3D supramolecular network constructed by intermolecular interactions in mixed ligand complex of zinc.

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New complex [Zn(quin-2-c)$_2$ (Him)$_2$] (quin-2-c=quinoline-2-carboxylate ion, Him=imidazole) was synthesized by self assembly and its structure was determined by X-ray analysis. The compound crystallizes in P21/c space group. Four independent molecules of complex are present in the structure. Strong hydrogen bonds create three different 1D chains which are collected in two different layers. The alternately packed layers form the 3D supramolecular structure. The interchain and interlayer contacts are of the C–H···O, π···π and C–H···π type. The influence of strong hydrogen bond on the vibrational characteristics of the monodentately coordinated carboxylate group in zinc complexes with quin-2-c ion is discussed.

Słowa kluczowe

Zinc complex, Crystal structure, Supramolecular network, Hydrogen bonds, Infrared spectra

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