

JOSHUA TELSER

CURRICULUM VITAE

Department of Biological, Physical, and Health Sciences
Roosevelt University
430 S. Michigan Ave.
Chicago, IL 60605-1394 USA

voice: 1 312 341 3687
fax: 1 312 341 4358
E-mail: jtels@roosevelt.edu
Website: <http://blogs.roosevelt.edu/jtels/>

EDUCATION:

Northwestern University, Evanston, IL; USPHS/NIH Postdoctoral Fellow, September 1984 – September 1986. Postdoctoral advisor: Prof. Brian M. Hoffman.

University of Florida, Gainesville, FL; Ph.D. in Inorganic Chemistry, December 1984. University of Illinois, Urbana, IL; graduate student in Inorganic Chemistry, 1980 – 1983. Thesis advisor: Prof. Russell S. Drago (deceased).

Cornell University, Ithaca, NY; A.B. in Chemistry (with distinction), May 1980.

WORK EXPERIENCE:

9/95 – present: Associate Professor of Chemistry, Roosevelt University, Chicago/Schaumburg, IL; Chemistry Program Coordinator, 1998 – 2000. Assistant Chair, Department of Biological, Chemical and Physical Sciences, 2005 – 2012; 2016 – 2018; Assistant Chair, Department of Biological, Physical, and Health Sciences, 2018 – present.

9/90 – 9/95: Assistant Professor of Chemistry.

Taught General Chemistry I and II (CHEM 201, 202), Organic Chemistry Survey (CHEM 210), Inorganic Chemistry (CHEM 341/441), Organometallic Chemistry (CHEM 319/419), Bioinorganic Chemistry (BCHM/CHEM 344/444), and Analytical, Organic, Inorganic, and Physical Chemistry Laboratory courses (CHEM 203, 210, 347, 325), Chemistry Seminar (CHEM 393/493). Research in paramagnetic resonance and magnetic properties of inorganic and biological systems.

9/89 – 9/90: Research Associate, Department of Biochemistry, University of Chicago, Chicago, IL. Research on enzyme catalysis using nitroxide spin-labeled substrates and vanadyl-nucleotide complexes.

4/88 – 9/89: Research Investigator, Contrast Media Department, Squibb Institute for Medical Research, New Brunswick, NJ. Research and development of metal chelate complexes for use as magnetic resonance imaging (MRI) contrast agents including *in vitro* and *in vivo* chemical, biological, and MRI studies.

9/86 – 4/88: Temporary Research Chemist, Photon Processes Group, Amoco Corporation, Naperville, IL. Research on oligonucleotide-based diagnostic agents including thermodynamic and spectroscopic studies on synthetic DNA oligomers with covalently attached (in)organic labels.

9/84 – 9/86: Postdoctoral Fellow, Department of Chemistry, Northwestern University, Evanston, IL. Research on metalloenzyme structure and catalytic function using electron paramagnetic resonance (EPR) and ENDOR spectroscopy.

8/83 – 9/84: Graduate Research Assistant, Department of Chemistry, University of Florida, Gainesville, FL.

8/80 – 8/83: Graduate Teaching Assistant, Department of Chemistry, University of Illinois, Urbana, IL. Research on synthesis and spectroscopy of transition metal carboxylate dimers to understand metal-metal and metal-ligand interactions in potentially catalytically relevant complexes. Teaching assistant in General Chemistry and Physical Chemistry Laboratory courses.

Summer 1979: Dreyfus Foundation Summer Scholar, Department of Chemistry, University of Chicago, Chicago, IL.

Research in organometallic chemistry of lanthanide elements. Advisor: Prof. William J. Evans.

Part-Time 1976 – 1980: Guide-Lecturer, Museum of Science and Industry, Chicago, IL.

Gave guided tours of exhibits and basic science demonstrations.

PROFESSIONAL PUBLICATIONS:

Research Articles:

1. Bajaj, A.G.; Dev, S.; Tagle, B.; Telser, J.; Clardy, J. "The Stereochemistry of Allohimachalol"; *Tetrahedron Lett.* **1980**, *21*, 325-326.
2. Telser, J.; Drago, R.S. "Action of Strong Acids on $M_2(O_2CR)_4$ Species"; *Inorg. Chem.* **1984**, *23*, 1798-1803.
3. Telser, J.; Drago, R.S. "Reactions of Rhodium Trifluoroacetate with Various Lewis Bases: Formation of 4:1 Complexes with Pyridine and *tert*-Butyl Isocyanide and Rhodium-Rhodium Bond Cleavage with Phosphorus Donors"; *Inorg. Chem.* **1984**, *23*, 2599-2606.
4. Telser, J.; Drago, R.S. "Reinvestigation of the Electronic and Magnetic Properties of Ruthenium Butyrate Chloride"; *Inorg. Chem.* **1984**, *23*, 3114-3120. Addition and Correction: *Inorg. Chem.* **1985**, *24*, 4765.
5. Drago, R.S.; Cosmano, R.; Telser, J. "EPR Spectra and Bonding in the 2:1 Base Adducts of $Rh_2(carboxylate)_4^{+}$ "; *Inorg. Chem.* **1984**, *23*, 3120-3124.
6. Drago, R.S.; Cosmano, R.; Telser, J. "Quantitative Studies on the Coordination Chemistry of Tetrakis(*n*-Butyrato)diruthenium Chloride"; *Inorg. Chem.* **1984**, *23*, 4514-4518.

7. Hamilton, D.E.; Drago, R.S.; Telser, J. "Spin-Trapping of a Cobalt-Dioxygen Complex"; *J. Am. Chem. Soc.* **1984**, *106*, 5353-5355.
8. Telser, J.; Drago, R.S. "Solution Chemistry of Rhodium Trifluoroacetate in the Presence of Phosphorus Donors"; *Inorg. Chem.* **1986**, *25*, 2989-2992.
9. Telser, J.; Emptage, M.H.; Merkle, H.; Kennedy, M.C.; Beinert, H.; Hoffman, B.M. "¹⁷O ENDOR Characterization of Substrate Binding to the [4Fe-4S]¹⁺ Cluster of Reduced Active Aconitase" *J. Biol. Chem.* **1986**, *261*, 4840-4846.
10. Telser, J.; Benecky, M.J.; Adams, M.W.W.; Mortenson, L.E.; Hoffman, B.M. "EPR and ENDOR Investigation of Carbon Monoxide Binding to Oxidized Hydrogenase I (Bidirectional) from *Clostridium Pasteurianum* W5"; *J. Biol. Chem.* **1986**, *261*, 13536-13541.
11. Telser, J.; Benecky, M.J.; Adams, M.W.W.; Mortenson, L.E.; Hoffman, B.M. "EPR and ENDOR Investigation of Oxidized Hydrogenase II (Uptake) from *Clostridium Pasteurianum* W5: Effects of Carbon Monoxide Binding"; *J. Biol. Chem.* **1987**, *262*, 6589-6594.
12. Telser, J.; Hoffman, B.M.; LoBrutto, R.; Ohnishi, T.; Tsai, A.-L.; Palmer, G. "Evidence for N Coordination to Fe in the [2Fe-2S] Center in Yeast Mitochondrial Complex III"; *FEBS Lett.* **1987**, *214*, 117-121.
13. Kennedy, M.C.; Werst, M.M.; Telser, J.; Emptage, M.H.; Beinert, H.; Hoffman, B.M. "Mode of Substrate Carboxyl Binding to the [4Fe-4S]¹⁺ Cluster of Reduced Active Aconitase as Studied by ¹⁷O and ¹³C ENDOR Spectroscopy"; *Proc. Natl. Acad. Sci. USA* **1987**, *84*, 8854-8858.
14. Telser, J.; Cruickshank, K.A.; Morrison, L.E.; Netzel, T.L. "Synthesis and Characterization of DNA Oligomers and Duplexes Containing Covalently Attached Molecular Labels: Comparison of Biotin, Fluorescein, and Pyrene Labels by Thermodynamic and Optical Spectroscopic Measurements"; *J. Am. Chem. Soc.* **1989**, *111*, 6966-6976.
15. Telser, J.; Cruickshank, K.A.; Netzel, T.L.; Schanze, K.S. "Oligonucleotides Containing Covalently Attached Derivatives of Tris(2,2'-Bipyridine)Ruthenium(II): Synthesis and Characterization by Thermodynamic and Optical Spectroscopic Measurements"; *J. Am. Chem. Soc.* **1989**, *111*, 7221-7226.
16. Telser, J.; Cruickshank, K.A.; Morrison, L.E.; Netzel, T.L.; Chan, C.-K. "DNA Duplexes Covalently Labeled at Dual Sites: Synthesis and Characterization by Steady-State and Time-Resolved Optical Spectroscopies"; *J. Am. Chem. Soc.* **1989**, *111*, 7226-7232.
17. Taylor, J.-S.; Garrett, D.S.; Brockie, I.R.; Svoboda, D.L.; Telser, J. "¹H NMR Assignment and Melting Temperature Study of Cis-Syn and Trans-Syn Thymine Dimer Containing Duplexes of d(CGTATTATGC): d(GCATAATACG)"; *Biochemistry* **1990**, *29*, 8858-8866.

18. Chang, C.A.; Brittain, H.G.; Telser, J.; Tweedle, M.F. "pH Dependence of Relaxivities and Hydration Numbers of Gadolinium(III) Complexes of Linear Amino Carboxylates"; *Inorg. Chem.* **1990**, *29*, 4468-4473.
19. Tweedle, M.F.; Wedeking, P.; Telser, J.; Sotak, C.H.; Chang, C.A.; Kumar, K.; Wan, X.; Eaton, S.M. "Dependence of MR Signal Intensity on Gd Tissue Concentration over a Broad Dose Range"; *Magn. Reson. Med.* **1991**, *22*, 191-194.
20. Wedeking, P.; Sotak, C.H.; Telser, J.; Kumar, K.; Chang, C.A.; Tweedle, M.F. "Quantitative Dependence of MR Signal Intensity on Tissue Concentration of Gd(HP-DO3A) in the Nephrectomized Rat"; *Magn. Reson. Imaging* **1992**, *10*, 97-108.
21. Mustafi, D.; Telser, J.; Makinen, M.W. "Vanadyl Complexes with Adenine Nucleotides: Investigation by EPR and ENDOR Spectroscopy"; *J. Am. Chem. Soc.* **1992**, *114*, 6219-6226.
22. Zhang, X.; Chang, C.A.; Brittain, H.G.; Garrison, J.M.; Telser, J.; Tweedle, M.F. "pH Dependence of Relaxivities and Hydration Numbers of Gadolinium(III) Complexes of Macrocyclic Amino Carboxylates"; *Inorg. Chem.* **1992**, *31*, 5997-5600.
23. Fu, W.; Telser, J.; Hoffman, B.M.; Smith, E.T.; Adams, M.W.W.; Finnegan, M.G.; Conover, R.C.; Johnson, M.K. "Interaction of Tl^+ and Cs^+ with the $[Fe_3S_4]$ Cluster of *Pyrococcus furiosus* Ferredoxin: Investigation by Resonance Raman, MCD, EPR, and ENDOR Spectroscopy"; *J. Am. Chem. Soc.* **1994**, *116*, 5722-5729.
24. Eichhorn, D.M.; Telser, J.; Stern, C.L.; Hoffman, B.M. "Influence of Zero-Field Splitting and State Mixing on Ferromagnetic Exchange in the Integrated-Stack Charge-Transfer Salt $[Cp^*_2Fe]^+[Co(HMPA-B)]^-$ "; *Inorg. Chem.* **1994**, *33*, 3533-3537.
25. Telser, J.; Smith, E.T.; Adams, M.W.W.; Conover, R.C.; Johnson, M.K.; Hoffman, B.M. "Cyanide Binding to the Novel 4Fe Ferredoxin from *Pyrococcus furiosus*: Investigation by EPR and ENDOR Spectroscopy"; *J. Am. Chem. Soc.* **1995**, *117*, 5133-5140.
26. Goldberg, D.P.; Telser, J.; Bastos, C.M.; Lippard, S.J. "Ferromagnetic versus Antiferromagnetic Exchange in Five Structurally Analogous Carboxylate-Bridged Trinuclear Ferrous Complexes"; *Inorg. Chem.* **1995**, *34*, 3011-3024.
27. Telser, J.; Fann, Y.-C.; Renner, M.W.; Fajer, J.; Wang, S.; Zhang, H.; Scott, R.A.; Hoffman, B.M. "Investigation by EPR and ENDOR Spectroscopy of the Ni(I) Form of Cofactor F₄₃₀ of *Methanobacterium thermoautotrophicum* and of Ni(I) Octaethylisobacteriochlorin"; *J. Am. Chem. Soc.* **1997**, *119*, 733-743.
28. Goldberg, D.P.; Telser, J.; Krzystek, J.; Montalban, A.G.; Brunel, L.-C.; Barrett, A.G.M.; Hoffman, B.M. "EPR Spectra from 'EPR-Silent' Species: High-Field EPR Spectroscopy of Manganese(III) Porphyrins"; *J. Am. Chem. Soc.* **1997**, *119*, 8722-8723.

29. Telser, J.; Huang, H.; Lee, H.-I.; Adams, M.W.W.; Hoffman, B.M. "Site Valencies and Spin Coupling in the 3Fe and 4Fe ($S = 1/2$) Clusters of *Pyrococcus furiosus* Ferredoxin by ^{57}Fe ENDOR"; *J. Am. Chem. Soc.* **1998**, *120*, 861-870.
30. Staples, C.R.; Gaymard, E.; Stritt-Etter, A.-L.; Telser, J.; Hoffman, B.M.; Schürmann, P.; Knaff, D.B.; Johnson, M.K.; "Role of the $[\text{Fe}_4\text{S}_4]$ Cluster in Mediating Disulfide Reduction in Spinach Ferredoxin:Thioredoxin Reductase"; *Biochemistry* **1998**, *37*, 4612-4620.
31. Telser, J.; Lee, H.-I.; Smith, E.T.; Huang, H.; Brereton, P.; Adams, M.W.W.; Conover, R.C.; Johnson, M.K.; Hoffman, B.M. "Investigation by EPR and ENDOR Spectroscopy of the Novel 4Fe Ferredoxin from *Pyrococcus furiosus*"; *Appl. Magn. Reson.* **1998**, *14*, 305-321.
32. DeRose, V.J.; Telser, J.; Anderson, M.E.; Lindahl, P.A.; Hoffman, B.M. "A Multinuclear ENDOR Study of the C-Cluster in CO Dehydrogenase from *Clostridium thermoaceticum*: Evidence for H_2O and Histidine Coordination to the $[\text{Fe}_4\text{S}_4]$ Cluster"; *J. Am. Chem. Soc.* **1998**, *120*, 8767-8776.
33. Telser, J.; Pardi, L.A.; Krzystek, J.; Brunel, L.-C. "EPR Spectra from 'EPR-Silent' Species: High-Field EPR Spectroscopy of Aqueous Chromium(II)"; *Inorg. Chem.* **1998**, *37*, 5769-5775. Addition and Correction: *Inorg. Chem.* **2000**, *39*, 1834.
34. Valko, M.; Morris, H.; Mazúr, M.; Telser, J.; McInnes, E.J.L; Mabbs, F.E. "High-Affinity Binding Site for Copper(II) in Human and Dog Serum Albumins (an EPR Study)"; *J. Phys. Chem. B* **1999**, *103*, 5591-5597.
35. Telser, J.; Davydov, R.; Kim, C.-H.; Adams, M.W.W.; Hoffman, B.M. "Investigation of the Unusual Electronic Structure of *Pyrococcus furiosus* 4Fe Ferredoxin by EPR Spectroscopy of Protein Reduced at Ambient and Cryogenic Temperatures"; *Inorg. Chem.* **1999**, *38*, 3550-3553.
36. Krzystek, J.; Telser, J.; Pardi, L.A.; Goldberg, D.P; Hoffman; B.M.; Brunel, L.-C.; "High-Frequency and -Field Electron Paramagnetic Resonance of High-Spin Manganese(III) in Porphyrinic Complexes"; *Inorg. Chem.* **1999**, *38*, 6121-6129.
37. Heo, J.; Staples, C.R.; Telser, J.; Ludden, P.W.; "*Rhodospirillum rubrum* CO-Dehydrogenase. Part 2. Spectroscopic Investigation and Assignment of Spin-Spin Coupling Signals"; *J. Am. Chem. Soc.* **1999**, *121*, 11045-11057.
38. Telser, J.; Horng, Y.-C.; Becker, D.F.; Hoffman, B.M.; Ragsdale, S.W.; "On the Assignment of Nickel Oxidation States of the Ox1, Ox2 Forms of Methyl-Coenzyme M Reductase"; *J. Am. Chem. Soc.* **2000**, *122*, 182-183.
39. Telser, J. Lee, H.-I.; Hoffman, B.M.; "Investigation of Exchange Couplings in $[\text{Fe}_3\text{S}_4]^+$ Clusters by Electron Spin-Lattice Relaxation"; *J. Biol. Inorg. Chem.* **2000**, *5*, 369-380.

40. Howard, T.; Telser, J.; DeRose, V.J.; An Electron Paramagnetic Resonance Study of $\text{Mn}_2(\text{H}_2\text{O})(\text{OAc})_4(\text{tmeda})_2$ (tmeda = *N,N,N',N'*-Tetramethylethylenediamine): A Model for Dinuclear Manganese Enzyme Active Sites"; *Inorg. Chem.* **2000**, *39*, 3379-3385.
41. Pardi, L.A.; Krzystek, J.; Telser, J.; Brunel, L.-C.; "Multifrequency EPR Spectra of Molecular Oxygen in Solid Air"; *J. Magn. Reson.* **2000**, *146*, 375-378.
42. Telser, J.; Davydov, R.; Horng, Y.-C.; Becker, D.F.; Ragsdale, S.W.; Hoffman, B.M.; "Cryoreduction of Methyl-Coenzyme M Reductase: EPR Characterization of Forms, MCR_{ox1} and MCR_{red1} "; *J. Am. Chem. Soc.* **2001**, *123*, 5853-5860.
43. Krzystek, J.; Telser, J.; Hoffman, B.M.; Brunel, L.-C.; Licoccia, S. "High-Frequency and Field EPR Investigation of (8,12-Diethyl-2,3,7,13,17,18-hexamethylcorrolato)manganese(III)"; *J. Am. Chem. Soc.* **2001**, *123*, 7890-7897.
44. Krzystek, J.; Telser, J.; Knapp, M.J.; Hendrickson, D.N.; Aromí, G.; Christou, G.; Angerhofer, A.; Brunel, L.-C. "High-Frequency and -Field Electron Paramagnetic Resonance of High-Spin Manganese(III) in Axially Symmetric Coordination Complexes"; *Appl. Magn. Reson.* **2001**, *21*, 571-585.
45. Carepo, M.; Tierney, D.L.; Brondino, C.D.; Yang, T.C.; Pamplona, A.; Telser, J.; Moura, I.; Moura, J.J.G.; Hoffman, B.M. " ^{17}O ENDOR Detection of a Solvent-Derived Ni-(OH_x)-Fe Bridge That Is Lost upon Activation of the Hydrogenase from *Desulfovibrio gigas*"; *J. Am. Chem. Soc.* **2002**, *124*, 281-286.
46. Smoukov, S.K.; Telser, J.; Bernat, B.A.; Rife, C.L.; Armstrong, R.N.; Hoffman, B.M. "EPR Study of Substrate Binding to the Mn(II) Active Site of the Bacterial Antibiotic Resistance Enzyme, FosA: A Better Way to Examine Mn(II)"; *J. Am. Chem. Soc.* **2002**, *124*, 2318-2326.
47. Krzystek, J.; Pardi, L.A.; Brunel, L.-C.; Goldberg, D.P.; Hoffman, B.M.; Licoccia, S.; Telser, J. "High-Frequency and -Field Electron Paramagnetic Resonance of High-Spin Manganese(III) in Tetrapyrrole Complexes"; *Spectrochim. Acta, Part A* **2002**, *58*, 1113-1127.
48. Krzystek, J.; Park, J.-H.; Meisel, M.W.; Hitchman, M.A.; Stratemeier, H.; Brunel, L.-C.; Telser, J. "EPR Spectra from 'EPR-Silent' Species: High-Frequency and High-Field EPR Spectroscopy of Pseudo-Tetrahedral Complexes of Nickel(II)"; *Inorg. Chem.* **2002**, *41*, 4478-4487.
49. Brezova, V.; Valko, M.; Breza, M.; Morris, H.; Telser, J.; Dvoranova, D.; Kaiserova, K.; Varecka, L.; Mazur, M.; Leibfritz, D. "Role of Radicals and Singlet Oxygen in Photoactivated DNA Cleavage by the Anticancer Drug Camptothecin: An Electron Paramagnetic Resonance Study"; *J. Phys. Chem. B.* **2003**, *107*, 2415-2425.

50. Vongtragool, S.; Gorshunov, B.; Dressel, M.; Krzystek, J.; Eichhorn, D. M.; Telser, J. "Direct Observation of Fine Structure Transitions in a Paramagnetic Nickel(II) Complex Using Far-Infrared Magnetic Spectroscopy: A New Method for Studying High-Spin Transition Metal Complexes"; *Inorg. Chem.* **2003**, *42*, 1788-1790.
51. Krzystek, J.; Yeagle, G. J.; Park, J.-H.; Britt, R. D.; Meisel, M. W.; Brunel, L.-C.; Telser, J. "High-Frequency and -Field EPR Spectroscopy of Tris(2,4-pentanedionato)manganese(III): Investigation of Solid-State versus Solution Jahn-Teller Effects"; *Inorg. Chem.* **2003**, *42*, 4610-4618. Correction: *Inorg. Chem.* **2009**, *48*, 3290.
52. Krzystek, J.; Telser, J. "High Frequency and Field EPR Spectroscopy of Mn(III) Complexes in Frozen Solutions."; *J. Magn. Reson.* **2003**, *162*, 454-465.
53. Boča, R.; D'han, L.; Mezei, G.; Ortiz-Perez, T.; Raptis, R. G.; Telser, J. "Triangular, Ferromagnetically-Coupled Cu^{II}₃-Pyrazolato Complexes as Possible Models of Particulate Methane Monooxygenase (pMMO)"; *Inorg. Chem.* **2003**, *42*, 5801-5803.
54. Krzystek, J.; Zvyagin, S. A.; Ozarowski, A.; Fiedler, A. T.; Brunold, T. C.; Telser, J.; "Definitive Spectroscopic Determination of Zero-Field Splitting in High-Spin Cobalt(II)"; *J. Am. Chem. Soc.* **2004**, *126*, 2148-2155.
55. Ramdhanie, B.; Telser, J.; Caneschi, A.; Zakharov, L. N.; Rheingold, A. L.; Goldberg, D. P.; "An Example of O₂ Binding in a Cobalt(II) Corrole System and High-Valent Cobalt-Cyano and Cobalt-Alkynyl Complexes"; *J. Am. Chem. Soc.* **2004**, *126*, 2515-2525.
56. Ozarowski, A.; Zvyagin, S. A.; Reiff, W. M.; Telser, J.; Brunel, L.-C.; Krzystek, J.; "High-Frequency and -Field EPR of a Pseudo-octahedral Complex of High-Spin Fe(II): Bis(2,2'-bi-2-thiazoline)bis(isothiocyanato)iron(II)"; *J. Am. Chem. Soc.* **2004**, *126*, 6574-6575.
57. Krzystek, J.; Fiedler, A. T.; Sokol, J. J.; Ozarowski, A.; Zvyagin, S. A.; Brunold, T. C.; Long, J. R.; Brunel, L.-C.; Telser, J.; "Pseudooctahedral Complexes of Vanadium(III): Electronic Structure Investigation by Magnetic and Electronic Spectroscopy"; *Inorg. Chem.* **2004**, *43*, 5645-5658.
58. Aromi, G.; Telser, J.; Ozarowski, A.; Brunel, L.-C.; Stoeckli-Evans, H.-M.; Krzystek, J.; "Synthesis, Crystal Structure, and High-Precision High-Frequency and -Field Electron Paramagnetic Resonance Investigation of a Manganese(III) Complex: [Mn(dbm)₂(py)₂](ClO₄)"; *Inorg. Chem.* **2005**, *44*, 187-196.
59. Walsby, C. J.; Telser, J.; Rigsby, R. E.; Armstrong, R. N.; Hoffman, B. M.; "Enzyme Control of Small-Molecule Coordination in FosA as Revealed by ³¹P Pulsed ENDOR and ESE-EPR"; *J. Am. Chem. Soc.* **2005**, *127*, 8310-8319.

60. Lansky, D. E.; Mandimutsira, B.; Ramdhanie, B.; Clausen, M.; Penner-Hahn, J.; Zvyagin, S. A.; Telser, J.; Krzystek, J.; Zhan, R.; Ou, Z.; Kadish, K. M.; Zakharov, L.; Rheingold, A. L.; Goldberg, D. P.; "Synthesis, Characterization, and Physicochemical Properties of Manganese(III) and Manganese(V)-Oxo Corrolazines"; *Inorg. Chem.* **2005**, *44*, 4485-4498.
61. Harvey, J. D.; Ziegler, C. J.; Telser, J.; Ozarowski, A.; Krzystek, J.; "High-Frequency and -Field EPR Investigation of a Manganese(III) N-Confused Porphyrin Complex, [Mn(NCTPP)(py)₂]" ; *Inorg. Chem.* **2005**, *44*, 4451-4453. Addition and Correction: *Inorg. Chem.* **2006**, *45*, 8459.
62. Telser, J.; van Slageren, J.; Vongtragool, S.; Dressel, M.; Reiff, W. M.; Zvyagin, S. A.; Ozarowski, A.; Krzystek, J.; "High-frequency/high-field EPR spectroscopy of the high-spin ferrous ion in hexaaqua complexes"; *Magn. Reson. Chem.* **2005**, *43*, S130-S139. (Special Issue: High-field EPR in Biology, Chemistry and Physics; DOI: 10.1002/mrc.1689)
63. Hakemian, A. S.; Tinberg, C. E.; Kondapalli, K. C.; Telser, J.; Hoffman, B. M.; Stemmler, T. L.; Rosenzweig, A. C.; "The Copper Chelator Methanobactin from *Methylosinus trichosporium* OB3b Binds Copper(I)"; *J. Am. Chem. Soc.* **2005**, *127*, 17142-17143.
64. Krzystek, J.; Zvyagin, S. A.; Ozarowski, A.; Trofimenko, S.; Telser, J.; "Tunable-Frequency High-Field Electron Paramagnetic Resonance"; *J. Magn. Reson.* **2006**, *178*, 174-183.
65. Mazur, M.; Kleinova, M.; Moncol, J.; Stachova, P.; Valko, M.; Telser, J.; "Time evolution of a sol-gel process monitored by Mn²⁺ EPR spectroscopy"; *J. Non-Crystalline Solids* **2006**, *352*, 3158-3165.
66. Li, L.; Murthy, N. N.; Telser, J.; Zakharov, L. N.; Yap, G. P. A.; Rheingold, A. L.; Karlin, K. D.; Rokita, S. E.; "Targeted Guanine Oxidation by a Dinuclear Copper(II) Complex at Single Stranded/Double Stranded DNA Junctions "; *Inorg. Chem.* **2006**, *45*, 7144-7159.
67. Lieberman, R. L.; Kondapalli, K. C.; Shrestha, D. B.; Hakemian, A. S.; Smith, S. M.; Telser, J.; Kuzelka, J.; Gupta, R.; Borovik, A. S.; Lippard, S. J.; Hoffman, B. M.; Rosenzweig, A. C.; Stemmler, T. L.; "Characterization of the Particulate Methane Monooxygenase Metal Centers in Multiple Redox States by X-ray Absorption Spectroscopy "; *Inorg. Chem.* **2006**, *45*, 8372-8381.
68. Mezei, G.; Raptis, R. G.; Telser, J.; "Trinuclear, Antiferromagnetically Coupled Cu^{II} Complex with an EPR Spectrum of Mononuclear Cu^{II}: Effect of Alcoholic Solvents"; *Inorg. Chem.* **2006**, *45*, 8841-8843.
69. Desrochers, P. J.; Telser, J.; Zvyagin, S. A.; Ozarowski, A.; Krzystek, J.; Vicic, D. A.; "Electronic Structure of Four-Coordinate C_{3v} Nickel(II) Scorpionate Complexes: Investigation by High-Frequency and -Field Electron Paramagnetic Resonance and Electronic Absorption Spectroscopies"; *Inorg. Chem.* **2006**, *45*, 8930-8941.

70. Dey, M.; Telser, J.; Kunz, R. C.; Lees, N. S.; Ragsdale, S. W.; Hoffman, B. M.; "Biochemical and Spectroscopic Studies of the Electronic Structure and Reactivity of a Methyl-Ni Species Formed on Methyl-Coenzyme M Reductase"; *J. Am. Chem. Soc.* **2007**, *129*, 11030–11032.
71. Fortman, G. C.; Kegl, T.; Li, Q.-S.; Zhang, X.; Schaefer, H. F., III; Xie, Y.; King, R. B.; Telser, J.; Hoff, C. D.; "Spectroscopic Detection and Theoretical Confirmation of the Role of $\text{Cr}_2(\text{CO})_5(\text{C}_5\text{R}_5)_2$ and $\bullet\text{Cr}(\text{CO})_2(\text{ketene})(\text{C}_5\text{R}_5)$ as Intermediates in Carbonylation of $\text{N}=\text{N}=\text{CHSiMe}_3$ to $\text{O}=\text{C}=\text{CHSiMe}_3$ by $\bullet\text{Cr}(\text{CO})_3(\text{C}_5\text{R}_5)$ ($\text{R} = \text{H}, \text{CH}_3$)"; *J. Am. Chem. Soc.* **2007**, *129*, 14388–14400.
72. Reisner, E.; Telser, J.; Lippard, S. J.; "A Planar Carboxylate-Rich Tetrairon(II) Complex and Its Conversion to Linear Triiron(II) and Paddlewheel Diiron(II) Complexes"; *Inorg. Chem.* **2007**, *46*, 10754–10770.
73. Karadas, F.; Schelter, E. J.; Shatruck, M.; Prosvirin, A. V.; Bacsa, J.; Smirnov, D.; Ozarowski, A.; Krzystek, J.; Telser, J.; Dunbar, K. R.; "A Family of Cyanide-Bridged Molecular Squares: Structural and Magnetic Properties of $[\{\text{M}^{\text{II}}\text{Cl}_2\}_2\{\text{Co}^{\text{II}}(\text{triphos})(\text{CN})_2\}_2] \cdot x\text{CH}_2\text{Cl}_2$, $\text{M} = \text{Mn}, \text{Fe}, \text{Co}, \text{Ni}, \text{Zn}$ "; *Inorg. Chem.* **2008**, *47*, 2074–2082.
74. Krzystek, J.; England, J.; Ray, K.; Ozarowski, A.; Smirnov, D.; Que, L., Jr.; Telser, J.; "Determination by High-Frequency and -Field EPR of Zero-Field Splitting in Iron(IV) Oxo Complexes: Implications for Intermediates in Nonheme Iron Enzymes"; *Inorg. Chem.* **2008**, *47*, 3483–3485.
75. Hakemian, A. S.; Kondapalli, K. C.; Telser, J.; Hoffman, B. M.; Stemmler, T. L.; Rosenzweig, A. C.; "The Metal Centers of Particulate Methane Monooxygenase from *Methylosinus trichosporium* OB3b"; *Biochemistry* **2008**, *47*, 6793–6801.
76. Verat, A. Y.; Pink, M.; Fan, H.; Fullmer, B. C.; Telser, J.; Caulton, K. G.; "Reactivity of the Radical NO with a Masked Form of 14 Valence Electron (PNP)Rh: Forming Rh(0, I or II)?" *Eur. J. Inorg. Chem.* **2008**, 4704–4709.
77. Svorec, J.; Valko, M.; Moncol, J.; Mazúr, M.; Melník, M.; J. Telser, J.; "Determination of intermolecular copper-copper distances from the EPR half-field transitions and their comparison with distances from X-ray structures. Applications to copper(II) complexes with biologically important ligands"; *Transition Met. Chem.* **2009**, *34*, 129–134.
78. Telser, J.; Wu, C.-C.; Chen, K.-Y.; Hsu, H.-F.; Smirnov, D.; Ozarowski, A.; Krzystek, J.; "Aminocarboxylate Complexes of Vanadium(III): Electronic Structure Investigation by High-Frequency and -Field Electron Paramagnetic Resonance Spectroscopy"; *J. Inorg. Biochem.* **2009**, *103*, 487–495 (Special Issue: 6th International Vanadium Symposium).

79. Liptak, M. D.; Fleischhacker, A. S.; Matthews, R. G.; Telser, J.; Brunold, T. C. "Spectroscopic and Computational Characterization of the Base-off Forms of Cob(II)alamin"; *J. Phys. Chem. B* **2009**, *113*, 5245–5254.
80. Nieto, I.; Bontchev, R. P.; Ozarowski, A.; Smirnov, D.; Krzystek, J.; Telser, J.; Smith, J. M. "Synthesis and spectroscopic investigations of four-coordinate nickel complexes supported by a strongly donating scorpionate ligand"; *Inorg. Chim. Acta*, **2009**, *362*, 4449–4460 (S. Trofimenko memorial issue).
81. Xavier, F. R.; Neves, A.; Casellato, A.; Peralta, R. A.; Bortoluzzi, A. J.; Szpoganicz, B.; Severino, P. C.; Terenzi, H.; Tomkowicz, Z.; Ostrovsky, S.; Haase, W.; Ozarowski, A.; Krzystek, J.; Telser, J.; Schenk, G.; Gahan, L. R. "Unsymmetrical Fe^{III}Co^{II} and Ga^{III}Co^{II} Complexes as Chemical Hydrolases: Biomimetic Models for Purple Acid Phosphatases (PAPs)"; *Inorg. Chem.* **2009**, *48*, 7905–7921.
82. Jiang, Y.; Telser, J.; Goldberg, D.P. "Evidence for the formation of a mononuclear ferric–hydroperoxo complex via the reaction of dioxygen with an (N₄S(thiolate))iron(II) complex"; *Chem. Commun.* **2009**, 6828–6830.
83. Ye, S.; Neese, F.; Ozarowski, A.; Smirnov, D.; Krzystek, J.; Telser, J.; Liao, J.-H.; Hung, C.-H.; Chu, W.-C.; Tsai, Y.-F.; Wang, R.-C.; Chen K.-Y.; Hsu, H.-F. "Family of V(III)-Tristhiolato Complexes Relevant to Functional Models of Vanadium Nitrogenase: Synthesis and Electronic Structure Investigations by Means of High-Frequency and -Field Electron Paramagnetic Resonance Coupled to Quantum Chemical Computations"; *Inorg. Chem.* **2010**, *49*, 977–988.
84. Tangen, E.; Conradie, J.; Franz, K.; Friedle, S.; Telser, J.; Lippard, S. J.; Ghosh, A.; "Electronic Structure of a Paramagnetic {MNO}⁶ Complex: MnNO 5,5-Tropocoronand"; *Inorg. Chem.* **2010**, *49*, 2701–2705.
85. Krzystek, J.; Swenson, D. C.; Zvyagin, S. A.; Smirnov, D.; Ozarowski, A.; Telser, J. "Cobalt(II) "Scorpionate" Complexes as Models for Cobalt-Substituted Zinc Enzymes: Electronic Structure Investigation by High-Frequency and -Field Electron Paramagnetic Resonance Spectroscopy"; *J. Am. Chem. Soc.* **2010**, *132*, 5241–5253.
86. Sanakis, Y.; Pissas, M.; Krzystek, J.; Telser, J.; Raptis, R. G. "Spin relaxation in a ferromagnetically coupled triangular Cu₃ complex"; *Chem. Phys. Lett.* **2010**, *493*, 185–190.
87. Andino, J. G.; Kilgore, U. J.; Pink, M.; Ozarowski, A.; Krzystek, J.; Telser, J.; Baik, M.-H.; Mindiola, D. J. "Intermolecular C–H bond activation of benzene and pyridines by a vanadium(III) alkylidene including a stepwise conversion of benzene to a vanadium-benzyne complex"; *Chem. Sci.* **2010**, *1*, 351–356.

88. Li, X.; Telser, J.; Kunz, R. C.; Hoffman, B. M.; Gerfen, G.; Ragsdale, S. W. "Observation of Organometallic and Radical Intermediates Formed during the Reaction of Methyl-Coenzyme M Reductase with Bromoethanesulfonate"; *Biochemistry* **2010**, *49*, 6866–6876.
89. Tran, B. L.; Singhal, M.; Park, H.; Lam, O. P.; Pink, M.; Krzystek, J.; Ozarowski, A.; Telser, J.; Meyer, K.; Mindiola, D. J. "Reactivity Studies of a Masked Three-Coordinate Vanadium(II) Complex"; *Angew. Chem. Int. Ed.* **2010**, *49*, 9871–9875.
90. Arion, V. B.; Rapta, P.; Telser, J.; Shova, S. S.; Breza, M.; Lušpai, K.; Kožišek, J. "Syntheses, Electronic Structures, and EPR/UV–Vis–NIR Spectroelectrochemistry of Nickel(II), Copper(II), and Zinc(II) Complexes with a Tetradentate Ligand Based on S-Methylisothiosemicarbazide"; *Inorg. Chem.* **2011**, *50*, 2918–2931.
91. Yang, L.; Lin, G.; Liu, D.; Dria, K. J.; Telser, J.; Li, L. "Probing the Reaction Mechanism of Spore Photoproduct Lyase (SPL) via Diastereoselectively Labeled Dinucleotide SP Tpt Substrates"; *J. Am. Chem. Soc.* **2011**, *133*, 10434–10447. Correction: *J. Am. Chem. Soc.* **2012**, *134*, 20858–20858.
92. Gale, E. M.; Simmonett, A. C.; Telser, J.; Schaefer, H. F., III; Harrop, T. C. "Toward Functional Ni-SOD Biomimetics: Achieving a Structural/Electronic Correlation with Redox Dynamics"; *Inorg. Chem.* **2011**, *50*, 9216–9218.
93. Doan, P. E.; Telser, J.; Barney, B. M.; Igarashi, R. Y.; Dean, D. R.; Seefeldt, L. C.; Hoffman, B. M. "⁵⁷Fe ENDOR Spectroscopy and 'Electron Inventory' Analysis of the Nitrogenase E₄ Intermediate Suggest the Metal-Ion Core of FeMo-Cofactor Cycles Through Only One Redox Couple"; *J. Am. Chem. Soc.* **2011**, *133*, 17329–17340.
94. Krzystek, J.; Smirnov, D.; Schlegel, C.; van Slageren, J.; Telser, J.; Ozarowski, A. "High-Frequency and -Field EPR Study of the [Fe(H₂O)₆]²⁺ Ion in Ferrous Fluorosilicate"; *J. Magn. Reson.* **2011**, *213*, 158–165.
95. Smith, S. M.; Rawat, S.; Telser, J.; Hoffman, B. M.; Stemmler, T. L.; Rosenzweig, A. R. "Crystal Structure and Characterization of Particulate Methane Monooxygenase from *Methylocystis* species Strain M"; *Biochemistry* **2011**, *50*, 10231–10240.
96. Sun, F.; Ji, Q.; Jones, M. B.; Deng, X.; Liang, H.; Frank, B.; Telser, J.; Peterson, S. N.; Bae, T.; He, C. "AirSR, a [2Fe-2S] Cluster-Containing Two-Component System, Mediates Global Oxygen Sensing and Redox Signaling in *Staphylococcus aureus*"; *J. Am. Chem. Soc.* **2012**, *134*, 305–314.
97. Desrochers, P. J.; Sutton, C. A.; Abrams, M. L.; Ye, S.; Neese, F.; Telser, J.; Ozarowski, A.; Krzystek, J. "Electronic Structure of Nickel(II) and Zinc(II) Borohydrides from Spectroscopic Measurements and Computational Modeling"; *Inorg. Chem.* **2012**, *51*, 2793–2805.
98. Krzystek, J.; Ozarowski, A.; Zvyagin, S. A.; Telser, J. "High Spin Co(I): High-Frequency and -Field EPR Spectroscopy of CoX(PPh₃)₃, where X = Cl, Br"; *Inorg. Chem.* **2012**, *51*, 4954–4964.

99. McGarvey, B. R.; Telser, J. "Simple Ligand-Field Theory of d^4 and d^6 Transition Metal Complexes with a C_3 Symmetry Axis"; *Inorg. Chem.* **2012**, *51*, 6000-6010.
100. Tran, B. L.; Pinter, B.; Nichols, A. J.; Konopka, F. T.; Thompson, R.; Chen, C-H.; Krzystek, J.; Ozarowski, A.; Telser, J.; Baik, M-H.; Meyer, K.; Mindiola, D. J. "A Planar Three-Coordinate Vanadium(II) Complex and the Study of Terminal Vanadium Nitrides from N_2 : A Kinetic or Thermodynamic Impediment to N–N Bond Cleavage?"; *J. Am. Chem. Soc.* **2012**, *134*, 13035–13045.
101. Yang, L.; Lin, G.; Nelson, R. S.; Jian, Y.; Telser, J.; Li, L. "Mechanistic Studies of the Spore Photoproduct Lyase via a Single Cysteine Mutation"; *Biochemistry* **2012**, *51*, 7173–7188.
102. Cutsail, G. E., III; Doan, P. E.; Hoffman, B. M.; Meyer, J.; Telser, J. "EPR and ^{57}Fe ENDOR Investigation of 2Fe Ferredoxins from *Aquifex aeolicus*"; *J. Biol. Inorg. Chem.* **2012**, *17*, 1137–1150. (DOI: 10.1007/s00775-012-0927-7).
103. Jackson, T. A.; Krzystek, J.; Ozarowski, A.; Wijeratne, G. B.; Wicker, B. F.; Mindiola, D. J.; Telser, J. "Vanadocene *de Novo*: Spectroscopic and Computational Analysis of Bis(η^5 -cyclopentadienyl)vanadium(II)"; *Organometallics* **2012**, *31*, 8265–8274. Addition: *Organometallics* **2014**, *33*, 1325–1325.
104. Forshaw, A. P.; Smith, J. M.; Andrew Ozarowski, A.; Krzystek, J.; Smirnov, D.; Zvyagin, S. A.; Harris, T. D.; Kuranadasa, H. I.; Zadrozny, J. M.; Schnegg, A.; Holldack, K.; Jackson, T. A.; Alamiri, A.; Barnes, D. M.; Telser, J. "Low-Spin Hexa-Coordinate Mn(III): Synthesis and Spectroscopic Investigation of Homoleptic Tris(pyrazolyl)borate and Tris(carbene)borate Complexes"; *Inorg. Chem.* **2013**, *52*, 144–159.
105. Soroceanu, A.; Cazacu, M.; Shova, S.; Turta, C.; Kožiček, J.; Gall, M.; Breza, M.; Raptă, P.; MacLeod, T. C. O.; Pombeiro, A. J. L.; Telser, J.; Dobrov, A. A.; Arion, V. B. "Copper(II) Complexes with Schiff Bases Containing a Disiloxane Unit: Synthesis, Structure, Bonding Features and Catalytic Activity for Benzyl Alcohol Aerobic Oxidation"; *Eur. J. Inorg. Chem.* **2013**, 1458–1474. (DOI: 10.1002/ejic.201201080).
106. Yang, L.; Nelson, R. S.; Benjdia, A.; Lin, G.; Telser, J.; Stoll, S.; Schlichting, I.; Li, L. "A Radical Transfer Pathway in Spore Photoproduct Lyase"; *Biochemistry* **2013**, *52*, 3041–3050.
107. Schweinfurth, D.; Krzystek, J.; Schapiro, I.; Demeshko, S.; Klein, J.; Telser, J.; Ozarowski, A.; Su, C.-Y.; Meyer, F.; Atanasov, M.; Neese, F.; Sarkar, B. "Electronic Structures of Octahedral Ni(II) Complexes with "Click" Derived Triazole Ligands: A Combined Structural, Magnetometric, Spectroscopic, and Theoretical Study"; *Inorg. Chem.* **2013**, *52*, 6880–6892.

108. Arion, V. B.; Platzer, S.; Rapta, P.; Machata, P.; Breza, M.; Vegh, D.; Dunsch, L.; Telser, J.; Shova, S.; MacLeod, T. C. O.; Pombeiro, A. J. L. "Marked Stabilization of Redox States and Enhanced Catalytic Activity in Galactose Oxidase Models Based on Transition Metal S-Methylisothiosemicarbazones with –SR Group in Ortho Position to the Phenolic Oxygen"; *Inorg. Chem.* **2013**, *52*, 7524–7540.
109. Tran, B. L.; Krzystek, J.; Ozarowski, A.; Chen, C.-H.; Pink, M.; Karty, J. A.; Telser, J.; Meyer, K.; Mindiola, D. J. "Formation and Reactivity of the Terminal Vanadium Nitride Functionality"; *Eur. J. Inorg. Chem.* **2013**, 3916–3929. (DOI: 10.1002/ejic.201300178).
110. Zadrozny, J. M.; Telser, J.; Long, J. R. "Slow magnetic relaxation in the tetrahedral cobalt(II) complexes $[\text{Co}(\text{EPh})_4]^{2-}$ (E = O, S, Se)"; *Polyhedron* **2013**, *64*, 209–217. (George Christou *Festschrift*; DOI: 10.1016/j.poly.2013.04.008).
111. Horton, D. C.; VanDerveer, D.; Krzystek, J.; Telser, J.; Pittman, T.; Crans, D. C.; Holder, A. A. "Spectroscopic Characterization of L-ascorbic Acid-induced Reduction of Vanadium(V) Dipycolinates: Formation of Vanadium(III) and Vanadium(IV) Complexes from Vanadium(V) Dipycolinate Derivatives"; *Inorg. Chim. Acta* **2014**, *420*, 112–119. (Special Issue: Recent Advances in Vanadium Chemistry; DOI: 10.1016/j.ica.2013.12.001).
112. Souza, M. L.; Castellano, E. E.; Telser, J.; Franco, D. W. "Secondary Coordination Sphere Effects in Ruthenium(III) Tetraammine Complexes: Role of the Coordinated Water Molecule"; *Inorg. Chem.* **2015**, *54*, 2067–2080.
113. Broering, E. P.; Dillon, S.; Gale, E. M.; Steiner, R. A.; Telser, J.; Brunold, T. C.; Harrop, T. C. "Accessing Ni(III)-Thiolate versus Ni(II)-Thiyl Bonding in a Family of Ni-N₂S₂ Synthetic Models of NiSOD"; *Inorg. Chem.* **2015**, *54*, 3815–3828.
114. Cazacu, M.; Shova, S.; Soroceanu, A.; Machata, P.; Bucinsky, L.; Breza, M.; Rapta, P.; Telser, J.; Krzystek, J.; Arion, V. B. "Charge and Spin States in Schiff Base Metal Complexes with a Disiloxane Unit Exhibiting a Strong Noninnocent Ligand Character: Synthesis, Structure, Spectroelectrochemistry, and Theoretical Calculations"; *Inorg. Chem.* **2015**, *54*, 5691–5706.
115. Krzystek, J.; Telser, J.; Li, J.; Subramanian, M. A. "Magnetic Properties and Electronic Structure of Manganese-Based Blue Pigments: a High-Frequency and -Field EPR Study"; *Inorg. Chem.* **2015**, *54*, 9040–9045.
116. Damon, P. L.; Liss, C. J.; Lewis, R. A.; Morochnik, S.; Szpunar, D. E.; Telser, J.; Hayton, T. W. "Quantifying the electron donor and acceptor ability of the ketimide ligands in $\text{M}(\text{N}=\text{C}^t\text{Bu}_2)_4$ (M = V, Nb, Ta)"; *Inorg. Chem.* **2015**, *54*, 10081–10095.
117. Nehr Korn, J.; Telser, J.; Holldack, K.; Stoll, S.; Schnegg, A. "Simulating Frequency-Domain Electron Paramagnetic Resonance: Bridging the Gap between Experiment and Magnetic

Parameters for High-Spin Transition-Metal Ion Complexes"; *J. Phys. Chem. B* **2015**, *119*, 13816–13824. (Wolfgang Lubitz *Festschrift*; DOI: 10.1021/acs.jpcc.5b08583).

118. Wijeratne, G. B.; Zolnhofer, E. M.; Fortier, S.; Grant, L. N.; Carroll, P. J.; Chen, C.-H.; Meyer, K.; Krzystek, J.; Ozarowski, A.; Jackson, T. A.; Mindiola, D. J.; Telser, J. "Electronic Structure and Reactivity of a Well-Defined Mono-nuclear Complex of Ti(II)"; *Inorg. Chem.* **2015**, *54*, 10380–10397.

119. Bucinsky, L.; Rohde, G. T.; Que, L., Jr.; Ozarowski, A.; Krzystek, J.; Breza, M.; Telser, J.; "HFEP and Computational Studies on the Electronic Structure of a High-Spin Oxidiron(IV) Complex in Solution"; *Inorg. Chem.* **2016**, *55*, 3933–3945.

120. Colmer, H. E.; Margarit, C. G.; Smith, J. M.; Jackson, T. A.; Telser, J. "Spectroscopic and Computational Investigation of Low-Spin Mn^{III} Bis(scorpionate) Complexes"; *Eur. J. Inorg. Chem.* **2016**, 2413–2423. (Scorpionates Special Issue; DOI: 10.1002/ejic.201501250).

121. Stalzer, M. M.; Telser, J.; Krzystek, J.; Motta, A.; Delferro, M.; Marks, T. J. "A Neutrally-Charged Trimethylmanganese(III) Complex: Synthesis, Characterization, and Disproportionation Chemistry"; *Organometallics* **2016**, *35*, 2683–2688.

122. Walter, M. R.; Dzul, S. P.; Rodrigues, A. V.; Stemmler, T. L.; Telser, J.; Conradie, J.; Ghosh, A.; Harrop, T. C. "Synthesis of Co^{II}–NO–Complexes and Their Reactivity as a Source of Nitroxyl"; *J. Am. Chem. Soc.* **2016**, *138*, 12459–12471.

123. Baslon, V.; Harris, J. P.; Reber, C.; Colmer, H. E.; Timothy A. Jackson, T. A.; Forshaw, A. P.; Smith, J. M.; Kinney, R. A.; Telser, J. "Near-infrared ²E_g → ⁴A_{2g} and visible LMCT luminescence from a molecular bis-(tris(carbene)borate) manganese(IV) complex"; *Can. J. Chem.* **2017**, *95*, 547–552. (DOI: 10.1139/cjc-2016-0607).

124. Bucinsky, L.; Breza, M.; Lee, W.-T.; Hickey, A. K.; Dickie, D. A.; Nieto, I.; DeGayner, J. A.; Harris, T. D.; Meyer, K.; Krzystek, J.; Ozarowski, A.; Nehrkorn, J.; Schnegg, A.; Holldack, K.; Herber, R. H.; Telser, J.; Smith, J. M. "Spectroscopic and Computational Studies of Spin States of Iron(IV) Nitrido and Imido Complexes"; *Inorg. Chem.* **2017**, *56*, 4752–4769. (DOI: 10.1021/acs.inorgchem.7b00512).

125. Schweinfurth, D.; J. Krzystek, J.; Atanasov, M.; Klein, J.; Hohloch, S.; Telser, J.; Demeshko, S.; Meyer, F.; Neese, F.; Sarkar, B. "Tuning Magnetic Anisotropy Through Ligand Substitution in Five-Coordinate Co(II) Complexes"; *Inorg. Chem.* **2017**, *56*, 5253–5265. (DOI: 10.1021/acs.inorgchem.7b00371).

126. Shova, S.; Vlad, A.; Cazacu, M.; Krzystek, J.; Bucinsky, L.; Breza, M.; Darvasiová, D.; Rapta, P.; Cano, J.; Telser, J.; Arion, V. B. "A five-coordinate manganese(III) complex of a salen type ligand with a positive axial anisotropy parameter *D*"; *Dalton Trans.* **2017**, *46*, 11817–11829. (DOI: 10.1039/C7DT01809F).

127. Büchel, G. E.; Kossatz, S.; Sadique, A.; Rapta, P.; Zalibera, M.; Bucinsky, L.; Komorovsky, S.; Telser, J.; Eppinger, J.; Reiner, T.; Arion, V. B. "*cis*-Tetrachlorido-bis(indazole)osmium(IV) and its osmium(III) analogues: paving the way towards the *cis*-isomer of the ruthenium anticancer drugs KP1019 and/or NKP1339"; *Dalton Trans.* **2017**, *46*, 11925–11941. (DOI: 10.1039/C7DT02194A).
128. Xu, S.; Bucinsky, L.; Breza, M.; Krzystek, J.; Chen, C.-H.; Pink, M.; Telser, J.; Smith, J. M. "Ligand Substituent Effects in Manganese Pyridinophane Complexes: Implications for Oxygen-Evolving Catalysis"; *Inorg. Chem.* **2017**, *56*, 14315–14325. (DOI: 10.1021/acs.inorgchem.7b02421).
129. Polezhaev, A. V.; Liss, C. J.; Telser, J.; Chen, C.-H.; Caulton, K. G. "A PNNH Pincer Ligand Allows Access to Monovalent Iron"; *Chem. – Eur. J.* **2018**, *24*, 1330–1341. (DOI: 10.1002/chem.201703795).
130. Carroll, T. G.; Garwick, R.; Telser, J.; Wu, G.; Ménard, G. "Synthesis, Characterization, and Electrochemical Analyses of Vanadocene Tetrametaphosphate and Phosphinate Derivatives"; *Organometallics* **2018**, *37*, 848–854. (DOI: 10.1021/acs.organomet.7b00797).
131. Rasheed, W.; Draksharapu, A.; Banerjee, S.; Young, V. G., Jr.; Fan, R.; Guo, Y.; Ozerov, M.; Nehr Korn, J.; Krzystek, J.; Telser, J.; Que, L., Jr. "Crystallographic evidence for a sterically induced ferryl tilt in a non-heme oxoiron(IV) complex that makes it a better oxidant"; *Angew. Chem. Int. Ed.* **2018**, *57*, 9387–9391. (DOI: 10.1002/anie.201804836).
132. Das, A.; Maher, A.; Telser, J.; Powers, D. C. "Observation of a Photogenerated Rh₂ Nitrenoid Intermediate in C–H Amination"; *J. Am. Chem. Soc.* **2018**, in press. (DOI: 10.1021/).

Review Articles/Book Chapters/Other:

1. Hoffman, B. M.; DeRose, V. J.; Doan, P. E.; Gurbiel, R. J.; Houseman, A. L. P.; Telser, J.; "Metalloenzyme Active-Site Structure and Function through Multifrequency CW and Pulsed ENDOR"; In *Biological Magnetic Resonance*; Berliner, L. J., Reuben, J., Eds.; Plenum: New York, 1993; vol. 13, pp 151–218.
2. Telser, J.; "Nickel in F₄₃₀"; In *Structure and Bonding: Elements in Primitive Anaerobes*; Williams, R. J. P., Ed.; Springer Verlag: Heidelberg, Germany, 1997; vol. 91, pp 31–63 (DOI: 10.1007/BFb0103374).
3. van Slageren, J.; Vongtragool, S.; Gorshunov, B.; Mukhin, A. A.; Karl, N.; Krzystek, J.; Telser, J.; Müller, A.; Sangregorio, C.; Gatteschi, D.; Dressel, M.; "Frequency-Domain Magnetic Resonance Spectroscopy of Molecular Magnetic Materials"; *Phys. Chem. Chem. Phys.* **2003**, *5*, 3837–3843. (DOI: 10.1039/B305328H).

4. Telser, J.; "Paramagnetic Resonance of Metallobiomolecules: Introduction and Overview"; In *Paramagnetic Resonance of Metallobiomolecules*, ACS Symposium Series, 2003, Volume 858, Chapter 1, pp 1-14. (DOI: 10.1021/bk-2003-0858.ch001).
Telser, J. Preface, In *Paramagnetic Resonance of Metallobiomolecules*, ACS Symposium Series, 2003, Volume 858, pp xi-xiii. (DOI: 10.1021/bk-2003-0858.pr001).
5. Valko, M.; Izakovic, M.; Mazur, M.; Rhodes, C. J.; Telser, J.; "Role of oxygen radicals in DNA damage and cancer incidence"; *Molecular and Cellular Biochemistry* **2004**, 266, 37-56. (DOI: 10.1023/B:MCBI.0000049134.69131.89).
6. Krzystek, J.; Ozarowski, A.; Telser, J.; "Multi-frequency, high-field EPR as a powerful tool to accurately determine zero-field splitting in high-spin transition metal coordination complexes"; *Coord. Chem. Revs.* **2006**, 250, 2308-2324. (DOI: 10.1016/j.ccr.2006.03.016).
7. Telser, J.; "A Perspective on Applications of Ligand-Field Analysis: Inspiration from Electron Paramagnetic Resonance Spectroscopy of Coordination Complexes of Transition Metal Ions"; *J. Braz. Chem. Soc.* **2006**, 17, 1501-1515. (DOI: 10.1590/S0103-50532006000800005).
8. Valko, M.; Leibfritz, D.; Moncol, J.; Cronin, M. T. D.; Mazur, M.; Telser, J.; "Free radicals and antioxidants in normal physiological functions and human disease"; *The International Journal of Biochemistry & Cell Biology* **2007**, 39, 44-84. (DOI: 10.1016/j.biocel.2006.07.001).
9. Telser, J.; "Electron-Nuclear Double Resonance (ENDOR) Spectroscopy"; In *Applications of Physical Methods to Inorganic and Bioinorganic Chemistry*; Scott, R. A., Lukehart, C. M., Eds.; Chichester, UK: John Wiley & Sons, Ltd., 2007; pp 99-124. (ISBN: 978-0-470-03217-6).
10. Telser, J.; "Overview of Ligand *versus* Metal Centered Redox Reactions in Tetraaza Macrocyclic Complexes of Nickel with a Focus on Electron Paramagnetic Resonance Studies"; *J. Braz. Chem. Soc.* **2010**, 21, 1139-1157. (Ícaro de Sousa Moreira memorial issue; DOI: 10.1590/S0103-50532010000700002).
11. Telser, J.; Ozarowski, A.; Krzystek, J.; "High-frequency and -field electron paramagnetic resonance of transition metal ion (d block) coordination complexes"; *Electron Paramag. Reson.*, **2013**, 23, 209-263. (Royal Society of Chemistry, Specialist Periodical Report; DOI: 10.1039/9781849734837-00209).
12. Schwalbe, H.; Telser, J. "Magnetic Resonance Spectroscopy in Bio(in)organic Chemistry and in Mechanistic Systems Biology: A Tribute to Ivano Bertini"; *ChemBioChem* **2013**, 14, 1671-1675. (Editorial for Ivano Bertini memorial issue; DOI: 10.1002/cbic.201300451).
13. Telser, J.; Ozarowski, A.; Krzystek, J.; "High-Frequency and High-Field Electron Paramagnetic Resonance (HFEP) – A new spectroscopic tool for bioinorganic chemistry"; *J. Biol. Inorg. Chem.* **2014**, 19, 297-318. (DOI: 10.1007/s00775-013-1084-3).

14. Cutsail, G. E., III; Telser, J.; Hoffman, B. M.; "Advanced Paramagnetic Resonance Spectroscopies of Iron-Sulfur Proteins: Electron Nuclear Double Resonance (ENDOR) and Electron Spin Echo Envelope Modulation (ESEEM)"; *Biochim. Biophys. Acta – Molecular Cell Research* **2015**, 1853, 1370–1394. (DOI: 10.1016/j.bbamcr.2015.01.025).
15. Krzystek, J.; Ozarowski, A.; Telser, J.; Crans, D. C.; "High-Frequency and -Field Electron Paramagnetic Resonance of Vanadium(IV, III, and II) Complexes"; *Coord. Chem. Revs.* **2015**, 301–302, 123–133. (The Ninth International Symposium on the Chemistry and Biological Chemistry of Vanadium special issue; DOI: 10.1016/j.ccr.2014.10.014).
16. Krzystek, J.; Telser, J.; "Measuring giant anisotropy in paramagnetic transition metal complexes with relevance to single-ion magnetism"; *Dalton Trans.* **2016**, 45, 16751–16763. (Perspectives article; DOI: 10.1039/C6DT01754A).
17. Telser, J.; "EPR Interactions – Zero Field Splittings"; *eMagRes* **2017**, 6 (2), 207–233. (DOI: 10.1002/9780470034590.emrstm1501; ISBN: 9780470034590).

EDITED BOOK:

Paramagnetic Resonance of Metallobiomolecules; ACS Symposium Series, vol. 858; J. Telser, Ed.; Washington, DC: American Chemical Society, 2003. (ISBN: 0-8412-3832-4; DOI: 10.1021/bk-2003-0858).

PATENT APPLICATION:

Template-Directed Ligation of DNA Probes. Cruickshank, K.A.; Netzel, T.L.; Telser, J.A. U.S. Patent Application filed December, 1989. Assigned to Amoco Corporation.

PROFESSIONAL PRESENTATIONS:

- Florida Catalysis Conference, Palm Coast, FL; April, 1985.
- 190th ACS National Meeting, Chicago, IL; September, 1985; BIOL 47.
- Gordon Research Conference on "Metals in Biology", Santa Barbara, CA; January, 1986.
- 194th ACS National Meeting, New Orleans, LA; September, 1987; INOR 132; Symposium on Metal Clusters in Proteins.
- 16th Annual Meeting, American Society for Photobiology, Colorado Springs, CO; March, 1988; THPM-A24 (in *Photochem. Photobiol.*).
- 195th ACS National Meeting, Toronto, Canada; June, 1988; INOR 411; Symposium on Transition Metal-Nucleic Acid Chemistry.
- 4th International Conference on Bioinorganic Chemistry, Cambridge, MA; July, 1989; A029 (in *J. Inorg. Biochem.*)
- 201st ACS National Meeting, Atlanta, GA; April, 1991; INOR 494.

- 203rd ACS National Meeting, San Francisco, CA; April, 1992; CHED 289.
- Gordon Research Conference on "Inorganic Chemistry", Wolfeboro, NH; July, 1993.
- 6th International Conference on Bioinorganic Chemistry, San Diego, CA; August, 1993; G059 (in *J. Inorg. Biochem.*)
- 208th ACS National Meeting, Washington, DC; August, 1994; INOR 353; Symposium on Ligand Effects in Bioinorganic Chemistry.
- Seminar, Chemistry Department, Wayne State University, Detroit, MI; November 10, 1994.
- Seminar, Center for the Study of Early Events in Photosynthesis, Arizona State University, Tempe, AZ; March 9, 1995.
- Gordon Research Conference on "Enzymes, Coenzymes, and Metabolic Pathways", Meriden, NH; July, 1995.
- 18th International EPR Symposium (Part of the 37th Rocky Mountain Conference on Analytical Chemistry); Denver, CO; July, 1995; 152.
- 210th ACS National Meeting, Chicago, IL; August, 1995; INOR 665.
- 7th International Conference on Bioinorganic Chemistry, Lübeck, Germany; September, 1995; M06 (in *J. Inorg. Biochem.*)
- Talk at 3rd European Conference on Biological Inorganic Chemistry, Noordwijkerhout, The Netherlands; August, 1996; C9.
- Seminar, Max Planck Institut für Terrestrische Mikrobiologie, Marburg, Germany; May 28, 1997.
- Seminar, Institute of Materials Science, National Center for Scientific Research "Demokritos", Athens-Agia Paraskevi, Greece; June 3, 1997.
- 5th Conference on EPR of Disordered Systems (EMARDIS), Sofia-Boyana, Bulgaria, June, 1997.
- Gordon Research Conference on "Magnetic Resonance in Biology and Medicine", Ventura, CA; February, 1998.
- 4th European Conference on Biological Inorganic Chemistry, Seville, Spain; July, 1998.
- Seminar, Biochemistry Department, University of Wisconsin, Madison, WI; September 24, 1998.
- Seminar, Chemistry Department, University of North Dakota, Grand Forks, ND; March 1, 1999.
- Seminar, Inorganic Chemistry Institute, University of Vienna, Vienna, Austria, June 1, 1999.
- Talk at Coordination Chemistry Conference, Smolenice, Slovakia, June, 1999.
- 9th International Conference on Bioinorganic Chemistry (ICBIC-9), Minneapolis, MN; July, 1999; 311B (in *J. Inorg. Biochem.*)
- Seminar, Chemistry Department, University of Florida, Gainesville, FL; August 24, 1999.
- Talk at UMBELLA Workshop on High-Field EPR, Nijmegen, The Netherlands, October, 1999.
- 5th European Conference on Biological Inorganic Chemistry, Toulouse, France; July, 2000.
- 221st ACS National Meeting, San Diego, CA; April, 2001; INOR 703.

- 7th Conference on EPR of Disordered Systems (EMARDIS), Sofia-Boyana, Bulgaria, June, 2001.
- 222nd ACS National Meeting, Chicago, IL; August, 2001; INOR 288 (also session chair).
- Seminar, Chemistry Department, University of Sydney, Sydney, NSW, Australia; September 28, 2001.
- Seminar, Chemistry Department, University of Western Australia, Perth WA, Australia; October 3, 2001.
- Seminar, Faculty of Biochemical and Pharmaceutical Sciences, Rosario National University, Rosario, Argentina; November 13, 2001.
- Seminar, Faculty of Biochemistry and Biological Sciences, Litoral National University, Santa Fe, Argentina; November 14, 2001.
- Seminar, Department of Chemistry, University of Puerto Rico, Río Piedras, PR; December 10, 2001.
- 223rd ACS National Meeting, Orlando, FL; April, 2002. Symposium Organizer and Session Chair and Introductory and Final Remarks.
- Congress AMPERE, Poznań (Posen), Poland; July 2002.
- 6th European Conference on Biological Inorganic Chemistry, Lund, Sweden; July-August, 2002.
- Seminar at Ørsted Institute, Copenhagen, Denmark; August 5, 2002.
- Seminar, Inorganic Division, Department of Chemistry, Purdue University, West Lafayette, IN; November 12, 2002.
- Talk at workshop on Electron Magnetic Resonance, NHMFL, Tallahassee, FL; December, 2002.
- Seminar, Chemistry Department, Washington State University, Pullman, WA; April 14, 2003.
- Seminar, Inorganic Chemistry Division, University of Wisconsin, Madison, WI; April 28, 2003.
- Seminar, Chemistry Department, University of New Mexico, Albuquerque, NM; September 12, 2003.
- Seminar, Department of Chemistry and Biochemistry, University of Bern, Bern, Switzerland, January 8, 2004.
- Seminar, Institute of Physical Chemistry, University of Stuttgart, Stuttgart, Germany, January 12, 2004.
- Seminar, Max Planck Institut für Bioanorganische Chemie, Mülheim a.d. Ruhr, Germany, January 19, 2004.
- Seminar, Chemistry Department, University of Memphis, Memphis, TN; October 29, 2004.
- Seminar, Physical Chemistry Department, Slovak Technical University, Bratislava, Slovakia; January 21, 2005.
- Seminar, Physical Chemistry Division, Chemistry Department, Michigan State University, East Lansing, MI; February 15, 2005.
- 229th ACS National Meeting, San Diego, CA; March, 2005; INOR 402.
- Plenary Lecturer, Royal Society of Chemistry, ESR Group, 38th International Meeting, Bath, England, UK; March 23, 2005.

- Talk at DFG-Priority Programme 1071 Workshop on "Enzymes in Radical Catalysis", Schloss Rauischholzhausen, Hessen, Germany; April 11-13, 2005.
- Seminar, Inorganic Chemistry Division, Chemistry Department, University of Texas, Austin, TX; May 2, 2005.
- Seminar, Inorganic Chemistry Division, Chemistry Department, Texas A&M University, College Station, TX; May 4, 2005.
- 12th International Conference on Bioinorganic Chemistry (ICBIC-12), Ann Arbor, MI; July 31 - August 5, 2005; 2-MICH-49.
- Seminar, Chemistry Department, University of Victoria, Victoria, BC, Canada; November 14, 2005.
- Seminar, Chemistry Department, Simon Fraser University, Burnaby, BC, Canada; November 16, 2005.
- Seminar, Chemistry Department, Loyola University, Chicago, IL; January 26, 2006.
- Seminar, Chemistry Department, Johns Hopkins University, Baltimore, MD; April 5, 2006.
- Talk in Symposium on "Paramagnetic Inorganic and Organometallic Complexes", 89th Chemical Society of Canada Meeting, Halifax, NS, Canada; May 29, 2006.
- 8th European Conference on Biological Inorganic Chemistry (EUROBIC-8), Aveiro, Portugal; July, 2006.
- Talk at 13th Brazilian Meeting on Inorganic Chemistry (BMIC XIII), Fortaleza, CE, Brazil; September 5, 2006.
- Seminar, Chemistry Department, University of Miami, Coral Gables, FL; February 15, 2007.
- 233rd ACS National Meeting, Chicago, IL; March, 2007; INOR 1312 (also session chair).
- Talk in Symposium on "Concepts and Models in Bioinorganic Chemistry", 90th Chemical Society of Canada Meeting, Winnipeg, MB, Canada; May 30, 2007.
- Invited talk at 13th International Conference on Bioinorganic Chemistry (ICBIC-13), Vienna, Austria; July 17, 2007; Abstract O092a (also session chair).
- Talk in Symposium on Molecular Magnetism, VIII Latin American Workshop on Magnetism, Magnetic Materials and their Applications (LAW3M), Rio de Janeiro, RJ, Brazil, August, 12 - 16, 2007; MONOR11.
- Gordon Research Conference on "Protein Derived Radicals, Cofactors, and Quinones", Ventura, CA; January, 2008.
- Seminar, Biophysics Department, Medical College of Wisconsin, Milwaukee, WI; February 8, 2008.
- 235th ACS National Meeting, New Orleans, LA; April, 2008; INOR 518 (also session chair).
- Talk at 91st Chemical Society of Canada Meeting, Edmonton, AB, Canada; May 28, 2008.
- Talk at 31st International EPR Symposium, Breckenridge, CO; July 30, 2008.
- Poster at 14th Brazilian Meeting on Inorganic Chemistry (BMIC XIV), Foz do Iguaçu, PR, Brazil; August 31 - September 4, 2008.
- Seminar, Chemistry Department, University of Tromsø, Tromsø, Norway; October 15, 2008. Also served as "opponent" for Ph.D. thesis defense of Dr. Espen Tangen, student; Prof. Abhik Ghosh, advisor.

- Seminar, Chemistry Department, Western Michigan University, Kalamazoo, MI; October 27, 2008.
- Seminar, Institute of Organic Chemistry and Biochemistry, Academy of Sciences of the Czech Republic, Prague, Czech Republic; January 26, 2009.
- Seminar, Chemistry Department, University of Kansas, Lawrence, KS; February 27, 2009.
- Seminar, Inorganic Chemistry Division, University of Oregon, Eugene, OR; April 10, 2009.
- Seminar, Inorganic Chemistry Division, Indiana University, Bloomington, IN; April 17, 2009.
- Invited speaker, “NMR-squared”, Albuquerque, NM; April 25, 2009.
- Seminar, Institute for Physical and Theoretical Chemistry, University of Bonn, Bonn, Germany; June 4, 2010.
- Talk at 6th International Conference on Porphyrins and Phthalocyanines (ICPP-6), Santa Ana Pueblo, NM; July 5, 2010.
- Keynote Lecture at 15th Brazilian Meeting on Inorganic Chemistry (BMIC XV), Angra dos Reis, RJ, Brazil; August 17, 2010.
- Seminar, Chemistry Department, IUPUI, Indianapolis, IN; October 6, 2010.
- 241st ACS National Meeting, Anaheim, CA; March 27, 2011; INOR 131.
- Invited speaker, XVII Congreso Argentino de Fisicoquímica y Química Inorgánica, Córdoba, Argentina; May 5, 2011.
- Talk at 94th Canadian Society for Chemistry Meeting, Montréal, QC, Canada; June 8, 2011.
- Invited talk at 15th International Conference on Bioinorganic Chemistry (ICBIC-15), Vancouver, BC, Canada; August 10, 2011; Abstract 1072716.
- Seminar, Chemistry Department, University of Texas-Arlington, Arlington, TX; March 9, 2012.
- 243rd ACS National Meeting, San Diego, CA; March 25 – 29, 2012. Symposium Organizer and Introductory Remarks.
- Seminar, Chemistry Department, Miami University, Oxford, OH; April 26, 2012.
- Seminar, Chemistry Department, North Dakota State University, Fargo, ND; May 22, 2012.
- Vth International Conference on Molecular Materials (MolMat2012), Barcelona, Spain; July 3 – 6, 2012; PO 166.
- Keynote Lecture at 16th Brazilian Meeting on Inorganic Chemistry (BMIC XVI), Florianópolis, SC, Brazil; August 14, 2012.
- Talk at 41st Southeastern Magnetic Resonance Conference (part of Southeastern Regional ACS Meeting (SERMACS)), Raleigh, NC; November 15 – 17, 2012; Abstract 1094.
- Seminar, Chemistry Department, Illinois Institute of Technology, Chicago, IL; February 20, 2013.
- Talk at 12th International Symposium on Metal Ions in Biology and Medicine, Punta del Este, Uruguay; March 11 – 13, 2013. Abstract 033, in ISBN: 978-9974-0-0911-0.
- Seminar, Instituto de Química, Universidad de la República, Montevideo, Uruguay; March 15, 2013.
- 245th ACS National Meeting, New Orleans, LA; April 7 – 11, 2013; INOR 1234.

- 18th International Society of Magnetic Resonance (ISMAR) Meeting, Rio de Janeiro, RJ, Brazil, May 19 – 24, 2013; MO232, TU233.
- Seminars, Instituto de Química de São Carlos, Universidade de São Paulo, São Carlos, SP Brazil, August 21, 22, 2013.
- Seminar, Chemistry Department, University of Nevada, Reno, NV; September 13, 2013.
- Seminar, Chemistry Department, University of Akron, Akron, OH; January 22, 2014.
- Invited Participant, 5th Ringberg Workshop on Science with FELs [Free Electron Lasers], Schloss Ringberg, Kreuth, Bavaria, Germany; February 16 – 19, 2014.
<http://www.mpimf-heidelberg.mpg.de/12477665/Science-with-FELs>
- Seminar, Inorganic Chemistry Faculty, Friedrich-Alexander Universität, Erlangen, Germany; February 20, 2014.
- 247th ACS National Meeting, Dallas, TX; March 16 – 20, 2014; INOR 108. Speaker in ACS Award in Organometallic Chemistry Symposium in Honor of Kenneth G. Caulton.
- Poster at 9th International BioMetals Symposium (BioMetals 2014), Duke University, Durham, NC; July 14 – 18, 2014.
- Talk at 17th Brazilian Meeting on Inorganic Chemistry (BMIC XVII), Araxá, MG, Brazil; August 13, 2014. Abstract OP-8.
http://bmic2014.ufmg.br/arquivos/programacao.completa_3.pdf
- Seminar, Chemistry Department, University of Texas-El Paso (UTEP), El Paso, TX; November 14, 2014.
- Seminar, Inorganic Chemistry Division, Indiana University, Bloomington, IN; February 13, 2015.
- 249th ACS National Meeting, Denver, CO; March 22 – 26, 2015; INOR 384. Speaker in ACS Award in Organometallic Chemistry Symposium in Honor of William J. Evans.
- Seminar, Chemistry Department, University of Tennessee, Knoxville, TN; April 9, 2015.
- Seminar, Inorganic Chemistry Division, University of Georgia, Athens, GA; May 18, 2015.
- Seminar, Inorganic Chemistry Division, University of Pennsylvania, Philadelphia, PA; June 9, 2015.
- Talk at 98th Canadian Society for Chemistry Meeting, Ottawa, ON, Canada; June 16, 2015.
- Talk at 3rd EuCheMS Inorganic Chemistry Conference, Wrocław (Breslau), Poland; June 30, 2015. <http://euchems.chem.uni.wroc.pl/program/>
- Seminar, Chemistry Department, University of Missouri – Saint Louis (UMSL), Saint Louis, MO; September 21, 2015.
- Talk at 44th Southeast Magnetic Resonance Conference (SEMRC), Daytona Beach, Florida; October 10, 2015.
https://nationalmaglab.org/images/news_events/searchable_docs/seminars/SEMRC_2015_program.pdf
- Seminar, Chemistry Department, University of Gießen, Gießen a. d. Lahn, Germany; January 11, 2016.
- Seminar, Max Planck Institut für chemische Energiekonversion (MPI-CEC), Mülheim a.d. Ruhr, Germany, January 18, 2016.
- 251st ACS National Meeting, San Diego, CA; March 13 – 17, 2016; INOR 125. Talk in

- Symposium on “Undergraduate Research at the Frontiers of Inorganic Chemistry”.
- Invited Speaker, International Conference on HYPERFINE Interactions and their Applications, Leuven, Belgium, July 3 – 8, 2016. Video of talk available at: <https://iks32.fys.kuleuven.be/indico/event/31/page/15>
- 72nd ACS Southwest Regional Meeting (SWRM), Galveston, TX; November 10 – 13, 2016; Talk 629.
- Seminar, Physical Chemistry Institute, Universität Stuttgart, Stuttgart, Germany, March 8, 2017.
- Seminar, Inorganic Chemistry Institute, Universität Heidelberg, Heidelberg, Germany, March 9, 2017.
- Seminar, Inorganic Division, Chemistry Department, University of California – Irvine, Irvine, CA; May 11, 2017.
- Seminar, Inorganic Division, Chemistry Department, University of California – Santa Barbara, Santa Barbara, CA; May 15, 2017.
- Seminar, Inorganic Division, Chemistry Department, University of California – Riverside, Riverside, CA; May 12, 2017.
- Invited Speaker, 4th EuCheMS Inorganic Chemistry Conference (EICC-4), Copenhagen, Denmark; July 2 – 6, 2017; Talk I_09_CW.
- Poster at 46th World Chemistry Congress / IUPAC 49th General Assembly (40^a Reunião Anual da Sociedade Brasileira de Química), São Paulo, SP, Brazil; July 9 – 14, 2017; Poster 182 (see: <http://www.neopixdmi.com.br/@mci/iupac2017/pdf/182.pdf>).
- Invited Speaker, 18th International Conference on Bioinorganic Chemistry (ICBIC-18), Florianópolis, SC, Brazil; July 31 – August 4, 2017; (see: <http://icbic18.weebly.com/invited-speakers.html>; published in *J. Biol. Inorg. Chem.* **2017**, 22 (Suppl), S210; see: <https://link.springer.com/article/10.1007/s00775-017-1475-y>).
- Contributed talk, 46th Southeastern Magnetic Resonance Conference (SEMRC), Tallahassee, FL; October 27 – 29, 2017; see: <https://nationalmaglab.org/news-events/events/for-scientists/south-east-magnetic-resonance-conference>
- Seminar, Inorganic Chemistry Institute, Freie Universität Berlin, Berlin, Germany; November 9, 2017.
- Seminar, Chemistry Department, Marquette University, Milwaukee, WI; December 1, 2017.
- Seminar, Inorganic Chemistry Division, Chemistry Department, The Ohio State University, Columbus, OH; February 6, 2018.
- Seminar, Chemistry Department, University of Alabama, Tuscaloosa, AL; February 15, 2018.
- Seminar, Chemistry Department, Mississippi State University, Starkville, MS; February 16, 2018.
- 255th ACS National Meeting, New Orleans, LA; March 18 – 22, 2018; INOR 152.
- Contributed talk, 10th International Conference on Porphyrins and Phthalocyanines (ICPP-10), Munich, Germany, July 1 – 6, 2018 (session S12: “Corroles – Properties”).
- Seminar, Inorganic Chemistry Cluster, University of Michigan, Ann Arbor, MI; July 17, 2018.

POPULAR PRESS PUBLICATIONS

- Letter to the Editor, *Chemical & Engineering News*; vol 68, issue 15, p 3; April 9, 1990; (subject: Elena Ceaușescu's scientific career).
<http://pubs.acs.org/doi/pdf/10.1021/cen-v068n015.p002>
- Comment to "The Straight Dope" column; November 10, 1994.
<http://www.straightdope.com/columns/read/966/can-some-people-extinguish-streetlamps-by-means-of-their-bodily-emanations>
<http://www.chicagoreader.com/chicago/the-straight-dope/Content?oid=885950>
- Letter to the Editor, *Chicago Reader*; February 8, 1996; (subject: kinetic theory of gases).
<http://www.chicagoreader.com/chicago/kinetic-clarification/Content?oid=889679>
- Letter to the Editor, *Chicago Reader*; December 6, 2007; (subject: pH values).
<http://www.chicagoreader.com/chicago/kinetic-clarification/Content?oid=889679>
- Letter to the Editor, *Chemical & Engineering News*; March 21, 2011; (subject: atomic mass).
<http://cen.acs.org/articles/89/i12/Pondering-Atoms-Weight-Versus-Mass.html>
- Letter to the Editor, *Chemical & Engineering News*; September 9, 2013; (subject: Paul Walden, German history).
<http://cen.acs.org/articles/91/i36/Paul-Walden-Just-Scientist.html>
- e-Letter to Science, May 31, 2018; (subject: Leopoldina expulsions of members, German history). <http://science.sciencemag.org/content/360/6392/949/tab-e-letters>

HONORS AND SPECIAL ASSIGNMENTS:

- National Merit Finalist, 1975.
- Dreyfus Foundation Scholar at U. of Chicago, Summer, 1979 (with William J. Evans).
- University of Illinois Foundation Fellowship, 1980 - 1983.
- USPHS/NIH Individual National Research Service Award, 1985 - 1986.
- NSF Research Opportunity Award at Northwestern U., Summer, 1992.
- NSF Research Opportunity Award at Northwestern U., Summer, 1993.
- National High Magnetic Field Laboratory User Award, May, 1997.
- Teaching and Research Participant (TARP) Award, Gordon Research Conferences, 1993.
- Chairman's Award, Gordon Research Conferences, 1998.
- ACS International Initiatives Travel Award, 1999.
- Plenary Lecturer, Royal Society of Chemistry, ESR Group, 38th International Meeting, March 20 – 24, 2005.
- Electron Magnetic Resonance User Committee representative, 2006 – 2014; Committee chair, 2011 – 2014.
- Fulbright Scholar Award, 2012 (declined).
- Organizer, Symposium on "Paramagnetic Resonance of Metallobiomolecules", 223rd ACS National Meeting, Orlando, FL, April 7 – 9, 2002.

- Organizer, Alfred Bader Award in Bioinorganic Chemistry Symposium in Honor of Brian M. Hoffman, 243rd ACS National Meeting, San Diego, CA, March 25 – 29, 2012.
- Guest Editor (joint with Prof. Harald Schwalbe, Uni. Frankfurt) of Ivano Bertini memorial issue of *ChemBioChem*, volume 14, issue 14, September 23, 2013.
- Organizer, Microsymposium on "Advanced Spectroscopic Methods Applied to Metalloporphyrins and Heme Proteins", 8th International Conference on Porphyrins and Phthalocyanines (ICPP-8), Istanbul, Turkey, June 22 – 27, 2014.
- Chair, 3rd Chicago Regional Inorganic Colloquium (CRIC-3), Roosevelt University, Chicago, IL; November 20, 2016.
- Co-Organizer (with V. J. DeRose), Symposium on "Spectroscopic Elucidation of Metalloenzyme Mechanism: Current Successes and Future Challenges", 253rd ACS National Meeting, San Francisco, CA, April 2 – 6, 2017. Mentioned in: *C&EN*, **2017**, 95 (15), p 11 April 10, 2017; <http://pubs.acs.org/doi/10.1021/cen-09515-scicon005>.

REVIEWING AND PROFESSIONAL SOCIETY MEMBERSHIPS

- Peer reviewer for: *Applied Magnetic Resonance*, *Biochemistry*, *Chem. Comm.*, *Chem. Phys. Lett.*, *Chemistry – European J.*, *Dalton Trans.*, *European J. Inorg. Chem.*, *Inorg. Chem.*, *J. Am. Chem. Soc.*, *J. Biol. Inorg. Chem.*, *J. Braz. Chem. Soc.*, *J. Chem. Educ.*, *J. Inorg. Biochem.*, *J. Magn. Reson.*, *J. Phys. Chem. B*, *J. Phys. Chem. Solids*, *Organometallics*, *Physica B*, *Polyhedron*, NSF (CHE, MRI, GRFP), ACS-PRF, DoD NDSEG, Nederlandse Organisatie voor Wetenschappelijk Onderzoek (NWO, Netherlands Organisation for Scientific Research), Science Foundation of Ireland (SFI, Fondúireacht Eolaíochta Éireann), Vedecká grantová agentúra Ministerstva školstva, vedy, výskumu a športu SR a Slovenskej akadémie vied (VEGA, Scientific Grant Agency of the Ministry of Education, science, research and sport of the Slovak Republic and the Slovak Academy of Sciences).
- Member: Phi Lambda Upsilon Honorary Society.
- Member: American Chemical Society: Inorganic Division and Bioinorganic Subdivision, Chicago Section, and NIH Advisory Committee.
- Member: International EPR(ESR) Society (<http://www.ieprs.org/>).
- Member: Society of Porphyrins and Phthalocyanines (<http://spp.u-bourgogne.fr/>).
- Member: Society of Biological Inorganic Chemistry (<http://sbichem.org/>).
- Member: International Biometals Society (<http://www.biometals.org/>).
- Member: American Nano Society.
- Member: AAUP.