

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: jtelser@roosevelt.edu
Website: <https://blogs.roosevelt.edu/jtelser/>

ORCID: [0000-0003-3307-2556](https://orcid.org/0000-0003-3307-2556)

Web of Science (publons) ResearcherID: [AAU-1263-2021](https://publons.com/researcher/AAU-1263-2021)

Scopus Author ID: [7004435585](https://www.scopus.com/authid/detail.uri?authorId=7004435585)

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). Link to thesis: <http://ufdc.ufl.edu/UF00099223/00001>

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, School of Science and Technology / Mathematics 1998 – 2000; Assistant Chair, Department of Biological, Chemical and Physical Sciences, 2005 – 2012; 2016 – 2018; Chemistry Program Coordinator, 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 M₂(O₂CR)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 Rh₂(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*-Butyrate)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.
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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 Macroyclic 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 [Fe₃S₄] 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.
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- J. Am. Chem. Soc.* **1997**, *119*, 733-743.
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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.
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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_xO and Histidine Coordination to the [Fe₄S₄] 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.
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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. (DOI: [https://doi.org/10.1016/S1386-1425\(01\)00701-6](https://doi.org/10.1016/S1386-1425(01)00701-6)).

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24. Telser, J. Book review of "Molecular Bio-Sensors and the Role of Metal Ions", Vol. 23 of *Metal Ions in Life Sciences* (Guest Editor T. J. Meade; Series Editors A. Sigel, H. Sigel, E. Freisinger, R. K. O. Sigel). *J. Inorg. Biochem.* **2023**, 243, 112198. (DOI: <https://doi.org/10.1016/j.jinorgbio.2023.112198>).

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:

- Literature Seminar, Inorganic Division, University of Illinois at Urbana-Champaign, November 10, 1981, see: <https://chemistry.illinois.edu/system/files/inline-files/Telser.pdf>
- 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 Rauschholzhausen, 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 16, 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.
- Poster A47 at 16th International Conference on Molecule-Based Magnets (ICMM2018), Rio de Janeiro, RJ, Brazil; September 1 – 5, 2018.
http://icmm2018.com.br/arquivos/Poster-abstracts_ICMM2018-3.pdf
- Invited talk at XIX Brazilian Meeting on Inorganic Chemistry (BMIC XIX) Fortaleza, CE, Brazil; September 27, 2018. <http://www.bmic2018.ufc.br/speakers.html>
- Seminar, Inorganic Chemistry Division, Chemistry Department, University of Notre Dame, South Bend, IN; November 2, 2018.
- Seminar, Chemistry and Biochemistry Department, DePaul University, Chicago, IL; November 9, 2018.
- Seminar, Chemistry Department / Redox Biology Center, University of Nebraska-Lincoln, Lincoln, NE; February 4, 2019.
- Seminar, Chemistry Department, Oklahoma State University, Stillwater, OK; February 21, 2019.
- Seminar, Institut für Anorganische Chemie und Analytische Chemie, Johannes Gutenberg-Universität Mainz, Mainz, Germany; March 12, 2019.
- Seminars, Fachbereich Chemie, Technische Universität Kaiserslautern, Kaiserslautern, Germany, March 13 and 14, 2019.
- 257th ACS National Meeting, Orlando, FL; March 31 – April 4, 2019; INOR 979.
- Seminar, Chemistry Department, Georgia Institute of Technology, Atlanta, GA; April 25, 2019.
- Talk in Symposium “Celebrating Barry Lever’s 50 Years as Founding Editor of *Coord. Chem. Rev.*” at 102nd Canadian Chemistry Conference & Exposition (CCCE), Québec, QC, Canada; June 5, 2019.
- Seminar, Inorganic Chemistry faculty and students, Boston University, Boston, MA; June 18, 2019.
- Seminar, Instituto de Ciencia Molecular (ICMol), Universidad de Valencia / Universitat de València, Valencia, Spain; July 12, 2019.
- Poster at Gordon Research Conference on “Cell Biology of Metals / Organismal Biology of Metals and Related Metal Complexes”, Castelldefels, Catalonia, Spain; July 14 – 19, 2019.
- Oral presentation at 19th International Conference on Bioinorganic Chemistry (ICBIC-19), Interlaken, BE, Switzerland; August 11 – 16, 2019; Abstract OP-74. See:
https://www.chem.uzh.ch/dam/jcr:d809e5d0-e81b-42d0-a1c9-175c8e13e958/ICBIC19_ScientificProgram_v5.pdf
- Oral presentation at *7º Simposio Latinoamericano de Química de Coordinación y Organometálica* (SILQCOM7), Cartagena de Indias, Colombia; August 27 – 30, 2019.
- Seminar, Chemistry Department, University of Idaho, Moscow, ID; November 12, 2019.
- 259th ACS National Meeting, Philadelphia, PA; March 22 – March 26, 2020; INOR 84. Scheduled speaker in ACS Award in Organometallic Chemistry and F. Albert Cotton

Award in Synthetic Inorganic Chemistry Joint Symposium in Honor of Milton R. Smith III & Daniel J. Mindiola. Entire meeting cancelled due to Coronavirus (COVID-19).

- Oral (video) presentation in Science Expert Group (SEG) Workshop for BESSY 3: “THz-EPR, Molecular Magnetism and Related Phenomena”; May 8, 2020. Two-day workshop in Berlin, Germany converted to 4-hour virtual meeting due to Coronavirus (COVID-19 pandemic).
- Oral (video) presentations at Institut für Anorganische und Analytische Chemie, TU-Braunschweig, Braunschweig, Germany, and Institut für Anorganische Chemie, Georg-August-Universität Göttingen, Göttingen, Germany, February 1 and 2, 2021. Had been planned for in-person visits in 2020, but cancelled due to Coronavirus (COVID-19 pandemic).
- Oral (video) presentation at 54th Annual International Meeting of the ESR Spectroscopy Group of the Royal Society of Chemistry, Cardiff, Wales, UK April 12 – 16, 2021 (converted to virtual meeting due to Coronavirus (COVID-19) pandemic).
<http://www.esr-group.org/conferences/2021-conference-cardiff/speakers-2021/>
- Seminar, Inorganic Chemistry faculty and students, University of Rochester, Rochester, NY; February 28, 2022. (return to in-person)
- Seminar, MEETS (Materials, Energy, EnvironmenT Seminar), Chemistry Department, University at Buffalo (SUNY), Amherst, NY; March 1, 2022.
- Seminar, Physical/Analytical Division, Texas A&M University, College Station, TX; April 5, 2022.
- Seminar, Inorganic Chemistry faculty and students, University of Texas, Austin, TX; April 6, 2022.
- Seminar, Inorganic Chemistry faculty and students, University of Houston, Houston, TX; April 7, 2022.
- Seminar, Ames Laboratory and Inorganic Division, Department of Chemistry, Iowa State University, Ames, IA; May 9, 2022.
- Oral (in-person) presentation at 12th International Conference on Porphyrins and Phthalocyanines (ICPP-12); Madrid, Spain, July 15, 2022 (session S11: Paramagnetic polypyrroles including lanthanide complexes and radicals);
http://www.icpp-spp.org/img_icpp12/ICPP-12_Scientific_Program.pdf
- Contributed (oral) presentation at 44th International Conference on Coordination Chemistry (ICCC), Rimini, Italy; September 1, 2022 (OC058; session T1.4 & T2.3 Computational studies on coordination compounds); <https://www.iccc2022.com/>.
- Oral presentation, XVII Latin American Conference on the Applications of the Mössbauer Effect (LACAME'22); Vitória, ES, Brazil, November 7, 2022;
<https://www.lacame20-vitoria.org/scientific-program>
- Seminar, Department of Chemistry, University of Alabama-Birmingham (UAB), Birmingham, AL; November 17, 2022.
- Seminar, Department of Chemistry and Biochemistry, Auburn University, Auburn, AL; November 18, 2022.
- Seminar, Inorganic Division, Department of Chemistry, Colorado State University, Fort Collins, CO; November 29, 2023.

- Seminar, Department of Chemistry, University of Manitoba, Winnipeg, MB, Canada; February 16, 2023.
- Seminar, Department of Chemistry, University of Winnipeg, Winnipeg, MB, Canada; February 17, 2023.
- Seminar, Department of Chemistry, Case Western Reserve University, Cleveland, OH; April 27, 2023.
- Special Seminar, Department of Chemistry, Cornell University, Ithaca, NY; May 16, 2023.
- Special Seminar, Department of Chemistry, Pennsylvania State University, State College, PA; May 18, 2023.

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).
<https://pubs.acs.org/doi/pdf/10.1021/cen-v068n015.p002>
- Comment to "The Straight Dope" column; November 10, 1994.
<https://www.straightdope.com/21342130/can-some-people-extinguish-streetlamps-by-means-of-their-bodily-emanations>
<https://chicagoreader.com/news-politics/the-straight-dope-669/>
- Letter to the Editor, *Chicago Reader*; February 8, 1996; (subject: kinetic theory of gases).
<https://chicagoreader.com/news-politics/kinetic-clarification/>
- Letter to the Editor, *Chicago Reader*; December 6, 2007; (subject: pH values).
<https://chicagoreader.com/news-politics/letters-62/>
- Letter to the Editor, *Chemical & Engineering News*; March 21, 2011; (subject: atomic mass).
<https://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).
<https://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>
- Letter to the Editor, *Hyde Park Herald*; March 31, 2021; (subject: Giving our COVID death tally a global perspective).
https://www.hpherald.com/opinion/letters_to_editor/giving-our-covid-death-tally-a-global-perspective/article_8238af26-90bf-11eb-a63a-9785e1bf694c.html
- Letters to *The Financial Times* on subjects not directly related to chemistry or science in general:
<https://www.ft.com/content/c746a1f7-72b9-40ca-8494-69b680df7ff5>
(original article with citation to letter:
<https://www.ft.com/content/a7cbc3b7-f3b3-445c-bf64-51cedd5e9a29>)
<https://www.ft.com/content/010e908b-ae74-438f-a6b1-4f539de2e5b9>
(original article with citation to letter:
<https://www.ft.com/content/fb7eed16-095a-4c65-bb22-798112d05c7a>).

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 and 2017 – 2020; 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>.
- Organizing Committee (International Advisory Board), XIth Conference of European Federation of EPR Groups (EFEPR); Bratislava, Slovakia, September 1 – 5, 2019; <https://efepr2019.conference.fchpt.stuba.sk/committees/>
- External member, Ph.D. thesis committee of Dr. Suresh Chandranath Rathnayaka, student; Prof. Neal P. Mankad, advisor; University of Illinois at Chicago (UIC), May 14, 2020 (virtual).
- Co-organizer (with A. C. Rosenzweig) of Brian M. Hoffman 80th birthday celebration symposium; Evanston, IL, June 25, 2022 (in-person).
- External member, Ph.D. thesis committee of Dr. Aleksa Radović, student; Prof. Michael L. Neidig, advisor; University of Rochester, March 22, 2023 (virtual).

REVIEWING AND PROFESSIONAL SOCIETY MEMBERSHIPS

- Peer reviewer for: *ACS Catalysis*, *ACS Omega*, *Angew. Chem. Int. Ed.*, *Applied Magnetic Resonance*, *Biochemistry*, *Chem. Comm.*, *Chem. Phys. Lett.*, *Chemistry – European J.*, *Dalton Trans.*, *Energy & Fuel*, *European J. Inorg. Chem.*, *Inorg. Chem.* (Appreciated reviewer 2019-2020; see: <https://pubs.acs.org/doi/pdf/10.1021/acs.inorgchem.0c02699>; 2020-2021; see: <https://pubs.acs.org/doi/pdf/10.1021/acs.inorgchem.1c02810>), *J. Am. Chem. Soc.*, *J. Biol. Inorg. Chem.*, *J. Braz. Chem. Soc.*, *J. Chem. Educ.*, *J. Inorg. Biochem.*, *J. Magn. Reson.*, *J. Med. Chem.*, *J. Phys. Chem. B*, *J. Phys. Chem. Solids*, *Mendeleev Comm.*, *Nature Comm.*, *Organometallics*, *Physica B*, *Polyhedron*, ACS-PRF, DoD NDSEG, NSF (CHE, MRI, GRFP), NWO (Nederlandse Organisatie voor Wetenschappelijk Onderzoek, Netherlands Organisation for Scientific Research), SFI (Science Foundation of Ireland, Fondúireacht Eolaíochta Éireann), SLAC, VEGA (Vedecká grantová agentúra Ministerstva školstva, vedy, výskumu a športu SR a Slovenskej akadémie vied, 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://www.icpp-spp.org/>).
- Member: Society of Biological Inorganic Chemistry (<http://sbichem.org/>).
- Member: International Biometals Society (<http://www.biometals.org/>).
- Member: American Nano Society.
- Member: AAUP.