**Abstract**

A new series of hydrazine complexes of transition metal with pyridine -4 carboxylic acid of the formula [M (Pyc)2 (N2H4)2] where M = Ni, Co, Cd & Zn and pyc=pyridine -4-carboxylic acid have been prepared and characterized by analytical and physico chemical techniques like IR spectra, UV- visible, CHNS, TG-DTA, VSM and powder XRD studies. The infrared spectral data indicate the bidentate bridging nature of hydrazine molecules. The TG-DTA study of the cobalt complex in air show that, it decomposes steadily to yield metal oxide as residue. The complexes were screened for their antimicrobial activity. DNA binding studies were also carried out for the synthesized complexes. Among the complexes cadmium complex showed higher inhibition against the fungi Candida albicans.