General Chemistry II  
Problem Set 5  
Due Friday, March 10, 2006 (at 5 p.m.)—note change from syllabus  

Total points for this assignment = 59


2. (3 points) IMT Problem 9.6

3. (6 points) IMT Problem 9.11

4. (6 points) IMT Problem 9.14 (a) and (c). Note that the units of $\Delta H$ and $\Delta U$ should be kJ mol$^{-1}$, not merely kJ!

5. (6 points) IMT Problem 10.3

6. (4 points) IMT Problem 10.7. Note that the energy level systems and $G-T$ graphs are actually on the bottom of the previous page.

7. (16 points) IMT Problem 10.8 (a), (b), and (c). You must calculate the crossing temperatures.

8. (12 points) IMT Problem 10.16 (c) and (d). Comments: (1) You should assume that you have 1.000 g of water (*i.e.*, the mass is known to four significant figures). (2) I will tell you that $\Delta S_{\text{universe}} = 0$ at 100° C. (The original intent of the problem was to determine this temperature by fitting a straight line to a plot of $\Delta S_{\text{universe}}$ vs. $T$.)