

Interactive comment on “The effect of temperature and salinity on the stable hydrogen isotopic composition of long chain alkenones produced by *Emiliana huxleyi* and *Gephyrocapsa oceanica*” by S. Schouten et al.

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The only purpose of this editor comment is to discuss the salinity data used in the paper by Schouten et al. (2005). Salinity is a major variable in this paper which seeks to describe the effect of temperature and salinity on the stable hydrogen isotopic composition of long chain alkenones produced by phytoplankton.

However, the method used to measure salinity is not described and values are reported with unit PSU (which stands for Practical Salinity Unit). A new salinity definition was introduced in 1978, the Practical Salinity Scale 1978 (Unesco, 1981). It is defined as the ratio of two conductivities and therefore has no unit. Interested readers can refer to

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the short statement of Ridout (1997).

I would suggest that the method used to measure salinity must be described in the Material and methods section. If the Practical Salinity Scale 1978 was used, then all instances of "PSU" should be deleted.

This suggestion is made as an editor comment in order to generate discussion, if needed, and to have a document to which corresponding authors of subsequent manuscripts submitted to *Biogeosciences* will be referred to. It is indeed very common that wrong salinity units are used.

Reference cited

Ridout, P.: Salinity units, *Ocean Challenge*, 7(1), 4, 1997.

Unesco: Background papers and supporting data on the Practical Salinity Scale 1978, *Unesco Technical Papers in Marine Science*, 37, 1-144, 1981.

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