



Corrigendum to “Complex refractive indices in the ultraviolet and visible spectral region for highly absorbing non-spherical biomass burning aerosol” published in Atmos. Chem. Phys., 21, 7235–7252, 2021

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Following publication of this paper, it was brought to our attention that two lines in the first paragraph of Sect. 4.3 could lead to misinterpretation of the methodology we used to derive the results in Fig. 3. Those lines read “We atomized five aqueous solutions of monodisperse PSL with diameters from 150 to 400 nm” and “The size-selected aerosol was monitored by a UHSAS OPC and found to be consistent within uncertainty with the manufacturer-specified mode diameter and Gaussian distribution”. While the major peaks in the OPC-observed size distribution of polystyrene latex (PSL) spheres were monodisperse, Gaussian in shape, and matched the manufacturer-specified diameters as stated, there was some evidence of a minor mode of larger particles. Larger particles have a stronger effect on light scattering, so the true measured size distribution with these minor modes, rather than an idealized Gaussian distribution, was used to derive the results in Fig. 3. None of the subsequent results of this paper are expected to change with this clarification.

We now provide Fig. 1 of this corrigendum, showing the true OPC-observed size distribution. Raw data are available upon request.

Additionally, we note that there was a typographical error in the final exponent of an equation in the last paragraph of Sect. 4.3. The line reading “We empirically fit n to a third-order polynomial function of wavelength as $n = 2.30 - 0.0035 \times \lambda + (6.05 \times 10^{-6}) \times \lambda^2 - (3.62 \times 10^{-6}) \times \lambda^3$ across the measured spectral range” should instead read “We empirically fit n to a third-order polynomial function of wavelength as $n = 2.30 - 0.0035 \times \lambda + (6.05 \times 10^{-6}) \times \lambda^2 - (3.62 \times 10^{-9}) \times \lambda^3$ across the measured spectral range”.

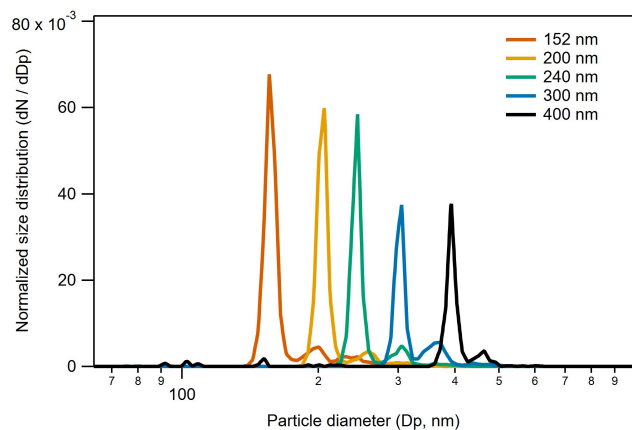


Figure 1. The size distribution of five samples of polystyrene latex (PSL) spheres ranging from 152–400 nm. While the major peaks match the specified diameter and are Gaussian in shape, some particle counts at sizes larger than the primary PSL peak remain from atomized doublets, which could not be removed despite multiple preparations of the PSL samples. This size distribution was used to derive the refractive index of PSL shown in Fig. 3 in the main text.