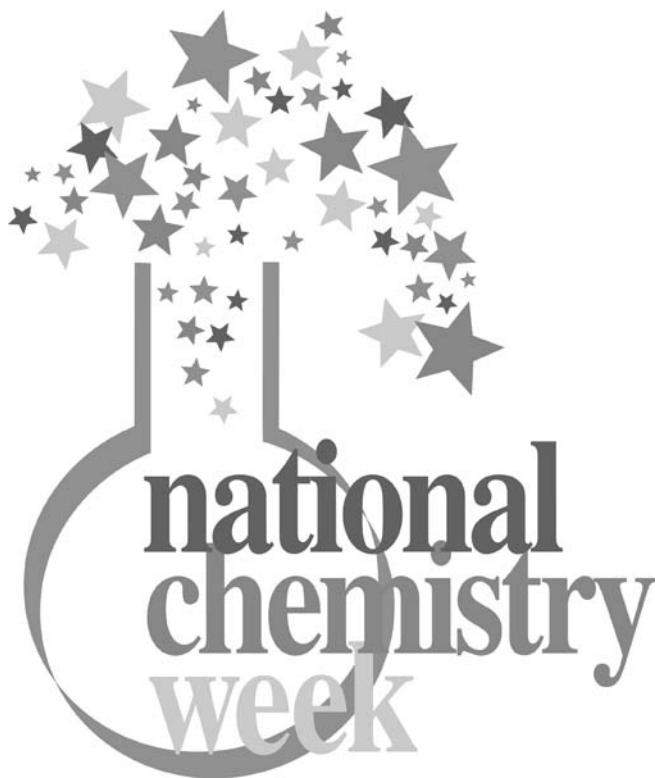


THE Indicator

OCTOBER 2004

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October 17-23, 2004

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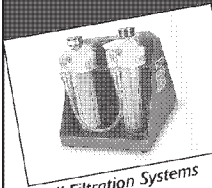


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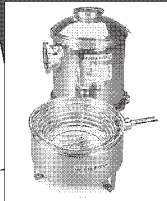
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THE Indicator

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The monthly newsletter of the New York & North Jersey Sections of the American Chemical Society. Published jointly by the two sections.

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

October Calendar

NEW YORK SECTION

Thursday, October 7, 2004

Long Island Subsection

See page 5.

Monday, October 11, 2004

Yeshiva University, Kukin Chemistry

Lecture

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Thursday, October 14, 2004

Chemical Marketing & Economics Group

See page 6.

Wednesday, October 20, 2004

Westchester Chemical Society

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Friday, October 22, 2004

Hudson-Bergen Chemical Society

See page 8.

Tuesday, October 26, 2004

Biochemical Topical Group

See page 9.

**From Bench Top
To Pilot Plant**

see page 13

NORTH JERSEY SECTION

Thursday, October 7, 2004

Careers in Transition

See page 11.

Wednesday, October 17, 2004

ChemTAG

See page 12.

Monday, October 18, 2004

No. Jersey Teacher Affiliates

See page 12.

Monday, October 25, 2004

Executive Committee

See page 11.

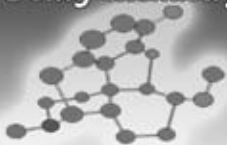
Thursday, October 28, 2004

"Bench Top to Pilot Plant"

See page 13.

Deadline for items to be included in the December 2004 issue of *The Indicator* is October 15, 2004.

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New York Meetings

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LONG ISLAND SUBSECTION

Using Stereochemistry to Engineer Selectivity and High Contrast in Optical Probes for Metal Ions

Speaker: Dr. James Canary
New York University

Building Fluorescent probes for metal ions can be used to map metal ion concentrations or study cellular signaling mechanisms. Much recent interest has been drawn to measurement of zinc and copper ion concentrations because of the importance of these metal ions in Alzheimer's Disease, Prion Disease, and related disorders. Recently we have studied a class of receptors that utilize stereochemistry to maximize selectivity for zinc ion. Vast differences in Zn/Cu selectivity were observed for ligands that differ only in the configuration of a single stereocenter. Metal ion binding was

quantified by Fluorescence-Detected Circular Dichroism, in a novel application of this technique, giving a much lower background signal than available by more classical fluorescence measurements.

Date: Thursday, October 7, 2004

Times: Coffee 5:30 PM
Seminar 6:00 PM
Dinner 7:00 PM

Place: Hofstra University, Lister Auditorium
California Avenue
New Chemistry Building

Field Ionization of C₂H₅I in Supercritical Ar and Kr

Speaker: Dr. Cherice Evans
Department of Chemistry and
Biochemistry
Queens College

Date: Thursday, November 4, 2004

Times: Coffee 5:30 PM
Seminar 6:00 PM
Dinner 7:00 PM

Place: Hofstra University, Lister Auditorium
California Avenue
New Chemistry Building



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YESHIVA UNIVERSITY — THE KUKIN CHEMISTRY LECTURE

DNA Charge Transport: Chemistry and Biology

Speaker: Dr. Jacqueline K. Barton
Arthur and Marian Hanisch
Memorial Professor of Chemistry
California Institute of Technology

Date: Monday, October 11, 2004

Time: 8:00 PM

Place: Yeshiva University
Weissberg Commons
Belfer Hall, Wilf Campus
2495 Amsterdam Avenue
New York, NY

Parking is available



CHEMICAL MARKETING & ECONOMICS GROUP (CM&E)

Speaker and Topic: To be announced

Date: Thursday, October 14, 2004

Times: Cocktails 11:30 AM
Luncheon 12 noon
Presentation 1:15 PM

Place: The Chemists' Club
40 West 45th Street
New York City

Fees: \$35 discount price for Members who reserve by **Tuesday, October 12, 2004 (12 noon)**. \$50 for Guests and Members (at the door without reservations)

To reserve: Please reserve early to be eligible for discount price. Call Probe Economics at (914) 923-4505, or via e-mail to: cmegroup@yahoo.com. To pay online (via PayPal), go to the CM&E Website: <http://home.nyc.rr.com/chemmarkecon/>

WESTCHESTER CHEMICAL SOCIETY — JOINT MEETING WITH AMERICAN INSTITUTE OF CHEMICAL ENGINEERS, TAPPAN ZEE SECTION

Radon Occurrence and Health Risk

Speaker: Robert Hilbrandt, Jr.
Quality Assurance Officer and
Radiochemistry Technical
Director for Westchester County
Department of Laboratories &
Research
Environmental Services Unit

High levels of indoor radon are found in every state. All sources of ground water contain some level of radon, and in some instances, can contribute significantly to the level of indoor radon. We know from medical and environmental studies that radon is a health risk, primarily as a cause of lung cancer. Because levels of radon vary from place to place, and because houses differ in their vulnerability to radon, it is important that all homes be measured for radon. This presentation will discuss radon basics; what it is, how it forms, and how it moves through the ground or is carried by water into buildings, and explains some of the risks involved in exposure to radon and radioactive materials.

Date: Wednesday, October 20, 2004

Time: Refreshments at 5:00 PM
Presentation at 5:30 PM followed by a Tour of the Laboratory

Place: Westchester County Department of Laboratories & Research
10 Dana Road, Valhalla, NY

Time: Dinner — To follow program

Place: Gianfranco's
Virginia Road, White Plains

For further information contact Joan Laredo-Liddell at (914) 476-6860 or e-mail JLaredoLiddell@aol.com



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WESTCHESTER CHEMICAL SOCIETY AWARDS DINNER



Sr. Mary Virginia Orna of the College of New Rochelle was the 2004 recipient of the Westchester Chemical Society's Distinguished Scientist Award. Pictured (left to right): Dr. Joseph Skrivanek (College Awards), Dr. Alwell Nwankwoala (Secretary), Jean Delfiner (Co-Chair), Sr. Mary Virginia Orna (2004 awardee), Joan Laredo-Liddell (Co-Chair), Dr. Rolande Hodel (Treasurer), Dr. Bernard Koser (Immediate Past Chair).



Dr. Joseph Skrivanek with the Outstanding Scholastic Performance in First Year College Chemistry Award Winners.

High School students who received the Achievement Award for Outstanding Performance in High School Chemistry. Their award and dinner were supported by Ciba Specialty Chemicals Foundation.



HUDSON-BERGEN CHEMICAL SOCIETY

Microbes Survive, Technologists Connive and Companies Thrive

Speaker: Arnold L. Demain
Drew University

Many antibiotics, pharmacological agents, antitumor drugs, agricultural pesticides, and other commercial products are derived from microorganisms. These microbes make the products in nature to protect themselves and survive. When these organisms are "captured" and brought to the laboratory, they are subjected to multi-year strain improvement programs in which they are treated with toxic chemicals and/or irradiation which kills most of the microbial population and allows the technologist to isolate higher-producing mutants. As a result, new products are commercialized to combat resistant infectious microbes, lower cholesterol and allow organ transplantation in humans. As a result, natural products and their chemically or genetically-derived derivatives constitute about 50% of the pharmaceutical market and include a number of blockbuster drugs.

For five decades, Arnold L. Demain has been a scientist constantly in the forefront of industrial microbiology and biotechnology.

Born in Brooklyn in 1927, Demain was educated in the New York Public School system, received his BS and MS degrees at Michigan State University in 1949 and 1950 respectively, and his Ph.D. at UC Berkeley and Davis. He spent 15 years at Merck where he founded the Fermentation Microbiology Department in Rahway. He joined MIT in 1969 and remained for 32 years. He is now at Drew University in the Research Institute for Scientists Emeriti (RISE) where he trains students in research, does editorial work, and writes. He is an international consultant for the pharmaceutical and biotechnology industries. His publications number over 480 plus 10 books and 21 US patents. He is a member of the National Academies of Science of the USA, Hungary and Mexico.

Date: Friday, October 22, 2004

Times: Social 6:00 PM
Dinner 6:30 PM
Awards/Lecture 7:30 PM

Place: Dickinson Hall Cafe
Fairleigh Dickinson University
Teaneck, NJ

Cost: \$20.00 for dinner. The lecture is free. The dinner cost for students is \$10.00.

Reservations: Dr. Mihaela Leonida (201) 692-2338, e-mail: mleonida@fdu.edu by **Tuesday, October 19, 2004.**



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

**Cannabinoid Receptors:
Pharmacological Opportunities for
Obesity and Inflammation**

Organizers: Jeanne Magram
Boehringer-Ingelheim
Pharmaceuticals
Ridgefield, CT

and

Shawn Black
Pfizer
Groton, CT

The cannabinoid (CB) receptor class of GPCRs consists of two members, CB1 and CB2. In addition to the endogenous ligands for these receptors, CB1 is the primary receptor for THC, the psychoactive component of marijuana. As marijuana is also known to increase appetite, these receptors have been studied for their effects on feeding behavior and more recently as attractive drug targets for the treatment of obesity. CB2 receptors are more important in the periphery, especially in cells involved in immune responses. Thus, agonists of the CB2 receptor have been studied as potential anti-inflammatory therapies. The physiologic role of these receptors and their endogenous ligands are not yet completely elucidated but are rich in information relevant for proposed novel therapies.

Date: Tuesday, October 26, 2004

Time: 1:00 – 5:00 PM

Place: New York Academy of Sciences
Main Hall, 2 East 63rd Street
(between Fifth and Madison
Avenues)
New York, NY

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 x 322.

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

**CUNY INSTITUTE FOR
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ASSEMBLIES**

Fall Symposium

Speakers: Prof. Emeritus Harold A. Scheraga
Cornell University

Prof. Michael H. Hecht
Princeton University

Prof. Alanna Schepartz
Yale University

Date: Tuesday, November 9, 2004

Time: 10:00 AM – 3:00 PM

Place: City University of New York
College of Staten Island
2800 Victory Blvd.
Room 1P – 120
Staten Island, NY 10314

Pre-registration is required. Call (718) 982-4075, e-mail to brocato@mail.csi.cuny.edu or consult the Institute website:
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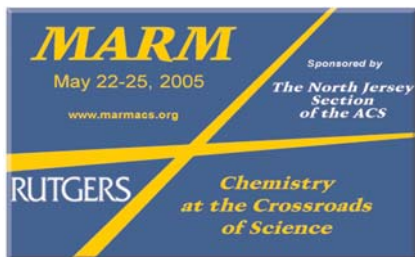
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MIDDLE ATLANTIC REGIONAL MEETING (MARM 2005)

Advance Notice — Call for Papers and Registration

Chemistry at the Crossroads of Science, our theme for the Middle Atlantic Regional Meeting in 2005, will explore the chemist's role in pushing back the frontiers of science. Rutgers University, neighboring sections, society divisions and local allied societies are working as a team with the North Jersey Section of the ACS to plan the meeting.

We are inviting chemists from Maine to Georgia and beyond to attend this Regional Meeting which we hope will be the best regional meeting ever. You are invited to attend this meeting as a presenter and/or an attendee. We have something in this meeting for everyone interested in the chemical sciences from the general public, high school students, chemists and other scientists and retirees.

Program Highlights

- **Sunday** — Education is the theme — education for our youth, teachers and the public.
- **Monday** — Bench to Pilot Plant
Biomarkers: Quantification, PK/PD
Correlation and Bioanalytical Issues
Kinases
Freshman Chemistry for Engineering Students
Solid State and Materials Chemistry
GPCRs/Virtual Screening
Marine Environment Chemistry
Pharma Profiling
About the General Chemistry Laboratory
- **Tuesday** - Visions in Chemistry (sponsored by Aventis)

Environmental/Green Chemistry

Ion Channels

Novel Instrumentation and Applications of Mass Spectrometry in ADME Studies

Undergraduate Research

Research Funding Opportunities for Primarily Undergraduate Institutions

Proteases

Applications of LC-MS in Drug Discovery/Development

- **Wednesday** - Gov-Affairs Workshop

Celebrating Chemistry

Environmental/Green

Forensic Chemistry Education

Advances in Organic Synthesis

Functional Proteomics and Cell Signaling

Mini-Symposia keyed to local industries' interests will be packed into the PM so that our industrial beneficiaries won't have to miss a full day of work. The NJACS Roving Feast, vendor exhibits and poster sessions will provide networking opportunities to share with your peers, while discovering the latest vendor innovations.

Students will get an opportunity to share their research in talks and posters and also learn about the latest in their chosen fields of study from world class scientists, right in their back yard. Of course, the students' main interest may be jobs and the ACS Career Services employment center will connect them with many opportunities to meet employers and learn how to sharpen their job searching skills.

Our Committees for Women Chemists, Younger Chemists, Safety and Minority Affairs are planning programs. Then we have the favorites from previous MARM meetings on Industrial Innovations, Chemagination, Delaware Valley Chromatography Forum Student Awards.

Please visit our website <http://www.marmacs.org/> for more information. Registration and call for papers both will open on **November 15, 2004**.

Date: May 22-25, 2005

Place: Rutgers University
New Brunswick, NJ

North Jersey Meetings

<http://www.njacs.org>

EXECUTIVE COMMITTEE AND SECTION MEETING

Invitation to All ACS members:

The North Jersey Section's Executive Committee meets at 4:15 PM on the day of the monthly Topical Group Meetings, at the same location. All ACS members are welcome to attend.

Date: Monday, October 25, 2004

Time: 5:30 PM

Place: Fairleigh Dickinson University
Lenfell Hall, Mansion Bldg.
Madison, NJ

Cost: Dinner \$10.00 (Pizza & Soda)

Reservations: for dinner call (908) 234-9240 and state your wish to make reservations for the ACS dinner **before Wednesday, October 21, 2004.**

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.



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, October 7, 2004**, 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.



HIGH SCHOOL TEACHERS

Come Celebrate National Chemistry Week

Bring your high school students and set up experiments for young people to come and perform. Give "very young chemists" (ages 5 and up) a chance to experience chemistry first-hand.

This year's theme is HEALTH AND WELLNESS but feel free to design experiments for any topic of chemistry.

Date: Sunday, October 17, 2004

Times: 12:00 – 4:00 PM

Place: Fairleigh Dickinson University
258 Madison Avenue
Madison, NJ

Please e-mail Bobbi Gorman at rosellerams@yahoo.com to reserve a table and sign up for your topic now. If you can come and help with registration or other details, let me know that as well. Looking forward to being with you.



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ChemTAG MEETING

Immediately following the National Chemistry Week event from 12-4:00 PM on **October 17**, the Teacher Affiliates' group will conduct its October ChemTAG meeting. If you plan on staying and your students need to "hang out", let me know so we can make some arrangements for extra rooms. This is a great way to prepare for Mole Day and get the excitement rolling!

Contact Bobbi Gorman at **rosellerams@yahoo.com**



TEACHER AFFILIATES

Executive Committee Meeting

Date: Monday, October 18, 2004

Time: 4:30 PM

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

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

CHEM ESSENTIALS — A Series of Topical Workshops

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

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The next Chem Essentials workshop is on "**Bonding**"

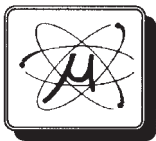
Date: Friday, November 12, 2004

Time: 4:00 - 8:00 PM

**Place: Somerville High School
222 Davenport Street
Somerville, NJ**

**Cost: Per session \$15.00 for members
\$30.00 for non-members (price includes 1 year membership).
Cost includes handouts and a box supper.**

Contact: Patti Duncan at **pduncan@hpreional.org** or go to **http://www.njacs.org/teacher.html** for more details and a registration form.



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"FROM BENCH TOP TO PILOT PLANT" SYMPOSIUM

The Organic Topical Group of the North Jersey Section of the American Chemical Society (NJACS) invites you to attend a technology development symposium entitled "From Bench Top to Pilot Plant" - a forum where chemists from industry research, process development and pilot plant operations disseminate and discuss their experiences toward developing a product or a process from lab scale to the pilot plant scale. This exciting symposium is intended to introduce research chemists to the emerging technologies in product development and to help development chemists learn more about technology transfer, scale-up, and commercialization issues. It is also intended to instruct chemistry students about potential chemical industry careers. The speakers are well respected in their fields and will discuss the chemistry, economics, and environmental issues involved in the development of respective products. An extended "social hour" at the end of the technical presentations offers a great opportunity for professional networking.

Date: Thursday, October 28, 2004
Times: 12:00 P.M.- 7:00 P.M.
Place: The Madison Hotel, Morristown, New Jersey
Directions: www.njacs.org

REGISTRATION DEADLINE IS OCTOBER 21, 2004

- 12:00-1:00 Registration
- 1:05-1:55 Dr. Stuart Mickel, Novartis Pharmaceuticals, Basel, Switzerland
"From Deep Sea Sponge to Pilot Plant: Discodermolide. Adventures in Natural Product Synthesis"
- 1:55-2:45 Dr. Robert Cain, Hoffman-La Roche, Boulder, Colorado
"Challenges in the Scale-up of Convergent Solid/Liquid Phase Peptide Synthesis"
- 2:45-3:15 Coffee Break — Refreshments/Vendor Displays
- 3:15-4:05 Dr. David Kronenthal, Bristol-Myers Squibb, New Brunswick, NJ
"Synthesis of Vasopeptidase Inhibitors"
- 4:05-4:55 Dr. Ulf Dolling, Merck & Co, Rahway, NJ
"Development of Manufacturing Process for EMEND"
- 5:00-7:00 Social — Buffet/Cash Bar/Vendor Displays

- Please return the bottom part with the registration payment by October 21, 2004 -

Name: _____ Organization: _____

Phone: _____ - _____ - _____ E-Mail : _____
(needed for confirmation)

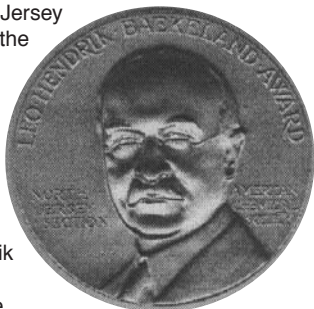
Registration Fee: ___ \$45 (advance) ___ \$20 (students) ___ \$50 (on-site)

Please make your check payable to the "North Jersey Section ACS" and send it to:
Dr. Z. Jake Song, Merck & Co., RY 800-B275, P.O. Box 2000, Rahway, NJ 07065

Call for Nominations

2005 BAEKELAND AWARD

The North Jersey Section of the American Chemical Society is soliciting nominations for the 2005 Leo Hendrik Baekeland Award. The



award is sponsored by Union Carbide Corporation and consists of a gold medal and a \$5,000 honorarium. The Section presents the award biannually to commemorate the technical and industrial achievements of Leo Hendrik Baekeland and to encourage younger chemists to emulate his example. The Award is given in recognition of accomplishments in pure or industrial chemistry to an American chemist who will be under the age of 40 as of January 1, 2005.

Nominations for the Award should include a letter describing the nominee's achievements, a brief biography, and a list of the nominee's more important publications. Renominations are encouraged, provided the age requirement is still met. Please submit materials **by December 31, 2004**, to Robert Goodnow, Jr., Baekeland Award Committee, of Hoffmann-La Roche Inc., Bldg. 123, 340 Kingsland Street, Nutley, NJ 07710-1199.

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.

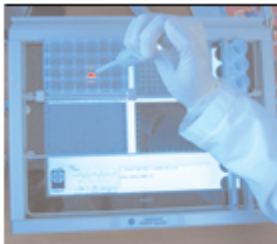


WESTCHESTER CHEMICAL SOCIETY

Distinguished Scientist Award - 2005

The Westchester Chemical Society is seeking nominations for its Distinguished Scientist Award - 2005. Any scientist who lives or works in Westchester is eligible for this award.

Please submit a detailed resume **by January 31, 2005** to Joan Laredo-Liddell, 391 Palmer Road, Yonkers, NY 10701-5239.



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GUSTAVUS JOHN ESSELEN AWARD FOR CHEMISTRY IN THE PUBLIC INTEREST

The Esselen Award for Chemistry in the Public Interest is one of the most prestigious honors provided by the Northeastern Section of the American Chemical Society. The award annually recognizes a chemist whose scientific and technical work has contributed to the public well-being, and has thereby communicated positive values of the chemical profession. The Awardee should be a living resident of the United States or Canada at the time of nomination, and the significance of this work should have become apparent within the five years preceding nomination.

The Esselen Award has no limitations with respect to the chemical field in which the nominees are active. Since its inception, the award has been given to the following chemists:

| | |
|---|---|
| 1987 F. Sherwood Rowland Mario J. Molina | 1996 Roy G. Gordon |
| 1988 Alfred P. Wolf Joanna S. Fowler | 1997 Rangaswamy Srinivasan |
| 1989 Carl Djerassi | 1998 Kyriacos C. Nicolaou |
| 1990 Thomas J. Dougherty | 1999 Robert S. Langer |
| 1991 Jerrold Meinwald Thomas Eisner | 2000 William A. Pryor |
| 1992 Bruce N. Ames | 2001 Joseph M. DeSimone |
| 1993 James G. Anderson | 2002 Ronald Breslow |
| 1994 Kary B. Mullis | 2003 Bruce D. Roth |
| 1995 Howard J. Schaeffer | 2004 James W. Jorgenson |

The Award consists of a medal and a check for \$5,000. Travel expenses incidental to the conferring of this award will be reimbursed. The award will usually be held in Cambridge, MA at the April meeting of the Northeastern Section. The Awardee will deliver an address on the subject of the work for which the honor is being conferred, or for work in progress which is also directed to chemistry in the public interest.

To nominate a candidate, please provide statements from two co-sponsors as well as a brief biography of the candidate, a description of the work which has been recognized as communicating the positive values of the chemistry profession and copies of selected, pertinent articles. Popular news and feature articles should be included as an indication of public interest. Nominations and inquiries should be directed to Dr. Paul Vouros, c/o Karen Piper, 19 Mill Road, Harvard, MA 01451. **Nominations should be posted no later than October 15, 2004.** Joint nominations are acceptable. The Committee will review the nominations and the award recipient will be notified by the first of February 2005.



THE HERMAN F. MARK POLYMER CHEMISTRY AWARD

Purpose: To recognize outstanding research and leadership in polymer science.

Nature: The award consists of a plaque and an honorarium of \$2000. The award is usually presented biennially in odd-numbered years. The 2005 award will be presented at the Fall meeting of the Polymer Chemistry Division. The recipient is expected to present an address at a symposium organized in his/her honor. Reasonable travel expenses to the symposium are paid in addition to the honorarium.

Establishment and Support: The award was established in 1976 and is administered by the Polymer Chemistry Division. In 1989, the award was named the Herman F. Mark Polymer Chemistry Award. *The Dow Chemical Company Foundation sponsors the award.*

Previous Recipients: Paul J. Flory, Carl S. Marvel, Maurice L. Huggins, Herman F. Mark, John D. Ferry, Charles G. Overberger, Walter H. Stockmayer, Michael Swarc, E. J. Vandenberg, Harry R. Allcock, James E. McGrath, James Economy, Murray Goodman, Robert Grubbs, Henry K. Hall, Jr., Robert W. Lenz, Leo Mandelkern, Otto Vogl, and William J. MacKnight.

Rules for Eligibility: A nominee must be a member or affiliate of the ACS Division of Polymer Chemistry. Consideration shall be given to outstanding research accomplishments and contributions to the advancement of polymer science through teaching,

(continued on page 16)

THE HERMAN F. MARK POLYMER CHEMISTRY AWARD

(continued from page 15)

research, technical leadership and scientific writings. The award shall be granted to an individual without regard to race, color, national origin, sex, religion, age, disability, or sexual orientation.

Nomination Procedure: Eight (8) collated individual copies of a complete nominating document, including a synopsis of the accomplishments of the nominee, a curriculum vitae, and a maximum of five reprints or other supplementary material for each copy, shall be submitted to the Awards Chairman for distribution to the committee. The document should be letter-size. A maximum of three (3) supporting letters, which contain factual information about the candidate not provided in the nominating document may be attached to the nomination. **The nomination and its accompanying material for the 2005 award must be postmarked no later than November 1, 2004.** Address nominating material to: Dr. Thomas J. Pacansky, 19 Oak Place, Bernardsville, NJ 07924.



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Fall 2004 Seminar Series

Thursday, September 30, 2004

"Bose-Einstein Condensation"

Professor Harold Metcalf

Department of Physics

Stony Brook University/SUNY

Stony Brook, NY

Thursday, October 14, 2004

"AFM Studies of Protein / Surface Interactions"

Professor Giacinto Scoles

Department of Chemistry

Princeton University, Princeton, NJ

Thursday, October 21, 2004

"Solid State Lasers"

Professor Ying-Chih Chen

Department of Physics

Hunter College/CUNY, New York, NY

Thursday, November 4, 2004

"Science and Application of Nanotechnology"

Professor Stanislaus Wong

Department of Chemistry

Stony Brook University/SUNY

Stony Brook, NY

Thursday, November 11, 2004

"Useful Things to Know About the Properties of Room Temperature Ionic Liquids"

Professor Edward Castner

Department of Chemistry

Rutgers University, Piscataway, NJ

Thursday, November 18, 2004

"User Friendly Asteroid Hunting and Why It's an Important Endeavor"

Professor Irving Robbins

Department of Physics

College of Staten Island/CUNY

New York, NY

<http://www.wpunj.edu/cos/chem-physics/>

Seminar coordinators:

Dr. A. Brandolini — (973) 720-2449

BrandoliniA@wpunj.edu

Dr. S.H. Chung — (973) 720-3458

ChungS@wpunj.edu

Time: 12:30-1:50 PM

Place: Science Room 433

NEW JERSEY INSTITUTE OF TECHNOLOGY — DEPARTMENT OF CHEMICAL ENGINEERING

Seminar Series - Fall 2004

Sponsors: Bradley Pharmaceuticals Inc. - ConocoPhillips Bayway Refinery - Exxon Mobil Corporation - Formosa Plastics Corporation, USA - Infineum USA L.P. - Merck & Co., Inc. - National Starch and Chemical Foundation, Inc.

October 25

"Theory, Experiments and Computations for Liquid Jet Breakup"

Dr. Demetrius Papageorgiou

Professor of Mathematics

NJIT

November 1

"Pharmacokinetics in Drug Discovery and Development"

Dr. Punit Marathe

Associate Director

Metabolism and Pharmacokinetics

Bristol-Myers Squibb

Times: Refreshments – 2:30 PM

Seminars 2:45 PM

Place: Room 3710

William S. Guttenberg Information Technologies Center

New Jersey Institute of Technology Newark, NJ

Seminar Series Coordinator: Professor Gordon Lewandowski, (973) 596-3573, lewandow@adm.njit.edu



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Chemistry Department Colloquium — Fall 2004

Friday, October 1

TBA

Dr. Marshall Newton

Department of Chemistry

Brookhaven National Laboratory

Friday, October 8

TBA

Prof. Mark Walters

Department of Chemistry

New York University

Friday, October 15

TBA

Friday, October 22

TBA

Friday, October 29

Optical Sensors Based on Polymer Films and Sol-gels

Prof. Enju Wang

Department of Chemistry

St. John's University

Wednesday, November 3 — 12:30 PM

Room 148NE

Twentieth H. Martin Friedman Lecture

Paradigms Lost and Paradigms Found?

Science Revolutionary and Science

Pathological — How to Determine Which is Which

Dr. Nicholas J. Turro

William P. Schweitzer Professor of

Chemistry

Columbia University

Friday, November 5

Access to Some Classic Carbocations of Organic Chemistry by Carbene Fragmentation

Prof. Robert A. Moss

Department of Chemistry and Chemical Biology

Rutgers University

Friday, November 12

Lanthanide Complexes for Luminescence Applications

Prof. Ana de Bettencourt-Dias

Department of Chemistry

Syracuse University

Friday, November 19

TBA

Prof. John Baldwin

Department of Chemistry

Center for Science and Technology

Syracuse University

Friday, December 3

TBA

Prof. Laurence Romsted

Department of Chemistry and Chemical Biology

Rutgers, The State University of NJ

Times: Colloquium 2:30 PM

Social Hour 3:30 PM

Place: Brooklyn College

Room 432 Ingersoll Extension

2900 Bedford Avenue

Brooklyn, NY

**NEW JERSEY INSTITUTE OF
TECHNOLOGY — DEPARTMENT
OF CHEMISTRY &
ENVIRONMENTAL SCIENCE**

Seminar Series - Fall 2004

Tuesday, October 5

"Photodissociation Dynamics of Small
Molecules of Atmospheric Importance by
LIF and Time-Resolved FTIR"

Dr. Vladimir I. Makarov

Dept. of Chemistry

University of Puerto Rico

Rio Piedras, Puerto Rico

and

Institute of Chemical Kinetics and

Combustion, Siberian Branch

Russian Academy of Sciences

Novosibirsk, Russia

Wednesday, October 20

"Molecular Dynamics for Biomolecules and
Nano Systems"

Dr. Qun Ma

College of Computer Science

NJIT, Newark, NJ

Tuesday, October 26

"Bacillus anthracis Decontamination of the
United States Postal Service Trenton
Mailing Processing and Distribution Center"

Richard Orlusky

United States Postal Service

Department of Environmental Policy

Management

Time: 11:30 AM

Place: Tiernan Hall, Room 373

NJIT, Newark, NJ

Seminar Series Coordinators:

Dr. Carol Venanzi
venanzi@njit.edu
973-596-3596

Dr. Sanjay Malhotra
malhotra@njit.edu
973-596-5583



**THIS MONTH IN CHEMICAL
HISTORY**

By Harold Goldwhite
California State University
Los Angeles, CA

As my regular readers will know, I find that old books with scientific content give a special perspective on the history of science. I recently acquired some issues of a small publication entitled, "The Year Book of

Facts;" that's the cover title. The full title, in good Victorian fashion, is "The Year-Book of Facts in Science and Art exhibiting the most important discoveries and improvements of the past year..." (Yes, there is even more!). The volume I have before me is for the year 1844 and was edited by "The Editor of 'The Arcana of Science'" (a publication I have yet to locate). The volume is illustrated with engravings and was published by David Bogue of Fleet Street in London. The two engravings that comprise the frontispiece and the vignette on the title page are both of some interest to chemists. The former is a portrait of Dr. Justus Liebig "the celebrated Professor of Chemistry in the University of Giessen...". The latter shows "Mr. Babbage's Calculating or Difference Engine, lately deposited in George the Third's Museum, King's College, London." Mr. Babbage's engine is generally acknowledged as the ancestor of modern digital computers, and you can see portions of it and its successor calculators in the Science Museum in South Kensington, London.

Let me turn to the section on Chemical Science that makes up 31 pages of this roughly 300-page book. Dr. Andrews, who I believe is the same Andrews whose experiments on critical phenomena in carbon dioxide are celebrated (at least among historians of chemistry), communicated to the British Association [for the Advancement of Science] a new general principle of thermochemistry. "When one base displaces another from any of its neutral combinations, the heat evolved or abstracted is always the same when the base is the same..." As I interpret this rather terse and ambiguous statement, I believe it illustrates an early example of Hess's Law, or the first law of thermodynamics.

Mr. R. Hunt reported at the same British Association meeting a survey of the effect of light on a variety of chemical compounds. This was the era of the beginnings of photography. The article refers to "The experiments of Ritter, and others, down to the time of Niepce and Daguerre...the researches of Wollaston, of Davy, of Fox Talbot and above all...Sir John Herschel." Mr. Hunt added platinum to the list of materials including compounds of silver, gold, mercury, and iron that were already established as photosensitive substances, and also exhibited pho-

tographs made with salts of manganese, tin, antimony, lead, cobalt, and arsenic. (I may add that, to my knowledge, of all these materials only platinum became well established as an alternative to silver in black and white photography, though gold prints were also occasionally employed.)

Dr. Liebig read to the Chemical Society a paper "On the Formation of Fat in the Animal Body." In addition to his fundamental and wide-ranging work in organic and inorganic chemistry, Liebig also contributed significantly to agricultural chemistry and nutritional chemistry. Liebig showed by experiments on three young pigs on a farm at Giessen that they added fat to their body weight in great excess over the fat they consumed and that therefore the fat was in some way being produced from starch, since potatoes were their main food.

The interest of the Editor and, presumably, the readers of the "Year-Book" in food chemistry and agricultural chemistry is evident in the large numbers of articles devoted to these subjects. Titles include "Composition of Milk"; "The Lacto Scope" (an instrument for measuring the proportion of cream in milk); "Absorption of Nutrition in Food"; "Effects of Sugar in Diet" (still a topic of great interest!); "Nutritive Values of Bread and Flour," etc.

An article that caught the eye of this avid reader of mystery stories is titled "Riench's Test for Arsenic" and is based on a paper by Dr. D.P. Gerrard of New York published in Silliman's "American Journal [of Science]". Gerrard reports failures of Marsh's test for arsenic, widely used in forensic chemistry, at low arsenic concentrations. Riench's test is more sensitive but gives too many false positives. Gerrard demonstrates that subliming the arsenic from the precipitate in Riench's test increases the value and certainty of the test.

Finally, for this month's article, a reassuring (?) note on "Death from Prussic Acid," better known as hydrogen cyanide. A German paper asserts that death from prussic acid is only apparent (!); "life is immediately restored by pouring acetate of potash and common salt, dissolved in water, on the head and spine." I emphatically warn my readers against trying this remedy.

ACS DIVISION OF HISTORY OF CHEMISTRY

The ACS Division of History of Chemistry (HIST) proudly announces the initiation of a new award program, the **HIST Citation for Chemical Breakthroughs**. Beginning in 2005, these Citations will recognize breakthrough publications and patents worldwide in the field of chemistry. Plaques, to be placed in the hallways outside the office or laboratory where the breakthroughs were achieved, will be presented annually to the departments and institutions at which these breakthroughs occurred.

Jeffrey Seeman, Chair-Elect of HIST, summarized that "we believe that identifying and celebrating chemical successes are important to the continued prosperity of chemistry worldwide. We envision that our colleagues and friends, seeing these plaques, will feel pride and inspiration in being a contributor to the sciences." The selection process will involve open solicitation of nominations from the chemical community. An awards committee comprised of eminent scientists and historians of science will provide careful screening of the nominees and selection of each year's awardees. More details will be available within the next few months.

HIST recognizes and appreciates that the initial pool of deserving awardees is enormous and that, in the first few years of this program, only a small percentage of the most deserving recipients can be honored. However, multiple awards will be given each year. Citations for Chemical Breakthroughs now joins HIST's Dexter Award and its successor, the Edelstein Award, presented annually since 1956; these awards honor individuals having outstanding achievements in the history of chemistry. HIST intends to enlist ACS Local Sections, HIST Division members, and for international recipients, sister chemical and history organizations to participate in the awards ceremonies. For additional information, contact Dr. Seeman at HIST_CCB@yahoo.com

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