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Chicago Section

The Chemical Bulletin

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MAY • 2009

THE NINETY-EIGHTH PRESENTATION OF THE
WILLARD GIBBS MEDAL
(Founded by William A. Converse)
to
PROFESSOR LOUIS BRUS
sponsored by the
CHICAGO SECTION AMERICAN CHEMICAL SOCIETY
FRIDAY, MAY 15, 2009

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From the North: Take the Tri-State Tollway (I-94) south to Route 22. Exit and follow the directions below. Or, take Milwaukee Avenue (Rt. 21) south past Route 22 to the entrance to the Marriott Lincolnshire.

From the South: Take I-294 (the Tri-State Tollway), which becomes I-94 in Lake County, north to the Route 22 exit (Half Day Road). Head west/left about 3 miles to Route 21/45, Milwaukee Avenue. Before Route 21 you will come to a fork in the road. Follow the main road to the left, **no**t "Olde Half Day Rd" to the right. At Route 21 proceed south/left to the next light, which will be the entrance to the Marriott Lincolnshire hotel. Turn left onto the property and follow the signs to the parking lot to the left for the conference center or the main hotel entrance.

From the Downtown: See page 2

Parking: Free

RECEPTION **6:00 P.M.**
Hors-d'oeuvres
Non-alcoholic Punch

DINNER **7:00 PM**
(continued on page 2)

AWARD CEREMONY **8:30 PM**

The Willard Gibbs Medal

Dr. Amber Arzadon, Chair
Chicago Section, ACS

Introduction of the Medalist
Dr. Mark A. Ratner, NU

Presentation of the Medal
Dr. Joseph S. Francisco
ACS Chair-Elect

Citation

For his leading role in the creation of chemical quantum dots. Dr. Louis Brus' work led to a general understanding of how semiconductor nanocrystals, with increasing size, evolve electronically into bulk semiconductors. His group developed the basic models, mechanisms, and methods for nanocrystal synthesis, processing, and characterization that are widely used today.

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

ACCEPTANCE OF THE AWARD

Dr. Louis Brus
Samuel Latham Mitchill Professor of Chemistry
Columbia University, New York

ACCEPTANCE ADDRESS

"Benjamin Franklin and J. W. Gibbs"

Abstract: Benjamin Franklin and Josiah Willard Gibbs were both revolutionary American scientists. Their backgrounds, personalities, approaches to

(continued on page 2)

(continued from page 1)

science and personal lives could not have been more different. I will discuss the men and their science.

THE MEDALIST

Lou Brus has a B.A. from Rice University and a Ph.D. from Columbia University, both in Chemical Physics. As a lieutenant in the U.S. Navy, he worked in the solid state and chemistry divisions of the Naval Research Laboratory in Washington DC. In 1973, he joined the research area of Bell Laboratories in Murray Hill, NJ, where he became Distinguished Member of Technical Staff. He returned to Columbia in 1996, where he is now S. L. Mitchill Professor of Chemistry. He is a member of the National Academy of Sciences and in 1998 was the Chairman of the Board of Trustees of the Gordon Conferences. In the 1980s he pioneered research in colloidal semiconductor nanocrystals exhibiting quantum size effects. He has won the APS Langmuir Prize, the ACS Chemistry of Materials Prize, and the OSA Wood Prize. In 2008, he received the first Kavli Prize in Nanoscience. His present interests include carbon nanotubes and graphene, transition metal oxide nanocrystals, and chemical applications of local electromagnetic fields.

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DIRECTIONS (continued)

From Downtown: Take I-94/94, the Kennedy Expressway north, and at the junction with I-90, stay to the right, and follow the signs "to Wisconsin" on I-94, which at this point is the Edens Expressway. About 6 miles further north, exit to the right following I-94, which will swing west and join the Tri-State tollway, which becomes I-94 at this point. A little more than 3 miles further exit on Route 22, head west and follow the “From the South” directions.

DINNER (Continued)

Dinner reservations are required. To reserve your tickets, please call the Chicago Section office at 847-391-9091 or register at **http://ChicagoACS.org** by Tuesday, May 12 and pay $50 at the door, or fill out the reservation form on page 9 and mail it with your payment of $50 by Wednesday, May 6 to the address given on the form. Tickets are $25 for students, unemployed Chicago Section members, or retired Chicago Section members.

Tables of 10 may be reserved. If you request seating for a group, please include a list of names of the people in your group and their meal choices. Tickets and nametags will be available at the door. No refunds will be made after noon, on Tuesday, May 12.

Seating will be available after the dinner for people not attending the dinner but interested in hearing the speaker.

THE MENU: Wisconsin Winter Salad with Mesculine Greens, Candied Pecans, Dried Cranberries and Maple Chestnut Vinaigrette Dressing; a choice of Chicken Florentine with Mozzarella cheese, Sun Dried Tomatoes, and Beurre Blanc Sauce; Jack Daniel’s Glazed Wild Salmon with Stone Mustard Glaze; or Roasted Vegetables Wellington; Chef’s Selection of Potato or Rice and Fresh Seasonal Vegetables; Chocolate Hazelnut Torte with Mocha Anglaise; Wine

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 3 CPDU's.

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 14-23** in Springfield, IL. Our joint-sections' tent activities provide information to the public on chemistry with demos, hand-on activities, computer quizzes, posters, literature, and give-aways and give us a chance to show the positive aspects of chemistry to many Illinois citizens and governmental leaders. **Last year, over 14,600 people visited our tent—a record attendance!!**

We particularly need volunteers to help during the fair. Student affiliates 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://membership.acs.org/C/Chicago/statefair/index.html** for information and to sign-in using our online volunteer scheduler.

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"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.

CHB 11 May

Invisibility Demos

Kids, how can you make crystals and spheres disappear? Start with ones that are made from polyacrylamide! Superabsorbent polyacrylamide crystals (e.g. Soil Moist Crystals®, among other brands) are small grains which, when placed in water, seem to disappear. To your friends, you can cast an "invisibility spell" on the small crystals to make them grow and disappear in a glass of water. Small spheres made of the crosslinked polyacrylamide polymer are also available.

Place the hard crystals in a glass or bowl about 1/4 full, add water, and they can expand by up to 300 times, producing gel-like spheres that are slippery (and safe) to the touch. These are extraordinary volume increases. Crystals starting with a diameter of about 3 mm end with a diameter of about 20 mm. From a volume perspective, spheres can expand from 113 mm^3 to 33,512 mm^3, which is more than 29000%. Determine the change in volume yourself using $V = 4/3\ pi(r)^3$.

The wet crystals and spheres can be dyed using food coloring, then dried out and reused. Put them in the sun and they will become rock-hard again. For some other variations, tie a loop of yarn around one of the beads. When submerged in a glass of water, the bead disappears and the yarn forms a (seemingly empty) circle in the water. Lifting the yarn out of the water results in the previously invisible bead magically appearing as it rises above the water. From a biology or earth science perspective, this is a great way for starting seeds and growing plants so that the roots can be seen.

What's happening?

Light changes its speed when it passes into an optical medium of different density. This causes the light rays to bend (refract). Crystals & spheres refract light when it enters and leaves them. Furthermore, the various planes of the crystals scatter the refracted light at different angles.

When left in water, the fully gelled super absorbent crystals contain up to 95% water, so they have the same optical density as water. This minimizes refraction when submerged in water and the crystals & spheres become invisible.

Polyacrylamide crystals and spheres can be purchased from science supply companies, or from garden shops, where they are used to uniformly provide water to plant roots over watering/drying cycles.

References:

ACS *ChemMatters*, February 2009, Teacher's Guide (Item #2 of "Demonstrations & Lessons" from "Science at Hogwarts: Chemistry in Harry Potter's World" by Jane Snell Copes).

"Growing Spheres" at **http://www.teachersource.com.**

Carl Ahlers - Prof Bunsen Science; **http://www.profbunsen.com.au**/

Edited by K. A. CARRADO, Argonne National Laboratory

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

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TASK FORCE ON EDUCATION

The American Chemical Society has created a Board-Presidential Task Force on Education to identify a unique role for the world's largest scientific society in transforming education in the United States. The task force's charter calls upon it to review recommendations contained in STEM (Science, Technology, Engineering, and Mathematics) reports released in the last five years, to identify specific actions the ACS might take to implement those recommendations, and to create a list of priorities to determine areas where the Society might have a unique impact on STEM education.

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SCHOLARSHIPS AVAILABLE FOR FUTURE SCIENCE TEACHERS

Chicago State University recently received a grant to fund students preparing to be secondary science teachers. The project, "Establishing a Supportive Environment for the Recruitment, Preparation, and Retention of the Urban Science Teacher" is funded through the National Science Foundation Robert Noyce Teaching Scholarship Program. The Department of Chemistry and Physics and the Department of Biological Sciences will receive $670,962 over 5 years. 20% will be programmatic while 80% of the funds will be for student scholarships and internships. Scholarships are available for junior/senior undergraduates, certification students, and Masters of Arts in Teaching candidates. Individuals who have a degree in science and are looking into a career change are highly encouraged to apply for a full tuition scholarship for the certification or masters program. Please see our website **http://webs.csu.edu/~noycesch**/or contact the program director, Dr. Andrea Gay Van Duzor at **agay@csu.edu**, for more information.

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Try out an ACS Webcast!

Few companies are immune from the economic hardships in the headlines and many budgets have been trimmed. But it is still crucial to your career to engage in continuing education to expand your skills and stay abreast of new topics. So save your time and money and take a look at the courses available online through ACS. ACS offers a wide variety of webcast short courses and our winter/spring schedule is open for registration now.

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DVD AVAILABLE

A DVD entitled "Local Sections Connecting Chemistry and the Community" is available for loan by calling the section office at (847) 391-9091.

THE WILLARD GIBBS AWARD

FOUNDED BY WILLIAM A. CONVERSE

The award was founded in 1910 by William Converse (1862-1940), a former chairman and secretary of the Chicago Section. The medal was named for Professor Josiah Willard Gibbs (1839-1903) of Yale University. Gibbs, whose formulation of the Phase Rule founded a new science, is considered by many to be the only American born scientist whose discoveries are as fundamental in nature as those of Newton and Galileo.

Mr. Converse supported the award personally for a number of years, and then established a fund for it in 1934 that has subsequently been augmented by the Dearborn Division of W. R. Grace & Co. J. Fred Wilkes and his wife have also made considerable contributions to the award.

Since the sale of the Dearborn/Grace division to Betz, the BetzDearborn Foundation, located in Horsham, Pennsylvania has most generously offered to continue the historic relationship between the Section and Dearborn. This Foundation has contributed annually since the purchase toward the Willard Gibbs Medal Fund to help defray the cost of the medal and of the banquet itself-helping to make the banquet award the outstanding and gracious event that it is. We are most appreciative of their support.

The purpose of the award is "To publicly recognize eminent chemists who, through years of application and devotion, have brought to the world developments that enable everyone to live more comfortably and to understand this world better." Medalists are selected by a national jury of eminent chemists from different disciplines. The nominee must be a chemist who, because of the preeminence of his or her work in and contribution to pure or applied chemistry, is deemed worthy of special recognition.

The award consists of an eighteen-carat gold medal having, on one side, the bust of J. Willard Gibbs, for whom the medal was named. On the reverse is a laurel wreath and an inscription containing the recipient's name.

Given annually for ninety-six years, the recipients span nearly a century of chemistry. Most of the names are familiar to chemists regardless of specialty. This fame may result from later recognition, including, in many cases, the Nobel Prize. Another reason for the familiarity of these names may be that textbooks have permanently associated many of these names with classic reactions or theories. In any case, the fame achieved by the Gibbs medalists has crossed the boundaries between chemistry specialties.

Svente Arrhenius	1911
Theodore W. Richards	1912
Leo H. Baekeland	1913
Ira Remsen	1914
Arthur A. Noyes	1915
Willis R. Whitney	1916
Edward W. Morley	1917
William M. Burton	1918
William A. Noyes	1919
F. G. Cotrell	1920
Mme. Marie Curie	1921
Julius Stieglitz	1923
Gilbert N. Lewis	1924
Moses Gomberg	1925
Sir James Colquhoun Irvine	1926
John Jacob Abel	1927
William Draper Harkins	1928
Claude Silbert Hudson	1929
Irving Langmuir	1930
Phoebus A. Levene	1931
Edward Curtis Franklin	1932
Richard Willstatter	1933
Harold Clayton Urey	1934
Charles August Kraus	1935
Roger Adams	1936
Herbert Newby McCoy	1937
Robert R. Williams	1938
Donald Dexter Van Slyke	1939
Vladimir lpatieff	1940
Edward A. Doisy	1941
Thomas Midgley, Jr.	1942
Conrad A. Elvehjem	1943
George O. Curme, Jr.	1944
Frank C. Whitmore	1945
Linus Pauling	1946
Wendell M. Stanley	1947
Carl F. Cori	1948
Peter J. W. Debye	1949
Carl S. Marvel	1950
William Francis Giauque	1951
William C. Rose	1952
Joel H. Hildebrand	1953
Elmer K. Bolton	1954
Farrington Daniels	1955
Vincent du Vigneaud	1956
W. Albert Noyes, Jr.	1957
Willard F. Libby	1958
Hermann I. Schlesinger	1959
George B. Kistiakowsky	1960
Louis Plack Hammett	1961
Lars Onsager	1962
Paul D. Bartlett	1963
Izaak M. Kolthoff	1964
Robert S. Mulliken	1965
Glenn T. Seaborg	1966
Robert Burns Woodward	1967
Henry Eyring	1968
Gerhard Herzberg	1969
Frank H. Westheimer	1970
Henry Taube	1971
John T. Edsall	1972
Paul John Flory	1973
Har Gobind Khorana	1974
Herman F. Mark	1975
Kenneth S. Pitzer	1976
Melvin Calvin	1977
W. O. Baker	1978
E. Bright Wilson	1979
Frank Albert Cotton	1980
Bert Lester Vallee	1981
Gilbert Stork	1982
John D. Roberts	1983
Elias J. Corey	1984
Donald J. Cram	1985
Jack Halpern	1986
Allen J. Bard	1987
Rudolph A. Marcus	1988
Richard B. Bernstein	1989
Richard N. Zare	1990
Gunther Wilke	1991
Harry B. Gray	1992
Peter B. Dervan	1993
M. Frederick Hawthorne	1994
Sir John Meurig Thomas	1995
Fred Basolo	1996
Carl Djerassi	1997
Mario J. Molina	1998
Lawrence F. Dahl	1999
Nicholas J. Turro	2000
Tobin J. Marks	2001
Ralph Hirschmann	2002
John I. Brauman	2003
Ronald Breslow	2004
David A. Evans	2005
Jacqueline Barton	2006
Sylvia T. Ceyer	2007
Carolyn Bertozzi	2008

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REPORT OF COUNCIL MEETING HELD IN SALT LAKE CITY

The 237th National Meeting of the ACS was held in Salt Lake City, UT from March 22 – 26, 2009. The Chicago section was represented by eleven councilors and two alternate councilors. The councilors who attended for the section were: Cherlyn Bradley, Charles Cannon, Mark Cesa, David Crumrine, Ken Fivizzani, Herb Golinkin, Russell Johnson, Fran Kravitz, Milt Levenberg, Barbara Moriarty and Susan Shih. The alternate councilors representing the section were Margaret Levenberg and Tom Higgins.

Unlike the last few council meetings, this meeting was less eventful, allowing time for discussion of issues such as finances and ways to attract new members.

Finances: The Committee on Budget and Finance reported that, in spite of the economic challenges faced in 2008, the Society's operating performance held up well. However, the Society was adversely impacted by the historic collapse in the capital markets, which resulted in a sharp decline in the Society's unrestricted net assets from $212 million at the end of 2007 to $60 million at the end of 2008. There were two factors driving this decrease, both related to poor performance in the markets - substantial investment losses and a sizable increase in pension liability from the Society's Defined Benefit Pension Plan.

The Society has updated its contingency plan that contemplates potential threats from many different sources, their probability of occurrence, likely duration and financial impact. The updated 2009 Plan covers all operating and administrative units as well as member programs, and identifies new and emerging threats. ACS management has also updated the mitigation strategies to respond to the threats and ensure the Society's long-term financial sustainability. Society management and the Board of Directors are closely monitoring financial performance versus the budget.

The Council voted to set dues for 2009 at $145. This vote was conducted using wireless "clickers."

Governance: The Council selected Nancy B. Jackson (Sandia National Labs, Central New Mexico Section) and Cheryl A. Martin (Rohm and Haas, Philadelphia Section) as candidates for 2010 President-Elect. These two candidates will stand for election in the Fall National Election. Note that, as one councilor was overheard to say, Council has entered the 20th century and voting was conducted using wireless "clickers."

Councilors from our district chose Judith L. Benham (3M, retired) and Peter K. Dorhout (Colorado State) as candidates for our district director.

Meetings and Expositions: As of March 25, 2009, the ACS spring national meeting had attracted 10,668 registrants as follows: Regular attendees 5,781; Students 3,439; Exhibitors 780; Exposition only 411; and Guests 257.

Economic and Professional Affairs: The Council VOTED to approve the newly revised Professional Employment Guidelines.

Membership: At the close of 2008, Society membership totaled 154,024, compared to 160,052 for year-end 2007. The decrease is attributed to the economy and a correction to the counts of 2,589 Emeritus members whom ACS has not been able to reach for many years. These emeritus members were identified as part of the transition to a new membership database.

Special Discussion Item: What can ACS do to attract new members, while better serving membership during these challenging economic times? An extended discussion of ideas about retention of current members and recruitment of new members was also conducted.

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

BARBARA MORIARTY

GREAT LAKES REGIONAL MEETING

The 38th Great Lakes Regional meeting (GLRM) will be held May 13-26, 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, plant biochemistry, material science, polymer chemistry, non-crystalline X-ray structural chemistry and the environment, moleculra 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 application and devotion, has brought to the world developments tat 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 locations.

Please go to our website at **www.glrm2009.org** for the latest information on the meeting.

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TOBIN MARKS IS RECIPIENT OF THE HERMAN PINES AWARD

The Herman Pines Award Selection Committee of the Catalysis Club of Chicago announces that the recipient of the 2009 Award is **Professor Tobin Marks** of the Department of Chemistry at Northwestern University. The award is given in recognition of Tobin's outstanding contributions in the areas of both homogenous and heterogeneous catalysis. Tobin's work has had major impact on contemporary catalytic science with pioneering studies of olefin polymerization, supported organometallic catalysts, metal-ligand bonding energetics, and f-element catalysis.

Tobin has served on numerous scientific committees, governmental and industrial advisory boards and review panels, has mentored over 100 PhD students and nearly as many postdoctoral fellows, with more than 90 alumni holding academic positions worldwide. Tobin has over 900 publications and 88 patents. His current h-index is 102.

He will receive the award and deliver the keynote address during the Catalysis Club of Chicago's Spring Symposium to be held on May 18, 2009 at the BP Research Center in Naperville.

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The Catalysis Club of Chicago solicits nominations for the Herman Pines Award for outstanding research in the field of catalysis. Herman Pines was an outstanding research scientist, and his work revolutionized the general understanding of organic chemistry, particularly the chemistry of hydrocarbons interacting with strong acids. The Award in his honor is co-sponsored by UOP, where Herman Pines began his industrial career in 1930 and amassed 145 US patents, and by the Catalysis Club of Chicago of which Herman Pines was a founding member.

2011 – INTERNATIONAL YEAR OF CHEMISTRY

The General Assembly of the United Nations has adopted a resolution proclaiming 2011 as International Year of Chemistry. The American Chemical Society celebrates the news. "We will help provide opportunities for Nobel Laureates, eminent scientists, teachers, outstanding young chemistry students, and chemistry communities around the world to demonstrate how people's lives are improved through chemistry", declared ACS President, Thomas H. Lane. Read more at: **http://pubs.acs.org/isubscribe/journals/cen/87/i01/html/8701notw8.html**

REP. GORDON'S (D – TENN) HOUSE COMMITTEE ON SCIENCE AND TECHNOLOGY WEBSITE

I have a recommendation for each of you. Take a look at the website of Rep. Bart Gordon (D – Tenn), Chair of the House Committee on Science & Technology. It is very interesting to see what he has done on his site. All of the congressional websites that I have observed over the years have been pretty dull, with only the facts as needed. And indeed, Rep. Gordon's site has always pretty well fit this description. So you can imagine how surprised I was when I saw more than half a dozen links to other subjects, none directly related to a specific piece of legislation.

By clicking on the "RSS" symbol on his site, I was directed to my webpage to find that a site had been placed at the top of my webpage with a half a dozen or so current topics that are of interest to the committee. Since I am a scientist, and that is also the committee's interest, it will certainly be of interest to me. Pretty Cool!!

Anyway, if you wish view Rep. Gordon's S&T site, here is the link that will immediately get you there: **http://science.house.gov/about/history_committee.shtml.**

What I will also tell you is that the linked-sites are legislatively related, and that makes them very interesting. It really does give one the opportunity to become acquainted with legislation that the committee is dealing with and may well come to a vote during the 111th Congress. So, it would certainly be useful to have a link to the S&T committee through Rep. Gordon's site.

Just to give you some idea of what to expect: The title of the site on the webpage is "Press Releases from the Democratic Caucus, Committee on Science." Please note that although it is titled as such, it really is the work of the full committee, which has a membership of 27 Democrats and 17 Republicans. It's just one of the prerogatives that you get when you're in control. Except for the obvious politics, I think it's a great step forward and makes a lot of information available and readily accessible to the public. So, if you want to check it out, go to the site above and then click on the "Get Live Feeds" in the upper left hand corner of the webpage.

We might be seeing a real revolution in getting access to the work of our government. This comes at a time when there is also more openness than ever in the executive branch, as shown by the presidential websites and the open town-hall meeting "Open for Questions", which I am sure we will see again during the Obama presidency.

JIM SHOFFNER
COCHAIR, PUBLIC AFFAIRS COMMITTEE

POP TOP RINGS COLLECTION

Instead of throwing away those pop top rings from your pop cans, please bring them to the dinner meeting so we can donate them to a program at Ronald McDonald House.

VOLUNTEERS NEEDED!!

An organization called **Recording For the Blind and Dyslexic** is in need of people with backgrounds in chemistry or biochemistry who would be willing to spend two or three hours a weeks recording texts for use by, as the name implies, blind or dyslexic students. If you are interested, call Nat Meyer at the Chicago office 312-236-8715, ext 213 or e-mail him at **nmeyer@rfbd.org**. It is not necessary to be rich or good-looking, and the work itself is very rewarding.

MAY HISTORICAL EVENTS IN CHEMISTRY

May 2, 1876 Austin McD. Patterson, a leader in the field of chemical nomenclature, was born.

May 4, 1876 Arthur A. Blanchard, a researcher on metal carbonyls and other inorganic compounds, was born.

May 6, 1859 Julius B. Cohen, a researcher on the laws of aromatic substitutions and optical activity, was born.

May 7, 1909 Edwin H. Land, who developed a light polarizing material called Polaroid, a color photography system, the Polaroid Land camera, and founded the Polaroid Corporation, was born.

May 8, 1855 Bohuslav Brauner, who was a researcher in the chemistry of tellurium & the rare earths and predicted the existence of element No. 61 [Pm], was born.

May 10, 1850 Edward Weston, who improved nickel plating, was born.

May 13, 1857 Ronald Ross, who discovered that malaria was transmitted by the Anopheles mosquito, was born. He was awarded the Nobel Prize in Physiology or Medicine in 1920 for his work on malaria, by which he showed how it enters the organism; thereby, laying the foundation for successful research on this disease and methods of combating it.

May 15, 1859 Pierre Curie, who discovered the phenomenon of piezoelectricity, was born. He and his wife, Marie Curie, co-discovered polonium and radium and shared the Nobel Prize in Physics in recognition of the extraordinary services they rendered by their joint researches on the radiation phenomena discovered by Professor Henri Becquerel.

May 18, 1897 Dow Chemical Co. was incorporated.

May 20, 1879 Hans Meerwein, a researcher on oxonium ions and Wagner-Meerwein rearrangements, was born.

May 21, 1860 Eduard Büchner, who discovered alcoholic fermentation without yeast cells in 1896 and zymase in 1897, was born. In 1907, he was awarded the Nobel Prize in Chemistry for his biochemical researches and his discovery of cell-free fermentation.

May 23, 1908 John Bardeen, who shared the Nobel Prize in Physics with William Bradford Shockley and Walter Houser Brattain in 1956 for their researches on semiconductors and their discovery of the transistor effect and with Leon N. Cooper and Robert Schrieffer in 1972 for their jointly developed theory of superconductivity, usually called the BCS-theory, was born.

May 26, 1904 John C. Bailar, Jr., who discovered optical inversion and explained stereospecificity in complex inorganic reactions, was born.

May 27, 1909 Mary Fieser, who with her husband Louis collaborated on the investigation of the chemistry of quinones and steroids, was born. They developed synthetic procedures for the preparation of Vitamin K, cortisone, and the antimalarial compound lapinone. In 1944, they published the textbook, Organic Chemistry. She was awarded the Garvan Medal in 1971.

May 30, 1898 William Ramsay and Morris W. Travers discovered krypton.

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**.

2009 GIBBS DINNER RESERVATION FORM

Name_____Affiliation_____

Address_____Phone ( )_____

Email Address _____

tickets for ACS members & guests _____($50.00/ticket) ACS Local Section_____

tickets for students, unemployed members, and retirees who are Chicago Section members ($25.00/ticket)_____
Note: Professors must make student reservations.

dinners: Chicken Florentine with Mozzarella cheese, Sun Dried Tomatoes, & Beurre Blanc Sauce _____

Jack Daniel's Glazed Wild Salmon with Stone Mustard Glaze _____

Roasted Vegetables Wellington _____

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

SPONSORS NEEDED--ILLINOIS STATE FAIR PROJECT

The Chicago Section, along with the other Illinois Sections of the ACS, is again planning to have a tent at the Illinois State Fair August 14-23. **Last year, over 14,600 people visited our tent**. The tent provides outreach to the public on chemistry though demos, hands-on activities, literature, and give-aways. **We are looking for individuals and companies to help sponsor our tent.** In return for financial contributions we will promote your company's name at the front of the tent as a sponsor as well as on CDs with information given to over 300 school teachers throughout the state of Illinois. **This is a great way to get your company recognized in the public as well as promoting chemistry**. If you are interested in making a donation to help keep this worthwhile public outreach project going strong, please call the Section office at (847) 391-9091. Thank You!

CHERLYN BRADLEY
FRAN KRAVITZ
Co-Chairs, Ad-Hoc Committee of the Illinois Sections of the ACS Cooperative State Fair Project

NEXT ISSUE is
for the
June Section Lunch Meeting and the Section's Distinguished Service Award

ACS Short Courses in 2009

ACS Short Courses are one- to five-day, in-person seminars designed to help chemical scientists and technicians keep current in today's competitive marketplace. Please visit **www.acs. org/shortcourses** to register and for more information.

Laboratory/Lecture Courses
Get in-class and hands-on experience with Laboratory/Lecture Courses from the ACS.

April 20 – 24; July 20 – 24, November 9 – 13
Chicago, IL
Gas Chromatography: Fundamentals, Troubleshooting, and Method Development

July 13 – 17; October 5 – 9
Chicago, IL
High Performance Liquid Chromatography: Fundamentals, Troubleshooting, and Method Development

August 9 – 14; December 6 – 11
Virginia Tech, Blacksburg, VA
Polymer Chemistry: Principles and Practice

HIGH SCHOOL CHEMISTRY CLUBS PROGRAM IS GROWING

The ACS High School Chemistry Club Program provides fun, authentic, and hands-on opportunities for students to:

- Experience chemistry beyond what is taught in the classroom
- Learn about post-secondary and career opportunities in chemistry
- Get involved in community building and service
-

At over 150 clubs across United States and Puerto Rico, students plan and enjoy experiences such as science shows for local elementary schools, field trips to chemical laboratories fundraisers. ACS provides a handbook of information for starting a club and resource packets which include tips and suggestions for club activities. If you are interested in finding out more about this exciting program, or you wish to join it check out the ChemClub website at **www.acs.org/chemclub** or e-mail us at **hschemclubs@acs.org**.

Advertising Index

Company	Page	Telephone	URL
Northup RTS	2	847-579-0049	www.toxconsultants.com
Micron Inc.	3	302-998-1184	www.micronanalytical.com
Mass-Vac, Inc.	4	978-667-2393	www.massvac.com
Pro Tech Engineering	5	847-714-9214	www.processtechnology engineering.com
Columbia Analytical Services	6	520-573-1061	www.caslab.com
Varian Inc.	7	800-926-3000	www.varianinc.com

CALENDAR

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 opened November 15, 2008. Please go to our website at **www.glrm2009.org** for the latest information on the meeting.

May 14: Chicago Section Society of Plastics Engineers' Supplier Night, 5-9 pm, Holiday Inn Elk Grove, 1000 Busse Road, Elk Grove, IL. For more information, go to **www.4spe.org/events/tech nical-groups/chicago-section-suppli er-night**

May 15: Chicago Section ACS Gibbs Award Banquet, Marriott Lincolnshire Resort. Louis Brus of Columbia University is the medalist. **See this issue**.

May 18: Catalysis Club of Chicago's Spring symposium at BP in Naperville, IL. Visit **http://www.catalysis clubchicago.org/2009SpringSymp.html** for details.

June: 2009: Science History Tour to England. Tour theme is Darwin and Evolution. Two-week tour will begin in mid-June. Graduate credit available for those interested. Teachers can get CPDUs for free. For details, contact Yvonne Twomey at **ytwomey@mindspring.co**m or Lee Marek at **Lmarek@aol.com**. For more information, go to **www.chem.uic.edu/marek/** (look under history stuff) and **http://community.webshots.com/user/oliverjcomo**

June 4-5: Society of Cosmetic Chemists will have a scientific seminar, Hilton Chicago, 720 S. Michigan Ave., Chicago. $750 for members; $850 for nonmembers. Register at **http://69.36.173.176/mm5/merchant.mvc?Screen=OINF&Store_Code=SR&Product_Code=2009SEM&Attributes=Yes&Quantity=1&Action=ADPR. www.scconline.org**

June 19: Chicago Section ACS Meeting (a luncheon). The section's Distinguished Service Award will be presented.

June 22-26: National Plastics Expo 2009 in Chicago. Contact Phyllis Hortie, (202) 974-5295, **phortie@plasticsin dustry.org; website: www.npe.org.**

August 14-23: 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://mem bership.acs.org/ C/Chicago/statefair/index.html**

August 16-20: The ACS National Meeting & Exposition, Washington, DC. Website: www.acs.org.

September 25: Chicago Section ACS Public Affairs Award Presentation to **Dr. Mary L. Good**. This will also be the section's Education Night honoring our high school scholarship awardees.

October 23: Medal Award Lecture, Dinner, and Presentation; joint Chicago Section ACS's meeting with Northwestern University's Department of Chemistry

November 18: Chicago Section ACS Meeting

December 4: Chicago Section ACS Holiday Party jointly with the Chemists' Club and Iota Sigma Pi

SUSAN SHIH RECEIVES THE DISTINGUISHED SERVICE AWARD

The 2009 Distinguished Service Award will be presented to **Susan M. Shih** at the June 19 Chicago Section's luncheon meeting. Come and honor Susan with us!

ACS OFFERS SPECIAL BENEFITS FOR UNEMPLOYED MEMBERS

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

Other valuable benefits that help ACS 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**, 800-333-9511 or 614-447-3671 and let us know how we can help.