

Review Form 1.6

Journal Name:	International Research Journal of Pure and Applied Chemistry
Manuscript Number:	Ms_IRJPAC_94185
Title of the Manuscript:	FORECASTING RATE OF BIOSTIMULATED BIOREMEDIATION USING BIODEGRADATION MODELS
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	<p>Required major revision.</p> <p>The manuscript "Forecasting Rate of Biostimulated Bioremediation Using Biodegradation Models" demonstrated the development of a model for the prediction of the rate of bioremediation using biostimulated biodegradation experiment on crude oil-polluted soil that can be used to monitor and forecast the rate of soil biodegradation. The aliphatic hydrocarbons were determined using Gas Chromatography as the only experimental procedure. Though the results of this manuscript are of importance in terms of statistical data, there are following major concerns:</p> <ol style="list-style-type: none"> 1. The manuscript requires major revision in different aspects, 2. The abstract must be concise and factual, and should state briefly the purpose of the research, the principal results and major conclusions. 3. The introduction portion should be rewritten addressing why this study was being carried out, and it must include adequate literature survey with recent studies in this field, 4. The manuscript is totally a theoretical model to predict biodegradation rates; the author must justify the practical significance of the model. 5. <u>Abstract</u>: "Samples were taken at an interval of about three months to monitor....". Why the time interval of three months was chosen? 6. All the results demonstrated in the manuscript (Tables and Figures) using only three data points. Is it enough for a statistical model to frame up? What the author(s) thinks? 7. How many times each of the experiments were carried out? The errors at each data point must be indicated by bars in the Figures. 8. Is the model suitable for all types of contaminants [such as PAH(s) etc.] present in crude oil-polluted soil. 9. Is the model applicable equally for all types of microorganisms? No specific microorganism is mentioned in this study. 10. What are nC17, nC18, Ph and Pr? Provide the meanings of the terms. 11. Huang et al. (2004) already reported the use of ratios such as $(nC17+nC18)/(Pr+Ph)$, 	

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	<p>so what is the importance of the same parameter to report in this manuscript?</p> <p>12. In the Result and discussion section, the same data were presented in Figures (Figures 1 to 4) as well as in the Table (Table 1). Why?</p> <p>13. There are many reports of Biostimulated bioremediation such as (a) International Journal of Environmental Bioremediation & Biodegradation, 2015, Vol. 3, No. 1, 28-39; (b) International Journal of Engineering Research & Technology (IJERT) Vol. 8 Issue 11, November-2019; (c) Biodegradation . 2011 Apr; 22(2):231-41; (d) Bioresour Technol. 2005 Jun; 96(9):1049-55; (e) J Microbiol Exp. 2018;6(5):223-231; (f) Front. Microbiol., 2016 vol.7, Article 1407 etc. Te author must justify in which way their proposed model is unique for the prediction of Biostimulated bioremediation and related things than that described by others?</p> <p>14. What are the limitations of the proposed model?</p>	
Minor REVISION comments		
Optional/General comments		

PART 2:

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

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