

The cyclic hydroxylamines: a new class of corrosion inhibitors of carbon steel in acidic medium

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ABSTRACT

Several cyclic hydroxylamines contg. hydrophobic substituents were prepd. All these hydroxylamines were tested for corrosion inhibition of carbon steel in 1 M HCl at 60° by gravimetric and electrochem. methods. All compds. showed excellent corrosion inhibition efficiency (IE per cent) in acidic solns. contg. 400ppm of the inhibitors; Inhibitor Efficiencies in the range 66-98 per cent were measured by the gravimetric method. Comparable results were obtained by the electrochem. method using Tafel plots for the IE of some of the selected synthesized compds