

Title of Article: Eco-friendly Impact of *Vernonia amygdalina* as corrosion inhibitor on aluminium in acidic media.

Author(s): Ajanaku, K.O., Ajanaku, C. O., Akinsiku A. A., Falomo A., Edobor-Osoh A. and John, M.O.

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Abstract: Corrosion inhibition effect of *Vernonia amygdalina* extract on aluminium in 0.5 M HCl solution was studied using gravimetric method at 40 °C temperature. Aluminium coupons of dimension 3x1.5 cm were immersed in test solutions of uninhibited acid and those containing extract concentrations of 0.4, 0.5, 0.6, 0.7, 0.8, 0.9 and 1.0 g/L concentration at intervals of 30 minutes progressively for 150 minutes. The results revealed that *V. amygdalina* could be used as an ecofriendly corrosion inhibitor for aluminium in HCl solution. The corrosion inhibition efficiency of the extract increases with concentrations in the corrosion media. The surface coverage of the extract obeyed Langmuir adsorption isotherm. Hence, the corrosion inhibition effect of the extract was rationalized via adsorption mechanism.