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
of

Chemistry

Synthesis and characterization of copper(II), nickel(II), cadmium(II), cobalt(II) and zinc(II) complexes with 2-Benzoyl-3-hydroxy-1-naphthylamino-3-phenyl-2-propen-1-on

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Abstract: Cu(II), Ni(II), Co(II), Zn(II) and Cd(II) complexes of 2-Benzoyl-3-hydroxy-1-naphthylamino-3-phenyl-2-propen-1-on, which is a derivative of carboxamide, were prepared and characterized by elemental, spectral and magnetic methods. Based on the analytical results, electronic and infrared spectral data and magnetic susceptibility measurements, suitable structures have been proposed. The formation of the complexes in solution was investigated conductometrically. 2-Benzoyl-3-hydroxy-1-naphthylamino-3-phenyl-2-propen-1-on was found to be a bidentate ligand coordinating through enolic oxygen and amide nitrogen. The complexes of Co(II) and Ni(II) are proposed to have an octahedral structure, while Cd(II), Cu(II) and Zn(II) are suggested to possess a square-planar environment in the complexes.

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