



**Dr. Marc Walters**  
2008 New York Section Chair

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Classes 6:15-8:45pm Semester begins January 14, 2008

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# THE Indicator

CIRCULATION: 8,500

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

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March	January 15, 2008
April	February 16
May	March 14
June	April 14
September	July 14
October	August 15
November	September 15
December	October 15
January 2009	November 15
February	December 13, 2008



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**POSTMASTER:** Send address changes to American Chemical Society, Department of Member and Subscriber Services, THE INDICATOR, P.O. Box 3337, Columbus, OH 43210, or e-mail: [service@acs.org](mailto:service@acs.org). Periodicals postage paid at Montville, NJ and additional mailing offices.

Published monthly except July and August. All views expressed are those of the editor and contributors and do not necessarily represent the official position of the New York and North Jersey Sections of the American Chemical Society unless so stated. Subscription price included in dues paid by New York and North Jersey Section members. Subscription price to non-members of either Section \$20.00 per year. To subscribe, make checks payable to The Indicator and mail to the Manager/Editor (see top of left column on this page).

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# January Calendar

## NEW YORK SECTION

**Thursday, January 10, 2008**

Chemical Marketing & Economics Group  
See page 15.

**Friday, January 11, 2008**

High School Teachers Topical Group  
See page 15.

**Saturday, January 19, 2008**

New York Section-Wide Conference  
See page 16.

**Tuesday, January 22, 2008**

NY Biochemical Topical Group  
See page 16.

## NORTH JERSEY SECTION

**Monday, January 14, 2008**

Teacher Affiliate Executive Committee  
See page 9.

**Tuesday, January 15, 2008**

Chem Central  
See page 9.

**Wednesday, January 16, 2008**

NoJ NMR Topical Group  
See page 9.

**Tuesday, January 24, 2008**

ChemTAG  
See page 10.

**Monday, January 28, 2008**

NoJ Executive Committee  
See page 9.

**Deadline for items to be included in the March 2008 issue of *The Indicator* is January 15, 2008.**

## Contribute to *The Indicator*

The Indicator is interested in adding new features to the publication. Your input would be appreciated. Please let us know which type of feature you would like to see in future issues: i.e., book reviews, member news, short articles about your research or other ideas. Would you be willing to assist in gathering or writing such material?

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## NEW YORK SECTION — CHAIR'S MESSAGE

It is my honor to serve as the 2008 chair of the New York Section of the American Chemical Society. Our section has a long and distinguished history. Chartered in 1891, the New York section has been active in the service of both industrial and educational institutions. Its membership has included and been strengthened by the participation of chemists from all areas of the discipline. Today, the New York section sponsors a wealth of activities for the benefit of its membership. In the coming year these activities will include:

The Section-Wide Conference (January 19, 2008)

Chemagination

Undergraduate Research Conference (URS)

U.S. National Chemistry Olympiad, NY trials

William H. Nichols Symposium and Dinner

National Chemistry Week demonstrations at the New York Hall of Science

A full list of annual events is provided on the Section website

(<http://newyorkacs.org/index.html>)

The Section is committed to increasing the public's awareness and understanding of chemistry and its benefits to society. In 2008 I hope to extend the NY Section's role to (i) advising the public and its representatives on public policies that focus on the teaching of chemistry in our schools, and (ii) on chemical regulations designed for public safety and wellbeing. In recognition of the importance of increased legislative action throughout the American Chemical Society we have invited Glenn Ruskin, Director of the ACS Office of Legislative and Government Affairs to address the New York Section of the ACS at the Section-Wide Meeting.

Chemistry is referred to as the "central science" because of the seemingly innumerable daily activities that require the chemist's expertise in fields such as electronics, medicine, farming and renewable energy to name a few. In order to sustain our ranks and renew our commitment to the discipline we call on our members to recruit new members, communicate our work to the public, and fire the imaginations of students whose creativity might find its expression in the central science. We welcome seasoned professionals who may be new to the Section, college students, graduate students, postdoctoral fellows, and young professionals.

Opportunities abound to both support and contribute your ideas and energy to the New York Section of the ACS. We provide a forum to enrich the lives of chemists, students of chemistry, and the public at large. With the optimism and creativity of our membership, we look forward to realizing that outcome in 2008.

Marc Walters, Ph.D.

2008 Chair ACS – New York Section

## JANUARY HISTORICAL EVENTS IN CHEMISTRY

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

### January 2, 1765

Charles Hatchett, who discovered niobium in 1801, was born on this day. Niobium was known formerly as columbium.

### January 3, 1916

Keith James Laidler, who was born on this date, was a researcher in chemical kinetics and history of physical chemistry

### January 4, 1891

Henry H. Dow prepared bromine from brine on this date.

### January 7, 1833

One hundred and seventy-five years ago, Henry E. Roscoe was born on this date. He was a researcher on the chemical action of light, invented an actinometer with Robert Bunsen in 1856, and in 1869, was the first to isolate vanadium.

### January 10, 1877

Frederick Cottrell, who did research in nitrogen fixation, was born on this date. Also, he did research on the liquefaction of gases and the recovery of helium. He invented the electrostatic (Cottrell) precipitator for precipitation of particles from gases.

### January 12, 1716

Antonio de Ulloa, who was born on this date, discovered platinum with Jorge Juan in 1748. He established the first museum of natural history, the first metallurgical laboratory in Spain, and the observatory of Cadiz.

### January 15, 1875

William Prout who suggested that all atomic weights were multiples of weight of hydrogen (Prout's Hypothesis), was born on this day. He also identified hydrochloric acid in the stomach.

### January 16, 1875

Leonor Michaelis, who was born on this date, was a researcher in physical chemistry, in particular its use in biology and medicine. She developed an equation (Michaelis-Menten) with Maude Leonora Menten that relates the velocity of enzyme catalyzed reactions to the concentration of reactants, discovered that keratin was soluble in thioglycolic acid, and was a pioneer of the permanent wave.

### January 18, 1825

Edward Frankland, who reported the first synthesis of an organometallic compound, was born on this date. He did research on the theory of valency. In 1868, he and Norman Lockyer discovered helium in the sun. He was an authority on sanitation and river pollution.

### January 20, 1758

Two hundred and fifty years ago, Marie Anne Paulze was born on this date. She was a research assistant, collaborator, illustrator, editor, publisher, and spouse of Antoine Lavoisier. After he was guillotined, she married but was not a collaborator of Benjamin Thompson, Count Rumford. She wrote, "I take down the observations and make the illustrations in his laboratory notebooks. I am comfortable in English and Latin."

### January 22, 1936

Alan J. Heeger, who was born on this day, shared the Nobel Prize in 2000 with Alan G. MacDiarmid and Hidaki Shirakawa for their discovery and development of conductive polymers.

### January 24, 1935

Beer was first sold in cans on this day.

### January 24, 1966

B. B. Cunningham and coworkers made the first reported observation of absorption spectrum of compound of einsteinium at University of California, Berkeley, CA, on this date.

### January 25, 1627

Robert Boyle, who defined an element, was born on this date. He discovered Boyle's Law of gases, stated that matter was composed of corpuscles which themselves were differently built up of different configurations of primary particles, and suggested alcohol as biological preservative.

### January 27, 1870

Louis A. Kahlenberg, who was born on this date, was a pioneer in American physical chemistry.

### January 30, 1949

This is the birthdate of Peter Agre who shared the 2003 Nobel Prize with Roderick MacKinnon who was awarded the prize for structural and mechanistic studies of ion channels, was born on this date. He was awarded it for the discovery of water channels.

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

## THIS MONTH IN CHEMICAL HISTORY — I

Harold Goldwhite, California State University, Los Angeles  
[hgoldwh@calstatela.edu](mailto:hgoldwh@calstatela.edu)

I am always pleased when I receive a message regarding one of my columns; it reassures me to know that someone out there is reading this stuff! Recently I received not only such a message, but also a gift from reader Willard E. McFarland who lives in North Hills, California. He sent me a copy of a small book "A Laboratory Guide of Industrial Chemistry" by Allen Rogers Ph.D., Instructor in Industrial Chemistry at Pratt Institute in Brooklyn, N.Y. and a member of the ACS, the Society of Chemical Industry, and the American Leather Chemists Association. The book was published by the D. Van Nostrand Company in 1908. I will devote this column to Dr. Allen Rogers, and a forthcoming column to his instructive textbook. Luckily for me Dr. Rogers' career is summarized in the valuable book "American Chemists and Chemical Engineers" which was edited by Wyndham D. Miles Ph.D. and published by the A.C.S. in 1976.

Rogers had both academic and practical industrial chemical training. Born in Maine on May 22, 1876 he attended the University of Maine for his B.S. degree in chemistry which he received in 1897. He was appointed instructor in chemistry at the University of Maine upon graduation and served for 3 years. He then moved to the University of Pennsylvania where he received his Ph.D. in 1902. For two years he was an instructor of organic chemistry there and then was hired as an industrial chemist by the Oakes Manufacturing Co. on Long Island, New York. Rogers clearly learnt a great deal in his two years in industrial chemical practice. When he was hired to teach industrial chemistry (one precursor of chemical engineering) at Pratt Institute he developed and equipped laboratories in which students would get hands-on experience of actual industrial chemical processes. In this he followed the lead of European technical institutes.

Rogers' students, many of whom already had work experience, were mature and were given an experimental program which included miniature versions of such industrial staples as saponification plants, tanneries, aniline dye manufactories, and paint blending plants. In addition to his lectures to these students Rogers also lectured on food chemistry to nutrition students, and dyes and pigments to art students. Rogers' courses also included in-depth instructive visits to chemical plants. Despite a demanding and rigorous curriculum which included only minimal vacation breaks, Rogers' students admired and respected him, and after graduation often called on him as a consultant.

Rogers was an effective writer and published several books. An early text on "Elements of Qualitative Analysis" was followed by the Laboratory Guide referred to above; a second edition of the Guide appeared in 1917. His collaborative text "Industrial Chemistry" became a standard textbook with its first edition in 1912 and its sixth in 1942. An abridgment "Elements of Industrial Chemistry" went through two editions in 1916 and 1926. Rogers' own area of emphasis was leather processing and he published "Practical Tanning" in 1922 and "Manufacture of Leather" in 1929. In World War I he served in the Chemical Warfare Service as a major. He was awarded the Grasselli Medal in 1920 for his work on using fish skins as material for leather.

Rogers died on November 4, 1938 only 62 years old from injuries received in a fall down the steps of the chemical engineering building at Pratt Institute: a sad irony, since chemical engineering was to supplant industrial chemistry as an academic subject.

## THIS MONTH IN CHEMICAL HISTORY — II

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

In a previous column I recounted the career of Allen Rogers, the author of "Laboratory Guide of Industrial Chemistry", which was published in 1908 in New York, and a copy of which, sent by reader Willard E. McFarland of North Hills, California, lies before me as I write. This modest volume of only 158 pages makes interesting reading – and viewing. The frontispiece is a photograph depicting a chemical works (type unspecified). A supervisor (?) dressed in a monk-like dark-colored laboratory coat which covers him down to the ankles is peering anxiously into a tank. Three workers, all wearing shirts and ties, one wearing a jacket, and the other two wearing aprons, are tending to various pots being stirred by belt-driven devices. All are male and no-one is wearing safety glasses. Prominent in the photograph are two metal retorts presumably being used for distillations. All the vessels depicted, and their contents, are open to the works air.

The book begins with a set of admonitions: **FACTS WHICH SHOULD BE REMEMBERED**. Here are a few to give you the flavor – and the philosophy of the author:

Do the task which is set before you, and do it with a smile.

Do not use your neighbor's standard solution for accurate determinations.

Glassware will break if dropped to the floor.

Leave your machine or kettle in better condition than you found it.

Dr. Rogers wrote this text with a particular goal in mind. To quote from his preface: "In the average course of chemistry as taught in our technical schools there is little or no attempt made to bring the student in close touch with manufacturing conditions." He attempts to remedy this by introducing students to a few commercial processes; teaching them how to handle materials on a large scale; instructing them on cost estimating; and on being a supervisor of factory labor. The specific industrial subjects covered in 8 brief chapters include inorganic preparations; dyeing of textile fibers; commercial organic compounds, coal tar colors, and synthetic oils; pigments and lakes; driers, varnishes, paints and stains; soap and allied products; leather manufacture; and wood fiber, pulp and paper.

As an inorganic chemist – once upon a time-I found the chapter on inorganic preparations of particular interest. The reactions include the manufacture of aluminium (yes: the European spelling!) sulfate (and now the American spelling!) from bauxite; of tartar emetic from cream of tartar; of ammonium sulfate from ammonia solution; of barium chloride (Rogers' spelling) from witherite; and, among others, lead acetate, potassium dichromate, potassium permanganate from pyrolusite, and disodium hydrogen phosphate from bone-ash. Eminently practical preparations all.

Another interesting photograph introduces the chapter on soap and allied products and shows a miniature soap works which I surmise is the one Rogers had constructed at the Pratt Institute. Depicted are five male students, formally dressed, engaged in pressing the final soap product. Illustrations in this chapter (the whole text is generously illustrated showing many pieces of industrial chemical equipment) include a soap frame; two views of crutchers; a slabbing machine; a cutting machine; a plodding machine; and a soap press. Recipes are given for laundry soap, green Castile soap, half boiled soap, tar soap, and dog soap.

Rogers' book is a fine practical text. It includes references in each chapter to current books in the area covered; a table of useful data; and a full index. Reading it one has to respect its author and his dedication as a teacher – a hundred years after its publication.

## North Jersey Meetings

<http://www.njacs.org>

### NORTH JERSEY EXECUTIVE COMMITTEE MEETING

Date: Monday, January 28, 2008

Time: 6:30 PM

Place: Fairleigh Dickinson University  
College at Florham  
Lenell Hall, the Mansion  
Madison, NJ

Cost: \$5.00 - pizza dinner

Directions: can be found at:  
<http://view.fdu.edu/default.aspx?id=238>



### IN MEMORIAM

Mr. Joseph A. Balaisius	30 years service
Dr. Francis E. Condon	63 years service
Mr. Rober Duva	58 years service
Mr. Andrew J. Erchak	54 years service
Dr. Thomas M. Kenyhercz	35 years service
Mr. Joseph S. Pekola	58 years service
Mr. Thomas H. Williams	46 years service



### TEACHER AFFILIATES

#### Executive Committee Meeting

Date: Monday, January 14, 2008

Time: 4:30 PM

Place: Chatham High School  
255 Lafayette Avenue  
Chatham, NJ

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



### CHEM CENTRAL

Date: Tuesday, January 15, 2008

Time: 4:00-6:00

Place: Point Pleasant Borough HS  
Laura Herbert Drive  
Point Pleasant, NJ

Contact: Roseann McCarthy at  
[roseannmcc@comcast.net](mailto:roseannmcc@comcast.net)

## NORTH JERSEY NMR TOPICAL GROUP

Protein-Ligand NOE Matching: Ongoing Development of An Approach for High-Throughput Characterization of Protein-Ligand Complexes

Speaker: Dr. Keith Constantine  
Senior Research Investigator  
Macromolecular Structure Group  
Bristol Myers Squibb  
Princeton, NJ

Keith received a B.S. in Chemistry from the University of Pittsburgh in 1986 and a Ph.D. in 1991 from the Carnegie Mellon University in the area of Biophysical Chemistry. His area of research was "Proton Magnetic Resonance and Computational Modeling Studies of Ferrichrome Peptides and Type II Domains". Following his doctorate he joined Bristol Myers Squibb as a Post-Doctoral Fellow working for Dr. Luciano Mueller. Since then he has been at BMS. His main research interest is focused primarily on the use of NMR spectroscopy and computational methods to investigate protein structures and protein-ligand interactions, and on the application and integration of these techniques in drug discovery projects. The topic of his presentation will be their recent success in developing novel NOE matching protocol for ranking possible binding poses of protein – small molecule complexes.

Door Prizes!

Date: Wednesday, January 16, 2008

Time: Dinner 6:30 PM  
Seminar 7:00 PM  
Place: Woodbridge Hilton  
Iselin, NJ

Cost: \$30 (\$5 for student/postdoc)  
No charge for seminar only.

Directions:  
[http://njacs.org/d\\_woodhilt.html](http://njacs.org/d_woodhilt.html)

Dinner Register online:  
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## SURPRISE

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## ChemTAG MEETING

Date: Tuesday, January 24, 2008

Time: 4:00-6:00 PM

Place: Ramapo High School  
331 George Street  
Franklin Lakes, NJ

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



Place	Grades K-2	Student Winner	School	Teacher
1	1	Madison Gorman	F.W. Cook School Plainfield, NJ	Mrs. Taylor
2	2	Marille Drake	T. Marshal Elementary Asbury Park, NJ	Sauder Barber
3	2	Elyssa Jackson	F.W. Cook School Plainfield, NJ	Mrs. Miller
4	2	Christian Cardona	F.W. Cook School Plainfield, NJ	Mrs. Kaye
<b>Grades 3-4</b>				
1	4	Tammin Rosero	Barlow Elementary Plainfield, NJ	Ms. Gleim
2	4	Ife Campbell	F.W. Cook School Plainfield, NJ	Marnie Marrone
3	3	Brianna Jackson	F.W. Cook School Plainfield, NJ	Marnie Marrone
4	4	Jonathan Taylor	F.W. Cook School Plainfield, NJ	Marnie Marone
<b>Grades 5-8</b>				
1	8	Angela Zhu	Lincoln School Kearny, NJ	McMasters
2	7	Tiffany Chow	Marlboro Mem. Middle Morganville, NJ	Mrs. Cristine Farrell
3	6	Elizabeth Thoresen	Woodland Elementary Monroe Township, NJ	Ms. Clark
4	5	Richard McCarson	P.W. Carlton Penns Grove, NJ	Ms. Maccarone
<b>Grades 9-12</b>				
1	11	Vanessa Apaza	Passaic Valley HS Little Falls, NJ	Mr. Ryan
2	11	Magdalena Gaska	Lodi HS Lodi, NJ	Francene Rozman
3	11	Herra Saddam	Colts Neck HS Colts Neck, NJ	Joanne Santanello
4	11	Ewelina Tkacz	Lodi HS Lodi, NJ	Francene Rozman

## NO. JERSEY 2007 NATIONAL CHEMISTRY WEEK POSTER CONTEST

The theme of the contest was "The Faces of Chemistry." For the first time we received posters for all grade levels and the judging was hard because there were so many wonderful posters. The winners receive prizes as follows: First Place \$50.00, Second Place \$25.00, Third Place \$10.00, Fourth Place \$5.00 and the teachers of the students receive comparable prizes. Photos of the First Place posters will be on the [www.njacs.org](http://www.njacs.org) website as soon as possible. Next year we will try to find a public place to display all the posters that your students made.



## NORTH JERSEY CHROMATOGRAPHY GROUP

Seminar is sponsored by Thar Technologies, Inc., Pittsburgh, PA.

### Transitioning From SFC/MS to LC/MS For Compound Screening

Speaker: Internal to Thar  
Person not yet chosen

### Going Green - Analytical to Prep - The SFC Advantage

Speaker: From Merck, West Point, PA  
Person not yet confirmed

Date: Wednesday, Feb 13, 2008

Times: Social 5:30 PM  
Dinner 6:30 PM  
Seminar 7:30 PM

Place: Somerset Crown Plaza Hotel  
110 Davidson Avenue  
Somerset, NJ

Reservations: Please reserve by **Friday, February 8, 2008**. Please, note, seats are limited and pre-registration is required.

To register on-line, go to  
<http://www.northjerseychromgroup.org/>  
or [www.njacs.org](http://www.njacs.org), click on chromatography. Or phone: David Kohler, ES Industries, (856) 753-8400.

## CHEMISTRY AS A LIFE SCIENCE — SYMPOSIUM XIV

The fourteenth in a series of CAALS biennial symposia.

Distinguished Invited  
Speakers: Carl Djerassi  
Stanford University

Paul Knochel  
Ludwig-Maximilians Universität

Alana Shepartz  
Yale University

Dirk Trauner  
University of California,  
Berkeley

Justin DuBois  
Stanford University

Philip Baran  
The Scripps Research Institute

Date: **Friday, March 21, 2008**

Place: The Paul Robeson Campus Center  
Rutgers, The State University  
Newark, NJ

Cost: Free and open to the public.

Further information regarding the Symposium will be added to the website for the North Jersey Section of the American Chemical Society as it becomes available. Due to limited seating, advance registration is required. <http://www.njacs.org/caals>.

Organizing committee: V. Lombardo (Lexicon), D. Askin (Merck), R. Kong (PTC Therapeutics), R. Ewing (Chair BMS), J. Kozlowski (Schering-Plough), W. Metz (Sanofi-Aventis), S. Hall (Rutgers), M. Prasad (Novartis), S. Erickson (Roche), P. Zhang (Wyeth).

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## CHEMISTS CELEBRATE EARTH DAY: "STREAMING CHEMISTRY" ILLUSTRATED HAIKU CONTEST

As part of their Chemists Celebrate Earth Day celebration, the American Chemical Society (ACS) is sponsoring an illustrated haiku contest for students in grades Kindergarten-12.

A haiku is a three-line poem with five syllables in the first line, seven in the second, and five in the third. Haikus typically have nature-related themes and do not rhyme, as in the example below.

*Submerged rocks stare back  
through the glistening water  
streaming clean and clear.*

### Possible topics related to streams and chemistry include:

- Water flowing in rivers, creeks, streams, or over dams.
- Adopt a Stream – keeping streams and rivers beautiful.
- Hydroelectric power – energy from falling water.
- Environmental chemistry –keeping water clean.
- Green chemistry – water purification.
- Conservation of water a limited and valuable resource.
- Properties of water - boiling point, freezing point, density, heat capacity, pH, salinity, turbidity, conductivity.
- Phases – solid (ice), liquid, gas (water vapor or steam).
- Chemical changes – hydrolysis of water.

### Winners will be selected in each of the following categories:

- K – 2nd grade
- 3rd – 4th grade
- 5th – 8th grade
- 9th – 12th grade

### National Prizes:

1st Place in each grade category – \$200  
2nd Place in each grade category – \$100

### Local Prizes:

1st Place in each grade category \$50 ;  
Second Place in each grade category \$25.00; Third Place in each category \$10.00 Teacher Prizes!

### Chemists Celebrate Earth Day Illustrated Haiku Contest

The North Jersey Section of the American

Chemical Society is participating in the Chemists Celebrate Earth Day (CCED) illustrated haiku contest by inviting area Kindergarten – 12th grade students to compete.

### Contest Rules

- Poems must conform to the haiku style. Students in grades K-2 may be more free with their syllables; however, no poem may be longer than 25 words.
- The topic of the haiku and the illustration must be related to the CCED theme, "Streaming Chemistry" and should reflect some aspect of water science from the possible topics listed, including the responsible use and care for this limited and valuable resource.
- All entries must be original works without aid from others.
- Each poem must be submitted and illustrated on an **unlined 8.5" x 11" sheet of paper** (of any type). The illustration must be created by hand using crayons, watercolors, other types of paint, colored pencils or markers. The text of the poem should be easy to read and may be printed with a computer, before the hand-drawn illustration is added, or the poem may be written on lined paper which is cut out and pasted onto the unlined paper with the illustration.
- Schools please encourage all students in each class to participate. Please judge the posters in the school and **submit only the three best posters per grade level per school. Home schoolers submit your poster.**
- Posters not submitted should be displayed in the school during on Earth Day. Make a photo copy of the school winning posters for display. Winning posters will not be returned.
- All entries must have the following information included with the entry: student's name, grade, home address, telephone number, school name, school address, teacher's name, email, and school telephone number, school fax number (both addresses are used for sending prizes; please provide complete information). **Suggestion make a label with this information and paste it on the back of the poster.**
- All illustrated haikus and/or digital representations of the haikus become the property of the American Chemical Society.
- Acceptance of prizes constitutes consent

to use winners' names, likenesses and entries for editorial, advertising and publicity purposes.

- ACS is not responsible for lost, damaged, or delayed postal shipments and electronic submission is encouraged.

### Entries will be judged based upon:

- Relevance to and incorporation of "Streaming Chemistry" theme
  - Word choice and imagery
  - Colorful artwork
  - Adherence to haiku style
- Originality and creativity  
• Overall presentation  
• Address questions to Coordinator: [Jeannette Brown](mailto:Jeannette.Brown@infionline.net)  
[Jeannette Brown](mailto:Jeannette.Brown@infionline.net)

### DEADLINE FOR SUBMISSION IS:

**SATURDAY MARCH 8,2008**

SUBMISSION CAN BE BY E-MAIL TO [Jebrown@infionline.net](mailto:Jebrown@infionline.net)

Or Mailed to North Jersey ACS Office 4  
Cameron Road Piscataway NJ 0885  
EMAIL SUBMISSION IS ENCOURAGED.

## SCENES FROM NORTH JERSEY SECTION BAKELAND AWARD



Brian Maurer, Dow Chemical Company presents the Bakeland medal to Prof. John Rogers, Prof. George Whitesides, who nominated Rogers for the award looks on.

Presenters at the 2007 Bakeland Award Symposium — Prof. Keith A. Nelson, Dr. Mark Cardillo, Prof. John Rogers, Prof. Ralph G. Nuzzo, Prof. George M. Whitesides, and Brian Maurer, NJ Site Manager for Dow Chemical Company.



Sujatha Thyagarajan discusses her poster with Prof. Whitesides at the Social/Poster Session.

## SCENES FROM NORTH JERSEY SECTION AT NATIONAL CHEMISTRY WEEK CELEBRATION

Celebration was held at Liberty Science Center on Saturday, October 27, 2007. Activities included computer games, demos involving light, states of matter, and many hands-on activities.



## New York Meetings

[www.newyorkacs.org](http://www.newyorkacs.org)

### CHEMICAL MARKETING & ECONOMICS GROUP — JOINT MEETING WITH THE METRO NEW YORK SECTION, AIChE

The 2008 Economic Outlook and the Impact of Globalization on the U.S. Chemical Industry

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

**Date:** Thursday, January 10, 2008

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

**Place:** The Chemists' Club  
40 West 45th Street  
New York, NY

**Cost:** \$45 discount price for Members who reserve by Tuesday, January 8 (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@yahoo.com](mailto:cmegroup@yahoo.com). You can also pay online (via PayPal): go to our Website: <http://www.nyacs-cme.org/> and click the proper "Buy Now" button (\$45 for Members; \$55 for Non-Members), which is below the credit card logos.

## HIGH SCHOOL TEACHERS TOPICAL GROUP

Introduction to Corrosion: What it is, why it is of such concern, and some of the places it occurs in everyday life

**Speaker:** Dr. Stephen Gould  
U.S. Environmental Protection Agency

Focusing on three familiar metals—copper, iron and aluminum—we will look at what can happen to them in different environments. Short discussion of recent research developments in corrosion. Several demonstrations suitable for classroom teachers.

**Date:** Friday, January 11, 2008

**Time:** Social and Dinner — 5:45 PM  
**Place:** Caffè Pane e Cioccolato  
10 Waverly Place at Mercer Street (South-west corner)  
New York, NY

No reservations required (You eat, you pay cash only, no credit cards.)

**Time:** Meeting — 7:15 PM

**Place:** New York University  
Silver Center Room 207  
32 Waverly Place (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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## AMERICAN CHEMICAL SOCIETY'S NEW YORK SECTION

2008 Section-Wide Conference at St. John's University

**Date:** Saturday, January 19, 2008  
**Times:** 9:30 AM - 1:00 PM  
**Place:** St. John's University, Bent Hall, Room 277  
8000 Utopia Parkway, Jamaica, NY  
**Cost:** Free to All

### PROGRAM

**9:30 AM Arrival and Refreshments - Welcome to the ACS New York Section's 2008 Section-Wide Conference and to St. John's University.**

**10:00 AM Greetings from the 2008 Chair of the ACS New York Section.** Marc A. Walters

**10:10 AM Award Presentations.**  
Service Plaque and Pin to the 2007 New York Section Chair Joan A. Laredo-Liddell  
New York Section Outstanding Service Award for 2007 Vijaya L. Korlipara  
Nichols Foundation H.S. Chemistry Teacher Award for 2007 Stephen Radice  
Edward R. Murrow HS, Brooklyn, NY

**10:30 AM Report of the 2008 Elections Nominating Committee.** (Presentation of Candidates) Barbara R. Hillery, 2008 Chair-elect

**10:45 AM Keynote Presentation. "The Chemistry of Advocacy"**  
Glenn S. Ruskin, The American Chemical Society Director, Office of Legislative and Government Affairs

The ACS Congressional charter passed in 1937 and signed by President Franklin Delano Roosevelt, calls upon the ACS to "encourage in the broadest and most liberal manner the advancement of chemistry in all its branches; increase the diffusion of chemical knowledge, ... promote scientific interest and inquiry, ... foster public welfare and education, aiding the development of our nation's industries, and adding to the material prosperity and happiness of our people."

This presentation will examine how ACS fulfills its Congressional charter through the advocacy efforts of members, governance and staff. At the core of ACS advocacy are the members of the Society — without them there would be no ACS positions or advocacy.

The members decide through the ACS committee structure what the positions and priorities of the Society shall be and staff in the ACS Office of Legislative and Government Affairs, joined by members of the ACS Legislative Action Network and local section Government Affairs Committees and ACS governance, communicate those priority positions on Capitol Hill, with the Executive branch and other interested organizations.

The presentation will pull together all the various pieces of ACS advocacy to give participants an overall understanding of how ACS policies are created, communicated and advanced.

(continued)

**11:45 AM Coffee Break. Poster Presentations by New York Section Project Seed and Chemagination Students**

**12:00 PM ACS, New York Section Committee Planning Sessions for 2008.**

#### 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:  
S. Mary L. Maier

#### Member Affairs

(Awards, Employment and Professional Relations, History of the New York Section, Indicator, Membership, Outstanding Service Award)

Chair:  
Ralph Stephani

#### Program Review

(Subsection and Topical Discussion Group Chairs)

Chair:  
Anne T. O'Brien

#### Public Affairs

(Academe and Industrial Relations, Congressional Science Counselors, Environmental Chemistry, Fund Raising, Information Technology, Public Relations, Speakers Bureau)

Chair:  
Robert P. Nolan

**12:45 PM Reports from the Chairs of the Committee Planning Sessions.**

**1:00 PM Conclusion of the Meeting.**

Join with colleagues for lunch at a local restaurant.

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](mailto:njesper1@optonline.net).

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



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

**Rethinking Natural Products as a Source of Drug Leads**

Organizer: Takushi Kaneko  
TB Alliance

Speakers: Ying Wang  
Novartis Institutes for BioMedical Research  
Switzerland

Guy T. Carter  
Wyeth

Ray Lam  
Nereus Pharmaceuticals, Inc.

Arnold Demain  
Drew University

Ronald Quinn  
Griffith University  
Australia

There is a renewed interest in natural products as potential sources of hits and leads in the drug discovery process. Even though natural products were in the shadow of combinatorial chemistry and high throughput screening for the last decade, they are now being re-examined because their structures cover unique chemical space and provide evolutionary advantages. The field of natural products itself has also evolved in terms of accessing unexplored sources of producing organisms, heterologous expression systems, and improved analytical/isolation chemical methods. Natural products also play an important role in chemical biology.

**Date: Tuesday, January 22, 2008**

**Time: 1:00 PM – 5:30 PM**

**Place:** The 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>

NYAS Members and BPDG Affiliates may attend BPDG meetings free of charge.

Non-members may attend for a fee of \$20 per event; Student Non-members for \$10.

To become a Member of the Academy, visit <http://www.nyas.org/landing.html>

**2008 NEW YORK SECTION BOARD MEETINGS**

**January 16**

Section Wide Conference  
St. John's University, Jamaica, NY

**February 15**

**March 14**  
Nichols Symposium and Dinner  
Crowne Plaza, White Plains, NY

**April 18**

**June 6**

**September 12**

**November 14**

The regular Board Meetings will be held at the College of New Rochelle, New Rochelle, NY. These meetings are open meetings and all are welcome. If you are not on the Board and wish to attend please inform the New York Section office - for refreshment purposes. 516-883-7510 or [njesper1@optonline.net](mailto:njesper1@optonline.net).

**WILLIAM H. NICHOLS MEDAL DISTINGUISHED SYMPOSIUM AND AWARD BANQUET**

**Symposium: DNA: Not Merely the Secret of Life**

**Award Recipient:** Professor Nadrian C. Seeman  
New York University

**Date: Friday, March 14, 2008**

**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 Marc A. Walters 2008 Chair, ACS, New York Section New York University
1:35 PM	Opening of the Distinguished Symposium	Professor Barbara R. Hillery 2008 Chair-elect, ACS, New York Section SUNY – Old Westbury College
1:45 PM	Designer DNA Architectures for Nanobiotechnology	Professor Hao Yan Department of Chemistry and Biochemistry Arizona State University
2:30 PM	DNA Nano Structures: All Stars	Professor Chengde Mao Department of Chemistry Purdue University
3:15 PM	Coffee Break	
3:45 PM	Programming a DNA World	Professor Erik Winfree Computer Sc., Computation & Neural Systems California Institute of Technology
4:30 PM	Using DNA Information for Structural Control	Professor Nadrian C. Seeman 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:

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**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  
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\_\_\_\_\_ places for banquet at \$80/person  
\_\_\_\_\_ places for symposium at \$40/person, ACS member; \$50 Non-member  
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**RESERVATION DEADLINE March 5, 2008**

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**SCENES FROM THE NEW YORK SECTION**



Left to right: Jean Delfiner (NY Councilor) - Joan Laredo-Liddell (2007-NY ACS chair) - "Katie" Hunt (2007 ACS President) - Karen Caldwell (Pace Univ) at the Leo Hendrik Baekeland Award Ceremony at the New Jersey Institute of Technology.

New York members working the ACS Booth at the Eastern Analytical Symposium. Left to right: Yorke Rhodes, Joan Laredo-Liddell, Frank Romano.



Hudson-Bergen Chemical Society Meeting at Fairleigh Dickinson University, Teaneck (L-R): Sorin Diaconescu (Chair Elect) LabCorp, Prof. Hanae Haouari, (Chair) New Jersey City University, Assistant Professor Ish Kumar (Speaker) Fairleigh Dickinson University, and Professor Mihaela Leonida (Past Chair and Organizer) Fairleigh Dickinson University.

The New York Section presented a Science Cafe in the Westchester Area on November 14. Dr. Susan Ettinger gave a presentation on Whole Food and Nutrition at Borders Book Store in Scarsdale.



**SCENES FROM THE NEW YORK SECTION — continued**

**National Chemistry Week Celebration**



Marc Walters, 2007 NY Chair-Elect, Joan Laredo-Liddell, NY 2007 Chair, Anne O'Brien, District I Director and David Sherman, NCW Coordinator from Pepsi. Pepsi distributed over 1000 bottles of soda.



Anne O'Brien, ACS District I Director, and Joan Laredo-Liddell with students from Manhattan Academy High School.



Two children preparing their plastic shrinkies.



Registration desk in the lobby of the New York Hall of Science. (Left to right: Judith Exler and Joan Laredo-Liddell)



Two young ladies making foam in a rubber glove.



A father gets his children organized with their goggles and plastic aprons.

## Call for Nominations

### WCS DISTINGUISHED SCIENTIST AWARD 2008

The Westchester Chemical Society is accepting nominations for the "WCS Distinguished Scientist Award 2008". Scientists who live or work in Westchester qualify. Send resume by **January 31, 2008** to Joan Laredo-Liddell, 391 Palmer Road, Yonkers, NY 10701



### 2008 SISTER MARIAN JOSE SMITH AWARD OF THE NORTH JERSEY SECTION

The biennial award, funded by Roche, consists of \$1,000 prize and a recognition plaque. It recognizes a professor from a degree-granting Institution in the North Jersey Section for inspiring students and launching them on successful careers in chemistry as manifested by their accomplishments.

Please submit nominations and supporting letters to Jiwen Chen, Awards Committee Chair, c/o NJ ACS, 4 Cameron Road, Piscataway, NJ 08854. Tel: (609) 818-6319, email: [jchen@njacs.org](mailto:jchen@njacs.org). (We welcome electronic submission of the nomination package.) Nominations must be received by **February 8, 2008**. Visit <http://www.njacs.org/awards.html> for more information and a list of past recipients.

## Others

### ACS SHORT COURSE CIRCUIT IN WOODBRIDGE, NJ

Registration has opened for the American Chemical Society Short Course Circuit to be held in Woodbridge, NJ, February 11-15, 2008. Register before January 14 to receive a \$100 discount on your registration fee. The following courses are being offered at the circuit:

- Statistical Analysis of Laboratory Data - February 11-13
- Experimental Design for Productivity and Quality in R&D - February 11-13
- Chemical Engineering for Chemists - February 12-13

- Pharmacokinetics and Pharmacodynamics: Principles and Applications in Non-Clinical Drug Development - February 12-13
- Drug-Like Properties in Drug Discovery - February 12-13
- Essentials of Medicinal Chemistry and Pharmacology - February 12-13
- Process Research in the Pharmaceutical Industry: The Design and Development of Practical Syntheses - February 14-15
- Effective Supervision of Scientists and the Technical Staff - February 14-15
- Recent Developments in Organic Synthesis - February 14-15
- Analysis and Interpretation of Mass Spectral Data - February 14-15
- Methods Development, Validation Procedures, and Conformity Assessment in the Analytical Laboratory - February 14-15

### Multi-registration and Academic Member Discounts are Available

Sign up five people for one course or one person for five courses (or some combination in between), and one of the courses, of equal or lowest value, is free. To qualify, you must fax your registration form(s) in together to 202-872-6336. Please reference the 5 for 4 deal on the faxes.

Full-time academic faculty, staff, and student ACS members receive 50% off short courses. To qualify, you must fax your registration form to 202-872-6336. This discount cannot be combined with any other offers. Please reference the discount on your fax. Contact our registrar, Donna Green ([d.green@acs.org](mailto:d.green@acs.org)) or by telephone at 202-872-4508 if you have any questions.

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### MID-ATLANTIC CHAPTER - LABORATORY ROBOTICS INTEREST GROUP

#### Fourth Annual Student Poster Contest

Student Posters may be on ANY TOPIC in engineering, or the biological, chemical, earth, environmental, and physical sciences. Students from psychology and medicine are also welcome to participate. Cash prizes will be awarded.

There are NO extra points awarded for content related to robotics or automation. Please do not confuse this event with robotics competitions, the Laboratory Robotics Interest Group is about bring-

ing practical and proven technologies to working scientists with real world problems.

There is no charge to attend the meeting and there will be FREE FOOD. (Even if a student does not enter the contest this meeting is a cheap date.)

To enter a poster contact Kevin Olsen at: [OlsenK@Mail.Montclair.edu](mailto:OlsenK@Mail.Montclair.edu)

Date: **Thursday, May 22, 2008**

Times: 4 to 8 PM

Place: Hilton East Brunswick  
Three Tower Center Boulevard  
East Brunswick, NJ

Contact Information: Kevin Olsen, Room 359  
Richardson Hall, Montclair State University,  
Montclair, NJ 07043,  
[OlsenK@Mail.Montclair.edu](mailto:OlsenK@Mail.Montclair.edu), 973-655-4076



### THIS MONTH IN CHEMICAL HISTORY—III

Harold Goldwhite, California State University, Los Angeles \* [hgoldwh@calstatela.edu](mailto:hgoldwh@calstatela.edu)

In a previous column I recounted the career of Allen Rogers, the author of "Laboratory Guide of Industrial Chemistry", which was published in 1918 in New York, and a copy of which, sent by reader Willard E. McFarland of North Hills, California, lies before me as I write. This modest volume of only 158 pages makes interesting reading—and viewing. The frontispiece is a photograph depicting a chemical works (type unspecified). A supervisor (?) dressed in a monk-like dark-colored laboratory coat which covers him down to the ankles is peering anxiously into a tank. Three workers, all wearing shirts and ties, one wearing a jacket, and the other two wearing aprons, are tending to various pots being stirred by belt-driven devices. All are male and no-one is wearing safety glasses. Prominent in the photograph are two metal retorts presumably being used for distillations. All the vessels depicted, and their contents, are open to the works air.

The book begins with a set of admonitions: FACTS WHICH SHOULD BE REMEMBERED. Here are a few to give you the flavor—and the philosophy of the author:

Do the task which is set before you, and do it with a smile.

Do not use your neighbor's standard solution for accurate determinations.

Glassware will break if dropped to the floor.

Leave your machine or kettle in better condition than you found it.

Dr. Rogers wrote this text with a particular goal in mind. To quote from his preface: "In the average course of chemistry as taught in our technical schools there is little or no attempt made to bring the student in close touch with manufacturing con-

ditions." He attempts to remedy this by introducing students to a few commercial processes; teaching them how to handle materials on a large scale; instructing them on cost estimating; and on being a supervisor of factory labor. The specific industrial subjects covered in 8 brief chapters include inorganic preparations; dyeing of textile fibers; commercial organic compounds, coal tar colors, and synthetic oils; pigments and lakes; driers, varnishes, paints and stains; soap and allied products; leather manufacture; and wood fiber, pulp and paper.

As an inorganic chemist—once upon a time—I found the chapter on inorganic preparations of particular interest. The reactions include the manufacture of aluminium (yes: the European spelling!) sulfate (and now the American spelling!) from bauxite; of tartar emetic from cream of tartar; of ammonium sulfate from ammonia solution; of barium chlorid (Rogers' spelling) from witherite; and, among others, lead acetate, potassium dichromate, potassium permanganate from pyrolusite, and disodium hydrogen phosphate from bone-ash. Eminently practical preparations all.

Another interesting photograph introduces the chapter on soap and allied products and shows a miniature soap works which I surmise is the one Rogers had constructed at the Pratt Institute.

(continued on page 25)

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## THIS MONTH IN CHEMICAL HISTORY — III

(continued from page 23)

Depicted are five male students, formally dressed, engaged in pressing the final soap product. Illustrations in this chapter (the whole text is generously illustrated showing many pieces of industrial chemical equipment) include a soap frame; two views of crutchers; a slabbing machine; a cut-

ting machine; a plodding machine; and a soap press. Recipes are given for laundry soap, green Castile soap, half boiled soap, tar soap, and dog soap.

Rogers' book is a fine practical text. It includes references in each chapter to current books in the area covered; a table of useful data; and a full index. Reading it one has to respect its author and his dedication as a teacher – a hundred years after its publication.

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<b>February 1</b> Host: Kirshenbaum	<b>Steve Kent</b> , University of Chicago
<b>February 8</b> Host: Kirshenbaum	<b>Jan Chmielewski</b> , Purdue University
<b>February 15</b> Host: Jerschow	<b>Roderick Waylshen</b> , University of Alberta
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<b>April 11</b> Host: Ward	<b>John Anthony</b> , University of Kentucky
<b>May 2</b> Host: Arora	<b>Jeff Aubc</b> , University of Kansas

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