Liwei Zhang

List of Publications by Year
in descending order

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	Impacts of international trade on global sustainable development. Nature Sustainability, 2020, 3, 964-971.	23.7	150
2	Review: Role of chemistry, mechanics, and transport on well integrity in CO2 storage environments. International Journal of Greenhouse Gas Control, 2016, 49, 149-160.	4.6	141
3	Geochemistry in geologic CO2 utilization and storage: A brief review. Advances in Geo-Energy Research, 2019, 3, 304-313.	6.0	53
4	Characterization of pozzolan-amended wellbore cement exposed to CO2 and H2S gas mixtures under geologic carbon storage conditions. International Journal of Greenhouse Gas Control, 2013, 19, 358-368.	4.6	52
5	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
6	Pore-scale numerical simulation of supercritical CO2 migration in porous and fractured media saturated with water. Advances in Geo-Energy Research, 2020, 4, 419-434.	6.0	46
7	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
8	Mapping ecosystem services for Chinaâ€™s ecoregions with a biophysical surrogate approach. Landscape and Urban Planning, 2017, 161, 22-31.	7.5	45
9	Processes and driving forces for changing vegetation ecosystem services: Insights from the Shaanxi Province of China. Ecological Indicators, 2020, 112, 106105.	6.3	44
10	Reactive Transport Modeling of Interactions between Acid Gas (CO₂ + H₂S) and Pozzolan-Amended Wellbore Cement under Geologic Carbon Sequestration Conditions. Energy & Fuels, 2013, 27, 6921-6937.	5.1	42
11	Rate of H2S and CO2 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
12	Spatialâ€“Temporal Characteristics and Influencing Factors of Coupled Coordination between Urbanization and Eco-Environment: A Case Study of 13 Urban Agglomerations in China. Sustainability, 2020, 12, 8821.	3.2	38
13	Grasping Force Control of Multi-Fingered Robotic Hands through Tactile Sensing for Object Stabilization. Sensors, 2020, 20, 1050.	3.8	36
14	Effect of exposure environment on the interactions between acid gas (H2S and CO2) and pozzolan-amended wellbore cement under acid gas co-sequestration conditions. International Journal of Greenhouse Gas Control, 2014, 27, 309-318.	4.6	32
15	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. Cement and Concrete Composites, 2020, 108, 103524.	10.7	31
16	Landscape Ecological Risk Assessment under Multiple Indicators. Land, 2021, 10, 739.	2.9	29
17	Supercritical fluid flow dynamics and mixing in gas-centered liquid-swirl coaxial injectors. Physics of Fluids, 2018, 30, .	4.0	28
18	Supercritical combustion of gas-centered liquid-swirl coaxial injectors for staged-combustion engines. Combustion and Flame, 2018, 197, 204-214.	5.2	25

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19	Numerical modeling of thermal breakthrough induced by geothermal production in fractured granite. Journal of Rock Mechanics and Geotechnical Engineering, 2020, 12, 900-916.	8.1	25
20	CO 2 /brine/rock interactions in Lower Tuscaloosa formation. , 2016, 6, 824-837.		24
21	Modeling of Methane Migration in Shallow Aquifers from Shale Gas Well Drilling. Ground Water, 2016, 54, 345-353.	1.3	20
22	Application of computed tomography (CT) in geologic CO2 utilization and storage research: A critical review. Journal of Natural Gas Science and Engineering, 2020, 83, 103591.	4.4	20
23	From core-scale experiment to reservoir-scale modeling: A scale-up approach to investigate reaction-induced permeability evolution of CO2 storage reservoir and caprock at a U.S. CO2 storage site. Computers and Geosciences, 2019, 125, 55-68.	4.2	18
24	Modeling changes in pressure due to migration of fluids into the Above Zone Monitoring Interval of a geologic carbon storage site. International Journal of Greenhouse Gas Control, 2017, 56, 30-42.	4.6	17
25	Permeability and Mineral Composition Evolution of Primary Seal and Reservoir Rocks in Geologic Carbon Storage Conditions. Environmental Engineering Science, 2018, 35, 391-400.	1.6	17
26	Impact of reservoir parameters and wellbore permeability uncertainties on CO2 and brine leakage potential at the Shenhua CO2 Storage Site, China. International Journal of Greenhouse Gas Control, 2021, 111, 103443.	4.6	16
27	Effect of outer boundary condition, reservoir size, and CO₂ effective permeability on pressure and CO₂ saturation predictions under carbon sequestration conditions. , 2016, 6, 546-560.		14
28	Effectiveness and microstructure change of alkali-activated materials during accelerated carbonation curing. Construction and Building Materials, 2021, 274, 122063.	7.2	14
29	Modified Poisson–Nernst–Planck Model with Coulomb and Hard-sphere Correlations. SIAM Journal on Applied Mathematics, 2021, 81, 1645-1667.	1.8	14
30	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
31	Investigation on arsenopyrite dissolution and As (III) migration under geologic carbon storage conditions: A numerical simulation approach. , 2017, 7, 460-473.		13
32	Improved Vinegar & Wellington calibration for estimation of fluid saturation and porosity from CT images for a core flooding test under geologic carbon storage conditions. Micron, 2019, 124, 102703.	2.2	13
33	Ecosystem Services under Climate Change Impact Water Infrastructure in a Highly Forested Basin. Water (Switzerland), 2020, 12, 2825.	2.7	13
34	Self-healing mechanism of Zn-enhanced cement stone: An application for sour natural gas field. Construction and Building Materials, 2019, 227, 116651.	7.2	12
35	Simulation of uranium mobilization potential in a deep aquifer under geological carbon storage conditions. Applied Geochemistry, 2020, 118, 104620.	3.0	12
36	Flow Dynamics and Mixing of a Transverse Jet in Crossflowâ€”Part I: Steady Crossflow. Journal of Engineering for Gas Turbines and Power, 2017, 139, .	1.1	11

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37	Effects of Fe and Al ions during hydrogen sulphide (H2S)-induced corrosion of tetracalcium aluminoferrite (C4AF) and tricalcium aluminate (C3A). Journal of Hazardous Materials, 2021, 403, 123928.	12.4	11
38	Dark Channel: The Devil is in the Details. IEEE Signal Processing Letters, 2019, 26, 981-985.	3.6	10
39	Evidence of self-sealing in wellbore cement under geologic CO2 storage conditions by micro-computed tomographyâ€(CT), scanning electron microscopy (SEM) and Raman observations. Applied Geochemistry, 2021, 128, 104937.	3.0	10
40	Effects of Large Permanent Charges on Ionic Flows via Poisson--Nernst--Planck Models. SIAM Journal on Applied Dynamical Systems, 2020, 19, 1993-2029.	1.6	10
41	Statistical Model for Scaling and Corrosion Potentials of Cooling-System Source Waters. Environmental Engineering Science, 2014, 31, 570-581.	1.6	9
42	Probabilistic Assessment of Above Zone Pressure Predictions at a Geologic Carbon Storage Site. Scientific Reports, 2016, 6, 39536.	3.3	9
43	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
44	Application of arbitrary polynomial chaos (aPC) expansion for global sensitivity analysis of mineral dissolution and precipitation modeling under geologic carbon storage conditions. Computational Geosciences, 2020, 24, 1333-1346.	2.4	9
45	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
46	Force measurement system for invisalign based on thin film single force sensor. Measurement: Journal of the International Measurement Confederation, 2017, 97, 1-7.	5.0	8
47	Feasibility of CO2 migration detection using pressure and CO2 saturation monitoring above an imperfect primary seal of a geologic CO2 storage formation: a numerical investigation. Computational Geosciences, 2018, 22, 909-923.	2.4	8
48	3D micro-structural changes of an artificial flow channel in wellbore cement under geologic CO2 storage conditions: Combined effect of effective stress and flow. Construction and Building Materials, 2022, 325, 126761.	7.2	8
49	Seepage characteristics of thermally and chemically treated Mesozoic granite from geothermal region of Liaodong Peninsula. Environmental Earth Sciences, 2021, 80, 1.	2.7	7
50	Efficient and High-Quality Monocular Depth Estimation via Gated Multi-Scale Network. IEEE Access, 2020, 8, 7709-7718.	4.2	6
51	Potential for uranium release under geologic CO2 storage conditions: The impact of Fe(III). International Journal of Greenhouse Gas Control, 2021, 107, 103266.	4.6	6
52	Application of a new reducedâ€complexity assessment tool to estimate CO₂ and brine leakage from reservoir and aboveâ€zone monitoring interval (AZMI) through an abandoned well under geologic carbon storage conditions. , 2018, 8, 839-853.		5
53	Uncertainties of Two Methods in Selecting Priority Areas for Protecting Soil Conservation Service at Regional Scale. Sustainability, 2017, 9, 1577.	3.2	4
54	The NPP-Based Composite Indicator for Assessing the Variations of Water Provision Services at the National Scale. Water (Switzerland), 2019, 11, 1628.	2.7	4

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55	High-Accuracy Real-Time Fish Detection Based on Self-Build Dataset and RIRD-YOLOv3. Complexity, 2021, 2021, 1-8.	1.6	4
56	Effect of recess length on flow dynamics in gas-centered liquid-swirl coaxial injectors under supercritical conditions. Aerospace Science and Technology, 2022, 128, 107757.	4.8	4
57	Flow Dynamics and Mixing of a Transverse Jet in Crossflowâ€"Part II: Oscillating Crossflow. Journal of Engineering for Gas Turbines and Power, 2017, 139, .	1.1	3
58	Investigation on porosity and permeability change of Mount Simon sandstone (Knox County, IN, USA) under geological CO₂ sequestration conditions: a numerical simulation approach. , 2016, 6, 574-587.		2
59	Micro-CT Characterization of Wellbore Cement Degradation in SO42-â€"Bearing Brine under Geological CO2 Storage Environment. Geofluids, 2019, 2019, 1-10.	0.7	2
60	Numerical modelling of the cooling effect in geothermal reservoirs induced by injection of CO2 and cooled geothermal water. Oil and Gas Science and Technology, 2020, 75, 15.	1.4	2
61	A framework to determine soil-water retention relation for mine wastes and its applications in emergency risk assessment. Hydrology Research, 2021, 52, 389-413.	2.7	2
62	Numerical Simulation of Subsurface Uranium (U) Leaching and Migration Under Geologic Carbon Storage Conditions. Environmental Science and Engineering, 2019, , 121-128.	0.2	2
63	Multimodal Multiobject Tracking by Fusing Deep Appearance Features and Motion Information. Complexity, 2020, 2020, 1-10.	1.6	1
64	Uranium release surrounding a single fracture in a uranium-rich reservoir under geologic carbon storage conditions. Computational Geosciences, 2020, 24, 1883-1893.	2.4	1
65	Effect of Fractures on Methane Migration in Shallow Groundwater Aquifer. , 2014, , .		1
66	Impact of CO2 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