ISOTOPICS

The Cleveland Section of the American Chemical Society

Vol. 83 (7) September 2007

On Deck:

Wednesday, November 14

Barb Kooser

Mentor Marsh: Where it is and Where it's Going

Hines Hill Conference Center

October Meeting Notice

Tuesday, October 23, 2007
Lubrizol (Noveon)

4:30 pm	Executive Committee Meeting
5:30 pm	Social Time
6:15 pm	Dinner
7:00 pm	Lecture
8:00 pm	Informal Discussion

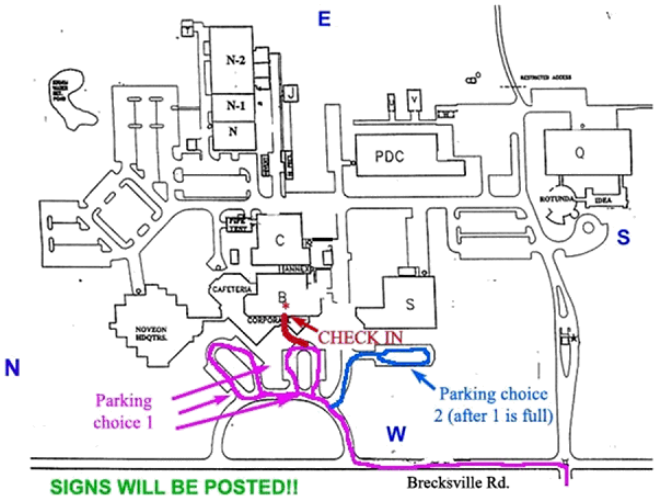
Bombs and Anthrax: Advising the Federal Government on Terrorism

Douglas Raber, GreenPoint Science

The threat that our nation faces from terrorism began prior to the horrific acts of September 11, 2001, as illustrated by the bombing of the New York World Trade Center in 1993 and the destruction of the Federal Building in Oklahoma City in 1995. National efforts to reduce the threat of terrorism began soon after those attacks and significant progress has been made. Answers to this problem are difficult, however, and they require a combination of technical and societal responses. One thing is clear, chemistry will lie at the heart of whatever solutions are to be found. Specific proposals have been made to reduce terrorist threats as a result of several careful scientific studies. But the threat remains, and only a few of the recommendations have been implemented. This talk will assess the background of the studies; how they came about, what they recommended (and why), and the extent to which their recommendations have or have not been implemented. The assessment will include several areas in which chemistry can play a major role in preventing or mitigating terrorist acts, including explosives, biological agents, chemical agents, and radiological devices.

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, October 19**. (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 Chicken Breast Marsala, Pasta Prima Vera, tossed garden salad, fresh vegetables, and dessert.

Directions to Noveon



Find the best way to Brecksville Rd. heading north (I-77 N to exit 147 and head N; I-77 S to exit 148 Miller Rd. turn left onto Miller then left onto Brecksville Rd.; Ohio Turnpike exit 185 then head N; those coming in on I-480 or I-271 will have to get on I-77 at some point).

DO NOT enter at the Miller Rd. light entry – that is employees only. Enter at the visitor entrance 1 block north of the light at Miller Rd. (turn right into the facility).

At the fork in the drive (the purple-blue junction) bear to the left and park in the purple-denoted areas first. Once they are filled, the 2nd choice area (in blue) is available. THERE WILL BE SIGNAGE.

In either situation, you will enter the main building (B building) through the B lobby (follow the red line directly adjacent to the purple parking loops). A Lubrizol employee will admit you to the building, check your name on a list, and present you with a badge. You will proceed in small groups to the cafeteria with a Lubrizol escort.

Speaker Bio

Douglas J. Raber is a science policy consultant with GreenPoint Science, which he formed in 2004. Previously, he served for thirteen years as Director and then Senior Scholar of the Board on Chemical Sciences and Technology at the National Academy of Sciences and its operating arm, the National Research Council (NRC).

Before joining the NRC in 1989, he was a member of the faculty of the University of South Florida from 1970 to 1990, publishing some 70 research articles. Raber is active in ACS governance, serving recently on the C&EN Advisory Board, the Committee on Chemistry and Public Affairs, and the Committee on Science (which he previously chaired). He recently completed several terms as the Secretary of the U.S. National Committee for IUPAC and currently serves as Chair of the Chemical Technology Operating Council of the AIChE. Raber's responsibilities at the NRC centered on organizing and directing science and science policy studies, particularly in the areas of federal policy and its interrelationships with the chemical sciences. These efforts resulted in more than fifty reports and monographs that provide technical policy guidance on topics that encompass R&D opportunities, laboratory safety and management, nuclear waste disposal, and the threat of terrorism.

Volunteer for National Chemistry Week

NCW is Oct 21-27: "The Many Faces of Chemistry." Join us for an hour of hands-on experiments and demonstrations to celebrate National Chemistry Week and do tests to identify acids and bases with color-changing wonders, build a bubbling volcano, make paint out of milk, and more. The date and time schedule for the libraries can be found on the Section website at http://www.csuohio.edu/cleveland_acs/NCW/ncw.htm. If you are interested in volunteering for next year's program, please email or call Kat at katkat@neo.rr.com or 330-819-0518. Backup emails for the traveling Kat are ch_kuhns@hotmail.com and MarSchiele@aol.com. 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!

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

November Historical Events in Chemistry

by Leopold May
The Catholic University of America, Washington, DC

November 1, 1917	Union Carbide was incorporated as Union Carbide and Carbon Corporation on this day.
November 6, 1857	One hundred and fifty years ago, William A. Noyes was born on this date. He was the first chief chemist of US Bureau of Standards (now National Institute of Standards & Testing) and editor of *Journal of the American Chemical Society* (1902-17).
November 14, 1807	Two hundred years ago on this date, Auguste Laurent was born. In 1832, he discovered anthracene, in 1836, he obtained phthalic acid from naphthalene and in 1841, he showed that carbolic acid is phenol. He constructed a saccharimeter, discovered Laurent's acid, and he and Charles F. Gerhardt evolved the nucleus theory of organic radicals.
November 30, 1761	Smithson Tennant, who discovered iridium in 1803, and osmium in 1803, was born on this day. He also proved that diamonds are pure carbon.

Local Company Highlight

Lubrizol Advanced Materials
By Richard L. Middaugh

The Lubrizol Corporation (headquartered in Wickliffe) has two business segments, Lubrizol Advanced Materials, and Lubrizol Additives. Lubrizol owns and operates manufacturing facilities in 20 countries, as well as sales and technical offices around the world.

Lubrizol Advanced Materials (formerly BFGoodrich Performance Materials and Noveon, Inc.) has a rich legacy of technological achievements and product innovations extending back to the 1870's. Led by Segment President Donald W. Bogus and headquartered in Brecksville, they are a leading global producer of advanced specialty polymers, polymer-based additives, and chemical additives for a broad range of consumer and industrial applications. Their product lines are *Noveon Consumer Specialties, Performance Coatings, TempRite® Engineered Products,* and *Estane® Engineered Polymers.*

Noveon® Consumer Specialties offers a versatile line of ingredients that have a long history of successful use in personal care, home care and pharmaceutical formulations. Key products include synthetic and naturally-derived rheology modifiers and thickeners, fixative polymers, surfactants, specialty silicones, emulsifiers, film formers, elegant sensory modifiers and pharmaceutical inactives.

The Performance Coatings segment is a leading global producer of high performance polymers and specialty additives for paints and coatings, inks and graphic arts, specialty paper and nonwovens, plastic and composite coatings, adhesives and textile applications. From the resins and polymers that bind the system together to the specialty additives that enhance performance, they supply the technology that helps formulate the innovative products demanded in today's marketplace, as well as tomorrow's.

The TempRite® Engineered Polymers product line is the world leader in chlorinated polyvinyl chloride (CPVC) resins and compounds, producing heat-resistant and low combustibility CPVC specialty plastics that have applications in fire sprinklers, plumbing, industrial piping, construction and fluid handling.

Estane® Engineered Polymers are marketed under the trade names of Estane® TPU, Thermedics™ Polymer Products and Stat-Rite® Conductive Polymers, which provide the widest selection of ESD protection materials available today. Estane TPU is an engineered, highly versatile thermoplastic with end-uses including film and sheet for coating processes, wire and cable insulation, athletic equipment, medical applications, automotive molded parts and adhesives.

For additional information about the Lubrizol Advanced Materials business segment, visit their website at *www.lubrizol.com*.

Edited from public information and a Lubrizol document (© 2007, 070796I)

Isotopics is looking to highlight local chemistry professionals, companies, teachers, research groups, students, events, and more. If you have an idea for an *Isotopics* article, please contact the editor.