Ni(II) complexes with N,O-benzimidazole ligands

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Recently, the preparation of coordination compounds of transition metals with biologically active ligands has become one of the popular options for the development of new more effective drugs. Benzimidazole derivatives are one of the substances potentially usable as biologically active ligands, which are also used as drugs in clinical practice and exhibit anti-inflammatory, potentially anticarcinogenic, antiproliferative and antiparasitic properties; they are also used as proton pump inhibitors (Omeprazole), anthelmintics (Albendazole, Mebendazole) or antipsychotics (Pimozide) [1,2]. Therefore presented study demonstrates preparation, characterization of Ni(II) coordination compounds with 2-substitued N,O-benzimidazole ligand.

All newly prepared complex compounds were characterized by X-ray structural analysis and by spectral techniques such as infrared spectroscopy and UV-VIS spectroscopy.

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[1] O'NEIL, M. J. et al. The Merck index: An encyclopedia of chemicals, drugs, and biologicals: Diphenyl. Whitehouse Station, NJ : Merck & Co., Inc. , 2001. ISBN: 0911910-13-1.

[2] ERI, R. S. et al. Comprehensive Review in Current Developments of Benzimidazole - Based Medicinal Chemistry. Chemical Biology & Drug Design 2015, Vol. 86, 1, pp. 19-65.