



SDI Review Form 1.6

Journal Name:	International Research Journal of Pure and Applied Chemistry
Manuscript Number:	Ms_IRJPAC_21856
Title of the Manuscript:	Effective Removal of Chromium(VI) Ions from Tannery Effluent Using Chitosan-Alumina Composite
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	1. Many peaks have been labelled in the FTIR but only a few are discussed. In my opinion, the authors should have more detailed description of the FTIR bands (eg. Which bands belong to chitosan etc). 2. Graphs and its axis's are not clear. 3. Needs more explanation on why the adsorption is favourable at lower pH 4. Removal efficiency of the composite is not too great. 5. The linear regression value obtain is only 0.96 indicating the experiment is not too accurate.	1. Agreed with reviewer that in the FTIR many unnecessary peaks were labelled which are now removed from FTIR bands. Only the peaks belong to chitosan are discussed to confirm the prepared material is chitosan. 2. More Clear Graphs are now added. 3. As suggested more explanations are added for the adsorption favouring at low pH. 4. We like to differ with reviewer as the removal efficiency of the composite at optimum condition is about 90.17% which is very good (Section 3.10) and due to other metallic ions efficiency slightly reduced to 87.88% when tannery effluent was treated with composite. 5. Experiments were carefully controlled and measured by Atomic absorption Spectrometer (AAS) and in paper we mentioned that values have been determined by the least square fit. Omitting one or two points may increase



SDI Review Form 1.6

	There is a similar work published in 2010. Preparation and application of alumina/chitosan biocomposite. International Journal of Biological Macromolecules 47 (2010) 146–154	linear regression value but we like to keep it 0.960 as still quite countable. As mentioned in paper earlier researches lack preparing a low cost adsorbent. We prepared chitosan from local raw material with changed reaction condition, measured with AAS (not UV spectroscopy) and treated adsorbent with tannery effluent.
<u>Minor</u> REVISION comments		
<u>Optional/General</u> comments	I also would like to suggest that to strengthen the paper, the authors need to add in kinetics and thermodynamics studies.	Due to technical reasons and other metallic ions present in tannery effluent it was not possible for us to incorporate kinetics and thermodynamics studies in time. However in future more work based on this research we will certainly add more data including column studies for next research paper.