**AP Chemistry – Unit 3 Study Guide**

**Atomic Structure and Periodicity**

**TOPICS COVERED:**

 -Wave nature of light (c = λ*v*, E = *hv*)

 -Emission Spectra of atoms (including energy changes associated with the Bohr model)

 -Mass Spectroscopy

 -Photoelectron spectroscopy

 -Periodic trends (must be able to analyze the trend as well as remember it!)

 -Effective nuclear charge -Atomic radii

 -Ionization energies -Metallic character

 -Electronegativity -Reactivity

 -Nonmetal/Metal oxide formation (and acid/base formation)

**SECTIONS TO STUDY**, with the number of questions that will be on each: (all from chapters 6 and 7)

 CHAPTER 6: CHAPTER 7:

6.1: 2 questions 7.1: 1 question

 6.2: 2 questions 7.2: 2 questions

 6.3: 1 question 7.3: 2 questions

 6.8: 3 questions 7.4: 3 questions

 6.9: 1 question 7.5: 1 question

 7.6: 3 questions

Photoelectron Spectroscopy (from packet): 2-3 questions 7.7: 3 questions

 7.8: 1 question

**RESOURCES TO STUDY:**

 1) Textbook 2) Handouts/Notes 3) PES Packet 4) AP Chem website

PES Simulation: <http://www.chem.arizona.edu/chemt/Flash/photoelectron.html>,