

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

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Response to Referee 3 (Referees' comments are italicized)

General Comments

1. Referee comment: “Since 2U500 can be shipped and received without radiation source licenses, this improvement simplifies logistics in field campaigns. So this is a necessary step towards reducing the activity level of radiation in aircraft and field experiments. However, the authors should also mention that even this low activities (e.g., 0.5 mCi) are not exempted and in many states, they still require a radiation source license (even when used in the lab on the academic campus)”

Author response: The 500 μ Ci static eliminator cartridges are a generally licensed

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device so don't necessarily require a site license. The degree of regulation varies by institution and state. For example, the LAS cartridge are exempted in the state of Georgia, but Georgia Tech requires them to be listed on their license as well. We have added "The 500 μ Ci static eliminator cartridges are a generally licensed device. However, the degree of regulation is specific to the institutions and states in which they are deployed." to the revised manuscript.

line 50) Please elaborate "For example, we have found that a significant fraction of the 20 mCi ionizers have leaks on the body of the device."

Author response: In our experience, we have found that about half of the 20 mCi ionizers have vacuum leaks on the body of the device. They generally leak on the screws under the product label. In addition, we have found that leaks are possible near the ends of the ionizers where the central tube is mated to the pipe threads on the ends. We have added text noting the potential leaks.

Interactive comment on Atmos. Meas. Tech. Discuss., doi:10.5194/amt-2019-452, 2019.