



Robert Menger, Ph.D. 2025 North Jersey ACS Chair See page 6





NEW YORK ACS MEMBERS MAKE YOUR VOICE HEARD: BYLAW REVISIONS

The New York ACS is proposing to change its Bylaws and your vote is critical to shaping the future governance of the New York ACS. The proposed bylaw changes include: 1) alignment with ACS guidelines (e.g. clarifying voting and elective rights for student members, society affiliates, and local section affiliates), 2) significant structural shifts (e.g. transferring key elements for elections, meetings, policies to a forthcoming Operations Manual), and 3) tying member voting eligibility for future bylaws amendments to Section meeting attendance, which may impact all members.

New York ACS Members, after reviewing our <u>current Bylaws</u> and the proposed Bylaws along with the minutes of the meeting where the <u>proposed Bylaws</u> were approved with <u>critical questions answered</u> by the NYACS' Committee on Bylaws. Please print out the ballot for the proposed Bylaw changes, below, mark it as Yes, No, or Abstain. Do not place any identifying information on the ballot itself. Place the ballot in an inner envelope and seal it. Do not write your name or identifying information on this envelope. Place this envelope inside an outer envelope. Sign over the seal of the outer envelope. Write your name clearly on the outer envelope with your membership number and return address so that your voter eligibility can be verified. Return your ballot by mail by **January 31, 2025** to:

Ms. Bernadette Taylor 1313 3rd Ave., #2 South Spring Lake, NJ 07762

Click here to review full voting procedure before mailing your ballot

New York ACS Bylaws Revision Ballot Print out this ballot. Cut along the dotted line. Clearly mark ONE choice. If you do not want to vote, select abstain. Yes - I approve the bylaws revisions No - I do not approve the bylaws revisions Abstain Do not include any identifying information on this ballot.

THIS MONTH IN CHEMICAL HISTORY

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

As has become my custom I begin the new year (Happy New Year to my readers) by looking back at the new chemistry of 100 years ago as reflected in the pages of The Chemical Society's Annual report for 1925 (Volume XXII) published in London in 1926. I start with inorganic chemistry.

The reporter for 1925 has eased my task by highlighting the most significant discoveries of the year. They include: the formation of compounds of helium; the production of helium in discharge tubes; the production of gold by electric discharges in mercury vapor (shades of alchemy!); the variation of the atomic weight of boron with its source; proof that carbon can be melted; isolation of pure tin hydride; new nitrogen compounds; sulfur sesquioxide; two new elements of the manganese group.

In an electric glow discharge mercury and helium combine to form $HgHe_{10}$, mercury helide; this comparatively stable substance is decomposed at bright red heat. Bombardment by electric discharge of the nitrides of magnesium and aluminium in a tube containing oxygen produces helium, hydrogen, and neon. At temperatures below 24°C xenon forms a crystalline hydrate containing 6 or 7 molecules of H_2O – the most stable hydrate of the noble gases.

Pure mercury, shown to be free from gold, after prolonged use in a mercury vapor lamp now contains traces of gold that the authors believe was produced by atomic breakdown of mercury.

Boron from California has an atomic mass determined as 10.840; from Tuscany 10.825; and from Asia Minor 10.818. These variations far exceed experimental uncertainty and are ascribed to variations in the abundance of the ¹¹B isotope, possibly due to the mode of formation of borates by volatilization.

Pure carbon can be melted at atmospheric pressure. The experiment "observed by means of a kinematograph camera" involved passing an increasing electric current through a carbon rod with a constriction, in an argon atmosphere. At the narrowest part an arc formed, the rod parted and small globules of pure carbon formed. The estimated temperature, taken as the melting point, was 3800K.

99.7% pure tin hydride, SnH_4 , was prepared by electrolysis with lead electrodes of a solution of tin sulfate containing 0.5% of colloidal dextrin. The evolved gas is mostly hydrogen, but it contains about 0.01% of tin hydride that was trapped in a liquid air cooled vessel. The solid hydride melts at -150°C. It is fairly stable at room temperature in clean glass vessels but decomposes rapidly when heated.

Action of oxygen on NO at -185°C forms a green solid that turns blue as it warms. This is a new oxide of nitrogen, N_6O_8 , probably containing a peroxide link and formulated as ON-NO-ON-O-O-NO-NO-NO. This unstable peroxide rapidly decomposes as it warms producing nitrogen trioxide. Mixtures of almost anhydrous nitric acid and perchloric acid deposit crystals of nitronium perchlorate, $(H_2NO_3)CIO_4$, and nitronium diperchlorate, $(H_3NO_3)(CIO_4)_2$. Nitrogen tetraselenide is formed when ammonia is passed through a solution of selenium monochloride in carbon disulfide. Cryoscopic determination of its molecular weight in glacial acetic acid leads to a formulation as N_4Se_4 . Tetranitrogen tetrasulfide can be prepared by a similar method. These compounds are of undetermined structures. Bromine vapor reacts with silver azide to give bromoazide BrN_3 , a very unstable compound decomposing explosively even at -200°C.

THIS MONTH IN CHEMICAL HISTORY (continued)

When pure sulfur is added to sulfur trioxide a violent reaction occurs and a bluish-green solid is formed. The resulting mixture can be vacuum distilled at room temperature and an unstable product of sulfur sesquioxide, S_2O_3 , can be isolated. Selenium monochloride and monobromide can be readily prepared by dissolving selenium dioxide in the appropriate halogen acid and adding the stoichiometric amount of elemental selenium. When concentrated sulfuric acid is added to this mixture the selenium monohalide precipitates as an oil in 90% yield.

There is uncertainty about the claims that two new elements in Group VII have been discovered. Somewhat inconclusive X-ray spectra of traces in platinum ores have been claimed as evidence of their containing about 0.5% of element 43 (Mendeleev's eka manganese) and as much as 5% of element number 75. The names masurium and rhenium are proposed for these elements.

In the past 100 years some of these claims have been disproved, but there is still a great deal of chemistry of the main group elements that remains unexplored – including some of the compounds and reactions reported above. This is an unfashionable but important part of chemistry. In my next column I will turn to other areas of chemistry to look at what was new one hundred years ago.

January Calendar

NEW YORK SECTION

Tuesday, January 14, 2025Biochemical Topical Group *See page 15*

Wednesday, January 15, 2025

Westchester Distinguished Scientist Award Nomination Deadline See page 12

Saturday, January 25, 2025

New York ACS Sectionwide Conference See page 11

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North Jersey Executive Committee Meeting *See page 8*

Thursday, January 23, 2025

NMR Topical Group See page 8



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EDITORIAL DEADLINES

February 2025	January 16, 2025
March 2025	February 16, 2025
April 2025	March 16, 2025
May 2025	April 16, 2025
June 2025	May 16, 2025

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NORTH JERSEY ACS CHAIR'S MESSAGE

Dear North Jersey ACS Members,

I am extremely pleased and honored to serve as the Chair of the North Jersey Local Section (NJ ACS) this coming year. Before looking forward, I'd like to begin by congratulating our section on an incredibly successful year in 2024. The section had a jam-packed year of events, including vibrant programming from our active topical groups / communities (The North Jersey Chromatography Group, Drug Metabolism, Mass Spectrometry Discussion Group, NMR, Organic Topical Group, Women Chemists, and Younger Chemists), an incredibly well-received ceremony for the 2023 Baekeland Award winner, Keary Engle, and numerous outreach events, including Chemists Celebrate Earth Week (CCEW), Edison Day, National Chemistry Week, Chemistry Olympiad, NJ Chemistry Olympics, and the Fair for Emerging Researchers. The section also hosted its first ever Local Section Membership Engagement and Enhancement event in collaboration with the Trenton Local Section and Division of Organic Chemistry this year at TCNJ. Lastly and perhaps most notable, the Younger Chemists Committee was selected as the Outstanding Local Section Younger Chemists Committee Chemluminary acknowledging Mary Okorie and Tiffany Olivera's stellar leadership. This year's success is a direct product of the efforts and dedication of our 2024 chair Sandra Keyser, the NJ ACS executive committee, and the numerous volunteers that have helped our section thrive.

This coming year will prove to be a landmark year for the NJ ACS. Originally receiving its charter in 1925, the North Jersey Section will celebrate a monumental milestone next year, our 100th anniversary. In addition to this milestone, the North Jersey Section will host the 2025 Mid-Atlantic Regional Meeting (MARM) at Seton Hall University from May 28-31. The meeting will feature renowned speakers including Morten Meldal (2022 Nobel Lauriate for his work in click chemistry), Phaedria Marie St. Hilaire (Co-founder of the Professional Women of Colour Network), Rebecca Ruck (Vice President in Process Research & Development at Merck), and W. Walker Smith (a.k.a. Roy G. Biv, a chemist and researcher known for his innovative work in combining chemistry and music through data sonification). Further information on the MARM 2025 program and opportunities to get involved can be found at marm2025.com.

As the 2025 Chair, I hope to accomplish a number of key objectives that will build upon the successes of 2024, including the following:

 Ensure a Successful MARM: In addition to the plenary speakers discussed earlier, MARM will feature a strong technical program with numerous symposia organized by the NJ ACS. The meeting will also engage the next generation of chemists through Chemagination (a high school student competition that engages creative thinking and entrepreneurship) and an undergraduate poster session. Lastly, the meeting will celebrate the successes of the ACS and our section via awards presentations and a 100-year celebration for the NJ ACS local section. As stated above, further information on the MARM 2025 program and opportunities to get involved can be found at marm2025.com.

- Understand the Needs of our Local Section Members: With > 2,000 members, the NJ ACS is considered one of the larger local sections. The NJ ACS has much to offer with its long-standing technical groups, communities, and outreach activities. We'd like to hear from members both new and long-standing to formulate a strategy to optimize member engagement and retention to the ACS.
- Continue to Support our Topical Groups and Communities: Our topical groups and communities continue to provide a wealth of opportunities to educate and support the chemists in the North Jersey section year after year. To ensure I'm supporting this rich tradition to the best of my abilities, I'll strive to build further connectivity between these groups, explore means to simplify advertising / promotion of events, and set up mechanisms to share best practices between topical group and community leads.

Lastly, I'd like to close with a call to action for our NJ ACS local section members. Our section has ample opportunities for volunteers that are passionate about making a difference in our local community. If you or anyone you know is interested in volunteering at any of our section events, MARM, or our topical groups and communities, please visit our website at njacs.org.

Robert Menger, Ph.D. 2025 Chair, North Jersey Local Section of the ACS

ADVERTISE IN THE INDICATOR

Do you need to reach over 6,000 chemists in the tri-state area to inform them of your products and services so as to expand your business?

Whether your target audience is scientists working in industry, academia or government, The Indicator offers an affordable option for your marketing campaign. As shown at left, a ¼ page full-color advertisement costs only \$200 / month (\$1500/yr). The deadline for an ad placement is the 16th of the month prior to publication, so your ad can be published within two-weeks of receipt. Your advertisement will be seen on the first of the month by each member of the New York and North Jersey ACS. Semimonthly emails to these memberships will also include your advertisement ensuring full coverage of your potential clients.



NORTH JERSEY SECTION MEETINGS

https://www.njacs.org

2025 NORTH JERSEY ACS EXECUTIVE COMMITTEE MEETINGS

2025 North Jersey ACS Chair Robert Menger and the Executive Council welcome you to our monthly NJACS meetings. The meetings are normally held on the second **Wednesday of each month from 7 pm to 9 pm.** All members are welcome to attend and become more involved in section activities. The dates for 2025 are, as follows:

Wednesday, January 15, 2025 (virtual) Wednesday, February 12, 2025 (virtual) Wednesday, March 19, 2025 (virtual) Wednesday, April 16, 2025 (hybrid) Wednesday, May 21, 2025 (hybrid)

Wednesday, June 18, 2025 (hybrid)
Wednesday, September 10, 2025 (hybrid)
Wednesday, October 15, 2025 (hybrid)
Wednesday, November 12, 2025 (virtual)
2026 Planning Meeting in December, TDB

For links to the virtual meetings and RSVP for in-person attendance at hybrid meetings, please <u>click here to view the calendar.</u>

NORTH JERSEY ACS NMR TOPICAL GROUP

Primary transfer step in the light-driven ion pump bacteriorhodopsin: An irreversible U-turn revealed by dynamic nuclear polarization-enhanced magic angle spinning NMR

Speaker: Dr. QingZhe Ni

Senior Scientist

Merck

Date: Thursday, January 23, 2025

Place: via MS Teams Time: 12:00PM



Abstract: Despite much attention, the path of the highly consequential primary proton transfer in the light-driven ion pump bacteriorhodopsin (bR) remains mysterious. Here we use DNP-enhanced magic angle spinning (MAS) NMR to study critical elements of the active site just before the Schiff base (SB) deprotonates (in the L intermediate), immediately after the SB has deprotonated and Asp85 has become protonated (in the M_o intermediate), and just after the SB has reprotonated and Asp96 has deprotonated (in the N intermediate). An essential feature that made these experiments possible is the 75-fold signal enhancement through DNP. ¹⁵N(SB)- ¹H correlations reveal that the newly deprotonated SB is accepting a hydrogen bond from an alcohol and ¹³C-¹³C correlations show that Asp85 draws close to Thr89 before the primary proton transfer. Concurrently, ¹⁵N-¹³C correlations between the SB and Asp85 show that helices C and G draw closer together just prior to the proton transfer and relax thereafter. Together, these results indicate that Thr89 serves to relay the SB proton to Asp85 and that creating this pathway involves rapprochement between the C and G helices as well as chromophore torsion.

2025 MIDDLE ATLANTIC REGIONAL MEETING HOSTED BY NORTH JERSEY ACS

MARM 2025

May 28-31, 2025 Seton Hall University, New Jersey

ANNOUNCING KEYNOTE SPEAKERS



MORTEN MELDAL 2022 Nobel Laureate University of Copenhagen



DEI Consultant, Angel Investor and ProWOC co-founder

PHAEDRIA ST. HILAIRE



REBECCA RUCK
Associate Vice President Process
Research & Development
Merck & Co.

Symposia abstracts now being accepted! Find details for submission and more conference updates at MARM2025.com



NEW YORK SECTION MEETINGS

http://www.newyorkacs.online 2025 BOARD MEETING DATES

The New York ACS Board of Directors meetings dates for 2025, are, as follows:

Saturday, January 25, 2025 (in person) Sectionwide Conference

Monday, February 10, 2025 (virtual)

Monday, March 31, 2025 (hybrid)

Friday, April 11, 2025 (in person)

William H. Nichols Distinguished Symposium and Medal Award Ceremony St. John's University

Monday, June 9, 2025 (hybrid)

Monday, September 8, 2025 (virtual)

Monday, November 3, 2025 (hybrid)

These meetings will be held online via Zoom with several hybrid meetings from the campus of Pace University – New York City Campus (directions). These meetings are open to all members, however, an RSVP for in-person attendance is required 5 days before the meeting, i.e. the Wednesday before the Monday meeting. All members who would like to attend any of the meetings should inform the New York Section office by emailing Ms. Bernadette Taylor. Prof. Eric Chang will Chair all meetings. The meetings will start at precisely 6:30 PM.

More information will be posted in future monthly issues of *The Indicator* and on the New York ACS website.





2025 NEW YORK ACS SECTIONWIDE CONFERENCE



2025 SECTION-WIDE CONFERENCE SATURDAY, JANUARY 25, 2025, 10:00am – 1:00pm University of Mount Saint Vincent, Riverdale, NY

Registration is free for this In-Person Event! Click here to register

PRELIMINARY PROGRAM

09:30 AM Continental breakfast will be available.

10:00 AM ACS, NEW YORK SECTION COMMITTEE PLANNING SESSIONS FOR 2024.

Educational Activities: Chair: Dr. Alison Hyslop

Chemagination, Chemists Celebrate Earth Day, Continuing Education, High School Olympiad, National Chemistry Week, Nichols Foundation Teacher Award, Project Seed, Student Membership, Student Recognition

Member Affairs: Chair: Dr. Joseph Serafin

ACS Fellows, Awards, Employment and Professional Relations, History of the New York Section. Indicator, Membership.

Outstanding Service Award, Minority Affairs

Program Review: Chair: Dr. Anne O'Brien; Frank Romano, Councilor, presiding

Subsection and Topical Discussion Group Chairs

Public Affairs: Chair: Dr. Robert Nolan

Academe and Industrial Relations, Environmental Chemistry, Fund Raising, Government Affairs, Information Technology, Public

Relations, Speakers Bureau

10:40 AM GREETINGS FROM THE ACS NEW YORK SECTION 2025 CHAIR Dr. Eric Chang

Pace University

10:45 AM GREETINGS FROM THE UNIVERSITY PRESIDENT Dr. Susan Burus

University of Mount Saint Vincent

10:50 AM REPORTS FROM THE CHAIRS OF THE COMMITTEE PLANNING SESSIONS

11:00 AM AWARD PRESENTATIONS

Service Plaque and Pin to the 2024 ACS New York Section Chair

Dr. Ping Furlan

US Merchant Marine Academy

ACS New York Section Outstanding Service Award Dr. Pamela Kerrigan

University of Mount Saint Vincent

Outstanding Chemistry Faculty Teaching Award Division: Dr. Marvin Parasram
Four-Year University with Graduate School New York University

Outstanding Chemistry Faculty Teaching Award Division: Dr. Robert Topper Four-Year Undergraduate College and University The Cooper Union

Outstanding Chemistry Faculty Teaching Award Division: Two-Year College

Dr. Jihyun (Ji) Kim
Guttman Community College-CUNY

Outstanding Full-Time Lecturer and Instructional Faculty Teaching Award

Dr. Sesha Alluri

Stevens Institute of Technology

Outstanding Adjunct (Part-Time) Teaching Award Dr. Ronald D'Amelia

Nichols Foundation High School Chemistry Teacher Award Ms. Maria Zeitlin

Smithtown High School East

Recognize NYACS Senior Chemists (50, 60, & 70 year members) Presented by Frank Romano

11:35 AM PRESENTATION OF CANDIDATES FOR THE 2025 ELECTIONS Mr. Joseph Wiener

PepsiCo

2025 Chair Elect ACS NY Section

11:40 AM PROJECT SEED Presentations by New York Section Project SEED Students Ms. Nadia Makar, STEM Supervisor

Jose Marti Stem Academy

Hofstra University

12:00 PM KEYNOTE LECTURE: Dr. Raychelle Burks

1:00 PM CONCLUSION OF THE MEETING.

American University

WESTCHESTER CHEMICAL SOCIETY

Recreating Historical Chemical Advertisements Using Material Safety Data Sheets

Speaker: Julian Silverman, Ph.D.

Department of Science and Math Fashion Institute of Technology **Wednesday, February 26, 2025**

Date: Wednesday, February 26, 2025 via Zoom (link to be provided)

Time: 7:30 PM



Abstract: The Science History Institute's digital archive and Safety Data Sheets (SDS) are complementary open-access resources to explore the history of chemistry and science communication. Both chemical advertisements and SDS come filled with physical, chemical, toxicological, and regulatory information. Critically reading both advertisements and SDS is crucial to conducting work in the laboratory and evaluating the safety and sustainability of chemicals. A project focused on designing and presenting recreated historical advertisements using information sourced from SDS connects students and non-scientists with the chemicals we interact with within the laboratory and in our everyday lives. We learn about important topics including properties of matter, their units, personal protective equipment, their proper use, and how to find and use reliable information from digital resources. Inspired by chemical advertisements in the Science History Institute's digital archives, we critique historical advertisements, investigate notable chemicals, and design and present advertisements using SDS. Suited for introductory courses or practitioners who use specific materials at work these free resources help us learn about the history and communication of chemistry, the nature of the chemical industry, and how scientific information lives online in our digital era. Using archived advertisements connects us to our current uses of chemicals enabling us to creatively and critically evaluate chemistry from multiple perspectives.

<u>Download flyer here</u>

Deadline for submitting articles and advertisements for the February 2025 issue is January 16, 2025

LAST CALL FOR NOMINATIONS WESTCHESTER CHEMICAL SOCIETY DISTINGUISHED SCIENTIST AWARD DEADLINE IS JANUARY 15, 2025

The Westchester Chemical Society is accepting nominations for the "Westchester Chemical Society Distinguished Scientist Award 2025". Scientists who live or work in Westchester County or the Bronx qualify. Self-nominations are acceptable. Nominees can be from private companies or educational institutions or government. The awardee is expected to attend the Awards Dinner (April/May time-frame) and to present aspects of their work. Nominations are not carried over from previous years. New and possibly updated nominations should be submitted. Please send a cover letter stating why your nominee should receive the award along with the nominee's resume by January 15, 2025 to Dr. Peter Corfield at pcorfield@fordham.edu. This is the LAST CALL for nominations for 2025.

You're Cordially Invited to the 2025 New York ACS Project SEED Research Symposium

A Virtual Celebration of Innovation and Student Excellence in STEM

Co-sponsored by the New York and Southern California ACS Local Sections, supported by the LSAC DEIR Grant

> When: Saturday, February 8, 2025 1–4 PM EST | 10 AM –1PM PST

Where: Online (Virtual Event)

Cost: FREE (Registration required)

Register Here Today!

For more information, email:

Ping.furlan@gmail.com or kkallury@gmail.com





2025 WILLIAM H. NICHOLS DISTINGUISHED SYMPOSIUM & AWARD PRESENTATON

ADVANCING BIOLOGY THROUGH INNOVATIONS IN CHEMISTRY



Welcome

1:00 PM

A distinguished symposium honoring

Professor Benjamin F. Cravatt Scripps Research Institute

for developing activity-based protein profiling and advancing covalent drug discovery

Date: Friday, April 11, 2025 St. John's University Directions

> Time: 1:00 PM – 7:30 PM Register here

Symposium Program

6:30 PM	Medal Award Presentation
5:00 PM	Reception
4:00 PM	Activity-based protein profiling – target and ligand discovery on a global scale Professor Benjamin F. Cravatt, 2025 Nichols Medalist, Scripps Research Institute
3:15 PM	Systematic Chemical Diversity to Enable Biological Discovery Professor Damian Young, Baylor College of Medicine
2:45 PM	Coffee Break
2:00 PM	Chemical Approaches to Studying Chromatin Professor Tom Muir, Princeton University
1:15 PM	Chemical tools for uncovering new redox biology at the host-microbe interface Professor Stavroula Hatzios, Yale University
1:05 PM	Opening of the Distinguished Symposium Mr. Joseph Weiner, 2025 New York ACS Chair-Elect, PepsiCo
	Professor Eric Chang, 2025 New York ACS Chair, Pace University

NEW YORK ACS BIOCHEMICAL TOPICAL GROUP

The New York ACS Biochemical Topical Group is proud to collaborate with the New York Academy of Sciences Chemical Biology Discussion Group to present a half-day hybrid symposium on the Chemical Biology of Nucleic Acids **on January 14, 2025 from 12:30PM – 5:30PM**. Symposium speakers include Brahma Ghosh, Ph.D., of Johnson & Johnson, John Schneekloth, Ph.D., of the National Cancer Institute, Chandra Vargeese, Ph.D., of Wave Life Sciences, and Prof. Xiao Wang, Ph.D., of the Broad Institute of MIT and Harvard. The keynote speaker will be Prof. Matthew Disney of The Scripps Research Institute (Florida).

Register here



Also note the Dr. Paul Janssen Award Symposium, entitled Regulated Degradation of RNA and Proteins', honoring Lynne Maquat, Ph.D., of the University of Rochester and Alexander Varshavsky, Ph.D., of the California Institute of Technology on **January 30, 2025 from 2:00 – 5:00PM (EST).**

Register here



January 30, 2025





MEETING REPORTS

FRANCES S. STERRETT ENVIRONMENTAL CHEMISTRY SYMPOSIUM



Committee members and symposium speakers with undergraduate student attendees from Hudson County Community College and their professors.

The 2024 Annual Frances Sterrett Environmental Symposium, titled "Microplastics: Macro Problem," broke attendance records and captivated a diverse audience at Hofstra University on Saturday, November 9, 2024 from 9:00 am to 2:30 pm. For the second year since 2010, the event combined in-person and virtual participation, drawing over 120 attendees, including 75 in-person and more than 45 via Zoom—far surpassing the 2023 record of 56 attendees. Participants hailed from across the U.S., including Mississippi, California, New Mexico, Upstate New York, New Jersey, and Illinois.



Dr. J. Evan Ward, a world authority on bivalve feeding, explores microplastic impacts on marine ecosystems and human health in this insightful presentation.

Dr. Cody Garrison examines microbial adaptations to plastic pollution in urban coastal systems, revealing global impacts on biogeochemical cycles and ecosystem function.

Hofstra University's Chemistry Department generously provided parking, program materials, and venue support, while the American Chemical Society (ACS) New York Section and Long Island Subsection funded breakfast and lunch. An ACS microgrant, cowritten by Drs. Ping Furlan and Paris Svoronos, covered IT services, commemorative plaques for the seven speakers, and one-year ACS memberships for seven undergraduate volunteers who played a vital role in ensuring the symposium's success.

FRANCES S. STERRETT ENVIRONMENTAL CHEMISTRY SYMPOSIUM (continued)



Dr. Luis Ernesto Medina Faull investigates the pervasive spread of microplastics across oceans, examining their impact on carbon cycling and marine ecosystems using advanced spectrometry and microbial techniques.



Ms. Huiping Deng explores microplastic and nanoplastic contamination in tap water, leveraging advanced Raman spectroscopy to assess their distribution and potential health impacts.

The program featured seven engaging 30-minute talks—four delivered in person and three via Zoom—spanning a range of topics related to the symposium's theme. Discussions explored the impact of microplastics on marine life, human dietary concerns, and cutting-edge methods for measuring microplastic contamination. Non-ACS members, local community members, chemists, students, and faculty from prominent institutions enriched the dialogue, creating a dynamic environment for exchanging ideas.



Dr. Ashok Deshpande pioneers the use of pyrolysis GC-MS, a novel technique for characterizing microplastic polymers, enhancing our understanding of their sources, composition, and ecological impacts.

Dr. Ping Furlan, Chair of New York ACS, and Dr. Sujun Wei, Chair of Long Island ACS, presented the ACS Salute to Excellence Award to Hofstra University for its commitment to environmental sustainability and community engagement. Dr. Charles Riordan, Senior VP of Hofstra University, and Dr. William Nirode, Chair of the Department of Chemistry, accepted the award. Picture from left to right are Kevin Bisceglia, Ronald P. D'Amelia, Paris Svoronos (Symposium Chair), Ping Furlan, Charles Riodan, William Nirode, Barbara Hillery, Mary Virginia Orna, Neil Jespersen, and Qi Wang.

FRANCES S. STERRETT ENVIRONMENTAL CHEMISTRY SYMPOSIUM (continued)



Committee members and attendees with the speakers, excluding online presenters Dr. J. Evan Ward, Dr. Matthew J. Campen, and Dr. Huiyuan Guo. Dr. Campen shares findings on increasing nanoplastic accumulation in human organs, especially the brain, with potential links to neurological and maternal health. Dr. Guo explores how nanoplastics cross the intestinal barrier in Daphnia magna, identifying key uptake mechanisms using confocal Raman spectroscopy.

In recognition of its leadership in advancing scientific knowledge and promoting environmental sustainability, Hofstra University was presented with the ACS Salute to Excellence Award, highlighting their important role in supporting the symposium. The event fostered meaningful connections between speakers and attendees, including undergraduate students and the public, further cementing its role as a vital platform for environmental science advocacy. Dr. Charles Riordan, Senior Vice President for Academic Affairs at Hofstra University, highlighted the event with his welcome remarks Special thanks to the Symposium Committee members: Dr. Paris Svoronos (Chair), Dr. Ping Furlan, Dr. William Nirode, Dr. Ronald P. D'Amelia, Dr. Qi Wang, Dr. Kevin Bisceglia, Dr. Sujun Wei, Dr. Frank Romano, Dr. Neil Jespersen, Dr. Barbara Hillery, Dr. Carlos Sanchez and Mr. Rocco Di Stefano for their invaluable contributions to this success. Additional thanks to Dr. Brian Gibney, the NYACS webmaster for his technical assistance in managing the symposium webpage and promoting the event, and to Devarshi Jani from Hofstra IT, for photographing and recording the 3.5-hour Symposium. The full recording of the symposium is available, click here.

The Indicator is posted to the web 1ST of the month at

http://www.theindicator.org/

LONG ISLAND SUBSECTION

The New York ACS' Long Island subsection successfully hosted its annual holiday seminar on the evening of Dec. 5th at Nassau Community College. Our honored speaker, Dr. Jon M. Friedrich from Department of Chemistry and Biochemistry at Fordham University, gave a wonderful talk and shared his trip to work and live in Antarctica as a part of ANSMET (Antarctic Search for Meteorites) program funded by NASA and supported by NSF. The seminar was conducted via hybrid mode (in-person and zoom). Based on the feedback from Zoom attendees, it was successfully broadcast live and greatly appreciated.

ACS NATIONAL MEETING & EXPOSITION

Access cutting-edge research while sharing your work in beautiful San Diego with colleagues from across the globe at the ACS Spring 2025 National Meeting & Exposition being held March 23-27, 2025

Meeting registration Hotel reservation





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NEWS FROM OUR PARTNERS ANALYTICAL DIVISION

The Analytical Division is the third largest division of the American Chemical Society. It organizes programming at the spring and fall ACS meetings, Pittcon, the SciX conference and the Eastern Analytical Symposium (EAS). The ANYL Division website provides a variety of information and member services, including the Analytical Sciences Digital Library. The division has a wide range of outreach programs including student travel grants and regional meeting support. Its award program includes undergraduate, graduate and professional awards. This member oriented and directed group works for you! We welcome new members. Please join and/or volunteer to help on one or more activities.



DIVISION OF ORGANIC CHEMISTRY

The Division of Organic Chemistry is hosting a FREE virtual symposium series – see the full schedule here. Join the DOC on Wednesday, January 15, 2025 at noon (EST) for two insightful presentations on radical chemistry from top organic chemistry researchers.

Prof. Yang Yang of the University of California - Santa Barbara will present:

New Strategies for Stereoselective Radical **Biocatalysis**

Prof. Julian West of Rice University will present:

A Radical Approach to Organic Chemistry

Watch these presentations on YouTube or via Zoom and follow the Q&A and discussions here.





Wednesday January 15, 2025 12-1:30 PM EST

C SANTA BARBARA

VIRTUAL SYMPOSIUM

Join us for the DOC Virtual Symposium Series! Each session we bring you insightful presentations from top organic chemistry researchers across academia and industry. Free presentations, no registration needed - links below.



Yang Yang

Chemistry and Biochemistry University of California - Santa Barbara New Strategies for Stereoselective Radical Biocatalysis



Julian West Rice University A Radical Approach to Organic Chemistry







Watch the Virtual Symposium: YouTube: www.orgn.link/watch Zoom: https://orgn.link/vs-zoom



Join the Discussion and ask Questions: www.orgn.link/chat





For Schedule visit: https://www.organicdivision.org

NEWS FROM OUR PARTNERS (continued) CHICAGO ACS

The Chicago ACS invites all to attend their hybrid joint meeting with AIChE being held for FREE on **January 16**, **2025** with the online component starting at **8:15 PM (EST)**. Prof. Omar Farha of Northwestern University will present his research on porous metalorganic frameworks entitled: Smart and Programmable Crystalline Sponges.

Register here



IUPAC: GLOBAL WOMEN'S BREAKFAST

The International Union of Pure and Applied Chemistry (IUPAC) invites all to celebrate the International Day of Women and Girls in Science by hosting a breakfast event on **February 11th, 2025**. The Global Breakfast's goal is to break down barriers to gender equity in science. Over the past six years, 2000 events have been held across 100 countries. This year's theme is "Accelerating Equity in Science".

Find out more here



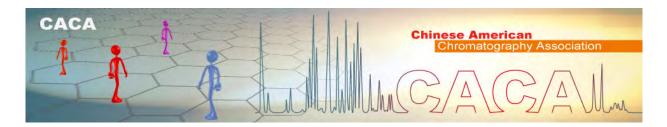
NEWS FROM OUR PARTNERS (continued) CHINESE AMERICAN CHROMATOGRAPHY ASSOCIATION

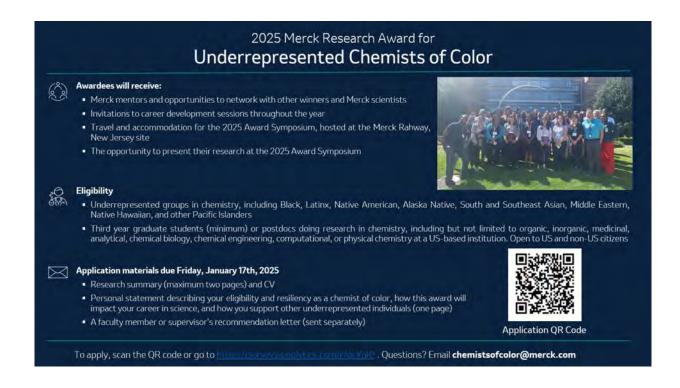
The Chinese American Chromatography Association is proud to present a webinar by Geoffrey M. Faden, President and CEO of MAC-MOD Analytical on **January 22, 2025 at noon (EST)** entitled:

New LC Particle Technology: Monodisperse Fully Porous Particles – Part 1

Abstract: This webinar will discuss the significant improvement in raw performance (N, Efficiency Term) the chromatographer can leverage when utilizing an HPLC column optimized and packed with monodisperse fully porous particle silica-based columns denoted as MFPP. By significantly reducing the Eddy Diffusion also known as "A" Term in the Van Deemter equation, this significant innovation in LC particle technology reduces the HETP (height equivalent to a theoretical plate) which increases performance from 25-60% when compared to traditional polydisperse silica-based columns. Data will be presented that displays the 50% reduction in D90/D10 using a Coulter Counter as well as SEM images that visually represent the Monodisperse Particle Technology. Chromatographic and MS data will be shown that displays the significant efficiency increases that the MFPP based silica columns generate.

Register here for webinar link





OPPORTUNITIES

For High School Students & Teachers

Presidential Awards for Excellence in Mathematics and Science Teaching

Nominations due January 9

ACS-Hach Professional Development Grant

Due January 21

ACS Project SEED

Applications open in February

For Undergraduates

I.M. Kolthoff Enrichment Award

Due January 13

DOE & ACS Nuclear & Radiochemistry Undergraduate Summer Schools 2025

Due February 6

ACS Scholars Program

Due March 1

ACS Bridge Program

Due March 15

For Graduate Students / Postdocs

ACS Public Policy Fellowships

Due January 8

ACS Bridge Project Travel & Professional Development Award

Due January 10

Henkel Award for Outstanding Graduate Research in Polymer Science and Engineering

Due January 24

CAS Future Leaders

Due January 28

L'Oreal for Women in Science Fellowship

Due February 14

For Professionals

ACS Public Policy Fellowships

Due January 8

ACS Global Innovation Grant

Due January 10

Camille Dreyfus Teacher-Scholar Awards

Due January 30

ACS Heroes of Chemistry Awards

Due February 15

DOE & ACS NUCLEAR & RADIOCHEMISTRY UNDERGRADUATE SUMMER SCHOOLS 2025

June 16, 2025 to July 25, 2025

San Jose State University (San Jose, CA)

Prookhaven National Lab (Long Island, NY)

EARN CASH & COLLEGE CREDIT!

- ✓ \$4000 Stipend
- ✓ Transferable College Credit
- ✓ Tuition & Fees
- Round-Trip Transportation & Housing

ELIGIBILITY:

- Sophomore or Juniors at US Institutions
- Completed Two Years of Chemistry; One Year of Physics & One Year of Calculus
- US Citizen

APPLICATION DEADLINE: FEBRUARY 6TH, 2025



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GRANTS & AWARDS

CHEMLUMINARY AWARDS

ACS ChemLuminary Awards honor the best examples of programming, outreach, and operations from ACS local sections, technical divisions, regional meetings, and international chemical sciences chapters.

DUE FEBRUARY 15, 2025

View the ChemLuminary Award Descriptions

LOCAL SECTION PUBLIC RELATIONS AWARD

To recognize outstanding efforts by ACS local sections to promote chemistry to the public or to local section members.

DUE FEBRUARY 15, 2025

Learn more

CORPORATION ASSOCIATES LOCAL SECTION & INTERNATIONAL CHAPTER GRANT

Up to \$1000 for for ACS local sections and international chapters to promote industry-focused events.

DUE FEBRUARY 1, 2025

Learn more

HEROES OF CHEMISTRY

Recognizes teams of industrial chemical scientists whose work has led to the development of successful commercialized products ingrained with chemistry for the benefit of humankind.

DUE FEBRUARY 15, 2025

<u>Learn more</u>

HELEN M. FREE AWARD FOR PUBLIC OUTREACH

An award of \$1000 that recognizes outstanding volunteer achievements in the field of public outreach by a member of the ACS who improves public recognition and appreciation for the contributions of chemistry.

DUE FEBRUARY 15, 2025

Learn more

STANLEY C. ISRAEL REGIONAL AWARD FOR ADVANCING DIVERSITY IN THE CHEMICAL SCIENCES

Recognizes individuals and/or institutions who have advanced diversity in the chemical sciences and significantly stimulated or fostered activities that promote inclusiveness within the region. This award is sponsored by the ACS Committee on Minority Affairs.

DUE MARCH 1, 2025

<u>Learn more</u>



Award Information: https://polyacs.org/awards/

JOB BOARD

Starting your career or looking for the next challenge? Review postings at the New York ACS <u>Job Board</u>. Email your job postings to <u>Jobs@NewYorkACS.org</u> for inclusion.

Academic Positions

Assistant Professor, Department of Biological Sciences – Columbia University		
Full-time Tenure-Track Assistant Professor – Seton Hall University	Apply here	
·	Apply here	
Chair, Department of Chemistry - New Jersey Institute of Technology	Apply here	
Assistant Professor, Tenure Track, in Organic Chemistry - New Jersey City U	Iniversity	
Apply here Open Rank Faculty Positions in Biochemistry / Chemical Biology – Rowan University		
Tenure-track Assistant Professor (Physical Chemistry) – Rutgers University	Apply here	
Associate Program Officer, Science – The Kavli Foundation	Apply here	
Program Manager, Student and Postdoctoral Scholars Development – ACS	Apply here	
	Apply here	
Program Officer, Office of Research Grants – American Chemical Society	Apply here	
Industrial Positions	<u>Apply Here</u>	
Technology Specialist (Chemistry) – Fish & Richardson, P.C.		
Senior Scientist, Bioconjugates – Janssen Research & Development	Apply here	
Chemist – Analytical SAL – kdc/one	Apply here	
	Apply here	
Application Leader, Beauty – Momentive	Apply here	
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Proud to Announce the 2024 Illustrate Poem Contest Winners for the New York Section









Sarah Phinney Garden City Hight School Chemistry Club 11th Grade

Xuanfei Liang New Utrecht High School 11th Grade

Shaayan Alam Smithtown East 11th Grade

Afsheen Pattan Island Trees High School 9th Grade

Be on the lookout on the NYACS website and Indicator for features of poems submitted in 2024 throughout 2025!!!

Prizes to the winners will be awarded as \$50 gifcards. Congratulations again to all of the winners and 80 + submissions.







