

# Takashi Kodama

## List of Publications by Year in descending order

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Version: 2024-02-01

57  
papers

2,359  
citations

304368

22  
h-index

223531

46  
g-index

57  
all docs

57  
docs citations

57  
times ranked

2982  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Mechanically Strong, Scalable, Mesoporous Xerogels of Nanocellulose Featuring Light Permeability, Thermal Insulation, and Flame Self-Extinction. <i>ACS Nano</i> , 2021, 15, 1436-1444.                                      | 7.3  | 59        |
| 2  | Thermal conduction through individual cellulose nanofibers. <i>Applied Physics Letters</i> , 2021, 118, .  | 1.5  | 14        |
| 3  | Anisotropic thermal conductivity measurement of organic thin film with bidirectional 3D method. <i>Review of Scientific Instruments</i> , 2021, 92, 034902.  | 0.6  | 6         |
| 4  | Scalable monolayer-functionalized nanointerface for thermal conductivity enhancement in copper/diamond composite. <i>Carbon</i> , 2021, 175, 299-306.  | 5.4  | 17        |
| 5  | Modulation of Interfacial Thermal Transport between Fumed Silica Nanoparticles by Surface Chemical Functionalization for Advanced Thermal Insulation. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 17404-17411. | 4.0  | 12        |
| 6  | Weaker bonding can give larger thermal conductance at highly mismatched interfaces. <i>Science Advances</i> , 2021, 7, .   | 4.7  | 35        |
| 7  | Thermal expansion characterization of thin films using harmonic Joule heating combined with atomic force microscopy. <i>Applied Physics Letters</i> , 2021, 118, .   | 1.5  | 6         |
| 8  | Tailoring the surface morphology of carbon nanotube forests by plasma etching: A parametric study. <i>Carbon</i> , 2021, 180, 204-214.   | 5.4  | 14        |
| 9  | Ultra-high-performance heat spreader based on a graphite architecture with three-dimensional thermal routing. <i>Cell Reports Physical Science</i> , 2021, 2, 100621.  | 2.8  | 3         |
| 10 | Fine-tuning of the surface porosity of micropatterned polyethersulfone membranes prepared by phase separation micromolding. <i>Polymer Journal</i> , 2020, 52, 397-403.  | 1.3  | 10        |
| 11 | Scalable Multi-nanostructured Silicon for Room-Temperature Thermoelectrics. <i>ACS Applied Energy Materials</i> , 2019, 2, 7083-7091.  | 2.5  | 17        |
| 12 | Enhancing Thermal Boundary Conductance of Graphite-Metal Interface by Triazine-Based Molecular Bonding. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 37295-37301.   | 4.0  | 13        |
| 13 | Revealing How Topography of Surface Microstructures Alters Capillary Spreading. <i>Scientific Reports</i> , 2019, 9, 7787.   | 1.6  | 14        |
| 14 | Parametric Model to Analyze the Components of the Thermal Conductivity of a Cellulose-Nanofibril Aerogel. <i>Physical Review Applied</i> , 2019, 11, .   | 1.5  | 29        |
| 15 | One-directional thermal transport in densely aligned single-wall carbon nanotube films. <i>Applied Physics Letters</i> , 2019, 115, .  | 1.5  | 23        |
| 16 | Impact of thermally dead volume on phonon conduction along silicon nanoladders. <i>Nanoscale</i> , 2018, 10, 11117-11122.  | 2.8  | 20        |
| 17 | Phonon conduction in silicon nanobeams. <i>Applied Physics Letters</i> , 2017, 110, .  | 1.5  | 22        |
| 18 | Modulation of thermal and thermoelectric transport in individual carbon nanotubes by fullerene encapsulation. <i>Nature Materials</i> , 2017, 16, 892-897.   | 13.3 | 99        |

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|----|--|-----|-----------|
| 19 | Phonon Conduction in Silicon Nanobeam Labyrinths. <i>Scientific Reports</i> , 2017, 7, 6233.   | 1.6 | 28        |
| 20 | Thermal Conduction across Metal-Dielectric Sidewall Interfaces. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 30100-30106.  | 4.0 | 9         |
| 21 | Quasi-ballistic Electronic Thermal Conduction in Metal Inverse Opals. <i>Nano Letters</i> , 2016, 16, 2754-2761.   | 4.5 | 72        |
| 22 | Thermal characterization and analysis of microliter liquid volumes using the three-omega method. <i>Review of Scientific Instruments</i> , 2015, 86, 024901.   | 0.6 | 14        |
| 23 | Thermal Conduction in Vertically Aligned Copper Nanowire Arrays and Composites. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 19251-19259.  | 4.0 | 99        |
| 24 | Thermal conduction in nanoporous copper inverse opal films. , 2014, , .  |     | 11        |
| 25 | Phonon thermal conduction in periodically porous silicon nanobeams. , 2014, , .  |     | 1         |
| 26 | Improved Thermal Interfaces of GaN-Diamond Composite Substrates for HEMT Applications. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2013, 3, 79-85.                      | 1.4 | 91        |
| 27 | Towards Thermal Characterization of Pico-Liter Volumes Using the 3Omega Method. , 2013, , .  |     | 1         |
| 28 | Electrothermal phenomena in zinc oxide nanowires and contacts. <i>Applied Physics Letters</i> , 2012, 100, 163105.   | 1.5 | 13        |
| 29 | Phonon Conduction in Periodically Porous Silicon Nanobridges. <i>Nanoscale and Microscale Thermophysical Engineering</i> , 2012, 16, 199-219.  | 1.4 | 54        |
| 30 | The rational design of a synthetic polymer nanoparticle that neutralizes a toxic peptide in vivo. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 33-38. | 3.3 | 179       |
| 31 | Thermoelectric Characterization of Ge <sub>2</sub> Sb <sub>2</sub> Te <sub>5</sub> Films for Phase-Change Memory. , 2012, , .  |     | 0         |
| 32 | Phase purity and the thermoelectric properties of Ge <sub>2</sub> Sb <sub>2</sub> Te <sub>5</sub> films down to 25-nm thickness. <i>Journal of Applied Physics</i> , 2012, 112, .                            | 1.1 | 49        |
| 33 | Nanoscale Manipulation, Heating, and Welding of Nanowires. <i>Journal of Heat Transfer</i> , 2012, 134, .  | 1.2 | 0         |
| 34 | In-plane thermal conductivity measurement on nanoscale conductive materials with on-substrate device configuration. , 2012, , .  |     | 3         |
| 35 | Thermal characterization of GaN-on-diamond substrates for HEMT applications. , 2012, , .   |     | 12        |
| 36 | Electrical and Thermal Conduction in Atomic Layer Deposition Nanobridges Down to 7 nm Thickness. <i>Nano Letters</i> , 2012, 12, 683-686.  | 4.5 | 64        |

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|----|---|-----|-----------|
| 37 | Impact of Annealing on the Thermoelectric Properties of Ge <sub>2</sub> Sb <sub>2</sub> Te <sub>5</sub> Films. Materials Research Society Symposia Proceedings, 2012, 1490, 223-228.  | 0.1 | 0         |
| 38 | Phonon Dominated Heat Conduction Normal to Mo/Si Multilayers with Period below 10 nm. Nano Letters, 2012, 12, 3121-3126.  | 4.5 | 58        |
| 39 | Impact of nanotube density and alignment on the elastic modulus near the top and base surfaces of aligned multi-walled carbon nanotube films. Carbon, 2012, 50, 3789-3798.  | 5.4 | 45        |
| 40 | Electron-Phonon Coupled Two-Dimensional Heat Transfer in Nanoscale Metal/Dielectric Multilayers. , 2012, , .  |     | 0         |
| 41 | Recognition, Neutralization, and Clearance of Target Peptides in the Bloodstream of Living Mice by Molecularly Imprinted Polymer Nanoparticles: A Plastic Antibody. Journal of the American Chemical Society, 2010, 132, 6644-6645. | 6.6 | 437       |
| 42 | Affinity Purification of Multifunctional Polymer Nanoparticles. Journal of the American Chemical Society, 2010, 132, 13648-13650.   | 6.6 | 94        |
| 43 | Design of Synthetic Polymer Nanoparticles that Capture and Neutralize a Toxic Peptide. Small, 2009, 5, 1562-1568.   | 5.2 | 98        |
| 44 | Unfolding study of native bacteriorhodopsin under acidic condition. Ultramicroscopy, 2009, 109, 948-951.  | 0.8 | 1         |
| 45 | Heat Conduction through a DNA~Gold Composite. Nano Letters, 2009, 9, 2005-2009.   | 4.5 | 45        |
| 46 | Peptide Imprinted Polymer Nanoparticles: A Plastic Antibody. Journal of the American Chemical Society, 2008, 130, 15242-15243.  | 6.6 | 377       |
| 47 | Development of apertureless near~field scanning optical microscope tips for tip~enhanced Raman spectroscopy. Journal of Microscopy, 2008, 229, 240-246.   | 0.8 | 10        |
| 48 | Direct Detection of the Solvent Molecules between Solid Surfaces with Simultaneous Adhesion Force Measurement. Journal of Physical Chemistry C, 2007, 111, 7098-7104.   | 1.5 | 2         |
| 49 | Nonmetallic Conduction Property of a DNA Templated Gold Nanowire. , 2007, , .   |     | 0         |
| 50 | Spectroscopic Measurement of Nano Scale Region with the Application of Mechanical Perturbation. Seibutsu Butsuri, 2007, 47, 044-048.  | 0.0 | 0         |
| 51 | Development of new apertureless near-field scanning optical microscope tip using finite-differential time-domain calculation. Chemical Physics Letters, 2006, 432, 553-557.   | 1.2 | 1         |
| 52 | Surface enhanced Raman scattering imaging of carbon onions with a silver nanoparticle immobilized tip. Applied Physics Letters, 2006, 89, 223107.   | 1.5 | 5         |
| 53 | Observation of the destruction of biomolecules under compression force. Ultramicroscopy, 2005, 105, 189-195.  | 0.8 | 13        |
| 54 | Mechanical perturbation-induced fluorescence change of green fluorescent protein. Applied Physics Letters, 2005, 86, 043901.  | 1.5 | 33        |

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|----|---|-----|-----------|
| 55 | Development of Confocal Laser Scanning Microscope/Atomic Force Microscope System for Force Curve Measurement. Japanese Journal of Applied Physics, 2004, 43, 4580-4583.                 | 0.8 | 10        |
| 56 | Atomic force microscope equipped with confocal laser scanning microscope for the spectroscopic measurement of the contact area in liquid. Chemical Physics Letters, 2004, 385, 507-511. | 1.2 | 13        |
| 57 | Dynamics of the fluorescence properties of pyrene residues appended to oligonucleotide hybridization probes. Nucleic Acids Symposium Series, 2000, 44, 51-52.                           | 0.3 | 4         |