

KIMBERLY HOLLISTER

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EDUCATION

Massachusetts Institute of Technology, MA. June 2023-Present

- Chemistry Ph.D. candidate

University of Virginia, Charlottesville, VA. August 2019-June 2023

- MS in chemistry; GPA: 3.67
- 'High passed' department candidacy exam, February 2021

Bloomsburg University, Bloomsburg, PA. 2014-2018

- BS in Chemistry; GPA: 3.65
- Marco and Louise Mitrani Scholarship recipient 4 years; based on maintaining high academic achievement.

EXPERIENCE

❖ Research

MS & Ph.D. Student Researcher, Department of Chemistry, University of Virginia/Massachusetts Institute of Technology, November 2019-Present

- Specializing in main group synthetic chemistry with a focus on boron-based materials in the group of Robert J. Gilliard, Ph.D.
- Trained in the handling of pyrophoric chemicals
- Trained in characterization techniques such as NMR, EPR, UV/vis, fluorescence, TCSPC and IR spectroscopy, X-ray crystallography, cyclic voltammetry, and quantum yields
- Have been responsible for the training of two first-year graduate students and two undergraduate researchers
- Responsible for glovebox and optical instrument maintenance
- Lab safety manager and liaison between group and UVa Environmental Health and Safety

Post-Grad Research Scientist, Department of Chemistry, Bloomsburg University, Jan. 2019-June 2019

- Responsible for daily management of instruments such as glovebox and flash chromatography system.
- Expanded synthetic skill set and experience while working to isolate ruthenium pincer complexes.

Organic Chemistry Research Student, Department of Chemistry, Bloomsburg University, May 2016-Dec. 2018

- Performed synthesis and work-up procedures.
- Worked closely with faculty advisor on synthesis of organometallic catalysts and polymer supported catalysis. Philip Osburn, Ph.D.
- Used various laboratory instruments such as NMR spectroscopy, IR spectroscopy, glovebox, flash chromatography system and Schlenk line.

Research Experience for Undergraduates (REU), Organometallic Chemistry, Department of Chemistry, University of Tennessee-Knoxville, May 2018-August 2018

- Performed synthesis and work-up procedures.
- Worked directly with a fourth year Ph.D. student on synthesis of dirhodium paddlewheel complexes. Principal Investigator: Ampofo Darko, Ph.D.

- Used air free techniques and instrumentation such as NMR spectroscopy, Schlenk line, and HPLC.
- Collaborated with other graduate research students.

❖ Teaching

Chemistry Laboratory Teaching Assistant, Department of Chemistry, University of Virginia, Aug. 2019-May 2020

- Taught Advanced Synthetic Techniques Laboratory: March 2021-May 2021
- Taught 75 students per semester in General Chemistry I & II: Aug. 2019-May 2020
- Guest lectured graduate level main group chemistry course: Sep. 2022

PUBLICATIONS

2. **Hollister, K.K.**,[‡] Yang, W.,[‡] Mondol, R., Wentz, K.E., Molino, A., Dickie, D.A., Kaur, A., Frenking, G., Pan, S.,* Wilson, D.J.D,* Gilliard, R.J.* Isolation of Stable Borepin Radicals and Anions. *Angew. Chem. Int. Ed.* **2022**, 61, e202202516.
1. **Hollister, K.K.**, Molino, A., Breiner, G., Walley, J.E., Wentz, K.E., Conley, A.M., Dickie, D.A., Wilson, D.J.D,* Gilliard, R.J.*, Air-Stable Thermoluminescent Carbodicarbene-Borafluorenium Ions. *J. Am. Chem. Soc.* **2022**, 144, 590–598.

AWARDS & ACHIEVEMENTS

University of Virginia

- Recipient of Eli Lily/Women Chemists Committee Travel Award for Spring ACS 2022
- Recipient of the Jefferson Scholars Foundation Research Award: 2021

Bloomsburg University

- Awarded ACS Outstanding Senior Award: 2019
- Received ACS Undergraduate Award in Inorganic Chemistry: 2019
- Successfully passed the 2018 American Society for Biochemistry and Molecular Biology (ASBMB) exam
- Inducted into The National Chemistry Honor Society, Phi Lambda Upsilon: Spring 2018
- Received the Polymer Chemistry and Polymeric Materials: Science and Engineering Undergraduate Award for Achievement in Organic Chemistry: 2017
- Academic scholarship recipient, 8 semesters
- Dean's List recognition, 7 semesters
- Inducted into The Honor Society of Phi Kappa Phi: Spring 2017
- Named Bloomsburg University Student Employee of the Year: 2017

PRESENTATIONS

❖ Oral

- **Hollister, K. K.**, Gilliard, R. J., Thermoluminescent Borafluorenium Ions and Redox-Flexible Borepins. Boron in the Americas Conference (BORAM XVII). Blacksburg, VA, 2022.
- **Hollister, K. K.**, Gilliard, R. J., Air-Stable Thermoluminescent Borafluorenium Ions. 2022 Spring American Chemical Society Meeting. San Diego, CA, 2022.
- **Hollister, K. K.**, Gilliard, R. J., Boron Heterocycles as Functional Materials. UVA Chemistry Department Annual Retreat. University of Virginia, 2021. Awarded second place for best talk.

- **Hollister, K. K.**, Grego, E., Osburn, P., Efforts toward the synthesis of new pincer catalysts for the ADC reaction. College of Arts & Sciences Research Day. Bloomsburg University of Pennsylvania, 2018.
- **Hollister, K. K.**, Sheffield, W., Darko, A., Tethered, axially-coordinating sulfoxide and sulfone ligands for dirhodium paddlewheel complexes. REU program final symposium. University of Tennessee-Knoxville, 2018.
- **Hollister, K. K.**, Osburn, P., Polymer-supported triazole-NHC rhodium complexes as recyclable transfer hydrogenation catalysts. Oral presentation. College of Arts & Sciences Research Day. Bloomsburg University of Pennsylvania, 2017.

❖ **Poster**

- **Hollister, K. K.**, Gilliard, R. J., Boron Heterocycles as Functional Materials. UVA Chemistry Department 3rd year poster session. University of Virginia, 2022. Awarded second place for best poster.
- **Hollister, K. K.**, Gilliard, R. J., Air-Stable Thermoluminescent Borafluorenium Ions. 2022 Spring American Chemical Society Meeting. San Diego, CA
- **Hollister, K. K.**, Sheffield, W., Darko, A., Tethered, axially-coordinating sulfoxide and sulfone ligands for dirhodium paddlewheel complexes. College of Arts & Sciences Summer Research Poster Session. University of Tennessee-Knoxville, 2018.
- **Hollister, K. K.**, Osburn, P., Polymer-supported triazole-NHC rhodium complexes as recyclable transfer hydrogenation catalysts. College of Arts & Sciences Poster Session. Bloomsburg University of Pennsylvania, 2017.

VOLUNTEER EXPERIENCE

- Chair of the UVA chemistry peer mentoring committee: 2022, 2023
- Member of the UVA chemistry peer mentoring committee: 2021
- Peer mentor for first year graduate students: 2020
- Assisted with UVA's Learning Education and Development (LEAD) program for local children interested in chemistry
- Developed and performed demo shows for children with the Chemistry Club, Bloomsburg University
- Student representative on university academic grievance board, Bloomsburg University
- Chemistry department peer tutor, Bloomsburg University
- Young Life leader, Christian-based mentor for high school students
- MEDLIFE officer, organization providing international health care support, Bloomsburg University