

THE OCTAGON



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Lehigh Valley Section of the American Chemical Society

In This Issue:

2010 Iron Pigs	1	2010 Travel Award	3
2010 MADCAP Meeting	1	Undergraduate Poster Session	4-5
2010 Outstanding Seniors	1	News from National	6-9
Meeting Minutes	2	Submission to Octagon	10
History - Joseph Priestly	2-3	2010 LVACS Officers	10

*Mark your calenders
Summer Event - Play Ball!*



*LVACS and the Iron Pigs
July 26!*

As we did last year, LVACS has arranged for 100 tickets for an Iron Pigs game with dinner. You can purchase tickets for \$15 a piece. If you are interested, contact Bill Miles (milesw@lafayette.edu). Further details will be sent to members later this month via email and posted on the website.

2010 MADCP Meeting

The 16th Middle Atlantic Discovery Chemistry Project meeting will be held on Friday, June 4 and Saturday, June 5, 2010 at the Berks Campus of The Pennsylvania State University. We are looking forward to another exciting and informative gathering with talks, workshops, and a poster session to be held during lunch on Saturday. Similarly to prior MADCP meetings, the number of participants will be limited to roughly 80 so that we can have relatively small numbers in the concurrent workshop sessions and also

retain much of the intimacy, camaraderie and good conversation that have characterized our meetings in the past. Registration is now open at <http://berks.psu.edu/MADCP>. Information for the meeting can be found at <http://home.gwu.edu/~eisenl/MADCP-HOME.html>

2010 Outstanding Seniors

The following seniors were recognized at the April LVACS meeting, Moravian College:

Albright College, Clint A. Stalnecker
Alvernia College, David J. Reber Jr.
Cedar Crest College, Andrea Eberhardt and Michelle Schmidt
DeSales University, Bonnie Elspass and Allison Sturm
East Stroudsburg University, Marissa L. Baddick
Kutztown University, Melissa Rogalski
Lafayette College (chem.), Kathleen Sokolowsky
Lafayette College (chem. eng.), Iris Man
Lehigh University (chem.), Brian E. Diskin
Lehigh University(chem. eng.), Andrew N. Bartynski
Moravian College, Hadia Riaz
Muhlenberg College, Steven Kalman

Congratulations!

Minutes 814th Meeting of the LVACS,

February 22, 2010

The 814th meeting of the Lehigh Valley Section of the American Chemical Society was held on February 22, 2010 at Albright College. Chair William Miles called the business meeting to order at 7:41 PM. He informed the gathering of the LVACS-Organic Chemistry Scholarship for \$1,000 for current undergraduate sophomore students enrolled in organic chemistry. Students will take the ACS-Standardized Organic Chemistry exam, write an essay relating to a molecule, and need a letter of recommendation from their professor. For more information, contact John Freeman.

Al Martin delivered the Treasurer's report. We currently have \$7,100 in checking and our net worth is \$29,500. There were no items on the Councilors report, and the business meeting was concluded at 7:45 PM. The speaker of the evening was Dr. Patricia Hill from the Chemistry department at Millersville University. Her speech was entitled "Fraud, Fakes, Forgeries: Forensic Authentication of Works of Art," and explored the multitude of ways to validate a work of art as the original or simply a forgery.

Minutes 815th Meeting of the LVACS

March 25, 2010

The 815th meeting of the Lehigh Valley Section of the American Chemical Society was held on March 25, 2010, at Cedar Crest College. Chair William Miles called the business meeting to order at 7:39 PM. A final decision is still being made with regards to our summer event (Iron Pigs was hinted as a strong candidate). More information should be available about the event soon. Treasurer Al Martin presented his report on the current financial standing of the local section. We currently have \$17,083.42 in checking, and a net balance of \$39,620.36. He noted that we received our \$9,999 National allotment for our operating expenses and \$60 for recruiting four new members last year (\$15 kickback to our local section per member recruited). For those looking to recruit new members, go to acs.org to fill out the online application. Make sure to have the recruit note that they are joining the Lehigh Valley section! If more incentive is needed, check out the "Member-Get-a-Member Campaign" for a free gift. Carol Libby delivered the Councilor's report after returning from the 2010 ACS Spring National Meeting held in San Francisco. The organization is doing okay financially, but dues will be increasing by \$1 next year. With the incorporation of undergraduate students as full-

fledged members, the ACS has approximately 162,000 total, 18,000 of which were present at the Spring National meeting. Carol also reminded those present of the undergraduate poster session which will be held at the April LVACS meeting and of the LV-ACS Organic Chemistry Scholarship competition. The business meeting was then adjourned at 7:45 PM. The speaker of the evening was Ms. Patty Valente, a senior flavor chemist for Hagelin & Co. Flavor Technologies in Branchburg, NJ. Her talk was entitled "Tasted Any Good Chemicals Lately? The Chemistry of Flavor," where she examined the historical development of flavors and identifying some of the important chemicals that are used in our everyday foods. For more information on flavor chemistry, visit the following websites:

Allured Publishing

www.perfumerFlavorist.com

Amer. Assoc. of Cereal Chemists

www.aaccnet.org

Amer. Society of Perfumers

www.perfumers.org

Chemical Sources Association

www.chemicalsources.org European Federation of Essential Oils (EFEO)

www.efeo-org.org

Flavor & Extract Manufacturers of the U.S.

www.efmaflavor.org

Institute of Food Technologists (IFT)

www.ift.org

Monell Chemical Senses Center

www.monell.org

Sense of Smell Institute

www.senseofsmell.org

Joseph Priestley – The Lehigh Connection

Submitted by Jim Bohning

Reprinted in part from /Mudd in Your Eye/ (the newsletter of the Lehigh University Chemistry Department), Number 30, March 2010. 3. Photos are courtesy of the Lehigh University Special Collections.

An enigmatic English clergyman who is credited with the discovery of oxygen on August 1, 1774, Joseph Priestley came to the United States in 1794 to join his sons who had begun a land speculation venture in the wilderness of central Pennsylvania. Here he built a magnificent home which American Chemical Society President Edgar Fahs Smith said should serve as a "mecca" for every American chemist. He continued experiments in a laboratory wing of the house, and pursued his theological writings and discourses which had created so much difficulty for him in his homeland. Although Priestley died more than 60

years before Lehigh University opened its doors to students, there is a connection between the two.

Before he died in 1804, Priestley made the then difficult trip from his home in Northumberland, PA, to Philadelphia four times, often attending meetings of the American Philosophical Society. Here he met and became friends with Tench Coxe, who had served as assistant secretary of the treasury under Alexander Hamilton. As the American republic grew, Tench Coxe realized that the use of wood as the principal fuel source would diminish as nearby supplies dwindled, and began acquiring property in northeastern Pennsylvania where coal was thought to be present. His son, Judge Charles Coxe, maintained and consolidated the vast holdings, and his grandson, Eckley Brinton Coxe, was groomed to develop the coal mining activities.

Educated at the University of Pennsylvania and mining schools in Freiburg and Paris, Eckley Coxe joined the board of trustees at Lehigh in 1871, at the age of 32, and remained on the board until his death in 1895. Three years later, when a centennial of chemistry celebration was held in Northumberland to commemorate Priestley's discovery of oxygen and the American contributions of chemistry during the past century, Eckley joined 76 other chemists at the meeting and visited the grave of the man who had become his grandfather's friend.



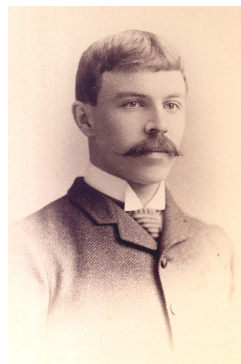
Priestly Toulmin

Priestley and his wife Mary nee Wilkerson had four children. The oldest, Joseph Priestley Jr., had five children, and his oldest son, Joseph Raynor Priestley, had nine children. One of his daughters, Frances Biddle Priestley, married Major Harry Toulmin and lived in Northumberland. Some time after the death of her husband in 1870, Frances Biddle Priestley Toulmin

moved her family to Bethlehem so that her sons, Priestley Toulmin and Harry Toulmin, could attend Lehigh.

These fifth generation descendants of Joseph Priestley acquitted themselves very well at Lehigh. Harry received the Ph.B. degree in 1886 and was class valedictorian. He went on to earn an M.D. at the University of Pennsylvania, where his uncle Joseph Priestley (his mother's oldest brother) also received an M.D. Most of Harry's career was as the medical

director of the Penn Mutual Life Insurance Company in Philadelphia.



Harry Toulmin

Priestley Toulmin took a different track and studied mining engineering. Students earning a B.M. degree at Lehigh at the time had to submit a thesis for graduation, and Priestley Toulmin did his thesis work {"The preparation of anthracite coal, with a review of the Deringer breaker"} at the Coxe Brothers mines at Drifton PA, where he came under the influence of Eckley Coxe. A strong proponent of mining engineering

education, Coxe made his mining operations available to train Lehigh engineers, and also opened up his extensive library containing more than ten thousands books and journals to Lehigh students as well. (Drifton was but a short train ride from Bethlehem.) After receiving his degree in 1886 and an E.M. in 1887, Priestley Toulmin opened up a new mining venture in Alabama. A loyal alumnus and strong supporter of his alma mater, Toulmin named his company the Lehigh Coal Company and their mailing address was Lehigh, Alabama. It was natural, then, for his son, Priestley Toulmin Jr., to attend Lehigh as well. Although he never graduated, Toulmin Jr. did work in the Lehigh mining operations in Alabama. Toulmin Jr. encouraged his son, Priestley Toulmin III, to attend Lehigh, but Toulmin III broke with the family tradition and attended Harvard instead and became a distinguished geologist.

2010 Travel Award

The 2010 LVACS travel award was presented during the April meeting at Moravian College. The \$250 award defrays expenses associated with presenting at a regional or national ACS or ASiChE. This year's winner was Laura Smith of DeSales University

Undergraduate Research Poster Session -

The Lehigh Valley Section of The American Chemical Society - Moravian College, April 29, 2010

Abstracts are available on the web at www.esu.edu/~lvacs

1. INVESTIGATION OF THE EFFECT THAT DIFFERENT DRYING METHODS HAVE ON THE RELEASE MECHANISM OF NAPROXEN FROM ETHYL CELLULOSE/MICROCRYSTALLINE CELLULOSE BEADS.

Julianne Berger, Jonathan Fura and Francis C. Mayville, Jr.

Department of Natural Sciences, DeSales University, 2755 Station Avenue, Center Valley, PA 18034, Fax 610-282-0525, francis.mayville@desales.edu.

2. MONITORING LITHIUM DIALKYL CUPRATE CONJUGATE ADDITIONS WITH IN SITU IR SPECTROSCOPY

Jeff Bratz, Dr. Jennifer Rutherford

Department of Chemistry, Lafayette College, Easton PA, 18042

3. INVESTIGATION OF THE INVOLVEMENT OF cGMP-DEPENDENT PROTEIN KINASE (PKG) IN ENDOTHELIAL ACTIN REARRANGEMENT

Brian Diskin

Dept. of Biological Sciences, Lehigh University, 111 Research Drive and 19 Memorial Drive West, Bethlehem, PA 18015

4. MODELS OF COENZYME NADH: INTERMEDIATES IN REDUCTION REACTIONS MEDIATED BY SUBSTITUTED DIHYDROPYRIDINES

Gaby Haddad and Katelyn Chando; Dan. Libby

Department of Chemistry, Moravian College, 1200 Main Street, Bethlehem PA, 18018

5. KINETIC ANALYSIS OF CARBONIC ANHYDRASE I OF CHLAMYDOMONAS REINHARDTII

Meghan Breheny, Eric Walton, and H. David Husic

Department of Chemistry, Lafayette College, Easton, PA 18042

6. SYNTHESIS OF A POTENTIAL HYDROGEN ATOM ACCEPTOR THROUGH COMBINATION OF ELECTRON AND PROTON TRANSFER AGENTS

Jonathan J. Geruntho, Shawn B. Gentile, and Dr. Ian J. Rhile,

Department of Chemistry and Biochemistry, Albright College, Reading, PA

7. TUNGSTEN COMPLEXES OF A CHIRAL C₂-SYMMETRIC BISPYRROLIDINE-BASED LIGAND

Christine Gleave

Muhlenberg College, 2400 Chew Street, Allentown, PA 18104

8. STOPPED-FLOW KINETIC STUDIES OF PHYCOCYANIN OLIGOMERIZATION AND DISSOCIATION

Mark A. Brown, Alexis M. Flowers, and Yvonne M. Gindt

Department of Chemistry, Lafayette College, Easton, PA 18042

9. ERROR BANDS IN CALIBRATION CURVES.

Stephen Kaster, Dr. Carl Salter

Department of Chemistry, Moravian College, 1200 Main Street, Bethlehem, PA 18018

10. THE EXTRACTION AND ISOLATION OF THE ACTIVE INGREDIENT, RESVERATROL, FROM GRAPES AND VARIOUS WINES

Stephanie A. Lee, Laura A. Smith and Francis C. Mayville, Jr.,

Department of Natural Sciences, DeSales University, Center Valley, PA 18034

11. INVESTIGATING THE REACTIVITY OF TRICLOSAN

Nicholas D. Leigh (Dr. Jennifer Rutherford)

Department of Chemistry, Lafayette College, 111 Quad Drive, Easton Pennsylvania, 18042

12. PREPARATION OF IONIC LIQUIDS AND THEIR USE IN ELECTROPHILIC AROMATIC SUBSTITUTION REACTIONS WITH NAPHTHALENE AND GUAIAZULENE

Francis Charles Mayville Jr., (francis.mayville@desales.edu), Ryan Ludwig and Michelle Fernandez

Natural Science Department, DeSales University, Center Valley, PA 18034-9568

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13. ANALYSIS OF GOLDENSEAL *Hydrastis Canadensis* L., AND RELATED ALKALOIDS IN URINE USING LIQUID CHROMATOGRAPHY-TANDEM MASS SPECTROMETRY.
Tara M. Whispell and Thomas A. Brettell, Ph.D. D-ABC
Cedar Crest College, Allentown, PA 18104
14. AEROSOL PREPARATION OF SPHERICAL ZIRCONIA (ZRO₂) AND POLYMER COATED ZIRCONIA PARTICLES
Alyssa Maltese, James I. Nallo and Francis C. Mayville, Jr., Ph.D.
Natural Science Department, DeSales University, 2755 Station Ave., Center Valley, PA 18034
15. COMPARISON OF THE ENZYMATIC AND SPECTROSCOPIC PROPERTIES OF DNA PHOTOLYASE AND CRY-DASH ENZYMES
Maire M. Newton¹, Johannes P.M. Schelvis² and Yvonne M. Gindt¹
¹ Department of Chemistry, Lafayette College, Easton, PA 18042
² Department of Chemistry, Montclair State University, Montclair, NJ 07043
16. OPTIMIZING THE SYNTHESSES OF DIRHODIUM (II,II) CARBOXYLATE AND AMIDATE COMPLEXES
Jessica Posimo, Stephen Dunham, Shari Dunham
Department of Chemistry, Moravian College, 1200 Main Street, Bethlehem, PA 18018
17. REDOX MEASUREMENTS OF DNA PHOTOLYASE AS A FUNCTION OF PH
Caroline J. Richardson¹, Johannes P.M. Schelvis², and Yvonne M. Gindt¹
¹Department of Chemistry Lafayette College, Easton, PA 18042
²Department of Chemistry, Montclair State University, Montclair, NJ 07043
18. INVESTIGATION OF VARIOUS EFFECTS ON GOLD NANOPARTICLE AGGREGATION
Allison Sturm, Michael Caffarelli and Rodger Berg, Ph.D.,
Natural Science Department, DeSales University, 2755 Station Ave., Center Valley, PA 18034.
19. A GOLDEN WAY TO VISUALIZE DNA
Hadia Riaz and Shari Dunham, and Stephen Dunham
Moravian College, 1200 Main Street, Bethlehem, PA 18018
20. COMPARISON OF THE SPECTROCHEMICAL AND PHYSIOCHEMICAL PROPERTIES OF DAN PHOTOLYASE AND CRYPTOCHROME-DASH
Kathleen Paige Sokolowsky¹, Johannes P.M. Schelvis², Yvonne M. Gindt¹
¹ Lafayette College, Chemistry, Hugel Science Center, Lafayette College, Easton, PA, 18042, United States , 610-330-5824, sokolowk@lafayette.edu
² Montclair State University, Chemistry, 1 Normal Ave, Montclair, NJ, 07043, United States , 973-655-3301, schelvisj@mail.montclair.edu
21. AN INVESTIGATIVE STUDY OF BETA AND GAMMA-CYCLODEXTRIN INCLUSION COMPLEXES USING COMPUTATIONAL AND SPECTROSCOPIC METHODS
Bradley Verret, Clint Stalnecker, Jeffrey Wolbach and Pamela Artz
Albright College, Department of Chemistry and Biochemistry, Reading, PA
22. EFFECTS OF COUNTER IONS ON THE REACTION OF IRON(III) AND THIOSULFATE
Christine McCarl, Philip Weiser, and Dr. Carl Salter
Moravian College, 1200 Main Street, Bethlehem, PA 18018
23. SYNTHESIS OF FARINOMALEIN AND ANALOGUES
Ming Yan*, William H. Miles
Department of Chemistry, Lafayette College, Easton, PA 18042
24. DIELECTROPHORETIC SELF-ASSEMBLY OF MICROFLUIDIC DEVICES
Andrew Bartynski, Patrick Fuller, and James F. Gilchrist
Department of Chemical Engineering, Lehigh University, 111 Research Dr., Bethlehem, PA 18015

Help put chemistry on the calendar in 2011!

Next year is the International Year of Chemistry (IYC) and to celebrate ACS invites **YOU** to highlight everyday advances in chemistry.

Through the IYC-2011 initiative “365: Chemistry for Life,” a different aspect of chemistry will be highlighted every day on www.acs.org. **Anyone** can submit ideas for a favorite element, compound, discovery, process, chemist, or chemistry innovation at www.acs.org/iyc2011, by **June 30, 2010**. Suggestions should fall into one of four categories: energy, environment, materials, and health. Selected submissions receive recognition and an IYC-2011 pin and t-shirt. For more ideas on how to celebrate the International Year of Chemistry, visit www.acs.org/iyc2011 and www.chemistry2011.org/.

Be a Chemistry Ambassador and share this notice with your community. Encourage your local school teachers, scout leaders, librarians, or civic organizations to participate. Share chemistry. Start a reaction!

American Chemical Society emerges from 2009 financially healthy

WASHINGTON, April 26, 2010 The 2009 American Chemical Society Annual Report is now available online at www.acs.org/annualreport. The report stresses that the Society remains financially healthy and committed to providing its more than 161,000 members with the best programs, products and services to further their careers and advance their science.

While acknowledging that 2009 was one of the most economically difficult years in decades, the report emphasizes that ACS successfully rose to this challenge, launching several new initiatives and reinventing or reinvigorating others to help its members and other scientists and engineers continue to improve people’s lives through the transforming power of chemistry.

The 2009 ACS annual report also has all of the traditional features of an ACS annual report including the Society’s financial information, ACS-by-the-Numbers, and the Officers’ Message.

In their Officers’ Message, ACS Board Chair Judith L. Benham, ACS President Thomas H. Lane and ACS Executive Director & CEO Madeleine Jacobs concluded, “We will continue to deliver products and services that our current and future members and

other stakeholders value. We will continue to provide them with the tools they need to enhance their skills, further their research and advance their careers. That’s been our pledge for more than 130 years. And we remain committed to it.”

The ACS President’s Challenge Continues...

The Challenge, initiated by Tom Lane, will continue this year and next under Joe Francisco and Nancy Jackson. Every local section and technical division is encouraged to help grow and strengthen the ACS membership. By combining our home office recruitment efforts with the efforts of ACS sections and divisions, we will maximize our outreach to prospective members and get the most out of our global recruitment efforts. It is important to note that Joe Francisco is especially interested in seeing the international ACS membership grow.

Council members, section and division chairs as well as section and division members should take advantage of ACS resources such as the membership recruitment toolkit located at www.acs.org/MAC.

ACS Members Engage Policy Makers

ACS local section government affairs committees from across the country met with members of Congress this spring, urging them to support basic research and investment in science. In addition, the local section members asked their legislators to keep science bipartisan and support the reauthorization of the America COMPETES Act.

Over 30 ACS members representing more than twenty local sections met with 55 members of Congress. These meetings resulted in a growing support for science and technology issues and a Chemical and Engineering News editorial by Senator Ted Kaufman (D - DE) (<http://pubs.acs.org/subscribe/journals/cen/88/i14/html/8814editor.html>).

You can also engage policy makers and explain the nature and value of chemistry to them. Simply go to <http://www.acs.org/policy> and click on “ACS Member Advocacy.”

National Lab Day; More than Just a Day!

In February, California legislators introduced the state level response to Obama’s November 2009 ‘Call to Action’, by designating May 12th as California Lab Day. The bill recognizes the American Chemical Society, NSF, and NSTA among others as keys sponsors of the national movement.

On March 24th, 2010 the House passed H. Res. 1213 recognizing the need to improve the participation and

performance of America's students in Science, Technology, Engineering, and Mathematics (STEM) fields, supporting the ideals of National Lab Day, and for other purposes. The sponsors were Rep. Marcia Fudge (D-OH-11) and Rep. Vernon Ehlers (R-MI-3)

National Lab Day booth at the March National Meeting in San Francisco, CA recruited more than 500 new sign-ups to the web site.

ACS & National Lab day hosted a celebrity luncheon on Capitol Hill! The April 30th luncheon was an exciting gathering of leadership from the scientific establishment, the entertainment industry and Capitol Hill, coming together to collaborate on bringing National Lab Day's platform to schools and students across the country.

Guests included Tim Daly, Dana Delany, Patricia Arquette, Omar Epps, Tom Fontana, Adrian Grenier, Cheryl Hines, Barry Levinson, Morley Safer, Richard Schiff, Marlon Wayans and Steven Weber. The event also recognized the support of the two legislators responsible for the House resolution honoring National Lab Day, Rep. Marcia Fudge (D-OH) and Rep. Vern Ehlers (R-MI), both strong supporters of the science community.

Gain A Competitive Edge with Short Courses From the ACS

According to a recent article in Chemical & Engineering News, "globalization has opened new markets and significantly increased the size of the job-candidate pool." Gain the competitive edge with Short Courses from the American Chemical Society. Our courses provide the opportunity to deepen your level of expertise in your current field and improve job performance while networking with fellow scientists.

In the Fall of 2010, ACS will be visiting 8 cities to bring quality training to our customers. Find out which courses are being offered in a city near you by visiting www.proed.acs.org/2010. Upcoming course locations include:

Boston, MA – August 21-26, 2010 (in conjunction with the ACS Fall National Meeting)

Chicago, IL – October 5-9, 2010

La Jolla, CA – November 1-4, 2010

The ACS Office of Professional Education has dramatically revamped its website and registration system so you can find the courses you're looking for in no time. **Bookmark this link today:** <http://www.proed.acs.org>. You can now search our short courses, webcast courses and ProSpectives Conferences by topic area, date, or location and even browse our full instructor list.

We are continuously investing in new course development, so if you don't see what you're looking for, just drop us a line at shortcourses@acs.org and we'll do our best to serve your technical training needs.

Need Training But Can't Afford Time Away From The Office? Try Out An ACS Webcast!

Few companies are immune from the economic hardships in the headlines and many budgets have been trimmed. But it is still crucial to your career to engage in continuing education to expand your skills and stay abreast of new topics.

Join the ACS Webcast mailing list at www.proed.acs.org/emailme to be the first to hear our 2010 summer/fall courses, try out new courses for free, and receive discounts not available to the general public! Save your time and money and take a look at the courses available online through ACS.

ACS Webcast Short Courses provide the same quality training that ACS has long been known for, but, because the courses are presented over the Internet, they offer added convenience and flexibility.

- **Economical:** Most ACS Webcasts cost less than \$100 an hour, which is far less than most technical training.

- **Easy:** Our technology is easy to use and works with all typical computer systems so virtually anyone can easily take a webcast from the comfort of their home, office, or lab.

- **Convenient:** Class attendance is NOT required. If you miss a class, simply use your on-demand access to the session recording so you can catch up on your own time.

- **Informative:** All class materials are available for download and you can email the instructor anytime.

There are expanded course offerings in analytical, organic, pharmacology, engineering, instrumentation, and other areas. For the full list of Webcast Short Courses and more information on available discounts, visit www.ProEd.acs.org.

American Chemical Society Webinars (ACS Webinars™) is a weekly online event serving to connect ACS members and scientific professionals with subject matter experts and global thought leaders in chemical sciences, management, and business on relevant professional issues. Each webinar is 60 minutes in length, comprising of a short presentation followed by Q&A with the speaker. The live webinars are held on Thursdays from 2-3pm ET and recordings of the past webinars are available online. View and register for upcoming events at boilthisdown.org >

“Upcoming Events” or email acswebinars@acs.org.

June 3, 2010 - Effective Technical Writing – Tips and Strategies Every Scientist Should Know. Does your job require frequent technical writing? Do you ever feel frustrated with technical writing, either with your own or that of others? Technical writing is a regular, but often considered painful, part of life for many scientists. Fortunately, there is help! Improve your technical and scientific writing skills without leaving your desk! Join our speaker Aline Harrison, the instructor for Effective Technical Writing Short Course offered by the American Chemical Society Office of Professional Education, as she shares tips on how to improve your ability to write technically, the “pain-free” way.

June 17, 2010 - A Life of Innovation – Finding Your Passion. How would you like to shape your scientific legacy? Get inspired with remarkable life stories of great scientists. David Walt’s Laboratory at Tufts is world-renowned for its pioneering work that applies micro and nanotechnology to urgent biological problems. Join us as David Walt, an accomplished educator, researcher, and entrepreneur shares his journey and his passion for science and innovation. Learn how to uncover your passion and build your own journey!

July 1, 2010 - From Laboratory to Licensing: Protecting Your Intellectual Property Along the Way. You may be working on breakthrough research but do you know how to protect it? Scientific professionals devote a tremendous amount of time and energy to create valuable intellectual property; yet, many do not invest the necessary time to learn what it takes to protect their work. According to the U.S. Patent and Trademark Office, in 2009, just under forty percent of patent applications were granted. Navigating the path from discovery to market can be complex and tricky. Learn from our speaker, Tom Steinberg, of Roberts, Mlotkowski, Safran & Cole, strategies you need to know to protect your life’s work.

July 8, 2010 - Chemicals & the Economy Mid-Year Updates – Impact and Outlook for Executives and Scientists. Recovery is the new buzzword, but is it here to stay? Would you like to know what indicators to watch for? The chemical industry is a well-known leading indicator for the world economy. Yet chemical professionals are often unaware of this significance. Learn from our speaker,

Paul Hodges, of International eChem, strategies for navigating these uncertain economic waters. Learn how understanding the economy and chemical industry trends can help you better plan for your career and business.

Upcoming C&EN Free Webinar

MIDA Boronate Building Blocks: Towards a general platform for small molecule synthesis

**Sponsored by Sigma Chemistry,
Register:**http://cenwebinars.stream57.com/mida_boronate/

**Live Webinar: June 16, 2010
8:00 a.m. CDT • 9:00 a.m. EDT • 2:00 p.m. GMT •
3:00 p.m. CET**

Overview: In an idealized form of the *building block* approach for small molecule synthesis, off-the-shelf subunits having all of the required functional groups preinstalled in the correct oxidation states and with the desired stereochemical relationships are brought together via the recursive application of one stereospecific reaction. Analogous to peptide coupling, this strategy aims to maximize the simplicity, efficiency, and flexibility with which small molecules can be made in the laboratory. MIDA boronates represent a powerful platform of building blocks with the potential to broadly enable this type of synthesis.

The webinar will discuss the many physical and chemical features of MIDA boronates that underlie their widespread utility, including:

Ease of preparation, purification, and storage and minimized environmental impact

Reversibly attenuated boronic acid reactivity that enables small molecule synthesis via iterative cross-coupling

Capacity for slow-release cross-coupling that transforms even notoriously unstable 2-heterocyclic, vinyl, and cyclopropyl subunits into air-stable and highly effective cross-coupling partners

Compatibility with a wide range of common reaction conditions which enables the multistep synthesis of structurally complex boronic acids from simple B-containing starting materials

Who Should Attend?

Synthetic organic chemists

Medicinal chemists

Process chemists

Leaders in the pharmaceutical industry

Instructors of organic chemistry courses

Take the Mystery out of the Job Search:

Whether you are looking for your first job or

seeking to advance or transition in your career, ACS Career resources give you a competitive advantage in your job search.

SAVE THE DATES:

Join us for the following informative monthly webinars & Jump Start Your Career!

Biotechnology or Pharmaceutical? Explore the Possibilities

Title: Biotechnology vs. Pharmaceutical: Which is Right for Your Career?

Date/Time: Tuesday, June 15, 2010 from 2 to 3 pm ET.

Format: 40 min Presentation followed by a 20 min Q&A session.

Moderator: Dr. Lisa Balbes, ACS Career Consultant with over *20 years of experience* in assisting hundreds of job seekers in the chemical industry.

This presentation will discuss the types of jobs available in pharmaceutical and biotechnology companies. Similarities and differences between the two industries will be discussed, as well as the types of jobs available, current trends, industrial outlook and employment projections for both industries.

Looking to Start a Job Club? Or Already Have a Job Club Started?

Make this webinar series a topic for your next month's job club!! Job Search Essentials to get a job club started in your area: Look for, "Starting Your "Job Club" for Local Sections" under the Job Clubs heading at www.acs.org/careers. Conducting a job search and navigating workplace challenges can be made much easier with the support of a small group of trusted peers. If you're looking for work, don't go it alone. Job Clubs will help you connect with other job hunters in your area to share much-needed advice and camaraderie.

Need to Practice your Interviewing Skills? We have the solution. Build Interviewing Skills with InterviewStream

If you're an ACS member looking for a new job, then ACS Careers has just made a great new tool available to you: Using InterviewStream, you can record a practice interview using a webcam, then get feedback on your interview skills from your friends, your colleagues, and ACS Career Consultants.

InterviewStream's development module will provide you with the tools to learn about the interview process, conduct practice interviews, and receive feedback from ACS Career Counselors. InterviewStream users report a reduction in interviewing anxiety by an average of 35%. Your

interview profile can be recorded from the privacy of your own computer at anytime or at the Career Fair in the Job Seeker Area by logging into your ACS Careers account and clicking view Demonstration on Interview Profile by going to: <http://practice.interviewstream.com/demonstration/acs/Interviewstream%20ACS.htm>

Or to www.acs.org/careers under the job seeker section.

Thinking of Attending Next National Meeting Career Fair in Boston?

Registration will be opening soon. Employers are looking for Entry Level through Mid-Career Mature Workers!! Don't miss your opportunity to start getting your resume together. Need Help? As an ACS member benefit, use the ACS Career Consultant Program. You can register for assistance with your career search by going to ACS Career Consultants. Go to www.acs.org/careers then to: Home to Careers to Job Seekers then to Career Counseling.

ACS offers special benefits for unemployed members

During these tough economic times it's more important than ever to belong to the American Chemical Society. Unemployed members can tap into a host of valuable benefits and services that help them get back in the workforce. And, members in good standing may qualify for an unemployed member dues waiver, allowing them to renew their memberships and keep their member benefits at no cost. Contact ACS at service@acs.org, 800-333-9511 or 614-447-3671 for complete details.

Other valuable benefits that help ACS member get back in the workforce include:

Free registration at ACS National Meetings and greatly reduced registration fees at ACS Regional Meetings.

Special discounts for ACS/Harvard courses, ACS ProSpectives and Short Courses, and the ACS Leadership Development System.

Free Guidance from ACS Career Consultants – ACS mentors offer resume reviews, job search strategies, and interview tips that make you stand out from the rest.

Free access to InterviewStream, an online tool that will sharpen your interview skills

Members-only access to the ACS Salary comparator.

Contact ACS customer service today at service@acs.org, 800-333-9511 or 614-447-3671 today and let us know how we can help.



Submissions to the Octagon

LVACS members, we want to know about what you do! Please submit pieces of interest to the chemistry community for publication in the Octagon. Articles about chemistry or science in the Lehigh Valley are always welcome. Let us know about upcoming events, educational opportunities or job openings.

The Octagon is published eight times per academic year, September through May. Each issue generally arrives three weeks before a section meeting. Thus the deadline for submissions is approximately one week earlier. Please email the editor at lvacs@verizon.net for specific questions about deadlines for any issue. Email submissions to lvacs@verizon.net

A note about formatting:

Please submit text as simple .txt files, or you may paste the text into an email. If you use later versions of MS word please do not submit documents as .docx files. I cannot always read all content in .docx formatted files. It would be best to use the "save as" option, generally found under the file menu, to save the document as .txt. Also images embedded (pasted) in MS word (particularly later versions) are problematic to extract and put in the newsletter while retaining good image quality. Whenever possible, please submit images in a standard format such as .jpg, .jpeg, .gif, .tiff or .bmp as individual files, rather than embedded within a document. If the placement of images is critical you could submit two versions (one embedded so that I can see where you would like images placed) and the other as separate files so that I may maintain figure resolution.

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