



SDI Review Form 1.6

Journal Name:	Advances in Research
Manuscript Number:	Ms_AIR_31986
Title of the Manuscript:	Chromium (VI) reducing Brevibacillus brevis OZF6 inoculation enhances pea growth and decreases metal uptake in pea plants
Type of the Article	Original 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>)



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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	<p>1. The author determined the quantity of Cr(VI) only, but not the total chromium or Cr(III). How the author knew Cr(VI) was reduced to Cr(III) but not adsorbed by the cells?</p> <p>2. If the immobilization matrix can adsorb Cr(VI)? Without the control test, the result couldn't reach the conclusion. Concentration of 1.5 g SA showed an increase of 13% in Cr (VI) reduction by <i>Brevibacillus brevis</i> OZF 6, compared to free cells after 120 hours of incubation.</p>	<p>1,5-Diphenyl carbazide method checks only Cr (VI) remaining in the medium which is a colour detection which can be measured at a particular absorbance where as in case of biosorption there is no color change in the solution. Second biosorption is by the cell pellets not by the cell free extract. This Cr (Vi) reduction has been observed in the extract which indicates that Cr (VI) has been reduced to Cr (III).</p> <p>2. You are right there should have been a control test which will be taken into consideration into further experiments.</p>
Minor REVISION comments	<p>1. Although the MS is easy to read, but there are many spelling errors and grammar errors throughout the MS, such as: aliginat should be alginat throughout the manuscript. L31: The contamination of chromium (VI) is mainly is due to the use of Cr (VI) in leather. L41: to save our soil and water from the toxic effects of these metals. L44: <i>Escherichia Coli</i> should be <i>Escherichia coli</i>. L57: hromium (III) Spelling error.</p> <p>2. L37-39: Hexavalent chromium being the most toxic, trivalent is an essential micronutrient for animals, plants and humans which is involved in glucose metabolism. There is no link between the first half sentence and the second half sentence.</p> <p>3. L50-55: Furthermore, in growing cultures with added carbon sources as electron donors and in cell suspensions, Cr (VI) reduction can be predominantly aerobic or anaerobic, but generally not both.</p>	<p>1. Sodium aliginat has been corrected L31. The sentences from Line 31 to Line 41 has been corrected as per the suggestion. L 44 Coli is corrected to coli L57. hromium is corrected to chromium L37-39. It has been corrected as per suggestion. L50-55 Sentence has been corrected as per the suggestion L76-77. Sentence has been corrected as per suggestion L81 Medium and culture condition has been included as per suggestion. L82. Concentration of boric acid has been given. L83. Sentence has been corrected L108-109, Valence state has been given as per suggestion</p>



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	<p>Interestingly, chromium reductases can catalyse reduction of Cr (VI) to Cr (III) anaerobically, aerobically and also both anaerobically and aerobically. This passage is inconsistent.</p> <p>4. L76-77: Sodium alginate was used in the concentration of 0.5 g, 1.0 g and 1.5 g. As the concept concentration was used here, the volume should be restricted.</p> <p>5. L81: 1 g (fresh weight) of bacterial cells (overnight growth) The medium and culture condition should be given.</p> <p>6. L82: the concentration of boric acid solution should be given.</p> <p>7. L83: and was immersed for 24 h. The temperature should be restricted.</p> <p>8. L108-109: What's the valence state of Cr?</p>	
<u>Optional/General</u> comments	The research work was not well designed and the MS was not well organized and written.	Research work is well designed and has been well organized now.

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