Biogeosciences Discussions

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Reply on RC2

Jan Goleń et al.

Author comment on "Fluorescent double labelling of F-actin in Foraminifera: evaluation of granular pattern F-actin organisation in reticulopodia" by Jan Goleń et al., Biogeosciences Discuss., https://doi.org/10.5194/bg-2021-76-AC2, 2021

Response to the interactive comment by Takashi Toyofuku.

On behalf of all authors I we would like to thank Dr Takashi Toyofuku for his constructive comments. We are preparing a detailed response to all the comments that should be submitted as soon as possible after the end of open discussion. At the moment I would like to address the most crucial issues which are (1) the suitability of the submitted paper to the journal, (2) the proper origin of the samples, the species identification and the SEM documentation.

The journal *Biogeosciences* has published numerous papers concerning foraminifera, including many studies of the physiological processes involved in biomineralisation and morphogenesis of the foraminiferal tests. Actin cytoskeleton is highly involved in various aspects of the chamber formation (Tyszka et al. 2019), hence the issue of organisation of actin has implications for understanding of these processes. Our study is within the scope of the journal, but we agree that the logical connection to the geosciences should be emphasised more clearly. We are very grateful for raising this question and suggestion of the literature concerning the *in silico* modelling of the morphogenesis of shells. In the revised version of the manuscript we plan to add suggested information followed by relevant references, including the ones pointed out by the referee.

Concerning the second point, it is true that samples organisms within the marine aquaria in the Burgers' Zoo originate from various locations, so the geographic area of origin cannot be narrowed down more precisely than to the Indo-Pacific region. We agree with the referee's suggestion that for this reason additional SEM documentation would be of great value, allowing for the more accurate species identification. We are performing additional documentation, including SEM imaging.

All other comments are also greatly appreciated and will be addressed in a detailed response. We would like to submit the detailed response at the beginning of July within the 3 weeks' period from the end of the open discussion stage.

Kind regards,

Jan Goleń