

Review Form 1.6

Journal Name:	International Research Journal of Pure and Applied Chemistry
Manuscript Number:	Ms_IRJPAC_91615
Title of the Manuscript:	REMOVAL OF METHYLENE BLUE FROM INDUSTRIAL EFFLUENTS USING CORNCOB ACTIVATED CARBON
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://www.journalirpac.com/index.php/IRJPAC/editorial-policy>)

Review Form 1.6

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)
Compulsory REVISION comments	<p>Clarification of some words or phrases are needed to avoid misunderstanding. (At the manuscript, remarks in red colour are related to the main points regarded to the need of clarifying). Some remarks are made below:</p> <p>1- Does "data available on methylene blue removal" mean "data available on literature with methylene blue removal approach"?</p> <p>2- Does "efficiency of corncob activated" mean "efficiency with corncob activated carbon"?</p> <p>3- What did the author(s) mean with "methylene", instead of "methylene blue"?</p> <p>4- "Less expensive" than what?</p> <p>5- How some studies are limited? Or there are few studies?</p> <p>6- Activated carbon is not mentioned at the phrase with objectives. Why?</p> <p>7- At the manuscript, the author needs to explicit which "equilibrium" is.</p> <p>8- Which criteria was used to determine the "best" activated carbon?</p> <p>9- There are many missing details at Materials and Methods section. After inserting the details, I suggest the division by topics, for better understanding.</p> <p>10- Why did alum sludge was used? And Rhodamine B?</p> <p>11- Which were the parameters used for contact time effect? And for the effect of activated carbon dosage?</p> <p>12- I do not identify SEM images onto the manuscript.</p> <p>13- Fig.7 is not visually clear, there are too much information in a little space.</p> <p>14- I could not identify results for the synthetic aqueous solution at table 3.</p>	<p>1. The sentence has been revised. Thank you</p> <p>2. The sentence has been revised. Thank you</p> <p>3. The sentence has been revised. Thank you</p> <p>4. The sentence has been revised. Thank you</p> <p>5. The sentence has been revised. Thank you.</p> <p>6. The objectives have been revised. Thank you</p> <p>7. The equilibrium concentration is the concentration after stirring at 45 min (the equilibrium time). Thank you</p> <p>8. The best activated-carbon was searched through the determination of a specific surface area. This study was done in our previous publication Kouassi et al (2022). "Simultaneous Removal of Copper and Lead from Industrial Effluents Using Corn Cob Activated Carbon" https://doi.org/10.1007/s42250-022-00432-2. Informations about the synthesis procedure have been added in section 2.2. Thank you</p> <p>9. Done, thank you.</p> <p>10. Correction has been done. Thank you</p> <p>11. The shaking time t and the mass m of activated carbon were used for contact time, and activated carbon effects, respectively.</p> <p>12. SEM image has been added in the manuscript. Thank you</p> <p>13. The figure has been revised</p> <p>14. The results for the synthetic aqueous solution have been added. Thank you</p>
Minor REVISION comments	<p>For best clarity of the text, substitution of some words or phrases may be needed to avoid misunderstanding. (At the manuscript, remarks in purple colour are related to the main points regarded to possible need of clarifying). Some remarks are made below:</p> <p>1- Does "the adsorption of methylene blue from aqueous solution and industrial effluents" mean "the adsorption of methylene blue from aqueous solution and from industrial effluents"?</p> <p>2- Does "adsorption capacities" mean "adsorption capacity values"?</p> <p>3- Does "The adsorption method was carried out" mean "The adsorption method has been carried out"?</p> <p>4- How chemical concentration may be determined by spectrometer is not clear.</p> <p>5- How the optimum values of initial concentration of methylene blue and "agitated" (agitation?) time were obtained?</p> <p>6- Did the author take into account the described in https://doi.org/10.1016/j.molliq.2016.11.058?</p> <p>7- Does the author mean "The percentage removal of methylene blue increased with the increase in mass of adsorbent"? And "the increase in the number of active sites"? And "when the mass of activated carbon was 0.4 g"?</p> <p>8- Text is sometimes repetitive.</p> <p>9- "Several parameters such as solution pH, point zero charge (pHpzc), surface functional groups, and surface characteristics of adsorbent" is not clear.</p> <p>10- How π-π interaction can be associated with a cationic/anionic species?</p> <p>11- What is the methylene blue adsorption capacity value onto activated carbon at basic pH?</p> <p>12- Why the maximum adsorption percentage is not mentioned at the conclusion?</p>	<p>1. Corrections have been done. Thank you</p> <p>2. Corrections have been done. Thank you</p> <p>3. Corrections have been done. Thank you</p> <p>4. Corrections have been done. The chemical concertation was determined by spectrophotometer HACH DR 6000</p> <p>5. The optimum values of initial concentration, and agitation time are 10 mg/L and 45 min, respectively.</p> <p>6. The study of Ghosal and Gupta (2016) focused on the thermodynamic study. Whereas, our study not investigated the effect of temperature on methylene blue adsorption.</p> <p>7. Corrections have been done.</p> <p>8. Corrections have been done.</p> <p>9. Corrections have been done.</p> <p>10. The π electrons present in the aromatic ring of activated carbon interact with π electrons in the benzenic ring of methylene blue by π-π interaction.</p> <p>11. The methylene blue adsorption percentage at basic pH 10.3 is 93.4 %</p> <p>12. The maximum adsorption percentage was added in the conclusion. Thank you</p>
Optional/General comments	The manuscript issue is very interesting; has great potential for publication. The quality of the manuscript is very good, unless the need for clarification. Then, a review of the text is mandatory.	

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?	(If yes. Kindly please write down the ethical issues here in details)	