

# Takuma Hori

## List of Publications by Year in descending order

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28  
papers

808  
citations

623734

14  
h-index

526287

27  
g-index

28  
all docs

28  
docs citations

28  
times ranked

947  
citing authors

#	ARTICLE	IF	CITATIONS
1	Anomalous reduction of thermal conductivity in coherent nanocrystal architecture for silicon thermoelectric material. <i>Nano Energy</i> , 2015, 12, 845-851.	16.0	150
2	Effective phonon mean free path in polycrystalline nanostructures. <i>Applied Physics Letters</i> , 2015, 106, .	3.3	79
3	Thermal resistance and phonon scattering at the interface between carbon nanotube and amorphous polyethylene. <i>International Journal of Heat and Mass Transfer</i> , 2013, 67, 1024-1029.	4.8	72
4	Impeded thermal transport in Si multiscale hierarchical architectures with phononic crystal nanostructures. <i>Physical Review B</i> , 2015, 91, .	3.2	63
5	Thermal conductivity reduction in silicon fishbone nanowires. <i>Scientific Reports</i> , 2018, 8, 4452.	3.3	59
6	Probing and tuning inelastic phonon conductance across finite-thickness interface. <i>Applied Physics Express</i> , 2014, 7, 121801.	2.4	49
7	Crystal structure dependent thermal conductivity in two-dimensional phononic crystal nanostructures. <i>Applied Physics Letters</i> , 2015, 107, .	3.3	43
8	Importance of local force fields on lattice thermal conductivity reduction in PbTe $1\hat{a}^{\sim}x$ Se $x$ alloys. <i>Europhysics Letters</i> , 2013, 102, 46002.	2.0	39
9	Tuning phonon transport spectrum for better thermoelectric materials. <i>Science and Technology of Advanced Materials</i> , 2019, 20, 10-25.	6.1	36
10	Phonon transport analysis of silicon germanium alloys using molecular dynamics simulations. <i>Journal of Applied Physics</i> , 2013, 113, .	2.5	28
11	Thermal conductivity of bulk nanostructured lead telluride. <i>Applied Physics Letters</i> , 2014, 104, 021915.	3.3	24
12	Tuning thermal conductance across sintered silicon interface by local nanostructures. <i>Nano Energy</i> , 2015, 13, 601-608.	16.0	24
13	Origin of anomalous anharmonic lattice dynamics of lead telluride. <i>Applied Physics Express</i> , 2014, 7, 041801.	2.4	22
14	Thermal rectification in restructured graphene with locally modulated temperature dependence of thermal conductivity. <i>Physical Review B</i> , 2017, 96, .	3.2	19
15	Relation between oxygen gas diffusivity and porous characteristics under capillary condensation of water in cathode catalyst layers of polymer electrolyte membrane fuel cells. <i>International Journal of Heat and Mass Transfer</i> , 2020, 150, 119277.	4.8	13
16	Experimental study on behaviors of low-Stokes number particles in weakly chaotic structures induced by thermocapillary effect within a closed system with a free surface. <i>Physical Review Fluids</i> , 2019, 4, .	2.5	13
17	Molecular Dynamics Study of Oxygen Scattering Behavior on Perfluorosulfonic Acid Ionomer Thin Films. <i>Journal of Physical Chemistry C</i> , 2019, 123, 7125-7133.	3.1	12
18	Influence of mass contrast in alloy phonon scattering. <i>Japanese Journal of Applied Physics</i> , 2014, 53, 021802.	1.5	11

#	ARTICLE	IF	CITATIONS
19	Mutual influence of molecular diffusion in gas and surface phases. <i>Physical Review E</i> , 2018, 97, 013101.	2.1	11
20	Effect of capillary condensation on gas transport properties in porous media. <i>Physical Review E</i> , 2017, 96, 043112.	2.1	10
21	Secondary instability induced by thermocapillary effect in half-zone liquid bridge of high Prandtl number fluid. <i>Mechanical Engineering Letters</i> , 2019, 5, 19-00014-19-00014.	0.6	9
22	Pumping effect of heterogeneous meniscus formed around spherical particle. <i>Journal of Colloid and Interface Science</i> , 2020, 562, 133-141.	9.4	6
23	P-TRANS: A Monte Carlo ray-tracing software to simulate phonon transport in arbitrary nanostructures. <i>Computer Physics Communications</i> , 2022, 276, 108361.	7.5	6
24	Structural optimization of silicon thin film for thermoelectric materials. <i>Scientific Reports</i> , 2021, 11, 22648.	3.3	5
25	Verification of the phonon relaxation time approximation by probing the relaxation process of a single excited mode. <i>Physical Review B</i> , 2019, 100, .	3.2	2
26	Synergistic phonon scattering in epitaxial silicon multilayers with germanium nanodot inclusions. <i>Physical Review B</i> , 2021, 104, .	3.2	2
27	In situ observation of dewetting-induced deformation of vertically aligned single-walled carbon nanotubes. <i>Diamond and Related Materials</i> , 2019, 95, 115-120.	3.9	1
28	Thermal conductivity of single-walled carbon nanotubes under torsional deformation. <i>Journal of Applied Physics</i> , 2021, 130, 215106.	2.5	0