

Mehmet ArÄ±k

List of Publications by Year in descending order

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103
papers

1,746
citations

394421

19
h-index

377865

34
g-index

104
all docs

104
docs citations

104
times ranked

924
citing authors

#	ARTICLE	IF	CITATIONS
1	Acoustics and Heat Transfer Characteristics of Piezoelectric Driven Central Orifice Synthetic Jet Actuators. <i>Experimental Heat Transfer</i> , 2022, 35, 758-779.	3.2	5
2	Parametric Effects On Pool Boiling Heat Transfer and Critical Heat Flux: A Critical Review. <i>Journal of Electronic Packaging, Transactions of the ASME</i> , 2022, , .	1.8	4
3	Thermal and optical performance characterization of bare and phosphor converted LEDs through package level immersion cooling. <i>International Journal of Heat and Mass Transfer</i> , 2022, 189, 122607.	4.8	8
4	Particle based investigation of self-heating effect of phosphor particles in phosphor converted light emitting diodes. <i>Journal of Luminescence</i> , 2021, 231, 117782.	3.1	10
5	An experimental study on the heat transfer and wettability characteristics of micro-structured surfaces during water vapor condensation under different pressure conditions. <i>International Communications in Heat and Mass Transfer</i> , 2021, 120, 105063.	5.6	9
6	Design and development of a durable series elastic actuator with an optimized spring topology. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2021, 235, 7848-7858.	2.1	13
7	Thermal and Optical Characterization of White and Blue Multi-Chip LED Light Engines. , 2021, , .		2
8	A Numerical Investigation into Frost Formation under Impinging Flow Conditions. , 2021, , .		0
9	Synthetic Jet Cooling Technology for Electronics Thermal Managementâ€™A Critical Review. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2021, 11, 1156-1170.	2.5	12
10	On the Individual Droplet Growth Modeling and Heat Transfer Analysis in Dropwise Condensation. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2021, , 1-1.	2.5	2
11	An Investigation Into the Optothermal Behavior of a High Power Red Light Emitting Diode: Impact of an Optical Path. <i>Journal of Electronic Packaging, Transactions of the ASME</i> , 2021, 143, .	1.8	3
12	Optical and Thermal Analysis of Secondary Optics in Light Emitting Diodesâ€™™ Packaging: Analysis of MR16 Lamp. <i>Journal of Physics: Conference Series</i> , 2021, 2116, 012121.	0.4	3
13	Enhanced Thermal Performance of High Flux LED Systems with Two-Phase Immersion Cooling. , 2020, , .		1
14	Spreading behavior of droplets impacting over substrates with varying surface topographies. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2020, 606, 125385.	4.7	17
15	Rapid Heating And Cooling Chamber for a Photonics Junction Measurement System. , 2020, , .		0
16	An experimental and theoretical analysis of vapor-to-liquid phase change on microstructured surfaces. <i>Applied Thermal Engineering</i> , 2020, 178, 115382.	6.0	0
17	Effect of Polymer Coating on Vapor Condensation Heat Transfer. <i>Journal of Heat Transfer</i> , 2020, 142, .	2.1	7
18	A Comparative Study for the Junction Temperature of Green Light-Emitting Diodes. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2019, 9, 2024-2035.	2.5	9

#	ARTICLE	IF	CITATIONS
19	Impact of Electronics Over Localized Hot Spots in Multi-Chip White LED Light Engines. , 2019, , .		2
20	Impact of Functional Nanofluid Coolant on Radiator Performance. Journal of Thermal Science and Engineering Applications, 2019, 11, .	1.5	5
21	Numerical and experimental analysis of a heat-pipe-embedded printed circuit board for solid state lighting applications. Experimental Heat Transfer, 2019, 32, 1-13.	3.2	11
22	A Comparative Study on the Junction Temperature Measurements of LEDs With Raman Spectroscopy, Microinfrared (IR) Imaging, and Forward Voltage Methods. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2018, 8, 1914-1922.	2.5	16
23	An experimental and analytical study on the influence of superhydrophobic micro-textured surfaces on liquid wetting phenomena. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2018, 555, 191-200.	4.7	7
24	Development of a Computational Modeling and Experimental Validation Approach for KSF LED Packages in a 65â€•Ultra Thin LED TV System. , 2018, , .		1
25	An Investigation of Performance of Synthetic Jets Emanating from Circular, Elliptical and Rectangular Nozzles. , 2018, , .		0
26	Impact of Orifice Size over Mechanical, Flow and Thermal Performances of Synthetic Jets. , 2018, , .		0
27	Conduction-driven cooling of LED-based automotive LED lighting systems for abating local hot spots. Optical Engineering, 2018, 57, 1.	1.0	1
28	Investigation of combined optical and thermal effects on phosphor converted light-emitting diodes with liquid immersion cooling. Optical Engineering, 2018, 57, 1.	1.0	6
29	An Experimental and Computational Study on Efficiency of White LED Packages With a Thermocaloric Approach. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2017, , 1-7.	2.5	5
30	Thermal Performance of a Light Emitting Diode Light Engine for a Multipurpose Automotive Exterior Lighting System With Competing Board Technologies. Journal of Electronic Packaging, Transactions of the ASME, 2017, 139, .	1.8	3
31	Acoustic analysis of an axial fan. , 2017, , .		1
32	Impact of junction temperature over forward voltage drop for red, blue and green high power light emitting diode chips. , 2017, , .		7
33	An experimental and computational investigation of a thin piezofan cooler. , 2017, , .		2
34	FREQUENCY-DEPENDENT FLOW RESPONSE OF A HIGH-SPEED RECTANGULAR SYNTHETIC JET. Journal of Flow Visualization and Image Processing, 2016, 23, 93-116.	0.5	1
35	An investigation into flow and heat transfer for a slot impinging synthetic jet. International Journal of Heat and Mass Transfer, 2016, 100, 634-645.	4.8	37
36	An investigation into flow and heat transfer of an ultrasonic micro-blower device for electronics cooling applications. Applied Thermal Engineering, 2016, 106, 881-889.	6.0	30

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37	Predicting Heat Transfer for Low- and High-Frequency Central-Orifice Synthetic Jets. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2016, 6, 586-595.	2.5	18
38	Heat Transfer Impact of Synthetic Jets for Air-Cooled Array of Fins. Journal of Heat Transfer, 2016, 138, .	2.1	8
39	An Investigation Into Performance Characteristics of an Axial Flow Fan Using CFD for Electronic Devices. , 2015, , .		1
40	Natural Convection Immersion Cooling With Enhanced Optical Performance of Light-Emitting Diode Systems. Journal of Electronic Packaging, Transactions of the ASME, 2015, 137, .	1.8	9
41	A Computational Study on the Momentum and Heat Transfer Distribution of a Low Frequency Round Impinging Synthetic Jet. , 2015, , .		3
42	A Computational and Experimental Investigation of Synthetic Jets for Cooling of Electronics. Journal of Electronic Packaging, Transactions of the ASME, 2015, 137, .	1.8	4
43	An Experimental Study of Impinging Synthetic Jets for Heat Transfer Augmentation. International Journal of Air-Conditioning and Refrigeration, 2015, 23, 1550024.	0.7	16
44	Heat transfer characteristics of impinging steady and synthetic jets over vertical flat surface. International Journal of Heat and Mass Transfer, 2015, 80, 825-834.	4.8	48
45	SYNTHETIC JETS FOR HEAT TRANSFER AUGMENTATION IN MICROELECTRONICS SYSTEMS. WSPC Series in Advanced Integration and Packaging, 2014, , 125-165.	0.0	0
46	Synthetic Jets for Heat Transfer Augmentation in Microelectronics Systems. , 2014, , 109-143.		0
47	Effect of optical design on the thermal management for the Smart TV LED backlight systems. , 2014, , .		2
48	An investigation into momentum and temperature fields of a meso-scale synthetic jet. , 2014, , .		2
49	Developing a standard measurement and calculation procedure for high brightness LED junction temperature. , 2014, , .		7
50	Effect of actuator deflection on heat transfer for low and high frequency synthetic jets. , 2014, , .		11
51	Effect of Direct Liquid Cooling on the Light Emitting Diode Local Hot Spots: Natural Convection Immersion Cooling. , 2014, , .		2
52	Steady and Unsteady Air Impingement Heat Transfer for Electronics Cooling Applications. Journal of Heat Transfer, 2013, 135, .	2.1	26
53	Hierarchical Reliability Assessment Models for Novel LED-Based Recessed Down Lighting Systems. , 2013, , 455-495.		0
54	Characteristics of low reynolds number steady air jet impingement heat transfer over vertical flat surfaces. , 2012, , .		0

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55	Comparison of synthetic and steady air jets for impingement heat transfer over vertical surfaces. , 2012, , .		2
56	Predicting Heat Transfer From Unsteady Synthetic Jets. Journal of Heat Transfer, 2012, 134, .	2.1	25
57	Life prediction of LED-based recess downlight cooled by synthetic jet. Microelectronics Reliability, 2012, 52, 937-948.	1.7	16
58	Fluid-Structure Interaction Model for Low-Frequency Synthetic Jets. AIAA Journal, 2011, 49, 316-323.	2.6	13
59	Pool Boiling Critical Heat Flux in Dielectric Liquids and Nanofluids. Advances in Heat Transfer, 2011, 43, 1-76.	0.9	8
60	Energy Conversion Efficiency of Synthetic Jets. , 2011, , .		7
61	System-Level Metrics for Thermal Management Technology. Journal of Thermal Science and Engineering Applications, 2011, 3, .	1.5	4
62	Hierarchical Reliability Model for Life Prediction of Actively Cooled LED-Based Luminaire. Conference Proceedings of the Society for Experimental Mechanics, 2011, , 189-190.	0.5	0
63	On the Conduction and Convection Heat Transfer From Lightweight Advanced Heat Sinks. IEEE Transactions on Components and Packaging Technologies, 2010, 33, 424-431.	1.3	17
64	Environmental and economical impact of LED lighting systems and effect of thermal management. International Journal of Energy Research, 2010, 34, 1195-1204.	4.5	23
65	Pool boiling of perfluorocarbon mixtures on silicon surfaces. International Journal of Heat and Mass Transfer, 2010, 53, 5596-5604.	4.8	24
66	Development of a measurement technique for highly conductive CVD diamonds and analysis of uncertainties due to 3D heat losses. , 2010, , .		0
67	Nano-thermotunneling systems for efficient power generation. , 2010, , .		2
68	Hierarchical Life Prediction Model for Actively Cooled LED-Based Luminaire. IEEE Transactions on Components and Packaging Technologies, 2010, 33, 728-737.	1.3	33
69	Development of a High-Lumen Solid State Down Light Application. IEEE Transactions on Components and Packaging Technologies, 2010, 33, 668-679.	1.3	11
70	Editorial For a Brighter Future: Solid State Lighting. IEEE Transactions on Components and Packaging Technologies, 2010, 33, 666-667.	1.3	1
71	Optimization of Piezoelectric Oscillating Fan-Cooled Heat Sinks for Electronics Cooling. IEEE Transactions on Components and Packaging Technologies, 2010, 33, 25-31.	1.3	63
72	Light Weight High Performance Thermal Management With Advanced Heat Sinks and Extended Surfaces. IEEE Transactions on Components and Packaging Technologies, 2010, 33, 161-166.	1.3	26

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73	Understanding the performance metrics for advanced cooling methodologies. , 2010, , .		2
74	Immersion Cooling of Light Emitting Diodes. , 2010, , .		4
75	Solid State Thermotunneling Systems for Power Generation. Nanoscience and Nanotechnology Letters, 2010, 2, 189-195.	0.4	3
76	Thermal Characteristics of a Synthetic Jet Integrated Heat Sink Design for Air-Cooled Electronics. , 2009, , .		3
77	Sweeping Flow Heat Transfer With Piezoelectric Fans Over Vertical Flat Surfaces. , 2009, , .		3
78	Coupled Structural and Fluid Dynamics Modeling of a Synthetic Jet. , 2008, , .		2
79	Local Heat Transfer Coefficients of a High-Frequency Synthetic Jet during Impingement Cooling over Flat Surfaces. Heat Transfer Engineering, 2008, 29, 763-773.	1.9	89
80	An Experimental and Computational Heat Transfer Study of Pulsating Jets. Journal of Heat Transfer, 2008, 130, .	2.1	33
81	Effect of Synthetic Jets Over Natural Convection Heat Sinks. , 2008, , .		5
82	Piezoelectric Fans: Heat Transfer Enhancements for Electronics Cooling. , 2008, , .		7
83	Chip to System Levels Thermal Needs and Alternative Thermal Technologies for High Brightness LEDs. Journal of Electronic Packaging, Transactions of the ASME, 2007, 129, 328-338.	1.8	31
84	Interaction of Synthetic Jet Cooling Performance With Gravity and Buoyancy Driven Flows. , 2007, , 123.		11
85	Energy Efficiency of Low Form Factor Cooling Devices. , 2007, , 1347.		19
86	An investigation into feasibility of impingement heat transfer and acoustic abatement of meso scale synthetic jets. Applied Thermal Engineering, 2007, 27, 1483-1494.	6.0	105
87	Enhancement of pool boiling critical heat flux in dielectric liquids by microporous coatings. International Journal of Heat and Mass Transfer, 2007, 50, 997-1009.	4.8	100
88	Coupled Acoustic and Heat Transfer Modeling of a Synthetic Jet. , 2006, , .		13
89	An Experimental and Computational Sensitivity Analysis of Synthetic Jet Cooling Performance. , 2006, , 93.		15
90	Effect of 3D Diffusion Over Vertical Thin Rectangular Geometries in Natural Convection Heat Transfer. , 2006, , .		2

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91	Impingement Air Cooling With Synthetic Jets Over Small and Large Heated Surfaces. , 2005, , 277.		5
92	Meso Scale Pulsating Jets for Electronics Cooling. Journal of Electronic Packaging, Transactions of the ASME, 2005, 127, 503-511.	1.8	78
93	Effect of chip and bonding defects on the junction temperatures of high-brightness light-emitting diodes. Optical Engineering, 2005, 44, 111305.	1.0	34
94	Design, fabrication, and characterization of thin film PZT membranes for high flux electronics cooling applications. Smart Materials and Structures, 2005, 14, 1239-1249.	3.5	5
95	Thermal Needs and Challenges for the Solid State Lighting Devices: Materials to Packages. , 2005, , .		0
96	Chip-scale thermal management of high-brightness LED packages. , 2004, , .		68
97	Micro Fluidic Jets for Thermal Management of Electronics. , 2004, , 647.		29
98	Thermal management of LEDs: package to system. , 2004, , .		189
99	Effusivity-based correlation of surface property effects in pool boiling CHF of dielectric liquids. International Journal of Heat and Mass Transfer, 2003, 46, 3755-3764.	4.8	117
100	Effects of Localized Heat Generations Due to the Color Conversion in Phosphor Particles and Layers of High Brightness Light Emitting Diodes. , 2003, , 611.		42
101	Synthetic jet enhancement of natural convection and pool boiling in a dielectric liquid. , 2002, , .		7
102	Fabrication and structural characterization of a resonant frequency PZT microcantilever. Smart Materials and Structures, 2001, 10, 252-263.	3.5	46
103	Turbulent forced convection with sinusoidal variation of inlet temperature between two parallel-plates. International Communications in Heat and Mass Transfer, 1996, 23, 1121-1132.	5.6	7