Ching-Yao Chen

List of Publications by Year
in descending order

58	1,323	331670 21	361022 35
papers	citations	h-index	g-index

58	58	58	553
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Motion synchronicity of a micro-magnetic-particle chain in a rotating field. AIP Advances, 2022, 12, 035222.	1.3	0
2	Studying the Effect of Electrode Material and Magnetic Field on Hydrogen Production Efficiency. Magnetochemistry, 2022, 8, 53.	2.4	7
3	The impact of heterogeneous anisotropy of porous media on density-driven convection. International Journal of Numerical Methods for Heat and Fluid Flow, 2020, 30, 956-976.	2.8	9
4	Interaction of two magnetic micro-chains in a rotating field. AIP Advances, 2020, 10, 015201.	1.3	1
5	Control of radial miscible viscous fingering. Journal of Fluid Mechanics, 2020, 884, .	3.4	29
6	Numerical Study of Density-Driven Convection in Laminated Heterogeneous Porous Media. Journal of Mechanics, 2020, 36, 665-673.	1.4	10
7	A numerical study on reaction-induced radial fingering instability. Journal of Fluid Mechanics, 2019, 862, 624-638.	3.4	24
8	Trajectory of a Non-Magnetic Particle Transported by a Rotating Magnetic Particle Chain. IEEE Transactions on Magnetics, 2019, 55, 1-4.	2.1	5
9	Numerical simulations of magnetic microchain behaviors in the presence of magnetic field. International Journal of Applied Electromagnetics and Mechanics, 2019, 59, 327-333.	0.6	0
10	Miscible density-driven flows in heterogeneous porous media: Influences of correlation length and distribution of permeability. Physical Review Fluids, 2019, 4, .	2.5	14
11	Numerical study of immiscible viscous fingering in chemically reactive Hele-Shaw flows: Production of surfactants. Physical Review Fluids, 2019, 4, .	2.5	12
12	Interaction of a pair of ferrofluid drops inÂaÂrotating magnetic field. Journal of Fluid Mechanics, 2018, 846, 121-142.	3.4	20
13	Radial flows in heterogeneous porous media with a linear injection scheme. Computers and Fluids, 2017, 142, 30-36.	2.5	12
14	Magnetic microchains and microswimmers in an oscillating magnetic field. Biomicrofluidics, 2016, 10, 011902.	2.4	15
15	Rotationally induced fingering patterns in a two-dimensional heterogeneous porous medium. Physical Review E, 2016, 94, 053105.	2.1	4
16	Interfacial Instability of a Non-magnetized Drop in Ferrofluids Subjected to an Azimuthal Field: A Diffuse-Interface Approach. Modeling and Simulation in Science, Engineering and Technology, 2016, , 181-192.	0.6	0
17	Interfacial dynamics in complex fluids. Journal of Fluid Science and Technology, 2016, 11, JFST0021-JFST0021.	0.6	3
18	Enhanced mixing via alternating injection in radial Hele-Shaw flows. Physical Review E, 2015, 92, 043008.	2.1	9

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19	A diffuse interface approach to injection-driven flow of different miscibility in heterogeneous porous media. Physics of Fluids, 2015, 27, .	4.0	23
20	Self-assembly and novel planetary motion of ferrofluid drops in a rotational magnetic field. Microfluidics and Nanofluidics, 2015, 18, 795-806.	2.2	17
21	A numerical study on radial Hele-Shaw flow: influence of fluid miscibility and injection scheme. Computational Mechanics, 2015, 55, 407-420.	4.0	29
22	Radial Hele-Shaw flow with suction: Fully nonlinear pattern formation. Physical Review E, 2014, 89, 053006.	2.1	23
23	Structural instability of an oscillating superparamagnetic micro-bead chain. Microfluidics and Nanofluidics, 2014, 17, 73-84.	2.2	13
24	Trajectory shift of magnetic microchains in an oscillating field. Microfluidics and Nanofluidics, 2013, 14, 831-838.	2.2	14
25	Steering of Magnetic Micro-Swimmers. IEEE Transactions on Magnetics, 2013, 49, 4120-4123.	2.1	17
26	Manipulations of vibrating micro magnetic particle chains. Journal of Applied Physics, 2012, 111, 07A924.	2.5	17
27	Dynamics of a microchain of superparamagnetic beads in an oscillating field. Microfluidics and Nanofluidics, 2012, 13, 579-588.	2.2	19
28	Diffuse-interface approach to rotating Hele-Shaw flows. Physical Review E, 2011, 84, 046302.	2.1	39
29	Controlling radial fingering patterns in miscible confined flows. Physical Review E, 2010, 82, 056308.	2.1	39
30	Magnetically induced spreading and pattern selection in thin ferrofluid drops. Physical Review E, 2010, 82, 056321.	2.1	22
31	Ordered microdroplet formations of thin ferrofluid layer breakups. Physics of Fluids, 2010, 22, .	4.0	21
32	Experiments on breakups of a magnetic fluid drop through a micro-orifice. Journal of Magnetism and Magnetic Materials, 2009, 321, 3520-3525.	2.3	12
33	Miscible ferrofluid patterns in a radial magnetic field. Physical Review E, 2009, 80, 016314.	2.1	24
34	Hybrid ferrohydrodynamic instability: Coexisting peak and labyrinthine patterns. Physical Review E, 2008, 77, 056306.	2.1	21
35	An experimental study on Rosensweig instability of a ferrofluid droplet. Physics of Fluids, 2008, 20, .	4.0	45
36	Radial viscous fingering in miscible Hele-Shaw flows: A numerical study. Physical Review E, 2008, 78, 016306.	2.1	36

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37	Experimental studies of labyrinthine instabilities of miscible ferrofluids in a Hele-Shaw cell. Physics of Fluids, 2007, 19, 084101.	4.0	15
38	Numerical Simulations of a Miscible Drop in a Spinning Drop Tensiometer. Journal of Mechanics, 2007, 23, 1-7.	1.4	6
39	Fingering patterns in the lifting flow of a confined miscible ferrofluid. Physical Review E, 2007, 75, 036310.	2.1	13
40	Fingering patterns on an expanding miscible drop in a rotating Hele-Shaw cell. International Journal for Numerical Methods in Fluids, 2007, 54, 1201-1214.	1.6	3
41	Breakup and separation of micromagnetic droplets in a perpendicular field. Journal of Magnetism and Magnetic Materials, 2007, 310, 2832-2834.	2.3	3
42	Breakup of thin films of micro-magnetic drops in perpendicular fields. Journal of Magnetism and Magnetic Materials, 2006, 305, 440-447.	2.3	12
43	Numerical simulations of interfacial instabilities on a rotating miscible droplet in a time-dependent gap Heleâ€“Shaw cell with significant Coriolis effects. International Journal for Numerical Methods in Fluids, 2006, 51, 881-895.	1.6	4
44	Numerical study of pattern formation in miscible rotating Hele-Shaw flows. Physical Review E, 2006, 73, 046306.	2.1	30
45	Numerical simulations of miscible fluids on a rotating Hele-Shaw cell with effects of Coriolis forces. International Journal for Numerical Methods in Fluids, 2005, 48, 853-867.	1.6	7
46	Numerical simulations of interfacial instabilities on a rotating miscible magnetic droplet with effects of Korteweg stresses. Physics of Fluids, 2005, 17, 042101.	4.0	16
47	Numerical study of miscible fingering in a time-dependent gap Hele-Shaw cell. Physical Review E, 2005, 71, 056304.	2.1	31
48	Numerical Simulations of Flows in a Heterogeneous Porous Medium. International Journal of Computational Fluid Dynamics, 2004, 18, 431-435.	1.2	0
49	Miscible displacements in capillary tubes: Effect of a preexisting wall film. Physics of Fluids, 2004, 16, 602-609.	4.0	3
50	Numerical simulations of fingering instabilities in miscible magnetic fluids in a Hele-Shaw cell and the effects of Korteweg stresses. Physics of Fluids, 2003, 15, 1086-1089.	4.0	25
51	Numerical Simulations of Heat Transfer in Porous Media with Effect of Heterogeneities. JSME International Journal Series B, 2002, 45, 315-321.	0.3	6
52	Miscible displacements in capillary tubes: Influence of Korteweg stresses and divergence effects. Physics of Fluids, 2002, 14, 2052.	4.0	58
53	Interfacial instabilities of miscible fluids in a rotating Heleâ€“Shaw cell. Fluid Dynamics Research, 2002, 30, 315-330.	1.3	25
54	Miscible droplets in a porous medium and the effects of Korteweg stresses. Physics of Fluids, 2001, 13, 2447-2456.	4.0	47

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55	Miscible quarter five-spot displacements in a Hele-Shaw cell and the role of flow-induced dispersion. Physics of Fluids, 1999, 11, 1705-1716.	4.0	71
56	Miscible porous media displacements in the quarter five-spot configuration. Part 1. The homogeneous case. Journal of Fluid Mechanics, 1998, 371, 233-268.	3.4	117
57	Miscible porous media displacements in the quarter five-spot configuration. Part 2. Effect of heterogeneities. Journal of Fluid Mechanics, 1998, 371, 269-299.	3.4	78
58	Miscible displacements in capillary tubes. Part 2. Numerical simulations. Journal of Fluid Mechanics, 1996, 326, 57-90.	3.4	148