Kenneth E Goodson

List of Publications by Year
in descending order

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	Electro-Thermal Confinement Enables Improved Superlattice Phase Change Memory. IEEE Electron Device Letters, 2022, 43, 204-207.	2.2	11
2	Multiobjective Optimization of Graded, Hybrid Micropillar Wicks for Capillary-Fed Evaporation. Langmuir, 2022, 38, 221-230.	1.6	2
3	Nonâ€Contact Mass Density and Thermal Conductivity Measurements of Organic Thin Films Using Frequencyâ€“Domain Thermoreflectance. Advanced Materials Interfaces, 2022, 9, .	1.9	4
4	Heat Conductorâ€“Insulator Transition in Electrochemically Controlled Hybrid Superlattices. Nano Letters, 2022, 22, 5443-5450.	4.5	10
5	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
6	Performance and Manufacturing of Silicon-Based Vapor Chambers. Applied Mechanics Reviews, 2021, 73, .	4.5	14
7	Achieving High Thermoelectric Performance and Metallic Transport in Solventâ€Sheared PEDOT:PSS. Advanced Electronic Materials, 2021, 7, 2001190.	2.6	32
8	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
9	Tuning electrical and interfacial thermal properties of bilayer MoS₂ via electrochemical intercalation. Nanotechnology, 2021, 32, 265202.	1.3	3
10	Simultaneous thickness and thermal conductivity measurements of thinned silicon from 100â€‰nm to 17â€‰Î¼m. Applied Physics Letters, 2021, 118, .	1.5	5
11	Thermal expansion characterization of thin films using harmonic Joule heating combined with atomic force microscopy. Applied Physics Letters, 2021, 118, .	1.5	6
12	Uncovering Thermal and Electrical Properties of Sb₂Te₃/GeTe Superlattice Films. Nano Letters, 2021, 21, 5984-5990.	4.5	31
13	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
14	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
15	Integrated cooling (i-Cool) textile of heat conduction and sweat transportation for personal perspiration management. Nature Communications, 2021, 12, 6122.	5.8	86
16	Thermal Characterization of Metalâ€“Oxide Interfaces Using Time-Domain Thermoreflectance with Nanograting Transducers. ACS Applied Materials & Interfaces, 2021, 13, 58059-58065.	4.0	7
17	Engineering Thermal Transport across Layered Grapheneâ€“MoS₂ Superlattices. ACS Nano, 2021, 15, 19503-19512.	7.3	16
18	Effect of Adventitious Carbon on Pit Formation of Monolayer MoS 2. Advanced Materials, 2020, 32, 2003020.	11.1	9

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19	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
20	Considerations and Challenges for Large Area Embedded Micro-channels with 3D Manifold in High Heat Flux Power Electronics Applications. , 2020, , .		4
21	Microfabrication Challenges for Silicon-based Large Area (>500 mm²) 3D-manifolded Embedded Microcooler Devices for High Heat Flux Removal. , 2020, , .		2
22	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
23	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
24	Tungsten-doped Ge2Sb2Te5 phase change material for high-speed optical switching devices. Applied Physics Letters, 2020, 116, .	1.5	16
25	Phase Change Dynamics and Two-Dimensional 4-Bit Memory in Ge₂Sb₂Te₅ via Telecom-Band Encoding. ACS Photonics, 2020, 7, 480-487.	3.2	25
26	Lithography and Etchingâ€Free Microfabrication of Silicon Carbide on Insulator Using Direct UV Laser Ablation. Advanced Engineering Materials, 2020, 22, 1901173.	1.6	7
27	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‰¤1â€‰kW/cm2) Power Electronics Cooling. Journal of Electronic Packaging, Transactions of the ASME, 2020, 142, .	1.2	2
28	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
29	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
30	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
31	Thermoelectric generators: A case study in multi-scale thermal engineering design. Advances in Heat Transfer, 2019, , 299-350.	0.4	6
32	Understanding the switching mechanism of interfacial phase change memory. Journal of Applied Physics, 2019, 125, .	1.1	35
33	Quasi-Ballistic Thermal Transport Across MoS₂ Thin Films. Nano Letters, 2019, 19, 2434-2442.	4.5	61
34	Strongly tunable anisotropic thermal transport in MoS ₂ by strain and lithium intercalation: first-principles calculations. 2D Materials, 2019, 6, 025033.	2.0	31
35	Experimental Study of Single-Phase Cooling with DI Water in An Embedded Microchannels-3D Manifold Cooler. , 2019, , .		0
36	Thermal conductivity of crystalline AlN and the influence of atomic-scale defects. Journal of Applied Physics, 2019, 126, .	1.1	75

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37	Tunable, passive thermal regulation through liquid to vapor phase change. Applied Physics Letters, 2019, 115, .	1.5	8
38	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
39	Experimental Characterization of Microfabricated Thermoelectric Energy Harvesters for Smart Sensor and Wearable Applications. Advanced Materials Technologies, 2018, 3, 1700383.	3.0	17
40	Direct Visualization of Thermal Conductivity Suppression Due to Enhanced Phonon Scattering Near Individual Grain Boundaries. Nano Letters, 2018, 18, 3466-3472.	4.5	74
41	Dielectric barrier layers by low-temperature plasma-enhanced atomic layer deposition of silicon dioxide. Thin Solid Films, 2018, 649, 24-29.	0.8	5
42	Anti-Hermitian photodetector facilitating efficient subwavelength photon sorting. Nature Communications, 2018, 9, 316.	5.8	26
43	Porous micropillar structures for retaining low surface tension liquids. Journal of Colloid and Interface Science, 2018, 514, 316-327.	5.0	25
44	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
45	Thermal Management Research â€“ from Power Electronics to Portables. , 2018, , .		0
46	Improving the performance of Ge2Sb2Te5 materials via nickel doping: Towards RF-compatible phase-change devices. Applied Physics Letters, 2018, 113, 171903.	1.5	34
47	Optimizing the design of composite phase change materials for high thermal power density. Journal of Applied Physics, 2018, 124, .	1.1	35
48	An electrochemical thermal transistor. Nature Communications, 2018, 9, 4510.	5.8	105
49	The Heat Conduction Renaissance. , 2018, , .		5
50	Highly Anisotropic Thermal Conductivity in Spin-Cast Polystyrene Nano-Films. , 2018, , .		0
51	Phonon Scattering in Silicon by Multiple Morphological Defects: A Multiscale Analysis. Journal of Electronic Materials, 2018, 47, 5148-5157.	1.0	9
52	Enhanced Heat Transfer Using Microporous Copper Inverse Opals. Journal of Electronic Packaging, Transactions of the ASME, 2018, 140, .	1.2	11
53	Tailoring Permeability of Microporous Copper Structures through Template Sintering. ACS Applied Materials & Interfaces, 2018, 10, 30487-30494.	4.0	18
54	Enhanced Capillaryâ€Fed Boiling in Copper Inverse Opals via Template Sintering. Advanced Functional Materials, 2018, 28, 1803689.	7.8	46

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55	A method for quantifying in plane permeability of porous thin films. Journal of Colloid and Interface Science, 2018, 530, 667-674.	5.0	5
56	Phonon conduction in GaN-diamond composite substrates. Journal of Applied Physics, 2017, 121, .	1.1	62
57	Enhanced Thermal Conduction Through Nanostructured Interfaces. Nanoscale and Microscale Thermophysical Engineering, 2017, 21, 134-144.	1.4	18
58	Phonon conduction in silicon nanobeams. Applied Physics Letters, 2017, 110, .	1.5	22
59	Copper Inverse Opal Surfaces for Enhanced Boiling Heat Transfer. , 2017, , .		2
60	Extreme Twoâ€Phase Cooling from Laserâ€Etched Diamond and Conformal, Templateâ€Fabricated Microporous Copper. Advanced Functional Materials, 2017, 27, 1703265.	7.8	83
61	Temperature-Dependent Thermal Boundary Conductance of Monolayer MoS₂ by Raman Thermometry. ACS Applied Materials & Interfaces, 2017, 9, 43013-43020.	4.0	125
62	Modulation of thermal and thermoelectric transport in individual carbon nanotubes by fullerene encapsulation. Nature Materials, 2017, 16, 892-897.	13.3	99
63	Experimental considerations of CVD diamond film measurements using time domain thermoreflectance. , 2017, , .		4
64	Microchannel cooling strategies for high heat flux (1 kW/cm²) power electronic applications. , 2017, , .		23
65	Phonon Conduction in Silicon Nanobeam Labyrinths. Scientific Reports, 2017, 7, 6233.	1.6	28
66	Thermal Conduction across Metalâ€“Dielectric Sidewall Interfaces. ACS Applied Materials & Interfaces, 2017, 9, 30100-30106.	4.0	9
67	Dense Vertically Aligned Copper Nanowire Composites as High Performance Thermal Interface Materials. ACS Applied Materials & Interfaces, 2017, 9, 42067-42074.	4.0	51
68	Anisotropic and inhomogeneous thermal conduction in suspended thin-film polycrystalline diamond. Journal of Applied Physics, 2016, 119, .	1.1	86
69	Enhanced phonon scattering by nanovoids in high thermoelectric power factor polysilicon thin films. Applied Physics Letters, 2016, 109, .	1.5	20
70	Analytical modeling for prediction of chip package-level thermal performance. , 2016, , .		1
71	High heat flux two-phase cooling of electronics with integrated diamond/porous copper heat sinks and microfluidic coolant supply. , 2016, , .		14
72	Optimization of hybrid wick structures for extreme spreading in high performance vapor chambers. , 2016, , .		3

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73	Characterization of the capillary performance of copper inverse opals. , 2016, , .		5
74	Quasi-ballistic Electronic Thermal Conduction in Metal Inverse Opals. Nano Letters, 2016, 16, 2754-2761.	4.5	72
75	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
76	Nonhomogeneous morphology and the elastic modulus of aligned carbon nanotube films. Journal of Micromechanics and Microengineering, 2015, 25, 115023.	1.5	4
77	Evaluating Broader Impacts of Nanoscale Thermal Transport Research. Nanoscale and Microscale Thermophysical Engineering, 2015, 19, 127-165.	1.4	69
78	Cross-Plane Phonon Conduction in Polycrystalline Silicon Films. Journal of Heat Transfer, 2015, 137, .	1.2	8
79	Cool electronics. Nature Materials, 2015, 14, 136-137.	13.3	72
80	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
81	Thermal characterization and analysis of microliter liquid volumes using the three-omega method. Review of Scientific Instruments, 2015, 86, 024901.	0.6	14
82	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
83	Thermal Conduction in Vertically Aligned Copper Nanowire Arrays and Composites. ACS Applied Materials & Interfaces, 2015, 7, 19251-19259.	4.0	99
84	Energy-Efficient Phase-Change Memory with Graphene as a Thermal Barrier. Nano Letters, 2015, 15, 6809-6814.	4.5	121
85	Power density optimization for micro thermoelectric generators. Energy, 2015, 93, 2006-2017.	4.5	76
86	Microfluidic Heat Exchangers for High Power Density GaN on SiC. , 2014, , .		5
87	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
88	Thermal Interface Resistance Measurements for GaN-on-Diamond Composite Substrates. , 2014, , .		13
89	Thermal conduction in latticeâ€“matched superlattices of InGaAs/InAlAs. Applied Physics Letters, 2014, 105, .	1.5	39
90	Phonon scattering in strained transition layers for GaN heteroepitaxy. Physical Review B, 2014, 89, .	1.1	89

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91	Nanoscale thermal transport. II. 2003â€“2012. Applied Physics Reviews, 2014, 1, 011305.	5.5	1,277
92	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
93	Material and manufacturing cost considerations for thermoelectrics. Renewable and Sustainable Energy Reviews, 2014, 32, 313-327.	8.2	386
94	Mechanical and thermal properties of copper inverse opals for two-phase convection enhancement. , 2014, , .		3
95	Cross plane thermal conductance of graphene-metal interfaces. , 2014, , .		7
96	Thermal conduction in nanoporous copper inverse opal films. , 2014, , .		11
97	A parametric study of Microporous Metal Matrix-Phase Change Material composite heat spreaders for transient thermal applications. , 2014, , .		7
98	Phonon thermal conduction in periodically porous silicon nanobeams. , 2014, , .		1
99	Thermal characterization of nanostructured superlattices of TiN/TaN: Applications as electrodes in Phase Change Memory. , 2014, , .		6
100	Anisotropic and nonhomogeneous thermal conduction in 1 µm thick CVD diamond. , 2014, , .		5
101	Phase-separation of wetting fluids using nanoporous alumina membranes and micro-glass capillaries. , 2014, , .		3
102	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
103	Thermal conduction normal to thin silicon nitride films on diamond and GaN. , 2014, , .		8
104	Ultrafast Characterization of Phase-Change Material Crystallization Properties in the Melt-Quenched Amorphous Phase. Nano Letters, 2014, 14, 3419-3426.	4.5	102
105	$ per W metrics for thermoelectric power generation: beyond ZT. Energy and Environmental Science, 2013, 6, 2561-2571.	15.6	201
106	Thermal conduction phenomena in carbon nanotubes and related nanostructured materials. Reviews of Modern Physics, 2013, 85, 1295-1326.	16.4	365
107	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
108	Cooling Limits for GaN HEMT Technology. , 2013, , .		37

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109	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
110	Phonon and electron transport through Ge2Sb2Te5 films and interfaces bounded by metals. Applied Physics Letters, 2013, 102, .	1.5	68
111	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
112	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
113	3D Packaging Materials Based on Graphite Nanoplatelet and Aluminum Nitride Nanocomposites. , 2013, , .		4
114	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
115	Thermal conduction inhomogeneity of nanocrystalline diamond films by dual-side thermoreflectance. Applied Physics Letters, 2013, 102, .	1.5	37
116	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
117	Electrothermal phenomena in zinc oxide nanowires and contacts. Applied Physics Letters, 2012, 100, 163105.	1.5	13
118	Phonon Conduction in Periodically Porous Silicon Nanobridges. Nanoscale and Microscale Thermophysical Engineering, 2012, 16, 199-219.	1.4	54
119	Phase and thickness dependent modulus of Ge₂Sb₂Te₅ films down to 25â€‰nm thickness. Applied Physics Letters, 2012, 100, 161905.	1.5	27
120	Electrothermal Modeling and Design Strategies for Multibit Phase-Change Memory. IEEE Transactions on Electron Devices, 2012, 59, 3561-3567.	1.6	28
121	Calibration methodology for interposing liquid coolants for infrared thermography of microprocessors. , 2012, , .		0
122	Phase purity and the thermoelectric properties of Ge2Sb2Te5 films down to 25â€‰nm thickness. Journal of Applied Physics, 2012, 112, .	1.1	49
123	Thermal conduction properties of Mo/Si multilayers for extreme ultraviolet optics. Journal of Applied Physics, 2012, 112, 083504.	1.1	20
124	Impact of thermoelectric phenomena on phase-change memory performance metrics and scaling. Nanotechnology, 2012, 23, 205201.	1.3	56
125	Temperature Dependent Thermal Resistances at GaN-Substrate Interfaces in GaN Composite Substrates. , 2012, , .		15
126	Crust removal and effective modulus of aligned multi-walled carbon nanotube films. , 2012, , .		7

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127	In-plane thermal conductivity measurement on nanoscale conductive materials with on-substrate device configuration. , 2012, , .		3
128	Thermal conductivity, anisotropy, and interface resistances of diamond on poly-AlN. , 2012, , .		2
129	Thermal characterization of GaN-on-diamond substrates for HEMT applications. , 2012, , .		12
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	Electrical and Thermal Conduction in Atomic Layer Deposition Nanobridges Down to 7 nm Thickness. Nano Letters, 2012, 12, 683-686.	4.5	64
133	Nanoscale conformable coatings for enhanced thermal conduction of carbon nanotube films. , 2012, , .		2
134	Low Thermal Resistances at GaNâ€“SiC Interfaces for HEMT Technology. IEEE Electron Device Letters, 2012, 33, 378-380.	2.2	82
135	Impact of Annealing on the Thermoelectric Properties of Ge2Sb2Te5 Films. Materials Research Society Symposia Proceedings, 2012, 1490, 223-228.	0.1	0
136	Effect of thermal cycling on commercial thermoelectric modules. , 2012, , .		9
137	Phonon Dominated Heat Conduction Normal to Mo/Si Multilayers with Period below 10 nm. Nano Letters, 2012, 12, 3121-3126.	4.5	58
138	Mechanical characterization of aligned multi-walled carbon nanotube films using microfabricated resonators. Carbon, 2012, 50, 347-355.	5.4	44
139	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
140	Thermoelectric Characterization and Power Generation Using a Silicon-on-Insulator Substrate. Journal of Microelectromechanical Systems, 2012, 21, 4-6.	1.7	10
141	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
142	Grain Boundaries, Phase Impurities, and Anisotropic Thermal Conduction in Phase-Change Memory. IEEE Electron Device Letters, 2011, 32, 961-963.	2.2	16
143	Thermal Conduction in Aligned Carbon Nanotubeâ€“Polymer Nanocomposites with High Packing Density. ACS Nano, 2011, 5, 4818-4825.	7.3	425
144	Thermal conductivity anisotropy and grain structure in Ge2Sb2Te5 films. Journal of Applied Physics, 2011, 109, .	1.1	72

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145	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
146	Adiabatic and diabatic two-phase venting flow in a microchannel. International Journal of Multiphase Flow, 2011, 37, 1135-1146.	1.6	26
147	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
148	Temperature-dependent aggregation and diffusion in nanofluids. International Journal of Heat and Mass Transfer, 2011, 54, 797-806.	2.5	45
149	Thermal microdevices for biological and biomedical applications. Journal of Thermal Biology, 2011, 36, 209-218.	1.1	29
150	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
151	Microthermal Stage for Electrothermal Characterization of Phase-Change Memory. IEEE Electron Device Letters, 2011, 32, 952-954.	2.2	11
152	High temperature thermal properties of thin tantalum nitride films. Applied Physics Letters, 2011, 99, .	1.5	36
153	Temperature-Dependent Thermal Properties of Phase-Change Memory Electrode Materials. IEEE Electron Device Letters, 2011, 32, 1281-1283.	2.2	17
154	Phase Change Memory. Proceedings of the IEEE, 2010, 98, 2201-2227.	16.4	1,420
155	Influence of film thickness and cross-sectional geometry on hydrophilic microchannel condensation. International Journal of Multiphase Flow, 2010, 36, 608-619.	1.6	41
156	Impact of wall hydrophobicity on condensation flow and heat transfer in silicon microchannels. Journal of Micromechanics and Microengineering, 2010, 20, 045018.	1.5	40
157	Aggregate fractal dimensions and thermal conduction in nanofluids. Journal of Applied Physics, 2010, 108, .	1.1	84
158	Nanofluid Convection in Microtubes. Journal of Heat Transfer, 2010, 132, .	1.2	34
159	Reduced-Order Fluidic Model for Flow Instabilities in Two-Phase Microfluidic Heat Exchangers. , 2010, , .		1
160	Temperature-Dependent Phonon Conduction and Nanotube Engagement in Metalized Single Wall Carbon Nanotube Films. Nano Letters, 2010, 10, 2395-2400.	4.5	66
161	Decoupled thermal resistances of phase change material and their impact on PCM devices. , 2010, , .		3
162	Thermal Boundary Resistance Measurements for Phase-Change Memory Devices. IEEE Electron Device Letters, 2010, 31, 56-58.	2.2	105

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163	Nonradiative recombination in strongly interacting silicon nanocrystals embedded in amorphous silicon-oxide films. Physical Review B, 2009, 80, .	1.1	8
164	Multimode thermoelastic dissipation. Journal of Applied Physics, 2009, 105, .	1.1	84
165	Convective Performance of Nanofluids in a Laminar Thermally Developing Tube Flow. Journal of Heat Transfer, 2009, 131, .	1.2	43
166	Effects of Transient Heating on Two-Phase Flow Response in Microchannel Heat Exchangers. , 2009, , .		6
167	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
168	A benchmark study on the thermal conductivity of nanofluids. Journal of Applied Physics, 2009, 106, .	1.1	897
169	Measurement of anisotropy in the thermal conductivity of Ge<inf>2</inf>Sb<inf>2</inf>Te<inf>5</inf> films. , 2009, , .		1
170	Heat Conduction through a DNAâ^'Gold Composite. Nano Letters, 2009, 9, 2005-2009.	4.5	45
171	Optimized Thermoelectric Refrigeration in the Presence of Thermal Boundary Resistance. IEEE Transactions on Advanced Packaging, 2009, 32, 423-430.	1.7	19
172	Thermal Properties of Ultrathin Hafnium Oxide Gate Dielectric Films. IEEE Electron Device Letters, 2009, 30, 1269-1271.	2.2	145
173	Fully Coupled Nonequilibrium Electronâ€"Phonon Transport in Nanometer-Scale Silicon FETs. IEEE Transactions on Electron Devices, 2008, 55, 220-232.	1.6	76
174	The Impact of Thermal Boundary Resistance in Phase-Change Memory Devices. IEEE Electron Device Letters, 2008, 29, 1112-1114.	2.2	111
175	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
176	Hydrodynamic and Thermal Performance of a Vapor-Venting Microchannel Copper Heat Exchanger. , 2008, , .		5
177	Diffusion, aggregation, and the thermal conductivity of nanofluids. Applied Physics Letters, 2008, 93, .	1.5	65
178	Temperature-Dependent Permeability of Microporous Membranes for Vapor Venting Heat Exchangers. , 2008, , .		3
179	Thermomechanical Formation of Nanoscale Polymer Indents With a Heated Silicon Tip. Journal of Heat Transfer, 2007, 129, 1600-1604.	1.2	15
180	Vapor-Venting, Micromachined Heat Exchanger for Electronics Cooling. , 2007, , 951.		7

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181	Infrared Microscopy Thermal Characterization of Opposing Carbon Nanotube Arrays. Journal of Heat Transfer, 2007, 129, 91-93.	1.2	35
182	Thickness and stoichiometry dependence of the thermal conductivity of GeSbTe films. Applied Physics Letters, 2007, 91, .	1.5	112
183	Electrical and thermal transport in metallic single-wall carbon nanotubes on insulating substrates. Journal of Applied Physics, 2007, 101, 093710.	1.1	310
184	Two-Phase Microfluidics for Semiconductor Circuits and Fuel Cells. Heat Transfer Engineering, 2006, 27, 53-63.	1.2	15
185	A hybrid method for bubble geometry reconstruction in two-phase microchannels. Experiments in Fluids, 2006, 40, 847-858.	1.1	14
186	Thermal Phenomena in Nanoscale Transistors. Journal of Electronic Packaging, Transactions of the ASME, 2006, 128, 102-108.	1.2	89
187	3-Omega Measurements of Vertically Oriented Carbon Nanotubes on Silicon. Journal of Heat Transfer, 2006, 128, 1109-1113.	1.2	212
188	ADVANCED COOLING TECHNOLOGIES FOR MICROPROCESSORS. International Journal of High Speed Electronics and Systems, 2006, 16, 301-313.	0.3	21
189	ADVANCED COOLING TECHNOLOGIES FOR MICROPROCESSORS. , 2006, , .		1
190	Phase change phenomena in silicon microchannels. International Journal of Heat and Mass Transfer, 2005, 48, 1572-1582.	2.5	189
191	Managing heat for electronics. Materials Today, 2005, 8, 30-35.	8.3	227
192	Integrated Microchannel Cooling for Three-Dimensional Electronic Circuit Architectures. Journal of Heat Transfer, 2005, 127, 49-58.	1.2	261
193	Monte Carlo simulation of Joule heating in bulk and strained silicon. Applied Physics Letters, 2005, 86, 082101.	1.5	65
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