



SDI Review Form 1.6

Journal Name:	Chemical Science International Journal
Manuscript Number:	Ms_CSIJ_40547
Title of the Manuscript:	Removal of hexavalent chromium from aqueous medium using carbonaceous adsorbents prepared from water hyacinth biomass
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) Several ions are included in environmental water. Then, it would be better to examine the removal of Cr(VI) under the presence of common diverse anions. For example, the effect of Cl^- , NO_3^- or SO_4^{2-} on Cr(VI) may not be negligible. Please investigate the effect of the above diverse ion on the removal of Cr(VI), if possible. (2) It would be great if the authors could perform desorption (and regeneration) experiment in addition to adsorption experiment.	As the paper is undertaken with the main objective of optimizing the strategies for maximum Cr adsorption, the experiment was conducted with the simulated solution and the effect of anions are not taken into account. In the main experiment with adsorbate as tannery effluent, the anion effect and desorption of Cr will be investigated. Apart from the aforesaid corrections, I have made corrections in adsorption kinetics (figure10a & Table6). There was a mistake in the placement of figure10a, which was the actual figure for adsorption of Cr(III) onto biochar. So leads to mistakes in Table6. I have included the modifications for your kind perusal. Hence please consider my corrections in further processing.
Minor REVISION comments	(1) Authors mentioned (Line 164) that "In aqueous solution, Cr(VI) exists as anion." The chemical form of Cr(VI) in aqueous solution should be considered to be one of the important factors to clarify the mechanism of Cr(VI) adsorption including the pH dependence (Figure 4). It would be better if the authors could mention this kind of consideration or estimation from the viewpoint of chemical engineering aspect. (2) How many replicates do the experimental data represent? There are no errors for data presented in Figures 4-10. Please show experimental errors (i.e., error bars) for measurement results, if possible.	In aqueous solution, Cr(VI) exists as anion (HCrO_4^- , CrO_4^{2-} , or $\text{Cr}_2\text{O}_7^{2-}$) The investigation was carried out with 4 replications (already indicated in Line 67) and the error bars are included in the enclosed revised copy.
Optional/General comments	This paper provides useful data about carbonaceous material prepared from water hyacinth biomass as an adsorbent of hexavalent chromium (Cr(VI)). The adsorbent was characterized using FTIR, SEM and EDX. The methodological approach seems solid and appropriate. The effect of important parameters such as solution pH, adsorbate concentration, contact time, adsorbent dosage and size has been studied. The adsorption data were performed by adsorption kinetic analysis, and were also analyzed using some isotherm models such as Langmuir, Freundlich and Temkin equations. The paper was well organized and the results are important for environmental science and ecological studies. There is no problem regarding English. Therefore, I feel this paper should be acceptable after some revision.	