



## **Isatin Based Schiff Base And Its Complexes- Synthesis, Spectral Investigation And Antibacterial Studies**

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### **ABSTRACT**

*A new Schiff base ligand 2-((E)-(Z)-2-(4-Chlorophenylimino)indole-3-ylidene)amino)phenol (L) was synthesized from isatin, 2-aminophenol and 4-chloroaniline. Then its Ni(II), Co(II), Mn(II) and Cu(II) complexes were synthesized by reacting 2:1 ratio of ligand and metal(II) acetate salts. The synthesized Schiff base ligand and its metal complexes have been characterized by elemental analysis, IR, UV-Vis spectra, <sup>1</sup>H-NMR and cyclic Voltametry studies. The synthesized Schiff base and their transition metal complexes have been screened for their antibacterial activity against *E. coli*, *S. typhi*; the complexes show enhanced activity than their corresponding ligand. Furthermore, the antioxidant activity of the ligand and its M(II) complexes was determined by DPPH radical scavenging method, which indicates that the synthesized complexes exhibit more effective antioxidant activity than the ligand alone.*

**Keywords:** Schiff bases, transition metal complexes, Spectral study and Antibacterial activity.

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