

A Review of Resistive Switching Devices: Performance and Applications

Small Structures

2, 2000109

DOI: [10.1002/sstr.202000109](https://doi.org/10.1002/sstr.202000109)

Citation Report

#	ARTICLE	IF	CITATIONS
1	A dual-functional Ta/TaO _x /Ru device with both nonlinear selector and resistive switching behaviors. RSC Advances, 2021, 11, 18241-18245.	3.6	4
2	Reinforcement of double built-in electric fields in spiro-MeOTAD/Ga ₂ O ₃ /Si p-n structure for a high-sensitivity solar-blind UV photovoltaic detector. Journal of Materials Chemistry C, 2021, 9, 14788-14798.	5.5	21
3	Reversible Barrier Switching of ZnO/RuO ₂ Schottky Diodes. Materials, 2021, 14, 2678.	2.9	5
4	A High-Speed True Random Number Generator Based on a Cu _x Te [~] Diffusive Memristor. Advanced Intelligent Systems, 2021, 3, 2100062.	6.1	21
5	Structure-Dependent Influence of Moisture on Resistive Switching Behavior of ZnO Thin Films. Advanced Materials Interfaces, 2021, 8, 2100915.	3.7	13
6	Performance Assessment of Amorphous HfO ₂ -Based RRAM Devices for Neuromorphic Applications. ECS Journal of Solid State Science and Technology, 2021, 10, 083002.	1.8	2
7	A Cu/HZO/GeS/Pt Memristor for Neuroinspired Computing. Physica Status Solidi - Rapid Research Letters, 2021, 15, 2100072.	2.4	5
8	A Memristor-Based Silicon Carbide for Artificial Nociceptor and Neuromorphic Computing. Advanced Materials Technologies, 2021, 6, 2100373.	5.8	31
9	Reconfigurable 2D WSe ₂ -Based Memtransistor for Mimicking Homosynaptic and Heterosynaptic Plasticity. Small, 2021, 17, e2103175.	10.0	45
10	Parylene-based memristive synapses for hardware neural networks capable of dopamine-modulated STDP learning. Journal Physics D: Applied Physics, 2021, 54, 484002.	2.8	11
11	Memristor-based biomimetic compound eye for real-time collision detection. Nature Communications, 2021, 12, 5979.	12.8	82
12	Unconventional Resistive Switching Behavior in Fibroin-Based Memristor. Advanced Electronic Materials, 2022, 8, 2100843.	5.1	21
13	Antiferromagnetism in Ni-Based Superconductors. Advanced Materials, 2022, 34, e2106117.	21.0	26
14	Grain Boundary Confinement of Silver Imidazole for Resistive Switching. Advanced Functional Materials, 2022, 32, 2108598.	14.9	11
15	Alloy electrode engineering in memristors for emulating the biological synapse. Nanoscale, 2022, 14, 1318-1326.	5.6	15
16	A Spiro-MeOTAD/Ga ₂ O ₃ /Si p-i-n Junction Featuring Enhanced Self-Powered Solar-Blind Sensing via Balancing Absorption of Photons and Separation of Photogenerated Carriers. ACS Applied Materials & Interfaces, 2021, 13, 57619-57628.	8.0	19
17	Engineering Spiking Neurons Using Threshold Switching Devices for High-Efficient Neuromorphic Computing. Frontiers in Neuroscience, 2021, 15, 786694.	2.8	11
18	FangTianSim: High-Level Cycle-Accurate Resistive Random-Access Memory-Based Multi-Core Spiking Neural Network Processor Simulator. Frontiers in Neuroscience, 2021, 15, 806325.	2.8	1

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19	Emerging dynamic memristors for neuromorphic reservoir computing. <i>Nanoscale</i> , 2022, 14, 289-298.	5.6	43
20	Memristors based on carbon dots for learning activities in artificial biosynapse applications. <i>Materials Chemistry Frontiers</i> , 2022, 6, 1098-1106.	5.9	6
21	Flexible memristive spiking neuron for neuromorphic sensing and computing. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2022, 71, 148503.	0.5	2
22	Intelligent resistive-switching EWOD device based on the Fe doped ZnO memristor. <i>Ceramics International</i> , 2022, , .	4.8	3
23	Natural biomaterial honey-based resistive switching device for artificial synapse in neuromorphic systems. <i>Applied Physics Letters</i> , 2022, 120, .	3.3	10
24	Parylene-based memristive crossbar structures with multilevel resistive switching for neuromorphic computing. <i>Nanotechnology</i> , 2022, 33, 255201.	2.6	13
25	Structure and Electrical Properties of Zirconium-Aluminum-Oxide Films Engineered by Atomic Layer Deposition. <i>Coatings</i> , 2022, 12, 431.	2.6	1
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31	Implementing in-situ self-organizing maps with memristor crossbar arrays for data mining and optimization. <i>Nature Communications</i> , 2022, 13, 2289.	12.8	25
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33	Digital and analog resistive switching in NiO-based memristor by electrode engineering. <i>Japanese Journal of Applied Physics</i> , 0, , .	1.5	3
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36	Non-volatile memory based in-memory computing technology. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2022, 71, 148507.	0.5	1

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38	Principle and Application of Frequency-Domain Characteristic Analysis of Fractional-Order Memristor. Micromachines, 2022, 13, 1512.	2.9	0
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40	Electrode dependence in halide perovskite memories: resistive switching behaviours. Materials Chemistry Frontiers, 2022, 6, 3125-3142.	5.9	8
41	Plasma fireball-mediated ion implantation for nonvolatile memory application. Applied Surface Science, 2023, 607, 154999.	6.1	1
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47	Reproducible Non-Volatile Multi-State Storage and Emulation of Synaptic Plasticity Based on a Copper-Nanoparticle-Embedded HfO _x /ZnO Bilayer with Ultralow-Switching Current and Ideal Data Retention. Nanomaterials, 2022, 12, 3769.	4.1	3
48	All-atomristor logic gates. Nano Research, 2023, 16, 1688-1694.	10.4	4
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50	Advancement in Soft Iontronic Resistive Memory Devices and Their Application for Neuromorphic Computing. Advanced Intelligent Systems, 2023, 5, .	6.1	10
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56	ZnO and ZnO-Based Materials as Active Layer in Resistive Random-Access Memory (RRAM). <i>Crystals</i> , 2023, 13, 416.	2.2	10
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61	Nano <i>ix</i> -Se Peninsulas Embedded in Natively Oxidized 2D TiSe ₂ Enable Uniform and Fast Memristive Switching. <i>ACS Applied Materials & Interfaces</i> , 2023, 15, 23371-23379.	8.0	2
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74	A bidirectional thermal sensory leaky integrate-and-fire (LIF) neuron model based on bipolar NbO ₂ volatile threshold devices with ultra-low operating current. <i>Nanoscale</i> , 0, , .	5.6	0
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81	Transformation of rust iron into a sustainable product for applications in the electronic, energy, biomedical, and environment fields: Towards a multitasking approach. <i>Nano Today</i> , 2024, 54, 102085.	11.9	0
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93	Effect of Film Density on MgSiO ₃ -Based Resistive Random-Access Memory. <i>ECS Journal of Solid State Science and Technology</i> , 2024, 13, 025004.	1.8	0
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