

Sarang semut (*myrmecodia pendans*) extract as a green corrosion inhibitor for mild steel in acid solution

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Abstrak

In this work, *Myrmecodia pendans*, or sarang semut, was successfully extracted as a potential organic inhibitor. Various concentrations of *Myrmecodia pendans* extract in 1 M H₂SO₄ solution were applied in the range of 100–500 mg/L for corrosion inhibition. Gas chromatography–mass spectroscopy (GC-MS) showed that the *Myrmecodia pendans* extracts contained a high-benzenediol compound with rich oxygen atom content, which played an important role in the inhibition process. The 300 mg/L *Myrmecodia pendans* extract had the highest effect, decreasing the rate of corrosion from 177.73 mpy to 47.4 mpy. This was attributed to the chemical compounds present in the *Myrmecodia pendans* extract on the surface of mild steel, which prohibited the corrosion rate