Zaihua Liu

List of Publications by Year
in descending order

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76	3,260	126907	155660
papers	citations	33 h-index	55 g-index

77	77	77	2239
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A new direction in effective accounting for the atmospheric CO2 budget: Considering the combined action of carbonate dissolution, the global water cycle and photosynthetic uptake of DIC by aquatic organisms. Earth-Science Reviews, 2010, 99, 162-172.	9.1	244
2	Temperature dependence of oxygen- and clumped isotope fractionation in carbonates: A study of travertines and tufas in the 6â€“95Â°C temperature range. Geochimica Et Cosmochimica Acta, 2015, 168, 172-192.	3.9	199
3	Contribution of carbonate rock weathering to the atmospheric CO 2 sink. Environmental Geology, 2000, 39, 1053-1058.	1.2	176
4	Dissolution kinetics of calcium carbonate minerals in H2Oî—¸CO2 solutions in turbulent flow: The role of the diffusion boundary layer and the slow reaction H2O + CO2 â†' H+ + HCO3â^'. Geochimica Et Cosmochimica Acta, 1997, 61, 2879-2889.	3.9	171
5	Atmospheric CO2 sink: Silicate weathering or carbonate weathering?. Applied Geochemistry, 2011, 26, S292-S294.	3.0	144
6	Seasonal, diurnal and storm-scale hydrochemical variations of typical epikarst springs in subtropical karst areas of SW China: Soil CO2 and dilution effects. Journal of Hydrology, 2007, 337, 207-223.	5.4	138
7	Hydrodynamic control of inorganic calcite precipitation in Huanglong Ravine, China: Field measurements and theoretical prediction of deposition rates. Geochimica Et Cosmochimica Acta, 1995, 59, 3087-3097.	3.9	135
8	Large and active CO2 uptake by coupled carbonate weathering. Earth-Science Reviews, 2018, 182, 42-49.	9.1	114
9	Effect of different land use/land cover on karst hydrogeochemistry: A paired catchment study of Chenqi and Dengzhanhe, Puding, Guizhou, SW China. Journal of Hydrology, 2010, 388, 121-130.	5.4	105
10	Comparative study of dissolution rate-determining mechanisms of limestone and dolomite. Environmental Geology, 2005, 49, 274-279.	1.2	70
11	Sensitivity of the global carbonate weathering carbon-sink flux to climate and land-use changes. Nature Communications, 2019, 10, 5749.	12.8	64
12	Deep source CO2 in natural waters and its role in extensive tufa deposition in the Huanglong Ravines, Sichuan, China. Chemical Geology, 2004, 205, 141-153.	3.3	62
13	Significance of the carbon sink produced by H 2 Oâ€“carbonateâ€“CO 2 â€“aquatic phototroph interaction on land. Science Bulletin, 2015, 60, 182-191.	9.0	56
14	Hydrochemical and isotope characteristics of spring water and travertine in the Baishuitai area (SW) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5 698-704.	1.2	55
15	Hydrochemical variations during flood pulses in the south-west China peak cluster karst: impacts of CaCO3â€“H2Oâ€“CO2 interactions. Hydrological Processes, 2004, 18, 2423-2437.	2.6	55
16	Organic carbon source tracing and DIC fertilization effect in the Pearl River: Insights from lipid biomarker and geochemical analysis. Applied Geochemistry, 2016, 73, 132-141.	3.0	52
17	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. Chemical Geology, 2010, 273, 258-266.	3.3	50
18	Response of dissolved inorganic carbon (DIC) and Î'13CDIC to changes in climate and land cover in SW China karst catchments. Geochimica Et Cosmochimica Acta, 2015, 165, 123-136.	3.9	48

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19	Response of epikarst hydrochemical changes to soil CO2 and weather conditions at Chenqi, Puding, SW China. Journal of Hydrology, 2012, 468-469, 151-158.	5.4	45
20	Hydrologically-driven variations in the karst-related carbon sink fluxes: Insights from high-resolution monitoring of three karst catchments in Southwest China. Journal of Hydrology, 2016, 533, 74-90.	5.4	45
21	Global karst springs hydrograph dataset for research and management of the worldâ€™s fastest-flowing groundwater. Scientific Data, 2020, 7, 59.	5.3	45
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. Journal of Hydrology, 2018, 565, 374-385.	5.4	42
23	Carbonate weathering-related carbon sink fluxes under different land uses: A case study from the Shawan Simulation Test Site, Puding, Southwest China. Chemical Geology, 2017, 474, 58-71.	3.3	41
24	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. Environmental Geology, 2008, 55, 1159-1168.	1.2	40
25	A possible important CO2 sink by the global water cycle. Science Bulletin, 2008, 53, 402-407.	1.7	40
26	South China Karst Aquifer Storm-Scale Hydrochemistry. Ground Water, 2004, 42, 491-499.	1.3	39
27	â€œOldâ€•carbon entering the South China Sea from the carbonate-rich Pearl River Basin: Coupled action of carbonate weathering and aquatic photosynthesis. Applied Geochemistry, 2017, 78, 96-104.	3.0	39
28	Diurnal Variations of Hydrochemistry in a Travertine-depositing Stream at Baishuitai, Yunnan, SW China. Aquatic Geochemistry, 2006, 12, 103-121.	1.3	38
29	Thickness and stable isotopic characteristics of modern seasonal climate-controlled sub-annual travertine laminas in a travertine-depositing stream at Baishuitai, SW China: implications for paleoclimate reconstruction. Environmental Geology, 2006, 51, 257-265.	1.2	38
30	Effect of microbes on karstification in karst ecosystems. Science Bulletin, 2011, 56, 3743-3747.	1.7	36
31	Diurnal hydrochemical variations in a karst spring and two ponds, Maolan Karst Experimental Site, China: Biological pump effects. Journal of Hydrology, 2015, 522, 407-417.	5.4	36
32	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. Chemical Geology, 2017, 456, 58-71.	3.3	35
33	Spatialâ€“temporal variations of travertine deposition rates and their controlling factors in Huanglong Ravine, China â€“ A worldâ€™s heritage site. Applied Geochemistry, 2012, 27, 211-222.	3.0	33
34	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. Geochimica Et Cosmochimica Acta, 2014, 125, 34-48.	3.9	33
35	Carbon sequestration and decreased CO2 emission caused by terrestrial aquatic photosynthesis: Insights from diel hydrochemical variations in an epikarst spring and two spring-fed ponds in different seasons. Applied Geochemistry, 2015, 63, 248-260.	3.0	33
36	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. Science of the Total Environment, 2020, 720, 137539.	8.0	33

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37	Equilibrium vs. kinetic fractionation of oxygen isotopes in two low-temperature travertine-depositing systems with differing hydrodynamic conditions at Baishuitai, Yunnan, SW China. Geochimica Et Cosmochimica Acta, 2012, 95, 63-78.	3.9	31
38	Using deuterium excess, precipitation and runoff data to determine evaporation and transpiration: A case study from the Shawan Test Site, Puding, Guizhou, China. Geochimica Et Cosmochimica Acta, 2018, 242, 21-33.	3.9	31
39	Changes in climate and vegetation of central Guizhou in southwest China since the last glacial reflected by stalagmite records from Yelang Cave. Journal of Asian Earth Sciences, 2015, 114, 549-561.	2.3	29
40	Geochemical features of the geothermal CO2-watercarbonate rock system and analysis on its CO2 sources. Science in China Series D: Earth Sciences, 2000, 43, 569-576.	0.9	28
41	Overview of 30years of research on solubility trapping in Chinese karst. Earth-Science Reviews, 2015, 146, 183-194.	9.1	28
42	Assessment of climate impacts on the karst-related carbon sink in SW China using MPD and GIS. Global and Planetary Change, 2016, 144, 171-181.	3.5	28
43	Seasonal and diurnal variations in DIC, NO3â^' and TOC concentrations in spring-pond ecosystems under different land-uses at the Shawan Karst Test Site, SW China: Carbon limitation of aquatic photosynthesis. Journal of Hydrology, 2019, 574, 811-821.	5.4	27
44	Wetâ€“dry seasonal and spatial variations in the Î´13C and Î´18O values of the modern endogenic travertine at Baishuitai, Yunnan, SW China and their paleoclimatic and paleoenvironmental implications. Geochimica Et Cosmochimica Acta, 2010, 74, 1016-1029.	3.9	26
45	A groundwater conceptual model and karst-related carbon sink for a glacierized alpine karst aquifer, Southwestern China. Journal of Hydrology, 2015, 529, 120-133.	5.4	26
46	Experimental study on the utilization of DIC by Oocystis solitaria Wittr and its influence on the precipitation of calcium carbonate in karst and non-karst waters. Carbonates and Evaporites, 2010, 25, 21-26.	1.0	22
47	High stability of autochthonous dissolved organic matter in karst aquatic ecosystems: Evidence from fluorescence. Water Research, 2022, 220, 118723.	11.3	20
48	New progress and prospects in the study of rock-weathering-related carbon sinks. Chinese Science Bulletin, 2012, 57, 95-102.	0.7	19
49	Temperature-driven meltwater production and hydrochemical variations at a glaciated alpine karst aquifer: implication for the atmospheric CO2 sink under global warming. Environmental Earth Sciences, 2012, 65, 2285-2297.	2.7	18
50	Large degrees of carbon isotope disequilibrium during precipitation-associated degassing of CO2 in a mountain stream. Geochimica Et Cosmochimica Acta, 2020, 273, 244-256.	3.9	18
51	Calcium isotopic fractionation during travertine deposition under different hydrodynamic conditions: Examples from Baishuitai (Yunnan, SW China). Chemical Geology, 2016, 426, 60-70.	3.3	17
52	Primary productivity and seasonal dynamics of planktonic algae species composition in karst surface waters under different land uses. Journal of Hydrology, 2020, 591, 125295.	5.4	16
53	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. Science of the Total Environment, 2022, 812, 152429.	8.0	16
54	Effect of coal mine waters of variable pH on springwater quality: A case study. Environmental Geology and Water Sciences, 1991, 17, 219-225.	0.4	15

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55	Special speleothems in cement-grouting tunnels and their implications of the atmospheric CO 2 sink. Environmental Geology, 1998, 35, 258-262.	1.2	14
56	Kinetics and rate-limiting mechanisms of dolomite dissolution at various CO2 partial pressures. Science in China Series B: Chemistry, 2001, 44, 500-509.	0.8	14
57	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. Environmental Geology, 2008, 54, 347-354.	1.2	14
58	Comparisons on the effects of temperature, runoff, and land-cover on carbonate weathering in different karst catchments: insights into the future global carbon cycle. Hydrogeology Journal, 2021, 29, 331-345.	2.1	13
59	Large-scale CO2 removal by enhanced carbonate weathering from changes in land-use practices. Earth-Science Reviews, 2022, 225, 103915.	9.1	13
60	Nutrient limitations on primary productivity and phosphorus removal by biological carbon pumps in dammed karst rivers: Implications for eutrophication control. Journal of Hydrology, 2022, 607, 127480.	5.4	13
61	Î´ ¹³ C, Î´ 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. Geological Society Special Publication, 2011, 352, 85-96.	1.3	12
62	Oxygen isotope fractionation in travertine-depositing pools at Baishuitai, Yunnan, SW China: Effects of deposition rates. Geochimica Et Cosmochimica Acta, 2014, 133, 340-350.	3.9	12
63	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. Geochimica Et Cosmochimica Acta, 2020, 284, 254-272.	3.9	12
64	Spatial and temporal hydrochemical variations of the spring-fed travertine-depositing stream in the Huanglong Ravine, Sichuan, SW China. Acta Carsologica, 2012, 39, .	0.7	12
65	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. Acta Geochimica, 2019, 38, 613-626.	1.7	11
66	Stable isotopic compositions of waters in the karst environments of China: Climatic implications. Applied Geochemistry, 2007, 22, 1748-1763.	3.0	10
67	Is pedogenic carbonate an important atmospheric CO2 sink?. Science Bulletin, 2011, 56, 3794-3796.	1.7	10
68	Effect of in-stream physicochemical processes on the seasonal variations in Î´13C and Î´18O values in laminated travertine deposits in a mountain stream channel. Geochimica Et Cosmochimica Acta, 2017, 202, 179-189.	3.9	10
69	Role of carbon and nutrient exports from different land uses in the aquatic carbon sequestration and eutrophication process. Science of the Total Environment, 2022, 813, 151917.	8.0	9
70	The role of biological carbon pump in the carbon sink and water environment improvement in karst surface aquatic ecosystems. Chinese Science Bulletin, 2017, 62, 3440-3450.	0.7	7
71	Increasing Autochthonous Production in Inland Waters as a Contributor to the Missing Carbon Sink. Frontiers in Earth Science, 2021, 9, .	1.8	6
72	Review on the Role of Terrestrial Aquatic Photosynthesis in the Global Carbon Cycle. Procedia Earth and Planetary Science, 2013, 7, 513-516.	0.6	5

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73	Recent environmental changes in the Yunnanâ€“Guizhou Plateau inferred from organic geochemical records from the sediments of Fuxian Lake. Elementa, 2021, 9, .	3.2	5
74	The influence of hydrodynamics on the carbon isotope composition of inorganically precipitated calcite. Earth and Planetary Science Letters, 2021, 565, 116932.	4.4	4
75	Natural and Anthropogenic Driving Forces of Carbonate Weathering and the Related Carbon Sink Flux: A Model Comparison Study at Global Scale. Global Biogeochemical Cycles, 2022, 36, .	4.9	4
76	The ballast effect controls the settling of autochthonous organic carbon in three subtropical karst reservoirs. Science of the Total Environment, 2022, 818, 151736.	8.0	3