SPENCER P. PITRE, PHD

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107 Physical Sciences
Oklahoma State University
Stillwater, OK 74078

EDUCATION

Ph.D. University of Ottawa, Chemistry — 09/2012 – 10/2017
Dissertation: Visible-Light Mediated Redox Processes: Strategies and Applications in Organic Synthesis
Advisor: Prof. Juan C. Scaiano

B.Sc. University of Prince Edward Island, Chemistry — 09/2008 – 05/2012
Graduated with Honours
Dissertation: Steady-State Fluorescence Investigation of the Association Constants of High Purity Modified Cyclodextrins with 2,6-ANS
Advisor: Prof. Brian D. Wagner

POSITIONS AND SCIENTIFIC APPOINTMENTS

Oklahoma State University, Stillwater OK, USA — 08/2019 – Present
Assistant Professor of Chemistry
- Photochemistry, Catalysis, Organic Synthesis

University of California, Irvine CA, USA — 09/2017 – 07/2019
NSERC Postdoctoral Fellow
- Advisor: Larry E. Overman
- Organic Synthesis, Photochemistry, Catalysis

HONORS AND AWARDS

ACS Academic Young Investigator Award	08/2024
OSU FY24 CAS Fall Travel Award	05/2023
NSERC Postdoctoral Fellowship	09/2017 – 08/2019
NSERC Michael Smith Foreign Study Supplement	01/2015 – 05/2015
NSERC Doctoral Scholarship	05/2014 – 04/2017
Ontario Graduate Scholarship	Declined
Excellence Scholarship, University of Ottawa	05/2014 – 04/2017
Admission Scholarship (PhD), University of Ottawa	01/2014 – 04/2014
Admission Scholarship (Masters), University of Ottawa	09/2012 – 12/2013
Reactive Intermediates Student Exchange (RISE) Scholarship	05/2011 – 08/2011
Frederick M. Davison Award, University of Prince Edward Island	2008

RESEARCH PROPOSALS AWARDED – ACTIVE FUNDING

National Institute of General Medical Sciences – NIH R35 (MIRA)
Title: Nucleophilic Cobalt Photocatalysis and Organic Single-Electron Photoreductants; Two Enabling Approaches for Chemical Synthesis
Grant Number: 1R35GM154751-01
Role: Principal Investigator
Amount Awarded: $1,820,030 Funding Period: 09/01/2024 – 08/31/2029

RESEARCH PROPOSALS AWARDED - COMPLETED

ACS Petroleum Research Fund – Doctoral New Investigator
Title: Halogen-Bonding Photocatalysis; Hydroquinones as Photocatalysts for the Radical Functionalization of Petroleum Feedstock Chemicals
Grant Number: PRF# 65034-DNI1
Role: Principal Investigator
Amount Awarded: $110,000 Funding Period: 06/01/2022 – 08/31/2024

National Science Foundation
Title: CAREER: Nucleophilic Cobalt Photocatalysis for the Generation of Radicals from Non-Traditional Precursors
Grant Number: NSF CHE-2338732
Role: Principal Investigator
Amount Awarded: $679,955 Status: *Withdrawn on 07/31/24*

OSU CAS Research Program FY21 Summer Salary Option
Title: Expanding the radical chemistry toolkit; Accessing non-traditional epoxide reactivity with Vitamin B12 catalysis
Role: Principal Investigator
Amount Awarded: $8,556 Funding Period: 07/2020

PUBLICATIONS

Preprints

(29) Salpadoru, T.; Khanam, S.; Borin, V. A.; Achour, M. A.; Oh, D.; Kanik, M; Gallage, P. C.; Khanov, A.; Hull, M.; Pitre. S. P.; Agarwal, P. K.; Franklin, M. J.; Patrauchan, M. A.* A novel non-catalytic function of PA2803-encoded PcrP contributes to polymyxin B resistance in P. aeruginosa and redefines the functional role of the PA2803 subfamily. *bioRxiv* **2025**, DOI: 10.1101/2025.05.13.653872.

Journal Publications since Affiliated with OSU

(28) Tasnim, T.; Shafiei, N.; Laminack, K. J.; Robertson, B. S., Nevels, N. E.; Fennell, C. J.; Pitre, S. P.* A Dual Catalytic Approach for the Halogen-Bonding-Mediated

Reductive Cleavage of α-Bromodifluoroesters and Amides. *J. Org. Chem*. **2025**, *90*, 863.

(27) Miyuranga, K. A. V.; Ashcraft, K. E.; Pitre, S. P.* A Modern Approach to Intermittent Illumination for the Characterization of Chain-Propagation in Photoredox Catalysis. *Tetrahedron Chem.* **2024**, *12*, 100110.

(26) Gallage, P. G.; McKee, M. G.; Pitre, S. P.* 1,4-Dihydropyridine Anions as Potent Single-Electron Photoreductants. *Org. Lett*. **2024**, *26*, 1975.

(25) Teye-Kau, J. H. G.; Ayodele, M. J.; Pitre, S. P.* Vitamin B_{12}-Photocatalyzed Cyclopropanation of Michael Acceptors Using Dichloromethane as the Methylene Source. *Angew. Chem. Int. Ed*. **2024**, *63*, e202316064. [Featured in **OSU News, *Synfacts***, and in "Highlights from the Literature" by ***OPR&D***]

(24) Gallage, P. C.; Pitre, S. P.* Direct photolysis of 4-*tert*-alkyl-1,4-dihydropyridines under blue-light irradiation for the generation of tertiary alkyl radicals. *Green Chem*. **2022**, *24*, 6845.

(23) Tasnim, T.; Ayodele, M. J.; Pitre, S. P.* Recent Advances in Employing Catalytic Donors and Acceptors in Electron Donor-Acceptor Complex Photochemistry. *J. Org. Chem*. **2022**, *87*, 10555. **[Invited Contribution]**

(22) Tasnim, T.; Ryan, C.; Christensen, M. L.; Fennell, C. J.; Pitre, S. P.* Radical Perfluoroalkylation Enabled by a Catalytically Generated Halogen Bonding Complex. *Org. Lett.* **2022**, *24*, 446.

(21) Pitre, S. P.*; Overman, L. E.* Strategic Use of Visible-Light Photoredox Catalysis in Natural Product Synthesis. *Chem. Rev*. **2022**, *122*, 1717. **[Invited Contribution]**

Non-refereed Contributions

(20) Teye-Kau, J. H. G., Pitre, S. P. Dichloromethane. In *Encyclopedia of Reagents for Organic Synthesis* **2025**, DOI: 10.1002/047084289X.rn02644. **[Invited Contribution]**

(19) Gómez-Suárez, A.*, Pitre, S. P.*, and Zhu, C.* A Radical Revolution in the 21st Century. *ChemCatChem* **2024**, *16*, e202401079. **[Editorial]**

(18) Pitre, S. P.* Radical coupling decreases synthetic burden. *Science* **2022**, *375*, 1234. **[Invited Perspective Article]**

Journal Publications Prior to OSU

(17) Pitre, S. P.; Allred, T. K.; Overman, L. E.* Lewis Acid Activation of Fragment-Coupling Reactions of Tertiary Carbon Radicals Promoted by Visible Light Irradiation of EDA Complexes. *Org. Lett*. **2021**, *23*, 1103.

(16) Pitre, S. P.; Muuronen, M.; Fishman, D. A.; Overman, L. E.* Tertiary Alcohols as Radical Precursors for the Introduction of Tertiary Substituents into Heteroarenes. *ACS Catal*. **2019**, *9*, 3413.

(15) Pitre, S. P.; Weires, N. A.; Overman, L. E.* Forging $C(sp^3)$–$C(sp^3)$ Bonds with Carbon-Centered Radicals in the Synthesis of Complex Molecules. *J. Am. Chem. Soc*. **2019**, *141*, 2800.

(14) McCallum, T.; Pitre, S. P.; Morin, M.; Scaiano, J. C.*; Barriault, L.* The photochemical alkylation and reduction of heteroarenes. *Chem. Sci*. **2017**, *8*, 7412.

(13) Pitre, S. P.; Scaiano, J. C.*; Yoon, T. P.* Photocatalytic Indole Diels–Alder Cycloadditions Mediated by Heterogeneous Platinum-Modified Titanium Dioxide. *ACS Catal*. **2017**, *7*, 6440.

(12) Pitre, S. P.; Yoon, T. P.*; Scaiano, J. C.* Titanium Dioxide Visible Light Photocatalysis: Surface Association Enables Photocatalysis with Visible Light Irradiation. *Chem. Commun*. **2017**, *53*, 4335.

(11) Garcia, A. M., de Alwis Weerasekera, H.; Pitre, S. P.; McNeill, B.; Lissi, E.; Edwards, A. M.*; Alarcon, E. M.* Photodynamic performance of zinc phthalocyanine in HeLa cells: A comparison between DPCC liposomes and BSA as delivery systems. *J. Photochem. Photobiol., B*. **2016**, *163*, 385.

(10) Pitre, S. P.; McTiernan, C. D.; Scaiano, J. C.* Library of Cationic Organic Dyes for Visible-Light-Driven Photoredox Transformations. *ACS Omega*. **2016**, *1*, 66.

(9) Pitre, S. P.; McTiernan, C. D.; Scaiano, J. C.* Understanding the Kinetics and Spectroscopy of Photoredox Catalysis and Transition-Metal Free Alternatives. *Acc. Chem. Res*. **2016**, *49*, 1320.

(8) Pitre, S. P.; McTiernan, C. D.; Vine, W.; DiPucchio, R.; Grenier, M.; Scaiano, J. C.* Visible-Light Actinometry and Intermittent Illumination as Convenient Tools to Study $Ru(bpy)_3Cl_2$ Mediated Photoredox Transformations. *Sci. Rep*. **2015**, *5*, 16397.

(7) Favrelle, A.; Gouhier, G.*; Guillen, F.; Martin, C.; Mofaddel, N.; Petit, S.; Mundy, K. M.; Pitre, S. P.; Wagner, B. D.* Structure-Binding Effects: Comparative Binding of 2-Anilino-6-naphthalenesulfonate by a Series of Alkyl- and Hydroxyalkyl-Substituted β-Cyclodextrins. *J. Phys. Chem. B*. **2015**, *119*, 12921.

(6) McTiernan, C. D.; Pitre, S. P.; Scaiano, J. C.* Photocatalytic Dehalogenation of Vicinal Dibromo Compounds Utilizing Sexithiophene and Visible-Light Irradiation. *ACS Catal*. **2014**, *4*, 4034.

(5) McTiernan, C. D.; Pitre, S. P.; Ismaili, H.; Scaiano, J. C.* Heterogeneous Light-Mediated Reductive Dehalogenations and Cyclizations Utilizing Platinum Nanoparticles on Titania (PtNP@TiO_2). *Adv. Synth. Catal*. **2014**, *356*, 2819.

(4) Pitre, S. P., McTiernan, C. D., Ismaili, H., Scaiano, J. C.* Metal-Free Photocatalytic Radical Trifluoromethylation Utilizing Methylene Blue and Visible Light Irradiation. *ACS Catal*. **2014**, *4*, 2530.

(3) Pitre, S. P., McTiernan, C. D., Ismaili, H., Scaiano, J. C.* Mechanistic Insights and Kinetic Analysis for the Oxidative Hydroxylation of Arylboronic Acids by Visible Light Photoredox Catalysis: A Metal-Free Alternative. *J. Am. Chem. Soc*. **2013**, *135*, 13286.

(2) Carter Ramirez, D. M., Pitre, S. P., Kim, Y. A., Bittman, R., Johnston, L. J.* Photouncaging of Ceramides Promotes Reorganization of Liquid-Ordered Domains in Supported Lipid Bilayers. *Langmuir* **2013**, *29*, 3380.

(1) Ismaili, H., Pitre, S. P., Scaiano, J. C.* Active participation of amine derived radicals in photoredox catalysis as exemplified by a reductive cyclization. *Catal Sci. Technol*. **2013**, *3*, 935.

ORAL PRESENTATIONS AND INVITED LECTURES

Oral Presentations since Affiliated with OSU

Department of Chemistry, University of California, Irvine. (August 7, 2025) Pitre, S. P. "Nucleophilic Cobalt Photocatalysis and Organic Photoreductants: Two Enabling Approaches to Organic Synthesis", Irvine, California, USA.

2025 Organic Reactions and Processes Gordon Research Conference (July 20–24, 2025) Pitre, S. P. "Photomediated Strategies for Engaging Non-Traditional Radical Precursors in Organic Synthesis", Bryant University, Rhode Island, USA. **[Invited Speaker, Radical Approaches to Bond Formation]**

Department of Chemistry, Fairfield University. (March 21, 2025) Pitre, S. P. "Harnessing the Power of Light and Nature to Access New Reactivity Pathways for Organic Synthesis", Fairfield, Connecticut, USA.

Department of Chemistry, New York University. (March 18, 2025) Pitre, S. P. "Nucleophilic Cobalt Photocatalysis and Organic Photoreductants: Two Enabling Approaches to Organic Synthesis", New York City, New York, USA.

Department of Chemistry, University of Minnesota. (December 12, 2024) Pitre, S. P. "Nucleophilic Cobalt Photocatalysis and Organic Photoreductants: Two Enabling Approaches to Organic Synthesis", Minneapolis, Minnesota, USA.

Department of Chemistry, Texas A&M University. (December 5, 2024) Pitre, S. P. "Nucleophilic Cobalt Photocatalysis and Organic Photoreductants: Two Enabling Approaches to Organic Synthesis", College Station, Texas, USA.

Department of Chemistry, University of Kansas. (November 15, 2024) Pitre, S. P. "Nucleophilic Cobalt Photocatalysis and Organic Photoreductants: Two Enabling Approaches to Organic Synthesis", Lawrence, Kansas, USA.

Department of Chemistry, North Carolina State University. (November 11, 2024) Pitre, S. P. "Nucleophilic Cobalt Photocatalysis and Organic Photoreductants: Two Enabling Approaches to Organic Synthesis", Raleigh, North Carolina, USA.

Department of Chemistry, University of Iowa. (November 1, 2024) Pitre, S. P. "Nucleophilic Cobalt Photocatalysis and Organic Photoreductants: Two Enabling Approaches to Organic Synthesis", Iowa City, Iowa, USA.

Department of Chemistry, Colorado State University. (October 28, 2024) Pitre, S. P. "Nucleophilic Cobalt Photocatalysis and Organic Photoreductants: Two Enabling Approaches to Organic Synthesis", Fort Collins, Colorado, USA.

2024 ACS Southwest Regional Meeting. (October 20–23, 2024) Pitre, S. P. "Strategies and Mechanistic Tools for Light-Mediated Organic Synthesis", Waco, Texas, USA. **[Invited Speaker, Cope Scholar Symposium – Advances in Organic Synthesis and Catalysis]**

Department of Chemistry, Rice University. (October 2, 2024) Pitre, S. P. "Nucleophilic Cobalt Photocatalysis and Organic Photoreductants: Two Enabling Approaches to Organic Synthesis", Houston, Texas, USA.

Department of Chemistry, University of Houston. (October 1, 2024) Pitre, S. P. "Nucleophilic Cobalt Photocatalysis and Organic Photoreductants: Two Enabling Approaches to Organic Synthesis", Houston, Texas, USA.

Department of Chemistry & Biochemistry, Baylor University. (September 13, 2024) Pitre, S. P. "Nucleophilic Cobalt Photocatalysis and Organic Photoreductants: Two Enabling Approaches to Organic Synthesis", Waco, Texas, USA.

Department of Biochemistry, UT Southwestern Medical Center. (September 12, 2024) Pitre, S. P. "Nucleophilic Cobalt Photocatalysis and Organic Photoreductants: Two Enabling Approaches to Organic Synthesis", Dallas, Texas, USA.

2024 ACS Fall National Meeting. (August 18–22, 2024) Pitre, S. P. "Nucleophilic Cobalt Photocatalysis and Organic Anion Photoreductants: Two Enabling Approaches for Organic Synthesis", Denver, Colorado, USA. **[Division of Organic Academic Young Investigator Award Symposium]**

2024 Florida Heterocyclic and Synthetic Conference. (March 10–13, 2024) Pitre, S. P. "Photochemical Approaches to Organic Synthesis", Gainesville, Florida, USA.

2022 ACS Southwest Regional Meeting. (November 6–9, 2022) Pitre, S. P. "Photochemical Strategies for the Generation of Carbon-Centered Radicals from Alkyl and Aryl Halides", Baton Rouge, Louisiana, USA. **[Invited Speaker, Cope Scholar – Catalysis in Organic Synthesis Symposium]**

2022 ACS Midwest Regional Meeting. (October 19–21, 2022) Pitre, S. P. "Photochemical Strategies for the Generation of Alkyl and Aryl Radicals from Carbon–Chlorine Bonds", Iowa City, Iowa, USA. **[Invited Speaker, Chemoselective Functionalization of Strong Bonds Symposium]**

2022 ACS Spring National Meeting. (March 20–24, 2022) Pitre, S. P. "Catalytically Generated Electron Donor-Acceptor Complexes in Visible-Light-Mediated Free-Radical Reactions", San Diego, California, USA.

2022 Florida Heterocyclic and Synthetic Conference. (March 6–9, 2022) Pitre, S. P. "Catalytically-Generated Charge-Transfer Complexes in Visible-Light-Mediated Free Radical Reactions", Gainesville, Florida, USA.

2021 ACS Southwest Regional Meeting. (October 31–November 3, 2021) Pitre, S. P. "Charge-Transfer Complexes as Catalytic Intermediates in Photoredox Transformations", Austin, Texas, USA. **[Invited Speaker, Advances in Transition Metal Catalysis for Organic Synthesis Symposium]**

Oral Presentations Prior to OSU

101st Canadian Chemistry Conference and Exhibition. (2018) Pitre, S. P.; Overman, L. E. "Alcohols as Radical Precursors for the Alkylation of Heterocycles", Edmonton, Alberta, Canada.

99th Canadian Chemistry Conference and Exhibition. (2016) Pitre, S. P.; Scaiano, J. C.; Yoon, T. P. "One-Pot Three Component Coupling of Indoles Mediated by Heterogeneous Semiconductor Photocatalysis", Halifax, Nova Scotia, Canada.

99th Canadian Chemistry Conference and Exhibition. (2016) Pitre, S. P.; McTiernan, C. D.; Vine, W.; DiPucchio, R.; Grenier, M.; Scaiano, J. C. "Development of a Visible-Light Actinometric Technique for the Facile Characterization of Chain Propagation in $Ru(bpy)_3Cl_2$ Mediated Photoredox Transformations", Halifax, Nova Scotia, Canada.

Centre for Catalysis Research and Innovation Technical Seminar. (2015) Pitre, S. P. "Visible-Light Mediated Redox Processes: Strategies and Applications in Organic Synthesis", Ottawa, Ontario, Canada.

42nd Quebec-Ontario Physical Organic Minisymposium. (2014) Pitre, S. P., McTiernan, C. D., Ismaili, H., Scaiano, J. C. "Methylene Blue Photocatalysis: A Metal-Free Alternative to Radical Trifluoromethylation", Hamilton, Ontario, Canada.

16th Annual Reactive Intermediates Student Exchange (RISE) Conference. (2011) Pitre, S. P.; Johnston, L. J. "Direct Incorporation of Short- and Long-Chain Ceramides into Supported Lipid Bilayers", Regina, Saskatchewan, Canada.

POSTER PRESENTATIONS

Poster Presentations since Affiliated with OSU

2024 Organic Reactions and Processes Gordon Research Conference (July 21–26, 2024) "Nucleophilic Cobalt Photocatalysis and Organic Photoreductants: Two Enabling Approaches to Organic Synthesis", Bryant University, Rhode Island, USA.

2023 Organic Reactions and Processes Gordon Research Conference (July 16–21, 2023) "Halogen-Bonding Photocatalysis, Cobalt Photocatalysis, and Excited Organic Anions: Three Distinct Photochemical Approaches to Organic Synthesis", Bryant University, Rhode Island, USA.

2022 Organic Reactions and Processes Gordon Research Conference (July 17–22, 2022) "Free-Radical Reactions Mediated by Nucleophilic Cobalt Catalysis and Visible-Light Irradiation", Bryant University, Rhode Island, USA.

Poster Presentations Prior to OSU

2018 University of California Chemical Symposium. (2018) Pitre, S. P.; Overman, L. E. "Tertiary Alcohols as Radical Precursors for the Alkylation of Heterocycles", Lake Arrowhead, California, USA.

Centre for Advanced Materials Research Opening. (2017) Pitre, S. P.; Scaiano, J. C.; Yoon, T. P. "Photocatalytic Diels–Alder Reactions Mediated by TiO_2 and Visible Light Irradiation", Ottawa, Ontario, Canada.

98th Canadian Chemistry Conference and Exhibition. (2015) Pitre, S. P.; Scaiano, J. C.; Yoon. T. P. "Developing Heterogeneous Alternatives for Visible- Light Photoredox Catalysis", Ottawa, Ontario, Canada.

22nd IUPAC International Conference on Physical Organic Chemistry. (2014) Pitre, S. P., McTiernan, C. D., Ismaili, H., Scaiano, J. C. Metal-Free Photocatalytic Radical Trifluoromethylations using Methylene Blue. Ottawa, Ontario, Canada.

19th International Symposium on Homogeneous Catalysis. (2014) Pitre, S. P., McTiernan, C. D., Ismaili, H., Scaiano, J. C. "Visible-Light Promoted Radical Trifluoromethylations Using Methylene Blue as an Organophotocatalyst", Ottawa, Ontario, Canada.

6th Pacific Symposium on Radical Chemistry. (2013) Pitre, S.P., McTiernan, C. D., Ismaili, H., Scaiano, J. C. "Aerobic, Metal Free Photoredox Catalysis Using Methylene Blue", Vancouver, British Columbia, Canada.

STUDENT AND POSTDOCTORAL FELLOW MENTORING

Doctoral Students Advised

- Prasadi Gallage, 01/2020 – 09/2024
    - Currently a Postdoctoral Fellow at Baylor University (Romero Lab)
- Tarannum Tasnim, 01/2020 – 12/2024
- John Teye-Kau, 01/2022 – Present
- Negin Shafiei, 05/2022 – Present
- Subrata Pal, 01/2023 – Present
- K. A. Viraj Miyuranga, 01/2024 – Present
- Aishwarya Nayar, 05/2024 – Present
- Farzana Mridu, 01/2025 – Present
- Susila Thapa, 07/2025 – Present

Master's Students Advised

- Abigail Norris, 05/2025 – Present

Undergraduate Students Advised

- Marely Gilestra, 11/2019 – 12/2020
- Kayla Beagles, 06/2020 – 04/2021
- Calvin Ryan, 06/2020 – 12/2021
- Mary McKee, 09/2021 – 05/2023
- Kaitlin Ashcraft, 09/2021 – 05/2024
    - Completed Honors thesis 05/2024
- Bailey Robertson, 01/2022 – 05/2023
    - Completed Honors thesis 05/2023
- Zane Calvert, 05/2021 – 08/2021, 08/2022 – 10/2023
- Megan Padgett, 01/2023 – 05/2023
- Katelyn Laminack, 05/2023 – 05/2024
- Jentry Lemons, 06/2023 – 05/2024
- Kayman Ross, 01/2024 – 05/2025
- Caroline Price, 03/2024 – 12/2024
- Sam Scovitch, 05/2024 – Present
- Paige Robertson, 08/2024 – Present
- Jocelyn Hernandez, 01/2025 – Present

Postdoctoral Fellows Advised

- Martin Pauze, 01/2025 – Present
- Mayokun Ayodele, 01/2022 – 04/2023
    - Currently employed at Weaver Labs, Stillwater OK.

THESIS COMMITTEES

Doctoral Students

- Waleed Alamier
- Timothy Schoch
- Shivangi
- Osaid Alkhamayseh
- John Raincrow
- Parul Sharma
- Nishan Khanal
- Khalid Alrashidi
- Tiwalola Ogunleye
- Habeeb Al-Mashala
- Parul Sharma
- Shubham Sharma
- Dhanuka Thennakoon
- Scott Hutchinson
- Kwabena Fobi
- Vanessa Fortney
- Mohi Naderi
- Susila Thapa
- Roshni Hanumanthu

Master's Students

- Erik Lantz
- Nathan Herndon

Undergraduate Honors Students

- Megan Hays

TEACHING EXPERIENCE

Oklahoma State University, Stillwater OK, USA 08/2019 – Present
Assistant Professor, Department of Chemistry

Spring 2025: CHEM 3053 – Organic Chemistry I

- Course credit hours: 3.0
- Enrollment: 225
- Student evaluations – Overall average: 4.28 out of 5

Fall 2024: CHEM 4322 – Advanced Organic Chemistry Laboratory

- Course credit hours: 2.0
- Enrollment: 9
- Student evaluations – Overall average: 4.45 out of 5

Spring 2024: CHEM 5063 – Foundations of Organic Chemistry

- Course credit hours: 3.0
- Enrollment: 11
- Student evaluations – Overall average: 4.98 out of 5

Fall 2023: CHEM 3053 – Organic Chemistry I

- Course credit hours: 3.0
- Enrollment: 143
- Student evaluations – Overall average: 4.45 out of 5

Spring 2023: CHEM 3013 – Survey of Organic Chemistry

- Course credit hours: 3.0
- Enrollment: 77

- Student evaluations – Overall average: 4.20 out of 5

Fall 2022: CHEM 4322 – Advanced Organic Chemistry Laboratory
- Course credit hours: 2.0
- Enrollment: 4
- Student evaluations – Overall average: 4.80 out of 5

Spring 2022: CHEM 3053 – Organic Chemistry I
- Course credit hours: 3.0
- Enrollment: 194
- Student evaluations – Overall average: 4.09 out of 5

Spring 2021: CHEM 6420 - Introduction to Photochemistry
- Course credit hours: 3.0
- Enrollment: 13
- Student evaluations – Overall average: 4.7 out of 5

Fall 2020: CHEM 4322 – Advanced Organic Chemistry Laboratory
- Course credit hours: 2.0
- Enrollment: 4 students
- Student evaluations – Overall average: 4.25 out of 5.0

Fall 2020: CHEM 5011 – Graduate Seminar
- Co-instructor with Allen Apblett
- Course credit hours: 1.0
- Enrollment: 5 students

Spring 2020: CHEM 5063 – Foundations of Organic Chemistry
- Course credit hours: 3.0
- Enrollment: 10 students
- Student evaluations:
    - Overall instructor average: 4.17 out of 5.0
    - Overall view of the course: 3.38 out of 4.0

Fall 2019: CHEM 2980 – The Chemistry of Life
- Course credit hours: 1.0
- Enrollment: 5 students

University of Ottawa, Ottawa ON, Canada 2012 – 2016
Lab Demonstrator, Department of Chemistry and Biomolecular Sciences
- General Chemistry Laboratory, 2012
- Organic Chemistry I Laboratory, 2013, 2014
- Organic Chemistry II Laboratory, 2013 – 2016

University of Prince Edward Island, Charlottetown PE, Canada 2011 – 2012

Teaching Assistant, Department of Chemistry
- Physical Chemistry I and II Laboratories

GRADUATE AND UNDERGRADUATE RESEARCH TRAINING

University of Ottawa, Ottawa ON, Canada 06/2012 – 07/2017
PhD Candidate, Advisor: Juan C. Scaiano
- Photochemistry, Catalysis, Physical Organic Chemistry

University of Wisconsin-Madison, Madison WI, USA 01/2015 – 04/2015
Visiting Research Assistant, Advisor: Tehshik P. Yoon
- Organic Synthesis, Photochemistry, Catalysis

University of Prince Edward Island, Charlottetown PE, Canada 09/2011 – 05/2012
Honours Student Research Assistant, Advisor: Brian D. Wagner
- Physical Chemistry, Supramolecular Chemistry

National Research Council Canada, Ottawa ON, Canada 05/2011 – 08/2011
Student Research Assistant (RISE), Advisor: Linda J. Johnston
- Biophysical Chemistry

University of Prince Edward Island, Charlottetown PE, Canada 02/2011 – 04/2011
Part-Time Student Research Assistant, Advisor: Brian D. Wagner
- Physical Chemistry, Supramolecular Chemistry

PROFESSIONAL TRAINING

NSF 2020 MPS Workshop for New Investigators
Online Workshop, 11/09/2022 – 11/10/2022
Description: Developed a short proposal on addressing the mysteries of the planet Venus, served on a mock review panel to evaluate proposals from other workshop participants and connected and interacted with numerous Program Directors from NSF throughout the workshop.

Hanover Research Grant Writing Workshop
Oklahoma State University, 11/05/2019
Description: Attended sessions on identifying funding opportunities and matching grant ideas with suitable funders, grant seeking strategy and developing competitive proposals, resubmissions, and developing interdisciplinary team-based proposals.
Grant Writer's Seminars and Workshops: Write Winning Grant Proposals
Oklahoma State University, September 18, 2019
Description: Attended sessions on how to write successful grant proposals to any agency.

PROFESSIONAL AFFILIATIONS

American Chemical Society, 2019 – Present
Member

PROFESSIONAL SERVICE

Peer-Reviewed Articles for:

- ACS Catalysis
- ChemCatChem
- Chemical Science
- ChemPhotoChem
- Journal of Organic Chemistry
- Nature Catalysis
- Organic Letters
- Science
- Angewandte Chemie International Edition
- Chemical Communications
- Chemistry – A European Journal
- ChemSusChem
- Journal of the American Chemical Society
- Nature Communications
- Reaction Chemistry & Engineering
- ACS Sustainable Chemistry & Engineering

Peer-Reviewed Grant Proposals for:

- National Institute of Health
  - March 2025 MRAE Study Section
- ACS Petroleum Research Fund
- National Science Center, Poland

Guest Editor, ChemCatChem & European Journal of Organic Chemistry:

- Joint Special Collection: Radical Chemistry in Catalysis and Organic Synthesis
- 09/2022 – 08/2024
- Responsible for developing a list of researchers to invite to submit to special collection, for helping write the invitation letter, and for advertising the special collection at conferences

Session Organizer, Advances in Catalysis for Organic Synthesis Symposium, 2023 ACS Southwest Regional Meeting

- November 17, Oklahoma City, Oklahoma
- Co-organized with Daniel Romo (Baylor University)

Poster Judge for:

- 2022 Florida Heterocyclic and Synthetic Conference (March 6–9, 2022)

DEPARTMENTAL SERVICE

Committees:

- Seminar Coordinator, Seminar Committee Chair (02/2025 – Present)
- Document Committee (Reappointment, Promotion and Tenure) (10/2023 – 01/2024)
- Hiring Committee, Organic Tenure-Track Associate/Assistant Professor (Fall 2023)
- Graduate Admissions Committee (01/2023 – 05/2025)
- Hiring Committee, Organic Teaching Assistant Professor (Fall 2022)
- Hiring Committee, Organic Teaching Assistant Professor (Fall 2021)

- Hiring Committee, Organic Tenure-Track Assistant Professor (Fall 2021)
- Hiring Committee, Organic Teaching Assistant Professor (Spring 2020)

Poster Judge for:

- Annual OSU Undergraduate Research Symposium (2023 – 2025)

Recruiting:

- Graduate Recruitment Booth
    - 2022 ACS Southwest Regional Meeting, Baton Rouge, Louisiana
    - 2021 ACS Southwest Regional Meeting, Austin, Texas
- Undergraduate Recruitment Events
    - OSU Scholars Day (10/15/2024)
    - OSU Up Close (10/17/2022, 10/11/2023)
    - OSU Majors and Minors Fair (09/26/2019, 10/13/2022)
    - OSU Junior Day (04/22/2023, 04/27/2024)

UNIVERSITY SERVICE

Committees:

- OSU Pre-Health Advisory Committee (01/2023 – Present)
- Hiring Committee, Associate Dean of Research, College of Arts and Sciences (08/2023 – 10/2023)
- OSUTeach Advisory Committee (09/2024 – Present)