

## Malcolm Forbes to Speak about Chemistry of Skunky Beer at May Meeting

Dr. Malcolm Forbes, UNC Chapel Hill, will speak at the CSW Dinner Meeting on May 10, 2012. His talk is titled, “Skunky beer in a whole new light.” Dr. Forbes’ abstract and the dinner meeting information are located on pages 2-3.

Born in Belfast, Northern Ireland in 1960, and raised in western Massachusetts and Edinburgh, Scotland, Malcolm Forbes completed his university training at the University of Illinois at Chicago, receiving a double major B.S. degree in Chemistry and Mathematics in 1983. He did his doctoral studies in Chemistry at the University of Chicago, where he worked with the late Gerhard Closs on the study of unstable spin-polarized biradicals using time-resolved electron paramagnetic resonance spectroscopy. In 1988, his accomplishments in this area were recognized with the Bernard Smaller Prize for Research in Magnetic Resonance. After receiving his doctoral degree, Dr. Forbes was awarded a National Science Foundation Postdoctoral Research Fellowship. From 1988 to 1990 he worked at the California Institute of Technology with Nathan Lewis on interfacial charge transfer kinetics at silicon/liquid junctions.



In July 1990, Dr. Forbes joined the Department of Chemistry at the University of North Carolina at Chapel Hill and was promoted to Professor of Chemistry in 1999. He has received a number of awards, including a National Science Foundation Young Investigator Award (1993–1998), a Japan Society for the Promotion of Science Foreign Fellowship Award (1998–1999), the 2000 Sir Harold Thomson Award from Elsevier, and most recently a 2007–2008 J. W. Fulbright Fellowship. Dr. Forbes was co-Chair of the 2008 Gordon Research Conference on Electron Donor Acceptor Interactions, and he is co-Vice Chair of the 2013 Photochemistry Gordon Research Conference.

Dr. Forbes has held visiting professor positions at Sendai University (1999) and Shizuoka University (2004) in Japan, at UCLA in 2005, and was a visiting lecturer at Novosibirsk State University in Russia during his

## Nominations Being Accepted for Hillebrand Prize

*...continued on Page 3*

Nominations are invited for the 2012 Hillebrand Prize, awarded annually for original contributions to the science of chemistry by a member or members of the CSW. The Hillebrand Prize is the most prestigious honor given each year by CSW and is recognized nationally as a mark of significant accomplishment in chemistry.

The Hillebrand Prize originated in 1924 and is named for Dr. William F. Hillebrand (1853- 1925),

an internationally recognized pioneer in analytical chemistry and one of Washington’s most distinguished chemists. The prize carries an honorarium of \$2000. Many previous Hillebrand Prize winners have won numerous other national and international awards, including three who have received the Nobel Prize. The nomination letter must be limited to 1000 words. Two seconding letters may be sent, limited to a maximum of 500 words. The pack-

age should also contain a curriculum vitae, a list of publications, and a proposed citation of not more than 25 words. The nomination package should be submitted by e-mail, preferably as PDF file(s) to [csw@acs.org](mailto:csw@acs.org). Nominations will be active for three years. In accordance with the CSW Standing Rules, both the nominee and the nominator must be current members of CSW, but this restriction does not apply to writers of seconding letters.

*...Continued on Page 7*

## The Capital Chemist™



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### **2012 Officers**

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## THE CHEMICAL SOCIETY OF WASHINGTON PRESENTS: *1111th Dinner Meeting*

Thursday, May 10, 2012

ACS Headquarters, Marvel Hall

1155 Sixteenth St. NW

Washington, DC

### **Agenda**

6:00 p.m. Social / Check In

6:30 p.m. Dinner

7:30 p.m. Student Presentations

8:00 p.m. Featured Speaker, Dr. Malcolm Forbes, UNC, Chapel Hill

**COST** \$22.00 Members & guests, \$11 Students

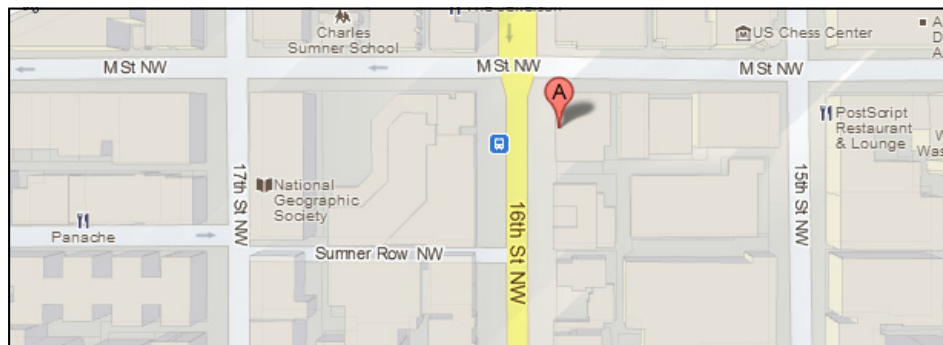
**Menu includes:** Chicken picatta and vegetable lasagna, served with garden salad, roasted potatoes, vegetable medley, fresh-baked bread, and assorted cookies. Menu will be served buffet-style.

**Reservations:** Make reservations by **Monday, May 7, 2012, 12:00 noon**, to the CSW office: [csw@acs.org](mailto:csw@acs.org) or 202-659-2650. Please designate the names in your party. The public is invited to attend. You may attend the talk only, but reservations are appreciated. **Those who make a reservation, but are unable to attend, should send a check for the cost of their meal to the CSW office.**

**Directions:** The ACS Hach Building is located at the corner of M & 16th Streets in Northwest Washington, four blocks north of the White House. Please note that 16th Street is two-way, and M Street is one-way west-bound.

**Parking:** Parking is available in nearby commercial parking garages (if you use a parking garage, please confirm that it is open past 10:00p.m., as some close earlier). **Parking is also available on the street after 6:30 pm but be aware that most parking meters are in effect until 10:00 pm and may be limited to 2 hours. (You should check the individual meters for details and payment methods as some are no longer coin-operated.)**

**METRO:** Blue/Orange Line: McPherson Square or Farragut West, Red Line: Farragut North.



## Abstract, "Skunky beer in a whole new light"

Time-resolved electron paramagnetic resonance (TREPR) data collected during the photodegradation of the iso- $\alpha$ -acids (isohumulones), the principal bittering agents from hops in beer, will be presented and discussed. From this data, the photophysics leading to free radical production as the primary step in the photodecomposition of iso- $\alpha$ -acids towards the development of "skunky" beer will be explained. During laser flash photolysis of iso- $\alpha$ -acids at 308 nm in toluene/methylcyclohexane (1:1), TREPR spectra exhibit net emissive EPR signals which are strongly spin polarized by the triplet mechanism of chemically induced electron spin polarization (CIDEP). From two potential photochemically active sites, the TREPR data show that, although the first site, an enolized  $\beta$ -triketone, is the primary light-absorbing chromophore, an uphill but efficient intramolecular triplet energy transfer process leads to Norrish Type I  $\alpha$ -cleavage at a second site, an  $\alpha$ -hydroxycarbonyl. The energy transfer mechanism is supported by additional TREPR experiments using chemically modified hop compounds. Structural parameters (hyperfine coupling constants, g factors, line widths) for the observed free radicals, obtained from computer simulations, are presented and discussed. Additional experiments are reported demonstrating that residual riboflavin in beer can sensitize the degradation process with visible light through an ionic mechanism.

The talk will also include historical information about EPR spectroscopy, the lightstruck flavor of beer, and several commercial "solutions" to the problem, past, present and future.

*Forbes, cont. from page 1*

Fulbright Scholar award period in Russia in 2008. He is currently serving a 2-year rotation as Program Director for the Chemical Structure, Dynamics and Mechanisms Program in the Chemistry Division of the National Science Foundation in Arlington, VA.

Dr. Forbes' research interests span a wide area of physical organic chemistry. His primary focus is studying free radical structure, dynamics and reactivity using a variety of magnetic resonance techniques. Current projects include the fundamentals of "spin chemistry," proton-coupled electron transfer reactions, singlet oxygen topology, and the photodegradation and chain dynamics of polymers in dilute solutions.

## Graduate Students Golanoski and Havanki to Speak at May Dinner Meeting

### Kelli Golanoski, University of Maryland

*Photooxidation of Phenols by Humic Substances: Mother Nature's Remediator*

Kelli Golanoski is a 4th year graduate student in the Department of Chemistry and Biochemistry at the University of Maryland (UMD), where she is investigating chromophoric components of natural waters under the advisement of Dr. Neil V. Blough. Kelli previously worked as an analytical chemist for Northrop Grumman Space Technology in Redondo Beach, CA after graduating from West Virginia University with dual B.S. degrees in Chemistry and Forensic Chemistry. Ms. Golanoski is the Past-President of the Graduate Student Organization at UMD and currently serves on the Board of Managers for the Chemical Society of Washington.



### Katherine Havanki, Catholic University

*A Process Model for the Comprehension of Organic Chemistry Notation*

Katherine is currently a graduate student at The Catholic University of America (CUA) and a researcher in chemical education. She received a B.S. in Chemistry (1995) from Cedar Crest College in Allentown, PA. In May 2012, she will receive a Ph.D. (with distinction) in chemical education / educational psychology from CUA. Her dissertation, titled *A process model for the comprehension of organic chemistry notation*, focuses on the cognitive processes that are used to read organic chemistry equations and employs eye tracking to investigate factors that affect these processes. Her advisor is Professor Diane Bunce in the Chemistry Department. While at CUA, Katherine has taught in the Departments of Chemistry

*...Continued on page 10*

## Call for Nominations for 2012 CSW Officers/Councilors/Managers

The annual election of Officers, Councilors and Managers of the CSW will be held in accordance with the Bylaws, in November 2012, at which time we expect to have electronic balloting for the first time. All CSW Members are now invited and encouraged to submit nominations for President-Elect, Treasurer, Councilors, and Managers. Self-nomination is acceptable. Elected members have general charge of the business and affairs of the CSW.

The current President will become Past President, and the current President-Elect will become President. Councilors serve three-year terms, as indicated below. The Treasurer's term expires at the end of 2012. A Treasurer will be elected for a two-year term. Managers serve two-year terms as indicated below. Three Councilors, three Alternate Councilors, and six Managers will be elected according to the number of votes cast for each candidate.

Nominations should be submitted to the CSW Office for receipt by June 18, 2012. All CSW members are eligible for nomination, and CSW welcomes all who are willing to participate, including those who have not previously held positions in CSW. Incumbents are eligible for nomination to the same position (if the term expires) or any other position as Officer, Councilor or Manager.

### Current Officers:

President: Robert Wiacek, Pixelligent Technologies; President-elect: Douglas Raber, GreenPoint Science, Past President: Michael Doyle, UMD; Secretary: Alan Anderson, Bow-

ie State University; Treasurer: Kathryn Hughes, NAS

### Managers

Through 2012: Walter Benson, FDA (ret); Robert Breneman, Montgomery College; Greg Brewer, Catholic U; Nicole Payne, Drug Enforcement Administration; Stefanie Sherrill, UMD; Michael Wagner, George Washington University

Through 2013: Alan Ehrlich, Stein McEwan, LLP; Catherine Fenselau, UMD; Zory Glaser, JHU; Kelli Golanoski, UMD; Ajay Mallia, Georgetown University; Wayne R. Wolf, USDA

### Councilors

Through 2012: John Malin, ACS (Ret); Kim Morehouse, FDA; John Ruth, USDA (ret)

Through 2013: Joseph Antonucci, NIST; Carol Henry, GWU; Bhushan Mandava, consultant

Through 2014: Regina Cody, NASA; Jennifer Young, ILSI HESI; James Zwolenik, NSF (ret)

### Alternate Councilors

Through 2012: Robert Barron, FDA (ret); Elise Ann Brown, USDA (ret); Daron Freedberg, FDA

Through 2013: Fred Metz, EPA; Amy Mullin, UMD; Jason Schaff, FBI

Through 2014: Philip DeShong, UMD; Monika Konaklieva, American University; Robert Wiacek, Pixelligent Technologies

### Nomination Instructions

1. Use the nomination form below, a copy of the form, or submit the requested information using a sheet of paper and labeled "Nomination Form" by mail or electronically. Send completed form or facsimile by mail to the CSW office address below, or email to [csw@acs.org](mailto:csw@acs.org).
2. For each nomination, indicate the corresponding office, name of the nominee, and the nominee's telephone number or email address, if known. **IMPORTANT:** If you have determined that the nominee is a CSW member and is willing to be a candidate, please indicate this next to the candidate's name.
3. Mail **in time to arrive by June 18, 2012** to: Chemical Society of Washington, (CSW); Attn: Chair, Nominations Committee; 1155 16th St., NW, O - 218; Washington, DC, 20036.

**2012 CSW Nominations Form** – Nominations are invited for the following offices/positions (numbers of positions to be filled shown in parentheses). President-Elect (1); Treasurer (1); Councilors, including Alternate Councilors (6); Managers (6). **For Each Nominee:** please indicate the office or position, the name of the nominee, whether the nominee is a CSW member and is willing to be a candidate, and, if known, the telephone number (including area code) and e-mail address of the nominee.

Office/Position	Name of Nominee	Willing to run (y)?	Phone No.	e-mail address



## May Anniversaries in Chemistry

May 2, 1912: BF Goodrich Co was incorporated one hundred years ago on this date.

May 3, 1892: George Paget Thomson was born on this date. Seventy five years ago, he shared the Nobel Prize in Physics with Clinton Joseph Davisson for their experimental discovery of the diffraction of electrons by crystals.

May 6, 1871: F. Victor Grignard was born on this date. One hundred years ago, he shared the Nobel Prize in Chemistry for the discovery of the Grignard reagent, which has greatly advanced the progress of organic chemistry in recent years. He shared the prize with Paul Sabatier who received it for his method of hydrogenating organic compounds in the presence of finely disintegrated metals, which has also greatly advanced the progress of organic chemistry in recent years.

May 16, 1950: J. Georg Bednorz was born on this date. Twenty-five years ago, he shared the Nobel Prize in Physics with K. Alexander Müller for their important break-through in the discovery of superconductivity in ceramic materials.

May 19, 1914: Max F. Perutz was born on this date. Fifty years ago, he shared the Nobel Prize in Chemistry in 1962 with John C. Kendrew for studies of the structure of globular proteins.

May 22, 1912: One hundred years ago, Herbert C. Brown was born on this date. He was a researcher in organoboron and carbocation chemistry and shared the Nobel Prize in Chemistry in 1979 with Georg Wittig for their development of the use of boron and phosphorus-containing compounds, respectively, into important reagents in organic synthesis.

May 28, 1887: One hundred and twenty-five years ago, Kasmir Fajans was born on this date. He established the radioactive displacement law and initiated the concept of heat of hydration of gaseous ions.

May 30, 1912: One hundred years ago, Julius Axelrod was born on this date. He was a researcher on catecholamines. He shared the Nobel Prize in Physiology or Medicine in 1970 with B. Katz and U. Von Euler for discoveries concerning humoral transmitters in the nerve terminals and the mechanism for their storage, release and inactivation.

Additional historical events can be found at Dr. May's website, <http://faculty.cua.edu/may/Chemistrycalendar.htm>.

**It's easy to become a CSW volunteer!**

**Email [csw@acs.org](mailto:csw@acs.org) about upcoming opportunities today!**



**Have a great summer!**

The next *Capital Chemist* will be published in September.

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**May 10:** Building an Innovative Research Culture: A Case Study of DNA Sequencing

**May 17:** From Cocoa Buds to Taste Buds—The Chocolate Process and Sensory Experience

**May 24:** Creating Successful Research Proposals: Tips from the Trenches

**May 31:** Pigments, Dyes, and Chemical Fingerprints in Art Conservation



## CSW is on Facebook!

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## Call for Nominations for CSW Community Service and Gordon Awards

### CSW Community Service Award

The Community Service Award recognizes outstanding service to the public by a member of the Chemical Society of Washington. The annual award, in the form of a certificate, will be presented at the December CSW dinner meeting.

A written nomination consists of a letter that describes the contributions of the nominee and why the candidate is deserving of the honor. In order to be eligible for the award, the nominee must be a member of the Chemical Society of Washington (ACS Local Section).

### Charles L. Gordon Award

The Charles L. Gordon Award is given annually in recognition of exemplary service to the science of Chemistry and to the Chemical Society of Washington. The award is given in memory of Charles L. Gordon to commemorate his years of service as managing editor of the Capital Chemist. The award, consisting of a plaque, will be presented at the December CSW dinner meeting. A written nomination should include a description of the accomplishments on which the nomination is based.

### Important Dates for Award Nominations

**June 1, 2012:** Schubert Award nominations due

**September 15, 2012:**  
CSW Community Service Award

nominations due  
**September 15, 2012:**  
Charles L. Gordon Award

nominations due  
**October 15, 2012:**  
Hillebrand Prize



*Completed nominations for the CSW Community Service Award and the Charles L. Gordon Award must be submitted by September 15, 2012. The nomination can be submitted electronically to [csnw@acs.org](mailto:csnw@acs.org). Please contact the Chair of the Awards Committee (Douglas J. Raber, [draber@verizon.net](mailto:draber@verizon.net)) if you have any questions.*



## Save The Date

### EnvironMentors National Awards Ceremony

May 23, 2012 USDA Jamie Whitten Building, 14th and Independence, SW

Are you are passionate about environmental science?  
Serve as a judge at this year's  
EnvironMentors National Fair on  
May 23rd!

<b>Schedule:</b>	9:00am	Breakfast provided
	9:30am	Judge briefing
	9:45am	Project judging period
	12:05pm	Lunch with students
	5:00-8:00pm	Awards Ceremony

EnvironMentors envisions young adult leaders from all cultural, ethnic, and socio-economic backgrounds becoming active stewards of their communities and the environment. In particular, EnvironMentors engages students under-represented in the sciences, including minorities and women. Over the course of the school year, students work with mentors to develop rigorous environmental science projects based on relevant environmental circumstances in their communities. Students are also introduced to and prepared for college. By creating a bridge that encourages these youth to explore their environmental science interests, we open potential pathways for them to move toward successful environmental science degrees and careers.

The EnvironMentors National Fair and Awards Ceremony is EnvironMentors' culminating annual event. Participating students have worked hard on an environmental research project, and represent the top three students from each of our [12 EnvironMentors chapters](#). They are eager to present their work, share what they have discovered, and compete for college scholarships.

Visit the EnvironMentors fair website to download the [Judge Registration Form](#), or email your name, address, phone number, and email address to [jsoule@ncseonline.org](mailto:jsoule@ncseonline.org) by Friday May 11th.

## Project SEED Student Applications Due May 31, 2012

This summer, CSW will once again participate in the ACS Project SEED Program, funding 10 high school students. The Project SEED program places each high school student under the direct supervision of a mentor scientist at academic or Government institutions for eight to ten weeks, where they will be involved in a scientific research project in chemistry.

If selected, students will be offered one of the following research opportunities:

- The Summer I program will provide first-time participants (rising sophomores, juniors and seniors) a fellowship award of \$2,500.
- The Summer II program will provide SEED Summer I students with an additional summer of scientific research. These students will receive a fellowship award of \$3,000.

In order to be eligible for Project SEED, students should have completed a year of chemistry class by June 2012, and should meet the financial requirements for the program.

*For more information, contact the CSW Project SEED coordinators, Dr. Walter Benson ([wbenson270@aol.com](mailto:wbenson270@aol.com)), and Dr. Ajay Mallia ([vajaymallia@gmail.com](mailto:vajaymallia@gmail.com)), or visit [www.acs.org/projectseed](http://www.acs.org/projectseed). If you have a suggestion for how to improve our CSW Project SEED program, please drop us an e-mail.*

## Reminder: Leo Schubert Award Nominations Due June 1

The Leo Schubert Memorial Award recognizes an outstanding teacher of high school chemistry in the Washington, D.C. area. The award was established in 1979 to honor Dr. Leo Schubert, a chemistry professor at American University who devoted much of his career to developing programs for high school teachers and students. The award consists of a \$500 honorarium and a certificate, which will be presented at the December CSW dinner meeting.

Nominations for the award must be comprehensive and include supporting letters as well as details about the nominee's accomplishments in areas such as innovation in teaching, writing curricula, outside teaching, papers published, involvement in science fairs and postgraduate study. A nomination form can be obtained via an e-mail request to [csw@acs.org](mailto:csw@acs.org).

Eligibility: the nominee must teach chemistry at a secondary school in the geographic region of the Chemical Society of Washington, Washington, D.C., which includes neighboring counties in Maryland and Virginia. Please contact the Chair of the Awards Committee, Douglas J. Raber, [draber@verizon.net](mailto:draber@verizon.net), if you have any questions. Completed nominations must be submitted by June 1, 2012.

### Hillebrand, Cont. from page 1

If you would like to verify the eligibility of an individual as a nominee or nominator, please contact the CSW Administrator at [csw@acs.org](mailto:csw@acs.org).

All materials must be received by October 15, 2012. The awardee will be announced before the end of the year, and the Prize will be presented at a CSW dinner meeting in March 2013.

### Upcoming Event: Emerging Research Opportunities in Physical and Applied Chemistry

June 25, 2012  
7:30am-1:30pm  
Arlington, VA

For more information, please visit [www.ncr.vt.edu/iupac-ae/meeting.pdf](http://www.ncr.vt.edu/iupac-ae/meeting.pdf).



VirginiaTech

## Summer Internship Opportunity

Want to spend the summer interacting with some of the most innovative scientists while assisting with the Green Chemistry and Engineering Conference?

The ACS Green Chemistry Institute (ACS GCI) is looking to hire a PAID intern between the months of May-August. The position will focus on developing practical business case studies on the value proposition of green chemistry and its impact to the bottom line within an organization. The intern will also coordinate event logistics, sales, marketing and communication related to the upcoming Green Chemistry & Engineering Conference in June.

Qualified candidates should have a science background and be enrolled in a four year business program or working towards an MBA, or Masters in Economics. For more information, contact ACS GCI staffer Shefali Algoo at [s\\_algoo@acs.org](mailto:s_algoo@acs.org).



ACS  
Green  
Chemistry  
Institute

## Calendar of Events

### May Dinner Meeting

May 10, 2012  
ACS Headquarters, DC  
Speaker: Dr. Malcolm Forbes, UNC Chapel Hill

### ACS Leadership Course

May 12, 2012  
ACS Headquarters, DC

### Green Chemistry and Engineering Conference

June 18-20, 2012  
Washington, DC

### 2012 International Chemistry Olympiad

July 21-30, 2012  
University of Maryland

## Register by May 7 for Free ACS Leadership Course for CSW Members: "Leading without Authority"

The Chemical Society of Washington (CSW) will support up to 20 CSW members, through a mini-grant from ACS, to participate for free in the ACS Leadership Development Course, "Leading without Authority." This is the third course in the series held by CSW since 2009, and past participants have found the courses to be very useful in their professional and volunteer activities.

**Date:** Saturday, May 12, 2012

**Time:** 1:00pm – 5:00pm

**Location:** ACS Headquarters (Marvel Hall), 1155 Sixteenth St, NW, Washington, DC, 20036

**Apply by May 7 to participate for free!** The course will be free for 20 participants selected by CSW, and open for the regular fee to anyone else (\$150 for ACS members, \$300 for non-members). **To apply**, send an email to Jennifer Young ([jyoung@ilsi.org](mailto:jyoung@ilsi.org)) by 11:59 pm on **May 7**, including your contact information, a paragraph explaining how you would benefit from the course, and a short description (bio/CV/resume) including your technical/scientific experience and participation in ACS or CSW activities or other volunteer organizations.



### Context of the Course:

As an experienced leader in a volunteer organization like ACS (or in your professional experience), you know that one of the biggest challenges in leading a project, committee, and local section is that you have no direct authority over the other volunteer members. As a volunteer leader you may have experienced:

- The challenge of having to influence people who have different styles or views.
- Needing to get a task force organized and committed to a project but find they aren't cooperating and they're putting up barriers.
- Kicking off a new project, knowing what needs to be done but unable to get the buy in and support to carry it out.
- The challenge of getting new volunteers to participate because they are too busy with other professional and personal obligations.

Leading in an organization comes with many challenges, not the least of which is having no direct authority over the team members. Learn practical tools to help you gain cooperation without formal authority and motivate your colleagues to accomplish important goals.

### After completing this program, you will be able to describe:

- When the use of "influencing skills" is needed, when they're not, and when they will and won't be effective.
- How to understand and use the two dimensions of influence: the "business" side and the "relationship" side.
- Frameworks to understand what really counts for the people you want to engage, and strategies you can use to help them get what they want.
- An approach to establishing and building a relationship of trust with someone whose help you need to get things done in your organization.

### Who should participate?

- A new graduate about to enter the workforce
- An up and coming leader
- A developing leader with experience
- A newly involved CSW member!

For more information or questions, please contact Jennifer Young ([jyoung@ilsi.org](mailto:jyoung@ilsi.org)) or [csw@acs.org](mailto:csw@acs.org).



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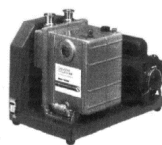
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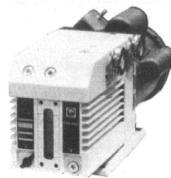
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You can view both of these opportunities by going to the link below.

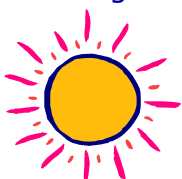
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We provide more qualified resumes because of the highly targeted technical audience.

info -- [www.mboservices.net](http://www.mboservices.net)

The Capital Chemist will not be published in June, July, and August, but please keep up with your CSW news by visiting our website at [sites.csw.acs.org](http://sites.csw.acs.org)!



**Have a great summer!**

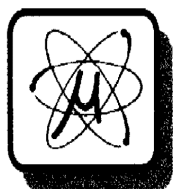
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## Innovation, Jobs, Sustainability -The Role of Green Chemistry



16th Annual

## Green Chemistry & Engineering Conference

June 18-20, 2012

### Keynote Speakers:

- Dr. Marcel Wubolts
- Dr. Richard Wool
- Dr. Bassam Shkhashiri

### Conference Chairs:

- Dr. Michael Lefenfeld
- Dr. Roger Sheldon
- Dr. Robert Peoples

The 16<sup>th</sup> Annual Green Chemistry & Engineering Conference will be held, June 18-20, 2012, in Washington, D.C. at the Marriott Wardman Park Hotel. More than 20 session topics will cover a broad range of green chemistry and green engineering topics and initiatives. Some of the Conference highlights will include:

- Monday:** Keynote address by Dr. Richard Wool, Presidential Green Chemistry Challenge Awards Ceremony (invite only) and Welcome Reception
- Tuesday:** Keynote address by ACS President Dr. Bassam Shkhashiri and Dr. Marcel Wubolts, poster lunch and ACS GCI Industrial Roundtable poster reception, Business Plan Competition session
- Wednesday:** Keynote address by Dr. Manian Ramesh, virtual hybrid session streamed worldwide over the internet, Business Plan Competition winners announced
- Thursday:** Student workshop (open to registered attendees)

Interested in volunteering for the GC&E Conference? We need your help! Volunteers will

- Attend technical sessions while helping with A/V issues in the room
- Assist at the registration desk
- Assist with office tasks during June at the ACS Green Chemistry Institute® in Washington, DC (at ACS headquarters)

If you're interested in volunteering, please email [volunteer@acs.org](mailto:volunteer@acs.org) or call the ACS Green Chemistry Institute® at (202) 872-6102 to request a volunteer application.

There will be a free job information session for job seekers; this is not a job fair. A **NEW virtual hybrid session "Advancing Global Green Chemistry – The Role of Government, Business, and Academia"** will be streamed live from Washington DC over the internet to the global green chemistry community on Wednesday June 20, 2012, at 9:30 AM – 11:45 AM (EDT). The hybrid panelist Q&A session includes: Dr. Cheryl Martin, ARPA-E; Deputy Director for Commercialization; Dr. Carl Wieman, Noble Prize winner, Physicist, OSTP, The White House; and Mr. Adam Monroe, North American President, Novozymes. The virtual audience can participate in real-time in the streamed session by submitting questions via Twitter, Facebook, or email for the panelists. Registration information for the hybrid session will be available soon at [www.gcande.org](http://www.gcande.org).

### Grad Students, Cont. from page 3

and Education. She was a member of the evaluation team for the national dissemination of the Process Oriented Guided Inquiry Learning (POGIL) program and co-authored a chapter for *Process-Oriented Guided Inquiry Learning*. She has presented several papers and posters at national meetings, led three workshops at national meetings on surveying and statistical analysis, and participated in the American Chemical Society Publications Graduate Student/Postdoc Summer Institute (2011). Her current research interests focus on learning processes in organic chemistry education, namely, how reading is affected by cognitive load, notation style, molecule orientation, and visual complexity. She is also interested in the effective implementation of technology (e.g. mobile applications and online courseware) both in and out of the classroom; the use of technology as a tool for educational research; and the development of mobile applications to support meaningful learning in chemistry.

## The Retired Chemists Group

offers a social program of luncheons and outings available to all.



[csw.sites.acs.org/rcg.htm](http://csw.sites.acs.org/rcg.htm)