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Removal of bias in C_{37} alkenone-based sea surface temperature measurements by high-performance liquid chromatography fractionation

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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

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