JOHN D. SIVEY

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EDUCATION AND TRAINING

Postdoctoral **Chemical and Environmental Engineering** (2011 – 2012)
Yale University

Ph.D. **Environmental Engineering and Chemistry** (2011)
Johns Hopkins University
Dissertation: *Abiotic Redox Reactions of Chloroacetamide Herbicides, Safeners and Structural Analogs in Natural and Engineered Systems*

M.S. **Environmental Engineering and Science** (2005)
Clemson University
Thesis: *Comprehensive Congener-Specific Analysis as an Assessment Tool for Polychlorinated Biphenyl (PCB) Contamination Trends in Lake Hartwell, SC*

B.S. **Chemistry**, with American Chemical Society (ACS) Certification (2003)
Central Michigan University

Engineer-in-Training (EIT) Certification, State of Maryland (2010)

PROFESSIONAL APPOINTMENTS

TOWSON UNIVERSITY (Towson, MD)
- **Chairperson**, Department of Chemistry (2023–current)
- **Professor**, Environmental and Analytical Chemistry (2022–current)
- **Director**, Environmental Science Graduate Programs (2021–2023)
- **Associate Professor (with tenure)**, Environmental and Analytical Chemistry (2018–2022)
- **Jess and Mildred Fisher Endowed Professor of Chemistry** (2015–2018)
- **Assistant Professor**, Environmental and Analytical Chemistry (2012–2018)

JOHNS HOPKINS UNIVERSITY (Baltimore, MD)
- **Lecturer**, Environmental Engineering and Science, Whiting School of Engineering (2017–current)
- **Graduate Research Fellow and Teaching Assistant**, Environmental Engineering (2005–2011)

VILLANOVA UNIVERSITY (Villanova, PA)
- **Visiting Research Professor**, Civil and Environmental Engineering (2019–2020)

YALE UNIVERSITY (New Haven, CT)
- **Postdoctoral Associate**, Chemical and Environmental Engineering (2011 – 2012)

MARYLAND INSTITUTE COLLEGE OF ART (Baltimore, MD)
- **Lecturer**, Environmental Science (2010–2012)

CLEMSON UNIVERSITY (Clemson, SC)
- **Instructor and Graduate Teaching Assistant**, Environmental Engineering and Science (2003–2005)

CENTRAL MICHIGAN UNIVERSITY (Mount Pleasant, MI)
- **Research Assistant**, Chemistry (2001–2003) and **Teaching Assistant**, Mathematics (2002–2003)

DOW CHEMICAL CO. (Midland, MI)
- **Student Technologist**, Analytical Pharmaceuticals Division (2000)

HONORS

National/International Honors

18. Henry Dreyfus Teacher-Scholar Award (2020) [one of eight national awardees]
17. ACS Editors' Choice paper recognition in *Environmental Science and Technology Letters* (2020)
16. Research paper featured on the cover of *Analytical Methods* (2019)
15. PUI Award, Gordon Research Conference on *Water Disinfection, Byproducts and Health* (2019)
14. Best Papers of 2018 recognition for two papers from the Royal Society of Chemistry's *Environmental Science* family of journals.
13. Research paper featured on the cover of *Environmental Science: Water Research & Technology* (2018)
12. Selected to participate in the Emerging Investigators Series by the editorial staff of *Environmental Science: Water Research & Technology* (2018)
11. National Science Foundation CAREER Award (2017)
10. Gordon Research Conference (Disinfection Byproducts) Poster Award (2017) [two awards among 60 invited posters]; co-awarded with S. Lau et al.
9. AGRO New Investigator Award Finalist (2015) [highest award given to early-career scientists by the ACS Division of Agrochemistry]
8. Gordon Research Conference (Environmental Science: Water) Poster Award (2010) [three awards among 70 invited international graduate/postdoctoral researchers]
7. C. Ellen Gonter Environmental Chemistry Award (2010) [highest national award given to graduate students by the ACS Division of Environmental Chemistry]
6. National Conference 1st Place Poster Award, ACS Division of Agrochemicals (2010)
5. National Conference Travel Grant, ACS Division of Agrochemicals (2010)
4. Graduate Student Award, ACS Division of Environmental Chemistry (2010)
3. Environmental Protection Agency S.T.A.R. Graduate Research Fellowship (2008-2010)
2. American Water Works Association Abel Wolman Fellowship (2007-2009) [highest award given to a doctoral student by the American Water Works Association; one award per year in North America]
1. American Water Works Association Larson Aquatic Research Support Doctoral Scholarship (2006) [one award per year in North America]

Local/Regional Honors

17. Presidential Faculty Award for Excellence in Research, Towson University (2023)
16. Honors College Professor of the Year, Towson University (2021)
15. University System of Maryland Regents' Faculty Award Scholarship, Research, or Creative Activity – Towson University Nominee [three nominees per year] (2019)
14. Faculty Award for Excellence in Research, Fisher College of Science and Mathematics, Towson University [one recipient per year] (2017)
13. Jess and Mildred Fisher Endowed Chair, Fisher College of Science and Mathematics, Towson University [one pre-tenure recipient per year; three-year appointment] (2015–2018)
12. Maryland Water Resources Research Center Graduate Student Fellowship (2008)
11. Achievement Rewards for College Scientists (ARCS) Scholarship (2007)
10. Achievement Rewards for College Scientists (ARCS) Endowment Fellowship (2006)
9. Dean Robert H. Roy Doctoral Fellowship, Johns Hopkins University (2005)
8. Department of Geography and Environmental Engineering Fellowship, Johns Hopkins University (2005)
7. Lee and Al Halff Fellowship, Johns Hopkins University (2005)
6. South Carolina Environmental Scholar Fellowship, Clemson University (2004)
5. R.C. Edwards Research Fellowship, Clemson University (2003)
4. Honors Program Academic Excellence Award, Central Michigan University (2003) [highest academic award given to a graduating senior at this institution – two awards per 3400 graduates]

3. ACS Outstanding College Chemistry Student, Midland MI Section (2003)
2. Outstanding Chemistry Student Award, Central Michigan University (2000 and 2002)
1. Centralis Scholar Award, Central Michigan University (1999) [highest academic scholarship awarded to incoming freshmen – 20 awards per 1400 applicants]

PEER-REVIEWED PUBLICATIONS (30 publications, 23 from independent career)

undergraduate student mentees; graduate student mentees; *corresponding author

Independent

30. Psoras, A. W.; McCoy, S. W.; Reber, K. P.; McCurry, D. L.; **Sivey, J. D.*** Ipso substitution of aromatic bromine in chlorinated waters: Impacts on trihalomethane formation. *Environ. Sci. Technol.* **2023**, *In press.* (Link)

29. McFadden, M.; Reber, K. P.; **Sivey, J. D.**; Cwiertny, D. M.; LeFevre, G.* Microbial biotransformation products and pathways of dichloroacetamide herbicide safeners. *Environ. Sci. Technol. Lett.* **2023**, *10*, 72-78. (Link)

28. Li, Z.; Jorn, R.; Samonte, P. R.; **Sivey, J. D.**; Pignatello, J. J.; Xu, W.* Surface-Catalyzed Hydrolysis by Pyrogenic Carbonaceous Matter and Model Polymers: An Experimental and Computational Study on Functional Group and Nanopores. *Appl. Catal. B: Environ.* **2022**, *319*, 121877. (Link)

27. Szczuka, A.; Horton, J.; Evans, K. J.; DiPietri, V. T.; **Sivey, J. D.**; Wigginton, K. R.* Chloride enhances DNA reactivity with chlorine at conditions relevant to water treatment. *Environ. Sci. Technol.* **2022**, *56*, 13347–13356. (Link)

26. Reber, K. P.*; **Sivey, J. D.**; Vollmuth, M.; Gujarati, P. D. Synthesis of ^{13}C-labeled parabens from isotopically enriched phenols using the Houben-Hoesch reaction. *J. Labelled Compd. Radiopharm.* **2022**, *65*, 254-263. (Link)

25. Lanasa, S.; Niedzwiecki, M.; Reber, K.; East, A.; **Sivey, J.**; Salice, C.* Comparative toxicity of herbicide active ingredients, safeners additives and commercial formulations to non-target algae, *Raphidocelis subcapitata*. *Environ. Toxicol. Chem.* **2022**, *41*, 1466-1476. (Link)

24. McFadden, M. E.; Patterson, E. V.; Reber, K. P.; Gilbert, I. W.; **Sivey, J. D.**; LeFevre, G. H.; Cwiertny, D. M.* Acid- and base-mediated hydrolysis of dichloroacetamide herbicide safeners. *Environ. Sci. Technol.* **2022**, *56*, 325-334. (Link)

23. Xu, X.; Gujarati, P. D.; Okwor, N.; **Sivey, J. D.**; Reber, K. P.; Xu, W.* Reactivity of chloroacetamides toward sulfide + black carbon: Insights from structural analogues and dynamic NMR spectroscopy. *Sci. Total Environ.* **2022**, *803*, 150064. (Link)

22. Kim, E.; Driessen, O. M.; McCurry, D. M.*; **Sivey, J. D.*** Intermural, online research group meetings as professional development tools for undergraduate, graduate, and postdoctoral trainees. *Environ. Eng. Sci.* **2022**, *39*, 101-104. (Link)

21. Schammel, M. H.; Martin-Culet, K. R.; Taggart, G. A.; **Sivey, J. D.*** Structural effects on the bromination rate and selectivity of alkylbenzenes and alkoxybenzenes in aqueous solution. *Phys. Chem. Chem. Phys.* **2021**, *23*, 16594-16610. (Link)
→ *Designated by the editors as a **HOT article** based on high peer review scores*

20. Ricko, A. N.; Psoras, A. W.; **Sivey, J. D.*** Reductive transformations of dichloroacetamide safeners: effects of agrochemical co-formulants and iron oxide + manganese oxide binary-mineral systems. *Environ. Sci.: Processes Impacts* **2020**, *22*, 2104-2116. (Link)

19. Xu, X.; **Sivey, J. D.**; Xu, W.* Black carbon-enhanced transformation of dichloroacetamide safeners: Role of reduced sulfur species. *Sci. Total Environ.* **2020**, *738*, 139908. (Link)

18. Rose, M. R.; Lau, S. S.; Prasse, C.; **Sivey, J. D.*** Exotic electrophiles in chlorinated and chloraminated water: When conventional kinetic models and reaction pathways fall short. *Environ. Sci. Technol. Lett.* **2020**, *7*, 360-370. (Link)
→ *Selected as an **ACS Editors' Choice** article "due to its potential for broad public interest, an honor given to only one article from the entire ACS portfolio each day of the year"*

17. Dias, R. M.; Schammel, M. H.; Reber, K. P.; **Sivey, J. D.*** Applications of 1,3,5-trimethoxybenzene as a derivatizing agent for quantifying free chlorine, free bromine, bromamines, and bromide in aqueous systems. *Anal. Methods* **2019**, *11*, 5521-5532. (Link)
→ *Selected by the editors to be featured on the **front cover** of the journal*

16. Su, L.; Caywood, L. M.; **Sivey, J. D.**; Dai, N.* Sunlight photolysis of safener benoxacor and herbicide metolachlor as mixtures on simulated soil surfaces. *Environ. Sci. Technol.* **2019**, *53*, 6784-6793. (Link)

15. Kral, A. E.; Pflug, N. C.; McFadden, M. E.; LeFevre, G. H.; **Sivey, J. D.**; Cwiertny, D. M.* Photochemical transformations of dichloroacetamide safeners. *Environ. Sci. Technol.* **2019**, *53*, 6738-6746. (Link)

14. Su, L.; **Sivey, J. D.**; Dai, N.* Emerging investigators series: sunlight photolysis of 2,4-D herbicides in systems simulating leaf surfaces. *Environ. Sci.: Processes Impacts* **2018**, *20*, 1123-1135. (Link)

13. Lau, S. S.; Dias, R. P.; Martin-Culet, K. R.; Race, N. A.; Schammel, M. H.; Reber, K. P.; Roberts, A. L.; **Sivey, J. D.*** 1,3,5-Trimethoxybenzene (TMB) as a new quencher for preserving redox-labile disinfection byproducts and for quantifying free chlorine and free bromine. *Environ. Sci.: Water Res. Technol.* **2018**, *4*, 926-941. (Link)
→ *Selected by the editors to be featured on the **front cover** of the journal, designated as a **HOT article** (top 10% based on peer review scores), and included in the "**Best Papers of 2018**" collection*

12. Broadwater, M. A.; Swanson, T. L.; **Sivey, J. D.*** Emerging investigator series: comparing the inherent reactivity of often-overlooked aqueous chlorinating and brominating agents toward salicylic acid. *Environ. Sci.: Water Res. Technol.* **2018**, *4*, 369-384. (Link)
→ *Selected for inclusion in the **Emerging Investigators Series**, with an associated interview, and included in the "**Best Papers of 2018**" collection*

11. Bolyard, K.; Gresens, S. E.*; Ricko, A. N.; **Sivey, J. D.**; Salice, C. J. Assessing the toxicity of the "inert" safener benoxacor toward *Chironomus riparius*: Effects of agrochemical mixtures. *Environ. Toxicol. Chem.* **2017**, *36*, 2660-2670. (Link)

10. **Sivey, J. D.***; Lehmler, H.-J.; Salice, C. J.; Ricko, A. N.; Cwiertny, D. M.* Environmental fate and effects of dichloroacetamide herbicide safeners: "Inert" yet biologically-active agrochemical ingredients. *Environ. Sci. Technol. Lett.* **2015**, *2*, 260-269. (Link)

9. **Sivey, J. D.***; Bickley, M. A.; Victor, D. A. Catalysis of DBP-precursor bromination by halides and hypohalous acids. In *Recent Advances in Disinfection By-Products*; Karanfil, T., Westerhoff, P., Mitch, W. A., Eds; ACS Symposium Series; American Chemical Society: Washington, DC, 2015; Vol. 1190, pp 251-269. (Link)

8. **Sivey, J. D.***; Bickley, M. A.; Victor, D. A. Contributions of BrCl, Br_2, BrOCl, Br_2O and HOBr to regiospecific bromination rates of anisole and bromoanisoles in aqueous solution. *Environ. Sci. Technol.* **2015**, *49*, 4937-4945. (Link)

Postdoctoral and Graduate

7. **Sivey, J. D.**; Howell, S. C; Bean, D. J.; McCurry, D. L.; Mitch, W. A.*; Wilson, C. J.* Role of lysine during protein modification by HOCl and HOBr: halogen-transfer agent or sacrificial antioxidant? *Biochemistry* **2013**, *52*, 1260-1271. (Link)

6. **Sivey, J. D.**; Arey, J. S.; Tentscher, P. R.; Roberts, A. L.* Reactivity of BrCl, Br_2, BrOCl, Br_2O and HOBr with dimethenamid in solutions of bromide + aqueous free chlorine. *Environ. Sci. Technol.* **2013**, *47*, 1330-1338. (Link)

5. **Sivey, J. D.**; Roberts, A. L.* Abiotic reduction reactions of dichloroacetamide safeners: Transformations of "inert" agrochemical constituents. *Environ. Sci. Technol.* **2012**, *46*, 2187-2195. (Link)

4. **Sivey, J. D.**; Roberts, A. L.* Assessing the reactivity of free chlorine constituents Cl_2, Cl_2O, and HOCl toward aromatic ethers. *Environ. Sci. Technol.* **2012**, *46*, 2141-2147. (Link)

3. **Sivey, J. D.**; McCullough, C. M.; Roberts, A. L.* Chlorine monoxide (Cl_2O) and molecular chlorine (Cl_2) as active chlorinating agents in reactions of dimethenamid with aqueous free chlorine. *Environ. Sci. Technol.* **2010**, *44*, 3357-5562. (Link)
→ *Nominated for **Paper of the Year** in Environ. Sci. Technol. and featured by the journal in a news story*

2. **Sivey, J. D.***; Lee, C. M. Using popular magazine articles to teach the art of writing for non-technical audiences. *J. Chem. Educ.* **2008**, *85*, 55-58. (Link)

1. **Sivey, J. D.**; Lee, C. M.* Polychlorinated biphenyl contamination trends in Lake Hartwell, SC: Sediment recovery profiles spanning two decades. *Chemosphere* **2007**, *66*, 1821-1828. (Link)

FUNDING (Total funding >$4.0M)

External **($3.9M)**

9. Hozalski, R. M; Aggarwal, S.; LaPara, T.; Prasse, C.; **Sivey, J. D.** (co-PI). 8/1/23 – 7/31/26. *Innovations in sampling, (bio)analytical chemistry, and analytics to characterize disinfectant use tradeoffs in U.S. water systems for minimizing exposure to opportunistic pathogens and DBPs*. U.S. Environmental Protection Agency; $2,123,000 (TU subaward $377,158).

8. **Sivey, J. D.** (PI); Moore, J. 9/1/2022 – 8/31/2023. *Assessment of Salinization in Metro Baltimore Drinking Water: Implications for Disinfection Byproduct Formation*. U.S. Geological Survey, Maryland Water Resources Research Center; $49,578.

7. **Sivey, J. D.** (PI). 10/27/2020 – 10/26/2025. *Environmental Transformations Involving Commonly Overlooked Constituents in Disinfected Water and in Agrochemical Formulations*. Henry Dreyfus Teacher-Scholar Award. $75,000.

6. McCurry, D. M.; **Sivey, J. D.** (PI); Reber, K. P. 9/1/2020 – 8/31/2023. *Parabens as a Tool for Interrogating Halogenation in Environmental Systems: Products, Pathways, and Implications for Water Reuse.* National Science Foundation, Environmental Chemical Science Program. $368,804 (Towson allocation: $173,675).

5. **Sivey, J. D.** (PI); Salice, C. J.; Cwiertny, D. M.; Lehmler, H.-J. 9/1/2017 – 8/31/2021. *SusChEM: Collaborative Research: Environmental Fate and Effects of "Inert" Herbicide Safeners, an Overlooked Class of Emerging Contaminants*. National Science Foundation, CBET Division, Environmental Engineering Program. $330,490 (Towson allocation: $135,234).

4. **Sivey, J. D.** (PI); 3/1/2017 – 2/28/2022; *CAREER: BrCl and Other Highly Reactive Brominating Agents in Disinfected Waters: Implications for Disinfection By-Product Formation and Control*. National Science Foundation, CBET Division, Environmental Engineering Program. $500,536.

3. Sours, R. E.; Stitzel, S. E.; Kautzman, K. E.; **Sivey, J. D.** (co-PI); Margulies, B. J.; 8/1/2015 – 7/31/2018; *MRI: Acquisition of a Liquid Chromatograph-Mass Spectrometer for Multidisciplinary Research and Training at Towson University*. National Science Foundation, CHE Division; $382,737.

2. **Sivey, J. D.** (PI), 9/1/2014 – 8/31/2018; *Kinetics of Electrophilic Aromatic Substitution by Aqueous BrCl, BrOCl, and Br_2O: Catalysis of Alkylbenzene Bromination.* American Chemical Society Petroleum Research Foundation; $55,000.

1. **Sivey, J. D.** (PI), 3/1/2013 – 2/28/2014; *Bromide as a Potent Precursor of Disinfection By-Products During Drinking Water Chlorination.* U.S. Geological Survey, Maryland Water Resources Research Center; $12,970 (revised budget due to federal sequestration: $7776).

Internal **(>$195K)**

8. Reber, K. P.; **Sivey, J. D.** (co-PI); Prasse, C. 7/1/2019 – 6/30/21. *Synthesis and Performance Evaluation of Corrosion Inhibitors for Oxidative Systems*. School of Emerging Technologies, Towson University; $25,000.
7. Devadas, M. S.; Hondrogiannis, E. M.; **Sivey, J. D.** (co-PI); Soto, A.-M.; Kolagani, R. M.; Smolyaninova, V. N.; Yan, J.-A. 10/6/17 – 8/31/18. *Cross-Disciplinary Research Experience in Chemistry and Physics for Undergraduates to Catalyze Programmatic Enhancements and for Value-Added Employability*. Fisher College Endowment, Towson University; $23,780.
6. **Sivey, J. D.** (PI); 8/19/2016 – 5/5/2017; *The Mathematics of Color and Light*. Pepsi Grant, Towson University; $1050.
5. **Sivey, J. D.** (PI) *Chemistry and Consequences of Aqueous Bromination.* Jess and Mildred Fisher Endowed Chair, Fisher College of Science and Mathematics, Towson University; $53,000.
4. **Sivey, J. D.** (PI); Sours, R. E.; Stitzel, S. E.; Kautzman, K. E., 6/1/2014 – 5/31/2015; *Incorporation of an Authentic Research Experience into the Laboratory Curriculum of CHEM 210 (Introduction to Analytical Chemistry)*. Fisher College Endowment, Towson University; $67,362.
3. **Sivey, J. D.** (PI), 6/1/2013 – 5/31/2014; *Elucidating the Environmental Reactivity of Agrochemical "Inert" Ingredients.* Faculty Development and Research Committee, Towson University; $4000.
2. Soto, A.-M.; **Sivey, J. D.** (co-PI); Ma, S.; Preisler, R. S.; 6/1/2013 – 5/31/2014; *Enhancing Research Experiences for Early-Career Undergraduate Students: Interdisciplinary Investigations in Biophysical Chemistry*. Fisher College Endowment, Towson University; $10,000.
1. **Sivey, J. D.** (PI). 6/1/2013 – 5/31/2014; *Elucidating Environmental Transformations of Agrochemical "Inert" Ingredients.* Towson Academy of Scholars, Towson University; $1000.

ADMINISTRATIVE LEADERSHIP

Chair, Department of Chemistry, Towson University (2023–current)

- Supervised 26 full-time faculty, approximately 30 part-time faculty, and 8 full-time staff.
- Managed teaching assignments for all courses.
- Oversaw two tenure-track faculty searches.
- Provided independent evaluations of faculty for reappointment, tenure, and promotion.
- Led new marketing initiatives, including a first-ever social media presence for the department.
- Completed a month-long training course on faculty mentoring and implemented new procedures for assigning mentors, including a new first-year trial period for mentors and mentees.
- Promulgated new procedures for office assignments to balance space utilization with equity.

Director, Environmental Science Graduate Program, Towson University (2021–2023)

- Led recruitment, marketing, admission, and advising activities for the MS in Environmental Science program, resulting in program growth from 28 students in Fall 2021 to 37 students in Spring 2023.
- Grew participation in the Accelerated BS-to-MS program from 0 students prior to Fall 2021 to 6 students in total by Spring 2023.
- Developed and shepherded the approval process for extensive revisions to the ENVS MS curriculum, including incorporation of iterative feedback from program faculty
- Led catalog management and program assessment activities
- Initiated a new event to promote greater student-student and student-faculty interactions
- Guided troubleshooting of student-faculty conflicts
- Created and implemented a new student award program entitled *Research Excellence in Environmental Science*, given annually to one thesis option and one non-thesis option student who demonstrate outstanding achievement in research
- Developed a peer observation procedure for ENVS courses

- Fostered expanded collaborations with extramural partners, including the Maryland Department of the Environment and the WSSC Water
- Contributed to curriculum and program proposal development for a new PhD in Sustainability and Environmental Change (supporting role)

INVITED LECTURES

Invited lectures since Aug 2012 = 12; total invited lectures = 18.

18. Sivey, J. D. *Drinking Water Treatment, Disinfection Byproducts, and Herbicide Safeners*. Planetary Health Seminar Series, Emory University, online (Jan 2022)

17. Sivey, J. D. *Chemistry and Consequences of BrCl and Other Commonly Overlooked Halogenating Agents in Disinfected Waters*. University of Maryland Baltimore County, ACS Student Affiliates Chapter, online (Apr 2021)

16. Sivey, J. D. *Chemistry and Consequences of BrCl and Other Commonly Overlooked Halogenating Agents in Disinfected Waters*. Whitman College, Department of Chemistry, online (Feb 2021)

15. Sivey, J. D. *Keynote Address – 100th Commencement Ceremony*, Merrill High School, Merrill, MI (Jun 2019)

14. Sivey, J. D. *Chlorination and Bromination of Disinfection By-Product Precursors: Catalysis by "Spectator" Ions and Other Caveats to Conventional Wisdom*. University at Buffalo, Department of Civil, Structural, and Environmental Engineering, Buffalo, NY (Sept 2017)

13. Sivey, J. D. *Often-Overlooked Chlorinating and Brominating Agents in Chlorinated Waters: Implications for Rates of Electrophilic Aromatic Substitution*. Albemarle Corporation, Baton Rouge, LA (Feb 2017)

12. Sivey, J. D. *Chlorination and Bromination of Disinfection By-Product Precursors: Catalysis by "Spectator" Ions and Other Caveats to Conventional Wisdom*. Temple University, Department of Civil and Environmental Engineering, Philadelphia, PA (Dec 2016)

11. Sivey, J. D. *Chlorination and bromination of Disinfection By-Product Precursors: Catalysis by "Spectator" Ions and Other Caveats to Conventional Wisdom*. Villanova University, Center for the Advancement of Sustainability in Engineering, Villanova, PA (Mar 2016)

10. Sivey, J. D. *How to Make Your Graduate School Application Stand Out: A Professor's Perspective.* University of Iowa, Office of Graduate Inclusion, Iowa City, IA (July 2015)

9. Sivey, J. D. *Often-Overlooked Chlorinating and Brominating Agents in Chlorinated Waters: Implications for Halogenation of disinfection By-Product Precursors*. University of Delaware, Department of Civil and Environmental Engineering, Newark, DE (Mar 2015)

8. Sivey, J. D. *Often-Overlooked Chlorinating and Brominating Agents in Chlorinated Waters: Implications for Rates of Electrophilic Aromatic Substitution*. Bucknell University, Department of Chemistry, Lewisburg, PA (Feb 2015)

7. Sivey, J. D. *Agrochemicals in the Environment: Fate and Effects*. Johns Hopkins University, Krieger School of Arts and Sciences, Baltimore, MD (Mar 2013)

6. Sivey, J. D. *Redox Transformations of Emerging Organic Contaminants: From Farm to Faucet.* Towson University, Department of Chemistry, Towson, MD (Oct 2011)

5. Sivey, J. D. *Environmental Fate Processes of Emerging Organic Contaminants.* Yale University, School of Engineering and Applied Science, New Haven, CT (Oct 2011)

4. Sivey, J. D. *The Importance of Plant Biology to Understanding Global Environmental Dilemmas.* Mid-Michigan Community College, Mount Pleasant, MI (Sept 2009)

3. Sivey, J. D. *Transformations of Organic Contaminants in Aquatic Environments.* Johns Hopkins Bloomberg School of Public Health, Baltimore, MD (Apr 2008)

2. Sivey, J. D. Keynote Address, Honors Program Graduation Ceremony, Central Michigan University, Mount Pleasant, MI (May 2007)

1. Sivey, J. D. *Polychlorinated Biphenyl (PCB) Contamination Trends in Lake Hartwell, SC.* Central Michigan University, Mount Pleasant, MI (Apr 2005)

MEDIA COVERAGE

4. The Baltimore Banner: *Baltimore water Q&A: E. coli contamination and what you need to know* (Sep 6, 2022). Link

3. WBAL (Baltimore NBC Affiliate): *This experiment inspires students to think STEM* (Apr 7, 2017). Link to broadcast

2. WMAR (Baltimore ABC Affiliate): *6th graders learn to apply middle school math to real-life* (Apr 7, 2017). Link

1. Sivey, J. D. Safeners in Herbicides. *The Academic Minute*, National Public Radio (Jan 2016). Link to broadcast

PROFESSIONAL PRESENTATIONS

Professional presentations since Aug 2012 = 54; total professional presentations = 68.

Presenters are underlined; *denotes undergraduate student mentees; **denotes graduate student mentees; [#] denotes high school mentee; unless otherwise noted, all citations below represent oral presentations.

68. Hoffman, J.; McFadden, M. E.; Reber, K. P.; **Sivey, J. D.**; Cwiertny, D. M. Revisiting benoxacor: Photolysis transformation product validation and new product identification. American Chemical Society Midwest Regional Meeting, Fall 2022.
67. McCoy, S. W.*; Psoras, A. W.**; Reber, K. P.; McCurry, D. M.; **Sivey, J. D.** Investigation of acid/base speciation and halogenation kinetics for parabens in simulated drinking water. Division of Environmental Chemistry, ACS National Meeting, San Diego, CA (2022). Poster.
66. Harris, T. N.*; Damrow, J. L.*; Sivey, A. J.[#]; Driessen, O. M.*; **Sivey, J. D.** Catalysis of aromatic compound halogenation by chloride, bromide, and hydronium ion. Division of Environmental Chemistry, ACS National Meeting, San Diego, CA (2022). Poster.
65. Schammel, M. H.; Yao, X.; Reber, K. P.; **Sivey, J. D.**; McCurry, D. M. Mechanistic insights of haloform formation via chlorination of isotopically labelled parabens. Division of Environmental Chemistry, ACS National Meeting, San Diego, CA (2022).
64. Steck, S.; Schammel, M. H.; Yao, X.; Reber, K. P.; **Sivey, J. D.**; McCurry, D. M. Contribution of parabens to haloform precursor loading during chlorination of greywater. Division of Chemistry Education, ACS National Meeting, San Diego, CA (2022). Poster.
63. McFadden, M. E.; Reber, K. P.; LeFevre, G. H.; **Sivey, J. D.**; Cwiertny, D. M. Revisiting benoxacor photolysis: Environmental fate and implications of reactive transformation products. Division of Environmental Chemistry, ACS National Meeting, San Diego, CA (2022).
62. **Sivey, J. D.**; Dias, R. P.*; Lau, S. S.; Schammel, M. H.*; Reber, K. P. 1,3,5-trimethoxybenzene as a probe for the selective quantification of active chlorine, active bromine, and bromide in disinfected waters. Analytical Development Relevant to Environmental Exposure and Effects Symposium, Pacifichem, Virtual (2021).
61. McFadden, M. E.; Reber, K. P.; **Sivey, J. D.**; Cwiertny, D. M.; LeFevre, G. H. Microbial biotransformation of dichloroacetamide herbicide safeners in river sediment microcosms. EMCON: International Conference on Emerging Contaminants, Virtual (2021).
60. Schammel, M.; Yao, X.; Reber, K.; **Sivey, J.**; McCurry, D. Halogenation of parabens to form trihalomethanes: Implications for greywater reuse. Division of Environmental Chemistry, ACS National Meeting, Atlanta, GA (2021).
59. Psoras, A.**; McCoy, S.*; Reber, K.; McCurry, D.; **Sivey, J.** Halogenation of para-hydroxybenzoate esters (parabens) in chlorinated and brominated waters under simulated drinking water disinfection conditions. Poster. Division of Environmental Chemistry, ACS National Meeting, Atlanta, GA (2021).
58. Denn, M.*; Hudson, H.*; Cuba, M.*; Okwor, N.*; Reber, K. P.; **Sivey, J. D.** Synthesis, persistence, and performance evaluation of benzotriazole corrosion inhibitors for oxidative systems. Poster. ACS Spring National Meeting (CHED Division), Virtual (2021).

57. Driessen, O. M.*; **Sivey, J. D.** Bromination kinetics of Halosalicylates. American Water Works Association, Chesapeake Section Conference, Virtual (2020).
56. McFadden, M. E.; **Sivey, J. D.**; LeFevre, G. H.; Cwiertny, D. M. Environmental transformation of dichloroacetamide herbicide safeners in biotic and abiotic systems. Society of Environmental Toxicology and Chemistry North America Meeting, Fort Worth, TX (2020).
55. Lanasa, S. A.**; East, A.; **Sivey, J. D.**; Niedzwiecki, M. V.*; Salice, C. J. Are "safeners" safe? Effects of unregulated inert safeners on population growth and size of non-target algae species. Poster. Society of Environmental Toxicology and Chemistry Annual Meeting for North America, Toronto, ON (2019).
54. Schammel, M. H.*; Martin-Culet, K. M.*; Taggart, G. A.*; **Sivey, J. D.** Steric and electronic effects on reaction rates of substituted benzenes with often-overlooked bromine species. Gulf Coast Undergraduate Research Symposium, Houston, TX (2019). *Invited presentation.*
53. Driessen, O. M.*; **Sivey, J. D.** Bromination kinetics of halosalicylates: Implications for water chlorination. Poster. UMBC Undergraduate Research Symposium, Baltimore, MD (2019).
52. FitzGibbon, T. M.*; **Sivey, J. D.** Formation of trihalomethanes during chlorination of simulated seawater. Poster. UMBC Undergraduate Research Symposium, Baltimore, MD (2019).
51. McFadden, M. E.; **Sivey, J. D.**; LeFevre, G. H.; Cwiertny, D. M. Hydrolysis of dichloroacetamide safeners: Rates and transformation products. 258th ACS National Meeting (AGRO Division), San Diego, CA (2019).
50. Xu, X.**; **Sivey, J. D.**; Xu, W. Black carbon-enhanced transformation of chloroacetamide herbicides and safeners by sulfide. 258th ACS National Meeting (ENVR Division), San Diego, CA (2019).
49. **Sivey, J.**; Driessen, O.*; Schammel, M.*; FitzGibbon, T.*; Niedzwiecki, M.*; Swanson, T.**; Bickley, M.*; Alexander II, G.*; Dias, R.*; Victor, D.*; Jaffe, M.*; Martin-Culet, K.*; Taggart, G.*; Race, N.*; Reber, K. Chemistry and consequences of BrCl and other highly electrophilic halogenating agents in disinfected waters. Gordon Research Conference on Water Disinfection, Byproducts and Health, South Hadley, MA (2019). *Invited presentation.*
48. Su, L.; Dai, N.; **Sivey, J. D.**; Caywood, L. M. Sunlight photolysis of safener benoxacor and herbicide metolachlor as mixtures on simulated soil surface. Association of Environmental Engineering and Science Professors Research and Education Conference, Tempe, AZ (2019).
47. Xu, X.**; **Sivey, J. D.**; Xu, W. Black carbon-enhanced transformation of chloroacetamide herbicides and safeners by sulfide. Society of Environmental Toxicology and Chemistry, Hudson-Delaware Chapter Spring Meeting, Princeton, NJ (2019).
46. Niedzwiecki, M. V.*; McFadden, M. E.; LeFevre, G. H.; Cwiertny, D. M.; **Sivey, J. D.** Kinetics of the bromination and chlorination of the dichloroacetamide class of herbicide safeners. Poster. 257th ACS National Meeting (ENVR Division), Orlando, FL (2019).
45. Schammel, M. H.*; Swanson, T. L.*; Dias, R. P.*; **Sivey, J. D**. Comparing the bromination and chlorination kinetics of the herbicide dimethenamid in natural and in synthetic waters. Poster. 257th ACS National Meeting (ENVR Division), Orlando, FL (2019).
44. Su, L.; **Sivey, J. D.**; Dai, N.; Caywood, L. Safener benoxacor induces herbicide metolachlor photolysis on simulated soil surface. 257th ACS National Meeting (ENVR Division), Orlando, FL (2019).
43. Schammel, M. H.*; Swanson, T. L.*; Dias, R. P.*; **Sivey, J. D.** Comparing the bromination and chlorination kinetics of the herbicide dimethenamid in natural and in synthetic waters. Poster. UMBC Undergraduate Research Symposium, Baltimore, MD (2018).
42. Niedzwiecki, M. V.*; **Sivey, J. D.** Kinetics of the bromination and chlorination of the dichloroacetamide class of herbicide safeners. Poster. UMBC Undergraduate Research Symposium, Baltimore, MD (2018).
41. Su, L.; Dai, N.; **Sivey, J. D.** Transformation products of 2,4-D sunlight photolysis in simulated leaf surface systems. 256th ACS National Meeting (AGRO Division), Boston, MA (2018).
40. Swanson, T. L.*; Schammel, M. H.*; **Sivey, J. D.** Exploring the bromination kinetics of anisole and salicylic acid in natural waters. Poster. 255th ACS National Meeting (CHED Division), New Orleans, LA (2018).
39. Schammel, M. H.*; Swanson, T. L.*; Dias, R. P.*; **Sivey, J. D.** Bromination and chlorination kinetics in natural systems: How useful are data collected in "clean" systems? Poster. 255th ACS National Meeting (CHED Division), New Orleans, LA (2018).

38. **Sivey, J. D.**; Broadwater, M. A.*; Swanson, T. L.*; Dias, R. P.*; Roberts, A. L. Halogenation of agrochemicals and related compounds in waters disinfected with free chlorine: Competition between rates of chlorination and bromination. 255th ACS National Meeting (ENVR Division), New Orleans, LA (2018). *Invited presentation.*

37. Kral, A. E.; McFadden, M. E.; LeFevre, G. H.; **Sivey, J. D.**; Cwiertny, D. M.; Environmental photochemistry of dichloroacetamide herbicide safeners. 255th ACS National Meeting (ENVR Division), New Orleans, LA (2018).

36. **Sivey, J. D.**, Taggart, G. A.*; Broadwater, M. A.*; Martin-Culet, K. R.*; Swanson, T. L.*; Bickley, M. A.*; Victor, D. A.*; Reber, K. P. Steric and electronic effects on bromination rates of DBP precursors by BrCl, BrOCl, and related brominating agents. Poster. Gordon Research Conference, Drinking Water Disinfection By-Products, South Hadley, MA (2017).

35. Lau, S.**; Dias, R. P.*; Martin-Culet, K. R.*; Race, N. A.*; **Sivey, J. D.**; Roberts, A. L. Quenching and quantifying free chlorine and free bromine using 1,3,5-trimethoxybenzene (TMB). Poster. Gordon Research Conference, Drinking Water Disinfection By-Products, South Hadley, MA (2017).

34. Martin-Culet, K. M.*; **Sivey, J. D.** Factors controlling the regioselectivity and rate of arene bromination by aqueous BrCl and related brominating agents: Influence of steric effects. Poster. 253rd ACS National Meeting (CHED Division), San Francisco, CA (2017).

33. Dias, R. P.*; Race, N. A.*; **Sivey, J. D.** Selective quantification of chlorine and bromine in water using halogen trapping agents. Poster. 253rd ACS National Meeting (CHED Division), San Francisco, CA (2017).

32. **Sivey, J. D.** Liquid chromatography simulator software as a discovery-based learning tool for environmental and instrumental analysis courses. 252nd ACS National Meeting (ENVR Division), Philadelphia, PA (2016).

31. Sours, R. E.; Stitzel, S. E.; **Sivey, J. D.**; Kautzman, K. E. Development, pilot testing, and full implementation of an authentic research experience in undergraduate analytical chemistry: Quantitative analysis of caffeine in coffee. 251st ACS National Meeting (CHED Division), San Diego, CA (2016).

30. Reber, K. P.; **Sivey, J. D.**; Brunker, T. J.; Stitzel, S. E.; Kautzman, K. E.; Sours, R. E. Development of a sophomore-level cohort for chemistry majors to promote concurrent enrollment and success in analytical and organic chemistry. 251st ACS National Meeting (CHED Division), San Diego, CA (2016).

29. Broadwater, M. A.*; **Sivey, J. D.** Influence of often-overlooked free chlorine and free bromine species on regiospecific halogenation rates of salicylic acid. Poster. 251st ACS National Meeting (CHED Division), San Diego, CA (2016).

28. Taggart, G. A.*; **Sivey, J. D.** Regiospecific rates and steric effects of phenyl ether bromination by aqueous free bromine. Poster. 251st ACS National Meeting (CHED Division), San Diego, CA (2016).

27. Bolyard, K. E.**; Gresens, S. E.; **Sivey, J. D.**; Salice, C. J. How safe are safeners? A benthic microcosm study. Poster. 5th Annual Young Environmental Scientists Meeting, Gainesville, FL (2016).

26. Bolyard, K. E.**; Gresens, S. E.; **Sivey, J. D.**; Salice, C. J. Chironomus riparius: A tool for studying ecological effects of "inert" safeners. Poster. 36th Annual North American SETAC Meeting, Salt Lake City, UT (2015).

25. Ricko, A. N.**; **Sivey, J. D.** Anaerobic abiotic reduction of dichloroacetamide safeners in Fe(II)-amended, heterogeneous minerals systems. Poster. 250th ACS National Meeting (AGRO Division), Boston, MA (2015).

24. **Sivey, J. D.**; Burton, M. A.*; Roberts, A. L. Buffers as potential catalysts of hydrolysis and halogenation during agrochemical fate experiments in bench-scale reactors. 250th ACS National Meeting (AGRO Division), Boston, MA (2015).

23. **Sivey, J. D.**; Bickley, M. A.*; Victor, D. A.*; Race, N. A.* Influence of often-overlooked brominating agents on sequential bromination rates of anisole. Association of Environmental Engineering and Science Professors Research and Education Conference, Yale University, New Haven, CT (2015).

22. **Sivey, J. D.**; Victor, D. A.*; Bickley, M. A.*; Sapienza, N. S.* Catalysis of DBP-precursor halogenation by halides and hypohalous acids. 248th ACS National Meeting (ENVR Division), San Francisco, CA (2014).

21. Bickley, M. A.*; **Sivey, J. D.** Reactivity of phenylalanine with brominating agents: Quantifying regiospecific rates of brominated phenylalanine formation. Poster. 248th ACS National Meeting (CHED Division), San Francisco, CA (2014).

20. Roberts, A. L.; **Sivey, J. D.**; Lau, S.** "Overlooked" halogenating agents: Reexamining factors influencing rates of organic compound halogenation in aqueous solution. 248th ACS National Meeting (ENVR Division), San Francisco, CA (2014).
19. **Sivey, J. D.**; Victor, D. A.*; Bickley, M. A.* Contributions of BrCl, BrOCl, and Br_2O toward bromination rates of aromatic compounds in solutions of aqueous free bromine: Implications for water disinfection (INOR Division). 247th ACS National Meeting, Dallas, TX (2014).
18. Burton, M. A.*; **Sivey, J. D.** Transformations of an herbicide's active (isoxaflutole) and "inert" (cyprosulfamide) ingredients under simulated environmental conditions: Reactions at the solid-water interface. Poster. 247th ACS National Meeting (ENVR Division), Dallas, TX (2014).
17. Victor, D. A.*; **Sivey, J. D.** Reactivity of anisole and bromoanisole regioisomers toward brominating agents in solutions of NaBr + free available chlorine. Poster. 247th ACS National Meeting (INOR Division), Dallas, TX (2014).
16. McCurry, D.L.**, **Sivey, J.D.**, Mitch, W.A. Understanding oxidative protein damage with LC/MS and computational redesign. Stanford Sunlight Symposium, Stanford, CA (2013).
15. **Sivey, J. D.**; Roberts, A. L. Influence of adsorption and steric effects on mineral-mediated redox transformation rates of dichloroacetamide safeners. 245th ACS National Meeting (GEOC Division), New Orleans, LA (2013).
14. **Sivey, J. D.**; Arey, J. S.; Tentscher, P. R.; Roberts, A. L. Active species in bromination of dimethenamid. Poster. Gordon Research Conference, Environmental Science (Water), South Hadley, MA (2012).
13. McCurry, D. L.**; **Sivey, J. D.**; Mitch, W. A. Formation of a high-yield non-halogenated disinfection byproduct of an amino acid by halogenation: Lysine nitrile. Poster. Gordon Research Conference, Disinfection Byproducts, South Hadley, MA (2012).
12. **Sivey, J. D.**; Bean, D. J.; Wilson, C. J.; Mitch, W. A. Structural alterations of proteins upon exposure to free chlorine, free bromine and ozone in aqueous solutions. 243rd ACS National Meeting (GEOC Division), San Diego, CA (2012).
11. **Sivey, J. D.**; Roberts, A. L. Rediscovery of Cl_2 and Cl_2O as potent (and often overlooked) chlorinating agents in solutions of free chlorine. 243rd ACS National Meeting (ENVR Division), Symposium in Honor of Martin Reinhard; San Diego, CA (2012).
10. **Sivey, J. D.**; Roberts, A. L. Forgotten oxidants of drinking water chlorination. Poster. Gordon Research Conference, Environmental Sciences: Water, Holderness, NH (2010).
9. **Sivey, J. D.**; McCullough, C. E.*****; Roberts, A. L. Chlorine monoxide (Cl_2O) and molecular chlorine (Cl_2) as active chlorinating agents in reactions of dimethenamid with free aqueous chlorine. 240th ACS National Meeting (ENVR Division), Invited presentation, C. Ellen Gonter Award Symposium, Boston, MA (2010).
8. **Sivey, J. D.**; Roberts, A. L. Influence of sorption on reactions of dichloroacetamide herbicide safeners with iron oxide-associated Fe(II). Poster. 239th ACS National Meeting (ENVR Division), San Francisco, CA (2010).
7. **Sivey, J. D.**; Roberts, A. L. Abiotic reduction of dichloroacetamide safeners: Transformations and fate of "inert" agrochemical ingredients. Poster. 239th ACS National Meeting (AGRO Division), San Francisco, CA (2010).
6. Dang, V. D.; **Sivey, J. D.**; Brothersen, T.; Hall, A. A.; Wong, C. S.; Pakdeesusuk, U.; Lee, C. M. Chiral signatures of PCBs from 1998 and 2004 in Lake Hartwell Sediment Cores. Society of Environmental Toxicology and Chemistry Annual Meeting, Montreal, Quebec (2006).
5. Lee, C. M.; Hall, A. A.; Pressley, H. M.; Wong, C. S.; **Sivey, J. D.**; Freedman, D. L. Chiral Analysis: An Emerging Tool for Monitoring "New" and Legacy Pollutants. Pacifichem, Honolulu, HI (2005).
4. **Sivey, J. D.**; Brothersen, T.; Lee, C. M. Comprehensive Congener-Specific Analysis as an Assessment Tool for Polychlorinated Biphenyl (PCB) Contamination Trends in Lake Hartwell, SC. Poster. 230th ACS National Meeting (ENVR Division), Washington, DC (2005).
3. Lee, C. M.; **Sivey, J. D.** Learning Metal Speciation Through the Use of an Interactive Computer Model. SETAC North America 25th Annual Meeting, Portland, OR (2004).
2. Delia, T. J.; **Sivey, J. D.**; McCloud, G. F. Comparative Reactivities of Halogenated Pyrimidines. 19th International Congress on Heterocyclic Chemistry, Fort Collins, CO (2003).

1. **Sivey, J. D.**; Delia, T. J. Reactivity Determinations of 2,4,6-Trihalopyrimidines. Poster. ACS Fall Scientific Meeting, Midland, MI (2002).

INTRAMURAL PRESENTATIONS

Presenters are underlined; *denotes undergraduate student mentees; **denotes graduate student mentees
Unless otherwise noted, all citations below represent oral (platform) presentations.

28. Sivey, J. D. How to Make Your Career and Graduate School Applications Stand Out. Towson University, ACS Student Affiliates Chapter, online (2021).
27. Denn, M.*; Hudson, H.*; Cuba, M.*; Okwor, N.*; Reber, K. P.; **Sivey, J. D.** Synthesis, persistence, and performance evaluation of benzotriazole corrosion inhibitors for oxidative systems. Towson University Research Expo, Virtual (2021).
26. Driessen, O. M.*; **Sivey, J. D.** Bromination of halosalicylates: Kinetics and product characterization. Towson University Research Expo (2020).
25. Schammel, M. H.*; **Sivey, J. D.** Formation of trihalomethanes via halogenation of natural organic matter substituents. Towson University Research Expo (2020).
24. FitzGibbon, T. M.*; **Sivey, J. D.** Quantification of trihalomethanes produced during chlorination of synthetic saline waters. Towson University Research Expo (2020).
23. **Sivey, J. D.** The Flint Water Crisis. Environmental Geography (GEOG 410) course, Towson University (2019).
22. **Sivey, J. D.** The Flint Water Crisis. Albert C. Cook Library's One Maryland One Book Discussion, Towson University (2019).
21. **Sivey, J. D.** Chemistry and consequences of chlorinating drinking water. Jess and Mildred Fisher Endowed Chair Lecture, Towson University (2018).
20. Martin-Culet, K. R.*; **Sivey, J. D.** Steric and electronic effects influencing the selectivity and rate of arene bromination by aqueous BrCl and related brominating agents. Poster. Towson University Research Expo (2018).
19. Dias, R. P.*; Lau, S. S.**; Martin-Culet, K. R.*; Race, N. A.*; Schammel, M. H.*; Reber, K. R.; Roberts, A. L.; **Sivey, J. D.** Applications of selective quantification of chlorine and bromine in water using halogen trapping agents. Poster. Towson University Research Expo (2018).
18. Swanson, T. L.*; Schammel, M. H.*; **Sivey, J. D.** Exploring the bromination kinetics of anisole and salicylic acid in natural waters. Poster. Towson University Research Expo (2018).
17. Schammel, M. H.*; Swanson, T. L.*; Dias, R. P.*; **Sivey, J. D.** Bromination and chlorination kinetics in natural systems: How useful are data collected in "clean" systems? Poster. Towson University Research Expo (2018).
16. **Sivey, J. D.** The science behind drinking water treatment. Lecture. Honors Towson Seminar, TSEM 190 (2017).
15. Taggart, G. A.*; **Sivey, J. D.** Regioselective bromination of phenyl ether by aqueous free bromine. Poster. Towson University Research Expo (2017).
14. Martin-Culet, K. M.*; **Sivey, J. D.** Factors controlling the regioselectivity and rate of arene bromination by aqueous BrCl and related brominating agents: Influence of steric effects. Poster. Towson University Research Expo (2017).
13. Dias, R. P.*; Race, N. A.*; **Sivey, J. D.** Selective quantification of chlorine and bromine in water using halogen trapping agents. Poster. Towson University Research Expo (2017).
12. **Sivey, J. D.** The Polluted States of America – An Honors College Mini-Seminar Experience; TU4U Recruitment Event (2017).
11. **Sivey, J. D.** The Polluted States of America – An Honors College Mini-Seminar Experience; TU4U Recruitment Event (2016).
10. Broadwater, M. A.*; **Sivey, J. D.** Influence of often-overlooked free chlorine and free bromine species on regiospecific halogenation rates of salicylic acid. Poster. Towson University Research Expo (2016).

9. Taggart, G. A.*; **Sivey, J. D.** Regiospecific rates and steric effects of phenyl ether bromination by aqueous free bromine. Poster. Towson University Research Expo (2016).
8. **Sivey, J. D.** The Polluted States of America – An Honors College Mini-Seminar Experience; TU4U Recruitment Event (2015).
7. Bickley, M. A.*; **Sivey, J. D.** Reactivity of phenylalanine with brominating agents: Quantifying regiospecific rates of brominated phenylalanine formation. Poster. Honors College Alumni Night, Towson University (2014).
6. **Sivey, J. D.** Elucidating the environmental fate of "inert" ingredients in agrochemical formulations. Lecture. Towson University Academy of Scholars (2014).
5. Bickley, M. A.*; **Sivey, J. D.** Reactivity of phenylalanine with brominating agents: Quantifying regiospecific rates of brominated phenylalanine formation. Poster. Chemistry Open House, Towson University (2014).
4. Sapienza, N. S.*; **Sivey, J. D.** A novel approach to quantifying halide concentrations in drinking water and related matrices. Poster. Towson University Research Expo (2014).
3. Burton, M. A.*; **Sivey, J. D.** Transformation of an herbicide's active and "inert" ingredients under simulated environmental conditions: Reactions at the solid-water interface. Poster. Towson University Research Expo (2014).
2. Bickley, M. A.*; **Sivey, J. D.** Reactivity of phenylalanine with brominating agents: Quantifying regiospecific rates of brominated phenylalanine formation. Poster. Towson University Research Expo (2014).
1. Hoogland, A. J.*; **Sivey, J. D.**; Roberts, A. L. Exploring the Environmental Chemistry and Fate of three highly used Herbicide Safeners. Poster. Provost's Undergraduate Research Award Symposia, Johns Hopkins University, Baltimore, MD (2009).

MENTORED RESEARCH STUDENTS

[#]Current research mentees; unless otherwise indicated, mentees are students or alumni of Towson University.

Graduate Students (8)

[#] **Ryan Kearney**, MS in Environmental Science; Aug 2022–

[#] **Jacob Damrow**, MS in Environmental Science; Aug 2022–

[#] **Vincent DiPietri**, MS in Environmental Science; Aug 2022–

Andrew Psoras, MS in Environmental Science; May 2020–Aug 2022
Concurrent position: Chemist, USGS Maryland-Delaware Water Science Center

Xiaolei Xu, MS in Civil and Environmental Engineering, Villanova University, Jan 2019–May 2021
co-advisor: Prof. Wenqing Xu
Current position: PhD Student, Oceanography, Texas A&M University

Tyler Swanson, Forensic Science; Sept 2018–Jun 2019
Current position: PhD Student, Chemistry, University of Delaware

Stephanie Lau, PhD in Environmental Health and Engineering, Johns Hopkins University, Jun 2015–Oct 2017
dissertation advisor: Prof. A. Lynn Roberts
Current position: Postdoctoral Researcher, Civil and Environmental Engineering, Stanford University

Allison Ricko, MS in Environmental Science; Aug 2013–Aug 2015
Current position: Product Manager, Echo360

Undergraduate Students (31)

[#] **Julian Maycock**, chemistry major; Nov 2022–

[#] **Feonil Limiac**, molecular biology, biochemistry, & bioinformatics major; May 2022–

Ryan Kearney, chemistry major, accelerated BS-to-MS; Dec 2021–Aug 2022

Vincent Dipietri, chemistry and molecular biology, biochemistry, & bioinformatics major; Aug 2021–Aug 2022

Kelsey Evans, chemistry major; May 2021–Jun 2023

Tionna Harris, chemistry major; Apr 2021–Jun 2023
Current position: PhD student, civil and environmental engineering, Colorado School of Mines

Jacob Damrow, environmental science major; Mar 2021–Aug 2022

Seth McCoy, chemistry major; Aug 2020–Jul 2022
Current position: PhD student, civil and environmental engineering, University of Nevada Reno

Thomas FitzGibbon, chemistry major; Nov 2018–May 2022

Hanna Hudson, chemistry major; Nov 2019–Jun 2021
Current position: Quality analyst, AstraZeneca (Frederick, MD)

Reginald Briscoe, chemistry major; Jan 2020–Aug 2021
Current position: PharmD student, University of Maryland

Bryce Collingwood, biology major; Nov 2019–Jun 2021
Current position: PhD student, chemistry, Temple University

Max Denn, chemistry and forensic chemistry majors; Aug 2019–May2021
Current position: MS student, forensic and investigative science, West Virginia University

Olivia Driessen, chemistry major; Sept 2018–May 2021
Current position: PhD student, chemistry, University of Toronto

Klein Arias, molecular biology/biochemistry/bioinformatics major; Sept 2018–Dec 2018

Mathew Jaffe, cell and molecular biology (post-baccalaureate); May 2018–Sept 2018

Mark Niedzwiecki, chemistry major; Jan 2018–Jul 2019
Current position: Formulation Chemist, Ingredion

Garrett Alexander II, chemistry major; Jan 2018–Jan 2019
Current position: Medical student, Geisinger Commonwealth School of Medicine

Marella Schammel, chemistry major; Mar 2017–Jul 2020
Current position: PhD student, environmental chemistry, University of Southern California

Tyler Swanson, chemistry major; Jan 2017–Aug 2018
Current position: PhD student, organic chemistry, University of Delaware

Ryan Dias, forensic chemistry major; Jan 2016–Jul 2018
Current position: PhD student, analytical chemistry, University of Alberta

Kayla Martin-Culet, chemistry major; Jan 2016–May 2018
Current position: Field service engineer, Agilent Technologies

Matthew Broadwater, chemistry major; May 2015–May 2017
Graduate training: PharmD, University of North Carolina Chapel Hill; MBA, Johns Hopkins University
Residency: Johns Hopkins Hospital Pharmacy Administration and Leadership Program
Current position: Clinical Pharmacy Manager of Critical Care and Operating Rooms at MedStar Washington Hospital Center (Washington, DC)

Garrett Taggart, chemistry major; May 2015–Jul 2017
Graduate training: PhD – inorganic chemistry, University of Delaware
Current position: Application Scientist, Microtrac

Nicholas Race, chemistry major; May 2014–Dec 2015
Graduate training: MS – chemistry, William and Mary
Current position: Chemist, Broward County Environmental Monitoring Lab, (Davie, FL)

Mark Bickley, chemistry major; Aug 2013–Aug 2015
Graduate training: PharmD, University of Maryland (2019)
Current position: Inpatient Psychiatry Clinical Pharmacy Specialist, U.S. Department of Veterans Affairs (Palo Alto, CA)

Mark Burton, chemistry major; May 2013–May 2015;
Graduate training: PhD – physical chemistry, University of Arizona (2020)
Current position: Optical spectroscopist, Lawrence Livermore National Laboratory (Livermore, CA)

Alyssa Allen, chemistry and forensic chemistry major; Aug 2013–Dec 2014;
Graduate training: PhD – analytical and forensic chemistry, University of Central Florida (2019)
Current position: Chemist, Blue Grass Chemical Activity, U.S. Army (Richmond, KY)

Nicholas Sapienza, chemistry major; Aug 2013–May 2014;
Current position: PhD candidate, physical chemistry, Virginia Tech

Daniel Victor, chemistry major; Jan 2013–May 2014;
Current position: Senior Analytical Chemist, Catalent Pharma Solutions (Greenville, NC)

Steven LeVine, chemistry major; Jan 2013–Aug 2013
Current position: Analytical chemistry technician, Ciris Energy, Inc.

High School Research Interns (8)

Asia Jones, Patapsco High School; Jun 2022–Aug 2022

Brandon Puckett, Patapsco High School; Jun 2022–Aug 2022

Gage Fogler, Patapsco High School; Jun 2021–Aug 2021

Ada Sivey, Peoria Arizona Homeschool, Oct 2020–Jul 2021

Wasilat Dosunmu, Patapsco High School; Jul 2020–Aug 2020

Klein Arias, Patapsco High School; Jun 2018–Aug 2018

Farzin Farhad, Patapsco High School; Jun 2017–Aug 2017

Zachary Clark, Patapsco High School; Jun 2017–Aug 2017

AWARDS RECEIVED BY MENTEES

Total awards (since 2012) = 94
Unless otherwise indicated, mentees are students/alumni of Towson University.

NSF Graduate Research Fellowship:
Tionna Harris (2023 awardee)
Olivia Driessen (2021 awardee)
Andrew Psoras (2021 honorable mention)
Marella Schammel (2020 awardee)

Barry Goldwater Scholarship:
Marella Schammel (2019)

American Water Works Association SUEZ/Vernon D. Lucy III Scholarship:
(one recipient per year in North America):
Marella Schammel (2018)

Gordon Research Conference Poster Award
Vincent DiPietri (2023 honorable mention)

Gulf Coast Undergraduate Research Symposium Award:
Marella Schammel (2019) – *Outstanding Presentation in Chemical Transformations*

ACS AGRO Division Education Award:
Allison Ricko (2015)

Barry Goldwater Scholarship:
Marella Schammel (2019)

ACS Division of Environmental Chemistry Gonter Paper Award:
Andrew Psoras (2023 honorable mention)

ACS Division of Environmental Chemistry Undergraduate Student Awards:
Jacob Damrow (2022)

Olivia Driessen (2020)
Marella Schammel (2019)
Ryan Dias (2018)
Matthew Broadwater (2016)
Mark Bickley (2015)

USM Louis Stokes Alliance for Minority Participation Summer Research Fellowship:
Tionna Harris (2021)

Towson University Graduate Research Award:
Andrew Psoras (2023)
Allison Ricko (2016)

Towson University Research Impact Award:
Olivia Driessen (2020)
Marella Schammel (2019)

Commencement Banner Carrier or Speaker:
Tionna Harris (2023)
Jacob Damrow (2022)
Olivia Driessen (2021)
Marella Schammel (2020)
Mark Bickley (2015)

Raspet Summer Undergraduate Research Fellowship:
Tionna Harris (2022)
Thomas FitzGibbon (2021)
Olivia Driessen (2020)
Marella Schammel (2019)
Mark Niedzwiecki (2018)
Matthew Broadwater (2016)
Mark Bickley (2014)

Research Grants, Office of Undergraduate Research and Creative Inquiry:
Kayla Martin-Culet (2017)
Ryan Dias (2017)
Garrett Taggart (2017)
Mark Bickley (2014)
Nicholas Sapienza (2014)
Daniel Victor (2013)
Mark Burton (2013)

Undergraduate Research Grants, Fisher College:
Kelsey Evans (2022)
Jacob Damrow (2022)
Vincent DiPietri (2022)
Hanna Hudson (2020)
Bryce Collingwood (2020, 2020)
Max Denn (2020, 2020)
Olivia Driessen (2019, 2020)
Marella Schammel (2017, 2018, 2019)
Garrett Alexander II (2018)
Mark Niedzwiecki (2018)
Tyler Swanson (2017)
Garrett Taggart (2017)
Kayla Martin-Culet (2016, 2017)
Ryan Dias (2016, 2017)
Mark Bickley (2014)
Nicholas Sapienza (2014)

Daniel Victor (2013)
Mark Burton (2013)

Research Grant, TU Graduate Student Association:
Andrew Psoras (2022)

Travel Grant, TU Graduate Student Association:
Vincent DiPietri (2023)
Jacob Damrow (2023)
Andrew Psoras (2021)

Travel Grants, Office of Undergraduate Research and Creative Inquiry:
Tionna Harris (2022)
Jacob Damrow (2022)
Seth McCoy (2021)
Mark Niedzwiecki (2019)
Marella Schammel (2018, 2019)
Tyler Swanson (2018)
Kayla Martin-Culet (2017)
Ryan Dias (2017)
Garrett Taggart (2016)
Matthew Broadwater (2016)
Mark Bickley (2014)
Daniel Victor (2013)
Mark Burton (2013)

Travel Grants, **Fisher College:**
Tionna Harris (2022)
Jacob Damrow (2022)
Seth McCoy (2021)
Marella Schammel (2018)
Tyler Swanson (2018)
Kayla Martin-Culet (2017)
Ryan Dias (2017)
Garrett Taggart (2016)
Matthew Broadwater (2016)
Mark Bickley (2014)
Daniel Victor (2014)
Mark Burton (2014)

Travel Grants, TU Undergraduate Research Club:
Marella Schammel (2018)

Gordon Research Conference Graduate Student Poster Award:
Stephanie Lau (2017), co-advised with Prof. Lynn Roberts (Johns Hopkins University)

Provost's Undergraduate Research Awards:
Alexander Hoogland (2008), co-advised with Prof. Lynn Roberts (Johns Hopkins University)
Corey McCullough (2006), co-advised with Prof. Lynn Roberts (Johns Hopkins University)

THESIS AND DISSERTATION COMMITTEES

Ph.D. in Environmental Engineering/Chemistry **(6 dissertations completed)**

Zhuoyue Zhang, Jun 2023 (committee member; Carsten Prasse, chair; Johns Hopkins)
Monica McFadden, Oct 2021 (committee member; David Cwiertny, chair; Iowa)
Sophia Plata, Jul 2021 (committee member; Daniel McCurry, chair; Southern California)
Zhao Li, Dec 2020 (committee member; Wenqing Xu, chair; Villanova)
Michael Rose, Sept 2019 (committee member; A. Lynn Roberts, chair; Johns Hopkins)
Stephanie Lau, Nov 2017 (committee member; A. Lynn Roberts, chair; Johns Hopkins)

M.S. in Environmental Science/Engineering **(10 theses completed; 3 in progress)*:***

Ryan Kearney, anticipated May 2024 (committee chair)
Vincent DiPietri, anticipated May 2024 (committee chair)
Jacob Damrow, anticipated May 2024 (committee chair)
Kyle Hurley, Jul 2023 (committee member; Joel Moore, chair)
Dylan Burgevin, Apr 2023 (defense moderator; Sarah Haines, chair)
Andrew Psoras, Jul 2022 (committee chair)
Sarah Lanasa, Dec 2021 (committee member; Christopher Salice, chair)
Xiaolei Xu, Sept 2020 (committee member; Wenqing Xu, chair; Villanova)
Pamela Samonte, Dec 2019 (committee member; Wenqing Xu, chair; Villanova)
Laina Lockett, May 2017 (committee member; Christopher Salice, chair)
Edward Meade, Dec 2016 (committee member; Kathryn Kautzman, chair)
Kasey Bolyard, Aug 2016 (committee member; Susan Gresens, chair)
Allison Ricko, Aug 2015 (committee chair)

B.S. with Honors in Chemistry **(19 theses completed)*:***

Tionna Harris, May 2023 (committee chair)
Olivia Driessen, May 2021 (committee chair)
Priyansh Gujarati, May 2021 (committee member; Keith Reber, chair)
Marella Schammel, May 2020 (committee chair)
Mark Niedzwiecki, Jul 2019 (committee chair)
Ian Gilbert, Jun 2019 (committee member; Keith Reber, chair)
Justin Kim, May 2019 (committee member; Keith Reber, chair)
Tyler Swanson, Jul 2018 (committee chair)
Kayla Martin-Culet, May 2018 (committee chair)
Ryan Dias, May 2018 (committee chair)
Garrett Taggart, May 2017 (committee chair)
Cassidy Stout, May 2017 (committee member; Tim Brunker, chair)
Hannah Burdge, May 2017 (committee member; Keith Reber, chair)
James Mease, May 2017 (committee member; Keith Reber, chair)
Matthew Broadwater, Apr 2017 (committee chair)
Nicholas Race, Nov 2015 (committee chair)
Mark Bickley, May 2015 (committee chair)
Mark Burton, May 2015 (committee chair)
Daniel Victor, May 2014 (committee chair)

TEACHING EXPERIENCE

[Δ] Denotes new or substantially revised course developments [‡] Denotes graduate courses

Towson University *(as Assistant Professor, Associate Professor, or Professor)*

- Analytical Chemistry (CHEM 220, formerly CHEM 210, lecture and lab)
- Instrumental Analysis (CHEM 310, lecture and lab)
- The Polluted States of America (HONR 301, formerly HONR 227, Core 8, lecture)[Δ]
- Research Methods in Biophysical Chemistry (CHEM 391, co-taught, lab)[Δ]
- Environmental Organic Chemistry (ENVS 680/FRSC 695/CHEM 461, lecture)[Δ,‡]
- Chemistry of Natural Waters (ENVS 680/CHEM 391, lecture)[Δ,‡]
- Chemistry of Environmental Systems (ENVS 605, lecture)[Δ,‡]
- Environmental Science & Sustainability Colloquium (ENVS 680/ENVS 423, lecture)[Δ,‡]

- Communication Skills in Chemistry (CHEM 401, lecture)[Δ]
- Introduction to Research in Chemistry (CHEM 491, 492, and 493, research supervision)
- Honors Internship (HONR 493, internship supervision)
- Honors Independent Investigation (HONR 497, research supervision)
- Honors Thesis (HONR 499, thesis mentor)
- Honors Thesis in Chemistry (CHEM 499, thesis mentor)
- Environmental Science MS Thesis (ENVS 898, thesis mentor)[‡]

Villanova University *(as Visiting Research Professor)*

- Aquatic Chemistry for Environmental Engineers (CEE 7701, hybrid course, lecture)[Δ,‡]

Yale University *(as Postdoctoral Associate Guest Lecturer)*

- Environmental Transport Processes (ENVE 448, lecture)

Maryland Institute College of Art *(as Lecturer)*

- Environmental Science (NSCI 210, lecture)[Δ]

Johns Hopkins University

Online Course Designer and Lecturer:

- Chemistry of Aqueous Systems (575.643, online course, lecture)[Δ,‡]

Graduate Teaching Assistant and Guest Lecturer:

- Experimental Methods in Environmental Engineering and Chemistry (570.452, lab)[‡]
- Emerging Environmental Issues (570.239, lecture)

Clemson University *(as Graduate Teaching Assistant*)

- Environmental Chemistry Laboratory II (EES 8490, lab)[‡]
- Chemistry of Aqueous Systems (CH 4130, lecture)

PROFESSIONAL SERVICE

Institution:

Chemistry Department:

- Departmental Honors Coordinator (Jan 2017–May 2023)
- Acting Analytical Area Coordinator (Apr 2018 – Aug 2018)
- Curriculum Committee
    - Chair (Aug 2019–Aug 2021)
    - Member (Aug 2016–May 2019; Aug 2022–)
- Departmental Promotion and Tenure Committee Member (Aug 2018–)
- Safety Committee Chair (Aug 2017–Aug 2020)
- Undergraduate Programs in Chemistry Committee Member (Aug 2017–)
- Faculty and Staff Search Committees
    - Administrative Assistant I Search Committee Chair (Jan 2023–Apr 2023)
    - Inorganic Search Committee Member (Dec 2020–Mar 2022)
    - Forensic Search Committee Member (Aug 2018–Dec 2018)
    - Operations Manager Search Committee Member (Jul 2017)
    - Analytical Faculty Search Committee Member (Aug 2016–Dec 2016)
- Faculty Mentoring Committees

    - Dr. Anthony Tierno (Assistant Professor; Aug 2019–Jan 2023)
    - Dr. Christina Pondell (Adjunct Faculty; Aug 2020-May 2021)
- Student Affiliates of the American Chemical Society Scholarship Committee (Jan 2021)
- Milio Book Award Selection Committee Member (Dec 2017)
- Department Chair Transition Committee Co-Chair (Aug 2018 – Dec 2018)
- Peer reviewer of faculty teaching (Oct 2015, Nov 2016)
- Executive Committee Member (Sept 2015– May 2016)
- Authored a successful instrument donation request (for a GC-MS valued at ~$70,000) from the U.S. DEA; coordinated the pick-up and installation of this donated GC-MS (Jun 2015–Aug 2015)
- Merit Committee Member (Sept 2014–May 2015)
- Authored a successful instrument donation request (for a GC-FID valued at ~$30,000) from the U.S. DEA; coordinated the pick-up and installation of this donated GC-FID (Jun 2014–Aug 2014)
- ACS Environmental Chemistry Undergraduate Student Award Coordinator (Feb 2014–May 2023)
- Recorder of Faculty Meeting Minutes (Sept 2013–May 2017)
- Volunteer Faculty Reviewer, CHEM 401 seminars (Fall 2013, Fall 2014, Fall 2016, Fall 2017)
- CHEM 210/331 Cohort Co-Coordinator (with S. Stitzel and T. Brunker) (Mar 2013–Mar 2014)
- Facilities and Strategic Planning Committee Member (Sept 2012–May 2016)

Fisher College of Science and Mathematics (FCSM):

- FCSM Promotion and Tenure Committee
    - Chair (Mar 2020–May 2021)
    - Member (Aug 2018–Mar 2020)
- FCSM Scholarship Committee
    - Chair (Jan 2018–May 2018; Jan 2020–May 2020)
    - Member (Jan 2014 – May 2017)
- FCSM Commencement Faculty Procession Participant (May 2013, May 2014, May 2015, May 2016, Dec 2017, May 2018, May 2019, May 2021)
- TU4U Department of Chemistry Faculty Representative (Apr. 2014)
- Produced an 18-minute training video for new HPLC users (Feb 2017)
    - Since being published on YouTube in Feb 2017, this video has been viewed more than 38,000 times.
- Volunteer panel leader, FCSM Course Preview student panel, TU Open House (Nov 2015)
- ENVS 789 Research Practicum Presentations Faculty Reviewer (May 2015)

University:

- Honors College Strategic Enrollment Subcommittee (Feb 2023–)
- FCSM Dean's Search Committee (Aug 2022–Dec 2022)
- Invited Panelist, *Planning for and Writing a Winning NSF CAREER Proposal*, Faculty Academic Center of Excellence at Towson (Feb 2022)
- Invited Speaker, Honors College Convocation (May 2021)
- Goldwater Scholarship Committee (Dec 2019–May 2020)
- Guest lecture on the Flint Water Crisis, Environmental Geography, GEOG 410 (Nov 2019)
- Guest lecture, Cook Library One Maryland One Book discussion (Oct 2019)
- Honors College Research Impact Award review committee (Nov 2017, Oct 2018)
- Honors College Seminar Night faculty volunteer (Nov 2016, Mar 2017, Mar 2018)
- Honors College applications volunteer reviewer (Feb 2015, Jan 2016, Jan 2017, Jan 2018, Jan 2020, Jan 2021)
- TU4U Honors College Faculty Representative (Apr 2014, Apr 2015, Apr 2016, Apr 2017)
- Invited Speaker, TU4U Honors College Breakfast (Apr 2018, Apr 2019)
- TU Diversity Action Committee Member (Feb 2014–Jan 2019)
- Honors College Advisory Council Member (Sept 2013–May 2016)
- New Faculty Orientation, discussion group leader (Aug 2013)
- TU Presidential Inauguration Faculty Procession Participant (Sept 2012)

Discipline:

Vice Chair, Gordon Research Conference on Water Disinfection, Byproducts and Health (Jul 2023)

Virtual Symposium Developer and Organizer, *Preparing for Faculty Positions at Primarily Undergraduate Institutions*, sponsored by NSF and hosted by Towson University (Jan 2021)

Invited Panelist:

- *Industry and Academic Opportunities for Water Scientists*; Gordon Research Seminar, Mount Holyoke College (Jul 2019)
- *Teaching and Research at Primarily Undergraduate Institutions*; Association of Environmental Engineering and Science Professors Research and Education Conference, Yale University (Jun 2015)
- "Break Into Academia – Teaching-Focused Institutions"; organized by The Johns Hopkins University Homewood Postdoctoral Association (Dec 2014)

Article contributor, Maryland Section of the ACS newsletter, *Chesapeake Chemist* (July 2018)

Ph.D. Candidacy Exam Committee Member, Department of Environmental Health and Engineering, Johns Hopkins University (Jul 2017, Oct 2022)

Symposium Co-Organizer, "Advancing Teaching and Learning in Environmental Chemistry Courses: Innovative Tools and Techniques". 252nd ACS National Meeting (ENVR Division), Philadelphia, PA (Aug 2016).

Judge, Undergraduate Research Symposium in the Chemical and Biological Sciences, University of Maryland Baltimore County (Oct 2018)

Expert opinion contributor (uncompensated volunteer), Analysis of bathroom cleaning product: bleach-generation via electrolysis; solicited by editorial staff at Consumers Digest Magazine (Dec 2013)

Research consultant (uncompensated volunteer; Aug 2012 – Jan 2013), Project: Reactions of free halogen species with Mn^{II}; PI: Dr. Sébastian Allard, Department of Chemistry, Curtin University of Technology, Australia.

Proposal Reviewer/Panelist (~40 proposals reviewed)

- Research Grants Council of Hong Kong (2023)
- Swiss National Science Foundation (2021)
- National Science Foundation (2016, 2017, 2018, 2020)
- C. Ellen Gonter Award, the most prestigious award presented to graduate students by the ACS Division of Environmental Chemistry (2018)
- National Institutes for Water Resources, USGS National Competitive Grants Program (2015, 2016)
- Kentucky Science and Engineering Foundation (2015)
- U.S. Agency for International Development (2013)
- Wiley Publishers, book proposal review (2023)

Peer Reviewer for Scientific Journals (number of manuscripts reviewed since Aug 2012; total = 110):

Environmental Science and Technology (42)
Water Research (14)
Environmental Science and Pollution Research (8)
Chemosphere (7)
Environmental Engineering Science (8)
Environmental Science and Technology Letters (4)
International Journal of Chemical Kinetics (4)
ES&T Water (3)
Environmental Science: Water Research and Technology (2)
Journal of Hazardous Materials (2)
Chemical Engineering Journal (2)
Science of the Total Environment (2)
Reviews of Environmental Contamination and Toxicology (2)
Environmental Science: Processes & Impacts (2)
ACS Earth & Space Chemistry (2)
Analytical Chemistry (1)

ES&T Engineering (1)
Journal of Agricultural and Food Chemistry (1)
Environmental Pollution (1)
Johnson Matthey Technology Review (1)
RSC Advances (1)

Community Service:

Educational Outreach Presenter, *Environmental Aquatic Chemistry* interactive lecture, two virtual events hosted by Prince George's County Public Schools (Apr 2022, May 2022), and one in-person event hosted by Montgomery County Public Schools (May 2022)

Educational Outreach Developer and Facilitator, *The Mathematics of Color and Light* discovery-based, interdisciplinary learning activity, North East Middle School (Mar 2015, Mar 2016), Patapsco High School (Apr 2016, Mar 2017, Mar 2018), John Stricker Middle School (Apr 2016, Apr 2017, Apr 2018)

Volunteer Tutor, grades 5 – 9 mathematics, Newark United Methodist Church community tutoring program, Newark, DE (Spring 2014, Spring 2015, Spring 2016, Spring 2018)

Volunteer Consultant, Montgomery County (Maryland) Public Schools Secondary STEM Content Development (Spring 2018)

Service at Previous Institutions:

Member, Whiting School of Engineering Graduate Committee, Johns Hopkins University (2007–2008)

Founder and Chair, Student Advisory Committee, Department of Geography and Environmental Engineering, Johns Hopkins University (2006–2007)

Member, Student Advisory Committee, Department of Environmental Engineering and Science, Clemson University (2003–2005)

Founder and Chair, Honors Program Professor of the Year Award Committee, Central Michigan University (2002–2003)

PROFESSIONAL MEMBERSHIPS

- American Chemical Society (Division of Agrochemicals; Division of Environmental Chemistry)
- Association of Environmental Engineering and Science Professors