Influence of pH on the Use of *Salvia Hispanica* as Green Corrosion Inhibitor for Carbon Steel in Sulfuric Acid

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The use of *Salvia hispanica* as a green corrosion inhibitor for 1018 carbon steel in 0.5 M H₂SO₄ solution at different pH values has been evaluated using weight loss tests, potentiodynamic polarization curves and electrochemical impedance spectroscopy measurements. Solution pH values included 1, 3, 4 and 5. Results have shown that *Salvia hispanica* acts as good, mixed type of inhibitor, with its efficiency increasing with increasing its concentration and with an increase in the solution pH up to a pH value of 4, decreasing when the pH solution is 5. This has been explained in terms of corrosion products film adherence to the metal. Adsorption studies showed that *Salvia hispanica* is chemically adsorbed on to the steel surface following a Langmuir adsorption isotherm.

Keywords: Corrosion, green inhibitor, *Salvia hispanica*.

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