

## Random Musings February 5, 2008—a brief one

1. There is a quiz on Thursday and an exam next Wednesday. I will have details about the exam on Thursday but for now be aware that it is from 7 to 9 in rooms to be determined and that if you have to take the make-up it will be the following Sunday night, no exceptions. Also, I will have an exam review on Sunday night as always.

2. Here are the 30 questions for exam 1:

### 30 question types for the exam 1

#### Physical Equilibria

- 1 temperature dependence of phase changes
- 2 vapor pressure theory
- 3 salt dissociation in water
- 4 phase diagram interpretation
- 5 phase diagram navigation
- 6 calculating  $\Delta H$  from heating across phases transitions
- 7 gas solubility in liquids
- 8 ranking miscibility of liquids
- 8 calculating vapor pressure in binary system
- 10 Clausius Clapeyron equation
- 11 Van't Hoff equation
- 12 colligative property application
- 13 colligative property calculation

#### Chemical Equilibria

- 14 setting up K from equilibrium expression
- 15 appreciating the magnitudes of K
- 16 calculating equilibrium concentrations from K
- 17 calculating equilibrium concentrations from K
- 18 determining reaction direction from Q and K
- 19 LeChatelier and reaction direction
- 20 LeChatelier and reaction direction
- 21 relationship of  $\Delta G$  to K

#### Introduction to Water Equilibria

- 22 theory of auto-protolysis of water
23. temperature dependence of  $K_w$
24. converting between pH, pOH,  $[H^+]$  and  $[OH^-]$
25. ranking acidity and basicity based on equilibrium constants
26. strong acid or base calculation
27. weak acid or base calculation
- 28 weak acid or base calculation
29. identifying acid and base strength
30. simple buffer calculation

3, I have learned that the office hours being held by the TAs are very poorly attended. I assume this will pick up with the quizzes and exams coming up. We are talking about almost one on one tutoring. Make use of it.

4. A bit of advice if you can't get in to the Chem Portal or once there, can't seem to find my practice quizzes: make sure you register for the 302 course when you get to the entrance to the portal and BEFORE you log in.

5. The 16 of you who paid full price for the book have been credited \$40.

6. Since it isn't Valentine's Day till next week, it seems reasonable to do hate poetry this week. Here is something from one of your peers:

## Hate Poem

by: Julie Sheehan

I hate you truly. Truly I do.  
Everything about me hates everything about you.  
The flick of my wrist hates you.  
The way I hold my pencil hates you.  
The sound made by my tiniest bones were they trapped  
in the jaws of a moray eel hates you.  
Each corpuscle singing in its capillary hates you.  
Look out! Fore! I hate you.  
The blue-green jewel of sock lint I'm digging  
from under by third toenail, left foot, hates you.  
The history of this keychain hates you.  
My sigh in the background as you explain relational databases  
hates you.  
The goldfish of my genius hates you.  
My aorta hates you. Also my ancestors.  
A closed window is both a closed window and an obvious  
symbol of how I hate you.  
My voice curt as a hairshirt: hate.  
My hesitation when you invite me for a drive: hate.  
My pleasant "good morning": hate.  
You know how when I'm sleepy I nuzzle my head  
under your arm? Hate.  
The whites of my target-eyes articulate hate. My wit  
practices it.  
My breasts relaxing in their holster from morning  
to night hate you.  
Layers of hate, a parfait.  
Hours after our latest row, brandishing the sharp glee of hate,  
I dissect you cell by cell, so that I might hate each one  
individually and at leisure.  
My lungs, duplicitous twins, expand with the utter validity  
of my hate, which can never have enough of you,  
Breathlessly, like two idealists in a broken submarine.