



Dr. Joseph Potenza
2009 North Jersey Section Chair
New York Sectionwide Conference, page 16.

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January Calendar

NEW YORK SECTION

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Chemical Marketing & Economics Group
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Friday, January 9, 2009

High School Teachers Topical Group
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Saturday, January 17, 2009

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Tuesday, January 27, 2009

Association of Consulting Chemists and
Chemical Engineers
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Tuesday, January 27, 2009

NY Biochemical Topical Group
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NORTH JERSEY SECTION

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Monday, January 12, 2009

Teacher Affiliates Executive Committee
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Wednesday, January 13, 2009

ChemTAG Meeting
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Thursday, January 15, 2009

NoJ Group of Small Chemical Businesses
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**The Indicator is posted to the web on the 15th of
the previous month at www.TheIndicator.org**

**Deadline for items to be included in the
March 2009 issue of *The Indicator*
is January 15, 2009.**

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JANUARY HISTORICAL EVENTS IN CHEMISTRY

by Leopold May, The Catholic University of America, Washington, DC

January 1, 1907

Aluminum Company of America (ALCOA) renamed on this date. It was founded as the Pittsburgh Reduction Company, founded in 1888.

January 2, 1947

US Atomic Energy Commission took over from wartime Manhattan Engineer Commission District.

January 4, 1905

Seventy-five years ago, Aridist V. Grosse isolated protactinium metal in 1934 from the pentoxide that he isolated in 1927. He was born on this date.

January 6, 1872

John V. N. Dorr, inventor and chemical engineer, was born on this date. He developed the Dorr classifier for extracting ore, which became a practical method for the separation and chemical treatment of fine solids suspended in liquid.

January 7, 1941

John E. Walker, who was born on this day, studied the amino acid sequences in protein units of ATP synthetase. He shared the Nobel Prize in 1997 with Paul D. Boyer for elucidation of the enzymatic mechanism underlying the synthesis of adenosine triphosphate (ATP) and Jens C. Skou for the first discovery of an ion-transporting enzyme, Na⁺, K⁺-ATPase.

January 10, 1916

Sune K. Bergström, who shared the Nobel Prize in Physiology or Medicine 1982 with Bengt I. Samuelsson and John R. Vane for their discoveries concerning prostaglandins and related biologically active substances, was born on this date.

January 12, 1916

Ruth R. Benedito, who was the first woman to win the Southern Chemist Award for research in cotton chemistry, was born on this day.

January 14, 1895

Armstrong World Industries incorporated as Armstrong Cork Co., on this day.

January 15, 1912

Frank H. Westheimer, who was born on this date, was a researcher in physical organic chemistry, the calculation of electric effects in chemistry, and developed the idea of photoaffinity labelling of the active site of proteins.

January 16, 1767

Anders G. Ekeberg, who discovered tantalum in 1802, was born on this date.

January 18, 1861

Hans Goldschmidt invented the aluminothermite process (Goldschmidt Process) on this day.

January 20, 1834

One hundred and seventy-five years ago, Adolph Frank was born. He made calcium cyanamide from calcium carbide and nitrogen in 1898.

January 21, 1845

The founder of the Mallinckrodt Chemical Works, Edward Mallinckrodt, was born on this day

January 23, 1918

Gertrude B. Elion who was a researcher on the synthesis and development of therapeutic agents, was born on this date. She shared the Nobel Prize in Physiology or Medicine in 1988 with James W. Black and George H. Hitchings for their discoveries of important principles for drug treatment.

January 26, 1939

Niels Bohr reported the discovery of nuclear fission by Otto Hahn and Fritz Strassman at Fifth Washington Conference on Theoretical Chemistry on this date.

January 27, 1926

Chevron was incorporated on this date.

January 31, 1963

The first manuscript on the solid phase synthesis of peptides by R. B. Merrifield was received on this date by the Journal of the American Chemical Society [85, 2149 (1963)].

Additional historical events can be found at the CSW website or Dr. May's website, faculty.cua.edu/may/history.htm.

THIS MONTH IN CHEMICAL HISTORY - I

Harold Goldwhite, California State University, Los Angeles. hgoldwh@calstatela.edu

To quote verbatim from an earlier essay: "The idea of critically reviewing substantial areas of chemistry and producing a periodic report of progress originated with the great Swedish chemist of the early nineteenth century, Jons Jacob Berzelius (1779-1848). The original series of Jahresberichte, Berzelius' brain child and the first of the Annual Reports, did not survive its originator. But there are other long-lived series of such reports".

This essay will focus on Volume VI of the Annual Reports on the Progress of Chemistry issued by the Chemical Society (of London) which has now metamorphosed into the Royal Society of Chemistry. This ambitious attempt to encapsulate the total of the significant work in chemistry for a whole year covers 1909 in a mere 270 pages.

It was, relatively, a peaceful year in world history; 5 years before World War I. Tensions were building in Europe but had not yet reached a boiling point.

Reviewing general and physical chemistry T. M. Lowry, of Bronsted-Lowry fame, looks first at pressure effects on physical and chemical properties. R. Threlfall has found no conversion of graphite to diamond at pressures up to 10,000 atmospheres and "temperatures up to the melting point of magnesia" – about 3100K. A new form of ice (shades of Vonnegut?), Ice III, has been observed at 3000kg/square cm. P.W. Bridgman, the high-pressure guru, has described two new high-pressure gauges based on a direct measurement of gas volume and on the resistance of a mercury column. New precision has been achieved in measuring osmotic pressure, including investigations by the Earl of Berkeley and his colleagues; so much for the stereotype of the indolent nobility. Detailed studies of the thermal dissociation of calcium carbonate by Le Chatelier show marked deviations among different experimental studies, perhaps attributable to different levels of adsorption of carbon dioxide by differently sized particles. E.C. Franklin has been studying conductivities of electrolyte solutions in liquid ammonia; he had done many pioneering studies of this remarkable solvent. Ostwald's dilution law relating concentration and degree of ionization, has been investigated for a wide range of carboxylic acids.

In reviewing inorganic chemistry H. B. Baker (whose work on intensive drying I wrote on some years ago in the Journal of Chemical Education) writes: "it is difficult to give a general idea of a year's work" – presumably in the 22 pages or so allocated to them. He makes some interesting remarks which could well apply to work done a century later!

"In an ideal chemical world, nothing would be published until a complete account of the subject of research could be presented. But apart from the general question of publishing carefully worked out installments of a large research, the scramble for priority, happily not common in this country[!], is often responsible for the appearance of immature work."

Sir William Ramsay has been unable to detect helium in the radioactive breakdown of thorium. There has been much discussion of Prout's hypothesis, that all atomic masses should be integral on the scale of $H = 1$, but since 1909 was before the fuller understanding of isotopes the arguments descended into numerology rather than verifiable science. Meanwhile new determinations of atomic weights have improved values for, among others, chlorine, nitrogen, and carbon.

Silane and disilane have been obtained as pure compounds, and various chlorosilanes probably containing chains of four and six silicon atoms have been characterized. Raschig has isolated chloramine for the first time, and the dangerous nitrogen trichloride has also been prepared in pure form. A new electrolytic ozonizer produces as much as 23% of ozone in oxygen. The disputed existence of sulfur dichloride has now been confirmed.

In the next essay I look at other areas of chemistry from the perspective of 1909.

THIS MONTH IN CHEMICAL HISTORY - II

Harold Goldwhite, California State University, Los Angeles. hgoldwh@calstatela.edu

In continuing to review some significant developments in chemistry as reported in "Annual Reports of the Progress of Chemistry for 1909", published by The Chemical Society in 1910 I turn my attention first to the section on organic chemistry written by Cecil H. Desch and Arthur Lapworth. The latter was a significant pioneer in physical organic chemistry. To put the period in perspective (recall that Bohr's theory of the hydrogen atom is still in the future) let me quote: "The chemical importance of certain physical properties, notably colour and fluorescence, in their relation to structure, has been dealt with in several previous Annual Reports ... we are still far from possessing a complete theory of the phenomena. ... The formulation of ideas of structure in terms of the electron theory has so far made little progress in organic chemistry, the conception being still too indefinite for immediate application to so complex a problem."

A later paragraph goes on to say: "The influence of unsaturated or double linkings on the properties of a compound ... and the nature of so-called "partial valencies" are questions which recur..." We tend to think of Alfred Werner in connection with his insightful investigations into coordination compounds, but he came to that area via chemical and stereochemical studies of oximes with Hantzsch, and the 1909 Report goes into considerable detail on Werner's ideas on how "elements of decidedly electropositive or negative character" will exert their polar character on reactions of unsaturated compounds containing them in contrast to the relatively non-polar carbon and hydrogen.

Perhaps reflecting Lapworth's interests there is an extended section on "Mechanism of Chemical Change" of organic systems, including interpretation of the effects of acid catalysts in reactions of carbonyl compounds; kinetic studies of the rate of formation of urea from ammonium ions and cyanate ions (Woebler's famous synthesis); the Walden inversion; and isomeric changes such as the Hofmann and Beckmann reactions.

The new catalytic reactions of Sabatier and Senderens include reductions with hydrogen over metal catalysts; and hydration, dehydration, oxidation, and elimination of hydrogen halide – versatile systems indeed. E. Fischer's syntheses of polypeptides and of amino-acids are reported.

A section on stereochemistry by H. O. Jones features prominently the first resolutions of organic compounds that have "enantiomorphism of the molecule without being assignable to a single asymmetric atom..." Perkin, Pope and Wallach resolved 1-methylcyclohexylidene-4-acetic acid and Mills and Miss Bain (!) 4-oximinocyclohexanecarboxylic acid. Each of these molecules is devoid of a plane of symmetry but contains no individual "asymmetric" atom. Optically active compounds with an "asymmetric" silicon atom have been resolved. Pasteur's biochemical method has been used to partially resolve benzaldehydecyanohydrin; emulsin catalyses the hydrolysis of the d-enantiomer more rapidly than that of the l-enantiomer. In addition a number of amino-acids have been resolved by the action of yeast in the presence of sugar including d-phenylalanine and d-serine. Further examples of optically active nitrogen compounds have been studied including the quite simple methylethylaniline oxide, resolved via its d-bromocamphorsulfonate salt.

I conclude with the report on radioactivity by none other than Frederick Soddy, Rutherford's collaborator, coiner of the term isotope, and Nobel Laureate for chemistry in 1921. The report starts with a metaphorical bang. Alpha radiation has been conclusively proved to be doubly charged helium atoms. The emanation from 140 mg of radium was collected and its emission spectrum confirmed that helium was produced by radium decay. You'll recall that this work is prior to Rutherford's proposal of the nuclear atom, and the next reports foreshadow that work. Two methods: zinc sulfide scintillations; and the Geiger counter announced by Rutherford and Geiger; can count individual alpha particles. The ratio e/m for beta particles has experimentally been determined to decrease as the velocity of the particles (electrons) approaches that of light. The results are in complete accord with the Lorentz equation and this "experimental proof appears also to have important metaphysical [!] consequences in establishing the Lorentz-Einstein principle of relativity."

Gamma rays are still, in 1909, regarded as particulate and the contemporary theory, known as the neutral-pair theory, holds that a gamma ray consists of an electrically neutral pair of a negative and a positive electron.

I cannot claim to have read carefully every word of Soddy's review, but I think I am correct in claiming that he never uses the word transmutation in describing radioactive change – an interesting reflection on the disrepute in which this alchemical term was held at that period.

North Jersey Chair's Message, 2009

Fellow ACS members,

The North Jersey ACS Section is a community of volunteers dedicated to advancing and perpetuating the chemical sciences through education, research and development, community outreach, and legislative action. We believe that "Chemistry is at the Crossroads of Science" and that our members are making a difference by "improving lives through the transforming power of chemistry." In the past decade I have been truly impressed by the ability, dedication, and accomplishments of my colleagues in providing opportunities for disadvantaged students, by sharing with the general public the uses and excitement of chemistry as in their volunteer work, and by advancing the research and development component of our mission through numerous topical groups. But these are challenging times, and challenging times breed problems in need of creative solutions. Particularly in this climate, education and career development must prepare us for the future. I suggest that we focus first on the two broad areas outlined below, K-8 science education and redirecting productivity.

K-8 science (read chemistry for us) education is an area in which I have observed many excellent individual efforts in professional organizations, industry, and government. But it is also one where collaborative efforts could really make a difference. K-8 science education needs our concerted help for the sake of our children, our economy, and our welfare. Our new collaborative social networking tools let us share our efforts, choose the best ones, and train our members to make a difference. I encourage you to visit our website www.njacs.org to share your company's, institution, group, or individual efforts in addressing K-8 science education with us, so that we may learn from them and take appropriate action.

Future chemists will be developed at every level. Join us in creating a brighter future for them.

Dr. Joseph Potenza
2009 Chair, North Jersey Section



Future chemist indeed!!

North Jersey Meetings

<http://www.njacs.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 search

The next meeting for the Careers In Transition Group will be held **Thursday, January 8, 2009**, 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.

TEACHER AFFILIATES

Executive Committee Meeting

Date: **Monday January 12, 2009**
Time: 4:30 PM
Place: Chatham High School
255 Lafayette Avenue
Chatham, NJ

Contact: Cheryl Litman at 1-732-289-3700
Ext. 4034, clitman@mail.nbtschools.org



ChemTAG MEETING

Topic: TBA

Date: **Tuesday, January 13, 2009**
Time: 4:00 – 6:00 p.m.
Place: Oak Knoll School of the Holy Child
44 Blackburn Road
Summit, NJ
(directions: <http://www.oakknoll.org/welcome/contactus.aspx>)

Contact: Irene Sawchyn at
irene.sawchyn@oakknoll.org,
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THE NEW JERSEY GROUP OF SMALL CHEMICAL BUSINESSES

Continues its 2008 / 2009 Season
Surviving the Economic Downturn

Recent events in the global economy have presented significant challenges for the small business owner generally, and the small chemical business owner particularly. In light of this situation, the NJ Group of Small Chemical Businesses continues its 2008 / 2009 program season with meetings designed to address these challenges. We invite you to mark your calendars for the following meetings which will identify ways you can stabilize, secure and ultimately grow your business in these difficult economic times. Meeting abstracts and speakers will be finalized in the coming weeks and you will receive our regular meeting invitations detailing each presentation. Go to www.njgscb.org for details.

UCEDC (Union County Economic Development Corporation)

Stabilize your business by learning what economic resources are available to help stem the tightened credit situation, including financing available from the U.S. SBA (Small Business Administration).

Date: Thursday, January 15, 2009

Times: Networking Hour - Cash Bar 5:30 PM
Dinner and Introductions 6:30 PM
Presentation and Q & A 7:15 PM
Networking and Dessert 8:15 PM

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

For map and directions, see www.NJGSCB.org

Next Meetings

Date: Thursday, March 19, 2009

Lauterback Marketing

Secure your business by learning how to "bullet-proof" it, and maintain your margins in this volatile economic environment.

Date: Thursday, May 21, 2009

Fairleigh-Dickinson Institute for Sustainable Enterprise

Grow your business by learning how to make it a "sustainable venture" thereby preparing it for, and aligning it with the challenges and opportunities in the evolving Green Business environment.

NORTH JERSEY ELECTION RESULTS

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CECIL BROWN LECTURE

Novel Materials for Drug Delivery and Tissue Engineering

Speaker: Professor Robert Langer

The North Jersey Section of the ACS is delighted to announce that **Professor Robert Langer**, one of 14 Institute Professors at MIT, will be the 2009 Cecil Brown Lecturer. Professor Langer's research spans a range of areas including drug delivery, tissue engineering, stem cell research, biomaterials, and angiogenesis inhibition. He is a member of both the National Academy of Science and the National Academy of Engineering, and has received over 160 major awards including the 2006 U.S. Medal of Science, the Charles Stark Draper prize, and the 2008 Millennium Prize. In 2006, he was inducted into the National Inventors Hall of Fame; with over 600 issued and pending patents, he is one of the most prolific inventors in the history of medicine.

For further details regarding Professor Langer's work, visit <http://web.mit.edu/langerlab/langer.html>. For registration and an abstract of the talk, visit <http://njacs.org/>.



The lecture is presented in conjunction with the Annual Chemistry Graduate Student Association Lecture of Rutgers University.

Date: Tuesday, February 3, 2009

Time: 3:00 PM

Place: Fiber Optics Auditorium
Busch Campus
Rutgers University
Piscataway, NJ.



POLYMER TOPICAL GROUP

A very successful symposium on **Functional Packaging Through Chemistry** was held on October 29, 2008 at the NJIT Campus Center Atrium. The symposium was organized by Dr. Tamal Ghosh, and co-organized by Dr. Bin Wei (Henkel) and Dr.

Ankur S. Kulshrestha (BD Medical). Dr. Bin Wei was the Posters Chair and Dr. Nicole Harris (Sun Chemical) was the Exhibits Chair. Of the 72 colleagues in attendance, there were 45 ACS members, 18 non-ACS and 9 students. There were 6 presentations focusing on new developments in functional packaging for general commercial use, and for pharmaceutical and electronic applications. The poster/mixer session consisted of 8 industrial and academic posters, and 1 commercial exhibitor (Ciba Expert Services).

The next symposium, titled "**Polymers for Sensory and Energy-Related Applications**", will be on May 14, 2009 from 1:00-6:30 p.m. in the Paul Robeson Campus Center, Bergen Room, Rutgers University, Newark.



Opening remarks from Mark Lavach (Arkema Inc.) where he manages the Applications Development and Technical Services Group of the Functional Additives Division, specializing in polymer additives. A member of SPE, he currently serves as 2nd Vice-President of the SPE Palisades-New Jersey Section.



Dr. Tamal Ghosh (symposium organizer) introducing Dr. Jeannette Truncellito (Sun Chemical).



(Above) Tom Pacansky (PTG Chair) and Ron DeMartino (Secretary) discuss last minute event plans.



Front row: keynote speaker Dr. Bob Kimmel (Clemson) with Dr. Jeannette Truncellito (Sun Chemical). Back row, Dr. Michael Ruberto (Ciba), Dr. Allison Xiao (Henkel), Dr. Harris Goldberg (Inmat) and Dr. Jim Nangeroni (NatureWorks).

**NATIONAL CHEMISTRY WEEK
CELEBRATION — NORTH
JERSEY SECTION**

National Chemistry Week in the North Jersey Section got off to a flying start with three members of the Section's NCW Committee, Jeannette Brown, Bobbi Gorman, and Bill Suits, appearing on the ABC's "Good Morning America" show on Monday, October 19. The trio proudly displayed the National Chemistry Week banner and talked with co-anchors, Robin Roberts and Diane Sawyer, and ABC weatherman, Sam Champion.

On October 14th and 15th members of the Section's Teacher Affiliates group presented several Demo Den sessions, chaired "Make and Take" workshops, and led workshops modeling "Having a Ball with Chemistry" at the New Jersey Science Convention. During that event Dr. John Fortman, a nationally recognized speaker and ACS member, presented two major programs on "The Chemistry of Flight" and "America's Funniest Chemical Videos". NCW literature was distributed at the Section's booth. The convention was attended by approximately 1600 science teachers.

During NCW week several area high schools had chemically-related activities every day. In addition, students from several high schools performed chemical demonstrations for middle school students and a number of local chemists entertained ele-

mentary and middle school students with similar presentations in schools, libraries and YMCA's.

The Section also participated in the National NCW Poster Contest. We collected posters and awarded prizes to top designs in each category. Judging was done by our Teacher Affiliate group and the Executive Board of the Section.

A Street Fair held in Summit, NJ, on October 5th, gave another opportunity for chemists to present a positive image of chemists and chemistry and inform the general public of upcoming NCW activities. Flyers and NCW newspapers were distributed to several hundred visitors.

The Section's culminating event took place, Saturday, October 25th, at the Liberty Science Center in Jersey City, NJ. At the event NCW literature, newspapers, and magazine articles were handed out to the nearly 3000 visitors. Young guests were given the opportunity to participate in thirty hands-on activities. Two hundred volunteers comprised of Cub Scouts, middle and high school students, collegiate Student Affiliate members, Teacher Affiliates members, Section Executive Board members along with industrial chemists, retired members, and college professors helped to make this event truly spectacular. All had a ball with chemistry!

Respectfully submitted,
Valerie Kuck and Bobbi Gorman
Co-coordinators NCW



Off to a great start!



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Bobbi, Bill, and Jeannette



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Symposium: Innovations in Chemistry Toward Advancing Biology

Award Recipient: Professor Carolyn R. Bertozzi
Howard Hughes Medical Institute and Departments of Chemistry
And Molecular and Cell Biology - University of California, Berkeley

Date: Friday, March 13, 2009
Time: Registration 1:00 PM
Symposium 1:30 PM – 5:30 PM
Reception 5:45 PM
Award Dinner 6:45 PM

Place: Crowne Plaza Hotel, White Plains, NY

PROGRAM

- | | | |
|---------|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| 1:30 PM | Welcome | Professor Barbara R. Hillery
2009 Chair, ACS, New York Section
State University of New York, Old Westbury |
| 1:35 PM | Opening of the Distinguished Symposium | Mr. Frank R. Romano
2009 Chair-elect, ACS, New York Section
Agilent Technologies |
| 1:45 PM | Synthesis of Glycoconjugate
Vaccine Adjuvants | Professor David Y. Gin
Molecular Pharmacology and Chemistry
Memorial Sloan-Kettering Cancer Center |
| 2:30 PM | Fluorescent Reporters for Imaging Protein
Trafficking and Interactions in Living Cells | Professor Alice Ting
Department of Chemistry
Massachusetts Institute of Technology |
| 3:15 PM | Coffee Break | |
| 3:45 PM | Testing the "Histone Code"
Hypothesis Using Synthesis | Professor Tom W. Muir
Selma and Lawrence Ruben Laboratory
of Synthetic Protein Chemistry
The Rockefeller University |
| 4:30 PM | Shedding Light on Glycans | Professor Carolyn R. Bertozzi
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

2009 WILLIAM H. NICHOLS DISTINGUISHED SYMPOSIUM & MEDAL AWARD BANQUET
in honor of Professor Carolyn R. Bertozzi, University of California, Berkeley

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 \$90/person ACS member
_____ places for symposium & banquet at \$100/person Non-member
_____ places for banquet at \$80/person
_____ places for symposium at \$40/person, ACS member;
\$50 Non-member (Student or unemployed at \$20/person)

(For table reservations of 8 or more, use the ACS member \$90/person rate for combination tickets)

Reserve a table in the name of: _____

Names of guests are: _____ Indicate numbers in your group who choose:
_____ Chicken _____
_____ Prime Rib _____
_____ Salmon _____
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_____ Name: _____
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NEW YORK SECTION 2009 SECTION-WIDE CONFERENCE

PROGRAM

- 9:30 AM **Arrival and Refreshments** - Welcome to the ACS, New York Section's 2009 Section-wide Conference and to St. John's University.
- 10:00 AM **Greetings from the 2009 Chair of the ACS New York Section.** Dr. Barbara R. Hillery
- 10:10 AM **Award Presentations.**
Service Plaque and Pin to the 2008 New York Section Chair Dr. Marc A. Walters
New York Section Outstanding Service Award for 2008 Dr. Barbara Petrack
Nichols Foundation H.S. Chemistry Teacher Award for 2008 Ms. Aparna Subramaniam
Staten Island Technical High School
- 10:30 AM **Report of the 2008 Elections Nominating Committee.** Mr. Frank R. Romano
(Presentation of Candidates) 2009 Chair-elect
- 10:45 AM **Keynote Presentation.** An informative talk A Member of the Senior Staff
along with a question and answer session. at the Chemical Heritage Foundation
- 11:45 AM **Coffee Break.** There will be poster presentations by the
New York Section Project SEED and Chemagination Students
- 12:00 PM **ACS, New York Section Committee Planning Sessions for 2009.**

Educational Activities (Chemagination, Chemical Education, Continuing Education, Graduate Student Posters, High School Olympiad, National Chemistry Week, Nichols Foundation Teacher Award, Project Seed, Student Affiliate)
Chair: Dr. Jill K. Rehmann

Member Affairs (Awards, Employment and Professional Relations, History of the New York Section, Indicator, Membership, Minority Affairs, Outstanding Service Award)
Chair: Dr. Ralph Stephani

Program Review (Subsection and Topical Discussion Group Chairs)
Chair: Dr. Anne T. O'Brien

Public Affairs (Academe and Industrial Relations, Environmental Chemistry, Fund Raising, Government Affairs, Information Technology, Public Relations, Speakers Bureau)
Chair: Dr. Robert P. Nolan

Date: Saturday, January 17, 2009

Times: 9:30AM – 1:00PM

Place: St. John's University, Marillac Hall Atrium, Room 277, 8000 Utopia Parkway, Jamaica, NY

Cost: Free to all

To inquire about the Section-wide Conference, please call the New York Section Office at 516-883-7510 or e-mail Marilyn Jespersen, Office Administrator, at: njesper1@optonline.net

Directions are at <http://www.stjohns.edu/about/directions/directions/queens/queens.sju>
Scientists, teachers and students of all levels are invited to participate. Hope you can attend.

New York Meetings

www.newyorkacs.org

CHEMICAL MARKETING & ECONOMICS GROUP

2009 Economic Outlook

Speaker: T. Kevin Swift
Senior Director - Policy,
Economics & Risk Analysis
American Chemistry Council
Arlington, VA

Date: Thursday, January 8, 2009

[Note date is second Thursday of the month]

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

Place: Club Quarters
40 West 45th Street
New York, NY

Cost: \$45 discount price for Members
who reserve by Tuesday before
the meeting (12 noon).
\$55 for Guests and Members
(at the door without reservations)

To reserve: Please reserve early to be eligible for discount price. Call Vista Marketing at (917) 684-1659 or via e-mail to: cmegroup@mac.com. You can also pay online (via PayPal): go to our Website: <http://www.nyacs-cme.org/> and click the proper button.

Next Meeting

Chemical Credit, M&A, and the Financial Outlook for 2009

Speaker: Joseph S. Chang
Global Editor
ICIS Chemical Business

Date: Thursday, February 5, 2009

HIGH SCHOOL TEACHERS TOPICAL GROUP

Learn that Technology Is Fun:
Spectrometric Examination of Barbeque Sauce

Speaker: Dr. Jerry DeMenna
Fun-Science Academics
345 W. 58th St. Suite 2K
New York, NY

Date: Friday, January 9, 2009

Times: Social and Dinner — 5:45 PM
Place: No reservations required

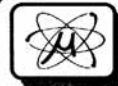
Caffe Pane e Cioccolato
10 Waverly Place at Mercer Street
(South-west corner)
New York, NY
(You eat, you pay cash only, no credit cards.)

Times: Meeting — 7:15 PM

Place: New York University
Silver Center Room 207
32 Waverly Place (South-east
corner Washington Sq. 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: Street parking is free after 6:00 PM. 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.



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Man in Space - Next Stop, Mars

Speaker: Dr. Alfred U. Mac Rae

Space is often referred to as the last frontier for exploration. It is an intriguing place in our environment and the challenges of putting man in space has inspired the imagination of scientists and writers for many generations. The emphasis of this talk is to provide a historical view of the technology used to venture into space, practical applications of space technology and to describe some of the issues that need to be addressed before putting a man on Mars. We will conclude the talk with an open discussion with audience participation on the subject of "Should we go to Mars and what benefits do we expect to gain from such a venture?"

Upon obtaining his PhD in Physics from Syracuse University, Dr. Alfred U. Mac Rae joined Bell Labs in Murray Hill, NJ where he did basic research on solid state and surface physics in the Fundamental Physics organization. He then switched to the management of the development of advanced integrated circuit fabrication technology and circuit design and finished up his career in Bell Labs managing the design and introduction into manufacturing of large communications transmission systems, retiring as Director of Satellite Communications. Since then, he has served as an international consultant in cellular and space technology.

He has received many awards covering integrated circuit technology and space. He is an elected member of the National Academy of Engineering, a Fellow of the American Physical Society and a Fellow of the Institute of Electrical and Electronic Engineers. He has 18 patents, with one singled out by the CEO of AT&T for its significant contribution to the earnings of that company.

Date: Tuesday, January 27, 2009
Time: Networking/Cash Bar 6:00 PM
Dinner 6:30 PM
Presentation 7:30 PM
Place: Snuffy's Restaurant
Scotch Plains, NJ
Cost: \$35 ACC&CE Members
\$45 Non-members

To Reserve: Call 1-973-729-6671 or e-mail: accce@chemconsult.org. Advanced registration is required.

Please visit www.chemconsult.org for more details.

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

Accelerating Drug Development with Innovative Discovery Platforms

Organizers: David Bears
SuperGen, Inc.
George Zavoico
Cantor Fitzgerald

The application of several innovative drug discovery platforms designed to shorten the time from target validation to identification of drug leads will be described in this symposium, with an emphasis on targeted therapeutics designed to attack genetic alterations that drive the onset and progression of disease.

Date: Tuesday, January 27, 2009
Time: 1:00 – 5:00 PM
Place: New York Academy of Sciences
7 World Trade Center
250 Greenwich Street – 40th Floor
New York, NY

Space is limited. Reserve a seat on-line at: <http://www.nyas.org/events>

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.

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ACS NEW YORK SECTION MEETINGS FOR 2009

The Board of Directors Meetings for the New York Section in 2009 are as follows:

January 17 Section Wide Conference
February 13
March 13 Nichols Medal Symposium and Dinner, Crowne Plaza, White Plains, NY
April 17
June 5
September 11
November 13

The regular Board Meetings will be held at St. John's University, 8000 Utopia Parkway, Jamaica, NY. These meetings are open meetings and all are welcome. If you are not a member of the Board of Directors and wish to attend please inform the New York Section Office at 516-883-7510 or njesper1@optonline.net.



WESTCHESTER CHEMICAL SOCIETY

On Tuesday, October 28, 2008, the Westchester Chemical Society presented Dr. Paul W. Dillon from Siemens Healthcare Diagnostic in Tarrytown, who discussed "Serum Markers of Liver Fibrosis." (See photo below.)



(L-R) Joseph Sencen, Peter Corfield, Joan Laredo-Liddell, Dr. Paul Dillon, Mrs. Jane Dillon, Rolande Hodel, Mary Cowman, Ivan Haller, William Carpenter.

LONG ISLAND SUBSECTION

Twelfth Annual Frances S. Sterrett Environmental Chemistry Symposium

The annual Frances S. Sterrett Symposium is dedicated to presenting the public with up-to-date, factual scientific information on environmental topics. Watch for updates at the New York section web site: www.newyorkacs.org.

SAVE THE DATE!

Date: May 21, 2009
Times: 8:30 AM – 2:00 PM
Place: Hofstra University



EMPLOYMENT AND PROFESSIONAL RELATIONS COMMITTEE OF THE NEW YORK SECTION

To Human Resources Departments in Industry and Academia

The Employment and Professional Relations Committee maintains a roster of candidates who are ACS members seeking a position in the New York metropolitan area. If you have job openings and would like qualified candidates to contact you, please send a brief job description and educational/experience background required to hessytaft@hotmail.com.

Candidates from our roster who meet the requirements you describe will be asked to contact you.

NATIONAL CHEMISTRY WEEK — NEW YORK SECTION

The New York Section celebrated National Chemistry Day on Saturday, October 25 at the New York Hall of Science in Flushing, NY. With over 1200 attendees, 286 volunteers, 20 colleges, universities and corpo-

rations, the day was absolutely a success. We were also privileged to have the 2008 ACS President Dr. Bruce Bursten and Dr. Mehmood Khan, Senior Vice President - Chief Science Officer of Pepsi-Cola. Their reaction to the day "Wow"! Dr. David Sherman, a Principal Scientist for Pepsi-Cola, is the driving force for NY-NCW.



(Left to Right) Jaime Rizzo (Pace), Neil Jespersen (St. John's), Mr. Khan, Jill Rehmann (St. Joseph's), Ron D'Amelia (Hofstra), Joan Laredo-Liddell (NY-NCW Chair), Dr. Bruce Bursten (2008 ACS President), Dr. Mehmood Khan (Sr.VP Pepsi-Cola), Marc Walters (NYU & 2008 NY Section Chair), David Sherman (Pepsi).



At left: Jaime Rizzo with Pace University students who have volunteered for 2 or 3 years. Joan Laredo-Liddell presented each one with a mole.

Large Section Award

The New York Section was instrumental in getting outstanding media coverage on their National Chemistry Week: The Many Faces of Chemistry Celebration which drew more than 1300 attendees, and the section's two science cafes that drew nearly 100 non ACS members each.



At right, Joan Laredo-Liddell, 2007 Chair, is pictured with Wayne E. Jones, Local Section Activities Chair and Catherine T. Hunt, ACS 2007 President



President Bursten trying a demonstration.



Look what we made! We certainly had a ball with chemistry!



(Left) Our young chemist takes time to have her picture taken with "Mr. Met"

(Right) I like my new look. Perhaps I will be a scientist!



(Below) Two young chemists wondering why their plastic container expanded.



ACADEME/INDUSTRY COMMITTEE

The New York Academe/Industry Program was held on Saturday, November 1, 2008. The theme of the program was: Interfacial Chemistry Used in Medical Applications.

The technical program included: Dr. Stavroula Sofou of the Laboratory for Drug Delivery Systems at Polytechnic Institute of NYU presented "Lipid Membrane Heterogeneities Controlled by pH: Basic Studies and Potential Applications of Lipid-based

Drug Delivery Carriers:

- Dr. Abu Serajuddin, a Professor of Pharmaceutical Sciences at St. John's University presented: "Development of Surfactant and Lipid-based Solid Dispersions and Solid Micro Emulsion Preconcentrates for Oral Delivery of Poorly Water-soluble Drugs."
- Dr. David P. Cormode of Mt. Sinai Hospital presented: "Nanoparticles and Surfaces for Anion Sensing and Medical Imaging."



Front row: Speakers, (L-R) Stavroula Sofou, Abu Serajuddin and David Cormode; Back row: Committee, (L-R) G.R. Padmanabhan, Mary Cowman, Richard M. Goodman, Mihaela Leonida.



Position Available

INTERESTED IN ADJUNCT TEACHING?
Fairleigh Dickinson University, College at Florham is looking for adjunct faculty to teach in its undergraduate chemistry and graduate pharmaceutical chemistry programs starting this spring semester.

The Department of Chemistry and Pharmaceutical Science is a dynamic and thriving environment with an exciting future. If interested contact Michael Avaltroni at mavaltroni@fdi.edu include your resume or c.v. and indicate your teaching interests.

Call for Nominations

THE 2009 LIFETIME ACHIEVEMENT AWARD OF THE NORTH JERSEY SECTION

The biennial award consists of a recognition plaque and \$1,000 prize. It recognizes a North Jersey chemist or chemical engineer over fifty years of age, for conspicuous achievements in chemistry, not heretofore recognized by any major scientific awards.

Please submit nominations and supporting letters to Jiwon Chen, Awards Committee Chair, c/o NJ ACS, 4 Cameron Road, Piscataway, NJ 08854. Tel: 609-818-6319, email: jchen@njacs.org. Nominations must be received by **February 16, 2009**. Visit <http://www.njacs.org/awards.html> for the nomination form and a list of past recipients.

Call for Posters

LABORATORY ROBOTICS INTEREST GROUP

Fifth Annual Student Poster Contest

The Mid Atlantic Chapter of the Laboratory Robotics Interest Group is pleased to announce that their fifth annual student poster contest will be held on Tuesday, May 19th, 2009 at the Hilton East Brunswick, 3 Tower Center Boulevard, East Brunswick, NJ.

Student Posters may be on ANY TOPIC in engineering, or the biological, chemical, earth, environmental, and physical sciences.

Content related to robotics or automation is NOT required for entry.

There will be two poster divisions this year, college and high school. Cash prizes will be awarded in both divisions as well as special members' choice awards. Participants in the high school division should plan to be at their posters between 4 and 5 pm to meet with the judges and participants in the col-

lege division should plan to be at their posters between 5 and 6 pm. An awards ceremony will follow the judging at 7:00 PM.

A career seminar is available for high school students before the meeting begins.

There is no charge to attend the meeting. There will be FREE FOOD and CASH PRIZES.

Reimbursements of travel expenses for entrants in the college division are available.

The contest is held in conjunction with the chapter's annual technology exposition. One of New Jersey's largest scientific meetings, this event is attended by more than 700 scientists and more than 90 laboratory technology companies.

Please pre register for the meeting at:

<http://lab-robotics.org/> (Click on the Mid Atlantic Chapter's link listed under "Upcoming LRIG Meetings.")

To enter a poster, simply send your name and the title of the poster to Kevin Olsen at the address below anytime **before May 7**.

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Call for Applications

SCIENCE OUTREACH PROGRAM FOR K-12 TEACHERS AND HIGH SCHOOL STUDENTS

Description: This non-residential professional development program exceeds National Science Education Standards by offering mentored lab research internships for K-12 science teachers from public, private and parochial schools in Greater New York City. Our Scientific Reading And Writing Course (STRAW) teaches the specialized communication skills essential for understanding one's research and teaching those same skills to one's students. Weekly seminars given by Rockefeller scientists extend teachers' knowledge of the research outside of their host labs. Teachers present their research in a Poster Session and in their Research Report. Applications can be downloaded from the Web site. Content: Research in Neuroscience, Medical Sciences, Human Genetics, Immunology, Microbiology, Biochemistry, Structural Biology, Chemistry, Physics, Mathematics, Computer Sciences, Molecular, Cell & Developmental Biology.

Qualifiers: Designed as a two-year program, returning teachers craft Action Plans with the help of Outreach staff that they present at Teacher Seminars. Action Plans describe how teachers will translate their research experiences into inquiry-based learning for their students.

Dates: June 29 – August 14, 2009

Scholarships: No cost and some funding for stipends, travel, and Action Plan. Similar summer program for high school students who must be at least 16.

Application deadline: February 2, 2009 but let us know if you need more time.

Contact: Bonnie Kaiser, PhD, Director, Science Outreach Program, Rockefeller University, 1230 York Avenue, Box 53, New York, NY 10065-6399

Telephone: 212-327-7431 - Fax: 212-327-7519

Email: outreach@rockefeller.edu
Website: www.rockefeller.edu/outreach

Others

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Speaker: Dr. Thomas H. Lane
President-Elect of ACS
Director, Global Science and Technology Outreach and Senior Research Scientist
Dow Corning Corporation

Take this personal opportunity to listen to the newly elected President of ACS discussing skills you will need now and in the future to launch your career to new heights. Sign up to participate.

Date: Thursday, January 9, 2009
Time: 2:00 - 3:00 PM ET

For downloads or transcripts of past forums please click on the ACS Careers Industry Forum tab located at the top of the ACS Careers Blog. This is a free service via conference call. We want to hear from you. Please post comments on our blog at <http://www.acs.org/careers>.



CHEMISTRY IN CANCER RESEARCH: A VITAL PARTNERSHIP IN CANCER DRUG DISCOVERY AND DEVELOPMENT

Chemistry plays a critical role in research on cancer diagnosis, prevention, and treatment. ACS and the American Association for Cancer Research (AACR) have organized a second joint conference to provide a forum for research discussions among chemists with cancer research interests.

The conference will encompass research highlights across a span of chemistry-related topics, from the use of chemical tools in cancer target identification and validation, the design of chemical libraries for hit-seeking, strategies for hit-seeking and lead optimization in drug discovery, strategies for

drug targeting and delivery, and the use of imaging, proteomics, process chemistry and analytical chemistry in cancer drug development. Each session will include three symposium talks, followed by short presentations from abstracts submitted by young investigators. We anticipate that this conference will energize younger chemical investigators and inform them of the many opportunities to apply the power of chemistry to important problems in cancer research.

Date: February 8-11, 2009
Place: New Orleans, LA

To view the conference program and register, please visit the conference website at: www.chemistryincancerresearch.org.



PRESIDENTIAL SYMPOSIUM ON LEADERSHIP AT THE ACS SPRING NATIONAL MEETING

Facing the Challenges of Today and Tomorrow

The ACS Presidential Symposium will focus on leadership, specifically today's challenges and training practices in industry and academia. You will hear why developing leaders is key to the success of the chemical enterprise. Additionally participants, facilitators and leaders in the Leadership Development System will be recognized for their contributions.

You'll be engaged by personal stories of how developing the necessary skills and taking on leadership roles has impacted their careers and the success of the projects they lead. Be there for the launch of the new Leadership Development System, a comprehensive leadership curriculum designed to provide members with the courses and tools to build and strengthen their leadership capabilities.

Joe Folkman, Ph.D., President and co-founder of Zenger Folkman, a renowned expert in the field of leadership and measurement will set the stage. John Holman, Director of the National Learning Center, University of York, United Kingdom, Cheryl Martin, Vice President and General Manager, Paints and Coatings Materials, Rohm and Haas, and Omar Asensio, Sr. Product Development Engineer, Avery Dennison Corporation – will inspire with their personal stories and share insights on how leadership is the cornerstone to their success. Tom Lane, 2009 ACS President will launch the Leadership Development System, a initiative 10 years in the making, and discuss how the ACS Leadership Development System is building skills and creating leaders.

Date: March 23, 2009
Times: Symposium: 1:30 PM – 5:00 PM
Reception 5:00 PM – 7:00 PM

Visit www.acs.org/leaderdevelopment for more information.



ACS SCHOLARS PROGRAM

Accepting Applications for the 2009-2010 Academic Year

Now in its 14th year, the program has supported over 1990 students during their undergraduate studies in the chemical sciences. For more information and to access the on-line application form, go to www.acs.org/scholars, call toll-free 800-227-5558, ext. 6250; e-mail scholars@acs.org; or write to the American Chemical Society Scholars Program, 1155 16th Street, NW, Washington, DC 20036. The deadline is **March 1, 2009**.

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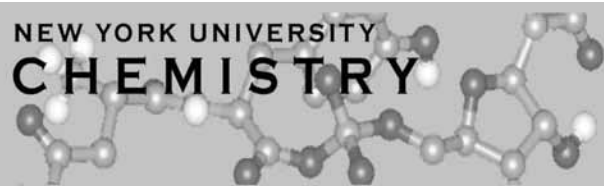
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SPRING 2009 COLLOQUIUM SERIES

*January 29 Host: Arora	Philip A. Cole, Johns Hopkins University
February 6 Host: Ward	Yueh-Lin (Lynn) Loo, Princeton University
February 13 Host: Ward	Marc Hillmyer, University of Minnesota
February 20 Host: Canary	Eric V. Anslyn, University of Texas/Austin
March 27 Host: Tuckerman	Angel E. Garcia, Rensselaer Polytechnic Institute
April 3 Host: Bacic	George C. Schatz, Northwestern University
April 10 Host: Week	David M. Lynn, University of Wisconsin/Madison
April 17 Host: Arora	Tamar Schlick, New York University
April 24 Host: Arora	Jeffrey Aube, University of Kansas
May 1 Host: Seeman	Floyd Romesberg, Scripps Research Institute
May 8 Host: Arora	Huw Davies, Emory University

Unless otherwise noted, 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.
*Joint Seminar with Biochemistry to be held on Thursday at 11:00 a.m. at the NYU School of Medicine.



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