

Adam D. Hill
Department of Chemistry
Trinity College
300 Summit St., Hartford, CT 06106
(630) 699-0859
adam.hill@trincoll.edu
adhillgroup.info
orcid.org/0000-0003-4836-0470

Education

Ph.D. in Chemistry, May 2013, University of California, Berkeley
Research Advisor: Professor Charles B. Harris
Thesis: "Dynamics of Coordination Complexes in Ground and Excited States"

B.S. in Chemistry, May 2008, Trinity College (Hartford, Connecticut)
Research Advisors: Professor David E. Henderson and Professor Maria L. Parr

Professional Experience

Assistant Professor of Chemistry, Trinity College (July 2023–present)

Associate Professor of Chemistry, St. Lawrence University (August 2019–June 2023)
Affiliate, Lawrence Berkeley National Laboratory (December 2016–February 2019)
Assistant Professor of Chemistry, St. Lawrence University (August 2013–August 2019)

Graduate Student Researcher, University of California, Berkeley (October 2008–May 2013)
Charles B. Harris Group: Ultrafast 2D-IR Spectroscopy of Organometallic Compounds

Graduate Student Instructor, University of California, Berkeley (August 2008–May 2011)
General Chemistry (F'08), Physical Chemistry (F'09), Symmetry and Spectroscopy (S'11)

Undergraduate Researcher, Trinity College (January 2005–May 2008), David Henderson and Maria Parr Groups
Summer Internships: Vertex Pharmaceuticals (2007), McCrone and Associates (2006), Fermi National Accelerator Laboratory (2003–2005)

Teaching Interests

Physical Chemistry, Inorganic Chemistry, Materials Science, Spectroscopy, Analytical/Instrumental Chemistry, Renewable Energy, General Chemistry, First-Year Courses

Research Interests

Artificial Photosynthesis, Charge Transfer, Heterobimetallic Chemistry, Nonlinear Spectroscopy, Vibrational Spectroscopy, Surface Science, Density Functional Theory

Teaching

Teaching Experience

Trinity College

CHEM-112: Introductory Chemistry II
CHEM-309: Physical Chemistry I (and laboratory)
CHEM-316: Physical Biochemistry (and laboratory)

St. Lawrence University

Regularly Taught Courses:

CHEM-103: General Chemistry I and CHEM-103L: General Chemistry I Laboratory
CHEM-104: General Chemistry II and CHEM-104L: General Chemistry II Laboratory
CHEM-303: Inorganic Chemistry
CHEM-389/390: Research for Juniors
CHEM-451: Advanced Inorganic Chemistry Laboratory
CHEM-489/490: Senior Year Experience (Research)

Additional Courses:

CHEM-104FYS: General Chemistry First-Year Seminar (Spring 2020)
CHEM-137: Scientific Discovery (Fall 2015, 2016, & 2020)
CHEM-342: Biophysical Chemistry (since renamed to Thermodynamics and Kinetics) (Spring 2016 & 2023)
CHEM-347: Independent Study (“Python for Chemists”) (Spring 2014)
CHEM-352: Inorganic Chemistry Laboratory (Spring 2014–2018)
CHEM-403: Advanced Inorganic Chemistry (Fall 2013–2017)
CHEM-4003: Advanced Materials Seminar (Spring 2020)
CHEM-4004: STEM Entrepreneurship (Fall 2021, 2022)
FRPG-1015: Ford College (First-Year Program: “Scientific Discovery”) (Fall 2019)
FRPG-1024/1045: Priest College (First-Year Program: “From Pixels to Picoseconds”) (Fall 2015)
FRPG-1058: Crary College (First-Year Program: “Science and Speculation”) (Fall 2020 & 2022)
FRPG-2170: First-Year Seminar “STEM Apprenticeship” (Spring 2021 & 2022)
MATH-489/490: Senior Year Experience (Math Honors Project) (Fall 2019/Spring 2020)

University of California, Berkeley

Lecturer:

CHEM-122/222: Symmetry and Spectroscopy (Fall 2012)

Graduate Student Instructor:

CHEM-122/222: Symmetry and Spectroscopy (Spring 2011)
CHEM-120A: Physical Chemistry (Quantum Mechanics) (Fall 2009)
CHEM-1A: General Chemistry (Fall 2008)

Trinity College

Teaching Assistant:

CHEM-312: Instrumental Chemistry (Spring 2008)
CHEM-208: Analytical Chemistry (Fall 2007)

Undergraduates Mentored

St. Lawrence University

1. Lauren Rundell (April 2022–May 2023): B.S. Math-Economics (*expected 2025*)
2. Corryn Canell (January 2022–May-2022): B.S. Chemistry (*expected 2025*)

- Liberal Arts Science Scholar (NSF S-STEM)*
3. Joel Asare (January 2022–May 2022): B.S. Chemistry (*expected 2025*)
Liberal Arts Science Scholar (NSF S-STEM)
 4. Jenna Mack (January 2022–May 2022): B.S. Chemistry (2023)
 5. Ganesh Petterson (January 2022–May 2022): B.S. Physics (2023)
 6. Alexander Gehl (August 2021–May 2022): B.S. Physics (2022)
 7. Blake Heston (January 2021–present): B.S. Chemistry (*expected 2024*)
 8. Annie Knapp (January 2021–May 2023): B.S. Chemistry (2023)
Presented poster at ACS National Meeting 2021. Currently pursuing Ph.D. in Chemistry at Yale University.
 9. Nika Husinec (January 2020–September 2020): B.S. Geology-Physics (2023)
 10. Timothy Cunningham (September 2019–May 2021): B.S. Physics (2021)
 11. Abigail Enders (January 2019–May 2019): B.S. Chemistry (2019)
McNair Scholar. Ph.D. in Chemistry, May 2023, the Ohio State University.
 12. Jack Greene (December 2018–May 2020): B.S. Chemistry (2020)
SLU Summer Fellow 2019. Currently pursuing Ph.D. in Chemistry at University of Oregon.
 13. Heinrich Salzmann (September 2018–May 2020): B.S. Chemistry with Honors (2020)
SLU Summer Fellow 2019. Currently pursuing Ph.D. in Chemistry at University of Colorado Boulder.
 14. Quinlan Ashmore (April 2018–May 2021): B.S. Chemistry (2021)
 15. Leah Livernois (May 2018–October 2018): B.S. Chemistry (2020)
SLU Summer Fellow 2018.
 16. Nicole Panek (November 2017–August 2020): B.S. Mathematics with Honors (2020)
Clare Booth Luce Award, Summer 2019. M.S. in Chemistry, May 2022, University of Washington.
 17. Dhimiter Cobani (September 2017–December 2019): B.S. Biology-Physics (2019)
Liberal Arts Science Scholar (NSF S-STEM) and McNair Scholar. Currently pursuing Ph.D. in Biomedical Engineering at Boston University.
 18. Alexis Haley (November 2016–May 2018): B.S. Chemistry (2018)
Presented poster at ACS National Meeting 2018. M.S. in Chemical Engineering, May 2020, Columbia University
 19. Shyanne White (June–August 2016): B.S. Statistics (2019)
Liberal Arts Science Scholar (NSF S-STEM) and McNair Scholar.
 20. Matthijs van Mierlo (January–December 2016): B.S. Computer Science (2019)
 21. Alissa Stone (January 2016–May 2019): B.S. Chemistry (2019)
Liberal Arts Science Scholar (NSF S-STEM). Presented poster at ACS National Meeting 2019.
 22. Bethany DeMuyne (November 2015–December 2016)
 23. Wenyao Zhang (September–December 2016): B.S. Chemistry (2017)
Currently pursuing Ph.D. in Chemistry, Cornell University.
 24. Kelly Burke (September 2015–May 2017): B.S. Chemistry (2017)
SLU Summer Fellow 2016. Presented poster at ACS National Meeting 2017. M.A. in Chemical Education at Columbia Teachers College, May 2022.
 25. Monica Bedford (January 2015–May 2017): B.S. Chemistry (2017)
SLU Summer Fellow 2016. Presented poster at ACS National Meeting 2017.
 26. Connor Heaney (November 2014–May 2016): B.S. Chemistry (2016)
SLU Summer Fellow 2015. Presented poster at ACS National Meeting 2016.
 27. Isabel Bogacz (September 2014–May 2017): B.S. Chemistry with Honors (2017)
SLU Summer Fellow 2015. Presented poster at ACS National Meeting 2017. Currently pursuing Ph.D. at University of California, Berkeley.
 28. Ellis (E.J.) Curtis (June 2014–May 2017): B.S. Neuroscience (2017)
McNair Scholar; SLU Summer Fellow 2015. Currently pursuing M.D./Ph.D. at University of California San Diego.
 29. Nicolette Celia (February 2014–May 2016): B.S. Chemistry (2016)
Stradling Fellow Summer 2014; Clark Fellow Summer 2015; presented posters at NERM 2015, ACS National Meeting 2016. Currently pursuing M.D. at American University of Antigua College of Medicine.
 30. Scott Chapp (February 2014–May 2015): B.S. Chemistry (2015)

- SLU Summer Fellow 2014.; presented posters at ACS National Meeting 2015 and NY6 2015, talk at local ACS Meeting 2015. Ph.D. in Chemistry, May 2021, Vanderbilt University.*
31. Meagan Gadzuk-Shea (February 2014–May 2015): B.S. Chemistry (2015)
McNair Scholar 2014; delivered plenary talk at 22nd Annual University of California, Berkeley McNair Scholars Symposium and posters at NY6 2014 and Festival of Science 2015. Ph.D. in Chemistry, Dec. 2020, University of Washington.
 32. Sarah Kossak (August 2013–May 2014): B.S. Chemistry (2014)
Accelerated Pharm.D., Massachusetts College of Pharmacy and Health Sciences, May 2017.

University of California, Berkeley

33. Hyaejeen “Sally” Jeon (May 2012–May 2013): B.S. Integrative Biology (May 2015)
34. Molly R. Ryan (January 2010–May 2013): B.S. Molecular & Cell Biology (May 2013)
Ph.D. in Pharmacology, Yale University (2018); currently Scientist II at Astellas Gene Therapeutics.

Continuing Education

May College (Two-day teaching and learning workshop), St. Lawrence University (Each May, 2014–2022)
First Year Program Faculty Development events (September 2019–September 2022)
Summer training courses in techniques and strategies for online teaching
 [*Replacement for May College*] (May–August 2020)
First-Year Program Canaras Retreats (June 2015 and 2019)
Associated Colleges Teaching Effectiveness Conference, St. Lawrence University (November 2013 and 2014)
Telluride School of Theoretical Chemistry (July 10–16, 2011)

Scholarship/Research

Publications

1. Roys, Joshua S.; Stucchi, Nicholas D.; O’Brien, Jennifer M.; † **Hill, Adam D.**; Brown, Ryan D.* “Thermally Assisted Water Transport Dynamics and Kinetic Equilibria at the Graphene-Mica Interface.” *Langmuir*. In preparation for May 2023 submission.
 †*Undergraduate co-author.*
2. Salzmann, Heinrich J.; † Knapp, Annie S.; † Ashmore, Quinlan P.; † Cunningham, Timothy M.; † Heston, William B.; † Rundell, Lauren; † Jahneke, Catherine L.; **Hill, Adam D.*** “Electron Transfer and Photoemission from Binuclear Units.” *Journal of the American Chemical Society*. In preparation for May 2023 submission.
 †*St. Lawrence student co-authors.*
3. Roys, Joshua S.; O’Brien, Jennifer M.; † Stucchi, Nicholas D.; Raj, Gaurav; **Hill, Adam D.***; Ye, Jingyun;* Brown, Ryan D.* “Enhanced Crystallinity of Covalent Organic Frameworks Formed Under Physical Confinement by Exfoliated Graphene.” *Small*. **2022**, 2204152.
 **Co-corresponding authors.* †*Undergraduate co-author.*
 Journal impact factor when published: 13.28.
4. Jahneke, Catherine L.*; Zhang, Wenya; † DeMuyneck, Bethany; † **Hill, Adam D.*** “Exploring Resonance Raman Scattering with 4-Nitrophenol.” *Journal of Chemical Education*. **2022**, 99, 3233–3241.
 **Co-corresponding authors.*; †*St. Lawrence student co-author.*

- Journal impact factor when published: 3.21.*
5. Tartakoff, Samuel S.;* Enders, Abigail A.;† Zhang, Wenyao;† **Hill, Adam D.** “Spectroscopic and Computational Evidence for the Concerted Mechanism of the Wagner-Jauregg Reaction.” *Journal of Physical Organic Chemistry*. **2020**, *34*, e4140.
†*St. Lawrence student co-author.*
Journal impact factor when published: 2.39.
 6. Chapman, Jessica L.;* **Hill, Adam D.**; Nagel-Myers, Judith; Ramler, Ivan P. “The Liberal Arts Science Scholars Program: A Model for Supporting STEM Students Through The First Year.” *Journal of STEM Education*. **2019**, *20*, 17-24.
Journal impact factor when published: 0.20.
 7. **Hill, Adam D.**;* Katsoukis, Georgios; Frei, Heinz.* “Photo-Induced Electron Transfer from ZrOCo Binuclear Light Absorber to Pyridine Monitored by Transient Optical and Infrared Spectroscopy.” *Journal of Physical Chemistry C*. **2018**, *120*, 20176-20185.
**Co-corresponding authors.*
Journal impact factor when published: 4.48.
 8. Zoerb, Matthew C.; Henderson, Jane S.; Glover, Starla D.; Lomont, Justin P.; Nguyen, Son C.; **Hill, Adam D.**; Kubiak, Clifford P.; Harris, Charles B.* “Electron Dynamics and IR Peak Coalescence in Bridged Mixed Valence Dimers Studied by Ultrafast 2D-IR Spectroscopy.” *The Journal of Physical Chemistry B*. **2015**, *119*, 10738-10749.
Journal impact factor when published: 2.35.
 9. **Hill, Adam D.**; Zoerb, Matthew C.; Nguyen, Son C.; Lomont, Justin P.; Bowring, Miriam A.; Harris, Charles B.* “Determining equilibrium fluctuations using temperature-dependent 2D-IR.” *Journal of Physical Chemistry B*. **2013**, *117*, 15346-15355.*
**Michael D. Fayer Festschrift*
Journal impact factor when published: 2.45.
 10. Nguyen, Son C.; Lomont, Justin P.; Zoerb, Matthew C.; **Hill, Adam D.**; Schlegel, Jacob P.; Harris, Charles B.* “Chemistry of the Triplet 14-Electron Complex Fe(CO)₃ in Solution Studied by Ultrafast Time-Resolved IR Spectroscopy.” *Organometallics*. **2012**, *31*, 3980-3984.
Journal impact factor when published: 3.87.
 11. Lomont, Justin P.; Nguyen, Son C.; Zoerb, Matthew C.; **Hill, Adam D.**; Schlegel, Jacob P.; Harris, Charles B.* “Observation of a Short-Lived Triplet Precursor in CpCo(CO)-Catalyzed Alkyne Cyclotrimerization.” *Organometallics*. **2012**, *31*, 3582-3587.
Journal impact factor when published: 3.87.
 12. Lomont, Justin P.; Nguyen, Son C.; Schlegel, Jacob P.; Zoerb, Matthew C.; **Hill, Adam D.**; Harris, Charles B.* “Ultrafast Observation of a Solvent Dependent Spin State Equilibrium in CpCo(CO).” *Journal of the American Chemical Society*. **2012**, *134*, 3120-3126.
Journal impact factor when published: 10.72.
 13. **Hill, Adam D.**; Lehman, Ann H.; Parr, Maria L.* “Using Scanning Electron Microscopy with Energy Dispersive X-Ray Spectroscopy to Analyze Archaeological Materials.” *Journal of Chemical Education*. **2007**, *84*, 810-813.
Journal impact factor when published: 0.44.

Oral Presentations and Seminars

1. **Hill, Adam D.** "Artificial Photosystems: Rectified Electron Transfer Can Store Energy for the Whole World." Chemistry & Biochemistry Department, Fairfield University, Fairfield, CT, November 10, 2022.
2. **Hill, Adam D.** "Artificial Photosystems: Rectified Electron Transfer Can Store Energy for the Whole World." Chemistry Department, Trinity College, Hartford, CT, November 3, 2022.
3. Tartakoff, Samuel S.; **Hill, Adam D.** "Science and speculation: a writing intensive first-year seminar." 27th Biennial Conference of Chemistry Educators, West Lafayette, IN, August 3, 2022, BCCE 861.
4. **Hill, Adam D.**; Salzmann, Heinrich J.; Knapp, Annie S.; Heston, William B.; Ashmore, Quinlan P.; Cunningham, Timothy M.; Jahncke, Catherine J. "Time-Resolved Phosphorescence Spectroscopy Probes Electron Transfer in ZrOCo Binuclear Light Absorbers." 263rd National Meeting of the American Chemical Society, San Diego, CA, March 21, 2022.
5. **Hill, Adam D.** "Photoinduced electron transfer from heterobinuclear units as a pathway to solar fuels." Department of Chemistry, College of the Holy Cross, Worcester, MA, March 18, 2022.
6. **Hill, Adam D.** "Artificial Photosynthesis Is Renewable Energy for the Whole World." Laurentians Learn, Canton, NY, December 2, 2021. (Video: <https://vimeo.com/652893558/0397c2802f>)
7. **Hill, Adam D.**; Stone, Alissa A.; Cobani, Dhimiter; Livernois, Leah P.; Ashmore, Quinlan P.; Salzmann, Heinrich J. "Time-dependent spectroscopies of triads with heterobinuclear units reveal long-lived charge transfer states." 257th National Meeting of the American Chemical Society, Orlando, FL, March 31, 2019.
8. **Hill, Adam D.** "Liberal Arts and Sciences: Transition Metals and Renewable Energy." Summer Research Talks, Trinity College, Hartford, CT, June 5, 2018.
9. Chapman, Jessica L.; Chiarenzelli, Jeffrey R.; **Hill, Adam D.**; Nagel-Myers, Judith; Ramler, Ivan P. "Not an Oxymoron: Liberal Arts Science Scholars." 2018 STEM for All Video Showcase, May 14-21, 2018. (Video: <http://stemforall2018.videohall.com/presentations/1268>)
10. **Hill, Adam D.** "Controlling Electron Flow to Generate Renewable Fuels." Faculty Café, St. Lawrence University, Canton, NY, January 26, 2018.
11. **Hill, Adam D.** "Artificial Photosynthesis." TEDxStLawrenceU, St. Lawrence University, Canton, NY, November 12, 2016. (Video: https://youtu.be/bhH3_EY6uq8)
12. **Hill, Adam D.** "Artificial Photosynthesis: Making Renewable Solar Fuels with Metal Pair Catalysts." Faculty Café, St. Lawrence University, Canton, NY, September 16, 2016.
13. **Hill, Adam D.** "Metal Pair Catalysts for Solar Fuels." Science Café, Potsdam, NY, April 19-20, 2016.
14. Kenney, Rachael; Jeon, Hyaeejeon; **Hill, Adam D.** "Development of a kinetic Monte Carlo master equation simulation using object-oriented Python: An undergraduate project." 251st National Meeting of the American Chemical Society, San Diego, CA, March 15, 2016.
15. **Hill, Adam D.** "Fuel from the Sun: Solar Energy Conversion." SOAR, St. Lawrence University, Canton, NY, March 31, 2015.

16. **Hill, Adam D.**; Ryan, Molly R.; Krogman, Jeremy P.; Thomas, Christine M.; Harris, Charles B. "Charge transfer and carbon dioxide fixation in cobalt-zirconium heterobimetallic complexes." 39th Northeast Regional Meeting of the American Chemical Society, New Haven, CT, October 24, 2013.
17. **Hill, Adam D.**; Ryan, Molly R.; Krogman, Jeremy P.; Nguyen, Son C.; Lomont, Justin P.; Thomas, Christine M.; Harris, Charles B. "Carbon Dioxide Fixation and Charge Transfer States in Cobalt-zirconium Heterobimetallic Complexes." Materials Research Society Spring 2013 Meeting, San Francisco, CA, April 2, 2013.*
**Highlighted in MRS Meeting Scene.*
18. **Hill, Adam D.** "Dynamics of Metal Complexes: Understanding the Chemical Toolbox." Department of Chemistry, St. Lawrence University, Canton, NY, December 19, 2012.
19. **Hill, Adam D.** "2D-IR: Measuring Dynamics in Metal Complexes at Thermal Equilibrium." Center for Sustainable Materials Chemistry, University of Oregon, Eugene, OR, December 11, 2012.
20. **Hill, Adam D.**; Harris, Charles B. "Temperature-Dependent 2D-IR Reveals More Than Exchange in Iron η^4 -Diene Tricarbonyl Complexes." Chemical Sciences Division (CSD), Lawrence Berkeley National Lab (LBNL), Berkeley, CA, June 20, 2012.
21. **Hill, Adam D.**; Zoerb, Matthew C.; Nguyen, Son C.; Lomont, Justin P.; Schlegel, Jacob P.; Bowring, Miriam A.; Harris, Charles B. "Origins of IR Peak Coalescence in Iron Diene Tricarbonyl Compounds: 2D-IR Study of Exchange Versus Cross-Relaxation." American Chemical Society National Meeting, San Diego, CA, March 25-29, 2012. INOR-1249
22. Lomont, Justin P.; Nguyen, Son C.; Zoerb, Matthew C.; **Hill, Adam D.**; Schlegel, Jacob P.; Harris, Charles B. "Ultrafast Observation of a Solvent-Dependent Spin State Equilibrium in CpCo(CO)" 38th Annual Federation of Analytical Spectroscopy Society Conference, Reno, NV, October 2-6, 2011.
23. **Hill, Adam D.**; Harris, Charles B. "Temperature-Dependent Studies of IR-Timescale Peak Coalescence." Graduate Research Conference, Berkeley, CA, February 25, 2010.

Posters

1. Knapp, Annie S.; Salzmann, Heinrich J.; Ashmore, Quinlan P.; Heston, William B.; Jahncke, Catherine J.; **Hill, Adam D.** "Time-Resolved Photoluminescence Spectroscopy of Charge Transfer States in ZrOC_o and TiOC_o Heterobinuclear Units." 263rd National Meeting of the American Chemical Society, San Diego, CA, March 21, 2022.
2. Stone, Alissa A.; Cobani, Dhimiter; **Hill, Adam D.** "Time-correlated single-photon counting measurements of electron transfer between heterobinuclear units and bipyridine." 257th National Meeting of the American Chemical Society, Orlando, FL, March 31, 2019.
3. Haley, Alexis T.; Burke, Kelly A.; **Hill, Adam D.** "Characterization of Lanthanide/Transition Metal Heterobimetallic Complexes." 255th National Meeting of the American Chemical Society, New Orleans, LA, March 18, 2018.
4. Bogacz, Isabel R.; Bedford, Monica; Celia, Nicolette G.; Stone, Alissa; Jahncke, Catherine L.; **Hill, Adam D.** "Raman analysis of cobalt-zirconium heterobimetallic materials." 253rd National Meeting of the American Chemical Society, San Francisco, CA, April 2, 2017.

- Burke, Kelly A.; Heaney, Connor; **Hill, Adam D.** "Synthesis and photophysics of lanthanide/transition metal heterobimetallic complexes." 253rd National Meeting of the American Chemical Society, San Francisco, CA, April 2, 2017.
- Bedford, Monica; Celia, Nicolette G.; Stone, Alissa; **Hill, Adam D.** "Photophysics of cobalt-zirconium heterobimetallic materials with ancillary amine ligands." 253rd National Meeting of the American Chemical Society, San Francisco, CA, April 2, 2017.
- Curtis, Ellis J.; **Hill, Adam D.**; Glazier, Samantha. "Activation properties of the association and dissociation of doxorubicin and DNA." 251st National Meeting of the American Chemical Society, San Diego, CA, March 13, 2016.
- Heaney, Connor; **Hill, Adam D.** "Synthesis of early-late heterobimetallic compounds for fluorescence studies." 251st National Meeting of the American Chemical Society, San Diego, CA, March 13, 2016.
- Celia, Nicolette G.; Bedford, Monica; Bogacz, Isabel R.; Gadzuk-Shea, Meagan M.E.; Jahncke, Catherine L.; **Hill, Adam D.** "Synthesis and characterization of cobalt-zirconium heterobimetallic materials for photocatalysis." 251st National Meeting of the American Chemical Society, San Diego, CA, March 13, 2016.
- Celia, Nicolette G.; Gadzuk-Shea, Meagan M.E.; Bogacz, Isabel R.; Curtis, Ellis J.; Jahncke, Catherine L.; **Hill, Adam D.** "Synthesis and characterization of Early-Late Heterobimetallic Materials by Raman Spectroscopy." 40th Northeast Regional Meeting of the American Chemical Society, Ithaca, NY, June 10, 2015.
- Heaney, Connor J.; Chapp, Scott M.; **Hill, Adam D.** "Synthesis of early-late heterobimetallic compounds for fluorescence studies." 40th Northeast Regional Meeting of the American Chemical Society, Ithaca, NY, June 10, 2015.
- Chapp, Scott M.; Celia, Nicolette G.; **Hill, Adam D.** "Synthesis and Analysis of Heterobimetallic Cobalt-Zirconium Complex for Artificial Photosynthesis." 249th National Meeting of the American Chemical Society, Denver, CO, March 22-26, 2015. INOR-663
- Hill, Adam D.**; Harris, Charles B. "Determining Geometric Fluctuations in Organometallic Complexes Using Temperature-Dependent 2D-IR." International Symposium on Homogeneous Catalysis XIX, Ottawa, Ontario, Canada, July 8, 2014.
- Hill, Adam D.** Pailloux, Sylvie L.; Klemm, Piper J.; Harris, Charles B.; Raymond, Kenneth N. "Synthesis, Characterization, and Theoretical Description of Novel Gadolinium and Iron HOPO-Based MRI Contrast Agents." PacifiKen II, Timberline Lodge, Oregon. August 1-2, 2012.
- Zoerb, Matthew C.; Glover, Starla D.; Henderson, Jason I.; **Hill, Adam D.**; Lomont, Justin P.; Nguyen, Son C.; Kubiak, Clifford P.; Harris, Charles B. "Electron Dynamics and IR Peak Coalescence Studied by 2D-IR and FTIR Spectroscopy". Electron Donor-Acceptor Interactions Gordon Research Conference, Newport, Rhode Island, August 5-10 2012.
- Lomont, Justin P.; Nguyen, Son C.; Zoerb, Matthew C.; **Hill, Adam D.**; Schlegel, Jacob P.; Harris, Charles B. "Time-resolved Infrared Spectroscopy as a Tool for Understanding Organometallic Reaction Mechanisms" Vibrational Spectroscopy Gordon Research Conference, Biddeford, Maine, August 2012.
- Nguyen, Son C.; Lomont, Justin P.; Zoerb, Matthew C.; **Hill, Adam D.**; Schlegel, Jacob P.; Cahoon, James F.; Harris, Charles B. "Studying Rotational Diffusion of Transition Metal Carbonyl Complexes in Solution

by 2D-IR Spectroscopy” Vibrational Spectroscopy Gordon Research Conference, Biddeford, Maine, August 2012.

18. Lomont, Justin P.; Nguyen, Son C.; Zoerb, Matthew C. **Hill, Adam D.**; Schlegel, Jacob P.; Harris, Charles B. “Time-Resolved Infrared Spectroscopy and Density Functional Theory Calculations as Tools for Understanding Green Organometallic Chemistry” 2nd Annual Berkeley Center for Green Chemistry Conference, Berkeley, California, April 2012.
19. **Hill, Adam D.**; Pailloux, Sylvie L.; Klemm, Piper J.; Harris, Charles B.; Raymond, Kenneth N. “Synthesis, Characterization, and Theoretical Description of Novel Gadolinium and Iron HOPO-Based MRI Contrast Agents.” American Chemical Society National Meeting, San Diego, CA, United States, March 25-29, 2012. INOR-398
20. Ryan, Molly R.; **Hill, Adam D.**; Harris, Charles B. “Towards the Ultrafast Spectroscopy of Heterobimetallic Complexes.” American Chemical Society National Meeting, San Diego, CA, United States, March 25-29, 2012. INOR-197
21. Parr, Maria L.; Lehman, Ann H.; **Hill, Adam D.**; O’Neal, Ashley C. “Scanning Electron Microscopy Analysis of Archaeological Materials: An Interdisciplinary Project for First-Year Students.” American Chemical Society National Meeting, Boston, MA, United States, August 19-23, 2007. CHED-094
22. Parr, Maria L.; Lehman, Ann H.; **Hill, Adam D.** “The Application of Scanning Electron Microscopy in the Analysis of Archaeological Materials: Introducing Scientific Concepts and Scientific Literacy to Students from Across the Disciplines.” 33rd Northeast Regional Meeting of the American Chemical Society, Fairfield, CT, United States, July 14-17, 2005. ONSUB-148

Grants

1. National Science Foundation Major Research Instrumentation (MRI) Program: “MRI: Acquisition of a 400 MHz NMR Spectrometer for Research and Research Training.” CHE-2018238. Co-PIs: **Adam D. Hill**, Amanda N. Oldacre, Samuel S. Tartakoff. Awarded August 15, 2020; 3-year grant. Total grant amount: \$288,990.
2. National Science Foundation Major Research Instrumentation (MRI) Program: “Acquisition of a high-performance computer (HPC).” CNS-1919554. Co-PIs: Edwin Harcourt, Jessica L. Chapman, Robert Haney, **Adam D. Hill**, Michael E. Schuckers. Awarded September 17, 2019; 3-year grant. Total grant amount: \$236,477.
3. National Science Foundation Scholarships in Science, Technology, Engineering, and Mathematics (S-STEM) Program: “Improving Accessibility of the Liberal Arts Sciences (LAS++).” DUE-1930380. Co-PIs: Jessica L. Chapman, Erika L. Barthelmess, **Adam D. Hill**, Ivan P. Ramler, Jessica Sierk. Awarded July 3, 2019; 5-year grant. Total grant amount: \$999,307.
4. William B. Bradbury, Jr. Faculty Support Award: “Isolating Chemical Bonds Between Dissimilar Metals.” Awarded January 24, 2017. Total grant amount: \$2,000.
5. National Science Foundation S-STEM Program: “Liberal Arts Science Scholars Program.” DUE-1458712. Co-authors: Jessica L. Chapman, Jeffrey R. Chiarenzelli, **Adam D. Hill**, Judith Nagel-Myers, Ivan P. Ramler. Awarded March 12, 2015; 5-year grant. Total grant amount: \$618,524.

Professional Affiliations

Member, American Association for the Advancement of Science (AAAS) (2012–present)
Member, American Chemical Society (2009–present)
 Presider, Chemistry of Materials: Materials for Energy and Catalytic Applications session, 263rd
 Meeting of the American Chemical Society, San Diego, CA March 21, 2022
Officer, Northern New York Section (2013–2018)

Service

Service to Department

Academic advisor to 30+ students annually (first-year students and chemistry majors)
Instrument and apparatus maintenance (FTIR spectrometer, glove box, solvent system, Schlenk lines)
Curriculum development (worked with teams to plan updated ACS major and develop new Pre-Health Chemistry major)
Speaker at department events (Chymist Honorary Society induction, major declaration day)
Managed department media (photography, digital sign, Facebook page)
Scheduled department seminar (student and outside speakers) (Aug. 2014–Dec. 2016)
Committee member for senior thesis defenses (Rachael Kenney '14, David Bain '19, Leo Romanetz '21)

Service to University

Permanent Committees/Positions

Academic Affairs Committee (September 2014–December 2016, September 2018–May 2019, September 2020–December 2020, September 2021–present)
 Chair of Academic Affairs Committee (September 2021–present)
Academic Petitions and Standing Committee (August 2020–May 2021)
Back-up Delegate to the Board of Trustees (August 2019–May 2021)
Faculty Council (Elected to two terms, covering August 2017–July 2020)
 Committee on Committees (September 2017–July 2020)
Radiation and Laser Safety Committee (December 2015–present)

Temporary (Search, Selection, and Planning) Committees

Assistant Professor (Organic Chemistry) (September–December 2021)
New Pre-Health Chemistry Major (November 2020–July 2022)
New Data Science Major (July–August 2020)
Assistant Professor (Game Theory–Economics) (January–February 2020)
Assistant Professor (Environmental Chemistry) (September–December 2018)
Staffing Committee (August 2018)
Two Visiting Assistant Professors (General Chemistry) (December 2017–April 2018)
Corporate and Foundation Relations Director (August 2016–April 2017)
Visiting Assistant Professor (General Chemistry) (October 2015–March 2016)
Staffing Committee (August 2016)
Lab Coordinator (General Chemistry) (February–March 2015)
Denmark CIIS Selection Committee (February 2015–December 2016)
Assistant Professor (Synthetic Chemistry) (September–December 2014)
Visiting Assistant Professor (Biochemistry) (February–March 2014)

Mentoring and Advising

Faculty Mentor, Riding Team (October 2015–May 2023)

Faculty Advisor, Photo Club (November 2014–May 2018)

Faculty Advisor, Alpha Phi Omega national service fraternity (November 2013–April 2016)

Reviewer

Grant reviewer: American Chemical Society Petroleum Research Fellowship

Journal reviewer: *Organometallics*, *ACS Omega*

Additional Written Work

Materials Research Society Bulletin (previously Materials360 Online) articles for non-experts on recent advances (June 2015–April 2017):

“Electron optics in graphene explore whispering-gallery modes”; “Carbon nanotube transistor reveals charge transfer and phase changes in physisorbed atoms”; “Stacked clay sheets form large arrays of nanofluidic channels”; “Metallic VO₂ exhibits low electronic thermal conductivity”; “Core-shell microfibers fight fires in Li-ion batteries”

Berkeley Science Review Blog (September 2011–September 2014)

Authored articles each month including: “Are Quantum Computers Among Us,” “Humanizing the Graduate Student Lifecycle,” “Fireflies and the Ubiquitous Real-World Application,” and “Of Viruses and Volts.”

Editor

Berkeley Science Review Blog (May 2012–May 2013)

Publish four posts per week covering scientific topics of interest to the community.

Berkeley Chemical Review (January 2011–May 2013)

Undergraduate research journal at UC Berkeley.

Decaseconds (<http://decaseconds.com>) (December 2011–present)

High dynamic range photography website, three posts per week.

Photographer

Spike Art Magazine (Issue 67, Spring ‘21) “Sports”

Quadcopter drone images of campus featured in *St. Lawrence University Magazine*:

Table of Contents image (Spring 2020); Table of Contents image (Fall 2019); Table of Contents image (Fall 2018)

Old Burial Ground Site, Heuvelton, NY (Site #08948.000081) (October 2019–August 2022)

2020 New York State Historic Preservation Award from NY State Historic Preservation Office

Bridge print framed in dining room of Best Western following renovation (Fall 2015)

Landscape images used in University Calendar (2015)

The Plaid Horse (2014–present)

Death in St. Lawrence County (DSLCC) Project (www.dslc.info) (August 2014)

Additional Activities

Ph.D. Thesis Committee Member, Joshua S. Roys, Clarkson University, Potsdam, NY (Defense May 2, 2023)

Ph.D. Thesis Committee Member, Nicholas D. Stucchi, Clarkson University, Potsdam, NY (Defense May 1, 2023)

Symposium Chair, Materials for Solar Fuels Section, Inorganic Chemistry Division, 263rd National Meeting of the American Chemical Society, San Diego, CA (March 21, 2022)

Panelist, Faculty Development Session: "Productivity In a Pandemic—What Might be Possible?" (February 15, 2021)

Panelist, new Data Science Major Faculty Meeting (February 2, 2021)

Conducted Admissions webinars with Dr. Jessica Chapman to recruit STEM students (including new LAS Scholars) (November 12 & December 10, 2020; January 8, 2021)

Surveyed international students on plans for fall return on behalf of International Student Services (July 2020)

Surveyed all students on preferences for fall return on behalf of Academic Planning Group and Academic Advising (June-July 2020)

Surveyed faculty members on preferences for fall return on behalf of Academic Affairs (June 2020)

Panelist, Faculty Council table at Campus & Community Resource Fair (August 22, 2019)

Panelist, New Faculty Orientation, session on syllabus development (August 22, 2019)

Read names of graduating seniors, Commencement 2019 (May 19, 2019)

Two SOAR sessions teaching photography techniques to the community (April 2019)

Panelist, "SLU Comes to You" admitted students open house program at Vermont Hotel, Burlington, VT (April 4, 2019)

Chemistry representative, Admitted Student Luncheon (April 14, 2018)

Panelist, "SLU Comes to You" admitted students open house program at Wee Burn Country Club, Darien, CT (April 8, 2018)

Parents Committee reception honoring the parent leadership program (April 6, 2018)

Panelist, Prospective Student Day, representing research opportunities on campus (October 10, 2016)

Panelist, Center for Teaching and Learning Workshop: "Mid-Pro Boot Camp" (July 28, 2016)

Summer Advising Facebook Video Chat for students interested in the sciences (July 19, 2016)

Panelist, Board of Trustees meeting section on experiential learning, representing on-campus research opportunities and Generation Z (May 20, 2016)

Photography featured on St. Lawrence calendar (May 2016) and on the front page of the Hill News (May 6, 2016 and Sept 9, 2016)

Chemistry Department Presenter, Moving-Up Day (April 30, 2016)

Admitted Student Open House presentation "The Great Ligand Battle" (April 9, 2016)

Panelist, Center for Teaching and Learning Workshop "Developing and Managing Your Academic & Professional Digital Identity" (February 23, 2016)

Summer Advising Facebook Chat for students interested in the sciences (July 22, 2015)

Performed mock graduate school interviews for McNair/CSTEP student (July 21, 2015)

Admitted Student Open House presentation "The Great Ligand Battle" (April 11 and 17, 2015)

Chemistry representative, Admitted Student Luncheon (April 11, 2015)

Performed mock interviews for Education Department masters student (March 2015)

e-Sports Team Faculty vs. Students show match (February 20, 2015)

Panelist, Academic Support panel on skills for continuing success (January 21, 2015)

Mocktail and Networking Reception with CSTEP and McNair students (October 14, 2014)

Chaperoned McNair Scholars to NY6 Undergraduate Research Symposium at Hobart and William Smith Colleges (September 19-20, 2014)

Panelist, New Faculty Orientation 2014: "Tips for Surviving (and Thriving in) Your First Year" (August 21, 2014)

Panelist, McNair Scholars session on graduate school (June 19, 2014)

Honors Thesis Committee Member for Katherine Buxton (Defense: May 14, 2014)

Chemistry Department Presenter, Moving-Up Day (April 26, 2014)

Hill

Faculty Volunteer, Beta Beta Beta (Biology honors society) Fundraiser (April 25, 2014)
Performed mock interviews for Education Department masters students (April 17, 2014)
Panelist representing the Chemistry Department, Math, Science, and Pre-Engineering Academic Advising Panel
(August 26, 2013)

Pre-St. Lawrence

Panelist, AXE (Professional Fraternity in Chemistry) “Graduate School Panel,”
(March 20, 2012)
Panelist, Iota Sigma Pi (the National Women’s Honors Society in Chemistry)
“Choosing a Research Group,” (August 21, 2012)
Member, College of Chemistry Graduate Life Committee (2009-2013)
Author, Graduate Student Handbook (2011)
Author, 3rd Year Handbook (2012)
Planner, College of Chemistry Holiday Party (2010-2012)
First-Year Mentor (2010-2013)
Resource for first-year College of Chemistry graduate students
Graduate Mentor, CHEM-96, “Choosing a Research Group” for undergraduates (2010-2013)