

Roy Haggerty

List of Publications by Year in descending order

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52
papers

4,697
citations

117571

34
h-index

175177

52
g-index

54
all docs

54
docs citations

54
times ranked

3233
citing authors

#	ARTICLE	IF	CITATIONS
1	Multiple-Rate Mass Transfer for Modeling Diffusion and Surface Reactions in Media with Pore-Scale Heterogeneity. <i>Water Resources Research</i> , 1995, 31, 2383-2400.	1.7	703
2	On the late-time behavior of tracer test breakthrough curves. <i>Water Resources Research</i> , 2000, 36, 3467-3479.	1.7	401
3	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
4	Power-law residence time distribution in the hyporheic zone of a 2nd-order mountain stream. <i>Geophysical Research Letters</i> , 2002, 29, 18-1.	1.5	248
5	Tracer tests in a fractured dolomite: 2. Analysis of mass transfer in single-well injection-withdrawal tests. <i>Water Resources Research</i> , 2001, 37, 1129-1142.	1.7	165
6	Coupled transport and reaction kinetics control the nitrate source-sink function of hyporheic zones. <i>Water Resources Research</i> , 2012, 48, .	1.7	158
7	A modelling study of hyporheic exchange pattern and the sequence, size, and spacing of stream bedforms in mountain stream networks, Oregon, USA. <i>Hydrological Processes</i> , 2006, 20, 2443-2457.	1.1	145
8	What controls the apparent timescale of solute mass transfer in aquifers and soils? A comparison of experimental results. <i>Water Resources Research</i> , 2004, 40, .	1.7	139
9	Comparing transient storage modeling and residence time distribution (RTD) analysis in geomorphically varied reaches in the Lookout Creek basin, Oregon, USA. <i>Advances in Water Resources</i> , 2003, 26, 925-937.	1.7	135
10	Residence time of bedform-driven hyporheic exchange. <i>Advances in Water Resources</i> , 2008, 31, 1382-1386.	1.7	121
11	The paradox of cooling streams in a warming world: Regional climate trends do not parallel variable local trends in stream temperature in the Pacific continental United States. <i>Geophysical Research Letters</i> , 2012, 39, .	1.5	108
12	Determining in-channel (dead zone) transient storage by comparing solute transport in a bedrock channel-alluvial channel sequence, Oregon. <i>Water Resources Research</i> , 2005, 41, .	1.7	95
13	Experimental Visualization of Solute Transport and Mass Transfer Processes in Two-Dimensional Conductivity Fields with Connected Regions of High Conductivity. <i>Environmental Science & Technology</i> , 2004, 38, 3916-3926.	4.6	94
14	The imprint of climate and geology on the residence times of groundwater. <i>Geophysical Research Letters</i> , 2016, 43, 701-708.	1.5	93
15	Development of a "smart" tracer for the assessment of microbiological activity and sediment-water interaction in natural waters: The resazurin-resorufin system. <i>Water Resources Research</i> , 2008, 44, .	1.7	91
16	Modeling Mass Transfer Processes in Soil Columns with Pore-Scale Heterogeneity. <i>Soil Science Society of America Journal</i> , 1998, 62, 62-74.	1.2	89
17	Resazurin as a "smart" tracer for quantifying metabolically active transient storage in stream ecosystems. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	89
18	Increasing synchrony of high temperature and low flow in western North American streams: double trouble for coldwater biota?. <i>Hydrobiologia</i> , 2013, 712, 61-70.	1.0	87

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19	Descriptors of natural thermal regimes in streams and their responsiveness to change in the Pacific Northwest of North America. <i>Freshwater Biology</i> , 2013, 58, 880-894.	1.2	84
20	Aquifer remediation: A method for estimating mass transfer rate coefficients and an evaluation of pulsed pumping. <i>Water Resources Research</i> , 1994, 30, 1979-1991.	1.7	79
21	Tracer tests in a fractured dolomite: 3. Double-porosity, multiple-rate mass transfer processes in convergent flow tracer tests. <i>Water Resources Research</i> , 2001, 37, 1143-1154.	1.7	79
22	Measuring aerobic respiration in stream ecosystems using the resazurin-resorufin system. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	79
23	A field comparison of multiple techniques to quantify groundwater-surface-water interactions. <i>Freshwater Science</i> , 2015, 34, 139-160.	0.9	77
24	The importance and challenge of hyporheic mixing. <i>Water Resources Research</i> , 2017, 53, 3565-3575.	1.7	77
25	Evaluation of alternative groundwater flow models for simulating hyporheic exchange in a small mountain stream. <i>Journal of Hydrology</i> , 2009, 364, 142-151.	2.3	76
26	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
27	What Matters Most: Are Future Stream Temperatures More Sensitive to Changing Air Temperatures, Discharge, or Riparian Vegetation?. <i>Journal of the American Water Resources Association</i> , 2019, 55, 116-132.	1.0	59
28	Design of multiple contaminant remediation: Sensitivity to rate-limited mass transfer. <i>Water Resources Research</i> , 1994, 30, 435-446.	1.7	55
29	Changes in hyporheic exchange flow following experimental wood removal in a small, low-gradient stream. <i>Water Resources Research</i> , 2009, 45, .	1.7	45
30	Defining and measuring the mean residence time of lateral surface transient storage zones in small streams. <i>Water Resources Research</i> , 2012, 48, .	1.7	41
31	Comprehensive multiyear carbon budget of a temperate headwater stream. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2016, 121, 1306-1315.	1.3	40
32	The Resazurin-Resorufin System: Insights From a Decade of "Smart" Tracer Development for Hydrologic Applications. <i>Water Resources Research</i> , 2018, 54, 6877-6889.	1.7	38
33	Scaling and predicting solute transport processes in streams. <i>Water Resources Research</i> , 2013, 49, 4071-4088.	1.7	37
34	Quantifying spatial differences in metabolism in headwater streams. <i>Freshwater Science</i> , 2014, 33, 798-811.	0.9	37
35	Coupling multiscale observations to evaluate hyporheic nitrate removal at the reach scale. <i>Freshwater Science</i> , 2015, 34, 172-186.	0.9	36
36	Influence of transient storage on stream nutrient uptake based on substrata manipulation. <i>Aquatic Sciences</i> , 2011, 73, 365-376.	0.6	35

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37	Direct geoelectrical evidence of mass transfer at the laboratory scale. <i>Water Resources Research</i> , 2012, 48, .	1.7	34
38	A mean residence time relationship for lateral cavities in gravel-bed rivers and streams: Incorporating streambed roughness and cavity shape. <i>Water Resources Research</i> , 2013, 49, 3642-3650.	1.7	31
39	Ecosystem respiration increases with biofilm growth and bed forms: Flume measurements with resazurin. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2014, 119, 2220-2230.	1.3	27
40	Transient groundwater chemistry near a river: Effects on U(VI) transport in laboratory column experiments. <i>Water Resources Research</i> , 2011, 47, .	1.7	26
41	Carbon dynamics in the hyporheic zone of a headwater mountain stream in the Cascade Mountains, Oregon. <i>Water Resources Research</i> , 2016, 52, 7556-7576.	1.7	26
42	Flow structure and mean residence times of lateral cavities in open channel flows: influence of bed roughness and shape. <i>Environmental Fluid Mechanics</i> , 2015, 15, 1069-1100.	0.7	22
43	Nighttime and daytime respiration in a headwater stream. <i>Ecohydrology</i> , 2016, 9, 93-100.	1.1	21
44	Modeling solute diffusion in the presence of pore-scale heterogeneity: method development and an application to the Culebra dolomite Member of the Rustler Formation, New Mexico, USA. <i>Journal of Contaminant Hydrology</i> , 2001, 48, 253-276.	1.6	20
45	Diurnal timing of warmer air under climate change affects magnitude, timing and duration of stream temperature change. <i>Hydrological Processes</i> , 2013, 27, 2367-2378.	1.1	16
46	An efficient method to estimate processing rates in streams. <i>Water Resources Research</i> , 2013, 49, 6096-6099.	1.7	15
47	Analytical solution and simplified analysis of coupled parent-daughter steady-state transport with multirate mass transfer. <i>Water Resources Research</i> , 2013, 49, 635-639.	1.7	15
48	Persistent Metal Contamination Limits Lotic Ecosystem Heterotrophic Metabolism after More Than 100 Years of Exposure: A Novel Application of the Resazurin Resorufin Smart Tracer. <i>Environmental Science & Technology</i> , 2012, 46, 9862-9871.	4.6	13
49	Measurement of gas-exchange rate in streams by the oxygen-carbon method. <i>Freshwater Science</i> , 2018, 37, 222-237.	0.9	9
50	Effect of multiple lateral cavities on stream solute transport under non-Fickian conditions and at the Fickian asymptote. <i>Journal of Hydrology</i> , 2014, 519, 1707-1722.	2.3	6
51	RANS Predictions of Turbulent Scalar Transport in Dead Zones of Natural Streams. , 2012, , .		5
52	Parameterization of Mean Residence Times in Idealized Rectangular Dead Zones Representative of Natural Streams. <i>Journal of Hydraulic Engineering</i> , 2014, 140, .	0.7	5