

Name:

Ronald R. Ruminski, Ph.D.

Education*Post-doctoral Positions:*

1981-1983, Clemson University, Clemson, SC Post-Doctoral Adviser: J. D. Petersen
Syntheses of potential Ru (II) based photocatalyzed H₂ production via water splitting.

1980-1981, University of Toronto, Mississauga, Ontario, Canada. Post-Doctoral Adviser: A. J. Poe
Biacetyl photosensitized energy transfer splitting of Re(I) and Mn(I) pentacarbonyl complexes.

Graduate Degrees:

Ph.D., 1980 Inorganic Chemistry, University of New Mexico, Albuquerque, New Mexico. Dissertation Title:
Charge-Transfer and Ligand Field Photochemistry of Some Mono and Bimetallic Chromium (III) Complexes. Director;
Professor William F. Coleman

M.S., 1977 Inorganic Chemistry, University of New Mexico, Albuquerque, New Mexico
Photochemistry of Some Chromium(III) Complexes. Director; Professor William F. Coleman

Undergraduate Degrees:

B.A., 1975 Chemistry, University of New Mexico, Albuquerque, NM
B.S., 1975 Mathematics, University of New Mexico, Albuquerque, NM

Appointments:

Professor of Chemistry(1996-present), University of Colorado, Colorado Springs, CO 80933
Associate Professor of Chemistry (1991-1996), University of Colorado, Colorado Springs, CO
Assistant Professor of Chemistry (1984-1991), University of Colorado, Colorado Springs, CO
Visiting Assistant Professor of Chemistry, 1983-1984, Clemson University, Clemson, South Carolina

Referred Publications:

40. Synthesis and characterization of *bis*-bipyridyl Ruthenium (II) and Osmium (II) complexes with 5,5'-*bis*-tetrazolate and N,N *bis*-(tetrazol-5-yl)-amine. Ronald R. Ruminski*, Ratna M. Mallikan, Michael A. Hiskey, Brandon L. Powell and Garrett M. Gonzalez, *Inorg. Chim Acta*, (2016) 451, 135-142.
39. Synthesis and characterization of a series of ruthenium (II) complexes with a tetraazapolyaromatic tridentate ligand dipyrdo (2,3-*a*:3',2'-*j*)phenazine, Ronald R. Ruminski*, Genevieve A. Kahrilas and Bridgette M. Schauer, *Inorg. Chim Acta*, (2015) 430, 184-192.
38. New bimetallic [(Cl)₃Pt(dpop')M(dpop')](PF₆) (M= Ru(II) and Os(II); dpop' = dipyrdo (2,3-*a*:3',2'-*j*)phenazine) complexes using dpop' as a novel mixed denticity bridging ligand. Ronald R. Ruminski*, Jeffrey A. Canaria and Roberto Padilla, *Inorg. Chim. Acta*, (2013) 401, 95-100.
37. The syntheses and characterization of Os(II) and Ru(II)/Os(II) bimetallic complexes with dipyrdo(2,3-*a*:3',2'-*j*)phenazine(dpop') and the bridging ligand 2,3,5,6- tetra(2-pyridyl)-pyrazine(tppz). Roberto Padilla, Ronald R. Ruminski* Vivina A. McGinley and Preston B. Williams, *Polyhedron*, (2012) 33, 158-165.
36. The synthesis and characterization of mixed ligand Ru(II) complexes with dipyrdo(2,3-*a*:3',2'-*j*)phenazine

- (dpop') and 2,3,5,6-tetra(2-pyridyl)-pyrazine (tppz). Ronald R. Ruminski* and Tyler Aasen, *Inorg. Chim. Acta* (2010) 363, 905-910.
35. Synthesis and characterization of Os(II)(dpop')(dpop'= dipyrido(2,3-*a*;3',2'-*j*)phenazine) complexes with 2,2'-bipyridine(bpy); 2,2'-bipyrimidine(bpm) and 2,3-bis(2-pyridyl)pyrazine(dpp) Ronald R. Ruminski*, Kristin Zimmer, Kelliann Rita, Mackenzie Knobbe and Carrie Dean, *Inorg. Chim. Acta*, (2009) 362, 1772-1780.
 34. Synthesis and Characterization of a Fluxional Re(I) Carbonyl Complex with the Nominally Tri-dentate Ligand Dipyrido(2,3-*a*:3',2'-*j*)phenazine (dpop') Kristin D.Zimmer, Richard Shoemaker and Ronald R. Ruminski* *Inorg. Chim. Acta*, 359, (2006) 1478.
 33. Synthesis and Characterization of Pt(II) and Pt(II)/Ru(II) Complexes with Bridging Bidentate Ligand Dipyrido(2,3-*a*:3',2'-*h*) phenazine (dpop) Ronald R. Ruminski*, John M. Nelson and Wendy S. Culver. *Inorg. Chim. Acta*, 358, (2005) 93
 32. Synthesis and Characterization of a High Spin d⁶ Fe(II) Complex with the Tridentate Ligand Dipyrido(2,3-*a*:3',2'-*j*) phenazine (dpop') Ronald R. Ruminski*, John M. Nelson and Wendy S. Culver, *Inorg. Chim. Acta*, 357, (2004) 839.
 31. Synthesis and Characterization of Mixed Ligand Ru(II) Complexes with Dipyrido(2,3-*a*:3',2'-*j*) phenazine (dpop'). Ronald R. Ruminski*, Kathy Larancuent and Erica Lingle, *Inorg. Chim. Acta* (2001), 323, 37.
 30. Long Lived Near IR MLCT Emitters. J.A.Treadway, G.F. Strouse, R.R Ruminski, and T.J. Meyer, *Inorganic Chemistry*, (2001) 40, 4508.
 29. Synthesis and Characterization of [Ru(dpop')₂](PF₆)₂. A Ru(II) Complex with the Novel Mixed-Denticity Bridging Ligand Dipyrido(2,3-*a*:3',2'-*j*)phenazine (dpop'). Ronald R. Ruminski*, Sina Underwood, Kristen Vallely, and Sandra J. Smith, *Inorganic Chemistry* (1998) 37, 6528.
 28. Synthesis and Characterization of Mono, Bi and Tetra-Ruthenium(II)phenanthroline Complexes with dipyrido(2,3-*a*;2',3'-*h*)phenazine(dpop). Ronald Ruminski*, T. P. Deere, M. Olive and D. Serveiss, *Inorg. Chim. Acta* (1998) 281, 1.
 27. Synthesis and UV-VIS, Electrochemical, Spectroelectrochemical and Intervalence Characterization of Bis-bipyridyl Osmium(II) Complexes Bound to Dipyrido(2,3-*a*;2',3'-*h*)phenazine(dpop). Ronald R. Ruminski*, Donna Serveiss and Martin Jacquez, *Inorganic Chemistry* (1995) 34, 3358.
 26. The Synthesis, and UV-Vis, Electrochemical, Photochemical and Intervalence Characterization of Tetraammine and Tris-Chelated Ruthenium(II) Complexes Bound to the Bridging Ligand DPOP. Ruminski*, R.R.; Freiheit, D.; Serveiss, D.; Snyder, B.; Johnson, J.E.B. *Inorg. Chim. Acta* (1994) 224, 27.
 25. Synthesis and Characterization of Bis-Bipyridylruthenium(II) Complexes Bound to the Bridging Ligand Dipyrido(2,3-*a*;2',3'-*h*)phenazine(dpop). Ruminski*, R. R.; Johnson, J. E. B. *Inorg. Chim. Acta* (1993) 208(2), 231.
 24. Synthesis and Characterization of Tricarbonylchlororhenium(I) Complexes Bound to the Novel Bridging Ligand Dipyrido(2,3-*a*;2',3'-*h*)phenazine(dpop). Ruminski*, R. R.; Lehmpuhl, D. *Inorg. Chim. Acta*, (1993) 204(1), 45.
 23. Synthesis and Characterization of Tetracarbonylmolybdenum(0) Complexes Bound to the Novel Bridging Ligand Dipyrido(2,3-*a*;2',3'-*h*)phenazine(dpop). Ruminski*, R. R.; DeGroff, C. L. *Inorganic Chemistry* (1992) 31, 3325.
 22. Structure of Aquabis(2,2'-bipyrimidine)copper Perchlorate Dihydrate, L.M. Morgan, W.T. Pennington, J.D. Petersen, R. R. Ruminski, D.W. Bennett, J.S. Rommel, *Acta Cryst.* (1992). C48, 163-165
 21. Comparative Effects of σ and π Peripheral Ligands on 3,6-Bis(2-Pyridyl)1,2,4,5-Tetraazine Complexes of Ruthenium. Synthesis and Characterization of Tetraammine ruthenium(II) 3,6-Bis(2-Pyridyl)1,2,4,5-Tetraazine Complexes. Ruminski*, R. R., Johnson, J. E. B., De Groff, C. *Inorg. Chim. Acta* (1991) 187(1), 73.
 20. Synthesis and Characterization of Cyanoiron(II) Complexes Bound to the Bridging Ligand Tetrakis(2-pyridyl)1,4-diazine. Ruminski*, R. R., Kiplinger, J. L. *Inorganic Chemistry* (1990)

- 29, 4581.
19. Synthesis and Characterization of Re(I) Complexes Bound to the Bridging Ligand 2,3-Bis(2-pyridyl)pyrazine. Ruminski*, R. R.; Cambron, R. T. *Inorganic Chemistry*, 1990 29, 1575.
18. Synthesis and Characterization of Rhodium(III) Complexes Bound to 2,3,5,6-Tetrakis(2-pyridyl)pyrazine. Ruminski*, R. R.; Letner, C. *Inorg. Chim. Acta* (1989) 162(2), 175.
17. Photoredox Processes in the 254 nm Photochemistry of Cr(III) Ammine Complexes. Ruminski, R. R.; Healy, M. H.; Coleman*, W. F., *Inorganic Chemistry* (1989) 28, 1666.
16. Triammineruthenium(II) Complexes Bound with the Novel Bridging Ligand 2,3,5,6 Tetra(2-pyridyl)pyrazine. Ruminski*, R. R.; Kiplinger, J.; Cockroft, T.; Chase, C. *Inorganic Chemistry* (1989) 28, 370.
15. Synthesis and Characterization of Tetraammine ruthenium(II) Bound to the Bridging Ligand 2,3-Bis(2-pyridyl)pyrazine(DPP). Ruminski*, R. R.; Cockroft, T.; Shoup, M. *Inorganic Chemistry* (1988) 27, 4026.
14. Synthesis, Characterization and Solvatochromic Studies of Group 6 Metal Carbonyls Bound to the Bridging Ligand 2,3-Bis(2-pyridyl)pyrazine(DPP). Shoup, M.; Hall, B.; Ruminski*, R. R. *Inorganic Chemistry* (1988) 27, 200.
13. Synthesis and Characterization of Chromium and Tungsten Tetracarbonyl Bound to the Bridging Ligand 2,3-Bis(2-pyridyl)pyrazine(DPP). Ruminski*, R. R.; Wallace, I. *Polyhedron*, (1987) 6(8), 1673.
12. Synthesis and Characterization of Molybdenum Tetracarbonyl Bound to the Novel Bridging Ligand 2,3-Bis(2-pyridyl)pyrazine(DPP). Ruminski*, R. R.; Johnson, J. O. *Inorganic Chemistry* (1987) 26, 210.
11. Synthesis, Electrochemistry and Spectroscopy of Novel Ruthenium and Rhodium Complexes Bound to TTF. Ruminski*, R. R.; Ermel, B. F.; Hiskey, M. A. *Inorg. Chim. Acta*, (1986) 119(2), 195.
10. Synthesis, Spectroscopy, Electrochemistry and Photochemistry of a Series of M(bpym)2Cl2 (M=Mn(II), Co(II), Ni(II) and Cu(II)) Complexes. Hiskey, M. A.; Ruminski*, R. R. *Inorg. Chim. Acta*, (1986) 112, 189.
9. Intramolecular Energy Transfer Reactions in Polymetallic Complexes. Petersen*, J. D.; Murphy, Jr., W. R.; Sahai, R.; Brewer, K. J.; Ruminski, R. R. *Coord. Chem. Rev.* (1985) 64, 261.
8. Tris(2,2'-Bipyrimidine) Cu(II) Hexafluorophosphate. Synthesis and Spectroscopic Properties for Precursor Complexes in the Preparation of Polymetallic Complexes. Ruminski*, R. R. *Inorg. Chim. Acta* (1985) 103(2), 159.
7. Synthesis, Electrochemistry and Spectroscopy of a Series of Tris(2,2'-bi-pyrimidine(M (M=Fe(II), Co(II), Ni(II)) Complexes. Precursor Complexes in the Preparation of Polymetallic Systems. Ruminski, R. R.; Petersen*, J. D. *Inorg. Chim. Acta* (1985) 97(2), 129.
6. Mixed Ligand Iron(II) Complexes Containing 2,2'-Bipyrimidine. Spectroscopic, Electrochemical and Coulombic Modification of Highly Absorbing Metal Complexes by Ligand Substitution. Ruminski, R. R.; Van Tassel, K. D.; Petersen*, J. D. *Inorganic Chemistry* (1984) 23, 4380.
5. Tris(2,2'-Bipyrimidine) Cobalt (III,II,I). A Cobalt Polyazine Electrochemical System With Large Storage Capabilities. Ruminski, R. R.; Petersen*, J. D. *Inorg. Chim. Acta* (1984) 88(1), 63.
4. Photosensitized Fragmentation of Some Dinuclear Carbonyls. Fox, A.; Ruminski, R. R.; Poe*, A. J. *Journal of the American Chemical Society* (1983) 104, 7327.
3. Additivity of Carbon-13 Chemical Shifts in 2,2'-Bipyrimidine Monometallic and Bimetallic Complexes of Tetraammineruthenium(II). Ruminski, R. R.; Petersen*, J. D. *Inorg. Chim. Acta*, (1982) 35(5), L177.
2. Preparation, Spectroscopy and Photochemistry of Monometallic and Bimetallic Ruthenium(II) Complexes of 2,2'-Bipyrimidine. Ruminski, R. R.; Petersen*, J. D. *Inorganic Chemistry* (1982) 21, 3706.
1. The 254 nm Photochemistry of the Rhodochromium (III) Complex-Observation of New Photosubstitution Reactions. Ruminski, R. R.; Coleman*, W. F. *Inorganic Chemistry* (1980) 19, 2185.

Presentations at Meetings:

57. *Distal* and *proximal* isomers of new [Os(dpdp')((bis(2-pyridyl))-tetrazine)(Cl)](PF₆) (dpdp' = 2,3-*a*:3',2'-*j*)

- dipyrido(phenazine)) complexes for possible intercalation of DNA were prepared, separated and characterized. Alissa Ervin, Morgan Lee* and Ronald Ruminski, Division of Inorganic Chemistry; SESSION: Coordination Chemistry: Ligand Design, Synthesis, and Reactivity, National Meeting of the American Chem. Society, San Diego CA, March 23, 2025
56. *Distal* and *proximal* isomers of $[\text{Os}(\text{dpop}')(\text{3,6-dppn})(\text{Cl})](\text{PF}_6)$ ($\text{dpop}' = 2,3\text{-a:3',2'-j}$ dipyrido(phenazine); $\text{3,6-dppn} = 3,6\text{-dipyrido}(\text{pyridazine})$), Alissa Ervin, Morgan Lee and Ronald Ruminski *Division of Inorganic Chemistry SESSION: Coordination Chemistry: Ligand Design, Synthesis, and Reactivity; National Meeting of the American Chem. Society, New Orleans LA, March 17, 2024
 55. Novel *distal* and *proximal* isomeric Ru(II) complexes with the *bis*-bidentate bridging ligand 2,5-dipyridyl pyrazine (2,5-dppz) with the potential of binding remote metal centers. Sarah M. Aragon, Morgan K. Lee, Alissa Ervin, Allen Schoffstall and Gavin R. Hoffman and Ronald R. Ruminski* Division of Inorganic Chemistry SESSION: Coordination Chemistry: Ligand Design, Synthesis, and Reactivity; National Meeting of the American Chem. Society, Indianapolis IN, March 26, 2023
 54. *Distal* and *proximal* isomers of the novel $[\text{Ru}(\text{dpop}')(\text{3,6-dppn})(\text{Cl})](\text{PF}_6)$ ($\text{dpop}' = 2,3\text{-a:3',2'-j}$ dipyrido(phenazine); $\text{3,6-dppn} = 3,6\text{-dipyrido}(\text{pyridazine})$) complexes were prepared, separated, identified and characterized. Sarah Aragon and Ronald R. Ruminski. Division of Inorganic Chemistry SESSION: Coordination Chemistry: Synthesis & Characterization, National Meeting of the American Chem. Society, Chicago, IL., Aug 21, 2022
 53. Syntheses and characterization of a series of novel $[\text{Rh}(\text{III})(\text{dpop}')(\text{N-N})\text{Cl}](\text{PF}_6)_2$ complexes ($\text{dpop}' = 2,3\text{-a:3',2'-j}$ dipyrido(phenazine) and N-N = a series of bidentate diammine ligands. Sarah Aragon, Jeff Canaria and Ronald R. Ruminski*, Spring National Meeting of the American Chemical Society, Division of Inorganic Chemistry PAPER ID: 3656753, 3/20/22 San Diego, CA.
 52. Tri-metallic complexes di-(trichloro platinum(II)); bis-(dipyrido(2,3-a:3',2'-j)phenazine)M; M = Ru(II) or Os(II) were synthesized and characterized. Zexin Li, Jacob Miratsky and Ronald R. Ruminski* ACS Spring 2021 National Meeting, Virtual; PAPER ID: 3554674, 4/21/21
 51. Your presentation has been accepted for the technical program of the ACS Spring 2020 National Meeting & Expo, March 22-26, 2020. PAPER ID: 3311591 PAPER TITLE: "Novel tri-metallic complexes di (trichloro platinum(II)); bis (dipyrido(2,3-a:3',2'-j)phenazine)M; M = Ru(II) or Os(II) with potential application in PDT were synthesized and characterized." (Meeting cancelled due to Covid)
 50. Novel aqua and chloro Ru(II) complexes with the tripodal NNN-ligand dipyrido(2,3-a:3',2'-j)phenazine (dpop') and bidentate NN ligands 2,3-di(2-pyridyl)pyrazine(dpp) and 3,6-di(2-pyridyl)tetrazine(dpt). R. R. Ruminski, K.Engstrom, S. Hoover, M. Roe. Division of Inorganic Chemistry, 255th ACS National Meeting New Orleans LA, 3/21/2018.
 49. Synthesis and characterization of bis-bipyridyl ruthenium(II) complexes with high nitrogen content tetrazole aromatic ligands. Division of Inorganic Chemistry, 249th ACS National Meeting Denver, CO, 3/24/2015.
 48. A sequence of $[\text{Ru}(\text{dpop}')(\text{N-N})\text{Cl}](\text{PF}_6)$ ($\text{dpop}' = \text{dipyrido}(2,3\text{-a:3',2'-j})\text{phenazine}$; N-N = bpy; bpm, phen, and en) precursor complexes in the design of single site molecular catalysts for water oxidation. Division of Inorganic Chemistry, National ACS meeting, San Francisco, CA, 8/2014
 47. Preparation and characterization of bimetallic Pt(II)/Os(II) and Pt(II)/Ru(II) complexes bound through the mixed denticity ligand dipyrido(2,3-a:3',2'-j)phenazine (dpop') Division of Inorganic Chemistry, National ACS meeting, Philadelphia, PA, 8/2012
 46. The syntheses and characterization of Os(II) and Ru(II)/Os(II) bimetallic complexes with dipyrido(2,3-a:3',2'-j)phenazine (dpop') and the bridging ligand 2,3,5,6- tetra(2-pyridyl)-pyrazine(tppz). Division of Inorganic Chemistry, National ACS meeting, Denver CO, 8/2011
 45. Synthesis and characterization of precursor building block $[\text{Os}(\text{dpop}')(\text{N-N})\text{Cl}]\text{PF}_6$; (N-N = bpy, bpm, and dpp) complexes, Division of Inorganic Chemistry, National ACS meeting, Boston, MA 8/2007

44. Synthesis and characterization of $[\text{Os}(\text{dpop}')_2](\text{PF}_6)_2 \cdot 2 \text{H}_2\text{O}$ $\text{dpop}' = \text{dipyrido}(2,3\text{-}a:3',2'\text{-}j)\text{phenazine}$. Inorganic Division of the 231st National ACS meeting, Washington DC, 8/2005
43. Synthesis and characterization of $[\text{Re}(\text{dpop}')(\text{CO})_3\text{Cl}]$ $\text{dpop}' = \text{dipyrido}(2,3\text{-}a:3',2'\text{-}j)\text{phenazine}$. Inorganic Division, National ACS Meeting, San Diego CA, 3/ 2005.
42. Synthesis and Characterization of Pt(II) Complexes with the bis-bidentate bridging ligand dpop . Inorganic Division, National ACS Meeting, Anaheim CA, 8/2004.
41. Effect of Individualized Electronic Concept Questions on General Chemistry Achievement. R. R. Ruminski, Chemical Education Division, National ACS Meeting, Anaheim CA, 3/ 2004.
40. Collaborative Problem Solving Using WebCT, Teaching With Technology Conference at CU-Boulder, Aug. 13, 2003, R. R. Ruminski and G. Gaddis.
39. Synthesis and characterization of $[(\text{NH}_3)_3\text{Ru}(\text{dpop}')](\text{PF}_6)_2$ and $[(\text{tpy})\text{Ru}(\text{dpop}')](\text{PF}_6)_2$ complexes ($\text{dpop}' = \text{dipyrido}(2,3\text{-}a:2',3'\text{-}j)\text{phenazine}$). Effects of the peripheral ligands NH_3 and tpy on electronic absorption, emission and electrochemical properties. Inorganic Division, National ACS Meeting, Washington DC, 8/ 2000.
38. The Preparation and Characterization of a Novel Ruthenium(II) Complex with the Bridging Ligand $\text{Dipyrido}(2,3\text{-}a:2',3'\text{-}j)\text{phenazine}(\text{DPOP}')$. Inorganic Division, National ACS Meeting, Dallas, TX, 4/1998.
37. Spectroscopic and Electrochemical Properties of Ru(II) Complexes Bound to the Bridging Ligand $\text{Dipyrido}(2,3\text{-}a:2',3'\text{-}h)\text{phenazine}(\text{DPOP})$. Department of Chemistry and Biochemistry, Colorado School of Mines, Golden, CO, Sept. 23, 1997.
36. The Synthesis and Characterization of $\text{cis-}[\text{Ir}(\text{Cl}_2(\text{dpop})_2](\text{PF}_6)$. Undergraduate Research and Creative Work Conference. Work presented by undergraduate students Sina Underwood and Kristin Vallely. University of Colorado-Colorado Springs, April 1997.
35. The Preparation and the Spectroscopic and Electrochemical Characterization of Low Spin d^6 Metal Complexes with the Bridging Ligand DPOP . Invited Presentation at University of Wisconsin-Eau Claire, November 14, 1996.
34. The Preparation and the Spectroscopic and Electrochemical Characterization of Low Spin d^6 Metal Complexes with Nitrogen Containing Heterocyclic Ligands. Invited Presentation at Wichita State University, October 16, 1996.
33. Mixed Metal Osmium(II) Bimetallic Complexes with the Bridging Ligand DPOP , Inorganic Division, National ACS Meeting, New Orleans, LA, 3/1996.
32. The Preparation and Absorption, Emission and Electrochemical Characterizations of Mixed Ligand Phen and Bpy Polymetallic $\text{Ru}(\text{dpop})$ Complexes. Inorganic Division, National ACS Meeting, Anaheim, CA, 4/1995.
31. Photo-Induced Intramolecular Energy Transfer Processes in Low-Spin d^6 Complexes. Effects of the Bridging and Peripheral Ligand. Department of Chemistry, University of Colorado-Boulder, Boulder, CO, May 1994.
30. Photo-Induced Intramolecular Energy Transfer Processes in Low Spin d^6 Metal Complexes: Effects of the Bridging and Peripheral Ligand on Spectroscopic and Electrochemical Properties. Department of Chemistry, University of New Mexico, Albuquerque, NM, April 8, 1994.
29. Synthesis and Characterization of Mono and Bimetallic Osmium(II) Complexes with Dpop . Inorganic Division, National ACS Meeting, San Diego, CA, 3/1994.
28. Photo-Induced Intramolecular Energy Transfer Processes in Low-Spin d^6 Low Spin Complexes. Effects of the Bridging and Peripheral Ligand. Department of Chemistry, Adams State College, Alamosa, CO October 1, 1993.
27. Synthesis and Characterization of Tetrammine Ruthenium(II) complexes Bound to DPOP . Inorganic Division, National ACS Meeting, Chicago, IL, August 22-27, 1993.
26. Bis-Bipyridylruthenium(II) Complexes Bound with DPOP . National ACS Meeting, Denver CO, 3/1993.
25. Photo-Induced Intramolecular Energy Transfer Processes in Low-Spin d^6 Low Spin Complexes. Department of Chemistry, University of Denver. October 15, 1992.

24. Synthesis and Characterization of [Mo(CO)₄]₂1,2Dipyrido(2,3-a;2',3'-h)Phenazine Complexes. Inorganic Division, National ACS Meeting, San Francisco, CA, 4/1992.
23. Synthesis and Characterization of Cyanoiron(II) Complexes Bound with the Bridging Ligand Tetrakis(2-pyridyl)1,4-diazine. Inorganic Division, ACS National Meeting. Boston, MA, 4/1990.
22. Synthesis and Characterization of Rhenium(I) Carbonyl Complexes Bound with the Bridging Ligand 2,3-Bis(2-pyridyl)pyrazine, Inorganic Division ACS National Meeting, Boston, MA, 4/1990.
21. Synthesis and Characterization of Low Spin d₆ Metals Bound With Novel Nitrogen Aromatic Heterocyclic Ligands. North Dakota State University, Fargo, ND, January 21, 1989.
20. Novel Bridging Ligands in the Preparation of Polymetallic Low Spin d₆ Metal Complexes. Utah State University, Logan, UT, July, 1988.
19. Characterization of Tetraammineruthenium(II) Bound to the Bridging Ligand 2,3 bis(2-pyridyl)pyrazine. 3rd Chemical Congress of North America, Inorganic Division, ACS National Meeting, Toronto, Ontario, Canada. 6/1988
18. Synthesis, Characterization and Spectroscopy of Transition Metal Complexes Bound to Bridging Ligands. University of Idaho, Moscow ID, April 1988.
17. Synthesis, Characterization and Spectroscopy of Transition Metal Complexes Bound to Bridging Ligands. Memphis State University, Memphis, TN, April 1987.
16. Synthesis, Characterization and Photochemistry of Molybdenum Tetracarbonyl Bound to the Novel Bridging Ligand 2,3-Bis(2-pyridyl)pyrazine. Inorganic Division, ACS National Meeting, Denver, CO. 4/1987
15. Synthesis, Electrochemistry and Spectroscopy of Novel Ruthenium and Rhodium Complexes Bound to 2,2'-Bi-1,3-Dithiole(TTF). 8th Rocky Mountain Regional ACS Meeting, June 1986, Denver, CO.
14. Synthesis, Spectroscopy, Electrochemistry and Photochemistry of Bis disubstituted Mono and Bimetallic Complexes Containing 2,2'-Bipyrimidine. Inorganic Division, ACS National Meeting, Chicago, IL, 9/1985
13. Spectroscopy and Photochemistry of Polymetallic Complexes of 2,2'-Bipyrimidine. 35th ACS Southeastern Regional Meeting, November 1983, Charlotte, NC.
12. Spectroscopy and Photochemistry of Polymetallic Complexes of 2,2'-Bipyrimidine. Inorganic Division, ACS National Meeting, Washington, DC. 8/1983
11. Preparation, Spectroscopy and Photochemistry of Monometallic and Bimetallic Complexes Containing 2,2'-Bipyrimidine. Inorganic Division, ACS National Meeting, Seattle, WA., 3/1983
10. Monometallic and Bimetallic d₆ Transition Metal Complexes Containing 2,2'Bipyrimidine. Inorganic Division, ACS National Meeting, Kansas City, MO., 9/1982
9. Thermal and Photochemical Properties of Ru(II) Monometallic and Bimetallic Complexes Containing 2,2'-Bipyrimidine and Related Bridges. Inorganic Division, ACS National Meeting, Las Vegas, NV., 3/1982
8. The 436nm Photochemistry and Biacetyl Photosensitization of Dimanganesedecacarbonyl. Inorganic Division, ACS National Meeting, Las Vegas, NV. 3/1982
7. The Origin of Chromium(VI) in the Charge-Transfer Photochemistry of Chromium(III) Complexes. 180th ACS National Meeting, August 1980, Las Vegas, NV.
6. Charge-Transfer Photochemistry of Some Mono and Binuclear Chromium(III) Complexes. Inorganic Division of the 179th ACS National Meeting, March 1980, Houston, TX.
5. Charge-Transfer Photochemistry of Rhodochromium(III). 35th ACS Southwest Regional Meeting, December 1979, Austin, TX.
4. Relaxation of Charge-Transfer States of Chromium(II) Complexes. Inorganic Division of the 177th ACS National Meeting, April 1979, Honolulu, HI.
3. Relaxation of Upper Excited States in Complexes of Chromium(III), and Solid State Photochemical Reactions of Chromium(III). 4th Biennial ACS Rocky Mountain Regional Meeting, June 1978, Boulder, CO.
2. Photochemistry of Hydroxo-Bridged Binuclear Complexes of Chromium(III). Inorganic Division of the 175th ACS National Meeting, March 1978, Anaheim, CA.

1. Synthesis, Characterization, and Photochemistry of Chromium(III) Complexes of Glycine and Alanine. 31st ACS Southwest Regional Meeting, October 1975, Memphis, TN.

Grants and Scholarship:

24. "Binding Platinum(II) *directly* to light absorbing Os(II) complex, with potential use as a light activated analog of *cis* platin cancer treatment." Morgan Lee (student) R. Ruminski (Faculty mentor) Sponsored by Undergraduate Research Academy, University of Colorado Colorado Springs, \$4,000. Proposal was *withdrawn* prior to funding as Ms. Lee received a higher paying internship for summer 2024.
23. "Syntheses of Osmium(II) building block molecules for potential use in PhotoDynamic Therapy(PDT)". Alissa Ervin (student) R. Ruminski (Faculty mentor) Sponsored by Undergraduate Research Academy, University of Colorado Colorado Springs, \$4,000. (June 1, 2023 - August 15, 2023). Funded \$4,000.
22. Aragon, S.(student) , Kovacs, J. (Co-Principal) and Ronald Ruminski(Co-principle), "Preparation and isolation of linearized puc19 DNA for binding studies.," Sponsored by Undergraduate Research Academy, University of Colorado Colorado Springs, \$3,500.00. (June 15, 2021 - August 15, 2021). Not funded.
21. Hoover, S. (Student), Ruminski, R. (Faculty), "Synthesis of [Ru(dpop')(H₂O)(2,3-dpp)PtCl₂](PF₆)₂," Sponsored by Student-Faculty Research/Creative Works/Community Service Award., University of Colorado Colorado Springs, Funded \$4,000.00. (January 1, 2019 - May 15, 2019).
20. LAS Student Scholar Program; Spring 2018, Funded \$4000 (Ms. Kendra Engstrom)
19. LAS Undergraduate Summer Research Scholarship, Summer 2014. Funded \$1200 (Mr. Brandon Powell-Undergraduate)
18. NSF- Renewal REU Green Chemistry. Co-author, Funded NSF, 2014.
17. Biofrontiers Institute. Synthesis of supramolecular Ruthenium/Platinum Complexes for use in PhotoDynamicTherapy (PDT). Ronald Ruminski PI, April 2012. Not funded. 4/2012
16. NSF Proposal Number: 1057994 Title: RUI: New polyazine ligands to modify spectroscopic and electrochemical properties of Ru(II) complexes in photocatalyzed generation of renewable energy fuel resources. Not funded. 1/11
15. NSF Proposal Number: 1062972 Title: REU Site: Green Chemistry in Colorful Colorado, Not funded. 1/11
14. Guided Inquiry Experiments with FT-NMR Spectroscopy. Allen Schoffstall and Ronald Ruminski, Funded, NSF Spring 2008, \$149,431.
13. Improving Learning Through Individualized Electronic Concept Questions. Teaching and Learning Center, UCCS, Fall 2002. Requested \$4000. Funded.
12. Cis- Platin Analog Complexes with Novel Coordinating Ligands. Submitted to the Colorado Tobacco Research Program, Jan. 2002. Requested \$66,000. Denied
11. Luminescent Metallic DNA Sensors, Research Corporation, April 2001, Denied.
10. Luminescent Metallic DNA Sensors, University of Colorado Research Committee, Awarded 1/2000, \$2,000
9. 200MHz FT-NMR. (Co-author) Funded by NSF-ILI, May 1996 \$125,000
8. American Chemical Society Project Seed Grant. Summer Student Support. \$3,000. Awarded April 1993.
7. Synthesis and Characterization of Low Spin d6 Metal Complexes Bound Through the Bridging Ligand Dipyrido(2,3-a;2',3'-h)phenazine. Funded by the Petroleum Research Fund, American Chemical Society. April 1992 \$20,000
6. Synthesis of the Mixed Denticity Ligand Dipyridophenazine; Preparation of Transition Metal Complexes with Dipyridophenazine. Funded by a Gates Foundation Grant administered by the Research Corporation. June 1991 \$12,000
5. Emission Spectrophotometer, Funded by University of Colorado Research Committee, January 1990, \$4,000; Total value \$16,500
4. Synthesis, Characterization and Solvatochromic Studies of Group 6 Metal Carbonyls Bound to 2,3,5,6

- Tetra(2-pyridyl)pyrazine. Funded by a Bristol-Meyers Grant administered by the Research Corporation, July 1, 1988 \$20,000 University matching funds \$8,000; Total value \$28,000
3. Synthesis, Characterization and Spectroscopy of Novel TTF(2,2'-bi-1,3 Dithiole) Transition Metal Complexes. Funded by the Research Corporation, June 1985, \$7,500.
 2. Synthesis, Spectroscopy and Identification of Stable Transition Metal Precursor Complexes in the Preparation of Inorganic Polymers. Funded by the UCCS Research Committee. May 1985 \$3,400.
 1. Undergraduate Research Assistant Proposal, submitted to Research Assistance Support Committee, UCCS, \$500. Funded Spring 1986.

Courses Taught:

General Chemistry I, General Chemistry II; Honors General Chemistry II, Inorganic Chemistry I; Inorganic Chemistry II, Inorganic Chemistry II Laboratory, Principles of Molecular Photochemistry, Molecular Symmetry and Applications of Group Theory.

University and Professional Service

Chair PUEC for Candidate comprehensive re-appointment; Biochemistry, Fall 2024
Chair DRC for RTP, 2024-2025
Deans Review Committee for RPT; elected one last time, 2024-terminal
Search Committee for the Kramer Endowed Professorship 2024
Deans Review Committee, (8/04-5/21; Chair 2007-08, 2010-11, Chair 2014-2016; 2019-21). Elected representative again 5/21-present(Chair 2024-2025).
Chair, Committee for Departmental Advancement through Marketing. 2021-present
Letters Arts and Science dean's search committee 2019-2020.
Committee on Academic Progress (2016)
Review Committee, Dean EAS (2013-2014)
Chair Department of Chemistry, (8/04-6/08)
Vice Chancellor for Academic Affairs Review Committee 2001-2004 (Chair 04)
Curriculum and Requirements Committee, 2000-2003 (Chair 02 and 03)
Director of the Master of Science in Basic Sciences Program, University of Colorado at Colorado Springs. 1998-1999
Curriculum and Requirements Committee 92-95
Session Chairman, Transition Metal Coordination Chemistry, 208th ACS Meeting, Chicago, IL, August 22, 1993.
Letters, Arts & Sciences Representative to the Faculty Executive Committee at the University of Colorado at Colorado Springs 1989.
Reviewer of articles for *Inorganic Chemistry*, *Inorganica Chimica Acta*, *Polyhedron* and research proposals for different granting agencies.
Inorganic Chemistry General Session Chairman, 8th Rocky Mountain Regional Meetings of the ACS, Denver, CO, June 8-12, 1986.
College of Letters, Arts and Sciences Deans Search Committee, 1996.