

Xiulin Ruan

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

150
papers

5,926
citations

44
h-index

72
g-index

189
ext. papers

7,210
ext. citations

5.5
avg, IF

6.49
L-index

#	Paper	IF	Citations
150	Thermal conductivity and thermal rectification in graphene nanoribbons: a molecular dynamics study. <i>Nano Letters</i> , 2009 , 9, 2730-5	11.5	635
149	Double-layer nanoparticle-based coatings for efficient terrestrial radiative cooling. <i>Solar Energy Materials and Solar Cells</i> , 2017 , 168, 78-84	6.4	228
148	Four-phonon scattering significantly reduces intrinsic thermal conductivity of solids. <i>Physical Review B</i> , 2017 , 96,	3.3	199
147	Nanoparticle embedded double-layer coating for daytime radiative cooling. <i>International Journal of Heat and Mass Transfer</i> , 2017 , 104, 890-896	4.9	197
146	Phonon lateral confinement enables thermal rectification in asymmetric single-material nanostructures. <i>Nano Letters</i> , 2014 , 14, 592-6	11.5	153
145	Optical absorption enhancement in disordered vertical silicon nanowire arrays for photovoltaic applications. <i>Optics Letters</i> , 2010 , 35, 3378-80	3	137
144	Tuning the thermal conductivity of graphene nanoribbons by edge passivation and isotope engineering: A molecular dynamics study. <i>Applied Physics Letters</i> , 2010 , 97, 133107	3.4	134
143	Molecular dynamics simulations of lattice thermal conductivity and spectral phonon mean free path of PbTe: Bulk and nanostructures. <i>Computational Materials Science</i> , 2012 , 53, 278-285	3.2	133
142	Reduction of spectral phonon relaxation times from suspended to supported graphene. <i>Applied Physics Letters</i> , 2012 , 100, 193101	3.4	130
141	Molecular dynamics simulations of lattice thermal conductivity of bismuth telluride using two-body interatomic potentials. <i>Physical Review B</i> , 2009 , 80,	3.3	118
140	Quantum mechanical prediction of four-phonon scattering rates and reduced thermal conductivity of solids. <i>Physical Review B</i> , 2016 , 93,	3.3	117
139	First-principles simulation of electron mean-free-path spectra and thermoelectric properties in silicon. <i>Europhysics Letters</i> , 2015 , 109, 57006	1.6	114
138	Thermal Transport in Graphene Nanostructures: Experiments and Simulations. <i>ECS Transactions</i> , 2010 , 28, 73-83	1	93
137	Electrical and thermal conductivities of reduced graphene oxide/polystyrene composites. <i>Applied Physics Letters</i> , 2014 , 104, 113101	3.4	91
136	First principles calculation of lattice thermal conductivity of metals considering phonon-phonon and phonon-electron scattering. <i>Journal of Applied Physics</i> , 2016 , 119, 225109	2.5	88
135	Synthesis and thermoelectric properties of compositional-modulated lead telluride-bismuth telluride nanowire heterostructures. <i>Nano Letters</i> , 2013 , 13, 2058-63	11.5	87
134	Highly Porous Thermoelectric Nanocomposites with Low Thermal Conductivity and High Figure of Merit from Large-Scale Solution-Synthesized Bi Te Se Hollow Nanostructures. <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 3546-3551	16.4	86

133	Decomposition of coherent and incoherent phonon conduction in superlattices and random multilayers. <i>Physical Review B</i> , 2014 , 90,	3-3	86
132	Two-temperature nonequilibrium molecular dynamics simulation of thermal transport across metal-nonmetal interfaces. <i>Physical Review B</i> , 2012 , 85,	3-3	84
131	Spectral phonon mean free path and thermal conductivity accumulation in defected graphene: The effects of defect type and concentration. <i>Physical Review B</i> , 2015 , 91,	3-3	77
130	Four-phonon scattering reduces intrinsic thermal conductivity of graphene and the contributions from flexural phonons. <i>Physical Review B</i> , 2018 , 97,	3-3	76
129	Reliability of Raman measurements of thermal conductivity of single-layer graphene due to selective electron-phonon coupling: A first-principles study. <i>Physical Review B</i> , 2016 , 93,	3-3	76
128	Multiple scattering and nonlinear thermal emission of Yb ³⁺ , Er ³⁺ :Y ₂ O ₃ nanopowders. <i>Journal of Applied Physics</i> , 2004 , 95, 4069-4077	2.5	76
127	Tunable thermal rectification in graphene nanoribbons through defect engineering: A molecular dynamics study. <i>Applied Physics Letters</i> , 2012 , 100, 163101	3-4	75
126	Edge effect on thermal transport in graphene nanoribbons: A phonon localization mechanism beyond edge roughness scattering. <i>Applied Physics Letters</i> , 2012 , 101, 013101	3-4	72
125	Cross-plane thermal properties of transition metal dichalcogenides. <i>Applied Physics Letters</i> , 2013 , 102, 081604	3-4	71
124	Survey of ab initio phonon thermal transport. <i>Materials Today Physics</i> , 2018 , 7, 106-120	8	66
123	Prediction of Spectral Phonon Mean Free Path and Thermal Conductivity with Applications to Thermoelectrics and Thermal Management: A Review. <i>Journal of Nanomaterials</i> , 2014 , 2014, 1-25	3-2	62
122	Lattice thermal conductivity reduction in Bi ₂ Te ₃ quantum wires with smooth and rough surfaces: A molecular dynamics study. <i>Physical Review B</i> , 2011 , 83,	3-3	61
121	Optical properties of ordered vertical arrays of multi-walled carbon nanotubes from FDTD simulations. <i>Optics Express</i> , 2010 , 18, 6347-59	3-3	59
120	Thermal conductivity and spectral phonon properties of freestanding and supported silicene. <i>Journal of Applied Physics</i> , 2015 , 117, 084317	2.5	57
119	Thermal conductivity prediction and analysis of few-quintuple Bi ₂ Te ₃ thin films: A molecular dynamics study. <i>Applied Physics Letters</i> , 2010 , 97, 183107	3-4	55
118	Ultrawhite BaSO Paints and Films for Remarkable Daytime Subambient Radiative Cooling. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 21733-21739	9.5	54
117	Nanocomposites from Solution-Synthesized PbTe-BiSbTe Nanoheterostructure with Unity Figure of Merit at Low-Medium Temperatures (500-600 K). <i>Advanced Materials</i> , 2017 , 29, 1605140	24	53
116	Spectral analysis of nonequilibrium molecular dynamics: Spectral phonon temperature and local nonequilibrium in thin films and across interfaces. <i>Physical Review B</i> , 2017 , 95,	3-3	52

115	Nonlinear thermal transport and negative differential thermal conductance in graphene nanoribbons. <i>Applied Physics Letters</i> , 2011 , 99, 113101	3.4	52
114	Enhanced laser cooling of rare-earth-ion-doped nanocrystalline powders. <i>Physical Review B</i> , 2006 , 73,	3.3	51
113	Comprehensive first-principles analysis of phonon thermal conductivity and electron-phonon coupling in different metals. <i>Physical Review B</i> , 2019 , 100,	3.3	50
112	Anharmonicity and necessity of phonon eigenvectors in the phonon normal mode analysis. <i>Journal of Applied Physics</i> , 2015 , 117, 195102	2.5	49
111	Two-Dimensional Thermal Transport in Graphene: A Review of Numerical Modeling Studies. <i>Nanoscale and Microscale Thermophysical Engineering</i> , 2014 , 18, 155-182	3.7	48
110	Thermal transport at the nanoscale: A Fourier's law vs. phonon Boltzmann equation study. <i>Journal of Applied Physics</i> , 2017 , 121, 044302	2.5	46
109	Optical Generation and Detection of Local Nonequilibrium Phonons in Suspended Graphene. <i>Nano Letters</i> , 2017 , 17, 2049-2056	11.5	45
108	Optimization of the random multilayer structure to break the random-alloy limit of thermal conductivity. <i>Applied Physics Letters</i> , 2015 , 106, 073104	3.4	45
107	High-Performance Thermal Interface Material Based on Few-Layer Graphene Composite. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 26753-26759	3.8	44
106	Ultra-low thermal conductivity in graphene nanomesh. <i>Carbon</i> , 2016 , 101, 107-113	10.4	43
105	Tunable thermal transport and thermal rectification in strained graphene nanoribbons. <i>Physical Review B</i> , 2012 , 85,	3.3	43
104	A strategy of hierarchical particle sizes in nanoparticle composite for enhancing solar reflection. <i>International Journal of Heat and Mass Transfer</i> , 2019 , 131, 487-494	4.9	43
103	Thermal transport across carbon nanotube-graphene covalent and van der Waals junctions. <i>Journal of Applied Physics</i> , 2015 , 118, 044302	2.5	42
102	Unexpected high inelastic phonon transport across solid-solid interface: Modal nonequilibrium molecular dynamics simulations and Landauer analysis. <i>Physical Review B</i> , 2019 , 99,	3.3	41
101	The effects of diameter and chirality on the thermal transport in free-standing and supported carbon-nanotubes. <i>Applied Physics Letters</i> , 2012 , 100, 233105	3.4	40
100	Mode-Wise Thermal Conductivity of Bismuth Telluride. <i>Journal of Heat Transfer</i> , 2013 , 135,	1.8	40
99	Full Daytime Sub-ambient Radiative Cooling in Commercial-like Paints with High Figure of Merit. <i>Cell Reports Physical Science</i> , 2020 , 1, 100221	6.1	39
98	Spectral phonon thermal properties in graphene nanoribbons. <i>Carbon</i> , 2015 , 93, 915-923	10.4	37

97	Metal/dielectric thermal interfacial transport considering cross-interface electron-phonon coupling: Theory, two-temperature molecular dynamics, and thermal circuit. <i>Physical Review B</i> , 2016 , 93,	3.3	36
96	Temperature dependence of hot-carrier relaxation in PbSe nanocrystals: An ab initio study. <i>Physical Review B</i> , 2009 , 79,	3.3	34
95	Thermoelectric properties of solution-synthesized n-type Bi ₂ Te ₃ nanocomposites modulated by Se: An experimental and theoretical study. <i>Nano Research</i> , 2016 , 9, 117-127	10	30
94	Machine learning maximized Anderson localization of phonons in aperiodic superlattices. <i>Nano Energy</i> , 2020 , 69, 104428	17.1	30
93	Genetic algorithm-driven discovery of unexpected thermal conductivity enhancement by disorder. <i>Nano Energy</i> , 2020 , 71, 104619	17.1	29
92	Interfacial thermal conductance limit and thermal rectification across vertical carbon nanotube/graphene nanoribbon-silicon interfaces. <i>Journal of Applied Physics</i> , 2013 , 113, 064311	2.5	29
91	Shape and Temperature Dependence of Hot Carrier Relaxation Dynamics in Spherical and Elongated CdSe Quantum Dots. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 11400-11406	3.8	28
90	Vibrational hierarchy leads to dual-phonon transport in low thermal conductivity crystals. <i>Nature Communications</i> , 2020 , 11, 2554	17.4	28
89	Effect of interlayer on interfacial thermal transport and hot electron cooling in metal-dielectric systems: An electron-phonon coupling perspective. <i>Journal of Applied Physics</i> , 2016 , 119, 065103	2.5	27
88	Enhanced Thermoelectric Performance of As-Grown Suspended Graphene Nanoribbons. <i>ACS Nano</i> , 2019 , 13, 9182-9189	16.7	26
87	Self-templated synthesis and thermal conductivity investigation for ultrathin perovskite oxide nanowires. <i>Nanoscale</i> , 2011 , 3, 4078-81	7.7	26
86	Machine learning prediction of thermal transport in porous media with physics-based descriptors. <i>International Journal of Heat and Mass Transfer</i> , 2020 , 160, 120176	4.9	26
85	A first-principles molecular dynamics approach for predicting optical phonon lifetimes and far-infrared reflectance of polar materials. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2012 , 113, 1683-1688	2.1	25
84	Observation of nonclassical scaling laws in the quality factors of cantilevered carbon nanotube resonators. <i>Journal of Applied Physics</i> , 2011 , 110, 034312	2.5	25
83	Uncertainty quantification of thermal conductivities from equilibrium molecular dynamics simulations. <i>International Journal of Heat and Mass Transfer</i> , 2017 , 112, 267-278	4.9	24
82	Facile synthesis of ultra-small Bi ₂ Te ₃ nanoparticles, nanorods and nanoplates and their morphology-dependent Raman spectroscopy. <i>Materials Letters</i> , 2012 , 82, 112-115	3.3	24
81	Measurement of thermal conductivity of PbTe nanocrystal coated glass fibers by the 3 ω method. <i>Nano Letters</i> , 2013 , 13, 5006-12	11.5	24
80	FourPhonon: An extension module to ShengBTE for computing four-phonon scattering rates and thermal conductivity. <i>Computer Physics Communications</i> , 2022 , 270, 108179	4.2	24

79	Highly Porous Thermoelectric Nanocomposites with Low Thermal Conductivity and High Figure of Merit from Large-Scale Solution-Synthesized Bi ₂ Te _{2.5} Se _{0.5} Hollow Nanostructures. <i>Angewandte Chemie</i> , 2017 , 129, 3600-3605	3.6	23
78	Coupling between phonon-phonon and phonon-impurity scattering: A critical revisit of the spectral Matthiessen's rule. <i>Physical Review B</i> , 2015 , 92,	3.3	23
77	Stronger role of four-phonon scattering than three-phonon scattering in thermal conductivity of III-V semiconductors at room temperature. <i>Physical Review B</i> , 2019 , 100,	3.3	23
76	Anisotropic thermal conductivity in 2D tellurium. <i>2D Materials</i> , 2020 , 7, 015008	5.9	22
75	Molecular Dynamics Calculation of Thermal Conductivity of Graphene Nanoribbons 2009 ,		20
74	Ab initio calculations of thermal radiative properties: The semiconductor GaAs. <i>International Journal of Heat and Mass Transfer</i> , 2010 , 53, 1308-1312	4.9	20
73	Advances in Laser Cooling of Solids. <i>Journal of Heat Transfer</i> , 2007 , 129, 3-10	1.8	20
72	Entropy and efficiency in laser cooling of solids. <i>Physical Review B</i> , 2007 , 75,	3.3	20
71	Phonon branch-resolved electron-phonon coupling and the multitemperature model. <i>Physical Review B</i> , 2018 , 98,	3.3	20
70	On the domain size effect of thermal conductivities from equilibrium and nonequilibrium molecular dynamics simulations. <i>Journal of Applied Physics</i> , 2017 , 121, 044301	2.5	19
69	Enhanced nonradiative relaxation and photoluminescence quenching in random, doped nanocrystalline powders. <i>Journal of Applied Physics</i> , 2005 , 97, 104331	2.5	19
68	Flexural resonance mechanism of thermal transport across graphene-SiO ₂ interfaces. <i>Journal of Applied Physics</i> , 2018 , 123, 115107	2.5	18
67	Reducing interfacial thermal resistance between metal and dielectric materials by a metal interlayer. <i>Journal of Applied Physics</i> , 2019 , 125, 045302	2.5	17
66	Glass-Like Through-Plane Thermal Conductivity Induced by Oxygen Vacancies in Nanoscale Epitaxial La _{0.5} Sr _{0.5} CoO ₃ . <i>Advanced Functional Materials</i> , 2017 , 27, 1704233	15.6	16
65	Observation of strong higher-order lattice anharmonicity in Raman and infrared spectra. <i>Physical Review B</i> , 2020 , 101,	3.3	16
64	Ultrahigh Thermal Conductivity of β -Phase Tantalum Nitride. <i>Physical Review Letters</i> , 2021 , 126, 115901	7.4	16
63	Theory of the broadening of vibrational spectra induced by lowered symmetry in yttria nanostructures. <i>Physical Review B</i> , 2008 , 78,	3.3	15
62	PHOTON LOCALIZATION AND ELECTROMAGNETIC FIELD ENHANCEMENT IN LASER-IRRADIATED, RANDOM POROUS MEDIA. <i>Microscale Thermophysical Engineering</i> , 2005 , 9, 63-84		15

61	An investigation of the optical properties of disordered silicon nanowire mats. <i>Journal of Applied Physics</i> , 2012 , 112, 124301	2.5	14
60	Phonon anharmonic frequency shift induced by four-phonon scattering calculated from first principles. <i>Journal of Applied Physics</i> , 2018 , 124, 145101	2.5	13
59	Effect of Particle Size and Aggregation on Thermal Conductivity of Metal-Polymer Nanocomposite. <i>Journal of Heat Transfer</i> , 2017 , 139,	1.8	12
58	Optical properties of ordered carbon nanotube arrays grown in porous anodic alumina templates. <i>Optics Express</i> , 2013 , 21, 22053-62	3.3	12
57	Direct methane activation by atomically thin platinum nanolayers on two-dimensional metal carbides. <i>Nature Catalysis</i> , 2021 , 4, 882-891	36.5	12
56	Equi-biaxial compressive strain in graphene: Grüneisen parameter and buckling ridges. <i>2D Materials</i> , 2019 , 6, 015026	5.9	12
55	First-principles predictions of temperature-dependent infrared dielectric function of polar materials by including four-phonon scattering and phonon frequency shift. <i>Physical Review B</i> , 2020 , 101,	3.3	11
54	The critical particle size for enhancing thermal conductivity in metal nanoparticle-polymer composites. <i>Journal of Applied Physics</i> , 2018 , 123, 074302	2.5	11
53	Quantifying Uncertainty in Multiscale Heat Conduction Calculations. <i>Journal of Heat Transfer</i> , 2014 , 136,	1.8	11
52	A band-pass filter approach within molecular dynamics for the prediction of intrinsic quality factors of nanoresonators. <i>Journal of Applied Physics</i> , 2012 , 112, 074301	2.5	11
51	Manipulating Band Structure through Reconstruction of Binary Metal Sulfide for High-Performance Thermoelectrics in Solution-Synthesized Nanostructured Bi S I. <i>Angewandte Chemie - International Edition</i> , 2018 , 57, 2413-2418	16.4	10
50	Enhancing photo-induced ultrafast charge transfer across heterojunctions of CdS and laser-sintered TiO ₂ nanocrystals. <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 10669-78	3.6	10
49	Low-reflectance laser-induced surface nanostructures created with a picosecond laser. <i>Applied Physics A: Materials Science and Processing</i> , 2016 , 122, 1	2.6	10
48	Decomposition of the Thermal Boundary Resistance across Carbon Nanotube-Graphene Junctions to Different Mechanisms. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 15226-15231	9.5	9
47	Dominant phonon polarization conversion across dimensionally mismatched interfaces: Carbon-nanotube-graphene junction. <i>Physical Review B</i> , 2018 , 97,	3.3	9
46	Effects of randomness and inclination on the optical properties of multi-walled carbon nanotube arrays. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2014 , 132, 22-27	2.1	9
45	Molecular Dynamics Study of Thermal Rectification in Graphene Nanoribbons. <i>International Journal of Thermophysics</i> , 2012 , 33, 986-991	2.1	8
44	Energy relaxation in CdSe nanocrystals: the effects of morphology and film preparation. <i>Optics Express</i> , 2013 , 21 Suppl 1, A15-22	3.3	8

43	Luminescence dynamics of Te doped CdS quantum dots at different doping levels. <i>Nanotechnology</i> , 2010 , 21, 265704	3.4	8
42	Compressive mechanical response of graphene foams and their thermal resistance with copper interfaces. <i>APL Materials</i> , 2017 , 5, 036102	5.7	7
41	Welding of Semiconductor Nanowires by Coupling Laser-Induced Peening and Localized Heating. <i>Scientific Reports</i> , 2015 , 5, 16052	4.9	7
40	Imaging of Thermal Conductivity with Sub-Micrometer Resolution Using Scanning Thermal Microscopy. <i>International Journal of Thermophysics</i> , 2002 , 23, 1115-1124	2.1	7
39	Ab Initio Photon-Electron and Electron-Vibration Coupling Calculations Related to Laser Cooling of Ion-Doped Solids. <i>Journal of Computational and Theoretical Nanoscience</i> , 2008 , 5, 221-229	0.3	7
38	Thermal boundary resistance predictions with non-equilibrium Green's function and molecular dynamics simulations. <i>Applied Physics Letters</i> , 2019 , 115, 231601	3.4	7
37	Absence of coupled thermal interfaces in Al ₂ O ₃ /Ni/Al ₂ O ₃ sandwich structure. <i>Applied Physics Letters</i> , 2017 , 111, 143102	3.4	5
36	Optical properties of thin graphitic nanopetal arrays. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2015 , 158, 84-90	2.1	5
35	Defect-Induced Mechanical Mode Splitting in Carbon Nanotube Resonators. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 2013 , 135,	1.6	5
34	Effects of rapid thermal processing and pulse-laser sintering on CdTe nanofilms for photovoltaic applications 2012 ,		5
33	Absorption Spectra and Electron-Vibration Coupling of Ti:Sapphire From First Principles. <i>Journal of Heat Transfer</i> , 2016 , 138,	1.8	5
32	Wide range continuously tunable and fast thermal switching based on compressible graphene composite foams. <i>Nature Communications</i> , 2021 , 12, 4915	17.4	5
31	Atmospheric Water Harvesting by Large-Scale Radiative Cooling Cellulose-Based Fabric.. <i>Nano Letters</i> , 2022 ,	11.5	5
30	Thermal Conductivity: Glass-Like Through-Plane Thermal Conductivity Induced by Oxygen Vacancies in Nanoscale Epitaxial La _{0.5} Sr _{0.5} CoO ₃ (Adv. Funct. Mater. 47/2017). <i>Advanced Functional Materials</i> , 2017 , 27, 1770284	15.6	4
29	Molecular Dynamics Simulations of Lattice Thermal Conductivity and Spectral Phonon Mean Free Path of PbTe: Bulk and Nanostructures 2012 ,		4
28	Multiscale Simulations of Thermoelectric Properties of PBTE 2008 ,		4
27	Phonon spectral energy density analysis of solids: The k point reduction in the first Brillouin zone of FCC crystals and a case study on solid argon. <i>Computational Materials Science</i> , 2016 , 121, 97-105	3.2	4
26	Role of phonon coupling and non-equilibrium near the interface to interfacial thermal resistance: The multi-temperature model and thermal circuit. <i>Journal of Applied Physics</i> , 2019 , 125, 085107	2.5	4

25	Thermal Conductivity Measurement of Graphene Composite. <i>Materials Research Society Symposia Proceedings</i> , 2013 , 1456, 57		3
24	Effects of nanocrystal shape and size on the temperature sensitivity in Raman thermometry. <i>Applied Physics Letters</i> , 2013 , 103, 083107	3-4	3
23	Raman Linewidth Contributions from Four-Phonon and Electron-Phonon Interactions in Graphene.. <i>Physical Review Letters</i> , 2022 , 128, 045901	7-4	3
22	Enhancement of Thermal Transfer From α -GaO Nano-Membrane Field-Effect Transistors to High Thermal Conductivity Substrate by Inserting an Interlayer. <i>IEEE Transactions on Electron Devices</i> , 2022 , 1-5	2.9	3
21	Higher-order phonon scattering: advancing the quantum theory of phonon linewidth, thermal conductivity and thermal radiative properties2-1-2-44		3
20	Nonequilibrium phonon transport induced by finite sizes: Effect of phonon-phonon coupling. <i>Physical Review B</i> , 2021 , 104,	3-3	3
19	Development of interatomic potentials for the complex binary compound Sb ₂ Te ₃ and the prediction of thermal conductivity. <i>Physical Review B</i> , 2019 , 99,	3-3	2
18	First Principles and Finite Element Predictions of Radiative Properties of Nanostructure Arrays: Single-Walled Carbon Nanotube Arrays. <i>Journal of Heat Transfer</i> , 2014 , 136,	1.8	2
17	Analysis of Visible Radiative Properties of Vertically Aligned Multi-Walled Carbon Nanotubes 2010 ,		2
16	Concentrated radiative cooling. <i>Applied Energy</i> , 2022 , 310, 118368	10.7	2
15	Prediction of BiTe-SbTe Interfacial Conductance and Superlattice Thermal Conductivity Using Molecular Dynamics Simulations. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 4636-4642	9.5	2
14	Perspective: predicting and optimizing thermal transport properties with machine learning methods. <i>Energy and AI</i> , 2022 , 100153	12.6	2
13	The use of strain and grain boundaries to tailor phonon transport properties: A first-principles study of 2H-phase CuAlO ₂ . II. <i>Journal of Applied Physics</i> , 2020 , 127, 115108	2.5	1
12	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. <i>ChemistrySelect</i> , 2017 , 2, 10736-10740	1.8	1
11	An Evaluation of Energy Transfer Pathways in Thermal Transport Across Solid/Solid Interfaces 2013 ,		1
10	Thermal Rectification in Graphene and Carbon Nanotube Systems Using Molecular Dynamics Simulations 2011 ,		1
9	Temperature dependence of hot carrier relaxation in PbSe nanocrystals: an ab initio study 2009 ,		1
8	Thermal Radiative Properties of Vertical Graphitic Petal Arrays 2012 ,		1

- 7 Entropy and Efficiency in Laser Cooling of Solids **2007**, 59 1
- 6 Unexpected thermal conductivity enhancement in aperiodic superlattices discovered using active machine learning. *Npj Computational Materials*, **2022**, 8, 10.9 1
- 5 Abnormal in-plane thermal conductivity anisotropy in bilayer α -phase tellurene. *International Journal of Heat and Mass Transfer*, **2022**, 192, 122908 4.9 1
- 4 Predicting Thermal Transport in Bi₂Te₃: From Bulk to Nanostructures. *Materials Research Society Symposia Proceedings*, **2011**, 1329, 1
- 3 Necessary conditions for thermal rectification and negative differential thermal conductance in graphene nanoribbons. *Materials Research Society Symposia Proceedings*, **2011**, 1347, 1
- 2 Linear and Nonlinear Thermal Transport in Graphene: Molecular Dynamics Simulations. *Materials Research Society Symposia Proceedings*, **2011**, 1347, 1
- 1 Lifespan and efficiency gain for outdoor electronic systems from radiative cooling: A case study on distribution transformers. *Applied Thermal Engineering*, **2022**, 118636 5.8