



Green Mountain Local Section of the American Chemical Society

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Green Mountain Section website:
<http://membership.acs.org/g/greenmt>

Officers 2011

Chair..... Beth Medeiros
Chair-Elect..... Heather Bean
Secretary..... Jody Chamberlain
Treasurer..... Beth Medeiros
Councilor..... Willem Leenstra
Alternate Councilor..... Jeffrey Byers

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PR/Web Master..... Fiona Case
Awards Michele Johnson
Gov't Affairs Sarah Locknar
Newsletter Editor... Willem Leenstra



Upcoming Events

December 14 – Annual Holiday Party, at the Swift House Inn in Middlebury, from 6 to 9 PM



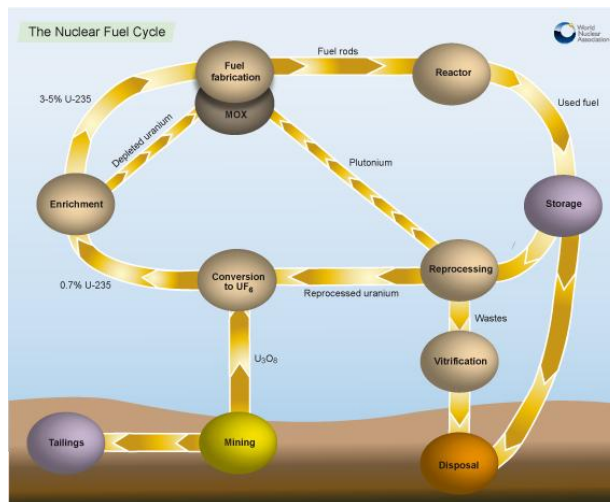
ACS website: www.Chemistry.org

GMLS November Newsletter

“Nuclear Energy Fuel”

Date: Wednesday, November 16, 2011

Time: Talk at 5:30 PM -- Dinner to follow



Speaker: Dr. Frank Settle
Washington and Lee University
Lexington, Virginia
[biography can be found on the next page]

Title: “Chemistry of the Nuclear Fuel Cycle”
[abstract can be found on the next page]

Location: McCardell Bicentennial Hall 220
Middlebury College
Middlebury, Vermont

For directions to the talk’s venue, use the Middlebury College link: www.middlebury.edu. Once at the homepage, type “maps” into their search bar, to find several maps. McCardell Bicentennial Hall is the northernmost building on the campus.

Dinner: Taste of India
1 Bakery Lane
Middlebury, Vermont

If you wish to join us for dinner after the talk, please RSVP Jeff Byers at 802-443-5207 or via e-mail to byers@middlebury.edu as soon as possible for an approximate headcount, but by the end of the business day, **Tuesday, November 15** at the latest. For directions, use maps.google.com.

Biography for Dr. Frank Settle



Dr. Frank Settle

Dr. Settle has been a chemistry professor at Washington and Lee University since 1998. Dr. Settle honed his interest in nuclear chemistry while at the US Air Force Academy as a Visiting Professor in 1991-92. His interest in teaching has culminated in a number of awards, among which most recently he received the American Chemical Society Analytical Division's 2005 Calvin Giddings Award for Excellence in Education.

In the professional service arena, Dr. Settle also has served as Program Director for Chemistry, Division of Undergraduate Education, at the National Science Foundation.

Abstract of This Month's Talk



Vermont Yankee Plant in Vernon

The nuclear fuel cycle consists of a series of industrial processes that produce fuel for the production of electricity in nuclear reactors, use the fuel to generate electricity, and subsequently manage the spent reactor fuel. While the physics and engineering of controlled fission are central to the generation of nuclear power, chemistry dominates all other aspects of the nuclear fuel cycle. An understanding of this chemistry is necessary to address the economic, environmental, safety, and proliferation issues which are essential to any substantive evaluation of nuclear power's contribution to the global energy portfolio. This presentation will

describe the role of chemistry in each component of the cycle from the metallurgy of uranium to the disposition of spent reactor fuel. It also addresses the economics of the components of the cycle and the costs of nuclear power relative to other sources of energy.

President Nancy Jackson meets GMSL Chairs

On Monday evening, October 24, ACS President Nancy Jackson gave an invited talk to the Vermont Academy of Science and Engineering (VASE). Jackson's talk focused on the growing international chemistry markets, and related that to the job market here at home. The good news is that chemists are faring better with regards to unemployment during this time of widespread economic difficulty.

President Jackson's presentation was an opportunity for officers of our section to meet with her. Current Chair Beth Medeiros, Past-Chair Fiona Case, and Chair-Elect Heather Bean enjoyed interacting with President Jackson after her talk. Earlier in the day, Councilor Willem Leenstra, who serves with President Jackson on the Council Policy Committee at the ACS national level, welcomed her to our Green Mountain Local Section, as she visited the UVM Chemistry Department.



Heather Bean, Nancy Jackson, Fiona Case, Beth Medeiros

One of the missions of VASE is to recognize outstanding achievement and contribution in the disciplines of science and engineering. Thus, the other major feature event at the meeting was a presentation of the 2011 VASE Outstanding Science Teacher Awards. Sarah Popowicz was the recipient of the award for grades K-8. She teaches at the Crossett Brook Middle School in Duxbury, Vermont. At the high school level, Joseph Chase, a teacher at Essex High School in Essex, Vermont won the award. Congratulations to these winners!

Pictures from the Omya Open House

The 11th annual Middlebury Marble Quarry Open House was held on Saturday October 15. GMLS members thoroughly enjoyed the hospitality extended by one of our region's economic engines.



Section Secretary Jody Chamberlain at the products display



Martin Case and Ben check out lab equipment



GMSL members learn about the large scope of work at Omya

Professional Development Opportunity

The ACS Leadership Development System provides local sections with an opportunity to help their members to develop critical leadership skills that are useful in the workplace and in their volunteer roles. Through a special grant from the ACS Committee on Local Section Activities we will be able to offer a four-hour facilitated course in 2012, here in Vermont, for a nominal fee (the course usually cost \$150 per member and \$300 for non-members). The ACS will provide a trained facilitator and all course materials. The following titles are available:

- Engaging Colleagues in Dialogue
- Engaging and Motivating Volunteers
- Fostering Innovation
- Coaching and Feedback
- Leading Change
- Leading Without Authority
- Developing Communication Strategies
- Collaborating Across Boundaries
- Strategic Planning

The ACS Leadership Development System is a highly acclaimed source of professional training, invaluable for chemistry professionals at all stages in their careers. Chemists working in large multi-national organizations receive professional and management training throughout their career development, but many of us working in smaller companies, or in academia, miss out on these opportunities and may be less effective as a result. The skills and ideas presented will also be extremely useful for your volunteer work within the ACS, and in any other organizations, and are invaluable for younger chemists (graduate students and post-docs) as they start their careers.

Before we accept this grant we need to be assured of your interest - please contact our 2012 Chair-Elect Heather Bean (beanchemist@gmail.com) to let us know which of the courses would be of interest to you.

Announcement of the GMSL 2011 Holiday Party

Mark your calendars with the Section's traditional holiday event. This year's Holiday Party will once again be held at the Swift House Inn in Middlebury, on December 14, 2011, from 6:00 till 9:00 p.m.



A good time was had by all in 2010