

Interactive comment on “Boron isotope fractionation during brucite deposition from artificial seawater” by J. Xiao et al.

C. Hatté (Editor)

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Based on both reviews and on my own opinion, I would recommend a two-step post-review process before any publication of your manuscript. I'd like authors to first answers to some points before giving my final decision.

The second reviewer (and I totally agree with) points out that in contrary to the abstract and the introduction, your paper does not fit with the "proxy calibration/validation" topics. This is of major concern for a publication in "Climate of the Past". Indeed the journal deals with climate and by this way with the tools that can be used to follow climate in the past and present environments. You mention that brucite is incorporated within corals and by this way, should/might be considered to reconstruct paleo-pH. The bibliographical references also refer to others biomineralised carbonate, as foram and

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other shells. Nevertheless, this mention is present in abstract and introduction but all of your paper deals with mineral brucite and definitively not with biomineralised brucite. Part 5 appears as totally disconnected from the remaining paper. If problem with paleo-pH may arise from sampling, this part should be definitively posted much earlier and estimation of bias should be done. I don't think that in the present state, your paper correctly addresses the issue of a constructing a paleo-pH proxy (either a new one, or improving the current B isotope in foram or coral approach).

Nevertheless, this doesn't alter the quality of your experiments that is acknowledged by both of the reviewers.

That's why I'd like you to convince me, reviewers and later readers that your manuscript fits with Climate of the Past topics and effectively address the issue of paleo-pH reconstruction. Please show me how you'll include comments and corrections to modify it to fulfill CP topics.

Based on your response I would give my final appreciation on the paper and on its suitability to CP.

Interactive comment on Clim. Past Discuss., 7, 887, 2011.

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