

Interactive comment on “Variations in mid-latitude North Atlantic surface water properties during the mid-Brunhes: Does Marine Isotope Stage 11 stand out?” by A. H. L. Voelker et al.

Anonymous Referee #2

Received and published: 31 July 2009

In this paper, Voelker and others are presenting a quite impressive data set with high resolution stable isotope records of planktic foraminifers from mid-latitude, eastern N. Atlantic cores, which encompass two interglacials, in particular MIS 11. This interglacial is now receiving much attention from the paleoceanography community because of its exceptionally "warm" conditions, that led to an almost complete disappearance of the Greenland Ice Sheet [1]. In addition, its duration provides the only "interglacial" interval when near-equilibrium conditions could have been attained with respect to several components of the Earth surface system (sea-level changes notably).

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Data are impeccable and all interpretations sound unquestionable... However, one does not know exactly, when finishing reading the paper, what one has effectively gained from its reading. A popular French expression conveys quite well this feeling "on reste sur sa faim" ("one is left a little disappointed" in other terms, and for French people, one may guess that the disappointment could be quite significant when good eating is concerned). From this view-point, I totally share the first reviewer's feelings, but I do not concur with his final recommendation about rejecting the paper for this reason. This sort of work is absolutely needed, and such results with the proper interpretative lines provided should be made available to the community. I hope that soon, other sites from the N. Atlantic will be investigated with as much detail as those in the present study. This will lead to shape a quite realistic paleo-N Atlantic during MIS 11, thus to set adequate boundary conditions for climate modeling experiments. I know, it is not a glowing contribution (we would all like to make a couple each year to keep our respective Funding agencies satisfied with us), but reconstruction of the paleoclimate/paleocean requires this sort of more obscure work. I liked the expression used by Euan Nisbet [2] to qualify data acquisition work: the Cinderella science. This paper can be reasonably seen as belonging to this category.

[1] A. de Vernal & C. Hillaire-Marcel, 2008. Natural Variability of Greenland Climate, Vegetation, and Ice Volume During the Past Million Years. *Science* 320: 1622-1625.

[2] E. Nisbet, 2007. Earth monitoring: Cinderella science. *Nature* 450: 789-790.

Interactive comment on Clim. Past Discuss., 5, 1553, 2009.

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