

## NDACC Publications – 2009

*Latest update – 4/15/2020*

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; 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, Steinbrecht, W.

H. Claude, F. Schonenborn, I.S. McDermid, T. Leblanc, S. Godin-Beekmann, P. Keckhut, A. Hauchecorne, J.A.E. Van Gijssels, D.P.J. Swart, G. Bodeker, A. Parrish, I. Boyd, N. Kampfer, 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, 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 Roozendael, 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