

NDACC Publications – 2020

Latest updates – 6/23/2021

2020, Allen, M. W., et al.

Use of electronic UV dosimeters in measuring personal UV exposures and public health education

Atmosphere, 11, 744, doi:10.3390/atmos11070744.

Spectral UV, UVB

2020, Almansa, A.F. et al.

Column Integrated Water Vapor and Aerosol Load Characterization with the New ZEN-R52 Radiometer

Remote Sens., 12, 1424

FTIR; H₂O; Aerosol

2020, Barreto et al.

Spectral Aerosol Optical Depth Retrievals by Ground-Based Fourier Transform Infrared Spectrometry

Remote Sens., 2, 3148

FTIR; Aerosol

2020, Bernhard, G. H

R. E. Neale, P. W. Barnes, P. J. Neale, R. G. Zepp, S. R. Wilson, A. L. Andrady, A. F. Bais, R. L. McKenzie, P. J. Aucamp, P. J. Young, J. B. Liley, R. M. Lucas, S. Yazar, L. E. Rhodes, S. N. Byrne, L. M. Hollestein, C. M. Olsen, A. R. Young, T. M. Robson, J. F. Bornman, M. A. K. Jansen, S. A. Robinson, C. L. Ballaré, C. E. Williamson, K. C. Rose, A. T. Banaszak, D.-P. Häder, S. Hylander, S.-Å. Wängberg, A. T. Austin, W.-C. Hou, N. D. Paul, S. Madronich, B. Sulzberger, K. R. Solomon, H. Li, T. Schikowski, J. Longstreth, K. K. Pandey, A. M. Heikkilä, and C. C. White

Environmental effects of stratospheric ozone depletion, UV radiation and interactions with climate change: UNEP Environmental Effects Assessment Panel, update 2019

Photochem. Photobiol. Sci., 19, 542-584

DOI: 10.1039/D0PP90011G.

Spectral UV; UVB

2020, Bernhard G.

S. Stierle

Trends of UV Radiation in Antarctica

Atmosphere, 11(8), 795

doi: 10.3390/atmos11080795.

Spectral UV; UVB; Trends

2020, Blechschmidt, A.-M.

Arteta, J., Coman, A., Curier, L., Eskes, H., Foret, G., Gielen, C., Hendrick, F., Marécal, V., Meleux, F., Parmentier, J., Peters, E., Pinardi, G., Pithers, A. J. M., Plu, M., Richter, A., Segers, A., Sofiev, M., Valdebenito, Á. M., Van Roozendaal, M., Vira, J., Vlemmix, T., and Burrows, J. P.

Comparison of tropospheric NO₂ columns from MAX-DOAS retrievals and regional air quality model simulations

Atmos. Chem. Phys., 20, 2795–2823

doi: 10.5194/acp-20-2795-2020

UVVis; Model; NO₂

2020, K. Bogner

X. Zhao, K. Strong, R.Y.-W. Chang, U. Frieß, P.L. Hayes, A. McClure-Begley, S. Morris, S. Tremblay, and A. Vicente-Luis

Measurements of tropospheric bromine monoxide over four halogen activation seasons in the Canadian high Arctic

Journal of Geophysical Research: Atmospheres, 125, e2020JD033015.

doi: 10.1029/2020JD033015

UVVis; BrO

2020, I. Bourgeois

J. Peischl, C. R. Thompson, K. C. Aikin, T. Campos, H. Clark, R. Commane, B. Daube, G. W. Diskin, J. W. Elkins, R-S. Gao, A. Gaudel, E. J. Hintsa, B. J. Johnson, R. Kivi, K. McKain, F. L. Moore, D. D. Parrish, R. Querel, Eric Ray, R. Sánchez, C. Sweeney, D. W. Tarasick, A. M. Thompson, V. Thouret, J. C. Witte, S. W. Wofsy, and T. B. Ryerson,

Global-scale distribution of ozone in the remote troposphere from ATom and HIPPO airborne field missions

doi:10.5194/acp-20-10611-2020.

Sonde; Ozone

2020, B. Byrne

J. Liu, M. Lee, I. Baker, K. W. Bowman, N. M. Deutscher, D. G. Feist, D. W. T. Griffith, L. T. Iraci, M. Kiel, J. S. Kimball, C. E. Miller, I. Morino, N. C. Parazoo, C. Petri, C. M. Roehl, M. K. Sha, K. Strong, V. A. Velazco, P. O. Wennberg, D. Wunch

Improved constraints on northern extratropical CO₂ fluxes obtained by combining surface-based and space-based atmospheric CO₂ measurements

Journal of Geophysical Research: Atmospheres, 125, e2019JD032029, doi: 10.1029/2019JD032029 (2020)

FTIR; Satellite; CO₂

2020, Cadet, Jean-Maurice

Thierry Portafaix, Hassan Bencherif, Kévin Lamy, Colette Brogniez, Frédérique Auriol, Jean-Marc Metzger, Louis-Etienne Boudreault and Caradee Yael Wright

Inter-Comparison Campaign of Solar UVR Instruments under Clear Sky Conditions at Reunion Island (21°S, 55°E)

Int. J. Environ. Res. Public Health 2020, 17, 2867

doi: 10.3390/ijerph17082867.

Spectral UV; UVB

2020, T.Yu.Chesnokova

M.V.Makarova, A.V.Chentsov, V.S.Kostsov, A.V.Poberovskii, V.I.Zakharov, N.V.Rokotyan
Estimation of the impact of differences in the CH₄ absorption line parameters on the accuracy of
methane atmospheric total column retrievals from ground-based FTIR spectra

JQSRT, V. 254 107187

doi: 10.1016/j.jqsrt.2020.107187

FTIR; CH₄

2020, Chouza, F.

T. Leblanc, J. Barnes, M. Brewer, P. Wang, and D. Koon

Long-term (1999–2019) variability of stratospheric aerosol over Mauna Loa, Hawaii, as seen by two co-
located lidars and satellite measurements

Atmos. Chem. Phys., 20(11), 6821-6839

Lidar; Satellite; Aerosol

2020, Compernelle, S.

Verhoelst, T., Pinardi, G., Granville, J., Hubert, D., Keppens, A., Niemeijer, S., Rino, B., Bais, A., Beirle, S.,
Boersma, F., Burrows, J. P., De Smedt, I., Eskes, H., Goutail, F., Hendrick, F., Lorente, A., Pazmino, A.,
Piters, A., Peters, E., Pommereau, J.-P., Remmers, J., Richter, A., van Geffen, J., Van Roozendaal, M.,
Wagner, T., and Lambert, J.-C.

Validation of Aura-OMI QA4ECV NO₂ climate data records with ground-based DOAS networks: the role
of measurement and comparison uncertainties

Atmos. Chem. Phys., 20, 8017–8045

doi: 10.5194/acp-20-8017-2020

UVVis; Satellite; NO₂; Validation

2020, Davis, S.M.

K.H. Rosenlof, D.F. Hurst, H.B. Selkirk, and H. Voemel

Stratospheric Water Vapor [in “State of the Climate in 2019”]

Bull. Amer. Meteor. Soc., 101 (8), S81-S83

doi:10.1175/2020BAMSStateoftheClimate.1.

Sonde; H₂O

2020, De Rosa, Benedetto

Paolo Di Girolamo, Donato Summa

Temperature and water vapour measurements in the frame of the International Network for the
Detection of Atmospheric Composition Change

Atmospheric Measurement Techniques, Atmos. Meas. Tech., 13, 405–427

doi: 10.5194/amt-13-405-2020.

Lidar; H₂O

2020, Dirksen, R. J.

G. E. Bodeker, P. W. Thorne, A. Merlone, T. Reale, J. Wang, D. F. Hurst, B. B. Demoz, T. D. Gardiner, B.
Ingleby, M. Sommer, C. von Rohden, and T. Leblanc

Managing the transition from Vaisala RS92 to RS41 radiosondes within the Global Climate Observing System Reference Upper-Air Network (GRUAN): a progress report
Geoscientific Instrumentation, Methods and Data Systems, 9(2), 337–355
doi:10.5194/gi-9-337-2020, URL <https://gi.copernicus.org/articles/9/337/2020/>.
Sonde; H2O

2020, S. Donner, et al.
Evaluating different methods for elevation calibration of MAX-DOAS (Multi AXis Differential Optical Absorption Spectroscopy) instruments during the CINDI-2 campaign
Atmos. Meas. Tech., 13, 685–712
UVVis

2020, Eleftheratos, K.
Kapsomenakis, J.; Zerefos, C.S.; Bais, A.F.; Fountoulakis, I.; Dameris, M.; Jöckel, P.; Haslerud, A.S.; Godin-Beekmann, S.; Steinbrecht, W.; Petropavlovskikh, I.; Brogniez, C.; Leblanc, T.; Liley, J.B.; Querel, R.; Swart, D.P.J.
Possible Effects of Greenhouse Gases to Ozone Profiles and DNA Active UV-B Irradiance at Ground Level.
Atmosphere 2020, 11, 228
doi: 10.3390/atmos11030228
Spectral UV; Lidar; Ozone; UVB

2020, Evan, S.
Brioude, J., Rosenlof, K., Davis, S. M., Vömel, H., Héron, D., Posny, F., Metzger, J.-M., Duflot, V., Payen, G., Vérèmes, H., Keckhut, P., and Cammas, J.-P.
Effect of deep convection on the tropical tropopause layer composition over the southwest Indian Ocean during austral summer
Atmos. Chem. Phys., 20, 10565–10586
doi: 10.5194/acp-20-10565-2020
Sonde

2020, Franco, B.
Clarisse, L., Stavrou, T., Müller, J.-F., Taraborrelli, D., Hadji-Lazarou, J., Hannigan, J. W., Hase, F., Hurtmans, D., Jones, N., Lutsch, E., Mahieu, E., Ortega, I., Schneider, M., Strong, K., Vigouroux, C., Clerbaux, C., Coheur, P.-F.
Spaceborne measurements of formic and acetic acids: A global view of the regional sources
Geophysical Research Letters, 47, e2019GL086239
doi: 10.1029/2019GL086239.
FTIR; Satellite; CH2O2

2020, Graf, M., P.
Scheidegger, A. Kupferschmid, H. Looser, T. Peter, R. Dirksen, L. Emmenegger, and B. Tuzson
Compact and Lightweight Mid-IR Laser Spectrometer for Balloon-borne Water Vapor Measurements in the UTLS
Atmos. Meas. Tech. Discuss., 2020, 1–21

doi:10.5194/amt-2020-243

Sonde; H2O

2020, Hagen J.

K. Hocke, G. Stober, S. Pfreundschuh, A. Murk, N. Kämpfer

First measurements of tides in the stratosphere and lower mesosphere by ground-based Doppler microwave wind radiometry, *Atmospheric Chemistry and Physics*, 20/4, 2020

doi: 10.5194/acp-20-2367-2020

Microwave; Wind

2020, Hagen, Jonas

Luder, Andres; Murk, Axel; Kämpfer, Niklaus

Frequency-Agile FFT Spectrometer for Microwave Remote Sensing Applications.

Atmosphere, 11(5), p. 490

doi: 10.3390/atmos11050490

Microwave; wind

2020, Hanumanthu, S.

B. Vogel, R. Müller, S. Brunamonti, S. Fadnavis, D. Li, P. Ölsner, M. Naja, B. B. Singh, K. R. Kumar, S. Sonbawne, H. Jauhiainen, H. Vömel, B. Luo, T. Jorge, F. G. Wienhold, R. Dirkson, and T. Peter

Strong variability of the Asian Tropopause Aerosol Layer (ATAL) in August 2016 at the Himalayan foothills

Atmos. Chem. Phys. Discuss., 2020, 1–42

doi: 10.5194/acp-2020-552

Sonde; H2O ;Aerosol

2020, Damien Héron

Stéphanie Evan, Jérôme Brioude, Karen Rosenlof, Françoise Posny, Metzger, J.-M., and Cammas, J.-P

Impact of convection on the upper-tropospheric composition (water vapor and ozone) over a subtropical site (Réunion island; 21.1° S, 55.5° E) in the Indian Ocean

Atmospheric Chemistry and Physics, 20 (14), pp.8611-8626

doi: 10.5194/acp-20-8611-2020

Sonde; H2O, Ozone

2020, Hicks-Jalali, S.

Sica, R. J., Martucci, G., Maillard Barras, E., Voirin, J., and Haeefe, A.

A Raman lidar tropospheric water vapour climatology and height-resolved trend analysis over Payerne, Switzerland

Atmos. Chem. Phys., 20, 9619–9640

doi: 10.5194/acp-20-9619-2020

Lidar; H2O; Trends

2020, Jensen, E.J., et al.

Assessment of observational evidence for direct convective hydration of the lower stratosphere

J. Geophys. Res. Atmos., 125, doi:10.1029/2020JD032793

Sonde; H₂O

2020, Ji, D.

Zhou, M., Wang, P., Yang, Y., Wang, T., Sun, X., Hermans, C., Yao, B., and Wang, G.

Deriving Temporal and Vertical Distributions of Methane in Xianghe Using Ground-based Fourier Transform Infrared and Gas-analyzer Measurements

Advances in Atmospheric Sciences, 37(6), 597-607

doi:10.1007/s00376-020-9233-4.

FTIR; CH₄

2020, Khaykin S.

Hauchecorne A., Wing R., Keckhut P., Godin-Beekmann S., Porteneuve J., Mariscal J.-F., Schmitt J., Doppler lidar at Observatoire de Haute Provence for wind profiling up to 75 km altitude: performance evaluation and observations

Atmospheric Measurement Techniques, 13 (3), pp.1501-1516.

doi: 10.5194/amt-13-1501-2020

Lidar; Wind

2020, Kivi, R.

Dörnbrack, A., Sprenger, M., & Vömel, H.

Far-ranging impact of mountain waves excited over Greenland on stratospheric dehydration and rehydration

Journal of Geophysical Research: Atmospheres, 125

doi: 10.1029/2020JD033055

Sonde; H₂O

2020, Knepp, T. N.

Thomason, L., Roell, M., Damadeo, R., Leavor, K., Leblanc, T., Chouza, F., Khaykin, S., Godin-Beekmann, S., and Flittner, D.

Evaluation of a method for converting Stratospheric Aerosol and Gas Experiment (SAGE) extinction coefficients to backscatter coefficients for intercomparison with lidar observations

Atmos. Meas. Tech., 13, 4261–4276

doi: 10.5194/amt-13-4261-2020

Lidar; Aerosol

2020, K. Kreher, et al.

Intercomparison of NO₂, O₄, O₃ and HCHO slant column measurements by MAX-DOAS and zenith-sky UV-Visible spectrometers during the CINDI-2 campaign.

Atmos. Meas. Tech., 13, 2169-2208

UVVis; NO₂; Ozone, HCHO

2020, Kuang, S.

Wang, B., Newchurch, M. J., Knupp, K., Tucker, P., Eloranta, E. W., Garcia, J. P., Razenkov, I., Sullivan, J. T., Berkoff, T. A., Gronoff, G., Lei, L., Senff, C. J., Langford, A. O., Leblanc, T., and Natraj, V.
Evaluation of UV aerosol retrievals from an ozone lidar

Atmos. Meas. Tech., 13, 5277–5292

doi: 10.5194/amt-13-5277-2020, 2020.

Lidar; Aerosol

2020, Lakkala, K. et al.

Validation of TROPOMI Surface UV Radiation Product

AMT

doi 10.5194/amt-2020-121.

Brewer; Satellite; Validation

2020, Leuenberger, D.

Haefele, A., Omanovic, N., Fengler, M., Martucci, G., Calpini, B., Fuhrer, O., and Rossa, A.

Improving high-impact numerical weather prediction with lidar and drone observations

Bulletin of the American Meteorological Society

doi: 10.1175/BAMS-D-19-0119.1.

Lidar; Weather

2020, Maillard Barras, E.

Haefele, A., Nguyen, L., Tummon, F., Ball, W. T., Rozanov, E. V., Rüfenacht, R., Hocke, K., Bernet, L., Kämpfer, N., Nedoluha, G., and Boyd, I.

Study of the dependence of stratospheric ozone long-term trends on local solar time

Atmos. Chem. Phys. 20, 8453–8471

doi: 10.5194/acp-20-8453-2020.2018

Microwave; Ozone; Trends, Diurnal

2020, Maillard-Barras, E.

Jordan Voirin

A Raman Lidar Tropospheric Water Vapour Climatology and Height-Resolved Trend Analysis over Payerne Switzerland

Atmospheric Chemistry and Physics. 20: 9619-9640.

Lidar; H₂O; Trends

2020, Nedoluha, G. E., et al

Initial Results and Diurnal Variations Measured by a new Microwave Stratospheric ClO Instrument at Mauna Kea

J. Geophys. Res., JGRD56492

doi:10.1029/2020JD033097

Microwave; ClO; Diurnal

2020, Hirofumi Ohyama

Isamu Morino, Voltaire A. Velazco, Theresa Klausner, Gerry Bagtasa, Matthäus Kiel, Matthias Frey, Akihiro Hori, Osamu Uchino, Tsuneo Matsunaga, Nicholas Deutscher, Joshua P. DiGangi, Yonghoon Choi, Glenn S. Diskin, Sally E. Pusede, Alina Fiehn, Anke Roiger, Michael Lichtenstern, Hans Schlager, Pao K. Wang, Charles C.-K. Cho, Maria Dolores Andrés-Hernández, and John P. Burrows
Validation of XCO₂ and XCH₄ retrieved from a portable Fourier transform spectrometer with those from in-situ profiles from aircraft borne instruments
Atmos. Meas. Tech., 13, 5149–5163
doi: 10.5194/amt-13-5149-2020.
FTIR; CO₂; CH₄; Validation

2020, Haruki Oshio
Yukio Yoshida, Tsuneo Matsunaga, Nicholas M. Deutscher, Manvendra Dubey, David W.T. Griffith, Frank Hase, Laura T. Iraci, Rigel Kivi, Cheng Liu, Isamu Morino, Justus Notholt, Young-Suk Oh, Hirofumi Ohyama, Christof Petri, David F. Pollard, Coleen Roehl, Kei Shiomi, Ralf Sussmann, Yao Té, Voltaire A. Velazco, Thorsten Warneke, Debra Wunch
Bias correction of the ratio of total column CH₄ to CO₂ retrieved from GOSAT spectra
Remote Sensing, 12, 3155
doi: 10.3390/rs12193155
FTIR; Satellite; CH₄, CO₂

2020, Parrish, D. D.
Derwent, R. G., Steinbrecht, W., Stübi, R., Van Malderen, R., Steinbacher, M., Trickl, T., Ries, L., Xu, X.
Zonal Similarity of Long-term Changes and Seasonal Cycles of Baseline Ozone at Northern Mid-latitudes
Journal of Geophysical Research: Atmospheres, 125
doi: 10.1029/2019JD031908
Sonde; Ozone

2020, Polyakov A
Y. Virolainen, A. Poberovskiy, M. Makarova and Y. Timofeyev
Atmospheric HCFC-22 total columns near St. Petersburg: stabilization with start of a decrease
International Journal of Remote Sensing, 2020, 41(11), 4365-4371
doi: 10.1080/01431161.2020.1717668
FTIR; HCFC-22, Trends

2020, M. Reuter
M. Buchwitz, O. Schneising, S. Noël, H. Bovensmann, J.P. Burrows, H. Boesch, A. Di Noia, J. Anand, R.J. Parker, P. Somkuti, L. Wu, O.P. Hasekamp, I. Aben, A. Kuze, H. Suto, K. Shiomi, Y. Yoshida, I. Morino, D. Crisp, C. O'Dell, J. Notholt, C. Petri, T. Warneke, V. Velazco, N.M. Deutscher, D.W.T. Griffith, R. Kivi, D. Pollard, F. Hase, R. Sussmann, Y.V. Té, K. Strong, S. Roche, M.K. Sha, M. De Mazière, D.G. Feist, L.T. Iraki, C. Roehl, C. Retscher, and D. Schepers
Ensemble-based satellite-derived carbon dioxide and methane column-averaged dry-air mole fraction data sets (2003–2018) for carbon and climate applications
Atmos. Meas. Tech., 13, 789-819
doi: 10.5194/amt-13-789-2020

FTIR; Satellite; CO₂, CH₄

2020, Sarah Safieddine

Marie Bouillon, Ana-claudia Paracho, Julien Jumelet, Florent Tence, et al
Antarctic ozone enhancement during the 2019 sudden stratospheric warming event.

Geophysical Research Letters, 2020, 47 (14), pp.e2020GL087810

doi: 10.1029/2020GL087810

Lidar; UVVis; Ozone; SSW

2020, Schranz, F.

Hagen, J., Stober, G., Hocke, K., Murk, A., and Kämpfer, N.

Small-scale variability of stratospheric ozone during the sudden stratospheric warming 2018/2019
observed at Ny-Ålesund, Svalbard

Atmos. Chem. Phys., 20, 10791–10806

doi: 10.5194/acp-20-10791-2020

Microwave; Ozone; SSW

2020, Stauffer, R. M.

Thompson, A. M., Kollonige, D. E., Witte, J. C., Tarasick, D. W., Davies, J., et al.

A post 2013 drop off in total ozone at a third of global ozonesonde stations: Electrochemical
concentration cell instrument artifacts?

Geophysical Research Letters, 47, e2019GL086791

doi: 10.1029 /2019GL086791

Sonde; Ozone

2020, Sindy Sterckx

Ian Brown, Andreas Käb, Maarten Krol, Rosemary Morrow, Pepijn Veeffkind, K. Folkert Boersma,
Martine De Mazière, Nigel Fox & Peter Thorne

Towards a European Cal/Val service for earth observation

International Journal of Remote Sensing, 41:12, 4496-4511

doi: 10.1080/01431161.2020.1718240

FTIR; Validation

2020, Strahan, S. E.

Smale, D., Douglass, A. R., Blumenstock, T., Hannigan, J. W., Hase, F., Jones, N., Mahieu, E., Notholt, J.,
Oman, L. D., Ortega, I., Palm, M., Prignon, M., Robinson, J., Schneider, M., Sussmann, R., Velasco, V.

Observed Hemispheric Asymmetry in Stratospheric Transport Trends from 1994-2018.

Geophysical Research Letters, 47, e2020GL088567

doi: 10.1029/2020GL088567.

Model; FTIR; Trends

2020, K. Strong

W.R. Simpson, K. Bognar, R. Lindenmaier, and S. Roche

Chapter 3: Trace Gases in the Arctic Atmosphere, pp 153-207. In “Physics and Chemistry of the Arctic Atmosphere”
edited by A. A. Kokhanovsky and C. Tomasi, Springer Polar Sciences Series, Springer Nature, Heidelberg.
First edition, XIV, 717 pp, ISBN 978-3-030-33565-6, <https://www.springer.com/gp/book/9783030335656>
FTIR; UVVis

2020, Sun, Y.

Liu, C., Zhang, L., Palm, M., Notholt, J., Yin, H., Vigouroux, C., Lutsch, E., Wang, W., Shan, C.,
Blumenstock, T., Nagahama, T., Morino, I., Mahieu, E., Strong, K., Langerock, B., De Mazière, M., Hu, Q.,
Zhang, H., Petri, C., and Liu, J.

Fourier transform infrared time series of tropospheric HCN in eastern China: seasonality, interannual
variability, and source attribution

Atmos. Chem. Phys., 20, 5437–5456

doi: 10.5194/acp-20-5437-2020.

FTIR; HCN

2020, Vérèmes et al

Validation of the Water Vapor Profiles of the Raman Lidar at the Maïdo Observatory (Reunion Island)
Calibrated with Global Navigation Satellite System Integrated Water Vapor

Atmosphere 2019, 10, 713

doi:10.3390/atmos10110713

Lidar; Satellite; H₂O; Validation

2020, Vigouroux, C.

Langerock, B., Bauer Aquino, C. A., Blumenstock, T., Cheng, Z., De Mazière, M., De Smedt, I., Grutter, M.,
Hannigan, J., Jones, N., Kivi, R., Loyola, D., Lutsch, E., Mahieu, E., Makarova, M., Metzger, J.-M., Morino,
I., Murata, I., Nagahama, T., Notholt, J., Ortega, I., Palm, M., Pinardi, G., Röhling, A., Smale, D., Stremme,
W., Strong, K., Sussmann, R., Té, Y., van Roozendaal, M., Wang, P., and Winkler, H.

TROPOMI–Sentinel-5 Precursor formaldehyde validation using an extensive network of ground-based
Fourier-transform infrared stations

Atmos. Meas. Tech., 13, 3751–3767

doi: 10.5194/amt-13-3751-2020

Satellite, FTIR, CH₂O

2020, Y.A.Virolainen

A.V. Polyakov, and O.Kirner

Optimization of Procedure for Determining Chlorine Nitrate in the Atmosphere from Ground-Based
Spectroscopic Measurements

J Appl Spectrosc 87, 319–325

doi: 10.1007/s10812-020-01002-5

FTIR; ClONO₂

2020, von Clarmann, T.

Degenstein, D. A., Livesey, N. J., Bender, S., Braverman, A., Butz, A., Compernelle, S., Damadeo, R., Dueck, S., Eriksson, P., Funke, B., Johnson, M. C., Kasai, Y., Keppens, A., Kleinert, A., Kramarova, N. A., Laeng, A., Langerock, B., Payne, V. H., Rozanov, A., Sato, T. O., Schneider, M., Sheese, P., Sofieva, V., Stiller, G. P., von Savigny, C., and Zawada, D.

Overview: Estimating and reporting uncertainties in remotely sensed atmospheric composition and temperature

Atmos. Meas. Tech., 13, 4393–4436

doi: 10.5194/amt-13-4393-2020

FTIR; Satellite; Temperature

2020, Wang, H. J.

R., Damadeo, R., Flittner, D., Kramarova, N., Taha, G., Davis, S., Thompson, A., Strahan S., Wang, Y., Froidevaux, L., Degenstein, D., Bourassa, A., Steinbrecht, W., Walker, K. A., Querel, R., Leblanc, T., Godin-Beekmann, S., Hurst, D., and Hall, E.

Validation of SAGE III/ISSolar occultation ozone products with correlative satellite and ground based measurements

Journal of Geophysical Research: Atmospheres, 125, e2020JD032430

doi: 10.1029/2020JD032430

Lidar; Satellite; Ozone; Validation

2020, Wang, S.

Li, K., Zhu, D., Sander, S., Yung, Y., Pazmino, A., and Querel, R.

Solar 11-Year Cycle Signal in Stratospheric Nitrogen Dioxide—Similarities and Discrepancies Between Model and NDACC Observations

Sol Phys., 295, 117

doi: 10.1007/s11207-020-01685-1.

UVVis; Model; NO₂

2020, Wing R.

Steinbrecht W., Godin-Beekmann S., McGee T. J., Sullivan J. T., Sumnicht G., Ancellet G., Hauchecorne A., Khaykin S., Keckhut P.

Intercomparison and evaluation of ground- and satellite-based stratospheric ozone and temperature profiles above Observatoire de Haute-Provence during the Lidar Validation NDACC Experiment (LAVANDE),

Atmospheric Measurement Techniques, 13 (10), pp.5621-5642

doi: 10.5194/amt-13-5621-2020

Lidar; Satellite; Ozone; Temperature; Validation

2020, X. Zhao

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Atmos. Meas. Tech., 13, 2131-2159

doi: 10.5194/amt-13-2131-2020
UVVis; Satellite; NO2