

Nicholas A. Arnet

Assistant Professor of Chemistry

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Professional Positions

Nevada State College

Henderson, NV

Assistant Professor of Chemistry (2019-present)

Texas A&M University

College Station, TX

Postdoctoral Fellow (2017 - 2019)

Advisor: Prof. Marcetta Y. Darensbourg

Lecturer (Fall semester, 2017 - 2019)

Chemistry Department, First Year Program

Education

Yale University (2013-2016)

New Haven, CT

Ph.D. in Chemistry (Inorganic), Fall 2016

M.S. in Chemistry, Spring 2014

Advisor: Prof. Patrick L. Holland

University of Rochester (2011-2013)

Rochester, NY

M.S. in Chemistry, March 2013

Advisor: Prof. Patrick L. Holland

University of Alabama in Huntsville (2007-2011)

Huntsville, AL

B.S. *summa cum laude* (highest honors) in Chemistry, May 2011

Canisius High School (2003-2007)

Buffalo, NY

High School Diploma, May 2007

A Jesuit, college-preparatory high school

Awards

Pacificchem Student Poster Competition Award winner, 2015
W. D. Walters Teaching Award, University of Rochester, 2012
Graduated from University of Alabama in Huntsville as an Honors Scholar 2011
ACS Undergraduate Analytical Chemistry Award, Univ. of Alabama in Huntsville 2011
Phi Kappa Phi, University of Alabama in Huntsville, 2009
Alpha Lambda Delta, University of Alabama in Huntsville, 2008

Publications

5. D. E. DeRosha, N. A. Arnet, B. Q. Mercado, P. L. Holland, "A [2Fe-1S] Complex That Affords Access to Bimetallic and Higher-Nuclearity Iron-Sulfur Clusters," *Inorg. Chem.* **2019**, *58*, 8829-8834.
4. N. A. Arnet, N. Bhuvanesh, M. Y. Darensbourg, "Proton Affinity Studies of Nickel N₂S₂ Complexes and Control of Aggregation," *J. Biol. Inorg. Chem.* **2019**.
3. N. A. Arnet, S. F. McWilliams, B. Q. Mercado, P. L. Holland, "Synthesis and Mechanism of Formation of Hydride-Sulfide Complexes of Iron," *Inorg. Chem.* **2017**, *56*, 9185-9193.
2. S. M. Bellows, N. A. Arnet, P. M. Gurubasavaraj, W. W. Brennessel, E. Bill, T. R. Cundari, P. L. Holland, "The Mechanism of N-N Double Bond Cleavage by an Iron(II)-Hydride Complex," *J. Am. Chem. Soc.* **2016**, *138*, 12112-12123.
1. N. A. Arnet, T. R. Dugan, F. S. Menges, B. Q. Mercado, W. W. Brennessel, E. Bill, M. A. Johnson, P. L. Holland, "Synthesis, Characterization, and Nitrogenase-Relevant Reactions of an Iron Sulfide Complex with a Bridging Hydride," *J. Am. Chem. Soc.* **2015**, *137*, 13220-13223.

Course Teaching (Texas A&M University)

Lecturer for Chemistry 107, ("General Chemistry for Engineers"): Fall 2017, 2018

- 2 sections, average class size 300 students
- Utilized clicker response devices to promote collaborative learning during lecture
- 98.9% of students agreed that the instructor fostered a learning environment that was supportive of all students in an anonymous course evaluation (Fall 2017)

Substitute lecturer (3 lectures) for Chemistry 362, ("Descriptive Inorganic Chemistry"): 2017

Course Teaching (Yale University)

Workshop teaching fellow for Chemistry 161 ("University General Chemistry"): 2015

Course Teaching (University of Rochester)

Head teaching assistant for Chemistry 131 (“General Chemistry”): 2012

- Wrote worksheets for students to solve during recitation
- Performed demonstrations during lecture (~250 students)
- Acted as substitute lecturer in professor’s absence

Workshop leader for Chemistry 131, 132 (“General Chemistry”): 2011-2012

Laboratory teaching assistant for Chemistry 132 lab (“General Chemistry”): 2012

Head teaching assistant for Chemistry 171 (“Freshman Organic Chemistry”): 2011

Teaching (University of Alabama in Huntsville)

Tutored at the university Student Success Center the subjects of chemistry, biology, and Latin:
2009-2011

Undergraduate Research Trainees

Mackenzie Adelberg - Undergraduate researcher, 2015

Gia Velasquez - Undergraduate researcher, 2014.

Jennifer Clark - NSF-funded summer undergraduate researcher, 2012

Other Pedagogy

Completed Yale’s Physics 530 (“Theory and Practice of Scientific Teaching in the Physical Sciences”): 2014

- A course on evidence-based teaching strategies
- Participants learned strategies on how to engage students through active learning, practice inclusive teaching, and develop instructional material

Lecture / Poster Presentations

Symposium on Bioinorganic Chemistry: Proteins and Enzymes and Model Systems, National ACS Meeting (San Francisco, CA) - August 2014

Symposium on Metal Coordination Sphere Design for Challenging Bond Transformation, The International Chemical Congress of Pacific Basin Societies (Honolulu, HI) - December 2015

Symposium on Environmental & Energy-Related Inorganic Chemistry, National ACS Meeting (New Orleans, LA) - March 2018