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Conventional and Microwave Synthesis, Characterization and Study of Microbiological Activity of Complexes of Ni (II) [2-((Z)-(4-hydroxy-3-methoxy-5-((E)-thiazol-5-yl diazenyl) benzenylidene)amino)phenol] (MThBAP) in Extractive Spectrophotometric Determination of Nickel (II)

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Abstract: *A Schiff base and its complexes with Ni (II) have been synthesized by conventional methods & microwave synthesis which were characterized by elemental analysis, molar conductance, magnetic susceptibility, electronic spectra, IR and ESR spectroscopy. The metal complex is colored, solid and non - hygroscopic. The ligand behaves as {uni negatively} tridentate ligand coordinated to metal ions via azomethine (N), N=N and phenolic, anionic(O).* *Based on magnetic susceptibility values and electronic spectral analysis, the geometry of the complex was proposed to be octahedral. The molar conductivity data of the complex suggests their non-electrolytic nature. The ligand and metal complexes have been analyzed for their microbiological activity.*

Keywords: Coordination, Metal Complexes, Microbiological activity, Octahedral, Schiff base (MThBAP)