

Dear Editor,

We request post-review adjustments on Table 1 of amt-2023-245. The terminology for the scattering correction factor was changed during the review process as required by Reviewer 2 (as shown by the snapshot of the response file shown below).

3. Equation (15) and the paragraph below: The authors used C' , C_{AE33} , and C_{ref} to represent different meanings for scattering correction. The denominator of Equation (15) was used to correct for the bias generated by filter scattering. In this sense, C' is

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Point-by-point response to reviewers' comments (amt-2023-245)

anyway not appropriate because you have employed C' to represent “second correction factor”. I suggest the authors keep unambiguity and consistency in the definition and application of the three forms of conversion factor and revise Equation (15).

Response to R2Q3: Thanks for the suggestions. The use of C' had been abandoned and the second correction factor was termed as “harmonization factor” according to a previous study (Savadkoobi et al., 2023).

Equation (15) was revised as follows:

$$b_{abs}(AE33) = \frac{e^{BC_{corrected}} \cdot \sigma_{air}}{H} \quad (15)$$

We applied the said changes in the main text and SI during the review process but forgot to update Table 1 accordingly. We spotted this issue during the proofreading. Therefore, we ask for adjustments to Table 1 as follows:

Table 1. Summary of existing AE31–AE33 intercomparison studies. W and V in the column “Loading correction” refer to Weingartner and Virkkula correction algorithms, respectively. [ISI](#)

Measurement site	Model	Time base (min)	Flow rate (L min ⁻¹)	Filter	Loading correction	Period (duration)	Slope (AE33 vs. AE31)	Reference
Ahmedabad, India (urban)	AE31	5	3	Quartz fiber filter $C_{AE31} = 2.14$	W	Jul 2014–Dec 2014 6 months	$e^{BC_{880}}$ 5 min: 1.06 1 h: 1.02	Rajesh and Ramachandran (2018)
	AE33	1	3	Teflon-coated glass fiber $C_{AE33} = 1.57$	Dual-spot			
Milan, Italy (urban)	AE31	5		Quartz fiber filter (Pallflex Q250F)	W	18 Jan–15 Feb (2018) 1 month	$e^{BC_{880}}$ 5 min: 1.05	Ferrero et al. (2021)
	AE33	1		Teflon-coated glass fiber (Pallflex T60A20) $C_{AE33} = 1.57$	Dual-spot			
Granada, Spain (urban)	AE31	5			–	Jun 2014–Jul 2014 2 months	$e^{BC_{880}}$ 5 min: 1.11	Tiios et al. (2015)
	AE33	1			Dual-spot			
Pallas, Finland (background)	AE31	5	4.5	$C_{AE31} = 3.5$	V	19 Jun–17 Jul (2019) 1 month	b_{2660} 1 h: 0.47	Asmi et al. (2021)
	AE33	1	5.8	$C_{AE33} = 1.39$ $C' = 2.52$	Dual-spot			
Guangzhou, China (urban)	AE31	5	2.4	Quartz fiber filter (Pallflex Q250F) $C_{AE31} = 3.48$	W and V	Apr 2021–Mar 2022 12 months	$e^{BC_{880}}$ 5 min: 1.18 1 h: 1.20	This study
	AE33	1	3	M8060 $C_{AE33} = 1.39$ $C' = 2.1$	Dual-spot		b_{2660} 5 min: 0.85–0.86 1 h: 0.87	

“C’” change to “H”

“ C_{AE33} ” change to “ C_0 ”

Sorry for the inconvenience caused.

WU Cheng on behalf of all authors.

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