

Physical Chemistry II
Problem Set 9—due Monday, April 28, 2003 (at 5:00 p.m.)

This short assignment will be worth 33% of a normal problem set.

1. (5 points) Atkins and de Paula Exercise 18.4(b). Report the frequency in MHz.
 2. (5 points) Atkins and de Paula Exercise 18.8(a). (Not a typo.) Report the energy difference in J.
 3. (5 points) Atkins and de Paula Exercise 18.9(b).
 4. (5 points) Atkins and de Paula Exercise 18.10(b)
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Announcements

- Test 3, covering (a) lectures from April 2 through whenever we finish magnetic resonance; (b) Chapters 16, 17, and 18; and (c) Problem Sets 7, 8, 9; will be during the lab time slot on Thursday, May 1 (as per the syllabus). As before, you will have 2.5 hours to work on the exam, and you can fill one side of a 8.5" x 11" piece of paper as a cheat sheet.
- However, there are some significant changes from the syllabus. We will not be covering statistical mechanics, nor will we have a tenth problem set, nor will we have a computational chemistry lab experience. However, after we finish Chapter 18, I will spend our remaining class time focusing on key concepts and techniques of computational chemistry.
- The final examination in the course (on Thursday, May 8, from 8:30 – 10:30 a.m.) will consist largely of the American Chemical Society's standardized examination in Quantum Mechanics. (The test includes a few questions on computational chemistry!) I will add a few essay and math questions of my own devising.