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Synthesis Characterization And Antimicrobial Activity Studies of Some Transition Metal Complexes Derived From 5-Bromo-3-Phenyl-N'-((2-Thioxo-1,2-Dihydroquinolin-3-Yl)Methylene)-1H-Indole-2-Carbohydrazide

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ABSTRACT

In this study the new Schiff base 5-bromo-3-phenyl-N'-((2-thioxo-1,2-dihydroquinolin-3-yl)methylene)-1H-indole-2-carbohydrazide and its metal complexes of Co(II), Ni(II) and Fe(III) have been synthesized. The structural features were determined on the basis of their elemental analysis, UV-Visible, magnetic susceptibility, molar conductance and characterized by IR, ¹H NMR, mass, powder X-ray diffraction, ESR and TGA data. All the complexes are of ligand is ML₂ which is 1:2 ratio of octahedral geometry. The microbial and antioxidant activity is carried out and some of the complexes have exhibited good biological activity.

Keywords: Indole, quinoline, Schiff base, metal complex, biological activity.