

Interactive comment on “Effects of alkalinity and salinity at low and high light intensity on hydrogen isotope fractionation of long-chain alkenones produced by *Emiliana huxleyi*” by Gabriella M. Weiss et al.

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In regard to the discussion about whether pH and DIC change in the alkalinity experiments:

OK, your response makes sense - I had not read carefully enough to realize that pH was going to stay constant in the alkalinity series.

It is worth noting though, that by decreasing/increasing alkalinity at constant pH you are also changing [DIC]. Its not clear whether or not the latter parameter has any effect

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on D/H fractionation, but it is at least plausible.

To help make all this clear, I think it would be helpful to add a sentence on page 4, line 7, that says something to the effect of: In all the alkalinity experiments, pH remained roughly constant at 8.5-8.7; forced equilibration with atmospheric CO₂ under these conditions means that [DIC] also changed by a factor of ~4.

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