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List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

98 papers	1,909 citations	27 h-index	40 g-index
104 ext. papers	2,172 ext. citations	3.9 avg, IF	5.03 L-index

#	Paper	IF	Citations
98	Investigation on steady regimes in a X-shaped micromixer fed with water and ethanol. <i>Chemical Engineering Science</i> , 2022 , 248, 117254	4.4	2
97	Effects of flow unsteadiness and chemical kinetics on the reaction yield in a T-microreactor. <i>Chemical Engineering Research and Design</i> , 2022 , 179, 1-1	5.5	0
96	Hydrodynamic Green functions: paradoxes in unsteady Stokes conditions and infinite propagation velocity in incompressible viscous models. <i>Meccanica</i> , 2022 , 57, 1055-1069	2.1	1
95	Flow regimes, mixing and reaction yield of a mixture in an X-microreactor. <i>Chemical Engineering Journal</i> , 2022 , 437, 135113	14.7	0
94	A Non-local Phase Field Model of Bohm's Quantum Potential. <i>Foundations of Physics</i> , 2021 , 51, 1	1.2	
93	Non-local phase field revisited. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2021 , 2021, 063212	1.2	0
92	A Study on the Effect of Flow Unsteadiness on the Yield of a Chemical Reaction in a T Micro-Reactor. <i>Micromachines</i> , 2021 , 12,	3.3	5
91	Effect of stratification on the mixing and reaction yield in a T-shaped micro-mixer. <i>Physical Review Fluids</i> , 2021 , 6,	2.8	8
90	The role of flow features and chemical kinetics on the reaction yield in a T-shaped micro-reactor. <i>Chemical Engineering Journal</i> , 2020 , 396, 125223	14.7	18
89	Dynamics of phase separation of sheared inertialess binary mixtures. <i>Physics of Fluids</i> , 2020 , 32, 023307	4.4	5
88	An Overview of Flow Features and Mixing in Micro T and Arrow Mixers. <i>Industrial & Engineering Chemistry Research</i> , 2020 , 59, 3669-3686	3.9	17
87	Constitutive Relations of Thermal and Mass Diffusion. <i>Journal of Non-Equilibrium Thermodynamics</i> , 2020 , 45, 27-38	3.8	1
86	Dynamic transition of dendrite orientation in the diffusive spinodal decomposition of binary mixtures under a thermal gradient. <i>Chemical Engineering Science</i> , 2019 , 203, 450-463	4.4	4
85	Numerical investigation of flow regimes in T-shaped micromixers: Benchmark between finite volume and spectral element methods. <i>Canadian Journal of Chemical Engineering</i> , 2019 , 97, 528-541	2.3	15
84	Phase segregation of metastable quenched liquid mixtures and the effect of the quenching rate. <i>Physics and Chemistry of Liquids</i> , 2019 , 57, 251-258	1.5	
83	Steady and unsteady regimes in a T-shaped micro-mixer: Synergic experimental and numerical investigation. <i>Chemical Engineering Journal</i> , 2018 , 341, 414-431	14.7	62
82	Retardation of the phase segregation of liquid mixtures with a critical point of miscibility. <i>AIChE Journal</i> , 2018 , 64, 4047-4052	3.6	2

81	Widom line prediction by the Soave-Redlich-Kwong and Peng-Robinson equations of state. <i>Journal of Supercritical Fluids</i> , 2018 , 133, 367-371	4.2	7
80	Dissolution or Growth of a Liquid Drop via Phase-Field Ternary Mixture Model Based on the Non-Random, Two-Liquid Equation. <i>Entropy</i> , 2018 , 20,	2.8	3
79	Triphase Separation of a Ternary Symmetric Highly Viscous Mixture. <i>Entropy</i> , 2018 , 20,	2.8	1
78	Electrochemical-thermal P2D aging model of a LiCoO ₂ /graphite cell: Capacity fade simulations. <i>Journal of Energy Storage</i> , 2018 , 20, 289-297	7.8	22
77	Unsteady mixing of binary liquid mixtures with composition-dependent viscosity. <i>Chemical Engineering Science</i> , 2017 , 164, 333-343	4.4	26
76	Modeling soft interface dominated systems: A comparison of phase field and Gibbs dividing surface models. <i>Physics Reports</i> , 2017 , 675, 1-54	27.7	29
75	Phase-field modeling of mixing/demixing of regular binary mixtures with a composition-dependent viscosity. <i>Journal of Applied Physics</i> , 2017 , 121, 134302	2.5	7
74	Diffusion-Driven Dissolution or Growth of a Liquid Drop Embedded in a Continuous Phase of Another Liquid via Phase-Field Ternary Mixture Model. <i>Langmuir</i> , 2017 , 33, 13125-13132	4	4
73	Flow through porous media: a momentum tracer approach. <i>Meccanica</i> , 2017 , 52, 2715-2734	2.1	
72	Spinodal decomposition of chemically reactive binary mixtures. <i>Physical Review E</i> , 2016 , 94, 022605	2.4	13
71	Phase-field modeling of interfacial dynamics in emulsion flows: Nonequilibrium surface tension. <i>International Journal of Multiphase Flow</i> , 2016 , 85, 164-172	3.6	10
70	The Principle of Minimal Resistance in Non-equilibrium Thermodynamics. <i>Foundations of Physics</i> , 2016 , 46, 393-408	1.2	1
69	Critical conditions for the buoyancy-driven detachment of a wall-bound pendant drop. <i>Physics of Fluids</i> , 2016 , 28, 032103	4.4	4
68	Mixing of binary fluids with composition-dependent viscosity in a T-shaped micro-device. <i>Chemical Engineering Science</i> , 2015 , 123, 300-310	4.4	23
67	Buoyancy-driven detachment of a wall-bound pendant drop: interface shape at pinchoff and nonequilibrium surface tension. <i>Physical Review E</i> , 2015 , 92, 032401	2.4	8
66	Transport Phenomena in Multiphase Flows. <i>Fluid Mechanics and Its Applications</i> , 2015 ,	0.2	5
65	Flow regimes in T-shaped micro-mixers. <i>Computers and Chemical Engineering</i> , 2015 , 76, 150-159	4	53
64	Fokker-Planck Equation. <i>Soft and Biological Matter</i> , 2013 , 35-48	0.8	

63	Multiphase Flows. <i>Soft and Biological Matter</i> , 2013 , 107-132	0.8	0
62	Effective Transport Properties. <i>Soft and Biological Matter</i> , 2013 , 133-151	0.8	0
61	Multiple Scale Analysis. <i>Soft and Biological Matter</i> , 2013 , 153-179	0.8	
60	Water-ethanol mixing in T-shaped microdevices. <i>Chemical Engineering Science</i> , 2013 , 95, 174-183	4.4	68
59	Volume of mixing effect on fluid counter-diffusion. <i>Physics of Fluids</i> , 2013 , 25, 082101	4.4	4
58	Non-Equilibrium Thermodynamics in Multiphase Flows. <i>Soft and Biological Matter</i> , 2013 ,	0.8	22
57	Phase separation of viscous ternary liquid mixtures. <i>Chemical Engineering Science</i> , 2012 , 80, 270-278	4.4	9
56	Numerical Study of Split T-Micromixers. <i>Chemical Engineering and Technology</i> , 2012 , 35, 1291-1299	2	33
55	Effect of inlet conditions on the engulfment pattern in a T-shaped micro-mixer. <i>Chemical Engineering Journal</i> , 2012 , 185-186, 300-313	14.7	65
54	Diffuse Interface (D.I.) Model for Multiphase Flows 2012 , 1-72		
53	Phase separation of viscous ternary liquid mixtures 2012 , 73-91		
52	Phase Field Approach to Multiphase Flow Modeling. <i>Milan Journal of Mathematics</i> , 2011 , 79, 597-642	1	56
51	Liquid mixture convection during phase separation in a temperature gradient. <i>Physics of Fluids</i> , 2011 , 23, 034102	4.4	15
50	Diffuse-interface modeling of liquid-vapor phase separation in a van der Waals fluid. <i>Physics of Fluids</i> , 2009 , 21, 044107	4.4	23
49	Spinodal decomposition of binary mixtures with composition-dependent heat conductivities. <i>Chemical Engineering Science</i> , 2008 , 63, 2402-2407	4.4	14
48	Diffuse-interface modeling of phase segregation in liquid mixtures. <i>International Journal of Multiphase Flow</i> , 2008 , 34, 987-995	3.6	30
47	Experimental evidence of the motion of a single out-of-equilibrium drop. <i>Langmuir</i> , 2007 , 23, 7459-61	4	19
46	Enhanced heat transport during phase separation of liquid binary mixtures. <i>Physics of Fluids</i> , 2007 , 19, 074102	4.4	28

45	Fluctuations of non-conservative systems. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2007 , 2007, P03002-P03002	1.9	1
44	Violation of the Fluctuation-dissipation theorem in confined driven colloids. <i>Europhysics Letters</i> , 2006 , 76, 1022-1028	1.6	19
43	Mixing of macroscopically quiescent liquid mixtures. <i>Physics of Fluids</i> , 2006 , 18, 044107	4.4	25
42	Effects of quenching rate and viscosity on spinodal decomposition. <i>Physical Review E</i> , 2006 , 74, 011507	2.4	26
41	Cellular Automata Model of Phase Transition in Binary Mixtures□ <i>Industrial & Engineering Chemistry Research</i> , 2006 , 45, 2892-2896	3.9	8
40	Transport properties of EVAL-starch-alpha amylase membranes. <i>Biomacromolecules</i> , 2005 , 6, 1389-96	6.9	3
39	Nucleation and spinodal decomposition of liquid mixtures. <i>Physics of Fluids</i> , 2005 , 17, 034107	4.4	31
38	Large-scale, unidirectional convection during phase separation of a density-matched liquid mixture. <i>Physics of Fluids</i> , 2005 , 17, 094109	4.4	12
37	Mixing of viscous liquid mixtures. <i>Chemical Engineering Science</i> , 2004 , 59, 2065-2069	4.4	11
36	Drop Size Evolution during the Phase Separation of Liquid Mixtures□ <i>Industrial & Engineering Chemistry Research</i> , 2004 , 43, 349-353	3.9	18
35	The constitutive relation of suspensions of noncolloidal particles in viscous fluids. <i>Physics of Fluids</i> , 2003 , 15, 1888-1896	4.4	7
34	Convection-driven phase segregation of deeply quenched liquid mixtures. <i>Journal of Chemical Physics</i> , 2003 , 118, 8841-8846	3.9	23
33	Heat and mass transport in nonhomogeneous random velocity fields. <i>Physical Review E</i> , 2003 , 68, 066306	4.4	8
32	The onset of particle segregation in plane Couette flows of concentrated suspensions. <i>International Journal of Multiphase Flow</i> , 2002 , 28, 127-136	3.6	5
31	Phase Separation of Liquid Mixtures 2002 , 139-152		9
30	Solvent extraction of chromium and cadmium from contaminated soils. <i>AIChE Journal</i> , 2001 , 47, 509-512	3.6	27
29	THERMOCAPILLARY MIGRATION IN DILUTE POLYDISPERSE SUSPENSIONS OF BUBBLES. <i>Chemical Engineering Communications</i> , 2001 , 185, 17-21	2.2	
28	Phase Separation of Initially Inhomogeneous Liquid Mixtures. <i>Industrial & Engineering Chemistry Research</i> , 2001 , 40, 2004-2010	3.9	36

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| 27 | Two-dimensional model of phase segregation in liquid binary mixtures with an initial concentration gradient. <i>Chemical Engineering Science</i> , 2000 , 55, 6109-6118 | 4.4 | 33 |
| 26 | Diffusiophoresis of two-dimensional liquid droplets in a phase-separating system. <i>Physical Review E</i> , 1999 , 60, 2037-44 | 2.4 | 47 |
| 25 | The longitudinal drift velocity of a sheared dilute suspension of spheres. <i>International Journal of Multiphase Flow</i> , 1999 , 25, 875-885 | 3.6 | 5 |
| 24 | Two-dimensional model of phase segregation in liquid binary mixtures. <i>Physical Review E</i> , 1999 , 60, 6968-77 | 2.7 | 64 |
| 23 | Phase Separation of Liquid Mixtures in the Presence of Surfactants. <i>Industrial & Engineering Chemistry Research</i> , 1999 , 38, 2418-2424 | 3.9 | 41 |
| 22 | A new application of the reciprocity relations to the study of fluid flows through fixed beds. <i>Journal of Engineering Mathematics</i> , 1998 , 33, 103-112 | 1.2 | 6 |
| 21 | Diffusion-driven phase separation of deeply quenched mixtures. <i>Physical Review E</i> , 1998 , 58, 7691-7699 | 2.4 | 53 |
| 20 | Transverse shear-induced gradient diffusion in a dilute suspension of spheres. <i>Journal of Fluid Mechanics</i> , 1998 , 357, 279-287 | 3.7 | 36 |
| 19 | Onset of instability in sheared gas fluidized beds. <i>AIChE Journal</i> , 1997 , 43, 1362-1365 | 3.6 | 9 |
| 18 | ON THE PROPAGATOR OF THE STOKES EQUATION AND A DYNAMICAL DEFINITION OF VISCOSITY. <i>Chemical Engineering Communications</i> , 1996 , 148-150, 385-390 | 2.2 | 5 |
| 17 | The transverse shear-induced liquid and particle tracer diffusivities of a dilute suspension of spheres undergoing a simple shear flow. <i>Journal of Fluid Mechanics</i> , 1996 , 327, 255-272 | 3.7 | 57 |
| 16 | Liquid-Liquid Extraction Using the Composition-Induced Phase Separation Process. <i>Industrial & Engineering Chemistry Research</i> , 1996 , 35, 2360-2368 | 3.9 | 43 |
| 15 | Spinodal decomposition in binary mixtures. <i>Physical Review E</i> , 1996 , 53, 2613-2623 | 2.4 | 51 |
| 14 | BROWNIAN MOTION OF CONTINUOUS DEFORMABLE BODIES. <i>Chemical Engineering Communications</i> , 1996 , 148-150, 73-84 | 2.2 | |
| 13 | Heat and mass transport in random velocity fields with application to dispersion in porous media. <i>Journal of Engineering Mathematics</i> , 1995 , 29, 77-89 | 1.2 | 10 |
| 12 | Lagrangian self-diffusion of Brownian particles in periodic flow fields. <i>Physics of Fluids</i> , 1995 , 7, 275-284 | 4.4 | 12 |
| 11 | Shear-Induced Particle Diffusion in Dilute Suspensions: Some Recent Theoretical Results 1995 , 69-72 | | |
| 10 | On the measurement of the relative viscosity of suspensions. <i>Journal of Rheology</i> , 1994 , 38, 1285-1296 | 4.1 | 29 |

9	Thermocapillary migration of a bidisperse suspension of bubbles. <i>Journal of Fluid Mechanics</i> , 1994 , 261, 47-64	3.7	22
8	Shear-induced resuspension in a couette device. <i>International Journal of Multiphase Flow</i> , 1993 , 19, 797-802	3.7	72
7	Longitudinal shear-induced diffusion of spheres in a dilute suspension. <i>Journal of Fluid Mechanics</i> , 1992 , 240, 651	3.7	64
6	Time-Dependent Dispersion of Small Particles in Rectangular Conduits. <i>SIAM Journal on Applied Mathematics</i> , 1991 , 51, 1538-1555	1.8	10
5	Dispersion, convection, and reaction in porous media. <i>Physics of Fluids A, Fluid Dynamics</i> , 1991 , 3, 743-756		79
4	Lagrangian approach to time-dependent laminar dispersion in rectangular conduits. Part 1. Two-dimensional flows. <i>Journal of Fluid Mechanics</i> , 1988 , 190, 201-215	3.7	20
3	Applications of Wiener's Path Integral for the Diffusion of Brownian Particles in Shear Flows. <i>SIAM Journal on Applied Mathematics</i> , 1986 , 46, 49-55	1.8	17
2	Dispersion and Convection in Periodic Porous Media. <i>SIAM Journal on Applied Mathematics</i> , 1986 , 46, 1018-1023	1.8	65
1	Boundary conditions for darcy's flow through porous media. <i>International Journal of Multiphase Flow</i> , 1983 , 9, 561-574	3.6	48