

# Lifa Zhang

## List of Publications by Year in descending order

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82  
papers

2,657  
citations

236833

25  
h-index

189801

50  
g-index

82  
all docs

82  
docs citations

82  
times ranked

2442  
citing authors

#	ARTICLE	IF	CITATIONS
1	Topological magnon insulator in insulating ferromagnet. <i>Physical Review B</i> , 2013, 87, .	1.1	269
2	Topological Nature of the Phonon Hall Effect. <i>Physical Review Letters</i> , 2010, 105, 225901.	2.9	242
3	Chiral Phonons at High-Symmetry Points in Monolayer Hexagonal Lattices. <i>Physical Review Letters</i> , 2015, 115, 115502.	2.9	235
4	Observation of chiral phonons. <i>Science</i> , 2018, 359, 579-582.	6.0	217
5	Angular Momentum of Phonons and the Einsteinâ€“de Haas Effect. <i>Physical Review Letters</i> , 2014, 112, .	2.9	169
6	Interfacial thermal transport in atomic junctions. <i>Physical Review B</i> , 2011, 83, .	1.1	90
7	Entanglement of single-photons and chiral phonons in atomically thin WSe <sub>2</sub> . <i>Nature Physics</i> , 2019, 15, 221-227.	6.5	80
8	Phonon interference at self-assembled monolayer interfaces: Molecular dynamics simulations. <i>Physical Review B</i> , 2010, 81, .	1.1	79
9	Thermal Transport in 2D Semiconductorsâ€“Considerations for Device Applications. <i>Advanced Functional Materials</i> , 2020, 30, 1903929.	7.8	71
10	Momentum-Dark Intervalley Exciton in Monolayer Tungsten Diselenide Brightened <i>via</i> Chiral Phonon. <i>ACS Nano</i> , 2019, 13, 14107-14113.	7.3	63
11	Ballistic thermal rectification in nanoscale three-terminal junctions. <i>Physical Review B</i> , 2010, 81, .	1.1	60
12	Reversal of thermal rectification in quantum systems. <i>Physical Review B</i> , 2009, 80, .	1.1	57
13	Photoluminescence of MoS <sub>2</sub> quantum dots quenched by hydrogen peroxide: A fluorescent sensor for hydrogen peroxide. <i>Journal of Applied Physics</i> , 2016, 120, .	1.1	48
14	Phonon Hall thermal conductivity from the Green-Kubo formula. <i>Physical Review B</i> , 2009, 80, .	1.1	47
15	Nondegenerate Chiral Phonons in Graphene/Hexagonal Boron Nitride Heterostructure from First-Principles Calculations. <i>Nano Letters</i> , 2018, 18, 4424-4430.	4.5	43
16	Chiral phonons in two-dimensional materials. <i>2D Materials</i> , 2019, 6, 012002.	2.0	40
17	The phonon Hall effect: theory and application. <i>Journal of Physics Condensed Matter</i> , 2011, 23, 305402.	0.7	38
18	Propagating Chiral Phonons in Three-Dimensional Materials. <i>Nano Letters</i> , 2021, 21, 3060-3065.	4.5	38

#	ARTICLE	IF	CITATIONS
19	Berry curvature and various thermal Hall effects. <i>New Journal of Physics</i> , 2016, 18, 103039.	1.2	37
20	Optimal thermal rectification of heterojunctions under Fourier law. <i>Physical Review E</i> , 2018, 98, .	0.8	35
21	Hybrid Thermal Transport Characteristics of Doped Organic Semiconductor Poly(3,4-ethylenedioxythiophene):Tosylate. <i>Journal of Physical Chemistry C</i> , 2019, 123, 26735-26741.	1.5	35
22	Electric field tunable band-gap crossover in black(blue) phosphorus/g-ZnO van der Waals heterostructures. <i>RSC Advances</i> , 2017, 7, 34584-34590.	1.7	34
23	Chiral Phonons and Giant Magneto-Optical Effect in CrBr <sub>3</sub> 2D Magnet. <i>Advanced Materials</i> , 2021, 33, e2101618.	11.1	31
24	Nonlinearity enhanced interfacial thermal conductance and rectification. <i>Europhysics Letters</i> , 2013, 103, 64002.	0.7	26
25	Chiral phonons in kagome lattices. <i>Physical Review B</i> , 2019, 100, .	1.1	26
26	Phonon Hall effect in four-terminal nano-junctions. <i>New Journal of Physics</i> , 2009, 11, 113038.	1.2	25
27	Thermal conductivity of molybdenum disulfide nanotube from molecular dynamics simulations. <i>International Journal of Heat and Mass Transfer</i> , 2019, 145, 118719.	2.5	25
28	Highly Efficient Solar-Driven Photothermal Performance in Au-Carbon Core-Shell Nanospheres. <i>Solar Rrl</i> , 2017, 1, 1600032.	3.1	24
29	Chiral Phonon Diode Effect in Chiral Crystals. <i>Nano Letters</i> , 2022, 22, 1688-1693.	4.5	24
30	Thermal transport across metal-insulator interface via electron-phonon interaction. <i>Journal of Physics Condensed Matter</i> , 2013, 25, 445801.	0.7	23
31	Ballistic magnetothermal transport in a Heisenberg spin chain at low temperatures. <i>Physical Review B</i> , 2008, 78, .	1.1	20
32	Symmetry-enforced nodal chain phonons. <i>Npj Quantum Materials</i> , 2022, 7, .	1.8	19
33	Topological chiral phonons in center-stacked bilayer triangle lattices. <i>Journal of Physics Condensed Matter</i> , 2018, 30, 225401.	0.7	18
34	Nondegenerate chiral phonons in the Brillouin-zone center of honeycomb superlattices. <i>Physical Review B</i> , 2018, 98, .	1.7	17
35	Electronic and thermal properties of monolayer beryllium oxide from first principles. <i>Nanotechnology</i> , 2020, 31, 375705.	1.3	17
36	Negative differential thermal resistance effect in a macroscopic homojunction. <i>Journal of Applied Physics</i> , 2020, 127, .	1.1	16

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37	Interface thermal conductance between $\text{In}^2\text{-Ga}_2\text{O}_3$ and different substrates. Journal Physics D: Applied Physics, 2020, 53, 434001.	1.3	16
38	Phononic real Chern insulator with protected corner modes in graphynes. Physical Review B, 2022, 105, .	1.1	16
39	Phonon Hall effect in ionic crystals in the presence of static magnetic field. European Physical Journal B, 2011, 81, 197-202.	0.6	15
40	Enhancement of interface thermal conductance between Cr-Ni alloy and dielectric via Cu nano-interlayer. Journal of Physics Condensed Matter, 2020, 32, 425001.	0.7	15
41	Composite Dirac semimetals. Physical Review B, 2019, 100, .	1.1	14
42	Dramatic enhancement of interfacial thermal transport by mass-graded and coupling-graded materials. Europhysics Letters, 2019, 128, 54007.	0.7	14
43	Chiral phonons in the indirect optical transition of a $\text{MoS}_2$ heterostructure. Physical Review B, 2020, 102, .	1.1	14
44	Interfacial Thermal Transport via One-Dimensional Atomic Junction Model. Frontiers in Energy Research, 2018, 6, .	1.2	13
45	Thermal rectification induced by geometrical asymmetry: A two-dimensional multiparticle Lorentz gas model. Physical Review E, 2019, 99, 062111.	0.8	12
46	Modification of thermal transport in few-layer $\text{MoS}_2$ by atomic-level defect engineering. Nanoscale, 2021, 13, 11561-11567.	2.8	12
47	Entanglement of periodic anisotropic XY chains. Journal of Physics A, 2005, 38, 7377-7388.	1.6	11
48	Reflectionless design of optical elements using impedance-tunable transformation optics. Applied Physics Letters, 2014, 104, 191102.	1.5	11
49	Tunable electronic and optical properties of gas molecules adsorbed monolayer graphitic ZnO: Implications for gas sensor and environment monitoring. Journal of Applied Physics, 2017, 122, .	1.1	11
50	Rough boundary effect in thermal transport: A Lorentz gas model. Physical Review E, 2018, 98, .	0.8	11
51	Optimized couplers for interfacial thermal transport. Journal of Physics Condensed Matter, 2015, 27, 125401.	0.7	10
52	Ultrafast Demagnetization After Femtosecond Laser Pulses: Transfer of Angular Momentum from the Electronic System to Magnetoelastic Spin-Phonon Modes. Journal of Superconductivity and Novel Magnetism, 2017, 30, 1381-1387.	0.8	10
53	Ultrafast demagnetization after femtosecond laser pulses: Transfer of angular momentum from the electronic system to magnetoelastic spin-phonon modes. Physical Review B, 2016, 93, .	1.1	9
54	Facilitating thermal transport across Si/Ge interface via mass-graded interlayer: The role of elastic and inelastic phonon processes. Journal of Applied Physics, 2021, 129, .	1.1	9

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55	Topological chiral phonons along the line defect of intralayer heterojunctions. <i>Physical Review B</i> , 2021, 104, .	1.1	9
56	Optimized interfacial thermal coupling between two nonlinear systems. <i>Journal of Physics Condensed Matter</i> , 2020, 32, 19LT02.	0.7	8
57	Bidirectional and Unidirectional Negative Differential Thermal Resistance Effect in a Modified Lorentz Gas Model. <i>Chinese Physics Letters</i> , 2021, 38, 016601.	1.3	7
58	Chiral phonons in lattices with $C_4$ symmetry. <i>Physical Review B</i> , 2022, 105, .	1.1	6
59	Highly-efficient three-dimensional waveguide couplers using impedance-tunable transformation optics. <i>Scientific Reports</i> , 2018, 8, 9091.	1.6	5
60	Interface thermal resistance induced by geometric shape mismatch: A multiparticle Lorentz gas model. <i>Physical Review E</i> , 2021, 104, 024801.	0.8	5
61	Temperature oscillation in one-dimensional superlattice induced by phonon localization. <i>New Journal of Physics</i> , 2022, 24, 013007.	1.2	5
62	Thermospin diode effect based on a quantum dot system. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2014, 378, 3638-3641.	0.9	4
63	Phonon chirality tuned through interface transmission in a one-dimensional atomic junction model. <i>New Journal of Physics</i> , 2018, 20, 073006.	1.2	4
64	Thermal Hall effect from a modified Lorentz gas model. <i>Physical Review E</i> , 2020, 101, 042129.	0.8	4
65	Ballistic thermal rectification in asymmetric homojunctions. <i>Physical Review E</i> , 2021, 103, 052135.	0.8	4
66	Topological phonons and phonon Hall effects. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2017, 66, 226601.	0.2	4
67	The nonlocal transport and switch effect in light- and electric-controlled silicene "superconductor hybrid structure. <i>Chinese Physics B</i> , 2018, 27, 127401.	0.7	3
68	Phonon quarters-wave loss. <i>New Journal of Physics</i> , 2019, 21, 093046.	1.2	3
69	Customizing the reduction of individual graphene oxide flakes for precise work function tuning with meV precision. <i>Nanoscale Advances</i> , 2020, 2, 2738-2744.	2.2	3
70	Selective flattening of magnon bands in kagome-lattice ferromagnets with Dzyaloshinskii-Moriya interaction. <i>Science China: Physics, Mechanics and Astronomy</i> , 2020, 63, 1.	2.0	3
71	Phonon angular momentum and chiral phonons. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2018, 67, 076302.	0.2	3
72	Magnonic topological insulator realized in 2D magnetic skyrmion crystals. <i>Journal of Applied Physics</i> , 2021, 130, .	1.1	3

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73	Interband chiral phonon transfer in a magnetic field. Physical Review B, 2022, 105, .	1.1	3
74	Tuning thermal transport via phonon localization in nanostructures. Chinese Physics B, 2020, 29, 126502.	0.7	2
75	Strain-driven dynamic stability and anomalous enhancement of thermal conductivity in graphene-like II-VI monolayer monoxides. Journal of Physics Condensed Matter, 2020, 33, 065701.	0.7	2
76	Valley modulation and single-edge transport of magnons in breathing kagome ferromagnets. Physical Review B, 2022, 105, .	1.1	2
77	THE FINITE-SIZE EFFECT ON THE ENTANGLEMENT OF THE QUANTUM ISING CHAIN. International Journal of Modern Physics B, 2004, 18, 2564-2568.	1.0	1
78	Gate-tunable chiral phonons in low-buckled group-IVA monolayers. Journal of Physics Condensed Matter, 2021, 33, 285704.	0.7	1
79	Design of highly-efficient acoustic waveguide couplers using impedance-tunable transformation acoustics. International Journal of Modern Physics B, 2020, 34, 2050250.	1.0	1
80	Topological phase transition based on the attractive Hubbard model. Europhysics Letters, 2019, 127, 67002.	0.7	0
81	Anomalous hybridization complementation effect on phonon transport in heterogeneous nanowire cross junction. Journal of Physics Condensed Matter, 2021, 33, 285701.	0.7	0
82	Experimental observation of chiral phonons in monolayer WSe <sub>2</sub> . , 2019, , .		0