

## Chapter 29 Study Guide

Prior to lecture:

1. Read Ch. 29 in textbook
2. Work through example problem 29.1, 29.3 and 29.6.
3. Answer conceptual questions 1, 2, 3, 5, 9, 11 and 17 on page 1060 of the text.
4. Define the following terms:
  - a. Blackbody Radiation
  - b. Correspondence principle
  - c. Quantum mechanics
  - d. Quantization of energy
  - e. Atomic spectra
  - f. Photon and Photoelectric effect
  - g. Binding energy
  - h. Work function
  - i. X-Ray radiation
  - j. Compton Effect
  - k. Particle-Wave duality
  - l. de Broglie wavelength
  - m. Probability distribution
  - n. Heisenberg uncertainty principle
  - o. Ionizing radiation

After the lecture

1. Review notes from lecture.
2. Redo all example problems from lecture.
3. Reread text
4. Work through example problem 29.4, 29.5, 29.7, and 29.10.
5. Redo all recitation worksheet problems
6. Answer conceptual questions 4, 8, 11, 13, 19, 24 and 25 of the text.
7. Complete homework for chapter 29
8. For extra practice, try the following problems from chapter 29 of the textbook: 5, 9, 15, 17, 23, 26, 28, 30, 35, 39, 41, 44, 49, 51, 55, 59, 62, 64, 67, 69, 70, and 78.