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## Contents

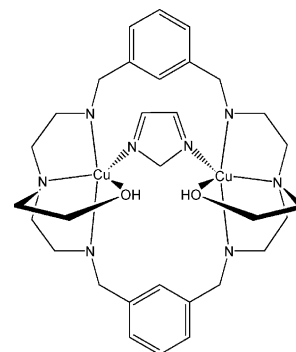
### Papers

**De-Xi Yang, Shu-An Li, Dong-Feng Li, Meng Chen, Jin Huang, Wen-Xia Tang**

*Polyhedron 22 (2003) 925*

Synthesis, structure and properties of an imidazolate-bridged dicopper complex of a novel macrocycle with two alcohol-pendants as an active site model of Cu,Zn-SOD

A novel imidazolate-bridged dicopper complex of a specially designed 24-membered hexaza macrocycle with two hydroxyethyl pendants was synthesized as a model complex for Cu,Zn-SOD, and its crystal structure, pH-dependent ESR; magnetic susceptibility and SOD-like activity have been investigated.

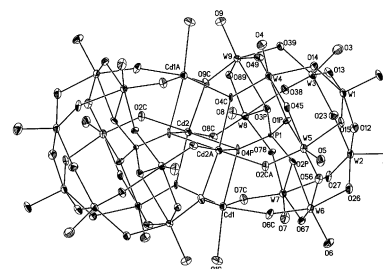


**M.H. Alizadeh, Hossein Razavi, F. Mohammadi Zonoz, M.R. Mohammadi**

*Polyhedron 22 (2003) 933*

Synthesis, single-crystal structural determination and solution characterization of a new sandwich-type cadmium-containing heteropolytungstate

The preparation of a new sandwich-type heteropolyoxometalate,  $[P_2W_{18}Cd_4(H_2O)_2-O_{68}]^{10-}$ , is described. This compound has been characterized by the X-ray diffraction method. The heteropolyanion consists of two lacunary  $B-\alpha-[PW_9O_{34}]^{9-}$  Keggin moieties linked via a rhomboid  $Cd_4O_{16}$  group leading to a sandwich-type structure. The IR,  $^{31}P$  and  $^{113}Cd$  NMR spectra have been investigated.

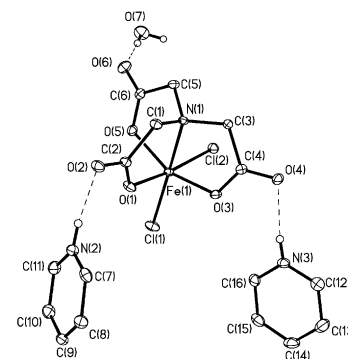


**Marc Anton Walters, Vadim Vapnyar, Adam Bolour, Chris Incarvito, Arnold L. Rheingold**

*Polyhedron 22 (2003) 941*

Iron(III) nitrilotriacetate and iron(III) iminodiacetate, their X-ray crystallographic structures and chemical properties

Mononuclear iron(III) nitrilotriacetato dichloride,  $[Fe(nta)Cl_2]^{2-}$ , and iron(III) bisiminodiacetato,  $[Fe(ida)_2]^{-}$ , complexes were formed in py, from which they were isolated and characterized by X-ray crystallography. The iron-nta complex is the structurally simplest of the reported solid state iron-nta complexes, and is catalytic for the air oxidation of hydrogen sulfide to sulfur.

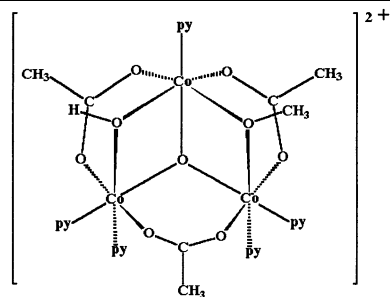


**James K. Beattie, John A. Klepetko,  
Anthony F. Masters, Peter Turner**

*Polyhedron 22 (2003) 947*

The chemistry of cobalt acetate. VIII. New members of the family of oxo-centred trimers,  $[\text{Co}_3(\mu_3\text{-O})(\mu\text{-O}_2\text{CCH}_3)_{5-p}(\mu\text{-OR})_p\text{L}_5]^{2+}$  (R = H, alkyl, L = ligand,  $p = 0\text{--}4$ ). The preparation and characterisation of the trimeric tetrakis( $\mu$ -acetato)-( $\mu$ -hydroxo)- $\mu_3$ -oxo-pentakis(pyridine)-tri-cobalt(III) hexafluorophosphate,  $[\text{Co}_3(\mu_3\text{-O})(\mu\text{-O}_2\text{CCH}_3)_4(\mu\text{-OH})(\text{C}_5\text{H}_5\text{N})_5][\text{PF}_6]_2$ , and the preparation and crystal structure of the trimeric tris( $\mu$ -acetato)-( $\mu$ -hydroxo)-( $\mu$ -methoxo)- $\mu_3$ -oxo-pentakis(pyridine)-tri-cobalt(III) hexafluorophosphate-methanol-water solvate  $[\text{Co}_3(\mu_3\text{-O})(\mu\text{-O}_2\text{CCH}_3)_3(\mu\text{-OH})(\mu\text{-OCH}_3)(\text{C}_5\text{H}_5\text{N})_5][\text{PF}_6]_2 \cdot \text{CH}_3\text{OH} \cdot 0.25\text{H}_2\text{O}$

An extensive series of oxo-centred trimeric cations is shown to exist in 'cobalt(III) acetate'. The isolation, characterisation and some reactions of three new dications, and the X-ray crystal structure of  $[\text{Co}_3(\mu_3\text{-O})(\mu_2\text{-OAc})_3(\mu_2\text{-OH})(\mu_2\text{-OMe})(\text{py})_5][\text{PF}_6]_2$  are described.

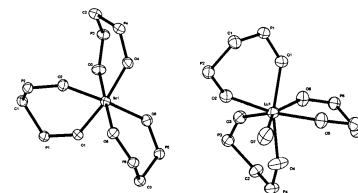


**John Fawcett, Andrew W.G. Platt**

*Polyhedron 22 (2003) 967*

Structures and catalytic properties of complexes of *bis*(diphenylphino)methane dioxide with scandium and lanthanide trifluoromethane sulfonates

Complexes of lanthanide and scandium triflates with  $(\text{Ph}_2\text{PO})_2\text{CH}_2=\text{L}$  are ionic with all triflates displaced from the primary coordination sphere of the metal. The structures of  $[\text{ScL}_3]^{3+}$ ,  $[\text{LuL}_3\text{H}_2\text{O}]^{3+}$  and  $[\text{LaL}_4]^{3+}$  illustrates the lanthanide contraction and help to explain the relative catalytic activity of the complexes.

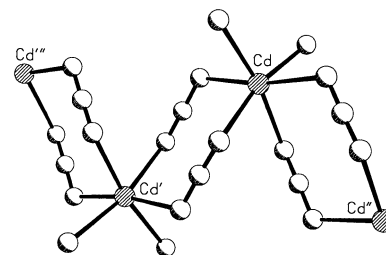


**Mohamed A.S. Goher, Franz A. Mautner,  
Afaf K. Hafez, Morsy A.M. Abu-Youssef,  
Christian Gspan, Ahmed M.-A. Badr**

*Polyhedron 22 (2003) 975*

Two new polymeric cadmium(II) complexes containing end-to-end bridging azido or thiocyanato ligands with different topologies

Crystal structures and spectra of two polymeric Cd(II) complexes containing end-to-end bridging azido or thiocyanato ligands with different topologies are reported.

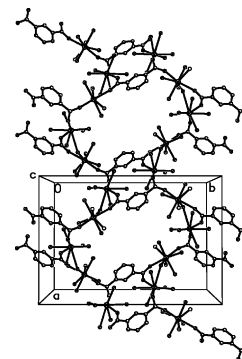


**Li-Ping Zhang, Yong-Hong Wan,  
Lin-Pei Jin**

*Polyhedron 22 (2003) 981*

Hydrothermal synthesis and crystal structure of neodymium(III) coordination polymers with isophthalic acid and 1,10-phenanthroline

Two novel neodymium complexes  $[\text{Nd}_2(\text{bdc})_2(\text{Hdbc})_2(\text{H}_2\text{O})]_n \cdot n\text{H}_2\text{O}$  (**1**) and  $[\text{Nd}_2(\text{bdc})_3(\text{phen})(\text{H}_2\text{O})]_n \cdot n\text{H}_2\text{O}$  (**2**) were synthesized by hydrothermal reaction and characterized by X-ray diffraction. Nd(III) ions in **1** and **2** are linked by carboxylate groups of  $\text{bdc}^{2-}$  in bridging bidentate and chelating-bridging tridentate modes resulting in 2-D structures. Three-dimensional supramolecular architecture is formed by layers via hydrogen bonds.

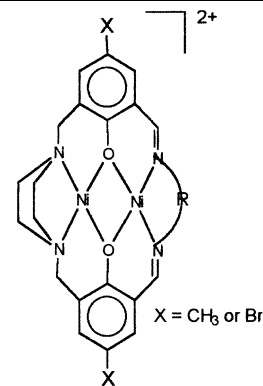


**J. Manonmani, M. Kandaswamy**

*Polyhedron* 22 (2003) 989

Synthesis, characterization and electrochemical studies of unsymmetrical macrocyclic mono and binuclear nickel(II) complexes

This work deals with synthesis and characterization of new binuclear unsymmetrical mono and binuclear nickel (II) complexes. Electrochemical studies indicate that these complexes show two quasireversible one electron redox process.

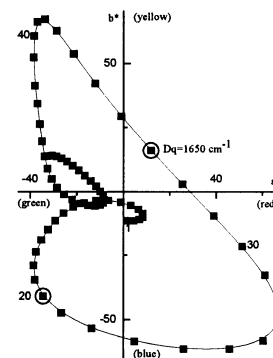


**Iwona Kuźniarska-Biernacka, Adam Bartecki, Krzysztof Kurzak**

*Polyhedron* 22 (2003) 997

UV–Vis–NIR spectroscopy and colour of bis(*N*-phenylsalicylaldiminato)cobalt(II) in a variety of solvents

Solvatochromism of bis(*N*-phenyl-salicylaldiminato)cobalt(II) has been studied. A red crystalline  $[\text{Co}(\text{sala})_2]$ , easily soluble in common solvents, has been characterised by elemental analyses, molar conductivities, ultraviolet (UV) and visible (Vis) spectroscopy. CIE and CIELAB colour spaces have been applied for discrimination of fine colour changes. Simulation of optical spectra confirms the same colour as for tetrahedral  $\text{CoCl}_2$  ( $T_d$ , and  $Dq = 1650 \text{ cm}^{-1}$ ).

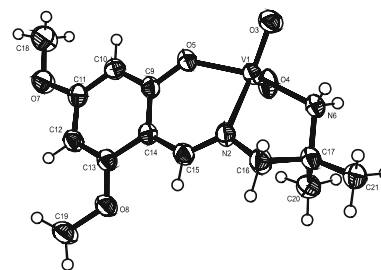


**Edmund Kwiatkowski, Grzegorz Romanowski, Waldemar Nowicki, Marek Kwiatkowski, Kinga Suwińska**

*Polyhedron* 22 (2003) 1009

Dioxovanadium(V) Schiff base complexes of *N*-methyl-1,2-diaminoethane and 2-methyl-1,2-diaminopropane with aromatic *o*-hydroxyaldehydes and *o*-hydroxyketones: synthesis, characterisation, catalytic properties and structure

The structure analysis of the compound  $\text{VO}_2(\text{C}_{13}\text{H}_{19}\text{N}_2\text{O}_3)$  shows that the tridentate Schiff base ligand and both oxo groups are coordinated to V(V) in a distorted trigonal-bipyramidal arrangement rarely encountered in  $\text{VO}_2$ (tridentate Schiff base) complexes. Complexes comprising coordinated 1:1 condensation products of 5-methoxysalicylaldehyde and diamines catalyse the oxidation of thioanisole by cumene hydroperoxide to the corresponding sulfoxide.

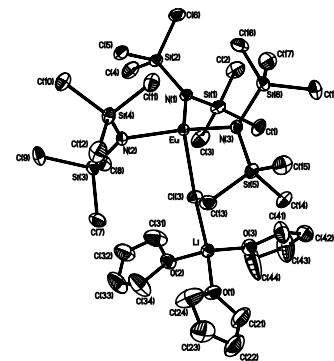


**Shuang-L. Zhou, Shao-W. Wang, Gao-S. Yang, Xin-Y. Liu, En-H. Sheng, Ke-H. Zhang, Lin Cheng, Zi-X. Huang**

*Polyhedron* 22 (2003) 1019

Synthesis, structure, and catalytic activity of tetracoordinate lanthanide amides  $[(\text{Me}_3\text{Si})_2\text{N}]_3\text{Ln}(\mu\text{-Cl})\text{Li}(\text{THF})_3$  (Ln = Nd, Sm, Eu)

Three tetracoordinate lanthanide amides  $[(\text{Me}_3\text{Si})_2\text{N}]_3\text{Ln}(\mu\text{-Cl})\text{Li}(\text{THF})_3$  (Ln = Nd (1), Sm (2), Eu (3)) were rationally synthesized and fully characterized. All complexes can function as single-component MMA polymerization catalysts.



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