Marc Hodes

List of Publications by Year
in descending order

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Version: 2024-02-01

50 papers	1,238 citations	623734 14 h-index	377865 34 g-index
51 all docs	51 docs citations	51 times ranked	1145 citing authors

#	Article	IF	Citations
1	Two-Dimensional Numerical Analysis of Gas Diffusion-Induced Cassie to Wenzel State Transition. Journal of Heat Transfer, 2021, 143, .	2.1	2
2	Thermocapillary stress and meniscus curvature effects on slip lengths in ridged microchannels. Journal of Fluid Mechanics, 2020, 894, .	3.4	10
3	Simultaneous Optimization of an Array of Heat Sinks. Journal of Electronic Packaging, Transactions of the ASME, 2019, 141, .	1.8	2
4	Effect of Surface Curvature on Contact Resistance Between Cylinders. Journal of Heat Transfer, 2019, 141, .	2.1	2
5	Effects of slowly varying meniscus curvature on internal flows in the Cassie state. Journal of Fluid Mechanics, 2019, 872, 272-307.	3.4	15
6	Conjugate Nusselt Numbers for Simultaneously Developing Flow Through Rectangular Ducts. Journal of Heat Transfer, 2019, 141, .	2.1	0
7	Nusselt Numbers for Poiseuille Flow Over Isoflux Parallel Ridges for Arbitrary Meniscus Curvature. Journal of Heat Transfer, 2018, 140, .	2.1	13
8	Solution of the Extended Graetzâ€“Nusselt Problem for Liquid Flow Over Isothermal Parallel Ridges. Journal of Heat Transfer, 2018, 140, .	2.1	2
9	Spreading and Contact Resistance Formulae Capturing Boundary Curvature and Contact Distribution Effects. Journal of Heat Transfer, 2018, 140, .	2.1	2
10	Algorithm for Simultaneous Optimization of an Array of Heat Sinks. , 2018, , .		0
11	Effect of thermocapillary stress on slip length for a channel textured with parallel ridges. Journal of Fluid Mechanics, 2017, 814, 301-324.	3.4	18
12	One-Dimensional Analysis of Gas Diffusion-Induced Cassie to Wenzel State Transition. Journal of Heat Transfer, 2017, 139, .	2.1	6
13	Solution of the Graetzâ€“Nusselt Problem for Liquid Flow Over Isothermal Parallel Ridges. Journal of Heat Transfer, 2017, 139, .	2.1	4
14	Nusselt numbers for Poiseuille flow over isoflux parallel ridges accounting for meniscusÂcurvature. Journal of Fluid Mechanics, 2017, 811, 315-349.	3.4	27
15	Effect of Meniscus Curvature on Apparent Thermal Slip. Journal of Heat Transfer, 2016, 138, .	2.1	8
16	Longitudinal-Fin Heat Sink Optimization Capturing Conjugate Effects Under Fully Developed Conditions. Journal of Thermal Science and Engineering Applications, 2016, 8, .	1.5	3
17	Analysis of Galinstan-Based Microgap Cooling Enhancement Using Structured Surfaces. Journal of Heat Transfer, 2015, 137, .	2.1	31
18	Water-Based Microchannel and Galinstan-Based Minichannel Cooling Beyond 1 kW/cm<inline-formula> <tex-math notation="LaTeX">^{2} </tex-math></inline-formula> Heat Flux. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2015, 5, 762-770.	2.5	32

#	Article	IF	Citations
19	Effect of Evaporation and Condensation at Menisci on Apparent Thermal Slip. Journal of Heat Transfer, 2015, 137, .	2.1	19
20	Nusselt Numbers for Thermally Developing Couette Flow With Hydrodynamic and Thermal Slip. Journal of Heat Transfer, 2014, 136, .	2.1	7
21	Isoflux Nusselt Number and Slip Length Formulae for Superhydrophobic Microchannels. Journal of Heat Transfer, 2014, 136, .	2.1	49
22	Optimal Design of Thermoelectric Generators Embedded in a Thermal Resistance Network. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2014, 4, 612-621.	2.5	15
23	High heat flux, single-phase microchannel cooling. , 2014, , .		2
24	On the Potential of Galinstan-Based Minichannel and Minigap Cooling. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2014, 4, 46-56.	2.5	71
25	Thermo-fluid characteristics of a minichannel heat sink cooled with liquid metal. , 2013, , .		4
26	Capillary-Driven Evaporation-Enhanced Heat Sink. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2013, 3, 1683-1692.	2.5	1
27	Reduced Power Precision Temperature Control Using Variable Conductance Heat Pipes. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2013, 3, 2048-2058.	2.5	3
28	Thermoelectric Module-Variable Conductance Heat Pipe Assemblies for Reduced Power Temperature Control. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2012, 2, 474-482.	2.5	9
29	Cooling potential of galinstan-based minichannel heat sinks. , 2012, , .		11
30	Determination of Electrical Contact Resistivity in Thermoelectric Modules (TEMs) From Module-Level Measurements. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2012, 2, 668-676.	2.5	14
31	Optimal Design of Thermoelectric Refrigerators Embedded in a Thermal Resistance Network. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2012, 2, 483-495.	2.5	13
32	Optimized Thermoelectric Module-Heat Sink Assemblies for Precision Temperature Control. Journal of Electronic Packaging, Transactions of the ASME, 2012, 134, .	1.8	3
33	Characterization and Optimization of Fluid Flow in a High Biot Number System. Materials Research Society Symposia Proceedings, 2011, 1306, 1.	0.1	0
34	Analysis of evaporating mist flow for enhanced convective heat transfer. International Journal of Heat and Mass Transfer, 2010, 53, 3346-3356.	4.8	61
35	Optimal Pellet Geometries for Thermoelectric Power Generation. IEEE Transactions on Components and Packaging Technologies, 2010, 33, 307-318.	1.3	47
36	Energy savings achievable through liquid cooling: A rack level case study. , 2010, , .		9

#	Article	IF	Citations
37	Thermal management: Enabling enhanced functionality and reduced carbon footprint. Bell Labs Technical Journal, 2009, 14, 7-19.	0.7	1
38	Numerical Analysis of Mist-Cooled High Power Components in Cabinets. , 2009, , .		4
39	Enhanced cooling in a sealed cabinet using an evaporating-condensing dielectric mist. Intersociety Conference on Thermal and Thermomechanical Phenomena in Electronic Systems, 2008, , .	0.0	5
40	Reversible Wettingâ˜Dewetting Transitions on Electrically Tunable Superhydrophobic Nanostructured Surfaces. Langmuir, 2007, 23, 9128-9133.	3.5	251
41	Efficient Cooling of Multiple Components in a Shielded Circuit Pack. Journal of Electronic Packaging, Transactions of the ASME, 2007, 129, 216-218.	1.8	0
42	Friction Factors and Nusselt Numbers in Microchannels With Superhydrophobic Walls. , 2006, , 599.		11
43	Efficient Cooling of Multiple Components in a Shielded Circuit Pack. , 2005, , 71.		1
44	Electrically tunable superhydrophobic nanostructured surfaces. Bell Labs Technical Journal, 2005, 10, 161-170.	0.7	32
45	Salt precipitation and scale control in supercritical water oxidationâ€”part B: commercial/full-scale applications. Journal of Supercritical Fluids, 2004, 29, 289-312.	3.2	164
46	Salt precipitation and scale control in supercritical water oxidationâ€”Part A: fundamentals and research. Journal of Supercritical Fluids, 2004, 29, 265-288.	3.2	198
47	Salt solubility and deposition in high temperature and pressure aqueous solutions. AICHE Journal, 2004, 50, 2038-2049.	3.6	37
48	Salt Precipitation and Scale Control in Supercritical Water Oxidation â€” Part B: Commercial/Full-Scale Applications. ChemInform, 2004, 35, no.	0.0	1
49	A Natural Convection Model for the Rate of Salt Deposition From Near-Supercritical, Aqueous Solutions. Journal of Heat Transfer, 2003, 125, 1027-1037.	2.1	10
50	On the Potential for Homogeneous Nucleation of Salt From Aqueous Solution in a Natural Convection Boundary Layer. Journal of Heat Transfer, 2002, 124, 930-937.	2.1	8