



Synthesis And Studies Of Mixed Ligand Complexes Of Mn(II) With Salicylaldehyde And Substituted Salicylaldehydes, 2-Hydroxyarylcarbonyl Compounds Or β -Diketones

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ABSTRACT

Mixed ligand complexes of Mn(II) of the type $[MnLL'(H_2O)_2]$, (where HL = salicylaldehyde and HL' = 5-bromosalicylaldehyde, 5-nitrosalicylaldehyde, 2-hydroxyacetophenone, 2-hydroxypropiophenone, 2-hydroxybenzophenone, pentane-2,4-dione, 1-phenylbutane-1,3-dione or 1,3-diphenylpropane-1,3-dione) have been synthesized by the reactions of manganese(II) acetate with a mixture of two different ligands in 1:1:1 molar ratios. The solid complexes were separated, filtered, washed with butanol and ether successively and dried under reduced pressure. The resulting complexes have been characterized by elemental analyses, molar conductances, magnetic moments, electronic spectra, IR spectra, FAB mass spectra and thermo gravimetric analysis. At the same time, above mentioned complexes were studied for in vitro antimicrobial properties and found to be more potent bactericides than parent ligands. Octahedral geometry has been proposed for the mixed ligand complexes.

Keywords: Mixed ligand complexes, FAB mass spectra, octahedral geometry, thermo gravimetric analysis, antimicrobial properties.
