



ISOTOPICS

The Cleveland Section of the American Chemical Society

Volume 85 Issue 7

October 2009

On Deck:

Wednesday, November 18

Dr. John Oprea, CSU

Mathematics and Soap Films

Mather Mansion, CSU

October Meeting Notice

Wednesday, October 14, 2009

Creekside Restaurant and Bar, Brecksville, OH

4:30 pm	Executive Committee Meeting
5:30 pm	Social Hour
6:30 pm	Dinner
7:30 pm	Presentation

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Cleveland Section Web Site:

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

Contamination of an Aquifer by Hazardous Waste - A Case Study

Tom Spittler

In 1978, a small New England town sank two new wells in a large aquifer. Subsequent testing to meet safe drinking water standards revealed contamination by benzene and vinylidene chloride. A nearby plastics manufacturer was required by the town to conduct a hydrogeological study of the aquifer as a condition for town approval to expand their facility. The study, which incorporated the best state of the art sampling and analytical methodology, revealed the source of the contamination. This study is described in detail, and subsequent efforts to restore the aquifer are tracked to the present time. This case history is typical of groundwater contamination throughout the country and shows how current technology can assess the damage, trace the source, and, in many instances, initiate remedial actions to affect long-term cleanup and aquifer restoration.

DINNER RESERVATIONS REQUIRED: Please RSVP by contacting David Ball, by phone at 216-687-2456 or by e-mail at d.ball@csuohio.edu by **5 pm on Monday, October 12.** (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/retirees/unemployed. Checks made out to "Cleveland ACS" are greatly appreciated. **Dinner will be one of three options. Please choose a dinner when making your reservations.**

- 1) Chicken Marsala Saute' (Chicken breast, mushrooms and peas saute'ed in Chef John's delicious Marsala sauce and served with roasted garlic redskin mashed potatoes and fresh vegetable).
- 2) Vegetarian Penne Sorrento (Sweet bell peppers, broccoli, garlic, and basil saute'ed with olive oil then tossed with penne pasta and Romano cheese).
- 3) Lemon Basil Flounder (Seasoned flounder fillet pan seared and topped with a lemon-basil butter medallion. Served with rice pilaf and Fresh vegetable).

Directions to Creekside Restaurant and Bar

8803 Brecksville Rd
Brecksville, OH 44141
<http://www.creeksiderestaurant.com>

Creekside Restaurant & Bar is centrally located from almost anywhere in NE Ohio. Located half way between Cleveland and Akron, Creekside Restaurant & Bar is a great place to meet for business or pleasure. We are located on Rte 21 approximately a quarter mile north of the Rt 82 & Rt 21 intersection in downtown Brecksville.

Directions from North

I-77 south to Route 82 (exit 149A) towards Brecksville for 1.6 miles. Make a left hand turn at Route 21 (2nd traffic light). Get in right hand lane, go .2 miles over bridge, first driveway on right.

Directions from East Via 480

Take 480 west to I 77 south towards Akron for 6.7 miles. Take Route 82 (exit 149A) towards Brecksville for 1.6 miles. Make a left hand turn at Route 21 (2nd traffic light). Get in right hand lane, go .2 miles over bridge, first driveway on right.

Via Route 82

Take Route 82 west and turn right at Route 21. Get in right hand lane, go .2 miles over bridge, first driveway on right.

Directions from West. By 480

Take 480 east to I-77 south (exit 20b) towards Akron for 6.7 miles. Take Route 82 (exit 149A) towards Brecksville for 1.6 miles. Make a left hand turn at Route 21 (2nd traffic light). Get in right hand lane, go .2 miles over bridge, first driveway on right.

By Route 82

Take Route 82 east and turn left at Route 21. Get in right hand lane, go .2 miles over bridge, first driveway on right.

Directions from South

I-77 north to Route 82 (exit 149) towards Brecksville. Make a right hand turn off of ramp and travel 1.1 miles. Make a left hand turn at Route 21 (2nd traffic light). Get in right hand lane, go .2 miles over bridge, first driveway on right.

Speaker Bio

Dr. Spittler received his AB from Spring Hill College, Mobile Alabama and his MS and PhD from Loyola University, Chicago, Illinois in Inorganic Analytical Chemistry. He did post-doctoral research at Argonne National Laboratory and at Loyola University in the field of noble gas chemistry. He taught for several years in the Chemistry Department of the University of Detroit and then took a position as laboratory director of the City of Chicago Department of Environmental Protection.

In 1972 Dr. Spittler joined EPA and worked for two years at the Research Facility in Research Triangle Park, North Carolina. There he developed a method for determination of various forms of Mercury in the ambient air. In late 1973 he was transferred to the New England Regional Laboratory where he was remained to the present time.

Dr. Spittler's principal interests have been in the development and use of techniques and equipment which can be taken from the laboratory to the scene of environmental contamination. As the usefulness and need for these approaches grew over the past five years, the obvious dearth of training courses became apparent. To help fill this need, Dr. Spittler has developed training seminars which have been given nationwide. Audiences include federal, state and local municipal officials, environmental scientists and consultants. Many courses are conducted at other federal agencies such as USGS, Coast Guard and COE have requested training for their own personnel. The Peoples' Republic of China sponsored a course in Beijing in 1985. Most recently, course attendees tend to be from the environmental consulting field. Dr. Spittler has been a lecturer for the James Flack Norris Speakers Bureau of New England since 1981, and a member of the ACS National

Speakers Bureau since 1983. He is an Honorary Professor of Environmental Chemistry at Eastern Connecticut State University and has lectured widely at colleges and universities, at professional societies and environmental symposia and for local school and private groups. Besides the field of environmental instrumentation and monitoring, he has written and lectured in the field of lead poisoning, groundwater protection and investigation of hazardous waste sites and spills.

Call for Nomination: The Morley Medal

By Kenneth Street

The Cleveland Section annually sponsors a regional award, which consists of the Morley Medal and an honorarium of \$2,000. The next presentation of the Morley Medal will take place at the meeting of the Cleveland Section ACS in May 2010. The award is presented at a banquet, at which time the recipient will deliver the Edward W. Morley Lecture for that year. Travel expenses for the medalist and spouse will be provided.

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.

Nominations for the Morley Medal should include a letter of nomination and curriculum vitae including the candidate's education, professional experience & activities, awards & honors, offices held and specifics on significant contributions. The letter of nomination should highlight these significant contributions. A representative list of

references to the candidate's more important contributions, an evaluation of the significance of these achievements, and a listing of the nominee's most significant publications and patents are also appropriate. Strong seconding letters are suggested. The specific reference for every publication or patent is neither required nor encouraged. Electronic submissions are preferred.

Deadline for receipt of nominations is **December 4, 2009**. Send nomination and supporting material to:

Dr. Kenneth Street
Chair, Cleveland Section Awards Committee
NASA-GRC
MS 23-2
21000 Brookpark Road
Cleveland, OH 44135
Ph: 216-433-5032
E-mail: kenneth.w.street@nasa.gov

Mentors (Champions) Wanted for Heller Award Nominations:

By Kenneth Street

In the past we have had a number of great Heller award nominations that needed help! Some of these great high school teachers took several years to win due to the packages being submitted either underrating them, being incomplete, confusing, or a host of other reasons. In the past we have recommended that all nominations have a champion from the local section. The job of "champion" more or less involves assisting (mentoring) the nominators to present the best possible case for their nominee. I would like to establish a list of individuals willing to serve as champions on future nominations. If interested, please contact Ken Street at:

kenneth.w.street@nasa.gov or 216-433-5032.
More information about the Irene C. Heller Award can be found at our web site:
http://www.csuohio.edu/sciences/dept/cleveland_acs/Heller.htm

Attention Chemist Musicians!

We have quite a large section and I am sure there are plenty of musicians out there. Anyone interested in forming the ACS Concert Band? We have a potential gig for you - the opening act at the social hour of any upcoming ACS meeting. Anyone interested, please contact Ken Street at: kenenth.w.street@nasa.gov or 216-433-5032.

National Chemistry Week

By Kat Wollyung

Join the ACS annual celebration of National Chemistry Week October 18-24! Tell all your friends with children ages 7-11 to look for one of our hour-long hands-on chemistry programs at one of the Cuyahoga County Public Libraries. Contact your local CCPL or get the list of all the programs at the NCW link from the Cleveland ACS website.

http://www.csuohio.edu/sciences/dept/cleveland_acs/NCW/index.htm

Cleveland State Interdisciplinary Research Conference

The Chemistry Students of the Graduate Student Interdisciplinary Club of Cleveland State University are pleased to announce that their annual **Cleveland State Interdisciplinary Research Conference (CSIRC)** will be held on **October 17th, 2009**. Participation by oral presentation or poster is open to **graduate and undergraduate** students with a very attractive suite of **prizes and awards**. The final abstract deadline for CSIRC has been extended till Friday, October 2nd. Please spread the word and strongly urge your students to participate in this growing local research showcase in NEO. In the past students from numerous institutions have participated including: Cleveland State, Kent

State, University of Akron, Oberlin, John Carroll, Bowling Green, Miami University, and Ohio State University. Faculty are also invited to participate by registering soon if you plan to attend even as non-presenters. The student organization can provide accommodation in a nearby hotel to a limited number of participants and faculty who are driving long distances on a first-come-first-serve basis. Dr. Donald Jacobsen from the Lerner Research Institute of the Cleveland Clinic will be the Keynote Speaker this Year. Free continental breakfast and Lunch will be provided to all registered students and faculty. Registration and other details about the conference can be found at the following website (please make sure you receive the confirmation after you enter all info in the online form): www.csirc.weebly.com

We hope to see all of you here on October 17th on the CSU Campus.

October Historical Events in Chemistry

By Leopold May

The Catholic University of America, Washington, DC

October 1, 1940	Air Products and Chemicals, Inc. was incorporated on this day.
October 19, 1909	One hundred years ago on this date, Maguerite Perey was born. She discovered francium in 1939.
Oct. 23, Any Year	Mole Day, 6.02 a.m. through 6.02 p.m. (Mole time); Mole Moment: 50.453 s after 6.42 p.m.
October 25, 1934	Seventy-five years ago, Otto Folin died. He was a pioneer in clinical chemistry and did research in the systematic development of "micromethods, use of colorimetry in biochemistry using the Duboscq colorimeter, and the use of an enzyme for analytical purposes, urease to measure urea. Vintila Ciocalteu and he developed the "Phenol Reagent" for use in protein determinations. He was born on April 4, 1867.

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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. *Isotopics* is also looking for local members to join our staff. Time commitments for staff members are minimal (a few hours a year!) and your contributions will be invaluable to our local section. If you are interested in joining *Isotopics*, please contact the editor.