Geophysical Research Abstracts, Vol. 7, 06272, 2005
SRef-ID: 1607-7962/gra/EGU05-A-06272

Validation of Ozone Measurements from MIPAS-Envisat with HALOE, ground-based FTIR, and MIPAS Balloon Measurements

T. Steck (1) for the MIPAS-IMK-O3-VAL TEAM

Forschungszentrum Karlsruhe and Universität Karlsruhe, Institut für Meteorologie und Klimaforschung, Postfach 3640, 76021 Karlsruhe, Germany (tilman.steck@imk.fzk.de)

Vertical profiles of ozone are retrieved with the IMK scientific semi-operational processor from spectra measured by the Michelson Interferometer for Passive Atmospheric Sounding (MIPAS) aboard the environmental satellite Envisat. The results are intercompared with those obtained by Halogen Occultation Experiment (HALOE) on UARS, ground-based FTIR from Kiruna and Izana, and MIPAS balloon.

The intercomparison between MIPAS-Envisat and HALOE is performed on a profile by profile basis leading to an agreement between 5 - 10 % on average. For ground-based FTIR and MIPAS balloon the intercomparison additionally takes the quantitative description of Rodgers/Connor (2004) into account including error estimation and averaging kernel consideration resulting in a chi-square-distribution of the difference of the profiles.