

Interactive comment on “Surface and subsurface Labrador Shelf water mass conditions during the last 6,000 years” by Annalena A. Lochte et al.

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Thank you very much for the positive and constructive feedback on our contribution. Below, we address the specific concerns raised by this reviewer.

1. Does the sedimentation rate have any effect on the alkenone concentration?

A comparison of the average alkenone concentration with sedimentation rates between dated horizons shows no correlation (see figures 1 and 2 below). It is thus unlikely that changes in the sedimentation rate caused consistent variations in the alkenone concentrations.

2. page 2 last line the current's potential

C1

This will be changed.

3. page 3 line 13 where are these strong north-westerly winds? over the Labrador Sea I assume?

Correct. This information will be added in the revised manuscript.

4. page 3 line 23 itself is formed from the cold...

This will be changed.

5. page 7 line 26 that peaks at 75 ng/g

This will be changed.

6. Figures 5 and 6: mention what the gray bars are in the captions

This information will be added to the caption: "Grey vertical bars highlight periods of pronounced oceanographic change."

Interactive comment on Clim. Past Discuss., <https://doi.org/10.5194/cp-2019-100>, 2019.

C2

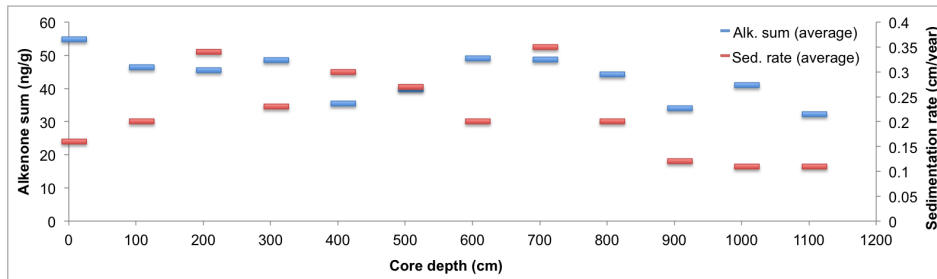


Fig. 1. Alkenone sum plotted versus sedimentation rate

C3

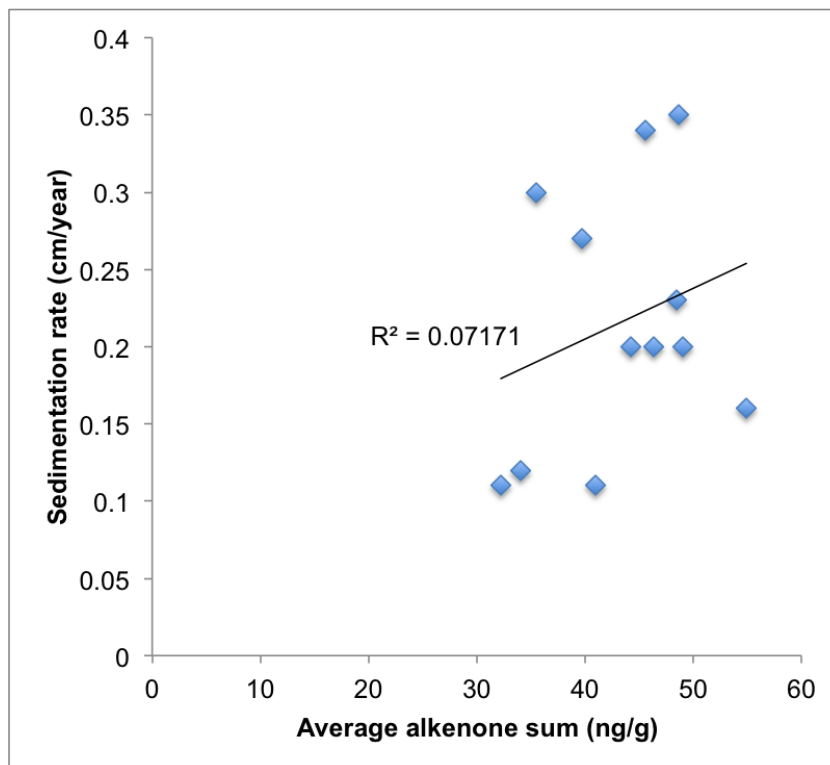


Fig. 2. Relationship of alkenone sum and sedimentation rate

C4