Martin H Schroth

List of Publications by Year
in descending order

73 papers	3,349 citations	136950 32 h-index	149698 56 g-index
73 all docs	73 docs citations	73 times ranked	2929 citing authors

#	Article	IF	Citations
1	Characterization of Millerâ€Similar Silica Sands for Laboratory Hydrologic Studies. Soil Science Society of America Journal, 1996, 60, 1331-1339.	2.2	249
2	A model for oxygen and sulfur isotope fractionation in sulfate during bacterial sulfate reduction processes. Geochimica Et Cosmochimica Acta, 2005, 69, 4773-4785.	3.9	227
3	Single-Well, "Push-Pull" Test for In Situ Determination of Microbial Activities. Ground Water, 1997, 35, 619-631.	1.3	204
4	Activity and Diversity of Sulfate-Reducing Bacteria in a Petroleum Hydrocarbon-Contaminated Aquifer. Applied and Environmental Microbiology, 2002, 68, 1516-1523.	3.1	159
5	Simplified Method of "Push-Pull" Test Data Analysis for Determining In Situ Reaction Rate Coefficients. Ground Water, 1998, 36, 314-324.	1.3	141
6	Modeling of a microbial growth experiment with bioclogging in a two-dimensional saturated porous media flow field. Journal of Contaminant Hydrology, 2004, 70, 37-62.	3.3	113
7	Sulfur isotope fractionation during microbial sulfate reduction by toluene-degrading bacteria. Geochimica Et Cosmochimica Acta, 2001, 65, 3289-3298.	3.9	111
8	Electron-Donating Phenolic and Electron-Accepting Quinone Moieties in Peat Dissolved Organic Matter: Quantities and Redox Transformations in the Context of Peat Biogeochemistry. Environmental Science & Technology, 2018, 52, 5236-5245.	10.0	110
9	Interaction between water flow and spatial distribution of microbial growth in a two-dimensional flow field in saturated porous media. Journal of Contaminant Hydrology, 2002, 58, 169-189.	3.3	105
10	In-situ oxidation of trichloroethene by permanganate: effects on porous medium hydraulic properties. Journal of Contaminant Hydrology, 2001, 50, 79-98.	3.3	101
11	Effect of water-table fluctuation on dissolution and biodegradation of a multi-component, light nonaqueous-phase liquid. Journal of Contaminant Hydrology, 2007, 94, 235-248.	3.3	86
12	In situ assessment of microbial sulfate reduction in a petroleum-contaminated aquifer using pushâ€“pull tests and stable sulfur isotope analyses. Journal of Contaminant Hydrology, 2001, 51, 179-195.	3.3	83
13	High-Resolution Fibre-Optic Temperature Sensing: A New Tool to Study the Two-Dimensional Structure of Atmospheric Surface-Layer Flow. Boundary-Layer Meteorology, 2012, 142, 177-192.	2.3	79
14	Quantification of Phenolic Antioxidant Moieties in Dissolved Organic Matter by Flow-Injection Analysis with Electrochemical Detection. Environmental Science & Technology, 2016, 50, 6423-6432.	10.0	75
15	Activity and Diversity of Methanogens in a Petroleum Hydrocarbon-Contaminated Aquifer. Applied and Environmental Microbiology, 2005, 71, 149-158.	3.1	74
16	Spatial Variability in In Situ Aerobic Respiration and Denitrification Rates in a Petroleum-Contaminated Aquifer. Ground Water, 1998, 36, 924-937.	1.3	73
17	In situ evaluation of solute retardation using single-well pushâ€“pull tests. Advances in Water Resources, 2000, 24, 105-117.	3.8	73
18	Degradation of Polar Organic Micropollutants during Riverbank Filtration: Complementary Results from Spatiotemporal Sampling and Pushâ€“Pull Tests. Environmental Science & Technology, 2013, 47, 11512-11521.	10.0	64

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19	Sulfate-reducing bacterial community response to carbon source amendments in contaminated aquifer microcosms. FEMS Microbiology Ecology, 2002, 42, 109-118.	2.7	60
20	Sulfur isotope fractionation during growth of sulfate-reducing bacteria on various carbon sources. Geochimica Et Cosmochimica Acta, 2004, 68, 4891-4904.	3.9	59
21	Multifluid flow in bedded porous media: laboratory experiments and numerical simulations. Advances in Water Resources, 1998, 22, 169-183.	3.8	52
22	Field-scale 13C-labeling of phospholipid fatty acids (PLFA) and dissolved inorganic carbon: tracing acetate assimilation and mineralization in a petroleum hydrocarbon-contaminated aquifer. FEMS Microbiology Ecology, 2002, 41, 259-267.	2.7	50
23	Geometry and position of light nonaqueous-phase liquid lenses in water-wetted porous media. Journal of Contaminant Hydrology, 1995, 19, 269-287.	3.3	49
24	Single-Well â€œPushâˆ’Pullâ€•Partitioning Tracer Test for NAPL Detection in the Subsurface. Environmental Science & Technology, 2002, 36, 2708-2716.	10.0	47
25	Determination of NAPLâˆ’Water Interfacial Areas in Well-Characterized Porous Media. Environmental Science & Technology, 2006, 40, 815-822.	10.0	47
26	New Field Method:Â Gas Pushâˆ’Pull Test for the In-Situ Quantification of Microbial Activities in the Vadose Zone. Environmental Science & Technology, 2005, 39, 304-310.	10.0	46
27	Structure and function of methanotrophic communities in a landfill-cover soil. FEMS Microbiology Ecology, 2012, 81, 52-65.	2.7	46
28	Anthropogenic and natural methane fluxes in Switzerland synthesized within a spatially explicit inventory. Biogeosciences, 2014, 11, 1941-1959.	3.3	39
29	Three-phase immiscible fluid movement in the vicinity of textural interfaces. Journal of Contaminant Hydrology, 1998, 32, 1-23.	3.3	37
30	Field-scale isotopic labeling of phospholipid fatty acids from acetate-degrading sulfate-reducing bacteria. FEMS Microbiology Ecology, 2005, 51, 197-207.	2.7	36
31	Response of methanotrophic activity and community structure to temperature changes in a diffusive CH4/O2 counter gradient in an unsaturated porous medium. FEMS Microbiology Ecology, 2009, 69, 202-212.	2.7	35
32	Activity and diversity of methane-oxidizing bacteria in glacier forefields on siliceous and calcareous bedrock. Biogeosciences, 2012, 9, 2259-2274.	3.3	34
33	Models to Determine First-Order Rate Coefficients from Single-Well Push-Pull Tests. Ground Water, 2006, 44, 275-283.	1.3	33
34	Fieldâ€scale tracking of active methaneâ€oxidizing communities in a landfill cover soil reveals spatial and seasonal variability. Environmental Microbiology, 2015, 17, 1721-1737.	3.8	33
35	How functional is a trait? Phosphorus mobilization through root exudates differs little between <i>Carex</i> species with and without specialized dauciform roots. New Phytologist, 2017, 215, 1438-1450.	7.3	29
36	Approximate solution for solute transport during spherical-flow push-pull tests. Ground Water, 2005, 43, 280-284.	1.3	27

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37	Evaluation of hydrodynamic scaling in porous media using finger dimensions. Water Resources Research, 1998, 34, 1935-1940.	4.2	26
38	Effects of eutrophication on sedimentary organic carbon cycling in five temperate lakes. Biogeosciences, 2019, 16, 3725-3746.	3.3	26
39	Laboratory and Field Investigation of Surfactant Sorption Using Single-Well, "Push-Pull" Tests. Ground Water, 1999, 37, 589-598.	1.3	24
40	In Situ Determination of Subsurface Microbial Enzyme Kinetics. Ground Water, 2001, 39, 348-355.	1.3	23
41	Characterizing Intrinsic Bioremediation in a Petroleum Hydrocarbon-Contaminated Aquifer by Combined Chemical, Isotopic, and Biological Analyses. Bioremediation Journal, 2000, 4, 359-371.	2.0	21
42	Soilâ€"methane sink increases with soil age in forefields of Alpine glaciers. Soil Biology and Biochemistry, 2015, 84, 83-95.	8.8	21
43	High Temporal and Spatial Variability of Atmospheric-Methane Oxidation in Alpine Glacier Forefield Soils. Applied and Environmental Microbiology, 2017, 83, .	3.1	21
44	Nitrate-consuming processes in a petroleum-contaminated aquifer quantified using pushâ€"pull tests combined with 15N isotope and acetylene-inhibition methods. Journal of Contaminant Hydrology, 2003, 66, 59-77.	3.3	20
45	Quantifying methane oxidation in a landfill-cover soil by gas pushâ€"pull tests. Waste Management, 2009, 29, 2518-2526.	7.4	20
46	â€œForced Mass Balanceâ€•Technique for Estimating In Situ Transformation Rates of Sorbing Solutes in Groundwater. Environmental Science & Technology, 2003, 37, 3920-3925.	10.0	18
47	In Situ Quantification of Atmospheric Methane Oxidation in Nearâ€Surface Soils. Vadose Zone Journal, 2010, 9, 1052-1062.	2.2	18
48	Quantification of Microbial Methane Oxidation in an Alpine Peat Bog. Vadose Zone Journal, 2007, 6, 705-712.	2.2	17
49	Assessment of microbial methane oxidation above a petroleumâ€contaminated aquifer using a combination of in situ techniques. Journal of Geophysical Research, 2008, 113, .	3.3	16
50	Oxidation of Reduced Peat Particulate Organic Matter by Dissolved Oxygen: Quantification of Apparent Rate Constants in the Field. Environmental Science & Technology, 2018, 52, 11151-11160.	10.0	14
51	Transport of Methane and Noble Gases during Gas Pushâˆ'Pull Tests in Dry Porous Media. Environmental Science & Technology, 2007, 41, 3262-3268.	10.0	12
52	Methanotrophic activity in a diffusive methane/oxygen counter-gradient in an unsaturated porous medium. Journal of Contaminant Hydrology, 2007, 94, 126-138.	3.3	12
53	Transport of Methane and Noble Gases during Gas Pushâˆ'Pull Tests in Variably Saturated Porous Media. Environmental Science & Technology, 2008, 42, 2515-2521.	10.0	12
54	Circadian methane oxidation in the root zone of rice plants. Biogeochemistry, 2012, 111, 317-330.	3.5	12

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55	Field-scale labelling and activity quantification of methane-oxidizing bacteria in a landfill-cover soil. FEMS Microbiology Ecology, 2013, 83, 392-401.	2.7	12
56	Laboratory Investigation of Surfactant-Enhanced Trichloroethene Solubilization Using Single-Well, "Push-Pull" Tests. Ground Water, 1999, 37, 581-588.	1.3	11
57	Effect of cation exchange on surfactant-enhanced solubilization of trichloroethene. Journal of Contaminant Hydrology, 2000, 46, 131-149.	3.3	11
58	Diffusional and microbial isotope fractionation of methane during gas pushâ€“pull tests. Geochimica Et Cosmochimica Acta, 2008, 72, 2115-2124.	3.9	10
59	Poly-Use Multi-Level Sampling System for Soil-Gas Transport Analysis in the Vadose Zone. Environmental Science & Technology, 2013, 47, 11122-11130.	10.0	10
60	METHODS TO ASSESS THE AMENABILITY OF PETROLEUM HYDROCARBONS TO BIOREMEDIATION. Environmental Toxicology and Chemistry, 2004, 23, 929.	4.3	9
61	Redox Properties of Peat Particulate Organic Matter: Quantification of Electron Accepting Capacities and Assessment of Electron Transfer Reversibility. Journal of Geophysical Research G: Biogeosciences, 2021, 126, e2021JG006329.	3.0	8
62	Recovery of in-situ methanotrophic activity following acetylene inhibition. Biogeochemistry, 2008, 89, 347-355.	3.5	7
63	Development and Evaluation of Micro Pushâ€“Pull Tests to Investigate Micro-Scale Processes in Porous Media. Environmental Science & Technology, 2011, 45, 6460-6467.	10.0	7
64	Detection and Quantification of<i>Dehalococcoides</i>-Related Bacteria in a Chlorinated Ethene-Contaminated Aquifer Undergoing Natural Attenuation. Bioremediation Journal, 2008, 12, 193-209.	2.0	6
65	Technical Note: Disturbance of soil structure can lead to release of entrapped methane in glacier forefield soils. Biogeosciences, 2014, 11, 613-620.	3.3	6
66	Inâ€Situ Sonication for Enhanced Recovery of Aquifer Microbial Communities. Ground Water, 2014, 52, 737-747.	1.3	6
67	Occurrence and Origin of Methane Entrapped in Sediments and Rocks of a Calcareous, Alpine Glacial Catchment. Journal of Geophysical Research G: Biogeosciences, 2018, 123, 3633-3648.	3.0	6
68	Thermodynamic Model for Fluidâ€“Fluid Interfacial Areas in Porous Media for Arbitrary Drainageâ€“Imbibition Sequences. Vadose Zone Journal, 2008, 7, 966-971.	2.2	6
69	Quantity and distribution of methane entrapped in sediments of calcareous, Alpine glacier forefields. Biogeosciences, 2020, 17, 3613-3630.	3.3	5
70	Chemical Extraction of Microorganisms from Water-Saturated, Packed Sediment. Water Environment Research, 2013, 85, 503-513.	2.7	4
71	Investigation of small-scale processes in the rhizosphere of Lupinus albus using micro push-pull tests. Plant and Soil, 2014, 378, 309-324.	3.7	4
72	Micro Pushâ€“Pull Tests for Investigation of Smallâ€Scale Processes in Unsaturated Porous Media. Vadose Zone Journal, 2013, 12, 1-11.	2.2	1

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73	Physical Extraction of Microorganisms From Water-Saturated, Packed Sediment. Water Environment Research, 2014, 86, 407-416.	2.7	1