MARM in Review
(See pages 24 to 26.)

Attention
North Jersey Readers
Be Alert for Upcoming Changes.
(See page 8.)
SEPTEMBER HISTORICAL EVENTS IN CHEMISTRY
by Leopold May
The Catholic University of America, Washington, DC

September 5, 1892
Coca Cola Company was incorporated on this day.

September 7, 1829
One hundred and fifty years ago in 1858, F. August Kekulé described the quadrivalence of carbon and structural theory of organic chemistry. In 1865, he conceived the ring structure of benzene and synthesized acetylene in 1864. He was born on this date.

September 9, 1858
One hundred and fifty years ago, Carl Auer von Welsbach was born. He was a researcher in rare earths who discovered neodymium and praseodymium in 1885, and in 1907, lutetium with Georges Urbain. An invention of his was the incandescent mantle (Welsbach Mantle or Auerlicht).

September 10, 1775
John Kidd, who discovered naphthalene in coal tar in 1819, was born on this day.

September 12, 1897
Seventy-five years ago in 1933, Irène and Fredéric Joliot-Curie produced artificial radioisotopes. In 1935, they shared the Nobel Prize in Chemistry in recognition of their synthesis of new radioactive elements. She was born on this date.

September 13, 1945
B. B. Cunningham and L. B. Werner isolated the first microscopic amount of a compound of americium at the wartime U. S. Metallurgical Laboratory, University of Chicago, on this date.

September 14, 1961
Analtech, inc., manufacturer of products for thin layer chromatography, was founded as Custom Service Chemicals on this date. Name was changed in January 8, 1965 to Analtech, Inc.

September 16, 1970
Great Lakes Chemical Co. was incorporated on this date.

September 18, 1942
James Dewar, who invented the vacuum flask (Dewar flask) in 1892, was born on this date. He was the first to liquefy hydrogen in 1899 and showed that many common substances phosphoresce at liquid air temperature.

September 24, 1874
Alexander Findlay, an authority on phase rule, was born on this day.

September 25, 1866
Seventy-five years ago, Thomas H. Morgan, one of the founders of modern genetics, received the Nobel Prize in Physiology or Medicine in 1933 for his discoveries concerning the role played by the chromosome in heredity. He was born on this date.

September 26, 1886
Archibald V. Hill who did research on oxygen consumption of muscular action was born on this day. He received the Nobel Prize in 1922 for his discovery relating to the production of heat in the muscle and shared with Otto F. Meyerhof for his discovery of the fixed relationship between the consumption of oxygen and the metabolism of lactic acid in the muscle.

September 28, 1852
Heinrich Mösann, who was born on this day, discovered fluorine in 1886 and invented an electric furnace in which he prepared metal carbides and silicon carbides. In 1906, he received the Nobel Prize in Chemistry in recognition of the great services rendered by him in his investigation and for the adoption in the service of science of the electric furnace called after him.

Additional historical events can be found at Dr. May’s website, at http://faculty.cua.edu/may/ChemistryCalendar.htm or the “This Week in Chemical History” at the ACS website: http://www.acs.org/whatischemistry.
Friedrich Wilhelm Ostwald was born in Riga in 1853. He showed a lively interest in science while at the Gymnasium in Riga and proceeded to the University of Dorpat to study chemistry. There he played a great deal of chamber music (he was an accomplished violist), dabbling in landscape painting, and had an active social life. But he passed the required examinations and, for a thesis project, experimented on the mass action of water. He continued after graduation as an assistant at the university and began working on chemical affinities. He obtained his doctorate at Dorpat and began to lecture on physical chemistry. He also married his wife of 52 years, whom he met at a musical soiree.

By the age of 28 Ostwald was appointed Professor at the Riga Polytechnicum and there, while continuing to work on his influential "Textbook of General Chemistry", he began a program of kinetics studies examining the hydrolyses of acetamide, esters, and sucrose.

In 1883 and 1887 the two volumes of Ostwald's textbook appeared and, also in 1887, the first issue of the Zeitschrift fur physikalische Chemie, edited by Ostwald, appeared. This was the first journal devoted to physical chemistry and numbered among its collaborators William Ramsay (then at Bristol). Many of Ostwald's papers appeared in the new journal including work on conductivity and dilution; cell potentials; and catalysis by acids of redox reactions. Ostwald was called to the Chair of Physical Chemistry at Leipzig in 1887 and among the many honors he received was the award of the first volume of the "Handbuch der Physikalischen Chemie", which included the ionization views of Arrhenius, van't Hoff, and Ostwald. Dozens of foreign and German students came to these laboratories to work on physico-chemical problems that included osmotic pressure, and Ostwald's famous dilution law. Four thick volumes cover the work done in the laboratory in the decade 1887 – 1897. To quote Dornan: "Picture to yourselves a friendly enthusiastic man, with penetrating eyes, fresh colour, and reddish hair, moustache, and beard, going the round of the research laboratory every day. If you had a difficulty, Ostwald had a solution to offer."

Let me now turn to other aspects of Ostwald's career. He initiated and edited a series of classic works in the history of chemistry. He wrote many influential texts, including beginning textbooks. He translated Willard Gibbs great thermodynamics paper into German and promoted its ideas. He was also a philosopher of science, proposing energy rather than matter as the fundamental stuff of the universe. In 1903 – 1906 he paid several visits to the United States, lecturing on both chemistry and philosophy. After World War I, retiring from chemistry, he studied the scientific foundations of color rendering in art.

Ostwald received over 60 honors including degrees and medals from many leading universities and scientific societies. He died in Leipzig in April 1932.
Special Announcement

Starting with the January 2009 issue of The Indicator, paper copies will be mailed only to individuals who have notified John Penna before October 1, 2008, at 4 Cameron Road, Piscataway, NJ 08854 (732-463-7271) or at njacsoffice@aol.com. The January Indicator will be posted on the North Jersey web-site. Go to http://theindicator.org and see how easy it is to access The Indicator. Other advantages of posting The Indicator include: the ability to access previous issues quickly, the capability of enlarging the print size to increase readability, and knowing that you have helped save a tree.

The North Jersey Section Executive Committee meeting will be in conjunction with the Project SEED Poster Session and Dinner at Seton Hall University. Section officers, councilors, committee chairs, topical group chairs, and section event organizers will meet to discuss topics of importance to running the section and representing the membership. All ACS members are welcome to attend this meeting as visitors and to become more involved in section activities.

Date: Monday, September 22, 2008
Time: 4:30 PM
Place: Chatham High School
255 Lafayette Avenue
Chatham, NJ
Cost: Dinner $20.00
Directions: http://www.shu.edu/visiting/
Reservations: call (732) 463-7271 or email njacsoffice@aol.com prior to Wednesday, September 17, 2008.

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 questions
• Conducting an effective job search
The next meeting for the Careers In Transition Group will be held Thursday, September 4, 2008, 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, bring transparencies of your resume. Please contact vjkuck@yahoo.com, if you plan on attending this meeting.

LOCAL SECTION VOLUNTARY DUES

North Jersey Members:
This fall you will notice a change to your annual dues bill from the ACS. Starting with the 2009 ACS dues bill, the North Jersey Section will be collecting voluntary Local Section Dues from our members. Due to rising costs, we are asking our members to pay these voluntary dues to help support the section and maintain its financial security. We plan to use these funds in support of programming, local section awards, public outreach events such as Earth Day and National Chemistry Week, as well as The Indicator.

If you have any questions regarding the voluntary dues, please contact Jacqueline Erickson at jacqueline.a.erickson@njacs.org.

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.

SPECIAL ANNOUNCEMENT

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 questions
• Conducting an effective job search
The next meeting for the Careers In Transition Group will be held Thursday, September 4, 2008, 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, bring transparencies of your resume. Please contact vjkuck@yahoo.com, if you plan on attending this meeting.

LOCAL SECTION VOLUNTARY DUES

North Jersey Members:
This fall you will notice a change to your annual dues bill from the ACS. Starting with the 2009 ACS dues bill, the North Jersey Section will be collecting voluntary Local Section Dues from our members. Due to rising costs, we are asking our members to pay these voluntary dues to help support the section and maintain its financial security. We plan to use these funds in support of programming, local section awards, public outreach events such as Earth Day and National Chemistry Week, as well as The Indicator.

If you have any questions regarding the voluntary dues, please contact Jacqueline Erickson at jacqueline.a.erickson@njacs.org.
CHEMICAL BUSINESSES

10 THE INDICATOR-SEPTEMBER 2008

Speaker: George Sierchio
The Consultant's Coach
Action Business Partners, Inc.

Many manufacturing based businesses as well as those that consult in the manufacturing world use trade shows as a source for marketing and lead generation. These shows can get very expensive and should be conducted to get the most bang for your buck. The biggest mistake most make is treating the show as the only focal point and not designing the event as a ‘before-during-after’ marketing process. This talk will take you through the process of how to decide what shows to participate in, and what to think about to get the most out of them, including:

• Choosing the right show to attend (selecting your audience)
• Determining obtainable benefits beyond just having a booth
• Choosing the niche product or service to showcase (content)
• Determining what visitors will get for stopping by your booth (pre-sell)
• Letting the right people know that you will be there and attracting their attention (traffic)
• Developing your “at-the-show” game plan and executing it (lead generation)
• Keeping people motivated and adjusting the game plan
• Follow-ups (sell)

George Sierchio is a degreed engineer and the founder of Action Business Partners, Inc. ABP is a business advisory firm that specifically works with technology-based business owners on common issues such as growth, marketing, funding, finances, time management, client management, employee problems, and value building exit strategies. Before founding ABP 5 years ago, Mr. Sierchio had over 11 years of experience owning and operating several successful small businesses in a variety of technical and non-technical industries. In addition to business coaching and advising, he has helped thousands through speaking engagements as well as articles and book publication.

Date: Thursday, September 18, 2008
Times: Networking – Cash Bar 5:30 PM
Dinner and Introductions 6:30 PM
Presentation 7:15 PM
Networking and Dessert/Coffee 8:15 PM

Place: Holiday Inn, North (on the north side of Newark Airport)
160 Frontage Road
Newark, NJ

For map and directions, see www.NJGSCB.org

Cost: In advance: $45 for members of NJGSCB; $55 for non-members
Walk-ins: $55 for members and non-members

All reservations must be made in advance at our web site: www.NJGSCB.org. To pay by check, reserve by sending an email to info@NJGSCB.org and mailing a check to:
NJ Group of Small Chemical Businesses
16 Park Terrace, Montclair, NJ 07043

Checks must arrive no later than Monday, September 15.
Questions? Call Pete Sibilski at 732-254-1901 Ext 140 or Psibilski@mail.alzointernational.com

Reserve by: Please reserve by September 15, 2008 EOB. Cancel in advance – EOB Sept 15 - or be invoiced. Walk-ins will be accommodated if space is available.

CELEBRATE 40 YEARS OF NATIONAL PROJECT SEED BY ATTENDING YOUR LOCAL ACS SEED POSTER SESSION AND HEARING WHAT’S NEW
As Part of the NoJ Executive Committee Meeting

On Monday, September 22, choose the posters that interest you, and which display the research that eager SEED students did this summer. They include organic, pharmaceutical, biological, analytical, environmental, computational, inorganic, physical, and polymer chemistry, as well as chemical and bioengineering, food, cosmetic, plant, and materials science, and drug development.

Your interest is crucial. Thanks to your help, the SEED students will be further inspired. North Jersey SEED students worked at NJIT, Rutgers and Cook College (3 campuses), Seton Hall, Stevens, Columbia University, Hunter College, Beth Israel Hospital, UMDNJ in Newark, Ramapo College, New Jersey City University, NJ Meadowlands Environmental Org., Kean University, Fairleigh Dickinson University, Hackensack Hospital, and the Public Health Research Institute in Newark.

Thanks are due to the mentors’ kindness and dedication, and funds donated by school boards, corporations, the ACS SEED Endowment, and many individual chemists.

Date: Monday, September 22, 2008
Time: SEED Poster Session 4:30 PM
Place: Student Center
Seton Hall University
400 South Orange Avenue
(corner Centre Street)
South Orange, NJ

Directions: http://www.shu.edu/visiting/
Everyone is invited. There is no charge and no reservations are needed if you go to the poster session and cannot stay for dinner. You are welcome to be a judge, and if you are a judge, you receive a free buffet dinner. To stay for dinner, call Bill Suits at (908) 234-9540 preferably by September 18. Call Susan Fahrenholtz at (973) 338-6588 or Alleene Johnson at (973) 763-6883 for more information.

www.iqsynthesis.com

Custom Synthesis Services
IQsynthesis Technology provides customized chemical synthesis at milligram to kilogram quantities.

• Custom Synthesis
• cGMP Synthesis of API and Intermediates
• Process Development
• Cytotoxic and Highly Potent Compounds
• Hot and Cold Isotopic Labeling
• Analytical Support

IQsynthesis
11810 Borman Drive
St. Louis, MO 63146
314-991-1857
1-800-546-8992
www.iqsyntheses.com
info@iqsyntheses.com

3909 S. Palo Verde Road, Suite 103
Tucson, AZ 85714
520.573.1061
tucsonlab@labs.com
**POLYMER TOPICAL GROUP**

Functional Packaging Through Chemistry  
Organizer: Dr. Tamal Ghosh (tamal@alumni.stevens-tech.edu)  
Co-Orginizers: Dr. Bin Wei (ICI National Starch and Chemical bwei01@gmail.com) and Dr. Ankur S. Kulkarni (BO Medical, Ankur.Kulkarni@bd.com)  
**TENTATIVE PROGRAM**

**Keynote Talk: Challenges in Sustainable Packaging**  
Speaker: Dr. Bob Kimmel  
Clemson University

**Oxygen and Moisture Vapor Barrier Coatings**  
Speaker: Dr. Derek Isely  
Sun Chemical

**Expanding the World of Packaging Applications for Ingeo™ Biopolymers**  
Speaker: Dr. Michael Ruberto  
NatureWorks

**The Polymer Supply Chain and the Impact on Extractables and Leachables in Pharmaceutical Container Closure Systems**  
Speaker: Dr. Michael Ruberto  
Ciba

**Temperature Monitoring in Pharmaceutical Cold-Chain**  
Speaker: Mr. Oumer Salim  
Wyeth Biotech

**Evolution of Electronic Packaging and Its Demands to Materials**  
Speaker: Dr. Allison Xiao  
ICI National Starch

This symposium is presented by the Polymer Topical Group of the North Jersey Section of the American Chemical Society. It features presentations contributed by leading scientists from both academia and industry. The event is intended to bring the local polymer science community up-to-date on the advancements in the chemistry relating to packaging, in a range of applications such as pharmaceuticals and vaccines, food packaging, electronic devices, and many other exciting areas.

This event also features presentations, posters and networking opportunities of interest to diverse professionals involved in the functional packaging industry. Whether you are from academia or industry, this is a good opportunity for you to showcase your research, network with other people and contact possible employers and clients.

In addition to posters focusing on packaging, general polymer posters are being solicited. We are looking for poster submissions relating to polymer research in diverse areas such as green polymers, advanced polymeric materials, polymer characterization, etc. Any registered conference attendee may sign up to present a poster on any polymer-related topic.

We look forward to seeing you at this symposium and hope that you would take advantage of the scientific and networking opportunities it offers. Updated information will be available in late August at the PTG website [http://www.njacs.org/ptg.html](http://www.njacs.org/ptg.html).

**Date:** Wednesday, October 29, 2008  
**Time:** 1:00 PM to 6:30 PM  
**Place:** NJIT Campus Center, Grand Ballroom, Newark, NJ

Cost:  
- With early registration (by October 15, 2008): Members: $40; Non-members: $50; Students: $25; free for NJIT students and staff with ID.
- After October 15, 2008: Member, $45; Non-member: $55; Student, $30.

Early registration and poster submission deadline is October, 15, 2008. Online registration will start in late August at [http://www.njacs.org/ptg.html](http://www.njacs.org/ptg.html) or send your full contact information along with a check made payable to NJACS-Polymer Group to Dr. Willis B. Hammond, Treasurer, NJACS-PTG, 128 Center Ave., Chatham, NJ 07928, with the appropriate amount.

Directions: Can be found at the NJIT website [http://www.njit.edu/about/visit/gettingtonjit.php](http://www.njit.edu/about/visit/gettingtonjit.php)

**SPEAKER AT NEW JERSEY SCIENCE CONVENTION**

The Teacher Affiliates of the North Jersey Section of the American Chemical Society, are sponsoring a special guest speaker, John Fortman, to present two programs on October 14th and 15th as part of the NJ Science Convention. John is a very engaging speaker, having presented hundreds of programs throughout the US and Canada. John is a retired college professor who received numerous teaching awards and brings with him a wonderful sense of humor.

On Tuesday he will present ‘The Science of Flight’ and on Wednesday, ‘America’s Funniest Chemical Videos’.

Register at [www.njsc-online.com/](http://www.njsc-online.com/) and plan to attend these programs.
CHEMIST BECOMES A HISTORIAN

Jeannette Brown, a retired organic medicinal chemist, was one of the many authors of the short biographies that have been selected for publication in the new series of books “African American National Biography” (AANB) published by Oxford University Press.

“African American National Biography” is a joint project of the W. E. B. Du Bois Institute for African and African American Research at Harvard University and Oxford University Press. It covers a broader range of African American lives than ever before depicted. It lists the lives of 41,000 individuals both the famous and ordinary people. It is edited by Dr. Henry Louis Gates Jr. and Evelyn Brooks Higginbottom of Harvard University.

The eight volume set of books contains the listing of only nineteen chemists and chemical engineers, twelve female and seven male. Ms. Brown contributed the biographies of six women chemists and chemical engineers, including Dr. Marie Daly, the first African American woman to receive a PhD in chemistry, and Jennie Patrick, the first African American woman to receive a PhD in chemical engineering. Dr. Daly was Ms. Brown’s inspiration for becoming an historian of African American women chemists. Ms. Brown met Dr. Daly at a local American Chemical Society meeting and realized that she was talking to a person whose story needed to be told. Dr. Daly was on the research team of Mirsky and Alfrey at Rockefeller Institute (now University) worked on discovering the amino acid precursors to the discovery of DNA. The work of this research team was mentioned in Dr. Watson’s Nobel Prize speech. Dr. Jennie Patrick had to undergo racial prejudice in order to prove to the world that she deserved to become the first African American woman to receive a PhD in chemical engineering. During her career in corporate America she was the first to design a pilot plant for supercritical fuel extraction and became a research manger of the first fundamental research engineering group of another corporation. The other women whose biographies are included AANB and were written by Ms. Brown are Gloria Long Anderson, Reatha Clark King, Esther Avilla Hopkins, and Margaret Ellen Mayo Tolbert. Since all of the women are currently alive with the exception of Dr. Daly, Ms. Brown was able to collect their oral histories.

The editors of African American National Biography (AANB) index all scientists and engineers under the heading of technology. Ms. Brown extracted the list of chemists and chemical engineers from this list and created an index for the use of other chemists.

The biography of Ms. Brown is one of the chemists listed in AANB.

AANB is the first publication of the research of Ms. Brown in her history of African American women chemists’ project. She has given numerous lectures and talks about her research and she is in the process of writing a book about these remarkable women. Her book will become a reference book which will put the lives of these women in one volume for use by students of the history of science, African American history and women’s history.

Ms. Brown has also taken on a new task by becoming the historian of the American Chemical Society’s Women Chemists Committee.

CHEMISTS AND CHEMICAL ENGINEERS IN “AFRICAN AMERICAN NATIONAL BIOGRAPHY”

Name Chemical E. Vol # Page # Gender Author

Abron, Liu Ann Chemical E. Vol 1 pp 21-22 Female Jeannette Brown
Anderson, Gloria Long Chemist Vol 1 pp 125-126 Female Jeannette Brown
Birby, St. Bino Chemist Vol 1 pp 531-532 Male Jeannette Brown
Brown, Jeannette Chemist Vol 1 pp 617-619 Female Jeannette Brown
Daly, Maria Margard Chemist Vol 2 pp 835-836 Female Jeannette Brown
Ferguson, Lloyd Noel Chemist Vol 3 pp 251-252 Male Jeannette Brown
Hill, Henry Aaron Chemist Vol 4 pp 234-235 Male Jeannette Brown
Hill, Mary Bhett Chemist Vol 4 pp 286-287 Female Jeannette Brown
Hopkins, Esther Chemist Vol 4 pp 307-308 Female Jeannette Brown
Jemison, Mae Chemical E. Vol 4 pp 521-522 Female Jeannette Brown
Julian, Penny Lacon Chemist Vol 5 pp 30-31 Male Jeannette Brown
King, Reatha Clark Chemist Vol 5 pp 107-108 Female Jeannette Brown
McBry, Henry Gad Ransom Chemist Vol 5 pp 460-461 Male Jeannette Brown
McBry, Shirley Mathis Chemist Vol 5 pp 460-461 Female Jeannette Brown
Patrick, Jemima R. Chemical E. Vol 6 pp 263-264 Female Jeannette Brown
Reeves, Edalda Cardon Goode Chemist Vol 6 pp 652-653 Female Jeannette Brown
Tobert, Margaret Ellen Mayo Chemist Vol 7 pp 613-614 Female Jeannette Brown

12 Females, 7 Males, total 19 Chemists and Chemical Engineers By Jeannette Brown, copyright protected 2008
SCENES FROM THE NORTH JERSEY SECTION

ACS 2008 Recognition for National Chemistry Week Award

Bobbi Gorman (left) and Anita Brandolini (ctr) congratulate Val Kuck for receiving the ACS 2008 Recognition for National Chemistry Week.

NJACS Pro Bono Award

Dr. Alan Goldman from Rutgers University and Bobbi Gorman, retired high school chemistry teacher, receive the NJACS 2008 Pro Bono Award.

NJACS Teacher Affiliates Harvey J. Russell Award

Kevin Duffy (left) and Chris Schweighardt from the Pearson Curriculum Group receive the 2008 NJACS Teacher Affiliates Harvey J. Russell Award from Bettyann Howson past chair of the Teacher Affiliates.

Burton C. Belden Distinguished Service Award

Maureen Chan (left) presents the NJACS 2008 Burton C. Belden Award to Valerie Kuck.

MORE SCENES FROM THE NORTH JERSEY SECTION

Edward J. Merrill Awards

George Gross, Chair of the NJACS Education Committee, with the 2008 Merrill Award winner Miriada Bajaj, a chemistry teacher at Science Park High School. At the right is Jennifer Bernardes, the student who nominated Miriada.

Sr. Marian Jose Smith Excellence in Chemical Education Award

John Penna (right) presents the NJACS 2008 Sister Marian Jose Smith Excellence in Chemical Education Award to Dr. Wyatt Murphy from Seton Hall University.

ACS Chemistry Olympiad North Jersey Winners and Teachers 2008

Accepting the Award is Amber Charlebois, Chemistry Teacher, and Ken Greene, University Provost. John Penna is presenting the Award.

* These students will attend the Chemistry Olympiad Camp at the Air Force Academy.
David Sherman, New York Section coordinator for National Chemistry Week, received the 2008 Harvey C. Russell Inclusion Award from Indra Nooyi, Chairman & CEO, PepsiCo. For the past three years, “Dave has championed Pepsi-Cola R&D’s participation in the ACS National Chemistry Week, where New York metro area children share in hands-on demonstrations led by Pepsi Scientists. Each year, hundreds of children and their families share in a Day of Science activity, meet a diverse array of scientists and take away the idea that science can be a career. The 2007 NCW theme was the “Many Faces of Chemistry – Celebrating the Diversity of the Discipline and its Practitioners.” Through Dave’s efforts, in 2008 the Pepsi R&D staff at NCW will be composed of technical experts illustrating the wide scope of diversity at R&D and demonstrating that people from many backgrounds can work together and do great things when they have a common goal – “exploring the wide world of technology to make products that are enjoyable and healthful.”

The New York Section appreciates the time, enthusiasm and talent that Dave brings to NCW, which is held at the New York Hall of Science. NCW is on Saturday, October 25, 2008.

Joan Laredo-Liddell, chair of NCW, admires the Harvey C. Russell Award received by David Sherman, coordinator of NCW.

**Hudson-Bergen Chemical Society**

The Hudson-Bergen Chemical Society held its 10th Annual Undergraduate Research Symposium and Student Award Night on April 25, 2008.

**Westchester Chemical Society**

The Westchester Chemical Society presented its Distinguished Scientist Award to Dr. David Fairhurst of the International Partnership for Microbicides and the Salutes to Excellence Award to Dr. Ellen Weiser of Pace University and Dr. Peter Corfield of SUNY-Purchase. The College student awards for chemistry were also presented prior to the dinner to honor all the awardees.

**James Bryant Conant and Organometallic Chemistry Awards**

The New York Section sends congratulations to Richard Goodman, who received the James Bryant Conant Award in High School Chemistry Teaching, and Gerard F. R. Parkin of Columbia University and a past chair of the NY Section, who received the ACS Award in Organometallic Chemistry. Richard and Jed received their awards at the Awards Ceremony and General Meeting of the Society on April 8, 2008 in New Orleans.

**Sr. Mary Virginia Orna Receives Professor Henry Hill Award**

The New York Section congratulates Sr. Mary Virginia Orna, OSU on receiving the Professor Henry Hill Award at the New Orleans ACS meeting.

Jean Delfiner, Sr. Mary Virginia, Joan Laredo-Liddell, Janan M. Hayes, ACS-Director-at-Large.
PFIZER, INC. NATIONAL HISTORIC CHEMICAL LANDMARK

Thomas H. Lane, President-elect of the American Chemical Society; Marc A. Walters, Chair of NY Section; John Sharkey, NY Historian; Jeffrey Kindler, Chairman and CEO of Pfizer, Inc.

New York Section members at the Pfizer, Inc. National Historic Chemical Landmark presentation.

CELEBRATING THE RETIREMENT OF SR. MARY MAIER

Position Available

LAB SPECIALIST POSITION OPEN

The Lower East Side Preparatory H.S. is still in search of a new lab specialist. We have a brand new $2 million lab and a retiring lab specialist. We have a great school and our students excel in science. If you know anyone or are interested yourself, please contact me.

Mr. Rene Anaya, Assistant Principal
Lower East Side Preparatory High School
145 Stanton St. 4th Floor
New York, NY
212-505-6366 x4434
Fax: 212-260-0813
RAnaya@schools.nyc.gov

Members of the New York Section (standing-left to right): John Halpin, Margaret Mandziuk, Nancy Tooney, Jill Rahmann, Joan Dstoffl; (sitting-left to right): Joan Laredo-Liddell, Sr. Mary Maier, Hiroko Karan.

CELEBRATING THE RETIREMENT OF SR. MARY MAIER

Position Available

LAB SPECIALIST POSITION OPEN

The Lower East Side Preparatory H.S. is still in search of a new lab specialist. We have a brand new $2 million lab and a retiring lab specialist. We have a great school and our students excel in science. If you know anyone or are interested yourself, please contact me.

Mr. Rene Anaya, Assistant Principal
Lower East Side Preparatory High School
145 Stanton St. 4th Floor
New York, NY
212-505-6366 x4434
Fax: 212-260-0813
RAnaya@schools.nyc.gov

Position Available

LAB SPECIALIST POSITION OPEN

The Lower East Side Preparatory H.S. is still in search of a new lab specialist. We have a brand new $2 million lab and a retiring lab specialist. We have a great school and our students excel in science. If you know anyone or are interested yourself, please contact me.

Mr. Rene Anaya, Assistant Principal
Lower East Side Preparatory High School
145 Stanton St. 4th Floor
New York, NY
212-505-6366 x4434
Fax: 212-260-0813
RAnaya@schools.nyc.gov
THE 40TH MIDDLE ATLANTIC REGIONAL MEETING

MARM 2008 was sponsored by the New York Section of the ACS and held at Queensborough Community College of the City University of New York in Bayside, New York, May 17–21, 2008. The General Co-Chairs were Paris Svoronos and David Sarno, both of QCC. The Program Co-Chairs were Jack Norton of Columbia University and John Sowa of Seton Hall University. Frank Romano of Agent Technologies was the Treasurer. The technical program, plus the vendor expo, awards, social events, and numerous workshops have resulted in MARM becoming a premier professional meeting for chemists of diverse backgrounds.

The theme of the conference was Chemistry and Health, which was chosen because of the importance and impact of the health sciences in the New York metropolitan area. Several of the technical symposia were aligned with the theme, though by no means was the meeting restricted to this alone. All traditional fields of chemistry were represented along with special topics such as Chemistry and the Arts (with a tour of laboratories at the Metropolitan Museum of Art), Biotherapeutics, Green Chemistry, HIV/AIDS, Polymers in Medicine and Bioinspired Polymers, Metal Complexes in Chemotherapy and Diagnostics, to name a few. One and two-day symposia on Ionic Liquids, Computational Chemistry for the Health of Humanity and the Planet, Frontiers of Nanoscience and Nanotechnology, and Polymer Chemistry were all extremely successful.

MARM 2008 had two plenary speakers, Professor Ronald Breslow of Columbia University presented “SAHA (Vorinostat), An FDA Approved Anticancer Compound with a Novel Mechanism of Action” on Sunday, May 18 and Professor Roald Hoffmann of Cornell University presented “The Chemical Imagination at Work in Very Tight Places” on Monday, May 19. Dr. Breslow was introduced by Marc Walters (NYU); 2008 Chair of the NY-ACS, followed by Manfred Philipp (Lehman), CUNY Trustee, and then Jack Norton. Dr. Hoffmann was introduced by Eduardo Marti, QCC President, followed by Matthew Goldstein, CUNY Chancellor, and then John Sowa. Each session was followed by a poster session and barbecue. Professors Breslow and Hoffmann were outstanding lecturers, wonderful meeting participants and were key attractions. We are grateful for their time and effort! They were kind enough to stay for the poster session and speak with many presenters.

The technical program was composed of 587 invited and contributed abstracts (216 posters) and it featured a number of excellent symposiums that included 36 short courses: ACS lectures, 16 ACS Leadership Development workshops, resume reviews, a panel discussion on tradition-al and non-traditional careers, and a short course on Analytical Chemists in Industry. ACS workshops have resulted in MARM becoming a premier professional meeting for chemists of diverse backgrounds.

In addition to presenting a strong and diverse technical program, workshops and discussions were held for attendees from all backgrounds: students, academic and industrial chemists, high school teachers, entrepreneurs, job-seekers and future leaders. Programs for students and teachers were concentrated on Saturday and Sunday. MARM was kicked off with the 58th NY-ACS Undergraduate Research Symposium co-chaired by Sharon Lall-Ramnarine (QCC), JaimeLee Rizzo ( Pace University), and Alison Hyslop (St. John's). URS presenters were given free registration to MARM. Also offered were a free PGIL workshop for chemical educators (organized by Dave Hanson of SUNY Stony Brook), laboratory prize ward shops, and the first NY section Nichols Teacher Forum (organized by Lew Mackich of the High School Topical Group). Student Affiliates workshops were hosted by the St. John's SA chapter under the guidance of Neil Jespersen and featured Jodi Wesemann from the ACS Department of Higher Education. We were pleased to work with the US section of the Royal Society of Chemistry to close out the first night of MARM with their spring meeting, which included a presentation on Astrochemistry by Yorke Rhodes.

Other local section members played important roles in MARM 2008. For example, the Regional Chemnnization Competition was organized by Vipin Mandava, Queen's Campus. Don Mencer and the Proquinazid Team of DuPont Crop Protection.

Dr. Hoffmann, a tireless advocate, participant, and adviser for MARM! The Awards Committee, chaired by Jane Pepper of Novartis, honored a variety of outstanding individuals and groups. The Stanley C. Israel Regional Award for Advancing Diversity in the Chemical Sciences was awarded to the Chemistry Department of Queensborough Community College. The Regional Industrial Innovation Award was awarded to Dr. Thomas P. Selby, Ms. Charlene G. Sternberg, Dr. James F. Berezkzn, Mr. Reed A. Coats, and Mr. Eric A. Marshall, of the Dupont Team of DuPont Crop Protection.

The E. Ann Nalley Regional Award for Volunteer Service to the American Chemical Society was awarded to Dr. N. Bhushan Mandava (Mandava Associates, LLC). The E. Emmet Reid Award in Chemistry Teaching at Small Colleges in the ACS Mid-Atlantic Region was awarded to Dr. Claude Yoder (Franklin & Marshall College). The ACS Division of Chemical Education Middle Atlantic Region Award for Excellence in High School Teaching was awarded to Ms. Claire Miller (Madison High School). The Chromatography Forum of Delaware Valley presented its 2008 Student Awards to Michael J. Bozym and Casey M. Mulcahy (West Chester University). James D. Vasta (Lafayette College), Christopher J. Morrison (Widener University), and Alyson M. Cobb, Sarah A. Schubert, and Ranasinghe K. Sampath (Bucknell University).

MARM 2008 had many “firsts”: it was the first ever MARM held in New York City, it was the first MARM hosted by the City University of New York, and it was the first MARM hosted by a community college. The Organizing Committee is especially grateful to Queensborough Community College. Without the support of their administration and the offices of buildings & grounds, academic computing, marketing, security, catering, etc., MARM 2008 could not have been the success it was. Special thanks also go to Bill Suits, our constant advisor, and past MARM Chairs Don Mencer, Sharon Haynie and Tony Addison. And finally, we are indebted to the many volunteers who organized sessions, judged awards nominations, and lent a hand wherever they could – especially the chemistry students of QCC, ever visi-ble in their red and gold MARM t-shirts and always willing to help.

We received an overwhelmingly positive response to MARM 2008 and we thank you all for your participation. Stay tuned for MARM 2009: Chemists Advance Science Frontiers! Until then, please visit www.marmacs.org for pictures from MARM 2008.

Respectfully submitted,
David Sarno and Paris Svoronos
General Co-Chairs, MARM 2008

(Left to right) Bill Suits, Amber Charlebois, Valerie Kuck and Alan Cooper.

(Left to right) Amber Charlebois, Valerie Kuck and Allene Johnson in front with Alan Cooper in the rear.

THE INDICATOR-SEPTEMBER 2008
THE 30th ANNUAL PRINCETON ACS FALL ORGANIC CHEMISTRY SYMPOSIUM

"Discovery of Ixempra™ (Ixabepilone), an Epothilone Analog for Treatment of Metastatic Breast Cancer"
Speaker: Professor Ronald Breslow
Department of Chemistry, Columbia University

"Synthesis of Natural Products with Antitumoral Activity"
Speaker: Professor John F. Hartwig
Mechanical Engineering, Drexel University

"Catalytic Organometallic Carbon-Heteroatom Bond Formation"
Speaker: Professor Janine Cossy
École Supérieure de Physique et de Chimie Industrielle de la Ville de Paris

"The Origin of Homochirality on Earth"
Speaker: Professor Ronald Breslow
Department of Chemistry, University of Illinois

Date: Friday, September 19, 2008
Times: Registration 12:00-1:00 PM
Symposium 1:00-8:30 p.m.
Place: Forsgate Country Club, Monroe Township, New Jersey
Cost: Registration/Reception/Dinner: $90.00 ($25.00 students/postdoc)

RUTGERS UNIVERSITY
GRADUATE SEMINAR SERIES—FALL 2008

Materials Science & Engineering
September 9
"Silica-based Nanostructures and the Great Pyramid of Khufu"
Prof. Michel Barasoum
Materials Engineering, Drexel University
Philadelphia, PA
barasoum@drexel.edu

September 16
"Solution Plasma Spray"
Prof. Eric Jordan
Mechanical Engineering
University of Connecticut, Storrs, CT
jordan@engr.uconn.edu

September 23
"NanoMaterials-based Transparent Conductors"
Dr. James V. Guileen
Honeywell, Inc., Morristown, NY
jim.guileen@honeywell.com

Date: Tuesdays
Times: Refreshments 11:45 AM
Seminar 12:10 PM
Place: Center for Ceramic Research
Room 201, 607 Taylor Road
Busch Campus
Piscataway, NJ

LABORATORY ROBOTICS INTEREST GROUP

Winners of the 2008 Annual Student Poster Contest
Since 2005 the Mid-Atlantic Chapter of the Laboratory Robotics Interest Group has sponsored a college-level student poster contest in conjunction with its annual technology exposition held each May. In 2007 the contest was expanded to include a high school division.

The group’s annual technology exposition is one of the largest scientific gatherings held in New Jersey. Over 500 scientists and 90 laboratory technology companies attend the event. Holding the student poster contest as part of this event gives the students a chance to meet working scientists and share their research. For the members of the Laboratory Robotics Interest Group the student posters are an excellent way to learn about the types of research occurring in the schools.

Dr. Mel Reichman, a member of the organization’s board, met with the high school students before the start of the meeting and gave a brief talk on careers in science.

Students representing Fairleigh Dickinson University, Marymount Manhattan College, Montclair State University, and William Paterson University were entered in the 2008 competition. High school presenters came from the John P. Stevens High School, in Edison, New Jersey, the Morristown Friends School and the Morristown High School.

In addition to the cash prizes this year the LRIG added a new award category to the judging. The Members’ Choice Award was determined by ballots submitted by the individual members. Awards were made in both the High School and College Divisions.

The winners in the COLLEGE DIVISION were:

FIRST PLACE, Medha Persaud, "Modification of Nanofibers with Growth Factors to Create an Artificial Basement Membrane for the Culture of Astrocytes" Robert Wood Johnson Medical School, Department of Pharmacology, Faculty Advisor: Sally A. Meiners.

Medha’s research concerned the optimal conditions for growing cells in the laboratory that could then be implanted in the spinal cord to help repair damage. This is promising technology for the thousands of persons suffering from spinal cord injuries.

SECOND PLACE, Marc Lindner and Andrew Glowacki, "A Molecular Dynamic Study of the Effect of a Glycine to Serine Point Mutation on the Structure of Collagen-like Model Peptides Containing a Reputed Stable Region of Collagen II" Becton College - Fairleigh Dickinson University, Faculty Advisor: Gloria Andrele

Marc and Andrew’s project modeled the Great Pyramid of Khufu

THIRD PLACE, Luis Posadas, "Binary Vector Development for GnGRP Silencing in Soybeans" (continued on page 30)
INTEREST GROUP colonies of Daphnia, a type of plankton, and Mike administered solution of caffeine to Drew Newmann.

**FIRST PLACE**, Mike Stobbe, “How Much is Too Much Caffeine?”

Morristown Friends School, Faculty Advisor: Drew Newmann

Mike administered solution of caffeine to colonies of Daphnia, a type of plankton, and studied the effect on heart rate.

**SECOND PLACE**, Paige Diamond, “Color Perception in Memory and Learning Using Color Overlays as it Relates to Fifth Graders”

Morristown High School, Faculty Advisor: Erin Colfax

Because color helps the brain form complex image memories more efficiently, Paige's research examined if specific colors can enhance this process. Volunteers read a story the pages of which were covered with transparent color overlays. The experiment then determined which color gave the best memory retention.

**THIRD PLACE**, Shree Agrawal, “The Effect of UV Light Exposure on Amylase-producing Bacteria on the Nucleotide Sequence”

John P. Stevens High School, Edison NJ

Shree's project subjected bacteria for ultraviolet light and measured the effects on the rate of genetic mutation. This research explores the relationship between cell damage and ultraviolet light.

**HONORABLE MENTIONS** (HIGH SCHOOL DIVISION):

- Morgan Cole, “Long and Short Term Memory Effects on the Content of Teenage Dreams by Exposure to Visual Pre-sleep Stimuli”

- John P. Stevens High School, Edison NJ

- Shree Agrawal, “The Effect of UV Light Exposure on Amylase-producing Bacteria on the Nucleotide Sequence”

- Morgan Cole, “Long and Short Term Memory Effects on the Content of Teenage Dreams by Exposure to Visual Pre-sleep Stimuli”

**Call for Papers/Posters**

**THIRD ANNUAL ENERGY & RESOURCES CONFERENCE**

Water: The Next “Oil”

Third Annual Energy & Resources Conference will take place this year on Thursday, December 4, 2008, at the historic Con Edison Building, 4 Irving Place (at 14th Street), New York, NY.

Co-sponsors for this meeting now include the Metro New York Section of the American Institute of Chemical Engineers and the Bronx Chapter of the New York State Society of Professional Engineers. Interested in presenting a paper on this topic? Please send an abstract (200-300 words) of your proposed paper, the implications of the material being discussed, and other qualifications to present the material to: aicheny@mac.com

**POLYMER TOPICAL GROUP**

Functional Packaging Through Chemistry

This symposium is presented by the Polymer Topical Group of the North Jersey Section of the American Chemical Society.

This event features presentations, posters and networking opportunities of interest to diverse professionals involved in the functional packaging industry. Whether you are from academia or industry, this is a good opportunity for you to showcase your research, network with other people and contact possible employers and clients. In addition to posters focusing on packaging, general polymer posters are being solicited. We are looking for poster submissions relating to polymer research in diverse areas such as green polymers, advanced polymeric materials, polymer characterization, etc. Any registered conference attendee may sign up to present a poster on any polymer-related topic.

(See pages 12 & 13 for details.)
Ad Index

**ANALYTICAL**
- Bruker Daltonics Inc. ........................................... 13
- Chemir Analytical Services .................................... 29
- Columbia Analytical Services .................................. 10
- DuPont Analytical Solutions .................................... 13
- Huffman Laboratories, Inc. .................................... 29
- IQSynthesis .......................................................... 11
- Microm Inc. .......................................................... 18
- New Jersey Institute of Technology .............................. 29
- NuMega Resonance Labs. ........................................ 30
- pION ................................................................. 30
- Primera Analytical Solutions Corp. ............................. 32
- Robertson Microsoft Labs ....................................... 32
- Schwarzkopf Microanalytical ................................... 30
- Syntask Laboratories, Inc. ....................................... 29

**EDUCATION**
- ACS ProSpectives Conferences ................................ 23
- City University of New York .................................... 4
- New York University .............................................. 31
- Seton Hall University .............................................. 9
- Stevens Institute of Technology ................................. 2

**EQUIPMENT**
- Eastern Scientific Co. ............................................. 29
- Mass Vac, Inc. ....................................................... 32

**GENERAL**
- ACS-NY/NoJ Sections ............................................. 9
- ACS-NY/NoJ Sections ............................................. 30
- ACS-NY/NoJ Sections ............................................. 30

There are many companies and organizations searching for chemical and biochemical personnel to fill important jobs in their organizations.

- Companies for laboratory and management positions
- Universities & Colleges for teaching positions and laboratory personnel
- Hospitals for technical and research personnel

There are several web sites that may help you search for these open positions.

- [www.mboservices.net/ncr_dpdp.php](http://www.mboservices.net/ncr_dpdp.php)
- [http://newyorkacs.org/jobs.html](http://newyorkacs.org/jobs.html)
- [http://njacs.org/jobs.html](http://njacs.org/jobs.html)

NEW YORK UNIVERSITY CHEMISTRY

**FALL 2008 COLLOQUIUM SERIES**

<table>
<thead>
<tr>
<th>Date</th>
<th>Speaker</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 5</td>
<td>Song-I Han</td>
<td>University of California at Santa Barbara</td>
</tr>
<tr>
<td>September 12</td>
<td>Alison J. Frontier</td>
<td>University of Rochester</td>
</tr>
<tr>
<td>September 19</td>
<td>Keith Woerpel</td>
<td>University of California at Irvine</td>
</tr>
<tr>
<td>September 26</td>
<td>Vincent P. Conticello</td>
<td>Emory University</td>
</tr>
<tr>
<td>October 3</td>
<td>Vincent Croquette</td>
<td>Ecole Normale Superieure</td>
</tr>
<tr>
<td>October 10</td>
<td>Ann McDermott</td>
<td>Columbia University</td>
</tr>
<tr>
<td>October 17</td>
<td>Teresa Head-Gordon</td>
<td>University of California at Berkeley</td>
</tr>
<tr>
<td>October 24</td>
<td>Louis Buss</td>
<td>Columbia University</td>
</tr>
<tr>
<td>October 31</td>
<td>Tatiana Polenova</td>
<td>University of Delaware</td>
</tr>
<tr>
<td>November 7</td>
<td>Kenneth Jordan</td>
<td>University of Pittsburgh</td>
</tr>
<tr>
<td>November 14</td>
<td>Martin Head-Gordon</td>
<td>University of California at Berkeley</td>
</tr>
<tr>
<td>November 21</td>
<td>Craig Hawker</td>
<td>University of California at Santa Barbara</td>
</tr>
</tbody>
</table>

Seminars will be held on Fridays at 4:00 P.M. in room 1003 Silver Center. 31 Washington Place, between Greene Street and Washington Square East. Reception to follow in room 1001P Silver Center.
STOP WASTING $$

on vacuum pumps!!

Rebuilding is smart.
A new pump costs four times what rebuilding costs.

Rebuilding is easy.
Just call 978 687 2393 for service second-to-none.

Mass-Vac does the job right.
- Factory trained technicians.
- Rebuilt and new pumps in stock.
- No-hassle parts and labor guarantee.
- Complete line of filtration and trap systems.

Because a really old, really healthy vacuum pump is a beautiful thing!

Mass-Vac, Inc.
247 Rangeley Road • PO Box 359 • North Billerica, MA 01862
978 687 2393  Fax 978 671 0014 sales@massvac.com  www.msvac.com