**ABSTRACT**

A novel polymer – MMT composite has been prepared and evaluated as excellent corrosion inhibitor for mild steel by gravimetric and electrochemical studies. The prepared composite and the polymer were subjected to thermal and spectral studies. The X-ray diffraction result for polymer - MMT composite showed the intercalation of polymer between the clay layers. The FT-IR result shows the successful incorporation of MMT clay in the polymer. The inhibitors obey Langmuir isotherm indicating that inhibition occurs via adsorption of a monolayer on the mild steel surface. Thermodynamic and kinetic parameters have been evaluated.