David M. Eichhorn

**ADDRESS**

Office of the Dean, Fairmount College of Liberal Arts and Sciences Wichita State University

1845 Fairmount

Wichita, KS 67260-0005

Phone: (316) 978-7367

email: david.eichhorn@wichita.edu

**EDUCATION**

Ph.D., Chemistry, University of California, Berkeley, CA, 1992 Advisor: Prof. William H. Armstrong

Dissertation Title: "Iron and Manganese Complexes of Possible Biological Relevance" A.B., Magna cum Laude, Chemistry, Harvard University, Cambridge, MA, 1986

**PROFESSIONAL EXPERIENCE**

7/24 – present Interim Dean, College of Liberal Arts and Sciences, Wichita State Univ. 1/19 – 6/24 Associate Dean, College of Liberal Arts and Sciences, Wichita State Univ. 8/09 to present Professor, Department of Chemistry, Wichita State University, Wichita, KS 6/08 to 12/18 Chair, Department of Chemistry, Wichita State University, Wichita, KS

7/05 to 6/08 Associate Dean, Graduate School, Wichita State University, Wichita, KS

8/02 to 7/09 Associate Professor, Department of Chemistry, Wichita State University, Wichita, KS 8/96 to 8/02 Assistant Professor, Department of Chemistry, Wichita State University, Wichita, KS 2/92 to 8/96 Post-doctoral Fellow, Northwestern University, Evanston, IL

Advisor: Prof. Brian M. Hoffman

**PROFESSIONAL AFFILIATIONS**

American Chemical Society – member

Council of Colleges of Arts and Sciences - member

**HONORS AND AWARDS**

Professor Incentive Review, 2019 John Harvard Scholarship, 1986

Harvard College Scholarship, 1983, 1984, 1985 National Merit Scholarship, 1982

**RESEARCH INTERESTS**

Active Site Models of Metalloenzymes

Molecule-Based Electronic and Magnetic Materials

Novel Polypyrazolylborate Ligands and Metal Complexes Metal Complexes with Mixed Nitrogen/Sulfur Ligation

**UNIVERSITY COMMITTEE MEMBERSHIP**

|  |  |
| --- | --- |
| Classroom/space Utilization Committee | 2021 - 2023 |
| HPC Advisory Board | 2020 - present |
| Accessibility Committee | 2018 - 2023 |
| Research Faculty Task Force (chair) | 2009 – 2012 |
| Radiation and Chemical Hygiene Committee | 2006 - 2018 |
| Graduate School Awards Committee | 2005 – 2008 |
| Graduate Council | 2005 - 2008 |
| Doctoral Subcouncil | 2005 – 2008 |
| University Research Council | 2008 - present |
| Bioengineering Steering Committee | 2008 -2014 |
| GRASP Symposium Editorial Board (chair 2005-2008) | 2004 – 2008 |
| Faculty Senate | 2002 - 2004 |

**FAIRMOUNT COLLEGE COMMITTEE MEMBERSHIP**

College Curriculum Committee 2002 – 2005

LAS Chairs and Directors Committee 2008 - 2018

Forensic Science Steering Committee 2008 - 2018

Watkins Committee 2008 - 2018

LAS Strategic Planning Committee 2013 -2014

Faculty Support and Fellowship Awards Committee (chair 2016-2017) 2014 - 2017

**SELECTED PUBLICATIONS (of 64 total publications since 1990)**

# Eichhorn as principal investigator:

Kromer, J.R.; Oberley, A.J.; Kadel, L.R.; Vonarx, D.; McNeil, J.; Haskin, J.; Steinert, R.M.; Mitchell-Koch, K.R.; Moore, C.E.; Eichhorn, D.M.; “Synthesis and X-ray crystal structures of mononuclear and multinuclear metal complexes of 3-substituted 4-cyanopyrazole ligands”; *Polyhedron* **2023**, *243*, 116546.

Salerno, E.V.; Kadel, L.R.; Eichhorn, D.M.; “Ethanol(nitrato)[tris(4-cyano-3-phenyl-1H-pyrazol-1- yl)hydroboratonickel(II)”; *IUCrData* **2021**, *6*, x210690.

Freige, M.J.; Senaratne, N.K.; Eichhorn, D.M.; “(2-{[2-(Dimethylamino)ethyl]iminomethyl}- benzenethiolato-κ3N,N’,S )(4-methoxybenzenethiolato-κS)nickel(II)” ; *IUCrData* **2018**, *3*, x181167.

Oberley, A.J.; Kadel, L.R.; Senaratne, N.K.; Eichhorn, D.M.; “Tetraethylammonium (acetonitrile)trichloridopalladate(II)”; *IUCrData* **2018**, *3*, x180750.

Senaratne, N.K.; Mwania, T.M.; Moore, C.E.; Eichhorn, D.M.; “Ni complexes of N2S ligands with amine/imine and amine/amide donors with relevance to the active site of Ni Superoxide Dismutase”; *Inorg. Chim. Acta* **2018**, *476*, 27-37.

Meloccaro, A.; Zimmerman, J.R.; Eichhorn, D.M.; “Bis{2-[({[3-(dimethylazaniumyl)propyl]- imino}methyl)phenyl]sulfanido}nickel(II) tetraphenylborate”; *IUCrData* **2017**, *2*, x171067.

Kadel, L.R.; Kromer, J.R.; Moore, C.E.; Eichhorn, D.M.; “New trisubstituted cyanopyrazoles and cyanoscorpionates”; *Polyhedron* **2017**,*125*, 206-218.

Kadel, L.R.; Bullinger, J.C.; Baum, Robert R.; Moore, C.E.; Tierney, D.L.; Eichhorn, D.M.; “Cyanoscorpionate Ligands: Agostic Interactions in a Series of Metal Complexes Containing the Tris(4-cyano-3-phenylpyrazolyl)borate and Bis(4-cyano-3-phenylpyrazolyl)borate Ligands”; *Eur. J. Inorg. Chem.* **2016** 2543-2551.

Sullivan, M.T.; Senaratne, N.R.; Eichhorn, D.M.; “Synthesis and X-ray Crystallographic Characterization of [In(tsalen)(OAc)] (tsalen = N,N'-Ethylenebis(thiosalicylideneimine))”; *Polyhedron* **2016**, *114*, 152-155

Panja, A.; Eichhorn, D.M.; “A linear S-bridged trinuclear cobalt(III) complex with 2-amino- benzenethiol: synthesis, crystal structure, and spectroscopic characterization”; *J. Coord. Chem.* **2013,** *66***,** 3037-3044.

Panja, A.; Eichhorn, D.M.; “Mono- and di-nuclear nickel(II) complexes with mixed N/S-donor ligands: Syntheses, structures and physical properties”; *Inorg. Chim. Acta* **2012**, *391, 88-92.*

Zimmerman, J.R.; Smucker, B.W.; Dain, R.P.; VanStipdonk, M.J.; Eichhorn, D.M.; “Tridentate N2S ligand from 2,2’-dithiodibenzaldehyde and N,N-dimethylethylenediamine: Synthesis, structure, and characterization of a Ni(II) complex with relevance to Ni Superoxide Dismutase”; *Inorg.*

*Chim. Acta* **2011**,*373* 54-61.

Bullinger, J.C.; Eichhorn, D.M.; “Cyanoscorpionates: Co(II), Mn(II), and Ni(II) Complexes Coordinated Only Through the Cyano Group”; *Inorg. Chim. Acta*, **2009**, *362*, 4510-4516.

Panja, A.; Eichhorn, D.M.; “Synthesis and Characterization of Tetrahedrally and Octahedrally Coordinated Mixed Valence Cobalt(II,III) Complex with Thiosemicarbazone Based Ligand”; *J. Coord. Chem.* **2009**, *62*, 2600-2609.

Panja, A.; Campana, C.; Leavitt, C.; Van Stipdonk, M.J.; Eichhorn, D.M. “Iron and Cobalt Complexes of 2,6-Diacetylpyridine-bis(R-thiosemicarbazone) (R=H, phenyl) Showing Unprecedented Ligand Deviation from Planarity”; *Inorg. Chim. Acta* **2009**, *362*, 1348-1354.

Zhao, N.; Bullinger, J.C.; Van Stipdonk, M.J.; Stern, C.L.; Eichhorn, D.M.; “Cyanoscorpionates – Synthesis and Crystallographic Characterization of 1-D Cu(I) Coordination Polymers”; *Inorg. Chem.* **2008**, *47*, 5945-5950.

# Eichhorn as supervisor of X-ray crystallographic analysis:

Panja, A; Jana, N.C.; Bauzá, A; Adak, S.; Eichhorn, D.M.; Frontera, A.; “Introducing supramolecular interactions into robust bis(tetrabromocatecholate) chelated manganese(III) systems and biomimetic catalytic activity”; *Chem. Select*, **2017**, *2*, 2094-2105.

Panja, A.; Jana, N.C.; Patra, M.; Brandão, P.; Moore, C.E.; Eichhorn, D.M.; Frontera, A; “Valence tautomerism induced nucleophilic ipso substitution in a coordinated tetrabromocatecholate ligand and diverse catalytic activity mimicking the function of phenoxazinone synthase”; *J. Mol. Cat. A* **2016**, *412*, 56-66.

Dou, D.; He, G.; Lai, Z.; Wei, L.; Alliston, K.R.; Lushington, G.H.; Eichhorn, D.M.; Groutas, W.C.; “Utilization of the 1,2,3,5-thiatriazolidin-3-one 1,1-Dioxide Scaffold in the Design of Potential Inhibitors of Human Leukocyte Proteinase 3; *Bioorg. Med. Chem.* **2010**, *18*, 1093-1102.

Dou***,*** D.; Talaty, E.R.; Moore, C.; Bullinger, J.; Eichhorn, D.M.; Groutas, W.C.; “Formation of an Unusual Dimeric Product in the Reaction of a 1,2,5 –Thiadiazolidine 1,1 Dioxide-Derived Thioether with Sulfuryl Chloride”; *J. Heterocyclic Chem.* **2009**, *46***,** 669 – 673.

Burns, D.H.; Meece, F.A.; Moore, C.E.; Eichhorn, D.M. “Two similar dibenzo cyclic ethers with dissimilar conformations”; *Acta Crystallogr.* **2009,** *C65*, o27-o30.

Lai, H.; Dou, D.; Aravapalli, S.; Teramoto, T.; Lushington, G.H.; Mwania, T.M.; Alliston, K.R.; Eichhorn, D.M.; Padmanabhan, R.; Groutas, W.C.; “Design, Synthesis and Characterization of

Novel 1,2-Benzisothiazol-3(2H)-one and 1,3,4-Oxadiazole Hybrid Derivatives: Potent Inhibitors of Dengue and West Nile Virus NS2B/NS3 Proteases” *Bioorganic & Medicinal Chemistry* **2013**, *21*, 102-113.

Johnson, D.M.; Eichhorn, D.M.; Moore, C.E.; Mwania, T.M.; Zhao, N.; Cyano-substituted bispyrazolylborates thallium(I) complexes”; *J. Chem. Crystallog.* **2012**, *42*, 746-751.

**GRADUATE STUDENTS/POSTDOCS MENTORED (with current positions)**

Alan Oberley (Ph.D. 2023) – Associate Professor, Newman University, Wichita, KS

John Kromer (Ph.D. 2022) – Senior Education Accessibility Specialist, WSU, Wichita, KS Nilmini Senaratne (Ph.D. 2017) – Assistant Professor, Seminole State College, Seminole, OK Lava Kadel (Ph.D. 2016) – Assistant Professor, Natural Park College, Hot Springs, AR

Tom Mwania (M.S. 2012) – Chemist, Sora Labs, Forsyth, MO

John Bullinger (M.S. 2009) – Physics Teacher, Wichita Collegiate School, Wichita, KS Joshua Zimmerman (Ph.D. 2009) – Research Chemist, American Assay Labs, Sparks, NV

Curtis Moore (Ph.D. 2007) – Director, X-ray Crystallography Facility, Department of Chemistry, Ohio State University, Columbus, OH

Colin Thomas (postdoc 2006-2007) – Instructor, Columbia College, Sonora, CA

Anangamohan Panja (postdoc 2004 - 2006) – Reader in Chemistry, Panskura Banamali College, Panskura RS, India

Ningfeng Zhao (Ph.D. 2005) – Assistant Professor, Jacksonville University, Jacksonville, FL Bradley Smucker (postdoc 2002 - 2004) – Professor and Chair, Austin University, Sherman, TX

Christopher Siemer (M.S. 2000) Senior Materials and Process Engineer, United Technologies Landing Systems, Independence, OH

Niranjan Goswami (postdoc 1996 - 2000) – Professor, Kaskaskia College, Centralia, IL

**FUNDED RESEARCH GRANTS AND CONTRACTS**

“NSF ADVANCE: REACH for Excellence: WSU's ADVANCE Adaptation Initiative for Equity in STEM Faculty” (co-PI w/ Jan Twomey), National Science Foundation, 6/2024 - $1,000,000

“NSF ADVANCE Catalyst: A Catalyst to Increase the Representation and Advancement of Women and Underrepresented Minorities in Academic STEM Careers at Wichita State University” (co-PI w/ Jan Twomey), National Science Foundation, 8/2019 - $299,734

“Development and Characterization of Emulsified Fuel-Water Mixtures for Improved Fuel Efficiency and Lower Carbon Footprint in Internal Combustion Engines” (co-PI w/ M. Rahman and R. Asmatulu,

WSU Mechanical Engineering), 4/2017, Fuel Technologies - $392,000

“Model Complexes for Nickel Superoxide Dismutase – an Enzyme Important in Preventing Common Diseases of Aging”, NIH Regional Institute on Aging, 3/2011 –$16,000

“Purchase of a Single Crystal X-ray Diffractometer”, NSF – EPSCoR, 4/2005 - $285,645 “Synthesis of Model Complexes for Nitrile Hydratase”, NIH/NCRR, 10/2003 - $188,730

“Purchase of Low-temperature Apparatus for X-ray Diffractometer, Kansas Biomedical Research Infrastructure Network”, 10/2002 - $25,000

“Metal Thiolate Complexes: Toward Active Site Models of Thiolate-Coordinated Metalloenzymes”,

American Chemical Society, 7/1999 - $25,000

“Super- and Near-Critical Water Oxidation of Waste Including Ionic Enhancement of Oxidation Rates” (Co-PI w/ David Koert, Mechanical Engineering), US EPA, 3/1997 - $154,071