

File Revision Date: October 22, 2024

Data Set Description:

PI: Ralf Sussmann

Instrument: Solar absorption FTIR

Site: Zugspitze (47.4 N, 11.0 E, 2964 m a.s.l.)

Measurement Quantities: Total vertical column densities and vertical profiles above Zugspitze

Data Version description:

HDF instrument naming disambiguation:

Contact Information:

Name: PD Dr. Ralf Sussmann

Address: Karlsruhe Institute of Technology, IMK-IFU, Campus Alpin  
Kreuzeckbahnstrasse 19, 82467 Garmisch-Partenkirchen, Germany

Phone: +49 8821 183 159

FAX: +49 8821 73573

Email: ralf.sussmann@kit.edu

DOI:

Data License:

CC-BY-NC-SA license (not open for commercial use - credits required – share alike)

Location of L0/L1 data: same as PI address given above

Date of NDACC/NDSC affiliation: 1995

List of historical PIs for the dataset: -

Reference Articles:

Sussmann, R., et al.: Infrared spectroscopy of tropospheric trace gases: combined analysis of horizontal and vertical column abundances, Appl. Opt. 36, 735-741 (1997).

See <https://www.sussmann-publications.lima-city.de/index.htm> for all further articles.

Instrument Description:

Bruker IFS 120/125 HR

Algorithm Description:

PROFFIT

Expected Precision/Accuracy of Instrument: according to IRWG requirements

Instrument History:

1995 built up at Zugspitze and tests, operational measurements starting June 1995

1996 intercomparison with Jungfraujoch: coincident measurements and independent analyses of HF, HCl. Agreement within 2 per cent

1997 ISDN connection to the ground station for remote control

1998 remote control measurements working operationally

2001 intercomparison of full Zugspitze HCl and ClONO<sub>2</sub> timseries with Jungfraujoch. Perfect agreement within a few per cent.

2003 intercomparison of 1996-2001 Zugspitze and Jungfraujoch CO series. Perfect agreement.

2006 Bruker electronics update (IFS 125 HR) implemented

2023 old newport sun tracker replaced by new Bruker sun tracker; old Baader-planetarium slit dome replaced by new Baader-planetarium all-sky dome; all IFS 120 HR-type scanner chambers replaced by IFS 125 HR-type scanner chambers; IFS 120 HR-type detector compartment replaced by IFS 125 HR-type detector compartment