

INHIBITIVE ACTION OF PLANT EXTRACTS ON THE CORROSION OF MILD STEEL IN ACIDIC MEDIA

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ABSTRACT:

The effect of aqueous extracts of *Zygophyllum album* on the corrosion of X52 mild steel in 1M sulphuric acid was investigated by Weight-loss determinations and electrochemical measurements. Potentiodynamic polarization curves indicated that the plant extracts behave as mixed-type inhibitors. The corrosion rates of steel and the inhibition efficiencies of the extract were calculated. The results show that the extract solution of this plant could serve as an effective inhibitor for the corrosion of steel in sulphuric acid medium. Inhibition was found to increase with increasing concentration of the plant extract up to a critical concentration.

KEY WORDS: plant extract; *Zygophyllum-album*.; inhibition; corrosion; X52 Steel.