



# **N. E. A. C. T. Newsletter**

**New England Association of Chemistry Teachers**

**Volume 61 No. 2**

**January 2007**

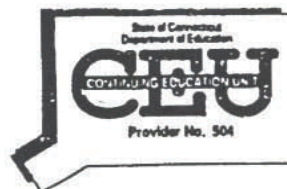
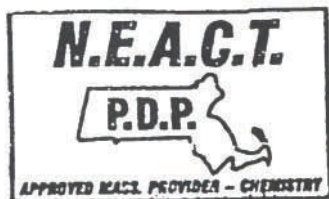
**505th Meeting  
Saturday, January 13, 2007  
Hampshire College, Amherst, MA**

## **Green Chemistry**

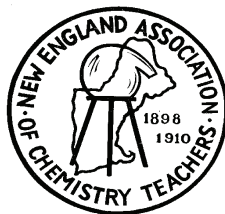
**Western Division, Rayane Moreira, Chair**

Massachusetts: 3 PDP

Connecticut: .3 CEU



Rhode Island: .2 PDC



## New England Association of Chemistry Teachers

The Newsletter is published five times a year. Website: <http://www.neact.org/>  
NEACT promotes exemplary teaching of chemistry and usually holds four division meetings during the school year and an annual summer conference.

### NEACT Executive Committee 2006-7

President: Marie Reluga [mreluga@aol.com](mailto:mreluga@aol.com); telephone: 860-653-7438  
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Curator, Membership: open  
CEU/PDP Chair: Laura Smutnick [lsmutnick@tolland.k12.ct.us](mailto:lsmutnick@tolland.k12.ct.us)  
Timm Award Selection Committee: David Adams, Bette Bridges, James Golen  
Necrology (*Please report the death of a NEACT member to*): Nancy Graves [rggraves@juno.com](mailto:rggraves@juno.com)  
Nominations: Donna Horvath [dhorvath@nmiddlesex.mec.edu](mailto:dhorvath@nmiddlesex.mec.edu)  
Trustees, Endowment/Timm Award: Pat Armitage ([mascience@yahoo.com](mailto:mascience@yahoo.com))  
Dorothy Stumpf, Kathy Siok

Additional contact information for the above individuals may be found on the NEACT website and on the back page of the NEACT Journal.

Literary or editorial contributions or event listings for this Newsletter are always welcome and must reach Judith Douville, the editor ([jdouville@juno.com](mailto:jdouville@juno.com)), on or before the following dates:

November 15, 2006

January 15, 2007

April 1, 2007

**Note: You may want to keep this page for future reference.**

**505th NEACT Meeting**  
**Saturday, January 13, 2007**  
**Hampshire College, Amherst, MA**

8:30-9:00 AM	Coffee
9:00-10:00 AM	<i>Incorporating Green Chemistry into the Chemistry Curriculum</i> Dr. Margaret Kerr (Worcester State)
10:00-11:00 AM	<i>Biodegradable Polymers</i> --Dr. Shaw-Ling Hsu, UMass Amherst
11:00-12:30 PM	Workshop 1: <i>A Green Bromination Reaction</i>
(11:00-12:30 PM)	NEACT Business Meeting)
12:30-1:30 PM	Lunch (on site)
1:30-3:00 PM	Workshop 2: <i>Building a Solar Cell</i>

Hampshire College is on Rt. 116 in Amherst, MA. Morning lectures in Cole Science Center, Room 333; morning and afternoon workshops in Cole Science Center, Room 2--open

Directions:

<http://www.hampshire.edu/cms/index.php?id=8924>

To get to Cole Science Center, turn in at the main entrance, then take the second right (at the roundabout). Visitor parking will be in the lot on the left. Cole Science Center is just beyond the parking lot; follow the signs.

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### **New Student Guide Connects Academics to Careers: Chemistry is Key to Plastics Careers**

Choosing a career path as a high school student is a very real challenge. In addition to learning about the new jobs that emerge continuously, students often need help understanding how high school and college academic programs relate to which potential careers. A new book, entitled "They Teach That in College," provides an up-to-date resource for college bound students. The book suggests high school courses and some likely employers for 75 "interesting" college majors, many of which require a strong foundation in chemistry.

Professor Robert Malloy, Chairman of the Plastics Engineering Program at UMass Lowell, has offered to provide a copy of "They Teach That in College" along with a cool-looking, corn-based poly(lactic acid) Coffee Mug to interested chemistry teachers, free of charge while the supply lasts.

"They Teach That in College" describes majors such as Plastics Engineering, still a dynamic and developing field 40 years after that famous scene in *The Graduate*. Professor Malloy notes that a good understanding of chemistry is one of the keys to being a successful plastics materials engineer. Malloy describes how Plastics Engineers use these versatile materials to design, test and manufacture complex products that range from angioplasty catheters to automobile bodies. He also describes how the growth of plastics made from renewable resources, such as poly(lactic acid) produced from corn, is adding yet another new dimension to the field.

The program at Lowell is unique and very well respected nationally. As a one-of-its-kind program, the Plastics Engineering Program at UMass Lowell qualifies out-of-state New England students for reduced tuition through the New England Board of Higher Education Regional Tuition Program.

Contact < robert\_malloy@uml.edu > for your free book and coffee mug or go to <http://plastics.uml.edu> for more information on the Plastics Engineering Program at UMass Lowell and on the history and science of plastics.

## **From the President—**

Season's Greetings:

By the time you receive this newsletter we will be well into the Holiday spirit.

Many thanks to Dave Crockett for organizing the Northern Division meeting held in Poland Springs on October 28.

Kudos to Judith Kelly and all the column editors for a truly informative recent issue of the *NEACT Journal*. How knowledgeable you all are.

The recent Nobel Prize in Chemistry was awarded to Roger Kornberg of Stanford University for his description of the molecular basis of eukaryotic transcription. He documented this with snapshots by crystallizing cellular material partway through transcription and exposing them to x-rays that produced patterns revealing the intermediate structures--mind boggling!!

As always we are thankful to those who stepped forward at the last conference to fill some vacancies--Rayane Moreira as Western Division Chair and Donna Horvath nominations committee. We still have several vacancies and welcome more people to volunteer.

If any of our members have received any awards please let me know so we can share the good news.

We are working on details for the next summer conference on GLASS. You will be treated to the latest innovations in glass pertinent to chemistry. Topics such as photovoltaic glass, glass in architecture, solar and photochromic capabilities are sure to interest you. Visit <http://cmog.org/> for more info.

Reminder that the dues will increase to \$25 on Jan 1, 2007.

My very best wishes for the Merriest Holiday!!!

Marie Reluga, President

## From the Membership Secretary...

Fellow members:

Nov 6, 2007

I hope you have had a nice fall and your classes are going well. I want to thank all of you who sent me such nice comments when I sent out the email about the change of format for the newsletter. I feel really blessed to know so many wonderful people and dedicated teachers. Here are some important reminders.

\* **Dues for all members are now due.** The fiscal year is from July 1, 2006 through June 30, 2007. If your address sticker does not read 6/30/2007, you owe **\$20** for this fiscal year. Anyone who has not renewed should have received a mailing from me recently, please try to send the check and any information changes to me by December 5<sup>th</sup>. Note: *Dues will be going up to \$25 starting January 1<sup>st</sup>*, so be sure to get them in by the end of December to pay the lower price.

\* A reminder that **we are now sending out the newsletter via email**. If you have an active email account, but received this newsletter by US post, it is because I have not been able to confirm your email address. Please contact me with your updated email information. ([jj@k2sw.com](mailto:jj@k2sw.com))

\* **I would like to remind you that you may sponsor one person.** You do not need to pay, simply contact me about a good candidate for NEACT and indicate that you would like to sponsor that person. They can fill out the membership form on our NEACT web site ([www.neact.org](http://www.neact.org)) or use the form at the back of this newsletter. This is particularly good if there is a new teacher at your school, or if you have a student teacher.

\*Our membership is currently at 416 persons. Of this number, 79 are emeritus, 22 are honorary, 32 are complementary (speakers at our meetings) and 28 are sponsored. You may be eligible for emeritus status as well if you are retired and you have been a member of the association for at least twenty years or have performed equivalent service to the association. Contact me if you think you are. [jj@k2sw.com](mailto:jj@k2sw.com)

\***I want to welcome the many new members who have joined since April 2006:** Gary Bannuk, Leo Bedard, Robert Belford, Amy Biddle, Ed Brush, Donald Cala, Amy Cannon, Charles Costa, James Costello, Berkeley Cue, M. Douglas Dagan, Robert DeSimone, Jack Duranceau, Kevin Dye, Chuck Ferullo, Richard Gurney, Sally Henrie, Esther Hines, Patricia Hogan, Tom Hsu, Laura Ingalls, Rachael Kipp, Joseph Kivaa, Leslie Knight, Chris Koutros, Charles Lawrence, Eric LePage, Irvin Levy, Ed Loiselle, Christina McKenrick, Angie Melcher, Michele Mitnitsky, Diane Moreau, Kathryn Parent, Mary Ellen Sargent, Tari Varco Shea, Michael Spatzer, Uchie Uche, Kevin Verville, Nancy Ward, John Warner, and Justin Whitfield.

Welcome to NEACT!!

*Jerusha Vogel*

## **Frances Hovey Ekstrom**

Exeter – Frances Hovey Ekstrom, 66, Of River Street died Friday, November 3, 2006 at the Exeter Hospital.

She was born July 26, 1940 at Eastern Long Island Hospital, Greenport, NY to the late Howard and Mary Alice (Hartwell) Hovey.

Mrs. Ekstrom was raised in Riverhead, NY and was a graduate of Riverhead High School. She was a graduate of Mount Holyoke College and received her masters in education from Harvard. Frances taught for many years at Lincoln-Sudbury Regional High School before marrying James Ekstrom and moving to Exeter, New Hampshire.

She also received her certificate of advanced graduate study from the University of New Hampshire. Frances taught at the Exeter High School in the Science department and served as the department chair.

After her retirement from the Exeter School System, she taught part time at the Philips Exeter Academy in the Science Department. She was a member of the National Education Association, a member of the New Hampshire Science Teachers Association and served on this board for several years. She also had active memberships in the New England Association of Chemistry Teachers and the National Association of Biology Teachers.

She was an accomplished flautist, enjoyed gardening, cooking and reading and did extensive traveling during her school breaks. She was a member of the Exeter Congregational Church and the Church Choir.

She was a devoted wife, mother and loving aunt.

She is survived by her husband, James V. Ekstrom of Exeter, her daughter, Susan H. Ekstrom of Exeter, two brothers, Arthur Hovey of Milford, CT, and Robert Hovey of Southold, NY.

A memorial service will be held at a time to be announced. Memorial donations may be sent to the Association for Frontotemporal Dementias, 100 North 17<sup>th</sup> Street, Suite 600, Philadelphia, PA 19103.



# Coming in January 2007 . . .

## A Flinn Catalog Just for Middle School Science Teachers

Flinn Scientific offers a catalog designed exclusively for middle school science teachers. The *2007 Flinn Science Catalog/Reference Manual for Middle Schools*, available in January 2007, features products, ideas and information specifically for middle schools and junior high schools.

Middle school teachers will appreciate finding everything they need for life science, earth science, and physical science, including laboratory chemicals, in one convenient source.

You will find low prices, valuable lab ideas, helpful safety tips, and chemical storage and disposal techniques. Every middle school and junior high school science teacher should have a copy of this new unique catalog.

Free copies of the *2007 Flinn Science Catalog/Reference Manual for Middle Schools* are available to science teachers at school addresses only. For contact information, see below.

## ***The 2007 Flinn Scientific Chemical & Biological Catalog/Reference Manual***

With More Than 150 New Products for Biology, Chemistry,  
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Coming in January 2007 – Flinn Scientific will publish the new *2007 Flinn Chemical & Biological Catalog/Reference Manual*. This indispensable catalog/reference manual contains more new and exciting chemistry, biology, physical science and earth science products, in addition to the wealth of safety materials you expect from Flinn.

Helpful information regarding safe storage of chemicals, laboratory solution preparation, Right-To-Know requirements, chemical disposal procedures, and much more are also included.

This outstanding resource is a must for all secondary science teachers. Free copies are available to science teachers at school addresses only. To obtain a free copy, teachers only should contact Flinn Scientific at:

Flinn Scientific, Inc.  
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1-800-452-1261  
E-mail: [flinn@flinnsci.com](mailto:flinn@flinnsci.com)  
Web site: <http://www.flinnsci.com/>

## **2007 Science History Tour - Scandinavia. Advance notice (Nov. 2006)**

For 2007 we will be turning our sights to Scandinavia to explore further the Viking culture that we encountered in the Orkney Isles this past summer. The itinerary is not yet finalized, but it looks as though we may begin in northern Germany on the Baltic, then travel north through Denmark and Sweden, and probably end the trip in Stockholm. Along the way we will see some of the towns in Schleswig-Holstein, such as Lubeck, stay in Copenhagen, cross to Sweden by ferry and visit Lund and possibly Tycho Brahe's island of Hven, then on to Uppsala and Stockholm. Those who wanted to could take a few extra days and go on to Finland by ferry if they wish, possibly returning home from Helsinki.

As 2007 is the 300<sup>th</sup> anniversary of the birth of Linnaeus, so that has inspired the philosophical theme of the 2007 trip - that of 'Natural Kinds' or the ways in which objects can be classified. There will be many celebrations of the anniversary in Sweden, so naturally we will want to visit Linnaeus' garden in Uppsala and other places associated with him. Botanists will not have it all their way, though, as we will look at other aspects of classification, viewing Queen Christina's Cabinets of Curiosity as early examples of museum culture, and, since so many elements were discovered in Scandinavia, we will consider another classification scheme, the Periodic Table. In Copenhagen we will look at modern physics and in Stockholm hope to visit the Royal Academy of Sciences and to include a 'behind-the-scenes' visit to see special objects not on public display, such as those associated with Berzelius. Other scientists of Scandinavian origin, Arrhenius, Celsius, Ole Romer and others will be on our agenda too. Those of you who will be interested in the (very reasonably priced) college credit course associated with the tour could start thinking about a project related to one of these aspects of the tour theme. A reading list will be coming out in due course, but any biography of Linnaeus would be a good start.

The starting date and time for the trip will be around noon on Wednesday June 20, when the group will meet at the European starting point for the tour, so your air travel to Europe would need to be arranged accordingly. It is quite common for tour members to arrange to arrive in Europe a day or two early in order to get over jet lag and possibly pay some visits of interest to themselves. Normally, the trip lasts for two weeks, and that means it would end on Wednesday July 4<sup>th</sup>. We are excited about the new sights and experiences that we will enjoy in Scandinavia, so would like to know if you are interested in joining the group. I have started a list of 'Potential Participants' for those who wish to be kept informed of our plans, so if you would like to be put on it, then just e-mail either Lee or Yvonne.

The price of the trip is not yet determined, but I am sorry to say that it will have to be several hundred dollars higher than last year's price of \$2975 for the ground-only tour. Once we have more information on the trip, primarily itinerary, duration and cost, we will let you know by means of another e-mail and from then on will communicate only with those on the 'Potential Participants' list. If you want to see some presentations and information about previous years' trips, then go to Lee's web page at: <http://www.chem.uic.edu/marek/> and click on "History of Science Stuff".

Please let us know if you wish to be added to our list for the 2007 trip, or if you wish to be removed from our database.

All best wishes,  
Lee Marek   Lmarek@aol.com  
Yvonne Twomey   ytwomey@mindspring.com  
Nov 2006

## NEACT Membership Application/Renewal 2006-2007

(Membership year = 7/1-6/30. You are paid through 6/30 of year on address label.)

Check one: New Member  Renewal

Sponsored member (free for one year if sponsored by a NEACT member) \_\_\_\_\_

(Name of sponsor \_\_\_\_\_)

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Home--Address: \_\_\_\_\_ City/Town: \_\_\_\_\_

State: \_\_\_\_\_ Zip: \_\_\_\_\_ (9 digit zip); Use of 9 digit zip code saves \$\$.

Telephone: (\_\_\_\_\_) \_\_\_\_\_ e-mail address: \_\_\_\_\_

( ) Check if new address/tel. no.

(Circle one) You may / may not publish home information in membership directory.

Work--Workplace name: \_\_\_\_\_

Address: \_\_\_\_\_, City: \_\_\_\_\_

State: \_\_\_\_\_ Zip: \_\_\_\_\_ (9 digit zip), Use of 9 digit zip code can save \$\$.

Telephone: (\_\_\_\_\_) \_\_\_\_\_ ( ) Check if new work information

(Circle one) You may / may not publish work information in membership directory.

Notices should be sent to: ( ) Home ( ) Work

I would like the Newsletter sent via \_\_\_\_\_ e-mail or \_\_\_\_\_ U.S. Postal Service.

Any special notes?  
\_\_\_\_\_  
\_\_\_\_\_

**Dues \$20 until Jan. 1, 2007; \$25 thereafter.** Check, payable to NEACT, please send to: Jerusha Vogel, NEACT Membership Secretary, 45 Dirksen Drive, Wilton, CT 06897

Membership questions? Jerusha Vogel at: [jj@k2sw.com](mailto:jj@k2sw.com)

New England Association of Chemistry Teachers  
Ms Jerusha Vogel  
Membership Secretary  
45 Dirksen Drive  
Wilton, CT 06897

Address correction requested

FIRST CLASS MAIL



#### Upcoming Events

March 1, 2007: To be announced  
May 14, 2007, Medford, MA  
Summer Conference: To be announced

Judith A. Douville, Newsletter Editor  
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Middletown, CT 06457-4826

The Newsletter is published five times during the academic year and is distributed free to NEACT members.