

Introduction to Chemistry

Definition of Chemistry

• Study of matter, its properties, how it interacts, combines, and changes.

Branches of Chemistry

- Organic chemistry, Inorganic chemistry, Physical Chemistry, Analytical chemistry, Biochemistry, Theoretical Chemistry.

Chemistry is the scientific study of matter, its properties, composition, structure, and the changes it undergoes during chemical reactions. It explores how substances interact with energy and other substances, aiming to understand the fundamental principles governing these interactions and transformations.

Organic Chemistry

Definition:

Organic chemistry is the branch of chemistry that deals with ~~the~~ the study of carbon-containing compounds and their properties, structures, reactions, and synthesis.

Key concepts:

1. Hydrocarbons:

- Alkanes: Saturated hydrocarbons with single bonds (e.g., methane, ethane).
- Alkenes: Unsaturated hydrocarbons with one or more double bonds (e.g., ethene, propene).
- ~~Alkenes~~ ^{Alkynes}: Unsaturated hydrocarbons with one or more triple bonds (e.g., ethyne, propyne).
- Aromatic Hydrocarbons: Compounds containing benzene rings (e.g., benzene, toluene).