



ChemTech

International Journal of ChemTech Research

CODEN (USA): IJCRGG, ISSN: 0974-4290, ISSN(Online):2455-9555
Vol.10 No.12, pp 386-398, 2017

The Corrosion Inhibition and Adsorption Properties of Eco Friendly Green Inhibitor – A Comparative Study

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Abstract: The corrosion inhibition and adsorption behaviour of aqueous extract of plants like *Justicia micrantha* (JM), *Hibiscus callyphyllus* (HC), *Morinda tinctoria* (MT), *Poinciana Elata* (PE), *Erythrina Indica* (EI), *Sphoeranthus mirtes* (SM) on mild steel surface in 1N HCl solution were investigated by mass loss with different time of contact at various temperature and evaluated by electrochemical impedance and Tafel studies. Polarization method indicates that the plant extract was a mixed type inhibitor with predominately control of anodic reaction. The nature of Protective film formed on the MS surface has been confirmed by SEM analysis.

Keywords: Mild steel; EIS; SEM; Polarization; Acid Corrosion.

A. P. Srikanth *et al*/International Journal of ChemTech Research, 2017,10(12): 386-398.
