

Jian Liu

List of Publications by Year in descending order

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73
papers

4,032
citations

126907

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h-index

114465

63
g-index

74
all docs

74
docs citations

74
times ranked

5309
citing authors

#	ARTICLE	IF	CITATIONS
1	Antiferromagnetic excitonic insulator state in Sr ₃ Ir ₂ O ₇ . Nature Communications, 2022, 13, 913.	12.8	10
2	Controllable Emergent Spatial Spin Modulation in $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"> \langle \text{mml:mrow} \langle \text{mml:msub} \langle \text{mml:mrow} \langle \text{mml:mi} \text{Sr} \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \langle \text{mml:mrow} \langle \text{mml:mn} \text{2} \langle \text{mml:mn} \rangle \langle \text{mml:mrow} \langle \text{mml:mi} \text{In Situ} \rangle \rangle \rangle \rangle \rangle \rangle$ Shear Strain. Physical Review Letters, 2022, 129, .	7.8	4
3	Manipulation of the Electronic State of Mott Iridate Superlattice through Protonation Induced Electron Filling. Advanced Functional Materials, 2021, 31, 2100261.	14.9	7
4	The transport structural correspondence across the nematic phase transition probed by elasto X-ray diffraction. Nature Materials, 2021, 20, 1519-1524.	27.5	16
5	Strongly anisotropic antiferromagnetic coupling in $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"> \langle \text{mml:mrow} \langle \text{mml:msub} \langle \text{mml:mi} \text{EuFe} \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \langle \text{mml:mrow} \langle \text{mml:mn} \text{2} \langle \text{mml:mn} \rangle \langle \text{mml:mrow} \langle \text{mml:mi} \text{revealed by stress detwinning. Physical Review B, 2021, 104, .$	10.2	1
6	Comprehensive Electrical Control of Metamagnetic Transition of a Quasi-2D Antiferromagnet by In Situ Anisotropic Strain. Advanced Materials, 2020, 32, e2002451.	21.0	10
7	Suppression of superconductivity by anisotropic strain near a nematic quantum critical point. Nature Physics, 2020, 16, 1189-1193.	16.7	39
8	Strain-Modulated Slater-Mott Crossover of Pseudospin-Half Square-Lattice in (Sr ₁ O ₃) ₁ /(SrTiO ₃) ₁ Superlattices. Physical Review Letters, 2020, 124, 177601.	7.8	10
9	Deterministic reversal of single magnetic vortex circulation by an electric field. Science Bulletin, 2020, 65, 1260-1267.	9.0	21
10	Anomalous magnetoresistance in centrosymmetric skyrmion-lattice magnet Gd ₂ PdSi ₃ . New Journal of Physics, 2020, 22, 083056.	2.9	11
11	Recovery of photoexcited magnetic ordering in Sr ₂ IrO ₄ . Journal of Physics Condensed Matter, 2019, 31, 255801.	1.8	2
12	Epitaxial stabilization of Sr ₃ Ir ₂ O ₇ thin films. Applied Physics Letters, 2019, 114, .	3.3	2
13	Magnetism in iridate heterostructures leveraged by structural distortions. Scientific Reports, 2019, 9, 4263.	3.3	26
14	Possible scale invariant linear magnetoresistance in pyrochlore iridates Bi ₂ Ir ₂ O ₇ . New Journal of Physics, 2019, 21, 113041.	2.9	8
15	Anomalous magnetoresistance due to longitudinal spin fluctuations in a Jeff _z =1/2 Mott semiconductor. Nature Communications, 2019, 10, 5301.	12.8	12
16	Designing iridate-based superlattice with large magnetoelectric coupling. Journal of Materials Chemistry C, 2019, 7, 13294-13300.	5.5	9
17	Novel spin-orbit coupling driven emergent states in iridate-based heterostructures. Journal of Physics and Chemistry of Solids, 2019, 128, 39-53.	4.0	21
18	Epitaxial growth and antiferromagnetism of Sn-substituted perovskite iridate Sr _{1-0.8} Sn _{0.2} O ₃ . Physical Review Materials, 2019, 3, .	2.4	1

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19	Experimental evidence for bipolaron condensation as a mechanism for the metal-insulator transition in rare-earth nickelates. Nature Communications, 2018, 9, 86.	12.8	40
20	Strain effects on structural and magnetic properties of SrIrO3/SrTiO3 superlattice. Materials Today Physics, 2018, 4, 43-49.	6.0	16
21	Controlling entangled spin-orbit coupling of $5d$ states with interfacial heterostructure engineering. Physical Review B, 2018, 97, .	7.2	14
22	Decoupling Carrier Concentration and Electron-Phonon Coupling in Oxide Heterostructures Observed with Resonant Inelastic X-Ray Scattering. Physical Review Letters, 2018, 121, 236802.	7.8	22
23	Giant magnetic response of a two-dimensional antiferromagnet. Nature Physics, 2018, 14, 806-810.	16.7	44
24	Structure of epitaxial SrIrO ₃ perovskite studied by interference between X-ray waves diffracted by the substrate and the thin film. Journal of Applied Crystallography, 2017, 50, 385-398.	4.5	11
25	Electron Accumulation and Emergent Magnetism in $LaMnO_3$ Heterostructures. Physical Review Letters, 2017, 119, 156801.	7.8	63
26	Tuning Perpendicular Magnetic Anisotropy by Oxygen Octahedral Rotations in MO_2		

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37	Emerging magnetism and anomalous Hall effect in iridate-manganite heterostructures. Nature Communications, 2016, 7, 12721.	12.8	123
38	Superconductor to Mott insulator transition in YBa ₂ Cu ₃ O ₇ /LaCaMnO ₃ heterostructures. Scientific Reports, 2016, 6, 33184.	3.3	10
39	Charge order and antiferromagnetism in epitaxial ultrathin films of EuNiO ₃ . Physical Review B, 2015, 92, .	12.8	123
40	Probing single magnon excitations in Sr ₂ IrO ₄ using O K-edge resonant inelastic x-ray scattering. Journal of Physics Condensed Matter, 2015, 27, 202202.	1.8	11
41	Giant reversible nanoscale piezoresistance at room temperature in Sr ₂ IrO ₄ thin films. Nanoscale, 2015, 7, 3453-3459.	5.6	24
42	Novel Electronic Behavior Driving NdNiO ₃ Transition. Physical Review Letters, 2015, 115, 036401.	12.8	136
43	180° Ferroelectric Stripe Nanodomains in BiFeO ₃ Thin Films. Nano Letters, 2015, 15, 6506-6513.	9.1	58
44	Deterministic switching of ferromagnetism at room temperature using an electric field. Nature, 2014, 516, 370-373.	27.8	570
45	Room-temperature antiferromagnetic memory resistor. Nature Materials, 2014, 13, 367-374.	27.5	546
46	Electronic and magnetic properties of (1 1 1)-oriented CoCr ₂ O ₄ epitaxial thin film. Applied Physics Letters, 2014, 105, .	3.3	16
47	Induced Magnetization in La _{0.7} Sr _{0.3} MnO ₃ . Physical Review Letters, 2014, 113, 047204.	12.8	136
48	Anisotropic magnetoresistance in an antiferromagnetic semiconductor. Nature Communications, 2014, 5, 4671.	12.8	136
49	Strain-modulated Mott transition in EuNiO ₃ ultrathin films. Physical Review B, 2013, 88, .	3.2	31
50	Heterointerface engineered electronic and magnetic phases of NdNiO ₃ thin films. Nature Communications, 2013, 4, 2714.	12.8	167
51	Epitaxial stabilization of ultra-thin films of EuNiO ₃ . Journal Physics D: Applied Physics, 2013, 46, 385303.	2.8	13
52	Tuning the Competition between Ferromagnetism and Antiferromagnetism in a Half-Doped Manganite through Magnetoelectric Coupling. Physical Review Letters, 2013, 111, 127601.	7.8	93
53	Interfacial coupling in multiferroic/ferromagnet heterostructures. Physical Review B, 2013, 87, .	3.2	69
54	Connecting bulk symmetry and orbital polarization in strained RNiO ₃ ultrathin films. Physical Review B, 2013, 88, .	3.2	40

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55	Publisher's Note: Strain-modulated Mott transition in EuNiO ₃ ultrathin films [Phys. Rev. B 88, 075116 (2013)]. Physical Review B, 2013, 88, .	3.2	1
56	Epitaxy-distorted spin-orbit Mott insulator in SrIrO ₂ thin films. Physical Review B, 2013, 87, .	3.2	70
57	Heterostructuring and strain effects on the infrared optical properties of nickelates. Physical Review B, 2012, 86, .	3.2	16
58	Metal-Insulator Transition and Orbital Reconstruction in Mott-Type Quantum Wells Made of NdNiO ₃ . Physical Review Letters, 2012, 109, 107402.	7.8	37
59	Optical study of strained ultrathin films of strongly correlated LaNiO ₃ . Physical Review B, 2011, 83, .	3.2	54
60	Sub-monolayer nucleation and growth of complex oxides at high supersaturation and rapid flux modulation. Journal of Applied Physics, 2011, 109, 114303.	2.5	23
61	Strain-dependent transport properties of the ultra-thin correlated metal, LaNiO ₃ . New Journal of Physics, 2011, 13, 073037.	2.9	16
62	Asymmetric Orbital-Lattice Interactions in Ultrathin Correlated Oxide Films. Physical Review Letters, 2011, 107, 116805.	7.8	158
63	Mott Physics near the Insulator-To-Metal Transition in NdNiO ₃ . Physical Review Letters, 2011, 107, 176401.	7.8	85
64	Optical probe of strong correlations in LaNiO ₃ thin films. Journal of Applied Physics, 2011, 110, . Quantum confinement of Mott electrons in ultrathin LaNiO ₃	2.5	28
65	Interfacial electronic and magnetic properties of LaNiO ₃ /LaAlO ₃ superlattices. Applied Physics Letters, 2011, 98, 082105.	3.2	122
66	Interfacial electronic and magnetic properties of LaNiO ₃ /PrBa ₂ CoFe ₂ O ₁₀ superlattices. Applied Physics Letters, 2011, 98, 082105.	3.2	4
67	Orbital control in strained ultra-thin LaNiO ₃ /LaAlO ₃ superlattices. Europhysics Letters, 2011, 96, 57004.	2.0	85
68	Local electronic and magnetic studies of an artificial La ₂ FeCrO ₆ double perovskite. Applied Physics Letters, 2010, 97, 013105.	3.3	47
69	Strain-mediated metal-insulator transition in epitaxial ultrathin films of NdNiO ₃ . Applied Physics Letters, 2010, 96, .	3.3	88
70	Visualizing nanoscale electronic band alignment at the La ₂ FeCrO ₆ /LaNiO ₃ interface. Physical Review B, 2010, 82, .	3.2	22
71	Effect of polar discontinuity on the growth of LaNiO ₃ /LaAlO ₃ superlattices. Applied Physics Letters, 2010, 96, .	3.3	37
72	Depth-resolved subsurface defects in chemically etched SrTiO ₃ . Applied Physics Letters, 2009, 94, .	3.3	36

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73	Atomic control and characterization of surface defect states of TiO ₂ terminated SrTiO ₃ single crystals. Applied Physics Letters, 2008, 93, .	3.3	82