

Jaeseon Lee

List of Publications by Year in descending order

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106
papers

9,293
citations

41344

49
h-index

39675

94
g-index

106
all docs

106
docs citations

106
times ranked

3430
citing authors

#	ARTICLE	IF	CITATIONS
1	Improvement of humid air condensate drainage through bi-philic patterned surfaces. International Journal of Heat and Mass Transfer, 2022, 194, 123097.	4.8	5
2	Enhancement of flow boiling heat transfer by laser-induced periodic surface structures using femtosecond laser. International Journal of Heat and Mass Transfer, 2022, 196, 123229.	4.8	10
3	A general approach to composites containing nonmetallic fillers and liquid gallium. Science Advances, 2021, 7, .	10.3	65
4	Review of Critical Heat Flux (CHF) in Jet Impingement Boiling. International Journal of Heat and Mass Transfer, 2021, 169, 120893.	4.8	20
5	Assessing advantages and disadvantages of macro- and micro-channel flow boiling for high-heat-flux thermal management using computational and theoretical/empirical methods. International Journal of Heat and Mass Transfer, 2021, 169, 120787.	4.8	26
6	Experimental investigation and analysis of parametric trends of instability in two-phase micro-channel heat sinks. International Journal of Heat and Mass Transfer, 2021, 170, 120980.	4.8	22
7	Assessment of void fraction models and correlations for subcooled boiling in vertical upflow in a circular tube. International Journal of Heat and Mass Transfer, 2021, 171, 121060.	4.8	12
8	Experimental investigation of subcooled flow boiling in annuli with reference to thermal management of ultra-fast electric vehicle charging cables. International Journal of Heat and Mass Transfer, 2021, 172, 121176.	4.8	20
9	Experimental study on single-phase convective heat transfer of interlocking double-layer counterflow mini-channel heat sink. Energy Conversion and Management, 2021, 243, 114415.	9.2	9
10	Machine learning algorithms to predict flow boiling pressure drop in mini/micro-channels based on universal consolidated data. International Journal of Heat and Mass Transfer, 2021, 178, 121607.	4.8	29
11	Review of channel flow boiling enhancement by surface modification, and instability suppression schemes. International Journal of Heat and Mass Transfer, 2020, 146, 118864.	4.8	101
12	An artificial neural network model to predict mini/micro-channels saturated flow boiling heat transfer coefficient based on universal consolidated data. International Journal of Heat and Mass Transfer, 2020, 149, 119211.	4.8	74
13	Computational and experimental investigation of condensation flow patterns and heat transfer in parallel rectangular micro-channels. International Journal of Heat and Mass Transfer, 2020, 149, 119158.	4.8	15
14	Improved humid air condensation heat transfer through promoting condensate drainage on vertically stripe patterned bi-philic surfaces. International Journal of Heat and Mass Transfer, 2020, 160, 120206.	4.8	16
15	Machine learning algorithms to predict flow condensation heat transfer coefficient in mini/micro-channel utilizing universal data. International Journal of Heat and Mass Transfer, 2020, 162, 120351.	4.8	85
16	Mechanistic method to predicting minimum heat flux point wall temperature in saturated pool boiling. International Journal of Heat and Mass Transfer, 2020, 156, 119854.	4.8	7
17	Review of two-phase flow instabilities in macro- and micro-channel systems. International Journal of Heat and Mass Transfer, 2020, 157, 119738.	4.8	86
18	Experimental and analytical investigation of flow loop induced instabilities in micro-channel heat sinks. International Journal of Heat and Mass Transfer, 2019, 140, 303-330.	4.8	20

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19	Influence of shock structure on heat transfer characteristics in supersonic under-expanded impinging jets. <i>International Journal of Thermal Sciences</i> , 2019, 141, 62-71.	4.9	13
20	Comparative study on adsorbent characteristics for adsorption thermal energy storage system. <i>International Journal of Energy Research</i> , 2019, 43, 4281-4294.	4.5	5
21	1-D two-phase flow analysis for interlocking double layer counter flow mini-channel heat sink. <i>International Journal of Heat and Mass Transfer</i> , 2019, 135, 305-317.	4.8	9
22	Review of pool boiling enhancement by surface modification. <i>International Journal of Heat and Mass Transfer</i> , 2019, 128, 892-933.	4.8	400
23	Comprehensive assessment of the impact of operating parameters on sub 1-kW compact ORC performance. <i>Energy Conversion and Management</i> , 2019, 182, 369-382.	9.2	22
24	Optimizations of the organic Rankine cycle-based domestic CHP using biomass fuel. <i>Energy Conversion and Management</i> , 2018, 160, 31-47.	9.2	52
25	Review of pool boiling enhancement with additives and nanofluids. <i>International Journal of Heat and Mass Transfer</i> , 2018, 124, 423-453.	4.8	139
26	Experimental investigation into the impact of density wave oscillations on flow boiling system dynamic behavior and stability. <i>International Journal of Heat and Mass Transfer</i> , 2018, 120, 144-166.	4.8	30
27	Mechanistic model to predict frequency and amplitude of Density Wave Oscillations in vertical upflow boiling. <i>International Journal of Heat and Mass Transfer</i> , 2018, 123, 143-171.	4.8	20
28	Investigation of subcooled and saturated boiling heat transfer mechanisms, instabilities, and transient flow regime maps for large length-to-diameter ratio micro-channel heat sinks. <i>International Journal of Heat and Mass Transfer</i> , 2018, 123, 172-191.	4.8	49
29	Numerical study on bubble behavior in magnetic nanofluid used for waste heat recovery power generation concept. <i>International Journal of Energy Research</i> , 2018, 42, 520-531.	4.5	3
30	Frequency analysis of pressure oscillations in large length-to-diameter two-phase micro-channel heat sinks. <i>International Journal of Heat and Mass Transfer</i> , 2018, 116, 273-291.	4.8	31
31	Influence of superheat and expansion ratio on performance of organic Rankine cycle-based combined heat and power (CHP) system. <i>Energy Conversion and Management</i> , 2018, 171, 82-97.	9.2	16
32	Flow condensation pressure oscillations at different orientations. <i>International Journal of Heat and Mass Transfer</i> , 2018, 127, 784-809.	4.8	6
33	Eulerian multiphase analysis for heat transfer enhancement by CO2 sublimation in slot jet impingement. <i>International Journal of Multiphase Flow</i> , 2018, 107, 182-191.	3.4	8
34	Experimental investigation of frequency and amplitude of density wave oscillations in vertical upflow boiling. <i>International Journal of Heat and Mass Transfer</i> , 2018, 125, 1240-1263.	4.8	21
35	Assessment of body force effects in flow condensation, Part I: Experimental investigation of liquid film behavior for different orientations. <i>International Journal of Heat and Mass Transfer</i> , 2017, 106, 295-312.	4.8	16
36	Review of spray cooling – Part 2: High temperature boiling regimes and quenching applications. <i>International Journal of Heat and Mass Transfer</i> , 2017, 115, 1206-1222.	4.8	212

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37	Review of spray cooling “ Part 1: Single-phase and nucleate boiling regimes, and critical heat flux. International Journal of Heat and Mass Transfer, 2017, 115, 1174-1205.	4.8	379
38	Assessment of body force effects in flow condensation, part II: Criteria for negating influence of gravity. International Journal of Heat and Mass Transfer, 2017, 106, 313-328.	4.8	27
39	Experimental study on adsorption characteristics of a water and silica-gel based thermal energy storage (TES) system. Applied Thermal Engineering, 2017, 110, 80-88.	6.0	29
40	Condensation heat transfer of low GWP ORC working fluids in a horizontal smooth tube. International Journal of Heat and Mass Transfer, 2017, 104, 718-728.	4.8	25
41	Experimental evaluation of the in-tube condensation heat transfer of pure n -pentane/R245fa and their non-azeotropic mixture as an ORC working fluid. Applied Thermal Engineering, 2016, 106, 753-761.	6.0	16
42	Time-averaged and transient pressure drop for flow boiling with saturated inlet conditions. International Journal of Heat and Mass Transfer, 2016, 103, 133-153.	4.8	10
43	Transient characteristics of flow boiling in large micro-channel heat exchangers. International Journal of Heat and Mass Transfer, 2016, 103, 186-202.	4.8	29
44	Experimental investigation of CO2 dry-ice assisted jet impingement cooling. Applied Thermal Engineering, 2016, 107, 927-935.	6.0	19
45	Thermal and thermodynamic performance, and pressure oscillations of refrigeration loop employing large micro-channel evaporators. International Journal of Heat and Mass Transfer, 2016, 103, 1313-1326.	4.8	15
46	Effects of two-phase inlet quality, mass velocity, flow orientation, and heating perimeter on flow boiling in a rectangular channel: Part 2 “ CHF experimental results and model. International Journal of Heat and Mass Transfer, 2016, 103, 1280-1296.	4.8	23
47	Experimental and computational investigation of vertical upflow condensation in a circular tube. International Journal of Heat and Mass Transfer, 2016, 95, 249-263.	4.8	36
48	Investigation of flow boiling in large micro-channel heat exchangers in a refrigeration loop for space applications. International Journal of Heat and Mass Transfer, 2016, 97, 110-129.	4.8	55
49	Effects of two-phase inlet quality, mass velocity, flow orientation, and heating perimeter on flow boiling in a rectangular channel: Part 1 - Two-phase flow and heat transfer results. International Journal of Heat and Mass Transfer, 2016, 103, 1261-1279.	4.8	3
50	Experimental and computational investigation of interfacial shear along a wavy two-phase interface. International Journal of Heat and Mass Transfer, 2015, 85, 265-280.	4.8	7
51	Review of two-phase critical flow models and investigation of the relationship between choking, premature CHF, and CHF in micro-channel heat sinks. International Journal of Heat and Mass Transfer, 2015, 87, 497-511.	4.8	54
52	Flow boiling in microgravity: Part 2 “ Critical heat flux interfacial behavior, experimental data, and model. International Journal of Heat and Mass Transfer, 2015, 81, 721-736.	4.8	29
53	Computational modeling of turbulent evaporating falling films. International Journal of Heat and Mass Transfer, 2015, 81, 52-62.	4.8	60
54	Review of flow boiling and critical heat flux in microgravity. International Journal of Heat and Mass Transfer, 2015, 80, 469-493.	4.8	122

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55	Determination of flow regimes and heat transfer coefficient for condensation in horizontal tubes. International Journal of Heat and Mass Transfer, 2015, 80, 698-716.	4.8	25
56	Theoretical model for local heat transfer coefficient for annular flow boiling in circular mini/micro-channels. International Journal of Heat and Mass Transfer, 2014, 73, 731-742.	4.8	43
57	Micro-channel evaporator for space applications " 2. Assessment of predictive tools. International Journal of Heat and Mass Transfer, 2014, 77, 1231-1249.	4.8	10
58	Review of databases and predictive methods for heat transfer in condensing and boiling mini/micro-channel flows. International Journal of Heat and Mass Transfer, 2014, 77, 627-652.	4.8	196
59	Micro-channel evaporator for space applications " 1. Experimental pressure drop and heat transfer results for different orientations in earth gravity. International Journal of Heat and Mass Transfer, 2014, 77, 1213-1230.	4.8	48
60	Climbing film, flooding and falling film behavior in upflow condensation in tubes. International Journal of Heat and Mass Transfer, 2013, 65, 44-61.	4.8	19
61	Universal approach to predicting two-phase frictional pressure drop for mini/micro-channel saturated flow boiling. International Journal of Heat and Mass Transfer, 2013, 58, 718-734.	4.8	163
62	Study of the influence of interfacial waves on heat transfer in turbulent falling films. International Journal of Heat and Mass Transfer, 2013, 67, 1106-1121.	4.8	25
63	Universal approach to predicting heat transfer coefficient for condensing mini/micro-channel flow. International Journal of Heat and Mass Transfer, 2013, 56, 238-250.	4.8	172
64	Universal approach to predicting saturated flow boiling heat transfer in mini/micro-channels " Part II. Two-phase heat transfer coefficient. International Journal of Heat and Mass Transfer, 2013, 64, 1239-1256.	4.8	281
65	Universal approach to predicting saturated flow boiling heat transfer in mini/micro-channels " Part I. Dryout incipience quality. International Journal of Heat and Mass Transfer, 2013, 64, 1226-1238.	4.8	131
66	Recent Advances in High-Flux, Two-Phase Thermal Management. Journal of Thermal Science and Engineering Applications, 2013, 5, .	1.5	192
67	Enhanced Design of Cross-Flow Microchannel Heat Exchanger Module for High-Performance Aircraft Gas Turbine Engines. Journal of Heat Transfer, 2012, 134, .	2.1	13
68	Flow condensation in parallel micro-channels ? Part 2: Heat transfer results and correlation technique. International Journal of Heat and Mass Transfer, 2012, 55, 984-994.	4.8	136
69	Flow condensation in parallel micro-channels " Part 1: Experimental results and assessment of pressure drop correlations. International Journal of Heat and Mass Transfer, 2012, 55, 971-983.	4.8	120
70	Two-Phase Microchannel Heat Sinks: Theory, Applications, and Limitations. Journal of Electronic Packaging, Transactions of the ASME, 2011, 133, .	1.8	255
71	Low-Temperature Two-Phase Microchannel Cooling for High-Heat-Flux Thermal Management of Defense Electronics. IEEE Transactions on Components and Packaging Technologies, 2009, 32, 453-465.	1.3	119
72	Single-Phase and Two-Phase Hybrid Cooling Schemes for High-Heat-Flux Thermal Management of Defense Electronics. Journal of Electronic Packaging, Transactions of the ASME, 2009, 131, .	1.8	51

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73	Critical heat flux for subcooled flow boiling in micro-channel heat sinks. International Journal of Heat and Mass Transfer, 2009, 52, 3341-3352.	4.8	138
74	Experimental Investigation and Theoretical Model for Subcooled Flow Boiling Pressure Drop in Microchannel Heat Sinks. Journal of Electronic Packaging, Transactions of the ASME, 2009, 131, .	1.8	9
75	Single-phase and two-phase heat transfer characteristics of low temperature hybrid micro-channel/micro-jet impingement cooling module. International Journal of Heat and Mass Transfer, 2008, 51, 3882-3895.	4.8	75
76	Fluid flow and heat transfer characteristics of low temperature two-phase micro-channel heat sinks – Part 2. Subcooled boiling pressure drop and heat transfer. International Journal of Heat and Mass Transfer, 2008, 51, 4327-4341.	4.8	100
77	Fluid flow and heat transfer characteristics of low temperature two-phase micro-channel heat sinks – Part 1: Experimental methods and flow visualization results. International Journal of Heat and Mass Transfer, 2008, 51, 4315-4326.	4.8	147
78	Effects of high subcooling on two-phase spray cooling and critical heat flux. International Journal of Heat and Mass Transfer, 2008, 51, 5269-5278.	4.8	86
79	Low-temperature two-phase micro-channel cooling for high-heat-flux thermal management of defense electronics. Intersociety Conference on Thermal and Thermomechanical Phenomena in Electronic Systems, 2008, , .	0.0	11
80	Assessment of the effectiveness of nanofluids for single-phase and two-phase heat transfer in micro-channels. International Journal of Heat and Mass Transfer, 2007, 50, 452-463.	4.8	546
81	CHF model for subcooled flow boiling in Earth gravity and microgravity. International Journal of Heat and Mass Transfer, 2007, 50, 4039-4051.	4.8	35
82	Experimental and numerical investigation of single-phase heat transfer using a hybrid jet-impingement/micro-channel cooling scheme. International Journal of Heat and Mass Transfer, 2006, 49, 682-694.	4.8	122
83	Implementation of Microchannel Evaporator for High-Heat-Flux Refrigeration Cooling Applications. Journal of Electronic Packaging, Transactions of the ASME, 2006, 128, 30-37.	1.8	29
84	Two-phase flow in high-heat-flux micro-channel heat sink for refrigeration cooling applications: Part I – pressure drop characteristics. International Journal of Heat and Mass Transfer, 2005, 48, 928-940.	4.8	273
85	Flow boiling CHF in microgravity. International Journal of Heat and Mass Transfer, 2005, 48, 3107-3118.	4.8	103
86	Two-phase flow in high-heat-flux micro-channel heat sink for refrigeration cooling applications: Part II – heat transfer characteristics. International Journal of Heat and Mass Transfer, 2005, 48, 941-955.	4.8	349
87	A Leidenfrost Point Model for Impinging Droplets and Sprays. Journal of Heat Transfer, 2004, 126, 272-278.	2.1	103
88	Measurement and correlation of critical heat flux in two-phase micro-channel heat sinks. International Journal of Heat and Mass Transfer, 2004, 47, 2045-2059.	4.8	384
89	Transport Phenomena in Two-Phase Micro-Channel Heat Sinks. Journal of Electronic Packaging, Transactions of the ASME, 2004, 126, 213-224.	1.8	134
90	Flow boiling heat transfer in two-phase micro-channel heat sinks – II. Annular two-phase flow model. International Journal of Heat and Mass Transfer, 2003, 46, 2773-2784.	4.8	190

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91	Experimental and numerical study of pressure drop and heat transfer in a single-phase micro-channel heat sink. International Journal of Heat and Mass Transfer, 2002, 45, 2549-2565.	4.8	796
92	Experimental assessment of the effects of body force, surface tension force, and inertia on flow boiling CHF. International Journal of Heat and Mass Transfer, 2002, 45, 4079-4095.	4.8	80
93	Experimental Investigation of Emissivity of Aluminum Alloys and Temperature Determination Using Multispectral Radiation Thermometry (MRT) Algorithms. Journal of Materials Engineering and Performance, 2002, 11, 551-562.	2.5	44
94	Thermal transients in a capillary evaporator prior to the initiation of boiling. International Journal of Heat and Mass Transfer, 2000, 43, 3937-3952.	4.8	73
95	Ultra-high critical heat flux (CHF) for subcooled water flow boilingâ€”I: CHF data and parametric effects for small diameter tubes. International Journal of Heat and Mass Transfer, 1999, 42, 1405-1428.	4.8	158
96	Ultra-high critical heat flux (CHF) for subcooled water flow boilingâ€”II: high-CHF database and design equations. International Journal of Heat and Mass Transfer, 1999, 42, 1429-1456.	4.8	98
97	Evaluation of Subcooled Critical Heat Flux Correlations Using the PU-BTPFL CHF Database for Vertical Upflow of Water in a Uniformly Heated Round Tube. Nuclear Technology, 1997, 117, 234-247.	1.2	58
98	An Ultra-High Power Two-Phase Jet-Impingement Avionic Clamshell Module. Journal of Electronic Packaging, Transactions of the ASME, 1996, 118, 264-270.	1.8	99
99	Effects of heater length and orientation on the trigger mechanism for near-saturated flow boiling critical heat fluxâ€”I. Photographic study and statistical characterization of the near-wall interfacial features. International Journal of Heat and Mass Transfer, 1995, 38, 629-641.	4.8	96
100	Experimental and numerical study of quenching complex-shaped metallic alloys with multiple, overlapping sprays. International Journal of Heat and Mass Transfer, 1995, 38, 1201-1216.	4.8	88
101	Comparison of Two-Phase Electronic Cooling Using Free Jets and Sprays. Journal of Electronic Packaging, Transactions of the ASME, 1995, 117, 323-332.	1.8	104
102	A Multi-Kilowatt Immersion-Cooled Standard Electronic Clamshell Module for Future Aircraft Avionics. Journal of Electronic Packaging, Transactions of the ASME, 1994, 116, 220-229.	1.8	13
103	Two-Phase Electronic Cooling Using Mini-Channel and Micro-Channel Heat Sinks: Part 1â€”Design Criteria and Heat Diffusion Constraints. Journal of Electronic Packaging, Transactions of the ASME, 1994, 116, 290-297.	1.8	84
104	Immersion-Cooled Standard Electronic Clamshell Module: A Building Block for Future High-Flux Avionic Systems. Journal of Electronic Packaging, Transactions of the ASME, 1994, 116, 116-125.	1.8	10
105	SIMULTANEOUS MEASUREMENTS OF THICKNESS AND TEMPERATURE PROFILE IN A WAVY LIQUID FILM FALLING FREELY ON A HEATING WALL. Experimental Heat Transfer, 1991, 4, 217-233.	3.2	8
106	Enhancement of Critical Heat Flux From High Power Microelectronic Heat Sources in a Flow Channel. Journal of Electronic Packaging, Transactions of the ASME, 1990, 112, 241-248.	1.8	39