

# Pu Yu

## List of Publications by Year in descending order

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125  
papers

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31976

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132  
all docs

132  
docs citations

132  
times ranked

12468  
citing authors

#	ARTICLE	IF	CITATIONS
1	Above-bandgap voltages from ferroelectric photovoltaic devices. Nature Nanotechnology, 2010, 5, 143-147.	31.5	1,496
2	Conduction at domain walls in oxide multiferroics. Nature Materials, 2009, 8, 229-234.	27.5	1,212
3	Ultrahigh-energy density lead-free dielectric films via polymorphic nanodomain design. Science, 2019, 365, 578-582.	12.6	662
4	Reversible electric control of exchange bias in a multiferroic field-effect device. Nature Materials, 2010, 9, 756-761.	27.5	633
5	Electric-field control of tri-state phase transformation with a selective dual-ion switch. Nature, 2017, 546, 124-128.	27.8	551
6	Electric modulation of conduction in multiferroic Ca-doped BiFeO <sub>3</sub> films. Nature Materials, 2009, 8, 485-493.	27.5	481
7	Experimental Realization of an Intrinsic Magnetic Topological Insulator <sup>*</sup> . Chinese Physics Letters, 2019, 36, 076801.	3.3	457
8	Polarization Control of Electron Tunneling into Ferroelectric Surfaces. Science, 2009, 324, 1421-1425.	12.6	441
9	Critical thickness and orbital ordering in ultrathin $\text{LaBiFeO}_3$ films. Physical Review B, 2008, 78, 080401.	3.2	379
10	Interface Ferromagnetism and Orbital Reconstruction in $\text{BiFeO}_3/\text{LaBiFeO}_3$ Heterostructures. Physical Review Letters, 2010, 105, 027201.	7.8	335
11	Suppression of Octahedral Tilts and Associated Changes in Electronic Properties at Epitaxial Oxide Heterostructure Interfaces. Physical Review Letters, 2010, 105, 087204.	7.8	308
12	Large field-induced strains in a lead-free piezoelectric material. Nature Nanotechnology, 2011, 6, 98-102.	31.5	292
13	Microscopic Origin of the Giant Ferroelectric Polarization in Tetragonal-like $\text{BiFeO}_3$ . Physical Review Letters, 2011, 107, 147602.	7.8	290
14	Nanoscale Control of Exchange Bias with $\text{BiFeO}_3$ Thin Films. Nano Letters, 2008, 8, 2050-2055.	9.1	270
15	Experimental evidence of ferroelectric negative capacitance in nanoscale heterostructures. Applied Physics Letters, 2011, 99, .	3.3	256
16	Domain Control in Multiferroic $\text{BiFeO}_3$ through Substrate Vicinality. Advanced Materials, 2007, 19, 2662-2666.	21.0	245
17	Differentiating Ferroelectric and Nonferroelectric Electromechanical Effects with Scanning Probe Microscopy. ACS Nano, 2015, 9, 6484-6492.	14.6	231
18	Interface control of bulk ferroelectric polarization. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 9710-9715.	7.1	212

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19	Nanoscale Control of Domain Architectures in BiFeO <sub>3</sub> Thin Films. Nano Letters, 2009, 9, 1726-1730.	9.1	210
20	Controllable conductive readout in self-assembled, topologically confined ferroelectric domain walls. Nature Nanotechnology, 2018, 13, 947-952.	31.5	163
21	Electrically controllable spontaneous magnetism in nanoscale mixed phase multiferroics. Nature Communications, 2011, 2, 225.	12.8	155
22	Tunable Metallic Conductance in Ferroelectric Nanodomains. Nano Letters, 2012, 12, 209-213.	9.1	153
23	Mapping Octahedral Tilts and Polarization Across a Domain Wall in BiFeO <sub>3</sub> from Z-Contrast Scanning Transmission Electron Microscopy Image Atomic Column Shape Analysis. ACS Nano, 2010, 4, 6071-6079.	14.6	150
24	High quality atomically thin PtSe <sub>2</sub> films grown by molecular beam epitaxy. 2D Materials, 2017, 4, 045015.	4.4	142
25	Oxide interfaces: pathways to novel phenomena. Materials Today, 2012, 15, 320-327.	14.2	130
26	All-solid-state proton-based tandem structures for fast-switching electrochromic devices. Nature Electronics, 2022, 5, 45-52.	26.0	111
27	Low voltage performance of epitaxial BiFeO <sub>3</sub> films on Si substrates through lanthanum substitution. Applied Physics Letters, 2008, 92, .	3.3	103
28	Hidden Magnetic Configuration in Epitaxial $\text{La}_{1-x}\text{Bi}_x\text{FeO}_3$ . Physical Review Letters, 2010, 105, 257204.	7.8	100
29	Heteroepitaxy of Fe <sub>3</sub> O <sub>4</sub> /Muscovite: A New Perspective for Flexible Spintronics. ACS Applied Materials & Interfaces, 2016, 8, 33794-33801.	8.0	99
30	Near-field examination of perovskite-based superlenses and superlens-enhanced probe-object coupling. Nature Communications, 2011, 2, 249.	12.8	95
31	A nanoscale shape memory oxide. Nature Communications, 2013, 4, 2768.	12.8	95
32	Tuning the Competition between Ferromagnetism and Antiferromagnetism in a Half-Doped Manganite through Magnetolectric Coupling. Physical Review Letters, 2013, 111, 127601.	7.8	93
33	Atomic-Scale Measurement of Flexoelectric Polarization at $\text{SrTiO}_3$ Dislocations. Physical Review Letters, 2018, 120, 267601.	7.8	93
34	Quantification of surface displacements and electromechanical phenomena via dynamic atomic force microscopy. Nanotechnology, 2016, 27, 425707.	2.6	92
35	Reversible manipulation of the magnetic state in SrRuO <sub>3</sub> through electric-field controlled proton evolution. Nature Communications, 2020, 11, 184.	12.8	86
36	Electric-field control of ferromagnetism through oxygen ion gating. Nature Communications, 2017, 8, 2156.	12.8	85

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37	Microwave a.c. conductivity of domain walls in ferroelectric thin films. Nature Communications, 2016, 7, 11630.	12.8	81
38	Atomically Resolved Mapping of Polarization and Electric Fields Across Ferroelectric/Oxide Interfaces by Zê€contrast Imaging. Advanced Materials, 2011, 23, 2474-2479.	21.0	79
39	Electricâ€Fieldâ€Controlled Phase Transformation in WO <sub>3</sub> Thin Films through Hydrogen Evolution. Advanced Materials, 2017, 29, 1703628.	21.0	79
40	BiFeO <sub>3</sub> Thin Films: A Playground for Exploring Electric-Field Control of Multifunctionalities. Annual Review of Materials Research, 2015, 45, 249-275.	9.3	76
41	Experimental Evidence of Chiral Symmetry Breaking in KekulÃ©-Ordered Graphene. Physical Review Letters, 2021, 126, 206804.	7.8	72
42	Epitaxial growth of Y3Fe5O12 thin films with perpendicular magnetic anisotropy. Applied Physics Letters, 2017, 110, .	3.3	71
43	Probing the evolution of antiferromagnetism in multiferroics. Physical Review B, 2010, 81, .	3.2	70
44	Atomic-resolution imaging of electrically induced oxygen vacancy migration and phase transformation in SrCoO <sub>2.5</sub> . Nature Communications, 2017, 8, 104.	12.8	66
45	Manipulate the Electronic and Magnetic States in NiCo <sub>2</sub> O <sub>4</sub> Films through Electricâ€Fieldâ€Induced Protonation at Elevated Temperature. Advanced Materials, 2019, 31, e1900458.	21.0	64
46	Analog memristive synapse based on topotactic phase transition for high-performance neuromorphic computing and neural network pruning. Science Advances, 2021, 7, .	10.3	63
47	Ultrathin Limit of Exchange Bias Coupling at Oxide Multiferroic/Ferromagnetic Interfaces. Advanced Materials, 2013, 25, 4739-4745.	21.0	59
48	Induced Magnetization in $\text{La}_{0.7}\text{MnO}_3$ . Physical Review Letters, 2014, 113, 047204.	10.7	59
49	Nanoscale Topotactic Phase Transformation in SrFeO <sub>x</sub> Epitaxial Thin Films for Highâ€Density Resistive Switching Memory. Advanced Materials, 2019, 31, e1903679.	21.0	58
50	Watching domains grow: <i>In-situ</i> studies of polarization switching by combined scanning probe and scanning transmission electron microscopy. Journal of Applied Physics, 2011, 110, .	2.5	57
51	Exchange bias effects in epitaxial Fe <sub>3</sub> O <sub>4</sub> /BiFeO <sub>3</sub> heterostructures. Applied Physics Letters, 2012, 100, .	3.3	57
52	Interface dipole between two metallic oxides caused by localized oxygen vacancies. Physical Review B, 2012, 86, .	3.2	56
53	Strain-driven oxygen deficiency in multiferroic $\text{SrMnO}_3$ films. Physical Review B, 2016, 94, .	3.2	56
54	Role of measurement voltage on hysteresis loop shape in Piezoresponse Force Microscopy. Applied Physics Letters, 2012, 101, .	3.3	55

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55	Tailoring Magnetoelectric Coupling in BiFeO <sub>3</sub> /La <sub>0.7</sub> Sr <sub>0.3</sub> MnO <sub>3</sub> Heterostructure through the Interface Engineering. <i>Advanced Materials</i> , 2019, 31, e1806335.	21.0	53
56	Strain-induced ferroelectricity and spin-lattice coupling in $\text{SrMnO}_3$ thin films. <i>Physical Review B</i> , 2018, 97, .	3.2	51
57	Observation of Ferromagnetic Resonance in $\text{SrRuO}_3$ by the Time-Resolved Magneto-Optical Kerr Effect. <i>Physical Review Letters</i> , 2009, 102, 177601.	7.8	48
58	Protonation induced high- T <sub>c</sub> phases in iron-based superconductors evidenced by NMR and magnetization measurements. <i>Science Bulletin</i> , 2018, 63, 11-16.	9.0	48
59	Ionic Liquid Gating Control of Spin Reorientation Transition and Switching of Perpendicular Magnetic Anisotropy. <i>Advanced Materials</i> , 2018, 30, e1801639.	21.0	47
60	Instability of two-dimensional graphene: Breaking $\text{sp}^2$ with soft x rays. <i>Physical Review B</i> , 2009, 80, .	3.2	44
61	Probing ferroelectricity in $\text{PbZr}_{0.2}\text{Ti}_{0.8}\text{O}_3$ polarized soft x rays. <i>Physical Review B</i> , 2010, 82, .	3.2	44
62	Emergent phenomena at multiferroic heterointerfaces. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2012, 370, 4856-4871.	3.4	43
63	Giant elastic tunability in strained BiFeO <sub>3</sub> near an electrically induced phase transition. <i>Nature Communications</i> , 2015, 6, 8985.	12.8	43
64	Evidence of charge density wave with anisotropic gap in a monolayer $\text{VTe}_2$ film. <i>Physical Review B</i> , 2019, 100, .	3.2	43
65	Manipulating Berry curvature of $\text{SrRuO}_3$ thin films via epitaxial strain. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	41
66	Enhancement of superconductivity in organic-inorganic hybrid topological materials. <i>Science Bulletin</i> , 2020, 65, 188-193.	9.0	39
67	Probing Local Bias-Induced Transitions Using Photothermal Excitation Contact Resonance Atomic Force Microscopy and Voltage Spectroscopy. <i>ACS Nano</i> , 2015, 9, 1848-1857.	14.6	37
68	Enhancements of dielectric and energy storage performances in lead-free films with sandwich architecture. <i>Journal of the American Ceramic Society</i> , 2019, 102, 936-943.	3.8	37
69	Emergent electric field control of phase transformation in oxide superlattices. <i>Nature Communications</i> , 2020, 11, 902.	12.8	35
70	Electric Field-Controlled Multistep Proton Evolution in $\text{H}_x\text{SrCoO}_{2.5}$ with Formation of H <sub>2</sub> Dimer. <i>Advanced Science</i> , 2019, 6, 1901432.	11.2	32
71	Antiferroelectric Anisotropy of Epitaxial $\text{PbHfO}_3$ Films for Flexible Energy Storage. <i>Advanced Functional Materials</i> , 2021, 31, 2105060.	14.9	29
72	Ferromagnetic Enhancement of CE-Type Spin Ordering in $\text{Pr}_2\text{CaTl}_2\text{O}_{10}$ /Overl Physical Review Letters, 2011, 106, 186404.	9.0	26

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73	Growth of large scale PtTe, PtTe <sub>2</sub> and PtSe <sub>2</sub> films on a wide range of substrates. Nano Research, 2021, 14, 1663-1667.	10.4	26
74	Imaging and quantification of charged domain walls in BiFeO <sub>3</sub> . Nanoscale, 2020, 12, 9186-9193.	5.6	25
75	Scaling and disorder analysis of local V-curves from ferroelectric thin films of lead zirconate titanate. Nanotechnology, 2011, 22, 254031.	2.6	24
76	A Generic Sacrificial Layer for Wide-Range Freestanding Oxides with Modulated Magnetic Anisotropy. Advanced Functional Materials, 2022, 32, .	14.9	24
77	Engineering magnetism at functional oxides interfaces: manganites and beyond. Journal of Physics Condensed Matter, 2017, 29, 443004.	1.8	21
78	Pulsed laser deposition of complex oxide heteroepitaxy. Chinese Journal of Physics, 2019, 60, 481-501.	3.9	21
79	Ionic-Liquid-Gating Induced Protonation and Superconductivity in FeSe, FeSe <sub>0.93</sub> S <sub>0.07</sub> , ZrNCl, 1T-TaS <sub>2</sub> and Bi <sub>2</sub> Se <sub>3</sub> . Chinese Physics Letters, 2019, 36, 077401.	3.3	20
80	Native SrTiO <sub>3</sub> (001) surface layer from resonant Ti L <sub>2,3</sub> reflectance spectroscopy. Physical Review B, 2010, 82, .	3.2	19
81	Anomalous Electronic Anisotropy Triggered by Ferroelastic Coupling in Multiferroic Heterostructures. Advanced Materials, 2016, 28, 876-883.	21.0	19
82	Direct spectroscopic evidence of charge reversal at the Pb(Zr <sub>0.2</sub> Ti <sub>0.8</sub> )O <sub>3</sub> /La <sub>0.7</sub> Sr <sub>0.3</sub> MnO <sub>3</sub> heterointerface. Physical Review B, 2011, 83, .	3.2	18
83	Anomalous Hall effect and spin fluctuations in ionic liquid gated SrCoO <sub>3</sub> thin films. Physical Review B, 2018, 97, .	3.2	18
84	Coexistence of extended flat band and Kekulé order in Li-intercalated graphene. Physical Review B, 2022, 105, .	3.2	18
85	Thickness dependence of transport behaviors in SrRuO <sub>3</sub> /SrTiO <sub>3</sub> heterostructures. Physical Review Materials, 2022, 4, 014401.	2.4	17
86	Manipulating the metal-to-insulator transition of NdNiO <sub>3</sub> films by orbital polarization. Physical Review B, 2016, 93, .	3.2	16
87	Functional ferroic heterostructures with tunable integral symmetry. Nature Communications, 2014, 5, 4295.	12.8	15
88	Robust Ferromagnetism in Highly Strained SrCoO <sub>3</sub> Thin Films. Physical Review X, 2020, 10, .	8.9	15
89	Microspectroscopy on perovskite-based superlenses [Invited]. Optical Materials Express, 2011, 1, 1051.	3.0	14
90	Strain-Mediated Inverse Photoresistivity in SrRuO <sub>3</sub> /La <sub>0.7</sub> Sr <sub>0.3</sub> MnO <sub>3</sub> Superlattices. Advanced Functional Materials, 2016, 26, 729-737.	14.9	14

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91	Manipulating Ferroelectrics through Changes in Surface and Interface Properties. ACS Applied Materials & Interfaces, 2017, 9, 39736-39746.	8.0	14
92	Stability of superconducting Nd <sub>0.8</sub> Sr <sub>0.2</sub> NiO <sub>2</sub> thin films. Science China: Physics, Mechanics and Astronomy, 2022, 65, .	5.1	14
93	Screening study of spray solution parameters for depositing cerium-based conversion coatings on Al alloy 2024-T3. Journal of Applied Electrochemistry, 2010, 40, 551-559.	2.9	13
94	Atomically Resolved Electronic States and Correlated Magnetic Order at Termination Engineered Complex Oxide Heterointerfaces. ACS Nano, 2018, 12, 1089-1095.	14.6	13
95	Ferromagnetism and matrix-dependent charge transfer in strained LaMnO <sub>3</sub> ∕LaCoO <sub>3</sub> superlattices. Materials Research Letters, 2018, 6, 501-507.	8.7	13
96	Monolayer charge-neutral graphene on platinum with extremely weak electron-phonon coupling. Physical Review B, 2015, 92, .	3.2	12
97	The effects of strain relaxation on the dielectric properties of epitaxial ferroelectric Pb(Zr <sub>0.2</sub> Ti <sub>0.8</sub> )TiO <sub>3</sub> thin films. Applied Physics Letters, 2014, 105, .	3.3	11
98	Ionic Liquid Gating Control of Spin Wave Resonance in La <sub>0.7</sub> Sr <sub>0.3</sub> MnO <sub>3</sub> Thin Film. Advanced Electronic Materials, 2020, 6, 1900859.	5.1	11
99	Nanoscale High-Tc YBCO/GaN Super-Schottky Diode. Scientific Reports, 2018, 8, 5597.	3.3	10
100	Anomalous Kerr effect in SrRuO <sub>3</sub> thin films. Physical Review B, 2020, 102, .	3.2	10
101	Ferroelastic Nanodomain-mediated Mechanical Switching of Ferroelectricity in Thick Epitaxial Films. Nano Letters, 2021, 21, 445-452.	9.1	10
102	Atomic-Scale Observation of Structure Transition from Brownmillerite to Infinite Layer in SrFeO <sub>2.5</sub> Thin Films. Chemistry of Materials, 2021, 33, 3113-3120.	6.7	10
103	Emergent Ferromagnetism with Fermi-Liquid Behavior in Proton Intercalated $\text{CaRuO}_3$ . Physical Review X, 2021, 11, .	8.9	10
104	A selective control of volatile and non-volatile superconductivity in an insulating copper oxide via ionic liquid gating. Science Bulletin, 2020, 65, 1607-1613.	9.0	10
105	Exploring Polarization Rotation Instabilities in Super $\sqrt{2}$ Tetragonal BiFeO <sub>3</sub> Epitaxial Thin Films and Their Technological Implications. Advanced Electronic Materials, 2016, 2, 1600307.	5.1	9
106	Origin of the anomalous Hall effect in $\text{SrCoO}_3$ thin films. Physical Review B, 2019, 100, .	8.2	9
107	High- <i>T<sub>c</sub></i> Cooper-pair injection in a semiconductor∕superconductor structure. Journal of Physics Condensed Matter, 2020, 32, 475502.	1.8	9
108	Epitaxial Bi <sub>9</sub> Ti <sub>3</sub> Fe <sub>5</sub> O <sub>27</sub> thin films: a new type of layer-structure room-temperature multiferroic. Journal of Materials Chemistry C, 2017, 5, 7720-7725.	5.5	8



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109	Flexoelectric Domain Walls Originated from Structural Phase Transition in Epitaxial BiVO <sub>4</sub> Films. Small, 2022, 18, e2107540.	10.0	8
110	Effective thermal boundary resistance from thermal decoupling of magnons and phonons in $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \langle \text{mml:mrow} \langle \text{mml:msub} \langle \text{mml:mrow} \langle \text{mml:mtext} \text{SrRuO} \langle \text{mml:mtext} \rangle \langle \text{mml:mrow} \langle \text{mml:mn} \text{3} \langle \text{mml:mn} \rangle \langle \text{mml:mn} \text{2} \rangle \rangle \rangle \rangle \rangle$ thin films. Physical Review B, 2010, 82, .	3.2	7
111	Manipulation of the Electronic State of Mott Iridate Superlattice through Protonation Induced Electron Filling. Advanced Functional Materials, 2021, 31, 2100261.	14.9	7
112	Enhanced quantum-confined Pockels effect in SiGe superlattices. Physical Review B, 2006, 73, .	3.2	6
113	Electric Field Writing of Ferroelectric Nano Domains Near 71° Domain Walls with Switchable Interfacial Conductivity. Annalen Der Physik, 2018, 530, 1800130.	2.4	6
114	Tuning the electronic properties of epitaxial strained CaFeO <sub>3</sub> thin films. Applied Physics Letters, 2019, 114, 221907.	3.3	6
115	Engineering of multiferroic BiFeO <sub>3</sub> grain boundaries with head-to-head polarization configurations. Science Bulletin, 2021, 66, 771-776.	9.0	6
116	Controlling Strain Relaxation by Interface Design in Highly Lattice-Mismatched Heterostructure. Nano Letters, 2021, 21, 6867-6874.	9.1	6
117	Induced anisotropic superconductivity in ionic liquid cation intercalated 1T-SnSe <sub>2</sub> . 2D Materials, 2021, 8, 015024.	4.4	6
118	Correlation between nanoscale and nanosecond resolved ferroelectric domain dynamics and local mechanical compliance. Journal of Applied Physics, 2011, 109, 091607.	2.5	4
119	Physical and chemical strains co-tuned magnetic properties of double perovskite PrBaMn <sub>2</sub> O <sub>5.5</sub> thin epitaxial films. Applied Physics Letters, 2019, 115, .	3.3	4
120	Mosaic growth induced magnetic anisotropy in double perovskite PrBaCo <sub>2</sub> O <sub>5.5</sub> thin films. Acta Materialia, 2022, 234, 118040.	7.9	3
121	Synthesis of a New Ferroelectric Relaxor Based on a Combination of Antiferroelectric and Paraelectric Systems. ACS Applied Materials & Interfaces, 2022, 14, 22278-22286.	8.0	2
122	Untangling Coupled Order Parameters at Complex Oxide Interfaces with Aberration-Corrected STEM and EELS. Microscopy and Microanalysis, 2012, 18, 318-319.	0.4	1
123	Magnetic Anisotropy: Ionic Liquid Gating Control of Spin Reorientation Transition and Switching of Perpendicular Magnetic Anisotropy (Adv. Mater. 30(2018)). Advanced Materials, 2018, 30, 1870223.	21.0	1
124	Enhanced quantum confined Pockels effect in graded SiGe superlattices. AIP Conference Proceedings, 2007, . .	0.4	0
125	CH003: Stability of nanodots in ferroelectric thin films. , 2008, . .		0