Robert L Runkel

List of Publications by Year
in descending order

46 papers	2,693 citations	236925 25 h-index	214800 47 g-index
64 all docs	64 docs citations	64 times ranked	2330 citing authors

#	Article	IF	Citations
1	A new metric for determining the importance of transient storage. Journal of the North American Benthological Society, 2002, 21, 529-543.	3.1	178
2	Assessment of metal loads in watersheds affected by acid mine drainage by using tracer injection and synoptic sampling: Cement Creek, Colorado, USA. Applied Geochemistry, 2002, 17, 1183-1207.	3.0	136
3	Inorganic N and P dynamics of Antarctic glacial meltwater streams as controlled by hyporheic exchange and benthic autotrophic communities. Journal of the North American Benthological Society, 2004, 23, 171-188.	3.1	124
4	Analysis of Transient Storage Subject to Unsteady Flow: Diel Flow Variation in an Antarctic Stream. Journal of the North American Benthological Society, 1998, 17, 143-154.	3.1	120
5	Denitrification and hydrologic transient storage in a glacial meltwater stream, McMurdo Dry Valleys, Antarctica. Limnology and Oceanography, 2004, 49, 1884-1895.	3.1	101
6	Determining long time-scale hyporheic zone flow paths in Antarctic streams. Hydrological Processes, 2003, 17, 1691-1710.	2.6	97
7	Toward a transportâ€based analysis of nutrient spiraling and uptake in streams. Limnology and Oceanography: Methods, 2007, 5, 50-62.	2.0	96
8	An efficient numerical solution of the transient storage equations for solute transport in small streams. Water Resources Research, 1993, 29, 211-215.	4.2	90
9	Conservative and reactive solute transport in constructed wetlands. Water Resources Research, 2004, 40, .	4.2	87
10	Hyporheic Exchange and Fulvic Acid Redox Reactions in an Alpine Stream/Wetland Ecosystem, Colorado Front Range. Environmental Science & Technology, 2006, 40, 5943-5949.	10.0	85
11	Reactive solute transport in streams: A surface complexation approach for trace metal sorption. Water Resources Research, 1999, 35, 3829-3840.	4.2	79
12	Reactive Solute Transport in an Acidic Stream:Â Experimental pH Increase and Simulation of Controls on pH, Aluminum, and Iron. Environmental Science & Technology, 1996, 30, 3016-3024.	10.0	75
13	Reactive Solute Transport in Streams: 1. Development of an Equilibrium-Based Model. Water Resources Research, 1996, 32, 409-418.	4.2	65
14	Evaluating Remedial Alternatives for an Acid Mine Drainage Stream:Â Application of a Reactive Transport Model. Environmental Science & Technology, 2002, 36, 1093-1101.	10.0	65
15	pH dependence of iron photoreduction in a rocky mountain stream affected by acid mine drainage. Hydrological Processes, 2001, 15, 1979-1992.	2.6	60
16	Application of iron and zinc isotopes to track the sources and mechanisms of metal loading in a mountain watershed. Applied Geochemistry, 2009, 24, 1270-1277.	3.0	53
17	On the use of rhodamine <scp>WT</scp> for the characterization of stream hydrodynamics and transient storage. Water Resources Research, 2015, 51, 6125-6142.	4.2	52
18	Sensitivity analysis of conservative and reactive stream transient storage models applied to field data from multiple-reach experiments. Advances in Water Resources, 2005, 28, 479-492.	3.8	47

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19	Estimating instream constituent loads using replicate synoptic sampling, Peru Creek, Colorado. Journal of Hydrology, 2013, 489, 26-41.	5.4	37
20	Formation of mixed Alâ€“Fe colloidal sorbent and dissolved-colloidal partitioning of Cu and Zn in the Cement Creek â€“ Animas River Confluence, Silverton, Colorado. Applied Geochemistry, 2007, 22, 1467-1484.	3.0	35
21	Multiple injected and natural conservative tracers quantify mixing in a stream confluence affected by acid mine drainage near Silverton, Colorado. Hydrological Processes, 2006, 20, 2727-2743.	2.6	32
22	A simulation-based approach for estimating premining water quality: Red Mountain Creek, Colorado. Applied Geochemistry, 2007, 22, 1899-1918.	3.0	31
23	Naturally acidic surface and ground waters draining porphyry-related mineralized areas of the Southern Rocky Mountains, Colorado and New Mexico. Applied Geochemistry, 2009, 24, 255-267.	3.0	31
24	A software tool to assess uncertainty in transient-storage model parameters using Monte Carlo simulations. Freshwater Science, 2017, 36, 195-217.	1.8	27
25	A comparison of preâ€•and postâ€•remediation water quality, Mineral Creek, Colorado. Hydrological Processes, 2009, 23, 3319-3333.	2.6	26
26	Evaluating Remedial Alternatives for an Acid Mine Drainage Stream: A Model Post Audit. Environmental Science & Technology, 2012, 46, 340-347.	10.0	23
27	Effects of Flow Regime on Metal Concentrations and the Attainment of Water Quality Standards in a Remediated Stream Reach, Butte, Montana. Environmental Science & Technology, 2016, 50, 12641-12649.	10.0	23
28	Quantification of Changes in Metal Loading from Storm Runoff, Merse River (Tuscany, Italy). Mine Water and the Environment, 2007, 26, 209-216.	2.0	22
29	Spatially Detailed Quantification of Metal Loading for Decision Making: Metal Mass Loading to American Fork and Mary Ellen Gulch, Utah. Mine Water and the Environment, 2009, 28, 274.	2.0	21
30	An approach to quantify sources, seasonal change, and biogeochemical processes affecting metal loading in streams: Facilitating decisions for remediation of mine drainage. Applied Geochemistry, 2010, 25, 728-740.	3.0	21
31	Synoptic sampling and principal components analysis to identify sources of water and metals to an acid mine drainage stream. Environmental Science and Pollution Research, 2017, 24, 17220-17240.	5.3	21
32	The precipitation of indium at elevated pH in a stream influenced by acid mine drainage. Science of the Total Environment, 2017, 574, 1484-1491.	8.0	21
33	Reactive solute-transport simulation of pre-mining metal concentrations in mine-impacted catchments: Redwell Basin, Colorado, USA. Chemical Geology, 2010, 269, 124-136.	3.3	19
34	Natural attenuation can lead to environmental resilience in mine environment. Applied Geochemistry, 2020, 117, 104597.	3.0	19
35	Influence of hummocks and emergent vegetation on hydraulic performance in a surface flow wastewater treatment wetland. Water Resources Research, 2010, 46, .	4.2	18
36	Use of Natural and Applied Tracers to Guide Targeted Remediation Efforts in an Acid Mine Drainage System, Colorado Rockies, USA. Water (Switzerland), 2014, 6, 745-777.	2.7	15

#	Article	IF	Citations
37	Critical Shifts in Trace Metal Transport and Remediation Performance under Future Low River Flows. Environmental Science & Technology, 2020, 54, 15742-15750.	10.0	15
38	Assessment of origin and fate of contaminants along mining-affected Rio Montevecchio (SW Sardinia,) Tj ETQq0 0 0 rgBT /Overlock 10 T 104420.	3.0	12
39	Non-invasive flow path characterization in a mining-impacted wetland. Journal of Contaminant Hydrology, 2015, 183, 29-39.	3.3	11
40	Using Spatially Detailed Waterâ€Quality Data and Soluteâ€Transport Modeling to Support Total Maximum Daily Load Development¹. Journal of the American Water Resources Association, 2012, 48, 949-969.	2.4	10
41	Exploration of Diffuse and Discrete Sources of Acid Mine Drainage to a Headwater Mountain Stream in Colorado, USA. Mine Water and the Environment, 2017, 36, 463-478.	2.0	10
42	Cinnamon Gulch revisited: Another look at separating natural and mining-impacted contributions to instream metal load. Applied Geochemistry, 2018, 95, 206-217.	3.0	7
43	Assessment of a conservative mixing model for the evaluation of constituent behavior below river confluences, Elqui River Basin, Chile. River Research and Applications, 2021, 37, 967-978.	1.7	7
44	Evaluating remediation alternatives for mine drainage, Little Cottonwood Creek, Utah, USA. Environmental Earth Sciences, 2010, 60, 1021-1036.	2.7	6
45	Effects of hydrologic variability and remedial actions on first flush and metal loading from streams draining the Silverton caldera, 1992â€“2014. Hydrological Processes, 2021, 35, e14412.	2.6	4
46	A simple lowâ€cost approach for transport parameter determination in mountain rivers. River Research and Applications, 2022, 38, 173-181.	1.7	1