# Brian Berkowitz

#### List of Publications by Citations

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#	Paper	IF	Citations
256	Characterizing flow and transport in fractured geological media: A review. <i>Advances in Water Resources</i> , <b>2002</b> , 25, 861-884	4.7	908
255	Scaling of fracture systems in geological media. <i>Reviews of Geophysics</i> , <b>2001</b> , 39, 347-383	23.1	794
254	Modeling non-Fickian transport in geological formations as a continuous time random walk. <i>Reviews of Geophysics</i> , <b>2006</b> , 44,	23.1	746
253	Time behavior of solute transport in heterogeneous media: transition from anomalous to normal transport. <i>Advances in Water Resources</i> , <b>2004</b> , 27, 155-173	4.7	292
252	Measurement and analysis of non-Fickian dispersion in heterogeneous porous media. <i>Journal of Contaminant Hydrology</i> , <b>2003</b> , 64, 203-26	3.9	274
251	Anomalous Transport in Random Fracture Networks. <i>Physical Review Letters</i> , <b>1997</b> , 79, 4038-4041	7.4	253
250	Theory of anomalous chemical transport in random fracture networks. <i>Physical Review E</i> , <b>1998</b> , 57, 585	8- <u>5</u> 869	243
249	Flow in rock fractures: The local cubic law assumption reexamined. <i>Water Resources Research</i> , <b>1998</b> , 34, 2811-2825	5.4	238
248	Anomalous transport in laboratory-scale, heterogeneous porous media. <i>Water Resources Research</i> , <b>2000</b> , 36, 149-158	5.4	228
247	Percolation theory and its application to groundwater hydrology. <i>Water Resources Research</i> , <b>1993</b> , 29, 775-794	5.4	227
246	Percolation Theory and Network Modeling Applications in Soil Physics. <i>Surveys in Geophysics</i> , <b>1998</b> , 19, 23-72	7.6	217
245	Physical pictures of transport in heterogeneous media: Advection-dispersion, random-walk, and fractional derivative formulations. <i>Water Resources Research</i> , <b>2002</b> , 38, 9-1-9-12	5.4	211
244	Transport behavior of a passive solute in continuous time random walks and multirate mass transfer. <i>Water Resources Research</i> , <b>2003</b> , 39,	5.4	191
243	Anomalous Transport in Classical Soil and Sand Columns. <i>Soil Science Society of America Journal</i> , <b>2004</b> , 68, 1539-1548	2.5	184
242	Transport of metal oxide nanoparticles in saturated porous media. <i>Chemosphere</i> , <b>2010</b> , 81, 387-93	8.4	173
241	On Characterization of Anomalous Dispersion in Porous and Fractured Media. <i>Water Resources Research</i> , <b>1995</b> , 31, 1461-1466	5.4	167
240	Effect of metal oxide nanoparticles on microbial community structure and function in two different soil types. <i>PLoS ONE</i> , <b>2013</b> , 8, e84441	3.7	152

## (2004-2002)

239	The dynamical foundation of fractal stream chemistry: The origin of extremely long retention times. <i>Geophysical Research Letters</i> , <b>2002</b> , 29, 5-1-5-4	4.9	152
238	Analysis of fracture network connectivity using percolation theory. <i>Mathematical Geosciences</i> , <b>1995</b> , 27, 467-483		152
237	Continuum models for contaminant transport in fractured porous formations. <i>Water Resources Research</i> , <b>1988</b> , 24, 1225-1236	5.4	129
236	Transport of silver nanoparticles (AgNPs) in soil. <i>Chemosphere</i> , <b>2012</b> , 88, 670-5	8.4	127
235	Effects of metal oxide nanoparticles on soil properties. <i>Chemosphere</i> , <b>2013</b> , 90, 640-6	8.4	118
234	Origins of anomalous transport in heterogeneous media: Structural and dynamic controls. <i>Water Resources Research</i> , <b>2014</b> , 50, 1490-1505	5.4	103
233	Application of continuous time random walk theory to tracer test measurements in fractured and heterogeneous porous media. <i>Ground Water</i> , <b>2001</b> , 39, 593-603	2.4	95
232	Computing "anomalous" contaminant transport in porous media: the CTRW MATLAB toolbox. <i>Ground Water</i> , <b>2005</b> , 43, 947-50	2.4	92
231	Precipitation and dissolution of reactive solutes in fractures. Water Resources Research, <b>1998</b> , 34, 457-4	179.4	86
230	Mass transfer at fracture intersections: An evaluation of mixing models. <i>Water Resources Research</i> , <b>1994</b> , 30, 1765-1773	5.4	83
229	Field observation of flow in a fracture intersecting unsaturated chalk. <i>Water Resources Research</i> , <b>1999</b> , 35, 3315-3326	5.4	80
228	Numerical simulation of non-Fickian transport in geological formations with multiple-scale heterogeneities. <i>Water Resources Research</i> , <b>2004</b> , 40,	5.4	79
227	Fluid flow and solute migration within the capillary fringe. <i>Ground Water</i> , <b>2002</b> , 40, 76-84	2.4	78
226	Will the Dead Sea die?. <i>Geology</i> , <b>1998</b> , 26, 755	5	77
225	Scaling of fracture connectivity in geological formations. <i>Geophysical Research Letters</i> , <b>2000</b> , 27, 2061-2	20,6.4	76
224	The Role of Probabilistic Approaches to Transport Theory in Heterogeneous Media. <i>Transport in Porous Media</i> , <b>2001</b> , 42, 241-263	3.1	75
223	Reactive Solute Transport in a Single Fracture. Water Resources Research, 1996, 32, 901-913	5.4	75
222	Quantitative characterization of pore-scale disorder effects on transport in "homogeneous" granular media. <i>Physical Review E</i> , <b>2004</b> , 70, 041108	2.4	74

221	Mixing-induced precipitation and porosity evolution in porous media. <i>Advances in Water Resources</i> , <b>2005</b> , 28, 337-344	4.7	74
220	Oxidation of organic pollutants in aqueous solutions by nanosized copper oxide catalysts. <i>Applied Catalysis B: Environmental</i> , <b>2009</b> , 85, 207-211	21.8	72
219	In situ remediation of groundwater contaminated by heavy- and transition-metal ions by selective ion-exchange methods. <i>Environmental Science &amp; Environmental Enviro</i>	10.3	72
218	Suppression and stimulation of seafloor hydrothermal convection by exothermic mineral hydration. <i>Earth and Planetary Science Letters</i> , <b>2006</b> , 243, 657-668	5.3	71
217	Analysis of field observations of tracer transport in a fractured till. <i>Journal of Contaminant Hydrology</i> , <b>2001</b> , 47, 29-51	3.9	70
216	Morphogen gradient formation in a complex environment: an anomalous diffusion model. <i>Physical Review E</i> , <b>2005</b> , 72, 041916	2.4	69
215	Impact of the Capillary Fringe on Local Flow, Chemical Migration, and Microbiology. <i>Vadose Zone Journal</i> , <b>2004</b> , 3, 534-548	2.7	67
214	Particle tracking model of bimolecular reactive transport in porous media. <i>Water Resources Research</i> , <b>2010</b> , 46,	5.4	66
213	Structure, flow, and generalized conductivity scaling in fracture networks. <i>Water Resources Research</i> , <b>1998</b> , 34, 2103-2121	5.4	66
212	Continuous time random walk and multirate mass transfer modeling of sorption. <i>Chemical Physics</i> , <b>2003</b> , 295, 71-80	2.3	64
211	Application of Continuous Time Random Walks to Transport in Porous Media (Journal of Physical Chemistry B, <b>2000</b> , 104, 3942-3947	3.4	64
210	Modeling bimolecular reactions and transport in porous media. <i>Geophysical Research Letters</i> , <b>2009</b> , 36, n/a-n/a	4.9	63
209	Transport and intersection mixing in random fracture networks with power law length distributions. <i>Water Resources Research</i> , <b>2001</b> , 37, 2493-2501	5.4	63
208	Investigation of flow in water-saturated rock fractures using nuclear magnetic resonance imaging (NMRI). <i>Water Resources Research</i> , <b>1999</b> , 35, 347-360	5.4	63
207	Exploring the nature of non-Fickian transport in laboratory experiments. <i>Advances in Water Resources</i> , <b>2009</b> , 32, 750-755	4.7	61
206	Fractal and multifractal measures of natural and synthetic fracture networks. <i>Journal of Geophysical Research</i> , <b>1997</b> , 102, 12205-12218		60
205	Non-Fickian transport and multiple-rate mass transfer in porous media. <i>Water Resources Research</i> , <b>2008</b> , 44,	5.4	58
204	Measurement and analysis of dissolution patterns in rock fractures. <i>Water Resources Research</i> , <b>2002</b> , 38, 5-1-5-12	5.4	57

## (2014-2005)

203	The role of fractures on coupled dissolution and precipitation patterns in carbonate rocks. <i>Advances in Water Resources</i> , <b>2005</b> , 28, 507-521	4.7	56
202	Stereological analysis of fracture network structure in geological formations. <i>Journal of Geophysical Research</i> , <b>1998</b> , 103, 15339-15360		56
201	Aquifer Characteristics Derived From the Interaction Between Water Levels of a Terminal Lake (Dead Sea) and an Adjacent Aquifer. <i>Water Resources Research</i> , <b>1995</b> , 31, 893-902	5.4	53
200	Experimental and modeling investigation of multicomponent reactive transport in porous media. Journal of Contaminant Hydrology, <b>2011</b> , 120-121, 27-44	3.9	52
199	Fate and transport of carbamazepine in soil aquifer treatment (SAT) infiltration basin soils. <i>Chemosphere</i> , <b>2011</b> , 82, 244-52	8.4	52
198	Catalytic transformation of persistent contaminants using a new composite material based on nanosized zero-valent iron. <i>ACS Applied Materials &amp; Early Interfaces</i> , <b>2012</b> , 4, 3416-23	9.5	51
197	Application of a percolation model to flow in fractured hard rocks. <i>Journal of Geophysical Research</i> , <b>1991</b> , 96, 10015		51
196	A generalized growth model for simulating initial migration of dense non-aqueous phase liquids. <i>Water Resources Research</i> , <b>1998</b> , 34, 611-622	5.4	50
195	Flow pattern variability in natural fracture intersections. <i>Geophysical Research Letters</i> , <b>1999</b> , 26, 1765-1	7 <b>6</b> 89	50
194	Quantifying Solute Transport at the Shale Hills Critical Zone Observatory. <i>Vadose Zone Journal</i> , <b>2011</b> , 10, 843-857	2.7	49
193	Evolution of hydraulic conductivity by precipitation and dissolution in carbonate rock. <i>Water Resources Research</i> , <b>2003</b> , 39,	5.4	47
192	The development and influence of gas bubbles in phreatic aquifers under natural flow conditions. <i>Transport in Porous Media</i> , <b>1989</b> , 4, 295	3.1	47
191	Measurements and models of reactive transport in geological media. <i>Reviews of Geophysics</i> , <b>2016</b> , 54, 930-986	23.1	46
190	Effects of air injection on flow through porous media: Observations and analyses of laboratory-scale processes. <i>Water Resources Research</i> , <b>2004</b> , 40,	5.4	44
189	Percolation approach to the problem of hydraulic conductivity in porous media. <i>Transport in Porous Media</i> , <b>1992</b> , 9, 275-286	3.1	44
188	Use of nanosized catalysts for transformation of chloro-organic pollutants. <i>Environmental Science &amp; Environmental Science &amp; Environmental Science</i>	10.3	43
187	On Fracture Structure and Preferential Flow in Unsaturated Chalk. <i>Ground Water</i> , <b>2000</b> , 38, 444-451	2.4	43
186	Detection, fate and transport of estrogen family hormones in soil. <i>Chemosphere</i> , <b>2014</b> , 95, 336-45	8.4	42

185	Enrofloxacin oxidative degradation facilitated by metal oxide nanoparticles. <i>Chemosphere</i> , <b>2012</b> , 86, 144-9	8.4	42
184	Laboratory experiments on dispersive transport across interfaces: The role of flow direction. <i>Water Resources Research</i> , <b>2009</b> , 45,	5.4	41
183	Towards a unified framework for anomalous transport in heterogeneous media. <i>Chemical Physics</i> , <b>2002</b> , 284, 349-359	2.3	41
182	Contaminant Geochemistry 2008,		41
181	Random walk particle tracking simulations of non-Fickian transport in heterogeneous media. Journal of Computational Physics, <b>2010</b> , 229, 4304-4314	4.1	40
180	Effects of junction transfer characteristics on transport in fracture networks. <i>Water Resources Research</i> , <b>2001</b> , 37, 909-923	5.4	39
179	Transport behavior of coupled continuous-time random walks. <i>Physical Review E</i> , <b>2008</b> , 78, 041110	2.4	38
178	Effects of pore-size controlled solubility on reactive transport in heterogeneous rock. <i>Geophysical Research Letters</i> , <b>2007</b> , 34,	4.9	38
177	Spatial behavior of anomalous transport. <i>Physical Review E</i> , <b>2002</b> , 65, 031101	2.4	38
176	Stochastic pore-scale growth models of DNAPL migration in porous media. <i>Advances in Water Resources</i> , <b>2001</b> , 24, 309-323	4.7	37
175	A Numerical Study of the Distribution of Water in Partially Saturated Porous Rock. <i>Transport in Porous Media</i> , <b>2001</b> , 45, 301-317	3.1	37
174	Carbonate dissolution and precipitation in coastal environments: Laboratory analysis and theoretical consideration. <i>Water Resources Research</i> , <b>2004</b> , 40,	5.4	36
173	Catalytic degradation of brominated flame retardants by copper oxide nanoparticles. <i>Chemosphere</i> , <b>2013</b> , 93, 172-7	8.4	35
172	Transport behavior in three-dimensional fracture intersections. Water Resources Research, 2003, 39,	5.4	35
171	Boundary conditions along permeable fracture walls: Influence on flow and conductivity. <i>Water Resources Research</i> , <b>1989</b> , 25, 1919-1922	5.4	34
170	Anaerobic treatment of intensive fish culture effluents: digestion of fish feed and release of volatile fatty acids. <i>Aquaculture</i> , <b>1995</b> , 133, 9-20	4.4	33
169	Modeling of surface roughness effects on glaze ice accretion. <i>Journal of Thermophysics and Heat Transfer</i> , <b>1991</b> , 5, 54-60	1.3	32
168	Three-dimensional flow measurements in rock fractures. <i>Water Resources Research</i> , <b>1999</b> , 35, 3955-3959	95.4	31

#### (2017-1998)

167	A Measurement System to Determine Water Flux and Solute Transport Through Fractures in the Unsaturated Zone. <i>Ground Water</i> , <b>1998</b> , 36, 444-449	2.4	30	
166	Non-Fickian transport in porous media with bimodal structural heterogeneity. <i>Journal of Contaminant Hydrology</i> , <b>2011</b> , 120-121, 213-21	3.9	29	
165	Continuous time random walks and heat transfer in porous media. <i>Transport in Porous Media</i> , <b>2007</b> , 67, 413-430	3.1	28	
164	Continuous time random walks revisited: first passage time and spatial distributions. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>2004</b> , 334, 46-66	3.3	28	
163	Synthesis and characterization of isotopically-labeled silver, copper and zinc oxide nanoparticles for tracing studies in plants. <i>Environmental Pollution</i> , <b>2018</b> , 242, 1827-1837	9.3	27	
162	Non-Fickian Transport in Transparent Replicas of Rough-Walled Rock Fractures. <i>Transport in Porous Media</i> , <b>2013</b> , 98, 651-682	3.1	27	
161	Comparative analysis of formulations for conservative transport in porous media through sensitivity-based parameter calibration. <i>Water Resources Research</i> , <b>2013</b> , 49, 5206-5220	5.4	27	
160	Analytic derivation of percolation thresholds in anisotropic systems of permeable objects. <i>Physical Review A</i> , <b>1991</b> , 43, 6604-6612	2.6	27	
159	Fate and transport of free and conjugated estrogens during soil passage. <i>Environmental Pollution</i> , <b>2015</b> , 206, 80-7	9.3	26	
158	Anomalous reactive transport in porous media: Experiments and modeling. <i>Physical Review E</i> , <b>2015</b> , 91, 052130	2.4	26	
157	Effective Medium Analysis of Random Lattices. <i>Transport in Porous Media</i> , <b>2000</b> , 40, 145-151	3.1	25	
156	Time-dependent velocity-field controls on anomalous chemical transport in porous media. <i>Water Resources Research</i> , <b>2017</b> , 53, 3760-3769	5.4	24	
155	Abiotic soil changes induced by engineered nanomaterials: A critical review. <i>Journal of Contaminant Hydrology</i> , <b>2015</b> , 181, 3-16	3.9	24	
154	Transport of engineered nanoparticles in partially saturated sand columns. <i>Journal of Hazardous Materials</i> , <b>2016</b> , 311, 254-62	12.8	24	
153	Reductive hydrogenation of polycyclic aromatic hydrocarbons catalyzed by metalloporphyrins. <i>Chemosphere</i> , <b>2007</b> , 68, 210-7	8.4	24	
152	Pre-posterior analysis as a tool for data evaluation: Application to aquifer contamination. <i>Water Resources Management</i> , <b>1988</b> , 2, 11-20	3.7	24	
151	Experimental and modeling analysis of coupled non-Fickian transport and sorption in natural soils. <i>Journal of Contaminant Hydrology</i> , <b>2012</b> , 132, 28-36	3.9	23	
150	Atrazine degradation through PEI-copper nanoparticles deposited onto montmorillonite and sand. <i>Scientific Reports</i> , <b>2017</b> , 7, 1415	4.9	23	

149	Pore-scale study of drainage displacement under combined capillary and gravity effects in index-matched porous media. <i>Water Resources Research</i> , <b>2006</b> , 42,	5.4	23
148	Flow, dissolution, and precipitation in dolomite. Water Resources Research, 2003, 39,	5.4	23
147	Structural controls on anomalous transport in fractured porous rock. <i>Water Resources Research</i> , <b>2016</b> , 52, 5634-5643	5.4	23
146	Dissolution and precipitation dynamics during dedolomitization. <i>Water Resources Research</i> , <b>2011</b> , 47,	5.4	22
145	An experimental and numerical investigation of saltwater movement in coupled saturatedpartially saturated systems. <i>Water Resources Research</i> , <b>2002</b> , 38, 5-1-5-11	5.4	22
144	Reactive transport in disordered media: Role of fluctuations in interpretation of laboratory experiments. <i>Advances in Water Resources</i> , <b>2013</b> , 51, 86-103	4.7	21
143	Inertial Effects on Flow and Transport in Heterogeneous Porous Media. <i>Physical Review Letters</i> , <b>2018</b> , 120, 054504	7.4	20
142	Record-breaking statistics for random walks in the presence of measurement error and noise. <i>Physical Review Letters</i> , <b>2013</b> , 110, 180602	7.4	20
141	Contaminant-induced irreversible changes in properties of the soil-vadose-aquifer zone: an overview. <i>Chemosphere</i> , <b>2008</b> , 71, 1409-21	8.4	20
140	Silver nanoparticle (Ag-NP) retention and release in partially saturated soil: column experiments and modelling. <i>Environmental Science: Nano</i> , <b>2018</b> , 5, 422-435	7.1	20
139	Integrodifferential formulations of the continuous-time random walk for solute transport subject to bimolecular A+B-threactions: From micro- to mesoscopic. <i>Physical Review E</i> , <b>2015</b> , 91, 032113	2.4	19
138	Evidence of preferential path formation and path memory effect during successive infiltration and drainage cycles in uniform sand columns. <i>Journal of Contaminant Hydrology</i> , <b>2014</b> , 165, 1-10	3.9	19
137	Multimodel framework for characterization of transport in porous media. <i>Water Resources Research</i> , <b>2015</b> , 51, 3384-3402	5.4	19
136	Simulation of the interplay between resident and infiltrating water in partially saturated porous media. <i>Water Resources Research</i> , <b>2009</b> , 45,	5.4	19
135	Contaminant geochemistrya new perspective. <i>Die Naturwissenschaften</i> , <b>2010</b> , 97, 1-17	2	19
134	The Nubian Sandstone aquifer in the central and northern Negev, Israel: delineation of the hydrogeological model under conditions of scarce data. <i>Journal of Hydrology</i> , <b>1992</b> , 132, 107-135	6	19
133	The interaction of two major old water bodies and its implication for the exploitation of groundwater in the multiple aquifer system of the central and northern Negev, Israel. <i>Journal of Hydrology</i> , <b>1993</b> , 143, 169-190	6	18
132	Interpretation and nonuniqueness of CTRW transition distributions: Insights from an alternative solute transport formulation. <i>Advances in Water Resources</i> , <b>2014</b> , 74, 54-63	4.7	17

131	Soil-Subsurface Change <b>2012</b> ,		17
130	Salt-pump mechanism for contaminant intrusion into coastal aquifers. <i>Science</i> , <b>2003</b> , 300, 950	33.3	17
129	Exact effective transport dynamics in a one-dimensional random environment. <i>Physical Review E</i> , <b>2005</b> , 72, 031110	2.4	17
128	Dispersion in Sub-Representative Elementary Volume Fracture Networks: Percolation Theory and Random Walk Approaches. <i>Water Resources Research</i> , <b>1991</b> , 27, 3159-3164	5.4	17
127	Effects of particle size and surface chemistry on plastic nanoparticle transport in saturated natural porous media. <i>Chemosphere</i> , <b>2021</b> , 262, 127854	8.4	17
126	Anomalous transport in correlated velocity fields. <i>Physical Review E</i> , <b>2010</b> , 81, 011128	2.4	16
125	Magnetic resonance imaging and quantitative analysis of particle deposition in porous media. <i>Environmental Science &amp; Environmental Science &amp; Environm</i>	10.3	16
124	Are sedimentary salt layers always impermeable?. <i>Geophysical Research Letters</i> , <b>1995</b> , 22, 2761-2764	4.9	16
123	Random-adding determination of percolation thresholds in interacting systems. <i>Physical Review E</i> , <b>1994</b> , 49, R949-R952	2.4	16
122	Experimental and modeling evidence of kilometer-scale anomalous tracer transport in an alpine karst aquifer. <i>Water Research</i> , <b>2020</b> , 178, 115755	12.5	16
121	The Mobility of Plastic Nanoparticles in Aqueous and Soil Environments: A Critical Review. <i>ACS ES&amp;T Water</i> , <b>2021</b> , 1, 48-57		16
120	Anomalous transport dependence on Pālet number, porous medium heterogeneity, and a temporally varying velocity field. <i>Physical Review E</i> , <b>2019</b> , 99, 033108	2.4	15
119	First-principles derivation of reactive transport modeling parameters for particle tracking and PDE approaches. <i>Advances in Water Resources</i> , <b>2014</b> , 69, 146-158	4.7	15
118	Oxidation of aqueous organic pollutants using a stable copper nanoparticle suspension. <i>Canadian Journal of Chemical Engineering</i> , <b>2017</b> , 95, 343-352	2.3	15
117	Measurements of Interactions between Resident and Infiltrating Water in a Lattice Micromodel. <i>Vadose Zone Journal</i> , <b>2011</b> , 10, 624-633	2.7	15
116	8-Hydroxyquinoline-5-sulfonic Acid (HQS) Impregnated on Lewatit MP 600 for Cadmium Complexation: Implication of Solvent Impregnated Resins for Water Remediation. <i>Separation Science and Technology</i> , <b>2003</b> , 38, 149-163	2.5	15
115	Is Old Faithful a strange attractor?. <i>Journal of Geophysical Research</i> , <b>1994</b> , 99, 4495-4503		15
114	Push-pull tracer tests: Their information content and use for characterizing non-Fickian, mobile-immobile behavior. <i>Water Resources Research</i> , <b>2016</b> , 52, 9565-9585	5.4	14

113	Reductive dechlorination of atrazine catalyzed by metalloporphyrins. <i>Chemosphere</i> , <b>2009</b> , 75, 48-55	8.4	14
112	Buoyancy-driven dissolution enhancement in rock fractures. <i>Geology</i> , <b>2000</b> , 28, 1051	5	14
111	Nickel migration and retention dynamics in natural soil columns. <i>Water Resources Research</i> , <b>2015</b> , 51, 7702-7722	5.4	13
110	Analysis of subsurface flow and formation anisotropy in a fractured aquitard using transient water level data. <i>Water Resources Research</i> , <b>1992</b> , 28, 199-207	5.4	13
109	Characterization of Bimolecular Reactive Transport in Heterogeneous Porous Media. <i>Transport in Porous Media</i> , <b>2016</b> , 115, 291-310	3.1	13
108	Contaminant Geochemistry <b>2014</b> ,		12
107	Estimation of Single-Metal and Competitive Sorption Isotherms through Maximum Likelihood and Model Quality Criteria. <i>Soil Science Society of America Journal</i> , <b>2012</b> , 76, 1229-1245	2.5	12
106	Interplay between resident and infiltrating water: Estimates from transient water flow and solute transport. <i>Journal of Hydrology</i> , <b>2012</b> , 458-459, 40-50	6	11
105	Experimental and numerical studies of the 18O exchange between CO2 and water in the atmosphereBoil invasion flux. <i>Geochimica Et Cosmochimica Acta</i> , <b>2007</b> , 71, 2657-2671	5.5	11
104	Diffusion in multicomponent systems: a free energy approach. <i>Chemical Physics</i> , <b>2004</b> , 302, 21-30	2.3	11
103	Measurement and modeling of engineered nanoparticle transport and aging dynamics in a reactive porous medium. <i>Water Resources Research</i> , <b>2016</b> , 52, 5473-5491	5.4	11
102	Microchemical contaminants as forming agents of anthropogenic soils. <i>Ambio</i> , <b>2017</b> , 46, 109-120	6.5	10
101	Surface water and groundwater: unifying conceptualization and quantification of the two water worlds ### Handward ### Handward ### Water ####################################	5.5	10
100	Transport of gadolinium- and arsenic-based pharmaceuticals in saturated soil under various redox conditions. <i>Chemosphere</i> , <b>2016</b> , 144, 713-20	8.4	10
99	Application of a mixing-ratios based formulation to model mixing-driven dissolution experiments. <i>Advances in Water Resources</i> , <b>2009</b> , 32, 756-766	4.7	10
98	Dedolomitization and flow in fractures. <i>Geophysical Research Letters</i> , <b>2004</b> , 31,	4.9	10
97	Mixing-driven diagenesis and mineral deposition: CaCO3 precipitation in salt water If resh water mixing zones. <i>Geophysical Research Letters</i> , <b>2003</b> , 30, n/a-n/a	4.9	10
96	Solute transport in fracture channel and parallel plate models. <i>Geophysical Research Letters</i> , <b>1991</b> , 18, 227-230	4.9	10

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95	Elucidating the catalytic degradation of enrofloxacin by copper oxide nanoparticles through the identification of the reactive oxygen species. <i>Chemosphere</i> , <b>2020</b> , 258, 127266	8.4	9
94	A continuous time random walk (CTRW) integro-differential equation with chemical interaction. <i>European Physical Journal B</i> , <b>2018</b> , 91, 1	1.2	9
93	Mobility and Interaction of Heavy Metals in a Natural Soil. <i>Transport in Porous Media</i> , <b>2013</b> , 97, 295-315	3.1	9
92	Fickian and non-Fickian diffusion with bimolecular reactions. <i>Physical Review E</i> , <b>2013</b> , 87,	2.4	9
91	Spatial and Temporal Distribution of Free and Conjugated Estrogens During Soil Column Transport. <i>Clean - Soil, Air, Water</i> , <b>2017</b> , 45,	1.6	8
90	Visualization and analysis of nanoparticle transport and ageing in reactive porous media. <i>Journal of Hazardous Materials</i> , <b>2015</b> , 299, 513-9	12.8	8
89	Transport in disordered media with spatially nonuniform fields. <i>Physical Review E</i> , <b>2010</b> , 81, 031102	2.4	8
88	Theory of continuum percolation. III. Low-density expansion. <i>Physical Review E</i> , <b>1997</b> , 56, 1379-1395	2.4	8
87	Application of the central-particle-potential approximation for percolation in interacting systems. <i>Physical Review E</i> , <b>1995</b> , 52, 4482-4494	2.4	8
86	Mobility and retention of indium and gallium in saturated porous media. <i>Journal of Hazardous Materials</i> , <b>2019</b> , 363, 394-400	12.8	8
85	Transport of platinum-based pharmaceuticals in water-saturated sand and natural soil: Carboplatin and cisplatin species. <i>Chemosphere</i> , <b>2019</b> , 219, 390-399	8.4	8
84	Copper Oxide Nanoparticle-Coated Quartz Sand as a Catalyst for Degradation of an Organic Dye in Water. <i>Water, Air, and Soil Pollution</i> , <b>2012</b> , 223, 3105-3115	2.6	7
83	Record setting during dispersive transport in porous media. <i>Geophysical Research Letters</i> , <b>2011</b> , 38, n/a-	-n/ay	7
82	Phase separation and convection in heterogeneous porous media: Implications for seafloor hydrothermal systems. <i>Journal of Geophysical Research</i> , <b>2007</b> , 112,		7
81	An experimental analogue for convection and phase separation in hydrothermal systems. <i>Journal of Geophysical Research</i> , <b>2006</b> , 111,		7
80	Vertical Heterogeneity in Horizontal Components of Specific Discharge: Case Study Analysisa. <i>Ground Water</i> , <b>1993</b> , 31, 33-40	2.4	7
79	Column Relaxation Methods for Least Norm Problems. <i>SIAM Journal on Scientific and Statistical Computing</i> , <b>1990</b> , 11, 975-989		7

77	The effect of nanoparticles and humic acid on technology critical element concentrations in aqueous solutions with soil and sand. <i>Science of the Total Environment</i> , <b>2018</b> , 610-611, 1083-1091	10.2	6
76	One-Dimensional Finite Element Method Solution of a Class of Integro-Differential Equations: Application to Non-Fickian Transport in Disordered Media. <i>Transport in Porous Media</i> , <b>2016</b> , 115, 239-26	3 <sup>3.1</sup>	6
75	Behavior and stability of organic contaminant droplets in aqueous solutions. <i>Chemosphere</i> , <b>2007</b> , 69, 1593-601	8.4	6
74	The Impact of Biased Sampling on the Estimation of the Semivariogram Within Fractured Media Containing Multiple Fracture Sets. <i>Mathematical Geosciences</i> , <b>2000</b> , 32, 543-560		6
73	Isotopic labelling for sensitive detection of nanoparticle uptake and translocation in plants from hydroponic medium and soil. <i>Environmental Chemistry</i> , <b>2019</b> , 16, 391	3.2	6
72	Modeling Non-Fickian Solute Transport Due to Mass Transfer and Physical Heterogeneity on Arbitrary Groundwater Velocity Fields. <i>Water Resources Research</i> , <b>2020</b> , 56, e2019WR026868	5.4	6
71	The Impact of Ureteral Deformation and External Ureteral Pressure on Stent Failure in Extrinsic Ureteral Obstruction: An Experimental Study. <i>Journal of Endourology</i> , <b>2020</b> , 34, 68-73	2.7	6
70	Transport of oxaliplatin species in water-saturated natural soil. <i>Chemosphere</i> , <b>2018</b> , 208, 829-837	8.4	6
69	Benchmarking numerical codes for tracer transport with the aid of laboratory-scale experiments in 2D heterogeneous porous media. <i>Journal of Contaminant Hydrology</i> , <b>2018</b> , 212, 55-64	3.9	5
68	Effect of Phosphate, Sulfate, Arsenate, and Pyrite on Surface Transformations and Chemical Retention of Gold Nanoparticles (Au-NPs) in Partially Saturated Soil Columns. <i>Environmental Science &amp; Environmental Science &amp; Envi</i>	10.3	5
67	Pore-scale imbibition experiments in dry and prewetted porous media. <i>Advances in Water Resources</i> , <b>2007</b> , 30, 2373-2386	4.7	5
66	Advective transport in the percolation backbone in two dimensions. <i>Physical Review E</i> , <b>2001</b> , 64, 056305	5 2.4	5
65	A Monte Carlo Model for the Flow of Dust in a Porous Comet Nucleus. <i>Icarus</i> , <b>1999</b> , 137, 348-354	3.8	5
64	Influence of embedded fractures on contaminant diffusion in geological formations. <i>Geophysical Research Letters</i> , <b>1996</b> , 23, 925-928	4.9	5
63	A spatial, time-dependent approach to estimation of hydrologic data. <i>Journal of Hydrology</i> , <b>1992</b> , 135, 133-142	6	5
62	Reactive Transport in Heterogeneous Porous Media Under Different PElet Numbers. <i>Water Resources Research</i> , <b>2019</b> , 55, 10119-10129	5.4	5
61	Comparative study of renal drainage with different ureteral stents subject to extrinsic ureteral obstruction using an in vitro ureter-stent model. <i>BMC Urology</i> , <b>2021</b> , 21, 100	2.2	5
60	Two-dimensional finite element method solution of a class of integro-differential equations: Application to non-Fickian transport in disordered media. <i>International Journal for Numerical Methods in Engineering</i> , <b>2017</b> , 112, 459-478	2.4	4

## (2020-2019)

59	Characterization of mixing and reaction between chemical species during cycles of drainage and imbibition in porous media. <i>Advances in Water Resources</i> , <b>2019</b> , 130, 113-128	4.7	4	
58	Finite-Element Method Solution of Non-Fickian Transport in Porous Media: The CTRW-FEM Package. <i>Ground Water</i> , <b>2019</b> , 57, 479-484	2.4	4	
57	Response to Comment on """Salt-Pump Mechanism for Contaminant Intrusion into Coastal Aquifers"". <i>Science</i> , <b>2003</b> , 302, 784c-784	33.3	4	
56	Continuum percolation conductivity exponents in restricted domains. <i>Journal of Statistical Physics</i> , <b>1995</b> , 80, 1415-1423	1.5	4	
55	Impact of Colloidal Fluid on Stent Failure Under Extrinsic Ureteral Obstruction: An Experimental Study. <i>Journal of Endourology</i> , <b>2020</b> , 34, 987-992	2.7	3	
54	Can contaminated, fractured, porous aquifers be restored?. <i>Die Naturwissenschaften</i> , <b>1990</b> , 77, 431-43.	3 2	3	
53	Reactive Transport with FluidBolid Interactions in Dual-Porosity Media. ACS ES&T Water, 2021, 1, 259-2	68	3	
52	Controls on interactions between resident and infiltrating waters in porous media. <i>Advances in Water Resources</i> , <b>2018</b> , 121, 304-315	4.7	3	
51	Process-Dependent Solute Transport in Porous Media. <i>Transport in Porous Media</i> , <b>2021</b> , 140, 421	3.1	3	
50	Electronic waste as a source of rare earth element pollution: Leaching, transport in porous media, and the effects of nanoparticles. <i>Chemosphere</i> , <b>2022</b> , 287, 132217	8.4	3	
49	Bimolecular reactive transport in a two-dimensional velocity field in disordered media. <i>Journal of Physics A: Mathematical and Theoretical</i> , <b>2019</b> , 52, 424005	2	2	
48	Water Flow and Solute Transport in Unsaturated Fractured Chalk. <i>Geophysical Monograph Series</i> , <b>2013</b> , 183-196	1.1	2	
47	Transport Equation Evaluation of Coupled Continuous Time Random Walks. <i>Journal of Statistical Physics</i> , <b>2010</b> , 141, 1093-1103	1.5	2	
46	Dispersion in Heterogeneous Geological Formations: Preface (Transport in Porous Media Special Issue). <i>Transport in Porous Media</i> , <b>2001</b> , 42, 1-2	3.1	2	
45	A scale-dependent equation for solute transport in porous media. <i>Transport in Porous Media</i> , <b>1988</b> , 3, 199-205	3.1	2	
44	Buoyancy-driven dissolution enhancement in rock fractures. <i>Geology</i> , <b>2000</b> , 28, 1051-1054	5	2	
43	Preferential pathways for fluid and solutes in heterogeneous groundwater systems: self-organization, entropy, work. <i>Hydrology and Earth System Sciences</i> , <b>2021</b> , 25, 5337-5353	5.5	2	
42	Aurora: A non-Fickian (and Fickian) particle tracking package for modeling groundwater contaminant transport with MODFLOW. <i>Environmental Modelling and Software</i> , <b>2020</b> , 134, 104871	5.2	2	

41	Effect of nanoplastics on the transport of platinum-based pharmaceuticals in water-saturated natural soil and their effect on a soil microbial community. <i>Environmental Science: Nano</i> , <b>2020</b> , 7, 3178-3	788	2
40	Simulation of reactive solute transport in the critical zone: a Lagrangian model for transient flow and preferential transport. <i>Hydrology and Earth System Sciences</i> , <b>2021</b> , 25, 1483-1508	5.5	2
39	Response to: "Letter to the Editor, International Urology and Nephrology: in silico-in vitro-in vivo-can numerical simulations based on computational fluid dynamics (CFD) replace studies of the urinary tract?". <i>International Urology and Nephrology</i> , <b>2021</b> , 53, 1837-1838	2.3	2
38	Influence of Single Stent Size and Tandem Stents Subject to Extrinsic Ureteral Obstruction and Stent Occlusion on Stent Failure. <i>Journal of Endourology</i> , <b>2021</b> ,	2.7	2
37	Catalytic Degradation of Fluorouracil and Its Derivatives by Copper-Based Nanoparticles. <i>Environmental Engineering Science</i> , <b>2019</b> , 36, 1466-1473	2	2
36	Influence of humic substances on the transport of indium and gallium in porous media. <i>Chemosphere</i> , <b>2020</b> , 249, 126099	8.4	1
35	Engineered nanomaterials as a potential metapedogenetic factor: A perspective. <i>Catena</i> , <b>2016</b> , 146, 30-37	5.8	1
34	Quantification of Non-Fickian Transport in Fractured Formations. <i>Geophysical Monograph Series</i> , <b>2013</b> , 23-31	1.1	1
33	Use of Nanoparticles for Degradation of Water Contaminants in Oxidative and Reductive Reactions. <i>ACS Symposium Series</i> , <b>2010</b> , 23-37	0.4	1
32	Numerical study of diffusion on a random-mixed-bond lattice. <i>Physical Review E</i> , <b>2008</b> , 77, 031119	2.4	1
31	An algorithm and Pascal program for geostatistical mapping. Computers and Geosciences, 1991, 17, 489-	-5ρ <b>3</b>	1
30	Comment on The Operational Significance of the Continuum Hypothesis in the Theory of Water Movement Through Soils and Aquifers by P. Baveye and G. Sposito. <i>Water Resources Research</i> , 1985, 21, 1293-1293	5.4	1
29	Impact of the Capillary Fringe on Local Flow, Chemical Migration, and Microbiology. <i>Vadose Zone Journal</i> , <b>2004</b> , 3, 534-548	2.7	1
28	Chemical Pollutants as a Factor of SoilBubsurface Irreversible Transformation: An Introductory Discussion <b>2012</b> , 1-9		1
27	Properties and Behavior of Selected Inorganic and Organometallic Contaminants 2012, 39-74		1
26	The Role of Probabilistic Approaches to Transport Theory in Heterogeneous Media <b>2001</b> , 241-263		1
25	Schwartz, The Impact of Ureteral Deformation and External Ureteral Pressure on Stent Failure in Extrinsic Ureteral ObstructionAn Experimental Study by Shilo et al. (From: Shilo Y, Modai J, Leibovici D, et al. J Endourol 2019;34:74; DOI: 10.1089/end.2019.0636). <i>Journal of Endourology</i> ,	2.7	1
24	<b>2020</b> , 34, 75  Current knowledge on transport and reactivity of technology-critical elements (TCEs) in soil and aquifer environments. <i>Environmental Chemistry</i> , <b>2020</b> , 17, 118	3.2	1

23	Uptake, translocation, weathering and speciation of gold nanoparticles in potato, radish, carrot and lettuce crops. <i>Journal of Hazardous Materials</i> , <b>2021</b> , 418, 126219	12.8	1
22	Selected Research Findings: Contaminant Partitioning <b>2014</b> , 171-243		O
21	Contaminant-Induced Irreversible Changes in Groundwater Chemistry <b>2014</b> , 457-500		0
20	Imaging and Chemical Analysis of External and Internal Ureteral Stent Encrustation <i>Research and Reports in Urology</i> , <b>2022</b> , 14, 159-166	1.3	O
19	Transport of Reactive Contaminants <b>2014</b> , 267-284		
18	Reply to comment by V. P. Shkilev on Non-Fickian transport and multiple-rate mass transfer in porous media (Water Resources Research, 2010, 46,	5.4	
17	Reply [to Comment on Analysis of subsurface flow and formation anisotropy in a fractured aquitard using transient water level datalby B. Rophe, B. Berkowitz, M. Magaritz, and D. Ronen [] Water Resources Research, 1993, 29, 4175-4175	5.4	
16	On the Retention and Transformation of Contaminants in Soil and the Subsurface <b>2012</b> , 75-111		
15	Contaminant-Induced Irreversible Changes in Properties of the SoilBubsurface Regime <b>2012</b> , 263-360		
14	Reactive Transport in Heterogeneous Media. <i>NATO Science for Peace and Security Series C:</i> Environmental Security, <b>2014</b> , 243-256	0.3	
13	Interchange of Infiltrating and Resident Water in Partially Saturated Media. <i>NATO Science for Peace and Security Series C: Environmental Security</i> , <b>2014</b> , 55-66	0.3	
12	Selected Research Findings: Contaminant Transport <b>2014</b> , 285-345		
11	Water Flow in the Subsurface Environment <b>2014</b> , 247-253		
10	Sorption, Retention, and Release of Contaminants <b>2014</b> , 107-146		
9	Inorganic and Organometallic Compounds <b>2014</b> , 53-77		
8	Contaminant Partitioning in the Aqueous Phase <b>2014</b> , 147-162		
7	Contaminant Impacts on the SoilBubsurface Solid Phase <b>2014</b> , 501-569		
6	Transport of Passive Contaminants <b>2014</b> , 255-266		

5	Do organic substances act as a degradable binding matrix in calcium oxalate kidney stones?. <i>BMC Urology</i> , <b>2021</b> , 21, 46	2.2
4	Preface: Special Issue in Honor of Harvey Scher 80th Birthday. <i>Transport in Porous Media</i> , <b>2016</b> , 115, 209-214	3.1
3	Stepping beyond perfectly mixed conditions in soil hydrological modelling using a Lagrangian approach. <i>Hydrology and Earth System Sciences</i> , <b>2022</b> , 26, 1615-1629	5.5
2	When should we give up on expectant management for patients with proximal ureteral stones?. <i>Current Urology</i> , <b>2022</b> , 16, 9-14	1.7
1	HESS Opinions: Chemical transport modeling in subsurface hydrological systems & pace, time, and the Boly grail of Open procesting of Hydrology and Earth System Sciences, 2022, 26, 2161-2180	5.5