

# Xiaoshan Xu

## List of Publications by Year in descending order

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101  
papers

3,748  
citations

147801

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133252

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102  
all docs

102  
docs citations

102  
times ranked

4088  
citing authors

#	ARTICLE	IF	CITATIONS
1	Photoconductivity in BiFeO <sub>3</sub> thin films. Applied Physics Letters, 2008, 92, .	3.3	447
2	Optical band gap of BiFeO <sub>3</sub> grown by molecular-beam epitaxy. Applied Physics Letters, 2008, 92, .	3.3	345
3	Room-Temperature Multiferroic Hexagonal $\text{LuFeO}_3$ Films. Physical Review Letters, 2013, 110, 237601.	7.8	195
4	Magnetic Moments and Adiabatic Magnetization of Free Cobalt Clusters. Physical Review Letters, 2005, 95, 237209.	7.8	163
5	Optical properties of quasi-tetragonal BiFeO <sub>3</sub> thin films. Applied Physics Letters, 2010, 96, .	3.3	153
6	Optical properties and magnetochromism in multiferroic $\text{BiFeO}_3$ . Physical Review B, 2009, 79, .	3.2	149
7	Size-Dependent Infrared Phonon Modes and Ferroelectric Phase Transition in BiFeO <sub>3</sub> Nanoparticles. Nano Letters, 2010, 10, 4526-4532.	9.1	146
8	Charge Order, Dynamics, and Magnetostructural Transition in Multiferroic $\text{LuFe}_2\text{O}_4$ . Physical Review Letters, 2008, 101, 227602.	7.8	141
9	Ferroelectricity in Free Niobium Clusters. Science, 2003, 300, 1265-1269.	12.6	130
10	Magnetic Enhancement in Cobalt-Manganese Alloy Clusters. Physical Review Letters, 2007, 98, 113401.	7.8	82
11	Tunable band gap in Bi(Fe <sub>1-x</sub> Mnx)O <sub>3</sub> films. Applied Physics Letters, 2010, 96, .	3.3	70
12	Multiferroic hexagonal ferrites ( $\text{RFeO}_3$ , $\text{R}=\text{Y}, \text{Dy}, \text{Lu}$ ): a brief experimental review. Modern Physics Letters B, 2014, 28, 1430008.		68
13	Intrinsic ferroelectricity in Y-doped HfO <sub>2</sub> thin films. Nature Materials, 2022, 21, 903-909.	27.5	66
14	Chemical ordering suppresses large-scale electronic phase separation in doped manganites. Nature Communications, 2016, 7, 11260.	12.8	64
15	Locking and Unlocking the Molecular Spin Crossover Transition. Advanced Materials, 2017, 29, 1702257.	21.0	55
16	Spin Uncoupling in Free Nb Clusters: Support for Nascent Superconductivity. Physical Review Letters, 2004, 93, 086803.	7.8	54
17	Stacking Principle and Magic Sizes of Transition Metal Nanoclusters Based on Generalized Wulff Construction. Physical Review Letters, 2013, 111, 115501.	7.8	53
18	Crystal field splitting and optical bandgap of hexagonal LuFeO <sub>3</sub> films. Applied Physics Letters, 2012, 101, .	3.3	51

#	ARTICLE	IF	CITATIONS
19	Active control of magnetoresistance of organic spin valves using ferroelectricity. Nature Communications, 2014, 5, 4396.	12.8	51
20	Nonvolatile voltage controlled molecular spin state switching. Applied Physics Letters, 2019, 114, .	3.3	50
21	Magnetotransport Anomaly in Room-Temperature Ferrimagnetic NiCo <sub>2</sub> O <sub>4</sub> Thin Films. Advanced Materials, 2019, 31, e1805260.	21.0	47
22	Adsorption-controlled growth of BiMnO <sub>3</sub> films by molecular-beam epitaxy. Applied Physics Letters, 2010, 96, .	3.3	45
23	Nanostructural origin of semiconductivity and large magnetoresistance in epitaxial NiCo <sub>2</sub> O <sub>4</sub> /Al <sub>2</sub> O <sub>3</sub> thin films. Journal Physics D: Applied Physics, 2018, 51, 145308.	2.8	45
24	Perpendicular magnetic anisotropy in conducting NiCo <sub>2</sub> O <sub>4</sub> films from spin-lattice coupling. Physical Review B, 2020, 101, .	3.2	45
25	Spin-charge-lattice coupling through resonant multimagnon excitations in multiferroic BiFeO <sub>3</sub> . Applied Physics Letters, 2009, 94, 161905.	3.3	43
26	Measurement of magnetic moments of free BiN <sub>2</sub> Mn clusters. Physical Review B, 2005, 72, .	3.2	38
27	Structural and electronic origin of the magnetic structures in hexagonal LuFeO <sub>3</sub> . Physical Review B, 2014, 90, .	3.2	38
28	Metal-Free Oxide-Nitride Heterostructure as a Tunable Hyperbolic Metamaterial Platform. Nano Letters, 2020, 20, 6614-6622.	9.1	38
29	Metastability of Free Cobalt and Iron Clusters: A Possible Precursor to Bulk Ferromagnetism. Physical Review Letters, 2011, 107, 057203.	7.8	35
30	Room temperature ferroelectricity in continuous croconic acid thin films. Applied Physics Letters, 2016, 109, .	3.3	33
31	Electrophoretic-like Gating Used To Control Metal-Insulator Transitions in Electronically Phase Separated Manganite Wires. Nano Letters, 2013, 13, 3749-3754.	9.1	31
32	Infrared phonon modes in multiferroic single-crystal FeTeO <sub>5</sub> . Physical Review B, 2013, 87, .	3.2	31
33	Distribution of magnetization of a cold ferromagnetic cluster beam. Physical Review B, 2008, 78, .	3.2	29
34	Tuning the Néel Temperature of Hexagonal Ferrites by Structural Distortion. Physical Review Letters, 2018, 121, 237203.	7.8	29
35	Nonvolatile Voltage Controlled Molecular Spin-State Switching for Memory Applications. Magnetochemistry, 2021, 7, 37.	2.4	29
36	Electronic structure and direct observation of ferrimagnetism in multiferroic hexagonal YbFeO <sub>3</sub> . Physical Review B, 2017, 95, .	3.2	27

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37	Growth diagram and magnetic properties of hexagonal LuFe <sub>2</sub> O <sub>3</sub> thin films. Physical Review B, 2012, 85, .	3.2	25
38	Nitride-Oxide-Metal Heterostructure with Self-Assembled Core-Shell Nanopillar Arrays: Effect of Ordering on Magneto-Optical Properties. Small, 2021, 17, e2007222.	10.0	25
39	Indications of magnetic coupling effects in spin cross-over molecular thin films. Chemical Communications, 2018, 54, 944-947.	4.1	24
40	Magnetism of new metastable cobalt-nitride compounds. Nanoscale, 2018, 10, 13011-13021.	5.6	24
41	High Tunability of the Surface-Enhanced Raman Scattering Response with a Metal~Multiferroic Composite. Nano Letters, 2011, 11, 1265-1269.	9.1	22
42	Growth diagram of La <sub>0.7</sub> Sr <sub>0.3</sub> MnO <sub>3</sub> thin films using pulsed laser deposition. Journal of Applied Physics, 2013, 113, .	2.5	20
43	On the structural origin of the single-ion magnetic anisotropy in LuFeO <sub>3</sub> . Journal of Physics Condensed Matter, 2016, 28, 156001.	1.8	20
44	Kinetics and intermediate phases in epitaxial growth of Fe <sub>3</sub> O <sub>4</sub> films from deposition and thermal reduction. Journal of Applied Physics, 2016, 120, .	2.5	19
45	Tuning the interfacial spin-orbit coupling with ferroelectricity. Nature Communications, 2020, 11, 2627.	12.8	19
46	Nonclassical dipoles in cold niobium clusters. Physical Review B, 2007, 75, .	3.2	18
47	Magnetic excitations in the bulk multiferroic two-dimensional triangular lattice antiferromagnet Lu <sub>2</sub> VO <sub>4</sub> . Physical Review B, 2018, 98, .	3.2	18
48	Tunable spin-state bistability in a spin crossover molecular complex. Journal of Physics Condensed Matter, 2019, 31, 315401.	1.8	18
49	Ferroelectric polarization control of magnetic anisotropy in PbZr <sub>0.2</sub> Ti <sub>0.8</sub> O <sub>3</sub> . Physical Review B, 2019, 100, 020401.	2.4	18
50	Au-Encapsulated Fe Nanorods in Oxide Matrix with Tunable Magneto-Optic Coupling Properties. ACS Applied Materials & Interfaces, 2020, 12, 51827-51836.	8.0	16
51	Experimental Determination of Ionicity in MnO Nanoparticles. Chemistry of Materials, 2011, 23, 2956-2960.	6.7	15
52	Probing the Interplay between Quantum Charge Fluctuations and Magnetic Ordering in LuFe <sub>2</sub> O <sub>4</sub> . Scientific Reports, 2013, 3, 2654.	3.3	15
53	Absence of Spin Liquid Behavior in Nd <sub>3</sub> Ga <sub>5</sub> SiO <sub>14</sub> Using Magneto-Optical Spectroscopy. Physical Review Letters, 2009, 103, 267402.	7.8	14
54	Effects of biaxial strain on the improper multiferroicity in LuFeO <sub>3</sub> films studied using the restrained thermal expansion method. Physical Review B, 2017, 95, .	3.2	14

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55	Epitaxial NiCo <sub>2</sub> O <sub>4</sub> film as an emergent spintronic material: Magnetism and transport properties. <i>Journal of Applied Physics</i> , 2022, 132, .	2.5	14
56	Phase transition related stress in ferroelectric thin films. <i>Thin Solid Films</i> , 2000, 375, 15-18.	1.8	13
57	Phase separation in LuFeO <sub>3</sub> films. <i>Applied Physics Letters</i> , 2016, 108, .	3.3	13
58	Synergistic computational and experimental discovery of novel magnetic materials. <i>Molecular Systems Design and Engineering</i> , 2020, 5, 1098-1117.	3.4	13
59	Electron Pairing in Ferroelectric Niobium and Niobium Alloy Clusters. <i>Journal of Superconductivity and Novel Magnetism</i> , 2008, 21, 265-269.	1.8	12
60	Honeycomb lattice Na <sub>2</sub> IrO <sub>3</sub> at high pressures: A robust spin-orbit Mott insulator. <i>Physical Review B</i> , 2018, 98, .	3.2	12
61	Nonvolatile Multilevel States in Multiferroic Tunnel Junctions. <i>Physical Review Applied</i> , 2019, 12, .	3.8	11
62	Structural phase diagram and magnetic properties of Sc-substituted rare earth ferrites $R_{1-x}Sc_xFeO_3$ ( $R = Lu, Yb, Er, \text{ and } Ho$ ). <i>Journal of Applied Physics</i> , 2019, 125, .	2.5	11
63	Discovering rare-earth-free magnetic materials through the development of a database. <i>Physical Review Materials</i> , 2020, 4, .	2.4	11
64	Spin-liquid-like state in pure and Mn-doped $TbInO_3$ with a nearly triangular lattice. <i>Physical Review B</i> , 2019, 100, .	3.2	10
65	Effect of interface on epitaxy and magnetism in $h\text{-RFeO}_3/\text{Fe}_3\text{O}_4/\text{Al}_2\text{O}_3$ films ( $R = Lu, Yb$ ). <i>Journal of Physics Condensed Matter</i> , 2017, 29, 164001.	3.2	10
66	Electric-field assisted nucleation processes of croconic acid films. <i>CrystEngComm</i> , 2019, 21, 7460-7467.	2.6	9
67	Spin Rectification and Electrically Controlled Spin Transport in Molecular-Ferroelectrics-Based Spin Valves. <i>Physical Review Applied</i> , 2020, 13, .	3.8	9
68	Abrupt enhancement of spin-orbit scattering time in ultrathin semimetallic SrIrO <sub>3</sub> close to the metal-insulator transition. <i>APL Materials</i> , 2020, 8, .	5.1	9
69	Tuning Negative Capacitance in $PbZr_{0.2}Ti_{0.8}O_3$ . <i>Physical Review Applied</i> , 2021, 16, .	3.9	9
70	The stability and surface termination of hexagonal LuFeO <sub>3</sub> . <i>Journal of Physics Condensed Matter</i> , 2015, 27, 175004.	1.8	8
71	Structure and magnetism of new rare-earth-free intermetallic compounds: $Fe_{3+x}Co_3\hat{x}Ti_2$ ( $0 \leq x \leq 3$ ). <i>APL Materials</i> , 2016, 4, .	5.1	8
72	A brief review of ferroelectric control of magnetoresistance in organic spin valves. <i>Journal of Materiomics</i> , 2018, 4, 1-12.	5.7	8

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73	Revealing pressure-driven structural transitions in the hybrid improper ferroelectric $\text{Sr}_3\text{Sn}_2\text{O}_7$ . Physical Review B, 2021, 104, .	3.2	8
74	Sensitive metallic behavior in epitaxial $\text{NiCo}_2\text{O}_4$ films regulated by the film thickness. Journal of Physics and Chemistry of Solids, 2022, 160, 110321.	4.0	8
75	Strong Interfacial Coupling of Tunable $\text{Ni}^{\delta+}\text{NiO}$ Nanocomposite Thin Films Formed by Self-Decomposition. ACS Applied Materials & Interfaces, 2021, 13, 39730-39737.	8.0	7
76	Tunable physical properties in Bi-based layered supercell multiferroics embedded with Au nanoparticles. Nanoscale Advances, 2022, 4, 3054-3064.	4.6	7
77	Effect of zinc doping on the microstructure in YBCO. Physica C: Superconductivity and Its Applications, 2000, 341-348, 669-670.	1.2	6
78	Anti-site mixing and magnetic properties of $\text{Fe}_3\text{Co}_3\text{Nb}_2$ studied via neutron powder diffraction. Journal Physics D: Applied Physics, 2017, 50, 025002.	2.8	6
79	Nonmonotonic crossover in electronic phase separated manganite superlattices driven by the superlattice period. Physical Review B, 2020, 102, .	3.2	6
80	Magnetic Field Perturbations to a Soft X-ray-Activated Fe (II) Molecular Spin State Transition. Magnetochemistry, 2021, 7, 135.	2.4	6
81	Spin-wave directional anisotropies in antiferromagnetic $\text{Ba}_3\text{NbFe}_3\text{Si}_2\text{O}_{14}$ . Physical Review B, 2019, 100, .	3.2	5
82	Noncollinear spin structure in $\text{F}_e\text{C}_3\text{O}_7$ . Physical Review B, 2019, 100, .	2.4	5
83	Study on the anomalies of thermoelectric power due to the normal-state pseudogap in underdoped cuprates. Physica C: Superconductivity and Its Applications, 2000, 337, 277-280.	1.2	4
84	Absolute crystal and magnetic chiralities in the langasite compound $\text{Ba}_3\text{NbFe}_3\text{Si}_2\text{O}_{14}$ determined by polarized neutron and x-ray scattering. Physical Review B, 2020, 102, .	3.2	4
85	Colossal intrinsic exchange bias from interfacial reconstruction in epitaxial $\text{CoFe}_2\text{O}_4/\text{Al}_2\text{O}_3$ thin films. Physical Review B, 2021, 103, .	3.2	4
86	Probing ferroelectricity by x-ray absorption spectroscopy in molecular crystals. Physical Review Materials, 2020, 4, .	2.4	4
87	Highly Oriented Organic Ferroelectric Films with Single-Crystal-Level Properties from Restrained Crystallization. Crystal Growth and Design, 2022, 22, 2124-2131.	3.0	3
88	Intermolecular Interaction and Cooperativity in an Fe(II) Spin Crossover Molecular Thin Film System. Journal of Physics Condensed Matter, 2022, 34, .	1.8	3
89	$\text{Ti}^{\delta+}\text{Fe}$ Vertically Aligned Nanocomposites Integrated on Silicon as a Multifunctional Platform toward Device Applications. Crystals, 2022, 12, 849.	2.2	3
90	Anelastic relaxation near $T_c$ in Zn-substituted YBCO. Physica C: Superconductivity and Its Applications, 2000, 337, 285-287.	1.2	2

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91	Investigation on three internal friction peaks at low temperature in Ni doped YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-<math>\delta</math></sub> . Physica C: Superconductivity and Its Applications, 2000, 341-348, 601-602.	1.2	2
92	The influence of charge and magnetic order on polaron and acoustic phonon dynamics in LuFe <sub>2</sub> O <sub>4</sub> . Applied Physics Letters, 2015, 107, .	3.3	2
93	Some device implications of voltage controlled magnetic anisotropy in Co/Gd <sub>2</sub> O <sub>3</sub> thin films through REDOX chemistry. Journal of Magnetism and Magnetic Materials, 2018, 451, 487-492.	2.3	2
94	Surface-to-bulk core level shift in CoFe <sub>2</sub> O <sub>4</sub> thin films. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2022, 40, 023201.	2.1	2
95	Anomalies of mechanical and transport properties above T <sub>c</sub> in underdoped Gd <sub>1-x</sub> Pr <sub>x</sub> Ba <sub>2</sub> Cu <sub>3</sub> O <sub>6+<math>\delta</math></sub> . Physica C: Superconductivity and Its Applications, 1997, 282-287, 1053-1054.	1.2	0
96	Acoustic attenuation study on the normal-state pseudogap in underdoped YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-<math>\delta</math></sub> . Europhysics Letters, 1999, 47, 104-109.	2.0	0
97	Phase coherence effect on the normal state internal friction in underdoped YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-<math>\delta</math></sub> . Physica C: Superconductivity and Its Applications, 2000, 337, 208-212.	1.2	0
98	Structural stripe phase effect on band structure in underdoped YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-<math>\delta</math></sub> . Physica C: Superconductivity and Its Applications, 2000, 341-348, 1783-1784.	1.2	0
99	Ferroelectricity in Free Niobium Clusters.. ChemInform, 2003, 34, no.	0.0	0
100	Ultrafast Dynamics of Multiferroic h-LuFeO <sub>3</sub> . , 2015, , .		0
101	Magnetic moments and spin structure in single-phase B20 Co <sub>1+x</sub> Si <sub>1-x</sub> (x=0.043). Journal of Applied Physics, 2022, 131, .	2.5	0