

ABSTRACT

Complexes of pyridine-3,4-dicarboxylic acid have wide range of potential application as luminescent sensors, gas storage and separation, catalysts, and magnetic materials due to their fascinating structure. Metals from 3d, 4f and 3d-4f links with pyridine-3,4-dicarboxylic acid form fascinating structures because of multidentate nature having nitrogen and oxygen donor atoms.

Ce (III), Pr (III), Zn (II), Cd(II), Ni (II), Cu (II) and bimetallic (Pr (III) & Cu (II) metal complexes of pyridine-3,4-dicarboxylic acid were synthesized by refluxing method as well as solvothermal methods. Crystals of metal complexes were isolated, and characterized by FTIR studies and elemental (CHNS) analysis. Antioxidant activity of synthesized metal complexes was also studied. It was found that antioxidant activity of Ni (II) complex was highest while metal complex of Zn (II) shows least among all synthesized metal complexes.