

NDSC/NDACC Publications – 2005

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; Erythral UV

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. Ehamjian. (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, Borch, 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 WFOAS
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. Kyro
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, 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. Skrivankova, 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, Faduilha 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 16O₃ 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 Roozendaal, 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

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

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

Lidar; Cloud

2005, Kerzenmacher, T.E.

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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

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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.

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Quality assurance of the solar UV network in the Antarctic,

Journal of Geophysical Research, Volume 110, 08

Dobson; Ozone

2005, Mahieu, E.

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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

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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, 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
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Lidar; PSC

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Evidence of reduced measurement uncertainties from an FTIR instrument intercomparison at Kiruna, Sweden
JQSRT 96, 75-84
FTIR; Validation

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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

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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

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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. Quant. 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.

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Journal of the Atmospheric Sciences, 62, 748-764
Sonde; Ozone

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Trends of HF, HCl, CCl₂F₂, CCl₃F, CHClF₂ (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.

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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

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