

## LECTURE 9 ELECTRONIC STRUCTURE OF MULTIELECTRON ATOMS

### I. Electron Configurations

#### A. Aufbau Principle

1. Pauli Exclusion Principle
2. Hund's Rule

#### B. Core electrons and valence electrons

### II. Shielding and $Z_{\text{eff}}$

### III. Electron Configurations of Ions

### IV. Photoelectron Spectroscopy