



Mary Virginia Orna, Ph.D.
2023 New York ACS Chair
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ACS Local Section
New York



ACS Local Section
North Jersey

THIS MONTH IN CHEMICAL HISTORY

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

Continuing my review of the “Great Books in Chemistry of the 20th. century” I come to a book about a central theme in chemistry, a concept first perceived by Edward Frankland in the 19th. century. I refer to valence.

The book under consideration is “Valence” originally published by Charles Coulson, Professor of Theoretical Chemistry at Oxford University in 1952. I was an undergraduate at “the other place”, namely Cambridge, in the 1950s, and Coulson’s book was my bible as I wrestled with the concepts and mathematics of theoretical chemistry. “Valence” was substantially updated in a 3rd. edition by Roy McWeeny, a Coulson student, and Professor of Theoretical Chemistry at the University of Sheffield. I have mislaid or lost my copy of the first edition of “Valence” but I have to say that the third edition, which appeared in 1979, marks a substantial advance on the first edition and is a “Great Book” in its own right. Incidentally my paperback copy, published by Oxford University Press, cost me 8 pounds 50 pence – at a time when you could buy a decent fish and chips lunch for 5 shillings. You do the math!

An initial chapter discusses the features that any theory of valence must account for, such as why do molecules form?; how do we account for their stereochemistry?; why do bond angles and bond lengths vary in a series of related molecules? etc. Chapters 2 and 3 plunge into the heart of modern theories of wave functions, atomic orbitals, and the principles of wave mechanics. Chapters on diatomic molecules follow, exploring wave functions for pairs of electrons – the familiar covalent bond is explained in detail – and examining such fundamental ideas as hybridization, electronegativity, and bond polarity.

Chapter 7 on polyatomic molecules discusses localized and non-localized orbitals and hybridization, extended to the involvement of d-orbitals in understanding the structures of such non-octet molecules as SF₆ and PCl₅. An extensive chapter on carbon compounds follows covering conjugation, benzene and aromaticity, Hückel theory, and effects of heteroatoms. Then the text branches out to transition metal compounds and covers both crystal field and ligand field theories; high and low spin complexes; and pi-bonding and sandwich molecules such as ferrocene.

The subject of chemical reactivity, after covering substitution reactions, goes on to examine in detail the well-known Woodward-Hoffman rules, and the more obscure Dewar-Evans rules relating to aromatic reactions. Electronic theories of the solid state cover energy band theory and metals and semiconductors; Brillouin zones; and crystal types. Then follows a chapter on weak interactions and unusual bonds. This includes hydrogen bonding; electron-deficient molecules such as the boranes; phosphazenes and related cyclic compounds; and noble-gas compounds.

In a final chapter the author covers the deficiencies in the then (1979) current theories and embarks on an exploration of ab-initio self-consistent field (SCF) theory. In a summarizing section he points to the advances in theoretical chemistry made possible by computation, but draws attention to the great costs of computation for complex systems. In the 2020s those costs have become miniscule, thanks to advances in computer technology, but even in the 2020s this book on valence would still be a valuable introduction to the subject. And its timelessness is what makes it worthy of inclusion in the “Great Books in Chemistry” of the 20th. century.

(Perhaps this would be a good time to reiterate my call to my readers; if you have any favorites for this list please send your recommendations to me. They will be given serious consideration provided that I can get hold of a copy).

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THE Indicator

<http://www.theindicator.org/>

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

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EDITORIAL DEADLINES

January 2023	December 16, 2022
February 2023	January 16, 2023
March 2023	February 16, 2023
April 2023	March 16, 2023
May 2023	April 16, 2023
June 2023	May 16, 2023

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Address advertising correspondence to [Advertising Manager](#). Other correspondence to the [Editor](#).

December Calendar

NEW YORK SECTION

Thursday, December 1, 2022

Long Island Subsection

See page 4

Tuesday, December 9, 2022

Nanotechnology Discussion Group

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SAVE THE DATE

Saturday, January 28, 2023

NYACS Sectionwide Conference

Friday, April 14, 2023

William H. Nichols Distinguished Symposium
and Medal Award Dinner



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NORTH JERSEY SECTION

Monday, December 12, 2022

North Jersey Executive Committee Meeting

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RUTGERS

UNIVERSITY | NEWARK

School of Arts and Sciences

Spring 2023 Graduate Courses

547 Analytical Spectroscopy: NMR & Mass Spectrometry

Dr. Brukh & Dr. Kucheryavy

Mon 6:00 - 9:00 pm,

Life Science Center I, Room 103

579 Spectroscopy in Inorganic Chemistry

Dr. Lockard

Tu 6:00 - 9:00 pm

Smith Hall, Room 240

591 Biomolecular Design and Nanotechnology

Dr. Zhang

Thu 6:00 - 9:00 pm

Smith Hall 242

For more information, [click here](#) or contact [Ms. Sophia Bautista Chinchay](#). We welcome Masters, PhD, and non-degree students.

Up to 2 graduate courses can be taken on a non-degree basis.

2023 NEW YORK SECTION CHAIR'S MESSAGE

Dear New York ACS Members,

When, in 2021, I was elected Chair-Elect of the NYACS, COVID-19 was in full swing with no end in sight. In fact, even as I write this message in late 2022, we realize that there is still no end in sight, and possibly there never will be (mask-wearing is still required in many venues), although personal risk has been substantially reduced by the advent of effective vaccines. Thanks to my predecessor, Kathleen Kristian, NYACS has navigated the pandemic successfully by her leadership and creativity. The activities we are all passionate about have taken place in, at first, virtual-only formats, and later hybrid formats, all engineered with ingenuity marked by extraordinary resilience. Almost without missing a beat, NYACS adopted improved communications methods, continued to offer our signature events in new formats, and devised new ways to offer educational and diversionary activities for our members, our students, and the general public. Kudos to Kathleen, to the Executive Committee, and to our hard-working NYACS Board for their foresight and leadership. Congratulations also go to all of our dedicated topical group and committee chairs, event leaders, Subsection Boards, invited speakers, volunteers, and active members for their impressive accomplishments in 2021 and 2022. Among these accomplishments I highlight:

- Chemluminary Award for the Best Activity or Program Stimulating Member Involvement (#IAMNYACS social media campaign). This program was conceived and accomplished by Brian Gibney, Alison Hyslop and Joe Serafin.
- Chemluminary Award for an Outstanding Virtual Event for CCEW or NCW (Virtual National Chemistry Week celebration) This was a project piloted by Ping Furlan, Paul Sideris and Joseph Wiener.
- Innovative Project Grant (IPG) – Justyna Widera-Kalinowska. **Project title: Science Heroes Game as an educational tool for popularization of science and scientific career.** This is a project that supports the collaboration of teachers, professors and pre-service teachers in creating a new educational tool” Science Heroes Game” for popularizing science and the scientific profession.
- METT Grant – Brian Gibney, Joe Serafin and Alison Hyslop. This grant funds a ‘Welcome Wagon’ membership drive.
- Senior Chemists Grant for MARM 2023 – Joe Serafin. This grant will support the Senior Chemists Luncheon at MARM2023, June 9 at the CUNY Graduate Center.

Hearty congratulations to you all!

This recent chapter of our history could not have moved to the possibility of hybrid meetings, where some of us are able to attend in person, without the application of astonishing expertise on the part of thousands of chemists and biochemists who worked unceasingly to provide us, in record time, with the vaccines that enabled the world to resume a semblance of normalcy in recent months. At the August ACS National Meeting in Chicago, there was an enormous

2023 New York Section Chair's Message, continued

whiteboard where attendees were invited to respond to the topic "Proud to be a Chemist: Ask me why." I am proud to say that I exult in sharing in a profession that brought a world on its knees back to its feet again – through chemistry.

As Chair in 2023, I hope to continue to support the mission of the NYACS through several areas of focus by:

- Exploring ways, both formal and informal, to engage more fully all the members of our section and especially retired academic and industrial members and K-12 teachers
- Reaching out to under-active and inactive subsections via new ideas and suggestions targeting individuals known to have been previously active in NYACS events
- Investigating options for collaborations or partnerships with other local sections and possibly with international chapters to broaden our impact both nationally and globally
- Supporting the efforts of the NYACS to create a welcoming and inclusive environment for all chemists, especially through the activities of the NYACS Minority Affairs Committee and the National Historic Chemical Landmark working group. I am delighted to continue to work with 2022 Chair Kathleen Kristian and incoming 2023 Chair-Elect Ping Furlan, as well as the rest of the Executive Committee, to maintain the reputation of NYACS as a source of vibrant, high-quality activities related to the chemical sciences.

The **2023 Board Meetings** will continue to be offered in a hybrid format on Monday evenings at 6:30 PM. We hope that the invitation to join in Board Meetings either in-person or online will facilitate participation of a wider cross-section of members. If you are interested in ways to become involved in the Board of the NYACS, please reach out to me or to another member of the Executive Committee to learn more. We are looking for candidates for the election for 2024 offices; please let us know if you are interested in running for a position: Chair-Elect, Treasurer, Director-at-Large, or Councilor. The election is held in May 2023.

Please stay connected via our online newsletter, [The Indicator](#), and our social media channels, [Facebook](#), [LinkedIn](#) & [Twitter](#)), to learn about upcoming activities and ways to get involved. We are excited about our slate of events for 2023, and we hope that you will participate in as many as possible. Please mark your calendars and check **The Indicator** for updates for:

NYACS Sectionwide Hybrid Meeting on January 28th, featuring keynote addresses by Paris Svoronos (Emeritus Professor of Queensborough Community College) and Robert Hoyte (SUNY Old Westbury) who have teamed up to give us a prelude to the Landmark event that will recognize Marie Maynard Daly as the first African American woman to receive a Ph.D. in chemistry. Stay tuned to additional "Landmark" events over the next few months as lead-up to the actual event in May. At the same time, we are also excited to honor the 2022 NYACS Outstanding Service awardee, Prof. Marlon Moreno (Queensboro Community College). Following the festivities, we will break up into our regular planning groups for next year. Please [register for the Sectionwide Meeting](#) and join us to plan activities for 2023!

2023 New York Section Chair's Message, continued

William H. Nichols Distinguished Award Symposium and Dinner on April 14th, honoring Prof. Karen Goldberg of the University of Pennsylvania, currently planned as an in-person event. The symposium will feature a group of chemists notable in the field of catalysis and biocatalysis, with the theme "Catalysis for a Sustainable Future.". Details about registration will be publicized in early 2023.

Chemists Celebrate Earth Week (CCEW) April 16 – NYACS united to communicate the positive role that chemistry plays in the world.

Undergraduate Research Symposium in Spring 2023 to learn about the varied research activities happening in the NY section.

National Historic Chemical Landmark Designation on May 19 honoring Marie Maynard Daly, first U.S. African American woman to receive a Ph.D. in chemistry – at Columbia University on May 19th.

[Middle Atlantic Regional Meeting \(MARM\) 2023](#) – June 9 (CUNY Graduate Center) and June 10 (St. John's University)

National Chemistry Week (NCW) takes place the third week in October - Outreach events to showcase the fun and value of chemistry for students, children, and the general public. [Click here for more details.](#)

Eastern Analytical Symposium (EAS) – Nov. 13-15

And please keep the following annual events in mind (specific dates TBA in [The Indicator](#)) as we move forward into 2023:

Younger Chemists Committee meetings and events to engage recent graduates and early-career professionals

ACS Chemistry Olympiad – we will need volunteers to proctor this virtual event

Topical Group, Subsection, and Committee-led events in your areas of interest.

Senior Chemists 50-Year Luncheon

High School Awards

As I look ahead, I am energized by the fact that we can count on more in-person events while, at the same time, be able to host hybrid activities that will allow for a broader participation of the NYACS members and student members, in fulfilling our stated mission: *"to be a forum for the exchange of ideas, knowledge and experiences among those interested in the chemical sciences in ways that promote individual and professional excellence in the chemical community."*

Wishing you all a happy, healthy, rewarding and enjoyable 2023, I am
Mary Virginia Orna, 2023 Chair, NYACS

NEW YORK SECTION MEETINGS



2023 SECTION-WIDE CONFERENCE
SATURDAY, JANUARY 28, 2023
St. John's University
10:00AM – 1:15PM

Registration is free! [Click here to register](#)

PROGRAM

- | | | |
|-----------------|--|---|
| 10:00 AM | GREETINGS FROM THE ACS NEW YORK SECTION 2023 CHAIR | Dr. Mary Virginia Orna
ChemSource, Inc. |
| 10:10 AM | AWARD PRESENTATIONS | |
| | Service Plaque and Pin to the 2022 ACS New York Section Chair | Dr. Kathleen Kristian
Iona College |
| | ACS New York Section Outstanding Service Award | Dr. Marlon Moreno
Queensborough Community College |
| | Outstanding Four-Year University with Graduate School Chemistry Faculty Teaching Award | To be announced |
| | Outstanding Four-Year Undergraduate College and University Chemistry Faculty Teaching Award | To be announced |
| | Outstanding Two-Year College Chemistry Teaching Award | To be announced |
| | Nichols High School Teacher Award | Kristen Drury
William Floyd High School |
| 11:00 AM | PRESENTATION OF CANDIDATES FOR THE 2022 ELECTIONS | Dr. Ping Furlan
US Merchant Marine Academy
2023 Chair Elect ACS NY Section |
| 11:15 AM | KEYNOTE SPEAKERS: | |
| | Title: <i>The Life and Work of Dr. Marie Maynard Daly</i> | Dr. Paris Svoronos |
| | Dr. Marie Maynard Daly (1921-2003) was born and raised in Corona, Queens and attended Hunter College High School. She was accepted to Queens College and graduated magna cum laude and as a Queens College scholar with a degree in chemistry (1942). She proceeded to earn her master's at New York University and her doctorate at Columbia University, the first ever African American woman to reach this level of achievement in the United States. She first started as a faculty member at Howard University and continued with a seven-year career at the Rockefeller Institute studying the protein construction in the body. She then joined Columbia University and finished her academic career at the Albert Einstein College of Medicine at Yeshiva University, where she principally taught biochemistry to medical students. Until her retirement (1986) and beyond she was a serious advocate of including and promoting minority women in the health sciences and was recognized for her efforts to build a pathway for their contributions and success. She has had many peer-reviewed publications and was bestowed a large number of awards that recognized her pioneering efforts. Dr. Daly's life and a brief synopsis of her research accomplishments will be presented. | |
| | Title: <i>Planning the Daly National Historic Chemical Landmark</i> | Dr. Robert Hoyte, SUNY Old Westbury |
| | A chronology and update will be presented on plans by the New York Section for the 2023 Celebration of a new National Historic Chemical Landmark honoring Dr. Marie Maynard Daly, the first African American woman to earn a Ph.D. degree in chemistry. | |
| 12:15 PM | PROJECT SEED Presentations by New York Section Project SEED Students; to be announced from Jose Marti STEM Academy. | |
| 12:30 PM | ACS, NEW YORK SECTION COMMITTEE PLANNING SESSIONS FOR 2023. | |
| | <u>Educational Activities:</u> Chair: Dr. Alison G. Hyslop
Chemagination, Chemists Celebrate Earth Day, Continuing Education, High School Chemistry Olympiad, National Chemistry Week, Nichols Foundation High School Teacher Award, Project SEED, Student Membership, Student Award Recognition | |
| | <u>Member Affairs:</u> Chair: Dr. Joseph M. Serafin
ACS Fellows, Awards, Employment and Professional Relations, History of the New York Section, Indicator, Membership, Outstanding Service Award, Minority Affairs | |
| | <u>Program Review:</u> Chair: Dr. Anne T. O'Brien
Subsection and Topical Discussion Group Chairs | |
| | <u>Public Affairs:</u> Chair: Dr. Robert P. Nolan
Academe and Industrial Relations, Environmental Chemistry, Fund Raising, Government Affairs, Information Technology, Public Relations, Speakers Bureau | |
| 1:00 PM | REPORTS FROM THE CHAIRS OF THE COMMITTEE PLANNING SESSIONS. | |
| 1:15 PM | CONCLUSION OF THE MEETING Join with colleagues for lunch at a local restaurant. | |

HELP US CELEBRATE A STEM PIONEER: VOLUNTEER OR DONATE TODAY

The New York ACS is celebrating the life, scientific accomplishments and legacy of Dr. Marie Maynard Daly throughout 2023. The year starts with an exposition of her life and science at the New York ACS Sectionwide Conference. This will be followed by a public exhibit at the New York Hall of Science, a symposium and National Historic Chemical Landmark dedication in her honor at Columbia University and school visits to discuss her life and promote diversity in STEM education. We need your help to honor her.

If you would like to participate in these events, please fill out this [volunteer interest form](#).

If you would like to support these event, [please donate online](#), or mail a check made out to American Chemical Society's New York Section, Inc.

c/o Brian Gibney, Treasurer
1327 N Long Beach Road
Rockville Center, NY 11570

Join Us in Honoring a STEM Pioneer



Celebrating the life and legacy of
Dr. Marie Maynard Daly
*First African American Female
Ph.D. in Chemistry*

Public outreach events throughout 2023 with the National Historic Chemical Landmark Dedication at Columbia University on May 19, 2023



Dr. Daly Museum Exhibit

- Exhibition of Dr. Daly's life and scientific contributions at the New York Hall of Science in her hometown of Queens during Black History Month



High School Outreach Program

- Visits to New York High School chemistry classrooms to inspire the next generation of STEM professionals from diverse backgrounds



Sectionwide Conference

- Presentations on her life, her science and her legacy as the New York ACS plans events to honor Dr. Daly

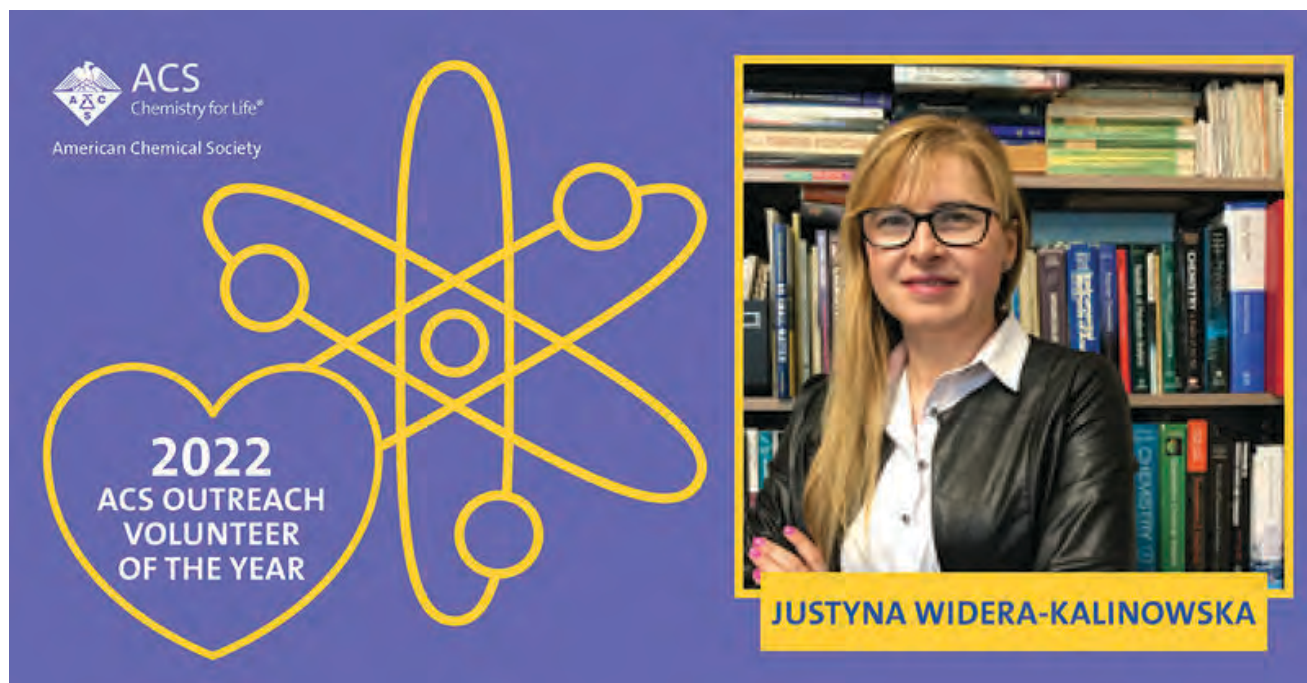


National Historic Landmark Dedication

- Symposium honoring Dr. Daly's legacy with a National Historic Chemical Landmark dedicated in Dr. Daly's honor at her alma mater, Columbia University

JUSTYNA WIDERA-KALINOWSKA NAMED NEW YORK ACS OUTREACH VOLUNTEER OF THE YEAR FOR 2022

The New York ACS proudly recognizes Prof. Justyna Widera-Kalinowska of Adelphi University as the ACS Outreach Volunteer of the Year for 2022. Aside from her service to the New York ACS as Chair in 2019 and organizer of the Undergraduate Research Symposium, she continues her service as a Councilor and member of the ACS Local Section Activities Committee. Thank you for your continued service.



WESTCHESTER CHEMICAL SOCIETY DISTINGUISHED SCIENTIST AWARD CALL FOR NOMINATIONS

The Westchester Chemical Society is now accepting nominations for the “WCS Distinguished Scientist Award 2023”. Scientists who live or work in Westchester or the Bronx qualify. The awardee is expected to attend the Awards Dinner (April/May time-frame) and to present aspects of his or her work. Self-nominations are acceptable. 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, 2023 to Dr. Peter Corfield at pwrc@earthlink.net.

LONG ISLAND SUBSECTION

HOLIDAY ZOOM CELEBRATION AND SYMPOSIUM

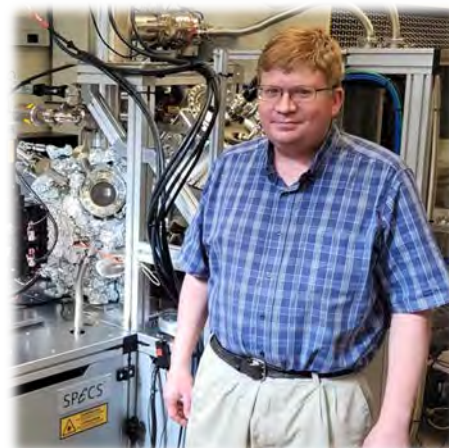
Chemical Warfare and Current Advances in Defense Research

Speaker: Dr. Wesley Gordon
US Army Edgewood Chemical
Biological Center

Date: Thursday, December 1, 2022

Place: Via [Zoom](#)

Time: 6:00 PM



Abstract: Chemical warfare agents are horrific weapons causing them to be banned by the international chemical warfare convention in most countries. As stockpiles in most countries are being destroyed, there is still a threat to military personnel, civilians, and individuals. One organization dedicated to maintaining a strong chemical defense is the U.S. Army's Combat Capabilities Development Command Chemical Biological Center.

I will provide a brief overview of chemical warfare agents and their impact on humans, and discuss new instrumentation being brought online for the study of interactions of chemical warfare agents with military related materials (e.g. adsorption, reaction) and discuss recent research on decontamination and protection technologies currently under development such as metal organic frameworks. I will also touch on our broad collaboration with academic, government, and other partners to bring these results to fruition.

Bio: Dr. Gordon received his B.S. in chemistry from N.C. State University while studying the synthesis and coupling porphyrins and chlorins for the purposes of light harvesting and energy transfer. He obtained his PhD degree from Virginia Tech University. During his graduate school years, Wes synthesized and studied the optical properties and energy transfer among optically active lanthanide-doped metal oxides; and screened the in-air reactivity of a variety of metal oxide nanoparticle samples against multiple chemical threat agent simulants. He has also modified an ultra-high vacuum chamber to synthesize freshly made nanoparticles in vacuo to dramatically reduce atmospheric contamination. Wes has worked as a postdoctoral scientist in the Surface Science and Catalysis group at Oak Ridge National Laboratory, where he studied the reactions of metal oxides with small molecules and chemical warfare agent simulants. An offer to build a new multifunctional ultra-high vacuum pressure brought Wes back to Virginia Tech, and after design and testing the instrument, he moved the instrument to install and run at CBC. He has since assisted in the acquisition of more surface science equipment, focusing on closing the gap from ultra-high vacuum to near ambient pressures.

**Deadline for submitting articles for the
January 2023 issue is **December 16, 2022****

NEW YORK ACS NANOSCIENCE DISCUSSION GROUP**NADRIAN C. SEEMAN MEMORIAL SYMPOSIUM****Date:** Tuesday, December 9, 2022**Place:** Rosenthal Pavilion, NYU Kimmel Center
60 Washington Square South, between LaGuardia and Thompson Streets**Time:** 9:00AM – 5:00 PM**RSVP:** Required, [click here to RSVP](#)


NADRIAN C. SEEMAN MEMORIAL SYMPOSIUM

Rosenthal Pavilion, NYU Kimmel Center
December 9, 2022 | 9:00 AM– 5:00 PM

Event	Time	Name
Welcome & Coffee	9:00 AM	
Introduction	9:20 AM	Andy Hamilton <i>New York University</i>
Session Chair 1		Jim Canary <i>New York University</i>
Speaker 1	9:30 AM	Paul Chaikin <i>New York University</i>
Speaker 2	10:00 AM	Greg Petsko <i>Harvard Medical School</i>
Speaker 3	10:30 AM	Hao Yan <i>Arizona State University</i>
Coffee Break	11:00 AM	
Session Chair 2		Simon Vecchioni <i>New York University</i>
Speaker 4	11:30 AM	Lulu Qian <i>California Institute of Technology</i>
Speaker 5	12:00 PM	Tim Liedl <i>University of Munich</i>
Lunch	12:30 PM	

Event	Time	Name
Session Chair 3		Yoel P. Ohayon <i>New York University</i>
Speaker 6	2:00 PM	Hanadi Sleiman <i>McGill University</i>
Speaker 7	2:30 PM	William Shih <i>Harvard Medical School</i>
Speaker 8	3:00 PM	Chengde Mao <i>Purdue University</i>
Coffee break	3:30PM	
Session Chair 4		Phil Lukeman <i>St. John's University</i>
Speaker 9	4:00 PM	Ruojie Sha <i>New York University</i>
Speaker 10	4:15 PM	Risheng Wang <i>Missouri University</i>
Speaker 11	4:30 PM	Xing Wang <i>UIUC</i>
Speaker 12	4:45 PM	Bryan Wei <i>Tsinghua University</i>
Closing	5:00 PM	Bobby Arora <i>New York University</i>
Reception/ Open Mic	5:15 PM – 7:00 PM	

Sponsors: ISNSCE, NYU President's Office, NYU Dean for Science, NYU Department of Chemistry, New York Nanoscience Discussion Group, ACS New York Section

2023 WILLIAM H. NICHOLS DISTINGUISHED SYMPOSIUM CATALYSIS FOR A SUSTAINABLE FUTURE

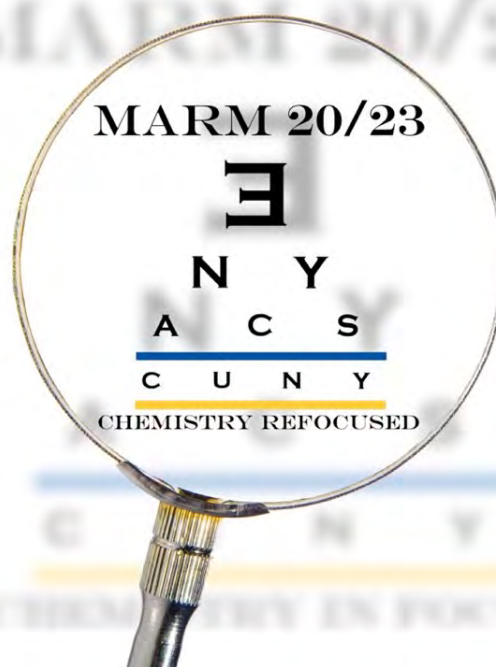
The New York ACS will fete Prof. Karen I. Goldberg, the 2023 William H. Nichols Medalist, at a symposium entitled “Catalysis for a Sustainable Future” on **April 14, 2023**. Symposium speakers include Prof. Melanie Sanford (University of Michigan), Prof. William Jones (University of Rochester), Prof. Alan Goldman (Rutgers – The State University of New Jersey), Prof. Rachel Narehood Austin (Barnard College) and the medalist herself.

The New York ACS acknowledges financial support of this event by the William H. Nichols Fund for Chemistry at the Boston Foundation.



MARM 2023

The New York ACS is hosting the 2023 Middle Atlantic Regional Meeting of the ACS (MARM2023) on **June 9-10, 2023**. The theme of the meeting is ‘Chemistry Refocused’. MARM2023 will have one day of technical talks and poster sessions at the City University of New York Graduate Center on June 9th. The following day, MARM 2023 will continue with educational programming at St. John’s University. The program will contain sessions on the Chemistry of Life Sciences, Materials Chemistry, Cosmetic Chemistry, Forensic Chemistry, and Flavor & Fragrance Chemistry. Details to follow. **Abstract submission opens December 20, 2023.**



NORTH JERSEY SECTION MEETINGS

2022 NORTH JERSEY EXECUTIVE COMMITTEE MEETINGS

2022 North Jersey ACS Chair Qi Gao and the Executive Council welcome you to our monthly NJACS meetings. The next meeting is **Monday, December 12th from 7 pm to 9 pm**. All members are welcome to attend and become more involved in section activities.

For any additional information including a link to virtual meetings and RSVP deadline for in-person meetings, please click here to [email our Communications Chair](#).



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2023 LEO HENDRIK BAEKELAND AWARD - CALL FOR NOMINATIONS

The North Jersey Section of the American Chemical Society is soliciting nominations for the **2023 Leo Hendrik Baekeland Award**. The Award consists of a gold medal and a \$5,000 honorarium. The Section presents the Award biennially to commemorate the technical and industrial achievements of Leo Hendrik Baekeland and to encourage younger chemists to emulate his example.

The Award is given in recognition of accomplishments in pure or applied chemistry to an US-based chemist as characterized by the initiative, creativeness, leadership, and perseverance of the individual (indicated by published or unpublished evidence) and who will be under the age of 40 as of January 1, 2023.

Nominations for the Award should include a letter describing the nominee's achievements, a brief biography, and a list of the nominee's more important publications. Successful nomination packets include two to three recommendation letters supporting the candidate. Re-nominations are encouraged, provided the age requirement is still met. Nomination Packets for the 2023 Baekeland Award will be accepted until **January 15, 2023**. Please send the completed packet to Diane Krone, ACS North Jersey Section Awards Chair at dkrone@njacs.org.



MEETING REPORTS

FUN FOR EVERYONE ON EDISON DAY AT THE THOMAS EDISON LABORATORY MUSEUM IN WEST ORANGE!

Contributed by Miriam Gulotta, NJACS Treasurer and Outreach Enthusiast

The first Saturday in June marked the return of both the [West Orange Street Fair](#) and [Edison Day](#) from their hibernation during COVID. Ever since the Edison Laboratory was dedicated as an ACS [National Historic Chemical Landmark site](#), the North Jersey ACS section has been an invited guest to Edison Day. Our volunteers were from industry and education, including chemists from Merck and Bristol Myers Squibb, as well as educators from high school and college levels.

The park rangers of the Thomas Edison Laboratory celebrate Thomas Edison's work in the midst of the West Orange Street Fair. It's my favorite outreach event. This year the museum gave us a table close to the door to the laboratory (shown at right). We got to ask visitors of all ages what they enjoyed most in the museum and since we always bring activities related to Edison's work we were often able to either help explain what the visitors saw inside or to extend their knowledge on the topic.

This year visitors to our tables dabbled in electrical conductors, electronic circuits and alternate energy sources. A solar powered car taught visitors about using the sun's energy for power. It was mostly a sunny day and when the sun was out the car ran but when there was cloud cover students could not make the car run. Other activities included a make-your-own-circuit using an electric snap kit. The snap kit shows students the basics about electronic circuits and components. There were also samples of both conductive and nonconductive substances that allowed students to determine what property(ies) are shared by members of each group.



FUN FOR EVERYONE ON EDISON DAY AT THE THOMAS EDISON LABORATORY MUSEUM IN WEST ORANGE! (continued)



The North Jersey section provided a lot of volunteers throughout the day: Justyna Sikorska, our chair elect, came early with her husband and daughter. They helped set everything up and brought 2 great electronics kits including the one with the car. Our current chair, Qi Gao, came over between infant feedings to lend her support. Later our past chair, Mirlinda Biba, came with her teenage daughter and some of her friends. They brought wonderful warm pretzels to help keep us nourished. Luciano Mueller, AAAS Fellow and former chair was there a good part of the day as were educators Deb Sweet, Diane and Tom Krone, and yours truly. A beautiful sunny day, good friends, fun science, enthusiastic visitors and warm pretzels – it doesn't get any better than that.

Looking forward to the 2023 Edison Day expected to be in June 2023 at the [Thomas Edison National Historic Park](#)

SOPHOMORES & JUNIORS – APPLY TODAY

The [ACS IRES program](#) is now accepting applications for research experiences in either Singapore or Germany in Summer 2023. This fully funded research experience is open to US citizens and permanent residents.

[Due December 15](#)

**INTERNATIONAL
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EXPERIENCE FOR
STUDENTS**
Summer 2023

GREAT ATTENDANCE AT NJACS NOVEMBER MASS SPEC DISCUSSION GROUP MEETING



The North Jersey ACS's Mass Spectrometry Discussion Group after a long pandemic break, came back in-person on November 1st and did it in great attendance, thanks to the excellent speaker Dr Jane Gale who presented "Decade by Decade: An Historical Review of Mass Spectrometry and ASMS in the Second Half of the 20th Century". Dr Gale is currently serving as [ASMS's Archivist / Historian](#).



GREAT ATTENDANCE AT NJACS NOVEMBER MASS SPEC DISCUSSION GROUP MEETING (continued)

The meeting was a big success with around 100 attendees who really enjoyed the talk and the contest of the "Oldest Mass Spectrometer working", won by the [70VSE 102023](#) (EI, CI, FAB and CF-FAB, shown below) working since 1990 at the University of Illinois Urbana-Champaign, the contestant, Kasia Janota, won a gift card.



The night was full of history, mass spectrometers, networking, free dinner, prizes and a moment of respect to our beloved [Bill Suits](#) who was remembered and his contributions to the group highlighted.





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Join the ACS' Zero Hunger Summit to explore how chemistry and engineering can be leveraged toward the goal of "Zero Hunger".

Impacts of Agriculture on Climate: Reducing Emissions

Date: December 5, 2022

Time: 11:00AM – 1:30PM

Climate Impacts on Agriculture: Enhancing Resilience

Date: December 6, 2022

Time: 11:00AM – 1:00PM

Optimizing Crop Production: Increasing Productivity

Date: December 7, 2022

Time: 11:00AM – 1:00PM

Sustainable Food Packaging: Reducing Waste

Date: December 8, 2022

Time: 11:00AM – 1:30PM

[Register here](#)

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OPPORTUNITIES

For High School Students & Teachers

The Shell Urban Science Educators' Development Award

[Due December 21](#)

Presidential Awards for Excellence in Mathematics and Science Teaching

[Nominations due January 9](#)

For Undergraduates

SMART Scholarship-for-Service Program

[Due December 1](#)

I.M. Kolthoff Enrichment Award

[Due January 9](#)

ACS Scholars Program

[Due March 1](#)

For Graduate Students / Postdocs

SMART Scholarship-for-Service Program

[Due December 1](#)

Heh-Won Chang, PhD Fellowship in Green Chemistry

[Due December 31](#)

Nina McClelland Memorial Award

[Due December 31](#)

ACS Public Policy Fellowships

[Due January 15](#)

For Professionals

The Dreyfus Prize in the Chemical Sciences

[Due December 1](#)

ACS Public Policy Fellowships

[Due January 15](#)

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ACS offers:
 > 1-2 year fellowship in ACS' Washington, DC HQ
 > 1 year fellowship on Capitol Hill

- ✓ PhD or equivalent experience
- ✓ Competitive salary
- ✓ Relocation expenses & health coverage

Application deadline: **January 15** for fellowships beginning the following September

Find out more and apply!
acs.org/policyfellow

SMART
Scholarship-for-Service Program

Apply Aug 1 – Dec 1

STEM students can earn full tuition and a rewarding career with the Department of Defense.

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Interested in Pursuing a Career at a Teaching-Focused Institution?

Graduate and postdoctoral students are invited to apply to the Institute for Future PUI Faculty (IFPF), an NSF-funded program at Lafayette College. This immersive training program trains participants for 2 weeks, all expenses paid, from April 10th - 22nd, 2023. The deadline to apply is **December 9th, 2022.**

[More information](#)

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, 2023

[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, 2023

[Learn more](#)

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, 2023

[Learn more](#)

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

This \$1000 award 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.

DUE MARCH 1, 2023

[Learn more](#)

Grant Opportunities

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 15, 2023

[Learn more](#)

LOCAL SECTION SUSTAINABILITY GRANT

Up to \$500 for the promotion of opportunities that enhance the chemical community's awareness of and the essential role of chemistry in responding to sustainability challenges.

DUE FEBRUARY 18, 2023

[Learn more](#)



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ACS FELLOWS

The [American Chemical Society \(ACS\) Fellows Program](#) was created by the ACS Board of Directors in December 2008 to recognize members of ACS for outstanding achievements in and contributions to science, the profession, and the Society. The North Jersey Section (NJACS) and New York Section (NYACS) have many outstanding members who have contributed to both the science and the Society and deserve to be recognized. Each section may nominate up to nine ACS members each year. Help us identify these exceptional members by sending your nomination by January 1st to Diane Krone at dkrone@njacs.org or Robert Nolan at fellows@newyorkacs.org. The email should include your name (the nominator) along with your phone number and email address as well as the name, phone number and email address of the person you are nominating. [Click here](#) to learn more about the ACS Fellows Program.



DUE January 1, 2023

Potential Advertisers Want to reach 6,200 ACS Members?

***The Indicator* is actively seeking new advertisers from academia, industry, suppliers and service groups. New [rates](#) are in effect that we believe you will find attractive and competitive. Click to request a copy of our new [rate sheet](#) and [order form](#). The January issue deadline is December 16th.**

SEMINAR SPEAKERS WANTED

The New York Section wants to add to our Speakers Bureau database of local speakers who are available for Section-wide seminars and symposia. If you have an area of research or interest that would provide an interesting talk appropriate for our Section members, and would like to be included in our Speakers Bureau, please send an email to [Ms. Bernadette Taylor](#) with the following information that will be posted on the Section's website: your name, affiliation, a seminar title, and 5-6 words briefly summarizing your area of specialty. We look forward to hearing from you about topics that you wish to share with your fellow members!

COMMITTEE ON THE HISTORY OF THE NEW YORK LOCAL SECTION

The New York Section has participated in the designation of seven National Historic Chemical Landmarks and four New York Section Historic Chemical Landmarks, as detailed on its [website](#). 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 a historic chemical landmark - be it an achievement, a building or association. Send your nomination, with supporting documentation, to [Dr. Neil Jespersen](#), Chair, Committee on the History of the NY Section.

JOB BOARD

Starting your career or looking for the next challenge? Review postings at the New York ACS [Job Board](#). Email your job postings to Jobs@NewYorkACS.org for inclusion.

Academic Positions

Assistant Professor, Environmental Analytical Chemistry – Lehman College

[Apply here](#)

Assistant Professor, Chemistry – NYC College of Technology

[Apply here](#)

Assistant Professor, Analytical/Physical Chemistry – Farmingdale State College

[Apply here](#)

Lecturer (Doctoral Schedule), Natural Sciences (Chemistry) – Baruch College

[Apply here](#)

Industrial Positions

Chemist – CG Labs

[Apply here](#)

Chemist, Skincare Development – L’Oreal Research & Innovation

[Apply here](#)

Associate Director, Analytical Chemistry - Regeneron

[Apply here](#)

Sr. Director of Medicinal Chemistry – Eikon Therapeutics

[Apply here](#)

CAREER DEVELOPMENT CANNOT START TOO EARLY

As discussed in the October issue of The Indicator, self-assessment is a critical aspect of career development. Once you have assessed yourself, you know which skills you need to develop to reach your career goals. The American Chemical Society's Career planning tool, [ChemIDP](#), is an invaluable self-assessment tool for chemists. It also presents webinar on professional development topics. Check out these upcoming online offerings:



ChemIDP.org

ChemIDP™, an individual development planning tool for you.

- Know your career options
- Develop strategies to strengthen your skills
- Map a plan to achieve your career goals

Trade Secrets and Economic Espionage in the 21st Century

[December 8](#)

Chemistry and the Economy: 2023 Outlook

[December 15](#)

Making the Most of Your Interview: Outshine the Competition

[December 21](#)