

Chem Concpt Topic Tree



Basic Concepts in Chemistry - Topic Tree

1. Some Basic Concepts of Chemistry

1. Nature of Matter

- States of Matter
- Classification of Matter: Mixture, Pure Substance

2. Properties of Matter and Their Measurement

- Physical and Chemical Properties
- Units of Measurement
- Uncertainty in Measurement
- Dimensional Analysis

3. Laws of Chemical Combinations

- Law of Conservation of Mass
- Law of Definite Proportions
- Law of Multiple Proportions
- Gay Lussac's Law of Gaseous Volumes
- Avogadro's Law

4. Atomic and Molecular Masses

- Atomic Mass
- Average Atomic Mass
- Molecular Mass
- Formula Mass

5. Mole Concept and Molar Masses

- Concept of Mole
- Avogadro Constant
- Molar Mass

6. Stoichiometry and Stoichiometric Calculations

- Balancing Chemical Equations
- Calculations based on Chemical Equations
- Limiting Reagent
- Reactions in Solutions: Concentration Terms (Molarity, Molality, etc.)

7. Percentage Composition

8. Empirical and Molecular Formula

- Calculation of Empirical Formula
- Calculation of Molecular Formula

