



SDI Review Form 1.6

Journal Name:	Journal of Engineering Research and Reports
Manuscript Number:	Ms_JERR_43637
Title of the Manuscript:	Kinetic Study, Modelling and Optimization of Adsorption Processes for Removal of Crude Oil using Chitosan-Rice husk ash Composite from Crude Oil Contaminated Water
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:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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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	Introduction is shallow. Rather than just mentioning rice husk been used for adsorbent for oil? Why not focussing and describe how and why rice husk / chitosan components can be a potential good adsorbent for oil and what are their attractive features. Authors should use more references to build up the introduction. Introduction should be tailor in a way that will make your research valuable. Total of 10 ref for the whole manuscript is not good. Please state clearly the aim and objectives in the introduction. Also include in the introduction of what and why response surface methodology is used in this study. What are their advantages? section 2.1. Authors should briefly mention where the rice husk was obtained and how it was prepared, and where/how the chitosan was obtained. Authors should also declared and briefly mentioned reagents (brand and purity) and also how the adsorbate (crude oil) was obtained. Line 56. How was the mixture agitated? Orbital shaker? Magnetic stirrer? Where is the "3. Result and Discussion:"section? And why did authors not separate the result and discussion from the methodology section? Please rearrange the manuscript again and separate result and discussion from the methodology section Please include methodology or describe the parameters/setting used for Line 75. What does it mean by the model is significant? Not happening by chance? Explain in methodology what the number are indicating. What are the range of F-value that indicate significant and what indicate not significant. What are figure 1 and 2 telling us? How are these figures interpreted into those descriptive text in line 85-90. I cannot see the how the relationship. Please rewrite them in clearer way. Section "isotherm and kinetic studies". Take note that this is not a review paper. There is no need to include too much theory about isotherm and kinetic models. Keep them as brief as possible. And there is no need of the non-linear model of the isotherm. Just present the linear model will be sufficient. Include units for C_e, q_e, q, b on first use. i.e include the unit of b in line 122, not line 129 Line 119. Quote "Plotting C_e/q_e against c_e". This sentence is incomplete and lazy. Please look how it is written in published research paper and followed. Do the same for the rest. Line 154-156. Write these as a single sentence. Figure 3-5 are not needed and should be deleted as data are summarised in Table 3. Table 3. All three isotherm models (Langmuir, Freundlich and Temkin) are equally	



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	significant. We are not supposed to judge the models by tiny differences of the R2 because they are unreliable. OR. It could be due to the data. Which data did you use to produce the isotherm models? Table 4 are messy. Why use “slope”? What are slopes? Variables symbol are not properly superscripted and italicised (i.e. Co should be C_o). Why are there no descriptions of kinetics models and their linear equations. There are no scientific explanation and discussion about the kinetics section. What are “second order” model? All the isotherm and kinetics models are not cite correctly. Citation should be credited to the original work pseudo 2nd order Y.S. Ho, G. McKay. Sorption of dye from aqueous solution by peat, Chem. Eng. J., 70, (1998) 115-124. Langmuir Langmuir, I. (1916). The constitution and fundamental properties of solids and liquids. Journal of the American Chemical Society. 38, 2221-2295 Freundlich Freundlich, H. M. F. (1906). Over the adsorption in solution. Journal of Physical Chemistry. 57, 385-471 Tempkin Tempkin, M. I., & Pyzhev, V. (1940). Kinetics of ammonia synthesis on promoted iron catalyst. Acta Physiochimica USSR, 12,327–356. Line 190: P>F value of <0.0001. Do you mean “P value is more than F value of less than 0.0001”? Please write them clearly.	
Minor REVISION comments		
Optional/General comments	Introduction is lacking. The arrangement of this work is unorganised and messy, and lacking in scientific explanations in major sections. Result and discussion section need major improvements. Sentences seem lazy and hard to comprehend. There are a lot of efforts authors need to put in before this manuscript can be accepted. Look for a published paper and see how it is written and improve.	

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