

Review Form 1.7

Journal Name:	Journal of Advances in Biology & Biotechnology
Manuscript Number:	Ms_JABB_99389
Title of the Manuscript:	Phytochemical, Antioxidant and Antimicrobial Potentials of Azadirachta indica Leaf Extract using Bacteria Isolated from Polluted Water as Test Organisms
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:

(<https://journaljabb.com/index.php/JABB/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)
<p>Compulsory REVISION comments</p> <ol style="list-style-type: none"> 1. Is the manuscript important for scientific community? (Please write few sentences on this manuscript) 2. Is the title of the article suitable? (If not please suggest an alternative title) 3. Is the abstract of the article comprehensive? 4. Are subsections and structure of the manuscript appropriate? 5. Do you think the manuscript is scientifically correct? 6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form. <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p>	<ol style="list-style-type: none"> 1. Yes. This paper showed an important range of scientific information about the <i>Azadiractha indica</i>. This theme is scientifically relevant because opens a new window for the cure of different microbial diseases, which the treatment need to be changing very often due to the quick ability of mutation of the microorganisms. Furthermore, natural product research is the best option to identify compounds to be used as a model for new drugs. 2. The title is suitable for the content. However, my concern is about the term "Phytochemical", once the methodology to identify the chemical compounds is not clear. There is no information about the GC-MS library used for phytochemical identification nor how the substances were confirmed. 3. The abstract is comprehensive. However, I suggest describing the four solvents used to prepare the extracts. Also, include information about which extract was most active for each biological activity tested, and which one showed the highest phytol content. 4. Yes, the subsections and structure are appropriate. However, I suggest joining items 2.2 and 2.3 of the methodology in a single topic called "Plant Material". Besides, in 2.3 topic (Identification of Plant Sample) is mandatory and polite the citation the name of the Botanist who identified the plant. 5. Yes, this manuscript follows scientific criteria and highlights important issues in the natural products area. 6. The references are not recent enough. I believe the paper could be more affluent using more recent papers as a bibliography. Of the total of 36 references, there is just 1 from 2023, 1 from 2022 and 2 from 2020. The others 32 papers were published before 2015. <p>Suggestions / Comments:</p> <ul style="list-style-type: none"> - Mention in the abstract all four extracts and which one was more effective against each bacteria tested. - What does it mean that little sentence right below the keywords? It does not make sense. - Write in full the meaning of the abbreviations ABTS and DPPH. - Pag. 2 L.1: use "this tree" instead of "this plant". First of all because it is a tree, and second to not be repetitive with the following sentence. - Join items 2.2 and 2.3 and name it "Plant Material". - Mention the name of the Botanist who identify the plant material. - item 2.5.1- mention the year of the reference cited (Brand-Williams et al.). - item 2.6 - The technique used for phytochemical screening should be cited (TLC? HPLC? GC/MS?). - pag.4 (last line) - Correct the term that is incomplete "cardiac glycosides" and keep this correction for the text. - pag.5 L.2 - Replace the word "gave" for "showed". - WARNING: The right name of the bacteria is <i>Stenotrophomonas</i>, which should be carefully reviewed in all text. - About the Graphics: <ul style="list-style-type: none"> - The bacterial genera should be abbreviated in all graphics. - The Y axis does not correspond to the amount of extract but to the MIC for each extract. - Do not use internal titles in the graphs, just describe them in the titles of the figures. - Tab.1 - Standardize the chemical class name as "Cardiac glycoside". - pag.9 L.1 - <i>A. indica</i> (font in italic). 	

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	<p>- I suggest improving the text about the importance of the phytol. See reference (Sangeetha & Sekar, 2021).</p> <p>- Table 3 and Table 4 - Why did you use the word "<u>probable</u>"? If there is no certainty about the identification of all substances, then the phytochemical study shouldn't be in the paper. How did you do to identify the chemical compounds? If all that substances were identified by the GC-Mass spectrum library, then the name and year of this library should be described in the methodology.</p> <p>- pag.10 L.3 - "In this study, the presence of various medically important phytochemicals in <i>A. indica</i> was revealed." How can you make this statement if the table with the identification of the substances says "PROBABLE"?</p> <p>- pag.10 L.9/10 - Where is the reference of the information: "Tannin is known..."?</p>	
Minor REVISION comments		
1. Is language/English quality of the article suitable for scholarly communications?	Yes. Small changes can be done.	
Optional/General comments	<p>Is mandatory that the authors make sure about the identification of the chemical compounds, to do so the technique used for phytochemical screening should be described, as well as the methodology performed to identify those phytochemicals (item 2.6 Qualitative Phytochemical Screening of Plant Extract).</p> <p>However, a major revision should be done on the structure, scientific names, graphics, tables and references.</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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