



Inhibitive action of Bombax Malabricum leaves extract on the Corrosion of Mild steel in 1N HCl Medium

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ABSTRACT

The inhibition of the corrosion of mild steel in hydrochloric acid solution by the leaves Extract of Bombax Malabricum (BM) has been studied using weight loss, electrochemical impedance spectroscopy and Potentiodynamic polarization techniques. Inhibition was found to increase with increasing concentration of the extract. Results indicate that Bombax Malabricum leaves Extract was an efficient natural corrosion inhibitor in the acidic solution. Polarization measurements showed that the studied inhibitor acts as mixed type inhibitor in 1N HCl acid with significant reduction of cathodic and anodic current densities. The electrochemical impedance study further confirmed the formation of an adsorbed film on the mild steel. The SEM morphology of the absorbed protective film on the mild steel surface has confirmed the high performance of inhibitive effect of the plant extract.

Keywords: Bombax Malabricum, Mild Steel, Corrosion Inhibition, SEM.
