

### Review Form 3

Journal Name:	<a href="#">Asian Journal of Chemical Sciences</a>
Manuscript Number:	Ms_AJOCS_129247
Title of the Manuscript:	Photolytic Degradation of Methylene Blue: Influence of pH, H <sub>2</sub> O <sub>2</sub> , NaI, and NaCl on Wastewater Treatment Efficiency
Type of the Article	Original Research Article

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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:

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### 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 study, by evaluating the impact of various parameters on the photocatalytic degradation of methylene blue, contributes to the existing knowledge in the field of colored wastewater treatment technologies. The obtained results can serve as a basis for designing more sustainable and efficient treatment systems on an industrial scale. Furthermore, the detailed information provided on reaction kinetics and chemical mechanisms enables the development of innovative methods for the removal of resistant organic pollutants. By addressing the environmental challenges associated with dyeing industries, this research will positively influence the improvement of water resource quality.	
Is the title of the article suitable? (If not please suggest an alternative title)	<b>NO:</b> <b>Photolytic Degradation of Methylene Blue: The Effect of Various Factors on Wastewater Treatment Efficiency</b>	
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.	<b>It is not comprehensive.</b> <b>Unnecessary sentences should be removed. Include one sentence about the toxic effects of methylene blue on aquatic organisms, plants, or humans. Alternatively, mention the behavior of methylene blue in soil, as it has been noted that the wastewater is discharged untreated. Additionally, there should be a concluding sentence stating which group this study is ultimately suitable for or how it can be useful.</b>	
Is the manuscript scientifically, correct? Please write here.	<b>Needs changes.</b> <b>In the introduction, the effects of methylene blue itself are very low and should be stated more (on aquatic animals or plants or humans or entry into the food chain or behavior when entering the soil).</b> <b>During the experiments, it would have been better to first examine the pH and time, and then the concentration of methylene blue (in Figure 3, on what basis were pH 6 and time 4h chosen? Have you optimized it?)</b> <b>The method is very brief. Also, is the selected test method a registered standard method for measuring methylene blue? If not, on what basis was it chosen?</b> <b>The pH value is not clear in Figure 5.</b> <b>Why is Figure 6-B not there but is mentioned in the caption? This is a significant error. Also, a figure similar to Figure 5 should be drawn for NaI.</b> <b>What is the final result according to Figure 7? Which one is recommended? I understand that the sodium chloride plus sodium iodide method (blue line) is better because it both increases the reaction speed and shortens the time.</b> <b>Why are the results and graphs or kinetic model calculations not in the results section but are mentioned in the method? A separate section should be dedicated to it.</b> <b>Finally, the results need to be checked once on a real wastewater sample because we never have a simulated wastewater under our complete control and in reality other factors and pollutants are also effective.</b> <b>In the conclusion, you should not mention so many numbers, and explain the concept and inference.</b>	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	<b>Its good.</b>	
Is the language/English quality of the article suitable for scholarly communications?	<b>Its good.</b>	
<b>Optional/General</b> comments	<b>This article should be revised. It is also better to consider at least simultaneous removal of two dyes because textile wastewater does not contain only one dye.</b>	

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#### **PART 2:**

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

#### **Reviewer Details:**

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