Michael Christopher Young, Ph.D.
University of Toledo, Wolfe Hall 3266B
Toledo, OH 43606
(419)530-1524, http://www.younggroupchem.com

PROFESSIONAL EXPERIENCE

Associate Professor – University of Toledo Toledo, Ohio
Department of Chemistry & Biochemistry, School of Green Chem. & Engineering July 2021-Present

Assistant Professor – University of Toledo Toledo, Ohio
Department of Chemistry & Biochemistry, School of Green Chem. & Engineering July 2016-June 2021

EDUCATION

Postdoctoral Scholar – University of Texas - Austin Austin, Texas
Project: Dynamic Covalent Directing Group Strategies for Ketone and Amine Functionalization
Advisor: Prof. Guangbin Dong July 2014-June 2016

Ph.D. Organic Chemistry – University of California - Riverside Riverside, California
Dissertation Title: Self-Assembly of Functionalized Supramolecular Structures
Advisor: Prof. Richard J. Hooley August 2014

M.S. Chemistry - Western Carolina University Cullowhee, North Carolina
Thesis Title: 1,4-Topochemical Polymerization of 1,3-Butadiene Derivatives in a Host-Guest Matrix
Advisor: Prof. Brian D. Dinkelmeyer December 2008

B.S. Chemistry, B.S. Biology - Western Carolina University August 2006

AWARDS

NSF CAREER Award (2021)
Excellence in Peer Review - American Chemical Society – Petroleum Research Fund (2019)
Thieme Chemistry Journals Award (2019)
Outstanding Teaching Assistant Award - University of California – Riverside (2012).
University Teaching Certificate - University of California - Riverside – TADP (2011).

PROFESSIONAL ACTIVITY

FUNDED GRANTS/PROPOSALS

10. **Young, M. C.** (Aug 2021-July 2026) "CAREER: Expanding the Toolbox for Olefin Functionalization and Difunctionalization Reactions." National Science Foundation, CAREER Award. Total award $648,552. (CHE-2047725)

9. **Young, M. C.** (Jun 2021-Dec 2021) "Activation and Fixation of Carbon Dioxide Using Infrared Irradiation." University of Toledo Office of Research and Sponsored Projects – URFO Mechanism. Total award $18,000.

8. **Young, M. C.** (Aug 2019-July 2022) "Late Stage Derivitization of Complex Molecules via Hydrogen Bond-Directed C–H Functionalization." National Institutes of Health – NIGMS (R15). Total award $450,594. (1R15GM131362-01)

7. **Young, M. C.** (April 2018) Foy & Phyllis Penn Kohler Fund for International Studies, University of Toledo. Total award $1,300.

6. **Young, M. C.** (July 2017-June 2022) "Rapid and Economic Synthesis of Next Generation Herbicides via Carbon Dioxide-Directed C–H Bond Functionalization." American Chemical Society, Herman Frasch Foundation. Total award $250,000. (830-HF17)

5. **Young, M. C.** (Jan 2014-Mar 2014) University of California – Riverside - Dissertation Year Fellowship. Total award $11,883.

4. **Young, M. C.** (Mar 2013) American Chemical Society - Division of Inorganic Chemistry Student Travel Award. Total award $800.

3. **Young, M. C.** (Dec 2012) Hamilton Chemistry Education Grant. Total award $1,000.

2. **Young, M. C.** (May 2012-April 2013) "Molecular Motion and Switching in Self-Assembled Nanostructures." University of California – Riverside - Graduate Dean's Dissertation Research Grant. Total award $932.

1. **Young, M. C.** (Sept 2009-May 2011) University of California – Riverside - Graduate Student Fellowship Award. Total award $15,000.

PENDING/SUBMITTED GRANT PROPOSALS

2. **Young, M. C.** (Sept 2024-Aug 2026) "Postsynthetic Modification of Metal-Organic Frameworks for Stabilization of Reactive Intermediates and Catalysts." American Chemical Society – Petroleum Research Fund. Total requested amount: $125,000.

1. **Young, M. C.** (Sept 2024-Aug 2029) "Improving Access to (Almost) Metal Free Cross-Coupling Reactions." National Institutes of Health – NIGMS (R35). Total requested amount: $1,809,715.

REFEREED PUBLICATIONS (INDEPENDENT CAREER)

40. Satheesh, V.; Alahakoon, I.; Shrestha, K. K.; Iheme, L. C.; Marszewski, M.; **Young, M. C.*** "Self-Supported Heterogeneous Dirhodium(II) Catalyst for Nitrene and Carbene Transfer Reactions." **2023**, *In Review*. (Submitted first as a printprint: *ChemRxiv*, **2023**, DOI: 10.26434/chemrxiv-2023-gbspt.)

39. Landge, V. G.; Mishra, A.; Thotamune, W., Bonds, A. L., Alahakoon, I, Karunrathne, A., **Young, M. C.*** "Selective C–H Activation of Unprotected Allylamines by Control of Catalyst Speciation." **2023**, *In Revision*. (Submitted first as a preprint: *ChemRxiv*, **2023**, DOI: 10.26434/chemrxiv-2023-8xvnr-v2.)

38. Farinde, O. N.; Satheesh, V.; Shrestha, K. K.; Rhinehalt, C. R.; Landge, V. G.; **Young, M. C.*** "Improved Aryl Insertion Selectivity of Unprotected Cinnamylamines at Ambient Temperature." *Org. Chem. Front.*, **2023**, *10*, 3982-3988.

37. Satheesh, V.; **Young, M. C.*** "γ,γ′-Diarylation of Allylamines by a Directed Chain-Walk." *Trends Chem.*, **2023**, *5*, 336-337.

36. Xu, H.; Lin, J.; Liu, Q.; Chen, Y.; Zhang, J.; Yang, Y.; **Young, M. C.**; Xu, Y.; Zhang, D.; Mo, F.* "High-Throughput Discovery of Chemical Structure-Polarity Relationships Combining Automation and Machine Learning Techniques." *Chem.*, **2022**, *8*, 3202.

35. Shrestha, K. K.; Hilyard, M. A.; Alahakoon, I.; **Young, M. C.*** "Combining Iminium and Supramolecular Catalysis for the [4 + 2] Cycloaddition of *E*-Cinnamaldehydes." *Org. Biomol. Chem.*, **2022**, *20*, 6646.

34. Landge, V. G.;* Mncwango, T. A.; Bonds, A. L.; Mather, C. B.; Saleh, Y.;† Fields, H. L.;† Lee, F.;† **Young, M. C.*** "Amine-Directed Mizoroki-Heck Arylation of Free Allylamines." *Org. Chem. Front.*, **2022**, *9*, 1967.

33. Chand-Thakuri, P.; Alahakoon, I.; Liu, D.; Kapoor, M.; Kennedy, J. F.; Jenkins, K. W., III.; Rabon, A. M.; **Young, M. C.*** "Native Amine-Directed *ortho*-C–H Halogenation and Acetoxylation/Condensation of Benzylamines. *Synthesis*, **2022**, *54*, 341.

32. Landge, V. G.; Grant, A. J.; Fu, Y.; Rabon, A. M.; Payton, J. L.; **Young, M. C.*** "Palladium-Catalyzed γ,γ'-Diarylation of Free Alkenyl Amines." *J. Am. Chem. Soc.*, **2021**, *143*, 10352.

31. Rabon, A. M.; Doremus, J. G.; **Young, M. C.*** "MOF-808 as a Recyclable Catalyst for the Photothermal Acetalization of Aromatic Aldehydes." *Tetrahedron*, **2021**, *85*, 132036.

30. Landge, V. G.; Maxwell, J. M.; Chand-Thakuri, P.; Kapoor, M.; Diemler, E.; **Young, M. C.*** "Palladium-Catalyzed Regioselective Arylation of Unprotected Allylamines." *JACS Au*, **2021**, *1*, 13.

29. Landge, V. G.;* Shrestha, K. S.; Grant, A. J.; **Young, M. C.*** "Regioselective α-Deuteration of Michael Acceptors Mediated by Isopropylamine in D_2O/AcOD." *Org. Lett.*, **2020**, *22*, 9745.

28. Chand-Thakuri, P.; Landge, V. G.; Kapoor, M.; **Young, M. C.*** "One Pot C–H Arylation/Lactamization Cascade Reaction of Free Benzylamines." *J. Org. Chem.*, **2020**, *85*, 6626.

27. Landge, V. G.; **Young, M. C.*** "Teaching an Old Ligand New Tricks." *Nature Chem.*, **2020**, *12*, 12.

26. Garreau, A. L.; Zhou, H.; **Young, M. C.*** "A Protocol for the *ortho*-Deuteration of Acidic Aromatic Compounds in D_2O Catalyzed by Cationic Rh^{III}." *Org. Lett.*, **2019**, *21*, 7044.

25. Kapoor, M.;† Chand-Thakuri, P.;† **Young, M. C.*** "Carbon Dioxide-Mediated C(sp^2)–H Arylation of Primary and Secondary Benzylamines." **2019**, *J. Am. Chem. Soc.*, **2019**, *141*, 7980.

24. Rabon, A. M.; Doremus, J. G.; **Young, M. C.*** "An Overview of Recent Applications in Catalysis Supported by Metal-Organic Frameworks." *ACS Symposium Series*, **2019**, *1317*, 167.

23. **Young, M. C.***; Djernes, K. E.; Payton, J. L.; Liu, D.; Hooley, R. J.* "Resorcin[4]arenes: A Simple Scaffold to Study Supramolecular Self-Assembly and Host:Guest Intereactions for the Undergraduate Curriculum." *J. Chem. Educ.*, **2019**, *96*, 781.

22. Kapoor, M.; Chand-Thakuri, P.; Maxwell, J. M.; Liu, D.; Zhou, H.; **Young, M. C.*** "Carbon Dioxide-Driven Palladium-Catalyzed C–H Activation of Amines: A Unified Approach for the Arylation of Aliphatic and Aromatic Primary and Secondary Amines." *Synlett*, **2019**, *30*, 519.

21. Rabon, A. M.; Goolsby, K. L.; **Young, M. C.*** "One-Dimensional Networks Formed *via* the Self-Assembly of Anthracenedibenzoic Acid with Zinc(II)" *Acta Cryst.*, **2018**, *C74*, 1774.

20. Kapoor, M.; Chand-Thakuri, P.;† Maxwell, J. M.;† **Young, M. C.*** "Achieving Moderate Pressures in Sealed Vessels Using Dry Ice as a Solid CO_2 Source." *J. Vis. Exp.*, **2018**, 58281.

19. Kapoor, M.; Liu, D.; **Young, M. C.*** "Carbon Dioxide Mediated C(sp^3)–H Arylation of Amine Substrates." *J. Am. Chem. Soc.*, **2018**, *140*, 6818 (Top 20 viewed article during the 30 day period after appearing online).

REFEREED PUBLICATIONS (MENTORED CAREER)

18. Xu, Y.; **Young, M. C.**, Dong, G.* "Catalytic Coupling Between Unactivated Aliphatic C−H Bonds and Alkynes via a Metal-Hydride Pathway." *J. Am. Chem. Soc.*, **2017**, *139*, 5716.

17. Xu, Y.;† **Young, M. C.**;† Wang, C.; Magness, D. M.; Dong, G.* "Catalytic C(sp^3)−H Arylation of Free Primary Amines via an *exo* Directing Group Generated In Situ." *Angew. Chem., Int. Ed.*, **2016**, *55*, 9084 (*Listed as a Hot Paper*).

16. Holloway, L. R.; McGarraugh, H. H.; **Young, M. C.**; Hooley, R. J.* "Structural Switching in Self-Assembled Metal-Ligand Helicate Complexes via Ligand-Centered Reactions." *Chem. Sci.*, **2016**, *7*, 4423.

15. Zhang, C.; Brown, M. Q.; van de Van, W.; Zhang, Z.-M.; Wu, B.; **Young, M. C.**; Synek, L.; Borchardt, D.; Harrison, R.; Pan, S.; Luo, N.; Huang, Y.-M. M; Ghang, Y.-J.; Ung, N.; Li, R.; Isley, J. W.; Morikis, D.; Song, J.; Guo, W.; Hooley, R. J.; Chang, C.-E. A.; Yang, Z.; Zarsky, V.; Muday, G. K.; Hicks, G. R.; Raikhel, N. V.* "A Small Molecule Endosidin2 Targets Evolutionary Conserved EXO70 Proteins to Inhibit Exocytosis." *Proc. Nat. Acad. Sci. USA*, **2016**, *113*, 14.

14. Huang, Z.; Mo, F.; Lim, H. N.; **Young, M. C.**; Dong, G.* "Transition Metal-Catalyzed Ketone-Directed or Mediated C−H Functionalization." *Chem. Soc. Rev.*, **2015**, *44*, 7764.

13. Holloway, L. R.; **Young, M. C.**; Beran, G.; Hooley, R. J.* "High Fidelity Sorting of Remarkably Similar Components via Metal-Mediated Assembly." *Chem. Sci.*, **2015**, *6*, 4801.

12. Johnson, A. M.; Wiley, C. W.; **Young, M. C.**; Zhang, X.; Lyon, Y.; Julian, R. R.;* Hooley, R. J.* "Narcissistic Self-Sorting in Self-Assembled Rare Earth Metal-Ligand Cages." *Angew. Chem., Int. Ed.*, **2015**, *54*, 5641.

11. **Young, M. C.**; Holloway, L. R.; Johnson, A. M.; Hooley, R. J.* "A Supramolecular Sorting Hat: Stereocontrol in Metal-Ligand Self-Assembly by Complementary Hydrogen Bonding." *Angew. Chem., Int. Ed.*, **2014**, *53*, 9832.

10. **Young, M. C.**; Hooley, R. J. "Chirality and the Origins of Life." *NSF National Center for Case Study Teaching in Science,* **2014**, Accessible at: *http://sciencecases.lib.buffalo.edu/cs/collection/detail.asp?case_id=749&id=749*.

9. **Young, M. C.**; Liew, E. Hooley, R. J.* "Colorimetric Barbiturate Sensing with Hybrid Spin Crossover Assemblies." *Chem. Commun.*, **2014**, *50*, 5043.

8. **Young, M. C.**; Johnson, A. M.; Hooley, R. J.* "Self-Promoted Post-Synthetic Modification of Metal-Ligand M_2L_3 Mesocates." *Chem. Commun.*, **2014**, *50*, 1378.

7. Johnson, A. M.; **Young, M. C.**; Zhang, X.; Julian, R. R.;* Hooley, R. J.* "Cooperative Thermodynamic Control of Selectivity in the Self-Assembly of Rare Earth Metal-Ligand Helices." *J. Am. Chem. Soc.*, **2013**, *135*, 17723.

6. **Young, M. C.**; Liew, E.; Ashby, J.; McCoy, K. M.; Hooley, R. J.* "Spin State Modulation of Iron Spin Crossover Complexes Via Hydrogen-Bonding Self-Assembly." *Chem. Commun.*, **2013**, *49*, 6331.

5. Johnson, A. M.; **Young, M. C.**; Hooley, R. J.* "Reversible Multicomponent Self-Assembly Mediated By Bismuth Ions." *Dalton Trans.*, **2013**, *42*, 8394.

4. **Young, M. C.**; Johnson, A. M.; Gamboa, A. S.; Hooley, R. J.* "Achiral Endohedral Functionality Provides Stereochemical Control in Fe(II)-Based Self-Assemblies." *Chem. Commun.*, **2013**, *49*, 1627.

3. Djernes, K. E.; Padilla, M.; Mettry, M.; **Young, M. C.**; Hooley, R. J.* "Hydrocarbon Oxidation Catalyzed by Self-folded Metal-coordinated Cavitands." *Chem. Commun.*, **2012**, *48*, 11576.

2. Liu, Y.; **Young, M. C.**; Moshe, O.; Cheng, Q.;* Hooley, R. J.* "A Membrane-Bound Synthetic Receptor Promotes Growth of a Polymeric Coating at the Bilayer-Water Interface." *Angew. Chem. Int. Ed.*, **2012**, *51*, 7748 *(Listed as a Very Important Publication)*.

1. Liu, Y.; Taira, T.; **Young, M.C.**; Ajami, D.; Rebek Jr., J.; Cheng, Q.;* Hooley, R. J.* "Protein Recognition by a Self-Assembled Deep Cavitand Monolayer on a Gold Substrate." *Langmuir*, **2012**, *28*, 1391.

PATENTS

1. **Young, M. C.**, Kapoor, M. "Carbon Dioxide as a Directing Group for C-H Functionalization Reactions Involving Lewis Basic Amines, Alcohols, Thiols, and Phosphines for the Synthesis of Compounds" US Patent 10,865,163.

ORAL PRESENTATIONS

50. **Young, M. C.** "Improving the Synthetic Organometallic Toolbox for Nitrogen- and Oxygen-Containing Compounds." Department of Chemistry and Biochemistry, Purdue University – Fort Wayne, Fort Wayne, IN, United States, Planned for Dec. 1, 2023.

49. **Young, M. C.** "Exploring New Approaches for Rh Catalysis." American Chemical Society Central Regional Meeting 2023, Dearborn, MI, United States, June 23, 2023.

48. **Young, M. C.** "In Search of Sustainability Using Transtition Metal Catalysis." Department of Chemistry and Biochemistry, University of Delaware, Newark, DE, United States, Jun. 8, 2023.

47. **Young, M. C.** "In Search of Sustainability Using Transtition Metal Catalysis." Department of Chemistry and Biochemistry, Kent State University, Kent, OH, United States, Apr. 20, 2023.

46. **Young, M. C.** "Rh Catalysts for Aziridination and C–H Amination." 265th ACS National Meeting & Exposition, Indianapolis, IN, United States, March 21, 2023.

45. **Young, M. C.** "Pd-Catalyzed Functionalization of Unprotected Amines." 265th ACS National Meeting & Exposition, Indianapolis, IN, United States, March 19, 2023.

44. **Young, M. C.** "Improving the Synthetic Organometallic Toolbox for Nitrogen- and Oxygen-Containing Compounds." Department of Chemistry and Biochemistry, University of California – Irvine, Irvine, CA, United States, Mar. 8, 2023.

43. **Young, M. C.** "Improving the Synthetic Organometallic Toolbox for Nitrogen- and Oxygen-Containing Compounds." Department of Chemistry and Biochemistry, California State Polytechnic University – Pomona, Pomona, CA, United States, Mar. 7, 2023.

42. **Young, M. C.** "Improving the Synthetic Organometallic Toolbox for Nitrogen- and Oxygen-Containing Compounds." Department of Chemistry and Biochemistry, University of California – San Diego, San Diego, CA, United States, Mar. 6, 2023.

41. **Young, M. C.** "Using Catalyst Speciation to Control C–H Activation and Insertion Reactions of Amine Substrates." 264th ACS National Meeting & Exposition, Chicago, IL, United States, August 22, 2022.

40. **Young, M. C.** "Strategies for Amine (and Alcohol)-Directed Transition Metal Catalysis on Complex (and Simple) Molecules and Other Tales." Organic Reactions and Processes Gordon Research Conference, Smithfield, RI, United States, July 21, 2022.

39. **Young, M. C.** "Amine-Directed Functionalization of Alkenes Through Insertion and C–H Activation Pathways." American Chemical Society Central Regional Meeting 2022, Ypsilanti, MI, United States, June 7, 2022.

38. **Young, M. C.** "Exploring the Chemical Space and Biological Activity of Nitrogen-Containing Compounds." Department of Chemistry and Physics, Western Carolina University, Cullowhee, NC, United States, Apr. 1, 2022.

37. **Young, M. C.** "Adventures in Amine Functionalization Featuring Organometallics." Florida Heterocycle and Synthetic Chemistry Conference, Gainsville, FL, United States, Mar. 7, 2022.

36. **Young, M. C.** "Improving the Synthetic Organometallic Toolbox for Nitrogen-Containing Compounds." Department of Chemistry, Case Western Reserve University, Cleveland, OH, United States, Feb. 10, 2022.

35. **Young, M. C.** "Taming Free Amines for Use as Directing Groups in C–H Functionalization." National Science Foundation Center for Selective C–H Functionalization Virtual Seminar, Feb. 8, 2022.

34. **Young, M. C.** "Improving the Synthetic Organometallic Toolbox for Nitrogen-Containing Compounds." Department of Chemistry, Kenyon College, Gambier, OH, United States, Nov. 16, 2021.

33. **Young, M. C.** "Improving the Synthetic Organometallic Toolbox for Nitrogen-Containing Compounds." Department of Chemistry and Biochemistry, Hillsdale College, MI, United States, Nov. 2, 2021.

32. **Young, M. C.** "Improving the Synthetic Organometallic Toolbox for Nitrogen-Containing Compounds." Department of Chemistry and Biochemistry, Bowling Green State University, Bowling Green, OH, United States, Oct. 27, 2021.

31. **Young, M. C.** "Improving the Synthetic Organometallic Toolbox for Nitrogen-Containing Compounds." Department of Chemistry and Biochemistry, University of California at Riverside, Riverside, CA, United States, Oct. 15, 2021.

30. **Young, M. C.** "Improving the Synthetic Organometallic Toolbox for Nitrogen-Containing Compounds." Department of Chemistry, University of Houston, Houston, TX, United States, Sept. 14, 2021.

29. **Young, M. C.** "Improving the Synthetic Organometallic Toolbox for Nitrogen-Containing Compounds." Department of Chemistry, Rice University, Houston, TX, United States, Sept. 13, 2021.

28. **Young, M. C.** "Exploring the Chemical Space and Biological Activity of Nitrogen-Containing Compounds." 262nd ACS National Meeting & Exposition, Atlanta, GA, United States, August 22, 2021.

27. **Young, M. C.** "Exploring the Chemical Space and Biological Activity of Nitrogen-Containing Compounds." Department of Chemistry, University of Chicago, Chicago, IL, United States, July 17, 2021.

26. **Young, M. C.** "Improving the Synthetic Organometallic Toolbox for Nitrogen-Containing Compounds." Department of Chemistry and Biochemistry, San Diego State University, San Diego, CA, United States, Apr. 16, 2021.

25. **Young, M. C.** "Increasing Sustainability in the Synthetic Organometallic Toolbox." Department of Chemistry, Wright State University, Dayton, OH, United States, Sept. 25, 2020.

24. **Young, M. C.** "Increasing Sustainability in the Synthetic Organometallic Toolbox." Department of Chemistry, Wayne State University, Detroit, MI, United States, Feb. 26, 2020.

23. **Young, M. C.** "Adventures in C–H Activation with Carbon Dioxide." 257th ACS National Meeting & Exposition, Orlando, FL, United States, March 31- April 4, 2019.

22. **Young, M. C.** "Harnessing Organometallic Chemistry for More Sustainable Synthesis of Biologically-Relevant Molecules and Bulk Chemicals." Department of Chemistry and Biochemistry, Northern Kentucky University, Newport, KY, United States, Feb. 13, 2019.

21. **Young, M. C.** "Harnessing Organometallic Chemistry for More Sustainable Synthesis of Biologically-Relevant Molecules and Bulk Chemicals." Department of Chemistry and Chemical Biology, Indiana University – Purdue University Indianapolis, Indianapolis, IN, United States, Jan. 23, 2019.

20. **Young, M. C.** "Harnessing Organometallic Chemistry for More Sustainable Synthesis of Biologically-Relevant Molecules and Bulk Chemicals." Department of Chemistry, Oakland University, Rochester, MI, United States, Nov. 7, 2018.

19. **Young, M. C.** "Harnessing Organometallic Chemistry for More Sustainable Synthesis of Biologically-Relevant Molecules and Bulk Chemicals." Department of Chemistry, Université de Haute-Alsace, France, Oct. 15, 2018.

18. **Young, M. C.** "Harnessing Organometallic Chemistry for More Sustainable Synthesis of Biologically-Relevant Molecules and Bulk Chemicals." Department of Chemistry, Université de Lille, France, Oct. 12, 2018.

17. **Young, M. C.** "Harnessing Organometallic Chemistry for More Sustainable Synthesis of Biologically-Relevant Molecules and Bulk Chemicals." Department of Chemistry, Youngstown State University, OH, United States, Oct. 5, 2018.

16. **Young, M. C.** "CO_2 as a Hybrid Directing Group for the C-H Activation of Aliphatic and Aromatic Amine Substrates." 255th ACS National Meeting & Exposition, New Orleans, LA, United States, March 18-22, 2018.

15. **Young, M. C.** "Supramolecular-Inspired Strategies for Synthetic Methodology and Chemical Sensing." Department of Chemistry and Biochemistry, Ohio Northern University, OH, United States, March 15, 2018.

14. **Young, M. C.** "Supramolecular-Inspired Strategies for Synthetic Methodology and Chemical Sensing." Department of Chemistry and Physics, Western Carolina University, NC, United States, Dec. 1, 2017.

13. **Young, M. C.** "Supramolecular-Inspired Strategies for Synthetic Methodology and Chemical Sensing." Department of Chemistry, Clemson University, SC, United States, Nov. 30, 2017.

12. **Young, M. C.** "Supramolecular-Inspired Strategies for Synthetic Methodology and Chemical Sensing." Department of Chemistry, Appalachian State University, NC, United States, Nov. 29, 2017.

11. **Young, M. C.** "Supramolecular-Inspired Strategies for Synthetic Methodology and Chemical Sensing." Department of Chemistry, Murray State University, KY, United States, Nov. 20, 2017.

10. **Young, M. C.** "Supramolecular-Inspired Strategies for Synthetic Methodology and Chemical Sensing." Department of Chemistry and Biochemistry, Hillsdale College, MI, United States, Sept. 12, 2017.

9. **Young, M. C.** "Supramolecular-Inspired Strategies for Synthetic Methodology and Chemical Sensing." 48th ACS Central Regional Meeting, Dearborn, MI, United States, June 6-10, 2017.

8. **Young, M. C.** "Supramolecular-Inspired Strategies for Synthetic Methodology and Chemical Sensing." Department of Chemistry, St. Bonaventure University, Allegany, NY, United States, April 7, 2017.

7. **Young, M. C.** "Supramolecular-Inspired Strategies for Synthetic Methodology and Chemical Sensing." Department of Chemical Engineering, University of Toledo, Toledo, OH, United States, February 9, 2017.

6. **Young, M. C.** "Supramolecular Inspired Strategies for Accessing New Therapeutic Space and Other Synthetic Challenges." Department of Medicinal Chemistry, University of Toledo, Toledo, OH, United States, August 25, 2016.

5. **Young, M. C.** "Supramolecular-Inspired Strategies for Greener Transition Metal Catalysis." Department of Chemistry and Biochemistry, University of Toledo, Toledo, OH, United States, March 3, 2016.

4. **Young, M. C.** "Supramolecular Approaches for Designing New Catalyst Scaffolds." Department of Chemistry, North Carolina State University, Raleigh, NC, United States, November 3, 2015.

3. **Young, M. C.**; Dong, G. "Directing Group Strategies for the Beta-Functionalization of Ketones via C-H Activation." 250th ACS National Meeting & Exposition, Boston, MA, United States, August 15-20, 2015.

2. **Young, M. C.**; Holloway, L. R.; Hooley, R. J. "Self-Assembled Hosts Containing Hydrogen Bonding Groups: Realization of Functional Group-Promoted Supramolecular Catalysis in Metal-Organic Self-Assemblies." 247th ACS National Meeting & Exposition, Dallas, TX, United States, March 15-20, 2014.

1. **Young, M. C.**; Johnson, A. M.; Gamboa, A. S.; Hooley, R. J. "Control of Self-Assembly in Fe(II)-Iminopyridine Cages Through Achiral Endohedral Functionalization." 245th ACS National Meeting & Exposition, New Orleans, LA, United States, April 7-11, 2013.

POSTER PRESENTATIONS

11. **Young, M. C.** "Catalyst Speciation Controls Alkene Functionalization Pathways." Organometallics Gordon Research Conference, Newport, RI, United States, July 9-14, 2022.

10. **Young, M. C.**; Landge, V. G.; Bonds, A. L.; Mishra, A. "Catalyst Speciation Controls Alkene Functionalization Pathways." Organic Reactions and Processes Gordon Research Conference, Smithfield, RI, United States, July 17-21, 2022.

9. **Young, M. C.**; Landge, V. G.; Bonds, A. L.; Mishra, A. "Catalyst Speciation Controls Alkene Functionalization Pathways." Organometallics Gordon Research Conference, Newport, RI, United States, July 10-14, 2022.

8. **Young, M. C.**; Kapoor, M.; Chand-Thakuri, P.; Liu, D.; Maxwell, J. M. "Adventures in C–H Activation Using Carbon Dioxide." Organometallics Gordon Research Conference, Newport, RI, United States, July 7-12, 2019.

7. **Young, M. C.**; Kapoor, M.; Chand-Thakuri, P.; Liu, D.; Maxwell, J. M. "Carbon Dioxide-Mediated C–H Activation of Amines." Green Chemistry Gordon Research Conference, Castelldefels, Spain, July 29-August 3, 2018.

6. **Young, M. C.**; Kapoor, M.; Chand-Thakuri, P.; Liu, D.; Maxwell, J. M. "Carbon Dioxide-Directed C–H Functionalization of Amines." Organometallics Gordon Research Conference, Newport, RI, United States, July 8-13, 2018.

5. **Young, M. C.** "Supramolecular Approaches for Improving Reactivity and Selectivity in Transition Metal Catalyzed Transformations." 250th ACS National Meeting & Exposition, Boston, MA, United States, August 15-20, 2015.

4. **Young, M. C.**; Liew, E.; Hooley, R. J. "Effects of Hydrogen Bonding Self-Assembly on the Spin Crossover Behavior of Mononuclear Complexes of 6-(3,5-Diamino-2,4,6-triazinyl)2,2'-bipyridine" 44th ACS Western Regional Meeting, Santa Clara, CA, United States, October 3-6, 2013.

3. **Young, M. C.**; Liew, E.; Johnson, A. M.; Hooley, R. J. "Self-Assembly of Linear Ligands Containing Three-Coordinate Binding Sites Driven by Select Lanthanide, Actinide, and Main Group Metals" 245th ACS National Meeting & Exposition, New Orleans, LA, United States, April 7-11, 2013.

2. **Young, M. C.**; Hooley, R.J. "Rotational Dynamics in Self-Assembled Nanostructures" 243rd ACS National Meeting & Exposition, San Diego, CA, United States, March 25-29, 2012.

1. **Young, M.**; Liao, P.; Hooley, R.J. "Molecular Switches Based on Self-Assembled Rotor Complexes" 241st ACS National Meeting & Exposition, Anaheim, CA, United States, March 27-31, 2011.

TEACHING ACTIVITY

COURSES TAUGHT

COMPLETED TEACHING/COURSE MANAGEMENT

Year	Course Name	Role	Course Size	Involvement	Level Taught	Examination
2007	Organic Chemistry Lab	Instructor	12 Students	Designed Curriculum, Instructed Course	2nd Year BS, Semester	Lab Reports, Quizzes
2008	Organic Chemistry Lab	Instructor	12 Students	Designed Curriculum, Wrote New Experiments, Instructed Course	2nd Year BS, Semester	Lab Reports, Quizzes
2009	Organic Chemistry Lab	Instructor	12 Students	Designed Curriculum, Wrote New Experiments, Instructed Course	2nd Year BS, Semester	Lab Reports, Quizzes
2009	Sophomore Organic Chemistry Lab	Teaching Assistant	~40 Students	Designed Lab Lectures, Instructed Course	2nd Year BS, Quarter	Lab Reports
2010	Sophomore Organic Chemistry Lab	Teaching Assistant	~110 Students	Designed Lab Lectures, Instructed Course	2nd Year BS, Quarter	Lab Reports
2011	Sophomore Organic Chemistry Lab	Head Teaching Assistant	~40 Students/ ~270 Students	Designed Lab Lectures, Instructed Course, Led Exam Review, Administered Lecture Exams	2nd Year BS, Quarter	Lab Reports
2011	Advanced Structure and Synthetic Methods	Teaching Assistant	16 Students	Co-Designed Lab Lectures, Co-Instructed Course	3rd and 4th Year BS, Quarter	Lab Reports, Quizzes
2012	Sophomore Organic Chemistry Lab	Teaching Assistant	~40 Students	Designed Lab Lectures, Instructed Course	2nd Year BS, Quarter	Lab Reports
2013	Sophomore Organic Chemistry Lab	Head Teaching Assistant	~75 Students/ ~300 Students	Designed Lab Lectures, Instructed Course, Led Exam Review,	2nd Year BS, Quarter	Lab Reports, Case Study Reports

				Administered Lecture Exams, Developed Case Studies		
2014	Sophomore Organic Chemistry Lab	Teaching Assistant	~40 Students	Designed Lab Lectures, Instructed Course	2nd Year BS, Quarter	Lab Reports, Case Study Reports
2016	Inorganic and Organometallic Chemistry of Transition and Post-Transition Elements	Instructor	9 Students	Developed Lectures, In-Class, and Homework Activities	4th year BS, MS, PhD, Semester	Written Exams, In-Class Presentation, Drafting a Manuscript Based on Data
2017	Organic Chemistry II	Instructor	63 Students	Developed Lecture, Curated Online Homework, Organized TA	2nd year BS, Semester	Formal Exams, Online Homework
2017	Green Chemistry Distance Learning	Instructor	66 Students	Curated Homeworks, Discussions, and Exams	3rd and 4th year BS, MS, PhD, Semester	Problem Sets, Discussion Boards, and Written Exams
2017	Organic Chemistry Laboratory I for Majors: Separations and Elementary Synthesis	Instructor	15 Students	Wrote Lab Manual, Developed Lectures, Organized TA	2nd year BS, Semester	Lab Reports, Written Exam, Lab Practical
2017	Instrumental Methods For Organic Chemistry	Instructor	4 Students	Wrote Lab Manual, Developed Lectures, Organized TA	2nd year BS, Semester	Lab Reports, Written Exam, Lab Practical
2018	Organic Chemistry Laboratory II for Majors: Synthesis and Identification	Instructor	15 Students	Wrote Lab Manual, Developed Lectures, Organized TA	2nd year BS, Semester	Lab Reports, Written Exam, Lab Practical
2018	Inorganic and Organometallic Chemistry of Transition and Post-Transition Elements	Instructor	15 Students	Developed Lectures, In-Class, and Homework Activities	4th year BS, MS, PhD, Semester	Written Exams, In-Class Presentation, Drafting a Manuscript Based on Data
2018	Organic Chemistry Laboratory I for Majors: Separations and	Instructor	22 Students	Revised Lab Manual, Developed Lectures, Organized TA	2nd year BS, Semester	Lab Reports, Written Exam, Lab Practical

	Elementary Synthesis					
2019	Organic Chemistry Laboratory II for Majors: Synthesis and Identification	Instructor	21 Students	Revised Lab Manual, Developed Lectures, Organized TAs	2nd year BS, Semester	Lab Reports, Written Exam, Lab Practical
2019	Organic Chemistry Laboratory I for Non-Majors	Instructor	15 Students	Wrote Lab Manual, Developed Lectures, Organized TAs	2nd year BS, Semester	Lab Reports, Worksheetes, Quizzes, Written Exam
2019	Organic Chemistry Laboratory II for Non-Majors	Instructor	15 Students	Wrote Lab Manual, Developed Lectures, Organized TAs	2nd year BS, Semester	Lab Reports, Worksheetes, Quizzes, Written Exam
2019	Organic Chemistry Laboratory I for Majors: Separations and Elementary Synthesis	Instructor	30 Students	Revised Lab Manual, Developed Lectures, Organized TAs	2nd year BS, Semester	Lab Reports, Written Exam, Lab Practical
2019	Instrumental Methods For Organic Chemistry	Instructor	5 Students	Revised Lab Manual, Developed Lectures, Organized TA	2nd year BS, Semester	Lab Reports, Written Exam, Lab Practical
2020	Organic Chemistry Laboratory II for Majors: Synthesis and Identification	Instructor	27 Students	Revised Lab Manual, Developed Lectures, Organized TAs	2nd year BS, Semester	Lab Reports, Written Exam, Case Study Reports
2020	Instrumental Methods For Organic Chemistry	Instructor	2 Students	Instructed Lab	2nd year BS, Semester	Lab Reports, Written Exam, Lab Practical
2020	Organic Chemistry II Remote	Instructor	137 Students	Developed Online Lecture, Curated Online Homework	2nd year BS, Semester	Formal Exams, Online Homework
2020	Green Chemistry	Instructor	51 Students	Curated Homeworks, Discussions, and Exams	3rd and 4th year BS, MS, PhD, Semester	Problem Sets, Discussion Boards, and Written Exams
2021	Spectroscopic Methods	Instructor	19 Students	Developed Lectures, Problem Sets,	4th year BS, MS, PhD, Semester	Written Exams

				and In-Class Problems		
2021	Organic Chemistry Laboratory I for Non-Majors	Instructor	22 Students	Revised Lab Manual, Developed Lectures, Organized TAs	2nd year BS, Semester	Lab Reports, Worksheetes, Quizzes, Written Exam
2021	Organic Chemistry Laboratory II for Non-Majors	Instructor	27 Students	Revised Lab Manual, Developed Lectures, Organized TAs	2nd year BS, Semester	Lab Reports, Worksheetes, Quizzes, Written Exam
2022	Spectroscopic Methods	Instructor	11 Students	Redeveloped Curriculum	4th year BS, MS, PhD, Semester	Written Exams
2022	Green Chemistry	Instructor	52 Students	As above, also updated curriculum, incorporated environmental justice concepts	3rd and 4th year BS, MS, PhD, Semester	Problem Sets, Discussion Boards, and Written Exams
2023	Organic Chemistry II	Instructor	51 Students	Revised lectures, incorporated systems thinking through discussion boards	2nd year BS, Semester	Formal Exams, Online Homework, Discussion Boards
2023	Organic Chemistry Laboratory I for Majors: Separations and Elementary Synthesis	Instructor	10 Students	Revised Lab Manual, Developed Lectures, Organized TA	2nd year BS,	Lab Reports, Written Exam, Lab Practical, Discussion Boards

STUDENT MENTORING

POSTDOCTORALS MENTORED

Dr. Mohit Kapoor, April 2017-December 2018 (Currently Assistant Professor at Chitkara University)

Dr. Vinod Landge, July 2019-June 2022, Nina McClelland Award Winner 2022 (Currently Associate Process Development Scientist at Piramal Pharmaceutical Solutions)

Dr. Satheesh Vanaparthi, December 2021-Present

PhD STUDENTS MENTORED

Allison M. Rabon, PhD Student, November 2016-2021 (Graduated, Currently at US National Reconnaissance Office in Washington D.C.)

Haley Stevens, PhD Student, November 2016-April 2017 (Left Program, Switched Major to Education)

Pratibha Chand-Thakuri, PhD Student, June 2017-August 2021, 2020 WCC Travel Award Winner (Graduated, Currently at Olon Ricerca in Cleveland, OH).

Hanyang Zhou, PhD Student, November 2017-December 2018 (Left Program, Switched Major to Mathematics)

Kendra Shrestha, PhD Student, November 2019-Present (Anticipated Graduation May 2024)
Indunil Alahakoon, PhD Student, November 2019-Present (Anticipated Graduation May 2024)
Ankita Mishra, PhD Student, January 2022-Present (Anticipated Graduation December 2027)
Olutayo N. Farinde, May 2022-Present (Anticipated Graduation December 2026)

MS STUDENTS MENTORED

Justin Maxwell, MS Student, May 2017-December 2019 (Graduated, Joined Lumigen in 2020, Currently exploring new employment options in Canada)
Thandazile Mncwango, MS Student, November 2019-August 2021 (Withdrew from Fulbright Program)
Abigail Gohmann, MS Student, December 2020-December 2022, Currently with SpectronR$_x$)

UNDERGRADUATE STUDENTS MENTORED (*DENOTES HONORS THESIS/^DENOTES PUBLICATIONS)

Erica Liew,*^ March 2012-June 2014
Mi La, January 2014-June 2014
David M. Magness,^ August 2015-December 2015
Jonathan Grayzyck, July 2016-February 2018, USRCAP Recipient 2017 (Currently in graduate school at University of Dayton)
Meddie Demmings IV,* December 2016-May 2019 (Currently Patent Law Clerk with DLA Piper)
Evan Diemler,^ January 2017-October 2018, USRCAP Recipient 2017, 2018
Kivan Noshirvanisharifabad, April 2017-May 2017
Tyler Llewellyn, May 2018-August 2018
Kern Baxter, September 2017-August 2019, USRCAP Recipient 2018, 2019
John F. Kennedy,^ October 2017-May 2019, USRCAP Recipient 2018 (Current in medical school at University of Cincinnati)
Alyssa L. Garreau,*^ May 2018-December 2019, USRCAP Recipient 2019 (Earned an M.S. in Chemical Engineering at The University of Toledo)
Jared G. Doremus,*^ May 2018-May 2020, USRCAP Recipient 2019 (Currently in graduate school at Ohio State University)
Marieh N. Hollenback, May 2018-August 2018
Joseph R. Chamberlain, January 2019-April 2019
Kenneth Jenkins,^ January 2019-May 2020 (Currently in medical school at Ohio University)
Sara Thomas, January 2019-December 2019
Hunter Fields,^ May 2019-December 2020
Yu Fu,^ August 2019-May 2021, USRCAP Recipient 2020, AYRP Recipient Fall 2020 (Currently in Graduate school at Iowa State University)
Aaron Grau, August 2019-December 2019 (Currently in medical school at University of Toledo)
Audrey Bonds,^ September 2019-May 2022, AYRP Recipient Fall 2020 (Currently in graduate school at Purdue University)
Aaron Grant,^ January 2020-February 2022, AYRP Recipient Spring 2021 (Currently in graduate school at The University of Toledo)
Carolina D. Barbosa Mather,^ July 2020-December 2020 (Currently employed by Sanofi)
Allison Boyer, July 2020-August 2020
Eve Sroczynksi, July 2020-August 2020
Michael Hilyard,^ August 2020-May 2022, AYRP Recipient Fall 2020, USRCAP Summer 2021 (Currently in graduate school at University of Washington)
Lily Fojtik, May 2021-August 2021
Fatima Asem, January 2022-May 2022
Tyler Chitwood, January 2022-May 2022, AYRP Recipient Fall 2022
Carmen R. Rhinehalt,^ August 2022-Present
Brant B. Hunt, August 2022-December 2022, August 2023-Present

Michal B. Ferguson, August 2023-Present
Gavin Shine, August 2023-Present
Allison V. Gottshall, August 2023-Present

HIGH SCHOOL STUDENTS MENTORED (^DENOTES PUBLICATIONS)

Kayla Goolsby,^ ***Project SEED Student***, May 2017-August 2017, May 2018-August 2018 (Currently enrolled in undergraduate studies at The University of Toledo)
Stuart Wells III, ***Project SEED Student***, June 2019-August 2019 (Currently enrolled in undergraduate studies at The University of Toledo)
Daniel Liu,^ Ohio College Credit Plus Student, February 2017-August 2019 (Currently enrolled in undergraduate studies at University of Michigan)
Reece Tatchell, Visiting High School Student, June 2019-August 2019 (Currently enrolled in Undergraduate studies at John Carroll University)
Frank Lee,^ Visiting High School Student, June 2020-May 2021 (Currently enrolled in undergraduate studies at Massachusetts Institute of Technology)
Kendal Rivera, Visiting High School Student, June 2021-August 2021 (Currently enrolled in undergraduate studies at Miami University)
Ji-Fu Tsou, Visiting High School Student, October 2022-May 2023 (Currently enrolled in undergraduate studies at University of Michigan)
Reece Krell, ***Project SEED Student***, June 2023-August 2023
Tristan Blue, Visiting High School Student, August 2023-Present
Livia Ford, Visiting High School Student, August 2023-Present
Twayne Lai, Visiting High School Student, September 2023-Present

VISITING SCIENTISTS MENTORED

Dr. Yasaman Saleh, May 2021-August 2021
Radha Narendra, Deccember 2022-April 2023

PLAN OF STUDY COMMITTEES

2017: Allison Rabon, Fan Wu, Justin Maxwell
2018: Ishani Hettiarachchi, Pratibha Chand-Thakuri, Christine Jette, Hanyang Zhou, Mithila Tennakoon
2019: Mollie Enright
2020: Kendra Shrestha, Indunil Alahakoon, Thandazile Mncwango, Prem Gurung, Hasaruwani Kiridena, Ramesh Sapkota
2021: Abigail Gohmann, Eston Macharia, Ashlee Barrett
2022: Chloe Sebilleau, Chizoba Iheme, Adedapo Olosunde, Alex Nguyen
2023: Ankita Mishra, Tomiwaloju Idowu, Rama Banjara

CANDIDACY EXAM COMMITTEES

2017: Alom Nur-E, La'nese Lovings, Fan Wu
2018: Alexander Landgraf, Allison Rabon
2019: Ishani Hettiarachchi, Pratibha Chand-Thakuri, Mithila Tennakoon, Yesmin Rina
2020: Mollie Enright
2021: Kendra Shrestha, Indunil Alahakoon, Prem Gurung, Hasaruwani Kiridena, Ramesh Sapkota, Sanduni Gedara
2022: Abigail Gohmann, Ashlee Barrett-Neise, Olutayo Farinde, Chloe Sebilleau, Chizoba Iheme, Manjula Kandage, Babatunde Obadawo, Adedapo Olosunde
2023: Shawn Parker

THESIS DEFENSE COMMITTEES
2019: Justin Maxwell
2021: Christine Jette
2022: Abigail Gohmann
2023: Chizoba Iheme

DISSERTATION DEFENSE COMMITTEES
2018: Nasim Esmati
2019: Fan Wu
2020: Kristopher Kleski
2021: Allison Rabon, Alexander Landgraf, Pratibha Chand-Thakuri
2022: Ishani Hettiarachchi, Mithila Tennakoon
2023: Mollie Enright

SERVICE

UNIVERSITY SERVICE

Office of Undergraduate Research – USRCAP Application Review Committee (Spring 2018)
Office of Undergraduate Research – USRCAP Planning Committee (Spring/Summer 2018)
Advisory Council for Undergraduate Research (2018-2021; 2021-2024 Appointment)
Panel Organizer and Workshop Participant for Sustainable Energy Economy Workshop
Research & Development of Light Water Reactor and Hydrogen Hybrids (2020)
Search Committee – Director of Office of Undergraduate Research (Spring 2021)

DEPARTMENT SERVICE

Awards Committee (2018-2019).
Colloquium Committee (2016-2018; Chair in 2017-2018).
Curriculum Committee (2019-2023).
Graduate Recruitment Committee (2016-2019; 2020-2022; Chair in 2021-2023)
Awards Sub-Committee: Paper-of-the-Year Review (2017).
Instrumentation Specialist Hiring Committee (2018).
Chair's Advisory Committee (2018-2020; 2022-2023).
Tenure Track Faculty Search Committee in Inorganic Chemistry (2019-2020).
UT StACS Faculty Advisor (2019-2022).
Postdoc Search Committee for Prof. Mark Mason (2020).
Chair of Visiting Assistant Professor Search Committee for Two Positions (2021).
Postdoc Search Committee for Prof. Wei Li (2021).
Tenure Track Faculty Search Committee in Biochemistry (2023-2024).

PROFESSIONAL SERVICE

Central Regional Meeting of the American Chemical Society (Co-chair "Catalysis by Metal Complexes and Nanomaterials" Session), Dearborn, MI, United States, June 20-23, 2023.

264th ACS National Meeting & Exposition (Presided over "C–H Activation" Session), Chicago, IL, United States, Aug 21- Aug 25, 2022.

Central Regional Meeting of the American Chemical Society (Organized and presided over "Development and Application of Olefin Functionalization Methodology" Session), Ypsilanti, MI, United States, June 7-10, 2022.

ACS Green Chemistry Institute, January 2021 – Present, Green Chemistry Module Development.

ACS Student Chapter Reviewer, June and July 2021. Reviewed ACS Student Chapter reports.

University of Michigan, Preparing Future Faculty Participating Mentor, May 25, 2021.

Organizer for 2019 Ohio Inorganic Weekend, Toledo, OH, United States, November 1 – 2, 2019. ~250 participants, raised $2,000 for the event.

257th ACS National Meeting & Exposition (Presided over "New Reactions" Session), Orlando, FL, United States, March 31- April 4, 2019.

Glass City Chemistry Conference (Organized "Synthetic Methodology" Session), Toledo, OH, United States, June 14-16, 2018.

JOURNALS PEER REVIEWED

Acc Chem Res (2021 – 1; 2022 – 1)
ACS Catalysis (2018 – 1; 2020 – 1; 2021 – 4; 2022 – 2; 2023 – 21)
ACS Sus Chem Eng (2020 – 1)
Advanced Synthesis & Catalysis (2021 – 1)
Angewandte Chemie (2019 – 1; 2021 – 3; 2022 – 2; 2023 – 5)
Antioxidants (2022 – 1)
Applied Science (2019 – 1)
Art of Synthesis (2020 – 1)
Catalysts (2020 – 5; 2021 – 4)
Chem (2020 – 1; 2021 – 1)
Chemical Communications (2022 – 5; 2023 – 3)
Chemical Science (2018 – 2, 2019 – 2, 2020 – 1; 2022 – 1)
Chemistry a European Journal (2020 – 1; 2022 – 2; 2023 – 1)
ChemSusChem (2022 – 1)
Crystal Growth & Design (2019 – 1; 2021 – 1)
Crystals (2019 – 1)
Dalton Transactions (2022 – 1)
Int J Mol Sci (2019 – 1; 2020 – 1)
Journal of the American Chemical Society (2021 – 5; 2022 – 2; 2023 – 1)
JACS Au (2022 – 1; 2023 – 1)
Journal of Colloid And Interface Science (2022 – 1)
Journal of Nanostructure Chemistry (2020 – 1)
Journal of Organic Chemistry (2019 – 4; 2021 – 2; 2022 – 2; 2023 – 1)
Journal of Visualized Experiments (2019 – 1; 2022 – 1)
Molecules (2019 – 5, 2020 – 6; 2021 – 3; 2022 – 2)
National Center for Case Study Teaching (2020 – 1)
Nature Chemistry (2016 – 1, 2017 – 2, 2019 – 2)
Organic and Biomolecular Chemistry (2021 – 2)
Organic Chemistry Frontiers (2023 – 1)
Organic Letters (2017 – 1; 2019 – 4; 2020 – 6; 2021 – 4; 2022 – 6; 2023 – 3)
Oriental Journal of Chemistry (2019 – 1)
Pharmaceuticals (2022 – 1)
Polymers (2022 – 2)
Processes (2019 – 1; 2021 – 1)
Research Chemical Intermediates (2019 – 1)
Scientific Advances (2021 – 1; 2022 – 1)
Symmetry (2019 – 2; 2020 – 1)
Synlett (2020 – 6; 2021 – 4; 2022 – 2; 2023 – 2)
Synthesis (2019 – 1)
Tetrahedron Letters (2018 – 1)
Xenobiotics (2023 – 1)

PROPOSAL REVIEW

US National Science Foundation (2021 – 17; 2022 – 16; 2023 – 15).
Petroleum Research Fund (2014 – 1, 2017 – 2, 2018 – 1; 2020 – 1); 2022 – 2; 2023 – 1).
US Department of Energy (2022 – 1).

GRADUATE RECRUITING TRIPS

2023

Department of Chemistry and Biochemistry, Kent State University, Apr. 20.
Department of Chemistry and Biochemistry, California Polytechnique – Pomona, Mar. 7.

2022

Department of Chemistry and Physics, Western Carolina University, Apr. 1.

2021

Department of Chemistry, Kenyon College, OH, United States, Nov. 16.
Department of Chemistry and Biochemistry, Hillsdale College, MI, United States, Nov. 2.

2020

Department of Chemistry, Wright State University, OH, United States, Sep. 25.

2019

Department of Chemistry and Biochemistry, Northern Kentucky University, KY, United States, Feb. 13.

2018

Department of Chemistry, Oakland University, MI, United States, Nov. 7.
Department of Chemistry, Université de Haute-Alsace, France, Oct. 15.
Department of Chemistry, Université de Lille, France, Oct. 12.
Department of Chemistry, Youngstown State University, OH, United States, Oct. 5.
Department of Chemistry and Biochemistry, Ohio Northern University, OH, United States, Mar. 15.

2017

Department of Chemistry and Physics, Western Carolina University, NC, United States, Dec. 1.
Department of Chemistry, Clemson University, SC, United States, Nov. 30.
Department of Chemistry, Appalachian State University, NC, United States, Nov. 29.
Department of Chemistry, Murray State University, KY, United States, Nov. 20.
Department of Chemistry and Biochemistry, Hillsdale College, MI, United States, Sept. 12.
Department of Chemistry, St. Bonaventure University, St. Bonaventure, NY, United States, April 7.

PROFESSIONAL MEMBERSHIPS

American Chemical Society (2010-Present).

OTHER SERVICE

Skype-a-Scientist (Ongoing: 2018-Present).
Organized the 3rd Annual Molecule of the Summer Event, University of Toledo, June 26, 2021.
Organized the 2nd Annual Molecule of the Summer Event, University of Toledo, June 13, 2020.
Poster Judge, Midwest Graduate Research Symposium, University of Toledo, April 7, 2018.
Assisted with Undergraduate Recruitment Weekend, University of Toledo, February 10, 2018.
Organized the 1st Annual Molecule of the Summer Event, University of Toledo, July 15, 2017.
Chemistry Demonstrations, Anthony Wayne High School, April 21, 2017.

PROFESSIONAL TRAINING

Cottrell Scholars Workshop, Washington DC (2017).
ACS Summer School for Green Chemistry and Sustainable Energy, Golden CO (2012).

REFERENCES

Prof. Huw Davies (Professional Reference)
Professor of Chemistry
Emory University
email: hmdavie@emory.edu
website: https://scholarblogs.emory.edu/davieslab/professor-huw-m-l-davies/

Prof. Jennifer Schomaker (Professional Reference)
Professor of Chemistry
University of Wisconsin – Madison
email: schomakerj@chem.wisc.edu
website: https://schomaker.chem.wisc.edu/

Prof. Ramesh Giri (Professional Reference)
Professor of Chemistry
Pennsylvania State University
email: rkg5374@psu.edu
website: https://sites.psu.edu/girigroup/

Prof. Ajith Karunarathne (Collaborator Reference)
Associate Professor of Chemistry
Saint Louis University
email: welitviya.karunarathne@slu.edu
website: https://www.ajithlab.org/

Prof. Fanyang Mo (Collaborator Reference)
Associate Professor of Chemical Engineering
Peking University
email: fmo@pku.edu.cn
website: http://www2.coe.pku.edu.cn/faculty/mofanyang/

Prof. Guangbing Dong (Postdoc Advisor)
Professor of Chemistry
University of Chicago:
email: gbdong@uchicago.edu
website:

Prof. Richard J. Hooley (PhD Advisor)
Professor of Chemistry
University of California – Riverside
email: richardh@ucr.edu
website: https://sites.google.com/view/hooley-group-ucr/home