

APPENDIX II

List of papers presented in seminars/ symposium and conferences

1. "DNA interactions of mixed ligand copper (II) complexes with sulphur containing ligands" presented poster at 11th Symposium MTIC – XI, IIT- Delhi, NEW DELHI, held on 8-10 Dec, 2005.
2. "DNA interactions of mixed ligand copper (II) complexes with sulphur containing ligands" presented poster at National seminar RECEABI, Department of Chemistry, S.K. University, Anantapur, held on 24-25th March 2006.
3. "Synthesis and Characterization of Cobalt (II), Nickel (II) and Copper (II) complexes of Cuminaldehyde thiosemicarbazone" presented poster at National seminar RECEABI, Department of Chemistry, S.K. University, Anantapur, held on 24-25th March 2006.

DNA INTERACTIONS OF MIXED LIGAND COPPER(II) COMPLEXES WITH SULPHUR CONTAINING LIGANDS

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Mixed ligand copper (II) complexes having the composition [Cu(tsc)Cl₂], [Cu(tsc)₂Cl₂], [Cu(phen)Cl₂], [Cu(phen)(tsc)₂], [Cu(dmsO)₂Cl₂] and [Cu(dmsO)₂(tsc)₂] (Where, tsc= thiosemicarbazide, phen = ortho phenanthroline and dmsO= dimethylsulphoxide) have been synthesized and characterized on the basis of elemental analyses, conductivity measurements, magnetic susceptibility data, electronic, IR and ESR spectroscopy. Electrochemical behavior of these complexes has been investigated by cyclic voltammetry. All complexes undergo quasi-reversible one-electron electrochemical reduction (Cu^{II}/Cu^I) in the 0.17 –0.36 V potential range against Ag /AgCl reference electrode. The E_{1/2} values of mixed ligand complexes are less than the parent complexes presumably due to the increase in ligand number and size of the complex.. The binding of copper complexes with CT-DNA has been investigated using Absorption Spectrophotometry.

DNA Interactions of Mixed Ligand Copper (II) Complexes with Sulphur Containing Ligands

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ABSTRACT

Mixed ligand copper (II) complexes having the composition [Cu(tsc)Cl₂](I), [Cu(tsc)₂Cl₂](II), [Cu(phen)Cl₂](III), [Cu(dmsO)₂Cl₂] (IV) [Cu(phen)(tsc)Cl₂] (V) and [Cu(dmsO)₂(ts)Cl₂](VI) (where, tsc= thiosemicarbazide, Phen = ortho phenanthroine and dmsO = dimethyl sulphoxide) have been synthesized and characterized on the basis of elemental analyses, conductivity measurements, magnetic susceptibility data, electronic, IR and ESR spectroscopy. Electro-chemical behaviour of these complexes has been investigated by cyclic voltametry. All the complexes undergo quasis-reversible one-electron electrochemical reduction (Cu^{II}/Cu^I) in the 0.17 – 0.36 V potential range against Ag/AgCl reference electrode. The E_{1/2} values of mixed ligand complexes are less than the parent complexes presumably due to the increase in ligand number and size of the complex. The binding studies of copper complexes with CT-DNA have been investigated using Absorption Spectrophotometry.

Key words: Mixed ligand copper (II) complexes, thiosemicarbazide, CT-DNA.



Synthesis and Characterization of Cobalt (II), Nickel (II) and Copper (II) complexes of Cuminaldehyde thiosemicarbazone.

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ABSTRACT

Cobalt (II), Nickel (II) and Copper (II) complexes of Cuminaldehyde thiosemicarbazone have been synthesized and Characterized by analytical, IR electronic, spectral data. The Molar conductivities showed that the complexes are non-electrolytes. The i.r spectrum suggests that the ligands are bidentate in all the cases. Copper (II) complexes have been investigated using e.s.r spectroscopy. All the complexes have been investigated using cyclic voltametry in ethanol and dimethylformide solvents. The structures of complexes are assigned based on physico – chemical and spectral data.

Key words: Cuminaldehyde thiosemicarbazone, complexes.

