Zhenxue Dai

List of Publications by Year in descending order

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ZHENVILE DAL

#	Article	IF	CITATIONS
1	Dispersivity variations of solute transport in heterogeneous sediments: numerical and experimental study. Stochastic Environmental Research and Risk Assessment, 2022, 36, 661-677.	4.0	6
2	Radionuclide transport in multi-scale fractured rocks: A review. Journal of Hazardous Materials, 2022, 424, 127550.	12.4	81
3	Bandage based energy generators activated by sweat in wireless skin electronics for continuous physiological monitoring. Nano Energy, 2022, 92, 106755.	16.0	19
4	Hydro-thermo-chemo-mechanical modeling of carbon dioxide injection in fluvial heterogeneous aquifers. Chemical Engineering Journal, 2022, 431, 133451.	12.7	8
5	Stretchable Sweatâ€Activated Battery in Skinâ€Integrated Electronics for Continuous Wireless Sweat Monitoring. Advanced Science, 2022, 9, e2104635.	11.2	29
6	Unraveling elastic and inelastic storage of aquifer systems by integrating fast independent component analysis and a variable preconsolidation head decomposition method. Journal of Hydrology, 2022, 606, 127420.	5.4	5
7	Massâ€Wastingâ€Inferred Dramatic Variability of 130,000‥ear Indian Summer Monsoon Intensity From Deposits in the Southeast Tibetan Plateau. Geophysical Research Letters, 2022, 49, .	4.0	12
8	Stageâ€Wise Stochastic Deep Learning Inversion Framework for Subsurface Sedimentary Structure Identification. Geophysical Research Letters, 2022, 49, .	4.0	40
9	Numerical analysis of rock joints in tunnel construction during blasting. Arabian Journal of Geosciences, 2022, 15, 1.	1.3	0
10	An integrated inversion framework for heterogeneous aquifer structure identification with single-sample generative adversarial network. Journal of Hydrology, 2022, 610, 127844.	5.4	31
11	Uncertainty quantification of radionuclide migration in fractured granite. Journal of Cleaner Production, 2022, 366, 132944.	9.3	13
12	Toward smart schemes for modeling CO2 solubility in crude oil: Application to carbon dioxide enhanced oil recovery. Fuel, 2021, 285, 119147.	6.4	35
13	Bacterial community variations with salinity in the saltwater-intruded estuarine aquifer. Science of the Total Environment, 2021, 755, 142423.	8.0	26
14	Experimental investigations on scale-dependent dispersivity in three-dimensional heterogeneous porous media. Environmental Science and Pollution Research, 2021, 28, 23336-23348.	5.3	6
15	Land subsidence due to groundwater pumping: hazard probability assessment through the combination of Bayesian model and fuzzy set theory. Natural Hazards and Earth System Sciences, 2021, 21, 823-835.	3.6	12
16	Quantitative Analysis and Evaluation of Coal Mine Geological Structures Based on Fractal Theory. Energies, 2021, 14, 1925.	3.1	10
17	Risk Assessment and Management Workflow—An Example of the Southwest Regional Partnership. Energies, 2021, 14, 1908.	3.1	6
18	Impact of Mineral Reactive Surface Area on Forecasting Geological Carbon Sequestration in a CO2-EOR Field. Energies, 2021, 14, 1608.	3.1	15

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19	Potential Chemical Impacts of Subsurface CO ₂ : An Integrated Experimental and Numerical Assessment for a Case Study of the Ogallala Aquifer. Water Resources Research, 2021, 57, e2020WR029274.	4.2	7
20	Remediation Techniques for Cadmium-Contaminated Dredged River Sediments after Land Disposal. Sustainability, 2021, 13, 6093.	3.2	4
21	Experimental Investigation on the Mixture Ratio and Diffusion Performance of Grouting Materials for Water Bursting Prevention in Coal Mines. Advances in Materials Science and Engineering, 2021, 2021, 1-11.	1.8	2
22	Quantitative evaluation of groundwater and surface water interaction characteristics during a dry season. Water and Environment Journal, 2021, 35, 1348-1361.	2.2	10
23	Adsorption model identification for chromium (VI) transport in unconsolidated sediments. Journal of Hydrology, 2021, 598, 126228.	5.4	25
24	Improving the Energy Efficiency of Buildings Based on Fluid Dynamics Models: A Critical Review. Energies, 2021, 14, 5384.	3.1	1
25	Spatiotemporal modeling of land subsidence using a geographically weighted deep learning method based on PS-InSAR. Science of the Total Environment, 2021, 799, 149244.	8.0	31
26	Application of upscaling methods for fluid flow and mass transport in multi-scale heterogeneous media: A critical review. Applied Energy, 2021, 303, 117603.	10.1	95
27	Spectrophotometric Determination of p-Nitrophenol under ENP Interference. Journal of Analytical Methods in Chemistry, 2021, 2021, 1-9.	1.6	18
28	Analysis of Crack Initiation and Propagation Thresholds of Inclined Cracks under High-Pressure Grouting in Ordovician Limestone. Energies, 2021, 14, 360.	3.1	3
29	Pore-scale mechanisms and simulations for gas–water two-phase transport processes in natural gas reservoirs. Journal of Natural Gas Science and Engineering, 2021, 96, 104314.	4.4	9
30	Extracellular Polymeric Substances Facilitate the Adsorption and Migration of Cu2+ and Cd2+ in Saturated Porous Media. Biomolecules, 2021, 11, 1715.	4.0	4
31	An Improved Tandem Neural Network Architecture for Inverse Modeling of Multicomponent Reactive Transport in Porous Media. Water Resources Research, 2021, 57, .	4.2	30
32	Capillary Heterogeneity Linked to Methane Lateral Migration in Shallow Unconfined Aquifers. Geophysical Research Letters, 2021, 48, .	4.0	12
33	Reactive chemical transport simulations of geologic carbon sequestration: Methods and applications. Earth-Science Reviews, 2020, 208, 103265.	9.1	86
34	Assessment of CO2 trapping mechanisms in partially depleted oil-bearing sands. Fuel, 2020, 278, 118356.	6.4	34
35	Application of risk assessment in determination of soil remediation targets. Stochastic Environmental Research and Risk Assessment, 2020, 34, 1659-1673.	4.0	5
36	Chemical Impacts of Potential CO2 and Brine Leakage on Groundwater Quality with Quantitative Risk Assessment: A Case Study of the Farnsworth Unit. Energies, 2020, 13, 6574.	3.1	14

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37	Analysis of Asymmetric Stress Ratio in Shallow Buried Tunnels. KSCE Journal of Civil Engineering, 2020, 24, 1924-1931.	1.9	4
38	A NOVEL FRACTAL MODEL FOR ESTIMATING PERMEABILITY IN LOW-PERMEABLE SANDSTONE RESERVOIRS. Fractals, 2020, 28, 2040005.	3.7	14
39	Influence of lunar semidiurnal tides on groundwater dynamics in estuarine aquifers. Hydrogeology Journal, 2020, 28, 1419-1429.	2.1	9
40	The 3â€Ð Facies and Geomechanical Modeling of Land Subsidence in the Chaobai Plain, Beijing. Water Resources Research, 2020, 56, e2019WR027026.	4.2	28
41	Effects of surface loading on groundwater flow and skeletal deformation. Water Science and Technology: Water Supply, 2020, 20, 287-295.	2.1	2
42	Modeling CO ₂ Solubility in Water at High Pressure and Temperature Conditions. Energy & Fuels, 2020, 34, 4761-4776.	5.1	63
43	How does resolution of sedimentary architecture data affect plume dispersion in multiscale and hierarchical systems?. Journal of Hydrology, 2020, 582, 124516.	5.4	20
44	Identification of rock pore structures and permeabilities using electron microscopy experiments and deep learning interpretations. Fuel, 2020, 268, 117416.	6.4	35
45	Carbon Mineralization under Different Saline—Alkali Stress Conditions in Paddy Fields of Northeast China. Sustainability, 2020, 12, 2921.	3.2	13
46	Machine learning based co-optimization of carbon dioxide sequestration and oil recovery in CO2-EOR project. Journal of Cleaner Production, 2020, 260, 120866.	9.3	49
47	Delineating Facies Spatial Distribution by Integrating Ensemble Data Assimilationand Indicator Geostatistics With Levelâ€Set Transformation. Water Resources Research, 2019, 55, 2652-2671.	4.2	22
48	Application of Mixed-Integer Nonlinear Optimization Programming Based on Ensemble Surrogate Model for Dense Nonaqueous Phase Liquid Source Identification in Groundwater. Environmental Engineering Science, 2019, 36, 699-709.	1.6	18
49	Water Resources Utilization and Protection in the Coal Mining Area of Northern China. Scientific Reports, 2019, 9, 1214.	3.3	23
50	Reactive Transport Modeling of Geological Carbon Storage Associated With CO2 and Brine Leakage. , 2019, , 89-116.		3
51	Identifying spatial correlation structure of multimodal permeability in hierarchical media with Markov chain approach. Journal of Hydrology, 2019, 568, 703-715.	5.4	19
52	Classification and characterization of bound water in marine mucky silty clay. Journal of Soils and Sediments, 2019, 19, 2509-2519.	3.0	33
53	Estimation of Sandstone Permeability with SEM Images Based on Fractal Theory. Transport in Porous Media, 2019, 126, 701-712.	2.6	24
54	Uncertainty quantification of CO2 storage using Bayesian model averaging and polynomial chaos expansion. International Journal of Greenhouse Gas Control, 2018, 71, 104-115.	4.6	26

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55	Multicomponent competitive monovalent cation exchange in hierarchical porous media with multimodal reactive mineral facies. Stochastic Environmental Research and Risk Assessment, 2018, 32, 295-310.	4.0	13
56	Biogeochemical zonation of sulfur during the discharge of groundwater to lake in desert plateau (Dakebo Lake, NW China). Environmental Geochemistry and Health, 2018, 40, 1051-1066.	3.4	10
57	Experimental investigation on oil migration and accumulation in tight sandstones. Journal of Petroleum Science and Engineering, 2018, 160, 267-275.	4.2	31
58	Impact of Threeâ€Phase Relative Permeability and Hysteresis Models on Forecasts of Storage Associated With CO ₂ â€EOR. Water Resources Research, 2018, 54, 1109-1126.	4.2	33
59	Heterogeneity-assisted carbon dioxide storage in marine sediments. Applied Energy, 2018, 225, 876-883.	10.1	89
60	A new model for simulating spring discharge recession and estimating effective porosity of karst aquifers. Journal of Hydrology, 2018, 562, 609-622.	5.4	10
61	The scale dependence of dispersivity in multi-facies heterogeneous formations. Carbonates and Evaporites, 2018, 33, 161-165.	1.0	9
62	Effectiveness and mechanism of natural attenuation at a petroleum-hydrocarbon contaminated site. Chemosphere, 2018, 206, 293-301.	8.2	30
63	Optimum design of CO2 storage and oil recovery under geological uncertainty. Applied Energy, 2017, 195, 80-92.	10.1	173
64	Colloid-Facilitated Plutonium Transport in Fractured Tuffaceous Rock. Environmental Science & Technology, 2017, 51, 5582-5590.	10.0	44
65	Mixing and spreading of multiphase fluids in heterogeneous bimodal porous media. Geomechanics and Geophysics for Geo-Energy and Geo-Resources, 2017, 3, 225-244.	2.9	32
66	Reactive transport modeling of arsenic mobilization in shallow groundwater: impacts of CO2 and brine leakage. Geomechanics and Geophysics for Geo-Energy and Geo-Resources, 2017, 3, 339-350.	2.9	15
67	Quantitative assessment of soil CO ₂ concentration and stable carbon isotope for leakage detection at geological carbon sequestration sites. , 2017, 7, 680-691.		5
68	Quantification of CO2-cement-rock interactions at the well-caprock-reservoir interface and implications for geological CO2 storage. International Journal of Greenhouse Gas Control, 2017, 63, 126-140.	4.6	35
69	Multi-tracer investigation of river and groundwater interactions: a case study in Nalenggele River basin, northwest China. Hydrogeology Journal, 2017, 25, 2015-2029.	2.1	34
70	Dissolution Trapping of Carbon Dioxide in Heterogeneous Aquifers. Environmental Science & Technology, 2017, 51, 7732-7741.	10.0	95
71	Reactive transport in the complex heterogeneous alluvial aquifer of Fortymile Wash, Nevada. Chemosphere, 2017, 179, 379-386.	8.2	25
72	Evaluation of pressure management strategies and impact of simplifications for a post-EOR CO2 storage project. Geomechanics and Geophysics for Geo-Energy and Geo-Resources, 2017, 3, 281-292.	2.9	9

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73	An experimental evaluation of unique CO2 flow behaviour in loosely held fine particles rich sandstone under deep reservoir conditions and influencing factors. Energy, 2017, 119, 121-137.	8.8	29
74	Probabilistic Risk Assessment of CO2 Trapping Mechanisms in a Sandstone CO2-EOR Field in Northern Texas, USA. Energy Procedia, 2017, 114, 4321-4329.	1.8	11
75	Co-optimization of CO2-EOR and Storage Processes under Geological Uncertainty. Energy Procedia, 2017, 114, 6928-6941.	1.8	23
76	CO2 Sequestration and Enhanced Oil Recovery at Depleted Oil/Gas Reservoirs. Energy Procedia, 2017, 114, 6957-6967.	1.8	23
77	Injectivity Evaluation for Offshore CO2 Sequestration in Marine Sediments. Energy Procedia, 2017, 114, 2921-2932.	1.8	10
78	Geologic CO2 sequestration: progress and challenges. Geomechanics and Geophysics for Geo-Energy and Geo-Resources, 2017, 3, 221-223.	2.9	28
79	Groundwater flow path determination during riverbank filtration affected by groundwater exploitation: a case study of Liao River, Northeast China. Hydrological Sciences Journal, 2017, 62, 2331-2347.	2.6	18
80	Impact of naturally leaking carbon dioxide on soil properties and ecosystems in the Qinghai-Tibet plateau. Scientific Reports, 2017, 7, 3001.	3.3	22
81	Arsenic mobilization in shallow aquifers due to CO2 and brine intrusion from storage reservoirs. Scientific Reports, 2017, 7, 2763.	3.3	16
82	Coâ€optimization of CO ₂ â€EOR and storage processes in mature oil reservoirs. , 2017, 7, 128-142.		81
83	Modeling 3-D permeability distribution in alluvial fans using facies architecture and geophysical acquisitions. Hydrology and Earth System Sciences, 2017, 21, 721-733.	4.9	20
84	Farnsworth Field CO2-EOR Project: Performance Case History. , 2016, , .		29
85	Performance of CO2-EOR and Storage Processes Under Uncertainty. , 2016, , .		14
86	CO ₂ Accounting and Risk Analysis for CO ₂ Sequestration at Enhanced Oil Recovery Sites. Environmental Science & Technology, 2016, 50, 7546-7554.	10.0	228
87	An ecology-oriented exploitation mode of groundwater resources in the northern Tianshan Mountains, China. Journal of Hydrology, 2016, 543, 386-394.	5.4	41
88	Reduced order models for assessing CO2 impacts in shallow unconfined aquifers. International Journal of Greenhouse Gas Control, 2016, 46, 187-196.	4.6	42
89	Probabilistic assessment of shale gas production and water demand at Xiuwu Basin in China. Applied Energy, 2016, 180, 185-195.	10.1	33
90	Applicability of aquifer impact models to support decisions at CO2 sequestration sites. International Journal of Greenhouse Gas Control, 2016, 52, 319-330.	4.6	33

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91	Evaluation of CO ₂ Storage Mechanisms in CO ₂ Enhanced Oil Recovery Sites: Application to Morrow Sandstone Reservoir. Energy & Fuels, 2016, 30, 8545-8555.	5.1	163
92	A quantitative analysis of hydraulic interaction processes in stream-aquifer systems. Scientific Reports, 2016, 6, 19876.	3.3	27
93	Critical Dynamics of Gravito-Convective Mixing in Geological Carbon Sequestration. Scientific Reports, 2016, 6, 35921.	3.3	89
94	Uncertainty analysis of carbon sequestration in an active CO2-EOR field. International Journal of Greenhouse Gas Control, 2016, 51, 18-28.	4.6	81
95	Statistic inversion of multi-zone transition probability models for aquifer characterization in alluvial fans. Stochastic Environmental Research and Risk Assessment, 2016, 30, 1005-1016.	4.0	26
96	Modeling the impact of carbon dioxide leakage into an unconfined, oxidizing carbonate aquifer. International Journal of Greenhouse Gas Control, 2016, 44, 290-299.	4.6	56
97	Compositional Simulation of CO2 Storage Capacity in Depleted Oil Reservoirs. , 2015, , .		21
98	Relating reactive solute transport to hierarchical and multiscale sedimentary architecture in a <scp>L</scp> agrangianâ€based transport model: 1. Timeâ€dependent effective retardation factor. Water Resources Research, 2015, 51, 1586-1600.	4.2	47
99	Relating reactive solute transport to hierarchical and multiscale sedimentary architecture in a <scp>L</scp> agrangianâ€based transport model: 2. Particle displacement variance. Water Resources Research, 2015, 51, 1601-1618.	4.2	47
100	Land subsidence due to groundwater withdrawal in the northern Beijing plain, China. Engineering Geology, 2015, 193, 243-255.	6.3	220
101	Reactive solute transport in physically and chemically heterogeneous porous media with multimodal reactive mineral facies: The Lagrangian approach. Chemosphere, 2015, 122, 235-244.	8.2	43
102	Transport of kinetically sorbing solutes in heterogeneous sediments with multimodal conductivity and hierarchical organization across scales. Stochastic Environmental Research and Risk Assessment, 2015, 29, 709-726.	4.0	33
103	Permeability prediction of shale matrix reconstructed using the elementary building block model. Fuel, 2015, 160, 346-356.	6.4	89
104	A Note on Upscaling Retardation Factor in Hierarchical Porous Media with Multimodal Reactive Mineral Facies. Transport in Porous Media, 2015, 108, 355-366.	2.6	13
105	An integrated assessment of the impact of precipitation and groundwater on vegetation growth in arid and semiarid areas. Environmental Earth Sciences, 2015, 74, 5009-5021.	2.7	51
106	Key factors for determining groundwater impacts due to leakage from geologic carbon sequestration reservoirs. International Journal of Greenhouse Gas Control, 2014, 29, 153-168.	4.6	107
107	An Integrated Framework for Optimizing CO ₂ Sequestration and Enhanced Oil Recovery. Environmental Science and Technology Letters, 2014, 1, 49-54.	8.7	280
108	Inverse Modeling of Water-Rock-CO ₂ Batch Experiments: Potential Impacts on Groundwater Resources at Carbon Sequestration Sites. Environmental Science & amp; Technology, 2014, 48, 2798-2806.	10.0	69

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109	Pre-site Characterization Risk Analysis for Commercial-Scale Carbon Sequestration. Environmental Science & Technology, 2014, 48, 3908-3915.	10.0	90
110	Geochemical Impacts of Carbon Dioxide, Brine, Trace Metal and Organic Leakage into an Unconfined, Oxidizing Limestone Aquifer. Energy Procedia, 2014, 63, 4684-4707.	1.8	34
111	Effective detection of CO2 leakage: a comparison of groundwater sampling and pressure monitoring. Energy Procedia, 2014, 63, 4163-4171.	1.8	24
112	Uncertainty Quantification for CO2 Sequestration and Enhanced Oil Recovery. Energy Procedia, 2014, 63, 7685-7693.	1.8	69
113	Probabilistic evaluation of shallow groundwater resources at a hypothetical carbon sequestration site. Scientific Reports, 2014, 4, 4006.	3.3	74
114	Upscaling retardation factor in hierarchical porous media with multimodal reactive mineral facies. Chemosphere, 2013, 91, 248-257.	8.2	36
115	Developing a robust geochemical and reactive transport model to evaluate possible sources of arsenic at the CO2 sequestration natural analog site in Chimayo, New Mexico. International Journal of Greenhouse Gas Control, 2012, 10, 199-214.	4.6	69
116	Simulation of industrial-scale CO2 storage: Multi-scale heterogeneity and its impacts on storage capacity, injectivity and leakage. International Journal of Greenhouse Gas Control, 2012, 10, 397-418.	4.6	142
117	A hybrid Laplace transform finite analytic method for solving transport problems with large Peclet and Courant numbers. Computers and Geosciences, 2012, 49, 182-189.	4.2	18
118	Identification of sorption processes and parameters for radionuclide transport in fractured rock. Journal of Hydrology, 2012, 414-415, 220-230.	5.4	46
119	CORE2D V4: A Code for Water Flow, Heat and Solute Transport, Geochemical Reactions, and Microbial Processes. , 2012, , 160-185.		10
120	Stepwise inversion of a groundwater flow model with multi-scale observation data. Hydrogeology Journal, 2010, 18, 607-624.	2.1	29
121	Upscaling of reactive mass transport in fractured rocks with multimodal reactive mineral facies. Water Resources Research, 2010, 46, .	4.2	40
122	Characteristics and controlling factors of dispersion in bounded heterogeneous porous media. Water Resources Research, 2010, 46, .	4.2	8
123	Scale dependence of sorption coefficients for contaminant transport in saturated fractured rock. Geophysical Research Letters, 2009, 36, .	4.0	44
124	Modeling Groundwater in Multimodal Porous Media with Localized Decompositions. Mathematical Geosciences, 2008, 40, 689-704.	2.4	7
125	Identification of relative conductivity models for water flow and solute transport in unsaturated bentonite. Physics and Chemistry of the Earth, 2008, 33, S177-S185.	2.9	42
126	Aquifer structure identification using stochastic inversion. Geophysical Research Letters, 2008, 35, .	4.0	53

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127	Upscaling matrix diffusion coefficients for heterogeneous fractured rocks. Geophysical Research Letters, 2007, 34, .	4.0	41
128	Representing aquifer architecture in macrodispersivity models with an analytical solution of the transition probability matrix. Geophysical Research Letters, 2007, 34, .	4.0	47
129	Inverse modeling of water flow and multicomponent reactive transport in coastal aquifer systems. Journal of Hydrology, 2006, 327, 447-461.	5.4	55
130	Inverse modeling of tracer experiments in FEBEX compacted Ca-bentonite. Physics and Chemistry of the Earth, 2006, 31, 640-648.	2.9	52
131	Reply to comment by Shlomo P. Neuman on "Spatial correlation of permeability in cross-stratified sediment with hierarchical architecture― Water Resources Research, 2006, 42, .	4.2	5
132	Identifying geochemical processes by inverse modeling of multicomponent reactive transport in the Aquia aquifer. , 2006, 2, 210.		50
133	Introduction: Modeling groundwater flow and reactive transport in physically and chemically heterogeneous media. , 2006, 2, 73.		4
134	Improving permeability semivariograms with transition probability models of hierarchical sedimentary architecture derived from outcrop analog studies. Water Resources Research, 2005, 41, .	4.2	63
135	Modeling Multiscale Heterogeneity and Aquifer Interconnectivity. Ground Water, 2004, 42, 658-670.	1.3	60
136	Spatial correlation of permeability in cross-stratified sediment with hierarchical architecture. Water Resources Research, 2004, 40, .	4.2	98
137	Inverse problem of multicomponent reactive chemical transport in porous media: Formulation and applications. Water Resources Research, 2004, 40, .	4.2	114
138	Transport in heterogeneous sediments with multimodal conductivity and hierarchical organization across scales. Journal of Hydrology, 2004, 294, 68-86.	5.4	64
139	Forward and inverse modelling of multicomponent reactive transport in single and double porosity media. Developments in Water Science, 2004, , 805-816.	0.1	0
140	ESTIMATING PARAMETERS FOR HIERARCHICAL PERMEABILITY CORRELATION MODELS. , 2004, , 41-54.		9
141	Estimating Spatial Correlation Structure for Permeability in Sediments with Hierarchical Organization. , 2003, , 83.		0
142	Solute transport properties of compacted Ca-bentonite used in FEBEX project. Journal of Contaminant Hydrology, 2001, 47, 127-137.	3.3	49