**Ideal gas** a hypothetical gas that exactly obeys the ideal gas law. A real gas

approaches ideal behavior at high temperature and/or low pressure

**Ideal gas law** an equation relating the properties of an ideal gas, expressed as

*PV = nRT*, where *P*  = pressure, *V* = volume, *n* = moles of gas, *R* = the universal gas constant, and *T* = temperature on the Kelvin scale. This equation expresses behavior closely approached by real gases at high temperature and/or low pressure

**Indicator** a chemical that changes color and is used to mark the end point of a

titration

**Intermolecular forces** relatively weak interactions that occur between

molecules

**Internal energy** the sum of the kinetic and potential energies of all components

of an object

**Intramolecular forces** interactions that occur within a given molecule

**Ion** an atom or a group of atoms that has a net positive or negative charge

**Ion – product constant (*Kw*)** the equilibrium constant for the auto – ionization of

water; *Kw* = [H+][OH-]. At 25 oC, *Kw* equals 1.0 x 10-14

**Ionic bonding** the attraction between oppositely charged ions

**Ionic bonding** a compound that results when a metal reacts with a nonmetal to

form cations and anions

**Ionic solid** a solid containing cations and anions that dissolves in water to give

a solution containing the separated ions, which are mobile and thus free to conduct an electric current

**Ionization energy** the quantity of energy required to remove an electron from a

gaseous atom or ion

**Isomers** species that have the same chemical formula but different properties