



Vol. 83 (6) September 2007

ISOTOPICS

The Cleveland Section of the American Chemical Society

On Deck:

Wednesday, October 17

Akron ACS Joint Sponsor

Douglas Raber

*Bombs and Anthrax: Advising the
Federal Government on Terrorism*

Lubrizol (Noveon)

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http://www.csuohio.edu/cleveland_acs/

Special Notice

Isotopics will now be an electronic newsletter!

Following this issue, Isotopics will be primarily distributed as an electronic newsletter and only secondarily as a paper/post-mail format. This means that most members will only receive Isotopics by email. For everyone without internet access, a standard version will still be sent by post-mail.

There is no need to panic. The upgrade to electronic status will allow us to deliver more news and information in a timelier manner. In addition to the meeting announcements, the new format will allow us to expand the content with more Section news, articles, and pictures. The Section can then better allocate your dues by reducing printing and postage costs.

Below are some comments specifically for members with and without internet service. Please take a few minutes to read this material, as this change will affect everyone. Please contact the editor at daniel.s.tyson@nasa.gov or 216-433-3187 with any questions.

For Paper Users: If you do not have an email address, simply do nothing. You will continue to receive Isotopics by post. Please remember to update any address changes with the ACS Member & Subscriber Services by calling 1-800-333-9511 (M-F, 8:30 am – 5 pm ET).

For Internet Users: If you currently receive Isotopics by email, simply do nothing. You will continue to receive the newsletter by email and you will not receive a paper copy. Please remember, our master email list is updated monthly using the ACS National Registry. If your email address changes, you can update your information with the ACS National Office at <http://acswebcontent.acs.org/home.html>. In addition to the email distribution, Isotopics is also routinely available online at http://www.csuohio.edu/cleveland_acs/.

If you know you have an email address but have not been receiving Isotopics by email, either National does not have your email address or your ACS email is being blocked. To report or update your email address to National, follow the ACS web content link above. To unblock your ACS emails, open your email or firewall software and change the spam settings to allow all messages containing "ACS" in the subject line. For help with email services like Yahoo, Hotmail, or Eudora, go to http://www.csuohio.edu/cleveland_acs/emailfilters.htm. If you still cannot receive ACS email, call your internet/mail provider. If it still will not work, call the Isotopics editor.

To Switch from Paper to Electronic (or vice versa): You will receive the electronic newsletter only if you report an email address. You will receive the paper version if you don't report an email address. Your member info can be updated by calling the ACS Member & Subscriber Services at 1-800-333-9511 or by visiting the ACS National site at <http://acswebcontent.acs.org/home.html>.

September Meeting Notice

Wednesday, September 19, 2007

BASF

4:30 pm	Executive Committee Meeting
6:00 pm	Wine and Cheese Social and Facility Tours
6:30 pm	Dinner
7:30 pm	Lecture
8:30 pm	Informal Discussion

The Role of Chemistry in Concrete Construction

Tom Vickers, BASF

Chemistry plays many interesting and important roles in the field of modern-day construction. Many chemical reactions occur during the manufacture and hydration of Portland cement and chemical reactions are involved in the deterioration of concrete structures. The application of chemistry in developing new molecules has revolutionized the field of concrete construction during the past 40 years. Concrete is one of the most widely used construction materials in the world. This is due to its versatility and favorable economics. Some applications involving concrete are highly visible and noteworthy such as the construction of the world's tallest building (Burj Dubai-2008 completion). Other applications are far less visible, but important such as the construction of an underground tunnel. Topics to be addressed are concrete basics, the chemical transformations that occur during Portland cement manufacture and hydration, the role of chemical admixtures in concrete construction, and the role chemistry plays in concrete durability.

DINNER RESERVATIONS REQUIRED: Please RSVP by contacting Dr. Lily Ng, by phone at 216-687-2467 or by e-mail at l.ng@csuohio.edu by **5 pm on Friday, September 14.** (For phone reservations, please clearly spell your last name and leave a return phone number.) Cost of the dinner is \$20 for members & guests and \$10 for students. Checks made out to "Cleveland ACS" are greatly appreciated. Vegetarian meal requests should be directed to Dr. Lily Ng. The dinner buffet will include Woodsey Chicken (chicken with mushrooms and Merlot sauce), beef kabobs, Florentine rice, red skinned potatoes, garden salad, and brownies.

Directions to BASF

From I-271: Take I-271 to the Chagrin Blvd exit; head west for about one mile. BASF will be on the left.

Speaker Bio

Tom Vickers has a Bachelor of Science Degree in Chemistry from the University of Dayton and a MBA degree from Cleveland State University. He has over 27 years of industrial experience as a Chemist and has been employed by BASF Construction Chemicals, LLC (formerly Master Builders) for more than 18 years. Tom works in the Admixture Product Development Group. His expertise and interests are in the field of cement dispersants, particularly polycarboxylate cement

dispersants. Tom is named as an inventor on 19 U.S. Patents and has several publications.

Call To Vote

It is important for the members of any organization to take an active part in the governance of that organization. The governing body is to represent the membership (your) interests, which includes representation to the national organization and the presentation of local programs. Local programs do not just include monthly meetings! Our programs include the Morley Award, a large suite of awards to students and teachers, an extensive National Chemistry Week program, and a large number of other fine activities. The easiest way for you to take an active part in your section is to vote for the

officers that represent your interests. Please vote in the upcoming election of officers by October 5, 2007. If you have not received your ballot and candidate bios by this time, or received an incomplete ballot, please contact our secretary at the address provided on the front page of Isotopics. Candidates include:

Chair Elect: David Ball

Secretary: David Miller

Trustee: Steve Felch and Don Jaworske

Councilor: Samina Azad, Mathias Buck, and

Dwight Chasar

Alt Councilor: John Protasiewicz and Mark Waner

Director: Horton Dunn

Archive Committee Seeks Back Issue of Isotopics

The Archive Committee is trying to complete its collection of *Isotopics*. We are missing the October 1999 issue. If anyone has this issue (originals or photocopies accepted), please contact the chair of the Archive Committee, Helen Mayer at 216-676-2373 or helen.mayer@graftech.com.

Morley Medal – Call for Nominations

The Cleveland Section of the American Chemical Society annually sponsors a regional award, which consists of the Morley Medal and a substantial honorarium. The purpose of the award is to recognize significant contributions to chemistry through achievements in research, teaching, engineering, research administration and public service, outstanding service to humanity, or to industrial progress.

The area of eligibility includes those parts of the United States and Canada within about 250 miles of Cleveland. The contributions for which the award is given should have been made by the awardee when a resident of this area, or if a major contribution was made elsewhere, the nominee should have continued to make contributions while a resident of this area. Nominations may be made by any member of the American Chemical Society, The Chemical Society or the Chemical Institute of Canada.

Complete information on the award and nomination process can be found on the Cleveland Section webpage at http://www.csuohio.edu/cleveland_acs.

Deadline for **receipt** of nominations is **Close of Business, December 3, 2007**. Send nomination and supporting material (electronic submissions in Word are appreciated) to:

Kenneth W. Street

Chair, Cleveland Section Awards Committee

NASA-GRC

MS 23-2

21000 Brookpark Road

Cleveland, OH 44135-3127

Phone: 216-433-5032

Fax: 216-433-5170

Email: kenneth.w.street@nasa.gov

Volunteer for National Chemistry Week

NCW is Oct 21-27: "The Many Faces of Chemistry." Whether you want to be in the forefront by helping put on a chemistry/science demonstration in a library for children aged 7-10 or be more in the background helping to assemble demonstration kits, your commitment is important. You don't even need to know kids science to participate, just a desire to share our fun! The date and time schedule for the libraries is shown in the table below. If you are interested in volunteering, email Kat at katkat@neo.rr.com or call 330-819-0518. Backup emails for the traveling Kat are ch_kuhns@hotmail.com and MarSchiele@aol.com.

CWRU Colloquia and Lecture Schedule

The Fall 2007 Chemistry Colloquia & Frontiers Lectures at Case Western Reserve University is shown in the table below. All presentations are held in the Goodyear Lecture Hall (108 Clapp) and begin at 4:30 pm. Visitors are welcome for cookies and coffee at 4:15 pm.

Case Western Reserve University
Fall 2007 Chemistry Colloquia & Frontiers Lectures
4:30 pm Goodyear Lecture Hall (108 Clapp)

Visitors welcome for cookies and coffee 4:15 pm

Clapp Hall Second Floor Balcony

Date	Title	Speaker Institutional Affiliation
August 30	Mass Spectrometry in Polymer Research	Chrys Wesdemiotis University of Akron
September 6	Altered Regulation of Cholesterol Processing in Cystic Fibrosis	Thomas Kelley CWRU
September 13	Metathesis and Metallotropy (M&M) - From Curiosity to the Synthesis of Natural Products and Enediynes	Daesung Lee U. Wisconsin - Madison
September 20	The Remarkable Roles of Oxidative Stress in the Physical and Chemical Interactions between Lipid Membranes and the Amyloid Beta Proteins of Alzheimer's Disease Zagorski	Paul Axelsen U. of Pennsylvania
September 27	What's Happening to the Metal Ions inside Endohedral Fullerenes?	Alan L. Balch U.C. Davis
October 4	The CO ₂ Problem (Frontiers in Chemistry Lecture)	John Deutch MIT
October 11	Stabilizing Atmospheric CO ₂ : Chemistry's Grand Challenge (Frontiers in Chemistry Lecture)	Gregory H. Rau Lawrence Livermore
October 18	From Monomer Structure to Polymorphism: Computational and Experimental Studies of the Alzheimer's A-beta Peptide	Teresa Head-Gordon Berkeley
October 25	High-Throughput Phosphoproteomics: Unraveling the Secrets of Cellular Signaling	Arthur R. Salomon Brown
November 1	Unusual Chemistry involving Two- and Three-Coordinate Nickel	Gregory Hillhouse University of Chicago
November 8	Making Plastics from Carbon Dioxide. An Environmentally Benign Route to Polycarbonates (Frontiers in Chemistry Lecture)	Donald Darensbourg Texas A&M
November 15	Designing Safe Electrochemical Couples for High Energy/High Power Lithium-Ion Batteries (Frontiers in Chemistry Lecture)	Michael Thackeray Argonne National Lab.
November 29	Molecular Interactions in the Formation and Destabilization of Alzheimer's β -Amyloid Fibril in Vitro	Kenjiro Ono UCLA
December 6	Scaling Science for the 21st Century: Integrative Technologies Enabling Chemistry and Biology as a Public Resource for Probe Discovery	James Inglese NIH Chem. Gen. Ctr

Cuyahoga County Public Library Schedule*American Chemical Society, Cleveland Section**National Chemistry Week, 2007*

Libraries	Telephone	Date	Time
Bainbridge	440-543-5611	TBD	TBD
Bay Village	440-871-6392	Wed., Oct. 24	4:00 p.m.
Beachwood	216-831-6868	Sat., Oct. 27	2:00 p.m.
Berea	440-234-5475	Wed., Oct. 24	7:00 p.m.
Brecksville	440-526-1102	Sat., Oct. 27	10:30 a.m.
Brook Park	216-267-5250	Sat., Oct. 27	2:00 p.m.
Brooklyn	216-398-4600	Sat., Oct. 20	3:00 p.m.
Chagrin Falls	440-247-3556	Wed., Oct. 24	7:00 p.m.
CPL ("Old" Brooklyn 3706 Pearl Rd.)	216-623-2800	TBD	TBD
Fairview Park	440-333-4700	Sat., Oct. 27	10:00 a.m.
Garfield Heights	216-475-8178	Sat., Oct. 27	11:00 a.m.
Gates Mills	440-423-4808	Sat., Oct. 27	10:00 a.m.
Independence	216-447-0160	Sat., Oct. 27	2:00 p.m.
Maple Heights	216-475-5000	Sat., Oct. 27	2:00 p.m.
Mayfield	440-473-0350	Sat., Oct. 27	10:00 a.m.
Middleburg Heights	440-234-3600	Thurs., Oct. 25	7:00 p.m.
North Olmsted	440-777-6211	Wed., Oct. 24	7:00 p.m.
North Royalton	440-237-3800	Sat., Oct. 27	11:00 a.m.
Olmsted Falls	440-235-1150	Sat., Oct. 27	11:00 a.m.
Orange	216-831-4282	Sat., Oct. 27	11:00 a.m.
Parma Heights	440-884-2313	Wed., Oct. 24	4:00 p.m.
Parma Regional	440-885-5362	Sat., Oct. 20	11:00 a.m.
Parma-Ridge	440-888-4300	Thurs., Oct. 25	7:00 p.m.
Parma-Snow	216-661-4240	Sat., Nov. 3	2:00 p.m.
Solon	440-248-8777	Sat., Nov. 3	10:00 a.m.
South Euclid/Lyndhurst	216-382-4880	Wed., Oct. 24	7:00 p.m.
Southeastern County (Bedford)	440-439-4997	Sat., Oct. 27	11:00 a.m.
Strongsville	440-238-5530	Sat., Oct. 27	1:00 p.m. / 2:30 p.m.
Warrensville Heights	216-464-5280	Thurs., Oct. 25	3:45 p.m.