I T Baker

List of Publications by Year
in descending order

70 papers	5,662 citations	87843 38 h-index	88593 70 g-index
81 all docs	81 docs citations	81 times ranked	6370 citing authors

#	Article	IF	Citations
1	The Common Land Model. Bulletin of the American Meteorological Society, 2003, 84, 1013-1024.	1.7	1,058
2	Evaluation of forest snow processes models (SnowMIP2). Journal of Geophysical Research, 2009, 114, .	3.3	290
3	A modelâ€data comparison of gross primary productivity: Results from the North American Carbon Program site synthesis. Journal of Geophysical Research, 2012, 117, .	3.3	274
4	Seasonal drought stress in the Amazon: Reconciling models and observations. Journal of Geophysical Research, 2008, 113, .	3.3	248
5	A modelâ€data intercomparison of CO₂ exchange across North America: Results from the North American Carbon Program site synthesis. Journal of Geophysical Research, 2010, 115, .	3.3	247
6	Terrestrial biosphere model performance for interâ€annual variability of landâ€atmosphere <scp><scp>CO₂</scp></scp> exchange. Global Change Biology, 2012, 18, 1971-1987.	4.2	232
7	Photosynthetic Control of Atmospheric Carbonyl Sulfide During the Growing Season. Science, 2008, 322, 1085-1088.	6.0	196
8	A coupled model of the global cycles of carbonyl sulfide and CO₂: A possible new window on the carbon cycle. Journal of Geophysical Research G: Biogeosciences, 2013, 118, 842-852.	1.3	149
9	Incorporation of crop phenology in Simple Biosphere Model (SiBcrop) to improve land-atmosphere carbon exchanges from croplands. Biogeosciences, 2009, 6, 969-986.	1.3	144
10	TransCom model simulations of hourly atmospheric CO₂: Experimental overview and diurnal cycle results for 2002. Global Biogeochemical Cycles, 2008, 22, .	1.9	142
11	Combined Simple Biosphere/Carnegieâ€Amesâ€Stanford Approach terrestrial carbon cycle model. Journal of Geophysical Research, 2008, 113, .	3.3	138
12	TransCom model simulations of hourly atmospheric CO₂: Analysis of synopticâ€scale variations for the period 2002â€“2003. Global Biogeochemical Cycles, 2008, 22, .	1.9	119
13	A regional high-resolution carbon flux inversion of North America for 2004. Biogeosciences, 2010, 7, 1625-1644.	1.3	106
14	A global reanalysis of vegetation phenology. Journal of Geophysical Research, 2011, 116, .	3.3	105
15	Mechanisms of water supply and vegetation demand govern the seasonality and magnitude of evapotranspiration in Amazonia and Cerrado. Agricultural and Forest Meteorology, 2014, 191, 33-50.	1.9	105
16	Simulations of chlorophyll fluorescence incorporated into the <scp>C</scp>ommunity <scp>L</scp>and <scp>M</scp>odel version 4. Global Change Biology, 2015, 21, 3469-3477.	4.2	95
17	Carbon cycle uncertainty in the Alaskan Arctic. Biogeosciences, 2014, 11, 4271-4288.	1.3	92
18	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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19	Simulated and observed fluxes of sensible and latent heat and CO2 at the WLEF-TV tower using SiB2.5. Global Change Biology, 2003, 9, 1262-1277.	4.2	88
20	Improving the responses of the Australian community land surface model (CABLE) to seasonal drought. Journal of Geophysical Research, 2012, 117, .	3.3	79
21	Simulated variations in atmospheric CO2 over a Wisconsin forest using a coupled ecosystem-atmosphere model. Global Change Biology, 2003, 9, 1241-1250.	4.2	76
22	Evaluation of continental carbon cycle simulations with North American flux tower observations. Ecological Monographs, 2013, 83, 531-556.	2.4	75
23	Characterizing the performance of ecosystem models across time scales: A spectral analysis of the North American Carbon Program site-level synthesis. Journal of Geophysical Research, 2011, 116, .	3.3	72
24	Characterizing the diurnal patterns of errors in the prediction of evapotranspiration by several landâ€surface models: An NACP analysis. Journal of Geophysical Research G: Biogeosciences, 2014, 119, 1458-1473.	1.3	69
25	Seasonal fluxes of carbonyl sulfide in a midlatitude forest. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 14162-14167.	3.3	69
26	Observations and simulations of synoptic, regional, and local variations in atmospheric CO2. Journal of Geophysical Research, 2007, 112, .	3.3	61
27	Sensitivity, uncertainty and time dependence of parameters in a complex land surface model. Agricultural and Forest Meteorology, 2008, 148, 268-287.	1.9	60
28	Mechanisms for synoptic variations of atmospheric CO₂ in North America, South America and Europe. Atmospheric Chemistry and Physics, 2008, 8, 7239-7254.	1.9	60
29	Improving simulated soil temperatures and soil freeze/thaw at highâ€latitude regions in the Simple Biosphere/Carnegieâ€Amesâ€Stanford Approach model. Journal of Geophysical Research, 2009, 114, .	3.3	59
30	Overview of the Large-Scale Biosphereâ€“Atmosphere Experiment in Amazonia Data Model Intercomparison Project (LBA-DMIP). Agricultural and Forest Meteorology, 2013, 182-183, 111-127.	1.9	55
31	Effect of climate on interannual variability of terrestrial CO2fluxes. Global Biogeochemical Cycles, 2002, 16, 49-1-49-12.	1.9	51
32	A multiple-scale simulation of variations in atmospheric carbon dioxide using a coupled biosphere-atmospheric model. Journal of Geophysical Research, 2004, 109, .	3.3	51
33	Impact of hydrological variations on modeling of peatland CO₂ fluxes: Results from the North American Carbon Program site synthesis. Journal of Geophysical Research, 2012, 117, .	3.3	50
34	Interannual variability of photosynthesis across Africa and its attribution. Journal of Geophysical Research, 2008, 113, .	3.3	45
35	Impact of Evapotranspiration on Dry Season Climate in the Amazon Forest*. Journal of Climate, 2014, 27, 574-591.	1.2	45
36	Tropical sources and sinks of carbonyl sulfide observed from space. Geophysical Research Letters, 2015, 42, 10,082.	1.5	44

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37	Possible representation errors in inversions of satellite CO₂ retrievals. Journal of Geophysical Research, 2008, 113, .	3.3	43
38	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
39	North American gross primary productivity: regional characterization and interannual variability. Tellus, Series B: Chemical and Physical Meteorology, 2022, 62, 533.	0.8	41
40	Peak growing season gross uptake of carbon in North America is largest in the Midwest USA. Nature Climate Change, 2017, 7, 450-454.	8.1	39
41	Spring enhancement and summer reduction in carbon uptake during the 2018 drought in northwestern Europe. Philosophical Transactions of the Royal Society B: Biological Sciences, 2020, 375, 20190509.	1.8	39
42	Closing the scale gap between land surface parameterizations and <scp>GCM</scp>s with a new scheme, <scp>S</scp>i<scp>B</scp>3â€<scp>B</scp>ins. Journal of Advances in Modeling Earth Systems, 2017, 9, 691-711.	1.3	38
43	Role of deep soil moisture in modulating climate in the Amazon rainforest. Geophysical Research Letters, 2010, 37, .	1.5	33
44	Novel applications of carbon isotopes in atmospheric CO₂: what can atmospheric measurements teach us about processes in the biosphere?. Biogeosciences, 2011, 8, 3093-3106.	1.3	30
45	Inter-annual variability of carbon and water fluxes in Amazonian forest, Cerrado and pasture sites, as simulated by terrestrial biosphere models. Agricultural and Forest Meteorology, 2013, 182-183, 145-155.	1.9	30
46	Evaluating the agreement between measurements and models of net ecosystem exchange at different times and timescales using wavelet coherence: an example using data from the North American Carbon Program Site-Level Interim Synthesis. Biogeosciences, 2013, 10, 6893-6909.	1.3	30
47	Seasonal Characteristics of Model Uncertainties From Biogenic Fluxes, Transport, and Largeâ€Scale Boundary Inflow in Atmospheric CO₂ Simulations Over North America. Journal of Geophysical Research D: Atmospheres, 2019, 124, 14325-14346.	1.2	26
48	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
49	Does terrestrial drought explain global CO₂ flux anomalies induced by El NiÃ±o?. Biogeosciences, 2011, 8, 2493-2506.	1.3	25
50	Carbon and energy fluxes in cropland ecosystems: a model-data comparison. Biogeochemistry, 2016, 129, 53-76.	1.7	24
51	Wide discrepancies in the magnitude and direction of modeled solar-induced chlorophyll fluorescence in response to light conditions. Biogeosciences, 2020, 17, 3733-3755.	1.3	24
52	Evaluating GPP and Respiration Estimates Over Northern Midlatitude Ecosystems Using Solarâ€Induced Fluorescence and Atmospheric CO₂ Measurements. Journal of Geophysical Research G: Biogeosciences, 2018, 123, 2976-2997.	1.3	21
53	COS-derived GPP relationships with temperature and light help explain high-latitude atmospheric CO ₂ seasonal cycle amplification. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	21
54	Evaluation of carbonyl sulfide biosphere exchange in the Simple Biosphere Model (SiB4). Biogeosciences, 2021, 18, 6547-6565.	1.3	21

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55	Towards understanding the variability in biospheric CO₂Âfluxes: using FTIR spectrometry and a chemical transport model to investigate the sources and sinks of carbonyl sulfide and its link to CO₂. Atmospheric Chemistry and Physics, 2016, 16, 2123-2138.	1.9	20
56	Representing Grasslands Using Dynamic Prognostic Phenology Based on Biological Growth Stages: 1. Implementation in the Simple Biosphere Model (SiB4). Journal of Advances in Modeling Earth Systems, 2019, 11, 4423-4439.	1.3	20
57	The Atmospheric Carbon and Transport (ACT)-America Mission. Bulletin of the American Meteorological Society, 2021, 102, E1714-E1734.	1.7	17
58	A Multiyear Gridded Data Ensemble of Surface Biogenic Carbon Fluxes for North America: Evaluation and Analysis of Results. Journal of Geophysical Research G: Biogeosciences, 2020, 125, e2019JG005314.	1.3	14
59	A Modified Vegetation Photosynthesis and Respiration Model (VPRM) for the Eastern USA and Canada, Evaluated With Comparison to Atmospheric Observations and Other Biospheric Models. Journal of Geophysical Research G: Biogeosciences, 2022, 127, e2021JG006290.	1.3	13
60	Plant Uptake of Atmospheric Carbonyl Sulfide in Coast Redwood Forests. Journal of Geophysical Research G: Biogeosciences, 2017, 122, 3391-3404.	1.3	11
61	Representing Grasslands Using Dynamic Prognostic Phenology Based on Biological Growth Stages: Part 2. Carbon Cycling. Journal of Advances in Modeling Earth Systems, 2019, 11, 4440-4465.	1.3	11
62	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
63	Remotely Sensed Carbonyl Sulfide Constrains Model Estimates of Amazon Primary Productivity. Geophysical Research Letters, 2022, 49, .	1.5	7
64	Sensitivity of land-atmosphere exchanges to overshooting PBL thermals in an idealized coupled model. Journal of Advances in Modeling Earth Systems, 2009, 2, .	1.3	6
65	Surfaceâ€Atmosphere Coupling Scale, the Fate of Water, and Ecophysiological Function in a Brazilian Forest. Journal of Advances in Modeling Earth Systems, 2019, 11, 2523-2546.	1.3	6
66	Understanding water and energy fluxes in the Amazonia: Lessons from an observationâ€model intercomparison. Global Change Biology, 2021, 27, 1802-1819.	4.2	6
67	Joint CO₂ Mole Fraction and Flux Analysis Confirms Missing Processes in CASA Terrestrial Carbon Uptake Over North America. Global Biogeochemical Cycles, 2021, 35, e2020GB006914.	1.9	6
68	Accurate Simulation of Both Sensitivity and Variability for Amazonian Photosynthesis: Is It Too Much to Ask?. Journal of Advances in Modeling Earth Systems, 2021, 13, e2021MS002555.	1.3	3
69	A sampling method for improving the representation of spatially varying precipitation and soil moisture using the Simple Biosphere Model. Journal of Advances in Modeling Earth Systems, 2014, 6, 9-20.	1.3	2
70	Exploring the Potential of Using Carbonyl Sulfide to Track the Urban Biosphere Signal. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD034106.	1.2	2