

# Xiao Wang

## List of Publications by Year in descending order

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81  
papers

3,638  
citations

159585

30  
h-index

138484

58  
g-index

84  
all docs

84  
docs citations

84  
times ranked

4239  
citing authors

#	ARTICLE	IF	CITATIONS
1	Manipulating Horizontal Zn Deposition with Graphene Interpenetrated Zn Hybrid Foils for Dendrite-free Aqueous Zinc Ion Batteries. Energy and Environmental Materials, 2023, 6, .	12.8	13
2	Emergent physical properties of perovskite-type oxides prepared under high pressure. Dalton Transactions, 2022, 51, 1745-1753.	3.3	12
3	Field-free Spin-orbit Torque Switching in Perpendicularly Magnetized Synthetic Antiferromagnets. Advanced Functional Materials, 2022, 32, 2109455.	14.9	21
4	Fe <sub>4-x</sub> Ni <sub>x</sub> Nb <sub>2</sub> O <sub>9</sub> (x = 0, 1): Nickel impact on the magnetoelectric properties of Fe <sub>4</sub> Nb <sub>2</sub> O <sub>9</sub> . Solid State Sciences, 2022, 125, 106821.	3.2	1
5	Structure and electrical transport properties in the transition-metal-only perovskite oxide	1.0	1
6	Realization of a Half Metal with a Record-high Curie Temperature in Perovskite Oxides. Advanced Materials, 2022, 34, e2200626.	21.0	16
7	Magnetic Ordering and Structural Transition in the Ordered Double-Perovskite Pb <sub>2</sub> NiMoO <sub>6</sub> . Chemistry of Materials, 2022, 34, 97-106.	6.7	3
8	All 3D Printing Shape-conformable Zinc Ion Hybrid Capacitors with Ultrahigh Areal Capacitance and Improved Cycle Life. Advanced Energy Materials, 2022, 12, .	19.5	18
9	Structure and electrical transport properties in the transition-metal-only perovskite oxide	3.2	12
10	Fe <sub>2</sub> Co <sub>2</sub> Nb <sub>2</sub> O <sub>9</sub> : a magnetoelectric honeycomb antiferromagnet. Journal of Materials Chemistry C, 2021, 9, 14236-14246.	5.5	8
11	The Formation/Decomposition Equilibrium of LiH and its Contribution on Anode Failure in Practical Lithium Metal Batteries. Angewandte Chemie - International Edition, 2021, 60, 7770-7776.	13.8	58
12	The Formation/Decomposition Equilibrium of LiH and its Contribution on Anode Failure in Practical Lithium Metal Batteries. Angewandte Chemie, 2021, 133, 7849-7855.	2.0	18
13	A combinatory ferroelectric compound bridging simple ABO <sub>3</sub> and A-site-ordered quadruple perovskite. Nature Communications, 2021, 12, 747.	12.8	62
14	Observation of novel charge ordering and spin reorientation in perovskite oxide PbFeO <sub>3</sub> . Nature Communications, 2021, 12, 1917.	12.8	17
15	Spin-orbit torques: Materials, physics, and devices. Applied Physics Letters, 2021, 118, .	3.3	100
16	Os Doping Suppressed Cu-Fe Charge Transfer and Induced Structural and Magnetic Phase Transitions in LaCu <sub>3</sub> Fe <sub>4</sub> Os <sub>x</sub> O <sub>12</sub> (x = 1 and 2). Journal of Applied Physics, 2021, 124, 044101.	10.0	10
17	High-pressure synthesis, crystal structure, and properties of iron-based spin-chain compound Ba <sub>9</sub> Fe <sub>3</sub> Se <sub>15</sub> . Physical Review Materials, 2021, 5, .	2.4	5
18	Structural Basis for Selective Oxidation of Phosphorylated Ethylphenols by Cytochrome P450 Monooxygenase CreJ. Applied and Environmental Microbiology, 2021, 87, .	3.1	2

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19	Energy budget and the gravitational wave spectra beyond the bag model. <i>Physical Review D</i> , 2021, 103, .	4.7	18
20	Boosting oxygen reduction activity and enhancing stability through structural transformation of layered lithium manganese oxide. <i>Nature Communications</i> , 2021, 12, 3136.	12.8	25
21	Oxygen defect enriched (NH <sub>4</sub> ) <sub>2</sub> V <sub>10</sub> O <sub>25</sub> ·8H <sub>2</sub> O nanosheets for superior aqueous zinc-ion batteries. <i>Nano Energy</i> , 2021, 84, 105876.	16.0	172
22	Exchange bias and spin-orbit torque in the Fe <sub>3</sub> GeTe <sub>2</sub> -based heterostructures prepared by vacuum exfoliation approach. <i>Applied Physics Letters</i> , 2021, 118, .	3.3	27
23	Manipulating Crystallographic Orientation of Zinc Deposition for Dendrite-free Zinc Ion Batteries. <i>Advanced Energy Materials</i> , 2021, 11, 2101299.	19.5	304
24	Efficient Spin-Orbit-Torque Switching Assisted by an Effective Perpendicular Field in a Magnetic Trilayer. <i>Physical Review Applied</i> , 2021, 16, .	3.8	5
25	Enhancement of Spin-Orbit Torque by Strain Engineering in SrRuO <sub>3</sub> Films. <i>Advanced Functional Materials</i> , 2021, 31, 2100380.	14.9	26
26	Spin State and Spin-State Transition of Co <sup>3+</sup> Ion in BiCoO <sub>3</sub> . <i>Physica Status Solidi (B): Basic Research</i> , 2021, 258, 2100117.	1.5	4
27	Evidence for largest room temperature magnetic signal from Co <sup>2+</sup> in antiphase-free & fully inverted CoFe <sub>2</sub> O <sub>4</sub> in multiferroic-ferrimagnetic BiFeO <sub>3</sub> -CoFe <sub>2</sub> O <sub>4</sub> nanopillar thin films. <i>Journal of Magnetism and Magnetic Materials</i> , 2021, 530, 167940.	2.3	4
28	Current-Induced Manipulation of the Exchange Bias in a Pt/Co/NiO Structure. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 42258-42265.	8.0	7
29	Twisted light induced magnetic anisotropy changes in an interlayer exchange coupling system. <i>Nanoscale Horizons</i> , 2021, 6, 462-467.	8.0	1
30	Magnetic Frustration in a Zeolite. <i>Chemistry of Materials</i> , 2021, 33, 9725-9731.	6.7	1
31	Scalable fabrication of printed Zn//MnO <sub>2</sub> planar micro-batteries with high volumetric energy density and exceptional safety. <i>National Science Review</i> , 2020, 7, 64-72.	9.5	148
32	Porous Graphene Materials: The Chemistry and Promising Applications of Graphene and Porous Graphene Materials ( <i>Adv. Funct. Mater.</i> 41/2020). <i>Advanced Functional Materials</i> , 2020, 30, 2070275.	14.9	48
33	A New Highly Anisotropic Rh-Based Heusler Compound for Magnetic Recording. <i>Advanced Materials</i> , 2020, 32, 2004331.	21.0	18
34	Quadruple perovskite oxide LaCu <sub>3</sub> Co <sub>2</sub> Re <sub>2</sub> O <sub>12</sub> : A ferrimagnetic half metal with nearly 100% B-site degree of order. <i>Applied Physics Letters</i> , 2020, 117, .	3.3	14
35	A High-Energy 5 V-Class Flexible Lithium-Ion Battery Endowed by Laser-Drilled Flexible Integrated Graphite Film. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 9468-9477.	8.0	10
36	Zinc based micro-electrochemical energy storage devices: Present status and future perspective. <i>EcoMat</i> , 2020, 2, e12042.	11.9	34

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37	Room temperature ferromagnetism in ultra-thin van der Waals crystals of 1T-CrTe <sub>2</sub> . Nano Research, 2020, 13, 3358-3363.	10.4	175
38	Enhanced magnetization of the highest- $T_C$ ferrimagnetic oxide $Sr_2O_6$ . Physical Review B, 2020, 102, .	3.2	13
39	Magnetic asymmetry induced anomalous spin-orbit torque in IrMn. Physical Review B, 2020, 101, .	3.2	36
40	Spin-Induced Multiferroic Behavior in Centrosymmetric Mn <sub>3</sub> WO <sub>6</sub> . Chemistry of Materials, 2020, 32, 5664-5669.	6.7	4
41	Gravitational wave and collider signals in complex two-Higgs doublet model with dynamical $C$ -violation at finite temperature. Physical Review D. 2020, 101, .	4.7	33
42	Zinc-Ion Batteries: 2D Amorphous V <sub>2</sub> O <sub>5</sub> /Graphene Heterostructures for High-Safety Aqueous Zn-Ion Batteries with Unprecedented Capacity and Ultrahigh Rate Capability (Adv.) Tj ETOP 0 rg BT /Overlock	19.5	256
43	Characterization of Spin-Orbit Torque Efficiency in Magnetic Heterostructures with Perpendicular Magnetic Anisotropy via Spin-Torque Ferromagnetic Resonance. Physical Review Applied, 2020, 13, .	3.8	22
44	The Chemistry and Promising Applications of Graphene and Porous Graphene Materials. Advanced Functional Materials, 2020, 30, 1909035.	14.9	181
45	2D Amorphous V <sub>2</sub> O <sub>5</sub> /Graphene Heterostructures for High-Safety Aqueous Zn-Ion Batteries with Unprecedented Capacity and Ultrahigh Rate Capability. Advanced Energy Materials, 2020, 10, 2000081.	19.5	256
46	Easy-cone magnetic structure in (Cr <sub>0.9</sub> B <sub>0.1</sub> )Te. Applied Physics Letters, 2020, 116, 102404.	3.3	5
47	High Spin Hall Conductivity in Large-Area Type-II Dirac Semimetal PtTe <sub>2</sub> . Advanced Materials, 2020, 32, e2000513.	21.0	117
48	Hierarchical Ordered Dual-Mesoporous Polypyrrole/Graphene Nanosheets as Bi-Functional Active Materials for High-Performance Planar Integrated System of Micro-Supercapacitor and Gas Sensor. Advanced Functional Materials, 2020, 30, 1909756.	14.9	106
49	Creating zero-field skyrmions in exchange-biased multilayers through X-ray illumination. Nature Communications, 2020, 11, 949.	12.8	67
50	Highly Reversible Cuprous Mediated Cathode Chemistry for Magnesium Batteries. Angewandte Chemie, 2020, 132, 11574-11579.	2.0	14
51	Highly Reversible Cuprous Mediated Cathode Chemistry for Magnesium Batteries. Angewandte Chemie - International Edition, 2020, 59, 11477-11482.	13.8	67
52	Spin transmission in IrMn through measurements of spin Hall magnetoresistance and spin-orbit torque. Physical Review B, 2020, 101, .	3.2	11
53	From antiferromagnetism to high- $T_C$ weak ferromagnetism manipulated by atomic rearrangement in $BaO_3$ . Physical Review Materials, 2020, 4, .	2.4	2
54	Spin glassy behavior and large exchange bias effect in cubic perovskite Ba <sub>0.8</sub> Sr <sub>0.2</sub> FeO <sub>3-<math>\delta</math></sub> . Chinese Physics B, 2019, 28, 068104.	1.4	0

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55	Deciphering the Interface of a High-Voltage (5 V-Class) Li-Ion Battery Containing Additive-Assisted Sulfolane-Based Electrolyte. <i>Small Methods</i> , 2019, 3, 1900546.	8.6	33
56	Near-Room-Temperature Ferrimagnetic Ordering in a B-Site-Disordered 3d <sup>5</sup> -Hybridized Quadruple Perovskite Oxide, CaCu <sub>3</sub> Mn <sub>2</sub> Os <sub>2</sub> O <sub>12</sub> . <i>Inorganic Chemistry</i> , 2019, 58, 15529-15535.	4.0	14
57	Lattice Dynamics, Phonon Chirality, and Spin-Phonon Coupling in 2D Itinerant Ferromagnet Fe <sub>3</sub> GeTe <sub>2</sub> . <i>Advanced Functional Materials</i> , 2019, 29, 1904734.	14.9	70
58	Current-driven magnetization switching in a van der Waals ferromagnet Fe <sub>3</sub> GeTe <sub>2</sub> . <i>Science Advances</i> , 2019, 5, eaaw8904.	10.3	239
59	Advanced Method for the Reliable Estimation of Spin-Orbit-Torque Efficiency in Low-Coercivity Ferromagnetic Multilayers. <i>Physical Review Applied</i> , 2019, 11, .	3.8	7
60	Large spin-orbit torque efficiency enhanced by magnetic structure of collinear antiferromagnet IrMn. <i>Science Advances</i> , 2019, 5, eaau6696.	10.3	70
61	Thermally activated magnetization back-hopping based true random number generator in nano-ring magnetic tunnel junctions. <i>Applied Physics Letters</i> , 2019, 114, .	3.3	6
62	Additive-Assisted Novel Dual-Salt Electrolyte Addresses Wide Temperature Operation of Lithium-Metal Batteries. <i>Small</i> , 2019, 15, e1900269.	10.0	107
63	Coherent Resonant Tunneling through Double Metallic Quantum Well States. <i>Nano Letters</i> , 2019, 19, 3019-3026.	9.1	22
64	Anatomy of Skyrmionic Textures in Magnetic Multilayers. <i>Advanced Materials</i> , 2019, 31, e1807683.	21.0	75
65	High-Temperature Ferrimagnetic Half Metallicity with Wide Spin-up Energy Gap in NaCu <sub>3</sub> Fe <sub>2</sub> Os <sub>2</sub> O <sub>12</sub> . <i>Inorganic Chemistry</i> , 2019, 58, 320-326.	4.0	43
66	Formation of unusual Cr 5+ charge state in CaCr <sub>0.5</sub> Fe <sub>0.5</sub> O <sub>3</sub> perovskite. <i>Chinese Physics B</i> , 2018, 27, 037503.	1.4	1
67	Batteries: Prescribing Functional Additives for Treating the Poor Performances of High-Voltage (5 V) Tj ETQq1 1 0.784314 rgBT /Overload	19.5	10
68	Pentavalent iridium pyrochlore $Cd_2Mn_2O_7$	3.2	8
69	Prescribing Functional Additives for Treating the Poor Performances of High-Voltage (5 V-Class) LiNi <sub>0.5</sub> Mn <sub>1.5</sub> O <sub>4</sub> /MCMB Li-Ion Batteries. <i>Advanced Energy Materials</i> , 2018, 8, 1701398.	19.5	160
70	Tracing the Impact of Hybrid Functional Additives on a High-Voltage (5 V-class) SiO <sub>x</sub> -C/LiNi <sub>0.5</sub> Mn <sub>1.5</sub> O <sub>4</sub> Li-Ion Battery System. <i>Chemistry of Materials</i> , 2018, 30, 8291-8302.	6.7	70
71	Microwave Spin-Torque-Induced Magnetic Resonance in a Nanoring-Shape-Confined Magnetic Tunnel Junction. <i>Physical Review Applied</i> , 2018, 10, .	3.8	7
72	Formation of ZnO <sub>4</sub> Tetrahedra and ZnO <sub>6</sub> Octahedra in TeZnO <sub>3</sub> Synthesized under High Pressure. <i>Inorganic Chemistry</i> , 2018, 57, 6716-6721.	4.0	5

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73	Field-Free Programmable Spin Logics via Chirality-Induced Reversible Spin-Orbit Torque Switching. <i>Advanced Materials</i> , 2018, 30, e1801318.	21.0	91
74	High pressure synthesis and physical properties of multiferroic materials with multiply-ordered perovskite structure. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2018, 67, 157505.	0.5	2
75	Realization of Large Electric Polarization and Strong Magnetoelectric Coupling in $\text{BiMn}_3\text{Cr}_4\text{O}_{12}$ . <i>Advanced Materials</i> , 2017, 29, 1703435.	21.0	50
76	Multiferroics: Realization of Large Electric Polarization and Strong Magnetoelectric Coupling in $\text{BiMn}_3\text{Cr}_4\text{O}_{12}$ (Adv. Mater. 44/2017). <i>Advanced Materials</i> , 2017, 29, .	21.0	5
77	Magnetism and the spin state in cubic perovskite $\text{CaCo}_2\text{O}_3$ synthesized under high pressure. <i>Physical Review Materials</i> , 2017, 1, .	2.4	9
78	High-pressure synthesis and special physical properties of several ordered perovskite structures. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2017, 66, 030201.	0.5	4
79	Strong enhancement of spin ordering by A-site magnetic ions in the ferrimagnet $\text{CaCu}_3\text{O}_7$ .		44
80	$\text{LaMn}_3\text{Ni}_2\text{Mn}_2\text{O}_{12}$ : An A- and B-Site Ordered Quadruple Perovskite with A-Site Tuning Orthogonal Spin Ordering. <i>Chemistry of Materials</i> , 2016, 28, 8988-8996.	6.7	27
81	Observation of Magnetoelectric Multiferroicity in a Cubic Perovskite System: $\text{LaMn}_3\text{O}_{12}$ .	1.05	105