Guy Schurgers

List of Publications by Year
in descending order

72 papers	5,665 citations	126708 33 h-index	91712 69 g-index
103 all docs	103 docs citations	103 times ranked	8073 citing authors

#	Article	IF	Citations
1	The dominant role of semi-arid ecosystems in the trend and variability of the land CO ₂ sink. Science, 2015, 348, 895-899.	6.0	1,002
2	Terrestrial biogeochemical feedbacks in the climate system. Nature Geoscience, 2010, 3, 525-532.	5.4	486
3	Increased vegetation growth and carbon stock in China karst via ecological engineering. Nature Sustainability, 2018, 1, 44-50.	11.5	460
4	Why are estimates of global terrestrial isoprene emissions so similar (and why is this not so for) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 62	1.9	319
5	Robustness and uncertainty in terrestrial ecosystem carbon response to CMIP5 climate change projections. Environmental Research Letters, 2012, 7, 044008.	2.2	220
6	Global terrestrial isoprene emission models: sensitivity to variability in climate and vegetation. Atmospheric Chemistry and Physics, 2011, 11, 8037-8052.	1.9	178
7	Satellite passive microwaves reveal recent climate-induced carbon losses in African drylands. Nature Ecology and Evolution, 2018, 2, 827-835.	3.4	160
8	Human population growth offsets climate-driven increase in woody vegetation in sub-Saharan Africa. Nature Ecology and Evolution, 2017, 1, 81.	3.4	156
9	Evaluation of a photosynthesis-based biogenic isoprene emission scheme in JULES and simulation of isoprene emissions under present-day climate conditions. Atmospheric Chemistry and Physics, 2011, 11, 4371-4389.	1.9	121
10	Process-based modelling of biogenic monoterpene emissions combining production and release from storage. Atmospheric Chemistry and Physics, 2009, 9, 3409-3423.	1.9	120
11	Eutrophication changes in fifty large lakes on the Yangtze Plain of China derived from MERIS and OLCI observations. Remote Sensing of Environment, 2020, 246, 111890.	4.6	115
12	CO₂ inhibition of global terrestrial isoprene emissions: Potential implications for atmospheric chemistry. Geophysical Research Letters, 2007, 34, .	1.5	111
13	Climate modification by future ice sheet changes and consequences for ice sheet mass balance. Climate Dynamics, 2010, 34, 301-324.	1.7	105
14	Long-term effects of anthropogenic CO2 emissions simulated with a complex earth system model. Climate Dynamics, 2007, 28, 599-633.	1.7	103
15	The CO₂ inhibition of terrestrial isoprene emission significantly affects future ozone projections. Atmospheric Chemistry and Physics, 2009, 9, 2793-2803.	1.9	103
16	Simulated carbon emissions from land-use change are substantially enhanced by accounting for agricultural management. Environmental Research Letters, 2015, 10, 124008.	2.2	103
17	Global isoprene and monoterpene emissions under changing climate, vegetation, CO 2 and land use. Atmospheric Environment, 2017, 155, 35-45.	1.9	100
18	Long-term ice sheetâ€“climate interactions under anthropogenic greenhouse forcing simulated with a complex Earth System Model. Climate Dynamics, 2008, 31, 665-690.	1.7	97

#	Article	IF	Citations
19	Recent divergence in the contributions of tropical and boreal forests to the terrestrial carbon sink. Nature Ecology and Evolution, 2020, 4, 202-209.	3.4	93
20	Effects of species composition, land surface cover, CO₂ concentration and climate on isoprene emissions from European forests. Plant Biology, 2008, 10, 150-162.	1.8	87
21	Future changes in the Baltic Sea acidâ€“base (pH) and oxygen balances. Tellus, Series B: Chemical and Physical Meteorology, 2022, 64, 19586.	0.8	84
22	Photosynthesis-dependent isoprene emission from leaf to planet in a global carbon-chemistry-climate model. Atmospheric Chemistry and Physics, 2013, 13, 10243-10269.	1.9	82
23	Acceleration of global vegetation greenup from combined effects of climate change and human land management. Global Change Biology, 2018, 24, 5484-5499.	4.2	72
24	Effect of ice sheet interactions in anthropogenic climate change simulations. Geophysical Research Letters, 2007, 34, .	1.5	68
25	Modelling past and future peatland carbon dynamics across the panâ€Arctic. Global Change Biology, 2020, 26, 4119-4133.	4.2	58
26	Reconstructing range dynamics and range fragmentation of European bison for the last 8000â€ƒyears. Diversity and Distributions, 2012, 18, 47-59.	1.9	51
27	Process Understanding of Soil BVOC Fluxes in Natural Ecosystems: A Review. Reviews of Geophysics, 2019, 57, 966-986.	9.0	50
28	Modelling the response of yields and tissue C : N to changes in atmospheric CO₂ and N management in the main wheat regions of western Europe. Biogeosciences, 2015, 12, 2489-2515.	1.3	47
29	Vegetationâ€“climate feedbacks modulate rainfall patterns in Africa under future climate change. Earth System Dynamics, 2016, 7, 627-647.	2.7	46
30	The effect of land surface changes on Eemian climate. Climate Dynamics, 2007, 29, 357-373.	1.7	42
31	Dynamics of the terrestrial biosphere, climate and atmospheric CO₂ concentration during interglacials: a comparison between Eemian and Holocene. Climate of the Past, 2006, 2, 205-220.	1.3	41
32	Soil carbon management in large-scale Earth system modelling: implications for crop yields and nitrogen leaching. Earth System Dynamics, 2015, 6, 745-768.	2.7	40
33	European emissions of isoprene and monoterpenes from the Last Glacial Maximum to present. Biogeosciences, 2009, 6, 2779-2797.	1.3	37
34	Sensitivity of burned area in Europe to climate change, atmospheric CO₂ levels, and demography: A comparison of two fireâ€vegetation models. Journal of Geophysical Research G: Biogeosciences, 2015, 120, 2256-2272.	1.3	37
35	Hydrologic resilience and Amazon productivity. Nature Communications, 2017, 8, 387.	5.8	37
36	Development and evaluation of the aerosol dynamics and gas phase chemistry model ADCHEM. Atmospheric Chemistry and Physics, 2011, 11, 5867-5896.	1.9	35

#	Article	IF	Citations
37	The large influence of climate model bias on terrestrial carbon cycle simulations. Environmental Research Letters, 2017, 12, 014004.	2.2	33
38	Modelling soil anaerobiosis from water retention characteristics and soil respiration. Soil Biology and Biochemistry, 2006, 38, 2637-2644.	4.2	32
39	Trees tracking a warmer climate: The Holocene range shift of hazel (<i>Corylus avellana</i>) in northern Europe. Holocene, 2015, 25, 53-63.	0.9	31
40	Separating direct and indirect effects of rising temperatures on biogenic volatile emissions in the Arctic. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 32476-32483.	3.3	31
41	Modeling the role of highly oxidized multifunctional organicÂmolecules for the growth of new particles overÂtheÂborealÂforestÂregion. Atmospheric Chemistry and Physics, 2017, 17, 8887-8901.	1.9	29
42	A physiologyâ€based Earth observation model indicates stagnation in the global gross primary production during recent decades. Global Change Biology, 2021, 27, 836-854.	4.2	25
43	Refugee species: which historic baseline should inform conservation planning?. Diversity and Distributions, 2012, 18, 1258-1261.	1.9	24
44	BVOC emissions from English oak (<i>Quercus robur</i>) and European beech (<i>Fagus sylvatica</i>) along a latitudinal gradient. Biogeosciences, 2016, 13, 6067-6080.	1.3	23
45	Contribution of Dynamic Vegetation Phenology to Decadal Climate Predictability. Journal of Climate, 2014, 27, 8563-8577.	1.2	22
46	Centennial-scale interactions between the carbon cycle and anthropogenic climate change using a dynamic Earth system model. Geophysical Research Letters, 2005, 32, .	1.5	21
47	Challenges in modelling isoprene and monoterpene emission dynamics of Arctic plants: a case study from a subarctic tundra heath. Biogeosciences, 2016, 13, 6651-6667.	1.3	21
48	Modelling of mineral dust for interglacial and glacial climate conditions with a focus on Antarctica. Climate of the Past, 2015, 11, 765-779.	1.3	20
49	Drivers of dissolved organic carbon export in a subarctic catchment: Importance of microbial decomposition, sorption-desorption, peatland and lateral flow. Science of the Total Environment, 2018, 622-623, 260-274.	3.9	20
50	Modelling the <scp>H</scp>olocene migrational dynamics of <i><scp>F</scp>agus sylvatica</i>â€…<scp>L.</scp> and <i><scp>P</scp>icea abies</i> (<scp>L</scp>.) <scp>H</scp>. <scp>K</scp>arst. Global Ecology and Biogeography, 2014, 23, 658-668.	2.7	18
51	Impacts of land use on climate and ecosystem productivity over the Amazon and the South American continent. Environmental Research Letters, 2017, 12, 054016.	2.2	18
52	Future vegetationâ€“climate interactions in Eastern Siberia: an assessment of the competing effects of CO₂ and secondary organic aerosols. Atmospheric Chemistry and Physics, 2016, 16, 5243-5262.	1.9	17
53	Effect of climate-driven changes in species composition on regional emission capacities of biogenic compounds. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	16
54	Enhanced scienceâ€“stakeholder communication to improve ecosystem model performances for climate change impact assessments. Ambio, 2015, 44, 249-255.	2.8	16

#	Article	IF	Citations
55	Climate Sensitivity Controls Uncertainty in Future Terrestrial Carbon Sink. Geophysical Research Letters, 2018, 45, 4329-4336.	1.5	16
56	Isoprenoid emission variation of Norway spruce across a European latitudinal transect. Atmospheric Environment, 2017, 170, 45-57.	1.9	15
57	A strong mitigation scenario maintains climate neutrality of northern peatlands. One Earth, 2022, 5, 86-97.	3.6	14
58	Changes in the hydrological cycle, ocean circulation, and carbon/nutrient cycling during the last interglacial and glacial transition. Paleoceanography, 2007, 22, .	3.0	12
59	Long-term effects of biogeophysical and biogeochemical interactions between terrestrial biosphere and climate under anthropogenic climate change. Global and Planetary Change, 2008, 64, 26-37.	1.6	12
60	Isoprenoid emission response to changing light conditions of English oak, European beech and Norway spruce. Biogeosciences, 2017, 14, 4045-4060.	1.3	12
61	Processâ€Oriented Modeling of a High Arctic Tundra Ecosystem: Longâ€Term Carbon Budget and Ecosystem Responses to Interannual Variations of Climate. Journal of Geophysical Research G: Biogeosciences, 2018, 123, 1178-1196.	1.3	12
62	Contrasting responses of woody and herbaceous vegetation to altered rainfall characteristics in the Sahel. Biogeosciences, 2021, 18, 77-93.	1.3	11
63	Global Modelling of Volatile Organic Compound Emissions. Tree Physiology, 2013, , 451-487.	0.9	11
64	The importance of micrometeorological variations for photosynthesis and transpiration in a boreal coniferous forest. Biogeosciences, 2015, 12, 237-256.	1.3	9
65	Effects of intra-genotypic variation, variance with height and time of season on BVOC emissions. Meteorologische Zeitschrift, 2016, 25, 377-388.	0.5	7
66	Vegetationâ€Climate Feedbacks Enhance Spatial Heterogeneity of Panâ€Amazonian Ecosystem States Under Climate Change. Geophysical Research Letters, 2021, 48, e2020GL092001.	1.5	7
67	Climatic and non-climatic vegetation cover changes in the rangelands of Africa. Global and Planetary Change, 2021, 202, 103516.	1.6	7
68	37. Vegetation-climate feedbacks in transient simulations over the last interglacial (128 000-113 000 yr) Tj ETQq0 0 0 rgBT /Overlock 10	0.1	6
69	Environmental Impactsâ€"Coastal Ecosystems, Birds and Forests. Regional Climate Studies, 2015, , 291-306.	1.2	2
70	Mapping Sahelian Ecosystem Vulnerability to Vegetation Collapse: Vegetation Model Optimization. , 2021, , .		2
71	Prediction of photosynthesis in Scots pine ecosystems across Europe by a needle-level theory. Atmospheric Chemistry and Physics, 2018, 18, 13321-13328.	1.9	0
72	Abrupt Change in Dryland Ecosystem Functioning: Recent Advances and Lessons Learnt from the U-TURN Project. , 2021, , .		0