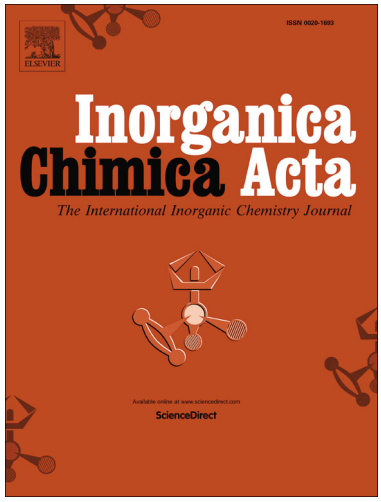

Research paper

Möbius-like metal chelates constructed from $CdHal_2$ (Hal = Cl, Br, I) and benzilbis(pyridin-2-yl)methylidenehydrazone

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Abstract We report design and structural characterization of three new coordination compounds fabricated from $Cd(NO_3)_2 \cdot 4H_2O$ and a helical organic ligand benzilbis((pyridin-2-yl)methylidenehydrazone (**L**) in the presence of two equivalents of NaHal (Hal = Cl, Br, I) in a mixture of MeOH and EtOH, namely **$[CdCl_2L] \cdot 1.5MeOH$** (**1**), **$[CdBr_2L] \cdot EtOH$** (**2**) and **$[CdI_2L]$** (**3**). The synthesis and design strategy involved using a branched tube, where temperature differential led to slow crystallization of the compounds. The ligand **L** is bound via two pyridyl-imine units with a tetradentate coordination mode yielding the 12π electron chelate ring. All the structures are stabilized by intermolecular hydrogen bonding and C–H···π interactions. Hirshfeld surface analysis showed that the structures of all the complexes are highly dominated

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