CHICAGO SECTION AMERICAN CHEMICAL SOCIETY
JOINT MEETING WITH NORTHWESTERN UNIVERSITY
DEPARTMENT OF CHEMISTRY
BASOLO MEDAL AWARD LECTURE, DINNER AND PRESENTATION
FRIDAY, OCTOBER 14, 2011

BASOLO MEDAL LECTURE
Northwestern University
Technological Institute
2145 Sheridan Road
Evanston, IL
Lecture Room 3

DIRECTIONS TO THE TECHNOLOGICAL INSTITUTE

From the city: Take Lake Shore Drive North to Sheridan Road into Evanston. Continue on Sheridan Road to the Tech Institute at Noyes Street.

From the west: Take I-88 east to I-294 north to Dempster east. Proceed east on Dempster into Evanston. Turn left onto Chicago Ave. and proceed to Sheridan Road. Take Sheridan Road north to the Tech Institute. The Technological Institute is at the intersection of Sheridan Road and Noyes Street.

To those attending the Basolo Medal lecture, parking after 4:00 p.m. is available in the lot across from the Technological Institute at the corner of Noyes Street and Sheridan Road. Parking is also available on the side streets just west of this lot; however, observe the posted signs.

Lecture room 3 is on the first floor of the Technological Institute and is most easily reached by entering through the main doors facing Sheridan Road. The lecture room is clearly marked and there will be signs at the entrance to guide you to the room.

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Basolo Medal Lecture: 4:30 P.M.

The Medalist Lecture is open to the public and admission is free to all those wishing to attend.

2011 Fred Basolo Medalist

Dr. Gregory J. Kubas, Los Alamos National Laboratory

Title: “The Remarkable Structure, Bonding, and Reactivity of Metal Di hydrogen Complexes: Inspiration for the Hydrogen Economy”

(continued on page 2)
Abstract: Our discovery nearly 30 years ago of transition metal dihydrogen complexes established that the most fundamental molecule containing the simplest chemical bond, H:H, could unexpectedly be bound in the coordination sphere of a metal. The M–H2 bond involves simultaneous donation and acceptance of electrons between the metal d orbitals and the H–H bonding and antibonding orbitals, analogous to the Dewar-Chatt-Duncanson model for M-olefin π bonding. The side-on coordinated H2 is often reversibly bound and features a remarkable range of dynamic behavior such as equilibrium splitting to hydride ligands and quantummechanical rotation. Both the electrons and the H nuclei can become highly delocalized in such multicenter bonding, necessitating new paradigms and methodologies for theoretical analysis and understanding reactivity.

Heterolytic as well as homolytic splitting of H–H and related sigma bonds on metal centers are crucial in both industrial and bio catalysis. A major global effort is underway to produce and store hydrogen for fuel applications and dihydrogen coordination chemistry plays a significant role here. Bio-inspired photochemical production of hydrogen based on water splitting is a primary goal that will be discussed here.

Biography: Gregory Kubas received his B.S. from Case Institute of Technology in 1966 and Ph.D. from Northwestern University with Duward Shriver in 1970. He performed postdoctoral studies at Princeton with Tom Spiro and moved on to Los Alamos initially as a postdoc then as a staff member. He became a Laboratory Fellow in 1987 and more recently a Fellow of the American Association for the Advancement of Science. His discovery of metal complexes that bind dihydrogen molecules led to the 1993 American Chemical Society Award in Inorganic Chemistry and the 1994 E.O. Lawrence Award in Chemistry from the Department of Energy. The research on dihydrogen complexes led to new views of chemical bonding and hydrogen activation and opened new fields of chemical research on metal sigma-bond complexes. Greg is author of the 2001 book considered to be the bible of this field, *Metal-Dihydrogen and σ-Bond Complexes*.

DINNER LOCATION

Northwestern University
Scott Hall – Room 165
Guild Lounge
601 University Place
Evanston, IL 60208

Scott Hall is located southwest of the Tech Institute. Take Sheridan Road south pass Emerson St. Scott Hall is the building next to Cahn Auditorium. Enter Scott at the south entrance.

Parking: There is no parking lot adjacent to Scott Hall. Parking is available near Pick-Staiger Concert Hall located on the same side of the street as Tech Institute but nearer the lake.

JOB CLUB will meet in Scott Hall at 5:30 p.m.

Reception for
Dr. Gregory Kubas  6:15 P.M.
Complementary wine, soft drinks, and hors d’oeuvres

Dinner  7:00 P.M.
Dinner reservations are required and should be received in the Section Office via phone (847-391-9091), email (chicagoacs@ameritech.net) or website (http://chicagoacs.org) by noon on Tuesday October 11. PLEASE HONOR YOUR RESERVATIONS. The Section must pay for all dinner orders. No-shows will be billed.

NOTICE TO ILLINOIS TEACHERS

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

ACS/NSTA WEBINARS

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

- National Chemistry Week Resources for High and Middle School Science Teachers Tuesday, October 4, 2011
- Chemical Bonding: Learning From “Simple” Models Thursday, October 13, 2011
- Chemical Bonding: Why is Water Different? Wednesday, November 16, 2011

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

A Glowing Skull

Kids, Halloween is the perfect time of year to try out spooky mad scientist projects. With some laundry detergent you can make a glow-in-the-dark skull that you can put on your sidewalk or window that will be invisible during the day but will glow at night.

Materials

- liquid laundry detergent or powdered detergent mixed with a little water
- sponge or paper towel
- thick paper
- black light

Make the Decoration

1. Cut out the shape of a large printed skull on a piece of thick paper and then cut out the eyes, nose, and mouth.
2. Dampen a sponge or paper towel with the liquid laundry detergent. You want it wet enough to deposit the color, but not dripping wet.
3. Blot the paper with the detergent-coated sponge to fill in the shapes of the skull.
4. Hang the skull with the wet side out. Shine the black light onto the skull when you want to see it. Turn the light off when you don't want to see it.
5. This project works well using a sidewalk, wall, or windowpane instead of paper. In this case you'll use a cut-out as a stencil. If you “paint” on your porch you can switch out the normal lightbulb with a black light bulb. Or you can use a black light on an extension cord and put the decoration anywhere. Wash away the picture when Halloween is over.

How It Works

Laundry detergents contain brightening agents that glow when exposed to light, especially ultraviolet light like in sunlight or under fluorescent lights. When you shine a black light on detergent you get a very bright glow. The glow is bright enough that you don't need total darkness to get a nice effect. One of the most common classes of molecules with this property is the stilbenes (see below for more information) which absorb energy in the UV portion of the spectrum and re-emit it in the blue portion of the visible spectrum.

Resources & References:

http://chemistry.about.com/od/halloweenchemistry/a/glowingskull.htm (a link to the stencil can be found here, too)
http://en.wikipedia.org/wiki/Optical_brightener

For more Halloween Science projects check out:

http://chemistry.about.com/od/halloweenchemistry/a/halloweensci.htm

Stilbene: diarylethene, a hydrocarbon consisting of a cis-ethane double bond with a phenyl group on both carbon atoms; derived from the Greek word stilbos which means shining.

Submitted by DR. KATHLEEN CARRADO GREGAR

To view all past “ChemShorts for Kids”, go to:
http://www.chicagoacs.net/ChmShort/kidindex.html
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For more information on these and other fine vacuum products contact

WCC/ELI LILLY TRAVEL GRANT

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

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

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

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

FREE SAMPLE ISSUES OF ACS JOURNALS

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

Visit http://pubs.acs.org/page/pr/sample-issues.html for free access to the first issue of 2011 for any of our peer-reviewed journal titles. Expand your knowledge, and discover first-hand what makes ACS Publications the most trusted, most cited, and most read publisher in the chemical and related sciences.

FREE T-SHIRTS

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

The Fred Basolo Medal is given for outstanding research in inorganic chemistry. It was established by the former students of Dr. Fred Basolo in appreciation of his contributions to inorganic chemistry at Northwestern University.

Fred Basolo was born in Coello, Illinois in 1920 and received a B.Ed at Southern Illinois Normal University. He then went to the University of Illinois where he received a Ph.D. with John C. Bailar, Jr. in 1943. After working on a classified military research project during WWII, he joined the faculty at Northwestern in 1946. In 1980, the University honored him with the Charles E. and Emma H. Morrison Professorship of Chemistry.

Internationally recognized for his original contributions to the syntheses and reaction mechanisms of transition-metal Werner complexes, Basolo did some of the seminal work in the developing fields of organometallic and bioinorganic chemistry. He was also a truly gifted teacher. Many of his former students occupy prominent academic and industrial positions. Basolo influenced students worldwide to study inorganic chemistry and received the 1992 ACS Pimentel Award in Chemical Education. He published 400 scientific publications and four books before his death in 2007.

Basolo's contributions to the profession of chemistry were equally outstanding. He served as President of the American Chemical Society in 1983 and as Chairman of the Chemistry Section of AAAS in 1979. He was a member of the Board of Trustees of the Gordon Research Conferences and its chairman in 1976. Some of the many honors received by Basolo include membership in the National Academy of Sciences, the American Academy of Arts and Sciences, foreign membership in the Italian Academy of Sciences Lincei, as well as the ACS Awards for Research and for Service in Inorganic Chemistry. He received the first Joseph Chatt Medal, the 1996 Willard Gibbs Medal, and was the 2001 Priestley Medalist of the ACS. The ACS Chicago Section is proud to have had Fred Basolo as a member.

Previous Basolo Medalists:

- Ralph G. Pearson 1991
- Henry Taube 1992
- Jack Halpern 1993
- Harry Gray 1994
- Lawrence Dahl 1995
- Richard H. Holm 1996
- Kenneth N. Raymond 1997
- Malcolm Green 1998
- Thomas J. Meyer 1999
- James P. Collman 2000
- M. Frederick Hawthorne 2001
- Stephen J. Lippard 2002
- Daryle H. Busch 2003
- Malcolm H. Chisholm 2004
- John E. Bercaw 2005
- Ivano Bertini 2006
- Richard R. Schrock 2007
- Robert H. Grubbs 2008
- Peter J. Stang 2009
- Roald Hoffmann 2010

TRAVEL MONEY FOR YOUNG SCIENTISTS TO ATTEND AN ACS NATIONAL OR REGIONAL MEETING

Apply for a CIBA/YCC Young Scientist Travel Award for attendance to an ACS national or regional meeting held in 2012. Young scientists under the age of 35 who have postdoctoral appointments or are within the first seven years of their professional career are eligible. Applicants have the opportunity to receive $500 to attend an ACS meetings and network with other young chemists, professionals and chemist elites. Online applications for the Spring 2012 CIBA/YCC Travel Award opened Aug. 1. Don't miss out on this great opportunity. For more information, please visit the Web page or contact ycc.exec@gmail.com.

WHEN YOU CHANGE YOUR EMAIL ADDRESS

Please let the section office know what your new email address is so that you will not miss any notes concerning issues of The Chemical Bulletin or other section information. Contact the office at 847-391-9091 or at chicagoacs@ameritech.net

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CARPOOL BUDDIES

The Chicago Section ACS is aware of an ongoing problem for some of our members who want to go to a dinner meeting but either don't drive anymore or don't own a car. The Section is implementing a new program to connect members who drive with members who want to go to Section dinner meetings but don't have transportation. Many of our dinner meetings are in the suburbs and not near public transportation. We are asking members who are driving to a dinner meeting to volunteer to pick up a member who doesn't have transportation and who is on the route to the meeting.

Members making a dinner reservation on-line starting in September will be able to check a box on the form indicating that they can provide a ride for someone who doesn't drive. Members who do not drive will be able to call into the section office and ask for the list of volunteer carpool buddies for that meeting. The non-driving member will have the responsibility of calling someone on that list for a ride before making their dinner reservations.

This is a win-win situation for everyone. You can help save the environment by reducing the number of cars going to a meeting; you can have someone to talk to on the ride to the meeting; and you will know you are helping a fellow chemist to still attend a dinner meeting. Won't you please help!

FRAN KRAVITZ

“CHEMISTRY—OUR HEALTH, OUR FUTURE!”
CHEMISTRY DAY

Saturday, October 22, 2011
Columbia College Chicago

Please join us!

Do you remember the first time you realized that chemistry was special? If the answer is yes, then we need your help! The ACS Chicago Section invites all local ACS members to join in the celebration of National Chemistry Week by volunteering to participate in Chemistry Day on Saturday, October 22 at Columbia College Chicago.

Chemistry Day is an annual, day-long event open to all students ages 10–16. It is always an exciting and popular occasion — last year, more than 750 local students attended our signature National Chemistry Week celebration! ACS volunteers are the vital link in this highly successful community outreach program. Featured activities for students and their parents, teachers, guardians, as well as scout and other community leaders, include magic demonstrations, wonderful hands-on chemistry lab experiments, interactive exhibits, and an inspirational Boy Scout chemistry merit badge program.

We need your help! Share your love of chemistry by meeting and greeting participants, supervising hands-on lab activities with students, sharing exhibit materials, and performing demonstrations.

The theme of National Chemistry Week for 2011 is “Chemistry—Our Health, Our Future!”

We hope you will join with your ACS friends and colleagues to continue this unforgettable tradition. Please e-mail your Community Affairs Committee co-chairs listed below to sign up now!

AVROM LITIN  litin@comcast.net
IRENE CESA  icesa@flinnsci.com
DAVID CRUMRINE  dcrumri@luc.edu

LAB SPACE FOR RENT/SALE IN LAKE VILLA, IL

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

CONTACT THE CHAIR

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

KEITH KOSTECKA
CHICAGO SECTION CHAIR

PLEASE VOTE in the Section’s election when you receive your ballot in the mail

Advertise with us and be in good company
For information on advertising, call 847-391-9091 or email chicagoacs@ameritech.net
COME ONE, COME ALL!

Join the world's largest society for chemical professionals – the American Chemical Society (ACS, www.chemistry.org) – and experience many professional and personal benefits!

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

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

Wait...there is more!

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

WHAT ARE YOU WAITING FOR?
BECOME AN ACS MEMBER TODAY!

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

To get the most up-to-date information about chemistry activities in and around Chicago; meeting information (local, regional, and national), and fun facts about chemistry, visit the Chicago Local Section website at www.chicagoacs.net and follow us on:
Facebook (http://www.facebook.com/ChicagoACS)
Twitter (http://twitter.com/#!/ChicagoACS)
ACS Network (https://communities.acs.org/groups/chicago-section)

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

HNC Products Company
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Contract research and custom manufacturing of topical dermatology products:
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SECTION DUES
Members are urged to pay the $15 Section dues when you get your annual ACS membership dues statement. The Section needs this revenue to help support its many activities.

MEMBERSHIP APPEAL - COMMITTEE ON MINORITY AFFAIRS

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

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

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

CHARLES CANNON
Chair, Chicago Section CMA
ILLINOIS STATE FAIR PROJECT A SUCCESS!

We had another successful summer joint project at the Illinois State Fair August 12-21. This was our eighth year of having an exhibitor tent in Conservation World. There were 44 volunteers covering the time from the pre-fair tent set-up through the actual 10 days of the Fair. The planning committee and tent volunteers included members of 6 of the Illinois sections (Chicago, Decatur-Springfield, Heartland, Illinois-Iowa, Joliet, Mark Twain).

Over 11,200 people came through the tent during the Fair to enjoy the science demos, science toys and activities for kids, and the give-aways.

We distributed wooden rulers and hand fans again as the main give-aways throughout each day. The hand fans were appreciated since it was hot most days. Still a popular item for the teachers was a plush toy mole given each day to the first teacher who signed in to receive a special teacher’s bag that contains a CD with over 185 experiments for kids and a Cartesian diver kit, among other items. We also had three computers set up, one with the science quiz, one for teacher registration, and one for receiving visitors’ surveys.

A big thank-you to our section’s volunteers who worked diligently this summer to again make our “chemistry tent” a real attraction at the State Fair.

Our Chicago Section's volunteers this year were Cherlyn Bradley, Charles Cannon, Karen Cochran, Chris Cochran, Steven Edelman, Chantel Kamm, Ken Fivizzani, Fran Kravitz, Milt Levenberg, Margy Levenberg, Avrom Litin, and Margaret Yu of Northwestern University and three other students of the Northwestern Chem Club: Anne, Nick, and Diana.

Also, a big thank-you to all our sponsors this year: Chicago section, Mark Twain section, Heartland section, ACS Corporation Associates, BP retirees group, Ingredient Source Corp., HNC Products, NorthStar Credit Union, Northup RTS, Wizardcraft, donations from individuals. Contributors of materials and/or talent included Avrom Litin, Fran Kravitz, Milt Levenberg, BP Volunteers-Naperville chapter, Continental Cement, Flinn Scientific, Fisher Scientific, VWR, AAAS, United Soybean Board, NASA, Illinois Dept. of Natural Resources, ISU-Dept. of Chemistry, ISU-Center for Math, Science and Technology, ACS Committee on Chemical Safety, ACS Education Dept., ACS Project SEED, Richard Cornell, ACS National.

We are already thinking about next year. The planning committee's wrap-up meeting will be scheduled before the end of this year. Let us know if you would like to help with this fun and worthwhile public outreach project.

For further information about this project, including a description of some of the demonstrations, go to http://chicagoacs.net/statefair/index.html

FRAN KRAVITZ AND CHERLYN BRADLEY
CO-CHAIRS, IL STATE FAIR CO-OP PROJECT

OCTOBER HISTORICAL EVENTS IN CHEMISTRY

October 1, 1868 Georg Bredig, a researcher on anomalous atomic weights of lead from different sources, was born. He also did research on the catalytic action of colloidal platinum, the “poisoning” of catalysts, and the preparation of colloids by electrical means.

October 3, 1811 An article on spontaneous combustion by A. S. (Adam Seyfert) appeared in the Philadelphia newspaper, Aurora. It was the second article submitted by the Columbian Chemical Society.

October 5, 1861 The Chemical Society of Union College, the precursor of the American Chemical Society, was founded.

October 7, 1886 Neil E. Gordon, the founder and editor of the Journal of Chemical Education and the founder of the Gibson Island Conferences, later known as the Gordon Research Conferences, was born.

October 9, 1718 Pierre J. Macquer who studied platinum and discovered arsenates of potassium and sodium, was born.

October 10, 1930 Ernest O. Lawrence invented the cyclotron.

October 14, 1886 Jacobus H. Van't Hoff presented before the Swedish Academy of Sciences his findings that osmotic pressure of a dilute solution obeys Boyle’s, Charles’s & Avogadro’s Laws, and that PV = nRT.

October 17, 1873 Lev A. Chugaev, who developed complexing agents for analysis, studied inorganic chemistry of metal complexes, and studied xanthate pyrolysis, was born.

October 18, 1955 Emilo Segrè and Owen Chamberlain discovered a new sub-atomic particle, the negative proton or antiproton.

October 23, 1875 Gilbert N. Lewis, who developed the theories of chemical bond and valency, was born. He also did research in thermodynamics.

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 or This Week in Chemical History on the ACS website, http://www.acs.org/whatisciencesheme
DUTIES OF SECTION COUNCILORS EXPLAINED

This is a reprint of an article appearing in the April 1997 issue of the Chemical Bulletin. The article is updated annually to help you with your decisions in electing councilors and alternate councilors in the upcoming Chicago Section election. Remember to cast your vote.

Have you ever wondered who and what ACS councilors and alternate councilors are and what they do for you and the Chicago Section? The two major structural components of the Society besides your national officers and Board of Directors are local sections and divisions. ACS local sections and divisions not only elect their own officers, but also elect representatives to the ACS Council, the deliberative body of the Society. This is your opportunity to have a voice in Society’s governance.

The Council consists of the President, the President-Elect, the Directors, the Past Presidents, the Executive Director, the Secretary, and more than 400 voting Councilors representing Local Sections and Divisions. The Council convenes twice a year at the Society’s national meetings.

Councilors provide the principal contact between local section members and governance leaders in setting policies for the ACS that directly or indirectly affect you. Councilors are elected to serve a three-year term. Alternate Councilors represent the section when a Councilor is unable to attend a Council meeting.

Councilors also serve on National committees that meet during National meetings. Councilors are appointed to these committees by the President of the Society and are eligible to serve only three consecutive terms on the same committee. A councilor who accepts an appointment to a committee accepts an obligation to work year-round throughout that term. The Councilor is expected to attend meetings of the committee, be willing to undertake special assignments that require time between meetings.


The Chicago Section is currently represented by 11 councilors elected by you. All of these councilors are members or associates on National ACS committees. Your Chicago Section Councilors and their current committee appointments are: Cherlyn Bradley (Committee on Committees), Charles E. Cannon (Economic and Professional Affairs), Mark C. Cesa (Science), David S. Crumrine (Chemical Safety), Herbert S. Golinkin (Constitution and Bylaws), Russell W. Johnson (Chemistry and Public Affairs), Fran K. Kravitz (Local Section Activities), Milt Levenberg (Public Relations and Communications), Inessa Miller (Women Chemists), Barbara E. Moriarty (Professional Relations Divisional Representative on Science), and Susan Shih (Education).

Alternate Councilors for the Chicago Section are: Irene Cesa, Fran Clifton, Thomas Higgins, Frank Jarzembowski, Mark Kaiser, Keith Kostecka, Laura Li, Avrom Litin, Stan Seelig, Paul Young, Robin Zavod.

Some of our Councilors are also involved in other activities related to the National Meetings. Cherlyn Bradley chairs the Diversity subcommittee of the Committee on Committees and is a liaison to the Diversity & Inclusion Advisory Board. Fran Kravitz, Charles Cannon, and Herb Golinkin are career consultants who do resume reviews during each National meeting. Fran Kravitz and Charles Cannon are also career workshop instructors.

Your Councilors and Alternate Councilors ask for your help in providing your opinions about the Society and issues relating to the Society. This will help Councilors better represent you during Council.

CELEBRATING WOMEN IN CHEMISTRY

ACS has added a new commemorative web feature highlighting women scientists in American history. The site, www.acs.org/womenscientists, profiles ten inspiring women who overcame a thick barrier of gender discrimination to reach the heights of scientific investigation and discovery. Among the women featured are: Ellen Swallow, pioneer of sanitary engineering; Gerty Cori, whose landmark research gave us an understanding of sugar metabolism; and Rosalyn Sussman Yalow, the Nobelist behind the groundbreaking radioimmunoassay technique.

ARE YOU UNEMPLOYED?

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

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

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

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

CHERLYN BRADLEY
What's Keeping You Awake?

The other day on the radio I heard these lyrics from the Shinedown song, If You Only Knew: “It's 4:03 and I can't sleep... I toss and turn like the sea.” I thought, “Yeah, why is it always 4a.m. that I wake up when I'm worried about something?” The singer of this top 10 pop rock song was troubled by a woman. What's keeping you awake?

Most of us, at one time or another, have spent sleepless hours in bed worrying about something. Then making it worse, you're tired the whole next day.

Over the years, I’ve ruminated over all sorts of things. Big issues I have little or no control over like politics, the environment, terrorism, and the economy. Personal issues that I need to affect such as my business, my family, and my relationships. I have even worried over my volunteer work. Churning the same thoughts over and over again.

Some of us worry about the past - what could've been if only we had done something differently. Others worry about some future problem that hasn't even occurred yet.

Worry feels like motivation because it is rooted in the desire to fix a situation, but it is actually a de-motivator. It robs us of valuable energy we need to live a productive life. I love this modern update to an old proverb: “Worry is a brisk ride on a rocking horse; you burn a lot of energy, but you don't get anywhere.” It is an amusing proverb that creates an accurate metaphor, but it does not offer us an answer on how to deal with worry.

For a simple solution on countering worry, I've always enjoyed the lyrics of this Irving Berlin song from the movie White Christmas: “When I'm worried and I can't sleep, I count my blessings instead of sheep; and I fall asleep, counting my blessings.” Although, I must admit that I didn’t really hear these sage words or make use of them for years.

When I finally did; I found that it really works. Sometimes we have to start with the basics, and remind ourselves of all that we do have and all that is going smoothly in our lives in order to put the troubling matter into perspective: “I have a roof over my head, I have my health, I have food in the house, I have a car, I have friends, etc.”

I recently revisited Dale Carnegie's book, How to Stop Worrying and Start Living. It was written during the Great Depression and World War II. A period of time when most people had plenty to stress over. The advice still holds up today.

The trick is to divert your pensive energy into practical projects. Carnegie suggests that we focus on doing our best one day at a time and the future will take care of itself. In other words, keep busy! Get so caught up in your work that you have no time to ponder all the “What ifs” that have been running like a broken record in your mind.

He also suggests that you ask yourself, “What is the worst that could happen?” Then he says to either accept that or seek out the answers you need to fix it. If you choose the later, you must collect all the facts, analyze them, make a decision, then act on it.

I think his best suggestion is to spend your time helping others. When you focus on what you can do for others, you cannot at the same time focus on yourself. Or in the words of one unknown author, “When you dig another out of their troubles, you find a place to bury your own.”

Eventually you can utter the immortal words of Alfred E. Neuman, “What, me worry?”

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

The Chicago Section’s e-mail address is chicagoacs@ameritech.net
BUSINESS PLAN COMPETITION BY THE ACS COMMITTEE ON SCIENCE

The ACS Committee on Science has organized a business plan competition for start-ups or expansion of existing small businesses with high growth potential. The proposed start-up company must be scalable with potential to attract debt or equity financing. These businesses must be located within the United States of America and owned by a US citizen or a permanent resident in the US. The competition will take place in two rounds. The first round requires an abridged Business Plan of no more than five pages describing the opportunity by covering the following information:

- Executive Summary
- Business Description: Describe the product, service, or business model, IP protection strategy
- Market Analysis - Market size, market potential, customer profile, and market positioning
- Marketing Plan - Pricing, promotion, and distribution channels, how will the business achieve sales and significant profits
- Financial Analysis: Revenue model, cash flow, income statement, balance sheet
- Management Team - Experience, qualifications of key people
- Must include the projected number of jobs created

Upon evaluation of the abridged Business Plan invited applicants will be selected by a team of judges to submit comprehensive business plans (no more than 25 pages including supplemental materials) and orally present their plans at the spring 2012 ACS meeting in San Diego. The comprehensive business plan must include the following:

- Opportunities, risks and contingency plans
- Implementation Plans
- Financial Analysis: Income statement, balance sheet and cash flow
- Supplemental attachments including support data and resumes of the members of the management and technical teams

Angel investors and Venture Capital firms will be present at the presentations to identify viable business opportunity for potential financing. Invited applicants will be mentored and guided to facilitate their success at this meeting.

Entries will be disqualified if:

- They are received after the deadline for submission – Note: the deadline is December 1, 2011
- They are incomplete
- The proposal is for a subsidiary for a larger business
- There are possible legal challenges with the business, product, service or concept
- The idea, product, or service cannot be legally protected for growth
- The business idea is not scalable

For additional information contact Dr. Mukund Chorghade at chorghade@gmail.com or Dr. Sadiq Shah at sadiq.shah@csuci.edu.

If you are interested in participating, please send an e-mail to Dr. Mukund Chorghade at chorghade@gmail.com or contact by phone at 508-308-3891. The deadline for submitting your abridged Business plan is December 1, 2011.

IUPAC PRIZES FOR YOUNG CHEMISTS

Three persons working within the ACS Chicago Section were selected as recipients of the 2010 and 2011 IUPAC Prizes for Young Chemists, and three others have been awarded Honorable Mention. The prizes were awarded for the best Ph.D. theses in the chemical sciences as described in 1000 word essays. There were a total of eleven prize winners and eight Honorable Mentions for 2010 and 2011. Each prize winner received a cash prize of $1,000 and travel expenses to the 43rd IUPAC Congress July 31 - August 7, 2011 in San Juan, Puerto Rico, and the recipients of Honorable Mention awards received a cash prize of $100.00 and a copy of Quantities, Units and Symbols in Physical Chemistry, the IUPAC Green Book. The awards were presented to the prize winners during the Opening Ceremony of the Congress. Each prize winner was also invited to present a poster at the IUPAC Congress describing his award winning work and to submit a short critical review on aspects of his research topic to be published in the journal Pure and Applied Chemistry.

The winners were:

2011 - Chengqi Yi, University of Chicago (advisor: Prof. Chuan He): “Probing the AlkB Family DNA/RNA Repair Enzymes with a Chemical Disulphide Cross-Linking Approach.”

2010 - Rafal Klajn, Northwestern University (advisor: Prof. Bartosz A. Grzybowski): “Self-Assembly of Nanostructured Materials.”


Honorable Mention to:


2011 - Lei Fang, Northwestern University (advisor: Prof. Sir J. Fraser Stoddart): “Expanding the Scope on Switchable Mechanically Interlocked Molecules.”

2010 - Choongik Kim, Northwestern University (advisor: Prof. Tobin J. Marks): “Polymer Dielectric Materials for Organic Thin-Film Transistors: Interfacial Control and Development for Printable Electronics.”

For more information, see:


REGISTER ONLINE for Chicago Section monthly meetings
www.ChicagoACS.org
CONGRATULATIONS TO
CHICAGO SECTION’S 2011
ACS FELLOWS!

Nine Chicago section members were among the 213 selected and honored as 2011 ACS Fellows during the Denver National ACS meeting in August:

Judy L. Bolton
University of Illinois, Chicago

Laurie J. Butler
University of Chicago

Kenneth P. Fivizzani
Nalco (Retired)

James A. Ibers
Northwestern University

Frederick D. Lewis
Northwestern University

Barbara Moriarty
Nalco Co.

Richard B. Silverman
Northwestern University

Michael Trenary
University of Illinois, Chicago

See the complete list of ACS fellows at: http://cenm.ag/fellows. These distinguished scientists are recognized and honored for their significant contributions to the science and for providing excellent service to the ACS. They represent 33 technical divisions and 83 local sections and reflect a wide range of disciplines and geographic locations.

Background
The ACS Fellows Program was created by the ACS Board of Directors in December 2008 “to recognize members of ACS for outstanding achievements in and contributions to Science, the Profession, and the Society.”

Eligibility
Nominees must be current members in good standing with ACS. The selection of ACS Fellows is based on demonstrated contributions in two defined areas:

1. Excellence in Science/Profession
Could include, but is not limited to:

- Excellence in R&D
- Teaching or education
- Demonstrated leadership or managerial excellence in an organization within the chemical sciences

2. Outstanding Service to the American Chemical Society
Could include, but is not limited to:

- Governance service on a divisional, local, regional, national and/or international level
- Publications, such as editor, assistant or associate editor
- Meetings through organization of symposia or major presentations
- Involvement in National Chemistry Week, Chemists Celebrate Earth Day, and similar outreach activities
- Communication by press, radio, TV or electronic media

Nominations can be submitted by ACS National Committees, Technical Divisions, Local Sections and individual members. The window for submitting nominations for 2012 ACS Fellows will open towards the end of the first quarter of 2012.

Selection
Fellows are selected by a broadly representative Selection Committee appointed by the Board Committee on Grants & Awards, which has governance oversight for the program.

Recognition
ACS Fellows are recognized and honored at the Fall ACS National Meetings. Each Fellow receives a lapel pin and a certificate.

Additional Information
Additional information on the ACS Fellows Program can be obtained by sending an email to: fellows@acs.org.

ACS OFFERS SPECIAL BENEFITS FOR UNEMPLOYED MEMBERS

During these tough economic times it’s more important than ever to belong to the American Chemical Society. 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.

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October 4: “Now You See It: How the Brain Science of Attention Will Transform the Way We Live, Work, and Learn” by the author and speaker Cathy Davidson, co-sponsored by the Illinois Science Council, Pritzker Auditorium, 6:00 p.m., Harold Washington Public Library, 400 S. State Street, Chicago, IL. Free and open to the public. For further information, contact the Illinois Science Council at http://www.illinoisscience.org/.

October 5-9: ACS technical continuing educations courses to be held in the Chicagoland area. Contact the ACS Office of Professional Education (www.proed.acs.org; 202-872-4544) for further information.

October 14: Basolo Medal Award Lecture, Dinner, and Presentation; joint Chicago Section ACS's meeting with Northwestern University's Department of Chemistry. The Basolo Medal Awardee is Dr. Gregory J. Kubas, Los Alamos National Laboratory. See details in this issue.

October 19-22: ACS Midwest/Great Lakes Joint Regional Meeting (MWRM/GLRM), Sheraton Westport Chalet, 191 Westport Plaza, St. Louis, MO. For further information, go to http://mwrm2011.org/

October 20: “A More Perfect Heaven: How Copernicus Revolutionized the Cosmos” by the author and speaker Dava Sobel, co-sponsored by the Illinois Science Council, 7:30 p.m., Wright Unity Temple, 875 Lake Street, Oak Park, IL. $15 non-members; $12 Unity Temple Restoration Foundation members, students and seniors. Proceeds benefit the restoration of Unity Temple, Frank Lloyd Wright's modern masterpiece. For further information, contact the Illinois Science Council at http://www.illinoisscience.org/.

October 22: Chemistry Day at Columbia College Chicago. The theme is “Chemistry – Our Health, Our Future.”

October 27-29: Illinois Science Teachers Association: Illinois Science Education Conference at the Tinley Park Conference Center, 18451 Convention Center Dr., Tinley Park, IL. For information, go to website at http://www.iact-online.org/.

November 17: Chicago Section dinner meeting at The Parthenon Restaurant, 314 South Halsted St., Chicago, IL.

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

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

IYC 2011 – CHICAGO IS ON FACEBOOK

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

Also go to http://www.joshkurutz.com/Site/Welcome_1.html to find out what IYC-related activities the Chicago section is doing.

HAVE YOU MAILED YOUR BALLOT?

Just a reminder that ballots are due in the Section office no later than noon, October 21. They were mailed early September.

Put your ad here
Reach prospective clients by advertising in The Chemical Bulletin

For more information, call the Section office (847) 391-9091

JOB CLUB

The next meeting of the Chicago Section ACS Job Club will be held on Friday, October 14 at 5:30 p.m. at Northwestern University - Scott Hall (Evanston, IL campus). 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.