

NDACC Publications – 2019

2019, Bahramvash Shams, S.

Walden, V. P., Petropavlovskikh, I., Tarasick, D., Kivi, R., Oltmans, S., Johnson, B., Cullis, P., Sterling, C. W., Thölix, L., and Errera, Q.

Variations in the vertical profile of ozone at four high-latitude Arctic sites from 2005 to 2017

Atmos. Chem. Phys., 19, 9733–9751

doi: 10.5194/acp-19-9733-2019

Sonde; Ozone

2019, Bais, A. F.

G. Bernhard, R. L. McKenzie, P. J. Aucamp, P. J. Young, M. Ilyas, P. Jöckel, and M. Deushi

Ozone–climate interactions and effects on solar ultraviolet radiation

Photochem. Photobiol. Sci., 18, 602-640

DOI: 10.1039/C8PP90059K

Spectral UV; Ozone; UV

2019, Bernet L.

von Clarmann T., Godin-Beekmann S., Ancellet G., Maillard Barras E., Stübi R., Steinbrecht W., Kämpfer N., Hocke K.

Ground-based ozone profiles over central Europe: incorporating anomalous observations into the analysis of stratospheric ozone trends

Atmospheric Chemistry and Physics, 19 (7), pp.4289-4309

doi: 10.5194/acp-19-4289-2019

Microwave; Sonde; Ozone; Trends

2019, K. Bogner

X. Zhao, K. Strong, C.D. Boone, A.E. Bourassa, D.A. Degenstein, J.R. Drummond, A. Duff, F. Goutail, D. Griffin, P.S. Jeffery, E. Lutsch, G.L. Manney, C.T. McElroy, C.A. McLinden, L.F. Millan, A. Pazmino, C.E. Sioris, K.A. Walker, and J. Zou

Updated validation of ACE and OSIRIS ozone and NO₂ measurements in the Arctic using ground-based instruments at Eureka, Canada

J. Quant. Spectrosc. Rad. Transfer, in press.

doi: 10.1016/j.jqsrt.2019.07.014

UVVis; Satellite; Ozone; NO₂

2019, Brunamonti, S.

L. Füzér, T. Jorge, Y. Poltera, P. Oelsner, S. Meier, R. Dirksen, M. Naja, S. Fadnavis, J. Karmacharya, F. G. Wienhold, B. P. Luo, H. Wernli, and T. Peter

Water Vapor in the Asian Summer Monsoon Anticyclone: Comparison of Balloon-Borne Measurements and ECMWF Data

Journal of Geophysical Research: Atmospheres, 124(13), 7053–7068

doi:10.1029/2018JD030000

Sonde; H₂O

2019, Cadet, J.-M.

H. Bencherif, D. J. du Preez, T. Portafaix, N. Sultan-Bichat, M. Belus, C. Brogniez, F. Auriol, J.-M. Metzger, K. Ncongwane, G. J. R. Coetzee and C. Y. Wright

Solar UV Radiation in Saint-Denis, La Réunion and Cape Town, South Africa: 10 years Climatology and Human Exposure Assessment at Altitude

Atmosphere 2019, 10, 589

doi:10.3390/atmos10100589

Spectral UV

2019, Chesnokova T.Yu.

Makarova M.V., Chentsov A.V., Voronina Yu.V., Zakharov V.I., Rokotyan N.V. and Langerock B.

Retrieval of Carbon Monoxide Total Column in the Atmosphere from High Resolution Atmospheric Spectra

Atmospheric and Oceanic Optics, V. 32. No. 04. pp. 378–386

doi: 10.1134/S1024856019040031

FTIR; CO

2019, Davis, S.M.

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

Stratospheric Water Vapor [in “State of the Climate in 2018”]

Bull. Amer. Meteor. Soc., 100 (9), S56-S58

doi:10.1175/2019BAMSSStateoftheClimate.1

Sonde; H₂O

2019, Denton M.H

Kivi R, Ulich T, Rodger C.J, Clilverd M.A, Denton J.S, Lester M

Observed response of stratospheric and mesospheric composition to sudden stratospheric warmings

Journal of Atmospheric and Solar-Terrestrial Physics Vol. 191

doi: 0.1016/j.jastp.2019.06.001

<http://www.sciencedirect.com/science/article/pii/S1364682619300124>

Sonde

2019, Donner, S.

Kuhn, J., Van Roozendaal, M., Bais, A., Beirle, S., Bösch, T., Bognar, K., Bruchkousky, I., Chan, K. L., Drosoglou, T., Fayt, C., Frieß, U., Hendrick, F., Hermans, C., Jin, J., Li, A., Ma, J., Peters, E., Pinardi, G., Richter, A., Schreier, S. F., Seyler, A., Strong, K., Tirpitz, J.-L., Wang, Y., Xie, P., Xu, J., Zhao, X., and Wagner, T.

Evaluating different methods for elevation calibration of MAX-DOAS instruments during the CINDI-2 campaign

Atmos. Meas. Tech. Discuss.

doi: 10.5194/amt-2019-115, in review

UVVis; Calibration

2019, Farhani G.

Sica R. J., Godin-Beekmann S., Ancellet G., Haeefele A.

Improved ozone DIAL retrievals in the upper troposphere and lower stratosphere using an optimal estimation method Applied optics

Optical Society of America, 2019, 58 (6), pp.1374-1385

doi: 10.1364/AO.58.001374

Sonde; Lidar; Ozone; Validation

2019, Farhani, Ghazal

Robert J. Sica, Sophie Godin-Beekmann, and Alexander Haeefele

Optimal estimation method retrievals of stratospheric ozone profiles from a DIAL

Atmos. Meas. Tech., 12, 2097–2111, 2019b

doi: 10.5194/amt-12-2097-2019

Lidar; Sonde; Ozone

2019, Frey, M.

Sha, M. K., Hase, F., Kiel, M., Blumenstock, T., Harig, R., Surawicz, G., Deutscher, N. M., Shiomi, K., Franklin, J. E., Bösch, H., Chen, J., Grutter, M., Ohyama, H., Sun, Y., Butz, A., Mengistu Tsidu, G., Ene, D., Wunch, D., Cao, Z., Garcia, O., Ramonet, M., Vogel, F., and Orphal, J.

Building the COLlaborative Carbon Column Observing Network (COCCON): long-term stability and ensemble performance of the EM27/SUN Fourier transform spectrometer

Atmos. Meas. Tech., 12, 1513-1530

doi: 10.5194/amt-12-1513-2019

FTIR

2019, Friedrich M. et al.

NO₂ vertical profiles and column densities from MAX-DOAS measurements in Mexico City

Atmos. Meas. Tech., 12, 2545–2565

FTIR; NO₂

2019, Frieß, U.

Beirle, S., Alvarado Bonilla, L., Bösch, T., Friedrich, M. M., Hendrick, F., Piders, A., Richter, A., van Roozendaal, M., Rozanov, V. V., Spinei, E., Tirpitz, J.-L., Vlemmix, T., Wagner, T., and Wang, Y.

Intercomparison of MAX-DOAS vertical profile retrieval algorithms: studies using synthetic data

Atmos. Meas. Tech., 12, 2155-2181

doi: 10.5194/amt-12-2155-2019

UVVis; Algorithm

2019, Garane, K.

Koukouli, M.-E., Verhoelst, T., Lerot, C., Heue, K.-P., Fioletov, V., Balis, D., Bais, A., Bazureau, A., Dehn, A., Goutail, F., Granville, J., Griffin, D., Hubert, D., Keppens, A., Lambert, J.-C., Loyola, D., McLinden, C., Pazmino, A., Pommereau, J.-P., Redondas, A., Romahn, F., Valks, P., Van Roozendaal, M., Xu, J., Zehner, C., Zerefos, C., and Zimmer, W.

TROPOMI/S5P total ozone column data: global ground-based validation and consistency with other satellite missions

Atmos. Meas. Tech., 12, 5263–5287

doi: 10.5194/amt-12-5263-2019

Brewer; UVVis; Satellite; Ozone

2019, García, R. D.

Cuevas, E., Ramos, R., Cachorro, V. E., Redondas, A., and Moreno-Ruiz, J. A.

Description of the Baseline Surface Radiation Network (BSRN) station at the Izaña Observatory (2009–2017): measurements and quality control/assurance procedures

Geosci. Instrum. Method. Data Syst., 8, 77-96

doi: 10.5194/gi-8-77-2019

Sonde; Validation

2019, Griffin, D.

K.A. Walker, I. Wohltmann, S.S. Dhomse, M. Rex, M.P. Chipperfield, W. Feng, G.L. Manney, P.F. Bernath, J. Liu, and D. Tarasick

Stratospheric ozone loss in the Arctic winters between 2005 and 2013 derived with ACE-FTS measurements

Atmos. Chem. Phys., 19, 577-601

doi: 10.5194/acp-19-577-2019

FTIR; Sonde; Ozone

2019, A.N. Gruzdev

Accounting for serial correlation in a multiple linear regression problem on the example of analysis of the column NO₂ content in the atmosphere

Izvestiya, Atmospheric and Oceanic Physics, 2019, v. 55, pp. 65–72

DOI: 10.1134/S0001433819010043

UVVis; NO₂

2019, A.N. Gruzdev

Accounting for long-term serial correlation in a linear regression problem

IOP Conf. Ser. Earth Environ. Sci. 2019. V. 231. 012020. P. 1–10

doi: 10.1088/1755-1315/231/1/012020

<https://iopscience.iop.org/article/10.1088/1755-1315/231/1/012020/meta>

UVVIs; NO₂

2019, Francisco Navas Guzmán

Giovanni Martucci, Martine Collaud Coen, María José Granados

Muñoz, Maxime Hervo, Michael Sicard, and Alexander Haefele:

Towards continuous monitoring of aerosol hygroscopicity by Raman lidar measurements at the EARLINET station of Payerne

Atmos. Chem. Phys., 19, 11651–11668

<https://doi.org/10.5194/acp-2019-289>

Lidar; Aerosol

2019, Hedelius, J. K.

He, T.-L., Jones, D. B. A., Buchholz, R. R., De Mazière, M., Deutscher, N. M., Dubey, M. K., Feist, D. G., Griffith, D. W. T., Hase, F., Iraci, L. T., Jeseck, P., Kiel, M., Kivi, R., Liu, C., Morino, I., Notholt, J., Oh, Y.-S., Ohyama, H., Pollard, D. F., Rettinger, M., Roche, S., Roehl, C. M., Schneider, M., Shiomi, K., Strong, K., Sussmann, R., Sweeney, C., Té, Y., Uchino, O., Velazco, V. A., Wang, W., Warneke, T., Wennberg, P. O., Worden, H. M., and Wunch, D.

Evaluation of MOPITT version 7 joint TIR-NIR XCO retrievals with TCCON

Atmos. Meas. Tech. Discuss.

doi: 10.5194/amt-2019-201, in press

FTIR; Algorithm

2019, Hicks-Jalali

S., Sica, R. J., Haefele, A., and Martucci, G.

Calibration of a water vapour Raman lidar using GRUAN-certified radiosondes and a new trajectory method

Atmos. Meas. Tech., 12, 3699-3716

<https://doi.org/10.5194/amt-12-3699-2019>

Lidar; Sonde; H₂O; Validation

2019, Hauchecorne et al.

A new Mesospheric data set of temperature profiles from 35 to 85 km using Rayleigh scattering at limb from GOMOS/ENVISAT daytime observations

AMT, pp.749-761

doi: 10.5194/amt-12-749-2019

Lidar; Temperature

2019, Huang, G.

Newchurch, M. J., Kuang, S., & Ouwersloot, H. G.

A Case Study of Ozone Diurnal Variation in the Convective Boundary Layer in the Southeastern United States Using Multiple Observations and Large-Eddy Simulation

Climate, 7(4), 53

Lidar; Ozone; Diurnal

2019, Kreher, K.

M. Van Roozendael, F. Hendrick, A. Apituley, E. Dimitropoulou, U. Frieß, A. Richter, T. Wagner, N. Abuhassan, L. Ang, M. Anguas, A. Bais, N. Benavent, T. Bösch, K. Bogner, A. Borovski, I. Bruchkovsky, A. Cede, K.L. Chan, S. Donner, T. Drosoglou, C. Fayt, H. Finkenzeller, D. Garcia-Nieto, C. Gielen, L. Gómez-Martín, N. Hao, J.R. Herman, C. Hermans, S. Hoque, H. Irie, J. Jin, P. Johnston, J. Khayyam Butt, F. Khokhar, T.K. Koenig, J. Kuhn, V. Kumar, J. Lampel, C. Liu, J. Ma, A. Merlaud, A. K. Mishra, M. Müller, M. Navarro-Comas, M. Ostendorf, A. Pazmino, E. Peters, G. Pinardi, M. Pinharanda, A. PETERS, U. Platt, O. Postylakov, C. Prados-Roman, O. Puentedura, R. Querel, A. Saiz-Lopez, A. Schönhardt, S.F. Schreier, A. Seyler, V. Sinha, E. Spinei, K. Strong, F. Tack, X. Tian, M. Tiefengraber, J.-L. Tirpitz, J. van Gent, R. Volkamer, M. Vrekoussis, S. Wang, Z. Wang, M. Wenig, F. Wittrock, P.H. Xie, J. Xu, M. Yela, C. Zhang and X. Zhao

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. Discuss.

doi: 10.5194/amt-2019-157, in review

UVVis; Ozone, NO₂; HCHO

2019, Kulla

Ritter

Water Vapor Calibration: Using a Raman Lidar and Radiosoundings to Obtain Highly Resolved Water Vapor Profiles

Remote Sensing, 11 (6), 616

doi: 10.3390/rs11060616

Lidar; Sonde; H₂O

2019, Lamy, K.

T. Portafaix, B. Josse, C. Brogniez, S. Godin-Beekmann, H. Bencherif, L. Revell, H. Akiyoshi, S. Bekki, M. I. Hegglin, P. Jöckel, O. Kirner, B. Liley, V. Marecal, O. Morgenstern, A. Stenke, G. Zeng, L. N. Abraham, A. T. Archibald, N. Butchart, M. Chipperfield, G. Di Genova, M. Deushi, S. S. Dhomse, R. Hu, D. Kinnison, M. Kotkamp, R. McKenzie, M. Michou, F. O'Connor, L. D. Oman, G. Pitari, D. Plummer, J. Pyle, E. Rozanov, D. Saint-Martin, K. Sudo, T. Y. Tanaka, D. Vioni, and K. Yoshida

Clear-sky ultraviolet radiation modelling using output from the Chemistry Climate Model Initiative

Atmos. Chem. Phys., 19, 10087–10110

doi: 10.5194/acp-19-10087-2019

Spectral UV; Model

2019, Martin Lainer

Klemens Hocke, Ellen Eckert, Niklaus Kämpfer

Significant decline of mesospheric water vapor at the NDACC site near Bern in the period 2007 to 2018

Atmos. Chem. Phys., vol.: 19, pp.: 6611-6620

Microwave; H₂O

2019, Lieschke, K. J.

J. A. Fisher, C. Paton-Walsh, N. B. Jones, J. W. Greenslade, S. Burden, and D. W. T. Griffith
Decreasing Trend in Formaldehyde Detected From 20-Year Record at Wollongong, Southeast Australia
Geophysical Research Letters, 46(14), 8464-8473
doi:10.1029/2019gl083757
FTIR; CH₂O

2019, Lossow, S.

F. Khosrawi, M. Kiefer, K.A. Walker, J.-L. Bertaux, L. Blanot, J.M. Russell III, E.E. Remsberg, J.C. Gille, T. Sugita, C.E. Sioris, B.M. Dinelli, E. Papandrea, P. Raspollini, M. García-Comas, G.P. Stiller, T. von Clarmann, A. Dudhia, W.G. Read, G.E. Nedoluha, R.P. Damadeo, J.M. Zawodny, K. Weigel, A. Rozanov, F. Azam, K. Bramstedt, S. Noël, J.P. Burrows, H. Sagawa, Y. Kasai, J. Urban, P. Eriksson, D.P. Murtagh, M.E. Hervig, C. Högberg, D.F. Hurst, and K. H. Rosenlof
The SPARC water vapour assessment II: Profile-to-profile comparisons of stratospheric and lower mesospheric water vapour data sets obtained from satellites
Atmos. Meas. Tech., 12, 2693-2732
doi:10.5194/amt-12-2693-2019
Sonde; Satellite; H₂O

2019, E. Lutsch

K. Strong, D.B.A. Jones, I. Ortega, J.W. Hannigan, E. Dammers, M.W. Shephard, E. Morris, K. Murphy, M.J. Evans, M. Parrington, S. Whitburn, M. Van Damme, L. Clarisse, P.-F. Coheur, C. Clerbaux, B. Croft, R.V. Martin, J.R. Pierce, and J.A. Fisher
Unprecedented ammonia concentrations detected in the high Arctic from the 2017 Canadian wildfires
J. Geophys. Res. Atmos., 124, 8178–8202
doi: 10.1029/2019JD030419
FTIR; NH₃

2019, Mahagammulla Gamage, S.

Sica, R. J., Martucci, G., and Haefele, A.
Retrieval of Temperature From a Multiple Channel Pure Rotational Raman-Scatter Lidar Using an Optimal Estimation Method
Atmos. Meas. Tech. Discuss.
doi: 10.5194/amt-2019-107, in review, 2019
Lidar; Temperature

2019, McKenzie, R.

G. Bernhard, B. Liley, P. Disterhoft, S. Rhodes, A. Bais, O. Morgenstern, P. Newman, L. Oman, C. Brogniez and S. Simic

Success of Montreal Protocol demonstrated by comparing high-quality UV Measurements with “World Avoided” calculations from two chemistry-climate models
Scientific Reports, 9, 12332
doi: 10.1038/s41598-019-48625-z
Spectral UV; Model

2019, J. Mendonca
K. Strong, D. Wunch, G.C. Toon, D.A. Long, J.T. Hodges, V.T. Sironneau, and J.E. Franklin
Using a speed-dependent Voigt line shape to retrieve O₂ from Total Carbon Column Observing Network solar spectra to improve measurements of XCO₂
Atmos. Meas. Tech., 12, 35-50, 2019
doi: 10.5194/amt-12-35-2019
FTIR; O₂; XCO₂

2019, D. Oman
and S. E. Strahan
The Effects of a 1998 Observing System Change on MERRA-2-based Ozone Profile Simulations
Journal of Geophysical Research: Atmospheres, 124: 7429– 7441
doi: 10.1029/2019jd030257
Sonde; Model; Ozone

2019, Ortega, I.
R.R. Buchholz, E.G. Hall, D.F. Hurst, A.F. Jordan, and J.W. Hannigan
Tropospheric water vapor profiles obtained with FTIR: comparison with balloon-borne frost point hygrometers and influence on trace gas retrievals
Atmos. Meas. Tech., 12, 873-890
doi: 10.5194/amt-12-873-2019
FTIR; Sonde; H₂O

2019, Polyakov A.V.
Ya.A. Virolainen, M.V. Makarova
Technique for Inverting Transmission Spectra to Measure Freon Concentration
Journal of Applied Spectroscopy, 85, 6, 1085–1093
DOI:10.1007/S10812-019-00763y
FTIR; Freon

2019, Schiavo B. et al.
Characterization of a UV camera system for SO₂ measurements from Popocatepetl Volcano
Journal of Volcanology and Geothermal Research 370,82–94
FTIR; SO₂; Volcano

2019, Shams S.B

Walden V.P, Petropavlovskikh I, Tarasick D, Kivi R, Oltmans S, Johnson B, Cullis P, Sterling C.W, Thölix L, Errera Q

Variations in the vertical profile of ozone at four high-latitude Arctic sites from 2005 to 2017

Atmospheric Chemistry and Physics Vol. 19 p. 9733-9751

doi: 10.5194/acp-19-9733-2019

Sonde; Ozone

2019, Snels, M.

Scoccione, A., Di Liberto, L., Colao, F., Pitts, M., Poole, L., Deshler, T., Cairo, F., Cagnazzo, C., and Fierli, F. Comparison of Antarctic polar stratospheric cloud observations by ground-based and space-borne lidar and relevance for chemistry–climate models

Atmos. Chem. Phys., 19, 955–972

doi: 10.5194/acp-19-955-2019

Lidar; cloud; model

2019, Stauffer, R. M.

A. M. Thompson, L. D. Oman, and S. E. Strahan

The Effects of a 1998 Observing System Change on MERRA-2-based Ozone Profile Simulations

Journal of Geophysical Research: Atmospheres, 124: 7429– 7441

doi: 10.1029/2019jd030257

Sonde; Model; Ozone

2019, Svendby, T. M.

Hansen, G. H., Bäcklund, A., and Dahlback, A.

Monitoring of the atmospheric ozone layer and natural ultraviolet radiation. Annual report 2018

Miljødirektoratet rapport, M-1462/2019

UVVIs; Ozone

2019, Taquet N

Stremme W, Grutter M, Baylón J, Bezanilla A, Schiavo B, Rivera C, Campion R, Boulesteix T, Nieto-Torres A, Espinasa-Pereña R, Blumenstock T and Hase F

Variability in the Gas Composition of the Popocatepetl Volcanic Plume

Front. Earth Sci. 7:114

doi: 10.3389/feart.2019.00114

FTIR; Volcano

2019, Tarasick, D.W.

T.K. Carey-Smith, W.K. Hocking, O. Moeini, H. He, J. Liu, M. Osman, A.M. Thompson, B. Johnson, S.J. Oltmans and J.T. Merrill

Quantifying stratosphere-troposphere transport of ozone using balloon-borne ozonesondes, radar windprofilers and trajectory models

Atmos. Environ., 198, 496-509

doi: 10.1016/j.atmosenv.2018.10.040

Sonde; Ozone; Wind

2019, Thompson, A.M.

H.G. Smit, J.C. Witte, R.M. Stauffer, B.J. Johnson, G. Morris, P. von der Gathen, R. Van Malderen, J. Davies, A. PETERS, M. Allaart, F. Posny, R. Kivi, P. Cullis, N.T. Hoang Anh, E. Corrales, T. Machinini, F.R. da Silva, G. Paiman, K. Thiong'o, Z. Zainal, G.B. Brothers, K.R. Wolff, T. Nakano, R. Stübi, G. Romanens, G.J. Coetzee, J.A. Diaz, S. Mitro, M. Mohamad, and S. Ogino

Ozonesonde Quality Assurance: The JOSIE–SHADOZ (2017) Experience

Bull. Amer. Meteor. Soc., 100, 155–171

doi: 10.1175/BAMS-D-17-0311

Sonde; SHADOZ; Ozone; Validation

2019, Tikhomirov, A. B.

G. Farhani, E. M. McCullough, R. J. Sica, P. F. Fogal, T. Leblanc, and J. R. Drummond

Ozone Measurements Using the Refurbished Eureka Stratospheric Differential Absorption Lidar

Canadian Journal of Remote Sensing. (2019), pp. 1-21

doi: 10.1080/07038992.2019.1651195

Lidar; Ozone

2019, Tzompa-Sosa, Z. A.

Henderson, B. H., Keller, C. A., Travis, K., Mahieu, E., Franco, B., Estes, M., Helmig, D., Fried, A., Richter, D., Weibring, P., Walega, J., Blake, D. R., Hannigan, J. W., Ortega, I., Conway, S., Strong, K., and Fischer, E. V.

Atmospheric Implications of Large C2- C5 Alkane Emissions From the U.S. Oil and Gas Industry

Journal of Geophysical Research: Atmospheres, 124(2):1148–1169

FTIR; Carbon

2019, Wagner, T.

Beirle, S., Benavent, N., Bösch, T., Chan, K. L., Donner, S., Dörner, S., Fayt, C., Frieß, U., García-Nieto, D., Gielen, C., González-Bartolome, D., Gomez, L., Hendrick, F., Henzing, B., Jin, J. L., Lampel, J., Ma, J., Mies, K., Navarro, M., Peters, E., Pinardi, G., Puentedura, O., Puķite, J., Remmers, J., Richter, A., Saiz-Lopez, A., Shaiganfar, R., Sihler, H., Van Roozendaal, M., Wang, Y., and Yela, M.

Is a scaling factor required to obtain closure between measured and modelled atmospheric O₄ absorptions? An assessment of uncertainties of measurements and radiative transfer simulations for 2 selected days during the MAD-CAT campaign

Atmos. Meas. Tech., 12, 2745-2817

doi: 10.5194/amt-12-2745-2019

UVVis; O₄

2019, D. Weaver

K. Strong, K.A. Walker, C. Sioris, M. Schneider, C.T. McElroy, H. Vömel, M., Sommer, K. Weigel, A. Rozanov, J.P. Burrows, W.G. Read, E. Fishbein, and G. Stiller
Comparison of ground-based and satellite measurements of water vapour vertical profiles over Ellesmere Island, Nunavut
Atmos. Meas. Tech., 12, 4039-4063
doi: 10.5194/amt-12-4039-2019
FTIR; H₂O

2019, X. Zhao
K. Bognar, V. Fioletov, A. Pazmino, F. Goutail, L. Millán, G. Manney, C. Adams, and K. Strong
Assessing the impact of clouds on ground-based UV–visible total column ozone measurements in the high Arctic
Atmos. Meas. Tech., 12, 2463-2483
doi: 10.5194/amt-12-2463-2019
UVVis; Clouds; Ozone

2019, Zhou, M.
Langerock, B., Wells, K. C., Millet, D. B., Vigouroux, C., Sha, M. K., Hermans, C., Metzger, J.-M., Kivi, R., Heikkinen, P., Smale, D., Pollard, D. F., Jones, N., Deutscher, N. M., Blumenstock, T., Schneider, M., Palm, M., Notholt, J., Hannigan, J. W., and De Mazière, M.
An intercomparison of total column-averaged nitrous oxide between ground-based FTIR TCCON and NDACC measurements at seven sites and comparisons with the GEOS-Chem model
Atmos. Meas. Tech., 12, 1393–1408
doi: 10.5194/amt-12-1393-2019
FTIR; NO; Model