Chemistry- X- Unit -6. Class - 37A

Nomenclature of organic compounds and isomerism

Isomerism

Observe the two compounds given below.

CH₃-CH₂-CH₂-OH



These compounds have the same molecular formula. But the position of the functional group differs.

These compounds are known as Isomers

Compounds having same molecular formula but different chemical and physical properties are called Isomers. The phenomenon is called Isomerism.

There are different types of isomers.

1.Chain isomers Observe the two compounds given below.



These are isomers.

They have same molecular formula . But there is a difference in the chain structure .

So they are known as chain isomers.

Functional isomers

Consider the above mentioned isomers. But they have a difference in their functional groups.

So they are known as functional isomers.

Compounds having same molecular formula, but having a difference in their functional groups, are known as 'Functional isomers'.

Position Isomers

Let us consider the following isomer pairs.

CH3-CH-CH3 | OH

 CH_3 — CH_2 — CH_2 —OH

There is a difference in the position of the functional group

They are position Isomers.

If the position of the functional group is different in two compounds having the same molecular formula and the same functional group, then they are position Isomers.

Questions

1. Write any two position isomers of the following compound.

CH_3 - CH_2 - CH_2 - CH_2 - CH_2 - CH_2 - CL_2 -

2. Write any two chain isomers of the following compound.

CH₃-CH₂-CH₂-CH₂-CH₃

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3. Identify the type of isomerism present in the following isomers.

CH₃-**O** -**CH**₂-**CH**₃

CH_3 - CH_2 - CH_2 -OH

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