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Title:	A self assembled 3-D network propagated by coordination polymerization and H-bonding: Synthesis and X-ray crystal structure of $\{[Co(L)_2(H_2O)_2](ClO_4)_2(CH_3COCH_3)_2(H_2O)_2]n\}$ , where L = N,N-diisopropylisonicotinamide
Authors:	Kapoor, Ramesh (/jspui/browse?type=author&value=Kapoor%2C+Ramesh)
Keywords:	Coordination network Crystal structure H-Bonding N,N-Diisopropylisonicotinamide
Issue Date:	2011
Publisher:	Taylor & Francis
Citation:	Journal of Coordination Chemistry, 64 (9), pp. 1566-1577.
Abstract:	Reaction of $Co(ClO_4)_2 \cdot 6H_2O$ with N,N-diisopropylisonicotinamide (L) has yielded a 1-D coordination polymer $\{[Co(L)_2(H_2O)_2](ClO_4)_2(CH_3COCH_3)_2(H_2O)_2]n\}$ (1). Complex 1 has been characterized by infrared (IR) and UV-Vis spectroscopies, thermal analysis, and single crystal X-ray diffraction techniques. The structure has alternate arrangement of parallel 1-D cationic metal-ligand chains and H-bonded anionic chains containing perchlorate, acetone and water in the lattice. Further hydrogen bonding among both chains leads to formation of 2-D networks along almost perpendicular planes. Interpenetrations of such perpendicular 2-D sheets create a 3-D supramolecular structure.
Description:	Only IISERM authors are available in the record.
URI:	<a href="http://www.tandfonline.com/doi/full/10.1080/00958972.2011.574286">http://www.tandfonline.com/doi/full/10.1080/00958972.2011.574286</a> ( <a href="http://www.tandfonline.com/doi/full/10.1080/00958972.2011.574286">http://www.tandfonline.com/doi/full/10.1080/00958972.2011.574286</a> )
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