

Interactive comment on “MIPAS Level 1B algorithms overview: operational processing and characterization” by A. Kleinert et al.

Anonymous Referee #2

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General comments: This paper presents an overview of MIPAS 1B algorithms. This paper concerns MIPAS users and could be difficult to read without MIPAS instrument's knowledge. In my opinion this paper is more a technical note than a scientific paper. The paper should be reduced and focalised on the results which were presented before publication. The figures should be improved (see below). More general references on the various algorithms should be added.

Specific comments:

Page 10674 - A reference to an already published paper could help the novice reader - what is the cold target used with the second input port ?

Page 10675 Table 1 and 2 should be merged Table 2 the decimation factor is not

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explained

Page 10676 The acronym LOS is not explained The cold source is called “cold black-body or deep space”, please use the same word in the table and in the text.

Page 10677 It is not clear if the gain and offset are calculated for each direction (forward/reverse) as it is mentioned in the 4.8.1 section

Page 10682: Table 4 is not mentioned in the text The name of the auxiliary data files is given. Please give a web link or references to find this files.

Page 10684: The function “calculate scene calibration generates the geo-located, spectrally and radiometrically calibrated scene spectra” if the scenes are already spectrally calibrated what is the aim of the function “Calculate spectral calibration” (page 10685)

Page 10686 The acronym NESR0 is not defined

Page 10687 The NESR is well within the requirements (fig. 1) but the figure 1 shows the NESR0

Page 10691: Line 7: at position s_0 and line 8 position is now σ_0

Page 10692: The notation $C_1 \& C_2$ was used in table 1 and 2 for merging channel. So $B_2 \& C_2$ should be replaced by B_2 and C_2 (same comment for figure 8)

Page 10693 The results are in deg but figure 7 is in mrad

Page 10695: The periodic behaviour is not observed in figure 10

Line 25: “+ 2” variables should be replaced by “and 2” variables

Table 3: Is L_x the theoretical radiance or the calibrated spectra ? What is the difference between S_d s and S_c ?

Table 4 is not used in the text

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Table 5 is not in the radiometric unit defined at page 10675

Figure 1: “The index 0 denotes the absence of radiation from the scene”, so it’s a deep space measurement.

Figure 4: The acronym IGM is not explained The “.2 = deep space view, 1 = calibration blackbody” is not clear

Figure 7: This figure should be mentioned in the introduction but does not help to understand the use of Mercury for the field of view characterisation

Figure 8: The axis have no unity

Figure 9: Is the pointing jitter amplitude in km ?

Interactive comment on Atmos. Chem. Phys. Discuss., 6, 10673, 2006.

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