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Synthesis, characterisation, antibacterial and antifungal studies on metal complexes with Schiff bases of benzothiazole

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Abstract : Four metal complexes of Schiff bases have been synthesized by the reaction of Schiff bases (L_3 and L_4) with the Co and Fe metal acetates. All the metal complexes are ML_2 type where M=Metal and L= Ligand. The elemental analysis suggests the stoichiometry to be 1:2. Magnetic susceptibility data coupled with electronic spectra suggest octahedral structure for the complexes. The structural features have been determined from IR, UV-Vis, 1H NMR, Thermal and XRD spectral analysis. The Schiff bases and its metal chelates were screened for their antimicrobial activity and the metal chelates were found to possess better activity than that of the respective Schiff base.

Keywords : Schiff bases, Co (II) and Fe (III) Metal complexes, spectral analysis and antimicrobial activity.

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