K W Bowman

List of Publications by Year
in descending order

165 papers	10,676 citations	38660 50 h-index	46693 89 g-index
248 all docs	248 docs citations	248 times ranked	8697 citing authors

#	Article	IF	Citations
1	Pre-industrial to end 21st century projections of tropospheric ozone from the Atmospheric Chemistry and Climate Model Intercomparison Project (ACCMIP). Atmospheric Chemistry and Physics, 2013, 13, 2063-2090.	1.9	570
2	Importance of rain evaporation and continental convection in the tropical water cycle. Nature, 2007, 445, 528-532.	13.7	401
3	Transpacific transport of ozone pollution and the effect of recent Asian emission increases on air quality in North America: an integrated analysis using satellite, aircraft, ozonesonde, and surface observations. Atmospheric Chemistry and Physics, 2008, 8, 6117-6136.	1.9	369
4	Tropospheric ozone changes, radiative forcing and attribution to emissions in the Atmospheric Chemistry and Climate Model Intercomparison Project (ACCMIP). Atmospheric Chemistry and Physics, 2013, 13, 3063-3085.	1.9	361
5	Contrasting carbon cycle responses of the tropical continents to the 2015â€“2016 El NiÃ±o. Science, 2017, 358, .	6.0	307
6	Rapid increases in tropospheric ozone production and export from China. Nature Geoscience, 2015, 8, 690-695.	5.4	256
7	Achieving Climate Change Absolute Accuracy in Orbit. Bulletin of the American Meteorological Society, 2013, 94, 1519-1539.	1.7	239
8	Decadal changes in global surface NO_{<i>x</i>} emissions from multi-constituent satellite data assimilation. Atmospheric Chemistry and Physics, 2017, 17, 807-837.	1.9	228
9	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
10	Decadal record of satellite carbon monoxide observations. Atmospheric Chemistry and Physics, 2013, 13, 837-850.	1.9	207
11	Comparisons of Tropospheric Emission Spectrometer (TES) ozone profiles to ozonesondes: Methods and initial results. Journal of Geophysical Research, 2007, 112, .	3.3	184
12	Validation of Tropospheric Emission Spectrometer (TES) nadir ozone profiles using ozonesonde measurements. Journal of Geophysical Research, 2008, 113, .	3.3	181
13	Tropospheric Emission Spectrometer observations of the tropospheric HDO/H2O ratio: Estimation approach and characterization. Journal of Geophysical Research, 2006, 111, .	3.3	167
14	Predicted errors of tropospheric emission spectrometer nadir retrievals from spectral window selection. Journal of Geophysical Research, 2004, 109, .	3.3	165
15	Gridded National Inventory of U.S. Methane Emissions. Environmental Science & Technology, 2016, 50, 13123-13133.	4.6	165
16	Terrestrial gross primary production inferred from satellite fluorescence and vegetation models. Global Change Biology, 2014, 20, 3103-3121.	4.2	161
17	A global wetland methane emissions and uncertainty dataset for atmospheric chemical transport models (WetCHARTs version 1.0). Geoscientific Model Development, 2017, 10, 2141-2156.	1.3	161
18	Interactive ozone and methane chemistry in GISS-E2 historical and future climate simulations. Atmospheric Chemistry and Physics, 2013, 13, 2653-2689.	1.9	150

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19	Profiles of CH₄, HDO, H₂O, and N₂O with improved lower tropospheric vertical resolution from Aura TES radiances. Atmospheric Measurement Techniques, 2012, 5, 397-411.	1.2	141
20	Changes in global terrestrial live biomass over the 21st century. Science Advances, 2021, 7, eabe9829.	4.7	136
21	Inferring regional sources and sinks of atmospheric CO₂ from GOSAT XCO₂ data. Atmospheric Chemistry and Physics, 2014, 14, 3703-3727.	1.9	120
22	Modeling global atmospheric CO₂ with improved emission inventories and CO₂ production from the oxidation of other carbon species. Geoscientific Model Development, 2010, 3, 689-716.	1.3	117
23	Effects of the 2006 El NiÃ±o on tropospheric composition as revealed by data from the Tropospheric Emission Spectrometer (TES). Geophysical Research Letters, 2008, 35, .	1.5	113
24	First satellite observations of lower tropospheric ammonia and methanol. Geophysical Research Letters, 2008, 35, .	1.5	111
25	Global distribution of methane emissions, emission trends, and OH concentrations and trends inferred from an inversion of GOSAT satellite data for 2010â€"2015. Atmospheric Chemistry and Physics, 2019, 19, 7859-7881.	1.9	111
26	Flux towers in the sky: global ecology from space. New Phytologist, 2019, 224, 570-584.	3.5	111
27	Remote Sensing of Tropospheric Pollution from Space. Bulletin of the American Meteorological Society, 2008, 89, 805-822.	1.7	108
28	Implementation of cloud retrievals for Tropospheric Emission Spectrometer (TES) atmospheric retrievals: part 1. Description and characterization of errors on trace gas retrievals. Journal of Geophysical Research, 2006, 111, .	3.3	107
29	Characterization of Tropospheric Emission Spectrometer (TES) CO₂ for carbon cycle science. Atmospheric Chemistry and Physics, 2010, 10, 5601-5623.	1.9	100
30	The Atmospheric Infrared Sounder version 6 cloud products. Atmospheric Chemistry and Physics, 2014, 14, 399-426.	1.9	99
31	Quantifying the Impact of Atmospheric Transport Uncertainty on CO₂ Surface Flux Estimates. Global Biogeochemical Cycles, 2019, 33, 484-500.	1.9	95
32	Inverse modeling of CO₂ sources and sinks using satellite observations of CO₂ from TES and surface flask measurements. Atmospheric Chemistry and Physics, 2011, 11, 6029-6047.	1.9	94
33	Ozone-CO correlations determined by the TES satellite instrument in continental outflow regions. Geophysical Research Letters, 2006, 33, n/a-n/a.	1.5	92
34	The influence of boreal biomass burning emissions on the distribution of tropospheric ozone over North America and the North Atlantic during 2010. Atmospheric Chemistry and Physics, 2012, 12, 2077-2098.	1.9	90
35	Carbon monitoring system flux estimation and attribution: impact of ACOS-GOSAT XCO₂ sampling on the inference of terrestrial biospheric sources and sinks. Tellus, Series B: Chemical and Physical Meteorology, 2022, 66, 22486.	0.8	90
36	Interpreting seasonal changes in the carbon balance of southern Amazonia using measurements of XCO₂ and chlorophyll fluorescence from GOSAT. Geophysical Research Letters, 2013, 40, 2829-2833.	1.5	89

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37	Capturing time and vertical variability of tropospheric ozone: A study using TES nadir retrievals. Journal of Geophysical Research, 2002, 107, ACH 21-1-ACH 21-11.	3.3	87
38	Estimating the summertime tropospheric ozone distribution over North America through assimilation of observations from the Tropospheric Emission Spectrometer. Journal of Geophysical Research, 2008, 113, .	3.3	87
39	Improved tropospheric ozone profile retrievals using OMI and TES radiances. Geophysical Research Letters, 2007, 34, .	1.5	85
40	Forward model and Jacobians for Tropospheric Emission Spectrometer retrievals. IEEE Transactions on Geoscience and Remote Sensing, 2006, 44, 1308-1323.	2.7	84
41	Satellite measurements of the clear-sky greenhouse effect from tropospheric ozone. Nature Geoscience, 2008, 1, 305-308.	5.4	84
42	Validation of Tropospheric Emission Spectrometer (TES) measurements of the total, stratospheric, and tropospheric column abundance of ozone. Journal of Geophysical Research, 2008, 113, .	3.3	80
43	Potential of observations from the Tropospheric Emission Spectrometer to constrain continental sources of carbon monoxide. Journal of Geophysical Research, 2003, 108, n/a-n/a.	3.3	77
44	Characterization of ozone profiles derived from Aura TES and OMI radiances. Atmospheric Chemistry and Physics, 2013, 13, 3445-3462.	1.9	74
45	Air Quality Response in China Linked to the 2019 Novel Coronavirus (COVIDâ€19) Lockdown. Geophysical Research Letters, 2020, 47, e2020GL089252.	1.5	74
46	Global tropospheric ozone responses to reduced NO _{<i>x</i>} emissions linked to the COVID-19 worldwide lockdowns. Science Advances, 2021, 7, .	4.7	72
47	Tropospheric vertical distribution of tropical Atlantic ozone observed by TES during the northern African biomass burning season. Geophysical Research Letters, 2007, 34, .	1.5	71
48	The zonal structure of tropical O₃ and CO as observed by the Tropospheric Emission Spectrometer in November 2004 â€“ Part 1: Inverse modeling of CO emissions. Atmospheric Chemistry and Physics, 2009, 9, 3547-3562.	1.9	67
49	Impact of model errors in convective transport on CO source estimates inferred from MOPITT CO retrievals. Journal of Geophysical Research D: Atmospheres, 2013, 118, 2073-2083.	1.2	62
50	Evaluation of ACCMIP outgoing longwave radiation from tropospheric ozone using TES satellite observations. Atmospheric Chemistry and Physics, 2013, 13, 4057-4072.	1.9	61
51	Observed vertical distribution of tropospheric ozone during the Asian summertime monsoon. Journal of Geophysical Research, 2009, 114, .	3.3	59
52	Estimate of bias in Aura TES HDO/H₂O profiles from comparison of TES and in situ HDO/H₂O measurements at the Mauna Loa observatory. Atmospheric Chemistry and Physics, 2011, 11, 4491-4503.	1.9	59
53	Validation of northern latitude Tropospheric Emission Spectrometer stare ozone profiles with ARC-IONS sondes during ARCTAS: sensitivity, bias and error analysis. Atmospheric Chemistry and Physics, 2010, 10, 9901-9914.	1.9	58
54	Calculation of altitude-dependent tikhonov constraints for TES nadir retrievals. IEEE Transactions on Geoscience and Remote Sensing, 2006, 44, 1334-1342.	2.7	57

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55	Impacts of midlatitude precursor emissions and local photochemistry on ozone abundances in the Arctic. Journal of Geophysical Research, 2012, 117, .	3.3	55
56	Global multi-year O₃-CO correlation patterns from models and TES satellite observations. Atmospheric Chemistry and Physics, 2011, 11, 5819-5838.	1.9	54
57	Updated tropospheric chemistry reanalysis and emission estimates, TCR-2, for 2005â€“2018. Earth System Science Data, 2020, 12, 2223-2259.	3.7	54
58	Impact of intercontinental pollution transport on North American ozone air pollution: an HTAP phase 2 multi-model study. Atmospheric Chemistry and Physics, 2017, 17, 5721-5750.	1.9	51
59	Balance of Emission and Dynamical Controls on Ozone During the Koreaâ€United States Air Quality Campaign From Multiconstituent Satellite Data Assimilation. Journal of Geophysical Research D: Atmospheres, 2019, 124, 387-413.	1.2	51
60	Implementation of cloud retrievals for TES atmospheric retrievals: 2. Characterization of cloud top pressure and effective optical depth retrievals. Journal of Geophysical Research, 2008, 113, .	3.3	50
61	Impact of the assimilation of ozone from the Tropospheric Emission Spectrometer on surface ozone across North America. Geophysical Research Letters, 2009, 36, .	1.5	49
62	Global and Brazilian Carbon Response to El NiÃ±o Modoki 2011â€“2010. Earth and Space Science, 2017, 4, 637-660.	1.1	49
63	Ozone production in boreal fire smoke plumes using observations from the Tropospheric Emission Spectrometer and the Ozone Monitoring Instrument. Journal of Geophysical Research, 2009, 114, .	3.3	48
64	Toward the next generation of air quality monitoring: Ozone. Atmospheric Environment, 2013, 80, 571-583.	1.9	48
65	Improved analysisâ€error covariance matrix for highâ€dimensional variational inversions: application to source estimation using a 3D atmospheric transport model. Quarterly Journal of the Royal Meteorological Society, 2015, 141, 1906-1921.	1.0	48
66	Toward â€œoptimalâ€•integration of terrestrial biosphere models. Geophysical Research Letters, 2015, 42, 4418-4428.	1.5	48
67	Construction of non-diagonal background error covariance matrices for global chemical data assimilation. Geoscientific Model Development, 2011, 4, 299-316.	1.3	46
68	High-resolution tropospheric carbon monoxide profiles retrieved from CrIS and TROPOMI. Atmospheric Measurement Techniques, 2016, 9, 2567-2579.	1.2	46
69	Impacts of background ozone production on Houston and Dallas, Texas, air quality during the Second Texas Air Quality Study field mission. Journal of Geophysical Research, 2009, 114, .	3.3	45
70	Relating tropical ocean clouds to moist processes using water vapor isotope measurements. Atmospheric Chemistry and Physics, 2011, 11, 741-752.	1.9	45
71	2010â€“2015 North American methane emissions, sectoral contributions, and trends: a high-resolution inversion of GOSAT observations of atmospheric methane. Atmospheric Chemistry and Physics, 2021, 21, 4339-4356.	1.9	45
72	Impacts of Degradation on Water, Energy, and Carbon Cycling of the Amazon Tropical Forests. Journal of Geophysical Research G: Biogeosciences, 2020, 125, e2020JG005677.	1.3	44

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73	TES atmospheric profile retrieval characterization: an orbit of simulated observations. IEEE Transactions on Geoscience and Remote Sensing, 2006, 44, 1324-1333.	2.7	43
74	Assessment of source contributions to seasonal vegetative exposure to ozone in the U.S.. Journal of Geophysical Research D: Atmospheres, 2014, 119, 324-340.	1.2	43
75	Estimate of carbonyl sulfide tropical oceanic surface fluxes using Aura Tropospheric Emission Spectrometer observations. Journal of Geophysical Research D: Atmospheres, 2015, 120, 11,012.	1.2	43
76	Retrievals of tropospheric ozone profiles from the synergism of AIRS and OMI: methodology and validation. Atmospheric Measurement Techniques, 2018, 11, 5587-5605.	1.2	43
77	The ECCOâ€Darwin Dataâ€Assimilative Global Ocean Biogeochemistry Model: Estimates of Seasonal to Multidecadal Surface Ocean <i>p</i>CO₂ and Airâ€Sea CO₂ Flux. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001888.	1.3	43
78	Attribution of historical ozone forcing to anthropogenic emissions. Nature Climate Change, 2013, 3, 567-570.	8.1	42
79	Societal shifts due to COVID-19 reveal large-scale complexities and feedbacks between atmospheric chemistry and climate change. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	42
80	Assessing the magnitude of CO₂ flux uncertainty in atmospheric CO₂ records using products from NASA's Carbon Monitoring Flux Pilot Project. Journal of Geophysical Research D: Atmospheres, 2015, 120, 734-765.	1.2	41
81	Air pollution trends measured from Terra: CO and AOD over industrial, fire-prone, and background regions. Remote Sensing of Environment, 2021, 256, 112275.	4.6	41
82	The vertical distribution of ozone instantaneous radiative forcing from satellite and chemistry climate models. Journal of Geophysical Research, 2011, 116, .	3.3	40
83	El NiÃ±o, the 2006 Indonesian peat fires, and the distribution of atmospheric methane. Geophysical Research Letters, 2013, 40, 4938-4943.	1.5	40
84	Evaluation of a multi-model, multi-constituent assimilation framework for tropospheric chemical reanalysis. Atmospheric Chemistry and Physics, 2020, 20, 931-967.	1.9	40
85	Carbon Monitoring System Flux Net Biosphere Exchange 2020 (CMS-Flux NBE 2020). Earth System Science Data, 2021, 13, 299-330.	3.7	40
86	Validation of six years of TES tropospheric ozone retrievals with ozonesonde measurements: implications for spatial patterns and temporal stability in the bias. Atmospheric Measurement Techniques, 2013, 6, 1413-1423.	1.2	39
87	CH₄ and CO distributions over tropical fires during October 2006 as observed by the Aura TES satellite instrument and modeled by GEOS-Chem. Atmospheric Chemistry and Physics, 2013, 13, 3679-3692.	1.9	39
88	Evaluation and attribution of OCO-2 XCO₂ uncertainties. Atmospheric Measurement Techniques, 2017, 10, 2759-2771.	1.2	39
89	Comparison of Tropospheric Emission Spectrometer nadir water vapor retrievals with in situ measurements. Journal of Geophysical Research, 2008, 113, .	3.3	38
90	Tropospheric Emission Spectrometer nadir spectral radiance comparisons. Journal of Geophysical Research, 2008, 113, .	3.3	38

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91	Measurements of SO₂ profiles in volcanic plumes from the NASA Tropospheric Emission Spectrometer (TES). Geophysical Research Letters, 2008, 35, .	1.5	37
92	Sensitivity of outgoing longwave radiative flux to the global vertical distribution of ozone characterized by instantaneous radiative kernels from Aura-TES. Journal of Geophysical Research, 2011, 116, .	3.3	36
93	Attribution of direct ozone radiative forcing to spatially resolved emissions. Geophysical Research Letters, 2012, 39, .	1.5	35
94	Quantifying lower tropospheric methane concentrations using GOSAT near-IR and TES thermal IR measurements. Atmospheric Measurement Techniques, 2015, 8, 3433-3445.	1.2	34
95	Global satellite-driven estimates of heterotrophic respiration. Biogeosciences, 2019, 16, 2269-2284.	1.3	32
96	TES level 1 algorithms: interferogram processing, geolocation, radiometric, and spectral calibration. IEEE Transactions on Geoscience and Remote Sensing, 2006, 44, 1288-1296.	2.7	31
97	The impact of orbital sampling, monthly averaging and vertical resolution on climate chemistry model evaluation with satellite observations. Atmospheric Chemistry and Physics, 2011, 11, 6493-6514.	1.9	31
98	A Hierarchical Statistical Framework for Emergent Constraints: Application to Snowâ€Albedo Feedback. Geophysical Research Letters, 2018, 45, 13,050.	1.5	30
99	Fire decline in dry tropical ecosystems enhances decadal land carbon sink. Nature Communications, 2020, 11, 1900.	5.8	30
100	Impact of nonlinearity on changing the a priori of trace gas profile estimates from the Tropospheric Emission Spectrometer (TES). Atmospheric Chemistry and Physics, 2008, 8, 3081-3092.	1.9	29
101	Influence of ENSO and the NAO on terrestrial carbon uptake in the Texasâ€northern Mexico region. Global Biogeochemical Cycles, 2015, 29, 1247-1265.	1.9	29
102	Impacts of transported background pollutants on summertime western US air quality: model evaluation, sensitivity analysis and data assimilation. Atmospheric Chemistry and Physics, 2013, 13, 359-391.	1.9	28
103	An assessment of emission characteristics of Northern Hemisphere cities using spaceborne observations of CO2, CO, and NO2. Remote Sensing of Environment, 2021, 254, 112246.	4.6	28
104	Amplification of the Ocean Carbon Sink During El NiÃ±os: Role of Poleward Ekman Transport and Influence on Atmospheric CO₂. Global Biogeochemical Cycles, 2020, 34, e2020GB006574.	1.9	27
105	Improved Constraints on Northern Extratropical CO₂ Fluxes Obtained by Combining Surfaceâ€Based and Spaceâ€Based Atmospheric CO₂ Measurements. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD032029.	1.2	26
106	Modeling the impact of COVID-19 on air quality in southern California: implications for future control policies. Atmospheric Chemistry and Physics, 2021, 21, 8693-8708.	1.9	26
107	Lagged effects regulate the inter-annual variability of the tropical carbon balance. Biogeosciences, 2020, 17, 6393-6422.	1.3	26
108	Two-dimensional characterization of atmospheric profile retrievals from limb sounding observations. Journal of Quantitative Spectroscopy and Radiative Transfer, 2004, 86, 45-71.	1.1	25

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109	The zonal structure of tropical O₃ and CO as observed by the Tropospheric Emission Spectrometer in November 2004 â€“ Part 2: Impact of surface emissions on O₃ and its precursors. Atmospheric Chemistry and Physics, 2009, 9, 3563-3582.	1.9	25
110	Implementation and evaluation of an array of chemical solvers in the Global Chemical Transport Model GEOS-Chem. Geoscientific Model Development, 2009, 2, 89-96.	1.3	23
111	Sourceâ€receptor relationships of columnâ€average CO₂ and implications for the impact of observations on flux inversions. Journal of Geophysical Research D: Atmospheres, 2015, 120, 5214-5236.	1.2	22
112	Using Greenâ€™s Functions to initialize and adjust a global, eddying ocean biogeochemistry general circulation model. Ocean Modelling, 2015, 95, 1-14.	1.0	22
113	Detecting drought impact on terrestrial biosphere carbon fluxes over contiguous US with satellite observations. Environmental Research Letters, 2018, 13, 095003.	2.2	22
114	Carbon Flux Variability From a Relatively Simple Ecosystem Model With Assimilated Data Is Consistent With Terrestrial Biosphere Model Estimates. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001889.	1.3	22
115	Farâ€Ultraviolet Intensities and Centerâ€toâ€Limb Variations of Active Regions and Quiet Sun UsingUARSSOLSTICE Irradiance Measurements and Groundâ€based Spectroheliograms. Astrophysical Journal, 2001, 560, 1020-1034.	1.6	21
116	Impact of Southern California anthropogenic emissions on ozone pollution in the mountain states: Model analysis and observational evidence from space. Journal of Geophysical Research D: Atmospheres, 2013, 118, 12,784.	1.2	21
117	The Carbon Cycle of Southeast Australia During 2019â€“2020: Drought, Fires, and Subsequent Recovery. AGU Advances, 2021, 2, .	2.3	21
118	Instrument line-shape modeling and correction for off-axis detectors in Fourier-transform spectrometry. Applied Optics, 2000, 39, 3765.	2.1	19
119	Sensitivity analysis of the potential impact of discrepancies in stratosphereâ€“troposphere exchange on inferred sources and sinks of CO₂. Atmospheric Chemistry and Physics, 2015, 15, 11773-11788.	1.9	19
120	Comparison between the Local Ensemble Transform Kalman Filter (LETKF) and 4Dâ€Var in atmospheric CO₂ flux inversion with the Goddard Earth Observing Systemâ€Chem model and the observation impact diagnostics from the LETKF. Journal of Geophysical Research D: Atmospheres, 2016, 121, 13,066.	1.2	19
121	COVID-19 Lockdowns Afford the First Satellite-Based Confirmation That Vehicles Are an Under-recognized Source of Urban NH₃ Pollution in Los Angeles. Environmental Science and Technology Letters, 2022, 9, 3-9.	3.9	19
122	A recycling method for the large-eddy simulation of plumes in the atmospheric boundary layer. Environmental Fluid Mechanics, 2016, 16, 69-85.	0.7	18
123	Characterization and evaluation of AIRS-based estimates of the deuterium content of water vapor. Atmospheric Measurement Techniques, 2019, 12, 2331-2339.	1.2	18
124	Profiling tropospheric CO₂ using Aura TES and TCCON instruments. Atmospheric Measurement Techniques, 2013, 6, 63-79.	1.2	17
125	The Atmospheric Carbon and Transport (ACT)-America Mission. Bulletin of the American Meteorological Society, 2021, 102, E1714-E1734.	1.7	17
126	Changes in nitrogen oxides emissions in California during 2005â€“2010 indicated from topâ€down and bottomâ€up emission estimates. Journal of Geophysical Research D: Atmospheres, 2014, 119, 12,928.	1.2	16

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127	Improved western U.S. background ozone estimates via constraining nonlocal and local source contributions using Aura TES and OMI observations. Journal of Geophysical Research D: Atmospheres, 2015, 120, 3572-3592.	1.2	15
128	Evaluation of ACCMIP ozone simulations and ozonesonde sampling biases using a satellite-based multi-constituent chemical reanalysis. Atmospheric Chemistry and Physics, 2017, 17, 8285-8312.	1.9	15
129	Emergent constraints on tropical atmospheric aridityâ€"carbon feedbacks and the future of carbon sequestration. Environmental Research Letters, 2021, 16, 114008.	2.2	15
130	Instantaneous longwave radiative impact of ozone: an application on IASI/MetOp observations. Atmospheric Chemistry and Physics, 2015, 15, 12971-12987.	1.9	14
131	Attribution of Spaceâ€Time Variability in Globalâ€Ocean Dissolved Inorganic Carbon. Global Biogeochemical Cycles, 2022, 36, .	1.9	14
132	A Practical Method to Estimate Information Content in the Context of 4D-Var Data Assimilation. SIAM-ASA Journal on Uncertainty Quantification, 2013, 1, 106-138.	1.1	13
133	Satellite Observations of the Tropical Terrestrial Carbon Balance and Interactions With the Water Cycle During the 21st Century. Reviews of Geophysics, 2021, 59, e2020RG000711.	9.0	13
134	Carbon monoxide (CO) vertical profiles derived from joined TES and MLS measurements. Journal of Geophysical Research D: Atmospheres, 2013, 118, 10,601.	1.2	12
135	Contrasting Regional Carbon Cycle Responses to Seasonal Climate Anomalies Across the Eastâ€West Divide of Temperate North America. Global Biogeochemical Cycles, 2020, 34, e2020GB006598.	1.9	12
136	A Bayesian framework for deriving sector-based methane emissions from top-down fluxes. Communications Earth & Environment, 2021, 2, .	2.6	12
137	Atmospheric Simulations of Total Column CO2 Mole Fractions from Global to Mesoscale within the Carbon Monitoring System Flux Inversion Framework. Atmosphere, 2020, 11, 787.	1.0	11
138	A method for independent validation of surface fluxes from atmospheric inversion: Application to CO 2. Geophysical Research Letters, 2016, 43, 3502-3508.	1.5	10
139	Application of a nonuniform spectral resampling transform in Fourier-transform spectrometry. Applied Optics, 2003, 42, 1122.	2.1	8
140	Seasonal and spatial changes in trace gases over megacities from Aura TES observations: two case studies. Atmospheric Chemistry and Physics, 2017, 17, 9379-9398.	1.9	8
141	Detection of fossil fuel emission trends in the presence of natural carbon cycle variability. Environmental Research Letters, 2019, 14, 084050.	2.2	8
142	Covariation of Airborne Biogenic Tracers (CO₂, COS, and CO) Supports Stronger Than Expected Growing Season Photosynthetic Uptake in the Southeastern US. Global Biogeochemical Cycles, 2021, 35, e2021GB006956.	1.9	7
143	Remotely Sensed Carbonyl Sulfide Constrains Model Estimates of Amazon Primary Productivity. Geophysical Research Letters, 2022, 49, .	1.5	7
144	The impact of observing characteristics on the ability to predict ozone under varying polluted photochemical regimes. Atmospheric Chemistry and Physics, 2015, 15, 10645-10667.	1.9	6

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145	Satellite observations of ethylene (C2H4) from the Aura Tropospheric Emission Spectrometer: A scoping study. Atmospheric Environment, 2016, 141, 388-393.	1.9	6
146	Response to Comment on â€œContrasting carbon cycle responses of the tropical continents to the 2015â€“2016 El NiÃ±oâ€• Science, 2018, 362, .	6.0	6
147	Attribution of Chemistry-Climate Model Initiative (CCMI) ozone radiative flux bias from satellites. Atmospheric Chemistry and Physics, 2020, 20, 281-301.	1.9	6
148	A new methodology for inferring surface ozone from multispectral satellite measurements. Environmental Research Letters, 2021, 16, 105005.	2.2	6
149	Comparison of optimal estimation HDOâˆ•H₂O retrievals from AIRS with ORACLES measurements. Atmospheric Measurement Techniques, 2020, 13, 1825-1834.	1.2	6
150	A multi-sensor upper tropospheric ozone product (MUTOP) based on TES Ozone and GOES water vapor: derivation. Atmospheric Chemistry and Physics, 2011, 11, 6515-6527.	1.9	5
151	Satellite soil moisture data assimilation impacts on modeling weather variables and ozone in the southeastern US â€“ PartÂ1: An overview. Atmospheric Chemistry and Physics, 2021, 21, 11013-11040.	1.9	5
152	Hydrological controls on the tropospheric ozone greenhouse gas effect. Elementa, 2017, 5, .	1.1	5
153	Amazonian terrestrial water balance inferred from satellite-observed water vapor isotopes. Nature Communications, 2022, 13, 2686.	5.8	5
154	A multi-sensor upper tropospheric ozone product (MUTOP) based on TES ozone and GOES water vapor: validation with ozonesondes. Atmospheric Chemistry and Physics, 2012, 12, 5661-5676.	1.9	4
155	Information Theoretic Metrics to Characterize Observations in Variational Data Assimilation. Procedia Computer Science, 2012, 9, 1047-1055.	1.2	4
156	Future Weakening of the ENSO Ocean Carbon Buffer Under Anthropogenic Forcing. Geophysical Research Letters, 2021, 48, e2021GL094021.	1.5	4
157	Satellite soil moisture data assimilation impacts on modeling weather variables and ozone in the southeastern US â€“ Part 2: Sensitivity to dry-deposition parameterizations. Atmospheric Chemistry and Physics, 2022, 22, 7461-7487.	1.9	4
158	Improving GEOS-Chem Model Tropospheric Ozone through Assimilation of Pseudo Tropospheric Emission Spectrometer Profile Retrievals. Lecture Notes in Computer Science, 2009, , 302-311.	1.0	3
159	Satellite measurements of peroxyacetyl nitrate from the Cross-Track Infrared Sounder: comparison with ATom aircraft measurements. Atmospheric Measurement Techniques, 2022, 15, 3497-3511.	1.2	3
160	<title>Wavelet analysis of random fields and multiresolution Wiener filtering</title>. , 1995, , .		2
161	Sensor-web Operations Explorer (SOX) for Earth Science Air Quality Mission Concepts. Aerospace Conference Proceedings IEEE, 2008, , .	0.0	1
162	Changes in US background ozone associated with the 2011 turnaround in Chinese NOx emissions. Environmental Research Communications, 2022, 4, 045003.	0.9	1

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163	Atmospheric sounding simulation experiment service. , 2009, , .		0
164	The Tropospheric Emission Spectrometer: From Discovery Mission to Earth System Sounding. , 2018, , .		0
165	Top-down approaches. , 2022, , 87-155.		0