

Zhi-Gang

List of Publications by Year in descending order

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109
papers

3,582
citations

147801

31
h-index

144013

57
g-index

112
all docs

112
docs citations

112
times ranked

3805
citing authors

#	ARTICLE	IF	CITATIONS
1	Spin diffusion and injection in semiconductor structures: Electric field effects. <i>Physical Review B</i> , 2002, 66, .	3.2	201
2	Experimental demonstration of a broadband all-dielectric metamaterial perfect reflector. <i>Applied Physics Letters</i> , 2014, 104, .	3.3	201
3	Variable Range Hopping and Electrical Conductivity along the DNA Double Helix. <i>Physical Review Letters</i> , 2001, 86, 6018-6021.	7.8	191
4	Spin-polarized exciton quantum beating in hybrid organic-inorganic perovskites. <i>Nature Physics</i> , 2017, 13, 894-899.	16.7	184
5	Electric-field dependent spin diffusion and spin injection into semiconductors. <i>Physical Review B</i> , 2002, 66, .	3.2	169
6	Molecular Geometry Fluctuation Model for the Mobility of Conjugated Polymers. <i>Physical Review Letters</i> , 2000, 84, 721-724.	7.8	155
7	Very Large Magnetoresistance in Lateral Ferromagnetic (Ga,Mn)As Wires with Nanoconstrictions. <i>Physical Review Letters</i> , 2003, 91, 216602.	7.8	146
8	Molecular geometry fluctuations and field-dependent mobility in conjugated polymers. <i>Physical Review B</i> , 2001, 63, .	3.2	143
9	Effective-mass model and magneto-optical properties in hybrid perovskites. <i>Scientific Reports</i> , 2016, 6, 28576.	3.3	120
10	Spin-Orbit Coupling, Spin Relaxation, and Spin Diffusion in Organic Solids. <i>Physical Review Letters</i> , 2011, 106, 106602.	7.8	117
11	Perfect dielectric-metamaterial reflector. <i>Physical Review B</i> , 2013, 88, .	3.2	111
12	Theory of semiconductor magnetic bipolar transistors. <i>Applied Physics Letters</i> , 2003, 82, 4740-4742.	3.3	90
13	Spin-orbit coupling and its effects in organic solids. <i>Physical Review B</i> , 2012, 85, .	3.2	84
14	Rashba Effect and Carrier Mobility in Hybrid Organic-Inorganic Perovskites. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 3078-3083.	4.6	62
15	Suppression of the Hanle Effect in Organic Spintronic Devices. <i>Physical Review Letters</i> , 2013, 111, 016601.	7.8	60
16	Charge Ordering and Long-Range Interactions in Layered Transition Metal Oxides. <i>Physical Review Letters</i> , 1999, 82, 4679-4682.	7.8	57
17	Magnetic field effects on excited states, charge transport, and electrical polarization in organic semiconductors in spin and orbital regimes. <i>Advances in Physics</i> , 2019, 68, 49-121.	14.4	57
18	Generalized effective-medium theory for metamaterials. <i>Physical Review B</i> , 2014, 89, .	3.2	52

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19	Impurity-band transport in organic spin valves. <i>Nature Communications</i> , 2014, 5, 4842.	12.8	51
20	Origin of ferromagnetism in semiconducting $(\text{In}_{1-x}\text{Fe}_x\text{Cu})_2\text{O}_3$. <i>Physical Review B</i> , 2006, 74, .	3.2	47
21	Detection of Rashba spin splitting in 2D organic-inorganic perovskite via precessional carrier spin relaxation. <i>APL Materials</i> , 2019, 7, 081116.	5.1	46
22	Minority carrier lifetimes in HgCdTe alloys. <i>Journal of Electronic Materials</i> , 2006, 35, 1369-1378.	2.2	43
23	Spin relaxation of electrons and holes in zinc-blende semiconductors. <i>Physical Review B</i> , 2005, 71, .	3.2	42
24	High-Pressure Crystal Structures of an Insensitive Energetic Crystal: 1,1-Diamino-2,2-dinitroethene. <i>Journal of Physical Chemistry C</i> , 2016, 120, 1218-1224.	3.1	42
25	Charge ordering and long-range interactions in layered transition metal oxides: A quasiclassical continuum study. <i>Physical Review B</i> , 2000, 62, 4353-4369.	3.2	40
26	Temperature- and wavelength-dependent two-photon and free-carrier absorption in GaAs, InP, GaInAs, and InAsP. <i>Journal of Applied Physics</i> , 2011, 109, .	2.5	40
27	Chirality-Induced Spin-Orbit Coupling, Spin Transport, and Natural Optical Activity in Hybrid Organic-Inorganic Perovskites. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 8638-8646.	4.6	40
28	Hyperfine interaction and its effects on spin dynamics in organic solids. <i>Physical Review B</i> , 2013, 87, .	3.2	38
29	The Rashba effect and indirect electron-hole recombination in hybrid organic-inorganic perovskites. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 14907-14912.	2.8	34
30	Green's function approach for a dynamical study of transport in metal/organic/metal structures. <i>Physical Review B</i> , 1999, 59, 16001-16010.	3.2	32
31	Spin drift, spin precession, and magnetoresistance of noncollinear magnet-polymer-magnet structures. <i>Physical Review B</i> , 2005, 71, .	3.2	31
32	Rashba splitting in organic-inorganic lead-halide perovskites revealed through two-photon absorption spectroscopy. <i>Nature Communications</i> , 2022, 13, 483.	12.8	31
33	Model for minority carrier lifetimes in doped HgCdTe. <i>Journal of Electronic Materials</i> , 2005, 34, 873-879.	2.2	28
34	Spin Gunn Effect. <i>Physical Review Letters</i> , 2006, 96, 026602.	7.8	28
35	High-Pressure Structural Response of an Insensitive Energetic Crystal: Dihydroxylammonium 5,5'-Bistetrazole-1,1'-diolate (TKX-50). <i>Journal of Physical Chemistry C</i> , 2017, 121, 5761-5767.	3.1	28
36	Excitons, biexcitons, and the band gap in poly(p-phenylene vinylene). <i>Physical Review B</i> , 1995, 52, 4849-4854.	3.2	27

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37	Recent progress towards the development of ferromagnetic nitride semiconductors for spintronic applications. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2006, 203, 2729-2737.	1.8	27
38	Stability of bipolarons in conjugated polymers. <i>Optical Materials</i> , 1998, 9, 502-506.	3.6	26
39	Core-Shell Nanorods for Efficient Photoelectrochemical Hydrogen Production. <i>Journal of Physical Chemistry B</i> , 2005, 109, 22913-22919.	2.6	26
40	Field-induced spin splitting and anomalous photoluminescence circular polarization in $C_3N_3H_3$.	3.2	26
41	Charge localization and stripes in a two-dimensional three-band Peierls-Hubbard model. <i>Physical Review B</i> , 1998, 57, R3241-R3244.	3.2	25
42	Photodefined In-Plane Heterostructures in Two-Dimensional In_2Se_3 Nanolayers for Ultrathin Photodiodes. <i>ACS Applied Nano Materials</i> , 2019, 2, 6774-6782.	5.0	25
43	Metasurface polarization splitter. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2017, 375, 20160072.	3.4	23
44	Spatially correlated fluctuations and coherence dynamics in photosynthesis. <i>Physical Review E</i> , 2008, 78, 050902.	2.1	22
45	High-Pressure Structural Response of an Insensitive Energetic Crystal: 1,1-Diamino-2,2-dinitroethene (FOX-7). <i>Journal of Physical Chemistry C</i> , 2016, 120, 27600-27607.	3.1	22
46	Photoexcited-carrier-induced refractive index change in small bandgap semiconductors. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2006, 23, 2356.	2.1	21
47	Magnetic-field manipulation of circularly polarized photoluminescence in chiral perovskites. <i>Materials Horizons</i> , 2022, 9, 740-747.	12.2	21
48	Anharmonic Phonon Coupling in Single-Crystal Semiconducting and Metal-Like van der Waals In_2Se_3 . <i>Journal of Physical Chemistry C</i> , 2018, 122, 22849-22855.	3.1	20
49	Accurate evaluation of nonlinear absorption coefficients in InAs, InSb, and HgCdTe alloys. <i>Journal of Applied Physics</i> , 2007, 101, 113104.	2.5	19
50	Stability of bipolarons in conjugated polymers. <i>Synthetic Metals</i> , 1999, 101, 325-326.	3.9	18
51	Controlling Magnetoresistance by Oxygen Impurities in Mq_3 -Based Molecular Spin Valves. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 8319-8326.	8.0	18
52	Effects of lattice fluctuations on electronic transmission in metal/conjugated-oligomer/metal structures. <i>Physical Review B</i> , 1997, 56, 6494-6497.	3.2	17
53	Organic magnetic-field-effect transistors and ultrasensitive magnetometers. <i>Journal of Applied Physics</i> , 2005, 97, 024510.	2.5	17
54	Signatures of stripe phases in hole-doped La_2NiO_4 . <i>Physical Review B</i> , 1998, 58, 503-513.	3.2	16

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55	Spin Hall Effect in Disordered Organic Solids. <i>Physical Review Letters</i> , 2015, 115, 026601.	7.8	16
56	Tuning of spin-orbit coupling in metal-free conjugated polymers by structural conformation. <i>Physical Review Materials</i> , 2020, 4, .	2.4	16
57	Large magnetoresistance of thick polymer devices having La _{0.67} Sr _{0.33} MnO ₃ electrodes. <i>Applied Physics Letters</i> , 2009, 95, .	3.3	15
58	Charge localization and phonon spectra in hole-doped La ₂ NiO ₄ . <i>Journal of Physics Condensed Matter</i> , 2000, 12, L317-L322.	1.8	13
59	Optical deformation potential and self-trapped excitons in 2D hybrid perovskites. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 22293-22301.	2.8	13
60	Excitons in two coupled conjugated polymer chains. <i>Journal of Physics Condensed Matter</i> , 1996, 8, 8847-8857.	1.8	12
61	Fabrication of highly spin-polarized Co ₂ FeAl _{0.5} Si _{0.5} thin-films. <i>APL Materials</i> , 2014, 2, .	5.1	12
62	Estimation of the Rashba Strength from Second Harmonic Generation in 2D and 3D Hybrid Organic-Inorganic Perovskites. <i>Journal of Physical Chemistry C</i> , 2018, 122, 29607-29612.	3.1	12
63	Oscillatory Magnetic Circular Dichroism of Free-Carrier Absorption and Determination of the Rashba Dispersions in Hybrid Organic-Inorganic Perovskites. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 1-7.	4.6	11
64	Vibrational edge modes in intrinsically heterogeneous doped transition metal oxides. <i>Physical Review B</i> , 2004, 70, .	3.2	10
65	Fluorescent resonant energy transfer: Correlated fluctuations of donor and acceptor. <i>Journal of Chemical Physics</i> , 2007, 127, 221101.	3.0	10
66	Microscopic theory of electron spin relaxation in N@ C_{60} . <i>Physical Review B</i> , 2008, 77, .	3.2	10
67	A designing principle for low dark-current strained layer superlattices. <i>Applied Physics Letters</i> , 2017, 110, 021113.	3.3	10
68	Plasmonic circular dichroism of vesicle-like nanostructures by the template-less self-assembly of achiral Janus nanoparticles. <i>Nanoscale</i> , 2018, 10, 14586-14593.	5.6	10
69	Ultrafast acoustic phonon scattering in CH ₃ NH ₃ PbI ₃ revealed by femtosecond four-wave mixing. <i>Journal of Chemical Physics</i> , 2019, 151, 144702.	3.0	10
70	Exciton-acoustic phonon coupling revealed by resonant excitation of single perovskite nanocrystals. <i>Nature Communications</i> , 2021, 12, 2192.	12.8	10
71	The role of heavy metal ions on spin transport in organic semiconductors. <i>New Journal of Physics</i> , 2015, 17, 013004.	2.9	9
72	Transition from Doublet to Triplet Excitons in Single Perovskite Nanocrystals. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 5750-5755.	4.6	9

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73	Excitons in quasi-one-dimensional organics: Strong correlation approximation. <i>Physical Review B</i> , 1997, 56, 3697-3716.	3.2	8
74	High intensity light propagation in InAs. <i>Applied Physics Letters</i> , 2006, 89, 161108.	3.3	8
75	Excitons in Orthorhombic and Tetragonal Hybrid Organic-Inorganic Perovskites. <i>Journal of Physical Chemistry C</i> , 2017, 121, 3156-3160.	3.1	8
76	Unraveling the Spin Relaxation Mechanism in Hybrid Organic-Inorganic Perovskites. <i>Journal of Physical Chemistry C</i> , 2019, 123, 14701-14706.	3.1	7
77	Electron interaction and energy gap of CDW in MX complex. <i>Synthetic Metals</i> , 1995, 70, 1199-1200.	3.9	6
78	Formation energies of native point defects in strained-layer superlattices. <i>AIP Advances</i> , 2017, 7, 065203.	1.3	6
79	Dynamics of electronic transport in metal/organic/metal structures. <i>Journal of Physics Condensed Matter</i> , 1999, 11, L7-L14.	1.8	5
80	Transfer lengths and spin injection from a three-dimensional ferromagnet into graphene. <i>Physical Review B</i> , 2010, 82, .	3.2	5
81	Inter-triplet spin-spin interaction effects on inter-conversion between different spin states in intermediate triplet-triplet pairs towards singlet fission. <i>Organic Electronics</i> , 2014, 15, 2168-2172.	2.6	5
82	Hybrid Hamiltonian and Green's Function Approach for Studying Native Point Defect Levels in Semiconductor Compounds and Superlattices. <i>Journal of Electronic Materials</i> , 2016, 45, 4574-4579.	2.2	5
83	Theoretical study of native point defects in strained-layer superlattice systems. <i>Journal of Applied Physics</i> , 2018, 123, 161414.	2.5	5
84	Quantized Exciton Motion and Fine Energy-Level Structure of a Single Perovskite Nanowire. <i>Nano Letters</i> , 2022, 22, 2907-2914.	9.1	5
85	Effect of electron correlation on vibrational frequencies of Agmodes in C60. <i>Physical Review B</i> , 1995, 51, 7451-7455.	3.2	4
86	Low-energy magnetic excitations in. <i>Journal of Physics Condensed Matter</i> , 1998, 10, L437-L443.	1.8	4
87	The effect of electron correlation on the bond structure of C60. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1994, 190, 185-188.	2.1	3
88	Electrically controlled g factor and magnetism in conjugated metallorganic molecules. <i>Physical Review B</i> , 2008, 78, .	3.2	3
89	Noninvasive electrical detection of electron spin dynamics at the N atom in N@C60. <i>Journal of Physics Condensed Matter</i> , 2010, 22, 295305.	1.8	3
90	Green's function-based defect identification in InAs-InAs _{1-x} Sb _x strained layer superlattices. <i>AIP Advances</i> , 2017, 7, .	1.3	3

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91	Omnidirectional exciton diffusion in quasi-2D hybrid organic-inorganic perovskites. Journal of Chemical Physics, 2022, 156, 124706.	3.0	3
92	Electron correlation in the charge-density wave state of MX complexes. Journal of Physics Condensed Matter, 1994, 6, 6773-6782.	1.8	2
93	Effects of electron correlation on the band gap of a chain of halogen-bridged transition-metal compounds. Physical Review B, 1994, 50, 18633-18636.	3.2	2
94	Electronic transmission in conjugated-oligomer tunnel structures: effects of lattice fluctuations. Journal of Physics Condensed Matter, 1998, 10, 617-638.	1.8	2
95	Mesoscale Charge-Ordering in Transition Metal Oxides: Formation and Signatures. Journal of Superconductivity and Novel Magnetism, 1999, 12, 209-213.	0.5	2
96	Polarizability fluctuations in dielectric materials with quenched disorder. Physical Review E, 2000, 62, 4698-4701.	2.1	2
97	Spin relaxation and diffusion in disordered organic solids. Journal of Photonics for Energy, 2018, 8, 1.	1.3	2
98	Intersubband coulomb scattering effect on high-field hot-electron transport in a quantum wire. Physica Status Solidi (B): Basic Research, 1994, 183, 529-538.	1.5	1
99	Title is missing!. Journal of Superconductivity and Novel Magnetism, 2003, 16, 233-236.	0.5	1
100	Device Physics and Spin Transport in Organic Spin Valves. Materials and Energy, 2018, , 173-223.	0.1	1
101	Triplet exciton fine structure in Pt-rich polymers studied by circularly polarized emission under high magnetic field. Physical Review B, 2018, 98, .	3.2	1
102	Resonant free-carrier absorption in 2D hybrid organic-inorganic perovskites: The Rashba effect or small polarons?. Journal of Chemical Physics, 2019, 151, 204106.	3.0	1
103	Material considerations for current and next generation microbolometer technology. , 2018, , .		1
104	Prediction of Shockley-Read-Hall Centers in Strained Layer Superlattices for Mid-Wave Infrared Photodetectors. Journal of Electronic Materials, 0, , .	2.2	1
105	Ground State and Band Gap of MX complex. Communications in Theoretical Physics, 1994, 21, 385-390.	2.5	0
106	Effect of Lattice Quantum Fluctuation on CDW of MX Solids. Communications in Theoretical Physics, 1996, 25, 385-390.	2.5	0
107	Core-Shell Nanorods for Efficient Photoelectrochemical Hydrogen Production. Materials Research Society Symposia Proceedings, 2005, 885, 1.	0.1	0
108	Spin-orbit coupling, spin relaxation, and spin diffusion in organic solids. , 2011, , .		0

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109	Excitons in Hybrid Organic-Inorganic Perovskites. , 2022, , 195-239.		0