

28 April 2021

Dear editor,

We thank the referees for their last round of comments. Concerning the whole-air inlet we have made it clearer that the inlet was exactly built according to the technical drawings given by the World Calibration Centre for Aerosol Physics (WCCAP) and that it is technically identical to the inlet by Weingartner et al (1999). We refrain from adding the sentence “the inlet has not been experimentally validated for particle loss” to our manuscript because this is an uncommon procedure in the world of ambient aerosol sampling and technically difficult to perform. We have no reason to believe that significant particle losses have occurred (see previous review comments). Therefore, adding such a sentence would cast unnecessary doubt to our work. However, we have clarified that we have accounted for losses using the particle loss calculator.

The modified text now reads as:

“The standard aerosol inlet is heated to a temperature of around 5--10°C to prevent freezing and fulfils the World Meteorological Organization (WMO)/Global Atmosphere Watch programme guidelines for aerosol sampling of whole-air in extreme environments (WMO/GAW 2016, Wiedensohler et al., 2014). The inlet was built in collaboration with the World Calibration Centre for Aerosol Physics (WCCAP) at the Leibniz Institute for Tropospheric Research, Germany and is technically identical to the inlet described by (Weingartner et al., 1999), which can sample cloud droplets up to 40 µm at wind speeds up to 20 ms⁻¹. Particle losses within the inlet lines were accounted for using the *Particle Loss Calculator* by (von der Weiden et al, 2009) (see Sect. 2.4 below). “

Concerning the data submission, we are in the process to receive a DOI from the Bolin Centre Database and will add the exact address during the proof-reading stage.

Thanks and kind regards,

Paul Zieger on behalf of all co-authors.