Geosci. Instrum. Method. Data Syst. Discuss., doi:10.5194/gi-2016-28-AC1, 2016 © Author(s) 2016. CC-BY 3.0 License.





Interactive comment

## Interactive comment on "Mass spectrometry of planetary exospheres at high relative velocity: direct comparison of open- and closed source measurements" by Stefan Meyer et al.

## Stefan Meyer et al.

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First of all, thank you for your feedback.

Indeed, the defined energy the particles acquire in the antechamber is of advantage. Exactly this leads to the enhanced mass resolution compared with the open source case, where the particles enter the source with the same velocity and therefore mass dependant kinetic energy. On the other hand, any kind of fragmentation or chemical reactions inside the antechamber are generally undesirable, because it makes data analysis much more difficult. But you are right, that the well-defined energy of the particles makes such fragmentation patterns at least reproducible for laboratory calibration. However, we are happy to not observe any fragmentation with our current

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antechamber design, at least for the measured and predicted mission like conditions.

At the end, your suggested corrections will be incorporated into the final revision and the reason of using both types of sources will be given in section 1. The (team) references are sorted chronologically before alphabetically, according to the journal's rules.

GID

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Interactive comment on Geosci. Instrum. Method. Data Syst. Discuss., doi:10.5194/gi-2016-28, 2016.