Point-by-point response to comments

Title: Fatty acid carbon isotopes: a new indicator of marine Antarctic paleoproductivity?
Journal: Organic Geochemistry

This remains an interesting paper, revisions are minimal and improve the manuscript.
I was R1 on the last round. I am satisfied with revisions.
We thank Prof. Feakins for the previous reviews and for her final suggestions which we have implemented (and detailed below). In addition we have added acknowledgements and author contributions.

Minor formatting and technical corrections remain:
Line 52 – I read the rebuttal and the revision, 'freely extractable (using a standard solvent extraction protocol)' remains is obscure as yields differ between common solvent extraction methods (sonication, microwave, soxhlet and pressurized ASE or EDGE extraction). The method can be detailed in the methods. Here, suggest "free (solvent-extractable)" would suffice.
Amended as suggested

Line 110 – ultrasonication – please state the duration of sonication and any repetition of extraction cycles, with the goal of this to be repeatable by other scientists and to allow for comparability between sites and groups. Ideally specify the approx. mass of the samples, volume of solvent and number of extraction cycles and rinse steps, as these could affect extraction yield.
Amended as suggested.

Formatting carries over from the last review. Here are the specific items noticed on this reading:
Line 144, 120, 122, 124, 137, 138 – FAMEs not FAs (as analyzed as FAMEs on the GC).
Line 122 – subscript 19.
Line 125, 126 superscript and subscripts as appropriate for d13C, 12C, 13C, CO2
Line 144- 149, did you want to subscript FA and FAME when using after d13C, as on line 576 (either is fine, just be consistent)?
The n for normal, should be italicized.
Line 351-353 – the CL are not subscript, as they are elsewhere.
Line numbers refer to track changes version.
We have implemented all of the above minor formatting corrections.