



Corrigendum to “Impact of particle size, refractive index, and shape on the determination of the particle scattering coefficient – an optical closure study evaluating different nephelometer angular truncation and illumination corrections” published in Atmos. Meas. Tech., 15, 3161–3187, 2022

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During manuscript preparation, the following two things were written incorrectly and as a result were reported inaccurately in the published paper:

1. Table 1 reports the parameter of the Aurora 4000 angular sensitivity function measured by Müller et al. (2012). The parameter +0.0082 in Table 1 should be −0.0082 because $\delta_2(\alpha)$ in Eq. (1) in Müller et al. (2012) is written as

$$\delta_2(\alpha) = 1.1935 \cdot \alpha - 0.0082 \cdot \alpha^2.$$

We would like to point out that this typo in the paper does not affect the results of the paper because in the data analysis code the correct value of $\delta_2(\alpha)$ was used.

2. We stated that our tricolor absorption photometer (TAP, Model 2901, Brechtel) determines the particle absorption coefficient for the wavelengths of 467, 528, and 652 nm as reported in other publications (e.g., Davies et al., 2019) as well as on the Brechtel website (<https://www.brechtel.com>, last access: 17 July 2023).

However, we recently discovered that the unit of the University of Vienna has slightly different wavelengths, which are 465, 520, and 640 nm. As the differences between the wavelengths are smaller than the full-width half maximum (FWHM) reported in the user manual (i.e., 25, 35, and 22 nm), this difference is negligible and has no impact on the paper results.

The incorrect wavelengths were reported in Fig. 1 and in Sects. 4.1, 4.2, 4.3, and S1.4.

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References

- Davies, N. W., Fox, C., Szpek, K., Cotterell, M. I., Taylor, J. W., Allan, J. D., Williams, P. I., Trembath, J., Haywood, J. M., and Langridge, J. M.: Evaluating biases in filter-based aerosol absorption measurements using photoacoustic spectroscopy, *Atmos. Meas. Tech.*, 12, 3417–3434, <https://doi.org/10.5194/amt-12-3417-2019>, 2019.
- Müller, T., Paixão, M., Pfeifer, S., and Wiedensohler, A.: Scattering Coefficients and Asymmetry Parameters derived from the Polar Nephelometer Aurora 4000, in: European Aerosol Conference EAC 2012, Granada, Spain, 2–7 September 2012, Zenodo [poster], <https://doi.org/10.5281/zenodo.5588445>, 2012.