

# Yin-Lian Zhu

## List of Publications by Year in descending order

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102  
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279798

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docs citations

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times ranked

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citing authors

#	ARTICLE	IF	CITATIONS
1	Thickness-Dependent Polar Domain Evolution in Strained, Ultrathin PbTiO <sub>3</sub> Films. ACS Applied Materials & Interfaces, 2022, 14, 9724-9733.	8.0	4
2	Direct Observation of Large-Scale Screw Dislocation Grids in Oxide Heteroepitaxies. Nano Letters, 2022, 22, 2085-2093.	9.1	5
3	Strain phase diagram and physical properties of (110)-oriented PbTiO <sub>3</sub> thin films by phase-field simulations. Acta Materialia, 2022, 228, 117761.	7.9	8
4	Meron-antimeron annihilation induced by the electric field in a polar meron lattice. Journal of Applied Physics, 2022, 131, .	2.5	4
5	Strain coupling of ferroelastic domains and misfit dislocations in [101]-oriented ferroelectric PbTiO <sub>3</sub> films. RSC Advances, 2022, 12, 20423-20431.	3.6	5
6	Deterministic contribution of low symmetry phases to piezoresponse in oxide ferroelectrics. Acta Materialia, 2021, 205, 116534.	7.9	12
7	Effects of anisotropic misfit strains on equilibrium phases and domain structures in (111)-oriented ferroelectric PbTiO <sub>3</sub> films. Acta Materialia, 2021, 206, 116639.	7.9	12
8	Self-assembled three-dimensional framework of PbTiO <sub>3</sub> : $\mu$ -Fe <sub>2</sub> O <sub>3</sub> nanostructures with room temperature multiferroism. Applied Surface Science, 2021, 544, 148945.	6.1	5
9	Coexisting morphotropic phase boundary and giant strain gradient in BiFeO <sub>3</sub> films. Journal of Applied Physics, 2021, 129, 184101.	2.5	4
10	Topological polar structures in ferroelectric oxide films. Journal of Applied Physics, 2021, 129, .	2.5	9
11	Influence of flexoelectric effects on domain switching in ferroelectric films. Journal of Applied Physics, 2021, 129, .	2.5	6
12	Spinodal Decomposition-Driven Endurable Resistive Switching in Perovskite Oxides. ACS Applied Materials & Interfaces, 2021, 13, 31001-31009.	8.0	3
13	Periodic Polarization Waves in a Strained, Highly Polar Ultrathin SrTiO <sub>3</sub> . Nano Letters, 2021, 21, 6274-6281.	9.1	14
14	Atomic mapping of periodic dipole waves in ferroelectric oxide. Science Advances, 2021, 7, .	10.3	27
15	Atomic-Scale Tunable Flexoelectric Couplings in Oxide Multiferroics. Nano Letters, 2021, 21, 9601-9608.	9.1	7
16	Unveiling the pinning behavior of charged domain walls in BiFeO <sub>3</sub> thin films via vacancy defects. Acta Materialia, 2020, 186, 68-76.	7.9	22
17	Atomic scale study of the oxygen annealing effect on piezoelectricity enhancement of (K,Na)NbO <sub>3</sub> nanorods. Journal of Materials Chemistry C, 2020, 8, 15830-15838.	5.5	3
18	Self-Recovery of Defective PbTiO <sub>3</sub> Film with Enhanced Piezoelectricity by Homogenizing Annealing. Crystal Growth and Design, 2020, 20, 5967-5973.	3.0	1

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19	Periodic vortex-antivortex pairs in tensile strained PbTiO <sub>3</sub> films. <i>Applied Physics Letters</i> , 2020, 117, 192901.	3.3	8
20	Oxygen octahedral coupling mediated ferroelectric-antiferroelectric phase transition based on domain wall engineering. <i>Acta Materialia</i> , 2020, 198, 145-152.	7.9	16
21	Boundary conditions control of topological polar nanodomains in epitaxial BiFeO <sub>3</sub> (110) multilayered films. <i>Journal of Applied Physics</i> , 2020, 128, 184103.	2.5	7
22	Thickness-dependent evolution of piezoresponses and <i>a</i> / <i>c</i> domains in [101]-oriented PbTiO <sub>3</sub> ferroelectric films. <i>Journal of Applied Physics</i> , 2020, 128, .	2.5	11
23	Thickness Dependence of Oxygen Vacancy Ordering in Strained LaCoO <sub>3</sub> Thin Films. <i>Journal of Physical Chemistry C</i> , 2020, 124, 12492-12501.	3.1	10
24	Polar meron lattice in strained oxide ferroelectrics. <i>Nature Materials</i> , 2020, 19, 881-886.	27.5	134
25	Real-time observation of phase coexistence and <i>a/a</i> to flux-closure domain transformation in ferroelectric films. <i>Acta Materialia</i> , 2020, 193, 311-317.	7.9	13
26	The effect of oxygen vacancy plate on the domain structure in BiFeO <sub>3</sub> thin films by phase field simulations. <i>Journal of Applied Physics</i> , 2020, 127, .	2.5	2
27	Tuning ferroelectricity and ferromagnetism in BiFeO <sub>3</sub> /BiMnO <sub>3</sub> superlattices. <i>Nanoscale</i> , 2020, 12, 9810-9816.	5.6	15
28	Flexoelectricity-induced retention failure in ferroelectric films. <i>Acta Materialia</i> , 2020, 196, 61-68.	7.9	11
29	Misfit strain-temperature phase diagram of multi-domain structures in (111)-oriented ferroelectric PbTiO <sub>3</sub> films. <i>Acta Materialia</i> , 2020, 196, 539-548.	7.9	12
30	Charged domain wall modulation of resistive switching with large ON/OFF ratios in high density BiFeO <sub>3</sub> nano-islands. <i>Acta Materialia</i> , 2020, 187, 12-18.	7.9	20
31	Interfacial Strain Gradients Control Nanoscale Domain Morphology in Epitaxial BiFeO <sub>3</sub> Multiferroic Films. <i>Advanced Functional Materials</i> , 2020, 30, 2000343.	14.9	26
32	Converse flexoelectricity around ferroelectric domain walls. <i>Acta Materialia</i> , 2020, 191, 158-165.	7.9	16
33	Crystallographic Orientation and Surface Charge-Tailored Continuous Polarization Rotation State in Epitaxially Ferroelectric Nanostructures. <i>Journal of Physical Chemistry C</i> , 2019, 123, 19602-19609.	3.1	3
34	Mapping gradient-driven morphological phase transition at the conductive domain walls of strained multiferroic films. <i>Physical Review B</i> , 2019, 100, .	3.2	21
35	Shape and Surface Charge Modulation of Topological Domains in Oxide Multiferroics. <i>Journal of Physical Chemistry C</i> , 2019, 123, 2557-2564.	3.1	22
36	A Coherently Strained Monoclinic [111]PbTiO <sub>3</sub> Film Exhibiting Zero Poisson's Ratio State. <i>Advanced Functional Materials</i> , 2019, 29, 1901687.	14.9	30

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37	Modulation of charged $a_1/a_2$ domains and piezoresponses of tensile strained $\text{PbTiO}_3$ films by the cooling rate. RSC Advances, 2019, 9, 13981-13990.	3.6	13
38	Evolution of flux-closure domain arrays in oxide multilayers with misfit strain. Acta Materialia, 2019, 171, 176-183.	7.9	23
39	Anisotropic strain: A critical role in domain evolution in (111)- Oriented ferroelectric films. Acta Materialia, 2019, 166, 503-511.	7.9	15
40	Polarization Rotation in Ultrathin Ferroelectrics Tailored by Interfacial Oxygen Octahedral Coupling. ACS Nano, 2018, 12, 3681-3688.	14.6	23
41	Coexistence of rhombohedral and orthorhombic phases in ultrathin $\text{BiFeO}_3$ films driven by interfacial oxygen octahedral coupling. Acta Materialia, 2018, 145, 220-226.	7.9	29
42	Misfit strain relaxations of (101)-oriented ferroelectric $\text{PbTiO}_3/(\text{La, Sr})(\text{Al, Ti})\text{O}_3$ heterostructures. Journal of Applied Physics, 2018, 124, 044101.	2.6	7
43	Effect of transition metal (TM) doping on structural and magnetic properties in hexagonal $\text{YMnO}_3/\text{TiO}_2$ systems. Heliyon, 2018, 4, e00993.	3.2	3
44	Tunability of vortex-like patterns on $180^\circ$ domain walls in ferroelectric $\text{PbTiO}_3$ . Philosophical Magazine Letters, 2018, 98, 266-271.	1.2	1
45	Rhombohedral-Orthorhombic Ferroelectric Morphotropic Phase Boundary Associated with a Polar Vortex in $\text{BiFeO}_3$ Films. ACS Nano, 2018, 12, 11098-11105.	14.6	57
46	Oxygen Vacancy Ordering Modulation of Magnetic Anisotropy in Strained $\text{LaCoO}_3$ Thin Films. ACS Applied Materials & Interfaces, 2018, 10, 38230-38238.	8.0	25
47	Multiple strains and polar states in $\text{PbZr}_{0.52}\text{Ti}_{0.48}\text{O}_3/\text{PbTiO}_3$ superlattices revealed by aberration-corrected HAADF-STEM imaging. Ultramicroscopy, 2018, 193, 84-89.	1.9	1
48	Thickness-Dependent Evolution of Piezoresponses and Stripe $90^\circ$ Domains in (101)-Oriented Ferroelectric $\text{PbTiO}_3$ Thin Films. ACS Applied Materials & Interfaces, 2018, 10, 24627-24637.	8.0	21
49	Impact of interfacial effects on ferroelectric resistance switching of $\text{Au}/\text{BiFeO}_3/\text{Nb:SrTiO}_3$ (100) Schottky junctions. RSC Advances, 2017, 7, 22715-22721.	3.6	24
50	Local Enhancement of Polarization at $\text{PbTiO}_3/\text{BiFeO}_3$ Interfaces Mediated by Charge Transfer. Nano Letters, 2017, 17, 3619-3628.	9.1	56
51	Atomic mapping of structural distortions in $109^\circ$ domain patterned $\text{BiFeO}_3$ thin films. Journal of Materials Research, 2017, 32, 2423-2430.	2.6	8
52	Thickness-dependent $a/a$ domain evolution in ferroelectric $\text{PbTiO}_3$ films. Acta Materialia, 2017, 131, 123-130.	7.9	32
53	An effect of crystal tilt on the determination of ions displacements in perovskite oxides under BF/HAADF-STEM imaging mode. Journal of Materials Research, 2017, 32, 947-956.	2.6	13
54	Chiral phase transition at $180^\circ$ domain walls in ferroelectric $\text{PbTiO}_3$ driven by epitaxial compressive strains. Journal of Applied Physics, 2017, 122, .	2.5	9

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55	Giant Polarization Sustainability in Ultrathin Ferroelectric Films Stabilized by Charge Transfer. <i>Advanced Materials</i> , 2017, 29, 1703543.	21.0	42
56	Atomic Mapping of Domain Configurations in Ferroelectric Thin Films. <i>Microscopy and Microanalysis</i> , 2017, 23, 1614-1615.	0.4	0
57	The Interactions of Ferroelectric Domain Walls and Crystallographic Defects in the PbTiO <sub>3</sub> Films. <i>Microscopy and Microanalysis</i> , 2017, 23, 1664-1665.	0.4	0
58	Atomic Level Structural Modulations at the Negatively Charged Domain Walls in BiFeO <sub>3</sub> Films. <i>Microscopy and Microanalysis</i> , 2017, 23, 1666-1667.	0.4	0
59	Designing of metallic nanocrystals embedded in non-stoichiometric perovskite nanomaterial and its surface-electronic characteristics. <i>Scientific Reports</i> , 2017, 7, 8343.	3.3	12
60	Periodic arrays of flux-closure domains in ferroelectric thin films with oxide electrodes. <i>Applied Physics Letters</i> , 2017, 111, .	3.3	33
61	First-principles study of charged steps on 180° domain walls in ferroelectric PbTiO <sub>3</sub> . <i>Journal of Applied Physics</i> , 2017, 122, .	2.5	9
62	Large Scale Two-Dimensional Flux-Closure Domain Arrays in Oxide Multilayers and Their Controlled Growth. <i>Nano Letters</i> , 2017, 17, 7258-7266.	9.1	52
63	Controlled Growth and Atomic-Scale Mapping of Charged Heterointerfaces in PbTiO <sub>3</sub> /BiFeO <sub>3</sub> Bilayers. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 25578-25586.	8.0	18
64	Giant linear strain gradient with extremely low elastic energy in a perovskite nanostructure array. <i>Nature Communications</i> , 2017, 8, 15994.	12.8	82
65	3D polarization texture of a symmetric 4-fold flux closure domain in strained ferroelectric PbTiO <sub>3</sub> films. <i>Journal of Materials Research</i> , 2017, 32, 957-967.	2.6	13
66	Phase-field modeling and electronic structural analysis of flexoelectric effect at 180° domain walls in ferroelectric PbTiO <sub>3</sub> . <i>Journal of Applied Physics</i> , 2017, 122, .	2.5	15
67	Large scale arrays of four-state vortex domains in BiFeO <sub>3</sub> thin film. <i>Applied Physics Letters</i> , 2016, 109, .	3.3	22
68	Spatial Coupling of Ferroelectric Domain Walls and Crystallographic Defects in the PbTiO <sub>3</sub> Films. <i>Advanced Materials Interfaces</i> , 2016, 3, 1600342.	3.7	24
69	Misfit Strain Relaxation of Ferroelectric PbTiO <sub>3</sub> /LaAlO <sub>3</sub> (111) Thin Film System. <i>Scientific Reports</i> , 2016, 6, 35172.	3.3	16
70	Ferroelectric Films: Spatial Coupling of Ferroelectric Domain Walls and Crystallographic Defects in the PbTiO <sub>3</sub> Films ( <i>Adv. Mater. Interfaces</i> 15/2016). <i>Advanced Materials Interfaces</i> , 2016, 3, .	3.7	0
71	Atomically resolved precipitates/matrix interfaces in KTaO <sub>3</sub> crystals. <i>Philosophical Magazine</i> , 2016, 96, 486-497.	1.6	3
72	On the benefit of aberration-corrected HAADF-STEM for strain determination and its application to tailoring ferroelectric domain patterns. <i>Ultramicroscopy</i> , 2016, 160, 57-63.	1.9	55

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73	1D Modulation: Atomic Level 1D Structural Modulations at the Negatively Charged Domain Walls in BiFeO <sub>3</sub> Films (Adv. Mater. Interfaces 9/2015). Advanced Materials Interfaces, 2015, 2, .	3.7	0
74	Atomic mapping of Ruddlesden-Popper faults in transparent conducting BaSnO <sub>3</sub> -based thin films. Scientific Reports, 2015, 5, 16097.	3.3	42
75	Atomic Level 1D Structural Modulations at the Negatively Charged Domain Walls in BiFeO <sub>3</sub> Films. Advanced Materials Interfaces, 2015, 2, 1500024.	3.7	29
76	B23-O-02Atomic Level One-dimensional Structural Modulations at the Negatively Charged Domain Walls in BiFeO <sub>3</sub> Films. Microscopy (Oxford, England), 2015, 64, i53.2-i53.	1.5	0
77	Atomic imaging of the interface between M <sub>23</sub> C <sub>6</sub> -type carbide and matrix in a long-term ageing polycrystalline Ni-based superalloy. Philosophical Magazine Letters, 2015, 95, 237-244.	1.2	21
78	The evolution of polarization inside ultrathin PbTiO <sub>3</sub> films: a theoretical study. Philosophical Magazine, 2015, 95, 2067-2077.	1.6	2
79	Observation of a periodic array of flux-closure quadrants in strained ferroelectric PbTiO <sub>3</sub> films. Science, 2015, 348, 547-551.	12.6	430
80	Origin of the Bloch-type polarization components at the 180° domain walls in ferroelectric PbTiO <sub>3</sub> . Journal of Applied Physics, 2014, 116, .	2.5	20
81	The Wyckoff positional order and polyhedral intergrowth in the M <sub>3</sub> B <sub>2</sub> - and M <sub>5</sub> B <sub>3</sub> -type boride precipitated in the Ni-based superalloys. Scientific Reports, 2014, 4, 7367.	3.3	33
82	Atomic-scale mapping of dipole frustration at 90° charged domain walls in ferroelectric PbTiO <sub>3</sub> films. Scientific Reports, 2014, 4, 4115.	3.3	56
83	Nanostructured Nd <sub>0.45</sub> Sr <sub>0.55</sub> MnO <sub>3</sub> films grown on SrTiO <sub>3</sub> (110). Journal of Materials Research, 2013, 28, 1692-1698.	2.6	4
84	Control of magnetic and transport properties in Nd <sub>0.45</sub> Sr <sub>0.55</sub> MnO <sub>3</sub> films through epitaxial strain. Journal of Applied Physics, 2012, 111, 07D706.	2.5	3
85	Misfit dislocations of anisotropic magnetoresistant Nd <sub>0.45</sub> Sr <sub>0.55</sub> MnO <sub>3</sub> thin films grown on SrTiO <sub>3</sub> (110) substrates. Acta Materialia, 2012, 60, 5975-5983.	7.9	10
86	Microstructure of the potentially multiferroic Fe/BaTiO <sub>3</sub> epitaxial interface. Philosophical Magazine, 2012, 92, 1733-1747.	1.6	1
87	Cu <sub>2</sub> S nanowires and MnS/Cu <sub>2</sub> S nanojunctions derived from <sup>35</sup> MnS nanowires via selective cation exchange reaction. Physica Status Solidi (A) Applications and Materials Science, 2011, 208, 123-128.	1.8	4
88	Structural and microstructural analyses of crystalline Er <sub>2</sub> O <sub>3</sub> high-k films grown on Si (001) by laser molecular beam epitaxy. Acta Materialia, 2011, 59, 1644-1650.	7.9	20
89	Comparative studies on transport and magnetotransport behaviour of as-deposited and <i>ex situ</i> annealed A-type antiferromagnetic Nd <sub>0.45</sub> Sr <sub>0.55</sub> MnO <sub>3</sub> films. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 2558-2563.	1.8	2
90	Morphology and orientation of iron oxide precipitates in epitaxial BiFeO <sub>3</sub> thin films grown under two non-optimized oxygen pressures. Philosophical Magazine, 2010, 90, 4551-4567.	1.6	7

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91	Angular dependent magnetoresistance with twofold and fourfold symmetries in A-type antiferromagnetic Nd <sub>0.45</sub> Sr <sub>0.55</sub> MnO <sub>3</sub> thin film. Applied Physics Letters, 2010, 97, .	3.3	19
92	Magnetic anisotropy and metal-insulator transition in SrRuO <sub>3</sub> thin films at different growth temperatures. Journal of Applied Physics, 2010, 107, 113925.	2.5	21
93	Dislocations in charge-ordered Pr <sub>0.5</sub> Ca <sub>0.5</sub> MnO <sub>3</sub> epitaxial thin films prepared by a two-step growth technique. Philosophical Magazine Letters, 2010, 90, 323-336.	1.2	5
94	Microstructural evolution of [PbZr <sub>1-x</sub> Ti <sub>x</sub> O <sub>3</sub> /PbZr <sub>1-y</sub> Ti <sub>y</sub> O <sub>3</sub> ] epitaxial multilayers (x/y= 0.2/0.4,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	1.6	5
95	Impact of high interface density on ferroelectric and structural properties of PbZr <sub>0.2</sub> Ti <sub>0.8</sub> O <sub>3</sub> /PbZr <sub>0.4</sub> Ti <sub>0.6</sub> O <sub>3</sub> epitaxial multilayers. Journal Physics D: Applied Physics, 2009, 42, 085305.	1.1	11
96	Structure and properties of epitaxial ferroelectric PbZr <sub>0.4</sub> Ti <sub>0.6</sub> O <sub>3</sub> superlattices grown on SrTiO <sub>3</sub> (001) by pulsed laser deposition. Applied Physics Letters, 2007, 90, 072909.	3.3	37
97	Microstructural and magnetic properties of bulk La <sub>1-x</sub> Pr <sub>x</sub> MnO <sub>3</sub> (x=0.2, 0.3, 0.5). Philosophical Magazine Letters, 2007, 87, 75-83.	1.2	1
98	Microstructural characteristics in the BaTiO <sub>2.52</sub> thin films showing metallic behavior. Materials Letters, 2007, 61, 1971-1973.	2.6	5
99	Misfit dislocation arrays at the interface between La <sub>0.9</sub> Sr <sub>0.1</sub> MnO <sub>3</sub> films and vicinal SrTiO <sub>3</sub> (001) substrates. Philosophical Magazine Letters, 2006, 86, 469-478.	1.2	5
100	Microstructural analyses of a highly conductive Nb-doped SrTiO film. Acta Materialia, 2005, 53, 1277-1284.	7.9	23
101	Microstructure of new colossal magnetoresistance La <sub>1-x</sub> Tm <sub>x</sub> MnO <sub>3</sub> (x= 0.1, 0.2) thin films. Physica Status Solidi A, 2003, 199, 233-237.	1.7	2
102	Oriented domains in a thin film of La <sub>0.8</sub> Sr <sub>0.2</sub> MnO <sub>3</sub> prepared by laser molecular-beam epitaxy. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 2002, 82, 1331-1343.	0.6	1