

Kai Choong Leong

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112 papers	5,747 citations	32 h-index	75 g-index
124 ext. papers	6,430 ext. citations	5 avg, IF	6.04 L-index

#	Paper	IF	Citations
112	Enhanced thermal conductivity of TiO ₂ /water based nanofluids. <i>International Journal of Thermal Sciences</i> , 2005 , 44, 367-373	4.1	970
111	Investigations of thermal conductivity and viscosity of nanofluids. <i>International Journal of Thermal Sciences</i> , 2008 , 47, 560-568	4.1	768
110	A benchmark study on the thermal conductivity of nanofluids. <i>Journal of Applied Physics</i> , 2009 , 106, 094312	3.2	766
109	Thermophysical and electrokinetic properties of nanofluids: A critical review. <i>Applied Thermal Engineering</i> , 2008 , 28, 2109-2125	5.8	460
108	A model for the thermal conductivity of nanofluids – the effect of interfacial layer. <i>Journal of Nanoparticle Research</i> , 2006 , 8, 245-254	2.3	264
107	Life cycle assessment study of solar PV systems: An example of a 2.7 kWp distributed solar PV system in Singapore. <i>Solar Energy</i> , 2006 , 80, 555-563	6.8	178
106	A combined model for the effective thermal conductivity of nanofluids. <i>Applied Thermal Engineering</i> , 2009 , 29, 2477-2483	5.8	172
105	An experimental study of heat transfer in oscillating flow through a channel filled with an aluminum foam. <i>International Journal of Heat and Mass Transfer</i> , 2005 , 48, 243-253	4.9	96
104	Life cycle energy, emissions and cost inventory of power generation technologies in Singapore. <i>Renewable and Sustainable Energy Reviews</i> , 2007 , 11, 702-715	16.2	80
103	Saturated pool boiling enhancement using porous lattice structures produced by Selective Laser Melting. <i>International Journal of Heat and Mass Transfer</i> , 2018 , 121, 46-63	4.9	76
102	Saturated pool boiling of FC-72 from enhanced surfaces produced by Selective Laser Melting. <i>International Journal of Heat and Mass Transfer</i> , 2016 , 99, 107-121	4.9	76
101	A critical review of pool and flow boiling heat transfer of dielectric fluids on enhanced surfaces. <i>Applied Thermal Engineering</i> , 2017 , 112, 999-1019	5.8	74
100	Optimization and comparison of double-layer and double-side micro-channel heat sinks with nanofluid for power electronics cooling. <i>Applied Thermal Engineering</i> , 2014 , 65, 124-134	5.8	73
99	Effect of oscillatory frequency on heat transfer in metal foam heat sinks of various pore densities. <i>International Journal of Heat and Mass Transfer</i> , 2006 , 49, 671-681	4.9	67
98	An Experimental Study of Heat Transfer of a Porous Channel Subjected to Oscillating Flow. <i>Journal of Heat Transfer</i> , 2001 , 123, 162-170	1.8	67
97	Numerical modeling of combined heat and mass transfer in the adsorbent bed of a zeolite/water cooling system. <i>Applied Thermal Engineering</i> , 2004 , 24, 2359-2374	5.8	66
96	Determination of the effective thermal diffusivity of nanofluids by the double hot-wire technique. <i>Journal Physics D: Applied Physics</i> , 2006 , 39, 5316-5322	3	61

95	Characteristics of oscillating flow through a channel filled with open-cell metal foam. <i>International Journal of Heat and Fluid Flow</i> , 2006 , 27, 144-153	2.4	54
94	Fabrication of heat sinks by Selective Laser Melting for convective heat transfer applications. <i>Virtual and Physical Prototyping</i> , 2016 , 11, 159-165	10.1	45
93	The effect of operating conditions on the performance of zeolite/water adsorption cooling systems. <i>Applied Thermal Engineering</i> , 2005 , 25, 1403-1418	5.8	45
92	Convective heat transfer performance of airfoil heat sinks fabricated by selective laser melting. <i>International Journal of Thermal Sciences</i> , 2017 , 114, 213-228	4.1	44
91	Gas fired combined cycle plant in Singapore: energy use, GWP and cost—life cycle approach. <i>Energy Conversion and Management</i> , 2005 , 46, 2145-2157	10.6	42
90	Numerical and experimental study of forced convection in graphite foams of different configurations. <i>Applied Thermal Engineering</i> , 2010 , 30, 520-532	5.8	39
89	Theoretical insight of adsorption cooling. <i>Applied Physics Letters</i> , 2011 , 98, 221910	3.4	38
88	Characterization of Sintered Copper Wicks Used in Heat Pipes. <i>Journal of Porous Materials</i> , 1997 , 4, 303-308		38
87	Numerical study of a combined heat and mass recovery adsorption cooling cycle. <i>International Journal of Heat and Mass Transfer</i> , 2004 , 47, 4761-4770	4.9	38
86	Numerical study of a novel cascading adsorption cycle. <i>International Journal of Refrigeration</i> , 2006 , 29, 250-259	3.8	37
85	Heat transfer of oscillating and steady flows in a channel filled with porous media. <i>International Communications in Heat and Mass Transfer</i> , 2004 , 31, 63-72	5.8	37
84	A MODEL FOR PREDICTING THE EFFECTIVE THERMAL CONDUCTIVITY OF NANOPARTICLE-FLUID SUSPENSIONS. <i>International Journal of Nanoscience</i> , 2006 , 05, 23-33	0.6	36
83	Potential of district cooling in hot and humid climates. <i>Applied Energy</i> , 2017 , 208, 49-61	10.7	34
82	Experimental and numerical study of single and two-phase flow and heat transfer in aluminum foams. <i>International Journal of Heat and Mass Transfer</i> , 2011 , 54, 4904-4912	4.9	34
81	Saturated pool boiling from carbon nanotube coated surfaces at different orientations. <i>International Journal of Heat and Mass Transfer</i> , 2014 , 79, 893-904	4.9	32
80	Analysis of fluid flow and heat transfer in a channel with staggered porous blocks. <i>International Journal of Thermal Sciences</i> , 2010 , 49, 950-962	4.1	32
79	Numerical study of an internal-reforming solid oxide fuel cell and adsorption chiller co-generation system. <i>Journal of Power Sources</i> , 2006 , 159, 501-508	8.9	32
78	Experimental and numerical investigation of forced convection heat transfer in porous lattice structures produced by selective laser melting. <i>International Journal of Thermal Sciences</i> , 2019 , 137, 276-287	4.1	32

77	Additively-manufactured metallic porous lattice heat exchangers for air-side heat transfer enhancement. <i>International Journal of Heat and Mass Transfer</i> , 2020 , 150, 119262	4.9	31
76	CONVECTIVE HEAT TRANSFER CHARACTERISTICS OF AQUEOUS TiO ₂ NANOFLUID UNDER LAMINAR FLOW CONDITIONS. <i>International Journal of Nanoscience</i> , 2008 , 07, 325-331	0.6	30
75	System performance of a combined heat and mass recovery adsorption cooling cycle: A parametric study. <i>International Journal of Heat and Mass Transfer</i> , 2006 , 49, 2703-2711	4.9	30
74	The role of graphite foam pore structure on saturated pool boiling enhancement. <i>Applied Thermal Engineering</i> , 2012 , 42, 163-172	5.8	29
73	Theoretical study of the effective thermal conductivity of graphite foam based on a unit cell model. <i>International Journal of Heat and Mass Transfer</i> , 2011 , 54, 5491-5496	4.9	29
72	Transient behavior of fluid flow and heat transfer with phase change in vertical porous channels. <i>International Journal of Heat and Mass Transfer</i> , 2010 , 53, 5209-5222	4.9	26
71	Transient two-phase flow and heat transfer with localized heating in porous media. <i>International Journal of Thermal Sciences</i> , 2010 , 49, 1115-1127	4.1	26
70	Saturated pool boiling heat transfer from highly conductive graphite foams. <i>Applied Thermal Engineering</i> , 2011 , 31, 2685-2693	5.8	24
69	Pressure drop and friction factor of steady and oscillating flows in open-cell porous media. <i>Transport in Porous Media</i> , 2008 , 72, 37-52	3.1	22
68	Influences of substrate wettability and liquid viscosity on isothermal spreading of liquid droplets on solid surfaces. <i>Experiments in Fluids</i> , 2002 , 33, 728-731	2.5	22
67	CO ₂ -assisted compression-adsorption hybrid for cooling and desalination. <i>Energy Conversion and Management</i> , 2017 , 143, 538-552	10.6	20
66	Experimental study of heat transfer enhancement in a drag-reducing two-dimensional channel flow. <i>International Journal of Heat and Mass Transfer</i> , 2006 , 49, 1462-1471	4.9	20
65	An experimental study of flow boiling heat transfer from porous foam structures in a channel. <i>Applied Thermal Engineering</i> , 2014 , 70, 100-114	5.8	19
64	Cylindrical porous inserts for enhancing the thermal and hydraulic performance of water-cooled cold plates. <i>Applied Thermal Engineering</i> , 2017 , 121, 863-878	5.8	19
63	A comparative study of the fluidized-bed coating of cylindrical metal surfaces with various thermoplastic polymer powders. <i>Journal of Materials Processing Technology</i> , 1999 , 89-90, 354-360	5.3	18
62	A numerical study of solidification of n-hexadecane based on the enthalpy formulation. <i>Journal of Materials Processing Technology</i> , 2002 , 120, 249-258	5.3	17
61	Revisiting adsorption cooling cycle from mathematical modelling to system development. <i>Renewable and Sustainable Energy Reviews</i> , 2016 , 63, 315-332	16.2	16
60	Numerical analysis of different fluted fins for condensation on a vertical tube. <i>International Journal of Thermal Sciences</i> , 2017 , 122, 359-370	4.1	15

59	Filmwise condensation of steam on sinusoidal pin fin arrays: Effects of fin height and fin pitch. <i>International Journal of Heat and Mass Transfer</i> , 2019 , 130, 1004-1015	4.9	15
58	An experimental investigation of single droplet impact cooling on hot enhanced surfaces fabricated by selective laser melting. <i>International Journal of Heat and Mass Transfer</i> , 2018 , 120, 652-670	4.9	14
57	Numerical modeling of a zeolite/water adsorption cooling system with non-constant condensing pressure. <i>International Communications in Heat and Mass Transfer</i> , 2008 , 35, 618-622	5.8	14
56	Nucleate flow boiling enhancement on engineered three-dimensional porous metallic structures in FC-72. <i>Applied Thermal Engineering</i> , 2019 , 159, 113846	5.8	13
55	Three-dimensional numerical simulation of fluid flow with phase change heat transfer in an asymmetrically heated porous channel. <i>International Journal of Thermal Sciences</i> , 2010 , 49, 2363-2375	4.1	13
54	An experimental investigation of solidification in a rectangular enclosure under constant heat rate condition. <i>International Communications in Heat and Mass Transfer</i> , 1999 , 26, 925-934	5.8	13
53	An experimental investigation of a PCM-based heat sink enhanced with a topology-optimized tree-like structure. <i>Energy Conversion and Management</i> , 2021 , 245, 114608	10.6	13
52	Condensation heat transfer and pressure drop characteristics of R-134a in horizontal smooth tubes and enhanced tubes fabricated by selective laser melting. <i>International Journal of Heat and Mass Transfer</i> , 2018 , 126, 949-962	4.9	12
51	Filmwise condensation of steam on vertical plates with novel pin fin arrays produced by selective laser melting. <i>International Journal of Heat and Mass Transfer</i> , 2018 , 126, 652-666	4.9	12
50	Convective Heat Transfer in Graphite Foam Heat Sinks With Baffle and Stagger Structures. <i>Journal of Heat Transfer</i> , 2011 , 133,	1.8	12
49	Modeling of heat transfer in fluidized-bed coating of cylinders. <i>Chemical Engineering Science</i> , 2001 , 56, 5189-5200	4.4	12
48	Effect of fin pitch on the filmwise condensation of steam on three-dimensional conical pin fin arrays: A comparative study. <i>International Journal of Heat and Mass Transfer</i> , 2020 , 150, 119328	4.9	10
47	Study of Highly Conductive Graphite Foams in Thermal Management Applications. <i>Advanced Engineering Materials</i> , 2008 , 10, 338-345	3.5	10
46	Effect of the plasma cleaning process on plastic ball grid array package assembly reliability. <i>IEEE Transactions on Electronics Packaging Manufacturing</i> , 2002 , 25, 91-99		10
45	Forced convection air cooling in porous graphite foam for thermal management applications. <i>Intersociety Conference on Thermal and Thermomechanical Phenomena in Electronic Systems</i> , 2008 ,		9
44	The effect of latent heat of fusion on heat transfer in fluidized-bed coating of thin plates. <i>Chemical Engineering and Processing: Process Intensification</i> , 2002 , 41, 567-576	3.7	9
43	An upper bound solution for the coating thickness of cylinders in a fluidized bed. <i>Chemical Engineering Science</i> , 1999 , 54, 1145-1149	4.4	8
42	Microcomputer-based design of rotary regenerators. <i>Heat Recovery Systems & CHP</i> , 1991 , 11, 461-470		8

41	Theoretical and experimental investigations of isosteric heats for water adsorption on silica gel surfaces. <i>Applied Thermal Engineering</i> , 2018 , 141, 134-142	5.8	8
40	Forced convection condensation of R134a in three-dimensional conical pin fin tubes. <i>International Journal of Heat and Mass Transfer</i> , 2019 , 144, 118599	4.9	7
39	Experimental Study of a Two-Phase Thermosyphon With Porous Graphite Foam Insert. <i>Journal of Thermal Science and Engineering Applications</i> , 2011 , 3,	1.9	7
38	Fluidized bed coating of copper cylinders. <i>Journal of Materials Processing Technology</i> , 1995 , 48, 525-531	5.3	7
37	Heat transfer in fluidized bed coating of copper cylinders. <i>International Communications in Heat and Mass Transfer</i> , 1993 , 20, 699-710	5.8	7
36	The effective length of a flat plate heat pipe covered partially by a strip heater on the evaporator section. <i>Heat Recovery Systems & CHP</i> , 1995 , 15, 383-388		6
35	Entropy generation for flow boiling on a single semi-circular minichannel. <i>International Journal of Heat and Mass Transfer</i> , 2020 , 154, 119689	4.9	6
34	Experimental study of flow boiling of FC-72 in fractal-like flow channels. <i>International Journal of Thermal Sciences</i> , 2019 , 140, 184-200	4.1	5
33	Modelling of heat transfer in fluidized-bed coating of thin plates. <i>Chemical Engineering Science</i> , 1998 , 53, 1307-1310	4.4	5
32	Vapor pressure distribution of a flat plate heat pipe. <i>International Communications in Heat and Mass Transfer</i> , 1996 , 23, 789-797	5.8	5
31	Thermal-based tool sensor for ball burnishing. <i>Journal of Mechanical Working Technology</i> , 1989 , 20, 121-128		5
30	A critical review of filmwise natural and forced convection condensation on enhanced surfaces. <i>Applied Thermal Engineering</i> , 2021 , 186, 116437	5.8	5
29	Influence of hue origin on the hue-temperature calibration of thermochromic liquid crystals. <i>Heat and Mass Transfer</i> , 1997 , 33, 121-127	2.2	4
28	Heat Transfer Performance of Metal Foam Heat Sinks Subjected to Oscillating Flow. <i>IEEE Transactions on Components and Packaging Technologies</i> , 2006 , 29, 856-863		4
27	Thermal Conductivity of Nanoparticle Suspensions (Nanofluids)		4
26	A theoretical analysis and parametric study of filmwise condensation on three-dimensional pin fins. <i>International Journal of Heat and Mass Transfer</i> , 2021 , 171, 121092	4.9	4
25	Experimental study of freezing in a rectangular enclosure. <i>Journal of Materials Processing Technology</i> , 1997 , 70, 129-136	5.3	3
24	FINITE ELEMENT MODELING OF HEAT TRANSFER IN CHIP ON TAPE PACKAGES. <i>Journal of Electronics Manufacturing</i> , 1998 , 08, 139-149		3

23	Conjugate solidification inside a thick mold. <i>Journal of Materials Processing Technology</i> , 1999 , 89-90, 159-164	5.4	3
22	NATURAL CONVECTION FROM A VERTICAL RECTANGULAR FIN. <i>Experimental Heat Transfer</i> , 1996 , 9, 287-303	2.4	3
21	Effect of wall temperature and aspect ratio on the solid-liquid interface during freezing inside a rectangular enclosure. <i>International Communications in Heat and Mass Transfer</i> , 1994 , 21, 641-650	5.8	3
20	An experimental study on the porosity of powder coatings in a fluidized bed. <i>Powder Technology</i> , 1994 , 81, 201-206	5.2	3
19	An analysis of natural convection film boiling from spheres using the spherical coordinate system. <i>International Communications in Heat and Mass Transfer</i> , 1995 , 22, 803-813	5.8	3
18	Filmwise Condensation of Steam on Pin Fin Arrays Fabricated by Selective Laser Melting. <i>Defect and Diffusion Forum</i> , 2019 , 390, 71-82	0.7	2
17	Experimental Study of Enhanced Pool Boiling Heat Transfer Using Graphite Foam Inserts. <i>Defect and Diffusion Forum</i> , 2011 , 312-315, 352-357	0.7	2
16	Experimental Study of Passive Heat Transfer Enhancement in a Drag-Reducing Flow. <i>Heat Transfer Engineering</i> , 2007 , 28, 9-18	1.7	2
15	A response to Comments on the effect of liquid layering on the thermal conductivity of nanofluids E. Doroodchi, T. M. Evans & B. Moghtaderi, 2009. J Nanopart Res 11(6):1501-1507. <i>Journal of Nanoparticle Research</i> , 2010 , 12, 2007-2010	2.3	1
14	Convective heat transfer in graphite foams with complex structures 2008 ,		1
13	Forced convection heat transfer from vertically stacked fin arrays with a shrouding wall. <i>International Communications in Heat and Mass Transfer</i> , 1992 , 19, 373-384	5.8	1
12	Some observations on the use of expert systems for the ball-burnishing operation. <i>Journal of Materials Processing Technology</i> , 1990 , 22, 99-110	5.3	1
11	Experimental investigation of a topology-optimized phase change heat sink optimized for natural convection. <i>Applied Energy</i> , 2022 , 314, 118984	10.7	1
10	Flow Boiling Heat Transfer Enhancement from Carbon Nanotube-Enhanced Surfaces. <i>Defect and Diffusion Forum</i> , 2014 , 348, 20-26	0.7	
9	Effect of liquid superheat on freezing of N-hexadecane in a rectangular enclosure. <i>International Communications in Heat and Mass Transfer</i> , 1997 , 24, 313-322	5.8	
8	Heat Transfer in Open-Cell Metal Foams Subjected to Oscillating Flow 291-341		
7	Heat Transfer Characteristics of Oscillating Flow Through Highly Porous Medium 2006 , 343		
6	Heat Transfer and Fluid Flow in Metal Foam Subjected to Oscillating Flow 2005 , 301		

- 5 Visualization of transient natural convection heat transfer from a vertical rectangular fin. *Journal of Visualization*, **1999**, 1, 365-372 1.6
- 4 EXPERIMENTAL STUDIES ON DRAG REDUCTION AND HEAT TRANSFER ENHANCEMENT IN A TWO-DIMENSIONAL TURBULENT CHANNEL FLOW(Wall Jet and Wall Flow). *The Proceedings of the International Conference on Jets Wakes and Separated Flows (ICJWSF)*, **2005**, 2005, 91-96
- 3 Experimental Study of Flow Boiling and Condensation in Tubes with Pin-Fin and Metallic Foam Structures. *Heat Transfer Engineering*, 1-20 1.7
- 2 A theoretical study of condensation heat transfer in tubes with novel cross-sections. *Thermal Science and Engineering Progress*, **2021**, 28, 101075 3.6
- 1 Characterization of electrokinetic properties of nanofluids. *Journal of Nanoscience and Nanotechnology*, **2008**, 8, 5966-71 1.3