

# Zuleima Karpyn

## List of Publications by Year in descending order

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Version: 2024-02-01

48  
papers

1,829  
citations

257450

24  
h-index

265206

42  
g-index

48  
all docs

48  
docs citations

48  
times ranked

1796  
citing authors

#	ARTICLE	IF	CITATIONS
1	Swelling of clay minerals in unconsolidated porous media and its impact on permeability. <i>GeoRes</i> , 2015, 7, 1-13.	1.4	120
2	Development of a multi-mechanistic, dual-porosity, dual-permeability, numerical flow model for coalbed methane reservoirs. <i>Journal of Natural Gas Science and Engineering</i> , 2012, 8, 121-131.	4.4	118
3	Visualization of fluid occupancy in a rough fracture using micro-tomography. <i>Journal of Colloid and Interface Science</i> , 2007, 307, 181-187.	9.4	93
4	Experimental investigation of shale gas production impairment due to fracturing fluid migration during shut-in time. <i>Journal of Natural Gas Science and Engineering</i> , 2015, 24, 99-105.	4.4	90
5	Experimental Investigation of Fracturing-Fluid Migration Caused by Spontaneous Imbibition in Fractured Low-Permeability Sands. <i>SPE Reservoir Evaluation and Engineering</i> , 2014, 17, 74-81.	1.8	89
6	X-ray CT and hydraulic evidence for a relationship between fracture conductivity and adjacent matrix porosity. <i>Engineering Geology</i> , 2009, 103, 139-145.	6.3	84
7	Dynamic Evolution of Cement Composition and Transport Properties under Conditions Relevant to Geological Carbon Sequestration. <i>Energy &amp; Fuels</i> , 2013, 27, 4208-4220.	5.1	79
8	Automated contact angle estimation for three-dimensional X-ray microtomography data. <i>Advances in Water Resources</i> , 2016, 95, 152-160.	3.8	77
9	Relative permeability of homogenous-wet and mixed-wet porous media as determined by pore-scale lattice Boltzmann modeling. <i>Water Resources Research</i> , 2014, 50, 3672-3689.	4.2	75
10	Factors and Mechanisms Governing Wettability Alteration by Chemically Tuned Waterflooding: A Review. <i>Energy &amp; Fuels</i> , 2017, 31, 7734-7745.	5.1	75
11	Fracture opening or self-sealing: Critical residence time as a unifying parameter for cement- $\text{CO}_2$ -brine interactions. <i>International Journal of Greenhouse Gas Control</i> , 2016, 47, 25-37.	4.6	73
12	Pore-scale analysis of trapped immiscible fluid structures and fluid interfacial areas in oil-wet and water-wet bead packs. <i>Geofluids</i> , 2011, 11, 209-227.	0.7	66
13	Investigation of gas flow hindrance due to fracturing fluid leakoff in low permeability sandstones. <i>Journal of Natural Gas Science and Engineering</i> , 2014, 17, 1-12.	4.4	61
14	Self-healing of cement fractures under dynamic flow of $\text{CO}_2$ -rich brine. <i>Water Resources Research</i> , 2015, 51, 4684-4701.	4.2	59
15	Permeability evolution of shale during spontaneous imbibition. <i>Journal of Natural Gas Science and Engineering</i> , 2017, 38, 590-596.	4.4	56
16	Dynamic alterations in wellbore cement integrity due to geochemical reactions in $\text{CO}_2$ -rich environments. <i>Water Resources Research</i> , 2013, 49, 4465-4475.	4.2	54
17	Comparative analysis of nanopore structure and its effect on methane adsorption capacity of Southern Junggar coalfield coals by gas adsorption and FIB-SEM tomography. <i>Microporous and Mesoporous Materials</i> , 2018, 272, 117-128.	4.4	47
18	An experimental study of spontaneous imbibition in fractured sandstone with contrasting sedimentary layers. <i>Journal of Petroleum Science and Engineering</i> , 2009, 67, 48-56.	4.2	46

#	ARTICLE	IF	CITATIONS
19	Investigating Matrix/Fracture Transfer via a Level Set Method for Drainage and Imbibition. SPE Journal, 2010, 15, 125-136.	3.1	38
20	Investigation of Accessible Pore Structure Evolution under Pressurization and Adsorption for Coal and Shale Using Small-Angle Neutron Scattering. Energy & Fuels, 2019, 33, 837-847.	5.1	37
21	Laboratory investigation of chemical mechanisms driving oil recovery from oil-wet carbonate rocks. Fuel, 2019, 235, 406-415.	6.4	34
22	Evaluation of image segmentation techniques for image-based rock property estimation. Journal of Petroleum Science and Engineering, 2020, 195, 107890.	4.2	32
23	Fracture permeability and relative permeability of coal and their dependence on stress conditions. Journal of Unconventional Oil and Gas Resources, 2015, 10, 1-10.	3.5	30
24	Experimental investigation of carbon dioxide trapping due to capillary retention in saline aquifers. Geofluids, 2015, 15, 563-576.	0.7	29
25	Effect of coalification jumps on petrophysical properties of various metamorphic coals from different coalfields in China. Journal of Natural Gas Science and Engineering, 2018, 60, 63-76.	4.4	28
26	Pore-Scale Lattice Boltzmann Modeling and 4D X-ray Computed Microtomography Imaging of Fracture-Matrix Fluid Transfer. Transport in Porous Media, 2014, 103, 449-468.	2.6	26
27	Pore-scale multiphase flow experiments in bead packs of variable wettability. Geofluids, 2014, 14, 95-105.	0.7	23
28	Investigation of Generalized Relative Permeability Coefficients for Electrically Assisted Oil Recovery in Oil Formations. Transport in Porous Media, 2014, 105, 235-253.	2.6	16
29	Development of a material balance equation for coalbed methane reservoirs accounting for the presence of water in the coal matrix and coal shrinkage and swelling. Journal of Unconventional Oil and Gas Resources, 2015, 9, 153-162.	3.5	15
30	Experimental and numerical study of gas diffusion and sorption kinetics in ultratight rocks. Fuel, 2021, 286, 119300.	6.4	13
31	Numerical Simulation of a CT-Scanned Counter-Current Flow Experiment. Transport in Porous Media, 2005, 60, 225-240.	2.6	12
32	Integration of seismic attributes and production data for infill drilling strategies – A virtual intelligence approach. Journal of Petroleum Science and Engineering, 2008, 63, 43-52.	4.2	12
33	Single-phase lattice Boltzmann simulations of pore-scale flow in fractured permeable media. International Journal of Oil, Gas and Coal Technology, 2012, 5, 182.	0.2	12
34	Numerical Analysis of Imbibition Front Evolution in Fractured Sandstone under Capillary-Dominated Conditions. Transport in Porous Media, 2012, 94, 359-383.	2.6	12
35	The role of host rock properties in determining potential CO <sub>2</sub> migration pathways. International Journal of Greenhouse Gas Control, 2016, 45, 18-26.	4.6	12
36	Gas permeability measurements from pressure pulse decay laboratory data using pseudo-pressure and pseudo-time transformations. Journal of Petroleum Exploration and Production, 2018, 8, 839-847.	2.4	12

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37	Development of a coal shrinkage swelling model accounting for water content in the micropores. International Journal of Mining and Mineral Engineering, 2009, 1, 346.	0.3	11
38	A production type-curve solution for coalbed methane reservoirs. Journal of Unconventional Oil and Gas Resources, 2015, 9, 136-152.	3.5	11
39	Experimental Conditions Favoring the Formation of Fluid Banks during Counter-Current Flow in Porous Media. Transport in Porous Media, 2006, 62, 109-124.	2.6	10
40	Experimental evidence of gas densification and enhanced storage in nanoporous shales. Journal of Natural Gas Science and Engineering, 2020, 76, 103120.	4.4	10
41	Petrographic Controls on Pore and Fissure Characteristics of Coals from the Southern Junggar Coalfield, Northwest China. Energies, 2018, 11, 1556.	3.1	7
42	Mechanical degradation of polyacrylamide at ultra high deformation rates during hydraulic fracturing. Environmental Science: Water Research and Technology, 2020, 6, 166-172.	2.4	6
43	A study of absolute permeability dependence on pore-scale characteristics of carbonate reservoirs using artificial intelligence. International Journal of Oil, Gas and Coal Technology, 2008, 1, 382.	0.2	4
44	Numerical studies on the effects of water presence in the coal matrix and coal shrinkage and swelling phenomena on CO <sub>2</sub> -enhanced coalbed methane recovery process. International Journal of Oil, Gas and Coal Technology, 2012, 5, 47.	0.2	4
45	Dual Compressibility Characteristics of Lignite, Subbituminous, and High-Volatile Bituminous Coals: A New Insight into Permeability. Transport in Porous Media, 2021, 136, 295-317.	2.6	4
46	Pore-scale investigation on stress-dependent characteristics of granular packs and the impact of pore deformation on fluid distribution. Geofluids, 2016, 16, 198-207.	0.7	3
47	Modeling the Formation of Fluid Banks During Counter-Current Flow in Porous Media. Transport in Porous Media, 2006, 62, 125-138.	2.6	2
48	Experimental investigation of residual saturation in mixed-wet porous media using a pore-scale approach. Journal of Petroleum Exploration and Production, 2014, 4, 175-187.	2.4	2