

Josep Canadell

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

209
papers

41,049
citations

85
h-index

202
g-index

243
ext. papers

50,306
ext. citations

11.8
avg, IF

7.07
L-index

#	Paper	IF	Citations
209	Anthropogenic emission is the main contributor to the rise of atmospheric methane during 1993-2017.. <i>National Science Review</i> , 2022 , 9, nwab200	10.8	4
208	Regional trends and drivers of the global methane budget. <i>Global Change Biology</i> , 2022 , 28, 182-200	11.4	14
207	Definitions and methods to estimate regional land carbon fluxes for the second phase of the REgional Carbon Cycle Assessment and Processes Project (RECCAP-2). <i>Geoscientific Model Development</i> , 2022 , 15, 1289-1316	6.3	6
206	Global fossil carbon emissions rebound near pre-COVID-19 levels. <i>Environmental Research Letters</i> , 2022 , 17, 031001	6.2	3
205	The size of the land carbon sink in China.. <i>Nature</i> , 2022 , 603, E7-E9	50.4	5
204	Global Carbon Budget 2021. <i>Earth System Science Data</i> , 2022 , 14, 1917-2005	10.5	47
203	Bottom-up approaches for estimating terrestrial GHG budgets: Bookkeeping, process-based modeling, and data-driven methods 2022 , 59-85		
202	Balancing greenhouse gas sources and sinks: Inventories, budgets, and climate policy 2022 , 3-28		
201	Large loss and rapid recovery of vegetation cover and aboveground biomass over forest areas in Australia during 2019-2020. <i>Remote Sensing of Environment</i> , 2022 , 278, 113087	13.2	1
200	Multi-decadal increase of forest burned area in Australia is linked to climate change. <i>Nature Communications</i> , 2021 , 12, 6921	17.4	26
199	A comprehensive and synthetic dataset for global, regional, and national greenhouse gas emissions by sector 1970-2018 with an extension to 2019. <i>Earth System Science Data</i> , 2021 , 13, 5213-5252	10.5	10
198	Magnitude and Uncertainty of Nitrous Oxide Emissions From North America Based on Bottom-Up and Top-Down Approaches: Informing Future Research and National Inventories. <i>Geophysical Research Letters</i> , 2021 , 48, e2021GL095264	4.9	1
197	Increased extreme fire weather occurrence in southeast Australia and related atmospheric drivers. <i>Weather and Climate Extremes</i> , 2021 , 34, 100397	6	0
196	Fossil CO2 emissions in the post-COVID-19 era. <i>Nature Climate Change</i> , 2021 , 11, 197-199	21.4	62
195	Integrating the evidence for a terrestrial carbon sink caused by increasing atmospheric CO. <i>New Phytologist</i> , 2021 , 229, 2413-2445	9.8	94
194	Empirical estimates of regional carbon budgets imply reduced global soil heterotrophic respiration. <i>National Science Review</i> , 2021 , 8, nwaa145	10.8	30
193	Emissions from the Oil and Gas Sectors, Coal Mining and Ruminant Farming Drive Methane Growth over the Past Three Decades. <i>Journal of the Meteorological Society of Japan</i> , 2021 , 99, 309-337	2.8	18

192	Ecosystem Collapse and Climate Change: An Introduction. <i>Ecological Studies</i> , 2021 , 1-9	1.1	3
191	Combating ecosystem collapse from the tropics to the Antarctic. <i>Global Change Biology</i> , 2021 , 27, 1692-1703	11.4	43
190	Atmospheric methane removal: a research agenda. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2021 , 379, 20200454	3	10
189	Moving toward Net-Zero Emissions Requires New Alliances for Carbon Dioxide Removal. <i>One Earth</i> , 2020 , 3, 145-149	8.1	24
188	Temporary reduction in daily global CO2 emissions during the COVID-19 forced confinement. <i>Nature Climate Change</i> , 2020 , 10, 647-653	21.4	842
187	Influences of hydroxyl radicals (OH) on top-down estimates of the global and regional methane budgets 2020 ,		1
186	Climate drives global soil carbon sequestration and crop yield changes under conservation agriculture. <i>Global Change Biology</i> , 2020 , 26, 3325-3335	11.4	54
185	Principles for knowledge co-production in sustainability research. <i>Nature Sustainability</i> , 2020 , 3, 182-190	22.1	317
184	Reply to: Practical constraints on atmospheric methane removal. <i>Nature Sustainability</i> , 2020 , 3, 358-359	22.1	3
183	Higher than expected CO fertilization inferred from leaf to global observations. <i>Global Change Biology</i> , 2020 , 26, 2390	11.4	43
182	On the role of trend and variability in the hydroxyl radical (OH) in the global methane budget. <i>Atmospheric Chemistry and Physics</i> , 2020 , 20, 13011-13022	6.8	5
181	Influences of hydroxyl radicals (OH) on top-down estimates of the global and regional methane budgets. <i>Atmospheric Chemistry and Physics</i> , 2020 , 20, 9525-9546	6.8	12
180	The Global Methane Budget 2000-2017. <i>Earth System Science Data</i> , 2020 , 12, 1561-1623	10.5	463
179	Global Carbon Budget 2020. <i>Earth System Science Data</i> , 2020 , 12, 3269-3340	10.5	533
178	The shared socio-economic pathway (SSP) greenhouse gas concentrations and their extensions to 2500. <i>Geoscientific Model Development</i> , 2020 , 13, 3571-3605	6.3	130
177	Sources of Uncertainty in Regional and Global Terrestrial CO2 Exchange Estimates. <i>Global Biogeochemical Cycles</i> , 2020 , 34, e2019GB006393	5.9	23
176	Interannual variation of terrestrial carbon cycle: Issues and perspectives. <i>Global Change Biology</i> , 2020 , 26, 300-318	11.4	83
175	Increased global nitrous oxide emissions from streams and rivers in the Anthropocene. <i>Nature Climate Change</i> , 2020 , 10, 138-142	21.4	35

174	State of the science in reconciling top-down and bottom-up approaches for terrestrial CO budget. <i>Global Change Biology</i> , 2020 , 26, 1068-1084	11.4	19
173	A comprehensive quantification of global nitrous oxide sources and sinks. <i>Nature</i> , 2020 , 586, 248-256	50.4	270
172	Increasing anthropogenic methane emissions arise equally from agricultural and fossil fuel sources. <i>Environmental Research Letters</i> , 2020 , 15, 071002	6.2	99
171	Opportunities and challenges in using remaining carbon budgets to guide climate policy. <i>Nature Geoscience</i> , 2020 , 13, 769-779	18.3	18
170	Data-driven estimates of global nitrous oxide emissions from croplands. <i>National Science Review</i> , 2020 , 7, 441-452	10.8	42
169	The SSP greenhouse gas concentrations and their extensions to 2500 2019 ,		6
168	Global Nitrous Oxide Emissions From Pasturelands and Rangelands: Magnitude, Spatiotemporal Patterns, and Attribution. <i>Global Biogeochemical Cycles</i> , 2019 , 33, 200-222	5.9	26
167	Inter-model comparison of global hydroxyl radical (OH) distributions and their impact on atmospheric methane over the 2000-2016 period 2019 ,		2
166	Five decades of northern land carbon uptake revealed by the interhemispheric CO gradient. <i>Nature</i> , 2019 , 568, 221-225	50.4	77
165	FLUXNET-CH4 Synthesis Activity: Objectives, Observations, and Future Directions. <i>Bulletin of the American Meteorological Society</i> , 2019 , 100, 2607-2632	6.1	77
164	Largely underestimated carbon emission from land use and land cover change in the conterminous United States. <i>Global Change Biology</i> , 2019 , 25, 3741-3752	11.4	24
163	Comment on "The global tree restoration potential". <i>Science</i> , 2019 , 366,	33.3	109
162	Comment on "The global tree restoration potential". <i>Science</i> , 2019 , 366,	33.3	40
161	Drivers of declining CO2 emissions in 18 developed economies. <i>Nature Climate Change</i> , 2019 , 9, 213-217	21.4	164
160	A global dataset of CO emissions and ancillary data related to emissions for 343 cities. <i>Scientific Data</i> , 2019 , 6, 180280	8.2	40
159	Global Carbon Budget 2019. <i>Earth System Science Data</i> , 2019 , 11, 1783-1838	10.5	776
158	Inter-model comparison of global hydroxyl radical (OH) distributions and their impact on atmospheric methane over the 2000-2016 period. <i>Atmospheric Chemistry and Physics</i> , 2019 , 19, 13701-13723	6.8	30
157	Acceleration of global N2O emissions seen from two decades of atmospheric inversion. <i>Nature Climate Change</i> , 2019 , 9, 993-998	21.4	106

156	Persistent fossil fuel growth threatens the Paris Agreement and planetary health. <i>Environmental Research Letters</i> , 2019 , 14, 121001	6.2	76
155	Global trends in carbon sinks and their relationships with CO ₂ and temperature. <i>Nature Climate Change</i> , 2019 , 9, 73-79	21.4	77
154	Global soil nitrous oxide emissions since the preindustrial era estimated by an ensemble of terrestrial biosphere models: Magnitude, attribution, and uncertainty. <i>Global Change Biology</i> , 2019 , 25, 640-659	11.4	111
153	The Global N ₂ O Model Intercomparison Project. <i>Bulletin of the American Meteorological Society</i> , 2018 , 99, 1231-1251	6.1	71
152	Recent Changes in Global Photosynthesis and Terrestrial Ecosystem Respiration Constrained From Multiple Observations. <i>Geophysical Research Letters</i> , 2018 , 45, 1058-1068	4.9	12
151	Land use change and El Niño-Southern Oscillation drive decadal carbon balance shifts in Southeast Asia. <i>Nature Communications</i> , 2018 , 9, 1154	17.4	12
150	Lower land-use emissions responsible for increased net land carbon sink during the slow warming period. <i>Nature Geoscience</i> , 2018 , 11, 739-743	18.3	62
149	Global Carbon Budget 2018. <i>Earth System Science Data</i> , 2018 , 10, 2141-2194	10.5	831
148	Global Carbon Budget 2017. <i>Earth System Science Data</i> , 2018 , 10, 405-448	10.5	614
147	Global energy growth is outpacing decarbonization. <i>Environmental Research Letters</i> , 2018 , 13, 120401	6.2	119
146	Impact of the 2015/2016 El Niño on the terrestrial carbon cycle constrained by bottom-up and top-down approaches. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2018 , 373,	5.8	41
145	A new version of the CABLE land surface model (Subversion revision r4601) incorporating land use and land cover change, woody vegetation demography, and a novel optimisation-based approach to plant coordination of photosynthesis. <i>Geoscientific Model Development</i> , 2018 , 11, 2995-3026	6.3	69
144	Key indicators to track current progress and future ambition of the Paris Agreement. <i>Nature Climate Change</i> , 2017 , 7, 118-122	21.4	210
143	Global wetland contribution to 2000–2012 atmospheric methane growth rate dynamics. <i>Environmental Research Letters</i> , 2017 , 12, 094013	6.2	97
142	Shifting from a fertilization-dominated to a warming-dominated period. <i>Nature Ecology and Evolution</i> , 2017 , 1, 1438-1445	12.3	99
141	Hydrologic resilience and Amazon productivity. <i>Nature Communications</i> , 2017 , 8, 387	17.4	28
140	Atmospheric deposition, CO, and change in the land carbon sink. <i>Scientific Reports</i> , 2017 , 7, 9632	4.9	41
139	Recent increases in terrestrial carbon uptake at little cost to the water cycle. <i>Nature Communications</i> , 2017 , 8, 110	17.4	103

138	Warning signs for stabilizing global CO ₂ emissions. <i>Environmental Research Letters</i> , 2017 , 12, 110202	6.2	111
137	Carbon cycle responses of semi-arid ecosystems to positive asymmetry in rainfall. <i>Global Change Biology</i> , 2017 , 23, 793-800	11.4	49
136	Quantifying the impacts of vegetation changes on catchment storage-discharge dynamics using paired-catchment data. <i>Water Resources Research</i> , 2017 , 53, 5963-5979	5.4	24
135	Focus on negative emissions. <i>Environmental Research Letters</i> , 2017 , 12, 110201	6.2	10
134	Variability and quasi-decadal changes in the methane budget over the period 2000-2012. <i>Atmospheric Chemistry and Physics</i> , 2017 , 17, 11135-11161	6.8	69
133	Variability and quasi-decadal changes in the methane budget over the period 2000-2012 2017 ,		2
132	Historical greenhouse gas concentrations for climate modelling (CMIP6). <i>Geoscientific Model Development</i> , 2017 , 10, 2057-2116	6.3	210
131	Estimating cropland carbon mitigation potentials in China affected by three improved cropland practices. <i>Journal of Mountain Science</i> , 2016 , 13, 1840-1854	2.1	1
130	Regional carbon fluxes from land use and land cover change in Asia, 1980-2009. <i>Environmental Research Letters</i> , 2016 , 11, 074011	6.2	21
129	Recent pause in the growth rate of atmospheric CO ₂ due to enhanced terrestrial carbon uptake. <i>Nature Communications</i> , 2016 , 7, 13428	17.4	195
128	Reducing uncertainties in decadal variability of the global carbon budget with multiple datasets. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 13104-13108	11.5	28
127	Top-down assessment of the Asian carbon budget since the mid 1990s. <i>Nature Communications</i> , 2016 , 7, 10724	17.4	64
126	Biophysical and economic limits to negative CO ₂ emissions. <i>Nature Climate Change</i> , 2016 , 6, 42-50	21.4	684
125	The terrestrial biosphere as a net source of greenhouse gases to the atmosphere. <i>Nature</i> , 2016 , 531, 225-8	50.4	278
124	Global Carbon Budget 2016. <i>Earth System Science Data</i> , 2016 , 8, 605-649	10.5	730
123	The global methane budget 2000-2012. <i>Earth System Science Data</i> , 2016 , 8, 697-751	10.5	641
122	Interannual variability in Australia's terrestrial carbon cycle constrained by multiple observation types. <i>Biogeosciences</i> , 2016 , 13, 6363-6383	4.6	16
121	Anthropogenic-driven rapid shifts in tree distribution lead to increased dominance of broadleaf species. <i>Global Change Biology</i> , 2016 , 22, 3984-3995	11.4	35

120	Research priorities for negative emissions. <i>Environmental Research Letters</i> , 2016 , 11, 115007	6.2	95
119	The terrestrial carbon budget of South and Southeast Asia. <i>Environmental Research Letters</i> , 2016 , 11, 105006	6.2	26
118	Simulating the Earth system response to negative emissions. <i>Environmental Research Letters</i> , 2016 , 11, 095012	6.2	69
117	The growing role of methane in anthropogenic climate change. <i>Environmental Research Letters</i> , 2016 , 11, 120207	6.2	190
116	Greening of the Earth and its drivers. <i>Nature Climate Change</i> , 2016 , 6, 791-795	21.4	1036
115	Effects of climate extremes on the terrestrial carbon cycle: concepts, processes and potential future impacts. <i>Global Change Biology</i> , 2015 , 21, 2861-80	11.4	454
114	Recent reversal in loss of global terrestrial biomass. <i>Nature Climate Change</i> , 2015 , 5, 470-474	21.4	322
113	Fire in Australian savannas: from leaf to landscape. <i>Global Change Biology</i> , 2015 , 21, 62-81	11.4	74
112	Bioenergy: Potentials and limitations. <i>EPJ Web of Conferences</i> , 2015 , 98, 04003	0.3	1
111	Recent trends and drivers of regional sources and sinks of carbon dioxide. <i>Biogeosciences</i> , 2015 , 12, 653-679	4.6	432
110	Carbon cycle. The dominant role of semi-arid ecosystems in the trend and variability of the land CO ₂ sink. <i>Science</i> , 2015 , 348, 895-9	33.3	684
109	Global Carbon Budget 2015. <i>Earth System Science Data</i> , 2015 , 7, 349-396	10.5	513
108	Global carbon budget 2014. <i>Earth System Science Data</i> , 2015 , 7, 47-85	10.5	367
107	Contribution of semi-arid ecosystems to interannual variability of the global carbon cycle. <i>Nature</i> , 2014 , 509, 600-3	50.4	778
106	Evaluation of six satellite-derived Fraction of Absorbed Photosynthetic Active Radiation (FAPAR) products across the Australian continent. <i>Remote Sensing of Environment</i> , 2014 , 140, 241-256	13.2	51
105	Environmental reporting and accounting in Australia: progress, prospects and research priorities. <i>Science of the Total Environment</i> , 2014 , 473-474, 338-49	10.2	24
104	Global potential of biospheric carbon management for climate mitigation. <i>Nature Communications</i> , 2014 , 5, 5282	17.4	119
103	Evidence for a weakening relationship between interannual temperature variability and northern vegetation activity. <i>Nature Communications</i> , 2014 , 5, 5018	17.4	274

102	Persistent growth of CO ₂ emissions and implications for reaching climate targets. <i>Nature Geoscience</i> , 2014 , 7, 709-715	18.3	487
101	Sharing a quota on cumulative carbon emissions. <i>Nature Climate Change</i> , 2014 , 4, 873-879	21.4	231
100	Residential energy consumption and associated carbon emission in forest rural area in China: A case study in Weichang County. <i>Journal of Mountain Science</i> , 2014 , 11, 792-804	2.1	7
99	The declining uptake rate of atmospheric CO ₂ by land and ocean sinks. <i>Biogeosciences</i> , 2014 , 11, 3453-3475	4.6	53
98	Current systematic carbon-cycle observations and the need for implementing a policy-relevant carbon observing system. <i>Biogeosciences</i> , 2014 , 11, 3547-3602	4.6	136
97	Global carbon budget 2013. <i>Earth System Science Data</i> , 2014 , 6, 235-263	10.5	264
96	Anthropogenic CO ₂ emissions. <i>Nature Climate Change</i> , 2013 , 3, 603-604	21.4	16
95	Expert assessment of vulnerability of permafrost carbon to climate change. <i>Climatic Change</i> , 2013 , 119, 359-374	4.5	212
94	A stand-alone tree demography and landscape structure module for Earth system models. <i>Geophysical Research Letters</i> , 2013 , 40, 5234-5239	4.9	22
93	Attributing the increase in atmospheric CO ₂ to emitters and absorbers. <i>Nature Climate Change</i> , 2013 , 3, 926-930	21.4	53
92	Three decades of global methane sources and sinks. <i>Nature Geoscience</i> , 2013 , 6, 813-823	18.3	1293
91	Evaluation of terrestrial carbon cycle models for their response to climate variability and to CO ₂ trends. <i>Global Change Biology</i> , 2013 , 19, 2117-32	11.4	481
90	The global carbon budget 1959-2011. <i>Earth System Science Data</i> , 2013 , 5, 165-185	10.5	436
89	Global carbon budget 2013 2013 ,		75
88	Variations in atmospheric CO ₂ growth rates coupled with tropical temperature. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 13061-6	11.5	119
87	The carbon budget of South Asia. <i>Biogeosciences</i> , 2013 , 10, 513-527	4.6	71
86	The Australian terrestrial carbon budget. <i>Biogeosciences</i> , 2013 , 10, 851-869	4.6	86
85	Multiple observation types reduce uncertainty in Australia's terrestrial carbon and water cycles. <i>Biogeosciences</i> , 2013 , 10, 2011-2040	4.6	85

84	The Northern Circumpolar Soil Carbon Database: spatially distributed datasets of soil coverage and soil carbon storage in the northern permafrost regions. <i>Earth System Science Data</i> , 2013 , 5, 3-13	10.5	196
83	Spatial Patterns and Predictors of Forest Carbon Stocks in Western Mediterranean. <i>Ecosystems</i> , 2012 , 15, 1258-1270	3.9	26
82	Iconic CO2 time series at risk. <i>Science</i> , 2012 , 337, 1038-40	33.3	13
81	The rapidly changing greenhouse gas budget of Asia. <i>Eos</i> , 2012 , 93, 237-237	1.5	7
80	Responding to complex societal challenges: A decade of Earth System Science Partnership (ESSP) interdisciplinary research. <i>Current Opinion in Environmental Sustainability</i> , 2012 , 4, 147-158	7.2	31
79	Rapid growth in CO2 emissions after the 2008-2009 global financial crisis. <i>Nature Climate Change</i> , 2012 , 2, 2-4	21.4	582
78	The Northern Circumpolar Soil Carbon Database: spatially distributed datasets of soil coverage and soil carbon storage in the northern permafrost regions 2012 ,		5
77	The global carbon budget 1959-2011 2012 ,		122
76	An International Effort to Quantify Regional Carbon Fluxes. <i>Eos</i> , 2011 , 92, 81-82	1.5	85
75	Biophysical considerations in forestry for climate protection. <i>Frontiers in Ecology and the Environment</i> , 2011 , 9, 174-182	5.5	209
74	Increased water-use efficiency during the 20th century did not translate into enhanced tree growth. <i>Global Ecology and Biogeography</i> , 2011 , 20, 597-608	6.1	362
73	The relationship between peak warming and cumulative CO2 emissions, and its use to quantify vulnerabilities in the carbon-climate-human system. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2011 , 63, 145-164	3.3	49
72	A large and persistent carbon sink in the world's forests. <i>Science</i> , 2011 , 333, 988-93	33.3	3950
71	Update on CO2 emissions. <i>Nature Geoscience</i> , 2010 , 3, 811-812	18.3	454
70	Current and future CO2 emissions from drained peatlands in Southeast Asia. <i>Biogeosciences</i> , 2010 , 7, 1505-1514	4.6	440
69	Carbon and the Anthropocene. <i>Current Opinion in Environmental Sustainability</i> , 2010 , 2, 210-218	7.2	60
68	Can we reconcile atmospheric estimates of the Northern terrestrial carbon sink with land-based accounting?. <i>Current Opinion in Environmental Sustainability</i> , 2010 , 2, 225-230	7.2	63
67	An International Carbon Office to assist policy-based science. <i>Current Opinion in Environmental Sustainability</i> , 2010 , 2, 297-300	7.2	8

66	Interactions of the carbon cycle, human activity, and the climate system: a research portfolio. <i>Current Opinion in Environmental Sustainability</i> , 2010 , 2, 301-311	7.2	47
65	Anthropogenic CO ₂ emissions in Africa. <i>Biogeosciences</i> , 2009 , 6, 463-468	4.6	45
64	Gas hydrates: entrance to a methane age or climate threat?. <i>Environmental Research Letters</i> , 2009 , 4, 034007	6.2	60
63	Trends in the sources and sinks of carbon dioxide. <i>Nature Geoscience</i> , 2009 , 2, 831-836	18.3	1453
62	Developing a common strategy for integrative global environmental change research and outreach: the Earth System Science Partnership (ESSP). <i>Current Opinion in Environmental Sustainability</i> , 2009 , 1, 4-13	7.2	50
61	Systematic long-term observations of the global carbon cycle. <i>Trends in Ecology and Evolution</i> , 2009 , 24, 427-30	10.9	30
60	Soil organic carbon pools in the northern circumpolar permafrost region. <i>Global Biogeochemical Cycles</i> , 2009 , 23, n/a-n/a	5.9	1629
59	New observations suggest vulnerability of the carbon sink in tropical rainforests. <i>IOP Conference Series: Earth and Environmental Science</i> , 2009 , 6, 042003	0.3	2
58	Managing forests for climate change mitigation. <i>Science</i> , 2008 , 320, 1456-7	33.3	826
57	Protecting climate with forests. <i>Environmental Research Letters</i> , 2008 , 3, 044006	6.2	264
56	Peatlands and the carbon cycle: from local processes to global implications a synthesis 2008 ,		62
55	Anthropogenic and biophysical contributions to increasing atmospheric CO ₂ growth rate and airborne fraction. <i>Biogeosciences</i> , 2008 , 5, 1601-1613	4.6	98
54	Corrigendum to "Peatlands and the carbon cycle: from local processes to global implications a synthesis" published in <i>Biogeosciences</i> , 5, 1475-1491, 2008. <i>Biogeosciences</i> , 2008 , 5, 1739-1739	4.6	15
53	Vulnerability of Permafrost Carbon to Climate Change: Implications for the Global Carbon Cycle. <i>BioScience</i> , 2008 , 58, 701-714	5.7	1138
52	Peatlands and the carbon cycle: from local processes to global implications a synthesis. <i>Biogeosciences</i> , 2008 , 5, 1475-1491	4.6	502
51	Observing a Vulnerable Carbon Cycle. <i>Ecological Studies</i> , 2008 , 5-32	1.1	12
50	Contributions to accelerating atmospheric CO ₂ growth from economic activity, carbon intensity, and efficiency of natural sinks. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007 , 104, 18866-70	11.5	1490
49	Future precipitation changes and their implications for tropical peatlands. <i>Geophysical Research Letters</i> , 2007 , 34,	4.9	49

48	Peatlands and the carbon cycle: From local processes to global implications. <i>Eos</i> , 2007 , 88, 295-295	1.5	5
47	A synopsis of land use, land-use change and forestry (LULUCF) under the Kyoto Protocol and Marrakech Accords. <i>Environmental Science and Policy</i> , 2007 , 10, 271-282	6.2	96
46	Factoring out natural and indirect human effects on terrestrial carbon sources and sinks. <i>Environmental Science and Policy</i> , 2007 , 10, 370-384	6.2	115
45	Environment. Tropical forests and climate policy. <i>Science</i> , 2007 , 316, 985-6	33.3	327
44	Global and regional drivers of accelerating CO ₂ emissions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007 , 104, 10288-93	11.5	1209
43	Global Ecology, Networks, and Research Synthesis 2007 , 1-5		
42	The Future Research Challenge: the Global Land Project. <i>Global Change - the IGBP Series</i> , 2007 , 313-322		1
41	Saturation of the Terrestrial Carbon Sink 2007 , 59-78		79
40	Forest ecosystems and environments: scaling up from shoot module to watershed. <i>Ecological Research</i> , 2005 , 20, 241-241	1.9	6
39	Nonlinearities, Feedbacks and Critical Thresholds within the Earth@ Climate System. <i>Climatic Change</i> , 2004 , 65, 11-38	4.5	175
38	Quantifying, Understanding and Managing the Carbon Cycle in the Next Decades. <i>Climatic Change</i> , 2004 , 67, 147-160	4.5	26
37	Sustainability of terrestrial carbon sequestration: A case study in Duke Forest with inversion approach. <i>Global Biogeochemical Cycles</i> , 2003 , 17,	5.9	152
36	IGBP/GCTE terrestrial transects: Dynamics of terrestrial ecosystems under environmental change □ Introduction. <i>Journal of Vegetation Science</i> , 2002 , 13, 298	3.1	1
35	Elevated CO ₂ , litter chemistry, and decomposition: a synthesis. <i>Oecologia</i> , 2001 , 127, 153-165	2.9	369
34	Challenges of a changing Earth. <i>Trends in Ecology and Evolution</i> , 2001 , 16, 664-666	10.9	8
33	Commentary: Carbon Metabolism of the Terrestrial Biosphere: A Multitechnique Approach for Improved Understanding. <i>Ecosystems</i> , 2000 , 3, 115-130	3.9	189
32	Global Warming and Terrestrial Ecosystems: A Conceptual Framework for Analysis. <i>BioScience</i> , 2000 , 50, 871	5.7	500
31	Changing Metabolism of Terrestrial Ecosystems under Global Change ¹ 2000 , 10, 1551-1552		2

30	Ecosystem metabolism and the global carbon cycle. <i>Trends in Ecology and Evolution</i> , 1999 , 14, 249	10.9	4
29	Effect on the Biosphere of Elevated Atmospheric CO ₂ . <i>Science</i> , 1999 , 285, 1849i-1849	33.3	2
28	Structure and Dynamics of the Root System. <i>Ecological Studies</i> , 1999 , 47-59	1.1	31
27	Mediterranean terrestrial ecosystems: research priorities on global change effects. <i>Global Ecology and Biogeography</i> , 1998 , 7, 157-166	6.1	41
26	CLIMATE: The Terrestrial Carbon Cycle: Implications for the Kyoto Protocol. <i>Science</i> , 1998 , 280, 1393-1394	35.3	326
25	Plant Species Mediate Changes in Soil Microbial N in Response to Elevated CO ₂ . <i>Ecology</i> , 1996 , 77, 2505-2515	4.1	72
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23	Underground Structures of Woody Plants in Mediterranean Ecosystems of Australia, California, and Chile. <i>Ecological Studies</i> , 1995 , 177-210	1.1	59
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20	Ecosystem Sustainability through Strategies of Integrated Carbon and Land-Use Management	523-538	
19	Global Carbon Budget 2021		26
18	Current systematic carbon cycle observations and needs for implementing a policy-relevant carbon observing system		10
17	The declining uptake rate of atmospheric CO ₂ by land and ocean sinks		1
16	Trends and drivers of regional sources and sinks of carbon dioxide over the past two decades		44
15	Anthropogenic and biophysical contributions to increasing atmospheric CO ₂ growth rate and airborne fraction		7
14	Anthropogenic CO ₂ emissions in Africa		4
13	Current and future CO ₂ emissions from drained peatlands in Southeast Asia		17

12	Multiple observation types reduce uncertainty in Australia's terrestrial carbon and water cycles	6
11	The Australian terrestrial carbon budget	2
10	The carbon budget of South Asia	2
9	The Global Methane Budget: 2000–2012	15
8	Global Carbon Budget 2016	3
7	Global Carbon Budget 2017	60
6	Global Carbon Budget 2018	4
5	The Global Methane Budget 2000–2017	19
4	Global carbon budget 2014	121
3	Global mapping of crop-specific emission factors highlights hotspots of nitrous oxide mitigation. <i>Nature Food</i> ,	14.4 3
2	A new version of the CABLE land surface model (Subversion revision r4546), incorporating land use and land cover change, woody vegetation demography and a novel optimisation-based approach to plant coordination of electron transport and carboxylation capacity-limited photosynthesis	3
1	Quantification of global and national nitrogen budgets for crop production. <i>Nature Food</i> ,	14.4 19