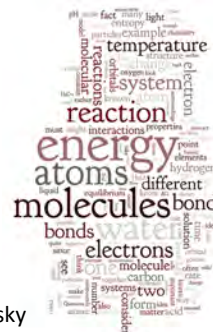


Types of representations

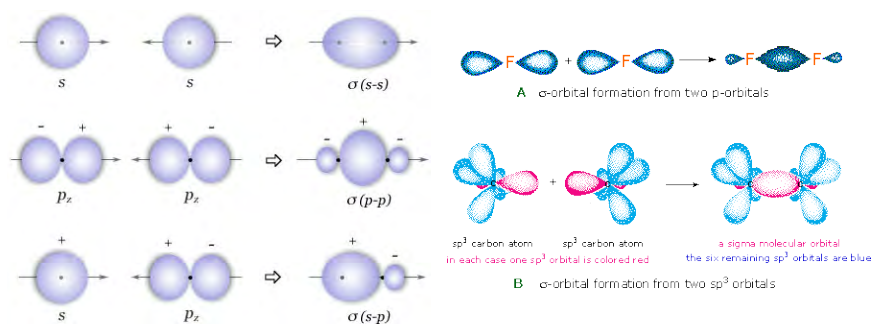


Chemistry, Life, the Universe & Everything – Cooper & Klymkowsky

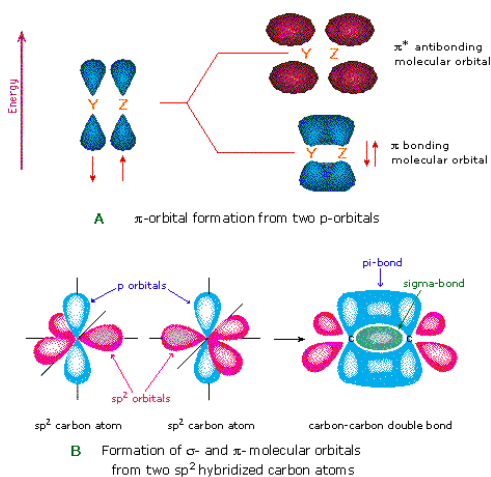
Multiple bonds – sigma and pi

- A single bond is always a sigma bond
- All the rest are always pi bonds
- Sigma bonds allow for rotation around the bond
- Pi bonds do not (it would break the pi bond)

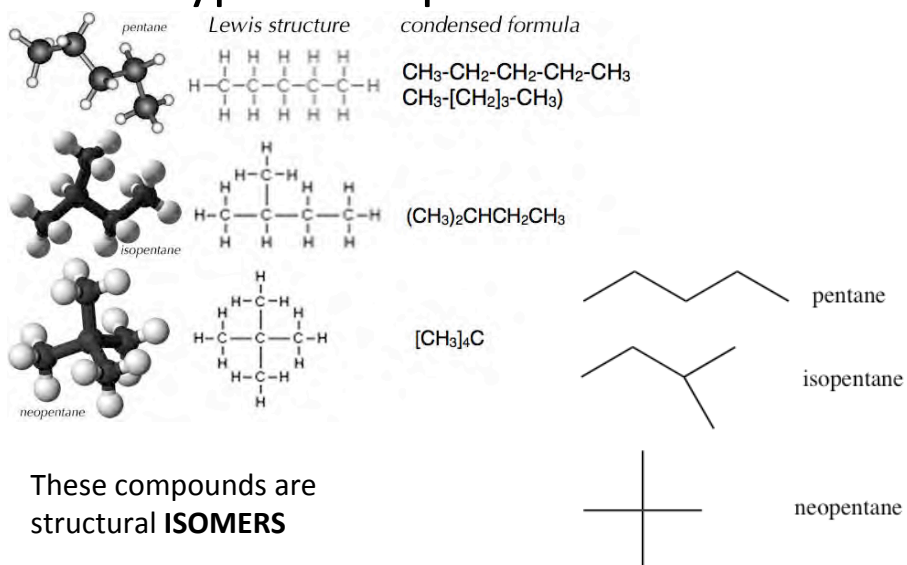
Sigma bonds



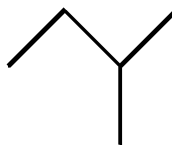
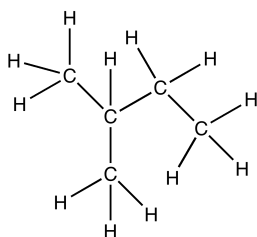
Sigma and pi bonds



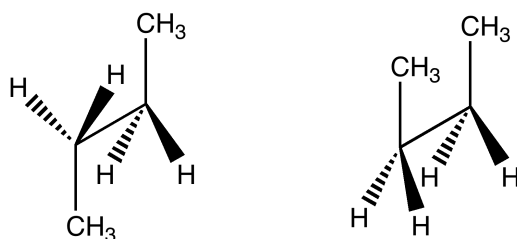
Types of representations



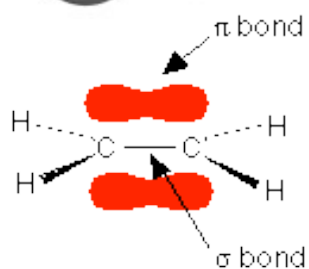
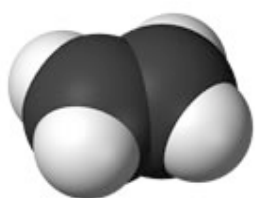
Same or different?



Same or Different

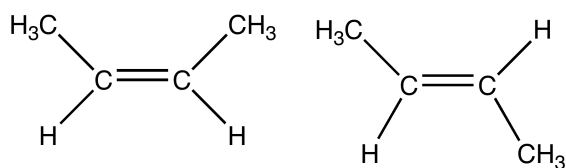


Alkenes



- C sp^2 hybridized
- One sigma bond
- One pi bond
- Restricted rotation around the double bond

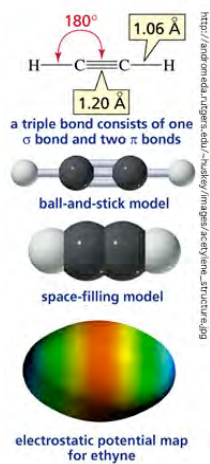
Same or different?



Vision



Triple bonds



- C - sp hybridized
- One sigma bond
- Two pi bonds