

# Sarit K Das

## List of Publications by Year in descending order

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85  
papers

3,067  
citations

236925

25  
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168389

53  
g-index

86  
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86  
docs citations

86  
times ranked

3008  
citing authors

#	ARTICLE	IF	CITATIONS
1	Thermal design of a humidification-dehumidification desalination cycle consisting of packed-bed humidifier and finned-tube dehumidifier. <i>International Journal of Heat and Mass Transfer</i> , 2022, 183, 122153.	4.8	25
2	Fluid shear stress in a logarithmic microfluidic device enhances cancer cell stemness marker expression. <i>Lab on A Chip</i> , 2022, 22, 2200-2211.	6.0	7
3	Experimental Investigation on the Change in Flow Boiling Characteristics Due to Boiling-Induced Copper Ageing. <i>Journal of Heat Transfer</i> , 2021, 143, .	2.1	8
4	Experimental investigation of the influence of Reynolds number and buoyancy on the flow development of a plane jet in the transitional regime. <i>Journal of Turbulence</i> , 2021, 22, 26-47.	1.4	0
5	Experimental Assessment of the Thermo-Hydraulic Performance of Automobile Radiator with Metallic and Nonmetallic Nanofluids. <i>Heat Transfer Engineering</i> , 2020, 41, 235-251.	1.9	19
6	Flow Boiling Heat Transfer Characteristics in Minichannels With and Without Hydrophobicity Coating. <i>Heat Transfer Engineering</i> , 2020, 41, 288-301.	1.9	3
7	An Experimental Investigation on the Influence of Copper Ageing on Flow Boiling in a Copper Microchannel. <i>Heat Transfer Engineering</i> , 2020, 41, 333-350.	1.9	11
8	Low intermittent flow promotes rat mesenchymal stem cell differentiation in logarithmic fluid shear device. <i>Biomicrofluidics</i> , 2020, 14, 054107.	2.4	15
9	Parametric study of the energy efficiency of the HDH desalination unit integrated with nanofluid-based solar collector. <i>Journal of Thermal Analysis and Calorimetry</i> , 2019, 135, 1465-1478.	3.6	24
10	Correlating contact line capillarity and dynamic contact angle hysteresis in surfactant-nanoparticle based complex fluids. <i>Physics of Fluids</i> , 2018, 30, .	4.0	17
11	Performance evaluation of a brine-recirculation multistage flash desalination system coupled with nanofluid-based direct absorption solar collector. <i>Renewable Energy</i> , 2018, 122, 140-151.	8.9	44
12	Experimental investigation on two-phase flow maldistribution in parallel minichannels with U-tube configuration. <i>Canadian Journal of Chemical Engineering</i> , 2018, 96, 1820-1828.	1.7	11
13	Governing Influence of Thermodynamic and Chemical Equilibria on the Interfacial Properties in Complex Fluids. <i>Journal of Physical Chemistry B</i> , 2018, 122, 4141-4148.	2.6	8
14	Non-Fourier thermal transport induced structural hierarchy and damage to collagen ultrastructure subjected to laser irradiation. <i>International Journal of Hyperthermia</i> , 2018, 34, 229-242.	2.5	7
15	Mitigating non-uniform heat generation induced hot spot(s) in multicore processors using nanofluids in parallel microchannels. <i>International Journal of Thermal Sciences</i> , 2018, 125, 185-196.	4.9	12
16	Numerical Study of Nanofluid-Based Solar Collector for Humidification-Dehumidification (HDH) Desalination. , 2018, , .		0
17	Oscillatory solutothermal convection-driven evaporation kinetics in colloidal nanoparticle-surfactant complex fluid pendant droplets. <i>Physical Review Fluids</i> , 2018, 3, .	2.5	17
18	Temporal deterioration in thermal performance of screen mesh wick straight heat pipe using surfactant free aqueous nanofluids. <i>Heat and Mass Transfer</i> , 2017, 53, 241-251.	2.1	12

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19	Rayleigh-Benard convection in water-based alumina nanofluid: A numerical study. Numerical Heat Transfer; Part A: Applications, 2017, 71, 202-214.	2.1	23
20	Role and significance of wetting pressures during droplet impact on structured superhydrophobic surfaces. European Physical Journal E, 2017, 40, 1.	1.6	26
21	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
22	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
23	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
24	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
25	Interplay of chemical and thermal gradient on bacterial migration in a diffusive microfluidic device. Biomicrofluidics, 2017, 11, 024108.	2.4	11
26	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
27	Particle and surfactant interactions effected polar and dispersive components of interfacial energy in nanocolloids. Journal of Applied Physics, 2017, 122, .	2.5	14
28	Effect of Interaction of Nanoparticles and Surfactants on the Spreading Dynamics of Sessile Droplets. Langmuir, 2017, 33, 12180-12192.	3.5	28
29	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
30	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
31	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
32	Coalescence Dynamics of PEDOT:PSS Droplets Impacting at Offset on Substrates for Inkjet Printing. Langmuir, 2016, 32, 5838-5851.	3.5	26
33	Particle and thermohydraulic maldistribution of nanofluids in parallel microchannel systems. Microfluidics and Nanofluidics, 2016, 20, 1.	2.2	10
34	Analytical prediction of sub-surface thermal history in translucent tissue phantoms during plasmonic photo-thermotherapy (PPTT). Journal of Thermal Biology, 2016, 62, 143-149.	2.5	8
35	Particle-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
36	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

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37	E.coli DH5α cell response to a sudden change in microfluidic chemical environment. , 2015, 2015, 3213-6.		2
38	Long range microfluidic shear device for cellular mechanotransduction studies. , 2015, 2015, 3209-12.		1
39	Numerical Studies on Hydrogen Distribution in Enclosures in the Presence of Condensing Steam. Journal of Heat Transfer, 2015, 137, .	2.1	2
40	Hydrogen Distribution in Nuclear Reactor Containment During Accidents and Associated Heat and Mass Transfer Issues—A Review. Heat Transfer Engineering, 2015, 36, 859-879.	1.9	28
41	A Single-Component Nonhomogeneous Lattice Boltzmann Model for Natural Convection in Al <sub>2</sub> O <sub>3</sub> /Water Nanofluid. Numerical Heat Transfer; Part A: Applications, 2015, 68, 1106-1124.	2.1	10
42	Anomalous Augmented Charge Transport Capabilities of Biomimetically Transformed Collagen Intercalated Nanographene-Based Biocolloids. Langmuir, 2015, 31, 3696-3706.	3.5	10
43	Bridging Thermal and Electrical Transport in Dielectric Nanostructure-Based Polar Colloids. IEEE Nanotechnology Magazine, 2015, 14, 889-895.	2.0	4
44	Heat and Mass Transfer Issues Associated With Nuclear Reactor Safety. Heat Transfer Engineering, 2015, 36, 857-858.	1.9	1
45	Experimental Investigation of Subcooled Flow Boiling in a Minichannel. Heat Transfer Engineering, 2015, 36, 408-417.	1.9	4
46	Trimodal charge transport in polar liquid-based dilute nanoparticulate colloidal dispersions. Journal of Nanoparticle Research, 2014, 16, 1.	1.9	7
47	Temperature evolution in tissues embedded with large blood vessels during photo-thermal heating. Journal of Thermal Biology, 2014, 41, 77-87.	2.5	64
48	Accurate Solutions of Rayleigh-Bénard 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
49	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
50	Stability and resonant wave interactions of confined two-layer Rayleigh-Bénard systems. Journal of Fluid Mechanics, 2014, 754, 415-455.	3.4	8
51	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
52	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
53	The role of percolation and sheet dynamics during heat conduction in poly-dispersed graphene nanofluids. Applied Physics Letters, 2013, 102, 163114.	3.3	60
54	Percolation network dynamicity and sheet dynamics governed viscous behavior of polydispersed graphene nanosheet suspensions. Journal of Nanoparticle Research, 2013, 15, 1.	1.9	44

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55	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
56	Effect of Plate Characteristics on Axial Dispersion and Heat Transfer in Plate Heat Exchangers. Journal of Heat Transfer, 2013, 135, .	2.1	11
57	Logarithmic Mean Pressure Difference—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
58	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
59	Thermal conductivity enhancement of nanofluids containing graphene nanosheets. Journal of Applied Physics, 2011, 110, .	2.5	169
60	Experimental and Numerical Investigation Into the Heat Transfer Study of Nanofluids in Microchannel. Journal of Heat Transfer, 2011, 133, .	2.1	36
61	Pool Boiling Characteristics of Metallic Nanofluids. Journal of Heat Transfer, 2011, 133, .	2.1	16
62	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
63	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
64	An experimental investigation into the thermal conductivity enhancement in oxide and metallic nanofluids. Journal of Nanoparticle Research, 2010, 12, 1015-1031.	1.9	325
65	Effect of tube diameter on two-phase flow patterns in mini tubes. Canadian Journal of Chemical Engineering, 2010, 88, 936-944.	1.7	32
66	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
67	Heat and Mass Transport in Proton Exchange Membrane Fuel Cells—A Review. Heat Transfer Engineering, 2009, 30, 691-719.	1.9	26
68	Issues of Heat and Mass Transfer in Fuel Cell Technology. Heat Transfer Engineering, 2009, 30, 689-690.	1.9	1
69	Probing nanoantenna-directed photothermal destruction of tumors using noninvasive laser irradiation. Applied Physics Letters, 2009, 95, 233701.	3.3	26
70	Rheological and flow characteristics of nanofluids: Influence of electroviscous effects and particle agglomeration. Journal of Applied Physics, 2009, 106, .	2.5	219
71	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
72	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

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73	Model for thermal conductivity of CNT-nanofluids. Bulletin of Materials Science, 2008, 31, 387-390.	1.7	66
74	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
75	A microfluidic platform for studying the effects of small temperature gradients in an incubator environment. Biomicrofluidics, 2008, 2, 34106.	2.4	24
76	Experimental Investigation on Port-to-Channel Flow Maldistribution in Plate Heat Exchangers. Heat Transfer Engineering, 2007, 28, 435-443.	1.9	32
77	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
78	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
79	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
80	A micro-convection model for thermal conductivity of nanofluids. Pramana - Journal of Physics, 2005, 65, 863-869.	1.8	258
81	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
82	AN EXPERIMENTAL INVESTIGATION OF POOL BOILING ON NARROW HORIZONTAL TUBES. Experimental Heat Transfer, 2004, 17, 131-146.	3.2	9
83	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
84	Model for Heat Conduction in Nanofluids. Physical Review Letters, 2004, 93, 144301.	7.8	453
85	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