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

P. Murali Krishna & K. Hussain Reddy
Department of Chemistry, Sri Krishnadevaraya University, Anantapur – 515 003 (A.P),
India
E-mail: khussainreddy@yahoo.com

Mixed ligand copper (II) complexes having the composition [Cu(tsc)Cl$_2$],
[Cu(tsc)$_2$Cl$_2$], [Cu(phen)Cl$_2$], [Cu(phen)(tsc)$_2$], [Cu(dmso)$_2$Cl$_2$] 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$^\text{II}$/Cu$^\text{I}$) 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

P. Murali Krishna *a, K. Hussain Reddy *a* & Picheka G. Krishna b
*a Department of Chemistry, Sri Krishnadevaraya University, Anantapur – 515 003 (A.P), India
b Department of Zoology, Sri Krishnadevaraya University, Anantapur – 515 003 (A.P), India

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.

P. Murali Krishna; K. Hussain Reddy

Department of Chemistry, Sri Krishnadevaraya University, Anantapur - 515 003 (AP)

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.