

Response to comments-OS-2021-78

Editor's Comments:

I have sent your revised manuscript to one of the reviewers, who finds it improved, but demands that the work of Gehlen and Beck be discussed in more detail. You need to emphasize what is new in your study, in relation to the previous work on the same topic. I hope that you can consider the reviewer's remarks in a revised version of your manuscript.

Authors' general reply:

We are very grateful for your comments. We have carefully checked and amended the manuscript accordingly. In addition to our point-by-point replies (details in the following sections) addressing your concerns, the replies are briefly summarized and listed below.

Please let us know if any more issues need to be clarified or if more revisions need to be made.

Thank you very much.

Reviewer's comments

Comments	Responses to the comments
1. Line 25/26: This is not the first time, as Gehlen et al and Beck et al already gave evidence for structural Al in BSi. The main point in this study is in my view, that it was shown that Al is found throughout the BSi, suggesting a direct link between Al incorporation and Si incorporation.	<i>Yes, the text has been changed, accordingly.</i>
2. L38. I suggest to split the sentence into two sentences.	<i>Yes, the text has been changed, accordingly.</i>
3. L69: Misspelling of Gehlen	<i>Yes, we have corrected the wrong spelling.</i>
4. L72: This was not speculated but shown	<i>Yes, the text has been changed, accordingly.</i>
5. L73: I suggest transfer instead of migration	<i>Yes, the text has been changed, accordingly.</i>
6. L96: Composition is (not are)	<i>Yes, we have corrected the wrong unit.</i>
7. L103: the initial Al concentration is not mentioned (but indicated in the reply) and should be mentioned here.	<i>Yes, the data were added into the main text.</i>

8. L198/L211: Here, the structural evidence by Gehlen et al and Beck et al. should be discussed in more detail and their evidence of structural Al based on the coordination of Al and Si should be mentioned in the text. Also, it should be pointed out that in the measurements from cultures, naturally occurring Al/Si containing minerals do not play a role.

Yes, we have added the corresponding information about the structural Al in BSi reported by Beck et al. and Gehlen et al in the main text.

9. L230: the Al/Si should be 0.011, not 0.11? Also mention, that the ratio is based on the FIB treated BSi

Yes, the data have been corrected, and the corresponding information has been added.