Joerg Lewandowski

List of Publications by Year
in descending order

90 papers	3,858 citations	109321 35 h-index	133252 59 g-index
107 all docs	107 docs citations	107 times ranked	4018 citing authors

#	Article	IF	Citations
1	Oxygen Controls the Phosphorus Release from Lake Sediments â€“ a Longâ€Lasting Paradigm in Limnology. International Review of Hydrobiology, 2008, 93, 415-432.	0.9	428
2	Ecohydrological interfaces as hot spots of ecosystem processes. Water Resources Research, 2017, 53, 6359-6376.	4.2	155
3	Phosphorus in groundwater discharge â€“ A potential source for lake eutrophication. Journal of Hydrology, 2015, 524, 214-226.	5.4	148
4	Long term effects of phosphorus precipitations with alum in hypereutrophic Lake SÃ¼sser See (Germany). Water Research, 2003, 37, 3194-3204.	11.3	139
5	Groundwater â€•the disregarded component in lake water and nutrient budgets. Part 1: effects of groundwater on hydrology. Hydrological Processes, 2015, 29, 2895-2921.	2.6	126
6	Tubeâ€dwelling invertebrates: tiny ecosystem engineers have large effects in lake ecosystems. Ecological Monographs, 2015, 85, 333-351.	5.4	122
7	Groundwater â€“ the disregarded component in lake water and nutrient budgets. Part 2: effects of groundwater on nutrients. Hydrological Processes, 2015, 29, 2922-2955.	2.6	119
8	Fate of organic micropollutants in the hyporheic zone of a eutrophic lowland stream: Results of a preliminary field study. Science of the Total Environment, 2011, 409, 1824-1835.	8.0	118
9	Miniaturized photometrical methods for the rapid analysis of phosphate, ammonium, ferrous iron, and sulfate in pore water of freshwater sediments. Limnology and Oceanography: Methods, 2007, 5, 63-71.	2.0	113
10	Is the Hyporheic Zone Relevant beyond the Scientific Community?. Water (Switzerland), 2019, 11, 2230.	2.7	113
11	Effect of macrozoobenthos on two-dimensional small-scale heterogeneity of pore water phosphorus concentrations in lake sediments: A laboratory study. Limnology and Oceanography, 2005, 50, 1106-1118.	3.1	101
12	The relationship between Chironomus plumosus burrows and the spatial distribution of pore-water phosphate, iron and ammonium in lake sediments. Freshwater Biology, 2007, 52, 331-343.	2.4	87
13	Drivers of water level fluctuations and hydrological exchange between groundwater and surface water at the lowland River Spree (Germany): field study and statistical analyses. Hydrological Processes, 2009, 23, 2117-2128.	2.6	76
14	Gathering at the top? Environmental controls of microplastic uptake and biomagnification in freshwater food webs. Environmental Pollution, 2021, 268, 115750.	7.5	75
15	Two-Dimensional Small-Scale Variability of Pore Water Phosphate in Freshwater Lakes: Results from a Novel Dialysis Sampler. Environmental Science & Technology, 2002, 36, 2039-2047.	10.0	72
16	Fate of Trace Organic Compounds in the Hyporheic Zone: Influence of Retardation, the Benthic Biolayer, and Organic Carbon. Environmental Science & Technology, 2019, 53, 4224-4234.	10.0	67
17	Retention and early diagenetic transformation of phosphorus in Lake Arendsee (Germany) - consequences for management strategies. Archiv FÃ¼r Hydrobiologie, 2005, 164, 143-167.	1.1	63
18	A heat pulse technique for the determination of smallâ€scale flow directions and flow velocities in the streambed of sandâ€bed streams. Hydrological Processes, 2011, 25, 3244-3255.	2.6	62

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19	Hyporheic Exchange Controls Fate of Trace Organic Compounds in an Urban Stream. Environmental Science & Technology, 2018, 52, 12285-12294.	10.0	60
20	Nutrient retention and release in a floodplain's aquifer and in the hyporheic zone of a lowland river. Ecological Engineering, 2010, 36, 1156-1166.	3.6	58
21	Urban water interfaces. Journal of Hydrology, 2014, 514, 226-232.	5.4	56
22	Spatial and Temporal Variability in Attenuation of Polar Organic Micropollutants in an Urban Lowland Stream. Environmental Science & Technology, 2019, 53, 2383-2395.	10.0	56
23	Application of heat pulse injections for investigating shallow hyporheic flow in a lowland river. Water Resources Research, 2012, 48, .	4.2	54
24	The fate of polar trace organic compounds in the hyporheic zone. Water Research, 2018, 140, 158-166.	11.3	53
25	Understanding process dynamics at aquifer-surface water interfaces: An introduction to the special section on new modeling approaches and novel experimental technologies. Water Resources Research, 2014, 50, 1847-1855.	4.2	52
26	Bioturbation enhances the aerobic respiration of lake sediments in warming lakes. Biology Letters, 2016, 12, 20160448.	2.3	52
27	Effects of nitrate on phosphorus release: comparison of two Berlin lakes. Clean - Soil, Air, Water, 2006, 34, 325-332.	0.6	50
28	Upscaling lacustrine groundwater discharge rates by fiber-optic distributed temperature sensing. Water Resources Research, 2013, 49, 7929-7944.	4.2	50
29	Dynamic Hyporheic Zones: Exploring the Role of Peak Flow Events on Bedformâ€Induced Hyporheic Exchange. Water Resources Research, 2019, 55, 218-235.	4.2	50
30	Frontiers in realâ€time ecohydrology â€" a paradigm shift in understanding complex environmental systems. Ecohydrology, 2015, 8, 529-537.	2.4	49
31	Decision support for the selection of an appropriate in-lake measure to influence the phosphorus retention in sediments. Water Research, 2003, 37, 801-812.	11.3	46
32	Lacustrine groundwater discharge: Combined determination of volumes and spatial patterns. Journal of Hydrology, 2013, 502, 202-211.	5.4	46
33	Effects of bioirrigation of non-biting midges (Diptera: Chironomidae) on lake sediment respiration. Scientific Reports, 2016, 6, 27329.	3.3	45
34	Long-term efficiency of lake restoration by chemical phosphorus precipitation: Scenario analysis with a phosphorus balance model. Water Research, 2016, 97, 153-161.	11.3	39
35	Groundwaterâ€"Surface Water Interactions: Recent Advances and Interdisciplinary Challenges. Water (Switzerland), 2020, 12, 296.	2.7	38
36	Bacterial Diversity Controls Transformation of Wastewater-Derived Organic Contaminants in River-Simulating Flumes. Environmental Science & Technology, 2020, 54, 5467-5479.	10.0	38

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37	Localization of lacustrine groundwater discharge (LGD) by airborne measurement of thermal infrared radiation. Remote Sensing of Environment, 2013, 138, 119-125.	11.0	35
38	A 3D analysis algorithm to improve interpretation of heat pulse sensor results for the determination of small-scale flow directions and velocities in the hyporheic zone. Journal of Hydrology, 2012, 475, 1-11.	5.4	34
39	Chironomid larvae enhance phosphorus burial in lake sediments: Insights from long-term and short-term experiments. Science of the Total Environment, 2019, 663, 254-264.	8.0	33
40	Impact of Dynamically Changing Discharge on Hyporheic Exchange Processes Under Gaining and Losing Groundwater Conditions. Water Resources Research, 2018, 54, 10,076.	4.2	32
41	Woody debris is related to reachâ€scale hotspots of lowland stream ecosystem respiration under baseflow conditions. Ecohydrology, 2018, 11, e1952.	2.4	31
42	Alteration of<i>Chironomus plumosus</i>ventilation activity and bioirrigation-mediated benthic fluxes by changes in temperature, oxygen concentration, and seasonal variations. Freshwater Science, 2012, 31, 269-281.	1.8	30
43	Environmental filtering and community delineation in the streambed ecotone. Scientific Reports, 2018, 8, 15871.	3.3	28
44	Using recirculating flumes and a response surface model to investigate the role of hyporheic exchange and bacterial diversity on micropollutant half-lives. Environmental Sciences: Processes and Impacts, 2019, 21, 2093-2108.	3.5	27
45	Exploring Tracer Information and Model Framework Tradeâ€Offs to Improve Estimation of Stream Transient Storage Processes. Water Resources Research, 2019, 55, 3481-3501.	4.2	26
46	Organizational Principles of Hyporheic Exchange Flow and Biogeochemical Cycling in River Networks Across Scales. Water Resources Research, 2022, 58, .	4.2	26
47	Impact of Flow Alteration and Temperature Variability on Hyporheic Exchange. Water Resources Research, 2020, 56, e2019WR026225.	4.2	25
48	Quantification of pumping rate of Chironomus plumosus larvae in natural burrows. Aquatic Ecology, 2010, 44, 143-153.	1.5	24
49	Bioirrigation by<i>Chironomus plumosus</i>: advective flow investigated by particle image velocimetry. Journal of the North American Benthological Society, 2010, 29, 789-802.	3.1	24
50	Spatial and temporal variation in river corridor exchange across a 5th-order mountain stream network. Hydrology and Earth System Sciences, 2019, 23, 5199-5225.	4.9	23
51	Upwelling of deep water during thermal stratification onsetâ€"A major mechanism of vertical transport in small temperate lakes in spring?. Water Resources Research, 2015, 51, 9612-9627.	4.2	22
52	Coupled groundwater flow and heat transport simulation for estimating transient aquiferâ€"stream exchange at the lowland River Spree (Germany). Hydrological Processes, 2014, 28, 4078-4090.	2.6	21
53	Investigating Groundwaterâ€Lake Interactions by Hydraulic Heads and a Water Balance. Ground Water, 2015, 53, 227-237.	1.3	21
54	Active heat pulse sensing of 3-D-flow fields in streambeds. Hydrology and Earth System Sciences, 2018, 22, 1917-1929.	4.9	21

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55	Impact of Bed Form Celerity on Oxygen Dynamics in the Hyporheic Zone. Water (Switzerland), 2020, 12, 62.	2.7	20
56	The effect of unsteady streamflow and stream-groundwater interactions on oxygen consumption in a sandy streambed. Scientific Reports, 2019, 9, 19735.	3.3	19
57	Advection around ventilated Uâ€shaped burrows: A model study. Water Resources Research, 2013, 49, 2907-2917.	4.2	17
58	Simultaneous attenuation of trace organics and change in organic matter composition in the hyporheic zone of urban streams. Scientific Reports, 2021, 11, 4179.	3.3	17
59	A novel method to evaluate the effect of a stream restoration on the spatial pattern of hydraulic connection of stream and groundwater. Journal of Hydrology, 2015, 527, 394-401.	5.4	16
60	Assessment of transient storage exchange and advectionâ€"dispersion mechanisms from concentration signatures along breakthrough curves. Journal of Hydrology, 2016, 538, 794-801.	5.4	16
61	Integral Flow Modelling Approach for Surface Water-Groundwater Interactions along a Rippled Streambed. Water (Switzerland), 2019, 11, 1517.	2.7	15
62	Identification of groundwater exfiltration, interflow discharge, and hyporheic exchange flows by fibre optic distributed temperature sensing supported by electromagnetic induction geophysics. Hydrological Processes, 2019, 33, 1390-1402.	2.6	15
63	Measurement techniques for quantification of pumping activity of invertebrates in small burrows. Fundamental and Applied Limnology, 2011, 178, 89-110.	0.7	14
64	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.	9.9	14
65	Stimulation of epiphyton growth by lacustrine groundwater discharge to an oligo-mesotrophic hard-water lake. Freshwater Science, 2017, 36, 555-570.	1.8	12
66	Impact of Macrozoobenthos on Two-Dimensional Small-Scale Heterogeneity of Pore Water Phosphorus Concentrations: in-situ Study in Lake Arendsee (Germany). Hydrobiologia, 2005, 549, 43-55.	2.0	11
67	How does the groundwater influence the water balance of a lowland lake? A field study from Lake Stechlin, north-eastern Germany. Limnologica, 2018, 68, 17-25.	1.5	11
68	A Numerical Stream Transport Modeling Approach Including Multiple Conceptualizations of Hyporheic Exchange and Spatial Variability to Assess Contaminant Removal. Water Resources Research, 2020, 56, e2019WR024987.	4.2	11
69	Thermal infrared imaging for the detection of relatively warm lacustrine groundwater discharge at the surface of freshwater bodies. Journal of Hydrology, 2018, 562, 281-289.	5.4	8
70	Highâ€Resolution Integrated Transport Model for Studying Surface Waterâ€"Groundwater Interaction. Ground Water, 2021, 59, 488-502.	1.3	8
71	Transformation of organic micropollutants along hyporheic flow in bedforms of river-simulating flumes. Scientific Reports, 2021, 11, 13034.	3.3	8
72	Identification of transport processes in bioirrigated muddy sediments by [18F]fluoride PET (Positron) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	1.5	6

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73	Mesocosm experiments identifying hotspots of groundwater upwelling in a water column by fibre optic distributed temperature sensing. Hydrological Processes, 2018, 32, 185-199.	2.6	6
74	SMART Research: Toward Interdisciplinary River Science in Europe. Frontiers in Environmental Science, 2020, 8, .	3.3	6
75	How daily groundwater table drawdown affects the diel rhythm of hyporheic exchange. Hydrology and Earth System Sciences, 2021, 25, 1905-1921.	4.9	5
76	Spatial Variability of Radon Production Rates in an Alluvial Aquifer Affects Travel Time Estimates of Groundwater Originating From a Losing Stream. Water Resources Research, 2022, 58, .	4.2	5
77	Helophyte impacts on the response of hyporheic invertebrate communities to inundation events in intermittent streams. Ecohydrology, 2017, 10, e1857.	2.4	4
78	A novel device for in situ point measurements of fluorescent tracers in sediment pore water. Advances in Water Resources, 2021, 148, 103827.	3.8	4
79	Effect of Chironomus plumosus on spatial distribution of pore-water phosphate concentration in lake sediments: a laboratory experiment. Verhandlungen Der Internationalen Vereinigung Fur Theoretische Und Angewandte Limnologie International Association of Theoretical and Applied Limnology, 2005, 29, 937-940.	0.1	3
80	An integral approach to simulate three-dimensional flow in and around a ventilated U-shaped chironomid dwelled burrow. Journal of Ecohydraulics, 2023, 8, 133-143.	3.1	3
81	Determining hyporheic removal rates of trace organic compounds using non-parametric conservative transport with multiple sorption models. Water Research, 2021, 206, 117750.	11.3	3
82	Seasonal Differences in the Attenuation of Polar Trace Organics in the Hyporheic Zone of an Urban Stream. Water Resources Research, 2022, 58, e2021WR031272.	4.2	3
83	Impacts of alluvial structures on smallâ€scale nutrient heterogeneities in nearâ€surface groundwater. Ecohydrology, 2015, 8, 682-694.	2.4	2
84	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.	8.0	2
85	Estimation of lacustrine groundwater discharge using heat as a tracer and vertical hydraulic gradients â€“ a comparison. Proceedings of the International Association of Hydrological Sciences, 0, 365, 79-84.	1.0	2
86	From submarine to lacustrine groundwater discharge. Proceedings of the International Association of Hydrological Sciences, 0, 365, 72-78.	1.0	1
87	Hyporheic Zone and Processes. , 2022, , 301-311.		1
88	Lacustrine groundwater discharge. , 2017, , 34-47.		0
89	Small-scale water- and nutrient-exchange between lowland River Spree (Germany) and adjacent groundwater. Hydrogeology, 2013, , 23-32.	0.1	0
90	Empirical quantification of lacustrine groundwater discharge â€“ different methods and their limitations. Proceedings of the International Association of Hydrological Sciences, 0, 365, 85-90.	1.0	0