

Accepted Manuscript

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Authors: Oscar Rama-Corredor, Aleix Cortina, Belen Martrat
Jordi F. Lopez, Joan O. Grimalt



PII: S0021-9673(18)30844-6
DOI: <https://doi.org/10.1016/j.chroma.2018.07.004>
Reference: CHROMA 359516

To appear in: *Journal of Chromatography A*

Received date: 1-2-2018
Revised date: 28-6-2018
Accepted date: 1-7-2018

Please cite this article as: Rama-Corredor O, Cortina A, Lopez BMJF, Grimalt JO, Removal of bias in C₃₇ alkenone-based sea surface temperature measurements by high-performance liquid chromatography fractionation, *Journal of Chromatography A* (2018), <https://doi.org/10.1016/j.chroma.2018.07.004>

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Removal of bias in C₃₇ alkenone-based sea surface temperature measurements by high-performance liquid chromatography fractionation

Oscar Rama-Corredor, Aleix Cortina, Belen Martrat Jordi F. Lopez and Joan O. Grimalt*

Department of Environmental Chemistry. Institute of Environmental Assessment and Water Research (IDÆA), CSIC. Jordi Girona, 18. 08034 Barcelona, Catalonia, Spain

Highlights

- Marine sediments have steryl undecenyl ethers that bias SST alkenone measurements
- • An HPLC method is described to separate these coeluting ethers from the alkenones
- • GC analyses of HPLC fractionated alkenones afford reliable SST results in these cases
- • Analysis by POSI-GC-MS appears to be equivalent to HPLC fractionation plus GC-FID
- • The new method enables processing many samples as required in paleoclimate studies

*Corresponding author: Joan O. Grimalt. Phone: +34934006118. Fax: +34932045904. E-mail: joan.grimalt@idaea.csic.es

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