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May 2009



Jennifer Sample, JHU APL Senior Scientist, Will Highlight Joint CSW/YCC May Dinner Meeting

Join CSW and the Younger Chemists' Committee for a joint dinner meeting, featuring a presentation by Dr. Jennifer Sample entitled "Nanomaterials: a Chemist's Perspective." The meeting will be held on Thursday, May 14, at Far East Restaurant in Rockville, MD. Please see details on page 2.

Jennifer received a bachelor's degree from Penn State and her PhD in Physical Chemistry from UCLA, where she studied size-dependent properties of nanomaterials such as superconductivity as well as nanoparticle synthesis. Dr. Sample joined JHU Applied Physics Laboratory in 2001 as a Senior Scientist and works on applying nanomaterials and nanotechnology to homeland protection and space exploration applications. She teaches nanomaterials and introduction to nanotechnology in JHU's EP (engineering for professionals) continuing education program (since 2004). Dr. Sample holds 3 patents and has published more than 20 papers, and holds the JHU APL 2005 Hart Prize for excellence in development and the JHU EP 2009 award for excellence in teaching.

Please see Dr. Sample's JHU web site profile at: http://ptesrv.apl.jhu.edu/profiles/jennifer-sample.

Use Twitter, Facebook to Plan Your August ACS National Meeting in DC

A Brief Guide to Understanding Social Networking

CSW, in preparation for the 238th ACS National Meeting, will be utilizing two social networking sites, Twitter and Facebook, to welcome and help attendees during this convention. We have prepared a series of answers for frequently asked questions (FAQ) to help those unfamiliar with these applications. If you have ever done quantum mechanics, you can do social networking!

- Social Networking? Facebook? Twitter? I don't know what they are and they make me angry! Social networks are web services which create online communities based on shared interests or activities, allowing users to interact with one another through a variety of means, such as e-mail and instant messaging. It was recently reported that social networking sites, such as Facebook and Twitter, sites have become more popular than email.
- So what is this Twitter that I have been hearing about lately? Twitter is a micro-blogging service that allows users to send and receive text messages, up to 140 characters in length. Updates are delivered to other users who have signed up to receive them and are displayed on those user's profile pages. Even John McCain, who claimed an inability to use e-mail, has become a twit.
- Mind your manners! That man is a U.S. Senator. A twit is an affectionate term used by Twitter users to describe themselves. Another common term is tweets, which refers to the short messages sent by Twitter. (continued, page 8)

Volunteers Needed for the National Meeting Host Committee

Volunteers for National Meeting CSW will once again be the host section for the Fall 2009 ACS National Meeting, August 16-20, in Washington. Volunteers to help with host section activities are needed for the following:

Hospitality Booth in the DC Convention Center

College Students for Paid Jobs with ACS at the DC Convention Center

Writing and Researching for the Special Issue of *The Capital Chemist*

Planning Receptions for High School Teachers and Visiting Chemists

Special Projects.

Please send your name, phone number, email and indication of interest to csw@acs.org.

The Capital Chemist™



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CSW Web site: www.csw-acs.org *or* http://membership.acs.org/W/WashDC/

Claims for missing issues should be sent to CSW at the above address. Member change of address should be sent to ACS, PO Box 3337, Columbus, OH 43210; phone 800-333-9511; e-mail: service@acs.org; or edit member profile online at www.acs.org.

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THE CHEMICAL SOCIETY OF WASHINGTON PRESENTS: 1088th Dinner Meeting

Thursday, May 14th Far East Restaurant 5055 Nicholson Lane Rockville, MD 20852 6:00 pm SOCIAL HOUR (Cash Bar) 7:00 pm DINNER COST \$26.00 Members and Guests \$13.00 Students

Banquet Menu: Appetizers: Spring roll, shrimp toast, steak on a stick. Main dishes: Far East Shrimp, asparagus beef, cashew chicken, Szechuan string beans, vegetable delight, steamed and fried rice. Toffee

Far East Restaurant does not have its own web site, but the following is a Montgomery County business directory listing:

http://www.countysurf.com/md-montgomery-rockville-restaurant-chinese.html

8:00 p.m. Featured Speaker: Dr. Jennifer Sample, Johns Hopkins University, Applied Physics Laboratory

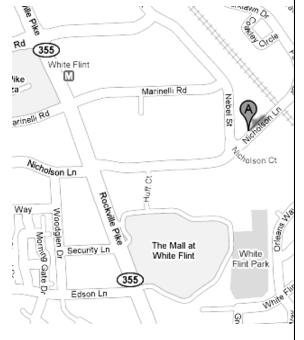
Title: "Nanomaterials: A Chemist's Perspective"

Make reservations by **Monday 12:00 noon, May 11, 2009,** to the CSW office: 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: From I-270, take Montrose Road exit east; turn right onto 355, then left on Nicholson Lane. From I-495 outer loop, take Exit 34, north on 355, then right onto Nicholson Lane. From I-495 inner loop, take Exit 36, north on Old Georgetown Rd., then right directly onto Nicholson Lane. **METRO:** White Flint station on the red line. (Restaurant site is marked with an "A", right.)

Abstract: This talk will provide a brief



introduction to nanotechnology and nanomaterials, especially emphasizing the intimate relationship between chemistry and nanomaterials. Nanomaterials are frequently created by chemical processes known as bottom-up synthesis, in addition to physical processes such as milling or deposition. For example, nanoparticles are often prepared via reduction of metal ions or thermolytic decomposition of an organometallic precursor in the presence of a passivating ligand. The talk will explore these types of bottom-up syntheses, as well as self assembled monolayers, self assembly, and chemical aspects of nanolithography. Toxicity of nanostructures, current drivers for research in nanomaterials today, and projections for the future will also be discussed.

Call for 2009 CSW Award Nominations for Teaching and Service

CSW Community Service Award

This CSW award is given each year in recognition of outstanding service by a CSW member to the public. The award, a certificate, will be presented at the December CSW dinner meeting. Written nominations should describe why the candidate is deserving of the honor. Please send nominations by **September 15, 2009.**

E. Emmet Reid Award

The E. Emmett Reid Award is given annually by the Middle Atlantic Region (MARM) of the ACS to honor excellence in teaching chemistry at a liberal arts college which does *not* confer the Ph.D. degree. The award consists of a \$250 honorarium and a plaque. Nominating documents should include the nominee's curriculum vitae, list of publications, and an evaluation of the nominee's achievements as a teacher. These documents should clearly demonstrate the candidate's attributes including, but not necessarily limited to:

- ♦ Quality of the candidate's teaching;
- ♦ Quality of research studies undertaken with students;
- ♦ Curriculum development work;
- ♦ Publications with student co-authors;
- ♦ Ability to inspire/ challenge students;
- ♦ Extra-curricular work in chemistry;
- ♦ Courses taught, presentations made, awards received.

Up to three seconding letters, while not mandatory, may be included. Please submit materials by **November 2**, **2009**.

Leo Schubert Award

The Leo Schubert Award recognizes outstanding teaching of high school chemistry. The award was established in 1979 to honor Dr. Leo Schubert who died that year. Dr. Schubert devoted much of his career to developing programs for high school teachers and students. The award consists of an honorarium (\$500) and a certificate, which will be presented at the December CSW dinner meeting. Nominations for the award must be comprehensive and include details such as innovation in teaching, writing curricula, outside teaching, papers published, involvement in science fairs and post graduate study. Please send nominations by June 1, 2009.

Charles L. Gordon Award

The Charles L. Gordon Award recognizes exemplary service to the Science of Chemistry and to the Chemical Society of Washington. Charles Gordon was an editor of *The Capital Chemist* for many years and served CSW in many ways. The award, a plaque, will be presented at the December CSW dinner meeting. Written nominations should include a description of the accomplishments on which the nomination is based. Please send nominations by **September 15, 2009.**

All nominations should be mailed or emailed to CSW at the contact information listed on page 2. All winners and their guests (with the exception of the E. Emmett Reid Awardee,) will be the guests of the CSW at the December CSW dinner meeting.



CSW President Carol Henry presents the 2008 Hillebrand Award to Michael Kurylo at the CSW March Dinner Meeting.

ACS/CSW Leadership Course Scheduled for November

Mark your calendars! Saturday, November 7, CSW will be hosting a 4-hour leadership course from the ACS Leadership Development System, called "Engaging and Motivating Volunteers". The course is aimed at giving you practical tools for engaging and motivating volunteers, which you can use both in your professional career as well as in your volunteer activities, like the CSW. The workshop is especially targeting newly involved members of CSW. Information about how to apply and participate will be forthcoming in a future issue of The Capital Chemist..

Call for Nominations for 2009 CSW Officers/Councilors/Managers

The annual election of Officers, Councilors and Managers of the CSW will, in accordance with the Bylaws, be held by a mail ballot in November 2009.

The current President will become Past President, and the current President-Elect will become President. Councilors serve three-year terms, as indicated below. The term of the Secretary expires at the end of 2009. A Secretary 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.

All CSW Members are now invited to submit nominations for President-Elect, Secretary, Councilors, and Managers. Self-nomination is acceptable. These nominations largely determine who will be candidates, since the CSW Bylaws state: "The candidates shall be selected in the descending order of the number of nominations received."

Nominating ballots should be submitted to the CSW Office for receipt by June 15, 2009. members are eligible for nomination. 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: Carol J. Henry, GWU; Secretary: Jason E. Schaff, FBI Labs; President-Elect: Carol J. Henry, GWU; Treasurer:

Dorothy Zolandz, NRC; Past President: Monika Konaklieva, AU.

Managers, Through 2009:

Catherine C. Fenselau, UMD; Zory Glaser, JHU; Joshua Goldberg, Nath & Associates; Anne R. Leslie, EPA (Ret.); Elaine Shafrin, NRL (Ret.); Wavne R. Wolf, USDA.

Through 2010:

Tina Bahadori, ACC; Walter Benson, FDA (Ret.); Jennifer Breidenich, JHU; Daron Freedberg, FDA; Kenneth Kirk, NIH; Nicole Payne.

Councilors

Through 2009: Robert P. Barron, FDA (Ret.); Elise Ann Brown, USDA (Ret.); Kim Morehouse, FDA.

Through 2010: Joseph M. Antonucci, NIST; Regina J. Cody, NASA; N. Bhushan Mandava, Consultant.

Through 2011: Douglas Raber, Greenpoint Science; Noel Turner, NRL (Ret.); James Zwolenik, NSF (Ret.).

Alternate Councilors

Through 2009: Marilyn Jacox, NIST (Ret.); Two Vacancies. Through 2010: Jerainne Johnson, NIST; Fred Metz, EPA (Ret.); John Ruth, USDA (Ret.).

Through 2011: Philip DeShong, UMD; Carol Henry, GWU; Jennifer Sample, JHU.

Nomination Ballot Instructions – Please Read Carefully

- 1. Use this nomination form, a copy of the form, or write the requested information on a sheet of paper and label it "Nomination Ballot".
- 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 by marking "y" for yes next to the candidate's name.
- 3. DO NOT sign the Nomination Ballot. If your signature appears on the ballot it will be invalidated.
- 4. Place the ballot in an envelope, sign your name on the outside and print your name underneath.
- 5. Mail in time to arrive by June 15, 2009 to: Chemical Society of Washington, (CSW); Attn: Chair, Nominations Committee; 1155 16th St., NW, O – 218; Washington, DC, 20036.

2009 CSW Nomination Ballot – Nominations are invited for the following offices/positions (numbers of positions to be filled shown in parentheses). President-Elect (1); Secretary (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 (indicate "y" under "willing to run") and, if known, the telephone number (including area code) and e-mail address of the nominee. Kindly write/print CLEARLY.

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

A Note on CSW Elections from President Carol Henry

Dear CSW Colleagues,

As you will note on page 4 under the current officers, I will be serving as President for another year. The position of President-Elect was vacant at the beginning of 2009 and, as specified in the CSW By-laws, the Board of Managers appointed me to serve another term. I am honored by this appointment. However, the CSW Board of Managers and I will be working diligently this year to foster new leadership and new approaches for CSW. I would encourage you to contact us with suggestions, not only about potential leaders, but about ways to improve our section to benefit our members. Thank you and we look forward to hearing from you. Regards, Carol



ACS Publications from DC Area Research Groups

This feature of *The Capital Chemist* is a compilation of selected publications in ACS journals, appearing recently, from area institutions.

Ryan G. Brennan†‡, Savelas A. Rabb*‡, Marcia J. Holden§, Michael R. Winchester‡ and Gregory C. Turk‡ (2009) "Potential Primary Measurement Tool for the Quantification of DNA," *Anal. Chem.*, Article ASAP, Publication Date (Web): April 3, 2009. († - The George Washington University, ‡ - Analytical Chemistry Division, NIST, § - Biochemical Science Division, NIST.

John A. Tossell (2009) "H₂CO₃(s): A New Candidate for CO₂ Capture and Sequestration," *Environ. Sci. Technol.*, **43** (7), pp 2575–2580. (Department of Chemistry and Biochemistry, University of Maryland, and The Renewable Energy Institute, George Washington University.)

Matthew B. Dowling‡, Jae-Ho Lee§ and Srinivasa R. Raghavan*‡\$ (2009) "pH-Responsive Jello: Gelatin Gels Containing Fatty Acid Vesicles," *Langmuir*, Article ASAP, Publication Date (Web): March 24, 2009. (‡ - Fischell Department of Bioengineering and § - Department of Chemical and Biomolecular Engineering, University of Maryland.)

Project SEED Applications Due for Summer 2009

CSW is searching for interested students to work with volunteer scientist mentors in 8-week summer internships for 2008. Ten volunteer mentor chemists from around the Greater Washington area (VA, MD, DC) are waiting to have a student assigned to them for ~8 weeks of work in the laboratory. internships will include hands-on scientific research in chemistry and related fields. Any CSW member or high school teachers, counselors, or family may recommend interested, bright, economically disadvantaged students for the summer internships. Each student will receive \$2,800 for the 8-10 weeks internship. These internships are financially supported by CSW and ACS Project SEED. See www.acs.org/projectseed for details.

CSW can send the blank form (student financial statement for Summer I or II) and other information to the teacher or student or parents by e-mail. Contact Walter R. Benson, Ph.D., Local Coordinator, Project SEED, CSW Education Committee, at WBenson270@aol.com; or Kristy Martin, CSW Administrator, at CSW@acs.org. The deadline for CSW to receive the completed form is May 31. A completed form will contain information on the student, parents (names, family income, w-2 or other official document on income, signature) and the teacher.



Chem-Mystery
A possibly amusing
amalgamation of chemistry,
wordplay and trivia

ACROSS

- 1. 95 for Am, 100 for Fm
- 5. Tandem technique
- 6. 21st century Nobelist
- 7. Circuit design technique DOWN
- DOWN
- 1. ACS div.
- 2. Reducing agent
- 3. NRC org. in Alberta
- 4. Volunteer org.?

Chem-Mystery crosswords use abbrs. liberally.
Solution, page 6.

1	2	3	4
5			
6			
7			

Retired Chemists' Group May Luncheon

The Smithsonian Naturalist Center, Leesburg, VA, and The Tuscarora Mill Restaurant will be the sites for the Retired Chemists' Group Luncheon on Wednesday, May 6. Details for this event are posted on the CSW web site, www.csw-acs.org. Additionally, information is present for proposed luncheon meeting in June and October.

Chem-Mystery Solution

Г	\mathbf{T}	d	\mathbf{q}^{r}
N	N	E	Ł,
В	I	С	, C
O	N	$\mathbf{T}^{^{1}}$	٧

DC Area Chemistry Seminar Schedules

Listed below are chemistry-related seminar schedule web sites from area universities, that were up-to-date as of press time. More will be posted as they become updated. Contact the department to find out about general public admission, directions to campus, and parking. *Viewing the PDF? Just click!*Georgetown Chem: http://chemistry.georgetown.edu/news/seminars.html

GMU Chem: http://www.gmu.edu/departments/chemistry/seminar/seminar_spring2008.html

GWU Biochem: http://www.gwumc.edu/biochem/seminars.html
GWU Chem: http://www.gwu.edu/~gwchem/seminars.cfm
Maryland Biotechnology Institute: http://www.umbi.org/home.php
Maryland Chem: http://www.chem.umd.edu/seminars/index.php
Maryland Chem Eng: http://www.chbe.umd.edu/events/seminars.html
Maryland Chemical Physics:

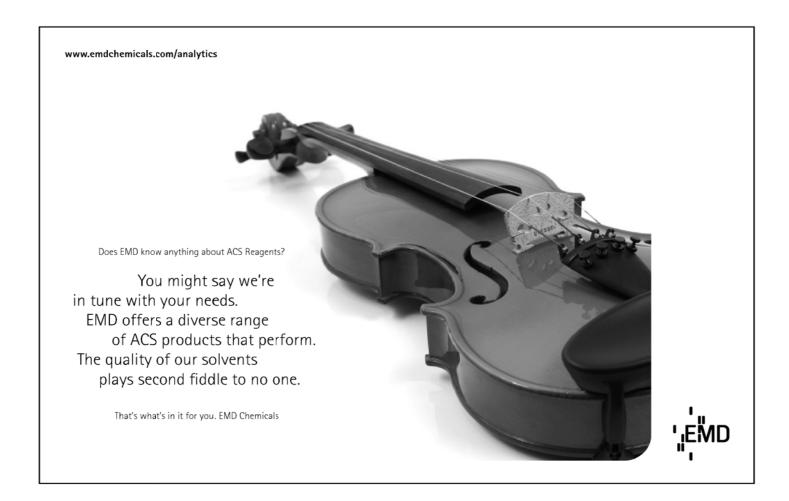
http://www.chemicalphysics.umd.edu/8_courses.htm

DC Area Chemistry Seminars: Editor's Choice

Check web sites for times and locations.

Maryland Chem Eng: Dr. Anneke Levelt Sengers, Chemical Science and Technology Laboratory, NIST: "A Gas That Sinks in a Liquid: The First Helium Experiment Published by Kamerlingh Onnes," May 5.

Maryland Chem: Professor Michael Hecht, Princeton University: Title TBA, May 5.



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Please visit www.ida.org to learn more about us. To apply, e-mail your resume to http://jobs-ida.icims.com/jobs/1223/job, specifying Capital ChemistIn addition to openings for PhDs we also have paid summer internships for rising seniors and grad students. IDA is proud to be an equal opportunity employer.

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There are two important ways to recruit through our services. One is to place a print ad in the Capital Chemist. The other is to place a web site ad reaching out to 40,000 ACS members. We recommend using both low cost methods.

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Twitter, Facebook FAQs Explained (continued from page 1) A twit sends tweets using Twitter.

- Alliteration aside, how is Twitter useful? Users can, if they choose, receive tweets via their cell phone as a text message, avoiding the internet altogether, and allowing large groups of people to be connected in real time. For example, the following message could be sent to users during the conference, appearing on their cell phones as "CSW_ACS_238th: The 238th ACS National Meeting will be held in Washington DC on Aug. 16-20, 2009" (CSW_ACS_238th is the username that identifies the source of the message).
- OK then, what is Facebook? Facebook is a social networking website which allows a user or a group to create an online profile. Other users and groups can then be as added as followers, allowing them to view your profile, as well as receive messages and updates. Facebook offers a number of features on the profile page, such as a Wall (a space on the profile page that allows other users to post messages), Status (allows a user to inform others of the user's whereabouts and actions, very similar to Twitter), Photos (where a user can upload photos and create online photo albums), and Events (where a user can inform others about upcoming events).
- How is that different from a website? In the presentation of information, they are equivalent. The advantage of Facebook is that updates to a profile page are automatically sent to each group member's profile page.
- I'm still not convinced; how else is Facebook useful? A group can be created and used for discussions and event planning, enabling users to share information and discuss specific subjects. In addition, a group has various privacy setting, limiting information to those who have been allowed to join. And as with Twitter, applications exist that allows users to receive messages via their cell phone.
- Sounds good; anything else I should know about these social networking sites? Yes, both Twitter and Facebook are free services. However, standard text message fees may occur if you decide to receive tweets through your cell phone.

And that is it, social networking defined in a nutshell. And nowhere near as hard as learning the Krebs cycle.

Twitter Profile Page: http://twitter.com/CSW_ACS_238th Facebook Profile Page: TBD

Use the CSW Web Site!

Each edition of *The Capital Chemist* is available at the CSW web site, www.csw-acs.org, on about the 20th of each month preceding the month of that issue. CSW members can find out about the next month's dinner meeting in advance by viewing *The Capital Chemist* in PDF format online.

The CSW web site includes links to other information on:

- Chemistry education
- Historical Events in Chemistry, compiled by Dr. Leopold May
- The CSW Retired Chemists' Group
- Awards, meetings, activities careers, other CSW notices
- Contact information for CSW officers

The site also contains a link to a sparkling new web site design. Follow the link and send your comments to the webmaster.

