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Atmospheric Chemistry and Physics Discussions

Interactive comment on "Validation of Ozone Monitoring Instrument (OMI) ozone profiles and stratospheric ozone columns with Microwave Limb Sounder (MLS) measurements" *by* X. Liu et al.

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Response to referee 5's comments

We would like to thank the referee for constructive comments on our paper. We have addressed them as follows and made changes in the revised manuscript.

The paper presents a detailed validation study of OMI ozone profiles using MLS measurements. The current paper is well written and structured and the results are presented clearly and the conclusions of the authors are well justified. Many validation

papers of satellite products have appeared in the past in ACP receiving afterwards many citations and therefore I don't think that at this stage we should discuss whether this manuscript is appropriate for ACP or more suitable for AMT. This should have been done already by the editors and I agree with one of the referees, who suggests that the editorial boards of both journals should agree on a strategy on this issue for future submissions. Since this is only one and eventually the first of the planned validation papers, I also agree with on of the reviewers that the authors should add a paragraph describing in general their validation approach, so that the reader is aware what to expect in the other planned submissions. Otherwise one could argue that many important aspects, relevant to the validation of the ozone profiles are missing from the manuscript.

Response: To briefly summarize the purpose of this paper and following validation papers, we modified the last paragraph in the introduction (before "This paper is organized as follows") to "The present paper is the first validation sequel to the paper by Liu et al. (2009). It focuses on validation of OMI stratospheric ozone profiles and SOC with MLS data to demonstrate that stratospheric ozone profiles can be retrieved accurately from OMI, and SOC can be retrieved from OMI with retrieval errors comparable to or smaller than current limb measurements. In separate papers, we will validate our retrievals against ozonesonde observations and OMI/MLS tropospheric ozone columns as well as operational total ozone products"

Interactive comment on Atmos. Chem. Phys. Discuss., 9, 24913, 2009.