Sarit K Das

List of Publications by Year
in descending order

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85	3,067	236925	168389
papers	citations	25 h-index	53 g-index

86	86	86	3008
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Model for Heat Conduction in Nanofluids. Physical Review Letters, 2004, 93, 144301.	7.8	453
2	An experimental investigation into the thermal conductivity enhancement in oxide and metallic nanofluids. Journal of Nanoparticle Research, 2010, 12, 1015-1031.	1.9	325
3	A micro-convection model for thermal conductivity of nanofluids. Pramana - Journal of Physics, 2005, 65, 863-869.	1.8	258
4	Rheological and flow characteristics of nanofluids: Influence of electroviscous effects and particle agglomeration. Journal of Applied Physics, 2009, 106, .	2.5	219
5	Thermal conductivity enhancement of nanofluids containing graphene nanosheets. Journal of Applied Physics, 2011, 110, .	2.5	169
6	Organic Solvent-Free Fabrication of Durable and Multifunctional Superhydrophobic Paper from Waterborne Fluorinated Cellulose Nanofiber Building Blocks. ACS Nano, 2017, 11, 11091-11099.	14.6	154
7	The effect of carbon nanotubes in enhancing the thermal transport properties of PCM during solidification. Heat and Mass Transfer, 2012, 48, 1345-1355.	2.1	142
8	Effects of interplay of nanoparticles, surfactants and base fluid on the surface tension of nanocolloids. European Physical Journal E, 2017, 40, 53.	1.6	83
9	Model for thermal conductivity of CNT-nanofluids. Bulletin of Materials Science, 2008, 31, 387-390.	1.7	66
10	Temperature evolution in tissues embedded with large blood vessels during photo-thermal heating. Journal of Thermal Biology, 2014, 41, 77-87.	2.5	64
11	An Experimental Study on the Influence of Flow Maldistribution on the Pressure Drop Across a Plate Heat Exchanger. Journal of Fluids Engineering, Transactions of the ASME, 2004, 126, 680-691.	1.5	62
12	The role of percolation and sheet dynamics during heat conduction in poly-dispersed graphene nanofluids. Applied Physics Letters, 2013, 102, 163114.	3.3	60
13	Survey on nucleate pool boiling of nanofluids: the effect of particle size relative to roughness. Journal of Nanoparticle Research, 2008, 10, 1099-1108.	1.9	59
14	Percolation network dynamicity and sheet dynamics governed viscous behavior of polydispersed graphene nanosheet suspensions. Journal of Nanoparticle Research, 2013, 15, 1.	1.9	44
15	Performance evaluation of a brine-recirculation multistage flash desalination system coupled with nanofluid-based direct absorption solar collector. Renewable Energy, 2018, 122, 140-151.	8.9	44
16	Experimental and Numerical Investigation Into the Heat Transfer Study of Nanofluids in Microchannel. Journal of Heat Transfer, 2011, 133, .	2.1	36
17	Wettability of Complex Fluids and Surfactant Capped Nanoparticle-Induced Quasi-Universal Wetting Behavior. Journal of Physical Chemistry B, 2017, 121, 6081-6095.	2.6	33
18	Experimental Investigation on Port-to-Channel Flow Maldistribution in Plate Heat Exchangers. Heat Transfer Engineering, 2007, 28, 435-443.	1.9	32

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19	Effect of tube diameter on twoâ€phase flow patterns in mini tubes. Canadian Journal of Chemical Engineering, 2010, 88, 936-944.	1.7	32
20	Effect of Flow Distribution to the Channels on the Thermal Performance of the Multipass Plate Heat Exchangers. Heat Transfer Engineering, 2004, 25, 48-59.	1.9	31
21	Hydrogen Distribution in Nuclear Reactor Containment During Accidents and Associated Heat and Mass Transfer Issuesâ€"A Review. Heat Transfer Engineering, 2015, 36, 859-879.	1.9	28
22	Effect of Interaction of Nanoparticles and Surfactants on the Spreading Dynamics of Sessile Droplets. Langmuir, 2017, 33, 12180-12192.	3.5	28
23	Heat and Mass Transport in Proton Exchange Membrane Fuel Cellsâ€"A Review. Heat Transfer Engineering, 2009, 30, 691-719.	1.9	26
24	Probing nanoantenna-directed photothermal destruction of tumors using noninvasive laser irradiation. Applied Physics Letters, 2009, 95, 233701.	3.3	26
25	Coalescence Dynamics of PEDOT:PSS Droplets Impacting at Offset on Substrates for Inkjet Printing. Langmuir, 2016, 32, 5838-5851.	3.5	26
26	Role and significance of wetting pressures during droplet impact on structured superhydrophobic surfaces. European Physical Journal E, 2017, 40, 1.	1.6	26
27	Thermal design of a humidification-dehumidification desalination cycle consisting of packed-bed humidifier and finned-tube dehumidifier. International Journal of Heat and Mass Transfer, 2022, 183, 122153.	4.8	25
28	A microfluidic platform for studying the effects of small temperature gradients in an incubator environment. Biomicrofluidics, 2008, 2, 34106.	2.4	24
29	Enhanced breakdown performance of Anatase and Rutile titania based nano-oils. IEEE Transactions on Dielectrics and Electrical Insulation, 2016, 23, 3494-3503.	2.9	24
30	Parametric study of the energy efficiency of the HDH desalination unit integrated with nanofluid-based solar collector. Journal of Thermal Analysis and Calorimetry, 2019, 135, 1465-1478.	3.6	24
31	Rayleighâ€"Benard convection in water-based alumina nanofluid: A numerical study. Numerical Heat Transfer; Part A: Applications, 2017, 71, 202-214.	2.1	23
32	Experimental Assessment of the Thermo-Hydraulic Performance of Automobile Radiator with Metallic and Nonmetallic Nanofluids. Heat Transfer Engineering, 2020, 41, 235-251.	1.9	19
33	Correlating contact line capillarity and dynamic contact angle hysteresis in surfactant-nanoparticle based complex fluids. Physics of Fluids, 2018, 30, .	4.0	17
34	Oscillatory solutothermal convection-driven evaporation kinetics in colloidal nanoparticle-surfactant complex fluid pendant droplets. Physical Review Fluids, 2018, 3, .	2.5	17
35	Pool Boiling Characteristics of Metallic Nanofluids. Journal of Heat Transfer, 2011, 133, .	2.1	16
36	A diffusion based long-range and steady chemical gradient generator on a microfluidic device for studying bacterial chemotaxis. Journal of Micromechanics and Microengineering, 2016, 26, 035011.	2.6	15

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37	Low intermittent flow promotes rat mesenchymal stem cell differentiation in logarithmic fluid shear device. Biomicrofluidics, 2020, 14, 054107.	2.4	15
38	Particle and surfactant interactions effected polar and dispersive components of interfacial energy in nanocolloids. Journal of Applied Physics, 2017, 122, .	2.5	14
39	Investigation of Bubble Behavior in Subcooled Flow Boiling of Water in a Horizontal Annulus Using High-Speed Flow Visualization. Heat Transfer Engineering, 2013, 34, 838-851.	1.9	13
40	Temporal deterioration in thermal performance of screen mesh wick straight heat pipe using surfactant free aqueous nanofluids. Heat and Mass Transfer, 2017, 53, 241-251.	2.1	12
41	Mitigating nonâ€uniform heat generation induced hot spot(s) in multicore processors using nanofluids in parallel microchannels. International Journal of Thermal Sciences, 2018, 125, 185-196.	4.9	12
42	Effect of Plate Characteristics on Axial Dispersion and Heat Transfer in Plate Heat Exchangers. Journal of Heat Transfer, 2013, 135, .	2.1	11
43	Interplay of chemical and thermal gradient on bacterial migration in a diffusive microfluidic device. Biomicrofluidics, 2017, 11, 024108.	2.4	11
44	Experimental investigation on twoâ€phase flow maldistribution in parallel minichannels with Uâ€type configuration. Canadian Journal of Chemical Engineering, 2018, 96, 1820-1828.	1.7	11
45	An Experimental Investigation on the Influence of Copper Ageing on Flow Boiling in a Copper Microchannel. Heat Transfer Engineering, 2020, 41, 333-350.	1.9	11
46	Numerical indices for quantification of hydrogen mixing and deflagration potential in the nuclear reactor containment. Nuclear Engineering and Design, 2013, 259, 137-149.	1.7	10
47	A Single-Component Nonhomogeneous Lattice Boltzmann Model for Natural Convection in Al₂O₃/Water Nanofluid. Numerical Heat Transfer; Part A: Applications, 2015, 68, 1106-1124.	2.1	10
48	Anomalously Augmented Charge Transport Capabilities of Biomimetically Transformed Collagen Intercalated Nanographene-Based Biocolloids. Langmuir, 2015, 31, 3696-3706.	3.5	10
49	Particle and thermohydraulic maldistribution of nanofluids in parallel microchannel systems. Microfluidics and Nanofluidics, 2016, 20, 1.	2.2	10
50	AN EXPERIMENTAL INVESTIGATION OF POOL BOILING ON NARROW HORIZONTAL TUBES. Experimental Heat Transfer, 2004, 17, 131-146.	3.2	9
51	Numerical simulation of three-dimensional natural convection inside a heat generating anisotropic porous medium. Heat and Mass Transfer, 2005, 41, 799-809.	2.1	9
52	Superparamagnetic nanoparticle assisted hyperthermia and cooling protocol for optimum damage of internal carcinoma using computational predictive model. Heat and Mass Transfer, 2013, 49, 1217-1229.	2.1	9
53	A Composite Heat Transfer Model For Pool Boiling on a Horizontal Tube at Moderate Pressure. Canadian Journal of Chemical Engineering, 2004, 82, 316-322.	1.7	8
54	Stability and resonant wave interactions of confined two-layer Rayleighâ€“BÃ©nard systems. Journal of Fluid Mechanics, 2014, 754, 415-455.	3.4	8

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55	Analytical prediction of subâ€“surface thermal history in translucent tissue phantoms during plasmonic photoâ€“thermotherapy (PPTT). Journal of Thermal Biology, 2016, 62, 143-149.	2.5	8
56	Governing Influence of Thermodynamic and Chemical Equilibria on the Interfacial Properties in Complex Fluids. Journal of Physical Chemistry B, 2018, 122, 4141-4148.	2.6	8
57	Experimental Investigation on the Change in Flow Boiling Characteristics Due to Boiling-Induced Copper Ageing. Journal of Heat Transfer, 2021, 143, .	2.1	8
58	Numerical study of lid-driven flow in orthogonal and skewed porous cavity. Communications in Numerical Methods in Engineering, 2007, 24, 815-831.	1.3	7
59	Experimental and Theoretical Analysis of Transient Response of Plate Heat Exchangers in Presence of Nonuniform Flow Distribution. Journal of Heat Transfer, 2008, 130, .	2.1	7
60	Computational and Experimental Studies on the Effect of Flow-Distributors on the Performance of PEMFC. Journal of Fuel Cell Science and Technology, 2010, 7, .	0.8	7
61	Numerical Investigation of Evaporation in the Developing Region of Laminar Falling Film Flow Under Constant Wall Heat Flux Conditions. Numerical Heat Transfer; Part A: Applications, 2010, 58, 41-64.	2.1	7
62	Trimodal charge transport in polar liquid-based dilute nanoparticulate colloidal dispersions. Journal of Nanoparticle Research, 2014, 16, 1.	1.9	7
63	Particleâ€“fluid interactivity reduces buoyancy-driven thermal transport in nanosuspensions: A multi-component Lattice Boltzmann approach. Numerical Heat Transfer; Part A: Applications, 2016, 70, 260-281.	2.1	7
64	Effect of gold nanoparticles on thermal gradient generation and thermotaxis of E. coli cells in microfluidic device. Biomedical Microdevices, 2016, 18, 53.	2.8	7
65	Role of Fibrillation on the Magnetorheological and Viscoelastic Effects in Fe, Ni, and Co Nanocolloids. IEEE Transactions on Magnetics, 2017, 53, 1-8.	2.1	7
66	Selecting Optimal Parallel Microchannel Configuration(s) for Active Hot Spot Mitigation of Multicore Microprocessors in Real Time. Journal of Heat Transfer, 2017, 139, .	2.1	7
67	Non-Fourier thermal transport induced structural hierarchy and damage to collagen ultrastructure subjected to laser irradiation. International Journal of Hyperthermia, 2018, 34, 229-242.	2.5	7
68	Fluid shear stress in a logarithmic microfluidic device enhances cancer cell stemness marker expression. Lab on A Chip, 2022, 22, 2200-2211.	6.0	7
69	Subsurface thermal behaviour of tissue mimics embedded with large blood vessels during plasmonic photo-thermal therapy. International Journal of Hyperthermia, 2016, 32, 765-777.	2.5	5
70	Influence of Reynolds Number on the Evolution of a Plane Air Jet Issuing From a Slit. Journal of Fluids Engineering, Transactions of the ASME, 2007, 129, 1288-1296.	1.5	4
71	Accurate Solutions of Rayleigh-BÃ©nard Convection in Confined Two-Layer Systems Using the Spectral Domain Decomposition Method. Numerical Heat Transfer; Part A: Applications, 2014, 66, 1218-1242.	2.1	4
72	A computational study of flow mal-distribution on the thermal hydraulic performance of an intermediate heat exchanger in LMFBR. Journal of Nuclear Science and Technology, 2014, 51, 845-857.	1.3	4

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73	Bridging Thermal and Electrical Transport in Dielectric Nanostructure-Based Polar Colloids. IEEE Nanotechnology Magazine, 2015, 14, 889-895.	2.0	4
74	Experimental Investigation of Subcooled Flow Boiling in a Minichannel. Heat Transfer Engineering, 2015, 36, 408-417.	1.9	4
75	Non-Darcy buoyancy driven flows in a fluid saturated porous medium: the use of asymptotic computational fluid dynamics (ACFD) approach. Heat and Mass Transfer, 2008, 44, 1117-1125.	2.1	3
76	Flow Boiling Heat Transfer Characteristics in Minitubes With and Without Hydrophobicity Coating. Heat Transfer Engineering, 2020, 41, 288-301.	1.9	3
77	Logarithmic Mean Pressure Differenceâ€"A New Concept in the Analysis of the Flow Distribution in Parallel Channels of Plate Heat Exchangers. Heat Transfer Engineering, 2012, 33, 669-681.	1.9	2
78	E.coli DH5α cell response to a sudden change in microfluidic chemical environment. , 2015, 2015, 3213-6.		2
79	Numerical Studies on Hydrogen Distribution in Enclosures in the Presence of Condensing Steam. Journal of Heat Transfer, 2015, 137, .	2.1	2
80	Issues of Heat and Mass Transfer in Fuel Cell Technology. Heat Transfer Engineering, 2009, 30, 689-690.	1.9	1
81	An Analytical Solution to Predict the Inception of Two-Phase Flow in a Proton Exchange Membrane Fuel Cell. Journal of Fuel Cell Science and Technology, 2010, 7, .	0.8	1
82	Long range microfluidic shear device for cellular mechanotransduction studies. , 2015, 2015, 3209-12.		1
83	Heat and Mass Transfer Issues Associated With Nuclear Reactor Safety. Heat Transfer Engineering, 2015, 36, 857-858.	1.9	1
84	Numerical Study of Nanofluid-Based Solar Collector for Humidification-Dehumidification (HDH) Desalination. , 2018, , .		0
85	Experimental investigation of the influence of Reynolds number and buoyancy on the flow development of a plane jet in the transitional regime. Journal of Turbulence, 2021, 22, 26-47.	1.4	0