

***Interactive comment on “Potential for the measurement of MLT wind, temperature, density and geomagnetic field with Superconducting Submillimeter-Wave Limb-Emission Sounder-2 (SMILES-2)” by Philippe Baron et al.***

**Anonymous Referee #3**

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The study of Baron et al. is of high value for the readers of AMT. They well describe the details of the retrieval of a planned satellite mission for limb sounding the MLT region. Their simulation study yields the uncertainties which can be expected for the retrieved atmospheric parameters. A new point is the inclusion of the geomagnetic field in the retrieval process. It is beyond my expertise to verify the equations of the article. However, the article is carefully written and well explained. I only found some minor corrections. Thus, I recommend a publication of this article in AMT.

Minor corrections:

C1

Table 1 W, T and NLC denote wind, temperature and ...

page 5, line 12 molecular instead of moelcular

page 7, line 5 what does wrt mean?

page 8, line 9 They are dependent on ...

page 10, line 9 ... lower sideband ratio is ....

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Interactive comment on Atmos. Meas. Tech. Discuss., doi:10.5194/amt-2019-217, 2019.

C2