

Interactive  
Comment

***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.***

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In an atmospheric Background Aerosol roughly  $7 \cdot 10^{-4}$  particles per  $\text{cm}^3$  are present in the size range 20 to 100  $\mu\text{m}$  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.

C124

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

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

**AMTD**

8, C124–C125, 2015

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