

## ABSTRACK

### EKOR NAGA'SLEAF EXTRACT (*Rhaphidophora pinnata* Schott.) AS INHIBITORS CORROSION OF STEEL IN ACID MEDIA

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Leaves ekor naga's (*Rhaphidophora pinnata* Schott.) is a plant that is rich in secondary metabolites, and potentially as a corrosion inhibitor in acidic media. This study was conducted to identify the corrosion inhibition efficiency possessed by the ekor naga'sleaf extract and determine the type of corrosion inhibitor of ekor naga'sleaf extract with weight loss method (Weight Loss), potentiodynamic polarization method and analysis of Scanning Electron Microscopy (SEM). Based on the weight loss method known value of the highest inhibition efficiency at the extract concentration of 8,0 g/L at 93,85%. Increased temperatures result in decreased inhibition efficiency. Potentiodynamic polarization measurements showed a ekor naga's leaf extract is a type of cathodic inhibitor. Extract adsorption on the steel surface follows the pattern of Langmuir adsorption isotherm. SEM analysis shows that there are differences in the morphology of the surface of steel St-37, which is immersed in 1 N HCl medium with and without the addition of a ekor naga'sleaf extract.

Keywords: *Rhaphidophora pinnata* Schott., Corrosion inhibitor, Weight Loss, Potentiodynamic Polarization, Langmuir isotherm, SEM