Interactive comment on “On the quantification of atmospheric carbonate carbon by thermal/optical analysis protocols” by A. Karanasiou et al.

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Received and published: 18 February 2011

We would like to thank Fabrizia Cavalli for the comments in the submitted manuscript and for the results provided. We have also conducted more experiments with lower concentrations of CC in the range 7-35 µg/m² using simulated “atmospheric CaCO₃” test samples where CaCO₃ was suspended in a clean chamber and sampled on a quartz filter as aerosol particles. It has emerged from these newer experiments that with the EUSAAR-2 protocol low concentrations of CC (<15 µg/m²) have given the same results as yours i.e: one clear peak at the end of the He cycle. Higher concentrations continue to yield a broad peak at the He area and a minor peak at the He/O₂ area. We would like to merge the experiments described in the comment with ours and include Fabrizia Cavalli to the authors of the revised manuscript.

Fig. 1. Thermogram of EUSAAR-2 analysis on a blank and a CC-loaded filter