STUDY ON THE INHIBITIVE EFFECT OF KAPOK SEED OIL IN THE 2 M HCl OF 304 STEEL

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Abstrak

The austenitic 304 stainless steel undergoes corrosion in 2 M HCl solution at room temperature to inhibit corrosion reaction, is present inhibitor. This investigation using kapok seed oil inhibitor with the variation of concentration inhibitor 0-0,5 ml/L. The inhibitive effect of the kapok seed oil on the corrosion of 304 stainless steel in 2 M HCl solution was determined using weight loss measurements and Tafel polarization. Some corrosion parameters such as anodic and cathodic tafel slope, corrosion potential, current density and inhibition efficiency were calculated. The inhibition efficiency was found to increase with oil content to attain 67 % and 25 % at 0,30 ml/L, kapok seed oil as a good organic inhibitor. The inhibitive action of the extract is discussed with a view to adsorption of its components onto the steel surface.

Keyword: Corrosion inhibition; SS 304; Kapok seed oil; Polarisation.