Xiulin Ruan

List of Publications by Year
in descending order

186 papers	8,648 citations	34105 52 h-index	46799 89 g-index
189 all docs	189 docs citations	189 times ranked	7001 citing authors

#	Article	IF	Citations
1	Thermal Conductivity and Thermal Rectification in Graphene Nanoribbons: A Molecular Dynamics Study. Nano Letters, 2009, 9, 2730-2735.	9.1	716
2	Four-phonon scattering significantly reduces intrinsic thermal conductivity of solids. Physical Review B, 2017, 96, .	3.2	378
3	Double-layer nanoparticle-based coatings for efficient terrestrial radiative cooling. Solar Energy Materials and Solar Cells, 2017, 168, 78-84.	6.2	356
4	Nanoparticle embedded double-layer coating for daytime radiative cooling. International Journal of Heat and Mass Transfer, 2017, 104, 890-896.	4.8	310
5	Ultrawhite BaSO₄ Paints and Films for Remarkable Daytime Subambient Radiative Cooling. ACS Applied Materials & Interfaces, 2021, 13, 21733-21739.	8.0	267
6	Quantum mechanical prediction of four-phonon scattering rates and reduced thermal conductivity of solids. Physical Review B, 2016, 93, .	3.2	204
7	Phonon Lateral Confinement Enables Thermal Rectification in Asymmetric Single-Material Nanostructures. Nano Letters, 2014, 14, 592-596.	9.1	191
8	Optical absorption enhancement in disordered vertical silicon nanowire arrays for photovoltaic applications. Optics Letters, 2010, 35, 3378.	3.3	156
9	Reduction of spectral phonon relaxation times from suspended to supported graphene. Applied Physics Letters, 2012, 100, .	3.3	153
10	Molecular dynamics simulations of lattice thermal conductivity and spectral phonon mean free path of PbTe: Bulk and nanostructures. Computational Materials Science, 2012, 53, 278-285.	3.0	150
11	Tuning the thermal conductivity of graphene nanoribbons by edge passivation and isotope engineering: A molecular dynamics study. Applied Physics Letters, 2010, 97, 133107.	3.3	146
12	FourPhonon: An extension module to ShengBTE for computing four-phonon scattering rates and thermal conductivity. Computer Physics Communications, 2022, 270, 108179.	7.5	145
13	First-principles simulation of electron mean-free-path spectra and thermoelectric properties in silicon. Europhysics Letters, 2015, 109, 57006.	2.0	144
14	Molecular dynamics simulations of lattice thermal conductivity of bismuth telluride using two-body interatomic potentials. Physical Review B, 2009, 80, .	3.2	139
15	Four-phonon scattering reduces intrinsic thermal conductivity of graphene and the contributions from flexural phonons. Physical Review B, 2018, 97, .	3.2	137
16	First principles calculation of lattice thermal conductivity of metals considering phonon-phonon and phonon-electron scattering. Journal of Applied Physics, 2016, 119, .	2.5	121
17	Full Daytime Sub-ambient Radiative Cooling in Commercial-like Paints with High FigureÂof Merit. Cell Reports Physical Science, 2020, 1, 100221.	5.6	121
18	Highly Porous Thermoelectric Nanocomposites with Low Thermal Conductivity and High Figure of Merit from Largeâ€Scale Solutionâ€Synthesized Bi₂Te_{2.5}Se_{0.5} Hollow Nanostructures. Angewandte Chemie - International Edition, 2017, 56, 3546-3551.	13.8	114

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19	Comprehensive first-principles analysis of phonon thermal conductivity and electron-phonon coupling in different metals. Physical Review B, 2019, 100, .	3.2	114
20	Thermal Transport in Graphene Nanostructures: Experiments and Simulations. ECS Transactions, 2010, 28, 73-83.	0.5	110
21	Survey of ab initio phonon thermal transport. Materials Today Physics, 2018, 7, 106-120.	6.0	108
22	Synthesis and Thermoelectric Properties of Compositional-Modulated Lead Tellurideâ€“Bismuth Telluride Nanowire Heterostructures. Nano Letters, 2013, 13, 2058-2063.	9.1	105
23	Decomposition of coherent and incoherent phonon conduction in superlattices and random multilayers. Physical Review B, 2014, 90, .	3.2	104
24	Two-temperature nonequilibrium molecular dynamics simulation of thermal transport across metal-nonmetal interfaces. Physical Review B, 2012, 85, .	3.2	103
25	Electrical and thermal conductivities of reduced graphene oxide/polystyrene composites. Applied Physics Letters, 2014, 104, .	3.3	103
26	Reliability of Raman measurements of thermal conductivity of single-layer graphene due to selective electron-phonon coupling: A first-principles study. Physical Review B, 2016, 93, .	3.2	101
27	A strategy of hierarchical particle sizes in nanoparticle composite for enhancing solar reflection. International Journal of Heat and Mass Transfer, 2019, 131, 487-494.	4.8	98
28	Spectral phonon mean free path and thermal conductivity accumulation in defected graphene: The effects of defect type and concentration. Physical Review B, 2015, 91, .	3.2	97
29	Edge effect on thermal transport in graphene nanoribbons: A phonon localization mechanism beyond edge roughness scattering. Applied Physics Letters, 2012, 101, .	3.3	93
30	Tunable thermal rectification in graphene nanoribbons through defect engineering: A molecular dynamics study. Applied Physics Letters, 2012, 100, 163101.	3.3	89
31	Multiple scattering and nonlinear thermal emission of Yb3+, Er3+:Y2O3 nanopowders. Journal of Applied Physics, 2004, 95, 4069-4077.	2.5	83
32	Optical properties of ordered vertical arrays of multi-walled carbon nanotubes from FDTD simulations. Optics Express, 2010, 18, 6347.	3.4	82
33	Cross-plane thermal properties of transition metal dichalcogenides. Applied Physics Letters, 2013, 102, .	3.3	82
34	Unexpected high inelastic phonon transport across solid-solid interface: Modal nonequilibrium molecular dynamics simulations and Landauer analysis. Physical Review B, 2019, 99, .	3.2	82
35	Vibrational hierarchy leads to dual-phonon transport in low thermal conductivity crystals. Nature Communications, 2020, 11, 2554.	12.8	79
36	Spectral analysis of nonequilibrium molecular dynamics: Spectral phonon temperature and local nonequilibrium in thin films and across interfaces. Physical Review B, 2017, 95, .	3.2	78

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37	Prediction of Spectral Phonon Mean Free Path and Thermal Conductivity with Applications to Thermoelectrics and Thermal Management: A Review. Journal of Nanomaterials, 2014, 2014, 1-25.	2.7	74
38	Stronger role of four-phonon scattering than three-phonon scattering in thermal conductivity of III-V semiconductors at room temperature. Physical Review B, 2019, 100, .	3.2	72
39	Thermal conductivity and spectral phonon properties of freestanding and supported silicene. Journal of Applied Physics, 2015, 117, 084317.	2.5	71
40	Nanocomposites from Solutionâ€Synthesized PbTeâ€BiSbTe Nanoheterostructure with Unity Figure of Merit at Lowâ€Medium Temperatures (500â€"600 K). Advanced Materials, 2017, 29, 1605140.	21.0	70
41	Atmospheric Water Harvesting by Large-Scale Radiative Cooling Cellulose-Based Fabric. Nano Letters, 2022, 22, 2618-2626.	9.1	68
42	Thermal conductivity prediction and analysis of few-quintuple Bi2Te3 thin films: A molecular dynamics study. Applied Physics Letters, 2010, 97, .	3.3	67
43	Lattice thermal conductivity reduction in Bi<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow /><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>Te<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow /><mml:mrow><mml:mn>3</mml:mn></mml:mro	3.2	64
44	Thermal transport at the nanoscale: A Fourier's law vs. phonon Boltzmann equation study. Journal of Applied Physics, 2017, 121, .	2.5	64
45	Enhanced laser cooling of rare-earth-ion-doped nanocrystalline powders. Physical Review B, 2006, 73, .	3.2	63
46	Nonlinear thermal transport and negative differential thermal conductance in graphene nanoribbons. Applied Physics Letters, 2011, 99, .	3.3	63
47	Direct methane activation by atomically thin platinum nanolayers on two-dimensional metal carbides. Nature Catalysis, 2021, 4, 882-891.	34.4	63
48	Optical Generation and Detection of Local Nonequilibrium Phonons in Suspended Graphene. Nano Letters, 2017, 17, 2049-2056.	9.1	60
49	Genetic algorithm-driven discovery of unexpected thermal conductivity enhancement by disorder. Nano Energy, 2020, 71, 104619.	16.0	57
50	Anharmonicity and necessity of phonon eigenvectors in the phonon normal mode analysis. Journal of Applied Physics, 2015, 117, 195102.	2.5	56
51	High-Performance Thermal Interface Material Based on Few-Layer Graphene Composite. Journal of Physical Chemistry C, 2015, 119, 26753-26759.	3.1	56
52	Machine learning maximized Anderson localization of phonons in aperiodic superlattices. Nano Energy, 2020, 69, 104428.	16.0	56
53	Optimization of the random multilayer structure to break the random-alloy limit of thermal conductivity. Applied Physics Letters, 2015, 106, .	3.3	53
54	Two-Dimensional Thermal Transport in Graphene: A Review of Numerical Modeling Studies. Nanoscale and Microscale Thermophysical Engineering, 2014, 18, 155-182.	2.6	52

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55	Thermal transport across carbon nanotube-graphene covalent and van der Waals junctions. Journal of Applied Physics, 2015, 118, .	2.5	52
56	Machine learning prediction of thermal transport in porous media with physics-based descriptors. International Journal of Heat and Mass Transfer, 2020, 160, 120176.	4.8	52
57	Ultra-low thermal conductivity in graphene nanomesh. Carbon, 2016, 101, 107-113.	10.3	51
58	Enhanced Thermoelectric Performance of As-Grown Suspended Graphene Nanoribbons. ACS Nano, 2019, 13, 9182-9189.	14.6	51
59	Tunable thermal transport and thermal rectification in strained graphene nanoribbons. Physical Review B, 2012, 85, .	3.2	49
60	Metal/dielectric thermal interfacial transport considering cross-interface electron-phonon coupling: Theory, two-temperature molecular dynamics, and thermal circuit. Physical Review B, 2016, 93, .	3.2	49
61	Ultrahigh Thermal Conductivity of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Î¸</mml:mi></mml:math> -Phase Tantalum Nitride. Physical Review Letters, 2021, 126, 115901.	7.8	46
62	Mode-Wise Thermal Conductivity of Bismuth Telluride. Journal of Heat Transfer, 2013, 135, .	2.1	45
63	The effects of diameter and chirality on the thermal transport in free-standing and supported carbon-nanotubes. Applied Physics Letters, 2012, 100, .	3.3	44
64	Observation of strong higher-order lattice anharmonicity in Raman and infrared spectra. Physical Review B, 2020, 101, .	3.2	43
65	Spectral phonon thermal properties in graphene nanoribbons. Carbon, 2015, 93, 915-923.	10.3	42
66	Wide range continuously tunable and fast thermal switching based on compressible graphene composite foams. Nature Communications, 2021, 12, 4915.	12.8	41
67	Phonon branch-resolved electron-phonon coupling and the multitemperature model. Physical Review B, 2018, 98, .	3.2	39
68	Anisotropic thermal conductivity in 2D tellurium. 2D Materials, 2020, 7, 015008.	4.4	39
69	Effect of interlayer on interfacial thermal transport and hot electron cooling in metal-dielectric systems: An electron-phonon coupling perspective. Journal of Applied Physics, 2016, 119, .	2.5	38
70	Thermoelectric properties of solution-synthesized n-type Bi2Te3 nanocomposites modulated by Se: An experimental and theoretical study. Nano Research, 2016, 9, 117-127.	10.4	36
71	Temperature dependence of hot-carrier relaxation in PbSe nanocrystals: An<i>ab initio</i>study. Physical Review B, 2009, 79, .	3.2	34
72	Uncertainty quantification of thermal conductivities from equilibrium molecular dynamics simulations. International Journal of Heat and Mass Transfer, 2017, 112, 267-278.	4.8	34

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73	Shape and Temperature Dependence of Hot Carrier Relaxation Dynamics in Spherical and Elongated CdSe Quantum Dots. Journal of Physical Chemistry C, 2011, 115, 11400-11406.	3.1	33
74	Observation of nonclassical scaling laws in the quality factors of cantilevered carbon nanotube resonators. Journal of Applied Physics, 2011, 110, .	2.5	33
75	A first-principles molecular dynamics approach for predicting optical phonon lifetimes and far-infrared reflectance of polar materials. Journal of Quantitative Spectroscopy and Radiative Transfer, 2012, 113, 1683-1688.	2.3	33
76	Interfacial thermal conductance limit and thermal rectification across vertical carbon nanotube/graphene nanoribbon-silicon interfaces. Journal of Applied Physics, 2013, 113, 064311.	2.5	32
77	First-principles predictions of temperature-dependent infrared dielectric function of polar materials by including four-phonon scattering and phonon frequency shift. Physical Review B, 2020, 101, .	3.2	32
78	On the domain size effect of thermal conductivities from equilibrium and nonequilibrium molecular dynamics simulations. Journal of Applied Physics, 2017, 121, .	2.5	30
79	Measurement of Thermal Conductivity of PbTe Nanocrystal Coated Glass Fibers by the 3Ï‰ Method. Nano Letters, 2013, 13, 5006-5012.	9.1	29
80	Entropy and efficiency in laser cooling of solids. Physical Review B, 2007, 75, .	3.2	28
81	Self-templated synthesis and thermal conductivity investigation for ultrathin perovskite oxide nanowires. Nanoscale, 2011, 3, 4078.	5.6	27
82	Facile synthesis of ultra-small Bi2Te3 nanoparticles, nanorods and nanoplates and their morphology-dependent Raman spectroscopy. Materials Letters, 2012, 82, 112-115.	2.6	27
83	Phonon anharmonic frequency shift induced by four-phonon scattering calculated from first principles. Journal of Applied Physics, 2018, 124, .	2.5	27
84	Coupling between phonon-phonon and phonon-impurity scattering: A critical revisit of the spectral Matthiessen's rule. Physical Review B, 2015, 92, .	3.2	26
85	Highly Porous Thermoelectric Nanocomposites with Low Thermal Conductivity and High Figure of Merit from Largeâ€Scale Solutionâ€Synthesized Bi₂Te_{2.5}Se_{0.5} Hollow Nanostructures. Angewandte Chemie, 2017, 129, 3600-3605.	2.0	26
86	Ab initio calculations of thermal radiative properties: The semiconductor GaAs. International Journal of Heat and Mass Transfer, 2010, 53, 1308-1312.	4.8	25
87	Molecular Dynamics Calculation of Thermal Conductivity of Graphene Nanoribbons. , 2009, , .		24
88	Glassâ€Like Throughâ€Plane Thermal Conductivity Induced by Oxygen Vacancies in Nanoscale Epitaxial La_{0.5}Sr_{0.5}CoO_{3âˆ'}<i>_{Î´}</i>. Advanced Functional Materials, 2017, 27, 1704233.	14.9	24
89	Flexural resonance mechanism of thermal transport across graphene-SiO2 interfaces. Journal of Applied Physics, 2018, 123, .	2.5	24
90	Reducing interfacial thermal resistance between metal and dielectric materials by a metal interlayer. Journal of Applied Physics, 2019, 125, .	2.5	24

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91	Enhanced nonradiative relaxation and photoluminescence quenching in random, doped nanocrystalline powders. Journal of Applied Physics, 2005, 97, 104331.	2.5	23
92	Advances in Laser Cooling of Solids. Journal of Heat Transfer, 2007, 129, 3-10.	2.1	23
93	Equi-biaxial compressive strain in graphene: GrÃ¼neisen parameter and buckling ridges. 2D Materials, 2019, 6, 015026.	4.4	22
94	Theory of the broadening of vibrational spectra induced by lowered symmetry in yttria nanostructures. Physical Review B, 2008, 78, .	3.2	21
95	Manipulating Band Structure through Reconstruction of Binary Metal Sulfide for Highâ€Performance Thermoelectrics in Solutionâ€Synthesized Nanostructured Bi₁₃S₁₈I₂. Angewandte Chemie - International Edition, 2018, 57, 2413-2418.	13.8	20
96	PHOTON LOCALIZATION AND ELECTROMAGNETIC FIELD ENHANCEMENT IN LASER-IRRADIATED, RANDOM POROUS MEDIA. Microscale Thermophysical Engineering, 2005, 9, 63-84.	1.2	19
97	Raman Linewidth Contributions from Four-Phonon and Electron-Phonon Interactions in Graphene. Physical Review Letters, 2022, 128, 045901.	7.8	19
98	Concentrated radiative cooling. Applied Energy, 2022, 310, 118368.	10.1	18
99	Perspective: Predicting and optimizing thermal transport properties with machine learning methods. Energy and AI, 2022, 8, 100153.	10.6	18
100	An investigation of the optical properties of disordered silicon nanowire mats. Journal of Applied Physics, 2012, 112, .	2.5	16
101	Molecular Dynamics Study of Thermal Rectification in Graphene Nanoribbons. International Journal of Thermophysics, 2012, 33, 986-991.	2.1	16
102	The critical particle size for enhancing thermal conductivity in metal nanoparticle-polymer composites. Journal of Applied Physics, 2018, 123, .	2.5	16
103	Low-reflectance laser-induced surface nanostructures created with a picosecond laser. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	15
104	A band-pass filter approach within molecular dynamics for the prediction of intrinsic quality factors of nanoresonators. Journal of Applied Physics, 2012, 112, .	2.5	14
105	Optical properties of ordered carbon nanotube arrays grown in porous anodic alumina templates. Optics Express, 2013, 21, 22053.	3.4	14
106	Quantifying Uncertainty in Multiscale Heat Conduction Calculations. Journal of Heat Transfer, 2014, 136, .	2.1	13
107	Effect of Particle Size and Aggregation on Thermal Conductivity of Metalâ€“Polymer Nanocomposite. Journal of Heat Transfer, 2017, 139, .	2.1	13
108	Dominant phonon polarization conversion across dimensionally mismatched interfaces: Carbon-nanotubeâ€“graphene junction. Physical Review B, 2018, 97, .	3.2	13

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109	Role of phonon coupling and non-equilibrium near the interface to interfacial thermal resistance: The multi-temperature model and thermal circuit. Journal of Applied Physics, 2019, 125, .	2.5	13
110	Thermal boundary resistance predictions with non-equilibrium Green's function and molecular dynamics simulations. Applied Physics Letters, 2019, 115, .	3.3	11
111	Imaging of Thermal Conductivity with Sub-Micrometer Resolution Using Scanning Thermal Microscopy. International Journal of Thermophysics, 2002, 23, 1115-1124.	2.1	10
112	Luminescence dynamics of Te doped CdS quantum dots at different doping levels. Nanotechnology, 2010, 21, 265704.	2.6	10
113	Energy relaxation in CdSe nanocrystals: the effects of morphology and film preparation. Optics Express, 2013, 21, A15.	3.4	10
114	Enhancing photo-induced ultrafast charge transfer across heterojunctions of CdS and laser-sintered TiO₂ nanocrystals. Physical Chemistry Chemical Physics, 2014, 16, 10669-10678.	2.8	10
115	Decomposition of the Thermal Boundary Resistance across Carbon Nanotubeâ€"Graphene Junctions to Different Mechanisms. ACS Applied Materials & Interfaces, 2018, 10, 15226-15231.	8.0	10
116	Evidence of fifth- and higher-order phonon scattering entropy of zone-center optical phonons. Physical Review B, 2022, 105, .	3.2	10
117	Effects of randomness and inclination on the optical properties of multi-walled carbon nanotube arrays. Journal of Quantitative Spectroscopy and Radiative Transfer, 2014, 132, 22-27.	2.3	9
118	Nonequilibrium phonon transport induced by finite sizes: Effect of phonon-phonon coupling. Physical Review B, 2021, 104, .	3.2	9
119	Prediction of Bi₂Te₃-Sb₂Te₃ Interfacial Conductance and Superlattice Thermal Conductivity Using Molecular Dynamics Simulations. ACS Applied Materials & Interfaces, 2021, 13, 4636-4642.	8.0	9
120	<I>Ab Initio</I> Photon-Electron and Electron-Vibration Coupling Calculations Related to Laser Cooling of Ion-Doped Solids. Journal of Computational and Theoretical Nanoscience, 2008, 5, 221-229.	0.4	9
121	Welding of Semiconductor Nanowires by Coupling Laser-Induced Peening and Localized Heating. Scientific Reports, 2015, 5, 16052.	3.3	8
122	Compressive mechanical response of graphene foams and their thermal resistance with copper interfaces. APL Materials, 2017, 5, .	5.1	8
123	Phonon spectral energy density analysis of solids: The <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si2.gif" overflow="scroll"><mml:mrow><mml:mi mathvariant="bold">k</mml:mi></mml:mrow></mml:math> point reduction in the first Brillouin zone of FCC crystals and a case study on solid argon. Computational Materials Science, 2016, 121, 97-105.	3.0	7
124	Absorption Spectra and Electron-Vibration Coupling of Ti:Sapphire From First Principles. Journal of Heat Transfer, 2016, 138, .	2.1	7
125	Development of interatomic potentials for the complex binary compound Sb2Te3 and the prediction of thermal conductivity. Physical Review B, 2019, 99, .	3.2	7
126	Enhancement of Thermal Transfer From Î²-Ga₂O₃ Nano-Membrane Field-Effect Transistors to High Thermal Conductivity Substrate by Inserting an Interlayer. IEEE Transactions on Electron Devices, 2022, 69, 1186-1190.	3.0	7

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127	Effects of rapid thermal processing and pulse-laser sintering on CdTe nanofilms for photovoltaic applications. , 2012, , .		6
128	Absence of coupled thermal interfaces in Al2O3/Ni/Al2O3 sandwich structure. Applied Physics Letters, 2017, 111, .	3.3	6
129	Unexpected thermal conductivity enhancement in aperiodic superlattices discovered using active machine learning. Npj Computational Materials, 2022, 8, .	8.7	6
130	Molecular Dynamics Simulations of Lattice Thermal Conductivity and Spectral Phonon Mean Free Path of PbTe: Bulk and Nanostructures. , 2012, , .		5
131	Defect-Induced Mechanical Mode Splitting in Carbon Nanotube Resonators. Journal of Vibration and Acoustics, Transactions of the ASME, 2013, 135, .	1.6	5
132	Optical properties of thin graphitic nanopetal arrays. Journal of Quantitative Spectroscopy and Radiative Transfer, 2015, 158, 84-90.	2.3	5
133	Higher-order phonon scattering: advancing the quantum theory of phonon linewidth, thermal conductivity and thermal radiative properties. , 0, , 2-1-2-44.		5
134	Quantifying the diverse wave effects in thermal transport of nanoporous graphene. Carbon, 2022, 197, 18-26.	10.3	5
135	Multiscale Simulations of Thermoelectric Properties of PBTE. , 2008, , .		4
136	Thermal Conductivity: Glassâ€Like Throughâ€Plane Thermal Conductivity Induced by Oxygen Vacancies in Nanoscale Epitaxial La_{0.5}Sr_{0.5}CoO_{3â^'}<i>_{Î´}</i> (Adv.) Tj ETQq0 0 0 rgBT /Overlock	14.9	4
137	Thermal Conductivity Measurement of Graphene Composite. Materials Research Society Symposia Proceedings, 2013, 1456, 57.	0.1	3
138	Effects of nanocrystal shape and size on the temperature sensitivity in Raman thermometry. Applied Physics Letters, 2013, 103, 083107.	3.3	3
139	First Principles and Finite Element Predictions of Radiative Properties of Nanostructure Arrays: Single-Walled Carbon Nanotube Arrays. Journal of Heat Transfer, 2014, 136, .	2.1	3
140	Analysis of Visible Radiative Properties of Vertically Aligned Multi-Walled Carbon Nanotubes. , 2010, , .		2
141	The Effects of Diameter and Chirality in the Thermal Transport in Free-Standing and Supported Carbon-Nanotubes. , 2012, , .		2
142	Facile In Situ Growth of Nanostructured Copper Sulfide Films Directly on FTO Coated Glass Substrates as Efficient Counter Electrodes for Quantum Dot Sensitized Solar Cells. ChemistrySelect, 2017, 2, 10736-10740.	1.5	2
143	The use of strain and grain boundaries to tailor phonon transport properties: A first-principles study of 2H-phase CuAlO2. II. Journal of Applied Physics, 2020, 127, .	2.5	2
144	Abnormal in-plane thermal conductivity anisotropy in bilayer Î±-phase tellurene. International Journal of Heat and Mass Transfer, 2022, 192, 122908.	4.8	2

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145	Energy savings of radiative cooling paints applied to residential buildings. International Journal of Heat and Mass Transfer, 2022, 194, 123001.	4.8	2
146	Entropy and Efficiency in Laser Cooling of Solids. , 2007, , 59.		1
147	Temperature dependence of hot carrier relaxation in PbSe nanocrystals: an ab initio study. , 2009, , .		1
148	Optical properties of vertical silicon nanowire arrays with random position, diameter, or length. Proceedings of SPIE, 2010, , .	0.8	1
149	Thermal Rectification in Graphene and Carbon Nanotube Systems Using Molecular Dynamics Simulations. , 2011, , .		1
150	Mechanism of Thermal Conductivity Reduction From Suspended to Supported Graphene: A Quantitative Spectral Analysis of Phonon Scattering. , 2011, , .		1
151	Thermal Radiative Properties of Vertical Graphitic Petal Arrays. , 2012, , .		1
152	Quantifying Uncertainty in Multiscale Heat Conduction Calculations. , 2012, , .		1
153	Two-Temperature Non-Equilibrium Molecular Dynamics Simulation of Thermal Transport Across Metal-Nonmetal Interfaces. , 2012, , .		1
154	An Evaluation of Energy Transfer Pathways in Thermal Transport Across Solid/Solid Interfaces. , 2013, , .		1
155	A Study of Spatially-Resolved Non-Equilibrium in Laser-Irradiated Graphene Using Boltzmann Transport Equation. , 2013, , .		1
156	(Invited) Thermal Transport in Graphene and Graphene-based Composites. ECS Transactions, 2013, 53, 41-50.	0.5	1
157	Thermal Interfacial Resistance Reduction Between Metal and Dielectric Materials by Inserting Intermediate Metal Layer. , 2016, , .		1
158	Publisher's Note: Coupling between phonon-phonon and phonon-impurity scattering: A critical revisit of the spectral Matthiessen's rule [Phys. Rev. B92, 235206 (2015)]. Physical Review B, 2016, 93, .	3.2	1
159	Evolution of in-plane heat transport in tellurium from 2D to 3D. Materials Today Physics, 2022, 27, 100776.	6.0	1
160	Boundary-Induced Vibrational Spectra Broadening in Nanostructures. , 2007, , .		0
161	Radiative Properties of GaAs From First Principles Calculations. , 2008, , .		0
162	Molecular Dynamics Simulations of the Thermal Conductivity of Bismuth Telluride Using Two-Body Interatomic Potentials. , 2009, , .		0

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163	Shape and temperature dependence of hot carrier relaxation dynamics in spherical and elongated CdSe quantum dots. Proceedings of SPIE, 2010, , .	0.8	0
164	Predicting Thermal Transport in Bi2Te3: From Bulk to Nanostructures. Materials Research Society Symposia Proceedings, 2011, 1329, 1.	0.1	0
165	Role of Edge Chirality and Isotope Doping in Thermal Transport and Thermal Rectification in Graphene Nanoribbons. , 2011, , .		0
166	Predicting the Properties of Nanostructured Metamaterials: Vertically Aligned Single-Walled Carbon Nanotube Arrays. , 2011, , .		0
167	Necessary conditions for thermal rectification and negative differential thermal conductance in graphene nanoribbons. Materials Research Society Symposia Proceedings, 2011, 1347, 1.	0.1	0
168	Linear and Nonlinear Thermal Transport in Graphene: Molecular Dynamics Simulations. Materials Research Society Symposia Proceedings, 2011, 1347, 1.	0.1	0
169	Thermal Transport in Few-Quintuple Bi2Te3 Thin Films and Nanoribbons. , 2011, , .		0
170	Size Dependent Raman Spectra of Bismuth Telluride Nanocrystals Synthesized via a One-Step Wet Chemistry Method. , 2012, , .		0
171	A Network Model for the Thermal Conductivity of Pillared-Graphene Architectures. , 2014, , .		0
172	Effect of Particle Size and Aggregation on Thermal Conductivity of Metal-Polymer Nanocomposite. , 2016, , .		0
173	Uncertainties of Thermal Conductivities From Equilibrium Molecular Dynamics Simulations. , 2016, , .		0
174	Nanocomposites: Nanocomposites from Solutionâ€Synthesized PbTeâ€BiSbTe Nanoheterostructure with Unity Figure of Merit at Lowâ€Medium Temperatures (Adv. Mater. 10/2017). Advanced Materials, 2017, 29, .	21.0	0
175	Editorial: Energy Transport for Nanostructured Materials. Frontiers in Energy Research, 2019, 7, .	2.3	0
176	Temperature-Dependent Luminescence Quenching in Random Nano Porous Media. , 2004, , .		0
177	Enhanced Laser Cooling of Ion-Doped Nanopowders. , 2005, , .		0
178	Temperature Dependence of Hot Carrier Relaxation in a PBSE Quantum Dot: An Ab Initio Study. , 2009, , .		0
179	Molecular Dynamics Simulations of Thermal Conductivity of Bi2Te3 Nanowires. , 2009, , .		0
180	Molecular Dynamics Simulations of the Thermal Conductivity of Bismuth Telluride Using Two-Body Interatomic Potentials. , 2009, , 1-5.		0

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181	Unusual Scaling Observations in the Quality Factors of Cantilevered Carbon Nanotube Resonators. , 2010, , .		0
182	Size and Temperature Dependent Phonon Spectra of Spherical CdSe Quantum Dots Prepared via a Refined Phosphonic Acid Assisted Organometallic Route. , 2011, , .		0
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