

Manuel N. Dominguez

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Education:

University of Texas at Austin Ph.D. Student, Chemistry	August 2016 – Present
University of South Carolina Aiken B.S. Chemistry Graduate with Honors, Cum Laude	August 2012 – May 2016

Work History:

University of Texas at Austin Teaching Assistant, General Chemistry	August 2016 – Present
Publix Pharmacy Pharmacy Technician	July 2014 – July 2016
University of South Carolina Aiken Research Lab Assistant	May 2013 – August 2013 May 2014 – August 2014 May 2015 – August 2015

Military History:

United States Marine Corps, Embassy Security Group Sergeant, Squad Leader, Marine Security Guard	June 2008 – May 2012
United States Marine Corps – HMX -1 Sergeant Logistics Non-Commissioned Officer	April 2004 – June 2008

Research Experience:

Synthesis and Characterization of Metal-Organic Frameworks, with a focus on Fe-MOF 525.
University of South Carolina Aiken – Undergraduate Research
August 2015 – May 2016

Electronic structure calculations on bimetallic copper compounds.
University of South Carolina Aiken – Undergraduate Research
August 2015 – Dec 2015

Cyclic Voltammetry of Fe-TACN compounds.
University of South Carolina Aiken – Undergraduate Research
August 2015 – Oct 2015

Synthesis and Characterization of Pd-NHC complexes for Suzuki cross coupling.
University of South Carolina Aiken – Undergraduate Research
September 2013 – July 2015

Teaching Experience:

General Chemistry Laboratory Teaching Assistant
Worked for Dr. Alisha Bohnsack

August 2016 – Present

Research Skills:

Synthesizing and Characterizing Metal Complexes
Synthesis and Catalysis using Microwave Technology
Experience with Gas Chromatography, NMR Spectroscopy, UV/Vis Spectroscopy, I.R. Spectroscopy, Density Functional theory using Gaussian and ORCA.

Publications:

McMoran, E.P; Dominguez, M.N; Erwin, E.M; Powell, D.R; Rowe, G.T; Yang, L. "Structural Diversity, Spectral Characterization and Computational Studies of Cu(I) Complexes with Pyridylamide Ligands." *Inorganica Chimica Acta* 446, **2016**: 150–160.
doi:10.1016/j.ica.2016.03.011.

Presentations:

Dominguez, M.; Rowe, G.; "Synthesis and Characterization of MOF-525 with a Fe(II/III) and Mn(II/III) Metal Center." Oral Presentation given at the South Carolina Academy of Science. Apr. **2016**.

Dominguez, M.; Colosimo, D.; Rowe, G.; "Synthesis of palladium(II)NHC-compounds and their employment as cross-coupling catalysts." Oral Presentation given at USC Aiken Research Day. Apr. **2015**.

Dominguez, M.; Colosimo, D.; Rowe, G.; "Synthesis of palladium(II)NHC-compounds and their employment as cross-coupling catalysts." Poster Presentation given at ACS National meeting, Denver CO. Mar. **2015**.

Dominguez, M.; Colosimo, D.; Rowe, G.; "The Identification of Optimum Pd-NHC complexes for Suzuki Cross Coupling." Poster Presentation given at USC Aiken Research Day. Apr. **2014**.

Organizations:

Council of Graduate Chemists	2016 – Present
American Chemical Society Scholars	2015 – Present
Marine Memorial Association	2015 – Present
American Chemical Society	2014 – Present
Tau Kappa Epsilon	2013 – 2015
USC Aiken Polo Club	2012 – 2013
USC Aiken Swim Club	2012 – 2014

Honors and Awards:

Dr. Bennie F. Walker Endowment Recipient	August 2016
American Chemical Society Scholars Award	August 2015
Hammer Family Scholarship Award	August 2015
Frederick Carl Memorial Scholarship Award	August 2015
Veteran's Honor Society	April 2015
USC Aiken Chemistry Ambassador	April 2015 – May 2016
USC Aiken Research Day Award	April 2015
USC Aiken Research Day Award	April 2014
Magellan Scholars Award	December 2013
Dean's List	December 2012 – May 2016