

Rochish M Thaokar

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9138947/publications.pdf>

Version: 2024-02-01

80
papers

1,095
citations

471509

17
h-index

477307

29
g-index

84
all docs

84
docs citations

84
times ranked

905
citing authors

#	ARTICLE	IF	CITATIONS
1	Breakup of a conducting drop in a uniform electric field. <i>Journal of Fluid Mechanics</i> , 2014, 754, 550-589.	3.4	91
2	Color and surface plasmon effects in nanoparticle systems: Case of silver nanoparticles prepared by microemulsion route. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2012, 404, 83-92.	4.7	77
3	Prediction of extrudate swell in polymer melt extrusion using an Arbitrary Lagrangian Eulerian (ALE) based finite element method. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2009, 156, 21-28.	2.4	54
4	Electrocoalescence in non-uniform electric fields: An experimental study. <i>Chemical Engineering and Processing: Process Intensification</i> , 2015, 96, 28-38.	3.6	52
5	Electrocoalescence of a drop pair. <i>Physics of Fluids</i> , 2015, 27, .	4.0	50
6	Deformation, breakup and motion of a perfect dielectric drop in a quadrupole electric field. <i>Physics of Fluids</i> , 2012, 24, .	4.0	42
7	Electrocoalescence of a pair of conducting drops in an insulating oil. <i>Journal of Fluid Mechanics</i> , 2019, 859, 839-850.	3.4	36
8	Formation of Gold Nanorods by Seeded Growth: Mechanisms and Modeling. <i>Crystal Growth and Design</i> , 2018, 18, 3269-3282.	3.0	29
9	Deformation and breakup of a leaky dielectric drop in a quadrupole electric field. <i>Journal of Fluid Mechanics</i> , 2013, 731, 713-733.	3.4	28
10	Worm-like micelles as templates: Formation of anisotropic silver halide nanoparticles. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2012, 393, 73-80.	4.7	27
11	Deformation of an elastic capsule in a uniform electric field. <i>Physics of Fluids</i> , 2014, 26, 122108.	4.0	27
12	Extrudate swell of linear and branched polyethylenes: ALE simulations and comparison with experiments. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2011, 166, 12-24.	2.4	26
13	Electric field induced pearling instability in cylindrical vesicles. <i>Soft Matter</i> , 2013, 9, 7274.	2.7	26
14	Breakup and non-coalescence mechanism of aqueous droplets suspended in castor oil under electric field. <i>Journal of Fluid Mechanics</i> , 2019, 878, 820-833.	3.4	26
15	Coalescence, Partial Coalescence, and Noncoalescence of an Aqueous Drop at an Oil-Water Interface under an Electric Field. <i>Langmuir</i> , 2020, 36, 6051-6060.	3.5	26
16	Electroemulsification in a Uniform Electric Field. <i>Langmuir</i> , 2016, 32, 46-54.	3.5	25
17	An experimental study on the effect of conductivity, frequency and droplets separation on the coalescence of two aqueous drops under an electric field. <i>Chemical Engineering Research and Design</i> , 2019, 152, 216-225.	5.6	20
18	Electrohydrodynamics of a concentric compound drop in an AC electric field. <i>Physics of Fluids</i> , 2018, 30, .	4.0	19

#	ARTICLE	IF	CITATIONS
19	Jet and progeny formation in the Rayleigh breakup of a charged viscous drop. <i>Journal of Fluid Mechanics</i> , 2020, 884, .	3.4	18
20	Electrokinetic model for electric-field-induced interfacial instabilities. <i>Physical Review E</i> , 2014, 89, 032409.	2.1	16
21	Pinâ€Plate Electrode System for Emulsification of a Higher Conductivity Leaky Dielectric Liquid into a Low Conductivity Medium. <i>Industrial & Engineering Chemistry Research</i> , 2014, 53, 13488-13496.	3.7	16
22	Mechanism of Nanorod Formation by Wormlike Micelle-Assisted Assembly of Nanospheres. <i>Langmuir</i> , 2015, 31, 10524-10531.	3.5	15
23	Electrostatic interactions in dissipative particle dynamicsâ€Ewald-like formalism, error analysis, and pressure computation. <i>Journal of Chemical Physics</i> , 2017, 146, 124904.	3.0	15
24	Interrelationship between electrocoalescence and interfacial tension in a high acidity crude: Effect of pH and nature of alkalinity. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2018, 555, 728-735.	4.7	15
25	Simulation of viscoelastic flows of polymer solutions in abrupt contractions using an arbitrary Lagrangian Eulerian (ALE) based finite element method. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2007, 143, 157-169.	2.4	14
26	DGLSM based study of temporal instability and formation of satellite drop in a capillary jet breakup. <i>Chemical Engineering Science</i> , 2015, 130, 239-253.	3.8	14
27	Modes of coalescence of aqueous anchored drops in insulating oils under an electric field. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2019, 568, 294-300.	4.7	14
28	Modelling and particle based simulation of electro-coalescence of a water-in-oil emulsion. <i>Computers and Chemical Engineering</i> , 2019, 121, 608-617.	3.8	14
29	Numerical study of Rayleigh fission of a charged viscous liquid drop. <i>Physical Review Fluids</i> , 2017, 2, .	2.5	13
30	Levitation dynamics of a collection of charged droplets in an electrodynamic balance. <i>Journal of Applied Physics</i> , 2017, 121, .	2.5	11
31	Theoretical analysis of formation of many-drop arrays in a quadrupole electrodynamic balance. <i>Physical Review E</i> , 2018, 98, .	2.1	11
32	Effect of the Quadrupolar Trap Potential on the Rayleigh Instability and Breakup of a Levitated Charged Droplet. <i>Langmuir</i> , 2019, 35, 15759-15768.	3.5	11
33	Formation and shape-control of hierarchical cobalt nanostructures using quaternary ammonium salts in aqueous media. <i>Beilstein Journal of Nanotechnology</i> , 2017, 8, 494-505.	2.8	10
34	Large-deformation electrohydrodynamics of an elastic capsule in a DC electric field. <i>Journal of Fluid Mechanics</i> , 2018, 841, 489-520.	3.4	10
35	Experimental studies on the performance and analysis of an electrostatic coalescer under different electrostatic boundary conditions. <i>Chemical Engineering Research and Design</i> , 2020, 154, 273-282.	5.6	10
36	A DNA ring acting as a thermal ratchet. <i>Journal of Physics Condensed Matter</i> , 2005, 17, S3965-S3978.	1.8	9

#	ARTICLE	IF	CITATIONS
37	Dynamics of a charged drop in a quadrupole electric field. <i>Europhysics Letters</i> , 2015, 111, 24006.	2.0	9
38	A Dual Grid Level Set Method based study on similarity and difference between interface dynamics for surface tension and radial electric field induced jet breakup. <i>Chemical Engineering Science</i> , 2016, 148, 238-255.	3.8	9
39	Large deformation electrohydrodynamics of a Skalak elastic capsule in AC electric field. <i>Soft Matter</i> , 2018, 14, 1719-1736.	2.7	9
40	Effect of ac electric field on the dynamics of a vesicle under shear flow in the small deformation regime. <i>Physical Review E</i> , 2018, 97, 032404.	2.1	9
41	Surface oscillations of a sub-Rayleigh charged drop levitated in a quadrupole trap. <i>Physics of Fluids</i> , 2018, 30, 122105.	4.0	9
42	Electric-Field-Assisted Formation of Nonspherical Microcapsules. <i>Langmuir</i> , 2014, 30, 10270-10279.	3.5	8
43	Experimental studies on the effect of electrostatic boundary conditions and frequency on the performance of a trigrid electrostatic coalescer. <i>Journal of Electrostatics</i> , 2020, 108, 103498.	1.9	8
44	Numerical study of coalescence and non-coalescence of two conducting drops in a non-conducting medium under electric field. <i>Journal of Electrostatics</i> , 2020, 108, 103515.	1.9	8
45	Time-dependent electrohydrodynamics of a compressible viscoelastic capsule in the small-deformation limit. <i>Physical Review E</i> , 2016, 94, 042607.	2.1	7
46	Study of dependence of elasticity on the microstructure of microcapsules using electro-deformation technique. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2019, 569, 179-189.	4.7	7
47	Electrohydrodynamics of Vesicles and Capsules. <i>Langmuir</i> , 2020, 36, 4863-4886.	3.5	7
48	Development of transmembrane potential in concentric spherical, confocal spheroidal, and bispherical vesicles subjected to nanosecond-pulse electric field. <i>Physical Review E</i> , 2020, 101, 062407.	2.1	6
49	Electrohydrodynamics of a compound vesicle under an AC electric field. <i>Journal of Physics Condensed Matter</i> , 2017, 29, 275101.	1.8	5
50	A Robust worm-like micellar template based method for the synthesis of anisotropic nanoparticles. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2017, 531, 40-47.	4.7	5
51	Four-to-one coarse-grained polarisable water model for dissipative particle dynamics. <i>Molecular Simulation</i> , 2018, 44, 540-550.	2.0	5
52	A theoretical study on the dynamics of a compound vesicle in shear flow. <i>Soft Matter</i> , 2019, 15, 6994-7017.	2.7	5
53	Establishing an Electrostatics Paradigm for Membrane Electroporation in the Framework of Dissipative Particle Dynamics. <i>Journal of Chemical Theory and Computation</i> , 2019, 15, 5737-5749.	5.3	5
54	Shape deformation of a vesicle under an axisymmetric non-uniform alternating electric field. <i>Journal of Physics Condensed Matter</i> , 2019, 31, 035101.	1.8	5

#	ARTICLE	IF	CITATIONS
55	An experimental study on the non-coalescence exhibited by anchored aqueous droplets in oil. <i>Chemical Engineering Research and Design</i> , 2020, 161, 103-114.	5.6	5
56	Numerical and experimental studies on extrudate swell of branched polyethylene through axisymmetric and planar dies. <i>Journal of Polymer Engineering</i> , 2011, 31, .	1.4	4
57	Stability of immersed viscous liquid threads under electric field. <i>International Journal of Engineering Science</i> , 2013, 62, 9-21.	5.0	4
58	Optimum size of nanorods for heating application. <i>Journal of Magnetism and Magnetic Materials</i> , 2014, 362, 165-171.	2.3	4
59	Synthesis of iron oxide nanorods via chemical scavenging and phase transformations of intermediates at ambient conditions. <i>Journal of Nanoparticle Research</i> , 2017, 19, 1.	1.9	4
60	Deformation of a biconcave-discoid capsule in extensional flow and electric field. <i>Journal of Fluid Mechanics</i> , 2019, 860, 115-144.	3.4	4
61	Starch aided synthesis of giant unilamellar vesicles. <i>Chemistry and Physics of Lipids</i> , 2020, 226, 104834.	3.2	4
62	Break-up of a non-Newtonian jet injected downwards in a Newtonian liquid. <i>Sadhana - Academy Proceedings in Engineering Sciences</i> , 2015, 40, 819-833.	1.3	3
63	Conformation of charged vesicles: the Debye-Hückel and the low-curvature limit. <i>European Physical Journal E</i> , 2016, 39, 73.	1.6	3
64	Electroporation Using Dissipative Particle Dynamics with a Novel Protocol for Applying Electric Field. <i>Journal of Chemical Theory and Computation</i> , 2019, 15, 603-612.	5.3	3
65	Influence of the trap potential waveform on surface oscillation and breakup of a levitated charged drop. <i>Journal of Applied Physics</i> , 2020, 128, .	2.5	3
66	Subcritical asymmetric Rayleigh breakup of a charged drop induced by finite amplitude perturbations in a quadrupole trap. <i>Physical Review E</i> , 2021, 103, 053111.	2.1	3
67	Effect of shape deformation on the dielectrophoretic force on a vesicle under axisymmetric non-uniform alternating electric field. <i>Journal of Electrostatics</i> , 2019, 98, 49-57.	1.9	2
68	Self Assembly of Nickel Nanospheres into Nanoplates, Assisted by Hydrazine Hydrate. <i>Journal of Nanoscience and Nanotechnology</i> , 2017, 17, 5843-5851.	0.9	1
69	Stability and Destabilization of Water-in-Crude Oil Emulsion. , 2021, , 707-728.		1
70	Effect of pulse width on the dynamics of a deflated vesicle in unipolar and bipolar pulsed electric fields. <i>Physics of Fluids</i> , 2021, 33, 081905.	4.0	1
71	From Sliding Nucleosomes to Twirling DNA Motors. <i>Journal of Computational and Theoretical Nanoscience</i> , 2006, 3, 912-921.	0.4	1
72	Study of the Effect of Hydrolysis Time on the Mechanical Properties of Polysiloxane Microcapsules. <i>Langmuir</i> , 2022, 38, 3729-3738.	3.5	1

#	ARTICLE	IF	CITATIONS
73	Effect of conductivity on the mechanism of charge ejection in Rayleigh breakup of a charged drop. Journal of Electrostatics, 2022, 117, 103720.	1.9	1
74	Enhancement of Gas Absorption by Sparingly Soluble Fine Particles Reacting Instantaneously with the Dissolved Gas: A Cell Model. Industrial & Engineering Chemistry Research, 2007, 46, 3283-3295.	3.7	0
75	Numerical and Experimental Studies on Extrudate Swell of Linear and Branched Polyethylenes. AIP Conference Proceedings, 2008, , .	0.4	0
76	Introduction to the Professor V. A. Juvekar Festschrift. Industrial & Engineering Chemistry Research, 2019, 58, 7419-7420.	3.7	0
77	Effect of noise on the stability of electrodynamically levitated one or many charged droplets. European Physical Journal E, 2019, 42, 152.	1.6	0
78	An experimental study on the non-coalescence exhibited by anchored aqueous droplets in air. Journal of Electrostatics, 2020, 107, 103484.	1.9	0
79	Plantwide Control of Two Stage Desalting Process For Feed Rate and Grade Disturbances. IFAC-PapersOnLine, 2022, 55, 387-392.	0.9	0
80	Translation of deformation coupling effects on the Rayleigh instability of an electrodynamically levitated charged droplet. European Physical Journal E, 2022, 45, 47.	1.6	0