

Interactive comment on “Clues for a standardised thermal-optical protocol for the assessment of organic and elemental carbon within ambient air particulate matter” by L. Chiappini et al.

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We thank Dr. Chen very much for taking time to read our manuscript and to comment on it. As stated in the manuscript and confirmed (where needed) by results obtained from the present study, the calibration of the front oven temperature probe, the purity of the He gas and the stability of the laser signal are key parameters that should definitely be taken into account within QA/QC protocols for EC-OC thermal-optical measurements. With regard to the suggestion of Dr. Chen that the type of instruments used for the measurements presented in figures 3, 4 and 6 should be indicated, this will be done in the revised manuscript. We like to recall here that the aim of the intercom-

C4819

parison exercise presented in the manuscript was to assess the (in-)homogeneity of results obtained by the different laboratories when applying their routine measurement protocols. In this context, we still think that it is of interest to compare the results obtained, whatever the different transmission detection ranges are; the latter ones are nevertheless discussed in section 2.2.3. We also like to underline that there is no contradiction between the results obtained from the ANOVA tests, which indicate that no instrument is clearly distinguished from the others when TC transmittance data are investigated, and the results obtained from the calculation of the expanded relative uncertainty of transmittance TC measurements (29%). Indeed, when considered together, both statements only reflect the fact that there is some scatter but no outlier within the dataset, which is quite often the case in such intercomparison exercises. Finally, as suggested by Dr. Chen, Yu et al. (2002) will be cited as reference for the possible influence of SOA content on charring.

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