

Sebastian Sobek

List of Publications by Year in descending order

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Version: 2024-02-01

68
papers

8,935
citations

109321

35
h-index

95266

68
g-index

68
all docs

68
docs citations

68
times ranked

7418
citing authors

#	ARTICLE	IF	CITATIONS
1	Lakes and reservoirs as regulators of carbon cycling and climate. <i>Limnology and Oceanography</i> , 2009, 54, 2298-2314.	3.1	1,977
2	Global carbon dioxide emissions from inland waters. <i>Nature</i> , 2013, 503, 355-359.	27.8	1,670
3	Temperature-controlled organic carbon mineralization in lake sediments. <i>Nature</i> , 2010, 466, 478-481.	27.8	460
4	Patterns and regulation of dissolved organic carbon: An analysis of 7,500 widely distributed lakes. <i>Limnology and Oceanography</i> , 2007, 52, 1208-1219.	3.1	391
5	Organic carbon burial efficiency in lake sediments controlled by oxygen exposure time and sediment source. <i>Limnology and Oceanography</i> , 2009, 54, 2243-2254.	3.1	323
6	Temperature independence of carbon dioxide supersaturation in global lakes. <i>Global Biogeochemical Cycles</i> , 2005, 19, n/a-n/a.	4.9	318
7	The catchment and climate regulation of pCO ₂ in boreal lakes. <i>Global Change Biology</i> , 2003, 9, 630-641.	9.5	309
8	Organic carbon burial in global lakes and reservoirs. <i>Nature Communications</i> , 2017, 8, 1694.	12.8	307
9	Role of lakes for organic carbon cycling in the boreal zone. <i>Global Change Biology</i> , 2004, 10, 141-147.	9.5	281
10	Mapping lake CDOM by satellite remote sensing. <i>Remote Sensing of Environment</i> , 2005, 94, 535-540.	11.0	247
11	Extreme Methane Emissions from a Swiss Hydropower Reservoir: Contribution from Bubbling Sediments. <i>Environmental Science & Technology</i> , 2010, 44, 2419-2425.	10.0	235
12	Greenhouse Gas Emissions from Freshwater Reservoirs: What Does the Atmosphere See?. <i>Ecosystems</i> , 2018, 21, 1058-1071.	3.4	145
13	Extreme organic carbon burial fuels intense methane bubbling in a temperate reservoir. <i>Geophysical Research Letters</i> , 2012, 39, .	4.0	130
14	Large but variable methane production in anoxic freshwater sediment upon addition of allochthonous and autochthonous organic matter. <i>Limnology and Oceanography</i> , 2018, 63, 1488-1501.	3.1	121
15	Linking allochthonous dissolved organic matter and boreal lake sediment carbon sequestration: The role of light-mediated flocculation. <i>Limnology and Oceanography</i> , 2008, 53, 2416-2426.	3.1	114
16	Using Satellite Remote Sensing to Estimate the Colored Dissolved Organic Matter Absorption Coefficient in Lakes. <i>Ecosystems</i> , 2005, 8, 709-720.	3.4	106
17	Large CO ₂ disequilibria in tropical lakes. <i>Global Biogeochemical Cycles</i> , 2009, 23, .	4.9	94
18	A Carbon Budget of a Small Humic Lake: An Example of the Importance of Lakes for Organic Matter Cycling in Boreal Catchments. <i>Ambio</i> , 2006, 35, 469-475.	5.5	80

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19	Spatially Resolved Measurements of CO ₂ and CH ₄ Concentration and Gas-Exchange Velocity Highly Influence Carbon-Emission Estimates of Reservoirs. Environmental Science & Technology, 2018, 52, 607-615.	10.0	65
20	Hydroelectric carbon sequestration. Nature Geoscience, 2012, 5, 838-840.	12.9	64
21	Temperature sensitivity of organic carbon mineralization in contrasting lake sediments. Journal of Geophysical Research G: Biogeosciences, 2015, 120, 1215-1225.	3.0	64
22	Organic carbon budget for the Gulf of Bothnia. Journal of Marine Systems, 2006, 63, 155-161.	2.1	63
23	Carbon Dioxide in Boreal Surface Waters: A Comparison of Lakes and Streams. Ecosystems, 2012, 15, 1295-1307.	3.4	61
24	Contribution of Sediment Respiration to Summer CO ₂ Emission from Low Productive Boreal and Subarctic Lakes. Microbial Ecology, 2005, 50, 529-535.	2.8	60
25	Predicting the depth and volume of lakes from map-derived parameters. Inland Waters, 2011, 1, 177-184.	2.2	57
26	CO ₂ evasion from boreal lakes: Revised estimate, drivers of spatial variability, and future projections. Global Change Biology, 2018, 24, 711-728.	9.5	56
27	Predicting lake dissolved organic carbon at a global scale. Scientific Reports, 2020, 10, 8471.	3.3	56
28	Seasonal variation of CO ₂ saturation in the Gulf of Bothnia: Indications of marine net heterotrophy. Global Biogeochemical Cycles, 2004, 18, n/a-n/a.	4.9	55
29	Low organic carbon burial efficiency in arctic lake sediments. Journal of Geophysical Research G: Biogeosciences, 2014, 119, 1231-1243.	3.0	55
30	Carbon dioxide and methane emissions of Swedish low-order streams—a national estimate and lessons learnt from more than a decade of observations. Limnology and Oceanography Letters, 2018, 3, 156-167.	3.9	49
31	Carbon dioxide evasion from headwater systems strongly contributes to the total export of carbon from a small boreal lake catchment. Journal of Geophysical Research G: Biogeosciences, 2015, 120, 13-28.	3.0	46
32	The role of sediments in the carbon budget of a small boreal lake. Limnology and Oceanography, 2016, 61, 1814-1825.	3.1	46
33	Carbon Sequestration in a Large Hydroelectric Reservoir: An Integrative Seismic Approach. Ecosystems, 2014, 17, 430-441.	3.4	45
34	Extreme drought boosts CO ₂ and CH ₄ emissions from reservoir drawdown areas. Inland Waters, 2018, 8, 329-340.	2.2	44
35	High terrestrial carbon load via groundwater to a boreal lake dominated by surface water inflow. Journal of Geophysical Research G: Biogeosciences, 2017, 122, 15-29.	3.0	39
36	The burial efficiency of organic carbon in the sediments of Lake Kinneret. Aquatic Sciences, 2011, 73, 355-364.	1.5	36

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37	The effect of lake browning and respiration mode on the burial and fate of carbon and mercury in the sediment of two boreal lakes. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2016, 121, 233-245.	3.0	35
38	Temporal control on concentration, character, and export of dissolved organic carbon in two hemiboreal headwater streams draining contrasting catchments. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2015, 120, 832-846.	3.0	34
39	Spatial variation of sediment mineralization supports differential CO ₂ emissions from a tropical hydroelectric reservoir. <i>Frontiers in Microbiology</i> , 2013, 4, 101.	3.5	33
40	Organic carbon burial efficiency in a subtropical hydroelectric reservoir. <i>Biogeosciences</i> , 2016, 13, 3331-3342.	3.3	33
41	Comparing methane ebullition variability across space and time in a Brazilian reservoir. <i>Limnology and Oceanography</i> , 2020, 65, 1623-1634.	3.1	32
42	Enhanced carbon loss from anoxic lake sediment through diffusion of dissolved organic carbon. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2016, 121, 1959-1977.	3.0	31
43	The transformation of macrophyte-derived organic matter to methane relates to plant water and nutrient contents. <i>Limnology and Oceanography</i> , 2019, 64, 1737-1749.	3.1	31
44	The CO ₂ -equivalent balance of freshwater ecosystems is non-linearly related to productivity. <i>Global Change Biology</i> , 2020, 26, 5705-5715.	9.5	29
45	Regional-scale variation of dissolved organic carbon concentrations in Swedish lakes. <i>Limnology and Oceanography</i> , 2014, 59, 1612-1620.	3.1	28
46	Regional Variability and Drivers of Below Ice CO ₂ in Boreal and Subarctic Lakes. <i>Ecosystems</i> , 2016, 19, 461-476.	3.4	28
47	Global increase in methane production under future warming of lake bottom waters. <i>Global Change Biology</i> , 2022, 28, 5427-5440.	9.5	27
48	Carbon dioxide emission from drawdown areas of a Brazilian reservoir is linked to surrounding land cover. <i>Aquatic Sciences</i> , 2019, 81, 1.	1.5	25
49	Benthic ostracode $\delta^{13}C$ as sensor for early Holocene establishment of modern circulation patterns in Central Europe. <i>Quaternary Science Reviews</i> , 2013, 66, 112-122.	3.0	22
50	Uncoupled organic matter burial and quality in boreal lake sediments over the Holocene. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2015, 120, 1751-1763.	3.0	21
51	Methane formation in tropical reservoirs predicted from sediment age and nitrogen. <i>Scientific Reports</i> , 2019, 9, 11017.	3.3	20
52	Changes in bacterial community composition along a solar radiation gradient in humic waters. <i>Aquatic Sciences</i> , 2006, 68, 415-424.	1.5	19
53	Temperature Dependence of Apparent Respiratory Quotients and Oxygen Penetration Depth in Contrasting Lake Sediments. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2017, 122, 3076-3087.	3.0	19
54	High spatial variability of gas transfer velocity in streams revealed by turbulence measurements. <i>Inland Waters</i> , 2018, 8, 461-473.	2.2	19

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55	An empirical model to predict methane production in inland water sediment from particular organic matter supply and reactivity. <i>Limnology and Oceanography</i> , 2021, 66, 3643-3655.	3.1	18
56	Phosphorus transport by the largest Amazon tributary (Madeira River, Brazil) and its sensitivity to precipitation and damming. <i>Inland Waters</i> , 2015, 5, 275-282.	2.2	17
57	High variability in iron-bound organic carbon among five boreal lake sediments. <i>Biogeochemistry</i> , 2018, 139, 19-29.	3.5	17
58	Widespread release of dissolved organic carbon from anoxic boreal lake sediments. <i>Inland Waters</i> , 2017, 7, 151-163.	2.2	16
59	Emission of CO ₂ from hydroelectric reservoirs in northern Sweden. <i>Archiv für Hydrobiologie</i> , 2004, 159, 25-42.	1.1	15
60	Reduced Mineralization of Terrestrial OC in Anoxic Sediment Suggests Enhanced Burial Efficiency in Reservoirs Compared to Other Depositional Environments. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2019, 124, 678-688.	3.0	15
61	High organic carbon burial but high potential for methane ebullition in the sediments of an Amazonian hydroelectric reservoir. <i>Biogeosciences</i> , 2020, 17, 1495-1505.	3.3	15
62	Spatially Resolved Measurements in Tropical Reservoirs Reveal Elevated Methane Ebullition at River Inflows and at High Productivity. <i>Global Biogeochemical Cycles</i> , 2021, 35, e2020GB006717.	4.9	15
63	Hotspots of Diffusive CO ₂ and CH ₄ Emission From Tropical Reservoirs Shift Through Time. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2021, 126, e2020JG006014.	3.0	14
64	Cross-continental importance of CH ₄ emissions from dry inland-waters. <i>Science of the Total Environment</i> , 2022, 814, 151925.	8.0	13
65	Implications of river intrusion and convective mixing on the spatial and temporal variability of under-ice CO ₂ . <i>Inland Waters</i> , 2019, 9, 162-176.	2.2	12
66	Where does the river end? Drivers of spatiotemporal variability in CO ₂ concentration and flux in the inflow area of a large boreal lake. <i>Limnology and Oceanography</i> , 2020, 65, 1161-1174.	3.1	8
67	Low sediment-water gas exchange in a small boreal lake. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2016, 121, 2493-2505.	3.0	4
68	Cold carbon storage. <i>Nature</i> , 2014, 511, 415-416.	27.8	1