1. Matter

1.1. Introduction to matter

1.2. Classification of Matter

1.3. State of matter and phase changes

1.4. Properties of matter

1.5. Changes of matter

1.6. Elements

1.7. Compounds

1.8. Impure substances (Mixtures)

1.9 Assessment (True or false) with Solutions

2. Atomic Structure

2.1. Historical Development

i. J.J. Thompson

ii. Robert Millikan

iii. Ernest Rutherford

iv. Henry Mosley

v. Erwin Schrödinger

2.2. Quantum Numbers

i. Principal Quantum Number

ii. Azimuthal Quantum Number

iii. Magnetic Quantum Number

iv. Spin Quantum Number

2.2. Modern Ideas on Atomic Structure

2.3. Electronic Configuration

a) Sublevel Notation

i. Aufbau principle

ii. Pauli Exclusion Principle

iii. Hunds Rule of Maximum Multiplicity

b) Shell Notation

c) Electron Dot Notation (Lewis Dot Structure)

2.4. Assessment (True or false) with Solutions