

## ***Interactive comment on “Acidification-vulnerable carbonate system of the East Sea (Japan Sea)” by Taehee Na et al.***

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This paper includes valuable datasets in the western Japan Basin and the Ullelung Basin.

In my opinion, the author’s suggestion that lower DIC and AOU in the deep layer of JB-14 indicates the recent formation of bottom water is convincing. However, Talley et al. (2003) showed not only an increase in dissolved oxygen but also a decrease in potential temperature associated with the formation of the bottom water (See Figure 3 in Talley et al. 2003). There are no decreases in potential temperature in the deep layer of JB-14 compared with the other stations. (At least, at the order of 1/100 degree Celcius from Table S1.)

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If it is true, the significant formation of the bottom water is a big topic. Therefore I expect the author’s careful discussion.

Reference

Talley, L. D., V. Lobanov, V. Ponomarev, A. Salyuk, P. Tishchenko, I. Zhabin, and S. Riser, Deep convection and brine rejection in the Japan Sea, *Geophys. Res. Lett.*, 30(4), 1159, doi:10.1029/2002GL016451, 2003.

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Interactive comment on Biogeosciences Discuss., <https://doi.org/10.5194/bg-2019-474>, 2019.

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