KITE VICTERS ONLINE CLASS - 15-01-2021

Chemistry- X- Unit -6. Class - 37

Nomenclature of organic compounds and isomerism

Cyclic or Ring Compounds

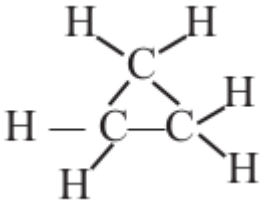
Carbon atoms combine together to form cyclic compounds
Cyclic or ring compounds are classified into two.

a) **Alicyclic compounds**
b) **Aromatic compounds**

Alicyclic Hydrocarbons

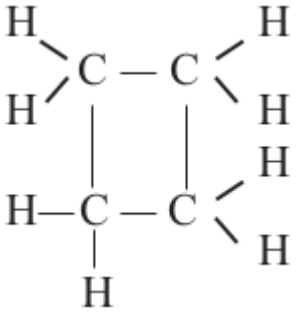
Alicyclic hydrocarbons are cyclic hydrocarbons similar to open chain hydrocarbons like alkane, alkene and alkyne.

Eg:1



IUPAC Name: Cyclopropane

Eg:2

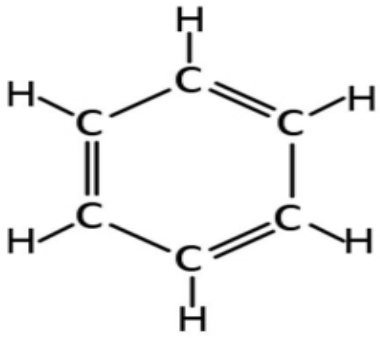


IUPAC Name : Cyclobutane

Aromatic Hydrocarbons

Aromatic compounds are cyclic compounds having their own aroma.

Ex: Benzene



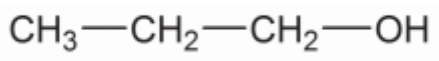
Functional Groups

> The presence of certain atoms or groups imparts certain characteristic properties to organic compounds. They are called functional groups.

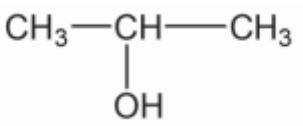
Let us familiarise ourselves with some of the functional groups.

Hydroxyl Group (OH)

They are compounds containing OH group.
OH group can be considered as a functional group.



IUPAC Name: Propan-1-ol



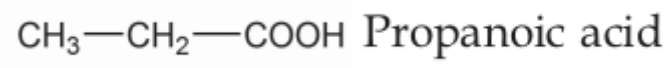
IUPAC Name: Propan-2-ol

Carboxylic Group

Compounds with functional group -COOH are known as carboxylic acids.

Eg:

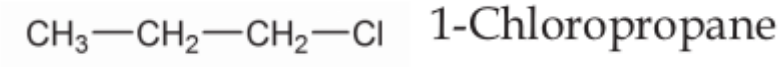
CH_3-COOH – Ethanoic acid.

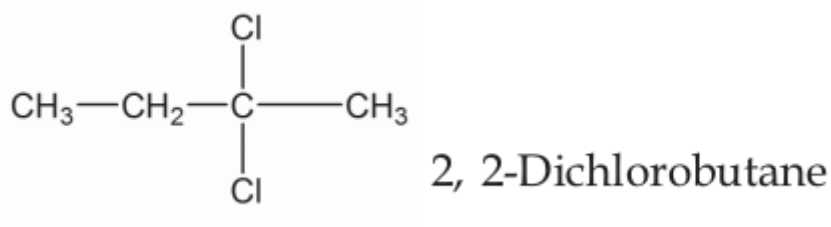


Halo group

Organic compounds with functional groups fluro (-F), chloro(-Cl),bromo(-Br) and iodo (-I) are called Halo compounds.

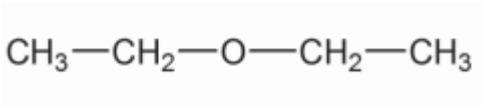
Eg:



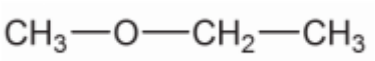


Alkoxy Group

Ethers are compounds with an alkoxy group



Ethoxyethane



IUPAC Name: Methoxyethane

Questions

1. Find the IUPAC names of the following compounds

a) $CH_3 - CH_2 - CH_2 - CH_2 - OH$

b) $CH_3 - O - CH_3$

1. Draw the structure of following compounds.

a) Pentan-2-ol

b) 2-Chlorohexane

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