

**SYNTHESIS, CHARACTERIZATION AND ANTI-CORROSION
SCREENING OF SCHIFF BASE LIGAND AND
ITS METAL COMPLEXES**

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ABSTRACT

SYNTHESIS, CHARACTERIZATION AND ANTI-CORROSION SCREENING OF SCHIFF BASE LIGAND AND ITS METAL COMPLEXES

A Schiff base ligand derived from 5-bromosalicylaldehyde and ethylenediamine undergo further insertion with transition metal namely, Mn(II) and Cu(II) were synthesized and characterized by using melting point determination, molar conductivity measurements, elemental analysis (CHNS), IR and UV-Vis spectroscopy. The results obtained shows that the ligand behaves as a tetradentate ligand coordinate through azomethine nitrogen and phenolic oxygen, produces tetrahedral and an octahedral geometry for Mn(II) and Cu(II) complexes, respectively. The synthesized compounds were tested against anti-corrosion activity where they shows an appreciable corrosion inhibition efficiency against the corrosion of mild steel in 1 M HCl solution at 40 °C. It have been found that MnL shows a greater corrosion inhibition efficiency than L and CuL. As the concentration of studied inhibitors increases, the corrosion inhibition efficiency of the prepared compounds also increases.