# 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 | Miscible displacements in capillary tubes. Part 2. Numerical simulations. Journal of Fluid Mechanics, 1996, 326, 57-90. | 3.4 | 148 |
| 2 | 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 |
| 3 | 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 |
| 4 | 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 |
| 5 | Miscible displacements in capillary tubes: Influence of Korteweg stresses and divergence effects. Physics of Fluids, 2002, 14, 2052. | 4.0 | 58 |
| 6 | Miscible droplets in a porous medium and the effects of Korteweg stresses. Physics of Fluids, 2001, 13, 2447-2456. | 4.0 | 47 |
| 7 | An experimental study on Rosensweig instability of a ferrofluid droplet. Physics of Fluids, 2008, 20, . | 4.0 | 45 |
| 8 | Controlling radial fingering patterns in miscible confined flows. Physical Review E, 2010, 82, 056308. | 2.1 | 39 |
| 9 | Diffuse-interface approach to rotating Hele-Shaw flows. Physical Review E, 2011, 84, 046302. | 2.1 | 39 |
| 10 | Radial viscous fingering in miscible Hele-Shaw flows: A numerical study. Physical Review E, 2008, 78, 016306. | 2.1 | 36 |
| 11 | Numerical study of miscible fingering in a time-dependent gap Hele-Shaw cell. Physical Review E, 2005, 71, 056304. | 2.1 | 31 |
| 12 | Numerical study of pattern formation in miscible rotating Hele-Shaw flows. Physical Review E, 2006, 73, 046306. | 2.1 | 30 |
| 13 | A numerical study on radial Hele-Shaw flow: influence of fluid miscibility and injection scheme. Computational Mechanics, 2015, 55, 407-420. | 4.0 | 29 |
| 14 | Control of radial miscible viscous fingering. Journal of Fluid Mechanics, 2020, 884, . | 3.4 | 29 |
| 15 | Interfacial instabilities of miscible fluids in a rotating Heleâ€“Shaw cell. Fluid Dynamics Research, 2002, 30, 315-330. | 1.3 | 25 |
| 16 | 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 |
| 17 | Miscible ferrofluid patterns in a radial magnetic field. Physical Review E, 2009, 80, 016314. | 2.1 | 24 |
| 18 | A numerical study on reaction-induced radial fingering instability. Journal of Fluid Mechanics, 2019, 862, 624-638. | 3.4 | 24 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Radial Hele-Shaw flow with suction: Fully nonlinear pattern formation. Physical Review E, 2014, 89, 053006. | 2.1 | 23 |
| 20 | A diffuse interface approach to injection-driven flow of different miscibility in heterogeneous porous media. Physics of Fluids, 2015, 27, . | 4.0 | 23 |
| 21 | Magnetically induced spreading and pattern selection in thin ferrofluid drops. Physical Review E, 2010, 82, 056321. | 2.1 | 22 |
| 22 | Hybrid ferrohydrodynamic instability: Coexisting peak and labyrinthine patterns. Physical Review E, 2008, 77, 056306. | 2.1 | 21 |
| 23 | Ordered microdroplet formations of thin ferrofluid layer breakups. Physics of Fluids, 2010, 22, . | 4.0 | 21 |
| 24 | Interaction of a pair of ferrofluid drops inÂaÂrotating magnetic field. Journal of Fluid Mechanics, 2018, 846, 121-142. | 3.4 | 20 |
| 25 | Dynamics of a microchain of superparamagnetic beads in an oscillating field. Microfluidics and Nanofluidics, 2012, 13, 579-588. | 2.2 | 19 |
| 26 | Manipulations of vibrating micro magnetic particle chains. Journal of Applied Physics, 2012, 111, 07A924. | 2.5 | 17 |
| 27 | Steering of Magnetic Micro-Swimmers. IEEE Transactions on Magnetics, 2013, 49, 4120-4123. | 2.1 | 17 |
| 28 | Self-assembly and novel planetary motion of ferrofluid drops in a rotational magnetic field. Microfluidics and Nanofluidics, 2015, 18, 795-806. | 2.2 | 17 |
| 29 | 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 |
| 30 | Experimental studies of labyrinthine instabilities of miscible ferrofluids in a Hele-Shaw cell. Physics of Fluids, 2007, 19, 084101. | 4.0 | 15 |
| 31 | Magnetic microchains and microswimmers in an oscillating magnetic field. Biomicrofluidics, 2016, 10, 011902. | 2.4 | 15 |
| 32 | Trajectory shift of magnetic microchains in an oscillating field. Microfluidics and Nanofluidics, 2013, 14, 831-838. | 2.2 | 14 |
| 33 | Miscible density-driven flows in heterogeneous porous media: Influences of correlation length and distribution of permeability. Physical Review Fluids, 2019, 4, . | 2.5 | 14 |
| 34 | Fingering patterns in the lifting flow of a confined miscible ferrofluid. Physical Review E, 2007, 75, 036310. | 2.1 | 13 |
| 35 | Structural instability of an oscillating superparamagnetic micro-bead chain. Microfluidics and Nanofluidics, 2014, 17, 73-84. | 2.2 | 13 |
| 36 | Breakup of thin films of micro-magnetic drops in perpendicular fields. Journal of Magnetism and Magnetic Materials, 2006, 305, 440-447. | 2.3 | 12 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | 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 |
| 38 | Radial flows in heterogeneous porous media with a linear injection scheme. Computers and Fluids, 2017, 142, 30-36. | 2.5 | 12 |
| 39 | Numerical study of immiscible viscous fingering in chemically reactive Hele-Shaw flows: Production of surfactants. Physical Review Fluids, 2019, 4, . | 2.5 | 12 |
| 40 | Numerical Study of Density-Driven Convection in Laminated Heterogeneous Porous Media. Journal of Mechanics, 2020, 36, 665-673. | 1.4 | 10 |
| 41 | Enhanced mixing via alternating injection in radial Hele-Shaw flows. Physical Review E, 2015, 92, 043008. | 2.1 | 9 |
| 42 | 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 |
| 43 | 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 |
| 44 | Studying the Effect of Electrode Material and Magnetic Field on Hydrogen Production Efficiency. Magnetochemistry, 2022, 8, 53. | 2.4 | 7 |
| 45 | Numerical Simulations of Heat Transfer in Porous Media with Effect of Heterogeneities. JSME International Journal Series B, 2002, 45, 315-321. | 0.3 | 6 |
| 46 | Numerical Simulations of a Miscible Drop in a Spinning Drop Tensiometer. Journal of Mechanics, 2007, 23, 1-7. | 1.4 | 6 |
| 47 | Trajectory of a Non-Magnetic Particle Transported by a Rotating Magnetic Particle Chain. IEEE Transactions on Magnetics, 2019, 55, 1-4. | 2.1 | 5 |
| 48 | 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 |
| 49 | Rotationally induced fingering patterns in a two-dimensional heterogeneous porous medium. Physical Review E, 2016, 94, 053105. | 2.1 | 4 |
| 50 | Miscible displacements in capillary tubes: Effect of a preexisting wall film. Physics of Fluids, 2004, 16, 602-609. | 4.0 | 3 |
| 51 | 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 |
| 52 | Breakup and separation of micromagnetic droplets in a perpendicular field. Journal of Magnetism and Magnetic Materials, 2007, 310, 2832-2834. | 2.3 | 3 |
| 53 | Interfacial dynamics in complex fluids. Journal of Fluid Science and Technology, 2016, 11, JFST0021-JFST0021. | 0.6 | 3 |
| 54 | Interaction of two magnetic micro-chains in a rotating field. AIP Advances, 2020, 10, 015201. | 1.3 | 1 |

| # | Article | IF | Citations |
|---|---|---|---|
| 55 | Numerical Simulations of Flows in a Heterogeneous Porous Medium. International Journal of Computational Fluid Dynamics, 2004, 18, 431-435. | 1.2 | 0 |
| 56 | 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 |
| 57 | 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 |
| 58 | Motion synchronicity of a micro-magnetic-particle chain in a rotating field. AIP Advances, 2022, 12, 035222. | 1.3 | 0 |