



SDI Review Form 1.6

Journal Name:	Current Journal of Applied Science and Technology
Manuscript Number:	Ms_CJAST_37300
Title of the Manuscript:	BATCH EQUILIBRIUM AND EFFECTS OF IONIC STRENGTH ON KINETIC STUDY OF ADSORPTION OF PHENACETIN FROM AQUEOUS SOLUTION USING ACTIVATED CARBON DERIVED FROM A MIXTURE OF Ayous SAWDUST and Cucurbitaceae PEELINGS
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>)



SDI Review Form 1.6

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 Section Please clarify more on how phenacetin can end up in the environment as a waste and polluted the water source Materials and Methods 1. Please specify the source of phenacetin and how the stock solution was prepared. 2. Please briefly explain how the activated carbon was prepared. 3. The phrase '50mg of different activated C" (line 69-70) is unclear. Did this refer to a mixture? If it is a mixture, what is the portion of each? 4. Please specify the agitation time for ionic strength analysis. 5. Specify the time interval for the contact time analysis. 6. Any reason why there were only 2 kinetics models being studied? Result & Discussion In EDX analysis, please briefly justify why there was only C and O observed for P1M sample. And, possible explanation is suggested to be given as well on the presence of K and Cl in the original sample. Please provide explanation briefly on how pH_{PZC} was determined. In the discussion on ionic strength, the author claimed an increase in the adsorption capacities. However, the graph showed a fluctuation of results. Please clarify on this. The studied covered the impact of the presence of group I and II metals on the adsorption capacities, would the presence of heavy metals (which are rather common in waste water) affect the capacity as well? This question is worth to be clarified in the write up. In the equilibrium study, it was noticed to different units were used in the plot for C_e namely mg/L and mg/g. Please clarify on the use of these two units.	Introduction Section Phenacetin may end up in the environment through manufacturing waste, waste from animal excretion, runoff from animal feeding operations, or leaching from municipal landfills. Materials and Methods 1. Phenacetin provided by Aldrich was used as adsorbate. The stock solution of phenacetin was prepared by dissolving 125 mg of phenacetin in 100 mL of hot distilled water (75 °C) and complete to 500 mL with cool distilled water. 2. The activated carbons were prepared as described by Ref 18, and summarised here. 3. The sentence has been corrected. Each adsorption run uses just one of the activated carbons. 4. The agitation time was 2 hours. 5. The sentence has been adjusted to mean that runs were done times varying from 0 min to 180 min. 6. We just reported the two models for which the R^2 values were very close to 1.0. Result & Discussion The difference between the atoms present in each activated carbon can be attributed to the initial composition of ayous sawdust and cucurbitaceae peelings. The determination of pH point of zero charge (pH_{pzc}) for an activated carbon was carried out by adding 0.1 g of activated carbon to 40 mL solution of 0.1 M NaCl whose initial pH had been measured and adjusted with 0.1 M NaOH or 0.1 M HCl to vary between 3-11. The values given in the manuscript were determines in Ref 18, which is now indicated. The increase in the adsorbed quantities that we talk is related to the adsorbed quantities without salt. For example, adsorbed quantities when $CaCl_2$ is added is 16.56 mg/g compare to 13.18 mg/g in the case of BP1M. The fluctuation that you are talking about is observed in search of the concentration of salt who give maximal adsorbed quantities. The presence of salt generally reduces the solubility and increase adsorbed quantities. That why we have used group I and II to study the effect. The study of the presence of heavy metal ions has not been considered in this study. It is the topic of our next study. The unit are now corrected. It was an error.
Minor REVISION comments		
Optional/General comments		