

## ***Interactive comment on “An inter-laboratory investigation of the Arctic sea ice biomarker proxy IP<sub>25</sub> in marine sediments: key outcomes and recommendations” by et al.***

**et al.**

sbelt@plymouth.ac.uk

Received and published: 9 November 2013

We are grateful to John Volkman for a supportive review. The point raised about the distinctive isotopic signature of IP<sub>25</sub> is a good one. In practice, determination of  $\delta^{13}\text{C}$  for IP<sub>25</sub> on a routine basis can be problematic due to the analytical challenges of obtaining clear chromatographic resolution. Further, while GC-MS instrumentation is relatively common in analytical facilities (as demonstrated by the involvement of groups here), GC-irm-MS instruments are a lot less common. We will, however, suggest that isotopic measurements of sedimentary IP<sub>25</sub> should be made, wherever possible, as a means of confirming its sea ice origin. We will also indicate the mass of sediment

C2530

used in the study (ca. 0.5 g) and address the issue of the significance of low level abundances – this point is, however, covered to some extent in Belt et al., *Analytical Methods* (2012) 4, 705-713.

Re-the relatively small number of laboratories involved, further researchers agreed to take part in the study but were unable to provide data due to problems with instrumentation. It is our intention to carry out a follow-up study with a larger number of contributing laboratories.

---

Interactive comment on Clim. Past Discuss., 9, 5263, 2013.

C2531