

## **SYNTHESIS AND INVESTIGATION OF DINUCLEAR PIVALATE MANGANESE(II) COMPLEX WITH 1,10-PHENANTHROLINE**

*Dinuclear manganese(II) complex with formula  $[Mn_2(piv)_4(phen)_2] \cdot H_2O$ , where piv – pivalate  $(CH_3)_3CCO_2^-$ , phen – 1,10-phenanthroline was synthesized by the reaction of oxidative dissolution of metal. Weak antiferromagnetic interaction are present between two Mn centres in dimer. To estimate the energy order of this probable interaction, density-functional theory calculations were performed. Dimers are not stable in the solutions as it was demonstrated by EPR spectroscopy.*

*Key words: manganese, crystal structure, EPR spectroscopy, magnetic properties.*