

Abstract

The heteronuclear complexes of lanthanides and transition metals are gaining significant interest and attention in recent days. These complexes are mostly used in the luminescence, magnetic material, homogeneous catalysis, nanoparticles, in the field of analytical chemistry, metallurgy, medicine, and biology science. Different lanthanide and transition metal heteronuclear complexes of Pyridine-2,6-dimethanol prepared, pdmH_2 give interesting oxygen donor bridged complexes in 3d as well as in 4f cluster chemistry. The dysprosium (III) and erbium (III) were used with nickel (II), cadmium(II), copper (II) and copper (II) to prepare the metal complexes of pyridine-2,6-dimethanol. The synthesised metal complexes were characterized by melting point, solubility, thin layer chromatography and fourier transform infrared spectroscopy techniques.