

# Lei Zhang

## List of Publications by Year in descending order

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70  
papers

1,876  
citations

236925

25  
h-index

289244

40  
g-index

70  
all docs

70  
docs citations

70  
times ranked

1748  
citing authors

#	ARTICLE	IF	CITATIONS
1	Experiment and DFT study on the photocatalytic properties of La-doped Bi <sub>2</sub> WO <sub>6</sub> nanoplate-like materials. Applied Surface Science, 2022, 579, 152219.	6.1	37
2	Site and length dependent quantum interference and resonance in the electron transport of armchair carbon nanotube molecular junctions. Physical Chemistry Chemical Physics, 2022, 24, 8032-8040.	2.8	7
3	Giant Tunneling Electroresistance Induced by Interfacial Doping in $\text{Pt}/\text{BaO}/\text{Bi}_2\text{WO}_6$ Ferroelectric Tunnel Junctions. Physical Review Applied, 2022, 17, .	3.8	11
4	Flexible electromagnetic manipulation by topological one-way large-area waveguide states. Physical Review B, 2022, 105, .	3.2	6
5	Gate controllable optical spin current generation in zigzag graphene nanoribbon. Carbon, 2021, 173, 565-571.	10.3	17
6	Gate tunable self-powered few-layer black phosphorus broadband photodetector. Physical Chemistry Chemical Physics, 2021, 23, 399-404.	2.8	2
7	Visualizing Quantum Coherence Based on Single-Molecule Coherent Modulation Microscopy. Nano Letters, 2021, 21, 1477-1483.	9.1	4
8	An electrically switchable anti-ferroelectric bilayer $\text{In}_2\text{Se}_3$ based opto-spintronic device. Nanoscale, 2021, 13, 8555-8561.	5.6	12
9	Giant tunneling electroresistance arising from reversible partial barrier metallization in the $\text{NaTiO}_3/\text{BaTiO}_3/\text{LaTiO}_3$ ferroelectric tunnel junction. Physical Chemistry Chemical Physics, 2021, 23, 16349-16356.	2.8	3
10	Topological One-Way Large-Area Waveguide States in Magnetic Photonic Crystals. Physical Review Letters, 2021, 126, 067401.	7.8	53
11	Twist-induced control of near-field heat radiation between magnetic Weyl semimetals. ACS Photonics, 2021, 8, 443-448.	6.6	46
12	Pure spin current generation with photogalvanic effect in graphene interconnect junctions. Nanophotonics, 2021, 10, 1701-1709.	6.0	18
13	Giant tunnel electroresistance in ferroelectric tunnel junctions with metal contacts to two-dimensional ferroelectric materials. Physical Review B, 2021, 103, .	3.2	26
14	Experimental observation of non-Abelian topological charges and edge states. Nature, 2021, 594, 195-200.	27.8	61
15	Antichiral edge states and hinge states based on the Haldane model. Physical Review B, 2021, 104, .	3.2	11
16	Domain-wall induced giant tunneling electroresistance effect in two-dimensional Graphene/In <sub>2</sub> Se <sub>3</sub> ferroelectric tunnel junctions. Physica E: Low-Dimensional Systems and Nanostructures, 2021, 133, 114783.	2.7	7
17	Near-Field Energy Transfer between Graphene and Magneto-Optic Media. Physical Review Letters, 2021, 127, 247401.	7.8	19
18	Giant magnetoresistance and dual spin filtering effect in ferromagnetic 6,6,12- $\sqrt{3}$ -graphyne zigzag nanoribbon lateral heterojunction. Physical Chemistry Chemical Physics, 2020, 22, 18548-18555.	2.8	6

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19	Pure spin current generation via photogalvanic effect with spatial inversion symmetry. <i>Physical Review B</i> , 2020, 102, .	3.2	43
20	Largely Enhanced Photogalvanic Effects in a Phosphorene Photodetector by Strain-Increased Device Asymmetry. <i>Physical Review Applied</i> , 2020, 14, .	3.8	26
21	Flexible engineering of light emission in monolayer MoS <sub>2</sub> via direct laser writing for multimode optical recording. <i>AIP Advances</i> , 2020, 10, 045230.	1.3	6
22	Gain-induced large optical torque in optical twist settings. <i>Chinese Physics B</i> , 2020, 29, 084201.	1.4	2
23	Giant tunneling electroresistance in two-dimensional ferroelectric tunnel junctions with out-of-plane ferroelectric polarization. <i>Physical Review B</i> , 2020, 101, .	3.2	52
24	Realizing giant tunneling electroresistance in two-dimensional graphene/BiP ferroelectric tunnel junction. <i>Nanoscale</i> , 2019, 11, 16837-16843.	5.6	35
25	Influence of surface charges on the emission polarization properties of single CdSe/CdS dot-in-rods. <i>Frontiers of Physics</i> , 2019, 14, 1.	5.0	13
26	Gate-tunable large spin polarization in a few-layer black phosphorus-based spintronic device. <i>Nanoscale</i> , 2019, 11, 11872-11878.	5.6	19
27	Frequency-dependent transport properties in disordered systems: A generalized coherent potential approximation approach. <i>Physical Review B</i> , 2019, 99, .	3.2	2
28	Robust generation of half-metallic transport and pure spin current with photogalvanic effect in zigzag silicene nanoribbons. <i>Journal of Physics Condensed Matter</i> , 2019, 31, 495701.	1.8	18
29	Realizing robust half-metallic transport with chemically modified graphene nanoribbons. <i>Carbon</i> , 2019, 141, 676-684.	10.3	17
30	Spin current generation by thermal gradient in graphene/h-BN/graphene lateral heterojunctions. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 015303.	2.8	11
31	A novel electrically controllable volatile memory device based on few-layer black phosphorus. <i>Journal of Materials Chemistry C</i> , 2018, 6, 2460-2466.	5.5	15
32	Influence of dephasing and B/N doping on valley Seebeck effect in zigzag graphene nanoribbons. <i>Carbon</i> , 2018, 126, 183-189.	10.3	22
33	h-BN/graphene van der Waals vertical heterostructure: a fully spin-polarized photocurrent generator. <i>Nanoscale</i> , 2018, 10, 174-183.	5.6	49
34	Photogalvanic effect induced fully spin polarized current and pure spin current in zigzag SiC nanoribbons. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 26744-26751.	2.8	42
35	Magnetization dynamics induced by the Rashba effect in ferromagnetic films. <i>Nanoscale</i> , 2018, 10, 18728-18733.	5.6	1
36	Thermal rectification in a double quantum dots system with a polaron effect. <i>Physical Review B</i> , 2018, 97, .	3.2	11

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37	Realizing fully spin polarized transport in graphene nanoribbons with design of van der Waals vertical heterostructure leads. <i>Journal Physics D: Applied Physics</i> , 2018, 51, 385301.	2.8	3
38	Perfect spin and valley polarized quantum transport in twisted SiC nanoribbons. <i>2D Materials</i> , 2017, 4, 025013.	4.4	27
39	Enhancing the spin transfer torque in magnetic tunnel junctions by ac modulation. <i>Physical Review B</i> , 2017, 95, .	3.2	7
40	Full counting statistics of conductance for disordered systems. <i>Physical Review B</i> , 2017, 96, .	3.2	6
41	Entanglement entropy fluctuation and distribution for open systems. <i>Physical Review B</i> , 2017, 95, .	3.2	5
42	First-principles investigation of transient spin transfer torque in magnetic multilayer systems. <i>Physical Review B</i> , 2017, 96, .	3.2	7
43	Tuning a zigzag SiC nanoribbon as a thermal spin current generator. <i>2D Materials</i> , 2017, 4, 035001.	4.4	29
44	Quantum transport investigation of anomalous Hall resistance in four-probe magnetic nanostructures. <i>Physical Review B</i> , 2016, 94, .	3.2	2
45	Negative differential resistance in GeSi core-shell transport junctions: the role of local sp <sup>2</sup> hybridization. <i>Nanoscale</i> , 2016, 8, 16026-16033.	5.6	3
46	Anderson Localization from the Berry-Curvature Interchange in Quantum Anomalous Hall Systems. <i>Physical Review Letters</i> , 2016, 117, 056802.	7.8	29
47	RESCU: A real space electronic structure method. <i>Journal of Computational Physics</i> , 2016, 307, 593-613.	3.8	89
48	Two-Dimensional $\hat{\Gamma}^3$ -Graphyne Suspended on Si(111): A Hybrid Device. <i>Journal of Physical Chemistry C</i> , 2016, 120, 4605-4611.	3.1	16
49	Valley caloritronics and its realization by graphene nanoribbons. <i>Physical Review B</i> , 2015, 92, .	3.2	35
50	Photogalvanic effect in monolayer black phosphorus. <i>Nanotechnology</i> , 2015, 26, 455202.	2.6	118
51	Large tunnel magnetoresistance ratio in Fe/O/NaCl/O/Fe. <i>Journal of Applied Physics</i> , 2015, 118, 093902.	2.5	10
52	Generation and transport of valley-polarized current in transition-metal dichalcogenides. <i>Physical Review B</i> , 2014, 90, .	3.2	147
53	Electric control of spin in monolayer WSe <sub>2</sub> field effect transistors. <i>Nanotechnology</i> , 2014, 25, 435201.	2.6	26
54	Investigation of transient heat current from first principles using complex absorbing potential. <i>Physical Review B</i> , 2014, 90, .	3.2	12

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55	Molecular Spintronics: Destructive Quantum Interference Controlled by a Gate. Journal of the American Chemical Society, 2014, 136, 15065-15071.	13.7	65
56	Universal transport properties of three-dimensional topological insulator nanowires. Physical Review B, 2014, 89, .	3.2	24
57	Electrical contacts to monolayer black phosphorus: A first-principles investigation. Physical Review B, 2014, 90, .	3.2	122
58	Inkjet Printing Short-Channel Polymer Transistors with High Performance and Ultrahigh Photoresponsivity. Advanced Materials, 2014, 26, 4683-4689.	21.0	82
59	First-principles investigation of quantum transport through an endohedral N@C <sub>60</sub> in the Coulomb blockade regime. Journal of Physics Condensed Matter, 2013, 25, 495302.	1.8	1
60	First-principles investigation of transient current in molecular devices by using complex absorbing potentials. Physical Review B, 2013, 87, .	3.2	39
61	First-principles investigation of transient current of molecular devices by using complex absorbing potential. , 2013, , .		1
62	First-principles investigation of transient dynamics of molecular devices. Physical Review B, 2012, 86, .	3.2	36
63	Enhancement of shot noise due to the fluctuation of Coulomb interaction. Physical Review B, 2012, 85, .	3.2	9
64	First-principles investigation of alternating current density distribution in molecular devices. Physical Review B, 2012, 86, .	3.2	15
65	Topological Anderson insulator phenomena. Physical Review B, 2011, 84, .	3.2	72
66	First principles calculation of ac conductance for Al-BDT-Al and Al-Cn-Al systems. AIP Advances, 2011, 1, 042180.	1.3	12
67	First-principles calculation of current density in molecular devices. Physical Review B, 2011, 84, .	3.2	18
68	Fabrication and Biosensing with CNT/Aligned Mesoporous Silica Core-Shell Nanowires. ACS Applied Materials & Interfaces, 2010, 2, 2767-2772.	8.0	25
69	Transient dynamics of molecular devices under a step-like pulse bias. Physical Review B, 2010, 81, .	3.2	29
70	Oscillation of dynamic conductance of $\langle \text{Al-C} \rangle$ Nonequilibrium Green's function and density functional theory study. Physical Review B, 2009, 79, .	3.2	25