

# Debra Wunch

## List of Publications by Year in descending order

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129  
papers

12,393  
citations

41258

49  
h-index

29081

104  
g-index

203  
all docs

203  
docs citations

203  
times ranked

7771  
citing authors

#	ARTICLE	IF	CITATIONS
1	The Global Methane Budget 2000â€“2017. Earth System Science Data, 2020, 12, 1561-1623.	3.7	1,199
2	The Total Carbon Column Observing Network. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2011, 369, 2087-2112.	1.6	884
3	The global methane budget 2000â€“2012. Earth System Science Data, 2016, 8, 697-751.	3.7	824
4	The ACOS CO <sub>2</sub> retrieval algorithm â€“ Part 1: Description and validation against synthetic observations. Atmospheric Measurement Techniques, 2012, 5, 99-121.	1.2	530
5	Calibration of the Total Carbon Column Observing Network using aircraft profile data. Atmospheric Measurement Techniques, 2010, 3, 1351-1362.	1.2	441
6	Toward accurate CO <sub>2</sub> and CH <sub>4</sub> observations from GOSAT. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	355
7	The ACOS CO <sub>2</sub> retrieval algorithm â€“ Part II: Global XCO <sub>2</sub> data characterization. Atmospheric Measurement Techniques, 2012, 5, 687-707.	1.2	320
8	Contrasting carbon cycle responses of the tropical continents to the 2015â€“2016 El NiÃ±o. Science, 2017, 358, .	6.0	307
9	A method for evaluating bias in global measurements of CO <sub>2</sub> total columns from space. Atmospheric Chemistry and Physics, 2011, 11, 12317-12337.	1.9	279
10	The on-orbit performance of the Orbiting Carbon Observatory-2 (OCO-2) instrument and its radiometrically calibrated products. Atmospheric Measurement Techniques, 2017, 10, 59-81.	1.2	271
11	Importance of secondary sources in the atmospheric budgets of formic and acetic acids. Atmospheric Chemistry and Physics, 2011, 11, 1989-2013.	1.9	266
12	Improvement of the retrieval algorithm for GOSAT SWIR XCO <sub>2</sub> and XCH <sub>4</sub> and their validation using TCCON data. Atmospheric Measurement Techniques, 2013, 6, 1533-1547.	1.2	261
13	Comparisons of the Orbiting Carbon Observatory-2 (OCO-2) XCO <sub>2</sub> measurements with TCCON. Atmospheric Measurement Techniques, 2017, 10, 2209-2238.		
14	Estimating global and North American methane emissions with high spatial resolution using GOSAT satellite data. Atmospheric Chemistry and Physics, 2015, 15, 7049-7069.	1.9	225
15	Preliminary validation of column-averaged volume mixing ratios of carbon dioxide and methane retrieved from GOSAT short-wavelength infrared spectra. Atmospheric Measurement Techniques, 2011, 4, 1061-1076.	1.2	217
16	Methane observations from the Greenhouse Gases Observing SATellite: Comparison to ground-based TCCON data and model calculations. Geophysical Research Letters, 2011, 38, .	1.5	211
17	Emissions of greenhouse gases from a North American megacity. Geophysical Research Letters, 2009, 36, .	1.5	208
18	Daily and 3-hourly variability in global fire emissions and consequences for atmospheric model predictions of carbon monoxide. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	200

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19	Improved retrievals of carbon dioxide from Orbiting Carbon Observatory-2 with the version 8 ACOS algorithm. <i>Atmospheric Measurement Techniques</i> , 2018, 11, 6539-6576.	1.2	188
20	The Orbiting Carbon Observatory-2: first 18 months of science data products. <i>Atmospheric Measurement Techniques</i> , 2017, 10, 549-563.	1.2	180
21	Quantifying CO <sub>2</sub> Emissions From Individual Power Plants From Space. <i>Geophysical Research Letters</i> , 2017, 44, 10,045.	1.5	174
22	The Orbiting Carbon Observatory-2 early science investigations of regional carbon dioxide fluxes. <i>Science</i> , 2017, 358, .	6.0	157
23	Retrieval of atmospheric CO <sub>2</sub> with enhanced accuracy and precision from SCIAMACHY: Validation with FTS measurements and comparison with model results. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	153
24	Four corners: The largest US methane anomaly viewed from space. <i>Geophysical Research Letters</i> , 2014, 41, 6898-6903.	1.5	142
25	Atmospheric carbon dioxide retrieved from the Greenhouse gases Observing SATellite (GOSAT): Comparison with ground-based TCCON observations and GEOS-Chem model calculations. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	139
26	Total column CO <sub>2</sub> measurements at Darwin, Australia – site description and calibration against in situ aircraft profiles. <i>Atmospheric Measurement Techniques</i> , 2010, 3, 947-958.	1.2	131
27	On the Sources of Methane to the Los Angeles Atmosphere. <i>Environmental Science &amp; Technology</i> , 2012, 46, 9282-9289.	4.6	126
28	Calibration of TCCON column-averaged CO <sub>2</sub> : the first aircraft campaign over European TCCON sites. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 10765-10777.	1.9	120
29	Inferring regional sources and sinks of atmospheric CO <sub>2</sub> from COSAT XCO <sub>2</sub> data. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 3703-3727.	1.9	120
30	Process evaluation of tropospheric humidity simulated by general circulation models using water vapor isotopologues: 1. Comparison between models and observations. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	114
31	The Orbiting Carbon Observatory (OCO-2): spectrometer performance evaluation using pre-launch direct sun measurements. <i>Atmospheric Measurement Techniques</i> , 2015, 8, 301-313.	1.2	113
32	The Greenhouse Gas Climate Change Initiative (GHG-CCI): Comparison and quality assessment of near-surface-sensitive satellite-derived CO <sub>2</sub> and CH <sub>4</sub> global data sets. <i>Remote Sensing of Environment</i> , 2015, 162, 344-362.	4.6	112
33	A multi-year methane inversion using SCIAMACHY, accounting for systematic errors using TCCON measurements. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 3991-4012.	1.9	106
34	Methane retrieved from TROPOMI: improvement of the data product and validation of the first 2 years of measurements. <i>Atmospheric Measurement Techniques</i> , 2021, 14, 665-684.	1.2	104
35	The imprint of surface fluxes and transport on variations in total column carbon dioxide. <i>Biogeosciences</i> , 2012, 9, 875-891.	1.3	98
36	Atmospheric greenhouse gases retrieved from SCIAMACHY: comparison to ground-based FTS measurements and model results. <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 1527-1540.	1.9	86

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37	Global CO <sub>2</sub> fluxes inferred from surface air-sample measurements and from TCCON retrievals of the CO <sub>2</sub> total column. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	1.5	85
38	Variability and quasi-decadal changes in the methane budget over the period 2000–2012. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 11135-11161.	1.9	85
39	Atmospheric validation of high accuracy CO <sub>2</sub> absorption coefficients for the OCO-2 mission. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2012, 113, 2265-2276.	1.1	82
40	Building the COllaborative Carbon Column Observing Network (COCCON): long-term stability and ensemble performance of the EM27/SUN Fourier transform spectrometer. <i>Atmospheric Measurement Techniques</i> , 2019, 12, 1513-1530.	1.2	82
41	Consistent evaluation of ACOS-GOSAT, BESD-SCIAMACHY, CarbonTracker, and MACC through comparisons to TCCON. <i>Atmospheric Measurement Techniques</i> , 2016, 9, 683-709.	1.2	80
42	Towards constraints on fossil fuel emissions from total column carbon dioxide. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 4349-4357.	1.9	79
43	Forecasting global atmospheric CO <sub>2</sub> . <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 11959-11983.	1.9	74
44	A scientific algorithm to simultaneously retrieve carbon monoxide and methane from TROPOMI onboard Sentinel-5 Precursor. <i>Atmospheric Measurement Techniques</i> , 2019, 12, 6771-6802.	1.2	71
45	The Greenhouse Gas Climate Change Initiative (GHG-CCI): comparative validation of GHG-CCI SCIAMACHY/ENVISAT and TANSO-FTS/GOSAT CO <sub>2</sub> and CH <sub>4</sub> retrieval algorithm products with measurements from the TCCON. <i>Atmospheric Measurement Techniques</i> , 2014, 7, 1723-1744.	1.2	70
46	Water vapor isotopologue retrievals from high-resolution GOSAT shortwave infrared spectra. <i>Atmospheric Measurement Techniques</i> , 2013, 6, 263-274.	1.2	58
47	Validation of methane and carbon monoxide from Sentinel-5 Precursor using TCCON and NDACC-IRWG stations. <i>Atmospheric Measurement Techniques</i> , 2021, 14, 6249-6304.	1.2	57
48	Southern California megacity CO <sub>2</sub> , CH <sub>4</sub> , and CO flux estimates using ground- and space-based remote sensing and a Lagrangian model. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 16271-16291.	1.9	56
49	A decade of GOSAT Proxy satellite CH <sub>4</sub> observations. <i>Earth System Science Data</i> , 2020, 12, 3383-3412.	3.7	53
50	Global satellite observations of column-averaged carbon dioxide and methane: The GHG-CCI XCO <sub>2</sub> and XCH <sub>4</sub> CRDP3 data set. <i>Remote Sensing of Environment</i> , 2017, 203, 276-295.	4.6	52
51	Global and Brazilian Carbon Response to El Niño Modoki 2011–2010. <i>Earth and Space Science</i> , 2017, 4, 637-660.	1.1	49
52	Modelling CO <sub>2</sub> weather – why horizontal resolution matters. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 7347-7376.	1.9	49
53	Quantifying the loss of processed natural gas within California's South Coast Air Basin using long-term measurements of ethane and methane. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 14091-14105.	1.9	48
54	Effects of atmospheric light scattering on spectroscopic observations of greenhouse gases from space. Part 2: Algorithm intercomparison in the GOSAT data processing for CO <sub>2</sub> retrievals over TCCON sites. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 1493-1512.	1.2	46

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55	Consistent satellite XCO <sub>2</sub> retrievals from SCIAMACHY and GOSAT using the BESD algorithm. Atmospheric Measurement Techniques, 2015, 8, 2961-2980.	1.2	45
56	Assessment of errors and biases in retrievals of XCO <sub>2</sub> , XCH <sub>4</sub> , XCO, and XN <sub>2</sub> O from a 0.5 cm <sup>-1</sup> resolution solar-viewing spectrometer. Atmospheric Methane emissions from dairies in the Los Angeles Basin. Atmospheric Chemistry and Physics, 2017, 17, 7509-7528.	1.2	45
57	Aircraft measurements of carbon dioxide and methane for the calibration of ground-based high-resolution Fourier Transform Spectrometers and a comparison to GOSAT data measured over Tsukuba and Moshiri. Atmospheric Measurement Techniques, 2012, 5, 2003-2012.	1.2	43
59	Effects of atmospheric light scattering on spectroscopic observations of greenhouse gases from space: Validation of PPDF-based CO <sub>2</sub> retrievals from GOSAT. Journal of Geophysical Research, 2012, 117, .	3.3	42
60	The covariation of Northern Hemisphere summertime CO <sub>2</sub> with surface temperature in boreal regions. Atmospheric Chemistry and Physics, 2013, 13, 9447-9459.	1.9	42
61	Simulations of column-averaged CO <sub>2</sub> and CH <sub>4</sub> using the NIES TM with a hybrid sigma-isentropic ( $\sigma$ - $\theta$ ) vertical coordinate. Atmospheric Chemistry and Physics, 2013, 13, 1713-1732.	1.9	42
62	Bias corrections of GOSAT SWIR XCO <sub>2</sub> and XCH <sub>4</sub> with TCCON data and their evaluation using aircraft measurement data. Atmospheric Measurement Techniques, 2016, 9, 3491-3512.	1.2	40
63	High-resolution inversion of methane emissions in the Southeast US using SEAC <sub>4</sub> RS aircraft observations of atmospheric methane: anthropogenic and wetland sources. Atmospheric Chemistry and Physics, 2018, 18, 6483-6491.	1.9	38
64	Calibration of sealed HCl cells used for TCCON instrumental line shape monitoring. Atmospheric Measurement Techniques, 2013, 6, 3527-3537.	1.2	36
65	A method for colocating satellite XCO <sub>2</sub> data to ground-based data and its application to ACOS-GOSAT and TCCON. Atmospheric Measurement Techniques, 2014, 7, 2631-2644.	1.2	35
66	The Orbiting Carbon Observatory (OCO-2) tracks 2.3 peta-gram increase in carbon release to the atmosphere during the 2014-2016 El Niño. Scientific Reports, 2017, 7, 13567.	1.6	35
67	Improved water vapour spectroscopy in the 4174-4300 cm <sup>-1</sup> region and its impact on SCIAMACHY HDO/H <sub>2</sub> O measurements. Atmospheric Measurement Techniques, 2013, 6, 879-894.	1.2	30
68	Semi-autonomous sounding selection for OCO-2. Atmospheric Measurement Techniques, 2013, 6, 2851-2864.	1.2	29
69	Improving the TROPOMI CO data product: update of the spectroscopic database and destripping of single orbits. Atmospheric Measurement Techniques, 2019, 12, 5443-5455.	1.2	29
70	Evaluation of seasonal atmosphere-biosphere exchange estimations with TCCON measurements. Atmospheric Chemistry and Physics, 2013, 13, 5103-5115.	1.9	28
71	Derivation of tropospheric methane from TCCON CH <sub>4</sub> and HF total column observations. Atmospheric Measurement Techniques, 2014, 7, 2907-2918.	1.2	28
72	Simultaneous ground-based observations of O <sub>3</sub> , HCl, N <sub>2</sub> O, and CH <sub>4</sub> over Toronto, Canada by three Fourier transform spectrometers with different resolutions. Atmospheric Chemistry and Physics, 2007, 7, 1275-1292.	1.9	27

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73	Characterizing model errors in chemical transport modeling of methane: impact of model resolution in versions v9-02 of GEOS-Chem and v35j of its adjoint model. <i>Geoscientific Model Development</i> , 2020, 13, 3839-3862.	1.3	27
74	CH <sub>4</sub> , CO, and H <sub>2</sub> O spectroscopy for the Sentinel-5 Precursor mission: an assessment with the Total Carbon Column Observing Network measurements. <i>Atmospheric Measurement Techniques</i> , 2012, 5, 1387-1398.	1.2	26
75	Vertically constrained CO <sub>2</sub> retrievals from TCCON measurements. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2012, 113, 1753-1761.	1.1	26
76	Improved Constraints on Northern Extratropical CO <sub>2</sub> Fluxes Obtained by Combining Surface-Based and Space-Based Atmospheric CO <sub>2</sub> Measurements. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2019JD032029.	1.2	26
77	MANTRA – A Balloon Mission to Study the Odd-Nitrogen Budget of the Stratosphere. <i>Atmosphere - Ocean</i> , 2005, 43, 283-299.	0.6	25
78	Technical Note: Latitude-time variations of atmospheric column-average dry air mole fractions of CO <sub>2</sub> , CH <sub>4</sub> , and N <sub>2</sub> O. <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 7767-7777.	1.9	25
79	Toward High Precision XCO <sub>2</sub> Retrievals From TanSat Observations: Retrieval Improvement and Validation Against TCCON Measurements. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2020JD032794.	1.2	25
80	GFIT2: an experimental algorithm for vertical profile retrieval from near-IR spectra. <i>Atmospheric Measurement Techniques</i> , 2016, 9, 3513-3525.	1.2	24
81	Seasonal variability of stratospheric methane: implications for constraining tropospheric methane budgets using total column observations. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 14003-14024.	1.9	24
82	Preflight Spectral Calibration of the Orbiting Carbon Observatory 2. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2017, 55, 2499-2508.	2.7	24
83	Improved retrieval of gas abundances from near-infrared solar FTIR spectra measured at the Karlsruhe TCCON station. <i>Atmospheric Measurement Techniques</i> , 2016, 9, 669-682.	1.2	23
84	Validation of Carbon Trace Gas Profile Retrievals from the NOAA-Unique Combined Atmospheric Processing System for the Cross-Track Infrared Sounder. <i>Remote Sensing</i> , 2020, 12, 3245.	1.8	23
85	Emissions and topographic effects on column CO <sub>2</sub> variations, with a focus on the Southern California Megacity. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 7200-7215.	1.2	22
86	Detecting drought impact on terrestrial biosphere carbon fluxes over contiguous US with satellite observations. <i>Environmental Research Letters</i> , 2018, 13, 095003.	2.2	22
87	Quality controls, bias, and seasonality of CO <sub>2</sub> columns in the boreal forest with Orbiting Carbon Observatory-2, Total Carbon Column Observing Network, and EM27/SUN measurements. <i>Atmospheric Measurement Techniques</i> , 2020, 13, 5033-5063.	1.2	22
88	Evaluating GPP and Respiration Estimates Over Northern Midlatitude Ecosystems Using Solar-Induced Fluorescence and Atmospheric CO <sub>2</sub> Measurements. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2018, 123, 2976-2997.	1.3	21
89	Evaluation of MOPITT Version 7 joint TIR-NIR XCO <sub>2</sub> retrievals with TCCON. <i>Atmospheric Measurement Techniques</i> , 2019, 12, 5547-5572.	1.2	21
90	Comparison of XH <sub>2</sub> O Retrieved from GOSAT Short-Wavelength Infrared Spectra with Observations from the TCCON Network. <i>Remote Sensing</i> , 2016, 8, 414.	1.8	20



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91	Using a speed-dependent Voigt line shape to retrieve O <sub>2</sub> from Total Carbon Column Observing Network solar spectra to improve measurements of XCO <sub>2</sub> . Atmospheric Measurement Techniques, 2019, 12, 35-50.	1.2	20
92	Climatology and predictability of the late summer stratospheric zonal wind turnaround over Vanscoy, Saskatchewan. Atmosphere - Ocean, 2005, 43, 301-313.	0.6	18
93	Drivers of column-average CO <sub>2</sub> variability at Southern Hemispheric Total Carbon Column Observing Network sites. Atmospheric Chemistry and Physics, 2014, 14, 9883-9901.	1.9	18
94	Profiling tropospheric CO <sub>2</sub> using Aura TES and TCCON instruments. Atmospheric Measurement Techniques, 2013, 6, 63-79.	1.2	17
95	Evaluation and Analysis of the Seasonal Cycle and Variability of the Trend from GOSAT Methane Retrievals. Remote Sensing, 2019, 11, 882.	1.8	17
96	Investigation of the Spatial Distribution of Methane Sources in the Greater Toronto Area Using Mobile Gas Monitoring Systems. Environmental Science & Technology, 2020, 54, 15671-15679.	4.6	17
97	An 11-year record of XCO <sub>2</sub> estimates derived from GOSAT measurements using the NASA ACOS version 9 retrieval algorithm. Earth System Science Data, 2022, 14, 325-360.	3.7	17
98	Intercomparability of X <sub>CO<sub>2</sub></sub> and X <sub>CH<sub>4</sub></sub> from the United States TCCON sites. Atmospheric Measurement Techniques, 2017, 10, 1481-1493.	1.2	16
99	Simultaneous retrieval of atmospheric CO <sub>2</sub> and light path modification from space-based spectroscopic observations of greenhouse gases: methodology and application to GOSAT measurements over TCCON sites. Applied Optics, 2013, 52, 1339.	0.9	15
100	The Atmospheric Imaging Mission for Northern Regions: AIM-North. Canadian Journal of Remote Sensing, 2019, 45, 423-442.	1.1	14
101	Retrieval of atmospheric CO <sub>2</sub> vertical profiles from ground-based near-infrared spectra. Atmospheric Measurement Techniques, 2021, 14, 3087-3118.	1.2	14
102	Characterizing model errors in chemical transport modeling of methane: using GOSAT XCH <sub>4</sub> data with weak-constraint four-dimensional variational data assimilation. Atmospheric Chemistry and Physics, 2021, 21, 9545-9572.	1.9	14
103	Scanning the Earth's Limb from a High-Altitude Balloon: The Development and Flight of a New Balloon-Based Pointing System. Journal of Atmospheric and Oceanic Technology, 2002, 19, 618-632.	0.5	12
104	A Geostatistical Framework for Quantifying the Imprint of Mesoscale Atmospheric Transport on Satellite Trace Gas Retrievals. Journal of Geophysical Research D: Atmospheres, 2019, 124, 9773-9795.	1.2	12
105	Improving atmospheric CO <sub>2</sub> retrievals using line mixing and speed-dependence when fitting high-resolution ground-based solar spectra. Journal of Molecular Spectroscopy, 2016, 323, 15-27.	0.4	10
106	Study of the footprints of short-term variation in XCO <sub>2</sub> observed by TCCON sites using NIES and FLEXPART atmospheric transport models. Atmospheric Chemistry and Physics, 2017, 17, 143-157.	1.9	10
107	Emissions of methane in Europe inferred by total column measurements. Atmospheric Chemistry and Physics, 2019, 19, 3963-3980.	1.9	10
108	Monitoring Urban Greenhouse Gases Using Open-Path Fourier Transform Spectroscopy. Atmosphere - Ocean, 2020, 58, 25-45.	0.6	10

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109	Regional and Urban Column CO Trends and Anomalies as Observed by MOPITT Over 16 Years. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2020JD033967.	1.2	10
110	Spatial distributions of CO <sub>2</sub> seasonal cycle amplitude and phase over northern high-latitude regions. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 16661-16687.	1.9	10
111	Improved calibration procedures for the EM27/SUN spectrometers of the COllaborative Carbon Column Observing Network (COCCON). <i>Atmospheric Measurement Techniques</i> , 2022, 15, 2433-2463.	1.2	10
112	Using high-resolution laboratory and ground-based solar spectra to assess CH <sub>4</sub> absorption coefficient calculations. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2017, 190, 48-59.	1.1	9
113	Corrigendum to "The ACOS CO <sub>2</sub> retrieval algorithm" Part 1: Description and validation against synthetic observations" published in <i>Atmos. Meas. Tech.</i> , 5, 99-121, 2012. <i>Atmospheric Measurement Techniques</i> , 2012, 5, 193-193.	1.2	8
114	Intercomparison of ground-based ozone and NO <sub>2</sub> measurements during the MANTRA 2004 campaign. <i>Atmospheric Chemistry and Physics</i> , 2007, 7, 5489-5499.	1.9	7
115	Inference for Errors-in-Variables Models in the Presence of Systematic Errors with an Application to a Satellite Remote Sensing Campaign. <i>Technometrics</i> , 2019, 61, 187-201.	1.3	7
116	The impact of spectral resolution on satellite retrieval accuracy of CO <sub>2</sub> and CH <sub>4</sub> . <i>Atmospheric Measurement Techniques</i> , 2014, 7, 1105-1119.	1.2	6
117	Validation of GOSAT SWIR XCO <sub>2</sub> and XCH <sub>4</sub> Retrieved by PPDF-S Method and Comparison with Full Physics Method. <i>Scientific Online Letters on the Atmosphere</i> , 2017, 13, 168-173.	0.6	6
118	Response to Comment on "Contrasting carbon cycle responses of the tropical continents to the 2015-2016 El Niño". <i>Science</i> , 2018, 362, .	6.0	6
119	The concentration profile of nitric acid and other species over Saskatchewan in August 1998: Retrieval from data recorded by thermal emission radiometry. <i>Atmosphere - Ocean</i> , 2005, 43, 361-376.	0.6	5
120	Fourier transform spectrometer remote sensing of O <sub>2</sub> A-band electric quadrupole transitions. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2012, 113, 1043-1050.	1.1	4
121	Statistical properties of atmospheric greenhouse gas measurements: Looking down from space and looking up from the ground. <i>Chemometrics and Intelligent Laboratory Systems</i> , 2017, 162, 214-222.	1.8	4
122	The Facility Level and Area Methane Emissions inventory for the Greater Toronto Area (FLAME-GTA). <i>Atmospheric Environment</i> , 2021, 252, 118319.	1.9	4
123	Assessing the feasibility of using a neural network to filter Orbiting Carbon Observatory-2 (OCO-2) retrievals at northern high latitudes. <i>Atmospheric Measurement Techniques</i> , 2021, 14, 7511-7524.	1.2	4
124	Balloon-borne radiometer measurements of Northern Hemisphere mid-latitude stratospheric HNO <sub>3</sub> profiles spanning 12 years. <i>Atmospheric Chemistry and Physics</i> , 2007, 7, 6075-6084.	1.9	3
125	Solar Occultation FTIR Spectrometry at Mars for Trace Gas Detection: A Sensitivity Study. <i>Earth and Space Science</i> , 2019, 6, 836-860.	1.1	3
126	Bias Correction of the Ratio of Total Column CH <sub>4</sub> to CO <sub>2</sub> Retrieved from GOSAT Spectra. <i>Remote Sensing</i> , 2020, 12, 3155.	1.8	2



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127	Methane Growth Rate Estimation and Its Causes in Western Canada Using Satellite Observations. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD033948.	1.2	1
128	Laboratory procedure for simulating nadir measurements with the ACE-FTS. Canadian Journal of Remote Sensing, 2008, 34, 601-607.	1.1	0
129	Nitrous Oxide Profiling from Infrared Radiances (NOPIR): Algorithm Description, Application to 10 Years of IASI Observations and Quality Assessment. Remote Sensing, 2022, 14, 1810.	1.8	0