Linda M Abriola

List of Publications by Year
in descending order

89 papers	4,989 citations	87888 38 h-index	88630 70 g-index
91 all docs	91 docs citations	91 times ranked	2358 citing authors

#	Article	IF	Citations
1	An experimental investigation of nonaqueous phase liquid dissolution in saturated subsurface systems: Steady state mass transfer rates. Water Resources Research, 1992, 28, 2691-2705.	4.2	359
2	Surfactant-enhanced solubilization of residual dodecane in soil columns. 1. Experimental investigation. Environmental Science & Technology, 1993, 27, 2332-2340.	10.0	343
3	An experimental investigation of nonaqueous phase liquid dissolution in saturated subsurface systems: Transient mass transfer rates. Water Resources Research, 1994, 30, 321-332.	4.2	335
4	Influence of Viscous and Buoyancy Forces on the Mobilization of Residual Tetrachloroethylene during Surfactant Flushing. Environmental Science & Technology, 1996, 30, 1328-1335.	10.0	294
5	Surfactant enhanced remediation of soil columns contaminated by residual tetrachloroethylene. Journal of Contaminant Hydrology, 1994, 16, 35-53.	3.3	221
6	Investigation of the Transport and Deposition of Fullerene (C60) Nanoparticles in Quartz Sands under Varying Flow Conditions. Environmental Science & Technology, 2008, 42, 7174-7180.	10.0	219
7	Transport and Retention of Nanoscale C₆₀Aggregates in Water-Saturated Porous Media. Environmental Science & Technology, 2008, 42, 3588-3594.	10.0	191
8	Mass conservative numerical solutions of the head-based Richards equation. Water Resources Research, 1994, 30, 2579-2586.	4.2	139
9	Surfactant-enhanced solubilization of residual dodecane in soil columns. 2. Mathematical modeling. Environmental Science & Technology, 1993, 27, 2341-2351.	10.0	130
10	Accumulation of PFOA and PFOS at the Airâ€“Water Interface. Environmental Science and Technology Letters, 2019, 6, 487-491.	8.7	120
11	Solubilization of Dodecane, Tetrachloroethylene, and 1,2-Dichlorobenzene in Micellar Solutions of Ethoxylated Nonionic Surfactants. Environmental Science & Technology, 1997, 31, 1382-1389.	10.0	115
12	Surfactant enhanced recovery of tetrachloroethylene from a porous medium containing low permeability lenses. Journal of Contaminant Hydrology, 2001, 48, 325-350.	3.3	108
13	An Experimental Investigation of Rate-Limited Nonaqueous Phase Liquid Volatilization in Unsaturated Porous Media: Steady State Mass Transfer. Water Resources Research, 1995, 31, 2159-2172.	4.2	105
14	Simulation of surfactant-enhanced aquifer remediation. Water Resources Research, 1994, 30, 2959-2977.	4.2	104
15	Coupling Aggressive Mass Removal with Microbial Reductive Dechlorination for Remediation of DNAPL Source Zones: A Review and Assessment. Environmental Health Perspectives, 2005, 113, 465-477.	6.0	94
16	Estimating mass discharge from dense nonaqueous phase liquid source zones using upscaled mass transfer coefficients: An evaluation using multiphase numerical simulations. Water Resources Research, 2006, 42, .	4.2	91
17	Experimental Evaluation and Mathematical Modeling of Microbially Enhanced Tetrachloroethene (PCE) Dissolution. Environmental Science & Technology, 2007, 41, 963-970.	10.0	84
18	Influence of hydraulic property correlation on predicted dense nonaqueous phase liquid source zone architecture, mass recovery and contaminant flux. Water Resources Research, 2004, 40, .	4.2	81

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19	The influence of field-scale heterogeneity on the infiltration and entrapment of dense nonaqueous phase liquids in saturated formations. Journal of Contaminant Hydrology, 2000, 42, 187-218.	3.3	78
20	Pilot-Scale Demonstration of Surfactant-Enhanced PCE Solubilization at the Bachman Road Site. 1. Site Characterization and Test Design. Environmental Science & Technology, 2005, 39, 1778-1790.	10.0	78
21	Pilot-Scale Demonstration of Surfactant-Enhanced PCE Solubilization at the Bachman Road Site. 2. System Operation and Evaluation. Environmental Science & Technology, 2005, 39, 1791-1801.	10.0	76
22	A numerical model (MISER) for the simulation of coupled physical, chemical and biological processes in soil vapor extraction and bioventing systems. Journal of Contaminant Hydrology, 2000, 43, 239-270.	3.3	75
23	Predicting DNAPL mass discharge from pool-dominated source zones. Journal of Contaminant Hydrology, 2010, 114, 18-34.	3.3	68
24	Modeling Multiphase Migration of Organic Chemicals in Groundwater Systems. A Review and Assessment. Environmental Health Perspectives, 1989, 83, 117.	6.0	67
25	Exploring dynamic effects in capillary pressure in multistep outflow experiments. Water Resources Research, 2005, 41, .	4.2	63
26	Infiltration of PCE in a system containing spatial wettability variations. Journal of Contaminant Hydrology, 2004, 73, 39-63.	3.3	62
27	Stimulated Microbial Reductive Dechlorination following Surfactant Treatment at the Bachman Road Siteâ€. Environmental Science & Technology, 2004, 38, 5902-5914.	10.0	60
28	Enhanced Mobility of Fullerene (C₆₀) Nanoparticles in the Presence of Stabilizing Agents. Environmental Science & Technology, 2012, 46, 11761-11769.	10.0	59
29	The influence of field-scale heterogeneity on the surfactant-enhanced remediation of entrapped nonaqueous phase liquids. Journal of Contaminant Hydrology, 2000, 42, 219-251.	3.3	51
30	Prediction of two-phase capillary pressureâ€“saturation relationships in fractional wettability systems. Journal of Contaminant Hydrology, 2005, 77, 247-270.	3.3	50
31	Influence of textural and wettability variations on predictions of DNAPL persistence and plume development in saturated porous media. Advances in Water Resources, 2004, 27, 411-427.	3.8	47
32	Dense nonaqueous phase liquid (DNAPL) source zone characterization: Influence of hydraulic property correlation on predictions of DNAPL infiltration and entrapment. Water Resources Research, 2004, 40, .	4.2	47
33	Surfactant enhanced recovery of tetrachloroethylene from a porous medium containing low permeability lenses. Journal of Contaminant Hydrology, 2001, 48, 351-374.	3.3	44
34	Flow and entrapment of dense nonaqueous phase liquids in physically and chemically heterogeneous aquifer formations. Advances in Water Resources, 1998, 22, 117-132.	3.8	43
35	Comparison of two-dimensional and three-dimensional simulations of dense nonaqueous phase liquids (DNAPLs): Migration and entrapment in a nonuniform permeability field. Water Resources Research, 2005, 41, .	4.2	43
36	The influence of capillarity in numerical modeling of organic liquid redistribution in two-phase systems. Advances in Water Resources, 1998, 21, 159-170.	3.8	41

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37	Effectiveness of nanoscale zero-valent iron for treatment of a PCEâ€“DNAPL source zone. Journal of Contaminant Hydrology, 2010, 118, 128-142.	3.3	41
38	Influence of wettability variations on dynamic effects in capillary pressure. Water Resources Research, 2010, 46, .	4.2	41
39	Entrapment and dissolution of DNAPLs in heterogeneous porous media. Journal of Contaminant Hydrology, 2003, 67, 133-157.	3.3	38
40	Modeling dense nonaqueous phase liquid mass removal in nonuniform formations: Linking source-zone architecture and system response. , 2006, 2, 74.		38
41	A multi-constituent site blocking model for nanoparticle and stabilizing agent transport in porous media. Environmental Science: Nano, 2015, 2, 155-166.	4.3	37
42	Influence of surfactant-facilitated interfacial tension reduction on chlorinated solvent migration in porous media: observations and numerical simulation. Journal of Contaminant Hydrology, 2003, 64, 227-252.	3.3	35
43	Modeling metabolic reductive dechlorination in dense non-aqueous phase liquid source-zones. Advances in Water Resources, 2007, 30, 1547-1561.	3.8	34
44	Influence of Residual Polymer on Nanoparticle Deposition in Porous Media. Environmental Science & Technology, 2014, 48, 10664-10671.	10.0	32
45	A geostatistical approach for quantification of contaminant mass discharge uncertainty using multilevel sampler measurements. Water Resources Research, 2007, 43, .	4.2	27
46	Influence of dissolved oxygen on silver nanoparticle mobility and dissolution in water-saturated quartz sand. Journal of Nanoparticle Research, 2013, 15, 1.	1.9	25
47	Improved Mobility of Magnetite Nanoparticles at High Salinity with Polymers and Surfactants. Energy & Fuels, 2016, 30, 1915-1926.	5.1	25
48	Simulation of organic liquid flow in porous media using estimated and measured transport properties. Journal of Contaminant Hydrology, 1996, 22, 223-239.	3.3	24
49	Experimental and Numerical Validation of the Total Trapping Number for Prediction of DNAPL Mobilization. Environmental Science & Technology, 2007, 41, 8135-8141.	10.0	23
50	Effect of surface coating composition on quantum dot mobility in porous media. Journal of Nanoparticle Research, 2013, 15, 1.	1.9	23
51	Modeling coupled nanoparticle aggregation and transport in porous media: A Lagrangian approach. Journal of Contaminant Hydrology, 2015, 172, 48-60.	3.3	23
52	Aqueous Film-Forming Foams Exhibit Greater Interfacial Activity than PFOA, PFOS, or FOSA. Environmental Science & Technology, 2020, 54, 13590-13597.	10.0	22
53	The influence of dimensionality on simulations of mass recovery from nonuniform dense non-aqueous phase liquid (DNAPL) source zones. Advances in Water Resources, 2009, 32, 401-412.	3.8	21
54	A geometric approach to joint inversion with applications to contaminant source zone characterization. Inverse Problems, 2013, 29, 115014.	2.0	21

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55	Aqueous Aggregation Behavior of Engineered Superparamagnetic Iron Oxide Nanoparticles: Effects of Oxidative Surface Aging. Environmental Science & Technology, 2016, 50, 12789-12798.	10.0	21
56	Modeling the influence of coupled mass transfer processes on mass flux downgradient of heterogeneous DNAPL source zones. Journal of Contaminant Hydrology, 2018, 211, 1-14.	3.3	20
57	Comment on â€œUptake of Poly- and Perfluoroalkyl Substances at the Airâ€“Water Interfaceâ€. Environmental Science & Technology, 2020, 54, 7019-7020.	10.0	19
58	Simulation of solute transport in a heterogeneous vadose zone describing the hydraulic properties using a multistep stochastic approach. Water Resources Research, 2006, 42, .	4.2	17
59	Guest Editorial: Contaminant Source Zones: Remediation or Perpetual Stewardship?. Environmental Health Perspectives, 2005, 113, A438-9.	6.0	15
60	Microbially enhanced dissolution and reductive dechlorination of PCE by a mixed culture: Model validation and sensitivity analysis. Journal of Contaminant Hydrology, 2013, 151, 117-130.	3.3	14
61	A multistage multicriteria spatial sampling strategy for estimating contaminant mass discharge and its uncertainty. Water Resources Research, 2009, 45, .	4.2	13
62	Influence of a polymer sunscreen additive on the transport and retention of titanium dioxide nanoparticles in water-saturated porous media. Environmental Science: Nano, 2016, 3, 157-168.	4.3	13
63	Development and Validation of a Two-Stage Kinetic Sorption Model for Polymer and Surfactant Transport in Porous Media. Environmental Science & Technology, 2020, 54, 4912-4921.	10.0	13
64	In situ measurement and simulation of nano-magnetite mobility in porous media subject to transient salinity. Nanoscale, 2015, 7, 1047-1057.	5.6	12
65	Influence of aqueous film forming foams on the solubility and mobilization of non-aqueous phase liquid contaminants in quartz sands. Water Research, 2021, 195, 116975.	11.3	11
66	Influence of Soil Texture on Rate-Limited Micellar Solubilization. Journal of Environmental Engineering, ASCE, 2000, 126, 39-46.	1.4	10
67	Subsurface Source Zone Characterization and Uncertainty Quantification Using Discriminative Random Fields. Water Resources Research, 2020, 56, e2019WR026481.	4.2	10
68	Bioenhanced back diffusion and population dynamics of Dehalococcoides mccartyi strains in heterogeneous porous media. Chemosphere, 2020, 254, 126842.	8.2	10
69	A Nondimensional Evaluation of Tracer Sensitivity to Density Effects. Ground Water, 2000, 38, 226-233.	1.3	9
70	Simulation of magnetite nanoparticle mobility in a heterogeneous flow cell. Environmental Science: Nano, 2017, 4, 1512-1524.	4.3	8
71	Influence of Residual Nonaqueous-Phase Liquids (NAPLs) on the Transport and Retention of Perfluoroalkyl Substances. Environmental Science & Technology, 2022, 56, 7976-7985.	10.0	8
72	Kinetic limitations on tracer partitioning in ganglia dominated source zones. Journal of Contaminant Hydrology, 2011, 126, 195-207.	3.3	6

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73	Effect of rhamnolipid biosurfactant on transport and retention of iron oxide nanoparticles in water-saturated quartz sand. Environmental Science: Nano, 2021, 8, 311-327.	4.3	6
74	Exploration of processes governing microbial reductive dechlorination in a heterogeneous aquifer flow cell. Water Research, 2021, 193, 116842.	11.3	6
75	On the upscaling of mass transfer rate expressions for interpretation of source zone partitioning tracer tests. Water Resources Research, 2015, 51, 832-847.	4.2	5
76	Manifold regression for subsurface contaminant characterization. , 2012, , .		3
77	Environmental Remediation and Restoration: Hydrological and Geophysical Processing Methods. IEEE Signal Processing Magazine, 2012, 29, 16-26.	5.6	3
78	Quantification of experimental subsurface fluid saturations from highâ€resolution source zone images. Water Resources Research, 2012, 48, .	4.2	3
79	The effects of substrate exposure history and carbon starvation-induced stress on the EPS synthesis of TCE degrading toluene oxidizing soil bacteria. Environmental Earth Sciences, 2016, 75, 1.	2.7	3
80	Modeling reactive transport of polydisperse nanoparticles: assessment of the representative particle approach. Environmental Science: Nano, 2018, 5, 2293-2303.	4.3	2
81	Regressed Models for Multirate Mass Transfer in Heterogeneous Media. Water Resources Research, 2019, 55, 8646-8665.	4.2	2
82	Effects of rhamnolipid biosurfactant on the dissolution and transport of silver nanoparticles in porous media. Environmental Science: Nano, 2021, 8, 2492-2506.	4.3	2
83	Quantifying Impacts of Microcosm Mass Loss on Kinetic Constant Estimation. Environmental Science & Technology, 2021, 55, 13822-13833.	10.0	2
84	Compositional Effects on Interfacial Properties in Contaminated Systems: Implications for Organic Liquid Migration and Recovery. ACS Symposium Series, 2005, , 160-182.	0.5	1
85	A mixture of experts based discretization approach for characterizing subsurface contaminant source zones. , 2012, , .		1
86	Manifold regression for subsurface contaminant characterization based on sparse concentration data. , 2014, , .		1
87	Markov random field models for quantifying uncertainty in subsurface remediation. , 2015, , .		1
88	Development and application of a screening model for evaluating bioenhanced dissolution in DNAPL source zones. Journal of Contaminant Hydrology, 2015, 183, 1-15.	3.3	1
89	Development and experimental evaluation of a mathematical model to predict polymer-enhanced nanoparticle mobility in heterogeneous formations. Environmental Science: Nano, 2021, 8, 470-484.	4.3	1