



**SDI Review Form 1.6**

Journal Name:	<a href="#">Chemical Science International Journal</a>
Manuscript Number:	Ms_CSIJ_32708
Title of the Manuscript:	<b>CORROSION INHIBITION OF MILD STEEL AND ALUMINIUM IN 1M HYDROCHLORIC ACID BY LEAVES EXTRACTS OF FICUS SYCOMORUS</b>
Type of the 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:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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**PART 1: Review Comments**

	<b>Reviewer's comment</b>	<b>Author's comment</b> (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)
<b>Compulsory</b> REVISION comments	<p><b>References</b></p> <p>1. Most of the references cited are not listed and vice versa. Example, these references among others are not listed but cited Fragoza-Mar et al., 2012, Odewumi et al., 2014, Mohammed et al., 2010, Ekanem et al., 2010, Satapathy et al., 2009, etc. They authors should reconcile their references and correct as applied noting that only cited references are to be listed and vice versa.</p>	Reference has been reviewed and corrections made are highlighted in green colour.
<b>Minor</b> REVISION comments	<p>1. The abstract is too bulky. Please reduce to a brief summary.</p> <p><b>Introduction</b></p> <p>2. It will also be important that authors state the aim of this research at the introduction part of this work since similar work on this plant had been carried out.</p> <p>.....health related issues. As a result, strict international laws were imposed (Dariva C. G. et al., 2013). The ban on.....</p> <p>..... some plant extracts which include; Eichhornia Crassipes (Ulaeto et al., 2012), Water Melon Rind (Odewumi et al., 2014), Juniprus Plant (Al-Mhyawi, 2014), Azadirachta Indica (Okafor et al., 2010), Uncaria Gambir (Mohammed et al., 2010), Pineapple Leaves (Ekanem et al., 2010), Justicia Gendarussa (Satapathy et al., 2009), and African breadfruit leaves (Ejikeme et</p>	<p>Correct reference is (Dariva and Galio, 2013).</p> <p>Plants are written in their botanical names and has been italized</p> <p>Reference has been reviewed</p> <p>Metal Specification is now approximate to 3</p>

**Comment [H1]:** (Dariva et al., 2013).



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	<p>al., 2015).</p> <p>11]. M.N. Moussa, A.S. Foula, A.I. Taha, A. Elnenaa, Some thiosemicarbazide derivatives as corrosion inhibitors for aluminium in sodium hydrogen solution, Bulletin of the Korean Chemical Society 9 (1998) 192–5</p> <p>.....The aluminium alloy (AA801) specimen contains: 0.79600%-Si, 0.79624%-Fe, 0.02217%-Cu, 0.07513%-Mn, 0.01268%-Mg, 0.00281%-Zn, 0.01528%-Ti, 0.00156%-Cr, 0.00226%-Ni, 0.00717%-V, 0.00670%-Pb, and 98.2755%-Al.</p> <p><b>Materials and method</b> .....of different grades, degreased in ethanol, dried in acetone and stored in dry dessicators prior to.....</p> <p>The Subheading 2.4 and its accompanying subtitles are not required. It should rather read “..... From the weight loss values, corrosion rates of metals, surface coverage and inhibition efficiencies of inhibitors were computed using the Eqs. 1 – 3</p> <p>The authors should explain the experimentation of Electron Dispersive Spectroscopy (EDS)</p> <p><b>Results and Discussion</b> The discussion on Electron Dispersive Spectroscopy (EDS) for the result is too shabby. It requires upgrade.</p> <p>..... concentrations of <i>Ficus sycomorus</i> leaves extracts at 30 0.</p>	<p>d.p.</p> <p>The composition of the mild steel is as follows: 0.080% C, 0.050% Si, 1.000% P, 0.020% Pb, 0.020% Cu and the remainder iron. The aluminium alloy (AA801) specimen contains: 0.796%-Si, 0.796%-Fe, 0.0227%-Cu, 0.075%-Mn, 0.013%-Mg, 0.003%-Zn, 0.015%-Ti, 0.002%-Cr, 0.002%-Ni, 0.007%-V, 0.007%-Pb, and 98.276%-Al</p> <p>Immersed coupons were retrieved progressively at 1 hour intervals for 8hrs, washed, degreased in ethanol, air dried, and re-weighed</p> <p>Subheading has been reviewed and changes Made</p> <p>EDS Experimentation has been stated</p> <p>“Energy Dispersive spectroscopy (EDS) system consist of x-ray detector which is used to analyze x-ray of different elements into an energy spectrum, a pulse processor and a software analyzer to collect and analyze the energy spectra (Reimer L., 1998; Goldstein J., 2003; John G., n.d.).The X-ray detector detects and converts X-rays into electrical pulses, the pulse processor measures the pulses to determine the energy characteristics of each X-ray, and the analyzer displays and</p>
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**Comment [H2]:** It will be important that all botanical names be made ITALIC and all names of plants stated here be either in the botanical names or native names. You must be consistent in the use of names of plants.

**Comment [H3]:** Not consistent with the referencing of this journal.

**Comment [H4]:** Use the same decimal places as in mild steel

**Comment [H5]:** Are you sure acetone was used in drying or the coupons were air dried?

**Comment [H6]:** ....30<sup>0</sup>C



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	<p>From Figures 2 and 3, Corrosion rate is measured in mm/yr. How do you come about that, judging from your Eq. 1 for corrosion rate?</p> <p>In Figs. 6 and 7, what is the unit of Concentration?</p> <p><b>Adsorption isotherm</b></p> <p>Figure 8 and 9 show the plot of <math>C/\theta</math> against <math>\ln C</math> for aluminium and mild steel at 300C. The graphs show that at 300C, correlation coefficient of 0.876 and 0.751 were obtained for aluminium and mild steel respectively. Also, the slopes have values of 0.023 and 0.018 for aluminium and mild steel respectively.</p> <p>Figures 8 and 9 are not drawn to scale. There is a possibility of the line of best fit to pass through at least three of the points. These figures should be revisited.</p> <p>The authors should discuss the relevance of equilibrium constant to the adsorption consideration as brought in to Table 1.</p>	<p>interpretes the X-ray data. Analyzed EDS result shows the plot of x-ray counts against energy in kilo electron volt (keV). The EDS analysis of <i>Ficus Sycomorus</i> leaves was performed with JSM-6010LA analytical scanning electron microscope instrument (JOEL Technologies, USA) which has an EDS system integrated into it"</p>
<p><b>Optional/General</b> comments</p>	<p>Areas reviewed in the manuscript are highlighted in yellow.</p> <p>Figures 8 and 9 were plotted using excel. Fig 8 has a major unit of 0.01 on y-axis and a major unit of 0.4 on the x-axis.</p> <p>Fig 9 of 0.008 has a major unit of 0.01 on y-axis and a major unit of 0.4 on the x-axis.</p>	

**Comment [H7]:** The authors have not been able to discuss this result with respect to the Temkin parameter,  $f$  as stated in the Eq. 4.2. Again, do you mean to say Eq. 5 or 4.2?