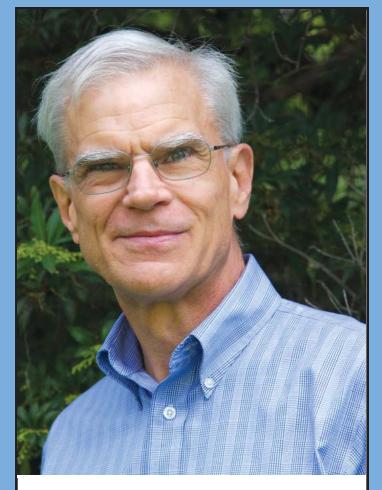


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Dr. Jefferson Tilley 2013 No. Jersey Section Chair

(See chair's message, page 5.)

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

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January Calendar

NEW YORK SECTION

Friday, January 11, 2013 High School Teachers Topical Group See page 10.

Tuesday, January 22, 2013Biochemical Topical Group *See page 11.*

NORTH JERSEY SECTION

Monday, January 14, 2013 Careers in Transition Group See page 6.

Monday, January 28, 2013 North Jersey Executive Committee Meeting See page 6.



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 February 2013 issue of *The Indicator* is **December 20, 2012.**



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NORTH JERSEY SECTION CHAIR'S MESSAGE

My fellow members of the ACS,

As life in Northern New Jersey returns toward normal after Sandy, I want to thank you for providing me the opportunity to serve as Chair of the North Jersey Section (NJ ACS) for 2013. Like any successful volunteer organization, we depend on a dedicated core of officers and active participants who give selflessly for the benefit of all. I look forward to working with all of you to continue to support the ACS mission; "Improving people's lives through the transforming power of chemistry."

The North Jersey Section represents a dynamic and diverse group of scientists as reflected in the many topical groups and committees. These include the Mass Spectrometry Discussion Group, Chromatography Group, Organic Topical Group, Teacher Affiliates. NMR Topical Group. MetroWomen Chemists Committee. Younger Chemists Committee, Careers in Transition Committee and the NJ Regulatory CMC and Quality Topical Group. These groups offer programs throughout the year and I encourage each of you to regularly check the website (www.njacs.org) schedule of the groups of interest to you and attend their meetings. They provide a great opportunity for continuous education and networking, so important in today's environment. Participation will be facilitated by the introduction of our new website (www.njacs.org), which is scheduled to go live in early next year and will provide up to date information on NJ ACS related activities. Looking forward to the coming year, we will be presenting the Leo Hendrik Baekeland Award and symposium; look to the calendar for the date. In addition, we will be continuing with our many public outreach activities including Project SEED, National Chemistry Week, and the Chemistry Olympiad.

As a new part of our public outreach, NJACS is partnering with Students 2 Science, a non-profit corporation that inspires, motivates, and educates Middle School Students to pursue careers in Science, Technology, Engineering and Math (STEM subjects). There are many opportunities for members to volunteer, work with students, and network. To learn more, please go to: www.students2science.org.

As Chair of the Section, I will work to increase awareness of the benefits of ACS membership and NJ ACS participation to a wider audience and will continue our efforts to keep the varied and exciting activities of the Section in the national spotlight, so that we get the recognition we deserve for the efforts of our wonderfully dedicated members and volunteers.

As we move into 2013, I hope that many of you will become more involved in one or more activities of the North Jersey ACS section; I further encourage you to contact me with any thoughts, ideas and/or suggestions you may have for the section. I look forward to meeting and working with many of you during the coming year.

Jefferson Tilley 2013 Chair, North Jersey Section ACS

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, January 28, 2013

Time: 6:00 PM

Place: Fairleigh Dickinson University

Hartman Lounge, The Mansion

285 Madison Ave Madison, NJ

Cost: \$5.00 - pizza dinner

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

http://www.fdu.edu/fm.html.

Parking is available in the Mansion Lot.

Reservations: call (973) 822-2575 or email njacsoffice@aol.com prior to Wednesday, January 23, 2013.

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.



CAREERS IN TRANSITION MEETINGS

Job Hunting??

We offer assistance at Students2Science to help members with their job search on the second Monday of each month. Topics at this free workshop are:

- Techniques to enhance resume effectiveness
- Interview practice along with responding to difficult questions
- · Networking to find hidden jobs
- · Planning a more effective job search

Date: Monday, January 14, 2013

Times: Meeting 5:30 - 9:00 PM

Pizza snack and soda 6:30 PM

Place: Students 2 Science, Inc.

66 Deforest Avenue East Hanover, NJ

Cost: \$5.00 for pizza and soda

Reservations: at

www.njacs.org/careers.html

A job board and networking assistance is offered at most topical group meetings. Appointments with Bill can be arranged for personal assistance at 908-875-9069 or billsuits@earthlink.net.

See www.njacs.org under the Career tab for Jobs hidden from sight and relevant blogs.



NORTH JERSEY SECTION ELECTION 2013

The 2013 election represented the second time the section voted electronically. Thank you to all the members who participated in the election. The results are as follows:

Chair-Elect (2013)

* Monica Sekharan Ron Kong

Councilors (2013-2015) (5)

Michael Miller Stan Hall Monica Sekharan Diane Krone Amber Charlebois

Alternate Councilors (2013-2015) (5)

Susan Fahrenholtz Ron Kong John Piwinski Jiwen Chen Cecelia Marzabadi Ray Baylouny

Learn more about the North Jersey Section at www.NJACS.org

NORTH JERSEY SECTION — NCW KID QUOTES

Attendance at the Liberty Science Center during the North Jersey Section's National Chemistry Week Celebration on October 20th was great. Hundreds of kids, of all ages, attended the annual event organized by the section and were offered many different hands on experiments that provided insight into the topic and theme: "Nanotechnology: the Smallest BIG Idea in Science." FDU undergraduate student members of the section took photos and interviewed some the children who were in attendance. When the children were - and asked what they learned, we received someinteresting and enthusiastic answers. Here are a few!

Steven, a 4th grader from Durbin Avenue proclaimed, "I learned about nano-sand and scented balloons. The sand was still dry after I took it out of the water, since it was hydrophobic, it grabs air as a shield!"

A preschooler named **Maxx** learned about glowing stuff, and saw that paper colored with markers changes when you put it in water and he learned that volcanoes are really cool.

Victoria, a 4 year old, was very proud of her National Chemistry Week tattoo!

Louise from Hamilton School discovered that nano-sand is afraid of water.

Evan from Somerset found out that you can use all different senses in nanotechnology.

Braneet from Indian Falls Middle School learned how to make a lava lamp.

Marcus from Aaron Decker Elementary School learned three things. He learned that graphite can conduct electricity, he observed the reaction of baking soda and water and he discovered that marshmallows get bigger with pressure.

Raven from PS 27 learned, "How you can be like Spiderman!" and discovered, "The (nano) sand felt weird when I picked it up!"

7th graders from Elizabeth Morrow School

Lemaar learned that nano-sand is sprayed with silicon and it becomes completely dried.

William stated, "When you put your hand in slowly on the special liquid, it is liquid, but when you bang it or hit it, it remains a solid!"

Maria commented, "I learned that the heat and temperature can affect the way something reacts. It's like in a mood ring, how our temperature affects the color of the ring."

Alex said, "I learned about ghost eyeballs. It's really the same thing you put in diapers because it is super absorbent. They are really small but they grow when you put them in water."

(More photos on next page)



NORTH JERSEY SECTION — NCW KID QUOTES

(continued from page 7)

(Photos courtesy of Amber Charlebois)













NEW YORK SECTION — 2013 SECTION-WIDE CONFERENCE

Date: Saturday, February 2, 2013

Times: 9:30AM - 1:00PM

Place: St. John's University, 8000 Utopia Parkway, Jamaica, NY

(Please visit http://www.NewYorkACS.org for the meeting venue.)

Cost: Free to all

PROGRAM

9:30 AM Arrival and Refreshments

10:00 AM Greetings from the 2013 Chair of the ACS New York Section Dr. Philip H. Mark

10:10 AM Award Presentations

Service Plague and Pin to the 2012 New York Section Chair Dr. JaimeLee Iolani Rizzo

New York Section Outstanding Service Award for 2012 Dr. Stephen Z. Goldberg

Nichols Foundation H.S. Chemistry Teacher Award for 2012 Mr. Steven O'Malley

Stuyvesant High School in New York, New York

10:30 AM Report from the 2012 Elections Nominating Committee Dr. Pamela K. Kerrigan (Presentation of Candidates)

2013 Chair-elect of the ACS New York Section

10:45 AM Keynote Speaker

Dr. Alfredo Mellace

Assistant Professor of Organic Chemistry Nassau Community College, SUNY

Title: Ancient Roman Science and Technology

Ancient civilizations are often treated as nonchalant discourse of the past about a time that no longer exists. Unfortunately, this allows ambivalence towards the past, potentially closing the door to a period that is fascinating in both art and technology. The focus of this lecture will be the Roman Civilization specifically in the period of the 1st century AD between the time of Augustus and Trajan. Rome will be placed in the context of the ancient world, with respect to its achievements in technology specifically military equipment, links that influenced the way the Roman engineers, smiths, textile manufacturers, leather workers, and artisans designed items and objects, and the breadth and quality of Roman craftsmanship that allowed them to conquer foreign lands and establish the Roman influence on civilization. This presentation will also include the science and technology behind the metallurgy, dye processes, armor production, leatherwork, carpentry, masonry, and siege machine. Furthermore, a discussion of the ancient world would not be complete without relating innate objects such as weapons and armor to the people who wielded them. To this end, the civilization itself and life of the Romans will also be discussed in context to their technology.

11:45 AM Coffee Break — There will be poster presentations by the New York Section Project SEED Students.

12:00 PM ACS, New York Section Committee Planning Sessions for 2013

Educational Activities: (Chemagination, Chemists Celebrate Earth Day, Continuing Education, High School Olympiad, National Chemistry Week, Nichols Foundation Teacher Award, Project Seed, Student Membership)

Chair: Dr. Alison Hyslop

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

Program Review: (Subsection and Topical Discussion Group Chairs)

Chair: Dr Anne T O'Brien

Public Affairs: (Academe and Industrial Relations, Environmental Chemistry, Fund Raising) Government Affairs, Information Technology, Public Relations, Speakers Bureau)

Chair: Dr. Robert P. Nolan

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

Directions are at: http://www.stjohns.edu/about/general/directions/directions/gueens

All are invited to participate. Hope to see you at the Conference.

New York Meetings

www.newyorkacs.org

NEW YORK SECTION BOARD MEETING DATES FOR 2013

The dates for the Board Meetings of the ACS New York Section for 2013 were chosen and approved at the November 30, 2012 Board Meeting. The meetings are open meetings – all are welcome. If non board members would like to attend the meeting, please let the New York Section office know by emailing Mrs. Marilyn Jespersen at njesper1@optonline.net or calling the office at (516) 883-7510.

The 2013 Board Meetings will be held on the following Fridays at 6:30 PM at St. Johns University, D'Angelo Center, Jamica, NY. Dr. Philip H. Mark will chair the meetings.

Friday, February 15 Friday, April 19 Friday, June 7 Friday, September 27 Friday, November 15

Also, please mark your calendar with the dates of the following major events.

Saturday, February 2, 2013 — Annual Sectionwide Conference

Friday, March 15, 2013 — Nichols Symposium and Award Banquet

More information will be posted in future issues of *The Indicator* and on the New York website at http://www.NewYorkACS.org.

HIGH SCHOOL TEACHERS TOPICAL GROUP

Going Green

Speaker: Theresa Ippolito

Environmental Protection Administration Educational Outreach

It isn't very difficult to be "green", nor is it difficult to understand and appreciate what "sustainability" entails. Sustainability is becoming a more immediate and urgent issue than it was even just five years ago. I will discuss some practical approaches to greening your classroom and incorporating a sustainable-Earth approach into the curriculum.

Date: Friday, January 11, 2013 Time: Social and Dinner — 5:45 PM

Place: George's

89 Greenwich Street

(at Rector Street, South-east corner)

New York, NY

Time: Meeting -7:15 PM

Place: United Federation of Teachers

50 or 52 Broadway New York, NY

(Check with security for room.)
This is just south of Exchange
Place and the Wall Street Station
on the #4 & #5 subway lines.
It is a short walk from the several

other subway stations.

Security at UFT requires that you show a picture ID to enter the building.

In case of unexpected severe weather, call John Roeder, (212) 497-6500, between 9:00 AM and 2:00 PM to verify that meeting is still on; (516) 385-4698 for other info.

Note: Street parking is free after 7:00 PM. Off street, garage parking is available in the area. There is a "park and lock" garage on Greenwich Street at Edgar Street. Public transportation is strongly recommended.



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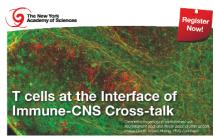
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BIOCHEMICAL TOPICAL GROUP — JOINT MEETING WITH THE NYAS BIOCHEMICAL PHARMACOLOGY DISCUSSION GROUP



T Cells at the Interface of Immune-CNS Cross-Talk

Organizers: Joshua F. Apgar, PhD

and

Anthony Slavin, PhD Boehringer Ingelheim Pharmaceuticals

Henry Kao, PhD

and

Roland Staal, PhD Lundbeck Research USA

Jennifer Henry, PhD The New York Academy of Sciences

Speakers: Stanley H. Appel, MD
Methodist Neurological Institute

Britta Engelhardt, PhD Universität Bern, Switzerland

Karl Frei, PhD University Hospital Zurich, Switzerland

Howard E. Gendelman, MD University of Nebraska Medical Center

Christopher A. Hunter, PhD University of Pennsylvania

Michal Schwartz, PhD Weizmann Institute of Science Israel

Lawrence Steinman, MD Stanford University

Kevin J. Tracey, MD Feinstein Institute of Medical Research

Previously regarded as immune-privileged, the CNS harbors T cell infiltrates crucial to diseases such as multiple sclerosis and Toxoplasma gondii infection. Few T cells are detected in the healthy CNS or interestingly, in chronic neuroinflammatory diseases such as Parkinson's disease and ALS in which they affect disease course. The question remains, as to what role T cells play in the initiation, amplification, and regulation of the immune response within the CNS and whether this is a consequence of local or peripheral T cell activity. This symposium will further delineate the mechanisms of T cell activation, recruitment, and peripheral T-cell-to-CNS communication, and offers clues on potential intervention for CNS diseases.

Date: Tuesday, January 22, 2013

Time: 8:30 AM - 6:30 PM

Place: New York Academy of Sciences

7 World Trade Center

250 Greenwich Street - 40th Floor

New York, NY 10007

Cost: This event is has reduced-rate registration for ACS and NYAS members, at \$30 or \$15 (for students and post-docs). Please select the

appropriate non-member

Registration Category and use the Priority Code ACS. Non-members may attend for a fee of \$85 (corporate), \$65 (non-profit or academic) or \$45 (students and post-docs).

For more information and to register for the event, go to: www.nyas.org/Tcells

To become a Member of the Academy, visit www.nyas.org/benefits



EMPLOYMENT AND PROFESSIONAL RELATIONS COMMITTEE OF THE NEW YORK SECTION

To Human Resources Departments in Industry and Academia

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

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

WESTCHESTER CHEMICAL SOCIETY

Special Seminar: Real-Time in-vivo Imaging of Biological Events with FIONA

Speaker: Christopher Randolph Salnave, MS
Adjunct Lecturer
St. John's University
Queens, NY

Myosin VI is an actin based molecular motor that has been known to be involved in cell migration, spermatogenesis, signal transduction and the process of intracellular organelle and vesicle transport. Myosin VI also assists with the stabilization of stereocilia, the mechanosensing organelles in hair cells in the inner ear. Myosin VI is considered to be an unconventional myosin, because to carry out these physiological processes it moves toward the pointed end of the actin cytoskeleton; in contrast to other characterized myosins. In this study, by using fluorescent labeled endosomes we are able to track myosin VI using Fluorescence Imaging with One Nanometer Accuracy (FIONA) and total internal reflection fluorescence microscopy (TIRFM). As a result of implementing FIONA, backward and forward steps were observed which are consistent with previous mechanistic studies of myosin VI. Data analysis reveals an average forward step of 39.9 nm (±1.98 nm) with N = 143 steps and an average speed of 676 nm/s (±147 nm/s).

Mr. Salnave, M.S. was an interdisciplinary graduate research assistant under the direction of Paul Selvin in the department of Physics at the University of Illinois at Urbana Champaign. In the Selvin lab, he learned how to use and build high resolution fluorescence microscopy instruments and state of the art imaging techniques such as FIONA (fluorescence imaging with one nanometer accuracy). FIONA is a method that shatters the diffraction limit of light and has revolutionized the field of fluorescence microscopy and biophotonics for the past decade. Combining methods of FIONA and total internal reflection microscopy he is able to track detailed molecular motor mechanisms with nanometer precision both in vitro and in vivo. He obtained his M.S. degree in Chemistry from the University of Illinois at Urbana Champaign. He is a recipient of an NIH-Molecular Biophysics training grant and a former member of the Center for the Physics of Living Cells at the University of Illinois at Urbana Champaign. He is currently an Adjunct Lecturer in the department of Chemistry at Saint John's University where he teaches the Introduction to General and Organic Chemistry to incoming freshman and sophomore students. He has aspirations of improving drug therapy and diagnostic assays in the medical and pharmaceutical field.

Date: Tuesday, Febuary 5, 2013 Times: Refreshments 5:30 PM

Lecture 6:00 p.m.

Place: Westchester Community College Gateway Building Room 110

75 Grasslands Road Valhalla, NY 10595

Cost: Free and open to the public

For more information, contact Paul Dillon: E-Mail PaulWDillon2@hotmail.com

Phone (914) 393-6940

http://www.newyorkacs.org/sub_west.php



ACS NY SECTION—61st ANNUAL UNDERGRADUATE RESEARCH SYMPOSIUM (URS)

This year the 61st Annual Undergraduate Research Symposium will be hosted by CUNY City College of New York, New York, NY on **Saturday, April 27, 2013**.

Keynote Speaker: Ruth Stark

Distinguished Professor Department of Chemistry City College of New York

Conference Registration Window: February 22, 2013 to March 7, 2013

Conference Website:

http://www.newyorkacs.org/meetings/ urs/urs.php

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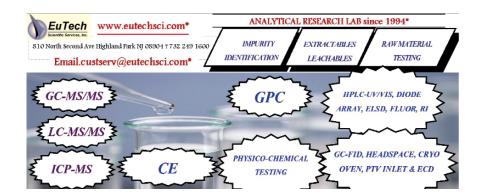
Dr. Anthony Durante enthusiastically offered to speak to the Westchester Chemical Society on "The Value Chain - From Basic Chemicals To Commercial Products", Tuesday, November 6, despite the challenges, such as lack of electricity and long lines on the pumps, in the aftermath of hurricane "Sandy". In addition, he had to compete with no less than the Presidential election. But Dr. Durante is enthusiastic about

bringing the topic of "Value Chain" to students' attention. Even we seasoned chemists in the audience had to admire the versatility in use of some basic classes of chemicals and their ways into consumer products such as soaps, paints or pharmaceutical drugs. At the end of the evening Dr. Durante offered to give this lecture anytime, to make sure more people know about "The Value Chain". Thus I encourage other ACS sections looking for a speaker with an interesting topic to take him up on his offer and to invite him.



The speaker and Westchester Chemical Society board members attending (left to right): Rolande Hodel, Anthony Durante, and Peter Corfield

(Photo courtesy of Rolande Hodel)





Symposium: Addressing Cutting Edge Challenges in Catalysis & Energy

Award Recipient: PROFESSOR RICHARD EISENBERG

Tracy Harris Professor Emeritus at the University of Rochester.

PROGRAM

1:30 PM Welcome

Professor Philip H. Mark 2013 Chair, ACS, New York Section SUNY - Nassau Community College

1:35 PM Opening of the Distinguished Symposium

n Professor Pamela K. Kerrigan 2013 Chair-elect ACS, New York Section The College of Mount Saint Vincent

1:45 PM The Catalytic Conversion of CO₂ to Liquid Fuels

Professor Clifford P. Kubiak University of California – San Diego

Catalysis of the conversion of carbon dioxide to liquid fuels using solar and electrical energy is a critical global challenge that will positively impact the carbon balance by recycling CO2 as fuels. The importance of catalyst turnover frequency in the overall efficiency of the conversion of solar energy and CO2 into chemical fuels will be discussed. The state of the art in natural and artificial catalysts for the chemical reduction of CO₂ will be reviewed. The improvement in the activities of several rhenium based catalysts, and infrared spectroelectrochemical studies that probe the mechanism of catalysis will be described. Recent improvements in CO2 reduction catalyst rates and lifetimes have allowed the photochemical "splitting" of CO₂ to CO and O₂ to be achieved. The importance of proton coupled mechanisms will be discussed with respect to lowering the potentials for for CO2 reduction. The development of nickel complexes as artificial formate dehydrogenases will be described as one means of achieving proton coupled electron transfer in the CO₂/HCOO- couple. The application of Density Functional Theory (DFT) to compute CO₂ binding energies will be reviewed, and the method will be applied to explain the selectivity and activity of the well-studied nickel cyclam CO2 reduction catalyst system. High resolution XANES spectroscopy has been applied to several CO₂ reduction catalysts to probe their electronic structures and the role of non-innocent ligands in storing electronic charge. Stopped flow kinetics studies of several CO₂ reduction catalysts which show kinetic selectivities for CO2 vs. H+ reduction of >35 will be presented, and interpreted in terms of an electronic structural model that favors π -symmetry ground states for CO₂ reduction and α-symmetry ground states for H+ reduction. The implications of these findings for further catalyst development will be discussed.

2:30 PM Strong C-H and C-C Bond Cleavage Reactions Professor William D. Jones Using Homogeneous Transition Metal Complexes University of Rochester

Over the past 20 years substantial progress has been made in the understanding of the activation of C-H and other strong bonds by reactive metal complexes in low oxidation states. This talk will present an overview of the use of pentamethylcyclopentadienyl and trispyrazolylborate rhodium complexes for the determination of thermodynamic factors that influence the activation of arene and alkane C-H bonds. Insights into bond strengths, kinetic and thermodynamic selectivities, and the nature of the intermediates involved will be examined. The influence of substituent effects on the thermodynamics of bond activations will also be analyzed. Trends in the activation of fluoroaromatic C-H bonds will be presented. Extensions to C-C activation at nickel will also be made, demonstrating critical factors involved in C-C cleavage.

3:15 PM Coffee Break

3:45 PM Molecular Constructs as [FeFe]-H2ase Enzyme Active Site Biomimetics for Proton Reduction

Professor Marcetta Y. Darensbourg Texas A & M University

The structurally unique diiron catalytic unit that exists in the active site of the [FeFe]-H2ase is of special interest to biomimetic/synthetic chemists as its construction exploits diatomic CO and CN- ligands, perhaps deriving from primordial iron/sulfur chemistry, rather than typical donors covalently bound to a peptide chain. Thus the torsion angles responsible for the mismatch of donor ligand-metal geometric preferences that lead to high rates of catalysis in classical transition metal biocatalysts are minimal in such organometallics. These features, along with the ease of modifying a simple precursor, (μ -S(CH₂)₃S)[Fe(CO)₃]₂, that has core features of the [FeFe]-H₂ase enzyme active site (eas), and the possibility to develop base metal catalysts for fuel cell use, have attracted a new coterie of chemists to biomimetic synthesis. They bring the spectroscopic tools and structure/bonding approaches of organometallic chemistry to bear on defining the features that are the primary differences between the eas and the parent model. This lecture will describe approaches to stabilize and isolate the unusual « rotated » structure, and insight gained into Nature's choice of the diiron construct.

4:30 PM Making Solar Hydrogen

Professor Richard Eisenberg NICHOLS MEDALIST

One of this century's greatest scientific and technological challenges is the conversion of sunlight into usable energy in a sustainable and environmentally benign way on a global scale. For light to chemical energy conversion in a designed photosynthetic system, the splitting of water into its constituent elements is the key energy-storing reaction. As with natural photosynthesis, such a system relies on light absorption, charge separation, and catalysis. Recent efforts focus on new catalysts, light absorbers and system compatibility for the visible light-driven generation of hydrogen from aqueous protons. The light absorbers include metal complexes with charge transfer (CT) excited states, organic dyes and semiconductor nanoparticles. As catalysts, different sets of metal complexes have been investigated, including previously unstudied systems that exhibit high activity. The most active systems yet reported for the reductive half of water splitting will be described, as will mechanistic studies of different systems for hydrogen photogeneration.

5:45 PM Social Hour 6:45 PM William H. Nichols Medal Award Dinner Professor Harry B. Gray will Introduce the Medalist Friday, March 15, 2013 Date: Times: Registration 1:00 PM Reception 5:45 PM Symposium 1:30 PM – 5:30 PM Award Dinner 6:45 PM Place: Crowne Plaza Hotel, White Plains, NY More information on the Nichols Medal Events is available on the New York Section's website at http://www.NewYorkACS.org. Tickets may be reserved using the following form or through the New York Section website. ***** RESERVATION FORM 2013 WILLIAM H. NICHOLS DISTINGUISHED SYMPOSIUM & MEDAL AWARD BANQUET in honor of Professor Richard Eisenberg 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 the symposium & banquet at \$120/person, ACS member ____ places for the symposium & banquet at \$150/person, Non-member ____ places for the banquet only at \$110/person, ACS member ____ places for the banquet only at \$120/person. Non-member places for the symposium only at \$40/person, ACS member places for the symposium only at \$60/person, Non-member places for the symposium only at \$25/person, Students and Unemployed (For table reservations of 8 or more, use the ACS member \$120/person rate for combination tickets) Reserve a table in the name of: _____ Names of guests are: Indicate numbers in your group who choose: Chicken Prime Rib Salmon Mail Tickets to:

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NEW YORK SECTION CELEBRATES NATIONAL CHEMISTRY WEEK

Nanotechnology: the Smallest BIG Idea in Science

It was a beautiful sunny Saturday on October 27th, when the New York Section celebrated National Chemistry Week in the Viscusi Gallery of the New York Hall of Science (NYSCI).

http://www.newyorkacs.org/meetings/ NCW/2012_ncw.php

This was the 8th year in a row that the New York Section had celebrated this special week at the NYSCI. There were over 300 volunteers from 19 different institutions in academia/industry who engaged children and their parents in hands-on activities and demonstrations. There were over 1,000 visitors to the NCW Event!

We were especially honored with the presence and participation of the Chancellor of our very own NYC's Department of Education, Dennis M. Walcott! The Chancellor visited all the demonstrations and spoke with our volunteers, kids, and their families who were all so excited to meet him! We were also honored with another guest who entertained kids and the volunteers....Dr. Met, of the New York Mets (aka Mr. Met, who was given an honorary Ph.D. for the day)!

The theme this year was, "Nanotechnology: the Smallest BIG Idea in Science". Our won-

derful volunteers put on demos that pertained to the theme which included: Graphene Preparation and Colloids and Nanoparticles (St. John's); Producing Oxvoen Gas (Hofstra); Hydrogel (U.S. Merchant Marine Academy); Nanowire (Columbia); Dry Ice Bubbles (Stony Brook); Alka Seltzer Rockets (Adelphi); Ninja Turtle Ooze (Pace); Edible Concrete (NYU-Poly); Polyurethane Foam (Mount Saint Vincent); Ferrofluides (Queensborough); (Hofstra); Blow up Balloon with Yeast (NYU); Super Shrinkers (St. Joseph's); Can't Pop this Balloon (Iona); Polishing Pennies (Urban School); Assembly High Elephant Toothpaste (Iona);

Scientists from PepsiCo taught kids how to flavor and color their own Lipton Tea. Scientists from International Flavors & Fragrances tested participants' ability to identify different scents, and Mettler-Toledo demonstrated equipment used in chemistry labs (they made it especially fun by using a balance to count M&M's!). Maruzen International Inc. demonstrated molecular modeling kits while The American Institute of Chemical Engineers also had a table of information.

The fun didn't stop there! We held a Poem Contest and the winning poems were displayed at the Viscusi Hall for all to see. One of the poem contestants was also present at the event and we honored her as well! It was certainly a fun time for all and a wonderful way to celebrate our favorite time of the year together!



All photos on pages 16 and 17 courtesy of Dr. JaimeLee Iolani Rizzo)





Sahana Chandini Benny, Valley Stream, NY Kindergarten, Shaw Avenue Elementary School



Chancellor Dennis M. Walcott Department of Education, NVC



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HUDSON-BERGEN CHEMICAL SOCIETY NATIONAL CHEMISTRY WEEK

A joint meeting of the Hudson Bergen Chemical Society and the School of Natural Science of Fairleigh Dickinson University (Metropolitan Campus) was organized to celebrate the National Chemistry Week, on October 26, 2012. Among the 40 attendees were students and faculty from colleges in our area and chemists from industry. Dr

were students and faculty from colleges in our area and chemists from industry. Dr.

Dr. Ish Kumar (HBSC section chair), Dr. Robert Aslanian (speaker) and Dr. Jay Carreon (Chair-elect).

(Photos courtesy of Ish Kumar)

Robert Aslanain, Assistant Professor of Chemistry at New Jersey City University, delivered the talk entitled "Paved with Good Intentions: Drug Discovery and Nicotinic Acid Receptor". Dr. Aslanian has over twenty-five years of experience in the pharmaceutical industry and is co-inventor on thirty-eight U.S. patents and co-author on sixty-seven scientific articles and reviews. He is also co-editor of the book Case Studies in Modern Drug Discovery and Development.



From left to right, Dr. Robert Aslanian (speaker) and students: Uma Sai Shankar Reddy, Swayam Prakash Akenapally, Arpith Shah, Asish Penugonda and Bhanu Teja Nadella.



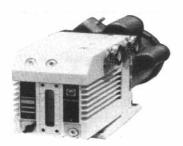
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NATIONAL CHEMISTRY WEEK 2012

Queensborough Community College Demonstrates Magnetic Ferrofluids at the New York Hall of Science

On Saturday, October 27th, faculty and students of Queensborough Community College's Chemistry Department participated in National Chemistry Week at the New York Hall of Science. The event, hosted by the New York Section of the American Chemical Society, was a great opportunity to encourage local elementary and high school age kids to become interested in science. This year's theme was 'Nanotechnology -The biggest small idea'. Our table, in keeping with the theme, demonstrated metal nanoparticles (iron (III) oxide) suspended in fluids and their response to the presence of a magnetic field. We had three stations one showing the nanoparticles in a thick solution that formed spikes when exposed to strong magnets, one in which the nanoparticles were suspended in a vial and could be moved using magnets, and lastly a real world aspect of the technology using magnetic nail polish which makes interesting patterns after applying a magnet to the wet polish. Our table was popular with all age groups and many were surprised to find that

something done in the lab was actually happening in common nail polish!

This event was co-sponsored by QCC's Science Research Alliance, CSTEP Club, Haitian Club. STEM Research Club and STEM Academy. We are also grateful for the enthusiastic support we received from QCC's Admissions Office and the Student Government. We would especially like to thank the following faculty from the Chemistry Department for their time and effort in designing the experiments and/or volunteering their time: Drs. Sharon Lall-Ramnarine, Tirandai Hemraj-Benny, Paul Sideris, Julie Pigza, Sasan Karimi, David Sarno, and Derek Bruzewicz. Many thanks also go to our colleagues in the stockroom, Pete Irigoyen, Bruce Montalbano, and Andrew Xu, who helped with preparation of chemicals and supplies and printing handouts. Finally, our student volunteers were crucial to the success of the event and included Alicia Romeo, Tai Lildar, Lena Najjarian, Boryana Baric, Donald Mitchell, Amber Laguerre, Ashley Moise, Kenya Joseph, and Lionel Morales. For more pictures of the event, see next page and please visit our website: http://www.qcc.cuny.edu/ chemistry/photos.html.

(continued on page 20)



(This picture and photos on page 20 courtesy of David Sarno)

NATIONAL CHEMISTRY WEEK 2012 AT QUEENSBOROUGH CC

(continued from page 19)





CHEMISTRY DEPARTMENT AT BROOKHAVEN LABORATORY DECLARED A NEW YORK SECTION HISTORIC CHEMICAL LANDMARK

Chemists at Brookhaven National Laboratory have been world leaders in the synthesis of short-lived radioisotopes for nuclear medicine, under sustained support from the Office of Science at the U.S. Department of Energy, and predecessor offices at the Energy Research and Development Administration and the Atomic Energy Commission. This Historic Chemical Landmark recognizes the synthesis of 2deoxy-2-[18F]fluoro-D-glucose (18FDG) in 1976 by chemists in the Brookhaven National Laboratory Chemistry Department, and its use to measure glucose metabolism in the living human brain in collaboration with the National Institutes of Health and the University of Pennsylvania, 18FDG is now the standard radiotracer used for positron emission tomography (PET) neuroimaging and cancer diagnosis, with more than 1.5 million ¹⁸FDG PET scans performed annuallγ.

On October 19, 2012, the ACS New York Section declared the Chemistry Department at Brookhaven National Laboratory an Historic Chemical Landmark. This is the third historic chemical landmark designated by the ACS New York Section, the first two being the Chemists' Club and the IBM Thomas Watson Research Center. In addition, there have been seven National Historic Chemical landmarks within the ACS New York Section. More than 150 were in

attendance at the designation ceremony, and were welcomed by Dr. Alex Harris, Chair of the Brookhaven Chemistry Department, Dr. John Sharkey, Archivist and Historian of the New York Section gave a brief history of the Section's historic landmarks. Dr. JaimeLee Rizzo, 2012 Chair of the New York Section presented a commemorative plague to officials Brookhaven. Dr. Joanna S. Fowler, Senior head of Radiotracer Chemist and Development at Brookhaven and one of the developers of ¹⁸FDG gave the concluding remarks and thanked the members of the New York Section for this honor.

The designation ceremony was followed by a symposium detailing the development of ¹⁸FDG, and its use in visualizing brain chemistry through the study of glucose metabolism. Speakers included Dr. Louis Sokoloff (by video) of the National Institute of Mental Health: Dr. Abass Alavi of the Division of Nuclear Medicine at the University of Pennsylvania; Dr. Mony DeLeon of the NYU Department of Psychiatry; Nora Volkow of the National Institute on Drug Abuse, and the previously mentioned Dr. Joanna Fowler. The assembled audience were given an outstanding overview of how 18FDG and PET scans are giving scientists insight into a variety of disincludina eases drua abuse Alzheimer's.

The ACS New York Section congratulates the scientists at Brookhaven's Chemistry Department for this well deserved recognition.

(See photos on page 21.)



Symposium speakers Abass Alavi, Mony DeLeon, Joanna Fowler, Nora Volkow and quest Tatsuo Ido.

Members of the ACS New York Section at the Brookhaven Chemistry Department dedication ceremony.

> (Photos courtesy of John Sharkey)



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Call for Nominations

EDWARD J. MERRILL AWARD FOR OUTSTANDING HIGH SCHOOL CHEMISTRY TEACHER FOR 2013

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 2013.

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 Bettyann Howson, chemphun@gmail.com.



WCS DISTINGUISHED SCIENTIST AWARD 2013

The Westchester Chemical Society is accepting nominations for the "WCS Distinguished Scientist Award 2013". Scientists who live or work in Westchester or the Bronx qualify. Please send a cover letter stating why your nominee should receive the award along with the nominee's resume by January 31, 2013 to Dr. Paul Dillon at PaulWDillon2@hotmail.com or 67 Matthes Road, Briarcliff Manor, NY 10510.

Call for Abstracts and Presentations

MID-ATLANTIC CHAPTER LABORATORY ROBOTICS INTEREST GROUP

February 2013 meeting: Laboratory Automation - The View From the Bench

Throughout the history of automation technology some of the most exciting developments have come from the working scientists with too many tasks and not enough the Mid-Atlantic Chapter of the LRIG invites scientists to present their automation-

related activities and research to a larger audience. If you have ever attended an LRIG meeting and wanted to get out of the audience and onto the podium, now is your chance. This is also a chance to present your research at a local meeting before making a long trip to a distant conference.

The meeting will be held on **February 20**, **2013** at the Marriott Hotel in Somerset, New Jersey. Doors open at 6 PM for a free buffet and the technical program begins at 7:00 PM

Presentations from all scientists and engineers are welcome and may be on any aspect of laboratory automation and robotics. They can also be about any interesting new laboratory technologies that are under development. Persons who are currently seeking employment are especially invited to make presentations as are graduate students who are in the process of preparing to defend their dissertations.

Please send abstracts and contact information to:

Kevin Olsen Montclair State University Room 340 Richardson Hall Normal Avenue Montclair, NJ 07043 OlsenK@Mail.Montclair.Edu (973) 655-4076

Call for Papers

GTC's Biomarker Summit 2013

Biomarker Summit 2013 is scheduled for March 20-22, 2013.

On the heels of a successful summit in 2012, GTC's Biomarker Summit 2013 will be held in San Francisco, CA on **March 20-22**, **2013**.

The summit will discuss a wide range of issues such as biomarker identification and validation strategies, patient stratification, enabling omics technologies, bioinformatics and systems biology techniques, regulatory and reimbursement trends and the development of companion diagnostics.

Biomarker Summit 2013 provides a unique opportunity to gain the latest biomarker developments in three major therapeutic areas, formally organized in the following tracker:

- 6th Oncology Biomarkers
- 2nd Neurological Biomarkers
- 2nd Inflammatory & Immunological Biomarkers

To be considered for an oral presentation, please submit an abstract by January 20, 2013. Selected presentations will be based on quality of abstract and availability. Presentation slots fill up fast so please submit your abstract ASAP.



5th Ocular Diseases and Drug Development Conference

Submit an abstract by Feb 21, 2013

Leading scientists, researchers, and experts gather to discuss and collaborate on the latest research and discovery, safety assessment, and drugs in development for combating and curing ocular diseases. Age-related macular degeneration (AMD), retina diseases, diabetic retinopathy, glaucoma, DME, etc. are the focus of discussion and discovery at the 5th Ocular Diseases and Drug Development Conference (March 21-22, 2013 in San Francisco, CA).

Don't miss this opportunity to network in an intimate setting while discussing the latest discoveries and development from top researchers!

To be considered for an oral presentation, please submit an abstract by February 21, 2013. Selected presentations will be based on quality of abstract and availability. Presentation slots fill up fast so please submit your abstract ASAP.

PressReleases

Author Donating All Profits to Cancer Research

On Black Friday, Author Paul H. Magid is launching "The Good Karma Charity Author Event for Sarcoma Cancer Research" to sell 100,000 copies of his novel, Lifting the Wheel of Karma, by New Year's Eve. During this time, all of the publisher profits from those 100,000 copies, up to \$500,000, will be donated to Sarcoma Cancer Research.

Lifting the Wheel of Karma is a majestic tale about a tormented boy who embarks on a profound journey of extraordinary healing and enlightenment.

Mr. Magid chose Sarcoma cancer research for the charity donation because his girlfriend Sharon's younger brother, David, died of Sarcoma cancer at the age of 25. David was just 18 years old when he first found the lump in his right shoulder area, the same age as the protagonist, whose life takes an unimaginable turn, in Mr. Magid's spiritual novel.

It was while Mr. Magid was on his own painful path that he came to learn the many spiritual

ideas that are woven into the fabric of his novel, and it was those experiences that inspired him to launch "The Good Karma Charity Author Event for Sarcoma Cancer Research."

Lifting the Wheel of Karma is a beautiful tale that has already touched the hearts of readers from all walks of life and it is Mr. Magid's hope that people will continue to enjoy this wonderfully uplifting story, while helping to contribute to a much needed cause this holiday season.

For more information, please visit: http://www.PaulHMagid.com/CharityEvent http://www.Facebook.com/KarmaNovel http://www.YouTube/PaulhMagid



Hach Company Responds to Storm Sandy

In response to Storm Sandy, Hach Company (www.hach.com) is supporting those impacted by the recent storm through a variety of initiatives.

A dedicated support hotline for those with storm-related questions has been established to help customers whose facilities and equipment have been affected. Call 1-800-227-4224, option 8. All calls, service requests and new orders will be given priority status to ensure that customers are able to be up and running as quickly as possible to minimize the negative impact on communities.

In addition, Hach has proactively communicated with customers in states impacted by Sandy. Email messages were sent encouraging them to contact Hach with any questions or challenges related to their facilities. Regular updates will also be posted on a variety of social media channels including Facebook (www.facebook.com/HachCompany) (www.twitter.com/HachCompany) letting customers know how Hach is able to help them with their facilities and equipment in the storm's aftermath. A comprehensive Information Center has been created and can be accessed at www.hach.com/sandy and will be updated on an ongoing basis. Be sure to check back often for updates.

Hach is also encouraging all associates to support the American Red Cross (http://www.redcross.org/) as they continue their efforts to help all those who have found themselves in need as a result of the storm.

If you are in need of Hach's assistance to help make sure your plants are up and running safely in these difficult times, please contact our dedicated hotline at 1-800-227-4224, option 8.

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