

# Jingsheng Chen

## List of Publications by Citations

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79  
papers

2,632  
citations

30  
h-index

49  
g-index

86  
ext. papers

3,588  
ext. citations

10.5  
avg, IF

5.47  
L-index

#	Paper	IF	Citations
79	Memristor with Ag-Cluster-Doped TiO <sub>2</sub> Films as Artificial Synapse for Neuroinspired Computing. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1705320	15.6	221
78	Graphene Oxide Quantum Dots Based Memristors with Progressive Conduction Tuning for Artificial Synaptic Learning. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1803728	15.6	156
77	Vacancy-Induced Synaptic Behavior in 2D WS Nanosheet-Based Memristor for Low-Power Neuromorphic Computing. <i>Small</i> , <b>2019</b> , 15, e1901423	11	142
76	Self-Assembled Networked PbS Distribution Quantum Dots for Resistive Switching and Artificial Synapse Performance Boost of Memristors. <i>Advanced Materials</i> , <b>2019</b> , 31, e1805284	24	142
75	Artificial Synapses Based on Multiterminal Memtransistors for Neuromorphic Application. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1901106	15.6	121
74	Ferroelectric HfO <sub>2</sub> -based materials for next-generation ferroelectric memories. <i>Journal of Advanced Dielectrics</i> , <b>2016</b> , 06, 1630003	1.3	108
73	Epitaxial Ferroelectric Hf <sub>0.5</sub> Zr <sub>0.5</sub> O <sub>2</sub> Thin Films and Their Implementations in Memristors for Brain-Inspired Computing. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1806037	15.6	98
72	Tuning Bifunctional Oxygen Electrocatalysts by Changing the A-Site Rare-Earth Element in Perovskite Nickelates. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1803712	15.6	78
71	Interface Engineering and Emergent Phenomena in Oxide Heterostructures. <i>Advanced Materials</i> , <b>2018</b> , 30, e1802439	24	72
70	Control of Synaptic Plasticity Learning of Ferroelectric Tunnel Memristor by Nanoscale Interface Engineering. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 12862-12869	9.5	69
69	Flexible memristors as electronic synapses for neuro-inspired computation based on scotch tape-exfoliated mica substrates. <i>Nano Research</i> , <b>2018</b> , 11, 1183-1192	10	69
68	Ultrathin BaTiO <sub>3</sub> -based ferroelectric tunnel junctions through interface engineering. <i>Nano Letters</i> , <b>2015</b> , 15, 2568-73	11.5	67
67	Multi-Nonvolatile State Resistive Switching Arising from Ferroelectricity and Oxygen Vacancy Migration. <i>Advanced Materials</i> , <b>2017</b> , 29, 1606165	24	64
66	Current-induced magnetization switching in all-oxide heterostructures. <i>Nature Nanotechnology</i> , <b>2019</b> , 14, 939-944	28.7	64
65	The Future of Memristors: Materials Engineering and Neural Networks. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2006773	15.6	62
64	Current status and prospects of memristors based on novel 2D materials. <i>Materials Horizons</i> , <b>2020</b> , 7, 1495-1518	14.4	59
63	Ferroic tunnel junctions and their application in neuromorphic networks. <i>Applied Physics Reviews</i> , <b>2020</b> , 7, 011304	17.3	54

62	Highly improved performance in Zr <sub>0.5</sub> Hf <sub>0.5</sub> O <sub>2</sub> films inserted with graphene oxide quantum dots layer for resistive switching non-volatile memory. <i>Journal of Materials Chemistry C</i> , <b>2017</b> , 5, 11046-11052	7.1	48
61	Flexible Transparent Organic Artificial Synapse Based on the Tungsten/Egg Albumen/Indium Tin Oxide/Polyethylene Terephthalate Memristor. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 18654-18661	9.5	48
60	Functional ferroelectric tunnel junctions on silicon. <i>Scientific Reports</i> , <b>2015</b> , 5, 12576	4.9	47
59	Ferroelectricity and ferroelectric resistive switching in sputtered Hf <sub>0.5</sub> Zr <sub>0.5</sub> O <sub>2</sub> thin films. <i>Applied Physics Letters</i> , <b>2016</b> , 108, 232905	3.4	45
58	A van der Waals Synaptic Transistor Based on Ferroelectric Hf <sub>0.5</sub> Zr <sub>0.5</sub> O <sub>2</sub> and 2D Tungsten Disulfide. <i>Advanced Electronic Materials</i> , <b>2020</b> , 6, 2000057	6.4	41
57	Strain Engineering of Octahedral Rotations and Physical Properties of SrRuO <sub>3</sub> Films. <i>Scientific Reports</i> , <b>2015</b> , 5, 10245	4.9	39
56	Large spin-orbit torque efficiency enhanced by magnetic structure of collinear antiferromagnet IrMn. <i>Science Advances</i> , <b>2019</b> , 5, eaau6696	14.3	37
55	Strain Effect on Oxygen Evolution Reaction Activity of Epitaxial NdNiO Thin Films. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 12941-12947	9.5	36
54	Electrical switching of perpendicular magnetization in a single ferromagnetic layer. <i>Physical Review B</i> , <b>2020</b> , 101,	3.3	36
53	Ferroelectricity emerging in strained (111)-textured ZrO <sub>2</sub> thin films. <i>Applied Physics Letters</i> , <b>2016</b> , 108, 012906	3.4	34
52	Symmetry-dependent field-free switching of perpendicular magnetization. <i>Nature Nanotechnology</i> , <b>2021</b> , 16, 277-282	28.7	32
51	A Pure 2H-MoS <sub>2</sub> Nanosheet-Based Memristor with Low Power Consumption and Linear Multilevel Storage for Artificial Synapse Emulator. <i>Advanced Electronic Materials</i> , <b>2020</b> , 6, 1901342	6.4	31
50	Designing carbon conductive filament memristor devices for memory and electronic synapse applications. <i>Materials Horizons</i> , <b>2020</b> , 7, 1106-1114	14.4	30
49	Ultra-low magnetic damping of perovskite La <sub>0.7</sub> Sr <sub>0.3</sub> MnO <sub>3</sub> thin films. <i>Applied Physics Letters</i> , <b>2017</b> , 110, 112401	3.4	27
48	Tailoring Self-Polarization of BaTiO <sub>3</sub> Thin Films by Interface Engineering and Flexoelectric Effect. <i>Advanced Materials Interfaces</i> , <b>2016</b> , 3, 1600737	4.6	26
47	MXene Ti <sub>3</sub> C <sub>2</sub> memristor for neuromorphic behavior and decimal arithmetic operation applications. <i>Nano Energy</i> , <b>2021</b> , 79, 105453	17.1	22
46	A carbon-based memristor design for associative learning activities and neuromorphic computing. <i>Nanoscale</i> , <b>2020</b> , 12, 13531-13539	7.7	21
45	Orthorhombic Ti <sub>2</sub> O <sub>3</sub> : A Polymorph-Dependent Narrow-Bandgap Ferromagnetic Oxide. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1705657	15.6	21

44	Observation of superconductivity in structure-selected Ti <sub>2</sub> O <sub>3</sub> thin films. <i>NPG Asia Materials</i> , <b>2018</b> , 10, 522-532	10.3	20
43	From Titanium Sesquioxide to Titanium Dioxide: Oxidation-Induced Structural, Phase, and Property Evolution. <i>Chemistry of Materials</i> , <b>2018</b> , 30, 4383-4392	9.6	20
42	Electronic-reconstruction-enhanced hydrogen evolution catalysis in oxide polymorphs. <i>Nature Communications</i> , <b>2019</b> , 10, 3149	17.4	20
41	An Electronic Synapse Based on 2D Ferroelectric CuInP <sub>2</sub> S <sub>6</sub> . <i>Advanced Electronic Materials</i> , <b>2020</b> , 6, 2000760	7.0	19
40	Thickness-dependent polarization-induced intrinsic magnetoelectric effects in La <sub>0.67</sub> Sr <sub>0.33</sub> MnO <sub>3</sub> /PbZr <sub>0.52</sub> Ti <sub>0.48</sub> O <sub>3</sub> heterostructures. <i>Physical Review B</i> , <b>2019</b> , 100,	3.3	16
39	Effect of Extrinsically Introduced Passive Interface Layer on the Performance of Ferroelectric Tunnel Junctions. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 5050-5055	9.5	12
38	Memristors based on multilayer graphene electrodes for implementing a low-power neuromorphic electronic synapse. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 4926-4933	7.1	12
37	Magnetization reversal and magnetoresistance behavior of exchange coupled SrRuO <sub>3</sub> bilayer. <i>Journal Physics D: Applied Physics</i> , <b>2017</b> , 50, 215002	3	11
36	Magnetic asymmetry induced anomalous spin-orbit torque in IrMn. <i>Physical Review B</i> , <b>2020</b> , 101,	3.3	11
35	Perpendicular Magnetic Anisotropy and Dzyaloshinskii-Moriya Interaction at an Oxide/Ferromagnetic Metal Interface. <i>Physical Review Letters</i> , <b>2020</b> , 124, 217202	7.4	11
34	Giant tunneling electroresistance induced by ferroelectrically switchable two-dimensional electron gas at nonpolar BaTiO <sub>3</sub> /SrTiO <sub>3</sub> interface. <i>Physical Review B</i> , <b>2016</b> , 94,	3.3	11
33	Spin-orbit torque in chemically disordered and L11-ordered Cu <sub>100-x</sub> Pt <sub>x</sub> . <i>Physical Review Materials</i> , <b>2019</b> , 3,	3.2	11
32	An Overview of Ferroelectric Hafnia and Epitaxial Growth. <i>Physica Status Solidi - Rapid Research Letters</i> , <b>2021</b> , 15, 2100025	2.5	11
31	Hf <sub>0.5</sub> Zr <sub>0.5</sub> O <sub>2</sub> -based ferroelectric memristor with multilevel storage potential and artificial synaptic plasticity. <i>Science China Materials</i> , <b>2021</b> , 64, 727-738	7.1	11
30	Characteristic investigation of a flexible resistive memory based on a tunneling junction of Pd/BTO/LSMO on mica substrate. <i>Applied Physics Letters</i> , <b>2018</b> , 113, 223501	3.4	11
29	Atomic-Scale Control of Magnetism at the Titanite-Manganite Interfaces. <i>Nano Letters</i> , <b>2019</b> , 19, 3057-3065	3.5	10
28	A Boolean OR gate implemented with an optoelectronic switching memristor. <i>Applied Physics Letters</i> , <b>2019</b> , 115, 153504	3.4	10
27	Prospect of Spintronics in Neuromorphic Computing. <i>Advanced Electronic Materials</i> , <b>2021</b> , 7, 2100465	6.4	10

26	Spin-Orbit Torque-Induced Domain Nucleation for Neuromorphic Computing. <i>Advanced Materials</i> , <b>2021</b> , 33, e2103672	24	10
25	A Flexible Transient Biomemristor Based on Hybrid Structure HfO <sub>2</sub> /BSA: Au Double Layers. <i>Advanced Materials Technologies</i> , <b>2020</b> , 5, 2000191	6.8	9
24	Effects of field annealing on Gilbert damping of polycrystalline CoFe thin films. <i>Journal of Magnetism and Magnetic Materials</i> , <b>2017</b> , 441, 264-270	2.8	8
23	Field-free magnetization switching induced by the unconventional spin-orbit torque from WTe <sub>2</sub> . <i>APL Materials</i> , <b>2021</b> , 9, 051114	5.7	8
22	Oxygen vacancy-induced topological nanodomains in ultrathin ferroelectric films. <i>Npj Quantum Materials</i> , <b>2021</b> , 6,	5	8
21	Tuning of current-induced effective magnetic field through Rashba effect engineering in hybrid multiferroic structures. <i>NPG Asia Materials</i> , <b>2018</b> , 10, 740-748	10.3	7
20	Modulation of Spin-Orbit Torque from SrRuO <sub>3</sub> by Epitaxial-Strain-Induced Octahedral Rotation. <i>Advanced Materials</i> , <b>2021</b> , 33, e2007114	24	7
19	Tunneling electroresistance effect in ultrathin BiFeO <sub>3</sub> -based ferroelectric tunneling junctions. <i>Applied Physics Letters</i> , <b>2016</b> , 109, 242901	3.4	7
18	A Multifunctional and Efficient Artificial Visual Perception Nervous System with Sb <sub>2</sub> Se <sub>3</sub> /CdS-Core/Shell (SC) Nanorod Arrays Optoelectronic Memristor. <i>Advanced Functional Materials</i> , <b>2020</b> , 34, 2203454	15.6	6
17	Unusual Hole and Electron Midgap States and Orbital Reconstructions Induced Huge Ferroelectric Tunneling Electroresistance in BaTiO <sub>3</sub> /SrTiO <sub>3</sub> . <i>Nano Letters</i> , <b>2020</b> , 20, 1101-1109	11.5	5
16	Multifunctional MoTe <sub>2</sub> Fe-FET Enabled by Ferroelectric Polarization-Assisted Charge Trapping. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2110415	15.6	5
15	Memristors Based on the Hybrid Structure of Oxide and Boron Nitride Nanosheets Combining Memristive and Neuromorphic Functionalities. <i>Physica Status Solidi - Rapid Research Letters</i> , <b>2020</b> , 14, 1900539	2.5	5
14	Alloy electrode engineering in memristors for emulating the biological synapse. <i>Nanoscale</i> , <b>2022</b> ,	7.7	4
13	Role of Interfacial Orbital Hybridization in Spin-Orbit-Torque Generation in Pt-Based Heterostructures. <i>Physical Review Applied</i> , <b>2020</b> , 14,	4.3	4
12	Ferroelectric Self-Polarization Controlled Magnetic Stratification and Magnetic Coupling in Ultrathin LaSrMnO <sub>3</sub> Films. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 30137-30145	9.5	4
11	Electric Field Control of the Magnetic Weyl Fermion in an Epitaxial SrRuO <sub>3</sub> (111) Thin Film. <i>Advanced Materials</i> , <b>2021</b> , 33, e2101316	24	4
10	Flexible artificial synapse based on single-crystalline BiFeO <sub>3</sub> thin film. <i>Nano Research</i> , <b>2021</b> , 14, 1000000	10	4
9	Thermal Effect in Current-Induced Magnetization Switching and Out-of-Plane Effective Field Measurements. <i>ACS Applied Electronic Materials</i> , <b>2021</b> , 3, 2483-2489	4	3

8	Memristors mimicking the regulation of synaptic plasticity and the refractory period in the phenomenological model. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 5183-5190	7.1	2
7	Investigation of Spin Transport Properties in Perpendicularly Magnetized MoS <sub>2</sub> /Pt/[Co/Ni] <sub>n</sub> Multilayers with Effective Spin Injection into Two-Dimensional MoS <sub>2</sub> . <i>Physical Review Applied</i> , <b>2020</b> , 14,	4.3	2
6	Giant spin torque efficiency in single-crystalline antiferromagnet Mn <sub>2</sub> Au films. <i>Science China Materials</i> , <b>2021</b> , 64, 2029-2036	7.1	2
5	Memristor based on Hn <sub>2</sub> Se <sub>3</sub> for emulating biological synaptic plasticity and learning behavior. <i>Science China Materials</i> ,1	7.1	2
4	Topological Hall transport: materials, mechanisms and potential applications. <i>Progress in Materials Science</i> , <b>2022</b> , 100971	42.2	2
3	Controlling Resistance Switching Performances of Hf <sub>0.5</sub> Zr <sub>0.5</sub> O <sub>2</sub> Films by Substrate Stress and Potential in Neuromorphic Computing. <i>Advanced Intelligent Systems</i> ,2100244	6	1
2	Thickness and Ferroelectric Polarization Influence on Film Magnetic Anisotropy across a Multiferroic Material Interface. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 44317-44324	9.5	0
1	Enhanced Tunneling Magnetoresistance Effect via Ferroelectric Control of Interface Electronic/Magnetic Reconstructions. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 56638-56644	9.5	