

**37th ACS Middle Atlantic
Regional Meeting - MARM 05**

Chemistry At The Crossroads Of Science

Rutgers University, Piscataway, NJ

May 22-25, 2005

**Hosted by the North Jersey Section and
Rutgers University, Department of Chemistry**

**Registration & Abstract Submission Open
at <http://marmacs.org>**

Call for Papers

◆ Deadline – April 15, 2005 ◆

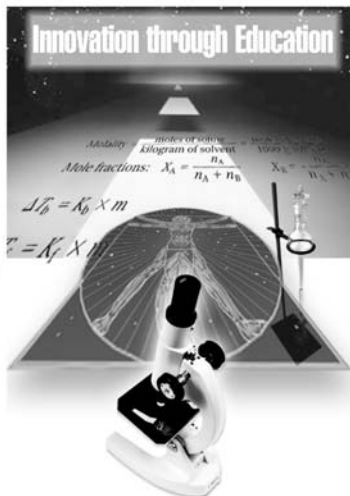
November 14-17, 2005
Garden State Exhibit Center
Somerset, NJ

The Eastern Analytical Symposium is the second largest meeting in the United States dedicated to the needs of analytical chemists and those in the allied sciences. Please help us to make the 2005 EAS the best ever—be a part of the program by contributing your own papers for inclusion in the oral or poster sessions.

To submit a **contributed** presentation for the 2005 EAS Technical Program, you should go to our web site, www.eas.org, after March 1, and follow the instructions for preliminary abstract submission. **Invited speakers should not submit preliminary abstracts to EAS, although your session organizer may request one for his/her use.** All preliminary abstracts must be submitted electronically via the EAS web site at www.eas.org. The abstract submission deadline is April 15, 2005. No faxed, e-mailed, or mailed preliminary abstracts will be accepted.

Please carefully review the following information:

1. All preliminary contributed abstracts will be submitted electronically in 2005. No faxed, e-mailed, or mailed preliminary abstracts will be accepted.
2. The title of the presentation and the list of authors that you submit are final, and may not be changed.
3. The preliminary abstract that you submit will be considered to be your final abstract for use in the abstract book for the 2005 Eastern Analytical Symposium.
4. All preliminary abstracts will be acknowledged via e-mail.
5. Presenting authors of contributed submissions will be notified in June 2005 of the status of their abstract and its session assignment.



2005 EASTERN ANALYTICAL SYMPOSIUM



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THE Indicator

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January 2005	November 14
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[www:TheIndicator.org](http://www.TheIndicator.org)

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Address advertising correspondence to Advertising Manager. Other correspondence to the Editor.

February Calendar

NEW YORK SECTION

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Long Island Subsection

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Friday, February 11, 2005

High School Teachers Topical Group

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Biochemical Topical Group

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NORTH JERSEY SECTION

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ChemTAG

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Careers in Transition

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Saturday, February 5, 2005

Topical Group/Committee Chairs

Leadership Breakfast

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Chem Essentials

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Monday, February 14, 2005

Teacher Affiliates Executive Committee

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Tuesday, February 22, 2005

Mass Spectrometry Discussion Group

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Monday, February 28, 2005

Executive Committee and Section Meeting

See page 10.

Deadline for items to be
included in the
April 2005 issue of
The Indicator
is February 13, 2005.

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New York Meetings

www.newyorkacs.org

LONG ISLAND SUBSECTION

Comprehensive Multi-Dimensional Gas Chromatography/Time-of-Flight Mass Spectrometry (GC/ToFMS)

Speaker: Dr. Daryl Cobranchi
DuPont Corporate Analytical
Sciences

Complicated matrices pose particular challenges for the separations scientist. A "normal" GC column may be able to adequately separate only 50-100 components. Some samples, such as environmental samples, may actually contain thousands of compounds. Resolving, identifying, and quantitating these may be impossible on a typical 30 or 60 m column.

Comprehensive GCxGC increases the resolving power of GC many-fold by employing two sequential, orthogonal separations. Applications and limitations of this relatively new technique will be discussed.

Date: Thursday, February 3, 2005

Times: Coffee: 5:30 PM

Seminar 6:00 PM

Dinner: after seminar, optional

Cost: \$20 (\$25 with wine)

Place: Hofstra University
New Chemistry Building
California Avenue
Hempstead, NY

No preregistration is required. Contact is Dr. Sasan Karimi, Queensborough Community College, 718-631-6280
skarimi@qcc.cuny.edu

HIGH SCHOOL TEACHERS TOPICAL GROUP

Green Chemistry

Speaker: Prof. Richard Gross

Polytechnic University

Dept. of Chemical Engineering

Date: Friday, February 11, 2005

Time: Social and Dinner 5:45 PM

Place: Caffè Pane e Cioccolato

10 Waverly Place at Mercer St.

(southwest corner)

New York, NY

**(You eat, you pay, cash only,
no credit cards)**

Time: Meeting 7:15 PM

Place: New York University

Silver Center Room 207

32 Waverly Place (southeast

corner Washington Square East)

New York, NY

Security at NYU requires that you show a picture ID to enter the building. In case of unexpected severe weather, call John Roeder (212) 497-6500, between 9 AM and 2 PM to verify that meeting is still on; (914) 961-8882 for other info.

Note: For those who prefer indoor attended parking, it is available at the Melro/Romar Garages. The entrance is on the west side of Broadway just south of 8th Street, directly across from Astor Place. It is a short, easy walk from the garage to the restaurant or meeting room.

POLYMER PROBLEMS?

- Complete Polymer Deformation
- Good vs Bad Comparison
- DSC, TGA, IR, UV-Vis, GC, HPLC, NMR
- GPC/SEC Molecular Weights and MWD
- Additive Package Analysis

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NY-ACS BIOCHEMICAL TOPICAL GROUP — JOINT MEETING WITH THE NYAS BIOCHEMICAL PHARMACOLOGY DISCUSSION GROUP

Protease Activated Receptor (PAR)-2: Understanding the Links between Protease Activation and Disease

Organizers: Jeanne Magram, Ph.D.
Boehringer Ingelheim Pharmaceuticals
Patricia Andrade-Gordon, Ph.D.
Johnson & Johnson Pharmaceutical R&D

Protease-activated receptor 2 (PAR-2) belongs to a small subfamily of G-protein coupled receptors that are characterized by a unique mode of activation. Following a proteolytic cleavage of the N-terminus, a "tethered" ligand is exposed and thus enabled to bind in an intramolecular interaction and activate the receptor. PAR-2 has been implicated in a number of inflammatory diseases such as rheumatoid arthritis, colonic inflammation, dermatitis and asthma. Compelling evidence comes from PAR-2 deficient mice evaluated in models of these diseases. New studies with PAR-2 inhibitors further substantiate the data from knockout mice. Recently, PAR-2 agonism has been elicited in human volunteers' skin and shown to be pro-inflammatory and result in enhanced plasma extravasation. Additional experiments in human volunteers have demonstrated vasodilation mediated by PAR-2 agonism and provide a hypothesis

for the link to vascular dysfunction. As new studies continue to evaluate its physiologic roles, the case for PAR-2 as a therapeutic target with potential benefit is strengthened.

"Hormone-like Signaling by Proteinases: PARs and Beyond"
Morley Hollenberg, Ph.D.
University of Calgary

"Role of Proteinase-activated Receptors in Cutaneous Inflammation and Immunity"
Martin Steinhoff, M.D., Ph.D.
University of Münster

"PAR2: Key Mediator in Inflammation and Pain"
Nathalie Vergnolle, Ph.D.
University of Calgary

"PAR-2 Antagonists Inhibit Acute and Chronic Inflammation"
Todd Hembrough, Ph.D.
Entremed

Date: Tuesday, February 22, 2005
Time: 1:00 – 5:00 PM
Place: New York Academy of Sciences
2 East 63rd Street
New York, New York

Space is limited. To reserve a seat, go to the calendar at www.nyas.org and fill out the online reservation form, e-mail BPDG@nyas.org or call (212) 838-0230 x322.

NYAS Members and BPDG Affiliates may attend BPDG meetings free of charge. Non-members may attend for \$20. Students and postdoctoral fellows may attend for \$10. To become a Member of the Academy, visit <http://www.nyas.org/landing.html>.

LONG ISLAND SUBSECTION — NINTH ANNUAL FRANCES S. STERRETT ENVIRONMENTAL CHEMISTRY SYMPOSIUM

Long Island Air Quality – To Breathe or Not To Breathe?

Reserve the date now!

The annual Frances S. Sterrett Symposium is dedicated to presenting the public with up-to-date, factual scientific information on environmental topics. Watch for program updates at <http://www.newyorkacs.org>.

Date: Thursday, May 26, 2005
Place: Hofstra University
California Avenue
Hempstead, NY

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HUDSON-BERGEN CHEMICAL SOCIETY

Dr. Ariel Fenster of McGill University spoke on "Homeopathy Delusion Through Dilution" at the Hudson-Bergen Chemical Society meeting on December 10, 2004.



(Left to right) Dr. Bob Becklen (Ramapo), Dr. Stephen Anderson (Ramapo), Dr. Ariel Fenster (Speaker), Dr. Rob Mentore (Ramapo), Dr. Gisell Mentore (New Paltz State).

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WILLIAM H. NICHOLS MEDAL — DISTINGUISHED SYMPOSIUM AND AWARD BANQUET

Symposium: SHINING LIGHT ON CHEMICAL PROCESSES

Award Recipient: Professor Richard N. Zare
Marguerite Blake Wilbur Professor in Natural Science
Stanford University, Stanford, California



Date: Friday, April 1, 2005
Time: 1:00 PM Registration, 1:30 PM – 5:30 PM Symposium
5:45 PM Reception, 6:45 PM Award Dinner
Place: Crowne Plaza Hotel, White Plains, NY

PROGRAM

1:30 PM	Welcome	Professor James W. Canary 2005 Chair, ACS, New York Section New York University
1:35 PM	Opening of the Distinguished Symposium	Professor Jill K. Rehmann 2005 Chair-elect ACS, New York Section St. Joseph's College
1:45 PM	Molecular Perspectives of Water through Nanomatrix Spectroscopy	Professor Mark A. Johnson Professor of Chemistry Yale University
2:30 PM	Time Resolved Solvent Rearrangement Dynamics	Professor W. Carl Lineberger E.U. Condon Distinguished Professor University of Colorado
3:15 PM	Coffee Break	
3:45 PM	Chemistry at Reaction Thresholds	Professor John I. Brauman J.G. Jackson-C.J. Wood Professor of Chemistry Stanford University
4:30 PM	Reaction Dynamics: Seeing the Light	Professor Richard N. Zare NICHOLS MEDALIST
5:45 PM	Social Hour	
6:45 PM	William H. Nichols Medal Award Dinner	

More information regarding the Symposium is available on the New York Section's website at <http://www.newyorkacs.org>

Tickets may be reserved using the following form:

RESERVATION FORM

2005 WILLIAM H. NICHOLS DISTINGUISHED SYMPOSIUM & MEDAL AWARD BANQUET
in honor of Professor Richard N. Zare, Stanford University

Return to: ACS, New York Section, c/o Dr. Neil D. Jespersen, Department of Chemistry,
St. John's University, 8000 Utopia Parkway, Jamaica, NY 11439 • (516) 883-7510

Please reserve _____ places for symposium & banquet at \$85/person ACS member
_____ places for symposium & banquet at \$95/person Non-member
_____ places for banquet at \$75/person
_____ places for symposium at \$30/person, ACS member; \$40 non-member
(Student or unemployed at \$10/person)

(For table reservations of 8 or more, use the ACS member \$85/person rate for combination tickets.)

Reserve a table in the name of _____

Names of guests are: _____ Indicate number in your group who choose:

_____ Chicken _____ Prime Rib _____ Fish _____

_____ Mail Tickets to: _____

_____ Name: _____

_____ Address: _____

RESERVATION DEADLINE — March 18, 2005

Please make checks payable to: ACS, NEW YORK SECTION Check for \$ _____ enclosed.

MARM 2005

The 37th Middle Atlantic Regional Meeting (MARM 2005), hosted by the North Jersey Section, will be held at Rutgers University, Busch Campus, Piscataway, NJ, May 22-25, 2005. The theme of the meeting is "Chemistry at the Crossroads of Science" and will feature the most popular technical programming combined with the best features of a National ACS meeting tailored to the needs and interests of area scientists. Abstract submissions are sought from undergraduate and graduate students, and from professional industrial and academic chemists in all areas of chemistry.

The meeting will feature invited speakers at major symposia including "Bench to Pilot Plant", "Visions in Chemistry" (sponsored by Aventis), "Environmental & Green Chemistry", "Pharmaceutical Profiling", "Protein Family-Targeted Medicinal Chemistry-The Practice of Medicinal Chemistry in the Age of Chemogenomics", "Advances in Organic Chemistry", "Organometallic Catalysis", "Novel Instrumentation and Applications of Mass Spectrometry in ADME Studies", "Functional Proteomics and Cell Signaling", "Biomarkers: Quantification, PK/PD Correlation and Bioanalytical Issues", "Applications of LC-MS in Drug Discovery/Development", "Solid State and Materials Chemistry", "Nanoscience and Technology and Solid State & Materials Chemistry/Surface Chemistry", "Materials Chemistry/Inorganic & Organic Polymers" and "ADMET at the Crossroads of Drug Discovery". There will also be a special symposium, sponsored by the Organic Chemistry Division, honoring a Cope Scholar Awardee. Several chemical engineering mini-courses will also be offered by ACS & AIChE. The Waksman Antibiotic Drug Discovery Process will receive an ACS National Landmark Award for developing the cure for TB and many other infectious diseases. The Waksman National Chemical Landmark Symposium will mix history with modern antibiotic discoveries. The

Regional Innovation awards will also feature a related symposium.

Sunday, May 22, 2005, designated "Science Education and Career Day," will celebrate the 100th anniversary of the New Jersey Science Teachers Association. High-school students, their parents and their teachers from throughout the region are encouraged to attend. Events will include chemistry and physics demonstrations, showings of the IMAX film "Volcanoes of the Deep" with commentary by the science advisor for the film, student and industrial panels to discuss college and career opportunities in several areas, symposia in several disciplines centered about the theme "100 Years Then and Now," workshops for teachers, poster presentations and lunch with a scientist. The program will provide unique opportunities for students, teachers, and scientists from diverse disciplines to mix with each other in an informal, informative atmosphere.

In addition to technical symposia there will be a number of special events including an awards banquet on Wednesday evening where 50-year members will be honored along with the winners of a number of ACS regional awards. Special lunches will be held for Senior Chemists and the Women Chemists Committees. There will also be a "Roving Feast" Monday & Tuesday evenings, May 23rd & 24th, in conjunction with special programming, vendor exhibits and posters. Student Affiliates will have a full program for sharing their research, outreach programs, eminent scientist lecture and life in their chapter.

The online abstract program and advance registration opens November 16th. Abstracts will be accepted until March 15th. Submit online through the MARM 2005 website at www.marmacs.org, and visit the website for periodic program updates. For more information, please contact the Technical Program Co-Chairs, Les McQuire at leslie.mcquire@pharma.novartis.com or Joseph Potenza at jpotenza@rutchem.rutgers.edu.

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North Jersey Meetings

<http://www.njacs.org>

EXECUTIVE COMMITTEE AND SECTION MEETING

All ACS members are welcome to attend.

Date: Monday, February 28, 2005

Time: 5:30 PM

**Place: Fairleigh Dickinson University
Rice Lounge, Madison, NJ**

Cost: Dinner \$10.00 (Pizza and Soda)

For reservations, call (732) 463-7271 or email jppenna@aol.com and state your wish to make reservations for the ACS Dinner before **Wednesday, February 23, 2005**.

Dinner at the North Jersey Meeting is payable at the door; however, if you are not able to attend and did not cancel your reservation, you are responsible for the price of your dinner.



Chem TAG MEETINGS

Date: Tuesday, February 1, 2005

**Place: East Brunswick High School
380 Cranbury Road
East Brunswick, NJ**

Contact: Karen Poloszny at KPosluszny@ebnet.org



CAREERS IN TRANSITION GROUP

Job Hunting??

Are you aware that the North Jersey Section holds monthly meetings at Fairleigh Dickinson University in Madison to help ACS members? Topics covered at these cost-free workshops are:

- The latest techniques in resume preparation
- Ways for improving a resume
- Answers to frequently asked interview question and
- Conducting an effective job searching.

The next meeting for the Careers In Transition Group will be held **Thursday, February 3, 2005**, in the Rice Lounge on

the first floor of the New Academic Building. The meeting will start at 5:30 PM and end at 9:00. There will be a Dutch-treat dinner. To get the most from the meeting, be sure to bring transparencies of your resume.

Please contact vjkuck@yahoo.com, if you plan on attending this meeting.



NJACS TOPICAL GROUP/ COMMITTEE CHAIRS LEADERSHIP BREAKFAST

Date: Saturday, February 5, 2005

Time: 9:00 AM - 12:00 Noon

**Place: Fairleigh Dickinson University
New Academic Building, 1st Floor
Rice Lounge, Madison, NJ**

**Cost: Free for Topical Group/Committee
Chairs**

Contact Jacqueline.A.Erickson@gsk.com if attending.



CHEM ESSENTIALS

Are you A NEW Chemistry Teacher? A Teacher NEW to Chemistry? A Chemistry Teacher Who Is Looking for Something NEW?

Then CHEM ESSENTIALS Is for YOU!

There are two more workshops scheduled for this year:

“Stoichiometry”

Date: Friday, February 11, 2005.

Place: Somerville High School

Contact Patti Duncan at PDuncan@hpregonal.org or go to <http://www.njacs.org/teacher.html> for more details and a registration form.



TEACHER AFFILIATES EXECUTIVE COMMITTEE MEETING

Date: Monday, February 14, 2005

Time: 4:30 PM

**Place: Chatham High School
255 Lafayette Avenue
Chatham NJ**

Contact: Diane Krone at (201) 385-4810 or kroned@optonline.net

MASS SPECTROMETRY DISCUSSION GROUP

Symposium: “Automated Sample Preparation for Bioanalysis”

Sponsored by: Spark Holland, Inc.
666 Plainsboro Road
Suite 1336
Plainsboro, NJ

Date: Tuesday, February 22, 2005

Time: Social/Horsd'oeuvres 5:30 PM

Dinner 6:15 PM

Seminar 7:00 PM

Display of Spark Holland

Instrumentation 5:30 - 9:30 PM

**Place: Somerset Marriott Hotel
Somerset, NJ**

Cost: None

Registration: Must register online at www.njacs.org/ms.html

For additional information, please visit our webpage at www.njacs.org/ms.html



TEACHER AFFILIATES

2004-2005 Crystal Growing Contest

Attention Chemistry Teachers

Can you grow the largest single crystal?!?

The North Jersey Section is sponsoring a contest guaranteed to stimulate student interest in science while teaching concepts of saturation, supersaturation, and crystal structure. This hands-on activity will allow students to grow their own “gem”.

Watch them take ownership of their crystal and nurture it as it grows. Your students will be amazed at how fast their crystal grows into its natural shape. Take your students beyond the classroom by participating in the fun, low-cost Crystal Growing Contest.

Two winners will receive \$75 Flinn Scientific, Inc. gift certificates.

Contest guidelines and an entry form can be downloaded from <http://www.njacs.org/teacher.html>



CHEM CENTRAL MEETINGS

Wednesday, March 23, 2005

**Place: Colts Neck High School
Five Points Road & Route 537
Colts Neck, NJ**

Contact: Roseann McCarth at roseannmcc@comcast.net

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Call for Nominations

FREDDIE AND ADA BROWN ENCOURAGEMENT AWARD FOR FUTURE CAREERS IN CHEMISTRY

Freddie and Ada Brown were the parents of Jeannette Brown, a pioneer African American woman chemist. Although they never studied chemistry they encouraged their daughter to pursue a career as an industrial medicinal chemist at a time when there were few African Americans in the field. Ms. Brown has discovered in her search of the history of African American (Women) Chemists that each one of them had a mentor or teacher to help them to succeed. This award is dedicated to the parents and mentors of current African American and Native American chemical practitioners with the hope that the recipients follow in their footsteps.

Many factors affect the first conscious steps of young people about to assume grown-up responsibilities: the state of there. Intellectual development, innate ability and inclination, socio-economic conditions, traditions of their environment, conception of reality, all requiring mature decisions from, by definition, immature individuals. Yet, these decisions will determine the extent of realization of their full potential, direct their lives, and define their role in society. In such instances, concerned and illuminated recognition is invaluable in overcoming uncertainty and hesitation, igniting ambition and the desire to succeed. Attention and sympathy are crucial.

The objective of this Award is to identify and encourage high achieving middle- and high-school students, of African American and Native American heritage, to further develop their budding academic skills, with views on careers in chemistry.

The award will consist of a monetary prize and a mentor to follow the career of the recipient. We expect to present 4 awards per year.

Funds for this award will come from private and corporate donations with a dollar for dollar matching grant of up to \$2,000 to be donated by Ms. Brown.

This award will be inaugurated during the academic year of 2005-6 with the first presentation to be given in the spring of 2006.

If you would like to contribute to the matching grant for this award which is tax deductible just as is any ACS award, please send a check payable to North Jersey ACS Freddie and Ada Brown Award, mail to

North Jersey ACS Section Office
Freddie and Ada Brown Award

Attn: Jeannette Brown
4 Cameron Road, Piscataway, NJ 08854

If you would like to mentor a student or have questions: e-mail Jeannette E. Brown jbrown@infionline.net or (908) 239-1515.



NORTH JERSEY SECTION LIFETIME ACHIEVEMENT AWARD

The biennial Award, consisting of a plaque and \$1,000 prize, funded by the Novartis Pharmaceutical Company, honors an industrial researcher, chemist, or chemical engineer, fifty years old or older, resident or working for a minimum of fifteen years within the geographical borders of the Section, for his/her brilliance and intellectual leadership qualities, generously shared with others and not yet recognized by any major scientific award, to ensure that the achievements are fully recognized as contributing factors of progress, for the benefit of all.

The Award will be presented at the general meeting of the Section in May 2005.

Submit nominations and seconding letters, before **February 2, 2005**, to F. Dammont, P.O. Box 20453, Newark, NJ 07101. For more information, please call (973) 482-5744.

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ACS PRO SPECTIVES CONFERENCE

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The American Chemical Society, the world's largest scientific society, will hold its fourth annual ACS ProSpectives Conference on process chemistry **February 6-9, 2005** in Miami, FL, at the Hyatt Regency Coral Gables.

Scientists at the conference will examine three key areas of process chemistry: practical aspects of drug development, leading technologies from academia and strategies for moving new chemical entities through the regulatory process.

Top academics will discuss new technology and methods for asymmetric synthesis, organometallic catalysis and automation; leading pharmaceutical industry chemists will highlight case studies that explain how using these methods contributed to suc-

cessfully getting their novel compounds to market; and a senior FDA official will discuss the regulatory aspects of drug discovery.

Short courses will be held on heterocyclic chemistry, catalysis and crystallization. Chairs for the meeting are Margaret Faul, associate director of chemical process R&D at Amgen, and Joseph Armstrong, director of process research at Merck.

ACS ProSpectives is a series of small conferences targeting industry scientists who work along the interface of chemistry and at least one other scientific discipline such as biology, physics and engineering. Each conference examines a field's most consequential topics through presentations by its foremost researchers.

Attendance at the conference is limited to 200 or fewer to best facilitate interaction among the participants. Conferences typically feature extended presentations from 15-25 of a field's leading researchers. The conferences are in addition to the Society's two national meetings and its eight to 10 regional meetings held every year.

(continued on page 14)



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ACS PRO SPECTIVES CONFERENCE

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Further details about the conferences, including instructions on how to register and arrange lodging, are available at www.acspectives.org. This site is updated regularly with the latest information about upcoming ACS ProSpectives conferences.

BUSH NOMINATES ACS MEMBER FOR SECRETARY OF ENERGY

On Friday, December 10, President Bush nominated Deputy Treasury Secretary Samuel Bodman, an ACS member, to succeed former Senator Spencer Abraham as Secretary of Energy. In nominating Bodman, Bush commented, "In academics, in business and in government, Sam Bodman has shown himself to be a problem solver who knows how to set goals, and he knows how to reach them."

Bodman is a former president of Fidelity Investment, and former chairman of Cabot Corp, a chemical manufacturing company. He has a degree in chemical engineering and taught at the Massachusetts Institute of Technology. Bodman also served as number 2 at the Department of Commerce and was strongly recommended for the DOE job by Bush friend and outgoing Commerce Secretary Don Evans.

Although his nomination caught some on Capitol Hill by surprise, Energy and Natural Resources Chairman Peter Dominici (R-NM) expressed enthusiasm for the choice

and predicted a speedy confirmation when the 109th Congress convenes in January. Chairman of the House Science Committee Sherwood Boehlert (R-NY) also endorsed Bodman's selection.



CONTACT CONGRESS WEEK — YOUR CHANCE TO PARTICIPATE

ACS members are urged to contact their members of Congress during the annual ACS Contact Congress Week beginning February 21, 2005.

In an effort to emphasize science matters, ACS members will meet with representatives in their district offices, invite legislators to speak at Local Section meetings, attend town hall meetings, or host legislators at their research facilities. This year's Contact Congress Week message is "Science education and federal research funding are important investments for our nation's future."

With a growing budget deficit, federal support for R&D and science education is facing increased competition for a share of a steadily shrinking pool of money. It is projected that the fiscal year 2006 will force budget agencies like the National Science Foundation to fund only a few of their highly ranked proposals.

If you wish to participate in Contact Congress Week, please contact Brad Smith, in the ACS Office of Legislative & Government Affairs at 1-800-227-5558, extension 4479 or grassroots@acs.org. He will be happy to provide you with a sample meeting-request letter, talking points, and other background materials.



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Others

DR. MARIE DALY, A PIONEER BLACK WOMAN CHEMIST



Dr. Marie Maynard Daly was a member of the New York Section of the ACS and the first African American woman to receive a PhD in chemistry.

I first met Dr. Daly at a meeting of the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBC-CHE) that was held in Washington DC in 1980. It was the first NOBCChE meeting that I had ever attended and I was delighted to meet so many of my peers and would be role models. I was awed to find out that Dr. Daly was living history in that she was the first African American woman to receive a

PhD in chemistry, Columbia University 1947. The next time I "met" her was via a video tape of her that was presented at an American Society for the Advancement of Science meeting held in New York City.

Marie Maynard Daly was educated in public schools and Queens College of the City University of New York where she was awarded her bachelor's degree magna cum laude in 1942. After completing a master's degree in chemistry at New York University, she became a Resident Fellow at Columbia University where she received a PhD degree in chemistry in 1947. I don't know if she knew she was to become a pioneer at the time. Our paths crossed again when I decided to invite her to become a speaker at a Metro Women Chemist Committees meeting held at the New York Academy of Science and later when a symposium was held in her honor at the New York City Meeting of NOBCChE.

It was then (1984) I decided to coordinate her nomination for the Garvan Medal. (Note: This nomination was not successful.) In Dr.

(continued on page 16)

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ANALYSIS FOR THE CHEMICAL ELEMENTS

DR. MARIE DALY

(continued from page 15)

Daly's letter to me about this subject she says "As I indicated previously, I have reservations about being nominated for the Garvan medal. I am familiar with the scientific accomplishment of the other nominees, and frankly, do not feel that mine are in that "league". This shows how quite modest and unassuming she was about her work.

Here are some quotes from some of her nominators:

From Cyril L. Moore PhD Professor and Chairman Department of Biochemistry Morehouse School of Medicine (Jan 1985) (Dr. Moore had been one of her students at Einstein College of Medicine.)

"Dr. Daly is well published not because of the volume of papers, but by the quality of her publications and the respect these commanded from her peers and students. An example of her pioneering is obvious from her studies on the chemistry of the intima-media area of aortic strips. Although this method of study has been used by many, in today's scientific endeavor, cardiovascular researchers are only now beginning to recognize the need for understanding the chemical value of the blood vessel wall if there is going to be any success in the development of artificial substrate for the re-endothelialization of damaged blood vessels. Most people are unaware of the fact that Dr. Marie Daly was in the forefront of what eventually turned out to be the Nobel Prize winning research of Watson and Crick. Her initial studies on the purine and pyrimidine contents of DNA preceded theirs by six or seven years. Her studies were conducted with Alfrey and Mirsky of the Rockefeller Institute. To top this off, the basic amino acid content of histones and the properties of these important molecules were evaluated by her in the early fifties. Today we recognize the importance of these molecules in chromatin structure and the functional organization of DNA"

Her New York Times Obituary states: "her research on histones, with colleges at the Rockefeller Institute, was seminal."

The Obituary goes on to say: (Dr Daly) "joined Einstein in 1960 where her research continued to flourish, focusing on cholesterol metabolism and creatine uptake by cells."

Dr. Shirley Malcom Currently Director of Education and Human Resources for AAAS (January 1985)

"I first met Dr. Daly over 9 years ago when she was a participant in the conference of Minority Women in Science. She impressed us all as someone who was committed to chemistry and to her research. She made the choice of a career in chemistry when this was unheard of for a Black woman. Although she may have made her way in the absence of role models, she has served as a role model to many Black youths especially, to young Black women with an interest in science."

Another quote from her obituary: "Dr. Daly was actively involved in the recruitment and training of minority students at Einstein and is warmly remembered as a creative and involved teacher."

Dr. Malcom goes on to say:

"The little booklet which describes the Garvan Medal says that the inscription reads, "To Honor an American Woman for Distinguished Service in chemistry." What greater commitments to research in chemistry than to reach out to young Black women everywhere and to say "yes, it is possible!" Others can speak to her research contributions. I will attest to her pioneer spirit and to the spirit of the possible that she leaves with us all"

To that last statement made by Dr. Malcom I say "Amen."

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The InnoCentive Global Scientific Community and R&D Solutions

Speaker: Jill A. Panetta, PhD
Chief Scientific Officer
InnoCentive, Inc.
Andover, MA

The ability to create networks and large communities without constraint by geographical barriers allows new modes of invention, research and development. The fundamental principles on which such systems should be constructed and the specific example of InnoCentive will illustrate this emerging potential.

As Chief Scientific Officer and one of the co-founders of InnoCentive, Dr. Panetta provides the scientific leadership for InnoCentive. She heads the InnoCentive Scientific Operations group, which uses its extensive scientific knowledge to further the goals of Seekers and Solvers. In addition, Dr. Panetta serves as the subject matter expert, providing scientific input for marketing, business development, and operations.

Dr. Panetta is the author of more than 85 publications and abstracts, has given over 40 invited lectures, is co-inventor of 32 granted US patents, and is co-editor of Psychiatric Illness in Women. She serves on advisory boards for a number of scientific journals and biotech companies. She received her Ph.D. in organic chemistry from Dartmouth College, followed by a postdoctoral fellowship at the University of California with Professor Henry Rapoport.

Date: Tuesday, February 22, 2005

Times: Networking 6:00 PM
Dinner 6:30 PM
Presentation 7:30 PM

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Dr. Dan Van Abs

New Jersey Water Supply

February 16

11:30 AM - Tiernan 373

"Biocatalytic Routes to Chiral Synthones and Novel Polymers of Importance in Health and Industry"

Dr. V.S. Parmar

University of Massachusetts, Lowell, MA

February 22

11:30 AM - Tiernan 373

"Worst Cases: Inquiries Into Terror, Calamity, and Imagination"

Dr. Lee Clark

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Washington, DC

February 14

"Solubilities in Supercritical Fluids"
Dr. Dana Knox
Professor of Chemical Engineering and Associate Provost
New Jersey Institute of Technology
Newark, NJ

February 21

"Tools for Designing, Optimizing, Scaling-Up, and Troubleshooting Pharmaceutical Coating Processes"
Dr. Michael Choi
President, Particle Coating Technology

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February 28

"The 3-Way Catalytic Converter: Its Invention and Introduction to Commerce"
Dr. John Mooney
President, Environmental and Energy Technology Policy Institute
Washington, DC

April 4

"Devulcanization of Crosslinked Elastomers by Power Ultrasound"
Dr. Wenlai Feng
Polymer Processing Institute
New Jersey Institute of Technology
Newark, NJ

April 18

"Assembling Materials from Nanoscale Building Blocks"
Dr. Richard Siegel
Professor, and Director of the Nanotechnology Center
Rensselaer Polytechnic Institute
Troy, NY

Times: Refreshments 2:30 PM
Seminars 2:45 PM
Place: Room 3740
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Seminar Series Coordinator: Professor Gordon Lewandowski (973) 596-3573,
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THE CARL S. MARVEL CREATIVE POLYMER CHEMISTRY AWARD

The recipient of the 2005 Carl S. Marvel Creative Polymer Chemistry Award is Dr. Timothy M. Swager. He is Professor of Chemistry and Associate Director of the Institute for Soldier Nanotechnologies at the Massachusetts Institute of Technology.

Dr. Swager is recognized for his research and leadership in several fields of polymer chemistry. He has conducted pioneering work in ring opening metathesis polymerization, and has made key contributions to the understanding of both conducting and semi-conducting polymers.

His work on TNT detection is highly noteworthy because of its importance not only

as a contribution to science and technology but also as an outstanding humanitarian contribution. His sensor science is playing an important role in mine detection and in the detection of improvised explosive devices (IEDs). This technology is based on his development of conjugated polymer sensory transduction schemes that translate molecular recognition events into readily measured signals. The cooperative nature of these materials produces enormous enhancements in observable signals relative to their monomeric analogs.

Tim has developed novel methods for the formation of ladder polymers including all-aromatic graphite ribbon structures and supramolecular polyrotaxanes. He has addressed fundamental problems in electronic polymers by using novel chemical structures and a diverse array of analytical methods.

Dr. Swager received his Ph.D. from the California Institute of Technology in 1988 and has over 150 articles, 15 patents, and serves on numerous editorial boards and scientific advisory boards. He has won a number of awards including the ACS Cope Scholar Award (2000), the Union Carbide Innovation Recognition Award (1998) and the Karapetoff Award (MIT, 2000).

The Carl S. Marvel Creative Polymer Chemistry Award was established in 1980 and is sponsored and administered by the ACS Division of Polymer Chemistry. The purpose of the award is to recognize and encourage accomplishments and/or innovation of unusual merit in the field of basic or applied polymer science by younger scientists. The award consists of a plaque and an honorarium of \$2000. The award is usually presented biennially in odd-numbered years at the Spring meeting of the Polymer Chemistry Division. The recipient is expected to present an address at a symposium organized in his/her honor. Travel expenses to the symposium are paid in addition to the honorarium. The award symposium will be held at the Spring 2005 national meeting of the American Chemical Society.

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THIS MONTH IN CHEMICAL HISTORY

By Harold Goldwhite
California State University, Los Angeles

Prepared for SCALACS, the Journal of the Southern California, Orange County, and San Geronio Sections of the American Chemical Society

On December 9, 1742 Carl Wilhelm Scheele was born in Stralsund, a town in Swedish Pomerania. This year, 2004, is the 200th anniversary of the death of Joseph Priestley and has been the occasion for many celebratory events. Without in any way trying to diminish Priestley's achievements it seems only fair to devote one short column to the life and discoveries of the chemist who isolated oxygen before Priestley did.

Scheele's father was a merchant and Carl Wilhelm was one of eleven children. In 1757, at the age of 14, he was apprenticed to a local pharmacist and immediately showed great aptitude in his given profession. He read a wide assortment of chemical texts available to him at his workplace, including those by Lemery and Boerhaave, and began research in his free time. By 1768 Scheele was in his third position, now in Stockholm, and observed the differential effects of different wavelengths of light on the photo-reduction of silver chloride, work that was not published until much later. Scheele's first publication, jointly with his friend Retzius (later a Professor at Stockholm University) was on the isolation of pure tartaric acid from cream of tartar (potassium hydrogen tartrate). By the time this article was published Scheele was energetically pursuing pneumatic chemistry - the chemistry of gases - the liveliest research field in chemistry at that time.

In Scheele's first significant work on gases he prepared and collected, devising ingenious apparatus to do so, a gas from the action of water or acids on iron or zinc. At first identified simply as inflammable air (hydrogen, of course) Scheele later called it phlogiston elasticum. It was, you may recall, a part of accepted chemical theory at that time that all metals contained phlogiston, the principle of flammability.

In 1770 Scheele moved again to Uppsala, becoming the laboratory assistant of a pharmacist named Lokk. The next three years were amazingly productive, providing the experiments described in Scheele's magnum opus "On Air and Fire". His investigations of manganese dioxide, suggested to him by Torbern Bergman, Professor of Chemistry at Uppsala and one of the best analysts of his day, led to the preparation of chlorine gas. (continued on page 23)

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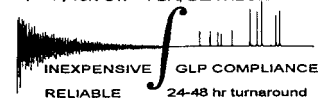
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THIS MONTH IN CHEMICAL HISTORY

(continued from page 19)

tion of chlorine and the recognition of manganese as a new metal. He isolated pure arsenic and characterized silica, magnesium oxide, barium oxide, and oxalic acid. But, central to this story, he isolated oxygen as a product of several different reactions: by heating silver carbonate, mercuric carbonate, mercuric oxide, potassium nitrate, or magnesium nitrate; and by strong heating of a mixture of arsenic (V) oxide and manganese dioxide. All this before the end of 1773, as we know from Scheele's notebooks, whereas August 1, 1774 marks Priestley's first preparation of oxygen by heating mercuric oxide.

Though Scheele's manuscript was sent to a publisher near the end of 1775 (and remember that he was a working pharmacist all this time) it was not published until mid-1777. Priestley was much quicker to publish, and news of his "new" gas was rapidly spread in England, France, and Germany. Scheele, relatively isolated in Sweden, and unable to travel because of the demands of his daily work, only received belated recognition for his work on oxygen.

Scheele's subsequent work was no less distinguished. In gaseous chemistry he isolated cyanogen, hydrogen cyanide, and cyanogen chloride. By his calcium salt technique he purified many organic acids including citric, lactic, benzoic, and gallic. He isolated glycerin from fats, and devised an efficient preparation of Prussian Blue and of a new pigment containing arsenic now named Scheele's Green. Throughout his career Scheele was a supporter of the phlogiston theory (as was Priestley) but it was not destined to be a long career. Plagued with a variety of ailments from the age of 35, Scheele finally succumbed on May 26, 1786, at the age of 43.

I cannot resist a final note. In late 1774 Scheele wrote to the great French chemist Lavoisier to thank him for the gift of a copy of one of Lavoisier's books. In the letter he suggests an experiment for Lavoisier to try. Heat some dry silver carbonate with a burning glass and treat the resulting gases with lime water (to remove the carbon dioxide). "You will see how much air is produced in which a candle will burn and an animal will live". So who first discovered oxygen?

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