Rory Waterman

Innovation Hall
82 University Place
Burlington, VT 05405

Telephone: (802) 656-0278
Fax: (802) 656-8705
E-Mail: rory.waterman@uvm.edu

www.uvm.edu/~waterman

Appointments

2022–present	INTERIM DIRECTOR, MATERIALS SCIENCE PROGRAM University of Vermont Gradute College, Burlington, VT
2022–2023	VISITING PROFESSOR, INSTITUTE FOR CHEMICAL RESEARCH Kyoto University, Kyoto, Japan
2016–2022	ASSOCIATE DEAN, COLLEGE OF ARTS AND SCIENCES University of Vermont, Burlington, VT
2016–present	PROFESSOR OF CHEMISTRY (Associate 2012–2016; Assistant 2006–2012) University of Vermont, Burlington, VT
2013–2014	HUMBOLDT RESEARCH FELLOW University of Regensburg, Regensburg, Germany
2008–present	MATERIALS SCIENCE PROGRAM University of Vermont, Burlington, VT
2004–2006	MILLER RESEARCH FELLOW University of California, Berkeley, CA

Education

Ph. D., June 2004, and M. S., August 2000, The University of Chicago, Chicago, Illinois
Research Advisor: Professor Gregory L. Hillhouse (deceased)
Thesis: *The Chemistry of Three-Coordinate Nickel Phosphinidene, Imido, and Carbene Complexes*

B. S. cum laude in chemistry, May 1999, University of Rochester, Rochester, New York

Selected honors and Awards

Japan Society for the Promotion of Science, Research Fellowship, 2022–23
Fellow, American Association for Science Advancement (AAAS), 2020
Fellow, Gund Institute for the Environment, 2020
Elected member, Vermont Academy of Sciences and Engineering, 2019
Fellow, American Chemical Society, 2019
Leadership Enrichment And Development (LEAD) Award, 2017
Fellow, American Institute of Chemists, 2016
Fellow, Royal Society of Chemistry, 2015
Editorial Advisory Board, *Organometallics*, 2014–2016
Alexander von Humboldt Research Fellowship for Experienced Researchers, 2013
Research Corporation for Science Advancement Cottrell Scholar Award, 2009
Alfred P. Sloan Foundation Research Fellowship, 2009
U.S. National Science Foundation CAREER Award, 2008
Miller Institute for Basic Research in Science Research Fellowship, 2004–2007
>100 invited lectures (2007–present)

Selected professional activities

Chair, Green Mountain Local Section, American Chemical Society (2018–2020)

Guest Editing: *Chem.–Eur. J.* (expected 2023), *Eur. J. Inorg. Chem.* (expected 2023), *J. Org. Chem.* (2020), *Dalton Trans.* (2016) and *Inorg. Chim. Acta* (2014)
Co-developer, CSC (now ACS) New Faculty Workshop in Chemistry (2012–present)
Director, Noyce Summer Internship Program (2009–2015)
Director, Project SEED at UVM (2007–present)

Funding
>$3.0M in sole-PI funding and >$3.5M in joint funding since 2007.

Selected recent publications (>90 peer-reviewed papers; 3 book chapters; 6 editorials, etc.)
§ invited manuscript

§Reuter, M. B; Seth, J., D. M.; Javier-Jiménez, D. R.; Finfer, E.; Beretta, E. A.; Waterman, R. Recent Advances in Catalytic Pnictogen Bond Forming Reactions via Dehydrocoupling and Hydrofunctionalization *Chem. Commun.* **2023**, *59*, 1258–1273.

Dannenberg, S. D.; Seth, Jr. S. M.; Finfer, E. J.; Waterman, R. Divergent Mechanistic Pathways for Copper(I) Hydrophosphination Catalysis; Understanding that Allows for Diastereoselective Hydrophosphination of a Tri-substituted Styrene *ACS Catalysis* **2023**, *13*, 550–562.

§Novas, B. T.; Waterman, R. Metal-Catalyzed Hydrophosphination *ChemCatChem* **2022**, *14*, e202200988.

§Danneberg, S. D.; Waterman, R. *Cyclo*-tetrakis(μ-diphenylphosphido)-1,5-bis(tri-*tert*-butylphosphine)-tetracopper *Molbank*, **2022**, *2022(1)*, M1334 (featured on cover)

§Novas, B. T.; Morris, J. A.; Liptak, M. D.; Waterman, R. Effect of Photolysis on Zirconium Amino Phenoxides for the Hydrophosphination of Alkenes: Improving Catalysis *Photochem* **2022**, *2(1)*, 77–87.

§Reuter, M. B.; Hageman, K.; Waterman, R. Silicon–Nitrogen Bond Formation via Heterodehydrocoupling and Catalytic N–Silylation *Chem. Eur. J.* **2021**, *27*, 3251–3261.

Dannenberg, S. G.; Waterman, R. A Bench-Stable Catalyst for the Rapid Hydrophosphination of Activated and Unactivated Alkenes *Chem. Commun.* **2020**, *56*, 14219–14222.

Pagano, J. K.; Xie, J.; Erickson, K. A.; Cope, S. K.; Scott, B. L.; Wu, R.; Waterman, R.; Morris, D. E.; Yang, P.; Gagliardi, L.; Kiplinger, J. L. Synthesis, characterization and electronic structure of actinide metallabiphenylene complexes: Tuning electron delocalization with actinides *Nature* **2020**, *578*, 563–567.

Patents
Waterman, R.; Ackley, B. J. Low-Temperature Formation of Group 13-15 Ceramics and Group 13-15-16 Ceramics, U.S. 62/817,278 (non-provisional), February 11, 2020.

Waterman, R.; Ackley, B. J. Methods of Preparing Primary Phosphines Using a Lewis Acid Catalyst, U.S. 62/960,773 (non-provisional), January 7, 2021.

Books
Expanding the CURE Model: Course-based Undergraduate Research Experiences Waterman, R. and Heemstra, J., Eds. Research Corporation for Science Advancement: Tucson, A.Z., 2018.

Educational and Outreach Projects from the Cottrell Scholars Collaborative: Undergraduate and Graduate education, Volumes 1 & 2 Waterman, R. and Feig, A. L., Eds. American Chemical Society: Washington, D.C., 2017.