

Liwei Zhang

List of Publications by Year in descending order

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66
papers

1,376
citations

361413

20
h-index

377865

34
g-index

70
all docs

70
docs citations

70
times ranked

1240
citing authors

#	ARTICLE	IF	CITATIONS
1	3D micro-structural changes of an artificial flow channel in wellbore cement under geologic CO ₂ storage conditions: Combined effect of effective stress and flow. <i>Construction and Building Materials</i> , 2022, 325, 126761.	7.2	8
2	Effect of recess length on flow dynamics in gas-centered liquid-swirl coaxial injectors under supercritical conditions. <i>Aerospace Science and Technology</i> , 2022, 128, 107757.	4.8	4
3	Effects of Fe and Al ions during hydrogen sulphide (H ₂ S)-induced corrosion of tetracalcium aluminoferrite (C4AF) and tricalcium aluminate (C3A). <i>Journal of Hazardous Materials</i> , 2021, 403, 123928.	12.4	11
4	A framework to determine soil-water retention relation for mine wastes and its applications in emergency risk assessment. <i>Hydrology Research</i> , 2021, 52, 389-413.	2.7	2
5	Effectiveness and microstructure change of alkali-activated materials during accelerated carbonation curing. <i>Construction and Building Materials</i> , 2021, 274, 122063.	7.2	14
6	High-Accuracy Real-Time Fish Detection Based on Self-Build Dataset and RIRD-YOLOv3. <i>Complexity</i> , 2021, 2021, 1-8.	1.6	4
7	Evidence of self-sealing in wellbore cement under geologic CO ₂ storage conditions by micro-computed tomography (CT), scanning electron microscopy (SEM) and Raman observations. <i>Applied Geochemistry</i> , 2021, 128, 104937.	3.0	10
8	Potential for uranium release under geologic CO ₂ storage conditions: The impact of Fe(III). <i>International Journal of Greenhouse Gas Control</i> , 2021, 107, 103266.	4.6	6
9	Landscape Ecological Risk Assessment under Multiple Indicators. <i>Land</i> , 2021, 10, 739.	2.9	29
10	Seepage characteristics of thermally and chemically treated Mesozoic granite from geothermal region of Liaodong Peninsula. <i>Environmental Earth Sciences</i> , 2021, 80, 1.	2.7	7
11	Impact of reservoir parameters and wellbore permeability uncertainties on CO ₂ and brine leakage potential at the Shenhua CO ₂ Storage Site, China. <i>International Journal of Greenhouse Gas Control</i> , 2021, 111, 103443.	4.6	16
12	Modified Poisson–Nernst–Planck Model with Coulomb and Hard-sphere Correlations. <i>SIAM Journal on Applied Mathematics</i> , 2021, 81, 1645-1667.	1.8	14
13	Efficient and High-Quality Monocular Depth Estimation via Gated Multi-Scale Network. <i>IEEE Access</i> , 2020, 8, 7709-7718.	4.2	6
14	Impacts of international trade on global sustainable development. <i>Nature Sustainability</i> , 2020, 3, 964-971.	23.7	150
15	Multimodal Multiobject Tracking by Fusing Deep Appearance Features and Motion Information. <i>Complexity</i> , 2020, 2020, 1-10.	1.6	1
16	Application of computed tomography (CT) in geologic CO ₂ utilization and storage research: A critical review. <i>Journal of Natural Gas Science and Engineering</i> , 2020, 83, 103591.	4.4	20
17	Spatial–Temporal Characteristics and Influencing Factors of Coupled Coordination between Urbanization and Eco-Environment: A Case Study of 13 Urban Agglomerations in China. <i>Sustainability</i> , 2020, 12, 8821.	3.2	38
18	Ecosystem Services under Climate Change Impact Water Infrastructure in a Highly Forested Basin. <i>Water (Switzerland)</i> , 2020, 12, 2825.	2.7	13

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19	Uranium release surrounding a single fracture in a uranium-rich reservoir under geologic carbon storage conditions. <i>Computational Geosciences</i> , 2020, 24, 1883-1893.	2.4	1
20	Numerical modeling of thermal breakthrough induced by geothermal production in fractured granite. <i>Journal of Rock Mechanics and Geotechnical Engineering</i> , 2020, 12, 900-916.	8.1	25
21	Numerical modelling of the cooling effect in geothermal reservoirs induced by injection of CO ₂ and cooled geothermal water. <i>Oil and Gas Science and Technology</i> , 2020, 75, 15.	1.4	2
22	Characterisation of wellbore cement microstructure alteration under geologic carbon storage using X-ray computed micro-tomography: A framework for fast CT image registration and carbonate shell morphology quantification. <i>Cement and Concrete Composites</i> , 2020, 108, 103524.	10.7	31
23	Grasping Force Control of Multi-Fingered Robotic Hands through Tactile Sensing for Object Stabilization. <i>Sensors</i> , 2020, 20, 1050.	3.8	36
24	Processes and driving forces for changing vegetation ecosystem services: Insights from the Shaanxi Province of China. <i>Ecological Indicators</i> , 2020, 112, 106105.	6.3	44
25	Application of arbitrary polynomial chaos (aPC) expansion for global sensitivity analysis of mineral dissolution and precipitation modeling under geologic carbon storage conditions. <i>Computational Geosciences</i> , 2020, 24, 1333-1346.	2.4	9
26	Simulation of uranium mobilization potential in a deep aquifer under geological carbon storage conditions. <i>Applied Geochemistry</i> , 2020, 118, 104620.	3.0	12
27	Pore-scale numerical simulation of supercritical CO ₂ migration in porous and fractured media saturated with water. <i>Advances in Geo-Energy Research</i> , 2020, 4, 419-434.	6.0	46
28	Effects of Large Permanent Charges on Ionic Flows via Poisson–Nernst–Planck Models. <i>SIAM Journal on Applied Dynamical Systems</i> , 2020, 19, 1993-2029.	1.6	10
29	The NPP-Based Composite Indicator for Assessing the Variations of Water Provision Services at the National Scale. <i>Water (Switzerland)</i> , 2019, 11, 1628.	2.7	4
30	Self-healing mechanism of Zn-enhanced cement stone: An application for sour natural gas field. <i>Construction and Building Materials</i> , 2019, 227, 116651.	7.2	12
31	Improved Vinegar & Wellington calibration for estimation of fluid saturation and porosity from CT images for a core flooding test under geologic carbon storage conditions. <i>Micron</i> , 2019, 124, 102703.	2.2	13
32	From core-scale experiment to reservoir-scale modeling: A scale-up approach to investigate reaction-induced permeability evolution of CO ₂ storage reservoir and caprock at a U.S. CO ₂ storage site. <i>Computers and Geosciences</i> , 2019, 125, 55-68.	4.2	18
33	Dark Channel: The Devil is in the Details. <i>IEEE Signal Processing Letters</i> , 2019, 26, 981-985.	3.6	10
34	Micro-CT Characterization of Wellbore Cement Degradation in SO ₄ ²⁻ -Bearing Brine under Geological CO ₂ Storage Environment. <i>Geofluids</i> , 2019, 2019, 1-10.	0.7	2
35	Numerical Simulation of Subsurface Uranium (U) Leaching and Migration Under Geologic Carbon Storage Conditions. <i>Environmental Science and Engineering</i> , 2019, , 121-128.	0.2	2
36	Geochemistry in geologic CO ₂ utilization and storage: A brief review. <i>Advances in Geo-Energy Research</i> , 2019, 3, 304-313.	6.0	53

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37	Feasibility of CO ₂ migration detection using pressure and CO ₂ saturation monitoring above an imperfect primary seal of a geologic CO ₂ storage formation: a numerical investigation. <i>Computational Geosciences</i> , 2018, 22, 909-923.	2.4	8
38	Application of a new reduced-complexity assessment tool to estimate CO ₂ and brine leakage from reservoir and above-zone monitoring interval (AZMI) through an abandoned well under geologic carbon storage conditions. , 2018, 8, 839-853.		5
39	Supercritical fluid flow dynamics and mixing in gas-centered liquid-swirl coaxial injectors. <i>Physics of Fluids</i> , 2018, 30, .	4.0	28
40	Supercritical combustion of gas-centered liquid-swirl coaxial injectors for staged-combustion engines. <i>Combustion and Flame</i> , 2018, 197, 204-214.	5.2	25
41	Permeability and Mineral Composition Evolution of Primary Seal and Reservoir Rocks in Geologic Carbon Storage Conditions. <i>Environmental Engineering Science</i> , 2018, 35, 391-400.	1.6	17
42	Modeling changes in pressure due to migration of fluids into the Above Zone Monitoring Interval of a geologic carbon storage site. <i>International Journal of Greenhouse Gas Control</i> , 2017, 56, 30-42.	4.6	17
43	Mapping ecosystem services for China's ecoregions with a biophysical surrogate approach. <i>Landscape and Urban Planning</i> , 2017, 161, 22-31.	7.5	45
44	Flow Dynamics and Mixing of a Transverse Jet in Crossflow"Part I: Steady Crossflow. <i>Journal of Engineering for Gas Turbines and Power</i> , 2017, 139, .	1.1	11
45	Flow Dynamics and Mixing of a Transverse Jet in Crossflow"Part II: Oscillating Crossflow. <i>Journal of Engineering for Gas Turbines and Power</i> , 2017, 139, .	1.1	3
46	Investigation on arsenopyrite dissolution and As (III) migration under geologic carbon storage conditions: A numerical simulation approach. , 2017, 7, 460-473.		13
47	Numerical investigation of Lower Tuscaloosa Sandstone and Selma Chalk caprock under geological CO ₂ sequestration conditions: mineral precipitation and permeability evolution. , 2017, 7, 988-1007.		9
48	Force measurement system for invisalign based on thin film single force sensor. <i>Measurement: Journal of the International Measurement Confederation</i> , 2017, 97, 1-7.	5.0	8
49	Uncertainties of Two Methods in Selecting Priority Areas for Protecting Soil Conservation Service at Regional Scale. <i>Sustainability</i> , 2017, 9, 1577.	3.2	4
50	Investigation on porosity and permeability change of Mount Simon sandstone (Knox County, IN, USA) under geological CO ₂ sequestration conditions: a numerical simulation approach. , 2016, 6, 574-587.		2
51	Modeling of Methane Migration in Shallow Aquifers from Shale Gas Well Drilling. <i>Ground Water</i> , 2016, 54, 345-353.	1.3	20
52	Effect of outer boundary condition, reservoir size, and CO ₂ effective permeability on pressure and CO ₂ saturation predictions under carbon sequestration conditions. , 2016, 6, 546-560.		14
53	Probabilistic Assessment of Above Zone Pressure Predictions at a Geologic Carbon Storage Site. <i>Scientific Reports</i> , 2016, 6, 39536.	3.3	9
54	CO ₂ /brine/rock interactions in Lower Tuscaloosa formation. , 2016, 6, 824-837.		24

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55	Review: Role of chemistry, mechanics, and transport on well integrity in CO ₂ storage environments. International Journal of Greenhouse Gas Control, 2016, 49, 149-160.	4.6	141
56	Numerical simulation of porosity and permeability evolution of Mount Simon sandstone under geological carbon sequestration conditions. Chemical Geology, 2015, 403, 1-12.	3.3	49
57	Supersonic Combustion and Flame Stabilization of Coflow Ethylene and Air with Splitter Plate. Journal of Propulsion and Power, 2015, 31, 1242-1255.	2.2	45
58	Effect of exposure environment on the interactions between acid gas (H ₂ S and CO ₂) and pozzolan-amended wellbore cement under acid gas co-sequestration conditions. International Journal of Greenhouse Gas Control, 2014, 27, 309-318.	4.6	32
59	Leakage Detection of Marcellus Shale Natural Gas at an Upper Devonian Gas Monitoring Well: A 3-D Numerical Modeling Approach. Environmental Science & Technology, 2014, 48, 10795-10803.	10.0	13
60	Statistical Model for Scaling and Corrosion Potentials of Cooling-System Source Waters. Environmental Engineering Science, 2014, 31, 570-581.	1.6	9
61	Application of the finite difference method to model pH and substrate concentration in a double-chamber microbial fuel cell. Environmental Technology (United Kingdom), 2014, 35, 1064-1076.	2.2	8
62	Rate of H ₂ S and CO ₂ attack on pozzolan-amended Class H well cement under geologic sequestration conditions. International Journal of Greenhouse Gas Control, 2014, 27, 299-308.	4.6	39
63	Effect of Fractures on Methane Migration in Shallow Groundwater Aquifer. , 2014, , .		1
64	Characterization of pozzolan-amended wellbore cement exposed to CO ₂ and H ₂ S gas mixtures under geologic carbon storage conditions. International Journal of Greenhouse Gas Control, 2013, 19, 358-368.	4.6	52
65	Reactive Transport Modeling of Interactions between Acid Gas (CO ₂ + H ₂ S) and Pozzolan-Amended Wellbore Cement under Geologic Carbon Sequestration Conditions. Energy & Fuels, 2013, 27, 6921-6937.	5.1	42
66	Impact of CO ₂ Induced Mineral Dissolution and Precipitation on Porosity and Permeability of Lower Tuscaloosa and Marine Shale Formations (Mississippi, USA): A Numerical Study. SSRN Electronic Journal, 0, , .	0.4	0