

Megan Kathleen Youmans

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EDUCATION

- 2014 **Ph.D. Medicinal Chemistry**
University of Utah
Thesis: Novel Probes for the Detection of Hydrogen Sulfide and their Biological and Industrial Applications
- 2008 **B.S. Chemistry**, honors
University of Southern California

PROFESSIONAL APPOINTMENTS

- 2016 **Assistant Professor**
Department of Chemistry and Biochemistry | Wilkes University
- 2014 **Postdoctoral Associate**
Department of Chemistry | Boston University

TEACHING EXPERIENCE

- 2021 The Chemical Reaction Laboratory (Coordinator)
2020 – 2021 Elements and Compounds Laboratory (Coordinator)
2018 Fundamentals of Chemistry Laboratory
2017 – 2020 Inorganic Chemistry
2016 – 2020 General Chemistry II: The Chemical Reaction
2017 – 2019 The Chemical Reaction Laboratory
2016 – 2019 General Chemistry I: Elements and Compounds
2017 Elements and Compounds Laboratory

PUBLICATIONS

Youmans, M.K. “Going Remote: How Teaching During a Crisis is Unique to Other Distance Learning Experiences” *J. Chem. Ed.* **2020**, ASAP.

Thorson, M.K.; Ung, P.; Leaver, F.M.; Corbin, T.S.; Tuck, K.L.; Graham, B.; Barrios, A.M. “Lanthanide Complexes as Luminogenic Probes to Measure Sulfide Levels in Industrial Samples” *Anal. Chim. Acta* **2015**, 896, 160–165.

Thorson, M.K.; Van Wagoner, R.M.; Harper, M.K.; Ireland, C.M.; Majtan, T.; Kraus, J.P.; Barrios, A.M. “Marine Natural Products as Inhibitors of Cystathionine Beta-Synthase Activity” *Bioorg. Med. Chem. Lett.* **2015**, 25, 1064–1066.

Thorson, M.K.; Puerta, D.T.; Cohen, S.M.; Barrios, A.M. “Inhibition of the Lymphoid Tyrosine Phosphatase: The Effect of Zinc(II) Ions and Chelating Ligand Fragments on Enzymatic Activity” *Bioorg. Med. Chem. Lett.* **2014**, 24, 4019–4022.

Thorson, M.K.; Barrios, A.M. **2014** Chemical Probes for Hydrogen Sulfide, United States Patent 62/040,330

Thorson, M.K.; Majtan, T.; Kraus, J.P.; Barrios, A.M. “Identification of Cystathionine Beta- Synthase Inhibitors Using a Hydrogen Sulfide Selective Probe” *Angew. Chem. Int. Ed.* **2013**, 52, 4641-4644.

Nguyen, A.I.; Zarkesh, R.A.; Lacy, D.C.; Thorson, M.K.; Heyduk, A.F. “Catalytic Nitrene Transfer by a Zirconium(IV) Redox-Active Ligand Complex” *Chem. Sci.* **2011**, 2, 166–169.

Thorson, M.K.; Klinkel, K.; Wang, J.; Williams, J. “Mechanism of Hydride Abstraction Catalyst by Cyclopentadienone-Ligated Carbonylmetal Complexes (M= Ru, Fe)” *Eur. J. Inorg. Chem.* **2009**, 2, 295–302.

PRESENTATIONS

Youmans, M.K.; Pavlac, M.; Fitzpatrick, N.; Defazio, D.; Arcure, H.; Black, A. “Getting Crafty: Artistic Applications of Green Chemistry” Invited talk presented at: Green Chemistry Student Chapters: Stories of Success. 257th American Chemical Society National Meeting and Exposition; **2019** April 1; Orlando, FL.

Fitzpatrick, N.; Youmans, M.K. “Synthesis and Catalytic Studies of Molybdenum Complexes Bearing Analogues of the Trismethimazolylborate Ligand for Use as Biomimetic Models of the Sulfite Oxidase Enzyme” Poster presented at: Undergraduate Research Posters. 257th American Chemical Society National Meeting and Exposition; **2019** Mar. 31– Apr. 4; Orlando, FL.

Nichols, S.; Youmans, M.K. “Utilizing a Molybdenum Complex Selenium Scorpionate Ligand for the Study of Sulfite Oxidase” Poster presented at: Undergraduate Research Posters. 256th American Chemical Society National Meeting and Exposition; **2018** Aug 19–23; Boston, MA.

Fitzpatrick, N.; Youmans, M.K. “Synthesis of Oxygen-Donating Scorpionate Ligands for Use in Small Scale Biomimetic Models of Sulfite Oxidase” Poster presented at: Undergraduate Research Posters. 256th American Chemical Society National Meeting and Exposition; **2018** Aug 19–23; Boston, MA.

Black, A.; Fitzpatrick, N. ; Larsen, J.; Arcure, Holly; Youmans, M.K.; Henkels, C. “Successful ACS Student Chapter at Wilkes University: Community Outreach Events that Apply Green Chemistry Principles and Science Education” Poster presented at: Successful Student Chapters. 255th American Chemical Society National Meeting and Exposition; **2018** Mar 18–22; New Orleans, LA.

Weber, J.; Youmans, M.K.; Doerrer, L. “⁵⁹Co-NMR Studies of Co Compounds with O-donor Ligands for WOC” Poster presented at: Undergraduate Research Posters. 250th American Chemical Society National Meeting and Exposition; **2015** Aug 16–20; Boston, MA.

Thorson, M.K.; Kraus, J.P.; Barrios, A.M. “Novel Hydrogen Sulfide-Selective Probes for the Study of PLP-Dependent Enzymes” Poster presented at: Medicinal Chemistry. 247th American Chemical Society National Meeting and Exposition; **2014** Mar 16–29; Dallas, TX.

Thorson, M.K.; Majtan, T.; Kraus, J.P.; Barrios, A.M. “A Novel Probe for the Detection of Hydrogen Sulfide and the Study of Cystathionine Beta-Synthase (CBS)” Poster presented at: Bioscience Symposium; **2012** Sep 25; Salt Lake City, UT.

Thorson, M.K.; Majtan, T.; Kraus, J.P.; Barrios, A.M. “A Novel Probe for the Detection of Hydrogen Sulfide and the Study of Cystathionine Beta-Synthase (CBS)” Poster presented at: Metals in Medicine Gordon Research Conference; **2012** Jun 24–29; Andover, NH.

FUNDING

- 2018 **Wilkes University Mentoring Project Fund Grant**| Awarded \$4,191.00
- 2018 – 2020 **Wilkes University Research and Scholarship Grant**| Awarded \$29,856.00
“Biomimetic Complexes of Sulfite Oxidase Utilizing Soft Tripodal Ligand Systems”
- 2017 **Wilkes University FDC–Type I Grant**| Awarded \$3,551.73
“Investigating the Effect of Non-Pterin Ligand Systems on Molybdoenzyme Mimetic Complexes”
- 2017 **Wilkes University Mentoring Project Fund Grant**| Awarded \$9,158.60

UNIVERSITY SERVICE

- 2018 – 2019 National Reviewer for American Chemical Society Student Chapters
- 2017 – 2021 Faculty Development Committee
- 2017 – 2020 Chem Club Faculty Advisor