

# Junichiro Shiomi

## List of Publications by Citations

**Source:** <https://exaly.com/author-pdf/4096587/junichiro-shiomi-publications-by-citations.pdf>

**Version:** 2024-04-19

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

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

182  
papers

4,791  
citations

40  
h-index

62  
g-index

191  
ext. papers

5,705  
ext. citations

6.1  
avg. IF

6.08  
L-index

| #   | Paper  | IF   | Citations |
|-----|--|------|-----------|
| 182 | Stronger phonon scattering by larger differences in atomic mass and size in p-type half-Heuslers $\text{Hf}_{1-x}\text{TixCoSb}_{0.8}\text{Sn}_{0.2}$ . <i>Energy and Environmental Science</i> , <b>2012</b> , 5, 7543                                | 35.4 | 205       |
| 181 | Non-Fourier heat conduction in a single-walled carbon nanotube: Classical molecular dynamics simulations. <i>Physical Review B</i> , <b>2006</b> , 73,   | 3.3  | 194       |
| 180 | Thermal conductivity of half-Heusler compounds from first-principles calculations. <i>Physical Review B</i> , <b>2011</b> , 84,  | 3.3  | 163       |
| 179 | Anomalous reduction of thermal conductivity in coherent nanocrystal architecture for silicon thermoelectric material. <i>Nano Energy</i> , <b>2015</b> , 12, 845-851   | 17.1 | 120       |
| 178 | Machine-learning-assisted discovery of polymers with high thermal conductivity using a molecular design algorithm. <i>Npj Computational Materials</i> , <b>2019</b> , 5,   | 10.9 | 112       |
| 177 | Thermal boundary resistance between single-walled carbon nanotubes and surrounding matrices. <i>Physical Review B</i> , <b>2008</b> , 78,  | 3.3  | 109       |
| 176 | Enhanced thermal conductivity of ethylene glycol with single-walled carbon nanotube inclusions. <i>International Journal of Heat and Mass Transfer</i> , <b>2012</b> , 55, 3885-3890   | 4.9  | 105       |
| 175 | Molecular Dynamics of Diffusive-Ballistic Heat Conduction in Single-Walled Carbon Nanotubes. <i>Japanese Journal of Applied Physics</i> , <b>2008</b> , 47, 2005-2009  | 1.4  | 105       |
| 174 | Microscopic mechanism of low thermal conductivity in lead telluride. <i>Physical Review B</i> , <b>2012</b> , 85,  | 3.3  | 101       |
| 173 | Designing Nanostructures for Phonon Transport via Bayesian Optimization. <i>Physical Review X</i> , <b>2017</b> , 7,   | 9.1  | 93        |
| 172 | Predicting Materials Properties with Little Data Using Shotgun Transfer Learning. <i>ACS Central Science</i> , <b>2019</b> , 5, 1717-1730  | 16.8 | 89        |
| 171 | Enhancement of thermoelectric figure-of-merit at low temperatures by titanium substitution for hafnium in n-type half-Heuslers $\text{Hf}_{0.75-x}\text{TixZr}_{0.25}\text{NiSn}_{0.99}\text{Sb}_{0.01}$ . <i>Nano Energy</i> , <b>2013</b> , 2, 82-87 | 17.1 | 86        |
| 170 | Nano-cross-junction effect on phonon transport in silicon nanowire cages. <i>Physical Review B</i> , <b>2016</b> , 94,   | 3.3  | 84        |
| 169 | Anisotropic Heat Transfer of Single-Walled Carbon Nanotubes. <i>Journal of Thermal Science and Technology</i> , <b>2006</b> , 1, 138-148   | 0.6  | 84        |
| 168 | Modulation of thermal and thermoelectric transport in individual carbon nanotubes by fullerene encapsulation. <i>Nature Materials</i> , <b>2017</b> , 16, 892-897  | 27   | 83        |
| 167 | Gallium arsenide thermal conductivity and optical phonon relaxation times from first-principles calculations. <i>Europhysics Letters</i> , <b>2013</b> , 101, 16001  | 1.6  | 82        |
| 166 | Thermal phonon engineering by tailored nanostructures. <i>Japanese Journal of Applied Physics</i> , <b>2018</b> , 57, 080101   | 1.4  | 76        |

|     |  |      |    |
|-----|--|------|----|
| 165 | Multifunctional structural design of graphene thermoelectrics by Bayesian optimization. <i>Science Advances</i> , <b>2018</b> , 4, eaar4192  | 14.3 | 75 |
| 164 | Encrypted Thermal Printing with Regionalization Transformation. <i>Advanced Materials</i> , <b>2019</b> , 31, e1807849   | 4.1  | 70 |
| 163 | Water transport inside a single-walled carbon nanotube driven by a temperature gradient. <i>Nanotechnology</i> , <b>2009</b> , 20, 055708  | 3.4  | 70 |
| 162 | Enhancement of anomalous Nernst effects in metallic multilayers free from proximity-induced magnetism. <i>Physical Review B</i> , <b>2015</b> , 92,  | 3.3  | 68 |
| 161 | Effective phonon mean free path in polycrystalline nanostructures. <i>Applied Physics Letters</i> , <b>2015</b> , 106, 171901  | 3.4  | 67 |
| 160 | Anomalous Thermal Conduction Characteristics of Phase Change Composites with Single-Walled Carbon Nanotube Inclusions. <i>Journal of Physical Chemistry C</i> , <b>2013</b> , 117, 15409-15413     | 3.8  | 65 |
| 159 | Ultrannarrow-Band Wavelength-Selective Thermal Emission with Aperiodic Multilayered Metamaterials Designed by Bayesian Optimization. <i>ACS Central Science</i> , <b>2019</b> , 5, 319-326         | 16.8 | 64 |
| 158 | Thermal resistance and phonon scattering at the interface between carbon nanotube and amorphous polyethylene. <i>International Journal of Heat and Mass Transfer</i> , <b>2013</b> , 67, 1024-1029 | 4.9  | 62 |
| 157 | Tunable electrical and thermal transport in ice-templated multilayer graphene nanocomposites through freezing rate control. <i>ACS Nano</i> , <b>2013</b> , 7, 11183-9                             | 16.7 | 62 |
| 156 | Unconventional scaling and significant enhancement of the spin Seebeck effect in multilayers. <i>Physical Review B</i> , <b>2015</b> , 92,   | 3.3  | 62 |
| 155 | Reduction of phonon lifetimes and thermal conductivity of a carbon nanotube on amorphous silica. <i>Physical Review B</i> , <b>2011</b> , 84,  | 3.3  | 62 |
| 154 | Temperature-dependent phonon conduction and nanotube engagement in metalized single wall carbon nanotube films. <i>Nano Letters</i> , <b>2010</b> , 10, 2395-400                                   | 11.5 | 60 |
| 153 | Impeded thermal transport in Si multiscale hierarchical architectures with phononic crystal nanostructures. <i>Physical Review B</i> , <b>2015</b> , 91,   | 3.3  | 58 |
| 152 | Thermal Interface Conductance Between Aluminum and Silicon by Molecular Dynamics Simulations. <i>Journal of Computational and Theoretical Nanoscience</i> , <b>2015</b> , 12, 168-174              | 0.3  | 54 |
| 151 | Molecular Dynamics of Ice-Nanotube Formation Inside Carbon Nanotubes. <i>Journal of Physical Chemistry C</i> , <b>2007</b> , 111, 12188-12193  | 3.8  | 51 |
| 150 | Diameter modulation of vertically aligned single-walled carbon nanotubes. <i>ACS Nano</i> , <b>2012</b> , 6, 7472-9  | 16.7 | 48 |
| 149 | Temperature Dependent Thermal Conductivity Increase of Aqueous Nanofluid with Single Walled Carbon Nanotube Inclusion. <i>Materials Express</i> , <b>2012</b> , 2, 213-223                         | 1.3  | 48 |
| 148 | Surface structure determines dynamic wetting. <i>Scientific Reports</i> , <b>2015</b> , 5, 8474  | 4.9  | 46 |

|     |   |      |    |
|-----|---|------|----|
| 147 | Crystalline-Amorphous Silicon Nanocomposites with Reduced Thermal Conductivity for Bulk Thermoelectrics. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 13484-9 | 9.5  | 45 |
| 146 | Effects of defects on thermoelectric properties of carbon nanotubes. <i>Physical Review B</i> , <b>2017</b> , 95,   | 3.3  | 45 |
| 145 | Semiconducting carbon nanotubes as crystal growth templates and grain bridges in perovskite solar cells. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 12987-12992   | 13   | 44 |
| 144 | High Thermal Boundary Conductance across Bonded Heterogeneous GaN-SiC Interfaces. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 33428-33434                   | 9.5  | 41 |
| 143 | Disorder limits the coherent phonon transport in two-dimensional phononic crystal structures. <i>Nanoscale</i> , <b>2019</b> , 11, 11839-11846                                    | 7.7  | 40 |
| 142 | Thermal conductivity reduction in silicon fishbone nanowires. <i>Scientific Reports</i> , <b>2018</b> , 8, 4452   | 4.9  | 39 |
| 141 | Ultimate Confinement of Phonon Propagation in Silicon Nanocrystalline Structure. <i>Physical Review Letters</i> , <b>2018</b> , 120, 045901                                       | 7.4  | 38 |
| 140 | Thermal Boundary Conductance Across Heteroepitaxial ZnO/GaN Interfaces: Assessment of the Phonon Gas Model. <i>Nano Letters</i> , <b>2018</b> , 18, 7469-7477                     | 11.5 | 37 |
| 139 | Probing and tuning inelastic phonon conductance across finite-thickness interface. <i>Applied Physics Express</i> , <b>2014</b> , 7, 121801                                       | 2.4  | 36 |
| 138 | Quantifying phonon particle and wave transport in silicon nanophononic metamaterial with cross junction. <i>Materials Today Physics</i> , <b>2019</b> , 8, 56-61                  | 8    | 35 |
| 137 | NONEQUILIRIUM MOLECULAR DYNAMICS METHODS FOR LATTICE HEAT CONDUCTION CALCULATIONS. <i>Annual Review of Heat Transfer</i> , <b>2014</b> , 17, 177-203                              | 2.7  | 35 |
| 136 | Unexpectedly high cross-plane thermoelectric performance of layered carbon nitrides. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 2114-2121                         | 13   | 34 |
| 135 | MDTS: automatic complex materials design using Monte Carlo tree search. <i>Science and Technology of Advanced Materials</i> , <b>2017</b> , 18, 498-503                           | 7.1  | 34 |
| 134 | Effect of bending buckling of carbon nanotubes on thermal conductivity of carbon nanotube materials. <i>Journal of Applied Physics</i> , <b>2012</b> , 111, 053501                | 2.5  | 34 |
| 133 | Importance of local force fields on lattice thermal conductivity reduction in PbTe $1-x$ Se $x$ alloys. <i>Europhysics Letters</i> , <b>2013</b> , 102, 46002                     | 1.6  | 34 |
| 132 | Machine-Learning-Optimized Aperiodic Superlattice Minimizes Coherent Phonon Heat Conduction. <i>Physical Review X</i> , <b>2020</b> , 10,   | 9.1  | 29 |
| 131 | Dynamic wetting at the nanoscale. <i>Physical Review E</i> , <b>2013</b> , 88, 033010   | 2.4  | 29 |
| 130 | Early Onset of Nucleate Boiling on Gas-covered Biphilic Surfaces. <i>Scientific Reports</i> , <b>2017</b> , 7, 2036   | 4.9  | 29 |

|     |  |      |    |
|-----|--|------|----|
| 129 | Mechanism of Temperature Dependent Thermal Transport across the Interface between Self-Assembled Monolayer and Water. <i>Journal of Physical Chemistry C</i> , <b>2016</b> , 120, 26678-26685  | 3.8  | 28 |
| 128 | Anisotropic electrical conduction of vertically-aligned single-walled carbon nanotube films. <i>Carbon</i> , <b>2011</b> , 49, 1446-1452   | 10.4 | 27 |
| 127 | High-precision selective deposition of catalyst for facile localized growth of single-walled carbon nanotubes. <i>Journal of the American Chemical Society</i> , <b>2009</b> , 131, 10344-5  | 16.4 | 27 |
| 126 | Heat conduction in nanostructured materials. <i>Journal of Thermal Science and Technology</i> , <b>2016</b> , 11, JTST0001-JTST0001  | 15.7 | 27 |
| 125 | Designing metamaterials with quantum annealing and factorization machines. <i>Physical Review Research</i> , <b>2020</b> , 2,  | 3.9  | 25 |
| 124 | Tuning phonon transport spectrum for better thermoelectric materials. <i>Science and Technology of Advanced Materials</i> , <b>2019</b> , 20, 10-25  | 7.1  | 25 |
| 123 | Materials Informatics for Heat Transfer: Recent Progresses and Perspectives. <i>Nanoscale and Microscale Thermophysical Engineering</i> , <b>2019</b> , 23, 157-172  | 3.7  | 24 |
| 122 | Tunable separation of single-walled carbon nanotubes by dual-surfactant density gradient ultracentrifugation. <i>Nano Research</i> , <b>2011</b> , 4, 623-634  | 10   | 24 |
| 121 | Diffusive-Ballistic Heat Conduction of Carbon Nanotubes and Nanographene Ribbons. <i>International Journal of Thermophysics</i> , <b>2010</b> , 31, 1945-1951  | 2.1  | 24 |
| 120 | Vertically Aligned <sup>13</sup> C Single-Walled Carbon Nanotubes Synthesized by No-Flow Alcohol Chemical Vapor Deposition and their Root Growth Mechanism. <i>Japanese Journal of Applied Physics</i> , <b>2008</b> , 47, 1971-1974 | 1.4  | 24 |
| 119 | Porosity-tuned thermal conductivity in thermoelectric Al-doped ZnO thin films grown by mist-chemical vapor deposition. <i>Thin Solid Films</i> , <b>2019</b> , 685, 180-185  | 2.2  | 23 |
| 118 | Scaling laws of cumulative thermal conductivity for short and long phonon mean free paths. <i>Applied Physics Letters</i> , <b>2014</b> , 105, 131901  | 3.4  | 23 |
| 117 | Thermal conductivity of bulk nanostructured lead telluride. <i>Applied Physics Letters</i> , <b>2014</b> , 104, 021915   | 3.4  | 23 |
| 116 | Phonon transport analysis of silicon germanium alloys using molecular dynamics simulations. <i>Journal of Applied Physics</i> , <b>2013</b> , 113, 203514  | 2.5  | 23 |
| 115 | Observation of anomalous Ettingshausen effect and large transverse thermoelectric conductivity in permanent magnets. <i>Applied Physics Letters</i> , <b>2019</b> , 115, 222403  | 3.4  | 22 |
| 114 | Tuning thermal conductance across sintered silicon interface by local nanostructures. <i>Nano Energy</i> , <b>2015</b> , 13, 601-608   | 17.1 | 21 |
| 113 | Influence of ion size and charge on osmosis. <i>Journal of Physical Chemistry B</i> , <b>2012</b> , 116, 4206-11   | 3.4  | 21 |
| 112 | Research Update: Phonon engineering of nanocrystalline silicon thermoelectrics. <i>APL Materials</i> , <b>2016</b> , 4, 104504   | 5.7  | 21 |

|     |  |      |    |
|-----|--|------|----|
| 111 | Revisiting PbTe to identify how thermal conductivity is really limited. <i>Physical Review B</i> , <b>2018</b> , 97,   | 3.3  | 21 |
| 110 | Hybrid Thermal Transport Characteristics of Doped Organic Semiconductor Poly(3,4-ethylenedioxythiophene):Tosylate. <i>Journal of Physical Chemistry C</i> , <b>2019</b> , 123, 26735-26741     | 3.8  | 20 |
| 109 | Phonon-interference resonance effects by nanoparticles embedded in a matrix. <i>Physical Review B</i> , <b>2017</b> , 96,  | 3.3  | 18 |
| 108 | Dielectric relaxation of water inside a single-walled carbon nanotube. <i>Physical Review B</i> , <b>2009</b> , 80,  | 3.3  | 18 |
| 107 | Thermal conductance of silicon interfaces directly bonded by room-temperature surface activation. <i>Applied Physics Letters</i> , <b>2015</b> , 106, 081603                                   | 3.4  | 17 |
| 106 | Diameter controlled chemical vapor deposition synthesis of single-walled carbon nanotubes. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2012</b> , 12, 370-6                          | 1.3  | 17 |
| 105 | Feedback control of oscillatory thermocapillary convection in a half-zone liquid bridge. <i>Journal of Fluid Mechanics</i> , <b>2003</b> , 496, 193-211  | 3.7  | 17 |
| 104 | Towards ultimate impedance of phonon transport by nanostructure interface. <i>APL Materials</i> , <b>2019</b> , 7, 013102  | 5.7  | 17 |
| 103 | Phonon Lifetime Observation in Epitaxial ScN Film with Inelastic X-Ray Scattering Spectroscopy. <i>Physical Review Letters</i> , <b>2018</b> , 120, 235901                                     | 7.4  | 16 |
| 102 | Monte Carlo tree search for materials design and discovery. <i>MRS Communications</i> , <b>2019</b> , 9, 532-536   | 2.7  | 15 |
| 101 | Parametric Model to Analyze the Components of the Thermal Conductivity of a Cellulose-Nanofibril Aerogel. <i>Physical Review Applied</i> , <b>2019</b> , 11,                                   | 4.3  | 15 |
| 100 | Nanoscale thermal conductivity spectroscopy by using gold nano-islands heat absorbers. <i>Applied Physics Letters</i> , <b>2015</b> , 106, 073102  | 3.4  | 15 |
| 99  | Simulation study on the adsorption properties of linear alkanes on closed nanotube bundles. <i>Journal of Physical Chemistry B</i> , <b>2012</b> , 116, 9812-9                                 | 3.4  | 15 |
| 98  | One-directional thermal transport in densely aligned single-wall carbon nanotube films. <i>Applied Physics Letters</i> , <b>2019</b> , 115, 223104   | 3.4  | 15 |
| 97  | Mechanically Strong, Scalable, Mesoporous Xerogels of Nanocellulose Featuring Light Permeability, Thermal Insulation, and Flame Self-Extinction. <i>ACS Nano</i> , <b>2021</b> , 15, 1436-1444 | 16.7 | 15 |
| 96  | Thermal rectification in restructured graphene with locally modulated temperature dependence of thermal conductivity. <i>Physical Review B</i> , <b>2017</b> , 96,                             | 3.3  | 13 |
| 95  | Dynamic Wetting of Nanodroplets on Smooth and Patterned Graphene-Coated Surface. <i>Journal of Physical Chemistry C</i> , <b>2018</b> , 122, 8423-8429   | 3.8  | 13 |
| 94  | Probing length-scale separation of thermal and spin currents by nanostructuring YIG. <i>Physical Review Materials</i> , <b>2017</b> , 1,   | 3.2  | 13 |

|    |   |      |    |
|----|---|------|----|
| 93 | High-Working-Pressure Sputtering of ZnO for Stable and Efficient Perovskite Solar Cells. <i>ACS Applied Electronic Materials</i> , <b>2019</b> , 1, 389-396   | 4    | 13 |
| 92 | Graphene-diamond hybrid structure as spin-polarized conducting wire with thermally efficient heat sinks. <i>Applied Physics Letters</i> , <b>2012</b> , 100, 233101   | 3.4  | 12 |
| 91 | Micro Gas Preconcentrator Made of a Film of Single-Walled Carbon Nanotubes. <i>IEEJ Transactions on Sensors and Micromachines</i> , <b>2010</b> , 130, 207-211  | 0.2  | 12 |
| 90 | Akhiezer mechanism limits coherent heat conduction in phononic crystals. <i>Physical Review B</i> , <b>2018</b> , 98,   | 3.3  | 12 |
| 89 | Enhancing Thermal Boundary Conductance of Graphite-Metal Interface by Triazine-Based Molecular Bonding. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 37295-37301   | 9.5  | 11 |
| 88 | Superlubrication by phonon confinement. <i>Physical Review B</i> , <b>2018</b> , 97,  | 3.3  | 11 |
| 87 | Impact of metastable phases on electrical properties of Si with different doping concentrations after processing by high-pressure torsion. <i>Scripta Materialia</i> , <b>2018</b> , 157, 120-123                                     | 5.6  | 11 |
| 86 | Thermally induced nonlinear vibration of single-walled carbon nanotubes. <i>Physical Review B</i> , <b>2015</b> , 92,   | 3.3  | 11 |
| 85 | Hot extrusion to manufacture the metal matrix composite of carbon nanotube and aluminum with excellent electrical conductivities and mechanical properties. <i>CIRP Annals - Manufacturing Technology</i> , <b>2015</b> , 64, 257-260 | 4.9  | 11 |
| 84 | Parametric study of alcohol catalytic chemical vapor deposition for controlled synthesis of vertically aligned single-walled carbon nanotubes. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2010</b> , 10, 3901-6            | 1.3  | 11 |
| 83 | Weaker bonding can give larger thermal conductance at highly mismatched interfaces. <i>Science Advances</i> , <b>2021</b> , 7,  | 14.3 | 11 |
| 82 | Elastic inhomogeneity and anomalous thermal transport in ultrafine Si phononic crystals. <i>Nano Energy</i> , <b>2020</b> , 71, 104581  | 17.1 | 10 |
| 81 | Growth of Horizontally Aligned Single-Walled Carbon Nanotubes on the Singular R-Plane (10 $\bar{1}$ 1) of Quartz. <i>Journal of Physical Chemistry C</i> , <b>2012</b> , 116, 6805-6808   | 3.8  | 10 |
| 80 | Facile fabrication of all-SWNT field-effect transistors. <i>Nano Research</i> , <b>2011</b> , 4, 580-588  | 10   | 10 |
| 79 | Electrothermal flow in dielectrophoresis of single-walled carbon nanotubes. <i>Physical Review B</i> , <b>2007</b> , 76,  | 3.3  | 10 |
| 78 | Design of a highly selective radiative cooling structure accelerated by materials informatics. <i>Optics Letters</i> , <b>2020</b> , 45, 343  | 3    | 10 |
| 77 | Designing thermal functional materials by coupling thermal transport calculations and machine learning. <i>Journal of Applied Physics</i> , <b>2020</b> , 128, 161102   | 2.5  | 10 |
| 76 | Spectral Control of Thermal Boundary Conductance between Copper and Carbon Crystals by Self-Assembled Monolayers. <i>ACS Applied Electronic Materials</i> , <b>2019</b> , 1, 2594-2601  | 4    | 10 |

|    |   |      |    |
|----|---|------|----|
| 75 | Modeling Heat Conduction in Nanoporous Silicon with Geometry Distributions. <i>Physical Review Applied</i> , <b>2018</b> , 10,  | 4.3  | 10 |
| 74 | Carbon Nanotube Stationary Phase in a Microfabricated Column for High-Performance Gas Chromatography <b>2009</b> ,  |      | 8  |
| 73 | Mechanism and Optimization of Metal Deposition onto Vertically Aligned Single-Walled Carbon Nanotube Arrays. <i>Journal of Physical Chemistry C</i> , <b>2009</b> , 113, 14230-14235                            | 3.8  | 8  |
| 72 | Ultimate suppression of thermal transport in amorphous silicon nitride by phononic nanostructure. <i>Science Advances</i> , <b>2020</b> , 6,  | 14.3 | 8  |
| 71 | Effects of phonon interference through long range interatomic bonds on thermal interface conductance. <i>Low Temperature Physics</i> , <b>2016</b> , 42, 711-716  | 0.7  | 8  |
| 70 | Humidity-Dependent Thermal Boundary Conductance Controls Heat Transport of Super-Insulating Nanofibrillar Foams. <i>Matter</i> , <b>2021</b> , 4, 276-289   | 12.7 | 8  |
| 69 | Above-room-temperature giant thermal conductivity switching in spintronic multilayers. <i>Applied Physics Letters</i> , <b>2021</b> , 118, 042409   | 3.4  | 8  |
| 68 | Ultrafast water permeation through nanochannels with a densely fluorinated interior surface. <i>Science</i> , <b>2022</b> , 376, 738-743  | 33.3 | 8  |
| 67 | Electrostatic cloaking of surface structure for dynamic wetting. <i>Science Advances</i> , <b>2017</b> , 3, e1602202  | 14.3 | 7  |
| 66 | Growth mechanism of single-walled carbon nanotube from catalytic reaction inside carbon nanotube template. <i>ACS Nano</i> , <b>2010</b> , 4, 4769-75   | 16.7 | 7  |
| 65 | Exploring diamondlike lattice thermal conductivity crystals via feature-based transfer learning. <i>Physical Review Materials</i> , <b>2021</b> , 5,  | 3.2  | 7  |
| 64 | Harmonic phonon theory for calculating thermal conductivity spectrum from first-principles dispersion relations. <i>Applied Physics Letters</i> , <b>2016</b> , 108, 201903                                     | 3.4  | 7  |
| 63 | Enhanced Reduction of Thermal Conductivity in Amorphous Silicon Nitride-Containing Phononic Crystals Fabricated Using Directed Self-Assembly of Block Copolymers. <i>ACS Nano</i> , <b>2020</b> , 14, 6980-6989 | 16.7 | 6  |
| 62 | Ultimate impedance of coherent heat conduction in van der Waals graphene-MoS <sub>2</sub> heterostructures. <i>Materials Today Physics</i> , <b>2021</b> , 16, 100324   | 8    | 6  |
| 61 | Phonon transport in multiphase nanostructured silicon fabricated by high-pressure torsion. <i>Journal of Applied Physics</i> , <b>2021</b> , 129, 085101  | 2.5  | 6  |
| 60 | Molecular dynamics study on heat conduction in poly(3,4-ethylenedioxythiophene). <i>Japanese Journal of Applied Physics</i> , <b>2018</b> , 57, 101601  | 1.4  | 6  |
| 59 | Scalable Multi-nanostructured Silicon for Room-Temperature Thermoelectrics. <i>ACS Applied Energy Materials</i> , <b>2019</b> , 2, 7083-7091  | 6.1  | 5  |
| 58 | Revealing How Topography of Surface Microstructures Alters Capillary Spreading. <i>Scientific Reports</i> , <b>2019</b> , 9, 7787   | 4.9  | 5  |



|    |   |      |   |
|----|---|------|---|
| 57 | When and how surface structure determines the dynamics of partial wetting. <i>Europhysics Letters</i> , <b>2015</b> , 110, 46002  | 1.6  | 5 |
| 56 | Two-path phonon interference resonance induces a stop band in a silicon crystal matrix with a multilayer array of embedded nanoparticles. <i>Physical Review B</i> , <b>2020</b> , 102,   | 3.3  | 5 |
| 55 | Generalized model of thermal boundary conductance between SWNT and surrounding supercritical Lennard-Jones fluid Derivation from molecular dynamics simulations. <i>International Journal of Heat and Mass Transfer</i> , <b>2012</b> , 55, 2008-2013 | 4.9  | 5 |
| 54 | Gas Surface Energy Exchange in Collisions of Helium Atoms with Aligned Single-Walled Carbon Nanotube Arrays. <i>Journal of Physical Chemistry C</i> , <b>2013</b> , 117, 14254-14260  | 3.8  | 5 |
| 53 | Scalable monolayer-functionalized nanointerface for thermal conductivity enhancement in copper/diamond composite. <i>Carbon</i> , <b>2021</b> , 175, 299-306  | 10.4 | 5 |
| 52 | Effect of dissolved gas on bubble growth on a biphilic surface: A diffuse-interface simulation approach. <i>International Journal of Heat and Mass Transfer</i> , <b>2018</b> , 126, 816-829  | 4.9  | 4 |
| 51 | Isotope-induced elastic scattering of optical phonons in individual suspended single-walled carbon nanotubes. <i>Applied Physics Letters</i> , <b>2011</b> , 99, 093104   | 3.4  | 4 |
| 50 | A novel strategy for GaN-on-diamond device with a high thermal boundary conductance. <i>Journal of Alloys and Compounds</i> , <b>2022</b> , 905, 164076   | 5.7  | 4 |
| 49 | Contact-line behavior in boiling on a heterogeneous surface: Physical insights from diffuse-interface modeling. <i>Physical Review Fluids</i> , <b>2020</b> , 5,  | 2.8  | 4 |
| 48 | Machine learning analysis of tunnel magnetoresistance of magnetic tunnel junctions with disordered MgAl <sub>2</sub> O <sub>4</sub> . <i>Physical Review Research</i> , <b>2020</b> , 2,  | 3.9  | 4 |
| 47 | Nanoconfinement between Graphene Walls Suppresses the Near-Wall Diffusion of the Ionic Liquid [BMIM][PF]. <i>Journal of Physical Chemistry B</i> , <b>2021</b> , 125, 4527-4535   | 3.4  | 4 |
| 46 | Long-range interatomic forces can minimize heat transfer: From slowdown of longitudinal optical phonons to thermal conductivity minimum. <i>Physical Review B</i> , <b>2016</b> , 94,   | 3.3  | 4 |
| 45 | Quasiballistic phonon transport from first principles. <i>Physical Review B</i> , <b>2020</b> , 102,  | 3.3  | 3 |
| 44 | Anisotropic thermal conductivity measurement of organic thin film with bidirectional 3 $\mu$ m method. <i>Review of Scientific Instruments</i> , <b>2021</b> , 92, 034902   | 1.7  | 3 |
| 43 | Fabrication of uniform vertically-aligned carbon nanotube-polymer composite thin films by capillary flow intrusion. <i>Japanese Journal of Applied Physics</i> , <b>2018</b> , 57, 115101   | 1.4  | 3 |
| 42 | Ion Desorption from Single-Walled Carbon Nanotubes Induced by Soft X-ray Illumination. <i>Japanese Journal of Applied Physics</i> , <b>2010</b> , 49, 105104  | 1.4  | 2 |
| 41 | Numerical calculation of the dielectrophoretic force on a slender body. <i>Electrophoresis</i> , <b>2009</b> , 30, 831-8  | 3.6  | 2 |
| 40 | Revisiting thermal conductivity and interface conductance at the nanoscale. <i>International Journal of Heat and Mass Transfer</i> , <b>2022</b> , 183, 122056  | 4.9  | 2 |

|    |  |      |   |
|----|--|------|---|
| 39 | Identifying Optimal Strain in Bismuth Telluride Thermoelectric Film by Combinatorial Gradient Thermal Annealing and Machine Learning. <i>ACS Combinatorial Science</i> , <b>2020</b> , 22, 782-790   | 3.9  | 2 |
| 38 | Heat conduction below diffusive limit in amorphous superlattice structures. <i>Nano Energy</i> , <b>2021</b> , 84, 1059031   | 3.1  | 2 |
| 37 | Thermal properties of single-walled carbon nanotube forests with various volume fractions. <i>International Journal of Heat and Mass Transfer</i> , <b>2021</b> , 171, 121076  | 4.9  | 2 |
| 36 | Akhiezer mechanism dominates relaxation of propagons in amorphous material at room temperature. <i>Journal of Applied Physics</i> , <b>2021</b> , 130, 035101  | 2.5  | 2 |
| 35 | Electronic transport descriptors for the rapid screening of thermoelectric materials. <i>Materials Horizons</i> , <b>2021</b> , 8, 2463-2474   | 14.4 | 2 |
| 34 | Synergistic phonon scattering in epitaxial silicon multilayers with germanium nanodot inclusions. <i>Physical Review B</i> , <b>2021</b> , 104,  | 3.3  | 2 |
| 33 | Tailoring the surface morphology of carbon nanotube forests by plasma etching: A parametric study. <i>Carbon</i> , <b>2021</b> , 180, 204-214  | 10.4 | 2 |
| 32 | Understanding decoupling mechanisms of liquid-mixture transport properties through regression analysis with structural perturbation. <i>International Journal of Heat and Mass Transfer</i> , <b>2017</b> , 105, 12-17   | 4.9  | 1 |
| 31 | Evaluation of adsorption capacity of single-walled carbon nanotubes for application to micro gas preconcentrators <b>2010</b> ,  |      | 1 |
| 30 | Thermal Boundary Conduction between a Single-Walled Carbon Nanotube and Surrounding Material(Thermal Engineering). <i>880-02 Nihon Kikai Gakkai Ronbunshu Transactions of the Japan Society of Mechanical Engineers Series B B-hen</i> , <b>2010</b> , 76, 642-649 |      | 1 |
| 29 | Report on 6th U.S.-Japan Joint Seminar on Nanoscale Transport Phenomena Science and Engineering. <i>Nanoscale and Microscale Thermophysical Engineering</i> , <b>2008</b> , 12, 273-293  | 3.7  | 1 |
| 28 | Molecular Dynamics Simulations of Diffusive-Ballistic Heat Conduction in Carbon Nanotubes. <i>Materials Research Society Symposia Proceedings</i> , <b>2007</b> , 1022, 1  |      | 1 |
| 27 | Control of oscillatory thermocapillary convection with local heating. <i>Journal of Crystal Growth</i> , <b>2006</b> , 286, 502-511  | 1.6  | 1 |
| 26 | Phase-transition-induced giant Thomson effect for thermoelectric cooling. <i>Applied Physics Reviews</i> , <b>2022</b> , 9, 011414   | 17.3 | 1 |
| 25 | Ultra-high-performance heat spreader based on a graphite architecture with three-dimensional thermal routing. <i>Cell Reports Physical Science</i> , <b>2021</b> , 100621  | 6.1  | 1 |
| 24 | Modulation of Interfacial Thermal Transport between Fumed Silica Nanoparticles by Surface Chemical Functionalization for Advanced Thermal Insulation. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 17404-17411                                | 9.5  | 1 |
| 23 | Modulating temperature dependence of thermal conductivity by nanostructuring. <i>Japanese Journal of Applied Physics</i> , <b>2018</b> , 57, 120312  | 1.4  | 1 |
| 22 | P-TRANS: A Monte Carlo ray-tracing software to simulate phonon transport in arbitrary nanostructures. <i>Computer Physics Communications</i> , <b>2022</b> , 276, 108361   | 4.2  | 1 |

|    |   |      |   |
|----|---|------|---|
| 21 | Negligible contribution of inter-dot coherent modes to heat conduction in quantum-dot superlattice. <i>Materials Today Physics</i> , <b>2022</b> , 22, 100601   | 8    | o |
| 20 | Metal-organic framework coated porous structures for enhanced thermoelectric performance. <i>Energy Conversion and Management</i> , <b>2022</b> , 255, 115289   | 10.6 | o |
| 19 | Optimized Tamm-plasmon structure by Differential Evolution algorithm for single and dual peaks hot-electron photodetection. <i>Optical Materials</i> , <b>2021</b> , 113, 110857  | 3.3  | o |
| 18 | Alloy composition of half-Heusler compounds for high thermoelectric performance. <i>Transactions of the JSME (in Japanese)</i> , <b>2015</b> , 81, 14-00652-14-00652  | 0.2  |   |
| 17 | Thermal Conductance Analysis of Sintered Nanostructures from the Viewpoint of Phonon Transport. <i>Funtai Oyobi Fumatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy</i> , <b>2015</b> , 62, 169-174  | 0.2  |   |
| 16 | Molecular Dynamics of Highly Efficient Flow at the Nanoscale. <i>Journal of the Visualization Society of Japan</i> , <b>2013</b> , 33, 14-18  | o    |   |
| 15 | Molecular Dynamics Simulation of a Single-Walled Carbon Nanotube Nucleation from a Catalytic Metal Cluster under Confinement(Thermal Engineering). <i>880-02 Nihon Kikai Gakkai Ronbunshu Transactions of the Japan Society of Mechanical Engineers Series B B-hen</i> , <b>2009</b> , 75, 2060-2067      |      |   |
| 14 | Scattering Process of Transmitted Gas Molecules Through Vertically Aligned Single-Walled Carbon Nanotube Arrays(The 1st Symposium on Micro-Nano Engineering). <i>Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C</i> , <b>2010</b> , 76, 1933-1935 |      |   |
| 13 | Magneto-Absorption Spectra from Selected Chirality of Single-Walled Carbon Nanotubes. <i>Journal of Low Temperature Physics</i> , <b>2010</b> , 159, 267-271  | 1.3  |   |
| 12 | Experiment on multimode feedback control of non-linear thermocapillary convection in a half-zone liquid bridge. <i>Advances in Space Research</i> , <b>2005</b> , 36, 57-63   | 2.4  |   |
| 11 | Ultra-Narrowband Wavelength-Selective Thermal Emitter Designed by Bayesian Optimization. <i>The Proceedings of the Thermal Engineering Conference</i> , <b>2018</b> , 2018, 0135  | o    |   |
| 10 | M1-5 Optimization of catalyst deposition by spin-coating for synthesis of vertically-aligned single-walled carbon nanotube arrays (M1 Fabrication Technology and NEMS/MEMS Material). <i>The Proceedings of the Symposium on Micro-Nano Science and Technology</i> , <b>2009</b> , 2009.1, 23-24          | o    |   |
| 9  | MNM-4A-2 Diameter controlled CVD synthesis of single-walled carbon nanotubes. <i>The Proceedings of the Symposium on Micro-Nano Science and Technology</i> , <b>2010</b> , 2010.2, 173-174  | o    |   |
| 8  | MP-3 Phonon transport analysis of silicon crystal by molecular dynamics method. <i>The Proceedings of the Symposium on Micro-Nano Science and Technology</i> , <b>2011</b> , 2011.3, 73-74  | o    |   |
| 7  | P-OS5-3 Lattice thermal conductivity calculations of nanostructured thermoelectric materials using Monte Carlo method. <i>The Proceedings of the Symposium on Micro-Nano Science and Technology</i> , <b>2012</b> , 2012.4, 285-286   | o    |   |
| 6  | 7PM1-C-4 Influence of interface structure on phonon transport in bulk nanostructured thermoelectric materials. <i>The Proceedings of the Symposium on Micro-Nano Science and Technology</i> , <b>2013</b> , 2013.5, 283-284   | o    |   |
| 5  | 22pm1-E2 Numerical simulation of effective phonon mean free path in polycrystalline nanostructures. <i>The Proceedings of the Symposium on Micro-Nano Science and Technology</i> , <b>2014</b> , 2014.6, _22pm1-E2--_22pm1-E2-  | o    |   |
| 4  | Heat diffusion-related damping process in a highly precise coarse-grained model for nonlinear motion of SWCNT. <i>Scientific Reports</i> , <b>2021</b> , 11, 563  | 4.9  |   |

- 3 Reduction of interface thermal resistance between TIM and metal surface by tuning wettability. *Transactions of the JSME (in Japanese)*, **2021**, 87, 21-00023-21-00023 0.2
- 2 Thermal Nanostructure Design by Materials Informatics. *Springer Series in Materials Science*, **2021**, 153-195
- 1 Thermal transport by phonons in thermoelectrics **2021**, 23-42