

**Chapter 6-7 Reference Sheet**  
**AP Chemistry**

**Name:** \_\_\_\_\_

**Hour:** \_\_\_\_\_

Equations, Constants and Variables

Electromagnetic Radiation

Bohr's Model

Quantum Model

Rules, Laws and Principles

Electron Configurations

Periodic Trends

## Sample Problems:

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### Reactions

*For each of the following reactions, write a balance equation for the reaction and answer the question about the reaction. Coefficients should be in terms of lowest whole numbers. Assume that solutions are aqueous unless otherwise indicated. Represent substances in solutions as ions if the substances are extensively ionized. Omit formulas for any ions or molecules that are unchanged by the reaction.*

1. Nickel Oxide is reacted with sulfuric acid.
  - What should you observe when this reaction occurs?
  
2. Sulfur trioxide is bubbled through a sodium hydroxide solution.
  - Describe the change in oxidation states for sulfur.
  
3. Rubidium is exposed to oxygen gas.
  - Write the electron configuration for elemental rubidium.
  
4. Electrical current is passed through a solution of sodium chloride.
  - Describe the thermicity of this reaction in terms of internal heat energy.
  
5. Xenon gas is reacted with fluorine gas.
  - Why does this reaction form an unstable product?