

Prasanta Kumar Das

List of Publications by Year in Descending Order

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Version: 2024-04-27

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

81
papers

781
citations

14
h-index

24
g-index

90
ext. papers

923
ext. citations

3.4
avg, IF

4.69
L-index

#	Paper	IF	Citations
81	A fully analytical solution of convection in ferrofluids during Couette-Poiseuille flow subjected to an orthogonal magnetic field. <i>International Communications in Heat and Mass Transfer</i> , 2022 , 130, 105793	5.8	0
80	Thermo-capillarity in microfluidic binary systems via phase modulated sinusoidal thermal stimuli. <i>Physics of Fluids</i> , 2022 , 34, 032012	4.4	1
79	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	3.1	
78	Water footprint comparison of a naphtha-fired combined cycle power plant and a coal-fired steam power plant.. <i>Environmental Monitoring and Assessment</i> , 2022 , 194, 404	3.1	
77	Comparative assessment of different versions of axial and centrifugal LVADs: A review. <i>Artificial Organs</i> , 2021 , 45, 665-681	2.6	3
76	Modulation of viscous planar jump by an obstacle in the flow path: Interrogation through shallow water equations and numerical analysis. <i>Physics of Fluids</i> , 2021 , 33, 053609	4.4	0
75	Heat transfer from a ferrofluid during generalized Couette flow through parallel plates in the presence of an orthogonal magnetic field. <i>International Journal of Thermal Sciences</i> , 2021 , 164, 106895	4.1	1
74	Estimations of leakages through gaps at transition: contacts using computational fluid dynamics and photoimaging of core-flow cavitation features in Gerotor pumps. <i>Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering</i> , 2021 , 235, 1748-1770	1.5	2
73	Leidenfrost Phenomenon and Rewetting of Hot Vertical Tubes by Bottom Flooding Using Nanofluids. <i>Heat Transfer Engineering</i> , 2021 , 42, 1332-1347	1.7	0
72	Internal hydraulic jump in plane Poiseuille two-layer flow: theoretical, numerical and experimental study. <i>Journal of Fluid Mechanics</i> , 2021 , 912,	3.7	1
71	Numerical simulation of flash evaporation in the presence of secondary nucleation. <i>International Journal of Multiphase Flow</i> , 2021 , 142, 103703	3.6	
70	Three-dimensional printing of diamagnetic microparticles in paramagnetic and diamagnetic media. <i>Physics of Fluids</i> , 2020 , 32, 072001	4.4	5
69	Motion, deformation and pearling of ferrofluid droplets due to a tunable moving magnetic field. <i>Soft Matter</i> , 2020 , 16, 1642-1652	3.6	4
68	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	3.1	6
67	Characterisation and classification of gas-liquid two-phase flow using conductivity probe and multiple optical sensors. <i>International Journal of Multiphase Flow</i> , 2020 , 124, 103193	3.6	8
66	Planar hydraulic jumps in thin film flow. <i>Journal of Fluid Mechanics</i> , 2020 , 884,	3.7	6
65	Nanoparticle deposition from nanofluid droplets during Leidenfrost phenomenon and consequent rise in transition temperature. <i>International Journal of Heat and Mass Transfer</i> , 2020 , 148, 119110	4.9	5

64	Effect of Oxygen Diffusion Constraints on the Performance of Planar Solid Oxide Fuel Cells for Variable Oxygen Concentration. <i>Industrial & Engineering Chemistry Research</i> , 2020 , 59, 18844-18856	3.9	1
63	Experimental analysis of flashing front propagation in superheated water: Effects of degree of superheat, tube inclination, and secondary nucleation. <i>Physics of Fluids</i> , 2020 , 32, 073311	4.4	4
62	Simulations for the flow of viscoplastic fluids in a cavity driven by the movement of walls by Lattice Boltzmann Method 2020 , 32, 213-231		2
61	Mechanics and FEM estimation of gaps generated in star-ring active contacts of ORBIT motor during operation. <i>International Journal of Mechanics and Materials in Design</i> , 2020 , 16, 69-89	2.5	2
60	Numerical simulation of centrifugal and hemodynamically levitated LVAD for performance improvement. <i>Artificial Organs</i> , 2020 , 44, E1-E19	2.6	7
59	Control of flow and suppression of separation for Couette-Poiseuille hydrodynamics of ferrofluids using tunable magnetic fields. <i>Physics of Fluids</i> , 2019 , 31, 083609	4.4	10
58	Investigation of droplet coalescence propelled by dielectrophoresis. <i>AIChE Journal</i> , 2019 , 65, 829-839	3.6	7
57	An optimized ANN for the performance prediction of an automotive air conditioning system. <i>Science and Technology for the Built Environment</i> , 2019 , 25, 282-296	1.8	8
56	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	1.7	7
55	Assessing the effect of flashing on steady state behavior and Ledinegg instability of a two phase rectangular natural circulation loop. <i>International Journal of Heat and Mass Transfer</i> , 2018 , 116, 218-230	4.9	3
54	Influence of Salinity on the Mechanism of Surface Icing: Implication to the Disappearing Freezing Singularity. <i>Langmuir</i> , 2018 , 34, 9064-9071	4	5
53	A unique methodology of objective regime classification for two phase flow based on the intensity of digital images. <i>Experimental Thermal and Fluid Science</i> , 2018 , 99, 537-546	3	9
52	Visualization and flow regime identification of downward air-water flow through a 12 mm diameter vertical tube using image analysis. <i>International Journal of Multiphase Flow</i> , 2018 , 100, 1-15	3.6	17
51	Interdiffusion across Electrode-Electrolyte Interface in Solid Oxide Fuel Cell Incorporating the Finite Size Effect of the Ions. <i>Journal of the Electrochemical Society</i> , 2018 , 165, F1184-F1191	3.9	2
50	Levitation of non-magnetizable droplet inside ferrofluid. <i>Journal of Fluid Mechanics</i> , 2018 , 857, 398-448	3.7	6
49	Thermostability analysis of line-tension-associated nucleation at a gas-liquid interface. <i>Physical Review E</i> , 2017 , 95, 012802	2.4	2
48	Thermodynamic formulation of the barrier for heterogeneous pinned nucleation: Implication to the crossover scenarios associated with barrierless and homogeneous nucleation. <i>Journal of Chemical Physics</i> , 2017 , 146, 234702	3.9	2
47	Granular drainage from a quasi-2D rectangular silo through two orifices symmetrically and asymmetrically placed at the bottom. <i>Physics of Fluids</i> , 2017 , 29, 103303	4.4	13

46	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	3.7	9
45	Flow restrictive and shear reducing effect of magnetization relaxation in ferrofluid cavity flow. <i>Physics of Fluids</i> , 2016 , 28, 087103	4.4	5
44	Steady-State Performance of a Rectangular Natural Circulation Loop With Differentially Heated Parallel Channels. <i>Journal of Thermal Science and Engineering Applications</i> , 2016 , 8,	1.9	1
43	Assessment of the process of boiling heat transfer during rewetting of a vertical tube bottom flooded by alumina nanofluid. <i>International Journal of Heat and Mass Transfer</i> , 2016 , 94, 390-402	4.9	33
42	Synthesis, characterization and studies on magneto-viscous properties of magnetite dispersed water based nanofluids. <i>Journal of Magnetism and Magnetic Materials</i> , 2016 , 404, 29-39	2.8	26
41	Model based reconstruction of an axisymmetric moving void using multiple conductivity probes. <i>Chemical Engineering Science</i> , 2016 , 146, 64-75	4.4	9
40	Characterization of bubbly flow through the fusion of multiple features extracted from high speed images 2016 ,		1
39	Flow field during eccentric discharge from quasi-two-dimensional silos—extension of the kinematic model with validation. <i>AIChE Journal</i> , 2016 , 62, 1439-1453	3.6	11
38	Asymmetric bursting of Taylor bubble in inclined tubes. <i>Physics of Fluids</i> , 2016 , 28, 082106	4.4	5
37	Reconstruction of elongated bubbles fusing the information from multiple optical probes through a Bayesian inference technique. <i>Review of Scientific Instruments</i> , 2016 , 87, 075109	1.7	1
36	Numerical Study of Air Entrainment and Liquid Film Wrapping around a Rotating Cylinder. <i>Industrial & Engineering Chemistry Research</i> , 2016 , 55, 11950-11960	3.9	5
35	Single-mode instability of a ferrofluid-mercury interface under a nonuniform magnetic field. <i>Physical Review E</i> , 2016 , 94, 012803	2.4	1
34	Unravelling Electrostatic Actuation on Inclined and Humped Surfaces: Effect of Substrate Contact Angle. <i>Industrial & Engineering Chemistry Research</i> , 2016 , 55, 3949-3959	3.9	4
33	Effect of a triple contact line on the thermokinetics of dropwise condensation on an immiscible liquid surface. <i>RSC Advances</i> , 2016 , 6, 41506-41515	3.7	2
32	Experiments on eccentric granular discharge from a quasi-two-dimensional silo. <i>Powder Technology</i> , 2016 , 301, 1054-1066	5.2	15
31	Application of Bayesian Inference Technique for the reconstruction of an isothermal hot spot inside a circular disc from peripheral temperature measurement – A critical assessment. <i>International Journal of Heat and Mass Transfer</i> , 2015 , 88, 456-469	4.9	3
30	Mechanism of Bursting Taylor Bubbles at Free Surfaces. <i>Langmuir</i> , 2015 , 31, 9870-81	4	10
29	Unique shapes of liquid bells as a function of flow parameters: A brief overview and some new results. <i>European Journal of Mechanics, B/Fluids</i> , 2015 , 50, 98-109	2.4	1

28	Droplet oscillation and pattern formation during Leidenfrost phenomenon. <i>Experimental Thermal and Fluid Science</i> , 2015 , 60, 346-353	3	14
27	Thermokinetics of heterogeneous droplet nucleation on conically textured substrates. <i>Journal of Chemical Physics</i> , 2015 , 143, 204703	3.9	11
26	Inclusion of line tension effect in classical nucleation theory for heterogeneous nucleation: A rigorous thermodynamic formulation and some unique conclusions. <i>Journal of Chemical Physics</i> , 2015 , 142, 104706	3.9	20
25	Rewetting of Vertical Pipes by Bottom Flooding Using Nanofluid as a Coolant. <i>Journal of Heat Transfer</i> , 2015 , 137,	1.8	10
24	Maneuvering the chain agglomerates of colloidal superparamagnetic nanoparticles by tunable magnetic fields. <i>Applied Physics Letters</i> , 2014 , 105, 183108	3.4	7
23	Bubble evolution and necking at a submerged orifice for the complete range of orifice tilt. <i>AIChE Journal</i> , 2013 , 59, 630-642	3.6	15
22	Formation, growth, and eruption cycle of vapor domes beneath a liquid puddle during Leidenfrost phenomena. <i>Applied Physics Letters</i> , 2013 , 103, 084101	3.4	12
21	PERFORMANCE OF AN OFF-BOARD TEST RIG FOR AN AUTOMOTIVE AIR CONDITIONING SYSTEM 2013 , 21, 1350020		6
20	CFD simulation of core annular flow through sudden contraction and expansion. <i>Journal of Petroleum Science and Engineering</i> , 2012 , 86-87, 153-164	4.4	42
19	Numerical Study of Dynamics of Bubbles Using Lattice Boltzmann Method. <i>Industrial & Engineering Chemistry Research</i> , 2012 , 51, 6364-6376	3.9	7
18	Thermal Design of Multistream Plate Fin Heat Exchangers—A State-of-the-Art Review. <i>Heat Transfer Engineering</i> , 2012 , 33, 284-300	1.7	37
17	Inception and termination of the core-annular flow pattern for oil-water downflow through a vertical pipe. <i>AIChE Journal</i> , 2012 , 58, 2020-2029	3.6	4
16	Two-Phase Natural Circulation Loops: A Review of the Recent Advances. <i>Heat Transfer Engineering</i> , 2012 , 33, 461-482	1.7	18
15	Thermal Conductivity and Rheological Behaviour of Al-alloy Dispersed Ethylene Glycol Based Nanofluids. <i>Journal of ASTM International</i> , 2012 , 9, 104435		1
14	Thermal Conductivity and Rheological Behaviour of Al-alloy Dispersed Ethylene Glycol Based Nanofluids 2012 , 104-121		
13	Analytical techniques for analysis of fully developed laminar flow through rectangular channels. <i>Heat and Mass Transfer</i> , 2011 , 47, 1289-1299	2.2	8
12	Synthesis, characterization, and thermal property measurement of nano-Al ₉₅ Zn ₅ dispersed nanofluid prepared by a two-step process. <i>International Journal of Heat and Mass Transfer</i> , 2011 , 54, 3783-3788 ¹³⁵	4.9	135
11	Synthesis of multistream heat exchangers by thermally linked two-stream modules. <i>International Journal of Heat and Mass Transfer</i> , 2010 , 53, 1070-1078	4.9	10

10	Simulation of core annular downflow through CFD—A comprehensive study. <i>Chemical Engineering and Processing: Process Intensification</i> , 2010 , 49, 1222-1228	3.7	34
9	LIQUID-LIQUID TWO-PHASE FLOW THROUGH AN ORIFICE. <i>Chemical Engineering Communications</i> , 2009 , 196, 1117-1129	2.2	3
8	Influence of an orifice on liquid-liquid two phase flow. <i>Canadian Journal of Chemical Engineering</i> , 2009 , 87, 685-694	2.3	
7	Simulation of drop movement over an inclined surface using smoothed particle hydrodynamics. <i>Langmuir</i> , 2009 , 25, 11459-66	4	33
6	Bubble Evolution through a Submerged Orifice Using Smoothed Particle Hydrodynamics: Effect of Different Thermophysical Properties. <i>Industrial & Engineering Chemistry Research</i> , 2009 , 48, 8726-8733	3.9	8
5	Motion of Taylor Bubbles and Taylor Drops in Liquid-Liquid Systems. <i>Industrial & Engineering Chemistry Research</i> , 2008 , 47, 7048-7057	3.9	17
4	The hydrodynamics of liquid-liquid upflow through a venturimeter. <i>International Journal of Multiphase Flow</i> , 2008 , 34, 1119-1129	3.6	6
3	A Novel Technique to Identify Flow Patterns during Liquid-Liquid Two-Phase Upflow through a Vertical Pipe. <i>Industrial & Engineering Chemistry Research</i> , 2006 , 45, 2381-2393	3.9	20
2	Liquid holdup in concentric annuli during cocurrent gas-liquid upflow. <i>Canadian Journal of Chemical Engineering</i> , 2002 , 80, 153-157	2.3	9
1	Performance of symmetric polygonal fins with and without tip loss —A comparison of different methods of prediction. <i>Canadian Journal of Chemical Engineering</i> , 2000 , 78, 395-401	2.3	3