

## A COMPUTER BASED ANALYTICAL STUDY ON CHELATE COMPOUNDS OF HEAVY METAL IONS INTERACTING WITH AMINO ACID AND NUCLEOBASE

K. KUMAR<sup>1</sup> & D. K. DWIVEDI<sup>2</sup>

<sup>1</sup>Research Scholar, Department of Chemistry, Pt. S.N.S. Government P.G. College,  
Shahdol, A.P.S.University Rewa, Madhya Pradesh, India

<sup>2</sup>Professor Department of Chemistry, Pt. S.N.S. Government P.G. College,  
Shahdol, A.P.S.University Rewa Madhya Pradesh, India

### ABSTRACT

The study on mixed - ligand chelation of heavy metal ions Hg (II) and Cd (II) with amino acid taken as primary ligand (A) and nucleobase taken as secondary ligand (B) at silver-silver chloride electrode by the pH - metric technique at  $37 \pm 1^\circ\text{C}$  in two different molar ratio 1:2:1 and 1:2:2 for mixed- ligand ternary chelates. The stability constants and stability order of MA, MB and MAB complexes have been discussed with the help of SCOGS at fixed temperature and ionic strength. The species distribution curves described the formation of chelate compound play important role in biological system.

**KEYWORDS:** Chelation, Chelate Compound, pH-Metry, Stability Order, SCOGS, Distribution Curves