

***Interactive comment on* “Hourly resolved cloud modification factors in the ultraviolet” by H. Staiger et al.**

H. Staiger et al.

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H. Staiger on behalf of the authors: I thank for the valuable information on most recent work of the dependence of cloud effects in the UV on the wavelength and solar zenith angle (SZA).

Anders Lindfors short comment:

...This information is relevant when transferring the cloud effect obtained from pyranometer measurements to a cloud effect in the UV range (e.g., Staiger et al. section 3.1; Rieder et al. section 4.4), or when thinking about the wavelength dependence of the cloud modification factor in general (e.g., Staiger et al. Introduction).

Response:

It has to be noted here, that den Outer et al. (2005) provide special values of the

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parameter p for a number of wavelengths and in dependence on SZA, i.e. a spectral application of their algorithm is possible too:

Den Outer, P. N., Slaper, H., and Tax, R. B.: UV radiation in the Netherlands. Assessing long-term variability and trends in relation to ozone and clouds, *J. Geophys. Res.*, 110, D02203, 1-11, doi: 10.1029/2004JD004824, 2005.

Three of the European sites have exclusively provided erythemal UV measured by broadband instruments. Thus, modelling for hourly application and validation has been restricted to CMF's of erythemal UV. As requested by the comment of referee 2, this will explicitly be mentioned in a revised version of the paper.

Interactive comment on *Atmos. Chem. Phys. Discuss.*, 8, 181, 2008.

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