

Interactive comment on “Validation of SOFIE nitric oxide measurements” by Mark E. Hervig et al.

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The manuscript "Validation of SOFIE Nitric Oxide Measurements" by Hervig et al. represents a laudable effort to critically assess the quality of the NO data of the SOFIE experiment. In the very detailed analyses the contribution by water vapor, important below 85 km, emerges as an identified weakness of the data obtained by the SOFIE retrieval. Another significant discrepancy is between SOFIE and MIPAS above 120 km (Fig. 12). The fact that [NO] at sunrise and sunset in the mesosphere differ, is well established; why the differences between SOFIE vs. ACE (sunrise) and SOFIE vs. MIPAS (sunset) should also be different may have escaped me (Figs. 7 & 8). Similarly, I miss (or overlooked) a statement/suggestion why [NO] is apparently systematically different in the two hemispheres. Finally, I recommend to propose (or compose) a preliminary empirical model of NO considering the valuable findings that result from the present paper. Given that the above comments are addressed, I definitively recom-

mend publication.

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