



The Inhibition Effect of The Extract of Naturally Occurring Compounds On The Corrosion Of Copper And Brass In Acid Medium

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ABSTRACT

Corrosion of copper and brass was studied in 1M H₂SO₄ and the corrosion rate for these materials in the presence of two green inhibitors Phyllanthus amarus and Aegle marmelos was obtained by weight loss method. Very high inhibition efficiency is obtained using these green inhibitors. Formation of black film on the surface of the metal is mainly responsible for corrosion inhibition. A linear Langmuir plot supports the adsorption of the inhibitors on the surface of the metal. The decrease in inhibition efficiency with increase in exposure time clearly supports the formation of multilayer on the surface of the metal. Of the two inhibitors, Phyllanthus amarus and Aegle marmelos, the corrosion rate and inhibition efficiency are more favourable for the Aegle marmelos.

Keywords: Green inhibitors, Copper and Brass, Weight loss, Adsorption isotherm.
