

Montgomery County Community College
CHE 152

- A. Concentration Units
- B. Effect of Temperature and Pressure on Solubility of Solute
- C. Colligative Properties
- III. Chemical Kinetics
 - A. The Rate of Reaction
 - B. Rate Law
 - C. Concentration and Time Equations
 - D. Activation Energy and Temperature Dependence of Rate Constants
 - E. Reaction Mechanisms and Catalysis
- IV. Chemical Equilibrium
 - A. Equilibrium Constant
 - B. Factors that Affect the Equilibrium Constant
- V. Acids and Bases
 - A. Bronsted Acids and Bases
 - B. pH Calculations
 - C. Calculations of Weak Acid Ionization Constants
 - D. Calculations of Weak Base Ionization Constants
 - E. Conjugate Acids and Bases
 - F. Diprotic and Polyprotic Acids
 - G. Molecular Structure and the Strength of Acids
 - H. Acid-Base Properties of Salts, Oxides and Hydroxides
 - I. Lewis Acids and Bases
- VI. Acid

- IX. Nuclear Chemistry
 - A. Nuclear Reactions
 - B. Nuclear Stability
 - C. Natural Radioactivity
 - D.5 Nuclear Transmutation
 - E. Nuclear Fission and Fusion
 - F. Uses of Isotopes and Biological Effects of Radiation

SEQUENCE OF EXPERIMENTS:

1. Synthesis of Aspirin
2. Distillation of Salt Water
3. Colligative Properties: Freezing Point Depression
4. Chemical Kinetics: Rate of Decomposition of Hydrogen Peroxide
- 5.5.

. It was developed, approved and will be delivered in full compliance with the policies and procedures established by the College.