

Zengwei Zhu

List of Publications by Year in descending order

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62
papers

3,420
citations

218677

26
h-index

138484

58
g-index

62
all docs

62
docs citations

62
times ranked

4708
citing authors

#	ARTICLE	IF	CITATIONS
1	Thorium-doping-induced superconductivity up to 56 K in $Gd_xTh_{1-x}FeAsO$. Europhysics Letters, 2008, 83, 67006.	2.0	576
2	Quantum Hall effect in black phosphorus two-dimensional electron system. Nature Nanotechnology, 2016, 11, 593-597.	31.5	356
3	Field-induced polarization of Dirac valleys in bismuth. Nature Physics, 2012, 8, 89-94.	16.7	240
4	Anomalous Nernst and Righi-Leduc Effects in Mn_3Sb_2 : Berry Curvature and Entropy Flow. Physical Review Letters, 2017, 119, 056601.	7.8	212
5	Quantum Oscillations, Thermoelectric Coefficients, and the Fermi Surface of Semimetallic WTe_2 . Physical Review Letters, 2015, 114, 176601.	7.8	198
6	Antiferromagnetic transition in $EuFe_2As_2$: A possible parent compound for superconductors. Physical Review B, 2008, 78, .	2.4	185
7	A piezoelectric, strain-controlled antiferromagnetic memory insensitive to magnetic fields. Nature Nanotechnology, 2019, 14, 131-136.	31.5	150
8	Observation of the antiferromagnetic spin Hall effect. Nature Materials, 2021, 20, 800-804.	27.5	113
9	Metamagnetic transition in $EuFe_2As_2$ single crystals. New Journal of Physics, 2009, 11, 025007.	2.9	109
10	Fermi Surface of the Most Dilute Superconductor. Physical Review X, 2013, 3, .	8.9	91
11	Phonon Thermal Hall Effect in Strontium Titanate. Physical Review Letters, 2020, 124, 105901.	7.8	82
12	Angle-resolved Landau spectrum of electrons and holes in bismuth. Physical Review B, 2011, 84, .	3.2	69
13	Nernst effect and dimensionality in the quantum limit. Nature Physics, 2010, 6, 26-29.	16.7	68
14	Anomalous transverse response of Co_2MnSi and universality of the room-temperature $\hat{\mu}_\pm$. Physical Review B, 2020, 101, .	3.2	59
15	Chiral domain walls of Mn_3Sn and their memory. Nature Communications, 2019, 10, 3021.	12.8	58
16	Finite-temperature violation of the anomalous transverse Wiedemann-Franz law. Science Advances, 2020, 6, eaaz3522.	10.3	50
17	Intrinsic Anomalous Nernst Effect Amplified by Disorder in a Half-Metallic Semimetal. Physical Review X, 2019, 9, .	8.9	45
18	Surface superconductivity in the type II Weyl semimetal $TaIrTe_4$. National Science Review, 2020, 7, 579-587.	9.5	39

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19	Two-band and pauli-limiting effects on the upper critical field of 112-type iron pnictide superconductors. Scientific Reports, 2017, 7, 45943.	3.3	37
20	Magnetic exchange induced Weyl state in a semimetal EuCd ₂ Sb ₂ . APL Materials, 2020, 8, .	5.1	37
21	Origin of the Large Anisotropic g Factor of Holes in Bismuth. Physical Review Letters, 2015, 115, 216401.	7.8	34
22	Emptying Dirac valleys in bismuth using high magnetic fields. Nature Communications, 2017, 8, 15297.	12.8	34
23	Anomalous Hall Effect, Robust Negative Magnetoresistance, and Memory Devices Based on a Noncollinear Antiferromagnetic Metal. ACS Nano, 2020, 14, 6242-6248.	14.6	34
24	Phase diagram of bismuth in the extreme quantum limit. Nature Communications, 2010, 1, 47.	12.8	32
25	Landau spectrum and twin boundaries of bismuth in the extreme quantum limit. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 14813-14818.	7.1	31
26	Temperature and angular dependence of the upper critical field in KCr_2Sb_3 . Physical Review B, 2017, 95, .	3.2	28
27	Strong Pauli paramagnetic effect in the upper critical field of KCa ₂ Fe ₄ As ₄ F ₂ . Science China: Physics, Mechanics and Astronomy, 2020, 63, .	5.1	28
28	Magnetoresistance of semimetals: The case of antimony. Physical Review Materials, 2018, 2, .	2.4	26
29	Momentum-space and real-space Berry curvatures in Mn ₃ Sn. , 2018, 5, .		25
30	Anisotropic inelastic scattering and its interplay with superconductivity in URu_2Si_2 . Physical Review B, 2009, 80, .	3.2	24
31	Magnetoresistance and valley degree of freedom in bulk bismuth. Journal of Physics Condensed Matter, 2018, 30, 313001.	1.8	24
32	Enhanced electron correlations in the binary stannide $PdSn_4$: A homologue of the Dirac nodal arc semimetal $PtSn_4$. Physical Review B, 2020, 102, .	2.4	22
33	Anisotropic Transport and Quantum Oscillations in the Quasi-One-Dimensional TaNiTe ₅ : Evidence for the Nontrivial Band Topology. Journal of Physical Chemistry Letters, 2020, 11, 7782-7789.	4.6	21
34	Magnetic field tuning of an excitonic insulator between the weak and strong coupling regimes in quantum limit graphite. Scientific Reports, 2017, 7, 1733.	3.3	20
35	Eightfold fermionic excitation in a charge density wave compound. Physical Review B, 2020, 102, .	3.2	20
36	The pulsed high magnetic field facility and scientific research at Wuhan National High Magnetic Field Center. Matter and Radiation at Extremes, 2017, 2, 278-286.	3.9	18

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37	Bulk Fermi surface of the layered superconductor TaS_3 with three-dimensional strong topological state. <i>Physical Review B</i> , 2020, 101, .	3.2	16
38	A Monomaterial Nernst Thermopile with Hermaphroditic Legs. <i>Advanced Materials</i> , 2021, 33, e2100751.	21.0	16
39	Nernst Response of the Landau Tubes in Graphite across the Quantum Limit. <i>Physical Review Letters</i> , 2011, 106, 246405.	7.8	13
40	Fermi surface and carrier compensation of pyrite-type PtBi_2 revealed by quantum oscillations. <i>Physical Review B</i> , 2018, 98, .	3.2	13
41	Weyl Semimetal States Generated Extraordinary Quasi-Linear Magnetoresistance and Nernst Thermoelectric Power Factor in Polycrystalline NbP . <i>Advanced Functional Materials</i> , 2022, 32, .	14.9	13
42	Quantum oscillations, magnetic breakdown and thermal Hall effect in $\text{Co}_3\text{Sn}_2\text{S}_2$. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 454003.	2.8	12
43	Zeeman effect of the topological surface states revealed by quantum oscillations up to 91 Tesla. <i>Physical Review B</i> , 2015, 92, .	3.2	11
44	Angle-dependent magnetoresistance and its implications for Lifshitz transition in W_2As_3 . <i>Npj Quantum Materials</i> , 2019, 4, .	5.2	11
45	Unconventional quantum vortex matter state hosts quantum oscillations in the underdoped high-temperature cuprate superconductors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	10
46	Magnetic-field-induced metal-insulator quantum phase transition in CaFeAsF near the quantum limit. <i>Science China: Physics, Mechanics and Astronomy</i> , 2018, 61, 1.	5.1	9
47	Critical point for Bose-Einstein condensation of excitons in graphite. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 30215-30219.	7.1	9
48	Thermal conductivity of bulk InO_3 single crystals. <i>Physical Review Materials</i> , 2021, 5, .	2.4	9
49	A comparative study on the thermoelectric effect of parent oxypnictides LaTAsO ($T = \text{Fe, Ni}$). <i>Journal of Physics Condensed Matter</i> , 2010, 22, 072201.	1.8	8
50	Quantum transport in a compensated semimetal WAs_3 with nontrivial topological indices. <i>Physical Review B</i> , 2018, 98, .	3.2	8
51	Graphite in 90ÅT: Evidence for Strong-Coupling Excitonic Pairing. <i>Physical Review X</i> , 2019, 9, .	8.9	8
52	Comparative study of superconducting and normal-state anisotropy in FeCo superconductors with controlled amounts of interstitial excess Fe. <i>Physical Review B</i> , 2021, 103, .	10.2	8
53	PrBi : Topology meets quadrupolar degrees of freedom. <i>Physical Review B</i> , 2020, 101, .	3.2	7
54	Hard antinodal gap revealed by quantum oscillations in the pseudogap regime of underdoped high- T_c superconductors. <i>Nature Physics</i> , 2020, 16, 841-847.	16.7	7

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55	Planar Hall effect caused by the memory of antiferromagnetic domain walls in Mn ₃ Ge. Applied Physics Letters, 2020, 117, .	3.3	7
56	Nernst quantum oscillations in bulk semi-metals. Journal of Physics Condensed Matter, 2011, 23, 094204.	1.8	6
57	Large magnetoresistance and quantum oscillations of a ternary boride MoAlB single crystal. Physical Review B, 2020, 102, .	3.2	6
58	Coupling between antiferromagnetic and spin-glass orders in the quasi-one-dimensional iron telluride TaFe _{1+x} Te ₃ (x=0.25). Physical Review B, 2021, 104, .	3.2	6
59	Unconventional Antiferromagnetic Quantum Critical Point in Ba(Fe _{0.97} Cr _{0.03}) ₂ (As _{1-x} P _x) ₂ . Physical Review Letters, 2019, 122, 037001.	7.8	4
60	Anisotropic critical current density and flux pinning mechanism of Fe _{1+y} Te _{0.6} Se _{0.4} single crystals. Superconductor Science and Technology, 2022, 35, 015002.	3.5	4
61	Superconductivity in PtPb with possible nontrivial band topology. Physical Review B, 2021, 104, .		
62	Anisotropic Fermi Surfaces, Electrical Transport, and Two-Dimensional Fermi Liquid Behavior in Layered Ternary Boride MoAlB. Chinese Physics Letters, 2022, 39, 057102.	3.3	1