

Interactive
Comment

Interactive comment on “**Technical Note:
Continuity of MIPAS-ENVISAT ozone data quality
from full- to reduced-spectral-resolution operation
mode**” *by* **S. Ceccherini et al.**

S. Ceccherini et al.

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article

Reply to 'Comments from MIPAS group in Oxford', by Joanne Walker

A significant bias is also seen in some low resolution data around 2 hPa.

ANSWER: in the conclusions of the paper the authors state that at pressure levels around 2 hPa the bias between GOMOS and MIPAS profiles increases by a factor of 2 from the 2003-2004 (MIPAS full-resolution) to 2005-2006 (MIPAS reduced-resolution) measurements. Therefore, this comment by J. Walker is in agreement with the outcome of the paper.

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We thought it would be good to include an explanation as to why the ozone is the same or improved in the RR measurements.

ANSWER: the quality of the ozone profiles is the same or improved in the RR measurements because a larger number of spectral points is considered (3035 for reduced-spectral-resolution measurements with respect to 2006 for full-spectral resolution measurements), in order to compensate for the loss of information content caused by the reduced-spectral-resolution. This information is already present in the paper (Section 2, page 803, lines 7-10).

Is GOMOS sampling the same air mass as MIPAS?

ANSWER: the air masses of the compared MIPAS and GOMOS measurements are the same within the chosen spatial and temporal matching criteria that are described in Section 4. Moreover, as mentioned in the same section (p. 808), the comparison did not include coincident profiles acquired across opposite sides of the polar vortex, in order to filter out possible differences due to strong horizontal gradients.

We thought it might be good to mention that MIPAS has been operating continuously since December 2007.

ANSWER: as already written in the reply to referee #2, this information will be reported in the final version of the paper.

We thought it would be useful to have an altitude scale on the plots.

ANSWER: as already written in the reply to referee #1, the authors will add a column with approximate pressure values in Tables 2 and 3, in order to help the reader by providing a correspondence between altitude and pressure levels.

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We thought it would be good to mention that in the light of your results, and others, there has been a change in the microwindows that are used for operational data.

ANSWER: as already written in the reply to referees #1 and #2, this information will be added in the final version of the paper.

Are there differences between the nominal and UTLS mode MIPAS O3? Should these be plotted separately?

ANSWER: as remarked in the reply to referees #1 and #2, the authors decided not to show the results of different measurement scenarios separately, because unfortunately the statistics available for the nominal scenario is very poor.

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