Results from the validation campaign of the ozone radiometer GROMOS-C at the NDACC station of La Réunion Island

Susana Fernandez, Rolf Rüfenacht, Niklaus Kämpfer, Thierry Portafaix, Francoise Posny and Guillaume Payen

May 9, 2016

We would like to thank the referee for the time dedicated to read the manuscript and for the interesting suggestions. Response to the specific comments are exposed below.

- Section 2.1 The authors mention that O3 at both 109.559 and 110.836 GHz can be observed. Why would one want to use the weaker 109.559 GHz line?

It could be used to retrieve ozone profiles independently, and compare with the retrievals from the main line. We intend to do that in the future.

- Please shortly describe the window with very low losses (material, thickness)

We have added a sentence in line 14 page 3: "It is made of teflon 1 mm thick and has a shape of a section of a cone".

- Figure 5 It would be illustrative to add the forward model spectra and the retrieved baselines in the upper three plots.

Thanks for the suggestion. We have added the forward model to Figure 5. Besides, we have included error bars for the retrieved profiles, we have removed the averaging kernels and added the altitude resolution.

- Figures 4, 6, 8, 9 and 10 The major altitude scale is pressure in all figures in the paper and I believe this is the correct thing to do. It would however be clarifying to add an approximate altitude scale in km to the right of figures 4, 6, 8, 9 and 10.

This suggestion is in contradiction with Referee 1, who suggests to use only one altitude variable in all plot. Only in Figure 3 we have included both vertical coordinates, pressure and altitude, since we believe it can be illustrative for the reader to have a visual equivalence pressure-altitude. However, we think it would be redundant to include both coordinates in each plot and prefer to use only pressure as vertical coordinate as it is more commonly used in the field.