

THE OCTAGON



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Lehigh Valley Section of the American Chemical Society

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October Meeting Announcement:



798th LVACS Meeting:
The DaVinci Science Center
Wednesday, October 24,
6-8 PM

Celebrate National Chemistry
Week with LVACS at the DaVinci
Center!

Kids - Bring your parents or grandparents!

Activities for kids and private open access to the
Science Center for members and
their families!



Poster Contest!
Activity Patches!
Goodie Bags!

Kids: Make a National Chemistry
Week Poster and get a prize!
Complete Activities and earn a
Chemistry Activity Patch!

Goodie bags for the kids will be available featuring Moles
and all kinds of cool chemistry stuff!

No kids to bring? Come anyway! - the Da Vinci center
is fun for all ages.

Snacks and beverages will be provided.

RSVP by October 15 to Michelle Jones-Wilson

mjwilson@po-box.esu.edu, please provide number of children
attending and youth t-shirt sizes.

See later pages in this newsletter for activity information
including poster contest rules and information and Activity
Patch information.

November Meeting Announcement:

799th LVACS Meeting:
Lehigh University

Date: Wednesday, November 14

Location: Asa Packer Dining Room of the Lehigh
University Center.

Reception: 6:00 PM

Dinner: 6:30 PM

Meeting: At the conclusion of dinner ~7:30 PM

Talk: At the conclusion of the meeting ~7:45 PM

Menu: Meat and vegetarian buffet featuring maple whiskey
glazed chicken and Yankee pot roast with salad, mixed
vegetables, baked potato, and old fashioned apple pie for
dessert

Cost: \$20.00 members and guests; students and retirees
\$10.00

Contact: JoAnn Desalvatore at (610) 758-3471 or
jmd207@Lehigh.edu. Reservations must be booked by
close of work on November 5th. Due to charges to
LVACS uncanceled reservations will be billed to the
member.

Directions: consult the map and directions on the website
<http://www3.lehigh.edu/about/maps/default.asp>

Speaker: James J. Bohning, Department of Chemistry,
Lehigh University

James J. Bohning is professor of Chemistry Emeritus at
Wilkes University, where he was a faculty member from
1959 to 1990. He served there as chemistry department
chair from 1970 to 1986 and environmental science
department chair from 1987 to 1990. He was chair of the
American Chemical Society's Division of the History of
Chemistry in 1986, received the Division's Outstanding
Paper Award in 1989, and has presented more than 45

papers before the Division at national meetings of the Society. He was on the advisory committee of the Society's National Historic Chemical Landmarks Program from its inception in 1992 through 2001, and is currently a consultant to the committee. Beginning in 1985 he developed the oral history program of the Chemical Heritage Foundation in Philadelphia, and was the Foundation's Director of Oral History from 1990 to 1995. From 1995 to 1998 he was a science writer for the News Service group of the American Chemical Society in Washington, D.C. In May 2005 he received the Joseph Priestley Service Award from the Susquehanna Valley Section of the American Chemical Society. He is currently a Visiting Research Scientist and CESAR Fellow at Lehigh University, where he is working on a biography of Eckley Brinton Coxe.

Talk: Madder on the Monacacy: Eighteenth-century Moravian dye works in Pennsylvania

When Moravian missionaries settled in 1741 on the banks of the Monacacy Creek in a town they named Bethlehem, they quickly developed a complex of more than 30 industries that included mills, tanneries and dye houses. Using natural materials such as indigo, madder, logwood and fustic, the Moravians dyed locally made fabrics, especially wool and linen, for almost a century before operations ceased. A 2007 grant from the Commonwealth of Pennsylvania will be used to stabilize the ruins of the original building, which may be the last remaining dye house of its age in the country.

2007-2008 LVACS Meetings

January - Cedar Crest
February- Muhlenberg
March 21- DeSales-
High School Teachers Night
April - Moravian
Student Awards and Poster Session
May - East Stroudsburg - Pub Night

September Meeting Minutes

The 797th meeting of the Lehigh Valley section of the American Chemical Society was called to order on Thursday, September 20, 2007 at 7:46 pm by Treasurer John Freeman at Lafayette College.

The first announcement was that the 15 year awards will be presented at the next meeting at DaVinci Center on October 24th.

Nominations are now open for officers for the section for 2008. Elections will be held in November. Contact any current

officer to submit nominations.

Councilor's report: Carol Libby – the full report will appear in *The Octagon*. The 3 main topics are:

1. There is a proposal to make students full members in the ACS.
2. A new website will debut September 30 – check it out at acs.org.
3. There are funds available if we would like to try and startup Science Cafes in conjunction with *Nova*.

Treasurer's report: John Freeman – the section is solvent. We currently have 2480.84 in the checking account and will receive 1800 from national as councilor reimbursement.

Professor William Miles of Lafayette introduced our speaker for the evening, Joel P. Schneider from the University of Delaware. The title of his talk was **De Novo Designed Peptide-based Materials**. More details of his work appear in the September issue of *The Octagon*.

The meeting was adjourned at 8:55 pm. Next meeting to be held at Da Vinci Center.

Respectfully submitted,
Chester Crane

Councilors Report

234th ACS National Meeting, Boston, MA, 8/19-23, 2007
Submitted by Carol Libby

Pam Kistler and I represented the Lehigh Valley Section of the ACS at the recent national meeting. Our main duty was to participate in the Council meeting, but we each spent at least a day involved in committee work. Pam is a consultant to Membership Affairs and I am a member of the Local Section Activities Committee and a liaison to the Committee on Minority Affairs.

The Council is the ACS's representative body, with the vast majority of councilors representing either local sections or technical divisions. The business of Council involves hearing committee reports, voting on matters that have passed through the society's committee structure, and hearing about ACS matters from the ACS President, Executive Director, and Board of Directors.

Here are some selected highlights from the Council meeting:

Elections: Our own Pam Kistler was nominated for the Council Committee on Nominations. Although Pam was not elected, it was an honor to have a Lehigh Valley Councilor nominated to serve on this important committee.

The candidates for President-Elect 2008 were announced as follows: Thomas H. Lane, Dow Corning Corporation, Midland, MI, Howard M. Peters, Peters, Verny, LLP, Palo Alto, CA

All ACS members will be receiving a ballot in the mail

soon.

Petitions: The Council considered four petitions for ACS bylaw changes. Of particular interest is the Petition on Membership Categories, which represents a comprehensive revision of the qualifications required for ACS membership. As proposed, undergraduate students studying the chemical sciences who currently join the ACS as "Student Affiliates" would become "Student Members" of the society and become members of their local section. They would continue to receive discounted dues. Our college "Student Affiliate Chapters" would become "Student Chapters." Student members would be able to vote in all ACS elections, local and national, but not hold national office. This petition comes in response to a consensus that the qualifications for ACS membership are too restrictive, cutting out students and professionals whose work supports the ACS vision of "improving people's lives through the transforming power of chemistry." Currently when Student Affiliates obtain a bachelors degree in the chemical sciences they have to reapply for membership, which many do not do. The idea is to bring students into the ACS family early, as they establish their professional identity. It is expected that having student members will allow this younger generation of chemists to contribute their energy, vision, and leadership to local sections, as well as the greater ACS society, as we move into the 21st century. The Council votes on this petition to broaden membership categories at the spring 2008 Council meeting.

Numbers, ACS National Meetings, etc.

* The Committee on Membership Affairs reported that as of July 2007, the ACS total membership (>160,000) is 1,100 ahead of that at the same date last year.

* Over 15,300 attended the fall national meeting in Boston. The exhibition and most of the meeting sessions were held at the brand new Boston Convention Center in the South Boston Seaport area, which is being developed as a new commercial, residential, and tourist neighborhood. While the convention center is wonderful, most attendees were housed in central Boston hotels and were treated to the vagaries of Boston traffic while being bused across town. We were assured that by the time of the next Boston National Meeting (2010 there will be many hotels in the South Boston Seaport area for the convenience of attendees.

* The spring 2008 National Meeting will be held in New Orleans. Looking ahead, the ACS has pulled out of Chicago and New York for the August 2011 and September 2012 meetings due to logistical and financial issues. The 2011 meeting is expected to be in Denver.

* A special discussion item was put on the Council agenda. The discussion focused on ACS policy development and advocacy efforts. Excited by the success of the ACS in lobbying the Congress and President for passage of the "America Competes Act," signed 8/9/07, which authorizes more

than \$43 billion in new funding over the next three fiscal years to boost federal investment in basic research in the physical sciences, expand math and science education programs at the K-12 and university levels, and revitalize policies that encourage innovation, ACS President Katie Hunt framed the discussion by posing three questions: 1) How can ACS encourage more members to participate by bringing their expertise to the development of more targeted public policy positions? 2) What can ACS do to increase member involvement in public policy advocacy? 3) How can ACS be a more effective leader in policy activities in the broader science and technology communities? Councilors entered into a robust exchange, offering several useful comments and suggestions, one of which was for individual members to join LAN, the Local Action Network. After enrolling at <http://acswebcontent.acs.org/government/action/index.html> members receive timely Legislative Action Alerts via e-mail urging them to contact their legislators on issues of concern to ACS members. Sample letters are included to make this easy to do.

* The ACS's web presence is being overhauled to provide a unifying global navigation and dramatically improved user experience. We were told that the date for the launch is September 30, 2007. The new url is www.acs.org; users who have bookmarked www.chemistry.org will be forwarded to the new site.

Finally: I attended several official luncheons and receptions. By far the most stimulating (and bargain at \$12) was the Silver Circle Breakfast featuring Dr. Dudley Herschbach's presentation on "The Impossible Takes a Little Longer," which promoted mentoring of younger scientists and included strong criticism of how we teach our introductory chemistry students. Dr. Herschbach's presentation may be accessed via Windows Media Player at ACS Silver Circle Breakfast – Dudley Herschbach. The presentation can also be viewed via Adobe Flash Player at <http://pubs.acs.org/cen/demos/dudley/dudley.html>.

NJACS Polymer Meeting

The NJACS local section is sponsoring a symposium on Green Polymers: Materials, Processes and Products. The NJACS Symposium will be held on November 8, 2007 from 1:00-6:30 p.m. at the Fiber Optics Research Auditorium, Busch Campus of Rutgers University, Piscataway, NJ. Further details can be found at <http://njacs.org/ptg.html>.

Science Cafes

Would you be interested in meeting at a local pub or coffee house to discuss hot science topics with the general public?

Would you be willing to join with like-minded chemists to make this kind of event possible in the Lehigh Valley?

The ACS, working from the Science Cafe movement model founded by WGBH NOVA Science Now, has grants of \$500 available to local ACS sections to support Science Cafés. For more information go to http://www.chemistry.org/portal/a/c/s/1/acdisplay.html?DOC=localsections%5cScience_Cafes.html and contact me if intrigued. I'll arrange a time for those interested to meet, maybe over a latte or pint, to see what we'd have to

The Adventures of Meg A. Mole- Future Chemist

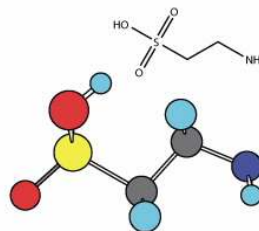


Have you visited the ACS website to follow the adventures of Meg A. Mole?

Many of us have heard tales or seen pictures of particularly well traveled gnomes or plastic flamingos. In fact in my graduate group we had a stuffed rat that traveled the country and the globe. He was pictured drinking beer in London Pubs, wearing a parka in Stockholm and even sitting atop a steer in Texas - and these were just a few of his (or her?) adventures. You just couldn't keep that rat out of your suitcase! Well ACS has its own traveling mascot, Meg A. Mole. Meg A. Mole visits different chemists to learn about their jobs. She is always amazed at the variety of things that they do. In this month's episode Meg visits Dr. Bill Carroll of Occidental Chemical Corp. in Dallas, Texas. Meg traveled to Texas to learn about the chemistry of recycling. In previous episodes Meg has visited with Dr. Mario Blanco, Beckman Institute at Caltech, Mr. Steve Bylsma, Prein and Newhof Environmental Laboratory, Mr. Abimael "Maelo" Cordova, Mattel, Inc., Dr. Helen Free, Bayer HealthCare, Diagnostics Division, Ms. Pamela Helms, The Caldrea Company, Dr. Anita Meiklejohn, Fish and Richardson, P.C., Dr. Beronda Montgomery-Kaguri, Michigan State University, Mr. Hermenegildo "Gil" Mislant, Dunn-Edwards Corporation, and Dr. Martha Williams, NASA's Kennedy Space Center. Meg is definitely well traveled! To read the adventures of Meg A. Mole visit www.acs.org, click on education and then kids. Meg's adventures are linked in the left column. (But your editor found Meg's adventures far from childish!)

LVACS Officers - 2007

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T. Michelle Jones-Wilson (see above)



Molecule of the Week

The molecule of the week is a great feature at www.acs.org. Each week a new molecule on the home page. Here is a sample! Taurine or 2-aminoethanesulfonic acid, is the ingredient du jour in energy drinks (i.e., Red Bull). It was first isolated from Ox bile (named for Taurus in Latin). It is a major component of bile and found in animal muscle tissue. Scientists are pursuing its potential medicinal uses, which were discovered in part because cats cannot produce taurine and are subject to severe ailments when it is absent from their diet.

* Get more information on this molecule from CAS (Chemical Abstracts Service)



As part of the National Chemistry Week (NCW) 2007 celebration and in recognition of the 20th anniversary of the program, the American Chemical Society (ACS) is sponsoring a poster contest for students in Kindergarten – Grade 12.



Students are invited to create a poster that celebrates the theme "The Many Faces of Chemistry". The poster should be fun, motivational and inspire students to pursue a science/chemistry related career.

Consider how science/chemistry is used by people in different careers.

- Photographer: chemistry's role in developing film and making prints
- Artist: the chemistry of the materials used to paint, draw or sculpt
- Veterinarian: understanding what medicines can be given to pets
- Crime Scene Investigator: investigating crimes with chemical tests

Prizes...Prizes...Prizes....Prizes...

First and second place in each of the following grade categories:

- K – 2nd
- 3rd – 4th
- 5th – 8th
- 9th – 12th

1st Place: \$250

2nd Place: \$150

There are also prizes for teachers of winning students, which will include a *Periodic Table of the Elements* poster!

National Chemistry Week Poster Contest Rules and Regulations - Competition at the DaVinci Center during our October meeting.

You may bring a poster to the DaVinci center for submission or simply bring your ideas. We will provide the paper, markers, crayons and pencils.

- All entries must be original works without aid from others.
- Posters must be no larger than 14 x 22 inches.
- Entries on foam board will not be accepted.
- Entries must be hand-drawn using crayons, paint, colored pencils or markers.
- Posters can be submitted to NCW Coordinators at the October Meeting
- All entries **must** have the following information included on the back of the poster: student's name, grade, name of school, school address, teacher's name, school telephone number, student/teacher email address. Home schooled students are eligible for the contest and should include the name of any home school group with which they are associated
- Entries lacking complete and legible information will be disqualified for national competition.

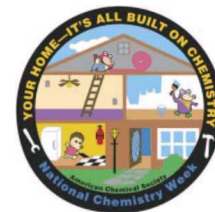
Judging:

Entries will be evaluated based on the following:

1. **Artistic Merit** (use of color, quality of drawing, poster design & layout)
2. **Poster Message** (should be fun, motivational and inspire students to pursue a career with emphasis on the chemistry in the career)
3. **Originality and Creativity** (unique, clever and/or creative design)
4. **Neatness** (free of spelling and grammatical errors and/or stray marks)



Chemistry Activity Patch



The Chemistry Activity Patch program of the American Chemical Society's (ACS) Office of Community Activities encourages individuals and youth groups to participate in chemistry-related activities sponsored at the local level by ACS local sections. Each year chemists interest young people in chemistry and the chemical sciences during Chemists Celebrate Earth Day (April) and National Chemistry Week (October) events in their communities. These

programs provide excellent opportunities for participants to earn patches. Groups such as the Boy Scouts, Girl Scouts, 4-H Clubs, Campfire USA, YMCA, Boys and Girls Clubs, etc. can use the guidelines that follow to encourage science and chemistry activities to earn a Chemistry Activity Patch.

Purpose

- To interest young people in chemistry through activities held during Chemists Celebrate Earth Day and National Chemistry Week.
- To offer a mechanism by which participants can develop positive attitudes towards science and chemistry.
- To provide the opportunity for participants to explore interesting career opportunities in chemistry.

Requirement

- To qualify for a theme-related patch, participants should complete two Chemists Celebrate Earth Day or two National Chemistry Week activities from the list of activities that follows. (LVACS will provide "patch" activities - and patches- at the DaVinci Center!)

Patch Activities: Complete *two* activities from any category (A-D) from the list below to qualify for one of the theme-related chemistry patches. If you have completed one or more of these activities - tell us about it at the DaVinci Center!

Category A: Serving the Community

- clean up a local park, stream or roadway, and discuss the chemistry involved,
- beautify the community by planting trees or flowers,
- conduct a soap or food drive for a local food bank or charity,
- prepare a presentation about chemistry's positive role in an environmental factor (i.e. monitoring the weather, earthquakes, or soil, air or water testing) and present to a community group,
- conduct hands-on activities for younger children related to the CCED or NCW theme.

Category B: Learning about Chemistry

- arrange a tour of a chemical plant or facility with a member of the ACS local section.
- invite an ACS local section member to speak at an activity or event, to discuss the chemistry behind things that people use every day and the connections to the environment,
- choose an aspect of chemistry related to the theme and visit a museum that has an exhibit on this topic,
- conduct a recycling campaign and learn together about the process of recycling that material (i.e. glass, aluminum, plastic, yard waste).
- explore the ACS website and write a short essay about an interesting topic (<http://chemistry.org>).

Category C: Having Fun with Chemistry

- sponsor a booth/table at a CCED or NCW event to present "hands-on" science activities,
- have a temporary tattoo or face painting table at a CCED or NCW event and explain the chemistry,
- help promote CCED or NCW activities at an ACS local section event by carrying signs advertising the event at a strategic location, e.g. at the entrance, or inside the lobby of a mall/museum to direct people to the right level/location within the building,
- enter the nationally sponsored CCED or NCW K-12 contests through your ACS local section,
- attend local section activities,

Category D: Learning about Careers in Chemistry

- write an essay or draw a poster that tells about, or depicts a famous chemist,
- invite local chemists to a group meeting to tell about what they do at work,
- partner with your ACS local section members to provide "job shadow" opportunities for a designated day during or close to the dates for CCED or NCW.

