

## Review Form 1.7

Journal Name:	<a href="#">Asian Journal of Physical and Chemical Sciences</a>
Manuscript Number:	Ms_AJOPACS_102704
Title of the Manuscript:	EFFECT OF ADDITIVES ON DECOMPOSITION OF METHYL ORANGE AND CONGO RED DYES FOUND IN INDUSTRIAL WASTEWATER
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:

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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><b>Compulsory</b> REVISION comments</p> <p>1. <b>Is the manuscript important for scientific community?</b> (Please write few sentences on this manuscript)</p> <p>2. <b>Is the title of the article suitable?</b> (If not please suggest an alternative title)</p> <p>3. <b>Is the abstract of the article comprehensive?</b></p> <p>4. <b>Are subsections and structure of the manuscript appropriate?</b></p> <p>5. <b>Do you think the manuscript is scientifically correct?</b></p> <p>6. <b>Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.</b></p> <p><b><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></b></p>	<p>1. The effect of additives is not analyzed in depth. Further more, the probable interactions of the various components present in industrial waste water are not considered.</p> <p>2. No, the study was carried out without considering industrial wastewater samples: Effect of additives in the degradation process of azo-dyes by Microwave irradiation.</p> <p>3. The objective of the study is not specific: In this article, the author has reported the degradation of two azo dyes, named methyl orange (MO) and congo red (CR), in the presence of inorganic salts, some additives like charcoal, H<sub>2</sub>O<sub>2</sub>, CCl<sub>4</sub>, <i>tert</i>-butyl alcohol (TBA), glucose and sucrose. A comparative study was conducted to find out the relative degradation rate enhanced by various additives. <i>According to the previous paragraph, define the objective of the work, which could be: Effect of additives on the composition of azo dyes present in industrial wastewater</i></p> <p>For both of the dyes, it was found that charcoal was the most effective additive and significantly enhanced the degradation rate mainly due to its high adsorption capability. <i>Consider the adsorption mechanism of activated carbon. It is suggested to review the DOI: <a href="https://doi.org/10.1038/s41598-021-88084-z">https://doi.org/10.1038/s41598-021-88084-z</a></i></p> <p>4. INTRODUCTION As these days have high-cost effectiveness and better properties, <i>Specify which properties it refers to</i></p> <p>MATERIAL AND METHODS</p> <p>2.1 Preparation of Solutions Dyestuff in water can adsorb and reflect light, thereby reducing the natural transparency of water, and can consume a lot of dissolved oxygen in water, causing water hypoxia and affecting aquatic life and microbial growth, and so, in turn, undermining the aquatic ecosystem [48]. Dye effluent normally contains about 10 to 50 mg/L, but even at 1 mg/L, dyes are easily noticeable and thus may be perceived as being contaminants, and unacceptable [49]. As a result, the treatment of dye effluent has been investigated extensively in modern times [50]. <i>The previous paragraph does not correspond to the preparation of solutions</i></p> <p>2.3 Microwave Irradiation Process The irradiation process was carried out in a microwave-resistant beaker <i>Specify technical data of the beaker used, e.g. thermal conductivity</i></p> <p>The extracted solutions were diluted with 3 times the volume of distilled water before the measurement of the absorbance <i>Specify at which wavelength the obtained samples were read</i></p> <p><i>Check misspellings, for example: Figure 2: Cuvate Cuvette</i></p> <p>3.1.1, and 3.1.2 <i>Standardize reference citations</i></p> <p>RESULTS AND DISCUSSION <i>The mechanisms that participate in the degradation process of the dyes are not studied in depth.</i></p>	

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	<b>5.</b> Yes, but it does not consider variables that can directly participate in the results, such as the heterogeneity of by-products present in industrial wastewater. <b>6.</b> Yes	
<b>Minor</b> REVISION comments <b>1. Is language/English quality of the article suitable for scholarly communications?</b>	Yes	
<b>Optional/General</b> comments	Consider the various mechanisms of action involved for each additive. Corroborate the results obtained with samples generated in different industrial processes	

**PART 2:**

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