Gang Chen

List of Publications by Year in Descending Order

575 papers	61,530 citations	122 h-index	237 g-index
630 ext. papers	69,553 ext. citations	8.4 avg, IF	8.11 L-index

#	Paper	IF	Citations
575	Inducing photocarrier separation via 3D porous faveolate cross-linked carbon enhanced photothermal/pyroelectric property **2022**,		2
574	Observation of second sound in graphite over 200 K.. *Nature Communications*, **2022**, 13, 285	17.4	3
573	High-performance, flexible thermoelectric generator based on bulk materials. *Cell Reports Physical Science*, **2022**, 3, 100780	6.1	8
572	On the molecular picture and interfacial temperature discontinuity during evaporation and condensation. *International Journal of Heat and Mass Transfer*, **2022**, 191, 122845	4.9	
571	Mobility enhancement in heavily doped semiconductors via electron cloaking.. *Nature Communications*, **2022**, 13, 2482	17.4	1
570	Green's functions of the Boltzmann transport equation with the full scattering matrix for phonon nanoscale transport beyond the relaxation-time approximation. *Physical Review B*, **2021**, 104,	3.3	1
569	Perspectives On Molecular-Level Understanding of Thermophysics of Liquids and Future Research Directions. *Journal of Heat Transfer*, **2021**,	1.8	4
568	Phonon-engineered extreme thermal conductivity materials. *Nature Materials*, **2021**, 20, 1188-1202	27	56
567	Sustainable polyethylene fabrics with engineered moisture transport for passive cooling. *Nature Sustainability*, **2021**, 4, 715-724	22.1	28
566	Stretchable Anti-Fogging Tapes for Diverse Transparent Materials. *Advanced Functional Materials*, **2021**, 31, 2103551	15.6	4
565	Generation and detection of 50 GHz surface acoustic waves by extreme ultraviolet pulses. *Applied Physics Letters*, **2021**, 119, 044102	3.4	4
564	Thermoelectric cooling materials. *Nature Materials*, **2021**, 20, 454-461	27	97
563	Mn-In-Cu co-doping to optimize the thermoelectric properties of SnTe-based materials. *Wuli Xuebao/Acta Physica Sinica*, **2021**, 0-0	0.6	1
562	Ionic thermoelectric materials for near ambient temperature energy harvesting. *Applied Physics Letters*, **2021**, 118, 020501	3.4	13
561	Non-Fourier phonon heat conduction at the microscale and nanoscale. *Nature Reviews Physics*, **2021**, 3, 555-569	23.6	14
560	Evaluation of the diffuse mismatch model for phonon scattering at disordered interfaces. *Physical Review B*, **2021**, 104,	3.3	1
559	Toward Optimal Heat Transfer of 2D-3D Heterostructures van der Waals Binding Effects. *ACS Applied Materials & Interfaces*, **2021**, 13, 46055-46064	9.5	5

558	Frank-van der Merwe growth in bilayer graphene. *Matter*, **2021**,	12.7	7
557	Practical development of efficient thermoelectric Photovoltaic hybrid systems based on wide-gap solar cells. *Applied Energy*, **2021**, 300, 117343	10.7	8
556	Thermally regenerative electrochemically cycled flow batteries with pH neutral electrolytes for harvesting low-grade heat. *Physical Chemistry Chemical Physics*, **2021**, 23, 22501-22514	3.6	2
555	First-Principles Study of All Thermoelectric Properties of Si - Ge Alloys Showing Large Phonon Drag from 150 to 1100K. *Physical Review Applied*, **2021**, 16,	4.3	2
554	Ultrasensitive ambient-stable SnSe2-based broadband photodetectors for room-temperature IR/THz energy conversion and imaging. *2D Materials*, **2020**, 7, 035026	5.9	14
553	Thermal transport for probing quantum materials. *MRS Bulletin*, **2020**, 45, 348-356	3.2	5
552	Accurate measurement of in-plane thermal conductivity of layered materials without metal film transducer using frequency domain thermoreflectance. *Review of Scientific Instruments*, **2020**, 91, 064903	1.7	13
551	Intermediate-level doping strategy to simultaneously optimize power factor and phonon thermal conductivity for improving thermoelectric figure of merit. *Materials Today Physics*, **2020**, 15, 100250	8	14
550	Bi-directional tuning of thermal transport in SrCoO with electrochemically induced phase transitions. *Nature Materials*, **2020**, 19, 655-662	27	38
549	Giant thermopower of ionic gelatin near room temperature. *Science*, **2020**, 368, 1091-1098	33.3	168
548	Optical properties of cubic boron arsenide. *Applied Physics Letters*, **2020**, 116, 141903	3.4	6
547	Semiconductor glass with superior flexibility and high room temperature thermoelectric performance. *Science Advances*, **2020**, 6, eaaz8423	14.3	46
546	Thermal transport exceeding bulk heat conduction due to nonthermal micro/nanoscale phonon populations. *Applied Physics Letters*, **2020**, 116, 163102	3.4	4
545	Quantifying thermal transport in amorphous silicon using mean free path spectroscopy. *Physical Review B*, **2020**, 101,	3.3	6
544	Large nonreciprocal absorption and emission of radiation in type-I Weyl semimetals with time reversal symmetry breaking. *Physical Review B*, **2020**, 101,	3.3	32
543	Ultrahigh thermal conductivity in isotope-enriched cubic boron nitride. *Science*, **2020**, 367, 555-559	33.3	90
542	A Passive High-Temperature High-Pressure Solar Steam Generator for Medical Sterilization. *Joule*, **2020**, 4, 2733-2745	27.8	29
541	Direct observation of large electron-phonon interaction effect on phonon heat transport. *Nature Communications*, **2020**, 11, 6040	17.4	15

540	Dynamic intermolecular interactions through hydrogen bonding of water promote heat conduction in hydrogels. *Materials Horizons*, **2020**, 7, 2936-2943	14.4	14
539	Intrinsic nonreciprocal reflection and violation of Kirchhoff's law of radiation in planar type-I magnetic Weyl semimetal surfaces. *Physical Review B*, **2020**, 102,	3.3	24
538	Thermal energy storage radiatively coupled to a supercritical Rankine cycle for electric grid support. *Renewable Energy*, **2020**, 145, 604-621	8.1	9
537	Nanoscale transient gratings excited and probed by extreme ultraviolet femtosecond pulses. *Science Advances*, **2019**, 5, eaaw5805	14.3	28
536	Harnessing Heat Beyond 200 °C from Unconcentrated Sunlight with Nonevacuated Transparent Aerogels. *ACS Nano*, **2019**, 13, 7508-7516	16.7	51
535	Thermoelectric properties of electronegatively filled SyCo4□NixSb12 skutterudites. *Journal of Materials Chemistry C*, **2019**, 7, 8079-8085	7.1	12
534	A Janus evaporator with low tortuosity for long-term solar desalination. *Journal of Materials Chemistry A*, **2019**, 7, 15333-15340	13	95
533	Roles of kink on the thermal transport in single polyethylene chains. *Journal of Applied Physics*, **2019**, 125, 164303	2.5	14
532	Nanostructured polymer films with metal-like thermal conductivity. *Nature Communications*, **2019**, 10, 1771	17.4	120
531	Professor Yogesh Jaluria on his 70th Birthday. *International Journal of Heat and Mass Transfer*, **2019**, 140, 1106-1107	4.9	
530	Observation of second sound in graphite at temperatures above 100 K. *Science*, **2019**, 364, 375-379	33.3	87
529	Substantial enhancement of mechanical properties for SnSe based composites with potassium titanate whiskers. *Journal of Materials Science: Materials in Electronics*, **2019**, 30, 8502-8507	2.1	5
528	An annular thermoelectric couple analytical model by considering temperature-dependent material properties and Thomson effect. *Energy*, **2019**, 187, 115922	7.9	9
527	High thermoelectric cooling performance of n-type MgBi-based materials. *Science*, **2019**, 365, 495-498	33.3	240
526	Effect of electron-phonon interaction on lattice thermal conductivity of SiGe alloys. *Applied Physics Letters*, **2019**, 115, 023903	3.4	21
525	Anomalous Defect Dependence of Thermal Conductivity in Epitaxial WO Thin Films. *Advanced Materials*, **2019**, 31, e1903738	24	8
524	Thermal Hall signatures of non-Kitaev spin liquids in honeycomb Kitaev materials. *Physical Review Research*, **2019**, 1,	3.9	16
523	Spectral, spatial and polarization-selective perfect absorbers with large magnetic response for sensing and thermal emission control. *Optics Express*, **2019**, 27, A1041-A1059	3.3	2

522	Optical engineering of polymer materials and composites for simultaneous color and thermal management. *Optical Materials Express*, **2019**, 9, 1990	2.6	20
521	Boron isotope effect on the thermal conductivity of boron arsenide single crystals. *Materials Today Physics*, **2019**, 11, 100169	8	10
520	Effect of nucleation sites on the growth and quality of single-crystal boron arsenide. *Materials Today Physics*, **2019**, 11, 100160	8	7
519	Enhanced Thermoelectric Properties for PEDOT:PSS/Undoped Ge Thin-Film Bilayered Heterostructures. *Advanced Electronic Materials*, **2019**, 5, 1800624	6.4	9
518	Discovery of TaFeSb-based half-Heuslers with high thermoelectric performance. *Nature Communications*, **2019**, 10, 270	17.4	155
517	Deep defect level engineering: a strategy of optimizing the carrier concentration for high thermoelectric performance. *Energy and Environmental Science*, **2018**, 11, 933-940	35.4	110
516	Lower-Stratospheric Control of the Frequency of Sudden Stratospheric Warming Events. *Journal of Geophysical Research D: Atmospheres*, **2018**, 123, 3051-3070	4.4	13
515	Nano-microstructural control of phonon engineering for thermoelectric energy harvesting. *MRS Bulletin*, **2018**, 43, 181-186	3.2	80
514	A Hybrid Electric and Thermal Solar Receiver. *Joule*, **2018**, 2, 962-975	27.8	54
513	Routes for high-performance thermoelectric materials. *Materials Today*, **2018**, 21, 974-988	21.8	187
512	Thermal transport in semicrystalline polyethylene by molecular dynamics simulation. *Journal of Applied Physics*, **2018**, 123, 015107	2.5	27
511	Electron mean-free-path filtering in Dirac material for improved thermoelectric performance. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, 879-884	11.5	46
510	Seeded growth of boron arsenide single crystals with high thermal conductivity. *Applied Physics Letters*, **2018**, 112, 031903	3.4	31
509	Theory of electron–phonon–dislon interacting system—toward a quantized theory of dislocations. *New Journal of Physics*, **2018**, 20, 023010	2.9	9
508	Topological Engineering of Interfacial Optical Tamm States for Highly Sensitive Near-Singular-Phase Optical Detection. *ACS Photonics*, **2018**, 5, 929-938	6.3	51
507	Large thermoelectric power factor from crystal symmetry-protected non-bonding orbital in half-Heuslers. *Nature Communications*, **2018**, 9, 1721	17.4	77
506	Molecular engineered conjugated polymer with high thermal conductivity. *Science Advances*, **2018**, 4, eaar3031	14.3	103
505	A salt-rejecting floating solar still for low-cost desalination. *Energy and Environmental Science*, **2018**, 11, 1510-1519	35.4	409

504	Self-compensation induced vacancies for significant phonon scattering in InSb. *Nano Energy*, **2018**, 48, 189-196	17.1	23
503	Efficiency Limits of Solar Energy Harvesting via Internal Photoemission in Carbon Materials. *Photonics*, **2018**, 5, 4	2.2	1
502	Theoretical efficiency of hybrid solar thermoelectric-photovoltaic generators. *Journal of Applied Physics*, **2018**, 124, 024501	2.5	17
501	Non-covalent interactions in electrochemical reactions and implications in clean energy applications. *Physical Chemistry Chemical Physics*, **2018**, 20, 15680-15686	3.6	33
500	Simultaneously high electron and hole mobilities in cubic boron-V compounds: BP, BAs, and BSb. *Physical Review B*, **2018**, 98,	3.3	31
499	Gas-pressure chemical vapor transport growth of millimeter-sized c-BAs single crystals with moderate thermal conductivity. *Applied Physics Letters*, **2018**, 112, 241903	3.4	14
498	Spectral concentration of thermal conductivity in GaN: A first-principles study. *Applied Physics Letters*, **2018**, 112, 252101	3.4	13
497	Discovery of ZrCoBi based half Heuslers with high thermoelectric conversion efficiency. *Nature Communications*, **2018**, 9, 2497	17.4	154
496	Phonon Hydrodynamic Heat Conduction and Knudsen Minimum in Graphite. *Nano Letters*, **2018**, 18, 638-649	11.5	54
495	Beneficial Effect of S-Filling on Thermoelectric Properties of S x Co4Sb11.2Te0.8 Skutterudite. *Journal of Electronic Materials*, **2018**, 47, 3061-3066	1.9	8
494	Umklapp scattering is not necessarily resistive. *Physical Review B*, **2018**, 98,	3.3	9
493	Phonon localization in heat conduction. *Science Advances*, **2018**, 4, eaat9460	14.3	71
492	Thermal conductivity in self-assembled CoFe2O4/BiFeO3 vertical nanocomposite films. *Applied Physics Letters*, **2018**, 113, 223105	3.4	3
491	Advances in thermoelectrics. *Advances in Physics*, **2018**, 67, 69-147	18.4	225
490	Contactless steam generation and superheating under one sun illumination. *Nature Communications*, **2018**, 9, 5086	17.4	112
489	Solar-driven interfacial evaporation. *Nature Energy*, **2018**, 3, 1031-1041	62.3	715
488	Engineering a Full Gamut of Structural Colors in All-Dielectric Mesoporous Network Metamaterials. *ACS Photonics*, **2018**, 5, 2120-2128	6.3	25
487	Unusual high thermal conductivity in boron arsenide bulk crystals. *Science*, **2018**, 361, 582-585	33.3	185

486	Barotropic and Baroclinic Eddy Feedbacks in the Midlatitude Jet Variability and Responses to Climate Change‐like Thermal Forcings. *Journals of the Atmospheric Sciences*, **2017**, 74, 111-132	2.1	11
485	Nonperturbative Quantum Nature of the Dislocation-Phonon Interaction. *Nano Letters*, **2017**, 17, 1587-1594	12.4	47
484	First-principles mode-by-mode analysis for electron-phonon scattering channels and mean free path spectra in GaAs. *Physical Review B*, **2017**, 95,	3.3	94
483	Tuning the carrier scattering mechanism to effectively improve the thermoelectric properties. *Energy and Environmental Science*, **2017**, 10, 799-807	35.4	227
482	Electron energy can oscillate near a crystal dislocation. *New Journal of Physics*, **2017**, 19, 013033	2.9	12
481	Thermoelectric Properties of n-type ZrNiPb-Based Half-Heuslers. *Chemistry of Materials*, **2017**, 29, 867-872	9.6	48
480	Ab initio study of electron mean free paths and thermoelectric properties of lead telluride. *Materials Today Physics*, **2017**, 2, 69-77	8	42
479	Manipulation of ionized impurity scattering for achieving high thermoelectric performance in n-type MgSb-based materials. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, 10548-10553	11.5	183
478	A Microporous and Naturally Nanostructured Thermoelectric Metal-Organic Framework with Ultralow Thermal Conductivity. *Joule*, **2017**, 1, 168-177	27.8	112
477	Thermal conductivity of GaAs/Ge nanostructures. *Applied Physics Letters*, **2017**, 110, 222105	3.4	8
476	Near-Perfect Ultrathin Nanocomposite Absorber with Self-Formed Topping Plasmonic Nanoparticles. *Advanced Optical Materials*, **2017**, 5, 1700222	8.1	27
475	Recent progress and future challenges on thermoelectric Zintl materials. *Materials Today Physics*, **2017**, 1, 74-95	8	195
474	Aerogel-based solar thermal receivers. *Nano Energy*, **2017**, 40, 180-186	17.1	49
473	Dependence of the Thermal Conductivity of BiFeO3 Thin Films on Polarization and Structure. *Physical Review Applied*, **2017**, 8,	4.3	16
472	Dirac-electron-mediated magnetic proximity effect in topological insulator/magnetic insulator heterostructures. *Physical Review B*, **2017**, 96,	3.3	25
471	Tailoring Superconductivity with Quantum Dislocations. *Nano Letters*, **2017**, 17, 4604-4610	11.5	7
470	Losses in plasmonics: from mitigating energy dissipation to embracing loss-enabled functionalities. *Advances in Optics and Photonics*, **2017**, 9, 775	16.7	79
469	Unifying first-principles theoretical predictions and experimental measurements of size effects in thermal transport in SiGe alloys. *Physical Review Materials*, **2017**, 1,	3.2	13

468	Polymer Metamaterial Fabrics for Personal Radiative Thermal Management **2017**,		2
467	Hybrid Optical□Thermal Antennas for Enhanced Light Focusing and Local Temperature Control. *ACS Photonics*, **2016**, 3, 1714-1722	6.3	15
466	Achieving high power factor and output power density in p-type half-Heuslers Nb1-xTixFeSb. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 13576-13581	11.5	164
465	Three-dimensional graphene enhanced heat conduction of porous crystals. *Journal of Porous Materials*, **2016**, 23, 1647-1652	2.4	12
464	Variational approach to extracting the phonon mean free path distribution from the spectral Boltzmann transport equation. *Physical Review B*, **2016**, 93,	3.3	21
463	Toward a High-Efficient Utilization of Solar Radiation by Quad-Band Solar Spectral Splitting. *Advanced Materials*, **2016**, 28, 10659-10663	24	19
462	Steam generation under one sun enabled by a floating structure with thermal□concentration. *Nature Energy*, **2016**, 1,	62.3	650
461	Quantitative analyses of enhanced thermoelectric properties of modulation-doped PEDOT:PSS/undoped Si (001) nanoscale heterostructures. *Nanoscale*, **2016**, 8, 19754-19760	7.7	27
460	Photo-excited charge carriers suppress sub-terahertz phonon mode in silicon at room temperature. *Nature Communications*, **2016**, 7, 13174	17.4	37
459	Concentrating solar thermoelectric generators with a peak efficiency of 7.4%. *Nature Energy*, **2016**, 1,	62.3	190
458	Entropic and Near-Field Improvements of Thermoradiative Cells. *Scientific Reports*, **2016**, 6, 34837	4.9	50
457	Heat meets light on the nanoscale. *Nanophotonics*, **2016**, 5, 134-160	6.3	49
456	Roadmap on optical energy conversion. *Journal of Optics (United Kingdom)*, **2016**, 18, 073004	1.7	69
455	Mismatched front and back gratings for optimum light trapping in ultra-thin crystalline silicon solar cells. *Optics Communications*, **2016**, 377, 52-58	2	22
454	New insight into the material parameter B to understand the enhanced thermoelectric performance of Mg2Sn1□yGexSby. *Energy and Environmental Science*, **2016**, 9, 530-539	35.4	68
453	High thermoelectric performance of n-type PbTe1□ due to deep lying states induced by indium doping and spinodal decomposition. *Nano Energy*, **2016**, 22, 572-582	17.1	49
452	First-principles calculations of thermal, electrical, and thermoelectric transport properties of semiconductors. *Semiconductor Science and Technology*, **2016**, 31, 043001	1.8	42
451	Tailoring high-temperature radiation and the resurrection of the incandescent source. *Nature Nanotechnology*, **2016**, 11, 320-4	28.7	122

450	Delineating the Barotropic and Baroclinic Mechanisms in the Midlatitude Eddy-Driven Jet Response to Lower-Tropospheric Thermal Forcing. *Journals of the Atmospheric Sciences*, **2016**, 73, 429-448	2.1	25
449	Empirical Comparison of Random and Periodic Surface Light-Trapping Structures for Ultrathin Silicon Photovoltaics. *Advanced Optical Materials*, **2016**, 4, 858-863	8.1	21
448	Evidence for a spinon Fermi surface in a triangular-lattice quantum-spin-liquid candidate. *Nature*, **2016**, 540, 559-562	50.4	184
447	Preface to Special Topic: Thermoelectric Materials. *APL Materials*, **2016**, 4, 104401	5.7	0
446	Monte Carlo study of non-diffusive relaxation of a transient thermal grating in thin membranes. *Applied Physics Letters*, **2016**, 108, 063107	3.4	25
445	Thermal transport in suspended silicon membranes measured by laser-induced transient gratings. *AIP Advances*, **2016**, 6, 121903	1.5	28
444	Anderson Localization of Thermal Phonons Leads to a Thermal Conductivity Maximum. *Nano Letters*, **2016**, 16, 7616-7620	11.5	45
443	Effective dielectric constants and spectral density analysis of plasmonic nanocomposites. *Journal of Applied Physics*, **2016**, 120, 163103	2.5	25
442	Variational approach to solving the spectral Boltzmann transport equation in transient thermal grating for thin films. *Journal of Applied Physics*, **2016**, 120, 025103	2.5	15
441	The effect of shallow vs. deep level doping on the performance of thermoelectric materials. *Applied Physics Letters*, **2016**, 109, 263902	3.4	11
440	Thermally conductive separator with hierarchical nano/microstructures for improving thermal management of batteries. *Nano Energy*, **2016**, 22, 301-309	17.1	45
439	Molecular dynamics study of the influence of Sb-vacancy defects on the lattice thermal conductivity of crystalline CoSb3. *Computational Materials Science*, **2016**, 124, 403-410	3.2	9
438	15.7% Efficient 10-μm-thick crystalline silicon solar cells using periodic nanostructures. *Advanced Materials*, **2015**, 27, 2182-8	24	128
437	Enhancement of thermoelectric performance in n-type PbTe1−xSex by doping Cr and tuning Te:Se ratio. *Nano Energy*, **2015**, 13, 355-367	17.1	31
436	Reconstructing phonon mean-free-path contributions to thermal conductivity using nanoscale membranes. *Physical Review B*, **2015**, 91,	3.3	92
435	Electrospinning technique synthesis and electrical performances of one dimensional Ca2Co2O5 with hierarchical structure. *Materials Letters*, **2015**, 158, 182-185	3.3	6
434	"Thermal Charging" Phenomenon in Electrical Double Layer Capacitors. *Nano Letters*, **2015**, 15, 5784-90	11.5	54
433	Thin-film 'Thermal Well' Emitters and Absorbers for High-Efficiency Thermophotovoltaics. *Scientific Reports*, **2015**, 5, 10661	4.9	98

432	Aluminum and silicon based phase change materials for high capacity thermal energy storage. *Applied Thermal Engineering*, **2015**, 89, 204-208	5.8	64
431	Relationship between thermoelectric figure of merit and energy conversion efficiency. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 8205-10	11.5	300
430	Studies on Thermoelectric Properties of n-type Polycrystalline SnSe1-xSx by Iodine Doping. *Advanced Energy Materials*, **2015**, 5, 1500360	21.8	242
429	Enhanced absorption of thin-film photovoltaic cells using an optical cavity. *Journal of Optics (United Kingdom)*, **2015**, 17, 055901	1.7	20
428	Experimental study of the proposed super-thermal-conductor: BAs. *Applied Physics Letters*, **2015**, 106, 074105	3.4	52
427	Thermal spin transport of a nitroxide radical-based molecule. *RSC Advances*, **2015**, 5, 20699-20703	3.7	5
426	Epitaxial CrN thin films with high thermoelectric figure of merit. *Advanced Materials*, **2015**, 27, 3032-7	24	45
425	Transition from near-field thermal radiation to phonon heat conduction at sub-nanometre gaps. *Nature Communications*, **2015**, 6, 6755	17.4	74
424	Limiting efficiencies of solar energy conversion and photo-detection via internal emission of hot electrons and hot holes in gold **2015**,		6
423	Diverging polygon-based modeling (DPBM) of concentrated solar flux distributions. *Solar Energy*, **2015**, 122, 24-35	6.8	1
422	Concentrating Solar Power. *Chemical Reviews*, **2015**, 115, 12797-838	68.1	298
421	First-principles simulation of electron mean-free-path spectra and thermoelectric properties in silicon. *Europhysics Letters*, **2015**, 109, 57006	1.6	114
420	Enhancing solid-liquid interface thermal transport using self-assembled monolayers. *Applied Physics Letters*, **2015**, 106, 211602	3.4	54
419	An ab initio study of multiple phonon scattering resonances in silicon germanium alloys. *Journal of Applied Physics*, **2015**, 117, 174301	2.5	9
418	Volumetric solar heating of nanofluids for direct vapor generation. *Nano Energy*, **2015**, 17, 290-301	17.1	276
417	A high-performance spectrally-selective solar absorber based on a yttria-stabilized zirconia cermet with high-temperature stability. *Energy and Environmental Science*, **2015**, 8, 3040-3048	35.4	78
416	Ab initio optimization of phonon drag effect for lower-temperature thermoelectric energy conversion. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 14777-82	11.5	48
415	Effect of Te$_5$Se$_5$ Triple Doping on the Thermoelectric Properties of CoSb3 Skutterudites. *Journal of Electronic Materials*, **2015**, 44, 1674-1678	1.9	8

414	Viscosity and thermal conductivity of stable graphite suspensions near percolation. *Nano Letters*, **2015**, 15, 127-33	11.5	29
413	Accurate determination of the total hemispherical emittance and solar absorptance of opaque surfaces at elevated temperatures. *Solar Energy Materials and Solar Cells*, **2015**, 132, 640-649	6.4	14
412	Enhanced Thermal Stability of W-Ni-Al2O3 Cermet-Based Spectrally Selective Solar Absorbers with Tungsten Infrared Reflectors. *Advanced Energy Materials*, **2015**, 5, 1401042	21.8	120
411	Determination of Thermal History by Photoluminescence of Core-Shelled Quantum Dots Going Through Heating Events. *Particle and Particle Systems Characterization*, **2015**, 32, 65-71	3.1	8
410	Nanocomposites for thermoelectrics and thermal engineering. *MRS Bulletin*, **2015**, 40, 746-752	3.2	28
409	Ab initio study of electron-phonon interaction in phosphorene. *Physical Review B*, **2015**, 91,	3.3	137
408	Measuring Phonon Mean Free Path Distributions by Probing Quasiballistic Phonon Transport in Grating Nanostructures. *Scientific Reports*, **2015**, 5, 17131	4.9	90
407	Enhancement and Tunability of Near-Field Radiative Heat Transfer Mediated by Surface Plasmon Polaritons in Thin Plasmonic Films. *Photonics*, **2015**, 2, 659-683	2.2	36
406	A Facile Approach to Evaluate Thermal Insulation Performance of Paper Cups. *International Journal of Polymer Science*, **2015**, 2015, 1-8	2.4	2
405	Infrared-Transparent Visible-Opaque Fabrics for Wearable Personal Thermal Management. *ACS Photonics*, **2015**, 2, 769-778	6.3	162
404	Spectral mapping of thermal conductivity through nanoscale ballistic transport. *Nature Nanotechnology*, **2015**, 10, 701-6	28.7	222
403	Significant reduction of lattice thermal conductivity by the electron-phonon interaction in silicon with high carrier concentrations: a first-principles study. *Physical Review Letters*, **2015**, 114, 115901	7.4	159
402	Thermal Interface Conductance Between Aluminum and Silicon by Molecular Dynamics Simulations. *Journal of Computational and Theoretical Nanoscience*, **2015**, 12, 168-174	0.3	54
401	Hybrid optical-thermal devices and materials for light manipulation and radiative cooling **2015**,		6
400	Effects of Aperiodicity and Roughness on Coherent Heat Conduction in Superlattices. *Nanoscale and Microscale Thermophysical Engineering*, **2015**, 19, 272-278	3.7	41
399	Enhancement of Thermoelectric Performance of n-Type PbSe by Cr Doping with Optimized Carrier Concentration. *Advanced Energy Materials*, **2015**, 5, 1401977	21.8	76
398	Hydrodynamic phonon transport in suspended graphene. *Nature Communications*, **2015**, 6, 6290	17.4	191
397	High thermoelectric conversion efficiency of MgAgSb-based material with hot-pressed contacts. *Energy and Environmental Science*, **2015**, 8, 1299-1308	35.4	114

396	Nanoscale thermal transport. II. 2003–2012. *Applied Physics Reviews*, **2014**, 1, 011305	17.3	1050
395	Exceeding the solar cell Shockley–Queisser limit via thermal up-conversion of low-energy photons. *Optics Communications*, **2014**, 314, 71-78	2	21
394	Lattice thermal conductivity of Bi, Sb, and Bi-Sb alloy from first principles. *Physical Review B*, **2014**, 89,	3.3	50
393	High thermoelectric performance of MgAgSb-based materials. *Nano Energy*, **2014**, 7, 97-103	17.1	197
392	An electrochemical system for efficiently harvesting low-grade heat energy. *Nature Communications*, **2014**, 5, 3942	17.4	236
391	First-principles study of thermal transport in FeSb2. *Physical Review B*, **2014**, 89,	3.3	21
390	Crooked Ag2Te nanowires with rough surfaces: facile microwave-assisted solution synthesis, growth mechanism, and electrical performances. *New Journal of Chemistry*, **2014**, 38, 59-62	3.6	17
389	Size-controlled synthesis and transport properties of Sb2Te3 nanoplates. *RSC Advances*, **2014**, 4, 2427-2432	3.7	12
388	Disparate quasiballistic heat conduction regimes from periodic heat sources on a substrate. *Journal of Applied Physics*, **2014**, 116, 064307	2.5	26
387	Charging-free electrochemical system for harvesting low-grade thermal energy. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 17011-6	11.5	152
386	Membrane-free battery for harvesting low-grade thermal energy. *Nano Letters*, **2014**, 14, 6578-83	11.5	110
385	The Role of Stratospheric Polar Vortex Breakdown in Southern Hemisphere Climate Trends. *Journals of the Atmospheric Sciences*, **2014**, 71, 2335-2353	2.1	28
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11	Heat conduction in micro-structured materials		1
10	Thermal conductivity reduction mechanisms in superlattices		4
9	Nanoscale heat transfer and nanostructured thermoelectrics		2
8	A photo-thermoelectric technique for anisotropic thermal diffusivity characterization of nanowire/nanotube composites		2
7	In-plane thermoelectric properties of Si/Ge superlattice		3
6	Thermoelectric property characterization of low-dimensional structures		1
5	Improvements of on-membrane method for thin-film thermal conductivity and emissivity measurements		7
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