

Ali Shakouri

List of Publications by Year in descending order

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198
papers

10,033
citations

46918

47
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35952

97
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202
all docs

202
docs citations

202
times ranked

9100
citing authors

#	ARTICLE	IF	CITATIONS
1	Nanostructured Thermoelectrics: Big Efficiency Gains from Small Features. <i>Advanced Materials</i> , 2010, 22, 3970-3980.	11.1	1,220
2	Thermal Conductivity Reduction and Thermoelectric Figure of Merit Increase by Embedding Nanoparticles in Crystalline Semiconductors. <i>Physical Review Letters</i> , 2006, 96, 045901.	2.9	756
3	Recent Developments in Semiconductor Thermoelectric Physics and Materials. <i>Annual Review of Materials Research</i> , 2011, 41, 399-431.	4.3	618
4	Flexible thermoelectric materials and device optimization for wearable energy harvesting. <i>Journal of Materials Chemistry C</i> , 2015, 3, 10362-10374.	2.7	518
5	Steep-slope hysteresis-free negative capacitance MoS ₂ transistors. <i>Nature Nanotechnology</i> , 2018, 13, 24-28.	15.6	422
6	Improved Thermoelectric Power Factor in Metal-Based Superlattices. <i>Physical Review Letters</i> , 2004, 92, 106103.	2.9	412
7	Heterostructure integrated thermionic coolers. <i>Applied Physics Letters</i> , 1997, 71, 1234-1236.	1.5	328
8	Thermal conductivity of Si/SiGe and SiGe/SiGe superlattices. <i>Applied Physics Letters</i> , 2002, 80, 1737-1739.	1.5	295
9	SiGeC/Si superlattice microcoolers. <i>Applied Physics Letters</i> , 2001, 78, 1580-1582.	1.5	218
10	Cost-Efficiency Trade-off and the Design of Thermoelectric Power Generators. <i>Environmental Science & Technology</i> , 2011, 45, 7548-7553.	4.6	171
11	$\hat{\Gamma}^2$ -Ga ₂ O ₃ on insulator field-effect transistors with drain currents exceeding 1.5 A/mm and their self-heating effect. <i>Applied Physics Letters</i> , 2017, 111, .	1.5	170
12	Profiling the Thermoelectric Power of Semiconductor Junctions with Nanometer Resolution. <i>Science</i> , 2004, 303, 816-818.	6.0	159
13	Electron energy filtering by a nonplanar potential to enhance the thermoelectric power factor in bulk materials. <i>Physical Review B</i> , 2013, 87, .	1.1	158
14	Electronic and thermoelectric transport in semiconductor and metallic superlattices. <i>Journal of Applied Physics</i> , 2004, 95, 1233-1245.	1.1	138
15	Effect of nanoparticle scattering on thermoelectric power factor. <i>Applied Physics Letters</i> , 2009, 94, 202105.	1.5	124
16	Optimization of power and efficiency of thermoelectric devices with asymmetric thermal contacts. <i>Journal of Applied Physics</i> , 2012, 111, .	1.1	124
17	Enhanced Thermoelectric Properties in Bulk Nanowire Heterostructure-Based Nanocomposites through Minority Carrier Blocking. <i>Nano Letters</i> , 2015, 15, 1349-1355.	4.5	118
18	Right sizes of nano- and microstructures for high-performance and rigid bulk thermoelectrics. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 10949-10954.	3.3	115

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19	Passive microring-resonator-coupled lasers. Applied Physics Letters, 2001, 79, 3561-3563.	1.5	114
20	Thermoreflectance based thermal microscope. Review of Scientific Instruments, 2005, 76, 024903.	0.6	107
21	Electron transport modeling and energy filtering for efficient thermoelectric solutions. Physical Review B, 2014, 89, .		
22	Thermionic emission cooling in single barrier heterostructures. Applied Physics Letters, 1999, 74, 88-89.	1.5	96
23	Enhancing the thermoelectric figure of merit through the reduction of bipolar thermal conductivity with heterostructure barriers. Applied Physics Letters, 2014, 105, .	1.5	96
24	Thermoelectric properties of epitaxial ScN films deposited by reactive magnetron sputtering onto MgO(001) substrates. Journal of Applied Physics, 2013, 113, .	1.1	91
25	Ultrafast chemical imaging by widefield photothermal sensing of infrared absorption. Science Advances, 2019, 5, eaav7127.	4.7	89
26	Minority carrier blocking to enhance the thermoelectric figure of merit in narrow-band-gap semiconductors. Physical Review B, 2016, 93, .	1.1	85
27	Composition Modulation of Ag ₂ Te Nanowires for Tunable Electrical and Thermal Properties. Nano Letters, 2014, 14, 5398-5404.	4.5	80
28	Design and characterization of thin film microcoolers. Journal of Applied Physics, 2001, 89, 4059-4064.	1.1	79
29	Cross-plane lattice and electronic thermal conductivities of ErAs:InGaAs ⁺ InGaAlAs superlattices. Applied Physics Letters, 2006, 88, 242107.	1.5	79
30	Thermodynamic Studies of $\text{In}^2\text{-Ga}_2\text{O}_3$ Nanomembrane Field-Effect Transistors on a Sapphire Substrate. ACS Omega, 2017, 2, 7723-7729.	1.6	75
31	Thermoelectric Transport in a ZrN/ScN Superlattice. Journal of Electronic Materials, 2009, 38, 960-963.	1.0	71
32	Enhanced Thermionic Emission Cooling in High Barrier Superlattice Heterostructures. Materials Research Society Symposia Proceedings, 1998, 545, 449.	0.1	70
33	Evaluating Broader Impacts of Nanoscale Thermal Transport Research. Nanoscale and Microscale Thermophysical Engineering, 2015, 19, 127-165.	1.4	69
34	Cross-plane thermal conductivity of (Ti,W)N/(Al,Sc)N metal/semiconductor superlattices. Physical Review B, 2016, 93, .	1.1	64
35	Cross-plane Seebeck coefficient of ErAs:InGaAs ⁺ InGaAlAs superlattices. Journal of Applied Physics, 2007, 101, 034502.	1.1	60
36	Rocksalt nitride metal/semiconductor superlattices: A new class of artificially structured materials. Applied Physics Reviews, 2018, 5, 021101.	5.5	59

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37	Full-field thermal imaging of quasiballistic crosstalk reduction in nanoscale devices. Nature Communications, 2018, 9, 255.	5.8	59
38	Hot Carrier Filtering in Solution Processed Heterostructures: A Paradigm for Improving Thermoelectric Efficiency. Advanced Materials, 2014, 26, 2755-2761.	11.1	58
39	Compensation of native donor doping in ScN: Carrier concentration control and <i>p</i> -type ScN. Applied Physics Letters, 2017, 110, .	1.5	57
40	Low-Temperature Thermoelectric Power Factor Enhancement by Controlling Nanoparticle Size Distribution. Nano Letters, 2011, 11, 225-230.	4.5	56
41	Optimization of thermoelectric topping combined steam turbine cycles for energy economy. Applied Energy, 2013, 109, 1-9.	5.1	55
42	Nanoscale solid-state cooling: a review. Reports on Progress in Physics, 2016, 79, 095901.	8.1	55
43	Analytical modeling of silicon thermoelectric microcooler. Journal of Applied Physics, 2006, 100, 014501.	1.1	54
44	Synthesis and characterization of Mg ₂ Si/Si nanocomposites prepared from MgH ₂ and silicon, and their thermoelectric properties. Journal of Materials Chemistry, 2012, 22, 24805.	6.7	54
45	Hybrid Low-Power Wide-Area Mesh Network for IoT Applications. IEEE Internet of Things Journal, 2021, 8, 901-915.	5.5	54
46	Power Blurring: Fast Static and Transient Thermal Analysis Method for Packaged Integrated Circuits and Power Devices. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2014, 22, 2366-2379.	2.1	49
47	Structure and Thermoelectric Properties of Spark Plasma Sintered Ultrathin PbTe Nanowires. Nano Letters, 2014, 14, 3466-3473.	4.5	47
48	Direct Observation of Self-Heating in III-V Gate-All-Around Nanowire MOSFETs. IEEE Transactions on Electron Devices, 2015, 62, 3516-3523.	1.6	46
49	Nonlinear Peltier effect in semiconductors. Applied Physics Letters, 2007, 91, 122104.	1.5	44
50	Thermoelectric transport perpendicular to thin-film heterostructures calculated using the Monte Carlo technique. Physical Review B, 2006, 74, .	1.1	42
51	High Performance η -Ga ₂ O ₃ Nano-Membrane Field Effect Transistors on a High Thermal Conductivity Diamond Substrate. IEEE Journal of the Electron Devices Society, 2019, 7, 914-918.	1.2	42
52	Cross-plane Seebeck coefficient in superlattice structures in the miniband conduction regime. Physical Review B, 2006, 74, .	1.1	40
53	Thermoelectric heat recovery from glass melt processes. Energy, 2017, 118, 1035-1043.	4.5	40
54	Thermionic power generation at high temperatures using SiGe [*] -Si superlattices. Journal of Applied Physics, 2007, 101, 053719.	1.1	39

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55	Large enhancement in the thermoelectric properties of Pb _{0.98} Na _{0.02} Te by optimizing the synthesis conditions. <i>Journal of Materials Chemistry A</i> , 2013, 1, 11269.	5.2	38
56	Phonon wave effects in the thermal transport of epitaxial TiN/(Al,Sc)N metal/semiconductor superlattices. <i>Journal of Applied Physics</i> , 2017, 121, .	1.1	37
57	ErAs:InGaAs/InGaAlAs superlattice thin-film power generator array. <i>Applied Physics Letters</i> , 2006, 88, 113502.	1.5	36
58	Enhanced solid-state thermionic emission in nonplanar heterostructures. <i>Applied Physics Letters</i> , 2006, 88, 012102.	1.5	36
59	High-power-density spot cooling using bulk thermoelectrics. <i>Applied Physics Letters</i> , 2004, 85, 2977-2979.	1.5	35
60	MODELING AND OPTIMIZATION OF SINGLE-ELEMENT BULK SiGe THIN-FILM COOLERS. <i>Microscale Thermophysical Engineering</i> , 2005, 9, 99-118.	1.2	35
61	Thermoelectric power generator module of 16Å–16Å ² Bi ₂ Te ₃ and 0.6% ErAs:(InGaAs) _{1–x} (InAlAs) _x segmented elements. <i>Applied Physics Letters</i> , 2009, 95, .	1.5	35
62	Thermoelectric figure of merit of $\mu\text{Bi}_2\text{Te}_3$ and $\mu\text{Bi}_2\text{Te}_3$ thin films. <i>Physical Review B</i> , 2010, 81, .	1.5	35
63	Thermal Transport Driven by Extraneous Nanoparticles and Phase Segregation in Nanostructured Mg ₂ (Si,Sn) and Estimation of Optimum Thermoelectric Performance. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 7003-7012.	4.0	35
64	Temperature-dependent thermal and thermoelectric properties of $\mu\text{Bi}_2\text{Te}_3$ and $\mu\text{Bi}_2\text{Te}_3$ thin films. <i>Physical Review B</i> , 2010, 81, .	1.1	35
65	Design of Bulk Thermoelectric Modules for Integrated Circuit Thermal Management. <i>IEEE Transactions on Components and Packaging Technologies</i> , 2006, 29, 750-757.	1.4	34
66	Effect of deposition pressure on the microstructure and thermoelectric properties of epitaxial ScN(001) thin films sputtered onto MgO(001) substrates. <i>Journal of Materials Research</i> , 2015, 30, 626-634.	1.2	34
67	Fused vertical couplers. <i>Applied Physics Letters</i> , 1998, 72, 2637-2638.	1.5	32
68	Effect of Nanoparticles on Electron and Thermoelectric Transport. <i>Journal of Electronic Materials</i> , 2009, 38, 954-959.	1.0	32
69	Synthesis and investigation of thermoelectric and electrochemical properties of porous Ca ₉ Co ₁₂ O ₂₈ nanowires. <i>Journal of Materials Chemistry A</i> , 2013, 1, 11901.	5.2	32
70	Nanoengineered Materials for Thermoelectric Energy Conversion. <i>Topics in Applied Physics</i> , 2009, , 225-299.	0.4	31
71	Thermoelectric topping cycles for power plants to eliminate cooling water consumption. <i>Energy Conversion and Management</i> , 2014, 84, 244-252.	4.4	31
72	Resonant carrier scattering by core-shell nanoparticles for thermoelectric power factor enhancement. <i>Applied Physics Letters</i> , 2012, 100, 012102.	1.5	29

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73	Thermal measurements of active semiconductor micro-structures acquired through the substrate using near IR thermoreflectance. <i>Microelectronics Journal</i> , 2004, 35, 791-796.	1.1	27
74	ErAs:(InGaAs) _{1-x} (InAlAs) _x alloy power generator modules. <i>Applied Physics Letters</i> , 2007, 91, 263510.	1.5	26
75	Thermoelectric power factor enhancement by ionized nanoparticle scattering. <i>Applied Physics Letters</i> , 2011, 99, .	1.5	26
76	Direct measurement of thin-film thermoelectric figure of merit. <i>Applied Physics Letters</i> , 2009, 94, 212508.	1.5	25
77	Monolithic integration of thin-film coolers with optoelectronic devices. <i>Optical Engineering</i> , 2000, 39, 2847.	0.5	23
78	Thermoelectric Micro-Cooler for Hot-Spot Thermal Management. , 2005, , 2161.		23
79	Monte Carlo simulation of electron transport in degenerate and inhomogeneous semiconductors. <i>Applied Physics Letters</i> , 2007, 90, 092111.	1.5	23
80	Quasi-ballistic thermal transport in Al _{0.1} Ga _{0.9} N thin film semiconductors. <i>Applied Physics Letters</i> , 2016, 109, .	1.5	23
81	NONEQUILIBRIUM ELECTRONS AND PHONONS IN THIN FILM THERMIONIC COOLERS. <i>Microscale Thermophysical Engineering</i> , 2004, 8, 91-100.	1.2	22
82	Three-dimensional modeling of nanoscale Seebeck measurements by scanning thermoelectric microscopy. <i>Applied Physics Letters</i> , 2005, 87, 053115.	1.5	22
83	Thermoreflectance CCD Imaging of Self-Heating in Power MOSFET Arrays. <i>IEEE Transactions on Electron Devices</i> , 2014, 61, 3047-3053.	1.6	22
84	Computational simulations as virtual laboratories for online engineering education: A case study in the field of thermoelectricity. <i>Computer Applications in Engineering Education</i> , 2016, 24, 428-442.	2.2	22
85	A biodegradable chipless sensor for wireless subsoil health monitoring. <i>Scientific Reports</i> , 2022, 12, 8011.	1.6	22
86	Fractal L [∞] Heat Transport in Nanoparticle Embedded Semiconductor Alloys. <i>Nano Letters</i> , 2015, 15, 4269-4273.	4.5	21
87	Method of images for the fast calculation of temperature distributions in packaged VLSI chips. , 2007, , .		20
88	Thermoelectric properties of epitaxial TbAs:InGaAs nanocomposites. <i>Journal of Applied Physics</i> , 2012, 111, .	1.1	20
89	Scalable Cost/Performance Analysis for Thermoelectric Waste Heat Recovery Systems. <i>Journal of Electronic Materials</i> , 2012, 41, 1845-1850.	1.0	20
90	Thermoelectric topping cycles with scalable design and temperature dependent material properties. <i>Scripta Materialia</i> , 2016, 111, 58-63.	2.6	20

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91	Battery-Less Wireless Chipless Sensor Tag for Subsoil Moisture Monitoring. IEEE Sensors Journal, 2021, 21, 6071-6082.	2.4	20
92	BEOL Compatible Indium-Tin-Oxide Transistors: Switching of Ultrahigh-Density 2-D Electron Gas Over $0.8 \text{ \AA} - 10^{14} \text{ cm}^{-2}$ at Oxide/Oxide Interface by the Change of Ferroelectric Polarization. IEEE Transactions on Electron Devices, 2021, 68, 3195-3199.	1.6	20
93	Ring Resonator Lasers using Passive Waveguides and Integrated Semiconductor Optical Amplifiers. IEEE Journal of Selected Topics in Quantum Electronics, 2007, 13, 1249-1256.	1.9	18
94	Picosecond Transient Thermal Imaging Using a CCD Based Thermoreflectance System. , 2010, , .		18
95	Growth and characterization of TbAs:GaAs nanocomposites. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2011, 29, .	0.6	18
96	Performance and mass optimization of thermoelectric microcoolers. International Journal of Thermal Sciences, 2015, 97, 143-151.	2.6	17
97	HgCdTe superlattices for solid-state cryogenic refrigeration. Applied Physics Letters, 2006, 88, 132110.	1.5	16
98	Power Generator Modules of Segmented Bi ₂ Te ₃ and ErAs:(InGaAs) _{1-x} (InAlAs) _x . Journal of Electronic Materials, 2008, 37, 1786-1792.	1.0	16
99	Cost-effective waste heat recovery using thermoelectric systems. Journal of Materials Research, 2012, 27, 1211-1217.	1.2	16
100	Cross-plane thermoelectric transport in p-type La _{0.67} Sr _{0.33} MnO ₃ /LaMnO ₃ oxide metal/semiconductor superlattices. Journal of Applied Physics, 2013, 113, 193702.	1.1	16
101	Power Trace: An Efficient Method for Extracting the Power Dissipation Profile in an IC Chip From Its Temperature Map. IEEE Transactions on Components and Packaging Technologies, 2009, 32, 309-316.	1.4	13
102	Cross-plane electronic and thermal transport properties of p-type La _{0.67} Sr _{0.33} MnO ₃ /LaMnO ₃ perovskite oxide metal/semiconductor superlattices. Journal of Applied Physics, 2012, 112, 063714.	1.1	13
103	Fast transient thermoreflectance CCD imaging of pulsed self heating in AlGaIn/GaN power transistors. , 2013, , .		13
104	High exergetic modified Brayton cycle with thermoelectric energy conversion. Applied Thermal Engineering, 2017, 114, 1366-1371.	3.0	13
105	Thermal imaging of encapsulated LEDs. , 2011, , .		11
106	Energy efficient liquid-thermoelectric hybrid cooling for hot-spot removal. , 2012, , .		11
107	Seebeck Enhancement Through Miniband Conduction in III-V Semiconductor Superlattices at Low Temperatures. Journal of Electronic Materials, 2012, 41, 1498-1503.	1.0	11
108	Reduced thermal conductivity in Er-doped epitaxial In _x Ga _{1-x} Sb alloys. Applied Physics Letters, 2013, 103, .	1.5	11

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109	Evidence of Universal Temperature Scaling in Self-Heated Percolating Networks. Nano Letters, 2016, 16, 3130-3136.	4.5	11
110	High-Temperature Thermoelectric Characterization of III-V Semiconductor Thin Films by Oxide Bonding. Journal of Electronic Materials, 2010, 39, 1125-1132.	1.0	10
111	Cooling power optimization for hybrid solid-state and liquid cooling in integrated circuit chips with hotspots. , 2012, , .		10
112	Experimental Characterization of Hybrid Solid-State and Fluidic Cooling for Thermal Management of Localized Hotspots. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2015, 5, 57-64.	1.4	10
113	Conservation of Lateral Momentum in Heterostructure Integrated Thermionic Coolers. Materials Research Society Symposia Proceedings, 2001, 691, 1.	0.1	9
114	Transient Harman Measurement of the Cross-plane ZT of InGaAs/InGaAlAs Superlattices with Embedded ErAs Nanoparticles. Materials Research Society Symposia Proceedings, 2005, 886, 1.	0.1	9
115	Bulk-Like Laminated Nitride Metal/Semiconductor Superlattices for Thermoelectric Devices. Journal of Microelectromechanical Systems, 2014, 23, 672-680.	1.7	9
116	Enhanced thermoelectric performance of P-type $\text{Bi}_{1-x}\text{Sb}_x$ superlattices. Extreme Mechanics Letters, 2016, 9, 386-396.	2.0	9
117	Influence of Doping Concentration and Ambient Temperature on the Cross-Plane Seebeck Coefficient of InGaAs/InAlAs superlattices. Materials Research Society Symposia Proceedings, 2003, 793, 140.	0.1	8
118	Cooling Power Density of SiGe/Si Superlattice Micro Refrigerators. Materials Research Society Symposia Proceedings, 2003, 793, 124.	0.1	8
119	Nanosecond transient thermoreflectance imaging of snapback in semiconductor controlled rectifiers. , 2011, , .		7
120	Frequency-Dependent Thermal Conductivity in Time Domain Thermoreflectance Analysis of Thin Films. Materials Research Society Symposia Proceedings, 2011, 1347, 1.	0.1	7
121	Enabling power density and thermal-aware floorplanning. , 2012, , .		7
122	Transient Self-Heating at Nanowire Junctions in Silver Nanowire Network Conductors. IEEE Nanotechnology Magazine, 2018, 17, 1171-1180.	1.1	7
123	Far-field thermal imaging below diffraction limit. Optics Express, 2020, 28, 7036.	1.7	7
124	Enhancement of Thermal Transfer From Ga_2O_3 Nano-Membrane Field-Effect Transistors to High Thermal Conductivity Substrate by Inserting an Interlayer. IEEE Transactions on Electron Devices, 2022, 69, 1186-1190.	1.6	7
125	Experimental Characterization and Modeling of InP-based Microcoolers. Materials Research Society Symposia Proceedings, 2003, 793, 87.	0.1	6
126	Valleytronics of III-V solid solutions for thermoelectric application. RSC Advances, 2017, 7, 7310-7314.	1.7	6

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127	Transient Thermal Response of Hotspots in Graphene-Silver Nanowire Hybrid Transparent Conducting Electrodes. IEEE Nanotechnology Magazine, 2018, 17, 276-284.	1.1	6
128	<title>High-resolution noncontact thermal characterization of semiconductor devices</title>. , 2001, , .		5
129	3D Electrothermal Simulation of Heterostructure Thin Film Micro-Coolers. , 2003, , 39.		5
130	Cooling Enhancement Using Inhomogeneous Thermoelectric Materials. , 2006, , .		5
131	Extraction of Power Dissipation Profile in an IC Chip from Temperature Map. IEEE Semiconductor Thermal Measurement and Management Symposium, 2007, , .	0.0	5
132	Short Time Transient Behavior of SiGe-based Microrefrigerators. Materials Research Society Symposia Proceedings, 2009, 1166, 6.	0.1	5
133	Application of thermoreflectance imaging to identify defects in photovoltaic solar cells. , 2010, , .		5
134	Cost performance trade-off in thermoelectric modules with low fractional area coverage. Materials Research Society Symposia Proceedings, 2012, 1396, .	0.1	5
135	Calculation of Nonlinear Thermoelectric Coefficients of InAs _{1-x} Sb _x Using Monte Carlo Method. Journal of Electronic Materials, 2012, 41, 1370-1375.	1.0	5
136	MOCVD Growth of Erbium Monoantimonide Thin Film and Nanocomposites for Thermoelectrics. Journal of Electronic Materials, 2012, 41, 971-976.	1.0	5
137	Fuel-burning thermoelectric generators for the future of electric vehicles. Energy Conversion and Management, 2021, 227, 113523.	4.4	5
138	<title>Integrated cooling for optoelectronic devices</title>. , 2000, , .		4
139	Experimental Investigation of Thin Film InGaAsP Coolers. Materials Research Society Symposia Proceedings, 2000, 626, 1441.	0.1	4
140	Temperature Profile Inside Microscale Thermoelectric Module Acquired Using Near-Infrared Thermoreflectance. IEEE Transactions on Components and Packaging Technologies, 2009, 32, 447-452.	1.4	4
141	Experimental validation of the power blurring method. , 2010, , .		4
142	Ultrafast submicron thermal characterization of integrated circuits. , 2012, , .		4
143	Thermal challenges on solar concentrated thermoelectric CHP systems. , 2012, , .		4
144	Thermoelectric Transport in InGaAs with High Concentration of Rare-Earth TbAs Embedded Nanoparticles. Journal of Electronic Materials, 2012, 41, 1820-1825.	1.0	4

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145	Numerical Model of Thermoelectric Topping Cycle of Coal-Fired Power Plant. Journal of Heat Transfer, 2015, 137, .	1.2	4
146	Analytical Optimization of the Design of Film-Laminated Thermoelectric Power Generators. Journal of Electronic Materials, 2019, 48, 7312-7319.	1.0	4
147	High Thermoelectric Power Factor and ZT in TbAs:InGaAs Epitaxial Nanocomposite Material. Advanced Electronic Materials, 2019, 5, 1900015.	2.6	4
148	Anisotropic thermal conductivity of the nanoparticles embedded GaSb thin film semiconductor. Nanotechnology, 2021, 32, 035702.	1.3	4
149	Characteristic equations for different ARROW structures. Optical and Quantum Electronics, 1999, 31, 1267-1276.	1.5	3
150	High Cooling Power Density of SiGe/Si Superlattice Microcoolers. Materials Research Society Symposia Proceedings, 2001, 691, 1.	0.1	3
151	Enhanced Cooling in Doped Semiconductors Due to Nonlinear Peltier Effect. Materials Research Society Symposia Proceedings, 2007, 1044, 1.	0.1	3
152	Characterization of Thin-film Thermoelectric Micro-modules using Transient Harman ZT Measurement and Near-IR Thermoreflectance. Materials Research Society Symposia Proceedings, 2007, 1044, 1.	0.1	3
153	Enhanced Hot Spot Cooling Using Bonded Superlattice Microcoolers With a Trench Structure. IEEE Transactions on Components and Packaging Technologies, 2008, 31, 552-558.	1.4	3
154	System optimization of hot water concentrated solar thermoelectric generation. , 2010, , .		3
155	Controlling n-Type Carrier Density from Er Doping of InGaAs with MBE Growth Temperature. Journal of Electronic Materials, 2012, 41, 948-953.	1.0	3
156	Electron Transport Engineering by Nanostructures for Efficient Thermoelectrics. Lecture Notes in Nanoscale Science and Technology, 2014, , 41-92.	0.4	3
157	Thermal optimization of embedded thermoelectric generators in refractory furnaces. , 2016, , .		3
158	Electroreflectance imaging of gold-H3PO4 supercapacitors. Part II: microsupercapacitor ageing characterization. Analyst, The, 2016, 141, 1462-1471.	1.7	3
159	High-power limitation of passive ring-resonator-coupled lasers in the presence of material nonlinearity. Journal of Applied Physics, 2004, 95, 3816-3818.	1.1	2
160	Solid-State and Vacuum Thermionic Energy Conversion. Materials Research Society Symposia Proceedings, 2005, 886, 1.	0.1	2
161	Temperature nonuniformity and bias-dependent thermal resistance in multi-finger MOS transistors. , 2008, , .		2
162	Thermal characterization of high power transistor arrays. , 2009, , .		2

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163	Thermal imaging of nanometer features. , 2016, , .		2
164	The Effects of Defects and Acoustic Impedance Mismatch on Heat Conduction in SiGe Based Superlattices. , 2002, , 19.		1
165	SiGeC Cantilever Micro Cooler. Materials Research Society Symposia Proceedings, 2003, 793, 80.	0.1	1
166	400 element ErAs:InGaAs/InGaAlAs superlattice power generator. Materials Research Society Symposia Proceedings, 2005, 886, 1.	0.1	1
167	ErAs/InGaAs superlattice Seebeck coefficient. , 2005, , .		1
168	Phonon Confinement in Germanium Nanowires. , 2006, , .		1
169	Characterization of Heat Propagation along Single Tin Dioxide Nanobelt Using the Thermoreflectance Method. Materials Research Society Symposia Proceedings, 2007, 1022, 1.	0.1	1
170	Novel metal/semiconductor nanocomposite and superlattice materials and devices for thermoelectrics. , 2010, , .		1
171	Design and thermoreflectance imaging of high-speed SiGe superlattice microrefrigerators. Materials Research Society Symposia Proceedings, 2011, 1329, 1.	0.1	1
172	Power Generation Efficiency with Extremely Large Z factor Thermoelectric Material. Materials Research Society Symposia Proceedings, 2011, 1325, 9.	0.1	1
173	Simulation and Design of a Silicon Nanowire based Phase Change Memory Cell. Materials Research Society Symposia Proceedings, 2012, 1431, 20.	0.1	1
174	Ballistic heat transport and associated frequency dependence of thermal conductivity in semiconductor alloys. , 2012, , .		1
175	Analytic Optimization of Cost Effective Thermoelectric Generation on Top of Rankine Cycle. , 2013, , .		1
176	Heat Flux Based Optimization of Combined Heat and Power Thermoelectric Heat Exchanger. Energies, 2021, 14, 7791.	1.6	1
177	Thermal Conductivity Reduction in Nanostructured Semiconductor Using Broad-Band-Phonon Scattering. , 2004, , 55.		0
178	Design of Heterostructures for High Efficiency Thermionic Emission. Materials Research Society Symposia Proceedings, 2005, 886, 1.	0.1	0
179	A wavelength-tunable monolithically integrated double ring resonator coupled laser. , 2006, , .		0
180	Segmented Power Generator Modules of Bi2Te3 and ErAs:InGaAlAs Embedded with ErAs Nanoparticles. Materials Research Society Symposia Proceedings, 2007, 1044, 1.	0.1	0

#	ARTICLE	IF	CITATIONS
181	Solid-state microrefrigeration in conjunction with liquid cooling. , 2008, , .		0
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