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Title:	Coordination driven or/and H-bonded Cu(II)-N,N-dialkylisonicotinamide frameworks
Authors:	Kapoor, Ramesh (/jspui/browse?type=author&value=Kapoor%2C+Ramesh)
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Abstract:	Reactions of N,N-diisopropylisonicotinamide (L) with anhydrous CuCl ₂ , CuBr ₂ and Cu(ClO ₄) ₂ ·6H ₂ O yielded: (a) an ionic product with the molecular composition of [CuL ₂ (H ₂ O) ₄] ₂ [CuLCl ₃] 1; (b) a coordination polymer [CuL ₂ Br ₂] _n 2 and (c) a mononuclear complex [CuL ₄ (C ₃ H ₈ O) ₂](ClO ₄) ₂ 3, respectively. Similarly, the reaction of N,N-diisobutylisonicotinamide (L') with Cu(NO ₃) ₂ ·3H ₂ O yielded a coordination polymer [{CuL' ₂ (H ₂ O) ₂ }(NO ₃) ₂] _n 4. The ligands L and L' coordinate in a monodentate fashion through the pyridine nitrogen atom to the metal centers in complexes 1 and 3. However, complexes 2 and 4 are coordination polymers in which the corresponding ligands (L and L') act as bridging bidentate between metal centers to form 1D double chains. All the four complexes form networks through coordination polymerization and/or hydrogen bonding.
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