



SDI Review Form 1.6

Journal Name:	American Chemical Science Journal
Manuscript Number:	2015_ACSj_16679
Title of the Manuscript:	Electrochemical and Adsorption behaviour of Diospyros mespiliformis on annealed carbon steel corrosion in hydrochloric acid
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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PART 1: Review Comments

	Reviewer's comment	Author's comment <i>(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
<u>Compulsory</u> REVISION comments	• Rework your references following the guidelines. • All major headings should be in capitals	The corrections stated herein have been effected and it has not altered the purpose of research.
<u>Minor</u> REVISION comments	Line1-4. Electrochemical and Adsorption Behaviour of Diospyros mespiliformis on Annealed Carbon steel Corrosion in Hydrochloric Acid. Line 12-13. The D. mespiliformis mitigates the corrosion of carbon steel (FE164531) in HCl solutions through adsorption. Line 13-14. Results from Tafel plots suggest that Diospyros mespiliformis (DM) behaves predominantly as cathodic inhibitor with highest inhibition efficiency (91%) at 1000 ppm Line 30. carbon steel, mild steel, stainless steel, aluminium and many other metals in both acidic and alkaline solutions. Line 33-36. These inhibitors generally control corrosion by forming various types of films either by adsorption or the formation of bulky precipitates, and/or the formation of a passive layer on the metal surface that modify the corrosivity [8-10] Line 46-47. ... and non-toxic for metal corrosion. Line 54. Specify what chemical analysis used. Line 60. Inhibition efficiency of the inhibitor.... Line 61. ...was assessed through electrochemical impedance spectroscopy (EIS). Line 62. Which of the isotherms were used before introducing the Langmuir adsorption isotherm ? Line 63. ΔG_{ads}, ΔH_{ads} and ΔS_{ads}.	



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	Line 79. Separate as 10 ppm, 100 ppm, 1000 ppm, etc Line 88. The corrosion rate of the carbon steel and inhibition efficiency of the inhibitor..... Line 135. degree of surface coverage of the inhibitor (θ), the inhibition efficiency of the inhibitor..... Line 142-145. Introduce punctuation (s). Line 183-184. Recast as “The inhibition efficiency result of the inhibitor were calculated out of the corrosion current (I_{corr}) values according to equation 4, and the values are presented in Table 1”. Line 190-192. The values of R_p in Table 1 showed a steady increase following increased inhibitor concentration from 10ppm to 1000ppm. It does not agree with this observation. Confirm and recast accordingly. Line 213. Be consistent in the use of either parallel film capacitance or double layer capacitance. Line 214. Figure 4 or Fig. 4? Be consistent with right presentation as described in the guideline. Line 237. ... the double layer capacitance (Cdl) and corrosion current values decreased.... Line 248. How do you explain this absence with respect to 100 ppm and 1000 ppm concentrations? Line 311. Recast Line 336-343. There is no table showing information on the free energy of adsorption (ΔG). If the discussion here is away from entropy of adsorption, then it is not in any way speaking to ΔG. Confirm your report and recast accordingly.	
<u>Optional/General</u> comments	NIL	The list of authors had some corrections also. Please find attached a corrected copy (without highlights) showing the names of authors. Thank you.