Interactive comment on “MIPAS-STR measurements in the arctic UTLS in winter/spring 2010: instrument characterization, retrieval and validation” by W. Woiwode et al.

Anonymous Referee #1

Received and published: 30 January 2012

The paper “MIPAS-STR measurements in the arctic UTLS in winter/spring 2010: instrument characterization, retrieval and validation” by W. Woiwode et al. presents results derived from measurements performed by the Michelson Interferometer for Passive Atmospheric Sounding – STRatospheric aircraft (MIPAS-STR) onboard the M55 Geophysica aircraft during the RECONCILE campaign in the arctic 5 winter/spring 2010, these results being validated with collocated in-situ measurements of temperature, O3, CFC-11, CFC-12 and H2O. The paper is interesting and well adapted to Atmospheric Measurement Techniques. However before publication I would like to make the following comments/remarks.

General: The paper is written like a PhD thesis i.e. giving details which would be OK for a thesis but are not really adapted for a scientific paper. In particular sections 2, 3 and 5 are somewhat tiresome to read since they do not really concentrate on MIPAS-STR giving many details which have already been given in many papers for the “similar” balloon and satellite instruments. I suggest strongly shortening these sections.

Other comments: - What do the authors mean with: “comprehensive agreement” - Page 7042: “...low data age”??? - I do not like very much “deep space” since in the present case it is not really a deep space measurement. It is then somewhat misleading and I would suggest to replace it by “Zenith view measurement”. - Fig. 1 can be suppressed - Fig. 5 is not really readable: I suggest removing one or 2 spectra. - The various figures 14 are totally illegible: I suggest either to give a smaller number of examples or to enlarge the figures. - The same remark applies to figures 15.

In conclusion the paper is worth publishing in AMT but needs to be shortened.