



SDI Review Form 1.6

Journal Name:	British Journal of Applied Science & Technology
Manuscript Number:	Ms_BJAST_27255
Title of the Manuscript:	Removal of Heavy Metal Pb(II) ions from aqueous solution using Pentaclethra Macrophylla and Tetracarpidium Conophorum seed shells based activated carbons: Equilibrium, Kinetics and thermodynemics studies.
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	➤ Whether your system endothermic or exothermic? (In abstract line No. 19, endothermic and in result and discussions and in conclusion line No. 506 & 526 exothermic.) Explain. ➤ What is the cost of preparing the PMAC & TCAC? Is it socio economic? ➤ Your carbons have the pronounced surface area 954.56 & 916.17 m²/g. What method do you used to find it? ➤ Your system obeys pseudo – second order kinetics, what about first order, second order kinetics?	➤ What was reported in line No. 19 has been corrected. The adsorption of Pb(II) onto PMAC and TCAC is exothermic (See result obtained in line No. 506 & 526). ➤ PMAC and TMAC are agricultural wastes thus recycled for reuse. Its production and use are not detrimental to human health. The production of activated carbon from the base materials is cost effective. ➤ Using Sear's method in Al-Qadah and Shawabkah, (2009), the specific surface area of the activated carbon was determined. It involved agitating 1.5g of the activated carbon samples in 100ml of diluted hydrochloric acid at a pH of 3 and then adding 30g of sodium chloride while stirring the suspension. The volume was then made up to 150ml with de-ionized water. The solution was titrated with 0.1N NaOH to raise the pH to 9 and the volume, V recorded. The surface area was then calculated by the equation below: $S = 32V - 25$ Where, S = surface area of the activated carbon (m²/g),



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		V = volume of NaOH needed to raise the pH of the sample to 9 ➤ Second order kinetics was not studied, however, the adsorption system best obeyed the pseudo-second order kinetic model considering the coefficient of determination obtained at various concentrations.
<u>Minor</u> REVISION comments	Take care at writing the paper, repetition of words in line No. 39,40.	Repetition deleted
<u>Optional/General</u> comments	Very good work.	