

Manoranjan Mishra

List of Publications by Year in descending order

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60
papers

1,473
citations

361413

20
h-index

330143

37
g-index

62
all docs

62
docs citations

62
times ranked

735
citing authors

#	ARTICLE	IF	CITATIONS
1	Peristaltic transport of a Newtonian fluid in an asymmetric channel. Zeitschrift Fur Angewandte Mathematik Und Physik, 2003, 54, 532-550.	1.4	218
2	Peristaltic pumping of a micropolar fluid in a tube. Acta Mechanica, 2003, 161, 165-178.	2.1	92
3	Thermally developing combined electroosmotic and pressure-driven flow of nanofluids in a microchannel under the effect of magnetic field. Chemical Engineering Science, 2015, 126, 10-21.	3.8	85
4	Peristaltic transport of a power-law fluid in a porous tube. Journal of Non-Newtonian Fluid Mechanics, 2004, 121, 163-174.	2.4	83
5	Differences in miscible viscous fingering of finite width slices with positive or negative log-mobility ratio. Physical Review E, 2008, 78, 066306.	2.1	80
6	Influence of Double Diffusive Effects on Miscible Viscous Fingering. Physical Review Letters, 2010, 105, 204501.	7.8	74
7	A computational modelling of natural gas flow in looped network: Effect of upstream hydrogen injection on the structural integrity of gas pipelines. Journal of Natural Gas Science and Engineering, 2019, 64, 107-117.	4.4	60
8	Influence of Lateral Walls on Peristaltic Flow in a Rectangular Duct. Journal of Fluids Engineering, Transactions of the ASME, 2005, 127, 824-827.	1.5	57
9	Nonlinear and curvature effects on peristaltic flow of a viscous fluid in an asymmetric channel. Acta Mechanica, 2004, 168, 35-59.	2.1	56
10	Peristaltic transport in a channel with a porous peripheral layer: model of a flow in gastrointestinal tract. Journal of Biomechanics, 2005, 38, 779-789.	2.1	38
11	Linear stability analysis of Korteweg stresses effect on miscible viscous fingering in porous media. Physics of Fluids, 2013, 25, .	4.0	38
12	Miscible viscous fingering with linear adsorption on the porous matrix. Physics of Fluids, 2007, 19, .	4.0	36
13	Effect of Péclet number on miscible rectilinear displacement in a Hele-Shaw cell. Physical Review E, 2015, 91, 033006.	2.1	35
14	Double diffusive effects on pressure-driven miscible displacement flows in a channel. Journal of Fluid Mechanics, 2012, 712, 579-597.	3.4	34
15	Experimental study of dispersion and miscible viscous fingering of initially circular samples in Hele-Shaw cells. Physics of Fluids, 2010, 22, .	4.0	29
16	Control of radial miscible viscous fingering. Journal of Fluid Mechanics, 2020, 884, .	3.4	29
17	A numerical study on reaction-induced radial fingering instability. Journal of Fluid Mechanics, 2019, 862, 624-638.	3.4	24
18	Influence of miscible viscous fingering of finite slices on an adsorbed solute dynamics. Physics of Fluids, 2009, 21, .	4.0	22

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19	Hydrogen embrittlement of steel pipelines during transients. <i>Procedia Structural Integrity</i> , 2018, 13, 210-217.	0.8	22
20	Pulsating laminar fully developed channel and pipe flows. <i>Physical Review E</i> , 2010, 81, 016303.	2.1	21
21	Combined influences of viscous fingering and solvent effect on the distribution of adsorbed solutes in porous media. <i>RSC Advances</i> , 2014, 4, 34369.	3.6	20
22	Influence of miscible viscous fingering with negative log-mobility ratio on spreading of adsorbed analytes. <i>Chemical Engineering Science</i> , 2010, 65, 2392-2398.	3.8	18
23	Influence of a strong sample solvent on analyte dispersion in chromatographic columns. <i>Journal of Chromatography A</i> , 2013, 1297, 46-55.	3.7	17
24	Nonlinear simulations of miscible viscous fingering with gradient stresses in porous media. <i>Chemical Engineering Science</i> , 2015, 122, 523-532.	3.8	17
25	Phase separation effects on a partially miscible viscous fingering dynamics. <i>Journal of Fluid Mechanics</i> , 2020, 898, .	3.4	17
26	Nonmodal linear stability analysis of miscible viscous fingering in porous media. <i>Physical Review E</i> , 2015, 92, 053007.	2.1	14
27	Single diffusive magnetohydrodynamic pressure driven miscible displacement flows in a channel. <i>Physics of Fluids</i> , 2019, 31, 082102.	4.0	14
28	Viscous fingering of miscible annular ring. <i>Journal of Fluid Mechanics</i> , 2021, 916, .	3.4	14
29	Influence of Langmuir adsorption and viscous fingering on transport of finite size samples in porous media. <i>Physical Review Fluids</i> , 2019, 4, .	2.5	14
30	Influence of viscosity contrast on buoyantly unstable miscible fluids in porous media. <i>Journal of Fluid Mechanics</i> , 2015, 780, 388-406.	3.4	13
31	Fingering pattern induced by spinodal decomposition in hydrodynamically stable displacement in a partially miscible system. <i>Physical Review Fluids</i> , 2019, 4, .	2.5	13
32	Viscous fingering and deformation of a miscible circular blob in a rectilinear displacement in porous media. <i>Journal of Fluid Mechanics</i> , 2015, 782, .	3.4	12
33	Experimental study of miscible viscous fingering with different effective interfacial tension. <i>AIP Advances</i> , 2020, 10, 115219.	1.3	12
34	Fingering dynamics on the adsorbed solute with influence of less viscous and strong sample solvent. <i>Journal of Chemical Physics</i> , 2014, 141, 214701.	3.0	11
35	Comparison of Korteweg stresses effect on the fingering instability of higher or less viscous miscible slices: Linear stability analysis. <i>Chemical Engineering Science</i> , 2014, 110, 144-152.	3.8	11
36	Unstable miscible displacements in radial flow with chemical reactions. <i>Journal of Fluid Mechanics</i> , 2021, 917, .	3.4	11

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37	Onset of fingering instability in a finite slice of adsorbed solute. <i>Physical Review E</i> , 2015, 92, 023013.	2.1	9
38	Coupled effect of viscosity and density gradients on fingering instabilities of a miscible slice in porous media. <i>Physics of Fluids</i> , 2016, 28, .	4.0	9
39	Interaction between shock layer and viscous fingering in a Langmuir adsorbed solute. <i>Physics of Fluids</i> , 2017, 29, 032108.	4.0	9
40	Dynamics of a Highly Viscous Circular Blob in Homogeneous Porous Media. <i>Fluids</i> , 2017, 2, 32.	1.7	8
41	Numerical study on topological change of viscous fingering induced by a phase separation with Korteweg force. <i>Journal of Fluid Mechanics</i> , 2022, 938, .	3.4	8
42	Viscosity scaling of fingering instability in finite slices with Korteweg stress. <i>Europhysics Letters</i> , 2015, 109, 64001.	2.0	7
43	Effect of anti-Langmuir adsorption on spreading in porous media. <i>Europhysics Letters</i> , 2018, 124, 64003.	2.0	7
44	Non-modal stability analysis of miscible viscous fingering with non-monotonic viscosity profiles. <i>Journal of Fluid Mechanics</i> , 2018, 856, 552-579.	3.4	6
45	Anomalous patterns of Saffmanâ€™Taylor fingering instability during a metastable phase separation. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 10926-10935.	2.8	6
46	Effects of low and high viscous product on Kelvinâ€™Helmholtz instability triggered by A+Bâ†’C type reaction. <i>Physics of Fluids</i> , 2022, 34, 012104.	4.0	6
47	Destabilization of a Viscous Film Flowing Down in the Form of a Vertical Cylindrical Curtain. <i>Physical Review Letters</i> , 2006, 97, 184501.	7.8	5
48	Fluid Morphologies Governed by the Competition of Viscous Dissipation and Phase Separation in a Radial Hele-Shaw Flow. <i>Coatings</i> , 2020, 10, 960.	2.6	5
49	Reaction induced interfacial instability of miscible fluids in a channel. <i>Journal of Fluid Mechanics</i> , 2021, 925, .	3.4	5
50	Boundary effects on the onset of miscible viscous fingering in a Hele-Shaw flow. <i>Physical Review Fluids</i> , 2019, 4, .	2.5	4
51	Influence of a simple magnetic bar on buoyancy-driven fingering of traveling autocatalytic reaction fronts. <i>Physics of Fluids</i> , 2012, 24, .	4.0	3
52	Fingering instability and mixing of a blob in porous media. <i>Physical Review E</i> , 2016, 94, 043106.	2.1	3
53	Automated Framework for Water Looped Network Equilibrium. <i>Water Resources Management</i> , 2018, 32, 641-657.	3.9	3
54	Peristaltic Flow of a Two-Layer System in a Poroflexible Tube. <i>Journal of Porous Media</i> , 2008, 11, 51-71.	1.9	3

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55	Role of density gradients on miscible Rayleigh–Taylor fingers in porous media. AIP Advances, 2021, 11, .	1.3	2
56	Transient growth and symmetrizability in rectilinear miscible viscous fingering. Journal of Engineering Mathematics, 2020, 120, 111-128.	1.2	1
57	Effect of serum starvation on rheology of cell monolayers. Physics of Fluids, 2021, 33, 071908.	4.0	1
58	Nanoparticles impact on miscible viscous fingering with absorbing boundary condition at inlet. Physical Review Fluids, 2022, 7, .	2.5	1
59	Effect of Strong Sample Solvent on the Solute Dynamics for More or Less Viscous Sample: A Comparative Study. Procedia IUTAM, 2015, 15, 249-255.	1.2	0
60	Interaction between rarefaction wave and viscous fingering in a Langmuir adsorbed solute. Physical Review E, 2020, 101, 033101.	2.1	0