Synthesis and Antimicrobial Activity of Aluminium(III), Nickel(II) and Zinc(II) Schiff base Complexes Derived from o-Phenylenediamine and Salicylaldehyde

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Abstract

N2O2 tetradentate Schiff base ligand-was synthesized from salicylaldehyde and o-phenylenediamine. This ligand was reacted with Al(III), Ni(II) and Zn(II) ions to yield the corresponding complexes. The ligand and its complexes have been :characterized by IR, H-1 NMR, and elemental analysis. The spectral data of these compounds are discussed. in connection with the structural changes due to complexation. The complexes prepared showed good antibacterial activities. The activity data show that the Al(III) Ni(II) and Zn(II) complexe are more potent antibacterial than the parent Schiff base ligand and among all Al(III), complex was the highest.

Keywords

Author Keywords: Salicylaldehyde; Phenylenediamine; Tetradentate Schiff base; Characterization; Antimicrobial activity

KeyWords Plus: SPECTROSCOPIC CHARACTERIZATION; CATALYTIC EPOXIDATION; OLEFINS; COBALT(II); OXIDATION; ALKENES; CU(II); CO(II); NI(II)

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