

Interactive comment on “CARINA alkalinity data in the Atlantic Ocean” by A. Velo et al.

Anonymous Referee #3

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Through their painstaking effort, the authors presented a set of adjustments that can be applied to alkalinity data obtained from 51 cruises archived at the CARINA data base. The set of adjustments were obtained from analysis of alkalinity data using various quality control procedures. The adjusted CARINA data were consistent both internally and with the GLODAP data.

The addition of new data to the global data base is always good, as the ocean is generally undersampled. However, the CARINA alkalinity data base has an additional unique value. In particular, I find the CARINA data for the Arctic Ocean very useful in some geochemical calculations including anthropogenic CO₂ and saturation states of seawater, where the GLODAP data base has literally no measurements.

The paper clearly present different data quality evaluation procedures that are similar to those used in the analysis of GLODAP database and how they arrive at the final set

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of alkalinity adjustments. Based on my thorough reading of this manuscript, I think the paper can be accepted as it is

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