The templating effect of halides in the tetrameric copper(II) [Cu 2(LH)2(?4-X)Cu2(LH) 2]3+ complexes (LH2 = N-(2-pyridylmethyl)-N,N-bis-[2?-hydroxy-5?-methyl-benzyl]-amine; X = Br, Cl). Synthesis and magneto-structural characterization

Manzur, J.

Vega, A.

Escuer, A.

The synthesis, magnetic and structural characterization of two tetrameric copper(II) complexes {N(C4H9)4}-[Cu 2(LH)2(?4-Br)Cu2(LH) 2](PF6)4 (1) and [Cu2(LH) 2(?4-Cl)Cu2(LH)2](Cl) 2(PF6) (2) is described. LH stands for the hemi-deprotonated anion of the tripodal aminophenol ligand N-(2-pyridylmethyl)- N,N-bis-[2?-hydroxy-5?-methyl-benzyl]-amine. The complexes are tetrametallic species formed around the central halide ion which behaves as an anion template for the formation of the tetranuclear species, by bridging two dimeric phenoxo bridged [Cu2(LH)2]2+ units. The magnetic behaviour is dominated by the strong antiferromagnetic exchange within the dimeric unit, mediated by the phenoxo bridges: J = -439(4) cm-1, g = 2.10(2) for (1) and J = -429(2) cm-1, g = 2.090(9) for (2).