

THE Indicator

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44th Middle Atlantic Regional Meeting June 9-12, 2016

Chemistry: Past Present & Future
New York – A Chemistry State of Mind



College of Mount Saint Vincent
Riverdale, New York

Sponsored by
The New York Section of the American Chemical Society

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THIS MONTH IN CHEMICAL HISTORY

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

In my last column I continued a study of a summary of a year of chemistry of a century ago undertaken at the time by the Chemical Society of London (now the Royal Society of Chemistry) in its Annual Report reviewing the work of chemists. I will conclude my study of Annual Reports Volume XIII covering 1916 in this column. You will recall that at this time Great Britain and her allies (though not yet the United States) was engaged in a bitter war with Germany and her allies. Consequently this is one of the slimmer volumes in the series that is ongoing.

I don't know how familiar you are with the word caoutchouc. I admit I had to resort to a dictionary to confirm my original guess – which was correct. This is an obsolete term referring to natural rubber! The organic chemistry section in the 1916 Annual Report has over 5 pages devoted to this subject, indicating its significance to chemists of the period. It was already known that natural rubber was a “polymer” of isoprene, but there was still uncertainty about what a “polymer” was. The distinction between macromolecules and some undefined “collection” of small molecules had not yet been clarified. Staudinger's controversial later work from the 1920s on led to our present understanding of macromolecules (and may be the topic of a future column). The report says that in one paper published in 1916 no fewer than 29 methods for the preparation of butadiene are given. The work of the Russian chemist Ostromisslenski is given especial prominence in this review. “The goal of Ostromisslenski's work is apparently the production, by synthetical means, of elastic colloids which display the essential physical characteristics of natural caoutchouc”. Note the word colloids. This was the expression used at that time for many natural materials that we would designate as macromolecules. Much of this section of the review is focused on the possible synthetic production of rubber-like materials – a goal that was achieved on an industrial scale during World War II.

Work on the constitution of cholesterol, a natural product of continued importance since the 19th. century, has progressed in 1916 especially in the laboratory of Windaus who received the Nobel Prize in chemistry in 1928 for his work. We now know that cholesterol, like other steroids, is tetracyclic. In 1916 Windaus work had led him provisionally to a tricyclic system with an undetermined C17 side chain. Evidence was also accumulating that the molecule contained only one double bond, rather than the two that had previously been postulated.

In a previous report Lifschitz had claimed the production of a remarkable new heterocyclic compound containing a five-membered ring of all nitrogen atoms, the so-called pentazoles. However in 1916 Curtius and his colleagues had demonstrated that in fact these compounds were tetrazoles, containing four nitrogen atoms and one carbon atom in the ring.

In an unexpected context within the organic chemistry section, under the heading of heterocyclic theories of the complex salts, there is an extended criticism by J.A.N. Friend of Werner's coordination theory of cobalt complexes. “The coordination theory, while assuming a definite valency for cobalt, nitrogen, and hydrogen atoms denies an equally definite valency to chlorine ...The “coordination theory” ascribes to cobalt a valency of six, which is opposed to ordinary experience”. In reading this section it becomes clear that the distinction between valency or oxidation state and coordination number is a concept even experienced chemists were having difficulty with. Friend ascribes heterocyclic formulations to the cobalt complexes discussed.

Perhaps in my early columns of 2017 I will return to these Annual Reports of a century ago which give us remarkable insights into what our ancestral chemists were doing and thinking.

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February 2017	December 28, 2016
March	January 28, 2017
April	February 28

Visit Uswww.TheIndicator.org*The Indicator* (ISSN0019-6924) is published on-line monthly except July and August by the New York and North Jersey Sections of the American Chemical Society, Office of Publication, 1 Milbark Court, Homosassa, FL 34446.All views expressed are those of the editor and contributors and do not necessarily represent the official position of the New York and North Jersey Sections of the American Chemical Society unless so stated. Distributed electronically to members through the website www.TheIndicator.org. Non-members are invited to read it online. Members should register their email addresses at www.acs.org/editmyprofile.

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

April Calendar

NEW YORK SECTION

Thursday, April 7, 2016
Chemical Marketing & Economics Group
See page 10.

Thursday, April 7, 2016
Long Island Subsection
See pages 10-11.

Thursday, April 7, 2016
Westchester Subsection
See page 25.

Friday, April 15, 2016
New York Section Board Meeting
See page 10.

Friday, April 15, 2016
High School Teachers Topical Group
See page 11.

Tuesday, April 19, 2016
New York Nanoscience Discussion Group
See page 11.

Friday, April 22, 2016
Hudson-Bergen Chemical Society
See page 11-12.

Sunday, April 24, 2016
Earth Day Celebration
See page 14.

Wednesday, April 27, 2016
Westchester Distinguished Scientist Award
and College Student Achievement Awards
Dinner Meeting
See pages 12-13.

also

Wednesday, May 4, 2016
LIACS High School Awards Ceremony
See page 14.

Saturday, May 7, 2016
Undergraduate Research Symposium
See pages 16-17.

Thursday-Sunday, June 9-12, 2016
MARM 2016
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NORTH JERSEY SECTION

Monday, April 11, 2016
Careers in Transition
See page 5.

Tuesday, April 12, 2016
North Jersey Executive Committee Meeting
See page 5.

Thursday, April 14, 2016
Drug Metabolism Discussion Group
See page 6.

Friday, April 29, 2016
68th Annual Undergraduate Research
Conference
See page 7.

also

Tuesday, May 24, 2016
North Jersey Section Annual Awards and
Recognition Dinner
See page 7.

**Deadline for items to be
included in the
May 2016 issue of
The Indicator is
March 28, 2016**

***The Indicator* is posted to
the web on the 15th of the
previous month at
www.TheIndicator.org**



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North Jersey Meetings

<http://www.njacs.org>

NORTH JERSEY EXECUTIVE COMMITTEE MEETING

Section officers, councilors, committee chairs, topical group chairs, and section event organizers meet regularly at the Executive Committee Meeting to discuss topics of importance to running the section and representing the membership.

All ACS members are welcome to attend this meeting and to become more involved in section activities.

Date: Tuesday, April 12, 2016

Time: 6:00 PM

Place: Orangerie, Monninger Library
Fairleigh Dickinson University
285 Madison Avenue
Madison, NJ

For teleconference participation dial:
(866) 217-3840 and enter code 1209261
Consult the NJACS website for updates
<http://www.njacs.org>



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, April 11, 2016

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

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.



NJACS PARTNERS WITH STUDENTS2SCIENCE

Members are encouraged to volunteer at their East Hanover facility and explore their website at 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.

DRUG METABOLISM DISCUSSION GROUP

2016 Spring Symposium and Vendor Exhibition

Transforming the Assessment of Drug Disposition with Novel Methodologies

Sponsored by: North Jersey ACS Drug Metabolism Discussion Group

Five dynamic speakers from industry and academia have been selected to present their work. The meeting will be held at The Palace <http://palacesomersetpark.com> and chaired by Lauren Aleksunes, Rutgers University. 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.

Program

- 8:00 AM Registration / Continental Breakfast / Vendor Exhibit
- 9:00 AM Introductory Remarks
Lauren Aleksunes, Chair, NJ DMDG
- 9:10 AM **“Application of Engineered Mouse Models for Xenobiotic Disposition Studies”**
Speaker: Xinxin Ding, PhD, Professor, Director of the Laboratory of Molecular Toxicology, SUNY Polytechnic Institute, Albany, NY
- 10:00 AM **“Challenges in Identifying Biomarkers for Transporter-Mediated Drug-Drug Interactions in Liver and Kidney”**
Speaker: Raymond Evers, PhD, Preclinical ADME, PK/PD, and Drug Metabolism, Merck & Co., Kenilworth, NJ
- 10:50 AM *Vendor Exhibit & Coffee Break*
- 11:30 AM **“Microsampling in Nonclinical Studies: Where Are We Now?”**
Speaker: Laura Patrone, PhD, Senior Research Investigator, Bristol-Myers Squibb Co., New Brunswick, NJ
- 12:20 PM *Lunch & Vendor Exhibit*
- 1:30 PM **“MALDI Imaging MS: Seeing Drug ADME in Tissues at Last”**
Speaker: Stephen Castellino, PhD, SM Director, DMPK, Biotransformation and Drug Disposition, GlaxoSmithKline, King of Prussia, PA
- 2:20 PM *Vendor Exhibit & Coffee Break*
- 2:40 PM **“Validation of an Integrated Series of Ligand Binding Assays for the Quantitative Determination of Antibody-Drug Conjugates in Biological Matrices”**
Speaker: Heather Myler, PhD, Principal Investigator, Analytical and Bioanalytical Department, Bristol-Myers Squibb, Princeton, NJ
- 3:30 PM *Program closure*

Date: Thursday, April 14, 2016

Times: 8:00 AM - 3:30 PM

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

Cost: Preregistration (**by April 7**): \$125. Registration at the door: \$150 (*Checks only*).
Registration for students and postdocs: \$10. Registration for faculty: \$50.
Registration is free for unemployed. To register, contact your company representative or email Lauren Aleksunes at the email address above.

NORTH JERSEY SECTION'S 68th ANNUAL UNDERGRADUATE RESEARCH CONFERENCE

The Sixty-Eighth Annual Undergraduate Research Conference provides an opportunity for talented undergraduate students in the North Jersey Section to give an oral presentation on their research results. All undergraduate students in the North Jersey Section are invited to participate in this very rewarding event. The research presentations will be judged by local chemists working in industry or academia and the student giving the best presentation will be given the 2016 Jean Asell Duranna Award. In addition the top three presenters will be awarded cash prizes. The student award winners and their advisors will then be invited to attend the North Jersey Section's Annual Awards Dinner held on **Tuesday May 24, 2016** in Lenfell Hall on the Fairleigh Dickinson University campus in Madison, NJ.

Abstract Information: Clearly indicate the title of the presentation and all authors. Abstracts must be no more than 200 words and need to be submitted as a word document attached to an email to Matthew Mongelli at mmongelli@kean.edu

Abstracts deadline is Tuesday April 19, 2016

Date: Friday, April 29, 2016

Times: Noon until 5:00 PM

Place: Seton Hall University -
South Orange Campus
Arts and Science Hall Room 107
South Orange, NJ

For more information about this event contact Matthew Mongelli at mmongelli@kean.edu

NORTH JERSEY ANNUAL AWARDS AND RECOGNITION DINNER

The Annual Awards and Recognition Dinner for the North Jersey Section will be held on Tuesday, May 24, 2016, in Lenfell Hall of the Mansion on the Florham Campus of Fairleigh Dickinson University., Madison, NJ. The guests of honor will be the 50 and 60 year members of the ACS. Additional honorees will include recipients of the Chemistry Olympiad, Outreach Volunteer of the Year, Freddie & Ada Brown, Merrill, Salute to Excellence, Pro Bono and Undergraduate Research Conference Awards. The 2016 ACS Fellows from the North Jersey Section will also be recognized.

Date: Tuesday, May 24, 2016

Times: Social 4:30 PM,

Dinner and Presentation of

Certificates and Awards, 5:30 PM

Cost: \$35 (additional guests only)

Directions: can be found at

<http://view.fdu.edu/default.aspx?id=238>

Reservations: Please make your reservation at our [website, www.njacs.org](http://www.njacs.org) prior to **Tuesday, May 10, 2016**

Questions: Call (973) 822-2575 or e-mail chemphun@gmail.com

Bettyann Howson

Secretary, Councilor, Education Chair

North Jersey Section ACS

Chair, ACS Committee on Chemical Safety



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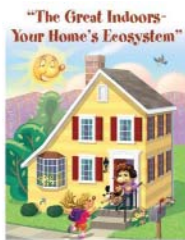
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Chemists Celebrate Earth Day 2016 Illustrated Poem Contest

The **NORTH JERSEY SECTION** of the American Chemical Society (ACS) is sponsoring an illustrated poem contest for students in Kindergarten - 12th grade. **Send ONLY your top 3 winners in each grade category:**

Categories: Gr. K-2 Gr. 3 – 5 Gr. 6-8 Gr. 9-12

Contest Deadline: **FRIDAY, APRIL 8, 2016**

Prizes for Teacher and Student in each grade category: **1st Place: \$50 2nd Place: \$25 3rd Place: \$10**

Send to: NJACS Office, c/o Bettyann Howson, 49 Pippins Way, Morris Township, NJ 07960

1st Place Winners of the NORTH JERSEY SECTION illustrated poem contest will advance to the ACS National Illustrated Poem Contest!

Write and illustrate a poem using the CCED theme, "**The Great Indoors–Your Home's Ecosystem**". Your poem must be **no more** than 40 words, and in the following styles to be considered:

HAIKU • LIMERICK • ODE • ABC POEM • FREE VERSE • END RHYME • BLANK VERSE

Possible topics related to water and chemistry include:

- Indoor Air
- Mold
- Odor
- Indoor Plants
- Water
- Perfume

Entries will be judged based upon:

- Relevance to and incorporation of the theme
- Word choice and imagery
- Colorful artwork
- Various physical properties of water
- Any other relevant topics

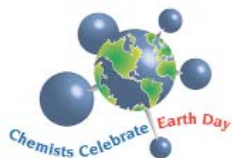


Contest Rules:

- Poems must conform to a particular style. No poem may be longer than 40 words.
- The topic of the poem and the illustration must be related to the CCED 2016 theme, "**The Great Indoors – Your Home's Ecosystem**".
- All entries must be original works without aid from others.
- Each poem must be submitted and illustrated on an unlined sheet of paper (of any type) not larger than 11" x 14". The illustration must be created by hand using crayons, watercolors, other types of paint,

colored pencils or markers. The text of the poem should be easy to read and may be printed with a computer, before the hand-drawn illustration is added, or the poem may be written on lined paper which is cut out and pasted onto the unlined paper with the illustration.

- Only one entry per student will be accepted.
- All entries must include an entry form.
- All illustrated poems and/or digital representations of the poems become the property of the American Chemical Society.
- Acceptance of prizes constitutes consent to use winners' names, likenesses and entries for editorial, advertising and publicity purposes.



**Chemists Celebrate Earth Day (CCED) 2016
"The Great Indoors – Your Home's Ecosystem"**

ILLUSTRATED POEM CONTEST ENTRY FORM

Please fill out this form, print, and attach to the back of the poems. All fields are required. Incomplete forms will invalidate the entry.

The receipt deadline for the **NORTH JERSEY Local Section Contest** is **FRIDAY, APRIL 8.**

Student's Name:							
Grade:							
Parent/Guardian:			Parent/Guardian Email:				
School or sponsoring group: <i>(e.g. Boys and Girls Club or Scout Troop, 4-H, etc.)</i>							
Teacher's Name:			Teacher's Email:				
School Address:							
Address Line 2:							
City:			State:		Zip:		
Judging Category (Check one)							
K-2 nd	<input type="checkbox"/>	3 rd -5 th	<input type="checkbox"/>	6 th -8 th	<input type="checkbox"/>	9 th -12 th	<input type="checkbox"/>
FOR LOCAL SECTION USE ONLY							
Local Section Name (Number):			NORTH JERSEY SECTION				
CCED Coordinator Name:			Bobbi Gorman				
Email / Phone:			rosellerams@yahoo.com				

New York Meetings

www.newyorkacs.org

NEW YORK SECTION BOARD MEETING DATES FOR 2016

The dates for the Board Meetings of the ACS New York Section for 2016 have been selected and approved. The meetings are open to all – everybody is welcome. All non-board members who would like to attend any of the meetings ought to inform the New York Section office by emailing Mrs. Marilyn Jespersen at njesper1@optonline.net or by calling the Section office at (516) 883-7510.

All 2016 Board Meetings will be held on the following dates at St. John's University, 8000 Utopia Parkway, Jamaica, NY. Dr. Alison Hyslop 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.

The board meetings dates for 2016 will be

Friday, April 15, 2016

Friday, June 3, 2016

Friday, September 16, 2016

Friday, November 18, 2016

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 (CM&E) GROUP

Biotechnology Outlook

Speaker: TBA

Date: Thursday, April 7, 2016

Times: Registration and Networking

11:15 AM - 12:00 noon

Luncheon 12:00 - 1:00 PM

Webcast 1:00 PM - 2:00 PM

Place: Penn Club

304 West 44 Street

New York, NY

Webcast free for all ACS Members/

See details at www.cmeacs.org

LONG ISLAND SUBSECTION

From Archimedes Palimpsest to Water Analysis: My 37 Years of Instrumental Analytical Chemistry at Rutgers

Speaker: Dr. Gene S. Hall
Department of Chemistry and
Chemical Biology
Rutgers, The State University
of New Jersey
New Brunswick, NJ

My presentation will focus on my 37 years of analytical chemistry in the Chemistry Department at Rutgers, The State University of New Jersey. I will share with you some of the exciting research projects that I have been involved with based upon the use of several analytical instruments (Raman, GC-FID/MS, TOF-MS/MS, EDXRF, FT-IR, HPLC, and TLC-FID) in my toolbox. In addition, teaching has been an exciting way to pass on my knowledge to up-and-coming students wishing to pursue a career in analytical chemistry.

My research has three areas of focus that include environmental, biological, and forensic. In environmental analysis, I will share with you my experience with ICP-MS for tap water analysis to determine sources of Pb by measuring its stable isotopes. Furthermore, using ICP-MS in biological applications, we report on blood lead analysis from a gunshot victim in which Pb-based bullet fractions remain lodged in the subject's body. By measuring the stable Pb isotope ratios in sequential blood samples and comparing these ratios with the lead-based bullet, interesting kinetics of Pb exchange can be determined. Recently, we have been using shotgun lipidomics to analyze designer omega-3 fatty acid dietary supplements used to provide the bioactive molecule DHA to Alzheimer's patients.

Forensic science has also been an exciting venture in our laboratory. In this regard, I will share you our micro EDXRF method to recover text, non-destructively of course, for the first time on pages from the Archimedes Palimpsest. Keeping with the theme of micro analytical chemistry, results using Raman microscopy, micro ATR-FTIR, and micro EDXRF, will be presented. Specific examples, non-destructively, of analyzing postage stamps, jewelry (counterfeit Rolex watches), counterfeit US and British banknotes, Coach handbags, mouse embryos, and krill will be presented. Use of chemometrics with digital spectral libraries and database mining software assisted in rapid characterization of unknown artifacts.

Analytical chemistry with an extensive toolbox of state-of-the-art instrumentation is fun and exciting. Therefore, in this presentation, sharing our specific applications described above will be fun and enjoyable.

Date: Thursday, April 7, 2016

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

The April 7, 2016 meeting announcement appears on page 25 of this issue.



HIGH SCHOOL TEACHERS TOPICAL GROUP

“Demo Derby” — an evening of non-stop demonstrations by the attendees. (5-8 minutes max.)

Demonstrators should bring handouts of instructions and be prepared to clean up and remove all materials. Safety procedures will be observed. Note that there is no water or gas service in the renovated room.

Date: Friday, April 15, 2016

Time: Social and Dinner — 5:45 PM

Place: Social and Dinner — TBD

Time: Meeting — 7:15 PM

Place: Meeting — New York University Silver Center Room 207
32 Waverly Place (South-east corner Washington Sq. East)
New York, NY 10003

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

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

Note: On street parking is free after 6:00 PM.

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.

Date: Tuesday, April 19, 2016

Times: Refreshments — 7:00 PM

Science — 7:30 PM

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



THE HUDSON-BERGEN CHEMICAL SOCIETY, SIGMA XI CHAPTER AND THE SCHOOL OF NATURAL SCIENCES OF FAIRLEIGH DICKINSON UNIVERSITY

The 18th Annual Undergraduate Research Symposium

This is a forum for students and their faculty mentors from colleges and universities that participate in the subsection's activities to present the results of their research. Outstanding graduating students are also being recognized (they receive the Hudson-Bergen Chemical Society Award consisting of a certificate and a book). All the presenters will receive certificates and a book. Students who wish to present posters must send an abstract via e-mail to mleonida@fdu.edu, by April 8, 2016. The abstract should be in MS Word format and must include the names and addresses of the student(s) and their faculty adviser(s) in addition to the title of the abstract. The abstract should not exceed 200 words. The name of the student presenting the poster

(continued on page 12)

HUDSON-BERGEN CHEMICAL SOCIETY

(continued from page 11)

should be underlined. The posters have to be self-supported. There is no registration fee.

This year's symposium also features the lecture:

Multi-functional Particle Assemblies in Polymer Nanocomposites

Speaker: Dr. Pinar Akcora
Department of Chemical
Engineering & Materials Science
Stevens Institute of Technology

Control of nanoparticle dispersion in polymer matrices is critical for tuning and optimizing the properties of polymer nanocomposites. It is now established that functionalizing nanoparticles with polymers, bioligands or DNA can govern dispersion at nanoscale level. Polymer-tethered magnetic nanoparticles are a comprehensive model system offering both anisotropic and isotropic interactions that can be tuned with particle size, particle functionality and external magnetic fields. Our group works on understanding the role of ionic, magnetic and isotropic attractive interactions to elucidate the formation of thermodynamically equilibrium self-assembled structures. In this talk, I will discuss the assembly of ion containing polymer-grafted iron oxide nanoparticles in polymer melts, which can be used in controlling the ion transport in polymer nanocomposites. Additionally, we study the nonlinear mechanical behavior of these composites in rheology. I will present the interfacial strengthening and ordering of polymer-grafted particle systems under large shear deformations.

Pinar Akcora has received her PhD in Chemical Engineering at the University of Maryland-College Park in 2005, under the supervision of Peter Kofinas and Robert Briber, on the synthesis and characterization of norbornene-based diblock copolymer systems. She completed her post-doctoral work in Sanat Kumar's group at Columbia University between 2005-2008. She joined University of Missouri-Columbia Chemical Engineering as an assistant professor in 2008 and has moved to Stevens in 2010. She is the recipient of the NSF-CAREER award in 2010, ACS-PRF and University of Missouri Research Board

grants.

Date: Friday, April 22, 2016
Times: Poster Session 5:00 PM
Dinner 6:00 PM
Awards and Lecture 7:00 PM
Place: Jeepers Café
Fairleigh Dickinson University
Teaneck, NJ
Cost: \$10.00 for dinner (dinner cost for presenters will be waived).

Reservations: Dr. Mihaela Leonida (201) 692-2338, e-mail: mleonida@fdu.edu by **April 18, 2016.**



WESTCHESTER CHEMICAL SOCIETY DISTINGUISHED SCIENTIST AWARD AND COLLEGE STUDENT ACHIEVEMENT AWARDS DINNER MEETING

Molecular Rotational Resonance Spectroscopy and Applications to Organofluorine Chemistry

Speaker: Stephen Cooke, PhD
Associate Professor of
Chemistry
Doris and Carl Kempner
Distinguished Professor
School of Natural and
Social Sciences
Purchase College
State University of New York
Purchase, NY



It is well known that hydrogen, along with other types of nuclei within a molecule "rotate" and that furthermore these nuclei can be made to rotate coherently, altogether through the use of applied magnetic fields and radio frequencies.

This is the principle behind nuclear magnetic resonance (NMR) spectroscopy, a technique so common that it forms an important part of any undergraduate chemistry curriculum. Just as nuclei can be made to rotate coherently, it is also possible to cause entire molecules to rotate coherently. Molecular rotational resonance

(MRR) spectroscopy is a new type of spectroscopy with a wide array of potential applications. In this talk I will explain the principles of the MRR technique and outline the design and operation of an MRR instrument. For several years we have been using MRR spectroscopy to explore unusual features of organofluorine compounds. We will present our most recent findings concerning the observation of some very surprising large amplitude motions.

Dr. Stephen Anthony Cooke is an Associate Professor of Chemistry at Purchase College, SUNY. He received his B.Sc. (Hon.) in Chemistry in 1995 and his Ph.D. in Physical Chemistry in 2000, both from the University of Exeter, Devon, England. His first publication was completed as an undergraduate, doing research with Prof. A. C. Legon. This encouraged him to go on to his graduate and post-doctoral work and to "pay it forward" by providing opportunity and encouragement to undergraduates to do meaningful and publishable research. He has mentored high school and undergraduate students, even as a post-doctoral fellow. He has been a post-doc at the Technical University of Denmark (with Prof. S. O. Jonsdottr) and at the University of British Columbia (with Prof. M. C. I. Geary), where he continued as a research assistant. He has been an assistant, and associate, professor at the University of North Texas, and at Purchase College of the State University of New York, where he is currently Doris and Carl Kempner Distinguished Professor. He has also been a visiting scholar at Wesleyan University and a Research Scientist for Globol (sic) Chemicals Ltd., Tiverton, England

Dr. Cooke has had numerous publications, invited and conference presentations, and

posters. He has also won several awards. He is a member of numerous professional societies, and serves on their governing boards and on editorial boards of several journals. His research interests have included the design and construction of novel instruments, such as Fourier-transform microwave spectrometers. He has used these in the study of halogenated, particularly fluorinated, compounds, finding unexpected phenomena, such as a "bis-trifluoromethyl effect" in which two $-CF_3$ groups connected by one central carbon atom can give rise to a double minimum potential energy well in which the two CF_3 groups undergo a dis-rotary motion against each other; and observation of "dipole forbidden" rotational transitions in the spectra of very heavy molecules containing bromine and iodine. He has also studied small, often diatomic, metal containing molecules, including, e.g., $PbCl$, $SnCl$, SnO , BaS , SrO , SrS , LuO , SbN , SbP , SbF , $SbCl$, WO , BiN , HfO , ThO . Finally, he has studied noble gas, heavy metal ternary halides including $KrCuF$, $KrCuCl$, $KrAgF$, $KrAgBr$, $KrAuF$, $XeAgF$, $XeAgCl$ and $XeAuF$.

Date: Wednesday, April 27, 2016

Times: Social Hour - 5:00 PM

Lecture and Awards - 6:00 PM

Dinner - 7:00 PM

Place: Pace University

861 Bedford Road – Entrance #2

The Campus Center, Butcher Suite
Pleasantville, NY

Cost: Students \$20; All Others \$30

RSVP Required – pwrc@earthlink.com

For more information, contact Paul Dillon:

E-Mail PaulWDillon2@hotmail.com

Phone 1-914-393-6940

For Pace University information:

eweiser@pace.edu

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**Climate Change and Evidence for its
Impact in a Tropical Forest**



Keynote Speaker: Prof. Bill Eaton
Chair, Dept. of Biology
Pace University



We will meet at Pace University in the Bianco Room at 11:00 AM and begin our celebratory "Earth Day Parade" across the iconic Brooklyn Bridge at 12:00 noon. Participants will be provided with breakfast and Earth Day gifts. To register and for more information go to:

<http://www.newyorkacs.org/meetings/EarthDay/CCED.php>

Date: Sunday, April 24, 2016

Time: 11:00 AM – 2:00 PM

Contact: Prof. JaimeLee Rizzo
CCED Coordinator
jrizzo@pace.edu



LONG ISLAND SUBSECTION

Future Meeting:

LIACS Board Meeting Dates

Thursday, April 28, 2016

Seminars/Events

Thursday, April 7, 2016– Dr. Gene Hall,
Department of Chemistry and Chemical
Biology, Rutgers University

Friday, April 15, 2016 – Chemistry
Challenge @ QCC

High School Awards Ceremony

**"The Science of Human Aging: Why,
How and What Can be Done?"**

Speaker: Warren Rosenberg, PhD
Provost & Vice President
of Academic Affairs
Professor of Allied Health
The College of Westchester

Aging, senescence and death are attributes shared by all aerobic organisms and have variously been attributed in the research literature to multiple causes ranging from genetic programming through environmentally-induced challenges. This presentation will begin with an overview of the aging process, what characterizes it, how it progresses, and how it varies among different species. We'll then explore the various theories of how and why the aging process occurs and will conclude with a review of the latest contemporary research on how the aging process might be manipulated to slow the degenerative changes and increase human life expectancy if not lifespan.

Date: Wednesday, May 4, 2016

Times: Check-in 6:00 PM

Dinner 6:30 PM

Program 7:00 PM

Place: Nassau Community College
CCB Bldg., Multi-Purpose Room
1st Floor, One Education Drive
Garden City, NY

**Reservations and nominations are due
by April 22, 2016.**



**EMPLOYMENT AND
PROFESSIONAL RELATIONS
COMMITTEE OF THE NEW YORK
SECTION**

**To Human Resources Departments in
Industry and Academia**

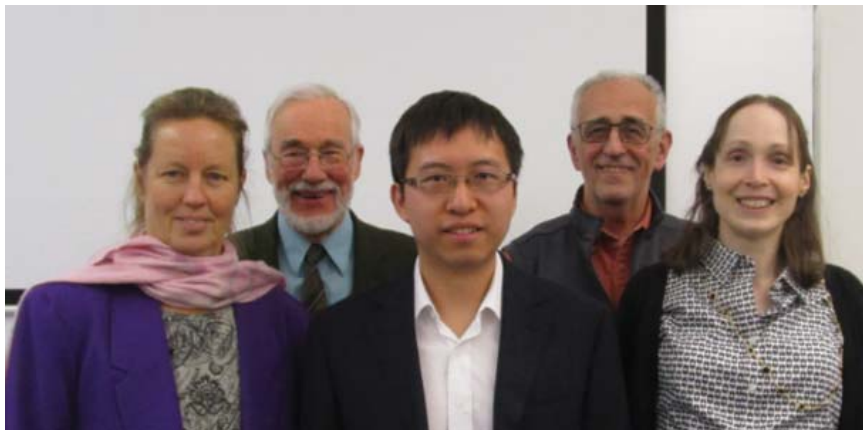
The Employment and Professional Relations Committee maintains a roster of candidates who are ACS members seeking a position in the New York metropolitan area. If you have job openings and would like qualified candidates to contact you, please send a brief job description and educational/experience background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

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

WESTCHESTER CHEMICAL SOCIETY

On February 10, 2016 Dr. Han Yuan, a Research Scientist with Kaleido Biosciences in Boston, Massachusetts spoke on "Methods for Characterization of Hyaluronan from Biological Samples". Hyaluronan (Hyaluronic Acid, HA), a polysaccharide present in almost all tissues of vertebrates, can range from several up to 25000 disaccharide repeating units, molecular weights (MW) from several kilo-Daltons (kDa) up to 10 Million-Daltons (MDa). HA regulates cell activity by interacting with cell surface receptor proteins, causing signaling of a number of responses in an MW-dependent manner. HA in human milk is known to mediate host responses to microbial infection via TLR4- and CD44-dependent signaling. Signaling by HA is generally size specific. Because pure low MW HA (average 35 kDa) can elicit a protective response in intestinal epithelial cells, it has been proposed that human milk HA may have a bioactive low-MW component. Unfortunately, the current methods for determining the exact content and size distribution of low MW HA in biological tissues and fluids are under-developed. The main problems are low sample amounts and isolation difficulty. Dr. Yuan's talk addressed these issues, as well as the importance of analyzing both high- and low-MW HA simultaneously. Current methods for HA isolation and quan-

tification were discussed. A method using size-dependent fractionation of HA by anion exchange on a spin column and quantification of HA in the fractions using a competitive ELISA has been developed. HA size analyses for human milk samples using this method and the results were discussed. It was noted that this HA analysis method has also been performed on mammary tissues. There were many interesting questions and answers with the audience during and after Dr. Yuan's interesting and informative talk, given at the Westchester Community College in Valhalla, N.Y. This continued for several attendees and the speaker, as they enjoyed a dinner together at a nearby restaurant. Dr. Yuan's B.S. degrees, in Materials Chemistry and Biological Science, were received, respectively, from Wuhan University of Technology and Wuhan University in Hubei, China. He completed his Ph.D. at the Polytechnic School of Engineering of New York University, in Materials Chemistry, under the guidance of Professor Mary Cowman last May and continued his research as a postdoctoral research fellow in her lab (The Biomatrix Research Center of New York University). He most recently started a new position at Kaleido Biosciences, a start-up, doing research in oligosaccharide synthesis and carbohydrate characterization methods development. The photo below is of Dr. Yuan and the WCS board of directors who attended the meeting.



Rolande Hodel, Peter Corfield, Han Yuan, Anthony Durante and Jody Reifenberg

(Photo courtesy of Rolande Hodel)



64th

ANNUAL UNDERGRADUATE RESEARCH SYMPOSIUM

**The Student Activities Committee of the New York Section of
the American Chemical Society**

Saturday, May 7th, 2016 at Lehman College

8:00 am – 3:00 pm (breakfast, luncheon and award reception included)

Sign up as an attendee at <http://www.newyorkacs.org/meetings/urs/urs.php>

Keynote Speaker: Dr. Scott D. Edmondson
Merck and Co. Inc



Dr. Scott Edmondson got his start in Chemistry at Cornell University where he attained an A.B. in Chemistry in 1991. He obtained his Ph.D. in Chemistry in 1996 from The Ohio State University where he worked with renowned organic chemist Professor Leo Paquette on the application of anionic oxy-Cope rearrangements to the synthesis of terpene natural products. Next, he was an NIH postdoctoral fellow with Professor Samuel J. Danishefsky at Columbia University where he worked on alkaloid natural product total syntheses.

In 1998, Dr. Edmondson joined Merck and Co. where he has worked on a broad range of therapeutic areas including obesity, diabetes, urology, cardiovascular disease, and most recently infectious disease. He is a co-inventor of JanuviaTM, a DPP-4 inhibitor currently used to treat patients with type 2 diabetes and he led a team of scientists to discover a compound currently in Phase 3 clinical trials for the treatment of overactive bladder. Dr. Edmondson is a co-author of more than 40 publications, 4 book chapters, and 40 patents/patent applications. Currently, he is Director of Discovery Chemistry at Merck in Kenilworth, NJ.

Stories of Drug Discovery: Discovery of JanuviaTM (Sitagliptin) For Diabetes And Vibegron For Overactive Bladder

Inhibition of dipeptidyl peptidase 4 (DPP-4) is now an established method for the treatment of type 2 diabetes. At Merck, the DPP-4 inhibitor program was initiated in 1999 and shortly thereafter the medicinal chemistry team began optimization of two distinct classes of inhibitors derived from either α -amino amides or β -amino amides. Importantly, early research from our laboratories illustrated that the selection of DPP-4 inhibitors for clinical development should take into account selectivity over related enzymes DPP8 and DPP9 which have been associated with toxicity in preclinical species. Optimization of the β -amino amide series led to the discovery of JANUVIATM (sitagliptin), the first DPP-4 inhibitor approved for the treatment of type 2 diabetes.

β_3 Adrenergic receptor (AR) agonists were studied in the 1990's as a treatment for obesity, but development of early compounds was terminated due to a lack of sustained efficacy in humans for obesity. Subsequent preclinical studies suggested that β_3 -AR agonists could be repurposed as a treatment for overactive bladder (OAB), and the recent approval of mirabegron confirmed that β_3 -AR agonists are effective in humans for this indication. Although an early β_3 -AR agonist from Merck (MK-0634) was successful in the clinic for the treatment of OAB, further development of the compound was halted due to toxicities in preclinical species. A back-up program identified vibegron (MK-4618) as a potential best-in-class β_3 -AR agonist that addresses many of the liabilities associated with MK-0634 and is currently in Phase 3 clinical trials for the treatment of OAB.

This presentation will describe biology, medicinal chemistry, and clinical development of JANUVIATM (sitagliptin) and vibegron.

SIGNIFICANT DATES FOR 64th URS


Deadline for Abstract Submission - **March 18, 2016** Abstract acceptance notification – April 4, 2016
Deadline for Symposium Advanced Registration – April 8, 2016

2016 Co-chair Dr. Ipsita A. Banerjee Fordham University banerjee@fordham.edu	2016 Co-chair Dr. Meredith Foley St. John's University FoleyM1@stjohns.edu	2016 Co-chair Dr. Paul Sideris Queensborough CC - CUNY psideris@qcc.cuny.edu
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FREE Registration for student members of the National ACS, faculty mentors who register in advance and sponsors. For non-ACS members and guests, the registration is \$35 in advance. All on-site registration is \$45 for faculty, staff and guests. Checks should be made out to: "NY ACS URS" and sent to: Prof. Paul Sideris, Queensborough Community College, Department of Chemistry, Science Building S-445, 222-05 56th Avenue, Bayside, NY 11364.

See Call for Papers on page 17.

Call for Papers

 ACS Chemistry for Life®	64th	ANNUAL UNDERGRADUATE RESEARCH SYMPOSIUM
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Call for Papers for the 64th ANNUAL UNDERGRADUATE RESEARCH SYMPOSIUM sponsored by the Student Activities Committee of the New York Section of the American Chemical Society. The symposium provides an excellent opportunity for undergraduate chemistry students in the NY metropolitan area to present the results of their research. Abstracts should demonstrate appropriateness of topic for a chemistry symposium. The program includes a keynote address by Dr. Scott D. Edmondson, Merck and Co. Inc, presentation of student papers, and a luncheon.

Date: Saturday, May 7th, 2015

Place: Lehman College, Bronx, NY

To:

1. Submit an abstract on-line (1-2 student presenters max per abstract; use the online abstract template form and follow included instructions)
2. Print a flyer for posting - Click "Download Flyer" in the blue frame
3. Obtain directions to Lehman College

Go To: <http://www.newyorkacs.org/meetings/urs/urs.php>

SIGNIFICANT DATES FOR 64th URS

Abstract submission and online registration opens - **February 1, 2016**

Deadline for abstract submission - **March 18, 2016**

Notification of the abstract acceptance – **April 4, 2016**

Deadline for early registration – **April 8, 2016**

FREE Registration for student members of the National ACS, faculty mentors who register in advance and sponsors. For non-ACS members and guests, the registration is \$35 in advance. All on-site registration is \$45 for faculty, staff and guests. Students can obtain a discounted 1-yr membership to the ACS for \$25 by visiting <http://undergrad.acs.org/>

Checks for the registration fee should be made out to: "NY ACS URS" and sent to:

Prof. Paul Sideris, Queensborough Community College, Department of Chemistry, Science Building S-445, 222-05 56th Avenue, Bayside, NY 11364

If you have any questions please contact: nyacsurs2016@gmail.com

2016 Co-chair Dr. Ipsita A. Banerjee Fordham University banerjee@fordham.edu	2016 Co-chair Dr. Meredith Foley St. John's University FoleyM1@stjohns.edu	2016 Co-chair Dr. Paul Sideris Queensborough CC - CUNY psideris@qcc.cuny.edu
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CANDIDATES FOR THE NEW YORK SECTION 2016 ELECTIONS

At the January Section-wide Conference, the Nominating Committee presented the candidates for office for the 2016 elections. The biographies of the candidates are posted on the New York Section website at <http://www.NewYorkACS.org>.

The Board of Directors extends a sincere thank you to the following candidates for accepting the nomination to run for office, and encourages ACS New York Section members to vote for these worthy candidates.

Electronic ballots will be sent to the membership in mid-April and voting will be conducted according to ACS guidelines for confidentiality and security. If your e-mail address has changed, please update it on the ACS website. If no e-mail address is associated with your membership number, a paper ballot will be sent to you automatically. Members that do have an e-mail address associated with their membership number will be asked in a survey if they want a paper ballot.

To receive all electronic messages from your New York Section, please be sure that your e-mail account will accept messages from NYACS-L@stjohns.edu or njesper1@optonline.net or jespern@stjohns.edu.

Members requesting paper ballots will receive them **by May 1, 2016**. If any member does not receive voting materials by May 1, please contact the New York Section Office at (516) 883-7510 or njesper1@optonline.net.

The Candidates are:

Chair Elect for 2017

Dr. Ping Furlan (United States Merchant Marine Academy)
Dr. Joseph Serafin (St. John's University)

Secretary 2017-2018

Dr. Daniel Amarante (College of Mount Saint Vincent)

Directors-at-Large 2017

Dr. Rachel Austin (Barnard College)
Dr. Yosra Badieri (St. Peter's University)
Dr. Jessica Epstein (St. Peter's University)
Dr. Poniseril Somasundaran (Columbia University)
Dr. Michele Vittadello (Medgar Evers College - CUNY)

Dr. Sujun Wei (Queensborough Community College - CUNY)

Councilor 2016-2018

Dr. Donald Clarke (Fordham University)
Dr. Rolande Hodel (AIDSfreeAFRICA)
Dr. Alison Hyslop (St. John's University)
Dr. Neil Jespersen (St. John's University University)
Mrs. Joan Laredo-Liddell (Fordham University)
Dr. Patricia Redden (St. Peter's University)
Mr. Frank Romano (Agilent Technologies)
Dr. Hessa Taft (St. John's University)



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NEW YORK SECTION – MIDDLE ATLANTIC REGIONAL MEETING 2016

**Theme: “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

Daniel Amarante: 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

Sujun Wei: 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

Ping Furlan: furlanp@usmma.edu

Urszula Golebiewska: UGolebiewska@qcc.cuny.edu

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

Place: College of Mount Saint Vincent
Riverdale, NY

**See Call for Volunteers (right),
more extensive information on
pages 20 and 21, and ad on page 24.**

Call for Volunteers

OPPORTUNITY FOR ACS MEMBERS TO AID STUDENTS 2 SCIENCE IN A HYBRID VIRTUAL LAB PROGRAM

Can you spare a few hours of your time? Do you like working with students and would you like the opportunity to share your science knowledge in a classroom? Students 2 Science is seeking volunteers to aid in our Virtual Lab program. We have a series of elementary, middle, and high school experiments that we will be running in various schools across New Jersey. Members are especially needed to help with the North Jersey section's IPG funded project to bring hands-on science to South Jersey. We need professionals to help in the classroom with the students. It's great fun, a wonderful way to give back, and only requires a few hours of your time. Opportunities begin in November. For more information, contact Fran Nelson, frannelson@students2science.org and visit our website at Students2Science.org



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 is Chemistry: Past, Present, and Future. 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

or

Daniel.amarante@mountsaintvincent.edu

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MIDDLE ATLANTIC REGIONAL MEETING 2016

New York—A Chemistry State of Mind

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COLLEGE OF MOUNT SAINT VINCENT, RIVERDALE, NY | JUNE 9-12, 2016

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	Diamond Sponsor	Platinum Sponsor	Gold Sponsor	Silver Sponsor	Bronze Sponsor	Donor In Kind
Fee	\$3,000- \$10,000	\$2,000- \$2,999	\$1,000- \$1,999	\$500- \$999	\$250- \$499	Any
Sponsorship*	Session/Event /General	Session/Event /General	Session/Event /General	Session/Event /General	General	NA
Table at Expo	Yes	No	No	No	No	NA
Signage	All	All	Event Placard	Event Placard	No	NA
Meeting Program	Cover	Full Page	1/2 Page	1/4 Page	Logo	Appreciation
Website Logo/link	Yes	Yes	Yes	Yes	Yes	Appreciation
Email blasts	Logo	Logo	No	No	No	NA
Certificate	Diamond	Platinum	Gold	Silver	Bronze	Appreciation
Registration	4	2	2	1	1	NA

* Events include but are not limited to workshops, luncheons, social events, coffee breaks, and raffle. Full payment by April 15, 2016 to ensure full benefits.

Exhibit Categories

Entity	Size (feet)	Cost*		Included
		Early	Regular	
Commercial	8x10	\$800	\$1000	Power, 6-ft rectangular table, two chairs, two registrations, meeting attendee contact info, logo on website & program
Commercial	8x10	\$500	\$700	6-ft rectangular table, two chairs, two registrations, meeting attendee contact info, logo on website & program
Academic	8x10	\$350	\$450	6-ft rectangular table, two chairs, one registration, logo on website & program
Academic	Shared 8x10	\$150	\$200	½ 6-ft rectangular table, one chair, logo on website & program
Unattended	8x10	\$275	\$350	6-ft rectangular table, meeting attendee contact info, logo on website & program
Unattended	Shared 8x10	\$175	\$225	½ 6-ft rectangular table, meeting attendee contact info, logo on website & program

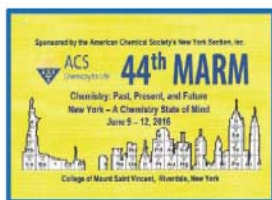
*Early Bird by March 1, 2016; full payment by April 15, 2016 to ensure full benefits; reduced price for combined registration with 2016 NERM is available (please call for information).

Advertisement

Categories*	Cost
Program ½ page with web logo/link	\$500
Program ¼ page with web logo/link	\$300
Program business card with web logo/link	\$125
web logo/link	\$45

* Full payment by April 15, 2016 to be included in the Program. Call for prices for other options





American Chemical Society's New York Section, Inc.
Middle Atlantic Regional Meeting 2016
<http://marmacs.org/2016/>

Exhibits/Sponsorship

Chairs

Ping Furlan

(516) 726-5783

pfurlan@usmma.edu

Urszula Golebiewska

(631) 252-2106

UGolebiewska@qcc.cuny.edu

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(859) 338-7591

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General Chairs

Pamela Kerrigan

Pamela.kerrigan@Mountsaintvincent.edu

Daniel Amarante

Daniel.amarante@Mountsaintvincent.edu

Program Chairs

Paris Svoronos

PSvoronos@qcc.cuny.edu

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Paul Tukey

ptukey@tukey.org

ACS Meeting Planning Partner

Kimberly Savage

K_Savage@acs.org

Dear Potential Exhibitor/Sponsor:

We invite your organization to take advantage of the many benefits of MARM 2016 as an Early Bird sponsor. There is the opportunity to connect with 30,000 chemists, biochemists and science educators in the Middle Atlantic Region (Washington DC to New York and of course all points in between). At MARM 2016, we anticipate 1,000 attendees from area industry, government labs, colleges and universities, public schools, and clinical labs. (Indeed, you are invited to review our program information at our website, <http://www.marmacs.org/>) MARM 2016 will run at the College of Mount Saint Vincent in Riverdale, NY on Thursday, June 9 through Sunday, June 12, 2016.

Your investment in the MARM 2016 Exposition as an Early Bird sponsor will maximize work with attendees: either decision makers or prospective workforce employees. Among the incentives offered to Early Bird sponsors are:

- a special discount on exhibition space;
- targeted break (networking) sessions with industrial or academic decision makers;
- access to approved data bases for students; access to approved data bases for decision makers.

Here are some additional aspects of our plan that will assure the success and economy of your sponsorship:

- Early bird sponsors can rent exhibit space with or without power at a **significantly reduced rate.**
- Exhibit spaces available for Early Bird sponsors will be located in high traffic areas and include:
 - Standard power (120 V) is available along the walls.
 - 8 x 10-ft space including a 6-ft rectangular table, two chairs, and a trashcan.
 - No cost wireless internet access available throughout the College of Mount Saint Vincent.
- Complimentary registration fees.
- BBQ, Raffle Draw, and sponsored Coffee Breaks that target potential workforce employees, or decision makers will be set up in the exhibit areas.
- Complimentary hot link posting to your company on the MARM 2016 website.

MARM conference registration will be set up in the exhibit areas. Exhibit areas are located near the technical sessions and with the poster sessions. **Register before March 1, 2016 to take advantage of the Early Bird Rates, and register by April 15, 2016 to ensure full benefits.** Exhibit space is limited and spots will be reserved on a first come basis. In addition to benefiting your organization, your participation will help make this the best MARM meeting ever!

If you have any questions, please feel free to contact us.

Sincerely,

Fitzgerald B. Bramwell

Urszula Golebiewska

Ping B. Furlan

Dr. Fitzgerald Bramwell
859 338-7591
jerry@empirescience.com

Dr. Urszula Golebiewska
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UGolebiewska@qcc.cuny.edu

Dr. Ping Furlan
516 726-5783
furlanp@usmma.edu

Call for Applications

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 or from your school guidance office.

Return Application To

Freddie and Ada Brown Award, NJACS Section Office, 49 Pippen 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 or (908) 239-1515

Call for Nominations

COMMITTEE ON THE HISTORY OF THE NEW YORK SECTION

Over the past twenty-three years the New York Section has participated in the designation of seven National Historic Chemical Landmarks and four New York Section Historic Chemical Landmarks. A brief description of these National and local section landmarks may be found on the NY Section Home Page at newyorkacs.org, under the Committee on the History of the NY Section. These landmark programs recognize achievements in the chemical sciences and related areas, in order to enhance public appreciation for the contributions of the chemical sciences to modern life.

Please consider making a nomination for an historic chemical landmark. The Committee on the History of the NY Section will consider all nominations. In addition to a particular achievement, an historic library, building or association may be worthy of this distinction.

Please send your nomination, with supporting documentation, to the Chair of the Committee, Dr. John B. Sharkey, at johnbsharkey@me.com.



ACS FELLOWS PROGRAM

Dear colleagues,

Happy Holidays – I hope you are all enjoying a few days off with family and friends

Which local ACS members have made significant contributions to the Society and in their professional lives and would thus be potential candidates to be ACS Fellows? We need to collect your ideas and suggestions now.

I am attaching the guidelines for the ACS Fellows program along with a listing of all of the current Fellows and a link to the Fellows site on the National ACS web-site (<http://www.acs.org/content/acs/en/funding-and-awards/fellows.html>). Nominees must have both a scientific/professional and volunteer track record, the latter within ACS sponsored activities. The application process is described in the attached document and requires a list of personal information, a 200 word synopsis and three letters of recommendation from ACS members, at

least one of which must come from outside their primary place of employment.

Please consider people in your committee or topical group as well as those others (co-workers, meeting attendees, educators, academic or other contacts/collaborators etc. etc.) who may meet the criteria for nomination. We would like to have list of candidates for review no later than early Feb as we need to have the nomination material in-hand **by mid-March** so it can be entered into the nomination system (a non-trivial process). Please send me the name and any information you may have collected about possible nominees.

Any ACS member can nominate another member as an ACS Fellow but the Section can make multiple nominations and is willing to anyone help anyone nominate a deserving chemist.

This is a great opportunity to recognize our colleagues, so please think carefully about whose contributions we can recognize.

Please distribute and share with other local ACS members and leaders.

Best regards and thanks,

Les

Cell: (908) 334-5473



THE WILLIAM H. NICHOLS MEDAL AWARD FOR 2017

The New York Section is accepting nominations for the William H. Nichols Medal Award for the year 2017. This distinguished award, established in 1902 by Dr. William H. Nichols, for the purpose of encouraging original research in chemistry, is the first award authorized by the American Chemical Society. The New York Section presents this award annually in recognition of an outstanding contribution in the field of chemistry. The award consists of a gold medal, a bronze replica and \$5000. The medals are presented at the William H. Nichols Meeting that involves the Distinguished Symposium, related to the medalist's field of expertise, and a Medal Award Dinner. The event is attended by members of the Nichols Family and officers of the American Chemical Society.

Investigators who have published a significant and original contribution in any field of chemistry during the five calendar years preceding the presentation meeting are eligible

for consideration by the Nichols Medal Jury. The New York Section encourages nominations from academia, government and industry.

Each nomination requires a completed nomination form, biographical and professional data, and three supporting letters. The nomination process goes through the New York Section website where the nomination form and instructions appear at <http://www.newyorkacs.org/meetings/Nominations/Nichols.php>

Nominations must be received by May 31, 2016. The Nichols Medal Award Jury will meet in June 2016 to select the Nichols Medalist for 2017.

Questions regarding the nomination procedure should be directed to the ACS, New York Section Office at njesper1@optonline.net.



NEW YORK SECTION OUTSTANDING SERVICE AWARD FOR 2016

Many members of the New York Section provide their time, leadership talent, and knowledge to the New York Section. The tradition of excellence of the New York Section is attributable directly to the cumulative effect of these dedicated individuals. Each year the New York Section presents the Outstanding Service Award to a most deserving member of the section. The New York Section is now accepting nominations for this award.

A nomination letter with supporting data should be emailed to the 2016 OSA Committee Chair, Dr. Barbara Hillery at hilleryb@oldwestbury.edu. Nominations will be accepted **until June 31, 2016**.

The nominations will be reviewed by a committee consisting of the previous five winners of the award. The Outstanding Service Award for 2016 will be presented at the New York Section's Section-wide Conference in January 2017.

For more information about the award along with a list of former award recipients, please visit the ACS New York Section's website at http://www.newyorkacs.org/awards_nyacs.php

(continued on page 24)

CALL FOR NOMINATIONS

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METRO WOMEN CHEMISTS COMMITTEE

The Metro Women Chemists Committee is now accepting nominations for the 7th annual Gift of Mentoring Award.

Please share your stories with us if you have benefited from mentorship or you have had positive influence over other people's lives or careers. Please write your stories with no more than 300 words and send them to Sarah Carberry at sbolton@ramapo.edu. **Deadline: April 15, 2016.**

Call for Papers

NORTH JERSEY SECTION'S 68th ANNUAL UNDERGRADUATE RESEARCH CONFERENCE

The Sixty-Eighth Annual Undergraduate Research Conference provides an opportunity for talented undergraduate students in the North Jersey Section to give an oral presentation on their research results. All undergraduate students in the North Jersey Section are invited to participate in this very rewarding event. The research presentations will be judged by local chemists working in industry or academia and the student giving the best presentation will be given the 2016 Jean Asell Duranna Award. In addition the top three presenters will be awarded cash prizes. The student award winners and their advisors will then be invited to attend the North Jersey Section's Annual Awards Dinner held on **Tuesday May 24, 2016** in

Lenfell Hall on the Fairleigh Dickinson University campus in Madison, NJ.

Abstract Information: Clearly indicate the title of the presentation and all authors. Abstracts must be no more than 200 words and need to be submitted as a word document attached to an email to Matthew Mongelli at mmongelli@kean.edu

Abstracts deadline is Tuesday April 19, 2016

Date: Friday, April 29, 2016

Times: Noon until 5:00 PM

Place: Seton Hall University - South Orange Campus Arts and Science Hall Room 107 South Orange, NJ

For more information about this event contact Matthew Mongelli at mmongelli@kean.edu

Press Release

WORKRITE UNIFORM'S NEW FR/CP LAB COAT REVOLUTIONIZES SAFETY

OXNARD, Calif. — Workrite Uniform Company announces the launch of its new Workrite® FR/CP™ Lab Coat, which is the first of its kind to include both flame-resistant (FR) properties and chemical-splash protection (CP). In addition to simultaneous protection against thermal and chemical-splash laboratory hazards, the Workrite FR/CP Lab Coat also provides an unprecedented level of comfort and convenience, helping to promote safety through improved wearer compliance.

The Workrite FR/CP Lab Coat will be available for purchase at www.workritefrcp.com in April 2016. To learn more about safety clothing and standards, visit www.workrite.com.

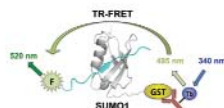


Middle Atlantic Regional Meeting 2016

American Chemical Society's New York Section, Inc.
College of Mount Saint Vincent, Riverdale, NY | June 9-12, 2016 | marmacs.org

Chemical Biology Session

We cordially invite you to the Chemical Biology Session, which will take place on **June 11, 2016**. This session will provide a forum for discussions of the most cutting edge research at the interface between chemistry and biology. The session features world-class researchers in the field including *Minkui Luo (MSKCC)*, *Ming-Ming Zhou (Mount Sinai)* and *Jian Jing (Mount Sinai)*. The topics will cover drug discovery targeting signaling pathways for discovery and development of novel therapeutics for cancer and other life-threatening diseases lacking a cure. Additional speakers will be selected from submitted abstracts. Please direct any questions to the Session Chair, *Dr. Yuan Chen* at ychen@coh.org or *Dr. Ping Furlan* at furlanp@usmma.edu.



WESTCHESTER CHEMICAL SOCIETY

Special Seminar – “Optical Properties of mixed phase Arctic clouds as observed from Tethered Balloon Instrument Platform”

Speaker: Monika Sikand, PhD
Bronx Community College of the City University of New York
Bronx, NY

Tethered Balloon microphysical and radiative measurements in boundary-layer mixed phase clouds, consisting of ice crystals and liquid droplets, observed in the Arctic have been analyzed. The cloud microphysical and radiometric measurements were collected during a May-June 2008 experimental campaign in Ny Ålesund, Norway, located high in the Arctic at 78.9° N. A state of the art radiative transfer model DISORT is used to analyze the radiometric measurements in order to understand the cloud microphysical properties in mixed phase clouds. The instruments deployed on the tethered balloon system including a radiometer, a cloud particle imager and a meteorological package provide information about the optical properties of mixed phase clouds in the Arctic. These measurements can, therefore, be used to investigate the vertical distribution of the mixed phase arctic clouds and improve the accuracy in description of mixed phase clouds in climate models. Our results show a unique vertical profile of mixed phase clouds as observed on 16 May, 2008 and 29 May, 2008. These results, derived from radiative transfer simulations, show how the vertical distribution of the mixed phase clouds evolves with time. The measured mean intensity was used to estimate the cloud optical depths at 500nm and 800nm that provide the best match between our model results and the measurements. Sikand et al. (2010) concluded that it would be valuable to build a next-generation NILU-cube 4 π radiometer that would include additional NIR (near infra red) channels. A new TBS system is being developed by SPEC Inc (Paul Lawson) with support from DOE, and a new version of the 4 π is part of this new system.

Monika Sikand is an Assistant Professor in the department of Engineering, Physics and Technology at Bronx Community College of the City University of New York. Her

research studies cloud optical properties using in situ radiometric and cloud data collected in Arctic. Her research interests includes use of remote sensing to study radiative transfer in atmosphere and coupled systems that could be helpful in understanding the radiation budget of earth and climate. Dr Sikand is also interested in studying Urban and human dominated regional systems using Radiative Transfer coupled with interdisciplinary environment research. Dr Sikand did her PhD from Stevens Institute of Technology (SIT), Hoboken. She works as Visiting Scientist in Light and Life Lab and teaches Physics to Business and Technology majors in Stevens Institute of Technology (SIT). At Bronx Community College she teaches courses in Physics, Astronomy and Sustainability, Energy and Green Economy and mentors students in Radiative Transfer research. Dr Sikand is also involved in outreach efforts towards sustainable and green environment that raise funds for Alliance in Climate Education (ACE) and American Geophysical Union (AGU) in climate bike ride events.

Date: Thursday, April 7, 2016

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

Further Information: Paul Dillon

PaulWDillon2@hotmail.com

(914) 393-6940

Or:

Anthony Durante

anthony.durante@bcc.cuny.edu

(718) 289-5542 or 5569

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), Facebook, Twitter, and the (914) 606-6900 phone line.

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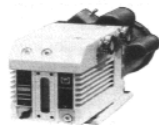


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There are two important ways to recruit through our services. One is to place a print ad in the Indicator. The other is to place a web site ad reaching out to 40,000 ACS members. We recommend using both low cost methods.

You can view both of these opportunities by going to the link below.

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