

Review Form 3

Journal Name:	International Journal of Environment and Climate Change
Manuscript Number:	Ms_IJECC_124164
Title of the Manuscript:	Effect of Ultrasonication on Growth of Chlorella sp. and Determination of Nitrate and Phosphorus Concentration in Culture Supernatant
Type of the Article	

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PART 1: Review Comments

Compulsory REVISION comments	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
<p>Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.</p>	<p>This manuscript offers significant value to the scientific community by exploring the impact of ultrasonication on the growth of <i>Chlorella</i> sp. and its implications for biomass productivity and nutrient consumption. This research fills a gap by optimizing the ultrasonication duration for live microalgal cultures, contributing to a deeper understanding of microalgae cultivation, nutrient uptake, and biomass production. These findings could help in biofuel production and other biotechnological applications, such as biorefineries. I like the manuscript because it offers a detailed approach to optimizing a physical treatment that can be used to enhance algal productivity, a crucial area for renewable energy and environmental sustainability.</p>	
<p>Is the title of the article suitable? (If not please suggest an alternative title)</p>	<p>The current title, "Effect of Ultrasonication on Growth of <i>Chlorella</i> sp. and Determination of Nitrate and Phosphorus Concentration in Culture Supernatant," is generally suitable. However, it can be refined to better reflect the optimization aspect and the focus on both biomass and nutrient consumption. I suggest: "Optimization of Ultrasonication for <i>Chlorella</i> sp. Growth: Impacts on Biomass Productivity and Nutrient Utilization."</p>	
<p>Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.</p>	<p>The abstract is mostly comprehensive, but some areas could be clarified. It would benefit from a more precise explanation of the significance of the findings. For example, the term "economically important biomass and pigments" could be further detailed in terms of specific applications (e.g., biofuels, nutraceuticals). Additionally, it would help to briefly mention the importance of statistical reliability, which is only hinted at in the methodology section.</p>	
<p>Are subsections and structure of the manuscript appropriate?</p>	<p>The manuscript follows a logical structure with appropriate subsections. It clearly outlines the aims, methodology, results, and conclusions, making it easy to follow the progression of the research.</p>	
<p>Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.</p>	<p>The manuscript is scientifically sound and robust. The authors provide a well-designed experimental setup with appropriate control and treatment groups, ensuring the reliability of the results. The statistical significance of the findings is well presented, and the data is consistent with the stated objectives. The methodology is clear. The results align with established theories about the effects of physical stressors on microalgae, particularly in the context of nutrient uptake and biomass accumulation.</p>	
<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</p>	<p>The references cited in the manuscript are relevant, but a few are older than 5-10 years. To ensure the manuscript reflects the latest advances in the field, more recent studies could be cited</p>	
<p>Minor REVISION comments</p> <p>Is the language/English quality of the article suitable for scholarly communications?</p>	<p>Inconsistent phrasing in some sections, such as "biomass biomass productivity chlorophyll and macronutrients," should be revised for clarity. Some numerical results in the text, such as the biomass concentration increases, could be better summarized in tables or figures to improve readability. The language is mostly appropriate for scholarly communication but requires some minor revisions for clarity and flow. There are instances of awkward phrasing, such as "biomass biomass productivity," and some sentences could benefit from smoother transitions.</p>	
<p>Optional/General comments</p>	<p>The manuscript is scientifically robust and presents novel insights into the optimization of ultrasonication for enhancing the growth and productivity of <i>Chlorella</i> sp. Minor revisions are needed for clarity, language quality, and to improve the presentation of results. With these improvements, the manuscript would be an excellent contribution to the field</p>	

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PART 2:

	Reviewer's comment	Author's comment <i>(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)</i>
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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