

Aditya Bandopadhyay

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/8794800/publications.pdf>

Version: 2024-02-01

63
papers

1,639
citations

257450

24
h-index

302126

39
g-index

64
all docs

64
docs citations

64
times ranked

883
citing authors

#	ARTICLE	IF	CITATIONS
1	Effect of skimming layer in an electroosmotically driven viscoelastic fluid flow over charge modulated walls. <i>Electrophoresis</i> , 2022, 43, 724-731.	2.4	5
2	The spatial structure of electrostatically forced Faraday waves. <i>Journal of Fluid Mechanics</i> , 2022, 939, .	3.4	7
3	Efficacy of microconfined fluid mixing in a combined electroosmotic and pressure driven transport of complex fluid over discrete electrodes. <i>Physics of Fluids</i> , 2022, 34, .	4.0	11
4	Smartphone-Integrated Label-Free Rapid Screening of Anemia from the Pattern Formed by One Drop of Blood on a Wet Paper Strip. <i>ACS Sensors</i> , 2022, 7, 2028-2036.	7.8	5
5	Optimization of semi-pulsatile liquid-liquid extraction operations in milli-channels. <i>Canadian Journal of Chemical Engineering</i> , 2021, 99, 2035-2051.	1.7	0
6	Development of the Reduced Chemical Kinetic Mechanism for Combustion of $H_2/CO/C_1-C_4$ Hydrocarbons. <i>Energy & Fuels</i> , 2021, 35, 718-742.	5.1	21
7	Steering a thermally activated micromotor with a nearby isothermal wall. <i>Journal of Fluid Mechanics</i> , 2021, 915, .	3.4	6
8	Microconfined electroosmotic flow of a complex fluid with asymmetric charges: Interplay of fluid rheology and physicochemical heterogeneity. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2021, 289, 104479.	2.4	11
9	The Lagrangian kinematics of three-dimensional Darcy flow. <i>Journal of Fluid Mechanics</i> , 2021, 918, .	3.4	5
10	Piecewise Isothermal Nucleic Acid Testing (PINAT) for Infectious Disease Detection with Sample-to-Result Integration at the Point-of-Care. <i>ACS Sensors</i> , 2021, 6, 3753-3764.	7.8	10
11	Numerical analysis of combined electroosmotic-pressure driven flow of a viscoelastic fluid over high zeta potential modulated surfaces. <i>Physics of Fluids</i> , 2021, 33, .	4.0	27
12	Reply to comments by A. Pantokratoras on "Electrokinetically modulated peristaltic transport of power-law fluids" by Prakash Goswami, Jeevanjyoti Chakraborty, Aditya Bandopadhyay, Suman Chakraborty, <i>Microvascular Research</i> 103 (2016) 41-54; <i>Microvascular Research</i> (2019). <i>Microvascular Research</i> , 2020, 129, 103964.	2.5	0
13	Electrokinetics of non-Newtonian fluids in poly-electrolyte grafted nanochannels: Effects of ion-partitioning and confinement. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2020, 283, 104348.	2.4	7
14	The impact of stretching-enhanced mixing and coalescence on reactivity in mixing-limited reactive flows. <i>Physics of Fluids</i> , 2020, 32, .	4.0	3
15	Universality in coalescence of polymeric fluids. <i>Soft Matter</i> , 2020, 16, 10921-10927.	2.7	30
16	Electroosmosis of a viscoelastic fluid over non-uniformly charged surfaces: Effect of fluid relaxation and retardation time. <i>Physics of Fluids</i> , 2020, 32, .	4.0	27
17	Electric-Field-Induced Pattern Formation in Layers of DNA Molecules at the Interface between Two Immiscible Liquids. <i>Physical Review Letters</i> , 2020, 124, 064501.	7.8	9
18	Near-wall hydrodynamic slip triggers swimming state transition of micro-organisms. <i>Journal of Fluid Mechanics</i> , 2020, 894, .	3.4	18

#	ARTICLE	IF	CITATIONS
19	Electrorheology of a dilute emulsion of surfactant-covered drops. <i>Journal of Fluid Mechanics</i> , 2019, 881, 524-550.	3.4	12
20	Hydrodynamic Dispersion and Lamb Surfaces in Darcy Flow. <i>Transport in Porous Media</i> , 2019, 130, 903-922.	2.6	9
21	Electrical Power Generation from Wet Textile Mediated by Spontaneous Nanoscale Evaporation. <i>Nano Letters</i> , 2019, 19, 7191-7200.	9.1	66
22	Liquid–Liquid Mass Transfer Enhancement Due to T-Junction Modified with an Air Damper. <i>Industrial & Engineering Chemistry Research</i> , 2019, 58, 18810-18821.	3.7	1
23	Electrical switching of a surfactant coated drop in Poiseuille flow. <i>Journal of Fluid Mechanics</i> , 2019, 870, 27-66.	3.4	18
24	Activated micromotor propulsion by enzyme catalysis in a biofluid medium. <i>Applied Physics Letters</i> , 2019, 114, .	3.3	11
25	Drop deformation and emulsion rheology under the combined influence of uniform electric field and linear flow. <i>Journal of Fluid Mechanics</i> , 2018, 841, 408-433.	3.4	29
26	Shear Flows Accelerate Mixing Dynamics in Hyporheic Zones and Hillslopes. <i>Geophysical Research Letters</i> , 2018, 45, 11,659.	4.0	18
27	Electrohydrodynamic Phenomena. <i>Journal of the Indian Institute of Science</i> , 2018, 98, 201-225.	1.9	11
28	Sedimentation of a surfactant-laden drop under the influence of an electric field. <i>Journal of Fluid Mechanics</i> , 2018, 849, 277-311.	3.4	24
29	Enhanced reaction kinetics and reactive mixing scale dynamics in mixing fronts under shear flow for arbitrary Damköhler numbers. <i>Advances in Water Resources</i> , 2017, 100, 78-95.	3.8	46
30	The effect of surface charge convection and shape deformation on the settling velocity of drops in nonuniform electric field. <i>Physics of Fluids</i> , 2017, 29, .	4.0	23
31	Capillary transport of two immiscible fluids in presence of electroviscous retardation. <i>Electrophoresis</i> , 2017, 38, 747-754.	2.4	3
32	Stability of horizontal viscous fluid layers in a vertical arbitrary time periodic electric field. <i>Physics of Fluids</i> , 2017, 29, .	4.0	22
33	Electroosmosis-modulated peristaltic transport in microfluidic channels. <i>Physics of Fluids</i> , 2016, 28, .	4.0	125
34	The effect of uniform electric field on the cross-stream migration of a drop in plane Poiseuille flow. <i>Journal of Fluid Mechanics</i> , 2016, 809, 726-774.	3.4	38
35	Dielectrophoresis of a surfactant-laden viscous drop. <i>Physics of Fluids</i> , 2016, 28, .	4.0	22
36	Uniform electric-field-induced lateral migration of a sedimenting drop. <i>Journal of Fluid Mechanics</i> , 2016, 792, 553-589.	3.4	66

#	ARTICLE	IF	CITATIONS
37	Rheology modulated non-equilibrium fluctuations in time-dependent diffusion processes. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2016, 462, 654-666.	2.6	1
38	Effect of surface charge convection and shape deformation on the dielectrophoretic motion of a liquid drop. <i>Physical Review E</i> , 2016, 93, 043127.	2.1	23
39	Electrokinetics in polyelectrolyte grafted nanofluidic channels modulated by the ion partitioning effect. <i>Soft Matter</i> , 2016, 12, 5968-5978.	2.7	80
40	Streaming potential-modulated capillary filling dynamics of immiscible fluids. <i>Soft Matter</i> , 2016, 12, 2056-2065.	2.7	23
41	Electrokinetically modulated peristaltic transport of power-law fluids. <i>Microvascular Research</i> , 2016, 103, 41-54.	2.5	80
42	Electro-osmosis of superimposed fluids in the presence of modulated charged surfaces in narrow confinements. <i>Journal of Fluid Mechanics</i> , 2015, 776, 390-429.	3.4	60
43	Effect of interfacial slip on the cross-stream migration of a drop in an unbounded Poiseuille flow. <i>Physical Review E</i> , 2015, 92, 023002.	2.1	33
44	Instant power generation from an air-breathing paper and pencil based bacterial bio-fuel cell. <i>Lab on A Chip</i> , 2015, 15, 2580-2583.	6.0	35
45	Consistent prediction of streaming potential in non-Newtonian fluids: the effect of solvent rheology and confinement on ionic conductivity. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 7282-7290.	2.8	16
46	Effects of finite ionic size and solvent polarization on the dynamics of electrolytes probed through harmonic disturbances. <i>Physical Review E</i> , 2015, 91, 042307.	2.1	15
47	Taylor's Couette flow of electrorheological fluids under electrical double layer phenomenon. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2015, 223, 165-175.	2.4	3
48	Contact line dynamics of electroosmotic flows of incompressible binary fluid system with density and viscosity contrasts. <i>Physics of Fluids</i> , 2015, 27, 032109.	4.0	31
49	Computation of streaming potential in porous media: Modified permeability tensor. <i>Journal of Computational Physics</i> , 2015, 300, 53-69.	3.8	5
50	Effect of streaming current on helical flows of power law fluids. <i>Physics of Fluids</i> , 2014, 26, 122003.	4.0	4
51	Pulsating electric field modulated contact line dynamics of immiscible binary systems in narrow confinements under an electrical double layer phenomenon. <i>Soft Matter</i> , 2014, 10, 8512-8523.	2.7	25
52	Ionic Size Dependent Electroviscous Effects in Ion-Selective Nanopores. <i>Langmuir</i> , 2014, 30, 7251-7258.	3.5	19
53	Capillary filling dynamics of viscoelastic fluids. <i>Physical Review E</i> , 2014, 89, 053024.	2.1	29
54	Electrokinetic Maneuvering of Bubble-Driven Inertial Micro-Pumping Systems. <i>International Journal of Micro-nano Scale Transport</i> , 2014, 5, 13-22.	0.2	1

#	ARTICLE	IF	CITATIONS
55	Time periodic electroosmosis of linear viscoelastic liquids over patterned charged surfaces in microfluidic channels. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2013, 202, 1-11.	2.4	37
56	Electro-osmotic flows through topographically complicated porous media: Role of electropermeability tensor. <i>Physical Review E</i> , 2013, 87, .	2.1	17
57	Regimes of streaming potential in cylindrical nano-pores in presence of finite sized ions and charge induced thickening: An analytical approach. <i>Journal of Chemical Physics</i> , 2013, 139, 224503.	3.0	22
58	Electric-field-driven contact-line dynamics of two immiscible fluids over chemically patterned surfaces in narrow confinements. <i>Physical Review E</i> , 2013, 88, 023022.	2.1	59
59	Ionic size dependent electroosmosis in ion-selective microchannels and nanochannels. <i>Electrophoresis</i> , 2013, 34, 2193-2198.	2.4	36
60	Electrokinetically induced alterations in dynamic response of viscoelastic fluids in narrow confinements. <i>Physical Review E</i> , 2012, 85, 056302.	2.1	48
61	Combined Effects of Interfacial Permittivity Variations and Finite Ionic Sizes on Streaming Potentials in Nanochannels. <i>Langmuir</i> , 2012, 28, 17552-17563.	3.5	43
62	Giant augmentations in electro-hydro-dynamic energy conversion efficiencies of nanofluidic devices using viscoelastic fluids. <i>Applied Physics Letters</i> , 2012, 101, 043905.	3.3	72
63	Steric-Effect Induced Alterations in Streaming Potential and Energy Transfer Efficiency of Non-Newtonian Fluids in Narrow Confinements. <i>Langmuir</i> , 2011, 27, 12243-12252.	3.5	75