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Supplement of

**Better molecular preservation of organic matter in an oxic than
in a sulfidic depositional environment: evidence from
Thalassiphora pelagica (Dinoflagellata, Eocene) cysts**

Gerard J. M. Versteegh et al.

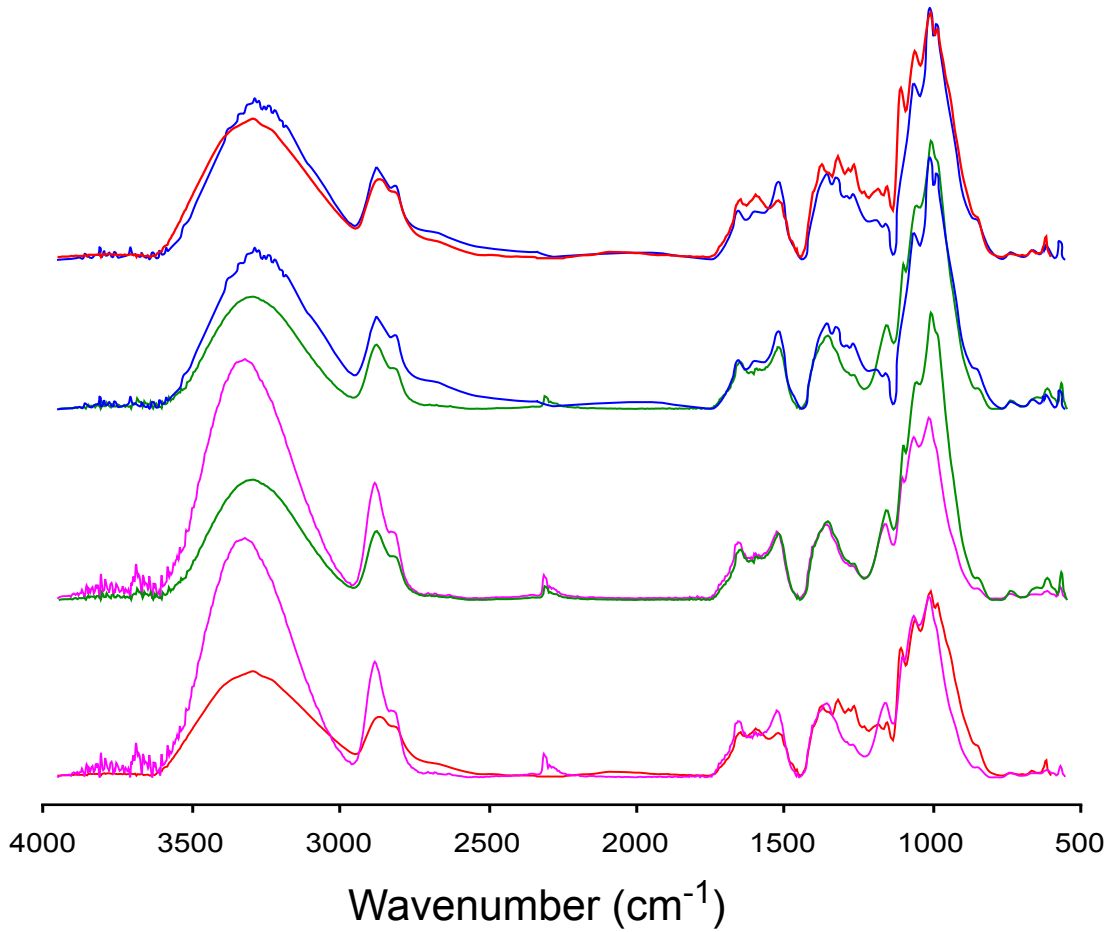
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Supplementary Information

Published infrared spectra of the cysts of *L. polyedrum* and *T. pelagica* had been obtained by means of different spectrometric methods and using different brands and types of equipment. To obtain a better insight in the extent to which differences between spectra resulted from differences in cyst structure or differences in measurement conditions we traced the original material and re-measured all cysts using the same analytical procedure. Supplementary figures 1 and 2 demonstrate the influence of different methods of measurement.

Lingulodinium polyedrum



Versteegh et al. (2012)

This paper (reflection)

This paper (ATR - no ATR correction)

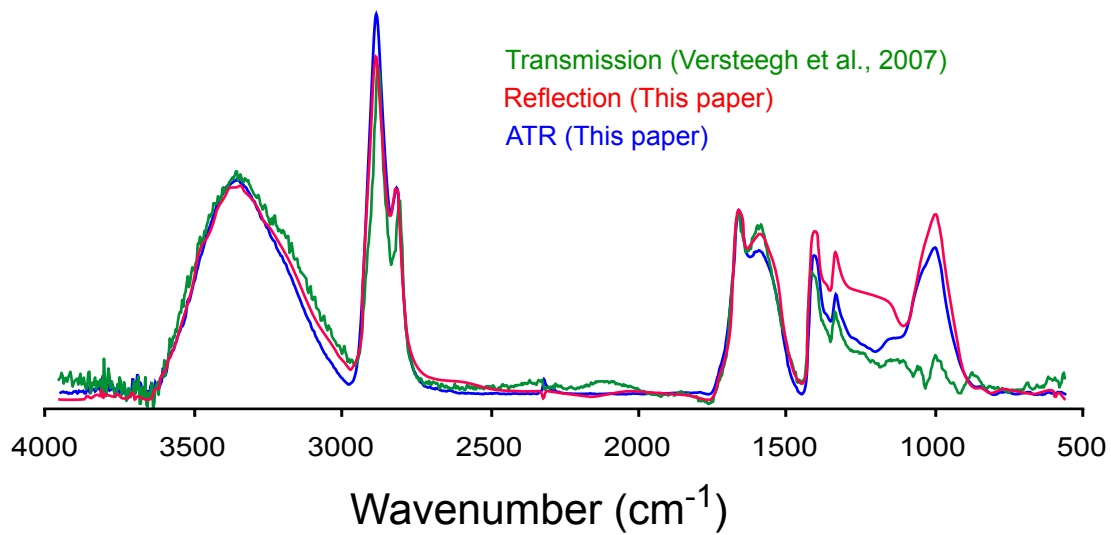
This paper (ATR - ATR correction)

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Supplementary Figure 1: Comparison of published and re-measured infrared spectra derived from culture derived *Lingulodinium polyedrum* cysts measured in reflection mode and micro ATR mode. All spectra are derived from same sample, and received the same sample processing.

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Thalassiphora pelagica - Rhine Graben



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Supplementary Figure 2: Comparison of published and re-measured infrared spectra derived from *Thalassiphora pelagica* cysts from the Rhine Graben, measured in transmission, reflection and micro ATR modes. All spectra are derived from same sample, and received the same sample processing.