

Study of corrosion inhibition of aluminum in acidic media by pineapple crown extract

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Abstract. The efficiency of pineapple crown extract as corrosion inhibitor of aluminum in 1M H₂SO₄ acidic medium was tested using weight loss and potentiodynamic methods, at varied inhibitor concentration. Through the data from the weight loss method there was calculated the corrosion rate and pineapple crown extract's inhibition on aluminum corrosion in acidic medium, at varied inhibitor concentration. Also, with the data obtained from the potentiodynamic method, the polarization curves and Tafel tangents were constructed, while calculating the corrosion rate and inhibition efficiency of pineapple crown extract. Experimental measurements showed that pineapple crown extract acts as a mixed inhibitor and the inhibition efficiency increases with increasing the extract concentration.

Keywords: aluminum; pineapple crown extract; potentiodynamic method; green inhibitor; corrosion.

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