

Abstract

Four novel Ag(I) Complexes containing 5,5'-Dimethyl-2,2'-bipyridine (5,5'-DMBP) 6,6'-Dimethyl-2,2'-bipyridine (6,6'-DMBP), dimethyldithiocarbamate(DMDT), and diethyldithiocarbamate (DEDT) were successfully prepared. All the four complexes were structurally characterized using CHNS, FTIR, and NMR spectroscopy. The antimicrobial activities of [Ag(5,5'-DMBP)(DMDT)], [Ag(6,6'-DMBP)(DMDT)], [Ag(5,5'-DMBP)(DEDT)], [Ag(6,6'-DMBP)(DEDT)], were determined against three Gram-negative strains i.e. *Acinetobacter* 1005 (*Acinetobacter baumannii*), *Calebsella* N4 (*Calebsella Pneumanea*) and *E. Coli* 1006 (*E. Coli*).