

Dominique Salin

List of Publications by Year in descending order

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64
papers

2,438
citations

201674

27
h-index

197818

49
g-index

64
all docs

64
docs citations

64
times ranked

1573
citing authors

#	ARTICLE	IF	CITATIONS
1	Ionic ferrofluids: A crossing of chemistry and physics. Journal of Magnetism and Magnetic Materials, 1990, 85, 27-32.	2.3	220
2	Magnetic colloidal properties of ionic ferrofluids. Journal of Magnetism and Magnetic Materials, 1986, 62, 36-46.	2.3	201
3	Miscible displacement in a Hele-Shaw cell at high rates. Journal of Fluid Mechanics, 1999, 398, 299-319.	3.4	140
4	Invasion percolation with viscous forces. Physical Review E, 1998, 57, 739-751.	2.1	107
5	3D Instability of Miscible Displacements in a Hele-Shaw Cell. Physical Review Letters, 1997, 79, 5254-5257.	7.8	101
6	Dispersion, permeability heterogeneity, and viscous fingering: Acoustic experimental observations and particle tracking simulations. Physics of Fluids A, Fluid Dynamics, 1993, 5, 1558-1574.	1.6	92
7	Miscible displacement between two parallel plates: BGK lattice gas simulations. Journal of Fluid Mechanics, 1997, 338, 277-297.	3.4	85
8	Phase Diagram of Fully Developed Drainage in Porous Media. Physical Review Letters, 1997, 79, 4581-4584.	7.8	81
9	Two-color nonlinear Boltzmann cellular automata: Surface tension and wetting. Physical Review E, 1995, 51, 3718-3728.	2.1	76
10	Pattern of Reaction Diffusion Fronts in Laminar Flows. Physical Review Letters, 2003, 90, 128302.	7.8	69
11	Pearl and mushroom instability patterns in two miscible fluids' core annular flows. Physics of Fluids, 2008, 20, .	4.0	56
12	Quasielastic Rayleigh Scattering in a Smectic-A Crystal. Physical Review Letters, 1974, 32, 6-9.	7.8	54
13	Capillary effects in drainage in heterogeneous porous media: continuum modelling, experiments and pore network simulations. Chemical Engineering Science, 1994, 49, 2447-2466.	3.8	53
14	Large-scale percolation theory of drainage. Transport in Porous Media, 1993, 10, 171-195.	2.6	48
15	Invasion percolation in a hydrostatic or permeability gradient: Experiments and simulations. Physical Review E, 1994, 49, 4133-4139.	2.1	48
16	Bistability of ferrofluid magnetic drops under magnetic field,. Journal of Magnetism and Magnetic Materials, 1983, 39, 48-50.	2.3	46
17	Acoustic Study of Suspension Sedimentation. Europhysics Letters, 1986, 2, 123-128.	2.0	46
18	Experimental Evidence of Disorder Effects in Hydrodynamic Dispersion. Physical Review Letters, 1987, 58, 2035-2038.	7.8	45

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19	Three-dimensional miscible viscous fingering in porous media. <i>Physical Review Letters</i> , 1991, 67, 2005-2008.	7.8	42
20	Miscible viscous fingering: Experiments versus continuum approach. <i>Physics of Fluids A, Fluid Dynamics</i> , 1992, 4, 1611-1619.	1.6	40
21	Convective/absolute instability in miscible core-annular flow. Part 1: Experiments. <i>Journal of Fluid Mechanics</i> , 2009, 618, 305-322.	3.4	38
22	Experimental Evidence for Three Universality Classes for Reaction Fronts in Disordered Flows. <i>Physical Review Letters</i> , 2015, 114, 234502.	7.8	36
23	Magnetic liquids. <i>Endeavour</i> , 1988, 12, 76-83.	0.4	35
24	Sound velocity of a sandstone saturated with oil and brine at different concentrations. <i>Geophysical Research Letters</i> , 1986, 13, 326-328.	4.0	33
25	Ionic ferrofluid: Optical properties. <i>Journal of Magnetism and Magnetic Materials</i> , 1987, 65, 285-288.	2.3	32
26	Autocatalytic Reaction Fronts Inside a Porous Medium of Glass Spheres. <i>Physical Review Letters</i> , 2013, 110, 148301.	7.8	32
27	Cellular automata studies of mixing in chaotic flows. <i>Computational Materials Science</i> , 1992, 1, 87-93.	3.0	31
28	On the selection principle for viscous fingering in porous media. <i>Journal of Fluid Mechanics</i> , 2006, 557, 225.	3.4	29
29	Hydrodynamic Dispersion of Noncolloidal Suspensions: Measurement from Einstein's Argument. <i>Physical Review Letters</i> , 1995, 74, 1347-1350.	7.8	27
30	Capillary Hyperdiffusion as a Test of Wettability. <i>Europhysics Letters</i> , 1990, 11, 127-132.	2.0	26
31	Magnetic-fluid oscillator: Observation of nonlinear period doubling. <i>Physical Review Letters</i> , 1991, 67, 50-53.	7.8	26
32	Evidence of New Instability Thresholds in Miscible Displacements in Porous Media. <i>Europhysics Letters</i> , 1995, 32, 633-638.	2.0	25
33	Non-Gaussian Dynamics in Quasi-2D Noncolloidal Suspensions. <i>Physical Review Letters</i> , 1999, 83, 1058-1061.	7.8	25
34	Lock-exchange experiments with an autocatalytic reaction front. <i>Journal of Chemical Physics</i> , 2010, 133, 244505.	3.0	25
35	Asymptotic regimes in unstable miscible displacements in random porous media. <i>Advances in Water Resources</i> , 2002, 25, 885-898.	3.8	24
36	Capillary Effects in Immiscible Flows in Heterogeneous Porous Media. <i>Europhysics Letters</i> , 1993, 21, 19-24.	2.0	22

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37	Phase diagram of sustained wave fronts opposing the flow in disordered porous media. Europhysics Letters, 2013, 101, 38003.	2.0	22
38	Magnetic and thermal behaviour of $\hat{1}^3\text{-Fe}_2\text{O}_3$ fine grains. Journal of Magnetism and Magnetic Materials, 1988, 71, 246-254.	2.3	21
39	Viscous coupling in a model porous medium geometry: Effect of fluid contact area. Flow, Turbulence and Combustion, 1995, 55, 155-169.	0.2	21
40	Anomalous dispersion and finite-size effects in hydrodynamic dispersion. Physics of Fluids A, Fluid Dynamics, 1990, 2, 674-680.	1.6	20
41	Wave Vector Selection in the Instability of an Interface in a Magnetic or Electric Field. Europhysics Letters, 1993, 21, 667-670.	2.0	19
42	Viscous lock-exchange in rectangular channels. Journal of Fluid Mechanics, 2011, 673, 132-146.	3.4	19
43	Magnetic drop-sheath wetting transition of a ferrofluid on a wire. Revue De Physique Appliquée, 1988, 23, 1017-1022.	0.4	18
44	Correlation of Occupation Profiles in Invasion Percolation. Physical Review Letters, 1995, 74, 694-697.	7.8	18
45	Mixing and reaction fronts in laminar flows. Journal of Chemical Physics, 2004, 120, 7314-7321.	3.0	18
46	Magnetic Wetting Transition of a Ferrofluid on a Wire. Europhysics Letters, 1988, 5, 547-552.	2.0	17
47	Pore Network Modeling of Drying Processes in Macroporous Materials: Effects of Gravity, Mass Boundary Layer and Pore Microstructure. Transport in Porous Media, 2015, 110, 175-196.	2.6	17
48	Ultrasonic diagnostic in porous media and suspensions. Journal De Physique III, 1991, 1, 1455-1466.	0.3	17
49	Delineation of Microscale Regimes of Fully-Developed Drainage and Implications for Continuum Models. Computational Geosciences, 2001, 5, 257-278.	2.4	14
50	Revisiting the linear stability analysis and absolute convective transition of two fluid core annular flow. Journal of Fluid Mechanics, 2019, 865, 743-761.	3.4	12
51	Phase diagram of stable miscible displacements in layered porous media. Europhysics Letters, 1996, 36, 105-110.	2.0	11
52	Fluid displacement between two parallel plates: a non-empirical model displaying change of type from hyperbolic to elliptic equations. Journal of Fluid Mechanics, 2004, 519, 105-132.	3.4	9
53	MULTIPLE SCISSIONS OF IONIC FERROFLUID DROPS. Chemical Engineering Communications, 1988, 67, 205-216.	2.6	8
54	Cellular-automata studies of circular Couette flows and chaotic mixing. Physical Review E, 1993, 48, 757-766.	2.1	6

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55	Boltzmann cellular automata studies of the spinodal decomposition. Physica A: Statistical Mechanics and Its Applications, 1995, 222, 105-118.	2.6	6
56	Inhomogeneities in thin helium films. Journal of Low Temperature Physics, 1977, 28, 359-368.	1.4	5
57	Interfacial Phenomena in Boltzmann Cellular Automata. Europhysics Letters, 1994, 28, 317-322.	2.0	5
58	Direct measurement of the modified equation of state of thin helium films. Journal of Low Temperature Physics, 1979, 37, 679-693.	1.4	4
59	Fingering in 2D Parallel Viscous Flow. Journal De Physique II, 1997, 7, 967-972.	0.9	4
60	Critical behavior of order-parameter fluctuations in liquidHe4nearT _l . Physical Review B, 1979, 20, 1025-1034.	3.2	3
61	11. Acoustical and Electrical Methods for the Study of Fluid Mixing in Porous Media. Experimental Methods in the Physical Sciences, 1999, 35, 425-475.	0.1	3
62	Gravity Waves at the Interface between Miscible Fluids and at the Top of a Settling Suspension. Physical Review Letters, 2005, 94, 204501.	7.8	3
63	Stripes instability of an oscillating non-Brownian iso-dense suspension of spheres. Europhysics Letters, 2018, 121, 54002.	2.0	2
64	Correlation of Saturation Profiles in Slow Drainage in Porous Media. Journal De Physique, I, 1996, 6, 753-767.	1.2	0