



SDI Review Form 1.6

Journal Name:	International Research Journal of Pure and Applied Chemistry
Manuscript Number:	2014_IRJPAC_12083
Title of the Manuscript:	Biosorption of copper from aqueous solutions by raw and activated spines of Bombax buonopozense: Equilibrium, kinetics and thermodynamic 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	- Abstract : Must give you results to enrich the abstract. - Biosorbent : In this section it should be mentioned how we get the raw and activated. - Adsorption isotherm : Add more initial concentration - Contact Time : what is the time to contact? - Copper (II) was immobilised directly onto spines. Functionalisation of the spines is not shown in the present paper. No elemental analyses, no IR spectra are presented ... No studies of the surface reactivity (no data concerning the specific surface). - pH : The increase in pH increases the concentration of OH-ion and therefore will interact more Cu with these negative ions. - Isotherm studies: Must to discuss the comparison between the two qm (Raw and Activated) because I notice that they are almost the same Quantity. Give a discussion on the study of comparison between the isothermal models - Remark: I send you the PDF file with corrections and comments	Corrections have been effected
Minor REVISION comments	- Figures : At what pH? And How time the contact? - Table 5. Pseudo second-order kinetics rate constant for copper sorption: Discuss these values!!!. - Table 3. Langmuir adsorption isotherm parameters: Compare the values of qm found with the bibliography to give value to your study!!!. - Thermodynamics parameter: Changed positions: be 10.875kJ/mol and 13.177kJ/mol for the raw and activated adsorbents respectively.	Correction are noted and effected
Optional/General comments	- Draw the graph $q_e = f(C_e)$ to see what form the adsorption isotherm. - Draw graph $\ln q_e = f(\ln C_e)$ to see Freundlich Isotherm. - Draw graph $\ln q_e = f(E_2)$ to see DR Isotherm. - Draw graph $C_e/q_e = f(C_e)$ to see Langmuir Isotherm - Draw Graph Pseudo first-order. - Draw Graph Pseudo second-order. Adsorption experiments	The graphical representation of isotherm and kinetics are shown



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	Detailed experimental conditions are missing (pH adjustment, ionic strength, separation of phases, contact time for isotherms, blank series ...). Several questions: Which evolution of copper speciation with pH (Is precipitation of copper species excluded in the experimental conditions ...)? Which relation between surface site density and the introduced amount of aqueous copper?	
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