

Jingsheng Chen

List of Publications by Year in descending order

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87723

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docs citations

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times ranked

4640
citing authors

#	ARTICLE	IF	CITATIONS
1	Memristor with Ag-Cluster-Doped TiO ₂ Films as Artificial Synapse for Neuroinspired Computing. <i>Advanced Functional Materials</i> , 2018, 28, 1705320.	7.8	318
2	Vacancy-Induced Synaptic Behavior in 2D WS ₂ Nanosheet-Based Memristor for Low-Power Neuromorphic Computing. <i>Small</i> , 2019, 15, e1901423.	5.2	252
3	Self-Assembled Networked PbS Distribution Quantum Dots for Resistive Switching and Artificial Synapse Performance Boost of Memristors. <i>Advanced Materials</i> , 2019, 31, e1805284.	11.1	221
4	Graphene Oxide Quantum Dots Based Memristors with Progressive Conduction Tuning for Artificial Synaptic Learning. <i>Advanced Functional Materials</i> , 2018, 28, 1803728.	7.8	218
5	Artificial Synapses Based on Multiterminal Memtransistors for Neuromorphic Application. <i>Advanced Functional Materials</i> , 2019, 29, 1901106.	7.8	192
6	The Future of Memristors: Materials Engineering and Neural Networks. <i>Advanced Functional Materials</i> , 2021, 31, 2006773.	7.8	187
7	Ferroelectric HfO ₂ -based materials for next-generation ferroelectric memories. <i>Journal of Advanced Dielectrics</i> , 2016, 06, 1630003.	1.5	163
8	Symmetry-dependent field-free switching of perpendicular magnetization. <i>Nature Nanotechnology</i> , 2021, 16, 277-282.	15.6	145
9	Current-induced magnetization switching in all-oxide heterostructures. <i>Nature Nanotechnology</i> , 2019, 14, 939-944.	15.6	139
10	Epitaxial Ferroelectric Hf _{0.5} Zr _{0.5} O ₂ Thin Films and Their Implementations in Memristors for Brain-Inspired Computing. <i>Advanced Functional Materials</i> , 2018, 28, 1806037.	7.8	138
11	Tuning Bifunctional Oxygen Electrocatalysts by Changing the A-Site Rare-Earth Element in Perovskite Nickelates. <i>Advanced Functional Materials</i> , 2018, 28, 1803712.	7.8	122
12	Interface Engineering and Emergent Phenomena in Oxide Heterostructures. <i>Advanced Materials</i> , 2018, 30, e1802439.	11.1	118
13	Control of Synaptic Plasticity Learning of Ferroelectric Tunnel Memristor by Nanoscale Interface Engineering. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 12862-12869.	4.0	109
14	Current status and prospects of memristors based on novel 2D materials. <i>Materials Horizons</i> , 2020, 7, 1495-1518.	6.4	101
15	Flexible memristors as electronic synapses for neuro-inspired computation based on scotch tape-exfoliated mica substrates. <i>Nano Research</i> , 2018, 11, 1183-1192.	5.8	91
16	Ferroic tunnel junctions and their application in neuromorphic networks. <i>Applied Physics Reviews</i> , 2020, 7, .	5.5	91
17	Multi-Nonvolatile State Resistive Switching Arising from Ferroelectricity and Oxygen Vacancy Migration. <i>Advanced Materials</i> , 2017, 29, 1606165.	11.1	84
18	Ultrathin BaTiO ₃ -Based Ferroelectric Tunnel Junctions through Interface Engineering. <i>Nano Letters</i> , 2015, 15, 2568-2573.	4.5	81

#	ARTICLE	IF	CITATIONS
19	Flexible Transparent Organic Artificial Synapse Based on the Tungsten/Egg Albumen/Indium Tin Oxide/Polyethylene Terephthalate Memristor. ACS Applied Materials & Interfaces, 2019, 11, 18654-18661.	4.0	77
20	Large spin-orbit torque efficiency enhanced by magnetic structure of collinear antiferromagnet IrMn. Science Advances, 2019, 5, eaau6696.	4.7	70
21	A van der Waals Synaptic Transistor Based on Ferroelectric Hf _{0.5} Zr _{0.5} O ₂ and 2D Tungsten Disulfide. Advanced Electronic Materials, 2020, 6, 2000057.	2.6	68
22	Strain Effect on Oxygen Evolution Reaction Activity of Epitaxial NdNiO ₃ Thin Films. ACS Applied Materials & Interfaces, 2019, 11, 12941-12947.	4.0	67
23	A Pure 2H-MoS ₂ Nanosheet-Based Memristor with Low Power Consumption and Linear Multilevel Storage for Artificial Synapse Emulator. Advanced Electronic Materials, 2020, 6, 1901342.	2.6	67
24	Highly improved performance in Zr _{0.5} Hf _{0.5} O ₂ films inserted with graphene oxide quantum dots layer for resistive switching non-volatile memory. Journal of Materials Chemistry C, 2017, 5, 11046-11052.	2.7	66
25	Electrical switching of perpendicular magnetization in a single ferromagnetic layer. Physical Review B, 2020, 101, .	1.1	66
26	MXene Ti ₃ C ₂ memristor for neuromorphic behavior and decimal arithmetic operation applications. Nano Energy, 2021, 79, 105453.	8.2	58
27	Ferroelectricity and ferroelectric resistive switching in sputtered Hf _{0.5} Zr _{0.5} O ₂ thin films. Applied Physics Letters, 2016, 108, .	1.5	57
28	Designing carbon conductive filament memristor devices for memory and electronic synapse applications. Materials Horizons, 2020, 7, 1106-1114.	6.4	57
29	An Electronic Synapse Based on 2D Ferroelectric CuInP ₂ S ₆ . Advanced Electronic Materials, 2020, 6, 2000760.	2.6	57
30	Functional ferroelectric tunnel junctions on silicon. Scientific Reports, 2015, 5, 12576.	1.6	51
31	Strain Engineering of Octahedral Rotations and Physical Properties of SrRuO ₃ Films. Scientific Reports, 2015, 5, 10245.	1.6	51
32	Hf _{0.5} Zr _{0.5} O ₂ -based ferroelectric memristor with multilevel storage potential and artificial synaptic plasticity. Science China Materials, 2021, 64, 727-738.	3.5	51
33	A carbon-based memristor design for associative learning activities and neuromorphic computing. Nanoscale, 2020, 12, 13531-13539.	2.8	49
34	Ultra-low magnetic damping of perovskite La _{0.7} Sr _{0.3} MnO ₃ thin films. Applied Physics Letters, 2017, 110, .	1.5	45
35	Ferroelectricity emerging in strained (111)-textured ZrO ₂ thin films. Applied Physics Letters, 2016, 108, .	1.5	44
36	A Multifunctional and Efficient Artificial Visual Perception Nervous System with Sb ₂ Se ₃ /CdS@Core/Shell (SC) Nanorod Arrays Optoelectronic Memristor. Advanced Functional Materials, 2022, 32, .	7.8	44

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37	Observation of superconductivity in structure-selected Ti ₂ O ₃ thin films. NPG Asia Materials, 2018, 10, 522-532.	3.8	43
38	From Titanium Sesquioxide to Titanium Dioxide: Oxidation-Induced Structural, Phase, and Property Evolution. Chemistry of Materials, 2018, 30, 4383-4392.	3.2	42
39	Electronic-reconstruction-enhanced hydrogen evolution catalysis in oxide polymorphs. Nature Communications, 2019, 10, 3149.	5.8	42
40	Spin-Orbit Torque-Induced Domain Nucleation for Neuromorphic Computing. Advanced Materials, 2021, 33, e2103672.	11.1	41
41	Tailoring Self-Polarization of BaTiO ₃ Thin Films by Interface Engineering and Flexoelectric Effect. Advanced Materials Interfaces, 2016, 3, 1600737.	1.9	37
42	Flexible artificial synapse based on single-crystalline BiFeO ₃ thin film. Nano Research, 2022, 15, 2682-2688.	5.8	37
43	Multifunctional MoTe ₂ Fe-FET Enabled by Ferroelectric Polarization-Assisted Charge Trapping. Advanced Functional Materials, 2022, 32, .	7.8	37
44	Orthorhombic Ti ₂ O ₃ : A Polymorph-Dependent Narrow-Bandgap Ferromagnetic Oxide. Advanced Functional Materials, 2018, 28, 1705657.	7.8	36
45	Magnetic asymmetry induced anomalous spin-orbit torque in IrMn. Physical Review B, 2020, 101, .	1.1	36
46	Field-free magnetization switching induced by the unconventional spin-orbit torque from WTe ₂ . APL Materials, 2021, 9, .	2.2	35
47	Prospect of Spintronics in Neuromorphic Computing. Advanced Electronic Materials, 2021, 7, 2100465.	2.6	33
48	Current-induced self-switching of perpendicular magnetization in CoPt single layer. Nature Communications, 2022, 13, .	5.8	33
49	Modulation of Spin-Orbit Torque from SrRuO ₃ by Epitaxial-Strain-Induced Octahedral Rotation. Advanced Materials, 2021, 33, e2007114.	11.1	29
50	Perpendicular Magnetic Anisotropy and Dzyaloshinskii-Moriya Interaction at an Oxide/Ferromagnetic Metal Interface. Physical Review Letters, 2020, 124, 217202.	2.9	27
51	Topological hall transport: Materials, mechanisms and potential applications. Progress in Materials Science, 2022, 130, 100971.	16.0	27
52	Memristors based on multilayer graphene electrodes for implementing a low-power neuromorphic electronic synapse. Journal of Materials Chemistry C, 2020, 8, 4926-4933.	2.7	25
53	Thickness-dependent polarization-induced intrinsic magnetoelectric effects in $L_aS_rMnO_3$	1.1	24
54	Electric Field Control of the Magnetic Weyl Fermion in an Epitaxial SrRuO ₃ (111) Thin Film. Advanced Materials, 2021, 33, e2101316.	11.1	24

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55	Oxygen vacancy-induced topological nanodomains in ultrathin ferroelectric films. Npj Quantum Materials, 2021, 6, .	1.8	23
56	Field-Free Switching of Perpendicular Magnetization Induced by Longitudinal Spin-Orbit-Torque Gradient. Physical Review Applied, 2022, 17, .	1.5	22
57	An Overview of Ferroelectric Hafnia and Epitaxial Growth. Physica Status Solidi - Rapid Research Letters, 2021, 15, 2100025.	1.2	21
58	A Boolean OR gate implemented with an optoelectronic switching memristor. Applied Physics Letters, 2019, 115, .	1.5	20
59	Spin-orbit torque in chemically disordered and L-ordered $Cu_{1-x}Mn_x$ multiferroics. Physical Review Applied, 2021, 15, 044002.	0.9	17
60	Characteristic investigation of a flexible resistive memory based on a tunneling junction of Pd/BTO/LSMO on mica substrate. Applied Physics Letters, 2018, 113, .	1.5	16
61	Giant tunneling electroresistance induced by ferroelectrically switchable two-dimensional electron gas at nonpolar $BaTiO_3$ interfaces. Physical Review B, 2016, 94, .	1.1	15
62	Effect of Extrinsic Introduced Passive Interface Layer on the Performance of Ferroelectric Tunnel Junctions. ACS Applied Materials & Interfaces, 2017, 9, 5050-5055.	4.0	15
63	A Flexible Transient Biomemristor Based on Hybrid Structure $HfO_2/BSA:Au$ Double Layers. Advanced Materials Technologies, 2020, 5, 2000191.	3.0	15
64	Alloy electrode engineering in memristors for emulating the biological synapse. Nanoscale, 2022, 14, 1318-1326.	2.8	15
65	Recent Progress on Titanium Sesquioxide: Fabrication, Properties, and Applications. Advanced Functional Materials, 2022, 32, .	7.8	14
66	Atomic-Scale Control of Magnetism at the Titanite-Manganite Interfaces. Nano Letters, 2019, 19, 3057-3065.	4.5	13
67	Magnetization reversal and magnetoresistance behavior of exchange coupled $SrRuO_3$ bilayer. Journal Physics D: Applied Physics, 2017, 50, 215002.	1.3	12
68	Room-temperature spin-orbit torque switching in a manganite-based heterostructure. Physical Review B, 2022, 105, .	1.1	12
69	Controlling Resistance Switching Performances of $Hf_{0.5}Zr_{0.5}O_2$ Films by Substrate Stress and Potential in Neuromorphic Computing. Advanced Intelligent Systems, 2022, 4, .	3.3	11
70	Tuning of current-induced effective magnetic field through Rashba effect engineering in hybrid multiferroic structures. NPG Asia Materials, 2018, 10, 740-748.	3.8	10
71	Ferroelectric Self-Polarization Controlled Magnetic Stratification and Magnetic Coupling in Ultrathin $La_{0.67}Sr_{0.33}MnO_3$ Films. ACS Applied Materials & Interfaces, 2021, 13, 30137-30145.	4.0	10
72	Tunneling electroresistance effect in ultrathin $BiFeO_3$ -based ferroelectric tunneling junctions. Applied Physics Letters, 2016, 109, .	1.5	9

