**ABSTRACT**

The new amide ligands **III** and **III** are prepared by reacting salicylic acid, cinnamic acid and benzoic acid with α-naphthyl amine respectively. The Copper (II) complexes are also prepared and their nature of combination is studied using IR, UV and conductivity studies. The ligands are irradiated in micro wave oven. The UV absorption at 525, 500 and 503nm confirms the formation of complex A, B and complex C. From the value of molar conductance of the Copper II complexes shows that the complexes are non-electrolytic in nature. The mode of coordination is N-Cu—O, N-Cu—C, and N-Cu for complex A, complex B, complex C respectively