

BASIC CONCEPTS OF CHEMISTRY

Chapter 8

Modern Atomic Theory

Objectives:

- * Describe how Bohr's model of the atom accounts for observed wavelengths and energies of emission spectra
- * Describe the electronic structure of an atom, including shells, subshells, and various types of orbitals
- * Using the periodic table, write the outer electron configuration of the atoms of a specific element
- * Using orbital diagrams, determine the distribution of electrons in an atom
- * Using the periodic table, write the complete electron configuration and the abbreviated electron configuration of the atoms of a specific element
- * Using the periodic table, predict trends in atomic and ionic radii, ionization energy, and electron affinity (electronegativity)