

# Quanlin Zhou

## List of Publications by Year in descending order

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Version: 2024-02-01

70  
papers

3,329  
citations

159585

30  
h-index

149698

56  
g-index

72  
all docs

72  
docs citations

72  
times ranked

2339  
citing authors

#	ARTICLE	IF	CITATIONS
1	Scaling Behavior of Thermally Driven Fractures in Deep Low-Permeability Formations: A Plane Strain Model With Heat Conduction. <i>Journal of Geophysical Research: Solid Earth</i> , 2022, 127, .	3.4	3
2	Propagation, arrest, and reactivation of thermally driven fractures in an unconfined half-space using stability analysis. <i>Theoretical and Applied Fracture Mechanics</i> , 2021, 114, 102969.	4.7	3
3	Experimental study of three-dimensional CO <sub>2</sub> -water drainage and fracture-matrix interactions in fractured porous media. <i>Advances in Water Resources</i> , 2021, 155, 104008.	3.8	1
4	Dynamic Processes of CO <sub>2</sub> Storage in the Field: 1. Multiscale and Multipath Channeling of CO <sub>2</sub> Flow in the Hierarchical Fluvial Reservoir at Cranfield, Mississippi. <i>Water Resources Research</i> , 2020, 56, e2019EF001360.	4.2	13
5	Time-lapse gravity monitoring of CO <sub>2</sub> migration based on numerical modeling of a faulted storage complex. <i>International Journal of Greenhouse Gas Control</i> , 2020, 95, 102956.	4.6	18
6	Revisiting the Analytical Solutions of Heat Transport in Fractured Reservoirs Using a Generalized Multirate Memory Function. <i>Water Resources Research</i> , 2019, 55, 1405-1428.	4.2	15
7	Scaling the impacts of pore-scale characteristics on unstable supercritical CO <sub>2</sub> -water drainage using a complete capillary number. <i>International Journal of Greenhouse Gas Control</i> , 2019, 86, 11-21.	4.6	25
8	Pressure management via brine extraction in geological CO <sub>2</sub> storage: Adaptive optimization strategies under poorly characterized reservoir conditions. <i>International Journal of Greenhouse Gas Control</i> , 2019, 83, 176-185.	4.6	20
9	Potential CO <sub>2</sub> and brine leakage through wellbore pathways for geologic CO <sub>2</sub> sequestration using the National Risk Assessment Partnership tools: Application to the Big Sky Regional Partnership. <i>International Journal of Greenhouse Gas Control</i> , 2019, 81, 44-65.	4.6	39
10	On producing CO <sub>2</sub> from subsurface reservoirs: simulations of liquid-gas phase change caused by decompression. , 2019, 9, 194-208.		4
11	Coupled supercritical CO <sub>2</sub> dissolution and water flow in pore-scale micromodels. <i>Advances in Water Resources</i> , 2019, 123, 54-69.	3.8	18
12	Mixing and trapping of dissolved CO <sub>2</sub> in deep geologic formations with shale layers. <i>Advances in Water Resources</i> , 2017, 105, 67-81.	3.8	16
13	Pore-scale supercritical CO <sub>2</sub> dissolution and mass transfer under drainage conditions. <i>Advances in Water Resources</i> , 2017, 100, 14-25.	3.8	29
14	Imaging and quantification of spreading and trapping of carbon dioxide in saline aquifers using meter-scale laboratory experiments. <i>Water Resources Research</i> , 2017, 53, 485-502.	4.2	49
15	Approximate solutions for diffusive fracture-matrix transfer: Application to storage of dissolved CO <sub>2</sub> in fractured rocks. <i>Water Resources Research</i> , 2017, 53, 1746-1762.	4.2	19
16	Revisiting the Fundamental Analytical Solutions of Heat and Mass Transfer: The Kernel of Multirate and Multidimensional Diffusion. <i>Water Resources Research</i> , 2017, 53, 9960-9979.	4.2	9
17	Effects of the distribution and evolution of the coefficient of friction along a fault on the assessment of the seismic activity associated with a hypothetical industrial-scale geologic CO <sub>2</sub> sequestration operation. <i>International Journal of Greenhouse Gas Control</i> , 2017, 66, 254-263.	4.6	4
18	Non-Darcy interfacial dynamics of air-water two-phase flow in rough fractures under drainage conditions. <i>Scientific Reports</i> , 2017, 7, 4570.	3.3	9

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19	Integrated simulations of CO <sub>2</sub> spreading and pressure response in the multilayer saline aquifer of South Scania Site, Sweden. , 2016, 6, 531-545.		5
20	Effects of in situ stress measurement uncertainties on assessment of predicted seismic activity and risk associated with a hypothetical industrial-scale geologic CO <sub>2</sub> sequestration operation. Journal of Rock Mechanics and Geotechnical Engineering, 2016, 8, 873-885.	8.1	10
21	Geologic carbon sequestration injection wells in overpressured storage reservoirs: estimating area of review. , 2016, 6, 775-786.		7
22	Pore-scale supercritical CO <sub>2</sub> dissolution and mass transfer under imbibition conditions. Advances in Water Resources, 2016, 92, 142-158.	3.8	49
23	A new second-order numerical manifold method model with an efficient scheme for analyzing free surface flow with inner drains. Applied Mathematical Modelling, 2016, 40, 1427-1445.	4.2	41
24	On the detection of leakage pathways in geological CO <sub>2</sub> storage systems using pressure monitoring data: Impact of model parameter uncertainties. Advances in Water Resources, 2015, 84, 112-124.	3.8	15
25	Experimental study on effects of geologic heterogeneity in enhancing dissolution trapping of supercritical CO <sub>2</sub> . Water Resources Research, 2015, 51, 1635-1648.	4.2	89
26	Experimental analysis of spatial correlation effects on capillary trapping of supercritical CO <sub>2</sub> at the intermediate laboratory scale in heterogeneous porous media. Water Resources Research, 2015, 51, 8791-8805.	4.2	45
27	CO <sub>2</sub> migration and pressure evolution in deep saline aquifers. International Journal of Greenhouse Gas Control, 2015, 40, 203-220.	4.6	119
28	Experimental Investigation of Supercritical CO <sub>2</sub> Trapping Mechanisms at the Intermediate Laboratory Scale in Well-defined Heterogeneous Porous Media. Energy Procedia, 2014, 63, 5646-5653.	1.8	9
29	Using Pressure and Volumetric Approaches to Estimate CO <sub>2</sub> Storage Capacity in Deep Saline Aquifers. Energy Procedia, 2014, 63, 5294-5304.	1.8	26
30	Energy-work-based numerical manifold seepage analysis with an efficient scheme to locate the phreatic surface. International Journal for Numerical and Analytical Methods in Geomechanics, 2014, 38, 1633-1650.	3.3	36
31	Numerical modeling of the pumping tests at the Ketzin pilot site for CO <sub>2</sub> injection: Model calibration and heterogeneity effects. International Journal of Greenhouse Gas Control, 2014, 22, 200-212.	4.6	15
32	Making sense of global sensitivity analyses. Computers and Geosciences, 2014, 65, 84-94.	4.2	149
33	Supercritical CO <sub>2</sub> dissolution and mass transfer in low-permeability sandstone: Effect of concentration difference in water-flood experiments. International Journal of Greenhouse Gas Control, 2014, 28, 328-342.	4.6	32
34	Investigation of mechanisms of supercritical CO <sub>2</sub> trapping in deep saline reservoirs using surrogate fluids at ambient laboratory conditions. International Journal of Greenhouse Gas Control, 2014, 29, 35-49.	4.6	32
35	Fast iterative implementation of large-scale nonlinear geostatistical inverse modeling. Water Resources Research, 2014, 50, 198-207.	4.2	13
36	Flow in horizontally anisotropic multilayered aquifer systems with leaky wells and aquitards. Water Resources Research, 2014, 50, 741-747.	4.2	14

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37	A Connectivity-Based Modeling Approach for Representing Hysteresis in Macroscopic Two-Phase Flow Properties. <i>Energy Procedia</i> , 2014, 63, 3456-3463.	1.8	3
38	Delineating Area of Review in a System with Pre-injection Relative Overpressure. <i>Energy Procedia</i> , 2014, 63, 3715-3722.	1.8	4
39	A modeling approach to represent hysteresis in capillary pressure-saturation relationship based on fluid connectivity in void space. <i>Water Resources Research</i> , 2014, 50, 119-131.	4.2	16
40	Pressure Buildup and Brine Migration During CO <sub>2</sub> Storage in Multilayered Aquifers. <i>Ground Water</i> , 2013, 51, 252-267.	1.3	48
41	Dynamic displacement and non-equilibrium dissolution of supercritical CO <sub>2</sub> in low-permeability sandstone: An experimental study. <i>International Journal of Greenhouse Gas Control</i> , 2013, 14, 1-14.	4.6	67
42	Reply to comments by Schnaar et al. on "Brine flow up a well caused by pressure perturbation from geologic carbon sequestration: Static and dynamic evaluations" by Birkholzer et al. (2011). <i>International Journal of Greenhouse Gas Control</i> , 2013, 17, 544-545.	4.6	0
43	Modeling the performance of large-scale CO <sub>2</sub> storage systems: A comparison of different sensitivity analysis methods. <i>International Journal of Greenhouse Gas Control</i> , 2013, 17, 189-205.	4.6	65
44	Early detection of brine and CO <sub>2</sub> leakage through abandoned wells using pressure and surface-deformation monitoring data: Concept and demonstration. <i>Advances in Water Resources</i> , 2013, 62, 555-569.	3.8	69
45	Geostatistical reduced-order models in underdetermined inverse problems. <i>Water Resources Research</i> , 2013, 49, 6587-6600.	4.2	29
46	Impact-driven pressure management via targeted brine extraction" Conceptual studies of CO <sub>2</sub> storage in saline formations. <i>International Journal of Greenhouse Gas Control</i> , 2012, 7, 168-180.	4.6	114
47	Analytical solutions for pressure perturbation and fluid leakage through aquitards and wells in multilayered aquifer systems. <i>Water Resources Research</i> , 2011, 47, .	4.2	80
48	Brine flow up a well caused by pressure perturbation from geologic carbon sequestration: Static and dynamic evaluations. <i>International Journal of Greenhouse Gas Control</i> , 2011, 5, 850-861.	4.6	79
49	On scale and magnitude of pressure build-up induced by large-scale geologic storage of CO <sub>2</sub> . , 2011, 1, 11-20.		68
50	Reply to Comments by Veling on "A Semi-Analytical Solution for Large-Scale Injection-Induced Pressure Perturbation and Leakage in a Laterally Bounded Aquifer" Aquitard System" by Zhou, Birkholzer, and Tsang. <i>Transport in Porous Media</i> , 2011, 86, 327-328.	2.6	0
51	Modeling Basin and Plume Scale Processes of CO <sub>2</sub> Storage for Full Scale Deployment. <i>Ground Water</i> , 2010, 48, 494-514.	1.3	167
52	A Semi-Analytical Solution for Large-Scale Injection-Induced Pressure Perturbation and Leakage in a Laterally Bounded Aquifer Aquitard System. <i>Transport in Porous Media</i> , 2009, 78, 127-148.	2.6	41
53	Large-scale impact of CO <sub>2</sub> storage in deep saline aquifers: A sensitivity study on pressure response in stratified systems. <i>International Journal of Greenhouse Gas Control</i> , 2009, 3, 181-194.	4.6	421
54	Basin-scale hydrogeologic impacts of CO <sub>2</sub> storage: Capacity and regulatory implications. <i>International Journal of Greenhouse Gas Control</i> , 2009, 3, 745-756.	4.6	221

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55	Understanding CO2 Plume Behavior and Basin-Scale Pressure Changes during Sequestration Projects through the use of Reservoir Fluid Modeling. <i>Energy Procedia</i> , 2009, 1, 1799-1806.	1.8	14
56	Field evidence of biodegradation of N-Nitrosodimethylamine (NDMA) in groundwater with incidental and active recycled water recharge. <i>Water Research</i> , 2009, 43, 793-805.	11.3	43
57	A method for quick assessment of CO2 storage capacity in closed and semi-closed saline formations. <i>International Journal of Greenhouse Gas Control</i> , 2008, 2, 626-639.	4.6	343
58	Behavior of the mass transfer coefficient during the MADE experiment: New insights. <i>Water Resources Research</i> , 2008, 44, .	4.2	31
59	Analysis of pumping-induced unsaturated regions beneath a perennial river. <i>Water Resources Research</i> , 2007, 43, .	4.2	33
60	An interpretation of potential scale dependence of the effective matrix diffusion coefficient. <i>Journal of Contaminant Hydrology</i> , 2007, 90, 41-57.	3.3	38
61	Field-scale effective matrix diffusion coefficient for fractured rock: Results from literature survey. <i>Journal of Contaminant Hydrology</i> , 2007, 93, 161-187.	3.3	98
62	Effects of diffusive property heterogeneity on effective matrix diffusion coefficient for fractured rock. <i>Water Resources Research</i> , 2006, 42, .	4.2	15
63	Evidence of Multi-Process Matrix Diffusion in a Single Fracture from a Field Tracer Test. <i>Transport in Porous Media</i> , 2006, 63, 473-487.	2.6	30
64	Analysis of a mesoscale infiltration and water seepage test in unsaturated fractured rock: Spatial variabilities and discrete fracture patterns. <i>Journal of Contaminant Hydrology</i> , 2006, 87, 96-122.	3.3	24
65	Sea Water Intrusion into Coastal Aquifers. , 2006, , 12-1-12-29.		1
66	Saltwater Upconing and Decay Beneath a Well Pumping Above an Interface Zone. <i>Transport in Porous Media</i> , 2005, 61, 337-363.	2.6	52
67	Modeling Three-Dimensional Groundwater Flow and Advective Contaminant Transport at a Heterogeneous Mountainous Site in Support of Remediation. <i>Vadose Zone Journal</i> , 2004, 3, 884-900.	2.2	6
68	Flow and transport in unsaturated fractured rock: effects of multiscale heterogeneity of hydrogeologic properties. <i>Journal of Contaminant Hydrology</i> , 2003, 60, 1-30.	3.3	42
69	Accurate calculation of specific discharge in heterogeneous porous media. <i>Water Resources Research</i> , 2001, 37, 3057-3069.	4.2	23
70	An adaptive pathline-based particle tracking algorithm for the Eulerian-Lagrangian method. <i>Advances in Water Resources</i> , 2000, 23, 383-397.	3.8	32