Review Form 1.6

Journal Name:	**Chemical Science International Journal**
Manuscript Number:	**Ms_CSIJ_89110**
Title of the Manuscript:	**Magnetic iron oxide Fe3O4/α-Fe2O3 for Cadmium removal from aqueous solution**
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)*
Compulsory REVISION comments	**The general subject of this research work entitled** "Magnetic iron oxide Fe_3O_4/α-Fe_2O_3 for Cadmium removal from aqueous solution" is very interesting in the field of chemical technology and the environmental sciences and has valuable information. Good results were also presented in this study. However, to improve the quality of this research study, the following comments should be considered. After making the following major corrections, the manuscript will be acceptable. 1. The title can be changed for instance, Synthesis of Magnetic Iron Oxide Fe3O4/α-Fe2O3 for the Adsorptive Removal of Cadmium from Aqueous Solution.. 2. In abstract, techniques such as SEM and XRD which are used for the characterization of adsorbent could be should be addressed. 3. Keywords should be in alphabetical order. 4. On page 4 paragraph (3.1) in first line, the full word needs to be rewritten as **Figure** instead **Fig.** Also on page 3**,** the unit of equilibrium concentration *"C_e* " should be mg/L not (mg $^{-1}$). Please correct it. 5. The title of **"Fig 4:** The effect of contact time on the adsorption capacity of the magnetite and magnetite–hematite mixture, for cadmium (II), pH 6,3 and initial metal ion concentration of 10 mg/g". Please correct them to pH 6.3 and initial metal ion concentration of 10 mg/L 6. At the end of "Introduction" section, it is important that the work innovation be further explained. What is the benefit of this study over previous works? 7. The values (data) showed in introduction and Tables 1, 2, and 3 needs to be rewritten (for example, in table 3, the value 18,32 mg/g, should be 18.32 mg/g). 8. In my opinion, The effect of adsorbent mass on the rate of removal is very important factor. Therefore, it can be studied. 9. References 3 and 4 could be corrected like other referencess: [3] A. Bashir, L.A. Malik, S. Ahad, T. Manzoor, M.A. Bhat, G.N. Dar, A.H. Pandith, Removal of heavy metal ions from aqueous system by ion-exchange and biosorption methods, Environ. Chem. Lett. 2018 172. 17 (2018) 729–754. [4]T.S. Vo, M.M. Hossain, H.M. Jeong, K. Kim, Heavy metal removal applications using adsorptive membranes, Nano Converg. 2020 71. 7 (2020) 1–26. 10. The "Conclusion" section needs to be rewritten. It is necessary that such section be written in accordance with the main goal of this study and the results obtained. 11. The discussion section is poor and needs to be improved.	
Minor REVISION comments		
Optional/General comments		

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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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