

NDSC Publications - 1998

1998, Ancellet, G.

F.Ravetta

A compact airborne lidar for tropospheric ozone (alto): description and field measurements

Appl. Opt., 37, 5509 – 5521

Lidar; Ozone

1998, Baray, J.L.

G. Ancellet, F.G. Taupin, M. Bessafi, S. Baldy and P. Keckhut

Subtropical tropopause break as a possible stratosphere source of ozone in the tropical troposphere

J. Atmos. Sol. Terr. Phys., 60, 27-36

Lidar; Ozone

1998, Bell, W.

C. Paton Walsh, T.D. Gardiner, P.T. Woods, L. Donohoe, A. Gould, D. Secker, S. Naughten, N.R. Swann, N.A. Martin, L.E. Page, M.P. Chipperfield, A.M. Lee, and S. Pullen

Ground-based FTIR Measurements of Stratospheric Trace Species from Aberdeen During Winter and Spring 1993/94 and 1994/95 and Comparison with a 3D Model

J. Atmos. Chem., 30, 119-130

FTIR; Model

1998, Bell, W.

C. Paton Walsh, P.T. Woods, T.D. Gardiner, M.P. Chipperfield, and A.M. Lee

Ground-based FTIR Measurements with High Temporal Resolution

J. Atmos. Chem., 30, 131-140

FTIR

1998, Bergeret, V.

S. Bekki, S. Godin and G. Mégie, Analyse des variations saisonnières de l'ozone antarctique dans la basse stratosphère à partir des données lidar et sonde de Dumont d'Urville

C.R. Acad. Sci. Sér. II a, 326, 751-756

Lidar; Sonde; Ozone; Validation

1998, Bernhard, G.

G. Seckmeyer, R.L. McKenzie, and P.V. Johnston

Ratio spectra as a quality control tool for solar spectral UV measurements

J. Geophys. Res., 103, 28,855-28,861

Spectral UV; UV Irradiance

1998, Bodeker, G.E.

Boyd, I.S., Matthews, W.A.

Trends and variability in vertical ozone and temperature profiles measured by ozonesondes at Lauder, New Zealand: 1986-1996

J. Geophys. Res., 103, 28661-28681

Sonde; Ozone; Temperature; Trends

1998, Bodhaine, B.A.

E.G. Dutton, R.L. McKenzie, and P.V. Johnston

Calibrating broadband UV instruments: ozone and solar zenith angle dependence

J. Atmos. and Oceanic Tech., 15, 916-926

Spectral UV; UV Irradiance; Ozone; Validation

1998, Boyd, I. S.

Greg E. Bodeker, Brian J. Connor, Daan P.J. Swart, and Ellen J. Brinksma

An assessment of ECC ozonesondes operated using 1% and 0.5% KI cathode solutions at Lauder, New Zealand

Geophys. Res. Lett., 25, 2409-2412

Sonde; Ozone; Validation

1998, Brinksma, E. J.

Y. J. Meijer, I. S. McDermid, R. P. Cageao, J. B. Bergwerff, D. P. J. Swart, W. Ubachs, W. A. Matthews, W. Hogervorst and J. W. Hovenier

First lidar observations of mesospheric hydroxyl

Geophysical Research Letters, 25, 51-54

Lidar; Hydroxyl

1998; Brinksma, EJ

Y.J. Meijer, B.J. Connor, G.L. Manney, J.B. Bergwerff, G.E. Bodeker, I.S. Boyd, J.B. Liley, W. Hogervorst, J.W. Hovenier, N.J. Livesey, D.P.J Swart

Analysis of record-low ozone values during the 1997 winter over Lauder, New Zealand

Geophys. Res. Lett., 25, 2785-2788

Theory; Ozone

1998, Burris, J.

Wm. Heaps, B. Gary, W. Hoegy, L. Lait, T. McGee, M. Gross, and U. Singh

Lidar Temperature Measurements during the TOTE/VOTE Mission

J. Geophys. Res., 103, 3505-3510

Lidar; Temperature

1998, Coffey, M.T.

A. Goldman, J.W. Hannigan, W.G. Mankin, W.G. Schoenfeld, C.P. Rinsland, C. Bernardo, and D.W.T. Griffith

Improved vibration-rotation (0-1) HBr line parameters for validating high resolution infrared atmospheric spectra measurements

J. Quant. Spectrosc. Radiat. Transfer, 60, 863-867

FTIR

1998, David, C.

S. Bekki, S. Godin, G. Mégie and M.P. Chipperfield

Polar stratospheric clouds climatology over Dumont d'Urville between 1989 and 1993 and the influence of volcanic aerosols on their formation

J. Geophys. Res., 103, 22163-22180

Lidar; Aerosol; PSC; Climatology

1998, De Backer, Hugo

D. De Muer and G. De Sadelaer

Comparison of ozone profiles obtained with Brewer-Mast and Z-ECC sensors during simultaneous ascents

J. Geophys. Res., 103, 19641-19648

Sonde; Ozone; Validation

1998, De la Noe, J.

O. Lezeaux, G. Guillemain, R. Lauque, P. Baron and P. Ricaud

A ground-based microwave radiometer dedicated to stratospheric ozone monitoring

J. Geophys. Res., 103, 22147-22161

Microwave, Ozone

1998, De Mazière, M.

M. Van Roozendaal, C. Herman, P. C. Simon, P. Demoulin, G. Roland, and R. Zander

Quantitative evaluation of post-Pinatubo NO₂ reduction and recovery, based on 10 years of FTIR and UV-visible spectroscopic measurements at the Jungfraujoch

J. Geophys. Res., 103, 10,849-10,858

FTIR; UVVis; NO₂; Volcano

1998, Denmead, O.T.

R. Leuning, D.W.T. Griffith, L.A. Harper, J.R. Freney, I.M. Jamie, and F. Turatti

Verifying current estimates of non-CO₂ greenhouse gas emissions from animals, landfills and pastures with direct measurements

CSIRO Land and Water, Canberra

FTIR

1998, di Sarra, A.

L. Bernardini, M. Cacciani, G. Fiocco, and D. Fua

Stratospheric aerosol observed by lidar over northern Greenland in the aftermath of the Pinatubo eruption

J. Geophys. Res., 103, 13,873-13,891

Lidar; Aerosol; Volcano

1998, Donovan, D. P.

A. I. Carswell, T. Shibata, J. C. Bird, T. J. Duck, T. Itabe, T. Nagai, S. R. Pal, O. Uchino, and J. A. Whiteway
Multiwavelength lidar aerosol measurements made at Eureka (80 N, 86 W) during early 1995

Geophys. Res. Lett., 25, 3139-3142

Lidar; Aerosol

1998, Duck, T. J.

J. A. Whiteway, and A. I. Carswell

Lidar observations of gravity wave activity and Arctic stratospheric vortex core warming

Geophys. Res. Lett., 25, 2813-2816

Lidar

1998, Elokhov, A.S.

Gruzdev A.N. Measurements of column contents and vertical distribution of NO₂ at Zvenigorod
Scientific Station

Proc. SPIE, 1998, Vol. 3583, pp. 547-554

UVVis; NO₂

1998, Esler, M.B.

S.R. Wilson, D.W.T. Griffith, and L.P. Steele

Baseline trace gas monitoring using Fourier Transform Infrared (FTIR) spectroscopy
in Baseline 96, edited by R.J. Francey, CSIRO Bureau of Meteorology, Melbourne
FTIR

Grant, W.B., M. A. Fenn, E.V. Browell, T. J. McGee, U. N. Singh, M. R. Gross, I. S. McDermid, P.-H. Wang, L.
E. Deaver, and L. Froidevaux, Correlative Stratospheric Ozone Measurements with the Airborne UV DIAL
System during TOTE/VOTE, Geophys. Res. Lett., 25, 623-626, 1998.

1998, Griffith, D.W.T.

N.B. Jones, and W.A. Matthews

Interhemispheric ratio and annual cycle of carbonyl sulfide (OCS) total column from ground based solar
FTIR spectra

J. Geophys. Res., 103 (D7), 8447-8454

FTIR; OCS

1998, Hannigan, J.W.

M.T. Coffey, W.G. Mankin, A. Goldman

Column Observations of HNO₃, N₂O, HF, HCl, O₃ at Sondre Stromfjord, Greenland During Winter 1994-'95

J. Atmos. Chem., 30, 103-118

FTIR; HNO₃; N₂O; HF; HCl; Ozone

1998, Harris, N.

G. Ancellet, L. Bishop, D. Hofmann, J. Kerr, R. Mcpeters, M. Prendez, W. Randel, J. Staehelin, B. Subbaraya, A. Volz-Thomas, J. Zawodny and C. Zerefos

Trends in stratospheric and tropospheric ozone

J. Geophys. Res., 102, 1571-1590

Lidar; Ozone

1998, Keys, J. G.

S. W. Wood, N. B. Jones, and F. J. Murcray

Spectral Measurements of HCl in the plume of the Antarctic volcano Mount Erebus

Geophys. Res. Lett., 25, 2421-2424

FTIR; HCl

1998, Knudsen, B. M.

N. Larsen, I. S. Mikkelsen, J.-J. Morcrette, G. O. Braathen, E. Kyrö, H. Fast, H. Gernandt, H. Kanzawa, H. Nakane, V. Dorokhov, V. Yushkov, G. Hansen, M. Gil, and R. J. Shearman

Ozone depletion in and below the arctic vortex for 1997

Geophys. Res. Lett., 25, 627-630

Sonde; Ozone

1998, Leblanc, T.

I.S. McDermid, A. Hauchecorne and P. Keckhut

Evaluation of optimization of lidar temperature analysis algorithms using simulated data,

J. Geophys. Res., 103, 6177-6187

Lidar; Temperature; Algorithm; Validation

1998, Leblanc, T.

I.S. McDermid, P. Keckhut, A. Hauchecorne, C.Y. She and D.A. Krueger

Temperature climatology of the middle atmosphere from long-term lidar measurements at middle and low latitudes

J. Geophys. Res., 103, 17191-17204

Lidar; Temperature; Climatology

1998, Manney, G. L.

J. C. Bird, D. P. Donovan, T. J. Duck, J. A. Whiteway, S. R. Pal, and A. I. Carswell, Modelling ozone laminae in ground-based Arctic wintertime observations using trajectory calculations and satellite data

J. Geophys. Res., 103, 5797-5814

Lidar; Ozone

1998, McDermid, I. S.

J. B. Bergwerff, G. Bodeker, I. S. Boyd, E.J. Brinksma, B. J. Connor, R. Farmer, M. R. Gross, P. Kimvilakani, W. A. Matthews, T. J. McGee, F. T. Ormel, A. Parrish, U. Singh, D. P. J. Swart, J. J. Tsou, P. H. Wang, and J. Zawodny

OPAL: Network for the Detection of Stratospheric Change Ozone Profiler Assessment at Lauder, New Zealand. I. Blind Intercomparisons

J. Geophys. Res., 103, 28,683-28,692

Lidar; Microwave; Sonde; Ozone; Validation

1998, McDermid, I. S.

J. B. Bergwerff, G. Bodeker, I. S. Boyd, E. J. Brinksma, B. J. Connor, R. Farmer, M. R. Gross, P. Kimvilakani, W. A. Matthews, T. J. McGee, F. T. Ormel, A. Parrish, U. Singh, D. P. J. Swart, and J. J. Tsou

OPAL: Network for the Detection of Stratospheric Change Ozone Profiler Assessment at Lauder, New Zealand. II. Intercomparison of Revised Results

J. Geophys. Res., 103, 28,693-28,699

Lidar; Microwave; Sonde; Ozone; Validation

1998, McKenzie, R.L.

K.J. Paulin, and S. Madronich

Effects of snow cover on UV irradiance and surface albedo: A case study

J. Geophys. Res., 103, 28,785-28,792

Spectral UV; UV Irradiance

1998, McKenzie, R.L.

K.J. Paulin, G.E. Bodeker, J.B. Liley, and A.P. Sturman

Cloud cover measured by satellite and from the ground: relationship to UV radiation at the surface

Internat. J. Remote Sensing, 19, 2969-2985

Spectral UV; Satellite; UV Irradiance; Cloud

1998, Mélen, F.

E. Mahieu, R. Zander, C. P. Rinsland, P. Demoulin, G. Roland, L. Delbouille, and C. Servais

Vertical column abundances of CO₂ above the Jungfraujoch station derived from ground-based infrared solar observations

J. Atmos. Chem., 29, 119-134

FTIR; CO₂

1998, Milton M.J.

G. Ancellet, A. Apituley, J. Bosenberg, W. Carnuth, F. Castagnoli, T. Trickl, H. Edner, L. Stefanutti, T. Schaberl, A. Sunesson and C. Weitkamp

Raman-shifted laser sources suitable for differential-absorption lidar measurements of ozone in the troposphere

Appl. Phys. B, Photophys. Laser Chem., 66, 105-113

Lidar; Ozone

1998, Nedoluha, G. E.

R. M. Bevilacqua, R. M. Gomez, D. E. Siskind, B. C. Hicks, and J. M. Russell III

Increases in middle atmospheric water vapor as observed by HALOE and the ground-based Water Vapor Millimeter-wave Spectrometer from 1991-1997

J. Geophys. Res., 103, 3531-3542

Microwave; Satellite; H₂O

1998, Nedoluha, G. E.

D. S. Siskind, J. T. Bacmeister, R. M. Bevilacqua, and J. M. Russell III

Changes in upper stratospheric CH₄ and NO₂ as measured by HALOE and implications for changes in transport

Geophys. Res. Lett., 25, 987-990

Microwave; Satellite; CH₄; NO₂

1998, Oltmans, S.J.

A.S. Lefohn, H.E. Scheel, J.M. Harris, H. Levy II, I.E. Galbally, E.G. Brunke, C.P. Meyer, J.A. Lathrop, B.J. Johnson, D.S. Shadwick, E. Cuevas, F.J. Schmidlin, D.W. Tarasick, H. Claude, J.B. Kerr, O. Uchino, V. Mohnen

Trends of Ozone in the Troposphere

Geophys. Res. Lett., 25, 139-142

Sonde; Ozone; Trends

1998, Parrish, A.

B. J. Connor, J. J. Tsou, G. Beyerle, I. S. McDermid and S. M. Hollandsworth

Microwave Ozone and Lidar Aerosol Profile Observations at Table Mountain, California, Following the Pinatubo Eruption

J. Geophysical Research, 103, 22,201-22,208

Lidar; Microwave; Aerosol; Ozone; Volcano

1998, Pougatchev, N. S.

N. B. Jones, B. J. Connor, C. P. Rinsland, E. Becker, M. T. Coffey, V. S. Connors, Ph. Demoulin, A. V.

Dzhola, H. Fast, E. I. Grechko, J. W. Hannigan, M. Koike, Y. Kondo, E. Mahieu, W. G. Mankin, R. L.

Mittermeier, J. Notholt, H. G. Reichle Jr., L. P. Steele, G. C. Toon, L. N. Yurganov, R. Zander, and Y. Zhao

Ground-based Infrared Solar Spectroscopic Measurements of Carbon Monoxide During 1994 MAPS Flights

J. Geophys. Res., 103, 19,317-19,325

FTIR; Satellite; CO

1998, Preston KE

Fish DJ, Roscoe HK, Jones RL

Accurate derivation of total and stratospheric vertical columns of NO₂ from ground-based zenith-sky measurements

J. Atmos. Chem., 30 (1), 163-172

Theory; NO₂

1998, Pundt, I.

J.P. Pommereau, C. Phillips and E. Lateltin

Upper limit of iodine oxide in the lower stratosphere

J. Atmos. Chem., 30, 173-185

UVVis; IO

1998, Raffalski, U.

U. Klein, B. Franke, J. Langer, B.-M. Sinnhuber, J. Trentmann, K. F. Kuenzi and O. Schrems

Ground based millimeter-wave observations of Arctic chlorine activation during winter and spring 1996/97

Geophys. Rev. Lett., 25, 3331-3334

Microwave; Cl

1998, Rex, M.

P. von der Gathen, N. R. P. Harris, D. Lucic, B. M. Knudsen, G. O. Braathen, S. J. Reid, H. De Backer, H.

Claude, R. Fabian, H. Fast, M. Gil, E. KyrM-v, I. S. Mikkelsen, M. Rummukainen, H. G. Smit, J. StM-dhelin, C. Varotsos, I. Zaitcev

In-situ measurements of stratospheric ozone depletion rates in the Arctic winter 1991/92: a Lagrangian approach

J. Geophys. Res., 103, 5843-5853

Sonde; Ozone

1998, Ricaud, Ph.

E. Monnier, F. Goutail, J.P. Pommereau, C. David, S. Godin, L. Froidevaux, J.W. Waters, J.L. Mergenthaler, A.E. Roche, H. Pumphrey and M.P. Chipperfield

The stratosphere over Dumont d'Urville, Antarctica, in winter 1992

J. Geophys. Res., 103, 13267-13284

Lidar; UVVis; Satellite

1998, Rinsland, C. P.

N. B. Jones, B. J. Connor, J. A. Logan, N. S. Pougatchev, A. Goldman, F. J. Murcray, T. M. Stephen, A. S.

Pine, R. Zander, E. Mahieu, and P. Demoulin

Northern and southern hemisphere ground-based infrared spectroscopic measurements of tropospheric carbon monoxide and ethane

J. Geophys. Res., 103, 28197-28217
FTIR; C₂H₆, CO

1998, Sinnhuber, Bjoern-Martin
J. Langer, U. Klein, U. Raffalski, K. F. Kuenzi and O. Schrems
Ground based millimeter-wave observations of Arctic ozone depletion during winter and spring 1996/97
Geophys. Rev. Lett., 25, 3327-3330
Microwave; Ozone

1998, Steinbrecht, W.
Claude, H. and Schoenenborn, F.
Nine years of lidar measurements at Hohenpeißenberg: Validation and results,
Proc. Quadr. Ozone Symp. 1996, L'Aquila, Italy, (R. Boikov, G. Visconti, eds.), 171-174.
Lidar; Ozone; Validation

Steinbrecht, W.
Schwarz, R. and Claude, H.
New Pump Correction for the Brewer Mast Ozone Sonde: Experimental Determination and Application
to Instrument Intercomparisons
J. Atmos. & Oceanic Tech., 15, 144-156
Sonde; Ozone; Validation

1998, Van Roozendaal, M.
P. Peeters, H.K. Roscoe, H. De Backer, A.E. Jones, L. Bartlett, G. Vaughan, F. Goutail, J.P. Pommereau, E.
Kyro, C. Wahlstrom, G. Braathen and P.C. Simon
Validation of ground-based visible measurements of total ozone by comparison with Dobson and
Brewer spectrophotometers
J. Atmos. Chem., 29, 55-83
Brewer; Dobson; UVVis; Ozone; Validation