Ronny Lauerwald

List of Publications by Year
in descending order

53	6,302	126907 33	168389 53
papers	citations	h-index	g-index

68	68	68	7887
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Regional trends and drivers of the global methane budget. Global Change Biology, 2022, 28, 182-200.	9.5	56
2	A strong mitigation scenario maintains climate neutrality of northern peatlands. One Earth, 2022, 5, 86-97.	6.8	14
3	Spatiotemporal patterns and drivers of terrestrial dissolved organic carbonÂ(DOC) leaching into the European river network. Earth System Dynamics, 2022, 13, 393-418.	7.1	11
4	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
5	Comparing national greenhouse gas budgets reported in UNFCCC inventories against atmospheric inversions. Earth System Science Data, 2022, 14, 1639-1675.	9.9	58
6	State of science in carbon budget assessments for temperate forests and grasslands. , 2022, , 237-270.		0
7	Empirical estimates of regional carbon budgets imply reduced global soil heterotrophic respiration. National Science Review, 2021, 8, nwaa145.	9.5	70
8	Leaching of dissolved organic carbon from mineral soils plays a significant role in the terrestrial carbon balance. Global Change Biology, 2021, 27, 1083-1096.	9.5	47
9	Historical and future contributions of inland waters to the Congo Basin carbon balance. Earth System Dynamics, 2021, 12, 37-62.	7.1	13
10	Around one third of current Arctic Ocean primary production sustained by rivers and coastal erosion. Nature Communications, 2021, 12, 169.	12.8	106
11	Global evaluation of the nutrient-enabled version of the land surface model ORCHIDEE-CNP v1.2 (r5986). Geoscientific Model Development, 2021, 14, 1987-2010.	3.6	22
12	The consolidated European synthesis of CH₄ and N₂O emissions for the European Union and United Kingdom: 1990â€“2017. Earth System Science Data, 2021, 13, 2307-2362.	9.9	16
13	The consolidated European synthesis of CO₂ emissions and removals for the European Union and United Kingdom: 1990â€“2018. Earth System Science Data, 2021, 13, 2363-2406.	9.9	23
14	Large historical carbon emissions from cultivated northern peatlands. Science Advances, 2021, 7, .	10.3	37
15	Magnitude and Uncertainty of Nitrous Oxide Emissions From North America Based on Bottomâ€Up and Topâ€Down Approaches: Informing Future Research and National Inventories. Geophysical Research Letters, 2021, 48, e2021GL095264.	4.0	7
16	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
17	A comprehensive quantification of global nitrous oxide sources and sinks. Nature, 2020, 586, 248-256.	27.8	814
18	How Simulations of the Land Carbon Sink Are Biased by Ignoring Fluvial Carbon Transfers: A Case Study for the Amazon Basin. One Earth, 2020, 3, 226-236.	6.8	26

#	Article	IF	Citations
19	Simulating Erosionâ€Induced Soil and Carbon Delivery From Uplands to Rivers in a Global Land Surface Model. Journal of Advances in Modeling Earth Systems, 2020, 12, e2020MS002121.	3.8	10
20	ORCHIDEE MICT-LEAK (r5459), a global model for the production, transport, and transformation of dissolved organic carbon from Arctic permafrost regions â€“ Part 2: Model evaluation over the Lena River basin. Geoscientific Model Development, 2020, 13, 507-520.	3.6	12
21	CE-DYNAM (v1): a spatially explicit process-based carbon erosion scheme for use in Earth system models. Geoscientific Model Development, 2020, 13, 1201-1222.	3.6	11
22	Sources of Uncertainty in Regional and Global Terrestrial CO₂ Exchange Estimates. Global Biogeochemical Cycles, 2020, 34, e2019GB006393.	4.9	59
23	Unexpected large evasion fluxes of carbon dioxide from turbulent streams draining the worldâ€™s mountains. Nature Communications, 2019, 10, 4888.	12.8	71
24	Natural Lakes Are a Minor Global Source of N₂O to the Atmosphere. Global Biogeochemical Cycles, 2019, 33, 1564-1581.	4.9	40
25	ORCHIDEE MICT-LEAK (r5459), a global model for the production, transport, and transformation of dissolved organic carbon from Arctic permafrost regions â€“ Part 1: Rationale, model description, and simulation protocol. Geoscientific Model Development, 2019, 12, 3503-3521.	3.6	12
26	Aquatic carbon fluxes dampen the overall variation of net ecosystem productivity in the Amazon basin: An analysis of the interannual variability in the boundless carbon cycle. Global Change Biology, 2019, 25, 2094-2111.	9.5	34
27	Nitrous oxide emissions from inland waters: Are IPCC estimates too high?. Global Change Biology, 2019, 25, 473-488.	9.5	119
28	<scp>CO</scp>₂ evasion from boreal lakes: Revised estimate, drivers of spatial variability, and future projections. Global Change Biology, 2018, 24, 711-728.	9.5	56
29	Representation of dissolved organic carbon in the JULES land surface model (vn4.4_JULES-DOCM). Geoscientific Model Development, 2018, 11, 593-609.	3.6	21
30	ORCHIDEE-SOM: modeling soil organic carbon (SOC) and dissolved organic carbon (DOC) dynamics along vertical soil profiles in Europe. Geoscientific Model Development, 2018, 11, 937-957.	3.6	52
31	ORCHIDEE-MICT (v8.4.1), aÂland surface model for the high latitudes: model description and validation. Geoscientific Model Development, 2018, 11, 121-163.	3.6	135
32	Global soil organic carbon removal by water erosion under climate change and land use change during ADâ€‰1850â€“2005. Biogeosciences, 2018, 15, 4459-4480.	3.3	68
33	Global perturbation of organic carbon cycling by river damming. Nature Communications, 2017, 8, 15347.	12.8	246
34	ORCHILEAK (revision 3875): a new model branch to simulate carbon transfers along the terrestrialâ€“aquatic continuum of the Amazon basin. Geoscientific Model Development, 2017, 10, 3821-3859.	3.6	40
35	Reviews and syntheses: An empirical spatiotemporal description of the global surfaceâ€“atmosphere carbon fluxes: opportunities and data limitations. Biogeosciences, 2017, 14, 3685-3703.	3.3	58
36	Seasonal response of airâ€“water CO₂ exchange along the landâ€“ocean aquatic continuum of the northeast North American coast.. Biogeosciences, 2015, 12, 1447-1458.	3.3	34

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37	Spatial patterns in CO₂ evasion from the global river network. Global Biogeochemical Cycles, 2015, 29, 534-554.	4.9	223
38	Carbon Leakage through the Terrestrial-aquatic Interface: Implications for the Anthropogenic CO2 Budget. Procedia Earth and Planetary Science, 2014, 10, 319-324.	0.6	9
39	Regionalized global budget of the CO₂ exchange at the airâ€water interface in continental shelf seas. Global Biogeochemical Cycles, 2014, 28, 1199-1214.	4.9	160
40	A Brief Overview of the GLObal RIver Chemistry Database, GLORICH. Procedia Earth and Planetary Science, 2014, 10, 23-27.	0.6	111
41	Global chemical weathering and associated P-release â€" The role of lithology, temperature and soil properties. Chemical Geology, 2014, 363, 145-163.	3.3	215
42	Salt marshes in the silica budget of the North Sea. Continental Shelf Research, 2014, 82, 31-36.	1.8	1
43	Global carbon dioxide emissions from inland waters. Nature, 2013, 503, 355-359.	27.8	1,670
44	Modelling Estuarine Biogeochemical Dynamics: From the Local to the Global Scale. Aquatic Geochemistry, 2013, 19, 591-626.	1.3	54
45	What controls the spatial patterns of the riverine carbonate system? â€" A case study for North America. Chemical Geology, 2013, 337-338, 114-127.	3.3	47
46	Anthropogenic perturbation of the carbon fluxes from land to ocean. Nature Geoscience, 2013, 6, 597-607.	12.9	937
47	Retention of dissolved silica within the fluvial system of the conterminous USA. Biogeochemistry, 2013, 112, 637-659.	3.5	16
48	Global multi-scale segmentation of continental and coastal waters from the watersheds to the continental margins. Hydrology and Earth System Sciences, 2013, 17, 2029-2051.	4.9	157
49	Assessing the nonconservative fluvial fluxes of dissolved organic carbon in North America. Journal of Geophysical Research, 2012, 117, .	3.3	57
50	Compatibility of space and time for modeling fluvial fluxes â€“ A comparison. Applied Geochemistry, 2011, 26, S295-S297.	3.0	2
51	Atmospheric CO2 consumption by chemical weathering in North America. Geochimica Et Cosmochimica Acta, 2011, 75, 7829-7854.	3.9	59
52	Changes in dissolved silica mobilization into river systems draining North America until the period 2081â€“2100. Journal of Geochemical Exploration, 2011, 110, 31-39.	3.2	19
53	Dissolved silica mobilization in the conterminous USA. Chemical Geology, 2010, 270, 90-109.	3.3	67