

ALI "QUOTES"

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Website http://www.princeton.edu/~pacs

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Education Night: Joint Meeting of the Princeton and Trenton ACS Sections

Tuesday, November 17, 2009

"Chemistry Careers - Stories from Four Chemists"

Time: Lecture 6:00 PM; dinner following

Lecture: Bowen Hall Auditorium, Princeton University

Dinner: Bowen Hall Atrium (2nd floor)

Jonathan Chun, Leslie Loberger, Arka Mukherjee and Jennifer Sasaki will tell us:

- •Why did you major in science specifically chemistry?
- •What do you do now in your career? (Technical) How did you "get" here?
- •How did your studies prepare you (or not) for what you do now?
- •A word of "wisdom" for students or those starting out their careers

Jonathan Chun, Ph.D. is currently the Director of Technology at Alliance Technologies a contract research laboratory near Princeton. He received a B.S. in Chemistry from the University of Hawaii-Manoa and a Ph.D. in Chemistry from Princeton University. After a post-doc at Princeton, Dr. Chun moved to i-STAT, a medical device company, developing electrochemical sensors for the rapid determination of analytes in blood. Dr. Chun later joined FMC Corporation's corporate Chemical Analytical Technology group as a Research Chemist and later managed that group. Alliance Technologies, LLC was formed at the end of 2001 as a partnership between Dr. Chun and Mr. Tony Nemzer and offers corporate-type analytical services to a wide variety of clients and industries.

Leslie Loberger holds a Bachelor's degree in Chemistry from Georgetown College and a Master's degree in Natural Products/Analytical Chemistry from the University of Virginia. Her 15 years in the industry include a laboratory and technical support position with Biotage, a Quality Control position with Amylin Pharmaceuticals, a Methods Development role at Banner Pharmacaps, a Laboratory Manager at Croda and Technical Sales positions for Polymer Laboratories and Varian. Leslie is also currently pursuing an MBA from Rutgers University.

Arka Mukherjee, Founder and CTO at Global ID's, brings management experience from companies such as IBM, Accenture and KPMG, with expertise in sales, consulting, finance and technology. Prior to founding Global IDs, Mr. Mukherjee was a Principal in IBM's Business Intelligence Practice and led the ERP Data Warehousing area. He was responsible for selling multi-million dollar data integration projects to Fortune 2000 companies around the globe. Mr. Mukherjee earned his Ph.D. from Princeton Uni Mr. Mukherjee earned his Ph.D. from Princeton University.

Jennifer Sasaki is Director of Investigative Toxicology for Johnson & Johnson Pharmaceutical Research and Development in Raritan, NJ. She has over ten

years of experience as an industrial toxicologist in project leader, study director and supervisory roles in the pharmaceutical and personal care industries on East Coast (Clairol, Pfizer) and in Europe (Tibotec, UCB Pharma). Jennifer received her PhD in Environmental Toxicology from the University of California, Riverside and postdoctoral analytical training in chemistry computational biology from Lawrence Livermore National Laboratory. She also holds undergraduate and Master's degrees in Chemistry and Science Education, respectively, from Rutgers University. Previous to graduate school, she worked as an analytical chemist for Mobil Oil in Pennington, NJ.

Reservations

The meeting will be held in Bowen Auditorium, room 222, Princeton University. The seminar is at 6 PM followed immediately by dinner in Bowen Atrium, Princeton University. Bowen Hall is located on Prospect Street, between Olden St. and Fitzrandolph St. (see princeton.edu for map). Parking is available in nearby lot #13. The seminar is free and open to the public. Reservations are required for dinner, which is \$15 (\$10 for students). All reservations will be billed, for the section pays on the number of reservations, not the number of attendees. Please contact Denise D'Auria at denised@princeton.edu or (609) 258-5202 or by November 11 to make or cancel reservations.

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Monthly Meeting & Year End Celebration Wednesday, December 16, 2009

our speaker will be

Kathryn Wagner, PhD,

Princeton University Department of Chemistry &
2009 Chair of the Princeton ACS Section

"From 'Aah' to 'Aha': Using Chemical Demonstrations to Entertain and to Educate"

Time: Lecture 6:00 PM; dinner following Lecture: Frick Laboratory, Room 120, Princeton U. Dinner: The Ferry House, 32 Witherspoon St

Abstract

Chemical demonstrations are often used to entertain. Their associated pops, bangs and color

changes draw audience attention and "aahs". Demonstrations may also be used to educate. Chemistry is a physical science, and audience members with widely varying levels of scientific sophistication have responded to the physical experience of a demonstration with "Aha!" Kathryn Wagner will present a program of demonstrations and show how each has been used to educate as well as entertain.

Biography

Kathryn "Kitty" Wagner earned her B.S. in Chemistry at the University of Arkansas, Fayetteville, her Ph.D. in Inorganic and General Chemistry at the University of Wisconsin, Madison, and her certification as a K-12 science teacher at Cook College, Rutgers University. She worked as a research chemist in DuPont's Textile Fibers Department in Wilmington, Delaware for four years before moving to New Jersey with her family. Her experiences, both as a teaching assistant for Prof. Bassam Shakhashiri at the University of Wisconsin and as a volunteer in her children's elementary school classes, gave her a deep respect for the educational value of demonstrations and hands-on activities.

Dr. Wagner has been the lecture demonstrator in chemistry at Princeton University since 1991 and director of the Princeton Chemistry Outreach Program since she helped to organize it in 1996. She has organized National Chemistry Week Activities Nights for the ACS Princeton Section every year since 2000. She also teaches "The Chemistry of Magic," a demonstration- and laboratory-centered course she developed in 2006 for freshman non-science majors at Princeton University.

Reservations

The meeting will be held at 6:00 PM in Kresge Auditorium (room 120), Frick Laboratory, Princeton University, which is located on the corner of Nassau Street and Washington Road. Following the seminar, dinner will be at The Ferry House, 32 Witherspoon St, Princeton, NJ. The seminar is free and open to the public. Reservations are required for dinner, which is \$25 for members, and \$15 for students. All reservations will be billed, for the section pays on the number of reservations, not the number of attendees. Please contact Denise (609)258-5202 D'Auria at denised@princeton.edu by Wednesday, December 9 to make or cancel reservations.

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National Chemistry Week 2009 Activities Night

Kitty Wagner, NCW Coordinator



Princeton's Frick Lab was the scene of quite a party on Friday, October 23! Two hundred guests (children ages 5 and up with parents and friends) joined 68 volunteers (19 adults and 49 Princeton High School students) to

celebrate Mole Day, Mendeleev, and National Chemistry Week with an evening of demonstrations and hands-on activities. To honor the 140th anniversary of Mendeleev's periodic table, the theme was "Chemistry: It's Elemental."

Guests saw that different elements react in different ways, and that the periodic chart can help predict the ways elements will react. They watched as hydrogen and oxygen became water, sodium and chlorine became salt, sulfuric acid took water from sugar to leave carbon, and excited metal atoms emitted different colors of light. Then they went to the lab to explore properties of elements and the compounds they make. They played games to learn more about elements and how they affect our lives, and they had the opportunity to do 18 different activities. The activities included splitting water into hydrogen and oxygen with a hand-cranked electrical generator, decomposing hydrogen peroxide to produce oxygen, comparing the reactivity of metals, making a battery that ran a motor, using carbon polymers to make bouncy balls and shrinking art, testing for conductivity, comparing light from different light bulbs, learning about the effect the sizes of atoms can have on the properties of materials, and testing the effect of acid on elements and materials we use for building.

All of these activities were made possible by our wonderful volunteers. ACS volunteers included Allen Jones, inventor of "Find the Element," builder of a magnificent spinning element wheel, and photographer; Louise Lawter, publicist, logistical assistant, and photographer; Thom Caggiano, cryogenics expert (photo 2); Klaus Wagner, polymer expert; Carol Lee, program contributor and teacher extraordinaire; and Indira Prasad, roving scientist. Princeton staff and students included Ginny Sari (lab preparator) and her assistants Alistair, Dan, and Paul, without whose permission and help we could not use the gen chem labs; grads Kate Moore and Julia Kalow, light bulb and L.E.D. experts; grad Chris Bergstrom, potato clock expert; undergrad Michael Perl, cryogenics; and undergrad Sofia Ismailov, polymers.

This year, Princeton High School chemistry teacher Joy Barnes-Johnson inspired a successful NCW collaboration with PHS chemistry teachers and students. Teachers Carol Lee and Janine Miculka joined, and the three trained 49 of their students to oversee stations at activities night. Other students made posters for the stations and built Greek arches out of calcium carbonate tablets for "Monumental Materials". PHS students included Alice Galligner. Wendell Charles, Nick Wagner, Andy Le, Callie Jahn, David Ko, Chloe Shumaker, Shelby Von, Shirani Vikuntam, Susan Liao, Yael Davidov, Rachel Bergman, Margaret Mattes, Ed Pericarpio, Anna Kaplan, Emily Kalish, Aaron Tauman, John Yuan. Imran Oasir, Elizabeth Urberich, Rachel Wanat, Rachel Klebanov, Lucy Storr, Yana Oganesova, Nida Ahmed, Cythia Steinhardt, Katva Lee. Phil Davis, Jason L., Theron Gebert, Siya Bhatt, Clara Hartmansheim, Sabah Qasir, Aleks Ivanov, Jennifer Baroni, Morgan Caglianone, Sara Sauer, Sharon Lurize, John Barron, Johathan Taratula-Fuis, Allie Raghavan, Ada Chen, Katie Zheng, S. Aadaska, Suja, Clara, and Theresa. (Profuse apologies for the inevitable misspelled names and omissions.) Thanks to everyone for an outstanding job!

Visitors watched H₂O₂ decompose



and vegetables turn solid with liquid nitrogen



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Wednesday, December 9, 2009	Topic: "Social Security Retirement Planning". Speaker is Edward Lafferty - Social Security Administration, Public Affairs Specialist, Chester District Office. Location: Cynwyd Club, 332
Chemical Consultants Network	Trevor Lane, Bala Cynwyd, PA. Networking, 5:30 PM; Dinner, 6:30 PM; Talk and Business Session, 7:30 PM. To make or cancel a dinner reservation, e-mail CCNReservations@aol.com or call the ACS office at 215-382-1589. For more information see www.chemconsultants.org.
November 17, 2009	Ballots are due for 2009 Princeton ACS Section Elections.

Seeking Volunteers for Program Committee

In an effort to provide better service to our members, the Princeton Section is establishing a program committee to help plan our monthly meetings and other events. If you are interested in serving on the committee, or if you just have a really good idea for a program, please contact chair-elect Kitty Wagner at 609 258-2937 or kmwagner@ Princeton.edu.

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Please help the Princeton Section save paper and reduce mailing costs. Sign up today to receive the newsletter electronically. Send your email address to Louise Lawter at louise.lawter@gmail.com to start receiving your electronic copy. You can also sign up directly at www.princeton.edu/~pacs/subscribe



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