theCHEMICALbulletin

http://chicagoacs.org

NOVEMBER • 2008

CHICAGO SECTION AMERICAN CHEMICAL SOCIETY

Joint Meeting of the University of Chicago Department of Chemistry and the Chicago Section ACS

WEDNESDAY, NOVEMBER 19, 2008

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 to Halsted. Turn left at 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 at 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.

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

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

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

Dinner reservations are required and should be received in the Section Office via **phone** (847-647-8405), **fax** (847-647-8364), **email** (chicagoacs@ amer itech.net), or **website** (http:// Chicago ACS.org) by noon on Monday, November 17. PLEASE HONOR YOUR RESERVATIONS. The Section must pay for all dinner orders. No-shows will be billed.

MENU: Greek Family Style Dinner--Appetizers: Saganaki (Kaseri 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.

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.

NOTICE TO ILLINOIS TEACHERS

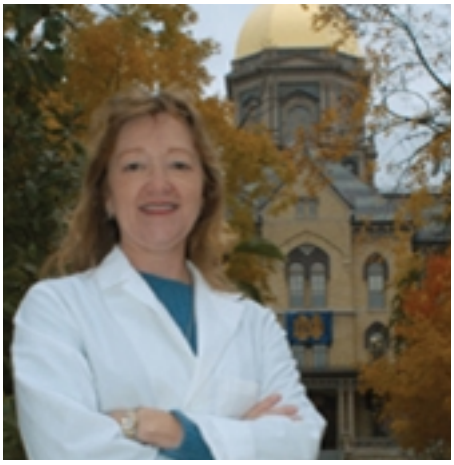
The Chicago Section ACS is an ISBE provider for professional development units for Illinois teachers. Teachers who register for this month's meeting will have the opportunity to earn up to 4 CPDU's.

NATIONAL MEETING TRAVEL GRANTS AVAILABLE FOR STUDENT AFFILIATES

Travel grants are available to active Student Affiliates chapters with students who are presenting research or chapter posters in the Division of Chemical Education's Undergraduate Research Poster Session. Apply by January 12, 2009!

Go to **http://portal.acs.org/portal/acs/corg/content?_nfpb=true&_pageLabel=PP_ARTICLEMAIN&node_id=1298&use_sec=false**.

PRESENTATION OF STIEGLITZ LECTURE **8:00 P.M.**



Dr. Joan F. Brennecke, Department of Chemical and Biomolecular Engineering, University of Notre Dame, Notre Dame, IN

Title: "Ionic Liquids: Worth Their Salt"

Abstract: Ionic liquids are non-volatile organic salts that have low melting points, frequently below room temperature. Typical compounds are comprised of a quaternary ammonium, quaternary phosphonium, imidazolium or pyridinium cation with a wide variety of common anions. Since they cannot evaporate and cause air pollution, they are being vigorously investigated as promising alternatives to volatile organic solvents. We will discuss the physical and chemical properties of ionic liquids and show how these properties can be tailored or tuned by judicious choice of cation, anion and substituents.

Although water-stable ionic liquids have only been known for about fifteen years, they have already been introduced in numerous industrial processes. They are being investigated for many

(continued on page 2)

(continued from page 1)

more applications, including as solvents for reactions, as nonvolatile electrolytes in batteries and solar cells, for gas and liquid separations, and as heat transfer fluids and high temperature lubricants. We will discuss these applications, with particular emphasis on our own work developing ionic liquids for removal of carbon dioxide from flue gas and as solvents for liquid-liquid extraction.

Biography: Joan F. Brennecke is the Keating-Crawford Professor of Chemical Engineering at the University of Notre Dame and Director of the Notre Dame Energy Center. She joined Notre Dame after completing her Ph.D. and M.S. (1989 and 1987) degrees at the University of Illinois at Urbana-Champaign and her B. S. at the University of Texas at Austin (1984).

Her research interests are primarily in the development of less environmentally harmful solvents. In particular, her research has focused on studies of supercritical fluids, including supercritical CO2 and supercritical water. She was awarded the 2001 Ipatieff Prize from the American Chemical Society in recognition of her pioneering high pressure studies of the local structure of supercritical fluid solutions and the effect of this local structure on the rates of homogeneous reactions. Much of her current research involves ionic liquids, which are organic salts that are liquid at temperatures around ambient. These salts have received tremendous recent attention as potential substitutes for volatile organic solvents since the ionic liquids are non-volatile and, thus, cannot contribute to air pollution. In developing these solvents, Dr. Brennecke's primary interests are in the measurement and modeling of thermodynamics, thermophysical properties, phase behavior and separations. She was awarded the 2006 Professional Progress Award from the American Institute of Chemical Engineers in recognition of her ionic liquids research and received the J. M. Prausnitz Award at the Eleventh International Conference on Properties and Phase Equilibria in Greece in May, 2007.

Dr. Brennecke is the recipient of a 1991 Presidential Young Investigator Award from the National Science Foundation, the 1998 University of Notre Dame Presidential Award, and the College of Engineering's Outstanding Teacher of the Year (2000) and Kaneb Teaching (2002) awards. She has served on the *Editorial Advisory Boards of Industrial and Engineering Chemistry Research, the Journal of Chemical and Engineering Data, Green Chemistry and the Journal of Chemical Thermodynamics. She also serves on the Governing Board of the Council for Chemical Research (Chair for 2007) and has served on the National Science Foundation Advisory Committees for Engineering and Environmental Research and Education, and the American Chemical Society Green Chemistry Institute Governing Board*. She has been selected to be the U. S. scientific representative for the G8 International Green Network. She chaired the 7th International Symposium on Supercritical Fluids in 2005 and ran a Council for Chemical Research NIChE conference on ionic liquids that same year. She has co-authored more than 120 scientific and technical articles.

2009 SECTION DINNER MEETING DATES

January 22	Jointly with AIChE
February 27	Jointly with Kilpatrick Lecture at IIT
March 27	Public Affairs Meeting
April 24	
May 15	Gibbs Award Banquet
June 19	Distinguished Service Award; 50-year members
September 25	Education Night at Loyola
October 23	Basolo Award Dinner with Northwestern
November 18	
December 4	Holiday Party - Jointly with Chemists' Club & Iota Sigma Pi

IN THIS ISSUE

"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 cut 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.

A Simple Weather Barometer

Kids, it's easy to make your own weather barometer! Using simple instruments, people predicted weather back in the old days even before we had Doppler radar and GOES satellites. One of the most useful instruments is a barometer, which measures air pressure or barometric pressure. You can make your own barometer using everyday materials and then try to forecast the weather yourself.

You'll need an empty container (a glass, jar, or can), plastic wrap, a drinking straw, a rubber band, an index card or lined notebook paper, tape, and scissors. To make the barometer:

1. Cover the top of the container with plastic wrap making an airtight seal and smooth surface. Secure the plastic wrap with a rubber band. The most important part of making the barometer is getting a good seal around the rim of the container.

2. Lay the straw over the top of the wrapped container so that about two-thirds of the straw is over the opening. Secure the straw with a piece of tape.

3. Tape an index card to the back of the container or place a sheet of notebook paper behind it.

4. Mark the location of the end of the straw on your card or paper. Over time the straw will move up and down in response to changes in air pressure. Watch the movement of the straw and record the new readings.

How does it work?

High atmospheric pressure pushes on the plastic wrap, causing it to cave in. The plastic and the taped section of straw sink, causing the end of the straw to tilt up. When atmospheric pressure is low, the pressure of the air inside the container is higher. The plastic wrap bulges out, raising the taped end of the straw. The edge of the straw falls until it comes to rest against the rim of the container. Temperature also affects atmospheric pressure so your barometer needs a constant temperature in order to be accurate. Keep it away from a window or other places that experience temperature changes.

So how do you predict the weather? Weather patterns have regions of high and low atmospheric pressure. Rising pressure means dry, cool, and calm weather. Dropping pressure forecasts rain, wind, and storms.

- Quickly rising pressure (over a few hours or a couple of days) after a period of low pressure means you can expect some good weather.

- Slowly rising barometric pressure (over a week or so) indicates good weather that will remain for a while.

- Quickly rising pressure that starts from average pressure during fair weather indicates a low pressure cell is approaching. You can expect the pressure to start to fall as poor weather approaches.

- Slowly falling pressure indicates the presence of a nearby low pressure system and changes in weather are unlikely.

- If the pressure continues to drop slowly you can expect a long period of bad weather.

- A sudden drop in pressure (over a few hours) indicates an approaching storm within 5-6 hours. The storm probably involves wind and precipitation but won't last long.

References: Anne Marie Helmenstine at: **http://chemistry.about.com/b/2008/09/06/make-a-simple-weather-barometer.htm?nl=1**

Edited by K. A. CARRADO, Argonne National Laboratory

All past "ChemShorts for Kids": **http://membership.acs.org/C/Chicago/ChmShort/kidindex.html**

November, 2008 Vol. 95, No. 9. Published by the Chicago Section of The American Chemical Society, Editorial Staff: Cherlyn Bradley, Editor; Fran Kravitz, Associate Editor; Fadwa Al-Taher and Richard Treptow, Proofreaders; Frank Jarzembowski, Publications Business Manager. Address: 7173 North Austin, Niles, Illinois 60714; 847/647-8405. Subscription rates: $15 per year. Frequency: monthly-September through June.

THE CHICAGO SECTION'S JULIUS STIEGLITZ LECTURE FOR 2008

We have remembered and honored Julius Stieglitz biannually since the time of his death using funds that were left in a bequest which was set aside for the University of Chicago Chemistry Department. The purpose of the bequest was to support a series of lectures to be held in his honor. For a short while, (1994 – 1999) the lectures were suspended for lack of sufficient funds. Except for that period, we (the Chicago Section and the UC chemistry department) have honored him yearly with an invited lecture. We got started again in 1999 and have continued on a more or less annual basis.

The Chicago Section and the UC Dept of Chemistry are scheduled to take turns sponsoring guest lecturers in alternate years. For the most part, this has been done. This year we will present Prof. Joan Brennecke, of the Dept of Chemical Engineering of Notre Dame University as our Stieglitz Lecturer. Dr. Brennecke has done significant work in the use of ionic liquid solvents to carry out organic reactions. The title of her talk is "Ionic Liquids: Worth Their Salt."

Prof. Stieglitz joined ACS and the Chicago Section in 1901. In 1904, he was section chairman, and in 1917 he was elected President of the ACS. He guided the development of the Willard Gibbs Award, and received the medal himself in 1923. In 1980, posthumously, he was given our Distinguished Service Award.

NORTHWESTERN UNIVERSITY

Upcoming Chemistry Seminars and Colloquia

November

11-6-08 **Professor Floyd Romesberg**
The Scripps Research Institute
Tech K140, 11:00 a.m.
Hosted by Professor Frederick Lewis

11-7-08 **Professor Steven George**
University of Colorado
Tech LR3, 4:00p.m.
Hosted by Professor Richard Van Duyne

11-14-08 **Professor Arthur Mar**
University of Alberta
Tech LR3, 4:00p.m.
Hosted by Professor James Ibers

11-21-08 **Professor Clark Landis**
University of Wisconsin, Madison
Tech LR3, 4:00p.m.
Hosted by Professor Tobin Marks

December

12-5-08 2004 Award for Excellence Graduate Research Awardee
Dr. Amanda Haes
University of Iowa
Tech LR3, 4:00p.m.
Hosted by Professor Richard Van Duyne

January

1-16-09 **Professor Kit Cummins**
MIT
Tech LR3, 4:00p.m.
Hosted by Professor Tobin Marks

1-28-09 **Professor Andrei Tokamkoff**
MIT
Ryan Hall 4003, 4:00p.m.
Hosted by Professor Teri Odom

GREAT LAKES REGIONAL MEETING

The 38th Great Lakes Regional meeting (GLRM) will be held May 13-16, 2009 at the Lincolnshire Marriott in Lincolnshire, IL. The theme for this meeting is "A Better Environment Through Chemistry." Symposia planned for the meeting include sessions on small chemical business, medicinal chemistry, plant biochemistry, material science, polymer chemistry, non-crystalline X-ray structural chemistry and the environment, molecular simulation and the environment, environmental chemistry and the Great Lakes, food chemistry, issues and resources in chemical health and safety and general sessions in organic chemistry, inorganic chemistry, physical chemistry, analytical chemistry and biochemistry.

In addition, a number of workshops and other events are planned including career workshops, ethics workshops, a Botanic Garden tour and attendance at the Lincolnshire Marriott dinner theater show "Spelling Bee", and the Willard Gibbs Award Banquet to publicly recognize an eminent chemist who, through years of application and devotion, has brought to the world developments that enable everyone to live more comfortably and to understand this world better.

Lincolnshire is a suburb of Chicago and so many activities located in Chicago are available by train from the location.

The call for papers will open on November 15, 2008. Please go to our website at **www.glrm2009.org** for the latest information on the meeting, including the paper abstract submission process and meeting registration.

GLOBAL CHALLENGES/ CHEMISTRY SOLUTIONS

Global Challenges/Chemistry Solutions is a series of podcasts describing some of the 21st Century's most daunting problems, and how cutting-edge research in chemistry matters in the quest for solutions. This sweeping panorama of global challenges includes dilemmas such as providing a hungry, thirsty world with ample supplies of safe food and clean water; developing alternatives to petroleum to fuel society; preserving the environment and assuring a sustainable future for our children; and improving human health. Learn more at: **http://portal.acs.org/portal/acs/corg/content?_nfpb=true&_pageLabel=PP_SUPERARTICLE&node_id=2098&use_sec=false&sec_url_var=region1**

Support Our Advertisers

Help*The Chemcial Bulletin* stay healthy.

STIEGLITZ LECTURERS, 1940-2008

Lecturer	Year
Edward A. Doisy	1940
Fred C. Koch	1941
Carl S. Marvel	1943
Linus Pauling	1944
Wm. Draper Harkins	1945
Dan M. Yost	1946
Dorothy Wrinch	1947
Vincent du Vigneaud	1948
E.S. Cohn	1949
Herman I. Schlesinger	1950
Christopher K. Ingold	1950
Robert B. Woodward	1952
Frank R. Mayo	1953
Paul D. Bartlett	1954
Frank C. Westheimer	1956
Henry B. Hass	1957
Herbert C. Brown	1958
H.A. Lardy	1959
Louis P. Hammett	1960
Nelson J. Leonard	1962
William S. Johnson	1963
Paul Doty	1964
Charles C. Price	1965
H. Gobind Khorana	1966
Wm. von Eggers Doering	1967
George Hammond	1968
D.J. Cram	1969
Jerome A. Berson	1970
Carl Djerassi	1971
Jerrold Meinwald	1972
Andrew Streitwieser	1973
Derek H.R. Barton	1974
E.J. Corey	1975
Bengt Samuelson	1976
James Collman	1977
Joseph Chatt	1978
Gilbert Stork	1979
Robert H. Abeles	1980
Barry Trost	1980
Roald Hoffman	1981
Yoshita Kishi	1982
David Evans	1983
W. Clark Still	1984
Malcom Green	1985
Ronald A. Hites	1988
R. Ernst	1989
George Olah	1990
George Whitesides	1991
William Jorgenson	1992
Peter Kim	1993
Tobin Marks	1994
Frederic Menger	1999
Joanna Fowler	2000
Patrick R. Gruber	2002
Eric Jacobsen	2003
Eloy Rodriguez	2004
Amos B. Smith, III	2005
Samuel Danishefsky	2006
Joan Brennecke	**2008**

NOVEMBER HISTORICAL EVENTS IN CHEMISTRY

November 1, 1917 Union Carbide was incorporated as Union Carbide and Carbon Corporation.

November 3, 1749 Daniel Rutherford, who discovered nitrogen or "noxious gas" in 1772, was born. He was the first to distinguish between carbon dioxide and nitrogen. He invented a maximum and minimum thermometer.

November 4, 1862 Charles L. Reese, who improved the manufacture of dyes and explosives, was born.

November 4, 1896 Cornerstone of the chemical laboratory building named after Frederick Havemeyer at Columbia University, NY, NY, was laid.

November 6, 1886 Ian M. Heilbron, who synthesized naturally occurring compounds such as vitamins A and D, was born.

November 6, 1857 William A. Noyes, the first chief chemist of US Bureau of Standards (now National Institute of Standards and Testing) and editor of *Journal of the American Chemical Society* (1902-1917), was born.

November 8, 1711 Mikhail V. Lomonosov of Russia, who suggested the law of conservation of mass and the theory of heat as a form of motion, was born. He was opposed to phlogistic chemistry and was the first to record the freezing of mercury.

November 10, 1887 Johnson & Johnson was incorporated.

November 11, 1925 Discovery of cosmic rays was announced in Madison, Wisconsin.

November 13, 1867 Kristian Birkleland, who with S. Eyde performed the first industrial fixation of nitrogen, was born.

November 14, 1807 Auguste Laurent, who discovered anthracene in 1832, was born. In 1836, he obtained phthalic acid from naphthalene; and in 1841, he showed that carbolic acid is phenol. He constructed a saccharimeter, discovered Laurent's acid, and he and Charles F. Gerhardt evolved the nucleus theory of organic radicals.

November 14, 1863 Leo Baekeland, who invented Velox paper and the plastic, Bakelite patented in 1909, was born. He is known as the "father of the plastic industry".

November 16, 1881 Joel H. Hildebrand, a researcher in solubility who introduced helium into deep-sea diving, was born. He lived to the age of 101.

November 18, 1789 Louis J. M. Daguerre, a photographic pioneer and inventor of the daguerrotype, was born.

November 19,1887 James B. Sumner, who crystallized urease and showed it to be a protein in 1926, was born. He shared the Nobel Prize in Chemistry in 1946 for his discovery that enzymes can be crystallized with John H. Northrop and Wendell M. Stanley for their preparation of enzymes and virus

(continued on page 7)

You'll find the whole laboratory science community here.

ACS/DAC Co-Programming at Pittcon 2009

INVITED SYMPOSIA

- Biological Applications of Capillary Electrophoresis
- Evolution of Modern Chromatography: Celebration of 25 years of the Subdivision on Chromatography and Separation Chemistry
- The Future of HPLC-Method Development: Quality by Design—Evaluating the Control Space of Robust HPLC Methods
- New Dimensions in Multidimensional Separations
- Young Investigator Award from Subdivision on Chromatography and Separation Chemistry
- Pressurized Fluids in Separations Technology

ORGANIZED CONTRIBUTED SESSIONS

- Validation of Bioanalytical Methods: Addressing matrix effects, ion, suppression and ISR (incurred sample reanalyis)
- New Concepts and Instruments for Electrochemical Sensors
- Multi-residue Pesticide Analysis for Food Testing
- Understanding Chromatography with Sub-2 µm Particles
- Quality Assurance of Measurements and Proficiency Testing

Visit www.pittcon.org for the complete technical program.

SHOWCASING SCIENTIFIC INNOVATION 60 YEARS PITTCON 2009

Welcome to Pittcon—your once-a-year opportunity to get together with just about everyone in the laboratory science community. There's no better place to network with colleagues from all over the world, or to meet one-on-one with experts in every discipline.

PITTCON CONFERENCE & EXPO 2009

PITTCON 2009 · McCORMICK PLACE · CHICAGO · MARCH 8–13, 2009

(continued from page 5)

proteins in a pure form.

November 20, 1892 James B. Collip, who refined a method of removing and purifying insulin with Frederick Banting and Charles Best, was born.

November 22, 1875 Dmitri I. Mendeleev stated that gallium is identical to eka-aluminum.

November 24, 1833 Alexandre P. Borodin, who was a researcher on organofluorine compounds and the Borodin-Hunsdieker reaction, was born. He was also a composer of classical music.

November 25, 1960 First atomic reactor for research and development began operation at Richland, Washington.

November 26, 1801 Charles Hatchett announced his discovery of columbium (niobium) before the Royal Society.

November 27, 1903 Lars Onsager, a researcher in thermodynamics of irreversible reactions, was born. In 1968, he received the Nobel Prize in Chemistry for the discovery of the reciprocal relations bearing his name, which are fundamental for the thermodynamics of irreversible processes.

REGISTER TO ATTEND MONTHLY SECTION MEETINGS ON LINE at www.ChicagoACS.org

SCIFINDER SCHOLAR IS NOW IN 90% OF ALL UNIVERSITIES WORLDWIDE

Launched in 1998 by Chemical Abstracts Service (CAS), a division of the American Chemical Society, SciFinder Scholar is an online research tool that allows college students and faculty to access CAS' databases of disclosed chemistry and related information from multiple scientific disciplines, including biomedical sciences, chemistry, engineering, materials science, agricultural science and others. SciFinder Scholar is now in 90% of all universities worldwide granting a minimum of a 4-year degree in chemistry. This milestone was reached as Kean University in Union, New Jersey adopted SciFinder Scholar to serve the science research needs of its faculty and students, becoming the 1500th subscriber. Learn more about SciFinder at: **http://www.cas.org/products/sfacad/index.html**

November 28, 1962 It was announced that the first pure compound of berkelium based on work at University of California, Berkeley, was prepared.

November 29, 1947 Robert A. Swanson, who cofounded with Herbert Boyer, Genentech, Inc. in 1976, was born. This company pioneered the biotechnology industry and developed techniques for the possibility of genes transfer from one organism to another. It began mass-producing its first human protein by splicing a gene into bacteria in 1978, created the first drug produced by genetic engineering, human-type insulin, and was the first company to sell its own drug, human growth hormone.

November 30, 1915 Henry Taube, who received the Nobel Prize in Chemistry for his work on the mechanisms of electron transfer reactions, especially in metal complexes, was born.

November 30, 1761 Smithson Tennant, discoverer of iridium in 1803 and of osmium in 1803, was born. He also proved that diamonds are pure carbon.

Submitted by DR.LEOPOLD MAY, 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 or the "This Week in Chemical History" at the ACS website: http://www.acs. org/whatischemistry.**

SCIENCE FAIR JUDGES NEEDED

The Primary Education Committee is seeking ACS members, nonmembers, undergraduates and graduate students and industrial companies who would be interested in being science fair judges and demonstrators for grades Pre-K through 8 in Chicago and surrounding suburban area schools and groups. The committee will publish this list and distribute it into area schools and libraries. If you are interested please send your name, address, phone number with area code, e-mail address and whether you would like to be a science fair judge or demonstrator or both to the Section office at: **chicagoacs@ ameritech.net** or by mail at: Chicago Section, ACS, 7173 N. Austin Ave., Niles, IL 60714. Please make sure to mark the subject line with "Science Fair Judges".

FRAN KRAVITZ
PRIMARY EDUCATION COMMITTEE CHAIR

CONGRESS OF THE LATIN AMERICAN FEDERATION OF CHEMICAL ASSOCIATIONS (FLAQ 2008)

The Colegio de Qu›micos de Puerto Rico (CQPR) jointly held the fourth Congress of the Latin American Federation of Chemical Associations (FLAQ 2008) with the annual 67th PRChem Conference & Exhibition in San Juan, Puerto Rico on July 27 – August 1, 2008. This joint scientific event provided scientists and students a venue to collaborate and exchange ideas, build global networks, and display the latest technology advances. As part of the FLAQ scientific program, the American Chemical Society (ACS) hosted a Biofuels and Bio-based Products Chemistry and Environmental Impacts Symposium and an Activity-Based Chemistry Education Workshop. For more information on FLAQ, please visit: **http://www.flaq2008.org/index.php?node=183**.

LOOKING FOR A PROFESSIONAL NETWORKING ORGANIZATION WITHIN THE CHEMISTRY AND PHARMACEUTICAL INDUSTRIES?

The Chicago Chapter of ChemPharma® Professional Association regularly meets on the 2nd Saturday of the month from 7:30am-10am at the Panera Bread in Wheaton -- 25 Rice Lake Square, Wheaton, IL 60178. ChemPharma® also holds Monday evening meetings designed to share information about current industry trends. For more details and registration see the following schedule and ChemPharma® website **http://www.chempharma.net/**.

2nd Saturday Networking:
November 8 - Jeff Timm - "How to Get Started in Consulting as a Career"

Monday evening meetings:
November 3 - Dr. Panos Constantinides - "Biomedical Nanotechnology : Applications in Drug Delivery and Pharmaceutical Development"

Dec or Jan –TBA:
-- Mark Beal - Chemical Industry Council of Illinois (CICI) Science Policy and Lobbying
-- Tour of the Illinois Science + Tech Park in Skokie, IL

JOB CLUB

The next meeting of the **Chicago Section ACS Job Club** will be held on Friday, **November 19 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.

WELCH AWARD IN CHEMISTRY

The purpose of The Welch Award in Chemistry is to foster and encourage basic chemical research and to recognize, in a substantial manner, the value of chemical research contributions for the benefit of mankind. The next deadline is February 1, 2009. Learn more at: **http://www.welch1.org/Awards/WelchAwardinChemist0943/index.asp**.

WCC COLUMN

Members of the Chicago Section's Women Chemists Committee (WCC) are developing outreach plans for Chicago Area section members and the community. These plans include a column in The Chemical Bulletin covering topics such as networking, career development, and vignettes of women in science, particularly chemistry. This month's topic is about **Susan V. (Johanningsmeier) Olesik** and the W.O.W. program she helped initiate.

Unlike many prominent chemists who cite the influence of their high school chemistry teacher in stimulating their interest in science, Susan Olesik was inspired by her peers who wore distinctive decorations indicating they were members of an honor society. This caused her to focus on improving her grades and that is what started her down the path to science.

Susan V. Olesik received her A.S. from Vincennes University, B.A. from DePauw University in 1977 and her Ph.D. in 1982 from the University of Wisconsin-Madison, working with James Taylor. She was also a postdoctoral fellow for Milos Novotny at Indiana University from 1982-1984 and for Tomas Baer at University of North Carolina-Chapel Hill from 1984-1986. She has been a faculty member at The Ohio State University since 1986, being promoted to Associate Professor in 1992 and Professor in 1997. She was appointed Dow Professor in 2007.

In 1987, she received the American Society for Mass Spectrometry Research Award; in 1990 the Eli Lilly Research Award; in 1998 a Commendation from NASA for work on Cassini-Huygen's Probe; and in 2000 the AWISCO Woman in Science Award from the Association for Women in Science in Central Ohio. She has an extensive publication record, has served on numerous editorial advisory boards, as well as review boards. She is most known for work in two areas of separation science: Enhanced-fluidity Liquid Chromatography and Low temperature Glassy Carbon Chromatography.

Most recently, her research has evolved to polymer synthesis in supercritical fluids, new separation science for highly complicated mixtures and the synthesis of carbon micron and nanoparticles and fibers.

She has guided 17 students to their Ph.D.'s, 14 to their MS degrees and has had 23 undergraduates doing research in her lab. Currently she has 12 Ph.D. candidate graduate students in her lab.

In 1999 Olesik visited her daughter's class in elementary school and learned first-hand about the paucity of science in the curriculum. So she volunteered to work with her daughter's teacher as a humble helper. One thing led to another, and soon others became involved starting, thereby, a science outreach program that came to be called, Wonders of Our World or W.O.W. Through the collaboration with elementary school teachers, the program: 1) enhances the science literacy of elementary students and elementary school teachers, 2) increases the science material that K-8 science teachers are comfortable presenting to their students, 3) increases the involvement of local scientists, parents and undergraduate science students in important community projects, and 4) generates a model that can be emulated elsewhere.

W.O.W. finished its ninth year of operation in spring 2008. It serves over two thousand K-8 students every year through the strong efforts of more than 450 volunteer scientists. To date, the program has served over 10,000 elementary school students. The improvement in the students' content knowledge through this program is well documented through significant improvement in standardized test data for all students. Also significant, however, is the positive impact of this collaborative effort on the K-8 teachers and volunteers.

While scientists often prefer to shun the lime light, their enthusiasm for their profession should be shared with others. WOW is an example of how active scientists can support and augment K-12 science education on a continuing basis. Each and every one of us lives in a school district. Just knock on the door and offer to be a humble helper.

PETER LYKOS
ILLINOIS INSTITUTE OF TECHNOLOGY

ACS VISITS CHINA

On his first visit to China, ACS President Bruce E. Bursten, attended the Chinese Chemical Society (CCS) national meeting in Tianjin where he had the opportunity to hold a one hour meeting with CCS President Chunli Bai. The meeting helped strengthen relationships and served as the appropriate scenario to discuss new initiatives to increase scientific exchanges between China and the U.S. Along with President Bursten, a large delegation of ACS journal editors and editorial board members also traveled to Taijing, a clear signal of ACS interest in increasing its presence in China. Learn more at: **http://pubs.acs.org/cen/acsnews/86/8635acsnews2.html**

DCHAS SPEAKERS BUREAU LAUNCHED!

The Division of Chemical Health and Safety (DCHAS) of the American Chemical Society (ACS) has created the DCHAS Speakers Bureau. The goal of the DCHAS Speakers Bureau is to enhance public awareness of chemical health & safety by providing professional, qualified speakers for presentations on CH&S topics of interest to the scientific community.

Organizations interested in having presentations by DCHAS speakers should review information about topics and speakers available on the Division's website — **http://membership.acs.org/c/chas/**. For more information, contact the committee chair, Jim Kaufman, at **jimkaufman@labsafety.org.**

The Speakers Bureau is made possible in part by an Innovative Project Fund Grant for Divisional Enhancement. The grant is provided by from the ACS Council Committee on Divisional Activities. Funds from the grant will help support speaker travel expenses.

NEXT ISSUE is
for the
December 12
Chicago Section ACS Holiday Party and Meeting

A GUIDE FOR CLASSROOM INSTRUCTION FOR ADJUNCT FACULTY, 2ND EDITION

Whether just starting your teaching career or refreshing your education skills, *A Guide for Classroom Instruction for Adjunct Faculty*, 2nd Ed. will help you develop an engaging and enlightening classroom environment. This guide provides:

- Information on the roles of teachers and students in learning methods, learning styles, classroom design and evaluation.
- Practical examples, case studies, and sample syllabus and lesson plans
- Topic reviews and expanded reading list (new to 2nd edition!)
- Discussion on incorporating technology and team-learning (new to 2nd edition!)

To order: By Phone: call 1-800-227-5558 and ask for product number 39940

By Internet: go to **www.ChemTechLinks.org**

2009 HERMAN SKOLNIK AWARD WINNER ANNOUNCED

Yvonne Connolly Martin, retired Senior Volwiler Research Fellow at Abbott Laboratories, is the recipient of the 2009 Herman Skolnik Award presented by the ACS Division of Chemical Information (CINF). The award recognizes outstanding contributions to and achievements in the theory and practice of chemical information science and related disciplines. The prize consists of a $3,000 honorarium and a plaque.

Yvonne Martin has been at the forefront of cheminformatics throughout her professional career which was spent entirely at Abbott Laboratories. She has been a founder and constant driving force in the development and use of computational chemistry and its application to computer aided drug discovery. Her studies in QSAR, molecular diversity, molecular graphics, pharmacophore analysis, molecular similarity and combinatorial chemistry greatly impacted the work of theoretical and experimental medicinal chemists. Her overall contributions have helped shape the modern definition of drug discovery. While she developed many methods and supervised their implementation, she never limited herself to a single method or application to solve real-world problems. She finds great pleasure in sharing her work with any interested researchers.

Yvonne has authored or co-authored more than 60 peer-reviewed papers, about 40 book chapters, and more than 20 reviews. Additionally, she edited 6 books and 7 patents were issued in her name. These publications and her numerous presentations at national and international meetings provided important insights into computational drug discovery. She has served on many journal editorial boards and NIH study sections. For her many contributions to the field of molecular modeling, Yvonne has received several awards and honors including the Accomplishment Award from the Society for Biomolecular Sciences.

She received a B.A. in Chemistry (1958) from Carleton College and a Ph.D. in Chemistry (1964) from Northwestern University. She started her career in 1958 as Research Assistant at Abbott Laboratories and moving through the ranks retired in 2006 as Senior Volwiler Research Fellow. In 1967 - 1968, she spent a sabbatical year at Pomona College with Professor Corwin Hansch, which made her an early proponent of QSAR. Yvonne was one of the founders of the International QSAR Society (now called Cheminformatics and QSAR Society) in 1989 and served as its Chair in 2001 - 2005. Yvonne is highly respected by all of her colleagues worldwide and this Award is a well-deserved recognition of an outstanding research career.

GUENTER GRETHE
CHAIR, ACS CINF AWARDS COMMITTEE

FOOD DRIVE IN DECEMBER

We will be collecting canned goods for charity at the December Holiday Party. Please bring at least one can of food to donate when you come to the holiday party next month. The food goes to the Loaves and Fishes Community Pantry for distribution.

SPEAKERS AND DEMONSTRATORS NEEDED

The Primary Education Committee is seeking ACS members, nonmembers, undergraduates and graduate students and industrial companies who would be interested in working with elementary schools (pre-K through 8th) in Chicago and surrounding suburban areas. .We are looking for eager, energetic individuals who love chemistry and would like to present demonstrations in school, or partner with an elementary teacher or give talks. The committee will publish this list and distribute it into area schools and libraries. If you are interested please send your name, address, phone number with area code, e-mail address and whether you would like to be a demonstrator or partner with a teacher or provide talks or any combination to the Section office at: **chicagoacs@ameritech.net** or by mail at: Chicago Section, ACS, 7173 N. Austin Ave., Niles, IL 60714. Please make sure to mark the subject line with “Speakers and Demonstrations”.

FRAN KRAVITZ
PRIMARY EDUCATION COMMITTEE CHAIR

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

DOCTORAL NEW INVESTIGATOR (DNI) AND NEW DIRECTIONS (ND) GRANTS PROGRAMS

The Doctoral New Investigator (DNI) Grants Program aims to promote the careers of young faculty by supporting research of high scientific caliber, and to enhance the career opportunities of their undergraduate / graduate students, and postdoctoral associates through the research experience. The New Directions (ND) Grants Program aims to stimulate a new direction of research for established faculty, and to support the careers of their student scientists and engineers. The next submission window for the Research Grants for the Doctoral Departments Program will be October 20, 2008 to November 21, 2008. For detailed information about the programs, please go to **http://portal.acs.org/portal/acs/corg/content?_nfpb=true&_pageLabel=PP_TRANSITIONMAIN&node_id=1264&use_sec=false&sec_url_var=region1.**

SCIENCE HISTORY TOURS FOR 2009

Plans are afoot for going to England for the 2009 trip. The theme for this tour will be Darwin and Evolution, since in 2009 it will be the bicentenary of Darwin's birth (February 12, 1809, the same day as Abraham Lincoln's birth) and also the 150th anniversary of the publication of Darwin's seminal work, "On the Origin of Species".

Darwin was born in Shrewsbury, where he was educated at Shrewsbury School, then moved on to Edinburgh University, then on to Cambridge University. He married his cousin Emma Wedgwood, of the famous family of china and pottery manufacturers founded by Josiah Wedgwood, Darwin's maternal grandfather. His paternal grandfather was Erasmus Darwin, an 18th century physician and natural philosopher who was a member of the Lunar Society, a group of well-known industrialists and others that met on the nights of the full moon.

All these connections give us reasons for a number of interesting visits to places that we have not yet seen: to Darwin and his wife's home near London, possibly to the Darwin Centre at the Natural History Museum in London, to Cornwall, where James Watt, one of his grandfather's cronies in the Lunar Society built steam engines for use in pumping out the water from the very deep Cornish tin mines, and a visit to Darwin's college in the beautiful city of Cambridge, where the British Society for the History of Science is holding its annual meeting, devoted to a celebration of the Darwin anniversary. Don't forget, that without the steam engine there would be almost no mining or, for that matter, no industrial revolution. A quote from Lee's engineering days "Science owes more to the steam engine than the steam engine owes to Science." L. J. Henderson (1917).

Dates are yet to be set, but the two-week tour will start about the middle of June. Accommodations are in comfortable hotels of at least 3-Star standard. Many meals are included in the tour cost. All tours, lectures and visits are included, as well as surface transportation during the tour. Participants will need to book their own air tickets to Europe, but we can give advice about this to those who are inexperienced travelers. Room-sharing arrangements can usually be made for those traveling alone (we have lots of people who do this) and you will find this group to be friendly and welcoming.

For those wanting to get ahead with their reading, we can recommend Janet Browne's two-volume biography of Darwin, Vol. 1 "Voyaging" and Vol. II (winner of the National Book Critics Award) "The Power of Place". Also, for the "Complete Works of Darwin Online" go to: **http://darwin-online.org.uk/**

This trip will take place only if we have a minimum of 25 people, so if you are interested in joining us, please let us know ASAP. There will be no real commitment until you register. We do not yet know the cost of the trip. Since the dollar has diminished in value so much in recent years, the cost of foreign travel has increased, and of course the increase in the cost of oil has added another increment. This means that the cost of the trip is unlikely to be less than the 2008 trip, $3850 per person double occupancy. Airfare is not included.

As most people are aware, Science History Tours is a non-profit organization, so you pay only the cost of the trip - no one makes any profit from it! Our trips should be compared for interest, unusual or even unique visits and lectures, food and accommodations with tours organized by the Smithsonian or other high-end operators whose trips cost a great deal more than ours. It is not surprising that we always get very good evaluations, particularly with regard to value for money. Many of our tour members have traveled with us many times, so at least 75% of any tour group is now composed of returning tour participants.

Sign-up will start in January and tour payments will be made in three installments. Inexpensive graduate credit will be available for those interested. Teachers can get CPDUs for free.

To be included in the tour, or for further information, contact:
Yvonne Twomey: **ytwomey@mindspring.com** or **ytwomey@fnal.gov**
Lee Marek: **lmarek@aol.com** or **lmarek2@uic.edu**
Also you can look at: websites **http://www.chem.uic.edu/marek/** (look under history stuff)
Frequent tour member, chemist and photographer John Oliver has pictures online at: **http://community.webshots.com/user/oliverjcomo**

NEW NETWORK TO RAISE PROFILE OF MUSLIM WOMEN SCIENTISTS

The Islamic Network for Women Scientists (INWS) has been launched to promote the role of Muslim women scientists in science and technology development.

The announcement was made at a meeting of the Consultative Council for the Implementation of the Strategy for the Development of Science and Technology in the Islamic Countries held in Rabat, Morocco July 28, 2008. Learn more at: **http://www.scidev.net/en/middle-east-and-north-africa/news/new-network-to-raise-profile-of-muslim-women-scien.html**

TRANSATLANTIC FRONTIERS OF CHEMISTRY SYMPOSIUM 2008

The Royal Society of Chemistry (RSC) successfully hosted the 2008 Transatlantic Frontiers of Chemistry Symposium at Cranage Hall, Cheshire, UK from July 31-August 3. The meeting gathered together over ninety early career chemists from across Germany, the UK, and the U.S. providing them with an opportunity for fruitful exchanges on Chemistry in Society: How chemistry is meeting the health, energy, and environmental challenges facing us in the future. Dave Garner, RSC President, Gordon McCarty, Director at Large of the American Chemical Society, and Klaus Müllen, Gesellschaft Deutscher Chemiker (GDCh) President launched the meeting with welcoming remarks. Read more about the meeting here: **http://www.rsc.org/ConferencesAndEvents/RSCConferences/TFOC/index.asp**

DID YOU KNOW?

You can find out more about ACS international programs at **http://www.acs.org/international**.

Advertising Index

CALENDAR

November 3: The Chicago Chapter of ChemPharma will meet from 7:30am-10am at Panera Bread at 25 Rice Lake Square, Wheaton, IL 60178. The speaker, Dr. Panos Constantinides, will talk on "Biomedical Nanotechnology: Applications in Drug Delivery and Pharmaceutical Development" For more details and registration, visit the website **http://www.chempharma.net/**.

November 8: The Chicago Chapter of ChemPharma will meet from 7:30am-10am at Panera Bread at 25 Rice Lake Square, Wheaton, IL 60178. The speaker, Jeff Timm, will give a talk on "How to Get Started in Consulting as a Career". For more details and registration, visit the website **http://www.chempharma.net/.**

November 13: Chicago Section ACS Board Meeting, 7173 N. Austin Ave., Niles, IL. Call the Section office at 847-647-8405.

November 19: Stieglitz Lecture and Chicago Section ACS Dinner Meeting at the Parthenon Restaurant jointly with University of Chicago. See this issue.

November 20: 2008 International Institute for Nanotechnology Symposium, Grand Ballroom, Hotel Orrington, 1710 Orrington Ave., Evanston. Plenary speaker is Alan Heeger, the 2000 Nobel Prize winner. Eight other speakers will showcase research in nanoelectronics, molecular nanotechnology, and nanooptics & nanomaterials. No charge to attend the symposium. Space is limited. Advance registration is required. Website: **http://iinano.org/symposium/2008/program.htm.**

December 4: Chicago Section ACS Board Meeting, 7173 N. Austin Ave., Niles, IL. Call the Section office at 847-647-8405 for information.

December 12: Chicago Section ACS Holiday Party and meeting jointly with the Chemists' Club and Iota Sigma Pi at the Fountain Blue Banquets.

January 22, 2009: Chicago Section ACS Dinner meeting held jointly with AIChE. This is a Thursday meeting.

February 12-16: Annual meeting of The American Association for the Advancement of Science, Chicago. For more information, go to website **www.aaas.org.**

February 26-28: Northwestern University Department of Chemistry's annual Charles D. Hurd Lectures. This year, three distinguished industrial executive scientists, Cathie Markham, Cheryl A. Martin, and Catherine T. Hunt of Rohm and Haas Company are the lecturers. The lectures will be at 4 p.m. in the Tech Institute on the 26th and 27th and at 11 a.m. in Ryan Hall on the 28th. Additional information can be viewed at **http://www.chem.northwetern.edu/summer seminars**.

February 27: Chicago Section ACS Dinner meeting held jointly with IIT. This is the Kilpatrick Lecture.

March 8-13: PittCon 2009 Conference and Expo, McCormick Place, Chicago. Visit **www.pittcon.org** for more information.

March 22-26: ACS National Meeting in Salt Lake City, Utah.

March 27: Chicago Section ACS Public Affairs Meeting.

May 13-16: The 38th Great Lakes Regional meeting (GLRM) will be held at the Lincolnshire Marriott in Lincolnshire, IL. The theme is "A Better Environment Through Chemistry." The call for papers opens November 15, 2008. Please go to our website at **www.glrm2009.org** for the latest information on the meeting.

INTERNATIONAL RESEARCH EXPERIENCES FOR UNDERGRADUATES (IREU)

The American Chemical Society (ACS), in collaboration with the Deutscher Akademischer Austausch Dienst (DAAD) and the European Chemistry Thematic Network (ECTN), successfully completed the 2008 IREU program, made possible by funding received from the National Science Foundation (NSF). Fifteen U.S. students were placed at German universities and research institutes under the German Research Internships in Science and Engineering (RISE) infrastructure. Three additional U.S. students were hosted (one each) by the University of Strathclyde in Scotland, the University of Perugia in Italy, and CPE-Lyon in France. Likewise, a total of eighteen European students were placed at U.S. universities involved in the Research Experience for Undergraduates (REU) program.

The students spent approximately 8-10 weeks collaborating with their PhDs, PIs, and other lab members on research projects. Following that, they presented their research results at the Fall 2008 ACS National Meeting in Philadelphia. Through discussions with the students at the National Meeting, ACS was able to hear firsthand accounts from the students about their experiences. Many of the students remarked that this experience had been a once in a lifetime opportunity that gave them the means to sharpen their research skills, work in a cross-cultural setting, and develop a global scientific perspective. To read about the students' experiences, please view the blog at **http://ireu2008.blogspot.com/**.

If you are interested in this program, applications for the 2009 program will be available in early November at the ACS website: **https://portal.acs.org/preview/appmanager/corg/memberapp?_nfpb=true&_pageLabel=PP_ARTICLEMAIN&node_id=1309&content_id=CTP_005109&use_sec=true&sec_url_var=region1**.

Please check the website for program updates and the most current information.