



Spectral Characterization and DNA Binding Properties of Mononuclear Cobalt (II) Complexes with Pyridine Based Acetoyl and Benzoyl Hydrazones

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Accepted on 13th May 2015

ABSTRACT

Mononuclear cobalt (II) complexes of pyridine hydrazones are synthesized by reacting cobalt acetate with respective hydrazones. The complexes are characterized based on analytical and spectral data. Low molar conductivity values suggest that the complexes are non-electrolytes. IR spectral data suggest that the ligands act as mono anionic tridentate NNO donor system. Electronic spectral data suggest octahedral geometry for the complexes. Electrochemical behavior of metal complexes indicated quasi-reversible one electron reduction. DNA binding properties of complexes are investigated using UV-visible spectroscopy. The binding constants suggest that the complexes bind DNA via intercalation.

Keywords: Synthesis, cobalt (II) complexes, pyridine hydrazones, spectral studies, DNA binding properties.
