

## Review Form 1.6

Journal Name:	<a href="#">Asian Journal of Applied Chemistry Research</a>
Manuscript Number:	Ms_AJACR_83289
Title of the Manuscript:	Comparative Study of Locally Produced Activated Carbon from Carica Papaya Seeds and Commercial Activated Carbon and their Adsorption Isotherms on Methylene Blue
Type of the Article	Original Research Paper

### 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:

(<https://www.journalajacr.com/index.php/AJACR/editorial-policy> )

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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)
<b>Compulsory</b> REVISION comments	<p><b>Summary:</b> Although, the novelty of the study is not clear, but in general, this research paper is very interesting in the field of chemistry and environmental protection. Basically, study has been done to produce activated carbon from carica papaya seeds for adsorptive removal of methylene blue and its comparative to commercial activated carbon. The physicochemical characteristics, iodine number and adsorption isotherms of prepared activated carbon were compared with those of commercial AC.</p> <p><b>Methodology:</b> The article is written at a good technical level and the structure of the paper is well established having adequate basic sections and subheadings (abstract, introduction, materials and method, results and discussion, conclusion, and finally list of references.</p> <p><b>Comments:</b></p> <ol style="list-style-type: none"> <li>Keywords should be in alphabetical order.</li> <li>It is essential that the study innovation in the "Introduction" section be further explained. What is the benefit of this work over previous studies?</li> <li>No techniques were applied for identification of adsorbent such as FTIR, SEM. In my opinion, such techniques are very important for this study. So, it would be more interesting to include at least the FTIR of adsorbent before and after adsorption study of dye.</li> <li>Information about used commercial activated carbon is necessary. So, could be added in the "materials" section.</li> <li>How was prepared the working solution of different concentrations of methylene blue (means Stock Solution).</li> <li>It should be discussed the results of isotherm studies in "adsorption isotherm studies" part.</li> <li>Particle size of adsorbent used in the study should be determined.</li> <li>In Equation (6) <math>V</math> = volume of solution (L), = mass of adsorbent (g). please check and add the unit of volume and mass.</li> <li>A valid reference must be provided for all Equations have been used in the study.</li> <li>In the abstract should indicate independent parameters as well as their range. In addition, what is the adsorption capacity of the prepared and commercial activated carbon to adsorption of methylene blue?</li> <li>It is necessary to compare the results of the present study with the results of more similar studies.</li> <li>In the discussion of the results section, more references are necessary.</li> <li>The "Conclusion" section needs to be rewritten. It is necessary that such section be written in accordance with the main goal of this study and the results obtained.</li> </ol> <p><b>Reviewer decision:</b> According to the above comments, interested data have been presented, but the paper requires major changes, and then could be published by Asian Journal of Applied Chemistry Research.</p>	<ol style="list-style-type: none"> <li>Keywords are now in alphabetical order</li> <li>This has been explained on the last paragraph of the introduction</li> <li>Scanning Electron Microscopy (SEM) technique analysis and result have been added.</li> <li>Information about the used commercial activated carbon has been added under materials and methods</li> <li>The preparation of the methylene blue of different concentrations were highlighted in the adsorption study. Details were avoided.</li> <li>The results of the isotherm has been discussed.</li> <li>the particles size of the produced adsorbent has now been reported under preparation of the activated carbon</li> <li>The units of both volume and mass have been added.</li> <li>Valid references have been provided in all the equations.</li> <li>The adsorption capacities of both the commercial and produced activated carbon have been added in the abstract.</li> <li>Table 3 presents literature results for similar work carried out and compared with the present study.</li> <li>appropriate references as needed have been added.</li> <li>The conclusion has been edited.</li> </ol>
<b>Minor</b> REVISION comments		
<b>Optional/General</b> comments		

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PART 2:

	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)
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	