

Chemistry 112

Classification of matter

- ions
- octet rule
- binary ionic compounds
(name→formula,
formula→name)
- molecular compounds
(name→formula,
formula→name)
- acids and bases
(name→formula,
formula→name)
- ions with polyatomic
(name→formula,
formula→name)
- Indicators
- Properties of ionic compounds

Chemical bonding

- Covalent bonding
- Coordinate covalent bonding
- Lewis Dot Diagrams
- Bond polarity
(electronegativity)
- VSEPR Theory
- Molecular orbitals
- Bond dissociation energy
- Attraction between molecules
- Water

Stoichiometry

- a mole
- atomic mass unit (molar mass)
- gram to mole & mole to gram
- particle to mole & mole to
particle
- 2 step conversions
- balancing chemical equations

- mole to mole
- 3 step conversions
- Mole volume relationship
- Liter to mole & mole to liter
- Percent composition
- Empirical formula
- Molecular formula
- Classifying reactions
- Predicting products of reactions
- Limiting reagents
- Percent yield

Gas Law

- Kinetic energy and a model for
gases
- Gas pressure
- Kelvin temperature
- Compressibility
- The combined gas law
- Boyle's Law
- Charles' Law
- Gay-Lussac's Law
- Ideal gas Law
- Net Ionic equations
- Predicting precipitates
- Atomic orbitals (electron
configuration)
- Groups in the periodic table
- Electron spin diagrams
- Standard atomic notation
- Isotopes
- Law of Definite Proportions

