

In this work, the authors describe in detail a photoacoustic aerosol absorption spectrometer PAAS-4 $\lambda$  and analyze its performance, while using it for 11 months of continuous testing in the Arctic. This work is very interesting.

I recommend this manuscript to publish on Atmospheric Measurement Techniques after revision. I have some comments on this manuscript as below:

(1) The authors mention on page 10 that “A correction factor of 1.3 is applied in Fig. 4 for the 405 nm measurements”, how did the authors calculate this correction factor?

(2) Why is there no calibration result for the 473 nm band in Figure 4?

(3) Why is the laser emission spectra information in the 473 nm band not shown in Figure S5? The same problem appears in Figure S6, Figure S7, Figure S8.