SYNTHESIS, CHARACTERIZATION AND STRUCTURE OF BIS(2-AMINOPYRIMIDINE)TETRAKIS(M-LEVULINATO-O,O’DICOPPER

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Abstract: The derivative of copper(II) levulinate with 2-aminopyrimidine has been synthesized and characterized. The x-ray crystal structure is polymeric alternating Cu(lev)₄ units, bridged by 2-aminopyrimidine. The copper dimers lie on inversion centers in the crystal. Each copper atom has a square-planar pyramidal coordination, with four oxygen atoms in a plane, at an average distance of 1.9743(12)Å, the fifth coordination position is occupied by the pyrimidine nitrogen atom. The Cu-Cu distance is 2.6431(4) and corresponds to a square pyramidal coordination. The amino nitrogen of the pyrimidine is involved in intramolecular hydrogen bonding with its neighbor carbonyl oxygen atom. Conductivity measurements indicate the non-ionic nature of the complex as well.