

# SPENCER P. PITRE, PHD

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107 Physical Sciences  
Oklahoma State University  
Stillwater, OK 74078

## EDUCATION

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- 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

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- 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

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- 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

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### **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

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### **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

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### *Under Review*

(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  $\alpha$ -Bromodifluoroesters and Amides. Under Review. Pre-print: *ChemRxiv* **2024**, DOI: <https://doi.org/10.26434/chemrxiv-2024-jncx1>.

### *Journal Publications since Affiliated with OSU*

(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<sub>12</sub>-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* **2024**, Accepted. [Invited Contribution]

(19) Gómez-Suárez, A.\*; Pitre, S. P.\*; and Zhu, C.\* [A Radical Revolution in the 21<sup>st</sup> 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\(sp<sup>3</sup>\)-C\(sp<sup>3</sup>\) 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\(bpy\)<sub>3</sub>Cl<sub>2</sub> 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 \(PtNP@TiO<sub>2</sub>\).](#) *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

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### *Oral Presentations since Affiliated with OSU*

**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*

**101<sup>st</sup> Canadian Chemistry Conference and Exhibition.** (2018) Pitre, S. P.; Overman, L. E. “Alcohols as Radical Precursors for the Alkylation of Heterocycles”, Edmonton, Alberta, Canada.

**99<sup>th</sup> 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.

**99<sup>th</sup> 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)<sub>3</sub>Cl<sub>2</sub> 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.

**42<sup>nd</sup> 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.

**16<sup>th</sup> 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**

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### *Oral 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<sub>2</sub> and Visible Light Irradiation”, Ottawa, Ontario, Canada.

**98<sup>th</sup> 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.

**22<sup>nd</sup> 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.

**19<sup>th</sup> 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.

**6<sup>th</sup> 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**

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### **Doctoral Students Advised**

- Prasadi Gallage, 01/2020 – 09/2024
  - Currently a Postdoctoral Fellow at Baylor University
- Tarannum Tasnim, 01/2020 – Present
- John Teye-Kau, 01/2022 – Present
- Negin Shafiei, 05/2022 – Present
- Subrata Pal, 01/2023 – Present
- Viraj Kodithuwakku, 01/2024 – Present
- Aishwarya Nayar, 05/2024 – 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 – Present



- Caroline Price, 03/2024 – Present
- Sam Scovitch, 05/2024 – Present
- Paige Robertson, 08/2024 - Present

#### **Postdoctoral Fellows Advised**

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

### **THESIS COMMITTEES**

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#### **Doctoral Students**

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

#### **Master's Students**

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|--------------|------------------|
| • Erik Lantz | • Nathan Herndon |
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#### **Undergraduate Honors Students**

- Megan Hays

### **TEACHING EXPERIENCE**

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**Oklahoma State University, Stillwater OK, USA**  
**Assistant Professor, Department of Chemistry**

08/2019 – Present

#### **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

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- 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

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### **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

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American Chemical Society, 2019 – Present  
Member

## PROFESSIONAL SERVICE

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### 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

### Peer-Reviewed Grant Proposals for:

- 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

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### Committees:

- 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 – Present)
- 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:

- 2023 OSU Undergraduate Research Symposium (April 18, 2023)
- 2022 OSU Undergraduate Research Symposium (April 19, 2022)

**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**

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**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)