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### Corrosion Inhibition of Aluminium by Alkaloid Extract of Aerial Part of *Euphorbia neriifolia* Linn in HCl Solutions

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**Abstract** : The corrosion inhibition of aluminum by *Euphorbia neriifolia* Linn extract in different solutions of HCl (1N, 2N, 3N) was investigated by weight loss and thermometric methods at 300K temperature. From the study it was found that the inhibition efficiency increases with the increase in the concentration of extract of aerial part of the plant in HCl solutions. Results indicate that *Euphorbia neriifolia* Linn extract was an efficient natural corrosion inhibitor in acidic media. The stem extract of the *Euphorbia neriifolia* Linn is better than leaf and flower extract of the plant. Absorption of *Euphorbia neriifolia* Linn depends on its chemical compositions which showed the presence of various compounds like alkaloids, flavonoids, steroids, tannins etc. which has O, N and S atoms with lone pair electrons to form co-ordinate bonding with metal.

**Key words** : Weight loss, Thermometric, Surface coverage, Inhibition efficiency, Corrosion rate, *Euphorbia neriifolia* Linn.

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