

Interactive comment on “GOMOS data characterization and error estimation” by J. Tamminen et al.

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Received and published: 30 June 2010

We would like to thank the anonymous reviewer for useful comments related to our manuscript GOMOS data characterization and error estimation.

- 1) We will try to improve the language.
- 2) Fig 3 & text. We will add the definition how SNR is computed. However, it is very difficult to give precise numbers what can be considered good or bad. The SNR is variable with wavelength and star. What is important is that the SNR is “good” in spectral regions where constituents absorb/scatter the light. These regions are different for different constituents (and different altitudes). This is the reason why we use “qualitative” description for SNR. This will be also noted in the text.

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- 3) We will improve the notation: ‘obs’ refers to observed and ‘ext’ to extinction.
- 4) We will expand the explanation of the retrieval process in sec 3.1 and especially subscripts associated with the covariance. Also we will add more text about how the aerosols are modeled.
- 5) Fig 7. Correct. We will explain the aerosol parameters in a better way.
- 6) Correct. To be changed.
- 7) Fig 11 about averaging kernels. We will add more clarifying text and re-draw the figure. The averaging kernels of NO₂ and NO₃ are the same in GOMOS retrievals.

Interactive comment on Atmos. Chem. Phys. Discuss., 10, 6755, 2010.

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