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Atmospheric Measurement Techniques Discussions

Interactive comment on "LOAC: a small aerosol optical counter/sizer for ground-based and balloon measurements of the size distribution and nature of atmospheric particles – Part 1: Principle of measurements and instrument evaluation" *by* J.-B. Renard et al.

R. Jaenicke

jaenicke@uni-mainz.de

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In an atmospheric Background Aerosol roughly 7*10ˆ-4 particles per cmˆ3 are present in the size range 20 to 100 μm diameter. With 2 L/min flow rate, this instrument sees 1.4 particles per minute. In 10 sec integration time, it sees 0.2 particles per integration. The error of such an observation could be described with the Poisson distribution and results in 800% error (roughly), besides of the natural variations in the atmosphere.

Does that it make sense claiming that such an instrument is useful for such large particles?

Interactive comment on Atmos. Meas. Tech. Discuss., 8, 1203, 2015.