

Abstract

Two novel mixed ligand silver(I) complexes $[\text{Ag}_2(6,6'\text{-dmbpy})_2(\text{dmba})_2]$ $[\text{Ag}_2(5,5'\text{-dmbpy})_2(\text{dmba})_2]$ were synthesized containing 6,6'-dimethyl-2,2'-bipyridyle (6,6'-dmbpy) and 5,5'-dimethyle-2,2'-bipyridyl (5,5'-dmbpy) as nitrogen donor ligands and 3,5-dimethylebenzoic acid (dmba) as oxygen donor ligand. Characterization was carried out through the elemental analyzer, FT-IR and NMR. Complexes $[\text{Ag}_2(6,6'\text{-dmbpy})_2(\text{dmba})_2]$ and $[\text{Ag}_2(5,5'\text{-dmbpy})_2(\text{dmba})_2]$ were tested against the three microbial strains *E. Coli*, *Acinetobacter_baumannii* and *Bacillus subtilis*.