

The Chemical Bulletin

<http://chicagoacs.org>

NOVEMBER • 2011

CHICAGO SECTION AMERICAN CHEMICAL SOCIETY

MONTHLY MEETING

THURSDAY, NOVEMBER 17, 2011

The Parthenon Restaurant
314 South Halsted Street
Chicago, IL
312-726-2407

DIRECTIONS TO THE MEETING

From Kennedy (I-90) or Edens (I-94): Drive downtown and exit at Adams Street. Turn right and go to Halsted. Turn left onto Halsted. Restaurant is approximately 1.5 blocks on the west side of the street.

From Eisenhower (I-290): Drive east to Chicago. Exit at Racine and turn left. Go to Jackson Boulevard and turn right. Take Jackson to Halsted. Turn right onto Halsted. Restaurant is approximately 1/2 block on the west side of the street.

PARKING: Free valet parking. Parking is also available on the nearby streets or in a nearby lot for a charge.

PRE-DINNER TALK: **5:30-6:15 P.M.**
Dr. Michael Welsh, Columbia College Chicago

JOB CLUB: **5:00-6:00 P.M.**

SOCIAL HOUR: **5:30-6:30 P.M.**
(Cash Bar)

DINNER **6:30 P.M.**

GENERAL MEETING 7:45 P.M.



Dr. Robin L. Garrell, Professor of Chemistry, Vice Provost for Graduate Education & Dean, Graduate Division, UCLA, Los Angeles, CA

Talk Title: Nanotechnology in Art and Art Conservation

Abstract: Nanotechnology, the development of materials and devices on the

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NOTICE TO ILLINOIS TEACHERS

The Chicago Section ACS is an ISBE provider for professional development units for Illinois teachers. Teachers who register for this month's meeting will have the opportunity to earn CPDU's.

(continued from page 1)
nanometer scale, is promoted as an innovative solution to many of today's societal and technical challenges. In fact, nanoscale materials have been fabricated and used since ancient times. Among the most beautiful examples are metal nanoparticle-infused Roman glasses, medieval stained glass windows and lusterware-glazed ceramics. The same optical phenomenon that confers beauty to these objects now enables art conservators to analyze coatings, paints and other art materials on museum objects using surface-enhanced Raman spectroscopy.

Conservation scientists use other types of nanoscale materials to restore and preserve cultural treasures. For example, nanoemulsions and ceramics were used to restore the Assisi frescoes that were damaged by a powerful earthquake in 1997. To complete our tour of nanoscale materials in art and art conservation, we'll see how new materials such as polyaniline nanofibers are being evaluated for their potential to slow or prevent the corrosion of ancient metal artifacts and modern sculptures.

Biography: In 2011, Robin L. Garrell became the Vice Provost for Graduate Education and Dean of the Graduate Division at UCLA. She previously served as Chair of the UCLA Academic Senate (2009-10).

Garrell received her B.S. degree in Biochemistry with Honors and Distinction from Cornell University in 1978 and her Ph.D. in Macromolecular Science and Engineering from the University of Michigan in 1984. She was an Assistant Professor on the faculty of the University of Pittsburgh until 1991, when she joined the faculty of the Department of Chemistry and Biochemistry at the University of California, Los Angeles.

At UCLA, she is a member of the Biomedical Engineering faculty and California NanoSystems Institute (CNSI), and is the Principal Investigator of the graduate-level NSF-IGERT Materials Creation Training Program. Garrell previously directed the undergraduate Nanoscience Chemistry and Engineering Research (NanoCER) NSF-Research Experiences for Undergraduates program.

Her research awards have included the National Science Foundation Presidential Young Investigator Award, Iota Sigma Pi Agnes Fay Morgan Award, and the 2007 Benedetti-Pichler Award from the American Microchemical Society. She is the recipient of the Hanson-Dow Award for Teaching Excellence at UCLA, the UCLA Distinguished Teaching Award (2003), and the Gold Shield Faculty Prize

(2009). She is a Fellow of the American Association for the Advancement of Science and an Honorary Fellow of the Society for Applied Spectroscopy.

Garrell's research objectives are to understand and control the behavior of molecules at liquid-liquid and liquid-solid interfaces. Experiments and theory are used to characterize the chemical factors responsible for adsorption and adhesion, the structure and mechanical properties of nanoscale films, and how interface chemistry and texture influence wetting and liquid flow. Current areas of investigation include:

- Fundamentals of droplet ("digital") microfluidics, including electromechanical actuation of liquids, spontaneous emulsification, and dielectrophoretic levitation.
- Applications of droplet microfluidics, including proteomics sample preparation for mass spectrometry and the synthesis of millimeter-scale polymer particles and shells.
- Synthesis and applications of heterogeneous catalysts based on superparamagnetic nanoparticles.

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the Section office
(847) 391-9091**

DINNER INFORMATION

Dinner reservations are required and should be received in the Section Office via **phone** (847-391-9091), **email** (chicagoacs@ameritech.net), or **website** (<http://ChicagoACS.org>) by noon on Tuesday, November 15. PLEASE HONOR YOUR RESERVATIONS. The Section must pay for all dinner orders. No-shows will be billed.

The cost is \$30 to Section members who have paid their local section dues, members' families, and visiting ACS members. The cost to members who have NOT paid their local section dues and to non-Section members is \$32. The cost to students and unemployed members is \$15. Seating will be available for those who wish to attend the meeting without dinner.

MENU: Greek Family Style Dinner--Appetizers: Saganaki (Kasari cheese flamed in brandy), Gyros (roasted slices of lamb and beef), Taramosalata (fish roe blended with lemon and olive oil); traditional Greek salad. Main course: Vegetarian Spinach-Cheese Pie, Vegetarian Pastitsio (Macaroni baked with broccoli, Bechamel sauce and Kefalotiri), Dolmades (vine leaves stuffed with rice, meats and herbs), Rotisserie-roasted lamb served with rice pilaf and roasted potatoes. Desserts: Baklava (flaky layers of Phyllo baked with nuts and honey) and Galaktobouriko (flaky layers of Phyllo with vanilla custard and baked with syrup). Beverages, bread and butter.

SECTION DUES

Members are urged to pay the \$15 Section dues when you get your annual ACS membership dues statement. The Section needs this revenue to help support its many activities.

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**The Chicago Section's
e-mail address
is
chicagoacs@ameritech.net**

"CHEM SHORTS" For Kids

The Elementary Education Committee of the Chicago Section ACS presents this column. They hope that it will reach young children and help increase their interest in science. Please print it out and pass it on to your children, grandchildren, or elementary school teachers. Teachers are encouraged to incorporate the projects in this column into their lesson plans.

Slime Gone Wild

Kids, what is it about slime that captivates everyone? There are so many slime varieties available now that I challenge you to create your very own. Here are some examples to get your creative juices flowing.

Chocolate slime

This is the ultimate edible slime! You need a 14-ounce can of sweetened condensed milk, 2 tablespoons chocolate syrup, and 1-1/2 tablespoons cornstarch. In a saucepan over low heat, stir the milk, syrup and cornstarch. Stir and heat until the mixture thickens. Remove from heat and let the slime to cool. When you are finished playing with the chocolate slime, it can be stored in a sealed plastic bag in the refrigerator for a day or two. Chocolate will stain some surfaces, so keep this slime away from clothing or furniture.

Translucent Ectoplasm Slime

You need 1 teaspoon soluble fiber (such as Metamucil psyllium), 1 cup water, food coloring and/or glow paint. Pour the water and fiber into a large microwave-safe bowl. Microwave on high for 3 minutes, stir, and microwave for another 3 minutes. Stir. If you want drier ectoplasm, microwave for 1-2 minutes. Add a drop of food coloring and/or glow paint. Interesting effects happen if you incompletely mix them, such as multicolored ectoplasm or ectoplasm slime with glowing streaks. Stored in a sealed baggie this will last for up to a week.

Electroactive Slime

This interesting slime reacts to electrical charge (like a charged balloon, plastic comb, or piece of styrofoam) as if it has a life of its own. You'll need 3/4 cup (175 ml) cornstarch, 2 cups (475 ml) vegetable oil, a glass, and 1x6x6 inch piece of styrofoam. Mix the cornstarch and vegetable oil in the glass. Refrigerate until chilled. Stir (separation is normal). Let it warm enough to flow. Charge a block of by rubbing it on hair, carpet, or wool. Tip the container of slime. Place the charged styrofoam about an inch from the flowing slime. It should stop flowing and seem to gel! If you wiggle the styrofoam the slime may follow or pieces of it may break off. When the styrofoam is removed the slime will continue to flow. After use, refrigerate slime in a sealed container.

Reference:

These recipes, with photos, and others (such as Fruity Kool-Aid Slime, Edible Goo Slime, and tasty edible slime) can be found at: Anne Marie Helmenstine's <http://chemistry.about.com/od/slimerecipes/tp/edible-slime-recipes.htm?nl=1>

See the ChemShorts columns from April 1993, May & December 1994, February 2005, and January 2008 for similar ooey-goey materials. They go into more detail about the chemistry behind the magic.

Submitted by DR. KATHLEEN CARRADO GREGAR

To view all past "ChemShorts for Kids" go to:

<http://chicagoacs.net/ChmShort/kidindex.html>

BYLAWS REVISIONS

The Chicago Section Bylaws Com-mittee has proposed revision to the Section bylaws that i) accommodate the new Student Member category; and ii) enable future electronic voting. The revised bylaws have been reviewed by the ACS Committee on Constitution and Bylaws and the Section Board of Directors. This document is now ready for approval by the Section members at a General Meeting of the Section. You may also review the proposed revised bylaws at http://www.chicagoacs.net/bylaws-110918_revision_draft.pdf.

We will seek approval at the General Meeting on Thursday, November 17, at The Parthenon Restaurant, 314 S. Halsted St, Chicago, IL. You can find the meeting details in this issue and on the Section website (www.chicagoacs.org).

RUSSELL W. JOHNSON

ACS AND ALMA IN SAUDI ARABIA

In October Claude Lucchesi gave his Short Course on "Fundamentals of Lab Management for New Managers" in Doha, Qatar, in the Middle East for the ACS Saudi Arabian Chapter and for the ALMA (Association of Laboratory Managers) Gulf Cooperation Council Chapter.

As many of you may know, ACS has many members outside of the United States. There are international chapters in Hong Kong, Hungary, Thailand, and Shanghai, as well as in Saudi Arabia.

The October event in Qatar was the 2nd International LabTech Conference (LabTech-2011) that has been arranged by Saudi Aramco. Topics included crude and refined petroleum, renewable energy, water treatment, analytical instrumentation, and laboratory management. It drew speakers from the western hemisphere, Europe, the Asian Subcontinent, as well as from the Persian Gulf.

Doha, the capital city of Qatar, is a 21st century boomtown. None of the skyscrapers in the center of the city were there in 2006. On the outskirts of Doha is Education City where Northwestern University has had a branch campus since 2007. I visited the campus and was extremely impressed with the facility and with the faculty and students that I met. A separate building is being built for NU and will be occupied in 2014. A total of six US Universities have branch campuses there: Weill Cornell Medical School, Texas A&M (engineering), Georgetown University (foreign service), Virginia Commonwealth University (design), and Carnegie-Mellon University (computer science), and of course, Northwestern University (journalism and commerce). Northwestern will graduate its first class in 2012. One of the eminent products of the freedom of the press in Qatar is the well-known Al-Jazeera Satellite TV Channel.

CLAUDE LUCCHESI

WOMEN CHEMISTS WEBLINKS

Chemistry International www.iupac.org/publications/ci/2011/3301

Women Chemists in the National Inventors Hall of Fame www.layingthegroundwork.com/inventors

The mission of the Chicago Section of the ACS is to encourage the advancement of chemical sciences and their practitioners.

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MEMBERSHIP APPEAL - COMMITTEE ON MINORITY AFFAIRS

The Committee on Minority Affairs (CMA) supports the claim that ACS places high priority on active involvement of minorities. The objective of the committee is to cause change in institutional culture and obtain the goal of full participation and expression of intellectual and creative capacity of these minorities.

A list of what CMA is expected to do is included on the parent organization's webpage. Included are the promotion and recognition of the professional accomplishments of Minorities; attraction of minority students to the chemical professions; identify minority-friendly education institutions and businesses; increased involvement of minorities at local, regional and national levels; provision of mentoring to minority students; compilation of best practices for recruitment, retention, career development, and evaluation of programs for the advancement of minorities.

Our Local Section has a Committee on Minority Affairs. Ongoing efforts are being made to attract members to join this committee. Past committee activities included involvement of minority students matriculating at local institutions by extending invitations to participate in a section meeting such as the educational night monthly dinner meeting. The committee has a modest budget from which the students' dinners are sponsored. Ideas are welcomed from potential volunteers as well as members. Tapping into the America Chemical Society's new initiative to assist unemployed chemist in networking and finding employment the local CMA has a great opportunity to add this to the list of "things to get more involved in" now. I appeal to you, fellow members of the section to step forward and assist in strengthening and building a vibrant Committee on Minority Affairs.

CHARLES CANNON
Chair, Chicago Section CMA

DID YOU KNOW?

Save on Wyndham Hotel Discounts

As an ACS member, you get 20% off the best available rate at all Wyndham Hotel Group brands. When making reservations by phone or online, be sure to cite the new ACS group account # 8000000270, to take advantage of this member benefit!

DECEMBER HOLIDAY PARTY

Get those fingers ready to make reservations for the annual Chicago Section's ACS holiday party on Friday, December 9. Gifts for the raffle will be numbered randomly and placed on side tables in the dining room. Each attendee will draw a number when they register that evening for the meeting.

Gifts will be handed out throughout the evening by calling up groups of individuals having a series of numbers. Meeting attendees are asked to claim their gift only during the time their numbers have been announced. Those individuals who forget to claim their gift will have another opportunity to claim them at the end of the evening. Individuals must present their number in order to pick up their gift.

Door prizes of wine will only be handed out to those 21 or older. A substitute prize will be handed out to students under the age of 21. As always, please do not open your wine at the table.

RICHARD CORNELL
HOSPITALITY CHAIR

FOOD AND TOY DRIVE

We will be collecting nonperishable food items (no glass containers) for charity at the December Holiday Party again. The food is donated to the local Loaves and Fishes Community Pantry for distribution. Loaves & Fishes Community Pantry is a community-based, non-profit organization established to provide food and personal care essentials to residents in need.

We will also continue our toy drive to collect children's toys for toddlers to 12 year olds. The toys will be donated to a local Silent Santa program.

Please open your heart to both of these programs and bring a nonperishable food item and a new toy to the holiday party.

THE UN-COMFORT ZONE

with Robert Wilson

Not Gonna Hold My Breath

I bought a lottery ticket. I hope to win. That would be so cool, wouldn't it?

Do I think I'll win? No. I fully understand the odds are against me. Then why did I buy one? I bought it because I've been thinking about hope and whether or not it is a powerful motivator.

I recall my friend Brian, who also understands the odds, justifying his weekly purchase of a lottery ticket with this statement, "God can't let you win unless you buy at least one." Brian was full of hope.

Buying a lottery ticket perfectly illustrates our feeling of hope. Once you've bought one, and before the drawing of the winning numbers, you can dream of all the things you'll buy, and all the ways your life will be improved by several million dollars. It's fun to dream; and hope makes us feel better. But, does it improve our lives?...

To read the entire article, go to http://www.jumpstartyourmeeting.com/articles/TUZ/49-hope_and_change.shtml

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Robert Evans Wilson, Jr. is a motivational speaker and humorist. He works with companies that want to be more competitive and with people who want to think like innovators. For more information on Robert's programs please visit www.jumpstartyourmeeting.com.

MIDDLE SCHOOL CHEMISTRY ONLINE TEACHING GUIDE

Visit <http://www.middleschoolchemistry.com/> to access fully-developed chemistry lesson plans, video demonstrations, and molecular model animations. All activities, along with the 615-page Middle School Chemistry Unit book, are available for free download.

WCC/ELI LILLY TRAVEL GRANT

The ACS Women Chemists Committee (WCC) and Eli Lilly and Company sponsor a program providing funding for undergraduate, graduate, and postdoctoral female chemists to travel to meetings to present the results of their research. Through this program, WCC and Eli Lilly and Company continue to increase the participation of women in the chemical sciences.

This offers a great way to get funds to travel to a National ACS meeting and present your research. Don't miss this opportunity to receive up to \$1,000 to present at an ACS meeting between January 1 and December 31. The deadlines for receipt of applications are:

- September 15 for meeting between January 1st and June 30th
- February 15 for meetings between July 1st and December 31st

If you travel to an ACS National Meeting, you will be among other women chemists with whom you may network and learn firsthand about their experiences. Visit the www.acs.org/diversity for more information and details about applying.

ACS/NSTA WEBINAR

Sign up for a free, online professional development session for middle and high school chemistry. Increase your content knowledge and get ideas on how to incorporate ACS resources in your classroom!

- Chemical Bonding: Why is Water Different?
Wednesday, November 16, 2011

Go to: http://learningcenter.nsta.org/products/symposia_seminars/ACS/webseminar.aspx

CHEMISTRY AND PHYSICS DEPARTMENT OF CHICAGO STATE UNIVERSITY RECEIVES THE STANLEY C. ISRAEL REGIONAL AWARD FOR ADVANCING DIVERSITY IN THE CHEMICAL SCIENCES

The ACS National Committee on Minority Affairs (CMA) selected the Chemistry and Physics Department of Chicago State University (CSU) as recipient of the Stanley C. Israel Regional Award. The Chemistry and Physics Department of CSU was recognized for its vision and dedication in diversifying the chemical sciences and community outreach. The award was presented at the Joint Midwest & Great Lakes Regional Meeting 2011 Awards Event in October.

Congratulations from the Chicago Section ACS!

REPORT OF COUNCIL MEETING HELD DENVER

The 242nd National Meeting of the ACS was held in Denver, Colorado from August 28 – September 1, 2011. The theme of this meeting was “Chemistry of Air, Space and Water.” The Chicago section was fully represented by Cheryln Bradley, Charles Cannon, Mark Cesa, David Crumrine, Herb Golinkin, Russell Johnson, Fran Kravitz, Milt Levenberg, Inessa (Gorelik) Miller, Barbara Moriarty and Susan Shih.

Finances: The Committee on Budget and Finance reported that the Society is expected to end 2011 \$18.3 million favorable to the approved budget. The Society is meeting four out of the five financial guidelines established by the Board. Four programs funding requests were reapproved – ACS Fellows, ACS Leadership, ACS Scholars and ACS Global Research Experiences, Exchanges and Training (GREET). In addition, funding was approved for a new ACS Entrepreneur Initiative.

Governance: The Council elected councilors to serve on the Committee on Committees, the Council Policy Committee and the Committee on Nominations. For the Committee on Committees, Rigoberto Hernandez, Helen (Bonnie) Lawlor, Zaida Morales-Martinez, Howard Peters and Sara Risch were elected. For the Council Policy Committee, Lawrence Barton, Peter Jurs, Mamie Moy and Eleanor Siebert were elected. For the Committee on Nominations and Elections, William (Jack) Breazeale, Jr., Catherine Fenselau, Lydia Hines, Anne O'Brien and Andrea Twiss-Brooks were elected.

The Council also recognized the service of councilors, including Fran Kravitz, who has represented the Chicago local section for 20 years.

The candidates for the fall 2011 ACS national election for President-Elect 2011 are Dennis Chamot and Marinda Li Wu. Candidates for Directors-at-Large, who are elected by Council are Ken Anderson, William Carroll, Jr., Charles Kolb and Barbara Sawrey.

A petition on Position Statements was approved by Council. This petition ensures that the Board of Directors has sole authority in issuing position statements that establish policy for the entire ACS.

Meetings and Expositions: As of September 1, 2011, the ACS fall national meeting had attracted 10,076 registrants including 6,088 regular attendees, 2,376 students, 218 guests, 394 exhibit-only attendees and 1000 exhibitors.

Membership: The society's 2011 membership numbers are stable, remaining near 163,000. The Student Member community has continued to grow since creation of this new member category in June 2009 with 15,702 student members of the society at the end of July.

Committee on Economic and Professional Affairs: The career fair at the meeting had 765 job seekers, 51 employers and 261 jobs posted. The number of employers and jobs posted has improved from the previous meeting. In addition, a virtual career fair was also held. A presidential task force on Innovation and Job Creation was released during this meeting. As a way to meet some of the recommendations for the report, CEPA is one of the committees providing support and guidance for the new ACS Entrepreneur Initiative.

Local Sections: The winners of the Awards for Outstanding local sections were announced. The Northeastern local section, along with San Diego, Indiana, Midland, Savannah River and Alaska local sections were recognized.

Divisions: The council voted to approve the combination of the Division of Petroleum Chemistry and the Division of Fuel Chemistry to form a new division called the Division of Energy and Fuels after a discussion of the name of the new division. The Council also voted to grant full status to the Division of Catalysis Science and Technology.

Special Discussion Item: How can ACS best cultivate a culture of safety in US universities and colleges? After a brief presentation by President Nancy Jackson, council engaged in a discussion on the question “How can ACS best cultivate a culture of safety in US universities and colleges?” Many suggestions were expressed by councilors.

If you have any questions and/or comments about the above actions, please contact me or one of your other councilors. You may contact me by email (bmoriarty@nalco.com).

BARBARA MORIARTY

RESOLUTIONS CITING SCIENTIFIC ACHIEVEMENTS IN THE 111TH CONGRESS

I have enumerated below a list of citations that occurred in the 111th Congress. I won't discuss them individually, but I did find all of the citations for them to be interesting reading. For the most part, they are all citations for events that took place after World War II, with the establishment of NSF being most prominent. This is certainly of great historical interest since there was very little national organization and support of scientific R&D before this time. It is mentioned in citation 8, below, that the citation for the 100th Anniversary of the observation of "Sickle Cell" also represented the 60th anniversary of Linus Pauling's discovery and recognition of the hemoglobin mutation, which is responsible for sickle cell disease.

I am interested and fascinated by these kinds of historical observations. I am grateful for the opportunity to follow them in *Thomas*, the database of United States Congress legislative information. With one exception -- the citation for Galileo -- each of the citations below is for events and anniversaries which originated in this country. H.Res. stands for House Resolution; S.Res. stands for Senate Resolution.

1. H.Res. 1310 – 50th Anniversary of Invention of the laser (*C&EN*, March 8, 2010)
2. H.Res. 1660 – Expressing Support for STEM as an essential element of America's future
3. H.Res. 1307 - 60th Anniversary of National Science Foundation
4. H.Res. 1213 - National Lab Day
5. H.Res. 1231 50th Anniversary of the world's First Meteorological Satellite launched by NASA
6. H.Res. 1269 - 400th Anniversary of Galileo's Invention of the Telescope for Astronomical Observation
7. S.Res. 656 - Expressing support for the Inaugural USA Science and Engineering Festival, October 10 – 24
8. S.Res. 685 – Commemorating the 100th Anniversary of the Discovery of Sickle Cell Disease by Dr. James B. Herrick

JIM SHOFFNER
Public Affairs Committee Co-Chair

EXPLORE RESEARCH FROM THE DENVER NATIONAL MEETING

Were you unable to attend the recent 242nd ACS National Meeting a few weeks ago? Were you in Denver but couldn't make it to all of the technical sessions you wanted? Want to share some of the meeting's cutting-edge scientific research with colleagues, friends, or students?

Now you can watch any of approximately 425 presentations recorded during the 242nd ACS National Meeting in Denver, CO, at www.acs.org/meetingcontent. The presentations feature PowerPoint slides synched with audio, which permits you to jump directly from slide to slide to find the specific information you need.

Reflecting the breadth of science available at ACS national meetings – including this meeting's thematic program of "Chemistry of Air, Space & Water" – the recorded sessions include:

- Chemistry of Air, Space, and Water Plenary
- Chemistry as a Tool for Space Exploration and Discovery at Mars
- Empowering Tomorrow's Science Super Heroes
- Getting Your First Industrial Job
- Fifty Years of Inorganic Chemistry: A Celebration of Past, Present, and Future
- MEDI Drug Discovery Research Centers
- Arthur C. Cope and Arthur C. Cope Scholars Award Symposium
- Celebration of the 100th Anniversary of Marie Curie's Nobel Prize in Chemistry

Visit www.acs.org/meetingcontent to see the full list of available presentations and to access this valuable content free of charge.

INQUIRY IN ACTION—FREE PHYSICAL SCIENCE ACTIVITIES ONLINE

Go to <http://www.inquiryinaction.org> for free inquiry—based physical science activities that support national science content standards. All activities and the companion 470–page book are available for free download. The site also features a chemistry background section complete with molecular model animations and videos, plus information on upcoming workshops based on the book.

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Stay current on the latest chemistry developments with a free subscription to the weekly *Chemical and Engineering News* (C&EN) magazine and discounted rates on personal subscriptions to the many online ACS technical journals. Members received discounted rates on registration fees to all ACS sponsored meetings, national and regional!

Take command of your career with continuing education & professional development courses. Network with your peers using the ACS Network, an online scientific networking tool, and through discipline-specific technical divisions and local section activities. Members have access to career services, such as the salary comparison tool, ACS Careers Jobs Database, and Career Consultant Program, where ACS members provide career consultations (resume preparation, job search strategies, interviewing techniques, etc) to other members.

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Avail yourself of other personal membership benefits including group insurance programs; discounts on medical services, shipping, auto rentals, and hotels; and exciting opportunities for worldwide adventures through the ACS Expeditions program.

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Regular membership	\$146
Non-scientist/Society affiliate	\$146
Graduate student membership	\$73
Undergraduate student membership	\$46

To get the most up-to-date information about chemistry activities in and around Chicago; meeting information (local, regional, and national), and fun facts about chemistry, visit the Chicago Local Section website at www.chicagoacs.net and follow us on:

- Facebook (<http://www.facebook.com/ChicagoACS>)
- Twitter (<http://twitter.com/#!/ChicagoACS>)
- ACS Network (<https://communities.acs.org/groups/chicago-section>)

Please contact Keith KostECKA (kkostECKA@colum.edu or 847-391-9091) about these and other benefits available to ACS members.

LAB SPACE FOR RENT/SALE IN LAKE VILLA, IL

Looking for lab space to carry out some research projects? A small chemistry research lab is available for rent or for sale in a quiet industrial park in Lake Villa, Illinois. The 1,500 sq. ft. facility includes two furnished offices and two labs in good working condition. The labs are lined with benches and the following equipment is available: chemical hood, biochemical hood, rotary evaporator (with bath and water aspirator), vacuum pumps, air compressor, spectrometer, hydrogenator, menometers, centrifuges, drying ovens, refrigerator, freezer, chromatography supplies, eppendorf pipettes, gases (nitrogen, oxygen, hydrogen) with regulators, assorted glassware, and miscellaneous lab supplies. Excellent for start-ups. For more information or to schedule a viewing, call 847-549-0104 and ask for Neil.

AWARDS ON ACS CHICAGO SECTION'S WEBSITE

We've created a section on the section's website to highlight the various award opportunities available to our members. There are programs for students, educators, researchers, and professionals you can find them at www.chicagoacs.net/new/awards.php. Most of the programs offer some kind of financial incentive in addition to recognition, but either way winning an award looks really good on a resume! Go ahead and apply or recommend somebody you think deserves a little attention from the industry. With all of the talented chemical professionals in the Chicago region, it would be great to show off the contributions our members have made.

Special notes:

A few of the programs listed on the website are closed for the year but now is a good time to plan ahead. View the application requirements and start gathering the information so that you're ready to go when the programs open up again in 2012.

The site is a work in progress, therefore if you have any suggestions for improvement, please send them to info@chicagoacs.net.

Special thanks to Katie Leach for creating the Awards page on the Chicago ACS website.

EVA MONTGOMERY
Awards Committee Chair

INSPIRE THE NEXT GENERATION OF SCIENTISTS DURING IYC

A new ACS video series - aptly named *Spellbound* - tells the stories of eight scientists whose childhood curiosity about everyday things helped them launch careers in laboratories, win Nobel Prizes and make notable achievements.

Free and available at <http://www.acs.org/Spellbound>, <http://www.youtube.com/user/ACSVideoTheater>, on iTunes and on DVD by request (m_bernstein@acs.org), the videos are suitable for classrooms and other audiences of scientists and non-scientists. Watch them, share them, and encourage educators, museums, science centers, news organizations and others to embed links on their websites.

Spellbound is a great way to celebrate IYC!

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NOVEMBER HISTORICAL EVENTS IN CHEMISTRY

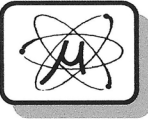
- November 3, 1854** Jokichi Takamine, who isolated the hormone adrenaline from natural sources, was born.
- November 5, 1891** Neil K. Adam, researcher on unimolecular surface films, was born. He discovered existence of a two-dimensional state of matter at water-air boundary.
- November 6, 1886** Ian M. Heilbron, who synthesized naturally occurring compounds, such as vitamins A and D, was born.
- November 7, 1878** Lise Meitner, who explained nuclear fission and discovered Protactinium in 1917, was born.
- November 8, 1711** Mikhail V. Lomonosov, who suggested the law of conservation of mass and a theory of heat as a form of motion, was born. He opposed phlogistic chemistry and was the first to record the freezing of mercury.
- November 10, 1764** Andrés M. Del Rio, who discovered vanadium in 1801, which he called erthronium, was born.
- November 14, 1807** Auguste Laurent, who obtained phthalic acid from naphthalene in 1836, was born. In 1832, he had discovered anthracene and, in 1841, showed that carbolic acid is phenol. He also constructed a saccharimeter, evolved the nucleus theory of organic radicals (with Charles F. Gerhardt), and made Laurent's acid.
- November 18, 1906** George Wald, who did research in the field of chemistry of vision, was born. In 1967, he shared the Nobel Prize in Medicine with Ragner Granit and Haldan Keffer for their discoveries concerning the primary physiological and chemical visual processes in the eye.
- November 23, 1887** Henry G. J. Moseley, who discovered that x-ray frequency is related to atomic number of elements in 1913, was born.
- November 26, 1817** C. Adolphe Wurtz, who discovered a method of synthesis of hydrocarbons (Wurtz Reaction) in 1855, methyl and ethylamines in 1849, phosphorous oxychloride in 1846, and glycol in 1856, was born.
- November 27, 1874** Chaim Weizmann, who discovered a method for synthesizing acetone in 1916, was born. He served as the first President of Israel, 1948-1952.
- November 29, 1936** Yuan T. Lee, who used a specially designed mass spectrometer to separate and identify reaction products, was born. In 1986, he shared the Nobel Prize in Chemistry with Dudley R. Herschbach and John C. Polanyi for their contributions concerning the dynamics of chemical elementary processes.
- November 30, 1761** Smithson Tennant, discoverer of iridium and osmium in 1803 and proved that diamonds are pure carbon, was born.

LEOPOLD MAY
 Professor Emeritus of Chemistry
 The Catholic University of America
 Washington, DC

Additional historical events can be found at Dr. May's website, <http://faculty.cua.edu/may/Chemistrycalendar.htm>

ARE YOU AN INDUSTRY PROFESSIONAL WHO WANTS TO BE MORE INVOLVED WITH ACS?

The American Chemical Society is launching a new program based in two topic areas: Toxicology for the Scientist and Separation Science, and needs your content. ACS is looking for the best and brightest as well as the new and hypothetical. If you have authored an impressive paper, article or lecture slide set, or created a high-quality image, graphic, animation, illustration or video in either of these topic areas, ACS wants to see it. Contact us at sci-mind@acslearning.org with your ideas.



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INTERNATIONAL YEAR OF CHEMISTRY CONTINUES IN 2012

For only the second time in its 44-year history, the International Chemistry Olympiad (IChO) will be hosted in the U.S. (from July 21-30, 2012). IChO provides chemistry students the opportunity to compete at the highest levels and establish networks that go beyond cultures and borders. As part of its ongoing commitment to science, technology, engineering and math (STEM) education, The Dow Chemical Company is investing \$2.5 million to bring the IChO to the U.S. for the first time since 1992. The American Chemical Society (ACS), a not-for-profit organization chartered by the U.S. Congress and the world's largest scientific society, will be the event host.

"As a global company with operations in more than 40 participating nations, Dow sees the International Chemistry Olympiad as a prime opportunity to help inspire the next generation of scientists," said Andrew Liveris, Dow Chairman and CEO. "With more than 95 percent of all manufactured products requiring some level of chemistry, highly educated and inspired scientists will help ensure a sustainable future for our company, our planet and our communities."

More than 70 nations will send teams of four students for the ten-day event of exams, laboratory work and scientific and cultural excursions based at the University of Maryland, College Park, outside Washington, D.C. Competition will cover several areas of chemistry, including: analytical chemistry, biochemistry, inorganic chemistry, organic chemistry, physical chemistry and spectroscopy. Qualifying student teams are typically chosen through a series of regional and national Olympiads.

Dow's sponsorship of the IChO is part of the Company's participation in the 2011 International Year of Chemistry (IYC). As a global partner of IYC, Dow is leveraging its science and technology expertise, sustainability focus and global network to increase public appreciation of chemistry, encourage interest in chemistry among young people and generate enthusiasm for the creative future of the science.

"ACS and Dow are committed to developing the next generation of chemists and chemical engineers," said ACS President Nancy B. Jackson, Ph.D. "Through the generosity of Dow, we have the opportunity to raise public appreciation for the essential role of chemistry in our lives as well as for the future innovators who will use chemistry to discover solutions to our world's most pressing challenges."

Developing international relationships and encouraging international cooperation and understanding is a key goal of the IChO. Participants have the opportunity to establish friendships and networks between like-minded people that cut across cultures and countries.

"As President of the 44th IChO, I am immensely thankful to Dow for this wonderful support, and I know that the teams coming from around the world will be equally thankful," said Dr. Ahmed Zewail. "The IChO is uniquely positioned for celebrating the beauty and cornucopia of chemistry with the world's best young minds. By intellectually bonding with fellow students from all over the world, they form networks for the future." Dr. Zewail, the 1999 Nobel Laureate in chemistry, is the Linus Pauling Professor of Chemistry at California Institute of Technology.

For more information about the International Chemistry Olympiad, visit www.icho2012.org.

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. Unemployment 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.

FREE T-SHIRTS

The Hospitality Committee raffles one T-shirt at each monthly dinner meeting. The shirt has CHICAgO spelled out using the periodic table. So come to a monthly meeting and maybe you'll win one!

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CALL FOR NOMINATIONS FOR THE 2012 ACS CATALYSIS LECTURESHIP FOR THE ADVANCEMENT OF CATALYTIC SCIENCE

The annual ACS Catalysis Lectureship for the Advancement of Catalytic Science will honor the contributions of one individual or a collaborative team for groundbreaking research that strengthens connections between catalysis subdisciplines and has a profound impact on catalysis as a whole. The inaugural ACS Catalysis Lectureship for the Advancement of Catalytic Science will be presented at a special session of the ACS Division of Catalysis Science & Technology at the Fall 2012 ACS National Meeting in Philadelphia, Pennsylvania. The Lectureship award winner will receive \$3000, plus travel and lodging costs. In addition, a symposium will be developed to honor the recipient of the lectureship.

Nominators should include:

- Name and affiliation of nominee
- Name and affiliation of nominator
- Brief statement describing the nominee's accomplishments
- List of top publications relevant to the award
- At least one letter of support provided by an ACS Division of Catalysis Science & Technology member

Deadline for nominations: December 1, 2011. Send your nominations for the 2012 ACS Catalysis Lectureship to **Award. ACScatalysis@acs.org**

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CALENDAR

November 5: Chicago Area NMR Discussion Group Meeting at Baxter International, Round Lake, Illinois; Contact Information: Professor John B. Grutzner, Phone: (765) 494-5247; Email: grutzner@purdue.edu

November 10-11: American Institute of Chemical Engineers Midwest Regional Conference – “Energy is Everything - Game Changers”, University of Illinois at Chicago, Student Center East, Chicago. For further information, go to <http://midwestregional.aiche.org/>

November 17: Chicago Section dinner meeting at The Parthenon Restaurant, 314 South Halsted St., Chicago, IL. See details in this issue.

November 21: The Stieglitz Lecture at the University of Chicago. Dr. Jonathan Ellman of Yale University is the guest speaker.

December 9: The Chicago Section's holiday party and meeting, Holiday Inn Willowbrook, 7800 Kingery Highway (Route 83), Willowbrook, IL.

March 25-29, 2012: 243rd ACS National Meeting & Exposition, San Diego, California

June 18-20, 2012: 16th Annual Green Chemistry & Engineering Conference, Washington, DC. For further information, go to <http://acswebcontent.acs.org/gcande/>

August 10-19: ACS Illinois Sections' cooperative tent project at the Illinois State Fair in Springfield. For further information on this fun and worthwhile outreach activity, contact the section office at 847-391-9091. Also, visit website <http://chicagoacs.org/statefair/index.html>

August 19-23, 2012: 244th ACS National Meeting & Exposition, Philadelphia, Pennsylvania.

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THE CHEMICAL BULLETIN ADVERTISING RATE SCHEDULE

The official newsletter of the Chicago Section American Chemical Society, *The Chemical Bulletin*, publishes news and information of interest to the Section's 4,600 members, who are professional chemists and others in related professions in industry, academia and government throughout greater Chicago.

SIZE	DIMENSIONS	RATE
Full Page	7.5" wide x 10" depth	\$700
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1/2 Column	2.333" wide x 5" depth	\$190
Business Card	3.5" wide x 2" depth	\$95

We accept ads sent in jpg, tif, PhotoShop, and In-Design formats. For more information, contact chicagoacs@ameritech.net or call 847-391-9091.

November, 2011 Vol. 98, No. 9.
 Published by the Chicago Section of The American Chemical Society,
 Editorial Staff: Cherlyn Bradley, Editor; Fran Kravitz, Associate Editor; Richard Treptow, Proofreader; Frank Jarzembowski, Publications Business Manager. Address: 1400 Renaissance Dr., Suite 312, Park Ridge, Illinois 60068; 847/391-9091.
 Subscription rates: \$15 per year.
 Frequency: monthly-September through June.

JOB CLUB

The next meeting of the Chicago Section ACS Job Club will be held on Thursday, November 17 at 5:00 p.m. at the Parthenon Restaurant. The meeting will include a review and discussion of some of the tools that a chemist can use to conduct a job search.

The Job Club provides a continuing opportunity for unemployed members of the Section to meet with one another, share their experiences and develop a network that may help in identifying employment opportunities. Bring plenty of resumes and business cards to distribute to your colleagues. Be prepared to talk about the kind of job you are seeking.

Several participants have received outsource help with resume preparation and marketing strategies to present their best attributes to prospective employers. The group has critiqued some individual resumes and made suggestions for improvements in a positive way!

The Job Club is also for employers seeking chemists. Employers need to be prepared to describe the positions to be filled and requirements for these positions.

Should you wish to attend the Section's dinner meeting following the Job Club, the cost is \$15 and you can continue your networking activities. Please call the Section office for reservations and indicate that you are eligible for a discount.

Also, the Chicago Section's website has a link to the Job Club's yahoo job forum group. If you can't attend the Job Club, you can still find out about job openings and other information.