Arup Kumar Das

List of Publications by Citations

61 papers	336 citations	9 h-index	15 g-index
74 ext. papers	504 ext. citations	3.5 avg, IF	4.31 L-index

#	Paper	IF	Citations
61	Dynamics of jets produced by bursting bubbles. *Physical Review Fluids*, **2018**, 3,	2.8	57
60	Physical understanding of gas-liquid annular flow and its transition to dispersed droplets. *Physics of Fluids*, **2016**, 28, 072101	4.4	18
59	Towards the understanding of bubble-bubble interaction upon formation at submerged orifices: A numerical approach. *Chemical Engineering Science*, **2017**, 161, 316-328	4.4	11
58	Bending and growth of entrained air filament under converging and asymmetric rotational fields. *Physics of Fluids*, **2017**, 29, 022101	4.4	11
57	Modeling of liquid–vapor phase change using smoothed particle hydrodynamics. *Journal of Computational Physics*, **2015**, 303, 125-145	4.1	11
56	3-D Lattice Boltzmann Model for Asymmetric Taylor Bubble and Taylor Drop in Inclined Channel. *Engineering Applications of Computational Fluid Mechanics*, **2012**, 6, 383-394	4.5	11
55	Mechanism of Bursting Taylor Bubbles at Free Surfaces. *Langmuir*, **2015**, 31, 9870-81	4	10
54	Computational simulation of radially asymmetric hydraulic jumps and jump–jump interactions. *Computers and Fluids*, **2018**, 170, 1-12	2.8	9
53	Effect of electrostatic incitation on the wetting mode of a nano-drop over a pillar-arrayed surface. *RSC Advances*, **2016**, 6, 110127-110133	3.7	9
52	Coalescence of sessile microdroplets subject to a wettability gradient on a solid surface. *Physical Review E*, **2016**, 94, 033112	2.4	9
51	Numerical study of boiling around wires and influence of active or passive neighbours on vapour film dynamics. *International Journal of Heat and Mass Transfer*, **2019**, 130, 440-454	4.9	9
50	Study of interaction pattern between bubbles at three inline orifices in a submerged pool. *Chemical Engineering Science*, **2017**, 168, 41-54	4.4	8
49	Control of Drop Impact and Proposal of Pseudo-superhydrophobicity Using Electrostatics. *Industrial & Engineering Chemistry Research*, **2017**, 56, 11312-11319	3.9	8
48	Air entrainment driven by a converging rotational field in a viscous liquid. *Physics of Fluids*, **2017**, 29, 102104	4.4	7
47	Formation of liquid chain by collision of two laminar jets. *Physics of Fluids*, **2017**, 29, 112101	4.4	7
46	Numerical Study of Dynamics of Bubbles Using Lattice Boltzmann Method. *Industrial & Engineering Chemistry Research*, **2012**, 51, 6364-6376	3.9	7
45	Numerical investigation of the collapse of a static bubble at the free surface in the presence of neighbors. *Physical Review Fluids*, **2019**, 4,	2.8	7

44	Evolution of Multiphase Lattice Boltzmann Method: A Review. *Journal of the Institution of Engineers (India): Series C*, **2020**, 101, 711-719	0.9	7
43	Investigation of droplet coalescence propelled by dielectrophoresis. *AICHE Journal*, **2019**, 65, 829-839	3.6	7
42	Effect of Surface Tension Variation of the Working Fluid on the Performance of a Closed Loop Pulsating Heat Pipe. *Heat Transfer Engineering*, **2019**, 40, 509-523	1.7	7
41	Numerical simulation of centrifugal and hemodynamically levitated LVAD for performance improvement. *Artificial Organs*, **2020**, 44, E1-E19	2.6	7
40	Proposal of hemodynamically improved design of an axial flow blood pump for LVAD. *Medical and Biological Engineering and Computing*, **2020**, 58, 401-418	3.1	6
39	Levitation of non-magnetizable droplet inside ferrofluid. *Journal of Fluid Mechanics*, **2018**, 857, 398-448	3.7	6
38	Vortex Formation and Subsequent Air Entrainment inside a Liquid Pool. *Industrial & Engineering Chemistry Research*, **2018**, 57, 6538-6552	3.9	5
37	Flow restrictive and shear reducing effect of magnetization relaxation in ferrofluid cavity flow. *Physics of Fluids*, **2016**, 28, 087103	4.4	5
36	Asymmetric bursting of Taylor bubble in inclined tubes. *Physics of Fluids*, **2016**, 28, 082106	4.4	5
35	On air entrainment in a water pool by impingement of a jet. *AICHE Journal*, **2017**, 63, 5169-5181	3.6	4
34	Experimental Study on the Interfacial Evolution of Taylor Bubble at Inception of an Annulus. *Industrial & Engineering Chemistry Research*, **2019**, 58, 2356-2369	3.9	4
33	Understanding of Interactions for Bubbles Generated at Neighboring Nucleation Sites. *Heat Transfer Engineering*, **2018**, 39, 885-900	1.7	4
32	Interface evolution of a liquid Taylor droplet during passage through a sudden contraction in a rectangular channel. *Chemical Engineering Science*, **2018**, 192, 993-1010	4.4	4
31	Proposition of stair climb of a drop using chemical wettability gradient. *Physics of Fluids*, **2017**, 29, 072103	4.4	4
30	On Transformation of a Taylor Bubble to an Asymmetric Sectorial Wrap in an Annuli. *Industrial & Engineering Chemistry Research*, **2017**, 56, 14384-14395	3.9	4
29	Unravelling Electrostatic Actuation on Inclined and Humped Surfaces: Effect of Substrate Contact Angle. *Industrial & Engineering Chemistry Research*, **2016**, 55, 3949-3959	3.9	4
28	Simulation of Blood as Fluid: A Review From Rheological Aspects. *IEEE Reviews in Biomedical Engineering*, **2021**, 14, 327-341	6.4	4
27	Study of Electric Field-Induced Evaporation Like Process and Nucleation in Nanoscale. *Journal of Heat Transfer*, **2019**, 141,	1.8	3

26	Fluidics in an emptying bottle during breaking and making of interacting interfaces. *Physics of Fluids* , **2020**, 32, 042102	4.4	3
25	Modeling interaction between a Taylor bubble and small bubble in a rectangular column. *Physics of Fluids*, **2020**, 32, 112106	4.4	3
24	Comparative assessment of different versions of axial and centrifugal LVADs: A review. *Artificial Organs*, **2021**, 45, 665-681	2.6	3
23	Dynamics of inner gas during the bursting of a bubble at the free surface. *Physics of Fluids*, **2021**, 33, 052105	4.4	3
22	Numerical Understanding of Free Surface Vortex Driven by Rotational Field Inside Viscous Liquid. *Heat Transfer Engineering*, **2020**, 41, 1382-1396	1.7	3
21	Understanding interfacial behaviour during boiling of nitrogen from liquid-liquid contact plane. *International Journal of Heat and Mass Transfer*, **2021**, 165, 120661	4.9	3
20	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	3.9	3
19	Formation of fluid structures due to jet-jet and jet-sheet interactions. *Chemical Engineering Science*, **2018**, 191, 67-77	4.4	3
18	Numerical assessment of hazard in compartmental fire having steady heat release rate from the source. *Building Simulation*, **2018**, 11, 613-624	3.9	2
17	Development of microfluidic chip for dilation of slurry. *Microfluidics and Nanofluidics*, **2020**, 24, 1	2.8	2
16	Interaction of Asymmetric Films Around Boiling Cylinder Array: Homogeneous Interface to Chaotic Phenomenon. *Journal of Heat Transfer*, **2017**, 139,	1.8	1
15	Manipulation of Droplets by Electrostatic Actuation and the Related Hydrodynamics. *Journal of the Indian Institute of Science*, **2019**, 99, 121-141	2.4	1
14	Proposition of an optical arrangement for interface reconstruction between stratified liquids. *Chemical Engineering Science*, **2018**, 183, 75-85	4.4	1
13	Numerical study of boiling of liquid nitrogen at solid and liquid contact planes. *International Journal of Heat and Mass Transfer*, **2022**, 183, 122075	4.9	1
12	Single-mode instability of a ferrofluid-mercury interface under a nonuniform magnetic field. *Physical Review E*, **2016**, 94, 012803	2.4	1
11	Passage of a Taylor Bubble through a Stratified Liquid–Liquid Interface. *Industrial & Engineering Chemistry Research*, **2020**, 59, 3757-3771	3.9	1
10	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	4.9	0
9	Numerical Inspection of Heterogeneity in Materials using 2D Heat-Conduction and Hybrid GA-tuned Neural-Network. *Applied Artificial Intelligence*, **2020**, 34, 125-154	2.3	0

List of Publications

8	Electric Charge-Induced Active Control of Nucleate and Rapid Film Boiling at the Nanoscale: a Molecular Perspective. *Langmuir*, **2021**, 37, 10006-10019	4	0
7	Bubble dynamics in concentric multi-orifice column under normal and reduced gravity. *Physics of Fluids*, **2022**, 34, 042113	4.4	0
6	Consequences of Inclined and Dual Jet Impingement in Stagnant Liquid and Stratified Layers. *AICHE Journal*, **2019**, 65, 372-384	3.6	
5	Study of the Dynamics of a Condensing Bubble Using Lattice Boltzmann Method. *Journal of Computational Multiphase Flows*, **2015**, 7, 117-127		
4	Hybrid microfluidic design for separation of neutrally-buoyant and non-buoyant particles. *Chemical Engineering and Processing: Process Intensification*, **2021**, 108721	3.7	
3	Passage of a Liquid Taylor Drop through Successive Bends in a Rectangular Channel. *Industrial & Engineering Chemistry Research*, **2020**, 59, 19045-19061	3.9	
2	Design of two-stage branching for inertial separation of particulate mixture. *Microfluidics and Nanofluidics*, **2021**, 25, 1	2.8	
1	Effect of left ventricular assist device on the hemodynamics of a patient-specific left heart.. *Medical and Biological Engineering and Computing*, **2022**, 60, 1705	3.1	