

NDSC/NDACC Publications – 2005

Updated – 4/15/2020

2005, Allen, M.

R. McKenzie

Enhanced UV exposure on a ski-field compared with exposures at sea level

Photochemical & Photobiological Sciences, 4 (5), 429-437

Spectral UV; Erythemal UV

2005, Aulerio P.

F.Fierli, F.Congeduti and G.Redaeli

Analysis of the water vapor Lidar measurements during the MAP campaign: evidence of sub-structures of stratospheric intrusions

Atmos. Chem. Phys., 5, 1301-1310

Lidar; H₂O; Campaign

2005, Badosa, J.

J.A. González, J. Calbó, M.V. Weele, and R.L. McKenzie

Using a parameterization of a radiative transfer model to build high resolution maps of typical UV index in Catalonia, Spain

Journal of Applied Meteorology, 44 (6), 789–803

Spectral UV; Model; UV Index

2005, Barret B.

Hurtmans D., Carleer M. R., De Mazière, M., Mahieu E., Coheur P.-F.

Line narrowing effect on the retrieval of HF and HCl vertical profiles from ground-based FTIR measurements

J. Quant. Spectrosc. Radiat. Transfer 95, 499-519

FTIR; HF; HCl

2005, M.R. Bassford

K. Strong, C.A. McLinden, and C.T. McElroy

Ground-Based Measurements of Ozone and NO₂ during MANTRA 1998 Using a New Zenith-Sky Spectrometer

Atmos.-Ocean, 43 (4), 325-338

UVVis; Ozone; NO₂

2005, Bernardo, C.

D.W.T. Griffith

Fourier transform spectrometer instrument lineshape (ILS) retrieval by Fourier deconvolution

Journal of Quantitative Spectroscopy & Radiative Transfer, 95 (2), 141-150
FTIR

2005, Bernath, P.F.

C.T. McElroy, M.C. Abrams, C.D. Boone, M. Butler, C. Camy-Peyret, M. Carleer, C. Clerbaux, P.-F. Coheur, R. Colin, P. DeCola, M. De Mazière, J.R. Drummond, D. Dufour, W.F.J. Evans, H. Fast, D. Fussen, K. Gilbert, D.E. Jennings, E.J. Llewellyn, R.P. Lowe, E. Mahieu, J.C. McConnell, I.C. McDade, M. McHugh, S.D. McLeod, D. Michelangeli, C. Midwinter, R. Nassar, F. Nichitiu, C. Nowlan, C.P. Rinsland, Y.J. Rochon, P. Simon, R. Skelton, J.J. Sloan, M.-A. Soucy, K. Strong, P. Tremblay, D. Turnbull, K.A. Walker, I. Walkty, D.I. Wardle, V. Wehrle, R. Zander and J. Zou

Atmospheric Chemistry Experiment (ACE): mission overview

Geophys. Res. Lett., 32, L15S01

doi: 10.1029/2005GL022386

FTIR

2005, Bernhard, G.

R. D. Evans, G. J. Labow, and S. J. Oltmans

Bias in Dobson total ozone measurements at high latitudes due to approximations in calculations of ozone absorption coefficients and airmass

J. Geophys. Res., 110, D10305

doi: 10.1029/2004JD005559

Dobson; Ozone

2005, Bernhard, G., C. R. Booth, and J. C. Ebrahimian. (2005). UV climatology at Palmer Station, Antarctica, in: Ultraviolet Ground- and Space-based Measurements, Models, and Effects V, edited by G. Bernhard, J. R. Slusser, J. R. Herman, W. Gao, Proc. SPIE Int. Soc. Opt. Eng., 588607-1 - 588607-12. Spectral UV; Satellite; Model; UV Irradiance

2005, Bodeker, G.E.

H. Shiona, and H. Eskes

Indicators of Antarctic ozone depletion

Atmospheric Chemistry and Physics, 5, 2603-2615

Dobson; Ozone

2005, Borchi, F.

Pommereau, J.-P., Garnier, A., and Pinharanda, M.: Evaluation of SHADOZ sondes, HALOE and SAGE II ozone profiles at the tropics from SAOZ UV-Vis remote measurements onboard long duration balloons Atmos. Chem. Phys., 5, 1381-1397

Sonde; UVVis; Satellite; Ozone; Validation

2005, Bracher, A.

Lamsal, L. N., Weber, M., Bramstedt, K., Coldewey-Egbers, M., and Burrows, J. P.

Global satellite validation of SCIAMACHY O₃ columns with GOME WFD OAS

Atmos. Chem. Phys., 5, 2357-2368

Satellite; Ozone; Validation

2005, Bracher, A.

Sinnhuber, M., Rozanov, A., and Burrows, J. P.

Using a photochemical model for the validation of NO₂ satellite measurements at different solar zenith angles

Atmos. Chem. Phys., 5, 393-408

Satellite; NO₂

2005, Brinksma, E.J.

A. Bracher, D. E. Lolkema, A. J. Segers, I. S. Boyd, K. Bramstedt, H. Claude, S. Godin-Beekmann, G.

Hansen, G. Kopp, T. Leblanc, I. S. McDermid, Y. J. Meijer, H. Nakane, A. Parrish, C. von Savigny, K. Stebel, D. P. J. Swart, G. Taha, and A. J. M. Pitters

Geophysical Validation of SCIAMACHY Limb Ozone Profiles

Atmos. Chem. Phys. Discuss., 5, 4893-4928

Lidar; Satellite; Ozone; Validation

2005, Brogniez, C.

M. Houët, A.M. Siani, P. Weihs, M. Allaart, J. Lenoble, T. Cabot, A. de La Casinière, E. Kyrö

Ozone column retrieval from solar UV measurements at ground level: Effects of clouds and results from six European sites

J. Geophys. Res., 110, D24202

doi: 10.1029/2005JD005992

UVVis; Ozone; Clouds; Validation

2005, Buehler, S. A.

Eriksson, P., Kuhn, T., von Engel, A., and Verdes, C.

ARTS, the Atmospheric Radiative Transfer Simulator

J. Quant. Spectrosc. Radiat. Transfer, 91(1), 65-93

doi:10.1016/j.jqsrt.2004.05.051

Microwave; CalVal

2005, M. Buchwitz

R. de Beek, J. P. Burrows, H. Bovensmann, T. Warneke, J. Notholt, J. F. Meirink, A. P. H. Goede, P.

Bergamaschi, S. Körner, M. Heimann, and A. Schulz

Atmospheric methane and carbon dioxide from SCIAMACHY satellite data: initial comparison with chemistry and transport models

Atmos. Chem. Phys., 5, 941-962

FTIR; Model; Satellite; CH₄; CO₂

2005, Yasmine Calisesi

Klemens Hocke, Niklaus Kämpfer

The natural variability of stratospheric and mesospheric ozone as observed over Switzerland by a ground-based microwave remote sensor, *Memorie della Società Astronomica Italiana*

Journal of the Italian Astronomical Society, Editor: Piercarlo Bonifacio, Vol. 76, No. 4, p. 937-940

Microwave; Ozone

2005, Calisesi Y.

V. T. Soebijanta, R. van Oss

Regridding of remote soundings: Formulation and application to ozone profile comparison

J. Geophys. Res., 110, D23306

doi:10.1029/2005JD006122

Microwave; Ozone

2005, Christensen, Tina,

B.M. Knudsen, M. Streibel, S.B. Andersen, A. Benesova, G. Braathen, H. Claude, J. Davies, H. De Backer, H. Dier, V. Dorokhov, M. Gerding, M. Gil, B. Henchoz, H. Kelder, R. Kivi, E. Kyrö, Z. Litynska, D. Moore, G. Peters, P. Skrivanova, R. Stübi, T. Turunen, G. Vaughan, P. Viatte, A.F. Vik, P. von der Gathen and I. Zaitcev

Vortex-averaged arctic ozone depletion in the winter 2002/2003

Atmospheric Chemistry and Physics, Vol. 5, pp 131-138

Dobson; Satellite; Sonde; Ozone

2005, A. Colette

G. Ancellet and F. Borchi

Impact of vertical transport processes on the tropospheric ozone layering above Europe. Part {I}: Study of air mass origin using multivariate analysis, clustering and trajectories

Atmos. Env., 39, 5409—5422

Lidar; Ozone

2005, A. Colette

G. Ancellet

Impact of vertical transport processes on the tropospheric ozone layering above Europe. Part {II}: Climatological analysis of the past 30 years

Atmos. Env., 39, 5423—5435

Lidar; Ozone

2005, Cooper, O. R.

A. Stohl, S. Eckhardt, D. D. Parrish, S. J. Oltmans, B. J. Johnson, P. Nédélec F. J. Schmidlin, M. J.

Newchurch, Y. Kondo, and K. Kita

A springtime comparison of tropospheric ozone and transport pathways on the east and west coasts of the United States

J. Geophys. Res., 110, D05S90

doi: 10.1029/2004JD005183

Sonde; Ozone

2005, D'Aulerio P.

F. Fierli, F. Congeduti, G. Redaelli

Analysis of the water vapor Lidar measurements during the MAP campaign: evidence of sub-structures of stratospheric intrusions

Atmos. Chem. Phys., 5, 1301–1310

Lidar; H₂O

2005, C. David

S. Bekki, N. Berdunov, M. Marchand, M. Snels and G. Mégie

Classification and scales of Antarctic polar stratospheric clouds using wavelet decomposition

Journal of Atmospheric and Solar-Terrestrial Physics, volume 67, issue 3, 293-300

Lidar; PSC

2005, De Backer, H.

R. Lemoine, A. Cheymol, A. Mangold,

Ozone, Aerosol and UV Observations at KMI-IRM: a Contribution to NDSC and other International atmospheric Research Programmes

Geodesy and Geophysics for the Third Millennium, eds E. Arijs and B. Ducarme, Koninklijke Vlaamse Academie van België voor Wetenschappen en Kunsten, Universa Press, Wetteren, Belgium,

D/2005/0455/16, 13 October, p 165

Dobson; Sonde; Ozone

2005, A. de La Casinière

V. Cachorro, I. Smolskaia, J. Lenoble, M. Sorribas, M. Houët, O. Massot, M. Anton, J.M. Vilaplana

Comparative measurements of total ozone amount and aerosol optical depth during a campaign at El Arenosillo, Hueva, Spain

Ann. Geophys., 23, 3399-3406

Spectral UV; Ozone; Aerosol; Validation

2005, Delcloo, A.

H. De Backer

Modelling planetary boundary layer ozone, using meteorological parameters at Uccle and Payerne

Atmospheric environment, Volume 39, Issue 28, Pages 5067-5077

doi:10.1016/j.atmosenv.2005.05.013

Dobson; Brewer; Sonde; Ozone

2005, Del Frate F.

M. Iapaolo, S. Casadio, S. Godin-Beekmann, M. Petitdidier

Neural Network for the dimensionality reduction of GOME measurement vector in the estimation of ozone profiles

J. of Quantitative spectroscopy and radiative transfer, 92, 275-291

Lidar; Satellite; Ozone

2005, T. Deshler

R. Anderson-Sprecher, H. Jäger, J. Barnes, D. J. Hofmann, B. Clemensha, D. Simonich, R. G. Grainger, S. Godin-Beekmann

Trends in the non-volcanic component of stratospheric aerosol over the period 1971-2004

J. Geophys. Res. 111 (2005) D01201

doi: 10.1029/2005JD00608

Lidar; Sonde; Aerosol

2005, Beat Deuber

Alexander Haefele, Dietrich G. Feist, Lorenz Martin, Niklaus Kampfer, Gerald E. Nedoluha, Vladimir Yushkov, Sergey Khaykin, Rigel Kivi, Holger Vomel

Middle Atmospheric Water Vapour Radiometer - MIAWARA: Validation and first results of the LAUTLOS / WAVVAP campaign

Journal of Geophysical Research, 110, D13, D13306

doi: 10.1029/2004JD005543

Microwave; H₂O

2005, Beat Deuber

June Morland, Lorenz Martin, Niklaus Kämpfer

Deriving the tropospheric integrated water vapor from tipping curve derived opacity near the line center at 22.235 GHz

Radio Science, 40, RS5011

doi: 1029/2004RS003233

Microwave; H₂O

2005, Dils, B.

M. De Mazière, P. Bergamaschi, J. F. Meirink, J. F. Müller, N.B. Jones, and the FTIR Community
Comparison between global chemistry models and ground-based FTIR data for several important tropospheric gases

ACPD, 7, (07979)

FTIR; Model

2005, Dils, B.

M. De Mazière, T. Blumenstock, M. Buchwitz, R. de Beek, P. Demoulin, P. Duchatelet, H. Fast, C. Frankenberg, A. Gloudemans, D. Griffith, N. Jones, T. Kerzenmacher, I. Kramer, E. Mahieu, J. Mellqvist, R. L. Mittermeier, J. Notholt, C. P. Rinsland, H. Schrijver, D. Smale, A. Strandberg, A. G. Straume, W.

Stremme, K. Strong, R. Sussmann, J. Taylor, M. van den Broek, T. Wagner, T. Warneke, A. Wiacek, S. Wood

Comparisons between SCIAMACHY and ground-based FTIR data for total columns of CO, CH₄, CO₂ and N₂O

ACPD 5, 2677-2717

FTIR; Satellite; CO; CH₄; CO₂; N₂O

2005, De Mazière, M.

C. Vigouroux, T. Gardiner, M. Coleman, P. Woods, K. Ellingsen, M. Gauss, I. Isaksen, T. Blumenstock, F. Hase, I. Kramer, C. Camy-Peyret, P. Chelin, E. Mahieu, P. Demoulin, P. Duchatelet, J. Mellqvist, A.

Strandberg, V. Velasco, J. Notholt, R. Sussmann, W. Stremme, and A. Rockmann

The exploitation of ground-based Fourier transform infrared observations for the evaluation of tropospheric trends of greenhouse gases over Europe

Environmental Sciences, 2 (2-3), 283-293

FTIR; Trends

2005, H. Eisele

T. Trickl

Improvements of the aerosol algorithm in ozone-lidar data processing by use of evolutionary strategies

Appl. Opt. 44, 2638-2651

Lidar; Aerosol; Ozone

2005, Eriksson, P.

Jimenez, C., Buehler, S. A.

Qpack, a general tool for instrument simulation and retrieval work

Journal of Quantitative Spectroscopy & Radiative Transfer, 91 47–64

doi: 10.1016/j.jqsrt.2004.05.050

Microwave; Algorithm

2005, Faduillhe D.

Keckhut P., Bencherif H., Robert L., Baldy S.

Stratospheric temperature monitoring using a vibrational Raman lidar. Part 1: Aerosols and ozone interferences

J. Environ. Monit., vol. 7, issue 4, 357-364

Lidar; Aerosol; Ozone; Temperature

2005, Feng, W.

Chipperfield, M. P., Davies, S., Sen, B., Toon, G., Blavier, J. F., Webster, C. R., Volk, C. M., Ulanovsky, A., Ravegnani, F., von der Gathen, P., Jost, H., Richard, E. C., Claude, H.

Three-dimensional model study of the Arctic ozone loss in 2002/03 and comparison with 1999/2000 and 2003/04

Atmos. Chem. Phys., 5,139-152

Sonde; Ozone

2005, Forkman P.

P. Eriksson, D. Murtagh, P. Espy

Observing the vertical branch of the mesospheric circulation at latitude 60°N using ground-based measurements of CO and H₂O

J. Geophys. Res., 110

Microwave; H₂O; CO

2005, Frieß, U.

K. Kreher, P. V. Johnston and U. Platt

Ground-based DOAS measurements of stratospheric trace gases at two Antarctic stations during the 2002 ozone hole period

J. Atm. Sci., 62, 765–777

UVVis

2005, A. Goldman

A. Barbe, V.I.G. Tyuterev, M.-R. De Backer-Barilly, J.W. Hannigan, M.T. Coffey, C.P. Rinsland and R.D. Blatherwick

Identification of enhanced absorption by 1603 lines around in high-resolution FTIR solar spectra

Journal of Quantitative Spectroscopy and Radiative Transfer, Volume 96, Pages 241-250

FTIR; Ozone

2005, Goutail, F.

J.-P. Pommereau, F. Lefavre, M. Van Roozendael, S.B. Andersen, B.-A. Kåstad Høiskar, V. Dorokhov, E. Kyro, M.P. Chipperfield, and W. Feng

Early unusual ozone loss during the Arctic winter 2002/2003 compared to other winters

Atmos. Chem. Phys., 5, 665-677

UVVis; Ozone

2005, Groebner J.

Schreder J., Kazadzis S., Bais A.F., Blumthaler M., Goerts P., Koskela T., Tax R., Seckmeyer G., Webb A.R.

A travelling reference spectroradiometer for routine QA of spectral solar UV irradiance measurements

Applied Optics, 44(25), pp 5321-5331

Spectral UV; UV Irradiance

2005, A.N. Gruzdev

Elokhov A.S.

Ground-based spectrometric measurements of vertical distribution and column abundance of NO₂ at Zvenigorod, Russia

Proc. SPIE. 2005, Vol. 5832, pp. 292-299

doi:10.1117/12.619837

UVVis; NO2

2005; Hampson, J.

P. Keckhut, A. Hauchecorne, and M.L. Chanin

The 11-Year Solar-Cycle In The Temperature In The Upper-Stratosphere And Mesosphere: Part Ii
Numerical Simulation And Role Of Planetary Waves

J. Atm. Terr. Sol. Phys., 67, 948-958

doi: 10.1016/j.jastp.2005.03.005

Lidar; Temperature

2005, Hoppel, Karl

Nedoluha, Gerald , Fromm, Michael , Allen, Douglas , Bevilacqua, Richard , Alfred, Jerome, Johnson,
Bryan , König-Langlo, Gert

Reduced ozone loss at the top edge of the Antarctic Ozone Hole during 2001-2004

Geophysical research letters, 32, L20816

Sonde; Ozone

2005, Huck, P.E.,

A.J. McDonald, G.E. Bodeker, and H. Struthers

Interannual variability in Antarctic ozone depletion controlled by planetary waves and polar
temperature

Geophysical Research Letters, 32, L13819

doi:10.1029/2005GL022943

Dobson; Ozone

2005, F. Immler

D. Engelbart, O. Schrems

Fluorescence from atmospheric aerosol detected by a lidar indicates biogenic particles in the lowermost
stratosphere

Atmospheric Chemistry and Physics, Vol. 5, pp 345-355

Lidar; Aerosol

2005, Irie, H.

Sudo, K.; Akimoto, H.; Richter, A.; Burrows, J-P.; Wagner, T.; Wenig, M.; Beirle, S.; Kondo, Y.; Sinyakov,
V-P. and Goutail, F.

Evaluation of long-term tropospheric NO2 data obtained by GOME over East Asia in 1996--2002

Geophys. Res. Lett., 32(11), L11810

doi : 10.1029/2005GL022770

UVVis; Satellite; NO2

2005, John, V. O.

Buehler, S. A.

Comparison of microwave satellite humidity data and radiosonde profiles: A survey of European stations
Atmos. Chem. Phys., 5, 1843-1853
Satellite; H₂O; Validation

2005, Kasai, Y.J.

A. Kagawa, N. Jones, et al.

Seasonal variations of CO and HCN in the troposphere measured by solar absorption spectroscopy over
Poker Flat, Alaska

Geophysical Research Letters, 32 (19), 19812

FTIR; CO, HCN

2005, Keckhut P.

C. Cagnazzo, M-L. Chanin, C. Claud, and A. Hauchecorne

THE 11-YEAR SOLAR-CYCLE IN THE TEMPERATURE IN THE UPPER-STRATOSPHERE AND MESOSPHERE:
PART I ASSESSMENT OF OBSERVATIONS

J. Atm. Terr. Sol. Phys., 67, 940-947

doi:10.1016/j.jastp.2005.01.008

Lidar; Temperature

2005, P. Keckhut

A. Hauchecorne, S. Bekki, A. Colette, C. David, J. Jumelet

Evidences of thin cirrus clouds in the stratosphere at mid-latitudes

Atmos. Chem. Phys., 5, 3407-3414

Lidar; Cloud

2005, Kerzenmacher, T.E.

K.A. Walker, K. Strong, R. Berman, P.F. Bernath, C.D. Boone, J.R. Drummond, H. Fast, A. Fraser, K.

MacQuarrie, C. Midwinter, K. Sung, C.T. McElroy, R.L. Mittermeier, J. Walker, and H. Wu

Measurements of O₃, NO₂ and Temperature During the 2004 Canadian Arctic ACE Validation Campaign

Geophys. Res. Lett., 32, L16S07

doi:10.1029/2005GL022396

FTIR; Ozone; NO₂; Temperature; Validation

2005, Knudsen, B.M.,

H. Jønch-Sørensen, P. Eriksen, B.J. Johnsen, and G.E. Bodeker, UV radiation below an Arctic vortex with
severe ozone depletion

Atmospheric Chemistry and Physics, 5, 2981–2987

Dobson; Ozone

2005, Koch, G.

H. Wernli, C. Schwierz, J. Staehelin, and T. Peter

A composite study on the structure and formation of ozone miniholes and minihighs over central Europe

Geophys. Res. Lett., 32, L12810

doi:10.1029/2004GL022062.

Dobson; Ozone

2005, Krieg, J.

J. Notholt, E. Mahieu, C.P. Rinsland, and R. Zander

Sulphur hexafluoride (SF₆): comparison of FTIR-measurements at three sites and determination of its trend in the northern hemisphere

J. Quant. Spectrosc. Radiat. Transfer, 92, 383-392

FTIR; SF₆

2005, Lakkala, K.

Redondas, A.; Meinander, O.; Torres, C.; Koskela, T.; Cuevas, E.; Taalas, P.; Dahlback, A.; Deferrari, G.; Edvardsen, K.; Ochoa, H.,

Quality assurance of the solar UV network in the Antarctic,

Journal of Geophysical Research, Volume 110, 08

Dobson; Ozone

2005, Mahieu, E.

R. Zander, P. Duchatelet, J.W. Hannigan, M.T. Coffey, S. Mikuteit, F. Hase, T. Blumenstock, A. Wiacek, K. Strong, J.R. Taylor, R.L. Mittermeier, H. Fast, C.D. Boone, S.D. McLeod, K.A. Walker, P.F. Bernath, and C.P. Rinsland

Comparisons between ACE-FTS and ground-based measurements of stratospheric HCl and ClONO₂ loadings at northern latitudes

Geophys. Res. Lett., 32, L15S08

doi:10.1029/2005GL022396

FTIR; Satellite; HCl; ClONO₂

2005, Mahieu, E.

R. Zander, C. Servais, P. Demoulin, P. Duchatelet, M. De Mazière, and C.P. Rinsland, FTIR Observations at the Jungfraujoch Station

Long-term Trend Studies and Validation of Space-based Sensors

in Tropospheric Sounding from Space, in ACCENT-TROPOSAT-2 in 2004-5, J. Burrows and P. Borrell, Eds., 289-296

FTIR; Satellite; Trends; Validation

2005, McKenzie, R.L.

J. Badosa, M. Kotkamp, and P.V. Johnston

Effects of the temperature dependence in PTFE diffusers on observed UV irradiances

Geophysical Research Letters, 32 (L06808)

doi: 10.1029/2004GL022268

Spectral UV; UV Irradiance; Validation

2005, M. Maturilli

R. Neuber, P. Massoli, F. Cairo, A. Adriani, M. L. Moriconi, and G. Di Donfrancesco

Differences in Arctic and Antarctic PSC Occurrence as observed by lidar in Ny-Ålesund [79°N,12°E] and McMurdo [78°S,167°E]

Atmos. Chem. Phys., 5, 2081-2090

doi.org/10.5194/acp-5-2081-2005

Lidar; PSC

2005, Meier, A.

C. Paton-Walsh, W. Bell, T. Blumenstock, F. Hase, A. Goldman, Å. Steen, R. Kift, P. Woods and Y. Kondo
Evidence of reduced measurement uncertainties from an FTIR instrument intercomparison at Kiruna, Sweden

JQSRT 96, 75-84

FTIR; Validation

2005, Morel B.

H. Bencherif, P. Keckhut, T. Portafaix, A. Hauchecorne and S. Baldy

Fine-scale study of a thick stratospheric ozone lamina at the edge of the southern subtropical barrier.
Part II: Numerical simulations with coupled dynamics models

J. Geophys. Res., VOL. 110, D17101

doi:10.1029/2004JD005737

Lidar; Model; Ozone

2005, Muscari, G.

M. Pezzopane, V. Romaniello, R. L. de Zafra, C. Bianchi, and G. Fiocco

On the potential impact of large electron concentrations on mesospheric ozone,
Memorie della Società Astronomica Italiana, 76(4), 1007

Lidar; Ozone

2005, Niro, F.

F. Hase, C. Camy-Peyret, S. Payan, J.-M. Hartmann

Spectra calculations in central and wing regions of CO₂ IR bands between 10 and 20 microns. II.
Atmospheric solar occultation spectra

JQSRT 90, 43-59

FTIR; CO₂

2005, Notholt, J.

G. Toon, N. Jones, D.Griffith, and T. Warneke

Automatic line finding program for atmospheric remote sensing

J. Qant. Spectro. Radia. Trans.

doi:10.1016/j.jsqrt.2004.12.025

FTIR

2005, M. Palm

C. V. Savigny, T. Warneke, V. Velazco, J. Notholt, K. Künzi, J. Burrows, O. Schrems
Intercomparison of O₃ profiles observed by SCIAMACHY and ground based microwave instruments
Atmos. Chem. Phys., 5, 2091–2098
Microwave; Satellite; Ozone; Validation

2005, C. B. Park et al

Long-Range Transport at Saharan Dust to East Asia Observed with Lidars
SOLA, vol. 1, 121-124
doi:10.2151/sola 2005 032
Lidar; Aerosol

2005, U. Raffalski

U., G. Hochschild, G. Kopp, and J. Urban
Evolution of stratospheric ozone during winter 2002/2003 as observed by a ground based millimetre
wave radiometer at Kiruna, Sweden
Atmos. Chem. Phys., 5, 1–9
Microwave; Ozone

2005, Randall, C.E.

G.L. Manney, D.R. Allen, R.M. Bevilacqua, J. Hornstein, C. Trepte, W. Laho, J. Ajtic, and G.E. Bodeker
Reconstruction and simulation of stratospheric ozone distributions during the 2002 austral winter
Journal of the Atmospheric Sciences, 62, 748-764
Sonde; Ozone

2005, Rinsland, C.P.

C. Boone, R. Nassar, K. Walker, P. Bernath, E. Mahieu, R. Zander, J.C. McConnell, and L. Chiou
Trends of HF, HCl, CCl₂F₂, CCl₃F, HCFC-22, and SF₆ in the lower stratosphere from Atmospheric
Chemistry Experiment (ACE) and Atmospheric Trace MOlecule Spectroscopy (ATMOS) measurements
near 30°N latitude
Geophys. Res. Lett., 32, L16S03,
doi:10.1029/2005GL022415
FTIR; Satellite; HF; HCl; CCl₂F₂; CCl₃F; HCFC-22; SF₆; Trends

2005, Rinsland, C. P.

L. S. Chiou, A. Goldman, and S.W. Wood
Long-Term Trend in CHF₂Cl (HCFC-22) from High Spectral Resolution infrared solar absorption
measurements and Comparison with In Situ Measurements
J. Quant. Spectrosc. Radiat. Transfer, 90, 367-375
FTIR; HCFC-22; Trends

2005, Rinsland, C.P.

A. Goldman, E. Mahieu, R. Zander, L.S. Chiou, J.W. Hannigan, S.W. Wood, and J.W. Elkins

Long-term evolution in the tropospheric concentration of chlorofluorocarbon 12 (CCl₂F₂) derived from high-spectral resolution infrared solar absorption spectra: retrieval and comparison with in situ surface measurements

J. Quant. Spectrosc. Radiat. Transfer, 92, 201-209

FTIR; CFC-12

2005, Rinsland, C. P.

C. Paton-Walsh A. Goldman N. B. Jones, D. W. T. Griffith, , S. W. Wood, L. S. Chiou, and A. Meier

High Spectral Resolution Solar Absorption Measurements of Ethylene (C₂H₄) in a Forest Fire Smoke Plume using HITRAN 2000 Parameters: Tropospheric Vertical Profile Retrieval

J. Quant. Spectrosc. Radiat. Transfer, 96, 301-209

FTIR; C₂H₄

2005, C. Ritter

J. Notholt, J. Fischer, C. Rathke

Direct thermal radiative forcing of tropospheric aerosol in the Arctic measured by ground based infrared spectrometry

Geophys. Res. Letters, 32, L23816

doi: 10.1029/2005GL024331

FTIR; Aerosol

2005, Roscoe, H.K.

S.R. Colwell , J.D. Shanklin , J.A. Karhu , P. Taalas , M. Gil , M. Yela, S. Rodriguez, C. Rafanelli, H.

Cazeneuve, C.A. Villanueva, M. Ginsburg f, S.B. Diaz , R.L. de Zafra , G. Muscari, G. Redaelli, R. Dragani

Groundbased and balloon-borne measurements in Antarctic regions in support of APE-GAIA

Advances of Space Research, Vol: 36, 835- 845

Sonde; Antarctic

2005, Claudio Scarchilli

Alberto Adriani, Francesco Cairo, Guido Di Donfrancesco, Carlo Buontempo, Marcel Snels, Maria Luisa

Moriconi, Terry Deshler, Niels Larsen, Beiping Luo, Konrad Mauersberger, Joelle Ovarlez, Jim Rosen and

Jochen Schreiner

Determination of PSC Particle Refractive Indexes using In Situ Optical Measurements and T-Matrix Calculations

Applied Optics, 44, 3302

Lidar; PSC

2005, Schmidt, T.

Heise, S., Wickert, J., Beyerle, G., and Reigber, C.

GPS radio occultation with CHAMP and SAC-C: global monitoring of thermal tropopause parameters
Atmos. Chem. Phys., 5, 1473-1488
Satellite

2005, Schneider, M.

Blumenstock, T.; Hase, F.; Hopfner, M.; Cuevas, E.; Redondas, A.; Sancho, J. M.
Ozone profiles and total column amounts derived at Izaña, Tenerife Island, from FTIR solar absorption spectra, and its validation by an intercomparison to ECC-sonde and Brewer spectrometer measurements,
Journal of Quantitative Spectroscopy & Radiative Transfer, Vol. 91, iss. 3, p. 245-274
Brewer; FTIR; Sonde; Validation

2005, Schneider, M.

T. Blumenstock, M. Chipperfield, F. Hase, W. Kouker, T. Reddmann, R. Ruhnke, E. Cuevas, and H. Fischer
Subtropical trace gas profiles determined by ground-based FTIR spectroscopy at Izaña (28°N, 16°W): Five year record, error analysis, and comparison with 3D-CTMs
ACP 5, 153–167
FTIR; Model; Validation

2005, G. Seckmeyer

A. Bais, G. Bernhard, M. Blumthaler, C. R. Booth, P. Erikson, K. Lantz, R. L., McKenzie, C. Roy
Instruments to measure solar ultraviolet radiation, Part 2: Broadband instruments measuring erythemally weighted solar irradiance
World Meteorological Report 164, WMO TD 1289
Spectral UV; Erythemal UV

2005, Segers, A. J.

von Savigny, C., Brinksma, E. J., and Piters, A. J. M.
Validation of IFE-1.6 SCIAMACHY limb ozone profiles
Atmos. Chem. Phys., 5, 3045-3052, 2005.
Satellite; Ozone; Validation

2005, Semenov, V. K.

A. Smirnov, V. N. Aref'ev, V. P. Sinyakov, L. I. Sorokina, and N. I. Ignatova
Aerosol optical depth over the mountainous region in central Asia (Issyk-Kul Lake, Kyrgyzstan)
Geophys. Res. Lett., 32, L05807
doi: 10.1029/2004GL021746
UVVis; Aerosol

2005, Sinreich, R.

U. Frieß, T. Wagner, and U. Platt
Multi axis differential optical absorption spectroscopy (MAX-DOAS) of gas and aerosol distributions

Faraday Discuss., 130
doi: 10.1039/b419274p
UVVis

2005, Spurr, R.

W. Balzer, D. Loyola, W. Thomas, E. Mikusch, T. Ruppert, M. Van Roozendael, and J-C. Lambert
GOME Level 1-to-2 Data Processor Version 3.0: A Major Upgrade of the GOME/ERS-2 Total Ozone
Retrieval Algorithm
Applied Optics, Vol. 44, 7196-7209
Satellite; Ozone; Algorithm; Validation

2005, Streibel, M.

M. Rex, P. von der Gathen, R. Lehmann, N. R. P. Harris, G. O. Braathen, E. Reimer, H. Deckelmann, M.
Chipperfield, G. Millard, M. Allaart, S. B. Andersen, H. Claude, J. Davies, H. De Backer, H. Dier, V.
Dorokov, H. Fast, M. Gerding, E. Kyrö, Z. Litynska, D. Moore, E. Moran, T. Nagai, H. Nakane, C. Parrondo,
P. Skrivankova, R. Stübi, G. Vaughan, P. Viatte, V. Yushkov
Chemical ozone loss in the Arctic winter 2002/2003 determined with Match
Atm. Chem. Phys. Discuss., 5, 4311-4333
SRef-ID: 1680-7375/acpd/2005-5-4311
Sonde; Ozone

2005, Steinbrecht, W., et al.

Interannual variation patterns of total ozone and temperature in observations and model simulations
Atmos. Chem. Phys. Discuss., 5, 9207-9248
Lidar; Model; Ozone; Temperature

2005, Sussmann, R.

Buchwitz, M.
Validation of ENVISAT/SCIAMACHY columnar CO by FTIR profile retrievals at the Ground-Truthing
Station Zugspitze
Atmos. Chem. Phys., 5, 1497-1503
FTIR; Satellite; CO; Validation

2005, Sussmann, R.

Stremme, W. Buchwitz, M., and de Beek, R.
Validation of ENVISAT/SCIAMACHY columnar methane by solar FTIR spectrometry at the Ground-
Truthing Station Zugspitze
Atmos. Chem. Phys., 5, 2419-2429
FTIR; Satellite; CH₄; Validation

2005, Sussmann, R.

Stremme, W., Burrows, J.P., Richter, A., Seiler, W., and Rettinger, M.

Stratospheric and tropospheric NO₂ variability on the diurnal and annual scale: a combined retrieval from ENVISAT/SCIAMACHY and solar FTIR at the Permanent Ground-Truthing Facility Zugspitze/Garmisch,
Atmos. Chem. Phys. Phys., 5, 2657–2677
FTIR; Satellite; NO₂, Diurnal

2005, Tarasick, D.W.
Fioletev, V.E., Wardle, D.I., Kerr, J.B., Davies, J.
Changes in the vertical distribution of ozone over Canada from ozonesondes: 1980-2001
J. Geophys. Res., 110, D02304
Sonde; Ozone

2005, Tripathi, O.-P.
Godin-Beekmann, S., Lefèvre, F., Marchand, M., Pazmiño, A., Hauchecorne, A., Goutail, F., Schlager, H., Volk, C. M., Johnson, B., König-Langlo, G., Balestri, S., Stroh, S., Bui, T. P., Jost, H. J., Deshler, T., Gathen, P. von der
High resolution simulation of recent Arctic and Antarctic stratospheric chemical ozone loss compared to observations
J Atmos Chem (2006) 55: 205
doi: 10.1007/s10874-006-9028-8
Sonde; Ozone

2005, UNEP
Environmental effects of ozone depletion and its interactions with climate change: Progress report
Photochem. Photobiol. Sci., 4, 177 - 184
Spectral UV; UV Irradiance; Ozone

2005, Vandaele AC
Fayt C, Hendrick F, et al.
An intercomparison campaign of ground-based UV-visible measurements of NO₂, BrO, and OCIO slant columns: Methods of analysis and results for NO₂
J. Geophys. Res., 110 (D8), Art. No. D08305
UVVis; NO₂; BrO; OCIO; Validation

2005, von Savigny, C.
Kaiser, J. W., Bovensmann, H., Burrows, J. P., McDermid, I. S., and Leblanc, T.
Spatial and temporal characterization of SCIAMACHY limb pointing errors during the first three years of the mission
Atmos. Chem. Phys., 5, 2593-2602
Satellite; Validation

2005, T. Warneke

R. de Beek, M. Buchwitz, J. Notholt, A. Schulz, V. Velazco, O. Schrems
Shipborne solar absorption measurements of CO₂, CH₄, N₂O and CO and comparison with SCIAMACHY
WFM-DOAS retrievals
Atmos. Chem. Phys., 5, 2029–2034
FTIR; Satellite; CO₂; CH₄; N₂O; CO; Validation

2005, Weber, M.
Lamsal, L. N., Coldewey-Egbers, M., Bramstedt, K., and Burrows, J. P.
Pole-to-pole validation of GOME WFDAS total ozone with groundbased data
Atmos. Chem. Phys., 5, 1341-1355
Satellite; Validation

2005, V. Velazco
J. Notholt, T. Warneke, M. Lawrence, H. Bremer, J. Drummond, A. Schulz, J. Krieg, and O. Schrems
Latitude and altitude variability of carbon monoxide in the Atlantic detected from ship-borne Fourier
transform spectrometry, model, and satellite data
J. Geophys. Res., 110, D09306
doi:10.1029/2004JD005351
FTIR; Model; Satellite; CO

2005, von Savigny, C.
J. W. Kaiser, H. Bovensmann, J. P. Burrows, I. S. McDermid and T. Leblanc
Spatial and Temporal Characterization of SCIAMACHY Limb Pointing Errors During the First Three Years
of the Mission
Atmospheric Chemistry and Physics, 5, 2593-2602
Lidar; Satellite

2005, T. Warneke
Z. Yang, S. Olsen, S. Körner, J. Notholt, G. C. Toon, V. Velazco, A. Schulz, O. Schrems
Seasonal and latitudinal variations of column averaged volume-mixing ratios of atmospheric CO₂
Geophys. Res. Letters, 32, L03808
doi:10.1029/2004GL021597
FTIR; CO₂

2005, Yela, M.
C. Parrondo, M. Gil, S. Rodriguez, J. Araujo, H. Ochoa, G. Deferrari and S. Djaz
The September 2002 Antarctic vortex major warming as observed by visible spectroscopy and
ozonesoundings
International Journal of Remote Sensing, V26, N16, 3361-3376
Sonde; Ozone; UVVis; Antarctic

2005, Yurganov, L.N.

P. Duchatelet, A.V. Dzhola, D. P. Edwards, F. Hase, I. Kramer, E. Mahieu, J. Mellqvist, J. Notholt, P. C. Novelli, H.-E. Scheel, Matthias Schneider, A. Schulz, A. Strandberg, R. Sussmann, H. Tanimoto, V. Velazko, J.R. Drummond, J.C. Gille

Increased Northern Hemispheric CO burden in the troposphere in 2002 and 2003 detected from the ground and from a satellite

ACP 5, 563–573

FTIR; Satellite; CO

2005, Zander, R.

E. Mahieu, P. Demoulin, P. Duchatelet, C. Servais, G. Roland, L. Delbouille, M. De Mazière and C.P. Rinsland

Evolution of a dozen non-CO₂ greenhouse gases above Central Europe since the mid-1980s, *Environmental Sciences*, 2 (2-3), 295-303

FTIR