

Review Form 1.6

Journal Name:	Chemical Science International Journal
Manuscript Number:	Ms_CSIJ_104906
Title of the Manuscript:	Modeling and Optimization of Simultaneous Removal of Ions (H₂PO₄⁻, NO₃⁻ and Cd²⁺) by Adsorption on Clay in Aqueous Solution by Using Response Surface Methodology
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.journalcjast.com/index.php/CJAST/editorial-policy>)

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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>Compulsory REVISION comments</p> <ol style="list-style-type: none"> 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. <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p>	<p>Reviewer Comments The followings should be carefully addressed in the revision to be published in this journal.</p> <ol style="list-style-type: none"> 1- The authors should be followed the instruction of the Results in Engineering all parts and sections in this manuscript. 2- Complete mathematic calculation model with all nomenclature missing. Please check the number of each section, equation, and chart. 3- The abstract needs more quantitative results. The abstract section is an important and powerful representation of the research. It is better that the results should be presented with the support of specified data. 4- The authors should indicate this technique to enhance system performance. Also, the author should add more references that discuss the effect of using this technique. It is recommended that the authors carry out wide analysis and comparison with the state-of-the-art studies. 5- Most tables and figures are needed improve the quality of all tables and figures. 6- Add references for all equations. 7- I would also expect to validate with two more experimental works available in the literature. 8- The literature review must be improved. Please highlight in the literature review the differences between previous papers and your paper. Please clearly indicate the knowledge gap and prove that it is a really not analyzed area of the field. Please indicate new approach / new methods in a comparison to the existing investigations (literature review should be extended by adding the below references). Analysis on flow structure and improvement of heat transfer in 3D circular tube with varying axial groove turbulator configurations. Investigation of Thermo-Hydraulics Flow and Augmentation of Heat Transfer in the Circular Pipe by Combined Using Corrugated Tube with Dimples and Fitted with Varying Tape Insert Configurations. Flow Field Structure, Characteristics of Thermo-Hydraulic and Heat Transfer Performance Analysis in a Three Dimensions Circular Tube with Different Ball Turbulators Configurations. Investigation of thermal flow structure and performance heat transfer in three-dimensional circular pipe using twisted tape based on Taguchi method analysis. A numerical study to investigate the effect of turbulators on thermal flow and heat performance of a 3D pipe. Thermal flow and heat performance analyses in circular pipe using different twisted tape parameters based on design of experiments. The effect of different twisted tape inserts configurations on fluid flow characteristics, pressure drop, thermo-hydraulic performance and heat transfer enhancement in the 3D circular tube. Characterization of internal thermohydraulic flow and heat transfer improvement in a three-dimensional circular corrugated tube surfaces based on numerical simulation and design of experiment. The influence of different twisted tape inserts configurations on thermo-hydraulic performance and enhancement of heat transfer in the 3D circular tube. Evaluation of thermal hydraulic flow and enhancement of heat performance in different 3D dimpled tube configurations according to design of experiment analysis. 9- Description of CFD analysis should be improved. More quantitative information about the grid selection (which method was used, how the mesh was created, how the inflation regions were chosen and designed, etc.), about the accuracy of turbulence models chosen for the given application, about the Y+ values and its meaning for the chosen model etc. 10- You need to add error analysis of your results and add the error bars in your graphs to indicate your accuracy measurements. 11- Improve work justification. 12- More quantitative conclusions should be presented. Please prepare additional comparisons, some percentage differences. There is a lack of quantitative conclusions which should contain main findings from the paper. 13- Present the mathematical equation of the boundary conditions and initial condition. 14- I would also suggest including in the conclusion section but also in several other places in the manuscript discussion and comparison with findings from other authors with similar published research work. 	

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	<p>15- It is recommendable to add below references in order to underline the connections of the manuscript with the aims and scope of the Journal. A numerical study to investigate the effect of turbulators on thermal flow and heat performance of a 3D pipe. Investigation of Thermo-Hydraulics Flow and Augmentation of Heat Transfer in the Circular Pipe by Combined Using Corrugated Tube with Dimples and Fitted with Varying Tape Flow felid and heat transfer enhancement investigations by using a combination of corrugated tubes with a twisted tape within 3D circular tube based on different dimple configurations. Investigation of flow pattern, thermohydraulic performance and heat transfer improvement in 3D corrugated circular pipe under varying structure configuration parameters with development different correlations. Investigation on effects of varying geometrical configurations on thermal hydraulics flow in a 3D corrugated pipe</p> <p>16- The conclusion section on lacks in summative conclusions. The main results academic contributions should be emphasized in this section. Moreover, are the results obtained in this paper really applicable in other similar researches?</p> <p>17- In the discussion development, it is very important to emphasize points of agreement or disagreement between results in this work and others cited in references part of manuscript.</p> <p>18- Authors should discuss limitations of the current study and possible improvements for future directions/research works.</p> <p>19- The nomenclature list is not complete. Please recheck parameters, variables and abbreviations appeared in the manuscript and append them to the nomenclature list. Authors are requested to check the reference format and correct some inconsistent formats.</p> <p>20- Finally, the author to read through the whole text and correct it to make it more reader-friendly.</p>	
<p>Minor REVISION comments</p> <p>1. Is language/English quality of the article suitable for scholarly communications?</p>		
<p>Optional/General comments</p>		

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)
<p>Are there ethical issues in this manuscript?</p>	<p><i>(If yes, Kindly please write down the ethical issues here in details)</i></p>	

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