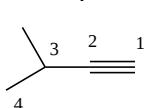
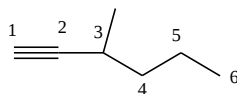


- Number the alkyne parent chain such that the triple bond is given the lowest number possible

Example



3-methyl-1-butyne



3-methyl-1-hexyne



2-pentyne

1.3 Preparation of alkynes

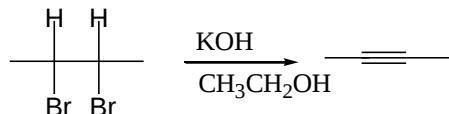
- From addition of water to calcium carbide

Calcium carbide is prepared by reacting calcium oxide with carbon.



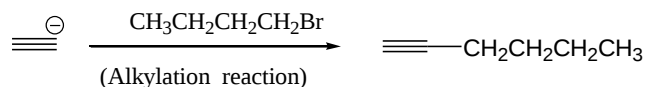
- From dihalogenoalkanes

Vicinal dihaloalkane and geminal dihaloalkanes give alkynes when reacted with strong bases such as OH^-



- Higher alkynes can be synthesized from acetylene.

Reacting acetylene with strong bases such as amides (NH_2^-) and not (OH^- or OCH_3^-). The pK_a of acetylene and terminal alkynes is approximately 25, which makes them stronger acids than ammonia ($pK_a = 36$) but weaker acids than alcohols. Sodium amide will abstract a proton from acetylene forming acetylide ion which then reacts with an alkyl halide forming a terminal alkyne with an elongated carbon framework.



Alkylation can be repeated and a terminal alkyne can be converted to an internal alkyne