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Atmospheric Measurement Techniques Discussions

Interactive comment on "MIPAS Observations of Ozone in the Middle Atmosphere" *by* Manuel López-Puertas et al.

Anonymous Referee #2

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This paper describes the characteristics and validity of the new data product of MIPAS O3 measurements, including the comparison with other satellite data and also the climatology of O3 distribution. The manuscript is well prepared and is recommended for the publication in AMT.

Below I put some minor comments from the view point of a better readability, particularly for those who is not so familiar with this kind of satellite remote sensing.

-p.2 Line 15: Please clarify the local times of MIPAS observation (or, please say something about the sun synchronized orbit of Envisat). Although such information is provided at the beginning of Sec.4, I think it is still useful for readers to know it in advance at this introduction section.

-p.3 Section 2: I would suggest to include relevant references about the general introduction of the Non-LTE processes of O3.

-p.6 Table 3 shows the micro-windows that the authors used in the retrieval. I would like to see an example of L1b spectra at several tangent heights. This gives us an idea about how low the radiance noise is (which the authors describes in page 11 line 5).

-p.7 Line 10: What is the major improvement of the new version 5 of L1b spectra compared to the previous one (particularly compared to v-4.61/62)?

-p.9 Line 4: "...the calculation of the spectra the contribution (as a...": this sentence appears odd.

-p.10 Line 11: Threshold of the averaging kernel 0.03, is this an empirical value?

-p.12 Error analysis for the systematic errors: I would suggest to add a short description about how the authors evaluated the systematic errors (numerically computed by comparing the retrieved profiles using the nominal inversion model and the modified inversion model?).

-p.16 Line 30: Baron et al. (2011) seems a reference paper for the earlier version of SMILES O3 data.

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