

Brent E Sleep

List of Publications by Year in descending order

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111
papers

4,743
citations

109321

35
h-index

102487

66
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111
all docs

111
docs citations

111
times ranked

3643
citing authors

#	ARTICLE	IF	CITATIONS
1	Nanoscale zero valent iron and bimetallic particles for contaminated site remediation. <i>Advances in Water Resources</i> , 2013, 51, 104-122.	3.8	718
2	Stable Carbon Isotope Evidence for Intrinsic Bioremediation of Tetrachloroethene and Trichloroethene at Area 6, Dover Air Force Base. <i>Environmental Science & Technology</i> , 2001, 35, 261-269.	10.0	246
3	Variability in Carbon Isotopic Fractionation during Biodegradation of Chlorinated Ethenes: Implications for Field Applications. <i>Environmental Science & Technology</i> , 2001, 35, 901-907.	10.0	191
4	Contrasting carbon isotope fractionation during biodegradation of trichloroethylene and toluene: Implications for intrinsic bioremediation. <i>Organic Geochemistry</i> , 1999, 30, 813-820.	1.8	164
5	Carbon and Hydrogen Isotopic Fractionation during Anaerobic Biodegradation of Benzene. <i>Applied and Environmental Microbiology</i> , 2003, 69, 191-198.	3.1	159
6	Compositional simulation of groundwater contamination by organic compounds: 1. Model development and verification. <i>Water Resources Research</i> , 1993, 29, 1697-1708.	4.2	153
7	Carbon Isotope Effects Resulting from Equilibrium Sorption of Dissolved VOCs. <i>Analytical Chemistry</i> , 2000, 72, 5669-5672.	6.5	128
8	The effect of temperature on capillary pressure-saturation relationships for air-water and perchloroethylene-water systems. <i>Water Resources Research</i> , 1998, 34, 2587-2597.	4.2	120
9	Characterization of nZVI Mobility in a Field Scale Test. <i>Environmental Science & Technology</i> , 2014, 48, 2862-2869.	10.0	116
10	Carbon Isotope Fractionation during Anaerobic Biodegradation of Toluene: Implications for Intrinsic Bioremediation. <i>Environmental Science & Technology</i> , 2000, 34, 892-896.	10.0	107
11	Quantifying chlorinated ethene degradation during reductive dechlorination at Kelly AFB using stable carbon isotopes. <i>Journal of Contaminant Hydrology</i> , 2005, 76, 279-293.	3.3	99
12	Long-Term Field Study of Microbial Community and Dechlorinating Activity Following Carboxymethyl Cellulose-Stabilized Nanoscale Zero-Valent Iron Injection. <i>Environmental Science & Technology</i> , 2016, 50, 7658-7670.	10.0	97
13	Biological Enhancement of Tetrachloroethene Dissolution and Associated Microbial Community Changes. <i>Environmental Science & Technology</i> , 2006, 40, 3623-3633.	10.0	93
14	Impact of nZVI stability on mobility in porous media. <i>Journal of Contaminant Hydrology</i> , 2013, 145, 17-25.	3.3	92
15	Contributions of Abiotic and Biotic Dechlorination Following Carboxymethyl Cellulose Stabilized Nanoscale Zero Valent Iron Injection. <i>Environmental Science & Technology</i> , 2015, 49, 8648-8656.	10.0	84
16	A Field-Validated Model for In Situ Transport of Polymer-Stabilized nZVI and Implications for Subsurface Injection. <i>Environmental Science & Technology</i> , 2013, 47, 7332-7340.	10.0	83
17	Knudsen diffusion, gas permeability, and water content in an unconsolidated porous medium. <i>Water Resources Research</i> , 2002, 38, 16-1-16-15.	4.2	70
18	Electrokinetic-enhanced permanganate delivery and remediation of contaminated low permeability porous media. <i>Water Research</i> , 2017, 113, 215-222.	11.3	68

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19	Numerical modeling of the effects of roughness on flow and eddy formation in fractures. <i>Journal of Rock Mechanics and Geotechnical Engineering</i> , 2017, 9, 105-115.	8.1	64
20	Compositional simulation of groundwater contamination by organic compounds: 2. Model applications. <i>Water Resources Research</i> , 1993, 29, 1709-1718.	4.2	63
21	Effects of Trace Element Concentration on Enzyme Controlled Stable Isotope Fractionation during Aerobic Biodegradation of Toluene. <i>Environmental Science & Technology</i> , 2006, 40, 7675-7681.	10.0	60
22	Multiscale roughness influence on conservative solute transport in self-affine fractures. <i>International Journal of Heat and Mass Transfer</i> , 2019, 133, 606-618.	4.8	60
23	Acclimation of anaerobic systems to biodegrade tetrachloroethene in the presence of carbon tetrachloride and chloroform. <i>Water Research</i> , 2000, 34, 171-178.	11.3	59
24	Laboratory Study of Treatment of Trichloroethene by Chemical Oxidation Followed by Bioremediation. <i>Environmental Science & Technology</i> , 2005, 39, 2888-2897.	10.0	57
25	Effects of Biomass Growth on Gas Pressure Drop in Biofilters. <i>Journal of Environmental Engineering, ASCE</i> , 2001, 127, 388-396.	1.4	55
26	Simulation of the subsurface mobility of carbon nanoparticles at the field scale. <i>Advances in Water Resources</i> , 2010, 33, 361-371.	3.8	52
27	The influence of humic acid and clay content on the transport of polymer-coated iron nanoparticles through sand. <i>Science of the Total Environment</i> , 2014, 496, 155-164.	8.0	49
28	Modeling transient organic vapor transport in porous media with the dusty gas model. <i>Advances in Water Resources</i> , 1998, 22, 247-256.	3.8	47
29	Hot water flushing for immiscible displacement of a viscous NAPL. <i>Journal of Contaminant Hydrology</i> , 2007, 91, 247-266.	3.3	42
30	Phylogenetic analysis of bacterial populations in an anaerobic microbial consortium capable of degrading saturation concentrations of tetrachloroethylene. <i>Canadian Journal of Microbiology</i> , 2003, 49, 15-27.	1.7	40
31	The impact of methanogenesis on flow and transport in coarse sand. <i>Journal of Contaminant Hydrology</i> , 2009, 103, 48-57.	3.3	40
32	Carboxymethyl cellulose binding to mineral substrates: Characterization by atomic force microscopy-based Force spectroscopy and quartz-crystal microbalance with dissipation monitoring. <i>Journal of Colloid and Interface Science</i> , 2013, 402, 58-67.	9.4	40
33	Thermal variation of organic fluid properties and impact on thermal remediation feasibility. <i>Journal of Soil Contamination</i> , 1997, 6, 281-306.	0.5	39
34	nZVI injection into variably saturated soils: Field and modeling study. <i>Journal of Contaminant Hydrology</i> , 2015, 183, 16-28.	3.3	38
35	Biodegradation of High Concentrations of Tetrachloroethene in a Continuous Flow Column System. <i>Environmental Science & Technology</i> , 1998, 32, 3579-3585.	10.0	37
36	A modified FAO evapotranspiration model for refined water budget analysis for Green Roof systems. <i>Ecological Engineering</i> , 2018, 119, 45-53.	3.6	36

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37	Colloid Transport in Dolomite Rock Fractures: Effects of Fracture Characteristics, Specific Discharge, and Ionic Strength. <i>Environmental Science & Technology</i> , 2012, 46, 9987-9994.	10.0	35
38	Evaluating the shading effect of photovoltaic panels on green roof discharge reduction and plant growth. <i>Journal of Hydrology</i> , 2019, 568, 919-928.	5.4	34
39	Simulation of Bioventing for Soil and Ground-Water Remediation. <i>Journal of Environmental Engineering</i> , ASCE, 1996, 122, 1003-1012.	1.4	33
40	Effects of biofilm growth on flow and transport through a glass parallel plate fracture. <i>Journal of Contaminant Hydrology</i> , 2002, 56, 227-246.	3.3	33
41	Electrophoresis enhanced transport of nano-scale zero valent iron. <i>Advances in Water Resources</i> , 2012, 40, 71-82.	3.8	33
42	Forces of Interactions between Bare and Polymer-Coated Iron and Silica: Effect of pH, Ionic Strength, and Humic Acids. <i>Environmental Science & Technology</i> , 2012, 46, 13401-13408.	10.0	32
43	Influences of Four Extensive Green Roof Design Variables on Stormwater Hydrology. <i>Journal of Hydrologic Engineering - ASCE</i> , 2017, 22, .	1.9	31
44	Variations in expression of carbon isotope fractionation of chlorinated ethenes during biologically enhanced PCE dissolution close to a source zone. <i>Journal of Contaminant Hydrology</i> , 2009, 110, 60-71.	3.3	30
45	Coupled simulation of DNAPL infiltration and dissolution in three-dimensional heterogeneous domains: Process model validation. <i>Water Resources Research</i> , 2013, 49, 7023-7036.	4.2	30
46	Long-term tetrachlorethene degradation sustained by endogenous cell decay. <i>Journal of Environmental Engineering and Science</i> , 2005, 4, 11-17.	0.8	29
47	Modeling discrete gas bubble formation and mobilization during subsurface heating of contaminated zones. <i>Advances in Water Resources</i> , 2011, 34, 537-549.	3.8	28
48	Numerical modelling of flow and transport in rough fractures. <i>Journal of Rock Mechanics and Geotechnical Engineering</i> , 2014, 6, 535-545.	8.1	28
49	Evaluation of Isotopic Enrichment Factors for the Biodegradation of Chlorinated Ethenes Using a Parameter Estimation Model: Toward an Improved Quantification of Biodegradation. <i>Environmental Science & Technology</i> , 2006, 40, 3886-3892.	10.0	27
50	Impact of low-temperature electrical resistance heating on subsurface flow and transport. <i>Water Resources Research</i> , 2011, 47, .	4.2	26
51	Virus and virus-sized microsphere transport in a dolomite rock fracture. <i>Water Resources Research</i> , 2013, 49, 808-824.	4.2	26
52	An evaluation of Sherwood-Gilliland models for NAPL dissolution and their relationship to soil properties. <i>Journal of Contaminant Hydrology</i> , 2013, 155, 87-98.	3.3	25
53	Removal of Perchloroethylene from a Layered Soil System by Steam Flushing. <i>Ground Water Monitoring and Remediation</i> , 1999, 19, 70-77.	0.8	23
54	The effect of temperature on adsorption of organic compounds to soils. <i>Canadian Geotechnical Journal</i> , 2001, 38, 46-52.	2.8	23

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55	Forces of interaction between fresh iron particles and iron oxide (magnetite): Effect of water chemistry and polymer coatings. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2013, 433, 104-110.	4.7	23
56	Removal of volatile and semivolatile organic contamination from soil by air and steam flushing. <i>Journal of Contaminant Hydrology</i> , 2001, 50, 21-40.	3.3	21
57	A Modeling and experimental study of light nonaqueous phase liquid (LNAPL) accumulation in wells and LNAPL recovery from wells. <i>Water Resources Research</i> , 2000, 36, 3535-3545.	4.2	19
58	Three-dimensional semi-analytical solution to groundwater flow in confined and unconfined wedge-shaped aquifers. <i>Advances in Water Resources</i> , 2009, 32, 925-935.	3.8	19
59	The Impact of Biofilm Growth on Transport of Escherichia coli O157:H7 in Sand. <i>Ground Water</i> , 2011, 49, 20-31.	1.3	19
60	Transport of polymer stabilized nano-scale zero-valent iron in porous media. <i>Journal of Contaminant Hydrology</i> , 2018, 212, 65-77.	3.3	19
61	The spatial distribution of eubacteria and archaea in sand-clay columns degrading carbon tetrachloride and methanol. <i>Journal of Contaminant Hydrology</i> , 2007, 94, 34-48.	3.3	18
62	An analysis of a mixed convection associated with thermal heating in contaminated porous media. <i>Science of the Total Environment</i> , 2014, 499, 7-17.	8.0	18
63	In situ trapping and treating of hexavalent chromium using scleroglucan-based fluids: A proof of concept. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2018, 559, 192-200.	4.7	18
64	Column studies of biodegradation of mixtures of tetrachloroethene and carbon tetrachloride. <i>Water Research</i> , 2000, 34, 4161-4168.	11.3	17
65	Role of NAPL Thermal Properties in the Effectiveness of Hot Water Flooding. <i>Transport in Porous Media</i> , 2009, 79, 393-405.	2.6	17
66	Energy and Carbon-Emission Analysis of Integrated Green-Roof Photovoltaic Systems: Probabilistic Approach. <i>Journal of Infrastructure Systems</i> , 2018, 24, .	1.8	17
67	Selective solvent filters for non-aqueous phase liquid separation from water. <i>Scientific Reports</i> , 2020, 10, 11931.	3.3	17
68	An experimental and modeling study of evapotranspiration from integrated green roof photovoltaic systems. <i>Ecological Engineering</i> , 2020, 152, 105767.	3.6	17
69	Effect of Water Chemistry and Aging on Iron-Mica Interaction Forces: Implications for Iron Particle Transport. <i>Langmuir</i> , 2012, 28, 10453-10463.	3.5	16
70	A method of characteristics model for equation of state compositional simulation of organic compounds in groundwater. <i>Journal of Contaminant Hydrology</i> , 1995, 17, 189-212.	3.3	15
71	Transport, biodegradation and isotopic fractionation of chlorinated ethenes: modeling and parameter estimation methods. <i>Advances in Water Resources</i> , 2005, 28, 87-98.	3.8	15
72	The influence of unavoidable saturation averaging on the experimental measurement of dynamic capillary effects: A numerical simulation study. <i>Advances in Water Resources</i> , 2014, 66, 43-51.	3.8	14

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73	Diffusion related isotopic fractionation effects with one-dimensional advective“dispersive transport. <i>Science of the Total Environment</i> , 2016, 550, 200-208.	8.0	14
74	Comparison of upscaled models for multistage mass discharge from DNAPL source zones. <i>Water Resources Research</i> , 2014, 50, 3187-3205.	4.2	13
75	Evaluation of peat and sawdust as permeable reactive barrier materials for stimulating in situ biodegradation of trichloroethene. <i>Journal of Hazardous Materials</i> , 2016, 313, 37-48.	12.4	13
76	Boundary depletion rate and drawdown in leaky wedge“shaped aquifers. <i>Hydrological Processes</i> , 2012, 26, 3101-3113.	2.6	12
77	Forces of interactions between iron and aluminum silicates: Effect of water chemistry and polymer coatings. <i>Journal of Colloid and Interface Science</i> , 2013, 411, 8-15.	9.4	12
78	Temporal Mixing Behavior of Conservative Solute Transport through 2D Self-Affine Fractures. <i>Processes</i> , 2018, 6, 158.	2.8	12
79	Sequential treatment of nitrate and phosphate in groundwater using a permeable reactive barrier system. <i>Journal of Environmental Management</i> , 2021, 300, 113699.	7.8	12
80	Effect of low permeability zone location on remediation of Cr(VI)-contaminated media by electrokinetics combined with a modified-zeolite barrier. <i>Journal of Hazardous Materials</i> , 2022, 426, 127785.	12.4	12
81	Rethinking aqueous phase diffusion related isotope fractionation: Contrasting theoretical effects with observations at the field scale. <i>Science of the Total Environment</i> , 2017, 607-608, 1085-1095.	8.0	10
82	The Effect of Intraparticle Porosity and Interparticle Voids on the Hydraulic Properties of Soilless Media. <i>Vadose Zone Journal</i> , 2019, 18, 1-13.	2.2	10
83	Investigation and Remediation of a 1,2-Dichloroethane Spill Part II: Documentation of Natural Attenuation. <i>Ground Water Monitoring and Remediation</i> , 1999, 19, 82-88.	0.8	9
84	Distribution of biofilm thickness in porous media and implications for permeability models. <i>Hydrogeology Journal</i> , 2015, 23, 1695-1702.	2.1	9
85	Modeling wells in variably saturated soil with wellbore fluid gravity segregation. <i>Advances in Water Resources</i> , 2000, 23, 689-697.	3.8	8
86	Isotopic Fractionation of Tetrachloroethene Undergoing Biodegradation Supported by Endogenous Decay. <i>Journal of Environmental Engineering, ASCE</i> , 2006, 132, 725-735.	1.4	8
87	Investigation and Remediation of a 1,2-Dichloroethane Spill Part I: Short and Long-Term Remediation Strategies. <i>Ground Water Monitoring and Remediation</i> , 1999, 19, 71-81.	0.8	7
88	Two distinct Dehalobacter strains sequentially dechlorinate 1,1,1-trichloroethane and 1,1-dichloroethane at a field site treated with granular zero valent iron and guar gum. <i>Water Research</i> , 2020, 186, 116310.	11.3	7
89	The Impact of Carbon Tetrachloride on an Anaerobic Methanol-Degrading Microbial Community. <i>Water, Air, and Soil Pollution</i> , 2010, 212, 357-368.	2.4	6
90	DNAPL accumulation in wells and DNAPL recovery from wells: Model development and application to a laboratory study. <i>Advances in Water Resources</i> , 2015, 85, 109-119.	3.8	6

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91	Experimental Study of Water Infiltration in Unsaturated Horizontal Sand Columns under Various Air Confinement Conditions. <i>Geofluids</i> , 2019, 2019, 1-13.	0.7	6
92	A high-throughput and cost-effective microplate reader method for measuring persulfates (peroxydisulfate and peroxymonosulfate). <i>Talanta</i> , 2022, 240, 123170.	5.5	6
93	Practical finite analytic methods for simulation of solute transport with scale-dependent dispersion under advection-dominated conditions. <i>International Journal of Heat and Mass Transfer</i> , 2015, 83, 799-808.	4.8	5
94	Effect of rheology and humic acids on the transport of environmental fluids: Potential implications for soil remediation revealed through microfluidics. <i>Journal of Applied Polymer Science</i> , 2020, 137, 48465.	2.6	5
95	Effects of hydrogen gas production, trapping and bubble-facilitated transport during nanoscale zero-valent iron (nZVI) injection in porous media. <i>Journal of Contaminant Hydrology</i> , 2020, 234, 103677.	3.3	5
96	A flow cell simulating a subsurface rock fracture for investigations of groundwater-derived biofilms. <i>International Microbiology</i> , 2011, 14, 163-71.	2.4	5
97	Gas pressure gradients in unsaturated porous media and the assumption of infinite gas mobility. <i>Water Resources Research</i> , 2015, 51, 5623-5639.	4.2	4
98	A fugacity model for soil vapor extraction. <i>Journal of Soil Contamination</i> , 1995, 4, 227-242.	0.5	3
99	Estimation of Biokinetic Parameters for Unsaturated Soils. <i>Journal of Environmental Engineering, ASCE</i> , 1998, 124, 959-969.	1.4	3
100	Relative Permeability Measurements during the Exsolution and Dissolution of Hydrogen Gas Produced by the Hydrolysis of Sodium Borohydride. <i>Vadose Zone Journal</i> , 2019, 18, 190043.	2.2	2
101	Favorable and unfavorable attachment of colloids in a discrete sandstone fracture. <i>Journal of Contaminant Hydrology</i> , 2021, 243, 103919.	3.3	2
102	Toluene NAPL Oxidation by Ferrous Activated Persulfate in a Fractured Rock Glass Replica. <i>Water Resources Research</i> , 2022, 58, .	4.2	2
103	Impact of Chlorofluorocarbon 113 on Chlorinated Ethene Biodegradation. <i>Bioremediation Journal</i> , 2004, 8, 13-21.	2.0	1
104	Non-enzymatic degradation of chlorofluorocarbon 113 using cyanocobalamin under anaerobic conditions. <i>Journal of Environmental Engineering and Science</i> , 2004, 3, 295-299.	0.8	1
105	Moving into the Third Decade of Nanoscale Zero-Valent Iron (NZVI) Development: Best Practices for Field Implementation. , 2019, , 293-333.		1
106	The impacts of microbial growth and biogenic gas generation on the dispersivity of porous media during anaerobic biodegradation. <i>Journal of Hydrology</i> , 2021, 593, 125875.	5.4	1
107	Parameter estimation for modeling reductive dechlorination with isotopic fractionation. <i>Developments in Water Science</i> , 2004, , 1285-1295.	0.1	0
108	Practical finite analytic methods for simulation of advection-dominated solute transport. <i>Hydrological Sciences Journal</i> , 2015, 60, 2204-2213.	2.6	0

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109	Evaluation of Limiting Nutrients in a Deep Geological Repository. , 2016, , .		0
110	Modeling Fate and Transport of Chlorinated Organic Compounds in the Subsurface. , 2003, , .		0
111	Modeling Source Zone Remediation. , 2014, , 113-144.		0