HYDROCARBONS

Hydrogen are organic compounds composed only of two elements—carbon and hydrogen. All hydrocarbons have the molecular formula of C_xH_y, where x and y are positive whole numbers. Some examples are methane, CH_4, propane C2H5, benzene C_6H_6, etc.

The natural sources of hydrocarbons are coal, natural gas and petroleum. These are often known as fossil fuels because they are:

- the remains of plants and animals that died millions of years ago, and
- used mainly as fuels, that is burnt to release heat or other forms of energy.

Coal is a solid fuel, petroleum is a dark viscous liquid fuel and natural gas is a gaseous fuel.

Classification of Hydrocarbons

Hydrocarbons are classified into two main groups – the aliphatic hydrocarbons and the aromatic hydrocarbons, according to their molecular structure.

Aliphatic hydrocarbons are composed of carbon chains and could be acyclic or cyclic. Acyclic hydrocarbons are straight or branched. Important homologous families that belong to this group are the alkanes, alkenes, and alkynes. Cyclic hydrocarbons forms rings by the joining the end carbon atoms of an acyclic hydrocarbon.

Aromatic hydrocarbons are all cyclic compounds. The basic cyclic structure is the benzene ring.

