

Xiao Wang

List of Publications by Year in descending order

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81
papers

3,638
citations

159573

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138468

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84
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times ranked

4239
citing authors

#	ARTICLE	IF	CITATIONS
1	Manipulating Crystallographic Orientation of Zinc Deposition for Dendrite-free Zinc Ion Batteries. <i>Advanced Energy Materials</i> , 2021, 11, 2101299.	19.5	304
2	2D Amorphous V_2O_5 /Graphene Heterostructures for High-Safety Aqueous Zn-Ion Batteries with Unprecedented Capacity and Ultrahigh Rate Capability. <i>Advanced Energy Materials</i> , 2020, 10, 2000081.	19.5	256
3	Current-driven magnetization switching in a van der Waals ferromagnet Fe_3GeTe_2 . <i>Science Advances</i> , 2019, 5, eaaw8904.	10.3	239
4	The Chemistry and Promising Applications of Graphene and Porous Graphene Materials. <i>Advanced Functional Materials</i> , 2020, 30, 1909035.	14.9	181
5	Room temperature ferromagnetism in ultra-thin van der Waals crystals of 1T-CrTe ₂ . <i>Nano Research</i> , 2020, 13, 3358-3363.	10.4	175
6	Oxygen defect enriched (NH ₄) ₂ V ₁₀ O ₂₅ ·8H ₂ O nanosheets for superior aqueous zinc-ion batteries. <i>Nano Energy</i> , 2021, 84, 105876.	16.0	172
7	Prescribing Functional Additives for Treating the Poor Performances of High-Voltage (5 V-class) LiNi _{0.5} Mn _{1.5} O ₄ /MCMC Li-Ion Batteries. <i>Advanced Energy Materials</i> , 2018, 8, 1701398.	19.5	160
8	Scalable fabrication of printed Zn/MnO ₂ planar micro-batteries with high volumetric energy density and exceptional safety. <i>National Science Review</i> , 2020, 7, 64-72.	9.5	148
9	High Spin Hall Conductivity in Large-Area Type-II Dirac Semimetal PtTe ₂ . <i>Advanced Materials</i> , 2020, 32, e2000513.	21.0	117
10	Additive-Assisted Novel Dual-Salt Electrolyte Addresses Wide Temperature Operation of Lithium-Metal Batteries. <i>Small</i> , 2019, 15, e1900269.	10.0	107
11	Hierarchical Ordered Dual-Mesoporous Polypyrrole/Graphene Nanosheets as Bifunctional Active Materials for High-Performance Planar Integrated System of Micro-Supercapacitor and Gas Sensor. <i>Advanced Functional Materials</i> , 2020, 30, 1909756.	14.9	106
12	Observation of Magnetoelectric Multiferroicity in a Cubic Perovskite System: LaMnO_3 . <i>Physical Review Letters</i> , 2015, 115, 087601.	17.8	105
13	Spin-orbit torques: Materials, physics, and devices. <i>Applied Physics Letters</i> , 2021, 118, .	3.3	100
14	Field-Free Programmable Spin Logics via Chirality-Reversible Spin-Orbit Torque Switching. <i>Advanced Materials</i> , 2018, 30, e1801318.	21.0	91
15	Anatomy of Skyrmionic Textures in Magnetic Multilayers. <i>Advanced Materials</i> , 2019, 31, e1807683.	21.0	75
16	Tracing the Impact of Hybrid Functional Additives on a High-Voltage (5 V-class) SiO _x -C/LiNi _{0.5} Mn _{1.5} O ₄ Li-Ion Battery System. <i>Chemistry of Materials</i> , 2018, 30, 8291-8302.	6.7	70
17	Lattice Dynamics, Phonon Chirality, and Spin-Phonon Coupling in 2D Itinerant Ferromagnet Fe_3GeTe_2 . <i>Advanced Functional Materials</i> , 2019, 29, 1904734.	14.9	70
18	Large spin-orbit torque efficiency enhanced by magnetic structure of collinear antiferromagnet IrMn. <i>Science Advances</i> , 2019, 5, eaau6696.	10.3	70

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19	Creating zero-field skyrmions in exchange-biased multilayers through X-ray illumination. Nature Communications, 2020, 11, 949.	12.8	67
20	Highly Reversible Cuprous Mediated Cathode Chemistry for Magnesium Batteries. Angewandte Chemie - International Edition, 2020, 59, 11477-11482.	13.8	67
21	A combinatory ferroelectric compound bridging simple ABO ₃ and A-site-ordered quadruple perovskite. Nature Communications, 2021, 12, 747.	12.8	62
22	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
23	Realization of Large Electric Polarization and Strong Magnetoelectric Coupling in BiMn ₃ Cr ₄ O ₁₂ . Advanced Materials, 2017, 29, 1703435.	21.0	50
24	Porous Graphene Materials: The Chemistry and Promising Applications of Graphene and Porous Graphene Materials (Adv. Funct. Mater. 41/2020). Advanced Functional Materials, 2020, 30, 2070275.	14.9	48
25	Strong enhancement of spin ordering by magnetic ions in the ferrimagnet CaC ₃ U ₃ . Physical Review Letters, 2019, 123, 087201.	4.0	44
26	High-Temperature Ferrimagnetic Half Metallicity with Wide Spin-up Energy Gap in NaCu ₃ Fe ₂ Os ₂ O ₁₂ . Inorganic Chemistry, 2019, 58, 320-326.	4.0	43
27	Magnetic asymmetry induced anomalous spin-orbit torque in IrMn. Physical Review B, 2020, 101, .	3.2	36
28	Zinc based micro-electrochemical energy storage devices: Present status and future perspective. EcoMat, 2020, 2, e12042.	11.9	34
29	Deciphering the Interface of a High-Voltage (5 V-Class) Li-ion Battery Containing Additive-Assisted Sulfolane-Based Electrolyte. Small Methods, 2019, 3, 1900546.	8.6	33
30	Gravitational wave and collider signals in complex two-Higgs doublet model with dynamical C&P-violation at finite temperature. Physical Review D, 2020, 101, .	4.7	33
31	LaMn ₃ Ni ₂ Mn ₂ O ₁₂ : An A- and B-Site Ordered Quadruple Perovskite with A-Site Tuning Orthogonal Spin Ordering. Chemistry of Materials, 2016, 28, 8988-8996.	6.7	27
32	Exchange bias and spin-orbit torque in the Fe ₃ GeTe ₂ -based heterostructures prepared by vacuum exfoliation approach. Applied Physics Letters, 2021, 118, .	3.3	27
33	Enhancement of Spin-Orbit Torque by Strain Engineering in SrRuO ₃ Films. Advanced Functional Materials, 2021, 31, 2100380.	14.9	26
34	Boosting oxygen reduction activity and enhancing stability through structural transformation of layered lithium manganese oxide. Nature Communications, 2021, 12, 3136.	12.8	25
35	Coherent Resonant Tunneling through Double Metallic Quantum Well States. Nano Letters, 2019, 19, 3019-3026.	9.1	22
36	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

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37	Field-Free Spin-Orbit Torque Switching in Perpendicularly Magnetized Synthetic Antiferromagnets. <i>Advanced Functional Materials</i> , 2022, 32, 2109455.	14.9	21
38	A New Highly Anisotropic Rh-Based Heusler Compound for Magnetic Recording. <i>Advanced Materials</i> , 2020, 32, 2004331.	21.0	18
39	The Formation/Decomposition Equilibrium of LiH and its Contribution on Anode Failure in Practical Lithium Metal Batteries. <i>Angewandte Chemie</i> , 2021, 133, 7849-7855.	2.0	18
40	Energy budget and the gravitational wave spectra beyond the bag model. <i>Physical Review D</i> , 2021, 103, .	4.7	18
41	All 3D Printing Shape-Conformable Zinc Ion Hybrid Capacitors with Ultrahigh Areal Capacitance and Improved Cycle Life. <i>Advanced Energy Materials</i> , 2022, 12, .	19.5	18
42	Observation of novel charge ordering and spin reorientation in perovskite oxide PbFeO ₃ . <i>Nature Communications</i> , 2021, 12, 1917.	12.8	17
43	Realization of a Half Metal with a Record-High Curie Temperature in Perovskite Oxides. <i>Advanced Materials</i> , 2022, 34, e2200626.	21.0	16
44	Near-Room-Temperature Ferrimagnetic Ordering in a B-Site-Disordered 3d ⁵ -Hybridized Quadruple Perovskite Oxide, CaCu ₃ Mn ₂ Os ₂ O ₁₂ . <i>Inorganic Chemistry</i> , 2019, 58, 15529-15535.	4.0	14
45	Quadruple perovskite oxide LaCu ₃ Co ₂ Re ₂ O ₁₂ : A ferrimagnetic half metal with nearly 100% B-site degree of order. <i>Applied Physics Letters</i> , 2020, 117, .	3.3	14
46	Highly Reversible Cuprous Mediated Cathode Chemistry for Magnesium Batteries. <i>Angewandte Chemie</i> , 2020, 132, 11574-11579.	2.0	14
47	Enhanced magnetization of the highest- T_C ferrimagnetic oxide $Sr_{3.2}Mn_{13}O_6$. <i>Physical Review B</i> , 2020, 102, .	3.2	13
48	Manipulating Horizontal Zn Deposition with Graphene Interpenetrated Zn Hybrid Foils for Dendrite-Free Aqueous Zinc Ion Batteries. <i>Energy and Environmental Materials</i> , 2023, 6, .	12.8	13
49	Observation of -site antiferromagnetic and -site ferrimagnetic orderings in the quadruple perovskite oxide $Ca_3Cu_2O_{12}$. <i>Physical Review B</i> , 2020, 102, .	3.2	12
50	Emergent physical properties of perovskite-type oxides prepared under high pressure. <i>Dalton Transactions</i> , 2022, 51, 1745-1753.	3.3	12
51	Spin transmission in IrMn through measurements of spin Hall magnetoresistance and spin-orbit torque. <i>Physical Review B</i> , 2020, 101, .	3.2	11
52	Batteries: Prescribing Functional Additives for Treating the Poor Performances of High-Voltage (5) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	19.5	10
53	A High-Energy 5 V-Class Flexible Lithium-Ion Battery Endowed by Laser-Drilled Flexible Integrated Graphite Film. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 9468-9477.	8.0	10
54	Magnetism and the spin state in cubic perovskite $CaCo_3O_3$ synthesized under high pressure. <i>Physical Review Materials</i> , 2017, 1, .	2.4	9

#	ARTICLE	IF	CITATIONS
55	lent iridium pyrochlore $Cd_2In_2O_7$	3.2	8
56	$Fe_2Co_2Nb_2O_9$: a magnetoelectric honeycomb antiferromagnet. Journal of Materials Chemistry C, 2021, 9, 14236-14246.	5.5	8
57	Microwave Spin-Torque-Induced Magnetic Resonance in a Nanoring-Shape-Confined Magnetic Tunnel Junction. Physical Review Applied, 2018, 10, .	3.8	7
58	Advanced Method for the Reliable Estimation of Spin-Orbit-Torque Efficiency in Low-Coercivity Ferromagnetic Multilayers. Physical Review Applied, 2019, 11, .	3.8	7
59	Current-Induced Manipulation of the Exchange Bias in a Pt/Co/NiO Structure. ACS Applied Materials & Interfaces, 2021, 13, 42258-42265.	8.0	7
60	Thermally activated magnetization back-hopping based true random number generator in nano-ring magnetic tunnel junctions. Applied Physics Letters, 2019, 114, .	3.3	6
61	Multiferroics: Realization of Large Electric Polarization and Strong Magnetoelectric Coupling in $BiMn_3Cr_4O_{12}$ (Adv. Mater. 44/2017). Advanced Materials, 2017, 29, .	21.0	5
62	Formation of ZnO_4 Tetrahedra and ZnO_6 Octahedra in $TeZnO_3$ Synthesized under High Pressure. Inorganic Chemistry, 2018, 57, 6716-6721.	4.0	5
63	Easy-cone magnetic structure in $(Cr_0.9B_0.1)Te$. Applied Physics Letters, 2020, 116, 102404.	3.3	5
64	High-pressure synthesis, crystal structure, and properties of iron-based spin-chain compound $Ba_9Fe_3Se_{15}$. Physical Review Materials, 2021, 5, .	2.4	5
65	Efficient Spin-Orbit-Torque Switching Assisted by an Effective Perpendicular Field in a Magnetic Trilayer. Physical Review Applied, 2021, 16, .	3.8	5
66	Spin-Induced Multiferroic Behavior in Centrosymmetric Mn_3WO_6 . Chemistry of Materials, 2020, 32, 5664-5669.	6.7	4
67	Zinc-Ion Batteries: 2D Amorphous V_2O_5 /Graphene Heterostructures for High-Safety Aqueous Zn-Ion Batteries with Unprecedented Capacity and Ultrahigh Rate Capability (Adv. Tj ETQ1.5 0.784314 rgt)	1.5	4
68	Spin State and Spin-State Transition of Co^{3+} Ion in $BiCoO_3$. Physica Status Solidi (B): Basic Research, 2021, 258, 2100117.	1.5	4
69	Evidence for largest room temperature magnetic signal from Co^{2+} in antiphase-free & fully inverted $CoFe_2O_4$ in multiferroic-ferrimagnetic $BiFeO_3$ - $CoFe_2O_4$ nanopillar thin films. Journal of Magnetism and Magnetic Materials, 2021, 530, 167940.	2.3	4
70	High-pressure synthesis and special physical properties of several ordered perovskite structures. Wuli Xuebao/Acta Physica Sinica, 2017, 66, 030201.	0.5	4
71	Os Doping Suppressed Cu^{2+} Fe Charge Transfer and Induced Structural and Magnetic Phase Transitions in $LaCu_3Fe_4Os_xO_{12}$ ($x = 1$ and) Tj ETQ1 1 0.784314 rgt	1.1	4
72	Magnetic Ordering and Structural Transition in the Ordered Double-Perovskite Pb_2NiMoO_6 . Chemistry of Materials, 2022, 34, 97-106.	6.7	3

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73	Structural Basis for Selective Oxidation of Phosphorylated Ethylphenols by Cytochrome P450 Monooxygenase CreJ. Applied and Environmental Microbiology, 2021, 87, .	3.1	2
74	High pressure synthesis and physical properties of multiferroic materials with multiply-ordered perovskite structure. Wuli Xuebao/Acta Physica Sinica, 2018, 67, 157505.	0.5	2
75	From antiferromagnetism to high- T_c weak ferromagnetism manipulated by atomic rearrangement in $\text{BaMn}_3\text{O}_{10}$. Physical Review Materials, 2020, 4, .	2.4	2
76	Formation of unusual Cr 5+ charge state in $\text{CaCr}_{0.5}\text{Fe}_{0.5}\text{O}_3$ perovskite. Chinese Physics B, 2018, 27, 037503.	1.4	1
77	Twisted light induced magnetic anisotropy changes in an interlayer exchange coupling system. Nanoscale Horizons, 2021, 6, 462-467.	8.0	1
78	$\text{Fe}_{4-x}\text{Ni}_x\text{Nb}_2\text{O}_9$ ($x \approx 1$): Nickel impact on the magnetoelectric properties of $\text{Fe}_4\text{Nb}_2\text{O}_9$. Solid State Sciences, 2022, 125, 106821.	3.2	1
79	$\text{A}(\text{Mn}_x\text{Mn}_{1-x})\text{O}_3$ tuned magnetism and electrical transport properties in the transition-metal-only perovskite oxide	6.0	1
80	Magnetic Frustration in a Zeolite. Chemistry of Materials, 2021, 33, 9725-9731.	6.7	1
81	Spin glassy behavior and large exchange bias effect in cubic perovskite $\text{Ba}_{0.8}\text{Sr}_{0.2}\text{FeO}_3$. Chinese Physics B, 2019, 28, 068104.	1.4	0