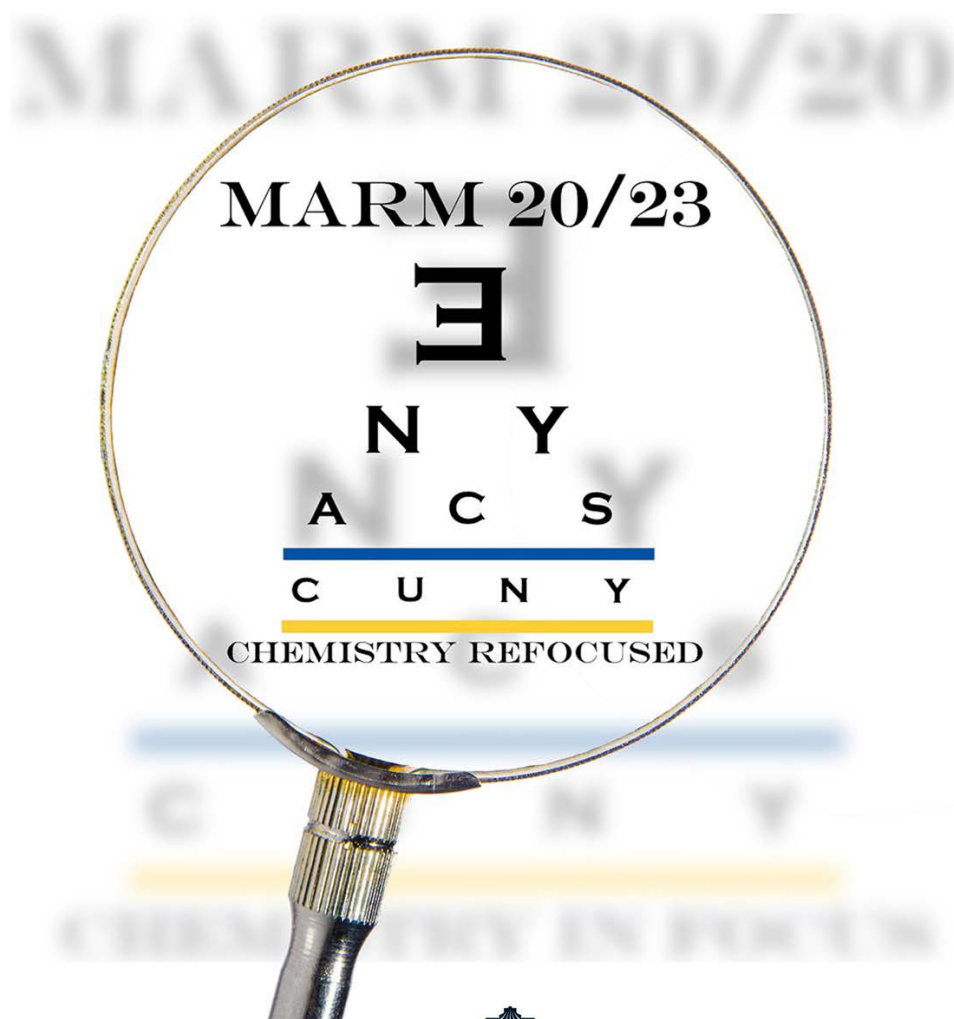


51st Middle Atlantic Regional Meeting of the American Chemical Society



June 9-10, 2023

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ST. JOHN'S
UNIVERSITY

June 10, 2023

Members of the American Chemical Society,

It is with great pleasure that I extend to all of you a warm welcome to the 51st Middle-Atlantic Regional Meeting hosted at St. John's University. We are thrilled to partner on this important gathering of chemical professionals and enthusiasts.

Scholarship defines the academic life, as well as our professional lives. The American Chemical Society and St. John's University are proud to collaborate and further the fundamental role of scholarly research and professional development.

This is a wonderful opportunity for attendees to network, share ideas, and learn the latest developments in the field of chemistry. Our program includes a wide range of exciting events, including technical sessions, poster sessions, exhibitions, and workshops. We are confident that the program we have prepared will be both informative and inspiring.

Thank you for featuring the excellent research of students and faculty both from St. John's University and other institutions. We celebrate the proficient skills, self-discipline, independent judgment, and creativity of all participants.

We are honored to welcome you to our Queens, NY, campus. Our University has a strong tradition of excellence in the sciences. We are thrilled to showcase our facilities and research to our colleagues from the American Chemical Society.

We hope that you enjoy your time at the Middle-Atlantic Regional Meeting and find it a productive and rewarding experience. We look forward to meeting and engaging with you throughout the day.

Sincerely,

Brian J. Shanley, O.P.

Rev. Brian J. Shanley, O.P.
President

Middle Atlantic Region Local Sections

Central Pennsylvania
Delaware
Lehigh Valley
Maryland
New York
North Jersey
Philadelphia
Princeton
South Jersey
Southeastern Pennsylvania
Susquehanna Valley
Trenton
Chemical Society of Washington
Western Maryland

ACS Board of Directors

The following members of the ACS Board of Directors are expected to attend MARM 2023. Please join them at the ACS Governance Social on Friday from 4:30 – 5:30.



Judith C. Giordan is the co-founder of the Chemical Angels Network, Managing Director of ecosVC, Inc., venture founder, former Fortune 100 executive and ACS President 2023. She serves as board member, co-founder, advisor and investor in seed and early-stage start-ups. She has a B.S. in environmental science and votech ag from Rutgers University; Ph.D. in chemistry from the University of Maryland; and was an Alexander von Humboldt post-doctoral fellow at the University of Frankfurt, Germany. She has been a member of ACS since 1976.



Teri Quinn Gray is Chief Operating Officer at Provivi, Inc. She is co-chair of the Delaware STEM Council, serves on executive committee of the Delaware Foundation for Science & Math Education (DFSME) and the board of Delaware Campaign for Achievement Now (DECAN). Teri holds a B.S. in chemistry from Jackson State University in Mississippi and doctorate in analytical chemistry from University of Maryland, College Park. She has been a member of the American Chemical Society since 1989.

MARM 2023 Organizing Committee

General Chairs	Alison G. Hyslop, St. John's University Joseph M. Serafin, St. John's University
Program Chair	Brian R. Gibney, Brooklyn College & The CUNY Graduate Center
Treasurer	Jill K. Rehmman, St. Joseph's University
Exposition Chair	Ping Furlan, US Merchant Marine Academy
Awards Chair	C. Eric Cotton, The Community College of Baltimore County
Webmaster	Brian R. Gibney, Brooklyn College & The CUNY Graduate Center
Chemagination	Louise Lawter, Princeton Local Section Aaron Muth, St. John's University
New York ACS Chair	Mary Virginia Orna, ChemSource, Inc.
ACS Office of Regional Meetings	Charnita Short, CMP

MARM 2023 Volunteers

The success of MARM 2023 is a testament to the dedication and tireless efforts of our volunteers, session chairs, moderators, workshop organizers, round table panelists, and everyone else who let a hand along the way!

Inna Bakman-Sanchez

Yosra Badiei

Stacey E. Brenner

Carlos Chavez

Mukund Chorghade

Sabrina Collins

Maria Contel

Giorgio Dell'Acqua

Peter De Rege

Amber Evans

Ping Furlan

Bakhtawar Ghaffar

Barbara Hillery

Stacy House

Neil D. Jespersen

Mirela Krichten

Sharon Lall-Ramnarine

Louise Lawter

Sangjoon (Bob) Lee

Philip Lukeman

Kevin Kolack

Donna McGregor

Robert Mishur

Aaron Moment

Patricia Muisener

Aaron Muth

Lauren Musumeci

Naphtali O'Connor

Tiffany Olivera

Mary Okorie

Tricia Plummer

Sebastien Poget

Frank Romano

Richard Rosso

David Sarno

Kimberly Savage

Yueer Shi

Cecil Sigamoney

Yolanda Small

Sabrina Sobel

Paris Svoronos

Jean Tom

Rita Upmacis

Orrette Wauchope

Shanzhi Wang

Joseph Wiener

Mikki Wossencroft

Sabesan Yoganathan



MARM 2023 Sponsors & Exhibitors

The organizers of MARM 2023 wish to express their immense gratitude to the Sponsors and Exhibitors that have made the conference viable. We encourage all attendees to visit the Exhibition in the Concourse Lobby in between technical sessions and during the breaks. We also invite you to visit the 4th Floor Science Center to meet the academic exhibitors.

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MARM 2023 Exhibitors

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The [Ph.D. Program in Chemistry](#) at the Graduate Center is a collaboration of over 120 faculty at seven CUNY colleges and the [CUNY Advanced Science Research Center](#) creating new knowledge at the forefront of the chemical enterprise centered in the world's most dynamic city. As the central science, chemistry is at the nexus of important societal challenges. Our faculty and students see these challenges as opportunities to creatively harness the transformational power of chemistry to affect solutions.

MARM 2023 Exhibitors



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Our [Scientist to Engineer \(S2E\) Program](#) is an intensive, accelerated program designed especially for new M.S. students without a B.S. in Chemical Engineering. This program covers the essentials of the entire undergraduate curriculum, followed by a standard M.S. program. Typically, this can all be accomplished in three semesters.

[Rowan University](#) is home to PhD programs in [Pharmaceutical Chemistry](#) and [Materials Science & Engineering](#). We also offer MS programs in Pharmaceutical Sciences, Bioinformatics, and Materials Science & Engineering.



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[St. John's University](#) welcomes students to learn more about how to apply for our [Masters in Science \(M.S.\) program in chemistry](#) and discuss how our program can help the student meet their career goals .

MARM 2023

Schedule at a Glance

FRIDAY

CUNY Graduate Center

Friday, June 9, 2023

8:00 AM – 9:00AM	Registration	Concourse Level
9:00 AM – 11:30 AM	Morning Technical Sessions	Concourse Level
10:00 AM – 5:00PM	Exposition	Concourse Level
10:00 AM – 4:00 PM	Resume Review	4th Floor breakout rooms
11:30 AM – 12:30 PM	Poster Session I	Concourse Level
12:00 PM – 1:00 PM	Lunch	Concourse Level
12:00 PM – 1:30 PM	50/60/70-year Member Luncheon	9th Floor Skylight Lounge
1:00 PM – 4:00 PM	Graduate School Fair	4th Floor Science Center
1:00 PM – 1:30 PM	Social Media Social	4th Floor Science Center
1:30 PM – 2:30 PM	Employment Programming	4th Floor Science Center
1:00 PM – 3:00 PM	WCC Promotion Workshop	4th Floor breakout rooms
1:00 PM – 3:30 PM	Afternoon Technical Sessions	Concourse Level
2:30 PM – 3:00 PM	Graduate School Panel	4th Floor Science Center
3:00 PM – 3:30 PM	Medical School Panel	4th Floor Science Center
3:30 PM – 4:30 PM	Poster Session II	Concourse Level
4:30 PM – 5:30 PM	ACS Governance Social	Concourse Level
5:30 PM – 6:00 PM	All MARM Meeting	Proshansky Auditorium
6:00 PM – 7:00 PM	Poster Session III	Concourse Level
7:00 PM – 9:00 PM	Award Reception & Dinner	9th Floor Skylight Lounge

SATURDAY

St. John's University, D'Angelo Center

Saturday, June 10, 2023

10:00 AM – 12:00 PM	Middle Atlantic Region Board Meeting	Room 401
12:00 PM – 5:00 PM	Regional Chemagination! Contest	Room 416A
12:45 PM – 2:45 PM	Diversifying the Curriculum in High School Chemistry	Room 206

MARM 2023

FRIDAY MORNING

CUNY Graduate Center
Proshansky Auditorium

Chemistry of Life Sciences: Synthetic Approaches

Cosponsored by ORGN

S. E. Brenner, *Organizer*

9:00 Introductory Remarks.

9:05 1. Game of tropones: Studies on the synthesis and function of cycloheptatrienones. **R.P. Murelli**

9:35 2. Development of photoacid-catalyzed reactions and second-generation photoacids. **J.J. Badillo**

10:05 3. Withdrawn

10:15 4. Anaerobic oxidation of alcohols, aldehydes, and amines using visible-light-excited nitroarenes. **J. Mitchell**, W.A. Hussain, R. O'Connor, M. Parasram

10:30 5. Iodine catalyzed coupling reactions. **Y. Chen**

10:45 6. Deaminative cross-couplings. **M.P. Watson**

CUNY Graduate Center
C203

Cosmetic Chemistry

Financially supported by New York Society of Cosmetic Chemists, the ACS Board Committee on Corporation Associates, and a nexus Regional Meeting Grant

G. Dell'Acqua, *Organizer*

9:00 7. Sourcing and developing cosmetic ingredients using a sustainable approach. **G. Dell'Acqua**

9:20 8. Hair care & the chemistry within. **A. Evans**

9:45 9. Formulating sunscreens. **H. Fares**

10:10 10. Decoding ingredient labels. **S. House**

10:35 11. How textile technology innovations transfer into color cosmetic formulations. **S. Feng**

11:00 12. Cosmetic chemistry Q&A session. **G. Dell'Acqua**

CUNY Graduate Center
C197

Environmental Chemistry

Y. M. Badiei, *Organizer*

9:00 Welcoming Remarks.

9:05 13. Sustainable aviation fuel from carbon dioxide, water, and renewable electricity. **S.W. Sheehan**

9:30 14. Aging studies of dual functional materials for direct air capture with in situ methanation under simulated ambient conditions: Ru thrifting for cost. **Y. Lin**, M. Abdallah, H. Sheng, R.J. Farrauto

9:55 15. Synthesis and functional evaluation of alpha-manganese oxide for use in rechargeable batteries: An environmentally responsible alternative. **K.J. Takeuchi**, E.S. Takeuchi, A.C. Marschilok

10:20 Intermission.

10:35 16. How changes in protonation state impact the spectroscopic and electronic properties of a series of hydroxy-substituted polypyridyl ruthenium complexes. **J.J. Paul**

11:00 17. Thermodynamics and kinetics of hydride transfer in a series of ruthenium hydride isomers. **S. Desai**, J.J. Concepcion, A. Muller, M.Z. Ertem

11:25 Closing Remarks.

CUNY Graduate Center
C204

Flavors and Fragrance Chemistry

Sponsored by dsm-firmenich, Symrise, and the ACS Board Committee on Corporation Associates

P. De Rege, *Organizer*

9:00 Introduction.

9:15 18. Med chem inquiries into olfaction: What do the receptors want?. **K. Ryan**

9:45 19. Biology behind fragrance perception. **R. Arroyave**, C. Trimmer, P. Pfister

10:15 Break.

10:30 20. There's something in the air: Fragrance perception and misperception. **P. Dalton**

11:00 21. Enol ethers as profragrances for the delayed release of aroma compounds. **G.B. Womack**, B. Indradas, M. Megdad

CUNY Graduate Center
C205

Materials Chemistry

D. M. McGregor, *Organizer*

9:00 22. Understanding structure and transport property relationships in ion-conducting membranes for organic electrosynthesis. **M.A. Modestino**

9:30 23. Paradigm shift inspired by nature: Supramolecular assemblies for solar-energy harvesting. **D. Eisele**, K. Ng, W. Carbery, N. Visaveliya, P. Gaikwad, S.J. Jang, I. Kretzschmar

10:00 24. Atomic-scale insights into electrocatalyst structure and function. **A. Hall**

10:30 25. Microstructural origin of selective $2e^-$ water oxidation to H_2O_2 at low overpotentials: A study on Mn-alloyed TiO_2 . **D. Solanki**

11:00 26. Capabilities for adsorbent materials and catalysts at NIST-operated X-ray beamlines. **E.P. Jahrman**, C.J. Titus, D.A. Fischer, Z. Liu, A. Bhowmick, D. Liu

CUNY Graduate Center
C202

Chemistry of Life Sciences

Cosponsored by Magritek, the University of Pennsylvania Masters of Chemical Science, and the University of Kansas Madison and Lila Self Graduate Fellowship

S. E. Brenner, N. D. Jespersen, P. D. Svoronos, *Organizers*

11:30 - 12:30

27. Synthesis of natural product analogs as potential inhibitors of PTP1B. **A.M. Reeve**, S.G. Kabonick, N.D. Smith, S.A. White, W.A. Jerdan

28. Contribution of multidimensional time model to the study of statistical properties of bubbles in aging foams and the prediction of the speed of mutations in coronavirus. **M. Fundator**
29. Photoredox-catalyzed Meerwein arylation of benzofurans. **I.D. Torres**, S. Rawat, K. Liu, J.J. Badillo
30. Regio- and stereoselective ring contraction of 1,2-dithianes to 1,2-dithiolanes. **C.A. Evans**
31. Rational crosslinking of peptide polyproline II helices. J.C. Tennett, S.R. Epstein, **N. Sawyer**
32. Scope of thionation of organic compounds with 2,4,6-tris(4-methoxyphenyl)-1,3,5,2,4,6-trioxatriphosphinane 2,4,6-trisulfide (TMPT). **C.A. Evans**, J. Bertrand, D. Edwards, J. Pagan, N. Patel, C. Lubrano
33. Computational investigations on the mechanism of the Gewald reaction. **J. Sharma**
34. Relative stabilities of amino, nitro, and trifluoromethyl derivatives of 9-methylanthracene and 9-methylene-9,10-dihydroanthracene. **C. Stokes**, D.H. Magers
35. Computational elucidation of nucleophilic attack on poly and monosulfides. **K. Concha**
36. Cyclopropylcarbinyl-to-homoallyl carbocation equilibria influence the stereospecificity in the nucleophilic substitution of cyclopropylcarbinols. **S. Larmore**, P. Champagne
37. Heterocyclic motifs for natural products synthesis. **S.P. Fearnley**, C. Thongsornkleeb, M.E. Domaradzki, R.C. Lapo, P.M. Lory
39. Cyclic carbamate synthesis using organic photocatalysis. **E. Kreuzer**
40. Can mechanistic control of $^1\text{O}_2$ -disulfide offer an antioxidant switch to prooxidant?. **O. Turque**, R.M. O'Connor, A. Greer
41. Computational study of potential scaffold to mediate the delivery of mRNA. **N. Pierre**, **M. Reyes**, J.I. Lee
42. Simulations of the RNA-dependent RNA polymerases (RdRp) for drug design against SARS-COV-2 and other similar viruses.. **H.G. Gibbs**, E. Gianti, P.B. Moore
43. Synthetic strategies for nitrile and cyanate-modified tryptophan derivatives and their applications in IR spectroscopy. **M.W. Fennie**, A. Hudock
44. Withdrawn
45. DFT investigations of the enantioselective phase-transfer-catalyzed aza-Michael cyclization of ureas. **D.M. Castañeda Bagatella**, P. Champagne

46. Molecular modeling, docking, and synthesis of a library of CuAAC-chemistry-generated 1,2,3-triazoles as potential ligands of DXP synthase. **S. Rama Murthy**, A. Sridhar
47. Synthetic routes to long-chain dimetalloids and the development of macrocyclic ring-closing reactions via hypervalent iodine transmetalations. **J. Plaut**
48. Development of novel liquid phenyliodine dicarboxylates. **C. Callovi**, I.D. Hyatt
49. Iodine catalyzed three-component coupling: Synthesis of dihydropyrroles. **S. Hee**, Y. Chen
50. Withdrawn
51. 3-Hydroxy-4-pyrone based oxidopyrylium cycloaddition with diarylfulvenes. **J. Gallardo**, N. Karpman, V. Sieve, L. Bejcek, A. Greer, E. Greer, R.P. Murelli
52. Aggregates of single or double stranded oligonucleotides and cationic surfactants. **S. Turner**, **P.M. St John**
53. Synthesis and antimicrobial evaluation of mono and bicyclic β -lactams and their corresponding N-sulfonyl chlorides. P. Dhar, M. Morrow, **K. Kurien**, **B. Lee**, **T. Malik**
54. 1,4-Addition of thiocyanate to α,β -unsaturated carbonyls through direct activation of TMSNCS. **Y. Li**, D.M. Castañeda Bagatella, P. Champagne
55. Synthesis of analogs of cyclic adenosine diphosphate ribose. **H. Lee**, S.M. Graham
56. Cascade synthesis of phenanthrenes under visible light irradiation. **D. Wise**, K. Li, J. Mitchell, M. Parasram
57. Advancing oxidopyrylium cycloaddition chemistry to probe small molecule dynamics and reactivity. **J.T. Baucom**, R.P. Murelli, E. Gallicchio
58. Ni-catalyzed oxidative allylic esterification. **P. Rana**, A. Cooper, P. Kaur
59. Synthesis of 25-hydroxylanosterol and its evaluation as an anticancer agent. **E. Carlyle**, C. Ishida, R. Panaparambil, P. Espenshade, T. Tsukamoto
247. Polyaniline as an adsorbent for the removal of metal cations from aqueous solution. **M. Ihnatiuk**, D.M. Sarno
246. Encapsulation and release of fluorescein from porous poly(o-toluidine) microspheres. **Y. Shak**, D.M. Sarno

CUNY Graduate Center
C198

Cosmetic Chemistry

Financially supported by New York Society of Cosmetic Chemists, the ACS Board Committee on Corporation Associates, and a nexus Regional Meeting Grant

G. Dell'Acqua, N. D. Jespersen, P. D. Svoronos, *Organizers*

11:30 - 12:30

60. Extraction, quantification, and characterization of bioactives in antioxidant-rich medicinal plants: *Hydrastis canadensis*, *Brassica rapa*, and *Moringa oleifera*. **K. Thirunavukkarasu**, W. Bui, M. Ahmed, K. Wolff, I. Raskin, R. Farias-Pereira

CUNY Graduate Center
C201

Flavors and Fragrance Chemistry

Sponsored by dsm-firmenich, Symrise, the University of Pennsylvania Masters of Chemical Science, and the University of Kansas Madison and Lila Self Graduate Fellowship

P. De Rege, N. D. Jespersen, P. D. Svoronos, *Organizers*

11:30 - 12:30

61. From whale waste product to perfume: A theoretical study of $^1\text{O}_2$ oxidation of the natural product ambrein. **E.S. Fetman**, **F. Uritsky**, **A.N. Kutuzov**, **S.B. Essang**, A. Greer, E. Greer

62. Comparison of acid catalysts in Fischer esterification reactions. **J. Chen**

Materials Chemistry

N. D. Jespersen, D. M. McGregor, P. D. Svoronos, *Organizers*

11:30 - 12:30

63. Fabrication and characterization of nanogels with encapsulated nitroxides. **A. Fried**, J. Ramos, H. Ariel, A. Li, M. Marisol, M. Ginsberg, J. Haidery, **U. Samuni**

64. Facile pattern and thickness controllable adhesive gold nanoparticles via dopamine functionalization. **J. Wang**, J. Liang

65. Simultaneous reduction & functionalization of graphene oxide by chemically synthesized silk-inspired polymer. **A. Patel**, A. Sarkar

66. NMR investigation of fluorinated ABC polymer & A major PFAS pollutant PFOA. **Z. Baker**, A. Sarkar

67. Analysis of methods of the degradation of polyethylene terephthalate. **B. Ma**, **E. Grim**

68. Novel fluorinated triblock polymer: Synthesis and characterization. **S. Anjum**, A. Sarkar

69. Establishing the Flory-Fox equation for polymethyl methacrylate (PMMA) using differential scanning calorimetry (DSC) and determining relative tacticity using quantitative proton nuclear magnetic resonance spectroscopy (qHNMR). R.P. D'Amelia, **E.H. Kreth**

70. Testing developed polymeric nanoparticles stabilized by self-assembled mitochondria-targeting peptides on ovarian cancer cells. **M. Acosta Santiago**, S.A. Dragulska, M. Wlodarczyk, A. Mieszawska

71. Hydrophobic-hydrophilic hybrid coatings that enhance anti-soiling and self-cleaning properties of photovoltaic glass in the presence of artificial dew. M. Abeywardena, Q. Xu, **A.M. Lyons**

72. Engineering a colloidal metamaterial: Metamaterial-capped janus particles. **S. Kattkola**, A. Couzis, I. Kretzschmar

73. Cerenkov luminescence signal enhancement using hyperbolic metamaterials as a multi-modal imaging contrast agent. **N. Boykoff**

74. In silico high-throughput design and prediction of structural and electronic properties of low-dimensional metal-organic frameworks. **Z. Zhang**, D.S. Valente, Y. Shi, D. Limbu, M. Momenitaheri, F.A. Shakib
75. Very high Curie temperature self-assembled $(\text{MnSb}_2\text{Te}_4)_x(\text{Sb}_2\text{Te}_3)_{1-x}$ magnetic topological insulator structures grown by molecular beam epitaxy. **C. Forrester**, C. Testelin, X. Ding, I. Levy, K. Wickramasinghe, L. Krusin, G. Lopez, M. Tamargo
76. High performance supercapacitor fabricated using Cu/Ni bimetallic nanoparticles and reduced graphene oxide. **J.R. Bhamore**, M.S. Eberhart
77. Germanium modified melting gels. **Z. Abd Al-Jaleel**, G. Torres, M. Jitianu, L.C. Klein, **A. Jitianu**
78. Exploring the properties of Ether- and Thioether-Functionalized Imidazolium Ionic Liquids. **H. Yuen**, M. Mughal, N. Zmich, F. Wang, J.F. Wishart, S.I. Lall-Ramnarine
79. Nonstoichiometric pseudoprotic ionic liquids: A molecular interpretation. **M.N. Kobrak**
80. Understanding molecular interactions of electrolyte solutions. **N. Pizzi**, R. Wigent, P.B. Moore
81. Exploring the properties of pyrrolidinium thioether ionic liquids. **M. Mughal**, N. Zmich, F. Wang, J.F. Wishart, S.I. Lall-Ramnarine
82. Development of ionic liquid & solvate ionic liquid electrolytes for low temperature Li-metal batteries. **E.A. Bernard**, M.J. Keating, S.I. Lall-Ramnarine, E.J. Biddinger
83. Optimization of mesoscale nanoparticle formulation process through the design of experiments approach. **A. Vasylaki**, A. Roach, R. Williams
84. Temperature-robust mixed CdX-PbS (X=Se,Te) thin film transparency windows. **C. Gonzalez**, **A. Rao**, I. Tajuddin, E. Marino, C.B. Murray
85. Nickel-cobalt phosphide terephthalic acid nano-heterojunction as excellent bifunctional electrocatalyst for overall water splitting. **T.O. Ogundipe**, C. Yan
86. Electroreduction of oxygen and hydrogen peroxide mediated by low-valent transition metal homogeneous catalysts. **A.T. Poulos**, M. Costello, P. Poulos
87. Evaluation of reactor configurations for photoelectrochemical reduction of carbon dioxide. **A.T. Poulos**, M. Carroll, P. Poulos
249. Polyaniline as an adsorbent for the removal of metal cations from aqueous solution. **M. Ihnatiuk**, D.M. Sarno

248. Encapsulation and release of fluorescein from porous poly(o-toluidine) microspheres. **Y. Shak**, D.M. Sarno

FRIDAY AFTERNOON

CUNY Graduate Center
Proshansky Auditorium

Chemistry of Life Sciences: Biological Applications

Cosponsored by ORGN

S. E. Brenner, *Organizer*

1:00 90. Histone phosphorylation in ALS/FTD: New opportunities in neurodegenerative disease. **M. Torrente**

1:15 88. Building small molecules, lipid self-assemblies, and nucleic acids for new opportunities in biotechnology and synthetic biology. **E.C. Izgu**

1:45 89. Activation of rare sugars and recognition by bacterial glycosyltransferases. **T. Lupoli**

2:15 91. Profiling molecular recognition by cell signaling enzymes using bacterial peptide display and deep sequencing. **N.H. Shah**

2:45 92. SEAKERs: Targeted cellular micropharmacies that generate small-molecule drugs *in situ*. **D.S. Tan**

CUNY Graduate Center
C197

Environmental Chemistry

Y. M. Badieli, *Organizer*

1:00 Welcoming Remarks.

1:05 93. Ionic Liquids: The development of hybrid materials and impact on zebrafish behavior. **M.F. Thomas**

1:30 94. Portable electrochemical sensor for the detection of perfluoroalkyl species (PFAS). **A. Rehman, S. Andreescu**

1:55 95. Assessing children's potential exposures to harmful metals in playground tire crumb rubber: An accelerated weathering study. **Y. Tong, R. Winz, L.L. Yu, L. Sung, D. Chen**

2:20 Intermission.

2:35 96. Metal-free porous carbon as antibacterial material for water treatment. **W. Li, A. Fekri, I. Bautista, M. Mirza, B. Matos, T.J. Bandosz**

3:00 97. Effect of carbon dot on photovoltaic performance of n-TiO₂/p-NiO heterojunction in dye-sensitized solar cells. **T.F. Yadeta**

3:25 Closing Remarks.

CUNY Graduate Center
C204

Flavors and Fragrance Chemistry

Sponsored by dsm-firmenich, Symrise, and the ACS Board Committee on Corporation Associates

P. De Rege, *Organizer*

1:00 98. Science, driving flavor creation. **J. Wright**

1:30 99. Thermal triggered flavor release of structured lipids for meat analogue application. **J. Feng, J. Zhang, H.A. Jerri**

2:00 Break.

2:30 100. Journey from R&D chemist to fragrance expert. **A. Declet**

3:00 102. Fragrance development challenges for home care products. **T. Hopkins**

CUNY Graduate Center
C205

Materials Chemistry

D. M. McGregor, *Organizer*

1:00 103. Self-assembling protein fibers through computation and experimentation. D. Britton, M. Meleties, L. Hill, **J.K. Montclare**

1:30 104. Biocompatible polydopamine hydrogel with antibacterial activity. **N. O'Connor**, A.O. Syed, E. Kastrat, H. Cheng

2:00 105. Stabilization and destabilization of biomolecules by tunable ionic liquid-based biomaterials. C. Wu, G.A. Caputo, **T.D. Vaden**

2:30 106. Novel dual plasmonic nano-architectures with morphologically-controlled optical properties. **H. Jing**, M. Ivanchenko, A. Carroll, A. Brothers, N. Large, A. Myers

3:00 107. Highly durable and stretchable underwater superoleophobic membrane derived from aloe vera hydrogel. **A. Shome**, U. Manna

CUNY Graduate Center
C203

Younger Chemists Committee Symposium

Sponsored by the CUNY Ph.D. Programs in Chemistry and Biochemistry

M. C. Okorie , T. Olivera, *Organizers*

1:00 Introductory Remarks.

1:10 108. Selective Recovery of energy-relevant metals using rational design of aldoxime-base ligands. **A. Ooi**, H.B. Vibbert, A.A. Park

1:30 109. Quantitative and qualitative analysis of two prototypical esters produced in beer. **A. Montanaro**, C. Webb, H.M. Bettenhausen

1:50 110. Surface mineralization with controlled polymerization of dopamine. **S. Ruppel**, J. Liang

2:10 Intermission.

2:20 112. Photoinduced oxygen transfer using nitroarenes for the anaerobic cleavage of alkenes. **E.S. Gogarnoiu**, D. Wise, A. Duke, J. Paolillo, T. Vacala, W.A. Hussain, M. Parasram

2:40 217. Tuning bioluminescent emission wavelengths via peptide-fluorophore labeling. **S. Tran**, C. Rathbun

3:00 111. Superhydrophobic surface-supported photosensitizer enhances efficiency of gas-phase singlet oxygen generation. **H. Ihalagedara**, Q. Xu, A. Greer, A.M. Lyons

3:20 Concluding Remarks.

Chemistry of Life Sciences

Cosponsored by Magritek, the University of Pennsylvania Masters of Chemical Science, and the University of Kansas Madison and Lila Self Graduate Fellowship

S. E. Brenner, N. D. Jespersen, P. D. Svoronos, *Organizers*

3:30 - 4:30

113. Effect of copper, nystatin, and gramicidin combinations on methicillin-resistant *Staphylococcus aureus*. **A. Zaki**, A. Garcia, S. Desai, D. Aucoin, M. Squires

114. Chemical synthesis and antibacterial evaluation of a new class of indolyl-benzimidazole derivatives. **T. Nguyen**, R. Al Tae, L. Barasa, S. Yoganathan

115. Investigation into the relationship between hydrolysis time and fragmentation of a 20-nucleotide RNA by computer simulation. **S. Jiang**, S. Zhang

116. Development of novel CDK 4/6 degraders. **A. Mini**, A. Sharma, Q. Li, S. Chandarlapaty

117. Synthesis of lin-benzoadenine: determining the role of 8-Aminoimidazo[4,5-g]quinazoline in RyR activation and calcium release. **C. Lucik**, S.M. Graham

118. Withdrawn

119. Enzymatic-based calcium activated neuron recorder. **Y. Zhang**, A. Sharma, S.T. Laughlin

120. In-vitro characterization of post-translational modified a-synuclein protein in various microenvironment using radiolabeled binding assays.. **W. Chia**, C. Hsieh, Z. Lengyel, T. Graham, R.H. Mach

121. Investigating the role of polymer backbone length, rigidity, and ligand density on acrosomal exocytosis in mouse sperm. **L. Mendez**, F. Boadi, N.S. Sampson

122. Mycobacterial ClpC1 and ClpC2 interaction with phosphoarginine. **H. Anderson**, E. Ogbonna, K. Schmitz

123. Rrp5 knockdown alleviates growth suppression in a *saccharomyces cerevisiae* ALS/FTD FUS model. **S. Cobos**, S.A. Bennett, E. Son, R. Segal, M. Kozlov, M. Torrente

124. Molecular mechanisms of translesion synthesis by pol Y1 in *B. subtilis*. **Y. Choi**, M.E. Marrin, M.R. Foster, C.M. Santana, M.N. Drucker, S.J. Rancic, A.S. Jassal, C.R. Greenwald, E.S. Thrall
125. Sensitive detection of biomarkers for chronic traumatic encephalopathy by Laser wave-mixing spectroscopy and capillary electrophoresis.. **N. Shatirishvili**
126. Interaction of gating-modifier tarantula toxins with voltage-gated sodium channels. **K. Adhikary**, S. Poget
127. Complete examination of the patterns of protein tyrosine phosphorylation in the bacteria *Bacillus subtilis* during biofilm formation. **I. Kola**, **S. Diaz**, M. Duncan, S. Wacker
128. Unraveling the impact of mutations on the structure and function of the enzyme PTP1B through a classroom-based group biochemistry project. **N.I. Singh**, C.B. Students, D. Keedy
129. Withdrawn
130. Formulation of CRISPR Cas-9 loaded polymeric mesoscale nanoparticles for renal-targeted gene therapy. **P. Ghosh**, S. Garcia, R. Williams
131. Docking studies and molecular dynamics analysis of peptide conjugates for targeting the transformal growth factor receptors. **A. Mukhit**, M.A. Biggs, B.G. Goncalves, **I.A. Banerjee**
132. Rational crosslinking to stabilize peptide polyproline II helices. **S.R. Epstein**, J.C. Tennett, N. Sawyer
133. Exploring the interactions of newly designed peptide sequences with LRP1 receptor. **B.G. Goncalves**, E.J. Boder, C.G. Lebedenko, **I.A. Banerjee**
134. Controlling disulfide formation and dimerization to constrain alternate peptide conformations. **C.G. Victorio**, N. Sawyer
135. Bacterial and antibacterial analysis of ‘Agbo’- traditional herbal medicine. **T. Ogunyamoju**
136. Withdrawn
137. Functional investigations of TM1347, an essential protein for cell growth and proliferation from *Thermotoga maritima*. **N. Zala**, **C. Anderson**, J. Martin
138. Spontaneous clustering of polyubiquitin cargos on the lipid membranes. **R. Tabuchi**, P. Gonzalez, C. Briones, J. Shin, I. Lee
139. Discovery of a new class of aryl-thiazoline sulfonamides as CDK4/6 inhibitors and potential anticancer agents for the treatment of hepatocellular carcinoma.. **R. Al Tae**, J. Kong, S. Yoganathan, X. Cheng

140. Withdrawn

141. Applications of reactive metasurfaces to microwave-assisted sample preparation: improving turnaround time in biological assays. **Z. Nichols**

142. Toxicity of the phthalate replacement di-2-ethylhexyl terephthalate (DEHTP) and its metabolite on the mouse ovary. **C. Potts**, C. Hanna, m. Jojy, G. Warner

143. Comparative study of the anticancer effects of manuka and tualang honey on tongue cancer cells. **I. Ansari**

144. Development of salinomycin conjugates as potential anti-cancer agents. **P.G. Juluri**, R. Singh, **S.C. Jonnalagadda**

145. Evaluation of novel gold-Trastuzumab-based antibody-drug conjugates and immunoliposomes in HER2-positive breast cancer. **A. Ahad**, H.K. Saeed, V.d. Fernandez, A. Michel, J.S. Lewis, M. Contel

146. Synthesis, characterization, and physical properties of a new monodentate platinum(II) pyrophosphato complex. **R.J. Mishur**, B.D. Hoffman, S.H. Altman

147. Preclinical evaluation of a potential ruthenium-based chemotherapeutic agent for the treatment of triple negative breast cancer. **N. Nayeem**

148. Synthesizing and assaying the antimicrobial properties of Silver (I) Cyanoximates to be used as dental composites. **N. Koulta**

149. Synthesis and anticancer properties of polyrhodanine copper nanocomposites. **M. Chauhan**, S. Ghoshal, N. Spence, H. Tariq, R. Felix, Q.R. Johnson, B.P. Chauhan

Environmental Chemistry

Cosponsored by the University of Pennsylvania Masters of Chemical Science, and the University of Kansas Madison and Lila Self Graduate Fellowship

Y. M. Badiei, N. D. Jespersen, P. D. Svoronos, *Organizers*

3:30 - 4:30

150. Fabrication and characterization of functionalized composite endowing sand with improved water and nutrient retention capacity. **L. Wu**, L. Gao

151. Calculating octanol-water partition coefficients and pKa for polyfluorinated alkyl acids. **S. Saxena**, K. Patel, S. Simpson

152. Python based graphical user interface for single column atmosphere model: Development and evaluation. **A. Chen**, T. Chen, J.D. Fuentes, M. Jawed, A. Asaduzzaman

153. Toxicity of environmentally relevant phthalate mixtures in mouse granulosa cells. **R.B. Farrell**, N. Arinzeh, H. Alahmadi, C. Potts, G. Warner

154. Statistical evaluation of the Trihalomethane amounts in the New York State public water systems as a function of various socioeconomic factors. **S. Lee**, S. Park

155. Mechanism of naphthenic acid binding to dissolved organic matter. **C. Jules**, A. Vazquez

156. Spectroscopic analysis of water in Minersville, PA. **B. Kuehn**, S. Fischer-Drowos

242. Photooxidation kinetics dependency on wavelength and light intensity. **M. Elias**, M.C. Okorie, S. Gorun

Materials Chemistry

Cosponsored by the University of Pennsylvania Masters of Chemical Science, and the University of Kansas Madison and Lila Self Graduate Fellowship

N. D. Jespersen, D. M. McGregor, P. D. Svoronos, *Organizers*

3:30 - 4:30

157. Polymeric nanoparticle system stabilized with a pH-mediated targeting peptide for drug delivery to ovarian cancer cells. **S.A. Dragulska**, M. Acosta Santiago, Y. Chen, J. Martignetti, A. Mieszawska

158. Antibacterial activity of sulfur-doped porous carbons. **I. Bautista**, A. Fekri, B. Matos, M.T. Menes, T.J. Bandosz, W. Li

159. Optimization of nanosensor response for the detection of anthracyclines using machine learning. **M. Thahsin**, Z. Cohen, Y. Ahmed, J. Aguilar, A. Israel, R. Williams

160. Methylcellulose hydrogels for optical nanosensor implants. **Z. Cohen**, D. Alpert, A.C. Weisel, P. Gaikwad, S.B. Nicoll, R. Williams

161. Water induced structural transformations in flexible two-dimensional layered conductive metal-organic frameworks. **Y. Shi**, M. Momenitaheri, Y. Chen, D. Limbu, Z. Zhang, F.A. Shakib

162. Fused macrocycle-cage molecule for nanoporous membranes. **Y. Wang**, Y. Zhang, Y. Zhong

163. Effects of hydrogenation of Sb_2Te_3 and $(\text{Sb}_2\text{Te}_3)_{1-x}(\text{MnSb}_2\text{Te}_4)_x$ thin films. **A. Lopez**, C. Forrester, K. Wickramasinghe, M. Tamargo

164. Effect of silver metal organic decomposition molecular complexity on film crystallinity and electrical conductivity. **A. Velez**, S. Williams

165. Structures and energetics of hibonite with Ti substituents. **G. Tariq**, **M. Guerch**, M. Jawed, A. Jawed, M. Mistry, A. Asaduzzaman

166. Single walled carbon nanotube (SWCNT) detection of interleukin 1 β (IL-1 β). **A. Israel**, P. Gaikwad, M. Thahsin, R. Williams

167. Preparation of the reduced graphene oxide-titanium dioxide (rGO/TiO₂) heterostructures and application in thiophene adsorptive desulfurization in simulated fuels. **A.H. Pinto**, D. Cho, D. Vincent Jr, S. Barua, D. Whyte, I. Kola, C. Smith, A. Sabri, M. Choudhury
168. Microwave synthesis of zeolites in double salt ionic liquids and their properties. **B. Thomas**, T. Asefa
169. Modification of polymeric mesoscale nanoparticles for enhanced mRNA loading. **A. Roach**, A. Vasylaki
170. Controlling supramolecular phase transition: Hierarchical self-assembly of Frenkel excitonic nanotubes. **S. Kelestemur**, A. Jubair, K. Ng, S. Belh, N. Yehya, N. Visaveliya, G. Huffman, V. Atanassov, A. des Georges, S.K. Gayen, G. Lopez, D.M. Eisele
171. Folic acid exchanged anionic clays as a model system for drug delivery applications. **G. Torres**, Q.R. Johnson, A. Jitianu, M. Jitianu
172. Understanding the nature of the redox plateaus in aluminum-anthraquinone battery. **H.Y. Asare**, L.W. Gordon, G. John, R.J. Messinger
173. Pyrrolidinium-based ionic liquids to modify the physiochemical and electrochemical properties of lithium-based tertiary solvate ionic liquid mixtures. **M. Keating**, E.A. Bernard, R.J. Messinger, S.I. Lall-Ramnarine, E.J. Biddinger
174. Design and synthesis of novel BODIPY derivatives as electron acceptors in organic photovoltaics. **S. Wei**
175. Evaluation of Seebeck coefficient of $Sr_2Fe_2O_{6-\delta}$. **R.K. Hona**, S. Sanchez
238. Effects of ionic liquids on protein stability. **R. Barry**, **A. Jonnalagadda**, R. Malak, **E. Mounas**, V. Pandya, **K. Rass**, V. Tagliaferro, **G.A. Caputo**
38. Scaling and optimization of sulfhydryl reactivity assay for high throughput screening of biomarker peptides. S. Ginet, F. Gonzalez, **G.A. Caputo**
243. Synergistic effects of microwave radiation and nanocarbon immobilized membranes in the generation of bacteria-free water via membrane distillation. **I. Gupta**, J. Chakraborty, S. Roy, E. Farinas, S. Mitra

FRIDAY EVENING

CUNY Graduate Center
C198

Environmental Chemistry

Cosponsored by the University of Pennsylvania Masters of Chemical Science, and the University of Kansas Madison and Lila Self Graduate Fellowship

Y. M. Badiei, N. D. Jespersen, P. D. Svoronos, *Organizers*

6:00 - 7:00

176. Excess electron reactivity in ionic liquids studied by picosecond radiolysis. **F. Wang**, A. Cook, J.F. Wishart

177. Reduction mechanism of mercury on the ice surface. **M. Jawed, M. Guerch, G. Tariq**, A. Jawed, M. Mistry, **A. Asaduzzaman**

178. Environmentally friendly indigo: HPLC dye analyses of indigo-producing plants. **Z. Koren**

179. Development of superhydrophobic carbon nanotube immobilized membranes. S. Paul, M. Bhoumick, S. Roy, **S. Mitra**

181. Extended laboratory aging of a dual function material (DFM) washcoated monolith for CO₂ direct air capture (DAC) and catalytic conversion to renewable natural gas. **M. Abdallah**, R.J. Farrauto

182. Mechanism of naphthenic acid binding to dissolved organic matter. **C. Jules**

183. Magnetic carbons for ibuprofen adsorption and their reusability. **A. Ndoye**, J. Matthews, H. Belvis, T.J. Bandosz, W. Li

184. Utilization of environmentally benign oils to rejuvenate asphalt. **Y. Hangun-Balkir**, D. Hochstein, M. El-Hakim, C. Dano, A. Casale, K. Cooke

245. Adsorption of copper (II) ions by spent tea leaves. **B. Campos**, A. Osmanovic, A.E. Navarro

244. Application of marine algae for the uptake of gold (III) ions from aqueous solutions. **A. Osmanovic**, A.E. Navarro

CUNY Graduate Center
C201

General Poster Session

Cosponsored by Magritek, the University of Pennsylvania Masters of Chemical Science, and the University of Kansas Madison and Lila Self Graduate Fellowship

N. D. Jespersen, P. D. Svoronos, *Organizers*

6:00 - 7:00

202. Get involved with the ACS Division of Chemical Education. **R.J. Mishur**

203. Chemagination science competition: Navigating covid-associated academic restrictions. **B. Ameer**

204. Development and evaluation of Au-based immunoliposomes for the targeted treatment of HER2-positive breast cancers. **F. Aftab**, A. Ahad, J.S. Lewis, M. Contel

205. Phenolic profiles and antioxidant activity of AriZona tea samples. **D. Hernandez**, E.E. Mojica

206. Expanding the optical imaging toolbox for FAD-dependent enzymes: iFADs. K. Jacoby, Y.M. David, E.J. Mattes, H.O. Rashid, **R.H. Rana**, M. Byrne, R.J. Stanley

207. KRAS sequence forms a left-handed G-Quadruplex but has right-handed helicity after the addition of NMM. **H. Kim**, P. Seth, K. Li, L.A. Yatsunyk

208. Effect of imidazolium chloride ionic liquids on the stability of G-quadruplex nucleotides. **A.K. Clark**, A. Dutta, S. Cottle, B. Ianniello, S. Douglass, J. Piersa, J. Burrell, B. Burrell, M. Donnelly, C. Wu, T.D. Vaden

209. Insights into the spectral tuning of heliorhodopsin: A QM/MM study. **K. Wijesiri**, J. Gascon

210. Fluorophore induced plasmonic current (FIPC) for the detection of proteins and DNA in aqueous solutions. **D. Pierce**

211. 2-Amino-8-vinylpurine riboside (2A8VPR)- A novel fluorescent base analog combining properties of 2-Aminopurine and 8-Vinyl adenine. **N. Russel**, G. Kodali, R.J. Stanley, M. Narayanan

- 212.** Synthesis of second-generation thiourea photoacids. **D. Noguera-Urbina**, J.J. Badillo
- 213.** Novel, simple and reliable spectrophotometric determination of total hexavalent chromium by complexation with a new reagent of thiazole linked to 2H-chromen-2-one. **A. Akhdhar**
- 214.** Photochemical degradation of organic pollutants using a surface modified TiO₂ polymer nanocomposite. **C. Nguyen, Y.M. Badiei, C. Heaney**
- 215.** Effects of cascade forster resonance energy transfer chromophores on homojunction and heterojunctions semiconductor solar cells. **G.K. Watiro**
- 216.** Flavin charge redistribution upon optical excitation is independent of solvent polarity. **C. Van Galen**, R.F. Pauszek, R.L. Koder, R.J. Stanley
- 218.** Anaerobic hydroxylation of C(sp³)–H bonds promoted by photoexcited nitroarenes. **J. Paolillo, A. Duke**, E.S. Gogarnoiu, D. Wise, M. Parasram
- 219.** Single-site molecular ruthenium(II) water-oxidation catalysts grafted into a polymer-modified surface for improved stability and efficiency. **Y.M. Badiei, E. Delgado, H. Satti**
- 220.** Superhydrophobic antimicrobial photodynamic therapy (SH-aPDT) dressing for preventing burn wound infections using an ex-vivo porcine skin model. **C. Bodahandi**, C. Coradi Tonon, A. Nara de Souza Rastelli, G. Ghosh, T. Hasan, Q. Xu, A. Greer, A.M. Lyons
- 221.** The search for molecular corks beyond carbon monoxide: A quantum mechanical study of N-Heterocyclic carbene adsorption on Pd/Cu(111) and Pt/Cu(111) single atom alloys. **S. Simpson**
- 180.** Using computations to aid in the identification of per-/poly-fluoroalkyl substances (PFAS). **S. Simpson**, J.P. Antle, D.S. Aga
- 222.** Synthesis and characterization of tris(2,2'-bipyridine)ruthenium(II) derivatives using the 3,3'-dimethyl-1,1'-methylenebisimidazolium ligand. **M. Schneider**, E.G. Megehee, N.R. Maher, T.K. Huynh
- 223.** Platinum(IV)-Au(I) derivatives containing carboplatin- and auranofin-like fragments as potential ovarian cancer chemotherapeutics. **J. Lopez-Hernandez**, A. Ahad, M. Contel
- 224.** Cytotoxicity of organometallic Re(I) amino acid complexes. **B.Y. Varisli**, S.K. Mandal
- 225.** Investigation of the role of the DnaN sliding clamp in translesion synthesis in *Bacillus subtilis*. **M.N. Drucker**, M.E. Marrin, M.R. Foster, S.J. Rancic, C.M. Santana, Y. Choi, A.S. Jassal, C.R. Greenwald, E.S. Thrall
- 226.** Single-molecule imaging reveals the importance of the DnaE-SSB interaction in DNA replication in *B. subtilis*. **E.E. Holmes**, L.E. Way, L.G. O'Neal, X. Wang, E.S. Thrall

227. Study of the non-canonical G-rich DNA TET25 in complex with PyDH₂ as a potential anticancer therapeutic. **G. Lam**, K. Martin, L.A. Yatsunyk
228. Kinetic and inhibition investigations of TM1785, an acetylornithine aminotransferase from *Thermotoga maritima*. **G. Garcia**, L. Shaw, J. Martin
229. Understanding the allosteric modulations of GLP-1R to help design novel molecules. **L. Tran**, Z. Li, P.B. Moore
230. Sectors of conformationally coupled residues reveal potential allosteric pathways in protein tyrosine phosphatases. **A. Raju**, S. Sharma, B. Riley, Y. Tan, D. Keedy
231. pH-Low insertion peptide variants that insert into membrane at higher pH values. **F. Wachira**, D. Githirwa, T. McPartlon, V. Nazarenko, J. Gonzales, H. Clary, C. Leen, M. Gazura, L. Klees, L. Yao, M. An
232. Aggregates of single or double stranded oligonucleotides and cationic surfactants. **S. Turner**, P.M. St John
233. Detection of the inflammatory cytokine IL-6 in complex human serum samples with antibody-conjugated optical nanosensor. **P. Gaikwad**, N. Rahman, R. Parikh, J. Crespo, Z. Cohen, R. Williams
234. Reconstitution of membrane peptide transfer between lipid membranes. **I. Lee**, E. Efodili, M. Mirza, A. Knight, C. Briones
235. Effect of Lewis acids in an unprecedented coupling pathway for biological NO. **D. Morgan**, J. Chu, Y. Zhang
236. Proteins do the darndest things. **D.A. Snyder**, A. Hidalgo, C. Sotelo, A. Biasco, E. Genao Munoz, S. Chowdhury
237. Designing nature-inspired self-assembled peptide amphiphiles that regulate heme coordination and activity. **C. Dutta**, V. Lopez, A. Mae Rogers, C. Preston, L.A. Solomon
239. Design of aptamer-based optical nanosensors for the detection of interleukin-6. **A. Ryan**, P. Gaikwad, Z. Cohen, R. Williams
240. Zwitterion functionalized anti-adhesive bioresorbable barrier for soft tissue engineering. **S. Nikam**, Y. Hsu, H. Levinson, M.L. Becker
241. Computational assessment of SARS-CoV-2 nsp14 proofreading reveals pathways for antiviral design. **E. Gianti**

CUNY Graduate Center
C198

General Poster Session

Cosponsored by the University of Pennsylvania Masters of Chemical Science, and the University of Kansas Madison and Lila Self Graduate Fellowship

N. D. Jespersen, P. D. Svoronos, *Organizers*

6:00 - 7:00

185. A Fictitious Crime Project. **I. Marginean**

186. Quinine content in different tonic water samples. **A. Romanova, E.E. Mojica**

187. Withdrawn

188. Solution-phase NMR studies on the mechanism and scope of troponoid photolabeling. **J. Chow**, B. Yilmaz, A. Berkowitz, R.P. Murelli

189. Titanocene(III) complexes: Promising reagents for the design of sustainable catalytic processes. **G.D. Fianu**, E. Jones

190. Biomimetic photooxidation approach to a tremetone-like natural product: Homogeneous, heterogeneous, and total $^1\text{O}_2$ quenching studies. **S.B. Essang, L. Lapoot**, J. Bipu, S. Jabeen, A. Durantini, G. Ghosh, A. Greer

191. Role of lipid dynamics in treating chronic inflammation. **A. Garcia**, M. Haroun, A. Zaki, K. McGuinness

192. Quantifying delta-8-tetrahydrocannabinol in commercial hemp products. M. Underwood, M. Flohl, C. Awwad, F. Candelora, **A. Holliday**

193. On-off metallophilicity in a bimetallic gold-copper system supported by a mixed pyridyl-phosphine ligand. **T.M. Brown**, K. Clark, A. Pompa, C. Titus

194. Mononuclear and polynuclear complexes of Earth-abundant transition metals for catalysis. **G.T. Ly**, M.S. Eberhart

195. Effect of tea tree oil on *Escherichia coli* and *Staphylococcus epidermidis* persister cells and biofilms. **C. Rada Santacruz**, C. Fazen

- 196.** Reduction of nitriles to amines with the biological catalyst yeast alcohol dehydrogenase. **L. Ospina Pareja, A. Birmingham, C. Fazen**
- 197.** Molecularly imprinted electrochemical sensor based on poly pyrrole monomer for sensitive detection of morphine. **P. Chakravarthula, A.M. Mugweru**
- 198.** Strategy for multi-wavelength absorbance analysis of dyes to determine solution pH. **J. Mcilvrde, K. DeAcosta, J.M. Karlinsey**
- 199.** Detection of whole-virus simulants by electrochemical biosensors utilizing polyvalent binding that changes electron transfer rate. **P.S. Lukeman, N.S. Chowdhury, Y. Kim, J. Mendez, A. Tziranis, M. Moron, A. Tran, P. Le**
- 200.** LC-MS analysis of artesunate with nucleobases. **E.A. Roman-Flores, A.M. Mugweru**
- 201.** Interaction energies for Ne with HCCS. **R.C. Mayrhofer**

MARM 2023

SATURDAY

St. John's University
D'Angelo Center

Middle Atlantic Region Board Meeting

J. Freeman, *Presiding*

10:00AM – 12:00PM D'Angelo Center 401

Regional Chemagination! Contest

L. Lawter and A. Muth, *Organizers*

12:00PM – 5:00PM D'Angelo Center 416A

Diversifying the Curriculum in High School Chemistry

M. Contel and N. O'Connor, *Organizers*

12:45PM – 2:00PM D'Angelo Center 416A



Session for High School
Chemistry & Science Teachers
2023 American Chemical Society
Middle Atlantic Regional Meeting (MARM)

Saturday, June 10th, 12:45-2:30 PM

"Diversifying the Curriculum in High School Chemistry"

Hybrid Session (St. John's University & Zoom)



Discussion Leaders:

Dr. Maria Contel (*Professor, Brooklyn College, CUNY, NY*) &

Dr. Naphtali O'Connor
(*Professor, Lehman College, CUNY, NY*)



Speaker: Dr. Sibrina Collins
Professor & Executive Director of STEM Education, Lawrence Technological University, MI

"The Importance of Storytelling in STEM Education. Practical Application: Biochemistry Laboratory Experiment based on the research of Dr. Marie M. Daly (the first African American Female to get a PhD in Chemistry in the USA)".

MARM Registration



[Click for Zoom Link](#)

Location: St John's University
8000 Utopia Pkwy, Queens, NY
11439



Promotion to Full Professor Workshop

When? Middle Atlantic Regional Meeting, June 9th
Where? The Graduate Center of the City University
365 Fifth Avenue, New York, NY 10016
Time? 1:00 pm – 2:30 pm

Sponsored by the MetroWomen Chemists Committee

Are you an associate professor who has been at that level for at least three years?
This workshop is for you!

Are you an associate professor who has been at that level for at least ten years?
This workshop is for you!

Are you an associate professor who has been at that level for at least fifteen years?
This workshop is for you!

Please join us for an informal hands-on workshop to catalyze your preparation for applying for promotion to full professor. During this workshop we will

- Review promotion guidelines from individual institutions
- Design a plan and timeline for the individual's application process
- Develop narratives for promotions based on individual's accomplishments
- Offer feedback on promotion packages with an eye to your specific institution

If you are interested in joining us, please provide:

1. the written promotion guidelines from your institutions and your idea of the unwritten guidelines.
2. your CV
3. three slides summarizing your accomplishments in the areas of teaching, scholarship, and service

When you name the files, include your name in the filenames. Upload these documents by June 1, 2023 at <https://www.dropbox.com/request/Cq5cVOONtEG7IS9nseRr>

If you have any questions or would like more information about this workshop, please contact Alison Hyslop at hyslopa@stjohns.edu, Rita Upmacis at rupmacis@pace.edu, and Sharon Lall-Ramnarine at slallramnarine@qcc.cuny.edu.



MARM Regional Chemagination Contest



Chemagination is a contest in which high school students are asked to imagine that they are living 25 years in the future and have been invited to write an article for ChemMatters, a magazine for high school students that focuses on the role of chemistry in everyday life. The subject of the article is: "Describe a recent breakthrough or innovation in chemistry (and/or its applications) that has improved the quality of people's lives today." The article is written to fit in one of four categories (Alternative Energy, Environment, Medicine/Health, or New Materials). In addition to the article, students are asked to design a cover for the magazine. The article must be written as if the student is living in the year 2048, looking back at innovations that have occurred since 2023. About 70 students are expected to complete in the Regional Chemagination Competition taking place at noon on Saturday, June 10, 2023, at St. John's University (206 D'Angelo Center). First place category winners from Local ACS section competitions are eligible to participate. If a first place winner cannot participate for any reason, sections can elect to send an alternate team.

Contest coordinators: Louise Lawter, Councilor, Princeton ACS Section (louise.lawter@gmail.com) and Aaron Muth, St. John's University (mutha@stjohns.edu). Sponsored by the MARM Board.