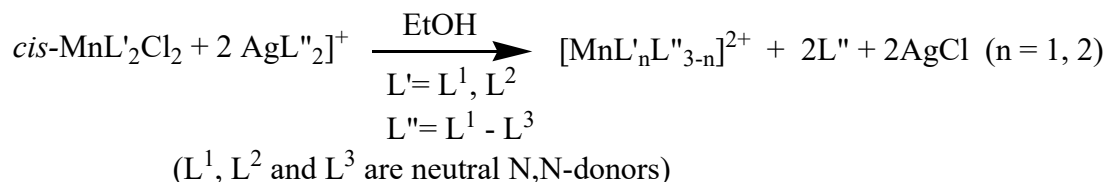


# Convenient approach to the direct synthesis of some mixed-ligand tris-chelates of Mn(II) containing neutral N,N-donors and to study their antimicrobial activities

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**Abstract:** Four new mixed-ligand tris-chelates of Mn(II), containing 1,10-phenanthroline; 2,2'-bipyridine and N-*p*-tolylpyridine-2-alimine as neutral N,N-donor ligands, have been synthesized by silver(I) assisted trans-metallation reactions. The complexes were characterized by the analysis of different physicochemical data. Electron spray ionization mass spectrum (ESIMS) of one of their representatives has been reported which authenticates its formulation. The synthesized complexes showed good antimicrobial activities towards some Gram-positive and Gram-negative bacterial strains in aqueous medium.

**Keywords:** *Silver(I) assisted synthesis, Manganese(II), Mixed-ligand complexes, Neutral N,N-donors, Antimicrobial activities*