Michael G. Walter

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- Department of Chemistry -

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EDUCATION

2008 – 2011 Postdoctoral Scholar, Caltech, Pasadena, CA

2008 Ph.D. (Chemistry), Portland State University, Portland, OR

2004 M.S. (Chemistry), Portland State University, Portland, OR

2001 B.S. (Chemistry), University of Dayton, Dayton, OH

EXPERIENCE

2023 – present: **Professor, Director Chemistry and Nanoscale Science Ph.D. Program**, Department of Chemistry, University of North Carolina at Charlotte

Research: Synthesis and photochemical characterization of materials for optoelectronic materials, photocatalysis, and biosensor applications. Polymeric and molecular semiconductors, porphyrins, and thiazolothiazole - based materials for solar energy conversion and solar fuels applications.

2018 – 2023: **Associate Professor**, Department of Chemistry, University of North Carolina at Charlotte.

2011 – 2018: **Assistant Professor**, Department of Chemistry, University of North Carolina at Charlotte.

2008 – 2011 **Postdoctoral Scholar (NSF – ACCF Postdoctoral Fellow)**, Division of Chemistry and Chemical Engineering, California Institute of Technology, Pasadena, CA.

Research: Conductive polymer contacts for silicon microwire array solar cells & hydrogen photocathodes for solar water splitting. Advisor: Prof. Nathan Lewis.

2007 – 2008 **Graduate Researcher**, Intel Corporation, Ronler Acres Campus

2006 **Visiting Researcher**, NSF – IIE (CESRI Fellow), Linz Institute for Organic Solar Cells, Linz, Austria.

Research: Development of organic solar cells based on poly-porphyrin thin films incorporated with C_{60} derivatives. Advisor: Prof. Niyazi Serdar Sariciftci.

2002 – 2008 **Graduate Research Assistant**, Department of Chemistry Portland State University, Portland, OR.

Research: Electropolymerized porphyrin polymer films for organic/inorganic photovoltaics. Advisor: Prof. Carl C. Wamser.

1999 – 2001 **Research Assistant**, SOCHE Fellow, Wright Patterson Air Force Base, Materials Directorate, Fairborn, OH.

Research: Synthesis and characterization of high temperature stable polymers.

RESEARCH SUPPORT (Total External = $ 5,955,294) (Total Internal = $236,000)

External - Current

1. **National Science Foundation (NSF)** – ($702,000) – **PI:** Michael G. Walter, **Co-PI:** James M. Hanna, "Collaborative Research: Designing High Performance Thiazolothiazole Photocatalysts for Light-Driven Organic Transformations," (Aug. 2024 – Aug. 2027).
2. **University of North Carolina – Research Opportunities Initiative (UNC-ROI)** – $1,500,000 – PI (UNC Greensboro): Shabnam Hematian, co-PI: Nicholas Oberlies, (UNC Charlotte) PI: Michael G. Walter, Co-PI: Christopher Bejger, Yong Zhang, "Nature-Inspired Collaborative Energy Research (NICER)," (09/1/2024 – 08/31/2027).
3. **National Institutes of Health** (**NIH**-**R15)** – National Institute of General Medical Sciences – $476,534 – PI: Michael G. Walter, "Synthesis and Exploration of Highly Fluorescent Thiazolothiazole Molecular Sensors for Probing Membrane Potential Dynamics," (1/22/2025 – 1/31/2028).
4. **National Science Foundation** ***(*****NSF*****)*** – $341,673 – **PI:** Michael G. Walter, **Co-PI:** Banita Brown, "REU Site: Nanoscale Science Undergraduate Research Experience (NanoSURE) at UNC Charlotte," (4/1/2022 – 3/25/2025).
5. **National Science Foundation (NSF - MRI**) – $672,118 – **PI:** Christopher Bejger, **Co-PI:** Michael G. Walter, "Equipment: MRI: Track 1 Acquisition of an Electron Spin Resonance (ESR) Spectrometer for diverse contemporary chemistry," (9/2025 – 8/2028). **pending**
6. **ACS Project SEED** – ($12,000) – **PI:** Michael Walter, **Co-PIs:** Kirill Afonin, Christopher Bejger – "ACS Project SEED – Summer Research" – (June – August 2024).

Previous

1. **National Institutes of Health** (**NIH**-**R15)** – National Institute of General Medical Sciences – $462,546 – PI: Michael G. Walter, "Synthesis and Exploration of Highly Fluorescent Thiazolothiazole Molecular Sensors for Probing Membrane Potential Dynamics," (9/10/2020 – 9/9/2024).
2. **National Institutes of Health** (**NIH – instrument supplement)** – National Institute of General Medical Sciences – $112,807 – **PI:** Michael G. Walter, "Synthesis and Exploration of Highly Fluorescent Thiazolothiazole Molecular Sensors for Probing Membrane Potential Dynamics," (8/4/2022 – 8/3/2024).
3. **National Science Foundation** ***(*****NSF*****)*** – $500,000 – **PI:** Praveen Ramaprabhu, **Co-PIs:** Harischandra Cherukuri, Terry Xu, Mesbah Uddin, David Pugalee, **Co-I:** Michael G. Walter, "IGE: Reimagining the STEM Doctorate: The Pathways to Entrepreneurship (PAtENT) Program," (7/1/2020 – 8/30/2023).
4. **National Science Foundation (NSF-STTR)** – ($275,000) – **PI:** Kevin Boyle, **co-PI:** Michael G. Walter, "STTR: NSF – Developing Thiazolothiazole Molecular Materials for Electronic and Photonic Applications," (8/15/2022 – 12/31/2023).
5. **ACS Project SEED** – ($8,000) – **PI:** Michael Walter, **Co-PIs:** Kirill Afonin, Jay Foley – "ACS Project SEED – Summer Research" – (June – August 2023).
6. **ACS Project SEED** – ($12,800) – **PI:** Michael Walter, **Co-PIs:** Kirill Afonin, Markus Etzkorn, Christopher Bejger – "ACS Project SEED – Summer Research" – (June – August 2022).

7. **National Science Foundation (NSF-STTR)** – ($153,116) – **PI:** Margaret Kocherga, co-PIs: Thomas Schmedake, Michael G. Walter, and Yong Zhang, "STTR: NSF – Printable Electron Transport Layers," (7/1/2021 – 6/30/2022).
8. **National Science Foundation *(*NSF*)*** – $454,984 – **PI:** Thomas Schmedake, **Co-PIs:** Michael G. Walter, and Yong Zhang "Synthesis of Hexacoordinate Silicon Compounds for Electroluminescent Applications," (June 2018 – May 2022).
9. **National Science Foundation (NSF – iCorp / Ventureprise UNCC) –** ($50,000) – **PI:** Michael G. Walter "PSEK – Polymer Semiconductor Education Kit," (Jan. 2019 – Jan 2022).
10. **National Science Foundation (AGEP – GRS Supplement) –** ($56,698) – **PI:** Thomas Schmedake, **Co-PIs:** Michael G. Walter, and Yong Zhang - "GRS Supplement," (Aug. 2019 – July 2020).
11. **ACS Project SEED** – ($6,000) – **PI:** Michael Walter, **Co-PIs:** Kirill Afonin, Daniel Rabinovich, Christopher Bejger – "ACS Project SEED – Summer Research" – (June – August 2019).
12. **ACS Project SEED Travel Grant** – ($1,000) – **PI:** Michael Walter – "Travel Grant for ACS SEED Students – SERMACS 2019" – (Oct. 2019).
13. **NC IDEA Micro Grant** – ($10,000) – **PI:** Tom Schmedake, Michael Walter, Margaret Kocherga – "Light and Charge Solutions" – (Fall 2019).
14. **Army Research Office – Materials Science Division (DoD)** – ($566,995) – **PI:** Terry Xu, **Co-PIs:** Haitao Zhang, Yong Zhang, Michael G. Walter, Yinggang Lu, Tsing-hua Her, Qiuming Wei, and Jordan Poler – "Acquisition of a Multifunctional PicoIndenter System for in situ Correlative Materials Characterization of Small-Scaled Structures," (June 2017 – August 2018).
15. **ACS Project SEED** – ($11,000) – **PI:** Michael Walter, **Co-PIs:** Kirill Afonin, Daniel Rabinovich, Christopher Bejger – "ACS Project SEED – Summer Research" – (June – August 2018).
16. **National Science Foundation (NSF – iCorp / Ventureprise UNCC) –** ($3,000) – PI: Michael G. Walter "PSEK – Polymer Semiconductor Education Kit," (Spring/Fall 2018).
17. **Army Research Office – Materials Science Division (DoD)** – ($483,339) – **PI:** Haitao Zhang, **Co-PIs:** Michael Fiddy, Yong Zhang, Qiuming Wei, Stuart Smith, Terry Xu, Tsing-hua Her, Michael G. Walter, Marcus Jones, and Christopher Bejger – "Acquisition of Multi-Functional Nanoprobe Station-based Measurement System for Comprehensive in situ Materials Characterization and Measurement in SEM," (June 2016 – August 2017).
18. **ACS Project SEED** – ($10,000) – **PI:** Tom Schmedake, **Co-PIs:** Michael G. Walter, Kirill Afonin, Daniel Rabinovich, Jacob Horger – "ACS Project SEED – Summer Research" – (June – August 2017).
19. **Army Educational Outreach Program (AEOP)** - ($10,000) – **PI:** David Pugalee, **Co-PI:** Michael G. Walter - "STEM Research and Engineering Apprenticeship - Silicon-Based Solar Skin" (January 2016 – October 2017).
20. **ACS Project SEED** – ($10,000) – **PI:** Tom Schmedake, **Co-PIs:** Michael G. Walter, Kirill Afonin, Daniel Rabinovich – "ACS Project SEED – Summer Research" – (June – August 2016).

21. **The Camille and Henry Dreyfus Foundation, Inc.** - ($25,000) – Michael G. Walter - "Discovering the Chemistry of Polymeric Semiconductors and Molecular Electronics: A New Polymer Education Kit for High School Science Classrooms" (June 2015 – 2016).
22. **EPA – P3 Sustainability Award** – ($15,000) – **PI:** Mona Azarbayjani, **Co-PI:** Michael G. Walter – "Sustainable Responsivity: The Integration of Nanosolar Skin for Built Environment and Mobility" – (August 15th 2014 – August 15th 2015).
23. **American Chemical Society - ACS Science Coach** – ($1,500) – Michael G. Walter and Jessica Enlow, "Solar Energy Conversion," (October 2015 – October 2016).
24. **ACS Project SEED** – ($5,000) – **PI:** Tom Schmedake, **Co-PIs:** Michael G. Walter, Daniel Rabinovich – "ACS Project SEED – Summer Research" – (June – August 2015).
25. **Institute of International Education (IIE)** – Brazil Scientific Mobility Program – Igor Oliveira Tavares ($6,000) – Michael G. Walter – "Thermal Stability of Solution Processed Pt Nanoparticles for Organic Photoelectrodes" – Summer 2015 (June 2015 – August 2015).
26. **Wells Fargo**– ($2,000) – Michael G. Walter – "New Hybrid Organic/Inorganic Materials for Solar Energy Conversion" – (July 2013).
27. **ACS Project SEED** – ($7,500) – **PI:** Tom Schmedake, **Co-PIs:** Michael G. Walter, Daniel Rabinovich – "ACS Project SEED – Summer Research" – (June – August 2014).
28. **ACS Project SEED** – ($5,500) – **PI:** Tom Schmedake, **Co-PIs:** Michael G. Walter, Daniel Rabinovich – "ACS Project SEED – Summer Research" – (June – August 2013).
29. **ACS Project SEED** – ($10,000) – **PI:** Tom Schmedake, **Co-PIs:** Michael G. Walter, Jordan Poler, Marcus Jones, Daniel Rabinovich – "ACS Project SEED – Summer Research" – (June – August 2012).
30. **National Science Foundation - ACCF - Postdoctoral Fellowship** – ($200,000) – Michael G. Walter - "Metallo(4-aminophenyl)porphyrin Polymer Films on Si Microrod arrays for Photocatalytic Hydrogen Evolution & New Solar Energy Experiments and Caltech Immersion Activities for Students at John Muir High School - Pasadena, CA"- (September 2009 – September 2011).
31. **National Science Foundation - Institute of International Education (IIE) – Central European Summer Research Institute** – ($20,000) – Michael G. Walter – "Organic solar cells based on poly-porphyrin thin films incorporated with C_{60} derivatives" – Linz, Austria, (Summer 2006).

Internal - Current

1. **UNC Charlotte – Division of Research** – ($54,000) – **PI:** Michael G. Walter, "Postdoctoral Fellow Position (Walter Lab – Tyler Adams)," (10/1/2024 – 9/30/2025).
2. **UNC Charlotte – Office of Research Commercialization and Development** – ($10,000) – **PI:** Michael G. Walter, **co-PI:** Tyler Adams, "Color Changing and Sensing Photochromic Films," (2023-2024).

Previous

1. **UNC Charlotte – Division of Research** – ($48,750) – **PI:** Michael G. Walter, "Postdoctoral Fellow Position (Walter Lab – Tyler Adams)," (10/1/2023 – 9/30/2024).

2. **UNC Charlotte – Faculty Research Grant** – ($16,000) – **PI:** Pali Inderasekara, **co-PI:** Michael G. Walter, "An Optical Nano-thermometer: Monitoring the local temperature of nanoparticles used for thermal ablation of tumors," (Jan. 2021 – May 2022).
3. **UNC Charlotte – Faculty Research Grant** – ($16,000) – **PI:** Christopher Bejger, **PI:** Michael G. Walter, "Solar Batteries: Energy Conversion and Storage in a Single Device," (Jan. 2019 – May 2020).
4. **Ventureprise Launch 2.0 Micro Grant** – ($2,000) – Michael G. Walter, Meesha Kaushal "Next Level STEM," (Summer 2019).
5. **UNC Charlotte Chancellor's Diversity Fund** – ($1,000) – Michael G. Walter, "Summer Research Mentoring Collaboration between Livingstone College STEM Undergrads and the Walter Research Group at UNC Charlotte," (July 2018 – June 2019).
6. **UNC Charlotte CRI – TRISP Grant** – ($12,000) – Thomas Schmedake, Michael G. Walter, and Yong Zhang "Exciton Control For High Efficiency Flexible Electronics," (July 2017 – June 2018).
7. **National Science Foundation (NSF – iCorp / Ventureprise UNCC)** – ($3,000) – PI: Michael G. Walter "PSEK – Polymer Semiconductor Education Kit," (Spring/Fall 2017).
8. **UNC Charlotte Tech-Transfer Micro Grant** – ($5,000) – Michael G. Walter "Dipyridyl Thiazolothiazole Dyes for DNA Fluorescence Staining Applications," (January 2015 – August 2016).
9. **UNC Charlotte Energy Production and Infrastructure Center (EPIC)** Matching Funds for EPA – P3 Sustainability Award – ($15,000) – Michael G. Walter, Mona Azarbayjani – "Sustainable Responsivity," (September 2014 – May 2015)
10. **UNC Charlotte (EPIC) Undergraduate Research Assistantship** – ($10,000) – Michael G. Walter "Polymer Embedded Silicon Microwires," (August 2014 – May 2015)
11. **UNC Charlotte Chancellor's Diversity Challenge Fund** – ($5,000) – Michael G. Walter, Mona Azarbayjani, and Valentina Cecchi, "Towards a STEM Diversity Center at UNC-Charlotte," (Sept. 2014 – Jan. 2015)
12. **UNC - Charlotte Faculty Research Grant** – ($6,000) – Michael G. Walter - "Interfacing Earth-Abundant Nickel/Molybdenum (NiMo) Catalysts with Organic Light Absorbing Materials For Solar Generated Hydrogen Fuel" – (January 2012 – May 2013)
13. **Livingstone Endowment Fund** – ($10,000) – Michael G. Walter, Angy Ortiz "Organic Solar Cells Containing Porphyrins complexes" – (January– May 2013)
14. **UNC – Charlotte CLAS SEED Grant** – ($6,000) – Michael G. Walter, Juan Vivero-Escoto, Pinku Mukherjee – "Corrole-based hybrid nanoparticles as a novel strategy for cancer treatment using PDT" – (June – August 2013)

PUBLICATIONS (Citations = 13,240, h-index = 22), Undergraduate Students*

1. Chakraborti, P.; Mukherjee, S.; Oettinger, D.*****; Nandy, A.; Krishnan, Y.; Walter, M. G.; "Mechanistic Basis of the Voltage-Sensitivity of Thiazolothiazole Dyes," *Proceedings of the National Academies of Sciences (PNAS)*, (**2024**), ***under review***.
2. Chakraborti, P.; Mukherjee, S.; Oettinger, D.*****; Nandy, A.; Krishnan, Y.; Walter, M. G.; "Mechanistic Basis of the Voltage-Sensitivity of Thiazolothiazole Dyes," *ChemRxiv*, (**2024**), https://doi.org/10.26434/chemrxiv-2024-cmpzt.

3. Adams, T. A.; Tumpa, N.; Acharya, M.*****; Nguyen, Q.*; Shuchi, N.; Baliukonis M.*****; Starnes, S.*; Hofmann, T.; Walter, M. G.; "Achieving Smart Photochromics Using Water-Processable, High Contrast, Oxygen Sensing, and Photoactuating Thiazolothiazole-Embedded Polymer Films," *ACS Appl. Opt. Mater.*, (**2024**), 2, 704-713. **(ACS Editor's Choice Publication).**

4. Shuchi, N.; Adams, T.; Stinson, V. P.; McLamb, Louisos, D. *****; Boreman, G. D.; Walter, M. G.; Hofmann, T.; "Optical properties of photochromic thiazolothiazole-based polymer films determined by spectroscopic ellipsometry," *Proc. SPIE 12883, Organic Photonic Materials and Devices XXVI*, (**2024**) 1288308.

5. Shuchi, N.; Adams, T.; Stinson, V. P.; McLamb, Louisos, D. *****; Boreman, G. D.; Walter, M. G.; Hofmann, T.; "Complex Dielectric Function of Photochromic Thiazolothiazole Embedded Polymers Determined by Spectroscopic Ellipsometry," *CLEO 2024*, (**2024**), JTh2A.10.

6. Adhikari, R.; Campana, P. T.; Choo, Y. S. L.; Lopes Dias, M.; Dos Santos, C. G.; Fellows, C. M.; Hess, M.; Lucas-Roper, R.; Luscombe, C. K.; Mallon, P. E.; Merna, J.; Peeters, M.; Quach, T. T.; Théato, P.; Topham, P. D.; Vohlídal, J.; Walter, M. G; "An exercise-based international polymer syllabus" *Pure Appl. Chem.*, (**2024**), 96, 1027-1033.

7. Shibu, A.; Jones, S.*****; Tolley, L.*****; Diaz, D.*****; Kwiatkowski, C. O.*****; Jones, D. S.; Shivas, J. M.; Foley, J. J.; Schmedake, T. A.; Walter, M. G.; "Correlating Structure and Photophysical Properties in Thiazolo[5,4-d]thiazole Crystal Derivatives for use in Solid-State Photonic and Fluorescence-Based Optical Devices," *Mater. Adv.*, (**2023**), 4, 6321 – 6332**.**

8. Thakur, E.; Ye, T.; Zhang, Y.; Zhang, H.; Walter, M. G.; "A Quantitative Analysis of the Effect of Various CVD Growth Parameters on the Lithography-free Grown Si Microwires Utilized in a Photodetector Application." *Silicon*, (**2023**), 15, 7785-7795.

9. Shuchi, N.; Mower, J.*****; Stinson, V. P.; McLamb, M. J.; Boreman, G. D.; Walter, M. G.; and Hofmann, T.; "Complex Dielectric Function of Thiazolothiazole Thin Films Determined by Spectroscopic Ellipsometry," *Opt. Mater. Exp.*, (**2023**), 13, 1589 – 1595.

10. Brotherton, A. R.*****; Shibu, A.; Meadows, J. C.; Sayresmith, N. A.; Brown, C. E.*****; Ledezma A. M.*****; Schmedake, T. A.; Walter, M. G.; "Leveraging Coupled Solvatofluorochromism and Fluorescence Quenching in Nitrophenyl-Containing Thiazolothiazoles for Highly Efficient Sensing," *Adv. Sci.*, (**2023**), 10, 2205729.

11. Kocherga, M.; Boyle*****, K. M.; Merkert, J. W.; Schmedake, T. A.; Walter, M. G.; "Exploring the Molecular Electronic Device Applications of Synthetically Versatile Silicon Pincer Complexes as Charge Transport and Electroluminscent Layers," *Mater. Adv.*, (**2022**), 3, 2373-2379. (**cover image)**.

12. Earnhardt, A. W.; Boyle*****, K. M.; Adams, T. A.; Walter, M. G.; Wang, Y.; Zhang, Y.; Merkert, J.; Bimukhanov, A. N.; Aldongarov, A. A.; McMillen, C. D.; Schmedake, T. A.; "Bipolar Charge Transport in a Robust Hexacoordinate Organosilane," *J. Organomet. Chem.*, (**2022**), 961, 122208.

13. Shibu, A.; Middleton, C.*****; Kwiatkowski, C. O.*****; Kaushal, M.; Gillen, J. H.; Walter, M. G.; "Self-Assembly-Directed Exciton Diffusion in Solution-Processable Metalloporphyrin Thin Films," *Molecules* (**2021)**, 27 (1), 35. (**Invited Special Issue**)

14. Adams, T. A.; Brotherton, A. R. *****; Molai, J. A. *****; Parmar, N. *****; Palmer, J. *****; Sandor, K. A. *****; Walter, M. G.; "Obtaining Reversible, High Contrast Electrochromism, Electrofluorochromism, and Photochromism in an Aqueous Hydrogel Device Using Chromogenic Thiazolothiazoles," *Adv. Funct. Mater.* (**2021**), 31 (36) 2103408.

15. Cohen, D.: Thakur, E.; Walter M. G.; "Mitigating the Charge Trapping Effects of D-sorbitol/poly(3,4-ethylenedioxythiophene):poly(styrenesulfonate) (PEDOT:PSS) Polymer Blend Contacts to Crystalline Silicon," *Pure Appl. Chem.* (**2021**), 93 (10), 1109-1117. (**Invited Special Issue**).

16. Luscombe, C. K.; Maitra, U.; Walter, M.; Wiedmer, S. K.; "Theoretical Background on Semiconducting Polymers and their Applications to OSCs and OLEDs," *Chem. T. Int.* (**2021**), 3, 169-183.

17. Vohlídal, J.; Graeff, C. F. O.; Hiorns, R. C.; Jones, R. G..; Luscombe, C. K.; Schue, F.; Stingelin, N.; Walter, M. G.; "Glossary of Terms Relating to Electronic, Photonic, and Magnetic Properties of Polymers," *Pure Appl. Chem.*, (**2021**), 91, 997 - 1027.

18. Sabury, S.; Adams, T. J.; Kocherga, M.; Kilbey, M. S.; Walter, M. G.; "Synthesis and Optoelectronic Properties of Benzodithiophene-Based Conjugated Polymers with Hydrogen Bonding Nucleobase Side Chain Functionality," *Polym. Chem.* (**2020**), 11, 5735 - 5749.

19. Sayresmith, N. A.; Saminathan, A.; Sailer, J. K.. *****; Patberg, S. M. *****; Krishnan, Y.; Walter, M. G.; "Photostable Voltage-Sensitive Dyes Based on Simple Solvatofluorochromic, Asymmetric Thiazolothiazoles," *J. Am. Chem. Soc.*, (**2019**), 141, 18780 - 18790.

20. Slowkowski, S.; Fellows, C.; Hiorns, R. C.; Jones, R. G.; Kubisa, P.; Luscombe, C. K.; Nakano, T.; Russell, G. T.; dos Santos, C. G.; Scholz, C.; Stingelin, N.; Walter, M. G.; "List of Keywords for Polymer Science," *Pure Appl. Chem.*, (**2019**), 91, 997 - 1027.

21. Khatun, A.; Panda, D. K.; Sayresmith, N. A.; Walter, M. G.; Saha, S; "Thiazolothiazole-Based Luminescent Metal-Organic Frameworks with Ligand-to-Ligand Energy Transfer and Hg^{2+}-Sensing Capabilities," *Inorg. Chem.* (**2019**), 58, 12707 - 12715.

22. Kocherga, M.; Castaneda, J.; Walter, M. G.; Zhang, Y.; Saleh, N. A. *****; Wang, L.; Jones, D. S.; Merkert, J.; Donovan-Merkert, B.; Li, Y. Z.; Hofmann, T.; Schmedake, T. A.; "Si(bzimpy)$_2$ – a hexacoordinate silicon pincer complex for electron transport and electroluminescence," *Chem. Commun.*, (**2018**), 54 (100), 14073-14076.

23. Cohen, D. S.; Boston, E.; Nguyen, L.; Walter, M. G.; "Conductive PEDOT:PSS Polymer Glue as an Ohmic and Rectifying Electrical Contact for H-terminated n-Si and p-Si Wafers," *Poly. Int.*, (**2018**), 67(7), 853-858.

24. Enlow, J. L.; Marin, D. M.; Walter, M. G.; "Using Polymer Semiconductors and a 3-in-1 Plastic Electronics STEM Education Kit to Engage Students in Hands-On Polymer Inquiry Activities," *J. Chem. Educ.* (**2017**), 94, 1714-1720.

25. Collier, G. S.; Brown, L. A.; Boone, E. S.; Kaushal, M.; Nance, E.; Walter, M. G.; Long, B. K.; Kilbey, M.; "Linking Design and Properties of Purine-Based Donor-Acceptor Chromophores as Optoeletronic Materials," *J. Mater. Chem. C.*, (**2017**), 5, 6891-6898.

26. Woodward, A. N. *****; Kolesar, J. M. *****; Hall, S. J. *****; Saleh, N. A. *****; Jones, D. S.; Walter, M. G.; "Thiazolothiazole Fluorophores Exhibiting Strong Fluorescence and Viologen-Like Reversible Electrochromism," *J. Am. Chem. Soc.* (**2017**), 139, 8467-8473.

27. Kaushal, M.; Srinivasamurthy, P.; Walter, M. G.; "Structural Modifications to Enhance the Exciton Diffusion in Bilayer Porphyrin Fullerene Thin Films," *SPIE Proceed.* (**2016**), 9942, 99420x.

28. Marin, D. M.; Castaneda, J.; Kaushal, M.; Kaouk; G.; Jones, D. S.; Walter, M. G.; "Spatially Resolved Micro-Photoluminescence Imaging of Porphyrin Single Crystals," *Chem. Phys. Lett.* (**2016**), 659, 137-141.

29. Kaushal, M.; Ortiz, A. L.; Kassel, J. A. *****; Hall, N. *****; Lee, T. D. *****; Singh, G.; Walter, M. G.; "Enhancing Exciton Diffusion in Porphyrin Thin Films Using Peripheral Carboalkoxy Groups to Influence Molecular Assembly," *J. Mater. Chem. C.*, (**2016**), 4, 5602-5609.

30. Marin, D. M.; Payerpaj, S. *****; Collier, G. S.; Ortiz, A. L.; Singh, G.; Jones, M.; Walter, M. G.; "Analysis of the Heavy Atom Effect on the Photophysical Properties of Tetrakis(4-Carbomethoxyphenyl) Porphyrin Derivatives," *Phys. Chem. Chem. Phys.* (**2015**), 17, 29090-29096.

31. Enlow, J. L.; Marin, D. M.; Walter, M. G.; "Developing a Polymer Semiconductor Education Kit and Curriculum for High School Science Classrooms." *Macromol. Symp.* (**2015)**, 355, 43 – 51.

32. Day, N. U.; Wamser, C. C.; Walter, M. G.; "Porphyrin Polymers," *Poly. Int.*, (**2015**), 64, 833-857.

33. Ortiz, A. L.; Collier, G. S.; Marin, D. M.; Kassel, J. A. *****; Ivins, R. J. *****; Grubich, N. G. *****; Walter, M. G.; "The Effects of Heavy Atoms on the Exciton Diffusion Properties in Photoactive Thin Films of Tetrakis(4-carbomethoxyphenyl)porphyrins," *J. Mater. Chem. C.*, (**2015**), 3, 1243-1249.

34. McKone, J. R.; Ardo, S.; Blakemore, J. D.; Bracher, P. J., Dempsey, J. L.; Darnton, T. V.; Hansen, M. C.; Rose, M. J.; Walter, M. G.; Dasgupta, S.; Winkler, J. R.; Gray, H. B.; "The Solar Army: A Case Study in Outreach Based on Solar Photochemistry," *Rev. Adv. Sci. Eng.*, (**2014**), 3, 288 – 303.

35. Walter, M. G.; Liu, X.; O'Leary, L. E.; Brunschwig, B. S.; Lewis, N. S.; "The Electrical Junction Behavior of Poly(3,4-ethylenedioxythiophene) (PEDOT) Contacts to H-Terminated and CH_3-Terminated p-, n- and n^+-Si(111) Surfaces," *J. Phys. Chem. C,* (**2013**), 117 (28), 14485-14492. (*represents work performed at Caltech and at UNC Charlotte*)

36. Imahori, H.; Kurotobi, K.; Walter, M. G.; Rudine, A. B.; Wamser, C. C.; "Porphyrin- and Phthalocyanine-Based Solar Cells" *Handbook of Porphyrin Science*, book chapter, *book chapter*, World Scientific, Singapore, (**2012)**, Vol. 18, Chapter 80, pages 58-123.

37. Hermann, M.; "NSF Grant Supports Patent Capstone Ph.D. Projects," – published online-*The William States Lee College of Engineering*, **(12/16/2020)**.

38. Averette, E.; Roberson, G.; "Inspired by Nature," *CLAS Exchange Magazine, v22 – q2,* (Summer 2015)*, 18-19*.

39. Whalen, M.; Roberson, L.; "Window to the Future – University Team Creates Material that Could Revolutionize Energy Efficiency in Buildings," *UNC Charlotte Magazine, v22 – q2,* **(2015)***, 28-29*.

40. Yahyaie, I.; McEleney, K.; Walter, M. G.; Oliver, D. R.; Thomson, D. J.; Freund, M. S.; Lewis, N. S.; "Characterization of the Electrical Properties of Individual p-Si Microwire/Polymer/n-Si Microwire Assemblies." *J. Phys. Chem. C* **(2012),** 115, 24945-24950.

41. Spurgeon, J. M.; Walter, M. G.; Zhou, J; Kohl, P. A.; Lewis, N. S.; "Electrical conductivity, ionic conductivity, optical absorption, and gas separation properties of ionically conductive polymer membranes embedded with Si microwire arrays," *Adv. Mater.* **(2011)**, 4, 1772-1780.

42. Yahyaie, I.; McEleney, K.; Walter, M.; Oliver, D. R.; Thomson D. J.; Freund, M. S., Lewis, N. S.; "Electrical Characterization of Si Microwires and Si Microwire/Conducting Polymer Composite Junctions," *J. Phys. Chem. Lett.* **(2011)**, 2, 675-680.

43. Warren, E. L.; Walter, M. G.; Boettcher, S. W.; Atwater, H.A.; Lewis, N. S.; "520 mV, pH Indpendent, Open-Circuit Voltages of Si/Methyl Viologen$^{2+/+}$ Contacts Through Use of Radial n^+-p Junction Si Microwire Array Photoelectrodes," *J. Phys. Chem. C* **(2011)**, 115, 594.

44. Boettcher, S. W.; Warren, E. L.; Putnam, M. C.; Santori, E. A.; Turner-Evans, D.; Kelzenberg, M. D.; Walter, M. G.; McKone, J. R.; Brunschwig, B.S.; Atwater, H.A.; Lewis, N.S.; "Photoelectrochemical Hydrogen Evolution using Si Microwire Arrays," *J. Am. Chem. Soc.* **(2011)**, 133, 1216-1219.

45. Walter, M. G.; Warren E. L.; Boettcher S. W.; Mi, Q.; McKone, J. R.; Santori, E. A.; Lewis, N. S.; "Solar Water Splitting Cells." *Chem. Rev.* (**2010)**, 110, 6446-6473. (**Cover**, Nov. 2010 thematic issue – Solar Photon Conversion).

46. Day, N. D.; Walter, M. G.**;** Wamser, C. C.; "Preparations and Electrochemical Characterization of Conductive Porphyrin Polymers," *J. Phys. Chem. C*, (**2015**), 119, 17378-17388.

47. Walter, M. G.; Rudine, A. B.; Wamser, C. C.; "Porphyrins and Phthalocyanines in Solar Photovoltaic Cells," *J. Porphyrins Phthalocyanines* (**2010**), 14, 759-792**. (Cover,** Sept. 2010**)**

48. Rudine, A. B.; Walter, M. G., Wamser, C. C.; "Reaction of Dichloromethane with Pyridine Derivatives under Ambient Conditions," *J. Org. Chem.* (**2010)**, 75, 4292-4295.

49. Walter, M. G.; Wamser, C. C.; "Synthesis and Characterization of Electropolymerized Nanostructured Aminophenylporphyrin Films," *J. Phys. Chem. C* (**2010**), 114, 7563-7574.

50. Walter, M. G.; Wamser, C. C.; "Synthesis and Characterization of Electropolymerized Porphyrin Nanofibers," *Mater. Res. Soc. Symp. Proc.* **2007**, 1013-Z04-07.

51. Walter, M. G.; Wamser, C. C.; Ruwitch, J.; Zhao, Y.; Braden, D.; Stevens, M.; Denman, A.; Pi, R.; Rudine, A. B.; Pessiki, P. J. Syntheses and optoelectronic properties of amino/(carboxyphenyl)porphyrin derivatives for potential use in dye-sensitized TiO_2 solar cells. *J. Porphyrins and Phthalocyanines*, **2007**, 11(8), 601-612.

52. Walter, M. G.; "Outreach Program Uses Berry Power to Engage High School Students," Northwest Sci. & Tech., **2010**, Spring 2010 ed., 1759.

PATENTS

1. Tumpa, N.; Adams, T. A.; Hawkins, A.; Walter, M. G.; "**Selective Amine Detection Through Thiazolothiazole Photochemical Fingerprinting**," US Provisional App # 63/698,280 2024.
2. Chakraborti, P.; Walter, M. G.; "**Improved Asymmetric Thiazolothiazole Synthesis**," US Provisional App # 63/665,817 2024.
3. Walter, M. G.; Brotherton, A. R.; Perrell, T.; Hanna, J. M.; "**Novel Thiazolo(5,4-d)thiazole Catalysts**," US Provisional App # 63/651,518 2024.
4. Adams, T. A.; Walter, M. G.; "**Composite Chromogenic Compositions and Applications Thereof**," EFS ID: US Patent Pending 18/281,219, 2024.
5. Adams, T. A.; Bejger, C. M.; Walter, M. G.; "**Solar Redox Energy Storage using Photocatholytes and/or Photoanalytes**," US Provisional App # 63/529,467 2023.
6. Adams, T. A.; Walter, M. G.; "**Photochromic Thiazolothiazole Films for Oxygen Sensing and Self-tinting Coating Applications**," International Patent Pending PCT/US2024/34760.
7. Brotherton, A. R.; Adams, T. A.; Shibu, A.; Walter, M. G.; "**Thiazolothiazole Composite Materials and Methods Employing the Same**," International Patent Application # - PCT/US2023/074311, International Publication # - WO 2024/059798 A1.
8. Oberlies, N.; Hematian, S.; Walter, M. G.; Pearce, C.; "**Fungal Derived Perylenequinones for Energy and Photochemical Applications**," US Patent Pending 18/669,078 2024.
9. Adams, T. A.; Walter, M. G.; "**Water-Soluble Color-Changing Hydrogel Devices for Multifunctional Applications**," US Patent Pending 18/281,219 2024.
10. Sayresmith, N.; Krishnan, Y.; Walter, M. G.; "**Asymmetric Donor-Acceptor Molecular Dyes**," US Patent Pending 17/774,552 2022.
11. Schmedake, T.; Walter, M. G.; Kocherga, M.; Zhang, Yong; "**Silicon Pincer Complexes for Luminescence Applications**," Japan Patent Issued 7317380 2023.
12. Schmedake, T.; Walter, M. G.; Kocherga, M.; Zhang, Yong; "**Silicon Pincer Complexes for Luminescence Applications**," US Patent Pending 17/057,308 2023.
13. Walter, M. G.; Stokes, E.; Jones, M.; "**Quantum Dot Light Emitting Devices**," US Patent Issued 10,490,762 2019.
14. Walter, M. G.; "**Dipyridyl Thiazolothiazoles as Fluorescent DNA Markers**," US Provisional App #62/111,889.

ENTREPRENEURIAL ACTIVITIES

1. **Ventureprise Launch Regional NSF I-Corps** – Naz Tumpa, Aiden Hawkins, Tyler J. Adams, Michael G. Walter, "Sensochromics – Amine Sensing for Illicit Drug Detection," Summer 2024.
2. **Ventureprise Launch Regional NSF I-Corps** – Abhishek Shibu, Michael G. Walter, "TTz Dyes and Fluorophore Materials," Spring 2023.
3. **UNC Charlotte Division of Research Celebration** – Tyler J. Adams, Michael G. Walter, "Light and Electrically Activated Color-Changing Materials," UNC Charlotte Portal Building – 12/7/2022.

4. **Charlotte Venture Challenge Showcase** – Tyler J. Adams, Michael G. Walter "Chameleon Dyes," UNC Charlotte Portal Building – 4/20/2022.
5. **Ventureprise Launch Regional NSF I-Corps** - Tyler J. Adams, Michael G. Walter, "Chameleon Dyes" (Virtual Cohort – Spring 2021).
6. **Ventureprise Launch 2.0** – Michael G. Walter, Meesha Kaushal "Next Level STEM," *UNC Charlotte* (Summer 2019).
7. **Entrepreneurial Startup Seminar/Program – National Science Foundation (NSF I-Corps / Ventureprise UNCC)** – Kaushal, M.; Smailes, L; Walter, M. G.; – "PSEK – Polymer Semiconductor Education Kit," Seminar/Program #1 (1/21/2019 – 1/30/2019) and Seminar/Program #2 (3/10/2019 – 3/12/2019), *San Francisco, CA* (conducted over 100 startup interviews from 1/30/2019 – 3/10/2019).
8. **Ventureprise UNC Charlotte** –"PSEK – Polymer Semiconductor Education Kit," (February 2018 – with graduate student Meesha Kaushal).
9. **Ventureprise UNC Charlotte** –"PSEK – Polymer Semiconductor Education Kit," (February 2017 – with undergraduate student Joel Cook).

Honors, Awards, Recognitions

1. UNC Charlotte – **UNC Charlotte Invention of the Year Competition – (3 nominations**, TTz Syntheses, Solar Battery, Photocatalysts) Office of Research and Commercialization and Partnerships – 2024-2025.
2. UNC Charlotte - **CLAS Award for the Integration of Undergraduate Teaching and Research** – Spring 2022.
3. UNC Charlotte – **Appointed Honors Faculty** – Summer 2021 – present.
4. UNC Charlotte – **CLAS Faculty Development Award - RDL 2022** – Winter 2021.
5. **Nominated for Alpha Chi Omega Professor of the Year Award** – Student Nomination October 2019.
6. **Charlotte Teachers Institute (CTI) Seminar Proposal Fall 2020** – "Illuminate Yourself! The Science of Glow" – Proposal Submitted August 2019.
7. Elected **IUPAC** Associate Member of the Polymer Division – Summer 2019.
8. **Coordinator – American Chemical Society Project SEED** – Carolina Piedmont Region/UNC Charlotte (2017 – present).
9. **Disability Services Accessibility Excellence Award for Outstanding Faculty** - UNC Charlotte - (2016 – 2017).
10. UNC Charlotte - **Catalyst Grant Writing Program Fellow –** Summer 2017**.**
11. **Honorable Mention** – *National Sustainable Design Expo* (EPA – P3 competition), Washington D.C. - (4/6/2015).
12. **ACS Chemistry Ambassador** (2015 – 2017).
13. Elected **IUPAC** Secretary of the Polymer Division – Summer 2015.
14. UNC Charlotte – **CLAS Junior Faculty Development Award** – Fall 2014.
15. **Member**: American Chemical Society, Electrochemical Society, Materials Research Society, SCI International, Society of Porphyrins and Phthalocyanines.

Received by Students or Research Associates

1. **Naz Tumpa, Aiden Hawkins, Tyler Adams** – Finalists, Collegiate Inventors Competition – Washington, D.C. (Fall 2024).
2. **Pranamita Chakraborti** – Graduate Student Summer Fellowship - UNC Charlotte – (Summer 2024).

3. **Cole Heath** – DAAD Rise Germany Summer Internship – Clausthal University Summer – Dr. René Wilheim, (Summer 2024).
4. **Thomas Perrell** – UNC Charlotte Department of Chemistry – Thomas Walsh Graduate Research Award and Fellowship – (2023-2024).
5. **Andrew R. Brotherton** – National Science Foundation (NSF) Graduate Research Fellowship; UNC Charlotte – 4/4/2022.
6. **Andrew R. Brotherton** – ACS C-P Section - Excellence in Undergraduate Research – (Spring 2022).
7. **Gabriela Martinez Ramirez** - OUR Scholar – Summer – (2022).
8. **Abhishek Shibu** – Graduate Student Summer Fellowship - UNC Charlotte – (Summer 2022).
9. **Tyler J. Adams** – Graduate Student Summer Fellowship - UNC Charlotte – (Summer 2022).
10. **Quy Nguyen, Maithili Acharya** – Science, Technology, Engineering Oral Presentation Award – UNC Charlotte Undergraduate Research Conference – 4/25/2022.
11. **Abhishek Shibu** – 1st Place Poster Presentation, Graduate Research Symposium - UNC Charlotte – (3/25/2022).
12. **Abhishek Shibu** – Graduate Student Research Poster Award – *8th Annual North Carolina Photochemistry Symposium, UNC Chapel Hill* – (10/23/2021).
13. **Andrew R. Brotherton** – Undergraduate Student Research Poster Award – *8th Annual North Carolina Photochemistry Symposium, UNC Chapel Hill* – (10/23/2021).
14. **Nickolas Sayresmith** – Graduate Student Summer Fellowship - UNC Charlotte – (Summer 2021).
15. **Abhishek Shibu** – Graduate Student Summer Fellowship - UNC Charlotte – (Summer 2021).
16. **Abhishek Shibu** – 2nd Runner-up, Graduate Research Symposium - UNC Charlotte – (3/12/2021).
17. **Andrew Brotherton –** OUR Scholar – Summer/Fall – (2021).
18. **Tyler Adams** – Finalist, EPIC Innovator Challenge (5/2021).
19. **Jared Meadows** – Thomas Walsh Finalist – (7/22/2020)
20. **Andrew Brotherton** – ACS DOC Undergraduate Award in Organic Chemistry (2020).
21. **Afrah Faraz –** Project SEED Scholarship – ACS Project SEED – (2020 - 2021).
22. **Abhishek Shibu** – Thomas L. Reynolds Graduate Research Award - UNC Charlotte – (4/8/2020).
23. **Jon Palmer** – Barry Goldwater Scholarship – (3/27/2020).
24. **Abhishek Shibu** – 1st. Place and People's Choice Award – UNC Charlotte's Three Minute Thesis Competition "Let there be Blue Light" – (11/15/2019).
25. **Nickolas Sayresmith** – 2019 Graduate Excellence in Teaching Award – UNC Charlotte – 5/10/2019.
26. **Joshua Sailer** – 2nd Place in Engineering, Physical Sciences, Nanotechnology, and Computing Category in Charlotte Research Symposium Competition. – (7/25/2018).
27. **Alexis N. Wooward** – ACS DOC Undergraduate Award in Organic Chemistry (2018).
28. **Nemah-Allah Saleh** – Barry Goldwater Scholarship – (2017).
29. **Micah Eli Bostian** – Best Poster Winner at the UNC Charlotte Annual Summer Research Symposium - Engineering, Nanomaterials and Computing Category – 7/22/2015.
30. **Daniel Taesoo Lee** – Intel Science Talent Search Semifinalist – Fall 2015.
31. **Daniel Taesoo Lee and Alexander Nanor** – Intel ISEF (Regional and State Science Fair) Finalists – 2015 and 2016.

32. **Daniel Taesoo Lee and Alexander Nanor** – 1st. Place Environmental Science – *North Carolina Student Academy of Sciences (NCSAS)* - 5/22/2015.
33. **Dawn Marin** - 2nd Place Center for Biomedical Engineering and Science Poster Competition – Marin, D. M., Walter, M. G.; UNC Charlotte – 5/1/2015.
34. **Reynolds Ivins** – 2015 Graduate Excellence in Teaching Award – UNC Charlotte – 5/7/2015.
35. **Jennifer Kassel** – National Science Foundation (NSF) Graduate Research Fellowship; UNC Charlotte – 4/1/2015.

Research Collaborators

1. **Drs. Shabnam Hematian, Nicholas Oberlies** (University of North Carolina at Greensborro) – Natural Product Dyes
2. **Dr. Michael Kilbey** (University of Tennessee, Knoxville) – Conjugated polymers with nucleobase side chain functionality
3. **Dr. James Hanna** (Winthrop University) Organic redox photocatalysis
4. **Dr. Yamuna Krishnan** (University of Chicago) Thiazolothiazole compounds for voltage membrane sensors
5. **Dr. Yong Zhang** (UNC Charlotte) Micro-photoluminescence of porphyrins / perovskites
6. **Dr. Haitao Zhang** (UNC Charlotte) Silicon microwire array growth
7. **Dr. Thomas Schmedake** (UNC Charlotte) New materials for conductive polymers
8. **Dr. Mona Azarbayjani** (UNC Charlotte) Silicon microwire PV for building facades
9. **Dr. Graham Collier** (Kennesaw State University) Pyrrole-based electrochromics
10. **Dr. Dawn Marin** (Gaston College, NC) Novel dyes for cell-membrane staining/imaging
11. **Dr. Christopher Bejger** (UNC Charlotte) Solar-driven redox flow batteries

TEACHING

Undergraduate Courses

1. Organic Chemistry I, CHEM 2131 (Fall 2011, 2012, 2013, 2015 Spring 2014, 2016, 2017, 2018, 2020, 2021, Summer I 2019)
2. Organic Chemistry II, CHEM 2132 (Spring 2012, Fall 2019, 2021, 2022)
3. Organic Chemistry II Research Lab, CHEM 2136L - 10 students (Spring 2012 – Fall 2021)
4. Chemistry Seminar, CHEM 4695/4696: advisor to 72 Students (Fall 2011- Spring 2025)
5. Directed Undergraduate Research, CHEM 4900: advisor to 78 Students (Fall 2011-Fall 2024)

Graduate Courses

1. Special Topics: Solar Applications of Nanomaterials, CHEM 6060/NANO 8060 (Spring 2013, 2015, 2019)
2. Introduction to Instrumentation and Processing at the Nanoscale, NANO 8101 (Fall 2016, 2017, 2018, Spring 2023, 2024)
3. Nanoscale Science Colloquium, NANO 8682 (Spring 2018, 2024, 2025, Fall 2023, 2024)
4. Perspectives at the Nanoscale, NANO 8001 (Fall 2023, 2024)
5. Research and Thesis, CHEM 6900: advisor to 7 M.S. Chemistry Students. (January 2012 – Spring 2025)
6. Research and Thesis, NANO 8900: advisor to 11 Ph.D. Chemistry and Nanoscale Science Students. (Fall 2013 – present)
7. Charlotte Teachers Institute (CTI): "Illuminate Yourself: The Science of Glow," (Fall 2020)

Graduate Thesis Committees

1. Tara Whaley M.S. (CHEM – 2013)
2. Kenan Tokmic M.S. (CHEM – 2013)
3. Edward Williams M.S. (CHEM – 2013)
4. Graham Collier M.S. (CHEM – 2013)
5. Nicholas Grubich M.S. (CHEM – 2014)
6. Jose Castaneda M.S. (CHEM – 2014)
7. Li Nguyen M.S. (CHEM – 2015)
8. Reynolds Ivins M.S. (CHEM - 2015)
9. Daniel Vega M.S. (CHEM – 2015)
10. David Lee M.S. (CHEM – 2015)
11. Andrew Pederson M.S. (CHEM – 2015)
12. Guarav Singh Ph.D. (NANO – 2015)
13. Babar Hussain Ph.D. (EC ENG) – 2015)
14. Derek Peloquin Ph.D. (NANO – 2016)
15. Qiong Chen Ph.D. (Engineering – 2016)
16. Dawn Marin Ph.D. (NANO - 2017)
17. Andrew Tobias Ph.D. (NANO - 2016)
18. Meesha Kaushal Ph.D. (NANO - 2019)
19. Keming Ren Ph.D. (NANO - 2019)
20. Zachary Lyles Ph.D. (NANO - 2018)
21. Veysel Unsur Ph.D. (Engineering)
22. John Krause Ph.D. (Optical Science and Engineering)
23. Alexandra Hurst M.S. (CHEM – 2017)
24. Jessica Shott M.S. (CHEM – 2017)
25. Justin Zuczek M.S. (CHEM - 2018)
26. Daniel Cohen Ph.D. (NANO – 2019)
27. Nick Turner M.S. (CHEM – 2020)
28. Margaret Kocherga Ph.D. (NANO – 2020)
29. Nickolas Sayresmith Ph.D. (NANO – 2021)
30. Paula Loman-Cortes Ph.D. (NANO – 2021)
31. Jared Meadows M.S. (CHEM -2021)
32. Paolo Siano M.S. (CHEM - 2020)
33. Esha Thakur Ph.D. (NANO 2022)
34. Adam Earnhardt M.S. (CHEM – 2022)
35. Conor Moore M.S. (CHEM - 2024)
36. Adesola Adeyemi Ph.D. (NANO)
37. Tyler Adams Ph.D. (NANO – 2023)
38. Abhishek Shibu Ph.D. (NANO - 2024)
39. Tang Ye Ph.D. (NANO - 2022)
40. Thomas Perrell M.S. (CHEM - 2024)
41. Pranamita Chakraborti Ph.D. (NANO)
42. Naz Fathma Tumpa Ph.D. (NANO)
43. Yizhou Wang Ph.D. (NANO)
44. Fuead Hasan Ph.D. (NANO)
45. Dylan Morris M.S. (CHEM)
46. Elizabeth Skelly Ph.D. (NANO)
47. Leyla Danai-Nolder Ph.D. (NANO)
48. Ahmed Abdelazeez Ph.D. (NANO)
49. Nuren Shuchi Ph.D. (OPT SCI)

50. Tamanna Binte Huq Ph.D. (NANO)
51. Saheed Towolawi Ph.D. (NANO)
52. Thomas Perrell Ph.D. (NANO)
53. Lynnette Ati-Tay Ph.D. (NANO)
54. Hasan Mahmud Ph.D. (EC ENG)
55. Amanda Cameron M.S. (CHEM)

Graduate Students Mentored in Research

1. Graham Collier M.S. (CHEM - 2013) – "Carbomethoxyphenyl Porphyrin Derivatives for Solution-Processable Thin-Film Bulk Heterojunction Solar Cells."
2. Nicholas Grubich M.S. (CHEM - 2014) – "Synthesis of Thiazolothiazole Functionalized Porphyrins for Organic Solar Cell Applications."
3. Li Nguyen M.S. (CHEM - 2014) – "Interface Study of Spiro-OMEOTAD on Passivated P-, N-, and N^+-Si(111) for Use in Tandem Perovskite/Silicon Solar Cell Devices."
4. Reynolds Ivins M.S. (CHEM - 2015) – "Conditioning of Platinum Nanoparticle Catalysts for Improved Hydrogen Generation on P3HT:PCBM Bulk Heterojunction Photocathodes."
5. Dawn Marin Ph.D. (NANO – Spring 2017) – "The Synthesis and Photophysical Characterization of Porphyrin Photoactive Materials for Use as Sensitizers in Organic Photovoltaics and Photodynamic Therapy."
6. Meesha Kaushal Ph.D. (NANO – Spring 2019) – "Understanding the Effects of Peripheral Alkyl Substituents on Exciton Diffusion Properties of Porphyrin Thin Films for Organic Photovoltaic Applications."
7. Dan Cohen Ph.D. (NANO – Summer 2020) – "Crystalline Silicon Interfaces with Adhesive Polymer Semiconducting Glue and Thiazolothiazole Redox Active Organic Small Molecules."
8. Nickolas Sayresmith Ph.D. (NANO – Fall 2021) - "Synthesis, photophysical characterization, and application of asymmetric thiazolothiazoles as molecular sensors."
9. Esha Thakur Ph.D. (NANO – Spring 2022) - "Lithography-free growth of Silicon microwires via atmospheric pressure chemical vapor deposition for optoelectronic device application."
10. Jared Meadows M.S. (CHEM – Fall 2021) - "Synthesis of Asymmetric Thiazolo[5,4-d]thiazole Derivatives for Molecular Sensing Applications."
11. Tyler Adams Ph.D. (NANO – Fall 2023) – "Electrochromic, Electrofluorochromic, and Photoactive Properties of Thiazolothiazole-Based, Multifunctional Materials."
12. Abhishek Shibu Ph.D. (NANO – Spring 2024) – "Exciton Management in Metalloporphyrins and Thiazolothiazole-Based Materials."
13. Pranamita Chakraborti Ph.D. (NANO)
14. Thomas Perrell M.S. (CHEM – Summer 2024) – "Investigations of Thiazolo[5,4-d]thiazoles and Perylenequinones and Their Function as Organic Photoredox Catalysts."
15. Naz Tumpa Ph.D. (CHEM NANO)
16. Lynnette Ati-Tay Ph.D. (CHEM NANO)
17. Thomas Perrell Ph.D. (CHEM NANO)
18. Amanda Cameron M.S. (CHEM)
19. Nuren Shuchi Ph.D. (OPT SCI)

Honors Undergraduate Research Thesis Committees

1. Dylan Brokaw B.S. (CHEM – 2014)

2. Marshall Howington B.S. (CHEM – 2017)
3. Andrew Brotherton B.S. (CHEM – 2022)
4. Jenna Barilovits B.S. (CHEM – 2023)
5. Olivia Mikula B.S. (CHEM – 2023)
6. Nick Eberwein B.S. (BIO – 2025)
7. Juliusz Wieckowski B.S. (CHEM - 2025)
8. Aiden Hawkins B.S. (CHEM - 2025)

Undergraduate Students Mentored in Research

1. Joshua Marcinzyn B.S. (CHEM - 2012)
2. Reynolds Ivins B.S. (CHEM - 2013) – (Charlotte Research Scholar - 2012)
3. Zachary Lyles B.S. (CHEM - 2013)
4. Kyle Fessler B.A. (CHEM - 2013)
5. Nicholas Adams B.S. (CHEM - 2013)
6. Brian Miller B.S. (CHEM - 2013)
7. Sonia Payerpaj NSF-REU - 2013
8. Nikolas Hall B.A. (CHEM - 2014)
9. Mike Fortune B.S. (CHEM - 2014)
10. Nhai Pham B.S. (CHEM - 2014)
11. Thao Nguyen B.S. (CHEM - 2014)
12. Joan Corcoran B.S. (CHEM - 2014)
13. Brandi Smith B.S. (CHEM - 2014)
14. Chris Stoup B.S. (CHEM - 2015)
15. Trung Nguyen B.S. (CHEM - 2015)
16. Vinnie Cura B.S. (CHEM - 2015)
17. Levi McGuire B.S. (CHEM - 2015)
18. Jennifer Kassel B.S. (PHYS - 2015) - (CRS Scholars – 2013, NSF-REU - 2014)
19. John Luciano B.S. (CHEM - 2015)
20. Megan Stack B.A. (CHEM - 2016)
21. Justin Kolesar B.S. (CHEM - 2017)
22. Igor Oliveira Tavares B.S. (CHEM) – Institute of International Education (Summer 2015)
23. Micah Eli Bostian B.S. (CHEM) – NSF-REU 2015
24. Alex Gold B.S. (CHEM) – NSF-REU 2015
25. Sara R. Hall B.S. (MATH - 2016) – CRS Scholars 2015
26. Alexis Woodward B.S. (CHEM) – NSF-REU 2016 / CRS Scholars 2017
27. Nemah-Allah Saleh B.S. (BIO) – NSF-REU 2016 / CRS Scholars 2017
28. Joshua Chabeda B.S. (CHEM) – NSF-REU 2017
29. Camilla Middleton B.S. (CHEM - 2020)
30. Kristin Sandor B.S. (CHEM - 2020)
31. Joshua Sailer B.S. (CHEM - 2019)
32. Natalie Herr B.S. (CHEM - 2020)
33. Kevin Boyle B.S. (CHEM - 2021)
34. Cynthia Quan B.S. (CHEM - 2020)
35. Shannon Patberg B.S. (CHEM) – NSF-REU 2018
36. Zachary Taylor B.S. (CHEM - 2020)
37. Karissa Ewing B.S. (BIO - 2020)
38. Jon Palmer B.S. (CHEM) – NSF-REU 2019
39. Jackson Mower B.S. (CHEM - 2020)

40. Andrew Brotherton B.S. (CHEM) – OUR Scholars 2021 (Honors Thesis: "Fluorescent Thiazolothiazole Materials for Sensing and Photocatalysis Applications")
41. Jordana Molai B.S. (Public Health - 2020)
42. Krista Tang B.S. (CHEM - 2022)
43. Natasha Parmar B.S. (BIO - 2020)
44. Carly Kwiatkowski B.S. (CHEM - 2021)
45. Ana M. Ledezma B.A. (CHEM - 2021)
46. Rachel Ehrmann B.S. (CHEM - 2021)
47. Jackson W. Barrett B.S. (CHEM) – NSF-REU 2021
48. Chloe Brown B.S. (BIO - 2021)
49. Kattherine Garcia B.S. (CHEM) – OUR Scholars 2021
50. Thomas Perrell B.S. (CHEM - 2022)
51. Lauren Michell B.S. (CHEM - 2022)
52. Gabriela M. Ramirez B.S. (CHEM) – OUR Scholars 2022
53. Maithili Acharya B.S. (CHEM)
54. Quy Nguyen B.S. (CHEM - 2022)
55. Olivia Mikula B.S. (CHEM - 2023) – (Honors Thesis: "Thiazolothiazole Dye Delivery Nanoliposomes for Photochemical in vivo Imaging of *Nematostella vectensis*")
56. Peyton Roden B.S. (CHEM)
57. David Diaz B.S. (CHEM - 2022) – NC-LSAMP (Summer 2022)
58. Sarah Trantham B.S. (Materials Eng.) – NSF-REU 2022
59. Mia Baliukonis B.S. (CHEM)
60. Nick Eberwein B.S. (CHEM) – OUR Scholars 2023
61. Praneeta Veluri B.S. (CHEM)
62. Sree Medha Gadde B.S. (CHEM)
63. Sarah E. Starnes B.S. (CHEM) – NSF-REU 2023
64. Isaiah McPhee B.S. (CHEM) – NSF-REU 2023
65. Katie Hale Dullum B.S. (BIO)
66. Cole Heath B.S. (CHEM)
67. Aiden Hawkins B.S. (CHEM) – OUR Scholars 2024
68. Ryan Kolaitis B.S. (CHEM) – NSF-REU – 2024
69. Lillian Hicks B.S. (CHEM) – NSF-REU – 2024
70. Juliusz Wieckowski B.S. (CHEM)
71. James Anderson B.S. (CHEM)
72. Kevin Hammitt B.S. (CHEM)
73. Charlie Darby B.S. (CHEM)
74. Kathryn Vandergrift B.S. (CHEM)
75. Josh Hine B.S. (CHEM)
76. Joy Amuzu B.S. (CHEM)
77. Kayla Davis-Edwards B.S. (CHEM)
78. Aboud Alshatat B.S. (CHEM)
79. Lucia Wert B.A. (CHEM), B.S. (Earth & Environ. Sci.)
80. Damarys H. Santana B.S. (CHEM)

High School Students Mentored in Research

1. Emily Lam ACS Project SEED (Summer 2012)
2. Randy Rodriguez ACS Project SEED (Summer 2013)
3. Sonia Payerpaj NSF-REU (Summer 2013)

4. Kahdiya Ross ACS Project SEED (Summer 2014)
5. Simone Griffith HS Researcher (Summer 2014)
6. Pokyes Kromtit ACS Project SEED (Summer 2015
7. Daniel Lee HS Researcher (Summer 2015)
8. Brandon Miller ACS Project SEED (Summer 2016 & 2017)
9. Madison Kendrick AEOP-REAP (Summer 2016)
10. David Marin AEOP-REAP (Summer 2016)
11. Mirna Peralta ACS Project SEED (Summer 2018)
12. Sarabesh Natarajan HS Researcher (Summer 2018)
13. Sashank Sabbineni HS Researcher (Summer 2018)
14. Zhariah Neville ACS Project SEED (Summer 2022)
15. Cassidy Ferraro HS Researcher (Spring 2023)
16. Claire Sofsian HS Researcher (Spring 2023)
17. Daniel Koohang HS Researcher (Fall 2023, Spring 2024)
18. Avni Nayyar HS Researcher (Summer 2023, Fall 2024)

Postdoctoral Associates Mentored in Research

1. Dr. Angy Ortiz - Support: Livingstone Endowment (1/2013 – 5/2013)
2. Dr. Tyler Adams – Photochromic Materials – Division of Research (10/2023 – 10/2025)

Visiting Research Scholars

1. Dr. Jay Hanna (Winthrop University) - Research Sabbatical – Thiazolothiazole Photoredox Catalysts (Fall 2020)
2. Vitor Alexandrew de Silva Almodovar (Universidade de Aveiro) - Conjugated Diketopyrrolopyrrole (DPP) Derivatives for Organic Solar Cells – Fulbright Visiting Researcher (Spring 2021).

ACADEMIC & PROFESSIONAL SERVICE

UNC Charlotte Department of Chemistry - Administrative Service

1. Director - Nanoscale Science Ph.D. Program (July 1st 2023 - present).
2. Director – NanoSURE Summer REU Program (January 2023 – present).

UNC Charlotte Department of Chemistry Committees

1. Member – Chemistry Chair Evaluation Committee (Fall 2024)
2. Chemistry Department Chair Search Committee – Chair (Spring 2023).
3. Member - Comprehensive Review of the Chair Committee (Chemistry Department – Fall 2021)
4. Search Committee - Assistant/Associate Professor (Chemistry Department – Physical Chemist, Fall 2021)
5. Search Committee - Research Operations Manager (Summer 2021)
6. Search Committee - Assistant/Associate Professor (Chemistry Department – Physical Chemist, Fall 2018)
7. Cameron Space Force Committee (2019 - 2020)
8. Member – Livingstone Committee (2018 – 2019)
9. Chair – Performance Committee (2020)
10. Member - Performance Committee (2018 – 2020)

11. Chemistry Department Undergraduate Academic Advisor - average 9 students per term - (Fall 2018 – present)
12. Member - M.S. Chemistry Program Committee (Fall 2011 – Spring 2013) (Fall 2016 – present)
13. Member - Undergraduate Research Committee (Fall 2011 – Spring 2013)
14. Member – Nanoscale Science Ph.D. Program Committee (2013 – present)
15. Chemistry and Nanoscale Science Ph.D. Seminar Coordinator (Fall 2013, Spring 2017, Spring 2018, Fall 2018, Fall 2023, Spring 2024)
16. Member – Research Enhancement Committee (2013 – 2015)
17. Chemistry Outreach Page Manager (Fall 2012 – Present)
18. Member – Chemistry Space Committee (2014 – 2017)
19. Member – Instrumentation Committee (2015 – 2024)
20. Member – Instruction Committee (2020 – 2022)
21. Walsh Graduate Student Fellowship Committee (2011 & 2015)

UNC Charlotte Committees and Organizations

1. UNC Charlotte - Center for Innovation, Translational Research, and Applications of Nanostructured Systems (CITRANS) – (Fall 2022 – Present).
2. Graduate Student Success Dashboard Committee – (Fall 2024 – Present).
3. Charlotte Parent Organization – Faculty Representative (Fall 2024 – Present).
4. North Carolina - Alliances for the Graduate Education and the Professoriate (NC-AGEP) Faculty Fellow - UNC Charlotte – (Summer 2024 – present).
5. UNC Charlotte – Graduate School Dean Finalist Interviews – (Fall 2024).
6. UNC Charlotte – Graduate School – Student Success Advisory Committee – (Fall 2024).
7. UNC Charlotte – College of Science (COS) Faculty Council Chair (2023-2024) – Elected Fall 2023.
8. Faculty Mentor - New Assistant Professor Workshop (Fall 2023, 2024), mentoring three assistant professors each year as they develop their FRG (and other) proposals.
9. UNC Charlotte - CLAS Selection Committee – Assistant Dean for Diversity, Equity, and Inclusion – DEI - (January-February 2023).
10. Chair - CLAS Award for the Integration of Undergraduate Teaching and Research Committee – Spring 2023.
11. UNC Charlotte - CLAS Faculty Council Chair (2022-2023) – Elected Spring 2022.
12. UNC Charlotte – 2022 Transforming STEM Teaching and Learning Academy (Fall 2022).
13. CLAS Race and Social Justice Working Group – Undergraduate Student Success Working Group (Fall 2021, Spring 2022) - Serving on the following action groups:
    1. Faculty awareness/information accessibility
    2. Petition for smaller class size
    3. Audit of on-campus student support programs and resources using race and social justice and DEI frameworks
14. Honors Faculty – UNC Charlotte (Summer 2021 – present).
15. CLAS Faculty Council – Chemistry Department (Fall 2019 - present).
16. Search Committee for Assistant Director of Peer Assisted Learning (Cathy Blat – UCAE Summer 2018).
17. CLAS Research Advisory Committee – Chemistry Department Representative (Fall 2018 - 2023).
18. LEADS Faculty Fellow (CLAS) – (Fall 2018 – present).
19. Sustainability and Chemistry Poster/Oral Presentation Judge – UNC Charlotte Undergraduate Research Conference (2015 - present).

20. STEM Diversity Center: Discussion, Presentation, and Luncheon (April 2015).
21. UNC Charlotte Science and Technology Expo – Steering Committee (Spring 2012 - present).
22. Joint UNC Charlotte / NC State Photochemistry Symposium Coordinator (2013 - present).
23. Energy Production and Infrastructure Center (EPIC) Associates (Spring 2013 – present).
24. UNC Charlotte CSTEM Advisory Board (January 2013 – present).
25. IDEAS Faculty Fellows (Fall 2011 – present).

UNC Charlotte Leadership Roles

1. Director – Chemistry and Nanoscale Science Ph.D. Program (July 1st 2023 - present).
2. Director – National Science Foundation (NSF-REU, NanoSURE at UNC Charlotte) Jan. 2024 – present.
3. UNC Charlotte – College of Science (COS) Faculty Council Chair (2023-2024) – Elected Fall 2023.
4. Department of Chemistry Chair Search Committee – Chair (Spring 2023).
5. UNC Charlotte - CLAS Faculty Council Chair (2022-2024) – Elected Spring 2022.
6. UNC Charlotte – Areas of Research Excellence Proposal (R1) Leadership Team - Synergy at the Nanoscale: Biomedicine, Energy and Materials (Fall 2021).
7. ACS Project SEED Coordinator (UNC Charlotte – Chemistry Department) (Fall 2017 - 2024).
8. Nanoscale Ph.D. Student Outreach Advisor (helped and advised graduate students with UNC Charlotte Science Activities, Nanodot Ice-cream, Colors of Chemistry Workshop, and Tech Expo April 2015 - Present).
9. Space Force Committee (2019 - 2022) – Chemistry Department in Cameron building.
10. North Carolina Photochemistry Symposium (NC Photochem) Chair (2013 - present).

Outreach

1. Discovery Place – Nano Discovery Day – NSF NanoSURE REU Outreach Program (7/13/2024).
2. 2024 NC Junior Science & Humanities Symposium Research – Oral Presentation Judge (2/26/2024).
3. 2023 NC Junior Science & Humanities Symposium Research – Oral Presentation Judge (3/6/2023).
4. Corvian Middle School – STEM Outreach – Renewable Energy Demo (4 classes, 3 activities each class) – Charlotte, NC - April 11-12th, 2022.
5. 2022 NC Junior Science & Humanities Symposium Research – Oral Presentation Judge (3/20-21/2022).
6. High School Teacher OLED Workshop – SPARC Conference – Gaston College – "Polymer Semiconductor Light-emitting Device" (11/1/2019) – workshop led by former Nanoscale Science PhD student Dr. Dawn Marin.
7. UNC Charlotte Science and Technology Expo – Steering Committee (Spring 2012 - present).
8. UNC Charlotte Science and Technology Expo Event – "Brewing Science: The Future of NC Beer" – moderator for event that featured a panel of five experts from the brewing community (April 22nd, 2019).
9. UNC Charlotte Science and Technology Expo – Blackberry Juice Solar Cell and Photoelectrolysis Demonstration involving undergraduate/graduate research students (April 2012 - present).

10. SERMACS – HS Teacher Polymer Semiconductor Mini Workshop (Nov. 11th 2017).
11. Kids in Nature Day – Blackberry Juice Solar Cell Activity – Matthews, NC (Oct. 14th 2017).
12. Department of Chemistry UNC Charlotte - Colors of Chemistry Workshop (April 15th 2017).
13. North Carolina JSHS Judge – NC Junior Science & Humanities Symposium (Feb. 2014 - present).
14. ACS Science Coach – Jessica Enlow Cox Mill High School (2015 – 2016).
15. ACS Chemistry Ambassador (January 2014 – present).
16. Cox Mill High School – Lunch with a Scientist (April 2015 - April 2018).
17. ACS Science Café – Juice from Juice – Charlotte Area Science Network (October 2015).
18. UNC Charlotte STEM Day – Nanotechnology for Solar Applications (October 2015, 2016).
19. North Carolina State General Assembly "UNC Charlotte Science and Technology Expo" Solar cell demonstrations for visitors and state representatives (April 2013).
20. Charlotte Teachers Institute – "Exploding Canons: Sustainability in Charlotte and Beyond," Demonstrated Juice from Juice Dye-sensitized Solar Cells to local high school students and teachers at UNC-Charlotte Center City (October 2012).
21. Judge for 2013 NC State Regional Science and Engineering Fair (February 2013).
22. Judge for UNC Charlotte Undergraduate Research Fair (April 2012/2013).
23. Mt. Pleasant High School "Juice from Juice" workshop, Ms. Michele Barbee and science students (May 2012).
24. Charlotte Teachers Institute, Blackberry Juice Solar Cell CTI Workshop (November 2011).
25. Union Academy "Juice from Juice" solar cell / nanotechnology teacher workshop, Matthews, NC, (October 2011).

Professional Service

1. Southeastern Meeting of the American Chemical Society (SERMACS) – Session Chair - "Photoactive Materials and Devices for Energy Storage and Beyond," Atlanta, GA (October 25th, 2024).
2. North Carolina Photochemistry Symposium (NC Photochem) Founder and Chair (2013 - present).
3. Journal Reviews Editor – Polymer International – Wiley Science (May 2013 – present).
4. Technical Editor – Polymer International –Wiley Science (June 2009 – May 2013).
5. Editorial Advisory Board – Polymer International (August 2011 – present).
6. Journal Editor – PLOS ONE - (July 2018 – present).
7. IUPAC – Subcommittee on Polymer Terminology (June 2012 – present).
    a. Project Chair: (Personal Protective Equipment Disposal for the Future)
    b. Project Chair: (Guide and Brief Guide to Polymer Semiconductors)
    c. Synchronizing Wikipedia: Polymer Definitions and Terminology
    d. The Environment, Health and Food Safety Impact of Microplastics
    e. A Brief Guide to Polymer Terminology
8. IUPAC – Polymer Committee (June 2012 – present).
9. IUPAC – Subcommittee on Polymer Education (June 2014 – present).
10. The National Academies of Sciences, Engineering, and Medicine - U.S. National Committee for IUPAC (USNC) – ex-officio member (April 2016 – present).
11. Oxford Publishing – Organic Chemistry Textbooks – Redox Chemistry (May 2017).
12. Macmillon Publishing – Organic Chemistry Textbooks (July 2017).

Professional Development

1. Advance – Leadership UNC Charlotte – (Fall 2024 - present).

2. UNC Charlotte – Transforming STEM Teaching and Learning Academy (Fall 2022 – Spring 2024).
3. UNC Charlotte Graduate Student Mentor "Tune-Up" Training Program (4/27/2021).
4. Advance Faculty Forum – Promotion from Associate to Full Professor (2/23/2021).
5. UNC Charlotte Graduate Student Mentoring Training Program (March 2nd, 2020).
6. Faculty Forum for Associate Professors (February 13th, 2019).
7. Catalyst Grant Writing Program Fellow (Summer 2017).
8. ADVANCE – new faculty workshops (Winter 2012).

Review Activities

1. Referee for the following journals
    a. Angewandte Chemie
    b. Nature (Photonics, Chemistry, Materials, Communications)
    c. Dalton Transactions
    d. Dyes and Pigments
    e. Cell Reports Physical Science
    f. Chemistry – A European Journal
    g. Chemistry of Materials
    h. Chemistry Communications
    i. Chemistry Select
    j. ChemPhotoChem
    k. The Journal of Physical Chemistry Letters
    l. The Journal of Materials Chemistry A
    m. The Journal of Materials Chemistry C
    n. The Journal of Physical Chemistry (A, B, C)
    o. Journal of the American Chemical Society
    p. Journal of Physical Letters
    q. Macromolecues
    r. Polymer International
    s. ACS Nano
    t. ACS Photonics
    u. ACS Energy Letters
    v. ACS Applied Energy Materials
    w. ACS Applied Materials and Interfaces
    x. ACS Electrochemistry
    y. Energy and Environmental Science
    z. Electrochemistry Communications
    aa. Electrochimica Acta
    bb. Journal of Chemical Education
    cc. MRS Advances
    dd. RSC Advances
    ee. Physica Status Solidi A: Applications and Materials Science
    ff. Solar RRL
    gg. Thin Solid Films
    hh. Langmuir
    ii. Advanced Optical Materials
    jj. Advanced Materials Technologies

kk. Advanced Materials
ll. Journal of Molecular Liquids
mm. Spectrochimica Acta Part A
nn. Small

2. Proposal Referee

    a. NSF - S-STEM Ad-hoc Reviewer – Reviewed 1 proposal (May 2021, 2022)
    b. ACS – PRF Reviewer – (March 2021, June 2021, August 2021, June 2022)
    c. NSF – CCI Center Virtual Panel – November 2017
    d. NSF – S-STEM Review Panel October 2013, 2014
    e. NSF – Catalysis Review Panel (12 proposals) October 27-28th 2011
    f. ACS – PRF (1 proposal) January 2013
    g. U.S. - Israel Binational Science Foundation (BSF) April 2013

UNC Charlotte Department of Chemistry Seminar Program (Invited Speakers)

1. Prof. Elham Ghadiri (Department of Chemistry – University of North Carolina at Greensboro) – May 2nd, 2024.
2. Dr. Lydia Sosa Vargas (Sorbonne Universite' – Institut Parisien de Chimie Moleculaire) – Nov. 11th, 2023.
3. Prof. Graham Collier (Department of Chemistry – Kennesaw State University) – Oct. 5th, 2023.
4. Prof. Shannon Boettcher (Department of Chemistry – University of Oregon) – April 3rd, 2023.
5. Prof. Michael Rose (Department of Chemistry – University of Texas at Austin) – Dec. 12th, 2022.
6. Prof. Folarin Oguntoyinbo (Department of Chemistry and Fermentation Sciences – Appalachian State University) – April 22nd, 2019.
7. Prof. Brett Taubman (Department of Chemistry and Fermentation Sciences – Appalachian State University) – April 22nd, 2019.
8. Prof. John Matson (Virginia Tech University) – Oct. 1st, 2018
9. Prof. S. Michael Kilbey (University of Tennessee-Knoxville) – April 2nd, 2018
10. Prof. Daniel A. Heller (Memorial Sloan Kettering Cancer Center) – March 15th, 2018
11. Prof. Carlos Silva (Georgia Institute of Technology) – Oct. 19th, 2017
12. Prof. Paul Wagenknecht (Furman University) – Sept. 11th, 2017
13. Prof. Jay Hanna (Winthrop University) – March 20th, 2017
14. Prof. Chad Risko (University of Kentucky) – March 2nd, 2017
15. Prof. Christine Luscombe (University of Washington) – Sept. 26th, 2016
16. Prof. Matt Hartings (American University) – Sept. 15th, 2016
17. Prof. Chris Ober (Cornell University) – Jan. 14th, 2016
18. Prof. Michael Therien (Duke) – February 22nd, 2016
19. Prof. Jonathan Lindsey (North Carolina State University) – Sept. 4th, 2015
20. Dr. Aditya Mohite (Los Alamos National Lab) – Sept. 10th, 2015
21. Prof. Christian Brückner (UConn.) – April 9th, 2015
22. Prof. Natalie Stingelin (Imperial College London) – January 15th, 2015
23. Dr. Roger Hiorns (IPREM Institute, Universite de Pau) – January 12th, 2015
24. Prof. John Reynolds (Georgia Tech) – August 28th, 2014
25. Dr. David Brigham (EntoGenetics Inc.) – March 10th, 2014
26. Prof. Jennifer Schuttlefield (University of Wisconsin – Oshkosh) – 10/2013
27. Prof. Amanda Morris (Virginia Tech) – 9/22/2013

28. Prof. Malka Jefferies-El (Iowa State University) – 9/16/2013
29. Prof. Elena Jakubikova (NC State University) – 2/25/2013
30. Prof. Wei You (University of North Carolina at Chapel Hill) – 3/20/2012
31. Prof. Walter Weare (NC State University) – 9/10/2012
32. Prof. Ksenija Glusac (Bowling Green State University) – 2/2/2012

Professional Organizations

1. The American Chemical Society
2. The Materials Research Society
3. The Electrochemical Society
4. Society of Porphyrins and Phthalocyanines
5. The IUPAC Subcommittee on Polymer Terminology
6. IUPAC Polymer Division
7. U.S. National Academies - Committee for IUPAC

PRESENTATIONS

Invited (Presenter's name in bold) **Undergraduate Researchers***

1. **Walter, M. G.**; "Innovating Fluorescent Molecular Dyes for Photocatalysis, Photochromism, and Biosensing Applications," *NC A&T State U., Department of Chemistry* – (1/23/2025).
2. **Walter, M. G.**; "NC-AGEP and the Chemistry and Nanoscale Science Ph.D. Program," *AGEP-NC, Winter Alliance Meeting* – (1/22/2025).
3. **Chakraborti, P.**; Mukherjee, S.; Oettinger, D.*; Krishnan, Y.; Walter, M. G.; "Advanced Voltage-Sensitive Thiazolothiazole Dyes: Synthesis, Photophysical Insights, and Evaluation of Biosensing Properties," *Western Carolina University, Department of Chemistry* – (11/10/2023).
4. **Walter, M. G.**; Adams, T. A.**; Brotherton, A. R.*; Chakraborti, P.; Shibu, A.; Perrell, T. S.***,** Tumpa, N.; "Photochemical Applications of Highly Fluorescent Thiazolothiazole Materials," *15th International Symposium on Functional-pi Electron Systems, Raleigh, NC* – (7/18/2023).
5. **Walter, M. G.**; Adams, T. A.; Brotherton, A. R.*; Chakraborti, P.; Shibu, A.; Perrell, T. S.*, Tumpa, N.; "Photochemical and Sensing Applications of Organic Conjugated Materials," *10th Annual North Carolina Photochemistry Symposium, Charlotte, NC* – (10/7/2023).
6. **Shibu, A.**; McPhee, I.*; Diaz, D.*; Walter, M. G.; "Managing Photoactivated Excimer Emission in Solution-Processable Films," *10th Annual North Carolina Photochemistry Symposium, UNC Charlotte, Charlotte, NC* – (10/7/2023).
7. **Walter, M. G.**; Brotherton, A. R.*; Chakraborti, P.; Shibu, A.; Ramirez, G. M.*; Perrell, T. S.*; "Photochemical Applications of Highly Fluorescent Thiazolothiazole Materials," *Southeastern Regional Meeting of the American Chemical Society (SERMACS), San Juan, Puerto Rico* – (10/20/2022).
8. **Walter M. G.;** Adams, T.; Brotherton, A.*; Shibu, A.; Sayresmith, N.; Chakraborti, P.; "Functional Thiazolothiazole Materials," *American Medical Women's Association (AMWA)* – (10/17/2022).

9. **Walter, M. G.;** "A 3 in 1 Plastic Electronics STEM Education Kit Using Polymer Semiconductors," *IUPAC – MACRO 2022, Winnipeg, Canada* (7/19/2022).

10. **Brotherton, A. R. *;** Perrell, T. *; Hanna, J. M.; Walter, M. G.; "Fluorescent Thiazolothiazole Materials for Sensing and Photocatalysis Application," *Carolina-Piedmont Local ACS Section Meeting* – (2/7/2022).

11. **Walter, M. G.;** "Developing Photoactive Thiazolothiazole Materials for Electrofluorochromic and Voltage Sensing Applications," *Department of Chemistry – UNC Greensboro* - (10/29/2021).

12. **Adams, T. J.;** Brotherton, A. R.*; Walter, M. G.; "Chromogenic Thiazolothiazole Extended Viologens for Photocharging Redox Flow Batteries," *8th Annual North Carolina Photochemistry Symposium, UNC Chapel Hill* – (10/23/2021).

13. **Walter, M. G.;** "Developing Photoactive Thiazolothiazole Materials for Electrofluorochromic and Voltage Sensing Applications," *Department of Chemistry – University of Wisconsin Oshkosh* - (10/8/2021).

14. **Walter, M. G.***;* "Developing Multifunctional, High Performance Thiazolothiazole Materials for Electronic and Optical Applications," *AAAFM Conference* (8/18/2021).

15. **Walter, M. G.;** "Polymer Semiconductor STEM Education Kit to Engage Students in Hands-on polymer Inquiry Activities," *IUPAC – MACRO 2020+* (5/20/2021).

16. **Walter, M. G.;** "Highly Fluorescent Thiazolothiazole Materials," *Department of Chemistry – Winthrop University* - (10/22/2020).

17. **Walter, M. G.;** "Properties and Applications of Highly Fluorescent Thiazolothiazole Materials," *Department of Chemistry – Kennesaw State University* - (9/22/2020).

18. **Walter, M. G.;** "Properties and Applications of Highly Fluorescent Thiazolothiazole Materials," *Department of Chemistry – Wake Forest University*, Winston-Salem, *NC - (3/4/2020).*

19. **Walter, M. G.**; "Fluorescent Thiazolothiazole Materials," *6th Annual North Carolina Photochemistry Symposium, Appalachian State University, Boone, NC*– (10/26/2019).

20. **Walter, M. G.;** "ACS Project SEED student participation in molecular materials research at UNC Charlotte," *Southeastern Regional Meeting of the American Chemical Society (SERMACS), Savannah, GA* – (10/20/2019).

21. **Kaushal, M.;** Walter, M. G.; "Next Level STEM," Charlotte Venture Challenge – Ventureprise Launch 2.0, NSF I-Corps Launch, and Company Showcase – *UNC Charlotte Portal Building* – (4/30/2020).

22. **Kocherga, M.;** Schmedake, T.; Walter, M. G.; "Light and Charge Solutions," Charlotte Venture Challenge – Ventureprise Launch 2.0, NSF I-Corps Launch, and Company Showcase – *UNC Charlotte* Portal Building – (4/30/2020).

23. **Walter, M. G.;** "Organic Chemistry and Solar Energy Research," *Stand Up Science at the Evening Muse – Charlotte, NC* – (3/7/2019).

24. **Walter, M. G.;** "The Photophysical Properties of Porphyrin Thin Films and Thiazolothiazole Viologens," *Department of Chemistry Appalachian State University*, Boone, NC - (3/1/2019).

25. **Walter, M. G.**; "Solar Molecular Materials Research and ACS Project SEED Student Participation at UNC Charlotte," *Southeastern Regional Meeting of the American Chemical Society (SERMACS), Augusta, GA* – (10/31/2018).
26. **Walter, M. G.;** "The Photophysical Properties of Porphyrin Thin Films and Thiazolothiazole Viologens," *Department of Chemistry at High Point University*, High Point, NC - (7/20/2018).
27. **Walter, M. G.**; "Using polymer semiconductors and a 3-in-1 Plastic Electronics STEM Education Kit to Engage Students in Hands-on Sustainable Materials Activities," *American Chemical Society Annual Green Chemistry & Engineering Conference*, Portland, OR - (6/19/2018).
28. **Walter, M. G.;** "The Photophysical Properties of Porphyrin Thin Films and Thiazolothiazole Viologens," *Department of Chemistry at the University of South Carolina (USC)*, Columbia, SC - (11/15/2017).
29. **Kaushal, M.**; Middleton, C; Stiller, J.; Walter, M. G.; "Structural Modifications to Enhance Exciton Diffusion in Porphyrin Thin Films," *Southeastern Regional Meeting of the American Chemical Society (SERMACS)*, Charlotte, NC - (11/10/2017).
30. **Walter, M. G.;** "The Photophysical Properties of Porphyrin Thin Films and Thiazolothiazole Viologens," *Department of Chemistry at the University of Kentucky (UK)*, Lexington, KY - (10/13/2017).
31. **Walter, M. G.;** "Photophysics of Porphyrin Thin Films and Electrofluorochromic Thiazolothiazoles," *Department of Chemistry at North Carolina State University (NC State)*, Raleigh, NC - (9/14/2017).
32. **Walter, M. G.;** "Structural Modifications to Enhance Exciton Diffusion in Porphyrin Thin Films and Single Crystals," *Department of Chemistry and the Center for Photochemical Sciences at Bowling Green State University (BGSU)*, Bowling Green, OH - (10/12/2016).
33. **Marin, D. M.**; Grubich, N. G.; Gebreyowhance, K. *****; Woodward, A. N. *****; "New Porphyrin-Thiazolothiazole (Donor-Acceptor) Materials for Molecular Photovoltaic Applications," *Joint NC State / UNC Charlotte Photochemistry Symposium, NC Photochem.* – Charlotte, NC, (10/1/2016).
34. **Walter, M. G.;** "Structural Modifications to Enhance Exciton Diffusion in Porphyrin Thin Films and Single Crystals," *Department of Chemistry, Virginia Tech - Highlands in Chemistry Seminar Series*, Blacksburg, VA - (9/9/2016).
35. Marin, D. M.; Kaushal, M.; Ren, K.; Kolesar, J. M. *****; Hall, S. J. *****; Castaneda, J.; **Walter, M. G.;** "Structural Modifications to Enhance Exciton Diffusion in Porphyrin Thin Films and Single Crystals," *SPIE Optics and Photonics*, San Diego, CA - (9/1/2016).
36. **Walter, M. G.;** "Structural Modifications to Enhance Exciton Diffusion in Porphyrin Thin Films and Single Crystals," Department of Chemistry University of California Irvine, Irvine, CA - (8/30/2016).
37. Ortiz, A. L.; Marin, D. M.; Kassel, J. A. *****; Kaushal, M.; **Walter, M. G.;** "Linking Molecular Structure and Singlet Exciton Diffusion Length in Carboalkoxyphenylporphyrin Thin films*," Materials Research Society Meeting*, Boston, MA - (12/1/2015).
38. **Walter, M. G.;** "Linking Molecular Structure and Singlet Exciton Diffusivity in Photoactive Porphyrin Thin Films," Department of Chemistry UNC Greensboro, Greensboro, NC - (10/2/2015).

39. **Walter, M. G.;** "Juice from Juice," Science Café presentation and solar cell hands-on demonstrations – 40 students, (presented by the Charlotte Area Science Network (CASN), UNC Charlotte Center City, NC - (10/6/2015).

40. **Walter, M. G.;** "Harness the Sun and Power the Planet," Thinking Matters Talk, UNC Charlotte, NC - (8/24/2015).

41. **Kassel, J. A. *; Pike, V.; Zarrabi, A. M.; Cohen, D.; Oloonabadi, M. A.; Ren, K.;** Azarbayjani, M.; Walter, M. G.; *"*A 1cm x 1cm Square that Will Change the World – Sustainable Responsivity: The Integration of Nano Solar Skin for Built Environment and Mobility," *National Sustainable Design Expo*, Washington D.C. - (4/6/2015).

42. Ortiz, A. L.; Grubich, N. G.; Kassel, J. A. *****; Cohen, D.; **Walter, M. G.;** "Advancing Porphyrin Polymers for Solar Energy Conversion*," EMN Meeting on Polymer Energy Materials Nanotechnology*, Orlando, FL - (1/8/2015).

43. *Linking Molecular Structure and Singlet Exciton Diffusion Length in Carboalkoxy- and Alkoxy Phenylporphyrins* (Oral Presentation - **Angy L. Ortiz**) - Joint NC State / UNC Charlotte Photochemistry Symposium, NC Photochem. – Raleigh, NC, (10/2014).

44. *Porphyrin (Polymers) for Molecular Optoelectronics (OPVs)* (Oral Presentation – **Walter, M. G.**)– International Union of Pure and Applied Chemistry (IUPAC) MACRO – Chiang Mai, Thailand, July 2014.

45. *Polymer Education Kit Utilizing Conductive and Semiconductive Polymers Used in Molecular Electronics* (Oral Presentation – **Walter, M. G.**) – International Union of Pure and Applied Chemistry (IUPAC) MACRO – Chiang Mai, Thailand, July 2014.

46. *Solution-Processable Porphyrins for Organic Solar Cells.* (Oral Presentation – **Walter, M. G.**) - 12th European Conference on Molecular Electronics, Imperial College, London, UK, September 2013.

47. *"Exciton Diffusion in Porphyrin Thin Films,"* (Oral Presentation – **Walter, M. G.**) - Joint NC State UNC Charlotte Photochemistry Symposium, Charlotte, NC, October 26, 2013.

48. *Porphyrin-Based Molecular Semiconductor Materials for Solar Energy Conversion.* (Oral Presentation – **Walter, M. G.**) - Winthrop University, Rock Hill, SC, March 2013.

49. *Designing Porphyrin Complexes and Nanomaterials for Light Harvesting in Solar Energy Conversion, Catalysis, and Therapeutic Applications.* (Oral Presentation – **Walter, M. G.**) - Carolinas Medical Center, Canon Research Institute

50. *Solar Hydrogen Production on Porphyrin-Based Organic Photovoltaics.* (Oral Presentation – **Walter, M. G.**) - Department of Chemistry, Portland State University, Portland, OR, September 2012.

51. *Porphyrin-Containing Molecular Semiconductor Materials for Photoelectrochemical Water Splitting.* (Oral Presentation – **Walter, M. G.**) - Department of Chemistry, Appalachia State University, Boone, NC, April 2012.

52. *"Juice from Juice" in North Carolina.* (Oral Presentation – **Walter, M. G.**) - NSF-CCI Solar Fuels Retreat, Huntington Beach, CA, January 2012.

Contributed (Presenter's name in bold)

1. **Hawkins, A. M.*,** Adams, T. J.; Tumpa, N. F.; Walter, M. G.; "Illicit Drug Detection Utilizing Chromogenic Properties of Dipyridinium Thiazolo[5,4-d]thiazole," *UNC Charlotte Honor's Research Symposium* – (12/23/2024). (poster presentation)
2. **Heath, C. G.*,** Perrel, T. S.; Walter, M. G.; "Advances in Photocatalysis Using Organic Thiazolothiazole Derivatives," *UNC Charlotte Honor's Research Symposium* – (12/23/2024). (oral presentation)
3. **Eberwein, N.***; Perrell, T. S.; Heath, C. G.*; Walter, M. G.; "Organic and Naturally Synthesized Photoredox Catalysts," *UNC Charlotte Honor's Research Symposium* – (12/23/2024). (oral presentation)
4. **Wieckowski, J.*,** Adams, T. J.; Hawkins, A.*; Anderson, J.; Hammitt, K.; Walter, M. G.; "Electronic and Optical Properties of Novel Quinoline Thiazolothiazoles," *UNC Charlotte Honor's Research Symposium* – (12/23/2024). (poster presentation)
5. **Adams, T. J.**; Perrell, T. S., Tumpa, N. F.; Ati-Tay, L. S.; Walter, M. G.; "Photochemical and Energy Storage Applications of Highly Fluorescent Thiazolothiazole Materials," *Sustainable Energy Research Consortium (SERC) Conference, UNC Chapel Hill, Chapel Hill, NC* - (11/12/2025). (poster presentation)
6. **Shuchi, N.**; Adams, T. J.; Louisos.*; Boreman, G. D.; Walter, M. G.; Hofmann, T.; " Infrared dielectric function of thiazolothiazole embedded polymer films determined by spectroscopic ellipsometry," *AVS 70th International Symposium* (November 2024).
7. **Adams, T. J.**; Tumpa, N.**; Walter, M. G.; "Photochromic and Photoactuating Films Utilizing Water-Processable, High Contract, Dipyridinium Thiazolothiazole," *Southeastern Regional Meeting of the American Chemical Society (SERMACS), Atlanta, GA* – (10/23/2024). (poster presentation)
8. **Chakraborti, P.**; Mukherjee, S.; Oettinger, D.**; Nandy, A.; Krishnan, Y.; Walter, M. G.; "Mechanistic Basis of the Voltage-Sensitivity of Thiazolothiazole Dyes," *Southeastern Regional Meeting of the American Chemical Society (SERMACS), Atlanta, GA* – (10/23/2024). (poster presentation)
9. **Perrell, T. S.;** Eberwein, N. *; Heath, C.*, Vandergrift, K., Walter, M. G.; "Investigations of Thiazolo[5,4-d]thiazole Organic Photocatalysts," *Southeastern Regional Meeting of the American Chemical Society (SERMACS), Atlanta, GA* – (10/23/2024). (poster presentation)
10. **Eberwein, N.*;** Perrell, T. S.; Heath, C. G.*; Walter, M. G.; "Exploring the Use of Naturally Derived Perylenequinone-Like Dyes in Photoredox Catalysis," *Southeastern Regional Meeting of the American Chemical Society (SERMACS), Atlanta, GA* – (10/22/2024). (poster presentation)
11. **Hawkins, A. M.*,** Adams, T. J.***; Tumpa, N. F.**; Perrell, T. S.**; Walter, M. G.; "Advancements in Alcohol Sensing and pH Sensing Utilizing Dipyridinium Thiazolo[5,4-d]thiazole," *Southeastern Regional Meeting of the American Chemical Society (SERMACS), Atlanta, GA* – (10/22/2024). (poster presentation)
12. **Tumpa, N.**; Adams, T. J.**; Acharya, M.*; Hawkins, A. M.*; Walter, M. G.; "Oxygen Sensing and Photoactuation of Dipyridinium Thiazolothiazole Embedded Polymer Films," *American Chemical Society (ACS) National Meeting – Denver, CO* – (8/19/2024). (oral presentation)

13. **Chakraborti, P.**; Mukherjee, S.; Oettinger, D.*; Krishnan, Y.; Walter, M. G.; "Synthesis and Mechanistic Properties of a New Class of Voltage-sensitive Asymmetric Thiazolothiazole Dyes," *American Chemical Society (ACS) National Meeting – Denver, CO* – (8/22/2024). (oral presentation)

14. **Hicks, L.*;** Chakraborti, P.; Walter, M. G.; "Investigations of Voltage Sensitive Asymmetric Thiazolo[5,4-d] Dyes," *Summer Research Symposium (NSF-REU presentation), UNC Charlotte* - (8/2/2024). (poster presentation)

15. **Kolaitis, R. P.***; Adams, T. J.; Walter, M. G.; "The Effects of Dipyridinium Thiazolo[5,4-d]thiazole on Charge Mobility of OLED and OPV Applications," *Summer Research Symposium (NSF-REU presentation), UNC Charlotte* - (8/2/2024). (poster presentation)

16. **Hawkins, A. M.***, Adams, T. J.***; Walter, M. G.; "The Mechanism and Sensitivity of Alcohol Sensing Utilizing Dipyridinium Thiazolo[5,4-d]thiazole," *Summer Research Symposium (OUR presentation), UNC Charlotte - (8/2/2024).* (*oral presentation*)

17. **Hawkins, A. M.***, Adams, T. J.; Walter, M. G.; "Advancements in the Mechanism and Sensitivity of Alcohol Sensing Utilizing Dipyridinium Thiazolo[5,4-d]thiazole," 2024 *Undergraduate Research Conference (URC), UNC Charlotte* – (4/12/2024). (*poster presentation*)

18. **Hale, K.*; Chakraborti, P.**; Walter, M. G.; "Synthesis of Novel Voltage Sensitive Dyes for the Future of Action Potential Imaging," *2024 Undergraduate Research Conference (URC), UNC Charlotte* – (4/12/2024). (*oral/honor's thesis presentation*)

19. **Acharya, M.*;** Adams, T. J.; Tumpa, N. F.; Nguyen, Q. H.*; Baliukonis, M.*, Walter, M. G.; "Achieving Smart Photochromics for Oxygen and Amine Sensing with Water Processable, High Contrast, Dipyridinium Thiazolothiazole Embedded Chromogenic Polymers," *2024 Undergraduate Research Conference (URC), UNC Charlotte* – (4/12/2024). (*poster presentation*)

20. **Eberwein, N.*,** Perrell, T. S.; Heath, C.*; Hanna, J. M. Jr.; Walter, M. G.; "Photocatalytic Applications and Characterization of Perylenequinone Dyes," *2024 Undergraduate Research Conference (URC), UNC Charlotte* – (4/12/2024). (*poster presentation*)

21. **Tumpa, N.****; Adams, T. J.; Hawkins, A. M.*; Walter, M. G.; "Amine Sensing with Dipyridinium Thiazolothiazole Containing Hydrogels," *2024 Graduate Research Conference, UNC Charlotte* – (3/22/2024). (oral presentation)

22. **Perrell, T. S.**; Eberwein, N.*****; Shibu, A.; Al-Qiam, R.; Walter, M. G.; Oberlies, N. H.; Hematian, S.; "Characterization and Photocatalytic Applications of Naturally-Derived Perylenequinones," *10th Annual North Carolina Photochemistry Symposium, UNC Charlotte, Charlotte, NC* – (10/7/2023). (poster presentation)

23. **Perrell, T. S.**; Brotherton, A.*****; Eberwein, N. *****; Hanna, J. M. Jr., Walter, M. G.; "Imine Alkylations Using Thiazolothiazole Viologen Photocatalysts," *10th Annual North Carolina Photochemistry Symposium, UNC Charlotte, Charlotte, NC* – (10/7/2023). (*poster presentation*)

24. **Starnes, S. E.***; Adams, T. J.; Walter, M. G.; "Implementing Dipyridinium Thiazolothiazole Photoanolyte in Light Charging Batteries," 10th Annual North Carolina Photochemistry Symposium, UNC Charlotte, Charlotte, NC - (10/7/2023). (poster presentation)

25. **Chakraborti, P.**; Mukherjee, S.; Oettinger, D.*; Krishnan, Y.; Walter, M. G.; "Advanced Voltage-Sensitive Thiazolothiazole Dyes: Synthesis, Photophysical Insights, and Evaluation of Biosensing Properties," 10th Annual North Carolina Photochemistry Symposium, UNC Charlotte, Charlotte, NC - (10/7/2023). (poster presentation)

26. **Tumpa, N.**; Adams, T. J.; Acharya, M.*; Hawkins, A. M.*; Nguyen, Q.*; Walter, M. G.; "Hydrogel Containing Dipyridinium Thiazolothiazoles for Amine Sensing," 10th Annual North Carolina Photochemistry Symposium, UNC Charlotte, Charlotte, NC - (10/7/2023). (poster presentation)

27. **Shibu, A.**; Jones, S.*; Tolley, P. L.*; Diaz, D.*; Kwiatkowski, C. O.*; Jones, D. S.; Shivas, J. M.; Foley IV, J. J.; Schmedake, T. A.; Walter, M. G.; "Correlating Structure and Photophysical Properties in Thiazolo[5,4-d]thiazole Crystal Derivatives for Use in Solid-State Photonic and Fluorescence-Based Optical Devices," 10th Annual North Carolina Photochemistry Symposium, UNC Charlotte, Charlotte, NC - (10/7/2023). (poster presentation)

28. **Shibu, A.**; McPhee, I.*; Diaz, D.*; Walter, M. G.; "Managing Photoactivated Excimer Emission in Solution-Processable Films," 10th Annual North Carolina Photochemistry Symposium, UNC Charlotte, Charlotte, NC - (10/7/2023). (poster presentation)

29. **Shuchi, N.**; Adams, T. J.; Stinson, V. P.*; McLamb, M. J.*; Louisos, D.*; Boreman, G. D.; Walter, M. G.; Hofmann, T.; "Shibu, A.; McPhee, I.*; Diaz, D.*; "Optical Properties of Solution-Processable Thiazolothiazole and Photochromic Thiazolothiazole-Based Polymer Films Determine by Spectroscopic Ellipsometry," 10th Annual North Carolina Photochemistry Symposium, UNC Charlotte, Charlotte, NC - (10/7/2023). (poster presentation)

30. **Adams, T. J.**; Tumpa, N. F.; Nguyen, Q. H.*; Acharya, M.*; Baliukonis, M.*; Starnes, S. E.*; Walter, M. G.; "Color Changing Thiazolothiazole Films for Smart Windows and Oxygen Sensor Applications," 10th Annual North Carolina Photochemistry Symposium, UNC Charlotte, Charlotte, NC - (10/7/2023). (poster presentation)

31. **Shuchi, N.****; Adams, T. J.**; Stinson, V. P.*; McLamb, M. J.*; Louisos, D.*; Boreman, G. D.; Walter, M. G.; Hofmann, T.; "Shibu, A.**; McPhee, I.*; Diaz, D.*; Walter, M. G.; "Optical Properties of Solution-Processable Thiazolothiazole and Photochromic Thiazolothiazole-Based Polymer Films Determine by Spectroscopic Ellipsometry," *12th Workshop on Spectroscopic Ellipsometry (WSE), Prague, Czech Republic* - (9/19/2023). (oral presentation)

32. **Chakraborti, P.**; Oettinger, D.*; Krishnan, Y.; Walter, M. G., "Synthesis of an Asymmetric Thiazolo[5,4-d]thiazole Fluorescent Dye Library: From Molecular Design to Biosensing Applications," *American Chemical Society (ACS) National Meeting – San Francisco, CA* – (8/16/2023). (oral presentation)

33. **Eberwein, N.***; Perrell, T. S.; Walter, M. G.; "Novel Thiazolo[5,4-d]thiazole Derivatives for Photocatalytic Applications," Summer Research Symposium (UNCC-OUR) UNC Charlotte - (8/8/2023). (poster presentation)

34. **Wamser, C. C.**; Ghosh, A.; Conradie, J.; Wang, C.; Walter, M. G.; Day, N. U.; "Hyperporphyrins: Charge-transfer Interactions with meso-Aryl Substituents," *International Conference on Porphyrins and Phthalocyanines, Buffalo, NY* – (oral presentation)

35. **Eberwein, N.***; Perrell, T. S.; Walter, M. G.; "Novel Thiazolo[5,4-d]thiazole Derivatives for Photocatalytic Applications," *Summer Research Symposium (OUR) UNC Charlotte - (8/8/2023).* (poster presentation)

36. **Starnes, S. E.***; Adams, T. J.; Walter, M. G.; "Implementing Dipyridinium Thiazolothiazole Photoanolyte in Light Charging Batteries," *Summer Research Symposium (NSF-REU presentation) UNC Charlotte - (8/3/2023).* (poster presentation)

37. **McPhee, I.***; Shibu, A.; Walter, M. G.; "Synthesis and Photophysical Studies of a Novel Thiazolo[5,4-d]thiazole Derivative in Solution and Polymer Blend Films," *Summer Research Symposium (NSF-REU presentation) UNC Charlotte - (8/3/2023).* (poster presentation)

38. **Baliukonis, M.*, Acharya, M.*;** Adams, T. J.**; Nguyen, Q. H.*; Walter, M. G.; "Advances in Color-Changing Photofluorochromic Thiazolothiazole Films," *2023 Undergraduate Research Conference (URC) UNC Charlotte* – (4/25/2023). (poster presentation)

39. **Eberwein, N.*,** Perrell, T. S.**; Brotherton, A.*; Hanna, J. M. Jr.; Walter, M. G.; "Optimizing Organic Photoredox Catalytic Chemical Reactions Using Thiazolothiazole," *2023 Undergraduate Research Conference (URC) UNC Charlotte* – (4/25/2023). (poster presentation)

40. **Chakraborti, P.**; Oettinger, D.*; Krishnan, Y.; Walter, M. G.; "Synthesis of an Asymmetric Thiazolo[5,4-d]thiazole Fluorescent Dye Library: From Molecular Design to Biosensing Applications," *2023 Graduate Research Conference UNC Charlotte* – (3/24/2023). (oral presentation)

41. **Tumpa, N.**; Adams, T. J.**; Nguyen, Q.*; Acharya, M.*; Baliukonis, M.*; Walter, M. G.; "Photochromic and Photofluorochromic Color Changing Thiazolothiazole Films," *2023 Graduate Research Conference UNC Charlotte* – (3/24/2023). (poster presentation)

42. **Perrell, T. S.**; Brotherton, A. *****; Eberwein, N. *****; Hanna, J. M. Jr., Walter, M. G.; "Imine Alkylations Using Thiazolothiazole Viologen Photocatalysts," *2023 Graduate Research Conference UNC Charlotte* – (3/24/2023). (poster presentation)

43. **Mikula, O.***; Walter, M. G.; "Fluorescent Thiazolothiazole Dye Delivery Vessels for Whole-Organism Biological Sensing," *UNC Charlotte Honors College Research Symposium* – (*12/2/2022*). (oral presentation)

44. **Shuchi, N.**; Mower, J.*****; Stinson, V. P.; McLamb, M. J.; Boreman, G. D.; Walter, M. G.; Hofmann, T.; "Optical dielectric function of a solution-processable thiazolothiazole thin films determined by spectroscopic ellipsometry," *AVS 68th International Symposium, Pittsburg, PA – (11/6/2022).* (oral presentation)

45. **Adams, T. J.**; Archarya, M.*****, Ngyuen, Q.*****; Walter, M. G.; "Dipyridinium Thiazolothiazoles Photochemical Sensors," *Southeastern Regional Meeting of the American Chemical Society (SERMACS), San Juan, Puerto Rico – (10/20/2022).* (oral presentation)

46. **Shibu, T. J.**; Diaz, D.*****, Schmedake, T.; Walter, M. G.; "Origin and Modulation of Excitons in Thiazolothiazole Based Organic Crystals," *Southeastern Regional Meeting of the American Chemical Society (SERMACS), San Juan, Puerto Rico – (10/21/2022).* (oral presentation)

47. **Chakraborti, P.**; Mikula, O.*****, Sayresmith, N. A..; Walter, M. G.; "Synthesis of an Asymmetric Thiazolo[5,4-d]thiazole Fluorescent Dye Library: From Molecular Design to Biosensing Applications," *Southeastern Regional Meeting of the American Chemical Society (SERMACS), San Juan, Puerto Rico – (10/20/2022).* (oral presentation)

48. **Adams, T. J.**; Archarya, M.*****; Ngyuen, Q.*****; Walter, M. G.; "Chromogenic Thiazolothiazole Hydrogels and Films," *9th Annual North Carolina Photochemistry Symposium, USC – Columbia, SC* – (10/8/2021). (poster presentation)

49. **Chakraborti, P.**; Mikula, O.*****, Sayresmith, N. A..; Walter, M. G.; "Synthesis of an Asymmetric Thiazolo[5,4-d]thiazole Fluorescent Dye Library: From Molecular Design to Biosensing Applications," *9th Annual North Carolina Photochemistry Symposium, USC – Columbia, SC* – (10/8/2021). (poster presentation)

50. **Perrell, T. S.***; Brotherton, A.*****; Ramirez, G. M. *****; Hanna, J. M. Jr., Walter, M. G.; "Driving Imine Alkylations Using High-Efficiency, Thiazolothiazole Extended-Viologen Photocatalysts," *9th Annual North Carolina Photochemistry Symposium, USC – Columbia, SC* – (10/8/2021). (poster presentation)

51. **Shibu, A.**; Diaz, D. *****; Brotherton, A. *****; Walter, M. G.; "Innovating Thiazolothiazole based Sensors for High-Performance Optical Fluorescence Sensing," *9th Annual North Carolina Photochemistry Symposium, USC – Columbia, SC* – (10/8/2021). (poster presentation)

52. **Neville, Z. (H.S. student)**; Adams, T. J.; Mikula, O. *****; Brotherton, A.*****; Diaz, D.*****; Walter, M. G.; "The Comparisons of Strong & Weak Push-Pull Effects on the Photophysical Properties of Thiazolothiazole Fluorophores," *Carolina-Piedmont Regional ACS Meeting – Project SEED Night, Charlotte, NC – (8/29/2022).* (poster presentation)

53. **Ramirez, G. M.***; Brotherton, A. R.*****; Hanna, J. M.; Perrell, T. S.*****; Walter, M. G.; "Thiazolothiazole Photocatalysts for Organic Photoredox Catalysis," *Summer Research Symposium (UNCC-OUR) UNC Charlotte - (8/5/2022).* (poster presentation)

54. **Trantham, S. J.***; Adams, T. J.*****; Hanna, J. M.; Walter, M. G.; "Using Thiazolothiazoles to Create Photo-Assisted Redox Flow Batteries," *Summer Research Symposium (UNCC-OUR) UNC Charlotte - (8/5/2022).* (poster presentation)

55. **Diaz, D.***; Shibu, A.*****; Chakraborti, P.; Walter, M. G.; "Photophysical Properties and Characteristics of Blue Emissive Thiazolothiazole Systems," *Summer Research Symposium (UNCC-OUR) UNC Charlotte - (8/5/2022).* (poster presentation)

56. Brotherton, A.*****; Shibu, A.; Sayresmith, N.; **Walter M. G.;** "Embedding Solvatofluorochromic, Push-Pull Dyes in Polymer Matrices for Organic Vapor Sensing," *MACRO 2022 - IUPAC* – (7/18/2022). (oral presentation)

57. Adams, T.; Brotherton, A. *; Shibu, A.; Sayresmith, N.; **Walter M. G.;** "Chromogenic Thiazolothiazole Polymer Hydrogels Exhibiting Electrochromism, Electrofluorochromism, and Photochromism," *MACRO 2022 - IUPAC* – (7/18/2022). (oral presentation)

58. **Acharya, M.*; Nguyen, Q. H.***; Adams, T. J.; Walter, M. G.; "Achieving Highly Stable, Reversible Electrochromism of Thiazolothiazole Hydrogel Devices," *2022 Virtual Undergraduate Research Conference (URC) UNC Charlotte* – (4/18/2022 – 4/21/2022). (online oral presentation)

59. **Chakraborti, P.;** Walter, M. G.; "Nanothermometers for Photothermal Therapy," *2022 Graduate Research Conference UNC Charlotte* – (3/25/2022). (oral presentation)

60. **Adams, T. J.;** Brotherton, A. R.*****; Nguyen, Q. *****; Acharya, M. *****; Walter, M. G.; "Color Changing Thiazolothiazole Hydrogel Devices Exhibiting Electrochromism, Electrofluorochromism, and Photochromism," *2022 Graduate Research Conference UNC Charlotte* – (3/25/2022). (poster presentation)

61. **Shibu, A.;** Schmedake, T.; Walter, M. G.; "Modulation of Photophysical and Structural Properties of Thiazolothiazole based Organic Crystals," *2022 Graduate Research Conference UNC Charlotte* – (3/25/2022). (oral presentation)

62. **Brotherton, A.***; Sayresmith, N.; Walter M. G.; "Voltage-Sensitive Asymmetric Thiazolothiazole Dye for Molecular Probe Sensing Applications," *The State of North Carolina Undergraduate Research and Creativity Symposium (SNCURCS), Virtual Seminar* – (11/13/2021). (online oral presentation)

63. **Adams, T. J.**; Brotherton, A.*****; Walter M. G.; "Chromogenic Thiazolothiazole Hydrogel Devices Exhibiting Electrochromism, Electrofluorochromism, and Photochromism," *Southeastern Regional Meeting of the American Chemical Society (SERMACS), Birmingham, AL – (11/11/2021).* (oral presentation)

64. **Brotherton, A.**; Sayresmith, N.; Walter M. G.; "Voltage-Sensitive Asymmetric Thiazolothiazole Dye for Molecular Probe Sensing Applications," *Southeastern Regional Meeting of the American Chemical Society (SERMACS), Birmingham, AL – (11/11/2021).* (poster presentation)

65. **Brotherton, A. R.**; Meadows, J. A.; Ledezma, A. M. *****; Sayresmith, N. A.; Tang, K. *****; Brown, C. *****; Walter, M. G.; "Voltage-Sensitive Asymmetric, Push-Pull Thiazolothiazole Dyes Exhibiting Large Solvatofluorochromism for Biological Probe Sensing Applications," *8th Annual North Carolina Photochemistry Symposium, UNC Chapel Hill* – (10/23/2021). (poster presentation)

66. **Brotherton, A. R.*;** Perrell, T. S. *****; Hanna, J. M.; Walter, M. G.; "Imine Alkylation Using Thiazolothiazole Viologen Photocatalysts," *8th Annual North Carolina Photochemistry Symposium, UNC Chapel Hill* – (10/23/2021). (poster presentation)

67. **Shibu, A.**; Middleton, C. *****; Kwiatkowski, C. O. *****; Kaushal, M.; Walter, M. G.; "Self-Assembly-Directed Exciton Diffusion in Solution-Processable Carboalkoxyphenyl Metalloporphyrin Thin Films," *8th Annual North Carolina Photochemistry Symposium, UNC Chapel Hill* – (10/23/2021). (poster presentation)

68. **Barrett, J. ***; Brotherton, A. R. *****; Hanna, J. M.; Walter, M. G.; "Using Thiazolothiazoles as Photocatalysts in a Variety of Different Reactions," *Summer Research Symposium (NSF-REU) UNC Charlotte - (8/6/2021). (poster presentation)*

69. **Brotherton, A. R. ***; Walter, M. G.; "Synthesis of Thiazolothiazole Based Covalent Organic Frameworks and their Electrochemical and Photochemical Properties," *Summer Research Symposium (OUR) UNC Charlotte - (8/6/2021). (poster presentation)*

70. **Shibu, A.**; Kwiatkowski, C. *****; Middleton, C. *****; Kaushal, M.; Walter, M. G.; "A study on emission decay rates, molecular assembly, and exciton diffusion in metalated porphyrin thin films," *11th International Conference on Porphyrins and Phthalocyanines – (6/28/2021 – 7/3/2021). (online oral presentation)*

71. Adams, T. J.; Brotherton, A. R.; **Walter, M. G.**; "Electrochromic and Electrofluorochromic Properties of Thiazolothiazole Derivatives in Aqueous Polymer Gel-Based Devices," *IUPAC – MACRO 2020+ (5/18/2021). (online oral presentation)*

72. **Adams, T.**; Brotherton, A. R. *****; Molai, J. A. *****; Parmar, N. *****; Palmer, J. *****; Sandor, K. A. *****; Walter, M. G.; "Achieving reversible, high contrast electrochromism, electrofluorochromism, and photochromism in a water-based, air-stable hydrogel device with chromogenic thiazolothiazole derivatives," *American Chemical Society (ACS) National Meeting – (4/5/2021 – 4/30/2021). (online poster presentation – chosen for live poster session)*

73. Sayresmith, N. A.; Tang, K. *****; Mower, J. *** Walter, M. G.;** "Voltage Sensitive Dyes Based on Solvatofluorochromic, Push-Pull Thiazolothiazoles," *American Chemical Society (ACS) National Meeting – (4/5/2021 – 4/30/2021). (virtual oral presentation)*

74. **Brotherton, A.;** Adams, T. J.; Walter M. G.; "Synthesis and Electronic Properties of Polymerized Thiazolothiazole Derivatives," *2021 Virtual Undergraduate Research Conference (URC) UNC Charlotte* – (4/15/2021 – 4/16/2021). (*online poster presentation*)

75. **Diaz, D.***; Shibu, A.; Walter, M. G.; "Solution-Processable, Blue-Emissive Thiazolothiazole Fluorophores for OLED Applications," *2021 Virtual Undergraduate Research Conference (URC) UNC Charlotte* – (4/15/2021 – 4/16/2021). *(online oral presentation)*

76. **Tang, K.*;** Sayresmith, N. A.; Mower, J.; Walter, M. G.; "Novel Push-Pull Thiazolothiazole Fluorescent Dyes for Biological Environmental Sensing Applications," *2021 Virtual Undergraduate Research Conference (URC) UNC Charlotte* – (4/15/2021 – 4/16/2021). (*online poster presentation*)

77. **Thakur, E.**; Zhang, H.; Walter, M. G.; "Growth of silicon nanowires via lithography-free technique and study of effect of growth parameters on nanowire size and distribution," *2021 Graduate Research Conference UNC Charlotte* – (3/12/2021). *(online oral presentation)*

78. **Shibu, A.**; Diaz, D. *****; Kwiatkowski, C. *****; Walter, M. G.; "Studies on Structural and Photophysical Properties of Alkoxyphenyl Thiazolothiazole Based Molecules for OLED Applications," *2021 Graduate Research Conference UNC Charlotte* – (3/12/2021). *(online oral presentation)*

79. **Adams, T.**; Brotherton, A. R. *****; Molai, J. A. *****; Parmar, N. *****; Palmer, J. *****; Sandor, K. A. *****; Walter, M. G.; "Achieving reversible, high contrast electrochromism, electrofluorochromism, and photochromism in a water-based, air-stable hydrogel device with chromogenic thiazolothiazole derivatives," *2021 Graduate Research Conference UNC Charlotte* – (3/12/2021). *(online oral presentation)*

80. **Shibu, A.**; Diaz, D. *****; Walter, M. G.; "Modulation of Electronic, Structural, and Photophysical Properties of Alkoxyphenyl Thiazolothiazole based materials for OLED Applications," *Materials Research Society (MRS) Fall Meeting, Virtual Conference* – (11/27/2020 – 12/4/2020). *(online oral presentation)*

81. Adams, T. J.; **Brotherton, A. *;** Molai, J. *****; Parmar, N. *****; Walter M. G.; "Aqueous Thiazolothiazole Derivatives for Electrochromic, Electrofluorochromic, and Photochromic Multifunctional Devices," *The State of North Carolina Undergraduate Research and Creativity Symposium (SNCURCS), Virtual Seminar – (11/6/2020 – 11/7/2020). (oral presentation)*

82. **Diaz, D. ***; Kwiatkowski, C. *****; Shibu, A.; Walter, M. G.; "Determination of Quantum Yield and Molar Attenuation Coefficient of Dibutoxy Thiazolothiazole," *7th Annual North Carolina Photochemistry Symposium, Virtual Conference* – (10/7/2020 – 10/8/2020). *(online oral presentation)*

83. **Sayresmith, N. A.**; Mower, J. *****, Tang, K. *****; Walter, M. G.; "Photophysical Properties of Donor-Acceptor Thiazolothiazolium," *7th Annual North Carolina Photochemistry Symposium, Virtual Conference* – (10/7/2020 – 10/8/2020). *(online oral presentation)*

84. **Thakur, E.**; Ye, T.; Zhang, H.; Zhang, Y.; Walter, M. G.; "Effect of Growth Parameters on Si Nanowire Morphology and Distribution," *7th Annual North Carolina Photochemistry Symposium, Virtual Conference* – (10/7/2020 – 10/8/2020). *(online oral presentation)*

85. **Adams, T.**; Brotherton, A. R. *****; Molai, J. A. *****; Parmar, N. *****; Palmer, J. *****; Sandor, K. A. *****; Walter, M. G.; "Aqueous Thiazolothiazole Derivatives for Electrochromic, Electrofluorochromic, and Photochromic Multifunctional Devices," *7th Annual North Carolina Photochemistry Symposium, Virtual Conference* – (10/7/2020 – 10/8/2020). *(online oral presentation)*

86. **Shibu, A.**; Kwiatkowski, C. *****; Middleton, C. *****; Kaushal, M.; Walter, M. G.; "Study on Emission Decay Rates and Molecular Assembly of Metallated Carboalkoxyphenyl Pophryins," *7th Annual North Carolina Photochemistry Symposium, Virtual Conference* – (10/7/2020 – 10/8/2020). *(online oral presentation)*

87. **Meadows, J. C.**; Walter, M. G.; "Synthesis of Thiazolo[5,4-d]thiazole Derivatives for Use as Fluorescent Probes," *7th Annual North Carolina Photochemistry Symposium, Virtual Conference* – (10/7/2020 – 10/8/2020). *(online oral presentation*

88. **Sayresmith, N.**; Saminathan, A. ; Sailer, J. *****; Patberg, S. M. *****; Sandor, K. *****; Krishnan, Y.; Walter, M. G.; "Thiazolothiazoles as Voltage Sensitive Dyes," *6th Annual North Carolina Photochemistry Symposium, Appalachian State University, Boone, NC– (10/26/2019). (poster presentation)*

89. **Adams, T. J.**; Sabury, S., Kocherga, M.; Walter, M. G.; Kilbey, M.; "The Optical and Electronic Properties of Benzodithiophene-based Conjugated Polymers with Nucleobase Side Chain Functionality," *6th Annual North Carolina Photochemistry Symposium, Appalachian State University, Boone, NC– (10/26/2019). (poster presentation)*

90. **Shibu, A.**; Jones, S. *****; Jones, D.; Walter, M. G.; "Modulating Solid-State Electronic and Photophysical Properties of Thiazolothiazole Materials for OLED Applications," *6th Annual North Carolina Photochemistry Symposium, Appalachian State University, Boone, NC– (10/26/2019). (poster presentation)*

91. **Sandor, K. ***; Woodward, A. N. *****; Chabeda, J. I. *****; Walter, M. G.; "Synthesis, Characterization, and Electrochromic Properties of Highly fluorescent N,N α-Dibenzylated Thiazolothiazole Viologens," *6th Annual North Carolina Photochemistry Symposium, Appalachian State University, Boone, NC– (10/26/2019). (poster presentation)*

92. **Schmedake, T.**; Kocherga, M.; Walter, M. G.; Zhang, Y.; "Hexacoordinate silicon complexes for OPV and OLED applications," *6th Annual North Carolina Photochemistry Symposium, Appalachian State University, Boone, NC– (10/26/2019). (poster presentation)*

93. **Brotherton, A. *; Molai, J. ***; Adams, T.; Walter, M. G.; "Synthesis and Electrochromic Properties of Aqueous Thiazolothiazole Derivatives," *6th Annual North Carolina Photochemistry Symposium, Appalachian State University, Boone, NC– (10/26/2019). (poster presentation)*

94. **Sayresmith, N.**; Sailer, J. *****; Patberg, S. M. *****; Saminathan, A.; Sandor, K. *****; Krishnan, Y.; Walter, M. G.; "Using Thiazolothiazoles as Highly Stable and Highly Fluorescent Bridges for Electrochromic and Membrane Voltage Sensing Applications," *Southeastern Regional Meeting of the American Chemical Society (SERMACS), Savannah, GA – (10/23/2019). (oral presentation)*

95. **Kocherga, M.**; Walter, M. G.; Schmedake, T. A.; "Hexacoordinate Silicon Complexes for OPV and OLED Applications," *Southeastern Regional Meeting of the American Chemical Society (SERMACS), Savannah, GA – (10/22/2019). (poster presentation)*

96. **Adams, T. J.**; Sabury, S., Kocherga, M.; Walter, M. G.; Kilbey, M.; "Optical and Electronic Properties of Benzodithiophene-based Conjugated Polymers with Nucleobase Side Chain Functionality," *Southeastern Regional Meeting of the American Chemical Society (SERMACS), Savannah, GA – (10/22/2019). (poster presentation)*

97. **Palmer, J. ***; Sayresmith, N. A.; Walter, M. G.; "Aqueous Organic Redox Flow Battery Implementing a Robust Two-Electron Storage Anolyte," *Summer Research Symposium (NSF-REU) UNC Charlotte - (7/26/2019). (poster presentation)*

98. **Boyle, K. ***; Kocherga, M.; Schmedake, T. A.; Walter, M. G.; "Application of Hexacoordinate Silicon Complexes and Thiazolothiazoles in Organic Electronics," *Summer Research Symposium (CRS) UNC Charlotte - (7/26/2019). (poster presentation)*

99. Kaushal, M.; **Walter, M. G.**; "3 in 1 Polymer Semiconductor STEM Education Kit to Engage Students in Hands-on Polymer Inquiry Activities," *American Chemical Society (ACS) National Meeting – Orlando, FL – (4/1/2019). (oral presentation)*

100. **Kocherga, M.**; Schmedake, T. A.; Walter, M. G., Zhang, Y.; "Hexacoordinate Silicon Complexes for Applications in Organic Electronics," *American Chemical Society (ACS) National Meeting – Orlando, FL – (4/1/2019). (oral presentation)*

101. **Sayresmith, N.**; Sailer, J. *****; Sandor, K. *****; Patberg, S. M.*****; Walter, M. G.; "Donor-acceptor Thiazolothiazole Dyes Exhibiting Solvatofluorochromism, High Quantum Yields, and Large Electronic Dipoles Changes," *American Chemical Society (ACS) National Meeting – Orlando, FL – (4/1/2019). (oral presentation)*

102. Woodward, A. *****; Sandor, K.*****; Kassel, J.*****; Sailer, J.*****; Patberg, S. M.*****; Sayresmith, N.; Kaushal, M.; **Walter, M. G.**; "Undergraduate Photochemistry Research: The Photophysical Properties of Porphyrin Thin Films and Thiazolothiazole Viologens," *American Chemical Society (ACS) National Meeting – Orlando, FL – (4/2/2019). (oral presentation)*

103. Woodward, A.*****; **Sayresmith, N.**; Sailer, J.*****; Sandor, K.*****; Walter, M. G.; "Undergraduate Photochemistry Research: The Photophysical Properties of Porphyrin Thin Films and Thiazolothiazole Viologens," *American Chemical Society (ACS) National Meeting – Orlando, FL – (4/3/2019). (oral presentation)*

104. **Quan, C. ***; Taylor, Z. *****; Walter, M. G.; "Synthesis and Characterization of Diaryl Thiazolothiazole Dyes," *Undergraduate Research Conference (URC) UNC Charlotte* - (3/29/2019). (*poster presentation*)

105. **Middleton, C. ***; Ewing, K. *****; Walter, M. G.; "Understanding Photophysical Properties and Exciton Diffusion of Porphyrins for Photovoltaic Applications," *Undergraduate Research Conference (URC) UNC Charlotte* - (3/29/2019). (*poster presentation*)

106. **Herr, N. ***; Sayresmith, N. A.; Walter, M. G.; "The Synthesis and Characterization of Sulfonated Thiazolothiazole Dyes for Solar Energy Storage Applications," *Undergraduate Research Conference (URC) UNC Charlotte* - (3/29/2019). (*poster presentation*)

107. **Boyle, K. ***; Walter, M. G.; "Application of Hexacoordinate Silicon Complexes in OLEDs and OPVs" *Undergraduate Research Conference (URC) UNC Charlotte* - (3/29/2019). (*poster presentation*)

108. **Sandor, K. A. ***; Chabeda, J. I.*****; Woodward, A. N.*****; Walter, M. G.; "The Synthesis and Electrochromic Properties of Highly Fluorescent N, N'-Dibenzylated Thiazolothiazole Viologens," *Undergraduate Research Conference (URC) UNC Charlotte* - (3/29/2019). (*poster presentation*)

109. **Sailer, J.***; Patberg, S.*****; Sayersmith, N.; Walter, M. G.; "Syntheis and Characterization of Highly Fluorescent Thiazolothiazole Dyes," *Summer Research Symposium (NSF-REU - CRS) UNC Charlotte - (7/25/2018). (poster presentation)*

110. **Patberg, S.*;** Sailer, J.*****; Peralta, M.*****; Sayersmith, N.; Walter, M. G.; "Synthesis and Optoelectronic Characterization of Thiazolothiazole Compounds for Organic Light-Emitting Diodes and Molecular Photovoltaic Applications," *Summer Research Symposium (NSF-REU) UNC Charlotte - (7/25/2018). (poster presentation)*

111. **Walter, M. G.**; Enlow, J.; Marin, D. M.; "Using Polymer Semiconductors and a 3-in-1 Plastic Electronics STEM Education Kit To Engage Students in Hands-On Polymer Inquiry Activities," *International Union of Pure and Applied Chemistry (IUPAC) MACRO Conference – Cairns, Austrailia* - (7/5/2018). *(oral presentation)*

112. **Walter, M. G.**; Woodward, A.*****; Sandor, K.*****; Sayresmith, N.; "Highly Fluorescent Thiazolothiazole Viologen Redox Polymers: Photochemistry, Electrochromism, and Photoluminescence," *International Union of Pure and Applied Chemistry (IUPAC) MACRO Conference – Cairns, Austrailia* - (7/5/2018). *(oral presentation)*

113. **Sailer, J.*;** Sandor, K.*****; Sayersmith, N.*****; Walter, M. G.; "Synthesis and Purification Techniques of Asymmetric Push-Pull Thiazolothiazole Dyes," *Undergraduate Research Conference (URC) UNC Charlotte* - (4/20/2018). (*poster presentation*)

114. **Kaushal, M.**; Middleton, C.*****; Stiller, J.*****; Walter, M. G.; "Understanding the Exciton Diffusion Transport in Bulk Heterojunction and Bilayer Porphyrin Thin Films for OPV Applications," *Materials Research Society Meeting, Boston, MA* - (11/30/2017). *(poster presentation)*

115. **Cohen, D.**; Bostian, E.; Nguyen, L.; Walter, M. G.; "Conductive PEDOT:PSS Polymer Glue as an Ohmic and Rectifying Electrical Contact for H-terminated n-Si and p-Si Wafers," *Materials Research Society Meeting, Boston, MA* - (11/28/2017). *(poster presentation)*

116. **Walter, M. G.**; Enlow, J.; Marin, D. M.; "A Plastic Electronics STEM Education Kit Using Polymer Semiconductors," *Materials Research Society Meeting, Boston, MA* - (11/28/2017). *(oral presentation)*

117. **Walter, M. G.;** Woodward, A.*****; Sandor, K. *****; Chabeda, J. *****; "Highly Fluorescent Thiazolothiazole Viologens—Photochemistry, Electrochromism and Photoluminescence," *Materials Research Society Meeting, Boston, MA* - (11/27/2017). *(oral presentation)*

118. **Sayresmith, N.;** Sandor, K. *****; Woodward, A. *****; Walter, M. G.; "Synthesis and photophysical characterization of novel asymmetric thiazolothiazole dyes exhibiting remarkable solvatofluorochromism," *Southeastern Regional Meeting of the American Chemical Society (SERMACS)*, Charlotte, NC - (11/10/2017). (*poster presentation*)

119. **Walter, M. G.**; Enlow, J.; Marin, D. M.; "A Plastic Electronics STEM Education Kit Using Polymer Semiconductors," *Southeastern Regional Meeting of the American Chemical Society (SERMACS)*, Charlotte, NC - (11/10/2017). (*oral presentation*)

120. **Chabeda, J.;** Sandor, K. *****; Woodward, A. *****; Walter, M. G.; "The Electrochemistry of Pyridinium Thiazolo[5,4-d]thiazoles," *Southeastern Regional Meeting of the American Chemical Society (SERMACS)*, Charlotte, NC - (11/10/2017). (*poster presentation*)

121. **Woodward, A. ***; Sandor, K. *****; Chabeda, J. *****; Walter, M. G.; "The Photochemical and Electrochemical Properties of N,N′-Dibenzylated Thiazolo[5,4-d]thiazole Derivatives for Energy Storage," *Southeastern Regional Meeting of the American Chemical Society (SERMACS)*, Charlotte, NC - (11/10/2017). (*poster presentation*)

122. **Sandor, K. ***; Chabeda, J. *****; Woodward, A. *****; Walter, M. G.; "The Synthesis and Electrochromic Properties of Highly Fluorescent N,N´-Dibenzylated Thiazolothiazole

Viologens," *Southeastern Regional Meeting of the American Chemical Society (SERMACS)*, Charlotte, NC - (11/10/2017). (*poster presentation*)

123. **Cohen, D.**; Bostian, E.; Nguyen, L.; Walter, M. G.; "Conductive PEDOT:PSS Polymer Glue as an Ohmic and Rectifying Electrical Contact for H-terminated n-Si and p-Si Wafers," *Southeastern Regional Meeting of the American Chemical Society (SERMACS)*, Charlotte, NC - (11/10/2017). (*poster presentation*)

124. **Miller, B.**; Marin, D. M.; Grubich, N. G.; Walter, M. G.; "Synthesis and Purification of an Asymmetric Thiazolothiazole: Pyr-TTz-Bu_2N*," Carolina-Piedmont local ACS Meeting, Charlotte, NC* - (9/14/2017). (*poster presentation*)

125. **Kaushal, M.**; Middleton, C. *****; Stiller, J. *****; Walter, M. G.; "Understanding the Exciton Diffusion Transport in Bulk Heterojunction and Bilayer Porphyrin Thin Films for OPV Applications," *Charlotte Teachers Institute (CTI) Summer Poster Presentation* - (9/7/2017). (*poster presentation*)

126. **Chabeda, J. I. ***; Woodward, A. N. *****; Sandor, K. A. *****; Kolesar, J. M. *****; Walter, M. G.; "The Synthesis and Characterization of Thiazolothiazole (TTz^{2+}) Derivatives," *Chemistry Research Symposium (NSF-REU) UNC Charlotte - (8/3/2017). (oral presentation)*

127. **Woodward, A. N. ***; Kolesar, J. M. *****; Sandor, K. A. *****; Chabeda, J. I. *****; Hall, S. J. *****; Saleh, N. A. *****; Jones, D. S.; Walter, M. G.; "The Photochemical and Electrochemical Properties of N,N′-Dibenzylated Thiazolo[5,4-d]thiazole Derivatives for Energy Storage," *Summer Research Symposium (NSF-REU) UNC Charlotte - (7/26/2017). (poster presentation)*

128. **Chabeda, J. I. ***; Woodward, A. N. *****; Sandor, K. A. *****; Kolesar, J. M. *****; Walter, M. G.; "The Synthesis and Characterization of Thiazolothiazole (TTz^{2+}) Derivatives," *Summer Research Symposium (NSF-REU) UNC Charlotte - (7/26/2017). (poster presentation)*

129. **Walter, M. G.**; Enlow, J.; Marin, D. M.; Cook, J.; "Advancing Educator Knowledge through Local Researcher Partnerships Using a New Polymer Semiconductor Education Kit and Curriculum*," IUPAC – World Chemistry Congress*, São Paulo, Brazil - (7/10/2017). (*oral presentation*)

130. **Middleton, C. ***; Kaushal, M.; Walter, M. G.; "Understanding Singlet Exciton Diffusion Transport in Carboalkoxyphenyl Porphyrin Derivatives for OPV Applications," *Undergraduate Research Conference (URC) UNC Charlotte* - (4/21/2017). (*poster presentation*)

131. **Woodward, A. N. ***; Kolesar, J. M. *****; Hall, S. J. *****; Saleh, N. A. *****; Jones, D. S.; Walter, M. G.; "Highly Fluorescent Thiazolothiazole Viologens with Active Electrochromism," *Undergraduate Research Conference (URC) UNC Charlotte* - (4/21/2017). (*oral presentation*)

132. **Miller, B.**; Marin, D. M.; Grubich, N. G.; Walter, M. G.; "Synthesis and Purification of an Asymmetric Butoxy Thiazolothiazole*," NC Junior Science and Humanities Symposium*, Wilmington, NC - (3/20/2017). (*poster presentation*)

133. **Marin, D. M.**; Grubich, N. G.; Gebreyowhance, K. *****; Woodward, A. N. *****; "New Porphyrin-Thiazolothiazole (Donor-Acceptor) Materials for Molecular Photovoltaic Applications," *Materials Research Society Meeting*, Boston, MA - (11/30/2016). (*poster presentation*)

134. **Woodward, A. N. ***; Kolesar, J. M. *****; Hall, S. J. *****; Walter, M. G.; "Highly Fluorescent Thiazolothiazole Viologens with Active Electrochromism," *Materials Research Society Meeting*, Boston, MA - (11/30/2016). (*oral presentation*)

135. Enlow, J.; Marin, D. M.; **Walter, M. G.**; "Advancing 9-12 Educator Knowledge through Collaborative Local Researcher Partnership Using a New Polymer Semiconductor Education Kit*," Materials Research Society Meeting*, Boston, MA - (11/29/2016). (*oral presentation*)

136. Enlow, J.; Marin, D. M.; **Walter, M. G.**; "Advancing 9-12 Educator Knowledge Using a New Polymer Semiconductor Education Kit," *Southeastern Regional Meeting of the American Chemical Society (SERMACS)*, Columbia, SC - (11/4/2016). (*oral presentation*)

137. **Marin, D. M.**; Keming, R.; Kaushal, M.; Kolesar, J. M. *****; Hall, S. J. *****; Marin, D. M.; Miller, B.; Walter, M. G.; "Synthesis and Photophysical Characterization of Novel Porphyrin Donor Acceptor Materials," *Southeastern Regional Meeting of the American Chemical Society (SERMACS)*, Columbia, SC - (11/4/2016). (*oral presentation*)

138. **Kaushal, M.**; Srinvasamurthy, P.; Walter, M. G.; "Understanding effects of Heating in long alkyl chain carboalkoxyphenyl porphyrins in Porphyrin-Fullerene Bilayer solar cells," *Southeastern Regional Meeting of the American Chemical Society (SERMACS)*, Columbia, SC - (11/4/2016). (*oral presentation*)

139. **Woodward, A. N. ***; Kolesar, J. M. *****; Hall, S. J. *****; Walter, M. G.; "Highly Fluorescent Thiazolothiazole Viologens with Active Electrochromism," *Southeastern Regional Meeting of the American Chemical Society (SERMACS)*, Columbia, SC - (10/24/2016). (*oral presentation*)

140. **Kaushal, M.**; Ortiz, A. L.; Srinvasamurthy, P.; Walter, M. G.; "Understanding the Exciton Diffusion Transport in Bulk Heterojunction and Bilayer Thin Porphyrin Films for OPV Applications," *Joint NC State / UNC Charlotte Photochemistry Symposium, NC Photochem.* – Charlotte, NC, (10/1/2016). (*poster presentation*)

141. **Woodward, A. N.**; Kolesar, J. M. *****; Hall, S. J. *****; Saleh, N. A. *****; Jones, D. S.; Walter, M. G.; "Highly Fluorescent Thiazolothiazole Viologens with Active Electrochromism," *Joint NC State / UNC Charlotte Photochemistry Symposium, NC Photochem.* – Charlotte, NC, (10/1/2016). (*poster presentation*)

142. **Miller, B.**; Marin, D. M.; Grubich, N. G.; Walter, M. G.; "Synthesis and Purification of an Asymmetric Butoxy Thiazolothiazole*," Carolina-Piedmont local ACS Meeting*, Charlotte, NC - (9/21/2016). (*poster presentation*)

143. **Woodward, A. N.**; Kolesar, J. M. *****; Hall, S. J. *****; Saleh, N. A. *****; Jones, D. S.; Walter, M. G.; "The Photoelectrochemical Properties of Thiazole-Based Acceptor Materials for Porphyrin Solar Light Harvesting Systems," Summer *Research Symposium (NSF-REU) UNC Charlotte* - (7/27/2016). (*poster presentation*)

144. **Saleh, N. A. ***; Jones, D. S.; Walter, M. G.; "The Photoelectrochemical Properties of Thiazole-Based Acceptor Materials for Porphyrin Solar Light Harvesting Systems," Summer *Research Symposium (NSF-REU) UNC Charlotte* - (7/27/2016). (*poster presentation*)

145. **Woodward, A. N. ***; Ren, K.; Marin, D. M.; Kolesar, J. M. *****; Walter, M. G.; "Synthetic Investigations of Benzothiazole Heterocycles for Porphyrin-Based Donor-Acceptor Photochemical Systems," *Undergraduate Research Conference (URC) UNC Charlotte* - (4/22/2016). (*poster presentation*)

146. **Kolesar, J. M. ***; Hall, S. J. *****; Walter, M. G.; "Synthesis and Electrochemical Characterization of Alkylated Dipyridyl Thiazolothiazoles," *Undergraduate Research Conference (URC) UNC Charlotte* - (4/22/2016). (*poster presentation*)

147. **Kaushal, M.**; Ortiz, A. L.; Singh, G.; Walter, M. G.; "Studying Morphology, Photophysical and Thermal Properties of Long Alkyl Chain Porphyrins in Organic Solar Cells," *Graduate Research Symposium (GRS) UNC Charlotte* - (4/2/2016). (*oral presentation*)

148. **Marin, D. M.**; Keming, R.; Walter, M. G.; "Porphyrin Acceptor-Donor-Acceptor Materials for Photovoltaic Applications," *Graduate Research Symposium (GRS) UNC Charlotte* - (4/2/2016). (*poster presentation*)

149. **Ren, K**; Marin, D. M.; Kolesar, J. M. *****; Hall, S. J. *****; Grubich, N. G.; Walter, M. G.; "The development of porphyrin-thiazolothiazole donor-acceptor materials for solar energy conversion," *Graduate Research Symposium (GRS) UNC Charlotte* - (4/2/2016). (*poster presentation*)

150. **Kaushal, M.**; Ortiz, A. L.; Kassel, J. A. *****; Lee, D. T. (*HS Student*); Singh, G.; Walter, M. G.; "Linking Molecular Structure and Singlet Exciton Diffusivity in Photoactive Porphyrin Thin Films," *American Chemical Society Meeting (ACS) Meeting*, San Diego, CA - (3/15/2016). (*poster presentation*)

151. **Ren, K.**; Marin, D. M.; Kolesar, J. M. *****; Hall, Sara J. *****; Grubich, N. G.; Walter, M. G.; "Synthesis and Photoluminescence Properties of Porphyrin Donor-Acceptor Materials," *American Chemical Society Meeting (ACS) Meeting*, San Diego, CA - (3/15/2016). (*poster presentation*)

152. **Enlow, J.**; Walter, M. G.; "Bridging the Gap with a Polymer Semiconductor Education Kit," *American Chemical Society Meeting (ACS) Meeting*, San Diego, CA - (3/13/2016). (*oral presentation*)

153. **Enlow, J.**; Walter, M. G.; "Bridging the Gap and Inspiring Innovation in Material Science Education at the Secondary Level through a New Polymer Semiconductor Kit," *Materials Research Society (MRS) Meeting*, Boston, MA - (12/1/2015). (*oral presentation*)

154. Kaushal, M.; Ortiz, A. L.; Marin, D. M.; Kassel, J. A. *****; Ren, K.; Enlow, J.; **Walter, M. G.;** "Linking Molecular Structure and Singlet Exciton Diffusion Length in Carboalkoxyphenylporphyrin Thin films*," NateFest 60 Research Symposium*, Pasadena, CA - (11/6/2015). (*poster presentation*)

155. **Lee, D. T. (*HS Student*)**; Kaushal, M.; Singh, G.; Ortiz, A. L.; Kassel, J. A. *****; Walter, M. G.; "Elucidating the Exciton Transport in Tetracarboalkoxyphenyl Porphyrin Thin Films for Enhanced Organic Optoelectronics*," Southeastern Regional Meeting of the American Chemical Society (SERMACS)*, Memphis, TN - (11/4/2015). (*poster presentation*)

156. **Enlow, J.**; Walter, M. G.; "New Semiconductor Polymer Education Kit," *4th Annual Bridging the Gap Conference*, Raleigh, NC - (10/28/2015). (*oral presentation*)

157. **Kaushal, M.**; Marin, D. M.; Ortiz, A. L.; Lee, D. T. (*HS Student*); Walter, M. G.; "Linking Molecular Structure and Singlet Exciton Diffusivity in Photoactive Porphyrin Thin Films," *Solar Energy Research Center Conference - EFRC*, Chapel Hill, NC - (10/15/2015). (*poster presentation*)

158. Ren, K.; Marin, D. M.; Kolesar, J. M. *****; Hall, Sara J. *****; Grubich, N. G.; **Walter, M. G.;** "The Development of Porphyrin-Thiazolothiazole Donor-Acceptor Materials for Solar

Energy Conversion," *Solar Energy Research Center Conference - EFRC*, Chapel Hill, NC - (10/15/2015). (*poster presentation*)

159. **Marin, D. M.**; Walter, M. G.; "Singly Halogenated Carbomethoxyphenyl Porphyrin Derivatives as Triplet Sensitizers for Photovoltaics, Photocatalysis and Photodynamic Therapy*," Joint NC State / UNC Charlotte Photochemistry Symposium, NC Photochem.* – Charlotte, NC, (10/10/2015). (*poster presentation*)

160. **Kolesar, J. M. ***; Marin, D. M.; Ren, K.; Hall, S. J. *****; Walter, M. G.; "Synthesis and Electrochemical Characterization of Alkylated Dipyridyl Thiazolothiazole Compounds*," Joint NC State / UNC Charlotte Photochemistry Symposium, NC Photochem.* – Charlotte, NC, (10/10/2015). (*poster presentation*)

161. **Ren, K.**; Marin, D. M.; Kolesar, J. M. *****; Hall, S. J. *****; Grubich, N. G.; Walter, M. G.; "Synthesis and Electrochemical Characterization of Alkylated Dipyridyl Thiazolothiazole Compounds*," Joint NC State / UNC Charlotte Photochemistry Symposium, NC Photochem.* – Charlotte, NC, (10/10/2015). (*poster presentation*)

162. **Kaushal, M.**; Ortiz, A. L.; Lee, D. T. (*HS Student*); Singh, G.; Walter, M. G.; "Thermal Behavior and Morphology of Long Alkyl Chain Porphyrins for Photovoltiacs," *Joint NC State / UNC Charlotte Photochemistry Symposium, NC Photochem.* – Charlotte, NC, (10/10/2015). (*poster presentation*)

163. **Kromtit, P. (*HS Student*);** Hall, S. J. *****; Kolesar, J. M. *****; Walter, M. G.; "Synthesis and Characterization of Dipyridyl Thiazolothiazole Materials," *Carolina-Piedmont local ACS Meeting* – (9/30/2015). (*poster presentation*)

164. **Hall, S. J. ***; Walter, M. G.; "Photoluminescence Properties of Porphyrin-Thiazolothiazole Materials," *Summer Research Symposium (Charlotte Research Scholars) UNC Charlotte* - (7/22/2015). (*poster presentation*)

165. **Bostian, M. E. ***; Kassel, J. A. *****; Walter, M. G.; "The Electrical Properties of Simple Devices Glued with D-Sorbitol Doped PEDOT:PSS," *Summer Research Symposium (NSF-REU) UNC Charlotte* - (7/22/2016). (*poster presentation*)

166. **Gold, A. ***; Kassel, J. A. *****; Walter, M. G.; "Solar Generative Micro-Wire Arrays," Summer *Research Symposium (NSF-REU) UNC Charlotte* - (7/22/2016). (*poster presentation*)

167. **Azarbayjani, M.;** Walter, M. G.; "Collaborative Education in Integration of Building Technology," *American Solar Energy Society - ASES,* The Pennsylvania State University, PA – (7/10/2015). (*oral presentation*)

168. **Marin, D. M.**; Payerpaj, S. *****; Stack, M. L. *****; Collier, G. S.; Ortiz, A. L.; Walter, M. G.; "Analysis of Halogenated Carbomethoxyphenyl Porphyrin Derivatives as Potential Photodynamic Therapy Photosensitizers," *Center for Biomedical Engineering and Science Graduate Student Poster Competition,* UNC Charlotte – (5/1/2015). (*poster presentation*)

169. **Nguyen, T. ***; Kassel, J. A. *****; Ortiz, A. L.; Kaushal, M.; Walter, M. G.; "Calculation of Exciton Diffusion Lengths of Porphyrin Thin Films Using a Monte Carlo Diffusion Model," *Undergraduate Research Conference (URC) UNC Charlotte* - (4/24/2015). (*poster presentation*)

170. **Stack, M. ***; Marin, D. M.; Walter, M. G.; "The Synthesis of Corroles for Telomere Targeting & PDT: Shining Light on Combinational Therapeutics," *Undergraduate Research Conference (URC) UNC Charlotte* - (4/24/2015). (*poster presentation*)

171. **Nguyen, L. ***; Walter, M. G.; "Solution Processable Tandem Silicon-Perovskite Solar Cell Employing a Spiro-OMeTAD Junction," *Graduate Research Symposium (GRS) UNC Charlotte* - (4/11/2015). (*oral presentation*)

172. **Ross, K. (*HS Student*)**; Walter, M. G.; "The Photophysical Properties of Thiazolothiazole Fused Compounds," – *Intel International Science and Engineering Fair (ISEF) – NC Regional Science Fair, UNC Charlotte* – (3/28/2015). (*poster presentation*)

173. **Lee, D. T. (*HS Student*); Nanor, A. (*HS Student*)**; Walter, M. G.; "Optimization and Understanding of Exciton Diffusion in Organic Solar Cells via Novel Monte Carlo Modeling," - *ISEF – NC Regional Science Fair, UNC Charlotte* – (3/27/2015). (*poster presentation*)

174. **Lee, D. T. (*HS Student*); Nanor, A. (*HS Student*)**; Walter, M. G.; "Optimization and Understanding of Exciton Diffusion in Organic Solar Cells via Novel Monte Carlo Modeling," – *North Carolina Student Academy of Sciences (NCSAS)* – (2/7/2015). (*poster presentation*)

175. *Synthesis of Thiazolothiazole Functionalized Porphyrins for Organic Solar Cell Applications* (Poster presentation – **Nicholas Grubich**) - Joint NC State / UNC Charlotte Photochemistry Symposium, NC Photochem. – Raleigh, NC, October 2014.

176. *Photoelectrochemical Dynamics of Catalyst-Coated Organic Bulk-Heterojunction Photocathodes for Solar Hydrogen Evolution* (Poster Presentation – **Reynolds Ivins**) - - Joint NC State / UNC Charlotte Photochemistry Symposium, NC Photochem. – Raleigh, NC, October 2014.

177. *Analysis of the Heavy Atom Effect on the Photophysical Properties of Tetrakis(4-carbomethoxyphenyl)porphyrin derivatives- Potential Photosensitizers for Photodynamic Therapy* (Poster Presentation – **Dawn M. Marin**) - Joint NC State / UNC Charlotte Photochemistry Symposium, NC Photochem. – Raleigh, NC, October 2014.

178. *Hybrid Organic-Inorganic Perovskite Augmented Silicon Tandem Solar Cell* (Poster Presentation – **Li Nguyen***) - Joint NC State / UNC Charlotte Photochemistry Symposium, NC Photochem. – Raleigh, NC, October 2014.

179. *Charge Transfer from Porphyrins to Thiazolothiazole for Applications with Porphyrin-Based Organic Solar Cells* (Poster Presentation – **Vinnie Cura***) – Undergraduate Research Symposium, UNC Charlotte – April 25th 2014.

180. *Synthesis and Characterization of FePt Nanoparticles for Catalytic Hydrogen Evolution* (Poster Presentation – **Vrushab L. Gowda***) - Undergraduate Research Symposium, UNC Charlotte – April 25th 2014.

181. *Chemical and Electrochemical Synthesis of Poly-(3-thienyl)corroles* (Poster Presentation – **Thao Nguyen***) - Undergraduate Research Symposium, UNC Charlotte – April 25th 2014.

182. *Controlling the Interfacial Junction Properties of Hybrid Organic/Inorganic PEDOT:PSS / n-, p-, and n+-Si Devices for Solar Energy Conversion Applications.* (Oral Presentation **- Walter, M. G.**) Southeastern Regional Meeting of the American Chemical Society, November 2013.

183. *Porphyrin Dyads with Thiophene-Containing Bridging Units For Solution-Processable Organic Solar Cells.* (Oral Presentation - **Walter, M. G.**) International Union of Pure and Applied Chemistry (IUPAC) World Chemistry Congress (Oral Presentation) Istanbul, Turkey, August 2013.

184. *Small Molecule Porphyrin Dyad with Conjugated Organic Linker for Organic Solar Cell Development.* (Oral Presentation - M.S. Student - **Collier, G. S.**) American Chemical Society Meeting, New Orleans, LA, April 2013.

185. *Light-harvesting Porphyrin Dyads with Varying Thiophene Linkers for Organic Solar Cell Development.* (- Poster Presentation - M.S. Student - **Collier, G. S.**) Materials Research Society Meeting, San Francisco, CA, April 2013.

186. *Development of Tetraphenylporphyrin Dyads for Thin Film Organic Photovoltaic Devices.* (Poster Presentation - B.S. Student - **Ivins, R. J.**) Materials Research Society Meeting, San Francisco, CA, April 2013.

187. *Corrole Derivatives for Bulk Heterojunction Solar Cells.* (Poster Presentation - B.S. Student - **Lyles, Z. ***) Materials Research Society Meeting, San Francisco, CA, April 2013.

188. *Small-Molecule Porphyrin Dyads with Conjugated Bithiophene Linker for Organic Solar Cell Development.* (M.S. Student – **Collier, G. S.** - Poster Presentation) Southeastern Regional Meeting of the American Chemical Society, Raleigh, NC, November 2012.

189. *Synthesis and Spectroscopy of Silicon Corrole Derivatives.* (Poster Presentation - B.S. Student – **Lyles, Z. ***) Southeastern Regional Meeting of the American Chemical Society, Raleigh, NC, November 2012.

190. *Development of Tetraphenylporphyrin Dyes for Thin Film Organic Photovoltaic Devices.* (Poster Presentation - B.S. Student - **Ivins, R. J. ***) Southeastern Regional Meeting of the American Chemical Society, Raleigh, NC, November 2012.

191. *Small-Molecule Porphyrin Dyads with Conjugated Bithiophene Linker for Organic Solar Cell Development.* (Oral Presentation - M.S. Student – **Collier, G. S.**) Materials Research Society Meeting, Boston, MA, November 2012.

192. *Porphyrin Sensitizers for Photovoltaic and Photoelectrochemical Applications.* (Poster Presentation - **Walter, M. G.**) Electron Donor-Acceptor Interactions Gordon Research Conference, Newport, RI, August 2012.

193. *Porphyrin Polymers for Solar Energy Conversion.* (Oral Presentation - **Walter, M. G.**) International Union of Pure and Applied Chemistry (IUPAC) Macromolecules (MACRO), (Oral Presentation) Blacksburg, VA, June 2012.

194. *Silicon Surface Functionalization and Dopant Concentration Dependencies of Conductive Polymer (PEDOT) Electrical Contacts on p- and n-Si Microwire Arrays.* (Oral Presentation - **Walter, M. G.**) Materials Research Society Meeting, San Francisco, CA, April 2011.

195. *Electrochemical Formation of Conductive Nanofibrous Polymers of Aminophenylporphyrins.* (Poster Presentation - **Walter, M. G.**) Sixth International Conference on Porphyrins and Phthalocyanines, Albuquerque, NM, July 2010.

196. *Electrochemical Formation of Conductive Polymers of Aminophenylporphyrins.* (Poster Presentation - **Walter, M. G.**) American Chemical Society Meeting, San Francisco, CA, March 2010.

197. *Conductive Polymer (PEDOT:PSS) Contacts for Silicon Microrod Array Photoconversion Applications.* (Poster Presentation - **Walter, M. G.**) Materials Research Society Meeting, Boston, MA, November 2009.

198. *Nanostructured Aminophenylporphyrin Films for Use in Bulk Heterojunction and Inverse Dye-sensitized TiO_2 Solar Cells.* (Oral Presentation - **Walter, M. G.**) Excitonic Solar Cell Conference, Coventry, UK, September 2008.

199. *Conductive Polymers of Aminophenylporphyrins: Mechanisms for Polymerization and Electronic Conductivity*. (Poster Presentation - **Walter, M. G.**) Materials Research Society Meeting, San Francisco, CA, April 2008.

200. *Synthesis and Characterization of Electropolymerized Porphyrin Nanofibers.* (Oral Presentation - **Walter, M. G.**) Materials Research Society Meeting, San Francisco, CA, April 2007.

201. *Nanomaterials for Hybrid Organic/TiO_2 Solar Cells.* (Oral Presentation - **Walter, M. G.**) Columbia-Willamette Sigma Xi Student Research Symposium, April 2006.

202. *Porphyrin-Sensitized TiO_2 Solar Cells: Porphyrin Syntheses.* (Oral Presentation - **Walter, M. G.**) Oregon Academy of Sciences, Portland State University, Portland, OR, February 2004.