

**NATHANAEL H. HUNTER**  
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Kenyon College  
Department of Chemistry  
Tomsich 318  
Gambier, OH 43022

**EDUCATION**

**Ph.D., The Ohio State University**  
Chemistry Graduate Program  
Dr. Christine Thomas, Advisor

Columbus, OH  
December 2022

**B.S., John Carroll University**  
Chemistry and Philosophy  
Dr. Chrystal Bruce, Advisor  
*Magna cum laude*

University Heights, OH  
May 2017

**RESEARCH EXPERIENCE**  
**Kenyon College**  
Assistant Professor

Gambier, OH  
2025-Present

**Texas A&M University**  
NSF MPS-ASCEND Postdoctoral Research Fellow  
Dr. François Gabbaï, Advisor  
Synthesis of base-supported organobismuth compounds for anion transport and catalysis.

College Station, TX  
2023-2025

**The Ohio State University**  
Graduate Research Fellow  
Dr. Christine Thomas, Advisor  
Synthesis of heterobimetallic complexes for catalysis and small molecule activation containing earth-abundant transition metals.

Columbus, OH  
2017-2022

**The University of Wisconsin-Madison**  
Research Experiences for Undergraduates  
(REU)  
Dr. Randall Goldsmith, Advisor  
Spectroelectrochemical studies of lithium-ion responsive fluorophores.

Madison, WI  
2016

**John Carroll University**  
Undergraduate Research Assistant  
Dr. Chrystal Bruce, Advisor  
Computational studies of ligand binding in small protein systems: correlating binding events with conformational changes in the dynamic structures of FABP5.

University Heights, OH  
2014-2017

**PUBLICATIONS**

Şit, F.; **Hunter, N. H.**; Maltz, L. T.; Gabbaï, F. P. Lewis Acidity of the SbCl<sub>3</sub>/o-chloranil system. *Angewandte Chemie: International Edition*. **2025**, e202505893. <https://doi.org/10.1002/anie.202505893>

**Hunter, N. H.**; Gabbaï, F. P. Bismuthenium Cations for the Transport of Chloride Anions via Pnictogen Bonding. *Angewandte Chemie: International Edition*. **2025**, 64, e202414699. <https://doi.org/10.1002/anie.202414699>

**Hunter, N.H.**; Thomas, C. M. Polarized Metal-Metal Multiple Bonding and Reactivity of Phosphinoamide-Bridged Heterobimetallic Group IV / Cobalt Compounds. *Dalton Transactions* **2024**, *53*, 1. 15764-15781  
<https://doi.org/10.1039/D4DT02064B>

**Hunter, N. H.**; Stevens, J. E.; Moore, C. E.; Thomas, C. M. One Bridge, Three Bonds: A Frontier in Multiple Bonding in Heterobimetallic Complexes. *Inorganic Chemistry* **2023**, *62*, 659-663.  
<https://doi.org/10.1021/acs.inorgchem.2c03716>

**Hunter, N. H.**; Lane, E. L.; Gramigna, K. M.; Moore, C. E.; Thomas, C. M. C-H Bond Activation Facilitated by Bis(phosphinoamide) Heterobimetallic Zr/Co Complexes. *Organometallics* **2021**, *40*, 3689-3696.  
<https://doi.org/10.1021/acs.organomet.1c00511>

**Hunter, N. H.**; Bakula, B. C.; Bruce C. D. Molecular dynamics simulations of apo and holo forms of fatty acid binding protein 5 and cellular retinoic acid binding protein II reveal highly mobile protein, retinoic acid ligand, and water molecules. *Journal of Biomolecular Structure and Dynamics*. **2018**, *36*, 1893-1907.  
<https://doi.org/10.1080/07391102.2017.1337591>

Padilla, N. A.\*; Rea, M. T.\*; Foy, M.; Upadhyay, S. P.; Desrochers, K. A.; Derus, K.; Knapper, K. A.; **Hunter, N. H.**; Wood, S.; Hinton, D. A.; Cavell, A. C.; Masias, A. G.; Goldsmith, R. H. Tracking Lithium Ions via Widefield Fluorescence Microscopy for Battery Diagnostics. *ACS Sensors*. **2017**, *2*, 903-908.  
<https://doi.org/10.1021/acssensors.7b00087>

## **PRESENTATIONS**

**Hunter, N. H.**; Gabbaï, F. P. “Synthesis and reactivity of base-supported organopnictogen Lewis acids” Abstract accepted for an oral presentation at the American Chemical Society Southwest Regional Meeting; Waco, TX; October 23, 2024.

**Hunter, N. H.**; Gabbaï, F. P. “Synthesis and Reactivity of Base-Supported Organopnictogen Lewis Acids” Poster presentation at the 2024 Organometallic Gordon Conference; Newport, RI; July 7, 2024.

**Hunter, N. H.**; Gabbaï, F. P. “Synthesis and Reactivity of Base-Supported Pnictogen Lewis Acids” Poster presentation at the 2022 Inorganic Chemistry Gordon Conference; Newport, RI; June 2, 2024.

**Hunter, N. H.**; Gabbaï, F. P. “Synthesis and anion transport activity of base-supported organobismuth Lewis Acids” Oral presentation at the American Chemical Society Southwest Regional Meeting; Oklahoma City, OK; November 15, 2023.

**Hunter, N. H.**; Thomas, C. M. “Synthesis and characterization of phosphinoamide supported group 4/cobalt heterobimetallic compounds” Poster presentation at the 2022 Inorganic Chemistry Gordon Conference; Newport, RI; May 31, 2022

**Hunter, N. H.**; Thomas, C. M. “Synthesis and characterization of phosphinoamide supported heterobimetallic complexes” Oral presentation at the American Chemical Society National Meeting; San Diego, CA; March 22, 2022

**Hunter, N. H.**; Thomas, C. M. “Synthesis and characterization of zirconium/cobalt early-late heterobimetallic complexes.” Oral presentation at the American Chemical Society National Meeting; Virtual Presentation; August 2021

**Hunter, N. H.**; Thomas, C. M. “C–H bond activation facilitated by a Zirconium/Cobalt Early-Late Heterobimetallic complex” Oral Presentation at Ohio Inorganic Weekend; Virtual Presentation; October 2020.

**Hunter, N. H.**; Lane, E. L.; Gramigna, K. M.; Thomas, C. M. “C–H bond activation facilitated by a Zirconium/Cobalt Early-Late Heterobimetallic complex” Oral Presentation at the American Chemical Society National Meeting; Virtual Presentation; August 2020.

**Hunter, N. H.**; Thomas, C. M. "C–H bond activation of Pyridines and terminal alkynes facilitated by a family of Early-Late Heterobimetallic complexes" Oral presentation at STUCK seminar; Virtual Presentation, Spring 2020.

### **AWARDS, HONORS, AND FUNDING**

#### **MPS-ASCEND Postdoctoral Fellowship**

The National Science Foundation – \$100,000/yr for 2 years

July 2023-July 2025

#### **Dean's Distinguished University Fellowship**

The Ohio State University – 5 semesters of support

August 2017-December 2022

### **TEACHING EXPERIENCE**

#### **Texas A&M University**

Inorganic Chemistry Laboratory

College Station, TX

Autumn 2024

#### **The Ohio State University**

Graduate Teaching Associate

Dept. of Chemistry & Biochemistry

Inorganic Chemistry Laboratory

Coordination Chemistry (Graduate Level)

General Chemistry for Majors (Recitation and Lab)

Columbus, OH

Spring 2020

Autumn 2019

Autumn 2019

#### **John Carroll University**

Undergraduate Teaching Assistant

Department of Chemistry

Physical Chemistry Laboratory

Organic Chemistry I Laboratory

Organic Chemistry II Laboratory

University Heights, OH

Autumn 2016, Spring 2017

Autumn 2015-2016

Spring 2015-2017

### **RELATED PROFESSIONAL EXPERIENCE**

#### **Texas A&M University**

Undergraduate Research Scholars (URS) Proposal Reviewer

Worked directly with the URS program to review students' proposals for a year-long faculty-mentored research project in a science or engineering field.

College Station, TX

August 2024 - Present

#### **CMC Pharmaceuticals**

Research Chemist

Analyzed the shelf life of various APIs, using UV-vis spectrometry, HPLC, and other analytical methods.

Cleveland, OH

June 2016-June 2017

### **PROFESSIONAL MEMBERSHIPS & ACTIVITIES**

American Chemical Society

2015-Present