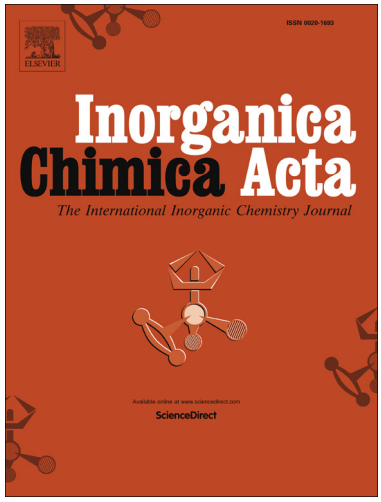

Research paper

Cu(II) and Mn(II) coordination complexes constructed by C linked bispyrazoles: Effect of Anions and Hydrogen bonding on the Self Assembly process

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ABSTRACT:

The reaction of 1,5,5'-trimethyl-1H,1'H-3,3'-bipyrazole (**Hbpz**) with copper and manganese salts ($Cu(BF_4)_2{\cdot}6H_2O$, $MnCl_2{\cdot}4H_2O$ and $Mn(NCS)_2$) leads to the formation of three mononuclear coordination complexes $[Cu(Hbpz)_3](BF_4)_2$ (**1**), $[Mn(Hbpz)_2Cl_2]{\cdot}CH_3CN$ (**2**) and $[Mn(Hbpz)_2(NCS)_2]{\cdot}Et_2O$ (**3**). These compounds have been characterized using single crystal X-ray diffraction and infrared spectroscopy. The single crystal structures of **1**, **2** and **3** are discussed in the context of the effect of hydrogen bonding functionalities and counter anions on the supramolecular structural diversities observed in these new coordination complexes.