Kenneth E Goodson

List of Publications by Year in Descending Order

191 papers	12,205 citations	51 h-index	108 g-index
209 ext. papers	13,821 ext. citations	6.3 avg, IF	6.23 L-index

#	Paper	IF	Citations
191	Non-Contact Mass Density and Thermal Conductivity Measurements of Organic Thin Films Using Frequency Domain Thermoreflectance. *Advanced Materials Interfaces*, **2022**, 9, 2101404	4.6	0
190	Thermal Characterization of Metal-Oxide Interfaces Using Time-Domain Thermoreflectance with Nanograting Transducers. *ACS Applied Materials & Interfaces*, **2021**, 13, 58059-58065	9.5	0
189	Engineering Thermal Transport across Layered Graphene-MoS Superlattices. *ACS Nano*, **2021**,	16.7	1
188	Electro-Thermal Confinement Enables Improved Superlattice Phase Change Memory. *IEEE Electron Device Letters*, **2021**, 1-1	4.4	4
187	Integrated cooling (i-Cool) textile of heat conduction and sweat transportation for personal perspiration management. *Nature Communications*, **2021**, 12, 6122	17.4	17
186	Thermal Interface Enhancement via Inclusion of an Adhesive Layer Using Plasma-Enhanced Atomic Layer Deposition. *ACS Applied Materials & Interfaces*, **2021**, 13, 21905-21913	9.5	1
185	Simultaneous thickness and thermal conductivity measurements of thinned silicon from 100 nm to 17 μm. *Applied Physics Letters*, **2021**, 118, 202108	3.4	0
184	Thermal expansion characterization of thin films using harmonic Joule heating combined with atomic force microscopy. *Applied Physics Letters*, **2021**, 118, 194101	3.4	4
183	Performance and Manufacturing of Silicon-Based Vapor Chambers. *Applied Mechanics Reviews*, **2021**, 73,	8.6	3
182	Achieving High Thermoelectric Performance and Metallic Transport in Solvent-Sheared PEDOT:PSS. *Advanced Electronic Materials*, **2021**, 7, 2001190	6.4	13
181	Uncovering Thermal and Electrical Properties of SbTe/GeTe Superlattice Films. *Nano Letters*, **2021**, 21, 5984-5990	11.5	11
180	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	4.9	2
179	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	4.9	4
178	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	5.6	
177	Tungsten-doped Ge2Sb2Te5 phase change material for high-speed optical switching devices. *Applied Physics Letters*, **2020**, 116, 131901	3.4	4
176	Phase Change Dynamics and Two-Dimensional 4-Bit Memory in Ge2Sb2Te5 via Telecom-Band Encoding. *ACS Photonics*, **2020**, 7, 480-487	6.3	10
175	Lithography and Etching-Free Microfabrication of Silicon Carbide on Insulator Using Direct UV Laser Ablation . *Advanced Engineering Materials*, **2020**, 22, 1901173	3.5	4

174	Thermal and Manufacturing Design Considerations for Silicon-Based Embedded Microchannel-Three-Dimensional Manifold Coolers: Part 2: Parametric Study of EMMCs for High Heat Flux (~1 kW/cm2) Power Electronics Cooling. *Journal of Electronic Packaging, Transactions of the ASME*, **2020**, 142	2	2
173	Thermal and Manufacturing Design Considerations for Silicon-Based Embedded Microchannel-3D Manifold Coolers (EMMCs): Part 1: Experimental Study of Single-Phase Cooling Performance With R-245fa. *Journal of Electronic Packaging, Transactions of the ASME*, **2020**, 142,	2	1
172	Effect of Adventitious Carbon on Pit Formation of Monolayer MoS. *Advanced Materials*, **2020**, 32, e2003020	24	5
171	Two-Fold Reduction of Switching Current Density in Phase Change Memory Using Bi2Te3 Thermoelectric Interfacial Layer. *IEEE Electron Device Letters*, **2020**, 41, 1657-1660	4.4	10
170	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	9.5	3
169	Understanding the switching mechanism of interfacial phase change memory. *Journal of Applied Physics*, **2019**, 125, 184501	2.5	21
168	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	4.9	22
167	Thermoelectric generators: A case study in multi-scale thermal engineering design. *Advances in Heat Transfer*, **2019**, 299-350	1.9	3
166	Quasi-Ballistic Thermal Transport Across MoS Thin Films. *Nano Letters*, **2019**, 19, 2434-2442	11.5	34
165	Strongly tunable anisotropic thermal transport in MoS 2 by strain and lithium intercalation: first-principles calculations. *2D Materials*, **2019**, 6, 025033	5.9	19
164	Thermal conductivity of crystalline AlN and the influence of atomic-scale defects. *Journal of Applied Physics*, **2019**, 126, 185105	2.5	42
163	Tunable, passive thermal regulation through liquid to vapor phase change. *Applied Physics Letters*, **2019**, 115, 254102	3.4	3
162	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	4.9	32
161	Experimental Characterization of Microfabricated Thermoelectric Energy Harvesters for Smart Sensor and Wearable Applications. *Advanced Materials Technologies*, **2018**, 3, 1700383	6.8	11
160	Direct Visualization of Thermal Conductivity Suppression Due to Enhanced Phonon Scattering Near Individual Grain Boundaries. *Nano Letters*, **2018**, 18, 3466-3472	11.5	51
159	Dielectric barrier layers by low-temperature plasma-enhanced atomic layer deposition of silicon dioxide. *Thin Solid Films*, **2018**, 649, 24-29	2.2	3
158	Anti-Hermitian photodetector facilitating efficient subwavelength photon sorting. *Nature Communications*, **2018**, 9, 316	17.4	20
157	Porous micropillar structures for retaining low surface tension liquids. *Journal of Colloid and Interface Science*, **2018**, 514, 316-327	9.3	15

156	Experimental Investigation of Embedded Micropin-Fins for Single-Phase Heat Transfer and Pressure Drop. *Journal of Electronic Packaging, Transactions of the ASME*, **2018**, 140,	2	5
155	The Heat Conduction Renaissance **2018**,		5
154	Phonon Scattering in Silicon by Multiple Morphological Defects: A Multiscale Analysis. *Journal of Electronic Materials*, **2018**, 47, 5148-5157	1.9	8
153	Enhanced Heat Transfer Using Microporous Copper Inverse Opals. *Journal of Electronic Packaging, Transactions of the ASME*, **2018**, 140,	2	8
152	Tailoring Permeability of Microporous Copper Structures through Template Sintering. *ACS Applied Materials & Interfaces*, **2018**, 10, 30487-30494	9.5	8
151	Enhanced Capillary-Fed Boiling in Copper Inverse Opals via Template Sintering. *Advanced Functional Materials*, **2018**, 28, 1803689	15.6	28
150	A method for quantifying in plane permeability of porous thin films. *Journal of Colloid and Interface Science*, **2018**, 530, 667-674	9.3	4
149	Improving the performance of Ge2Sb2Te5 materials via nickel doping: Towards RF-compatible phase-change devices. *Applied Physics Letters*, **2018**, 113, 171903	3.4	18
148	Optimizing the design of composite phase change materials for high thermal power density. *Journal of Applied Physics*, **2018**, 124, 145103	2.5	17
147	An electrochemical thermal transistor. *Nature Communications*, **2018**, 9, 4510	17.4	63
146	Phonon conduction in GaN-diamond composite substrates. *Journal of Applied Physics*, **2017**, 121, 055105	2.5	43
145	Enhanced Thermal Conduction Through Nanostructured Interfaces. *Nanoscale and Microscale Thermophysical Engineering*, **2017**, 21, 134-144	3.7	12
144	Phonon conduction in silicon nanobeams. *Applied Physics Letters*, **2017**, 110, 213102	3.4	16
143	Copper Inverse Opal Surfaces for Enhanced Boiling Heat Transfer **2017**,		2
142	Extreme Two-Phase Cooling from Laser-Etched Diamond and Conformal, Template-Fabricated Microporous Copper. *Advanced Functional Materials*, **2017**, 27, 1703265	15.6	47
141	Temperature-Dependent Thermal Boundary Conductance of Monolayer MoS by Raman Thermometry. *ACS Applied Materials & Interfaces*, **2017**, 9, 43013-43020	9.5	87
140	Modulation of thermal and thermoelectric transport in individual carbon nanotubes by fullerene encapsulation. *Nature Materials*, **2017**, 16, 892-897	27	83
139	Experimental considerations of CVD diamond film measurements using time domain thermoreflectance **2017**,		4

138	Microchannel cooling strategies for high heat flux (1 kW/cm2) power electronic applications **2017**,		11
137	Phonon Conduction in Silicon Nanobeam Labyrinths. *Scientific Reports*, **2017**, 7, 6233	4.9	21
136	Thermal Conduction across Metal-Dielectric Sidewall Interfaces. *ACS Applied Materials & Interfaces*, **2017**, 9, 30100-30106	9.5	6
135	Dense Vertically Aligned Copper Nanowire Composites as High Performance Thermal Interface Materials. *ACS Applied Materials & Interfaces*, **2017**, 9, 42067-42074	9.5	38
134	**2016**,		11
133	Optimization of hybrid wick structures for extreme spreading in high performance vapor chambers **2016**,		2
132	**2016**,		3
131	Quasi-ballistic Electronic Thermal Conduction in Metal Inverse Opals. *Nano Letters*, **2016**, 16, 2754-61	11.5	65
130	Thermal Modeling of Extreme Heat Flux Microchannel Coolers for GaN-on-SiC Semiconductor Devices. *Journal of Electronic Packaging, Transactions of the ASME*, **2016**, 138,	2	41
129	Anisotropic and inhomogeneous thermal conduction in suspended thin-film polycrystalline diamond. *Journal of Applied Physics*, **2016**, 119, 175103	2.5	68
128	Enhanced phonon scattering by nanovoids in high thermoelectric power factor polysilicon thin films. *Applied Physics Letters*, **2016**, 109, 253104	3.4	19
127	Burst behavior at a capillary tip: Effect of low and high surface tension. *Journal of Colloid and Interface Science*, **2015**, 455, 1-5	9.3	14
126	Thermal characterization and analysis of microliter liquid volumes using the three-omega method. *Review of Scientific Instruments*, **2015**, 86, 024901	1.7	11
125	Fundamental Cooling Limits for High Power Density Gallium Nitride Electronics. *IEEE Transactions on Components, Packaging and Manufacturing Technology*, **2015**, 5, 737-744	1.7	78
124	Thermal Conduction in Vertically Aligned Copper Nanowire Arrays and Composites. *ACS Applied Materials & Interfaces*, **2015**, 7, 19251-9	9.5	81
123	Energy-Efficient Phase-Change Memory with Graphene as a Thermal Barrier. *Nano Letters*, **2015**, 15, 6809-14	11.5	98
122	Power density optimization for micro thermoelectric generators. *Energy*, **2015**, 93, 2006-2017	7.9	63
121	Nonhomogeneous morphology and the elastic modulus of aligned carbon nanotube films. *Journal of Micromechanics and Microengineering*, **2015**, 25, 115023	2	3

120	Evaluating Broader Impacts of Nanoscale Thermal Transport Research. *Nanoscale and Microscale Thermophysical Engineering*, **2015**, 19, 127-165	3.7	60
119	Cross-Plane Phonon Conduction in Polycrystalline Silicon Films. *Journal of Heat Transfer*, **2015**, 137,	1.8	6
118	Thermal transport: Cool electronics. *Nature Materials*, **2015**, 14, 136-7	27	59
117	Nanoscale thermal transport. II. 2003–2012. *Applied Physics Reviews*, **2014**, 1, 011305	17.3	1050
116	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	1.7	16
115	Material and manufacturing cost considerations for thermoelectrics. *Renewable and Sustainable Energy Reviews*, **2014**, 32, 313-327	16.2	305
114	Mechanical and thermal properties of copper inverse opals for two-phase convection enhancement **2014**,		2
113	Cross plane thermal conductance of graphene-metal interfaces **2014**,		5
112	Thermal conduction in nanoporous copper inverse opal films **2014**,		10
111	A parametric study of Microporous Metal Matrix-Phase Change Material composite heat spreaders for transient thermal applications **2014**,		4
110	Phonon thermal conduction in periodically porous silicon nanobeams **2014**,		1
109	Thermal characterization of nanostructured superlattices of TiN/TaN: Applications as electrodes in Phase Change Memory **2014**,		4
108	Anisotropic and nonhomogeneous thermal conduction in 1 μm thick CVD diamond **2014**,		5
107	Phase-separation of wetting fluids using nanoporous alumina membranes and micro-glass capillaries **2014**,		1
106	Reply to the comment on $ per W metrics for thermoelectric power generation: beyond ZT by G. Nunes, Jr, Energy Environ. Sci., 2014, 7, DOI: 10.1039/C3EE43700K. *Energy and Environmental Science*, **2014**, 7, 3441-3442	35.4	3
105	Thermal conduction normal to thin silicon nitride films on diamond and GaN **2014**,		7
104	Ultrafast characterization of phase-change material crystallization properties in the melt-quenched amorphous phase. *Nano Letters*, **2014**, 14, 3419-26	11.5	82
103	Microfluidic Heat Exchangers for High Power Density GaN on SiC **2014**,		3

102	Reactive Metal Bonding of Carbon Nanotube Arrays for Thermal Interface Applications. *IEEE Transactions on Components, Packaging and Manufacturing Technology*, **2014**, 4, 1906-1913	1.7	15
101	Thermal Interface Resistance Measurements for GaN-on-Diamond Composite Substrates **2014**,		7
100	Thermal conduction in lattice□matched superlattices of InGaAs/InAlAs. *Applied Physics Letters*, **2014**, 105, 051909	3.4	35
99	Phonon scattering in strained transition layers for GaN heteroepitaxy. *Physical Review B*, **2014**, 89,	3.3	72
98	$ per W metrics for thermoelectric power generation: beyond ZT. *Energy and Environmental Science*, **2013**, 6, 2561-2571	35.4	163
97	Thermal conduction phenomena in carbon nanotubes and related nanostructured materials. *Reviews of Modern Physics*, **2013**, 85, 1295-1326	40.5	309
96	From the Casimir Limit to Phononic Crystals: 20 Years of Phonon Transport Studies Using Silicon-on-Insulator Technology. *Journal of Heat Transfer*, **2013**, 135,	1.8	82
95	Cooling Limits for GaN HEMT Technology **2013**,		29
94	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	1.7	14
93	Phonon and electron transport through Ge2Sb2Te5 films and interfaces bounded by metals. *Applied Physics Letters*, **2013**, 102, 191911	3.4	54
92	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, 20426-30	11.5	36
91	Improved Thermal Interfaces of GaN□Diamond Composite Substrates for HEMT Applications. *IEEE Transactions on Components, Packaging and Manufacturing Technology*, **2013**, 3, 79-85	1.7	66
90	3D Packaging Materials Based on Graphite Nanoplatelet and Aluminum Nitride Nanocomposites **2013**,		4
89	High-Efficiency Transient Temperature Calculations for Applications in Dynamic Thermal Management of Electronic Devices. *Journal of Electronic Packaging, Transactions of the ASME*, **2013**, 135,	2	10
88	Thermal conduction inhomogeneity of nanocrystalline diamond films by dual-side thermoreflectance. *Applied Physics Letters*, **2013**, 102, 111907	3.4	31
87	Thermoelectric Characterization and Power Generation Using a Silicon-on-Insulator Substrate. *Journal of Microelectromechanical Systems*, **2012**, 21, 4-6	2.5	8
86	Thermal conduction properties of Mo/Si multilayers for extreme ultraviolet optics. *Journal of Applied Physics*, **2012**, 112, 083504	2.5	16
85	Impact of thermoelectric phenomena on phase-change memory performance metrics and scaling. *Nanotechnology*, **2012**, 23, 205201	3.4	47

84	Temperature Dependent Thermal Resistances at GaN-Substrate Interfaces in GaN Composite Substrates **2012**,		10
83	**2012**,		7
82	**2012**,		3
81	Thermal conductivity, anisotropy, and interface resistances of diamond on poly-AlN **2012**,		1
80	Thermal characterization of GaN-on-diamond substrates for HEMT applications **2012**,		11
79	A reliability study with infrared imaging of thermoelectric modules under thermal cycling **2012**,		11
78	**2012**,		10
77	Electrical and thermal conduction in atomic layer deposition nanobridges down to 7 nm thickness. *Nano Letters*, **2012**, 12, 683-6	11.5	57
76	Nanoscale conformable coatings for enhanced thermal conduction of carbon nanotube films **2012**,		1
75	Low Thermal Resistances at GaN/SiC Interfaces for HEMT Technology. *IEEE Electron Device Letters*, **2012**, 33, 378-380	4.4	68
74	Impact of Annealing on the Thermoelectric Properties of Ge2Sb2Te5 Films. *Materials Research Society Symposia Proceedings*, **2012**, 1490, 223-228		
73	Effect of thermal cycling on commercial thermoelectric modules **2012**,		6
72	Phonon dominated heat conduction normal to Mo/Si multilayers with period below 10 nm. *Nano Letters*, **2012**, 12, 3121-6	11.5	47
71	Mechanical characterization of aligned multi-walled carbon nanotube films using microfabricated resonators. *Carbon*, **2012**, 50, 347-355	10.4	41
70	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	10.4	42
69	Effect of Resistance Drift on the Activation Energy for Crystallization in Phase Change Memory. *Japanese Journal of Applied Physics*, **2012**, 51, 02BD06	1.4	5
68	Electrothermal phenomena in zinc oxide nanowires and contacts. *Applied Physics Letters*, **2012**, 100, 163105	3.4	13
67	Phonon Conduction in Periodically Porous Silicon Nanobridges. *Nanoscale and Microscale Thermophysical Engineering*, **2012**, 16, 199-219	3.7	50

66	Phase and thickness dependent modulus of Ge2Sb2Te5 films down to 25 nm thickness. *Applied Physics Letters*, **2012**, 100, 161905	3.4	25
65	Electrothermal Modeling and Design Strategies for Multibit Phase-Change Memory. *IEEE Transactions on Electron Devices*, **2012**, 59, 3561-3567	2.9	22
64	Phase purity and the thermoelectric properties of Ge2Sb2Te5 films down to 25 nm thickness. *Journal of Applied Physics*, **2012**, 112, 014902	2.5	45
63	Effect of Resistance Drift on the Activation Energy for Crystallization in Phase Change Memory. *Japanese Journal of Applied Physics*, **2012**, 51, 02BD06	1.4	2
62	Thermal conduction in aligned carbon nanotube-polymer nanocomposites with high packing density. *ACS Nano*, **2011**, 5, 4818-25	16.7	375
61	Thermal conductivity anisotropy and grain structure in Ge2Sb2Te5 films. *Journal of Applied Physics*, **2011**, 109, 084902	2.5	65
60	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	2.9	51
59	Adiabatic and diabatic two-phase venting flow in a microchannel. *International Journal of Multiphase Flow*, **2011**, 37, 1135-1146	3.6	17
58	Hydraulic and thermal characteristics of a vapor venting two-phase microchannel heat exchanger. *International Journal of Heat and Mass Transfer*, **2011**, 54, 5504-5516	4.9	60
57	Grain Boundaries, Phase Impurities, and Anisotropic Thermal Conduction in Phase-Change Memory. *IEEE Electron Device Letters*, **2011**, 32, 961-963	4.4	15
56	Temperature-dependent aggregation and diffusion in nanofluids. *International Journal of Heat and Mass Transfer*, **2011**, 54, 797-806	4.9	37
55	Thermal microdevices for biological and biomedical applications. *Journal of Thermal Biology*, **2011**, 36, 209-218	2.9	21
54	Crystallization properties and their drift dependence in phase-change memory studied with a micro-thermal stage. *Journal of Applied Physics*, **2011**, 110, 114520	2.5	15
53	Microthermal Stage for Electrothermal Characterization of Phase-Change Memory. *IEEE Electron Device Letters*, **2011**, 32, 952-954	4.4	10
52	High temperature thermal properties of thin tantalum nitride films. *Applied Physics Letters*, **2011**, 99, 261906	3.4	27
51	Temperature-Dependent Thermal Properties of Phase-Change Memory Electrode Materials. *IEEE Electron Device Letters*, **2011**, 32, 1281-1283	4.4	16
50	Impact of wall hydrophobicity on condensation flow and heat transfer in silicon microchannels. *Journal of Micromechanics and Microengineering*, **2010**, 20, 045018	2	36
49	Aggregate fractal dimensions and thermal conduction in nanofluids. *Journal of Applied Physics*, **2010**, 108, 074309	2.5	74

48	Nanofluid Convection in Microtubes. *Journal of Heat Transfer*, **2010**, 132,	1.8	27
47	Temperature-dependent phonon conduction and nanotube engagement in metalized single wall carbon nanotube films. *Nano Letters*, **2010**, 10, 2395-400	11.5	60
46	Decoupled thermal resistances of phase change material and their impact on PCM devices **2010**,		3
45	Thermal Boundary Resistance Measurements for Phase-Change Memory Devices. *IEEE Electron Device Letters*, **2010**, 31, 56-58	4.4	89
44	Phase Change Memory. *Proceedings of the IEEE*, **2010**, 98, 2201-2227	14.3	1108
43	Influence of film thickness and cross-sectional geometry on hydrophilic microchannel condensation. *International Journal of Multiphase Flow*, **2010**, 36, 608-619	3.6	37
42	Nonradiative recombination in strongly interacting silicon nanocrystals embedded in amorphous silicon-oxide films. *Physical Review B*, **2009**, 80,	3.3	8
41	Multimode thermoelastic dissipation. *Journal of Applied Physics*, **2009**, 105, 043505	2.5	66
40	Convective Performance of Nanofluids in a Laminar Thermally Developing Tube Flow. *Journal of Heat Transfer*, **2009**, 131,	1.8	39
39	Effects of Transient Heating on Two-Phase Flow Response in Microchannel Heat Exchangers **2009**,		6
38	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	8.5	6
37	A benchmark study on the thermal conductivity of nanofluids. *Journal of Applied Physics*, **2009**, 106, 094312	2.5	766
36	Heat conduction through a DNA-gold composite. *Nano Letters*, **2009**, 9, 2005-9	11.5	43
35	Optimized Thermoelectric Refrigeration in the Presence of Thermal Boundary Resistance. *IEEE Transactions on Advanced Packaging*, **2009**, 32, 423-430		14
34	Thermal Properties of Ultrathin Hafnium Oxide Gate Dielectric Films. *IEEE Electron Device Letters*, **2009**, 30, 1269-1271	4.4	107
33	Fully Coupled Nonequilibrium Electron–Phonon Transport in Nanometer-Scale Silicon FETs. *IEEE Transactions on Electron Devices*, **2008**, 55, 220-232	2.9	59
32	The Impact of Thermal Boundary Resistance in Phase-Change Memory Devices. *IEEE Electron Device Letters*, **2008**, 29, 1112-1114	4.4	98
31	Measurement of the Thermal Conductivity and Heat Capacity of Freestanding Shape Memory Thin Films Using the 3ω Method. *Journal of Heat Transfer*, **2008**, 130,	1.8	89

30	Hydrodynamic and Thermal Performance of a Vapor-Venting Microchannel Copper Heat Exchanger **2008**,		4
29	Diffusion, aggregation, and the thermal conductivity of nanofluids. *Applied Physics Letters*, **2008**, 93, 103110	3.4	60
28	Temperature-Dependent Permeability of Microporous Membranes for Vapor Venting Heat Exchangers **2008**,		3
27	Thickness and stoichiometry dependence of the thermal conductivity of GeSbTe films. *Applied Physics Letters*, **2007**, 91, 111904	3.4	100
26	Electrical and thermal transport in metallic single-wall carbon nanotubes on insulating substrates. *Journal of Applied Physics*, **2007**, 101, 093710	2.5	269
25	Thermomechanical Formation of Nanoscale Polymer Indents With a Heated Silicon Tip. *Journal of Heat Transfer*, **2007**, 129, 1600-1604	1.8	15
24	Vapor-Venting, Micromachined Heat Exchanger for Electronics Cooling **2007**, 951		4
23	Infrared Microscopy Thermal Characterization of Opposing Carbon Nanotube Arrays. *Journal of Heat Transfer*, **2007**, 129, 91-93	1.8	32
22	Thermal Phenomena in Nanoscale Transistors. *Journal of Electronic Packaging, Transactions of the ASME*, **2006**, 128, 102-108	2	68
21	3-Omega Measurements of Vertically Oriented Carbon Nanotubes on Silicon. *Journal of Heat Transfer*, **2006**, 128, 1109-1113	1.8	193
20	ADVANCED COOLING TECHNOLOGIES FOR MICROPROCESSORS. *International Journal of High Speed Electronics and Systems*, **2006**, 16, 301-313	0.5	19
19	Two-Phase Microfluidics for Semiconductor Circuits and Fuel Cells. *Heat Transfer Engineering*, **2006**, 27, 53-63	1.7	12
18	A hybrid method for bubble geometry reconstruction in two-phase microchannels. *Experiments in Fluids*, **2006**, 40, 847-858	2.5	12
17	Integrated Microchannel Cooling for Three-Dimensional Electronic Circuit Architectures. *Journal of Heat Transfer*, **2005**, 127, 49-58	1.8	195
16	Monte Carlo simulation of Joule heating in bulk and strained silicon. *Applied Physics Letters*, **2005**, 86, 082101	3.4	49
15	Phase change phenomena in silicon microchannels. *International Journal of Heat and Mass Transfer*, **2005**, 48, 1572-1582	4.9	138
14	Managing heat for electronics. *Materials Today*, **2005**, 8, 30-35	21.8	177
13	Comparison of thermal and piezoresistive sensing approaches for atomic force microscopy topography measurements. *Applied Physics Letters*, **2004**, 85, 2086-2088	3.4	52

12	Analytic band Monte Carlo model for electron transport in Si including acoustic and optical phonon dispersion. *Journal of Applied Physics*, **2004**, 96, 4998-5005	2.5	125
11	Nucleation and Growth of Vapor Bubbles in a Heated Silicon Microchannel. *Journal of Heat Transfer*, **2004**, 126, 497-497	1.8	1
10	Nanoscale thermal transport. *Journal of Applied Physics*, **2003**, 93, 793-818	2.5	2204
9	Thermal Writing and Nanoimaging With a Heated Atomic Force Microscope Cantilever. *Journal of Heat Transfer*, **2002**, 124, 597-597	1.8	15
8	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		25
7	Sub-Continuum Simulations of Heat Conduction in Silicon-on-Insulator Transistors. *Journal of Heat Transfer*, **2001**, 123, 130-137	1.8	107
6	Atomic force microscope cantilevers for combined thermomechanical data writing and reading. *Applied Physics Letters*, **2001**, 78, 1300-1302	3.4	150
5	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		
4	HEAT CONDUCTION IN NOVEL ELECTRONIC FILMS. *Annual Review of Materials Research*, **1999**, 29, 261-293		129
3	Applications of micron-scale passive diamond layers for the integrated circuits and microelectromechanical systems industries. *Diamond and Related Materials*, **1998**, 7, 1-14	3.5	20
2	Thermal Conductivity Measurements of Interlevel Dielectrics. *Materials Research Society Symposia Proceedings*, **1997**, 473, 279		3
1	IMPACT OF CVD DIAMOND LAYERS ON THE THERMAL ENGINEERING OF ELECTRONIC SYSTEMS. *Annual Review of Heat Transfer*, **1995**, 6, 323-353	2.7	10