

Gerard Rowe

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Appointments	Chair, Department of Chemistry and Physics University of South Carolina Aiken	2049-Present		
	Professor University of South Carolina Aiken	2022-Present		
	Associate Professor University of South Carolina Aiken	2016-2022		
	Assistant Professor University of South Carolina Aiken	2010-2016		
Education	Postdoctoral Fellowship, Brandeis University	2008-2010		
	Ph.D., Chemistry, Boston University, Concentrations: Inorganic and Bioinorganic Chemistry Dissertation: Kinetic and Mechanistic Studies of a the Reactions of a Binuclear Non-Heme Iron Monooxygenase Model Compound With Oxygen-Atom Donors and Peroxides Honors: Dean’s Fellowship	2008		
	B.S., Chemistry, SUNY Stony Brook, Honors: Graduated Summa Cum Laude, Awarded IBEW Scholarship	2002		
Research Interests	Synthetic Inorganic Chemistry Bioinorganic Model Chemistry	Computational Modeling Kinetics and Catalysis		
Courses Taught	General Chemistry I/II Introductory Inorganic Chemistry and Lab Advanced Inorganic Chemistry and Lab Organic Chemistry and Lab			
Organizations	American Chemical Society	2007-present		
	Younger Chemists’ Committee	2002-2015		
Presentations and Seminars	SC IDEA Network Meeting,	2023	ACS Meeting, San Diego,	2022
	Augusta University, STEMinar,	2015	ACS Meeting, Denver,	2015
	USC, Physical Chemistry Seminar,	2012	ACS Meeting, New Orleans,	2013
	C. of C., Chemistry Seminar,	2011		
Peer-Reviewed Publications	Mugenzi, C.; Powell, D. R.; Gerasimchuk N. N.; Rowe, G. T.; Yang, L. “Synthesis ad characterization of Cu(II) complexes supported by a pyridylamide ligand” <i>Journal of Molecular Structure</i> , 2024 , 1312, 138536.			
	Villamizar-Mendoza, S.; Reel, J.; Kimberlin, A.; Taylor, J.; Howe, M.; Rowe, G. T.; Fetterolf, M. “Changing absorption intensity ratios of methylene violet Bernthsen in			

normal alcohols and at different temperatures.” *Chemical Physics Letters*, **2024**, *841*, 141167.

Day, G.; Rowe, G. T.; Ybanez, C.; Ozdemir, R.; Ornstein, J. “Evaluation of Iron-Based Metal-Organic Framework Activation Temperatures in Acetylene Adsorption. *Inorganic Chemistry*, **2022**, *61*, 9242-9250.

Roberts, K. M.; Connor, G. C.; Cave, H.; Rowe, G. T.; Page, C. A. “The metal- and substrate-dependences of 2,4’-dihydroxyacetophenone dioxygenase” *Archives of Biochemistry and Biophysics*, **2020**, *691*, 108441.

Schneider, J. D.; Smith, B. A.; Williams, G. A.; Powell, D. R.; Perez, F.; Rowe, G. T.; Yang, L. “Synthesis and Characterization of Cu(II) and Mixed-Valence Cu(I)Cu(II) Clusters Supported by Pyridylamide Ligands” *Inorganic Chemistry*, **2020**, *59*, 5433-5446.

Marshall, N.; James, W.; Fulmer, J.; Crittenden, S.; Thompson, A. B.; Ward, P. A.; Rowe, G. T. “Polythiophene Doping of the Cu-Based Metal-Organic Framework (MOF) HKUST-1 Using Innate MOF-Initiated Oxidative Polymerization” *Inorganic Chemistry*, **2019**, *58*, 5561-5575.

McMoran, E. P.; Powell, D. R.; Perez, F.; Rowe, G. T.; Yang, L. “Synthesis and Characterization of Copper Complexes with Cu^ICu^I, Cu^{I.5}Cu^{1.5}, and Cu^{II}Cu^{II} Core Structures Supported by a Flexible Dipyridylamide Ligand” *Inorganic Chemistry*, **2016**, *55*, 11462-11472.

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*, **2016**, *446*, 150-160.

Choony, N.; Rowe, G. T.; Choony, C. D.; Earhart, L. S.; Fulmer, J. M.; Johnson, D.; Loveless, T. M. “The Use and Thermodynamic Origin of the Trityl Buttress Effect in Intramolecular Diels-Alder Cycloaddition Reactions.” *Current Organic Synthesis*, **2016**, *13*(4), 617-622.

Pauly, M. A.; Erwin, E. M.; Powell, D. R.; Rowe, G. T.; Yang, L. “A Synthetic, Spectroscopic and Computational Study of Divalent Metal Complexes Supported by Pyridylamide Ligands” *Polyhedron*. **2015**, *102*, 722-734.

Gregor, L. C.; Rowe, G. T.; Rybak-Akimova, E.; Caradonna, J. P. “Mechanistic investigation of cyclohexane oxidation by a non-heme iron complex: evidence of product inhibition by UV/vis stopped-flow studies.” *Dalton Transactions*. **2012**, *41*(3), 777-782.

Thomas, C. M.; Napoline, J. W.; Rowe, G. T.; Foxman, B. M. “Oxidative Addition Across Zr/Co Multiple Bonds in Early/Late Heterobimetallic Complexes.” *Chemical Communications*. **2010**, *46*, 5790-5792.

Greenwood, B. P.; Rowe, G. T.; Chen, C.-H.; Foxman, B. M.; Thomas, C. M. “Metal-Metal Multiple Bonds in Early/Late Heterobimetallics Support Unusual Trigonal Monopyramidal Geometries at both Zr and Co.” *Journal of the American Chemical Society*. **2010**, *132*(1), 44-45.

Greenwood, B. P.; Forman, S. I.; Rowe, G. T.; Chen, C.-H.; Foxman, B. M.; Thomas, C. M. “Multielectron Redox Activity Facilitated by Metal-Metal Interactions in Early/Late

Heterbimetallics: Co/Zr Complexes Supported by Phosphinoamide Ligands.” *Inorganic Chemistry*. **2009**, 48(13), 6251-6260.

Rowe, G. T.; Rybak-Akimova, E. V.; Caradonna, J. P. “Heterolytic Cleavage of Peroxide by a Diferrous Compound Generates Metal-Based Intermediates Identical to Those Observed with Reactions Utilizing Oxygen Atom Donor Molecules.” *Chemistry – A European Journal*. **2008**, 14(27), 8308-8311.

Rowe, G. T.; Rybak-Akimova, E. V.; Caradonna, J. P. “Unraveling the Reactive Species of a Functional Non-Heme Iron Monooxygenase Model Using Stopped-Flow UV-Vis Spectroscopy.” *Inorganic Chemistry*. **2007**, 46(25), 10594-10606.