



SDI Review Form 1.6

Journal Name:	International Research Journal of Pure and Applied Chemistry
Manuscript Number:	2014_IRJPAC_13834
Title of the Manuscript:	Optimization and Kinetic Study for the Removal of Chromium(VI) Ions by Acid Treated Sawdust Chitosan Composite Beads
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.

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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 2.4, line 88: The Cr(VI) concentration was analyzed by using Jasco UV spectrophotometer at 540 nm. 1,5-diphenyl carbazide was used as the complexing agent? 2- For all regression analysis (Isotherm and kinetic): I) To verify the fit quality, only R^2 is not sufficient. At least one error analysis is necessary. II) Why linear regression was employed if the models are originally non linear. III) R^2 is coefficient of DETERMINATION. 3- The intraparticle diffusion model is not correctly applied. Please, remove from the article. 4- In the conclusion section, the authors assumed non-specific chemisorption process. This conclusion is not supported in the work. 5- A comparison of the adsorption capacities with other adsorbents for Cr(VI) removal should be inserted in the article.	Yes; correction has been made in the text. I) Usually error analysis is carried out in Engineering and technical level Papers. We think, in Physical and Applied Chemistry level papers, r (correlation coefficient) or R^2 is enough to select the suitable models just to predict the adsorption mechanism. II & III) The linear regression analyses have been carried out with the linearized forms of the kinetic and isotherm models. This has been done in most of previous works (Refs. 23, 27, 28, 29, 30, 47, 52, 57, 58, 62) also. Intraparticle diffusion model has been removed from the article and relevant changes have been made in the text. Points supporting chemisorptions have been included; the word 'non-specific' has been omitted. Section 3.10 has been added.



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<u>Minor</u> REVISION comments	6. The English should be improved. 7. Section 2.1: Provide the sawdust particle size. In the same way, the chitosan characteristics (deacetylation degree, molecular weight and crystallinity index) should be provided. 8. Section 2.2: How this procedure was developed? The conditions were based in the literature? In the sawdust acid treatment, what is the solid/liquid ration and the acid concentration? 9. The figures quality should be improved.	Improving English at this stage may lead to entire modification of the manuscript. We will try to submit the next article(s) in good English. The data have been provided. The procedure is slight modification of a literature procedure. Necessary corrections have been made in the text. If necessary, we will provide the source files at the time of publication.
<u>Optional/General</u> comments		