

## **NDACC Publications – 2009**

*Latest update – 6/23/2021*

2009, R.L. Batchelor

K. Strong, R. Lindenmaier, R.L. Mittermeier, H. Fast, J.R. Drummond, and P.F. Fogal

A new Bruker IFS 125HR FTIR spectrometer for the Polar Environment Atmospheric Research Laboratory at Eureka, Canada - measurements and comparison with the existing Bomem DA8 spectrometer

J. Atmos. Oceanic Technology, 26 (7), 1328-1340

doi: 10.1175/2009JTECHA1215.1

FTIR; Validation

2009, Baumgardner, D.,

Grutter, M., Allan, J., Ochoa, C., Rappenglueck, B., Russell, L. M., and Arnott, P.

Physical and chemical properties of the regional mixed layer of Mexico's Megapolis

Atmos. Chem. Phys., 9, 5711–5727

doi: 10.5194/acp-9-5711-2009

FTIR

2009, Blumenstock, T.

F. Hase, I. Kramer, S. Mikuteit, H. Fischer, F. Goutail, U. Raffalski

Winter to winter variability of chlorine activation and ozone loss as observed by ground-based FTIR measurements at Kiruna since winter 1993/94

International Journal of Remote Sensing, Vol. 30, 4055 – 4064

doi: 10.1080/01431160902821916

FTIR; Cl; Ozone

2009, Clain, G., et al.

Tropospheric ozone climatology at two Southern Hemisphere tropical/subtropical sites, (Reunion Island and Irene, South Africa) from ozonesondes, LIDAR, and in situ aircraft measurements

Atmos. Chem. Phys., 9, 1723–1734

Lidar; Ozone; Sonde

2009, Paolo Di Girolamo,

Donato Summa, Rossella Ferretti

Multiparameter Raman Lidar Measurements for the Characterization of a Dry Stratospheric Intrusion Event

JOURNAL OF ATMOSPHERIC AND OCEANIC TECHNOLOGY, vol. 26, p. 1742-1762, ISSN: 0739-0572,

doi: 10.1175/2009JTECHA1253.1.

Lidar, H<sub>2</sub>O

2009; X. Dou

T. Li, J. Xu, H. Liu, X. Xue, S. Wang, T. Leblanc, I.S. McDermid, A. Hauchecorne, P. Keckhut, H. Bencherif, G. Heinselman, W. Steinbrecht, M.G. Mlynczak, and J.M. Russell III

Seasonal Oscillations Of Middle Atmosphere Temperature Observed By Rayleigh Lidars And Their Comparisons With TIMED/SABER Observations

J. Geophys. Res., 114, D20103

doi: 10.1029/2008JD011654

Lidar; Temperature

2009, Duchatelet, P.

Mahieu, E., Ruhnke, R., Feng, W., Chipperfield, M., Demoulin, P., Bernath, P., Boone, C. D., Walker, K. A., Servais, C. and Flock, O.

An approach to retrieve information on the carbonyl fluoride (COF<sub>2</sub>) vertical distributions above Jungfraujoch by FTIR multi-spectrum multi-window fitting

Atmospheric Chemistry and Physics, 9(22), 9027–9042

doi: 10.5194/acp-9-9027-2009

FTIR; COF<sub>2</sub>

2009, A. Fraser

C. Adams, J.R. Drummond, F. Goutail, G. Manney, and K. Strong

The Polar Environment Atmospheric Research Laboratory UV-Visible Ground-Based Spectrometer: First Measurements of O<sub>3</sub>, NO<sub>2</sub>, BrO, and OCIO Columns

J. Quant. Spectrosc. Radiat. Transfer, 110 (12), 986-1004

doi: 10.1016/j.jqsrt.2009.02.034

UVVis; Ozone; NO<sub>2</sub>; BrO; OCIO

2009, Haefele et al.

Validation of ground based microwave radiometers at 22 GHz for stratospheric and mesospheric water vapor

J. of Geophys. Res., 114, D23305

doi: 10.1029/2009JD011997

Microwave; H<sub>2</sub>O

2009, J. W. Hannigan

M. T. Coffey, and A. Goldman

Semiautonomous FTS Observation System for Remote Sensing of Stratospheric and Tropospheric Gases  
Journal of Atmospheric and Oceanic Technology, 26:1814–1828

doi: 10.1175/2009JTECHA1230.1

FTIR

2009, Hendrick, F.

A. Rozanov, P. V. Johnston, H. Bovensmann, M. De Mazière, C. Fayt, C. Hermans, K. Kreher, W. Lotz, B.-M. Sinnhuber, N. Theys, A. Thomas, J. P. Burrows, and M. Van Roozendaal

Multi-year comparison of stratospheric BrO vertical profiles retrieved from SCIAMACHY limb and ground-based UV-visible measurements  
Atmos. Meas. Tech., 1, 273-285  
UVVis; Satellite; BrO; Validation

2009, David Hofmann  
John Barnes, Michael O'Neill, Michael Trudeau, and Ryan Neely  
Increase in background stratospheric aerosol observed with lidar at Mauna Loa Observatory and Boulder, Colorado  
Geophys. Res. Lett., 36  
doi: 10.1029/2009GL039008  
Lidar; Aerosol

2009, Jumelet J.  
C. David, S. Bekki, and P. Keckhut  
Uniwavelength lidar sensitivity to spherical aerosol microphysical properties for the interpretation of lagrangian stratospheric observations  
J. of Atmos. and Solar-Terr. Phys., 71, 121-131  
Lidar; Aerosol

2009, Snels, M.  
Cairo, F., Colao, F. and Di Donfrancesco, G.  
Calibration method for depolarization lidar measurements  
International Journal of Remote Sensing, 30: 21, 5725 – 5736  
Lidar

2009, Randel, W.J.  
K. Shine, J. Austin, J. Barnett, C. Claud, N.P. Gillett, P. Keckhut, U. Langematz, R. Lin, G. Long, C. Mears, A. Miller, J. Nash, D.J. Seidel, D.W.J. Thompson, F.Wu and S. Yoden  
An Updated Of Observed Stratospheric Temperature Trends  
J. Geophys. Res., 114, D02107  
doi:10.1029/2008JD010421  
Lidar; Temperature; Trends

2009, C. Schnadt Poberaj  
J. Staehelin, D. Brunner, V. Thouret, H. De Backer, and R. Stübi  
Long-term changes in UT/LS ozone between the late 1970s and the 1990s deduced from the GASP and MOZAIC aircraft programs and from ozonesondes  
Atmos. Chem. Phys., 9, 5343–5369, [www.atmos-chem-phys.net/9/5343/2009/](http://www.atmos-chem-phys.net/9/5343/2009/)  
Sonde; Ozone

2009, Steinbrecht , W.

H. Claude, F. Schonenborn, I.S. McDermid, T. Leblanc, S. Godin-Beekmann, P. Keckhut, A. Hauchecorne, J.A.E. Van Gijssel, D.P.J. Swart, G. Bodeker, A. Parrish, I. Boyd, N. Kampf, C. Hocke, R.S. Stolarski, S.M. Frith, L.W. Thomason, E.E. Remsberg, C. Von Savigny, A. Rozanov, and J.P. Burrows  
Ozone And Temperature Trends In The Upper Stratosphere At Five Stations Of The Network For The Detection Of Atmospheric Composition Change  
Int. J. Remote Sensing, 30, 3875-3886  
Lidar; Ozone; Temperature; Trends

2009, Steinbrecht, W.

McGee, T. J., Twigg, L. W., Claude, H., Schönenborn, F., Sumnicht, G. K., and Silbert, D.  
Intercomparison of stratospheric ozone and temperature profiles during the October 2005 Hohenpeißenberg Ozone Profiling Experiment (HOPE)  
Atmos. Meas. Tech., 2, 125–145  
doi: 10.5194/amt-2-125-2009  
Sonde; Ozone; Temperature

2009, W. Stremme

I. Ortega-Martinez, and M. Grutter  
Using ground-based solar and lunar infrared spectroscopy to study the diurnal trend of carbon monoxide in the Mexico City boundary layer  
Atmos. Chem. Phys. 9. 8061-8078  
FTIR; CO; Trends

2009, Vigouroux, C.

Hendrick, F., Stavrakou, T., Dils, B., De Smedt, I., Hermans, C., Merlaud, A., Scolas, F., Senten, C., Vanhaelewyn, G., Fally, S., Carleer, M., Metzger, J.-M., Müller, J.-F., Van Roozendaal, M., and De Mazière, M.  
Ground-based FTIR and MAX-DOAS observations of formaldehyde at Réunion Island and comparisons with satellite and model data  
Atmos. Chem. Phys., 9, 9523-9544  
FTIR; UVVis; Satellite; Model; CH<sub>2</sub>O; Validation