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Atmospheric Measurement Techniques Discussions

Interactive comment on "A low activity ion source for measurement of atmospheric gases by CIMS" *by* Young Ro Lee et al.

Anonymous Referee #1

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The authors present a new, low activity ion source for CIMS measurements. This is an important technical advance that could be advantageous for many researchers. The authors note that the sensitivity of the instrument does not scale with the activity, and that sufficient sensitivity can be achieved using the low activity source as demonstrated using field data. The paper is a well written technical manuscript.

A few short comments for the authors to consider:

Since the major advantage of the low activity source is the ability to transport it without HazMat training, it would be helpful for the authors to be more clear on what (if any) limitations exist for transporting the sources. Or more specifically, at what activity can a source be sent without HazMat training?

Section 3.1 provides a nice discussion of sensitivity, but almost no discussion on backgrounds which drive LOD in many CIMS instruments. It would be helpful to include a discussion of how the backgrounds changed between the standard source and the LAS and how that translates into LOD.

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