

# Arup Kumar Das

## List of Publications by Year in descending order

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Version: 2024-02-01

66  
papers

653  
citations

687335

13  
h-index

752679

20  
g-index

74  
all docs

74  
docs citations

74  
times ranked

471  
citing authors

#	ARTICLE	IF	CITATIONS
1	Dynamics of jets produced by bursting bubbles. <i>Physical Review Fluids</i> , 2018, 3, .	2.5	99
2	Physical understanding of gas-liquid annular flow and its transition to dispersed droplets. <i>Physics of Fluids</i> , 2016, 28, .	4.0	28
3	Towards the understanding of bubble-bubble interaction upon formation at submerged orifices: A numerical approach. <i>Chemical Engineering Science</i> , 2017, 161, 316-328.	3.8	25
4	Mechanism of Bursting Taylor Bubbles at Free Surfaces. <i>Langmuir</i> , 2015, 31, 9870-9881.	3.5	21
5	Study of interaction pattern between bubbles at three inline orifices in a submerged pool. <i>Chemical Engineering Science</i> , 2017, 168, 41-54.	3.8	18
6	Bending and growth of entrained air filament under converging and asymmetric rotational fields. <i>Physics of Fluids</i> , 2017, 29, .	4.0	18
7	Numerical study of boiling around wires and influence of active or passive neighbours on vapour film dynamics. <i>International Journal of Heat and Mass Transfer</i> , 2019, 130, 440-454.	4.8	16
8	Effect of Surface Tension Variation of the Working Fluid on the Performance of a Closed Loop Pulsating Heat Pipe. <i>Heat Transfer Engineering</i> , 2019, 40, 509-523.	1.9	16
9	Modeling of liquid-vapor phase change using smoothed particle hydrodynamics. <i>Journal of Computational Physics</i> , 2015, 303, 125-145.	3.8	15
10	Evolution of Multiphase Lattice Boltzmann Method: A Review. <i>Journal of the Institution of Engineers (India): Series C</i> , 2020, 101, 711-719.	1.2	15
11	Simulation of Blood as Fluid: A Review From Rheological Aspects. <i>IEEE Reviews in Biomedical Engineering</i> , 2021, 14, 327-341.	18.0	15
12	Asymmetric bursting of Taylor bubble in inclined tubes. <i>Physics of Fluids</i> , 2016, 28, .	4.0	14
13	Coalescence of sessile microdroplets subject to a wettability gradient on a solid surface. <i>Physical Review E</i> , 2016, 94, 033112.	2.1	14
14	Air entrainment driven by a converging rotational field in a viscous liquid. <i>Physics of Fluids</i> , 2017, 29, .	4.0	14
15	Formation of liquid chain by collision of two laminar jets. <i>Physics of Fluids</i> , 2017, 29, 112101.	4.0	14
16	Vortex Formation and Subsequent Air Entrainment inside a Liquid Pool. <i>Industrial &amp; Engineering Chemistry Research</i> , 2018, 57, 6538-6552.	3.7	14
17	Investigation of droplet coalescence propelled by dielectrophoresis. <i>AIChE Journal</i> , 2019, 65, 829-839.	3.6	12
18	3-D Lattice Boltzmann Model for Asymmetric Taylor Bubble and Taylor Drop in Inclined Channel. <i>Engineering Applications of Computational Fluid Mechanics</i> , 2012, 6, 383-394.	3.1	11

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19	Control of Drop Impact and Proposal of Pseudo-superhydrophobicity Using Electrostatics. <i>Industrial &amp; Engineering Chemistry Research</i> , 2017, 56, 11312-11319.	3.7	11
20	Computational simulation of radially asymmetric hydraulic jumps and jump-jump interactions. <i>Computers and Fluids</i> , 2018, 170, 1-12.	2.5	11
21	Understanding of Interactions for Bubbles Generated at Neighboring Nucleation Sites. <i>Heat Transfer Engineering</i> , 2018, 39, 885-900.	1.9	11
22	Numerical simulation of centrifugal and hemodynamically levitated LVAD for performance improvement. <i>Artificial Organs</i> , 2020, 44, E1-E19.	1.9	11
23	Proposal of hemodynamically improved design of an axial flow blood pump for LVAD. <i>Medical and Biological Engineering and Computing</i> , 2020, 58, 401-418.	2.8	11
24	Numerical Study of Dynamics of Bubbles Using Lattice Boltzmann Method. <i>Industrial &amp; Engineering Chemistry Research</i> , 2012, 51, 6364-6376.	3.7	10
25	Effect of electrostatic incitation on the wetting mode of a nano-drop over a pillar-arrayed surface. <i>RSC Advances</i> , 2016, 6, 110127-110133.	3.6	10
26	Levitation of non-magnetizable droplet inside ferrofluid. <i>Journal of Fluid Mechanics</i> , 2018, 857, 398-448.	3.4	10
27	Numerical investigation of the collapse of a static bubble at the free surface in the presence of neighbors. <i>Physical Review Fluids</i> , 2019, 4, .	2.5	10
28	Flow restrictive and shear reducing effect of magnetization relaxation in ferrofluid cavity flow. <i>Physics of Fluids</i> , 2016, 28, .	4.0	9
29	Interaction of Asymmetric Films Around Boiling Cylinder Array: Homogeneous Interface to Chaotic Phenomenon. <i>Journal of Heat Transfer</i> , 2017, 139, .	2.1	8
30	On air entrainment in a water pool by impingement of a jet. <i>AIChE Journal</i> , 2017, 63, 5169-5181.	3.6	8
31	Interface evolution of a liquid Taylor droplet during passage through a sudden contraction in a rectangular channel. <i>Chemical Engineering Science</i> , 2018, 192, 993-1010.	3.8	8
32	Experimental Study on the Interfacial Evolution of Taylor Bubble at Inception of an Annulus. <i>Industrial &amp; Engineering Chemistry Research</i> , 2019, 58, 2356-2369.	3.7	8
33	Fluidics in an emptying bottle during breaking and making of interacting interfaces. <i>Physics of Fluids</i> , 2020, 32, .	4.0	8
34	Comparative assessment of different versions of axial and centrifugal LVADs: A review. <i>Artificial Organs</i> , 2021, 45, 665-681.	1.9	8
35	Dynamics of inner gas during the bursting of a bubble at the free surface. <i>Physics of Fluids</i> , 2021, 33, .	4.0	8
36	On Transformation of a Taylor Bubble to an Asymmetric Sectorial Wrap in an Annuli. <i>Industrial &amp; Engineering Chemistry Research</i> , 2017, 56, 14384-14395.	3.7	8

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37	Numerical study of boiling of liquid nitrogen at solid and liquid contact planes. International Journal of Heat and Mass Transfer, 2022, 183, 122075.	4.8	8
38	Passage of a Taylor Bubble through a Stratified Liquidâ€“Liquid Interface. Industrial & Engineering Chemistry Research, 2020, 59, 3757-3771.	3.7	7
39	Modeling interaction between a Taylor bubble and small bubble in a rectangular column. Physics of Fluids, 2020, 32, 112106.	4.0	7
40	Fluidics of an immiscible drop impact onto a hot oil film. Physics of Fluids, 2022, 34, .	4.0	7
41	Proposition of stair climb of a drop using chemical wettability gradient. Physics of Fluids, 2017, 29, .	4.0	6
42	Formation of fluid structures due to jet-jet and jet-sheet interactions. Chemical Engineering Science, 2018, 191, 67-77.	3.8	6
43	Numerical Understanding of Free Surface Vortex Driven by Rotational Field Inside Viscous Liquid. Heat Transfer Engineering, 2020, 41, 1382-1396.	1.9	6
44	Boiling Heat Transfer on Cylindrical Surface: An Experimental Study. Heat Transfer Engineering, 2023, 44, 689-701.	1.9	6
45	Manipulation of Droplets by Electrostatic Actuation and the Related Hydrodynamics. Journal of the Indian Institute of Science, 2019, 99, 121-141.	1.9	5
46	Understanding interfacial behaviour during boiling of nitrogen from liquid-liquid contact plane. International Journal of Heat and Mass Transfer, 2021, 165, 120661.	4.8	5
47	Electric Charge-Induced Active Control of Nucleate and Rapid Film Boiling at the Nanoscale: a Molecular Perspective. Langmuir, 2021, 37, 10006-10019.	3.5	5
48	Unravelling Electrostatic Actuation on Inclined and Humped Surfaces: Effect of Substrate Contact Angle. Industrial & Engineering Chemistry Research, 2016, 55, 3949-3959.	3.7	4
49	Understanding of Fluidic Physics during Bypass of a Taylor Bubble around a Transverse Insert in a Viscous Medium. Industrial & Engineering Chemistry Research, 2018, 57, 13539-13556.	3.7	4
50	Study of Electric Field-Induced Evaporation Like Process and Nucleation in Nanoscale. Journal of Heat Transfer, 2019, 141, .	2.1	4
51	Development of microfluidic chip for dilation of slurry. Microfluidics and Nanofluidics, 2020, 24, 1.	2.2	4
52	Numerical assessment of hazard in compartmental fire having steady heat release rate from the source. Building Simulation, 2018, 11, 613-624.	5.6	3
53	Numerical study of interfacial dynamics in flow boiling of R134a inside smooth and structured tubes. International Journal of Heat and Mass Transfer, 2022, 188, 122592.	4.8	3
54	Bubble dynamics in concentric multi-orifice column under normal and reduced gravity. Physics of Fluids, 2022, 34, .	4.0	3

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55	Single-mode instability of a ferrofluid-mercury interface under a nonuniform magnetic field. <i>Physical Review E</i> , 2016, 94, 012803.	2.1	2
56	Numerical Inspection of Heterogeneity in Materials using 2D Heat-Conduction and Hybrid GA-tuned Neural-Network. <i>Applied Artificial Intelligence</i> , 2020, 34, 125-154.	3.2	2
57	Numerical Study of Boiling Heat Transfer Around Horizontal and Inclined Cylinders. <i>Journal of Heat Transfer</i> , 2021, 143, .	2.1	2
58	Study of the Dynamics of a Condensing Bubble Using Lattice Boltzmann Method. <i>Journal of Computational Multiphase Flows</i> , 2015, 7, 117-127.	0.8	1
59	Proposition of an optical arrangement for interface reconstruction between stratified liquids. <i>Chemical Engineering Science</i> , 2018, 183, 75-85.	3.8	1
60	Consequences of Inclined and Dual Jet Impingement in Stagnant Liquid and Stratified Layers. <i>AIChE Journal</i> , 2019, 65, 372-384.	3.6	1
61	Passage of a Liquid Taylor Drop through Successive Bends in a Rectangular Channel. <i>Industrial &amp; Engineering Chemistry Research</i> , 2020, 59, 19045-19061.	3.7	1
62	ENHANCEMENT OF HEAT TRANSFER DURING EVAPORATION OF R407C BY PROVIDING DISCRETE STRUCTURES INSIDE TUBE. <i>Journal of Enhanced Heat Transfer</i> , 2020, 27, 527-544.	1.1	1
63	Hybrid microfluidic design for separation of neutrally-buoyant and non-buoyant particles. <i>Chemical Engineering and Processing: Process Intensification</i> , 2022, 180, 108721.	3.6	1
64	Effect of left ventricular assist device on the hemodynamics of a patient-specific left heart. <i>Medical and Biological Engineering and Computing</i> , 2022, 60, 1705-1721.	2.8	1
65	Design of two-stage branching for inertial separation of particulate mixture. <i>Microfluidics and Nanofluidics</i> , 2021, 25, 1.	2.2	0
66	10.1063/5.0077605.9. , 2022, , .		0