

Accepted Manuscript

Syntheses, structures and characterizations of coordination polymers based on two new resorcin[4]arene carboxylic acids

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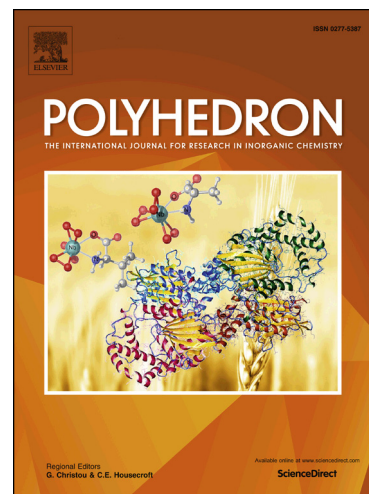
PII: S0277-5387(17)30573-9
DOI: <http://dx.doi.org/10.1016/j.poly.2017.08.042>
Reference: POLY 12806

To appear in: *Polyhedron*

Received Date: 20 June 2017
Accepted Date: 28 August 2017

Please cite this article as: K-X. Chang, N. Zhang, P. Du, Y-Y. Liu, J-F. Ma, Syntheses, structures and characterizations of coordination polymers based on two new resorcin[4]arene carboxylic acids, *Polyhedron* (2017), doi: <http://dx.doi.org/10.1016/j.poly.2017.08.042>

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1 **Syntheses, structures and characterizations of coordination polymers**
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16 **ABSTRACT**

17 Through use of two novel resorcin[4]arene-based carboxylic acids,
 18 $[\text{Ni}_2(\text{H}_4\text{L}^1)(\text{teta})_2] \cdot 3\text{H}_2\text{O}$ (1), $[\text{Ni}(\text{H}_6\text{L}^1)(\text{teta})] \cdot 0.5\text{C}_2\text{H}_5\text{OH} \cdot 2\text{H}_2\text{O}$ (2),
 19 $[\text{Cu}(\text{H}_6\text{L}^1)(\text{teta})] \cdot 3.5\text{H}_2\text{O}$ (3), $[\text{Ni}(\text{cyclam})(\text{OH})_2] \cdot 2\text{H}_8\text{L}^1 \cdot \text{C}_2\text{H}_5\text{OH} \cdot 4\text{H}_2\text{O}$ (4),
 20 $[\text{Cu}(\text{cyclam})\text{Cl}_2] \cdot 2\text{H}_8\text{L}^1 \cdot 3\text{C}_2\text{H}_5\text{OH}$ (5), $[\text{Cu}_2(\text{L}^2)(\text{cyclam})_2] \cdot 2\text{H}_2\text{O}$ (6)
 21 $[\text{Mn}_2(\text{L}^2)(\text{H}_2\text{O})_3] \cdot 2\text{DMF} \cdot 5\text{H}_2\text{O}$ (7) and $[(\text{CH}_3)_2\text{NH}_2][\text{Cd}_3(\text{L}^2)(\text{HL}^2)(\text{DMF})_2$
 22 $(\text{H}_2\text{O})_3] \cdot \text{DMF} \cdot 5\text{H}_2\text{O}$ (8) ($\text{H}_8\text{L}^1 = 2,8,14,20$ -tetra-ethyl-4,10,16,22-tetrakis((3,5-di
 23 carboxybenzyl)oxy)-6,12,18,24-tetra-methoxy-resorcin[4]arene, $\text{H}_4\text{L}^2 = 2,8,14,20$ -
 24 tetra-ethyl-4,10,16,22-tetrakis((3-carboxybenzyl)oxy)-6,12,18,24-tetra-methoxy-resor
 25 cin[4]arene, tetra = 5,5,7,12,12,14-hexamethyl-1,4,8,11-tetraazacyclotetra decane and
 26 cyclam = 1,4,8,11-tetraazacyclotetradecane) have been synthesized. Compounds 1 and
 27 6 exhibit infinite ribbons. 2 and 3 are isomorphous and produce chain structures.
 28 Isostructural 4 and 5 show unique mononuclear structures. Hydrogen-bonding

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