Review Form 1.7

Journal Name:	**International Research Journal of Pure and Applied Chemistry**
Manuscript Number:	**Ms_IRJPAC_114366**
Title of the Manuscript:	**The potential of bentonite as a low-cost adsorbent for the removal of heavy metal ions from multicomponent aqueous systems of the galvanic industry**
Type of the Article	**Original Research Article**

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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)*
Compulsory REVISION comments **1. Is the manuscript important for scientific community?** (Please write few sentences on this manuscript) **2. Is the title of the article suitable?** (If not please suggest an alternative title) **3. Is the abstract of the article comprehensive?** **4. Are subsections and structure of the manuscript appropriate?** **5. Do you think the manuscript is scientifically correct?** **6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.** **(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)**	1. Authors investigated the heavy metal ions removal from galvanic wastewater using natural bentonite. Adsorbent was characterized and effect of various parameters on biosorption were determined. This study will be helpful to identify the application of bentonite in adsorption of heavy metals. 2. Yes 3. No, author should include all part of the study in the abstract in concise way. 4. Yes 5. Yes, Author should elaborate the methods involved the characterization of adsorbent. 6. Reference are sufficient and recent.	
Minor REVISION comments **1. Is language/English quality of the article suitable for scholarly communications?**	1. There are grammatical and spelling errors. Author should check the whole manuscript for the correctness.	
Optional/General comments	1. An English review is required in this manuscript. Punctuation through the text is weak, and also should be checked. **Abstract** 2. Highlight the scientific impact of work in the abstract. 3. Abstract should include effect of time and temperature; author have mentioned only effect of pH only. 4. Author should also include the highlight of study in abstract. **Introduction** 5. In recent years, zeolites, clays, activated carbon, orange peel, etc. have been used as potential adsorbents for the removal of heavy metal ions and above all, the application of galvanic wastewater removal can be found as a small research result [12,13]. Rewrite the sentence. **Materials and Methods** 6. The material examined in this work is natural bentonite originating from Šipovo, Bosnia and Herzegovina. Write complete address. 7. echangeable. Spelling error, check entire manuscript for correctness. 8. Write in detail Gravimetric Method, Standard ion exchange method with NH_4Cl, point of zero	

charge method.

9. Author mentioned in abstract that galvanic wastewater was treated in this study. But, synthetic solutions were used. Clarify it.

10. At what wavelength heavy metal concentrations were analysed in AAS.

Results and Discussion

11. "while the other easily exchangeable ions are exchanged in the following order: Ca < Mg < K." explain the reason for this.

12. while the presence of MgO, CaO and N_2O indicate that these are the main exchangeable cations in bentonite. N2O is not present.

13. average pore volume 32.052 Å. It should be diameter

14. In previous investigations, many different adsorbents were used, which had specific surface more than that mentioned here. Author should compare the results with other adsorbents.

15. The suspensions were mixed at 300 rpm. Mixing is not the appropriate word.

16. There is not much variation in adsorption capacity with respect to pH. How the author suggested the optimum pH as 5.

17. Author should mention that heavy metal solutions are individually treated and interaction effect of heavy metal were not studied.

18. Author should include the interactive effect of the metal on adsorption.

19. Author should clarify the meaning of "balance".

20. Unit is not consistent in the manuscript.

21. As can be seen in Figure 5., the maximum efficiency of removing Cu(II) ions was achieved at all temperatures, while for Cr(III) ions 99.99% and Ni(II) ions 100%, the maximum efficiency was achieved at 308° K. Only 0.01% difference in efficiency. Author should check the observations and clarify it.

22. For isotherm study, correlation coefficient is equal for Langmuir and Freundlich. Author could calculate the RMSE in this case (use the reference- https://doi.org/10.1080/00194506.2020.1795933)

23. Author could use the reference to enhance the quality of the paper:

https://doi.org/10.1016/j.hazadv.2023.100297
https://doi.org/10.2298/JSC191103015M
https://doi.org/10.1016/j.jics.2022.100469

24. Include the lack of fit in plots.

25. Author should test the adsorbent with industrial wastewater as mentioned in abstract.

Comment [sm1]: It should be diameter

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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)*	

Reviewer Details:

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