Flexible Memristive Memory Array on Plastic Substrate

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Citation Report

#	Article	IF	Citations
1	Biointegrated flexible inorganic light emitting diodes. Nanobiosensors in Disease Diagnosis, 2012, , 5.	0.0	7
2	Flexible GaN LED on a polyimide substrate for display applications. Proceedings of SPIE, 2012, , .	0.8	13
3	Bendable Inorganic Thin-Film Battery for Fully Flexible Electronic Systems. Nano Letters, 2012, 12, 4810-4816.	9.1	494
4	Memory devices based on functionalized copolymers exhibiting a linear dependence of switch threshold voltage with the pendant nitro-azobenzene moiety content change. Journal of Materials Chemistry, 2012, 22, 19957.	6.7	19
5	Flexible Logic Gates Composed of Si-Nanowire-Based Memristive Switches. IEEE Transactions on Electron Devices, 2012, 59, 3288-3291.	3.0	9
6	Acid-treated SWCNT/polyurethane nanoweb as a stretchable and transparent Conductor. RSC Advances, 2012, 2, 10717.	3.6	29
7	Two-Step Write Scheme for Reducing Sneak-Path Leakage in Complementary Memristor Array. IEEE Nanotechnology Magazine, 2012, 11, 611-618.	2.0	59
8	Flexible Multilevel Resistive Memory with Controlled Charge Trap B- and N-Doped Carbon Nanotubes. Nano Letters, 2012, 12, 2217-2221.	9.1	177
9	Development of a silicon oxide-based resistive memory device using a spin-on hydrogen silsesquioxane precursor. Journal of Materials Research, 2012, 27, 3110-3116.	2.6	2
10	Low voltage flexible nonvolatile memory with gold nanoparticles embedded in poly(methyl) Tj ETQq1 1 0.784314 rgBT /Overlock 10 T	2.6	54
11	Resistance Random Access Memory Based on a Thin Film of CdS Nanocrystals Prepared via Colloidal Synthesis. Small, 2012, 8, 2849-2855.	10.0	25
12	Highly entangled K0.5V2O5 superlong nanobelt membranes for flexible nonvolatile memory devices. Journal of Materials Chemistry, 2012, 22, 18214.	6.7	22
13	Flexible Nanocomposite Generator Made of BaTiO₃ Nanoparticles and Graphitic Carbons. Advanced Materials, 2012, 24, 2999-3004.	21.0	601
14	Versatile resistive switching (memristive) behavior in an ITO/ZRO2/AG sandwich fabricated using electrohydrodynamic printing. Journal of the Korean Physical Society, 2012, 61, 119-123.	0.7	12
15	Flexible and Largeâ€Area Nanocomposite Generators Based on Lead Zirconate Titanate Particles and Carbon Nanotubes. Advanced Energy Materials, 2013, 3, 1539-1544.	19.5	210
16	Bipolar one diodeâ€“one resistor integration for high-density resistive memory applications. Nanoscale, 2013, 5, 4785.	5.6	50
17	Highâ€Performance and Lowâ€Power Rewritable SiO_x 1 kbit One Diodeâ€“One Resistor Crossbar Memory Array. Advanced Materials, 2013, 25, 4789-4793.	21.0	66
18	A transparent and flexible organic bistable memory device using parylene with embedded gold nanoparticles. Journal of Materials Science: Materials in Electronics, 2013, 24, 3116-3125.	2.2	14

#	Article	IF	Citations
19	High-performance bilayer flexible resistive random access memory based on low-temperature thermal atomic layer deposition. Nanoscale Research Letters, 2013, 8, 92.	5.7	76
20	Memristor-based memory: The sneak paths problem and solutions. Microelectronics Journal, 2013, 44, 176-183.	2.0	347
21	Flexible High-$kappa$/Metal Gate Metal/Insulator/Metal Capacitors on Silicon (100) Fabric. IEEE Transactions on Electron Devices, 2013, 60, 3305-3309.	3.0	33
22	The strain and thermal induced tunable charging phenomenon in low power flexible memory arrays with a gold nanoparticle monolayer. Nanoscale, 2013, 5, 1972.	5.6	37
23	ZrO2 flexible printed resistive (memristive) switch through electrohydrodynamic printing process. Thin Solid Films, 2013, 536, 308-312.	1.8	49
24	On conditions leading to crossing of Iâ€“V curve in metal1 | mixed-ionicâ€“electronic-conductor | metal2 devices. Solid State Ionics, 2013, 241, 17-24.	2.7	14
25	Adjustment of charge trap number and depth in molecular backbone to achieve tunable multilevel data storage performance. Journal of Materials Chemistry C, 2013, 1, 2320.	5.5	46
26	In Vivo Silicon-Based Flexible Radio Frequency Integrated Circuits Monolithically Encapsulated with Biocompatible Liquid Crystal Polymers. ACS Nano, 2013, 7, 4545-4553.	14.6	108
27	Fabrication of ZrO2 layer through electrohydrodynamic atomization for the printed resistive switch (memristor). Microelectronic Engineering, 2013, 103, 167-172.	2.4	47
28	Effects of electrodes on resistance switching characteristics of TiO2 for flexible memory. Optoelectronics Letters, 2013, 9, 263-265.	0.8	2
29	Towards data reliable crossbar-based memristive memories. , 2013, , .		26
30	Towards the Development of Flexible Nonâ€Volatile Memories. Advanced Materials, 2013, 25, 5425-5449.	21.0	471
31	Flexible Inorganic Self-Powered Electronic Systems. , 2013, , .		0
32	Nonvolatile Resistive Switching in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Pt</mml:mi><mml:mo>/</mml:mo><mml:msub><mml:mi>LaAlO</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:mo>/</mml:mo><mml:mi>Sr</mml:mi><mml:msub><mml:mi>TiO</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math>/Pt. Physical Review X, 2013, 3, .	8.9	49
33	Flexible surface acoustic wave resonators built on disposable plastic film for electronics and lab-on-a-chip applications. Scientific Reports, 2013, 3, 2140.	3.3	116
34	Crystalline structure effect on the performance of flexible ZnO/polyimide surface acoustic wave devices. Journal of Applied Physics, 2013, 114, .	2.5	38
35	Nonvolatile multilevel data storage memory device from controlled ambipolar charge trapping mechanism. Scientific Reports, 2013, 3, 2319.	3.3	106
36	Transfer of functional memory devices to any substrate. Physica Status Solidi - Rapid Research Letters, 2013, 7, 326-331.	2.4	7

#	Article	IF	Citations
37	On designing circuit primitives for cortical processors with memristive hardware. , 2014, , .		0
38	Transparent and flexible nonvolatile memory using poly(methylsilsesquioxane) dielectric embedded with cadmium selenide quantum dots. Japanese Journal of Applied Physics, 2014, 53, 125001.	1.5	8
39	TiO₂-based memristors and ReRAM: materials, mechanisms and models (a review). Semiconductor Science and Technology, 2014, 29, 104004.	2.0	133
40	Current conduction and resistive switching characteristics of Sm2O3 and Lu2O3 thin films for low-power flexible memory applications. Journal of Applied Physics, 2014, 115, 014501.	2.5	23
41	Bendable organic memristors in a crossbar array: Applications to information storage. , 2014, , .		1
42	CMOS compatible generic batch process towards flexible memory on bulk monocrystalline silicon (100). , 2014, , .		1
43	Mechanical anomaly impact on metal-oxide-semiconductor capacitors on flexible silicon fabric. Applied Physics Letters, 2014, 104, 234104.	3.3	27
44	Hetero-nuclear coordinated compounds for use in high-performance supercapacitor electrode material design. Inorganic Chemistry Frontiers, 2014, 1, 745-750.	6.0	11
45	Oxide based two diodesâ€“one resistor structure for bipolar RRAM crossbar array. Microelectronic Engineering, 2014, 130, 35-39.	2.4	1
46	High performance dual-wave mode flexible surface acoustic wave resonators for UV light sensing. Journal of Micromechanics and Microengineering, 2014, 24, 055014.	2.6	32
47	Flexible surface acoustic wave devices and its applications in microfluidics. Materials Research Society Symposia Proceedings, 2014, 1659, 27-33.	0.1	0
48	Low Temperature Preparation of KNbO₃Films by Hydrothermal Method and Their Characterization. Materials Research Society Symposia Proceedings, 2014, 1659, 49-54.	0.1	3
49	Resistive switching behavior in Lu2O3 thin film for advanced flexible memory applications. Nanoscale Research Letters, 2014, 9, 3.	5.7	24
50	Non-volatile organic memory with sub-millimetre bending radius. Nature Communications, 2014, 5, 3583.	12.8	196
51	Memristor-based combinational circuits: A design methodology for encoders/decoders. Microelectronics Journal, 2014, 45, 59-70.	2.0	35
52	Influence of oxygen content of room temperature TiO_{2â^'x} deposited films for enhanced resistive switching memory performance. Journal of Applied Physics, 2014, 115, 034516.	2.5	47
53	Flexible spintronic devices on Kapton. Applied Physics Letters, 2014, 104, .	3.3	85
54	Memristor based memories: Technology, design and test. , 2014, , .		42

#	Article	IF	Citations
55	Feasibility study of using a Zener diode as the selection device for bipolar RRAM and WORM memory arrays. Journal Physics D: Applied Physics, 2014, 47, 025103.	2.8	2
56	Flexible one diodeâ€“one resistor resistive switching memory arrays on plastic substrates. RSC Advances, 2014, 4, 20017-20023.	3.6	40
57	Feasibility of Schottky diode as selector for bipolar-type resistive random access memory applications. Applied Physics Letters, 2014, 104, 132105.	3.3	7
58	Tunable Power Switching in Nonvolatile Flexible Memory Devices Based on Graphene Oxide Embedded with ZnO Nanorods. Journal of Physical Chemistry C, 2014, 118, 21357-21364.	3.1	63
59	High ON/OFF ratio single crystal transistors based on ultrathin thienoacene microplates. Journal of Materials Chemistry C, 2014, 2, 5382-5388.	5.5	24
60	Oxide Resistive Memory with Functionalized Graphene as Builtâ€in Selector Element. Advanced Materials, 2014, 26, 3693-3699.	21.0	69
61	Reliable Control of Filament Formation in Resistive Memories by Self-Assembled Nanoinsulators Derived from a Block Copolymer. ACS Nano, 2014, 8, 9492-9502.	14.6	93
62	Highly Controllable and Stable Quantized Conductance and Resistive Switching Mechanism in Single-Crystal TiO₂ Resistive Memory on Silicon. Nano Letters, 2014, 14, 4360-4367.	9.1	121
63	Self-powered fully-flexible light-emitting system enabled by flexible energy harvester. Energy and Environmental Science, 2014, 7, 4035-4043.	30.8	179
64	Flexible Crossbarâ€Structured Resistive Memory Arrays on Plastic Substrates via Inorganicâ€Based Laser Liftâ€Off. Advanced Materials, 2014, 26, 7480-7487.	21.0	118
65	Selfâ€Powered Cardiac Pacemaker Enabled by Flexible Single Crystalline PMNâ€PT Piezoelectric Energy Harvester. Advanced Materials, 2014, 26, 4880-4887.	21.0	558
66	Nano-Crossbar Memories Comprising Parallel/Serial Complementary Memristive Switches. BioNanoScience, 2014, 4, 166-179.	3.5	22
67	Interfacially Engineered Highâ€Speed Nonvolatile Memories Employing pâ€Type Nanoribbons. Advanced Materials Interfaces, 2014, 1, 1400130.	3.7	3
68	First-principles study on defected titanium dioxide with the Zr substitution for improved reliability of the conduction path. EPJ Applied Physics, 2015, 70, 10103.	0.7	3
69	Performance Enhancement of Electronic and Energy Devices via Block Copolymer Selfâ€Assembly. Advanced Materials, 2015, 27, 3982-3998.	21.0	91
70	Interaction of oxygen vacancy and its impact on transmission coefficient in oxygenâ€deficient titanium dioxide: Ab initio calculations. Physica Status Solidi (B): Basic Research, 2015, 252, 2735-2744.	1.5	4
71	Review on Physically Flexible Nonvolatile Memory for Internet of Everything Electronics. Electronics (Switzerland), 2015, 4, 424-479.	3.1	118
72	Coexistence of diode-like volatile and multilevel nonvolatile resistive switching in a ZrO₂/TiO₂ stack structure. Nanotechnology, 2015, 26, 391001.	2.6	43

#	Article	IF	Citations
73	Ultra-high density out-of-plane strain sensor 3D architecture based on sub-20 nm PMOS FinFET. , 2015, , .		3
74	Vacancy Associates-Rich Ultrathin Nanosheets for High Performance and Flexible Nonvolatile Memory Device. Journal of the American Chemical Society, 2015, 137, 3102-3108.	13.7	141
76	Resistive Switching Induced by Electric Pulses in a Single-Component Molecular Mott Insulator. Journal of Physical Chemistry C, 2015, 119, 2983-2988.	3.1	15
77	Memristive behavior of Al2O3 film with bottom electrode surface modified by Ag nanoparticles. Applied Physics A: Materials Science and Processing, 2015, 118, 605-612.	2.3	16
78	Oxide nanowires for nonvolatile memory applications. , 2015, , 489-524.		2
79	Non-Contact Local Conductance Mapping of Individual Graphene Oxide Sheets during the Reduction Process. Journal of Physical Chemistry Letters, 2015, 6, 2629-2635.	4.6	7
80	Metalâ€Organic Framework Nanofilm for Mechanically Flexible Information Storage Applications. Advanced Functional Materials, 2015, 25, 2677-2685.	14.9	133
81	High Onâ€“Off Ratio Improvement of ZnO-Based Forming-Free Memristor by Surface Hydrogen Annealing. ACS Applied Materials & Interfaces, 2015, 7, 7382-7388.	8.0	102
82	A Novel Design for Memristor-Based Logic Switch and Crossbar Circuits. IEEE Transactions on Circuits and Systems I: Regular Papers, 2015, 62, 1402-1411.	5.4	55
83	A new crossbar architecture based on two serial memristors with threshold. , 2015, , .		1
84	Three-Dimensional Networked Nanoporous Ta₂O_{5â€“x} Memory System for Ultrahigh Density Storage. Nano Letters, 2015, 15, 6009-6014.	9.1	50
85	Correlative analysis of conducting filament distribution at interfaces and bias-dependent noise sources in TiN/TiOx/Pt and Pt/TiOx/TiOy/Pt bipolar resistive switching frames. Applied Physics Letters, 2015, 106, 033506.	3.3	9
86	New Twin Crossbar Architecture of Binary Memristors for Low-Power Image Recognition With Discrete Cosine Transform. IEEE Nanotechnology Magazine, 2015, 14, 1104-1111.	2.0	39
87	Electric-Field-Driven Dual Vacancies Evolution in Ultrathin Nanosheets Realizing Reversible Semiconductor to Half-Metal Transition. Journal of the American Chemical Society, 2015, 137, 15043-15048.	13.7	43
88	Self-powered flexible inorganic electronic system. Nano Energy, 2015, 14, 111-125.	16.0	110
89	Organic non-volatile memory cell based on resistive elements through electro-hydrodynamic technique. Organic Electronics, 2015, 17, 121-128.	2.6	28
90	Highly Compact (4F2) and Well Behaved Nano-Pillar Transistor Controlled Resistive Switching Cell for Neuromorphic System Application. Scientific Reports, 2014, 4, 6863.	3.3	19
91	Layered memristive and memcapacitive switches for printable electronics. Nature Materials, 2015, 14, 199-204.	27.5	423

#	Article	IF	Citations
92	Compensated Readout for High-Density MOS-Gated Memristor Crossbar Array. IEEE Nanotechnology Magazine, 2015, 14, 3-6.	2.0	28
93	Cellulose Nanofiber Paper as an Ultra Flexible Nonvolatile Memory. Scientific Reports, 2014, 4, 5532.	3.3	122
94	Enabling in-situ logic-in-memory capability using resistive-RAM crossbar memory. , 2016, , .		0
95	CMOSâ€Technologyâ€Enabled Flexible and Stretchable Electronics for Internet of Everything Applications. Advanced Materials, 2016, 28, 4219-4249.	21.0	179
96	Flexible MgO Barrier Magnetic Tunnel Junctions. Advanced Materials, 2016, 28, 4983-4990.	21.0	59
97	Stretchable piezoelectric nanocomposite generator. Nano Convergence, 2016, 3, 12.	12.1	104
98	Ternary Flexible Electroâ€resistive Memory Device based on Small Molecules. Chemistry - an Asian Journal, 2016, 11, 1624-1630.	3.3	18
99	Ultraâ€Lightweight Resistive Switching Memory Devices Based on Silk Fibroin. Small, 2016, 12, 3360-3365.	10.0	97
100	Resistive switching in sol-gel derived microscale memristors. , 2016, , .		6
101	Sneak path enabled authentication for memristive crossbar memories. , 2016, , .		6
102	Associative Memristive Memory for Approximate Computing in GPUs. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2016, 6, 222-234.	3.6	22
103	Low Cost Memristor Associative Memory Design for Full and Partial Matching Applications. IEEE Nanotechnology Magazine, 2016, 15, 527-538.	2.0	17
104	Solution-processed ZnO thin films for low voltage and low temperature application in flexible resistive random access memory. Thin Solid Films, 2016, 616, 728-732.	1.8	6
105	Sol-gel/drop-coated micro-thick TiO2 memristors for Î³-ray sensing. Materials Chemistry and Physics, 2016, 184, 72-81.	4.0	30
106	A ZnO-rGO composite thin film discrete memristor. , 2016, , .		15
107	Research on feasibility of using a Transient Voltage Suppressor as the selection device for bipolar RRAM. Microelectronic Engineering, 2016, 164, 20-22.	2.4	0
108	Resistive switching behavior of reduced graphene oxide memory cells for low power nonvolatile device application. Scientific Reports, 2016, 6, 26763.	3.3	97
110	Physics model of memristor devices with varying active materials. , 2016, , .		1

#	Article	IF	Citations
111	Nonvolatile Bipolar Resistive Switching Behavior in the Perovskite-like (CH3NH3)2FeCl4. ACS Applied Materials & Interfaces, 2016, 8, 18985-18990.	8.0	17
112	Modulation of physical properties of oxide thin films by multiple fields. Chinese Physics B, 2016, 25, 067303.	1.4	3
113	Modeling Valance Change Memristor Device: Oxide Thickness, Material Type, and Temperature Effects. IEEE Transactions on Circuits and Systems I: Regular Papers, 2016, 63, 2139-2148.	5.4	26
114	Resistive hysteresis in flexible nanocomposites and colloidal suspensions: interfacial coupling mechanism unveiled. RSC Advances, 2016, 6, 56661-56667.	3.6	48
115	A flexible organic resistance memory device for wearable biomedical applications. Nanotechnology, 2016, 27, 275206.	2.6	67
116	Self-Assembly of Graphene Single Crystals with Uniform Size and Orientation: The First 2D Super-Ordered Structure. Journal of the American Chemical Society, 2016, 138, 7812-7815.	13.7	88
117	Hybrid Flexible Resistive Random Access Memoryâ€Gated Transistor for Novel Nonvolatile Data Storage. Small, 2016, 12, 390-396.	10.0	42
118	Alternative Architectures Toward Reliable Memristive Crossbar Memories. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2016, 24, 206-217.	3.1	35
119	State of the art of metal oxide memristor devices. Nanotechnology Reviews, 2016, 5, .	5.8	147
120	Multifunctional resistive switching behaviors employing various electroforming steps. Journal of Materials Chemistry C, 2016, 4, 823-830.	5.5	22
121	A wearable multiplexed silicon nonvolatile memory array using nanocrystal charge confinement. Science Advances, 2016, 2, e1501101.	10.3	139
122	Flexible electronics under strain: a review of mechanical characterization and durability enhancement strategies. Journal of Materials Science, 2016, 51, 2771-2805.	3.7	295
123	Birth of one-to-four-wing chaotic attractors in a class of simplest three-dimensional continuous memristive systems. Nonlinear Dynamics, 2016, 83, 1987-2001.	5.2	28
124	Memristor-Based Logic Circuits. Emergence, Complexity and Computation, 2016, , 61-100.	0.3	2
125	Memristive Crossbar-Based Nonvolatile Memory. Emergence, Complexity and Computation, 2016, , 101-147.	0.3	7
126	Memristor-Based Nanoelectronic Computing Circuits and Architectures. Emergence, Complexity and Computation, 2016, , .	0.3	51
127	Freeform Compliant CMOS Electronic Systems for Internet of Everything Applications. IEEE Transactions on Electron Devices, 2017, 64, 1894-1905.	3.0	17
128	BODIPY-based conjugated polymer covalently grafted reduced graphene oxide for flexible nonvolatile memory devices. Carbon, 2017, 116, 713-721.	10.3	26

#	Article	IF	Citations
129	Highly flexible resistive switching memory based on amorphous-nanocrystalline hafnium oxide films. Nanoscale, 2017, 9, 7037-7046.	5.6	109
130	Flexible ferroelectric element based on van der Waals heteroepitaxy. Science Advances, 2017, 3, e1700121.	10.3	174
131	Laserâ€“Material Interactions for Flexible Applications. Advanced Materials, 2017, 29, 1606586.	21.0	132
132	Multi-level non-volatile organic transistor-based memory using lithium-ion-encapsulated fullerene as a charge trapping layer. Organic Electronics, 2017, 45, 234-239.	2.6	29
133	Flexible rewritable organic memory devices using nitrogen-doped CNTs/PEDOT:PSS composites. Organic Electronics, 2017, 45, 159-168.	2.6	35
134	Resistive switching of Pt/TiO_x/Pt devices fabricated on flexible Parylene-C substrates. Nanotechnology, 2017, 28, 025303.	2.6	18
135	Recent advances in printable secondary batteries. Journal of Materials Chemistry A, 2017, 5, 22442-22458.	10.3	50
136	Transparent and flexible write-once-read-many (WORM) memory device based on egg albumen. Journal Physics D: Applied Physics, 2017, 50, 315105.	2.8	19
137	Bending induced electrical response variations in ultra-thin flexible chips and device modeling. Applied Physics Reviews, 2017, 4, .	11.3	49
139	Memristors in Unconventional Computing: How a Biomimetic Circuit Element Can be Used to Do Bioinspired Computation. Emergence, Complexity and Computation, 2017, , 497-542.	0.3	1
140	Dynamical analysis and circuit implementation of a DC/DC single-stage boost converter with memristance load. Nonlinear Dynamics, 2018, 93, 1741-1755.	5.2	16
141	Multicracking and Magnetic Behavior of Ni₈₀Fe₂₀ Nanowires Deposited onto a Polymer Substrate. Nano Letters, 2018, 18, 3199-3202.	9.1	19
142	A 2M1M Crossbar Architecture: Memory. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2018, 26, 2608-2618.	3.1	15
143	Smooth Interfacial Scavenging for Resistive Switching Oxide via the Formation of Highly Uniform Layers of Amorphous TaO_x. ACS Applied Materials & Interfaces, 2018, 10, 5609-5617.	8.0	22
144	Highly Flexible Resistive Switching Memory Based on the Electronic Switching Mechanism in the Al/TiO₂/Al/Polyimide Structure. ACS Applied Materials & Interfaces, 2018, 10, 1828-1835.	8.0	68
145	Fault Modeling and Parallel Testing for 1T1M Memory Array. IEEE Nanotechnology Magazine, 2018, 17, 437-451.	2.0	18
146	High-performance piezoelectric nanogenerators based on chemically-reinforced composites. Energy and Environmental Science, 2018, 11, 1425-1430.	30.8	119
147	Memristor Technology: Synthesis and Modeling for Sensing and Security Applications. Analog Circuits and Signal Processing Series, 2018, , .	0.3	14

#	Article	IF	Citations
148	Synthesis and Characterization of Micro-Thick TiO2Âand HfO2ÂMemristors. Analog Circuits and Signal Processing Series, 2018, , 31-51.	0.3	2
149	Memristor Device Modeling. Analog Circuits and Signal Processing Series, 2018, , 93-104.	0.3	3
150	Memristor Device Overview. Analog Circuits and Signal Processing Series, 2018, , 1-29.	0.3	4
151	Flexible memristors as electronic synapses for neuro-inspired computation based on scotch tape-exfoliated mica substrates. Nano Research, 2018, 11, 1183-1192.	10.4	91
152	Dilute electrodeposition of TiO2and ZnO thin film memristors on Cu substrate. IOP Conference Series: Materials Science and Engineering, 2018, 340, 012006.	0.6	2
153	Effect of Interface Layer Engineering on Resistive Switching Characteristics of ZrO₂-Based Resistive Switching Devices. IEEE Transactions on Electron Devices, 2018, 65, 5390-5394.	3.0	30
154	Origin of relationship between ferromagnetic response and damage in stretched systems. Scientific Reports, 2018, 8, 13695.	3.3	16
155	Flexible Electronic Synapses for Face Recognition Application with Multimodulated Conductance States. ACS Applied Materials & Interfaces, 2018, 10, 37345-37352.	8.0	72
156	Transferable and Flexible Artificial Memristive Synapse Based on WO_x Schottky Junction on Arbitrary Substrates. Advanced Electronic Materials, 2018, 4, 1800373.	5.1	58
157	Introduction of lithography-compatible conducting polymer as flexible electrode for oxide-based charge-trap memory transistors on plastic poly(ethylene naphthalate) substrates. Solid-State Electronics, 2018, 150, 35-40.	1.4	8
158	Graphene Oxide-Based Memristor. , 0, , .		6
159	Physically Transient Threshold Switching Device Based on Magnesium Oxide for Security Application. Small, 2018, 14, e1800945.	10.0	44
160	Novel Electronics for Flexible and Neuromorphic Computing. Advanced Functional Materials, 2018, 28, 1801690.	14.9	94
161	Multifunctional Nanocracks in Silicon Nanomembranes by Notch-Assisted Transfer Printing. ACS Applied Materials & Interfaces, 2018, 10, 25644-25651.	8.0	12
162	Integration of biocompatible organic resistive memory and photoresistor for wearable image sensing application. Science China Information Sciences, 2018, 61, 1.	4.3	5
163	Memristor Based on the Contact of Two Metal Balls. IEEE Sensors Journal, 2018, 18, 8045-8052.	4.7	0
164	Half-metallicity in two-dimensional Co ₂ Se ₃ monolayer with superior mechanical flexibility. 2D Materials, 2018, 5, 045026.	4.4	29
165	Wearables in Medicine. Advanced Materials, 2018, 30, e1706910.	21.0	358

#	Article	IF	Citations
166	First Demonstration of a Fully-Printed Mos2Rram on Flexible Substrate with Ultra-Low Switching Voltage and its Application as Electronic Synapse. , 2019, , .		8
167	Micromagnetic modeling of nanostructures subject to heterogeneous strain fields. Journal Physics D: Applied Physics, 2019, 52, 355004.	2.8	8
168	Realization of Self-Compliance Resistive Switching Memory via Tailoring Interfacial Oxygen. ACS Applied Materials & Interfaces, 2019, 11, 41490-41496.	8.0	14
169	A Fully Printed Flexible MoS₂ Memristive Artificial Synapse with Femtojoule Switching Energy. Advanced Electronic Materials, 2019, 5, 1900740.	5.1	123
170	Aerosol Jet Printed WSe₂ Based RRAM on Kapton Suitable for Flexible Monolithic Memory Integration. , 2019, , .		6
171	Lightweight flexible indium-free oxide TFTs with AND logic function employing chitosan biopolymer as self-supporting layer. Solid-State Electronics, 2019, 153, 16-22.	1.4	40
172	Flexible Memristors Based on Single-Crystalline Ferroelectric Tunnel Junctions. ACS Applied Materials & Interfaces, 2019, 11, 23313-23319.	8.0	56
173	Indepth Studies on Working Mechanism of Plasmon-Enhanced Inverted Perovskite Solar Cells Incorporated with Ag@SiO₂ Coreâ€“Shell Nanocubes. ACS Applied Energy Materials, 2019, 2, 3605-3613.	5.1	18
174	Flexible ferroelectric capacitors based on Bi_{3.15}Nd_{0.85}Ti₃O₁₂/muscovite structure. Smart Materials and Structures, 2019, 28, 054002.	3.5	5
175	Micro Lightâ€Emitting Diodes for Display and Flexible Biomedical Applications. Advanced Functional Materials, 2019, 29, 1808075.	14.9	132
176	One Bipolar Selector-One Resistor for Flexible Crossbar Memory Applications. IEEE Transactions on Electron Devices, 2019, 66, 1296-1301.	3.0	29
177	Charge-trap-assisted flexible nonvolatile memory applications using oxide-semiconductor thin-film transistors. Japanese Journal of Applied Physics, 2019, 58, 090601.	1.5	4
178	Unconventional Inorganicâ€Based Memristive Devices for Advanced Intelligent Systems. Advanced Materials Technologies, 2019, 4, 1900080.	5.8	14
179	High-Density ReRAM Crossbar with Selector Device for Sneak Path Reduction. , 2019, , .		6
180	Toward Fully Printed Memristive Elements: a-TiO₂ Electronic Synapse from Functionalized Nanoparticle Ink. ACS Applied Electronic Materials, 2019, 1, 2692-2700.	4.3	16
181	Electrothermal Analysis of 3D Memristive 1D-1RRAM Crossbar with Carbon Nanotube Electrodes. , 2019, , .		4
182	Formation of submicron-sized silica patterns on flexible polymer substrates based on vacuum ultraviolet photo-oxidation. RSC Advances, 2019, 9, 32313-32322.	3.6	8
183	Preparation and electroactive phase adjustment of Ag-doped poly(vinylidene fluoride) (PVDF) films. RSC Advances, 2019, 9, 40286-40291.	3.6	11

#	Article	IF	Citations
184	Turning electrical switching behaviors in WOx thin films by thickness. Functional Materials Letters, 2019, 12, 1850107.	1.2	0
185	Flexible Crossbarâ€Structured Phase Change Memory Array via Moâ€Based Interfacial Physical Liftâ€Off. Advanced Functional Materials, 2019, 29, 1806338.	14.9	31
186	Intrinsically Stretchable Resistive Switching Memory Enabled by Combining a Liquid Metalâ€“Based Soft Electrode and a Metalâ€“Organic Framework Insulator. Advanced Electronic Materials, 2019, 5, 1800655.	5.1	53
187	Local Stiffness Effect on Ferromagnetic Response of Nanostructure Arrays in Stretchable Systems. Physica Status Solidi - Rapid Research Letters, 2019, 13, 1800509.	2.4	10
188	Self-powered flexible electronics beyond thermal limits. Nano Energy, 2019, 56, 531-546.	16.0	74
189	Deep Learning Classifiers with Memristive Networks. Modeling and Optimization in Science and Technologies, 2020, , .	0.7	3
190	Multi-level Memristive Memory for Neural Networks. Modeling and Optimization in Science and Technologies, 2020, , 103-116.	0.7	0
191	Flexible resistive switching device based on the TiO2 nanorod arrays for non-volatile memory application. Journal of Alloys and Compounds, 2020, 822, 153552.	5.5	20
192	Resistive switching of silicon-silver thin film devices in flexible substrates. Nanotechnology, 2020, 31, 135702.	2.6	5
193	Soft eSkin: distributed touch sensing with harmonized energy and computing. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2020, 378, 20190156.	3.4	70
194	Memristive Devices for Neuromorphic Applications: Comparative Analysis. BioNanoScience, 2020, 10, 834-847.	3.5	24
195	Finite-Time Anti-Synchronization Control of Memristive Neural Networks with Time Delays. , 2020, , .		0
196	Flexible full two-dimensional memristive synapses of graphene/WSe_{2â^'x}O_y/graphene. Physical Chemistry Chemical Physics, 2020, 22, 20658-20664.	2.8	16
197	Impact of resistive switching parameters on resistive random access memory crossbar arrays. Modern Physics Letters B, 2020, 34, 2050115.	1.9	3
198	2D photonic memristor beyond graphene: progress and prospects. Nanophotonics, 2020, 9, 1579-1599.	6.0	54
199	Carbon nanotube ferroelectric random access memory cell based on omega-shaped ferroelectric gate. Carbon, 2020, 162, 195-200.	10.3	16
200	Substrate dependent resistive switching in amorphous-HfO_x memristors: an experimental and computational investigation. Journal of Materials Chemistry C, 2020, 8, 5092-5101.	5.5	25
201	Reversible photo/thermal stimuli-responsive electrical bistability performance in supramolecular co-crystals accompanied by crystalline-to-amorphous transformations. Journal of Materials Chemistry C, 2020, 8, 3258-3267.	5.5	14

#	Article	IF	Citations
202	Modulated filamentary conduction of Ag/TiO2 core-shell nanowires to impart extremely sustained resistance switching behavior in a flexible composite. Applied Materials Today, 2020, 19, 100569.	4.3	12
203	Aerosol Jet Printed WSe₂ Crossbar Architecture Device on Kapton With Dual Functionality as Resistive Memory and Photosensor for Flexible System Integration. IEEE Sensors Journal, 2020, 20, 4653-4659.	4.7	15
204	<scp>Memristorâ€based 2D1M</scp> architecture: Solution to sneak paths in <scp>multilevel</scp> memory. Transactions on Emerging Telecommunications Technologies, 2021, 32, .	3.9	3
205	Efficient Defect Identification via Oxide Memristive Crossbar Array Based Morphological Image Processing. Advanced Intelligent Systems, 2021, 3, 2000202.	6.1	11
206	Artificial Skin Perception. Advanced Materials, 2021, 33, e2003014.	21.0	203
207	Resistive switching on individual V₂O₅nanoparticles encapsulated in fluorinated graphene films. Physical Chemistry Chemical Physics, 2021, 23, 20434-20443.	2.8	7
208	Improved rectification characteristics by engineering energy barrier height in TiOx-based RRAM. Microelectronic Engineering, 2021, 237, 111498.	2.4	5
209	Mechanically tunable magnetic and electronic transport properties of flexible magnetic films and their heterostructures for spintronics. Journal of Materials Chemistry C, 2021, 9, 9400-9430.	5.5	14
210	Amorphous Metal Oxide Bilayers to Avoid Sneakâ€Path Currents for Highâ€Density Resistive Memory Arrays. Advanced Intelligent Systems, 2021, 3, 2000222.	6.1	4
211	Solutionâ€Processed Stretchable Ag₂S Semiconductor Thin Films for Wearable Selfâ€Powered Nonvolatile Memory. Advanced Materials, 2021, 33, e2100066.	21.0	30
212	Metal-organic frameworks as functional materials for implantable flexible biochemical sensors. Nano Research, 2021, 14, 2981-3009.	10.4	26
213	Total ionizing dose effects of 60Co-Î³ ray radiation on the resistive switching and its bending performance of Al-in-O/InOx-based flexible RRAM device. Radiation Physics and Chemistry, 2021, 182, 109394.	2.8	2
214	A review on nanostructured thin films on flexible substrates: links between strains and magnetic properties. Journal of Physics Condensed Matter, 2021, 33, 233002.	1.8	12
215	Effect of UV irradiation on the resistive switching characteristics of low-temperature solution-processed ZrO2 RRAM. Semiconductor Science and Technology, 2021, 36, 085004.	2.0	5
216	Memristive Devices and Circuits. , 2022, , 1-17.		0
217	Development of Compute-in-Memory Memristive Crossbar Architecture with Composite Memory Cells. , 0, , .		0
218	Advances in Flexible Memristors with Hybrid Perovskites. Journal of Physical Chemistry Letters, 2021, 12, 8798-8825.	4.6	36
219	Flexible artificial synapse based on single-crystalline BiFeO3 thin film. Nano Research, 2022, 15, 2682-2688.	10.4	37

#	Article	IF	Citations
220	Flexible micro light-emitting diodes for wearable applications. , 2019, , .		5
221	Path Tracking of dynamics of a Chaotic Memristor Circuit. Journal of Interpolation and Approximation in Scientific Computing, 0, 2014, 1-18.	0.3	2
222	Oxide-based resistive switching-based devices: fabrication, influence parameters and applications. Journal of Materials Chemistry C, 2021, 9, 15755-15788.	5.5	38
223	Prospects toward flexible magnonic systems. Journal of Applied Physics, 2021, 130, .	2.5	8
224	Design Challenges and Considerations for Nanomedical Computation. , 2013, , 303-336.		0
225	ZnO-rGO Composite Thin Film Resistive Switching Device: Emulating Biological Synapse Behavior. Lecture Notes in Electrical Engineering, 2018, , 117-123.	0.4	3
226	Research progress of protein-based memristor. Wuli Xuebao/Acta Physica Sinica, 2020, 69, 178702.	0.5	3
227	Flexible multilayered transparent electrodes with less than 50Ânm thickness using nitrogen-doped silver layers for flexible heaters. Materials Research Bulletin, 2022, 149, 111703.	5.2	6
228	The effect of external stimuli on the performance of memristive oxides. , 2022, , 361-398.		0
229	CoMIC: Complementary Memristor based in-memory computing in 3D architecture. Journal of Systems Architecture, 2022, 126, 102480.	4.3	3
230	Simulation of a Central Pattern Generator Using Memristive Devices. Nanobiotechnology Reports, 2021, 16, 755-760.	0.6	2
231	A multi-value 3D crossbar array nonvolatile memory based on pure memristors. European Physical Journal: Special Topics, 2022, 231, 3119-3130.	2.6	11
232	All-in-One Step from a Radical Monomer: Vacuum Synthesis of Electroswitchable Radical Polymer Thin Films by Solvent-Free Surface Polymerization. Chemistry of Materials, 2022, 34, 4876-4883.	6.7	1
233	Electroforming-Free Y₂O₃Memristive Crossbar Array with Low Variability. ACS Applied Electronic Materials, 2022, 4, 3080-3087.	4.3	12
234	Flexible resistive switching device based on air-stable lead-free Cu3SbI6 perovskite film for nonvolatile memory application. Applied Physics Letters, 2022, 120, .	3.3	6
235	Resistive Switching Crossbar Arrays Based on Layered Materials. Advanced Materials, 2023, 35, .	21.0	14
236	Resistive-RAM-Based In-Memory Computing for Neural Network: A Review. Electronics (Switzerland), 2022, 11, 3667.	3.1	8
237	On Memristors for Enabling Energy Efficient and Enhanced Cognitive Network Functions. IEEE Access, 2022, 10, 129279-129312.	4.2	6

#	Article	IF	Citations
238	A Pulse Width Modulator Using a High-Speed Comparator With Flexible Oxide TFT Technology. IEEE Solid-State Circuits Letters, 2022, 5, 288-291.	2.0	3
239	Flexible Memristor Devices Using Hybrid Polymer/Electrodeposited GeSbTe Nanoscale Thin Films. ACS Applied Nano Materials, 2022, 5, 17711-17720.	5.0	9
240	Bio-plausible memristive neural components towards hardware implementation of brain-like intelligence. Materials Today, 2023, 62, 251-270.	14.2	10
241	Effect of annealing on forming-free bipolar resistive switching of Gd2O3 thin films. Journal of Alloys and Compounds, 2023, 941, 168900.	5.5	12
242	Nonvolatile Ferroelectric LiNbO₃ Domain Wall Crossbar Memory. IEEE Electron Device Letters, 2023, 44, 420-423.	3.9	6
243	Phase Change Behavior of Si/Sb Superlattice-Like Thin Film on a Flexible Substrate. IEEE Transactions on Electron Devices, 2023, 70, 3329-3334.	3.0	1
244	Link between cracking mechanisms of trilayer films on flexible substrates and electro-mechanical reliability under biaxial loading. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2023, 41, .	2.1	1
245	Organic multilevel (opto)electronic memories towards neuromorphic applications. Nanoscale, 2023, 15, 11434-11456.	5.6	0
246	Flexible Memristor-Based Nanoelectronic Devices for Wearable Applications: A Review. ACS Applied Nano Materials, 2023, 6, 18645-18669.	5.0	4
247	Memristors: A Missing Element is a Boon Toward the Development of Neuromorphic Computing and AI. Algorithms for Intelligent Systems, 2023, , 215-234.	0.6	0
248	Artificial Neuron Devices. Chemical Reviews, 2023, 123, 13796-13865.	47.7	7
249	Memristive devices. , 2023, , .		0
250	Low-dimensional nanostructures for monolithic 3D-integrated flexible and stretchable electronics. Chemical Society Reviews, 2024, 53, 1316-1353.	38.1	3