

SPENCER P. PITRE, PHD

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Department of Chemistry
Oklahoma State University
107 Physical Sciences
Stillwater, OK 74078

EDUCATION

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

POSITIONS AND SCIENTIFIC APPOINTMENTS

- | | |
|--|-------------------|
| Oklahoma State University , Stillwater OK, USA
Associate Professor of Chemistry | 07/2026 – Present |
| Assistant Professor of Chemistry | 08/2019 – 06/2026 |
| University of California , Irvine CA, USA
NSERC Postdoctoral Fellow
• Advisor: Larry E. Overman | 09/2017 – 07/2019 |

HONORS AND AWARDS

- | | |
|---|-------------------|
| ACS DOC 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 |

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

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

Journal Publications since Affiliated with OSU

(15) Wang, Y.; Pauze, M.; Pitre, S. P.; West, J. G.* [Light-enabled metal-free carbo- and silyl functionalization of \[1.1.1\]propellane and \[3.1.1\]propellane](#). *Org. Chem. Front.* **2026**, Accepted, DOI: 10.1039/d6qo00901h.

(14) Teye-Kau, J. H. G.; Pauze, M.; Pitre, S. P.* [cis-Selective Direct Halocyclopropanation of Alkenes Mediated by Nucleophilic Cobalt Photocatalysis](#). *JACS Au* **2026**, 6, 3356.

(13) Pal, S.; Pauze, M.; Shafiei, N.; Pitre, S. P.* [Base Metal Photocatalysts: A Bright Future in Photoredox Catalysis?](#) *Organometallics* **2026**, 45, 587.

(12) 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**, 207, e00189-25.

(11) 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.

(10) 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.

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

(8) Teye-Kau, J. H. G.; Ayodele, M. J.; Pitre, S. P.* [Vitamin B₁₂-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](#)]

(7) 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.

(6) 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]

(5) 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.

(4) 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

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

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

(1) 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\(sp³\)-C\(sp³\) 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\(bpy\)₃Cl₂ 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 \(PtNP@TiO₂\)](#). *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

Oral Presentations since Affiliated with OSU

2026 Accelerating Reaction Discovery Workshop, Telluride Science Conferences. (July 27–31, 2026)
Pitre, S. P. “Nucleophilic Cobalt Photocatalysis and Organic Photoreductants: Two Enabling Approaches for Organic Synthesis”, Telluride, Colorado, USA. **[Invited Talk]**

2026 Florida Heterocyclic and Synthetic Conference. (March 15–18, 2026) **Pitre, S. P.** “Harnessing the Photochemistry of Vitamin B₁₂ and Organic Anions to Access New Reactivity Pathways for Organic Synthesis”, Gainesville, Florida, USA. **[Contributed Talk]**

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

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)₃Cl₂ 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) **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 TiO₂ 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.

CONFERENCE PRESENTATIONS FROM LAB MEMBERS

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

66th 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.

66th 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.

66th 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 B₁₂-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 "+".)

2026 Organic Reactions and Processes Gordon Research Conference (June 2026) Pauze, M.; Thapa, S.; Nayar, A. S.; Teye-Kau, J. H. G.; **Pitre, S. P.*** "Nucleophilic Cobalt (Vitamin B₁₂) Photocatalysis for cis-Selective Halocyclopropanation, Deaminative / Deoxygenative Radical Generation, and C-C Bond Formation", Stonehill College, Massachusetts, USA.

2026 Florida Heterocyclic and Synthetic Conference. (March 2026) Thapa, S.; Pauze, M.; **Pitre, S. P.*** “Deaminative radical reactions mediated by Vitamin B₁₂ photocatalysis”, Gainesville, Florida, USA.

2026 Florida Heterocyclic and Synthetic Conference. (March 2026) Shafiei, N.; Mridu, F.; Scovitch, S.†; **Pitre, S. P.*** “Halogen-Bonding Photocatalysis Using Carbazole-Based Electron Donor Catalysts”, Gainesville, Florida, USA.

66th Annual ACS Oklahoma Pentasectional Meeting. (March 2025) Nayar, A. S.; **Pitre, S. P.*** “Cross-electrophile coupling mediated by nucleophilic cobalt photocatalysis”, Tulsa, Oklahoma, USA.

66th Annual ACS Oklahoma Pentasectional Meeting. (March 2025) Robertson, P. M.†; Pal, S.; **Pitre, S. P.*** “Vitamin B₁₂-Mediated Photo-electrochemical Synthesis”, Tulsa, Oklahoma, USA.

66th 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.

66th Annual ACS Oklahoma Pentasectional Meeting. (March 2025) Scovitch, S. J.†; 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 B₁₂-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.†; 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.†; Teye-Kau, J. H.; **Pitre, S. P.*** “Dual photoredox/vitamin B₁₂-photocatalyzed cyclopropanation reactions”, Oklahoma City, Oklahoma, USA.

2023 ACS Southwest Regional Meeting. (November 2023) Ashcraft, K.†; 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 B₁₂-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.†; **Pitre, S. P.*** “Visible-light Photochemistry of 1,4-Dihydropyridine (DHP) Anions”, Baton Rouge, Louisiana, USA.

65th Annual ACS Oklahoma Pentasectional Meeting. (October 2022) Ashcraft, K.†; **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

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 – 12/2025
 - Currently employed at TC Scientific Inc., Edmonton, AB
- 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 – 05/2026
 - Completed Honors thesis 05/2026
- Paige Robertson, 08/2024 – 05/2026
 - Completed Honors thesis 05/2026
- Jocelyn Hernandez, 01/2025 – Present
- Emmie McRorie, 09/2025 – Present
 - Niblack Research Scholar 08/2026 – Present
- Rachel Neaves, 09/2025 – Present
- Jake Schirmer, 09/2025 – Present
- Hali Anderson, 06/2026 – Present

Postdoctoral Fellows Advised

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

THESIS COMMITTEES

Doctoral Students

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

Master's Students

- | | |
|--------------|------------------|
| • Erik Lantz | • Nathan Herndon |
|--------------|------------------|

Undergraduate Honors Students

- Megan Hays

TEACHING EXPERIENCE

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

08/2019 – Present

Spring 2026: CHEM 3053 – Organic Chemistry I

- Enrollment: 225
- Student evaluations – Overall average: 4.42 out of 5

Fall 2025: CHEM 6650/4650 – Photochemistry

- Enrollment: 14
- Student evaluations – Overall average: 4.10 out of 5

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

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 AFFILIATIONS

American Chemical Society Member, 2019 – Present

PROFESSIONAL SERVICE

Peer-Reviewed Articles for:

- ACS Catalysis
- ChemCatChem
- Chemical Science
- ChemPhotoChem
- Journal of Organic Chemistry
- Nature Catalysis
- Organic Letters
- Science
- Synthesis
- 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)

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

Committees:

- OSU Pre-Health Advisory Committee (01/2023 – 05/2025)
- Hiring Committee, Associate Dean of Research, College of Arts and Sciences (08/2023 – 10/2023)

- OSUTeach Advisory Committee (09/2024 – Present)