



**SDI Review Form 1.6**

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| Journal Name:            | <a href="#">British Journal of Applied Science &amp; Technology</a>                 |
| Manuscript Number:       | 2014_BJAST_12468                                                                    |
| Title of the Manuscript: | NEW ORGANIC POLYMERS AS GREEN CORROSION INHIBITORS OF brass IN COOLING WATER SYSTEM |
| 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.

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### PART 1: Review Comments

|                                     | Reviewer's comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Author's comment (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)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| <b>Compulsory</b> REVISION comments | <p>1-This work is a typical work as in, Rev. Roum. Chim., 2013, 58(9-10), 747-757 with the same title "EFFECT OF SOME NEW ORGANIC POLYMERS AS GREEN CORROSION INHIBITORS FOR BRASS I N COOLING WATER SYSTEM" by Florina BRÂNZOI and Viorel BRÂNZOI</p> <p>a lot of parts are taken as it is also some Figures are used as it is or with change color only?????????????. And by the way this reference is not mentioned within this manuscript. ??why?</p> <p>2- The manuscript need an expert in English where a lot of errors and mistakes are observed i.e.;</p> <ul style="list-style-type: none"> <li>* Word "figure or fig." Must be changed to "Figure or Fig." in the whole manuscript.</li> <li>* Word "table" Must be changed to "Table" in the whole manuscript.</li> <li>* Abbreviations must be fixed some times its small letter other it is capital letters i.e.: "pasc13 and pasac11".</li> <li>* Line 156, "icorr" must be change to "<math>i_{corr}</math>".</li> <li>* Line 177, change "in same conditions" to "in the same conditions".</li> <li>* Caption of Fig. 14. Is not correct, "PASAC10" is observed???</li> <li>* Line 103, what you mean by "from" in "radicalic polymerization in presence of microwave field from."</li> </ul> | <p>In the project "National Research Grant PN-II-32-137/2008", using the microwaves energy new organic polymers (PASAC1, PASAC2, PASAC3, ....PASAC15) were synthesized by radicalic polymerization. These new organic compounds have anticorrosive and antiscall properties and for this reason, were used for cooling water systems protection. The corrosion medium was industrial cooling water type S and SC (S1, S2 and S3) and material-the working electrode was brass, OL 37, OLC 45 and copper. The behaviour of polymers was alike and has the same interpretation. Therefore is no question of plagiarism, the papers are different. The Section with the "Abstract", "Introduction", Experimental", "Results and Discussions" and "Conclusions" - all the required changes have been made.</p> <p>All the spelling mistakes have been corrected<br/>All the spelling mistakes have been corrected.<br/>All the spelling mistakes have been corrected<br/>The abbreviation is PASAC11, PASAC13 and PASAC1</p> <p>The section with the "Abstract", "Introduction", Experimental", "Results and Discussions" and "Conclusions" - all the required changes have been made.</p> <p>All the required changes have been made.</p> |



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|  | <p>3- 6. The unit of <math>\Delta G_{ads}</math> is not correct. Correct it to <math>\text{kJ}\cdot\text{mol}^{-1}</math><br/> *Tables 3-5, unit of both <math>b_a</math> and <math>b_c</math> is not correct it to <math>\text{mVdec}^{-1}</math>.<br/> 4-Unit of <math>R_p</math> is not correct in Tables 3-5, change it to <math>\text{k}\Omega\text{cm}^{-2}</math>.<br/> 5-Where is Langmuir plot of PASAC1.<br/> 6- All units in the whole manuscript must be revised and corrected.<br/> 7- Why you use S1 to describe the medium. You use only this medium, so you need not to give it an abbreviation, please omit and make necessary changes.<br/> 8- Figure 14(f) what is PASAC-10????????<br/> 9- Fig. 5, please add the linearity coefficient <math>r^2</math>.<br/> 10- Authors speak about new polymers they prepare; What are these polymers?<br/> What is condition of preparations?<br/> Where are methods of characterizations of these polymers? As ir, UV-vis., <math>^1\text{HNMR}</math>,.....etc.<br/> What are the values of molecular Weights of these polymers? Where are the suggested Schemes of preparation? ....etc.</p> <p>a lot of data must be added.</p> <p>11- it seems from data in Tables and Figs. That, all Inhibitors you use have an optimum inhibition effect at 100ppm, 100ppm and 50ppm for PASAC (11,13 and 1) respectively so you need to study this behaviour up to this limit in more detail .<br/> 12-Data of temperature effect is needed.<br/> 13- Fix the unit of C(concentration) in both Tables and Figures.<br/> 14-In table 6 , PASAC 13 is mentioned to be physical and chemical adsorptions? But <math>\Delta G_{ads}</math> is <math>-22.051\text{ kJ/mol}</math>. It is</p> | <p>All the required changes have been made<br/> All the required changes have been made<br/> All the required changes have been made<br/> All the required changes have been made.<br/> The plot for PSAC 1 is in Figure 5.<br/> All the required changes have been made<br/> Also, because I've used three types of cooling water systems, I've chosen the abbreviation of type S (<math>S_1, S_2, S_3\dots</math>).</p> <p>All the required changes have been made.<br/> All the required changes have been made<br/> Obtaining and characterizing of this new organic polymers "PASAC-1, PASAC 11 and PASAC13" are subject of a patent, for this reason, in this paper it was studied only the inhibitory action of this new organic polymers (PASAC-1, PASAC 11 and PASAC13). The composition of this new organic polymer is presented in section "Experimental".</p> <p>In this study, we are interested of this concentration range (20ppm, 50ppm, 100ppm, 250ppm, 500ppm and 800ppm).</p> <p>All the required changes have been made.<br/> Now, in this paper the study was only at <math>25^\circ\text{C}</math><br/> All the required changes have been made</p> <p>Type of adsorption for PASAC 13 is physical</p> |
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|                                         | mainly physical adsorption as you mentioned in text lines 223-227. correct it.<br>15- What is the type of electrodes used it is brass or carbon steel???? | adsorption.<br>All the required changes have been made.<br>The studied material (electrode) was the brass. |
| <b><u>Minor</u></b> REVISION comments   |                                                                                                                                                           |                                                                                                            |
| <b><u>Optional/General</u></b> comments |                                                                                                                                                           |                                                                                                            |