

Interactive comment on “Short scale (6 h) temporal variation of sinking fluxes of planktonic and terrigenous lipids at 200 m in the NW Mediterranean Sea” by L. Méjanelle and J. Dachs

Anonymous Referee #2

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The authors present a revised version of their study on the short scale sinking flux measured during the DYNAPROC 2 cruise in the NW Mediterranean in 2004. The authors have improved the MS considerably by including the context of hydrographic variability, primary production and carbon export which was my main concern expressed in the first review. Also, the English writing style has improved as well (even though some editing is still necessary).

Meanwhile, however, a study was published by Marty et al. this year in Biogeosciences (6, 887-899) which overlaps thematically with the present study. I am puzzled how two apparently separate groups could conduct such a similar study on the same trap

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material and write two separate papers about it. Méchanelle and Dachs cite Marty et al.'s 2009 study with reference to the primary production, particle flux and pigment data which they include in their Figures. However, the results of the lipid analyses presented by Marty et al. is not referenced (with the exception of one sentence in the Conclusion section).

Thus, despite of the obvious improvement of the MS, I cannot recommend publication in the present form, because the novelty of the present MS is now compromised and the authors do not sufficiently reference the earlier study despite its similarity. I recognize that lipid analyses are presented in much greater detail in this MS (attesting to the huge analytical effort), and allow more detailed interpretations of the mechanisms and sources of particles sinking into the traps, which were as such not presented in the Marty et al. 2009 study, and which clearly warrant publication. Thus, my recommendation is that Méchanelle and Dachs should acknowledge from the get-go the published results by Marty et al 2009 and focus on those data only that warrant additional interpretations (not previously published) of this valuable data set. Note that it is not helpful to have these extensive Tables (Tables 2-4) included in the text, these need to be moved into the Suppl. Section.

-end of review-

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