

# Hongrui Zhang

## List of Publications by Year in descending order

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docs citations

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times ranked

1894  
citing authors

#	ARTICLE	IF	CITATIONS
1	The role of lattice dynamics in ferroelectric switching. Nature Communications, 2022, 13, 1110.	12.8	25
2	Room-temperature skyrmion lattice in a layered magnet (Fe <sub>0.5</sub> Co <sub>0.5</sub> ) <sub>5</sub> GeTe <sub>2</sub> . Science Advances, 2022, 8, eabm7103.	10.3	55
3	A room temperature polar magnetic metal. Physical Review Materials, 2022, 6, .	2.4	21
4	Enabling ultra-low-voltage switching in BaTiO <sub>3</sub> . Nature Materials, 2022, 21, 779-785.	27.5	28
5	Electric gating of the multichannel conduction in LaAlO <sub>3</sub> /SrTiO <sub>3</sub> superlattices*. Chinese Physics B, 2021, 30, 017301.	1.4	1
6	Novel Spin-Orbit Torque Generation at Room Temperature in an All-Oxide Epitaxial La <sub>0.7</sub> Sr <sub>0.3</sub> MnO <sub>3</sub> /SrIrO <sub>3</sub> System. Advanced Materials, 2021, 33, e2008269.	21.0	32
7	High-temperature interface superconductivity in bilayer copper oxide films by pulsed laser deposition. Science China Materials, 2020, 63, 128-135.	6.3	6
8	Topotactic phase transformations by concerted dual-ion migration of B-site cation and oxygen in multivalent cobaltite La <sub>1-x</sub> Sr <sub>x</sub> CoO <sub>3</sub> films. Nano Energy, 2020, 78, 105215.	16.0	17
9	Itinerant ferromagnetism in van der Waals Fe <sub>5</sub> Cr <sub>2</sub> crystals above room temperature. Physical Review B, 2020, 102, .	3.2	74
10	Long-Range Magnetic Order in Oxide Quantum Wells Hosting Two-Dimensional Electron Gases. ACS Applied Materials & Interfaces, 2020, 12, 28775-28782.	8.0	7
11	Spin reorientation at (110)-La <sub>2/3</sub> Sr <sub>1/3</sub> MnO <sub>3</sub> /LaCoO <sub>3</sub> interfaces by orbital/charge reconstruction. APL Materials, 2020, 8, .	5.1	3
12	Interfacial oxygen-octahedral-tilting-driven electrically tunable topological Hall effect in ultrathin SrRuO <sub>3</sub> films. Journal Physics D: Applied Physics, 2019, 52, 404001.	2.8	51
13	Perpendicular magnetic anisotropy in La <sub>1-x</sub> Sr <sub>x</sub> CoO <sub>2.5</sub> /La <sub>2/3</sub> Sr <sub>1/3</sub> MnO <sub>3</sub> /La <sub>1-x</sub> Sr <sub>x</sub> CoO <sub>2.5</sub> trilayers (x=0.05-0.5). Physical Review B, 2019, 100, .	3.2	11
14	Thermal Spin Injection and Inverse Edelstein Effect of the Two-Dimensional Electron Gas at EuO/KTaO <sub>3</sub> Interfaces. Nano Letters, 2019, 19, 1605-1612.	9.1	30
15	Oxygen-Valve Formed in Cobaltite-Based Heterostructures by Ionic Liquid and Ferroelectric Dual-Gating. ACS Applied Materials & Interfaces, 2019, 11, 19584-19595.	8.0	30
16	Novel reduction of hysteresis loss controlled by strain memory effect in FeRh/PMN-PT heterostructures. Nano Energy, 2019, 59, 285-294.	16.0	26
17	Tuning the Magnetic Anisotropy of La <sub>2/3</sub> Sr <sub>1/3</sub> MnO <sub>3</sub> by Controlling the Structure of SrCoO <sub>x</sub> in the Corresponding Bilayers Using Ionic-Liquid Gating. Physical Review Applied, 2019, 12, .	3.8	15
18	A large magnetocaloric effect of GdCoO <sub>3</sub> epitaxial thin films prepared by a polymer assisted spin-coating method. Journal of Materials Chemistry C, 2019, 7, 14970-14976.	5.5	13

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19	Unusual Electric and Optical Tuning of $\text{KTaO}_3$ -Based Two-Dimensional Electron Gases with 5d Orbitals. ACS Nano, 2019, 13, 609-615.	14.6	52
20	Diluted Oxide Interfaces with Tunable Ground States. Advanced Materials, 2019, 31, e1805970.	21.0	28
21	Preparation of thulium iron garnet ceramics and investigation of spin transport properties in thin films. Ceramics International, 2019, 45, 7649-7653.	4.8	5
22	Strong anisotropy and its electric tuning for brownmillerite $\text{SrCo}_2\text{O}_7$ films with different crystal orientations. Physical Review Materials, 2019, 3, .	2.4	13
23	Controllable oxygen vacancies, orbital occupancy and magnetic ordering in $\text{SrCoO}_{3-\delta}$ films. Journal of Magnetism and Magnetic Materials, 2018, 454, 228-236.	2.3	13
24	Magnetic two-dimensional electron gases with high Curie temperatures at $\text{LaAlO}_3/\text{SrTiO}_3$ interfaces. Physical Review B, 2018, 97, .	2.1	22
25	Negative thermal expansion and magnetocaloric effect in Mn-Co-Ge-In thin films. Applied Physics Letters, 2018, 112, .	3.3	6
26	Chromium-induced ferromagnetism with perpendicular anisotropy in topological crystalline insulator SnTe (111) thin films. Physical Review B, 2018, 97, .	3.2	14
27	Tuning the Two-Dimensional Electron Gas at Oxide Interfaces with $\text{Ti}^{4+}$ Configurations: Evidence from X-ray Photoelectron Spectroscopy. ACS Applied Materials & Interfaces, 2018, 10, 1434-1439.	8.0	15
28	Spin Seebeck effect and spin Hall magnetoresistance in the Pt/Y <sub>3</sub> Fe <sub>5</sub> O <sub>12</sub> heterostructure under laser-heating. Chinese Physics B, 2018, 27, 117201.	1.4	3
29	Metallic conduction and ferromagnetism in $\text{M}_{1-x}\text{Al}_x\text{O}_4/\text{SrTiO}_3$ spinel/perovskite heterostructures ( $M = \text{Fe, Co, Ni}$ ). Applied Physics Letters, 2018, 113, .	3.3	6
30	Broken mirror symmetry tuned topological transport in PbTe/SnTe heterostructures. Physical Review B, 2018, 98, .	3.2	20
31	Magnetic Anisotropy Controlled by Distinct Interfacial Lattice Distortions at the $\text{La}_{1-x}\text{Sr}_x\text{CoO}_3/\text{La}_{2/3}\text{Sr}_{1/3}\text{MnO}_3$ Interfaces. ACS Applied Materials & Interfaces, 2018, 10, 40951-40957.	7.8	79
32	High-Mobility Spin-Polarized Two-Dimensional Electron Gases at $\text{EuO}/\text{KTaO}_3$ Interfaces. Physical Review Letters, 2018, 121, 116803.	7.8	79
33	Symmetry mismatch-driven perpendicular magnetic anisotropy for perovskite/brownmillerite heterostructures. Nature Communications, 2018, 9, 1923.	12.8	63
34	Temperature stability of coercivity in mischmetal-Fe-Co-B melt-spun ribbons. Materials Research Express, 2018, 5, 056101.	1.6	6
35	Two-dimensional electron gas at manganite buffered $\text{LaAlO}_3/\text{SrTiO}_3$ (001) interface by spin coating chemical methods. Applied Physics Letters, 2018, 113, 071601.	3.3	3
36	Anatase $\text{TiO}_2$ -based two-dimensional electron gases generated by low-energy argon-ion irradiation. Applied Physics Letters, 2018, 112, 241601.	3.3	2

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37	Antiferromagnetic interlayer coupling and thus induced distinct spin texture for the [LaMnO <sub>3</sub> /LaCoO <sub>3</sub> ] <sub>5</sub> superlattices. <i>Nanoscale</i> , 2017, 9, 3476-3484.	5.6	12
38	Observation of inverse Edelstein effect in Rashba-split 2DEG between SrTiO <sub>3</sub> and LaAlO <sub>3</sub> at room temperature. <i>Science Advances</i> , 2017, 3, e1602312.	10.3	132
39	Orientation-modulated exchange coupling in La <sub>0.67</sub> Ca <sub>0.33</sub> MnO <sub>3</sub> /CaMnO <sub>3</sub> bilayer films. <i>Journal of Magnetism and Magnetic Materials</i> , 2017, 428, 372-376.	2.3	2
40	Highly Mobile Two-Dimensional Electron Gases with a Strong Gating Effect at the Amorphous LaAlO <sub>3</sub> /KTaO <sub>3</sub> Interface. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 36456-36461.	8.0	69
41	Modulated Transport Behavior of Two-Dimensional Electron Gas at Ni-Doped LaAlO <sub>3</sub> /SrTiO <sub>3</sub> Heterointerfaces. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 39011-39017.	8.0	36
42	Oxygen defect engineering by the current effect assisted with temperature cycling in a perovskite-type La <sub>0.7</sub> Sr <sub>0.3</sub> CoO <sub>3</sub> film. <i>Nanoscale</i> , 2017, 9, 13214-13221.	5.6	8
43	Single orthorhombic b axis orientation and antiferromagnetic ordering type in multiferroic CaMnO <sub>3</sub> thin film with La <sub>0.67</sub> Ca <sub>0.33</sub> MnO <sub>3</sub> buffer layer. <i>Applied Physics Letters</i> , 2017, 111, .	3.3	6
44	Magnetic two-dimensional electron gas at the manganite-buffered LaAlO <sub>3</sub> /SrTiO <sub>3</sub> interface. <i>Physical Review B</i> , 2017, 96, .	3.3	6
45	Joint effect of gate bias and light illumination on metallic LaAlO <sub>3</sub> /SrTiO <sub>3</sub> interface. <i>Applied Physics Letters</i> , 2017, 111, .	3.3	6
46	High mobility 2-dimensional electron gas at LaAlO <sub>3</sub> /SrTiO <sub>3</sub> interface prepared by spin coating chemical methods. <i>Nanotechnology</i> , 2017, 28, 435701.	2.6	10
47	Tuning the magnetism of epitaxial cobalt oxide thin films by electron beam irradiation. <i>Physical Review Materials</i> , 2017, 1, .	2.4	14
48	Structural and Magnetic Properties of LaCoO <sub>3</sub> /SrTiO <sub>3</sub> Multilayers. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 18328-18333.	8.0	19
49	Electric Control of the Hall effect in Pt/Bi <sub>0.9</sub> La <sub>0.1</sub> FeO <sub>3</sub> bilayers. <i>Scientific Reports</i> , 2016, 6, 20330.	3.3	34
50	One dimensional electron gas at the LaAlO <sub>3</sub> /SrTiO <sub>3</sub> interface and its transport properties. <i>Applied Physics Letters</i> , 2016, 109, .	3.3	4
51	Anisotropic transport properties in the phase-separated La <sub>0.67</sub> Ca <sub>0.33</sub> MnO <sub>3</sub> /NdGaO <sub>3</sub> (001) films. <i>Chinese Physics B</i> , 2016, 25, 077306.	1.4	2
52	Oxygen vacancy formation, crystal structures, and magnetic properties of three SrMnO <sub>3</sub> films. <i>Applied Physics Letters</i> , 2016, 109, .	3.3	32
53	A conductive scanning study of La <sub>0.67</sub> Sr <sub>0.33</sub> MnO <sub>3</sub> /Nb:SrTiO <sub>3</sub> hetero-junction. <i>Applied Physics Letters</i> , 2016, 108, .	3.3	3
54	Anomalous Hall effect based on Pt/Bi <sub>0.9</sub> La <sub>0.1</sub> FeO <sub>3</sub> bilayers. <i>Japanese Journal of Applied Physics</i> , 2016, 55, 045801.	1.5	0

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55	Evidence for lattice-polarization-enhanced field effects at the SrTiO <sub>3</sub> -based heterointerface. Scientific Reports, 2016, 6, 22418.	3.3	7
56	Enhanced photovoltaic effect of La <sub>0.8</sub> Sr <sub>0.2</sub> MnO <sub>3</sub> thin films based on electric field training. Materials Letters, 2016, 166, 5-8.	2.6	1
57	Enhanced transparent conducting performance of Bi <sub>2</sub> Sr <sub>2</sub> Co <sub>2</sub> O <sub>8</sub> thin films by adding gold nanoparticles. Journal of Materials Science, 2016, 51, 1302-1307.	3.7	3
58	The effect of Ni doping on the thermoelectric transport properties of CdO ceramics. Journal of Alloys and Compounds, 2016, 662, 213-219.	5.5	30
59	Resistance switching mechanism of La <sub>0.8</sub> Sr <sub>0.2</sub> MnO <sub>3</sub> thin films. Physica B: Condensed Matter, 2016, 483, 99-102.	2.7	5
60	Correlation between magnetism and "dark stripes" in strained La <sub>1-x</sub> Sr <sub>x</sub> CoO <sub>3</sub> epitaxial films (0 ≤ x ≤ 0.1). Applied Physics Letters, 2015, 107, .	3.3	16
61	Enhanced transparent conducting performance of c-axis oriented Ca <sub>3</sub> Co <sub>4</sub> O <sub>9</sub> thin films. RSC Advances, 2015, 5, 26383-26387.	3.6	7
62	Epitaxial growth and thermoelectric properties of c-axis oriented Bi <sub>1-x</sub> Pb <sub>x</sub> CuSeO single crystalline thin films. CrystEngComm, 2015, 17, 8697-8702.	2.6	18
63	Light-induced transverse thermoelectric effect in miscut GaAs single crystals by far-infrared laser illumination. Journal Physics D: Applied Physics, 2014, 47, 345101.	2.8	0
64	Epitaxial Bi <sub>2</sub> Sr <sub>2</sub> Co <sub>2</sub> O <sub>y</sub> thin films as a promising p-type transparent conducting oxides. Optical Materials Express, 2014, 4, 2209.	3.0	6
65	Fabrication and high temperature thermoelectric properties of c-axis oriented Na <sub>0.68</sub> CoO:Ag nanocomposite thin films. Materials Research Bulletin, 2014, 50, 161-164.	5.2	3
66	Abnormal percolative transport and colossal electroresistance induced by anisotropic strain in (011)-Pr <sub>0.7</sub> (Ca <sub>0.6</sub> Sr <sub>0.4</sub> ) <sub>0.3</sub> MnO <sub>3</sub> /PMN-PT heterostructure. Scientific Reports, 2014, 4, 7075.	3.3	31
67	Anomalous magnetism in strained La <sub>1-x</sub> Sr <sub>x</sub> CoO <sub>3</sub> epitaxial films (0 ≤ x ≤ 0.5). Scientific Reports, 2014, 4, 6206.	3.3	33
68	Growth and Thermoelectric Properties of Epitaxial Na <sub>0.5</sub> CoO <sub>2</sub> Thin Films Dispersed with Au Nanoparticles. Nanoscience and Nanotechnology Letters, 2014, 6, 918-921.	0.4	0
69	The enhancement of photo-thermo-electric conversion in tilted Bi <sub>2</sub> Sr <sub>2</sub> Co <sub>2</sub> O <sub>y</sub> thin films through coating a layer of single-wall carbon nanotubes light absorber. Optics Express, 2013, 21, 18336.	3.4	11