

## INTRODUCTION OF ORGANIC CHEMISTRY

### GLOSSARY:

- ◆ **Addition reaction**: A chemical reaction, in which one molecule is added to another molecule.
- ◆ **Alkane**: Any saturated aliphatic hydrocarbon with the general formula  $C_nH_{2n+2}$ .
- ◆ **Alkene**: Any unsaturated aliphatic hydrocarbon with the general formula  $C_nH_{2n}$ .
- ◆ **Alkyne**: Any unsaturated aliphatic hydrocarbon, having a formula of the type  $C_nH_{2n-2}$ .
- ◆ **Allotropic form**: The existence of a substance in two or more crystalline or molecular structural forms of an element.
- ◆ **Amorphous**: The substance without a definite shape.
- ◆ **Atomic Radius**: The distance from atomic nucleus to the outermost stable electron orbital in an atom.
- ◆ **Atomic Volume** : The atomic mass of an element divided by its density.

- ◆ **Catenation**: Formation of a chain structure by the bonding of atoms of the same element.
  
- ◆ **Chain isomerism**: A compound, having the same molecular formula, but have 2 or more forms, difference in the arrangement of the carbon atoms in the main chain.
  
- ◆ **Covalent bond**: A chemical bond, involving sharing a pair of electrons between atoms in a molecule.
  
- ◆ **Covalent Radius**: The measurement of size of an atom, forming part of one covalent bond.
  
- ◆ **Crystalline form**: A solid material, whose constituent atoms, molecules or ions are arranged in an orderly repeating pattern.
  
- ◆ **Functional group**: The specific group of atoms within molecules, responsible for the various characteristics of those molecules.
  
- ◆ **Geometrical isomerism**: A chemical compound, having the same molecular formula, but different geometric configuration.

- ◆ **Growth regulators**: Chemicals used to control the plant's growth.
- ◆ **Homologous series**: A series of organic compounds with a similar general formula, possessing similar chemical properties.
- ◆ **Isomerism**: Compounds with the same molecular formula, but different structural formulae.
- ◆ **Isotopes**: Atoms of a chemical element, whose nuclei have the same atomic number, but different atomic weights.
- ◆ **Optical isomerism**: Molecules lacking an internal plane of symmetry, having a non-super imposable mirror image.
- ◆ **Organic Chemistry**: The chemistry of carbon compounds.
- ◆ **Position isomerism**: Isomers that differ only in the position occupied by a substituent.
- ◆ **Prefix**: Denoting the presence of other functional groups and their positions.

- ◆ **Saturated Carbon compounds**: Compounds of carbon and hydrogen, whose adjacent carbon atoms contain only 1 carbon-carbon bond.
- ◆ **Stereo isomerism**: Molecules, having the same molecular formula and sequence of bonded atoms, but differing only in the 3 dimensional orientations of their atoms in space.
- ◆ **Structural isomerism**: Isomers, differing in the order of bonding of the constituent atoms.
- ◆ **Substitution reaction**: A reaction, in which an atom or a group of atoms is replaced by another atom or group of atoms.
- ◆ **Suffix**: Denoting the type of bonds or the functional group present in the carbon chain.
- ◆ **Total synthesis**: The synthesis of a complex organic compound from simple and readily available compounds.
- ◆ **Unsaturated Carbon compounds**: Compounds of carbon and hydrogen, containing one double covalent bond between carbon atoms (carbon=carbon) or a triple covalent bond between carbon atoms (carbon≡carbon).

- ◆ **Valence electrons**: The outermost electrons of an atom, important in determining how the atom reacts chemically with other atoms.
- ◆ **Word root**: Denoting the number of carbon atoms present in a given molecule.