

*Curriculum Vitae*  
**Adam R. Johnson**

Department of Chemistry  
301 Platt Blvd.  
Harvey Mudd College  
Claremont, CA 91711  
[orcid.org/0000-0002-7407-0533](https://orcid.org/0000-0002-7407-0533)  
<https://scholar.google.com/citations?hl=en&user=9T2nMGgAAAAJ>

email: [Adam\\_Johnson@hmc.edu](mailto:Adam_Johnson@hmc.edu)  
phone: (909) 607-8450  
fax: (909) 607-7577  
web: [www.chem.hmc.edu](http://www.chem.hmc.edu)

### EDUCATION

Ph. D., Inorganic chemistry, Massachusetts Institute of Technology 1997  
B. A., High Honors, Chemistry, Oberlin College 1993

### PROFESSIONAL EXPERIENCE

Professor of Chemistry, Harvey Mudd College 2011 - present  
Visiting Researcher, Kyoto Institute of Technology 2011 - 2012  
Associate Professor of Chemistry, Harvey Mudd College 2005 - 2011  
Visiting Associate in Chemistry, California Institute of Technology 2005 - 2006  
Assistant Professor of Chemistry, Harvey Mudd College 1999 - 2005  
NIH Postdoctoral Fellow, University of California, Berkeley 1997 - 1999

### PROFESSIONAL MEMBERSHIPS AND AWARDS

Sigma Xi (1998), Phi Beta Kappa (1993), American Chemical Society  
ACS DIC Undergraduate Research Award, with Ben Mitchell, Honorable Mention 2018  
ACS DIC Undergraduate Research Award, with Fanrui Sha, Honorable Mention 2020

### PROFESSIONAL ACTIVITIES

Founding member and Leadership Council of IONiC ([www.ionicviper.org](http://www.ionicviper.org))  
(Interactive Online Network of Inorganic Chemists) 2006 - 2020  
Summer Undergraduate Research Coordinator (NSF-REU) 2007 - 2010  
President, Claremont Chapter of Sigma Xi 2003 - 2004  
Vice President, Claremont Chapter of Sigma Xi 2002 - 2003  
Reviewer (last 5 years): American Chemical Society, Petroleum Research Fund,  
National Science Foundation, ACS Catalysis, New J. Chem., Organometallics,  
Org. Lett., J. Chem. Educ., Australian J. Chem. 2001 - present  
Symposium organizer and Session chair, INOR, ACS National Meetings 2008 - present  
Session Chair IATED, Barcelona, Spain, July 6-8, 2009

### FUNDING OF UNDERGRADUATE RESEARCH PROGRAM

Harvey Mudd College Faculty Research Program, Brian Butler '89 Faculty Enhancement Fund, 2021.  
"Synthesis and Single Crystal X-Ray Diffraction of Chiral Transition Metal Complexes with Hydrogen Bond Donors." \$4500

Harvey Mudd College Faculty Research Program, Brian Butler '89 Faculty Enhancement Fund, 2020.  
"Synthesis of hydroamination catalysts using inexpensive, earth-abundant transition metals." \$4500.

Harvey Mudd College Faculty Research Program, Brian Butler '89 Faculty Enhancement Fund, 2019.  
"Synthesis of new ligands and hydroamination catalysts with inexpensive, earth-abundant transition metals." \$4500.

Harvey Mudd College Faculty Research Program, Beckman Foundation, 2017-2018. "Synthesis of new ligands and examination of their use as catalysts with earth-abundant transition metals." \$6000.

National Science Foundation, CHE-1012445, 2010-2013. "Asymmetric catalytic hydroamination of aminoallenes by chiral tantalum cyclopentadienyl-amide-alkoxide complexes," NSF-CHE-RUI, \$211,765

Baker Foundation, 2010-2011. "Synthesis of new ligands for asymmetric hydroamination." \$6000.

National Science Foundation, CHE-0615724, 2006-2009. "Synthesis, structural characterization, and catalytic hydroamination activity of chiral, tethered cyclopentadienyl-amide-alkoxide complexes of group IV and -V metals." NSF-CHE-RUI, \$203,000.

American Chemical Society, Petroleum Research Fund, 2006-2009. "Asymmetric catalytic hydroamination of aminoallenes and aminoalkenes by chiral titanium amide-alkoxide complexes." \$50,000.

Harvey Mudd College, Faculty Research Program, 2004-2005, "Catalytic Hydroamination of Aminoallenes With Chiral Titanium Complexes." \$2,653.

American Chemical Society, Petroleum Research Fund, 2002-2005. "Synthesis, Structure and Reaction Chemistry of Four-Coordinate Titanium Complexes with Chiral Amino Acid Derived Ligands." \$35,000.

Harvey Mudd College, Faculty Research Program, 2002-2003. "Synthesis, Structure and Reaction Chemistry of Titanium Complexes with Chiral Amino Acid Derived Ligands." \$6000.

Harvey Mudd College, Faculty Research Program, 2000-2001. "Ligand Design for Organometallic and Inorganic Coordination Complexes." \$10,000.

#### **FUNDING OF HARVEY MUDD UNDERGRADUATE RESEARCH PROGRAM**

National Science Foundation, MRI-1725142, 2017-2020. "MRI: Acquisition of a 400 MHz NMR for Undergraduate Research and Research Training," \$331,285. David A. Vosburg, Adam R. Johnson, and Katherine M. Van Heuvelen.

National Science Foundation, CHE-REU-1005253, 2010-2013. "Expanding Chemistry Research Opportunities for Undergraduates at Harvey Mudd College," \$225,279. Karl A. Haushalter and Adam R. Johnson.

National Science Foundation, CHE-MRI, "MRI: Acquisition of a liquid chromatograph-ion trap mass spectrometer for undergraduate research and research training," Hal Van Ryswyk, Adam Johnson, Katherine Maloney, Gerald Van Hecke, David Vosburg, 2009-2011, \$234,310.

National Science Foundation, CHE-0648597, 2006-2009. "REU Site: Chemistry Research Experiences for Undergraduates at Harvey Mudd College," NSF-CHE-REU, \$180,617.

#### **FUNDING FOR DEVELOPMENT OF IONIC**

National Science Foundation, IUSE-1726162, "Collaborative research: Improving inorganic chemistry education through a community-developed student-centered curriculum," Joanne L. Stewart (Hope College, PI), Anne K. Bentley (Lewis and Clark College, co-PI), Sheila R. Smith (University of Michigan, co-PI), Nancy S. Williams (The Claremont Colleges Keck Science Department, co-PI), Barbara A. Reisner (James Madison University, PI), Jeffrey R. Raker (University of South Florida, PI), Hilary E. Eppley (Depauw University), Elizabeth R. Jamieson (Smith College), Adam R. Johnson (Harvey Mudd College), Chip Nataro (Lafayette College), Lori A. Watson (Earlham College), 2017-2022, \$1,110,260.

National Science Foundation, TUES-1225792, "IONiC: Transforming Education Through Collaborative Development of Materials at the Frontiers of Inorganic Chemistry," Lori A. Watson (Earlham College, PI), Raymond Schaak (Penn State, co-PI), Sheila R. Smith (University of Michigan, co-PI), Barbara A. Reisner (James Madison University, co-PI), Melanie S. Sanford (University of Michigan, co-PI), Sibrina Collins (the College of Wooster), Hilary Eppley (Depauw University), Maggie Geselbracht (Reed

College), Elizabeth Jamieson (Smith College), Adam Johnson (Harvey Mudd College), Chip Nataro (Lafayette College), Joanne L. Stewart (Hope College), Scott Williams (the Claremont Colleges Keck Science Department), 2012-2016, \$437,962.

AALAC (Mellon 23), “Workshop in Inorganic Chemistry,” Elizabeth Jamieson (Smith College), Hilary Eppley (DePauw University), Margret Geselbracht (Reed College), Adam Johnson (Harvey Mudd College), and Scott Williams (Joint Science Department, Scripps College), 2011-2013, \$19,940.

National Science Foundation, CCLI, “IONiC: A Cyber-Enabled Community of Practice for Improving Inorganic Chemical Education,” Hilary Eppley (DePauw University, PI), Margret Geselbracht (Reed College), Adam Johnson (Harvey Mudd College), Barbara Reisner (James Madison University), Joanne Stewart (Hope College), Lori Watson (Earlham College) and Scott Williams (the Claremont Colleges Joint Science Department), 2008-2011, \$149,374.

NITLE, Western Region Instructional Innovation Award, “Project IONiC: Intellectual Online Network of Inorganic Chemists Building VIPer: Virtual Inorganic Pedagogical Electronic Resource,” Margret Geselbracht and Ethan Benatan (co-PIs, Reed College), Hilary Eppley (DePauw University), Adam Johnson (Harvey Mudd College), Barbara Reisner (James Madison University), Joanne Stewart (Hope College), Lori Watson (Earlham College) and Scott Williams (The Claremont Colleges Joint Science Department), 2007-2008, \$9750.

Andrew W. Mellon foundation for Faculty Career Enhancement, Inter-Institutional Initiative (2007). “IONiC: A Cyber-Enabled Network of Inorganic Faculty.” Adam R. Johnson (Harvey Mudd College, project coordinator), Hilary J. Eppley (DePauw University), Jordan L. Fantini (Denison University), Margret J. Geselbracht (Reed College), B. Scott Williams (Joint Science, Claremont Colleges), \$26,100.

Andrew W. Mellon foundation for Faculty Career Enhancement, Inter-Institutional Initiative (2006). “IC2I: The Inorganic Chemistry Curricular Initiative.” Adam R. Johnson (Harvey Mudd College, project coordinator), Hilary J. Eppley (DePauw University), Jordan L. Fantini (Denison University), Margret J. Geselbracht (Reed College), James A. Larrabee (Middlebury College), B. Scott Williams (Joint Science, Claremont Colleges), \$19,908.

## RESEARCH INTERESTS

- Design and synthesis of chiral amino acid-derived ligands
- Synthesis of chiral transition metal complexes
- Intramolecular catalytic hydroamination of aminoallenes
- The use of online communities for inorganic chemistry education

## TEACHING EXPERIENCE

*Harvey Mudd College.* Humanities 1 (pilot writing course), Writing 001, Chemistry 19 (General Chemistry Intensive), Chemistry 21/22/23 (General Chemistry recitation and lecture), Chemistry 24/25/26 (General Chemistry Laboratory), Core Laboratory (The Chemistry of Cooking), Chemistry 25I (Interdisciplinary laboratory), Chemistry 58 (Organic Laboratory), Chemistry 103 (Chemical Analysis), Chemistry 104 (Inorganic Chemistry), Chemistry 109 (Chemical Analysis Laboratory), Chemistry 110 (Inorganic Laboratory), Chemistry 111 (Organic Laboratory), Chemistry 163 (Advanced Physical Chemistry, Group Theory), Chemistry 165 (Organometallic Chemistry), Chemistry 168 (X-ray Crystallography), Chemistry 197 (Group Theory Private reading), Chemistry 199 (Seminar Coordinator)

## COLLEGE SERVICE

Assessment and Accreditation Committee	2021-2022
Research, Presentation Days, and Institutional Review Board Committee	2019-2021
Presentation Days committee	1999 - 2004; 2010 - 2011, 2017-2019 (chair)
Faculty Athletic Representative (SCIAC athletic conference)	2006 - 2011, 2013-2018

Curriculum Committee	2014-2016 (chair), 2017
Reappointment Promotion and Tenure Committee	2012-2013
Writing Committee/Writing Course Development Committee	2007 - 2011
Strategic Vision Diversity Committee	2007 - 2008
Campus Life Committee	2006 – 2008 (chair)
Vice President and President, Claremont Chapter of Sigma Xi	2002-2004
Discriminatory Harassment Policy Committee	2002
Assessment Committee	2001-2004

**FACULTY PUBLICATIONS** (Undergraduate co-authors are denoted by an asterisk)

1. Daniel D. Hickstein, Eric W. Reinheimer, Adam R. Johnson and Daniel J. O'Leary "Dimethyl 4,5-dichlorophthalate." *IUCrData*, **2021**, 6, x211043; <https://doi.org/10.1107/S2414314621010439>
2. Conrad-Marut, L. H.\*; Reinheimer, E. W.; and Johnson, A. R. "Synthesis and structure determination of racemic (D/K)-tris(ethylenediamine)cobalt(III) trichloride hemi(hexaaquasodium chloride)." *Acta Cryst*, **2021**, E77, 1010. <https://doi.org/10.1107/S2056989021009336>
3. Hendricks, M. E.\*; Xu, Xioyu\*; Boller, T. R.; Samples, E. M.; Johnson, A. R.; and Nataro, C. "Synthesis, characterization and electrochemistry of [Pd(PP)MeCl] compounds with 1,1'-bis(phosphino)ferrocene ligands." *Polyhedron*, **2021**, 199, 115104. (special issue entitled "Undergraduate Research in Inorganic Chemistry 2021") <https://doi.org/10.1016/j.poly.2021.115104>
4. Fok, E. Y.\*; Show, V. L.\* and Johnson, A. R. "Intramolecular hydroamination of trisubstituted aminoallenes catalyzed by titanium complexes of diaryl substituted tridentate imine-diols." *Polyhedron*, **2021**, 198, 115070. (special issue entitled "Undergraduate Research in Inorganic Chemistry 2021") <https://doi.org/10.1016/j.poly.2021.115070>
5. Sha, F.\* and Johnson, A. R. "4-Fluoro-2-({[(2R)-1-hydroxy-1,1,3-triphenyl-propan-2-yl]imino}methyl)phenol." *IUCrData*, **2021**, 6, x201580. <https://doi.org/10.1107/S2414314620015801>
6. Show, V. L.\*; Fok, E. Y.\*; and Johnson, A. R. "2-({[(2S)-1-Hydroxy-1,1,3-triphenylpropan-2-yl]imino}methyl)-4,6-bis-(4-methylphenyl)phenol" *IUCrData*, **2020**, 5, x201576. <http://dx.doi.org/10.1107/S241431462001576X>
7. Johnson, A. R. and Nataro, C., Teaching Molecular Orbital Theory Better. In *Advances in Teaching Inorganic Chemistry Volume 1: Classroom Innovations and Faculty Development*, Jones, R. M., Ed.; ACS Symposium Series; American Chemical Society: Washington DC, 2020; Vol 1370. <http://dx.doi.org/10.1021/bk-2020-1370.ch005>
8. Sha, F.\*; Shimizu, E. A.\*; Slocumb, H. S.\*; Towell, S. E.\*; Zhen, Y.\*; Porter, H. Z.\*; Takase, M.; Johnson, A. R. "Catalytic intramolecular hydroamination of aminoallenes using titanium and tantalum complexes of sterically encumbered chiral sulfonamides." *Dalton Transactions* **2020**, 49, 12418-12431. <http://dx.doi.org/10.1039/D0DT02557G>
9. Nataro, C, and Johnson, A. R. "A Community Springs to Action to Enable Virtual Laboratory Instruction." *J. Chem. Educ.*, **2020**, 97, 3033-3037. <http://dx.doi.org/10.1021/acs.jchemed.0c00526>
10. Van Heuvelen, K. M., Daub, G. W., Hawkins, L. N., Johnson, A. R., Van Ryswyk, H., Vosburg, D. A., "How Do I Design a Chemical Reaction To Do Useful Work? Reinvigorating general chemistry by emphasizing connections between chemistry and society." *J. Chem. Educ.*, **2020**, 97, 925-933. <http://dx.doi.org/10.1021/acs.jchemed.9b00281>
11. Van Heuvelen, K. M.; Blake, L. P.; Daub, G. W.; Hawkins, L. N.; Johnson, A. R.; Van Ryswyk, H.; Vosburg, D. A. "Emphasizing Learning: The Impact of Student Surveys in the Reform of an Introductory Chemistry Course." *J. Assess. Institut. Effective.*, **2019**, 9(1-2), 1-28. <http://dx.doi.org/10.5325/jasseinsteffe.9.1-2.0001>

12. Sha, F.\*; Mitchell, B. S.\*; Ye, C. Z.\*; Abelson, C. S.\*; Reinheimer, E. W.; LeMagueres, P.; Ferrara, J. D.; Takase, M. K.; Johnson, A. R., "Catalytic intramolecular hydroamination of aminoallenes using titanium complexes of chiral, tridentate, dianionic imine-diol ligands," *Dalton Transactions*, **2019**, 48 (26), 9603-9616. (<http://dx.doi.org/10.1039/c8dt05156a>)
13. Stewart, J. L.; Bentley, A. K.; Johnson, A. R.; Nataro, C.; Reisner, B. A.; Watson, L. A., "Teaching from the primary inorganic literature: lessons from Richard Andersen," *Dalton Transactions*, **2018**, 47 (39), 13755-13760. (<http://dx.doi.org/10.1039/c8dt02669f>)
14. Srinivasan, S.; Reisner, B. A.; Smith, S. R.; Stewart, J. L.; Johnson, A. R.; Lin, S.; Marek, K. A.; Nataro, C.; Murphy, K. L.; Raker, J. R., "Historical Analysis of the Inorganic Chemistry Curriculum Using ACS Examinations as Artifacts," *Journal of Chemical Education*, **2018**, 95 (5), 726-733. (<http://dx.doi.org/10.1021/acs.jchemed.7b00803>)
15. Duncan, A. P.; Johnson, A. R.; Nataro, C., "Literature-Based Teaching Strategies for Organometallic Courses," *Organometallics*, **2017**, 36 (15), 2703-2705. (<http://dx.doi.org/10.1021/acs.organomet.7b00450>)
16. Reinheimer, E. W.; Kohn, A. W.\*; Groeneman, R. H.; Krueger, H. R.; Kantardjieff, K.; Johnson, A. R., "Crystal structures of D-N-(2-adamantyl)phenylglycinol and L-N-(2-adamantyl)diphenylphenylalinalinol: Chiral amino alcohols utilized as ligands for catalytic asymmetric hydroamination," *Molecular Crystals and Liquid Crystals*, **2016**, 629 (1), 70-77. (<http://dx.doi.org/10.1080/15421406.2015.1106907>)
17. Smith, S. R.; Collins, S.; Eppley, H. J.; Geselbracht, M. J.; Jamieson, E. R.; Johnson, A. R.; Nataro, C.; Reisner, B. A.; Stewart, J. L.; Williams, B. S., "VIPER: An Online Academic Resource Enhancing Undergraduate Research," *CUR Quarterly on the Web*, **2013**, 34 (2), 14-15.
18. Johnson, A. R., "Construction of Ligand Group Orbitals for Polyatomics and Transition-Metal Complexes Using an Intuitive Symmetry-Based Approach," *Journal of Chemical Education*, **2013**, 90 (1), 56-62. (<http://dx.doi.org/10.1021/ed300115t>)
19. Reisner, B. A.; Stewart, J. L.; Williams, B. S.; Goj, L. A.; Holland, P. L.; Eppley, H. J.; Johnson, A. R., "Virtual Inorganic Pedagogical Electronic Resource Learning Objects in Organometallic Chemistry," *J. Chem. Educ.*, **2012**, 89 (2), 185-187. (<http://dx.doi.org/10.1021/ed200200w>)
20. Reinheimer, E. W.; Jang, M.\*; Sobelman, S. J.\*; Stewart, A. H.\*; Kantardjieff, K. A.; Johnson, A. R., "High Resolution Structure of Half-Cage Isodrin Propionate, a Molecule Suitable for Studying Nuclear Overhauser Effects in the Organic Laboratory," *Journal of Chemical Crystallography*, **2012**, 42 (8), 790-793. (<http://dx.doi.org/10.1007/s10870-012-0315-8>)
21. Reinheimer, E. W.; Hickman, A. J.\*; Moretti, J. E.\*; Ouyang, X.; Kantardjieff, K. A.; Johnson, A. R., "Synthesis and Structure of 2-Cyclohexylamino-3-methyl-1,1-diphenyl-butan-1-ol (D-N-Cyclohexyl-diphenylvalinol), an Amino Alcohol Ligand Useful in Asymmetric Catalysis," *Journal of Chemical Crystallography*, **2012**, 42 (9), 911-915. (<http://dx.doi.org/10.1007/s10870-012-0334-5>)
22. Jones, C. M.\*; Li, H.\*; Hickman, A. J.\*; Hughs, L. D.\*; Sobelman, S. J.\*; Johnson, A. R., "Sterically encumbered chiral amino alcohols for the titanium catalyzed asymmetric alkylation of benzaldehyde," *Tetrahedron-Asymmetry*, **2012**, 23 (6-7), 501-507. (<http://dx.doi.org/10.1016/j.tetasy.2012.03.016>)
23. Near, K. E.\*; Chapin, B. M.\*; McAnnally-Linz, D. C.\*; Johnson, A. R., "Asymmetric Hydroamination of Aminoallenes Catalyzed by Titanium and Tantalum Complexes of Chiral Sulfonamide Alcohol Ligands," *J. Organometal. Chem.*, **2011**, 696, 81-86. (<http://dx.doi.org/10.1016/j.jorganchem.2010.08.001>)
24. Jamieson, E. R.; Eppley, H. J.; Geselbracht, M. J.; Johnson, A. R.; Reisner, B. A.; Smith, S. R.; Stewart, J. L.; Watson, L. A.; Williams, B. S., "Inorganic Chemistry and IONiC: An Online Community

bringing Cutting-Edge Research into the Classroom.,“ *Inorg. Chem.*, **2011**, *50*, 5849-5854.  
(<http://dx.doi.org/10.1021/ic2006919>)

25. Hansen, M. C.\*; Heusser, C. A.\*; Narayan, T. C.\*; Fong, K. E.\*; Hara, N.\*; Kohn, A. W.\*; Venning, A. R.\*; Rheingold, A. L.; Johnson, A. R., "Asymmetric Catalytic Intramolecular Hydroamination of Aminoallenes by Tantalum Amidoalkoxide Complexes," *Organometallics*, **2011**, *30*, 4616-4623.  
(<http://dx.doi.org/10.1021/om200446v>)

26. Reisner, B. A.; Eppley, H. J.; Geselbracht, M. J.; Jamieson, E. R.; Johnson, A. R.; Smith, S. R.; Stewart, J. L.; Watson, L. A.; Williams, B. S., Building an Online Teaching Community. In *Enhancing Learning with Online Resources, Social Networking, and Digital Libraries*, American Chemical Society: 2010; Vol. 1060, pp 309-330. (<https://doi.org/10.1021/bk-2010-1060.ch016>)

27. Chapin, B. M.\*; Hughs, L. D.\*; Golen, J. A.; Rheingold, A. L.; Johnson, A. R., "Chlorido( $\eta^5$ -cyclopentadienyl)bis(dimethylamido)titanium, (TiCl( $\eta^5$ -C<sub>5</sub>H<sub>5</sub>)(NMe<sub>2</sub>)<sub>2</sub>)," *Acta Cryst.*, **2010**, *C66*, m191-m193. (<http://dx.doi.org/10.1107/S0108270110023176>)

28. Hickman, A. J.\*; Hughs, L. D.\*; Jones, C. M.\*; Li, H.\*; Redford, J. E.\*; Sobelman, S. J.\*; Kouzelos, J. A.\*; Johnson, A. R., "Sterically encumbered chiral amino alcohols for titanium catalyzed asymmetric intramolecular hydroamination of aminoallenes.," *Tetrahedron: Asymmetry*, **2009**, *20*, 1279-1285.  
(<http://dx.doi.org/10.1016/j.tetasy.2009.04.013>)

29. Eppley, H.; Johnson, A.; Benatan, E.; Geselbracht, M.; Stewart, J.; Reisner, B.; Watson, L.; Williams, B. S., "IONiC: A Cyber-Enabled Community of Practice for Improving Inorganic Chemical Education," *Journal of Chemical Education*, **2009**, *86* (1), 123. (<http://dx.doi.org/10.1021/ed086p123.2>)

30. Benatan, E.; Dene, J.; Eppley, H. J.; Geselbracht, M. J.; Jamieson, E. R.; Johnson, A. R.; Reisner, B. A.; Stewart, J. L.; Watson, L.; Williams, B. S., "JCE VIPER: An Inorganic Teaching and Learning Community," *J. Chem. Educ.*, **2009**, *86*, 766-767. (<http://dx.doi.org/10.1021/ed086p766>)

31. Duncan, A. P.; Johnson, A. R., "A "Classic Papers" approach to teaching undergraduate organometallic chemistry," *J. Chem. Educ.*, **2007**, *84*, 443-446. (<http://dx.doi.org/10.1021/ed084p443>)

32. Petersen, J. R.\*; Hoover, J. M.\*; Kassel, W. S.; Rheingold, A. L.; Johnson, A. R., "Titanium complexes with chiral amino alcohol ligands: synthesis and structure of complexes related to hydroamination catalysts," *Inorg. Chim. Acta.*, **2005**, *358* (3), 687-694.  
(<http://dx.doi.org/10.1016/j.ica.2004.09.051>)

33. Johnson, A. R.; McQueen, T. M.\*; Rodolfa, K. T.\*, "Species Distribution Diagrams in the Copper-Ammonia System: An Updated and Expanded Demonstration Illustrating Complex Equilibria," *J. Chem. Educ.*, **2005**, *82*, 408-414. (<http://dx.doi.org/10.1021/ed082p408>)

34. Hoover, J. M.\*; Petersen, J. R.\*; Pikul, J. H.\*; Johnson, A. R., "Intramolecular catalytic hydroamination of substituted aminoallenes by chiral titanium amino-alcohol complexes," *Organometallics*, **2004**, *23*, 4614-4620. (<http://dx.doi.org/10.1021/om049564s>)

35. Ho, C. K.\*; Schuler, A. D.\*; Yoo, C. B.\*; Herron, S. R.; Kantardjieff, K. A.; Johnson, A. R., "Synthesis, Reactivity And Structural Study Of Diastereomeric Titanium Complexes With Amino Acid Derived N- And O-p Donor Ligands," *Inorg. Chim. Acta*, **2002**, *341*, 71-76.  
([http://dx.doi.org/10.1016/S0020-1693\(02\)01180-5](http://dx.doi.org/10.1016/S0020-1693(02)01180-5))

#### ONLINE PUBLICATIONS (Undergraduate co-authors are denoted by an asterisk)

1. Benatan, E.; Eppley, H. J.; Geselbracht, M. J.; Johnson, A. R.; Reisner, B. A.; Stewart, J. L.; Watson, L. A.; Williams, B. S. "IONiC: A Cyber-Enabled Community of Practice for Improving Inorganic Chemical Education," 2008. <https://www.chemedx.org/JCEDLib/ConfChem/200804/P04/>, <https://www.ionicviper.org/confchem-article-spring-2008> (accessed December, 2019).

2. Johnson, A. R. "Hydroamination," *The Organometallics Hypertext Book* [Online], 2009. <http://www.ilpi.com/organomet/hydroamination.html>.
3. Benatan, E.; Dene, J.; Eppley, H. J.; Geselbracht, M. J.; Jamieson, E. R.; Johnson, A. R.; Reisner, B. A.; Stewart, J. L.; Watson, L. A.; Williams, B. S. "Come for the Content, Stay for the Community," in *Innovative Practices for Challenging Times* [Online], 2009. <https://www.ionicviper.org/academic-commons-paper> (accessed December, 2019).
4. Nataro, C.; Bentley, A. K.; Eppley, H. J.; Jamieson, E. R.; Johnson, A. R.; Reisner, B. A.; Smith, S. R.; Stewart, J. L.; Watson, L. A.; Williams, N. S. B., "IONiC VIPER: A community of inorganic chemists who create, share, adapt, comment on, and give back in order to improve student learning," *CCCE Newsletter* **2017**. (<http://confchem.cccc.divched.org/2017SpringCCCENLP1>)
5. Adam R Johnson and Michael Takase CCDC 1970549: Experimental Crystal Structure Determination, 2020, DOI: [10.5517/ccdc.csd.cc244j3y](https://doi.org/10.5517/ccdc.csd.cc244j3y)
6. Sydney E. Towell, Adam R. Johnson CCDC 2070538: Experimental Crystal Structure Determination, 2021, DOI: [10.5517/ccdc.csd.cc27hkkw](https://doi.org/10.5517/ccdc.csd.cc27hkkw)
7. Veronica L. Show, Adam R. Johnson, CSD 2114717: Experimental Crystal Structure Determination, 2021, DOI: [10.25505/fiz.icsd.cc28zjph](https://doi.org/10.25505/fiz.icsd.cc28zjph)
8. Veronica L. Show, Adam R. Johnson CCDC 2121202: Experimental Crystal Structure Determination, 2021, DOI: [10.5517/ccdc.csd.cc2968wp](https://doi.org/10.5517/ccdc.csd.cc2968wp)
9. Veronica L. Show and Adam R. Johnson CCDC 2118839: Experimental Crystal Structure Determination, 2021, DOI: [10.5517/ccdc.csd.cc293tnx](https://doi.org/10.5517/ccdc.csd.cc293tnx)

**TEACHING MATERIALS PUBLISHED ON [www.ionicviper.org](http://www.ionicviper.org)** (title, type, date submitted)

1. Manganese Carbonyl experiment, Lab Experiment, 11/17/07; updated 3/21/20
2. student choice experiment, Lab Experiment, 1/4/08
3. Bercaw vs Bergman, Literature Discussion, 1/4/08
4. Greenwood and Earnshaw, Chemistry of the Elements, Textbook, 3/26/08
5. Buchwald/Hartwig amination, Lab Experiment, 1/4/08
6. Generating LGOs (SALCs), In-Class Activity, 1/4/08
7. Diversity in Chemistry, Problem Set, 1/4/08
8. group monograph, Problem Set, 1/4/08
9. copper ammonia complexes, In-Class Activity, 1/4/08
10. Point group to molecule problem, Problem Set, 1/5/08
11. Nitrogenase primary literature, Literature Discussion, 4/4/08
12. Inorganic Chemistry Pretest to Assess Learning Outcomes, Problem Set, 1/9/09
13. House: Inorganic Chemistry, Textbook, 1/12/09
14. Symmetry challenge! (with answers), Problem Set, 2/14/09
15. Catalytic cycles and artistry: Chalk Drawing 101, In-Class Activity, 4/15/09
16. Introduction to X-ray crystallography, Web Resources and Apps, 4/21/09
17. Catalytic cycles and artistry: Chalk Drawing 102, Problem Set, 4/23/09
18. Fourier Transforms and the Phase Problem, Web Resources and Apps, 6/9/09
19. Basic Chemistry Review, Web Resources and Apps, 7/13/09
20. Chemistry Bingo Generator, In-Class Activity, 9/8/09
21. Student-Led Organometallics, Literature Discussion, 1/11/10
22. Pyrophoric Liquid Safety Video, Web Resources and Apps, 1/13/10
23. Periodic Table of Haiku, Web Resources and Apps, 3/18/10
24. IR spectroscopy of metal oxopentahalo complexes, Problem Set, 3/18/10

25. Sci Finder searching exercise, Problem Set, 5/13/10
26. descriptive inorganic chemistry exam questions, Problem Set, 7/8/10
27. Electron Counting, In-Class Activity, 7/15/10
28. LGO activity answer key, Problem Set, 1/24/11
29. How many bonds does PF<sub>5</sub> have?, Problem Set, 2/24/11
30. hybrid orbitals for main group and transition metal complexes, In-Class Activity, 3/8/11
31. news article on lanthanide magnets, Web Resources and Apps, 3/11/11
32. Spectroscopy Tutorial, Web Resources and Apps, 3/22/11
33. Constructing MO diagrams, In-Class Activity, 6/15/11
34. Constructing MO diagrams key, Problem Set, 6/15/11
35. Generating LGOs and constructing MO diagrams - pencast, In-Class Activity, 6/15/11
36. The Eyring Equation, In-Class Activity, 9/29/11
37. Fitting data to the Eyring Equation, Problem Set, 9/29/11
38. Manganese carbonyl calculation addition, Lab Experiment, 10/3/11; updated 03/21/20
39. keeping a lab notebook, Web Resources and Apps, 9/13/12
40. Online Courses Directory, Web Resources and Apps, 4/1/13
41. Inorganic Chemistry Forums, Literature Discussion, 4/26/13
42. Databases for Kinetics, Web Resources and Apps, 6/3/13
43. Classifying EPR spectra, Problem Set, 7/14/14
44. ( $\mu$ -NO)<sub>2</sub>[CoCp]<sub>2</sub> is not paramagnetic - answers, Problem Set, 9/16/14
45. Organometallics course F 2014, Collection, 1/23/15
46. Beautiful Chemistry, Web Resources and Apps, 6/10/15
47. Isotopic labeling and reduced mass calculations for IR spectroscopy, In-Class Activity, 3/27/16
48. Crystal Field Theory and Gems--Guided Inquiry, In-Class Activity, 5/14/16
49. soapmaking lecture/demo, Five Slides About, 5/14/16
50. soapmaking activity, In-Class Activity, 5/14/16
51. Energy Content of Fuels--Which fuel is "Best?", In-Class Activity, 5/15/16
52. Water reclamation on the ISS: "Houston, we have a problem.", In-Class Activity, 5/15/16
53. Introduction to Equilibrium and Aqueous Acids, In-Class Activity, 5/15/16
54. Metal and Ionic Lattices Guided Inquiry Worksheet, In-Class Activity, 5/16/16
55. Magnetism by Evans method, In-Class Activity, 5/31/16
56. Historical overview of Evans method, Five Slides About, 6/8/16
57. George Stanley Organometallics, Collection, 6/10/16
58. Energetics and mechanisms of reductive elimination from Pt(IV), Literature Discussion, 12/27/16
59. Isotope Effects in Arene C-H Bond Activation by Cp\*Rh(PMe<sub>3</sub>), Literature Discussion, 12/28/16
60. Blue Solids Gen Chem exam question, Problem Set, 1/18/18
61. Ytterbium catalyzed alkene isomerization: A tribute to the f-block chemistry of Richard Andersen, Literature Discussion, 6/1/18
62. Electron Counting in Boratabenzene Complexes, Guided Inquiry, Problem Set, 10/11/18
63. An improved method for drawing the bonding MO for dihydrogen, In-Class Activity, 6/9/19
64. Job's Method – The Covid-19 Version, Lab Experiment, 3/19/20
65. virtual inorganic lab experiments with data, Collection, 3/20/20
66. setting up an air-sensitive reaction (video), Web Resources and Apps, 3/20/20
67. chromium and molybdenum arene complexes (COVID-19 version), Lab experiment, 3/21/20
68. Migratory Insertion Guided inquiry, In-Class Activity, 4/6/20
69. MO diagram for square planar methane guided inquiry, In-Class Activity 5/19/20
70. MO diagram for water guided inquiry, guided inquiry, In-Class Activity 5/19/20
71. Gold carbonyl complexes, In-Class Activity, 6/9/20
72. Crystal Field Activation Energy, In-Class Activity, 6/13/20
73. Jahn-Teller effect, theory and examples, Five Slides About, 8/6/20
74. metal acac complexes the COVID 19 version, Lab Experiment, 1/18/21



75. Resolution of Werner complexes -- the COVID edition, Lab Experiment, 2/5/21
76. 5 slides about nomenclature, Five Slides About, 2/8/21
77. reaction of PPh<sub>3</sub> with elements--the COVID edition, Lab Experiment, 3/1/21
78. Using IR to probe the structure of ferrocene, Problem set, 6/1/21
79. Some calculations on the interhalogen ClF<sub>5</sub>, Problem set, 6/2/21
80. Activation of carbon dioxide by zirconium amides, Literature discussion, 6/8/21

#### POSTDOCTORAL, DOCTORAL AND UNDERGRADUATE PUBLICATIONS

1. Hajela, S. P.; Johnson, A. R.; Xu, J.; Sunderland, C. J.; Cohen, S. M.; Caulder, D. L.; Raymond, K. N., "Synthesis of Homochiral Tris(2-Alkyl-2-Aminoethyl)Amine Derivatives from Chiral  $\alpha$ -Amino Aldehydes and Their Application in the Synthesis of Water Soluble Chelators," *Inorg. Chem.*, **2001**, *40*, 3208-3216. (<http://dx.doi.org/10.1021/ic001021x>)
2. Cherry, J.-P. F.; Johnson, A. R.; Baraldo, L. M.; Tsai, Y.-C.; Cummins, C. C.; Kryatov, S. V.; Rybak-Akimova, E. V.; Capps, K. B.; Hoff, C. D.; Haar, C. M.; Nolan, S. P., "On the Origin of Selective Nitrous Oxide N-N Bond Cleavage by Three-Coordinate Molybdenum(III) Complexes," *J. Am. Chem. Soc.*, **2001**, *123*, 7271-7286. (<http://dx.doi.org/10.1021/ja0031063>)
3. Johnson, A. R.; O'Sullivan, B.; Raymond, K. N., "Synthesis of a Ligand Based upon a New Entry into the 3-Hydroxy-*N*-alkyl-2(1*H*)-pyridinone Ring System and Thermodynamic Evaluation of its Gadolinium Complex," *Inorg. Chem.*, **2000**, *39*, 2652-2660. (<http://dx.doi.org/10.1021/ic991471t>)
4. Peters, J. C.; Baraldo, L. M.; Baker, T. A.; Johnson, A. R.; Cummins, C. C., "Dimolybdenum-m-cyanide Complexes Supported by *N*-*tert*-Butylanilide Ligation: in Pursuit of Cyanide Reductive Cleavage," *J. Organometal. Chem.*, **1999**, *591*, 24-35. ([http://dx.doi.org/10.1016/S0022-328X\(99\)00485-4](http://dx.doi.org/10.1016/S0022-328X(99)00485-4))
5. Johnson, A. R.; Davis, W. M.; Cummins, C. C.; Serron, S.; Nolan, S. P.; Musaev, D. G.; Morokuma, K., "Four-Coordinate Molybdenum Chalcogenide Complexes Relevant to Nitrous Oxide N-N Bond Cleavage by Three-Coordinate Molybdenum(III): Synthesis, Characterization, Reactivity and Thermochemistry," *J. Am. Chem. Soc.*, **1998**, *120*, 2071-2085. (<http://dx.doi.org/10.1021/ja971491z>)
6. Johnson, A. R.; Cummins, C. C., "N-*Tert*-Alkyl Anilides as Bulky Ancillary Ligands," *Inorg. Synth.*, **1998**, *32*, 123-132.
7. Peters, J. C.; Johnson, A. R.; Odom, A. L.; Wanandi, P. W.; Davis, W. M.; Cummins, C. C., "Assembly of Molybdenum/Titanium m-Oxo Complexes via Radical Alkoxide C-O Cleavage," *J. Am. Chem. Soc.*, **1996**, *118*, 10175. (<http://dx.doi.org/10.1021/ja960564w>)
8. Laplaza, C. E.; Johnson, A. R.; Cummins, C. C., "Nitrogen Atom Transfer Coupled with Dinitrogen Cleavage and Mo-Mo Triple Bond Formation," *J. Am. Chem. Soc.*, **1996**, *118*, 709-710. (<http://dx.doi.org/10.1021/ja953573y>)
9. Johnson, A. R.; Davis, W. M.; Cummins, C. C., "Titanium Complexes Stabilized by N-(*tert*-Hydrocarbyl)anilide Ligation: A Synthetic Investigation," *Organometallics*, **1996**, *15*, 3825-3835. (<http://dx.doi.org/10.1021/om960315g>)
10. Johnson, A. R.; Wanandi, P. W.; Cummins, C. C.; Davis, W. N., "Cleavage of Titanium Dimethylamides with Methyl-Iodide," *Organometallics*, **1994**, *13* (7), 2907-2909. (<http://dx.doi.org/10.1021/om00019a057>)
11. Wang, R. W.; Newton, D. J.; Johnson, A. R.; Pickett, C. B.; Lu, A. Y. H., "Site-directed Mutagenesis of Glutathione *S*-Transferase YaYa," *J. Biol. Chem.*, **1993**, *268* (32), 23981-23985.
12. Craig, N. C.; Gee, G. C.; Johnson, A. R., "C<sub>60</sub> and C<sub>70</sub> Made Simply," *J. Chem. Educ.*, **1992**, *69* (8), 664-666. (<http://dx.doi.org/10.1021/ed069p664>)

### **FORMER RESEARCH GROUP MEMBERS (undergraduates)**

(senior thesis students indicated by an asterisk; listed are last known position/degree)

1. Marja M. Fox\* (Harvey Mudd College, 2000), "Design, Synthesis, and Characterization of a Tridentate, Aspartic Acid Derived Ligand for Use in Studies of Chiral Transition Metal Complexes," Ph. D., University of Illinois Urbana-Champaign. Management position.
2. David J. Slade\* (Harvey Mudd College, 2000), "Synthesis of a Ligand Designed to Support an Early-Late Hetero-Bimetallic Complex," Ph. D., North Carolina State University. Laboratory coordinator, Hobart and William Smith Colleges.
3. Christine B. Yoo (Harvey Mudd College, 2002), "Chiral Transition Metal Complexes with Amino Acid Derived Ligands." Ph. D. candidate, University of Southern California.
4. Aaron D. Schuler\* (Harvey Mudd College, 2001), "Ligand Design for Organometallic and Inorganic Coordination Complexes." Ph. D., University of Washington.
5. Gayle J. Pageau (Colby College, 2002), "Synthesis of an Early-Late Hetero-Bimetallic Complex." M. D./Ph. D., University of Massachusetts. Dana-Farber Boston Children's Hospital.
6. Catherine K. Ho\* (Harvey Mudd College, 2002), "Synthesis and Investigation of Diastereomeric Titanium Complexes." D. O., College of Osteopathic Medicine of the Pacific.
7. Tamara E. Hanna\* (Harvey Mudd College, 2002), "Investigation of the reaction chemistry of chiral titanium complexes." Ph. D., Cornell University. Employed in the chemical industry
8. Kendra E. Nelson\* (Harvey Mudd College, 2003), "Stereoselective carbon-carbon bond formation by diastereomeric titanium complexes." PharmD, University of Washington. Employed in industry.
9. Claire Edwards\* (Harvey Mudd College, 2003), "Synthesis of novel polymetallic complexes inspired by nitrogenase."
10. Elizabeth J. Duvall\* (Albion College, 2003), "Reaction chemistry of chiral titanium complexes." Research associate at the University of Illinois, Urbana-Champaign. Employed in the chemical industry.
11. Jessica H. Pikul (Reed College, 2004), "Synthesis of di- and trisubstituted aminoallenes for catalytic hydroamination studies." Ph. D., University of Washington. South Seattle Community College.
12. Jessica M. Hoover\* (Harvey Mudd College, 2004), "Catalytic hydroamination of aminoallenes by chiral titanium amino-alcohol complexes." Ph. D., University of Washington, Faculty, West Virginia University.
13. Juliette R. Petersen\* (Harvey Mudd College, 2004), "Catalytic hydroamination of aminoallenes by chiral titanium amino-alcohol complexes." Ph. D., University of Colorado, Denver.
14. Casey M. Jones (Reed College, 2005), "Addition of dialkyl zinc reagents to aldehydes and ketones mediated by chiral titanium complexes." Ph. D., Princeton University, Faculty, Lewis and Clark College.
15. Jordan R. Boye\* (Harvey Mudd College, 2005), "Modeling the titanium catalyzed hydroamination of aminoallenes." Employed in the chemical industry.
16. Hanhan Li\* (Harvey Mudd College, 2005), "Addition of dialkyl zinc reagents to aldehydes mediated by chiral titanium complexes." M. D., Cleveland Clinic.
17. Sam Sobelman (Harvey Mudd College, 2008), "Addition of dialkyl zinc reagents to aldehydes mediated by chiral titanium complexes" Employed in the chemical industry
18. Amanda Hickman\* (Harvey Mudd College, 2007), "Addition of dialkyl zinc reagents to aldehydes mediated by chiral titanium complexes." Ph. D., University of Michigan. UOP, Honeywell.
19. J. Andrew Kouzelos\* (Harvey Mudd College, 2007), "Theoretical and Experimental Investigations of Titanium Amino-alcohol Complexes." Ph. D., Michigan State.
20. Ryan J. Pakula (Harvey Mudd College, 2009), "Synthesis of amino acid derived ligands for asymmetric catalysis." Ph. D. program, University of Wisconsin.
21. Dianna C. McAnnally-Linz (Agnes Scott College, 2008), "Synthesis and characterization of *N*-sulfonamide derivatives of chiral amino alcohols." Graduate studies, Notre Dame.

22. Minh T. Nguyen (University of La Verne, 2008), "Synthesis of chiral tridentate amine-diol ligands for asymmetric catalysis." Ph. D., Cornell University. Employed in the chemical industry.
23. Andrew H. Stewart\* (Harvey Mudd College, 2008), "Synthesis Towards a Chiral Multidentate Tethered Ligand." Employed in the chemical industry.
24. Camille M. Sultana (Harvey Mudd College, 2010), "Synthesis of multidentate chiral ligands for stereocontrol of asymmetric hydroamination." Ph. D. program, Scripps Institute of Oceanography.
25. Lauren D. Hughs\* (Harvey Mudd College, 2009), "Tantalum cyclopentadienyl complexes as pre-catalysts for the intramolecular asymmetric hydroamination of aminoallenes." Employed in the chemical industry.
26. Joanne E. Redford\* (Harvey Mudd College, 2009), "Synthesis of a tethered ligand for the asymmetric hydroamination of aminoallenes." Ph. D., University of Wisconsin.
27. Russell E. Klare (Harvey Mudd College, 2010), "Synthesis of amino alcohol ligands derived from L-phenylalanine and (*S*)-carvone." Employed in the chemical industry.
28. Zara M. Seibel (Harvey Mudd College, 2011), "Synthesis of amino alcohol ligands derived from L-phenylalanine and L-menthone." Ph. D. studies, Columbia University.
29. Katherine E. Near (Harvey Mudd College, 2010), "Catalytic intramolecular hydroamination of substituted aminoallenes by chiral titanium sulfonamide complexes." Ph. D., Stanford.
30. Carolyn A. Heusser (Gordon College, 2010), "Catalytic intramolecular hydroamination of substituted aminoallenes by chiral titanium and tantalum amino-alcohol complexes." Employed in management.
31. John P. Cvitkovic (Harvey Mudd College, 2011), "Synthesis of amino alcohol ligands derived from L-phenylalanine." Ph. D. program, Worcester Polytechnic Institute.
32. Tarun C. Naryan\* (Harvey Mudd College, 2010), "New Ligands for Tantalum Hydroamination Catalysis." Ph. D., Stanford. Postdoctoral research, University of Maryland.
33. Kyoung-Joo (Jenny) Park (Mt. San Antonio College, 2012), "Synthesis of a bidentate aniline as a co-ligand for asymmetric hydroamination catalysis." Ph. D. program, Ohio State University.
34. Brette M. Chapin\* (Harvey Mudd College, 2011), "Tantalum complexes of aminoalcohol ligands and sterically demanding co-ligands for asymmetric catalytic hydroamination of aminoallenes." Ph. D., UT Austin. Postdoctoral research, Durham University.
35. Kristine E. Fong\* (Harvey Mudd College, 2011), "Amino-alcohol and Phenol Ligands for Asymmetric Hydroamination Catalysis."
36. Thomas R. Avila\* (Harvey Mudd College, 2011), "Theoretical investigation of tantalum hydroamination catalysis." Ph. D. program, MIT.
37. Malous M. Kossarian (Harvey Mudd College, 2012), "Tantalum catalyzed intramolecular asymmetric hydroamination of aminoallenes." Project manager.
38. Michelle C. Hansen\* (Harvey Mudd College, 2011), "Catalytic intramolecular asymmetric hydroamination with tantalum complexes of amino alcohol ligands." M. S., UCSD. Director of education and outreach for CCI Solar at Caltech.
39. Nagiko Hara (Harvey Mudd College, 2012), "Catalytic intramolecular asymmetric hydroamination with niobium complexes of amino alcohol ligands."
40. Alex R. Venning (St. Olaf College, 2012), "Use of electron withdrawing alcohol coligands to improve asymmetric hydroamination of aminoallenes." Ph. D., UNC Chapel Hill.
41. Ryan P. Brewster\* (Harvey Mudd College, 2012), "Theoretical investigations of the tantalum amide-alkoxide catalyzed hydroamination reaction." Software engineer.
42. Alex W. Kohn (Harvey Mudd College, 2013), "Synthesis and catalytic activity of phenylglycine derived ligands for asymmetric hydroamination of aminoallenes." Ph. D., MIT.
43. Danielle L. Marquis (Harvey Mudd College, 2015), "Synthesis and catalytic activity of mandelic acid derived ligands for asymmetric hydroamination of aminoallenes."

44. Ashka S. Shah (Harvey Mudd College, 2016), "Synthesis and catalytic activity of naphthyl and anthracenyl substituted ligands for asymmetric hydroamination of aminoallenes." Computation Intern, Lawrence Livermore National Lab.
45. Souen Shin (UCLA, 2015), "Synthesis and catalytic activity of naphthyl and anthracenyl substituted ligands for asymmetric hydroamination of aminoallenes."
46. Mikaela Kosich\* (Harvey Mudd College, 2016), "Kinetic investigations of asymmetric hydroamination." M. Public Health program, University of Pittsburgh.
47. Gabriel S. Phun (Harvey Mudd College, 2018), "Theoretical modeling of the asymmetric hydroamination-cyclization of aminoallenes by tantalum amide alkoxide complexes." Ph. D. program, UC Irvine.
48. Chase S. Abelson\* (Pitzer College, 2017), "Synthesis of a family of chiral amino alcohols as ligands for titanium and tantalum catalyzed asymmetric hydroamination." Ph. D. program, University of Minnesota.
49. Karina Ramirez (South El Monte High School, 2018), Upward Bound summer intern.
50. Benjamin S. Mitchell\* (Pitzer College, 2018), "Synthesis of a family of chiral amino alcohols as ligands for titanium and tantalum catalyzed asymmetric hydroamination." Ph. D. program, University of Washington.
51. Chris Z. Ye (Harvey Mudd College, 2019), "Synthesis, characterization, and hydroamination using chiral tridentate Schiff base ligands." Ph. D. program, U. C. Berkeley.
52. Yi "Jenny" Zhen (Harvey Mudd College, 2021), "Synthesis of sterically congested chiral sulfonamide ligands for asymmetric hydroamination."
53. Hannah S. Slocumb\* (Harvey Mudd College, 2019), "Chiral cobalt complexes with bi- and tridentate ligands for asymmetric amination reactions." Ph. D. program, U. C. Irvine.
54. Fanrui Sha\* (Harvey Mudd College, 2019), "Synthesis, characterization, and hydroamination using chiral tridentate Schiff base ligands." Ph. D. program, Northwestern.
55. Emily A. Shimizu\* (Harvey Mudd College, 2020), "Synthesis, characterization, and hydroamination using chiral tridentate Schiff base ligands." Ph. D. program, U. C. Irvine.
56. Hanna Z. Porter (Harvey Mudd College, 2022), "Determination of hydrodynamic radius of titanium and tantalum complexes by DOSY NMR."
57. Sydney E. Towell\* (Harvey Mudd College, 2021), "Synthesis of sterically congested chiral sulfonamide ligands for asymmetric hydroamination," and "computational modeling of nickel diphosphine complexes and CO<sub>2</sub> activation with molybdate analogues."
58. Veronica L. Show\* (Harvey Mudd College, 2022), "Synthesis of bulky Schiff base ligands for asymmetric hydroamination catalysis."

#### **FORMER RESEARCH GROUP MEMBERS (other)**

1. Jacob M. Plummer (Ph. D., organic chemistry, Notre Dame, currently in tenure-track position at Greenville College), "Synthesis of aminoallene substrates." Faculty, Wingate University.

#### **CURRENT RESEARCH GROUP MEMBERS**

(senior thesis students indicated by an asterisk)

1. Emily Y. Fok\* (Harvey Mudd College, 2022), "Synthesis of bulky Schiff base ligands for asymmetric hydroamination catalysis."
2. Ellie Kim\* (Harvey Mudd College, 2022), "Design and synthesis of earth abundant metal complexes for the activation of CO<sub>2</sub> and H<sub>2</sub>."

#### **INVITED SEMINARS AND OTHER FACULTY PRESENTATIONS**

1. Johnson, A. R. "Changing research directions mid-career at a PUI: Is it possible to reimagine your program?" American Chemical Society National Meeting, San Diego, CA, 2022, INOR-3646850.

2. Johnson, A. R. and Nataro, C. "MO: Is it Me You're Looking For?" American Chemical Society National Meeting, San Diego, CA, 2022, INOR-3652394.
3. Williams, N. S. B., Nataro, C., Bentley, A. K., Crowder, K. N., Eppley, H. J., Fernandez, A., Grice, K. A., Jamieson, E. R., Johnson, A. R., Lin, S., Pratt, J. M., Raker, J. R., Reisner, B. A., Smith, S. R., Stewart, J. L., Stone, K. and Watson, L. A. "IONiC: The professional network for inorganic chemists." Fall 2020 Virtual Meeting of the American Chemical Society, INOR-76.
4. Bentley, A. K.; Eppley, H. J.; Jamieson, E. R.; Johnson, A. R.; Lin, S.; Nataro, C.; Poland, S.; Pratt, J. M.; Raker, J. R.; Reisner, B. A.; Smith, S. R.; Stewart, J. L.; Watson, L. A.; Williams, N. S. B., "Interactive inorganic: 'I's" of the VIPER," American Chemical Society National meeting, Philadelphia, PA, 2020, INOR 172 (Presented online, <https://doi.org/10.1021/scimeetings.0c00491>).
5. Sylvester, E.; Smith, S.; Stewart, J.; Watson, L.; Williams, N.; Nataro, C.; Bentley, A.; Eppley, H.; Jamieson, E.; Lin, S.; Johnson, A.; Raker, J.; Reisner, B., "Ask not what VIPER can do for you – ask what you can do for VIPER." American Chemical Society National meeting, Orlando, FL, 2019, INOR-326.
6. Watson, L.; Nataro, C.; Bentley, A.; Eppley, H.; Jamieson, E.; Johnson, A.; Raker, J.; Reisner, B.; Smith, S.; Stewart, J.; Williams, N., "IONiC VIPER: Slithering to the next stage of improving the teaching and learning of inorganic chemistry," American Chemical Society National meeting, New Orleans, LA, 2018, INOR-182.
7. Johnson, A. R., "Early Metal Complexes of Chiral, Tridentate, Imine-diol Ligands," SoCal Organometallics Meeting, UCLA, 2018.
8. Johnson, A.; Abelson, C.; Mitchell, B.; Karina, R.; Sha, F.; Slocumb, H., "Catalytic asymmetric hydroamination using chiral early metal complexes of bi- and tridentate ligands," American Chemical Society National meeting, New Orleans, LA, 2018, INOR-477.
9. Smith, S.; Bentley, A.; Eppley, H. J.; Jamieson, E.; Johnson, A. R.; Nataro, C.; Raker, J.; Reisner, B. A.; Stewart, J. L.; Watson, L. A.; Williams, N. B. S., "IONiC VIPER: Online Resources for an Active Classroom in Bioinorganic Chemistry," *Faseb Journal*, 2017, 751.9.
10. Reisner, B.; Stewart, J.; Bentley, A.; Eppley, H.; Jamieson, E.; Johnson, A.; Lin, S.; Nataro, C.; Plass, K.; Smith, S.; Watson, L.; Williams, N., "IONiC connection: Increasing interactions in the inorganic community," American Chemical Society National meeting, Washington DC, 2017, INOR-547.
11. Reisner, B.; Nataro, C.; Smith, S.; Bentley, A.; Eppley, H.; Jamieson, E.; Johnson, A.; Stewart, J.; Watson, L.; Williams, N., "Building community in (inorganic) chemistry: Ideas from IONiC," American Chemical Society National Meeting, San Francisco, CA, 2017, CHED-245.
12. Poland, S.; Sears, B.; Toledo, S.; Johnson, A., "IONiC VIPER workshops: Bringing current literature into the classroom," American Chemical Society National Meeting, San Francisco, CA, 2017, INOR-220.
13. Johnson, A.; Stewart, J.; Bentley, A.; Eppley, H.; Jamieson, E.; Nataro, C.; Reisner, B.; Smith, S.; Watson, L.; Williams, N., "IONiC bonding: Building a lattice using attractive forces," American Chemical Society National meeting, San Francisco, CA, 2017, INOR-221.
14. Johnson, A. R., "Mechanistic and Computational Details of Asymmetric Hydroamination," Organometallics Gordon Research Conference, Newport RI, 2016.
15. Eppley, H.; Nataro, C.; Bentley, A.; Jamieson, E.; Johnson, A.; Reisner, B.; Stewart, J.; Smith, S.; Watson, L.; Williams, N., "Expanding the frontiers of inorganic chemistry," Abstracts of Papers of the American Chemical Society, 2016, INOR-418.
16. Johnson, A., "Asymmetric hydroamination with titanium and tantalum: experiment and theory," American Chemical Society National meeting, Denver, CO, 2015, INOR-369.

17. Geselbracht, M.; Bentley, A.; Eppley, H.; Jamieson, E.; Johnson, A.; Nataro, C.; Reisner, B.; Stewart, J.; Smith, S.; Williams, N.; Watson, L., "Mg deficient IONiC/VIPeR: An online community for inorganic chemists," American Chemical Society National meeting, Denver, CO, 2015, INOR-161.
18. Eppley, H.; Johnson, A.; Bentley, A.; Jamieson, E.; Nataro, C.; Raker, J.; Reisner, B.; Smith, S.; Stewart, J.; Watson, L.; Williams, N., "VIPeR faculty development workshops: Cutting edge content development and sharing pedagogical best practices," American Chemical Society National meeting, Denver, CO, 2015, CHED-61.
19. Nataro, C.; Smith, S. R.; Collins, S. N.; Eppley, H. J.; Geselbracht, M. J.; Jamieson, E.; Johnson, A. R.; Reisner, B. A.; Stewart, J. L.; Williams, B. S.; Watson, L. A., "Ride the snake: The online, inorganic community of IONiC/VIPeR," American Chemical Society National meeting, San Diego, CA, 2014, INOR-150.
20. Johnson, A. R., "Catalytic Asymmetric Hydroamination with Group-V Amido Alkoxide Complexes," Organometallics Gordon Research Conference, Newport RI, 2014.
21. Johnson, A. R., "Titanium and Tantalum Amidoalkoxide Complexes as Catalysts for the Asymmetric Hydroamination of Aminoallenes," Kyoto University, 2012.
22. Johnson, A. R., "Titanium and Tantalum Amidoalkoxide Complexes as Catalysts for the Asymmetric Hydroamination of Aminoallenes," Osaka University, 2012.
23. Eppley, H. J.; Nataro, C.; Geselbracht, M. J.; Jamieson, E. R.; Johnson, A. R.; Reisner, B. A.; Smith, S. R.; Stewart, J. L.; Watson, L. A.; Williams, B. S., "VIPeR: Adapt and adopt classroom content from the frontiers of inorganic chemistry," American Chemical Society National meeting, San Diego, CA, 2012, INOR 210.
24. Johnson, A. R., "Asymmetric Catalytic Intramolecular Hydroamination of Aminoallenes by Tantalum Amidoalkoxide Complexes," Kyoto Institute of Technology, 2011.
25. Johnson, A. R., "Asymmetric Hydroamination of Aminoallenes with Early Metal Catalysts," Organometallics Gordon Research Conference, Newport RI, 2011.
26. Geselbracht, M. J.; Eppley, H. J.; Jamieson, E. R.; Johnson, A. R.; Reisner, B. A.; Smith, S. R.; Stewart, J. L.; Watson, L. A.; Williams, B. S., "VIPeR: Highlighting the frontiers of research in the undergraduate chemistry classroom," American Chemical Society National meeting, Anaheim, CA, 2011, INOR-294.
27. Watson, L. A.; Benatan, E.; Dene, J.; Eppley, H. J.; Geselbracht, M. J.; Jamieson, E. R.; Johnson, A. R.; Reisner, B. A.; Smith, S. R.; Stewart, J. L.; Williams, B. S., "VIPeR: Virtual inorganic pedagogical electronic resource," American Chemical Society National meeting, San Francisco, CA, 2010, INOR-213.
28. Johnson, A. R., "Asymmetric hydroamination with titanium and tantalum complexes of chiral amino alcohols," American Chemical Society National meeting, San Francisco, CA, March 2010, 2010, INOR-44.
29. Watson, L. A.; Eppley, H. J.; Geselbracht, M. J.; Johnson, A. R.; Reisner, B. A.; Stewart, J. L.; Williams, B. S.; Benatan, E.; Jamieson, E. R., "VIPeR: A resource and community for teaching inorganic chemistry," American Chemical Society National meeting, Salt Lake City, UT, 2009, CHED-1257.
30. Stewart, J. L.; Reisner, B. A.; Eppley, H. J.; Benatan, E.; Dene, J.; Geselbracht, M. J.; Jamieson, E. R.; Johnson, A. R.; Watson, L. A.; Williams, B. S., "Come for the content, stay for the community: The development of a social network and digital library for improving inorganic chemistry teaching," 238th National Meeting of the American Chemical Society, Washington, D. C., 2009, CHED-438.

31. Resiner, B. A.; Benatan, E.; Eppley, H. J.; Geselbracht, M. J.; Johnson, A. R.; Stewart, J. L.; Watson, L. A.; Jamieson, E. R.; Williams, B. S., "VIPER: Virtual Inorganic Pedagogical Electronic Resource," American Chemical Society National meeting, Salt Lake City, UT, 2009, INOR-751.
32. Reisner, B. A.; Benatan, E.; Dene, J.; Eppley, H. J.; Geselbracht, M. J.; Jamieson, E. R.; Johnson, A. R.; Stewart, J. L.; Watson, L. A.; Williams, B. S., "VIPER: Virtual Inorganic Pedagogical Electronic resource," 238th National Meeting of the American Chemical Society, Washington, D. C., 2009, CHED-69.
33. Johnson, A. R.; Hughs, L. D.; Redford, J. E., "Asymmetric hydroamination with titanium and tantalum complexes of cyclopentadiene and amino alcohols," American Chemical Society National meeting, Salt Lake City, UT, 2009, INOR-590.
34. Johnson, A. R.; Benatan, E.; Dene, J.; Eppley, H. J.; Geselbracht, M. J.; Jamieson, E. R.; Reisner, B. A.; Stewart, J. L.; Watson, L. A.; Williams, B. S., "The Virtual Inorganic Pedagogical Electronic Resource: An Online Teaching Materials Repository and Interactive Social Networking Environment for Inorganic Chemistry Educators," EDULEARN09, Proceedings of the International Conference on Education and New Learning Technologies, 2009, ([www.iated.org/edulearn09](http://www.iated.org/edulearn09)).
35. Benatan, E.; Johnson, A. R., "VIPER: Blurring the Line Between Repository and Social Network for Faculty," CLAC Conference, June 16-18, Occidental College, 2009.
36. Johnson, A. R.; Williams, B. S.; Benatan, E.; Eppley, H. J.; Geselbracht, M. J.; Reisner, B. A.; Stewart, J. L.; Watson, L. A., "The IONiC/VIPER Project," Scholarly Collaboration and Small Colleges in the Digital Age, Pomona College, 2008.
37. Johnson, A. R.; Geselbracht, M. J.; Eppley, H. J.; Reisner, B. A.; Stewart, J.; Watson, L. A.; Williams, B. S., "Integration of research and education at the frontiers of inorganic chemistry," American Chemical Society National meeting, New Orleans, LA, 2008, INOR-885.
38. Eppley, H. J.; Geselbracht, M. J.; Johnson, A. R.; Reisner, B. A.; Stewart, J.; Watson, L. A.; Williams, B. S., "IONiC: Interactive online network of inorganic chemists.," American Chemical Society National meeting, New Orleans, LA, 2008, INOR-772.
39. Eppley, H. J.; Geselbracht, M. J.; Johnson, A. R.; Reisner, B. A.; Stewart, J.; Watson, L. A.; Williams, B. S., "The interactive online network of inorganic chemists (IONiC): Inter-institutional grant writing, project planning, and community building using social networking tools," American Chemical Society National meeting, New Orleans, LA, 2008, CHED-765.
40. Kantardjieff, K. A.; Johnson, A. R.; Ouyang, X., "Teaching Crystallography to Undergraduates through Distance Learning and Remote Access," American Crystallography Association Meeting, July 2007, 2007.
41. Johnson, A. R., "Catalytic reactions with chiral titanium amide-alkoxides," Chemistry Seminar Series, University of Toledo, 2007.
42. Johnson, A. R., "Ligand Design for the Intramolecular Asymmetric Hydroamination of Aminoallenes," Organometallic Chemistry Gordon Research Conference, Newport RI, 2007.
43. Johnson, A. R., "Synthesis of and asymmetric catalysis with titanium amino-alcohol complexes," 233rd meeting of the American Chemical Society, Chicago, IL, invited speaker at the Cotton Award Symposium in honor of Christopher C. Cummins, 2007, INOR 98.
44. Johnson, A. R., "Synthesis of and asymmetric catalysis with titanium amino-alcohol complexes," Chemistry Seminar Series, University of Redlands, January 30, 2007, 2007.

45. Eppley, H. J.; Geselbracht, M. J.; Johnson, A. R.; Reisner, B. A.; Williams, B. S., "IONiC: interactive online network of inorganic chemists.," American Chemical Society National meeting, Boston, MA, 2007.
46. Johnson, A. R., "Derivation of ligand group orbitals for transition metal complexes using an intuitive symmetry-based approach," American Chemical Society National Meeting, San Francisco, CA, 2006.
47. Duncan, A. P.; Johnson, A. R., "Student-led organometallic chemistry course based on classic literature," 231st meeting of the American Chemical Society, Atlanta, GA, 2006, CHED 099.
48. Boye, J. R.; Cave, R. J.; Johnson, A. R., "Theoretical modeling of titanium amide-alkoxide complex formation and reactivity," 231st meeting of the American Chemical Society, Atlanta, GA, 2006, INOR 791.
49. Johnson, A. R., "Catalytic reactions with chiral titanium amide-alkoxides," Organometallics Seminar Series, California Institute of Technology, 2005.
50. Johnson, A. R., "Catalytic reactions with chiral titanium amide-alkoxides," Chemistry Seminar Series, University of Oregon, 2005.
51. Johnson, A. R., "Catalytic reactions with chiral titanium amide-alkoxides," Chemistry Seminar Series, University of La Verne, 2005.
52. Johnson, A. R., "Electronic Effects in the Synthesis of Titanium Amino-Alcohol Complexes," Inorganic Reaction Mechanisms Gordon Research Conference, Ventura, CA, 2005.
53. Johnson, A. R., "Electronic Effects in the Synthesis of Titanium Amino-Alcohol Complexes," 229th National Meeting of the American Chemical Society, San Diego, CA, 2005, INOR 802.
54. Johnson, A. R., "Catalytic reactions of chiral titanium amino-alcohol complexes: intramolecular hydroamination and diethylzinc addition.," Inorganic Chemistry Seminar Series, University of Washington, 2004.
55. Johnson, A. R., "Intramolecular catalytic hydroamination of aminoallenes by chiral titanium amino-alcohol complexes," Inorganic Chemistry Seminar Series, University of California, San Diego, 2004.
56. Johnson, A. R., "Intramolecular catalytic hydroamination of aminoallenes by chiral titanium amino-alcohol complexes," Inorganic Chemistry Seminar Series, University of California, Irvine, 2004.
57. Johnson, A. R., "Intramolecular catalytic hydroamination of aminoallenes by chiral titanium amino-alcohol complexes," Inorganic Chemistry Seminar Series, University of California, Santa Barbara, 2004.
58. Johnson, A. R., "Molecular Micromanagement: Ligand Design for Inorganic Complexes and Organometallic Reaction Chemistry," Summer faculty research seminar series, Harvey Mudd College, 2004.
59. Johnson, A. R.; Hoover, J. M.; Pikul, J. H., "Synthesis and reaction chemistry of chiral titanium complexes with amino-acid derived ligands," Organometallic Chemistry Gordon Research Conference, Newport RI, 2003.
60. Johnson, A. R.; Hanna, T. E.; Nelson, K. E., "Synthesis of Diastereomeric Titanium Complexes with a Chelating bis-Amide Ligand Derived From L-Phenylalanine," Organometallic Chemistry Gordon Research Conference, Newport RI, 2002.
61. Johnson, A. R., "Titanium Amido Complexes with Amino Acid Derived Ligands," Inorganic Chemistry Seminar Series, University of California, Riverside, 2002.
62. Johnson, A. R., "Molecular Micromanagement: Ligand Design for Inorganic Complexes," Summer faculty research seminar series, Harvey Mudd College, 2000.



63. Johnson, A. R.; Raymond, K. N., "Synthesis of new gadolinium chelators for magnetic resonance imaging applications," American Chemical Society National meeting, Anaheim, CA, 1999, INOR-296.
64. Johnson, A. R.; Cummins, C. C., "Synthesis, characterization and reactivity of molybdenum chalcogenide complexes," American Chemical Society National meeting, Orlando, FL, 1996, INOR-419.
65. Johnson, A. R., "Synthesis, characterization and reactivity of molybdenum(V) and -(VI) chalcogenide complexes," Massachusetts Institute of Technology, Inorganic Seminar Series, 1996.
66. Johnson, A. R.; Cummins, C. C., "Titanium N-tButyl Anilide Complexes," American Chemical Society North-East Regional Meeting, 1994.
67. Johnson, A. R.; Craig, N. C., "A Simple Apparatus for C60 and C70 Preparation," Oberlin College, Special Lecture/Demonstration (multiple times), 1991-1993.
68. Johnson, A. R.; Craig, N. C., "C60 and C70 Made Simply," American Chemical Society meeting in miniature, Ursuline College, 1991.

### STUDENT PRESENTATIONS

1. Fok, E. Y., Kim, E., Show, V. L. and Johnson, A. R. "Design and synthesis of earth abundant metal complexes for the activation of CO<sub>2</sub> and H<sub>2</sub>," American Chemical Society National Meeting, San Diego, CA, 2022, INOR-3648807.
2. Towell, S. E., Johnson, A. R. and Nataro, C. "When computational chemistry fails: modeling geometries of Nickel(II) diphosphine complexes," Spring 2021 Virtual National Meeting of the American Chemical Society, INOR-3530076.
3. Sha, F. and Johnson, A. R. "Titanium and tantalum catalyzed asymmetric hydroamination with bulky sulfonamide ligands," Fall 2020 Virtual National Meeting of the American Chemical Society, INOR-74.
4. Sha, F.; Shimizu, E. A.; Slocumb, H. S.; Towell, S. E.; Zhen, Y.; Johnson, A. R., "Asymmetric Hydroamination of di- and trisubstituted aminoallenes with titanium and tantalum complexes of bulky sulfonamide alcohol ligands," American Chemical Society National meeting, Philadelphia, PA, 2020, INOR 196 (presented online, <https://doi.org/10.1021/scimeetings.0c01333>).
5. Shimizu, E. A.; Fok, E. Y.; Show, V. L.; Johnson, A. R., "Asymmetric hydroamination of di- and trisubstituted aminoallenes with titanium complexes of imine diol ligands," American Chemical Society National meeting, Philadelphia, PA, 2020, INOR 263 (presented online, <https://doi.org/10.1021/scimeetings.0c01336>).
6. Sha, F.; Slocumb, H. S.; Towell, S. E.; Zhen, Y.; Johnson, A., "Substituted sulfonamide alcohols as ligands for titanium and tantalum catalyzed asymmetric aminoallene hydroamination," American Chemical Society National meeting, Orlando, FL, 2019, INOR-341.
7. Mitchell, B. S.; Sha, F.; Ye, C.; Johnson, A., "Catalytic intramolecular hydroamination of aminoallenes using titanium complexes of chiral, tridentate, dianionic imine-diol ligands," American Chemical Society National meeting, Orlando, FL, 2019, INOR-379.
8. Johnson, A. R.; Mitchell, B. S., "Synthesis of chiral tridentate ligands for titanium and tantalum catalyzed asymmetric hydroamination," American Chemical Society National meeting, New Orleans, LA, 2018, INOR-228.
9. Johnson, A. R.; Abelson, C. S., "Synthesis of a family of chiral aminoalcohols as ligands for titanium and tantalum catalyzed asymmetric hydroamination," American Chemical Society National meeting, San Francisco, CA, 2017, INOR-294.

10. Phun, G. S.; Cave, R. J.; Johnson, A. R., "Theoretical modeling of the asymmetric hydroamination-cyclization of aminoallenes by tantalum amide alkoxide complexes," American Chemical Society National meeting, San Diego, CA, 2016.
11. Kosich, M.; Johnson, A. R., "Mechanistic investigation of Tantalum amide-alkoxide catalyzed asymmetric hydroamination of aminoallenes," American Chemical Society National meeting, San Diego, CA, 2016, INOR-455.
12. Grado, L. L.; Chamberlain, B. M.; Johnson, A. R., "Titanium and tantalum complexes bearing optically active amidoalkoxides as catalysts for the polymerization of D,L-lactide," American Chemical Society National meeting, Dallas, TX, 2014, CHED-1335.
13. Hara, N.; Kohn, A. W.; Venning, A. R.; Johnson, A. R., "Asymmetric catalytic intramolecular hydroamination of aminoallenes by tantalum amidoalkoxide complexes," American Chemical Society National meeting, San Diego, CA, 2012, CHED-706.
14. Hara, N.; Hansen, M. C.; Johnson, A. R., "Selective hydroamination with bidentate amino alcohol complexes of tantalum," American Chemical Society National meeting, Anaheim, CA, 2011, INOR-328.
15. Hansen, M. C.; Heusser, C. A.; Johnson, A. R., "Catalytic asymmetric hydroamination with tantalum complexes of chiral amino alcohols," American Chemical Society National meeting, Anaheim, CA, 2011, INOR-63 (oral presentation).
16. Fong, K. E.; Kossarian, M. M.; Johnson, A. R., "Tantalum complexes with amino alcohol and phenol ligands as catalysts for asymmetric intramolecular hydroamination of aminoallenes," American Chemical Society National meeting, Anaheim, CA, 2011, INOR-329.
17. Chapin, B. M.; Park, K.-J.; Johnson, A. R., "Asymmetric hydroamination of aminoallenes catalyzed by tantalum complexes of aminoalcohol and diamine ligands," American Chemical Society National meeting, Anaheim, CA, 2011, INOR-330.
18. Chapin, B. M.; Near, K. E.; Johnson, A. R., "Asymmetric hydroamination of aminoallenes catalyzed by titanium and tantalum complexes of chiral sulfonamide-alcohols," American Chemical Society National meeting, Anaheim, CA, 2011, INOR-62 (oral presentation).
19. Avila, T. R.; Cave, R. J.; Johnson, A. R., "Theoretical investigations of tantalum catalyzed asymmetric hydroamination," American Chemical Society National meeting, Anaheim, CA, 2011, INOR-331.
20. Park, K.-J.; Johnson, A. R., "Improvement of Tantalum Complex for Asymmetric Hydroamination Catalysis," Southern California Conference on Chemical Education, Pepperdine University, 2010.
21. Narayan, T. C.; Near, K. E.; Johnson, A. R., "Sterically congested tantalum(V) complexes for the asymmetric hydroamination of aminoallenes," American Chemical Society National meeting, San Francisco, CA, 2010, INOR-252.
22. Hansen, M. C.; Heusser, C. A.; Johnson, A. R., "Catalytic hydroamination with tantalum complexes of chiral amino alcohols," American Chemical Society National meeting, San Francisco, CA, 2010, INOR-256.
23. Chapin, B. M.; Near, K. E.; Johnson, A. R., "Asymmetric hydroamination of aminoallenes catalyzed by metal complexes with electron- withdrawing sulfonamide ligands," American Chemical Society National meeting, San Francisco, CA, 2010, INOR-253.
24. Redford, J. E.; Johnson, A. R., "Synthesis of a tethered ligand for titanium and tantalum hydroamination catalysis," American Chemical Society National meeting, Salt Lake City, UT, 2009, INOR-784.

25. Hughs, L. D.; Johnson, A. R., "Titanium and tantalum cyclopentadienyl complexes as precatalysts for the intramolecular asymmetric hydroamination of aminoallenes," American Chemical Society National meeting, Salt Lake City, UT, 2009, INOR-785.
26. McAnnally-Linz, D. C.; Johnson, A. R., "Enantioselective catalytic hydroamination of aminoallenes with titanium complexes of sulfonamide alcohols," American Chemical Society National meeting, New Orleans, LA, April 2008, 2008, INOR-780.
27. Hughs, L. D.; Johnson, A. R., "Asymmetric catalysis with sterically bulky titanium amide alkoxide complexes," American Chemical Society National meeting, New Orleans, LA, 2008, INOR-777.
28. Johnson, A. R.; Jones, C. M.; Li, H., "Stereoselective alkylation of benzaldehyde by chiral titanium amino alcohol complexes," American Chemical Society National meeting, San Diego, CA, 2005, CHED-1079.
29. Johnson, A. R.; Hoover, J. M.; Petersen, J. R., "Catalytic hydroamination of aminoallenes by chiral titanium amino-alcohol complexes," American Chemical Society National meeting, Anaheim, CA, 2004, CHED-378.
30. Johnson, A. R.; Nelson, K. E., "Titanium amido complexes with amino acid derived ligands," American Chemical Society National meeting, New Orleans, LA, 2003, CHED-738.
31. Johnson, A. R.; Duvall, E. J., "Reaction chemistry of chiral titanium complexes," American Chemical Society National meeting, New Orleans, LA, 2003, CHED-695.
32. Johnson, A. R.; Hanna, T. E., "Synthesis of diastereomeric titanium complexes with a chelating bis-amide ligand derived from L-phenylalanine," American Chemical Society National meeting, Orlando, FL, 2002, CHED-567.
33. Johnson, A. R.; Yoo, C. B., "Synthesis and characterization of chiral tetrahedral titanium complexes with amino acid derived ligands," American Chemical Society National meeting, San Diego, CA, 2001, CHED-398.
34. Johnson, A. R.; Schuler, A. D., "Effects of ligand sterics and electronics on epimerization of chiral titanium complexes," American Chemical Society National meeting, San Diego, CA, 2001, CHED-352.
35. Johnson, A. R.; Pageau, G. J., "Synthesis of a polyfunctional ligand for early-late heterobimetallic complexes," American Chemical Society National meeting, San Diego, CA, 2001, CHED-410.