

MONO- AND BINUCLEAR COORDINATION COMPOUNDS OF Ni(II) AND Mn(II) WITH DIOXIMIC AND DICARBOXYLIC LIGANDS

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Abstract. Two new compounds - a mononuclear nickel(II) compound with di-*p*-tolylglyoxime (DpatH₂) - [Ni(DpatH₂)₃]SO₄·1,4-H₂bdc·2.5DMF·H₂O (**1**) and a binuclear manganese(II) compound with dianilineglyoxime (DAnH₂) - [Mn₂(DAnH₂)₂(1,3-bdc)₂(DMSO)₄] (**2**) (1,4- and 1,3-bdc are 1,4- and 1,3-benzenedicarboxylic acids, respectively) have been obtained. The IR spectra of the complexes were studied and molecular and crystal structures of the compounds were determined by single crystal X-ray diffraction method. Compound **1** has an ionic structure and contains a complex cation in which three neutral DpatH₂ ligands are coordinated to the nickel atom. Complex **2** is a molecular binuclear complex in which, in addition to the two neutral ligands DAnH₂ and four DMSO molecules, two 1,3-benzenedicarboxylic anions are coordinated to the metal atoms in a bridging manner.

Keywords: coordination compound, Ni(II), Mn(II), dioxime, X-ray study, hydrogen bond.

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