

Honors Chemistry - Topic II Outline
Matter, Energy and Change - Making Some Sense of It All

I. Classification of Matter

Pgs 55-63; 270-271, 273, 276-282

- A. Matter, mass, inertia and energy
- B. States, Phases, and Changes in State
- C. Properties of Matter
 - 1. Extensive v. intensive
 - 2. Physical properties and physical change
 - 3. Chemical properties and chemical change
- D. Energy and Change
 - 1. Types of change
 - 2. Measuring/calculating energy changes
 - 3. Law of Conservation of energy
- E. Definitions and Properties of Classes of Matter
 - 1. Mixtures & Solutions
 - 2. Compounds and Elements

II. Separation & Purification of Matter

Pgs 64-65

- A. Techniques for Separation of Mixtures
 - 1. Filtration and centrifuging
 - 2. Solubility
 - 3. Other techniques
- B. Techniques for Separation of Solutions
 - 1. Distillation
 - a. simple
 - b. fractional
 - 2. Evaporation
 - 3. Chromatography
 - a. paper
 - b. other techniques
- C. Techniques for Decomposing Compounds and Collection of Gases

III. Classifying Elements

Pgs 73-77; 88-96

- A. Names & Symbols
- B. Metals v. Non-Metals
- C. Introduction to The Periodic Table
 - 1. Organization
 - 2. Using the chart