

## CH301 Random Musings, September 16, 2008

1. Cell phones and water and black body radiators. I don't really like the fact that cell phone companies charge so much to replace cell phones. And I don't like the idea of buying insurance on something as insignificant and unnecessary as a cell phone. But I am not a careful person, and so losing my cell phone had become a very common, and very expensive, way of life for me over the years. So I changed habits and these days I never let the phone out of my sight, even when I take my three youngest children swimming—which presents its own set of problems....

On three different occasions at the pool the last few years, my cell phone has ended up in the water—sometimes it is just me jumping with the cell phone in my pocket. Most recently the phone was ringing over on a chair and evidently my three year old heard it, went and got it, and brought it to me (at least that is what I surmised when he started pointing to my phone sitting at the bottom of four feet of water.)



As you know, cell phones don't work when they get wet. Now the average person would simply buy another phone, but not me, I am too cheap. I have already bought my older children their own replacement phones several times, and it is cost me a fortune to pay hard cash to send them both to college as well, so I think, "I bet I can save this wet phone." Being a scientist, and well versed in the ways of the physical world, I decided to bake the phone in the oven at 150 degrees over night, and sure enough, in the morning it worked again, every bit of it. Which isn't surprising to anyone who knows how the world works—we scientists occasionally do battle with the natural world and win. The only probably is that when it gets humid outside, or when the cell batteries run out of juice and the cell phone is powerless for a while, the phone needs to be baked again for a few minutes. For a while, baking my phone on a weekly basis was simply a part of my routine.

Until things went a little awry—baking my phone had always worked, except once. One morning, coming inside from working in the yard, I happened on the smell of putrid, acrid burning plastic, and sadly I learned that you can't be too careful when you put cell phones into ovens, because my cell phone has fallen on top of a black body radiator that is hot enough to melt plastic even if the photons it is giving off are in the infrared region of the spectrum and not the visible region.

Still too cheap to buy a new phone, I continued to use that phone till the end of the contract. It was a little worse for wear, and smelled really bad when you put your nose next to it. And while people could hear me because the receiver didn't melt, the speaker kind of melted so I don't really know what anyone was saying to me, not that it mattered much because I rarely listen to what people tell me anyway.

2. Quiz 1 results were spectacular. I looked at the HW Service and everyone had a 40/40. But then I asked Travis the truth and he said he hand graded the quizzes and the actual average was about 70%, which isn't that great since this is actually a pretty easy quiz. An answer key was in the answer key on the web site.

3. Seven years of failure to actually give a first quiz that I can count in the grading—a pretty impressive streak. I guess there is something to be said for tradition, even if it is a tradition of ineptness. No the only common thread in all of this is that I was the instructor:

- 2003 Didn't get the quizzes into the printer queue
- 2004 Homework Service data base offline
- 2005 No scantrons with uteid available and can't use SSN
- 2006 Only 350 copies printed—we still can't find the other 150 copies
- 2006 Every version number was 001
- 2007 Quest software not yet ready to generate in class quizzes
- 2008 No version numbers, uteid printed instead

4. Fair questions on exams and quizzes—your rights: You will notice that even if we had been able to give a real quiz, there were two questions I would have had to “kill”. “Kill” as used in this course applies to questions tossed from the quizzes/ exams and for which every student gets the points. So on this last quiz, one question had two answers that were correct, and another (tHund/Pauli/Aufbau) included a concept I hadn’t covered in class.

So the consequence of killing these two questions is that I simply give everyone the points, regardless of whether they got the questions right or not. Since I always try to be fair about the questions I put on quizzes and exams, and no one is perfect, if you feel a question is unfair or misleading, by all means e-mail me and I will consider your concern (please do not be frivolous about it.). If I make a change it will be for the entire class.

5. It never stops--there is a quiz next week on Tuesday, September 23. As always, there will be 8 questions worth 40 points total. It will be harder than the first quiz, with questions comparable to what you will see on the first exam. The questions types below are drawn from lectures 4, 5 and 6 and include:

- Electronic configurations of atoms
- Electronic configurations of ions
- Ranking periodic table properties: atomic radius, ionization energy, electron affinity, ionic radius
- Ranking periodic table properties: atomic radius, ionization energy, electron affinity, ionic radius
- Calculating an ENC (effective nuclear charge)
- Filled and half filled shell issues: Electronic configurations of transition metal atoms and ions
- Filled and half filled shell issues: Electronic configurations of the  $p^1$ - $p^4$  metal ions
- Filled and half filled shell issues: the fine structure in IE and EA trends

6. This week my discussion sessions will be in my office because there is no quiz. Next week they will be in the classrooms because there is an upcoming quiz. Make sure when you come for help that you have stuff you want to know about.

7. Want to hear something depressing? Did you know our first exam in this course is only two weeks away on Wednesday, October 1—a chance to sink your teeth into 30 questions in 75 minutes on the material in Chapters 1 and 2. Some things to know about the upcoming exam:

- It will be much harder than the quizzes—30 questions in 75 minutes so you need to work efficiently and know exactly what you are doing.
- I will still give you the question types the week before the exam so you know what to learn
- If you have a conflict with a course or lab on Wednesday evening, I will offer a make-up the following Sunday evening—please don’t e-mail to express your concern about this, you can take it on Sunday if you have an excuse.
- I always hold a review session for the exam from 6 to 7 pm on the Sunday before the exam (in this case, September 28)—easily the best 60 minutes you can spend getting ready for the exam.

8. If you have not paid for your course notes, please do so. It is really not appropriate to be irresponsible about getting your money.

9. If you are having trouble with the ChemPortal, either paying for it, or receiving e-mails within it, can you come down front and fill out a handout telling me the issues? I can then more effectively follow through and get you on-line.

10. Public Service Announcements (please submit any that you have for your program/organization/event.

## Natural Sciences Week Continued:

### Tuesday: September 16

#### **Captain Planet: The World is Yours!**

Sponsored by NSC

Location: WCH 1.120

Time: 6:00-7:30 PM

The power is yours to study anywhere around the world! Come to find out how you can end up in an exotic new setting from our panel of experts and students who studied abroad.

#### **Surprise Physician Lecture!**

Sponsored by Alpha Phi Sigma

Location: ART 1.102

Time: 7:30 PM

Do you want to know what type of extreme knowledge it takes to become a Physician? What better to do than learn from a person that does!

### Wednesday: September 17

#### **Dr. Bromm and the Dark “Knight”: A Lecture on Monster Stars**

Sponsored by NSC

Location: RLM 4.102→ Roof

Time: 7:00-9:00 PM

His name is Bromm. Dr. Bromm. A man of intrigue unfolding the deep mysteries of monster stars all the while giving out free food, ice cream, and shirts!

#### **Superhero Family Feud**

Sponsored by Minorities in Natural Sciences

Location: UTC 4.102

Time: 6:00 PM

What better way to test a superhuman collection of facts than through a classic game show. Who knows you could walk away with one of the many amazing prizes!

#### **Mental Mastery with Dr. Salinas!**

Sponsored by SYNAPSE

Location: WEL 2.312

Time: 6:00-7:00 PM

Come and listen while Dr. Salinas explains the working of the memory along with expectations and rewards. It will surely be mind blowing!

### Thursday: September 18

#### **The Incredibles: Is Your Family Super?**

Sponsored by NSC

Location: GSB 2.122

Time: 5:00-7:00 PM

What is love? More specifically, what is familial love? Fear not--Dr. Timothy Loving will thoroughly examine the relationship between the individual and the family in a riveting presentation over tea, coffee, and light desserts.

## Friday: September 19

### **Ironman: The Power of Design**

Brought to you with help from EGaDs

Sponsored by NSC

Location: WEL 2.312

Time: 1:00-3:00 PM

An idea, a blue print, and a plan--these are in the making of who we know as Ironman. The same ingredients go into the making of videogames. We invite you to attend this insider's view on game development and the industry for game design and Rockband afterwards.

### **Science Undergraduate Research Extravaganza**

Sponsored by SURGE

Location: UNB 3.304

Time: 3:00-5:00 PM

Come and listen to some of the brilliant research projects happening at UT. Don't let this event fly past you!

### **Become a Super Donor!**

Sponsored by HHPO and BHPO

Location: Blood-mobile on Inner Campus

Time: 9:00 AM-5:00 PM

Be a hero for some deserving person. Give blood and make a difference!

11. Joke corner. Some have suggested over the years that I tell a joke during random musings, and I decline for many good reasons. One of them is that chemistry jokes may be the lamest ever. Here is one courtesy of a classmate, and it is actually one of the better efforts.

Why didn't the police ever give Heisenberg a speeding ticket?

They knew exactly how fast he was going but could never figure out where he was!

12. Poetry Corner. A number of you have sent me your poetry and I am adding it to my lists for rolling out as certain themes come along (Halloween, seasons, love, hate, etc.) Keep them coming.

If I had to offer a single piece of advice on how to live a contented life, it is to understand and live the poem "Joy and Sorrow" by Kahlil Gibran from *The Prophet*. If you don't understand it yet, just wait till you've lived another quarter century. The basic idea is that a little sorrow in one's life is not a bad thing and a lot of sorrow is even better, since it arises in the hollow carved by your greatest joys. So the next time you break up with someone, if you are utterly devastated, then congratulations on having had a great relationship. See, life is simple.

Joy and Sorrow  
Kahlil Gibran

The a woman said, Speak to us of Joy and Sorrow,  
And he answered,  
Your joy is your sorrow unmasked.  
And the selfsame well from which your laughter rises  
was oftentimes filled with your tears.  
And how else can it be?  
The deeper that sorrow carves into your being,  
the more joy you can contain.  
Is not the cup that holds your wine  
the very cup that was burned in the potter's oven?  
And is not the lute that soothes your spirit,  
the very wood that was hollowed with knives?  
When you are joyous, look deep into you heart  
and you shall find it is only that which has given you  
sorrow that is giving you joy.  
When you are sorrowful look again in your heart,  
and you shall see that in truth you are weeping for that  
which has been your delight.

Some of you say, "Joy is greater than sorrow,"  
and others say, "Nay, sorrow is the greater,  
"But I say unto you, they are inseparable.  
Together they come, and when one sits alone  
with you at your board,  
remember that the other is asleep upon your bed.  
Verily you are suspended like scales between  
your sorrow and joy.  
Only when you are empty are you standstill and balanced.  
When the treasure-keeper lifts you to weigh  
his gold and silver,  
needs must your joy or your sorrow rise and fall.

