Geophysical Research Abstracts,
Vol. 10, EGU2008-A-11755, 2008
SRef-ID: 1607-7962/gra/EGU2008-A-11755
EGU General Assembly 2008

Improved Results of in-situ bromine monoxide measurements in the tropical UTLS

Fred Stroh, Michael Adolph, Marc von Hobe, Serhiy Hrechanyy
Forschungszentrum Jülich, ICG-I, Jülich, Germany, f.stroh@fz-juelich.de

Due to systematic differences between balloon borne UV/VIS DOAS measurements of bromine monoxide, BrO, and airborne in-situ measurements employing the chemical-conversion resonance-fluorescence method (Brune et al. 1989) the the calibration of the in-situ measurements has been revisited in the pressure regime experienced during the airborne measurements in the tropical UTLS region. Appropriate lab measurements are in progress and a new calibration method is in preparation.

In another effort chemical box model simulations along ECMWF trajectories ascending through the tropical UTLS region have been carried out in order to simulate the free-up of inorganic bromine from very short-lived species (VSLS) like bromoform. The modelled BrO mixing ratios are compared to the measurements obtained during the TROCCINOX and SCOUT-O3 measurement campaigns.

Brune, W.H. et al., 1989b, In situ observations of BrO over antarctica: ER-2 aircraft results from 54° to 72°S latitude, J. Geophys. Res., 94, 16639-16647.