

Abstract

Transition metal complexes are well known for their numerous applications in biological and non-biological fields like antimicrobial agents, active drugs, senescing and imaging and catalysts, *etc.* Here, transition metal complexes using carboxylic acid have been synthesized. The ligand, maleanilic acid, is prepared by the reaction of maleic anhydride and aniline in the presence of diethyl ether solvent under reflux. Sodium salt of maleanilic acid was used to prepare metal-complexes using metal sulphates. Synthesized metal-complexes were characterized using different techniques such as Melting points, UV-Visible spectroscopy, FTIR spectroscopy, and ^1H NMR. After characterization, we check the antibacterial activity of complexes using different bacterial strains in comparison with the ligand. The results show that the synthesized ligand is itself bioactive and in case of gram-positive bacteria the antibacterial property of complexes is more as compared to ligand alone.