Author's response to

Associate Editor decision: Publish subject to technical corrections
by Jessie Creamean

Comments to the author:
The revision was sufficient to proceed with publication, subject to a few minor corrections that should be addressed:

• Please add a reference statement for Figure S1 in the caption of Figure 1.

→ added as suggested

• Lines 324-325: Why is the sampling efficiency necessarily increased through the funnel geometry? Couldn't the geometry also increase losses (e.g., through impaction)?

Compared to a simple pipe inlet, the funnel geometry enables more larger particles with higher inertia to be sampled as illustrated in the following sketch:

funnel inlet   pipe inlet

— sample air stream line

— trajectory of large particle
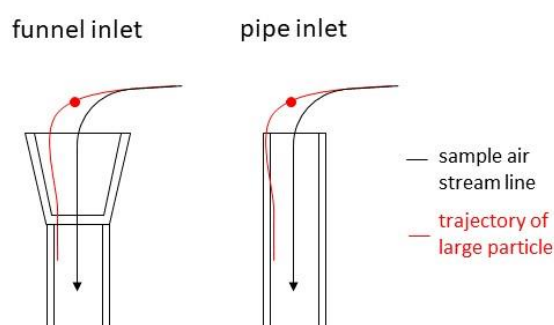
→ Larger particle would impact into pipe wall due to inertia without the funnel

The only possible scenario in which particle impaction would be increased is when the particle's initial flow direction is from below. In this case, the change in flight direction of 180° would most likely also lead to a loss of large particles that cannot follow the streamline of the sample air due to inertia with a simple pipe inlet.

• Line 333: Maybe add within this sentence "…due to diffusion..." behind "losses".

→ added as suggested

• Lines 191-192 and 350: Looks like there was an issue with the citation software not linking to the correct reference.

→ issue solved

• Line 356: Are these units supposed to be just % and not °%? If the latter, can the authors define that better?

→ that was a miss type for the "half-space" in MS word between number and unit, it is just %

→ miss type corrected

• Figure 9: Why was the POPS not converted from optical to mobility diameter to enable a direct comparison with the converted APS and MPSS? Please add a sentence or two providing more information on this, or how it might cause some discrepancies when comparing optical to mobility diameters.

→ the POPS was converted to mobility diameter by the refractive index correction that is described in the whole paragraph. For clarity, the paragraph was slightly modified to make clear, that the optical PNSD based on PSL requires a refractive index correction to be converted into mobility PNSD and compared to MPSS and APS.

• Line 467: eBC was not shown, perhaps change "eBC" to "absorption".

→ changed as suggested

Figure 1 was extended with a simplified sketch of the aerosol sampling system and instruments to enable an easy and brief overview of the system for the readers that are not interested in the detailed technical drawing in the supplementary.