Effect of Acid Extract of Leaves of *Juniperus procera* on Corrosion Inhibition of Carbon Steel in HCl Solutions

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The efficiency of the hydrochloric acid leaf extract of *Juniperus procera* as a corrosion inhibitor against C-steel and its adsorption behavior were investigated in 1.0 M HCl solution using mass loss, potentiodynamic polarization, electrochemical impedance spectroscopy (EIS) techniques. Results revealed that the inhibition efficiency increased with the inhibitor concentration. EIS spectra exhibited one capacitive loop and confirmed the inhibitive capacity. The activation energy ($E_a$) of the corrosion process clearly increased when the extract was used. The leaf extract was found to act as mixed-type inhibitor. The inhibition properties of the extract are discussed in terms of the mechanism by which its components adsorb onto the C-steel surface. This adsorption process obeyed a Langmuir adsorption isotherm.

**Keywords:** *Juniperus procera*. Corrosion, Inhibition, C-steel. EIS.

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