Atmos. Chem. Phys. Discuss., 10, C4533–C4535, 2010
www.atmos-chem-phys-discuss.net/10/C4533/2010/

Atmospheric Chemistry and Physics Discussions

Interactive comment on "Global ozone monitoring by occultation of stars: an overview of GOMOS measurements on ENVISAT" *by* J. L. Bertaux et al.

M McHugh (Referee)

mchugh@gats-inc.com

Received and published: 28 June 2010

This paper contains an in-depth discussion of the GOMOS instrument on ENVISAT. While no new science results are presented, the authors achieve the stated goal of providing the detailed background needed for interpretation of the GOMOS data. In addition, this paper provides important guidance and insight that will be needed for planning and implementation of future stellar occultation instruments, which are sure to follow. Based on this, I recommend publication in ACP, contingent on the resolution of the same two issues described by an earlier review. First, the length of the paper should be reduced. This can be readily accomplished by removing much of redundant information and use of more succinct descriptions in many cases. Second, the overall English should be improved.

General Comments

P9945 While the “self-calibrating” nature of occultation is important, the claim that long-term instrument drifts will have no significant effect is overstated. It is possible that changing optical or thermal properties (for example) could impact the long-term trends of retrieved parameters.

Technical Comments

P9919 L8 air should probably be air density, and aerosol is probably aerosol extinction (or extinction coefficient)

P9919 L13 ony 5 years?

P9922 discussion mentions O3, but pertains to any molecular aborber

P9923 Fig 3 skipped. Reference to Fig 4 seems incorrect – this is just a block diagram of the instrument

P9924 bullet at bottom of page. This is not an advantage of stellar over solar occultation.

P9928 z > 100 km is the thermosphere

P9943 L24 why is the spectral resolution degraded?

P9945 “one single” is redundant

P9947 I’m unfamiliar with the term “rallying” in this context.

P9968 I think earlier you stated 5 spectra were used to form the reference spectrum.

P9971 r(s) is not defined.

P9975 “spectel” should be “spectral”

P10003 L 23 symbol should be $\sim$

ACPD

10, C4533–C4535, 2010

Interactive comment on Atmos. Chem. Phys. Discuss., 10, 9917, 2010.

ACPD

10, C4533–C4535, 2010

Interactive Comment