

Zaihua Liu

List of Publications by Year in descending order

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76
papers

3,260
citations

126907

33
h-index

155660

55
g-index

77
all docs

77
docs citations

77
times ranked

2239
citing authors

#	ARTICLE	IF	CITATIONS
1	The ballast effect controls the settling of autochthonous organic carbon in three subtropical karst reservoirs. <i>Science of the Total Environment</i> , 2022, 818, 151736.	8.0	3
2	Role of carbon and nutrient exports from different land uses in the aquatic carbon sequestration and eutrophication process. <i>Science of the Total Environment</i> , 2022, 813, 151917.	8.0	9
3	Large-scale CO ₂ removal by enhanced carbonate weathering from changes in land-use practices. <i>Earth-Science Reviews</i> , 2022, 225, 103915.	9.1	13
4	Organic carbon source tracing and the BCP effect in the Yangtze River and the Yellow River: Insights from hydrochemistry, carbon isotope, and lipid biomarker analyses. <i>Science of the Total Environment</i> , 2022, 812, 152429.	8.0	16
5	Nutrient limitations on primary productivity and phosphorus removal by biological carbon pumps in dammed karst rivers: Implications for eutrophication control. <i>Journal of Hydrology</i> , 2022, 607, 127480.	5.4	13
6	Natural and Anthropogenic Driving Forces of Carbonate Weathering and the Related Carbon Sink Flux: A Model Comparison Study at Global Scale. <i>Global Biogeochemical Cycles</i> , 2022, 36, .	4.9	4
7	High stability of autochthonous dissolved organic matter in karst aquatic ecosystems: Evidence from fluorescence. <i>Water Research</i> , 2022, 220, 118723.	11.3	20
8	Comparisons on the effects of temperature, runoff, and land-cover on carbonate weathering in different karst catchments: insights into the future global carbon cycle. <i>Hydrogeology Journal</i> , 2021, 29, 331-345.	2.1	13
9	Recent environmental changes in the Yunnan-Guizhou Plateau inferred from organic geochemical records from the sediments of Fuxian Lake. <i>Elementa</i> , 2021, 9, .	3.2	5
10	The influence of hydrodynamics on the carbon isotope composition of inorganically precipitated calcite. <i>Earth and Planetary Science Letters</i> , 2021, 565, 116932.	4.4	4
11	Increasing Autochthonous Production in Inland Waters as a Contributor to the Missing Carbon Sink. <i>Frontiers in Earth Science</i> , 2021, 9, .	1.8	6
12	Primary productivity and seasonal dynamics of planktonic algae species composition in karst surface waters under different land uses. <i>Journal of Hydrology</i> , 2020, 591, 125295.	5.4	16
13	Conservation of oxygen and hydrogen seasonal isotopic signals in meteoric precipitation in groundwater: An experimental tank study of the effects of land cover in a summer monsoon climate. <i>Geochimica Et Cosmochimica Acta</i> , 2020, 284, 254-272.	3.9	12
14	The sensitivity of the carbon sink by coupled carbonate weathering to climate and land-use changes: Sediment records of the biological carbon pump effect in Fuxian Lake, Yunnan, China, during the past century. <i>Science of the Total Environment</i> , 2020, 720, 137539.	8.0	33
15	Global karst springs hydrograph dataset for research and management of the world's fastest-flowing groundwater. <i>Scientific Data</i> , 2020, 7, 59.	5.3	45
16	Large degrees of carbon isotope disequilibrium during precipitation-associated degassing of CO ₂ in a mountain stream. <i>Geochimica Et Cosmochimica Acta</i> , 2020, 273, 244-256.	3.9	18
17	Influence of the biological carbon pump effect on the sources and deposition of organic matter in Fuxian Lake, a deep oligotrophic lake in southwest China. <i>Acta Geochimica</i> , 2019, 38, 613-626.	1.7	11
18	Seasonal and diurnal variations in DIC, NO ₃ ⁻ and TOC concentrations in spring-pond ecosystems under different land-uses at the Shawan Karst Test Site, SW China: Carbon limitation of aquatic photosynthesis. <i>Journal of Hydrology</i> , 2019, 574, 811-821.	5.4	27

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19	Sensitivity of the global carbonate weathering carbon-sink flux to climate and land-use changes. <i>Nature Communications</i> , 2019, 10, 5749.	12.8	64
20	Large and active CO ₂ uptake by coupled carbonate weathering. <i>Earth-Science Reviews</i> , 2018, 182, 42-49.	9.1	114
21	Using deuterium excess, precipitation and runoff data to determine evaporation and transpiration: A case study from the Shawan Test Site, Puding, Guizhou, China. <i>Geochimica Et Cosmochimica Acta</i> , 2018, 242, 21-33.	3.9	31
22	Effects of land cover on variations in stable hydrogen and oxygen isotopes in karst groundwater: A comparative study of three karst catchments in Guizhou Province, Southwest China. <i>Journal of Hydrology</i> , 2018, 565, 374-385.	5.4	42
23	Old-carbon entering the South China Sea from the carbonate-rich Pearl River Basin: Coupled action of carbonate weathering and aquatic photosynthesis. <i>Applied Geochemistry</i> , 2017, 78, 96-104.	3.0	39
24	Effect of in-stream physicochemical processes on the seasonal variations in $\delta^{13}C$ and $\delta^{18}O$ values in laminated travertine deposits in a mountain stream channel. <i>Geochimica Et Cosmochimica Acta</i> , 2017, 202, 179-189.	3.9	10
25	Coupled control of land uses and aquatic biological processes on the diurnal hydrochemical variations in the five ponds at the Shawan Karst Test Site, China: Implications for the carbonate weathering-related carbon sink. <i>Chemical Geology</i> , 2017, 456, 58-71.	3.3	35
26	Carbonate weathering-related carbon sink fluxes under different land uses: A case study from the Shawan Simulation Test Site, Puding, Southwest China. <i>Chemical Geology</i> , 2017, 474, 58-71.	3.3	41
27	The role of biological carbon pump in the carbon sink and water environment improvement in karst surface aquatic ecosystems. <i>Chinese Science Bulletin</i> , 2017, 62, 3440-3450.	0.7	7
28	Organic carbon source tracing and DIC fertilization effect in the Pearl River: Insights from lipid biomarker and geochemical analysis. <i>Applied Geochemistry</i> , 2016, 73, 132-141.	3.0	52
29	Assessment of climate impacts on the karst-related carbon sink in SW China using MPD and GIS. <i>Global and Planetary Change</i> , 2016, 144, 171-181.	3.5	28
30	Hydrologically-driven variations in the karst-related carbon sink fluxes: Insights from high-resolution monitoring of three karst catchments in Southwest China. <i>Journal of Hydrology</i> , 2016, 533, 74-90.	5.4	45
31	Calcium isotopic fractionation during travertine deposition under different hydrodynamic conditions: Examples from Baishuitai (Yunnan, SW China). <i>Chemical Geology</i> , 2016, 426, 60-70.	3.3	17
32	Changes in climate and vegetation of central Guizhou in southwest China since the last glacial reflected by stalagmite records from Yelang Cave. <i>Journal of Asian Earth Sciences</i> , 2015, 114, 549-561.	2.3	29
33	Temperature dependence of oxygen- and clumped isotope fractionation in carbonates: A study of travertines and tufas in the 6–95°C temperature range. <i>Geochimica Et Cosmochimica Acta</i> , 2015, 168, 172-192.	3.9	199
34	Response of dissolved inorganic carbon (DIC) and $\delta^{13}C_{DIC}$ to changes in climate and land cover in SW China karst catchments. <i>Geochimica Et Cosmochimica Acta</i> , 2015, 165, 123-136.	3.9	48
35	Overview of 30years of research on solubility trapping in Chinese karst. <i>Earth-Science Reviews</i> , 2015, 146, 183-194.	9.1	28
36	A groundwater conceptual model and karst-related carbon sink for a glacierized alpine karst aquifer, Southwestern China. <i>Journal of Hydrology</i> , 2015, 529, 120-133.	5.4	26

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37	Diurnal hydrochemical variations in a karst spring and two ponds, Maolan Karst Experimental Site, China: Biological pump effects. <i>Journal of Hydrology</i> , 2015, 522, 407-417.	5.4	36
38	Carbon sequestration and decreased CO ₂ emission caused by terrestrial aquatic photosynthesis: Insights from diel hydrochemical variations in an epikarst spring and two spring-fed ponds in different seasons. <i>Applied Geochemistry</i> , 2015, 63, 248-260.	3.0	33
39	Significance of the carbon sink produced by H ₂ O "carbonate" CO ₂ "aquatic phototroph interaction on land. <i>Science Bulletin</i> , 2015, 60, 182-191.	9.0	56
40	Contrasts in variations of the carbon and oxygen isotopic composition of travertines formed in pools and a ramp stream at Huanglong Ravine, China: Implications for paleoclimatic interpretations. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 125, 34-48.	3.9	33
41	Oxygen isotope fractionation in travertine-depositing pools at Baishuitai, Yunnan, SW China: Effects of deposition rates. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 133, 340-350.	3.9	12
42	Review on the Role of Terrestrial Aquatic Photosynthesis in the Global Carbon Cycle. <i>Procedia Earth and Planetary Science</i> , 2013, 7, 513-516.	0.6	5
43	Spatial-temporal variations of travertine deposition rates and their controlling factors in Huanglong Ravine, China " A world's heritage site. <i>Applied Geochemistry</i> , 2012, 27, 211-222.	3.0	33
44	Equilibrium vs. kinetic fractionation of oxygen isotopes in two low-temperature travertine-depositing systems with differing hydrodynamic conditions at Baishuitai, Yunnan, SW China. <i>Geochimica Et Cosmochimica Acta</i> , 2012, 95, 63-78.	3.9	31
45	Response of epikarst hydrochemical changes to soil CO ₂ and weather conditions at Chenqi, Puding, SW China. <i>Journal of Hydrology</i> , 2012, 468-469, 151-158.	5.4	45
46	Temperature-driven meltwater production and hydrochemical variations at a glaciated alpine karst aquifer: implication for the atmospheric CO ₂ sink under global warming. <i>Environmental Earth Sciences</i> , 2012, 65, 2285-2297.	2.7	18
47	New progress and prospects in the study of rock-weathering-related carbon sinks. <i>Chinese Science Bulletin</i> , 2012, 57, 95-102.	0.7	19
48	Spatial and temporal hydrochemical variations of the spring-fed travertine-depositing stream in the Huanglong Ravine, Sichuan, SW China. <i>Acta Carsologica</i> , 2012, 39, .	0.7	12
49	Atmospheric CO ₂ sink: Silicate weathering or carbonate weathering?. <i>Applied Geochemistry</i> , 2011, 26, S292-S294.	3.0	144
50	Is pedogenic carbonate an important atmospheric CO ₂ sink?. <i>Science Bulletin</i> , 2011, 56, 3794-3796.	1.7	10
51	Effect of microbes on karstification in karst ecosystems. <i>Science Bulletin</i> , 2011, 56, 3743-3747.	1.7	36
52	$\delta^{13}C$, $\delta^{18}O$ and deposition rate of tufa in Xiangshui River, SW China: implications for land-cover change caused by climate and human impact during the late Holocene. <i>Geological Society Special Publication</i> , 2011, 352, 85-96.	1.3	12
53	Experimental study on the utilization of DIC by <i>Oocystis solitaria</i> Witttr and its influence on the precipitation of calcium carbonate in karst and non-karst waters. <i>Carbonates and Evaporites</i> , 2010, 25, 21-26.	1.0	22
54	Effect of different land use/land cover on karst hydrogeochemistry: A paired catchment study of Chenqi and Dengzhanhe, Puding, Guizhou, SW China. <i>Journal of Hydrology</i> , 2010, 388, 121-130.	5.4	105

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55	A new direction in effective accounting for the atmospheric CO ₂ budget: Considering the combined action of carbonate dissolution, the global water cycle and photosynthetic uptake of DIC by aquatic organisms. <i>Earth-Science Reviews</i> , 2010, 99, 162-172.	9.1	244
56	Wet-dry seasonal and spatial variations in the $\delta^{13}\text{C}$ and $\delta^{18}\text{O}$ values of the modern endogenic travertine at Baishuitai, Yunnan, SW China and their paleoclimatic and paleoenvironmental implications. <i>Geochimica Et Cosmochimica Acta</i> , 2010, 74, 1016-1029.	3.9	26
57	Wet-dry seasonal variations of hydrochemistry and carbonate precipitation rates in a travertine-depositing canal at Baishuitai, Yunnan, SW China: Implications for the formation of biannual laminae in travertine and for climatic reconstruction. <i>Chemical Geology</i> , 2010, 273, 258-266.	3.3	50
58	High-resolution study on the hydrochemical variations caused by the dilution of precipitation in the epikarst spring: an example spring of Landiantang at Nongla, Mashan, China. <i>Environmental Geology</i> , 2008, 54, 347-354.	1.2	14
59	Daytime deposition and nighttime dissolution of calcium carbonate controlled by submerged plants in a karst spring-fed pool: insights from high time-resolution monitoring of physico-chemistry of water. <i>Environmental Geology</i> , 2008, 55, 1159-1168.	1.2	40
60	A possible important CO ₂ sink by the global water cycle. <i>Science Bulletin</i> , 2008, 53, 402-407.	1.7	40
61	Stable isotopic compositions of waters in the karst environments of China: Climatic implications. <i>Applied Geochemistry</i> , 2007, 22, 1748-1763.	3.0	10
62	Seasonal, diurnal and storm-scale hydrochemical variations of typical epikarst springs in subtropical karst areas of SW China: Soil CO ₂ and dilution effects. <i>Journal of Hydrology</i> , 2007, 337, 207-223.	5.4	138
63	Diurnal Variations of Hydrochemistry in a Travertine-depositing Stream at Baishuitai, Yunnan, SW China. <i>Aquatic Geochemistry</i> , 2006, 12, 103-121.	1.3	38
64	Thickness and stable isotopic characteristics of modern seasonal climate-controlled sub-annual travertine laminae in a travertine-depositing stream at Baishuitai, SW China: implications for paleoclimate reconstruction. <i>Environmental Geology</i> , 2006, 51, 257-265.	1.2	38
65	Comparative study of dissolution rate-determining mechanisms of limestone and dolomite. <i>Environmental Geology</i> , 2005, 49, 274-279.	1.2	70
66	South China Karst Aquifer Storm-Scale Hydrochemistry. <i>Ground Water</i> , 2004, 42, 491-499.	1.3	39
67	Hydrochemical variations during flood pulses in the south-west China peak cluster karst: impacts of CaCO ₃ -H ₂ O-CO ₂ interactions. <i>Hydrological Processes</i> , 2004, 18, 2423-2437.	2.6	55
68	Deep source CO ₂ in natural waters and its role in extensive tufa deposition in the Huanglong Ravines, Sichuan, China. <i>Chemical Geology</i> , 2004, 205, 141-153.	3.3	62
69	Hydrochemical and isotope characteristics of spring water and travertine in the Baishuitai area (SW) Tj ETQq1 1 0.784314 rgBT /Over bo 698-704.	1.2	55
70	Kinetics and rate-limiting mechanisms of dolomite dissolution at various CO ₂ partial pressures. <i>Science in China Series B: Chemistry</i> , 2001, 44, 500-509.	0.8	14
71	Contribution of carbonate rock weathering to the atmospheric CO ₂ sink. <i>Environmental Geology</i> , 2000, 39, 1053-1058.	1.2	176
72	Geochemical features of the geothermal CO ₂ -water-carbonate rock system and analysis on its CO ₂ sources. <i>Science in China Series D: Earth Sciences</i> , 2000, 43, 569-576.	0.9	28

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73	Special speleothems in cement-grouting tunnels and their implications of the atmospheric CO ₂ sink. <i>Environmental Geology</i> , 1998, 35, 258-262.	1.2	14
74	Dissolution kinetics of calcium carbonate minerals in H ₂ O-CO ₂ solutions in turbulent flow: The role of the diffusion boundary layer and the slow reaction $H_2O + CO_2 \rightleftharpoons H^+ + HCO_3^-$. <i>Geochimica Et Cosmochimica Acta</i> , 1997, 61, 2879-2889.	3.9	171
75	Hydrodynamic control of inorganic calcite precipitation in Huanglong Ravine, China: Field measurements and theoretical prediction of deposition rates. <i>Geochimica Et Cosmochimica Acta</i> , 1995, 59, 3087-3097.	3.9	135
76	Effect of coal mine waters of variable pH on springwater quality: A case study. <i>Environmental Geology and Water Sciences</i> , 1991, 17, 219-225.	0.4	15