**ABSTRACT**

p-nitrophenyl-2-imidazoline (PNP2I) was synthesized in the laboratory and characterized by Fourier Transform Infrared Spectroscopy (FTIR) spectra and evaluated as a corrosion inhibitor for mild steel in 1M Hydrochloric acid and 0.5 M Sulphuric acid by weight loss method and electrochemical studies. Results obtained revealed that PNP2I was a very good inhibitor and behaved better in 0.5 MH 2 SO 4 than in 1M HCl. Potentiodynamic polarization curves showed that PNP2I is a mixed type inhibitor. The ability of the studied inhibitor to inhibit the corrosion of mild steel was due to the presence of two hetero nitrogen atoms on the imidazoline ring and the phenyl ring attached to the imidazoline ring. The adsorption of PNP2I on the mild steel surface in both acidic media followed the Langmuir adsorption isotherm. Surface analyses were also carried out, to establish the mechanism of the corrosion inhibition of mild steel…..