

***Interactive comment on “Technical note:
Interpreting pH changes” by
Andrea J. Fassbender et al.***

Anonymous Referee #2

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Review of Fassbender et al., Interpretation of pH changes The consideration presented in this “Technical Note” are interesting, important and a useful guide for all those who are involved in any research related to acidification. Although no new physical-chemical concepts are presented, I am pretty sure that many studies concerning acidification and related biogeochemical issues were not aware of the different meaning of ΔpH and $\Delta[\text{H}^+]$ and of the implications for biogeochemical processes. The three case studies illustrating the necessity for distinguishing between ΔpH and $\Delta[\text{H}^+]$ are convincing. Why not publishing the manuscript as a regular research paper, together with some parts of the “Supplementary Material” and a more detailed interpretation of the calculations/Figures in the main text and not in a compressed form as Figure captions? In other words: I recommend this manuscript for publication. Some minor comments:

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Line 477, Fig 2: better: ΔpH and $\Delta[\text{H}^+]$; Line 487, Fig. 3: Please define the “anomaly of the seasonality”; References: You have 6 pages for references, but less than 5 pages for the main text. Is that a reasonable proportion? Perhaps it is more informative if you confine the references to a few key papers.

Interactive comment on Biogeosciences Discuss., <https://doi.org/10.5194/bg-2020-348, 2020>.

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