



SDI Review Form 1.6

PART 1:

Journal Name:	International Journal of Biochemistry Research & Review
Manuscript Number:	MS: 2012/ IJBCRR/2431.
Title of the Manuscript:	Structural aspects of native and engineered metal clusters on bacterial surface layers

General guideline for Peer Review process is available in this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)

- This form has total 9 parts. Kindly note that you should use all the parts of this review form.



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PART 2: 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)
<u>Compulsory</u> REVISION comments		
<u>Minor</u> REVISION comments	I would be in favour to see this manuscript published in International Journal of Biochemistry Research & Review, subjected to the minor issues reported above, to be addressed in the revised version. Section 2 "Interaction of SLPs with metals": 1 please expand the discussion on the functional groups involved in the SLPs interaction with metal ions. 2 please expand the description of engineered S layers for metal sequestration 3 Section 4.2 "Atomic Force Microscopy": page 12 line 333: "...onto the shell of hollow polyelectrolyte capsules for targeted drug delivery application" instead of "...onto the shell of hollow polyelectrolyte capsules in order to increase the biocompatibility of the capsules". 4 page 12 line 335: please add some references. 5 Section 4.5 "In silico structural analysis and molecular modelling", page 14 line 395: please add some references	1. and 2. The discussion on the functional groups involved in SLPs interaction with metals and the description of engineered S layers for metal sequestration are disseminated throughout the text in the sections corresponding to the different techniques. However, we agree with the reviewer in the convenience of including a paragraph concentrating that information in section 2 (Interaction of SLPs with Metals). (lines 153-167). 3. According to the reviewer's suggestion, the phrase was corrected (lines 336-337). 4. References 56 (J Struct Biol. 2009;168:217-22) and 95 (J Microsc. 2003;212:300-6) were added. 5. In consonance with request 9 (reviewer 4), it can be said that up to our knowledge only Horejs et al combined SLPs with molecular modeling. In their works, these authors consider that a deeper insight on the location, orientation, and steric accessibility of the SLP binding sites is crucial for the development of other applications



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		of SLPs, including the precipitation of metal ions from solutions [Horejs et al, ref 104 of the revised version of the manuscript]. Even when the authors recognize the importance of investigations directed toward the analysis of S-layer binding sites, information about modeling of SLPs is scarce, representing a domain where much work remains to be done. We stressed on this point in the revised version (lines 409-412 of the revised version of the manuscript).
<u>Optional/General</u> comments	The manuscript “aims at reviewing native and engineered S-layers structures for metal sequestration and techniques used for their characterization. The paper focuses on an extremely interesting field of research in nanobiotechnology, which is promising new applications in the next years. The paper is clearly written and gives an exhaustive overview of the techniques available for the characterization S-layer structures.	