

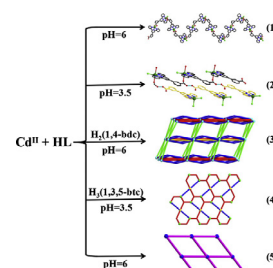
Contents

Chao Bai, Bing Xu, Huai-Ming Hu, Meng-Lin Yang and Ganglin Xue

Polyhedron 124 (2017) 1

Cadmium(II) coordination polymers constructed from a bis-functionalized ligand 4'-(3-carboxyphenyl)-2,2':6',2''-terpyridine: Synthesis, structure and luminescence

Five new cadmium(II) coordination polymers have been synthesized under hydrothermal conditions. Compounds **1** and **2** exhibit 1D chain structure. Compound **3** shows a new 3D network. Compound **4** displays a new 2D layer structure. Compound **5** features a 2D *sql* network. The structural differences among **1–5** can attribute to the counterions, pH value and auxiliary ligands.

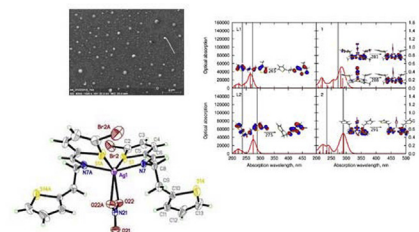


M. Barwiolek, M. Babinska, A. Kozakiewicz, A. Wojtczak, A. Kaczmarek-Kedziera and E. Szlyk

Polyhedron 124 (2017) 12

Structural and spectral studies of silver(I) complexes with new Schiff bases derived from 2-thiopheneethylamine and their application in thin layer deposition by spin and dip coating techniques

New silver(I) complexes with Schiff bases obtained from thiopheneethylamine were structurally and spectroscopically characterized. Depending on the aldehyde used, the silver ion exhibits different types of coordination. The new silver complexes were used in wet methods to obtain thin layers. The layers were amorphous and some of them exhibited fluorescence.

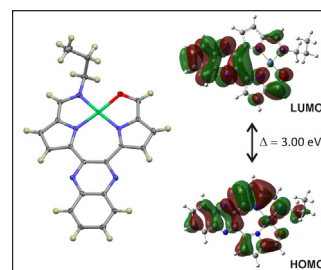


Sandipa Bhikraj, Orde Q. Munro and Matthew P. Akerman

Polyhedron 124 (2017) 22

An unusual asymmetric pseudomacrocylic free base ligand and nickel(II) chelate: X-ray crystallographic and DFT studies

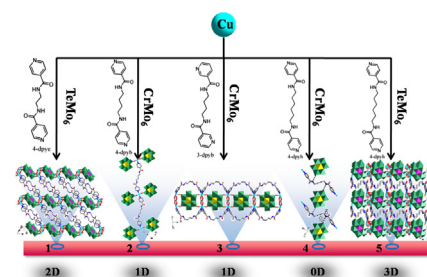
A unique asymmetric pseudomacrocylic dipyrroliquinoxaline-based ligand and the nickel(II) chelate have been synthesised and characterised. The solid state structures of both have been elucidated; these X-ray data show the ligand to be in an interesting zwitterionic configuration. DFT methods were used to delineate the experimental data and probe the energies of possible canonical forms.



Xiu-Li Wang, Junjun Sun, Hongyan Lin, Zhihan Chang, Xue Bai and Xiang Wang
Polyhedron 124 (2017) 30

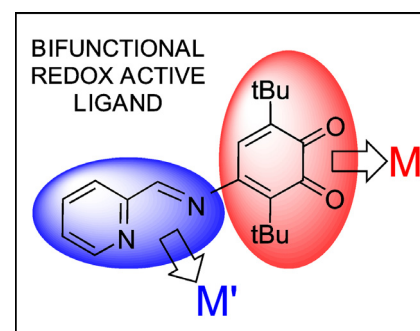
Assembly, structures, electrocatalytic and photocatalytic properties of a series of Anderson-type polyoxometalate-based metal–organic complexes based on flexible pyridyl-amide ligands

Five new Anderson-type polyoxometalate-based metal–organic complexes with various networks constructed from different bis-pyridyl-bis-amide ligands have been prepared and characterized. The electrochemical behaviors and the photocatalytic activities have been described.


Andrey I. Poddel'sky, Nikolay O. Druzhkov, Georgy K. Fukin, Vladimir K. Cherkasov and Gleb A. Abakumov
Polyhedron 124 (2017) 41

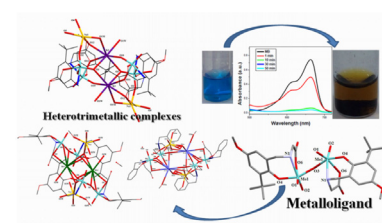
Bifunctional iminopyridino-catechol and its o-quinone: Synthesis and investigation of coordination abilities

New bifunctional redox active ligand, 4-imPy-3,6-CatH₂ (4-imPy-3,6-Q), based on catechol (o-quinone) and 2-iminopyridine was synthesized. The ligand keeps coordination abilities typical for o-quinones (a reduction to o-semiquinone and catechol in O,O'-chelated complexes) as well as 2-iminopyridine ligands (N,N'-chelated complexes with metal salts), and able to form heterometallic complexes with metals at both functions simultaneously.


Dhiraj Das, Chandan Kumar Karan and Manish Bhattacharjee
Polyhedron 124 (2017) 51

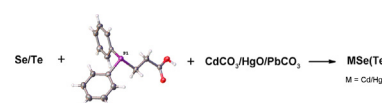
Heterotrimetallic coordination polymers for dye adsorption and desorption

Three new heterotrimetallic Mo–Na–M [M = K (**1**), Rb (**2**), Cs (**3**)] complexes of a molybdenum metalloligand have been synthesized and structurally characterized by single crystal X-ray diffraction studies. The potassium, rubidium and caesium complexes, [K(H₂O)(MeOH)(Mo₂O₅L₂)Na]_n (**1**), [Na(H₂O)₂(MeOH)(Mo₂O₅L₂)Rb(H₂O)]_n·H₂O·MeOH (**2**) and [Na(H₂O)(MeOH)₂(Mo₂O₅L₂)Cs(MeOH)]_n·H₂O (**3**), form coordination polymers. All the complexes exhibit dye adsorption properties by a cation exchange pathway.


Václav Kubát, Michal Babiak, Zdeněk Trávníček and Josef Novosad
Polyhedron 124 (2017) 62

3-(Diphenylchalcogenophosphoryl)propionic acids as precursors for metal selenides and tellurides

A novel reaction system leading to metal selenides and tellurides is reported. Se (Te) reacts with CdCO₃ (HgO or PbCO₃) and Ph₂P(CH₂)₂COOH to give the corresponding selenide/telluride. Structures of Ph₂P(CH₂)₂COOH and Ph₂P(E)(CH₂)₂COOH (E = O, S, Se) are described.



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