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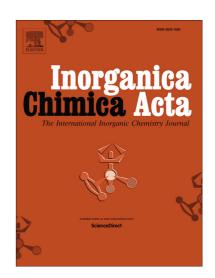
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Möbius-like metal chelates constructed from $CdHal_2$ (Hal = Cl, Br, I) and benzilbis(pyridin-2-yl)methylidenehydrazone

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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 [CdCl₂L]·1.5MeOH (1), [CdBr₂L]·EtOH (2) and [CdI₂L] (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 $C-H\cdots\pi$ interactions. Hirshfeld surface analysis showed that the structures of all the complexes are highly dominated

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