

**Reading:** Chapter 6.9-6.13, 8.1-8.7

**Hand in:**

Q 6.6, 8.5, 8.7 (3 points each)

P 8.2 (3 points), 8.15 (4 points)

Extra Credit: P8.12

Notes:

**Q6.6:** Remember that  $G_{\text{pure}}$  is the sum of the Gibbs energy for all species in the reaction. This is more like the Gibbs energy that you are accustomed to associating with the reaction. On the other hand, the total  $G$  (which is at a minimum at equilibrium) accounts for Gibbs energy of mixing as well. Give some thought to what each  $G_{\text{pure}}$  and  $\Delta G_{\text{mixing}}$  look like independently, and it may help you here.

**Q8.7:** What “molecular concept” explains the origins of surface tension? What is the nature of that concept for mercury?

**P8.15:** Whenever you use a “graphical approach”, be sure to include your plot! That is how you show your work for a graphical problem. They should be properly labeled, with axes that include units. No hand-drawn plots are accepted.

**Additional:**

Q 6.8, 8.1, 8.6, 8.10

P 6.2, 6.12, 8.4, 8.8, 8.46

**Q8.10:** You may be tempted to give a two-word answer. Resist that temptation, and instead, offer insight into the molecular perspective.