

# SPENCER P. PITRE, PHD

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Department of Chemistry  
Oklahoma State University  
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Stillwater, OK 74078

## EDUCATION

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| <b>Ph.D.</b> University of Ottawa, Chemistry<br>Dissertation: Visible-Light Mediated Redox Processes:<br>Strategies and Applications in Organic Synthesis<br>Advisor: Prof. Juan C. Scaiano   | 09/2012 – 10/2017 |
| <b>B.Sc.</b> University of Prince Edward Island, Chemistry<br>Graduated with Honours<br>Dissertation: Steady-State Fluorescence Investigation of<br>Association Constants of High Purity Modified Cyclodextrins<br>with 2,6-ANS<br>Advisor: Prof. Brian D. Wagner | 09/2008 – 05/2012 |

## POSITIONS AND SCIENTIFIC APPOINTMENTS

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| <b>Oklahoma State University</b> , Stillwater OK, USA<br><b>Assistant Professor of Chemistry</b> <ul style="list-style-type: none"><li>• Photochemistry, Catalysis, Organic Synthesis</li></ul>                         | 08/2019 – Present |
| <b>University of California</b> , Irvine CA, USA<br><b>NSERC Postdoctoral Fellow</b> <ul style="list-style-type: none"><li>• Advisor: Larry E. Overman</li><li>• Organic Synthesis, Photochemistry, Catalysis</li></ul> | 09/2017 – 07/2019 |

## HONORS AND AWARDS

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

## EXTERNAL FUNDING (TOTAL \$2.61 MILLION AWARDED, \$1.93 MILLION ACCEPTED)

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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

Role: Principal Investigator

Amount Awarded: \$1,820,030    Funding Period: 09/01/2024 – 08/31/2029

### 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 07/31/2024*

### 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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### *Submitted Manuscripts*

**(31)** Pal. S.; Pauze, M.; Shafiei, N.; **Pitre. S. P.\*** Base Metal Photocatalysts: A Bright Future in Photoredox Catalysis. *Under Review*.

**(30)** Teye-Kau, J. H. G.; Pauze, M.; **Pitre. S. P.\*** *cis*-Selective Direct Halocyclopropanation of Alkenes Mediated by Nucleophilic Cobalt Photocatalysis. *Under Review*. Preprint: *ChemRxiv* **2025**, DOI: [10.26434/chemrxiv-2025-lflm6](https://doi.org/10.26434/chemrxiv-2025-lflm6).

### *Journal Publications since Affiliated with OSU*

**(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](#). *J. Bacteriol.* **2025**, DOI: 10.1128/jb.00189-25.

**(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](#). *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. C.; 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* **2025**, DOI: 10.1002/047084289X.rn02644. [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  \$\beta\$ -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

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### *Oral Presentations since Affiliated with OSU*

Department of Chemistry and Biochemistry, University of Tulsa. (October 20, 2025) **Pitre, S. P.** "Harnessing the Power of Light and Nature to Access New Reactivity Pathways for Organic Synthesis", Tulsa, Oklahoma, USA. **[Invited Talk]**

*Department of Chemistry and Biochemistry, University of Oklahoma.* (September 26, 2025) **Pitre, S. P.** “Nucleophilic Cobalt Photocatalysis and Organic Photoreductants: Two Enabling Approaches to Organic Synthesis”, Norman, Oklahoma, USA. **[Invited Talk]**

*Great Plains Catalysis Society Webinar Series.* (September 12, 2025) **Pitre, S. P.** “Harnessing the Power of Light and Nature to Access New Reactivity Pathways for Organic Synthesis.” **[Invited Talk]**

*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. **[Invited Talk]**

*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 Talk, 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. **[Invited Talk]**

*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. **[Invited Talk]**

*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. **[Invited Talk]**

*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. **[Invited Talk]**

*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. **[Invited Talk]**

*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. **[Invited Talk]**

*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. **[Invited Talk]**

*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. **[Invited Talk]**

*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 Talk, 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. **[Invited Talk]**

*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. **[Invited Talk]**

*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. **[Invited Talk]**

*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. **[Invited Talk]**

*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. **[Contributed Talk]**

*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 Talk, 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 Talk, 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. **[Contributed Talk]**

*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. **[Contributed Talk]**

*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 Talk, 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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### *Poster Presentations since Affiliated with OSU*

*2024 Organic Reactions and Processes Gordon Research Conference* (July 21–26, 2024) **Pitre, S. P.** "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) **Pitre, S. P.** "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) **Pitre, S. P.** "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.

#### CONFERENCE PRESENTATIONS FROM LAB MEMBERS

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**Oral Presentations** (**Note:** Presenter name underlined. Undergraduate students indicated with "+")

66<sup>th</sup> Annual ACS Oklahoma Pentasectional Meeting. (March 2025) Teye-Kau, J. H.; **Pitre, S. P.\*** "Halocyclopropanation of Olefins Promoted by Nucleophilic Cobalt Photocatalysis", Tulsa, Oklahoma, USA.

66<sup>th</sup> Annual ACS Oklahoma Pentasectional Meeting. (March 2025) Shafiei, N.; Tasnim, T.; **Pitre, S. P.\*** "Halogen-Bonding Photocatalysis using Carbazole-Based Electron Donor Catalysts", Tulsa, Oklahoma, USA.

66<sup>th</sup> Annual ACS Oklahoma Pentasectional Meeting. (March 2025) Pal, S.; **Pitre, S. P.\*** "Investigation of Cobalt(II) Complexes for Photocatalyzed Reactions Under Visible Light Irradiation", Tulsa, Oklahoma, USA.

2024 ACS Southwest Regional Meeting. (October 2024) Teye-Kau, J. H.; **Pitre, S. P.\*** "Vitamin B<sub>12</sub>-Catalyzed Cyclopropanation Reactions", Waco, Texas, USA.

2024 ACS Southwest Regional Meeting. (October 2024) Tasnim, T.; **Pitre, S. P.\*** "Halogen-bonding photocatalyzed radical perfluoroalkylation reactions", Waco, Texas, USA.

2023 ACS Southwest Regional Meeting. (November 2023) Tasnim, T.; **Pitre, S. P.\***; Shafiei, N. "Radical perfluoroalkylation reactions mediated by halogen-bonding photocatalysis", Oklahoma City, Oklahoma, USA.

2023 ACS Southwest Regional Meeting. (November 2023) Gallage, P. C.; **Pitre, S. P.\*** "Dual role of visible-light-activated 1,4-dihydropyridine anions: Alkyl radical precursors and photoreductants in organic transformations", Oklahoma City, Oklahoma, USA.

**Poster Presentations** (**Note:** Presenter name underlined. Undergraduate students indicated with "+")

66<sup>th</sup> Annual ACS Oklahoma Pentasectional Meeting. (March 2025) Nayar, A. S.; **Pitre, S. P.\*** "Cross-electrophile coupling mediated by nucleophilic cobalt photocatalysis", Tulsa, Oklahoma, USA.

66<sup>th</sup> Annual ACS Oklahoma Pentasectional Meeting. (March 2025) Robertson, P. M.†; Pal, S.; **Pitre, S. P.\*** "Vitamin B<sub>12</sub>-Mediated Photo-electrochemical Synthesis", Tulsa, Oklahoma, USA.

66<sup>th</sup> Annual ACS Oklahoma Pentasectional Meeting. (March 2025) Ross, K. B.†; Miyuranga, K. A. V.; **Pitre, S. P.\*** "Synthesis of 4-(*tert*-butyl) Pyridine from DHP and 4-Cyanopyridine Utilizing Photo Mediated Redox Processes", Tulsa, Oklahoma, USA.

*66<sup>th</sup> Annual ACS Oklahoma Pentasectional Meeting.* (March 2025) Scovitch, S. J.<sup>†</sup>; Tasnim, T.; Shafiei, N.; **Pitre, S. P.\*** “Halogen-Bonding Photocatalysis Using Carbazoles as Electron Donors”, Tulsa, Oklahoma, USA.

*2024 ACS Southwest Regional Meeting.* (October 2024) Shafiei, N.; Tasnim, T.; **Pitre, S. P.\*** “Halogen-Bonding Photocatalysis using Carbazole-Based Electron Donor Catalysts”, Waco, Texas, USA.

*2024 ACS Southwest Regional Meeting.* (October 2024) Pal, S.; **Pitre, S. P.\*** “Investigation of Cobalt(II) Complexes for Photocatalyzed Reactions Under Visible Light Irradiation”, Waco, Texas, USA.

*2023 ACS Southwest Regional Meeting.* (November 2023) Teye-Kau, J. H.; **Pitre, S. P.\*** “Vitamin B<sub>12</sub>-Catalyzed Cyclopropanation of Olefins”, Oklahoma City, Oklahoma, USA.

*2023 ACS Southwest Regional Meeting.* (November 2023) Shafiei, N.; Tasnim, T.; **Pitre, S. P.\*** “Catalytic Donors and Acceptors in Electron Donor–Acceptor Complex Photochemistry”, Oklahoma City, Oklahoma, USA.

*2023 ACS Southwest Regional Meeting.* (November 2023) Pal, S.; **Pitre, S. P.\*** “Cobaloxime-Photocatalyzed Minisci Reactions Under Visible Light Irradiation”, Oklahoma City, Oklahoma, USA.

*2023 ACS Southwest Regional Meeting.* (November 2023) Laminack, K.<sup>†</sup>; Tasnim, T.; Shafiei, N.; **Pitre, S. P.\*** “Engaging perfluoroalkyl bromides as radical precursors using halogen-bonding photocatalysis”, Oklahoma City, Oklahoma, USA.

*2023 ACS Southwest Regional Meeting.* (November 2023) Lemons, J. J.<sup>†</sup>; Teye-Kau, J. H.; **Pitre, S. P.\*** “Dual photoredox/vitamin B<sub>12</sub>-photocatalyzed cyclopropanation reactions”, Oklahoma City, Oklahoma, USA.

*2023 ACS Southwest Regional Meeting.* (November 2023) Ashcraft, K.<sup>†</sup>; Ayodele, M.; **Pitre, S. P.\*** “Intermittent illumination using modern LED technologies to study radical chain reactions”, Oklahoma City, Oklahoma, USA.

*2022 ACS Southwest Regional Meeting.* (November 2022) Teye-Kau, J. H.; **Pitre, S. P.\*** “Vitamin B<sub>12</sub>-Catalyzed Cyclopropanations”, Baton Rouge, Louisiana, USA.

*2022 ACS Southwest Regional Meeting.* (November 2022) Tasnim, T.; **Pitre, S. P.\*** “Hydroquinone-assisted halogen-bonding complex for radical perfluoroalkylation reaction”, Baton Rouge, Louisiana, USA.

*2022 ACS Southwest Regional Meeting.* (November 2022) Ayodele, M. J.; **Pitre, S. P.\*** “Towards the exploration of metal-organic frameworks as catalysts for EDA complex photochemistry”, Baton Rouge, Louisiana, USA.

*2022 ACS Southwest Regional Meeting.* (November 2022) Gallage, P. C.; Mckee, M.<sup>†</sup>; **Pitre, S. P.\*** “Visible-light Photochemistry of 1,4-Dihydropyridine (DHP) Anions”, Baton Rouge, Louisiana, USA.

*65<sup>th</sup> Annual ACS Oklahoma Pentasectional Meeting.* (October 2022) Ashcraft, K.<sup>†</sup>; **Pitre, S. P.\*** “Hantzsch Amides for the Selective Reduction of Michael Acceptors”, Bartlesville, Oklahoma, USA.

*2021 ACS Midwest Regional Meeting.* (October 2021) Tasnim, T.; **Pitre, S. P.\*** “Halogen-bonding mediated perfluoroalkylation of electron-rich (hetero)arenes and alkenes”, Springfield, Missouri, USA.

2021 ACS Midwest Regional Meeting. (October 2021) Gallage, P. C.; **Pitre, S. P.\*** “A visible-light-promoted photocatalyst-free Giese reaction based on the use of 4-alkyl-1,4-dihydropyridines as radical precursors”, Springfield, Missouri, USA.

## **STUDENT AND POSTDOCTORAL FELLOW MENTORING**

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### **Doctoral Students Advised**

- Prasadi Gallage, PhD, 01/2020 – 09/2024
  - Currently a Postdoctoral Fellow at Baylor University (Romero Lab)
- Tarannum Tasnim, PhD, 01/2020 – 12/2024
  - Currently employed at ARL Bio Pharma, Oklahoma City, OK
- John Hayford Teye-Kau, PhD, 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
  - Completed Honors thesis 05/2024
- Caroline Price, 03/2024 – 12/2024
- Sam Scovitch, 05/2024 – Present
- Paige Robertson, 08/2024 – Present
- Jocelyn Hernandez, 01/2025 – Present
- Emmie McRorie, 09/2025 – Present
- Rachel Neaves, 09/2025 – Present
- Jake Schirmer, 09/2025 – Present

### **Postdoctoral Fellows Advised**

- Dr. Mayokun Ayodele, 01/2022 – 04/2023
- Dr. Martin Pauze, 01/2025 – Present

## THESIS COMMITTEES

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### Doctoral Students

- Waleed Alamier
- Timothy Schoch
- Shivangi Kharbanda
- Osaid Alkhamayseh
- John Raincrow
- Parul Sharma
- Christian Escritt
- Darshani Dewage Dona
- Khalid Alrashidi
- Tiwalola Ogunleye
- Habeeb Al-Mashala
- Nima Noei
- Shubham Sharma
- Dhanuka Thennakoon
- Yashoda Aluth Gedara
- Scott Hutchinson
- Kwabena Fobi
- Vanessa Fortney
- Mohi Naderi
- Nishan Khanal
- Roshni Hanumanthu
- Siddhartha Maji

### Master's Students

- Erik Lantz
- Nathan Herndon

### 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

### Fall 2025: CHEM 6650/4650 – Introduction to Photochemistry

- Enrollment: 14

### Spring 2025: CHEM 3053 – Organic Chemistry I

- Enrollment: 225
- Student evaluations – Overall average: 4.28 out of 5

### Fall 2024: CHEM 4322 – Advanced Organic Chemistry Laboratory

- Enrollment: 9
- Student evaluations – Overall average: 4.45 out of 5

### Spring 2024: CHEM 5063 – Foundations of Organic Chemistry

- Enrollment: 11
- Student evaluations – Overall average: 4.98 out of 5

### Fall 2023: CHEM 3053 – Organic Chemistry I

- Enrollment: 143
- Student evaluations – Overall average: 4.45 out of 5

### Spring 2023: CHEM 3013 – Survey of Organic Chemistry

- Enrollment: 77
- Student evaluations – Overall average: 4.20 out of 5

### Fall 2022: CHEM 4322 – Advanced Organic Chemistry Laboratory

- Enrollment: 4
- Student evaluations – Overall average: 4.80 out of 5

**Spring 2022: CHEM 3053 – Organic Chemistry I**

- Enrollment: 194
- Student evaluations – Overall average: 4.09 out of 5

**Spring 2021: CHEM 6420 - Introduction to Photochemistry**

- Enrollment: 13
- Student evaluations – Overall average: 4.7 out of 5

**Fall 2020: CHEM 4322 – Advanced Organic Chemistry Laboratory**

- Enrollment: 4 students
- Student evaluations – Overall average: 4.25 out of 5.0

**Fall 2020: CHEM 5011 – Graduate Seminar**

- Co-instructor with Allen Apblett
- Enrollment: 5 students

**Spring 2020: CHEM 5063 – Foundations of Organic Chemistry**

- Enrollment: 10 students
- Student evaluations:
  - Overall instructor average: 4.17 out of 5.0

**Fall 2019: CHEM 2980 – The Chemistry of Life**

- 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

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**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  
**Part-Time Student Research Assistant**, Advisor: Brian D. Wagner  
• Physical Chemistry, Supramolecular Chemistry

02/2011 – 04/2011

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#### PROFESSIONAL AFFILIATIONS

American Chemical Society Member, 2019 – Present

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#### PROFESSIONAL SERVICE

##### Peer-Reviewed Articles for:

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

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#### 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)

**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)

**Poster Judge for:**

- Annual OSU Undergraduate Research Symposium (2023 – 2025)

**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)