

Review:

“Persistent contamination in benthic foraminifera-based thermometry using standard cleaning methods”

Larsson and Jung, 2025

In the manuscript, the authors dealt with the preparation of benthic foraminifera for Mg/Ca thermometry. Therefore, they picked benthic foraminifera of the genus *Uvigerina* and *Cibicidoides* from sediment core top samples from the western Indian Ocean and measured the Mg/Ca ratio after different cleaning procedures.

The manuscript is well structured and organized. In my opinion, although the authors used a rather small data set, they did a good job comparing the main cleaning steps using the most important references of Mg/Ca cleaning. I also have the impression that the style and language (I am not a native speaker myself) have improved significantly compared to the previous manuscript (which I also reviewed).

All in all, I found only a few things to correct and approve a publication after a small revision.

Minor Revision:

Line 46: 10^6 und 10^7 -> 10 Ma und 100 Ma

Line 65: The oxidative cleaning is usually used for the removal of organic matter (see Barker 2003) -> change sentence: "... and an oxidative cleaning step to remove organic matter"

Line 85: Reference to Graphic 1 feels a bit out of place as you are only talking about species-specific calibrations, but these are not highlighted in the graphic. I would refer to graphic 1 later.

Line 99: Figure 1 Write down the name NIOP in the map, so that these cores are easier to find.

Line 108: "... Upper CDW (UCDW)"

Line 137: "s" is missing in specimens

Line 138: Correct bracket content (i.e., 250-355 μm and 250-355 μm ???)

Line 144-148: Rephrase e.g., "Due to a lack of sufficient amount of planktic and benthic foraminifera in our transect, we test the cleaning procedure on individuals of the planktic foraminifera species *Globigerinoides ruber* (*G. ruber*, 250-355 μm) at core NIOP929 (Saher et al., 2009), located further north at the continental slope off Somalia (van Hinte et al., 1995; cite cruise report here)."

Line 258 and 263: stay consistent throughout the text. Remove "see" from (Table xy)

Line 262: in Table 3 stands 68.73

Line 262: Stay consistent. Either you write the exact number of the table (3.99) or you round up/down. 3.99 is going to 4.0 and 68.73 is going to 68.7.