Zhong Zheng

List of Publications by Year
in descending order

26 papers	547 citations	567281 15 h-index	642732 23 g-index
26 all docs	26 docs citations	26 times ranked	389 citing authors

#	Article	IF	Citations
1	Controlling Viscous Fingering Using Time-Dependent Strategies. Physical Review Letters, 2015, 115, 174501.	7.8	76
2	Flow regimes for fluid injection into a confined porous medium. Journal of Fluid Mechanics, 2015, 767, 881-909.	3.4	55
3	Fluid drainage from the edge of a porous reservoir. Journal of Fluid Mechanics, 2013, 718, 558-568.	3.4	40
4	Influence of heterogeneity on second-kind self-similar solutions for viscous gravity currents. Journal of Fluid Mechanics, 2014, 747, 218-246.	3.4	39
5	Axisymmetric flows from fluid injection into a confined porous medium. Physics of Fluids, 2016, 28, .	4.0	33
6	Experimental study on penny-shaped fluid-driven cracks in an elastic matrix. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2015, 471, 20150255.	2.1	29
7	Elastic Relaxation of Fluid-Driven Cracks and the Resulting Backflow. Physical Review Letters, 2016, 117, 268001.	7.8	24
8	Viscous fluid injection into a confined channel. Physics of Fluids, 2015, 27, .	4.0	23
9	Healing capillary films. Journal of Fluid Mechanics, 2018, 838, 404-434.	3.4	23
10	Flow regime analysis for geologic CO2 sequestration and other subsurface fluid injections. International Journal of Greenhouse Gas Control, 2016, 53, 284-291.	4.6	20
11	Converging gravity currents over a permeableÂsubstrate. Journal of Fluid Mechanics, 2015, 778, 669-690.	3.4	19
12	The influence of capillary effects on the drainage of a viscous gravity current into a deep porousÂmedium. Journal of Fluid Mechanics, 2017, 817, 514-559.	3.4	19
13	The Influence of Boundaries on Gravity Currents and Thin Films: Drainage, Confinement, Convergence, and Deformation Effects. Annual Review of Fluid Mechanics, 2022, 54, 27-56.	25.0	17
14	Fluid-driven cracks in an elastic matrix in the toughness-dominated limit. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2016, 374, 20150425.	3.4	16
15	Dynamics of viscous backflow from a model fracture network. Journal of Fluid Mechanics, 2018, 836, 828-849.	3.4	16
16	Flow of a gravity current in a porous medium accounting for drainage from a permeable substrate and an edge. Physical Review Fluids, 2017, 2, .	2.5	16
17	Inertial gravity currents produced by fluid drainage from an edge. Journal of Fluid Mechanics, 2017, 827, 640-663.	3.4	14
18	Formation of sea ice bridges in narrow straits in response to wind and water stresses. Journal of Geophysical Research: Oceans, 2017, 122, 5588-5610.	2.6	13

#	Article	IF	Citations
19	Propagation of a viscous thin film over an elastic membrane. Journal of Fluid Mechanics, 2015, 784, 443-464.	3.4	12
20	Self-similar dynamics of two-phase flows injected into a confined porous layer. Journal of Fluid Mechanics, 2019, 877, 882-921.	3.4	10
21	Universality in the nonlinear leveling of capillary films. Physical Review Fluids, 2018, 3, .	2.5	10
22	Noncircular Stable Displacement Patterns in a Meshed Porous Layer. Langmuir, 2015, 31, 5684-5688.	3.5	6
23	Shape of spreading and leveling gravity currents in a Hele-Shaw cell with flow-wise width variation. Physical Review Fluids, 2021, 6, .	2.5	6
24	Symmetric coalescence of two hydraulic fractures. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 10228-10232.	7.1	5
25	Wind-Driven Formation of Ice Bridges in Straits. Physical Review Letters, 2017, 118, 128701.	7.8	3
26	Flow of buoyant granular materials along a freeÂsurface. Journal of Fluid Mechanics, 2018, 848, 312-339.	3.4	3