

Green Mountain Local Section of the American Chemical Society

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

Officers 2007

Chair..... Fiona Case
Chair-Elect..... Timothy Deschaines
Secretary..... Michele Johnson
Treasurer..... Beth Medeiros
Councilor..... Willem Leenstra
Alternate Councilor..... Martin Case

Committee Chairs

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

Upcoming Events

June, 2007 – A tour of NRG, a Hinesburg manufacturer of wind-power instrumentation

Fall, 2007 – A tour of a biodiesel manufacturing plant



ACS website: www.Chemistry.org

GMLS May Meeting

“Alchemy”



Date: Thursday, May 10, 2007
Time: Talk at 6:30 pm, followed by dinner

Speaker: Timothy Deschaines
Middlebury College

Alchemists often sought to keep the work they did either secret or available to only a select few. To accomplish this they often created their own sets of symbols, and even descriptive symbolism, to make it difficult, if not impossible, for an outsider to understand what was being presented. Whole sets of alchemical processes could be described in what sounded like a tale of mythological animals. This talk will present and discuss various symbols and symbolism used by alchemists and pre-chemists, with some exploration into symbolic analysis.

Title: “Alchemical Symbols and Symbolism:
An Exploration”

Location: McCardell Bicentennial Hall
Room 219
Middlebury College

For directions to the talk's venue use the Middlebury College link: www.middlebury.edu. At their homepage, click on “Campus Map” at the lower bar, followed by selecting McCardell Hall in the Building Index in the upper right of the campus map screen.

Dinner: Tully and Marie's
Bakery Lane, Middlebury

If you wish to join us for dinner after the talk, please RSVP Fiona Case at 879-3684, or via e-mail to greenmntacs@yahoo.com by **Wednesday, May 9**. For directions, see www.tullyandmaries.com.

Message from Our Section Chair, Fiona Case

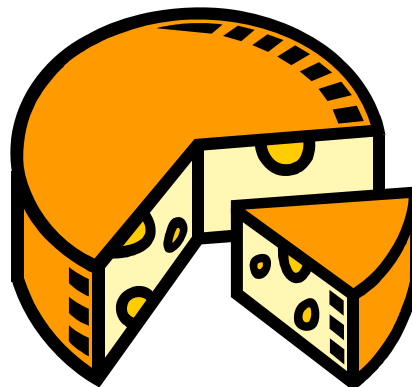


This has been a busy time for the ACS Green Mountain Local Section. We celebrated Earth Day with our illustrated Haiku contest, and held two very successful meetings in April. Thank you to everyone who made these events possible, including our Haiku Judges: Marjorie Adams and Davi Peraino; and Beth and Willem who organized the April meetings. Thanks also to the UVM Department of Environmental Safety for their sponsorship of the Haiku Contest.

Some of you may have seen the recent PBS Nova special on Isaac Newton's Dark Secrets. It provided a taste of the alchemical world, which we will learn about from Tim Deschaines at our May meeting in Middlebury.

Our new Local Section Government Affairs Committee has been active. We were delighted to hear that US Congressman Peter Welch actually quoted the committee's comments on the floor of the House in support of H.R. 362, the "10,000 Teachers, 10 Million Minds Science and Math Scholarship Act" which authorized science scholarships for educating mathematics and science teachers; and of H.R. 363 the "Sowing the Seeds Through Science and Engineering Research Act", which authorizes appropriations for basic research and research infrastructure in science and engineering and for support of graduate fellowships. Both acts were passed. Please visit our website, or contact committee chair Sarah Locknar, for information about participating in this important work.

Your comments and suggestions about Green Mountain Local Section activities are always welcome. Our email address is greenmntacs@yahoo.com



Report of Our April Meeting

On Thursday, April 26, we learned about the chemistry of cheese and cheese-making from Dr. Michael Tunick, a Research Chemist with the USDA Agricultural Research Service. The meeting was held at Rutland High School. A number of the AP Chemistry and Biology students joined us for this well attended meeting.

In the first step towards making cheese, the milk is warmed and bacteria are added. These consume the carbohydrate in the milk and produce lactic acid. The resulting drop in pH provides the correct conditions for the action of the enzyme rennet, which was traditionally obtained from calves' stomachs but now is usually provided using biotechnology. The rennet breaks down part of the protein and causes it to change its aggregation state from micelles into a more interconnected structure which then precipitates out - leaving behind the whey. The amino acid breakdown products are major contributors to the final taste of the cheese. The complexity of flavors is due to the presence of 100's of molecules such as, for example, methional and 3-(methylthio)propionaldehyde, which are responsible for the distinctive cheddar flavor.

The remaining steps in cheese making involve removal of whey (which creates a harder cheese) and processing steps such as stretching to manipulate the cheese structure (stretching produces stringy cheese). Aging is critical to develop the final flavor of the cheese. Cheese-based products are well regulated and we learned about the difference between cheese, processed cheese foods, and "cheese products". The meeting was followed by a "cheese-focused" dinner with Michael and his wife at the Three Tomatoes Trattoria in Rutland.

Haiku Contest

Our judges worked hard to narrow down the many entries to the following categorical winners.

Adult Category

Winner: Doris Jacques
Second: Samantha Ryan

Grade 2-4

Winner: Margaret Palmiero
Second: Yakeem Cristians
Sariah James

Grade 5-8

Winner: Lauren Scott
Second: Ashley Meyer
Honorable Mention: Cameron Lucus
Josh Fontaine

Grade 10

Winner: Jillian Tanych
Honorable Mention: Sarah Berry

Grade 11-12

Winner: Sophie Kirpan
Second: Elektra Zolnoski
Honorable Mention: Maeghan Whitcomb
Averie Sherburne

We are especially proud of the fact that our Winner in the Grade 5-8 category is also the national winner. Congratulations Lauren!

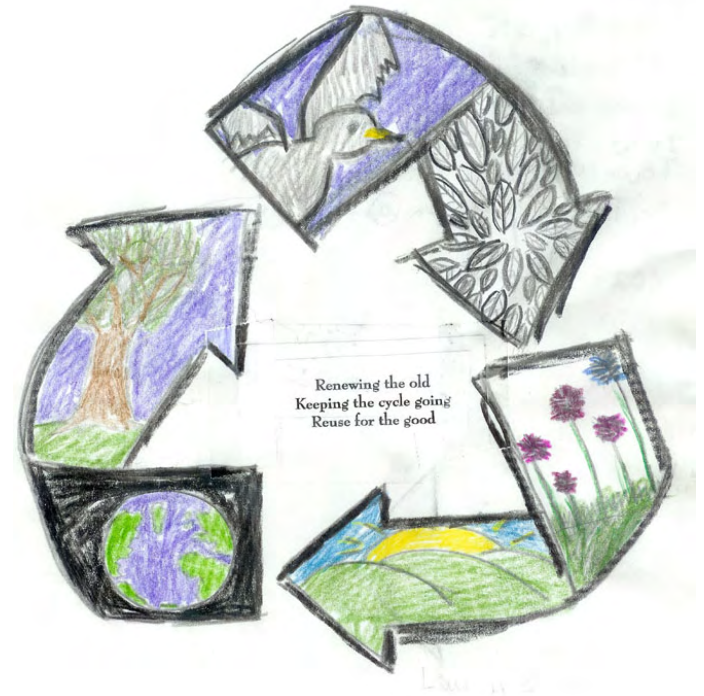
All haiku entries can be seen at our website with their accompanying artwork, in color at:
http://membership.acs.org/g/greenmt/Earth_Day07.html

Adult Category Winning Entry



Lauren Scott's National Winner Entry

Winner, 8th Grade
Lauren Scott



Job Opportunity

Sarah Locknar has accepted a position at Bio-Tek Instruments, and has vacated the job described by the following posting:

Director, COBRE Imaging Facility, UVM The major functions of this position are to maintain and enhance a multi-user imaging facility that provides the neuroscience research community access to and training in the use of multiple types of state-of-the-art imaging techniques including confocal microscopy, multi-photon microscopy, intracellular imaging, deconvolution-restoration microscopy and TIRF microscopy. Supervision will be provided by the Chair of the Department of Anatomy and Neurobiology.

Minimum Requirements are an MS degree and prior experience in confocal, multi-photon and deconvolution microscopy as applied to cell biological problems. Additional prerequisites, a full job description, and the application process can be found at www.uvmjobs.com - job requisition # 031862.

Councilor's Report from San Francisco by Willem Leenstra

Actions of the Council included the following:

Election Results

- By written ballot the Council selected Thomas H. Lane and Howard M. Peters as candidates for 2008 President-Elect. These two candidates will stand for election in the Fall National Election.

Committee Performance Reviews

- As part of a regular review, the Council VOTED to continue the Committee on Science, the Women Chemists Committee, and the Younger Chemists Committee - subject to concurrence by the Board of Directors.

Petitions for Action

- The Council VOTED to split consideration and action on the Petition on Election Procedures 2006 into two parts: Part 1 changes the timing of run-off elections and specifies an election process for situations in which only one Director-at-Large position is open. Part 2 addresses consistency in national election procedures. It proposes changes to standardize the petition and election processes for President-Elect and all Director positions based on percentages of voting members. It replaces language specifying a required absolute number of petition signatures for nomination of candidates for President-Elect, and Director-at-Large with language specifying a higher requirement for petition signatures as a percentage of the membership for nomination of candidates for these offices. The Council VOTED to accept Part 1. For Part 2, the Council VOTED to recommit this petition back to the Committee on Nominations and Elections and ask that they reconsider the signature requirements, procedures for processing electronic signatures, and those suggestions arising from the Governance Review Task Force pertinent to election procedures.
- The Petition on Rules for Nominating Members of N&E for National Offices establishes a one-year waiting period following service on the Committee on Nominations and Elections before an individual can be nominated for District Director, President-Elect or Director-at-Large. The Council VOTED by recorded vote to defeat this petition.
- The Council VOTED to accept the Petition on Multi-Year Dues. This petition will allow members paying full dues without any of the discounts to pay for periods of two or three years if they wish, at a rate equal to two or three times the rate for a one year period. Council also VOTED to make this

petition effective when technical components are instituted to offer and track the payments, but no later than January 1, 2010.

- The Board of Directors will vote within 90 days on whether to ratify the approved petitions.

2008 Member Dues

- The Council VOTED to set the member dues for 2008 at the fully escalated rate of \$136. This rate is established pursuant to an inflation-adjustment formula in the ACS Constitution and Bylaws.

The Society's Finances

- The Society ended 2006 with a net contribution from operations of \$12.2 million, on revenues of \$424.0 million and expenses of \$411.9 million, which was \$7.8 million favorable to the approved budget. The favorable variance was primarily attributable to higher-than-budgeted electronic services revenue and investment income, as well as expense savings from lower-than-budgeted health care costs and reduced IT spending. In addition, the Society ended 2006 in full compliance with the Board-established financial guidelines.

Registration Report

- As of March 27, 2007, the ACS fall national meeting had attracted 14,520 registrants as follows: Regular attendees 7,152; Students 5,059; Exhibitors 1,283; Exposition only 573; and Guests 453.

Future National Meetings

- The Council VOTED to approve dates and sites for 2017 national meetings as follows: April 2-6, San Francisco, California; and September 10-14, St. Louis, Missouri.

New Local Section

- The Council VOTED to establish the Snake River Local Section with headquarters in Boise, ID. This brings the total number of local sections to 190.

Member Statistics

- ACS closed 2006 with 160,491 members, the highest year-end membership since 2002. Of the 17,857 applications processed in 2006, more than 1,000 came from the Member-Get-A-Member campaign, in which many councilors participated.

Chemical Professional's Code of Conduct

- The Council VOTED to approve the Chemical Professional's Code of Conduct as submitted by the Committee on Economic and Professional Affairs. This document offers guidance for Society members in various professional dealings, especially those involving conflicts of interest.