

## **Comparison of OMI ozone and UV irradiance data with ground-based measurements in Austria**

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Ground-based total ozone and spectral UV irradiance measurements are performed at two Austria sites. The Sonnblick observatory (47.05°N, 12.95°E) lies in southwest Austria at the border between Salzburg and Carinthia on top of a mountain at 3106 m altitude. It is surrounded by rock faces on the northern side and by a glacier on the south-eastern side. The area shows a very pronounced topography. Spectral UV measurements at Sonnblick observatory have been performed with a Brewer spectrophotometer (single monochromator) since 1993 and a Bentham DM150 spectroradiometer (double monochromator) since 1997. Spectral UV-measurements at Sonnblick observatory represent the longest time series of spectral UV irradiance data in Austria. The Groß-Enzersdorf station is close to Vienna (48.12° N, 16.34°E, 153m), and continuous measurements of spectral UV irradiance have been performed since 1998 with a Bentham DM 150 double monochromator spectroradiometer.

The results of a comparison of Ozone Monitoring Instrument (OMI) data with spectral UV and total ozone measurements at the stations Hoher Sonnblick (3106m) and Groß-Enzersdorf (156m) will be shown. The OMI surface UV algorithm is based on radiation transfer modelling, where the input parameters required by the model are derived from the OMI measurement data (Tanskanen et al. (2006)). The specific product is the downward spectral irradiance at the ground at 305 nm, 310 nm, 324 nm and 380 nm and the erythemal weighted irradiance.

OMI and Brewer daily total ozone data show good agreement. The average of the relative difference between both is below 1% and the RMSE amounts to 2.2%. In general the OMI data overestimate ground-based spectral UV data. For the station Groß-Enzersdorf the overestimation is larger than for the Sonnblick observatory and larger for clear sky days compared with all days.