

Comments Version 2 of Rodrigo-Gamiz et al

Methods:

Were the SPM samples taken in 2011 at ~5 m water depth also taken with a MacLane pump?

Details on the sediment trap: Surface area of the collection funnel? At what depth was the trap moored?

Results:

Statements on the flux maxima occurring exactly at the beginning and at the end of the trap deployment period are problematic. Please re-word to „highest fluxes were recorded...“

Discussion:

Lines 392-395: From the data displayed in Figure 4, a sinking rate of 230 m per day seems unrealistically high to me. From the offset (UK'37 maxima in trap cups 13-17, SST maximum in July 2011) it looks more like roughly 10 m per day to me. Please explain in more detail how the sinking velocities were derived (delay in days).

Lines 475-478: Here it is ignored that GDGTs cannot be exported instantaneously to depth (1850 m water depth). There must be a delay in the temperature signal produced at the surface and collected in sediment traps, which relates to the average sinking velocity of GDGT-bearing particles, which is likely smaller than that for alkenone-bearing particles. The discussion here is in contradiction to the newly inserted paragraphs on the UK'37 record and its implications for sinking velocity of alkenones and with what follows in lines 497-499.

Line 490: There is of course no difference in the result when using different calibrations for comparing flux-weighted TEX86 and sediment TEX86! They are conversions of the TEX value, and that is similar for flux-weighted mean and surface sediment.

Data: I have not been able to find supplementary table 1, in which the according to table caption 2 the proxy values are

Typos etc.:

Line 319:LDI-based temperatures vary....

Line 411: omit one “only“

Line 422: “northermost“ instead of “most northern“

Line 437/438: delete “values“ and re-word “the difference with summer temperatures“

Line 453: “from 0.7 μ m pore diameter filters“

Table 1: refer to “upper trap“ and “lower trap“ instead of “trap top“ and “trap bottom“

Table 3: I am surprised to read that satellite temperatures are available for 20 m water depth? I was always informed that satellites could only record surface temperatures. Please clarify.