A Dimeric Mn(III) Complex of a Quadridentate Schiff Base Ligand. Synthesis, Structure and Ferromagnetic Exchange

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The synthesis, crystal structure and magnetic properties of $[Mn(III)L(H_2O)]_2(H_2O)(ClO_4)$ (**1**) (L = *N*,*N′*-bis(*rac*-5-chlorosalicylidenato)-1,2-diaminopropane) are reported. Compound **1** consists of a structurally dinuclear system in which two Mn ions are bridged by the oxygen atoms of μ-phenoxo ligands. Low temperature magnetic susceptibility measurements show a ferromagnetic intra-dimer interaction with $J = +1.75$ cm^{-1}, $g = 2.01$ and $\alpha = -0.32$.

Key words: Crystal Structure, Manganese(III) Complex, Schiff Base Ligand, Hydrogen Bond, Supramolecular Chemistry