

# The Chemical Bulletin

<http://chicagoacs.org>

SEPTEMBER • 2009

## CHICAGO SECTION AMERICAN CHEMICAL SOCIETY

**Jointly with the Chemistry Department of  
Loyola University and the Chicago Chemists' Club  
Education Night  
Public Affairs Award Presentation**

**Friday, September 25, 2009**

**Loyola University**  
6525 North Sheridan Road  
Chemistry Department/Flanner Hall  
Chicago, IL  
(773) 274-3000

### DIRECTIONS TO THE MEETING

Flanner Hall is located at 1068 West Sheridan Road on the Lake Shore campus of Loyola University, near the intersection of West Sheridan Road and Winthrop. (See page 2 for directions and parking).

**REGISTRATION** 4:30 to 6:30 P.M.  
Flanner Hall lobby

**SOCIAL HOUR** 4:30 to 5:30 P.M.  
Flanner Hall lobby

**POSTER SESSION** 4:30 to 5:30 P.M.  
Loyola chemistry student research  
Flanner Hall lobby

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

**DINNER** 6:30 P.M.  
Simpson Living Center

An excellent dinner will be in the nearby Simpson Living Center and is served cafeteria style. The cafeteria provides a large variety of items on an all-you-can-eat basis. A portion of the cafeteria will be reserved for ACS attendees. Dinner admission tickets are obtained at the ACS registration table in Flanner Hall for a flat charge of \$12.00 per person. No discounted dinners for students, retirees or unemployed.

Dinner reservations are required and

should be received in the Section Office via **phone** (847-391-9091), **email** ([chicagoacs@ameritech.net](mailto:chicagoacs@ameritech.net)) or **website** (<http://chicagoacs.org>) by noon on Wednesday, September 23. PLEASE HONOR YOUR RESERVATIONS. The Section must pay for all dinner orders. No-shows will be billed.

**AWARDS PRESENTATION 8:00 P.M.**  
Winners of the High School Scholarship Examination

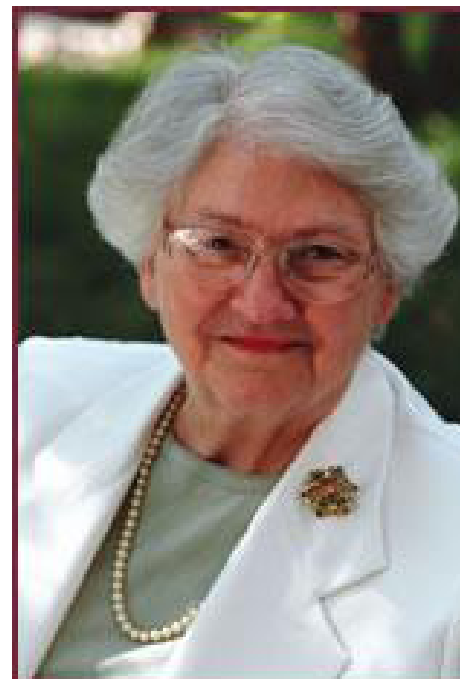
### NOTICE TO ILLINOIS TEACHERS

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.

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

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

**PUBLIC AFFAIRS  
AWARD LECTURE 8:15 P.M.**



**Dr. Mary L. Good**  
Dean of Donaghey College of Engineering & Information Technology,  
University of Arkansas at Little Rock

**Title:** "Science and Innovation in the Global Economy—Why It Matters and Who Needs to be Concerned"

**Abstract:** In the global economy, the

(continued on page 2)

(continued from page1)

race is on for technological advantage. The United States is used to leading these activities with the past competition with Western Europe and Japan. These competitors still exist but they are now joined by formidable new players from China and India. This competition has now caused an ever-increasing deficit in US trade in advanced technical goods and a steep decline in the US trade balance in advanced technology trade with China.

These are not indications of a robust future for the United States. This situation should be a "wake up call" to all of us from our education leaders to our government leaders and folks in the private sector.

The questions to be asked are: how do we incentivise innovation; how do we develop a work force focused on innovation and technological advancement; and, how do we get US leadership to realize where we are and begin to devise policy to address the issues?

**Biography:** Dr. Good received her Ph.D. in inorganic chemistry from the University of Arkansas in 1955 and then went on to have a very distinguished education and research career at the University of New Orleans, becoming Boyd Professor of Chemistry. She left UNO to join Allied Signal as VP and Director of Research in 1980. She became Sr.-VP for Technology in 1988. She remained with AlliedSignal until she retired in 1993 and became undersecretary for technology in the Dept of Commerce of the Clinton Administration.

Dr. Good is presently, the founding Dean and Donaghey University Professor at the University of Arkansas at Little Rock College of Engineering & Information Technology. Over the years, she has held many high level positions in academia, industry, and government. She has served as board chair and president of the American Chemical Society, president of the American Association for the Advancement of Science, Board Member of the National Science Foundation, 1980-91; Board chair, 1988-91.

She has received many awards from the American Chemical Society, for her accomplishments including the ACS Priestley Medal, the Parsons Award, the Barnes Award for Leadership, and the Garvin – Olin Medal. In addition, she has received the NSF's highest honor, the Vannevar Bush Award, the AAAS Philip Abelson Award for outstanding achievements and public service, and the Heinz Award for technical achievements to name just a few of the many recognitions she has received in a very

distinguished career. She has also received more than twenty honorary doctoral degrees. She was honored by appointment to the National Academy of Engineering.

In 2001, Dr. Good led a group of scientists, entrepreneurs and educators in founding ASTRA, "The Alliance for Science & Technology Research in America;" an organization which is dedicated to promoting a better understanding of the physical and mathematical sciences and engineering, especially to the congress and executive branches of our government.

## Directions to Loyola:

### **By public transportation:**

Take the CTA Red Line train to the Loyola stop.

### **From Downtown Chicago:**

Take the Outer Drive north to its end. Follow Sheridan Road north until it turns west at 6500 N. Follow directions below to parking.

### **From the West:**

From O'Hare take I-294 North to the Touhy Avenue East exit (this is the very first exit after toll plaza). Proceed east on Touhy to Talcott, the first stoplight.

Turn right onto Talcott and go to Devon (first stoplight after passing high school). Turn left on Devon and continue on to Caldwell. Turn right on Caldwell (this road becomes Petersen) to Western.

Turn north on Western to Devon. Turn east on Devon and continue east to Kenmore Avenue. Turn left on Kenmore to the Loyola Campus.

See parking information.

### **From North and Edens Expressway (I-94):**

Take I-94 (Edens Expressway) to the Peterson Avenue East Exit. Take Peterson east to Western Avenue.

Turn left on Western (north) to Devon and go east. Continue to Kenmore Avenue. Turn left on Kenmore to the Loyola Campus.

See parking information below.

SEE ALSO DETAILED MAPS ON OUR WEBSITE

**PARKING:** Enter the campus at the intersection of Kenmore and Sheridan

Road and bear to the left. Parking is available at the parking deck next to Flanner Hall for \$6.00. Enter the garage at the entrance marked "Faculty, Students, Guests, Visitors." When leaving the garage, first purchase an exit parking ticket at the pay station machine located near the garage stairs and elevators.

## ACS PETROLEUM RESEARCH FUND GRANT PROGRAMS

The Petroleum Research Fund (PRF) is an endowed fund, managed by the ACS that supports fundamental research directly related to petroleum or alternate energy at nonprofit institutions (generally colleges and universities) in the United States and other countries. Research areas supported include chemistry, the earth sciences, chemical and petroleum engineering, and related fields such as polymers and materials science. For a list of grant programs and eligibility, please visit: [http://portal.acs.org/portal/acs/corg/content?\\_nfpb=true&\\_pagelabel=pp\\_superarticle&node\\_id=1251&use\\_sec=false&sec\\_url\\_var=region1&\\_\\_uuiid=87b1c49f-c18c-48fb-8c8d-4e135c172622](http://portal.acs.org/portal/acs/corg/content?_nfpb=true&_pagelabel=pp_superarticle&node_id=1251&use_sec=false&sec_url_var=region1&__uuiid=87b1c49f-c18c-48fb-8c8d-4e135c172622)

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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.

### Crystal Rings and Ferns

This is a quick and easy crystal growing project. All you need is a bit of table salt, water, a steel pan, and a stove to produce interesting salt crystal rings, ferns, and other shapes. Specifically, get these materials together along with an adult partner:

- steel or iron pot - don't use a non-stick pan since the non-stick coating could overheat and release fumes
- table salt (sodium chloride)
- water
- food coloring (optional)
- kitchen stove

Now just sprinkle a little salt in the pot and a few drops of water. You can add a drop of food coloring if you want colored crystals. Have an adult partner heat the water until you see the liquid starting to evaporate off the pan. Turn off the heat. Watch the crystals form as the water evaporates to form artful crystal shapes like rings and ferns. You can

add more water and repeat the project over and over. All you do for clean-up is rinse out the pan.

There are many variables to this experiment that you can examine, such as:

- \* type of salt - iodized, uniodized, sea salt, etc.
- \* concentration of salt - results are greatly affected by how much/little salt you add
- \* rate of evaporation - affects how crystals form
- \* rate of cooling - also affects crystal growth

Notes: The best results are obtained when using a very small amount of salt. We're told that a fern shape can sometimes occur from boiling salted pasta. If you use uniodized salt, you may get salt crystal cubes rather than rings. More complex shapes occur with sea salt and aquarium salt. Other salts will work for this project too (e.g., borax, epsom salts). Sugar is not a good choice because it will burn and possibly ruin your cookware.

DR. KATHLEEN CARRADO, Argonne National Laboratory

**References:** Dr. Anne Marie Helmenstine at <http://chemistry.about.com/od/crystalrecipes/a/saltcrystalring.htm?nl=1>

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

September, 2009 Vol. 96, No. 7.  
Published by the Chicago Section of The American Chemical Society,  
Editorial Staff: Cherlyn Bradley, Editor; Fran Kravitz, Associate Editor; Fadwa Al-Taher and Richard Trepow, Proofreaders; Frank Jarzembowski, Publications Business Manager. Address: 1400 Renaissance Dr., Park Ridge, Illinois 60068; 847/391-9091. Subscription rates: \$15 per year. Frequency: monthly-September through June.

### 2009 BASOLO MEDAL AWARD TO PETER STANG

Northwestern University will honor **Professor Peter J. Stang**, University of Utah, with the Basolo Medal for recognition of work in inorganic chemistry. Named for Northwestern University chemistry professor Fred Basolo, the award is given by Northwestern University and cosponsored by the ACS Chicago Section. Professor Stang will deliver the award lecture at the Northwestern University Technological Institute in Evanston, IL on October 16.

Following the lecture at Northwestern, the Medal presentation will be given at the Chicago Section's meeting. Meeting information and additional details will be found at the section's website, [www.chicagoacs.org](http://www.chicagoacs.org). Reservations may be made on-line or by calling the Section's office at (847) 391-9091.

### 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>, click on the "Contact Us" tab, look for "Contact the Chair" a little way down the page, click on it, 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 4,600 ACS members who reside in the Chicago area (north-east 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.

AMBER ARZADON  
CHICAGO SECTION CHAIR

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## 2009 FIFTY- FIFTH ANNUAL SCHOLARSHIP EXAMINATION IN CHEMISTRY

The High School Education Committee of the Chicago Section ACS held its 55<sup>th</sup> annual High School Scholarship Examination on May 23, 2009 at North Central College.

<u>PRIZE</u>	<u>WINNER</u>	<u>SCHOOL &amp; TEACHER</u>
<b>FIRST \$5,000 AWARD</b>	<b>Eric Spiegman</b>	<b>Beverly George</b> Naperville North HS
<b>SECOND \$3,000 AWARD</b>	<b>Benjamim Mildenhall</b>	<b>Marlen Rubinow</b> Oak Park River Forest HS
<b>THIRD \$2,500 AWARD</b>	<b>Jordan Shapiro</b>	<b>Ann Levinson</b> Chicagoland Jewish HS
<b>FOURTH \$1,500 AWARD</b>	<b>Rose Sloan</b>	<b>Cheryl Rulis</b> Oak Park River Forest HS
<b>FIFTH \$1,250 AWARD</b>	<b>Jose Regalbuto</b>	<b>Jim Glynn</b> Glenbrook South HS
<b>MARIE LISHKA * \$2000 AWARD</b>	<b>Rose Sloan</b>	<b>Cheryl Rulis</b> Oak Park River Forest HS
<b>MARSHALL S. SMOLER** \$200 AWARD</b>	<b>Laurie Merrell</b>	<b>Maggie Kendall</b> Walter Payton HS
<b>BERNARD E. SCHAAR*** \$500 CHICAGO CHEMISTS' CLUB AWARD</b>	<b>Sean McLaughlin</b>	<b>Don Molenda</b> Brother Rice HS

\*To the highest scoring female in the examination. This award honors **Marie Lishka**, who was an active Chicago Section member for many years. Additional funding for the Lishka award was provided in memory of **Stan Drigot**.

\*\*To the highest-scoring Chicago Public High School Student. This award was established in 1972 in memory of **Marshall S. Smoler**, by his sister, Rachel. Mr. Smoler was for many years a chemistry teacher in the Chicago public schools.

\*\*\* To the highest scoring Chicago High School student. Mr. Bernard Schaar's widow established this award in memory of **Mr. Bernard Schaar**, long active in Chicago Section, American Chemical Society and the Chicago Chemists' Club.

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**REGISTER ONLINE for  
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Curious to know how some chemists got to where they are in their industry career? Visit [http://boilthisdown.org/?page\\_id=899](http://boilthisdown.org/?page_id=899) to read short interviews with chemists in the various industry sectors and their suggestions on how you can get there too.

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**HONORABLE MENTIONS LISTED IN ALPHABETICAL ORDER**  
(These students were the next highest performers)

**Josh DeMent**  
**John Elzinga**  
**Wei-Pang Jan**  
**Alexander Krule**  
**Alwina Liu**  
**Nolan Maloney**  
**James Mansfield**  
**Andy Nian**  
**Alana Weinstein**

Naperville Central HS  
Latin School of Chicago  
Niles West HS  
Chicagoland Jewish HS  
Fremd HS  
Naperville North HS  
Naperville North HS  
Wheaton Warrenville South HS  
Highland Park HS

Awards will be given to students at the ACS Education Night meeting on September 25, 2009 at Loyola University. Award winners and their teachers will be contacted by the Chicago ACS office. All teachers and students are invited and encouraged to attend the ACS Education Night meeting. Teachers who attend the ACS Education Night meeting will receive CPDU credits. Teachers do not have to be ACS members to attend

A special thank you to **Dr. Paul Brandt**, Chemistry Professor at North Central College, for his hard work and willingness to author the exam.

FINANCIAL CONTRIBUTORS TO THE SCHOLARSHIP EXAM ARE: ACS Chicago Section, Stan Drigot, Dr. Henry M. Walton, Chicago Chemists' Club, and Rachel Smoler.

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## SEPTEMBER HISTORICAL EVENTS IN CHEMISTRY

### September 1, 1909

Rohm & Hass Co., was founded 1909.

### September 2, 1853

Wilhelm Ostwald, who was awarded the Nobel Prize in Chemistry in recognition of his work on catalysis and for his investigations into the fundamental principles governing chemical equilibria and rates of reaction, was born. He was a researcher on affinity, mass action, theories of solutions, and conductivity (Ostwald's Law of Dilution & Conductivity).

### September 7, 1854

Paul Vielle, inventor of smokeless powder, Poudre B, from gelatinized nitrocellulose mixed with alcohol and ether, was born.

### September 11, 1894

Carl S. Marvel, who did research in organic chemistry and polymer synthesis, was born.

### September 13, 1937

Polaroid Corporation was incorporated.

### September 14, 1698

Charles F. de Cisternay DuFay, who discovered + and - electricity and repulsion between like charges, was born. He also did research in phosphorescence and double refraction.

### September 17, 1901

Peter Cooper Hewitt obtained patent for mercury vapor lamp.

### September 22, 1791

Michael Faraday, who discovered electromagnetic induction, specific inductive capacity, rotation of plane-polarized light in a magnetic field and liquefied chlorine and other gases, was born.

### September 24, 1905

Severo Ochoa, who with **Arthur Kornberg** shared the Nobel Prize in Physiology or Medicine for their discovery of the mechanisms in the biological synthesis of ribonucleic acid and deoxyribonucleic acid, was born. He also did research with enzymatic processes in biological oxidation and synthesis and the transfer of energy.

### September 29, 1915

Gencorp incorporated as General Rubber Mfg.

### September 30, 1802

Antoine J. Balard, who discovered bromine in seawater in 1826, hypochlorous acid, and chlorine monoxide, was born.

### 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 the This Week in Chemical History at the ACS website: <http://www.acs.org/whatischemistry>.

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## LOCAL STUDENTS QUALIFY FOR THE 2009 USNCO STUDY CAMP

The U.S. National Chemistry Olympiad (USNCO) and the International Chemistry Olympiad are multi-tiered competitions that bring together the world's most talented high school students to test their knowledge and skills in chemistry. Nations around the world conduct examinations to nominate the most high-performing students for the International Chemistry Olympiad.

The Chicago area local exam was held on Friday, March 13, 2009. The Chicago area national exam took place Friday, April 24, 2009 at Loyola University.

We are proud to announce our 2009 Chicago section finalists who were selected to compete for a spot on the International Chemistry Olympiad team. The students participated in a Study Camp June 3-18, 2009, at the U.S. Air Force Academy. The top 4 performing students were selected for the International Chemistry Olympiad competition July 18-29, in Cambridge, England.

### **Robin Jia (Class of 2010)**

Oak Park and River Forest High School  
Teacher: Marlene Rubinow

### **Krystle Leung (Class of 2011)**

Naperville Central High School  
Teacher: Steve Wiesbrook

### **John Rosenberg (Class of 2009)\***

Barrington High School  
Teacher: Karen Enright

\*Qualified as an alternate for the competition.

LINDA BENNETT  
CHAIR,  
HIGH SCHOOL EDUCATION COMMITTEE

For further information about the USNCO exam and the ACS Scholarship exam, visit the committee's website, <http://chicagoacseducation.wetpaint.com/page/ACS+Exams>

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 activities.



## DR. MARY L. GOOD, OUR PUBLIC AFFAIRS AWARDEE AND LECTURER

Several months ago, we chose Dr. Mary Good to receive our Public Affairs Award for 2009. I can't think of anyone who is better prepared to speak on the concerns of science and public policy at this time. In addition to having a great career in science education, in academic and industrial research, as a leader in industrial R&D, in government policy and administration, over the past ten years she has broken new ground as a pioneer in bringing science to government.

During the past ten years, she has returned to what is obviously her first love and dedication, science education; as the Donaghey University Professor of Science Education and Dean of the College of Information and Engineering Technology, at the University of Arkansas at Little Rock. As a result of her leadership, they have recently broken ground for the construction of a new six story building to house the College.

In addition to her work in leading the college, she has been very active in science and public policy issues. Using her wealth of knowledge and experience acquired from her work in academe, industry and government, she has led a group called ASTRA, (The Alliance for Science & Technology Research in America), (<http://www.aboutastra.org/about/index.asp>) whose mission "-----is to focus on the need to maintain adequate funding of key science agencies."

Of course, I had the pleasure and privilege of working with Dr. Good when she was leading the S&T program at UOP. I also worked with her when she was American Chemical Society President. My most recent association relative to ACS was the 40<sup>th</sup> Anniversary of Project SEED. Mary (along with the recently deceased Barbara Ulliyot) led this celebration and asked me to be a part of the leadership team. Of course, I was thrilled and honored to be a part of this great and wonderful effort which raised \$1,001,500 for the project with \$750,000 going into the SEED Endowment Fund.

I am pleased and we are all honored to be able to welcome Mary on this occasion, and to recognize her for the many outstanding efforts she has put forth on behalf of science and public service.

JIM SHOFFNER  
CO-CHAIR, PUBLIC AFFAIRS  
COMMITTEE

## CHICAGO CHEMISTS' CLUB

### Club History

The Chicago Chemists' Club was chartered December 30, 1919 as a social organization to promote good fellowship and camaraderie among Chicago-area chemists.

### Social Events

The social calendar of the Chemists' Club includes ten dinner meetings per year where spouses and/or guests are welcome to attend. Meetings are usually on the second Wednesday of the month at various restaurants in the Chicago area featuring a variety of cuisines. We present timely, stimulating speakers in fields such as science, politics, medicine, etc., and folk-singers, artisans and world travelers. In the spring the Club has a dinner-theater party. Each year, jointly with the ACS Chicago Section's Education Meeting, we present the Bernard Schaar Memorial Award to the first-place winner of the ACS high-school chemistry examination. The Club is also a co-sponsor of the ACS Chicago Section's annual Holiday Party in December.

### Membership Benefits

Membership dues are \$25 per year. As a non-profit organization, the Club returns a portion of these dues to its members in the form of dinner price reductions.

### Joining the Club

Membership is open to chemists, chemical engineers and allied scientists.

## STATEMENT ON DIVERSITY

### Approved by the ACS Board of Directors - 2007

The American Chemical Society believes that to remain the premier chemical organization that promotes innovation and advances the chemical sciences requires the empowerment of a diverse and inclusive community of highly skilled chemical professionals regardless of race, gender, age, religion, ethnicity, nationality, sexual orientation, gender expression, gender identity, presence of disabilities, educational background, and other factors. Chemical scientists rely on the American Chemical Society to promote inclusion and diversity in the discipline.

To enable scientific progress and maintain its global competitive edge, the American Chemical Society remains committed to inspiring and educating the present and future generations of diverse, innovative, and creative chemical professionals. By promoting inclusion and equity to all, the American Chemical Society will succeed in fostering a diverse community of professionals in the chemical sciences who will be the catalyst for transforming the world through their full participation and integration into the chemical professions.

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### The Chemical Bulletin Advertising Rate Schedule

The official newsletter of the Chicago Section American Chemical Society, *The Chemical Bulletin*, publishes news and information of interest to the Section's 4,600 members, who are professional chemists and others in related professions in industry, academia and government throughout greater Chicago.

SIZE	DIMENSIONS	RATE
Full Page	7.5" wide x 10" depth	\$700
2/3 Page (2 columns)	4.917" wide x 10" depth	\$530
1/2 Page	3.75" wide x 10" depth	\$500
1/3 Page (1 column)	2.333" wide x 10" depth	\$360
1/2 Column	2.333" wide x 5" depth	\$190
Business Card	3.5" wide x 2" depth	\$95

We accept ads sent in jpg, tif, or quark formats. For more information, contact [chicagoacs@ameritech.net](mailto:chicagoacs@ameritech.net) or call 847-391-9091.

## JOB CLUB

The next meeting of the **Chicago Section ACS Job Club** will be held on **Friday, September 25 at 5:00 p.m. at Loyola University**. 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 \$12 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.

## NEW WEBSITE DESIGNED FOR ACS INDUSTRY MEMBERS

To focus on the specific information needs of chemists and chemical engineers working in industry, the American Chemical Society has launched **www.boilthisdown.org**

The site is designed to help you do the following:

(1) Quickly grasp the Top News of the day affecting chemists and chemical engineers employed by industry (as reported by the world's top scientific and business publications).

(2) Provide ACS industry members employed by small and mid-size companies with information targeting their specific needs.

(3) Highlight Featured Articles published in scientific and business publications that help you become a better manager and scientist, and

(4) Identify and access the ACS programs, products, and services of greatest value to the Society's industry members.

The site has many rich features that allow you to comment on articles, rate them, and share or post them to other sites. The interactivity of the site was purposefully designed to allow for a continuous process of improvement through readers' comments and ratings of the various articles, features and ACS programs.

Times have changed. Once, your challenge was getting access to information. Today, you are drowning in information. We will separate the wheat from the chaff so you can quickly access the information you need to be successful. We hope you will be frank with us about where we are doing things right, and where we can improve.

Please visit the site, bookmark it and check back daily for new postings. We look forward to your participation on **www.boilthisdown.org**.

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Editor, Boil This Down  
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is  
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## WCC ARTICLE AUTHORS NEEDED

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

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

CO-CHAIRS MARGY LEVENBERG  
AND SUSAN SHIH

## YOUNG WOMEN IN SCIENCE BOOKLET

New for 2009, *Science/AAAS* in collaboration with the L'Oréal Corporate Foundation has put together a *Young Women in Science* booklet. Following last year's very successful *Women in Science* booklet, the new booklet has more exciting and inspirational stories. These new profiles, from interviews with young women at the start of their science careers, tell their stories of passion and persistence and what drives and excites them about their work in the sciences. Young girls (and boys), as well as their educators, will find fun and inspiration in these pages and learn a little about what life as a scientist is all about.

Go to **http://sciencecareers.sciencemag.org/lorealwis**

## Green Chemistry

Interested in green chemistry?

Subscribe to the Green Chemistry Program electronic newsletter, by sending a blank email to **lyris@lists.epa.gov** with the subject line "subscribe green\_chemistry [your] First-Name [your] LastName"

## 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!

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## HISTORY AND PAST RECIPIENTS OF THE PUBLIC AFFAIRS AWARD

The Public Affairs Award was established by the Public Affairs Committee of the Chicago Section of the American Chemical Society in 1982. The award was established to recognize individuals who were involved in science and public policy issues. During the years 1983–1987, the award was given annually. Beginning in 1989, the award has been presented biannually.

The award is made on the basis of outstanding activities that have advanced the public's understanding of chemistry and the chemist's concern for the effects of chemistry on public affairs. Examples of such activities include:

1. Publication of books, monographs or a series of research papers;
2. Distinguished in teaching in the area of chemistry in the public interest;
3. Public advocacy of an effective or distinguished nature;
4. Distinguished administration and organization of chemistry and public affairs activities; and
5. Significant accomplishments over a long period of time, resulting in the advancement of the area of chemistry and public affairs.

The awardee need not be a chemist or a member of the ACS, but should have been a resident of the EPA Region V during the time period for which he/she is being recognized for. Region V consists of the states Illinois, Indiana, Michigan, Minnesota, Ohio and Wisconsin.

Past recipients of the Public Affairs Award are listed below, along with their achievements.

### 1983 Dr. Carl Moore

Professor of Chemistry, Head of Department of Chemistry, Loyola Univ.; For outstanding public service, as an advisor to local governments in science and public policy.

### 1984 Dr. Ananda Chakrabarty

Research Scientist, General Electric Inc., Professor of Biochemistry, Univ. of Illinois. For obtaining the first patent for a living organism, as a bacterium for use in pollution control.

### 1985 Mr. Valdas Adamkus

Regional Administrator, Region V EPA; For outstanding administration of the regional office, and for standing strong against attempts to weaken pollution control regulations and politicize the office. Mr. Adamkus returned to his native Lithuania as president two years ago.

### 1986 Dr. James Shoffner

Senior Research Chemist, Allied Signal-UOP, presently Adjunct Professor of Science in Columbia College Science Institute; For pioneering work in establishing the Public Affairs Committee, and working with state, local and regional governments on science and public policy issues.

### 1987 Dr. Etcyl Blair

Consultant, Industry-Government Relations, Retired Vice President Health and Environmental Sciences, Dow Inc. For outstanding work in devising corporate compliance policies, and for managing analytical methodologies to provide effective pollution control.

### 1989 Dr. William Beranek

Advisor to Governor of Indiana, Head of Indiana environmental consulting firm. For work done in risk-benefit analysis and environmental improvement strategies championed nationally.

### 1991 Dr. Leon Lederman

Nobel Laureate in Physics, Director Emeritus, Fermilab, Professor of Physics, Univ. of Chicago, Illinois Institute of Technology. For speaking for science nationally and internationally, championing science funding and for being a leader in science education.

### 1993 Dr. Walter McCrone

President and Founder, McCrone Institute, Internationally known chemical microscopist, exposed Shroud of Turin and Vinland Map as forgeries. For world class work on fiber and particle identification, especially asbestos fibers, and for socially relevant contributions as President of the Board of Ada S. McKinley Community Services, one of Chicago's leading social agencies.

### 1995 Dr. Walter E. Massey

President, Morehouse College, former VP Research, Univ. of Chicago, Director, Argonne Lab, VP Academic Affairs, Univ. of California. For public service on federal, local and state boards and commissions, speaking and writing on science and public policy, and for leading efforts to maintain the viability of Argonne Lab.

### 1997 Dr. Zafra Lerman

Head of Science Institute, Columbia College; For outstanding contributions in the areas of human rights and science education. Since receiving this award, she has received numerous other awards, most recently the Jose' Vanconcelos Award for Education, presented at the U. of Witwatersrand, S.A, in November 2001.

### 1999 Mr. Bill Kurtis

Host for award winning documentaries on A & E Network; For using the medium of television to educate schoolchildren and enlighten the general public regarding the role that science and technology continues to play in shaping our civilization.

### 2001 The Hon. Harris Fawell

Congressman Fawell served 7 terms in congress, and retired in 1998. For representing the researchers and scientists in his district while in Congress. He served on the Committee on Science, Subcommittee on Energy, as well as the Committee on Education and the Workforce, Subcommittee on Employer – Employee Relations (Chair), and Subcommittee on Workforce Protection Oversight. He appeared as a speaker on a symposium at the ACS National Meeting in Chicago in 1985. He utilized members in his district to advise him on science and public policy issues.

### 2003 Dr. Inara Brubaker

For pioneering the development of programs and activities that established the agenda for a decade of state and local section cooperation on a wide range of public policy issues; for setting the performance standard for the ACS Congressional Fellowship by your significant achievements during your fellowship year of 1977; and for serving your community in various ways.

### 2005 Dr. Thomas Kucera

For continuous and diligent effort in bringing chemical science to the public through National Chemistry Week. Tom was a major force in organizing the first Chemistry Day Activity at the Museum of Science and Industry. After the successful pilot program, the program eventually became "Chemistry Week," with involvement by nearly all Sections of the American Chemical Society. Tom led the effort within the Chicago Section as Chair of the Section's Chemistry Day/Week Committee for many years.

### 2007 Lee Marek

For his instrumental work in starting up and running a teachers alliance group [over 400 teachers] called ChemWest in the Chicagoland area. He has helped run over 500 workshops/programs for teachers, students and the general public in the past 25 years. Among his awards are the Presidential Award, ACS's James Bryant Conant Award, the ACS Helen Free Award for Public Outreach, Golden Apple Award, Sigma Xi and CMA's National Catalyst Award for Teaching. Lee has been a regular on "The David Letterman Show" since 1990 doing science infotainment.

## THE UN-COMFORT ZONE with Robert Wilson

### What's Pushing Your Buttons?

What motivates you? That's the question I'd like to ask in this inaugural column on motivation. Are you motivated by fame, fortune or fear. Or is it something deeper that fans the flames inside of you. Perhaps you are like Jeanne Louise Calment whose burning desire enabled her to do something that no other human being has done before. A feat so spectacular that it generated headlines around the globe, got her a role in a motion picture, and landed her in the Guinness Book of World Records. A record that has yet to be beaten.

Jeanne Louise, however, did not initially motivate herself. It was someone else who drew the line in the sand. But, it became a line she was determined to cross.

In motivation we talk about getting outside of one's comfort zone. It is only when we are uncomfortable that we begin to get motivated. Usually to get back into our comfort zone as quickly as possible.

Born into the family of a middle-class store owner, Calment was firmly entrenched in her comfort zone. At age 21 she married a wealthy store owner and lived a life of leisure. She pursued her hobbies of tennis, the opera, and sampling France's famous wines. Over the years she met Impressionist painter Van Gogh; watched the erection of the Eiffel Tower; and attended the funeral of Hunchback of Notre Dame, author, Victor Hugo.

Twenty years after her husband passed away, she had reached a stage in life where she had pretty much achieved everything that she was going to achieve. Then along came a lawyer. The lawyer made Jeanne Louise a proposition. She accepted it. He thought he was simply making a smart business deal. Inadvertently he gave her a goal. It took her 30 years to achieve it, but achieve it she did.

Are you willing to keep your goals alive for 30 years? At what point do you give up? Thomas Edison never gave up, instead he said, "I have not failed. I've just found 10,000 ways that won't work." Winston Churchill during the bleakest hours of World War II kept an entire country motivated with this die-hard conviction: "We shall defend our Island, whatever the cost may be, we shall fight on the beaches... in the fields and in the streets... we shall never surrender."

Many of us give up too soon because we set limits on our goals. Achieving a goal begins with determination. Then it's just a matter of our giving them

attention and energy.

When Jeanne Louise was 92 years old, attorney François Raffray, age 47, offered to pay her \$500 per month (a fortune in 1967) for the rest of her life, if she would leave her house to him in her will. According to the actuarial tables it was a great deal. Here was an heir-less woman who had survived her husband, children, and grandchildren. A woman who was just biding her time with nothing to live for. That is until Raffray came along and offered up the "sucker-bet" that she would soon die. It was motivation enough for Jeanne, who was determined to beat the lawyer. Thirty years later, Raffray became the "sucker" when he passed away first at age 77.

When asked about this by the press, Calment simply said, "In life, one sometimes make bad deals." Having met her goal, Jeanne passed away five months later. But on her way to this end, she achieved something else: at 122 years old, she became the oldest person to have ever lived.

In future articles we'll examine further the ways in which motivation works. How to motivate ourselves, our employees, customers, friends, loved ones and children. I would like to get your feedback on which of these areas of motivation are of most interest to you. Please email me with your suggestions.

--

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](http://www.jumpstartyourmeeting.com).

**NEXT ISSUE is**  
for the  
October 16  
Basolo Medal Award

## 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 American Chemical Society to assist its members with writing resumes, contacting prospective employers, and providing tips on interviews.

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

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

## TASK FORCE ON EDUCATION

The ACS 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 determine areas where the Society might have a unique impact on STEM education.

## ADVERTISING INDEX

Company	Page	Telephone	URL
Columbia Analytical Services	3	520-573-1061	<a href="http://www.caslab.com">www.caslab.com</a>
Micron Inc.	4	302-998-1184	<a href="http://www.micronanalytical.com">www.micronanalytical.com</a>
Northup RTS	5	847-579-0049	<a href="http://www.toxconsultants.com">www.toxconsultants.com</a>
Mass-Vac, Inc.	6	978-667-2393	<a href="http://www.massvac.com">www.massvac.com</a>
Pro Tech Engineering	11	847-714-9214	<a href="http://www.processtechnologyengineering.com">www.processtechnologyengineering.com</a>

## CALENDAR

**September 16-18:** Intl-Conference on Thermochemical Biomass Conversion Science, Sheraton Chicago Hotel & Tower. For more information, visit <http://www.gastechnology.org>.

**September 21-25:** ACS Short Courses; 2-day courses on chemical engineering for chemists, medicinal chemistry and pharmacology, organic synthesis, process analytical chemistry, mass spectral analysis, and dispersion in liquids, suspensions, emulsions and foams; University Center, Chicago, IL; For details, go to [http://portal.acs.org/portal/acs/corg/content?\\_nfpb=true&\\_pagelabel=pp\\_article\\_main&node\\_id=271&content\\_id=CNBP\\_022319&use\\_sec=true&sec\\_url\\_var=region1&\\_\\_uuid=e88f6da7-624d-49bd-bdc9-59883d18c8a5](http://portal.acs.org/portal/acs/corg/content?_nfpb=true&_pagelabel=pp_article_main&node_id=271&content_id=CNBP_022319&use_sec=true&sec_url_var=region1&__uuid=e88f6da7-624d-49bd-bdc9-59883d18c8a5)

**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. **See this issue.**

**October 16:** 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 Peter J. Stang. **NOTE: This is a revised date from what has been previously published in the Calendar.**

**October 24:** Chemistry Day at DePaul University.

**October 28-30:** The 30th Annual Conference of the Association of Laboratory Managers will be held at the Georgia Tech Global Learning Center, Atlanta, GA. Registration deadline is September 21. Register online at [www.labmanagers.org](http://www.labmanagers.org). Visit [www.labmanagers.org](http://www.labmanagers.org) for further information.

**November 18:** Chicago Section ACS Meeting. The speaker is Mitch Jacoby, Chemical & Engineering News correspondent.

**December 4:** Chicago Section ACS Holiday Party and Meeting. The speaker is Wendy Wolbach, DePaul University.

## NCW 2009: "CHEMISTRY – IT'S ELEMENTAL!"

This year's National Chemistry Week (NCW) celebration will be October 18-24. The theme is "Chemistry – It's Elemental," in recognition of the 140th anniversary of the Periodic Table of the Elements. The 2009 National Chemistry Week edition of *Celebrating Chemistry* is now available online through the NCW home page\*; *Celebrating Chemistry* contains hands-on activities and articles geared for students in grades 4-6.

\*[http://portal.acs.org/portal/acs/corg/content?\\_nfpb=true&\\_pageLabel=PP\\_TRANSITIONMAIN&node\\_id=1033&use\\_sec=false&sec\\_url\\_var=region1&\\_\\_uuid=0555fff9-08a8-40bf-bb71-3da0afd1965f](http://portal.acs.org/portal/acs/corg/content?_nfpb=true&_pageLabel=PP_TRANSITIONMAIN&node_id=1033&use_sec=false&sec_url_var=region1&__uuid=0555fff9-08a8-40bf-bb71-3da0afd1965f)

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## BUSINESS SKILLS eLEARNING

Need to learn new business skills or brush up on your existing skills?

ACS has teamed up with Harvard Business Publishing to offer you courses that will help you hone your business skills.

Take advantage of the Harvard Business Courses with your ACS membership. The ACS Harvard eLearning library is composed of 42 courses designed to help professionals develop their business skills. The courses are fully Section 508 Accessibility compliant. The courses are also compatible across most operating systems and browsers. **For more information go to** [http://portal.acs.org/portal/acs/corg/content?\\_nfpb=true&\\_pageLabel=PP\\_ARTICLE\\_MAIN&node\\_id=1096&content\\_id=WPCP\\_012056&use\\_sec=true&sec\\_url\\_var=region1&\\_\\_uuid=19863872-907e-4e6f-aeb1-9b7c1b1895c9](http://portal.acs.org/portal/acs/corg/content?_nfpb=true&_pageLabel=PP_ARTICLE_MAIN&node_id=1096&content_id=WPCP_012056&use_sec=true&sec_url_var=region1&__uuid=19863872-907e-4e6f-aeb1-9b7c1b1895c9).