



Biochemical Studies on Some New Chelates of Co(II), Ni(II) and Cu(II)

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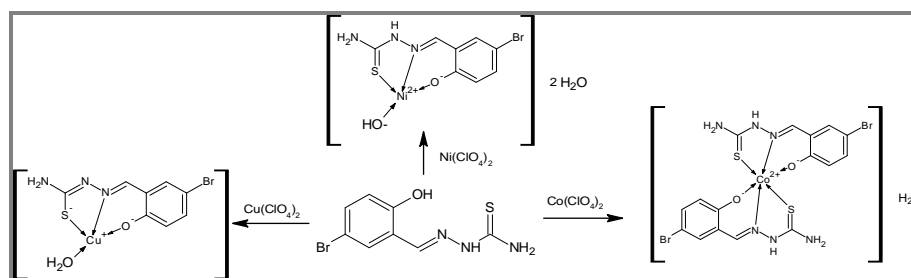
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ABSTRACT

Metal chelates of Co(II), Ni(II) and Cu(II) have been synthesized from metal perchlorate and Schiff base (BST) derived from condensation of 5-bromosalicylaldehyde and thiosemicarbazide. Schiff base ligand and metal chelates have been structurally evaluated by elemental analysis, IR, Mass, molar conductance, magnetic susceptibility, UV visible reflectance spectra and Thermogravimetric analysis. All the chelates were studied for catalytic activity. Activation energy of thermal degradation reaction was also evaluated by Broido method. Synthesized Schiff base ligand and chelates were tested for antibacterial activity against two-gram negative bacteria (*Escherichia coli*, *Pseudomonas aeruginosa*) and two-gram positive bacteria (*Bacillus subtilis*, *Bacillus cereus*) using Ciprofloxacin as the standard.

Graphical Abstract



Keywords: Metal chelates, Schiff base, Antibacterial activity, Catalysis.