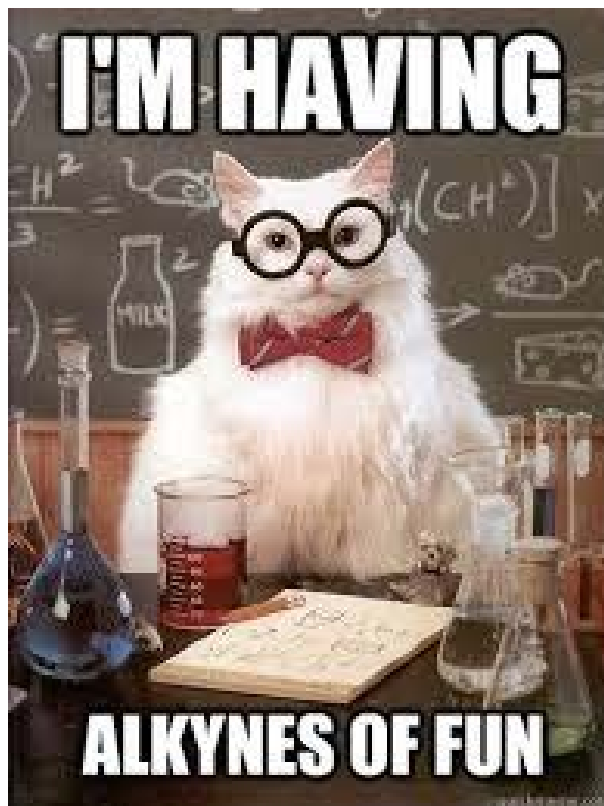


Alkynes



Outcome:

- Outline the transformation of alkenes to alkynes and vice versa.
- Name, Draw and construct molecular models of alkynes and branched alkynes.

Alkynes:

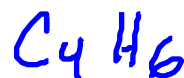
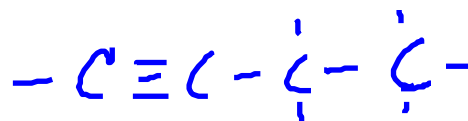
Aliphatic

Alkynes:

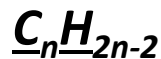
Compounds formed from CHAINS of carbon atoms that have one or more TRIPLE BONDS.

Ex) Propyne

1- Butyne



- Notice that there is a relationship between the number of carbons and hydrogens...
 - They have the general formula

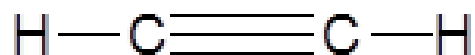


- Also called UNSATURATED HYDROCARBONS (TRIPLE BONDS).
- Are also ALIPHATIC HYDROCARBONS.

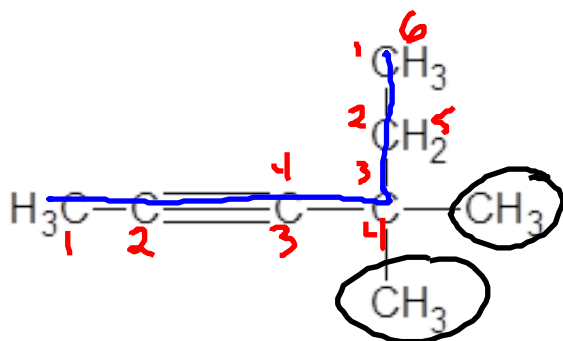
Naming Alkynes:

Same rules as for Alkenes, but end in the suffix "YNE".

Examples:



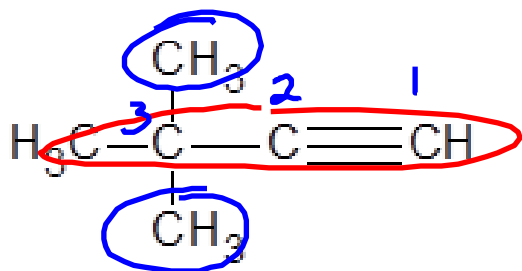
ethyne (acetylene)



4,4 dimethyl 2-hexyne

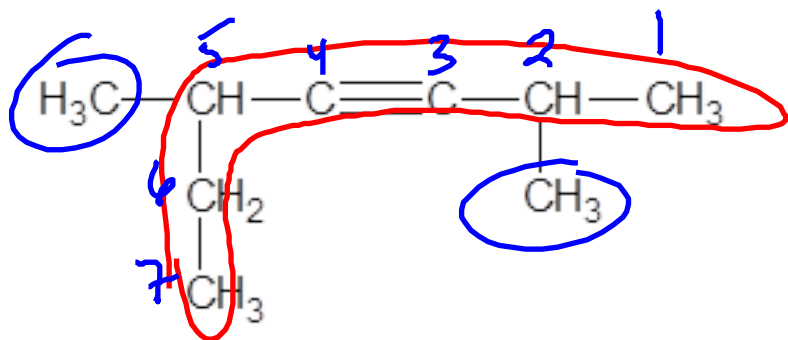
Naming Alkynes:

Try these...



3,3-dimethyl 1-butyne

but-1-yne



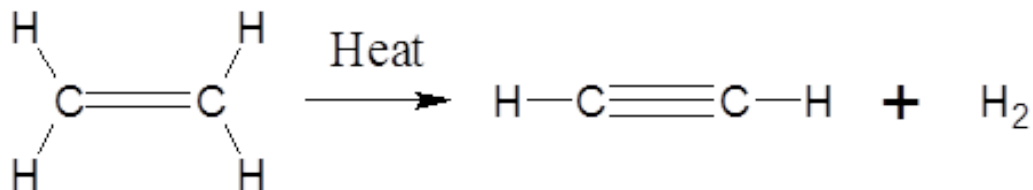
2,5-dimethyl 3-heptyne

Reactions of Alkynes:

Alkynes can also undergo chemical reactions like the alkanes and alkenes...

Dehydrogenation

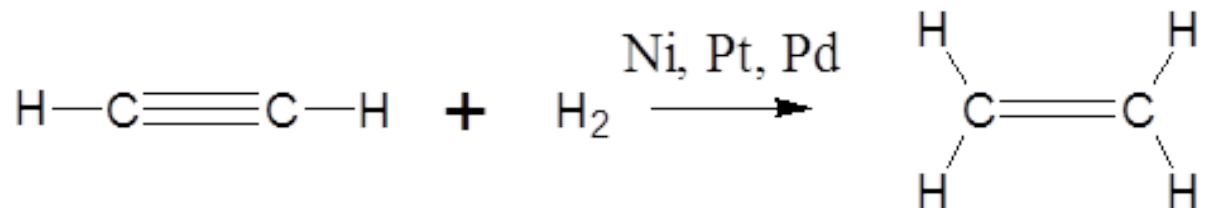
- We can dehydrogenate **ALKENES** to make **ALKYNES**:



Reactions of Alkynes:

Hydrogenation

- We can hydrogenate **ALKYNES** to make **ALKENES**:



- We can also hydrogenate **ALKYNES** to make **ALKANES**

