

Anthony W. Addison

Professor, Inorganic Chemistry, Tel: 215-895-2646, Fax: 215-895-1265, E-mail: addisona@drexel.edu,
(Temporary) webpage: [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; Adjunct Associate Professor, UMDNJ-Robert Wood Johnson Memorial Hospital at Camden.



• Prof. Addison, one of Drexel's two token Australians, is a C. & M. Lindback Distinguished Teaching Awardee. Elected a Fellow of the Royal Society of Chemistry ('08) and of the American Chemical Society ('12), he is also 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 >230 articles and conference presentations have earned >7,800 citations of his work in the research literature and a Hirsch Index of 37.

• Research Interests

Bioinorganic chemistry: chemistry of dioxygen- and NO-binding metalloproteins, particularly hemerythrins, myoglobins and invertebrates' hemoglobins. Design, synthesis and properties of novel chelating agents and of macrocyclic and oligonuclear metal complexes. Properties of Ru & Rh 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.

• Recent Publications

- 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, 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 C67* (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)]

V. Mathrubootham*, A.W. Addison*, K. T. Holman, E. Sinn & L.K. Thompson "A novel copper(II) complex of a tripodal ligand with phenolate-phenol interligand, intramolecular hydrogen bonding." *Dalton Transactions* (2009) 8111-8116. [DOI: [10.1039/B910188H](https://doi.org/10.1039/B910188H)]

D. Dragancea, A. W. Addison*, M. Zeller, L. K. Thompson, D. Hoole, M. D. Revenco & A. D. Hunter, "Dinuclear copper(II) complexes with bis-thiocarbohydrazone ligands", *European Journal of Inorganic Chemistry* (2008) 2530-2536. [DOI: [10.1002/ejic.200701187](https://doi.org/10.1002/ejic.200701187)]