**ABSTRACT**

A novel polyamidoaminoepichlorohydrin resin was prepared and analyzed using spectroscopy techniques and its anti-corrosion properties were studied and observed. Inhibition efficiency was calculated by impedance spectroscopy, loss in weight and potentiodynamic polarization. Authors inferred results as the inhibitors tested differently are acted as better anti-corrosive agent. The thermodynamic data of activation were determined. The adsorption of resin on the steel surface was calculated according to Langmuir adsorption theory. A surface study was performed using SEM, AFM, FT-IR and XRD. Inhibition mechanism was deduced from concentration and temperature dependence of inhibition efficiency, Langmuir adsorption, SEM and AFM results