

Xueyun Wang

List of Publications by Year in descending order

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257450

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docs citations

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times ranked

4138
citing authors

#	ARTICLE	IF	CITATIONS
1	Cation and anion immobilization through chemical bonding enhancement with fluorides for stable halide perovskite solar cells. <i>Nature Energy</i> , 2019, 4, 408-415.	39.5	831
2	Liquid medium annealing for fabricating durable perovskite solar cells with improved reproducibility. <i>Science</i> , 2021, 373, 561-567.	12.6	227
3	An <i>in situ</i> cross-linked 1D/3D perovskite heterostructure improves the stability of hybrid perovskite solar cells for over 3000 h operation. <i>Energy and Environmental Science</i> , 2020, 13, 4344-4352.	30.8	142
4	Topological defects as relics of emergent continuous symmetry and Higgs condensation of disorder in ferroelectrics. <i>Nature Physics</i> , 2014, 10, 970-977.	16.7	136
5	Direct visualization of magnetoelectric domains. <i>Nature Materials</i> , 2014, 13, 163-167.	27.5	112
6	Ferroelectric Switching Dynamics of Topological Vortex Domains in a Hexagonal Manganite. <i>Advanced Materials</i> , 2013, 25, 2415-2421.	21.0	91
7	The Spacer Cations Interplay for Efficient and Stable Layered 2D Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2020, 10, 1901566.	19.5	89
8	Toward the Intrinsic Limit of the Topological Insulator Bi_2Te_3 . <i>Physical Review Letters</i> , 2016, 117, 106401.	7.8	66
9	Sandwiched electrode buffer for efficient and stable perovskite solar cells with dual back surface fields. <i>Joule</i> , 2021, 5, 2148-2163.	24.0	63
10	Manipulation of current rectification in van der Waals ferroionic CuInP_2S_6 . <i>Nature Communications</i> , 2022, 13, 574.	12.8	60
11	X-Ray Detector Based on All-Inorganic Lead-Free $\text{Cs}_2\text{AgBiBr}_6$ Perovskite Single Crystal. <i>IEEE Transactions on Electron Devices</i> , 2019, 66, 2224-2229.	3.0	57
12	Optical evidence of surface state suppression in Bi-based topological insulators. <i>Physical Review B</i> , 2014, 89, .	3.2	56
13	Thickness-Dependent In-Plane Polarization and Structural Phase Transition in van der Waals Ferroelectric CuInP_2S_6 . <i>Small</i> , 2020, 16, e1904529.	10.0	50
14	Unfolding of Vortices into Topological Stripes in a Multiferroic Material. <i>Physical Review Letters</i> , 2014, 112, 247601.	7.8	47
15	Two-dimensional spin liquid behaviour in the triangular-honeycomb antiferromagnet TbInO_3 . <i>Nature Physics</i> , 2019, 15, 262-268.	16.7	47
16	Strain Modulation for Light-Stable n-i-p Perovskite/Silicon Tandem Solar Cells. <i>Advanced Materials</i> , 2022, 34, e2201315.	21.0	45
17	Duality of Topological Defects in Hexagonal Manganites. <i>Physical Review Letters</i> , 2014, 113, 267602.	7.8	40
18	Encapsulated X-Ray Detector Enabled by All-Inorganic Lead-Free Perovskite Film With High Sensitivity and Low Detection Limit. <i>IEEE Transactions on Electron Devices</i> , 2020, 67, 3191-3198.	3.0	40

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19	Surface vibrational modes of the topological insulator Bi_2Te_3 observed by Raman spectroscopy. <i>Physical Review B</i> , 2017, 95, .	2.2	18
20	Chiral Spin Mode on the Surface of a Topological Insulator. <i>Physical Review Letters</i> , 2017, 119, 136802.	7.8	33
21	Delicate balance between ferroelectricity and antiferroelectricity in hexagonal InMnO_3 . <i>Physical Review B</i> , 2013, 87, .	3.2	31
22	Half-metallicity in two-dimensional Co_2Se_3 monolayer with superior mechanical flexibility. <i>2D Materials</i> , 2018, 5, 045026.	4.4	29
23	Tracking the continuous spin-flop transition in $\text{Ni}_3\text{V}_2\text{O}_{12}$ by infrared spectroscopy. <i>Physical Review B</i> , 2015, 92, .	3.2	26
24	Self-poling with oxygen off-stoichiometry in ferroelectric hexagonal manganites. <i>APL Materials</i> , 2015, 3, 041505.	5.1	26
25	Wafer-Scale Photolithography-Pixeled Pb-Free Perovskite X-ray Detectors. <i>ACS Nano</i> , 2022, 16, 10199-10208.	14.6	25
26	Magnetolectric phase diagrams of multiferroic GdMn_2O_5 . <i>Physical Review B</i> , 2016, 94, .	3.2	23
27	Phase-field simulations of vortex chirality manipulation in ferroelectric thin films. <i>Npj Quantum Materials</i> , 2022, 7, .	5.2	22
28	Topologically protected magnetolectric switching in a multiferroic. <i>Nature</i> , 2022, 607, 81-85.	27.8	20
29	Infrared-active optical phonons and magnetic excitations in the hexagonal manganites $\text{R}_3\text{Mn}_3\text{O}_{12}$ ($\text{R} = \text{Ca}, \text{Sr}, \text{Ba}$). <i>Overseas Chinese Journal of Physics</i> , 2022, 43, 1401001.	3.2	14
30	Bifunctional Photoelectrode Driven by Charged Domain Walls in Ferroelectric Bi_2WO_6 . <i>ACS Applied Energy Materials</i> , 2020, 3, 4149-4154.	5.1	19
31	Interlocked chiral/polar domain walls and large optical rotation in Ni_3TeO_6 . <i>APL Materials</i> , 2015, 3, .	5.1	18
32	Evolution of the statistical distribution in a topological defect network. <i>Scientific Reports</i> , 2015, 5, 17057.	3.3	17
33	Local stress enhanced photocurrent of visible light photo-detection in $\text{Cs}_2\text{AgBiBr}_6$ single crystal. <i>Applied Physics Letters</i> , 2019, 115, .	3.3	17
34	Sudden gap closure across the topological phase transition in Bi_2Te_3 . <i>Physical Review B</i> , 2015, 92, .	4.2	16
35	Study of spin-ordering and spin-reorientation transitions in hexagonal manganites through Raman spectroscopy. <i>Scientific Reports</i> , 2015, 5, 13366.	3.3	16
36	Domain evolution in bended freestanding BaTiO_3 ultrathin films: A phase-field simulation. <i>Applied Physics Letters</i> , 2020, 116, .	3.3	15

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37	Spin Liquid State and Topological Structural Defects in Hexagonal TbInO_3 . Physical Review X, 2019, 9, .	8.9	14
38	Anomalous lattice thermal conductivity in layered MNCl (M = Zr, Hf) materials driven by lanthanide contraction. Journal of Materials Chemistry A, 2020, 8, 3128-3134.	10.3	14
39	Data-driven computational prediction and experimental realization of exotic perovskite-related polar magnets. Npj Quantum Materials, 2020, 5, .	5.2	14
40	Strain-induced incommensurate phases in hexagonal manganites. Physical Review B, 2017, 96, .	3.2	13
41	Anisotropic resistance switching in hexagonal manganites. Physical Review B, 2019, 99, .	3.2	13
42	Coexistence of Magnetism and Ferroelectricity in 3d Transition-Metal-Doped SnTe Monolayer. Journal of Physical Chemistry C, 2019, 123, 28919-28924.	3.1	12
43	Solid state reaction for the formation of spinel MgFe_2O_4 across perovskite oxide interface. Science China: Physics, Mechanics and Astronomy, 2017, 60, 1.	5.1	11
44	Low-temperature anharmonicity and the thermal conductivity of cesium iodide. Physical Review B, 2019, 99, .	3.2	11
45	Self-Assembled Epitaxial Ferroelectric Oxide Nanospring with Super-Scalability. Advanced Materials, 2022, 34, e2108419.	21.0	11
46	Anomalous suppressed thermal conductivity in CuInTe_2 under pressure. Applied Physics Letters, 2021, 119, .	3.3	11
47	Topological dynamics of vortex-line networks in hexagonal manganites. Physical Review B, 2018, 97, .	3.2	10
48	The direct observation of ferromagnetic domain of single crystal CrSiTe_3 . AIP Advances, 2018, 8, .	1.3	10
49	Controllable Ferroelastic Switching in Epitaxial Self-Assembled Aurivillius Nanobricks. ACS Applied Materials & Interfaces, 2019, 11, 7296-7302.	8.0	9
50	Observation of Ferroelastic and Ferroelectric Domains in AgNbO_3 Single Crystal. Chinese Physics Letters, 2021, 38, 037701.	3.3	9
51	Ultralow contents of AgNbO_3 fibers induced high energy storage density in ferroelectric polymer nanocomposites. Applied Physics Letters, 2022, 120, .	3.3	9
52	Directly probing spin dynamics in insulating antiferromagnets using ultrashort terahertz pulses. Physical Review B, 2016, 94, .	3.2	8
53	Methodological Approach to the High-Pressure Synthesis of Nonmagnetic $\text{Li}_2\text{B}_4\text{O}_6$ Oxides. Chemistry of Materials, 2022, 34, 186-196.	6.7	8
54	Spectroscopic signatures of domain walls in hexagonal ErMnO_3 . Physical Review B, 2014, 90, .	3.2	7

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55	Partial glass isosymmetry transition in multiferroic hexagonal ErMnO ₃ . Physical Review B, 2016, 93, .	3.2	7
56	Topological Phase Transition with Nanoscale Inhomogeneity in (Bi _{1-x} In _x) ₂ Se ₃ . Nano Letters, 2018, 18, 2677-2682.	9.1	7
57	Non-monotonic thickness dependence of Curie temperature and ferroelectricity in two-dimensional SnTe film. Applied Physics Letters, 2018, 113, .	3.3	7
58	Van der Waals direction transformation induced by shear strain in layered PdSe ₂ . Extreme Mechanics Letters, 2021, 44, 101231.	4.1	7
59	Polarization-switching pathway determined electrical transport behaviors in rhombohedral BiFeO ₃ thin films. Nanoscale, 2021, 13, 17746-17753.	5.6	7
60	Strain manipulation of ferroelectric skyrmion bubbles in a freestanding PbTiO_3 film: A phase field simulation. Physical Review B, 2022, 105, .	3.3	4
61	Spin wave and spin flip in hexagonal LuMnO ₃ single crystal. Applied Physics Letters, 2017, 110, 122405.	3.3	4
62	Micromagnetic simulation of electric field-modulation on precession dynamics of spin torque nano-oscillator. Applied Physics Letters, 2017, 111, .	3.3	4
63	Visualization of large-scale charged domain Walls in hexagonal manganites. Applied Physics Letters, 2021, 118, .	3.3	4
64	Linearly aligned single-chiral vortices in hexagonal manganites by in situ electric arc heating. Physical Review Materials, 2018, 2, .	2.4	4
65	Enhanced domain wall conductivity in photosensitive ferroelectrics Sn ₂ P ₂ S ₆ with full-visible-spectrum absorption. Science China Materials, 2022, 65, 1049-1056.	6.3	4
66	A comparison study of solving diffusion equations with different algorithm methods. AIP Advances, 2016, 6, 125043.	1.3	3
67	Phase-field simulation of strain-induced ferroelectric domain evolution in hexagonal manganites. Journal of Alloys and Compounds, 2017, 719, 455-459.	5.5	3
68	Weak exchange striction between the 4f and 3d ions in the multiferroic GdMn ₂ O ₅ . Physical Review B, 2019, 99, .	3.2	3
69	Features of the low-frequency polarization response in the region of the ferroelectric phase transition in multiferroic TbMnO ₃ . Physics of the Solid State, 2016, 58, 2021-2026.	0.6	2
70	Pressure dependent structural changes and predicted electrical polarization in perovskite RMnO_3 . Journal of Physics Condensed Matter, 2016, 28, 056005.	1.8	2
71	Ultrafast terahertz transmission ellipsometry of YMn ₂ O ₅ electromagnons. Applied Physics Letters, 2012, 101, 242911.	3.3	1
72	Near-zero Poisson's ratio and suppressed mechanical anisotropy in strained black phosphorene/SnSe van der Waals heterostructure: a first-principles study. Applied Mathematics and Mechanics (English) Tj ETQq0 0 0 88BT /Overlock 10 Tf		

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73	Stable Large-area Monodomain in As-Grown Bulk Ferroelectric Single Crystal $\text{Sn}_{2-x}\text{P}_{2-x}\text{S}_6$. Journal of Advanced Dielectrics, 0, , .	2.4	1
74	Emerging ferromagnetic phase in self-assembled mixed valence manganite nanowires. Applied Physics Letters, 2019, 115, 162405.	3.3	0
75	Self-Assembled Epitaxial Ferroelectric Oxide Nanospring with Super-Scalability (Adv. Mater. 13/2022). Advanced Materials, 2022, 34, .	21.0	0