

# The Chemical Bulletin

<http://chicagoacs.org>

APRIL • 2011

## CHICAGO SECTION AMERICAN CHEMICAL SOCIETY MEETING FRIDAY, APRIL 29, 2011

Colletti's Dining & Banquets  
5707 N. Central  
Chicago, IL 60646  
773-775-5144

**DIRECTIONS TO THE MEETING**

See page 2

**JOB CLUB:**

5:30 - 6:30 P.M.

**SOCIAL HOUR:**

Cash Bar

6:00 - 7:00 P.M.

**DINNER**

See Page 3

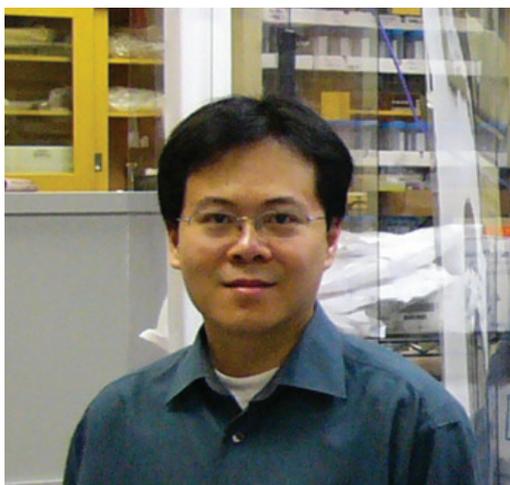
7:00 P.M.

**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.

**GENERAL MEETING**

8:00 P.M.

**Topic: "Graphene oxide as colloidal surfactant: Some new insights into an old material"**

**Dr. Jiaxing Huang**, Assistant Professor,  
Department of Materials Science and  
Engineering, Northwestern University,  
Evanston, IL

**Abstract:** Graphite oxide sheet, now known as graphene oxide (GO), is the product of chemical exfoliation of graphite that has been known for more than a century. Interest in this old material has been resurged with the rapid development of graphene since 2004, because GO is considered to be a promising precursor for bulk production of graphene. We view GO as an unconventional type of soft material (i.e., polymers, membranes, colloids, liquid crystal and amphiphiles), and we intend to establish the assembly-microstructure-properties relationship of these atomically thin sheets.

I will present some new insights into the synthesis, processing, characterization and solution properties of this old material. For example, GO is a known flame retardant for polymers, but it can turn into a serious fire hazard if improperly processed. GO is much more transparent than graphene and therefore even harder to see under an optical microscope, but it can be readily visualized by fluorescence quenching microscopy. GO has long been described as hydrophilic due to its ionizable edge functional groups. However, it should be amphiphilic since there are also hydrophobic graphitic nano domains in its basal plane. As the "world's thinnest bar of soap," GO shows some intriguing size dependent solution properties, and it can act as dispersing agent for insoluble materials in water. Some exciting opportunities and new materials created by this novel sheet-like surfactant, such as a photovoltaic fullerene/nanotube/graphene composite will be presented.

*(continued on page 2)*

(continued from page 1)

**Biography:** Jiaying Huang is an assistant professor in the Department of Materials Science and Engineering at Northwestern University. He received his B.S. degree from the University of Science and Technology (USTC) in China in 2000 and his Ph.D. from the University of California at Los Angeles (UCLA) in 2004. He then was a Miller Research Fellow at the University of California at Berkeley from 2004 to 2007; in 2007 he joined the faculty at Northwestern University.

Huang's research focuses on creating functional systems by the rational assembly of material building blocks over a broad range of length scales. His research efforts are in four areas: graphene based soft materials; organic nanostructures; metal nanoparticles and in conducting polymer nanostructures for nanotechnology education. He is widely regarded as one of leaders in research into the chemistry and properties of graphene.

Huang has received numerous honors and awards, including being named an Alfred P. Sloan Research Fellow in 2011; receiving an NSF CAREER Award spanning 2010-2015; having a Miller Research Fellowship from 2004 to 2007 at the University of California at Berkeley; a National Starch and Chemical Award from the ACS in 2006; a MARCO Inventor Recognition Award in 2006 and a IUPAC Prize for Young Chemists in 2005.

## DIRECTIONS TO THE MEETING

### From Downtown Chicago:

Go west towards O'Hare on the Kennedy Expressway, exit at Central Avenue, go north (right) about 1½ miles to the corner of Elston and Central.

### From Western Suburbs:

Take I-355/53 to I-90 East, then continue on Kennedy Expressway and exit at Nagle Ave. Go up the ramp and make a left and cross over the expressway to Bryn Mawr Ave. Turn right on Bryn Mawr and continue about 1½ miles to Central Ave. Make a left and go about 1 block to Elston.

### From Northwest Suburbs:

Take Edens Expressway south to Touhy. Go west on Touhy to Niles Center Road. Turn left, going south on Niles Center Road which turns into Central Avenue. Continue to the corner of Elston and Central.

### From Lake Shore Drive:

Take Lakeshore Drive to Foster Avenue, go west about 6 miles to Elston Avenue. Turn right onto Elston Ave. Proceed northwest about 2 miles to the corner of Central and Elston Avenue.

### From 294 North or South:

Go to I-90 East Kennedy Expressway and exit at Nagle Ave. Then follow the directions given above for the Western Suburbs.

**PARKING:** Ample parking in large parking lot, free valet parking, or street parking available.

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## FULBRIGHT SCHOLARSHIPS

The Core Fulbright Scholar competition for 2011-2012 is now open. Over 800 grants are available for teaching, conducting research, or combining both in more than 125 countries around the globe. The deadline is August 2.

For information on Fulbright Scholar Awards, consult the website: [www.iie.org/cies](http://www.iie.org/cies). If you are interested in requesting information, please write to [scholars@iie.org](mailto:scholars@iie.org).

## "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.

### Mineral Paint

Kids, what do you think makes the vivid color of paints stay bright for years and years? Unlike paints made from plants or other sources, paints made from minerals hold their color well over time. But they can be hard to make when the minerals are rock-hard. Soft minerals, like chalk (also known as gypsum, calcium sulfate,  $\text{CaSO}_4$ ), are the easiest to make into paints because they're easy to crush.

Here is how you can make your own mineral paint. Wearing a common dust mask, grind a mineral to a fine powder using a mortar and pestle. The mineral can be chalk, clay, red ochre (an iron oxide pigment found in art supply stores) or charcoal. The finer the powder is ground, the smoother the paint will be. Pour the powder into a shallow bowl and add a few drops of water; stir with the pestle until it becomes a smooth paste. A binding agent is needed to stop the paste from drying out to dust. You can use white craft glue for this, or a very clean egg yolk (separate the yolk from the white and gently roll it in a kitchen towel to clean it). Add the binding agent in about a 1:3 ratio binder:paste, and stir with a mixing stick.

Imagine you are in prehistoric times as a cave painter using your handmade mineral paints. Use clay or red ochre for the red paint, chalk to make white paint for highlights, and charcoal to make black outlines and shadows. The paints used in the finest cave paintings 17,000 years ago were made from these materials. Look up cave paintings in books or online to find an original you want to copy.

Pigments and dyes create intense colors. Dyes dissolve in water and soak into fabrics, coloring them throughout. Pigments don't dissolve, so they are ground into powder and made into paint. Azurite was once an important source of blue paint; it is a soft, deep blue copper carbonate mineral ( $\text{Cu}_3[(\text{OH})\text{CO}_3]_2$ ).

Tips: Dip your paintbrush in water if your paint starts to dry out. Wear a dust

mask in case some mineral powders are an inhalation risk; adults should crush very hard minerals for you. Don't ever use yellow or orange minerals because some are toxic.

**References:** "Rock and Fossil Hunter," a Smithsonian series book by Ben Morgan; DK Publishing, Inc. NY; 2005; page 32.

Submitted by DR. KATHLEEN  
CARRADO GREGAR

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

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

### CONTACT THE CHAIR

Do you have any questions, suggestions, ideas, gripes, or complaints relating to the Chicago Section? Do you want to volunteer, help out, or lend a hand with Section programs or activities? Then contact your Chair. Simply log onto the Section's Web Page at <http://chicagoacs.org>, find the green button "Contact the Chair," and send me an e-mail. If I can answer your query I will respond personally. If I can't I will forward your e-mail to someone who can, or try to provide you with a contact -- all in a timely manner. The Section belongs to you and the other 4,546 ACS members who reside in the Chicago area (northeast Illinois and northwest Indiana). Only you can make it work for you by being involved. But you can also make it fail by not being involved. I look forward to hearing from you.

KEITH KOSTECKA  
CHICAGO SECTION CHAIR

April, 2011 Vol. 98, No. 4. 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.

### DINNER

**Menu:** Soup of the Day; Garden Salad with choice of dressing; Entrée Choices: Chicken Marsala, or Broiled Salmon "Oregonata" or Pasta with Vegetables; Baked Potato; Baby Carrots; Ice Cream for dessert; Choice of Beverage; Rolls and Butter

Dinner reservations are required and should be received in the Section Office via **phone** (847-391-9091), **email** ([chicagoacs@ameritech.net](mailto:chicagoacs@ameritech.net)), or **online** (<http://chicagoacs.org>) by noon on Wednesday, April 27. The dinner cost is \$30 to Section members who have paid their local section dues, members' families, and visiting ACS members. The cost to members who haven't paid their local section dues and to non-Section members and 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. PLEASE HONOR YOUR RESERVATIONS. The Section must pay for all dinner orders. No-shows will be billed.

### DID YOU KNOW?

This is the 100th year of the Willard Gibbs Medal?

### LECTURER POSITION IN CHEMISTRY

The Chemistry Division at Illinois Institute of Technology (IIT) seeks candidates for a full-time lecturer position starting August 2011. Applicants must have a Ph.D. in Chemistry. Experience with instrument maintenance and organic chemistry lab teaching is highly desirable. Primary responsibilities include oversight and maintenance of chemistry teaching laboratory facilities and instruments, design and operation of undergraduate organic chemistry laboratory courses, supervision and training of graduate teaching assistants for organic laboratory courses and instruments. Additional responsibility is to teach undergraduate level chemistry courses, including General Chemistry. Applicants should send a cover letter, a curriculum vitae, a statement of teaching philosophy, and have three letters of reference sent to [chemistry\\_search@iit.edu](mailto:chemistry_search@iit.edu) or as a hard copy to Professor Adam Hock, Department of Biological, Chemical and Physical Sciences, Illinois Institute of Technology, Chicago, IL 60616. Review of applications will start immediately and continue until the position is filled. IIT is an equal opportunity/affirmative action employer. Women and Minorities are strongly encouraged to apply.

## 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 x10" depth	\$700
2/3 Page (2 columns)	4.917" wide x 10" depth	\$530
1/2 Page	3.75" wide x 10" depth	\$500
1/3 Page (1 column)	2.333" wide x 10" depth	\$360
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, Photo Shop, Indesign and pdf files. For more information, contact [chicagoacs@ameritech.net](mailto:chicagoacs@ameritech.net) or call 847-391-9091.

## JOB CLUB

The next meeting of the Chicago Section ACS Job Club will be held on **Friday, April 29 at 5:30 p.m. at Colletti's Dining & Banquets**. 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.

## 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!

## JOIN US AT THE FAIR!

The Chicago Section, along with the other ACS Illinois Sections, again plans to have a cooperative tent at the Illinois State Fair **August 12-21** in Springfield, IL. Our joint-sections' tent activities provide information to the public on chemistry with demos, hands-on activities, computer quizzes, posters, literature, and give-aways. They give us a chance to show the positive aspects of chemistry to many Illinois citizens and governmental leaders. **Last year, over 11,400 people visited our tent.**

**We particularly need volunteers to help during the fair. Student members and other student volunteers are welcomed!** If you are interested in helping us for a few hours in this fun and worthwhile outreach activity (you do get free admission to the Fair, free parking and a T-shirt if you sign up to volunteer in time!) -- call the Section office at (847) 391-9091 and go to our website at <http://chicagoacs.org/statefair/index.html> for information and to sign-in using our online volunteer scheduler.

## MERCURY REMOVAL INITIATIVE

A large effort is under way to phase out the use of mercury thermometers. The effort is a collaboration among the National Institute of Standards and Technology (NIST), the U.S. Environmental Protection Agency (EPA), environment and industry groups, and standards organizations such as ASTM International. ASTM is committed to providing information about the ASTM technical committees and standards involving mercury thermometers, and has encouraged the stakeholders involved to join the affected committees and actively participate in changing the standards in accordance with the ASTM consensus process. Go to <http://www.astm.org/COMMIT/mercury.html> for further information.

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## CHICAGO AREA UNDERGRADUATE RESEARCH SYMPOSIUM

The American Undergraduate Research Society invites Chicago section ACS members to join us for our Seventh Annual Chicago Area Undergraduate Research Symposium (CAURS) on Saturday, April 02, 2011 at the Museum of Science and Industry. CAURS provides talented undergraduates from leading Chicago area universities with the opportunity to present their research to distinguished faculty in a professional setting. Students from Northwestern University, the University of Chicago, DePaul University, Loyola University Chicago, the Illinois Institute of Technology, and University of Illinois at Chicago are participating in the symposium.

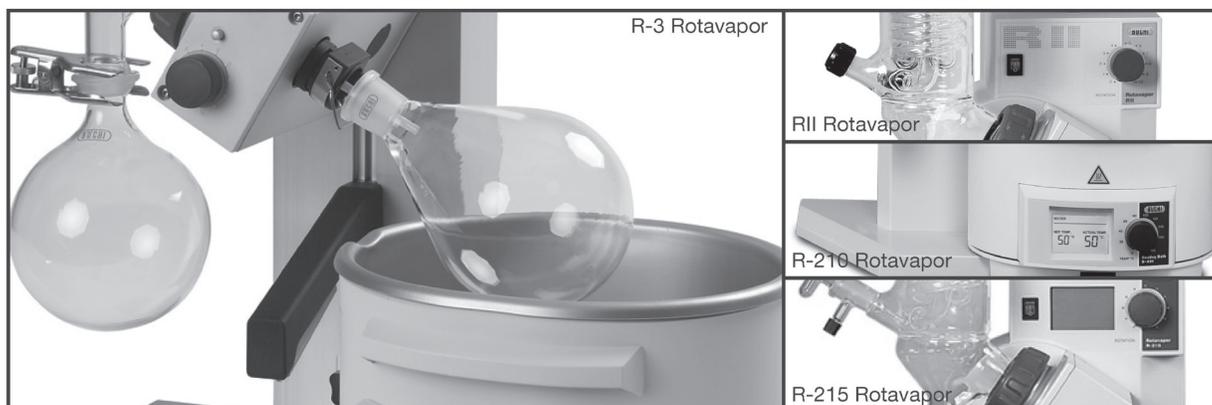
Since CAURS is equally dependent on faculty support and student participation, we invite you to become a judge for this year's symposium. As a judge, you will evaluate the quality of the research presented by students in the symposium. Based on your recommendations, the top student researchers will receive a monetary reward for use toward future research. All areas of expertise in the social sciences, physical sciences, and humanities are welcome at CAURS.

There will be two opportunities to judge: the poster session and oral presentations. Tentatively, the presentation session I is scheduled for 1:00 to 3:00 pm and presentation session II is scheduled from 4:00 to 6:00 pm. The poster session and oral presentations will run simultaneously. You can register to become a judge online at <http://www.caurs.com/judging>.

For further information, please contact Lacy Simmons at [lsimons@luc.edu](mailto:lsimons@luc.edu) or at [info@caurs.com](mailto:info@caurs.com).

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## CATALYSIS CLUB OF CHICAGO SPRING SYMPOSIUM CALL FOR PAPERS

The Catalysis Club of Chicago invites you to submit abstracts for oral or poster presentations for the 2011 Spring Symposium to be held Thursday, May 19 at the BP Research Center in Naperville, IL.

Please send abstracts as Microsoft Word or plain text documents to Feng Xu, Program Chair at [feng.xu@uop.com](mailto:feng.xu@uop.com)

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**Chicago Section American Chemical Society  
Balance Sheet  
December 31, 2010**

**ASSETS****Current Assets**

Checking/Savings adjustment	300.00
Northern Trust Bank	<u>13,103.10</u>
Total Checking/Savings	13,403.10
Accounts Receivable	<u>(338.00)</u>
Total Accounts Receivable	(338.00)

**Other Current Assets**

Gibbs Medal Inventory	7,564.56
Petty Cash	400.00
Prepaid Expenses	581.67
S-N Self-Managed Equities	285,533.59
S-N Self Managed Cash Account	476.17
S-N Self Managed Gen Money Mkt.	67,235.71
S-N Self Managed Mutual Funds	267,487.20
S-N Self Managed Other Invest.	146,037.40
S-N Self Managed Preferred	305,924.37
S-N Self Managed Unr. Cap Gains	<u>(49,452.53)</u>

**Total Other Current Assets** 1,031,788.14

**Total Current Assets** 1,044,853.24

**TOTAL ASSETS**

1,044,853.24

**LIABILITIES &  
EQUITY****Liabilities****Current Liabilities****Other Current Liabilities**

Contingency Reserve Fund	40,620.75
Freud Trust Endowment Fund	6,808.87
General Endowment Fund	24,569.98
Holding Fund	988.23
Ipatieff Library Endowment Fund	17,380.56
Lishka Scholarship Endow. Fund	64,161.38
Marshall S. Smoler Endowment	27,175.10
Meeting Place Reserve Fund	180,649.72
Payroll Liabilities	
Payroll Liabilities - State WH	(1,486.64)
Payroll Liability--FICA	549.20
Payroll Liability--Medicare	119.36
Payroll Liability - Federal WH	<u>447.84</u>
Total Payroll Liabilities	(370.24)
Project SEED Endowment Fund	48,373.20
Schaar Scholarship Fund	13,530.92
Scholarship Endowment Fund	503,048.74
Scholarship Operating Fund	65,017.00
W. Gibbs Medal Endowment Fund	<u>31,905.71</u>
<b>Total Other Current Liabilities</b>	<u>1,023,859.92</u>

*(continued on page 7)*

<b>Total Current Liabilities</b>	<u>1,023,859.92</u>
<b>Total Liabilities</b>	1,023,859.92
<b>Equity</b>	
Opening Bal Equity	7,473.46
Retained Earnings	(13,262.85)
Net Income	<u>26,782.71</u>
<b>Total Equity</b>	<u>20,993.32</u>
<b>TOTAL LIABILITIES &amp; EQUITY</b>	<u>1,044,853.24</u>

**Chicago Section American Chemical Society  
Profit and Loss Statement  
January through December 2010**

**Income**

Affiliate Membership Dues	30.00
Chem. Bull. Advertising	10,587.00
Chem. Bull. Misc. Revenues	45.00
Donations	
Snack Donations	862.00
Donations - Other	<u>470.00</u>
Total Donations	1,332.00
Gibbs Meeting Registrations	2,010.00
Investment Transfer	0.00
Local Section Dues	31,991.00
Meeting Registrations	15,701.82
Miscellaneous Revenues	1,361.15
Nat'l Allotments & Commissions	27,461.00
National ACS Reimbursements	21,371.48
Project SEED Income	3,950.00
S-N Self Managed Earnings	56,529.03
Sales of Items (Chem Day)	<u>190.00</u>
<b>Total Income</b>	<b>172,559.48</b>

**Expense**

Awards	743.18
Chair	186.97
Chair-Elect	482.63
Chem. Bull. Production	4,884.00
Community Affairs	78.63
Comptroller	1,122.55
Dinner Meetings	15,479.38
Dinner Subsidies	2,265.00
Gibbs Arrangments	9,444.79
High School Education	618.00
Hospitality	439.07
House	1,329.25
Illinois State Fair	1,000.00
Insurance	1,900.00

(continued on page 8)

Office		1,018.75
Payroll Expenses		
FICA	2,026.42	
Medicare	473.93	
Payroll Expenses - Other	<u>32,765.76</u>	
Total Payroll Expenses		35,266.11
Postage		408.68
Professional Relations		630.00
Program		2,093.66
Project SEED		8,900.00
Public Affairs		412.00
Rent		9,661.44
Scholarships		11,750.00
Secretary		5,247.97
Telephone		1,632.03
Travel (Councilor)		28,497.68
Treasurer		10.00
Younger Chemists		<u>275.00</u>
<b>Total Expense</b>		<u><b>145,776.77</b></u>
<b>Net Income</b>		<u><b>26,782.71</b></u>

## SCITECH SUMMER SCIENCE ADVENTURE CAMPS!

Join the SciTech Crime Scene Investigation Team in Aurora, Illinois to solve the Mystery of the Missing Mastodon! Spend the week learning how to find and analyze clues, examine evidence and draw conclusions. We'll tour the Aurora Police station to see what it means to get "Booked"-- complete with fingerprints and mug shots!

Robotics: Build and Battle your own GO-bot creations using Lego-Mindstorms in a week of creation and destruction. GO-bots will be built to code and perform tasks for daily challenges. Bring your big ideas!

Journey to the Center of the Earth: Start at Mt. Everest, travel across the continents, and then to the Center of the Earth. Unearth the mysteries of the Earth's layers. Examine how Natural Phenomena such as tornados, tsunamis, earth quakes and volcanoes occur. Identify the 7 Wonders of the Ancient World. Design a new wonder for our "New and Improved" World.

Green Power: Your Mission is to save the Planet! This camp will explore the exciting science behind new energy sources, the effects of pollution on land in the air, in our own Fox River and how you can make a difference. Discover how to go green with the help of cutting edge home-made science techniques that you can use at home. Learn the Power of Green Power and become an ecological Super Hero!

Kitchen Chemistry: Cooking is chemistry. Unravel the mysterious workings of ingredients such as salt, vinegar, baking soda, cornstarch and sugar. Identify which ingredients DON'T mix.

Bugsa-palooza: Are you ready to get down and DIRTY? Explore native species of insects from wetlands to the river to the city. Examine insects' contributions to our planet. Examine up-close how insects are classified and named. Identify your "inner-insect" and meet other bug friends. Attend Miss Spider's Tea Party.

Totally Ballistic: Newton said, "What goes up must come down." Launch rockets, candle Kites, cannons, tennis ball mortars and sling a catapult from SciTech's own backyard. Design your own rocket and prepare for blast-off! Who said Rocket Science was just for NASA?

Jurassic Journey: Dinosaurs -- Travel Millions of years back in time to see how the dinosaurs lived. Investigate what caused their extinction. Be a paleontologist and work to find and identify dinosaurs in our Dino-Dig Pit. Visit our old Mastodon Friends at Phillips Park.

Register soon as camps are limited to only 20 kids and fill quickly! To register, call 630-859-3434 ext 218.

The SciTech "Hands On" Museum is a great educational science resource right in your backyard that will help teach your kids how to ask the right questions and explore their world.

The SciTech Hands On Museum is located at 18 West Benton St., Aurora, IL 60506

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## THE UN-COMFORT ZONE

with Robert Wilson

### Keep Your Power

"Baby Bobby! Baby Bobby!" The words stung and Mike knew it - he could read it in my face.

"Sticks and stones may break my bones, but names will never hurt me!" I yelled back.

Mike just laughed; he knew I didn't believe it. Bolstered by figuring out how to push my buttons, he continued to torment me as I walked home from school.

"Baby Bobby! Baby Bobby!"

The charge had an element of truth because I had cried several times in first grade, but I was now in fifth grade and had long outgrown my fear of school. I recalled the menacing teacher who pounded her paddle on our desks and threatened to spank us if we kept talking in class. She made several kids cry, but I was the one who got the reputation. It wasn't fair, but four years later I was still ashamed of my crying and Mike knew it. He continued the harassment.

"Baby Bobby! Baby Bobby!"

He stuck his face right in mine and stated deliberately, "Baby... Bobby!"

I punched him in the nose, and suddenly he was the one crying. I had to fight several more boys that year before the name-calling stopped. It was not the solution I wanted, but it worked. It took me years to learn that the problem was mine; that I was giving away my power every time I reacted to taunting and teasing. And, it's a problem that doesn't go away with childhood.

Insecure adults wanting to feel superior will seek out your weaknesses and attempt to make you feel bad. Several years ago, I was invited to speak on Creative Thinking in Business to a civic club luncheon. During the meal, a man at my table sneered, "Sooo, you're a motivational speaker. Well, motivate me!" His tone of voice said it all - the difference between him and a school yard bully was the accompanying, "Na Na Na Na Nah."

I was shocked by the un-professionalism and thought, "I'm getting heckled, and I'm not even on stage yet." So, I laughed and said, "Dude, nobody can motivate you, but you."

(continued on page 11)



**AMERICAN CHEMICAL SOCIETY CHICAGO SECTION  
2011 WILLARD GIBBS MEDAL AWARD PRESENTATION  
Friday, May 20, 2011**



You and your guest(s) are cordially invited to attend the 100th presentation of the Josiah Willard Gibbs medal to Professor Robert Bergman, The Gerald E. K. Branch Distinguished Professor of Chemistry, University of California, Berkeley, on Friday, May 20, at Casa Royale, 783 Lee Street, Des Plaines, IL 60016. A social hour begins at 6 PM. Dinner is served at 7 PM. Dr. Bergman's talk will begin at approximately 8:30 pm.

After a social hour with Hors-d'oeuvres and two Complimentary Drinks, dinner on this special occasion includes Cream of Asparagus Soup, Signature Salad Pre-Dressed with Raspberry Vinaigrette Dressing; a choice of Prime New York Strip or Baked Salmon with Dill Sauce or Eggplant Parmigiana; Duchesse Potatoes and Green Beans Almandine; and Warmed Apple Cobbler à la mode with Caramel Sauce, as well as Wine.

To reserve your tickets, please call the Chicago Section office at 847-391-9091 or register at <http://ChicagoACS.org> by Monday, May 16 and pay \$40 at the door, or fill out the attached reservation form and mail it with your payment of \$40 by Wednesday, May 11 to the address below. If you are not a member of the Chicago Local Section, you are not eligible for half price tickets for students, unemployed, or retired Chicago Section members. Tickets and nametags will be available at the door. No refunds will be made after noon on Monday, May 16, 2011.

The Gibbs Award Dinner is always a memorable occasion. Only the Nobel Prize is considered more prestigious. Please come to salute the recipient and rejoice in Dr. Bergman's achievements in and contribution to the science of Chemistry.

Margaret Stowell Levenberg  
Gibbs Arrangements Committee

..... cut here .....

**2011 GIBBS DINNER RESERVATION FORM**

Name \_\_\_\_\_ Affiliation \_\_\_\_\_

Address \_\_\_\_\_ Phone(\_\_\_\_) \_\_\_\_\_

Email Address \_\_\_\_\_

# tickets for ACS members & guests (\$40.00/ticket) \_\_\_\_\_

# tickets for students, unemployed members, and retirees who are Chicago Section members (\$20.00/ticket) \_\_\_\_\_

Note: Professors must make student reservations.

# dinners:

Prime New York Strip \_\_\_\_\_

Baked Salmon with Dill Sauce \_\_\_\_\_

Eggplant Parmigiana \_\_\_\_\_

Total Enclosed \$ \_\_\_\_\_ Payable at time of reservation if reservation is made by mail. Please include a list of your guests' names, affiliations and dinner selections with this form.

Return with payment to: American Chemical Society, Gibbs Reservations  
1400 Renaissance Drive, Suite 312, Park Ridge, IL 60068

## THE UN-COMFORT ZONE

(continued from page 9)

He shocked me a second time by apologizing after my presentation. He explained that the club had a new speaker each week who tried to sell something, and that most of them were boring. To his surprise, he said he found my presentation entertaining and motivating.

If we give in to bullies, they can rob us of our confidence and our motivation. Lately, I've worked with my children on how to not give their power away when kids assault them verbally. "Laugh it off," I tell them, "even if the words hurt. Fake it if you have to; the trick is to fool them into thinking it doesn't bother you."

My friend Rob Maxwell uses what he calls Verbal Judo to fend off words that hit like a fist. "In some martial arts," he explains, "you don't meet force with force. Instead, you take your opponent's thrust and redirect it away from you. Often their own energy works against them."

As an example, he told me of a college friend who was teasing him about losing his hair. Rob replied, "It's true John, I am losing my hair, but you were always the handsome one."

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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 more want to think like innovators. For more information on Robert's programs please visit [www.jumpstartyourmeeting.com](http://www.jumpstartyourmeeting.com).

## NOMINATIONS OPEN FOR 2011 ACS FELLOWS

Nominations are still open for the 2011 class of ACS Fellows; the nomination deadline is May 2. Nominations are being solicited from ACS National Committees, Local Sections and Divisions, as well as from individual members. The ACS Fellows Program was approved by the Board of Directors to recognize members of the American Chemical Society for their outstanding achievements in and contributions to the science and the profession and for service to the Society. Visit [www.acs.org/fellows](http://www.acs.org/fellows) for complete details regarding eligibility requirements and the nomination process. Email additional inquiries to [fellows@acs.org](mailto:fellows@acs.org).

**REGISTER ONLINE for  
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## ASSISTANT PROFESSOR OF CHEMISTRY

North Park University, a Christian liberal arts school of over 3,000 students located in Chicago invites applicants for a tenure-track position in **Analytical** or **Bioanalytical** chemistry, beginning August 2011. Ph.D. required. Visit [www.northpark.edu/facultyjobs](http://www.northpark.edu/facultyjobs) for application details and instructions. An equal opportunity employer.

## 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](mailto:service@acs.org), 800-333-9511 or 614-447-3671 for complete details.

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

- Free registration at ACS National Meetings and registration fees at Regional Meetings of just \$25. Meetings offer ACS Career Fairs with on-site interviews.
- Special discounts for ACS/Harvard courses, ACS ProSpectives and Short Courses, and the ACS Leadership Development System.
- Membership in the ACS Network, your online resource to connect and communicate with friends, colleagues, and potential employers
- 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.
- And more!

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



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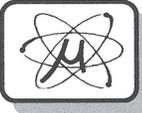
## MARCH HISTORICAL EVENTS IN CHEMISTRY

- March 3, 1918** Arthur Kornberg, who shared the Nobel Prize in Physiology or Medicine in 1959 with Severo Ochoa for their discovery of the mechanisms in the biological synthesis of ribonucleic acid and deoxyribonucleic acid, was born.
- March 12, 1838** William H. Perkin, who with B. P. Duppa synthesized tartaric acid, was born. He also discovered mauve, the first aniline dye, in his home laboratory in 1856, the Perkin reaction for condensation of unsaturated aromatic acids, and coumarin. He elucidated the relationship between tartaric, fumaric and maleic acids.
- March 14, 1984** The first atom of element of hassium (Hs, 108) was observed at GSI Laboratory, Darmstadt.
- March 21, 1932** Walter Gilbert, researcher on the determination of deoxyribonucleic acid (DNA) base sequence, was born. In 1980, he shared the Nobel Prize in Chemistry with Paul Berg and Frederick Sanger for their contributions concerning the determination of base sequences in nucleic acids.
- March 22, 1788** Pierre J. Pelletier, who with Philip Walter obtained toluene by distilling pipe resin, was born. He discovered quinine, strychnine, and other alkaloids.
- March 22, 1868** Robert A. Millikan, who measured the charge/mass ratio of the electron and received the Nobel Prize in Physics in 1923 for his work on the elementary charge of electricity and on the photoelectric effect, was born.
- March 24, 1884** Peter Joseph William Debye, who received the Nobel Prize in Chemistry in 1936 for his contributions to our knowledge of molecular structure through his investigations on dipole moments and on the diffraction of X-rays and electrons in gases, was born.
- March 26, 1911** Bernard Katz, who shared the Nobel Prize in Physiology or Medicine in 1970 with J. Axelrod and U. Von Euler for discoveries concerning humoral transmitters in the nerve terminals and the mechanism for their storage, release and inactivation, was born.
- March 31, 1811** Robert Bunsen, who with Gustav R. Kirchhoff discovered rubidium and cesium and invented the spectroscope, was born. He invented the Bunsen burner, filter pump, a galvanic battery, and with Henry E. Roscoe, the actinometer.

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/Chemistry\\_calendar.htm](http://faculty.cua.edu/may/Chemistry_calendar.htm)



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### IYC 2011 – CHICAGO IS ON FACEBOOK

Go to this link to get some Chicago-flavor IYC ideas and activities --  
<http://www.facebook.com/pages/International-Year-of-Chemistry-2011-Chicago/177433692295986>

## DID YOU KNOW? . . . STANDARDS FOR THE LAUNDRY?

"Tough stain? Try our brand of detergent" is the slogan for many laundering and cleaning products. However, the answer could be "Tough stain? Check the ASTM standard." Most of us have seen the ads featuring photos of a stained piece of fabric as the "before" picture, with the "after" picture next to it showing a clean fabric with the stain washed away. These ads, which are often used by soap and detergent manufacturers to promote their products, surely influence consumers when deciding which brands to purchase, but did you know there are ASTM standards that cover these very products? **ASTM Committee D12 on Soaps and Other Detergents** develops standards that cover all aspects important to the soap and detergent industry, including composition, sampling, classification, analysis and quality assurance. **Subcommittee D12.12** focuses on the analysis and specifications for soaps, synthetics, detergents and their components. There are D12 standards for evaluating **stain removal performance in home laundering**, measuring **soil removal from artificially soiled products**, evaluating **fabric softeners**, and for **color transfer/loss of dyed products**. As for other cleaning products used in the home, D12 also covers **glassware deposition during mechanical dishwashing**, foam stability for **hand dishwashing detergents**, and cleaning performance of ceramic tile cleaners. The committee is also currently developing a standard to evaluate the cleaning performance of products for **use on home kitchen surfaces**. And for those who like shortcuts but are unsure if they clean as well as traditional methods, the committee is also working on a new standard that will determine the cleaning efficacy of **hard surface cleaning wipes**. Whether you consider them chores or not, cleaning and laundry are a part of most of our daily lives, and so are standards.

Source: ASTM International *eNews*, March 2011

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ASTM International is one of the world's largest management systems for the development of voluntary standards for materials, products, systems and services.

## ARE YOU UNEMPLOYED?

Are you seeking a better job? Are you looking to improve your career? The place to start is with your resume. That is the single tool that will get you an interview, illustrate your professional strengths, and show how you can improve your importance to your employer.

You can get help improving your resume through the Career Consultants. These are volunteers trained by the ACS to assist its members with writing resumes, contacting prospective employers, and providing tips on interviews.

There are several Career Consultants in the Chicago Section who are willing to meet with you and help improve your resume. Simply call the Section office at 847-391-9091 and set up an appointment. Fifteen to thirty-minute sessions will be arranged at our monthly meetings. Should you require more time, arrangements can be made with your consultant to continue discussions by telephone, by e-mail or by additional face-to-face sessions. You also can attend the Section's Job Club where you can network with other people having similar concerns.

We are here to help. All you need to do is pick up the telephone and bring copies of your resume to the next monthly meeting.

## DEADLINES FOR CHEMICAL BULLETIN

Please submit all Chemical Bulletin copy to the editor before the deadlines listed below for each issue. Articles can be emailed to the editor, Cheryn Bradley, [cbrad1027@aol.com](mailto:cbrad1027@aol.com). Please submit your articles as a Word doc, docx, txt, or rft file. Any photos should be jpg, tif, pdf, Photo Shop, or InDesign files.

Since we like the Bulletin to be as timely as possible, we need the lead time indicated. You can help by early planning and submission of your information or articles.

2011 Issue	Deadline
June	May 6
September	July 15
October	September 2
November	September 30
December	October 21

## SECTION MEETING DATES 2011

Friday, May 20  
Thursday, June 23  
Friday, September 23  
Friday, October 21  
Thursday, November 17  
Friday, December 9

## HIGH SCHOOL TEACHERS CAMPS

A teacher's camp for high school general science, chemistry, physics, math and technology teachers and middle school science teachers will be conducted during the summer. The camp is sponsored by the Materials Information Society (ASM) and is a one-week workshop to show how to use low-cost or no-cost, simple labs and experiments using everyday materials that can be integrated into existing lesson plans. Camps are scheduled throughout the summer at various locations in the United States and Canada. View the schedule at [www.asmfoundation.org](http://www.asmfoundation.org).

The program is free and includes lunch and supplies. Housing is provided for non-local participants at residential camps only. Schedule is 8 am to 5 pm for five days. Late afternoon or evening field trips may be scheduled.

Primary faculty conducting the camps are two experienced high school Master Teachers who have taught materials science courses for many years and helped develop this innovative approach to hands-on learning of applied science principles.

Apply online at <http://www.zoomerang.com/Survey/WEB22BHQFA6KXB/>.

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

# CALENDAR

**April 2:** 7<sup>th</sup> annual Chicago Area Undergraduate Research Symposium (CAURS) of the American Undergraduate Research Society at the Museum of Science and Industry. **See article in this issue.**

**April 14:** Chicago Section ACS Board Meeting, 1400 Renaissance Dr., Suite 312, Park Ridge, IL 60068; 847-391-9091.

**April 16:** Chicago Section's Girl Scouts Chemistry Badge program, College of DuPage, Naperville, IL.

**April 22:** Earth Day

**April 29:** Chicago Section ACS Dinner Meeting. The after-dinner speaker is Jiaxing Huang, Northwestern University. See details in this issue.

**May 1:** Lederman Science Center: Ask-a-Scientist Guided Tour of Fermilab – Magnets, Dave Harding, Fermilab Scientist. 1-4 pm at Fermilab, Batavia. Free. For further information, go to [http://eddata.fnal.gov/lasso/program\\_search/calendar\\_new.lasso](http://eddata.fnal.gov/lasso/program_search/calendar_new.lasso)

**May 12:** Chicago Section ACS Board Meeting, 1400 Renaissance Dr., Suite 312, Park Ridge, IL 60068; 847-391-9091.

**May 19:** The Catalysis Club of Chicago will host its 2011 Spring Symposium at the BP Research Center in Naperville, IL. For further information visit <http://www.cmt.anl.gov/CCC/>

**May 20:** Chicago Section ACS Gibbs Award Banquet and Lecture. The dinner reservation coupon is on page \_ in this issue. The Gibbs Medalist is Robert G. Bergman, UC Berkeley.

**June 8-10:** 42nd Central Regional ACS Meeting (CERM 2011), IUPUI, University Place Conference Center, Indianapolis, Indiana. For additional information, visit [cerm\\_regional.sites.acs.org/](http://cerm_regional.sites.acs.org/).

**June 16:** Chicago Section ACS Board Meeting, 1400 Renaissance Dr., Suite 312, Park Ridge, IL 60068; 847-391-9091.

**June 21-23:** The ACS Green Chemistry Institute's joint event: 15th Annual Green Chemistry & Engineering Conference and 5th International Conference on Green and Sustainable Chemistry, Washington, D.C. Visit [www.gcande.org](http://www.gcande.org) to learn more about this premiere event.

**June 23:** Chicago Section ACS Distinguished Service Award Meeting; 50 & 60-year members honored. The after-dinner speaker is Adrian Whitty, Boston University.

**August 4:** Chicago Section ACS Board Meeting, 1400 Renaissance Dr., Suite 312, Park Ridge, IL 60068; 847-391-9091.

**August 12-21:** 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 28-September 1:** ACS National Meeting in Denver, CO.

## FREE SAMPLE ISSUES OF ACS JOURNALS

Have you ever wondered what bioconjugate chemistry is? About the latest topics in nanotechnology? Maybe you have an interest in organic chemistry, physical chemistry, or materials science? The list goes on! If you don't have a personal web editions subscription or access through your institution or company, this is your chance to sample high-quality ACS Journals in these areas, for free!

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