

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 (K_w) the equilibrium constant for the auto – ionization of water; $K_w = [H^+][OH^-]$. At 25 °C, K_w equals 1.0×10^{-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