

FINAL EXAM TOPICS

Advanced Chemistry

- Ch 17
 - Redox defined
 - Redox balancing
 - Ch 16
 - Le Chatelier's Principle
 - Equilibrium constant calculations
 - Buffers defined and significance
 - Ch 15
 - Acid-base types and reactions
 - pH calculations
 - Neutralization calculations
 - Writing net ionic equations
 - Ch 14
 - Factors affecting solubility
 - Molarity calculations
 - Dilution calculations
 - Colligative properties...freezing point depression calculations
 - Ch 13
 - Properties of liquids
 - Phase change calculations for water
 - Intermolecular forces
 - Hydrates
 - Characteristics of water
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- Ch 12
 - Boyle's Law
 - Charles' Law
 - Avogadro's Law
 - Combined Gas Law
 - Mole-mass-volume gas relationships
 - Ideal Gas Law
 - Dalton's Law of Partial Pressures
 - Gas Density
 - Gas Stoichiometry
 - Ch 11
 - Periodic trends
 - Lewis structures
 - VSEPR
 - Ch 10
 - Energy levels of electrons (energy levels, sublevels, and orbitals)
 - Orbital diagrams
 - Electron configurations
 - Noble gas notation
 - Ch 9
 - Stoichiometry (including limiting reactant and yield calculations)
 - Ch 8
 - Writing and balancing chemical equations
 - Types of chemical reactions
 - Heat in chemical reactions (exothermic, endothermic, heat of reaction, activation energy)
 - Ch 7
 - The mole
 - Molar mass of compounds
 - Percent composition of compounds
 - Empirical formula calculations
 - Ch 6
 - Writing and naming formulas
 - Common acids
 - Ch 5
 - Atomic theory
 - Isotopes
 - Ch 4
 - Physical/chemical properties/changes
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 - Ch 3
 - Organization of elements in the Periodic Table
 - Molecular vs. ionic bonding
 - Ch 2
 - Significant figures
 - Dimensional analysis
 - Temperature conversions
 - Density equation
 - Ch 1
 - Characteristics of and classifying matter