Review Form 1.7

Journal Name:	**Journal of Scientific Research and Reports**
Manuscript Number:	**Ms_JSRR_117605**
Title of the Manuscript:	**“Chemically modified Terminalia arjuna (Arjuna) bark for removal of lead ions synthetic wastewater”**
Type of the 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)**	**Yes it is** It's a bit long and could be more specific about the successful outcome. Suggested Title 1: Terminalia arjuna Bark Biosorbent for Efficient Lead Removal from Synthetic Wastewater (This title focuses on the efficiency and application) Suggested Title 2: Chemically Modified Arjuna Bark: A Promising Adsorbent for Lead in Synthetic Wastewater (This title emphasizes the promise of the new adsorbent) No it is not comprehensive and can be improved: While it mentions "chemical modification," it could be more specific about the chemicals used (hydrochloride and sodium hydroxide). Quantify the "great attention": Briefly mentioning a recent statistic or reference about the growing interest in plant-based adsorbents would strengthen the introduction. Results and Discussion: Combine sections 3.1 (FTIR) and 3.2 (FESEM and EDS) into a single section titled "Characterization" and focus on how the results support the adsorption process. Yes it is scientifically correct however there following can be improved on: Chemical modification details: While the manuscript mentions chemical modification with HCl and NaOH, it could benefit from specifying the exact concentrations and durations used. This would allow for better replication of the experiment. Kinetic model selection: The conclusion suggests chemisorption based on the pseudo-first-order model having a higher R-squared value. However, a more detailed explanation of why this indicates chemisorption over physisorption might be helpful. Mechanism discussion: While the manuscript mentions electrostatic interactions for physisorption, it could be strengthened by elaborating on the potential interactions between lead ions and the functional groups of the modified bark. **Yes**	
Minor REVISION comments **1. Is language/English quality of the article suitable for scholarly communications?**	Yes	

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Optional/Generalcomments	Accept with minor revision	

PART 2:

	Reviewer's comment Accept with minor revisions	**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)* No	

Reviewer Details:

Name:	**Timothy Imanobe Oliomogbe**
Department, University & Country	**Novena University, Nigeria**