Ming Liu

List of Publications by Year
in descending order

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208 papers	6,792 citations	61857 43 h-index	79541 73 g-index
222 all docs	222 docs citations	222 times ranked	7519 citing authors

#	Article	IF	Citations
1	Nucleation-controlled growth of superior lead-free perovskite Cs3Bi2I9 single-crystals for high-performance X-ray detection. Nature Communications, 2020, 11, 2304.	5.8	286
2	Super-elastic ferroelectric single-crystal membrane with continuous electric dipole rotation. Science, 2019, 366, 475-479.	6.0	272
3	An Artificial Neuron Based on a Threshold Switching Memristor. IEEE Electron Device Letters, 2018, 39, 308-311.	2.2	248
4	Ultrahigh Energy Storage Performance of Leadâ€Free Oxide Multilayer Film Capacitors via Interface Engineering. Advanced Materials, 2017, 29, 1604427.	11.1	247
5	A 1300 mm² Ultrahighâ€Performance Digital Imaging Assembly using Highâ€Quality Perovskite Single Crystals. Advanced Materials, 2018, 30, e1707314.	11.1	246
6	An artificial spiking afferent nerve based on Mott memristors for neurorobotics. Nature Communications, 2020, 11, 51.	5.8	217
7	Distance-Dependent Plasmon-Enhanced Fluorescence of Upconversion Nanoparticles using Polyelectrolyte Multilayers as Tunable Spacers. Scientific Reports, 2015, 5, 7779.	1.6	171
8	Metalâ€“Semiconductorâ€“Metal Îµ-Ga₂O₃ Solar-Blind Photodetectors with a Record-High Responsivity Rejection Ratio and Their Gain Mechanism. ACS Photonics, 2020, 7, 812-820.	3.2	152
9	Schottky barrier diode based on Î²-Ga2O3 (100) single crystal substrate and its temperature-dependent electrical characteristics. Applied Physics Letters, 2017, 110, .	1.5	132
10	Effects of Capping Electrode on Ferroelectric Properties of Hf_{0.5}Zr_{0.5}O₂ Thin Films. IEEE Electron Device Letters, 2018, 39, 1207-1210.	2.2	132
11	Emulating Short-Term and Long-Term Plasticity of Bio-Synapse Based on Cu/a-Si/Pt Memristor. IEEE Electron Device Letters, 2017, 38, 1208-1211.	2.2	131
12	Strain-based room-temperature non-volatile MoTe2 ferroelectric phase change transistor. Nature Nanotechnology, 2019, 14, 668-673.	15.6	128
13	Voltage control of magnetism in multiferroic heterostructures. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2014, 372, 20120439.	1.6	118
14	Full imitation of synaptic metaplasticity based on memristor devices. Nanoscale, 2018, 10, 5875-5881.	2.8	99
15	Deterministic Switching of Perpendicular Magnetic Anisotropy by Voltage Control of Spin Reorientation Transition in (Co/Pt)₃/Pb(Mg_{1/3}Nb_{2/3})O₃â€“PbTiO₃ Multiferroic Heterostructures. ACS Nano, 2017, 11, 4337-4345.	7.3	91
16	High-Performance Metal-Organic Chemical Vapor Deposition Grown $varepsilon$ -Ga₂O₃ Solar-Blind Photodetector With Asymmetric Schottky Electrodes. IEEE Electron Device Letters, 2019, 40, 1475-1478.	2.2	91
17	Ionic liquid gating control of RKKY interaction in FeCoB/Ru/FeCoB and (Pt/Co)2/Ru/(Co/Pt)2 multilayers. Nature Communications, 2018, 9, 991.	5.8	87
18	Probing electric field control of magnetism using ferromagnetic resonance. Nature Communications, 2015, 6, 6082.	5.8	85

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19	Improvement of Endurance in HZO-Based Ferroelectric Capacitor Using Ru Electrode. IEEE Electron Device Letters, 2019, 40, 1744-1747.	2.2	85
20	Review of deep ultraviolet photodetector based on gallium oxide. Chinese Physics B, 2019, 28, 018501.	0.7	85
21	Fatigue mechanism of yttrium-doped hafnium oxide ferroelectric thin films fabricated by pulsed laser deposition. Physical Chemistry Chemical Physics, 2017, 19, 3486-3497.	1.3	84
22	A Habituation Sensory Nervous System with Memristors. Advanced Materials, 2020, 32, e2004398.	11.1	78
23	Phase transition enhanced superior elasticity in freestanding single-crystalline multiferroic BiFeO ₃ membranes. Science Advances, 2020, 6, .	4.7	73
24	Quantitative Determination on Ionicâ€Liquidâ€Gating Control of Interfacial Magnetism. Advanced Materials, 2017, 29, 1606478.	11.1	72
25	Voltage Control of Metal-insulator Transition and Non-volatile Ferroelastic Switching of Resistance in VOx/PMN-PT Heterostructures. Scientific Reports, 2014, 4, 5931.	1.6	67
26	Synthesis of upconversion NaYF₄:Yb³⁺,Er³⁺ particles with enhanced luminescent intensity through control of morphology and phase. Journal of Materials Chemistry C, 2014, 2, 3671-3676.	2.7	62
27	Ultrahigh-Performance Solar-Blind Photodetector Based on $alpha$ -Phase- Dominated Ga₂O₃ Film With Record Low Dark Current of 81 fA. IEEE Electron Device Letters, 2019, 40, 1483-1486.	2.2	58
28	Interface Engineered BaTiO₃/SrTiO₃ Heterostructures with Optimized High-Frequency Dielectric Properties. ACS Applied Materials & Interfaces, 2012, 4, 5761-5765.	4.0	57
29	Electric-Field Modulation of Interface Magnetic Anisotropy and Spin Reorientation Transition in (Co/Pt)₃/PMNâ€“PT Heterostructure. ACS Applied Materials & Interfaces, 2017, 9, 10855-10864.	4.0	56
30	Characterization of the inhomogeneous barrier distribution in a Pt/(100)Î²-Ga2O3 Schottky diode via its temperature-dependent electrical properties. AIP Advances, 2018, 8, .	0.6	56
31	Topological Defects with Distinct Dipole Configurations in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>PbTiO</mml:mi></mml:mrow><mml:mn>3</mml:mn></mml:msub><mml:mo>/</mml:mo><mml:msub><mml:mrow><mml:mi>SrTiO</mml:mi></mml:mrow><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math> Multilayer Films. Physical Review Letters, 2018, 120, 177601.	2.9	55
32	Enhancement-Mode eta -Ga₂O₃ Metalâ€“Oxideâ€“Semiconductor Field-Effect Solar-Blind Phototransistor With Ultrahigh Detectivity and Photo-to-Dark Current Ratio. IEEE Electron Device Letters, 2019, 40, 742-745.	2.2	55
33	Low-Voltage Control of (Co/Pt)_x Perpendicular Magnetic Anisotropy Heterostructure for Flexible Spintronics. ACS Nano, 2018, 12, 7167-7173.	7.3	53
34	Bipolar Analog Memristors as Artificial Synapses for Neuromorphic Computing. Materials, 2018, 11, 2102.	1.3	52
35	Timeâ€Tailoring van der Waals Heterostructures for Human Memory System Programming. Advanced Science, 2019, 6, 1901072.	5.6	52
36	High-Voltage ($overline{ext{2}}01$) eta -Ga₂O₃ Vertical Schottky Barrier Diode With Thermally-Oxidized Termination. IEEE Electron Device Letters, 2020, 41, 131-134.	2.2	52

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37	Hybrid memristor-CMOS neurons for in-situ learning in fully hardware memristive spiking neural networks. Science Bulletin, 2021, 66, 1624-1633.	4.3	52
38	Large Piezoelectric Strain with Superior Thermal Stability and Excellent Fatigue Resistance of Lead-Free Potassium Sodium Niobate-Based Grain Orientation-Controlled Ceramics. ACS Applied Materials & Interfaces, 2018, 10, 10220-10226.	4.0	51
39	Source-Field-Plated Î²-Ga2O3 MOSFET with Record Power Figure of Merit of 50.4 MW/cm2. IEEE Electron Device Letters, 2018, , 1-1.	2.2	50
40	Ionic Gel Modulation of RKKY Interactions in Synthetic Antiâ€Ferromagnetic Nanostructures for Low Power Wearable Spintronic Devices. Advanced Materials, 2018, 30, e1800449.	11.1	49
41	Electrically controlled non-volatile switching of magnetism in multiferroic heterostructures via engineered ferroelastic domain states. NPG Asia Materials, 2016, 8, e316-e316.	3.8	48
42	Discovery of Enhanced Magnetoelectric Coupling through Electric Field Control of Two-Magnon Scattering within Distorted Nanostructures. ACS Nano, 2017, 11, 9286-9293.	7.3	48
43	Ionic Liquid Gating Control of Spin Reorientation Transition and Switching of Perpendicular Magnetic Anisotropy. Advanced Materials, 2018, 30, e1801639.	11.1	47
44	Periodic Wrinkleâ€Patterned Singleâ€Crystalline Ferroelectric Oxide Membranes with Enhanced Piezoelectricity. Advanced Materials, 2020, 32, e2004477.	11.1	47
45	Fast Switching eta -Ga₂O₃Power MOSFET With a Trench-Gate Structure. IEEE Electron Device Letters, 2019, 40, 1385-1388.	2.2	46
46	A Controllable and Integrated Pump-enabled Microfluidic Chip and Its Application in Droplets Generating. Scientific Reports, 2017, 7, 11319.	1.6	42
47	Eâ€field Control of the RKKY Interaction in FeCoB/Ru/FeCoB/PMNâ€PT (011) Multiferroic Heterostructures. Advanced Materials, 2018, 30, e1803612.	11.1	42
48	A Self-Rectification and Quasi-Linear Analogue Memristor for Artificial Neural Networks. IEEE Electron Device Letters, 2019, 40, 1407-1410.	2.2	42
49	Giant Magnetoresistance and Anomalous Magnetic Properties of Highly Epitaxial Ferromagnetic LaBaCo₂O_{5.5+Î´} Thin Films on (001) MgO. ACS Applied Materials & Interfaces, 2012, 4, 5524-5528.	4.0	41
50	Improved electrical properties for Mn-doped lead-free piezoelectric potassium sodium niobate ceramics. AIP Advances, 2015, 5, .	0.6	41
51	Modulation of Spin Dynamics via Voltage Control of Spinâ€Lattice Coupling in Multiferroics. Advanced Functional Materials, 2017, 27, 1605598.	7.8	40
52	A Highly Thermostable In2O3/ITO Thin Film Thermocouple Prepared via Screen Printing for High Temperature Measurements. Sensors, 2018, 18, 958.	2.1	40
53	HfO₂-Based Highly Stable Radiation-Immune Ferroelectric Memory. IEEE Electron Device Letters, 2017, 38, 330-333.	2.2	39
54	ALD preparation of high-k HfO₂ thin films with enhanced energy density and efficient electrostatic energy storage. RSC Advances, 2017, 7, 8388-8393.	1.7	39

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55	A New Ba_{0.6}Sr_{0.4}TiO₃â€“Silicon Hybrid Metamaterial Device in Terahertz Regime. Small, 2016, 12, 2610-2615.	5.2	38
56	BEOL Based RRAM with one extra-mask for low cost, highly reliable embedded application in 28 nm node and beyond. , 2017, , .		36
57	Composition-Dependent Ferroelectric Properties in Sputtered Hf_XZr_{1â^'X}O₂ Thin Films. IEEE Electron Device Letters, 2019, 40, 570-573.	2.2	35
58	Voltage Control of Perpendicular Magnetic Anisotropy in Multiferroic <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mo mathvariant="bold" stretchy="false">(</mml:mo><mml:mi>Co</mml:mi><mml:mo>/</mml:mo><mml:mi>Pt</mml:mi><mml:mo) Tj ETQq0 0 0 rgBT /Overlo	1.5	33
59	2â€“2 Type PVDFâ€Based Composites Interlayered by Epitaxial (111)â€Oriented BTO Films for High Energy Storage Density. Advanced Functional Materials, 2022, 32, 2108496.	7.8	33
60	Giant tunable spin Hall angle in sputtered Bi2Se3 controlled by an electric field. Nature Communications, 2022, 13, 1650.	5.8	33
61	Field Effect Mobility Model in Oxide Semiconductor Thin Film Transistors With Arbitrary Energy Distribution of Traps. IEEE Electron Device Letters, 2014, 35, 226-228.	2.2	32
62	Strain-Induced Anisotropic Transport Properties of LaBaCo₂O_{5.5+Î´} Thin Films on NdGaO₃ Substrates. ACS Applied Materials & Interfaces, 2014, 6, 8526-8530.	4.0	32
63	Strain-tunable magnetic properties of epitaxial lithium ferrite thin film on MgAl₂O₄ substrates. Journal of Materials Chemistry C, 2015, 3, 5598-5602.	2.7	31
64	Hybrid 1T e-DRAM and e-NVM Realized in One 10 nm node Ferro FinFET device with Charge Trapping and Domain Switching Effects. , 2018, , .		30
65	Ultraflexible and Malleable Fe/BaTiO₃ Multiferroic Heterostructures for Functional Devices. Advanced Functional Materials, 2021, 31, 2009376.	7.8	30
66	Novel Vertical Channel-All-Around (CAA) In-Ga-Zn-O FET for 2T0C-DRAM With High Density Beyond 4F² by Monolithic Stacking. IEEE Transactions on Electron Devices, 2022, 69, 2196-2202.	1.6	30
67	Analytical surface-potential compact model for amorphous-IGZO thin-film transistors. Journal of Applied Physics, 2015, 117, .	1.1	29
68	Recent progress on the fabrication and applications of flexible ferroelectric devices. Journal of Materials Chemistry C, 2020, 8, 14-27.	2.7	29
69	Proton Radiation Effects on Y-Doped HfO₂-Based Ferroelectric Memory. IEEE Electron Device Letters, 2018, 39, 823-826.	2.2	28
70	Thermal Driven Giant Spin Dynamics at Three-Dimensional Heteroepitaxial Interface in Ni_{0.5}Zn_{0.5}Fe₂O₄/BaTiO₃-Pillar Nanocomposites. ACS Nano, 2018, 12, 3751-3758.	7.3	27
71	Electric field induced reversible 180Â° magnetization switching through tuning of interfacial exchange bias along magnetic easy-axis in multiferroic laminates. Scientific Reports, 2015, 5, 16480.	1.6	26
72	Recoverable Self-Polarization in Lead-Free Bismuth Sodium Titanate Piezoelectric Thin Films. ACS Applied Materials & Interfaces, 2017, 9, 28716-28725.	4.0	26

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73	Memory Switching and Threshold Switching in a 3D Nanoscaled NbO_X System. IEEE Electron Device Letters, 2019, 40, 718-721.	2.2	25
74	A Self-Rectifying Resistive Switching Device Based on HfO₂/TaO<inline-formula> <tex-math notation="LaTeX">$_{{x}}$ </tex-math> </inline-formula> Bilayer Structure. IEEE Transactions on Electron Devices, 2019, 66, 924-928.	1.6	25
75	Physics-Based Device-Circuit Cooptimization Scheme for 7-nm Technology Node SRAM Design and Beyond. IEEE Transactions on Electron Devices, 2020, 67, 907-914.	1.6	25
76	Electric Field-Tunable Giant Magnetoresistance (GMR) Sensor with Enhanced Linear Range. ACS Applied Materials & Interfaces, 2020, 12, 8855-8861.	4.0	25
77	Implementing in-situ self-organizing maps with memristor crossbar arrays for data mining and optimization. Nature Communications, 2022, 13, 2289.	5.8	25
78	Preparation and thermal volatility characteristics of In2O3/ITO thin film thermocouple by RF magnetron sputtering. AIP Advances, 2017, 7, .	0.6	24
79	A 6.78-MHz Single-Stage Wireless Charger With Constant-Current Constant-Voltage Charging Technique. IEEE Journal of Solid-State Circuits, 2020, 55, 999-1010.	3.5	24
80	Mechanical Energy Harvesting and Specific Potential Distribution of a Flexible Piezoelectric Nanogenerator Based on 2-D BaTiO₃-Oriented Polycrystals. ACS Sustainable Chemistry and Engineering, 2022, 10, 3276-3287.	3.2	24
81	Degradation of Gate Voltage Controlled Multilevel Storage in One Transistor One Resistor Electrochemical Metallization Cell. IEEE Electron Device Letters, 2015, 36, 555-557.	2.2	23
82	Non-Volatile Ferroelectric Switching of Ferromagnetic Resonance in NiFe/PLZT Multiferroic Thin Film Heterostructures. Scientific Reports, 2016, 6, 32408.	1.6	23
83	A new kind of thermocouple made of p-type and n-type semi-conductive oxides with giant thermoelectric voltage for high temperature sensing. Journal of Materials Chemistry C, 2018, 6, 3206-3211.	2.7	23
84	Low voltage induced reversible magnetoelectric coupling in Fe₃O₄ thin films for voltage tunable spintronic devices. Materials Horizons, 2018, 5, 991-999.	6.4	23
85	Ferroelectric Phase Transition Induced a Large FMR Tuning in Self-Assembled BaTiO₃:Y₃Fe₅O₁₂ Multiferroic Composites. ACS Applied Materials & Interfaces, 2017, 9, 30733-30740.	4.0	22
86	Ionic Modulation of the Interfacial Magnetism in a Bilayer System Comprising a Heavy Metal and a Magnetic Insulator for Voltageâ€Tunable Spintronic Devices. Advanced Materials, 2018, 30, e1802902.	11.1	22
87	Room Temperature-Processed a-IGZO Schottky Diode for Rectifying Circuit and Bipolar 1D1R Crossbar Applications. IEEE Transactions on Electron Devices, 2019, 66, 4087-4091.	1.6	22
88	The memory effect of magnetoelectric coupling in FeGaB/NiTi/PMN-PT multiferroic heterostructure. Scientific Reports, 2016, 6, 20450.	1.6	21
89	Multiferroic heterostructures of Fe3O4/PMN-PT prepared by atomic layer deposition for enhanced interfacial magnetoelectric couplings. Applied Physics Letters, 2017, 110, .	1.5	21
90	A Compact Model for Drift and Diffusion Memristor Applied in Neuron Circuits Design. IEEE Transactions on Electron Devices, 2018, 65, 4290-4296.	1.6	21

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91	Controlling the Dirac point voltage of graphene by mechanically bending the ferroelectric gate of a graphene field effect transistor. Materials Horizons, 2019, 6, 302-310.	6.4	21
92	Enhanced dielectric nonlinearity in epitaxial Pb0.92La0.08Zr0.52Ti0.48O3 thin films. Applied Physics Letters, 2014, 104, .	1.5	20
93	Uniform, Fast, and Reliable Li_xSiO_y-Based Resistive Switching Memory. IEEE Electron Device Letters, 2019, 40, 554-557.	2.2	20
94	A Dual-Functional IGZO-Based Device With Schottky Diode Rectifying and Resistance Switching Behaviors. IEEE Electron Device Letters, 2019, 40, 24-27.	2.2	20
95	Demonstration of 3D Convolution Kernel Function Based on 8-Layer 3D Vertical Resistive Random Access Memory. IEEE Electron Device Letters, 2020, 41, 497-500.	2.2	19
96	Crystalline phase and electrical properties of leadâ€free piezoelectric <scp>KNN</scp>â€based films with different orientations. Journal of the American Ceramic Society, 2017, 100, 2965-2971.	1.9	18
97	Flexible Lithium Ferrite Nanopillar Arrays for Bending Stable Microwave Magnetism. ACS Applied Materials & Interfaces, 2018, 10, 39422-39427.	4.0	18
98	Self-biased magnetoelectric switching at room temperature in three-phase ferroelectricâ€“antiferromagneticâ€“ferrimagnetic nanocomposites. Nature Electronics, 2021, 4, 333-341.	13.1	18
99	Experimental Demonstration of Conversion-Based SNNs with 1T1R Mott Neurons for Neuromorphic Inference. , 2019, , .		17
100	STICKER-IM: A 65 nm Computing-in-Memory NN Processor Using Block-Wise Sparsity Optimization and Inter/Intra-Macro Data Reuse. IEEE Journal of Solid-State Circuits, 2022, 57, 2560-2573.	3.5	17
101	Growth behavior and RF/microwave properties of low temperature spin-sprayed NiZn ferrite. Journal of Materials Science: Materials in Electronics, 2015, 26, 1890-1894.	1.1	16
102	Detecting Electric Dipoles Interaction at the Interface of Ferroelectric and Electrolyte Using Graphene Field Effect Transistors. ACS Applied Materials & Interfaces, 2017, 9, 4244-4252.	4.0	16
103	Voltage Control of Two-Magnon Scattering and Induced Anomalous Magnetoelectric Coupling in Niâ€“Zn Ferrite. ACS Applied Materials & Interfaces, 2017, 9, 43188-43196.	4.0	16
104	Highly Stable In-Plane Microwave Magnetism in Flexible Li_{0.35}Zn_{0.3}Fe_{2.35}O₄(111) Epitaxial Thin Films for Wearable Devices. ACS Applied Materials & Interfaces, 2018, 10, 32331-32336.	4.0	16
105	Field-Dependent Mobility Enhancement and Contact Resistance in a-IGZO TFTs. IEEE Transactions on Electron Devices, 2019, 66, 5166-5169.	1.6	16
106	Low-damping flexible Y₃Fe₅O₁₂ thin films for tunable RF/microwave processors. Materials Horizons, 2020, 7, 1558-1565.	6.4	16
107	Study of Positive-Gate-Bias-Induced Hump Phenomenon in Amorphous Indiumâ€“Galliumâ€“Zinc Oxide Thin-Film Transistors. IEEE Transactions on Electron Devices, 2020, 67, 1606-1612.	1.6	16
108	Ultra-low temperature epitaxial growth of lithium ferrite thin films by high-pressure sputtering. CrystEngComm, 2015, 17, 8256-8263.	1.3	15

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109	Domain evolution in bended freestanding BaTiO3 ultrathin films: A phase-field simulation. Applied Physics Letters, 2020, 116, .	1.5	15
110	Controlled Phase and Tunable Magnetism in Ordered Iron Oxide Nanotube Arrays Prepared by Atomic Layer Deposition. Scientific Reports, 2016, 6, 18401.	1.6	14
111	Self-Polarization in Epitaxial Fully Matched Lead-Free Bismuth Sodium Titanate Based Ferroelectric Thin Films. ACS Applied Materials & Interfaces, 2018, 10, 23945-23951.	4.0	14
112	Enhanced dielectric properties of (Ba,Sr)TiO3//Ba(Zr,Ti)O3 heterostructures with optimized structure design. CrystEngComm, 2013, 15, 6641.	1.3	13
113	Highly improved resistive switching performances of the self-doped Pt/HfO2:Cu/Cu devices by atomic layer deposition. Science China: Physics, Mechanics and Astronomy, 2016, 59, 1.	2.0	13
114	Novel laminated multiferroic heterostructures for reconfigurable microwave devices. Science Bulletin, 2014, 59, 5180-5190.	1.7	12
115	Ionic Modulation of Interfacial Magnetism in Light Metal/Ferromagnetic Insulator Layered Nanostructures. Advanced Functional Materials, 2019, 29, 1805592.	7.8	12
116	A Few-Step and Low-Cost Memristor Logic Based on MIG Logic for Frequent-Off Instant-On Circuits in IoT Applications. IEEE Transactions on Circuits and Systems II: Express Briefs, 2019, 66, 662-666.	2.2	12
117	Voltage Control of Skyrmion Bubbles for Topological Flexible Spintronic Devices. Advanced Electronic Materials, 2020, 6, 2000246.	2.6	12
118	Quantitatively Evaluating the Effect of Read Noise in Memristive Hopfield Network on Solving Traveling Salesman Problem. IEEE Electron Device Letters, 2020, 41, 1688-1691.	2.2	12
119	Reconfigurable Magnetoresistive Sensor Based on Magnetoelectric Coupling. Advanced Electronic Materials, 2020, 6, 1901061.	2.6	12
120	A Novel General Compact Model Approach for 7-nm Technology Node Circuit Optimization From Device Perspective and Beyond. IEEE Journal of the Electron Devices Society, 2020, 8, 295-301.	1.2	12
121	High-Density 3-D Stackable Crossbar 2D2R nvTCAM With Low-Power Intelligent Search for Fast Packet Forwarding in 5G Applications. IEEE Journal of Solid-State Circuits, 2021, 56, 988-1000.	3.5	12
122	Lead-free piezoelectric KNN-BZ-BNT films with a vertical morphotropic phase boundary. AIP Advances, 2015, 5, .	0.6	11
123	Voltage control of spin wave resonance in La0.5Sr0.5MnO3/PMN-PT (001) multiferroic heterostructures. Applied Physics Letters, 2017, 111, .	1.5	11
124	Electric field-tailored giant transformation of magnetic anisotropy and interfacial spin coupling in epitaxial Î³â€²-Fe₄N/Pb(Mg_{1/3}Nb_{2/3})_{0.7}Ti_{0.3}O₃(011) multiferroic heterostructures. Journal of Materials Chemistry C, 2019, 7, 8537-8545.	2.7	11
125	Ionic Liquid Gating Control of Spin Wave Resonance in La 0.7 Sr 0.3 MnO 3 Thin Film. Advanced Electronic Materials, 2020, 6, 1900859.	2.6	11
126	Selfâ€Assembled Epitaxial Ferroelectric Oxide Nanospring with Superâ€Scalability. Advanced Materials, 2022, 34, e2108419.	11.1	11

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127	Tip-Induced In-Plane Ferroelectric Superstructure in Zigzag-Wrinkled BaTiO₃ Thin Films. Nano Letters, 2022, 22, 2859-2866.	4.5	11
128	Spin-orbital coupling induced four-fold anisotropy distribution during spin reorientation in ultrathin Co/Pt multilayers. Applied Physics Letters, 2017, 110, .	1.5	10
129	Observing large ferroelectric polarization in top-electrode-free Al:HfO2 thin films with Al-rich strip structures. Applied Physics Letters, 2019, 115, .	1.5	10
130	Strain-Induced Magnetoelectric Coupling in Fe₃O₄/BaTiO₃ Nanopillar Composites. ACS Applied Materials & Interfaces, 2022, 14, 13925-13931.	4.0	10
131	Surface-step-terrace tuned magnetic properties of epitaxial LaBaCo₂O_{5.5+Î´}thin films on vicinal (La,Sr)(Al,Ta)O₃substrates. CrystEngComm, 2015, 17, 8339-8344.	1.3	9
132	Voltage Tuning of Ferromagnetic Resonance and Linewidth in Spinel Ferrite/Ferroelectric Multiferroic Heterostructures. IEEE Magnetics Letters, 2015, 6, 1-4.	0.6	9
133	High-performance CuFe₂O₄ epitaxial thin films with enhanced ferromagnetic resonance properties. RSC Advances, 2016, 6, 100108-100114.	1.7	9
134	A New Velocity Saturation Model of MoS₂ Field-Effect Transistors. IEEE Electron Device Letters, 2018, 39, 893-896.	2.2	9
135	Anomalous Positive Bias Stress Instability in MoS₂ Transistors With High-Hydrogen-Concentration SiO₂ Gate Dielectrics. IEEE Electron Device Letters, 2019, 40, 232-235.	2.2	9
136	Flexible CoFeB/Silk Films for Biocompatible RF/Microwave Applications. ACS Applied Materials & Interfaces, 2020, 12, 51654-51661.	4.0	9
137	Analytical Surface Potential-Based Compact Model for Independent Dual Gate a-IGZO TFT. IEEE Transactions on Electron Devices, 2021, 68, 2049-2055.	1.6	9
138	Resistive switching memory for high density storage and computing*. Chinese Physics B, 2021, 30, 058702.	0.7	9
139	Freestanding single-crystal Ni_{0.5}Zn_{0.5}Fe₂O₄ ferrite membranes with controllable enhanced magnetic properties for flexible RF/microwave applications. Journal of Materials Chemistry C, 2020, 8, 17099-17106.	2.7	9
140	Enhanced magnetic properties in epitaxial self-assembled vertically aligned nanocomposite (Pr_{0.5}Ba_{0.5}MnO₃)_{0.5}:(CeO₂)_{0.5}thin films. Journal of Materials Chemistry C, 2016, 4, 10955-10961.	2.7	8
141	Unveiling the Switching Mechanism of a TaO_{<italic>x</italic>}/HfO₂ Self-Selective Cell by Probing the Trap Profiles With RTN Measurements. IEEE Electron Device Letters, 2018, 39, 1152-1155.	2.2	8
142	Classification of Three-Level Random Telegraph Noise and Its Application in Accurate Extraction of Trap Profiles in Oxide-Based Resistive Switching Memory. IEEE Electron Device Letters, 2018, 39, 1302-1305.	2.2	8
143	Voltage Control of Perpendicular Exchange Bias in Multiferroic Heterostructures. Advanced Electronic Materials, 2019, 5, 1900192.	2.6	8
144	High-Sensitivity Enzymatic Glucose Sensor Based on ZnO Urchin-like Nanostructure Modified with Fe3O4 Magnetic Particles. Micromachines, 2021, 12, 977.	1.4	8

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145	Sunlight Control of Ferromagnetic Damping in Photovoltaic/Ferromagnetic Heterostructures. Advanced Functional Materials, 2022, 32, 2111652.	7.8	8
146	Giant strain responses and relaxor characteristics in lead-free (Bi_{0.5}Na_{0.5})TiO₃â€“BaZrO₃ ferroelectric thin films. Journal of Materials Chemistry C, 2022, 10, 7449-7459.	2.7	8
147	Modulating Magnetic Properties by Tailoring In-Plane Domain Structures in Hexagonal YMnO₃ Films. ACS Applied Materials & Interfaces, 2016, 8, 25379-25385.	4.0	7
148	Magnetic Sensor Based on Giant Magneto-Impedance in Commercial Inductors. IEEE Transactions on Industrial Electronics, 2021, 68, 7577-7583.	5.2	7
149	Vector analysis of electric-field-induced antiparallel magnetic domain evolution in ferromagnetic/ferroelectric heterostructures. Journal of Advanced Ceramics, 0, , 1.	8.9	7
150	Enhanced Energy Density at a Low Electric Field in PVDF-Based Heterojunctions Sandwiched with High Ion-Polarized BTO Films. ACS Applied Materials & Interfaces, 2022, 14, 17849-17857.	4.0	7
151	Stabilizing Remanent Polarization during Cycling in HZOâ€Based Ferroelectric Device by Prolonging Wakeâ€up Period. Advanced Electronic Materials, 2022, 8, .	2.6	7
152	Flexible Multiferroic Heterostructure Based on Freestanding Singleâ€Crystalline BaTiO₃ Membranes for Spintronic Devices. Advanced Electronic Materials, 2022, 8, .	2.6	7
153	Microwave Dielectric Properties of Mn-doped (Ba,Sr)TiO₃//Ba(Zr,Ti)O₃ Multilayered Thin Films: Optimization of Designed Structure. Integrated Ferroelectrics, 2014, 150, 116-122.	0.3	6
154	Manipulation of Optical Transmittance by Ordered-Oxygen-Vacancy in Epitaxial LaBaCo2O5.5+Î´ Thin Films. Scientific Reports, 2016, 6, 37496.	1.6	6
155	Creating a low-symmetry insulating, ferroelectric, and antiferromagnetic material from a high-symmetrical metallic ferromagnet via defect engineering: The case of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>LaBaC</mml:mi><mml:msub><mml:mi mathvariant="normal">o</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mrow><mml:mn>5</mml:mn><mml:mspace width="0.16em" /><mml:mi>+</mml:mi><mml:mspace width="0.16em" /><mml:mi>Î´</mml:mi></mml:mrow></mml:msub></mml:mrow> Physical Review	1.1	6
156	Facile highâ€performance film thermocouple made of strontium lanthanum chromate for temperature sensing in air. Journal of the American Ceramic Society, 2018, 101, 4880-4886.	1.9	6
157	Microstructure and thermoelectric properties of In2O3/ITO thin film thermocouples with Al2O3 protecting layer. Journal of Materials Science: Materials in Electronics, 2019, 30, 1786-1793.	1.1	6
158	A Low Power 4T2C nvSRAM With Dynamic Current Compensation Operation Scheme. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2020, 28, 2469-2473.	2.1	6
159	Implementation of Image Compression by Using High-Precision In-Memory Computing Scheme Based on NOR Flash Memory. IEEE Electron Device Letters, 2021, 42, 1603-1606.	2.2	6
160	Enhancing Sunlight Control of Interfacial Magnetism by Introducing the ZnO Layer for Electron Harvesting. ACS Applied Materials & Interfaces, 2021, 13, 2018-2024.	4.0	6
161	Strain Modulation of Perpendicular Magnetic Anisotropy in Wrinkle-Patterned (Co/Pt)₅/BaTiO₃ Magnetoelectric Heterostructures. ACS Nano, 2022, 16, 11291-11299.	7.3	6
162	Anisotropic Strain Induced Directional Metallicity in Highly Epitaxial LaBaCo2O5.5+Î´ Thin Films on (110) NdGaO3. Scientific Reports, 2016, 6, 37337.	1.6	5

#	Article	IF	Citations
163	Tuning the size and density of faceted Co₃O₄nanoparticles in LaBaCo₂O_{5.5+Î´}epitaxial thin films by strain engineering. CrystEngComm, 2016, 18, 8038-8043.	1.3	5
164	Tunable Friction Properties of Periodic Wrinkled BaTiO₃ Membranes. Advanced Materials Interfaces, 2022, 9, .	1.9	5
165	Metamaterials: A New Ba0.6Sr0.4TiO3-Silicon Hybrid Metamaterial Device in Terahertz Regime (Small) Tj ETQq1 1 0.784314 rgBT /Ov	5.2	4
166	Temperature induced interface and optical properties of the multi-layer nanotube network. Journal of Applied Physics, 2018, 123, .	1.1	4
167	Resistive Switching: Breaking the Current-Retention Dilemma in Cation-Based Resistive Switching Devices Utilizing Graphene with Controlled Defects (Adv. Mater. 14/2018). Advanced Materials, 2018, 30, 1870100.	11.1	4
168	Highly Sensitive Magneto-Mechano-Electric Magnetic Field Sensor Based on Torque Effect. IEEE Sensors Journal, 2021, 21, 1409-1416.	2.4	4
169	Quantitative Analysis on Resistance Fluctuation of Resistive Random Access Memory by Low Frequency Noise Measurement. IEEE Electron Device Letters, 2021, 42, 312-314.	2.2	4
170	Emergent perpendicular magnetic anisotropy at the interface of an oxide heterostructure. Physical Review B, 2021, 104, .	1.1	4
171	Monotonically Decreasing Ferromagnetic Resonance Linewidth of Cu/Ni_{0.81}Fe_{0.19} Bilayer Heterostructures with the Increasing Sputtering Rate of the Cu Layer. Journal of Physical Chemistry C, 2021, 125, 24025-24031.	1.5	4
172	Ferromagnetic Resonance Vector Magnetic Sensor with High Sensitivity and Ultrawide Working Range. Advanced Materials Technologies, 2022, 7, 2100919.	3.0	4
173	E-Field Tuned Rotation of Magnetic Anisotropy and Enhanced Microwave Performance in FeCoAlO/PZNâ€“PT Multiferroic Composite Prepared by Composition Gradient Sputtering. IEEE Transactions on Magnetics, 2014, 50, 1-4.	1.2	3
174	Ferroelastic Strain-Mediated Nonvolatile Tuning of Perpendicular Magnetic Anisotropy in (Co/Pt)3 /(1Â1Â1) Pb(Mg1/3Nb2/3)O3-PbTiO3 Multiferroic Heterostructures. IEEE Magnetics Letters, 2017, 8, 1-5.	0.6	3
175	Achieving Higher Strength and Sensitivity toward UV Light in Multifunctional Composites by Controlling the Thickness of Nanolayer on the Surface of Glass Fiber. ACS Applied Materials & Interfaces, 2018, 10, 23399-23405.	4.0	3
176	Dynamic Time Evolutionary Aging Analysis for Device-Circuit Lifetime Estimation of Thin-Film Transistors. IEEE Electron Device Letters, 2019, 40, 1439-1442.	2.2	3
177	Investigation of positive bias temperature instability for monolayer polycrystalline MoS2 field-effect transistors. Science China: Physics, Mechanics and Astronomy, 2020, 63, 1.	2.0	3
178	Improving solar control of magnetism in ternary organic photovoltaic system with enhanced photo-induced electrons doping. Nano Research, 2022, 15, 2626-2633.	5.8	3
179	Voltage Manipulation of Synthetic Antiferromagnetism in CoFeB/Ta/CoFeB Heterostructure for Spintronic Application. Advanced Materials Interfaces, 2022, 9, .	1.9	3
180	Voltage Control of Perpendicular Magnetic Anisotropy in Multiferroic Composite Thin Films under Strong Electric Fields. ACS Applied Materials & Interfaces, 2021, 13, 61404-61412.	4.0	3

#	Article	IF	Citations
181	Enhancing the Linearity of Giant Magnetoresistance Sensors by Magnetic Anisotropic Design and Low Temperature Annealing. IEEE Sensors Journal, 2021, 21, 27393-27399.	2.4	3
182	A 1596-GB/s 48-Gb Stacked Embedded DRAM 384-Core SoC With Hybrid Bonding Integration. IEEE Solid-State Circuits Letters, 2022, 5, 110-113.	1.3	3
183	Suppressing Magnetic Damping Related to Two-Magnon Scattering in Ultrathin NiFe Films by Interface Engineering. Journal of Physical Chemistry C, 2022, 126, 7748-7754.	1.5	3
184	Microwave Dielectric Properties of Epitaxial Mn-doped Ba(Zr,Ti)O₃Thin Films on LaAlO₃Substrates. Ferroelectrics, Letters Section, 2013, 40, 65-69.	0.4	2
185	Tuning the Magnetic Anisotropy of Fe₃O₄/Pt Heterostructures Fabricated by Atomic Layer Deposition With <inline-formula> <tex-math notation="LaTeX">$In~Situ$ </tex-math> </inline-formula> Magnetic Field. IEEE Transactions on Magnetics, 2019, 55, 1-7.	1.2	2
186	Electric-field-driven Deterministic and Robust 120Â° Magnetic Rotation in a Concave Triangular Nanomagnet. Physical Review Applied, 2020, 13, .	1.5	2
187	Strong dependence of magnetic damping and magnetization on deposition temperature in highly magnetostrictive NiZnAl ferrite thin films. IEEE Transactions on Magnetics, 2021, , 1-1.	1.2	2
188	Magnetic Field Sensor Based on Magnetic Torque Effect and Surface Acoustic Wave With Enhanced Sensitivity. IEEE Transactions on Magnetics, 2022, 58, 1-6.	1.2	2
189	Magnonics: Modulation of Spin Dynamics via Voltage Control of Spinâ€Lattice Coupling in Multiferroics (Adv. Funct. Mater. 10/2017). Advanced Functional Materials, 2017, 27, .	7.8	1
190	Microstructure and Electrical Conductivity of (Y, Sr)CoO3-Î´ Thin Films Tuned by the Film-Growth Temperature. Microscopy and Microanalysis, 2017, 23, 1656-1657.	0.2	1
191	Flexible Devices: A Strategy to Modulate the Bending Coupled Microwave Magnetism in Nanoscale Epitaxial Lithium Ferrite for Flexible Spintronic Devices (Adv. Sci. 12/2018). Advanced Science, 2018, 5, 1870077.	5.6	1
192	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.	11.1	1
193	Solar Driven Spintronics: Sunlight Control of Interfacial Magnetism for Solar Driven Spintronic Applications (Adv. Sci. 24/2019). Advanced Science, 2019, 6, 1970147.	5.6	1
194	Thermally activated giant piezoelectricity and enhanced interface elastic strainâ€mediated magnetoelectric coupling. Journal of the American Ceramic Society, 2021, 104, 896-902.	1.9	1
195	Multiferroic Heterostructures: Ultraflexible and Malleable Fe/BaTiO₃ Multiferroic Heterostructures for Functional Devices (Adv. Funct. Mater. 16/2021). Advanced Functional Materials, 2021, 31, 2170111.	7.8	1
196	Vector imaging of electric field-induced reversible magnetization reversal in exchange-biased multiferroic heterostructures. Science China Materials, 2022, 65, 186-192.	3.5	1
197	Dislocation Defect Layer-Induced Magnetic Bi-states Phenomenon in Epitaxial La0.7Sr0.3MnO3(111) Thin Films. ACS Applied Materials & Interfaces, 2021, , .	4.0	1
198	HfO_x based Ferroelectric Materials and Memories. , 2021, , .		1

#	Article	IF	Citations
199	Linearly shifting ferromagnetic resonance response of La0.7Sr0.3MnO3 thin film for body temperature sensors. Frontiers of Materials Science, 2022, 16, 220589.	1.1	1
200	A Magnetic Field Imaging System Based on TMR Sensors for Banknote Recognition. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-9.	2.4	1
201	Significantly reduced secondary electron emission from silver/carbon composite films for microwave devices. Journal of Applied Physics, 2022, 131, .	1.1	1
202	Microstructural Properties of Piezoelectric 0.95(Naoo5Bioo5TiO3)-0.05(BaTiO3) Thin Films on SrTiO3 (001) Substrates. Microscopy and Microanalysis, 2015, 21, 289-290.	0.2	0
203	Ionicâ€Liquid Gating: Quantitative Determination on Ionicâ€Liquidâ€Gating Control of Interfacial Magnetism (Adv. Mater. 17/2017). Advanced Materials, 2017, 29, .	11.1	0
204	Enhanced stability of ITO/In<inf>2</inf>O<inf>3</inf> thin film thermocouples by coating Al<inf>2</inf>O<inf>3</inf> layer. , 2017, , .		0
205	Spintronics: Ionic Modulation of the Interfacial Magnetism in a Bilayer System Comprising a Heavy Metal and a Magnetic Insulator for Voltage-Tunable Spintronic Devices (Adv. Mater. 40/2018). Advanced Materials, 2018, 30, 1870302.	11.1	0
206	Flexible Ferroelectrics: Periodic Wrinkleâ€Patterned Singleâ€Crystalline Ferroelectric Oxide Membranes with Enhanced Piezoelectricity (Adv. Mater. 50/2020). Advanced Materials, 2020, 32, 2070377.	11.1	0
207	2â€“2 Type PVDFâ€Based Composites Interlayered by Epitaxial (111)â€Oriented BTO Films for High Energy Storage Density (Adv. Funct. Mater. 10/2022). Advanced Functional Materials, 2022, 32, .	7.8	0
208	Selfâ€Assembled Epitaxial Ferroelectric Oxide Nanospring with Superâ€Scalability (Adv. Mater. 13/2022). Advanced Materials, 2022, 34, .	11.1	0