

Interactive comment on “A network of autonomous surface ozone monitors in Antarctica: technical description and first results” by S. J.-B. Bauguitte et al.

Anonymous Referee #2

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This article describes a nice piece of work that is well suitable for publication in AMT. It reports on the configuration, deployment, and operation of an ozone monitoring network in Antarctica. This is a timely publication, as the last decade has seen a notable increase in interest and research activities in the Polar Regions. This research is one of the very first activities that demonstrate the monitoring of ozone with an autonomous instrument in this harsh environment. It is likely that the findings from this research will become a stepping stone for further deployments of similar systems in other remote regions.

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This work was done carefully by experienced scientists. The manuscript is well written and appropriate in content and length. A particular strength is the attention paid to details in this presentation.

I suggest that the authors consider the following list of comments and questions in the final preparation of their publication:

It would be valuable to have a table with the calibration variables (slope/offset) and zero check results of each monitor that were determined prior and after the field deployment.

It would also be valuable to have more detailed information on the power consumption (in Amp, or Amp-h) of individual system components in the different operational modes that the systems were operated in. Did any of this researchers attempt to estimate the heat/energy that is removed by the heating of the cold air during its passing through the instrument?

I would expect that riming of the inlet might be a problem, in particular at the coastal locations. The swinging inlet/metal hoop is a really smart approach for alleviating this problem. Are there any data or observations that could illustrate if and how much riming was encountered?

Page 5801/Line 20: From Figure 2b it does not appear that there was a heater cable and insulation wrapped around the sampling tubing?

5801/26: Why was the sampling suspended when winds were high?

5802/3-4: Please provide vendor contact information (location, country).

5805/17: Do these researchers have data that would allow demonstrating the agreement between the site instruments and the transfer standards after entering and consideration of the calibration factors?

5806/5: Suggested rewording: “. . .seasonal variations at 10 m depth reduced to 5% of that experienced in the air above the surface . . .”

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5807/4: Was there a specific reason to turn the lamp off during the system status check?

Interactive comment on Atmos. Meas. Tech. Discuss., 3, 5795, 2010.

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