

Jay P Zarnetske

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1050329/publications.pdf>

Version: 2024-02-01

49
papers

2,513
citations

218381

26
h-index

205818

48
g-index

52
all docs

52
docs citations

52
times ranked

2524
citing authors

#	ARTICLE	IF	CITATIONS
1	Dynamics of nitrate production and removal as a function of residence time in the hyporheic zone. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	370
2	Human domination of the global water cycle absent from depictions and perceptions. <i>Nature Geoscience</i> , 2019, 12, 533-540.	5.4	245
3	Coupled transport and reaction kinetics control the nitrate source-sink function of hyporheic zones. <i>Water Resources Research</i> , 2012, 48, .	1.7	158
4	Unexpected spatial stability of water chemistry in headwater stream networks. <i>Ecology Letters</i> , 2018, 21, 296-308.	3.0	149
5	Generality of Hydrologic Transport Limitation of Watershed Organic Carbon Flux Across Ecoregions of the United States. <i>Geophysical Research Letters</i> , 2018, 45, 11,702.	1.5	141
6	A physical explanation for the development of redox microzones in hyporheic flow. <i>Geophysical Research Letters</i> , 2015, 42, 4402-4410.	1.5	129
7	Labile dissolved organic carbon supply limits hyporheic denitrification. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	128
8	Transient storage as a function of geomorphology, discharge, and permafrost active layer conditions in Arctic tundra streams. <i>Water Resources Research</i> , 2007, 43, .	1.7	80
9	Using in-situ optical sensors to study dissolved organic carbon dynamics of streams and watersheds: A review. <i>Science of the Total Environment</i> , 2017, 575, 713-723.	3.9	77
10	Quantification of metabolically active transient storage (MATS) in two reaches with contrasting transient storage and ecosystem respiration. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	61
11	How does rapidly changing discharge during storm events affect transient storage and channel water balance in a headwater mountain stream?. <i>Water Resources Research</i> , 2013, 49, 5473-5486.	1.7	59
12	Profiles of temporal thaw depths beneath two arctic stream types using ground-penetrating radar. <i>Permafrost and Periglacial Processes</i> , 2006, 17, 341-355.	1.5	49
13	Estimating 3D variation in active-layer thickness beneath arctic streams using ground-penetrating radar. <i>Journal of Hydrology</i> , 2009, 373, 479-486.	2.3	48
14	Revealing biogeochemical signatures of Arctic landscapes with river chemistry. <i>Scientific Reports</i> , 2019, 9, 12894.	1.6	47
15	Comparison of instantaneous and constant-rate stream tracer experiments through non-parametric analysis of residence time distributions. <i>Water Resources Research</i> , 2008, 44, .	1.7	46
16	A water cycle for the Anthropocene. <i>Hydrological Processes</i> , 2019, 33, 3046-3052.	1.1	44
17	Rapid decline in river icings detected in Arctic Alaska: Implications for a changing hydrologic cycle and river ecosystems. <i>Geophysical Research Letters</i> , 2017, 44, 3228-3235.	1.5	38
18	Stream solute tracer timescales changing with discharge and reach length confound process interpretation. <i>Water Resources Research</i> , 2016, 52, 3227-3245.	1.7	37

#	ARTICLE	IF	CITATIONS
19	Coupling multiscale observations to evaluate hyporheic nitrate removal at the reach scale. <i>Freshwater Science</i> , 2015, 34, 172-186.	0.9	36
20	We cannot shrug off the shoulder seasons: addressing knowledge and data gaps in an Arctic headwater. <i>Environmental Research Letters</i> , 2020, 15, 104027.	2.2	34
21	Subsea permafrost carbon stocks and climate change sensitivity estimated by expert assessment. <i>Environmental Research Letters</i> , 2020, 15, 124075.	2.2	34
22	Comparison of in-channel mobileâ€“immobile zone exchange during instantaneous and constant rate stream tracer additions: Implications for design and interpretation of non-conservative tracer experiments. <i>Journal of Hydrology</i> , 2008, 357, 112-124.	2.3	31
23	Influence of morphology and permafrost dynamics on hyporheic exchange in arctic headwater streams under warming climate conditions. <i>Geophysical Research Letters</i> , 2008, 35, .	1.5	31
24	Woody debris is related to reachâ€“scale hotspots of lowland stream ecosystem respiration under baseflow conditions. <i>Ecohydrology</i> , 2018, 11, e1952.	1.1	31
25	Stream Dissolved Organic Matter in Permafrost Regions Shows Surprising Compositional Similarities but Negative Priming and Nutrient Effects. <i>Global Biogeochemical Cycles</i> , 2021, 35, e2020GB006719.	1.9	30
26	Tundra wildfire triggers sustained lateral nutrient loss in Alaskan Arctic. <i>Global Change Biology</i> , 2021, 27, 1408-1430.	4.2	29
27	Arctic concentrationâ€“discharge relationships for dissolved organic carbon and nitrate vary with landscape and season. <i>Limnology and Oceanography</i> , 2021, 66, S197.	1.6	29
28	Exploring Tracer Information and Model Framework Tradeâ€“Offs to Improve Estimation of Stream Transient Storage Processes. <i>Water Resources Research</i> , 2019, 55, 3481-3501.	1.7	26
29	Direct Observations of Hydrologic Exchange Occurring With Lessâ€“Mobile Porosity and the Development of Anoxic Microzones in Sandy Lakebed Sediments. <i>Water Resources Research</i> , 2018, 54, 4714-4729.	1.7	25
30	Spatial and temporal variation in river corridor exchange across a 5th-order mountain stream network. <i>Hydrology and Earth System Sciences</i> , 2019, 23, 5199-5225.	1.9	23
31	Impacts of water level on metabolism and transient storage in vegetated lowland rivers: Insights from a mesocosm study. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2017, 122, 628-644.	1.3	22
32	Experimental shifts of hydrologic residence time in a sandy urban stream sedimentâ€“water interface alter nitrate removal and nitrous oxide fluxes. <i>Biogeochemistry</i> , 2020, 149, 195-219.	1.7	22
33	Hyporheic exchange and water chemistry of two arctic tundra streams of contrasting geomorphology. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	21
34	Residence Time Controls on the Fate of Nitrogen in Flowâ€“Through Lakebed Sediments. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2019, 124, 689-707.	1.3	20
35	Formation Criteria for Hyporheic Anoxic Microzones: Assessing Interactions of Hydraulics, Nutrients, and Biofilms. <i>Water Resources Research</i> , 2020, 56, no.	1.7	17
36	Low flow controls on stream thermal dynamics. <i>Limnologia</i> , 2018, 68, 157-167.	0.7	15

#	ARTICLE	IF	CITATIONS
37	Toward measuring biogeochemistry within the stream–groundwater interface at the network scale: An initial assessment of two spatial sampling strategies. <i>Limnology and Oceanography: Methods</i> , 2018, 16, 722-733.	1.0	15
38	Multi-offset GPR methods for hyporheic zone investigations. <i>Near Surface Geophysics</i> , 2009, 7, 247-257.	0.6	14
39	Solute Transport and Transformation in an Intermittent, Headwater Mountain Stream with Diurnal Discharge Fluctuations. <i>Water (Switzerland)</i> , 2019, 11, 2208.	1.2	14
40	Co-located contemporaneous mapping of morphological, hydrological, chemical, and biological conditions in a 5th-order mountain stream network, Oregon, USA. <i>Earth System Science Data</i> , 2019, 11, 1567-1581.	3.7	14
41	Multi-scale preferential flow processes in an urban streambed under variable hydraulic conditions. <i>Journal of Hydrology</i> , 2019, 573, 168-179.	2.3	11
42	Exploring dissolved organic carbon cycling at the stream–groundwater interface across a third-order, lowland stream network. <i>Biogeochemistry</i> , 2018, 137, 105-126.	1.7	10
43	Multi-year, spatially extensive, watershed-scale synoptic stream chemistry and water quality conditions for six permafrost-underlain Arctic watersheds. <i>Earth System Science Data</i> , 2022, 14, 95-116.	3.7	9
44	We Must Stop Fossil Fuel Emissions to Protect Permafrost Ecosystems. <i>Frontiers in Environmental Science</i> , 0, 10, .	1.5	9
45	Advancing river corridor science beyond disciplinary boundaries with an inductive approach to catalyse hypothesis generation. <i>Hydrological Processes</i> , 2022, 36, .	1.1	7
46	Hot Spots and Hot Moments in the Critical Zone: Identification of and Incorporation into Reactive Transport Models. , 2022, , 9-47.		7
47	An intense precipitation event causes a temperate forested drainage network to shift from source to sink. <i>Limnology and Oceanography</i> , 2022, 67, .	1.6	5
48	Helophyte impacts on the response of hyporheic invertebrate communities to inundation events in intermittent streams. <i>Ecohydrology</i> , 2017, 10, e1857.	1.1	4
49	The method controls the story - Sampling method impacts on the detection of pore-water nitrogen concentrations in streambeds. <i>Science of the Total Environment</i> , 2020, 709, 136075.	3.9	2