

## REGER, DANIEL L.

Department of Chemistry and Biochemistry  
University of South Carolina  
Columbia, South Carolina 29208

### EDUCATIONAL BACKGROUND:

| <u>College</u>            | <u>Major</u>        | <u>Date</u> | <u>Degree</u>      |
|---------------------------|---------------------|-------------|--------------------|
| Dickinson College         | Chemistry           | 6/67        | B.S. (with honors) |
| Mass. Inst. of Technology | Inorganic Chemistry | 5/72        | Ph.D.              |

### EMPLOYMENT HISTORY:

|              |                                                                 |
|--------------|-----------------------------------------------------------------|
| 2001-2008    | Chair, Department of Chemistry and Biochemistry                 |
| 1998-present | Carolina Distinguished Professor                                |
| 1984-present | Professor, University of South Carolina                         |
| 1997-1999    | Associate Dean, College of Science and Mathematics              |
| 1977-1984    | Associate Professor, University of South Carolina               |
| 1972-1977    | Assistant Professor, University of South Carolina               |
| 1967-1972    | Teaching and Research Assistant, MIT                            |
| 1979         | Visiting Professor, Sussex University, England                  |
| 1985         | Visiting Fellow, Australian National University                 |
| 1994         | Visiting Fellow, Australian National University                 |
| 2001         | Visiting Professor, Bristol University, University of Arizona   |
| 2009         | Visiting Professor, University of Camerino, Italy; UC San Diego |

### HONORS

Phi Beta Kappa, Dickinson College 1967  
Resident Life Outstanding Faculty Member, 1993  
University of South Carolina Educational Foundation Research Award for Science, Mathematics and Engineering, 1995  
University of South Carolina Michael J. Mungo Award for Excellence in Undergraduate Teaching, 1995  
Who's Who Among America's Teachers  
Amoco Outstanding Teacher Award, 1996  
Carolina Distinguished Professor, 1998-date, University Chair.  
Carolina Trustee Professorship Award, 2000  
University of South Carolina Michael J. Mungo Award for Excellence in Graduate Teaching, 2003  
Nominated for the Herty Award, Georgia section outstanding Chemists in the Southeast  
2007 South Carolina Governor's Award for Excellence in Scientific Research.  
2008 University of South Carolina Educational Foundation Outstanding Service Award  
2008 American Chemical Society Outstanding South Carolina Chemist of the Year  
2011 Elected Fellow of the American Association for the Advancement of Science

2011 Charles H. Stone Award, Charlotte/Piedmont Section of the American Chemical Society, given to the most outstanding chemist in the southeastern United States.

2013 Southern Chemist Award, Memphis Section of the American Chemical Society, given to a chemist who has advanced chemistry in the southeastern United States.

2015 USC Breakthrough Leadership in Research Award

## **Ph.D. STUDENTS AND POSTDOCTORALS:**

### Graduate Students Receiving Ph. D. Degrees

- |                            |                             |
|----------------------------|-----------------------------|
| 1. Edwin Culbertson, 1976  | 18. Yan Ding, 1993          |
| 2. Mike Dukes, 1977        | 19. Scott Mason, 1994       |
| 3. Dave Fauth, 1978        | 20. Jim Collins, 1996       |
| 4. Mo Habib, 1978          | 21. Sheila Myers, 1996      |
| 5. Alan Gabrielli, 1978    | 22. Christian Gratton, 2000 |
| 6. Charles Coleman, 1978   | 23. Terri Wright, 2001      |
| 7. Paul McElligott, 1981   | 24. Christine Little, 2001  |
| 8. Mike Tarquini, 1983     | 25. Ken Brown, 2003         |
| 9. Neil Swift, 1983        | 26. Radu Semeniuc, 2004     |
| 10. Ken Belmore, 1984      | 27. Russell Watson, 2006    |
| 11. Edward Mintz, 1985     | 28. Derek Elgin, 2007       |
| 12. Stephen Klaeren, 1987  | 29. Elizabeth Foley, 2009   |
| 13. Jeffrey Lindeman, 1988 | 30. Jacob Horger, 2010      |
| 14. Janet Baxter, 1988     | 31. Agota Debreczeni, 2012  |
| 15. Steve Knox, 1990       | 32. Andrea Pascui, 2013     |
| 16. Mark Huff, 1991        | 33. Andrew Leitner, 2015    |
| 17. Dave Garza, 1992       |                             |

### Graduate Students Receiving M. S. Degrees

Bryn Reinecke, 2007

### Postdoctoral Associates

1. Charles Coleman, 1979
2. Rahina Mahtab, 1983-84
3. Mike Pompeo, 1992
4. Paul Coan, 1992-1994
5. Yan Ding, 1994
6. Scott Mason, 1994
7. Dave Garza, 1994-1995
8. Jim Collins, 1996-1997
9. Jay Lamba, 1997 – 1999
10. Jim Gardinier, 2001 – 2004
11. Delia Ciurtin, 2002 – 2003
12. Radu Semeniuc, 2004 – 2007

#### Recent Undergraduate Students

1. Dana Caulder (2 Summers and 3 academic years of research)
2. Lance Reger (3 Summers of research)
3. Mark Pender (1 Summer and 1 academic year of research)
4. Monica Smith (1 Summer)
5. Eric Sirianni (1 Summer and 2 academic years of research)

#### **PUBLICATIONS:**

1. "The Chemistry of the Group V Metal Carbonyls," The Preparation of Some Derivatives of Tricarbonyl-mesitylenevanadium(0)," *J. Organometal. Chem.* **1970**, 23, 491, A. Davison, D. L. Reger.
2. "The Stereochemistry of Four-Coordinate Bis(methinodiphosphinate) metal (II) Chelate Complexes," *Inorg. Chem.* **1971**, 10, 1967, A. Davison, D. L. Reger.
3. "Reactions of  $[(\eta^5\text{-C}_5\text{H}_5)\text{Fe}(\text{CO})(\text{PPh}_3)\{\text{C}(\text{OEt})\text{CH}_3\}]\text{BF}_4$  with Nucleophiles. Evidence for Carboxonium Rather than Carbenoid Behavior," *J. Am. Chem. Soc.* **1972**, 94, 9237, A. Davison, D. L. Reger.
4. "Cyanide, Isocyanide, and Nitrile Derivatives of Cyclopentadienyl Iron. The Interaction of Chiral Metal Complexes with an Optically Active Shift Reagent," *Inorg. Chem.* **1975**, 14, 660, D. L. Reger.
5. "Addition of Methylene to Uncoordinated Double Bonds in Polyolefin Transition Metal  $\pi$  Complexes," *J. Am. Chem. Soc.* **1975**, 97, 4421, D. L. Reger, Alan Gabrielli.
6. "Direct Preparation of  $(\eta^5\text{-cyclopentadienyl})\text{carbonyl}(\text{triphenylphosphine})\text{Iron Alkyl Derivatives}$ ," *Syn. React. Inorg. Metal-Org. Chem.* **1976**, 6, 1, D. L. Reger, E. C. Culbertson.
7. "Mechanism of the Thermal Decomposition of  $(\eta^5\text{-C}_5\text{H}_5)\text{Fe}(\text{CO})(\text{PPh}_3)(\text{alkyl})$  Derivatives into  $(\eta^5\text{-C}_5\text{H}_5)\text{Fe}(\text{CO})(\text{PPh}_3)\text{H}$  and Olefin," *J. Am. Chem. Soc.* **1976**, 98, 2789, D. L. Reger, E. C. Culbertson.
8. "Preparation and Characterization of Cyclic Polyolefin Copper(I) Trifluoroacetate Complexes," *J. Organometal. Chem.* **1976**, 113, 173, D. L. Reger, M. D. Dukes.
9. "Convenient Preparation of  $[\eta^5\text{-C}_5\text{H}_5)\text{Fe}(\text{CO})_2]$  Anion Using Sodium Dispersion," *Syn. React. Inorg. Metal-Org. Chem.* **1977**, 7, 151, D. L. Reger, M. D. Dukes and D. J. Fauth.
10. "Preparation and Reactions of the  $(\text{Dicarbonyl})(\eta^5\text{-cyclopentadienyl})(\text{tetrahydrofuran})\text{Iron Cation}$ . A Convenient Route to  $(\text{Dicarbonyl})(\eta^5\text{-cyclopentadienyl})(\eta^2\text{-olefin})\text{Iron Cations}$  and Related Complexes," *J. Organometal. Chem.* **1977**, 131, 153, D. L. Reger, C. J. Coleman.

11. Reaction of Ylides with Cationic Transition Metal Olefin and Tetrahydrofuran Complexes," *J. Organometal. Chem.* **1977**, 131, 297, D. L. Reger, E. C. Culbertson.
12. "Induced Intense Circular Dichroism Spectra," *Inorg. and Nuc. Chem.* **1977**, 39, 1096, D. L. Reger.
13. "Isomerization of the Alkyl Group in  $(\eta^5\text{-C}_5\text{H}_5)\text{Fe}(\text{CO})(\text{PPh}_3)(\text{alkyl})$  Complexes," *Inorg. Chem.* **1977**, 16, 3104, D. L. Reger, E. C. Culbertson.
14. "Effect of Micelles on the  $\text{K}_3[\text{Co}(\text{CN})_5\text{H}]$  Catalyzed Hydrogenation of 2-Methylbutadiene, 1,3-Pentadiene and 2,3-Dimethylbutadiene," *J. Mol. Catalysis* **1978**, 4, 315, D. L. Reger, M. M. Habib.
15. "Molybdenum Perfluorocarbene Complexes," *J. Organomet. Chem.* **1978**, 153, 67, D. L. Reger, M. D. Dukes.
16. " $(\eta^5\text{-Cyclopentadienyl})\text{Cobalt(II)}$  Olefin Complexes," *Syn. React. Inorg. Metal-Org. Chem.* **1978**, 8, 5, D. L. Reger, M. D. Dukes.
17. "Catalytic Homogeneous Hydrogenations Using Micellar and Phase Transfer Reaction Conditions," *Adv. Chem. Series* **1979**, 173, 43, D. L. Reger, M. M. Habib.
18. Preparation of New  $[(\eta^5\text{-C}_5\text{H}_4\text{Me})\text{MnNO}(\text{PPh}_3)]$  and  $[(\eta^7\text{-C}_7\text{H}_7)\text{Mo}(\text{CO})(\text{PPh}_3)]$  Complexes," *J. Organometal. Chem.* **1979**, 170, 217, D. L. Reger, D. J. Fauth and M. D. Dukes.
19. "Hydrogenation of Conjugated Carbon-Carbon Double Bonds Using the  $\text{K}_3[\text{Co}(\text{CN})_5\text{H}]$  Catalyst Under Phase Transfer Reaction Conditions," *Tet. Lett.* **1979**, 115, D. L. Reger, M. M. Habib and D. J. Fauth.
20. "A New Synthetic Method for the Preparation of  $[(\eta^5\text{-C}_5\text{H}_5)\text{Fe}(\text{CO})(\text{L})(\text{un})]\text{BF}_4$  ( $\text{L} = \text{CO}, \text{PPh}_3$ ;  $\text{un} = \text{unsaturated hydrocarbon}$ ) Complexes and Reduction of the  $\eta^2\text{-Acetylene}$  Complexes," *J. Organometal. Chem.* **1979**, 171, 73, D. L. Reger, C. J. Coleman and P. J. McElligott.
21. "Preparation of Cationic  $\eta^2\text{-Alkene}$  and  $\eta^2\text{-Alkyne}$  Complexes of the  $(\eta^5\text{-C}_5\text{H}_5)\text{Fe}(\text{CO})[\text{P}(\text{OPh})_3]$  System and Reduction of These Complexes to  $\sigma\text{-Alkyl}$  and Vinyl Derivatives," *Inorg. Chem.* **1979**, 18, 3155, D. L. Reger, C. J. Coleman.
22. "Determination of the Barrier to Rotation about the Iron-Ligand Bond in Cationic  $(\eta^5\text{-C}_5\text{H}_5)\text{Fe}(\text{CO})(\text{L})$  ( $\text{L} = \text{PPh}_3, \text{P}(\text{OPh})_3$ )  $\pi\text{-Alkyne}$  and  $\pi\text{-Alkene}$  Complexes," *Inorg. Chem.* **1979**, 18, 3270, D. L. Reger, C. J. Coleman.
23. "Effects of Micelles and Phase Transfer Solutions on the  $\text{K}_3[\text{Co}(\text{CN})_5\text{H}]$  Catalyzed Hydrogenation of Sodium Sorbate and Methyl Sorbate," *J. Mol. Catalysis* **1980**, 7, 365, D. L. Reger, M. M. Habib.

24. "Carbon-13 NMR Investigation into the Interaction of Sodium Sorbate and Sorbic Acid with Various Micelle Forming Surfactants," *J Phys. Chem.* **1980**, 84, 77, D. L. Reger, M. M. Habib.
25. "Addition Reactions to Cyclopolyolefin Transition Metal  $\pi$  Complexes," *J. Organometal. Chem.* **1980**, 17, 243, D. L. Reger, A. Gabrielli.
26. "Versatile Preparation of Highly Functionalized  $\sigma$ -Alkenyl Complexes of Cyclopentadienyliron. A New Route to Substituted Alkenes," *J. Am. Chem. Soc.* **1980**, 102, 5923, D. L. Reger, P. J. McElligott.
27. "Use of Phase Transfer Reaction Conditions for the Hydrogenation of Conjugated Dienes and  $\alpha,\beta$ -Unsaturated Ketones with a Homogeneous Metal-Hydride Catalyst," *J. Org. Chem.* **1980**, 45, 3860, D. L. Reger, M. M. Habib and D. J. Fauth.
28. "The Influence of a Cyano-Substituent on an Alkyliron Isomerization Reactions," *J. Organometal. Chem.* **1981**, 216, C12, D. L. Reger, P. J. McElligott.
29. "Hydrogenation of Conjugated Dienes with Diamine Substituted Cobalt Cyanide Catalysts in Two Phase Systems," *J. Mol. Cat.* **1981**, 12, 178, D. L. Reger, A. Gabrielli.
30. "Iron, Ruthenium, and Osmium Annual Reviews for 1979," *J. Organometal. Chem.* **1981**, 223, 273, D. L. Reger.
31. "Polypyrazolylborate Complexes of Zirconium(IV)," *Inorg. Chem.* **1982**, 21, 840, D. L. Reger, M. E. Tarquini.
32. "Regiochemistry of Nucleophilic Addition to  $\text{MeC}\equiv\text{CCO}_2\text{Et}$   $\pi$ -coordinated to Iron. Synthesis and Structural Characterization of ( $\eta^5\text{-C}_5\text{H}_5$ ) $\text{Fe}(\text{CO})(\text{PPh}_3)(\eta^1\text{-C}(\text{CO}_2\text{Et})=\text{CMe}_2)$ ," *Organometallics* **1982**, 1, 443, D. L. Reger, P. J. McElligott, N. G. Charles, E. A. H. Griffith, and E. L. Amma.
33. "Trans-Addition of Nucleophiles to  $\eta^2$ -Alkyne Complexes of Iron: Crystal and Molecular Structure of  $\text{CpFeCO}[\text{P}(\text{OPh})_3][\text{Z-C}(\text{Me})=\text{C}(\text{Ph})\text{Me}]$ . Use of Higher Order Organocuprate Reagents," *Organometallics* **1983**, 2, 101, D. L. Reger, K. A. Belmore, E. Mintz, N. G. Charles, E. A. H. Griffith and E. A. Amma.
34. "Polypyrazolylborate Zirconium(IV) *Tert*-butoxide Derivatives. Stereochemically Non-rigid Six Coordinate Molecules," *Inorg. Chem.* **1983**, 22, 1064, D. L. Reger, M. E. Tarquini.
35. "Synthesis, X-ray Crystal Structure, and Study of Dynamic Behavior of [Dihydrobis(3,5-dimethyl-1-pyrazolyl)borato] chlorotrimethyltantalum(V). A Molecule with a Strong 3-Center, 2-electron Bond," *J. Am. Chem. Soc.* **1983**, 105, 5343, D. L. Reger, C. A. Swift and Lukasz Lebioda.
36. "Cis Addition of Hydride to  $\eta^2$ -Alkyne Complexes by Initial Reaction at an  $\eta^5\text{-C}_5\text{H}_5$  Ring. Crystal and Molecular Structure of ( $\eta^5\text{-C}_5\text{H}_5$ ) $\text{FeCO}(\text{PPh}_3)\text{-}$  (

- $\eta^1\text{-E-C(CO}_2\text{Et)=C(H)Me}$ )," *J. Am. Chem. Soc.* **1983**, *105*, 5710, D. L. Reger, K. A. Belmore, J. L. Atwood and W. E. Hunter.
37. "Synthesis and Investigation of a New Family of Alkylzirconium Complexes. Crystal and Molecular Structure of Hydrotris[3,5-dimethylpyrazolyl]borato-*tert*-butoxy( $\eta^2$ -1-*tert*-butyliminoethyl)-methylzirconium(IV)," *Organometallics* **1983**, *2*, 1763, D. L. Reger, M. E. Tarquini and L. Lebioda.
  38. "Nucleophilic Addition Reactions with Iron  $\eta^2$ -Alkyne Derivatives. Synthesis and Investigation of  $\text{CpFeCO(L)(}\eta^1\text{-alkenyl)}$  ( $\text{L} = \text{PPh}_3$ ,  $\text{P(OPh)}_3$ ) Complexes," *Organometallics* **1984**, *3*, 134, D. L. Reger, K. A. Belmore, E. Mintz and P. J. McElligott.
  39. "Polypyrazolylborate Derivatives of Chlorotrimethyltantalum(V). Stereochemically Non-rigid Seven Coordinate Molecules," *Inorg. Chem.* **1984**, *23*, 349, D. L. Reger, C. A. Swift and L. Lebioda.
  40. "Preparation of Alkenyliron Complexes from the Addition of Anionic Nucleophiles to Cationic Vinylidene Complexes," *Organometallics* **1984**, *3*, 876, D. L. Reger, C. A. Swift.
  41. "Oxidatively Catalyzed CO Insertion Reactions with  $\text{CpFeCO[P(OPh)}_3\text{]}(\eta^1\text{-alkenyl)}$  Complexes," *Organometallics* **1984**, *3*, 1759, D. L. Reger, E. Mintz.
  42. "Synthesis and Investigation of Isomerization Reactions of Terminal Iron-Alkenyl Complexes," *Organometallics* **1985**, *4*, 305, D. L. Reger, K. A. Belmore.
  43. "Reactions of Alkylolithium Reagents and Nitrogen and Oxygen Based Nucleophiles with Cyclopentadienyliron- $\eta^2$ -Alkyne Complexes. Crystal and Molecular Structure of a Diastereomeric Mixture of  $\text{CpFeCO[P(OPh)}_3\text{]}(\eta^1\text{-CH(Me)COME)}$ ," *Organometallics* **1986**, *5*, 1072, D. L. Reger, S. A. Klaeren and L. Lebioda.
  44. "Oxidatively Induced Insertion and Cleavage Reactions of Alkenyliron Complexes. New Routes to Highly Functionalized Alkenes," *J. Am. Chem. Soc.* **1986**, *108*, 1940, D. L. Reger, E. Mintz and L. Lebioda.
  45. "Mixed Polypyrazolylborate-Cyclopentadienyl Zirconium (IV) Complexes. Crystal and Molecular Structure of Dihydrobis(1-pyrazolyl)boratodichlorocyclopentadienylzirconium (IV)," *Inorg. Chem.* **1986**, *25*, 2046, D. L. Reger, R. Mahtab, J. C. Baxter and L. Lebioda.
  46. "Polypyrazolylborate Complexes of Yttrium and Lanthanum," *Inorg. Chim. Acta* **1987**, *139*, 71, D. L. Reger, J. A. Lindeman and L. Lebioda.
  47. "New  $\text{CpFeCO[P(OPh)}_3\text{]}(\eta^1\text{-alkenyl)}$  and  $\text{CpFeCO[P(OPh)}_3\text{]}(\eta^1\text{-alkenylacyl)}$  Complexes. Crystal and Molecular Structures of  $\text{CpFeCO[P(OPh)}_3\text{]}(\eta^1\text{-(E)-COC(CH}_2\text{OMe)=C(Me)Ph)}$  and an NMR Method to Assign Alkenyl Ligand Structure," *Organometallics* **1988**, *7*, 181, D. L. Reger, S. A. Klaeren, J. E. Babin and R. D. Adams.

48. "Iron  $\eta^2$ -Alkyne Complexes. Crystal and Molecular Structures of  $[\text{CpFeCO}[\text{P}(\text{OPh})_3](\eta^2\text{-MeC}\equiv\text{CPh})]\text{SbF}_6$  and  $[\text{CpFeCO}[\text{P}(\text{OPh})_3](\eta^2\text{-MeC}\equiv\text{CMe})]\text{SbF}_6$ ," *Organometallics* **1988**, 7, 189, D. L. Reger, S. A. Klaeren and L. Lebioda.
49. "Synthesis and Reactions of a Chelated Carbene-Olefin Complex of Cyclopentadienyliron," *J. Organometal. Chem.* **1988**, 342, 77, D. L. Reger, S. A. Klaeren.
50. "Nucleophilic Addition Reactions with Cationic Iron  $\pi$ -Alkyne and related Complexes. New Routes to Alkenyliron and Alkenylacyliron Complexes and Highly Functionalized Alkenes," *Acc. Chem. Res.* **1988**, 21, 229, D. L. Reger.
51. "Synthesis, X-Ray Crystal Structure, and Multinuclear NMR Study of the Dynamic Behavior of Tris[dihydro(1-pyrazolyl)borato]yttrium(III), a Molecule with Three, Three-Center, Two-Electron Bonds," *Inorg. Chem.* **1988**, 27, 1890, D. L. Reger, J. A. Lindeman and L. Lebioda.
52. "Trispyrazolylborate Complexes of Yttrium. X-ray Crystal Structure of  $[\text{HBpz}_3]_2\text{YCl}(\text{Hpz})$  and  $\{[\text{HBpz}_3]\text{Y}(\mu\text{-O}_2\text{CCH}_3)_2\}_2$  (pz = pyrazolyl ring)," *Inorg. Chem.* **1988**, 27, 3923, D. L. Reger, J. A. Lindeman and L. Lebioda.
53. "A Novel Copper (I) Complex with Bridging Alkyne Ligands. The Synthesis and Structural Characterization of  $[\text{Cu}_4(\text{O}_2\text{CCF}_3)_4(\mu\text{-EtC}\equiv\text{CEt})_2]$ ," *Organometallics* **1989**, 8, 848, D. L. Reger, M. F. Huff, T. A. Wolfe, and R. D. Adams.
54. "Bis(pyrazolyl)borate Complexes of Gallium. X-Ray Crystal Structure of  $[\text{H}_2\text{B}(\text{pz})_2]_2\text{GaCl}$  (pz = pyrazolyl ring)," *Inorg. Chem.* **1989**, 28, 3092, D. L. Reger, S. J. Knox and L. Lebioda.
55. "Multiple Temperature Electrochemical Studies of the Oxidatively Catalyzed E-Z Isomerization Reaction in Iron Alkenyl Complexes," *Organometallics* **1989**, 8, 1714, R. H. Philp, Jr., D. L. Reger, and A. M. Bond.
56. "Poly(pyrazolyl)borate-Phosphine Complexes of Platinum(II). X-ray Crystal Structure of the Unusual Dimer  $\text{Br}(\text{PET}_3)\text{Pt}\{\mu\text{-}[(\text{pz})_2\text{BH}(\text{pz})]\}\text{Pt}(\text{PET}_3)\text{Br}_2$ ," *Inorg. Chim. Acta* **1989**, 165, 201, D. L. Reger, J. C. Baxter and L. Lebioda.
57. "Poly(pyrazolyl)borate Complexes of Terbium, Samarium and Erbium. X-Ray Crystal Structure of  $\{[\eta^3\text{-HB}(\text{pz})_3]_2\text{Sm}(\mu\text{-O}_2\text{CPh})\}_2$  (pz = pyrazolyl ring)," *Inorg. Chem.* **1990**, 29, 416, D. L. Reger, S. J. Knox, J. A. Lindeman and L. Lebioda.
58. "Synthesis of Extremely Stable Alkyl and Hydride Complexes of the type  $[\text{R}_2\text{NCS}_2]\text{Pt}(\text{PET}_3)\text{R}$ ," *Organometallics* **1990**, 9, 16, D. L. Reger, J. C. Baxter and D. G. Garza.
59. "Alkyl Group Isomerization Studies with Unusually Stable Alkylmetal Complexes of Palladium and Platinum Secondary-Primary

- Alkyl Isomerization Equilibria in the Absence of Steric Influences from Ancillary Ligands," *Organometallics* **1990**, 9, 873, D. L. Reger, J. C. Baxter and D. G. Garza.
60. "Polyphosphinoylmethanide Complexes of Tin(II). Crystal and Molecular Structure of  $\{[(C_6H_5)_2PO]_3C\}_2Sn$ ," *Inorg. Chim. Acta.* **1990**, 178, 89, D. L. Reger, S. J. Knox and L. Lebioda.
  61. "Organometallic Complexes of Gallium Stabilized by Bis(pyrazolyl) borate Ligands," *Organometallics* **1990**, 9, 2218, D. L. Reger, S. J. Knox and L. Lebioda.
  62. "Synthesis and Characterization of Alkyne Complexes with Copper(I) Trifluoroacetate of the Type  $Cu_4(\mu-O_2CCF_3)_4(\mu-alkyne)_2$  and  $Cu_2(\mu-O_2CCF_3)_2(alkyne)_2$ ," *Organometallics* **1990**, 9, 2807, D. L. Reger, M. F. Huff.
  63. "Bis(pyrazolyl)borate Indium(III) Complexes. Crystal and Molecular Structures of  $[H_2B(pz)_2]In(CH_3Cl)_2$  and  $[H_2B(pz)_2]In(CH_3)_2$ ," *Organometallics* **1990**, 9, 2581, D. L. Reger, S. J. Knox, A. L. Rheingold and B. S. Haggerty.
  64. "Luminescence Studies of Tris[dihydrobis(1-pyrazolyl)borato]terbium(III)," *Inorg. Chem.* **1991**, 30, 2397, D. L. Reger, P. T. Chou, S. L. Studer, S. J. Knox, M. L. Martinez and W. E. Brewer.
  65. " $\eta^1$ -Alkenyl Complexes by Nucleophilic Attack on  $\pi$ -Alkyne and Allene Metal Complexes," *Inorganic Reactions and Methods*, Zuckerman, J. J. and Hagen, A. P. Ed.; VCH Publishers: Florida, **1991**; Vol. 12A, pp 259-264, D. L. Reger.
  66. "Crystal and Molecular Structure of (2,2'-Bipyridine)bis(difluorophosphato)copper(II),  $(bipy)Cu(PF_2O_2)_2$ ," *Acta. Cryst. C* **1991**, C47, 1167, D. L. Reger, M. F. Huff and L. Lebioda.
  67. "Synthesis of Extremely Stable Alkylpalladium Complexes of the type  $[Me_2NCS_2]Pd(PET_3)(alkyl)$ . Crystal and Molecular Structures of the Isomers  $[(CH_2)_4NCS_2]Pd(PET_3)(n-propyl)$  and  $[(CH_2)_4NCS_2]Pd(PET_3)(isopropyl)$ ," *Organometallics* **1991**, 10, 902, D. L. Reger, D. G. Garza and L. Lebioda.
  68. "Poly(pyrazolyl)borate Complexes of Tin(II). Crystal and Molecular Structures of  $[H_2B(pz)_2]SnCl$  and  $[B(pz)_4]_2Sn$  (pz = Pyrazolyl Ring)," *Inorg. Chem.* **1991**, 30, 1754, D. L. Reger, S. J. Knox, M. F. Huff, A. L. Rheingold and B. S. Haggerty.
  69. "Electrochemisry of Copper(II) Bipyridyl Complexes with Alkene, Alkyne and Nitrile Ligands," *Free Rad. Res. Com.* **1991**, 15, 143, P. Kivacic, P. F. Kiser, D. L. Reger, M. F. Huff and B. A. Feinberg.
  70. "Control of Structure in Lead(II) Complexes Using Poly(pyrazolyl)borate Ligands. Stereochemically Inactive Lone Pair in Octahedral  $[HB(3,5-Me_2pz)_3]_2Pb$ ," *J. Am. Chem. Soc.* **1992**, 114, 579, D. L. Reger, M. F. Huff, A. L. Rheingold and B. S. Haggerty.

71. "Alkyne 2,2'-Bipyridine Copper(I) Complexes. Controlled Formation of  $[\text{Cu}(\text{bipy})(\text{alkyne})]^+$  and  $\{[\text{Cu}(\text{bipy})]_2(\text{alkyne})\}^{2+}$ ," *Organometallics* **1992**, 11, 69, D. L. Reger, M. F. Huff.
72. "Poly(pyrazolyl)borate Complexes of Tin(II) and Lead(II). The Quest for a Coordination Complex with a Stereochemically Inactive Lone Pair," *Synlett* **1992**, 469, D. L. Reger.
73. "Isomerization of the Alkyl Ligand in  $(\text{Me}_2\text{NCS}_2)\text{Pd}(\text{PR}_3)(\text{alkyl})$  Complexes. Influences of Heteroatom Substituents in the Alkyl Group on the Alkyl Isomerization Equilibria and Stability of Alkylmetal Complexes," *Organometallics* **1992**, 11, 4285, D. L. Reger, D. G. Garza and L. Lebiada.
74. "Alkene and Alkyne Insertion Reactions with the Unstable Palladium Hydride Complex  $(\text{Me}_2\text{NCS}_2)\text{Pd}(\text{PEt}_3)\text{H}$  and Carbon Monoxide Insertion Reactions with  $(\text{Me}_2\text{NCS}_2)\text{Pd}(\text{PEt}_3)(\text{alkyl})$  Complexes," *Organometallics* **1993**, 12, 554, D. L. Reger, D. G. Garza.
75. "Influence of the Size of the Phosphine Ligand on Primary-Secondary Alkyl Isomerization Equilibria with  $(\text{Me}_2\text{NCS}_2)\text{Pt}(\text{PR}_3)(\text{alkyl})$  Complexes," *J. Organomet. Chem.* **1993**, 542, 263, D. L. Reger, Y. Ding, D. G. Garza and L. Lebiada.
76. "Syntheses and  $^{13}\text{C}$  NMR Investigations of an Extensive Series of  $[\text{HB}(3,5\text{-Me}_2\text{pz})_3]\text{Cd}(\text{alkyl})$  Complexes," *Organometallics* **1993**, 12, 2600, D. L. Reger, Scott S. Mason
77. "Solid State Structures of  $[\text{HB}(3\text{-Bu}^t\text{pz})_3]\text{CdCl}$  and  $[\text{HB}(3\text{-Bu}^t,5\text{-Mepz})_3]\text{SnCl}$  (pz = pyrazolyl ring). Stereochemical Influence of a Central Atom Lone Pair," *Inorg. Chem.* **1993**, 32, 4345, D. L. Reger, S. S. Mason, J. Takats, X. W. Zhang, A. L. Rheingold and B. S. Haggerty.
78. "Solid State  $^{119}\text{Sn}$  NMR studies of Poly(pyrazolyl)borate complexes of Tin(II). Correlation of Solution and Solid State Structures," *Inorg. Chem.* **1993**, 32, 4472, D. L. Reger, M. F. Huff, S. J. Knox, R. J. Adams, and R. K. Harris.
79. "Syntheses, Structures,  $^{113}\text{Cd}$  Solution NMR Chemical Shifts and Investigations of Fluxional Processes of Bis(poly(pyrazolyl)borate)cadmium Complexes," *Inorg. Chem.* **1993**, 32, 5216, D. L. Reger, S. S. Mason, A. L. Rheingold and R. L. Ostrander.
80. "Gallium Complexes of Potentially Tridentate Poly(pyrazolyl)borate Ligands. Crystal and Molecular Structures of  $[\text{HB}(3,5\text{-Me}_2\text{pz})_3]\text{Ga}(\text{CH}_3)\text{Cl}$ ,  $[\text{HB}(3,5\text{-Me}_2\text{pz})_3]\text{Ga}(\text{CH}_3)_2$  and  $[\text{B}(\text{pz})_4]_2\text{GaCH}_3$  (pz = pyrazolyl ring)," *Organometallics* **1993**, 12, 4485, D. L. Reger, Y. Ding.
81. "Syntheses of the First Molecular Complexes Containing a Cadmium-Cadmium Bond and a Cadmium-Hydrogen Bond," *J. Am. Chem. Soc.* **1993**, 115, 10406, D. L. Reger, S. S. Mason and A. L. Rheingold.

82. "Solid State Structure of  $[\text{HB}(\text{pz})_3]_2\text{Sn}$ ," *Polyhedron* **1994**, 13, 869, D. L. Reger, Y. Ding.
83. "Preparation and Reactivity of the Platinum(0) Anion  $[(\text{Me}_2\text{NCS}_2)\text{Pt}(\text{PEt}_3)]^-$ ," *Organometallics* **1994**, 13, 1047, D. L. Reger, Y. Ding.
84. "Solution State  $^{113}\text{Cd}$  NMR Investigation of an Extensive Series of  $[\text{HB}(3,5\text{-Me}_2\text{pz})_3]\text{Cd}(\text{alkyl})$  Complexes," *Polyhedron* **1994**, 13, 3059, D. L. Reger, Scott S. Mason.
85. "Indium Complexes of Potentially Tridentate Poly(pyrazolyl)borate Ligands. Ionization of Molecular  $[\text{HB}(\text{pz})_3]_2\text{InCl}$  in  $\text{CH}_2\text{Cl}_2$ ," *Inorg. Chem.* **1994**, 33, 1803, D. L. Reger, S. S. Mason, A. L. Rheingold and R. L. Ostrander.
86. "Synthesis and Characterization of Complexes Containing Two Different Chelate Ligands of the Type  $[\text{Hydrotris}(3,5\text{-dimethylpyrazolyl})\text{borate}]\text{Indium(III)}[\text{Chelate Ligand}]\text{X}$ ," *Inorg. Chem.* **1994**, 33, 1811, D. L. Reger, S. S. Mason, L. B. Reger, A. L. Rheingold and R. L. Ostrander.
87. "Reactions of  $\{(\text{C}_5\text{H}_5)\text{Co}[\text{P}(\text{O})(\text{OC}_2\text{H}_5)_2]_3\}^-$  with  $\text{MCl}_3$  and  $\text{M}(\text{CH}_3)\text{Cl}_2$  ( $\text{M} = \text{Ga}, \text{In}$ ). Crystal and Molecular Structure of  $\{[(\text{C}_5\text{H}_5)\text{Co}[\text{P}(\text{O})(\text{OC}_2\text{H}_5)_2]_3]_2\text{Ga}\}[\text{Ga}(\text{CH}_3)\text{Cl}_3]$ ," *Polyhedron* **1994**, 13, 3053, D. L. Reger, Y. Ding, A. L. Rheingold and R. L. Ostrander.
88. "Lead(II) Complexes Containing Two Different Polydentate Ligands. Crystal and Molecular Structure of  $[\text{HB}(3,5\text{-Me}_2\text{pz})_3]\text{Pb}(3,5\text{-Me}_2\text{pzH})_3\text{Cl}$  ( $\text{pz} = \text{pyrazolyl ring}$ ), a Cationic-Anionic, Double Coordination Complex," *Inorg. Chem.* **1994**, 33, 4226, D. L. Reger, Y. Ding, A. L. Rheingold and R. L. Ostrander.
89. " $^{113}\text{Cd}$  Shielding Tensors of Cadmium-Nitrogen Compounds. 1. CP/MAS Studies on Cadmium Poly(pyrazolyl)borates Having  $\text{N}_4$  and  $\text{N}_6$  Coordination," *J. Am. Chem. Soc.* **1994**, 116, 10182, A. S. Lipton, S. S. Mason, D. L. Reger and P. D. Ellis.
90. "Syntheses and Solid State Structures of  $[\text{HB}(3,5\text{-Me}_2\text{pz})_3]\text{InFe}(\text{CO})_4$  and  $[\text{HB}(3,5\text{-Me}_2\text{pz})_3]\text{InW}(\text{CO})_5$ . A New Class of Intermetallic Complexes with Short Metal-Metal Bonds," *Organometallics* **1994**, 13, 5049, D. L. Reger, S. S. Mason A. L. Rheingold, B. S. Haggerty and F. P. Arnold
91. "Syntheses of Carbene and Alkenyl Derivatives of Palladium. Solid State Structures of  $\{(\text{Me}_2\text{NCS}_2)\text{Pd}(\text{PEt}_3)[\eta^1\text{-C}(\text{N}(\text{CH}_3)\text{C}(\text{CH}_3)_3\text{CH}_3)]\}\text{BPh}_4$  and  $\{(\text{Me}_2\text{NCS}_2)\text{Pd}(\text{PEt}_3)[\eta^1\text{-C}(\text{NHC}(\text{CH}_3)_3\text{CH}_3)]\}\text{PF}_6$ ," *J. Organomet. Chem.* **1995**, 491, 159, D. L. Reger, J. E. Collins

92. "Syntheses of Palladium(II) Chalconide Complexes. Solid State Structure of  $[(CH_3)_2NCS_2]Pd(PEt_3)SCH_3$ ," *Inorg. Chem.* **1995**, *34*, 2473, D. L. Reger, J. E. Collins.
93. "Synthesis and Solid-State Structure of the First Neutral Indium Polysulfide Complex," *Inorg. Chem.* **1995**, *34*, 6226, D. L. Reger, P. S. Coan
94. "Syntheses and Characterization of 5-Coordinate, Mixed-Ligand Complexes with  $CdN_3O_2$ ,  $CdN_3S_2$  and  $CdN_5$  Coordination Spheres about Cadmium(II)," *Inorg. Chem.* **1995**, *34*, 4996, D. L. Reger, S. M. Myers, S. S. Mason, A. L. Rheingold, B. S. Haggerty and P. D. Ellis.
95. "Synthesis and Solid State Structure of  $[Cu_5(Bu^tC\equiv C)_2(bipy)_4][CF_3SO_3]_3$ : An Unusual Cationic Organocopper(I) Complex Held together by Two Bridging Alkynyl Ligands" *Organometallics* **1995**, *14*, 5475, D. L. Reger, J. E. Collins, M. F. Huff, A. L. Rheingold and G. P. A. Yap.
96. " $^{113}Cd$  Shielding Tensors of Monomeric Cadmium Compounds Containing Nitrogen Donor Atoms. 2. Syntheses, Crystal Structures, and  $^{113}Cd$  NMR Spectroscopy of the Six-Coordinate Complexes  $[HB(pz)_3]_2Cd$ ,  $[HB(3-Phpz)_3]_2Cd$  and  $[B(pz)_4]Cd[HB(3-Phpz)_3]$  ( $pz$  = pyrazolyl)," *J. Am. Chem. Soc.* **1995**, *117*, 10998, D. L. Reger, S. M. Myers, S. S. Mason, D. J. Darensbourg, M. W. Holtcamp, J. H. Reibenspeis, A. S. Lipton and P. D. Ellis.
97. "Bis[dihydrobis(1-pyrazolyl)borate]Cadmium(II): A Monomeric, Tetrahedral Complex of Cadmium(II)," *Inorg. Chim. Acta.* **1995**, *240*, 669, D. L. Reger, S. S. Mason, and A. L. Rheingold.
98. "Synthesis and Solid State Structure of  $\{[HB(3,5-Me_2pz)_3]Ge\}$ : a Novel Complex of Germanium(II)," *Inorg. Chem.* **1996**, *35*, 258, D. L. Reger, P. S. Coan.
99. "Poly(pyrazolyl)borate Complexes of Gallium and Indium," *Coord. Chem. Rev.* **1996**, *147*, 571, D. L. Reger.
100. "Hydrotris(3,5-dimethylpyrazolyl)borate complexes of Gallium(III) and Indium(III)," *J. Organomet. Chem.* **1996**, *512*, 91, D. L. Reger, M. J. Pender, D. L. Caulder, L. B. Reger, A. L. Rheingold and L. M. Liable-Sands.
101. " $^{113}Cd$  Shielding Tensors of Cadmium-Nitrogen Compounds. 3. CP/MAS Studies on Five Coordinate Cadmium Complexes Having  $N_3X_2$  ( $X = H, N$ ,

- O, S) Donor Atoms," *Inorg. Chem.* **1996**, 35, 7111, A. S. Lipton, S. S. Mason, S. M. Myers, D. L. Reger and P. D. Ellis.
102. "A Six-Coordinate Tris(3,5-dimethyl-1-pyrazolyl)methane-Thallium(I) Complex with a Stereochemically Inactive Lone Pair: Syntheses and Solid State Structures of  $\{[\text{HC}(3,5\text{-Me}_2\text{pz})_3]_2\text{TI}\}\text{PF}_6$  and  $\{[\text{HC}(3,5\text{-Me}_2\text{pz})_3]\text{TI}\}\text{PF}_6$  (pz = pyrazolyl)," *Inorg. Chem.* **1996**, 35, 1372 D. L. Reger, J. E. Collins, R. Layland and R. D. Adams.
  103. "Syntheses and Cadmium-113 NMR of Cationic, Six Coordinate Cadmium(II) Complexes Containing Tris(3,5-dimethylpyrazolyl)methane and Tris(3-phenylpyrazolyl)methane Ligands. Solid State Structures of  $\{[\text{HC}(3,5\text{-Me}_2\text{pz})_3]_2\text{Cd}\}(\text{BF}_4)_2$  (pz = 1-pyrazolyl) and  $[\text{Cd}(\text{THF})_4](\text{BF}_4)_2$ ," *Inorg. Chem.* **1996**, 35, 4904, D. L. Reger, J. E. Collins, S. M. Myers, A. L. Rheingold and L. M. Liable-Sands.
  104. "Syntheses and Characterization of Cationic Tris(pyrazolyl)methane Copper(I) Carbonyl and Acetonitrile Complexes," *Organometallics* **1996**, 15, 2029, D. L. Reger, J. E. Collins, A. L. Rheingold and L. M. Liable-Sands.
  105. "Syntheses and Characterization of Cationic Tris(pyrazolyl)methane Silver(I) Complexes. Solid State Structures of  $\{[\text{HC}(3,5\text{-Me}_2\text{pz})_3]_2\text{Ag}\}(\text{O}_3\text{SCF}_3)$ ,  $\{[\text{HC}(3\text{-Bu}^t\text{pz})_3]\text{Ag}\}(\text{O}_3\text{SCF}_3)$  and  $\{[\text{HC}(3\text{-Bu}^t\text{pz})_3]\text{Ag}(\text{CNBu}^t)\}(\text{O}_3\text{SCF}_3)$ ," *Organometallics* **1997**, 16, 349, D. L. Reger, J. E. Collins, A. L. Rheingold, L. M. Liable-Sands and G. P. A. Yap
  106. "Syntheses of Tin and Lead Complexes of Tris(pyrazolyl)methane Ligands. Control of Lead Coordination Sphere by Changes in the Ligands," *Inorg. Chem.* **1997**, 36, 345, D. L. Reger, J. E. Collins, A. L. Rheingold, L. M. Liable-Sands and G. P. A. Yap.
  107. "Stabilization of Lithium Borohydride with Nitrogen Donor, Chelate Ligands. Solid State Structures of  $[\text{HC}(3,5\text{-Me}_2\text{pz})_3]\text{Li}(\eta^3\text{-BH}_4)$ ,  $\{[\text{H}_2\text{C}(3,5\text{-Me}_2\text{pz})_2]\text{Li}(\mu\text{-}\eta^3\text{-BH}_4)\}_2$  and  $[4,4'\text{-Me}_2\text{bipy}]\text{Li}(\mu\text{-}\eta^3\text{-BH}_4)\}_2$  (pz = pyrazolyl, bipy = bipyridyl)," *Inorg. Chem.* **1997**, 36, 6266, D. L. Reger, J. E. Collins, M. A. Matthews, A. L. Rheingold, L. M. Liable-Sands and I. A. Guzei.
  108. "The Thermal Characterization of Novel Complex Hydrides," *Int. J. Hydrogen Energy* **1998**, 23, 469, J. E. Stearns, M. A. Matthews, D. L. Reger, and J. E. Collins.
  109. "Synthesis of Tris(N-(3-*tert*-butyl)pyrazolyl)methane," *Inorg. Syn.* **1998**, 32, 63, D. L. Reger, J. E. Collins, D. L. Jameson and R. K. Castellano.

110. "Synthesis and Solid State Structure of  $[\text{HB}(3,5\text{-Me}_2\text{pz})_3]\text{GaFe}(\text{CO})_4$ : A Compound with a Short, Two-Electron  $\text{Ga(I)} \rightarrow \text{Fe}$  Dative Bond," *Organometallics* **1998**, 17, 3624, D. L. Reger, D. G. Garza, A. L. Rheingold and G. P. A. Yap.
111. "Novel Hydrides for the Chemical Storage of Hydrogen," *Inter. J. of Hydrogen Energy* **1998**, 23, 1103, R. Aiello, M. A. Matthews, D. L. Reger and J. E. Collins
112. "Tris(pyrazolyl)methane Ligands: The Neutral Analogs of Tris(pyrazolyl)borate Ligands," *Comments Inorg. Chem.* **1999**, 21, 1, D. L. Reger,.
113. "Solid State Structure of  $\{[\text{HC}(3,5\text{-Me}_2\text{pz})_3][\text{HB}(3,5\text{-Me}_2\text{pz})_3]\text{Cd}\}^+$ : Comparison of the Bonding of Tris(pyrazolyl)methane and Tris(pyrazolyl)borate Ligands," *Inorg. Chem.* **1999**, 38, 3235, D. L. Reger, J. E. Collins, A. L. Rheingold and L. M. Liable-Sands.
114. "Syntheses of Tris(pyrazolyl)methane Ligands and  $\{[\text{Tris}(\text{pyrazolyl})\text{methane}]\text{Mn}(\text{CO})_3\}\text{SO}_3\text{CF}_3$  Complexes: Comparison of Ligand Donor Properties," *J. Organomet. Chem.* **2000**, 607, 120, D. L. Reger, T. C. Grattan, K. J. Brown, C. A. Little and J. J. S. Lamba, A. L. Rheingold, and R. D. Sommer.
115. "Structural, Electronic, and Magnetic Properties of  $\{\text{Fe}[\text{HC}(3,5\text{-}(\text{CH}_3)_2\text{pz})_3]_2(\text{BF}_4)_2$ : Observation of Unusual Spin-Crossover Behavior" *Inorg. Chem.* **2000**, 39, 4674, D. L. Reger, C. A. Little, A. L. Rheingold, M. Lam, T. Concolino, A. Mohan and G. J. Long.
116. "A Synthetic, Structural, Magnetic, and Spectral Study of Several  $\{\text{Fe}[\text{tris}(\text{pyrazolyl})\text{methane}]_2(\text{BF}_4)_2$  Complexes: Observation of an Unusual Spin-State Crossover," *Inorg. Chem.* **2001**, 40, 1508-1520, D. L. Reger, C. A. Little, A. L. Rheingold, M. Lam, L. M. Liable-Sands, B. M. Rhagitan, T. Concolino, A. Mohan, G. J. Long, V. Briois and F. Grandjean.
117. "Variable-Temperature X-Ray Structural Investigations of  $\{\text{Fe}[\text{HC}(3,5\text{-Me}_2\text{pz})_3]_2(\text{BF}_4)_2$  (pz = pyrazolyl ring): Observation of a Thermally Induced Spin State Change from All High Spin to an Equal High Spin-Low Spin Mixture, Concomitant with the Onset of Nonmerohedral Twinning," *Inorg. Chem.* **2001**, 40, 2870-2874, D. L. Reger, C. A. Little, V. Young and M. Pink.
118. "Synthesis, Solid State Structure, Magnetic Properties and Mössbauer Spectral Studies of  $\{\text{Fe}[\text{HC}(3,5\text{-Me}_2\text{pz})_3](\text{H}_2\text{O})_3(\text{BF}_4)_2$ ," *Inorg. Chim. Acta.* **2001**, 316, 65-70, D. L. Reger, C. A. Little, A. L. Rheingold, R. Sommer and G. J. Long.

119. "Reactions of Sodium Borohydride with Tris(pyrazolyl)methane Ligands. Syntheses and Solid State Structures of  $\{[\text{HC}(\text{pz})_3](\text{thf})\text{Na}(\mu^1_1, \mu^1_1\text{-BH}_4)\}_2$  and  $[\text{HC}(3,5\text{-Me}_2\text{pz})_3]_2\text{Na}(\text{BH}_4)$  (pz = pyrazolyl ring, thf = tetrahydrofuran)," *Polyhedron* **2001**, 20, 2491-2494, D. L. Reger, J. E. Collins, W. Flomer, A. L. Rheingold, L. M. Liable-Sands and L. A. Guzei.
120. "Control of the Stereochemical Impact of the Lone Pair in Lead(II) Tris(pyrazolyl)methane Complexes. Improved Preparation of  $\text{Na}\{\text{B}[3,5\text{-(CF}_3)_2\text{C}_6\text{H}_3]_4\}$ ," *Inorg. Chem.* **2001**, 40, 3810-1314, D. L. Reger, T. D. Wright, C. A. Little, J. J. S. Lamba and M. D. Smith.
121. X-Ray crystal structures of  $[\text{HB}(3,4,5\text{-Me}_3\text{pz})_3]_2\text{Zn}$ ,  $[\text{H}_2\text{B}(3,4,5\text{-Me}_3\text{pz})_2]\text{Zn}(\mu\text{-(3,4,5-Me}_3\text{pz)}_2\text{Zn}[\text{H}_2\text{B}(3,4,5\text{-Me}_3\text{pz})_2])$ , and  $[\text{H}_2\text{B}(\text{pz})_2]_2\text{Zn}$  (pz = pyrazolyl ring)," *J. Chem. Cryst.* **2001**, 30, 665-670, D. L. Reger, T. D. Wright and M. D. Smith.
122. "Supramolecular Architecture of a Silver(I) Coordination Polymer Supported by a New Ligand Containing Four Tris(pyrazolyl)methane Units," *Inorg. Chem.* **2001**, 40, 6545-6546, D. L. Reger, R. F. Semeniuc and M. D. Smith.
123. "Supramolecular Structures of Cadmium(II) Coordination Polymers: A New Class of Ligands Formed by Linking Tripodal Tris(pyrazolyl)methane Units," *Inorg. Chem.* **2001**, 40, 6212-6219, D. L. Reger, T. D. Wright, R. F. Semeniuc, T. C. Grattan and M. D. Smith.
124. "Crystal Structure of Bis[dihydrobis(3,5-dimethy-1-pyrazolyl)borato]cadmium(II)," *J. Chem. Cryst* **2002**, 31, 93-95, D. L. Reger, T. D. Wright, A. L. Rheingold and B. Rhagitan.
125. "Mixed-Ligand Complexes of Cadmium(II) Containing Bulky Polydentate Nitrogen Based Ligands," *Inorg. Chim. Acta.* **2002**, 334, 1-9, D. L. Reger, T. D. Wright and M. D. Smith.
126. "Mono-Thiocyanate Complexes of Cadmium(II) and Lead(II) Containing Bulky Nitrogen Based Polydentate Ligands," *Polyhedron* **2002**, 21, 1795-1807, D. L. Reger, T. D. Wright, M. D. Smith, A. L. Rheingold, S. Kassel, T. Concolino and B. Rhagitan.
127. "Syntheses and Solid State Structures of Tris(pyrazolyl)methane Complexes of Sodium, Potassium, Calcium and Strontium: Comparison of Structures with Analogous Complexes of Lead(II)," *Inorg. Chem.* **2002**, 41, 19-27, D. L. Reger, C. A. Little, M. D. Smith, A. L. Rheingold, L. M. Liable-Sands, G. P. A. Yap and L. A. Guzei.

128. "Self-Assembly of an Organometallic Silver(I) 1D Architecture Supported by Three Different Types of Bonding Interactions," *Inorg. Chem. Commun.* **2002**, 5, 278-282, D. L. Reger, R. F. Semeniuc and M. D. Smith.
129. "Solid State  $^{67}\text{Zn}$  NMR Spectroscopy in Bioinorganic Chemistry. Spectra of 4- and 6-Coordinate Zinc Pyrazolylborate Complexes Obtained by Management of Proton Relaxation Rates with a Paramagnetic Dopant," *J. Am. Chem. Soc.* **2002**, 124, 5850-5860, A. S. Lipton, T.A. Wright, M. K. Bowman, D. L. Reger and P. D. Ellis.
130. "Self Assembly of a Chiral Three Dimensional Architecture Composed of Two Different Strands of Silver(I) Helical Chains Connected by Bitopic Tris(pyrazolyl)methane Ligands," *Eur. J. Inorg. Chem.* **2002**, 543-546, D. L. Reger, R. F. Semeniuc and M. D. Smith
131. "Supramolecular Structure of  $\text{C}_6\text{H}_2[\text{CH}_2\text{OCH}_2\text{C}(\text{pz})_3]_4[\text{Mn}(\text{CO})_3]_4(\text{BF}_4)_4$  Based on Tetrametallic Organometallic Building Blocks Constructed from a Multitopic Tris(pyrazolyl)methane Ligand," *J. Chem. Soc., Dalton Trans.* **2002**, 476-477, D. L. Reger, R. F. Semeniuc and M. D. Smith.
132. "Synthetic, Structural, Magnetic, and Mössbauer Spectral Study of  $\{\text{Fe}[\text{HC}(3,5\text{-Me}_2\text{pz})_3]_2\}_2$  and its Spin-State Crossover Behavior," *Eur. J. Inorg. Chem.* **2002**, 1190-1197, D. L. Reger, C. A. Little, M. D. Smith, A.L. Rheingold, K.-C. Lam, T. L. Concolino, G. J. Long, R. P. Hermann and F. Grandjean.
133. Solid-State Structural and Magnetic Investigations of  $\{\text{M}[\text{HC}(3,5\text{-Me}_2\text{pz})_3]_2(\text{BF}_4)_2$  (M=Fe, Co, Ni, Cu): Observation of a Thermally Induced Solid-State Phase Change Controlling an Iron(II) Spin-State Crossover," *Inorg. Chem.* **2002**, 41, 4453-4460, D. L. Reger, C. A. Little, M. D. Smith and Gary J. Long.
134. "Rhenium Tricarbonyl Complexes of Tris(pyrazolyl)methane Ligands: First Structural Characterization of an Isomer Pair of Tris(pyrazolyl)methane Derivatives and the Supramolecular Structure of the Homobimetallic Complex  $\{1,4\text{-C}_6\text{H}_4[\text{CH}_2\text{OCH}_2\text{C}(\text{pz})_3]_2[\text{Re}(\text{CO})_3]_2\}(\text{Br})_2$ ," *J. Organomet. Chem.* **2002**, 658, 50-61, D. L. Reger, K. J. Brown, and M. D. Smith.
135. "Supramolecular Structures of Tris(pyrazolyl)methane Complexes of Triphenylphosphine Copper(I)," *Revue Roumaine de Chimie* **2003**, 47, 1037-1046, D. L. Reger, R. F. Semeniuc and M. D. Smith.
136. "Structurally Adaptive Multitopic Ligands Containing Tris(pyrazolyl)methane Units as Supramolecular Synthons: Manganese

- Carbonyl Complexes," *J. Organomet. Chem.* **2003**, 666, 87-101, D. L. Reger, R. F. Semeniuc and M. D. Smith.
137. "Supramolecular Structures of  $\{p\text{-C}_6\text{H}_4[\text{CH}_2\text{OCH}_2\text{C}(\text{pz})_3]_2(\text{AgSbF}_6)_2\}_\infty$  : Formation of Argentamacrocycles and Argentachains," *J. Chem. Soc., Dalton Trans.* **2003**, 285 - 286, D. L. Reger, R. F. Semeniuc and M. D. Smith.
  138. "Supramolecular Assembly and Solution Properties of Bis(bipyridyl)ruthenium(II) Coordination Complexes of Aryl(2-pyridyl)methanones," *Inorg. Chem.* **2003**, 42, 482-491, D. L. Reger, J. R. Gardinier, M. D. Smith, and P. J. Pellechia.
  139. "The 4-(Dipyridylamino)benzoylpyridine Ligand as a Supramolecular Synthon. Solid State Organization of a Bis(bipyridyl)ruthenium(II) Complex," *Inorg. Chim. Acta.* **2003**, 352, 151-159, D. L. Reger, J. R. Gardinier, and M. D. Smith
  140. "Synthesis of Modified Tris(pyrazolyl)methane Ligands: Backbone Functionalization," *Synthesis* **2003**, 350-356, D. L. Reger, T. C. Grattan.
  141. "A High-Pressure K-edge X-Ray Absorption Spectral Study of the Spin-State Crossover In  $\{\text{Fe}[\text{HC}(3,5\text{-Me}_2\text{pz})_3]_2\}_2$  and  $\{\text{Fe}[\text{HC}(3,5\text{-Me}_2\text{pz})_3]_2\}(\text{BF}_4)_2$ ," *Inorg. Chem.* **2003**, 42, 982-985, C. Piquer, F. Grandjean, O. Mathon, S. Pascarelli, C. A. Little, D. L. Reger and G. J. Long
  142. "Influences of Changes in Multitopic Tris(pyrazolyl)methane Ligand Topology on Silver(I) Supramolecular Structures," *Inorg. Chem.* **2003**, 42, 3751-3764, D. L. Reger, R. F. Semeniuc, I. Silaghi-Dumitrescu and M. D. Smith.
  143. "Silver Complexes of 1,1',3,3'-tetrakis(pyrazol-1-yl)propane: the "Quadruple Pyrazolyl Embrace" as a Supramolecular Synton," *J. Chem. Soc., Dalton Trans.* **2003**, 1712 - 1718, D. L. Reger, J. R. Gardinier, R. F. Semeniuc, and M. D. Smith.
  144. "Influence of the Crystallization Solvent on Molecular and Supramolecular Structures of Silver(I) Tris(3-Phenyl-pyrazolyl)methane Complexes," *Eur. J. Inorg. Chem.* **2003**, 3480-3494, D. L. Reger, R. F. Semeniuc and M. D. Smith.
  145. "Synthesis of Open and Closed Metallocages Using Novel Tripodal Ligands: Unusually Stable Silver(I) Inclusion Compound," *Inorg. Chem.* **2003**, 42, 8137-8139, D. L. Reger, R. F. Semeniuc and M. D. Smith.

146. "Synthesis and Properties of Rhenium Carbonyl Complexes of  $\alpha,\alpha'$ -Bis[(1-pyrenyl)pyrazol-1-yl]alkane Ligands," *Inorg. Chem.* **2003**, 42, 7635-7643, D. L. Reger, J. R. Gardinier, P. J. Pellechia, M. D. Smith, and K. J. Brown.
147. "Synthesis and Structural Characterization of a Bitopic Ferrocenyl Linked Bis(pyrazolyl)methane Ligand and its Silver(I) Coordination Polymers," *Organometallics* **2003**, 22, 4973, D. L. Reger, K. J. Brown, J. R. Gardinier, and M. D. Smith.
148. "Synthesis of the Silver(I) Complex of  $\text{CH}_2[\text{CH}(\text{pz}^{4\text{Et}})_2]_2$  Containing the Unprecedented  $[\text{Ag}(\text{NO}_3)_4]^{3-}$  Anion: A General Method for the Preparation of 4-(alkyl)pyrazoles," *New J. Chem.* **2003**, 27, 1670, D. L. Reger, J. R. Gardinier, T. C. Grattan, M. R. Smith and M. D. Smith.
149. "(N,N'-bis(2-pyridylmethyl)oxamide)palladium(II) monohydrate chloroform hemisolvate," *Acta Crystallogr., Sect. E* **2003**, E59, 653-654, D. L. Reger, D. M. Ciurtin Smith, K. D. Shimizu, M. D. Smith.
150. "Electronic Spin-State Crossover in Pyrazolylborate and Pyrazolylmethane Complexes," *Topics in Current Chem.* **2004**, 233, 91-122, G. J. Long, F. Grandjean and D. L. Reger.
151. "Syntheses and Solid State Structures of Lanthanide complexes of N,N'-bis(2-Pyridyl)urea and N,N'-bis(3-Pyridylmethyl)oxalamide," *Polyhedron* **2004**, 23, 711-717, D. L. Reger, D. M. Ciurtin Smith, K. D. Shimizu, M. D. Smith.
152. "Supramolecular Structural Variations with Changes in Anion and Solvent in Silver(I) Complexes of a Bitopic Tris(pyrazolyl)methane Ligand," *Inorg. Chem.* **2004**, 43, 537-554, D. L. Reger, R. F. Semeniuc, V. Rassolov and M. D. Smith.
153. "Synthesis of *meta*- $\text{C}_6\text{H}_4[\text{C}(\text{1-pyrazolyl})_2(\text{2-pyridyl})]_2$ , a Fixed Geometry Bitopic Heteroscorpionate and the Crystal Structure of its Unusual Square Planar Silver(I) Complex," *Polyhedron* **2004**, 23, 291-299, D. L. Reger, J. R. Gardinier and M. D. Smith.
154. "A study of the electronic spin-state crossover in  $\{\text{Fe}[\text{HC}(\text{3,4,5-Me}_3\text{pz})_3]_2\}(\text{BF}_4)_2$ ," *Eur. J. Inorg. Chem.* **2004**, 3345-3352, D. L. Reger, J. D. Elgin, M. D. Smith, F. Grandjean, L. Rebbouh, and G. J. Long.
155. "Tuning the Coordination Geometry of Silver in Bis(pyrazolyl)alkane Complexes," *Inorg. Chem.* **2004**, 43, 3825-3832, D. L. Reger, J. R. Gardinier and M. D. Smith.

156. "Synthesis of  $\text{Na}\{\text{B}[\text{3,5-(CF}_3)_2\text{C}_6\text{H}_3]_4\}$ ," *Inorg. Syn.* **2004**, 34, 5-7, D. L. Reger, C. A. Little, J. J. S. Lamba and K. J. Brown.
157. "Synthesis of  $[\text{Cd}_2(\text{thf})_5](\text{BF}_4)_4$ ," *Inorg. Syn.* **2004**, 34, 91-93, D. L. Reger, J. E. Collins.
158. "Impact of Variations in Design of Flexible Bitopic Bis(pyrazolyl)methane Ligands and Counterions on the Structures of Silver(I) Complexes: Dominance of Cyclic Dimeric Architecture," *Inorg. Chem.* **2004**, 43, 6609, D. L. Reger, R. P. Watson, J. R. Gardinier and M. D. Smith.
159. "Polymorphism in  $\text{Fe}[(p\text{-IC}_6\text{H}_4)\text{B}(3\text{-Mepz})_3]_2$  (pz = pyrazolyl): Impact of Supramolecular Structure on an Iron(II) Electronic Spin-State Crossover," *Inorg. Chem.* **2005**, 44, 1852-1867, D. L. Reger, J. R. Gardinier, M. D. Smith, A. M. Shahin, G. J. Long, L. Rebbouh, and F. Grandjean.
160. "The Formation of Third Generation Poly(pyrazolyl)borate Ligands from Alkyne Coupling Reactions of  $\text{Fe}[(p\text{-IC}_6\text{H}_4)\text{B}(3\text{-Rpz})_3]_2$  (R = H, Me; pz = pyrazolyl): Pathways Toward Controlling an Iron(II) Electronic Spin-State Crossover," *J. Am. Chem. Soc.* **2005**, 127, 2303-2316, D. L. Reger, J. R. Gardinier, W. R. Gemmill, M. D. Smith, A. M. Shahin, G. J. Long, L. Rebbouh and F. Grandjean.
161. "Multitopic third generation tris(pyrazolyl)methane ligands built on alkyne structural scaffolding: First preparation of mixed tris(pyrazolyl)methane/tris(pyrazolyl)borate ligands," *New J. Chem.* **2005**, 29, 1035 - 1043, D. L. Reger, J. R. Gardinier, S. Bakbak, U. H. F. Bunz and M. D. Smith.
162. "Tricarbonylmanganese(I) Derivatives of  $[\text{Di(pyrazolyl)}(2\text{-pyridyl)methyl}]\text{aryl Scorpionates}$ ," *J. Organomet. Chem.* **2005**, 690, 1901-1912, D. L. Reger, J. R. Gardinier, T. C. Grattan, and M. D. Smith.
163. "Syntheses and Structural Characterizations of Rhenium Carbonyl Complexes of a Bitopic Ferrocene Linked Bis(pyrazolyl)methane Ligand," *J. Organomet. Chem.* **2005**, 690, 1889-1900, D. L. Reger, K. J. Brown, J. R. Gardinier, and M. D. Smith.
164. "Synthesis and structural characterization of the bitopic ferrocene-based tris(pyrazolyl)methane ligand  $\text{Fe}[\text{C}_5\text{H}_4\text{CH}_2\text{OCH}_2\text{C}(\text{pz})_3]_2$  (pz = pyrazolyl ring)," *J. Chem. Cryst.* **2005**, 35, 217-225, D. L. Reger, K. J. Brown, J. R. Gardinier, and M. D. Smith.
165. "Bitopic Phenylene-Linked Bis(pyrazolyl)methane Ligands: Preparation and Supramolecular Structures of Hetero- and Homobimetallic Complexes

- Incorporating Organoplatinum(II) and Tricarbonylrhenium(I) Centers,” *Organometallics* **2005**, 24, 1544-1555, D. L. Reger, R. P. Watson, M. D. Smith, and P. J. Pellechia.
166. “Metal Complexes of 2,6-Bis[(pyrazol-1-yl)methyl]pyridine: The Search for Aryl-Pyrazolyl Embrace Interactions as a Synthon for Crystal Engineering,” *Cryst. Growth & Design* **2005**, 5, 1181-1190, D. L. Reger, R. F. Semeniuc and M. D. Smith.
  167. “An Unprecedented Coordination Mode of the Tris(pyrazolyl)-methane Donor Set:  $\kappa^2 - \kappa^1$  Bimetallic,  $N_\sigma/N_\pi$  Chelating” *Inorg. Chem.* **2005**, 44, 2995-2997, D. L. Reger, R. F. Semeniuc, B. Captain and M. D. Smith.
  168. “Directional Control of  $\pi$  – Stacked Building Blocks for Crystal Engineering: the 1,8-Naphthalimide Synthon,” *Chem. Commun.* **2005**, 4068-4070, D. L. Reger, J. D. Elgin, R. F. Semeniuc, P. J. Pellechia and M. D. Smith.
  169. “Pyrazolyl Embrace as a Supramolecular Synthon: Case Study of Metal Carbonyl Complexes Containing Linked Tris(pyrazolyl)methane Ligands,” in “**Functional Nanomaterials**” eds Geckeler, K. E.; Rosenberg, E. American Scientific Publishers, **2006**, 411-424, D. L. Reger, R. F. Semeniuc, J. R. Gardinier, K. J. Brown and M. D. Smith.
  170. “Structural Impact of Infinite Water Chains on the Self-Assembly of an Inorganic - Metal – Organic Architecture,” *Cryst. Growth Des.* **2006**, 6, 1068-1070, D. L. Reger, R. F. Semeniuc, C. Pettinari, F. Luna-Giles, and M. D. Smith. **Note: This manuscript was rated as one of the top viewed papers by the journal.**
  171. “Controlling the Addition of Metal Centers to a Bis(pyrazolyl)methane Starburst Ligand: Direct Routes to Mono-, Bi-, and Trimetallic Rhenium(I) Complexes,” *Organometallics* **2006**, 25, 743-755, D. L. Reger, R. P. Watson, M. D. Smith, and P. J. Pellechia.
  172. “Structural Identification of the Factors that Prevent an Electronic Spin-state Crossover in  $\text{Fe}[\text{C}_6\text{H}_5\text{B}(\text{3-Mepz})_3]_2$  (pz = pyrazolyl ring),” *Polyhedron* **2006**, 25, 2616-2622, D. L. Reger, J. D. Elgin, M. D. Smith, F. Grandjean, L. Rebbouh, and G. J. Long.
  173. “New N,N,N-Heteroscorpionates Based on 2,2'-Bis(pyrazolyl)-ethanamine and its Derivatives. Ligands Designed for Probing Supramolecular Interactions.” *Inorg. Chem.* **2006**, 45, 4337-4339, D. L. Reger, R. F. Semeniuc, J. R. Gardinier, J. O'Neal, B. Reinecke and M. D. Smith.

174. "Crystal Retro-Engineering. Gradual Decrease of the Complexity of Tris(pyrazolyl)methane Based Ligands," *Inorg. Chem.* **2006**, *45*, 7758-7769, D. L. Reger, R. F. Semeniuc, C. A. Little and M. D. Smith.
175. "Structure-Function Correlations in Iron(II) Tris(pyrazolyl)borate Spin-State Crossover Complexes," *Inorg. Chem.* **2006**, *45*, 8862, D. L. Reger, J. R. Gardinier, J. D. Elgin, M. D. Smith, D. Hautot, G. J. Long and F. Grandjean. **Note: the cover art for the issue containing this article is based on this paper.**
176. "Silver(I) Complexes of Fixed, Polytopic Bis(pyrazolyl)methane Ligands: Influence of Ligand Geometry on the Formation of Discrete Metallacycles and Coordination Polymers," *Inorg. Chem.* **2006**, *45*, 10077–10087, D. L. Reger, R. P. Watson, and M. D. Smith.
177. "Metallacycles of Iron, Zinc, and Cadmium Assembled by Polytopic Bis(pyrazolyl)methane Ligands and Fluoride Abstraction from  $\text{BF}_4^-$ ," *Inorg. Chem.* **2006**, *45*, 10088–10097, D. L. Reger, R. P. Watson, J. R. Gardinier, M. D. Smith and P. J. Pellechia.
178. "The 1,8-Naphthalimide Synthon in Silver Coordination Chemistry: Control of Supramolecular Arrangement," *Cryst. Growth Des.* **2006**, *6*, 2758-2768, D. L. Reger, R. F. Semeniuc, J. D. Elgin, V. Rassolov and M. D. Smith. **Note: the cover art for the issue containing this article is based on this paper.**
179. "Metallacyclic Zinc Complexes of Alkylidene-Linked Bitopic Bis(pyrazolyl)methane Ligands: Unusual Exocyclic Bridging Fluoride Ligands," *Cryst. Growth & Design* **2007**, *7*, 1163-1170, D. L. Reger, R. P. Watson, M. D. Smith and P. J. Pellechia.
180. "Synthesis of an anthracene-based bis(pyrazolyl)methane ligand and the structural characterization of its dinuclear tricarbonylrhenium(I) complex," *J. Organomet. Chem.* **2007**, *692*, 3094-3099, D. L. Reger, R. P. Watson and M. D. Smith.
181. Thallium-Mediated Route to  $\sigma$ -Arylalkynyl Complexes of Bipyridyltricarbonylrhenium(I)" *Inorg. Chem.* **2007**, *46*, 8484-8486, B. J. Liddle, S. V. Lindeman, D. L. Reger and J. R. Gardinier.
182. "Syntheses and Structural Characterization of Heterometallic Bis(pyrazolyl)methane Complexes of Rhenium and Platinum," *J. Organomet. Chem.* **2007**, *692*, 5414-5420, D. L. Reger, R. P. Watson and M. D. Smith.

183. "Structural Comparisons of Silver(I) Complexes of Third Generation Ligands built from Tridentate ( $\text{C}_6\text{H}_4[\text{CH}_2\text{OCH}_2\text{C}(\text{pz})_3]_2$ ) versus Bidentate Poly(pyrazolyl)methane Units ( $\text{o-C}_6\text{H}_4[\text{CH}_2\text{OCH}_2\text{CH}_2(\text{pz})_2]_2$ ) (pz = pyrazolyl ring)," *Inorg. Chem.* **2007**, 46, 11345-11355, D. L. Reger, E. A. Foley, R. F. Semeniuc, and M. D. Smith.
184. "An organoplatinum(II) complex of a bitopic, propylene-linked bis(pyrazolyl)methane ligand," *J. Chem. Cryst.* **2008**, 38, 17-20, D. L. Reger, R. P. Watson and M. D. Smith.
185. "Supramolecular networks of Silver(I) and Iron(II) Complexes of the Third Generation Tris(pyrazolyl)methane Ligand  $\text{Ph}_2(\text{O})\text{POCH}_2\text{C}(\text{pz})_3$  (pz = pyrazolyl ring)," *J. Chem. Soc., Dalton Trans.* **2008**, 2253-2260, D. L. Reger, R. F. Semeniuc and M. D. Smith.
186. "Synthesis and structural characterization of a mixed-ligand diiron(II) complex formed by a linked bitopic tris(pyrazolyl)methane ligand:  $\{\text{HC}(3,5\text{-Me}_2\text{pz})_3\text{Fe}[\mu\text{-}p\text{-C}_6\text{H}_4(\text{CH}_2\text{OCH}_2\text{C}(\text{pz})_3)_2]\text{Fe}(3,5\text{-Me}_2\text{pz})_3\text{CH}\}(\text{BF}_4)_4$  (pz = pyrazolyl ring)," *Inorg. Chim. Acta.* **2009**, 362, 303-306 D. L. Reger, C. A. Little, R. F. Semeniuc and M. D. Smith.
187. "Mononuclear Metallacyclic Silver(I) Complexes of Third Generation Bis(1-pyrazolyl)methane Ligands," *Inorg. Chem.* **2009**, 48, 936-945, D. L. Reger, E. A. Foley, and M. D. Smith.
188. "Metal Complexes of new scorpionate ligands: 2,2'-Bis(pyrazolyl)-ethanamine and its derivatives," *Inorg. Chim. Acta.* **2009**, 362, 4377-4388 D. L. Reger, B. Reinecke, M. D. Smith and R. F. Semeniuc.
189. "Structural correlations in high-spin complexes of  $\{\text{Fe}[\text{HC}(3,5\text{-Me}_2\text{pz})_3]_2\}^{2+}$ : solid state structure of  $\{\text{Fe}[\text{HC}(3,5\text{-Me}_2\text{pz})_3]_2\}(\text{Fe}_2\text{OCl}_6)$ ," *J. Chem. Cryst.* **2009**, 39, 545-548, D. L. Reger, Mark D. Smith and K. J. Brown
190. "Structural Organization of a  $\{\text{Ruthenium}[\text{tris}(\text{bipyridyl})]\}^{2+}$  Complex by Strong  $\pi$ - $\pi$  Stacking of a Tethered 1,8-Naphthalimide Synthon: Impact on Electrochemical and Spectral Properties," *Polyhedron* **2009**, 28, 1469-1474, D. L. Reger, J. D. Elgin, P. J. Pellechia, M. D. Smith and B. K. Simpson.
191. "Structural, Magnetic, and Mössbauer Spectral Study of the Electronic Spin-State Transition in  $\{\text{Fe}[\text{HC}(3\text{-Mepz})_2(5\text{-Mepz})]_2\}(\text{BF}_4)_2$ ," *Inorg. Chem.* **2009**, 48, 9393-9401, D. L. Reger, J. D. Elgin, E. A. Foley, M. D. Smith, F. Grandjean and G. J. Long.
192. "Highly organized structures and unusual magnetic properties of copper(II) paddlewheel dimers containing the  $\pi$  - $\pi$  stacking, 1,8-naphthalimide

- synthon," *Inorg. Chem.* **2009**, *48*, 8911-8924, D. L. Reger, A. Debreczeni, B. Reinecke, V. Rassolov, M. D. Smith and R. F. Semeniuc.
193. "Monofluoride Bridged, Binuclear Metallacycles of First Row Transition Metals Supported by Third Generation Bis(1-pyrazolyl)methane Ligands: Unusual Magnetic Properties," *Inorg. Chem.* **2009**, *48*, 10658-10669, D. L. Reger, E. A. Foley, R. P. Watson, P. J. Pellechia, M. D. Smith, F. Grandjean and G. J. Long.
  194. "Homochiral, Helical Metal Organic Framework Structures Organized by Strong Non-Covalent  $\pi\cdots\pi$  Stacking Interactions," *Chem. Comm.* **2009**, 6219 – 6221, D. L. Reger, J. J. Horger, M. D. Smith and G. L. Long.
  195. "Supramolecular Architectures of Metal Complexes Controlled by a Strong  $\pi$ - $\pi$  Stacking, 1,8-Naphthalimide Functionalized Third Generation Tris(pyrazolyl)methane Ligand," *Cryst. Growth Des.* **2010**, *10*, 386-393, D. L. Reger, E. Sirianni, J. J. Horger, M. D. Smith and R. F. Semeniuc.
  196. "Structural Impact of Multitopic Third Generation Bis(1-pyrazolyl)methane Ligands: Double, Mononuclear Metallacyclic Silver(I) Complexes," *Inorg. Chem.* **2010**, *49*, 234-242, D. L. Reger, E. A. Foley and M. D. Smith.
  197. "Synthesis of a tritopic, third-generation bis(1-pyrazolyl)methane ligand and its silver(I) complex: Unexpected structure with high coordination numbers," *Inorg. Chem. Commun.* **2010**, *13*, 568-572, D. L. Reger, E. A. Foley and M. D. Smith.
  198. "Synthesis and Structure of a Zinc(II)-Carboxylate Trimer Containing the  $\pi\cdots\pi$  Stacking, 1,8-Naphthalimide Synthon: A Supramolecular Metal-Organic Framework," *Inorg. Chim. Acta.* **2010**, *364*, 10-15, D. L. Reger, A. Debreczeni and M. D. Smith.
  199. "Synthesis, structural and spectroscopic characterization and biomimetic properties of new copper, manganese, zinc complexes: identification of possible superoxide-dismutase mimics bearing hydroxyl radical generating/scavenging abilities," *J. Inorg. Biochem.* **2010**, *104*, 820-830, G. Lupidi, F. Marchetti, N. Masciocchi, D. L. Reger, S. Tabassum, P. Astolfi, E. Damiani and C. Pettinari.
  200. "Homochiral, Helical Supramolecular Frameworks Organized by Strong, Non-Covalent  $\pi\cdots\pi$  Stacking Interactions: Single Crystal to Single Crystal Transformations," *Inorg. Chem.* **2011**, *50*, 686-704, D. L. Reger, J. J. Horger and M. D. Smith, G. J. Long and F. Grandjean. **Note: the cover art for the issue containing this article is based on this paper.**

201. "Copper(II) carboxylate tetramers formed from an enantiopure ligand containing a  $\pi$ -stacking supramolecular synthon: single-crystal to single-crystal enantioselective ligand exchange," *Chem. Comm.* **2011**, 47, 2805-2807, D. L. Reger, J. J. Horger and M. D. Smith.
202. "Structures of Bifunctional Molecules Containing Two Very Different Supramolecular Synthons: Carboxylic Acid and Strong  $\pi\cdots\pi$  Stacking 1,8-Naphthalimide Ring," *Cryst. Growth Des.* **2011**, 11, 4068-4079, D. L. Reger, A. Debreczeni, J. J. Horger and M. D. Smith.
203. "Syntheses and Characterization of Copper(II) Carboxylate Dimers formed from Enantiopure Ligands Containing a Strong  $\pi\cdots\pi$  Stacking Synthon: Enantioselective Single-Crystal to Single-Crystal Gas/Solid-Mediated Transformations," *Inorg. Chem.* **2011**, 50, 10225-10240, D. L. Reger, J. J. Horger, A. Debreczeni and M. D. Smith.
204. "Rhodium paddlewheel dimers containing the  $\pi\cdots\pi$  stacking, 1,8-naphthalimide supramolecular synthons," *Inorg. Chim. Acta.* **2011**, 378, 42-48, D. L. Reger, A. Debreczeni and M. D. Smith.
205. "Zinc Paddlewheel Dimers Containing a Strong  $\pi\cdots\pi$  Stacking Supramolecular Synthon: Designed Single-Crystal to Single-Crystal Phase Changes and Gas/Solid Guest Exchange," *Inorg. Chem.* **2011**, 50, 11754-11764, D. L. Reger, A. Debreczeni and M. D. Smith.
206. "Copper(II) Carboxylate Dimers Prepared from Ligands Designed to Form a Robust  $\pi\cdots\pi$  Stacking Synthon: Supramolecular Structures and Molecular Properties," *Inorg. Chem.* **2012**, 51, 1068-1083, D. L. Reger, A. Debreczeni, M. D. Smith, J. Jezierska and A. Ozarowski.
207. "Homochiral, Supramolecular Frameworks Built from a Zinc(II) Tetramer or Cadmium(II) Dimer Containing Enantiopure Carboxylate Ligand Functionalized with a Strong  $\pi\cdots\pi$  Stacking Synthon," *Eur. J. Inorg. Chem.* **2012**, 712-719, D. L. Reger, A. Debreczeni and M. D. Smith.
208. "Synthesis and structure of a  $\text{Cu}_4\text{O}_4$  cubane core complex from a carboxylate ligand containing a strong  $\pi\cdots\pi$  stacking supramolecular synthon," *Inorg. Chim. Acta.* **2012**, 386, 102-108, D. L. Reger, A. Debreczeni and M. D. Smith.
209. "Structural Variations in Copper(II) Complexes of a Bitopic Bis(pyrazolyl)methane Ligand," *Eur. J. Inorg. Chem.* **2012**, 4593-4604 [doi.org/10.1002/ejic.201200118](https://doi.org/10.1002/ejic.201200118), D. L. Reger, A. E. Pascui and M. D. Smith.

210. "Halide and Hydroxide Linearly Bridged Bimetallic Copper(II) Complexes: Trends in Strong Antiferromagnetic Superexchange Interactions," *Inorg. Chem.* **2012**, 51, 7966–7968 DOI: 10.1021/ic301321r, D. L. Reger, A. E. Pascui, M. D. Smith, J. Jezierska and A. Ozarowski.
211. "Homochiral Helical Main Group Metal-Organic Frameworks: Potassium," *Inorg. Chem.* **2012**, 51, 10071-10073, D. L. Reger, A. P. Leitner and M. D. Smith.
212. "Dinuclear Complexes Containing Linear M-F-M (M = Mn(II), Fe(II), Co(II), Ni(II), Zn(II), Cd(II)) Bridges: Trends in Structures, Antiferromagnetic Superexchange Interactions and Spectroscopic Properties," *Inorg. Chem.* **2012**, 51, 11820-11836, D. L. Reger, A. E. Pascui, M. D. Smith, J. Jezierska and A. Ozarowski.
213. "Heptanuclear Zinc Carboxylate Complex: New Supramolecular Building Unit and Unique Supramolecular Architecture," *Polyhedron* **2013**, 52, 1317-1322, D. L. Reger, A. Debreczeni, A. E. Pascui and M. D. Smith.
214. "Design, Synthesis and Structural Characterization of a New Class of Ferrocene Containing Heterometallic Triple-Stranded Helicates," *Organometallics* **2013**, 32, 95-103, M. Raja, R. G. Lyer, C. Gwengo, D. L. Reger, P. J. Pellechia, M. D. Smith and A. E. Pascui.
215. "Tris(pyrazolyl)methane and 1,8-naphthalimide functionalized dialkynyl-gold(I) anionic complexes," *Acta Cryst. Section C*, **2013**, 69, 954-958, D. L. Reger, M. D. Smith and R. F. Semeniuc.
216. "Homochiral Helical Metal-Organic Frameworks of Group 1 Metals." *Inorg. Chem.* **2013**, 52, 10041-10051, D. L. Reger, A. P. Leitner, M. D. Smith, T. T. Tran and P. S. Halasyamani.
217. "Zinc(II) and Cadmium(II) Monohydroxide Bridged, Dinuclear Metallacycles: A Unique Case of Concerted Double Berry Pseudorotation," *Inorg. Chem.* **2013**, 52, 11638-11649, D. L. Reger, A. E. Pascui, P. J. Pellechia, M. D. Smith.
218. "NMR Investigations of Dinuclear, Single Anion Bridged Copper(II) Metallacycles: Structure and Antiferromagnetic Behavior in Solution," *Inorg. Chem.* **2013**, 52, 12741-12748, D. L. Reger, A. E. Pascui, P. J. Pellechia and A. Ozarowski.
219. "Dinuclear Metallacycles with Single M-O(H)-M Bridges [M = Fe(II), Co(II), Ni(II), Cu(II)]: Effects of Large Bridging Angles on Structure and Antiferromagnetic Superexchange Interactions," *Inorg. Chem.* **2014**, 53,

- 1975-1988, D. L. Reger, A. E. Pascui, E. A. Foley, M. D. Smith, J. Jezierska and A. Ozarowski.
220. "Hydroxide Bridged Cubane Complexes of Nickel(II) and Cadmium(II): Magnetic, EPR and Unusual Dynamic Properties," *Inorg. Chem.* **2014**, 53, 4325-4339, D. L. Reger, A. E. Pascui, P. J. Pellechia, M. D. Smith, J. Jezierska and A. Ozarowski.
  221. "Framework Complexes of Group 2 Metals Organized by Homochiral Rods and  $\pi\cdots\pi$  Stacking Forces: A Breathing Supramolecular MOF," *Inorg. Chem.* **2014**, 53, 9932-9945, D. L. Reger, A. Leitner, P. J. Pellechia and M. D. Smith.
  222. "Syntheses, Structural, Magnetic and EPR Studies of Monobridged Cyanide and Azide Dinuclear Copper(II) Complexes: Antiferromagnetic Superexchange Interactions," *Inorg. Chem.* **2015**, 54, 1487-1500, D. L. Reger, A. E. Pascui, M. D. Smith, J. Jezierska and A. Ozarowski.
  223. "Cesium Complexes of Naphthalimide Substituted Carboxylate Ligands: Unusual Geometries and Extensive Cation- $\pi$  Interactions," *J. Mol. Structure*, **2015**, 1091, 31-36, D. L. Reger, A. Leitner and M. D. Smith.
  224. "Homochiral, Helical Coordination Complexes of Lanthanides(III) and Mixed Metal Lanthanides(III): Impact of the 1,8-Naphthalimide Supramolecular Tecton on Structure, Magnetic Properties, and Luminescence" *Cryst. Growth Des.* **2015**, 15, 5637-5644, D. L. Reger, A. Leitner, and M. D. Smith.
  225. "Supramolecular Metal-Organic Frameworks of s- and f-Block Metals: Impact of 1,8-Naphthalimide Functional Group," *Cryst. Growth Des.* **2016**, 16, 527-536, D. L. Reger, A. P. Leitner and M. D. Smith.
  226. "Metal Complexes of Multitopic, Third Generation Poly(pyrazolyl)methane Ligands: Multiple Coordination Arrangements," *Eur. J. Inorg. Chem.* **2016**, 2253-2271, R. F. Semeniuc and D. L. Reger.
  227. "Cadmium(II) coordination polymer formed from a third generation, tetratopic tris(pyrazolyl)methane ligand," *Acta Cryst. Section C*, **2016**, 72, 832-837, R. F. Semeniuc, D. L. Reger and M. D. Smith.
  228. "Silver(I) and rhenium(I) metal complexes of a 2,2'-bipyridine functionalized third generation tris(pyrazolyl)methane ligand," *Acta Cryst. Section C*, **2016**, 72, 826-831, R. F. Semeniuc, D. L. Reger and M. D. Smith.

229. "Syntheses, Structural Correlations, Antiferromagnetic Superexchange Interactions and Electron Paramagnetic Resonance Studies of Dinuclear Metallacycles with Single M-X-M Bridges (X = Cl<sup>-</sup>, Br<sup>-</sup>; M = Fe(II), Co(II), Ni(II), Cu(II), Zn(II), Cd(II))" *Inorg. Chem.* Submitted, D. L. Reger, A. E. Pascui, E. A. Foley, M. D. Smith, J. Jezierska, A. Wojciechowska, S. A. Stoian and A. Ozarowski.

### **Published Text Books:**

1. "The Laboratory Experience and Powerpoint Slides (1300) for General Chemistry," QAD press, Al, 2014, D. L. Reger, D. L. Freeman, S. R. Goode and A. Taylor-Perry.
2. "Chemistry, Principles and Practice, Third Edition," Brooks/Cole, Cengage Learning, Belmont, CA. 2010, D. L. Reger, S. R. Goode and D. W. Ball. (This text is used for the main-stream Introductory Chemistry course at the University of South Carolina and other Universities and Colleges across the Country.).
3. "General Chemistry Laboratory Experience," qde press, Montgomery Al, 2012, D. L. Reger and D. L. Freeman.
4. "General Chemistry Laboratory Experience," Hayden McNeil, Plymouth, MI, 2005/2006/2009/2011, D. L. Reger and D. L. Freeman.
5. "Chemistry 111/112 Student Lecture Notebook," Cengage Learning, Mason, Ohio, 2009/2011, D. L. Reger and S. R. Goode,
6. "Chemistry 111/112 Student Lecture Notebook," Brooks/Cole, Pacific Grove, CA, 2003/2005/2006, D. L. Reger and S. R. Goode
7. "The Laboratory Experience for General Chemistry," Paladin House, Zenda, Wis, 2000, D. L. Reger and D. Freeman.
8. "Chemistry, Principles and Practice, Second Edition," Saunders College Publishing, Phila. 1997, D. L. Reger, S. R. Goode and E. E. Mercer.
9. "Test Bank to accompany Chemistry, Principles and Practice, Second Edition," Saunders College Publishing, Phila. 1997, D. L. Reger, S. R. Goode and E. E. Mercer.
10. "Instructor's Manual to accompany Chemistry, Principles and Practice, Second Edition," Saunders College Publishing, Phila. 1997, D. L. Reger, S. R. Goode, E. E. Mercer and S. S. Mason.
11. "Chemistry, Principles and Practice," Saunders College Publishing, Phila. 1993, D. L. Reger, S. R. Goode and E. E. Mercer
12. "Laboratory Manual to accompany Chemistry, Principles and Practice," Saunders College Publishing, Phila. 1993, D. L. Reger, R. Weiner and W. E. Gilkerson.

13. "Test Bank to accompany Chemistry, Principles and Practice," Saunders College Publishing, Phila. 1993, D. L. Reger, S. R. Goode and E. E. Mercer.
14. "Instructor's Manual to accompany Chemistry, Principles and Practice," Saunders College Publishing, Phila. 1993, D. L. Reger, S. R. Goode, E. E. Mercer and A. M. Gabrielli.
15. "Experiments in General Chemistry," Paladin House, Geneva, Illinois; 3rd Ed, 1978, 4th Ed, 1983, 5th Ed, 1988, 6th Ed, 1992, 7th Ed, 1996, D. L. Reger, E. E. Mercer and W. E. Gilkerson.
16. "Study Guide to accompany Boikess/Edelson," Harper and Row, New York; 1st Ed, 1978, 2nd Ed, 1980, 3rd Ed 1985, D. L. Reger, E. E. Mercer and R. S. Boikess.
17. "Test Bank to accompany Boikess/Edelson," Harper and Row, New York, 1985, D. L. Reger, T. E. Raidy, E. E. Mercer, S. R. Goode, and R. H. Philp.

### **Electronic Publications**

1. "Powerpoint slides to accompany Chemistry, Principles and Practice, Third Edition," Brooks/Cole, Cengage Learning, Belmont, CA. 2010, D. L. Reger, S. R. Goode and D. W. Ball. (This work consists of 1300 PowerPoint slides used for teaching Introductory Chemistry.)
2. "Powerpoint slides to accompany Chemistry, Principles and Practice," Saunders College Publishing, Phila. 1997, D. L. Reger, E. E. Mercer and A. M. Gabrielli. (This work consists of 1300 PowerPoint slides used for teaching Introductory Chemistry.)

### **Book Reviews:**

1. Syn. React. Inorg. Metal-Org. Chem.
2. J. Organomet. Chem.
3. Organometallics
4. J. Am. Chem. Soc.

### **Research Support:**

#### Active Research Support

1. National Science Foundation, "Ligand Design for Molecular and Supramolecular Control of the Structures of Metal Complexes: Investigations of Unusual Magnetic Properties," 7/1/10-6/30/15 PI: D. L. Reger, \$419,600.

2. Army Research Office, "Design, Synthesis, and Study of New Metal-Organic Frameworks Built from Multifunctional Ligands" 6/1/11-5/31/14. Co-PI D. L. Reger, \$112,500.

Agencies that have supported Reger's research at University of South Carolina

National Science Foundation  
National Institute of Health  
Department of Energy  
National Science Foundation EPSCoR Program  
University of South Carolina Biomedical Research Fund  
Petroleum Research Fund  
University of South Carolina Instructional Innovation  
Research Corporation  
South Carolina Research and Productivity  
Carolina Venture Fund  
South Carolina Research Institute  
Collaborative Research Program, State of South Carolina  
South Carolina EPSCoR program  
Army Research Office

**Seminars Presented:**

1. Fairleigh-Dickinson
2. Trenton State College
3. Dickinson College (2)
4. Gettysburg College
5. Rider College
6. Widner College
7. St. Josephs College (Phila.)
8. University of South Carolina (7)
9. Newberry College
10. Furman College
11. Tennessee Eastman Corporation
12. Princeton University
13. West Chester College
14. Sussex University, England (3)
15. Imperial College, London
16. Oxford University, England (2)
17. Edinburgh University, Scotland
18. Florida State University
19. Georgia Institute of Technology
20. South Florida University
21. William and Mary (2)
22. University of Chicago
23. Massachusetts Institute of Technology (2)
24. Vanderbilt University
25. Solar Research Institute, Golden, Colorado
26. Central Research, DuPont Corporation

27. Clemson University (2)
28. Ohio State University
29. Australian National University (3)
30. Melbourne University (2)
31. University of Adelaide
32. Monash University
32. University of New South Wales
33. University of Queensland
34. University of North Carolina, Chapel Hill
35. Erskine College
36. United States Patent Office
37. University of Delaware (2)
38. University of Auckland
39. University of Western Australia
40. University of Tasmania
41. Wake Forest University (2)
42. Kyoto University
43. Autonomous National University of Mexico
44. University of Arizona (2)
45. Pacific Northwest Laboratories (2)
46. Francis Marian University
47. Marshall University
48. Claflin College
49. College of New Jersey
50. University of Bristol
51. Cambridge University
52. University of Liege
53. Davidson College
54. University of California at San Diego (2)
55. Universitatea Babeş-Bolyai
56. Winthrop University
57. East Carolina University
58. University of North Carolina at Charlotte
59. Oklahoma State University
60. San Diego State University
61. University of Camerino, Italy (2)
62. Eastern Illinois University

**Meeting Presentations:** Over 120 talks have been presented at professional meetings. Representative examples are shown below.

1. Invited 55 minute talk "Chiral Iron Complexes," American Chemical Society National Meeting, 1976.

2. Invited 45 minutes talk "Transition Metal Catalyzed Reactions Carried Out Under Phase Transfer Reaction Conditions," First Annual Workshop in Organometallic Chemistry, 1977.
3. Invited 30 minute talk "Synthesis and Characterization of the First Difluorocarbene Complex," at the Organometallic Gordon Conference, 1979
4. Invited 50 minute talk "Addition of Nucleophiles to  $\pi$ -Alkyne Complexes," Northwest American Chemical Society Meeting, 1984.
5. Invited 30 minute talk "Poly(pyrazolyl)borate Complexes of the Lanthanides," Second International Conference on f-Transition Elements, Lisbon, Portugal, 1987.
6. Invited 30 minute talk "Isomerization Reactions of Alkyl Ligands in Unusually Stable Platinum and Palladium Complexes," Southwest Regional American Chemical Society Meeting, 1989.
7. Invited 50 minute talk "Synthesis of Highly Substituted Iron-Alkyne Complexes," 73rd Canadian Chemical Conference, Halifax, 1990.
8. Invited 50 minute talk "Poly(pyrazolyl)borate Complexes of the Post Transition Metals," Institute of Nuclear Sciences and Engineering, Lisbon, Portugal, 1993.
9. "Tris(pyrazolyl)methane Complexes: New Opportunities for the Preparation of Cationic Complexes" Organometallic Gordon Conference and 31st ICCC Conference, 1996.
10. Invited 45 minute talk "Poly(pyrazolyl)methane Ligands: Similar or Different from Poly(pyrazolyl)borate Ligands." Inorganic Chemistry Gordon Conference, 1997.
11. Invited 40 minute talk "Chemistry Of New Group 1 and 2 Coordination Complexes." International Conference on the Chemistry of Groups 1 and 2, Erlangen, Germany, 1997.
12. Invited 30 minute talk "New Cationic Complexes of Main Group Elements Supported by Tris(pyrazolyl)methane Ligands." International Conference on Organometallic Chemistry in the South Pacific, Auckland, New Zealand, 1998.
13. Invited talk "Tris(pyrazolyl)methane Ligands: Synthesis of Iron(II) Complexes with Unusual Magnetic Properties," Royal Australian Institute Convention, Canberra, Australia, 1999.
14. Invited talk "Comparison of Structures of Metal Complexes containing Tris(pyrazolyl)methane and Tris(pyrazolyl)borate Ligands," American Chemical Society National Meeting, 2000.
15. Invited talk "Supramolecular Structures of Silver(I) Complexes Supported by Multitopic Ligands Containing Tris(pyrazolyl)methane Units," 3<sup>rd</sup> International Conference of the Chemical Societies of the South-Eastern European Countries, Bucharest Romania, 2002.
16. Organizer and invited talk "Tris(pyrazolyl)methane ligands: Recent Developments in Scorpionate Chemistry," National American Chemical Society Meeting, 2003.
17. Invited talk "Supramolecular Architectures Organized by Multitopic Tris(pyrazolyl)methane Ligands," SERMACS Meeting, 2003.
18. Invited talk "Supramolecular Architectures Organized by Multitopic Poly(pyrazolyl)methane Ligands," McCleverty Symposium, Bristol, England, 2003

19. Invited talk "Supramolecular Structural Variations In Metal Complexes of a Semi-rigid Poly(pyrazolyl)methane Ligand" International Symposium on Macro- and Supramolecular Architectures and Materials University of Montana, 2004.
20. Invited plenary lecture "Supramolecular Structures of Silver(I) and Iron(II)-Spin Crossover Complexes of Multitopic Tris(pyrazolyl)methane and New Types of Tris(pyrazolyl)borate Ligands" III Euchen Conference on Nitrogen Ligands, University of Camerino, Camerino Italy, 2004.
21. Invited talk "Impact of changes in molecular and supramolecular structure on the spin-crossover behavior of tris(pyrazolyl)methane and tris(pyrazolyl)borate complexes of iron(II)" Pacifichem 2005, Hawaii, 2005.
22. Invited talk "Use of tris(pyrazolyl)methane and tris(pyrazolyl)borate complexes of iron(II) to determine the impact of changes in molecular and supramolecular structure on temperature induced spin crossover" National American Chemical Society Meeting, Atlanta, 2006.
23. Invited Keynote lecture "Structure-Function Correlations with Spin-State Crossover Tris(pyrazolyl)methane and Tris(pyrazolyl)borate Complexes of Iron(II)" SUPCHEM-Supramolecular Chemistry, from design to applications, Cluj-Napoca, Romania, 2007.
24. Invited talk "Unusual Structures and Magnetic Properties of Paddlewheel Copper(II) Carboxylate Dimers Containing the Strong  $\pi$ - $\pi$  Stacking 1,8-Naphthalimide Synthons" SERMACS Meeting, 2009.
25. Invited talk "Monobridged, binuclear metallacycles supported by third generation bis(1-pyrazolyl)methane ligands: Unusual magnetic properties" National American Chemical Society Meeting, Boston, 2010.
26. Invited talk "SYNTHESES AND PROPERTIES OF LINEARLY BRIDGED, BINUCLEAR METALLACYCLES SUPPORTED BY THIRD GENERATION BIS(1-PYRAZOLYL)METHANE LIGANDS" V Euchen Conference on Nitrogen Ligands, Granada, Spain, 2011.
27. Invited talk "Copper(II) Carboxylate Dimers formed from Enantiopure Ligands Containing a Strong  $\pi$ - $\pi$  Stacking Supramolecular Synthons: Enantioselective Single-Crystal to Single-Crystal Gas/Solid-Mediated Transformation" Zing Conference on Coordination Chemistry, Cancun, Mexico, 2011.

#### **Other Professional Activities:**

##### *Editorial Boards:*

Associate Editor: *International Journal in Inorganic Chemistry*

Guest Editor *Inorg. Chim. Acta. special issue 2010 dedicated to Arnold Rheingold.*

##### Journals Refereeing

1. J. Organomet. Chem.
2. J. Am. Chem. Soc.
3. Inorg. Chem.
4. Syn. React. Inorg. Metal-Org. Chem.

5. Advances in Chemistry Series
6. Organometallics
7. Canadian J. Chem.
8. J. Mol. Catal.
9. Australian J. Chem.
10. Organometallic Synthesis
11. Inorg. Chim. Acta.
12. Tetrahedron Letters
13. J. Cryst. Spec. Res.
14. J. Cluster Science
15. Chem. Rev.
16. Main Group Chemistry
17. J. Inorg. Bio.
18. J. Solid State Chem.
19. J. Bioinorganic Chem.
20. J. Chem. Soc., Dalton Trans.
21. J. Chem. Soc., Chem. Commun.
22. J. Hazard. Mater.
23. Eur. J. Inorg. Chem.
24. Inorganic Chemical Communications
25. J. Chem. Cryst.
26. Cryst. Growth & Design
27. Angew. Chem. Int. Ed.
28. J. Org. Chem.
29. Eur. J. Org. Chem.

#### Grant proposals reviewed

1. Research Corporation
2. National Science Foundation
3. Petroleum Research Fund
4. Department of Army
5. Department of Energy
6. National Institute of Health
7. South Carolina EPSCoR Program
8. Research Council of Canada
9. Jeffress Memorial Trust
10. Marsden Fund

#### Committee Service

1. Library
2. Seminar (Chair)
3. Candidacy and Examinations
4. Graduate Admissions (Chair)
5. Regional Campus
6. Education and Curriculum (Chair)

7. Department Chair Search
8. University Research and Productivity Scholarship (twice)
9. Phi Beta Kappa Admissions
10. Chemistry Executive
11. Organic Faculty Search
12. NMR policies (Chair)
13. College of Science and Math Instructional Effectiveness
14. X-ray Diffraction Policies (Chair)
15. College of Science and Math Academic Standards
16. South Carolina American Chemical Society Tuition Grant
17. College of Science and Math Building Planning
18. Mass Spectrometry Policies
19. University National Institute of Health Biomedical Research
20. College of Science and Math Grievance
21. College of Science and Math Dean's Advisory
22. Faculty Senate
23. Materials Chemist Search
24. Inorganic, Analytical, Physical Teaching (Chair)
25. Provost's Innovation Instructional Grant
26. NMR Services Manager Search (Chair)
27. Chair Chemistry Tenure and Promotions (twice)
28. Ph. D. Advisory (average 5/year)
29. Ad Hoc Education
30. Russell Award for Science and Math (Chair)
31. NMR Services (Chair)
32. Amoco Teaching Award
33. Named and Endowed Professorships
34. Physics Chair Search Committee (Chair)
35. University Research Committee for Materials Science
36. Department Development (Chair)
37. Geological Sciences Chair Search Committee (Chair)
38. Psychology Chair Search Committee (Chair)
39. Associate Dean Chair Search Committee (Chair)
40. Organizing Committee for the Southeastern Regional ACS Meeting, Columbia SC 2016

#### **Major Administrative Service**

1. Chair, Department of Chemistry and Biochemistry, 7/1/01 – 6/30/08
2. Associate Dean, College of Science and Mathematics, 9/15/97-5/15/99
3. Leader of EPSCoR NSF Multi-Investigator Proposal from Chemistry, Physics and Chemical Engineering "Material Science at University of South Carolina," partially funded, 1989-1991.
4. PI of Funded EPSCoR NSF Multi-Investigator Proposal shared with Chemical Engineering "Material Science at University of South Carolina," 1991-1994.
5. Chemistry co-PI of a Funded EPSCoR DOE Multi-Investigator Proposal "Battery Diagnosis and Development," 1995- 2001.

6. PI of Funded EPSCoR NSF Multi-Investigator "Surface Science and Nanochemistry," 1998-2002.

**Courses Taught at the University of South Carolina** (with typical enrollments).

1. Chem. 511 (15-20) Advanced Inorganic Chemistry
2. Chem. 712 (10-15) Transition Metal Chemistry
3. Chem. 111 (150-290) Introductory Chemistry
4. Chem. 112 (150-220) Introductory Chemistry
5. Chem. 190 (40) Majors Laboratory
6. Developed and taught a special course for disadvantaged High School students interested in health related careers (50).
7. Chem. 390 (30) Majors Laboratory
8. Developed and taught an experimental course, Chem 100X, for students with weak backgrounds in chemistry (55).
9. Helped develop and teach in University of South Carolina's Program of Instruction for Teaching Assistants (90-120)
10. Taught in University of South Carolina's Program of Instruction for New Faculty (30)
11. Chem. 499 Undergraduate Research
12. Chem. 701 Seminar-Inorganic Chemistry (10)
13. Chem. 790 Introduction to Research
14. Chem. 791 Introduction to Research II
15. Chem. 798 Research in Chemistry
16. Chem. 799 Thesis Preparation
17. Chem. 898 Research in Chemistry II
18. Chem. 899 Thesis Preparation

**Miscellaneous**

Invited Representative to NSF/DOE workshop "Building Strong Academic Chemistry Departments Through Gender Equity" 2006.

Organized a symposium, "Scorpionate Ligands – Thirty-Five Years Later" for the Spring 2003 National American Chemical Society meeting.

Reviewed numerous files of faculty for promotion/tenure

Submitted a disclosure on "Multiphase, Thermally Integrated Hydrogen Fuel Sources."

External Evaluator, Ph. D. Committee

The Australian National University

Indian Institute of Technology

University of British Columbia

University of Auckland

University of Western Australia

Indian Institute of Technology, Kanpur

Undergraduate Student Advisor (average 14 students/year)

Director of Undergraduate Research and Honors College Theses

Director of Departmental High Pressure Facility 1972-1983  
Invited Representative at the American Chemical Society President's  
Conference "Membership for the year 2000," 1989.  
Awarded an Instructional Innovation Grant to develop videotape introductions to  
the Chemistry 111-112 laboratories.  
Contributed to Numerous Departmental Instrumentation Grants. Principle  
Investigator on funded NMR Grants for \$240,000 and \$150,000.  
Consultant Dow Chemical Corporation  
General Chemistry Textbook Reviewer for Harper and Row, Random House and  
Saunders Publishers  
Gulbenkian Foundation Travel Award Grant, Portugal  
Host, American Chemical Society Visiting Scholar  
Judge, South Carolina Science Projects Awards