

THE Central Arkansas



CHEMIST

The Newsletter of the Central Arkansas Local Section of the American Chemical Society

February 2009

Meeting

Monday, February 9, 2009

Location: Laney Chemistry Building
Room 102
UCA
Conway, AR

6:00 pm Dinner - Mike's Place, 808
Front Street, Conway
<http://www.mikesplaceconway.com/>
Please RSVP to rlasey@atu.edu
or 479-968-0391

7:30 pm Program
Dr. E. Gerald Meyer
*"Energy for the Twenty
First Century"*

*To obtain driving directions, visit
membership.acs.org/c/centralarkansas*



graduate work. He was on the faculty of the University of Albuquerque (1950-92), and New Mexico Highlands University (1952-63) where he was successively department head, and dean of graduate studies and research. In 1963 he was appointed professor and dean of arts and sciences at the University of Wyoming, and in 1976 vice president for research. In 1990 he retired and is currently emeritus professor and dean and works part-time. Dr. Meyer has served as State Science Advisor, as president of Council of Colleges of Arts and Sciences, of the Associated Western Universities, and the Laramie Regional Airport Board. He chairs the ACS Rocky Mountain Regional Meeting, is past president of the American Institute of Chemists, is past chair and councilor of the ACS Wyoming Section, and has served and continues to serve on the ACS national committees. Dr. Meyer is a consultant to government agencies and industrial companies, refining process he

About the Speaker:

Dr. E. Gerald Meyer was born in Albuquerque, NM and attended Carnegie Mellon University (B.S. in 1940 and M.S. in 1942), and the University of New Mexico (Ph.D. in 1950). He was a laboratory chemist for the U.S. bureau of Mines, the U.S. Naval Research Laboratory (as a naval officer during WWII), and the Research Division of New Mexico Tech before returning to complete his

invented and patented. He is listed in several Who's Who editions: in the World, in America, in France and Industry, in Science and Technology. He has competed in the last three National Senior Olympics (5K and 10K road races), rides a Harley, and is Vice Mayor of Laramie, Wyoming.

Abstract

In 1998, the United States used 91.0 Q (Quads; a quadrillion BTU) and produced 69.2 Q. We exported 4.4 Q (coal), and therefore imported 26.2 Q (mostly oil). As a nation we consumed 37.1 Q of petroleum and produced 13.2 Q. A Quad of is 176,000,000 barrels of oil, so last year we import $23.9 \times 176\text{MM} = 4.2$ Billion of barrels of oil. At about \$20 a barrel, that is 84 billion U.S. dollars sent overseas each year. This is not a sustainable scenario either in terms of world supplies or our balance-of-trade. What are the alternatives? First, (let's hear the howls) petroleum products are too cheap and as a result, we have adopted a life style that is profligate in its use of petroleum products particularly gasoline. Things are getting worse rather than better. Second, while coal is by far the most abundant fossil fuel resource in the U.S. (and the world), we have not adopted any national policy to emphasize the use of coal. Now (more howls), coal is "dirty" because it produces oxides of sulfur, nitrogen and carbon. That is conventional wisdom, and while true to a degree, an aggressive R&D program could vastly improve things. But we are not talking about fossil fuels for the long term, only the intermediate term, a way to get from here to there. There is nuclear energy, which of course has taken a bum rap. In fact, the U. S. resource of ^{235}U is about the same as that of oil and gas, and so a breeder system is needed for the long term. There is the hydrogen system, but it, like the electron system (electricity), requires a primary energy source. But these are all centralized systems. There are other choices but requiring significant societal changes. They will be discussed in terms of "cradle to the grave" scenarios.

Audience Level: Chemists, Students,
Categories: General Public, General Science

Message from the Chair



Dr. Robin Lasey, Assistant Professor, Arkansas Tech Univ.

Happy New Year! I would like to take this opportunity to thank everyone involved in putting on the Southwest Regional ACS Meeting in October. A lot of time was spent planning and preparing. The end result was an excellent meeting. Many of the attendees commented on how nice the meeting was and how nice Little Rock is. Many people were involved in making this happen and all can be congratulated for the job well done. I don't generally make New Year's resolutions however this year is different. One of my resolutions is to not get behind this year. So far, so good. I have several weeks of classes planned out and I am not behind on my grading...yet. My resolution for the Central Arkansas Local Section is to get more people involved. As I write this, I have sent an email out to our section's membership notifying you the schedule of meetings for the year. Hopefully, this way you can put them on your calendar and make plans to attend. You will also find in this newsletter several other opportunities to get involved. ACS's mission is "To advance the broader chemistry enterprise and its practitioners for the benefit of Earth and its people." We all live busy lives but if each of us contributes a little then we can make a difference. National Chemistry week, Legislative Action Network, Younger Chemists, and Industry Connections are just a sampling of the ways you can get involved. I look forward to working with you this year. Let's make this a resolution that sticks.

Best Regards,
Robin

Looking Ahead:

Put these dates on your calendar

Wednesday, Mar. 11

Speaker: Dr. Jay Huebner, *Astronomy Matters for Chemistry Teachers*

Location: University of Arkansas at Little Rock

Tuesday, Apr. 28

Awards Banquet

Location: University of Arkansas at Little Rock

Tuesday, Sept. 8

Speaker: Dr. George Bodner, *The Difference Between What We Do and What We Tell People We Do*

Location: TBD

Thursday, Oct. 15

Speaker: Mr. Robert Blackledge, *The Floyd Landis Sports Doping Case as Evaluated by a Forensic Analytical Chemist*

Location: TBD

Get Involved:

The following are some possible committees in which you can get involved. Please contact Robin Lasey, rlasey@atu.edu or the contact name listed next to the committee.

National Chemistry Week – This committee helps to organize the National Chemistry Week activities that take place at the Museum of Discovery.

Legislative Action Network – The Legislative Action Network (LAN) is the Society's electronic grassroots program for updating members on federal legislation and facilitating contact with members of Congress. The network focuses primarily on federal science education and R&D policy, but also addresses environment, workplace,

and competitiveness issues. Jeff Gaffney, jsgaffney@ualr.edu

Younger Chemists Committee – This committee will work to form a support network for younger chemists throughout the state. Burt Hollandsworth, bhollan1@harding.edu

By-laws Committee – This committee will work to update the bylaws which includes, but is not limited to, changes in the voting procedures (electronic voting).

Industry Connections – This committee will create a list of chemical industries and employers that hire chemists in the state of Arkansas to be publicized on the website that members can use as a reference.

There is also the opportunity to become website manager if you have the ability and interest.

Ever at a loss as to what's going on in the section? Simply visit the section's website:

<http://membership.acs.org/c/centralarkansas>

You'll find the section's meeting schedule, announcements, and information about services provided by the section, along with other useful links.

Local Section News

Executive Committee Meeting:

The Executive Committee will meet this week to approve the 2008 Annual Report, discuss the 2009 Budget, and finalize the speaker schedule for 2009.

Stay tuned for a report from Marty Perry on our SWRM meeting.

If you have an article or job posting that you would like to have considered for publication in our newsletter, send it to odonnej@hsu.edu for review.

The *Central Arkansas Chemist* is published as needed by the Central Arkansas Local Section of the American Chemical Society. Section Chair, Robin Lasey, Arkansas Tech University, Russellville, AR 72801, rlasey@atu.edu 479-968-0391 Address all correspondence to the Section Secretary, Janice O'Donnell, Henderson State University, 870-230-5118, odonnej@hsu.edu. Newsletter contributions should be sent directly to the Section Secretary in electronic form. The Central Arkansas Local Section Web site is <http://membership.acs.org/c/centralarkansas>
