
◆ The Bunsen Burner ◆

Spring 2000

Time for Changes

It's this time of year again when everything around us is changing, the end of the school year. For many of us, including me, it is an extra special end of the semester, since it's also the end of our time here at Valpo. Of course, the end means that other things are just beginning! Change is what this edition of "The Bunsen Burner" is all about. We have short articles from numerous people telling us what they will be doing for the summer and/or next year, a reflection on four years as a chemistry major, and a look back at some of our year's events. We also have some advice for choosing a grad school, and all the fun stuff you expect from a "Bunsen Burner," including quotes and poem in iambic pentameter, written specifically for this department!

Three important announcements:

(1) Chemistry Club has a new webpage! Check out our events, links to fun chemistry, undergraduate research, and graduate school planning, and past editions of "The Bunsen Burner."

<http://www.valpo.edu/chemistry/chemclub/>

(2) Come to the All-Neils Picnic! May 5th, 4:00 pm, Kirchoff Park. Meet us after seminar for food and fun!

(3) Congratulations to our newly elected officers for the 2000-2001 school year!

President: Andrea Voges

Vice-President: Corey Schuler

Secretary: Erica Duguid

Treasurer: Aaron Miller

Interested At-Large Members: Ray Davis, David Kelley, Lee Lude, Kevin McCusker, Aubrey Reisetter, Jacob Riehm, Sara Stellfox, and Julie Waddle.

I'll warn you that parts of this issue may seem rather sentimental, since so many of the contributors will be graduating in a few weeks. I just hope when it's your time to move on, you too will understand why we feel this way. Have a great summer and good luck next year! Keep Chem Club great!

~Karen Switek

ALL-NEILS PICNIC COMING TO KIRCHOFF PARK MAY 5TH

All-Neils...

All-Night, Baby!!

On March 31st, the annual Chemistry Club event known as the All-Neils All-Nighter was held. Fun was had by all in attendance...including Dr. Engerer and his wife for the showing of *Mystery Men*. Approximately 35 chemistry and physics majors watched movies, played Beirut with Diet Coke, and did the hokey-pokey till the crack of dawn (and vice-president Voges brought breakfast). Pizza, soda, and cookies fueled the diligent students who braved Neils after dark. While most of the attendees came only for a few hours to pay their respects to the grand facility and then relegate themselves to nonsensical sleep, four highly-motivated students stayed all night reinforcing the event's namesake and achieving the status of legend. If you didn't make it to the All-Neils All-Nighter this year, your loss! Try again next year. You may think you live at Neils, but said best by graduating senior Kate Reinicke, "You ain't nothing till you've dared stay the whole night."

~Corey Schuler

Thank You!
to
all who
contributed to
"The Bunsen Burner"

Another Successful Year for Chem in the Schools

Thanks to all for your help; it was a great year for Chemistry in the Schools! Our demonstrations reached out to seven schools, Children's Discovery Day, the Boys and Girls Club, and even an education class here at Valpo. I want to thank all of the people who helped out; from turning in a schedule to doing five demo sets in a row on an early Saturday morning, you all are the ones who made it a success.

Thank You!

Jessica Amrozowicz
Heidi Bergmann
Laura Chamot
Kenny Cutler
Marlowe Djuric
Matt Dowling
Erica Duguid
Gretchen Eelkema
Chrissy Gnad
Heather Iverson
Kate Johnson
David Kelley
Mark Kerins
Leah Keehr
Heather Kerr
Brooke Kilyanek

Emily Krueger
Angela Kurtz
Lee Lude
Karl Luhrs
Chandra Mathew
Aaron Miller
Melissa Neumann
Anita Patel
Christina Peters
Trey Porter
Kate Reinicke
Aubrey Reisetter
Jacob Riehm
Sam Rudzinski
Corey Schuler
Sara Stellfox
Karen Switek
Lauren Urbanczyk
Melissa Vegter
Kara Vonderau
Julie Waddle
Allison Wegman
Allison Witt

If you have any comments about the CITS program or suggestions for new experiments please give me at call at x6583 or email me at Andrea.Voges@valpo.edu.

~Andrea Voges

A Note from the Chem Club Advisor

Two years ago Dr. Bradley, who was then the Chem Club advisor, was preparing to leave to go on sabbatical for a year. I agreed to help out with Chem Club, with the understanding that he would resume his duties as advisor when he returned. As the year went on, I realized that being the advisor for this club was not a bad job at all! I also decided that I wanted to keep the job and not give it back to Dr. Bradley when he returned! Well, I succeeded. This has been a very enjoyable 2 years. These officers have been great to work with. There has never been

any trouble finding someone to volunteer for a task. From planning events to preparing food to setting up tables or washing dishes, everything was done well, on time, and with enthusiasm. Much of the work of the Chem Club these past 2 years has been done by this year's graduating class. I've enjoyed working with them (and teaching them) and I'll miss them. Thank you Karen and Kate and Kate (which sound a lot alike when you say them out loud) and Heather and Jessica and Pam and Zach and Nate.

~Dr. Engerer

What are your plans for the upcoming months?

We asked our members, "What are your plans for the upcoming months?" See what your fellow chemists (in their own words) are doing this summer and/or next year!

This summer I will be working at Northwestern University in the Materials Research Center. I do not yet have the details but am quite excited about the opportunity. This summer has great potential to overshadow my last summer's work of watching paint dry at North Dakota State!

~Corey Schuler

I, Aaron Miller, will be staying on campus this summer, and engaging in a research project with Valpo's own Dr. Stan Zygmunt in the department of physics. (*gasp*) I can hear your reactions of astonishment! Be calm, my friends, his research is really a lot more of chemistry than physics, and it's quite interesting. It includes using an *ab initio* computer modeling program to find the intermediate steps in the zeolite-catalyzed dehydrogenation of propane. Sound dry? It's not. Anyhow, in addition to that, I have been allowed to work in the greenhouse under Dr. Dulin, (I've always loved plants) and finally, I'm taking a "Horror in Film and Fiction" class in Christ College.

~Aaron Miller

I will:

1. Learn Excel
2. Play golf
3. Study at Concordia Theological Seminary
4. Play golf
5. Set up my research equipment
6. Do some research
7. Go to Las Vegas
8. Play golf
9. Get ready to teach Polymer Chemistry in the fall

~Dr. DeLassus

I have accepted a teaching job in near Kansas City, Kansas. It is a small rural high school with about 400 students. I will be the chemistry teacher, which is very exciting. The pay is not all that bad, considering I have chosen to be a teacher. I will be getting married to Catherine DeMik in July in Washington, DC. After that we are planning on moving down to Lenexa, Kansas, which is a suburb of Kansas City. Life is looking good, and I would like to wish all of the Chemistry majors good luck, and if research doesn't work, there is a serious shortage of high school Chemistry teachers!!!

~Chris Clausing

I'll be attending medical school at either Georgetown or Indiana University. No specialty yet--I want to wait and see before I decide.

~Erica Kaufman

this is chandra.

i will probably be moving to indianapolis to work in a bar. actually, i think i have a job at the department of health, if i get around to sending my resume. my future, future plans are to go to grad school in environmental conservation (or something of the sort) and then maybe go to law school. pretty much anything to put off the "real world."

~Chandra Mathew

I will be spending this next summer at FermiLab in Batavia IL as an intern in their Mechanical Support Division. Then, in the fall, it's off to Northwestern for graduate school in chemical engineering. So, if any of you want to cross over to the dark side and become an engineer, feel free to contact me :-)

~Pam Kreeger

After graduation I will finish moving all of my crap back to my home base in Wausau, WI . I will use what remains of May and June to enjoy my last bit of

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What are your plans for the upcoming months?

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"summer vacation." In between my vacation stints, I will look for a place to live in Cleveland, and perhaps tend bar in Wausau to earn a little extra cash (never hurts). About the last week of June I will move all of my crap from my home base, to Cleveland. Come July 1, I am expected to begin the Ph.D program at Case Western Reserve University in Cleveland (where I will have conveniently found a place to live). From there on out I will be participating in my first lab rotation at Case Western, and anticipating the beginning of classes at the end of August.

~Kate Reinicke

I'm going to be going to UW-Madison to get my Ph.D. doing organic synthesis. This summer, I will be lying on the couch doing nothing.

~Nate Bowling

I'm headed to Loyola University's Stritch School of Medicine. I also just bought the best little house ever in Justice, IL, a nearby suburb. I'm sad to be leaving VU, but I'm very excited to move on to my new life.

~Kate Johnson

This summer I will be working for Dr. Rob Bryant (VU alum) at NASA's Langley Research Center in Virginia. I'm excited about living right on the Atlantic Ocean during peak beach weather, and about my research in piezoelectric polyimides as well! In August, I will be moving to Minneapolis to study materials chemistry at the University of Minnesota for the next 4-5 years. Go Golden Gophers!

~Karen Switek

I will be attending Washington University in St. Louis next year, in the PhD program in Molecular Genetics. The program there is really cool because you rotate in 3 or 4 labs in different departments before you commit to a thesis lab.

And the school is awesome!! My interests right now focus on the broad area of disease research. I'm not exactly sure on what level, but I would like to work with cancer or neurodegenerative diseases such as Alzheimer's or Parkinson's.

I've really enjoyed my four years here at Valpo. The department is great, and I feel I will be prepared next year for my graduate courses. I've met a lot of cool people and even though I've spent an ungodly amount of time in the lab, it has been a lot of fun.

Some tips to all of the undergraduates:

1. Make labs as much fun as possible. Some of your funniest experiences will happen in good old Neils Science Center.
2. Get involved in Chem Club. They really do some neat things and everyone always has a good time.
3. Take P-chem. Not baby P-chem, but the real "adult" class. I know you have or will hear horror stories about it, but when you're done, you won't believe how much stuff you actually learn. Plus everyone will look up to you in awe.
4. If you're planning on doing summer research somewhere, apply before Christmas. You'll have the best shot if you do it early.
5. If you're planning on going to grad school, fill out your applications during the summer before your senior year. It's a major pain trying to get everything together while you're trying to balance school work and fun. Plus, you can give your letters of recommendation to the faculty on the first day of classes. This gives you a better chance of getting them back before the deadline.

I think that's it. Thanks to everyone who has helped make my time here memorable (you know who you are!). I will miss you!!!!

~Jessica Amrozowicz

Better Than Cliff's Notes

This is for anyone and everyone who's not graduating. If you want some hints, some advice, a little glimpse into your future in the Chemistry Department keep reading. If not, I understand there is a rather good Quotes section in this issue.

To the Freshmen:

Get involved! That's my advice to you.

“Are you worried about organic chemistry next year? Good. You should be.”

It relieves stress. It looks great on a resume. You just might have some fun. Sounds corny, but it's true. Are you worried about organic chemistry next year? Good. You should be. That will be your chance to prove yourself. It may seem like you're overwhelmed, and not learning anything, or that what you're learning is unimportant.

Fear not! Everyone will struggle as much as you do. You'll remember more than you think. And it will be important to hold on to those bits that you do remember. They come in handy for biochemistry, inorganic chemistry, and the Chemistry GRE. You'll also discover if you like synthesizing chemicals or not. That's key when you decide what kind of research you're interested in. Survival tips: Study. Study a lot. Study in groups. Study alone. Whatever you do, just study. Protons will always come and go. Everything attacks the carbonyl carbon. You will push electrons around in other classes. You will see SN1 and SN2 again. The NMR and IR are your friends. Get to know them.

To the Sophomores:

I bet you're counting the days until your organic stint ends.... And your physical chemistry stint begins! Stressed? Get involved! (See rationale in "To the Freshmen"). I'm going to give you some hints on how to survive P-chem. #1) Do anything in your power to not miss lecture. Showing up and falling sleep counts as "missing lecture." If

you want to have any hope of understanding what you are learning, you must take your own notes.

#2) Don't plan anything for immediately after lecture. Lecture never ends on time. There is a LOT of material to cover and, by God, it will be covered!

#3) Allow large blocks of time in your schedule. This will come in handy when you want to perform your labs, write-up your labs, have homework sessions with fellow students, and have homework sessions with Kosman.

#4) Take advantage of all the help Kosman is willing to give you. He wants you to learn the material, and he'll do whatever he can to make sure that happens. If you find that you enjoy P-chem, you probably enjoyed physics, too. You should look into becoming an x-ray crystallographer, some manner of spectroscopist, or a theoretical chemist.

To the Juniors:

Good news! P-chem is almost over! I'm proud of you for surviving! I hope that you have some interesting and chemistry related plans for over the summer. Stay involved! You should know the rationale by now. AND, people are starting to look up to you, now. You're in the home stretch. All you should have to worry about for next year is inorganic chemistry, making nice with the Registrar, and how you plan to extract recommendation letters from the profs. I'm going to confirm the rumors about inorganic. The lecture teaches you that what you learned in gen chem is a sham. You're much smarter now and can handle the truth. The lab.... is definitely a unique experience. After P-chem, the write-ups will seem trivial. Allow a LOT of time for lab. Ideally, you will need 6 hours a week to perform the lab, tack on another hour to analyze your product, and set aside maybe another hour to write it up. If you're like me, and prone to human error, lab will take much longer. Be prepared. The saving grace is that you are getting to

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Better Than Cliff's Notes

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synthesize some purple or orange products (they're always purple or orange) in some pretty cool ways: high temp, low temp, high pressure, photochemically, and with glassware that you never knew existed. If you liked synthesis in organic, you'll love this.

To the Seniors:

What do you care? You've done all this already. There is nothing I can share

with you here that you don't already know. I can thank you, though. Thanks to anyone who's ever helped me with homework or labs. I hope I was able to return the favor in some way. Thanks for being involved. It's made a difference in so many ways. Best of luck! Whatever it is that you've decided to do, I wish you nothing but the best.

~Kate Reinicke

American Chemical Society

Did you know that VU's Chemistry Club is an American Chemical Society Student Affiliate Chapter?

This means that you can become a student member of the American Chemical Society. Student membership definitely has its rewards. Besides being a member of a professional society, you receive *Chemical and Engineering News*, "In Chemistry," the student affiliate newsletter, a research opportunities directory, and many other benefits, for only \$17 a year!

For more information, or to become a member, visit the ACS webpage:
<http://www.acs.org>



**BECOME AN ACS
STUDENT MEMBER
TODAY!**

A Little Grad School Advice

Thinking about grad school? Deciding what program is best for you can be a daunting task, but here are some simple words of wisdom from a chemistry professor at Virginia Tech.

In choosing a grad school my advice is simple. Look at the faculty interests. Who you work for is the most important decision you will ever make professionally. So pick schools that have a number of profs that overlap the areas you REALLY enjoy, because you need to be happy at your chosen profession to do well in it. Then, make a visit. Most schools will finance this if you ask. Talk to the profs and the grad students. See if you like the environment and the energy that they have. After all this you will know what is right for you. Write to the profs that you like. They will get you into their programs.

~Dr. Tom Ward

P.S. In the end, after logically considering every possible aspect of the programs, be patient and follow your gut. There will be something drawing you to one school over the others, and you will *know*.

“Pick schools that have a number of profs that overlap the areas you REALLY enjoy.”

Now for a Little Fun...

Ode to the VU Chemistry Department

by Jessica Amrozowicz
(written as a CC class assignment)

As I reflect on college years behind,
The VU Chem Department comes to
mind.

First, Engerer (who once blew up his
hand);
He teaches Gen Chem and he thinks it's
grand.

We love Kosman's P-Chem antics ga-
lore,
But groan when he says, "I know you
want more."

The only red-head on the faculty,
Our Dr. Bradley's back with his chili.

Young Dr. Arnoys was pretty darn cool,
But now he's gone and at another
school.

We interviewed a few to take his place;
DeLassus was the one to fill the space.

And then there's Goyne...that's all I
need to say.
His stress increases every single day.

The glue of the department, Mrs.
Spring
Has left us, but brownies does she still
bring.

The newest member of the team is cast:
Doneske's learned the ropes, and
learned them fast.

We bow to Cook, who reigns above
them all.
Organic god, he will not ever fall.

Though old and new, they've each
played a small part
In my VU career right from the start.

Quotes

(what "Bunsen Burner" would be com-
plete without them?)

"There's a whole lot of math behind it,
but I'm ignoring it because I like to
only look at the results!"

~Dr. Engerer

"Super acids are really super!"

~Dr. Cook

"Haste makes entropy."

~Dr. Kosman

"Don't use the microwave to dry your
dog."

~Dr. Bradley

"It doesn't seem like P-chem, it seems
more like common sense."

~Nate Bowling

"I like birds better than I like humans."

~Chandra Mathew

"I'm an abnormal mode."

~Dr. Bradley

"That's Kate's whole job in lab... she's a
heat source."

~Brooke Kilyanek

"The DNA lies down on its back and
wiggles its nitrogenous bases in the
air."

~Dr. Scupham

"You can put your meter stick wherever
you want."

~Dr. Koetke

"Oh..."

~Dr. Goyne

"You know how many times I've had to
wait in line for a lobotomy?"

~Zach Matson



“The Bunsen Burner”
Neils Science Center
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In This Issue...

A Time for Change: New Officers, Farewell to Seniors, Future Plans, Fond Memories

Departing Words from Our President

There's something great about being a chem major. You get to work with explosives, carcinogens, and lots of fire. You get to use expensive, intricate instruments to analyze beer and cheez whiz. You get to watch your professors do funny dances pretending to be molecules. (Try finding that in the business college!) And, best of all, you get to be in Chem Club!!

“I want to remind you that the continued success of Chem Club rests in your hands.”

Chem Club's been doing some great things this semester! We began the new millennium with the Regressive Dinner, showcasing the exquisite culinary masterpieces at Chez Kosman, Chez Engerer, and Chez

Goyne. There was the All-Neils All-Nighter, which was a great opportunity for people to hang out and have fun, and a few persistent souls even made it through the whole night. Children's Discovery Day was another fun event, where we did the Chem

in the Schools demos for area children to support Mortar Board. That same day, Kate Reinicke and I gave a seminar on Women in Science at the annual VU Women's Conference. Chem in the Schools is still going strong, and e-board is having a whole lot of fun at our weekly meetings. And it's not over yet - on May 5th, there's the All-Neils Picnic to look forward to!

And so, as a graduating senior and a three-year member of e-board, I want to remind you that the continued success of Chem Club rests in your hands. Fortunately, Chem Club is a great organization, and is a pleasure to run - not to mention all the great opportunities it affords you to meet new friends, get to know your profs better, and gain leadership experience! Don't let this opportunity to get involved pass you by!

Thanks for a great year, everyone!

~Kate Johnson