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An overview on plant extracts as environmental sustainable and green corrosion inhibitors for metals and alloys in aggressive corrosive media

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Abstract:

Recently, the development of green corrosion inhibitors and green inhibition strategies are highly demanded because of the increasing demand of green chemistry in the area of science and technology. In last few decades, use of plant extracts as metallic corrosion inhibitors has attracted significantly attention. Plant materials are ideal green candidatures to replace traditional toxic corrosion inhibitors. Reduced environmental risk, lower cost, wide spread availability and high corrosion inhibition effectiveness make the plant extracts as suitable candidates to replace the expensive and toxic traditional synthetic corrosion inhibitors. Literature survey reveals that different extracts such as leaf, root, stem, bark, pulp, fruit, etc. have been effectively employed as sustainable inhibitors for the corrosion of different metals and alloys. Present review article describes the collection of published work that has been carried out on the topic "plant extract as corrosion inhibitors for metals and alloys in aggressive aqueous solutions". The article includes extracts of diverse part of the plants for diverse metals and alloys in the several electrolytic media.

Keywords: Plant extract, Green inhibitors, Phytochemicals, Green chemistry, Metals and alloys.

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