



**Synthesis And Characterization of N-Salicylidene γ - butyric acid (KHL)
And its Caffeine Complexes $[M(LH)(Caf)_2H_2O]_n$**

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ABSTRACT

In this article, the N-salicylidene γ -butyric acid (KHL) was synthesized by the reaction of salicylaldehyde and γ -aminobutyric acid. The Schiff base ligand (KHL) was obtained and characterized by Infrared, 1H , ^{13}C NMR and UV-Visible. Four mixed ligand complexes of general formula $[M(LH)(Caf)_2H_2O]_n$ where LH=N-salicylidene γ -butyric acid, Caf=Caffeine, M= Zn(II), Cd(II), Ni(II) and Cu(II) have been prepared and characterized using spectroscopic techniques- IR, UV-Visible and EPR. The ligands (KHL, Caf) and their corresponding complexes were screened for their antimicrobial activities.

Keywords: N-salicylidene γ -butyric acid, caffeine, Schiff base, mixed ligand complexes, infrared, NMR, UV-Visible, EPR and antimicrobial activity.
