

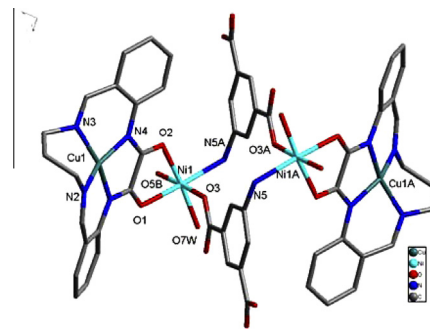
Contents

Ya-Qiu Sun, Yan-Yan Xu, Lin Wu, Yan-Feng Zheng, Dong-Zhao Gao and Guo-Ying Zhang

Polyhedron 91 (2015) 1

Four heterometallic coordination polymers of a macrocyclic oxamide with aromatic multicarboxylate ligands: Syntheses, crystal structures and magnetic properties

Four heterometallic coordination polymers, CuMn (**1**), CuNi (**2**), NiMn (**3**) and NiMn (**4**), have been synthesized with macrocyclic oxamide and aromatic multicarboxylate ligands (including aip^{2-} , tpt^{2-} and atpt^{2-}), structurally determined and magnetically studied.

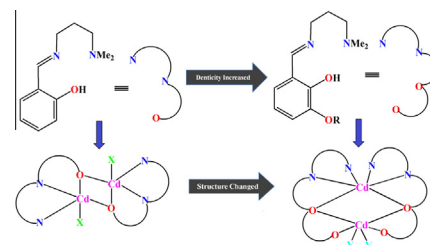


Sumit Roy, Klaus Harms and Shouvik Chattopadhyay

Polyhedron 91 (2015) 10

Formation of three photoluminescent dinuclear cadmium(II) complexes with Cd_2O_2 cores

Three new photo-luminescent dinuclear phenoxo-bridged cadmium(II) complexes have been synthesized and characterized by single crystal X-ray analysis. Tridentate and tetradentate ligands have been used as chelating ligands in preparing complexes. Structures of the complexes were varied with the variation in the denticity of chelating ligands.

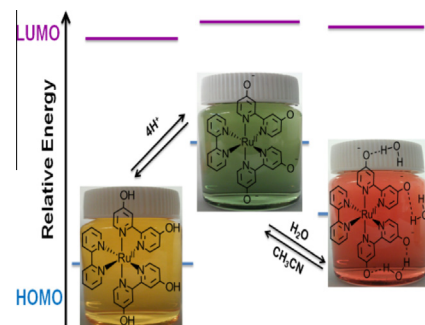


David J. Charboneau, Nicholas A. Piro, W. Scott Kassel, Timothy J. Dudley and Jared J. Paul

Polyhedron 91 (2015) 18

Structural, electronic and acid/base properties of $[\text{Ru}(\text{bpy})(\text{bpy}(\text{OH})_2)_2]^{2+}$ (bpy = 2,2'-bipyridine, $\text{bpy}(\text{OH})_2$ = 4,4'-dihydroxy-2,2'-bipyridine)

We have synthesized a new Ru^{2+} polypyridyl complex with readily deprotonatable dihydroxy-bipyridine ligands. Upon deprotonation the ligands donate extensive electron density to the metal center, destabilizing the metal-centered Ru^{2+} HOMO d orbitals. Studies were carried out using computational methods, X-ray diffraction, cyclic voltammetry, UV-Vis, and luminescence spectroscopy.

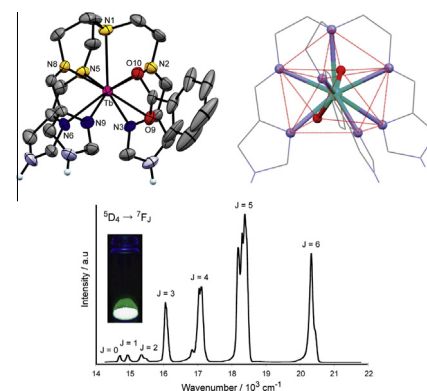


Seira Shintoyo, Takeshi Fujinami, Naohide Matsumoto, Masanobu Tsuchimoto, Marek Weselski, Alina Bieńko and Jerzy Mrozinski

Polyhedron 91 (2015) 28

Synthesis, crystal structure, luminescent and magnetic properties of europium(III) and terbium(III) complexes with a bidentate benzoate and a tripod N₇ ligand containing three imidazole, [Ln^{III}(H₃L)benzoate](ClO₄)₂·H₂O·2MeOH (Ln^{III} = Eu^{III} and Tb^{III}; H₃L = tris[2-(((imidazol-4-yl)methylidene)amino)ethyl]amine), were synthesized and crystallized into an isomorphous structure. Each Ln^{III} ion is coordinated by one tripod N₇ and one benzoate ligands, resulting in a nona-coordinated capped square antiprism geometry. The solid-state emission spectra displayed sharp bands of the f-f transitions. The Tb^{III} complex exhibits a magnetic anisotropy.

Eu^{III} and Tb^{III} complexes with a benzoate and a tripod ligand, [Ln^{III}(H₃L)benzoate](ClO₄)₂·H₂O·2MeOH (Ln^{III} = Eu^{III} and Tb^{III}; H₃L = tris[2-(((imidazol-4-yl)methylidene)amino)ethyl]amine), were synthesized and crystallized into an isomorphous structure. Each Ln^{III} ion is coordinated by one tripod N₇ and one benzoate ligands, resulting in a nona-coordinated capped square antiprism geometry. The solid-state emission spectra displayed sharp bands of the f-f transitions. The Tb^{III} complex exhibits a magnetic anisotropy.

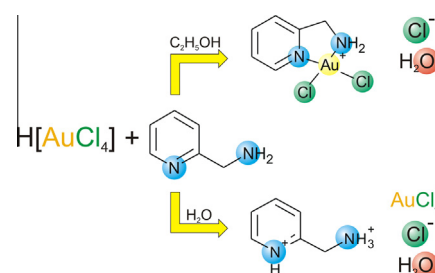


Beata Warzajtis, Biljana D. Glišić, Marija D. Živković, Snežana Rajković, Miloš I. Djuran and Urszula Rychlewska

Polyhedron 91 (2015) 35

Different reaction products as a function of solvent: NMR spectroscopic and crystallographic characterization of the products of the reaction of gold(III) with 2-(aminomethyl)pyridine

The monohydrate of the coordination compound [Au(2-(aminomethyl)pyridine)Cl₂]Cl, an analogue of cisplatin, can be obtained if the reaction substrate H[AuCl₄] is dissolved in ethanol instead of water. Chelation stabilizes the Au(III) oxidation state for use in normal conditions.

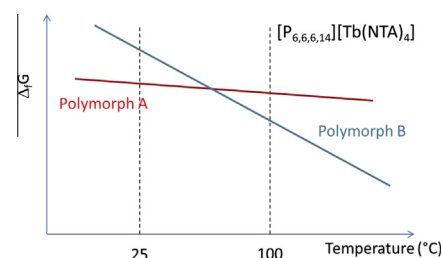


Cláudia C.L. Pereira, Joana T. Coutinho, Laura C.J. Pereira, João Paulo Leal, César A.T. Laia and Bernardo Monteiro

Polyhedron 91 (2015) 42

Dy, Tb, Gd and Eu complexes with low melting point and magnetic behavior

Lanthanide based complexes with a tetrakis(β-diketonate) and a tetraalkylphosphonium cation, [P_{6,6,6,14}][Ln(NTA)₄] (Ln = Dy, Tb, Gd, Eu), presented several interesting features. The Tb compound presents an unprecedented solid state polymorphism never observed in an organometallic ionic liquid, the Dy analogue has solvatochromic properties and all the complexes have paramagnetic behavior.

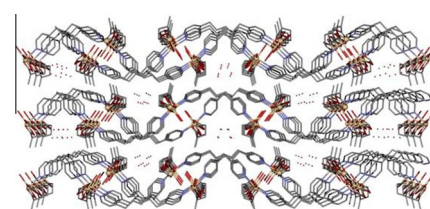


Antonio J. Calahorra, David Briones, José M. Seco, Alfonso Salinas-Castillo, Antonio Rodríguez-Diéguez and Claudio Mendicute-Fierro

Polyhedron 91 (2015) 47

Bidimensional cadmium metal-organic frameworks based on 1,3-bis(4-pyridyl)propane displaying long lifetime photoluminescence emission

We report the synthesis of three novel Cd bidimensional polymers based on the flexible ligand 1,3-bis(4-pyridyl)propane and different glutarate anions. All three structures were obtained by slow diffusion of solutions of the starting materials. All of them show long-lived luminescence.



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