

# Xueyun Wang

## List of Publications by Year in descending order

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75

papers

2,881

citations

257450

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175258

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docs citations

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times ranked

4138

citing authors

#	ARTICLE	IF	CITATIONS
1	Enhanced domain wall conductivity in photosensitive ferroelectrics Sn <sub>2</sub> P <sub>2</sub> S <sub>6</sub> with full-visible-spectrum absorption. <i>Science China Materials</i> , 2022, 65, 1049-1056.	6.3	4
2	Self-Assembled Epitaxial Ferroelectric Oxide Nanospring with Super-Escalability. <i>Advanced Materials</i> , 2022, 34, e2108419.	21.0	11
3	Manipulation of current rectification in van der Waals ferroionic CuInP <sub>2</sub> S <sub>6</sub> . <i>Nature Communications</i> , 2022, 13, 574.	12.8	60
4	Methodological Approach to the High-Pressure Synthesis of Nonmagnetic Li <sub>2</sub> B <sub>4</sub> O <sub>6</sub> Oxides. <i>Chemistry of Materials</i> , 2022, 34, 186-196.	6.7	8
5	Phase-field simulations of vortex chirality manipulation in ferroelectric thin films. <i>Npj Quantum Materials</i> , 2022, 7, .	5.2	22
6	Self-Assembled Epitaxial Ferroelectric Oxide Nanospring with Super-Escalability (Adv. Mater. 13/2022). <i>Advanced Materials</i> , 2022, 34, .	21.0	0
7	Strain Modulation for Light-Estable n-i-p Perovskite/Silicon Tandem Solar Cells. <i>Advanced Materials</i> , 2022, 34, e2201315.	21.0	45
8	Near-zero Poisson's ratio and suppressed mechanical anisotropy in strained black phosphorene/SnSe van der Waals heterostructure: a first-principles study. <i>Applied Mathematics and Mechanics (English)</i> Tj ETQq0 0 0 8gBT /Overlock 10 Tf		
9	Wafer-Scale Photolithography-Pixelated Pb-Free Perovskite X-ray Detectors. <i>ACS Nano</i> , 2022, 16, 10199-10208.	14.6	25
10	Ultralow contents of AgNbO <sub>3</sub> fibers induced high energy storage density in ferroelectric polymer nanocomposites. <i>Applied Physics Letters</i> , 2022, 120, .	3.3	9
11	Strain manipulation of ferroelectric skyrmion bubbles in a freestanding film: A phase field simulation. <i>Physical Review B</i> , 2022, 105, .		
12	Topologically protected magnetoelectric switching in a multiferroic. <i>Nature</i> , 2022, 607, 81-85.	27.8	20
13	Visualization of large-scale charged domain Walls in hexagonal manganites. <i>Applied Physics Letters</i> , 2021, 118, .	3.3	4
14	Observation of Ferroelastic and Ferroelectric Domains in AgNbO <sub>3</sub> Single Crystal. <i>Chinese Physics Letters</i> , 2021, 38, 037701.	3.3	9
15	Van der Waals direction transformation induced by shear strain in layered PdSe <sub>2</sub> . <i>Extreme Mechanics Letters</i> , 2021, 44, 101231.	4.1	7
16	Liquid medium annealing for fabricating durable perovskite solar cells with improved reproducibility. <i>Science</i> , 2021, 373, 561-567.	12.6	227
17	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
18	Polarization-switching pathway determined electrical transport behaviors in rhombohedral BiFeO <sub>3</sub> thin films. <i>Nanoscale</i> , 2021, 13, 17746-17753.	5.6	7

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19	Anomalous suppressed thermal conductivity in CuInTe <sub>2</sub> under pressure. <i>Applied Physics Letters</i> , 2021, 119, .	3.3	11
20	The Spacer Cations Interplay for Efficient and Stable Layered 2D Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2020, 10, 1901566.	19.5	89
21	Thickness-Dependent In-Plane Polarization and Structural Phase Transition in van der Waals Ferroelectric CuInP <sub>2</sub> S <sub>6</sub> . <i>Small</i> , 2020, 16, e1904529.	10.0	50
22	Anomalous lattice thermal conductivity in layered MNCl (M = Zr, Hf) materials driven by lanthanide contraction. <i>Journal of Materials Chemistry A</i> , 2020, 8, 3128-3134.	10.3	14
23	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
24	Data-driven computational prediction and experimental realization of exotic perovskite-related polar magnets. <i>Npj Quantum Materials</i> , 2020, 5, .	5.2	14
25	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
26	Bifunctional Photoelectrode Driven by Charged Domain Walls in Ferroelectric Bi <sub>2</sub> WO <sub>6</sub> . <i>ACS Applied Energy Materials</i> , 2020, 3, 4149-4154.	5.1	19
27	Domain evolution in bended freestanding BaTiO <sub>3</sub> ultrathin films: A phase-field simulation. <i>Applied Physics Letters</i> , 2020, 116, .	3.3	15
28	Spin Liquid State and Topological Structural Defects in Hexagonal $\text{TbInO}_3$ . <i>Physical Review X</i> , 2019, 9, .		
29	Emerging ferromagnetic phase in self-assembled mixed valence manganite nanowires. <i>Applied Physics Letters</i> , 2019, 115, 162405.	3.3	0
30	Coexistence of Magnetism and Ferroelectricity in 3d Transition-Metal-Doped SnTe Monolayer. <i>Journal of Physical Chemistry C</i> , 2019, 123, 28919-28924.	3.1	12
31	Local stress enhanced photocurrent of visible light photo-detection in Cs <sub>2</sub> AgBiBr <sub>6</sub> single crystal. <i>Applied Physics Letters</i> , 2019, 115, .	3.3	17
32	Two-dimensional spin liquid behaviour in the triangular-honeycomb antiferromagnet TbInO <sub>3</sub> . <i>Nature Physics</i> , 2019, 15, 262-268.	16.7	47
33	Controllable Ferroelastic Switching in Epitaxial Self-Assembled Aurivillius Nanobricks. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 7296-7302.	8.0	9
34	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
35	Low-temperature anharmonicity and the thermal conductivity of cesium iodide. <i>Physical Review B</i> , 2019, 99, .	3.2	11
36	Weak exchange striction between the 4f and 3d ions in the multiferroic GdMn <sub>2</sub> O <sub>5</sub> . <i>Physical Review B</i> , 2019, 99, .	3.2	3

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37	X-Ray Detector Based on All-Inorganic Lead-Free $Cs_{2}AgBiBr_6$ Perovskite Single Crystal. <i>IEEE Transactions on Electron Devices</i> , 2019, 66, 2224-2229.	3.0	57
38	Anisotropic resistance switching in hexagonal manganites. <i>Physical Review B</i> , 2019, 99, .	3.2	13
39	Topological dynamics of vortex-line networks in hexagonal manganites. <i>Physical Review B</i> , 2018, 97, .	3.2	10
40	Topological Phase Transition with Nanoscale Inhomogeneity in $(Bi_{1-x}In_x)_{2}Se_3$ . <i>Nano Letters</i> , 2018, 18, 2677-2682.	9.1	7
41	The direct observation of ferromagnetic domain of single crystal CrSiTe3. <i>AIP Advances</i> , 2018, 8, .	1.3	10
42	Non-monotonic thickness dependence of Curie temperature and ferroelectricity in two-dimensional SnTe film. <i>Applied Physics Letters</i> , 2018, 113, .	3.3	7
43	Half-metallicity in two-dimensional Co <sub>2</sub> Se <sub>3</sub> monolayer with superior mechanical flexibility. <i>2D Materials</i> , 2018, 5, 045026.	4.4	29
44	Linearly aligned single-chiral vortices in hexagonal manganites by $\text{in}_{\text{italic}}$ electric arc heating. <i>Physical Review Materials</i> , 2018, 2, .	2.4	4
45	Spin wave and spin flip in hexagonal LuMnO <sub>3</sub> single crystal. <i>Applied Physics Letters</i> , 2017, 110, 122405.	3.3	4
46	Phase-field simulation of strain-induced ferroelectric domain evolution in hexagonal manganites. <i>Journal of Alloys and Compounds</i> , 2017, 719, 455-459.	5.5	3
47	Strain-induced incommensurate phases in hexagonal manganites. <i>Physical Review B</i> , 2017, 96, .	3.2	13
48	Chiral Spin Mode on the Surface of a Topological Insulator. <i>Physical Review Letters</i> , 2017, 119, 136802.	7.8	33
49	Micromagnetic simulation of electric field-modulation on precession dynamics of spin torque nano-oscillator. <i>Applied Physics Letters</i> , 2017, 111, .	3.3	4
50	Surface vibrational modes of the topological insulator $\text{Bi}_{22}\text{mml:mn}$ observed by Raman spectroscopy. <i>Physical Review B</i> , 2017, 95, .		
51	Solid state reaction for the formation of spinel MgFe <sub>2</sub> O <sub>4</sub> across perovskite oxide interface. <i>Science China: Physics, Mechanics and Astronomy</i> , 2017, 60, 1.	5.1	11
52	A comparison study of solving diffusion equations with different algorithm methods. <i>AIP Advances</i> , 2016, 6, 125043.	1.3	3
53	Magnetoelectric phase diagrams of multiferroic GdMn <sub>2</sub> O <sub>5</sub> . <i>Physical Review B</i> , 2016, 94, .	3.2	23
54	Directly probing spin dynamics in insulating antiferromagnets using ultrashort terahertz pulses. <i>Physical Review B</i> , 2016, 94, .	3.2	8

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55	Toward the Intrinsic Limit of the Topological Insulator<math>\text{Bi}_{1-x}\text{Mn}_x\text{O}</math>. <i>Physical Review Letters</i> , 2016, 117, 106401.	7.8	66
56	Features of the low-frequency polarization response in the region of the ferroelectric phase transition in multiferroic TbMnO <sub>3</sub> . <i>Physics of the Solid State</i> , 2016, 58, 2021-2026.	0.6	2
57	Partial glass isosymmetry transition in multiferroic hexagonalErMnO <sub>3</sub> . <i>Physical Review B</i> , 2016, 93, .	3.2	7
58	Pressure dependent structural changes and predicted electrical polarization in perovskite $\text{R}_{1-x}\text{MnO}_3$ . <i>Journal of Physics Condensed Matter</i> , 2016, 28, 056005.	1.8	2
59	Tracking the continuous spin-flop transition in<math>\text{Ni}_{1-x}\text{Mn}_x\text{O}</math>. <i>Physical Review B</i> , 2015, 92, .	3.2	16
60	Sudden gap closure across the topological phase transition in<math>\text{Bi}_{1-x}\text{Mn}_x\text{O}</math>. <i>Physical Review B</i> , 2015, 92, .	3.2	16
61	Self-poling with oxygen off-stoichiometry in ferroelectric hexagonal manganites. <i>APL Materials</i> , 2015, 3, 041505.	5.1	26
62	Interlocked chiral/polar domain walls and large optical rotation in Ni <sub>3</sub> TeO <sub>6</sub> . <i>APL Materials</i> , 2015, 3, .	5.1	18
63	Study of spin-ordering and spin-reorientation transitions in hexagonal manganites through Raman spectroscopy. <i>Scientific Reports</i> , 2015, 5, 13366.	3.3	16
64	Evolution of the statistical distribution in a topological defect network. <i>Scientific Reports</i> , 2015, 5, 17057.	3.3	17
65	Duality of Topological Defects in Hexagonal Manganites. <i>Physical Review Letters</i> , 2014, 113, 267602.	7.8	40
66	Spectroscopic signatures of domain walls in hexagonalErMnO <sub>3</sub> . <i>Physical Review B</i> , 2014, 90, .	3.2	7
67	Direct visualization of magnetoelectric domains. <i>Nature Materials</i> , 2014, 13, 163-167.	27.5	112
68	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
69	Infrared-active optical phonons and magnetic excitations in the hexagonal manganites <math>\text{R}_{1-x}\text{Mn}_x\text{O}</math>. ( $\text{Tj ETQq1 1 03784314}$ ). <i>Physical Review Letters</i> , 2014, 112, 247601.	7.8	47
70	Optical evidence of surface state suppression in Bi-based topological insulators. <i>Physical Review B</i> , 2014, 89, .	3.2	56
71	Unfolding of Vortices into Topological Stripes in a Multiferroic Material. <i>Physical Review Letters</i> , 2014, 112, 247601.	7.8	47
72	Delicate balance between ferroelectricity and antiferroelectricity in hexagonal InMnO <sub>3</sub> . <i>Physical Review B</i> , 2013, 87, .	3.2	31

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73	Ferroelectric Switching Dynamics of Topological Vortex Domains in a Hexagonal Manganite. Advanced Materials, 2013, 25, 2415-2421.	21.0	91
74	Ultrafast terahertz transmission ellipsometry of YMn <sub>2</sub> O <sub>5</sub> electromagnons. Applied Physics Letters, 2012, 101, 242911.	3.3	1
75	Stable Large-area Monodomain in As-Crown Bulk Ferroelectric Single Crystal Sn <sub>2</sub> P <sub>2</sub> S <sub>6</sub> . Journal of Advanced Dielectrics, 0, .	2.4	1