## **Alenes and Alkynes**

## A. Alkenes

- have at least one double bond (C=C)
- general formula: C<sub>n</sub>H<sub>2n</sub>
- there must be a minimum of 2 carbons
- use the same prefixes as for alkanes
- change the ending to 'ene'
- indicate the location of the bond by assigning the carbon backbone (parent chain) numbers
- the numbering begins closest to the double bond

Example: 2-butene

## B. Alkynes

- have one triple bond (CEC)
- general formula: C<sub>n</sub>H<sub>2n-2</sub>
- there must be a minimum of 2 carbons
- use the same prefixes and numbering as for alkanes and alkenes
- change the ending to 'yne'

Example: 4-octyne



## C. Structural Isomers

- a compound that has the same molecular formula as another compound but a different molecular structure
  - Example: 1-butene and 2-butene

$$H$$
 $C=C$ 
 $H$ 
 $H_2C-CH_3$ 

$$H_3C$$
  $CH_3$   $H$   $H$