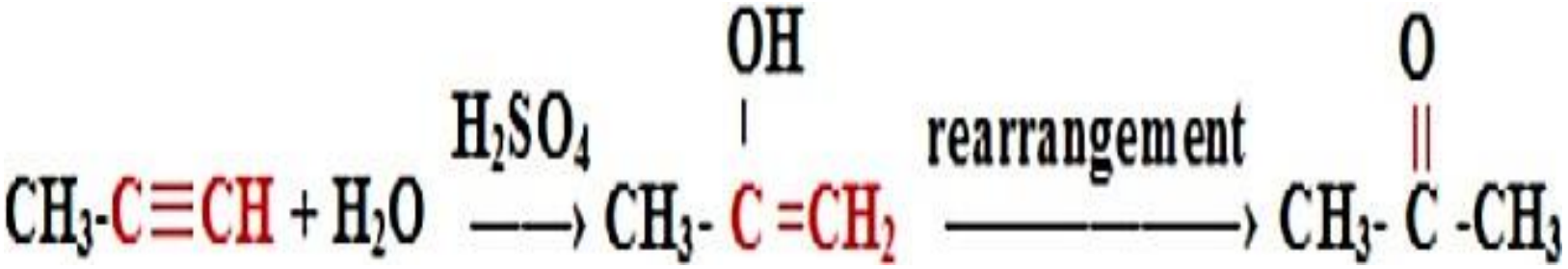
3- Addition of Halogen halide (Hydrohalogenation)

The addition of HX is obtain according to Markovnikov Rule the acid hydrogen (H) gets attached to the carbon with more hydrogen substituents, and the halide (X) group gets attached to the carbon with more alkyl substituents) (Markovnikov[1] s Rule)



4- Addition of water (Hydration)

One difference between the acid catalyzed hydration of alkenes and that of alkynes. Alkynes form alcohol Alkynes form compounds containing C=O bond.



Thank you