



Vol. 82 (2) February 2006

ISOTOPICS

The Cleveland Section of the American Chemical Society

On Deck:

Wednesday, March 15

Meeting-in-Miniature

Thomal Holm

ACS Examinations Institute

*Improving Assessment of
Chemistry Learning by using
Emerging Electronic Delivery
Methods*

Cleveland State University

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

February Meeting Notice Joint Sponsorship with Northeast Ohio ACS and History Night

Wednesday, February 15, 2006
Sterle's Slovenian Country House
1401 E 55th St., Cleveland, Ohio

4:30 pm	Executive Committee Meeting
5:30 pm	Social Hour
6:00 pm	Dinner
7:00 pm	After Dinner Talk - Dr. John J. Fortman, Wright State University
8:00 pm	Informal Discussion

John Adams, Saltpeter, and Black Powder: A Lighthearted Look at Some Colonial Chemistry

Dr. John J. Fortman, Wright State University

Portions of a videotape of the musical "1776" will present correspondence between John and Abigail Adams concerning the colonial army's need for saltpeter. An old household procedure for making saltpeter and using it to prepare black gunpowder will be shown. A disadvantage of using black powder as a propellant will be demonstrated. If the room is suitable, additional demonstrations illustrating the difference between burning and exploding will be done.

DINNER RESERVATIONS REQUIRED: Please RSVP by contacting Zedeara Diaz, by phone at 216-368-3621 or by e-mail at zcd@case.edu by **5:00 PM on Friday, February 10**. (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. Menu includes: salad, soup, schnitzel, chicken breast, roast pork, rigatoni, potatoes, vegetable, strudel and beverage.

A Note on Local Dues

Your voluntary local dues are an important part of our Section's annual budget. Your contributions go directly to helping support local activities, such as National Chemistry Week, our Meeting-in-Miniature, and the Morley Medal. When renewing your ACS membership, please remember to add your voluntary local dues.

Directions to Sterle's

Take I-90 and exit at E. 55th Street. Proceed south on E. 55th St. Sterle's will be on the left, about 2 blocks south of St. Clair Ave.

Speaker Biography

John Fortman is Professor Emeritus of Chemistry at Wright State University where he retired in 2001 after 36 years of teaching freshman and inorganic chemistry. In 1998 he was appointed the Robert J. Kegerreis Distinguished Professor of Teaching and won seven different teaching awards over the years at Wright State. In 1998 he received the CMA Catalyst Award for Outstanding Teaching of College Chemistry. Dr. Fortman received his B.S. from the University of Dayton in 1961 and his Ph.D. in physical inorganic chemistry from the University of Notre Dame in 1965. He has published over 50 papers in chemical education in addition to his research publications. With Ruben Battino he has produced three sets of videotapes which contain over ten hours of chemical demonstrations for use at middle school through college levels. For over 25 years he has done chem demo outreach shows for middle and high school students in the Dayton area and continues to inspire and fascinate over 7500 students each year with at least 15 shows. He has done workshops on teaching and demonstrations around the country. He has designed alternative courses for general chemistry, elementary chemistry and chemistry for elementary education majors. His course for non-science students was cited as a model in the 1990 AAAS report on "The Liberal Art of Science: Agenda for Action". The alternative general chemistry course was developed while he was a member of the General Chemistry Task Force of the ACS Division of Chemical Education and starts with organic and biochemistry moving through materials and finishing with energy while emphasizing applications and bringing in only those principles

that are needed as they are necessary. The course has been characterized as being taught inside-out, upside-down, and backwards. His interests in addition to demonstrations and course content and organization include the use of analogies and videotaped material. John has been an ACS member since 1962 and is currently Councilor for the Dayton section and member of the Committee on Constitution & Bylaws after serving for five years on the Local Section Activities Committee. Since he became an ACS Tour Speaker in 1991 he has given over 280 section talks, visiting 160 of the 189 different local sections while doing 57 tours including all 28 different tours at least once.

Meeting in Miniature – March 15, 2006 2nd CALL FOR PAPERS

The annual Meeting in Miniature will be held on March 15, 2006 at Cleveland State University. The afternoon session will consist of oral presentations. A poster session will be presented during the social hour before dinner. Abstracts for presentations and posters (please indicate which) can be submitted by *email only* to Dr. David W. Ball, program chair, at d.ball@csuohio.edu **no later than February 28, 2006**. Please submit abstract as a **Microsoft Word document** as we cannot guarantee that any other format can be properly translated. Monetary awards for best undergraduate and graduate student oral presentations will be given, so encourage your students to participate. Questions about paper and poster submissions can be directed to Dr. David W. Ball at d.ball@csuohio.edu or 216-687-2456.



2006 Irene H. Heller Award – 2nd CALL FOR NOMINATIONS

The Cleveland Section of the American Chemical Society annually sponsors an award to recognize an outstanding high school chemistry teacher in the Cleveland Section. The award consists of an honorarium of \$1,000 and a framed certificate. The award is named for Irene Heller of North Olmsted High School in recognition of her contributions as an outstanding high school chemistry teacher and her service to the Cleveland Section. Nominations for the award should be presented to Betty Dabrowski, Magnificat High School, 20770 Hilliard Blvd., Rocky River, OH 44116-3397 by **March 14, 2006**. The nominations should consist of information on the candidate's education, professional experience and activities, awards and honors, offices held and specifics on significant contributions. The letter of nomination should highlight these significant contributions. A detailed Curriculum Vita of the candidate may also be included. Seconding letters are suggested. Nominations should be sponsored by at least one member of the Cleveland Section. The Cleveland Section is geographically confined to the counties of Cuyahoga, Geauga, Lorain, Medina, Huron, and Erie. Nominators of candidates who work outside of these counties may contact the Cleveland Section or the American Chemical Society for more information about High School Chemistry Teacher Awards. Electronic nominations using Word Files mailed to edabrows@ix.netcom.com or edabrowski@magnificaths.org will be greatly appreciated. The award will be presented at the April 19, 2006 meeting of the Cleveland Section.

CALL FOR VOTE on Proposed Changes to Cleveland Section's By-Laws at February Meeting

After careful consideration and extensive revision by the Section's By-laws Committee, the Executive Committee voted to accept the proposed changes. The next step is for the Cleveland Section to vote to approve the proposed changes at a regular meeting in February of 2006 in accordance with our current By-laws. The 1992 approved By-laws and proposed changes to those By-laws can be found at http://www.csuohio.edu/cleveland_acs/ (note: there is an underscore

between cleveland and acs) under Important Documents. Please examine the proposed changes and be prepared to vote on them at our February 15, 2006 meeting. If you are not able to obtain these documents electronically, a hard copy may be obtained by written request from: Professor David Ball, Department of Chemistry, Cleveland State University, Cleveland, OH 44115.



Cleveland Section's 2005 National Chemistry Week Contest Winners

We congratulate the following students who were chosen as the winners in the Cleveland Sections' 2005 National Chemistry Week Contests. There were a total of nearly 1100 entries into these contests. Winners were chosen by the ACS Student Affiliates at John Carroll University.

Poster contest winners:

Students were invited to create a poster that will serve as a public service announcement emphasizing the role of science and chemistry in toys.

Elementary: Alexandra Poblete (Birchwood)
Middle School: Schulamite Chu (Birchwood)
High School: Calvin Nguyen (Early College)

Chemistry contest winners:

Elementary: "SINK OR SWIM: WHY DO SOME MATERIALS FLOAT AND OTHERS SINK?"

5th Grade Ben Thomas (Central Intermediate)
4th Grade Alexandra Hadar (Timmons Elem.)
3rd Grade Jack Javorsky (Timmons Elem.)

Middle School: "SINK OR SWIM: WHY DO SOME MATERIALS FLOAT AND OTHERS SINK?"

6th Grade Brendan Andres (St. Gregory the Great)
8th Grade Omar Diab (Birchwood)
8th Grade Ellie Robards (St. Gregory the Great)

High School: "THICK OR THIN: SOLID, LIQUID OR ...?"

11th Grade Pete Surace (St. Ignatius)
11th Grade Andrew Garcia (St. Ignatius)
12th Grade Christina Gervasi (Magnificat)

Chemistry Olympiad - 2006

Attention All High School Teachers and Students -
We are pleased to announce our participation in the 2006 U.S. National Chemistry Olympiad (USNCO). This is a multi-tiered competition designed to stimulate and promote achievement in high school chemistry. Students competing in the USNCO are eligible to be selected as members of the United States team for the International Chemistry Olympiad (IChO). The 2006 international event will be held in the Republic of Korea. To prepare for the national event, Cleveland section will conduct the 2006 Preliminary Examination, as recommended by the USNCO, during the month of March. Based on their success on the preliminary examination, specified numbers of the top students will be invited to take the USNCO national exam at Cleveland State University. Following the national examination in late April, twenty of the top chemistry students nationwide are selected to attend a study camp. A team of four finalists and two alternates will be selected to represent U.S. Would you like your high school chemistry students to participate in the Chemistry Olympiad in 2006? To find additional information regarding USNCO (& to see past tests) please go to:

<http://www.chemistry.org/portal/a/c/s/1/acdisplay.html?DOC=education/student/olympiad.html> OR to find out details regarding the Preliminary Exam, contact: r.simmons@csuohio.edu.

Name this Scientist

Correctly identify this scientist and you may win a free dinner at a local section meeting. Entries should be submitted to Heather Hargett (hargeth@ccf.org) by 5 pm **February 15**. Alternatively, entries may be submitted via post to the Cleveland Section of the ACS, P.O. Box 681, Amherst, OH 44001 and must be post marked by **Feb. 15**. A winner will be chosen at random from the correct entries. The winner shall receive a complimentary dinner at the March meeting. Please, one entry per person.



Cleveland Section
American Chemical Society
P.O. Box 681
Amherst, OH 44001

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