

Interactive comment on “On CO₂ perturbation experiments: over-determination of carbonate chemistry reveals inconsistencies” by C. J. M. Hoppe et al.

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As noted in my review (and as pointed out in this comment thread) the Mehrbach et al. constants are the ones preferred by the marine chemistry community, though there are still – I feel – unexplained discrepancies at higher p(CO₂). The recent papers by Millero and his coworkers essentially show that it is possible to reproduce the Mehrbach constants in replicate studies, thus reinforcing further the confidence in their values.

However, as the authors of this manuscript point out, the discrepancies they identify far exceed the discrepancy that would be caused by using one of the alternate high-quality data sets (Hansson, Goyet, Roy) so although it would be clearer if the Mehrbach

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constants had been used in this manuscript it would not really have affected their conclusions or my review.

Interactive comment on Biogeosciences Discuss., 7, 1707, 2010.

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