Jay P Zarnetske

List of Publications by Year
in descending order

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	Multi-year, spatially extensive, watershed-scale synoptic stream chemistry and water quality conditions for six permafrost-underlain Arctic watersheds. Earth System Science Data, 2022, 14, 95-116.	3.7	9
2	An intense precipitation event causes a temperate forested drainage network to shift from <scp>N₂O</scp> source to sink. Limnology and Oceanography, 2022, 67, .	1.6	5
3	Advancing river corridor science beyond disciplinary boundaries with an inductive approach to catalyse hypothesis generation. Hydrological Processes, 2022, 36, .	1.1	7
4	Hot Spots and Hot Moments in the Critical Zone: Identification of and Incorporation into Reactive Transport Models. , 2022, , 9-47.		7
5	Stream Dissolved Organic Matter in Permafrost Regions Shows Surprising Compositional Similarities but Negative Priming and Nutrient Effects. Global Biogeochemical Cycles, 2021, 35, e2020GB006719.	1.9	30
6	Tundra wildfire triggers sustained lateral nutrient loss in Alaskan Arctic. Global Change Biology, 2021, 27, 1408-1430.	4.2	29
7	Arctic concentrationâ€"discharge relationships for dissolved organic carbon and nitrate vary with landscape and season. Limnology and Oceanography, 2021, 66, S197.	1.6	29
8	The method controls the story - Sampling method impacts on the detection of pore-water nitrogen concentrations in streambeds. Science of the Total Environment, 2020, 709, 136075.	3.9	2
9	Formation Criteria for Hyporheic Anoxic Microzones: Assessing Interactions of Hydraulics, Nutrients, and Biofilms. Water Resources Research, 2020, 56, no.	1.7	17
10	Experimental shifts of hydrologic residence time in a sandy urban stream sedimentâ€"water interface alter nitrate removal and nitrous oxide fluxes. Biogeochemistry, 2020, 149, 195-219.	1.7	22
11	We cannot shrug off the shoulder seasons: addressing knowledge and data gaps in an Arctic headwater. Environmental Research Letters, 2020, 15, 104027.	2.2	34
12	Subsea permafrost carbon stocks and climate change sensitivity estimated by expert assessment. Environmental Research Letters, 2020, 15, 124075.	2.2	34
13	A water cycle for the Anthropocene. Hydrological Processes, 2019, 33, 3046-3052.	1.1	44
14	Revealing biogeochemical signatures of Arctic landscapes with river chemistry. Scientific Reports, 2019, 9, 12894.	1.6	47
15	Human domination of the global water cycle absent from depictions and perceptions. Nature Geoscience, 2019, 12, 533-540.	5.4	245
16	Multi-scale preferential flow processes in an urban streambed under variable hydraulic conditions. Journal of Hydrology, 2019, 573, 168-179.	2.3	11
17	Exploring Tracer Information and Model Framework Tradeâ€Offs to Improve Estimation of Stream Transient Storage Processes. Water Resources Research, 2019, 55, 3481-3501.	1.7	26
18	Residence Time Controls on the Fate of Nitrogen in Flowâ€Through Lakebed Sediments. Journal of Geophysical Research G: Biogeosciences, 2019, 124, 689-707.	1.3	20

#	Article	IF	Citations
19	Spatial and temporal variation in river corridor exchange across a 5th-order mountain stream network. Hydrology and Earth System Sciences, 2019, 23, 5199-5225.	1.9	23
20	Solute Transport and Transformation in an Intermittent, Headwater Mountain Stream with Diurnal Discharge Fluctuations. Water (Switzerland), 2019, 11, 2208.	1.2	14
21	Co-located contemporaneous mapping of morphological, hydrological, chemical, and biological conditions in a 5th-order mountain stream network, Oregon, USA. Earth System Science Data, 2019, 11, 1567-1581.	3.7	14
22	Woody debris is related to reachâ€scale hotspots of lowland stream ecosystem respiration under baseflow conditions. Ecohydrology, 2018, 11, e1952.	1.1	31
23	Exploring dissolved organic carbon cycling at the streamâ€"groundwater interface across a third-order, lowland stream network. Biogeochemistry, 2018, 137, 105-126.	1.7	10
24	Unexpected spatial stability of water chemistry in headwater stream networks. Ecology Letters, 2018, 21, 296-308.	3.0	149
25	Low flow controls on stream thermal dynamics. Limnologica, 2018, 68, 157-167.	0.7	15
26	Toward measuring biogeochemistry within the streamâ€groundwater interface at the network scale: An initial assessment of two spatial sampling strategies. Limnology and Oceanography: Methods, 2018, 16, 722-733.	1.0	15
27	Generality of Hydrologic Transport Limitation of Watershed Organic Carbon Flux Across Ecoregions of the United States. Geophysical Research Letters, 2018, 45, 11,702.	1.5	141
28	Direct Observations of Hydrologic Exchange Occurring With Lessâ€Mobile Porosity and the Development of Anoxic Microzones in Sandy Lakebed Sediments. Water Resources Research, 2018, 54, 4714-4729.	1.7	25
29	Impacts of water level on metabolism and transient storage in vegetated lowland rivers: Insights from a mesocosm study. Journal of Geophysical Research G: Biogeosciences, 2017, 122, 628-644.	1.3	22
30	Helophyte impacts on the response of hyporheic invertebrate communities to inundation events in intermittent streams. Ecohydrology, 2017, 10, e1857.	1.1	4
31	Using in-situ optical sensors to study dissolved organic carbon dynamics of streams and watersheds: A review. Science of the Total Environment, 2017, 575, 713-723.	3.9	77
32	Rapid decline in river icings detected in Arctic Alaska: Implications for a changing hydrologic cycle and river ecosystems. Geophysical Research Letters, 2017, 44, 3228-3235.	1.5	38
33	Stream solute tracer timescales changing with discharge and reach length confound process interpretation. Water Resources Research, 2016, 52, 3227-3245.	1.7	37
34	A physical explanation for the development of redox microzones in hyporheic flow. Geophysical Research Letters, 2015, 42, 4402-4410.	1.5	129
35	Coupling multiscale observations to evaluate hyporheic nitrate removal at the reach scale. Freshwater Science, 2015, 34, 172-186.	0.9	36
36	How does rapidly changing discharge during storm events affect transient storage and channel water balance in a headwater mountain stream?. Water Resources Research, 2013, 49, 5473-5486.	1.7	59

#	Article	IF	Citations
37	Coupled transport and reaction kinetics control the nitrate sourceâ€sink function of hyporheic zones. Water Resources Research, 2012, 48, .	1.7	158
38	Dynamics of nitrate production and removal as a function of residence time in the hyporheic zone. Journal of Geophysical Research, 2011, 116, .	3.3	370
39	Quantification of metabolically active transient storage (MATS) in two reaches with contrasting transient storage and ecosystem respiration. Journal of Geophysical Research, 2011, 116, .	3.3	61
40	Labile dissolved organic carbon supply limits hyporheic denitrification. Journal of Geophysical Research, 2011, 116, .	3.3	128
41	Multiâ€offset GPR methods for hyporheic zone investigations. Near Surface Geophysics, 2009, 7, 247-257.	0.6	14
42	Estimating 3D variation in active-layer thickness beneath arctic streams using ground-penetrating radar. Journal of Hydrology, 2009, 373, 479-486.	2.3	48
43	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. Journal of Hydrology, 2008, 357, 112-124.	2.3	31
44	Influence of morphology and permafrost dynamics on hyporheic exchange in arctic headwater streams under warming climate conditions. Geophysical Research Letters, 2008, 35, .	1.5	31
45	Hyporheic exchange and water chemistry of two arctic tundra streams of contrasting geomorphology. Journal of Geophysical Research, 2008, 113, .	3.3	21
46	Comparison of instantaneous and constantâ€rate stream tracer experiments through nonâ€parametric analysis of residence time distributions. Water Resources Research, 2008, 44, .	1.7	46
47	Transient storage as a function of geomorphology, discharge, and permafrost active layer conditions in Arctic tundra streams. Water Resources Research, 2007, 43, .	1.7	80
48	Profiles of temporal thaw depths beneath two arctic stream types using ground-penetrating radar. Permafrost and Periglacial Processes, 2006, 17, 341-355.	1.5	49
49	We Must Stop Fossil Fuel Emissions to Protect Permafrost Ecosystems. Frontiers in Environmental Science, 0, 10, .	1.5	9