

STRUCTURAL ISOMERISM

Definition

When compounds having the

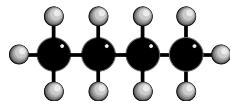
SAME MOLECULAR FORMULA

but

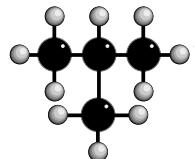
DIFFERENT STRUCTURAL FORMULA

Chain

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



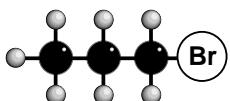
butane



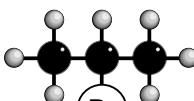
2-methylpropane

Positional

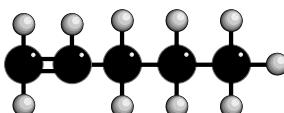
- same carbon skeleton
- same functional group
- functional group is in a different position
- similar properties



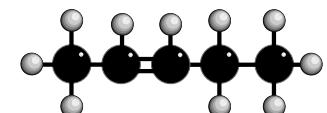
1-bromopropane



2-bromopropane



pent-1-ene



pent-2-ene

Functional Group

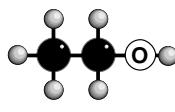
- different functional group
- different chemical properties
- different physical properties

- Examples

ALCOHOLS - ETHERS

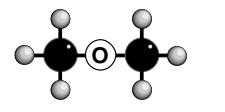
ALDEHYDES - KETONES

CARBOXYLIC ACIDS - ESTERS



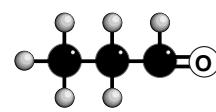
ethanol

ALCOHOL



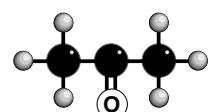
methoxymethane

ETHER



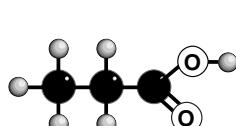
propanal

ALDEHYDE



propanone

KETONE



butanoic acid

