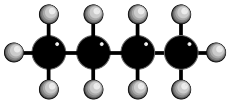
STRUCTURAL ISOMERISM

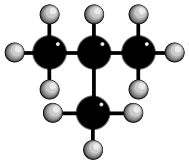
Definition When compounds having the SAME MOLECULAR FORMULA but DIFFERENT STRUCTURAL FORMULA

Chain

- different arrangements of the carbon skeleton
- similar chemical properties
- slightly different physical properties
- more branching = lower boiling point



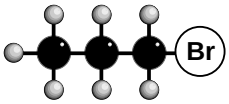
butane



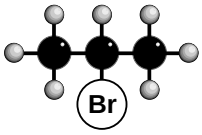
2-methylpropane

Positional

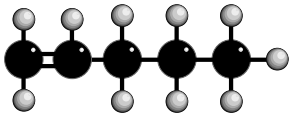
- same carbon skeleton
- same functional group
- functional group is in a different position
- similar properties



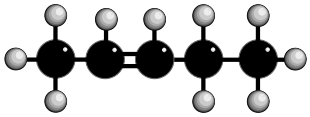
1-bromopropane



2-bromopropane



pent-1-ene

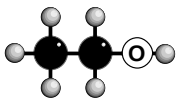


pent-2-ene

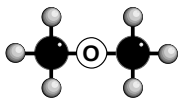
Functional Group

- different functional group
- different chemical properties
- different physical properties

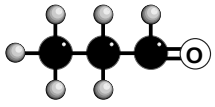
- Examples
  ALCOHOLS - ETHERS
  ALDEHYDES - KETONES
  CARBOXYLIC ACIDS - ESTERS



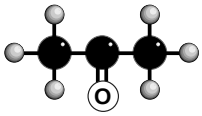
ethanol
ALCOHOL



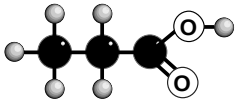
methoxymethane
ETHER



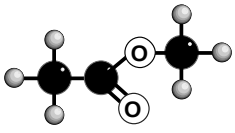
propanal
ALDEHYDE



propanone
KETONE



propanoic acid
CARBOXYLIC ACID



methyl ethanoate
ESTER