Patrick E Hopkins

List of Publications by Year
in descending order

249 papers	11,304 citations	24978 57 h-index	42291 92 g-index
254 all docs	254 docs citations	254 times ranked	9105 citing authors

#	Article	IF	Citations
1	Phase stability and mechanical properties of novel high entropy transition metal carbides. Acta Materialia, 2019, 166, 271-280.	3.8	422
2	Crossover from incoherent to coherent phonon scattering in epitaxial oxide superlattices. Nature Materials, 2014, 13, 168-172.	13.3	399
3	High-entropy fluorite oxides. Journal of the European Ceramic Society, 2018, 38, 3578-3584.	2.8	399
4	Chargeâ€Induced Disorder Controls the Thermal Conductivity of Entropyâ€Stabilized Oxides. Advanced Materials, 2018, 30, e1805004.	11.1	302
5	Manipulating Thermal Conductance at Metalâ€“Graphene Contacts via Chemical Functionalization. Nano Letters, 2012, 12, 590-595.	4.5	240
6	Thin Film Thermoelectric Metalâ€“Organic Framework with High Seebeck Coefficient and Low Thermal Conductivity. Advanced Materials, 2015, 27, 3453-3459.	11.1	227
7	Dysprosium-doped cadmium oxide as a gateway material for mid-infrared plasmonics. Nature Materials, 2015, 14, 414-420.	13.3	216
8	Thermal Transport across Solid Interfaces with Nanoscale Imperfections: Effects of Roughness, Disorder, Dislocations, and Bonding on Thermal Boundary Conductance. ISRN Mechanical Engineering, 2013, 2013, 1-19.	0.9	212
9	A Review of Experimental and Computational Advances in Thermal Boundary Conductance and Nanoscale Thermal Transport across Solid Interfaces. Advanced Functional Materials, 2020, 30, 1903857.	7.8	166
10	Criteria for Cross-Plane Dominated Thermal Transport in Multilayer Thin Film Systems During Modulated Laser Heating. Journal of Heat Transfer, 2010, 132, .	1.2	160
11	A high-entropy silicide: (Mo0.2Nb0.2Ta0.2Ti0.2W0.2)Si2. Journal of Materiomics, 2019, 5, 337-343.	2.8	159
12	Thermally conductive ultra-low-k dielectric layers based on two-dimensional covalent organic frameworks. Nature Materials, 2021, 20, 1142-1148.	13.3	158
13	Effects of surface roughness and oxide layer on the thermal boundary conductance at aluminum/silicon interfaces. Physical Review B, 2010, 82, .	1.1	154
14	High Conductivity and Electronâ€Transfer Validation in an nâ€Type Fluorideâ€Anionâ€Doped Polymer for Thermoelectrics in Air. Advanced Materials, 2017, 29, 1606928.	11.1	144
15	Experimental Investigation of Size Effects on the Thermal Conductivity of Silicon-Germanium Alloy Thin Films. Physical Review Letters, 2012, 109, 195901.	2.9	138
16	Influence of Interfacial Mixing on Thermal Boundary Conductance Across a Chromium/Silicon Interface. Journal of Heat Transfer, 2008, 130, .	1.2	116
17	Room-Temperature Voltage Tunable Phonon Thermal Conductivity via Reconfigurable Interfaces in Ferroelectric Thin Films. Nano Letters, 2015, 15, 1791-1795.	4.5	116
18	Effects of electron scattering at metal-nonmetal interfaces on electron-phonon equilibration in gold films. Journal of Applied Physics, 2009, 105, .	1.1	115

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19	Anharmonic Phonon Interactions at Interfaces and Contributions to Thermal Boundary Conductance. Journal of Heat Transfer, 2011, 133, .	1.2	109
20	Multiple phonon processes contributing to inelastic scattering during thermal boundary conductance at solid interfaces. Journal of Applied Physics, 2009, 106, .	1.1	103
21	Controlling thermal conductance through quantum dot roughening at interfaces. Physical Review B, 2011, 84, .	1.1	98
22	Influence of Inelastic Scattering at Metal-Dielectric Interfaces. Journal of Heat Transfer, 2008, 130, .	1.2	97
23	Observation of reduced thermal conductivity in a metal-organic framework due to the presence of adsorbates. Nature Communications, 2020, 11, 4010.	5.8	97
24	Size effects on the thermal conductivity of amorphous silicon thin films. Physical Review B, 2016, 93, .	1.1	95
25	Substrate influence in electronâ€“phonon coupling measurements in thin Au films. Applied Surface Science, 2007, 253, 6289-6294.	3.1	93
26	Extreme tunability in aluminum doped Zinc Oxide plasmonic materials for near-infrared applications. Scientific Reports, 2014, 4, 6415.	1.6	93
27	Dual-phase high-entropy ultra-high temperature ceramics. Journal of the European Ceramic Society, 2020, 40, 5037-5050.	2.8	91
28	Role of interface disorder on thermal boundary conductance using a virtual crystal approach. Applied Physics Letters, 2007, 90, 054104.	1.5	84
29	Thermal conductivity and thermal boundary resistance of atomic layer deposited high-k dielectric aluminum oxide, hafnium oxide, and titanium oxide thin films on silicon. APL Materials, 2018, 6, .	2.2	82
30	Extension of the diffuse mismatch model for thermal boundary conductance between isotropic and anisotropic materials. Applied Physics Letters, 2009, 95, .	1.5	81
31	Modification of the Poly(bisdodecylquaterthiophene) Structure for High and Predominantly Nonionic Conductivity with Matched Dopants. Journal of the American Chemical Society, 2017, 139, 11149-11157.	6.6	81
32	Reviewâ€”Investigation and Review of the Thermal, Mechanical, Electrical, Optical, and Structural Properties of Atomic Layer Deposited High-kDielectrics: Beryllium Oxide, Aluminum Oxide, Hafnium Oxide, and Aluminum Nitride. ECS Journal of Solid State Science and Technology, 2017, 6, N189-N208.	0.9	81
33	Tunable thermal transport and reversible thermal conductivity switching in topologically networked bio-inspired materials. Nature Nanotechnology, 2018, 13, 959-964.	15.6	81
34	Exceptionally Low Thermal Conductivities of Films of the Fullerene Derivative PCBM. Physical Review Letters, 2013, 110, 015902.	2.9	79
35	Systematically controlling Kapitza conductance via chemical etching. Applied Physics Letters, 2012, 100, .	1.5	78
36	Size dictated thermal conductivity of GaN. Journal of Applied Physics, 2016, 120, .	1.1	77

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37	Role of dispersion on phononic thermal boundary conductance. Journal of Applied Physics, 2010, 108, .	1.1	76
38	Thermal transport in organic semiconducting polymers. Applied Physics Letters, 2013, 102, 251912.	1.5	74
39	Thermal boundary conductance accumulation and interfacial phonon transmission: Measurements and theory. Physical Review B, 2015, 91, .	1.1	74
40	A steady-state thermoreflectance method to measure thermal conductivity. Review of Scientific Instruments, 2019, 90, 024905.	0.6	74
41	Effect of dislocation density on thermal boundary conductance across GaSb/GaAs interfaces. Applied Physics Letters, 2011, 98, .	1.5	73
42	Tailoring thermal properties of multi-component rare earth monosilicates. Acta Materialia, 2020, 195, 698-707.	3.8	73
43	Relationship of thermal boundary conductance to structure from an analytical model plus molecular dynamics simulations. Physical Review B, 2013, 87, .	1.1	71
44	Mechanisms of nonequilibrium electron-phonon coupling and thermal conductance at interfaces. Journal of Applied Physics, 2015, 117, .	1.1	71
45	Influence of interfacial properties on thermal transport at gold:silicon contacts. Applied Physics Letters, 2013, 102, .	1.5	69
46	Modifying Surface Energy of Graphene via Plasma-Based Chemical Functionalization to Tune Thermal and Electrical Transport at Metal Interfaces. Nano Letters, 2015, 15, 4876-4882.	4.5	68
47	Efficiently suppressed thermal conductivity in ZnO thin films via periodic introduction of organic layers. Journal of Materials Chemistry A, 2014, 2, 12150-12152.	5.2	66
48	Examining Interfacial Diffuse Phonon Scattering Through Transient Thermoreflectance Measurements of Thermal Boundary Conductance. Journal of Heat Transfer, 2009, 131, .	1.2	65
49	Origin of reduction in phonon thermal conductivity of microporous solids. Applied Physics Letters, 2009, 95, .	1.5	64
50	Relative Contributions of Inelastic and Elastic Diffuse Phonon Scattering to Thermal Boundary Conductance Across Solid Interfaces. Journal of Heat Transfer, 2009, 131, .	1.2	64
51	Ultralow Thermal Conductivity of Two-Dimensional Metal Halide Perovskites. Nano Letters, 2020, 20, 3331-3337.	4.5	64
52	Thin Film Non-Noble Transition Metal Thermophysical Properties. Microscale Thermophysical Engineering, 2005, 9, 365-377.	1.2	62
53	Extracting phonon thermal conductance across atomic junctions: Nonequilibrium Greenâ€™s function approach compared to semiclassical methods. Journal of Applied Physics, 2009, 106, .	1.1	62
54	Implications of cross-species interactions on the temperature dependence of Kapitza conductance. Physical Review B, 2011, 84, .	1.1	62

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55	Density dependence of the room temperature thermal conductivity of atomic layer deposition-grown amorphous alumina (Al2O3). Applied Physics Letters, 2014, 104, .	1.5	62
56	Experimental observation of high intrinsic thermal conductivity of AlN. Physical Review Materials, 2020, 4, .	0.9	60
57	Investigation of size and electronic effects on Kapitza conductance with non-equilibrium molecular dynamics. Applied Physics Letters, 2013, 102, .	1.5	59
58	Interface controlled thermal resistancesÂof ultra-thin chalcogenide-based phase change memory devices. Nature Communications, 2021, 12, 774.	5.8	59
59	High In-Plane Thermal Conductivity of Aluminum Nitride Thin Films. ACS Nano, 2021, 15, 9588-9599.	7.3	58
60	Spontaneous chemical functionalization via coordination of Au single atoms on monolayer MoS ₂. Science Advances, 2020, 6, .	4.7	56
61	Upper limit to the thermal penetration depth during modulated heating of multilayer thin films with pulsed and continuous wave lasers: A numerical study. Journal of Applied Physics, 2017, 121, 175107.	1.1	55
62	Interfacial Defect Vibrations Enhance Thermal Transport in Amorphous Multilayers with Ultrahigh Thermal Boundary Conductance. Advanced Materials, 2018, 30, e1804097.	11.1	55
63	Effects of Joint Vibrational States on Thermal Boundary Conductance. Nanoscale and Microscale Thermophysical Engineering, 2007, 11, 247-257.	1.4	54
64	Influence of anisotropy on thermal boundary conductance at solid interfaces. Physical Review B, 2011, 84, .	1.1	53
65	Effects of coherent ferroelastic domain walls on the thermal conductivity and Kapitza conductance in bismuth ferrite. Applied Physics Letters, 2013, 102, .	1.5	53
66	Ion irradiation of the native oxide/silicon surface increases the thermal boundary conductance across aluminum/silicon interfaces. Physical Review B, 2014, 90, .	1.1	53
67	Thermal Boundary Conductance Across Heteroepitaxial ZnO/GaN Interfaces: Assessment of the Phonon Gas Model. Nano Letters, 2018, 18, 7469-7477.	4.5	53
68	Electron and phonon thermal conductivity in high entropy carbides with variable carbon content. Acta Materialia, 2020, 196, 231-239.	3.8	52
69	On the Assumption of Detailed Balance in Prediction of Diffusive Transmission Probability During Interfacial Transport. Nanoscale and Microscale Thermophysical Engineering, 2010, 14, 21-33.	1.4	50
70	Thermal conductivity of nano-grained SrTiO3 thin films. Applied Physics Letters, 2012, 101, .	1.5	50
71	Kapitza resistance and the thermal conductivity of amorphous superlattices. Journal of Applied Physics, 2015, 118, .	1.1	50
72	Measuring the Thermal Conductivity of Porous, Transparent SiO2 Films With Time Domain Thermoreflectance. Journal of Heat Transfer, 2011, 133, .	1.2	48

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73	Interplay between total thickness and period thickness in the phonon thermal conductivity of superlattices from the nanoscale to the microscale: Coherent versus incoherent phonon transport. Physical Review B, 2018, 97, .	1.1	48
74	Influence of mass and charge disorder on the phonon thermal conductivity of entropy stabilized oxides determined by molecular dynamics simulations. Journal of Applied Physics, 2019, 125, .	1.1	48
75	Analytical model for the effects of wetting on thermal boundary conductance across solid/classical liquid interfaces. Journal of Chemical Physics, 2014, 140, .	1.2	47
76	Thermal conductivity measurements via time-domain thermoreflectance for the characterization of radiation induced damage. Journal of Materials Research, 2015, 30, 1403-1412.	1.2	47
77	Inelastic phonon interactions at solidâ€“graphite interfaces. Superlattices and Microstructures, 2010, 47, 550-555.	1.4	46
78	Minimum thermal conductivity considerations in aerogel thin films. Journal of Applied Physics, 2012, 111, .	1.1	46
79	Thermal boundary conductance across metal-gallium nitride interfaces from 80 to 450â€‰K. Applied Physics Letters, 2014, 105, .	1.5	46
80	On the minimum limit to thermal conductivity of multi-atom component crystalline solid solutions based on impurity mass scattering. Scripta Materialia, 2017, 138, 134-138.	2.6	46
81	On the Steady-State Temperature Rise During Laser Heating of Multilayer Thin Films in Optical Pumpâ€“Probe Techniques. Journal of Heat Transfer, 2018, 140, .	1.2	46
82	Size effects in the thermal conductivity of gallium oxide (Î²-Ga2O3) films grown via open-atmosphere annealing of gallium nitride. Journal of Applied Physics, 2015, 117, .	1.1	43
83	Predictions of thermal boundary conductance for systems of disordered solids and interfaces. Journal of Applied Physics, 2009, 106, .	1.1	42
84	Effect of crystalline/amorphous interfaces on thermal transport across confined thin films and superlattices. Journal of Applied Physics, 2016, 119, .	1.1	42
85	Temperature-Dependent Thermal Boundary Conductance at Al/Al2O3 and Pt/Al2O3 interfaces. International Journal of Thermophysics, 2007, 28, 947-957.	1.0	41
86	Experimental evidence of excited electron number density and temperature effects on electron-phonon coupling in gold films. Journal of Applied Physics, 2015, 117, .	1.1	41
87	Thermal conductivity measurements of non-metals via combined time- and frequency-domain thermoreflectance without a metal film transducer. Review of Scientific Instruments, 2016, 87, 094902.	0.6	41
88	Implications of Interfacial Bond Strength on the Spectral Contributions to Thermal Boundary Conductance across Solid, Liquid, and Gas Interfaces: A Molecular Dynamics Study. Journal of Physical Chemistry C, 2016, 120, 24847-24856.	1.5	41
89	Thermal conductance across harmonic-matched epitaxial Al-sapphire heterointerfaces. Communications Physics, 2020, 3, .	2.0	41
90	Thermal Conductivity in Nanoporous Gold Films during Electron-Phonon Nonequilibrium. Journal of Nanomaterials, 2008, 2008, 1-7.	1.5	40

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91	Molecular dynamics studies of material property effects on thermal boundary conductance. Physical Chemistry Chemical Physics, 2013, 15, 11078.	1.3	40
92	Tunable thermal conductivity via domain structure engineering in ferroelectric thin films: A phase-field simulation. Acta Materialia, 2016, 111, 220-231.	3.8	40
93	Heat-transport mechanisms in molecular building blocks of inorganic/organic hybrid superlattices. Physical Review B, 2016, 93, .	1.1	40
94	Long-lived modulation of plasmonic absorption by ballistic thermal injection. Nature Nanotechnology, 2021, 16, 47-51.	15.6	40
95	Emergent interface vibrational structure of oxide superlattices. Nature, 2022, 601, 556-561.	13.7	40
96	Spectral analysis of thermal boundary conductance across solid/classical liquid interfaces: A molecular dynamics study. Applied Physics Letters, 2014, 105, .	1.5	39
97	Voltage-Controlled Bistable Thermal Conductivity in Suspended Ferroelectric Thin-Film Membranes. ACS Applied Materials & Interfaces, 2018, 10, 25493-25501.	4.0	39
98	Applications and Impacts of Nanoscale Thermal Transport in Electronics Packaging. Journal of Electronic Packaging, Transactions of the ASME, 2021, 143, .	1.2	38
99	Effect of interface adhesion and impurity mass on phonon transport at atomic junctions. Journal of Applied Physics, 2013, 113, .	1.1	36
100	Density and size effects on the thermal conductivity of atomic layer deposited TiO2 and Al2O3 thin films. Thin Solid Films, 2018, 650, 71-77.	0.8	36
101	Heat Transfer Mechanisms and Tunable Thermal Conductivity Anisotropy in Two-Dimensional Covalent Organic Frameworks with Adsorbed Gases. Nano Letters, 2021, 21, 6188-6193.	4.5	35
102	Thermal boundary conductance response to a change in Crâ^•Si interfacial properties. Applied Physics Letters, 2006, 89, 131909.	1.5	34
103	Contribution of optical phonons to thermal boundary conductance. Applied Physics Letters, 2010, 97, .	1.5	34
104	Ultrafast and steady-state laser heating effects on electron relaxation and phonon coupling mechanisms in thin gold films. Applied Physics Letters, 2013, 103, .	1.5	34
105	Protein Thermal Conductivity Measured in the Solid State Reveals Anharmonic Interactions of Vibrations in a Fractal Structure. Journal of Physical Chemistry Letters, 2014, 5, 1077-1082.	2.1	34
106	Ultra-low thermal conductivity in TiO2:C superlattices. Journal of Materials Chemistry A, 2015, 3, 11527-11532.	5.2	33
107	Enhanced room temperature electronic and thermoelectric properties of the dilute bismuthide InGaBiAs. Journal of Applied Physics, 2012, 112, .	1.1	31
108	Influence of interband transitions on electron-phonon coupling measurements in Ni films. Applied Optics, 2007, 46, 2076.	2.1	30

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109	Spectral phonon scattering effects on the thermal conductivity of nano-grained barium titanate. Applied Physics Letters, 2014, 105, 082907.	1.5	30
110	Spatially resolved thermoreflectance techniques for thermal conductivity measurements from the nanoscale to the mesoscale. Journal of Applied Physics, 2019, 126, .	1.1	30
111	Effects of electron-boundary scattering on changes in thermoreflectance in thin metal films undergoing intraband excitations. Journal of Applied Physics, 2009, 105, .	1.1	29
112	Reduction in thermal conductivity and tunable heat capacity of inorganic/organic hybrid superlattices. Physical Review B, 2016, 93, .	1.1	29
113	Tuning network topology and vibrational mode localization to achieve ultralow thermal conductivity in amorphous chalcogenides. Nature Communications, 2021, 12, 2817.	5.8	29
114	On the Linear Temperature Dependence of Phonon Thermal Boundary Conductance in the Classical Limit. Journal of Heat Transfer, 2011, 133, .	1.2	28
115	Prediction and Measurement of Thermal Transport Across Interfaces Between Isotropic Solids and Graphitic Materials. Journal of Heat Transfer, 2012, 134, .	1.2	28
116	Transient thermal and nonthermal electron and phonon relaxation after short-pulsed laser heating of metals. Journal of Applied Physics, 2015, 118, .	1.1	28
117	Role of crystal structure and junction morphology on interface thermal conductance. Physical Review B, 2015, 92, .	1.1	27
118	Orders of magnitude reduction in the thermal conductivity of polycrystalline diamond through carbon, nitrogen, and oxygen ion implantation. Carbon, 2020, 157, 97-105.	5.4	27
119	Metalâ€“organic frameworks for thermoelectric energy-conversion applications. MRS Bulletin, 2016, 41, 877-882.	1.7	26
120	Thermal Conductivity Reduction at Inorganicâ€“Organic Interfaces: From Regular Superlattices to Irregular Gradient Layer Sequences. Advanced Materials Interfaces, 2018, 5, 1701692.	1.9	26
121	Thermal boundary conductance across epitaxial metal/sapphire interfaces. Physical Review B, 2020, 102, .	1.1	26
122	High mobility and high thermoelectric power factor in epitaxial ScN thin films deposited with plasma-assisted molecular beam epitaxy. Applied Physics Letters, 2020, 116, .	1.5	26
123	Reduction in thermal boundary conductance due to proton implantation in silicon and sapphire. Applied Physics Letters, 2011, 98, 231901.	1.5	25
124	Using Laser-Induced Thermal Voxels to Pattern Diverse Materials at the Solidâ€“Liquid Interface. ACS Applied Materials & Interfaces, 2016, 8, 21134-21139.	4.0	25
125	Strong Influence of Ti Adhesion Layer on Electronâ€“Phonon Relaxation in Thin Gold Films: Ab Initio Nonadiabatic Molecular Dynamics. ACS Applied Materials & Interfaces, 2017, 9, 43343-43351.	4.0	25
126	Observation of solid-state bidirectional thermal conductivity switching in antiferroelectric lead zirconate (PbZrO3). Nature Communications, 2022, 13, 1573.	5.8	25

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127	Effects of Intra- and Interband Transitions on Electron-Phonon Coupling and Electron Heat Capacity After Short-Pulsed Laser Heating. Nanoscale and Microscale Thermophysical Engineering, 2008, 12, 320-333.	1.4	24
128	Thermal Conductance across Phosphonic Acid Molecules and Interfaces: Ballistic versus Diffusive Vibrational Transport in Molecular Monolayers. Journal of Physical Chemistry C, 2015, 119, 20931-20939.	1.5	24
129	Contribution of Ballistic Electron Transport to Energy Transfer During Electron-Phonon Nonequilibrium in Thin Metal Films. Journal of Heat Transfer, 2009, 131, .	1.2	23
130	Ultra-low thermal conductivity of ellipsoidal TiO2 nanoparticle films. Applied Physics Letters, 2011, 99, .	1.5	23
131	Assessment and prediction of thermal transport at solidâ€“self-assembled monolayer junctions. Journal of Chemical Physics, 2011, 134, 094704.	1.2	23
132	Spectral Contributions to the Thermal Conductivity of C₆₀ and the Fullerene Derivative PCBM. Journal of Physical Chemistry Letters, 2017, 8, 2153-2157.	2.1	23
133	Titanium contacts to graphene: process-induced variability in electronic and thermal transport. Nanotechnology, 2018, 29, 145201.	1.3	23
134	The influence of titanium adhesion layer oxygen stoichiometry on thermal boundary conductance at gold contacts. Applied Physics Letters, 2018, 112, 171602.	1.5	23
135	Thermal Conductivity and Phonon Scattering Processes of ALD Grown PbTeâ€“PbSe Thermoelectric Thin Films. Advanced Functional Materials, 2019, 29, 1904073.	7.8	23
136	Suppressed electronic contribution in thermal conductivity of Ge2Sb2Se4Te. Nature Communications, 2021, 12, 7187.	5.8	23
137	Hybridization from Guestâ€“Host Interactions Reduces the Thermal Conductivity of Metalâ€“Organic Frameworks. Journal of the American Chemical Society, 2022, 144, 3603-3613.	6.6	23
138	Lower limit to phonon thermal conductivity of disordered, layered solids. Applied Physics Letters, 2009, 94, .	1.5	22
139	Bulk-like Intrinsic Phonon Thermal Conductivity of Micrometer-Thick AlN Films. ACS Applied Materials & Interfaces, 2020, 12, 29443-29450.	4.0	22
140	Localization of vibrational modes leads to reduced thermal conductivity of amorphous heterostructures. Physical Review Materials, 2018, 2, .	0.9	22
141	Phonon scattering effects from point and extended defects on thermal conductivity studied via ion irradiation of crystals with self-impurities. Physical Review Materials, 2018, 2, .	0.9	22
142	Influence of electron-boundary scattering on thermoreflectance calculations after intra- and interband transitions induced by short-pulsed laser absorption. Physical Review B, 2010, 81, .	1.1	21
143	Re-examining Electron-Fermi Relaxation in Gold Films With a Nonlinear Thermoreflectance Model. Journal of Heat Transfer, 2011, 133, .	1.2	21
144	Influence of crystallographic orientation and anisotropy on Kapitza conductance via classical molecular dynamics simulations. Journal of Applied Physics, 2012, 112, 093515.	1.1	21

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145	Influence of Hot Electron Scattering and Electronâ€“Phonon Interactions on Thermal Boundary Conductance at Metal/Nonmetal Interfaces. Journal of Heat Transfer, 2014, 136, .	1.2	21
146	Thermal flux limited electron Kapitza conductance in copper-niobium multilayers. Applied Physics Letters, 2015, 106, .	1.5	21
147	Temperature Dependence of Electronâ€“Phonon Interactions in Gold Films Rationalized by Time-Domain Ab Initio Analysis. Journal of Physical Chemistry C, 2017, 121, 17488-17497.	1.5	21
148	Thermionic transport across gold-graphene-WSe ₂ van der Waals heterostructures. Science Advances, 2019, 5, eaax7827.	4.7	21
149	Control of Charge Carrier Dynamics in Plasmonic Au Films by TiO_x Substrate Stoichiometry. Journal of Physical Chemistry Letters, 2020, 11, 1419-1427.	2.1	21
150	Analytical model for thermal boundary conductance and equilibrium thermal accommodation coefficient at solid/gas interfaces. Journal of Chemical Physics, 2016, 144, 084705.	1.2	20
151	Hot Electron Thermoreflectance Coefficient of Gold during Electronâ€“Phonon Nonequilibrium. ACS Photonics, 2018, 5, 4880-4887.	3.2	20
152	First-principles determination of the ultrahigh electrical and thermal conductivity in free-electron metals via pressure tuning the electron-phonon coupling factor. Physical Review B, 2019, 99, .	1.1	20
153	Nanoscale Wetting and Energy Transmission at Solid/Liquid Interfaces. Langmuir, 2019, 35, 2106-2114.	1.6	20
154	Bidirectionally tuning Kapitza conductance through the inclusion of substitutional impurities. Journal of Applied Physics, 2012, 112, 073519.	1.1	19
155	Conquering the Lowâ€k Death Curve: Insulating Boron Carbide Dielectrics with Superior Mechanical Properties. Advanced Electronic Materials, 2016, 2, 1600073.	2.6	19
156	Interplay between mass-impurity and vacancy phonon scattering effects on the thermal conductivity of doped cadmium oxide. Applied Physics Letters, 2016, 108, 021901.	1.5	19
157	Strongly reduced thermal conductivity in hybrid ZnO/nanocellulose thin films. Journal of Materials Science, 2017, 52, 6093-6099.	1.7	19
158	Reduced dependence of thermal conductivity on temperature and pressure of multi-atom component crystalline solid solutions. Journal of Applied Physics, 2018, 123, .	1.1	19
159	Compositional and phase dependence of elastic modulus of crystalline and amorphous Hf1-xZrxO2 thin films. Applied Physics Letters, 2021, 118, .	1.5	19
160	Impedance Matching of Atomic Thermal Interfaces Using Primitive Block Decomposition. Nanoscale and Microscale Thermophysical Engineering, 2013, 17, 263-279.	1.4	18
161	Thermal resistance and heat capacity in hafnium zirconium oxide (Hf1â€“xZrxO2) dielectrics and ferroelectric thin films. Applied Physics Letters, 2018, 113, .	1.5	18
162	Local thermal conductivity measurements to determine the fraction of Î±-cristobalite in thermally grown oxides for aerospace applications. Scripta Materialia, 2020, 177, 214-217.	2.6	18

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163	Effect of light atoms on thermal transport across solidâ€“solid interfaces. Physical Chemistry Chemical Physics, 2019, 21, 17029-17035.	1.3	17
164	Enhanced Figure of Merit in Bismuth-Antimony Fine-Grained Alloys at Cryogenic Temperatures. Scientific Reports, 2019, 9, 14892.	1.6	17
165	Direct Laser Writing from Aqueous Precursors for Nano to Microscale Topographical Control, Integration, and Synthesis of Nanocrystalline Mixed Metal Oxides. ACS Applied Nano Materials, 2019, 2, 2581-2586.	2.4	17
166	Understanding Molecular Layer Deposition Growth Mechanisms in Polyurea via Picosecond Acoustics Analysis. Chemistry of Materials, 2020, 32, 1553-1563.	3.2	17
167	Thermal conductivity measurements of sub-surface buried substrates by steady-state thermoreflectance. Review of Scientific Instruments, 2021, 92, 064906.	0.6	17
168	Highly Negative Poissonâ€™s Ratio in Thermally Conductive Covalent Organic Frameworks. ACS Nano, 2022, 16, 2843-2851.	7.3	17
169	Influence of chemical ordering on the thermal conductivity and electronic relaxation in FePt thin films in heat assisted magnetic recording applications. Scientific Reports, 2016, 6, 32077.	1.6	16
170	Breaking network connectivity leads to ultralow thermal conductivities in fully dense amorphous solids. Applied Physics Letters, 2016, 109, .	1.5	16
171	Thermal Analysis of High-Power Flip-Chip-Bonded Photodiodes. Journal of Lightwave Technology, 2017, 35, 4242-4246.	2.7	16
172	Evolution of microstructure and thermal conductivity of multifunctional environmental barrier coating systems. Materials Today Physics, 2021, 17, 100304.	2.9	16
173	Impact of intrinsic point defect concentration on thermal transport in titanium dioxide. Acta Materialia, 2017, 127, 491-497.	3.8	15
174	Pronounced low-frequency vibrational thermal transport in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="normal">C</mml:mi><mml:mn>60</mml:mn></mml:msub></mml:math> fullerite realized through pressure-dependent molecular dynamics simulations. Physical Review B, 2017, 96, .	1.1	15
175	Effects of subconduction band excitations on thermal conductance at metal-metal interfaces. Applied Physics Letters, 2010, 96, .	1.5	14
176	Strategies for tuning phonon transport in multilayered structures using a mismatch-based particle model. Journal of Applied Physics, 2012, 111, .	1.1	14
177	Balanced InP/InGaAs Photodiodes With 1.5-W Output Power. IEEE Photonics Journal, 2013, 5, 6800307-6800307.	1.0	14
178	Crystalline coherence length effects on the thermal conductivity of MgO thin films. Journal of Materials Science, 2016, 51, 10408-10417.	1.7	14
179	Hafnium nitride films for thermoreflectance transducers at high temperatures: Potential based on heating from laser absorption. Applied Physics Letters, 2017, 111, .	1.5	14
180	Ballistic transport of long wavelength phonons and thermal conductivity accumulation in nanograined silicon-germanium alloys. Applied Physics Letters, 2017, 111, .	1.5	14

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181	Giant reduction and tunability of the thermal conductivity of carbon nanotubes through low-frequency resonant modes. Physical Review B, 2018, 98, .	1.1	14
182	Thin Ti adhesion layer breaks bottleneck to hot hole relaxation in Au films. Journal of Chemical Physics, 2019, 150, 184701.	1.2	14
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