



THE FILTER PRESS

Newsletter of the Georgia Section of the American Chemical Society

Volume 18, Number 5

May 2008

**Dr. Nancy Healy: Nanotechnology Education: Approaches for ensuring a nano-ready workforce
Education Coordinator for the National Nanotechnology Infrastructure Network
Joint Meeting with AIChE: Tuesday, May 20, 2008**

The National Nanotechnology Infrastructure Network (NNIN) is a National Science Foundation funded program which supports nanoscience researchers by providing state-of-the-art nanotechnology facilities, support, and resources. The NNIN is a consortium of thirteen universities across the U.S. (<http://www.nnin.org>) with one of its sites at the Microelectronics Research Center at Georgia Tech. In addition to researcher support, the NNIN has a large and integrated education and outreach program. The goals of the education program are to encourage students to consider education and careers in science, technology, engineering, and mathematics (STEM), develop a workforce ready for the demands of the rapidly developing field of nanotechnology, and develop a nano-literate public. The NNIN education and outreach efforts are coordinated at Georgia Tech by Dr. Nancy Healy. The programs span the continuum of elementary-level students through adult professionals (K-gray) which include: summer camps for middle and high school students; on-site and off-site school visits which include laboratory tours, hands-on activities, demonstrations, and presentations; summer research experiences for undergraduates and K-12 teachers; workshops for K-12 teachers; K-12 instructional materials development; workshops/seminars for undergraduates; community college programs; symposia at national meetings; workshops for faculty, industry, and government personnel (lifelong learning); and a web site for accessing information on resources and programs. This presentation will

present an overview of our education activities as well as table top demonstrations of some of the activities used with secondary school students (middle and high school). Examples of demonstrations will include self assembly, hydrophobic/hydrophilic properties, solid state phase transformations, ferrofluids, and others.

Dr. Nancy Healy is the Education and Outreach Coordinator for the National Nanotechnology Infrastructure Network (NNIN) whose office is located at the Microelectronics Research Center at Georgia Tech. From this office, she coordinates the education efforts of the 13 NNIN sites as well as outreach programs focused on Georgia. Dr. Healy received her B.S. in Zoology from the University of Rhode Island and her M.S. and Ph.D. in Geological Science from the University of South Carolina. She held a variety of positions at the University of S.C. from 1978 through 1994. Her area of research was image analysis and stable isotope geochemistry of microfossils for paleoclimate reconstructions. In 1994, she joined the staff of the S.C. Commission on Higher Education where her efforts focused on math and science education and teacher education issues and initiatives. She joined Georgia Tech as a Senior Academic Professional in July 2004.

**Reservation deadline is at 5PM, Tuesday, May 13th
—see page three for all details. →⇒**

National Chemistry Week 2008 – Seeking Volunteers

Anyone interested in helping to develop new education and outreach programs and activities for National Chemistry Week are encouraged to join the NCW committee. Planning for the October 2008 NCW will begin over the summer. If you have ideas or a passion for communicating the importance of chemistry to the larger community, this is the opportunity for you to get involved.

Contact information: David Gottfried (Georgia Tech), (404) 894-0479, david.gottfried@mirc.gatech.edu



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Georgia Science and Engineering Fair Special Awards

As has become our tradition, the Georgia Section provided special awards at the 2008 Georgia Science and Engineering Fair (GSEF) which was held April 2-5 in Athens. The awards were for the best projects in chemistry or biochemistry for both the junior (6th-8th grade) and senior (9th-12th grade) divisions. The section was represented at the awards ceremony by member Don Hicks. The section thanks the team of judges (David Gottfried, Mark Poggi, Meredith Poggi, Debbie Sauder, Terry Say), and congratulates the winners and their teachers:

Junior Division Winners

1st Place – **Ananth Punyala** (Webb Ridge MS, Teacher: Keith Gravitt): “Does Detergent Affect Retention Factors in Paper Chromatography?”

2nd Place – **Molly Harris** (Strong Rock Christian School, Teacher: Alan Blount): “Separating Natural Dyes by Using Chromatography Paper”

Senior Division Winners

1st Place – **Anu Laxmi** and **Dimple Bansal** (Berkmar HS, Teacher: Miranda Rouk): “The Effect of Viscosity on Boiling Point of Cooking Oils”

2nd Place – **Joseph Stunzi** (Clarke Central HS, Teacher: Sukla Bhattacharyya): “Enzymatic Hydrogen Production with *Pyrococcus Furiosus*”

3rd Place – **Hailey Hillsman** (Washington County HS, Teacher: Dorothy Young): “Chitosan-Porphyrin Conjugates”

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May Meeting: Tuesday, May 20, 2008

Joint Meeting with AICHE
**Nanotechnology Education: Approaches for
ensuring a nano-ready workforce**

Dr. Nancy Healy

Education Coordinator for the National
Nanotechnology Infrastructure Network

Time: 6:30 - 7:00 PM Arrive, Cash Bar

7:00 - 8:00 PM Dinner

8:00 - 9:00 PM Meeting & Presentation

**Location: Pettit Microelectronics Research Center
(MIRC), 791 Atlantic Dr, Georgia Tech Campus**

Menu: A Spring Feast served buffet style (vegetarian
option available), featuring:

*Gazpacho—A Chilled Blend of Tomatoes, Cucumbers,
Green Peppers and Onions*

*

*Uptown Waldorf Chicken Salad—Mixed Greens with
Grilled Chicken, Grapes, Apples, Celery and Pecans
Topped with Crumbled Blue Cheese and a Basil Bal-
samic Vinaigrette*

*

*Triple Berry Parfait—Layers of Berries and Whipped
Cream Topped with a Hint of Mint*

Cost for meal option: \$25 per person; \$15 for teachers,
students and retirees. Payment should be made to the
"Georgia Section ACS" and will be collected at the
door. If you make a reservation and then don't attend,
you will be charged for the meal, as we have to guar-
antee the number of meals.

RSVP to Deborah Sauder, dsauder@ggc.usg.edu
(preferred) or 678-407-5844 by 5PM on Tuesday,
May 13, 2008.

**Directions to Pettit Microelectronics Research
Center (MIRC), 791 Atlantic Drive, Georgia Tech**

- Building #95 on the Georgia Tech Campus Map
- The closest paid Visitor Parking is in the public lot south of the intersection of Ferst and State.
- From parking lot, walk east towards the traffic light at Ferst and Atlantic, turn right and walk down Atlantic to third building on the left, which is MIRC.

Driving directions:

From 85/75 take 10th Street exit west. Turn south/left on State Street, Continue ~ 2 blocks to entrance of Visitor's Parking on the far side of Ferst.

More information can be found at
<http://gtalumni.org/campusmap/>

The Intel International Science & Engineering Fair in Atlanta—call for chemists as judges

The Intel International Science and Engineering Fair (ISEF) will be held in Atlanta during the week of May 11-16, 2008. This competition will attract more than 1,400 science and engineering high school students **from every state and more than 40 countries worldwide**, in addition to the more than 1,200 judges. With an expected total attendance of 10,000, this provides an opportunity for the ACS and its members to make a positive impact on the lives of these budding scientists and the greater scientific and educational communities.

David Gottfried is coordinating the ACS volunteer judges for this event. As recipients of a Local Section Grant, the Georgia section will also provide a commemorative pin for participants, and support for refreshments for participants.

REMINDER: Women Chemists Committee (WCC) Event

Mark your calendars for Food, Facials & Fun—Join the WCC on Monday, June 9th at 6 pm for a facial at the Empire Beauty School – Dunwoody location. We'll learn from an Esthetician about the chemical composition of faces and how they benefit us. Cost is \$15/person. **RSVP** (or make cancellations) **by 5 PM on May 23rd** to Lynn Sullivan at dsullivan@kforce.com or 404-459-2254. Please include your name and contact information when making the reservation. Payment should be made to the "Georgia Section ACS" and will be collected at the door. If you make a reservation and then don't attend, you will be charged for the facial, as we have to guarantee the number. There will be 5 raffles for free pedicures as well!!!

Location: 4719 Ashford Dunwoody Suite 205 Dunwoody 30338 (the WalMart Parking Lot)

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