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Contents

Publisher's note	vii
Preface: 223rd ACS National Meeting, Finite and Infinite Polygonal Assemblies.....	2961

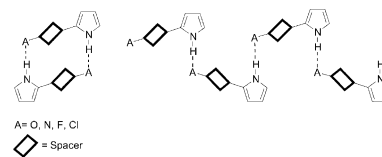
Papers

Jonathan L. Sessler, Guillaume Berthon-Gelloz, Philip A. Gale, Salvatore Camiolo, Eric V. Anslyn, Pavel Anzenbacher Jr., Hiroyuki Furuta, Gregory J. Kirkovits, Vincent M. Lynch, Hiromitsu Maeda, Pierfrancesco Morosini, Markus Scherer, Jim Shriver, Rebecca S. Zimmerman

Polyhedron 22 (2003) 2963

Oligopyrrole-based solid state self-assemblies

Functionalized pyrroles represent a unique set of supramolecular "building blocks" that, depending on the nature and number of substituents, are capable of stabilizing a range of self-assembled ensembles in the solid state that run the gamut from simple dimers and trimers to aesthetically pleasing polymeric ribbons and tapes.

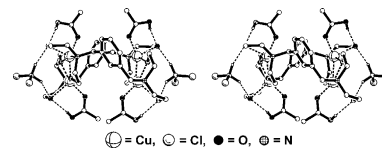


Rolf W. Saalfrank, Ingo Bernt, Frank Hampel, Andreas Scheurer, Takayuki Nakajima, Syeda H.Z. Huma, Frank W. Heinemann, Marc Schmidtman, Achim Muller

Polyhedron 22 (2003) 2985

Self-assembly and crystal structure of a novel hetero-octametallic molecular box (Chelate complexes, Part 23)

Starting from copper(II) *acetate* and H_4L^2 , bis-dimetallic cyclophane $[Cu_4(H_2L^2)_2(OAc)_4]$ was formed. However, when H_4L^2 was allowed to react with copper(II) *chloride*, novel hetero-octametallic molecular box $\{[Li_4(Cu_4O)(L^2)_2](H_2O)_2(EtOH)_2\}Cl_2$ was isolated.

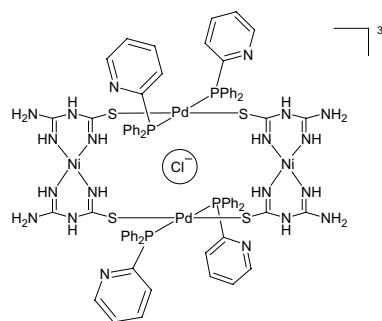


Eleni Doxiadi, Ramon Vilar, Andrew J.P. White, David J. Williams

Polyhedron 22 (2003) 2991

Anion-templated synthesis and structural characterisation of Ni/Pd-containing metalla-macrocycles

The anion-templated synthesis and structural characterisation of the nickel/palladium-based metalla-macrocycles $[Pd_2Ni_2(atu)_4(PPh_2R)_4X]^{3+}$ (R = Ph, X = I, **2**; R = Py, X = Cl, **3**; atu = deprotonated amidinothiourea) are reported, together with the crystal structure of the precursor $[Pd(PPh_3)_2(Hatu)] [CF_3SO_3]_2$ (**1**).



Hugh D. Selby, Peter Orto, Zhiping Zheng

Polyhedron 22 (2003) 2999

Supramolecular arrays of the $[\text{Re}_6(\mu_3\text{-Se})_8]^{2+}$ core-containing clusters mediated by transition metal ions

Coordination polymers of the general formula $\{\text{M}(\text{NO}_3)_3[\text{Re}_6(\mu_3\text{-Se})_8(\text{PEt}_3)_4(4,4'\text{-dipyridyl})_3]\}(\text{SbF}_6)$ ($\text{M} = \text{Cd}^{2+}, \text{Co}^{2+}, \text{Zn}^{2+}$) have been obtained by using the cluster complex $\{[\text{Re}_6(\mu_3\text{-Se})_8(\text{PEt}_3)_4(4,4'\text{-dipyridyl})_3]\}(\text{SbF}_6)_2$ as an expanded ligand to coordinate the single metal ions. It has been found that the solid state structures of these novel supramolecular entities, established by single-crystal X-ray diffraction, are not only dependent on the stereochemistry of the cluster-based ligand, but also on the local coordination geometry of a particular transition metal ion employed.

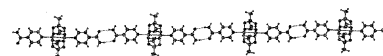


Jitendra K. Bera, Thanh-Trang Vo, Richard A. Walton, Kim R. Dunbar

Polyhedron 22 (2003) 3009

Hydrogen-bonding as a tool for building one-dimensional structures based on dimetal building blocks

A combination of coordinate bonds and hydrogen bond interactions leads to the formation of polymeric network structures.

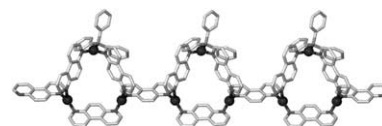


Jacqueline M. Knaust, Susan Lopez, Chad Inman, Steven W. Keller

Polyhedron 22 (2003) 3015

Linking triangles: synthesis and structure of $[\text{Cu}_3(\text{phen})_4(\text{PPh}_3)](\text{BF}_4)_3 \cdot \text{X}$ and $[\text{Cu}_5(\text{phen})_7](\text{BF}_4)_5 \cdot 4(\text{NO}_2\text{C}_6\text{H}_5)$ (phen = 4,7-phenanthroline and $\text{X} = \text{Et}_2\text{O}$ or 2 THF)

Two new coordination polymers containing Cu(I) and 4,7-phenanthroline (phen) have been synthesized and structurally characterized, **1a**, $[\text{Cu}_3(\text{phen})_4(\text{PPh}_3)](\text{BF}_4)_3 \cdot 2(\text{THF})$, **1b** (isostructural with **1a**), $[\text{Cu}_3(\text{phen})_4(\text{PPh}_3)](\text{BF}_4)_3 \cdot \text{Et}_2\text{O}$, **2**, $[\text{Cu}_5(\text{phen})_7](\text{BF}_4)_3 \cdot 4(\text{NO}_2\text{Ph})$.

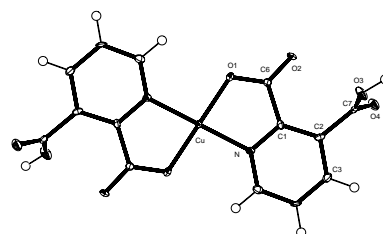


Brian O. Patrick Cecilia L. Stevens, Alan Storr, Robert C. Thompson

Polyhedron 22 (2003) 3025

Structural and magnetic properties of three copper(II) pyridine-2,3-dicarboxylate coordination polymers incorporating the same chain motif

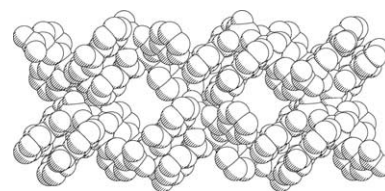
The same chain motif that appears in the chain polymer, $[\text{Cu}(2,3\text{-pydcH})_2]$ appears also in the two heterometallic polymeric materials $[\text{Cu}(2,3\text{-pydc})_2][\text{Na}_2(\text{H}_2\text{O})_6(\mu\text{-H}_2\text{O})_2]$ and $[\text{Cu}(2,3\text{-pydc})_2][\text{Mn}(\text{H}_2\text{O})_6] \cdot 2\text{H}_2\text{O}$. Magnetic studies reveal weak antiferromagnetic exchange mediated by the bridging pyridine-dicarboxylate ligands in all three compounds.



Wenbin Lin, Ponnaiyan Ayyappan*Polyhedron 22 (2003) 3037*

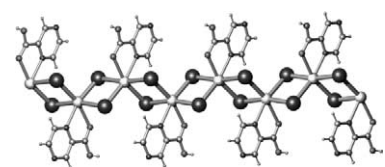
Synthesis and X-ray structures of 2D coordination networks based on dinuclear and trinuclear vanadium oxo clusters

A hydro(thermal) reaction between V_2O_5 and nicotinic acid led to two new 2D coordination polymers $[V_2O_3(\text{nicotinate})_3] \cdot \text{EtOH}$, **1**, and $[V_2O_3(\text{nicotinate})_4(\text{H}_2\text{O})_2] \cdot 3\text{H}_2\text{O}$, **2**, whose 2D framework structures are built from dinuclear and trinuclear vanadium oxo clusters, respectively. Both **1** and **2** contain open channels that are filled with included EtOH and water guest molecules, respectively.

**Delia M. Ciurtin, Mark D. Smith, Hans-Conrad zur Loye***Polyhedron 22 (2003) 3043*

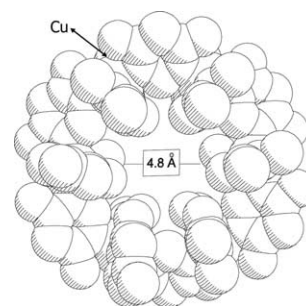
New one- and two-dimensional cadmium iodide/pyrazinecarboxylate-based coordination polymers

The synthesis and structural characterization of three new cadmium-containing coordination polymers are reported. Two display a one-dimensional chain-like structure, while the third is a two-dimensional brick wall framework. All structures are assembled in three dimensions by hydrogen bonds.

**Elisa Jorge A.R. Navarro, Juan M. Salas, Norberto Masciocchi, Simona Galli, Angelo Sironi***Polyhedron 22 (2003) 3051*

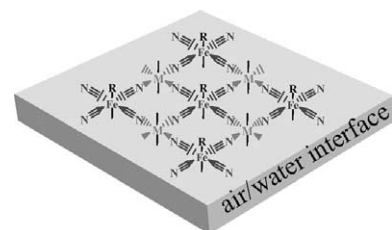
$[\text{Cu}(\text{4-oxopyrimidin})_2 \cdot n\text{H}_2\text{O}]_\infty$: a robust sodalite type metal-organic framework exhibiting a rich host-guest chemistry

Reaction of copper(II) salts with 4-hydroxypyrimidine (4-Hpymo) in water:ammonia solutions leads to formation of the mononuclear $[\text{Cu}(\text{4-pymo})_2(\text{NH}_3)_2(\text{H}_2\text{O})_2]$ species (**1**) and a 3D open framework polymer, $[\text{Cu}(\text{4-pymo})_2 \cdot n\text{H}_2\text{O}]$ (**2**), which possesses wide channels and voids that can reversibly accommodate guest molecules with no relevant structural change.

**Jeffrey T. Culp, Ju-Hyun Park, Mark W. Meisel, Daniel R. Talham***Polyhedron 22 (2003) 3059*

Interface directed assembly of cyanide-bridged Fe-Co and Fe-Mn square grid networks

Monolayers of infinite networks are prepared at the air-water interface by reacting an amphiphilic cyanometallate complexes with subphase metal ions.

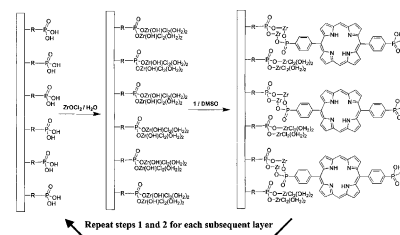


Aaron M. Massari, Richard W. Gurney,
Matt D. Wightman, Chien-Hao Kane Huang,
SonBinh T. Nguyen, Joseph T. Hupp

Polyhedron 22 (2003) 3065

Ultrathin micropatterned porphyrin films assembled via zirconium phosphonate chemistry

The synthesis of a phosphonic-acid-functionalized porphyrin is presented and a procedure for the reproducible assembly of the porphyrins into thin films on glass or conductive glass surfaces is described. The assembly scheme, which utilizes established zirconium phosphonate (ZrP) chemistry, yields highly-oriented, porous films of well-defined thicknesses.



Author Index of 223rd ACS National Meeting, Finite and Infinite Polygonal Assemblies 3073

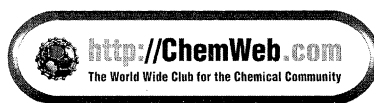
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