

# Xiulin Ruan

## List of Publications by Year in Descending Order

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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	Raman Linewidth Contributions from Four-Phonon and Electron-Phonon Interactions in Graphene.. <i>Physical Review Letters</i> , <b>2022</b> , 128, 045901	7.4	3
149	Enhancement of Thermal Transfer From $\beta$ -Ga $\alpha$ Nano-Membrane Field-Effect Transistors to High Thermal Conductivity Substrate by Inserting an Interlayer. <i>IEEE Transactions on Electron Devices</i> , <b>2022</b> , 1-5	2.9	3
148	Unexpected thermal conductivity enhancement in aperiodic superlattices discovered using active machine learning. <i>Npj Computational Materials</i> , <b>2022</b> , 8,	10.9	1
147	Concentrated radiative cooling. <i>Applied Energy</i> , <b>2022</b> , 310, 118368	10.7	2
146	FourPhonon: An extension module to ShengBTE for computing four-phonon scattering rates and thermal conductivity. <i>Computer Physics Communications</i> , <b>2022</b> , 270, 108179	4.2	24
145	Perspective: predicting and optimizing thermal transport properties with machine learning methods. <i>Energy and AI</i> , <b>2022</b> , 100153	12.6	2
144	Atmospheric Water Harvesting by Large-Scale Radiative Cooling Cellulose-Based Fabric.. <i>Nano Letters</i> , <b>2022</b> ,	11.5	5
143	Abnormal in-plane thermal conductivity anisotropy in bilayer $\beta$ -phase tellurene. <i>International Journal of Heat and Mass Transfer</i> , <b>2022</b> , 192, 122908	4.9	1
142	Lifespan and efficiency gain for outdoor electronic systems from radiative cooling: A case study on distribution transformers. <i>Applied Thermal Engineering</i> , <b>2022</b> , 118636	5.8	
141	Direct methane activation by atomically thin platinum nanolayers on two-dimensional metal carbides. <i>Nature Catalysis</i> , <b>2021</b> , 4, 882-891	36.5	12
140	Ultrahigh Thermal Conductivity of $\beta$ Phase Tantalum Nitride. <i>Physical Review Letters</i> , <b>2021</b> , 126, 115901	7.4	16
139	Ultrawhite BaSO Paints and Films for Remarkable Daytime Subambient Radiative Cooling. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 21733-21739	9.5	54
138	Wide range continuously tunable and fast thermal switching based on compressible graphene composite foams. <i>Nature Communications</i> , <b>2021</b> , 12, 4915	17.4	5
137	Nonequilibrium phonon transport induced by finite sizes: Effect of phonon-phonon coupling. <i>Physical Review B</i> , <b>2021</b> , 104,	3.3	3
136	Prediction of BiTe-SbTe Interfacial Conductance and Superlattice Thermal Conductivity Using Molecular Dynamics Simulations. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 4636-4642	9.5	2
135	The use of strain and grain boundaries to tailor phonon transport properties: A first-principles study of 2H-phase CuAlO <sub>2</sub> . II. <i>Journal of Applied Physics</i> , <b>2020</b> , 127, 115108	2.5	1
134	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> , <b>2020</b> , 101,	3.3	11

133	Genetic algorithm-driven discovery of unexpected thermal conductivity enhancement by disorder. <i>Nano Energy</i> , <b>2020</b> , 71, 104619	17.1	29
132	Observation of strong higher-order lattice anharmonicity in Raman and infrared spectra. <i>Physical Review B</i> , <b>2020</b> , 101,	3.3	16
131	Vibrational hierarchy leads to dual-phonon transport in low thermal conductivity crystals. <i>Nature Communications</i> , <b>2020</b> , 11, 2554	17.4	28
130	Anisotropic thermal conductivity in 2D tellurium. <i>2D Materials</i> , <b>2020</b> , 7, 015008	5.9	22
129	Machine learning maximized Anderson localization of phonons in aperiodic superlattices. <i>Nano Energy</i> , <b>2020</b> , 69, 104428	17.1	30
128	Full Daytime Sub-ambient Radiative Cooling in Commercial-like Paints with High Figure of Merit. <i>Cell Reports Physical Science</i> , <b>2020</b> , 1, 100221	6.1	39
127	Machine learning prediction of thermal transport in porous media with physics-based descriptors. <i>International Journal of Heat and Mass Transfer</i> , <b>2020</b> , 160, 120176	4.9	26
126	Reducing interfacial thermal resistance between metal and dielectric materials by a metal interlayer. <i>Journal of Applied Physics</i> , <b>2019</b> , 125, 045302	2.5	17
125	Development of interatomic potentials for the complex binary compound Sb <sub>2</sub> Te <sub>3</sub> and the prediction of thermal conductivity. <i>Physical Review B</i> , <b>2019</b> , 99,	3.3	2
124	Enhanced Thermoelectric Performance of As-Grown Suspended Graphene Nanoribbons. <i>ACS Nano</i> , <b>2019</b> , 13, 9182-9189	16.7	26
123	Comprehensive first-principles analysis of phonon thermal conductivity and electron-phonon coupling in different metals. <i>Physical Review B</i> , <b>2019</b> , 100,	3.3	50
122	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> , <b>2019</b> , 125, 085107	2.5	4
121	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> , <b>2019</b> , 100,	3.3	23
120	Thermal boundary resistance predictions with non-equilibrium Green's function and molecular dynamics simulations. <i>Applied Physics Letters</i> , <b>2019</b> , 115, 231601	3.4	7
119	A strategy of hierarchical particle sizes in nanoparticle composite for enhancing solar reflection. <i>International Journal of Heat and Mass Transfer</i> , <b>2019</b> , 131, 487-494	4.9	43
118	Equi-biaxial compressive strain in graphene: Grüneisen parameter and buckling ridges. <i>2D Materials</i> , <b>2019</b> , 6, 015026	5.9	12
117	Unexpected high inelastic phonon transport across solid-solid interface: Modal nonequilibrium molecular dynamics simulations and Landauer analysis. <i>Physical Review B</i> , <b>2019</b> , 99,	3.3	41
116	Decomposition of the Thermal Boundary Resistance across Carbon Nanotube-Graphene Junctions to Different Mechanisms. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 15226-15231	9.5	9

115	The critical particle size for enhancing thermal conductivity in metal nanoparticle-polymer composites. <i>Journal of Applied Physics</i> , <b>2018</b> , 123, 074302	2.5	11
114	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> , <b>2018</b> , 57, 2413-2418	16.4	10
113	Four-phonon scattering reduces intrinsic thermal conductivity of graphene and the contributions from flexural phonons. <i>Physical Review B</i> , <b>2018</b> , 97,	3.3	76
112	Dominant phonon polarization conversion across dimensionally mismatched interfaces: Carbon-nanotube-graphene junction. <i>Physical Review B</i> , <b>2018</b> , 97,	3.3	9
111	Flexural resonance mechanism of thermal transport across graphene-SiO <sub>2</sub> interfaces. <i>Journal of Applied Physics</i> , <b>2018</b> , 123, 115107	2.5	18
110	Phonon anharmonic frequency shift induced by four-phonon scattering calculated from first principles. <i>Journal of Applied Physics</i> , <b>2018</b> , 124, 145101	2.5	13
109	Survey of ab initio phonon thermal transport. <i>Materials Today Physics</i> , <b>2018</b> , 7, 106-120	8	66
108	Phonon branch-resolved electron-phonon coupling and the multitemperature model. <i>Physical Review B</i> , <b>2018</b> , 98,	3.3	20
107	Nanocomposites from Solution-Synthesized PbTe-BiSbTe Nanoheterostructure with Unity Figure of Merit at Low-Medium Temperatures (500-600 K). <i>Advanced Materials</i> , <b>2017</b> , 29, 1605140	24	53
106	Highly Porous Thermoelectric Nanocomposites with Low Thermal Conductivity and High Figure of Merit from Large-Scale Solution-Synthesized Bi <sub>2</sub> Te <sub>2.5</sub> Se <sub>0.5</sub> Hollow Nanostructures. <i>Angewandte Chemie</i> , <b>2017</b> , 129, 3600-3605	3.6	23
105	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> , <b>2017</b> , 56, 3546-3551	16.4	86
104	Thermal transport at the nanoscale: A Fourier's law vs. phonon Boltzmann equation study. <i>Journal of Applied Physics</i> , <b>2017</b> , 121, 044302	2.5	46
103	On the domain size effect of thermal conductivities from equilibrium and nonequilibrium molecular dynamics simulations. <i>Journal of Applied Physics</i> , <b>2017</b> , 121, 044301	2.5	19
102	Optical Generation and Detection of Local Nonequilibrium Phonons in Suspended Graphene. <i>Nano Letters</i> , <b>2017</b> , 17, 2049-2056	11.5	45
101	Effect of Particle Size and Aggregation on Thermal Conductivity of Metal-Polymer Nanocomposite. <i>Journal of Heat Transfer</i> , <b>2017</b> , 139,	1.8	12
100	Uncertainty quantification of thermal conductivities from equilibrium molecular dynamics simulations. <i>International Journal of Heat and Mass Transfer</i> , <b>2017</b> , 112, 267-278	4.9	24
99	Double-layer nanoparticle-based coatings for efficient terrestrial radiative cooling. <i>Solar Energy Materials and Solar Cells</i> , <b>2017</b> , 168, 78-84	6.4	228
98	Compressive mechanical response of graphene foams and their thermal resistance with copper interfaces. <i>APL Materials</i> , <b>2017</b> , 5, 036102	5.7	7

97	Glass-Like Through-Plane Thermal Conductivity Induced by Oxygen Vacancies in Nanoscale Epitaxial La <sub>0.5</sub> Sr <sub>0.5</sub> CoO <sub>3</sub> □ <i>Advanced Functional Materials</i> , <b>2017</b> , 27, 1704233	15.6	16
96	Absence of coupled thermal interfaces in Al <sub>2</sub> O <sub>3</sub> /Ni/Al <sub>2</sub> O <sub>3</sub> sandwich structure. <i>Applied Physics Letters</i> , <b>2017</b> , 111, 143102	3.4	5
95	Thermal Conductivity: Glass-Like Through-Plane Thermal Conductivity Induced by Oxygen Vacancies in Nanoscale Epitaxial La <sub>0.5</sub> Sr <sub>0.5</sub> CoO <sub>3</sub> □ (Adv. Funct. Mater. 47/2017). <i>Advanced Functional Materials</i> , <b>2017</b> , 27, 1770284	15.6	4
94	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> , <b>2017</b> , 2, 10736-10740	1.8	1
93	Four-phonon scattering significantly reduces intrinsic thermal conductivity of solids. <i>Physical Review B</i> , <b>2017</b> , 96,	3.3	199
92	Spectral analysis of nonequilibrium molecular dynamics: Spectral phonon temperature and local nonequilibrium in thin films and across interfaces. <i>Physical Review B</i> , <b>2017</b> , 95,	3.3	52
91	Nanoparticle embedded double-layer coating for daytime radiative cooling. <i>International Journal of Heat and Mass Transfer</i> , <b>2017</b> , 104, 890-896	4.9	197
90	Quantum mechanical prediction of four-phonon scattering rates and reduced thermal conductivity of solids. <i>Physical Review B</i> , <b>2016</b> , 93,	3.3	117
89	Metal/dielectric thermal interfacial transport considering cross-interface electron-phonon coupling: Theory, two-temperature molecular dynamics, and thermal circuit. <i>Physical Review B</i> , <b>2016</b> , 93,	3.3	36
88	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> , <b>2016</b> , 93,	3.3	76
87	Thermoelectric properties of solution-synthesized n-type Bi <sub>2</sub> Te <sub>3</sub> nanocomposites modulated by Se: An experimental and theoretical study. <i>Nano Research</i> , <b>2016</b> , 9, 117-127	10	30
86	Ultra-low thermal conductivity in graphene nanomesh. <i>Carbon</i> , <b>2016</b> , 101, 107-113	10.4	43
85	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> , <b>2016</b> , 119, 065103	2.5	27
84	First principles calculation of lattice thermal conductivity of metals considering phonon-phonon and phonon-electron scattering. <i>Journal of Applied Physics</i> , <b>2016</b> , 119, 225109	2.5	88
83	Low-reflectance laser-induced surface nanostructures created with a picosecond laser. <i>Applied Physics A: Materials Science and Processing</i> , <b>2016</b> , 122, 1	2.6	10
82	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> , <b>2016</b> , 121, 97-105	3.2	4
81	Absorption Spectra and Electron-Vibration Coupling of Ti:Sapphire From First Principles. <i>Journal of Heat Transfer</i> , <b>2016</b> , 138,	1.8	5
80	Spectral phonon thermal properties in graphene nanoribbons. <i>Carbon</i> , <b>2015</b> , 93, 915-923	10.4	37

79	Thermal conductivity and spectral phonon properties of freestanding and supported silicene. <i>Journal of Applied Physics</i> , <b>2015</b> , 117, 084317	2.5	57
78	Optical properties of thin graphitic nanopetal arrays. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , <b>2015</b> , 158, 84-90	2.1	5
77	First-principles simulation of electron mean-free-path spectra and thermoelectric properties in silicon. <i>Europhysics Letters</i> , <b>2015</b> , 109, 57006	1.6	114
76	Optimization of the random multilayer structure to break the random-alloy limit of thermal conductivity. <i>Applied Physics Letters</i> , <b>2015</b> , 106, 073104	3.4	45
75	Thermal transport across carbon nanotube-graphene covalent and van der Waals junctions. <i>Journal of Applied Physics</i> , <b>2015</b> , 118, 044302	2.5	42
74	Spectral phonon mean free path and thermal conductivity accumulation in defected graphene: The effects of defect type and concentration. <i>Physical Review B</i> , <b>2015</b> , 91,	3.3	77
73	Coupling between phonon-phonon and phonon-impurity scattering: A critical revisit of the spectral Matthiessen's rule. <i>Physical Review B</i> , <b>2015</b> , 92,	3.3	23
72	Welding of Semiconductor Nanowires by Coupling Laser-Induced Peening and Localized Heating. <i>Scientific Reports</i> , <b>2015</b> , 5, 16052	4.9	7
71	Anharmonicity and necessity of phonon eigenvectors in the phonon normal mode analysis. <i>Journal of Applied Physics</i> , <b>2015</b> , 117, 195102	2.5	49
70	High-Performance Thermal Interface Material Based on Few-Layer Graphene Composite. <i>Journal of Physical Chemistry C</i> , <b>2015</b> , 119, 26753-26759	3.8	44
69	Two-Dimensional Thermal Transport in Graphene: A Review of Numerical Modeling Studies. <i>Nanoscale and Microscale Thermophysical Engineering</i> , <b>2014</b> , 18, 155-182	3.7	48
68	Phonon lateral confinement enables thermal rectification in asymmetric single-material nanostructures. <i>Nano Letters</i> , <b>2014</b> , 14, 592-6	11.5	153
67	Enhancing photo-induced ultrafast charge transfer across heterojunctions of CdS and laser-sintered TiO <sub>2</sub> nanocrystals. <i>Physical Chemistry Chemical Physics</i> , <b>2014</b> , 16, 10669-78	3.6	10
66	Effects of randomness and inclination on the optical properties of multi-walled carbon nanotube arrays. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , <b>2014</b> , 132, 22-27	2.1	9
65	Quantifying Uncertainty in Multiscale Heat Conduction Calculations. <i>Journal of Heat Transfer</i> , <b>2014</b> , 136,	1.8	11
64	Prediction of Spectral Phonon Mean Free Path and Thermal Conductivity with Applications to Thermoelectrics and Thermal Management: A Review. <i>Journal of Nanomaterials</i> , <b>2014</b> , 2014, 1-25	3.2	62
63	First Principles and Finite Element Predictions of Radiative Properties of Nanostructure Arrays: Single-Walled Carbon Nanotube Arrays. <i>Journal of Heat Transfer</i> , <b>2014</b> , 136,	1.8	2
62	Decomposition of coherent and incoherent phonon conduction in superlattices and random multilayers. <i>Physical Review B</i> , <b>2014</b> , 90,	3.3	86

61	Electrical and thermal conductivities of reduced graphene oxide/polystyrene composites. <i>Applied Physics Letters</i> , <b>2014</b> , 104, 113101	3.4	91
60	Measurement of thermal conductivity of PbTe nanocrystal coated glass fibers by the 3 $\mu$ method. <i>Nano Letters</i> , <b>2013</b> , 13, 5006-12	11.5	24
59	Interfacial thermal conductance limit and thermal rectification across vertical carbon nanotube/graphene nanoribbon-silicon interfaces. <i>Journal of Applied Physics</i> , <b>2013</b> , 113, 064311	2.5	29
58	Synthesis and thermoelectric properties of compositional-modulated lead telluride-bismuth telluride nanowire heterostructures. <i>Nano Letters</i> , <b>2013</b> , 13, 2058-63	11.5	87
57	An Evaluation of Energy Transfer Pathways in Thermal Transport Across Solid/Solid Interfaces <b>2013</b> , ,		1
56	Defect-Induced Mechanical Mode Splitting in Carbon Nanotube Resonators. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , <b>2013</b> , 135,	1.6	5
55	Energy relaxation in CdSe nanocrystals: the effects of morphology and film preparation. <i>Optics Express</i> , <b>2013</b> , 21 Suppl 1, A15-22	3.3	8
54	Optical properties of ordered carbon nanotube arrays grown in porous anodic alumina templates. <i>Optics Express</i> , <b>2013</b> , 21, 22053-62	3.3	12
53	Thermal Conductivity Measurement of Graphene Composite. <i>Materials Research Society Symposia Proceedings</i> , <b>2013</b> , 1456, 57		3
52	Mode-Wise Thermal Conductivity of Bismuth Telluride. <i>Journal of Heat Transfer</i> , <b>2013</b> , 135,	1.8	40
51	Cross-plane thermal properties of transition metal dichalcogenides. <i>Applied Physics Letters</i> , <b>2013</b> , 102, 081604	3.4	71
50	Effects of nanocrystal shape and size on the temperature sensitivity in Raman thermometry. <i>Applied Physics Letters</i> , <b>2013</b> , 103, 083107	3.4	3
49	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> , <b>2012</b> , 113, 1683-1688	2.1	25
48	Facile synthesis of ultra-small Bi <sub>2</sub> Te <sub>3</sub> nanoparticles, nanorods and nanoplates and their morphology-dependent Raman spectroscopy. <i>Materials Letters</i> , <b>2012</b> , 82, 112-115	3.3	24
47	An investigation of the optical properties of disordered silicon nanowire mats. <i>Journal of Applied Physics</i> , <b>2012</b> , 112, 124301	2.5	14
46	Molecular dynamics simulations of lattice thermal conductivity and spectral phonon mean free path of PbTe: Bulk and nanostructures. <i>Computational Materials Science</i> , <b>2012</b> , 53, 278-285	3.2	133
45	The effects of diameter and chirality on the thermal transport in free-standing and supported carbon-nanotubes. <i>Applied Physics Letters</i> , <b>2012</b> , 100, 233105	3.4	40
44	A band-pass filter approach within molecular dynamics for the prediction of intrinsic quality factors of nanoresonators. <i>Journal of Applied Physics</i> , <b>2012</b> , 112, 074301	2.5	11



43	Reduction of spectral phonon relaxation times from suspended to supported graphene. <i>Applied Physics Letters</i> , <b>2012</b> , 100, 193101	3-4	130
42	Tunable thermal transport and thermal rectification in strained graphene nanoribbons. <i>Physical Review B</i> , <b>2012</b> , 85,	3-3	43
41	Two-temperature nonequilibrium molecular dynamics simulation of thermal transport across metal-nonmetal interfaces. <i>Physical Review B</i> , <b>2012</b> , 85,	3-3	84
40	Molecular Dynamics Study of Thermal Rectification in Graphene Nanoribbons. <i>International Journal of Thermophysics</i> , <b>2012</b> , 33, 986-991	2-1	8
39	Effects of rapid thermal processing and pulse-laser sintering on CdTe nanofilms for photovoltaic applications <b>2012</b> ,		5
38	Edge effect on thermal transport in graphene nanoribbons: A phonon localization mechanism beyond edge roughness scattering. <i>Applied Physics Letters</i> , <b>2012</b> , 101, 013101	3-4	72
37	Tunable thermal rectification in graphene nanoribbons through defect engineering: A molecular dynamics study. <i>Applied Physics Letters</i> , <b>2012</b> , 100, 163101	3-4	75
36	Thermal Radiative Properties of Vertical Graphitic Petal Arrays <b>2012</b> ,		1
35	Molecular Dynamics Simulations of Lattice Thermal Conductivity and Spectral Phonon Mean Free Path of PbTe: Bulk and Nanostructures <b>2012</b> ,		4
34	Predicting Thermal Transport in Bi <sub>2</sub> Te <sub>3</sub> : From Bulk to Nanostructures. <i>Materials Research Society Symposia Proceedings</i> , <b>2011</b> , 1329, 1		
33	Observation of nonclassical scaling laws in the quality factors of cantilevered carbon nanotube resonators. <i>Journal of Applied Physics</i> , <b>2011</b> , 110, 034312	2-5	25
32	Thermal Rectification in Graphene and Carbon Nanotube Systems Using Molecular Dynamics Simulations <b>2011</b> ,		1
31	Lattice thermal conductivity reduction in Bi <sub>2</sub> Te <sub>3</sub> quantum wires with smooth and rough surfaces: A molecular dynamics study. <i>Physical Review B</i> , <b>2011</b> , 83,	3-3	61
30	Shape and Temperature Dependence of Hot Carrier Relaxation Dynamics in Spherical and Elongated CdSe Quantum Dots. <i>Journal of Physical Chemistry C</i> , <b>2011</b> , 115, 11400-11406	3-8	28
29	Self-templated synthesis and thermal conductivity investigation for ultrathin perovskite oxide nanowires. <i>Nanoscale</i> , <b>2011</b> , 3, 4078-81	7-7	26
28	Nonlinear thermal transport and negative differential thermal conductance in graphene nanoribbons. <i>Applied Physics Letters</i> , <b>2011</b> , 99, 113101	3-4	52
27	Necessary conditions for thermal rectification and negative differential thermal conductance in graphene nanoribbons. <i>Materials Research Society Symposia Proceedings</i> , <b>2011</b> , 1347, 1		
26	Linear and Nonlinear Thermal Transport in Graphene: Molecular Dynamics Simulations. <i>Materials Research Society Symposia Proceedings</i> , <b>2011</b> , 1347, 1		



25	Tuning the thermal conductivity of graphene nanoribbons by edge passivation and isotope engineering: A molecular dynamics study. <i>Applied Physics Letters</i> , <b>2010</b> , 97, 133107	3-4	134
24	Thermal conductivity prediction and analysis of few-quintuple Bi <sub>2</sub> Te <sub>3</sub> thin films: A molecular dynamics study. <i>Applied Physics Letters</i> , <b>2010</b> , 97, 183107	3-4	55
23	Thermal Transport in Graphene Nanostructures: Experiments and Simulations. <i>ECS Transactions</i> , <b>2010</b> , 28, 73-83	1	93
22	Luminescence dynamics of Te doped CdS quantum dots at different doping levels. <i>Nanotechnology</i> , <b>2010</b> , 21, 265704	3-4	8
21	Optical properties of ordered vertical arrays of multi-walled carbon nanotubes from FDTD simulations. <i>Optics Express</i> , <b>2010</b> , 18, 6347-59	3-3	59
20	Optical absorption enhancement in disordered vertical silicon nanowire arrays for photovoltaic applications. <i>Optics Letters</i> , <b>2010</b> , 35, 3378-80	3	137
19	Analysis of Visible Radiative Properties of Vertically Aligned Multi-Walled Carbon Nanotubes <b>2010</b> ,		2
18	Ab initio calculations of thermal radiative properties: The semiconductor GaAs. <i>International Journal of Heat and Mass Transfer</i> , <b>2010</b> , 53, 1308-1312	4-9	20
17	Molecular Dynamics Calculation of Thermal Conductivity of Graphene Nanoribbons <b>2009</b> ,		20
16	Temperature dependence of hot carrier relaxation in PbSe nanocrystals: an ab initio study <b>2009</b> ,		1
15	Thermal conductivity and thermal rectification in graphene nanoribbons: a molecular dynamics study. <i>Nano Letters</i> , <b>2009</b> , 9, 2730-5	11-5	635
14	Temperature dependence of hot-carrier relaxation in PbSe nanocrystals: An ab initio study. <i>Physical Review B</i> , <b>2009</b> , 79,	3-3	34
13	Molecular dynamics simulations of lattice thermal conductivity of bismuth telluride using two-body interatomic potentials. <i>Physical Review B</i> , <b>2009</b> , 80,	3-3	118
12	Theory of the broadening of vibrational spectra induced by lowered symmetry in yttria nanostructures. <i>Physical Review B</i> , <b>2008</b> , 78,	3-3	15
11	Multiscale Simulations of Thermoelectric Properties of PBTE <b>2008</b> ,		4
10	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> , <b>2008</b> , 5, 221-229	0-3	7
9	Advances in Laser Cooling of Solids. <i>Journal of Heat Transfer</i> , <b>2007</b> , 129, 3-10	1-8	20
8	Entropy and efficiency in laser cooling of solids. <i>Physical Review B</i> , <b>2007</b> , 75,	3-3	20

7	Entropy and Efficiency in Laser Cooling of Solids <b>2007</b> , 59		1
6	Enhanced laser cooling of rare-earth-ion-doped nanocrystalline powders. <i>Physical Review B</i> , <b>2006</b> , 73,	3.3	51
5	PHOTON LOCALIZATION AND ELECTROMAGNETIC FIELD ENHANCEMENT IN LASER-IRRADIATED, RANDOM POROUS MEDIA. <i>Microscale Thermophysical Engineering</i> , <b>2005</b> , 9, 63-84		15
4	Enhanced nonradiative relaxation and photoluminescence quenching in random, doped nanocrystalline powders. <i>Journal of Applied Physics</i> , <b>2005</b> , 97, 104331	2.5	19
3	Multiple scattering and nonlinear thermal emission of Yb <sup>3+</sup> , Er <sup>3+</sup> :Y <sub>2</sub> O <sub>3</sub> nanopowders. <i>Journal of Applied Physics</i> , <b>2004</b> , 95, 4069-4077	2.5	76
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