Seok Pil Jang

List of Publications by Year
in descending order

83 papers	6,651 citations	218381 26 h-index	133063 59 g-index
83 all docs	83 docs citations	83 times ranked	4272 citing authors

#	Article	IF	Citations
1	Role of Brownian motion in the enhanced thermal conductivity of nanofluids. Applied Physics Letters, 2004, 84, 4316-4318.	1.5	1,371
2	A benchmark study on the thermal conductivity of nanofluids. Journal of Applied Physics, 2009, 106, .	1.1	897
3	Effective viscosities and thermal conductivities of aqueous nanofluids containing low volume concentrations of Al2O3 nanoparticles. International Journal of Heat and Mass Transfer, 2008, 51, 2651-2656.	2.5	671
4	Stability and thermal conductivity characteristics of nanofluids. Thermochimica Acta, 2007, 455, 70-74.	1.2	558
5	Flow and convective heat transfer characteristics of water-based Al2O3 nanofluids in fully developed laminar flow regime. International Journal of Heat and Mass Transfer, 2009, 52, 193-199.	2.5	531
6	Cooling performance of a microchannel heat sink with nanofluids. Applied Thermal Engineering, 2006, 26, 2457-2463.	3.0	408
7	Effects of Various Parameters on Nanofluid Thermal Conductivity. Journal of Heat Transfer, 2007, 129, 617-623.	1.2	370
8	Buoyancy-driven heat transfer of water-based Al2O3 nanofluids in a rectangular cavity. International Journal of Heat and Mass Transfer, 2007, 50, 4003-4010.	2.5	327
9	Effect of nanofluids on the thermal performance of a flat micro heat pipe with a rectangular grooved wick. International Journal of Heat and Mass Transfer, 2010, 53, 2183-2192.	2.5	157
10	Effects of the Darcy number, the Prandtl number, and the Reynolds number on local thermal non-equilibrium. International Journal of Heat and Mass Transfer, 2002, 45, 3885-3896.	2.5	131
11	Thermal resistance of screen mesh wick heat pipes using the water-based Al2O3 nanofluids. International Journal of Heat and Mass Transfer, 2010, 53, 5888-5894.	2.5	101
12	Particle concentration and tube size dependence of viscosities of Al2O3-water nanofluids flowing through micro- and minitubes. Applied Physics Letters, 2007, 91, 243112.	1.5	97
13	Effect of particle shape on suspension stability and thermal conductivities of water-based bohemite alumina nanofluids. Energy, 2015, 90, 1290-1297.	4.5	82
14	Effect of surfactants on the stability and solar thermal absorption characteristics of water-based nanofluids with multi-walled carbon nanotubes. International Journal of Heat and Mass Transfer, 2018, 122, 483-490.	2.5	82
15	Effect of tip clearance on the cooling performance of a microchannel heat sink. International Journal of Heat and Mass Transfer, 2004, 47, 1099-1103.	2.5	63
16	Experimental investigation of thermal characteristics for a microchannel heat sink subject to an impinging jet, using a micro-thermal sensor array. Sensors and Actuators A: Physical, 2003, 105, 211-224.	2.0	62
17	Extinction coefficient of aqueous nanofluids containing multi-walled carbon nanotubes. International Journal of Heat and Mass Transfer, 2013, 67, 930-935.	2.5	62
18	The effect of nanoparticle shape on the thermal resistance of a flat-plate heat pipe using acetone-based Al 2 O 3 nanofluids. International Journal of Heat and Mass Transfer, 2016, 92, 572-577.	2.5	47

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19	Experimental and numerical analysis of heat transfer phenomena in a sensor tube of a mass flow controller. International Journal of Heat and Mass Transfer, 2001, 44, 1711-1724.	2.5	45
20	Production of aqueous spherical gold nanoparticles using conventional ultrasonic bath. Nanoscale Research Letters, 2012, 7, 420.	3.1	45
21	Efficiency of a volumetric receiver using aqueous suspensions of multi-walled carbon nanotubes for absorbing solar thermal energy. International Journal of Heat and Mass Transfer, 2015, 80, 58-71.	2.5	45
22	Fluid Flow and Thermal Characteristics of a Microchannel Heat Sink Subject to an Impinging Air Jet. Journal of Heat Transfer, 2005, 127, 770-779.	1.2	41
23	Do temperature and nanoparticle size affect the thermal conductivity of alumina nanofluids?. Applied Physics Letters, 2014, 104, .	1.5	37
24	Thermal efficiency comparison: Surface-based solar receivers with conventional fluids and volumetric solar receivers with nanofluids. Energy, 2016, 115, 404-417.	4.5	37
25	Experimental Study on the Effect of Nanoparticle Migration on the Convective Heat Transfer Coefficient of EG/Water-based Al2O3 Nanofluids. International Journal of Heat and Mass Transfer, 2021, 169, 120903.	2.5	34
26	Magnetic-Thermal-Fluidic Analysis for Cooling Performance of Magnetic Nanofluids Comparing With Transformer Oil and Air by Using Fully Coupled Finite Element Method. IEEE Transactions on Magnetics, 2013, 49, 1865-1868.	1.2	26
27	Effect of mesh wick geometry on the maximum heat transfer rate of flat-micro heat pipes with multi-heat sources and sinks. International Journal of Heat and Mass Transfer, 2019, 131, 537-545.	2.5	26
28	Effect of polyolester oil-based multiwalled carbon-nanotube nanolubricant on the coefficient of performance of refrigeration systems. Applied Thermal Engineering, 2021, 192, 116941.	3.0	25
29	Thermal Optimization of a Circular-Sectored Finned Tube Using a Porous Medium Approach. Journal of Heat Transfer, 2002, 124, 1026-1033.	1.2	24
30	Free Convection in a Rectangular Cavity (Benard Convection) With Nanofluids. , 2004, , 147.		22
31	Heat transfer enhancement of a radiator with mass-producing nanofluids (EG/water-based Al2O3) Tj ETQq1 1 0.784314 rgBT /Overlock	3.0	21
32	Spray jet penetration and distribution of modulated liquid jets in subsonic cross-flows. Journal of Mechanical Science and Technology, 2010, 24, 1425-1431.	0.7	19
33	Electrokinetic effects of charged nanoparticles in microfluidic Couette flow. Journal of Colloid and Interface Science, 2011, 363, 59-63.	5.0	16
34	Round-robin test on thermal conductivity measurement of ZnO nanofluids and comparison of experimental results with theoretical bounds. Nanoscale Research Letters, 2011, 6, 258.	3.1	15
35	Flow and Thermal Characteristics of Condensing Steam in a Single Horizontal Mini-Channel of a Multiport Cylinder Dryer. Drying Technology, 2010, 29, 47-54.	1.7	12
36	A review of the internal forced convective heat transfer characteristics of nanofluids: Experimental features, mechanisms and thermal performance criteria. Journal of Mechanical Science and Technology, 2018, 32, 3491-3505.	0.7	12

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37	Extinction coefficient of waterâ€based multiâ€walled carbon nanotube nanofluids for application in directâ€absorption solar collectors. Micro and Nano Letters, 2014, 9, 635-638.	0.6	10
38	Thermal performance criterion for nanofluids in laminar flow regime. Journal of Mechanical Science and Technology, 2017, 31, 975-983.	0.7	10
39	Aqueous nanofluids containing paraffin-filled MWCNTs for improving effective specific heat and extinction coefficient. Energy, 2020, 210, 118523.	4.5	10
40	Long-term reliability of the thermal performance of a flat-plate heat pipe using a prognostics method. International Journal of Heat and Mass Transfer, 2015, 82, 369-372.	2.5	9
41	Thermal characteristics of silicon wafer-based TVCs (thin vapor chambers) with disk-shape using DI water. International Journal of Heat and Mass Transfer, 2018, 127, 526-534.	2.5	9
42	Radius effect on the thermal resistance of disk-shaped thin vapor chambers (TVCs) using Al2O3 nanofluids. International Journal of Heat and Mass Transfer, 2020, 154, 119769.	2.5	9
43	Motion of Nanoparticles in Nanofluids Under an Electric Field. , 2005, , 497.		8
44	Effects of porosity, pumping power, and L/D ratio on the thermal characteristics of an N2O catalytic igniter with packed bed geometry. International Journal of Heat and Mass Transfer, 2010, 53, 726-731.	2.5	8
45	Effect of the Freeze-Thaw on the Suspension Stability and Thermal Conductivity of EG/Water-Based Al₂O₃ Nanofluids. Journal of Nanomaterials, 2019, 2019, 1-8.	1.5	8
46	Note: Effect of the tilting angle of the wire on the onset of natural convection in the transient hot wire method. Review of Scientific Instruments, 2012, 83, 076103.	0.6	7
47	Thermal characteristics of an N2O catalytic igniter with metal foam for hybrid rocket motors. International Journal of Heat and Mass Transfer, 2013, 66, 101-110.	2.5	7
48	Reliability study on skewness of doublet impinging injectors. Journal of Mechanical Science and Technology, 2017, 31, 2295-2306.	0.7	5
49	Bulk mean temperature in porous medium analysis. International Journal of Heat and Mass Transfer, 2004, 47, 5603-5607.	2.5	4
50	Response to â€œComment on â€˜Particle concentration and tube size dependence of viscosities of Al2O3-water nanofluids flowing through micro-and minitubesâ€™â€•[Appl. Phys. Lett. 94, 066101 (2009)]. Applied Physics Letters, 2009, 94, 066102.	1.5	3
51	Enhancement of Processability and Electrical Resistance by Use of Ag-Based Composite Inks Containing Ultrafine SAC305 Alloy Nanoparticles. Journal of Electronic Materials, 2014, 43, 3372-3378.	1.0	3
52	Transformation of SAC (Sn3.0Ag0.5Cu) nanoparticles into bulk material during melting process with large meltingâ€point depression. Micro and Nano Letters, 2016, 11, 840-843.	0.6	3
53	Effective thermal conductivities and viscosities of water-based nanofluids containing Al2O3 with low concentration. , 2007, , .		2
54	Flow and Convective Heat Transfer Characteristics of Nanofluids With Various Shapes of Alumina Nanoparticles. , 2009, , .		2

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55	Design optimization of a methane-fuel rocket combustor with a genetic algorithm. Journal of Mechanical Science and Technology, 2015, 29, 1457-1463.	0.7	2
56	Efficiency of a Direct Absorption Solar Collector using Ag Nanofluids Synthesized by Chemical Reduction Method. Journal of the Korean Solar Energy Society, 2014, 34, 65-72.	0.1	2
57	Fluid Flow and Convective Heat Transfer Characteristics of Al2O3Nanofluids. Transactions of the Korean Society of Mechanical Engineers, B, 2007, 31, 16-20.	0.0	2
58	Rheological Characteristics of Kerosene Gel Fuel with SiO2Gellant Derivatives. Journal of the Korean Society of Propulsion Engineers, 2012, 16, 23-31.	0.1	2
59	Fluid Flow and Thermal Characteristics for a Microchannel Heat Sink Subject to an Impinging Jet. , 2003, , 263.		1
60	Study on a Cooling System for a Concentrating Photovoltaic Module. , 2010, , .		1
61	Onset of Natural Convection in Transient Hot Wire Device for Measuring Thermal Conductivity of Nanofluids. Transactions of the Korean Society of Mechanical Engineers, B, 2011, 35, 279-285.	0.0	1
62	Study on the Melting Point Depression of Tin Nanoparticles Manufactured by Modified Evaporation Method. Transactions of the Korean Society of Mechanical Engineers, B, 2014, 38, 695-700.	0.0	1
63	Thermal Characteristics of an Electric Clothes Dryer. Transactions of the Korean Society of Mechanical Engineers, B, 2009, 33, 629-634.	0.0	1
64	New Bone Formation Following Transplantation of Stem Cells and Nanoscale Hydroxyapatite Scaffold Materials into Rabbit Long Bone Defects. The Journal of the Korean Orthopaedic Association, 2011, 46, 18.	0.0	1
65	Experimental Study of Pressure Drop in Compressible Fluid through Porous Media. Transactions of the Korean Society of Mechanical Engineers, B, 2013, 37, 759-765.	0.0	1
66	A Theoretical Model for a Flat Micro Heat Pipe With a Grooved Wick Using Nanofluids. , 2009, , .		0
67	Flow Characteristics of Nanofluids According to Nanoparticles Shape. Applied Mechanics and Materials, 0, 110-116, 3728-3736.	0.2	0
68	Study on the Thermal Characteristics of Heat Pipes with Water-Based MWCNT Nanofluids. Applied Mechanics and Materials, 0, 110-116, 1879-1885.	0.2	0
69	Effects of Production Methods on the Particle Morphology and Properties of Aqueous Au Nanofluids. , 2012, , .		0
70	Evaluation of thermal performance for water-based SiO<inf>2</inf> nanofluids. , 2013, , .		0
71	Discussion: â€œAnalysis of Asymmetric Disk-Shaped and Flat-Plate Heat Pipesâ€•(Vafai, K., Zhu, N., and Wang,) Tj ETQq1 1 0.784314	1.2	0
72	Thermal Characteristics of an N₂O Catalytic Ignitor with Packed-bed Geometry. Transactions of the Korean Society of Mechanical Engineers, B, 2007, 31, 398-404.	0.0	0

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73	Flow Characteristics of Al2O3Nanofluids with Nanoparticles of Various Shapes. Transactions of the Korean Society of Mechanical Engineers, B, 2011, 35, 293-299.	0.0	0
74	Experimental Investigation of Thermal Conductivities of EG-based ZnO Nanofluids Manufactured Using Pulsed Wire Evaporation Method. Transactions of the Korean Society of Mechanical Engineers, B, 2012, 36, 111-115.	0.0	0
75	Study on Efficiency of Flat-Plate Solar Collector Using Nanofluids. Transactions of the Korean Society of Mechanical Engineers, B, 2013, 37, 799-805.	0.0	0
76	Effect of Insulation Coating on Start Time of Linear Region for Transient Hot-wire Method. Transactions of the Korean Society of Mechanical Engineers, B, 2013, 37, 1147-1152.	0.0	0
77	Experimental Investigation of Coupling Effects between Particle Size and Temperature on the Thermal Conductivity of Alumina Nanofluids. Journal of ILASS-Korea, 2014, 19, 174-181.	0.1	0
78	Wettability of SAC305-coated Cu Fabricated by Low Temperature Process Using Ultrafine SAC305 Nanoparticles. Journal of the Microelectronics and Packaging Society, 2015, 22, 25-30.	0.1	0
79	Effect of Particle Size on the Thermal Conductivity of Water/Ethylene Glycol-based Alâ„Oâ‚ƒ Nanofluids. Transactions of the Korean Society of Mechanical Engineers, B, 2018, 42, 169-175.	0.0	0
80	Effects of Working Fluids and Gravity on the Maximum Heat Transfer Rate of a Heat Pipe for Deep-Space Environment. Transactions of the Korean Society of Mechanical Engineers, B, 2019, 43, 497-504.	0.0	0
81	Theoretical Investigation of the Maximum Heat Transfer Rate of Thin-Flat Vapor Chamber with Different Heat Flux Multi-Heat Sources. Transactions of the Korean Society of Mechanical Engineers, B, 2019, 43, 555-563.	0.0	0
82	Effect of Circumferential Filling Characteristic of Working Fluid in an Isotropic Wick on the Thermal Performance of Cylindrical Heat Pipes. Transactions of the Korean Society of Mechanical Engineers, B, 2020, 44, 567-574.	0.0	0
83	Extinction coefficient measurement of supercritical water-based multi-walled carbon nanotube nanofluids. AIP Advances, 2022, 12, 065305.	0.6	0