

Interactive comment on “Constraints on the applicability of the organic temperature proxies U_{37}^K , TEX_{86} and LDI in the subpolar region around Iceland” by M. Rodrigo-Gámiz et al.

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We really appreciate all comments and suggestions given by J. Salacup.

With respect to the SPM method extraction, we understand that it is a bit unclear. In the revised version we will clarify it and explain it better.

Regarding Fig. 2, this is an interesting point but unfortunately we do not have the concentrations of all the lipids used as proxies in the different stations for both cruises. Therefore, we cannot expand this figure as suggested by the referee.

With respect to the comparison of indices, derived temperatures or concentrations of

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the different kind of material collected, we do agree with the referee; surface sediments reflect the composition of descending particles over multiple years. In this sense, a sediment trap record of one year may still be seen as a “snapshot”, despite all the major efforts required to obtain such dataset. In our revised manuscript we will carefully indicate this.

The referee is also right with respect to the difficulties of the interpretation of the results with respect to the U_{37}^K index. Diverse possible causes for the discrepancies between sedimenting U_{37}^K - derived SST and in-situ SST, or sedimentary U_{37}^K -SST, have been mentioned in the text but we will expand on this in the revised manuscript.

Once more, we thank the referee for the comments done and the positive appraisal of our work.

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