

Atmos. Meas. Tech. Discuss., referee comment RC1
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Comment on amt-2021-136

Ghislain Motos (Referee)

Referee comment on "Assessment of real-time bioaerosol particle counters using reference chamber experiments" by Gian Lieberherr et al., Atmos. Meas. Tech. Discuss.,
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This paper presents interesting data in a very concise and understandable way. The limitations of the study are explicated, and further improvements are detailed.

I noted very few minor comments:

-Lines 88, 98, 114: Does AMT require to specify the address of the manufacturer (at least region and country)?

-Line 173: It is interesting to note that the WIBS-NEO was unable to detect 10 μm PSL, where it should operate up to 30 μm . It would be worth digging a bit more here to at least give hypotheses on what could have happened. What does literature say about detection efficiency of this model of the WIBS for particles larger than 5 μm ? If some studies showed opposite results than yours, where did something go wrong?

-Line 175: You mention a lower detection limit at around 2 μm for the Rapid-E, but you only tested 2 μm (no detection) and 5 μm (98% detection efficiency). How do you know the lower detection limit is not 3 μm , or 4 μm ?

-Figure 2: No need to repeat "%" symbol in the y-axis labels, this is already in the legend.

-Line 256: You mention the WIBS did not give fluorescence results because it "provides a maximum of two data points per excitation wavelength". This is difficult to understand for non-WIBS experts. Could you detail what prevented you from showing WIBS results here? This is a relatively big limitation of the paper, so this would deserve more explanation.

Thank you!