**ABSTRACT**

Metal complexes ML(H2O)2Cl where M=Ni, Co & L is Schiff base formed by condensation of 2- thiosemicarbazino-4,8-dimethyl quinoline and salicylaldehyde has been prepared and characterised by magnetic measurements, IR, UV, NMR, SEM & EDAX analysis. IR and NMR spectra show that the nitrogen of the azomethine group, Oxygen of the phenolic ring and NH of thiosemicarbazone take part in coordination with the formation of chelated system. SEM and EDAX analysis shows the size and morphology of the complex. The antioxidant activity of newly synthesised compounds has been determined at a different concentration range by means of their interaction with the stable free radical 1,1-diphenyl-2-picryl hydrazyl (DPPH) on the basis of spectral and analytical data, it is evident that the Schiff base acts as tridentate ligand and complexes were Octahedral in nature.