

Faxian Xiu

List of Publications by Year in descending order

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Version: 2024-02-01

88
papers

4,956
citations

87723

38
h-index

91712

69
g-index

90
all docs

90
docs citations

90
times ranked

7188
citing authors

#	ARTICLE	IF	CITATIONS
1	Manipulating surface states in topological insulator nanoribbons. <i>Nature Nanotechnology</i> , 2011, 6, 216-221.	15.6	382
2	ReS ₂ -Based Field-Effect Transistors and Photodetectors. <i>Advanced Functional Materials</i> , 2015, 25, 4076-4082.	7.8	282
3	Tunable Ambipolar Polarization-Sensitive Photodetectors Based on High-Anisotropy ReSe ₂ Nanosheets. <i>ACS Nano</i> , 2016, 10, 8067-8077.	7.3	276
4	Enhancing Perovskite Solar Cell Performance by Interface Engineering Using CH ₃ NH ₃ PbBr _{0.9} I _{0.1} Quantum Dots. <i>Journal of the American Chemical Society</i> , 2016, 138, 8581-8587.	6.6	232
5	Arrayed Van Der Waals Broadband Detectors for Dual-Band Detection. <i>Advanced Materials</i> , 2017, 29, 1604439.	11.1	218
6	Quantum Hall effect based on Weyl orbits in Cd ₃ As ₂ . <i>Nature</i> , 2019, 565, 331-336.	13.7	194
7	A robust and tuneable mid-infrared optical switch enabled by bulk Dirac fermions. <i>Nature Communications</i> , 2017, 8, 14111.	5.8	174
8	Electrical spin injection and transport in germanium. <i>Physical Review B</i> , 2011, 84, .	1.1	158
9	Wafer-scale two-dimensional ferromagnetic Fe ₃ GeTe ₂ thin films grown by molecular beam epitaxy. <i>Npj 2D Materials and Applications</i> , 2017, 1, .	3.9	157
10	Zeeman splitting and dynamical mass generation in Dirac semimetal ZrTe ₅ . <i>Nature Communications</i> , 2016, 7, 12516.	5.8	149
11	Arrayed van der Waals Vertical Heterostructures Based on 2D GaSe Grown by Molecular Beam Epitaxy. <i>Nano Letters</i> , 2015, 15, 3571-3577.	4.5	146
12	Spin-Valve Effect in NiFe/MoS ₂ /NiFe Junctions. <i>Nano Letters</i> , 2015, 15, 5261-5267.	4.5	135
13	Landau level splitting in Cd ₃ As ₂ under high magnetic fields. <i>Nature Communications</i> , 2015, 6, 7779.	5.8	126
14	Evolution of Weyl orbit and quantum Hall effect in Dirac semimetal Cd ₃ As ₂ . <i>Nature Communications</i> , 2017, 8, 1272.	5.8	118
15	Room-temperature chiral charge pumping in Dirac semimetals. <i>Nature Communications</i> , 2017, 8, 13741.	5.8	113
16	Investigating the origin of Fermi level pinning in Ge Schottky junctions using epitaxially grown ultrathin MgO films. <i>Applied Physics Letters</i> , 2010, 96, .	1.5	111
17	Tunable Positive to Negative Magnetoresistance in Atomically Thin WTe ₂ . <i>Nano Letters</i> , 2017, 17, 878-885.	4.5	92
18	Weak antilocalization in Cd ₃ As ₂ thin films. <i>Scientific Reports</i> , 2016, 6, 22377.	1.6	75

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19	Non-perturbative terahertz high-harmonic generation in the three-dimensional Dirac semimetal Cd ₃ As ₂ . Nature Communications, 2020, 11, 2451.	5.8	69
20	Controllable Schottky Barriers between MoS ₂ and Permalloy. Scientific Reports, 2014, 4, 6928.	1.6	68
21	Gate-tunable quantum oscillations in ambipolar Cd ₃ As ₂ thin films. NPG Asia Materials, 2015, 7, e221-e221.	3.8	68
22	Ultrahigh conductivity in Weyl semimetal NbAs nanobelts. Nature Materials, 2019, 18, 482-488.	13.3	68
23	Magnetotransport Properties of Cd ₃ As ₂ Nanostructures. ACS Nano, 2015, 9, 8843-8850.	7.3	57
24	Enhanced Performance of Wideband Room Temperature Photodetector Based on Cd ₃ As ₂ Thin Film/Pentacene Heterojunction. ACS Photonics, 2018, 5, 3438-3445.	3.2	57
25	Light-Tunable Ferromagnetism in Atomically Thin Fe_3Sn_2 Driven by Femtosecond Laser Pulse. Physical Review Letters, 2020, 125, 267205.	2.9	57
26	Controllable Growth of Vertical Heterostructure GaTe _{1-x} Se _x /Si by Molecular Beam Epitaxy. ACS Nano, 2015, 9, 8592-8598.	7.3	53
27	Metallic nanomesh electrodes with controllable optical properties for organic solar cells. Applied Physics Letters, 2012, 100, .	1.5	51
28	Observation of quasi-two-dimensional Dirac fermions in ZrTe ₅ . NPG Asia Materials, 2016, 8, e325-e325.	3.8	51
29	High-quality Bi ₂ Te ₃ thin films grown on mica substrates for potential optoelectronic applications. Applied Physics Letters, 2013, 103, .	1.5	50
30	Proximity-induced surface superconductivity in Dirac semimetal Cd ₃ As ₂ . Nature Communications, 2019, 10, 2217.	5.8	50
31	Inducing Strong Superconductivity in WTe ₂ by a Proximity Effect. ACS Nano, 2018, 12, 7185-7196.	7.3	48
32	Ultrafast photocarrier dynamics in a 3D Dirac semimetal Cd ₃ As ₂ film studied with terahertz spectroscopy. Applied Physics Letters, 2019, 114, .	1.5	47
33	Terahertz probe of photoexcited carrier dynamics in the Dirac semimetal Cd_3As_2 . Physical Review B, 2018, 98, .	1.5	46
34	High Mobility 3D Dirac Semimetal (Cd ₃ As ₂) for Ultrafast Photoactive Terahertz Photonics. Advanced Functional Materials, 2021, 31, 2011011.	7.8	46
35	Nonreciprocal superconducting NbSe ₂ antenna. Nature Communications, 2020, 11, 5634.	5.8	43
36	Scalable Growth of High Mobility Dirac Semimetal Cd ₃ As ₂ Microbelts. Nano Letters, 2015, 15, 5830-5834.	4.5	41

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37	Wafer-scale arrayed p-n junctions based on few-layer epitaxial GaTe. <i>Nano Research</i> , 2015, 8, 3332-3341.	5.8	41
38	Thickness-dependent quantum oscillations in Cd ₃ As ₂ thin films. <i>New Journal of Physics</i> , 2016, 18, 083003.	1.2	40
39	Direct Observation of Landau Level Resonance and Mass Generation in Dirac Semimetal Cd ₃ As ₂ Thin Films. <i>Nano Letters</i> , 2017, 17, 2211-2219.	4.5	40
40	Two-dimensional ferromagnetic superlattices. <i>National Science Review</i> , 2020, 7, 745-754.	4.6	39
41	The discovery of dynamic chiral anomaly in a Weyl semimetal NbAs. <i>Nature Communications</i> , 2020, 11, 1259.	5.8	38
42	Observations of a Metal-Insulator Transition and Strong Surface States in Bi ₂ Sb ₃ Se ₃ Thin Films. <i>Advanced Materials</i> , 2014, 26, 7110-7115.	11.1	37
43	Chiral Landau levels in Weyl semimetal NbAs with multiple topological carriers. <i>Nature Communications</i> , 2018, 9, 1854.	5.8	37
44	Enhanced thermoelectric properties of the Dirac semimetal Cd ₃ As ₂ . <i>Inorganic Chemistry Frontiers</i> , 2016, 3, 1637-1643.	3.0	34
45	MnGe magnetic nanocolumns and nanowells. <i>Nanotechnology</i> , 2010, 21, 255602.	1.3	31
46	Van der Waals ferromagnetic Josephson junctions. <i>Nature Communications</i> , 2021, 12, 6580.	5.8	31
47	Ultraviolet to Long-Wave Infrared Photodetectors Based on a Three-Dimensional Dirac Semimetal/Organic Thin Film Heterojunction. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 3914-3921.	2.1	29
48	Ultrafast photothermoelectric effect in Dirac semimetallic Cd ₃ As ₂ revealed by terahertz emission. <i>Nature Communications</i> , 2022, 13, 1623.	5.8	29
49	Edge superconductivity in multilayer WTe ₂ Josephson junction. <i>National Science Review</i> , 2020, 7, 1468-1475.	4.6	22
50	Signature of quantum Griffiths singularity state in a layered quasi-one-dimensional superconductor. <i>Nature Communications</i> , 2018, 9, 4656.	5.8	21
51	Third harmonic generation in Dirac semimetal Cd ₃ As ₂ . <i>Applied Physics Letters</i> , 2020, 117, .	1.5	21
52	Towards the manipulation of topological states of matter: a perspective from electron transport. <i>Science Bulletin</i> , 2018, 63, 580-594.	4.3	20
53	Slowing down photocarrier relaxation in Dirac semimetal Cd ₃ As ₂ via Mn doping. <i>Optics Letters</i> , 2019, 44, 4103.	1.7	20
54	Plasmons in the van der Waals charge-density-wave material 2H-TaSe ₂ . <i>Nature Communications</i> , 2021, 12, 386.	5.8	19

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55	Various and Tunable Transport Properties of WSe ₂ Transistor Formed by Metal Contacts. Small, 2017, 13, 1604319.	5.2	17
56	Superconductivity and magnetotransport of single-crystalline NbSe ₂ nanoplates grown by chemical vapour deposition. Nanoscale, 2017, 9, 16591-16595.	2.8	17
57	Anomalous Spin Behavior in Fe ₃ GeTe ₂ Driven by Current Pulses. ACS Nano, 2020, 14, 9512-9520.	7.3	17
58	Cycling Fermi arc electrons with Weyl orbits. Nature Reviews Physics, 2021, 3, 660-670.	11.9	17
59	Generation of nitrogen acceptors in ZnO using pulse thermal processing. Applied Physics Letters, 2008, 92, 151112.	1.5	16
60	Atomic disorders in layer structured topological insulator SnBi ₂ Te ₄ nanoplates. Nano Research, 2018, 11, 696-706.	5.8	16
61	Surface-energy engineered Bi-doped SnTe nanoribbons with weak antilocalization effect and linear magnetoresistance. Nanoscale, 2016, 8, 19383-19389.	2.8	15
62	Gate-Tunable Surface States in Topological Insulator $\hat{\Gamma}^2$ -Ag ₂ Te with High Mobility. Nano Letters, 2020, 20, 7004-7010.	4.5	15
63	Tadpole shaped Ge _{0.96} Mn _{0.04} magnetic semiconductors grown on Si. Applied Physics Letters, 2010, 96, 051905.	1.5	14
64	Evidence for pressure-induced node-pair annihilation in $Cd_3Mn_2S_8$. Physical Review Research, 2022, 4, .	1.1	14
65	Giant nonlinear anomalous Hall effect induced by spin-dependent band structure evolution. Physical Review Research, 2022, 4, .	1.3	14
66	Cr metal thin film memory. Journal of Applied Physics, 2011, 110, .	1.1	12
67	Weyl Semiconductor Te/Sb ₂ Se ₃ Heterostructure for Broadband Photodetection and Its Binary Photoresponse by C ₆₀ as Charge Regulation Medium. Advanced Optical Materials, 2021, 9, 2101256.	3.6	12
68	Cr doping induced negative transverse magnetoresistance in Cd ₃ As ₂ thin films. Physical Review B, 2018, 97, .	1.1	11
69	A 3D topological Dirac semimetal/MoO ₃ thin film heterojunction infrared photodetector with a current reversal phenomenon. Journal of Materials Chemistry C, 2020, 8, 16024-16031.	2.7	10
70	Ultrathin and flexible hybrid films decorated by copper nanoparticles with a sandwich-like structure for electromagnetic interference shielding. Materials Chemistry Frontiers, 2022, 6, 2256-2265.	3.2	9
71	3D Dirac semimetal Cd ₃ As ₂ /CuPc heterojunction for promoted visible-infrared photo-detection. Optical Materials, 2021, 111, 110699.	1.7	8
72	Tuning 2D magnetism in Fe ₃ XGeTe ₂ films by element doping. National Science Review, 2022, 9, .	4.6	7

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73	Quasi-1D van der Waals Antiferromagnetic CrZr ₄ Te ₁₄ with Large In-Plane Anisotropic Negative Magnetoresistance. <i>Advanced Materials</i> , 2022, 34, e2200145.	11.1	7
74	Voltage-controlled ferromagnetic order in MnGe quantum dots. <i>Nanotechnology</i> , 2010, 21, 375606.	1.3	6
75	Tunable Terahertz Plasmons in Graphite Thin Films. <i>Physical Review Letters</i> , 2021, 126, 147401.	2.9	6
76	Controllable Domain Walls in Two-Dimensional Ferromagnetic Material Fe ₃ GeTe ₂ Based on the Spin-Transfer Torque Effect. <i>ACS Nano</i> , 2021, 15, 19513-19521.	7.3	6
77	Large Hall angle-driven magneto-transport phenomena in topological Dirac semimetal Cd ₃ As ₂ . <i>Applied Physics Letters</i> , 2018, 113, .	1.5	4
78	Magnetic-Field-Induced Re-entrance of Superconductivity in Ta ₂ Pd ₅ Nanostrips. <i>Nano Letters</i> , 2021, 21, 288-297.	4.5	3
79	Unconventional Landau level transitions in Weyl semimetal NbP. <i>Physical Review Materials</i> , 2022, 6, .	0.9	3
80	Coherent diffraction rings induced by thermal-mechanical effect of a flexible Dirac semimetallic composite structure. <i>Journal of Applied Physics</i> , 2021, 129, 093102.	1.1	2
81	Thermoelectric Origin of Giant Nonreciprocal Charge Transport in NbAs Nanobelts. <i>Physical Review Applied</i> , 2021, 15, .	1.5	2
82	Dirac Semimetal Thin-film Mode-locked Fiber Laser. , 2017, , .		2
83	UV photoconductors based on Ga-doped ZnO films. <i>Materials Research Society Symposia Proceedings</i> , 2005, 891, 1.	0.1	1
84	Bulk-Like Magnetic Moment of Epitaxial 2-D Superlattices. <i>IEEE Transactions on Magnetics</i> , 2022, 58, 1-5.	1.2	1
85	Three-dimensional Dirac semimetal Cd ₃ As ₂ as high-performance 2-5 μm saturable absorbers. , 2016, , .		1
86	Magnetic-field-induced nonlinear transport in HfTe ₅ . <i>National Science Review</i> , 0, , .	4.6	1
87	Fermi level depinning of Ge Schottky contacts using single crystalline MgO. , 2009, , .		0
88	Structural characteristics of GeMn diluted magnetic semiconductor nanostructures. , 2012, , .		0