

Review Form 3

Journal Name:	Journal of Geography, Environment and Earth Science International
Manuscript Number:	Ms_JGEESI_130752
Title of the Manuscript:	Advanced Strategies for Mitigating Water Contamination through Integrated Chemical and Ecological Solutions
Type of the Article	Review Article

General guidelines for the 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 guidelines for the Peer Review process, reviewers are requested to visit this link:

<https://r1.reviewerhub.org/general-editorial-policy/>

Important Policies Regarding Peer Review

Peer review Comments Approval Policy: <https://r1.reviewerhub.org/peer-review-comments-approval-policy/>
Benefits for Reviewers: <https://r1.reviewerhub.org/benefits-for-reviewers>

PART 1: 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>
Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.	This paper makes a significant contribution to the scientific community as it offers insights into an integrated approach to addressing the complex challenges of water pollution. By combining chemical and ecological solutions, this study not only broadens the understanding of the effectiveness of water treatment strategies but also provides a foundation for the development of sustainable technologies. These findings are relevant to support global efforts to protect water resources and public health, especially amidst the increasing threat of environmental pollution. Furthermore, this study opens up opportunities for further research to improve the efficiency, scalability, and applicability of these technologies in various geographic and economic contexts.	Satisfactory.
Is the title of the article suitable? (If not please suggest an alternative title)	<p>The title provided is descriptive enough and reflects the content of the article, but it could be simplified or clarified to make it more interesting and focused. Here are some alternative titles to consider:</p> <p>"Integrated Chemical and Ecological Strategies for Advanced Water Contamination Mitigation"</p> <p>Retains the essential elements, but rephrases them to be more concise.</p> <p>"Innovative Approaches to Water Pollution Mitigation: Combining Chemical and Ecological Solutions"</p> <p>Emphasizes innovation and combined solutions.</p> <p>"Sustainable Solutions for Water Contamination: Integrating Chemical and Ecological Methods"</p> <p>Highlights sustainability as an added value.</p> <p>"Towards Cleaner Water: Integrated Chemical and Ecological Strategies for Contamination Mitigation"</p> <p>Uses a more engaging and dynamic style.</p> <p>"Mitigating Water Pollution through Synergistic Chemical and Ecological Approaches"</p> <p>Emphasizes the synergy between the two approaches.</p>	Thank you for your feedback. This title have now been adopted as suggested: "Mitigating Water Pollution through Synergistic Chemical and Ecological Approaches."

Review Form 3

<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 clear in conveying the purpose, study design, methodology, results, and conclusions. However, there are a few sentences that are too long and complex, making it difficult for readers to grasp the main points quickly.</p> <p>The use of terms such as "integrated chemical and ecological solutions" is good, but should be explained more concisely at the beginning so that lay readers can understand the context from the start.</p> <p>Structure:</p> <p>The abstract is structured according to scientific standards, consisting of purpose, study design, methodology, results, and conclusions. However, the results of the study could be summarized more concisely to reduce redundancy.</p> <p>Phrases such as "empirical evidence from the reviewed literature suggests" could be replaced with more direct sentences, such as "The results of the study suggest".</p> <p>The terms "advanced oxidation process" and "advanced oxidation process" are used interchangeably. This can cause confusion. It is better to use one consistent term.</p> <p>The mention of "phytoremediation" as part of the ecological solution is clear, but additional details such as its mechanism would add context.</p> <p>The abstract contains too much detail, such as "12 relevant studies" or "various regions such as the US and other industrialized countries". Details like these should be simplified unless they are absolutely crucial to the conclusion.</p> <p>Replace long sentences with simpler ones, for example:</p> <p>Before sentence: "Empirical evidence from the reviewed literature shows the efficacy and limitations of the integrated strategy in various environmental perspectives."</p> <p>After: "The literature shows the efficacy and limitations of the integrated strategy in various environmental perspectives."</p>	<p>All observations raised have been carefully addressed, and necessary revisions have been made in the manuscript.</p>
<p>Is the manuscript scientifically, correct? Please write here.</p>	<p>The manuscript appears to be scientifically sound and robust in its overall framework, methodology, and conclusions. Integration of chemical and ecological solutions for water pollution mitigation is a well-established and relevant approach, and the abstract highlights key aspects such as the use of advanced oxidation processes, nanomaterials, and ecological strategies such as phytoremediation and constructed wetlands. The following points reinforce the scientific rigor:</p> <p>Utilization of Empirical Evidence: The manuscript relies on empirical evidence from studies conducted between 2019 and 2024, indicating that the review is up-to-date and based on recent advances.</p> <p>Comprehensive Methodology: The manuscript uses a systematic literature review across leading databases (e.g., Google Scholar, PubMed, Scopus, and Web of Science), ensuring a robust and diverse data set.</p> <p>Balanced Analysis: The abstract acknowledges the efficacy and limitations of the integrated approach, indicating a balanced and objective evaluation.</p> <p>Practical Relevance: Focus on scalability, sustainability, and the need for further optimization in line with real-world challenges in water management. However, to fully confirm its scientific rigor, the following aspects should be reviewed in detail:</p> <p>Is the cited research from a high-impact, peer-reviewed journal?</p> <p>Validation of the described chemical processes and ecological strategies, including mechanisms and outcomes?</p> <p>Is the claimed effectiveness of the integration (e.g., "significant improvement in water quality") supported by quantitative data or case studies?</p>	<p>All cited research comes from high-impact, peer-reviewed journals. The chemical processes and ecological strategies discussed are supported by empirical evidence, with mechanisms and outcomes validated in recent studies.</p>
<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</p>		

Review Form 3

Is the language/English quality of the article suitable for scholarly communications?		
Optional/General comments		

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?	<u>(If yes, Kindly please write down the ethical issues here in details)</u>	