

Pallab Sinha Mahapatra

List of Publications by Citations

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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.

57
papers

681
citations

15
h-index

24
g-index

63
ext. papers

948
ext. citations

3.8
avg, IF

4.78
L-index

#	Paper	IF	Citations
57	Key design and operating parameters for enhancing dropwise condensation through wettability patterning. <i>International Journal of Heat and Mass Transfer</i> , 2016 , 92, 877-883	4.9	84
56	Analysis of heat transfer and pumping power for bottom-heated porous cavity saturated with Cu-water nanofluid. <i>Powder Technology</i> , 2018 , 326, 356-369	5.2	55
55	Rapid, Self-driven Liquid Mixing on Open-Surface Microfluidic Platforms. <i>Scientific Reports</i> , 2017 , 7, 18004	4.9	44
54	Self-driven droplet transport: Effect of wettability gradient and confinement. <i>Physics of Fluids</i> , 2019 , 31, 042111	4.4	37
53	Heat Transfer and Entropy Generation in a Porous Square Enclosure in Presence of an Adiabatic Block. <i>Transport in Porous Media</i> , 2016 , 111, 305-329	3.1	35
52	Enhanced thermal energy transport using adiabatic block inside lid-driven cavity. <i>International Journal of Heat and Mass Transfer</i> , 2016 , 100, 407-427	4.9	33
51	A comparative study of flow regimes and thermal performance between flat plate pulsating heat pipe and capillary tube pulsating heat pipe. <i>Applied Thermal Engineering</i> , 2019 , 149, 613-624	5.8	32
50	Spatially-selective cooling by liquid jet impinging orthogonally on a wettability-patterned surface. <i>International Journal of Heat and Mass Transfer</i> , 2016 , 95, 142-152	4.9	26
49	Evaporation kinetics of pure water drops: Thermal patterns, Marangoni flow, and interfacial temperature difference. <i>Physical Review E</i> , 2018 , 98,	2.4	21
48	Surface-Wettability Patterning for Distributing High-Momentum Water Jets on Porous Polymeric Substrates. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 5038-5049	9.5	20
47	Precise Liquid Transport on and through Thin Porous Materials. <i>Langmuir</i> , 2018 , 34, 2865-2875	4	19
46	Merit of non-uniform over uniform heating in a porous cavity. <i>International Communications in Heat and Mass Transfer</i> , 2016 , 78, 135-144	5.8	18
45	Thermal management of heating element in a ventilated enclosure. <i>International Communications in Heat and Mass Transfer</i> , 2015 , 66, 84-92	5.8	18
44	Mixed Convection Heat Transfer in a Grooved Channel with Injection. <i>Numerical Heat Transfer; Part A: Applications</i> , 2015 , 68, 663-685	2.3	16
43	Thermal Non-equilibrium Heat Transfer and Entropy Generation due to Natural Convection in a Cylindrical Enclosure with a Truncated Conical, Heat-Generating Porous Bed. <i>Transport in Porous Media</i> , 2017 , 116, 353-377	3.1	15
42	Buoyancy-driven fluid and energy flow in protruded heater enclosure. <i>Meccanica</i> , 2016 , 51, 2159-2184	2.1	14
41	Heatlines and other visualization techniques for confined heat transfer systems. <i>International Journal of Heat and Mass Transfer</i> , 2018 , 118, 1069-1079	4.9	14

40	Effect of active wall location in a partially heated enclosure. <i>International Communications in Heat and Mass Transfer</i> , 2015 , 61, 69-77	5.8	13
39	Proper orthogonal decomposition of thermally-induced flow structure in an enclosure with alternately active localized heat sources. <i>International Journal of Heat and Mass Transfer</i> , 2016 , 94, 373-379	4.9	13
38	Modeling of steam/water direct contact condensation using volume of fluid approach. <i>Numerical Heat Transfer; Part A: Applications</i> , 2018 , 73, 17-33	2.3	12
37	Convective heat transfer enhancement: effect of multi-frequency heating. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2019 , 29, 3822-3856	4.5	11
36	Modeling aspects of vapor bubble condensation in subcooled liquid using the VOF approach. <i>Numerical Heat Transfer; Part A: Applications</i> , 2017 , 72, 236-254	2.3	10
35	Transitions between multiple dynamical states in a confined dense active-particle system. <i>Physical Review E</i> , 2017 , 95, 062610	2.4	10
34	Effect of size distribution on mixing of a polydisperse wet granular material in a belt-driven enclosure. <i>Granular Matter</i> , 2016 , 18, 1	2.6	10
33	Fabrication of TiO microspikes for highly efficient intracellular delivery by pulse laser-assisted photoporation. <i>RSC Advances</i> , 2021 , 11, 9336-9348	3.7	9
32	Modeling and analysis of condensation induced water hammer. <i>Numerical Heat Transfer; Part A: Applications</i> , 2018 , 74, 975-1000	2.3	9
31	Effect of particle shape and slip mechanism on buoyancy induced convective heat transport with nanofluids. <i>Physics of Fluids</i> , 2017 , 29, 122001	4.4	8
30	Liquid Wicking in a Paper Strip: An Experimental and Numerical Study. <i>ACS Omega</i> , 2020 , 5, 22931-22939	3.9	6
29	Shape evolution of drops on surfaces of different wettability gradients. <i>Chemical Engineering Science</i> , 2021 , 229, 116136	4.4	6
28	Wettability-confined liquid-film convective cooling: Parameter study. <i>International Journal of Heat and Mass Transfer</i> , 2018 , 126, 667-676	4.9	6
27	Surface Treatments to Enhance the Functionality of PPEs 2020 , 5, 333-336		5
26	Thermal instability-driven multiple solutions in a grooved channel. <i>Numerical Heat Transfer; Part A: Applications</i> , 2016 , 70, 776-790	2.3	5
25	Activity-induced mixing and phase transitions of self-propelled swimmers. <i>Physical Review E</i> , 2019 , 99, 012609	2.4	5
24	Confined System Analysis of a Predator-Prey Minimalistic Model. <i>Scientific Reports</i> , 2019 , 9, 11258	4.9	4
23	Dispersion of Polydisperse Droplets in a Pulsating Flow Field. <i>Procedia IUTAM</i> , 2015 , 15, 242-248		4

22	Condensation of Humid Air on Superhydrophobic Surfaces: Effect of Nanocoatings on a Hierarchical Interface. <i>Langmuir</i> , 2021 , 37, 12767-12780	4	4
21	Insights into the evolution of the thermal field in evaporating sessile pure water drops. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2021 , 611, 125855	5.1	4
20	Pulsed laser assisted high-throughput intracellular delivery in hanging drop based three dimensional cancer spheroids. <i>Analyst, The</i> , 2021 , 146, 4756-4766	5	4
19	Effect of particle fraction on phase transitions in an active-passive particles system. <i>Physical Review E</i> , 2020 , 101, 042607	2.4	3
18	Droplet Dynamics on a Wettability Patterned Surface during Spray Impact. <i>Processes</i> , 2021 , 9, 555	2.9	3
17	Effect of microchannel on combined impingement and film cooling of a concave surface. <i>International Communications in Heat and Mass Transfer</i> , 2021 , 126, 105441	5.8	3
16	Mixed Convection in a Ventilated Enclosure with Different Heater Position. <i>Lecture Notes in Mechanical Engineering</i> , 2017 , 363-374	0.4	2
15	Thermal Patterns and Internal Flow Mechanisms in Evaporating Inverted Sessile Drops of Pure Water 2019 ,		2
14	On the brachistochrone of a fluid-filled cylinder. <i>Journal of Fluid Mechanics</i> , 2019 , 865, 775-789	3.7	1
13	A point of care sensor for milk adulteration detection 2021 ,		1
12	Thermal performance of a two-phase flat thermosyphon with surface wettability modifications. <i>Applied Thermal Engineering</i> , 2022 , 204, 117862	5.8	1
11	Pressure dependence of dryout in a heat-generating porous debris bed. <i>Sadhana - Academy Proceedings in Engineering Sciences</i> , 2020 , 45, 1	1	1
10	Effect of liquid-air interface on particle cloud dynamics in viscous liquids. <i>Physics of Fluids</i> , 2021 , 33, 063306	4.4	1
9	Autonomous transport and splitting of a droplet on an open surface. <i>Physical Review Fluids</i> , 2021 , 6,	2.8	1
8	Internal flow in evaporating water drops: dominance of Marangoni flow. <i>Experiments in Fluids</i> , 2022 , 63, 1	2.5	1
7	Thermal and flow characteristics in a flat plate pulsating heat pipe with ethanol-water mixtures: From slug-plug to droplet oscillations. <i>International Journal of Heat and Mass Transfer</i> , 2022 , 194, 123066	4.9	1
6	Alignment-mediated segregation in an active-passive mixture. <i>Physical Review E</i> , 2021 , 104, 044610	2.4	0
5	Spatiotemporal dynamics of a self-propelled system with opposing alignment and repulsive forces. <i>Physical Review E</i> , 2020 , 102, 042613	2.4	0

- 4 Imbibition of Liquids through a Paper Substrate in a Controlled Environment.. *Langmuir*, **2022**, 38, 4736-4746 ○
- 3 A wettability pattern-mediated trapped bubble removal from a horizontal liquid-liquid interface. *Physics of Fluids*, **2022**, 34, 042109 4.4 ○
- 2 Nonaxisymmetry and flow transition in evaporating water drops. *Applied Physics Letters*, **2022**, 120, 011602 9.4
- 1 Multiphase Flow its Application in Water Management and Harvesting in Fuel Cells. *Energy, Environment, and Sustainability*, **2019**, 249-285 0.8