



## Green Mountain Local Section of the American Chemical Society

e-mail: [GreenMntACS@yahoo.com](mailto:GreenMntACS@yahoo.com)

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

### Officers 2007

Chair..... *Fiona Case*  
Chair-Elect..... *open*  
Secretary..... *Michele Johnson*  
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Councilor..... *Willem Leenstra*  
Alternate Councilor..... *Martin Case*

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

### Upcoming Events

**August 19-23: ACS National Meeting in Boston**

**September 10: Tour Speaker Mary Virginia Orna at St. Michael's College**

**September 29: National Chemistry Week Kick-Off Event at University Mall, Burlington**



ACS website: [www.Chemistry.org](http://www.Chemistry.org)

# GMLS September Meeting

## "Art and Archaeology"



**Date: Monday, September 10, 2007**

**Time: Talk at 5:30 pm, followed by dinner**

**Speaker: Sister Mary Virginia Orna  
Professor of Chemistry  
College of New Rochelle**

**Title: "Doing Chemistry at the  
Art/Archaeology Interface"**

The fruits of a sabbatical year in Israel and Italy will form the basis of this lecture. In Israel, modern methods of analysis were used to examine ancient pigments found on excavated textiles from caves in the Judean desert and the ancient fortress of Masada. The work in Italy involved examination of medieval artists' manuals for recipes for blue pigments. These were subsequently produced and characterized, with some surprising results. Also, applications of the methods of archaeological chemistry to such famous artifacts as the forgeries of Han van Meegeran and the Shroud of Turin will be presented. [Biography of Sr. Mary Virginia Orna is on the next page.]

**Location: Hoehl Welcome Center  
St. Michael's College**

**Dinner: Ice House Restaurant  
Battery Street, Burlington**

If you wish to join us for dinner after the talk, please RSVP Willem Leenstra at 656-0273, or via e-mail to [willem.leenstra@uvm.edu](mailto:willem.leenstra@uvm.edu) by noon on **Friday, September 10**. [Directions to the lecture and to the restaurant are on the next page.]

## Sister Mary Virginia Orna's Biography



Sister Mary Virginia Orna, O.S.U. (Order of Saint Ursula) is a professor of chemistry at the College of New Rochelle, and serves as Editor-at-Large for Chemical Heritage magazine. She has lectured and published widely in the areas of color chemistry and archaeological chemistry. She is active in several divisions of the American Chemical Society, having served as Chair of the History Division, and of the Chemical Education Division. She is a recipient of a number of major awards: the 1984 CMA Catalyst Award for excellence in college chemistry teaching, the 1989 New York State Professor of the Year and National Gold Medalist, the 1989 Merck Innovation Award, the 1996 ACS Visiting Scientist Award, the 1996 James Flack Norris Award, the 1999 ACS George C. Pimentel Award in Chemical Education, and the 2001 New England Association of Chemistry Teachers J. A. Timm Award for excellence in chemistry teaching. She is currently president of ChemSource, Inc., a major effort in chemistry teacher preparation and enhancement funded by the National Science Foundation. She was a Fulbright Fellow in Israel (1994-95), where she lectured at The Hebrew University, The Weizmann Institute of Science, and Shenkar College of Textile Technology.

### Directions to the Lecture and to the Restaurant

#### **Lecture:**

From the south, take I-89 to Exit 15. Bear right off the exit, and go right onto Route 15 through two lights (includes a sweeping left turn). After the second light, veer right into the "jug handle" and go through the intersection onto the St. Michael's campus. Park outside the Hoehl Welcome Center, which is the first building you see on your left.

From the north, take I-89 to Exit 16. Make a right off the exit, and follow Route 7 south to the junction of Route 15 (the rotary in the center of Winooski). When past the I-89 exchange, follow the above directions.

#### **Restaurant:**

Take Exit 14W off I-89, merging onto Williston Road, which becomes Main Street. Follow it to Battery Street (near the lake), and turn left. The Ice House Restaurant will be on your right at the next block.

## Message from Our Section Chair, Fiona Case



Dear Vermont Chemist,

I hope you have been enjoying the beautiful summer weather in our beautiful state. As you will see in this newsletter, the Green Mountain Local Section has been active, and we have lots of good news to share!

As the summer season draws to a close we are busy preparing for the ACS National Meeting and Exposition which will be held in Boston, August 19-23. This will be a particularly important event for the Green Mountain Local Section as we will be launching our marketing campaign for the 2008 Northeast Regional Meeting (NERM2008), which we are hosting here in Burlington next June. We have secured a table in the Exposition Hall which will be our base for promoting the event. If you are planning to attend the Boston meeting please consider helping out at our NERM2008 exhibit for a couple of hours on Monday or Tuesday between 9:00 a.m. and 5:00 p.m. or on Wednesday between 9:00 a.m. and 1:00 p.m. in Halls A and B1 of the Boston Convention & Exhibition Center.

Our next local section meeting is on Monday, September 10 (details in this newsletter), and later in September, on the afternoon of Saturday the 29th, we will be mounting an early celebration of National Chemistry Week with hands-on chemistry fun for children (and the young at heart) at the University Mall in Burlington. Volunteer demonstrators are needed for this fun activity. No experience is required.

I hope to see you at one (or all) of these events! Please send email to [greenmntacs@yahoo.com](mailto:greenmntacs@yahoo.com), or phone me at 802-879-3684 to get involved.

Best wishes,  
Fiona



## Chemical Demonstrations at the Vermont Achievement Center in Rutland

by Michele Johnson

In mid-July I visited Rutland's Vermont Achievement Center (VAC) to perform chemistry demonstrations for the pre-K classroom (which my son Liam is in). One of the VAC's aims is to get kids interested in science at a young age.

We had a lot of fun with polymers: I showed them a disappearing water trick (with sodium polyacrylate, the absorbent polymer used in diapers), and we all made "super stretchy slime" (in OMYA blue, no less) that each child was able to take home. When I left, I'm sure that many of the kids thought that "chemistry is cool"!

The GMLS has recently applied for an ACS Local Section Activities Committee (LSAC) Innovative Project Grant to support our outreach work at the VAC, and to fund a science cart for use in their early education department.



Michele showing "the ropes" to a budding scientist.



Success!!

## Report of the June Meeting at NRG

Our June Local Section Meeting provided a wonderful opportunity to learn about alternative energy and tour a building that is one of only four industrial facilities in the world to receive the gold LEED certification. This was one of our best-attended events ever, with more than 35 local section members and guests.

Following the tour we dined at Papa Nick's in Hinesburg, and some of us went on to Willem Leenstra's home to enjoy dessert and conversation and a beautiful summer evening. Our thanks to Kathy Magnus from NRG system who coordinated the tour for us.



## Legislative Action Update

It has been written by the venerable Chinese philosopher Confucius that "a journey of a thousand miles begins with the first step". This quote applies equally well to passage of sweeping federal legislation by the U.S. Congress; sometimes it takes years to get something right and develop the needed support. We witnessed a good case in point last week when Congress overwhelmingly adopted milestone legislation to bolster U.S. innovation and foster our global competitiveness. The bill, the America COMPETES Act, brought together various pieces of legislation dealing with federal research and development as well as science, technology, engineering and math (STEM) education into a comprehensive bill.

For those of you who are members of the ACS Legislative Action Network, the topics will sound very familiar as you have helped advocate for them over the past several years. Since 2005 LAN members have generated over 21,000 letters to Capitol Hill and the White House urging passage of U.S. innovation and competitiveness legislation! During that same period of time, LAN members and local section government affairs committees met with 74 congressional offices advocating on behalf of various parts of this bill. For further information, or to join the LAN, please see <http://chemistry.org/government>, or contact our Green Mountain Local Section Government Affairs Chair, Sarah Locknar at: [locknars@biotek.com](mailto:locknars@biotek.com).

## Project SEED

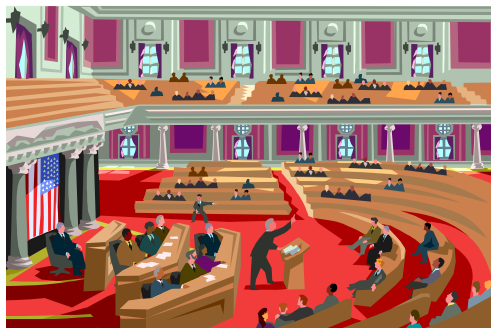
Stephanie Chan is a student at South Burlington High School, she is spending her summer as an intern in the Chemistry Department at UVM as part of ACS Project SEED, sponsored by our local section.



Stephanie is working in Prof. Rory Waterman's laboratories where she is investigating the insertion reactivity of zirconium diphenyl phosphido compounds. "I heard about the internship from my chemistry teacher," says Stephanie. "I wasn't sure if I was really interested in chemistry. High school chemistry is fun, but it doesn't give you the experience of laboratory work. I wanted to find out what chemists really do," she explains. Stephanie has enjoyed her taste of research. "I've been discovering new materials, it's really cool." she says.

## GMLS Nominated for Government Affairs Award

Our Green Mountain Local Section has been nominated for a ChemLuminary Award for the work of our local section's Government Affairs Committee. Winners will be announced at the ChemLuminary awards ceremony during the ACS National Meeting in Boston. If you are attending the Boston meeting, please do join us on Tuesday evening, August 21, 9:00-10:00 p.m., in the American Ballroom at the Westin Copley Place. The ceremony will be followed by a party.



Congratulations to Sarah Locknar and Ralph Stuart, co-chairs of our GAC.

## Employment Corner



GMLS member Daniel Nielsen is just completing his postdoctoral research fellowship in the Materials Science and Engineering Department at the University of Michigan. He will be relocating to the Burlington area, where he is in search of chemistry related employment.

Dan earned a Ph.D. in inorganic and environmental chemistry in May, 2006, focusing on the synthesis and characterization of novel silica polyamine composites and their application to metal ore processing and mine waste remediation. At the University of Michigan his work has focused upon modifications of octaphenylsilsesquioxane materials and a novel synthetic route to printable silicon metal.

Although he is interested in continuing with synthetic and analytical chemistry, his foremost interest and passion is in the field of environmental sustainability. Dan also has industrial experience working with Eastman Kodak Co. He can be reached via email at [nielsend@umich.edu](mailto:nielsend@umich.edu) or by phone at 585-730-1346.