

## VITA

### Craig Calvert McLauchlan

Department of Chemistry  
Illinois State University  
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#### EDUCATION

Ph.D. in Inorganic Chemistry (2000), Northwestern University, Evanston, IL, USA  
Thesis Title: "Soluble Metal Chalcogenates and Maleonitriledichalcogenates"  
Advisor: Professor James A. Ibers

M.S. (1997), Northwestern University, Evanston, IL, USA

A.B. (1996), Harvard University, Cambridge, MA, USA  
*Magna cum Laude* in Chemistry

#### EXPERIENCE

Department Chair (July 2016-present), Department of Chemistry, Illinois State University, Normal, IL, USA

Professor (August 2013-present), Department of Chemistry, Illinois State University, Normal, IL, USA

Interim Department Chair (July 2013-June 2016), Department of Chemistry, Illinois State University, Normal, IL, USA

Associate Professor (2008-2013), Department of Chemistry, Illinois State University, Normal, IL, USA

Visiting Scholar (Mar 2009), Department of Chemistry and Biochemistry, University of Delaware, Newark, DE, USA

Assistant Professor (2002-2008), Department of Chemistry, Illinois State University, Normal, IL, USA

Postdoctoral Research Fellow (2000-2002), Harvard University, Cambridge, MA, USA (2001-2002 as an N.I.H. Postdoctoral Fellow)  
Sponsor: Professor Richard H. Holm

Graduate Research Assistant (1996-2000), Northwestern University, Evanston, IL, USA

#### RESEARCH INTERESTS

Inorganic and organometallic syntheses, bio-mimetic model complexes, coordination chemistry, chemical education, X-ray crystallography, enzyme inhibition, student-response devices/clickers, chalcogenides, NMR spectroscopy, and air-sensitive manipulations

## AWARDS AND HONORS

- National Science Foundation Faculty Early Career Development (CAREER) Award 2007-2012
- Illinois State University 2011-2012 Outstanding University Teacher Award Winner (Category I)
- 2010 ISU College of Arts and Sciences Outstanding Teacher Award (STEM)
- 2007 ISU College of Arts and Sciences Dean's Award for Outstanding Teaching
- Illinois State University 2006-2007 University Research Initiative Award Winner
- Illinois State University Nominee for Sloan Fellowship Research Award, 2006, 2007
- Illinois State University 2005-2006 University Teaching Initiative Award Winner
- Illinois State University Nominee for Beckman Young Investigator Award, 2005
- National Institutes of Health, National Research Service Award Postdoctoral Fellowship, 2001-2002
- Northwestern University Scholar, 1999-2000
- Pew Charitable Trusts Preparing Future Faculty Fellow, 1998-99
- Searle Center for Teaching Excellence Teaching Assistant Fellow, 1998-99
- L. Carroll King Award for Excellence in A-Level Teaching, 1998
- Member, Phi Lambda Upsilon, National Honorary Chemical Society, elected 1998
- National Science Foundation Graduate Student Research Fellowship Honorable Mention, 1997
- Harvard College Scholarship 1992-1996
- Eagle Scout Award, June 1991

## TEACHING EXPERIENCE

Professor (08/13-present), Illinois State University, Normal, IL

Associate Professor (08/08-08/13), Illinois State University, Normal, IL

Assistant Professor (08/02-08/08), Illinois State University, Normal, IL

Lecturer and lab instructor for courses in inorganic chemistry, general chemistry and graduate level seminar course. Direct a research laboratory of undergraduate, graduate and summer-research students.

Courses taught:

Chemistry 140: General Chemistry I

Chemistry 140.0X: General Chemistry I laboratory and discussion

Chemistry 141: General Chemistry II

Chemistry 141: General Chemistry II laboratory

Chemistry 250: Descriptive Inorganic Chemistry

Chemistry 250: Fundamentals of Inorganic Chemistry

Chemistry 251: Fundamentals of Inorganic Chemistry laboratory

Chemistry 350: Inorganic Chemistry

Chemistry 351: Inorganic Chemistry laboratory

Chemistry 440.13: Inorganic Biochemistry

Chemistry 454.06: Solid-State and Materials Chemistry

Chemistry 492: Literature Seminar in Chemistry

Chemistry 494: Research Seminar in Chemistry

Adjunct Teaching Fellow (9/00-06/02), Harvard University, Cambridge, MA

Conducted problem-based review sessions for introductory chemistry class and provided occasional guest lectures.

## TEACHING EXPERIENCE, cont.

Tutor in Chemistry (9/00-07/02), John Winthrop House, Harvard University, Cambridge, MA

Assisted chemistry concentrators in Winthrop House in course work and course selection.

Guest Lecturer (8/97-5/99), Northwestern University, Evanston, IL

Chemistry A22– Summer school inorganic chemistry, 1997

Chemistry D35– Graduate level class in X-ray crystallography, 1998, 1999

Preparing Future Faculty Fellow (8/98-6/99)

As part of a program sponsored by the Pew Charitable Trusts, observed duties and responsibilities of junior faculty at Lake Forest College under the mentorship of Prof. Jason A. Cody. Taught one week of class and prepared quiz and test material.

Teaching Assistant Fellow (6/98-6/99), Northwestern University, Evanston, IL

Designed and implemented a workshop program for first year chemistry teaching fellows to introduce them to fundamentals of teaching and particulars of NU's program.

Teaching Assistant (9/96-5/00), Northwestern University, Evanston, IL

Taught laboratory for advanced introductory chemistry class or X-ray crystallography class and offered office tutoring hours. Created and maintained a web page for X-ray crystallography class.

Teaching Fellow (9/95-5/96), Harvard University, Cambridge, Massachusetts

Supplemented lectures, provided problem solving sessions, and taught laboratory for an introductory chemistry class and an advanced inorganic chemistry class.

Tutor (9/93-5/00)

Cambridge Rindge and Latin School, Cambridge, MA, (1993-1996), monthly tutor in math and science.

Northwestern University, Evanston, IL (1996-2000), individual tutor for general chemistry.

## PROFESSIONAL ASSOCIATIONS

Member, American Chemical Society

Member, American Crystallographic Association

Member, Council on Undergraduate Research

Member, Illinois Association of Chemistry Teachers

Member, National Science Teachers Association

Member, Phi Lambda Upsilon, the Chemical Honorary Society

Member, Sigma Xi, The Scientific Research Society

## PEER-REVIEWED PUBLICATIONS

*Illinois State University undergraduate students underlined, graduate students indicated by an asterisk*

44. McLauchlan, C. C.; Murakami, H.; \*Wallace, C. A.; Crans, D.C. "Coordination Environment Changes of the Vanadium in Vanadium-Dependent Haloperoxidase Enzymes," *J. Inorg. Biochem.* **2018**, *186*, 267-279.
43. \*Dorsey, B. M.; McLauchlan, C. C.; Jones, M.A. "Evidence that Speciation of Oxovanadium Complexes does not Solely Account for Inhibition of Leishmania Acid Phosphatases," *Front. Chem.* **2018**, *6*, Article 109. 11 pages.
42. \*Tirado, J.N.; \*Ren, Y.X.; \*Knott, S.A.; \*Chin, C.P.; McLauchlan, C. C.; Szczepura, L.F. "Small Molecule Activation of Nitriles Coordinated to the  $[\text{Re}_6\text{Se}_8]^{2+}$  Core: Formation of Carboxamide, Oxazine and Oxazoline Complexes," *Dalton Trans.* **2018**, *47*, 4653-4660.
41. Crans, D.C.; Peters, B. J. ; \*Wu, X.; McLauchlan, C. C. "Do Anion-Cation Organization in  $\text{Na}^+$ -containing X-ray Crystal Structures Relate to Solution Interactions in Inhomogeneous Nanoscale Environments: Sodium-Decavanadate in Solid State Materials, Minerals and Microemulsions," *Coord. Chem. Rev.* **2017**, *344*, 115-130.
40. McLauchlan, C. C.; Florián, J.; Kissel, D. S.; Herlinger, A. W. "Metal Ion Complexes of *N,N'*-Bis(2-Pyridylmethyl)-*trans*-1,2-Di-aminocyclohexane-*N,N'*-Diacetic Acid,  $\text{H}_2\text{bpcd}$ : Lanthanide(III)-  $\text{bpcd}^{2-}$  Cationic Complexes," *Inorg. Chem.* **2017**, *56*, 3556-3567.
39. \*Christensen, A. T.; McLauchlan, C. C.; Dolbecq, A.; Mialane, P.; Jones, M. A. "Studies of the Effectiveness of Bisphosphonate and Vanadium-Bisphosphonate Compounds *In Vitro* Against Axenic *Leishmania tarentolae*," *Oxid. Med. Cell. Longev.* **2016**, *2016*, Article ID 9025627, 12 pages. doi:10.1155/2016/9025627 12 pages.
38. Kissel, D. S.; Florián, J.; McLauchlan, C. C.; Herlinger, A. W. "Metal Ion Complexes of *N,N'*-Bis(2-Pyridylmethyl)-1,3-Diaminopropane-*N,N'*-Diacetic Acid,  $\text{H}_2\text{bppd}$ ," *Inorg. Chem.* **2015**, *53*, 3404-3416.
37. Baumhardt, J. M.; Dorsey, B. M.; McLauchlan, C. C.; Jones, M.A. "An Additional Method for Analyzing the Reversible Inhibition of an Enzyme Using Acid Phosphatase as a Model," *Curr. Enzym. Inhib.* **2015**, *11*, 140-146.
36. McLauchlan, C. C.; Peters, B. J.; Willsky, G. R.; Crans, D. C. "Vanadium-Protein Complexes: Phosphatase Inhibitors Favor the Trigonal Bipyramidal Transition State Geometries," *Coord. Chem. Rev.* **2015**, *301-302*, 163-199.
35. Sanchez-Lombardo, I.; Alvarez, S.; McLauchlan, C. C.; Crans, D. C. "Trigonal Bipyramidal or Square Pyramidal Coordination Geometry? Evaluating Transition State Structures of vanadium-phosphatase protein complexes using shape analysis," *J. Inorg. Biochem.* **2015**, *147*, 153-164.
34. McLauchlan, C. C.; Kissel, D. S.; Herlinger, A. W. "{2,2'-[*N,N'*-Bis(pyridin-2-ylmethyl) cyclohexane-*trans*-1,2-diyl-di(nitrilo)]diacetato} cobalt(III) hexafluoridophosphate," *Acta Crystallogr., Sect. E.* **2015**, *71*, 380-384.
33. Crans, D. C.; \*Tarlton, M. L.; McLauchlan, C. C. "Trigonal Bipyramidal or Square Pyramidal Coordination Geometry? Investigating the Most Potent Geometry for Vanadium Phosphatase Inhibitors," *Eur. J. Inorg. Chem.* **2014**, 4450-4468.
32. \*Tarlton, M. L.; \*Anderson, A. E.; \*Weberski, Jr., M. P.; Riart-Ferrer, X.; Nelson, B. M.; McLauchlan, C. C. "Synthesis, Characterization, and Electrochemical Properties of  $\mu$ -Oxalate Bridged Vanadium(IV) Dimers Incorporating the Kläui Ligand,  $\text{CpP}^{\text{OR}}\text{Co}$  (R=Me,Et)," *Inorg. Chim Acta.* **2014**, *420*, 159-165.
31. Kissel, D. S.; Florián, J.; McLauchlan, C. C.; Herlinger, A. W. "Metal Ion Complexes of *N,N'*-Bis(2-Pyridylmethyl)-1,3-Diaminopropane-*N,N'*-Diacetic Acid,  $\text{H}_2\text{bppd}$ ," *Inorg. Chem.* **2014**, *53*, 3404-3416.

## PEER-REVIEWED PUBLICATIONS, Cont.

30. Mendez, R. S.; Dorsey, B. M.; McLauchlan, C. C.; Beio, M.; Turner, T. L.; \*Nguyen, V. H.; Su, A.; Beynon, W.; Friesen, J. A.; Jones, M.A. "Vanadium Complexes Are *in vitro* Inhibitors of Leishmania Secreted Acid Phosphatases," *International J. Chem.* **2014**, *6*, 35-49.
29. McLauchlan, C. C.; Kissel, D. S.; Arnold, W. R.; Herlinger, A. W. "{2,2-[N,N-Bis(pyridin-2-ylmethyl)propane-1,3-diyl]di(nitrilo)diacetato}cobalt(III) hexafluoridophosphate acetonitrile 0.064-solvate," *Acta Crystallogr., Sect. E.: Struct. Rep. Online.* **2013**, *69*, m296-m297.
28. \*Anderson, A. E.; \*Weberski, M. P., Jr.; McLauchlan, C. C. "Phosph(on/in)ate-Bridged Vanadium(IV) Dimers: Synthesis and Characterization," *Inorg. Chem.* **2012**, *51*, 8719-8728.
27. Riart-Ferrer, X.; \*Anderson, A. E.; Nelson, B. M.; Hao, F.; McLauchlan, C. C. "Organo-Phosph(on/in)ate-Bridged Dimers of Vanadium(IV) Complexes with the Kläui Ligand: Synthesis and Characterization," *Eur. J. Inorg. Chem.* **2012**, 4585-4592.
26. Turner, T. L.; \*Nguyen, V. H.; McLauchlan, C. C.; Dymon, Z.; Dorsey, B. M.; \*Hooker, J. D.; Jones, M.A. "Inhibitory Effects of Decavanadate on Several Enzymes and *Leishmania tarentolae* *In Vitro*," *J. Inorg. Biochem.* **2012**, *108*, 96-104.
25. McLauchlan, C. C., Smith, B. L.; Pippins, R. S.; Nelson, B. M. "2,2,2-Tris(pyrazol-1-yl)ethanol," *Acta Crystallogr., Sect. E.: Struct. Rep. Online.* **2011**, *67*, o1133-1134.
24. McLauchlan, C. C.; \*Hooker, J. D.; Jones, M.A.; Dymon, Z.; Backhus, E.A.; \*Greiner, B. A. \*Dorner, N. A.; Youkhana, M. A.; Manus, L. M. "Inhibition of acid, alkaline, and tyrosine (PTP1B) phosphatases by novel vanadium complexes," *J. Inorg. Biochem.* **2010**, *104*, 274-281.
23. McLauchlan, C. C.; \*Weberski, M.P., Jr.; \*Greiner, B. A. "Synthesis, Catalytic Activity, Phosphatase Inhibition Activity, and X-ray Structural Characterization of a Vanadium Scorpionate Complexes, (Tpms)VCl<sub>2</sub>(DMF) and (Tpms)VOCl(DMF)," *Inorg. Chim. Acta.* **2009**, *362*, 2662-2666.
22. McLauchlan, C. C.; \*Anderson, Alex E. "Bis[η<sup>5</sup>-cyclopentadienyltris(diethylphosphito- κ<sup>3</sup>-P,P',P'') cobaltate(III)-κ<sup>3</sup>-O,O',O'']oxovanadium(IV)-μ-oxalate," *Acta Crystallogr., Sect. E.: Struct. Rep. Online.* **2008**, *64*, m1129-m1130.
21. \*Weberski, M. P., Jr.; McLauchlan, C. C., "X-ray characterization of Hnacnac<sup>R</sup> and the first vanadium β-diiminate dimer (R = mesityl)," *J. Coord. Chem.* **2008**, *61(15)*, 2371-2379.
20. \*Weberski, M. P., Jr.; McLauchlan, C. C., "Synthesis, Reactivity, and X-ray Structural Characterization of a Vanadium(III) Oxidation Pre-Catalyst, (CpP<sup>OEt</sup>Co)VCl<sub>2</sub>(DMF)," *Inorg. Chem. Commun.* **2007**, *10*, 906-909.
19. \*Greiner, B. A.; Marshall, N. M.; Sarjeant, A. A. N.; McLauchlan, C. C., Synthesis and Characterization of a Series of [M(2-MeTIC)<sub>2</sub>]<sup>2+</sup> and [M(2-TIC)<sub>2</sub>]<sup>2+</sup> Complexes (M= Co, Ni). *Inorg. Chim. Acta* **2007**, *360*, 3132-3140.
18. \*Weberski, M.P., Jr.; McLauchlan, C. C. "Bis[η<sup>5</sup>-cyclopentadienyltris(diethylphosphito- κ<sup>3</sup>-P,P,P) cobaltate(III)-κ<sup>3</sup>-O,O,O]cobalt(II)" *Acta Crystallogr., Sect. E.: Struct. Rep. Online.* **2007**, *63*, m1171-m1172.
17. McLauchlan, C. C.; Ziegler, A. J.; Sosnowski, C. R.; Herlinger, A. W. "Bis[3-(trimethylsilyl)propyl] ethylenebisphosphonate." *Acta Crystallogr., Sect. C.: Cryst. Struct. Commun.* **2007**, *63*, o132-o134.

## PEER-REVIEWED PUBLICATIONS, Cont.

16. \*Greiner, B. A.; McLauchlan, C. C. "Use of Crayons as a Qualitative Descriptor of Color in Describing Chemical Complexes." *The Chemical Educator*. **2006**, *11*, 196-198.
15. McLauchlan, C. C.; McDonald, K. J. "Cocrystallization of dichloro-(N,N-dimethylformamide)[hydrotris(pyrazol-1-yl)borato]vanadium(III) with its partially oxidized analog chloro(N,N-dimethylformamide)[hydrotris(pyrazol-1-yl)borato]oxovanadium(IV)." *Acta Crystallographica, Section E: Structure Reports Online* **2006**, *62*, m588-m590.
14. Weberski, M. P., Jr.; McLauchlan, C. C.; Hamaker, C. G. "Synthesis and X-ray Structural Characterization of M(3,5-<sup>t</sup>Bu<sub>2</sub>-salophen) (M = Cu, V=O)." *Polyhedron* **2006**, *25*, 119-123.
13. McLauchlan, C. C.; McDonald, K. J. "Chloro[hydrotris(pyrazol-1-yl)borato]oxo(1H-pyrazole)vanadium(IV)." *Acta Crystallogr., Sect. E.: Struct. Rep. Online* **2005**, *61*, m2379-m2381.
12. McLauchlan, C. C.; Ziegler, A. J.; Herlinger, A. W. "Pentane-1,5-bisphosphonic Acid." *Acta Crystallogr., Sect. E.: Struct. Rep. Online* **2005**, *61*, o1359-o1361.
11. McLauchlan, C. C.; Stepinski, D. C.; Herlinger, A. W. "Bis[3-(trimethylsilyl)propyl] methylenebisphosphonate." *Acta Crystallogr., Sect. E.: Struct. Rep. Online* **2004**, *60*, o2232-o2234.
10. McLauchlan, C. C.; \*Varda, A. N.; Giles, J. R. "Tris(pyrazol-1-yl)methane, Tpm)." *Acta Crystallogr. Sect. E.: Struct. Rep. Online* **2004**, *60*, o1419-o1420.

## PEER-REVIEWED PUBLICATIONS FROM WORK PRIOR TO COMING TO ISU

9. Panda, R.; Zhang, Y.; McLauchlan, C. C.; Rao, P. V.; Tiago de Oliveira, T.; Münck, E.; Holm, R. H. "Initial Structure Modification of Tetrahedral to Planar Nickel(II) in a Nickel-Iron-Sulfur Cluster Related to the C-Cluster of Carbon Monoxide Dehydrogenase." *J. Am. Chem. Soc.* **2004**, *126*, 6448-6459.
8. Fomitchev, D. V.; McLauchlan, C. C.; Holm, R. H. "Heterometal Cubane-Type MF<sub>3</sub>S<sub>4</sub> Clusters (M = Mo, V) Trigonally Symmetrized with Hydrotris(pyrazolyl)borate(1-) and Tris(pyrazolyl)methanesulfonate(1-) Capping Ligands." *Inorg. Chem.* **2002**, *41*, 958-966.
7. McLauchlan, C. C.; Ibers, J. A. "Synthesis and Characterization of the New Silver Maleonitrilediselenolates and Silver Maleonitriledithiolates [K([2.2.2]-cryptand)]<sub>4</sub>[Ag<sub>4</sub>(Se<sub>2</sub>C<sub>2</sub>(CN)<sub>2</sub>)<sub>4</sub>], [Na([2.2.2]-cryptand)]<sub>4</sub>[Ag<sub>4</sub>(S<sub>2</sub>C<sub>2</sub>(CN)<sub>2</sub>)<sub>4</sub>]·0.33MeCN, [NBu<sub>4</sub>]<sub>4</sub>[Ag<sub>4</sub>(S<sub>2</sub>C<sub>2</sub>(CN)<sub>2</sub>)<sub>4</sub>], [K([2.2.2]-cryptand)]<sub>3</sub>[Ag(Se<sub>2</sub>C<sub>2</sub>(CN)<sub>2</sub>)<sub>2</sub>]·2MeCN, and [Na([2.2.2]-cryptand)]<sub>3</sub>[Ag(S<sub>2</sub>C<sub>2</sub>(CN)<sub>2</sub>)<sub>2</sub>]." *Inorg. Chem.* **2001**, *40*, 1809-1815.
6. McLauchlan, C. C.; Robowski, S. D.; Ibers, J. A. "Synthesis and Characterization of the Metal Maleonitrilediselenolates [K([2.2.2]-cryptand)]<sub>2</sub>[M(Se<sub>2</sub>C<sub>2</sub>(CN)<sub>2</sub>)<sub>2</sub>] (M = Ni, Pd, Pt) and [Ni(dmf)<sub>5</sub>Cl]<sub>2</sub>[Ni(Se<sub>2</sub>C<sub>2</sub>(CN)<sub>2</sub>)<sub>2</sub>]." *Inorg. Chem.* **2001**, *40*, 1372-1375.
5. Béreau, V.; Sekar, P.; McLauchlan, C. C.; Ibers, J. A. "Syntheses and characterization of imidodiphosphinoselenido complexes of V(IV), V(III), and Cr(III): [VO{N(SePPh<sub>2</sub>)<sub>2</sub>}]<sub>2</sub>·CH<sub>2</sub>Cl<sub>2</sub>, [V{N(SePPh<sub>2</sub>)<sub>2</sub>}]<sub>3</sub>·CH<sub>2</sub>Cl<sub>2</sub>, and [Cr{N(SePPh<sub>2</sub>)<sub>2</sub>}]<sub>3</sub>·CH<sub>2</sub>Cl<sub>2</sub>." *Inorg. Chim. Acta* **2000**, *308*, 91-96.
4. Mironov, Yu. V.; Fedorov, V. M.; McLauchlan, C. C.; Ibers, J. A. "Layered K<sub>4</sub>[Re<sub>6</sub>S<sub>10</sub>(CN)<sub>2</sub>] and Chain-Like K<sub>4</sub>[Re<sub>6</sub>Se<sub>10</sub>(CN)<sub>4</sub>]: New Chalcocyanide Clusters Bridged by Cyanide Ligands." *Inorg. Chem.* **2000**, *39*, 1809-1811.

## PEER-REVIEWED PUBLICATIONS FROM WORK PRIOR TO COMING TO ISU, Cont.

3. McLauchlan, C. C.; Ibers, J. A. "Facile Syntheses and Structures of New Metal-maleonitrilediselenolates:  $[K([2.2.2]\text{-cryptand})]_3[\text{Ag}\{\text{Se}_2\text{C}_2(\text{CN})_2\}(\text{Se}_6)]$ ,  $[K([2.2.2]\text{-cryptand})]_2[\text{Ni}\{\text{Se}_2\text{C}_2(\text{CN})_2\}_2]$ , and  $\text{Ni}(\text{dppp})\{\text{Se}_2\text{C}_2(\text{CN})_2\}$ ." *Inorg. Chem.* **2000**, *39*, 1046-1048.
2. McLauchlan, C. C.; Ibers, J. A. "[ $\text{PPh}_4$ ] $_2$ [ $\text{Pd}(\text{Se}_2\text{C}_2(\text{COOCH}_3)_2)_2$ ]." *Acta Crystallogr., Sect. C*, **1999**, *55*, 30-32.
1. Willer, M. W.; Long, J. R.; McLauchlan, C. C.; Holm, R. H. "Ligand Substitution Reactions of  $[\text{Re}_6\text{S}_8\text{Br}_6]^{4-}$ : A Basis Set of  $\text{Re}_6\text{S}_8$  Clusters for Building Multicluster Assemblies." *Inorg. Chem.* **1998**, *37*, 328-333.

## NON-PEER-REVIEWED PUBLICATIONS

4. McLauchlan, C. C.; Crans, D. C. "Vanadium in inorganic chemistry: excerpts from the 8<sup>th</sup> International Vanadium Symposium." *Dalton Trans.* **2013**, 11744-11748. Selected as Cover Article.
3. McLauchlan, C. C. "It Takes Two to Tango: Cliché-Riddled Strategies to Get Student to "Buy In" to Student Response Device (aka Clicker) Use." Proceedings from the Inaugural Conference on Classroom Response Systems: Innovations and Best Practices, 11/2008 ,Louisville, KY, November, 2008.  
<http://www.iclicker.com/uploadedFiles/McLauchlan2008final.pdf> (accessed July 24, 2012).
2. *Illinois State University Chemistry 140 Manual*. 3<sup>rd</sup> Ed. G. M. Ferrence and C. C. McLauchlan. Champaign, IL: Stipes Publishing L.L.C., 2005.
1. *Illinois State University Chemistry 140 Manual*. Revised. Ed. G. M. Ferrence and C. C. McLauchlan. Champaign, IL: Stipes Publishing L.L.C., 2003.

## EXTERNAL FUNDED GRANTS

*Vanadium-Scorpionate Coordination Complexes: Syntheses, Characterization, and Reactivities*, The Petroleum Research Fund, administered by the American Chemical Society (ACS-PRF), Type B, \$55,000, 01FEB07-31AUG10

*CAREER: Versatile Vanadium: Materials Science, Biology, and Education Through Its Diverse Coordination Chemistry*, The National Science Foundation CAREER Award, \$475,000, 01FEB07-31JAN12. (No cost extension to 31JAN13)

*MRI: Acquisition of a Single Crystal CCD X-ray Diffractometer for Research and Teaching*, National Science Foundation, \$252,060. 01OCT10-30SEP13

## GRADUATE STUDENTS TRAINED

Alexander E. Anderson, M.S. student, Department of Chemistry, Dec. 2010  
 Maurice M. Betts, M.S. student, Department of Chemistry, departed program  
 Nicole A. Dorner, M.S. student, Department of Chemistry, departed program  
 Brad A. Greiner, M.S. student, Department of Chemistry, May 2008  
 Michael L. Tarlton, M.S. student, Department of Chemistry, Dec. 2014  
 Amy N. Varda Couch, M.S. student, Department of Chemistry, departed program  
 Craig A. Wallace, M.S. student, Department of Chemistry, May 2017  
 Michael P. Weberski, Jr., M.S. student, Department of Chemistry, Aug. 2007  
 Xiao Wu, M.S. student, Department of Chemistry, expected Dec. 2018

## UNDERGRADUATE STUDENTS TRAINED

Jenny L. Anderson '08, S08  
 Emily A. Backhus '11, F07-S10  
 Kamaljit Braich '18, S16-S19  
 Andrew M. Calcaterra '08, Sum08-F08  
 Kanisha S. Campbell '07, S06-F06  
 Benjamin Dorsey '13, Sum11  
 Matthew C. Drummer '15, F14  
 Kevin Gillespie II '11, Sum10-S11  
 Brad A. Greiner '05, F03 – S05  
 Judd C. Kiddie '08, Sum08  
 Jacob Kozer '17, S17  
 Nicholas M. Marshall '06, S03 – S06  
 Jamie E. Meyer '09, Sum07-F08  
 Ken McDonald '04, S04-F04  
 Lisa Manus '07, F05-S07  
 Richard Mendez '12, Sum11  
 Brandon M. Nelson '13, S10-F11  
 Austin Penn '15, S14-F15  
 Ambrea D. Powe '13, Sum12  
 Mohammad I Rafie '16, F14-S15  
 Xavier Riart-Ferrer '11, S10-S11  
 Andrew Scott '07, F05-S07  
 Ahmed S. Seyham '15, F14-S15  
 Justin R. Skolek '11, Sum07  
 Brigette L. Smith '10, Sum09-S10  
 Nathan Smith '13, Sum12  
 Timothy L. Turner '11, Sum10-S11  
 Craig A. Wallace '15, F14-S15  
 Michael P. Weberski '04, S03 – F04  
 Robin L. Whalen '05, F03 – F04

## ORAL PRESENTATIONS AT PROFESSIONAL MEETINGS

*Illinois State University undergraduate students underlined, graduate students indicated by an asterisk*

19. “Investigations into the ideal coordination geometries of vanadium-based enzyme inhibitors.” McLauchlan, Craig C.; \*Wallace, Craig A.; \*Tarlton, Michael L.; Crans, Debbie C. Oral Presentation, 6<sup>th</sup> International Georgian Bay Conference on Bioinorganic Chemistry (CanBIC), Parry Sound, ON, Canada 26MAY17.
18. “Continuing the Investigations into the Ideal Coordination Geometries of Vanadium-based Enzyme Inhibitors.” Invited Lecture, 10<sup>th</sup> International Vanadium Symposium, Taipei, Taiwan 07NOV16. Listed co-author Debbie C. Crans.
17. “Vanadium (IV/IV) dimmers with phosph(on/in)ate-bridging ligands as models for the oxidation catalyst VOPO<sub>4</sub>.” McLauchlan, Craig C.; \*Tarlton, Michael L. *Contributed oral presentation*. 248<sup>th</sup> National Meeting of the American Chemical Society. San Francisco, CA, 13AUG14.
16. “Vanadium in Phosphatases: Using a “Magnifying Glass” for Viewing Inhibitor Binding at the Active Site.” McLauchlan, Craig C.; Crans, D. C. *Invited oral presentation*, 9<sup>th</sup> International Vanadium Symposium. Padova, Italy, 30JUN14.



## ORAL PRESENTATIONS AT PROFESSIONAL MEETINGS cont.

15. "Ligand-bridged dimers of vanadium (III/IV) complexes." McLauchlan, Craig C.; \*Tarlton, Michael L.; \*Anderson, Alex E.; Riart-Ferrer, Xavier; Nelson, Brandon M.; Hao, Fei; \*Weberski, Jr., Michael P. *Invited oral presentation*, 2013 Zing Conference on Coordination Chemistry. Playa del Carmen, Mexico, 08DEC13.
14. "Oxalate-bridged dimers of vanadium (III/IV) complexes." McLauchlan, Craig C.; \*Tarlton, Michael L.; \*Anderson, Alex E.; Riart-Ferrer, Alex E. ; Nelson, Brandon M.; Hao, Fei; \*Weberski, Jr., Michael P. *Contributed oral presentation*. 246<sup>th</sup> National Meeting of the American Chemical Society. Indianapolis, IN, 09SEP13.
13. "Phosph(on/in)ate-Bridging Dimers of Vanadium (IV) Complexes." McLauchlan, Craig C.; \*Anderson, Alex E.; \*Weberski, Jr., Michael P. ; Riart-Ferrer, Xavier; Nelson, Brandon M.; Hao, Fei. *Contributed oral presentation*, 2011 Zing Conference on Coordination Chemistry. Playa del Carmen, Mexico, 12DEC11.
12. "Phosph(on/in)ate-Bridging Dimers of Vanadium (IV) Complexes as Oxidation Catalysts." McLauchlan, Craig C.; \*Anderson, Alex E.; Riart-Ferrer, Xavier; \*Weberski, Jr., Michael P. *Invited oral presentation*, 46<sup>th</sup> Midwest 39<sup>th</sup> Great Lakes Joint Regional American Chemical Society Meeting. St. Louis, MO, 21OCT11.
11. "Phosph(on/in)ate-Bridging Dimers of Vanadium (IV) Complexes as Oxidation Catalysts." McLauchlan, Craig C.; \*Anderson, Alex E.; \*Weberski, Jr., Michael P. *Invited oral presentation*, 7<sup>th</sup> International Symposium on the Chemistry and Biochemistry of Vanadium. Toyama, Japan, 07OCT10.
10. "It Takes Two to Tango: Cliché-Riddled Strategies to Get Student to "Buy In" to Student Response Device (aka Clicker) Use." McLauchlan, C. C. *Invited presenter* (based on peer-reviewed proposals) to Conference on Classroom Response Systems: Best Practices and Innovations held at Louisville, KY 04JUN10.
9. "Inhibition of acid, alkaline, and tyrosine (PTP1B) phosphatases by novel vanadium complexes." McLauchlan, Craig C.; Dymon, Zaneta; Backhus, Emily A.; Jones, Marjorie A.; \*Dorner, Nicole A.; Youkhana, Mary A.; \*Greiner, Bradley A.; and Manus, Lisa M. *Invited oral presentation*, 2<sup>nd</sup> Georgian Bay International Conference on Bioinorganic Chemistry. Parry Sound, ON, 28MAY09.
8. "It Takes Two to Tango: Cliché-Riddled Strategies to Get Student to "Buy In" to Student Response Device (aka Clicker) Use." *Invited speaker*, Innaugural Conference on Classroom Response Systems: Best Practices and Innovations. Louisville, KY 15NOV08.
7. "Vanadium coordination complexes with the [CpP<sup>(OEt,OEt)</sup>Co]<sup>-</sup> ligand: Towards Catalysis." McLauchlan, Craig C.; \*Weberski, Jr., Michael P. Oral presentation at 6<sup>th</sup> International Vanadium Symposium: The Chemistry and Biological Chemistry of Vanadium. Lisbon, Portugal, 19JUL08.
6. "Coordination chemistry with versatile vanadium: Synthesis, characterization, and phosphatase inhibition of several new complexes." McLauchlan, Craig C.; \*Greiner, Bradley A.; \*Dorner, Nicole A.; Backhus, Emily A. Oral presentation at 235<sup>th</sup> National Meeting of the American Chemical Society. New Orleans, LA, 06APR08.
5. "Coordination chemistry with versatile vanadium: synthesis, characterization, and reactivity of several new complexes with tridentate ligands." McLauchlan, Craig C.; \*Weberski, Jr., Michael P. Oral presentation at 233<sup>rd</sup> National Meeting of the American Chemical Society. Chicago, IL, 27MAR07.
4. "Coordination chemistry with versatile vanadium: synthesis and characterization of several novel complexes with tridentate ligands." McLauchlan, Craig C.; \*Weberski, Michael P. ; McDonald, Kenneth J. Oral Presentation. 2006 Midwest Regional Meeting of the American Chemical Society, held at Quincy, IL 27OCT06

## ORAL PRESENTATIONS AT PROFESSIONAL MEETINGS cont.

3. "Synthesis, characterization, and reactivity of tridentate nitrogen-containing ligand vanadium complexes." McLauchlan, Craig C. 5<sup>th</sup> International Symposium on the Chemistry and Biological Chemistry of Vanadium as part of 2006 Fall National Meeting of the American Chemical Society, held at San Francisco, CA 14SEP06
2. "Synthesis and characterization of tridentate nitrogen-containing ligand-metal complexes (M= Co,Ni)." McLauchlan, Craig C.; \*Greiner, Bradley A.; Marshall, Nicholas M.; Sarjeant, Amy A. Narducci. 2006 Great Lakes Regional Meeting of the American Chemical Society, held at Milwaukee, WI 01JUN06
1. "Trigonally symmetric heterometal cubane-type MFe<sub>3</sub>S<sub>4</sub> clusters (M=Mo, V): Synthesis and leading properties." Presented 10APR02, American Chemical Society 223<sup>rd</sup> National Meeting, Orlando, FL.

## OTHER INVITED ORAL PRESENTATIONS

37. "Versatile Vanadium: Coordination Complexes in Biology and Catalysis." Invited Seminar, Mark Twain Local Section of the American Chemical Society, Hannibal, MO 23MAR18
36. "Versatile Vanadium: Coordination Complexes in Biology and Catalysis." Invited Seminar, Missouri State University, Springfield, MO 05APR17.
35. "Versatile Vanadium: Coordination Complexes in Biology and Catalysis." Invited Seminar, Illinois State University, Normal, IL, 18SEP15.
34. "Versatile Vanadium: Coordination Complexes in Biology and Catalysis." Invited Seminar, Lewis University, Romeoville, IL, 27FEB15.
33. "Versatile Vanadium: Coordination Complexes in Biology and Catalysis." Invited "Dynamite" Seminar, University of Missouri, Columbia, MO, 01APR14.
32. "Versatile Vanadium: Coordination Complexes for Materials, Catalysis, and Biology." Invited Seminar, Illinois State University, Normal, IL, 27JAN12.
31. "Versatile Vanadium: Coordination Complexes for Materials and Catalysis." Invited Seminar, Ball State University, Muncie, IN, 08SEP11.
30. "Versatile Vanadium: Coordination Complexes for Materials, Catalysis, and Biology." Invited Seminar, Iowa State University, Ames, IA 15APR11.
29. "Versatile Vanadium: Coordination Complexes for Materials and Catalysis." Invited Seminar, Knox College, Galesburg, IL 24FEB11.
28. "It Takes Two to Tango but Do I Even Want to Dance?: Part 2: A Practical Discussion of Clicker Use." Invited speaker, City Colleges of Chicago URC Group. Chicago, IL 19MAY09.
27. "Preaching to the Choir: A Cliché-Riddled Discussion of Clicker Use in Higher Education." Invited speaker, Turning Technologies. Youngstown, OH 16APR09.
26. "It Takes Two to Tango but Do I Even Want to Dance?: A Cliché-Riddled Discussion of Clicker Use." Keynote speaker, Southern Illinois University-Edwardsville Teaching Learning & Technology Fair. Edwardsville, IL 03APR09.
25. "It Takes Two to Tango but Do I Even Want to Dance?: A Cliché-Riddled Discussion of Clicker Use." Invited speaker, City Colleges of Chicago URC Group. Chicago, IL 20FEB09.
24. "Versatile Vanadium: Coordination Complexes for Materials and Catalysis." Invited Seminar, Youngstown State University, Youngstown, OH 23JAN09.

## INVITED ORAL PRESENTATIONS, cont.

23. "Coordination chemistry with versatile vanadium: Synthesis, characterization, and phosphatase inhibition of complexes with 4-imidzaolylcarboxylate." Invited Seminar, City Colleges of Chicago Chancellor's Celebration of Scholarship and Research. Chicago, IL 12DEC08. Listed co-authors: \*Bradley A. Greiner, Mary A. Youkhana, \*Nicole A. Dorner, Emily A. Backhus.
22. "Versatile Vanadium: Coordination Complexes for Materials and Catalysis." Invited Inorganic Seminar, University of Notre Dame, Notre Dame, IN 30NOV07.
21. "Versatile Vanadium: Exploring Materials and Biology Through its Diverse Coordination Chemistry." Invited Seminar, University of Missouri-Kansas City, Kansas City, MO 11OCT07.
20. "Versatile Vanadium: Coordination Complexes with Applications from Materials to Biology." Haverford/Bryn Mawr Colloquium, Haverford College, Haverford, PA 27APR07.
19. "Clickers in the College Classroom: Student Response Devices Demonstrated." Episcopal Academy, Merion, PA 26APR07.
18. "It Takes Two to Tango: Cliché-Riddled Strategies to Get Students to "Buy In" to Clicker Use." TurningPoint Regional User's Conference. Held at Eastern Illinois University, Charleston, IL 06MAR07.
17. "Vanadium Coordination Chemistry: One Pathway to a Career in Chemistry." Invited Seminar, Kansas Wesleyan University, Salina, KS 01DEC06.
16. "Research and Careers in Chemistry: One Perspective." Invited Seminar, Bethany College, Lindsborg, KS 01DEC06.
15. "Versatile Vanadium: Coordination Complexes in Materials and Biology." Invited Seminar, Rider University, Lawrenceville, NJ 02NOV06.
14. "Vanadium Coordination Complexes as Oxidation Catalysts and Phosphatase Inhibitors." Invited Seminar, Princeton University, Princeton, NJ 02NOV06.
13. "Vanadium Coordination Chemistry: from Biology to Materials." Invited Seminar as part of the Graduate Colloquium Series, Northern Illinois University, Dekalb, IL 24APR06.
12. "Discrete Nanoscale Vanadium Phosphate Clusters with Potential Applications as Catalysts." Presented 26APR05 Nanotechnology Education and Research Symposium for Caterpillar Corporation, Illinois State University, Normal, IL.
11. "Versatile Vanadium: from Materials to Biology." Presented 23SEP04, Local Section Meeting of the Illinois State/Illinois Wesleyan Section of Sigma Xi, Illinois Wesleyan University, Bloomington, IL.
10. "Versatile Vanadium: from Biology to Materials." Presented 09SEP04, Loyola University, Chicago, IL.
9. "Vanadium in Biology." Presented 02JUN04, Illinois State University, Normal, IL.
8. "Metal-Iron Sulfur Clusters: Towards the Synthesis of FeMco." Presented 06DEC02, Illinois State University, Normal, IL.
7. "Versatile Vanadium: from Materials to Biology." Presented 08FEB02, Providence College, Providence, RI.
6. "Versatile Vanadium: from Biology to Materials." Presented 04FEB02, Illinois State University, Normal, IL.
5. "Versatile Vanadium: from Biology to Materials." Presented 20DEC01, Rowan University, Glassboro, NJ.
4. "Trigonally Symmetric MFe<sub>3</sub>S<sub>4</sub> Clusters: Chasing the Cofactors." Presented 02NOV01, Villanova University, Villanova, PA.
3. "Metal-Chalcogenates: From mns to FeVco." Presented 01MAY01, University of Massachusetts-Dartmouth, Dartmouth, MA.

## INVITED ORAL PRESENTATIONS, cont.

2. "Coordination Chemistry and Molecular Metals." Presented 14MAR00, Widener University, Chester, PA.
1. "The Quest for mns: To Strive, To Seek, To Find, and Get Good Yield." Presented 25FEB00, Merrimack College, Andover, MA.

## PRESENTATIONS WITH/BY STUDENTS AT PROFESSIONAL MEETINGS

*Illinois State University undergraduate students underlined, graduate students indicated by an asterisk*

54. *Synthesis and characterization of a series of vanadium(IV) complexes with the Kläui ligand.* \*Wu, Xiao; McLauchlan, Craig C. Poster Presentation. 255th National Meeting of the American Chemical Society. New Orleans, LA, 20MAR18. Also presented at Sci-Mix on 19MAR18.
53. *Vanadium-dependent haloperoxidase enzymes: Using data-mining to understand the coordination chemistry and mechanism of catalysis.* Murakami, H.; \*Wallace, C. A.; Crans, D. C.; McLauchlan, Craig C. Poster Presentation. 2017 Rocky Mountain Regional Meeting of the American Chemical Society, Loveland, CO 25OCT17.
52. *Synthesis, Characterization, and Catalytic Oxidation Studies of Organophosphorus-bridged Vanadium (IV) Dimers.* Penn, Austin S.; \*Tarlton, Michael L.; McLauchlan, Craig C. Poster Presentation. 10<sup>th</sup> International Vanadium Symposium, Taipei, Taiwan 06NOV16.
51. *Vanadium-Dependent Haloperoxidase Enzymes: Mechanism, Structure-Functional Relationships, and Coordination Environments.* \*Wallace, Craig A.; Doucette, Kaitlin; Crans, Debbie C.; McLauchlan, Craig C. Poster Presentation. 10<sup>th</sup> International Vanadium Symposium, Taipei, Taiwan 06NOV16.
50. *Evaluating Decavanadate and Orthovanadate as Inhibitors of Leishmania tarentolae Secreted Acid Phosphatases Using a Novel Inhibition Model.* \*Dorsey, Benjamin M.; Jones, Marjorie A.; McLauchlan, Craig C. Poster Presentation. 10<sup>th</sup> International Vanadium Symposium, Taipei, Taiwan 06NOV16.
49. *Incubation of Leishmania tarentolae with Vanadium Complexes to Assess Their Potential as Therapeutic Drugs.* \*Wallace, Craig A.; McLauchlan, Craig C.; Jones, Marjorie A. Poster Presentation. 252<sup>nd</sup> National Meeting of the American Chemical Society. Philadelphia, PA, 22AUG16. Also presented at Sci-Mix on 21AUG16
48. *A Novel Method for Analyzing the Reversible Inhibition of an Enzyme.* Baumhardt, Jordan; Dorsey Benjamin M.; McLauchlan, Craig C.; Jones, Marjorie Oral Presentation. Midwest Enzyme Meeting. Evanston, IL, 27SEP14.
47. *Synthesis, Characterization, and Oxidative Catalytic Activity of Phosp(on/in)ate Bridged V(IV/V) Dimers: New Routes to Industrially Important Quinones Through Dimensional Reduction.* \*Tarlton, Michael L.; McLauchlan, Craig C. Poster Presentation. 9th International Vanadium Symposium. Padova, Italy, 30JUN-02JUL14.
46. *Inhibition of Neutral Sphingomyelinase by Bisphosphonate and Vanadium-Bisphosphonate Compounds* \*Christensen, Amy T.; McLauchlan, Craig C.; Dolbecq, Anne; Jones, Marjorie A.. Poster Presentation. 9th International Vanadium Symposium. Padova, Italy, 30JUN-02JUL14.
45. *Synthesis and Characterization of novel dinuclear vanadium (IV) complexes with potential as oxidation catalysts.* \*Tarlton, Michael L.; \*Anderson, Alexander E.; Hao, F.; Riart-Ferrer, Xavier; McLauchlan, Craig C. Poster Presentation. 246th National Meeting of the American Chemical Society. Indianapolis, IN, 11SEP13.

## PRESENTATIONS WITH/BY STUDENTS AT PROFESSIONAL MEETINGS, cont.

44. *Binding properties of sterically focused polyamino carboxylic acid ligands of interest for trivalent actinide/lanthanide separations.* \*Kissel, Daniel S.; Herlinger, Albert W.; McLauchlan, Craig C.; Arnold, William R.; Oral Presentation. 246<sup>th</sup> National Meeting of the American Chemical Society. Indianapolis, IN, 09SEP13.
43. *Monitoring Activity of Recombinant Leishmania Secreted Acid Phosphatases.* Baumhardt, Jordan; Dorsey Benjamin M.; Stoller, Jeanette Rose; Jones, Marjorie A.; Friesen, Jon A.; McLauchlan, Craig C.; Poster Presentation. 246<sup>th</sup> National Meeting of the American Chemical Society. Indianapolis, IN, 09SEP13.
42. *Sterically Focused Polyamino Diacetic Acids for Actinide(III)/Lanthanide(III) Separations.* \*Kissel, Daniel S.; Bender, Jon; Arnold, William R.; McLauchlan, Craig C.; Herlinger, Albert W. Poster Presentation. 245<sup>th</sup> National Meeting of the American Chemical Society. New Orleans, LA, APR13.
41. *Progress in the Cloning of Leishmania Secreted Acid Phosphatase and its Apparent Inhibition by Decavanadate.* Dorsey, Benjamin M.; Mendez, Richard S.; Friesen, Jon A.; McLauchlan, Craig C.; Jones, Marjorie A. Poster Presentation. Poster Presentation. 8th International Vanadium Symposium. Washington, DC, 16AUG12. (winner of Best Poster Prize)
40. *Testing Unique Vanadium Complex Effects on Secreted Acid Phosphatase from Leishmania – Development of New Drug Therapeutic Direction?* Mendez, Richard S.; McLauchlan, Craig C.; Jones, Marjorie A. Poster Presentation. Poster Presentation. 8th International Vanadium Symposium. Washington, DC, 16AUG12
39. *Effects of incubating Leishmania tarentolae with novel vanadium compounds.* Turner, Timothy L.; McLauchlan, Craig C.; Jones, Marjorie A. Poster Presentation. 3<sup>rd</sup> Georgian Bay International Conference on Bioinorganic Chemistry. Parry Sound, ON, 03JUN11.
38. *Inhibitory effects of decavanadate on Leishmania secreted acid phosphatase.* Beio, Matthew L.; \*Nguyen, Victoria H.; Turner, Timothy L.; Su, Alexander C.; McLauchlan, Craig C.; Jones, Marjorie A. Poster Presentation. 241<sup>st</sup> National Meeting of the American Chemical Society. Anaheim, CA, 28MAR11.
37. *Interactions of decavanadate and other vanadium compounds with phosphoglycerate mutase.* Turner, Timothy L.; McLauchlan, Craig C.; Jones, Marjorie A. Poster Presentation. 241<sup>st</sup> National Meeting of the American Chemical Society. Anaheim, CA, 28MAR11.
36. *Phosphatase Inhibition with Decavanadate in an Alkaline Environment.* Turner, Timothy L.; McLauchlan, Craig C.; Jones, Marjorie A. Oral Presentation. 2010 Argonne Undergraduate Research Symposium. Argonne, IL, 15OCT10.
35. *Effects of Decavanadate on Leishmania tarentolae.* McLauchlan, Craig C.; \*Nguyen, Victoria H.; Turner, Timothy L., \*Hooker, Jaqueline D.; Jones, Marjorie A.. Poster presentation, 2010 Gordon Research Conference on Metals in Medicine. Andover, NH, 27JUN-02JUL10.
34. *Vanadium Complexes for Insulin Enhancement: Alkaline Phosphatase Inhibition Studies and Syntheses.* Backhus, Emily A. ; \*Greiner, Brad A.; Poster Presentation. 2010 ISU/IWU Sigma Xi Initiation Banquet. Normal, IL, 06APR10.
33. *Synthesis and Characterization of a Series of Vanadium(IV) Dimers.* \*Anderson, Alexander E.; McLauchlan, Craig C.; \*Weberski, Michael P., Jr. Poster Presentation. 2010 ISU/IWU Sigma Xi Initiation Banquet. Normal, IL, 06APR10.
32. *Synthesis and Characterization of a Series of Vanadium(IV) Dimers.* \*Anderson, Alexander E.; McLauchlan, Craig C.; \*Weberski, Michael P., Jr. Poster Presentation. 239<sup>th</sup> National Meeting of the American Chemical Society. San Francisco, CA, 22MAR10.

## PRESENTATIONS WITH/BY STUDENTS AT PROFESSIONAL MEETINGS, cont.

31. *Vanadium Complexes for Insulin Enhancement: Alkaline Phosphatase Inhibition.* Backhus, Emily A. ; \*Greiner, Brad A.; McLauchlan, Craig C. Poster Presentation. 2009 Illinois Heartland Local Section of the American Chemical Society Student Research Symposium held at Normal, IL, 21SEP09.
30. *Vanadium Complexes for Insulin Enhancement: Alkaline Phosphatase Inhibition Studies.* Backhus, Emily A. ; \*Greiner, Brad A.; McLauchlan, Craig C. Poster Presentation. 2<sup>nd</sup> Georgian Bay International Conference on Bioinorganic Chemistry, Parry Sound, ON, 28MAY09.
29. *Synthesis and Characterization of a Series of Vanadium(IV) Dimers.* \*Anderson, Alexander E.; \*Weberski, Michael P., Jr.; and McLauchlan, Craig C. Poster Presentation. 2009 Great Lakes Regional Meeting of the American Chemical Society, held at Lincolnshire, IL, 17MAY09.
28. *Vanadium Complexes for Insulin Enhancement: Alkaline Phosphatase Inhibition Studies and Syntheses.* Backhus, Emily A. and McLauchlan, Craig C. Oral Presentation. 2009 Spring Conference, Honors Council of the Illinois Region. Joliet, IL, 28FEB09.
27. *Inhibition of Acid, Alkaline and Tyrosine Phosphatases (PTP1B) by Vanadium Complexes.* Dymon, Zaneta; Jones, Marjorie A.; Youkhana, Mary A.; Backhus, Emily A.; \*Greiner, Bradley A.; McLauchlan, Craig C. Poster Presentation. XXVIII Midwest Enzyme Conference, held at Chicago, IL 04OCT08.
26. *Vanadium Complexes for Insulin Enhancement: Alkaline Phosphatase Inhibition Studies and Syntheses.* Backhus, Emily A.; \*Greiner, Bradley A.; McLauchlan, Craig C. Poster Presentation. 2008 Illinois Heartland Local Section of the American Chemical Society Student Poster Section, held at Normal, IL 11SEP08
25. *Reactivity, synthesis, and x-ray structural characterization of a vanadium(III) oxidation catalyst, [Cp<sup>POEt</sup>Co]VCl<sub>2</sub>(DMF).* McLauchlan, Craig C. Poster Presentation. 2008 Fall National Meeting of the American Chemical Society, held at Philadelphia, PA 17AUG08.
24. *Vanadium imidazolylcarboxylate complexes: synthesis, characterization, and phosphatase inhibition.* McLauchlan, Craig C.; \*Greiner, Bradley A.; \*Dorner, Nicole A.; Dymon, Zaneta; Jones, Marjorie A.; Backhus, Emily A.; and Meyer, Jamie E. Poster presentation at 6<sup>th</sup> International Vanadium Symposium: The Chemistry and Biological Chemistry of Vanadium. Lisbon, Portugal, 17-18JUL08.
23. *Synthesis and characterization of vanadium coordination complexes with the biomimetic ligands tris(1-pyrazolyl)methane (TPM) and tris(1-pyrazolyl)methanesulfonate (TPMS<sup>-</sup>).* \*Betts, Maurice M.; \*Weberski, Michael P., Jr.; \*Greiner, Bradley A.; and McLauchlan, Craig C. Poster Presentation. 2008 Spring National Meeting of the American Chemical Society, held at New Orleans, LA 28MAR08.
22. *Reactivity, synthesis, and x-ray structural characterization of a vanadium(III) oxidation catalyst, [Cp<sup>POEt</sup>Co]VCl<sub>2</sub>(DMF).* \*Weberski, Jr., Michael P.; and McLauchlan, Craig C. Poster Presentation. 2007 Spring National Meeting of the American Chemical Society, held at Chicago, IL 27MAR07.
21. *Synthesis, characterization, and enzyme inhibition studies of vanadium coordination complexes containing heterocyclic tridentate ligands.* \*Greiner, Bradley A.; Manus, Lisa. M.; and McLauchlan, Craig C. Poster Presentation. 2007 Spring National Meeting of the American Chemical Society, held at Chicago, IL 27MAR07.
20. *A Potential Insulin Enhancer: A Vanadium(III) Phosphatase Inhibiting Complex.* Manus, Lisa. M.; \*Greiner, Bradley A.; Jones, Marjorie A.; and McLauchlan, Craig C. Poster Presentation. 2007 Spring National Meeting of the American Chemical Society, held at Chicago, IL 25MAR07.

## PRESENTATIONS WITH/BY STUDENTS AT PROFESSIONAL MEETINGS, cont.

19. *Synthesis of vanadium (III) cage clusters for catalytic use.* Scott, Andrew W.; \*Weberski, Michael P. and McLauchlan, Craig C. Poster Presentation. 2006 Fall National Meeting of the American Chemical Society/5<sup>th</sup> International Symposium on the Chemistry and Biochemistry of Vanadium, held at San Francisco, CA 10SEP06. Selected for “Sci-Mix” – held on 11SEP06.
18. *Synthesis and characterization of a series of tripodal vanadium(III) phosphonate clusters.* \*Weberski, Michael P. and McLauchlan, Craig C. Poster Presentation. 2006 Fall National Meeting of the American Chemical Society/5<sup>th</sup> International Symposium on the Chemistry and Biochemistry of Vanadium, held at San Francisco, CA 10SEP06.
17. *Imidazole-based scorpionate coordination complexes as models for histidine containing metalloproteins.* \*Greiner, Bradley A.; Marshall, Nicholas M.; Sarjeant, Amy A. N.; and McLauchlan, Craig C. Poster Presentation. 2006 Fall National Meeting of the American Chemical Society/5<sup>th</sup> International Symposium on the Chemistry and Biochemistry of Vanadium, held at San Francisco, CA 12SEP06.
16. *Inhibition studies of alkaline phosphatase by novel vanadium complexes.* Manus, Lisa. M.; \*Greiner, Bradley A.; Jones, Marjorie A.; and McLauchlan, Craig C. Poster Presentation. 2006 Fall National Meeting of the American Chemical Society/5<sup>th</sup> International Symposium on the Chemistry and Biochemistry of Vanadium, held at San Francisco, CA 12SEP06
15. *Inhibition studies of alkaline phosphatase by novel vanadium complexes.* Manus, Lisa. M.; \*Greiner, Bradley A.; Jones, Marjorie A.; and McLauchlan, Craig C. Poster Presentation. 2006 Illinois Heartland Local Section of the American Chemical Society Student Poster Section, held at Bloomington, IL 07SEP06
14. *Synthesis and Characterization of a Tripodal Vanadium(III) Phosphonate Cluster.* \*Weberski, Michael P. and McLauchlan, Craig C. Poster Presentation. 2006 Great Lakes Regional Meeting of the American Chemical Society, held at Milwaukee, WI 31MAY06
13. *Synthesis and Characterization of Metal Coordination Complexes Containing Heterocyclic Tridentate Ligands: Towards Insulin Enhancing Vanadium Complexes.* \*Greiner, Brad A. and McLauchlan, Craig C. Poster Presentation. 2006 Great Lakes Regional Meeting of the American Chemical Society, held at Milwaukee, WI 31MAY06
12. *Possible Insulin Enhancing Vanadium Compounds and Related Analogues of Metallo-Enzymes.* Marshall, Nicholas M. and McLauchlan, Craig C. Poster presentation. 2006 Great Lakes Regional Meeting of the American Chemical Society, held at Milwaukee, WI 01JUN06
11. *Synthesis and Characterization of Tridentate Ligands and Related Metal Coordination Complexes: Towards Insulin Enhancing Vanadium Complexes.* \*Greiner, Brad A. and McLauchlan, Craig C. Poster Presentation. ISU/IWU Sigma Xi Research Symposium, Normal, IL. 17APR06.
10. *Possible Insulin Enhancing Vanadium Compounds with Properties.* Marshall, Nicholas M. and McLauchlan, Craig C. Poster. 2006 Annual Meeting of the American Association for the Advancement of Science held at St. Louis, MO 18FEB06. (Presented by CCM owing to graduate school visit by NMM)
9. *Versatile Vanadium: from Biology to Materials.* McLauchlan, Craig C.; Giles, Julian R.; Greiner, Bradley A.; Marshall, Nicholas M.; McDonald, Kenneth J.; \*Varda, Amy N.; Weberski, Michael P., Jr.; Whalen, Robin L. Poster. First Annual Peoria NEXT All Science Assembly held at East Peoria, IL 02DEC04.

## PRESENTATIONS WITH/BY STUDENTS AT PROFESSIONAL MEETINGS, cont.

8. *Local Sections of the American Chemical Society at the Illinois State Fair: An Outreach Effort.* Bentley, Jeromy T.; Bradley, Cheryl; Corbin, J.; Finkenstadt, V. L.; Kravitz, Fran; LeFavre, Mary H.; Levenberg, Milt; Litin, Avrom; McLauchlan, Craig C.; O'Neill, G.; Phillips, M.; Salter, Frank; Shih, Susan; Shoffner, James; Stewart, J.; Zheng, Chong. Poster. 36<sup>th</sup> Great Lakes Regional Meeting of the American Chemical Society held at Peoria, IL 19OCT04.
7. *Open Framework Vanadium Phosphonates for Catalytic Use.* \*Varda, Amy N. and McLauchlan, Craig C. Poster. 36<sup>th</sup> Great Lakes Regional Meeting of the American Chemical Society held at Peoria, IL 18OCT04.
6. *Possible Insulin Mimicking/Enhancing Vanadium Compounds.* Marshall, Nicholas M. and McLauchlan, Craig C. Poster. 36<sup>th</sup> Great Lakes Regional Meeting of the American Chemical Society held at Peoria, IL 18OCT04.
5. *Potential Catalytically Active Open Framework Vanadium Phosphonates.* Weberski, Michael P. and McLauchlan, Craig C. Poster. 36<sup>th</sup> Great Lakes Regional Meeting of the American Chemical Society held at Peoria, IL 18OCT04.
4. *Synthesis of tpm and First Row Transition Metal-Complexes.* Giles, Julian R. and McLauchlan, Craig C. Poster. 36<sup>th</sup> Great Lakes Regional Meeting of the American Chemical Society held at Peoria, IL 18OCT04. (Presented by Bradley A. Greiner owing to illness of JRG)
3. *Potential Catalytically Active Open Framework Vanadium Phosphonates.* Weberski, Michael P. and McLauchlan, Craig C. Poster. Illinois Heartland Local Section of the American Chemical Society Annual Awards and Recognition Banquet held in Peoria, IL 14MAY04.
2. *Possible Insulin Mimicking/Enhancing Vanadium Compounds.* Marshall, Nicholas M. and McLauchlan, Craig C. Poster. Illinois Heartland Local Section of the American Chemical Society Annual Awards and Recognition Banquet held in Peoria, IL 14MAY04.
1. *Synthesis and Characterization of Vanadium Phosphonate Cluster Complexes.* McLauchlan, Craig C.; Weberski, Michael P.; Whalen, R. L. Poster. 227<sup>th</sup> National Meeting of the American Chemical Society held at Anaheim, CA 29MAR04.

## PRESENTATIONS BY STUDENTS AT ILLINOIS STATE UNIVERSITY

*Illinois State University undergraduate students underlined, graduate students indicated by an asterisk*

56. Braich, Kamaljit; McLauchlan, Craig C.; Jones, Marjorie A. *Inhibition of Leishmania Tarentolae and glial cells in culture by previously synthesized sodium di(maltolato)dioxovanadium(V) complex.* Poster Presentation. The [Illinois State] University Research Symposium 2018. Normal, IL, 06APR18.
55. \*Wu, Xiao; McLauchlan, Craig C. *Synthesis and characterization of a series of vanadium(IV) complexes with the Kläui ligand.* Poster Presentation. The [Illinois State] University Research Symposium 2018. Normal, IL, 06APR18.
54. Wallace, Craig A.; Jones, Marjorie A.; McLauchlan, Craig C. *Incubation of Leishmania tarentolae with Vanadium Complexes to Assess Their Potential as Therapeutic Drugs.* Poster Presentation. The [Illinois State] University Research Symposium 2017. Normal, IL, 31MAR17.
53. Braich, Kamaljit; McLauchlan, Craig C.; Jones, Marjorie A. *Synthesis of Vanadium Complexes to Test as Inhibitors of Secreted Acid Phosphatases.*, Poster Presentation. The [Illinois State] University Research Symposium 2017. Normal, IL, 31MAR17.



## PRESENTATIONS BY STUDENTS AT ILLINOIS STATE UNIVERSITY, cont.

52. Wallace, Craig A.; McLauchlan, Craig C.; Jones, Marjorie A. *Incubation of Leishmania tarentolae with Vanadium Complexes to Assess Their Potential as Therapeutic Drugs*. Poster Presentation. The [Illinois State] University Research Symposium 2016. Normal, IL, 08APR16. Also presented at ISU Chem Club poster session, 18APR16.
51. Wallace, Craig A.; Drummer, Matthew C.; McLauchlan, Craig C. *Vanadium Complexes in Biological Systems*. Poster Presentation. The [Illinois State] University Research Symposium 2015. Normal, IL, 10APR15.
50. Seyam, Ahmed H.; McLauchlan, Craig C. *Synthesis and Characterizations of Vanadium Complexes as Insulin Mimetic Agents with Picolinic Acid*. Poster Presentation. The [Illinois State] University Research Symposium 2015. Normal, IL, 10APR15.
49. Penn, Austin S.; \*Tarlton, Michael L.; McLauchlan, Craig C. *Synthesis, Characterization, and Catalytic Oxidation Studies of Organophosphorus-bridged Vanadium(IV) Dimers*. Poster Presentation. The [Illinois State] University Research Symposium 2015. Normal, IL, 10APR15.
48. \*Tarlton, Michael L.; McLauchlan, Craig C. *Dimensional Reduction with Novel Vanadium(IV/IV) Phosph(on/in)ate Bridged Dimers: The Search for Better Vanadium-Based Oxidation Catalysts.* Poster Presentation. University Research Symposium. Normal, IL, 11APR14. (Also presented at ISU Chemistry Club Research Symposium 08APR14)
47. Progress in the Cloning of Leishmania Secreted Acid Phosphatase and its Apparent Inhibition by Decavanadate. Dorsey, Benjamin M.; Mendez, Richard S.; Friesen, Jon A.; McLauchlan, Craig C.; Jones, Marjorie A. Poster Presentation. 2012 Illinois State University and Illinois Heartland Section of the American Chemical Society Summer Research Poster Presentations Symposium. Normal, IL, 02AUG12.
46. Synthesis of  $[\text{Co}_4(2^{\text{Me}}\text{-TIC})_4](\text{BF}_4)_4$ . Powe, Ambrea D.; Smith, Nathan S.; McLauchlan, Craig C. Poster Presentation. 2012 Illinois State University and Illinois Heartland Section of the American Chemical Society Summer Research Poster Presentations Symposium. Normal, IL, 02AUG12.
45. *Synthesis and Characterization of V(IV) Dimers*. Smith, Nathan S.; Powe, Ambrea D.; McLauchlan, Craig C. Poster Presentation. 2012 Illinois State University and Illinois Heartland Section of the American Chemical Society Summer Research Poster Presentations Symposium. Normal, IL, 02AUG12.
44. *Inhibitory effects of decavanadate on Leishmania secreted acid phosphatase*. Beio, Matthew L.; \*Nguyen, Victoria H.; Turner, Timothy L.; Su, Alexander C.; McLauchlan, Craig C.; Jones, Marjorie A. Poster Presentation. 2011 Illinois State Undergraduate Research Symposium. Normal, IL, 15APR11.
43. *Interactions of decavanadate and other vanadium compounds with phosphoglycerate mutase*. Turner, Timothy L.; McLauchlan, Craig C.; Jones, Marjorie A. Poster Presentation. 2011 Illinois State Undergraduate Research Symposium. Normal, IL, 15APR11.
42. *Studies of Tris(pyrazolyl)methane and its Derivatives as Ligands with Vanadium*. Nelson, Brandon M.; McLauchlan, Craig C. Poster Presentation. 2011 Illinois State Undergraduate Research Symposium. Normal, IL, 15APR11.
41. *Inhibitory effects of decavanadate on Leishmania secreted acid phosphatase*. Beio, Matthew L.; \*Nguyen, Victoria H.; Turner, Timothy L.; Su, Alexander C.; McLauchlan, Craig C.; Jones, Marjorie A. Poster Presentation. ISU Chemistry Club Poster Session. Normal, IL, 12APR11.

## PRESENTATIONS BY STUDENTS AT ILLINOIS STATE UNIVERSITY, cont.

40. *Phosphatase Inhibition with Decavanadate in an Alkaline Environment.* Turner, Timothy L.; McLauchlan, Craig C.; Jones, Marjorie A. Poster Presentation. 2010 STEM ENGINES and Project SEED Poster Session. Normal, IL, 29JUL10.
39. *Vanadium Coordination Chemistry: Syntheses, Characterization, and Phosphatase Inhibition Studies.* Backhus, Emily A. ; Smith, Brigitte L.; McLauchlan, Craig C. Poster Presentation. 2010 Illinois State Undergraduate Research Symposium. Normal, IL, 16APR10.
38. *Vanadium Coordination Chemistry: Syntheses and Characterization of Pyrazole-Containing Ligands.* Smith, Brigitte L.; Backhus, Emily A. ; Pippens, Reyhana S.; \*Anderson, Alexander E.; McLauchlan, Craig C. Poster Presentation. 2010 Illinois State Undergraduate Research Symposium. Normal, IL, 16APR10.
37. *Synthesis and Characterization of a Series of Vanadium(IV) Dimers.* \*Anderson, Alexander E.; McLauchlan, Craig C.; \*Weberski, Michael P., Jr. Poster Presentation. 2010 Illinois State Graduate Research Symposium. Normal, IL, 26MAR10.
36. *Inorganic Syntheses.* Pippins, Reyhana S. and McLauchlan, Craig C. Poster Presentation. 2009 ISU SEED/NSF STEM-ENGINES Poster Session, held at Normal, IL 30JUL09.
35. *Vanadium Complexes for Insulin Enhancement: Alkaline Phosphatase Inhibition Studies and Syntheses.* Backhus, Emily A. ; \*Greiner, Brad A.; McLauchlan, Craig C. Poster Presentation. 2009 Illinois State Undergraduate Research Symposium held at Normal, IL, 17APR09.
34. *Synthesis and Characterization of a Series of Vanadium(IV) Dimers.* \*Anderson, Alexander E.; \*Weberski, Michael P., Jr.; and McLauchlan, Craig C. Poster Presentation. 2009 Illinois State Graduate Research Symposium. Normal, IL, 27MAR09.
33. *Synthesis, Characterization, and Inhibition Studies of Imidazole-4-carboxylate and Vanadium (III), (IV), and (V) Compounds* Youkhana, Mary A.; \*Greiner, Bradley A.; Dymon, Zaneta; Jones, Marjorie A.; McLauchlan, Craig C. Poster Presentation. Summer 2008 NSF STEM-ENGINES, ACS Project SEED Poster Session, held at Normal, IL 31JUL08.
32. *Vanadium Complexes for Insulin Enhancement: Alkaline Phosphatase Inhibition Studies and Syntheses.* Backhus, Emily A. and McLauchlan, Craig C. Poster Presentation. 2008 Illinois State Undergraduate Research Symposium, held at Normal, IL 18APR08.
31. *Synthesis and characterization of vanadium coordination complexes with the biomimetic ligands tris(1-pyrazolyl)methane (TPM) and tris(1-pyrazolyl)methanesulfonate (TPMS<sup>-</sup>).* \*Betts, Maurice M.; \*Weberski, Michael P., Jr.; \*Greiner, Bradley A.; and McLauchlan, Craig C. Poster Presentation. 2008 Illinois State Graduate Research Symposium, held at Normal, IL 28MAR08.
30. *Further Investigations of TIC/Transition Metal Complexes: Synthesis, Characterization and Magnetic Data for 2-MeTIC Complexes with Copper(II), Nickel(II), and Cobalt(II).* Youkhana, Mary A., M.; \*Greiner, Bradley A.; and McLauchlan, Craig C. Poster Presentation. 2007 ISU NSF STEM-ENGINES Poster Session, held at Normal, IL 02AUG07.
29. *A Potential Insulin Enhancer: A Vanadium(III) Phosphatase Inhibiting Complex.* Manus, Lisa. M.; \*Greiner, Bradley A.; Jones, Marjorie A.; and McLauchlan, Craig C. Poster Presentation. 2007 ISU Undergraduate Research Symposium, held at Normal, IL 20APR07.

## PRESENTATIONS BY STUDENTS AT ILLINOIS STATE UNIVERSITY, cont.

28. *Reactivity, synthesis, and x-ray structural characterization of a vanadium(III) oxidation catalyst, [CpP<sup>OEt</sup>Co]VCl<sub>2</sub>(DMF).* \*Weberski, Jr., Michael P.; and McLauchlan, Craig C. Poster Presentation. 2007 Illinois State University Graduate Research Symposium, 30MAR07.
27. *Synthesis, characterization, and enzyme inhibition studies of vanadium coordination complexes containing heterocyclic tridentate ligands.* \*Greiner, Bradley A.; Manus, Lisa M.; and McLauchlan, Craig C. Poster Presentation. 2007 Illinois State University Graduate Research Symposium, 30MAR07.
26. *Synthesis of Tris[4(5)-imidazolyl] carbinol.* Campbell, Kanisha S. and McLauchlan, Craig C. Poster presentation. Illinois State University Department of Chemistry Undergraduate Research Symposium, 29APR06.
25. *Possible Insulin Enhancing Vanadium Compounds with Properties.* Marshall, Nicholas M. and McLauchlan, Craig C. Poster presentation. Illinois State University Department of Chemistry Undergraduate Research Symposium, 29APR06.
24. *Inhibition Studies of Alkaline Phosphatase by Orthovanadate Complexes.* Manus, Lisa M. and McLauchlan, Craig C. Poster Presentation. Illinois State University Department of Chemistry Undergraduate Research Symposium, 29APR06. (Presented by CCM owing to last minute conflict.)
23. *Synthesis of Vanadium Complexes with Potentially Insulin Enhancing Properties and Related Tris-His Enzyme Analogues.* Marshall, Nicholas M. and McLauchlan, Craig C. Oral Presentation. Illinois State University Undergraduate Research Symposium, 21APR06.
22. *Inhibition Studies of Alkaline Phosphatase by Orthovanadate Complexes.* Manus, Lisa M. and McLauchlan, Craig C. Poster Presentation. Illinois State University Undergraduate Research Symposium, 21APR06.
21. *Plastic Polymer Recycling.* Parrott, Raleigh W. and McLauchlan, Craig C. Poster Presentation. Illinois State University Undergraduate Research Symposium, 21APR06.
20. *Synthesis of Vanadium (III) Cage Clusters for Catalytic Use.* Scott, Andrew W.; Weberski, Michael P. and McLauchlan, Craig C. Poster Presentation. Illinois State University Undergraduate Research Symposium, 21APR06.
19. *Synthesis of Vanadium (III) Cage Clusters for Catalytic Use.* Scott, Andrew W.; \*Weberski, Michael P. and McLauchlan, Craig C. Poster Presentation. Illinois State University Department of Chemistry Undergraduate Research Symposium, 21APR06.
18. *Synthesis and Characterization of Tridentate Ligands and Related Metal Coordination Complexes: Towards Insulin Enhancing Vanadium Complexes.* \*Greiner, Brad A. and McLauchlan, Craig C. Poster Presentation. Illinois State University Graduate Research Symposium, 24MAR06.
17. *Synthesis and Characterization of Tripodalvanadium(III) Phosphates.* \*Weberski, Michael P. Oral Presentation. Illinois State University Graduate Research Symposium, 24MAR06.
16. *Synthesis and Characterization of Tridentate Ligands and Related Metal Coordination Complexes: Towards Insulin Enhancing Vanadium Complexes.* \*Greiner, Brad A. and McLauchlan, Craig C. Poster Presentation. ISU/IWU Sigma Xi Research Symposium, 17APR06.
15. *Tridentate Ligands and Related Metal Coordination Complexes: Towards Vanadium Complexes for Insulin Enhancement.* \*Greiner, Brad A. and McLauchlan, Craig C. Poster Presentation. Illinois Heartland Local Section of the American Chemical Society Student Research Symposium, 15SEP05.

## PRESENTATIONS BY STUDENTS AT ILLINOIS STATE UNIVERSITY, cont.

14. *Syntheses of Vanadium Complexes with Potentially Insulin Mimetic Properties.* Marshall, Nicholas M. and McLauchlan, Craig C. Poster Presentation. Illinois Heartland Local Section of the American Chemical Society Student Research Symposium, 15SEP05.
13. *Synthesis of 2-Me TIC and Other Related Metallic Complexes.* Giles, Julian R. Greiner, Brad; Weberski, Michael P., Jr., and McLauchlan, Craig C. Poster Presentation. ISU Project SEED and Project BRIDGES Poster Session, 10AUG05.
12. *Discrete Molecular Vanadium Phosphonate Clusters.* Weberski, Michael P., Jr., and McLauchlan, Craig C. Poster Presentation. ISU/IWU Sigma Xi Initiation Banquet Poster Session, 04MAY05.
11. *Vanadium Compounds for Insulin Enhancement: Synthesis and Characterization of Tridentate Ligands and Related Metal Coordination Complexes.* Greiner, Brad A. and McLauchlan, Craig C. Oral Presentation. Illinois State University Department of Chemistry Undergraduate Research Symposium, 30APR05.
10. *Possible Insulin Mimicking/Enhancing Vanadium Compounds.* Marshall, Nicholas M. and McLauchlan, Craig C. Oral Presentation. Illinois State University Department of Chemistry Undergraduate Research Symposium, 30APR05.
9. *Potential Catalytically Active Open Framework Vanadium Phosphonates.* Weberski, Michael P. and McLauchlan, Craig C. Oral Presentation. Illinois State University Department of Chemistry Undergraduate Research Symposium 04DEC04.
8. *Open Framework Vanadium Phosphonates for Catalytic Use.* \*Varda, Amy N. and McLauchlan, Craig C. Poster. Illinois State University Graduate Research Symposium 23APR04.
7. *Possible Insulin Mimicking/Enhancing Vanadium Compounds.* Marshall, Nicholas M. and McLauchlan, Craig C. Poster. Illinois State University Department of Chemistry Undergraduate Research Symposium 24APR04.
6. *Possible Insulin Mimicking/Enhancing Vanadium Compounds.* Marshall, Nicholas M. and McLauchlan, Craig C. Poster. Illinois State University Undergraduate Research Symposium 26MAR04.
5. *Vanadium Compounds Hypothesized as Insulin Enhancing Complexes.* Greiner, Bradley A. and McLauchlan, Craig C. Poster. Illinois State University Department of Chemistry Undergraduate Research Symposium 15NOV03.
4. *Potentially Catalytically Active Open Framework Vanadium Phosphonates.* Weberski, Michael P. and McLauchlan, Craig C. Poster. Illinois State University Department of Chemistry Undergraduate Research Symposium 15NOV03.
3. *Toward the Synthesis of Open Framework Vanadium Phosphonates.* Whalen, Robin L. and McLauchlan, Craig C. Poster. Illinois State University Department of Chemistry Undergraduate Research Symposium 15NOV03.
2. *Possible Insulin Mimicking/Enhancing Vanadium Compounds.* Marshall, Nicholas M. and McLauchlan, Craig C. Poster. Illinois State University Department of Chemistry Undergraduate Research Symposium 26APR03.
1. *Synthesizing New Open Framework Vanadium Phosphonates to Enhance Catalytic Activity.* Weberski, Michael P. and McLauchlan, Craig C. Poster. Illinois State University Department of Chemistry Undergraduate Research Symposium 26APR03.

## CO-AUTHORED PRESENTATIONS BY COLLABORATORS AT PROFESSIONAL MEETINGS

*Presentations by collaborators, but listing me as a co-author. Illinois State University undergraduate students underlined, graduate students indicated by an asterisk*

7. *Investigations into the ideal coordination geometries of vanadium-based enzyme inhibitors.* McLauchlan, Craig C.; \*Wallace, Craig A.; \*Tarlton, Michael L.; Crans, Debbie C. Oral Presentation at 2017 Rocky Mountain Regional Meeting of the American Chemical Society, Loveland, CO 27OCT17.
6. *Vanadium-Dependent Haloperoxidase Enzymes: A Review of Mechanism, Structure-Functional Relationships, and Coordination Environments.* Doucette, K.; \*Wallace, C. A.; McLauchlan, Craig C.; Crans, Debbie C. Poster presentation at 253<sup>rd</sup> National Meeting of the American Chemical Society. San Francisco, CA, 04APR17.
5. *Celebrating Decavanadate (V10) at the 10th International Vanadium Symposium.* Crans, Debbie C.; Aureliano, Manuel; McLauchlan, Craig C. Plenary presentation 10<sup>th</sup> International Vanadium Symposium, Taipei, Taiwan 06NOV16.

## PRESENTATIONS BY COLLABORATORS, cont.

4. *Application of data mining for the investigation of coordination chemistry of salts and polyoxometalates with phosphatase and the ribosome.* Crans, Debbie C.; McLauchlan, Craig C. Oral presentation at 252<sup>nd</sup> National Meeting of the American Chemical Society. Philadelphia, PA, 22AUG16.
3. *Phosphorylase and phosphatase inhibition by transition metal inhibitors: Are trigonal bipyramidal complexes better inhibitors than square pyramidal complexes?* Crans, Debbie C.; Peters, Benjamin; \*Tarlton, Michael L.; Willsky, Gail R.; McLauchlan, Craig C. Oral presentation at 249<sup>th</sup> National Meeting of the American Chemical Society. Denver, CO, 26MAR15.
2. *How Important is the Trigonal Bipyramidal Geometry for Phosphatase Inhibitors.* Crans, Debbie C.; \*Tarlton, Michael L.; McLauchlan, Craig C. Poster Presentation. 9<sup>th</sup> International Vanadium Symposium. Padova, Italy, 30JUN-02JUL14.
1. *Phosphorylase and phosphatase inhibition by transition metal inhibitors: Are trigonal bipyramidal complexes better inhibitors than square pyramidal complexes?* Crans, Debbie C.; Peters, Benjamin; \*Tarlton, Michael L.; McLauchlan, Craig C. Oral presentation at 248<sup>th</sup> National Meeting of the American Chemical Society. San Francisco, CA, 13AUG14.

## OTHER STUDENT MENTORING

Faculty Mentor for 8<sup>th</sup> floor Manchester, F2002-S2004

Faculty Mentor for 4<sup>th</sup> floor VanBuren, F2004-S2005

Faculty Mentor for 1<sup>st</sup> and 2<sup>nd</sup> Floors Atkin, F2005-S2007

Faculty Mentor for 7<sup>th</sup> Floor Atkin, F2007-S2008

Faculty Mentor for 14<sup>th</sup> floor Hewitt, F2010-S2011

Faculty Mentor for Honors floor in Manchester (Man 7), F2011-present

American Chemical Society Project SEED Mentor for Julian R. Giles (Normal Community High School '05), Summers 2004, 2005. Featured in College of Arts and Sciences Newsletter, May 05.

## OTHER STUDENT MENTORING, cont.

American Chemical Society Project SEED Mentor for Reyhanna S. Pippins (Bloomington High School '05), Summer 2009.

Presidential Scholars Public Service Colloquium project mentor for Nicholas M. Marshall '06, IDS 202.71 S04

Elizabeth A. Tabler '06, CHE287, Curricular and lab development in Inorganic Chemistry, S06.

Judd C. Kiddie '08, CHE287, Curricular and lab development in General Chemistry, Sum08.

NSF STEM ENGINES mentor for Mary A. Youkhana (Oakton Community College), Summer 2007, 2008.

Faculty Co-Advisor, ISU-ACS (American Chemical Society) Student Affiliate Chemistry Club, Department of Chemistry, Illinois State University, F2002-S2004

– honored by ACS as *Honorable Mention* Section

Alycia Fetzer – Met with this undergraduate student and Presidential Scholar for 1+ hours per week as part of CHE140 discussion section towards honors credit

Kristy O'Connor '11, CHE287, Curricular and lab development with respect to chemistry and art, F10 (continued in S11).

Stacie Cler '14, Presidential Scholar Mentor, F11-S15

Ambrea D. Powe '14, Louis Stokes Alliance for Minority Participation (LSAMP) Mentor, S12-S14

Samantha Huffman '15, Presidential Scholar Mentor F12-S16

Anna Stamer '16, Presidential Scholar Mentor F12-S17

## DEPARTMENTAL, UNIVERSITY, AND PROFESSIONAL COMMITTEES

## Institutional Organizations and Committee Participation

*University*

Ad-hoc New Faculty Orientation Committee, Illinois State University, Summer 2003

Steering Committee for Center of Excellence for Nanomaterials Technology,

Education, and Research, JAN05-present. Named Honorable Mention “Program of Excellence” in the College of Arts and Sciences 20APR05

Produced on-line tour of Illinois State University Campus for Center for

Advancement of Teaching 11AUG03

Intellectual Property Committee, July 2005-June 2008

President’s 2006-2007 Academic Task Force for Intercollegiate Athletics, Sept 2006-Apr2008

Athletic Council of Academic Senate, August 2005-June 2008

- Governance and Commitment to Rules Compliance Sub-committee, Oct 2005- June 2008
  - Chair, Sept 2006- June 2008
- Academic Integrity Sub-committee, Oct 2007- June 2008
  - Internal NCAA Review panel, Nov 2007- June 2008
- Fiscal Sub-committee, Oct 2005- Sept 2007

Departmental Representative, Institutional Review Board, F2009-present

Member, Barry M. Goldwater Scholarship Program Selection Committee, F2009-S2012, F2014, F2016-present

Editor in the Sciences, ORBIT, ISU’s Honors Journal, F2009-S2013

NCAA Athletics Certification Self-Study Committee, Rules and Governance Sub-committee, S2010-F2011. Our Committee was named a “Team of Excellence” at 2012 Founders Day Ceremonies.

Honors Council, F2011-S14

Welcome Week Volunteer, F2013

*Collegiate*

Member, College of Arts and Sciences Teaching Awards Committee, F2012-Sum2013

Chairperson, Chair Search Committee, Department of Communication Sciences and Disorders, Illinois State University, F2011-S2012

## DEPARTMENTAL, UNIVERSITY, AND PROFESSIONAL COMMITTEES, cont.

*Departmental*

Chairperson, July 2016-present

Interim Chairperson, July 2013-Jun2016

Associate Chairperson for Undergraduate Programs, Department of Chemistry,  
Illinois State University, F2011-June 2013

Chairperson, Undergraduate Programs Committee F2011-S2014

Member, Chemistry Department Council F2010-present (*ex officio*)

Helper to the Webmaster, F2009-S2012

Member, Inorganic Faculty Position Search Committee, Department of Chemistry,  
Illinois State University, F2012-S2013

Associate Chairperson, Department of Chemistry, Illinois State University, F2010-  
Sum2011

Chairperson, Alumni Development Committee, Department of Chemistry, Illinois  
State University, S2006-F2011

Chairperson, Graduate Programs Committee S2011 (*ex officio*)

Member, Department Faculty Status Committee, Department of Chemistry, Illinois  
State University, F2009-Sum2010

Chairperson, Organic Faculty Position Search Committee, Department of Chemistry,  
Illinois State University, F2009-S2010

Member, Department ad-hoc Seminar Committee, Department of Chemistry, Illinois  
State University, F2009

Library Liaison, Department of Chemistry, Illinois State University, Jan 2003-Aug  
2009

Member, Seminar Committee, Department of Chemistry (Chairperson), Illinois State  
University, F2006-S2008

Member, Equipment Committee, Department of Chemistry, Illinois State University,  
F2002-S2007

Secretary, NMR Subcommittee of Equipment Committee, Department of Chemistry,  
Illinois State University, F2006-S2007

Member, Ad-hoc Julian Equipment Committee, Department of Chemistry, Illinois  
State University, S2003-S2007

Member, Ad-hoc 2003 Homecoming Committee, Department of Chemistry, Illinois  
State University, F2003-S2007

Member, Graduate Committee, Department of Chemistry, Illinois State University,  
S2004-S2006

Member, Ad-hoc Advising Committee, Department of Chemistry, Illinois State  
University, S2004-S2006

Member, Ad-hoc Instrument Committee, Department of Chemistry, Illinois State  
University, F2004-S2005

Member, Ad-hoc General Education Committee (Chairperson), Department of  
Chemistry, Illinois State University, F2006-S2007

Member, Ad-hoc CHE140/141 Study Section, Department of Chemistry, Illinois  
State University, F2006-S2007



## DEPARTMENTAL, UNIVERSITY, AND PROFESSIONAL COMMITTEES, cont.

*External Committee Participation*

Member, International Vanadium Symposium International Advisory Board (Aug12-present)

Secretary, International Vanadium Symposium International Advisory Board (Aug12-present)

Volunteer Coordinator, Illinois Sections of the American Chemical Society Cooperative State Fair Project Committee (Mar 04-Nov05, Mar08-Aug11, Sep12-present)

Treasurer, American Chemical Society Illinois Heartland Local Section (Jan11-F13)

Webmaster, American Chemical Society Illinois Heartland Local Section (Jan10-F14)

Admissions Committee, ISU/IWU Chapter of Sigma Xi, May 2005-present

Member, Illinois Sections of the American Chemical Society Cooperative State Fair Project Committee Member (Mar 04-present)

Co-chair, 8<sup>th</sup> International Vanadium Symposium: Chemistry, Biological Chemistry, & Toxicology Organizing Committee (Jul2008-F2012)

Member, 2010 National Clicker Conference Review Committee (F09-S10)

Chair, American Chemical Society Illinois Heartland Local Section Younger Chemists' Committee (Jan03-Jul09)

Secretary, Illinois Sections of the American Chemical Society Cooperative State Fair Project Committee (Feb 05-Nov05)

## M.S. AND PH.D. THESIS COMMITTEES (\* indicates participation as Chair)

Chris M. Hattan (M.S. 2003), Department of Chemistry, Illinois State University

Joel M. Esken (M.S. 2003), Department of Chemistry, Illinois State University

Catherine M. Cillo (M.S. 2004), Department of Chemistry, Illinois State University

Meghan K. Cochran (M.S. 2004), Department of Chemistry, Illinois State University

Dominic P. Halbach (M.S. 2005), Department of Chemistry, Illinois State University

Jeffrey N. Templeton (M.S. 2006), Department of Chemistry, Illinois State University

Kenneth J. McDonald (M.S. 2006), Department of Chemistry, Illinois State University

Andrew Wadler (M.S. 2007), Department of Chemistry, Illinois State University

\*Michael P. Weberski, Jr. (M.S. 2007), Department of Chemistry, Illinois State University

Philip Yangyuoru (M.S. 2007), Department of Chemistry, Illinois State University

Jose Kavitha (Ph.D. 2007), Department of Chemistry, Bharathidasan University

Umesh Kumar (Ph.D. 2007), Department of Chemistry, India Institute of Technology-Roorkee

\*Bradley A. Greiner (M.S. 2008), Department of Chemistry, Illinois State University

Maurice M. Betts (M.S. ?), Department of Chemistry, Illinois State University

Julia Edwards (M.S. 2008), Department of Chemistry, Illinois State University

Peter Goff (M.S. 2008), Department of Chemistry, Illinois State University

Lisa J. Sinnott (M.S. ?), Department of Chemistry, Illinois State University

\*Amy N. Varda Couch (M.S. ?), Department of Chemistry, Illinois State University

Aarti (Ph.D. 2009), Department of Chemistry, India Institute of Technology-Roorkee

Vandna Malik (Ph.D. 2010), Department of Chemistry, National Institute of Technology-Kurukshetra, India

\*Alex E. Anderson (M.S. 2010), Department of Chemistry, Illinois State University

Scott R. Cole (M.S. ?), Department of Chemistry, Illinois State University

Priscilla DeLaere (M.S. ?), Department of Chemistry, Illinois State University

Delvis Dore (M.S. 2012), Department of Chemistry, Illinois State University

Michelle Merfeld (M.S. 2012), Department of Chemistry, Illinois State University

## M.S. AND PH.D. THESIS COMMITTEES, cont.

Rachel Craigmile (M.S. 2012), Department of Chemistry, Illinois State University  
Jessica Durham (M.S. 2012), Department of Chemistry, Illinois State University  
Amy Christensen (M.S. 2014), Department of Chemistry, Illinois State University  
\*Michael L. Tarlton (M.S. 2014), Department of Chemistry, Illinois State University  
Wade Wilson (M.S. 2015), Department of Chemistry, Illinois State University  
Daniel Huh (M.S. 2015), Department of Chemistry, Illinois State University  
\*Craig A. Wallace (M.S. 2017), Department of Chemistry, Illinois State University  
Timothy Erasmus Jugovic (M.S. 2017), Department of Chemistry, Illinois State University  
Benjamin Dorsey (M.S. 2017), Department of Chemistry, Illinois State University  
Austin S. Penn (M.S. 2018?), Department of Chemistry, Illinois State University  
\*Xiao Wu (M.S. 2018?), Department of Chemistry, Illinois State University

## OTHER ACTIVITIES

## Faculty Evaluator of Oral Presentations

Undergraduate Research Symposia: 2003, 2004, 2005, 2007

Graduate Research Symposia: 2003, 2004, 2005, 2006

## Faculty Evaluator of Poster Presentations

Undergraduate Research Symposia: 2006, 2008, 2010

Graduate Research Symposia: 2007, 2008, 2010

## Commencement Participant:

May 2003, December 2003, May 2004, May 2005, December 2005, May 2006, December 2006, May 2007, December 2007, May 2008, December 2008, December 2009, May 2010, December, 2010, May 2011, December 2011, May 2012, December 2012, May 2013, December 2013, May 2014, December 2014, May 2015, December 2015, May 2016, December 2016, May 2017; December 2017

Evaluator of Poster Presentations for CeMaST/ISU High School Research Symposium,  
16APR10, 26APR13, 27APR16, 28APR17

Presenter at Fall 2005 University Teaching Workshop sponsored by the Illinois State University Center for Teaching and Learning Technology on “Enhancing Active Learning” 16AUG05.

(co-presented with Alycia Hund, John Baldwin, John Bantham, and Jodi Hallsten)

Volunteer, The Children’s Hospital Marathon Physiology Study, Boston, MA 19APR03.  
Worked in lab control section of CHMP Study conducted on runners of the 107<sup>th</sup> Boston Marathon. (*N. Engl. J. Med.* **2005**, 352(15), 1550-1556.)

Presented “Inorganic Chemistry and the Undergraduate Researcher” to NSF Workshop of Lisa Szczepura introducing Freshman students to my research and the research of my Inorganic Division Colleagues 15FEB06

Presenter at 7<sup>th</sup> Annual University-Wide Symposium on Teaching and Learning sponsored by the Illinois State University Center for Teaching, Learning & Technology (*Civic Engagement in Classrooms & Communities*) entitled Clickers: Enhancing Learning through the Use of Classroom Response Systems” 10JAN07 (co-presented with Doug Smith, Tak Cheung, Roslin Hauck, and David Marx)

## OTHER ACTIVITIES, cont.

Presenter at 8<sup>th</sup> Annual University-Wide Symposium on Teaching and Learning sponsored by the Illinois State University Center for Teaching, Learning & Technology (*Gladly We Learn & Teach: We Learn & Teach: Past, Present, and Future*) entitled "Classroom Clicker XR-bition" 09JAN08 (co-presented with Doug Smith and Sarah Walczynski)

Session Chair, Inorganic Section, Spring 2007 National American Chemical Society Meeting 27MAR07

Presenter for Illinois State University Center for Teaching, Learning & Technology Workshop "They Don't Make Students Like They Used To! Teaching and Learning with Digital Natives. 3.Beyond the Lecture: Digital Teaching" 26FEB09 (Co-presenter with John Hooker, Stacey Bock, Nikii Michalek, and Katherine Ellison)

Illinois State University Leadership Initiative Program participant, F2010-S11

Session Chair, Catalysis II, 2011 Zing Conference on Coordination Chemistry, Playa del Carmen, Mexico, 11DEC11.

Session Chair, 8<sup>th</sup> International Vanadium Symposium: Chemistry, Biological Chemistry, & Toxicology Organizing Committee, Alexandria, VA, 16AUG12.

Guest Editor, Dalton Transactions Themed issue: Vanadium in Bioinorganic Chemistry, publication date August 2013

Session Chair, Inorganic Division Section F, Monday AM session at 246<sup>th</sup> National Meeting of the American Chemical Society, Indianapolis, IN 09SEP13.

Session Chair, Session 8, 2013 Zing Conference on Coordination Chemistry, Playa del Carmen, Mexico, 07DEC13.

Session Chair, 9<sup>th</sup> International Vanadium Symposium. Padova, Italy, 30JUN14.

Session Chair, 10<sup>th</sup> International Vanadium Symposium. Taipei, Taiwan, 06NOV16.

## OTHER ACTIVITIES, cont.

*Reviewing*

Ad-hoc peer reviewer of over 160 manuscripts and revised manuscripts for the following journals:

- *ACS Applied Materials & Interfaces*
- *ACS Medicinal Chemistry Letters*
- *ACS Omega*
- *Acta Chimica Slovenica*
- *Acta Crystallographica, Section C*
- *Advanced Materials*
- *Angewandte Chemie, Int. Ed.*
- *Archives of Biochemistry and Biophysics*
- *Biological Trace Element Research*
- *Biomacromolecules*
- *Bioorganic & Medicinal Chemistry Letters*
- *Bulletin of the Chemical Society of Ethiopia*
- *Catalysis Communications*
- *Chemical Educator*
- *Chemistry, a European Journal*
- *Coordination Chemistry Reviews*
- *Current Medicinal Chemistry*
- *Dalton Transactions*
- *Dyes and Pigments*
- *European Journal of Inorganic Chemistry*
- *Inorganic Chemistry*
- *Inorganic Chemistry Communications*
- *Inorganica Chimica Acta*
- *Journal of Alloys & Compounds*
- *Journal of Chemical Crystallography*
- *Journal of Applied Physics*
- *Journal of Coordination Chemistry*
- *Journal of Immunotoxicology*
- *Journal of Inorganic Biochemistry*
- *Journal of Materials Science*
- *Journal of Molecular Catalysis A: Chemical*
- *Journal of the American Chemical Society*
- *Journal of the Brazilian Chemical Society*
- *Materials Chemistry and Physics*
- *Materials Letters*
- *Medicinal Chemistry*
- *New Journal of Chemistry*
- *Optical Materials*
- *Organometallics*
- *physica status solidi (a)*
- *Polyhedron*
- *RSC Advances*
- *Research in Microbiology*
- *Solid State Sciences*
- *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*
- *Topics in Catalysis*

Awarded Outstanding Reviewer Status for being “in the top 10th percentile in terms of the number of reviews completed for *Journal of Inorganic Biochemistry* in the past two years,” 2015

External Peer Reviewer for U.S. EPA’s Integrated Risk Information System (IRIS) program. Reviewed draft document – “Toxicological Review of Vanadium Pentoxide (CASRN 1314-62-1).”

External Program Reviewer, Chemistry Program at Northeastern Illinois University, Fall 2010

Ad hoc External Peer Reviewer for Promotion/Tenure dossiers.

## OTHER ACTIVITIES, cont.

Reviewer of grant proposals for the following agencies:

- National Science Foundation, eight proposals during 2005-2014
- American Chemical Society- Petroleum Research Fund
- Cottrell College Science Award from Research Corporation for Science Advancement
- Louisiana Board of Regents Pilot Funding for New Research Fund
- Grantová agentura České republiky (Czech Science Foundation)

Reviewer for the following textbooks:

- Whitten, K.W.; Davis, R. E.; Peck, M. L.; Stanley, G. G. *General Chemistry*, 7<sup>th</sup> ed.; Brooks/Cole: Belmont, CA, 2004.
- Brown, T. L.; Lemay, Jr., H. E.; Bursten, B. E.; Burdge, J. R. *Chemistry: The Central Science*, 10<sup>th</sup> ed.; Pearson Education: Upper Saddle River, NJ, 2004.
- Reck, C. E. *General Chemistry: Principles of Chemistry & Biochemistry*; John Wiley & Sons: New York, 2005.
- Pike, R.D. *General and Inorganic Chemistry*; John Wiley & Sons: New York, 2005.
- Kelter, P. ; Mosher, M.; Scott, A. *Chemistry – Bridging Matter to Life*; Houghton Mifflin: Boston, MA, 2006.
- Reger, D. L.; Goode, S. R.; Ball, D. W. *Chemistry, Principles and Practice*, 3<sup>rd</sup> Ed.; Brooks Cole: Pacific Grove, CA, 2007.
- Gilbert, Kirss, Foster, Davies. *Chemistry: The Science In Context*, 2<sup>nd</sup> Ed.; Norton: New York, 2008. (18 chapters)
- Burdge, J. *Chemistry*; McGraw Hill: New York, 2009.
- Unnamed text; John Wiley & Sons: New York, 2010.
- Unnamed text; John Wiley & Sons: New York, 2010.
- Unnamed text; W. H. Freeman: New York, 2010.
- Burdge, J. R.; Overby, J. *Chemistry: Atoms First*; McGraw Hill: New York, 201x. (3 chapters)
- Johll, *General Chemistry*; W. H. Freeman: New York, 201x.
- Langley, *Chemistry: Moles, Bonds, and Equilibria*; W. H. Freeman: New York, 201x.
- Kelter, Mosher, Branen *Chemistry, The Practical Science 2<sup>nd</sup> Ed.* Cengage: New York. (2 chapters)
- McMurry, J.E.; Fay, R. C., *General Chemistry: Atoms First*; Prentice Hall: New York, 2010. (4 chapters)
- Brown, T.L.; LeMay, Jr., H. E.; Bursten, B. E.; Murphy, C. J.; Woodward, P. M. *Chemistry: The Central Science*, 12<sup>th</sup> Ed.; Prentice Hall: New York, 2012. (prescriptive review for 13<sup>th</sup> Ed.)
- Burdge, J. R. *Chemistry*, 2<sup>nd</sup> Ed.; McGraw Hill: New York, 2011. (New Digital Content Review)
- McMurry, J.E.; Fay, R. C., *Chemistry*, 6<sup>th</sup> Ed.; Pearson: New York, 2011. (3 chapter prescriptive review for 7<sup>th</sup> Ed.)