



SDI Review Form 1.6

Journal Name:	British Journal of Applied Science & Technology
Manuscript Number:	2013_BJAST_6451
Title of the Manuscript:	BIOSORPTION OF NICKEL AND COPPER IN A BINARY SYSTEM USING CHITOSAN DERIVED FROM CRABS
Type of the Article	Research Paper

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>)

'lack of Novelty



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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	[1] Section 3.1, results at various pH should be shown with table or figure. [2] Line 126-127, "This would lead to electrostatic attractions between positively charged cations such as Cu(II) and Ni(II) and negatively charged binding sites [11, 12]." As the isoelectric point was not measured, so at pH=5, the major mechanism may be complex, not electrostatic attractions. So this expression is not appropriate. [3] Line 316-318, "K_d is the equilibrium constant obtained from Langmuir's plot". From Langmuir equation, K_L can be obtained. How to calculate K_d? Furthermore, as Langmuir equation can not fit the experimental data, K_d was selected to calculate change of free energy is not appropriate.	[1] It is not absolute that result of pH study must be presented as table or figure. What is important is to state the working pH which emanates from pH study. [2] The sentence has been adjusted. It should be noted that adsorption mechanism could be a combination of processes (complexation, electrostatic attraction, chemisorptions or physisorption). The expression is still valid. [3] Yes it was an error writing K_d it should have been K_L. As shown in table 2, Langmuir plot fairly fit the experimental data with R^2 values above 0.50. As such the Langmuir constant can be used to calculate the thermodynamic parameters. Agreed Freundlich gave a better fitting.
Minor REVISION comments	Line 329-330, "The increment observed from 4.79mg/g to 4.99mg/g for nickel however is about 4% showing that the crab shell derived chitosan was really effective even at reduced dosage." This sentence is not complete. Please check.	The sentence has been corrected



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<u>Optional/General</u> comments	From text, I do not see which section is the adsorption for single metal and which is about binary system. The adsorption property of copper and nickel ions in binary system onto chitosan can be presented.	I think it is clearly stated that the work was in a binary system not single metal system