

# Volume 16 Number 4

# http://oklahoma.sites.acs.org/

Nov 2010

Section Meeting Wednesday 10 Nov 2010

# ENERGY FROM CHEMISTRY THROUGH THE AGES A DEMO PRESENTATION



Dr. John Fortman Wright State University

Man's first and greatest chemical invention—fire began a parade of uses of combustion reactions to produce heat, light, mechanical energy, and electricity, as well as to cook food, refine metals, and produce materials. Voltaic cells and batteries gave man other ways to use chemical reactions to produce other forms of energy and do work. Chemiluminescence now gives man a way to produce light without fire, heat, or electricity. Chemical demonstrations will be done which illustrate the principles and applications of fires and explosions, voltaic cells, and luminescence. Analogies will be made to the internal combustion engine. Short video clips may be shown of applications and bloopers.

6:00-7:00 pm	Social Hour
7:00-8:00 pm	Dinner
8:00-9:00 pm	Presentation

Southwestern Oklahoma State University East Ballroom, 2nd floor of the Student Center Campus Dr., Weatherford, OK 73069 http://www.swosu.edu/resources/map/

### **Dinner Reservation Information**

### Buffet Menu

teriyaki marinated chicken breast fried shrimp garlic cheddar mashed potatoes green bean casserole assortment of cold salads New Orleans bread pudding w/ lemon sauce (dessert) coffee and tea RSVP Deadline Monday 08 Nov 5 pm Contact: Nick Materer 405-744-8671 materer@okstate.edu Thank you Ed Neparko

# Reminiscences of his years of service to our section. —Kenneth H. Brown

This is not a biography, but rather a reminiscence about the past forty or so years that I've known Ed. I didn't realize until I wrote that just how long it's been.

First I'll get some of the more biographical information out of the way. Ed is from Canada and received both his undergraduate and masters degrees from the University of Manitoba. The next stops were a doctorate in physical chemistry at the University of Oklahoma and a career teaching at Southwestern Oklahoma State University. Ed retired from teaching in the early 1990's but that didn't mean that he stopped being involved as a professional.

I first met Ed at one of the Section's Arrowhead meetings in the mid 1970's shortly after I relocated to Oklahoma. We continued to meet at ACS activities through the years and have continued following our retirements. In fact I've seen more of Ed since his retirement than before. Until my wife finally met Ed she had, for years, thought that I was meeting Edna Parko. It's a wonder that I didn't get into more trouble about that!

Ed's several loves have fueled his retirement. He loves cars and driving! These two combined to set him on treks around the state as a faculty observer at Board of Regents of Oklahoma Colleges meetings representing the American Association of University Professors. He was a regular for years as a judge at the State Science and Engineering Fair, helping young people hone their interest in science and in particular chemistry. Those trips earned Ed two deer decals for his auto (much like those of fighter pilots) as he helped reduce that deer population in Woods County twice on trips to NWOSU.

This same love, combined with his interest in computers, spurred him to be the long term Section Secretary and Newsletter Editor, following Section activities and meetings around the state and reporting on them. At least one of those meeting each year used to be hosted in Weatherford and I'm sure that Ed had a hand in arranging those. Ed's a

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RSVP is NOT required to attend the presentation.

# Newsletter

# (Thank you Ed Neparko- continued from front page)

fifty plus year member of the ACS and has served the Oklahoma Section for around 20 years as Secretary and Editor. I don't know the exact time or dates because no Section history or organized archives exist. Does that sound like a project for a retired Editor?

Ed should serve as a reminder to all of us that life doesn't stop with retirement. Each day brings something to delight in or tussle with. Nowadays for Ed those things include his farm, his dog, and his family and not much could be better than those.

As Ed steps down from his Section officer position I wish him well on a second level of retirement.

# Did you know we also distribute the newsletter and information on section activities by email?

The Oklahoma Section communicates with its membership through several channels, including: email, this printed newsletter, and our web page. If you haven't been getting notifications of up coming meetings and other section activities by email, perhaps we do not have your current email address.

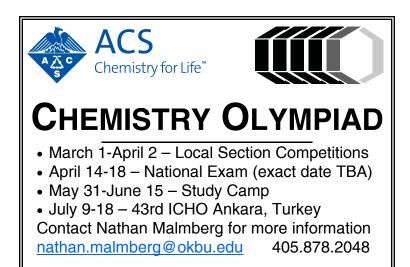
We use the email address list obtained from and maintained by the ACS. There are 3 different ways you can update your information.

- Log in to the ACS website (www.acs.org) and edit your profile

   via the *Edit My Profile* link located under the welcome banner after you login. If you cannot see this, click on *show account details*.
- 2) Phone the ACS Customer Service team (1–800–333–9511).
- 3) Send an email to the ACS Customer Service team (service@acs.org).

Help us keep in touch!

-The Oklahoma Section of the ACS Executive Committee



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# Dr. John Fortman Biographical Sketch

John Fortman received the 2007 Helen M. Free Award for Public Outreach. He 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 Rubin Battino he has produced a seven DVD set which contains ten hours of chemical demonstrations for use at middle school through college levels plus a live show and blooper outtakes. For over 30 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 8000 students each year with at least 19 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 empathizing 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 was Councilor for the Dayton Local Section from 1996 to 2004. Since he became an ACS Tour Speaker in 1991 he has given over 356 section talks, visiting 170 of the 190 different local sections while doing 76 tours including all 29 different tours at least once. He has presented in all 50 states and Puerto Rico.

# Does ACS have your current email address?

# Quick facts

The Oklahoma section of the ACS membership is 476.
Only 435 of you have submitted email addresses to the ACS.
Of the 435, approximately 50 addresses are undeliverable.

# 56TH ANNUAL PENTASECTIONAL MEETING Saturday 12 Mar 2011 ConocoPhillips Bartlesville Technology Center Bartlesville, OK

Petrochemicals and Beyond: Chemical Technology for the 21<sup>st</sup> Century

Hosted by the Northeast Oklahoma Section (Bartlesville).

keynote speaker: Nancy Jackson, ACS President

# Symposium Session Topics

Renewable Fuels and Chemicals Nanotechnology Catalysis Polymer Chemistry Biochemistry/Organic Chemistry Analytical Chemistry General Session

http://www.neoacs.org/

# Inventing Carborundum

In 1893, Edward Goodrich Acheson patented a process for making synthetic silicon carbide grit, which he called "carborundum." Today, huge quantities of silicon carbide are produced synthetically and it is of major importance in the production of precision-ground interchangeable metal parts. Because it is harder than corundum and considerably cheaper than diamond grit, lapidaries and stonecutters have long used it as an abrasive, too.

Synthetic silicon carbide is opaque and very dark black in color. In recent years, the discovery of methods of making transparent, colorless silicon carbide crystals has opened up a new market for silicon carbide as a synthetic gem. This silicon carbide is sold as moissanite and is popular as a durable and flashy, but cheaper, diamond substitute.

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# October Newsletter Mailing Lost & Found

My apologies to our membership who count in the paper mailing of the Newsletter for information on upcoming meetings. The Newsletter was printed on Columbus Day (11 October) and mailed the following day. My neighbor who works at the USPS sorting facility says they have been unusually swamped by political mailings this past month. Three weeks after the mailing, the October newsletters are slowing arriving at their destinations.

# Oklahoma Chemist Award 2011 Call for Nominations

Five (5) copies of a single nomination should be sent no later than 29 January 2011 to:

Dr. K. Darrell Berlin Chair, Oklahoma Chemist Awards Committee Department of Chemistry Oklahoma State University Stillwater, OK 74078 (405) 744-5950 kenneth.d.berlin@okstate.edu

# *Criteria and Guidelines for the Preparation of the Nomination and for Selection of the Recipient*

- 1. A nomination letter for the candidate by a colleague, friend, etc.
- 2. A complete, up-to-date resume of the candidate.
- 3. A two-page "highlight" of the candidate's major accomplishments.
- 4. Five (5) letters of support for the nominee.
  - a) Two (2) letters from colleagues at the candidate's place of employment.
  - b) Three (3) letters from outside the candidate's place of employment.

Letters from individuals with expertise in the candidate's field are especially welcomed.

- 5. Special information on the candidate is also solicited, especially as to how the candidate has advanced chemistry in the state of Oklahoma.
- 6. Candidates may be involved in research or in chemical education within the state.

# 2010 Oklahoma ACS Section Officers and Standing Committee Chairs

Nicholas F. Materer Amanda J. Nichols Lloyd A. Bumm	Chair Chair Elect Immediate Past Chair + Secretary + interim Newsletter editor
Kenneth H. Brown	Treasurer
Allen Apblett	Councilor + Nominations Com.
Donna J. Nelson	Alternate Councilor
Charles V. Rice	Awards Com.
Nathan Malmberg	Chemistry Olympiad Com.
Valerie Ferguson	National Chemistry Week Com.
Cheryl Frech	Public Relations
Jim Dechter	Web Master

Our Website has recently changed. Check out the new site! http://oklahoma.sites.acs.org/



L. A. Bumm Oklahoma Section of the ACS Homer L Dodge Dept of Physics & Astronomy The University of Oklahoma 440 W Brooks St Norman, OK 73019-2061 Nonprofit Organization U.S. Postage Paid The University of Oklahoma Norman, OK Permit No. 88

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# Oklahoma ACS 2010 Calendar of Events.

Visit the Oklahoma ACS WWW site for the latest information.

http://oklahoma.sites.acs.org/

Nov 10 (Wed) local section meeting Southwestern Oklahoma State University, Weatherford, OK Speaker John Fortman, *Wayne State University* Energy from Chemistry Through the Ages: A demo presentation Mar 12 (Sat) 2011 56th Annual Pentasectional Meeting Bartlesville Technology Center, Highway 60 &123, Bartlesville, OK