Kenneth E Goodson

List of Publications by Year
in descending order

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206 papers	15,269 citations	23544 58 h-index	18115 120 g-index
209 all docs	209 docs citations	209 times ranked	13038 citing authors

#	Article	IF	Citations
1	Nanoscale thermal transport. Journal of Applied Physics, 2003, 93, 793-818.	1.1	2,519
2	Phase Change Memory. Proceedings of the IEEE, 2010, 98, 2201-2227.	16.4	1,420
3	Nanoscale thermal transport. II. 2003â€“2012. Applied Physics Reviews, 2014, 1, 011305.	5.5	1,277
4	A benchmark study on the thermal conductivity of nanofluids. Journal of Applied Physics, 2009, 106, .	1.1	897
5	Thermal Conduction in Aligned Carbon Nanotubeâ€“Polymer Nanocomposites with High Packing Density. ACS Nano, 2011, 5, 4818-4825.	7.3	425
6	Material and manufacturing cost considerations for thermoelectrics. Renewable and Sustainable Energy Reviews, 2014, 32, 313-327.	8.2	386
7	Thermal conduction phenomena in carbon nanotubes and related nanostructured materials. Reviews of Modern Physics, 2013, 85, 1295-1326.	16.4	365
8	Electrical and thermal transport in metallic single-wall carbon nanotubes on insulating substrates. Journal of Applied Physics, 2007, 101, 093710.	1.1	310
9	Integrated Microchannel Cooling for Three-Dimensional Electronic Circuit Architectures. Journal of Heat Transfer, 2005, 127, 49-58.	1.2	261
10	Managing heat for electronics. Materials Today, 2005, 8, 30-35.	8.3	227
11	3-Omega Measurements of Vertically Oriented Carbon Nanotubes on Silicon. Journal of Heat Transfer, 2006, 128, 1109-1113.	1.2	212
12	$ per W metrics for thermoelectric power generation: beyond ZT. Energy and Environmental Science, 2013, 6, 2561-2571.	15.6	201
13	Phase change phenomena in silicon microchannels. International Journal of Heat and Mass Transfer, 2005, 48, 1572-1582.	2.5	189
14	Atomic force microscope cantilevers for combined thermomechanical data writing and reading. Applied Physics Letters, 2001, 78, 1300-1302.	1.5	163
15	Analytic band Monte Carlo model for electron transport in Si including acoustic and optical phonon dispersion. Journal of Applied Physics, 2004, 96, 4998-5005.	1.1	163
16	HEAT CONDUCTION IN NOVEL ELECTRONIC FILMS. Annual Review of Materials Research, 1999, 29, 261-293.	5.5	161
17	Thermal Properties of Ultrathin Hafnium Oxide Gate Dielectric Films. IEEE Electron Device Letters, 2009, 30, 1269-1271.	2.2	145
18	Sub-Continuum Simulations of Heat Conduction in Silicon-on-Insulator Transistors. Journal of Heat Transfer, 2001, 123, 130-137.	1.2	132

#	Article	IF	Citations
19	Temperature-Dependent Thermal Boundary Conductance of Monolayer MoS₂ by Raman Thermometry. ACS Applied Materials & Interfaces, 2017, 9, 43013-43020.	4.0	125
20	Energy-Efficient Phase-Change Memory with Graphene as a Thermal Barrier. Nano Letters, 2015, 15, 6809-6814.	4.5	121
21	Thickness and stoichiometry dependence of the thermal conductivity of GeSbTe films. Applied Physics Letters, 2007, 91, .	1.5	112
22	The Impact of Thermal Boundary Resistance in Phase-Change Memory Devices. IEEE Electron Device Letters, 2008, 29, 1112-1114.	2.2	111
23	Measurement of the Thermal Conductivity and Heat Capacity of Freestanding Shape Memory Thin Films Using the 3Ï‰ Method. Journal of Heat Transfer, 2008, 130, .	1.2	110
24	Thermal Boundary Resistance Measurements for Phase-Change Memory Devices. IEEE Electron Device Letters, 2010, 31, 56-58.	2.2	105
25	An electrochemical thermal transistor. Nature Communications, 2018, 9, 4510.	5.8	105
26	Ultrafast Characterization of Phase-Change Material Crystallization Properties in the Melt-Quenched Amorphous Phase. Nano Letters, 2014, 14, 3419-3426.	4.5	102
27	Fundamental Cooling Limits for High Power Density Gallium Nitride Electronics. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2015, 5, 737-744.	1.4	100
28	From the Casimir Limit to Phononic Crystals: 20 Years of Phonon Transport Studies Using Silicon-on-Insulator Technology. Journal of Heat Transfer, 2013, 135, .	1.2	99
29	Thermal Conduction in Vertically Aligned Copper Nanowire Arrays and Composites. ACS Applied Materials & Interfaces, 2015, 7, 19251-19259.	4.0	99
30	Modulation of thermal and thermoelectric transport in individual carbon nanotubes by fullerene encapsulation. Nature Materials, 2017, 16, 892-897.	13.3	99
31	Embedded cooling with 3D manifold for vehicle power electronics application: Single-phase thermal-fluid performance. International Journal of Heat and Mass Transfer, 2019, 130, 1108-1119.	2.5	97
32	Improved Thermal Interfaces of GaNâ€“Diamond Composite Substrates for HEMT Applications. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2013, 3, 79-85.	1.4	91
33	Thermal Phenomena in Nanoscale Transistors. Journal of Electronic Packaging, Transactions of the ASME, 2006, 128, 102-108.	1.2	89
34	Phonon scattering in strained transition layers for GaN heteroepitaxy. Physical Review B, 2014, 89, .	1.1	89
35	Hydraulic and thermal characteristics of a vapor venting two-phase microchannel heat exchanger. International Journal of Heat and Mass Transfer, 2011, 54, 5504-5516.	2.5	87
36	Anisotropic and inhomogeneous thermal conduction in suspended thin-film polycrystalline diamond. Journal of Applied Physics, 2016, 119, .	1.1	86

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37	Integrated cooling (i-Cool) textile of heat conduction and sweat transportation for personal perspiration management. Nature Communications, 2021, 12, 6122.	5.8	86
38	Multimode thermoelastic dissipation. Journal of Applied Physics, 2009, 105, .	1.1	84
39	Aggregate fractal dimensions and thermal conduction in nanofluids. Journal of Applied Physics, 2010, 108, .	1.1	84
40	Extreme Twoâ€Phase Cooling from Laserâ€Etched Diamond and Conformal, Templateâ€Fabricated Microporous Copper. Advanced Functional Materials, 2017, 27, 1703265.	7.8	83
41	Low Thermal Resistances at GaNâ€“SiC Interfaces for HEMT Technology. IEEE Electron Device Letters, 2012, 33, 378-380.	2.2	82
42	Fully Coupled Nonequilibrium Electronâ€“Phonon Transport in Nanometer-Scale Silicon FETs. IEEE Transactions on Electron Devices, 2008, 55, 220-232.	1.6	76
43	Power density optimization for micro thermoelectric generators. Energy, 2015, 93, 2006-2017.	4.5	76
44	Thermal conductivity of crystalline AlN and the influence of atomic-scale defects. Journal of Applied Physics, 2019, 126, .	1.1	75
45	Direct Visualization of Thermal Conductivity Suppression Due to Enhanced Phonon Scattering Near Individual Grain Boundaries. Nano Letters, 2018, 18, 3466-3472.	4.5	74
46	Thermal conductivity anisotropy and grain structure in Ge2Sb2Te5 films. Journal of Applied Physics, 2011, 109, .	1.1	72
47	Cool electronics. Nature Materials, 2015, 14, 136-137.	13.3	72
48	Quasi-ballistic Electronic Thermal Conduction in Metal Inverse Opals. Nano Letters, 2016, 16, 2754-2761.	4.5	72
49	Evaluating Broader Impacts of Nanoscale Thermal Transport Research. Nanoscale and Microscale Thermophysical Engineering, 2015, 19, 127-165.	1.4	69
50	Phonon and electron transport through Ge2Sb2Te5 films and interfaces bounded by metals. Applied Physics Letters, 2013, 102, .	1.5	68
51	Temperature-Dependent Phonon Conduction and Nanotube Engagement in Metalized Single Wall Carbon Nanotube Films. Nano Letters, 2010, 10, 2395-2400.	4.5	66
52	Monte Carlo simulation of Joule heating in bulk and strained silicon. Applied Physics Letters, 2005, 86, 082101.	1.5	65
53	Diffusion, aggregation, and the thermal conductivity of nanofluids. Applied Physics Letters, 2008, 93, .	1.5	65
54	Electrical and Thermal Conduction in Atomic Layer Deposition Nanobridges Down to 7 nm Thickness. Nano Letters, 2012, 12, 683-686.	4.5	64

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55	Phonon conduction in GaN-diamond composite substrates. Journal of Applied Physics, 2017, 121, .	1.1	62
56	Comparison of thermal and piezoresistive sensing approaches for atomic force microscopy topography measurements. Applied Physics Letters, 2004, 85, 2086-2088.	1.5	61
57	Quasi-Ballistic Thermal Transport Across MoS₂ Thin Films. Nano Letters, 2019, 19, 2434-2442.	4.5	61
58	Thermal Modeling of Extreme Heat Flux Microchannel Coolers for GaN-on-SiC Semiconductor Devices. Journal of Electronic Packaging, Transactions of the ASME, 2016, 138, .	1.2	60
59	Resistance and Threshold Switching Voltage Drift Behavior in Phase-Change Memory and Their Temperature Dependence at Microsecond Time Scales Studied Using a Micro-Thermal Stage. IEEE Transactions on Electron Devices, 2011, 58, 584-592.	1.6	58
60	Phonon Dominated Heat Conduction Normal to Mo/Si Multilayers with Period below 10 nm. Nano Letters, 2012, 12, 3121-3126.	4.5	58
61	Impact of thermoelectric phenomena on phase-change memory performance metrics and scaling. Nanotechnology, 2012, 23, 205201.	1.3	56
62	Phonon Conduction in Periodically Porous Silicon Nanobridges. Nanoscale and Microscale Thermophysical Engineering, 2012, 16, 199-219.	1.4	54
63	Dense Vertically Aligned Copper Nanowire Composites as High Performance Thermal Interface Materials. ACS Applied Materials & Interfaces, 2017, 9, 42067-42074.	4.0	51
64	Phase purity and the thermoelectric properties of Ge2Sb2Te5 films down to 25â€‰nm thickness. Journal of Applied Physics, 2012, 112, .	1.1	49
65	Enhanced Capillaryâ€Fed Boiling in Copper Inverse Opals via Template Sintering. Advanced Functional Materials, 2018, 28, 1803689.	7.8	46
66	Heat Conduction through a DNAâ^'Gold Composite. Nano Letters, 2009, 9, 2005-2009.	4.5	45
67	Temperature-dependent aggregation and diffusion in nanofluids. International Journal of Heat and Mass Transfer, 2011, 54, 797-806.	2.5	45
68	Impact of nanotube density and alignment on the elastic modulus near the top and base surfaces of aligned multi-walled carbon nanotube films. Carbon, 2012, 50, 3789-3798.	5.4	45
69	Mechanical characterization of aligned multi-walled carbon nanotube films using microfabricated resonators. Carbon, 2012, 50, 347-355.	5.4	44
70	Convective Performance of Nanofluids in a Laminar Thermally Developing Tube Flow. Journal of Heat Transfer, 2009, 131, .	1.2	43
71	Influence of film thickness and cross-sectional geometry on hydrophilic microchannel condensation. International Journal of Multiphase Flow, 2010, 36, 608-619.	1.6	41
72	Impact of wall hydrophobicity on condensation flow and heat transfer in silicon microchannels. Journal of Micromechanics and Microengineering, 2010, 20, 045018.	1.5	40

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73	Zipping, entanglement, and the elastic modulus of aligned single-walled carbon nanotube films. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 20426-20430.	3.3	40
74	Thermal conduction in latticeâ€“matched superlattices of InGaAs/InAlAs. Applied Physics Letters, 2014, 105, .	1.5	39
75	Single-phase thermal and hydraulic performance of embedded silicon micro-pin fin heat sinks using R245fa. International Journal of Heat and Mass Transfer, 2019, 141, 145-155.	2.5	38
76	Cooling Limits for GaN HEMT Technology. , 2013, , .		37
77	Thermal conduction inhomogeneity of nanocrystalline diamond films by dual-side thermoreflectance. Applied Physics Letters, 2013, 102, .	1.5	37
78	High temperature thermal properties of thin tantalum nitride films. Applied Physics Letters, 2011, 99, .	1.5	36
79	Infrared Microscopy Thermal Characterization of Opposing Carbon Nanotube Arrays. Journal of Heat Transfer, 2007, 129, 91-93.	1.2	35
80	Optimizing the design of composite phase change materials for high thermal power density. Journal of Applied Physics, 2018, 124, .	1.1	35
81	Understanding the switching mechanism of interfacial phase change memory. Journal of Applied Physics, 2019, 125, .	1.1	35
82	Nanofluid Convection in Microtubes. Journal of Heat Transfer, 2010, 132, .	1.2	34
83	Improving the performance of Ge2Sb2Te5 materials via nickel doping: Towards RF-compatible phase-change devices. Applied Physics Letters, 2018, 113, 171903.	1.5	34
84	Achieving High Thermoelectric Performance and Metallic Transport in Solventâ€Sheared PEDOT:PSS. Advanced Electronic Materials, 2021, 7, 2001190.	2.6	32
85	Strongly tunable anisotropic thermal transport in MoS ₂ by strain and lithium intercalation: first-principles calculations. 2D Materials, 2019, 6, 025033.	2.0	31
86	Uncovering Thermal and Electrical Properties of Sb₂Te₃/GeTe Superlattice Films. Nano Letters, 2021, 21, 5984-5990.	4.5	31
87	A machine learning approach for predicting heat transfer characteristics in micro-pin fin heat sinks. International Journal of Heat and Mass Transfer, 2022, 194, 123087.	2.5	31
88	Submicron thermocouple measurements of electron-beam resist heating. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2002, 20, 3044.	1.6	30
89	Thermal microdevices for biological and biomedical applications. Journal of Thermal Biology, 2011, 36, 209-218.	1.1	29
90	Electrothermal Modeling and Design Strategies for Multibit Phase-Change Memory. IEEE Transactions on Electron Devices, 2012, 59, 3561-3567.	1.6	28

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91	Phonon Conduction in Silicon Nanobeam Labyrinths. Scientific Reports, 2017, 7, 6233.	1.6	28
92	Phase and thickness dependent modulus of Ge₂Sb₂Te₅ films down to 25â€‰nm thickness. Applied Physics Letters, 2012, 100, 161905.	1.5	27
93	Adiabatic and diabatic two-phase venting flow in a microchannel. International Journal of Multiphase Flow, 2011, 37, 1135-1146.	1.6	26
94	Anti-Hermitian photodetector facilitating efficient subwavelength photon sorting. Nature Communications, 2018, 9, 316.	5.8	26
95	Porous micropillar structures for retaining low surface tension liquids. Journal of Colloid and Interface Science, 2018, 514, 316-327.	5.0	25
96	Phase Change Dynamics and Two-Dimensional 4-Bit Memory in Ge₂Sb₂Te₅ via Telecom-Band Encoding. ACS Photonics, 2020, 7, 480-487.	3.2	25
97	Thermal design and management of micro-pin fin heat sinks for energy-efficient three-dimensional stacked integrated circuits. International Journal of Heat and Mass Transfer, 2021, 175, 121192.	2.5	24
98	Microchannel cooling strategies for high heat flux (1 kW/cm²) power electronic applications. , 2017, , .		23
99	Phonon conduction in silicon nanobeams. Applied Physics Letters, 2017, 110, .	1.5	22
100	Applications of micron-scale passive diamond layers for the integrated circuits and microelectromechanical systems industries. Diamond and Related Materials, 1998, 7, 1-14.	1.8	21
101	ADVANCED COOLING TECHNOLOGIES FOR MICROPROCESSORS. International Journal of High Speed Electronics and Systems, 2006, 16, 301-313.	0.3	21
102	Thermal conduction properties of Mo/Si multilayers for extreme ultraviolet optics. Journal of Applied Physics, 2012, 112, 083504.	1.1	20
103	Enhanced phonon scattering by nanovoids in high thermoelectric power factor polysilicon thin films. Applied Physics Letters, 2016, 109, .	1.5	20
104	Optimized Thermoelectric Refrigeration in the Presence of Thermal Boundary Resistance. IEEE Transactions on Advanced Packaging, 2009, 32, 423-430.	1.7	19
105	Heat Capacity, Thermal Conductivity, and Interface Resistance Extraction for Single-Walled Carbon Nanotube Films Using Frequency-Domain Thermoreflectance. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2013, 3, 1524-1532.	1.4	18
106	High-Efficiency Transient Temperature Calculations for Applications in Dynamic Thermal Management of Electronic Devices. Journal of Electronic Packaging, Transactions of the ASME, 2013, 135, .	1.2	18
107	Reactive Metal Bonding of Carbon Nanotube Arrays for Thermal Interface Applications. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2014, 4, 1906-1913.	1.4	18
108	Analysis of oxide (Al2O3, CuO, and ZnO) and CNT nanoparticles disaggregation effect on the thermal conductivity and the viscosity of nanofluids. International Journal of Precision Engineering and Manufacturing, 2014, 15, 703-710.	1.1	18

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109	Burst behavior at a capillary tip: Effect of low and high surface tension. Journal of Colloid and Interface Science, 2015, 455, 1-5.	5.0	18
110	Enhanced Thermal Conduction Through Nanostructured Interfaces. Nanoscale and Microscale Thermophysical Engineering, 2017, 21, 134-144.	1.4	18
111	Tailoring Permeability of Microporous Copper Structures through Template Sintering. ACS Applied Materials & Interfaces, 2018, 10, 30487-30494.	4.0	18
112	Temperature-Dependent Thermal Properties of Phase-Change Memory Electrode Materials. IEEE Electron Device Letters, 2011, 32, 1281-1283.	2.2	17
113	Experimental Characterization of Microfabricated Thermoelectric Energy Harvesters for Smart Sensor and Wearable Applications. Advanced Materials Technologies, 2018, 3, 1700383.	3.0	17
114	Two-Fold Reduction of Switching Current Density in Phase Change Memory Using Biâ„‚Teâ„‚ƒ Thermoelectric Interfacial Layer. IEEE Electron Device Letters, 2020, 41, 1657-1660.	2.2	17
115	Grain Boundaries, Phase Impurities, and Anisotropic Thermal Conduction in Phase-Change Memory. IEEE Electron Device Letters, 2011, 32, 961-963.	2.2	16
116	Tungsten-doped Ge2Sb2Te5 phase change material for high-speed optical switching devices. Applied Physics Letters, 2020, 116, .	1.5	16
117	Engineering Thermal Transport across Layered Grapheneâ€“MoS₂ Superlattices. ACS Nano, 2021, 15, 19503-19512.	7.3	16
118	Thermal Writing and Nanoimaging With a Heated Atomic Force Microscope Cantilever. Journal of Heat Transfer, 2002, 124, 597-597.	1.2	15
119	Two-Phase Microfluidics for Semiconductor Circuits and Fuel Cells. Heat Transfer Engineering, 2006, 27, 53-63.	1.2	15
120	Thermomechanical Formation of Nanoscale Polymer Indents With a Heated Silicon Tip. Journal of Heat Transfer, 2007, 129, 1600-1604.	1.2	15
121	Crystallization properties and their drift dependence in phase-change memory studied with a micro-thermal stage. Journal of Applied Physics, 2011, 110, .	1.1	15
122	Temperature Dependent Thermal Resistances at GaN-Substrate Interfaces in GaN Composite Substrates. , 2012, , .		15
123	Design and optimization of well-ordered microporous copper structure for high heat flux cooling applications. International Journal of Heat and Mass Transfer, 2021, 173, 121241.	2.5	15
124	A hybrid method for bubble geometry reconstruction in two-phase microchannels. Experiments in Fluids, 2006, 40, 847-858.	1.1	14
125	Thermal characterization and analysis of microliter liquid volumes using the three-omega method. Review of Scientific Instruments, 2015, 86, 024901.	0.6	14
126	High heat flux two-phase cooling of electronics with integrated diamond/porous copper heat sinks and microfluidic coolant supply. , 2016, , .		14

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127	Experimental Investigation of Embedded Micropin-Fins for Single-Phase Heat Transfer and Pressure Drop. Journal of Electronic Packaging, Transactions of the ASME, 2018, 140, .	1.2	14
128	Performance and Manufacturing of Silicon-Based Vapor Chambers. Applied Mechanics Reviews, 2021, 73, .	4.5	14
129	Electrothermal phenomena in zinc oxide nanowires and contacts. Applied Physics Letters, 2012, 100, 163105.	1.5	13
130	A reliability study with infrared imaging of thermoelectric modules under thermal cycling. , 2012, , .		13
131	Solder-bonded carbon nanotube thermal interface materials. , 2012, , .		13
132	Thermal Interface Resistance Measurements for GaN-on-Diamond Composite Substrates. , 2014, , .		13
133	Thermal characterization of GaN-on-diamond substrates for HEMT applications. , 2012, , .		12
134	IMPACT OF CVD DIAMOND LAYERS ON THE THERMAL ENGINEERING OF ELECTRONIC SYSTEMS. Annual Review of Heat Transfer, 1995, 6, 323-353.	0.3	12
135	Microthermal Stage for Electrothermal Characterization of Phase-Change Memory. IEEE Electron Device Letters, 2011, 32, 952-954.	2.2	11
136	Thermal conduction in nanoporous copper inverse opal films. , 2014, , .		11
137	Enhanced Heat Transfer Using Microporous Copper Inverse Opals. Journal of Electronic Packaging, Transactions of the ASME, 2018, 140, .	1.2	11
138	Electro-Thermal Confinement Enables Improved Superlattice Phase Change Memory. IEEE Electron Device Letters, 2022, 43, 204-207.	2.2	11
139	Thermoelectric Characterization and Power Generation Using a Silicon-on-Insulator Substrate. Journal of Microelectromechanical Systems, 2012, 21, 4-6.	1.7	10
140	Heat Conductorâ€“Insulator Transition in Electrochemically Controlled Hybrid Superlattices. Nano Letters, 2022, 22, 5443-5450.	4.5	10
141	Effect of thermal cycling on commercial thermoelectric modules. , 2012, , .		9
142	Thermal Conduction across Metalâ€“Dielectric Sidewall Interfaces. ACS Applied Materials & Interfaces, 2017, 9, 30100-30106.	4.0	9
143	Phonon Scattering in Silicon by Multiple Morphological Defects: A Multiscale Analysis. Journal of Electronic Materials, 2018, 47, 5148-5157.	1.0	9
144	Effect of Adventitious Carbon on Pit Formation of Monolayer MoS 2. Advanced Materials, 2020, 32, 2003020.	11.1	9

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145	Nonradiative recombination in strongly interacting silicon nanocrystals embedded in amorphous silicon-oxide films. Physical Review B, 2009, 80, .	1.1	8
146	Thermal conduction normal to thin silicon nitride films on diamond and GaN. , 2014, , .		8
147	Cross-Plane Phonon Conduction in Polycrystalline Silicon Films. Journal of Heat Transfer, 2015, 137, .	1.2	8
148	Tunable, passive thermal regulation through liquid to vapor phase change. Applied Physics Letters, 2019, 115, .	1.5	8
149	Tunable Dielectric and Thermal Properties of Oxide Dielectrics via Substrate Biasing in Plasma-Enhanced Atomic Layer Deposition. ACS Applied Materials & Interfaces, 2020, 12, 44912-44918.	4.0	8
150	Vapor-Venting, Micromachined Heat Exchanger for Electronics Cooling. , 2007, , 951.		7
151	Theoretical and experimental investigation of spatial temperature gradient effects on cells using a microfabricated microheater platform. Sensors and Actuators B: Chemical, 2009, 143, 286-294.	4.0	7
152	Crust removal and effective modulus of aligned multi-walled carbon nanotube films. , 2012, , .		7
153	Cross plane thermal conductance of graphene-metal interfaces. , 2014, , .		7
154	A parametric study of Microporous Metal Matrix-Phase Change Material composite heat spreaders for transient thermal applications. , 2014, , .		7
155	Lithography and Etchingâ€Free Microfabrication of Silicon Carbide on Insulator Using Direct UV Laser Ablation. Advanced Engineering Materials, 2020, 22, 1901173.	1.6	7
156	Thermal Characterization of Metalâ€“Oxide Interfaces Using Time-Domain Thermoreflectance with Nanograting Transducers. ACS Applied Materials & Interfaces, 2021, 13, 58059-58065.	4.0	7
157	Effects of Transient Heating on Two-Phase Flow Response in Microchannel Heat Exchangers. , 2009, , .		6
158	Thermal characterization of nanostructured superlattices of TiN/TaN: Applications as electrodes in Phase Change Memory. , 2014, , .		6
159	Thermoelectric generators: A case study in multi-scale thermal engineering design. Advances in Heat Transfer, 2019, , 299-350.	0.4	6
160	Thermal expansion characterization of thin films using harmonic Joule heating combined with atomic force microscopy. Applied Physics Letters, 2021, 118, .	1.5	6
161	Hydrodynamic and Thermal Performance of a Vapor-Venting Microchannel Copper Heat Exchanger. , 2008, , .		5
162	Effect of Resistance Drift on the Activation Energy for Crystallization in Phase Change Memory. Japanese Journal of Applied Physics, 2012, 51, 02BD06.	0.8	5

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163	Microfluidic Heat Exchangers for High Power Density GaN on SiC. , 2014, , .		5
164	Anisotropic and nonhomogeneous thermal conduction in 1 µm thick CVD diamond. , 2014, , .		5
165	Characterization of the capillary performance of copper inverse opals. , 2016, , .		5
166	Dielectric barrier layers by low-temperature plasma-enhanced atomic layer deposition of silicon dioxide. Thin Solid Films, 2018, 649, 24-29.	0.8	5
167	The Heat Conduction Renaissance. , 2018, , .		5
168	A method for quantifying in plane permeability of porous thin films. Journal of Colloid and Interface Science, 2018, 530, 667-674.	5.0	5
169	Thermal Interface Enhancement via Inclusion of an Adhesive Layer Using Plasma-Enhanced Atomic Layer Deposition. ACS Applied Materials & Interfaces, 2021, 13, 21905-21913.	4.0	5
170	Simultaneous thickness and thermal conductivity measurements of thinned silicon from 100â€‰nm to 17â€‰Î¼m. Applied Physics Letters, 2021, 118, .	1.5	5
171	3D Packaging Materials Based on Graphite Nanoplatelet and Aluminum Nitride Nanocomposites. , 2013, , .		4
172	Reply to the â€˜comment on â€œ$ per W metrics for thermoelectric power generation: beyond ZTâ€â€™ by G. Nunes, Jr, Energy Environ. Sci., 2014, 7, DOI: 10.1039/C3EE43700K. Energy and Environmental Science, 2014, 7, 3441-3442.	15.6	4
173	Nonhomogeneous morphology and the elastic modulus of aligned carbon nanotube films. Journal of Micromechanics and Microengineering, 2015, 25, 115023.	1.5	4
174	Experimental considerations of CVD diamond film measurements using time domain thermoreflectance. , 2017, , .		4
175	Considerations and Challenges for Large Area Embedded Micro-channels with 3D Manifold in High Heat Flux Power Electronics Applications. , 2020, , .		4
176	Nonâ€Contact Mass Density and Thermal Conductivity Measurements of Organic Thin Films Using Frequencyâ€“Domain Thermoreflectance. Advanced Materials Interfaces, 2022, 9, .	1.9	4
177	Temperature-Dependent Permeability of Microporous Membranes for Vapor Venting Heat Exchangers. , 2008, , .		3
178	Decoupled thermal resistances of phase change material and their impact on PCM devices. , 2010, , .		3
179	In-plane thermal conductivity measurement on nanoscale conductive materials with on-substrate device configuration. , 2012, , .		3
180	Mechanical and thermal properties of copper inverse opals for two-phase convection enhancement. , 2014, , .		3

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181	Phase-separation of wetting fluids using nanoporous alumina membranes and micro-glass capillaries. , 2014, , .		3
182	Optimization of hybrid wick structures for extreme spreading in high performance vapor chambers. , 2016, , .		3
183	Tuning electrical and interfacial thermal properties of bilayer MoS₂ via electrochemical intercalation. Nanotechnology, 2021, 32, 265202.	1.3	3
184	Thermal Conductivity Measurements of Interlevel Dielectrics. Materials Research Society Symposia Proceedings, 1997, 473, 279.	0.1	3
185	Thermal and Manufacturing Design Considerations for Silicon-Based Embedded Microchannel-3D Manifold Coolers (EMMCs): Part 1â€"Experimental Study of Single-Phase Cooling Performance With R-245fa. Journal of Electronic Packaging, Transactions of the ASME, 2020, 142, .	1.2	3
186	Thermal conductivity, anisotropy, and interface resistances of diamond on poly-AlN. , 2012, , .		2
187	Nanoscale conformable coatings for enhanced thermal conduction of carbon nanotube films. , 2012, , .		2
188	Copper Inverse Opal Surfaces for Enhanced Boiling Heat Transfer. , 2017, , .		2
189	Microfabrication Challenges for Silicon-based Large Area (>500 mm²) 3D-manifolded Embedded Microcooler Devices for High Heat Flux Removal. , 2020, , .		2
190	Thermal and Manufacturing Design Considerations for Silicon-Based Embedded Microchannel-Three-Dimensional Manifold Coolersâ€"Part 2: Parametric Study of EMMCs for High Heat Flux (â^¼1â€‰kW/cm2) Power Electronics Cooling. Journal of Electronic Packaging, Transactions of the ASME, 2020, 142, .	1.2	2
191	Effect of Resistance Drift on the Activation Energy for Crystallization in Phase Change Memory. Japanese Journal of Applied Physics, 2012, 51, 02BD06.	0.8	2
192	Thermal and Manufacturing Design Considerations for Silicon-Based Embedded Microchannel Three-Dimensional-Manifold Coolers (EMMC)â€"Part 3: Addressing Challenges in Laser Micromachining-Based Manufacturing of Three-Dimensional-Manifolded Microcooler Devices. Journal of Electronic Packaging, Transactions of the ASME, 2020, 142, .	1.2	2
193	Multiobjective Optimization of Graded, Hybrid Micropillar Wicks for Capillary-Fed Evaporation. Langmuir, 2022, 38, 221-230.	1.6	2
194	Nucleation and Growth of Vapor Bubbles in a Heated Silicon Microchannel. Journal of Heat Transfer, 2004, 126, 497-497.	1.2	1
195	Measurement of anisotropy in the thermal conductivity of Ge<inf>2</inf>Sb<inf>2</inf>Te<inf>5</inf> films. , 2009, , .		1
196	Reduced-Order Fluidic Model for Flow Instabilities in Two-Phase Microfluidic Heat Exchangers. , 2010, , .		1
197	Phonon thermal conduction in periodically porous silicon nanobeams. , 2014, , .		1
198	Analytical modeling for prediction of chip package-level thermal performance. , 2016, , .		1

#	Article	IF	Citations
199	ADVANCED COOLING TECHNOLOGIES FOR MICROPROCESSORS. , 2006, , .		1
200	Thermomechanical Formation an Thermal Sensing of Nanometer-Scal Indenatations in PMMA Thin Films for Parallel and Dense AFM Data Storage. Materials Research Society Symposia Proceedings, 2000, 649, 231.	0.1	0
201	Calibration methodology for interposing liquid coolants for infrared thermography of microprocessors. , 2012, , .		0
202	Impact of Annealing on the Thermoelectric Properties of Ge2Sb2Te5 Films. Materials Research Society Symposia Proceedings, 2012, 1490, 223-228.	0.1	0
203	Thermal Management Research â€“ from Power Electronics to Portables. , 2018, , .		0
204	Highly Anisotropic Thermal Conductivity in Spin-Cast Polystyrene Nano-Films. , 2018, , .		0
205	Experimental Study of Single-Phase Cooling with DI Water in An Embedded Microchannels-3D Manifold Cooler. , 2019, , .		0
206	Bicontinuous Mesoporous Metal Foams with Enhanced Conductivity and Tunable Pore Size and Porosity via Electrodeposition for Electrochemical and Thermal Systems. ACS Applied Nano Materials, 2020, 3, 12408-12415.	2.4	0