

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.