

NDSC Publications - 2000

2000, Allaart, M.

P. Valks, R. van der A, A. Piters, H. Kelder, and P. van Velthoven

Ozone mini-hole observed over Europe, influence of low stratospheric temperature on observations

Geophys. Res. Lett., 27, 4089-4092

Satellite; Sonde; Ozone; Temperature

2000, Becker, E.

J. Notholt, Intercomparison and validation of FTIR measurements with the sun, the moon and emission in the Arctic

J. Quant. Spec. Rad. Transfer, 65, 779-786

FTIR; Validation

2000, Bithell, M.

L. J. Gray and G. Vaughan

Persistence of stratospheric ozone layers in the troposphere

Atmos. Environ., 34, 2563-2570

Sonde; Ozone

2000, Braathen G.O.,

T.J. McGee, M.R. Gross, S. Godin, P. Keckhut, C. Vialle, and A. Hauchecorne, Intercomparaison of stratospheric ozone and temperature measurements at the Observatoire de Haute Provence during an NDSC validation campaign from 1-18 July 1997,

Geophys. Res. Lett.

Ozone; Temperature; Validation

2000, Brinksma, E.J., et al.

Validation of 3 years of ozone measurements over Network for the Detection of Stratospheric Change station Lauder, New Zealand

J. Geophys. Res., 105, 17291-17306

Ozone; Validation

2000, Deshler, T.

B. Nardi, A. Adriani, F. Cairo, G. Hansen, F. Fierli, A. Hauchecorne and L. Pulvirenti

Determining the index of refraction of polar stratospheric clouds above Andoya (69 N) by combining size resolved concentration and optical scattering measurements

J. Geophys. Res., 105, 3943-3953

Lidar; Aerosol; PSC

2000, Di Donfrancesco G.

A. Adriani, G.P. Gobbi and F. Cairo

Lidar observations of stratospheric aerosol during 1993 above McMurdo Station, Antarctica

J. Atmos. Sol. Terr. Phys., 62, 713-723

Lidar; Aerosol

2000, Duck, T.J.

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

A detailed record of High Arctic middle atmospheric temperatures

J. Geophys. Res., 105, 22909-22918

Lidar; Temperature

2000, Elokhov, A.S.

Gruzdev, A.N

Nitrogen dioxide column content and vertical profile measurements at the Zvenigorod Research Station.

Izvestiya

Atmos. Oceanic Phys., 2000, Vol. 36, No 6, pp. 763-777

UVVis, NO₂

2000, Fish DJ

Roscoe HK, Johnston PV

Possible causes of stratospheric NO₂ trends observed at Lauder, New Zealand

Geophys. Res. Lett., 27 (20), 3313-3316

Theory; UVVis; NO₂; Trends

2000, Gil, M.

O. Puenteadura, M. Yela y E. Cuevas. M.

Behavior of NO₂ and O₃ columns during the eclipse of February 26, 1998, as measured by visible spectroscopy

J. Geophys. Res., 105, 3583

UVVis; Ozone; NO₂

2000, Goldman, A.

M.T. Coffey, T.M. Stephen, C.P. Rinskind, W.G. Mankin, J.W. Hannigan

Isotopic OCS from high-resolution balloon-borne ground-based infrared solar absorption spectra

J. Quant. Spec. Rad. Transfer, 67, 447-455

FTIR; OCS

2000, Gröbner, J.

A. Albold, M. Blumthaler, T. Cabot, A. de la Casinière, J. Lenoble, T. Martin, D. Masserot, M. Müller, T.

Pichler, E. Pougatch, R. Philipona, G. Rengarajan, D. Schmucki, G. Seckmeyer, C. Sergent, M.L. Touré, P.

Weih

The variability of spectral solar ultraviolet irradiance in an Alpine environment

J. Geophys. Res., 105, 26991-27003
Spectral UV; UV Irradiance

2000, Guirlet, M.

P. Keckhut, S. Godin and G. Mégie

Description of the long-term ozone data series obtained from different instrumental techniques at a single location: The Observatoire de Haute-Provence (43.9 °N, 5.7°E)

Ann. Geophys., 18, 1325-1339

Sonde; Lidar; Ozone; Validation

2000, Inngold, T.

B. Schmid, C. Mätzler, P. Demoulin and N. Kämpfer

Modeled and empirical approaches for retrieving columnar water vapor from solar transmittance measurements in the 0.72, 0.82 and 0.94 μm absorption bands

J. Geophys. Res., 105, 24327-24343

FTIR; H₂O

2000, Klein, U.

Barry, B., Lindner, K., Wohltmann, I., Künzi, K. F.

Winter and Spring Observations of Stratospheric Chlorine Monoxide from Ny-Ålesund, Spitsbergen, in 1997/98 and 1998/99

Geophys. Res. Lett., 27, 4093-4097

Microwave; ClO

2000, Koike, M.

Y. Kondo, H. Irie, F. J. Murcray, P. Williams, P. Blatherwick, C. Camy-Peyret, et al.

A comparison of Arctic HNO₃ profiles measured by the Improved Limb Atmospheric Spectrometer and balloon-borne sensors

J. Geophys. Res., 105, 6761-6771

Satellite; HNO₃; Validation

2000, Kyrö, E.

Kivi, R., Turunen, T., Aulamo, H., Rudakov, V. V., Khattatov, V. V., MacKenzie, A. R., Chipperfield, M. P., Lee, A. M., Stefanutti, L. and Ravegnani, F.

Ozone measurements during the Airborne Polar Experiment: aircraft instrument validation; isentropic trends; and hemispheric fields prior to the 1997 Arctic ozone depletion

J. Geophys. Res., 105, 14599-14611

Dobson; Sonde; Ozone

2000, Lambert, J.-C.

M. Van Roozendaal, P.C. Simon, J.-P. Pommereau, F. Goutail, J.F. Gleason, S.B. Andersen, D.W. Arlander, N.A. Bui Van, H. Claude, J. de La Noë, M. De Mazière, V. Dorokhov, P. Eriksen, A. Green, K. Karlsen

Tørnkvist, B.A. Kåstad Høiskar, E. Kyrö, J. Leveau, M.-F. Merienne, G. Milinevsky, H.K. Roscoe, A. Sarkissian, J.D. Shanklin, J. Staehelin, C. Wahlström Tellefsen, and G. Vaughan
Combined characterisation of GOME and TOMS total ozone measurements from space using ground-based observations from the NDSC
Adv. Space Res., 26, 1931-1940
Satellite; Ozone

2000; Leblanc, T.
I. S. McDermid
Stratospheric Ozone Climatology From Lidar Measurements at Table Mountain (34.4°N, 117.7°W) and Mauna Loa (19.5°N, 155.6°W)
J. Geophysical Research, 105, 14,613-14,623
Lidar; Ozone; Climatology

2000, Lenoble, J.
Influence of environment reflectance on UV zenith radiance for cloudless sky
Appl. Optics, 39, 4247-4254
Spectral UV; UV Irradiance

2000, Li, Q.
D.J. Jacob, I. Bey, R.M. Yantosca, Y. Zhao, Y. Kondo, J. Notholt
Atmospheric Hydrogen Cyanide (HCN): Biomass burning source, ocean sink?
Geophys. Res. Lett., 27, 357-360
FTIR; HCN

2000, C.-H. Lu,
G.K. Yue, G.L. Manney, H. Jaeger, and V.A. Mohnen
Lagrangian Approach for Stratospheric Aerosol and Gas Experiment (SAGE) II profile intercomparisons
J. Geophys. Res., 105, 4563-4572
Satellite; Lidar; Aerosol; Validation

2000, Masserot, D.
J.L. Bocquet, J. Lenoble, C. Brogniez, M. Barnéoud-Rousset
Résultats d'une campagne hivernale de mesures du rayonnement ultraviolet (UV) en milieu alpin (Briançon-février 1998)
Nouvelles dermatologiques, 19, 445-450
Spectral UV; UV Irradiance

2000, McDonald, M. K.
R. L. de Zafra, and G. Muscari
Millimeter wave spectroscopic measurements over the South Pole: 5. Morphology and evolution of HNO₃ vertical distribution, 1993 versus 1995

J. Geophys. Res., 105, 17,739-17,750
Microwave; HNO₃

2000, Nedoluha, Gerald E.

Richard M. Bevilacqua, R. Michael Gomez, Brian C. Hicks, James M. Russell, and Brian J. Connor
Ground-based microwave observations of middle atmospheric water vapor in the 1990s
Geophysical Monograph 123, Atmospheric Science Across the Stratopause, 257-270
Microwave; H₂O

2000, Notholt, J.

G.C. Toon, C.P. Rinsland, N. Pougatchev, N.B. Jones, B.J. Conner, R. Weller, M. Gautrois, O. Schrems
Latitudinal variations of trace gas concentrations in the free troposphere measured by solar absorption
spectroscopy during a ship cruise
J. Geophys. Res., 105, 1337-1349
FTIR

2000, Notholt, J.

G.C. Toon, B. Sen, N.B. Jones, C.P. Rinsland, R. Lehmann, M. Rex
Variations in the tropical uplift following the Pinatubo eruption studied by infrared solar absorption
spectrometry
Geophys. Res. Letters, 27, 2609-2612
FTIR; Volcano

2000, Oltmans, S. J.

Vömel, H., Hofmann, D. J., Rosenlof, K. H., and Kley, D.
The increase in stratospheric water vapor from balloonborne, frostpoint hygrometer measurements at
Washington, D.C., and Boulder, Colorado
Geophys. Res. Lett., 27, 3453-3456
doi:10.1029/2000GL012133
Sonde; H₂O

2000, Orsolini, Y.

G. Hansen, G.L. Manney, N. Livesey, and U.-P. Hoppe
Lagrangian reconstruction of ozone column and profile at the Arctic Lidar Observatory for Middle
Atmosphere Research (ALOMAR) throughout the winter and spring of 1997-1998
J. Geophys. Res., 106, 10,011-10,021
Lidar; Ozone

2000, Pachart, E.

J. Lenoble, C. Brogniez, D. Masserot, J.L. Bocquet
Consistency tests on UV spectral irradiance measurements using modeling and broadband instruments
J. Geophys. Res., 105, 4851-4856

Spectral UV; Model; UV Irradiance; Validation

2000, Rex, M.

K. Dethloff, D. Handorf, A. Herber, R. Lehmann, R. Neuber, J. Notholt, A. Rinke, P. von der Gathen, A. Weisheimer, and H. Gernandt

Arctic and Antarctic ozone layer observations: chemical and dynamical aspects of variability and long-term changes in the polar stratosphere

Polar Research, 19(2), 193-204

FTIR; Lidar; Sonde; Ozone

2000, Rinsland, C. P.

A. Goldman, B. J. Connor, T. M. Stephen, N. B. Jones, S. W. Wood, F. J. Murcray, S. J. David, R. D. Blatherwick, R. Zander, E. Mahieu, and P. Demoulin

Correlation relationships of stratospheric molecular constituents from high spectral resolution, ground-based infrared solar absorption spectra

J. Geophys. Res., 105, 14,637-14,652

FTIR

2000, Rinsland, C. P.

E. Mahieu, R. Zander, P. Demoulin, J. Forrer and B. Buchmann

Free tropospheric CO, C₂H₆ and HCN above central Europe : recent measurements from the Jungfraujoch station including the detection of elevated columns during 1998

J. Geophys. Res., 105, 24235-24249

FTIR; CO; C₂H₆; HCN

2000, Rosen, J.M.

S.Young, J.Laby, N.Kjome, J.Gras

Springtime aerosol layers in the free troposphere over Australia: Mildura Aerosol Tropospheric Experiment (MATE 98)

J. Geophys. Res., 105, 17,833-17,842

Sonde; Aerosol

2000, Sasano, Y.

Y. Terao, H. L. Tanaka, T. Yasunari, H. Kanzawa, H. Nakajima, T. Yokota, H. Nakane, S. Hayashida and N. Saitoh

ILAS observations of chemical ozone loss in the Arctic vortex during early spring 1997

Geophys. Res. Lett., 27, 213-216

Satellite; Ozone

2000, Schulz, A.

Rex, M., Steger, J., Harris, N., Braathen, G.O., Reimer, E., Alfier, R., Beck, A., Alpers, M., Cisneros, J.,

Claude, H., De Backer, H., Dier, H., Dorokhov, V., Fast, H., Godin, S., Hansen, G., Kondo, Y., Kosmidis, E.,

Kyro, E., Molyneux, M.J., Murphy, G., Nakane, H., Parrondo, C., Ravagnani, F., Varostos, C., Vialle, C., Yushkov, V., Zerefos, C., Von Der Gathen, P.

Match observation in the Arctic winter 1996/97 : High stratospheric ozone loss rates correlate with low temperatures deep inside the polar vortex

Geophys. Res. Lett., 27, 205-208

Sonde; Ozone; Temperatures

2000, Sinnhuber, B.-M.

M. P. Chipperfield, J. Davies, J. P. Burrows, K.-U. Eichmann, M. Weber, P. von der Gathen, M. Guirlet, G. A. Cahill, A. M. Lee, J. A. Pyle

Large loss of total ozone during the Arctic winter of 1999/2000

Geophys. Res. Lett., 27, 3473-3476

Sonde; Ozone

2000, Solomon P.

J. Barrett, B. Connor, S. Zoonematkermai, A. Parrish, A. Lee, Pyle John and M. Chipperfield

Seasonal observations of chlorine monoxide over Antarctica during the 1996-1998 ozone holes and comparison with the SLIMCAT three-dimensional model

J. Geophys. Res., 105, 28,979-29001

Microwave; Model; ClO

2000, Stevermer, A.J.

I.V. Petropavlovskikh, J. M. Rosen, J.J. DeLuisi

Development of a global stratospheric aerosol climatology: optical properties and applications for UV

J. Geophys. Res., vol., 105, No. D18, 22,763-22,776

doi: 0148-0227/00/2000JD900368509.00

Sonde; Aerosol; Climatology

2000, Tsou, J.J.

B.J. Connor, A. Parrish, R.B. Pierce, I.S. Boyd, G.E. Bodeker, W.P. Chu, J.M. Russell, D.P.J. Swart, and T.J. McGee

NDSC millimeter wave ozone observations at Lauder, New Zealand, 1992-1998: Improved methodology, validation, and variation study

J. Geophys. Res., 105 (D19), 24263-24281

Microwave; Sonde; Satellite; Ozone; Validation

2000, Van Weele, M.

T.J. Martin, M. Blumthaler, C. Brogniez, P.N. den Outer, O. Engelsen, J. Lenoble, B. Mayer, G. Pfister, A. Ruggaber, B. Walravens, P. Weihs, B.G. Gardiner, D. Gillotay, D. Haferl, A. Kylling, G. Seckmeyer, W.M.F. Wauben

From model intercomparison towards benchmark UV spectra for six real atmospheric cases

J. Geophys. Res., 105, 4915-4926

Spectral UV; Model; UV Irradiance; Validation

2000, Vaughan, G.

R. M. Worthington

Break-up of a stratospheric streamer observed by MST radar

Quart. J. Roy. Met. Soc., 126, 1751-69

Sonde

2000, Wittrock, F.

R. M Muller, A. Richter, H. Bovensmann, and J.P. Burrows

Observations of Iodine monoxide above Spitsbergen

Geophys. Res. Lett., 27, 1471-1474

UVVis; IO

2000, Zhao, Y.

Y. Kondo, F.J. Murcray, X. Liu, M. Koike, H. Irie, K. Strong, K. Suzuki, M Sera, and Y. Ikegami

Seasonal variations of HCN over northern Japan measured by ground-based infrared solar spectroscopy

Geophys. Res. Lett., 27, 2085-2088

FTIR; HCN