

## Dr. Ping Furlan Wins ACS Regional Service Award



Dr. Martha Hollomon (right) of the Middle Atlantic Regional Meeting (MARM) Executive Board presented the award to Dr. Ping Furlan (left) at 2015 MARM Chemagination and Awards Ceremony held at Princeton University on May 16, 2015.

*(Picture courtesy of Dr. Ping Furlan)*

**See article on page 5.**

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## THIS MONTH IN CHEMICAL HISTORY

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

In recent columns I have examined a number of themes drawing on a recent book: "The Chemists' War 1914 – 1918" by Michael Freemantle published by The Royal Society of Chemistry in the U.K. this year (2015). That war, called in the past The Great War (though it was dwarfed by World War II in geographic scope and casualty numbers), saw the involvement of chemists (and other scientists) in unprecedented numbers in forwarding the war effort on both sides of the conflict. A little appreciated aspect of the chemistry of World War I is the significant role that the element platinum played.

As an illustration of this the Daughters of the American Revolution, a famous group of patriotic American women (the DAR), adopted in 1917, on The United States entering World War I, a pledge not to purchase or accept as gifts any jewelry items made wholly or in part from platinum. The pledge made explicit the DAR's commitment that supplies of platinum "shall be available for employment where they can do the greatest good in the service" of the war effort. A similar comment about the importance of platinum to the provision of materials of war was made in a letter from the secretary of the British Institute of Metals to the secretary of the ACS in August 1917. Both the ACS and the National Academy of Sciences added their voices to the chorus and the U.S. government decided to assume ownership of all supplies of unmanufactured platinum.

The major supplier of platinum in the early years of the 20th. century was Russia which exported about 5000 kg a year to other European countries. Platinum had many uses: in making laboratory equipment for analyses; in jewelry; in photography; and in making high temperature thermocouples. But the importance of these uses was insignificant compared to the use of platinum as a catalyst in a number of industrial processes vital to the war effort in both camps.

Sulfuric acid is one of the most important of industrial chemicals; it has been stated that you can gauge the significance of a nation's chemical output by simply looking at the amount of sulfuric acid it consumes. In the early 20th. century two major routes to sulfuric acid existed. The lead chamber process used oxides of nitrogen as catalysts in the oxidation of sulfur dioxide to sulfur trioxide, the penultimate stage in the production of the acid. This process was still widely used in Great Britain. The contact process used the direct oxidation of sulfur dioxide to sulfur trioxide by molecular oxygen over a platinum catalyst. This more efficient reaction was used in Germany and after 1915 was increasingly adopted in Britain. Consequently the British demand for platinum as the catalyst in the contact process grew steadily during the latter years of the war. One significant use of sulfuric acid in producing war materials is in the nitration of organic compounds to produce explosives like nitroglycerine and nitrocellulose, the components of cordite, a shell propellant; and trinitrotoluene, TNT, a high explosive.

These nitration reactions required nitric acid and platinum was also essential in producing this compound. The starting point was hydrogen from the water-gas reaction (steam over white-hot coke) and nitrogen from the air. In the Haber-Bosch process these elements combined under moderate temperatures and high pressures, over a platinum catalyst, to yield ammonia. The Ostwald reaction also used a platinum catalyst to control the oxidation of ammonia to nitrogen dioxide, a precursor to nitric acid. By 1914 both these processes were sufficiently developed by Germany so that there was no longer the dependency of that country on the importation of nitrates from Chile (a challenging voyage in World War I due to the British navy's blockade of the North Sea) to produce explosives. The ingenuity of German scientists and the store of platinum built up before and during the war kept the German war machine going for a full four years until the Armistice of November 1918.

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

## September Calendar

### NEW YORK SECTION

**Wednesday, September 9, 2015**  
Chemical Marketing & Economics Group  
*See page 9.*

**Friday, September 18, 2015**  
New York Section Board Meeting  
*See page 9.*

**Friday, September 18, 2015**  
High School Teachers Topical Group  
*See page 23.*

**Friday, September 18, 2015**  
Inorganic and Organometallic Topical Group  
*See page 9.*

*also*

**Thursdays, October 1 and November 5, 2015**

Long Island Subsection  
*See pages 10 and 11.*

**Thursday, October 1, 2015**  
Chemical Marketing & Economics Group  
*See page 10.*

**Tuesdays, October 6 and November 10, 2015; February 2 and April 19, 2016**  
New York Nanoscience Discussion Group  
*See page 10.*

**Wednesday, October 14, 2015;**  
**Wednesday, November 11, 2015;**  
**Wednesday, December 9, 2015; and**  
**Early February 2016**  
Westchester Chemical Society  
*See pages 11-12.*

**Sunday, October 18, 2015**  
NY National Chemistry Week Celebration  
*See page 13.*

### NORTH JERSEY SECTION

**Tuesday, September 1, 2015**  
Mass Spectrometry Discussion Group -  
Symposium and Vendor Show  
*See page 6.*

**Monday, September 14, 2015**  
Careers in Transition  
*See page 6.*

**Thursday, September 17, 2015**  
North Jersey Chromatography Group  
*See page 7.*

**Monday, September 28, 2015**  
North Jersey Executive Committee Meeting  
and Project SEED Poster Session  
*See page 6.*

*also*

**Thursday, October 15, 2015**  
Drug Metabolism Discussion Group  
*See pages 7-8.*

**Saturday, October 17, 2015**  
Chem Expo and National Chemistry Week  
*See page 8.*

**Tuesday, October 20, 2015**  
Mass Spectrometry Discussion Group  
*See page 8.*

**The Indicator is posted to  
the web on the 15th of the  
previous month at  
[www.TheIndicator.org](http://www.TheIndicator.org)**

**Deadline for items to be included in the  
October 2015 issue of *The Indicator* is  
August 20, 2015**



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## NY Section Chemistry Professor Wins American Chemical Society Regional Service Award

Dr. Ping Furlan, a member of the New York Section, and an Associate Professor at United States Merchant Marine Academy (USMMA) was awarded the 2015 E. Ann Nalley Middle Atlantic Regional Award for Volunteer Service in the American Chemical Society (ACS). The Award recognizes the volunteer efforts of individuals who have served the ACS, contributing significantly to the goals and objectives of the Society.

Dr. Furlan's long track of record of effective service to the ACS via regional activities and generous volunteer efforts goes back to nearly 20 years ago, when she was affiliated with the Erie Section of the ACS from 1997 to 2010. During these years, she received numerous grants for various innovative education initiatives and public science outreach endeavors. She was a recipient of multiple regional and national awards of the ACS including the Outstanding Member of the Year, Salute to Excellence, and the prestigious ChemLuminary Awards and was commended as an Outstanding Faculty Advisor repeatedly for a nationally recognized Student Chapter by the ACS. Since 2012, Dr. Furlan has directed and co-directed several major outreach programs of the New York section. This includes the National Chemistry Week (NCW) Celebration at the New York Hall of Science, Chemists Celebrate Earth Day Hands-on Program, and the Family STEM Nights at Baker School. Through fun-filled activities, brochures, and displays, these programs annually impact more than 1000 local youth including regional boy scouts age 1-17 and excite them about a career in science. For her role in leading the Section's NCW project, Dr. Furlan was honored with a 2015 Distinguished Service Award. Dr. Furlan is a Planning Committee Board members and a Technical Session Organizer for the 2016 Middle Atlantic Regional Meeting (MARM). She has also served on numerous ACS committees at local, regional and national levels.

"The prestigious E. Ann Nalley Service Award symbolizes our celebration of volunteering and our respect for volunteers who work with others to make a meaningful contribution to better our Society. I am truly humbled to be given the great honor of receiving this award. More importantly, the Award is about the people around us. I know I could not have achieved what I have achieved without my family members, friends, members and executive officers of the ACS at local, regional and national levels, my supervisors, colleagues, students and their parents, past and present. What a gift and memorable journey I have had to fortunately encounter or cross path with them learning from them, receiving support from them whenever I need it, and sharing, overcoming, hoping, and celebrating with them along the way. I am deeply grateful to them", said Dr. Furlan.

Dr. Furlan received her B.S. in Applied Chemistry from the University of Science and Technology of China. She earned a M.S. in Chemistry and a Ph.D. in the same discipline from the University of Connecticut. In addition she had two year postdoctoral experiences at Bell Communication Research. Before joining USMMA, Dr. Furlan taught at universities in Florida, Arkansas and Pennsylvania. Her last faculty appointment was with University of Pittsburgh where she achieved the rank of Full Professor.

**Dr. Paris Svoronos (right), Chair of the New York Section, also attended the Awards Ceremony.**

*(Picture courtesy of Dr. Ping Furlan)*



## North Jersey Meetings

<http://www.njacs.org>

### NORTH JERSEY EXECUTIVE COMMITTEE MEETING AND PROJECT SEED POSTER SESSION

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. In addition, Project SEED will hold its poster session prior to the Executive Committee Meeting. All ACS members are welcome to attend this meeting and to become more involved in section activities.

**Date:** Monday, September 28, 2015

Times: Project SEED Poster Session  
4:00 - 6:00 PM

Place: University Center, Main Lounge

Times: Dinner follows Poster Session  
Executive Meeting 7:30 - 9:00 PM

Place: University Club, Room 201  
Seton Hall University  
400 South Orange Avenue  
South Orange, NJ

For reservations please call (732) 463-7271 or email [chemphun@gmail.com](mailto:chemphun@gmail.com) prior to **Wednesday, September 23, 2015**

Dinner cost 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.



### MASS SPECTROMETRY DISCUSSION GROUP

#### 2015 Symposium and Vendor Show

New this year will be poster presentations from industry and academia, including our ASMS award recipients.

If you would like to present a mass spectrometry related poster, please contact Allen Jones ([allen.n.jones@verizon.net](mailto:allen.n.jones@verizon.net)).

3:00 - 4:00 PM Registration - Hotel Ballroom

4:15 - 4:45 PM Cocktail Break / vendor interaction

4:45 - 5:45 PM "The Critical Role of Mass Spectrometry in Mechanistic Studies of Drug-Induced Toxicities"

*Speaker:* Prof. Thomas Baillie  
(University of Washington)

5:45 - 7:00 PM Buffet Dinner (Raffle prizes will be announced)

7:00 - 8:00 PM "Imaging Mass Spectrometry: Molecular Microscopy for Biological / Clinical Applications"

*Speaker:* Prof. Richard Caprioli  
(Vanderbilt University)

**Date:** Tuesday, September 1, 2015

Times: 3:00 - 8:00 PM

Place: Holiday Inn Somerset-Bridgewater  
195 Davidson Avenue  
Somerset NJ

Cost: Free of charge, compliments of our vendors!

Please register at <http://www.njacs.org/topical-groups/mass-spectrometry/register>



### CAREERS IN TRANSITION MEETINGS

#### Job Hunting??

Resume & LinkedIn writing and key word search rules are changing. To be found, come and utilize our latest insights. Our ACS trained Career Consultants 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, September 14, 2015

New from now on is a second CIT meeting in East Windsor on the third Monday. Contact Bill for details.

Times: Meeting 2:30 - 5:00 PM

Place: Students 2 Science, Inc.  
66 Deforest Avenue  
East Hanover, NJ

Cost: No charge

Reservations: at [www.njacs.org/careers.html](http://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](mailto:billsuits@earthlink.net).

See [www.njacs.org](http://www.njacs.org) under the Career tab for Jobs hidden from sight and relevant blogs.

## NJACS PARTNERS WITH STUDENTS2SCIENCE

Members are encouraged to volunteer at their East Hanover facility and explore their website at [www.students2science.org](http://www.students2science.org) to learn more about this innovative program.

S2S continues to expand their exciting laboratory experience the disadvantaged children. Many of our members continue to volunteer as mentors. At their 2 million dollar analytical lab, every 40 kids are assisted by 16 professional volunteer mentors. The experiments performed really make chemistry and science come alive using state of the art analytical equipment working with students starting in 6th grade up to HS seniors. Each day is optimized for grade level and curriculum.

Now the program has further expanded with internet video and experiments performed in the classroom for 4th & 5th grades. Internet allows views of the lab in operation and relates to simpler experiments setups done in the classroom with their teacher and a partnering chemist.

North Jersey members who volunteered benefited in many ways. Those in transition expanded their network and received job finding assistance. Retired chemists met up with old friends and made many new friends. Those with jobs used the volunteer hours as part of the company outreach programs and team training. All feel great about making a difference in the lives of the youth who may have never met a scientist or considered a career in the sciences.

Please consider volunteering and discovering more about this innovative program. If you want to learn more, you can speak with Don Truss at (908) 334-8435.

## NORTH JERSEY CHROMATOGRAPHY GROUP (NJCG)

**Symposium, Vendor Show, Posters, and Raffle: "Fast Separation - New Column Technology, Instrumentation, and Applications"**

Registration, Detailed Schedule, Speakers, and Abstracts will follow on NJCG website: <http://www.njcg.org/>

Submit your abstract for a presentation or a poster through email to: [njcg1234@gmail.com](mailto:njcg1234@gmail.com)

Continental Breakfast, Lunch, Seminars, Posters, Vendor Show

**Date: Thursday, September 17, 2015**

Times: 9:00 AM – 4:00 PM

Place: Double Tree Hotel (Temporary)  
Mirabelle Room  
200 Atrium Drive  
Somerset, NJ

Cost: \$20, Professionals (\$30 on-site), Free for Full-time students/  
Unemployed



## NORTH JERSEY DRUG METABOLISM DISCUSSION GROUP

**Fall Meeting: "Strategies to Predict and Reduce Drug Interactions and Toxicities"**

*Chair:* Lauren Aleksunes  
Rutgers University

Five dynamic speakers from industry and academia have been selected to present their work.

*(continued on page 8)*



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## NORTH JERSEY DRUG METABOLISM DISCUSSION GROUP

(continued from page 7)

### “Identifying Strategies to Prevent Antiretroviral Drug-induced Toxicities”

*Speaker:* Namandje Bumpus  
Johns Hopkins School  
of Medicine

### “Targeted Pharmacological Control of the Microbiome to Improve Human Health”

*Speaker:* Matthew Redinbo  
University of North Carolina  
at Chapel Hill

### “Toxicity Prediction and Development of Pharmacogenetic Co-Diagnostics Using Diversity Outbred Mice”

*Speaker:* Alison Harrill  
University of Arkansas  
for Medical Sciences

### “Renal Drug Interactions: Progress and Challenges in Making Predictions in a Complex System”

*Speaker:* Adrian Ray  
Gilead Sciences

### “Cynomolgus Monkey as a Potential Model to Assess Drug Interactions Involving Hepatic OATP Transporters: In Vitro, In Vivo, and In Vitro-to-In Vivo Extrapolation”

*Speaker:* Hong Shen  
Bristol-Myers Squibb

**Date:** Thursday, October 15, 2015

**Time:** 8:00 AM - 3:45 PM

**Place:** The Palace at Somerset Park  
333 Davidson Avenue  
Somerset, NJ

**<http://palacesomersetpark.com>**

**Cost:** Pre-registration is \$125 and \$150 at the door. Students and post-docs are charged \$10, and faculty are charged \$50. Registration is free for unemployed.

For more information about the meeting or to learn more about the Discussion Group, please check out the Group’s website <http://www.njacs.org/topical-groups/drug-metabolism> or email [aleksunes@eohsi.rutgers.edu](mailto:aleksunes@eohsi.rutgers.edu).

## MASS SPECTROMETRY DISCUSSION GROUP

### Next Meeting

**Date:** Tuesday, October 20, 2015


**Times:** Social 5:30 PM

Dinner 6:15 PM


Presentations 7:00 PM

**Place:** Holiday Inn  
195 Davidson Avenue  
Somerset, NJ

*ChemExpo 2015*  
at Liberty Science Center



Saturday, October 17th, 2015  
10 a.m. - 2 p.m.




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For further information go to [www.njsecs.org](http://www.njsecs.org)  
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## NORTH JERSEY CANDIDATES

The following are candidates for chair-elect and councilors for the North Jersey Section:

### Chair-Elect

Landon Greene  
Wing Lam

### Councilor (4 councilors and 4 alternates)

Ray Baylouny	Ron Kong
Susan Fahrenholtz	Cecelia Marzabadi
Landon Green	John Piwinski
Stan Hall	Thomas Riley
Diane Krone	Monica Sekharan

The election will take place from **September 14 - October 26, 2015**. Voting will be by electronic ballot.

Bettyann Howson  
Secretary, Councilor, Education Chair  
North Jersey Section ACS Chair,  
Committee on Chemical Safety



## New York Meetings

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

### NEW YORK SECTION BOARD MEETING DATES FOR 2015

The dates for the Board Meetings of the ACS New York Section for 2015 have been selected and approved. The meetings are open to all – everybody is welcome. All non-board members who would like to attend any (or all) meetings ought to inform the New York Section office by emailing Mrs. Marilyn Jespersen at [njesper1@optonline.net](mailto:njesper1@optonline.net) or by calling the Section office at (516) 883-7510.

All 2015 Board Meetings will be held on the following dates at St. John's University, 8000 Utopia Parkway, Jamaica, NY. Dr. Paris Svoronos will chair all meetings. Refreshments will be available starting at 6:00 PM while the actual meeting will start at exactly 6:30 PM. Please check Marilyn Jespersen for the exact building and room number. You may also be added in the mailing list if you so desire.

#### Friday September 18, 2015

Friday November 20, 2015

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



### CHEMICAL MARKETING & ECONOMICS GROUP

Shaping the Future at Chemours

*Speaker:* Mark Vergnano  
CEO  
Chemours.

**Date:** Wednesday, September 9, 2015

**Time:** 11:00 AM - 2:00 PM

**Place:** The Penn Club  
30W 44th Street  
New York, NY



### HIGH SCHOOL TEACHERS TOPICAL GROUP

Physics at the Large Hadron Collider

**Date:** Friday, September 18, 2015

*See article on page 23.*

### INORGANIC AND ORGANO-METALLIC TOPICAL GROUP

4th Annual Frontiers of Inorganic and Organometallic Chemistry Lecture Series

*Keynote Speaker:* Prof. Timothy Warren  
Georgetown University

#### Symposium

*Speakers:* Prof. Maria Contel  
Brooklyn College  
  
Prof. Jenny Lockard  
Rutgers University - Newark  
  
Prof. Xavier Roy  
Columbia University

Members of the New York ACS Local Section and their colleagues are cordially invited.

Immediately following the symposium, featuring presentations by students and post-docs in the areas of Inorganic, Organometallic, and Nano chemistry there will be an ION Poster Session Social Hour.

**Date:** Friday, September 18, 2015

**Times:** 1:30 PM

**Place:** Havemeyer Hall  
Columbia University

**Cost:** Free and open to the public

Please register for this free event at [www.newyorkacs.org](http://www.newyorkacs.org)

James Camara ([camara@yu.edu](mailto:camara@yu.edu)),  
Kathleen Kristian ([kkristian@iona.edu](mailto:kkristian@iona.edu))  
Chairs, Inorganic and Organometallic  
Topical Group



### 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](mailto:hessytaft@hotmail.com).

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

## LONG ISLAND SUBSECTION

### Palladium-Catalyzed Carbocyclization Reactions Involving Carbene Insertions

*Speaker:* Sean Devine, PhD  
Department of Chemistry  
LIU Post

Transition metal-catalyzed cross coupling has revolutionized the way that chemists assemble carbon-carbon (C-C) bonds. These reactions typically involve palladium-catalyzed bond formation between vinyl or aryl halides and organometallic coupling reagents. Our laboratory is currently interested in developing Pd-catalyzed coupling reactions involving vinyl iodides and N-tosylhydrazones to assemble  $\eta^3$ -allyl ligands. Intramolecular trapping with stabilized carbon nucleophiles leads to the generation of vinylcyclopentanes with newly formed sp<sup>3</sup> centers. Migratory insertion of carbene ligands derived from N-tosylhydrazones are the key step in these carbonylative carbocyclization reactions.



**Date:** Thursday, October 1, 2015

Times: Social – 5:30 PM  
Seminar – 6:00 PM

Place: CUNY Queensborough  
Community College  
Science Building, S-112

Directions: <http://www.qcc.cuny.edu/about/driving.html>



## CHEMICAL MARKETING & ECONOMICS GROUP

### Bayer CropScience: What is Next?

*Speaker:* Iain Kelly, PhD  
Research Fellow and  
Director Regulatory Policy and  
Issue Management

**Date:** Thursday, October 1, 2015

Time: 11:00 AM - 2:00 PM

Place: The Penn Club  
30 West 44th Street  
New York, NY

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## NEW YORK NANOSCIENCE DISCUSSION GROUP

### 2015-2016 Sessions

*Hosted by the New York University  
Department of Chemistry*

*Speakers to be announced.*

The NYNDG is an ACS Topical Group that meets in the New York University Department of Chemistry. Sessions feature three 30-minute presentations on nanoscience, one each with strong orientation in biology, chemistry, and physics/applied mathematics. Presentations will be focused on discussion of recent work, although speakers will place the work in a context understandable to a broad audience.

### Mark Your Calendars:

**Dates:** Tuesday, October 6, 2015  
Tuesday, November 10, 2015  
Tuesday, February 2, 2016  
Tuesday, April 19, 2016

Times: Refreshments at 7:00 PM  
Science at 7:30 PM

Place: NYU Silver Center  
31 Washington Place  
(between Washington Square East  
and Greene Street)  
Room 1003, 10th floor  
New York, NY

For more information, contact:  
James Canary ([james.canary@nyu.edu](mailto:james.canary@nyu.edu))

Topical Group History:  
<http://www.nyu.edu/projects/nanoscience>



## LONG ISLAND SUBSECTION

### Semiconductor Nanostructures for High Efficiency Artificial Photosynthesis

*Speaker:* Mingzhao Liu, PhD  
Center for Functional  
Nanomaterials  
Brookhaven National Laboratory

Driven by a strong desire for clean and renewable fuel, effective methods of Hydrogen (H<sub>2</sub>) production have been sought after for a long time. Solar water splitting within a photoelectrochemical (PEC) cell, also known as artificial photosynthesis, has been the most promising method since 1972, when Fujishima and Honda discovered the photolysis of water over a TiO<sub>2</sub> electrode under UV radiation. To

date the key problem remains how to maximize the solar-to-fuel conversion efficiency using low-cost, earth abundant materials. The seminar will be based on our recent work on using nanostructured semiconductor photocatalysts for high efficiency water splitting, with particular emphasis on the core/shell structures, in which one can optimize the bulk light absorption and interfacial carrier transfer processes independently. The talk will also cover our newly developed time-resolved spectroscopic techniques for operando studies of nanostructured photocatalyst at well controlled PEC conditions, which enables us to directly assess the carrier dynamics during solar water splitting at unprecedented ultrafast picosecond timescale.

**Date: Thursday, November 5, 2015**

Times: Social – 5:30 PM

Seminar – 6:00 PM

Place: CUNY Queensborough  
Community College  
Science Building, S-112

Directions: <http://www.qcc.cuny.edu/about/driving.html>



## WESTCHESTER CHEMICAL SOCIETY

### FUTURE MEETINGS

\*\*\*\*

#### **Special Seminar – “How Your Grandmother’s Diet May Have Changed Your Life”**

**Speaker:** Hailey Clancy, PhD  
Lieutenant Colonel, US Army  
Assistant Professor  
Department of Chemistry  
and Life Science  
United States Military Academy  
West Point, NY

Abstract will be supplied in a later issue.

Lieutenant Colonel Hailey Clancy graduated from Westminster College in Fulton, Missouri with a double major in Biology and Spanish and was commissioned into the US Army in 1992. While on active duty with the US Army, she earned a MS Degree in Environmental Toxicology from Cornell University where she developed a biosensor to detect the bacterium that causes Anthrax. In 2012 she earned a PhD in Molecular Toxicology and Carcinogenesis from New York University, where she conducted research on the effects of human exposure to nickel and its role in lung cancer. LTC

Clancy’s military assignments include service as a Transportation and Logistics officer in Germany (Nürnberg, Kaiserslautern, Wiesbaden, and Baumholder), Bosnia-Herzegovina, Iraq (Balad, Diyala, Baghdad), and Fort Drum, NY. She is currently assigned as an Assistant Professor in the Department of Chemistry and Life Science at West Point, NY, where she teaches General Chemistry and Biology. Her military awards include the Bronze Star (with oak leaf cluster), Meritorious Service Medal (with two oak leaf clusters), Joint Service Commendation Medal, Army Commendation Medal (with oak leaf cluster), Army Achievement Medal (with oak leaf cluster) and the Meritorious Unit Citation.

**Date: Wednesday, October 14, 2015**

Times: Refreshments - 5:30 PM

Lecture - 6:00 PM

Place: Westchester Community College  
Gateway Building, Room 110  
75 Grasslands Road  
Valhalla, NY

Cost: Free and Open to the Public

For more information, contact:

Paul Dillon (914) 393-6940

E-Mail [PaulWDillon2@hotmail.com](mailto:PaulWDillon2@hotmail.com)

Or:

Anthony Durante (718) 289-5542 or 5569

E-Mail: [anthony.durante@bcc.cuny.edu](mailto:anthony.durante@bcc.cuny.edu)

**Note: Inclement Weather: Cancellation Due to Inclement Weather** — Should Westchester Community College’s Valhalla campus close due to inclement weather (or has delayed opening or closes early) the meeting will be cancelled. Decisions about delay/closure are made around 6:00 AM for day courses and 3:00 PM for evening courses. The college will communicate delays, closings or early dismissals on their website ([www.sunywcc.edu](http://www.sunywcc.edu)), Facebook, Twitter, and the (914) 606-6900 phone line.

\*\*\*\*

#### **Special Seminar – “Hydrogen Bonding in Redox and Nanoparticle Construction”**

**Speaker:** Marc A. Walters, PhD  
Department of Chemistry  
New York University  
New York, NY

Early nanoparticles for MRI angiography were constructed of silver or gold nanoparticles that supported active functional groups on their surface. Today nanoparticles for MRI and diverse biomedical applications and materials are constructed largely of non-

(continued on page 12)

## WESTCHESTER CHEMICAL SOCIETY

(continued from page 11)

metallic inorganic matrices, organic polymers, and gels. This talk will describe the formation and characterization of nanocapsules and gels in reverse micelles that form with the use of hydrogen bonding cationic surfactants that are paired with anionic monomers. The monomers are polymerized to form hyperbranched nanopolymers within the reverse micelle compartment. The resulting hyperbranched structures are uniform and stable under ambient conditions. They are cost effective to produce and suitable for numerous applications where the aim is the transport, slow release, or protection of molecules in the capsule or gel interior. This class of nanoparticle is synthetically accessible to non-specialists and can therefore serve to expand nanoscience in unique new directions.

Marc A. Walters is a graduate of City College (City University of New York). He earned his PhD in Chemistry from Princeton University and followed this with an NIH Postdoctoral Fellowship at the Massachusetts Institute of Technology. Since then he has been a professor in the Chemistry Department of New York University. He also did a one-year stint as an associate professor at the Université de Toulouse. He has been chair of the NY Section of ACS and currently chairs its Government Affairs Committee.

**Date: Wednesday, November 11, 2015**

Times, Place, Cost and Further

Information: See information under October meeting on page 11.

\*\*\*\*

### Special Seminar – “Making Green by Being Green – Life Cycle Assessment”

**Speaker:** Joseph C. Bush, PhD  
Associate Director  
The Center for Sustainable

Energy

The City University of New York  
Bronx Community College

The concept of Sustainability has its roots in many ancient cultures but over the last century was largely swept under the rug by consumer-led free market forces. However, intelligent investors never let go of the idea – they are always on the lookout for sustainable growth. As the energy and resource demands from developing nations continue to grow, and commodity prices fluctuate, the concept of sustainability is

increasingly being integrated in all levels of corporate function. In this talk I will present examples of a process called *Life Cycle Assessment*, which seeks to quantify sustainability and is being incorporated in the decision making process of businesses of all sizes.

In 2005 Dr. Bush obtained his B.S in Chemistry from the Worcester Polytechnic Institute where he studied the- synthesis, purification and structural analysis of organic polydentate, metal chelating ligand molecules to bind divalent metal ions, creating low-density crystal structures. He went on to obtain his Ph.D. in Physical Chemistry in 2010 from Brown University where he studied Rydberg Fingerprint Spectroscopy using femtosecond pump-probe photoelectron spectroscopy on Rydberg states of biomolecular model systems. He continued at Brown as a postdoctoral research associate in the Physics Department where he designed and built a prototype system interfacing custom chip-based nano-pore materials with third party radio frequency mass filters for label-free, bio-polymer sequencing. For this work, he was the project lead for CAD design, nano-structure fabrication and optimization, computer-based simulation, and experimental implementation. During this time, he also was a consultant to Brown's Technology Venture Office, which markets intellectual property for external licensing. Since 2013, Dr. Bush has been the associate director for Bronx Community College's Center for Sustainable Energy. The Center builds bridges between academic departments, industry partners, and government agencies.

**Date: Wednesday, December 9, 2015**

Times, Place, Cost and Further

Information: See information under October meeting on page 11.

\*\*\*\*

### Special Seminar – “Isolation and Characterization of Hyaluronan from Tissue Samples”

**Speaker:** Han Yuan, PhD  
Polytechnic School of  
Engineering of New York  
University  
Brooklyn, NY

Abstract and CV will be supplied in a later issue.

**Tentative Date: Early February, 2016**

Times, Place, Cost and Further

Information: See information under October meeting on page 11.

## NY - NATIONAL CHEMISTRY WEEK

**Help the New York Section of the American Chemical Society to Celebrate National Chemistry Week 2015 with the Theme**

### “Chemistry Colors Our World!”

Over 20 tables of hands-on experiments, activities, demonstrations, and giveaways. Special photo opportunities with Dr. Met, the official mascot of the New York Mets baseball team. FREE admission to NYSCI between 10-11 AM.

Last year, activities were presented by 240 volunteers and engaged more than 1,000 community youth and parents. Participants included some of the New York’s most prestigious colleges, universities and industries.

The New York Section needs your help to make this year’s National Chemistry Week (NCW) Celebration another success! If you

and your organization are interested in participating in or sponsoring an activity table at the event, please contact Dr. Ping Furlan ([furlanp@usmma.edu](mailto:furlanp@usmma.edu)), Dr. Zhaohua Dai ([zdai@pace.edu](mailto:zdai@pace.edu)), or Mrs. Erin Wasserman (illustrated poem contest coordinator, [ewasserman602z@gmail.com](mailto:ewasserman602z@gmail.com)).

Volunteers’ parking at NYSCI is FREE.

**Date: Sunday, October 18, 2015**

Times: 11:00 AM – 4:00 PM

Place: New York Hall of Science (NYSCI)  
Flushing, Queens

For more information about the NCW celebration in New York, visit the New York Section’s website at

[http://www.newyorkacs.org/meetings/NCW/2015\\_ncw.php](http://www.newyorkacs.org/meetings/NCW/2015_ncw.php).

You can also find additional information about NCW on the American Chemical Society’s website at <http://www.acs.org/content/acs/en/education/outreach/ncw/about.html>.



**Pictures from National Chemistry Week, 2014**



## ACS NEW YORK SECTION'S 2015 ELECTION RESULTS

The results of the ACS New York Section's 2015 elections were announced at the Board of Directors meeting on June 5, 2015. The New York Section extends a sincere thank you to all of the candidates and expresses its appreciation for their time and efforts in preparing for the elections. Congratulations to the following.

### Chair-Elect for 2016

Brian R. Gibney  
(CUNY - Brooklyn College)

### Treasurer for 2016 and 2017

Frank R. Romano  
(Agilent Technologies)

### Directors-at-Large for 2016

Daniel Amarante  
(College of Mount Saint Vincent)

Paul Dillon  
(Siemens Healthcare Diagnostics  
Consultant)

Paul J. Sideris  
(CUNY - Queensborough Community  
College)

### Councilors for 2016 to 2018

Pamela K. Kerrigan  
(College of Mount Saint Vincent)

JaimeLee I. Rizzo  
(Pace University – NYC)

Justyna Widera  
(Adelphi University)

### Alternate Councilors for 2016 to 2018

Rolande R. Hodel  
(AIDSfreeAFRICA)

Joan A. Laredo-Liddell  
(Concordia College)

George Rodriguez  
(Argeni LLC)

### Alternate Councilor for 2016

Gina Florio  
(St. John's University)



## NEW YORK SECTION – MARM 2016

### Chemistry: Past, Present, and Future

### New York – A Chemistry State of Mind

*Sponsored by:* New York Section of the  
American Chemical Society

The 44th Middle Atlantic Regional Meeting

(MARM 2016) of the American Chemical Society (ACS) will be hosted by the New York Section of the ACS and held at the College of Mount Saint Vincent in Riverdale New York from Thursday, June 9 to Sunday, June 12, 2016. MARM 2016 coincides with the 125th Anniversary of the American Chemical Society – NY Section.

For information regarding MARM 2016, please visit: <http://www.marmacs.org/2016>

- Questions regarding the event should be directed to the MARM 2016 General Co-Chairs:  
Pamela Kerrigan: [pamela.kerrigan@mountsaintvincent.edu](mailto:pamela.kerrigan@mountsaintvincent.edu)  
Daniel Amarante: [daniel.amarante@mountsaintvincent.edu](mailto:daniel.amarante@mountsaintvincent.edu)
- Interested speakers or individuals seeking to become Session Chairs should contact the MARM 2016 Program Co-Chairs:  
Paris Svoronos: [PSvoronos@qcc.cuny.edu](mailto:PSvoronos@qcc.cuny.edu)  
Sujun Wei: [SWei@qcc.cuny.edu](mailto:SWei@qcc.cuny.edu)

For a current list of sessions visit: <http://www.marmacs.org/2016/program.html>

- Potential exhibitors and sponsors may contact the MARM 2016 Exhibits and Sponsorship Co-Chairs:  
Fitzgerald Bramwell: [jerry@empirescience.com](mailto:jerry@empirescience.com)

Ping Furlan: [furlanp@usmma.edu](mailto:furlanp@usmma.edu)

Urszula Golebiewska: [UGolebiewska@qcc.cuny.edu](mailto:UGolebiewska@qcc.cuny.edu)

**Dates: Thursday-Sunday,  
June 9-12, 2016**

Place: College of Mount Saint Vincent  
Riverdale, NY

*See Call for Volunteers on page21.*



## TEEN STEM NIGHT AT NEW YORK HALL OF SCIENCE

### Careers in Chemistry

The Teen STEM Night Series at the New York Hall of Science is held to inspire the youth in the NY City and surrounding areas to pursue a career in STEM fields. The Chemistry Night this year took place on Friday, June 12 from 5:00 - 8:00 PM. The event was originally scheduled in March and

was cancelled due to a heavy snow.

Four representatives of the New York Section contributed to this event:

- Dr. Paris Svorons, the Chair of the New York Section, served as a panelist for the discussion on careers in chemistry and shared his rich experiences and words of wisdom with the program attendees.
- Dr. Ping Furlan, Captain Anthony Nigro and Dr. Buddhadel Mallik of the U.S. Merchant Marine Academy hosted a table, distributing “Greener Shipping” brochures and demonstrating “green” related STEM activities. They utilized action filled hands-on activities to exemplify how chemistry, science and engineering can not only improve our lives but also help preserve the green planet.

“Thank you so much for spending your Friday evening supporting our event!” said Priya Mohabir, Director of Alan J. Friedman Center for the Development of Young Scientists. “From the crowds around you, it looked like the participants enjoyed seeing and hearing about your work. We truly appreciate you sharing your experiences with our participants to offer guidance and advice as they explore potential careers in the field of chemistry”, she added.

The night was very successful and was attended by over 100 high school students who were obviously well engaged and highly interested during the entire program! We would like to thank the New York Hall of Science for inviting the members of the ACS’s New York Section to be part of this meaningful program. It was indeed a FUN night and a great way to promote the many faces of chemistry among the local high school students!



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## **WESTCHESTER CHEMICAL SOCIETY DISTINGUISHED SCIENTIST AWARD**

On Thursday, April 30, 2015, at Pace University in Pleasantville, NY, the Westchester Chemical Society presented its Distinguished Scientist Award to Kenrick M. Lewis, PhD. "In recognition of his contributions to the catalysis of reactions of silicon and silicon compounds, especially slurry-phase direct reactions of silicon with nanosized copper catalysts." Student awards were also presented at the event. Dr. Lewis' talk, "Silicon, Silanes, Silicones and You: Ordinary and Extraordinary Applications of Silicon and Silicon-Containing Compounds," and the list of student awardees had been summarized in the June issue of *The Indicator* but because of timing and publication deadlines only two pictures had been included (one of Dr. Lewis, on the cover and the second of the group of student awardees). In this issue some additional photos are presented.



**Anthony Durante, program director, introducing the Distinguished Scientist Awardee, Kenrick Lewis.**

*(Photo courtesy of Eric Pohl)*

**The Distinguished Scientist Awardee, Kenrick Lewis giving his presentation**

*(Photo courtesy of Rolande Hodel)*



**Rolande Hodel presenting the Distinguished Scientist Award to Kenrick Lewis.**

*(Photo courtesy of Rolande Hodel)*



The photo of the student awardees present at the dinner along with the Westchester Chemical Society's co-chairs and education director is below:



**The Student Awardees with the WCS Co-Chairs and Education Director.**

**Front Row:** Maris Mendez (College of New Rochelle), Alessandra Armetta (Iona College), Kenia Castellanos (Mercy College), Douglas Huntington (Manhattan College), and Salaheldeen Elkattawy (New York University). **Rear Row:** Paul Dillon (WCS Chair), Johanna Svensson (Rockland Community College), Johanna Marker (Westchester Community College), Kyle Lam (Cooper Union), Sarah Hurley (Fordham University), Rolande Hodel (WCS Chair), Louisa Rodriguez (Bronx Community College), and Peter Corfiled (WCS Education Director).

*(Photo courtesy of Paul Dillon)*

Many of the Distinguished Scientist's colleagues from his employer (Momentive Performance Materials, Inc. of Tarrytown, NY) attended the award dinner. Momentive is a successor company to the old Union Carbide Corp. Silicones Division. A number of former Carbiders also attended. All are in the photo below:



**The group of Momentive employees and former Union Carbide employees attending with the Distinguished Scientist Awardee in center.**

**Front Row:** Syl Turicchi, Bela Prokai, Bernie Kanner, Linda Vecere, and Don McLeod. **Middle Row:** Antonina Nikitenko, Angelika Sussman, Ginny Guarino, Louisa Maio, Mary Ann Paccione, Anne Dussaud, Yanjun Zhu, YiXue Zhang, Ning Lu, Ken Lewis, Samer Bleibel, Misty Huang, Abellard Mereigh, Roy Aroop, and Julie Boyer. **Rear Row:** Eric Pohl, Anthony Durante, Richard Cruse, Gene Ward, David Clay, Roy Rojas-Wahl, Ian Moore, Al Pagliughi, Paul Dillon, Richard Conticello, and John Nicholson.

*(Photo courtesy of Paul Dillon)*

In addition is a small group of Union Carbide old-timers who had worked together at various times:



**Bela Prokai, Paul Dillon, Bernie Kanner, Kenrick Lewis and Anthony Durante.**

*(Photo courtesy of Paul Dillon)*



*(Photo courtesy of Rolande Hodel)*



*(Photo courtesy of Rolande Hodel)*

## **WESTCHESTER CHEMICAL SOCIETY**

Paul Dillon, co-chair and co-program director of the WCS authored a poster, "95%

Confidence Intervals for the ELF™ Test Cutoffs," presented at the annual meeting of the American Society for Clinical Chemistry in Atlanta, GA on July 28, 2015.

## **WESTCHESTER CHEMICAL SOCIETY/SHIMADZU SCIENTIFIC INSTRUMENTS JOINT SEMINAR/LUNCHEON**

On Tuesday, July 7, 2015 the Westchester Chemical Society and Shimadzu Scientific Instruments of Somerset, NJ held a joint seminar and luncheon meeting at the Casaletto Ristorante in Elmsford, NY. The seminar was held to present Shimadzu's Nexera UC (Unified Chromatography System), which won the Pittcon Editors' Gold Award earlier this year. The joint meeting was arranged by Kathleen Anderson of Shimadzu (also the Communications Director for the NJ Mass Spec Discussion Group) and Paul Dillon, co-chair of the WCS. There were two speakers. First Thomas Moran, of Shimadzu, spoke on

"Introducing the Nexera SFE/SFC Unified Chromatography System". This focused on the capabilities of the Nexera system, in particular its use in conjunction with super-critical fluid phases. The second talk, given by Matthew Przybyciel, Ph.D., of ES Industries, West Berlin, NJ was entitled "The Tools of SFC: Designing an A-Chiral Methods Development SFC Column Kit." This discussed work done at ES using the Nexera system. There were about 25 attendees, a good audience for a week-day meeting just days after Independence Day. All enjoyed a delicious lunch. Following the talks there was a lively question and discussion session. Several photos from the meeting follow: one of the organizers along with David Kohler, president of ES Industries, one of Paul Dillon with the two speakers and the third of the entire group during Dr. Przybyciel's talk.



**At right: Thomas Moran, Paul Dillon and Matt Przybyciel.**

*(Photo courtesy of Paul Dillon)*

**Front Row: Paul Dillon and Matt Przybyciel. Rear Row: David Kohler, Thomas Moran and Kathleen Anderson.**

*(Photo courtesy of Paul Dillon)*



**Below: The Entire Group.**

*(Photo courtesy of Thomas Moran)*



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## Others

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### ASSOCIATION OF CONSULTING CHEMISTS & CHEMICAL ENGINEERS (ACC&CE)

#### Why Global Warming Alarmists Might Be Wrong

*Speaker:* Dr. Richard Schauer

For 30 years, global warming alarmists (GWAs) have preached that mankind is threatened by rising temperatures. Newspaper and magazine articles as well as TV and talk radio programs are filled with allegations that continued burning of fossil fuels will significantly increase the concentrations of carbon dioxide in Earth's atmosphere. Numerous computer models have predicted that the increasing carbon dioxide level will raise air temperatures so much that all of the Arctic, Greenland and Antarctic ice will melt. Coastal cities will be inundated by the rising sea levels. Vast numbers of people will die from excessive heat. More millions of people will die from starvation from famines caused by prolonged droughts. Polar bears will become extinct. The UN and the Obama administration are urging imposition of carbon taxes to reduce fossil fuel use.

But, data do not support these predictions. For instance, the total amount of ice at the two poles is almost unchanged since satellites began measurements in 1979. Sea level rise has not accelerated beyond the trend that began at the end of the last Ice Age (12,000 years ago). Polar bear populations are thriving. So, who's right?

This talk will look at climate changes over the last 650,000 years as well as the many factors that influence Earth's temperature. The question whether mankind will face runaway global warming or another ice age will be considered. There will be plenty of food for thought.

#### Biography

Dr. Richard L. Schauer has worked in the chemical industry for 50 years. He has been an employee of two major chemical companies working in the chemical regulatory area. Dr. Schauer has been a consultant since 1992 as a chemical regulatory spe-

cialist. He has traveled to 45 countries and currently represents many domestic and overseas clients.

Recently, he has become very disturbed by the public's lack of knowledge about what really controls climate change and that decisions with long term impact based on short term trends are being made by regulatory agencies. So, in his presentation titled **Why Global Warming Alarmists Might Be Wrong**, Dr. Schauer will present information that challenges global warming alarmists' allegations.

Please contact Dr. John Bonacci at ACC&CE: email: [acce@chemconsult.org](mailto:acce@chemconsult.org), phone or fax: (908) 464-3182 or regular mail: P.O. Box 902, Murray Hill, NJ 07974-0902.

**Date:** Wednesday, September 23, 2015

**Times:** Council Meeting 5:00 PM  
Dinner and Talk 6:00 PM

**Place:** Top Hat Tavern in the  
Grand Summit Hotel  
Springfield Avenue near  
Morris Avenue  
Summit, NJ

**Cost:** Registration fee is \$35 for  
members and non-members.

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## National

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### CANDIDATES FOR THE FALL 2015 ACS NATIONAL ELECTION

The Committee on Nominations and Elections (N&E) is announcing the final slate of candidates who will appear on the fall 2015 ballot. They are:

#### *Candidates for President-Elect, 2016*

**G. Bryan Balazs**, Associate Program Leader, Lawrence Livermore National Laboratory, Livermore, CA

**Allison A. Campbell**, Associate Laboratory Director, Pacific Northwest National Laboratory, Richland, WA

#### *Candidates for Directors-at-Large, 2016-2018*

**Lee H. Latimer**, Head of Chemistry, NeurOp, Inc., Oakland, CA

**Willem R. Leenstra**, Associate Professor, University of Vermont, Burlington, VT

**Ingrid Montes**, Professor, University of

Puerto Rico-Rio Piedras Campus, San Juan, PR

**Mary Jo Ondrechen**, Professor of Chemistry and Chemical Biology, Northeastern University, Boston, MA

**Thomas W. Smith**, Professor, Chemistry & Microsystems Engineering, School of Chemistry and Materials Science, Rochester Institute of Technology, Rochester, NY

**Candidates for District I Director, 2016-2018**

**Thomas R. Gilbert**, Professor, Northeastern University, Boston, MA

**Laura E. Pence**, Professor of Chemistry, University of Hartford, West Hartford, CT

**Candidates for District V Director, 2016-2018**

**John E. Adams**, Curators' Teaching Professor, University of Missouri-Columbia, Columbia, MO

**Kenneth P. Fivizzani**, Retired, Nalco Company, Naperville, IL

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## Call for Volunteers

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### MARM 2016

The New York Section will be hosting MARM 2016, June 9-12, 2016 at the College of Mount Saint Vincent, Riverdale, NY 10471. The section will be celebrating its 125th Anniversary during its event. The theme has yet to be determined. The General Chairs for this meeting are Dr. Pamela Kerrigan and Dr. Daniel Amarante from the College of Mount Saint Vincent's Division of Natural Sciences. To volunteer in planning and/or for further information, please contact them at the following emails:

[Pamela.kerrigan@mountsaintvincent.edu](mailto:Pamela.kerrigan@mountsaintvincent.edu)  
or  
[Daniel.amarante@mountsaintvincent.edu](mailto:Daniel.amarante@mountsaintvincent.edu)



### ChemExpo 2015 Saturday, October 17, 2015

#### Call for Help

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On Saturday October 17th, the North Jersey Section of ACS will be holding its 21st ChemExpo in celebration of National Chemistry Week at Liberty Science Center, Jersey City, New Jersey. Please help us make a difference!

The theme for this year is "Chemistry Colors Our World". Join us to make this event a fun-filled day of hands-on science chemistry activities that will engage visitors in exploring the positive impacts of chemistry. The activities should be geared for 6 to 12 year olds. Check out the National Chemistry Week web page at <http://portal.acs.org/> to get some ideas for hands-on activities that you might be interested to present.

To minimize duplication of the presentations, please email us the list of activities that you/your team would like to present preferably by September 15th, 2015. Individuals contacting us first with their idea(s) will be given priority. We would like the students to be able to redo these experiments at home and/or at school so please be thorough in your presentation and explanations.

Thanks very much for all of your help. The Section is most appreciative of your efforts.

Mita Chaki - [mitachaki@gmail.com](mailto:mitachaki@gmail.com)

Monica Sekharan - [monicasekharan@njacs.org](mailto:monicasekharan@njacs.org)

Please fill out the following form and return to Claire Miller at [cmiller07940@yahoo.com](mailto:cmiller07940@yahoo.com)

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## Call for Sponsorship

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### **ChemExpo 2015 Saturday, October 17, 2015 Call for Sponsorship**

On Saturday October 17th, the North Jersey Section of ACS will be holding its 21<sup>st</sup> ChemExpo in celebration of NCW (National Chemistry Week) at Liberty Science Center, Newark, New Jersey. Please help us make a difference! The theme for this year is "Chemistry Colors Our World".

We are looking forward to financial support to help cover many of the expenses associated with the Section's NCW activities. A donation of \$500.00 indicates Gold Sponsorship, a \$250.00 gift indicates Silver Sponsorship and a \$100.00 gift indicates a Bronze Sponsorship. We would appreciate it if you would forward this information to the appropriate representatives within your company.

Checks should be made out to:

"NJACS" (The North Jersey Section of American Chemical Society)  
with a memo of "NCW".

Sent to:

Jacqueline Erickson  
33 Ronald Road  
Lake Hiawatha, NJ, 07034-1121.

Thanks very much for all of your help. The Section is most appreciative of your efforts.

Mita Chaki and Monica Sekharan

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## Call for Applications

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### FREDDIE AND ADA BROWN AWARD

This Award recognizes and encourages high achieving middle- and high-school students, of African American and Native American heritage, to further develop their academic skills, with views on careers in the chemical sciences

#### Award Amounts

Middle School \$100.00 Check and \$50.00 gift certificate : High School \$200.00 Check and \$100.00 gift certificate

#### Who is Eligible

Middle School students enrolled in a science class : High School students who have completed a chemistry course

#### Grades

Middle School B Average or better in Science, B Average overall : High School B Average in Chemistry, B Average overall

#### Letter of Recommendation

Math or Science/Chemistry Teachers or Guidance Counselor

#### Statement

Middle School "Why I Like Science" : High School "Why I Like Chemistry"

#### Selection Criteria

Applicants must be African American (Black) or Native American (including Pacific Islander) or of mixed race.

#### Transcript

Official transcript required.

#### Financial Need

Not Required.

Applications available on the web: [www.njacs.org/freddieadabrown](http://www.njacs.org/freddieadabrown)

or from your school guidance office.

#### Return Application To

Freddie and Ada Brown Award, NJACS Section Office, 49 Phippen Way, Morristown, NJ 07960

#### Due Date

Completed Applications must be post-marked no later than **March 31 Annually**

**Questions:** Contact Jeannette Brown [Jebrown@infionline.net](mailto:Jebrown@infionline.net) or (908) 239-1515

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### HIGH SCHOOL TEACHERS TOPICAL GROUP

#### Physics at the Large Hadron Collider

*Speaker:* Professor Rostislav Konoplich  
Manhattan College

Professor Konoplich has spent recent summers working with the ATLAS detector at the LHC, and his presentation will give an introduction to elementary particle physics at the LHC, describe major discoveries, and discuss the prospects for measurements of the Higgs boson quantum numbers and prospects of searching for rare Higgs boson decays and new physics in future high luminosity LHC runs.

#### Date: Friday, September 18, 2015

Time: Social and Dinner — 5:45 PM

Place: Social and Dinner — Thomas Hall on the Manhattan College campus. Thomas Hall offers an all-you-can-eat dinner from over 16 dining stations for \$12 (cash or credit card) from 5 to 8 p.m., and it is a short walk from there to Hayden Hall.

Time: Meeting — 7:15 PM

Place: Meeting — Hayden Hall of Manhattan College – accessed from the 242 St. Station on the #1 subway line.

**Directions:** *Subway:* line #1 at 242 Street

*Car:* free parking in a lot off the main entrance to Manhattan College, past a guard booth, the first right turn when headed uphill and west on Manhattan College Parkway. This lot, nearly opposite Waldo Avenue, is near Hayden Hall, and Thomas Hall. Another place to park is the garage near the 242 St. entrance, which accesses the overhead walk to the back of Hayden Hall.

Although there is no elevator at the 242 Street #1 stop, there is one at 231 St., from which one could take the Bx9 bus on Broadway under the elevated train to 242 St. One could also walk from the SE corner of 231 St. and Broadway to the NW corner of 231 St. and Broadway to the NW corner of 231 St. and Broadway to the NW corner of 231 St. and Broadway and take the Bx7 uphill to 238 St. and Broadway and walk downhill to the College by way of 238th and Waldo Ave.

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## Press Releases

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### COMPLEX HAZMAT TRANSPORT REGS ...

#### Would Even Challenge Einstein, Shipping Execs Say in Survey

CHICAGO – (July 9, 2015) – Is complying with the multitude of regulations for the transport of hazardous materials – also known as dangerous goods (DG) – truly a challenge?

Well, even Albert Einstein would have had problems figuring out some of the rules, according to shipping executives recently surveyed by Labelmaster, a leading provider of solutions for hazardous material transport compliance.

More than half of the 136 executives polled – 56 percent – said the brainy Einstein would have difficulties figuring out the 49 CFR, one of the government’s primary reference books that cover regulations, requirements and standards for U.S. hazmat transportation via highway, rail, air and water.

The survey also revealed a majority – 59 percent – find it challenging to keep up with the ever changing DG regulations.

“Between the Department of Transportation, the Federal Aviation Administration and the Department of Defense, there are literally thousands of regulations governing the shipment of dangerous goods,” said Robert Finn, vice president of marketing with Labelmaster. “And, these complex regulations constantly change. Just two examples are the proliferation of new rules for the shipment of lithium cells and batteries, and new regulations for the burgeoning crude oil rail carriage industry.

“Yet, following these regulations is essential to ensure the safety of the public, the environment and those who transport dangerous goods,” he added. “Improper packaging or labeling can lead to accidents and fatalities.”

Survey respondents certainly understand these issues. When asked to name the challenging aspect of meeting dangerous goods transport regulations, there were several responses. The number one answer was “the regulations change all the time,” cited by 18 percent. The fact that “regulations are different when using different transportation modes” ranked second at 15 percent, followed by “the regulations are confusing – everyone has a different interpretation,” cited by 14 percent.

The survey also revealed that DG pros have a high level of job satisfaction and take pride in keeping the more than 1.4 million daily danger-

ous goods shipments in the U.S. moving safely from origination to destination.

The Labelmaster research results are based on the responses of 136 dangerous goods transport professionals who completed an online survey in April 2015.

For more information on regulatory compliance and solutions visit [www.labelmaster.com](http://www.labelmaster.com).



### STUDY: FRAC SAND MINING A BOON ...

#### For Employment, Earnings, Economies

CHICAGO (June 8) – A new Policy Study from The Heartland Institute shows industrial sand mining has been “a significant driver of economic growth across the Upper Midwest.” If done in an environmentally responsible manner, the study finds, “it can be an important source of employment and earnings for decades to come.”

The study, titled “Economic Impacts of Industrial Silica Sand (Frac Sand) Mining,” is the second in a series by Heartland Institute Research Fellow Isaac Orr and geologist Mark Krumenacher, who is principal and senior vice president of GZA GeoEnvironmental Inc., addressing the mining of industrial silica sand, known as “frac sand.” The sand is abundant in the Upper Midwest – especially rural Wisconsin, which produces two-thirds of the nation’s frac sand – and is essential for hydraulic fracturing for oil and natural gas.

“Industrial sand mining has been a big economic stimulus to Western Wisconsin,” said Orr. “When I started college at the University of Wisconsin Eau Claire in 2006, people there were still talking about how the town had never really recovered from the UniRoyal Tire factory closing in town, even though the tire factory closed in 1991. Now, thousands of people have high-paying jobs in the area.

Download a free PDF of this new Heartland Institute Policy Study at this link. <https://www.heartland.org/policy-documents/economic-impacts-industrial-silica-sand-frac-sand-mining>

The first report, released in May 2015, addresses the environmental impacts of frac sand mining. Download that Heartland Institute Policy Study at this link. <https://www.heartland.org/policy-documents/environmental-impacts-industrial-silica-sand-frac-sand-mining>

To speak to either of the authors of this Policy Study, please contact Director of Communications Jim Lakely at [jlakely@heartland.org](mailto:jlakely@heartland.org) and (312) 377-4000 or (cell) (312) 731-9364.



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