

NDACC Publications – 2012

Updated – 6/23/2021

2012, C. Adams

K. Strong, X. Zhao, M.R. Bassford, M.P. Chipperfield, W. Daffer, J.R. Drummond, E.E. Farahani, W. Feng, A. Fraser, F. Goutail, G. Manney, C.A. McLinden, A. Pazmino, M. Rex, and K.A. Walker

Severe 2011 ozone depletion assessed with 11 years of ozone, NO₂, and OCIO measurements at 80N
Geophys. Res. Lett., 39, L05806

doi:10.1029/2011GL050478

UVVis; Ozone; NO₂ OCIO

2012, C. Adams

K. Strong, R.L. Batchelor, P.F. Bernath, S. Brohede, C. Boone, D. Degenstein, W.H. Daffer, J.R. Drummond, P.F. Fogal, E. Farahani, C. Fayt, A. Fraser, F. Goutail, F. Hendrick, F. Kolonjari, R. Lindenmaier, G. Manney, C.T. McElroy, C.A. McLinden, J. Mendonca, J.-H. Park, B. Pavlovic, A. Pazmino, C. Roth, V. Savastiouk, K.A. Walker, D. Weaver, and X. Zhao

Validation of ACE and OSIRIS ozone and NO₂ measurements using ground-based instruments at 80N
Atmos. Meas. Tech., 5, 927-953

UVVis; Ozone; NO₂; Validation

2012, 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-12-10161-2012

FTIR

2012, David, C.,

Haefele, A., Keckhut, P., Marchand, M., Jumelet, J., Leblanc, T., Cenac, C., Laqui, C., Porteneuve, J., Haeffelin, M., Courcoux, Y., Snels M. and Viterbini, M. and Quatrevalet, M.

Evaluation of stratospheric ozone, temperature, and aerosol profiles from the LOANA lidar in Antarctica
Polar Science, 2012, Vol. 6, pp. 209-225

Lidar; Aerosol, Temperature, Ozone

2012, Fitzka, M.

Simic, S., and Hadzimustafic, J.

Trends in spectral UV radiation from long-term measurements at Hoher Sonnblick, Austria

Theor. Appl. Climatol., 110, 585-593

Spectral UV; UV Irradiance; Trends

2012, García, O. E.

Schneider, M., Redondas, A., González, Y., Hase, F., Blumenstock, T., and Sepúlveda, E.
Investigating the long-term evolution of subtropical ozone profiles applying ground-based FTIR
spectrometry

Atmos. Meas. Tech., 5, 2917-2931

doi: 10.5194/amt-5-2917-2012

Sonde; FTIR; Ozone

2012, Gomez, R. M.

Nedoluha, G. E., Neal, H., McDermid, I. S.

The fourth-generation Water Vapor Millimeter-Wave Spectrometer

Radio Sci., 47, RS1010

doi:10.1029/2011RS004778

Microwave; H₂O

2012, Hendrick, F.

E. Mahieu, G. Bodeker, K. F. Boersma, M. P. Chipperfield, M. De Mazière, P. Demoulin, I. De Smedt, C.

Fayt, C. Hermans, K. Kreher, B. Lejeune, G. Pinardi, C. Servais, J.-P. Vernier, and M. Van Roozendael

Trend analysis of stratospheric NO₂ at Jungfraujoch (46.5°N, 8.0°E) using ground-based UV-visible, FTIR,
and satellite nadir observations

Atmos. Chem. Phys., 12, 8851–8864

UVVis; FTIR; Satellite; NO₂; Trends

2012, Hoareau et al.

A Raman lidar at La Reunion (20.8° S, 55.5° E) for monitoring water vapor and cirrus distributions in the
subtropical upper troposphere: preliminary analyses and description of a future system

Atmos. Meas. Tech., 5 (6), pp.1333-1348

Lidar; H₂O; Clouds

2012, Keckhut, P.

A. Hauchecorne, T. Kerzenmacher, G. Angot

Modes of variability of the vertical temperature profile of the middle atmosphere at mid-latitude:

Similarities with solar forcing

J. Atmos. Sol.-Terr. Phys., 75, 92-97

doi:10.1016/j.jastp.2011.05.012

Lidar; Temperature

2012, Kohlhepp, R., et al

Observed and simulated time evolution of HCl, ClONO₂, and HF total column abundances

Atmospheric Chemistry and Physics 12: 3527-3556

FTIR; HCl; ClONO₂; HF

2012, R. Lindenmaier

K. Strong, R.L. Batchelor, M.P. Chipperfield, W.H. Daffer, J.R. Drummond, T.J. Duck, H. Fast, W. Feng, P.F. Fogal, F. Kolonjari, G.L. Manney, A. Manson, C. Meek, R.L. Mittermaier, G.J. Nott, C. Perro, and K.A. Walker

Unusually low O₃, HCl, and HNO₃ column measurements at Eureka, Canada during spring 2011

Atmos. Chem. Phys., 12, 3821-3835

FTIR; Ozone; HCl; HNO₃

2012, Morgenstern, O., et al

Long-range correlations in FTIR, satellite, and modeled CO in the Southern Hemisphere

Journal of Geophysical Research

doi:10.1029/2012JD017639

FTIR; Satellite; Model; CO

2012, C. Ochoa, D.

Baumgardner, M. Grutter, J.Allan, J. Fast, B. Rappengluck

Physical and chemical properties of the regional mixed layer of Mexico's Megapolis Part II: Evaluation of Measured and Modeled Trace Gases and Particle Size Distributions

Atmospheric Chemistry and Physics 12 (24), p. 10161-10179, 2012

doi: 10.5194/acp-12-10161-2012

FTIR; Model

2012, A.J. M. Piters

K.F. Boersma, M. Kroon, J.C. Hains, M. Van Roozendaal, F. Wittrock, N. Abuhassan, C. Adams, M. Akrami, M.A.F. Allaart, A. Apituley, J.B. Bergwerff, A.J.C. Berkhout, D. Brunner, A. Cede, J. Chong, K. Clemer, C.

Fayt, U. Friess, L.F.L. Gast, M. Gil-Ojeda, F. Goutail, R. Graves, A. Griesfeller, K. Grossmann, G.

Hemerijckx, F. Hendrick, B. Henzing, J. Herman, C. Hermans, M. Hoexum, G.R. van der Hoff, H. Irie, P.V.

Johnston, Y. Kanaya, Y.J. Kim, H. Klein Baltink, K. Kreher, G. de Leeuw, R. Leigh, A. Merlaud, M.M.

Moerman, P.S. Monks, G.H. Mount, M. Navarro-Comas, H. Oetjen, A. Pazmino, M. Perez-Camacho, E.

Peters, A. du Piesanie, G. Pinardi, O. Puentedura, A. Richter, H.K. Roscoe, A. Schonhardt, B.

Schwarzenbach, R. Shaiganfar, W. Sluis, E. Spinei, A.P. Stolk, K. Strong, D.P.J. Swart, H. Takashima, T.

Vlemmix, M. Vrekoussis, T. Wagner, C. Whyte, K.M. Wilson, M. Yela, S. Yilmaz, P. Zieger, and Y. Zhou

The Cabauw Intercomparison campaign for Nitrogen Dioxide Measuring Instruments (CINDI): design, execution, and early results

Atmos. Meas. Tech. 5, 457-485

UVVis; NO₂; Validation

2012, Puentedura, O.

Gil, M., Saiz-Lopez, A., Hay, T., Navarro-Comas, M., Gómez-Pelaez, A., Cuevas, E., Iglesias, J., and Gomez, L.

Iodine monoxide in the north subtropical free troposphere

Atmos. Chem. Phys., 12, 4909-4921

doi:10.5194/acp-12-4909-2012

UVVis; Iodine

2012, Rinsland, C. P.

Mahieu, E., Demoulin, P., Zander, R., Servais, C. and Hartmann, J.-M.

Decrease of the carbon tetrachloride (CCl₄) loading above Jungfraujoch, based on high resolution infrared solar spectra recorded between 1999 and 2011

Journal of Quantitative Spectroscopy and Radiative Transfer, 113(11), 1322–1329

doi:10.1016/j.jqsrt.2012.02.016

FTIR; CCl₄

2012, Risi, C., et al

Process-evaluation of tropospheric humidity simulated by general circulation models using water vapor isotopologues: 1. Comparison between models and observations

Journal of Geophysical Research 117: D05303

FTIR; Model; H₂O

2012, Rüfenacht, R.

Kämpfer, N.; Murk, A.

First Middle-Atmospheric Zonal Wind Profile Measurements with a New Ground-Based Microwave Doppler-Spectro-Radiometer

Atmospheric Measurement Techniques 2012, 5, 2647-2659

doi: 10.5194/amt-5-2647-2012.

Microwave; Wind

2012, Scheiben, D.

Straub, C., Hocke, K., Forkman, P., and Kämpfer, N.

Middle atmospheric water vapor and ozone anomalies during the 2010 major sudden stratospheric warming

Atmos. Chem. Phys., 12, 7753–7765

Microwave; Ozone; H₂O; SSW

2012, Schneider, M., et al

Ground-based remote sensing of tropospheric water vapour isotopologues within the project MUSICA

Atmos. Meas. Tech., 5, 3007-3027

doi: 10.5194/amt-5-3007-2012

FTIR; H₂O

2012, Straub, C.

Tschanz, B., Hocke, K., Kämpfer, N., & Smith, A. K.

Transport of mesospheric H₂O during and after the stratospheric sudden warming of January 2010: Observation and simulation

Atmospheric Chemistry and Physics, 12(12), 5413–5427

doi: 10.5194/acp-12-5413-2012

Microwave; H₂O, SSW

2012, Simone Studer

Klemens Hocke, Niklaus Kämpfer

Intraseasonal Oscillations of Stratospheric Ozone Above Switzerland

Journal of Atmospheric and Solar-Terrestrial Physics, vol.: 74, pp.: 189-198

<http://dx.doi.org/10.1016/j.jastp.2011.10.020>

Microwave; Ozone

2012, Vigouroux, C.

T. Stavrakou, C. Whaley, B. Dils, V. Duflot, C. Hermans, N. Kumps, J.-M. Metzger, F. Scolas, G.

Vanhaelewyn, J.-F. Müller, D. B. A. Jones, Q. Li, and M. De Mazière

FTIR time-series of biomass burning products (HCN, C₂H₆, C₂H₂, CH₃OH, and HCOOH) at Reunion Island (21°S, 55°E) and comparisons with model data

Atmos. Chem. Phys., 12, 10367-10385

doi: 10.5194/acp-12-10367-2012

FTIR; Model; HCN; C₂H₆; C₂H₂; CH₃OH; HCOOH

2012, Zeng, G., et al

Trends and variations in CO, C₂H₆ and HCN in the Southern Hemisphere point to the declining anthropogenic emissions of CO and C₂H₆

Atmospheric Chemistry and Physics 12: 7543 – 7555

FTIR; CO; C₂H₆; HCN; CO, C₂H₆; Trends