

Synthesis and *In-Vitro* Antimicrobial Studies of Transition Metal Complexes of *Dpempa*

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Abstract: In this work, we presented the synthesis of ligand [(2,2'-dibromo-1,2-diphenylethane-1,2-dione)-4-methyl aniline] (DPEMPA) by the reaction of (2,2'-dibromo-1,2-diphenylethane-1,2-dione) with 4-methyl aniline under reflux in ethano. The complexes of this ligand have been prepared using metal acetates/chlorides of Co(II), Ni(II), Cr(III), Cu(II) under reflux in ethano-DMF. The products were found to be crystalline solids. The ligand is characterized by analytical, FT-IR, proton NMR spectra data while complexes have been characterized by analytical, FT-IR, TGA and magnetic susceptibility measurements. The compounds were screened for antibacterial activity against some clinically important bacteria, such as *E. coli*, *S. typhi*, *S. aureus*, *P. aeruginosa* and *K. pneumoniae* by using nutrient agar medium and antifungal activity against *C. albicans* and *A. niger* species by using potato dextrose agar medium.

Keywords: azomethine group, *in vitro*, antibacteria, antifunga

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