

We sincerely appreciate the thorough review and feedback with (ID: EGUSPHERE-2024-3384) . We have carefully addressed all comments and editorial notifications. Below is our point-by-point response:

- a) From the author list it is not clear if the corresponding author's main affiliation is part of the Consejo Superior de Investigaciones Científicas (CSIC). If this is the case, please check the financial support page: https://www.ocean-science.net/about/financial_support.html > CSIC**

Response: Thank you for your comment.

We would like to clarify that the corresponding author (Albert Folch)'s main affiliation is with the Department of Civil and Environmental Engineering (DECA), Universitat Politècnica de Catalunya (UPC).

The second affiliation, “Associated Unit: Hydrogeology Group (UPC-CSIC),” refers to a collaborative research group between UPC and CSIC.

However, the corresponding author is not employed by CSIC, nor formally affiliated with CSIC as an institute member, and has not received direct financial support from CSIC.

Most of the papers published by our research group are written like this:

Associated Unit: Hydrogeology Group (UPC-CSIC)

- b) FYI: the original figure files were removed from the supplement. They will be requested at a later stage.**

Acknowledgment: We confirm that high-resolution figure files will be provided upon request during the production stage, following the journal's guidelines.

- c) In your manuscript, please use full first names for all authors. Although references are still based on initials, we will use full first names on the title page of your paper.**

Thank you for your note. We would like to confirm that full first names have been used for all authors.

Specifically, Jiangyue Jin and Daniel Fernández-García are already in full form.

Manuel Espino and Albert Folch are also their full first names as used in all their previous publications.

For reference, please find their Google Scholar profiles:

Manuel Espino:

<https://scholar.google.com/citations?hl=en&user=Sx49oXIAAAAJ>

Daniel Fernandez-Garcia

<https://scholar.google.com/citations?user=B8hhzusAAAAJ&hl=en&oi=ao>

corresponding author :Albert Folch:

<https://scholar.google.com/citations?user=fPSqvKoAAAAJ&hl=en&oi=ao>

We thank the reviewers for their valuable comments. All suggested revisions have been completed, and the manuscript has been fully revised accordingly.

**Sincerely,
Jiangyue**