

Review Form 1.7

Journal Name:	Journal of Advances in Biology & Biotechnology
Manuscript Number:	Original Manuscript_JABB_117614
Title of the Manuscript:	Nano biochar: Properties, Preparation, Key features and its Impact on Soil and Crop Ecosystem
Type of the Article	

Review Form 1.7

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)
<p>Compulsory REVISION comments</p> <p>1. Is the manuscript important for scientific community? (Please write few sentences on this manuscript)</p> <p>2. Is the title of the article suitable? (If not please suggest an alternative title)</p> <p>3. Is the abstract of the article comprehensive?</p> <p>4. Are subsections and structure of the manuscript appropriate?</p> <p>5. Do you think the manuscript is scientifically correct?</p> <p>6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.</p> <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p>	<p>Yes, the concept of nano biochar is an innovative scientific concept that should be implemented for mitigating pollutants in an environmentally friendly way. Biochar has evolved as an alternative to the highly expensive commercial activated carbon in which the nano biochar would be an advanced modification of biochar for better removal of pollutants. The idea of the author in researching the topic is appreciated but refining the manuscript is essential for a full-fledged review article. The addition of important points to the current manuscript is crucially required.</p> <p>Title of the manuscript is suitable for the manuscript.</p> <p>In the abstract, specific characteristics of nano biochar should be added rather than mentioning about usual biochar. The abstract speaks more about the biochar in general but it should be focused on the role of nano biochar.</p> <p>The structure of the manuscript should be revised. Author should include references for important points and add more subtopics like</p> <ol style="list-style-type: none"> 1. Economic aspects of nanobiochar production. 2. Comparison of nanobiochar with usual biochar and advantages of preferring nanobiochar. 3. Advantages of using nanobiochar in soil over other organic fertilizers in soil. 4. Disadvantages of nanobiochar. <p>The manuscript is scientifically correct but should focus more on the particular characteristics of the nano biochar and should also provide justifications for the points mentioned.</p> <p>No, the references are not sufficient. The author should focus more on references.</p> <ul style="list-style-type: none"> ❖ In the second section entitled, overview of nanobiochar, the author have written a line, "Nano biochar was produced from pine wood biochar through a process involving a planetary ball mill". So the author should answer here to the question, ' Why the nanobiochar can be prepared from pinewood and not from other biomass' and the author should provide references for this. ❖ Author should include references for the section KEY FEATURES OF NANO BIOCHAR, since no references has been included. ❖ In the section 8 (INFLUENCE OF NANO BIOCHAR ON THE PHYSICAL PROPERTIES OF SOIL), author should add reference for the line "Research indicates that the density of biochar ranges from 0.09 to 0.5 grams per cubic centimeter, depending on the raw material used. This density is considerably lower than that of soil". ❖ In the section 10 (10. ROLE OF BIOCHAR AS PLANT DISEASE CONTROL AGENT), author have written a line, " However, research on the effects of biochar on plant diseases reveals that while lower concentrations ($\leq 1\%$) of biochar often lead to a reduction in some diseases, higher concentrations ($> 3\%$) are largely ineffective or may even exacerbate plant diseases [44] ". Author should explain why using higher concentrations is largely ineffective and include more references for this subtopic. 	

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Minor REVISION comments 1. Is language/English quality of the article suitable for scholarly communications?	<p>The language can be improvised especially in the introduction and preparation steps section.</p> <p>The introduction does not appear in a proper flow and should be refined properly by modifying the sentences in an orderly manner. In the introduction part, the author has mentioned only the role of biochar in greenhouse gas emissions, CO2 emissions and sequestration, and soil organic carbon. It should be refined by adding brief points on the overall beneficial aspects of the nanobiochar.</p> <p>Under the section, Steps involved in nano biochar production, 5th point is written as carbonization. Carbonization is an alternative production method for biochar which can be employed instead of pyrolysis. So carbonization and Pyrolysis should be combined into a single paragraph and not as separate steps</p>	
Optional/General comments	<p>The author can include any diagrammatic representation of nanobiochar in comparison with the normal biochar in the view of structural aspects.</p> <p>Author should check for text alignment and grammatical errors.</p>	

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>	

Reviewer Details:

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