Toshinobu Machida

List of Publications by Year
in descending order

151 papers	8,884 citations	39 h-index (81900)	84 g-index (54911)
182 all docs	182 docs citations	182 times ranked	7371 citing authors

#	Article	IF	Citations
1	The Global Methane Budget 2000â€“2017. Earth System Science Data, 2020, 12, 1561-1623.	9.9	1,199
2	The global methane budget 2000â€“2012. Earth System Science Data, 2016, 8, 697-751.	9.9	824
3	Weak Northern and Strong Tropical Land Carbon Uptake from Vertical Profiles of Atmospheric CO2. Science, 2007, 316, 1732-1735.	12.6	775
4	Calibration of the Total Carbon Column Observing Network using aircraft profile data. Atmospheric Measurement Techniques, 2010, 3, 1351-1362.	3.1	441
5	CO₂ surface fluxes at grid point scale estimated from a global 21 year reanalysis of atmospheric measurements. Journal of Geophysical Research, 2010, 115, .	3.3	276
6	Worldwide Measurements of Atmospheric CO2 and Other Trace Gas Species Using Commercial Airlines. Journal of Atmospheric and Oceanic Technology, 2008, 25, 1744-1754.	1.3	240
7	First year of upper tropospheric integrated content of CO₂ from IASI hyperspectral infrared observations. Atmospheric Chemistry and Physics, 2009, 9, 4797-4810.	4.9	157
8	Increase in the atmospheric nitrous oxide concentration during the last 250 years. Geophysical Research Letters, 1995, 22, 2921-2924.	4.0	155
9	A strong source of methyl chloride to the atmosphere from tropical coastal land. Nature, 2000, 403, 295-298.	27.8	140
10	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.	3.6	117
11	The 2007â€“2011 evolution of tropical methane in the mid-troposphere as seen from space by MetOp-A/IASI. Atmospheric Chemistry and Physics, 2013, 13, 4279-4289.	4.9	115
12	Validation of XCO₂ derived from SWIR spectra of GOSAT TANSO-FTS with aircraft measurement data. Atmospheric Chemistry and Physics, 2013, 13, 9771-9788.	4.9	106
13	Characterization of Tropospheric Emission Spectrometer (TES) CO₂ for carbon cycle science. Atmospheric Chemistry and Physics, 2010, 10, 5601-5623.	4.9	100
14	Topâ€“down assessment of the Asian carbon budget since the mid 1990s. Nature Communications, 2016, 7, 10724.	12.8	93
15	Global and regional emissions estimates for N₂O. Atmospheric Chemistry and Physics, 2014, 14, 4617-4641.	4.9	91
16	Temporal changes in the emissions of CH₄ and CO from China estimated from CH₄ / CO₂ and CO / CO₂ correlations observed at Hateruma Island. Atmospheric Chemistry and Physics, 2014, 14, 1663-1677.	4.9	90
17	Isoprene in the marine boundary layer (southeast Asian Sea, eastern Indian Ocean, and Southern) Tj ETQq1 1 0.784314 rgBT /Overloc 8067-8076.	3.3	87
18	Global CO₂fluxes inferred from surface air-sample measurements and from TCCON retrievals of the CO₂total column. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	85

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19	Variability and quasi-decadal changes in the methane budget over the period 2000â€“2012. Atmospheric Chemistry and Physics, 2017, 17, 11135-11161.	4.9	85
20	Evaluating a 3-D transport model of atmospheric CO₂ using ground-based, aircraft, and space-borne data. Atmospheric Chemistry and Physics, 2011, 11, 2789-2803.	4.9	84
21	Continuous measurements of methane from a tower network over Siberia. Tellus, Series B: Chemical and Physical Meteorology, 2022, 62, 403.	1.6	83
22	Satellite-inferred European carbon sink larger than expected. Atmospheric Chemistry and Physics, 2014, 14, 13739-13753.	4.9	83
23	Aircraft measurements of the concentrations of CO2, CH4, N2O, and CO and the carbon and oxygen isotopic ratios of CO2in the troposphere over Russia. Journal of Geophysical Research, 1997, 102, 3843-3859.	3.3	79
24	Carbon balance of South Asia constrained by passenger aircraft CO₂ measurements. Atmospheric Chemistry and Physics, 2011, 11, 4163-4175.	4.9	78
25	Regional methane emission from West Siberia mire landscapes. Environmental Research Letters, 2011, 6, 045214.	5.2	77
26	Imposing strong constraints on tropical terrestrial CO2fluxes using passenger aircraft based measurements. Journal of Geophysical Research, 2012, 117, n/a-n/a.	3.3	75
27	Lead isotope ratios in the urban air of eastern and central Russia. Atmospheric Environment, 2001, 35, 2783-2793.	4.1	70
28	Evaluation of atmospheric CO2 measurements from new flask air sampling of JAL airliner observations. Papers in Meteorology and Geophysics, 2008, 59, 1-17.	0.9	69
29	Differences of the atmospheric CH₄ concentration between the Arctic and Antarctic regions in preâ€industrial/preâ€agricultural era. Geophysical Research Letters, 1993, 20, 943-946.	4.0	63
30	Analysis and presentation of in situ atmospheric methane measurements from Cape Ochi-ishi and Hateruma Island. Journal of Geophysical Research, 2002, 107, ACH 8-1.	3.3	60
31	Methane fluxes in the high northern latitudes for 2005â€“2013 estimated using a Bayesian atmospheric inversion. Atmospheric Chemistry and Physics, 2017, 17, 3553-3572.	4.9	59
32	Seasonal variations of CO₂ near the tropopause observed by commercial aircraft. Journal of Geophysical Research, 2008, 113, .	3.3	55
33	A comprehensive estimate of recent carbon sinks in China using both top-down and bottom-up approaches. Scientific Reports, 2016, 6, 22130.	3.3	55
34	Measurements of the stratospheric carbon dioxide concentration over Japan using a Balloon-borne cryogenic sampler. Geophysical Research Letters, 1995, 22, 1229-1232.	4.0	53
35	Removal of NOxand NOyin Asian outflow plumes: Aircraft measurements over the western Pacific in January 2002. Journal of Geophysical Research, 2004, 109, .	3.3	50
36	Assessing the near surface sensitivity of SCIAMACHY atmospheric CO₂ retrieved using (FSI) WFM-DOAS. Atmospheric Chemistry and Physics, 2007, 7, 3597-3619.	4.9	50

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37	Carbon flux estimation for Siberia by inverse modeling constrained by aircraft and tower CO₂ measurements. Journal of Geophysical Research D: Atmospheres, 2013, 118, 1100-1122.	3.3	49
38	Emission estimates of selected volatile organic compounds from tropical savanna burning in northern Australia. Journal of Geophysical Research, 2003, 108, n/a-n/a.	3.3	48
39	A Lightweight Observation System for Atmospheric Carbon Dioxide Concentration Using a Small Unmanned Aerial Vehicle. Journal of Atmospheric and Oceanic Technology, 2006, 23, 700-710.	1.3	46
40	Midâ€upper tropospheric methane in the high Northern Hemisphere: Spaceborne observations by AIRS, aircraft measurements, and model simulations. Journal of Geophysical Research, 2010, 115, .	3.3	44
41	The seasonal variation of the CO₂ flux over Tropical Asia estimated from GOSAT, CONTRAIL, and IASI. Geophysical Research Letters, 2014, 41, 1809-1815.	4.0	44
42	Vertical profile of the carbon isotopic ratio of stratospheric methane over Japan. Geophysical Research Letters, 1997, 24, 2989-2992.	4.0	43
43	Stratospheric influence on the seasonal cycle of nitrous oxide in the troposphere as deduced from aircraft observations and model simulations. Journal of Geophysical Research, 2010, 115, .	3.3	43
44	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.	3.1	43
45	Vertical and meridional distributions of the atmospheric CO2mixing ratio between northern midlatitudes and southern subtropics. Journal of Geophysical Research, 2003, 108, BIB 5-1.	3.3	42
46	Preparation of gravimetric standards for measurements of atmospheric oxygen and reevaluation of atmospheric oxygen concentration. Journal of Geophysical Research, 2005, 110, .	3.3	41
47	Atmospheric O2/N2measurements at two Japanese sites: estimation of global oceanic and land biotic carbon sinks and analysis of the variations in atmospheric potential oxygen (APO). Tellus, Series B: Chemical and Physical Meteorology, 2008, 60, 213-225.	1.6	41
48	Three-dimensional variations of atmospheric CO₂: aircraft measurements and multi-transport model simulations. Atmospheric Chemistry and Physics, 2011, 11, 13359-13375.	4.9	41
49	Bias corrections of GOSAT SWIR XCO₂ and XCH₄ with TCCON data and their evaluation using aircraft measurement data. Atmospheric Measurement Techniques, 2016, 9, 3491-3512.	3.1	40
50	Columnâ€averaged volume mixing ratio of CO₂ measured with groundâ€based Fourier transform spectrometer at Tsukuba. Journal of Geophysical Research, 2009, 114, .	3.3	39
51	Interannual variability and trends in atmospheric methane over the western Pacific from 1994 to 2010. Journal of Geophysical Research, 2011, 116, .	3.3	39
52	Evaluation of methane emissions from West Siberian wetlands based on inverse modeling. Environmental Research Letters, 2011, 6, 035201.	5.2	39
53	Aircraft observation of the seasonal variation in the transport of CO₂ in the upper atmosphere. Journal of Geophysical Research, 2012, 117, .	3.3	39
54	Distribution of methane in the tropical upper troposphere measured by CARIBIC and CONTRAIL aircraft. Journal of Geophysical Research, 2012, 117, .	3.3	38

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55	Decadal time series of tropospheric abundance of N₂O isotopomers and isotopologues in the Northern Hemisphere obtained by the longâ€term observation at Hateruma Island, Japan. Journal of Geophysical Research D: Atmospheres, 2013, 118, 3369-3381.	3.3	38
56	Estimating Asian terrestrial carbon fluxes from CONTRAIL aircraft and surface CO₂ observations for the period 2006â€"2010. Atmospheric Chemistry and Physics, 2014, 14, 5807-5824.	4.9	38
57	Theoretical and experimental evaluation of the isotope effect of NDIR analyzer on atmospheric CO₂ measurement. Journal of Geophysical Research, 2009, 114, .	3.3	37
58	Comparisons between XCH₄ from GOSAT Shortwave and Thermal Infrared Spectra and Aircraft CH₄ Measurements over Guam. Scientific Online Letters on the Atmosphere, 2012, 8, 145-149.	1.4	37
59	Carbon dioxide variations in the stratosphere over Japan, Scandinavia and Antarctica. Tellus, Series B: Chemical and Physical Meteorology, 2003, 55, 178-186.	1.6	36
60	Aircraft and tower measurements of CO₂ concentration in the planetary boundary layer and the lower free troposphere over southern taiga in West Siberia: Longâ€term records from 2002 to 2011. Journal of Geophysical Research D: Atmospheres, 2013, 118, 9489-9498.	3.3	36
61	Temporal and latitudinal distributions of stratospheric N2O isotopomers. Journal of Geophysical Research, 2004, 109, .	3.3	35
62	First measurements of the latitudinal atmospheric O2and CO2distributions across the western Pacific. Geophysical Research Letters, 2005, 32, .	4.0	35
63	Threeâ€dimensional SF₆ data and tropospheric transport simulations: Signals, modeling accuracy, and implications for inverse modeling. Journal of Geophysical Research, 2007, 112, .	3.3	35
64	Aircraft measurements of the stable carbon isotopic ratio of atmospheric methane over Siberia. Global Biogeochemical Cycles, 1996, 10, 223-231.	4.9	32
65	Validation of XCH₄ derived from SWIR spectra of GOSAT TANSO-FTS with aircraft measurement data. Atmospheric Measurement Techniques, 2014, 7, 2987-3005.	3.1	32
66	Emissions of methane from offshore oil and gas platforms in Southeast Asia. Scientific Reports, 2014, 4, 6503.	3.3	32
67	Inverse modeling of GOSAT-retrieved ratios of total column CH₄ and CO₂ for 2009 and 2010. Atmospheric Chemistry and Physics, 2016, 16, 5043-5062.	4.9	32
68	A global synthesis inversion analysis of recent variability in CO₂ fluxes using GOSAT and inÂsitu observations. Atmospheric Chemistry and Physics, 2018, 18, 11097-11124.	4.9	32
69	Natural and anthropogenic methane fluxes in Eurasia: a mesoscale quantification by generalized atmospheric inversion. Biogeosciences, 2015, 12, 5393-5414.	3.3	31
70	Carbon and hydrogen isotopic ratios of atmospheric methane in the upper troposphere over the Western Pacific. Atmospheric Chemistry and Physics, 2012, 12, 8095-8113.	4.9	30
71	Contributions of natural and anthropogenic sources to atmospheric methane variations over western Siberia estimated from its carbon and hydrogen isotopes. Global Biogeochemical Cycles, 2012, 26, .	4.9	30
72	Methane Emission Estimates by the Global High-Resolution Inverse Model Using National Inventories. Remote Sensing, 2019, 11, 2489.	4.0	29

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73	Photochemical production of ozone in the upper troposphere in association with cumulus convection over Indonesia. Journal of Geophysical Research, 2003, 108, BIB 4-1.	3.3	28
74	Methane emission from bogs in the subtaiga of Western Siberia: The development of standard model. Eurasian Soil Science, 2012, 45, 947-957.	1.6	28
75	Inverse modeling of pan-Arctic methane emissions at high spatial resolution: what can we learn from assimilating satellite retrievals and using different process-based wetland and lake biogeochemical models?. Atmospheric Chemistry and Physics, 2016, 16, 12649-12666.	4.9	27
76	A 4D-Var inversion system based on the icosahedral grid model (NICAM-TM 4D-Var v1.0) â€“ Part 1: Offline forward and adjoint transport models. Geoscientific Model Development, 2017, 10, 1157-1174.	3.6	27
77	Siberian and temperate ecosystems shape Northern Hemisphere atmospheric CO ₂ seasonal amplification. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 21079-21087.	7.1	27
78	Measurements of CO2 and CH4 concentrations in air in a polar ice core. Journal of Glaciology, 1993, 39, 209-215.	2.2	26
79	CO₂ column-averaged volume mixing ratio derived over Tsukuba from measurements by commercial airlines. Atmospheric Chemistry and Physics, 2010, 10, 7659-7667.	4.9	25
80	Methane emission from mires of the West Siberian taiga. Eurasian Soil Science, 2013, 46, 1182-1193.	1.6	25
81	Global carbon budgets estimated from atmospheric O₂âˆ•N₂ and CO₂ observations in the western Pacific region over a 15-year period. Atmospheric Chemistry and Physics, 2019, 19, 9269-9285.	4.9	25
82	Latitudinal distribution of atmospheric methyl bromide: Measurements and modeling. Geophysical Research Letters, 2000, 27, 697-700.	4.0	24
83	Effect of recent observations on Asian CO2 flux estimates by transport model inversions. Tellus, Series B: Chemical and Physical Meteorology, 2003, 55, 522-529.	1.6	24
84	Gas-chromatographic measurements of the atmospheric oxygen/nitrogen ratio at Hateruma Island and Cape Ochi-ishi, Japan. Geophysical Research Letters, 2003, 30, .	4.0	24
85	The seasonal cycle amplitude of total column CO2: Factors behind the model-observation mismatch. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	24
86	TransCom model simulations of methane: Comparison of vertical profiles with aircraft measurements. Journal of Geophysical Research D: Atmospheres, 2013, 118, 3891-3904.	3.3	24
87	Technical note: A high-resolution inverse modelling technique for estimating surface CO₂ fluxes based on the NIES-TMâ€“FLEXPART coupled transport model and its adjoint. Atmospheric Chemistry and Physics, 2021, 21, 1245-1266.	4.9	23
88	Measurement of 14C Concentrations of Stratospheric CO2 by Accelerator Mass Spectrometry. Radiocarbon, 1992, 34, 745-752.	1.8	22
89	Long-term monitoring of carbon and oxygen isotope ratios of stratospheric CO2over Japan. Geophysical Research Letters, 1995, 22, 397-400.	4.0	22
90	Detection of fossil-fuel CO2Âplummet in China due to COVID-19 by observation at Hateruma. Scientific Reports, 2020, 10, 18688.	3.3	22

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91	Vertical distribution of greenhouse gases above Western Siberia by the long-term measurement data. Atmospheric and Oceanic Optics, 2009, 22, 316-324.	1.3	21
92	CO emissions from biomass burning in South-east Asia in the 2006 El NiÃ±o year: shipboard and AIRS satellite observations. Environmental Chemistry, 2011, 8, 213.	1.5	21
93	Atmospheric column-averaged mole fractions of carbon dioxide at 53 aircraft measurement sites. Atmospheric Chemistry and Physics, 2013, 13, 5265-5275.	4.9	20
94	Airborne measurements of atmospheric methane over oil fields in western Siberia. Geophysical Research Letters, 1996, 23, 1621-1624.	4.0	19
95	Distribution of tropospheric methane over Siberia in July 1993. Journal of Geophysical Research, 1997, 102, 25371-25382.	3.3	19
96	Annual variation of CH₄ emissions from the middle taiga in West Siberian Lowland (2005â€"2009):a case of high CH₄ flux and precipitation rate in the summer of 2007. Tellus, Series B: Chemical and Physical Meteorology, 2022, 64, 17514.	1.6	19
97	Longâ€term change of CO₂ latitudinal distribution in the upper troposphere. Geophysical Research Letters, 2015, 42, 2508-2514.	4.0	19
98	Seasonal evaluation of tropospheric CO₂ over the Asia-Pacific region observed by the CONTRAIL commercial airliner measurements. Atmospheric Chemistry and Physics, 2018, 18, 14851-14866.	4.9	19
99	Statistical characterization of urban CO2 emission signals observed by commercial airliner measurements. Scientific Reports, 2020, 10, 7963.	3.3	19
100	Analysis of seasonality and annual mean distribution of atmospheric potential oxygen (APO) in the Pacific region. Global Biogeochemical Cycles, 2012, 26, n/a-n/a.	4.9	18
101	Algorithm update of the GOSAT/TANSO-FTS thermal infrared CO₂ product (version 1) and validation of the UTLS CO₂ data using CONTRAIL measurements. Atmospheric Measurement Techniques, 2016, 9, 2119-2134.	3.1	18
102	Spatial and temporal variability of CO2 and CH4 concentrations in the surface atmospheric layer over West Siberia. Atmospheric and Oceanic Optics, 2009, 22, 84-93.	1.3	17
103	Seasonal Variations of CO₂, CH₄, N₂O and CO in the Mid-Troposphere over the Western North Pacific Observed Using a C-130H Cargo Aircraft. Journal of the Meteorological Society of Japan, 2014, 92, 55-70.	1.8	17
104	Impact of Siberian observations on the optimization of surface CO₂ flux. Atmospheric Chemistry and Physics, 2017, 17, 2881-2899.	4.9	17
105	Analysis of the Diurnal, Weekly, and Seasonal Cycles and Annual Trends in Atmospheric CO2 and CH4 at Tower Network in Siberia from 2005 to 2016. Atmosphere, 2019, 10, 689.	2.3	17
106	Seasonal variations in 14C concentrations of stratospheric CO2 measured with accelerator mass spectrometry. Nuclear Instruments & Methods in Physics Research B, 1994, 92, 413-416.	1.4	16
107	Carbon balance of China constrained by CONTRAIL aircraft CO₂ measurements. Atmospheric Chemistry and Physics, 2014, 14, 10133-10144.	4.9	16
108	Effect of recent observations on Asian CO₂ flux estimates by transport model inversions. Tellus, Series B: Chemical and Physical Meteorology, 2022, 55, 522.	1.6	16

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109	Formation mechanisms of latitudinal CO₂ gradients in the upper troposphere over the subtropics and tropics. Journal of Geophysical Research, 2009, 114, .	3.3	15
110	Black carbon in aerosol during BIBLE B. Journal of Geophysical Research, 2003, 108, BIB 3-1.	3.3	14
111	Validation of the Improved Limb Atmospheric Spectrometer-II (ILAS-II) Version 1.4 nitrous oxide and methane profiles. Journal of Geophysical Research, 2006, 111, .	3.3	14
112	Methane emissions from subtaiga mires of Western Siberia: The â€œstandard modelâ€•Bc5. Moscow University Soil Science Bulletin, 2010, 65, 86-93.	0.7	14
113	Relative contribution of transport/surface flux to the seasonal vertical synoptic CO₂ variability in the troposphere over Narita. Tellus, Series B: Chemical and Physical Meteorology, 2022, 64, 19138.	1.6	14
114	Emission factors of CO2, CO and CH4 from Sumatran peatland fires in 2013 based on shipboard measurements. Tellus, Series B: Chemical and Physical Meteorology, 2017, 69, 1399047.	1.6	14
115	Assessing Lagrangian inverse modelling of urban anthropogenic CO2 fluxes using in situ aircraft and ground-based measurements in the Tokyo area. Carbon Balance and Management, 2019, 14, 6.	3.2	14
116	Seasonal changes of CO 2 , CH 4 , N 2 O, and SF 6 in the upper troposphere/lower stratosphere over the Eurasian continent observed by commercial airliner. Geophysical Research Letters, 2015, 42, 2001-2008.	4.0	13
117	Reconciliation of top-down and bottom-up CO ₂ fluxes in Siberian larch forest. Environmental Research Letters, 2017, 12, 125012.	5.2	13
118	Seasonal Variations of SF₆, CO₂, CH₄, and N₂O in the UT/LS Region due to Emissions, Transport, and Chemistry. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD033541.	3.3	13
119	Evaluation of Television Infrared Observation Satellite (TIROS-N) Operational Vertical Sounder (TOVS) spaceborne CO2estimates using model simulations and aircraft data. Journal of Geophysical Research, 2007, 112, .	3.3	12
120	ENSO-related variability in latitudinal distribution of annual mean atmospheric potential oxygen (APO) in the equatorial Western Pacific. Tellus, Series B: Chemical and Physical Meteorology, 2022, 67, 25869.	1.6	12
121	Temporal Characteristics of CH₄ Vertical Profiles Observed in the West Siberian Lowland Over Surgut From 1993 to 2015 and Novosibirsk From 1997 to 2015. Journal of Geophysical Research D: Atmospheres, 2017, 122, 11,261.	3.3	12
122	Variations in atmospheric nitrous oxide observed at Hateruma monitoring station. Chemosphere, 2000, 2, 435-443.	1.2	11
123	Development of an Atmospheric Carbon Dioxide Standard Gas Saving System and Its Application to a Measurement at a Site in the West Siberian Forest. Journal of Atmospheric and Oceanic Technology, 2010, 27, 843-855.	1.3	10
124	Onboard measurement system of atmospheric carbon monoxide in the Pacific by voluntary observing ships. Atmospheric Measurement Techniques, 2011, 4, 2495-2507.	3.1	10
125	Six years of atmospheric CO₂ observations at Mt. Fuji recorded with a battery-powered measurement system. Atmospheric Measurement Techniques, 2017, 10, 667-680.	3.1	10
126	Three-dimensional methane distribution simulated with FLEXPART 8-CTM-1.1 constrained with observation data. Geoscientific Model Development, 2018, 11, 4469-4487.	3.6	10

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127	Station for the comprehensive monitoring of the atmosphere at Fonovaya Observatory, West Siberia: current status and future needs. , 2018, , .		10
128	Measurement report: Regional characteristics of seasonal and long-term variations in greenhouse gases at Nainital, India, and Comilla, Bangladesh. Atmospheric Chemistry and Physics, 2021, 21, 16427-16452.	4.9	10
129	Carbon dioxide variations in the stratosphere over Japan, Scandinavia and Antarctica. Tellus, Series B: Chemical and Physical Meteorology, 2022, 55, 178.	1.6	9
130	Gravitational separation suggested by O₂/N₂, <i>Î´</i>¹⁵N of N₂, <i>Î´</i>¹⁸O of O₂, Ar/N₂ observed in the lowermost part of the stratosphere at northern middle and high latitudes in the early spring of 2002. Geophysical Research Letters, 2008, 35, .	4.0	9
131	Winter crop CO₂ uptake inferred from CONTRAIL measurements over Delhi, India. Geophysical Research Letters, 2016, 43, 11,859.	4.0	9
132	Assessment of spatio-temporal distribution of CO2 over greater Asia using the WRFâ€“CO2 model. Journal of Earth System Science, 2020, 129, 1.	1.3	8
133	New approach to evaluate satellite-derived XCO₂ over oceans by integrating ship and aircraft observations. Atmospheric Chemistry and Physics, 2021, 21, 8255-8271.	4.9	8
134	Methane emissions from north and middle taiga mires of Western Siberia: Bc8 standard model. Moscow University Soil Science Bulletin, 2012, 67, 45-53.	0.7	7
135	Bias assessment of lower and middle tropospheric CO₂ concentrations of GOSAT/TANSO-FTS TIR version 1 product. Atmospheric Measurement Techniques, 2017, 10, 3877-3892.	3.1	6
136	Development of a balloon-borne instrument for CO₂ vertical profile observations in the troposphere. Atmospheric Measurement Techniques, 2019, 12, 5639-5653.	3.1	6
137	Spatio-temporal variations of the atmospheric greenhouse gases and their sources and sinks in the Arctic region. Polar Science, 2021, 27, 100553.	1.2	6
138	Variability in carbon stable isotope ratio of heterotrophic respiration in a deciduous needleâ€leaf forest. Journal of Geophysical Research, 2008, 113, .	3.3	5
139	Gravitational separation of the stratospheric air over Syowa, Antarctica and its connection with meteorological fields. Atmospheric Science Letters, 2018, 19, e857.	1.9	5
140	Estimation of fire-induced carbon emissions from Equatorial Asia in 2015 using in situ aircraft and ship observations. Atmospheric Chemistry and Physics, 2021, 21, 9455-9473.	4.9	5
141	Interannual Variation of Upper Tropospheric CO over the Western Pacific Linked with Indonesian Fires. Scientific Online Letters on the Atmosphere, 2019, 15, 205-210.	1.4	5
142	In situ observation of atmospheric oxygen and carbon dioxide in the North Pacific using a cargo ship. Atmospheric Chemistry and Physics, 2018, 18, 9283-9295.	4.9	4
143	Measurements of CO₂ and CH₄ concentrations in air in a polar ice core. Journal of Glaciology, 1993, 39, 209-215.	2.2	3
144	Seasonal characteristics of trace gas transport into the extratropical upper troposphere and lower stratosphere. Atmospheric Chemistry and Physics, 2019, 19, 7073-7103.	4.9	3

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145	Balloon operation for stratospheric air sampling at Antarctica. Advances in Space Research, 2000, 26, 1369-1372.	2.6	2
146	Ecosystemâ€scale carbon isotope ratio of respired CO₂ in coolâ€temperate deciduous forests under Asian monsoon climate. Journal of Geophysical Research, 2008, 113, .	3.3	2
147	Corrigendum to "Atmospheric column-averaged mole fractions of carbon dioxide at 53 aircraft measurement sites" published in Atmos. Chem. Phys. 13, 5265â€"5275, 2013. Atmospheric Chemistry and Physics, 2013, 13, 9213-9216.	4.9	2
148	Comparison of GOSAT SWIR and Aircraft Measurements of XCH₄ over West Siberia. Scientific Online Letters on the Atmosphere, 2015, 11, 160-164.	1.4	2
149	Carbonyl Sulfide Concentration in the Arctic Lowermost Stratosphere and Stratosphere-troposphere Transport. Journal of the Meteorological Society of Japan, 2003, 81, 1471-1484.	1.8	1
150	Airborne flight campaign for GOSAT validation. Proceedings of SPIE, 2011, , .	0.8	0
151	CO2 and CH4 observations by the thermal infrared band of GOSAT/TANSO-FTS and GOSAT-1/TANSO-FTS-2. , 2018, , .		0