

ABSTRACT
SYNTHESIS OF NEW LIGANDS CONTAINING
HETEROCYCLIC HYDRAZONE GROUPS

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In this study, *o*-hydroxybenzoyl hydrazine and *p*-hydroxybenzoyl hydrazine react with 1,3-dimethyl-5-acetyl-barbituric acid in ethanol to give two new ligands H₂L¹ (85% yield) and H₂L² (88% yield) respectively. The copper (II) complexes [Cu(L¹)(DMSO)] and [Cu(L²)(DMSO)] were prepared by the stoichiometric reaction of the CuCl₂·5H₂O with the H₂L¹ and H₂L² in a molar ratio (M:L) of 1:1. All compounds have been fully characterized using conventional spectroscopic techniques by ¹H-NMR, ¹³C-NMR, FT-IR. X-ray structure analysis was carried out on the adducts [Cu(L¹)(DMSO)] which crystallizes in the triclinic P-1 space group. This operation, in addition to neutral conditions synthesized hydrazone derivatives, solid-liquid extraction and to it transition metals Pb (II), Zn (II) and Cd (II) complexed their ability susceptibility was studied.

Key words: *hydrazone, liquid- liquid extraction, transition metal, spectroscopy*