

Anthony W. Addison

Professor, Inorganic Chemistry, Tel: 215-895-2646, Fax: 215-895-1265, E-mail: addisona@drexel.edu, [http://drexel.edu/chemistry/contact/facultyDirectory/Anthony Addison/](http://drexel.edu/chemistry/contact/facultyDirectory/Anthony%20Addison/) B.Sc. (Hons.), 1968, University of New South Wales; Ph.D., 1971, University of Kent at Canterbury; Postdoctoral Fellow, 1970-72, Northwestern University; Assistant Professor, 1972-78, University of British Columbia.

- Prof. Addison, one of Drexel's two token Australians, is a C. & M. Lindback Distinguished Teaching



Awardee, a Fellow of the Royal Society of Chemistry ('08) and of the American Chemical Society ('12). He is an officer and past Chairman of the ACS Philadelphia Section, and a member of IES & CSC. He is lead author of the 6th-most-cited article in the field of Inorganic Chemistry in the last 30 years. His >240 articles and conference presentations have garnered *ca.* 10,000 citations in the research literature, a Hirsch Index of 37, an Egghe *g*-index of 95 & a Google *i*99 of 12.

• Research Interests

Design, synthesis and properties of novel chelating agents and of macrocyclic and oligonuclear metal complexes. Models for various properties of Fe, Cu, Ni and V centres in O₂-transporting and redox proteins. Electrochemistry, CD, EPR and magnetic properties of extended and molecular systems for thermal & photostimulated energy- and electron-transfer. Bioinorganic chemistry of metalloproteins.

• Recent Publications

- E. A. Mikhalyova, A. V. Yakovenko, M. Zeller, M. A. Kiskin, Y. V. Kolomzarov, I.L. Eremenko, A. W. Addison* & V. V. Pavlishchuk*, "Manifestation of π - π Stacking Interactions in Luminescence Properties and Energy Transfer in Aromatically-Derived Tb, Eu and Gd Tris(pyrazolyl)borate Complexes". *Inorganic Chemistry*, **54** (2015) 0000-0000. [DOI: [10.1021/ic502120g](https://doi.org/10.1021/ic502120g)]
- J. J. Stephanos* & A.W. Addison, "Chemistry of Metalloproteins: Problems and Solutions in Bioinorganic Chemistry" (*Wiley Series in Protein and Peptide Science*); Wiley-Interscience, New York, 2014; ISBN: 978-1-118-47044-2; 400 pp., July 2014. <http://www.wiley.com/WileyCDA/WileyTitle/productCd-1118470443.html>

- G.T. Reeves*, A.W. Addison, M. Zeller & A.D. Hunter, "Ru(II) thioether complexes with dangling pyridine ligands", *Polyhedron*, **68** (2014) 70-75 [DOI: [10.1016/j.poly.2013.10.001](https://doi.org/10.1016/j.poly.2013.10.001)]
- J. M. Popovitch, A. W. Addison*, R. J. Butcher, M. J. Prushan, "The 1,8-bis(2'-pyridyl)-3,6-dithiaoctane complex of rhodium(III)", *Journal of Chemical Crystallography* (2012) **42**, 295-298 [DOI: [10.1007/s10870-011-0239-8](https://doi.org/10.1007/s10870-011-0239-8)]
- E. A. Mikhalyova, A. V. Yakovenko, M. Zeller, K. S. Gavrilenko, S. E. Lofland, A. W. Addison* & V. V. Pavlishchuk* "Structure, magnetic and luminescence properties of the lanthanide complexes Ln₂(Salphen)₃ · H₂O (Ln = Pr, Nd, Sm, Eu, Gd, Tb, Dy; H₂Salphen-*N,N'*-bis(salicylidene)-1,2-phenylenediamine)" *Inorganica Chimica Acta*, **9** (2014) 97-104 [April 2014, DOI: [10.1016/j.ica.2014.01.034](https://doi.org/10.1016/j.ica.2014.01.034)]
- E. A. Mikhalyova, S. V. Kolotilov, M. Zeller, L. K. Thompson, A.W. Addison*, V. V. Pavlishchuk* & A. D. Hunter, "Synthesis, structure and magnetic properties of Nd³⁺ and Pr³⁺ 2D polymers with tetrafluoro-*p*-phthalate", *Dalton Transactions* **40** (2011) 10989-10996 [DOI: [10.1039/c1dt11237f](https://doi.org/10.1039/c1dt11237f)]
- A. V. Pavlishchuk, S. V. Kolotilov, I. O. Fritsky, M. Zeller*, A. W. Addison & A. D. Hunter, "Structural trends in a series of isostructural lanthanide-copper metallacrown sulfates (Ln^{III} = Pr, Nd, Sm, Eu, Gd, Dy and Ho)" *Acta Crystallographica C* **67** (July 2011) m255-m265 [doi:[10.1107/S0108270111021780](https://doi.org/10.1107/S0108270111021780)]
- A.V. Pavlishchuk, S.V. Kolotilov*, M. Zeller, O.V. Shvets, I.O. Fritsky, S.E. Lofland, A.W. Addison* & A.D. Hunter, "Magnetic and Sorption Properties of Supramolecular Systems Based on Pentanuclear Copper(II) 12-Metallacrown-4 Complexes and Isomeric Phthalates: Structural Modeling of Different Stages of Alcohol Absorption", *The European Journal of Inorganic Chemistry*, (2011) 4826-4836 [Oct. 2011; DOI: [10.1002/ejic.201100790](https://doi.org/10.1002/ejic.201100790)]
- A. V. Pavlishchuk, S. V. Kolotilov,* M. Zeller, L. K. Thompson, I. O. Fritsky, A. W. Addison* and A. D. Hunter, "A triple-decker heptadecanuclear (Cu^{II})₁₅(Cr^{III})₂ complex assembled from pentanuclear metallacrowns." *The European Journal of Inorganic Chemistry*, (2010) 4851-4858 [Oct. 2010] [DOI: [10.1002/ejic.201000367](https://doi.org/10.1002/ejic.201000367)]
- D. Dragancea^a, A. W. Addison^b, M. Zeller^c, M. E. Foster^b, M. J. Prushan^d, L. K. Thompson^e, M. D. Revenco^a and A. D. Hunter^c, "A tetranuclear copper(II) bis-thiocarbohydrazone complex derived from *o*-aminobenzaldehyde." *Inorganica Chimica Acta*, **363** (2010) 2065-2070; A Science Direct 2010 "Hot Paper". doi:[10.1016/j.ica.2010.02.002](https://doi.org/10.1016/j.ica.2010.02.002)
- I.V. Vasylenko, K.S. Gavrilenko, V.G. Il'yin, V. Golub, G. Goloverda, V. Kolesnichenko, A.W. Addison* and V.V. Pavlishchuk* "The metamorphosis of heterometallic trinuclear antiferromagnetic complexes into nano-sized superparamagnetic spinels" *Materials Chemistry and Physics* **121**(1/2), 47-52 (May 2010) [DOI: [10.1016/j.matchemphys.2009.12.040](https://doi.org/10.1016/j.matchemphys.2009.12.040)]