

THE Indicator

MARCH 2010

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Professor Tobin J. Marks
2010 Nichols Medalist

(See page 14.)

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2010 Eastern Analytical Symposium



November 15 - 18, 2010
Garden State Exhibit Center, Somerset, New Jersey

CALL FOR PAPERS

Deadline – April 15, 2010

The Eastern Analytical Symposium and Exposition is the second largest conference and exposition for laboratory science in the U.S. dedicated to the needs of analytical chemists and those in the allied sciences. We offer high quality cutting-edge technical sessions and state-of-the-art short courses, workshops and seminars. We invite you to be a part of the program by contributing a paper for oral or poster consideration. Please note that all abstracts must be submitted electronically via the EAS web site at www.EAS.org under the Symposium tab. The abstract submission deadline is April 15.

To submit a contributed paper for the 2010 EAS Technical Program, please submit abstracts through our web site at www.EAS.org/asubmit between March 1 and April 15, and follow the instructions for abstract submission. *Invited speakers must not submit abstracts to EAS until requested.*

Please carefully review the following information:

- All contributed abstracts must be submitted through our web site at www.EAS.org between March 1 and April 15, 2010. No faxed, e-mailed, or mailed abstracts will be accepted.
- **Please note that no one author may submit and present more than two posters.**
- All abstracts must be a **maximum of 250 words** or less.
- All abstracts will be acknowledged via e-mail.
- The title of the presentation and the list of authors that you submit are final, and may not be changed.
- The abstract that you submit will be considered to be your final abstract that will be printed in the abstract book for the 2010 Eastern Analytical Symposium.
- Presenting authors of contributed submissions will be notified in June 2010 of the status of the abstract and its session assignment.

TOPICS AREAS

Bioanalysis
Capillary Electrophoresis
Chemometrics
Chromatography
Conservation Science
Environmental Analysis
Forensic Analysis
Gas Chromatography
HPLC
Immunochemistry
Industrial Hygiene
Ion Chromatography
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www.EAS.org

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CONTENTS

ACS News	18
Advertisers Index	22
Call for Applications	17
Call for Papers	17
ChemTAG Corner	20
Councilor's Corner	20
New York Meetings	10-13
Nichols Symposium	14-16
North Jersey Meetings	8-9
Press Release	21
Professional/Product Directory	22

EDITORIAL DEADLINES

April	February 15
May	March 15
June	April 15
September	July 15
October	August 15
November	September 15
December	October 15
January 2011	November 15, 2010
February	December 15
March	January 15, 2012

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

March Calendar

NEW YORK SECTION

Thursday, March 4, 2010

Chemical Marketing & Economics Group
See page 10.

Tuesday, March 9, 2010

Westchester Chemical Society
See pages 10-11.

Thursday, March 11, 2010

Long Island Subsection
See page 11.

Friday, March 19, 2010

HSTTG
See page 11.

Tuesday, March 23, 2010

Biochemical Topical Group
See page 12.

NORTH JERSEY SECTION

Thursday, March 4, 2010

Teacher Affiliates Executive Committee
See page 8.

Thursday, March 4, 2010

Careers in Transition
See page 8.

Thursday, March 18, 2010

ChemTAG
See page 8.

Tuesday, March 23 and

Wednesday, March 24, 2010
Younger Chemists Committee
See pages 8-9.

Monday, March 29, 2010

NoJ Executive Committee
See page 8.

***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
May 2010 issue of *The Indicator*
is March 15, 2010.**



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THIS MONTH IN CHEMICAL HISTORY

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

Among the sources I often consult for subjects for my columns is the book "Essays in Historical Chemistry" by Sir Edward Thorpe; my copy is dated 1911 and was published by Macmillan in London. As I was looking it over it occurred to me that I knew nothing about the author himself. A little research led me to the obituary notices of the Royal Society, and this sketch of Edward Thorpe's distinguished career is drawn from information in the "Obituary Notices of Fellows Deceased" of the Royal Society for 1925.

Thorpe was born in December 1845 in a small town near Manchester, England where his father was a cotton merchant. He attended Hulme Grammar School and then Owens College, which developed into Manchester University. (Personal note: I was on the faculty of the University of Manchester Institute of Science and Technology from 1958 to 1962, and we always referred to the central facility of the University, which was situated a couple of miles away, as "Owens". At Owens Thorpe worked with the distinguished inorganic chemist Henry Roscoe on photochemistry and on the chemistry of vanadium. There followed the almost obligatory pilgrimage to Germany. At Heidelberg, under the tutelage of Bunsen, he worked on the remarkable liquid alloy of sodium and potassium, the subject of his Ph.D. thesis. He lodged in the same building as Victor Meyer, who was also working with Bunsen, and they became close friends.

From Heidelberg he moved to Bonn to work with Kekule and they published in 1869 a paper on ethylbenzoic acid. Returning to Manchester he continued to collaborate with Roscoe and they jointly published two papers on photochemistry in 1870. As an up-and-coming young chemist it was not surprising that Thorpe was chosen for the Professorship in Chemistry at the Andersonian College of Glasgow, Scotland in 1870 and in that same eventful year he married Caroline Emma Watts. At Glasgow Thorpe published several papers: on a new oxychloride of chromium; on phosphorus chlorides; on the constitution of paraffin; and on the interaction between carbon tetrachloride and phosphorus pentasulfide. His work on chemical effects of light led to his going on an expedition to observe a total eclipse of the sun in Sicily to be observed on December 22, 1870. Sadly the ship was wrecked on the voyage from Naples to Sicily on December 15, but without loss of life.

Thorpe was "called" to the Professorship of Chemistry at the Yorkshire College of Science in Leeds (later Leeds University) in 1874 and worked there for 11 years. He turned to physico-chemical research on specific volumes of related liquid compounds and was elected a Fellow of the Royal Society in 1876. He made a successful trip to Colorado in July 1878 to observe the solar eclipse, and then began a series of magnetic observations, in collaboration with a physics colleague at Leeds, Professor Arthur Rucker. These included measurements along the 40th. parallel of the U.S. from the East Coast to the Great Salt Lake; in the Azores; and then a complete survey of terrestrial magnetism in the British Isles which was eventually published as a complete volume of Philosophical Transactions in 1896.

Thorpe was picked to succeed Sir Edward Frankland in 1885 as Professor of Chemistry at what was then the Normal School of Science and Royal School of Mines in South Kensington, London – later known as Imperial College of Science and Technology of the University of London. In the next column I will complete my discussion of the career of this distinguished chemist.

MARCH HISTORICAL EVENTS IN CHEMISTRY

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

March 1, 1910

One hundred years ago, Archer J. P. Martin was born. He shared the Nobel Prize in Chemistry with Richard L. M. Synge in 1952 for their invention of partition chromatography.

March 3, 1876

Seventy-five years ago in 1935 on this date, Gregory P. Baxter and C. P. Alter determined atomic weight of lead, which led to estimations of the age of minerals.

March 5, 1893

Emmett J. Culligan who founded the world's largest water treatment organization as well as concept of water softening, was born on this date.

March 7, 1792

John F. W. Herschel, inventor of photography on sensitized paper, was born on this day. He introduced the terms, positive & negative for photography.

March 8, 1879

Otto Hahn discovered protactinium with Lise Meitner in 1917 and did research in nuclear fission with Otto Strassman. He received the Nobel Prize in Chemistry in 1944 for his discovery of the fission of heavy nuclei. He was born on this date.

March 12, 1900

Seventy-five years ago in 1935, Frédéric J. Joliot (Joliot-Curie) shared the Nobel Prize in Chemistry with his wife Irène Joliot Curie, for production of artificial radioisotopes. In 1934, he, H. Halban, and L. W. Kowarski proved experimentally that neutron emission occurs in nuclear fission. He was born on this date.

March 13, 1733

Joseph Priestley, who was born on this date, was the discoverer of oxygen, ammonia, hydrochloric acid gas, carbon monoxide, sulfur dioxide, and oxides of nitrogen. He also made the first soda drink.

March 14, 1935

Seventy-five years ago, Julius B. Cohen died on this date. He was a researcher on the laws of aromatic substitutions and optical activity. He was born on May 6, 1859.

March 14, 1935

Seventy-five years ago, Athur Hantzsch died on this date. He was a researcher in electrical conductivity of organic compounds, organic acids and stereochemistry of nitrogen compounds. His birthdate was March 7, 1857.

March 17, 1803

In 1826, Carl Löwig was one discoverer of bromine but because of examinations did not publish a report, thereby allowing A. Balard to receive precedence of discovery. He was born on this date.

March 20, 1735

Two hundred and seventy-five years ago, Torbern Bergman was born on this date. He was a researcher on carbon dioxide, hydrogen sulfide and the preparation of artificial mineral water.

March 21, 1932

Walter Gilbert, researcher on the determination of deoxyribonucleic acid (DNA) base sequence; was born on this date. In 1980, he shared the Nobel Prize in Chemistry with Paul Berg and Frederick Sanger for their contributions concerning the determination of base sequences in nucleic acids.

March 22, 1788

Pierre J. Pelletier discovered quinine, strychnine, and other alkaloids; obtained toluene by distilling pipe resin with Phillip Walter, 1836. He was born on this date.

March 23, 1962

Neil Bartlett made the first noble gas compound, XePtF₆, on this date.

March 25, 1863

Simon Flexner isolated the common strain of dysentery bacillus, *Shigella dysenteriae* in 1899. He developed curative serum for cerebrospinal meningitis in 1907 and was born on this date.

March 27, 1847

One hundred years ago, Otto Wallach, a researcher on essential oils and terpenes, was awarded the Nobel Prize in Chemistry in 1910 in recognition of his services to organic chemistry and the chemical industry by his pioneer work in the field of alicyclic compounds. He was born on this date.

March 28, 1861

George C. Pond, a chemistry teacher and preserver of the Priestley home in Pennsylvania, was born on this date.

March 30, 1920

Daniel E. Koshland, Jr., catalytic activity of enzymes, Editor, Science,

March 31, 1860

One hundred and fifty years ago, Isidor Traube was born on this date. He founded capillary chemistry and did research on liquids and critical temperature, osmosis, surface tension and colloids (suspensions of nanometer-sized particles). In addition, he designed a viscometer and capillarmeter and in 1891 made the first systematic observation of the hydrophobic effect.

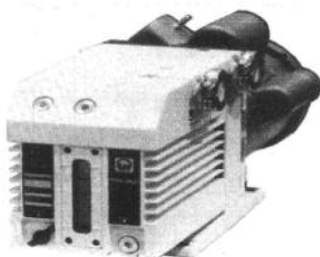
Additional historical events can be found at Dr. May's website,
<http://faculty.cua.edu/may/Chemistrycalendar.htm>.

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North Jersey Meetings

<http://www.njacs.org>

NORTH JERSEY EXECUTIVE COMMITTEE MEETING

Section officers, councilors, committee chairs, topical group chairs, and section event organizers meet regularly at the Executive Committee Meeting to discuss topics of importance to running the section and representing the membership. All ACS members are welcome to attend this meeting and to become more involved in section activities.

Date: Monday, March 29, 2010

Time: 6:00 PM

Place: Rutgers University
Wright-Rieman Labs, Room 260
Busch Campus, 610 Taylor Road
Piscataway, NJ 08854

Cost: \$5.00 - pizza dinner

Directions can be found using mapquest and the address above. A map of the campus can be found at

<http://maps.rutgers.edu/maps/default.aspx?campus=4>.

Reservations: call (732) 463-7271 or email njacsoffice@aol.com prior to **Wednesday, March 24, 2010**.

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



NJACS-TEACHER AFFILIATES

Executive Board Meeting

Date: Thursday, March 4, 2010

Time: 4:30 PM - 6:30 PM

Place: Franklin Twp. High School
500 Elizabeth Avenue
Somerset, NJ 08873

Contact: Chair, Eve Krupka
eakrupka@optimum.net

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, March 4, 2010**, 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.



ChemTAG

Date: Thursday, March 18, 2010

Time: 4:00-6:00 PM

Place: Union High School
2350 North Third Street
Union, NJ

Gina Glorioso
gglorioso@twpunionschools.org
908-851-6500



YOUNGER CHEMISTS COMMITTEE

The Younger Chemists Committee presents two special screenings of:

"Naturally Obsessed: the Making of a Scientist"

Come See the Drama Unfold!

Naturally Obsessed: The Making of a Scientist is a new documentary film that reveals a rare and fascinating view of the world of laboratory science. Featuring a group of eager students, mentored by Dr. Larry Shapiro, the film follows them along a

challenging and uncertain journey toward their PhD degrees. As the story unfolds, the interdependent mentor-student relationship reveals the human face of scientific research.

The film was shot over three years' time at Columbia University Medical Center and also documents how x-ray crystallography enables the discovery of the molecular structure of the AMPK protein, considered prime for targeted drug development because of its relevance to diabetes and obesity.

The documentary film will be shown in two locations:

Date: Tuesday, March 23, 2010

Time: 6:30-8:30 PM

Place: Rutgers, the State University of NJ
Piscataway/Busch Campus
Wright-Rieman Auditorium
610 Taylor Road
Piscataway, NJ

Cost: Free

Co-sponsored by the Rutgers Chemistry GSA

Date: Wednesday, March 24, 2010

Time: 6:00 PM

Place: Fairleigh Dickinson University
New Academic Building
Rice Lounge
285 Madison Avenue
Madison, NJ

Cost: Free

Co-sponsored by the FDU Chem Club



METRO WOMEN CHEMISTS

Organizers are still working on the details of the next MWCC Networking Event. Stay tuned for updates both by email and on the MWCC website, <http://www.njacs.org/metrowomen.html>

Date: Thursday, April 8, 2010

Time: 6:00 PM

Place: Lenfell Hall
Fairleigh Dickinson University
Madison, NJ
973-443-8761, <http://fdu.edu/>

If you have any questions about MWCC or if you would like to be added to our email list, contact Amber Charlebois charleb@fdu.edu or Kelly George kelly.george@roche.com

NJACS-TEACHER AFFILIATES

Election Results

Officers for NJACS-TA effective January 2010:

CHAIR 2010:

Eve Krupka

Retired from Mount St. Mary's
Watchung

eakrupka@optimum.net

CHAIR ELECT 2011:

Dr. Susanne lobst

Passaic Valley High School
Little Falls, NJ 07424

pvsiobst@yahoo.com

PAST CHAIR 2009:

Paul Sekuler

JP Stevens High School
Edison, NJ 08820

researchehs@hotmail.com

SECRETARY:

Mita Chaki

Franklin Twp. High School
Somerset, NJ 08873

mchaki@franklinboe.org

TREASURER:

David Lee

Retired from Mountain Lakes HS

dtleemlhs@aol.com

NJACS-TA EXECUTIVE BOARD ELECTED

Claire Miller (Dec. 2010)

Kelly Chladil (Dec. 2011)

Marco Pagnotta (Dec. 2011)

APPOINTED 2010

Bernie Donegan

Frank Ferrara

Bobbi Gorman

George Gross

Bettyann Howson

Allene Johnson

Diane Krone

Cheryl Litman

Barbara McNally

Safia Madin

John Penna

Richard Urban

New York Meetings

www.newyorkacs.org

ACS NEW YORK SECTION MEETINGS FOR 2010

The Board of Directors Meetings for 2010 are:

April 16
June 4
September 10
November 19

The regular Board Meetings will be held at St. John's University, 8000 Utopia Parkway, Jamaica, NY, in the Library's Writing Center. They are open meetings and all are welcome.

For more information, please visit the New York Section website at <http://www.NewYorkACS.org>.



CHEMICAL MARKETING & ECONOMICS GROUP

Chemical M&A Outlook and Opportunities

Speaker: Tim Wilding
Managing Director and Co-Head
Industrial Growth and Services
Oppenheimer & Co.
(New York-based investment bank)

Date: Thursday, March 4, 2010

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

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

Cost: EARLY-BIRD RATES: \$45 for
Members (and \$55 for Guests)
who reserve **by Monday, March 1,
4:00 PM.**
After 3/1, \$55 for Members;
\$65 for Guests

To Reserve: Please reserve early to be eligible for the discount price. We now accept all major credit cards via PayPal ("Reserve Now" link on www.nyacs-cme.org), or call Vista Marketing at (917) 684-1659, or via E-mail to cmegroup@mac.com

Next Meeting: **Thursday, April 1, 2010**

WESTCHESTER CHEMICAL SOCIETY

Procalcitonin in the Diagnosis and Management of Septic Patients

Speaker: Bertrand Plouffe
Senior Manager – Clinical Affairs
Siemens Healthcare Diagnostics
Tarrytown, NY
bertrand.plouffe@siemens.com

Sepsis is not a specific disease but rather a continuum of events triggered by the body's inflammatory immune response to bacterial, viral, fungal, or parasitic infections. Sepsis is one of the biggest concerns in hospital intensive care units, and the diagnosis of sepsis continues to be a significant challenge due to the nonspecific clinical signs and symptoms. Studies have shown that early identification of sepsis is crucial to improving patient outcomes. Once a patient enters the septic spiral, survival rates can drop by 7.6% every hour, so there is a critical need for tools to aid clinicians in faster diagnosis of this potentially fatal condition. Procalcitonin (PCT) is a protein used as a diagnostic and prognostic marker for severe bacterial infection and sepsis. PCT has a unique kinetic response to bacterial infection, its blood concentration rising rapidly and significantly in response to a systemic bacterial challenge. Integrating PCT into the diagnosis and management of septic patients may shorten time to detection; increase the accuracy of diagnosis of sepsis, allowing earlier, more effective treatment; and, overall, can lead to improved patient outcomes. Siemens Healthcare Diagnostics has developed a PCT assay on its ADVIA Centaur® XP and ADVIA Centaur CP immunoassay systems. The assay is CE marked. It is not available for sale in the US.

Bertrand Plouffe earned his M.Sc. at Universite de Sherbrooke, (Quebec, Canada) in Biology. Mr. Plouffe has been working in the clinical research arena since 1998, working on variety of pharmaceutical trials at Novartis, therapeutic medical devices at BioSyntech, and is currently involved in the management of in-vitro diagnostic clinical trials with Siemens Healthcare Diagnostics.

Date: Tuesday, March 9, 2010

Times: Registration and refreshments
5:30 PM

Speaker's talk, Q&A 6:00 PM

Place: Horace Greeley High School
70 Roaring Brook Road
Chappaqua, NY

Times: Dinner 7:30 PM
Place: At a nearby restaurant

For more information, contact Paul Dillon:
E-Mail paul.dillon@siemens.com
Phone 1-914-524-3313

Directions

Just south of Roaring Brook Road between Route 117 and the Saw Mill River Parkway in Chappaqua"



LONG ISLAND SUBSECTION

Synthesis and Evaluation of OSI-930 Analogues for Tyrosine Kinase Inhibition and Reversal of ABCG2-Mediated Multidrug Resistance

Speaker: Dr. Vijaya Korlipara
St. John's University

c-Kit, a type III receptor tyrosine kinase (RTK), is widely over-expressed in seminoma, acute myeloid leukemia and in gastrointestinal stromal tumor. KDR, a type V RTK is a key regulator of tumor angiogenesis. A dual inhibitor of these two kinases has been proposed to be an effective approach to treatment of cancer. The quinoline domain of OSI-930 was modified with heteroatom substituted pyridyl and phenyl ring systems to evaluate the effect of these changes on their activity in an effort to further understand the SAR of OSI-930, and the binding site characteristics of c-Kit and KDR. Results of the kinase inhibition assay along with the role of OSI-930 analogues in the reversal of ABCG2-mediated multidrug resistance will be presented.

Date: Thursday, March 11, 2010

Time: Seminar 6:00 PM

Place: Hofstra University
Breslin Hall Room 211
(Please note that this is a different room than past seminars at Hofstra)

Cost: Seminar is free and open to all.

Time: Dinner 7:30 PM

Place: A nearby restaurant

Cost: \$25/person

HIGH SCHOOL TEACHERS TOPICAL GROUP

Make And Take A Simulated Nuclear Power Plant

Speaker: Joe Sencen, Ph.D.

jsencen@optonline.net

All participants will go home with a working model of a simulated nuclear power plant. This device will light up a series of LEDs. All parts and pieces are supplied. It should take about 30-45 minutes to complete. The model includes all the details necessary to explain the essential working parts of a nuclear power plant. **WE WILL NOT BE USING ANY RADIOACTIVE MATERIALS. (It's simulated!)**

Date: Friday, March 19, 2010

Time: Social and Dinner — 5:45 PM

Place: M&G Pub (Murphy and Gonzales)
21 Waverly Place (at Green Street,
North-east corner)
New York, NY

No reservations required

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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**BIOCHEMICAL TOPICAL
GROUP – JOINT MEETING
WITH THE NYAS BIOCHEMICAL
PHARMACOLOGY DISCUSSION
GROUP**

**How Do Pluripotent Cells Enable Drug
Discovery?**

Organizers: Huiping Jiang, PhD
Boehringer Ingelheim
Pharmaceuticals

Katalin Kausser, MD, PhD, DSc
Boehringer Ingelheim
Pharmaceuticals

Jennifer Henry, PhD
The New York Academy of
Sciences

Recent major breakthroughs are propelling the field of stem cell research. Induced pluripotent stem cells (iPS cells) are being created to maintain all the potential of embryonic stem cells without using embryos, eliminating ethical concerns. The technical difficulties of creating stable cells with proper phenotypes to avoid the hazard of teratocarcinomas or other unwanted cell proliferation when cells are to be used therapeutically still remain, but research is progressing rapidly. The first embryonic stem cell trial is the US has recently been approved by the FDA for severe spinal cord injury. Beyond therapeutics, the promise of using differentiated human stem cells in drug discovery as disease relevant and toxicology models is maturing to mimic relevant human organ responses while reducing the need to use experimental animals.

Stem cells and cell lines derived from iPS cells of patients can accelerate the development of existing targets for different diseases and provide opportunity to explore innovative treatment opportunities in regenerative medicine. This symposium will review the current use and potential future of using pluripotent stem cells as enabling technology in drug discovery and therapeutic entity.

Date: Tuesday, March 23, 2010

Time: 1:00 PM – 5:00 PM

Place: New York Academy of Sciences
7 World Trade Center – 40th floor
250 Greenwich St. (at Barclay St.)
New York, NY

Reserve a seat on-line at:

www.nyas.org/events

NYAS Members, BPDG Affiliates, and NY-ACS Members 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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**EMPLOYMENT AND
PROFESSIONAL RELATIONS
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**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.

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58TH ANNUAL UNDERGRADUATE RESEARCH SYMPOSIUM

Sponsored by: The New York Chemistry Students' Association of the American Chemical Society's New York Section.

The symposium provides an excellent opportunity for undergraduate chemistry students in the NY metropolitan area to present the results of their research. The program includes a keynote address, oral and poster presentations of student papers, followed by a luncheon and an award ceremony.

The keynote speaker will be Dr. Jack Kaye, Earth Science Division Associate Director at NASA, an alumnus of Adelphi University speaking on "Chemistry, Climate, and Satellites: How Chemistry Helps us Observe and Understand Earth's Changing Climate."

For more information go to:

http://newyorkacs.org/grp_students.html

Date: Saturday, May 8, 2010

Place: Adelphi University

If you have any questions please contact:
Alison Hyslop, Co-chair, Student Activities Committee

hyslopa@stjohns.edu

Sharon Lall-Ramnarine, Co-chair, Student Activities Committee

slallramnarine@qcc.cuny.edu

JaimLee Rizzo, Co-chair, Student Activities Committee

jrizzo@pace.edu

LONG ISLAND SUBSECTION

13th Annual Sterrett Environmental Chemistry Symposium to be Held at Hofstra University

"Sustaining the Green Revolution"

Keynote Speaker: Kate Murray
Supervisor of the
Town of Hempstead

Ms. Murray will present information on the status and progress of the recycling programs in the Town of Hempstead. This symposium is sponsored by the American Chemical Society, the American Institute of Chemical Engineers, the Ideas Institute of Hofstra University and Hofstra University. Efforts are underway to determine eligibility of the symposium for professional development credits for engineers and educators.

Date: Thursday, May 20, 2010

Times: 8:30 AM – 2:00 PM

Place: Hofstra University

Cost: Registration fee, which includes lunch, is \$25 for members of the ACS or AICE, \$35 for nonmembers and \$17 for students.

For further information, please contact Dr. Margaret Hunter, 516-463-5556 or margaret.a.hunter@hofstra.edu.



PROFESSOR TOBIN J. MARKS — 2010 NICHOLS MEDALIST

The ACS New York Section congratulates and extends its best wishes to Professor Tobin J. Marks of Northwestern University who will receive the William H. Nichols Medal Award on March 5, 2010 at the Crowne Plaza Hotel in White Plains, New York. The Nichols Medal is presented at an award dinner following the Nichols Distinguished Symposium. Professor Marks' medal citation reads - "For pioneering research in catalysis and soft matter electronics."

Professor Tobin J. Marks is the Vladimir N. Ipatieff Professor of Chemistry and Professor of Materials Science and Engineering at Northwestern University. He received his B.S. degree from the University of Maryland (1966) and Ph.D. from Massachusetts Institute of Technology (1971), and accepted a position at Northwestern University immediately thereafter. Of his 90 named lectureships and awards, he has received American Chemical Society Awards in Polymeric Materials, 1983; Organometallic Chemistry, 1989; Inorganic Chemistry, 1994; the Chemistry of Materials, 2001; and for Distinguished Service in the Advancement of Inorganic Chemistry, 2008.

Professor Marks was awarded the 2000 F. Albert Cotton Medal, Texas A&M American Chemical Society Section; 2001 Willard Gibbs Medal, Chicago American Chemical Society Section; 2001 North American Catalysis Society Burwell Award; 2001 Linus Pauling Medal, Pacific Northwest American Chemical Society Sections; 2002 American Institute of Chemists Gold Medal; 2003 German Chemical Society Karl Ziegler Prize; 2003 Ohio State University Evans Medal; 2004 Royal Society of Chemistry Frankland Medal, 2005 Bailar Medal, Champaign-Urbana Section of the American Chemical Society, Fellow, American Academy of Arts and Sciences, 1993.

Professor Marks is a Member, U. S. National Academy of Sciences (1993); Member, German National Academy of Sciences (2005); Fellow, Royal Society of Chemistry (2005); Fellow Chemical Research Society of India (2008); Fellow, Materials Research Society (2009). He received the 2008 Spanish Principe de Asturias Prize for Technical and Scientific Research, the 2009 Herman Pines Award, Chicago Catalysis Society; the 2009 Nelson W. Taylor Award in Materials Research, Pennsylvania State University; the 2009 von Hippel Medal, Materials Research Society; the 2010 William H. Nichols Medal, ACS New York Section. In 2007, he was awarded the National Medal of Science, the highest scientific honor bestowed by the United States Government. He is on the editorial boards of 9 major journals; technical consultant or advisor for 6 major corporations and start-ups, has published 945 research articles and holds 94 U.S. patents.

The William H. Nichols Medal was established in 1902 to honor a chemical scientist for outstanding original research. The Nichols Medal was awarded in 1903 for the first time and is a gold medal depicting the allegorical figure of Dr. Faust in his laboratory as described by Goethe, on one side, and, on the obverse side, bearing an inscription of the name of the medalist and the award citation. It is the first award of the American Chemical Society.



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



Symposium: New Materials for Function: The Stuff That Dreams Are Made Of

Award Recipient: Professor Tobin J. Marks
Vladimir N. Ipatieff Professor of Chemistry
Professor of Materials Science
and Engineering
Northwestern University

Date: Friday, March 5, 2010

Times: Registration 12:30 PM Registration
Symposium 1:00 PM – 5:30 PM
Reception 5:45 PM
Award Dinner 6:45 PM

Place: Crowne Plaza Hotel, White Plains, NY



PROGRAM

1:00 PM	Welcome	Mr. Frank R. Romano 2010 Chair ACS, New York Section Agilent Technologies
1:05 PM	Opening of the Distinguished Symposium	Dr. Hiroko I. Karan 2010 Chair-elect ACS, New York Section City University of New York Medgar Evers College
1:15 PM	Nanowires as a Platform for Nanoscience and Nanotechnology	Professor Charles M. Lieber Dept. of Chemistry and Chemical Biology Harvard University
2:00 PM	Organic Electronics and Optoelectronics: Learning from Tobin	Professor. Mark A. Ratner Dept. of Chemistry and Materials Science and Engineering Northwestern University
2:45 PM	Molecular Design, Function, and Commercial Application of Shape Selective Catalysts for the Petrochemical Industry	Dr. David L. Stern ExxonMobil Refining & Supply Company
3:30 PM	Coffee Break	
4:00 PM	Synthesis and Use of 3-d Heterostructured Materials	Professor Galen D. Stucky Dept. of Chemistry and Biochemistry and Materials Department University of California Santa Barbara
4:45 PM	Self-Assembly Processes for Fabricating Unconventional Organic, Organometallic, and Inorganic Electronic Circuitry	Professor Tobin J. Marks 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 form on page 16:

RESERVATION FORM

2010 WILLIAM H. NICHOLS DISTINGUISHED SYMPOSIUM & MEDAL AWARD BANQUET
in honor of Professor Tobin J. Marks, Northwestern University

Return to: ACS, New York Section, c/o Dr. Neil D. Jespersen, Department of Chemistry,
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WESTCHESTER CHEMICAL SOCIETY


The Westchester Chemical Society held a meeting on December 10, 2009. Our speaker was Dr. Charles Martucci. His lecture was entitled "The Detection and Prevention of Colon Cancer". In the photo, from left to right, are Mary Cowman, Richard Goodman, Charles Martucci, Peter Corfield, Rolande Hodel, and Joseph Sencen.

Call for Nominations

DISTINGUISHED SCIENTIST AWARD

The **Westchester Chemical Society**, New York subsection, is seeking nominations for the its Distinguished Scientist Award. The nominee must either work or reside in Westchester County, New York. The award is presented in May, 2010. Send nominee resume to: Dr. Joseph Sencen, 5 Summit Circle, Somers, New York, 10589 or jsencen@optonline.net



EDWARD J. MERRILL AWARD FOR OUTSTANDING HIGH SCHOOL CHEMISTRY TEACHER FOR 2011

Now is the time to begin thinking about nominations for the Edward J. Merrill Award, North Jersey Section, for Outstanding High School Chemistry Teacher for the year 2011.

Go to the web site, njacs.org under education and obtain your preliminary nomination form and guidelines. The full packet takes time to do a good job!

We all know an outstanding high school chemistry teacher. Perhaps one from your town, your son's or daughter's teacher or just one that you have heard about or worked with at some point. The award carries \$500 for the teacher, \$500 in supplies for the teacher's classroom and a plaque to display at home or in the classroom.

Any questions or help needed contact George Gross, njmoxie1@verizon.net.

Call for Papers

MARM 2010 — Registration Now Open

Abstracts are requested for the 41th Middle Atlantic Regional meeting (MARM 2010), which will be hosted by the ACS Delaware Section and held on **April 10-13** at the historic Hotel du Pont, in Wilmington, DE.

The theme of the meeting is "**Chemistry in the First State.**" Topical symposia planned for the meeting include sessions on medi-

cal chemistry and the pharmaceutical industry; environmental chemistry; physical/ analytical chemistry; materials science/polymer chemistry and engineering; fluorine chemistry; materials science/nanochemistry; sustainability, green chemistry and policy; computers in chemistry; chemical education; food chemistry; issues and resources in chemical health and safety; and more.

The Carothers Award and Arthur C. Cope Scholar symposium are planned, as well as general sessions in organic chemistry, inorganic chemistry, physical chemistry, analytical chemistry, and biochemistry. A poster session will also be held in conjunction with the exposition. Other special events and programming are planned for high school teachers and women chemists.

Workshops will be offered for small chemical businesses, molecular simulation, how to be a more effective chemical hygiene officer, and ethics. The meeting program will also feature career workshops and individualized résumé reviews.

Recipients of the ACS Regional Industrial Innovation Award, the E. Ann Nalley Regional Award for Volunteer Service to the American Chemical Society, the Stanley C. Israel Regional Award for Advancing Diversity in the Chemical Sciences, and the ACS Division of Chemical Education Great Lakes Region Award for Excellence in High School Teaching will be honored at MARM 2010. **Nominations for these awards are due on February 15, 2010.** Information on submitting nominees for these awards will be made available at this website.

Abstracts are now being accepted through the meeting website. Go to www.marmacs.org, and click the "CALL FOR PAPERS" link.



ACS News

CHEMISTS CELEBRATE EARTH DAY 2010

Plants – The Green Machines!

Remember that CHEMISTS CELEBRATE EARTH DAY (CCED) will be celebrated on **Thursday, April 22!** The CCED theme for 2010 is "Plants - The Green Machines!" Hopefully you are planning to celebrate anytime during the week of April 22nd. Stay tuned to www.acs.org/earthday and *The Indicator* for updates and the latest information as CCED is soon approaching!



GREEN CHEMISTRY

Save the Dates: June 21-24!

The 14th Annual Green Chemistry & Engineering Conference returns to downtown Washington, DC on **June 21-24, 2010**. With the theme "Innovation and Application" and with one of the renowned founders of green chemistry, Dr. John Warner (President and CTO, Warner Babcock Institute for Green Chemistry) as the chair, this conference is shaping up to be one you won't want to miss! The tentative schedule for the week begins with a Student Workshop, Roundtable Meetings, and the Presidential Green Chemistry Challenge Awards Ceremony on Monday, June 21, followed by technical programming on June 22-24. Please visit the conference website, www.gcande.org, where more details will be posted as they become available.



SPEAK FOR SCIENCE

Less than 10 percent of the 535 members of Congress have backgrounds in science and engineering. Yet everyday legislators are asked to make important decisions that affect our nation's scientific enterprise. You and your committee members can help them make informed decisions by joining the ACS' Legislative Action Network (LAN).

The LAN is a Web-based political involvement program that gives you an easy, effective way to voice opinions on legislation

affecting federal research to K–12 science education.

As you may know, for decades ACS has been a respected source of information and advocacy on Capitol Hill. Often this input is provided in formal testimony before committees and panels making decisions on spending and legislation relating to science and engineering.

But just as important, members of Congress listen to their constituents and value their timely input. That's where you and your committee members can play a valuable role as members of the LAN.

Prior to key congressional decisions, ACS staff sends e-mail alerts to LAN members with background information, the analysis of the potential effect an issue would have on the scientific enterprise, and ACS's position. By clicking on a Web link, participants can go directly to the ACS Legislative Action Center where they are given background information on the topic and a proposed message that can be easily personalized and sent directly to legislators—the entire process takes only a few minutes.

It's free, simple, and done entirely via the Web. But more to the point, by participating in the LAN, chemists can impact federal policies critical to chemistry and our nation. Please register online at <http://www.act4chemistry.org/register> [this url may change].

If you would like more information on the Legislative Action Network please contact the ACS Office of Public Affairs at 1-800-227-5558, ext. 4386 or b_smith@acs.org. Participate and become your legislator's "face of science."

**Learn more about the
American Chemical Society at
www.chemistry.org**

Others

NJIT – OTTO H. YORK DEPARTMENT OF CHEMICAL, BIOLOGICAL AND PHARMA- CEUTICAL ENGINEERING

Graduate Seminar Series – Spring 2010

Sponsors: Infineum USA L.P. and Conoco
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Monday, March 1, 2010

"Nanomaterials for Biosensors and Non-viral Delivery"

Professor Huixin He

Department of Chemistry
Rutgers University
Newark, NJ

Monday, April 12, 2010

TBD

Monday, April 26, 2010

"Multifunctional Nanomaterials: From Novel Synthetic Methods to their Applications in Catalysis, Medicine and Energy"

Professor Teddy Asefa

Department of Chemical and Biochemical Engineering
Rutgers University
New Brunswick, NJ

Times: Refreshments 2:30 PM
Seminars 2:45 PM

Place: NJIT

Room 373, Tiernan Hall

Cost: Free and open to the public

Seminar Coordinator: Professor Marino
Xanthos, 973-642-4762,

Xanthos@njit.edu



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The World's First 1,000 MW Solar- Hydrogen Demonstration Power Plant

Speaker: Béla Lipták, PE
Lipták Associates

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- 2) Lipták's invention, the reversible fuel cell (RFC), which makes solar energy continuously available, by making hydrogen when the sun is out and using it to make

electricity when it is not.

- 3) The energy-free home with roof covered with solar shingles, using solar sidings and windows and provided with grid-connected two directional electric meters.

Mr. Lipták arrived from Hungary in the United States in 1956. In 1960, he became the Chief Instrument Engineer at C&R (later John Brown). In 1987, he was an adjunct professor at Yale University and he is currently working as a consultant with some help (Lipták Associates PC) on industrial optimization. He has published two dozen technical books including: "Post-Oil Energy Technology", "Optimization of Unit Operations" and "Environmental Engineers' Handbook".

Date: Thursday, April 1, 2010

Times: Networking/Cash Bar 6:00 PM
Dinner 6:30 PM
Presentation 7:30 PM

Place: Snuffy's Restaurant
Park & Mountain Ave.

(Route 22 East), Scotch Plains, NJ

Cost: Registration: \$35 ACC&CE Mem-
bers, \$45 Non-members

To Reserve: Call Linda B. Townsend at
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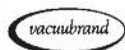
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Councilor's Corner

What Is It All About?

For many years I have represented the North Jersey Section as an ACS Councilor. This has allowed me to contribute to the chemical profession even in retirement, to make many friends and to broaden my interests. The Council meets twice and year to consider issues affecting chemists and the chemical profession. Much preliminary activity occurs in committees and special groups. I am serving on three national ACS Committees: Budget and Finance (B&F), the Council Committee on Public Affairs (CCPA) and the Landmarks Committee, and also work on the new Leadership Development Group. Most committees meet face to face twice a year, and conduct business between times by email, conference calls and web meetings. B&F reviews the ACS financial performance, makes recommendations to the ACS Board on the new budget, reviews dues and programs and looks for ways to communicate financial information to the members. CCPA actively follows and recommends ACS comments on government legislation related to science, visits Congress once a year and urges members to support important legislative initiatives through the Legislative Action Network. The Landmarks Committee identifies discoveries, places and events important to chemistry and honors them with a plaque and an appropriate celebration. Finally, the Leadership Development team develops courses to enhance the professionalism of our members to help them both in their ACS roles and in their professional activities. I will be teaching two of these new courses and look forward to seeing you at some of them.

Through all of these activities I have to give a strong thanks to the very professional staff in Washington. I continually learn from them and now am enjoying gaining financial insight, knowledge of how our government works, a lot about chemical history and wonderful professional training.

Maureen Chan
(mgchan@verizon.net)

ChemTAG Corner

Percent by Mass

Submitted by: Eileen Girten,

Edited by: George R. Gross
Retired, Union High School

A tasty lab to determine percent of sugar by mass.

Applications: calculations, percent composition

Theory: Many chewing gums contain sugar, some do not. Upon chewing, the sweetener dissolves leaving the non-soluble components behind. By massing a sample of gum before chewing and after, the percent of sugar or soluble sweetener can be determined with some degree of accuracy.

Materials: chewing gums including some sugarless varieties; digital balance, preferably 0.001 g; wax paper or plastic wrap for massing "paper"

Safety: Once foods enter the classroom/lab they are considered reagents. This lab is best performed in the foods lab, cafeteria or a regular classroom.

Preparation: Obtain the above materials. Have students develop a plan to determine the mass of sugar in chewing gum. Let them hassle with the problems such as length of time, excess saliva or water and massing methods. Perhaps they will come up with some pretty creative and scientifically sound plans.

Lab Activity: After review of individual plans, provide the equipment listed. Some plans may have to be revised. Perhaps presenting the equipment before hand will eliminate this confusion and speed up the planning.

Data: Students will need to plan to gather the following data in order to be successful:

- Mass of gum before chewing
- Mass of gum after chewing

Several plans may require successive chewings.

Calculations:

Mass of unchewed – mass of chewed /
mass of unchewed x 100% = % sugar

Postlab: Pool class data by gum type and brand. Find average values for percent of sugar. Discuss observed trends such as sugarless vs. sugared and variations among

brands.

Encourage students to show all work including units. If computers are available there are a number of web sites that students can refer to and do follow-up reports and research.

A Google of : 'chewing gum sugar' will yield great results.

Press Release

Hach Company and Water For People Give the Gift of Safe Water to Bolivia

Loveland, Colo.—According to UNICEF, nearly one-third of the people in the rural areas of Bolivia do not have access to safe and reliable water sources. A strong proponent of global water quality, Hach Company made a \$15,000 donation of water testing supplies to Water For People, a non-profit international humanitarian organization, to assist their Bolivia Water Quality project in November. This was a pilot project to determine how to best support countries needing basic water quality monitoring. Based on the success in Bolivia, in December, Hach donated an additional \$26,000 in water testing supplies to Water For People for similar projects in Rwanda and Malawi that will occur in 2010.

As part of Water For People's World Water Corps® program, a team of ten water quality expert volunteers joined local Bolivia partners to collect and analyze water quality samples in November. Prior to the trip, Hach provided products and Hach Technical Training Center training. Onsite in Bolivia, the team trained local partners, tested the physical chemistry of the water, and also monitored for E. coli and fecal coliforms, both indicators of pathogenic contamination. The Hach products will remain in Bolivia to continually monitor water quality on a sustained basis.


"Hach is proud to bring our expertise and heritage in water quality testing to countries in need of safe drinking water," Derek Walker, Hach Global Product Manager explained. "We worked closely with Water For People and the Bolivia team to develop the best set of solutions for this monitoring project and have learned from this pilot to further refine the requirements for products and training. We plan to utilize this experi-

ence to provide solutions for other areas of the world in 2010."

"The purpose is to examine and confirm the new water projects are supplying safe, potable water to beneficiaries in these regions," Andrew Britton, World Water Corps Manager, said. "The World Water Corps Bolivia Water Quality project is the first thorough water quality assessment in the majority of the municipalities where Water For People has facilitated the development of water projects in Bolivia."

"The donation from Hach allowed us as World Water Corps volunteers to conduct our mission with confidence," Virginia Godoy, the team lead on the Bolivia project, continued. "This equipment gave Water For People staff and partners valuable insight into the quality of water resources in local communities."

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ANALYTICAL

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Eastern Analytical Symposium	2
EMD Chemicals	21
Huffman Laboratories, Inc.	22
Micron Inc.	4
Nacalai USA Inc.	12
New Jersey Institute of Technology	22
NuMega Resonance Labs.	22
Robertson Microlit Labs	24
Vacuubrand, Inc.	19

EQUIPMENT

Eastern Scientific Co.	7
Mass Vac, Inc.	24

GENERAL

ACS-NY/NoJ Sections	11
ACS-NY/NoJ Sections	22
ACS-NY/NoJ Sections	22



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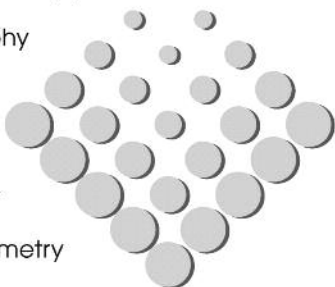
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