

***Interactive comment on* “Technical Note:
Validation of Odin/SMR limb observations of
ozone, comparisons with OSIRIS, POAM III,
ground-based and balloon-borne instruments” by
F. Jégou et al.**

Anonymous Referee #3

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General comments: This is a good documentation of data inter-comparisons for an institutional technical paper, but as an open literature paper it should include some interpretation of the results to aid the users.

Specific comments: One important comparison was left out, namely, the comparison between SMR and OSIRIS profiles. This basic information helps to interpret the comparisons with other profile data, cancels out any spacecraft pointing errors, and will verify if the SMR and OSIRIS error propagation models are adequate. I did not see a reference to this comparison, so perhaps this would be a good place to publish it.

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Interactive Discussion

Discussion Paper



Assuming that the differences between Odin and other data are significant, you should include a discussion of possible sources for the differences. In the middle and upper stratosphere a small error in altitude would produce a large error in mixing ratio. What altitude error would explain the bias relative to POAM? Are these altitude biases within the error budget of Odin? If not, how do you explain these errors?

Can you summarize the performance of SMR and OSIRIS relative to the other instruments? Are we to understand that the differences between Odin and the other instruments are due to differences between those instruments or just due to small sample sizes?

The SMR and OSIRIS mixing ratios are biased low compared with the other data. Should the users attempt to remove this bias?

Figure 2, 9, and 13 show a much smaller scatter from comparison data for OSIRIS than from SMR. How do you interpret this difference?

Minor comments:

1. Intro, p 730. [McPeters](#); is misspelled in reference.
2. use spell check for typos, eg. p 736. [irregardless](#) misspelled and several other typos.

Interactive comment on Atmos. Chem. Phys. Discuss., 8, 727, 2008.

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