FrÃ©dÃ©ric Chevallier

List of Publications by Year
in descending order

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237	35,555	11651 70	3915 177
papers	citations	h-index	g-index

385	385	385	30438
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A recent build-up of atmospheric CO₂ over Europe. Part 1: observed signals and possible explanations. Tellus, Series B: Chemical and Physical Meteorology, 2022, 62, 1.	1.6	40
2	Hyperparameter estimation for uncertainty quantification in mesoscale carbon dioxide inversions. Tellus, Series B: Chemical and Physical Meteorology, 2022, 65, 20894.	1.6	23
3	Near-real-time global gridded daily CO2 emissions. Innovation(China), 2022, 3, 100182.	9.1	24
4	Four years of global carbon cycle observed from the Orbiting Carbon Observatory 2 (OCO-2) versionÂ9 and in situ data and comparison to OCO-2 versionÂ7. Atmospheric Chemistry and Physics, 2022, 22, 1097-1130.	4.9	44
5	Are Landâ€Use Change Emissions in Southeast Asia Decreasing or Increasing?. Global Biogeochemical Cycles, 2022, 36, .	4.9	7
6	Multiâ€Season Evaluation of CO‹sub›2‹/sub› Weather in OCOâ€2 MIP Models. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	3.3	5
7	An 11-year record of XCO₂ estimates derived from GOSAT measurements using the NASA ACOS version 9 retrieval algorithm. Earth System Science Data, 2022, 14, 325-360.	9.9	17
8	A seamless ensemble-based reconstruction of surface ocean <i>p</i>CO₂ and airâ€“sea CO₂ fluxes over the global coastal and open oceans. Biogeosciences, 2022, 19, 1087-1109.	3.3	48
9	Definitions and methods to estimate regional land carbon fluxes for the second phase of the REgional Carbon Cycle Assessment and Processes Project (RECCAP-2). Geoscientific Model Development, 2022, 15, 1289-1316.	3.6	34
10	Plant gross primary production, plant respiration and carbonyl sulfide emissions over the globe inferred by atmospheric inverse modelling. Atmospheric Chemistry and Physics, 2022, 22, 2525-2552.	4.9	17
11	The size of the land carbon sink in China. Nature, 2022, 603, E7-E9.	27.8	67
12	Large CO‹sub›2‹/sub› Emitters as Seen From Satellite: Comparison to a Gridded Global Emission Inventory. Geophysical Research Letters, 2022, 49, .	4.0	23
13	Comparing national greenhouse gas budgets reported in UNFCCC inventories against atmospheric inversions. Earth System Science Data, 2022, 14, 1639-1675.	9.9	58
14	Global nature run data with realistic high-resolution carbon weather for the year of the Paris Agreement. Scientific Data, 2022, 9, 160.	5.3	3
15	Global Carbon Budget 2021. Earth System Science Data, 2022, 14, 1917-2005.	9.9	663
16	Top-down approaches. , 2022, , 87-155.		0
17	Gridded fossil CO2 emissions and related O2 combustion consistent with national inventories 1959â€“2018. Scientific Data, 2021, 8, 2.	5.3	56
18	A local- to national-scale inverse modeling system to assess the potential of spaceborne CO₂ measurements for the monitoring of anthropogenic emissions. Atmospheric Measurement Techniques, 2021, 14, 403-433.	3.1	3

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19	XCO₂ estimates from the OCO-2 measurements using a neural network approach. Atmospheric Measurement Techniques, 2021, 14, 117-132.	3.1	11
20	Decadal variability in land carbon sink efficiency. Carbon Balance and Management, 2021, 16, 15.	3.2	6
21	Unusual characteristics of the carbon cycle during the 2015â˜2016 El NiÃ±o. Global Change Biology, 2021, 27, 3798-3809.	9.5	6
22	Fluxes of Carbon Dioxide From Managed Ecosystems Estimated by National Inventories Compared to Atmospheric Inverse Modeling. Geophysical Research Letters, 2021, 48, e2021GL093565.	4.0	12
23	The Community Inversion Framework v1.0: a unified system for atmospheric inversion studies. Geoscientific Model Development, 2021, 14, 5331-5354.	3.6	15
24	Accelerating methane growth rate from 2010 to 2017: leading contributions from the tropics and East Asia. Atmospheric Chemistry and Physics, 2021, 21, 12631-12647.	4.9	23
25	Increasing forest fire emissions despite the decline in global burned area. Science Advances, 2021, 7, eabh2646.	10.3	71
26	The CO2 Human Emissions (CHE) Project: First Steps Towards a European Operational Capacity to Monitor Anthropogenic CO2 Emissions. Frontiers in Remote Sensing, 2021, 2, .	3.5	13
27	Siberian 2020 heatwave increased spring CO₂ uptake but not annual CO₂ uptake. Environmental Research Letters, 2021, 16, 124030.	5.2	7
28	Strong Southern Ocean carbon uptake evident in airborne observations. Science, 2021, 374, 1275-1280.	12.6	44
29	State of the science in reconciling topâ€down and bottomâ€up approaches for terrestrial CO₂ budget. Global Change Biology, 2020, 26, 1068-1084.	9.5	43
30	Near-real-time monitoring of global CO2 emissions reveals the effects of the COVID-19 pandemic. Nature Communications, 2020, 11, 5172.	12.8	420
31	Copernicus Marine Service Ocean State Report, Issue 4. Journal of Operational Oceanography, 2020, 13, S1-S172.	1.2	47
32	Satellite-based estimates of decline and rebound in Chinaâ€™s CO ₂ emissions during COVID-19 pandemic. Science Advances, 2020, 6, .	10.3	136
33	Carbon Monitor, a near-real-time daily dataset of global CO2 emission from fossil fuel and cement production. Scientific Data, 2020, 7, 392.	5.3	115
34	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
35	Local Anomalies in the Columnâ€Averaged Dry Air Mole Fractions of Carbon Dioxide Across the Globe During the First Months of the Coronavirus Recession. Geophysical Research Letters, 2020, 47, e2020GL090244.	4.0	31
36	Causes of slowingâ€down seasonal CO₂ amplitude at Mauna Loa. Global Change Biology, 2020, 26, 4462-4477.	9.5	14

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37	Biofuel burning and human respiration bias on satellite estimates of fossil fuel CO₂ emissions. Environmental Research Letters, 2020, 15, 074036.	5.2	22
38	Scaling carbon fluxes from eddy covariance sites to globe: synthesis and evaluation of the FLUXCOM approach. Biogeosciences, 2020, 17, 1343-1365.	3.3	323
39	Sources of Uncertainty in Regional and Global Terrestrial CO₂ Exchange Estimates. Global Biogeochemical Cycles, 2020, 34, e2019GB006393.	4.9	59
40	Observing carbon dioxide emissions over China's cities and industrial areas with the Orbiting Carbon Observatory-2. Atmospheric Chemistry and Physics, 2020, 20, 8501-8510.	4.9	64
41	Global Carbon Budget 2020. Earth System Science Data, 2020, 12, 3269-3340.	9.9	1,477
42	A decade of GOSAT Proxy satellite CH₄ observations. Earth System Science Data, 2020, 12, 3383-3412.	9.9	53
43	Net carbon emissions from African biosphere dominate pan-tropical atmospheric CO2 signal. Nature Communications, 2019, 10, 3344.	12.8	81
44	Modelling CO₂ weather â€“ why horizontal resolution matters. Atmospheric Chemistry and Physics, 2019, 19, 7347-7376.	4.9	49
45	Contrasting effects of CO₂ fertilization, land-use change and warming on seasonal amplitude of Northern Hemisphere CO₂ exchange. Atmospheric Chemistry and Physics, 2019, 19, 12361-12375.	4.9	30
46	Improving Estimates of Gross Primary Productivity by Assimilating Solarâ€Induced Fluorescence Satellite Retrievals in a Terrestrial Biosphere Model Using a Processâ€Based SIF Model. Journal of Geophysical Research G: Biogeosciences, 2019, 124, 3281-3306.	3.0	44
47	Remote sensing of the terrestrial carbon cycle: A review of advances over 50 years. Remote Sensing of Environment, 2019, 233, 111383.	11.0	276
48	The 2015â€“2016 carbon cycle as seen from OCO-2 and the global in situ network. Atmospheric Chemistry and Physics, 2019, 19, 9797-9831.	4.9	113
49	Global atmospheric CO₂ inverse models converging on neutral tropical land exchange, but disagreeing on fossil fuel and atmospheric growth rate. Biogeosciences, 2019, 16, 117-134.	3.3	77
50	Quantifying the Impact of Atmospheric Transport Uncertainty on CO₂ Surface Flux Estimates. Global Biogeochemical Cycles, 2019, 33, 484-500.	4.9	95
51	XCO₂ in an emission hot-spot region: the COCCON Paris campaign 2015. Atmospheric Chemistry and Physics, 2019, 19, 3271-3285.	4.9	35
52	Five decades of northern land carbon uptake revealed by the interhemispheric CO2 gradient. Nature, 2019, 568, 221-225.	27.8	124
53	Fundamentals of data assimilation applied to biogeochemistry. Atmospheric Chemistry and Physics, 2019, 19, 13911-13932.	4.9	31
54	Objective evaluation of surface- and satellite-driven carbon dioxide atmospheric inversions. Atmospheric Chemistry and Physics, 2019, 19, 14233-14251.	4.9	59

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55	Global trends in carbon sinks and their relationships with CO2 and temperature. Nature Climate Change, 2019, 9, 73-79.	18.8	163
56	Global atmospheric carbon monoxide budget 2000â€“2017 inferred from multi-species atmospheric inversions. Earth System Science Data, 2019, 11, 1411-1436.	9.9	96
57	Global Carbon Budget 2019. Earth System Science Data, 2019, 11, 1783-1838.	9.9	1,159
58	Changes in the Response of the Northern Hemisphere Carbon Uptake to Temperature Over the Last Three Decades. Geophysical Research Letters, 2018, 45, 4371-4380.	4.0	21
59	Rapid decline in carbon monoxide emissions and export from East Asia between years 2005 and 2016. Environmental Research Letters, 2018, 13, 044007.	5.2	95
60	Potential of European ¹⁴CO₂ observation network to estimate the fossil fuel CO₂ emissions via atmospheric inversions. Atmospheric Chemistry and Physics, 2018, 18, 4229-4250.	4.9	17
61	Diurnal, synoptic and seasonal variability of atmospheric CO₂ in the Paris megacity area. Atmospheric Chemistry and Physics, 2018, 18, 3335-3362.	4.9	40
62	Land use change and El NiÃ±o-Southern Oscillation drive decadal carbon balance shifts in Southeast Asia. Nature Communications, 2018, 9, 1154.	12.8	28
63	On the causes of trends in the seasonal amplitude of atmospheric <scp>CO</scp>₂. Global Change Biology, 2018, 24, 608-616.	9.5	48
64	Age of air as a diagnostic for transport timescales in global models. Geoscientific Model Development, 2018, 11, 3109-3130.	3.6	44
65	Tropical land carbon cycle responses to 2015/16 El NiÃ±o as recorded by atmospheric greenhouse gas and remote sensing data. Philosophical Transactions of the Royal Society B: Biological Sciences, 2018, 373, 20170302.	4.0	37
66	Improved retrievals of carbon dioxide from Orbiting Carbon Observatory-2 with the version 8 ACOS algorithm. Atmospheric Measurement Techniques, 2018, 11, 6539-6576.	3.1	188
67	On the impact of recent developments of the LMDz atmospheric general circulation model on the simulation of CO₂ transport. Geoscientific Model Development, 2018, 11, 4489-4513.	3.6	31
68	Satellite and In Situ Observations for Advancing Global Earth Surface Modelling: A Review. Remote Sensing, 2018, 10, 2038.	4.0	95
69	Comment on â€œContrasting carbon cycle responses of the tropical continents to the 2015â€“2016 El NiÃ±oâ€• Science, 2018, 362, .	12.6	7
70	Impact of the 2015/2016 El NiÃ±o on the terrestrial carbon cycle constrained by bottom-up and top-down approaches. Philosophical Transactions of the Royal Society B: Biological Sciences, 2018, 373, 20170304.	4.0	63
71	On the Role of the Flaming to Smoldering Transition in the Seasonal Cycle of African Fire Emissions. Geophysical Research Letters, 2018, 45, 11,998.	4.0	25
72	Error Budget of the MEthane Remote LIdar missioN and Its Impact on the Uncertainties of the Global Methane Budget. Journal of Geophysical Research D: Atmospheres, 2018, 123, 11,766.	3.3	23

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73	The impact of transport model differences on CO₂ surface flux estimates from OCO-2 retrievals of column average CO₂. Atmospheric Chemistry and Physics, 2018, 18, 7189-7215.	4.9	70
74	The potential of satellite spectro-imagery for monitoring CO₂ emissions from large cities. Atmospheric Measurement Techniques, 2018, 11, 681-708.	3.1	45
75	Global Carbon Budget 2018. Earth System Science Data, 2018, 10, 2141-2194.	9.9	1,167
76	Global Carbon Budget 2017. Earth System Science Data, 2018, 10, 405-448.	9.9	801
77	Global satellite observations of column-averaged carbon dioxide and methane: The GHG-CCI XCO2 and XCH4 CRDP3 data set. Remote Sensing of Environment, 2017, 203, 276-295.	11.0	52
78	Weakening temperature control on the interannual variations of spring carbon uptake across northern lands. Nature Climate Change, 2017, 7, 359-363.	18.8	183
79	Benchmarking carbon fluxes of the ISIMIP2a biome models. Environmental Research Letters, 2017, 12, 045002.	5.2	30
80	Atmospheric deposition, CO2, and change in the land carbon sink. Scientific Reports, 2017, 7, 9632.	3.3	62
81	Estimation of observation errors for large-scale atmospheric inversion of CO2 emissions from fossil fuel combustion. Tellus, Series B: Chemical and Physical Meteorology, 2017, 69, 1325723.	1.6	16
82	Probabilistic global maps of the CO 2 column at daily and monthly scales from sparse satellite measurements. Journal of Geophysical Research D: Atmospheres, 2017, 122, 7614-7629.	3.3	12
83	How Much CO2 Is Taken Up by the European Terrestrial Biosphere?. Bulletin of the American Meteorological Society, 2017, 98, 665-671.	3.3	33
84	Vegetation greenness and land carbon-flux anomalies associated with climate variations: a focus on the year 2015. Atmospheric Chemistry and Physics, 2017, 17, 13903-13919.	4.9	21
85	Global inverse modeling of CH₄ sources and sinks: an overview of methods. Atmospheric Chemistry and Physics, 2017, 17, 235-256.	4.9	75
86	Impact of the choice of the satellite aerosol optical depth product in a sub-regional dust emission inversion. Atmospheric Chemistry and Physics, 2017, 17, 7111-7126.	4.9	26
87	Diagnostic methods for atmospheric inversions of long-lived greenhouse gases. Atmospheric Chemistry and Physics, 2017, 17, 7405-7421.	4.9	13
88	MERLIN: A French-German Space Lidar Mission Dedicated to Atmospheric Methane. Remote Sensing, 2017, 9, 1052.	4.0	88
89	A new stepwise carbon cycle data assimilation system using multiple data streams to constrain the simulated land surface carbon cycle. Geoscientific Model Development, 2016, 9, 3321-3346.	3.6	67
90	Consistent evaluation of ACOS-GOSAT, BESD-SCIAMACHY, CarbonTracker, and MACC through comparisons to TCCON. Atmospheric Measurement Techniques, 2016, 9, 683-709.	3.1	80

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91	Consistent assimilation of multiple data streams in a carbon cycle data assimilation system. Geoscientific Model Development, 2016, 9, 3569-3588.	3.6	54
92	Estimation of global black carbon direct radiative forcing and its uncertainty constrained by observations. Journal of Geophysical Research D: Atmospheres, 2016, 121, 5948-5971.	3.3	66
93	MERLIN (Methane Remote Sensing Lidar Mission): an Overview. EPJ Web of Conferences, 2016, 119, 26001.	0.3	16
94	Drought rapidly diminishes the large net CO2 uptake in 2011 over semi-arid Australia. Scientific Reports, 2016, 6, 37747.	3.3	83
95	Variability of fire carbon emissions in equatorial Asia and its nonlinear sensitivity to El NiÃ±o. Geophysical Research Letters, 2016, 43, 10,472.	4.0	60
96	Subregional inversion of North African dust sources. Journal of Geophysical Research D: Atmospheres, 2016, 121, 8549-8566.	3.3	20
97	European land CO2 sink influenced by NAO and East-Atlantic Pattern coupling. Nature Communications, 2016, 7, 10315.	12.8	74
98	Exploiting stagnant conditions to derive robust emission ratio estimates for CO₂, CO and volatile organic compounds in Paris. Atmospheric Chemistry and Physics, 2016, 16, 15653-15664.	4.9	18
99	What would dense atmospheric observation networks bring to the quantification of city CO₂ emissions?. Atmospheric Chemistry and Physics, 2016, 16, 7743-7771.	4.9	45
100	Using airborne HIAPER Pole-to-Pole Observations (HIPPO) to evaluate model and remote sensing estimates of atmospheric carbon dioxide. Atmospheric Chemistry and Physics, 2016, 16, 7867-7878.	4.9	26
101	Can we detect regional methane anomalies? A comparison between three observing systems. Atmospheric Chemistry and Physics, 2016, 16, 9089-9108.	4.9	7
102	A biogenic CO₂ flux adjustment scheme for the mitigation of large-scale biases in global atmospheric CO₂ analyses and forecasts. Atmospheric Chemistry and Physics, 2016, 16, 10399-10418.	4.9	27
103	The first 1-year-long estimate of the Paris region fossil fuel CO₂ emissions based on atmospheric inversion. Atmospheric Chemistry and Physics, 2016, 16, 14703-14726.	4.9	87
104	Ability of the 4-D-Var analysis of the GOSAT BESD XCO₂ retrievals to characterize atmospheric CO₂ at large and synoptic scales. Atmospheric Chemistry and Physics, 2016, 16, 1653-1671.	4.9	38
105	Atmospheric constraints on the methane emissions from the East Siberian Shelf. Atmospheric Chemistry and Physics, 2016, 16, 4147-4157.	4.9	69
106	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
107	Analysis of the potential of near-ground measurements of CO₂ and CH₄ in London, UK, for the monitoring of city-scale emissions using an atmospheric transport model. Atmospheric Chemistry and Physics, 2016, 16, 6735-6756.	4.9	30
108	Topâ€“down assessment of the Asian carbon budget since the mid 1990s. Nature Communications, 2016, 7, 10724.	12.8	93

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109	Global Carbon Budget 2016. Earth System Science Data, 2016, 8, 605-649.	9.9	905
110	An intercomparison of inverse models for estimating sources and sinks of CO₂ using GOSAT measurements. Journal of Geophysical Research D: Atmospheres, 2015, 120, 5253-5266.	3.3	105
111	An attempt at estimating Paris area CO₂ emissions from atmospheric concentration measurements. Atmospheric Chemistry and Physics, 2015, 15, 1707-1724.	4.9	169
112	Joint assimilation of eddy covariance flux measurements and FAPAR products over temperate forests within a processâ€oriented biosphere model. Journal of Geophysical Research G: Biogeosciences, 2015, 120, 1839-1857.	3.0	34
113	Sensitivity of the recent methane budget to LMDz sub-grid-scale physical parameterizations. Atmospheric Chemistry and Physics, 2015, 15, 9765-9780.	4.9	45
114	On the statistical optimality of CO₂ atmospheric inversions assimilating CO₂ column retrievals. Atmospheric Chemistry and Physics, 2015, 15, 11133-11145.	4.9	48
115	Does GOSAT capture the true seasonal cycle of carbon dioxide?. Atmospheric Chemistry and Physics, 2015, 15, 13023-13040.	4.9	63
116	Decadal trends in global CO emissions as seen by MOPITT. Atmospheric Chemistry and Physics, 2015, 15, 13433-13451.	4.9	69
117	On the potential of the ICOS atmospheric CO₂ measurement network for estimating the biogenic CO₂ budget of Europe. Atmospheric Chemistry and Physics, 2015, 15, 12765-12787.	4.9	14
118	On the ability of a global atmospheric inversion to constrain variations of CO₂ fluxes over Amazonia. Atmospheric Chemistry and Physics, 2015, 15, 8423-8438.	4.9	8
119	Increase in HFCâ€134a emissions in response to the success of the Montreal Protocol. Journal of Geophysical Research D: Atmospheres, 2015, 120, 11,728.	3.3	15
120	Natural and anthropogenic methane fluxes in Eurasia: a mesoscale quantification by generalized atmospheric inversion. Biogeosciences, 2015, 12, 5393-5414.	3.3	31
121	Recent trends and drivers of regional sources and sinks of carbon dioxide. Biogeosciences, 2015, 12, 653-679.	3.3	587
122	Assessing 5 years of GOSAT Proxy XCH₄ data and associated uncertainties. Atmospheric Measurement Techniques, 2015, 8, 4785-4801.	3.1	64
123	Objectified quantification of uncertainties in Bayesian atmospheric inversions. Geoscientific Model Development, 2015, 8, 1525-1546.	3.6	21
124	Benchmarking the seasonal cycle of CO₂ fluxes simulated by terrestrial ecosystem models. Global Biogeochemical Cycles, 2015, 29, 46-64.	4.9	48
125	State of the Climate in 2014. Bulletin of the American Meteorological Society, 2015, 96, ES1-ES32.	3.3	78
126	The Greenhouse Gas Climate Change Initiative (GHG-CCI): Comparison and quality assessment of near-surface-sensitive satellite-derived CO2 and CH4 global data sets. Remote Sensing of Environment, 2015, 162, 344-362.	11.0	112

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127	Global Carbon Budget 2015. Earth System Science Data, 2015, 7, 349-396.	9.9	616
128	Global carbon budget 2014. Earth System Science Data, 2015, 7, 47-85.	9.9	463
129	Current systematic carbon-cycle observations and the need for implementing a policy-relevant carbon observing system. Biogeosciences, 2014, 11, 3547-3602.	3.3	189
130	A full greenhouse gases budget of Africa: synthesis, uncertainties, and vulnerabilities. Biogeosciences, 2014, 11, 381-407.	3.3	162
131	Modelâ€“data fusion across ecosystems: from multisite optimizations to global simulations. Geoscientific Model Development, 2014, 7, 2581-2597.	3.6	43
132	Evaluating the potential of large-scale simulations to predict carbon fluxes of terrestrial ecosystems over a European Eddy Covariance network. Biogeosciences, 2014, 11, 2661-2678.	3.3	30
133	Toward robust and consistent regional CO₂ flux estimates from in situ and spaceborne measurements of atmospheric CO₂. Geophysical Research Letters, 2014, 41, 1065-1070.	4.0	126
134	Development of a variational flux inversion system (INVICAT v1.0) using the TOMCAT chemical transport model. Geoscientific Model Development, 2014, 7, 2485-2500.	3.6	32
135	Contribution of semi-arid ecosystems to interannual variability of the global carbon cycle. Nature, 2014, 509, 600-603.	27.8	1,054
136	Atmospheric measurements of ratios between CO₂ and co-emitted species from traffic: a tunnel study in the Paris megacity. Atmospheric Chemistry and Physics, 2014, 14, 12871-12882.	4.9	47
137	Nitrous oxide emissions 1999 to 2009 from a global atmospheric inversion. Atmospheric Chemistry and Physics, 2014, 14, 1801-1817.	4.9	59
138	On the consistency between global and regional methane emissions inferred from SCIAMACHY, TANSO-FTS, IASI and surface measurements. Atmospheric Chemistry and Physics, 2014, 14, 577-592.	4.9	91
139	Assimilation of atmospheric methane products into the MACC-II system: from SCIAMACHY to TANSO and IASI. Atmospheric Chemistry and Physics, 2014, 14, 6139-6158.	4.9	52
140	TransCom N₂O model inter-comparison â€“ Part 2: Atmospheric inversion estimates of N₂O emissions. Atmospheric Chemistry and Physics, 2014, 14, 6177-6194.	4.9	49
141	Forecasting global atmospheric CO₂. Atmospheric Chemistry and Physics, 2014, 14, 11959-11983.	4.9	74
142	Asymmetric effects of daytime and night-time warming on Northern Hemisphere vegetation. Nature, 2013, 501, 88-92.	27.8	482
143	Three decades of global methane sources and sinks. Nature Geoscience, 2013, 6, 813-823.	12.9	1,649
144	Error statistics of Bayesian CO₂ flux inversion schemes as seen from GOSAT. Geophysical Research Letters, 2013, 40, 1252-1256.	4.0	19

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145	On the variation of regional CO₂ exchange over temperate and boreal North America. Global Biogeochemical Cycles, 2013, 27, 991-1000.	4.9	10
146	Quantifying the model structural error in carbon cycle data assimilation systems. Geoscientific Model Development, 2013, 6, 45-55.	3.6	38
147	Towards better error statistics for atmospheric inversions of methane surface fluxes. Atmospheric Chemistry and Physics, 2013, 13, 7115-7132.	4.9	37
148	Impact of transport model errors on the global and regional methane emissions estimated by inverse modelling. Atmospheric Chemistry and Physics, 2013, 13, 9917-9937.	4.9	68
149	Quantifying the constraint of biospheric process parameters by CO₂ concentration and flux measurement networks through a carbon cycle data assimilation system. Atmospheric Chemistry and Physics, 2013, 13, 10555-10572.	4.9	16
150	Atmospheric inversion of SO₂ and primary aerosol emissions for the year 2010. Atmospheric Chemistry and Physics, 2013, 13, 6555-6573.	4.9	29
151	Regional inversion of CO₂ ecosystem fluxes from atmospheric measurements: reliability of the uncertainty estimates. Atmospheric Chemistry and Physics, 2013, 13, 9039-9056.	4.9	60
152	Interannual variability in tropospheric nitrous oxide. Geophysical Research Letters, 2013, 40, 4426-4431.	4.0	15
153	HCFCâ€22 emissions at global and regional scales between 1995 andâ€‰2010: Trends and variability. Journal of Geophysical Research D: Atmospheres, 2013, 118, 7379-7388.	3.3	15
154	On the parallelization of atmospheric inversions of CO₂ surface fluxes within a variational framework. Geoscientific Model Development, 2013, 6, 783-790.	3.6	26
155	Global atmospheric carbon budget: results from an ensemble of atmospheric CO₂ inversions. Biogeosciences, 2013, 10, 6699-6720.	3.3	356
156	An assessment of the Atlantic and Arctic seaâ€“air CO₂ fluxes, 1990â€“2009. Biogeosciences, 2013, 10, 607-627.	3.3	131
157	Estimating aerosol emissions by assimilating observed aerosol optical depth in a global aerosol model. Atmospheric Chemistry and Physics, 2012, 12, 4585-4606.	4.9	92
158	The formaldehyde budget as seen by a global-scale multi-constraint and multi-species inversion system. Atmospheric Chemistry and Physics, 2012, 12, 6699-6721.	4.9	93
159	Corrigendum to "Source attribution of the changes in atmospheric methane for 2006â€“2008" published in Atmos. Chem. Phys., 11, 3689â€“3700, 2011. Atmospheric Chemistry and Physics, 2012, 12, 9381-9382.	4.9	0
160	Iconic CO ₂ Time Series at Risk. Science, 2012, 337, 1038-1040.	12.6	15
161	What eddyâ€covariance measurements tell us about prior land flux errors in CO₂â€flux inversion schemes. Global Biogeochemical Cycles, 2012, 26, .	4.9	47
162	State-dependent errors in a land surface model across biomes inferred from eddy covariance observations on multiple timescales. Ecological Modelling, 2012, 246, 11-25.	2.5	18

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163	The European land and inland water CO₂, CO, CH₄ and N₂O balance between 2001 and 2005. Biogeosciences, 2012, 9, 3357-3380.	3.3	53
164	The carbon budget of terrestrial ecosystems in East Asia over the last two decades. Biogeosciences, 2012, 9, 3571-3586.	3.3	103
165	Constraining a global ecosystem model with multi-site eddy-covariance data. Biogeosciences, 2012, 9, 3757-3776.	3.3	94
166	Ten years of CO emissions as seen from Measurements of Pollution in the Troposphere (MOPITT). Journal of Geophysical Research, 2011, 116, .	3.3	87
167	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
168	Impact of the atmospheric sink and vertical mixing on nitrous oxide fluxes estimated using inversion methods. Journal of Geophysical Research, 2011, 116, .	3.3	12
169	TransCom satellite intercomparison experiment: Construction of a bias corrected atmospheric CO₂climatology. Journal of Geophysical Research, 2011, 116, .	3.3	19
170	A new estimation of the recent tropospheric molecular hydrogen budget using atmospheric observations and variational inversion. Atmospheric Chemistry and Physics, 2011, 11, 3375-3392.	4.9	29
171	Source attribution of the changes in atmospheric methane for 2006â€“2008. Atmospheric Chemistry and Physics, 2011, 11, 3689-3700.	4.9	252
172	Optimal representation of source-sink fluxes for mesoscale carbon dioxide inversion with synthetic data. Journal of Geophysical Research, 2011, 116, .	3.3	56
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