

# The Chemical Bulletin

http://chicagoacs.org

MARCH • 2010

# CHICAGO SECTION AMERICAN CHEMICAL SOCIETY PUBLIC AFFAIRS MEETING

**FRIDAY, MARCH 12, 2010** 

Café La Cave 2777 Mannheim Road Des Plaines, IL 60018 847-827-7818

Directions are on page 2

PRE-DINNER TALK

5:15 - 6:00 P.M.

"OECD: The Organization for Economic Cooperation and Development; Its Origin, Evolution and Growth" by Dr. James P. Shoffner, UOP (Ret.)

Born originally in 1948 after WW II as the "Organisation for European Economic Co-operation" (OEEC), it was re-established as the larger, more significant OECD in

(continued on page 2)

**JOB CLUB:** 

5:30 - 6:30 P.M.

**SOCIAL HOUR:** 

6:00 - 7:00 P.M.

Complimentary Hors D'oeuvres served butler style. Cash Bar

DINNER 7:00 P.M.

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**GENERAL MEETING** 

8:00 P.M.



**Dr. Elena V. Shevchenko**, Center for Nanoscale Materials, Argonne National Laboratory, Argonne, IL

**Topic: "Nanoparticles and Structural Diversity at Nanoscale"** 

**Abstract:** Bringing together nanoparticles of intrinsically different functionality constitutes a particularly powerful route

(continued on page 2)

## 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 CPDUs.

### Abstract continued from page 1....

to create novel functional materials with synergistic properties found in neither of the constituents. Nanoparticles (NPs) of different size and functionality (e.g. noble metals, semiconductors, oxides, magnetic alloys) can self-assemble into ordered binary superlattices isostructural to ionic and atomic compounds. In the case of NPs, different types (e.g. Coulombic interactions, dipolar, van der Waals, etc) equally contribute to the nanoparticle interactions that lead to the diversity in binary superlattices. The difficulties encountered in co-crystallizing more than two types of nanoparticle can be overcome by using multicomponent nanoparticles. To date, multicomponent nanoparticles are represented by several morphologies: (i) dumbbells; (ii) coreshell and recently discovered (iii) hollow core-shell structures. Self-assembly of multicomponent nanoparticles greatly extends the range and combinations of possible material types which can be intermixed on the nanoscale. In addition to that, adjustments in the nanoparticles composition is expected to allow control over particleparticle interactions. The difference between nanoparticle-based solids with different degrees of ordering will be discussed. The stability of the nanoparticle's surface will also be discussed.

**Biography:** Elena Shevchenko received her Ph.D. from the University of Hamburg in Germany. She is currently a scientist at Argonne National Laboratory in the Center for Nanoscale Materials, working on nanobio interfaces. Before joining Argonne, she did research at the IBM Thomas J. Watson Center, Columbia University and Lawrence Berkeley National Laboratory. She was recently named one of the country's top young innovators by *Technology Reviews* in recognition of her work in nanotechnology.

### Pre-Dinner Talk Abstract continued from page 1....

1961. The organization grew slowly but significantly from an original group of 20 member-nations to 30 in nearly 50 years. During January, 2010, OECD took in Chile as its 31st member-nation, the first South American nation to ever belong. We will explore the origins, early history and present work of this organization. Some comparisons will be made with other international organizations that have world-wide reach such as the United Nations, World Banks, etc. I will mention the prominence and influence that OECD has obtained over the past ten years in terms of its media impact, overall societal reach, and what we might expect from it in the future.

#### **DIRECTIONS TO THE MEETING**

**From I-290 East/West** - Take I-290 from either direction and exit onto I-294 North. Continue until you reach the exit for I-190 West (to O'Hare). Exit and immediately pay toll. Exit onto Mannheim Road North. Go North for 1.5 miles. The restaurant is on the right side after the second stoplight.

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## Dinner Information Continued from Page 1

Menu: Soup of the day; Squillo Salad with Walnuts and Cranberries; Entrée choice of either a Breast of Chicken Combination (Sautéed Breast of Chicken with fresh mushrooms & shallots with a Sherry Cream Sauce and Sautéed Breast of Chicken with Shiitake mushrooms with a Marsala Wine Sauce), Seared Salmon with a Ginger Sauce, or Fresh Vegetables with Pasta; Anna Potatoes; medley of fresh vegetables; Chef choice dessert; a variety of breads; beverage.

Dinner reservations are required and should be received in the Section Office via phone (847-391-9091), email (chicagoacs@ameritech.net), or online (http://chicagoacs.org) by noon on Wednesday, March 10. The dinner cost is \$35 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 is \$37. The cost to students and unemployed members is \$20. Seating will be available for those who wish to attend the meeting without dinner. PLEASE HONOR YOUR RESER-VATIONS. The Section must pay for all dinner orders. No-shows will be billed.

### "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 science literacy. Please print it out and pass it on to your children, grandchildren, or elementary school teachers. It is hoped that teachers will incorporate some of the projects in this column into their lesson plans.

### **Hot Steel Wool**

Kids, what kind of chemical reaction makes heat? Exothermic chemical reactions produce heat. In this reaction vinegar is used to remove the protective coating from steel wool, allowing it to rust. When the iron combines with oxygen in this chemical reaction, heat is released.

#### What You Need:

- Thermometer
- Jar with Lid
- Steel Wool
- Vinegar

#### What You Do:

- Place the thermometer in the jar and close the lid. Wait about 5 minutes then open the lid and read the thermometer.
- 2. Soak a piece of steel wool in vinegar for 1 minute.
- 3. Squeeze the excess vinegar out of the steel wool.
- 4. Wrap the steel wool around the thermometer and place them in the jar, sealing the lid.
- Wait 5 minutes then read the temperature and compare it with the first reading.
- 6. Chemistry is Fun!

#### Notes:

- Not only does the vinegar remove the protective coating on the steel wool, but once the coating is removed, the acidity of the vinegar aids in oxidation (rust) of the iron in the steel. The protective layer on spun steel wool fibers is a thin coat of oil.
- The thermal energy given off during this chemical reaction causes the fluid in the thermometer to expand and rise up the column of the thermometer tube.
- In the rusting of iron, four atoms of solid iron react with three molecules of oxygen gas to form two molecules of solid rust (iron oxide): 4 Fe (s) + 3 O<sub>2</sub> (g) → 2 Fe<sub>2</sub>O<sub>3</sub> (s)

References:

Anne Marie Helmenstine's About.com website at: <a href="http://chemistry.about.com/cs/howtos/ht/exothermic.htm">http://chemistry.about.com/cs/howtos/ht/exothermic.htm</a>

Submitted by DR. KATHLEEN CARRADO

All past "ChemShorts for Kids": <a href="http://chicagoacs.org/CS">http://chicagoacs.org/CS</a> home.html

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## Call to Support Pre-Service Education

ACS Immediate Past-President Tom Lane recently sent college and university chemistry department chairs a statement in support of pre-service education for future high school chemistry teachers. It recognizes the critical role of the chemistry community in preparing the teachers of tomorrow. The statement has been endorsed by the Society Committee on Education. Please encourage your department chair to endorse this statement.

March, 2010 Vol. 97, No. 3. 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., Park Ridge, Illinois 60068; 847/391-9091. Subscription rates: \$15 per year. Frequency: monthly-September through June.

### Message from the Chair

Did you know that the Chicago Section has over 4000 members? Our usual attendance at our dinner meetings is between 80 and 100 members and guests. We vary the presentation topics and the geographic locations to appeal to as many members as we can. Traditionally, the Chicago Section has held its dinner meetings on Friday evenings. In an effort to encourage more attendees this year, we have scheduled meetings on Tuesday (April), Thursday (January, June, November), and Friday (February, March, May, September, October, December). Before most dinner meetings, we have a job club where members discuss career and interviewing strategies. At some meetings, we have a pre-dinner speaker who provides useful information about the less technical aspects of the chemistry profession. Members who are retired or unemployed, and full-time students may receive discounts of up to 50% on the dinner price.

At a time when everyone wants to network with other professionals, our monthly meetings provide an excellent opportunity to meet with chemists and chemical engineers who work in many diverse areas of chemistry. Both *The Chemical Bulletin* and our website <a href="https://www.chicagoacs.org">www.chicagoacs.org</a> have lists of upcoming section meetings. I encourage you to check out the schedule, find an interesting topic or a meeting that is convenient to your schedule, and join us for an evening of networking and learning more about the fascinating world of chemistry.

KEN FIVIZZANI

NEXT MONTH: the April 20 monthly meeting

### **JOB CLUB**

The next meeting of the Chicago Section ACS Job Club will be held on Friday, March 12 at 5:30 p.m. at Café La Cave. 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 \$20 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.

## National Lab Day Coming in 2010

President Obama recently announced the establishment of National Lab Day, an effort supported by ACS and 190 other organizations representing more than 6.5 million science, technology, engineering, and math (STEM) professionals. The first National Lab Day is tentatively set for early May 2010. ÁCS and other organizers hope National Lab Day will help stimulate more hands-on science learning by fostering enduring collaborations between individual STEM professionals, teachers, and students. ACS Chemistry Ambassadors are already making these connections. To join the effort or learn more, visit www. acs.org/chemistryambassadors and www.nationallabday.org

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### **PUBLIC AFFAIRS COLUMN**

Innovation and Public Affairs

Each year a program is provided that highlights one of the issues that is worth considering as a scientist and as a citizen of the world. In odd-numbered years, the Chicago Section presents an award to individuals to recognize and encourage exemplary accomplishments and innovations of merit in the areas of Chemistry and Public Affairs. In even-numbered years, a program is provided that the Chicago Section Public Affairs Committee feels is worth highlighting as a way of linking Chemistry and Public Affairs.

This year we feel that we should highlight innovation. President Barack Obama said we "led the world's economies in the 20th century because we led the world in innovation. Today the competition is keener; the challenge is tougher; and that is why innovation is more important than ever. It is the key to good, new jobs for the 21st century. That's how we will ensure a high quality of life for this generation and future generations." A number of initiatives have been promoted, including the need for increased science education in our public schools. Increased funding in basic research has also been highlighted to promote the development of new technologies. One of the new technologies being developed is nanotechnology. Our speaker this month was named one of the top young innovators in the country because she builds structures that others can use to develop new technologies.

BARB MORIARTY
JIM SHOFFNER
Co-chairs, Public Affairs Committee

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How about advertising your business in the Chicago Section's *THE CHEMICAL BULLETIN!* 

Each month, except for July and August, *The Chemical Bulletin* is electronically available for more than 4600 technically aware readers. This audience constitutes a rich pool of individual chemists, chemical engineers, science teachers, and students, within the Chicago Metropolitan Area. Our members are from industry, academic institutions (both universities and high schools) and government.

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### NATIONAL ACADEMY OF SCIENCE HONORS PAST GIBBS AWARDEE

Louis E. Brus, the Chicago Section's 2009 Willard Gibbs awardee, is the recipient of the National Academy of Sciences (NAS) Award in Chemical Sciences. Dr. Brus, the Samuel Latham Mitchill Professor of Chemistry at Columbia University, is being honored for his leading role in the development of a fundamental building block for nanoscience, colloidal semiconductor nanocrystals, and for his contributions to our understanding of the quantum effects that control their optical properties.

Supported by the Merck Company Foundation, the NAS award -- consisting of a medal and prize of \$15,000 -- honors innovative research in the chemical sciences that contributes to a better understanding of the natural sciences and to the benefit of humanity.

### **Teamworks 2010: The Trade Show for Chemical Formulators**

The Society of Cosmetic Chemists Midwest Chapter presents TEAMWORKS 2010, the premier industrial trade show for the personal care industry in mid-America, to be held on **Wednesday, March 31, 2010** at the Donald E. Stephens Convention Center in Rosemont, Illinois, located at Bryn Mawr Avenue and North River Road. Trade show hours are from 12:00 noon – 7:00 pm. Join hundreds of chemists, engineers and technologists from the cosmetic, personal care, pharmaceutical and allied industries in visiting over 100 booths representing the prime technology suppliers in this industry. A buffet lunch, raffle prize drawings, and a well-appointed networking area will be provided. A multi-speaker technical seminar precedes the show that morning, where papers will be presented by supplier firms. *Attendance to this event is cost-free*, but you will need to pre-register online at the SCC Midwest Chapter website (www.midwestscc.org)

Cosmetic chemistry has evolved into a multi-disciplinary science that presents some of the most challenging formulation requirements in the chemical industry. Besides functioning as the technical arm of a multi-billion dollar global industry, cosmetic scientists have the distinction of employing many cutting-edge techniques. Nanotechnology, proteomics, tribology, coatings, pharmacology, biology and functional polymers are some of the disciplines that they use in their innovative pursuits. Perhaps no other discipline requires as much cross-functional knowledge as this industry does.

If you are interested in learning more or perhaps have an inventive idea that you need help with, this will be the ideal place for you. For further details regarding TEAMWORKS 2010, you may contact the Midwest SCC Teamworks Committee at: teamworks@midwestscc.org

### **March Historical Events In Chemistry**

March 1, 1910 Archer J. P. Martin, who shared the Nobel Prize in Chemistry with Richard L. M. Synge in 1952 for their invention of partition chromatography, was born.

March 5, 1893 Emmett J. Culligan, who founded the world's largest water treatment organization as well as the concept of water softening, was born.

March 7, 1792 John F. W. Herschel, inventor of photography on sensitized paper, was born. He introduced the terms of "positive" and "negative" for photography.

March 8, 1879 Otto Hahn, who discovered protactinium with Lise Meitner in 1917 and did research in nuclear fission with Otto Strassman, was born. He received the Nobel Prize in Chemistry in 1944 for his discovery of the fission of heavy nuclei.

March 13, 1733 Joseph Priestley, who was the discoverer of oxygen, ammonia, hydrochloric acid gas, carbon monoxide, sulfur dioxide, and oxides of nitrogen, was born. He also made the first soda drink.

March 17, 1803 Carl Löwig, who was one discoverer of bromine in 1826, was born. However, because of examinations, he did not publish a report, thereby allowing A. Balard to receive precedence of discovery.

March 20, 1735 Torbern Bergman, who was a researcher on carbon dioxide, hydrogen sulfide and the preparation of artificial mineral water, was born.

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 discovered quinine, strychnine, and other alkaloids and obtained toluene by distilling pipe resin with Philip Walter in 1836, was born.

March 23, 1962 Neil Bartlett made the first noble gas compound, XePtF6.

March 25, 1863 Simon Flexner, who developed a curative serum for cerebrospinal meningitis in 1907, was born.

March 27, 1847 Otto Wallach, a researcher on essential oils and terpenes, was born. He was awarded the Nobel Prize in Chemistry in 1910 in recognition of his services to organic chemistry and the chemical industry by his pioneer work in the field of alicyclic compounds.

March 28, 1861 George C. Pond, a chemistry teacher and preserver of the Priestley home in Pennsylvania, was born.

March 31, 1860 Isidor Traube, who founded capillary chemistry and did research on liquids and critical temperature, osmosis, surface tension and colloids (suspensions of nanometer-sized particles), was born. He designed a viscometer and capillarimeter and in 1891 made the first systematic observation of the hydrophobic effect.

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.

### 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.

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For more information, call the Section office (847) 391-9091 or e-mail at chicagoacs@ameritech.net

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Go to <a href="www.chemspider.com/register">www.chemspider.com/register</a>. Also, keep an eye out for the ChemSpider Game coming soon.

### AMERICAN CHEMICAL SOCIETY CHICAGO SECTION 2010 WILLARD GIBBS MEDAL AWARD PRESENTATION Friday, May 14, 2010

You and your guest(s) are cordially invited to attend the 99th presentation of the Josiah Willard Gibbs medal to **Professor Maurice Brookhart**, William R. Kenan, Jr. Professor of Chemistry, University of North Carolina at Chapel Hill on Friday, May 14, at Casa Royale, 783 Lee Street, Des Plaines, IL 60016. A social hour begins at 6 PM. Dinner is served at 7 PM. Dr. Brookhart's talk will begin at approximately 8:30 pm.

After a social hour with Hors-d'eouvres 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 Chicken Wellington with Sherried Duxelle Mushroom Cream Sauce encrusted in a Puff Pastry OR Baked Salmon with Dill Sauce OR Eggplant Parmagiana; Duchesse Potatoes and Green Beans Almondine; 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 <a href="http://ChicagoACS.org">http://ChicagoACS.org</a> by Monday, May 10 and pay \$40 at the door, or fill out the attached reservation form and mail it with your payment of \$40 by Wednesday, May 5 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 10, 2010.

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. Brookhart's achievements in and contribution to the science of Chemistry.

Margaret Ctawall Lavenbarg

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### THE UN-COMFORT ZONE with Robert Wilson

Leadership vs. Power

King George III asked Benjamin West, his American painter, what George Washington would do if he prevailed in the Revolutionary War. West replied, "He will return to his farm." The British monarch incredulously said, "If he does that, he will be the greatest man in the world." On December 23, 1783 Washington did just that and retired to Mount Vernon – despite the encouragement of many to stay in power. Despite the willingness of Americans to crown him king. Thirteen years later, he would do it once again.

In 1787, Washington was coaxed back to Philadelphia to attend the Constitutional Convention. While there he provided the leadership necessary to get the fractious delegates to settle down and complete the work of designing a new constitution. Afterwards, in 1789, he was elected the first President of the United States. He reluctantly ran for a second term in 1792. He refused to run for a third term, setting a precedent that lasted 150 years, and retired once again to his farm.

Abraham Lincoln said, "If you want to test a man's character – give him power." George Washington passed that test. Twice in his life he walked away from power and proved that he was indeed the greatest man in the world. He demonstrated that leadership is something that you give – not take – and that power should be used responsibly.

Washington died in 1799, the year that Napoleon Bonaparte became the ruler of France. In contrast to Washington, Napoleon could not acquire enough power. His legendary lust for command drove him to take over much of Europe. "Power is my mistress," he once claimed, "I have worked too hard at her conquest to allow anyone to take her away from me."

Years later, having lost all power and living in exile, he lamented "They wanted me to be another Washington."

History is rife with stories of people who abused their power. Abuse of power, however, is not just reserved for politicians and tyrants. It can be abused by managers, spouses, parents, peers and the list goes on. It is the lure of dominance over others, when it motivates people toward leadership roles, that is revealing. It reveals uncertainty, lack of confidence and fear.

It is said that power corrupts, but more often than not, it is a corrupted individual who is attracted to power. It is a feeling of inferiority, sometimes called a Napoleon Complex, that drives someone to control other people and to micro-manage their surroundings. Today we call such a person a Control Freak. Science fiction author, Robert Heinlein noted, "Anyone who wants to be a politician shouldn't be allowed to be one."

When we look at Abraham Maslow's hierarchy of Human Motivation (Survival, Safety, Social, Esteem, Fulfillment), we see that someone who hungers for power is stuck in the second to bottom level which is Safety. A true leader has self-esteem and self-confidence and does not seek power to bolster his or her feeling of self worth. Thomas Jefferson observed that, "An honest man can feel no pleasure in the exercise of power over his fellow citizens."

A true leader is motivated by a goal. A goal common to his group whether that group is a company or a country. If you find yourself attracted to leadership, stop and check your motivation. Are you driven to share your gift of understanding in the endeavor of achieving a goal, or are you motivated by perquisites of position and the power you have over others? As John Quincy Adams said, "If your actions inspire others to dream more, learn more, do more and become more, you are a leader."

--

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 <a href="https://www.jumpstartyour.neeting.com">www.jumpstartyour.neeting.com</a>.

## WCC ARTICLE AUTHORS NEEDED

The Chicago Section's Women Chemists Committee has a project to highlight women, both current and historical, and topics of interest to women. The project is called the "WCC Column" in the Chemical Bulletin and the project has been very successful.

We invite anyone, women or men, to join us in this endeavor of writing an article for the column. The article needs to be about 500 words long and will also be put on the Chicago Section website. The author also needs to design a poster for the corresponding monthly meeting. Our office manager, Gail Wilkening, will help with the poster, which can be primarily a large font version of what you wrote, if you wish. We welcome new authors and those who have already discovered what a pleasure this project is.

CO-CHAIRS MARGY LEVENBERG AND SUSAN SHIH



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March 12: Chicago Section ACS Public Affairs Dinner Meeting. See details in this issue.

March 21-25: ACS National Meeting in San Francisco, CA.

March 31: TEAMWORKS 2010 trade show for chemical formulators will be held at the Donald E. Stephens Convention Center in Rosemont, Illinois. Visit <a href="http://www.teamworks@midwestscc.org">http://www.teamworks@midwestscc.org</a> for more information. See article in this issue.

April 20: Chicago Section ACS Dinner Meeting. This is a Tuesday meeting.

April 22: Earth Day - This year's theme is "Plants - The Green Machines!"

May 14: Chicago Section ACS Gibbs Award Banquet and Lecture. The medalist is Dr. Maurice Brookhart, University of North Carolina. See dinner reservation coupon in this issue.

June 24: Chicago Section ACS Distinguished Service Award and 50 & 60-year member awards presentations.

August 13-22: 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 <a href="http://chicagoacs.net/statefair/index.html">http://chicagoacs.net/statefair/index.html</a>

### **ACS Webinars**

ACS Webinars are 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. The ACS Webinars are divided into several series that address topics of interest to the chemical and scientific community; these series include career development, professional growth, small & medium businesses, green chemistry, and executive viewpoints. Each webinar is 60 minutes in length, comprising 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. Upcoming events are at http://www. boilthisdown.org/?page id=385

Here are the upcoming webinars:

Online Monitoring for Water and Wastewater Processes - Global Sustainability at Your Fingertips. Do you know that the global market for water treatment products is a \$44 billion industry? The spending and needs for products and experts in this field is expected to grow with the increase in global water demand and consumption. If you are interested in learning about the latest in online monitoring equipment, how to meet water regulatory requirements for your company, or to discuss new opportunities in the area of global sustainability, you should view this seminar. Join us with our speaker Ed Askew, of Askew Scientific Consulting, to explore the latest trends in technology and learn best practises for online water monitoring. ACS Webinars: Professional Growth and Development Series - Thursday, March 4, 2010; free registration and more information online at <a href="https://www2.gotomeeting.com/register/338640195">https://www2.gotomeeting.com/register/338640195</a>

Developing Career Skills to Compete in a Global Economy - Observations of AMRI Operations in India, Singapore, Hungary and the United States. Do you know how your skills compare to scientists from other countries? Would you like to learn how to stay competitive in the integrated global economy? The global business landscape for chemistry has changed and scientists must adapt. Our speaker Michael Trova, Senior VP of Chemistry at Albany Molecular Research Inc., will share his observations of R&D operations in various countries. Join us to learn how you can develop your career skills and be competitive in this global era. ACS Webinars: Your Career Matters! Series - Thursday, March 11, 2010; free registration and more information online at <a href="https://www2.gotomeeting.">https://www2.gotomeeting.</a> com/register/658331530

Staying Ahead of the Game: Recent Innovations in Computational Methods for Drug Discovery. Looking for new ideas in your research projects? Want to know if computational methods can help? Knowing when to use a certain tool in your research is as crucial as deciding whether you should use it. Advances in computational methods have greatly sped up drug discovery, but not without setbacks. Our speaker Woody Sherman, Vice President of Applications Science at Schrödinger Inc., will discuss the successes of computational modeling and how to benefit from failures and avoid costly mistakes. Join us as we probe the secrets of when to deploy computational methods and how to get the innovations you want. ACS Webinars: Professional Growth and Development Series - Thursday, March 18, 2010; free registration and more information online at <a href="https://www2.gotomeeting.com/register/464892763">https://www2.gotomeeting.com/register/464892763</a>.

**How to Grow Your Small Business** into a Large Corporation - The Story of SAIC and the Secret Sauce of Employee Ownership. Want to learn the secret to growing your business by empowering your employees? Employee ownership - giving employees a stake in the growing value of their company - has been validated repeatedly as a strategy that gives companies a real competitive edge. Of course, the concept is fairly simple. But how does it actually work? Join us with Martin Staubus, Director of Consulting at the Beyster Institute, to learn how small and medium sized companies, and their employees, can create a system of employee ownership that is tailored expressly for their individual needs. We will also learn how SAIC has used the employee-owned model to grow from a small technology company into an \$8 billion powerhouse. ACS Webinars: Small & Medium Business Series -Thursday, March 25, 2010; free registration and more information online at https://www2.gotomeeting.com/ register/544943954

ACS Vision - "Improving people's lives through the transforming power of chemistry"