

Complementary resistive switches for passive nanocross

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Citation Report

#	ARTICLE	IF	CITATIONS
2	Asymmetric bipolar resistive switching in solution-processed Pt/TiO ₂ /W devices. Journal Physics D: Applied Physics, 2010, 43, 495104.	1.3	35
3	Nonvolatile resistive switching memories-characteristics, mechanisms and challenges. Progress in Natural Science: Materials International, 2010, 20, 1-15.	1.8	194
4	Cross-Point Memory Array Without Cell Selectorsâ€”Device Characteristics and Data Storage Pattern Dependencies. IEEE Transactions on Electron Devices, 2010, 57, 2531-2538.	1.6	241
5	Session 20: Research in progress. , 2010, , .		0
6	Improved Bipolar Resistive Switching Memory Using W/TaO _x /W Structure. Advanced Materials Research, 2010, 159, 333-337.	0.3	5
7	Diode-less nano-scale ZrO ₂ /HfO ₂ RRAM device with excellent switching uniformity and reliability for high-density cross-point memory applications. , 2010, , .		40
8	Read/write schemes analysis for novel complementary resistive switches in passive crossbar memory arrays. Nanotechnology, 2010, 21, 465202.	1.3	57
9	High switching endurance in TaO _x memristive devices. Applied Physics Letters, 2010, 97, .	1.5	543
10	Nanoscale resistive switching and filamentary conduction in NiO thin films. Applied Physics Letters, 2010, 97, 132108.	1.5	40
11	Electrically configurable electroforming and bipolar resistive switching in Pt/TiO ₂ /Pt structures. Nanotechnology, 2010, 21, 305203.	1.3	117
12	Resistive switching of carbon-based RRAM with CNT electrodes for ultra-dense memory. , 2010, , .		4
13	Modeling Complementary Resistive Switches by nonlinear memristive systems. , 2011, , .		10
14	3D-HIM: A 3D High-density Interleaved Memory for bipolar RRAM design. , 2011, , .		15
15	Bipolar Nonlinear $\text{Ni/TiO}_2/\text{Ni}$ Selector for 1S1R Crossbar Array Applications. IEEE Electron Device Letters, 2011, 32, 1427-1429.	2.2	163
16	From stochastic single atomic switch to nanoscale resistive memory device. Nanoscale, 2011, 3, 1504.	2.8	25
17	Quantized conductive filament formed by limited Cu source in sub-5nm era. , 2011, , .		19
18	Fast pulse analysis of TiO ₂ based RRAM nano-crossbar devices. , 2011, , .		1
19	Learning with memristive devices: How should we model their behavior?. , 2011, , .		34

#	ARTICLE	IF	CITATIONS
20	Diode-less bilayer oxide (WO_3/NbO_2) device for cross-point resistive memory applications. <i>Nanotechnology</i> , 2011, 22, 475702.	1.3	81
21	Mobility of oxygen vacancy in SrTiO_3 and its implications for oxygen-migration-based resistance switching. <i>Journal of Applied Physics</i> , 2011, 110, .	1.1	93
22	Flexible Organic Memory Devices with Multilayer Graphene Electrodes. <i>ACS Nano</i> , 2011, 5, 5995-6000.	7.3	131
23	Complementary switching in metal oxides: Toward diode-less crossbar RRAMs. , 2011, , .		51
24	Piezotronic Nanowire-Based Resistive Switches As Programmable Electromechanical Memories. <i>Nano Letters</i> , 2011, 11, 2779-2785.	4.5	141
25	Complementary structure of memristive devices based passive memory arrays. , 2011, , .		2
26	Fabrication and characterization of extended arrays of $\text{Ag}_2\text{S}/\text{Ag}$ nanodot resistive switches. <i>Applied Physics Letters</i> , 2011, 98, 243109.	1.5	41
27	Nonlinear Dynamics of Memristor Oscillators. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2011, 58, 1323-1336.	3.5	289
28	Spatial Nonuniformity in Resistive-Switching Memory Effects of NiO . <i>Journal of the American Chemical Society</i> , 2011, 133, 12482-12485.	6.6	46
29	Capacity based nondestructive readout for complementary resistive switches. <i>Nanotechnology</i> , 2011, 22, 395203.	1.3	45
30	A fast, high-endurance and scalable non-volatile memory device made from asymmetric $\text{Ta}_2\text{O}_5/\text{TaO}_2$ bilayer structures. <i>Nature Materials</i> , 2011, 10, 625-630.	13.3	1,930
31	Integrated Complementary Resistive Switches for Passive High-Density Nanocrossbar Arrays. <i>IEEE Electron Device Letters</i> , 2011, 32, 191-193.	2.2	107
32	Flexible Memristive Memory Array on Plastic Substrates. <i>Nano Letters</i> , 2011, 11, 5438-5442.	4.5	250
33	Sub-nanosecond switching of a tantalum oxide memristor. <i>Nanotechnology</i> , 2011, 22, 485203.	1.3	596
34	TiO_2 -based metal-insulator-metal selection device for bipolar resistive random access memory cross-point application. <i>Journal of Applied Physics</i> , 2011, 109, .	1.1	144
35	A non-volatile memory array based on nano-ionic Conductive Bridge Memristors. , 2011, , .		5
36	Nanoscale resistive random access memory consisting of a NiO nanodot and Au nanowires formed by dip-pen nanolithography. <i>Applied Surface Science</i> , 2011, 257, 9885-9887.	3.1	10
37	Electrochemical metallization memories—fundamentals, applications, prospects. <i>Nanotechnology</i> , 2011, 22, 254003.	1.3	678

#	ARTICLE	IF	CITATIONS
38	Memristor-based synaptic networks and logical operations using in-situ computing. , 2011, , .		12
39	Electrochemical metallization memoriesâ€™ fundamentals, applications, prospects. Nanotechnology, 2011, 22, 289502.	1.3	248
40	Avalanche breakdown in microscale VO2 structures. Journal of Applied Physics, 2011, 110, .	1.1	37
41	Memory materials: a unifying description. Materials Today, 2011, 14, 584-591.	8.3	74
42	Compact Modeling of Conducting-Bridge Random-Access Memory (CBRAM). IEEE Transactions on Electron Devices, 2011, 58, 1352-1360.	1.6	207
43	Solution-Processed Memristive Junctions Used in a Threshold Indicator. IEEE Transactions on Electron Devices, 2011, 58, 3435-3443.	1.6	53
44	Nanoscale Bipolar and Complementary Resistive Switching Memory Based on Amorphous Carbon. IEEE Transactions on Electron Devices, 2011, 58, 3933-3939.	1.6	78
45	Three-Dimensional Integration Approach to High-Density Memory Devices. IEEE Transactions on Electron Devices, 2011, 58, 3820-3828.	1.6	18
46	Understanding the Charge Transport Mechanism in VRS and BRS States of Transition Metal Oxide Nanoelectronic Memristor Devices. IEEE Transactions on Electron Devices, 2011, 58, 3912-3919.	1.6	9
47	Physical models of size-dependent nanofilament formation and rupture in NiO resistive switching memories. Nanotechnology, 2011, 22, 254022.	1.3	205
48	Requirements of bipolar switching ReRAM for 1T1R type high density memory array. , 2011, , .		7
49	One selector-one resistor (1S1R) crossbar array for high-density flexible memory applications. , 2011, , .		93
50	Crossbar Logic Using Bipolar and Complementary Resistive Switches. IEEE Electron Device Letters, 2011, 32, 710-712.	2.2	84
51	Metal/TiO2 interfaces for memristive switches. Applied Physics A: Materials Science and Processing, 2011, 102, 785-789.	1.1	138
52	Feedback write scheme for memristive switching devices. Applied Physics A: Materials Science and Processing, 2011, 102, 973-982.	1.1	75
53	Materials, technologies, and circuit concepts forÂnanocrossbar-based bipolar RRAM. Applied Physics A: Materials Science and Processing, 2011, 102, 791-809.	1.1	48
54	Electrical properties of an organic memristive system. Applied Physics A: Materials Science and Processing, 2011, 104, 1039-1046.	1.1	30
55	Proteinâ€™Based Memristive Nanodevices. Small, 2011, 7, 3016-3020.	5.2	67

#	ARTICLE	IF	CITATIONS
56	Towards All-Soft Matter Circuits: Prototypes of Quasi-Liquid Devices with Memristor Characteristics. <i>Advanced Materials</i> , 2011, 23, 3559-3564.	11.1	189
57	Oxide Double-Layer Nanocrossbar for Ultrahigh-Density Bipolar Resistive Memory. <i>Advanced Materials</i> , 2011, 23, 4063-4067.	11.1	108
58	Anatomy of a Nanoscale Conduction Channel Reveals the Mechanism of a High-Performance Memristor. <i>Advanced Materials</i> , 2011, 23, 5633-5640.	11.1	393
59	Materials and process aspect of cross-point RRAM (invited). <i>Microelectronic Engineering</i> , 2011, 88, 1113-1118.	1.1	24
60	Improved Resistive Switching Characteristics of NiO Resistance Random-Access Memory Using Post-Plasma-Oxidation Process. <i>Japanese Journal of Applied Physics</i> , 2011, 50, 04DD13.	0.8	6
61	A ZnO cross-bar array resistive random access memory stacked with heterostructure diodes for eliminating the sneak current effect. <i>Applied Physics Letters</i> , 2011, 98, .	1.5	66
62	Challenges and opportunities for HfO ₂ /X ₂ O ₅ based resistive random access memory. , 2011, , .		19
63	Self-rectifying and forming-free unipolar HfO ₂ /x ₂ O ₅ based-high performance RRAM built by fab-avaialbe materials. , 2011, , .		11
64	Combinational logic synthesis for material implication. , 2011, , .		21
65	Class of all i-v dynamics for memristive elements in pattern recognition systems. , 2011, , .		6
66	Coupled interfaces for misreading avoidance and write current reduction in passive crossbar memory. <i>Applied Physics Letters</i> , 2011, 98, 213501.	1.5	10
67	Nanostructured resistive memory cells based on 8-nm-thin TiO ₂ films deposited by atomic layer deposition. <i>Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics</i> , 2011, 29, 01AD01.	0.6	20
68	Nanoscale lateral switchable rectifiers fabricated by local anodic oxidation. <i>Journal of Applied Physics</i> , 2011, 110, 024511.	1.1	17
69	Role of Interface Reaction on Resistive Switching of Metal/Amorphous TiO ₂ /Al RRAM Devices. <i>Journal of the Electrochemical Society</i> , 2011, 158, H979.	1.3	53
70	Fabrication of Semi-transparent Resistive Random Access memory and Its Characteristics of Nonvolatile Resistive Switching. <i>Materials Research Society Symposia Proceedings</i> , 2011, 1292, 53.	0.1	3
71	3D-ICML: A 3D bipolar ReRAM design with interleaved complementary memory layers. , 2011, , .		1
72	Complementary Resistive Switches (CRS): High speed performance for the application in passive nanocrossbar arrays. <i>Materials Research Society Symposia Proceedings</i> , 2011, 1337, 3.	0.1	2
73	Observation of two resistance switching modes in TiO ₂ memristive devices electroformed at low current. <i>Nanotechnology</i> , 2011, 22, 254007.	1.3	71

#	ARTICLE	IF	CITATIONS
74	A novel 'divide and conquer' testing technique for memristor based lookup table. , 2011, , .		9
75	Anti-Parallel Circuit of Resistive Cu/TaOx/Pt Switches. Materials Research Society Symposia Proceedings, 2012, 1430, 66.	0.1	0
76	Areal and Structural Effects on Oxide-Based Resistive Random Access Memory Cell for Improving Resistive Switching Characteristics. Japanese Journal of Applied Physics, 2012, 51, 04DD14.	0.8	1
77	A Monte Carlo analysis of a write method used in passive nanoelectronic crossbars. , 2012, , .		3
78	Bioinspired networks with nanoscale memristive devices that combine the unsupervised and supervised learning approaches. , 2012, , .		38
79	Flexible One Diode-One Resistor Crossbar Resistive-Switching Memory. Japanese Journal of Applied Physics, 2012, 51, 04DD09.	0.8	19
80	Crossbar architecture based on 2R complementary resistive switching memory cell. , 2012, , .		4
81	Improved Off-State Reliability of Nonvolatile Resistive Switch With Low Programming Voltage. IEEE Transactions on Electron Devices, 2012, 59, 2357-2362.	1.6	28
82	MRAM crossbar based configurable logic block. , 2012, , .		9
83	ZnO-based one diode-one resistor device structure for crossbar memory applications. Applied Physics Letters, 2012, 100, 153503.	1.5	67
84	Local resistive switching of Nd doped BiFeO3 thin films. Applied Physics Letters, 2012, 100, .	1.5	28
85	Effect of hydrogen/deuterium incorporation on electroforming voltage of SiOx resistive random access memory. Applied Physics Letters, 2012, 101, .	1.5	20
86	Resistive switching memory properties of layer-by-layer assembled enzyme multilayers. Nanotechnology, 2012, 23, 155604.	1.3	40
87	Resistive switching phenomena in thin films: Materials, devices, and applications. MRS Bulletin, 2012, 37, 108-114.	1.7	137
88	Ultrathin ($\leq 10\text{nm}$) Nb$\text{O}_{2.5}$/NbOO_{2} hybrid memory with both memory and selector characteristics for high density 3D vertically stackable RRAM applications. , 2012, , .		39
89	A self-rectifying and forming-free HfOx based-high performance unipolar RRAM. , 2012, , .		0
90	Piezotronic Electromechanical Memories. Microtechnology and MEMS, 2012, , 111-126.	0.2	0
91	GMS: Generic memristive structure for non-volatile FPGAs. , 2012, , .		2

#	ARTICLE	IF	CITATIONS
92	Firing of a Pulse and its Control Using a Novel Floating Electrode Bi-Resistive Device. Materials Research Society Symposia Proceedings, 2012, 1430, 43.	0.1	2
93	High Density Spin-Transfer Torque (STT)-MRAM Based on Cross-Point Architecture. , 2012, , .		9
94	Cross-Point Architecture for Spin-Transfer Torque Magnetic Random Access Memory. IEEE Nanotechnology Magazine, 2012, 11, 907-917.	1.1	35
95	Self-Assembly-Induced Formation of High-Density Silicon Oxide Memristor Nanostructures on Graphene and Metal Electrodes. Nano Letters, 2012, 12, 1235-1240.	4.5	89
96	Evaluation of the local temperature of conductive filaments in resistive switching materials. Nanotechnology, 2012, 23, 465201.	1.3	29
97	Non-volatile 3D stacking RRAM-based FPGA. , 2012, , .		39
98	GMS: Generic memristive structure for non-volatile FPGAs. , 2012, , .		14
99	Memristors: Devices, Models, and Applications [Scanning the Issue]. Proceedings of the IEEE, 2012, 100, 1911-1919.	16.4	153
100	Emerging memories: resistive switching mechanisms and current status. Reports on Progress in Physics, 2012, 75, 076502.	8.1	881
101	Nitride memristors. Applied Physics A: Materials Science and Processing, 2012, 109, 1-4.	1.1	63
102	Resistive switching effect for ZnO hybrid memory with metal-oxide nanocrystals. Thin Solid Films, 2012, 521, 98-101.	0.8	4
103	Engineering nonlinearity into memristors for passive crossbar applications. Applied Physics Letters, 2012, 100, .	1.5	179
104	The 3-D Stacking Bipolar RRAM for High Density. IEEE Nanotechnology Magazine, 2012, 11, 948-956.	1.1	23
105	Metal-insulator-semiconductor bipolar transistor as a 4F2 vertical RRAM selection device. , 2012, , .		0
106	uBRAM-based run-time reconfigurable FPGA and corresponding reconfiguration methodology. , 2012, , .		4
107	A TaO _x based threshold switching selector for the RRAM crossbar array memory. , 2012, , .		8
108	Selector devices for cross-point ReRAM. , 2012, , .		8
109	Pattern matching and classification based on an associative memory architecture using CRS. , 2012, , .		5

#	ARTICLE	IF	CITATIONS
110	Two-Step Write Scheme for Reducing Sneak-Path Leakage in Complementary Memristor Array. IEEE Nanotechnology Magazine, 2012, 11, 611-618.	1.1	59
111	High Current Density and Nonlinearity Combination of Selection Device Based on TaO _x /TiO ₂ /TaO _x Structure for One Selector-One Resistor Arrays. ACS Nano, 2012, 6, 8166-8172.	7.3	138
112	Optimization of Chemical Structure of Schottky-Type Selection Diode for Crossbar Resistive Memory. ACS Applied Materials & Interfaces, 2012, 4, 5338-5345.	4.0	9
113	ZnO Nanorod Arrays/ZnO Thin Film Bilayer Structure: From Homo Junction Diode and High-Performance Memristor to Complementary 1D1R Application. ACS Nano, 2012, 6, 8407-8414.	7.3	132
114	Excellent resistive memory characteristics and switching mechanism using a Ti nanolayer at the Cu/TaO _x interface. Nanoscale Research Letters, 2012, 7, 345.	3.1	78
115	A Boundary Condition-Based Approach to the Modeling of Memristor Nanostructures. IEEE Transactions on Circuits and Systems I: Regular Papers, 2012, 59, 2713-2726.	3.5	136
116	Reconfigurable Memristor Fabrics for Heterogeneous Computing. , 2012, , 89-106.		5
117	Memristor Models for Pattern Recognition Systems. , 2012, , 245-267.		3
118	Switching Characteristics of Antiparallel Resistive Switches. IEEE Electron Device Letters, 2012, 33, 429-431.	2.2	29
119	Analysis of Complementary RRAM Switching. IEEE Electron Device Letters, 2012, 33, 1186-1188.	2.2	60
120	Teaching Memory Circuit Elements via Experiment-Based Learning. IEEE Circuits and Systems Magazine, 2012, 12, 64-74.	2.6	17
121	Resistive switching induced on a glass plate by ion beam irradiation. Nuclear Instruments & Methods in Physics Research B, 2012, 287, 31-34.	0.6	11
122	Resistive switching effects in oxide sandwiched structures. Frontiers of Materials Science, 2012, 6, 183-206.	1.1	68
123	Electrically tailored resistance switching in silicon oxide. Nanotechnology, 2012, 23, 455201.	1.3	96
124	Memory switching properties of e-beam evaporated SiO _x on N ⁺⁺ Si substrate. Applied Physics Letters, 2012, 100, .	1.5	48
125	Repetitive switching behaviour of a memristor for passive crossbar applications. Journal Physics D: Applied Physics, 2012, 45, 505107.	1.3	3
126	Beyond von Neumann logic operations in passive crossbar arrays alongside memory operations. Nanotechnology, 2012, 23, 305205.	1.3	315
127	Complementary resistive switching in tantalum oxide-based resistive memory devices. Applied Physics Letters, 2012, 100, .	1.5	192

#	ARTICLE	IF	CITATIONS
128	Development of a silicon oxide-based resistive memory device using a spin-on hydrogen silsesquioxane precursor. <i>Journal of Materials Research</i> , 2012, 27, 3110-3116.	1.2	2
129	Spatially Resolved Raman Spectroelectrochemistry of Solid-State Polythiophene/Viologen Memory Devices. <i>Journal of the American Chemical Society</i> , 2012, 134, 14869-14876.	6.6	118
130	Electrochemical metallization cells—blending nanoionics into nanoelectronics?. <i>MRS Bulletin</i> , 2012, 37, 124-130.	1.7	107
131	Piezotronics and Piezo-Phototronics. <i>Microtechnology and MEMS</i> , 2012, , .	0.2	58
132	Improvement of Resistive Switching Stability of HfO ₂ Films with Al Doping by Atomic Layer Deposition. <i>Electrochemical and Solid-State Letters</i> , 2012, 15, H88.	2.2	50
133	A Functional Hybrid Memristor Crossbar-Array/CMOS System for Data Storage and Neuromorphic Applications. <i>Nano Letters</i> , 2012, 12, 389-395.	4.5	745
134	An Analytical Approach for Memristive Nanoarchitectures. <i>IEEE Nanotechnology Magazine</i> , 2012, 11, 374-385.	1.1	52
135	Highly scalable resistive switching memory cells using pore-size-controlled nanoporous alumina templates. <i>Journal of Materials Chemistry</i> , 2012, 22, 1852-1861.	6.7	21
136	Observation of conducting filament growth in nanoscale resistive memories. <i>Nature Communications</i> , 2012, 3, 732.	5.8	957
137	A New Dynamic Selector Based on the Bipolar RRAM for the Crossbar Array Application. <i>IEEE Transactions on Electron Devices</i> , 2012, 59, 2277-2280.	1.6	39
138	Varistor-type bidirectional switch ($J_{MAX} \leq 10 \text{ A/cm}^2$, $T_j \leq 100^\circ\text{C}$)		
139	Analysis of current-voltage characteristics for memristive elements in pattern recognition systems. <i>International Journal of Circuit Theory and Applications</i> , 2012, 40, 1277-1320.	1.3	83
140	Numerical study on passive crossbar arrays employing threshold switches as cell-selection-devices. <i>Electronic Materials Letters</i> , 2012, 8, 169-174.	1.0	3
141	MIM-type cell selector for high-density and low-power cross-point memory application. <i>Microelectronic Engineering</i> , 2012, 93, 81-84.	1.1	11
142	Operation Voltage Control in Complementary Resistive Switches Using Heterodevice. <i>IEEE Electron Device Letters</i> , 2012, 33, 600-602.	2.2	15
143	Self-Selective Characteristics of Nanoscale VO_x Devices for High-Density ReRAM Applications. <i>IEEE Electron Device Letters</i> , 2012, 33, 718-720.	2.2	57
144	An Ultra-Low Reset Current Cross-Point Phase Change Memory With Carbon Nanotube Electrodes. <i>IEEE Transactions on Electron Devices</i> , 2012, 59, 1155-1163.	1.6	79
145	Evidence for Voltage-Driven Set/Reset Processes in Bipolar Switching RRAM. <i>IEEE Transactions on Electron Devices</i> , 2012, 59, 2049-2056.	1.6	113

#	ARTICLE	IF	CITATIONS
146	Unipolar resistance switching characteristics in a thick ZnO/Cu/ZnO multilayer structure. Journal of the Korean Physical Society, 2012, 60, 1087-1091.	0.3	6
147	Oxygen Ion Drift-Induced Complementary Resistive Switching in Homo TiO _x /TiO _y /TiO _x and Hetero TiO _x /TiON/TiO _x Triple Multilayer Frameworks. Advanced Functional Materials, 2012, 22, 709-716.	7.8	121
148	Real-Time Observation on Dynamic Growth/Dissolution of Conductive Filaments in Oxide-Electrolyte-Based ReRAM. Advanced Materials, 2012, 24, 1844-1849.	11.1	520
149	Regenerable Resistive Switching in Silicon Oxide Based Nanojunctions. Advanced Materials, 2012, 24, 1197-1201.	11.1	52
150	Physical unclonable functions based on crossbar arrays for cryptographic applications. International Journal of Circuit Theory and Applications, 2013, 41, 619-633.	1.3	22
151	Low-Power V_{DD}^3 Write Scheme With Inversion Coding Circuit for Complementary Memristor Array. IEEE Nanotechnology Magazine, 2013, 12, 851-857.	1.1	24
152	Immunity to Device Variations in a Spiking Neural Network With Memristive Nanodevices. IEEE Nanotechnology Magazine, 2013, 12, 288-295.	1.1	321
153	Bipolar one diode-one resistor integration for high-density resistive memory applications. Nanoscale, 2013, 5, 4785.	2.8	50
154	High-Performance and Low-Power Rewritable SiO _x 1 kbit One Diode-One Resistor Crossbar Memory Array. Advanced Materials, 2013, 25, 4789-4793.	11.1	66
155	Tunable threshold resistive switching characteristics of Pt-Fe ₂ O ₃ core-shell nanoparticle assembly by space charge effect. Nanoscale, 2013, 5, 772-779.	2.8	36
156	Resistive switching with self-rectifying behavior in Cu/SiO _x /Si structure fabricated by plasma-oxidation. Journal of Applied Physics, 2013, 113, .	1.1	30
157	Synaptic plasticity and learning behaviours mimicked through Ag interface movement in an Ag/conducting polymer/Ta memristive system. Journal of Materials Chemistry C, 2013, 1, 5292.	2.7	237
158	Multinomial Memristor Model for Simulations and Analysis. , 2013, , .		2
159	Composite Behavior of Multiple Memristor Circuits. IEEE Transactions on Circuits and Systems I: Regular Papers, 2013, 60, 2688-2700.	3.5	61
160	A plasma-treated chalcogenide switch device for stackable scalable 3D nanoscale memory. Nature Communications, 2013, 4, 2629.	5.8	130
161	A compact model for binary oxides-based memristive interfaces. Journal Physics D: Applied Physics, 2013, 46, 415101.	1.3	19
162	Resistive switching in rectifying interfaces of metal-semiconductor-metal structures. Applied Physics Letters, 2013, 103, .	1.5	15
163	Bipolar switching polarity reversal by electrolyte layer sequence in electrochemical metallization cells with dual-layer solid electrolytes. Nanoscale, 2013, 5, 12598.	2.8	9

#	ARTICLE	IF	CITATIONS
164	Memristor-Based Nonvolatile Random Access Memory: Hybrid Architecture for Low Power Compact Memory Design. IEEE Access, 2013, 1, 29-34.	2.6	60
165	TaO _x -based resistive switching memories: prospective and challenges. Nanoscale Research Letters, 2013, 8, 418.	3.1	170
166	Single-Step Formation of ZnO/ZnWO ₄ Bilayer Structure via Interfacial Engineering for High Performance and Low Energy Consumption Resistive Memory with Controllable High Resistance States. ACS Applied Materials & Interfaces, 2013, 5, 7831-7837.	4.0	21
167	In situ control of oxygen vacancies in TiO ₂ by atomic layer deposition for resistive switching devices. Nanotechnology, 2013, 24, 295202.	1.3	116
168	Complementary Switching in Oxide-Based Bipolar Resistive-Switching Random Memory. IEEE Transactions on Electron Devices, 2013, 60, 70-77.	1.6	145
169	Electric-field induced transition of resistive switching behaviors in BaTiO ₃ /Co:BaTiO ₃ /BaTiO ₃ trilayers. Applied Physics Letters, 2013, 103, .	1.5	8
170	BEOL compatible (300Å;C) TiN/TiO _x /Ta/TiN 3D nanoscale (10nm) IMT selector. , 2013, , .		8
171	BSB training scheme implementation on memristor-based circuit. , 2013, , .		14
172	The Impact of n-p-n Selector-Based Bipolar RRAM Cross-Point on Array Performance. IEEE Transactions on Electron Devices, 2013, 60, 3385-3392.	1.6	18
173	Logic Computation in Phase Change Materials by Threshold and Memory Switching. Advanced Materials, 2013, 25, 5975-5980.	11.1	136
174	Sneak-Path Testing of Crossbar-Based Nonvolatile Random Access Memories. IEEE Nanotechnology Magazine, 2013, 12, 413-426.	1.1	101
175	Memory diodes with nonzero crossing. Applied Physics Letters, 2013, 102, .	1.5	23
176	Memristive devices for computing. Nature Nanotechnology, 2013, 8, 13-24.	15.6	3,019
177	Multiple Memory States in Resistive Switching Devices Through Controlled Size and Orientation of the Conductive Filament. Advanced Materials, 2013, 25, 1474-1478.	11.1	144
178	Threshold-switching characteristics of a nanothin-NbO ₂ -layer-based Pt/NbO ₂ /Pt stack for use in cross-point-type resistive memories. Microelectronic Engineering, 2013, 107, 33-36.	1.1	56
179	Self-Selection Unipolar HfO ₂ -Based RRAM. IEEE Transactions on Electron Devices, 2013, 60, 391-395.	1.6	32
180	Dependence of Read Margin on Pull-Up Schemes in High-Density One Selector One Resistor Crossbar Array. IEEE Transactions on Electron Devices, 2013, 60, 420-426.	1.6	127
181	A Comprehensive Crossbar Array Model With Solutions for Line Resistance and Nonlinear Device Characteristics. IEEE Transactions on Electron Devices, 2013, 60, 1318-1326.	1.6	162

#	ARTICLE	IF	CITATIONS
182	Memristor-based neural networks. Journal Physics D: Applied Physics, 2013, 46, 093001.	1.3	307
183	Nanobatteries in redox-based resistive switches require extension of memristor theory. Nature Communications, 2013, 4, 1771.	5.8	473
184	Cation-based resistance change memory. Journal Physics D: Applied Physics, 2013, 46, 074005.	1.3	174
185	Effect of Electrode Materials on AlN-Based Bipolar and Complementary Resistive Switching. ACS Applied Materials & Interfaces, 2013, 5, 1793-1799.	4.0	56
186	RRAM Crossbar Array With Cell Selection Device: A Device and Circuit Interaction Study. IEEE Transactions on Electron Devices, 2013, 60, 719-726.	1.6	155
187	Applications of Multi-Terminal Memristive Devices: A Review. IEEE Circuits and Systems Magazine, 2013, 13, 23-41.	2.6	40
188	Oxide Heterostructure Resistive Memory. Nano Letters, 2013, 13, 2908-2915.	4.5	171
189	An associative capacitive network based on nanoscale complementary resistive switches for memory-intensive computing. Nanoscale, 2013, 5, 5119.	2.8	44
190	Uniform Complementary Resistive Switching in Tantalum Oxide Using Current Sweeps. IEEE Electron Device Letters, 2013, 34, 114-116.	2.2	36
191	Complementary Resistive Switching in Niobium Oxide-Based Resistive Memory Devices. IEEE Electron Device Letters, 2013, 34, 235-237.	2.2	50
192	Complementary resistive switching mechanism in Ti-based triple TiOx/TiN/TiOx and TiOx/TiOxNy/TiOx matrix. Applied Surface Science, 2013, 274, 85-88.	3.1	17
193	Programmable complementary resistive switching behaviours of a plasma-oxidised titanium oxide nanolayer. Nanoscale, 2013, 5, 422-428.	2.8	66
194	Integrating Multiple Resistive Memory Devices on a Single Carbon Nanotube. Advanced Functional Materials, 2013, 23, 5631-5637.	7.8	12
195	Redox-Gated Three-Terminal Organic Memory Devices: Effect of Composition and Environment on Performance. ACS Applied Materials & Interfaces, 2013, 5, 11052-11058.	4.0	41
196	Towards data reliable crossbar-based memristive memories. , 2013, , .		26
197	Complementary Resistive Switch (CRS) based smart sensor search engine. , 2013, , .		3
198	Extensional framework for pinched hysteresis systems. IETE Journal of Research, 2013, 59, 438.	1.8	0
199	New Resistive Switching Phenomena in Devices with Limited Active Metal Source. Materials Research Society Symposia Proceedings, 2013, 1562, 1.	0.1	0

#	ARTICLE	IF	CITATIONS
200	Compact modeling of CRS devices based on ECM cells for memory, logic and neuromorphic applications. <i>Nanotechnology</i> , 2013, 24, 384008.	1.3	33
201	32 Å— 32 Crossbar Array Resistive Memory Composed of a Stacked Schottky Diode and Unipolar Resistive Memory. <i>Advanced Functional Materials</i> , 2013, 23, 1440-1449.	7.8	152
202	Effect of the Active Layer Thickness and Temperature on the Switching Kinetics of GeS ₂ -Based Conductive Bridge Memories. <i>Japanese Journal of Applied Physics</i> , 2013, 52, 04CD02.	0.8	13
203	Physics of the Voltage Constant in Multilevel Switching of Conductive Bridge Resistive Memory. <i>Japanese Journal of Applied Physics</i> , 2013, 52, 084202.	0.8	26
204	Nonvolatile three-terminal operation based on oxygen vacancy drift in a Pt/Ta ₂ O ₅ ^x /Pt, Pt structure. <i>Applied Physics Letters</i> , 2013, 102, 233508.	1.5	12
205	Multimode threshold and bipolar resistive switching in bi-layered Pt-Fe ₂ O ₃ core-shell and Fe ₂ O ₃ nanoparticle assembly. <i>Applied Physics Letters</i> , 2013, 102, .	1.5	23
206	Ultra-low-power switching and complementary resistive switching RRAM by single-stack metal-oxide dielectric. , 2013, , .		1
207	Multi-level resistive switching observations in asymmetric Pt/Ta ₂ O ₅ ^x /TiO _x Ny/TiN/Ta ₂ O ₅ ^x /Pt multilayer configurations. <i>Applied Physics Letters</i> , 2013, 103, .	1.5	23
208	Practical guide for validated memristance measurements. <i>Review of Scientific Instruments</i> , 2013, 84, 023903.	0.6	43
209	Multilevel recording in Bi-deficient Pt/BFO/SRO heterostructures based on ferroelectric resistive switching targeting high-density information storage in nonvolatile memories. <i>Applied Physics Letters</i> , 2013, 103, .	1.5	20
210	Comment on <i>Real-Time Observation on Dynamic Growth/Dissolution of Conductive Filaments in Oxide-Electrolyte-Based ReRAM</i> . <i>Advanced Materials</i> , 2013, 25, 162-164.	11.1	34
211	Review of Emerging New Solid-State Non-Volatile Memories. <i>Japanese Journal of Applied Physics</i> , 2013, 52, 040001.	0.8	109
212	Latch-up based bidirectional npn selector for bipolar resistance-change memory. <i>Applied Physics Letters</i> , 2013, 103, .	1.5	21
213	Room temperature fabricated NbO _x /Nb ₂ O ₅ memory switching device with threshold switching effect. , 2013, , .		12
214	Simulation of polarity independent RESET in electrochemical metallization memory cells. , 2013, , .		13
215	Resistance switching in oxides with inhomogeneous conductivity. <i>Chinese Physics B</i> , 2013, 22, 067202.	0.7	38
217	Rate limiting step for the switching kinetics in Cu doped Ge _{0.3} Se _{0.7} based memory devices with symmetrical and asymmetrical electrodes. <i>Journal of Applied Physics</i> , 2013, 113, .	1.1	9
218	Ag/GeS _x /Pt-based complementary resistive switches for hybrid CMOS/Nanoelectronic logic and memory architectures. <i>Scientific Reports</i> , 2013, 3, 2856.	1.6	44

#	ARTICLE	IF	CITATIONS
219	Evolution of the resistive switching in chemical solution deposited-derived BiFeO ₃ thin films with dwell time and annealing temperature. <i>Journal of Applied Physics</i> , 2013, 113, .	1.1	16
222	Memristor-based pattern matching. <i>Semiconductor Science and Technology</i> , 2014, 29, 104007.	1.0	6
223	If itâ€™s pinched itâ€™s a memristor. <i>Semiconductor Science and Technology</i> , 2014, 29, 104001.	1.0	448
224	High performance, excellent reliability multifunctional graphene oxide doped memristor achieved by self-protective compliance current structure. , 2014, , .		5
225	Self-rectifying performance in the sandwiched structure of Ag/In-Ga-Zn-O/Pt bipolar resistive switching memory. <i>Nanoscale Research Letters</i> , 2014, 9, 548.	3.1	15
227	Impact of self-complementary resistance switch induced by over-reset energy on the memory reliability of hafnium oxide based resistive random access memory. <i>Japanese Journal of Applied Physics</i> , 2014, 53, 08LE01.	0.8	3
228	Resistive switching behavior in HfO ₂ with Nb as an oxygen exchange layer. , 2014, , .		4
229	A nonvolatile look-up table using ReRAM for reconfigurable logic. , 2014, , .		11
230	Transient Behaviors of Multiple Memristor Circuits Based on Flux Charge Relationship. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2014, 24, 1430006.	0.7	20
231	Emerging Nonvolatile Memories to Go Beyond Scaling Limits of Conventional CMOS Nanodevices. <i>Journal of Nanomaterials</i> , 2014, 2014, 1-10.	1.5	12
232	Memristor for Neuromorphic Applications: Models and Circuit Implementations. , 2014, , 379-403.		4
233	Complementary switching on TiN/MgZnO/ZnO/Pt bipolar memory devices for nanocrossbar arrays. <i>Journal of Alloys and Compounds</i> , 2014, 615, 566-568.	2.8	13
234	TaO _x -based ReRAM stack with NbO _x -based selector for 3D cross-point ReRAM application. , 2014, , .		0
235	An experimental associative capacitive network based on complementary resistive switches for memory-intensive computing. , 2014, , .		2
236	A heterogeneous computing system with memristor-based neuromorphic accelerators. , 2014, , .		0
237	Write scheme for multiple Complementary Resistive Switch (CRS) cells. , 2014, , .		3
238	Sneak paths effects in CBRAM memristive devices arrays for spiking neural networks. , 2014, , .		3
239	Discussion on device structures and hermetic encapsulation for SiO _x random access memory operation in air. <i>Applied Physics Letters</i> , 2014, 105, .	1.5	17

#	ARTICLE	IF	CITATIONS
240	Emerging resistive switching memory technologies: Overview and current status. , 2014, , .		7
241	Resistive switching of a TaOx/TaON double layer via ionic control of carrier tunneling. Applied Physics Letters, 2014, 104, .	1.5	21
242	Origin of stochastic resistive switching in devices with phenomenologically identical initial states. , 2014, , .		0
243	Physical mechanism of progressive breakdown in gate oxides. Journal of Applied Physics, 2014, 115, .	1.1	34
244	Bioengineered Tunable Memristor Based on Protein Nanocage. Small, 2014, 10, 277-283.	5.2	66
245	A Self-Compliant One-Diode-One-Resistor Bipolar Resistive Random Access Memory for Low Power Application. IEEE Electron Device Letters, 2014, 35, 196-198.	2.2	10
246	The use of electron Rutherford backscattering to characterize novel electronic materials as illustrated by a case study of sputter-deposited NbO x films. Nuclear Instruments & Methods in Physics Research B, 2014, 340, 58-62.	0.6	15
247	Memristors and Memristive Systems. , 2014, , .		109
248	Nonvolatile RRAM Cells from Polymeric Composites Embedding Recycled SiC Powders. Langmuir, 2014, 30, 12421-12428.	1.6	4
249	Metal-organic molecular device for non-volatile memory storage. Applied Physics Letters, 2014, 105, .	1.5	7
250	Crossbar RRAM Arrays: Selector Device Requirements During Write Operation. IEEE Transactions on Electron Devices, 2014, 61, 2820-2826.	1.6	187
251	Self-selection bipolar resistive switching phenomena observed in NbON/NbN bilayer for cross-bar array memory applications. Applied Physics Letters, 2014, 105, 213510.	1.5	19
252	Implementation of complementary resistive switch for image matching through back-to-back connection of ITO/TiO2âˆ™x/TiO2/ITO memristors. Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 1933-1940.	0.8	3
253	Simulation of TaO<inf>x</inf>-based complementary resistive switches by a physics-based memristive model. , 2014, , .		33
254	Access devices for 3D crosspoint memory. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2014, 32, .	0.6	276
255	Memristor-based ternary content addressable memory (mTCAM) for data-intensive computing. Semiconductor Science and Technology, 2014, 29, 104010.	1.0	26
256	MIEC (mixed-ionic-electronic-conduction)-based access devices for non-volatile crossbar memory arrays. Semiconductor Science and Technology, 2014, 29, 104005.	1.0	45
258	Via Diode in Cu Backend Process for 3D Cross-Point RRAM Arrays. IEEE Journal of the Electron Devices Society, 2014, 2, 149-153.	1.2	8

#	ARTICLE	IF	CITATIONS
259	Overview and high density application of HfOx based RRAM. , 2014, , .		2
260	Role of interfacial layer on complementary resistive switching in the TiN/HfOx/TiN resistive memory device. Applied Physics Letters, 2014, 105, .	1.5	23
261	Memristor Device Engineering and CMOS Integration for Reconfigurable Logic Applications. , 2014, , 327-351.		3
262	3-bit read scheme for single layer Ta2O5 ReRAM. , 2014, , .		3
263	Memristors-based Ternary Content Addressable Memory (mTCAM). , 2014, , .		10
264	A shapeshifting evolvable hardware mechanism based on reconfigurable memFETs crossbar architecture. Microelectronics Reliability, 2014, 54, 1500-1510.	0.9	0
265	Verilog-A Based Effective Complementary Resistive Switch Model for Simulations and Analysis. IEEE Embedded Systems Letters, 2014, 6, 12-15.	1.3	21
266	Conversion of two types of bipolar switching induced by the electroforming polarity in Au/NiO/SrTiO3/Pt memory cells. Applied Physics A: Materials Science and Processing, 2014, 115, 147-151.	1.1	8
267	Three-Terminal Nonvolatile Resistive-Change Device Integrated in Cu-BEOL. IEEE Transactions on Electron Devices, 2014, 61, 505-510.	1.6	4
268	Dependence of reactive metal layer on resistive switching in a bi-layer structure Ta/HfOx filament type resistive random access memory. Applied Physics Letters, 2014, 104, 083507.	1.5	17
269	A journey towards reliability improvement of TiO2 based Resistive Random Access Memory: A review. Microelectronics Reliability, 2014, 54, 541-560.	0.9	91
270	A review of non-contact micro- and nano-printing technologies. Journal of Micromechanics and Microengineering, 2014, 24, 053001.	1.5	110
271	Highly Uniform Resistive Switching Properties of Amorphous InGaZnO Thin Films Prepared by a Low Temperature Photochemical Solution Deposition Method. ACS Applied Materials & Interfaces, 2014, 6, 5012-5017.	4.0	117
272	Crossbar RRAM Arrays: Selector Device Requirements During Read Operation. IEEE Transactions on Electron Devices, 2014, 61, 1369-1376.	1.6	180
273	Highly Uniform, Electroforming-Free, and Self-Rectifying Resistive Memory in the Pt/Ta ₂ O ₅ /HfO ₂ /TiN Structure. Advanced Functional Materials, 2014, 24, 5086-5095.	7.8	197
274	Design, Test, and Repair of MLUT (Memristor Look-Up Table) Based Asynchronous Nanowire Reconfigurable Crossbar Architecture. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2014, 4, 427-437.	2.7	9
275	Characterization of external resistance effect and performance optimization in unipolar-type SiOx-based resistive switching memory. Applied Physics Letters, 2014, 105, .	1.5	16
276	Complementary resistive switch based stateful logic operations using material implication. , 2014, , .		5

#	ARTICLE	IF	CITATIONS
277	Low temperature dependent ferroelectric resistive switching in epitaxial BiFeO ₃ films. Applied Physics Letters, 2014, 104, .	1.5	31
278	Determining the switching properties of the minimum function from a single VI characteristic. , 2014, , .		0
279	25th Anniversary Article: Metal Oxide Particles in Materials Science: Addressing All Length Scales. Advanced Materials, 2014, 26, 235-257.	11.1	112
280	Recent progress in resistive random access memories: Materials, switching mechanisms, and performance. Materials Science and Engineering Reports, 2014, 83, 1-59.	14.8	1,160
281	Analytical modelling and leakage optimization in complementary resistive switch (CRS) crossbar arrays. , 2014, , .		1
282	Volatile resistance states in electrochemical metallization cells enabling non-destructive readout of complementary resistive switches. Nanotechnology, 2014, 25, 425202.	1.3	64
283	Sneak paths effects in CBRAM memristive devices arrays for spiking neural networks. , 2014, , .		5
284	Live demonstration: A versatile, low-cost platform for testing large ReRAM cross-bar arrays. , 2014, , .		13
285	Flexible one diodeâ€one resistor resistive switching memory arrays on plastic substrates. RSC Advances, 2014, 4, 20017-20023.	1.7	40
286	Live demonstration: An associative capacitive network based on nanoscale complementary resistive switches. , 2014, , .		1
287	Amorphous zinc-doped silicon oxide (SZO) resistive switching memory: manipulated bias control from selector to memristor. Journal of Materials Chemistry C, 2014, 2, 4401-4405.	2.7	19
288	Emerging memories. Solid-State Electronics, 2014, 102, 2-11.	0.8	26
289	MAGICâ€Memristor-Aided Logic. IEEE Transactions on Circuits and Systems II: Express Briefs, 2014, 61, 895-899.	2.2	542
290	Tunable Multilevel Storage of Complementary Resistive Switching on Single-Step Formation of ZnO/ZnWO ₄ Bilayer Structure via Interfacial Engineering. ACS Applied Materials & Interfaces, 2014, 6, 17686-17693.	4.0	18
291	Robust learning approach for neuro-inspired nanoscale crossbar architecture. ACM Journal on Emerging Technologies in Computing Systems, 2014, 10, 1-20.	1.8	24
292	Complementary Resistive Switching in Flexible RRAM Devices. IEEE Electron Device Letters, 2014, 35, 915-917.	2.2	20
293	Evolution of the shape of the conducting channel in complementary resistive switching transition metal oxides. Nanoscale, 2014, 6, 2161-2169.	2.8	35
294	Piezotronics and piezo-phototronics: fundamentals and applications. National Science Review, 2014, 1, 62-90.	4.6	231

#	ARTICLE	IF	CITATIONS
295	Memristive nano-crossbar arrays enabling novel computing paradigms. , 2014, , .		5
296	Simulation and comparison of two sequential logic-in-memory approaches using a dynamic electrochemical metallization cell model. <i>Microelectronics Journal</i> , 2014, 45, 1416-1428.	1.1	17
297	Control of Cu Conductive Filament in Complementary Atom Switch for Cross-Point Selector Device Application. <i>IEEE Electron Device Letters</i> , 2014, 35, 60-62.	2.2	31
298	Analytical Modeling of Oxide-Based Bipolar Resistive Memories and Complementary Resistive Switches. <i>IEEE Transactions on Electron Devices</i> , 2014, 61, 2378-2386.	1.6	171
299	Revealing Controllable Nanowire Transformation through Cationic Exchange for RRAM Application. <i>Nano Letters</i> , 2014, 14, 2759-2763.	4.5	44
300	Nonvolatile Resistance Switching on Two-Dimensional Electron Gas. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 17785-17791.	4.0	5
301	Temperature Sensing RRAM Architecture for 3-D ICs. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , 2014, 22, 878-887.	2.1	4
302	Ferroelectric tunnel memristor-based neuromorphic network with 1T1R crossbar architecture. , 2014, , .		16
303	Complementary resistive switch based stateful logic operations using material implication. , 2014, , .		3
304	Resistive switching effects in CeO ₂ /La _{0.7} (Sr _{0.1} Ca _{0.9}) _{0.3} MnO ₃ /Pt heterostructures prepared by pulse laser deposition method. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2014, 378, 2561-2564.	0.9	2
305	Integrated One Diode-One Resistor Architecture in Nanopillar SiO _x Resistive Switching Memory by Nanosphere Lithography. <i>Nano Letters</i> , 2014, 14, 813-818.	4.5	97
306	Bipolar Resistance Switching in Transparent ITO/LaAlO ₃ /SrTiO ₃ Memristors. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 8575-8579.	4.0	77
307	Applicability of Well-Established Memristive Models for Simulations of Resistive Switching Devices. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2014, 61, 2402-2410.	3.5	91
308	Logic operations in memory using a memristive Akers array. <i>Microelectronics Journal</i> , 2014, 45, 1429-1437.	1.1	68
309	Tunable multiferroic and bistable/complementary resistive switching properties of dilutely Li-doped BiFeO ₃ nanoparticles: an effect of aliovalent substitution. <i>Nanoscale</i> , 2014, 6, 4735-4744.	2.8	94
310	Physical model of dynamic Joule heating effect for reset process in conductive-bridge random access memory. <i>Journal of Computational Electronics</i> , 2014, 13, 432-438.	1.3	41
311	Ion transport-related resistive switching in film sandwich structures. <i>Science Bulletin</i> , 2014, 59, 2363-2382.	1.7	9
312	Effects of near-surface defects on the optical, electrical and magnetic properties of ZnO films. <i>Journal of the Korean Physical Society</i> , 2014, 64, 1590-1594.	0.3	0

#	ARTICLE	IF	CITATIONS
313	Design and analysis of crossbar architecture based on complementary resistive switching non-volatile memory cells. <i>Journal of Parallel and Distributed Computing</i> , 2014, 74, 2484-2496.	2.7	14
314	A Review of Three-Dimensional Resistive Switching Crossbar Array Memories from the Integration and Materials Property Points of View. <i>Advanced Functional Materials</i> , 2014, 24, 5316-5339.	7.8	319
315	Impact of multiplexed reading scheme on nanocrossbar memristor memory's scalability. <i>Chinese Physics B</i> , 2014, 23, 028501.	0.7	7
316	Nano-Crossbar Memories Comprising Parallel/Serial Complementary Memristive Switches. <i>BioNanoScience</i> , 2014, 4, 166-179.	1.5	22
317	Simplified ZrTiO _x -based RRAM cell structure with rectifying characteristics by integrating Ni/n ⁺ -Si diode. <i>Nanoscale Research Letters</i> , 2014, 9, 275.	3.1	7
318	Homogeneous barrier modulation of TaO _x /TiO ₂ bilayers for ultra-high endurance three-dimensional storage-class memory. <i>Nanotechnology</i> , 2014, 25, 165202.	1.3	76
319	Complementary Resistive Switch-Based Smart Sensor Search Engine. <i>IEEE Sensors Journal</i> , 2014, 14, 1639-1646.	2.4	16
320	Memristor-Based Material Implication (IMPLY) Logic: Design Principles and Methodologies. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , 2014, 22, 2054-2066.	2.1	453
321	A new bipolar RRAM selector based on anti-parallel connected diodes for crossbar applications. <i>Nanotechnology</i> , 2014, 25, 185201.	1.3	11
322	A fast operation of nanometer-scale metallic memristors: highly transparent conductance channels in Ag ₂ S devices. <i>Nanoscale</i> , 2014, 6, 2613-2617.	2.8	23
323	Comprehensive Physical Model of Dynamic Resistive Switching in an Oxide Memristor. <i>ACS Nano</i> , 2014, 8, 2369-2376.	7.3	388
324	Resistive switching and its suppression in Pt/Nb:SrTiO ₃ junctions. <i>Nature Communications</i> , 2014, 5, 3990.	5.8	167
328	Low-current and high-endurance logic operations in 4F ² -compatible TaO _x -based complementary resistive switches. , 2014, , .		2
329	Memristive based device arrays combined with Spike based coding can enable efficient implementations of embedded neuromorphic circuits. , 2015, , .		4
330	Implementation of Complete Boolean Logic Functions in Single Complementary Resistive Switch. <i>Scientific Reports</i> , 2015, 5, 15467.	1.6	84
331	Resistive random access memory with high selectivity and ON/OFF ratio amplification sensing. , 2015, , .		1
332	Magnetic Random Access Memory. , 2015, , 303-384.		0
333	Forming compliance dominated memristive switching through interfacial reaction in Ti/TiO ₂ /Au structure. <i>Journal of Applied Physics</i> , 2015, 118, .	1.1	19

#	ARTICLE	IF	CITATIONS
334	All oxide semiconductor-based bidirectional vertical p-n-p selectors for 3D stackable crossbar-array electronics. <i>Scientific Reports</i> , 2015, 5, 13362.	1.6	14
335	Threshold switching behavior of Ag-Si based selector device and hydrogen doping effect on its characteristics. <i>AIP Advances</i> , 2015, 5, .	0.6	48
336	Self-assembly of an NbO ₂ interlayer and configurable resistive switching in Pt/Nb/HfO ₂ /Pt structures. <i>Applied Physics Letters</i> , 2015, 107, .	1.5	21
337	Compliance current dependence of conversion between bipolar, unipolar, and threshold resistance switching in Mn ₃ O ₄ films. <i>AIP Advances</i> , 2015, 5, .	0.6	19
338	Effects of conducting defects on resistive switching characteristics of SiN _x -based resistive random-access memory with MIS structure. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2015, 33, .	0.6	28
339	Comprehensive analysis of electro thermally driven nanoscale insulator-metal transition SmNiO ₃ -based selector for cross-point memory array. <i>Japanese Journal of Applied Physics</i> , 2015, 54, 04DD09.	0.8	7
340	The observation of valence band change on resistive switching of epitaxial Pr _{0.7} Ca _{0.3} MnO ₃ film using removable liquid electrode. <i>Applied Physics Letters</i> , 2015, 107, 231603.	1.5	1
341	A 4F ² -cross-point phase change memory using nano-crystalline doped GeSbTe material. <i>Japanese Journal of Applied Physics</i> , 2015, 54, 04DD01.	0.8	6
342	Memristive crypto primitive for building highly secure physical unclonable functions. <i>Scientific Reports</i> , 2015, 5, 12785.	1.6	77
343	HReRAM: A Hybrid Reconfigurable Resistive Random-Access Memory. , 2015, , .		8
344	Filament Geometry Induced Bipolar, Complementary and Unipolar Resistive Switching under the Same Set Current Compliance in Pt/SiO _x /TiN. <i>Scientific Reports</i> , 2015, 5, 15374.	1.6	18
345	How Does Moisture Affect the Physical Property of Memristance for Anionic Electronic Resistive Switching Memories?. <i>Advanced Functional Materials</i> , 2015, 25, 5117-5125.	7.8	147
346	Realization of Boolean Logic Functionality Using Redox-Based Memristive Devices. <i>Advanced Functional Materials</i> , 2015, 25, 6414-6423.	7.8	127
347	Pt/Ta ₂ O ₅ /HfO ₂ /Ti Resistive Switching Memory Competing with Multilevel NAND Flash. <i>Advanced Materials</i> , 2015, 27, 3811-3816.	11.1	152
348	A HfO ₂ -Based Complementary Switching Crossbar Adder. <i>Advanced Electronic Materials</i> , 2015, 1, 1500138.	2.6	51
349	Resistive Switching of Individual, Chemically Synthesized TiO ₂ Nanoparticles. <i>Small</i> , 2015, 11, 6444-6456.	5.2	24
350	Cation Exchange Synthesis and Unusual Resistive Switching Behaviors of Ag ₂ Se Nanobelts. <i>Small</i> , 2015, 11, 6285-6294.	5.2	26
351	Energy Consumption Estimation of Organic Nonvolatile Memory Devices on a Flexible Plastic Substrate. <i>Advanced Electronic Materials</i> , 2015, 1, 1500186.	2.6	12

#	ARTICLE	IF	CITATIONS
352	A Memristor as Multi-Bit Memory: Feasibility Analysis. <i>Radioengineering</i> , 2015, 24, 425-430.	0.3	4
353	Plasticity in memristive devices for spiking neural networks. <i>Frontiers in Neuroscience</i> , 2015, 9, 51.	1.4	188
354	Tunnel junction based memristors as artificial synapses. <i>Frontiers in Neuroscience</i> , 2015, 9, 241.	1.4	28
355	Optimal Design of FPGA Switch Matrix with Ion Mobility Based Nonvolatile ReRAM. <i>Discrete Dynamics in Nature and Society</i> , 2015, 2015, 1-6.	0.5	0
356	The Art of Finding Accurate Memristor Model Solutions. <i>IEEE Journal on Emerging and Selected Topics in Circuits and Systems</i> , 2015, 5, 133-142.	2.7	65
357	Giant Electroresistive Ferroelectric Diode on 2DEG. <i>Scientific Reports</i> , 2015, 5, 10548.	1.6	10
358	Towards formation of fibrous woven memory devices from all-carbon electronic fibers. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 7104-7108.	1.3	12
359	Resistive switching in metallic Ag ₂ S memristors due to a local overheating induced phase transition. <i>Nanoscale</i> , 2015, 7, 11248-11254.	2.8	19
360	Design principles of tuning oxygen vacancy diffusion in SrZrO ₃ for resistance random access memory. <i>Journal of Materials Chemistry C</i> , 2015, 3, 4081-4085.	2.7	20
361	Resistive Switching in High-Density Nanodevices Fabricated by Block Copolymer Self-Assembly. <i>ACS Nano</i> , 2015, 9, 2518-2529.	7.3	72
362	Threshold current reduction for the metal-insulator transition in NbO ₂ -selector devices: the effect of ReRAM integration. <i>Journal Physics D: Applied Physics</i> , 2015, 48, 195105.	1.3	74
363	Characteristics and mechanism study of cerium oxide based random access memories. <i>Applied Physics Letters</i> , 2015, 106, .	1.5	37
364	Homogeneous Spiking Neuromorphic System for Real-World Pattern Recognition. <i>IEEE Journal on Emerging and Selected Topics in Circuits and Systems</i> , 2015, 5, 254-266.	2.7	66
365	A μ Controller-Based System for Interfacing Selectorless RRAM Crossbar Arrays. <i>IEEE Transactions on Electron Devices</i> , 2015, 62, 2190-2196.	1.6	73
366	Resistive Switching in Oxides. <i>Springer Series in Surface Sciences</i> , 2015, , 401-428.	0.3	16
367	On-Chip Universal Supervised Learning Methods for Neuro-Inspired Block of Memristive Nanodevices. <i>ACM Journal on Emerging Technologies in Computing Systems</i> , 2015, 11, 1-20.	1.8	8
368	Memory array with complementary resistive switch with memristive characteristics. , 2015, , .		2
369	Investigation into the influence of interfacial changes on the resistive switching of Pr _{0.7} Ca _{0.3} MnO ₃ . <i>Journal Physics D: Applied Physics</i> , 2015, 48, 465309.	1.3	5

#	ARTICLE	IF	CITATIONS
370	(Invited) Resistive Random Access Memory for Storage Class Applications. ECS Transactions, 2015, 69, 47-50.	0.3	2
371	Excellent nonlinearity of a selection device based on anti-series connected Zener diodes for ultrahigh-density bipolar RRAM arrays. Nanotechnology, 2015, 26, 425201.	1.3	1
372	Controllability of multi-level states in memristive device models using a transistor as current compliance during SET operation. , 2015, , .		0
373	Conductive-bridging random access memory: challenges and opportunity for 3D architecture. Nanoscale Research Letters, 2015, 10, 188.	3.1	76
374	New Logic Synthesis as Nanotechnology Enabler. Proceedings of the IEEE, 2015, 103, 2168-2195.	16.4	53
375	mrPUF: A Novel Memristive Device Based Physical Unclonable Function. Lecture Notes in Computer Science, 2015, , 595-615.	1.0	16
376	Correlation between set and reset voltages in resistive RAM cells. Current Applied Physics, 2015, 15, 1124-1129.	1.1	16
377	Low-cost bidirectional selector based on Ti/TiO ₂ /HfO ₂ /TiO ₂ /Ti stack for bipolar RRAM arrays. Modern Physics Letters B, 2015, 29, 1550244.	1.0	5
378	Techniques for reliable and accurate numerical solutions of memristor models. , 2015, , .		1
379	Bi-stable resistive switching in an array of $\text{Cu/Cu}_x\text{O/Au}$ nanowires. Applied Physics A: Materials Science and Processing, 2015, 118, 119-124.	1.1	0
380	Vacancy Associates-Rich Ultrathin Nanosheets for High Performance and Flexible Nonvolatile Memory Device. Journal of the American Chemical Society, 2015, 137, 3102-3108.	6.6	141
381	Dynamic moderation of an electric field using a SiO ₂ switching layer in TaO _x -based ReRAM. Physica Status Solidi - Rapid Research Letters, 2015, 9, 166-170.	1.2	9
382	Novel Complementary Resistive Switch Crossbar Memory Write and Read Schemes. IEEE Nanotechnology Magazine, 2015, 14, 346-357.	1.1	17
383	Complementary and bipolar regimes of resistive switching in TiN/HfO ₂ /TiN stacks grown by atomic-layer deposition. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 809-816.	0.8	39
384	Non-exponential resistive switching in Ag ₂ S memristors: a key to nanometer-scale non-volatile memory devices. Nanoscale, 2015, 7, 4394-4399.	2.8	32
385	Self-Limited Switching in Ta ₂ O ₅ /TaO _x Memristors Exhibiting Uniform Multilevel Changes in Resistance. Advanced Functional Materials, 2015, 25, 1527-1534.	7.8	111
386	Functionalized Graphitic Carbon Nitride for Metal-free, Flexible and Rewritable Nonvolatile Memory Device via Direct Laser-Writing. Scientific Reports, 2014, 4, 5882.	1.6	94
387	Multinomial based memristor modelling methodology for simulations and analysis. International Journal of Electronics Letters, 2015, 3, 1-12.	0.7	2

#	ARTICLE	IF	CITATIONS
388	A Complementary Resistive Switch-Based Crossbar Array Adder. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2015, 5, 64-74.	2.7	100
389	SPICE modeling of nonlinear memristive behavior. International Journal of Circuit Theory and Applications, 2015, 43, 553-565.	1.3	83
390	Forming-free and self-rectifying resistive switching of the simple Pt/TaO _x /n-Si structure for access device-free high-density memory application. Nanoscale, 2015, 7, 6031-6038.	2.8	97
391	Novel design for the odd-symmetric memristor from asymmetric switches. Journal of Materials Chemistry C, 2015, 3, 2768-2772.	2.7	6
392	Manganite-based memristive heterojunction with tunable non-linear I-V characteristics. Nanoscale, 2015, 7, 6444-6450.	2.8	29
393	Memory and ferroelectric photovoltaic effects arising from quasi-reversible oxidation and reduction in porphyrin entrapped aminopropyl-silicate films. Organic Electronics, 2015, 25, 143-150.	1.4	4
394	Physical principles and current status of emerging non-volatile solid state memories. Electronic Materials Letters, 2015, 11, 505-543.	1.0	56
395	On Passive Permutation Circuits. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2015, 5, 173-182.	2.7	3
396	Cross-Point Resistive RAM Based on Field-Assisted Superlinear Threshold Selector. IEEE Transactions on Electron Devices, 2015, 62, 3477-3481.	1.6	90
397	Reconfigurable Memristive Device Technologies. Proceedings of the IEEE, 2015, 103, 1004-1033.	16.4	69
398	1D Selection Device Using Carbon Nanotube FETs for High-Density Cross-Point Memory Arrays. IEEE Transactions on Electron Devices, 2015, 62, 2197-2204.	1.6	34
399	Mechanism of ferroelectric resistive switching in Bi _{0.9} La _{0.1} FeO ₃ thin films. Thin Solid Films, 2015, 583, 13-18.	0.8	6
400	Physical and chemical mechanisms in oxide-based resistance random access memory. Nanoscale Research Letters, 2015, 10, 120.	3.1	130
401	Study of Memristive Associative Capacitive Networks for CAM Applications. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2015, 5, 153-161.	2.7	9
402	A selector device based on graphene-oxide heterostructures for memristor crossbar applications. Applied Physics A: Materials Science and Processing, 2015, 120, 403-407.	1.1	11
403	Role of ITO electrode in the resistive switching behavior of TiN/HfO ₂ /ITO memory devices at different annealing temperatures. Japanese Journal of Applied Physics, 2015, 54, 054201.	0.8	14
404	High On-Off Ratio Improvement of ZnO-Based Forming-Free Memristor by Surface Hydrogen Annealing. ACS Applied Materials & Interfaces, 2015, 7, 7382-7388.	4.0	102
405	Toward large-scale access-transistor-free memristive crossbars. , 2015, , .		11

#	ARTICLE	IF	CITATIONS
406	Crossbar array of selector-less TaOx/TiO2 bilayer RRAM. Microelectronics Reliability, 2015, 55, 2220-2223.	0.9	32
407	Tuning bipolar resistive switching by forming defect dipoles in A-site-deficient perovskite calcium titanate thin films. Applied Physics Express, 2015, 8, 045504.	1.1	15
408	A reproducible write-erase and multilevel bio-memristor based on DNA molecule. Organic Electronics, 2015, 22, 147-153.	1.4	71
409	Gate-tunable memristive phenomena mediated by grain boundaries in single-layer MoS2. Nature Nanotechnology, 2015, 10, 403-406.	15.6	564
410	Low-current operations in 4F ² -compatible Ta ₂ O ₅ -based complementary resistive switches. Nanotechnology, 2015, 26, 415202.	1.3	20
411	Nonlinear and complementary resistive switching behaviors of Au/Ti/TaOx/TiN devices dependent on Ti thicknesses. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2015, 33, .	0.6	8
412	Ferroelectric Tunnel Junction for Dense Cross-Point Arrays. ACS Applied Materials & Interfaces, 2015, 7, 22348-22354.	4.0	18
413	Spectromicroscopic insights for rational design of redox-based memristive devices. Nature Communications, 2015, 6, 8610.	5.8	100
414	Memory and Information Processing in Neuromorphic Systems. Proceedings of the IEEE, 2015, 103, 1379-1397.	16.4	596
415	Phase-Change and Redox-Based Resistive Switching Memories. Proceedings of the IEEE, 2015, 103, 1274-1288.	16.4	142
416	Phoneme discrimination using a pair of neurons built from CRS fuzzy logic gates. AIP Conference Proceedings, 2015, , .	0.3	0
417	Impact of the cation-stoichiometry on the resistive switching and data retention of SrTiO3 thin films. AIP Advances, 2015, 5, .	0.6	31
418	Resistive switching characteristics of Si3N4-based resistive-switching random-access memory cell with tunnel barrier for high density integration and low-power applications. Applied Physics Letters, 2015, 106, .	1.5	77
419	Limitations and precision requirements for read-out of passive, linear, selectorless RRAM arrays. , 2015, , .		7
420	Low-voltage read/write circuit design for transistorless ReRAM crossbar arrays in 180nm CMOS technology. , 2015, , .		4
421	Nonlinearity and Asymmetry for Device Selection in Cross-Bar Memory Arrays. IEEE Transactions on Electron Devices, 2015, 62, 2857-2864.	1.6	19
422	Tuning the switching behavior of binary oxide-based resistive memory devices by inserting an ultra-thin chemically active metal nanolayer: a case study on the Ta2O5-Ta system. Physical Chemistry Chemical Physics, 2015, 17, 12849-12856.	1.3	47
423	Manganite based hetero-junction structure of La _{0.7} Sr _{0.7} Ca _x MnO ₃ and CaMnO ₃ for cross-point arrays. Nanotechnology, 2015, 26, 275704.	1.3	0

#	ARTICLE	IF	CITATIONS
424	Structural defect-dependent resistive switching in Cu-O/Si studied by Kelvin probe force microscopy and conductive atomic force microscopy. <i>Nanotechnology</i> , 2015, 26, 345702.	1.3	43
425	Diodelike Bipolar Resistive Switching, High-Performance, and Ultralow Power Characteristics in GaO/SiN ₂ /SiO ₂ Bilayer Structure. <i>IEEE Electron Device Letters</i> , 2015, 36, 1024-1026.	2.2	7
426	Linear programming of voltage-controlled memristors with an anti-serial memristor circuit. , 2015, , .		1
427	Architecting energy efficient crossbar-based memristive random-access memories. , 2015, , .		12
428	In-memory adder functionality in 1S1R arrays. , 2015, , .		16
429	Write and Erase Threshold Voltage Interdependence in Resistive Switching Memory Cells. <i>IEEE Transactions on Electron Devices</i> , 2015, 62, 2850-2856.	1.6	20
430	Flexible and stackable non-volatile resistive memory for high integration. <i>Proceedings of SPIE</i> , 2015, , .	0.8	1
431	Resistive switching phenomena: A review of statistical physics approaches. <i>Applied Physics Reviews</i> , 2015, 2, .	5.5	338
432	Compact Model for the Major and Minor Hysteretic V_{th} Loops in Nonlinear Memristive Devices. <i>IEEE Nanotechnology Magazine</i> , 2015, 14, 787-789.	1.1	42
433	Self-rectifying resistive switching behavior observed in Si ₃ N ₄ -based resistive random access memory devices. <i>Journal of Alloys and Compounds</i> , 2015, 651, 340-343.	2.8	47
434	Numerical study of read scheme in one-selector one-resistor crossbar array. <i>Solid-State Electronics</i> , 2015, 114, 80-86.	0.8	28
435	A study of threshold switching of NbO ₂ using atom probe tomography and transmission electron microscopy. <i>Micron</i> , 2015, 79, 101-109.	1.1	17
436	Mechanism of Nonlinear Switching in HfO ₂ -Based Crossbar RRAM With Inserting Large Bandgap Tunneling Barrier Layer. <i>IEEE Transactions on Electron Devices</i> , 2015, 62, 3665-3670.	1.6	66
437	Exploring error-tolerant low-power multiple-output read scheme for memristor-based memory arrays. , 2015, , .		3
438	Critical ReRAM Stack Parameters Controlling Complimentary versus Bipolar Resistive Switching. , 2015, , .		13
439	Electric-Field-Driven Dual Vacancies Evolution in Ultrathin Nanosheets Realizing Reversible Semiconductor to Half-Metal Transition. <i>Journal of the American Chemical Society</i> , 2015, 137, 15043-15048.	6.6	43
440	Resistive Switching Memory Based on Bioinspired Natural Solid Polymer Electrolytes. <i>ACS Nano</i> , 2015, 9, 419-426.	7.3	174
441	Lifetime Reliability Analysis of Complementary Resistive Switches Under Threshold and Doping Interface Speed Variations. <i>IEEE Nanotechnology Magazine</i> , 2015, 14, 130-139.	1.1	5

#	ARTICLE	IF	CITATIONS
442	Structurally Engineered Stackable and Scalable 3D Titanium Oxide Switching Devices for High-Density Nanoscale Memory. <i>Advanced Materials</i> , 2015, 27, 59-64.	11.1	40
443	Reconstructive sensing circuit for complementary resistive switches-based crossbar memories. <i>Turkish Journal of Electrical Engineering and Computer Sciences</i> , 2016, 24, 1371-1383.	0.9	5
444	The role of defects in the electrical properties of NbO ₂ thin film vertical devices. <i>AIP Advances</i> , 2016, 6, 125006.	0.6	4
445	Linearized Programming of Memristors for Artificial Neuro-Sensor Signal Processing. <i>Sensors</i> , 2016, 16, 1320.	2.1	2
446	Multidimensional Simulation of Threshold Switching in NbO ₂ Based on an Electric Field Triggered Thermal Runaway Model. <i>Advanced Electronic Materials</i> , 2016, 2, 1600169.	2.6	95
447	Resistance switching behavior of atomic layer deposited SrTiO ₃ film through possible formation of Sr ₂ Ti ₆ O ₁₃ or Sr ₁ Ti ₁₁ O ₂₀ phases. <i>Scientific Reports</i> , 2016, 6, 20550.	1.6	17
448	Metal nanoparticle mediated space charge and its optical control in an organic hole-only device. <i>Applied Physics Letters</i> , 2016, 108, 153302.	1.5	4
449	Direct observation of Ag filament growth and unconventional SET-RESET operation in GeTe amorphous films. <i>AIP Advances</i> , 2016, 6, .	0.6	12
450	Dual-functional Memory and Threshold Resistive Switching Based on the Push-Pull Mechanism of Oxygen Ions. <i>Scientific Reports</i> , 2016, 6, 23945.	1.6	45
451	Efficient implementation of multiplexer and priority multiplexer using 1S1R ReRAM crossbar arrays. , 2016, , .		1
452	Single-Readout High-Density Memristor Crossbar. <i>Scientific Reports</i> , 2016, 6, 18863.	1.6	42
453	A nonlinear HP-type complementary resistive switch. <i>AIP Advances</i> , 2016, 6, 055119.	0.6	4
454	Tuning resistance states by thickness control in an electroforming-free nanometallic complementary resistance random access memory. <i>Applied Physics Letters</i> , 2016, 108, .	1.5	4
455	Enhanced stability of complementary resistance switching in the TiN/HfO _x /TiN resistive random access memory device via interface engineering. <i>Applied Physics Letters</i> , 2016, 108, .	1.5	15
456	Off-state current reduction in NbO ₂ -based selector device by using TiO ₂ tunneling barrier as an oxygen scavenger. <i>Applied Physics Letters</i> , 2016, 109, .	1.5	28
457	Self-electroforming and high-performance complementary memristor based on ferroelectric tunnel junctions. <i>Applied Physics Letters</i> , 2016, 109, .	1.5	9
458	Evolution of complementary resistive switching characteristics using IrO _x /GdO _x /Al ₂ O ₃ /TiN structure. <i>Applied Physics Letters</i> , 2016, 108, .	1.5	54
459	Fully Si compatible SiN resistive switching memory with large self-rectification ratio. <i>AIP Advances</i> , 2016, 6, .	0.6	33

#	ARTICLE	IF	CITATIONS
460	HfO _x complementary resistive switches. , 2016, , .		0
461	Complementary resistive switching behaviors evolved from bipolar TiN/HfO ₂ /Pt device. Applied Physics Letters, 2016, 108, .	1.5	68
462	Unipolar resistive switching with forming-free and self-rectifying effects in Cu/HfO ₂ /n-Si devices. AIP Advances, 2016, 6, .	0.6	19
463	A low power selector-less crossbar array with complementary resistive-switching memory. , 2016, , .		2
464	Anomalous rectification in a purely electronic memristor. Applied Physics Letters, 2016, 109, 143505.	1.5	21
465	Analytic models for crossbar read operation. , 2016, , .		0
466	Delay-optimal technology mapping for in-memory computing using ReRAM devices. , 2016, , .		12
467	Complementary resistive switching in single sandwich structure for crossbar memory arrays. Journal of Applied Physics, 2016, 120, 084502.	1.1	21
468	Practical considerations of read-out circuits for passive, multi-level ReRAM arrays. , 2016, , .		2
469	Temperature-Dependent Non-linear Resistive Switching Characteristics and Mechanism Using a New W/WO ₃ /WO _x /W Structure. Nanoscale Research Letters, 2016, 11, 389.	3.1	43
470	Effect of Oxygen-deficiencies on Resistance Switching in Amorphous YFe _{0.5} Cr _{0.5} O ₃ films. Scientific Reports, 2016, 6, 30335.	1.6	8
471	Fully BEOL compatible TaO _x -based selector with high uniformity and robust performance. , 2016, , .		10
472	Complementary resistive switching of annealed Ti/Cu ₂ O/Ti stacks. Applied Physics Express, 2016, 9, 045801.	1.1	5
473	Temperature induced complementary switching in titanium oxide resistive random access memory. AIP Advances, 2016, 6, 075314.	0.6	31
474	Trilayer Tunnel Selectors for Memristor Memory Cells. Advanced Materials, 2016, 28, 356-362.	11.1	96
475	Resistance switching characteristics of core-shell Fe ₃ -Fe ₂ O ₃ /Ni ₂ O ₃ nanoparticles in HfSiO ₄ matrix. Journal of Alloys and Compounds, 2016, 678, 31-35.	2.8	20
476	Channel equalization techniques for non-volatile memristor memories. , 2016, , .		1
477	Co-Design of ReRAM Passive Crossbar Arrays Integrated in 180 nm CMOS Technology. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2016, 6, 339-351.	2.7	8

#	ARTICLE	IF	CITATIONS
478	An FPGA-Based Instrument for En-Masse RRAM Characterization With ns Pulsing Resolution. IEEE Transactions on Circuits and Systems I: Regular Papers, 2016, 63, 818-826.	3.5	16
479	Logic Design Within Memristive Memories Using Memristor-Aided loGIC (MAGIC). IEEE Nanotechnology Magazine, 2016, 15, 635-650.	1.1	244
480	Associative Memristive Memory for Approximate Computing in GPUs. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2016, 6, 222-234.	2.7	22
481	Majority-based synthesis for nanotechnologies. , 2016, , .		8
482	A low-power hybrid reconfigurable architecture for resistive random-access memories. , 2016, , .		8
483	Tuning resistive switching parameters in Si3N4-based RRAM for three-dimensional vertical resistive memory applications. Journal of Alloys and Compounds, 2016, 663, 419-423.	2.8	27
484	Kinetic Monte Carlo Simulations of Defects in Anatase Titanium Dioxide. Journal of Physical Chemistry C, 2016, 120, 10062-10077.	1.5	9
485	Evaluation of a ferroelectric tunnel junction by ultraviolet-visible absorption using a removable liquid electrode. Nanotechnology, 2016, 27, 215704.	1.3	0
486	Unipolar resistive switching effect and mechanism of solution-processed spinel Co3O4 thin films. Materials and Design, 2016, 103, 230-235.	3.3	24
487	Self-assembled tin dioxide for forming-free resistive random-access memory application. Japanese Journal of Applied Physics, 2016, 55, 060301.	0.8	3
488	ZnO/Al:ZnO Transparent Resistive Switching Devices Grown by Atomic Layer Deposition for Memristor Applications. Langmuir, 2016, 32, 4983-4995.	1.6	39
489	3D resistive RAM cell design for high-density storage class memory—a review. Science China Information Sciences, 2016, 59, 1.	2.7	54
490	Roles of oxygen and nitrogen in control of nonlinear resistive behaviors via filamentary and homogeneous switching in an oxynitride thin film memristor. RSC Advances, 2016, 6, 61221-61227.	1.7	10
491	Facile synthesis of Co/RGO nanocomposite for methylene blue dye removal. Materials Today: Proceedings, 2016, 3, 2814-2821.	0.9	10
492	Switchable Cu ₂ O/WO _x p-n junction for high density crossbar arrays. RSC Advances, 2016, 6, 102603-102607.	1.7	6
493	Observation of Self-Reset During Forming of the TiN/HfOx/TiN Resistive Switching Device. IEEE Electron Device Letters, 2016, , 1-1.	2.2	5
494	Conductive bridging random access memory—materials, devices and applications. Semiconductor Science and Technology, 2016, 31, 113001.	1.0	90
495	A ZnO-rGO composite thin film discrete memristor. , 2016, , .		15

#	ARTICLE	IF	CITATIONS
496	Information-Theoretic Sneak-Path Mitigation in Memristor Crossbar Arrays. IEEE Transactions on Information Theory, 2016, 62, 4801-4813.	1.5	45
497	Low-Power, Self-Rectifying, and Forming-Free Memristor with an Asymmetric Programming Voltage for a High-Density Crossbar Application. Nano Letters, 2016, 16, 6724-6732.	4.5	171
498	Research on feasibility of using a Transient Voltage Suppressor as the selection device for bipolar RRAM. Microelectronic Engineering, 2016, 164, 20-22.	1.1	0
499	Class A and Class AB CMOS-Only Nanopower Memristive Dynamics Emulators. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2016, 26, 1650127.	0.7	1
500	Complementary resistive switching in BaTiO ₃ /NiO bilayer with opposite switching polarities. Applied Surface Science, 2016, 389, 977-982.	3.1	6
501	The role of the inserted layer in resistive random access memory device. Materials Research Express, 2016, 3, 076301.	0.8	0
502	High-Performance Light-Emitting Memories: Multifunctional Devices for Unveiling Information by Optical and Electrical Detection. Advanced Optical Materials, 2016, 4, 1744-1749.	3.6	5
503	Notice of Violation of IEEE Publication Principles: Overview of Selector Devices for 3-D Stackable Cross Point RRAM Arrays. IEEE Journal of the Electron Devices Society, 2016, 4, 294-306.	1.2	106
504	Status and Prospects of ZnO-Based Resistive Switching Memory Devices. Nanoscale Research Letters, 2016, 11, 368.	3.1	188
505	Resistive switching characteristics of Al/Si ₃ N ₄ /p-Si MIS-based resistive switching memory devices. Journal of the Korean Physical Society, 2016, 69, 435-438.	0.3	13
506	Memristors for Energy-Efficient New Computing Paradigms. Advanced Electronic Materials, 2016, 2, 1600090.	2.6	272
507	Enabling in-memory computation of binary BLAS using ReRAM crossbar arrays. , 2016, , .		11
508	Impact of electroforming polarity on TiO ₂ based memristor. IEICE Electronics Express, 2016, 13, 20160613-20160613.	0.3	1
509	3D Arrays of 1024-Pixel Image Sensors based on Lead Halide Perovskite Nanowires. Advanced Materials, 2016, 28, 9713-9721.	11.1	228
514	A novel circuit design for complementary resistive switch-based stateful logic operations. Chinese Physics B, 2016, 25, 058502.	0.7	2
515	Super non-linear RRAM with ultra-low power for 3D vertical nano-crossbar arrays. Nanoscale, 2016, 8, 15629-15636.	2.8	90
516	Unsupervised learning in probabilistic neural networks with multi-state metal-oxide memristive synapses. Nature Communications, 2016, 7, 12611.	5.8	266
517	Memory window engineering of Ta ₂ O ₅ -x oxide-based resistive switches via incorporation of various insulating frames. Scientific Reports, 2016, 6, 30333.	1.6	11

#	ARTICLE	IF	CITATIONS
518	Asymmetry-induced resistive switching in Ag-Ag ₂ S-Ag memristors enabling a simplified atomic-scale memory design. <i>Scientific Reports</i> , 2016, 6, 30775.	1.6	30
519	Advances and challenges in chemistry of two-dimensional nanosheets. <i>Nano Today</i> , 2016, 11, 793-816.	6.2	168
520	Selector-free resistive switching memory cell based on BiFeO ₃ nano-island showing high resistance ratio and nonlinearity factor. <i>Scientific Reports</i> , 2016, 6, 23299.	1.6	45
521	Electrothermal simulation of Resistive Random Access Memory(RRAM) array using finite difference method. , 2016, , .		0
522	Guideline model for the bias-scheme-dependent power consumption of a resistive random access memory crossbar array. <i>Japanese Journal of Applied Physics</i> , 2016, 55, 04EE10.	0.8	1
523	Electrothermal Characterization in 3-D Resistive Random Access Memory Arrays. <i>IEEE Transactions on Electron Devices</i> , 2016, 63, 4720-4728.	1.6	28
524	A crossbar resistance switching memory readout scheme with sneak current cancellation based on a two-port current-mode sensing. <i>Nanotechnology</i> , 2016, 27, 485201.	1.3	24
525	A neotype implementation method for CRS-based logic gates in crossbar array. , 2016, , .		0
526	Realization of Minimum and Maximum Gate Function in Ta ₂ O ₅ -based Memristive Devices. <i>Scientific Reports</i> , 2016, 6, 23967.	1.6	32
527	CMOS compatible electrode materials selection in oxide-based memory devices. <i>Journal of Applied Physics</i> , 2016, 120, .	1.1	11
528	Switchable Charge Injection Barrier in an Organic Supramolecular Semiconductor. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 15535-15542.	4.0	21
529	Realisation of all 16 Boolean logic functions in a single magnetoresistance memory cell. <i>Nanoscale</i> , 2016, 8, 12819-12825.	2.8	23
530	Pilot assisted readout for passive memristor crossbars. <i>Microelectronics Journal</i> , 2016, 54, 48-58.	1.1	8
531	VO ₂ -Based Selection Device for Passive Resistive Random Access Memory Application. <i>IEEE Electron Device Letters</i> , 2016, , 1-1.	2.2	16
532	Filamentary-Based Resistive Switching. <i>Springer Theses</i> , 2016, , 11-45.	0.0	3
533	Tunneling Electroresistance Effect with Diode Characteristic for Cross-Point Memory. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 15476-15481.	4.0	12
534	RRAM Cross-Point Arrays. , 2016, , 223-260.		2
535	Mechanism for Conducting Filament Growth in Self-Assembled Polymer Thin Films for Redox-Based Atomic Switches. <i>Advanced Materials</i> , 2016, 28, 640-648.	11.1	128

#	ARTICLE	IF	CITATIONS
536	Alternative Architectures Toward Reliable Memristive Crossbar Memories. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2016, 24, 206-217.	2.1	35
537	AC-WAR: Architecting the Cache Hierarchy to Improve the Lifetime of a Non-Volatile Endurance-Limited Main Memory. IEEE Transactions on Parallel and Distributed Systems, 2016, 27, 66-77.	4.0	2
538	Intrinsic threshold switching responses in AsTeSi thin film. Journal of Alloys and Compounds, 2016, 667, 91-95.	2.8	24
539	Suppressing chaos in a simplest autonomous memristor-based circuit of fractional order by periodic impulses. Chaos, Solitons and Fractals, 2016, 84, 31-40.	2.5	29
540	Communicationâ€™Impact of Filament Instability in an Ag₂-S-Based Conductive-Bridge RAM for Cross-Point Selector Applications. ECS Journal of Solid State Science and Technology, 2016, 5, Q98-Q100.	0.9	13
541	Multifunctional resistive switching behaviors employing various electroforming steps. Journal of Materials Chemistry C, 2016, 4, 823-830.	2.7	22
542	Revival of â€œdeadâ€™memristive devices: case of WO3â€™x. Physical Chemistry Chemical Physics, 2016, 18, 1392-1396.	1.3	5
543	Complementary Resistive Switch-Based Arithmetic Logic Implementations Using Material Implication. IEEE Nanotechnology Magazine, 2016, 15, 94-108.	1.1	38
544	Role and Optimization of the Active Oxide Layer in TiO₂-Based RRAM. Advanced Functional Materials, 2016, 26, 507-513.	7.8	49
545	Volatile and Non-Volatile Switching in Cu-SiO₂-Programmable Metallization Cells. IEEE Electron Device Letters, 2016, 37, 580-583.	2.2	87
546	Reliable resistive switching memory based on oxygen-vacancy-controlled bilayer structures. RSC Advances, 2016, 6, 21736-21741.	1.7	58
547	Tuning tunnel barrier in Si3N4-based resistive memory embedding SiO2 for low-power and high-density cross-point array applications. Journal of Alloys and Compounds, 2016, 663, 256-261.	2.8	22
548	Niobium oxides and niobates physical properties: Review and prospects. Progress in Materials Science, 2016, 80, 1-37.	16.0	373
549	Nonlinearity analysis of TaOX redox-based RRAM. Microelectronic Engineering, 2016, 154, 38-41.	1.1	14
550	Controlling the Resistive Switching Behavior in Starch-Based Flexible Biomemristors. ACS Applied Materials & Interfaces, 2016, 8, 7326-7332.	4.0	131
551	Read operation performance of large selectorless cross-point array with self-rectifying memristive device. The Integration VLSI Journal, 2016, 54, 56-64.	1.3	19
552	Epitaxial Brownmillerite Oxide Thin Films for Reliable Switching Memory. ACS Applied Materials & Interfaces, 2016, 8, 7902-7911.	4.0	72
553	Complementary Floating Gate Transistors With Memristive Operation Mode. IEEE Electron Device Letters, 2016, 37, 186-189.	2.2	7

#	ARTICLE	IF	CITATIONS
554	Nanoscale cation motion in TaO _x , HfO _x and TiO _x memristive systems. Nature Nanotechnology, 2016, 11, 67-74.	15.6	524
555	Practical Determination of Individual Element Resistive States in Selectorless RRAM Arrays. IEEE Transactions on Circuits and Systems I: Regular Papers, 2016, 63, 827-835.	3.5	24
556	Memristor Modeling. Emergence, Complexity and Computation, 2016, , 9-28.	0.2	1
557	Memristor-Based Logic Circuits. Emergence, Complexity and Computation, 2016, , 61-100.	0.2	2
558	Memristive Crossbar-Based Nonvolatile Memory. Emergence, Complexity and Computation, 2016, , 101-147.	0.2	7
559	Memristor-Based Nanoelectronic Computing Circuits and Architectures. Emergence, Complexity and Computation, 2016, , .	0.2	51
560	Transient response characteristic of memristor circuits and biological-like current spikes. Neural Computing and Applications, 2017, 28, 3295-3305.	3.2	10
561	Flexible All-Inorganic Perovskite CsPbBr ₃ Nonvolatile Memory Device. ACS Applied Materials & Interfaces, 2017, 9, 6171-6176.	4.0	179
562	Efficient Memristor Model Implementation for Simulation and Application. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2017, 36, 1226-1230.	1.9	22
563	Superior resistive switching memory and biological synapse properties based on a simple TiN/SiO ₂ /p-Si tunneling junction structure. Journal of Materials Chemistry C, 2017, 5, 2259-2267.	2.7	97
564	Pattern Recognition Using Carbon Nanotube Synaptic Transistors with an Adjustable Weight Update Protocol. ACS Nano, 2017, 11, 2814-2822.	7.3	272
565	Area-constrained technology mapping for in-memory computing using ReRAM devices. , 2017, , .		10
566	Nonvolatile reconfigurable sequential logic in a HfO ₂ resistive random access memory array. Nanoscale, 2017, 9, 6649-6657.	2.8	55
567	Nano-cone resistive memory for ultralow power operation. Nanotechnology, 2017, 28, 125207.	1.3	27
568	Progress in oxygen behaviors in two-dimensional thin films. Rare Metals, 2017, 36, 155-167.	3.6	8
569	Cross-Point Resistive Switching Memory and Urea Sensing by Using Annealed GdO _x Film in IrO _x /GdO _x /W Structure for Biomedical Applications. Journal of the Electrochemical Society, 2017, 164, B127-B135.	1.3	19
570	3-bit Resistive RAM Write-Read Scheme Based on Complementary Switching Mechanism. IEEE Electron Device Letters, 2017, 38, 449-452.	2.2	20
571	Effect of halide-mixing on the switching behaviors of organic-inorganic hybrid perovskite memory. Scientific Reports, 2017, 7, 43794.	1.6	103

#	ARTICLE	IF	CITATIONS
572	Extension of Two-Port Sneak Current Cancellation Scheme to 3-D Vertical RRAM Crossbar Array. IEEE Transactions on Electron Devices, 2017, 64, 1591-1596.	1.6	9
573	Stochastic CBRAM-Based Neuromorphic Time Series Prediction System. ACM Journal on Emerging Technologies in Computing Systems, 2017, 13, 1-14.	1.8	3
574	Emerging Technology and Architecture for Big-data Analytics. , 2017, , .		4
575	The Role of Ti Buffer Layer Thickness on the Resistive Switching Properties of Hafnium Oxide-Based Resistive Switching Memories. Langmuir, 2017, 33, 4654-4665.	1.6	51
576	A niobium oxide-tantalum oxide selector-memristor self-aligned nanostack. Applied Physics Letters, 2017, 110, .	1.5	25
577	Observation of oxygen vacancy migration in memory devices based on ZnO nanoparticles. Journal of Applied Physics, 2017, 121, .	1.1	20
578	Anomalous Resistance Hysteresis in Oxide ReRAM: Oxygen Evolution and Reincorporation Revealed by In Situ TEM. Advanced Materials, 2017, 29, 1700212.	11.1	166
579	Nanoionics-Enabled Memristive Devices: Strategies and Materials for Neuromorphic Applications. Advanced Electronic Materials, 2017, 3, 1600510.	2.6	167
580	Antiferroelectric Tunnel Junctions. Advanced Electronic Materials, 2017, 3, 1700126.	2.6	24
581	Memristor for computing: Myth or reality?. , 2017, , .		79
582	Attaining resistive switching characteristics and selector properties by varying forming polarities in a single HfO ₂ -based RRAM device with a vanadium electrode. Nanoscale, 2017, 9, 8586-8590.	2.8	56
583	Adder implementation in reconfigurable resistive switching crossbar. , 2017, , .		0
584	Coexistence of two types of metal filaments in oxide memristors. AIP Advances, 2017, 7, .	0.6	8
585	Efficient complementary resistive switch-based crossbar array Booth multiplier. Microelectronics Journal, 2017, 64, 78-85.	1.1	15
586	On the Implementation of Computation-in-Memory Parallel Adder. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2017, 25, 2206-2219.	2.1	29
587	Single crystalline SrTiO ₃ as memristive model system: From materials science to neurological and psychological functions. Journal of Electroceramics, 2017, 39, 210-222.	0.8	14
588	Understanding rectifying and nonlinear bipolar resistive switching characteristics in Ni/SiN _x /p-Si memory devices. RSC Advances, 2017, 7, 17882-17888.	1.7	49
589	Rectification-Regulated Memristive Characteristics in Electron-Type CuPc-Based Element for Electrical Synapse. Advanced Electronic Materials, 2017, 3, 1700063.	2.6	26

#	ARTICLE	IF	CITATIONS
590	Fabrication of Planar Back End of Line Compatible HfO ₂ Complementary Resistive Switches. IEEE Nanotechnology Magazine, 2017, 16, 745-751.	1.1	8
591	Bipolar resistive switching with negative differential resistance effect in a Cu/BaTiO ₃ /Ag device. Physical Chemistry Chemical Physics, 2017, 19, 11864-11868.	1.3	31
592	Emulation of synaptic metaplasticity in memristors. Nanoscale, 2017, 9, 45-51.	2.8	73
593	Leveraging Dual-Mode Magnetic Crossbar for Ultra-low Energy In-memory Data Encryption. , 2017, , .		9
594	Giant tunnelling electroresistance in metal/ferroelectric/semiconductor tunnel junctions by engineering the Schottky barrier. Nature Communications, 2017, 8, 15217.	5.8	165
595	Voltage-amplitude-controlled complementary and self-compliance bipolar resistive switching of slender filaments in Pt/HfO ₂ /HfO _x /Pt memory devices. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2017, 35, 032203.	0.6	5
596	Three-dimensional crossbar arrays of self-rectifying Si/SiO ₂ /Si memristors. Nature Communications, 2017, 8, 15666.	5.8	153
597	p-NiO/n ⁺ -Si single heterostructure for one diode-one resistor memory applications. Journal of Alloys and Compounds, 2017, 721, 520-524.	2.8	11
598	Controllable memristive patterns in poly(9,9-dioctylfluorene)-based sandwich device. Organic Electronics, 2017, 49, 313-320.	1.4	2
599	Enhanced stability of filament-type resistive switching by interface engineering. Scientific Reports, 2017, 7, 43664.	1.6	56
600	Self-Selecting Resistive Switching Scheme Using TiO ₂ Nanorod Arrays. Scientific Reports, 2017, 7, 2066.	1.6	40
601	Solitonic Josephson-based meminductive systems. Scientific Reports, 2017, 7, 46736.	1.6	30
602	Nanometer-scale Phase Transformation Determines Threshold and Memory Switching Mechanism. Advanced Materials, 2017, 29, 1701752.	11.1	59
603	Single ITO/HfO _x /TiN Complementary Switch with a Wide Read Voltage Window for Selector-Less Crossbar RRAM Application. , 2017, , .		0
604	Fully Printed Memristors from Cu@SiO ₂ Core@Shell Nanowire Composites. Journal of Electronic Materials, 2017, 46, 4596-4603.	1.0	24
605	Fully inkjet printed flexible resistive memory. Applied Physics Letters, 2017, 110, .	1.5	59
606	SiO ₂ based conductive bridging random access memory. Journal of Electroceramics, 2017, 39, 109-131.	0.8	32
607	Crossbar-Based Memristive Logic-in-Memory Architecture. IEEE Nanotechnology Magazine, 2017, 16, 491-501.	1.1	57

#	ARTICLE	IF	CITATIONS
608	Atomic crystals resistive switching memory. Chinese Physics B, 2017, 26, 033201.	0.7	1
609	Modulation of nonlinear resistive switching behavior of a TaO _x -based resistive device through interface engineering. Nanotechnology, 2017, 28, 055204.	1.3	35
610	Coexistence of bipolar and threshold resistive switching in TiO ₂ -based structure with embedded hafnium nanoparticles. Journal Physics D: Applied Physics, 2017, 50, 045103.	1.3	11
611	Ultra-low power non-volatile resistive crossbar memory based on pull up resistors. Organic Electronics, 2017, 41, 73-78.	1.4	25
612	Built-in Homojunction-Dominated Intrinsically Rectifying Resistive Switching in NiO Nanodots for Selection-Device-Free Memory Application. Advanced Electronic Materials, 2017, 3, 1600361.	2.6	11
613	Reprogrammable logic in memristive crossbar for in-memory computing. Journal Physics D: Applied Physics, 2017, 50, 505102.	1.3	35
614	Improvement of SET variability in TaO _x -based resistive RAM devices. Nanotechnology, 2017, 28, 465203.	1.3	8
615	Complementary Switching in 3D Resistive Memory Array. Advanced Electronic Materials, 2017, 3, 1700287.	2.6	36
616	Stochastic dynamics of resistive switching: fluctuations lead to optimal particle number. New Journal of Physics, 2017, 19, 093007.	1.2	3
617	Influence of metal electrode on the performance of ZnO based resistance switching memories. Journal of Applied Physics, 2017, 122, .	1.1	30
618	Study of the Non-Linearity on TiO ₂ (0 0 1) Surface with Oxygen Defects: A First-Principles Study. Nano, 2017, 12, 1750097.	0.5	0
619	Design rules for threshold switches based on a field triggered thermal runaway mechanism. Journal of Computational Electronics, 2017, 16, 1175-1185.	1.3	10
620	Tuning analog resistive switching and plasticity in bilayer transition metal oxide based memristive synapses. RSC Advances, 2017, 7, 43132-43140.	1.7	25
621	Te-based chalcogenide materials for selector applications. Scientific Reports, 2017, 7, 8103.	1.6	126
622	Inert Pt electrode switching mechanism after controlled polarity-forming process in In ₂ O ₃ -based resistive random access memory. Applied Physics Express, 2017, 10, 094102.	1.1	2
623	Memory selector devices and crossbar array design: a modeling-based assessment. Journal of Computational Electronics, 2017, 16, 1186-1200.	1.3	36
624	A generalized model of TiO _x -based memristive devices and its application for image processing. Chinese Physics B, 2017, 26, 090502.	0.7	6
625	Ultralow power switching in a silicon-rich SiN _y /SiN _x double-layer resistive memory device. Physical Chemistry Chemical Physics, 2017, 19, 18988-18995.	1.3	27

#	ARTICLE	IF	CITATIONS
626	The current limit and self-rectification functionalities in the TiO ₂ /HfO ₂ resistive switching material system. <i>Nanoscale</i> , 2017, 9, 11920-11928.	2.8	45
627	Control of Switching Modes and Conductance Quantization in Oxygen Engineered HfO _x based Memristive Devices. <i>Advanced Functional Materials</i> , 2017, 27, 1700432.	7.8	99
628	Enlarged read window in the asymmetric ITO/HfO _x /TiN complementary resistive switch. <i>Applied Physics Letters</i> , 2017, 111, .	1.5	10
629	Solution-Processed Complementary Resistive Switching Arrays for Associative Memory. <i>IEEE Transactions on Electron Devices</i> , 2017, 64, 4310-4316.	1.6	19
630	Fully printed memristors from Cu-SiO ₂ core-shell nanowire composites. , 2017, , .		0
631	Scalability and reliability issues of Ti/HfO _x -based 1T1R bipolar RRAM: Occurrence, mitigation, and solution. <i>Applied Physics Letters</i> , 2017, 110, .	1.5	19
632	Effects of W/Ir Top Electrode on Resistive Switching and Dopamine Sensing by Using Optimized TaO _x -Based Memory Platform. <i>Advanced Materials Interfaces</i> , 2017, 4, 1700959.	1.9	23
633	Bioinspired Tribotronic Resistive Switching Memory for Self-Powered Memorizing Mechanical Stimuli. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 43822-43829.	4.0	42
634	Intrinsic anionic rearrangement by extrinsic control: transition of RS and CRS in thermally elevated TiN/HfO ₂ /Pt RRAM. <i>Nanoscale</i> , 2017, 9, 18908-18917.	2.8	44
635	Parasitic resistive switching uncovered from complementary resistive switching in single active-layer oxide memory device. <i>Semiconductor Science and Technology</i> , 2017, 32, 125018.	1.0	3
636	Memristive device based learning for navigation in robots. <i>Bioinspiration and Biomimetics</i> , 2017, 12, 066011.	1.5	2
637	Multi-layered NiO _y /NbO _x /NiO _y fast drift-free threshold switch with high Ion/Ioff ratio for selector application. <i>Scientific Reports</i> , 2017, 7, 4068.	1.6	59
638	Ce-doping induced enhancement of resistive switching performance of Pt / NiFe ₂ O ₄ / Pt memory devices. <i>Ceramics International</i> , 2017, 43, S481-S487.	2.3	32
639	Appearance of quantum point contact in Pt/NiO/Pt resistive switching cells. <i>Journal of Materials Research</i> , 2017, 32, 2631-2637.	1.2	17
640	Bipolar resistive switching behavior in Cu/AlN/Pt structure for ReRAM application. <i>Vacuum</i> , 2017, 143, 102-105.	1.6	19
641	Subfilamentary Networks Cause Cycle-to-Cycle Variability in Memristive Devices. <i>ACS Nano</i> , 2017, 11, 6921-6929.	7.3	95
642	Resistive Switching with Self-Rectifying Tunability and Influence of the Oxide Layer Thickness in Ni/HfO ₂ /n ⁺ -Si RRAM Devices. <i>IEEE Transactions on Electron Devices</i> , 2017, 64, 3159-3166.	1.6	24
643	Effect of carrier screening on ZnO-based resistive switching memory devices. <i>Nano Research</i> , 2017, 10, 77-86.	5.8	23

#	ARTICLE	IF	CITATIONS
644	New Data Structures and Algorithms for Logic Synthesis and Verification. , 2017, , .		5
646	Designing a differential 3R-2bit RRAM cell for enhancing read margin in cross-point RRAM arrays. , 2017, , .		1
647	Physics-based modeling approaches of resistive switching devices for memory and in-memory computing applications. Journal of Computational Electronics, 2017, 16, 1121-1143.	1.3	54
648	Reliable gas sensing with memristive array. , 2017, , .		4
649	Communicationâ€”Reduced Off-Current of NbO ₂ by Thermal Oxidation of Polycrystalline Nb Wire. ECS Journal of Solid State Science and Technology, 2017, 6, P641-P643.	0.9	5
650	Impact of Embedment of Cu/TaOx/Ru on Its Device Performance. ECS Transactions, 2017, 80, 911-921.	0.3	0
651	Mathematical estimation of logical masking capability of majority/minority gates used in nanoelectronic circuits. , 2017, , .		0
652	Self-Compliant Bipolar Resistive Switching in SiN-Based Resistive Switching Memory. Materials, 2017, 10, 459.	1.3	15
653	Carbon nanomaterials for non-volatile memories. Nature Reviews Materials, 2018, 3, .	23.3	87
654	Complementary Resistive Switching Observed in Graphene Oxide-Based Memory Device. IEEE Electron Device Letters, 2018, 39, 488-491.	2.2	25
655	Unidirectional threshold switching in Ag/Si-based electrochemical metallization cells for high-density bipolar RRAM applications. Applied Physics A: Materials Science and Processing, 2018, 124, 1.	1.1	5
656	Solutionâ€”Processed Flexible Threshold Switch Devices. Advanced Electronic Materials, 2018, 4, 1700521.	2.6	27
657	Electrically-controlled nonlinear switching and multi-level storage characteristics in WO film-based memory cells. Journal of Physics and Chemistry of Solids, 2018, 116, 148-152.	1.9	6
658	Super Nonlinear Electrodepositionâ€”Diffusion-Controlled Thin-Film Selector. ACS Applied Materials & Interfaces, 2018, 10, 10165-10172.	4.0	24
659	Photonic Potentiation and Electric Habituation in Ultrathin Memristive Synapses Based on Monolayer MoS ₂ . Small, 2018, 14, e1800079.	5.2	224
660	Polymerâ€”carbon dot hybrid structure for a self-rectifying memory device by energy level offset and doping. RSC Advances, 2018, 8, 13917-13920.	1.7	4
661	Efficient sensing approaches for high-density memristor sensor array. Journal of Computational Electronics, 2018, 17, 1285-1296.	1.3	22
662	Atomic Scale Modulation of Selfâ€”Rectifying Resistive Switching by Interfacial Defects. Advanced Science, 2018, 5, 1800096.	5.6	29

#	ARTICLE	IF	CITATIONS
663	Scaling Effect on Silicon Nitride Memristor with Highly Doped Si Substrate. <i>Small</i> , 2018, 14, e1704062.	5.2	74
664	Self-rectifying resistive switching behavior observed in Al ₂ O ₃ -based resistive switching memory devices with p-AlGa _n semiconductor bottom electrode. <i>Journal of Alloys and Compounds</i> , 2018, 742, 822-827.	2.8	28
665	Nondestructive Readout Complementary Resistive Switches Based on Ferroelectric Tunnel Junctions. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 6024-6030.	4.0	18
666	Configurable Logic Operations Using Hybrid CRS-CMOS Cells. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , 2018, 26, 2641-2647.	2.1	2
667	Parasitic Effect Analysis in Memristor-Array-Based Neuromorphic Systems. <i>IEEE Nanotechnology Magazine</i> , 2018, 17, 184-193.	1.1	76
668	Resistive Switching Device Technology Based on Silicon Oxide for Improved ONâ€œOFF Ratioâ€œPart II: Select Devices. <i>IEEE Transactions on Electron Devices</i> , 2018, 65, 122-128.	1.6	63
669	Internal filament modulation in low-dielectric gap design for built-in selector-less resistive switching memory application. <i>Journal Physics D: Applied Physics</i> , 2018, 51, 055108.	1.3	20
670	A study on the resistance switching of Ag ₂ Se and Ta ₂ O ₅ heterojunctions using structural engineering. <i>Nanotechnology</i> , 2018, 29, 035202.	1.3	5
671	The future of electronics based on memristive systems. <i>Nature Electronics</i> , 2018, 1, 22-29.	13.1	1,369
672	Design of CMOS Compatible, Highâ€œSpeed, Highlyâ€œStable Complementary Switching with Multilevel Operation in 3D Vertically Stacked Novel HfO ₂ /Al ₂ O ₃ /TiO _x (HAT) RRAM. <i>Advanced Electronic Materials</i> , 2018, 4, 1700561.	2.6	62
673	Annealing effect on the bipolar resistive switching characteristics of a Ti/Si ₃ N ₄ /n-GaN MIS device. <i>Journal of Alloys and Compounds</i> , 2018, 740, 816-822.	2.8	7
674	Enhanced resistive switching and magnetic properties of Gd-doped NiFe ₂ O ₄ thin films prepared by chemical solution deposition method. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2018, 229, 86-95.	1.7	34
675	Lowâ€œTemperatureâ€œProcessed SiO _x One Diodeâ€œOne Resistor Crossbar Array and Its Flexible Memory Application. <i>Advanced Electronic Materials</i> , 2018, 4, 1700665.	2.6	19
676	Floating Point Multiplication Mapping on ReRAM Based In-memory Computing Architecture. , 2018, , .		6
677	Memristive behaviour of Si-Al oxynitride thin films: the role of oxygen and nitrogen vacancies in the electroforming process. <i>Nanotechnology</i> , 2018, 29, 235702.	1.3	11
678	Approximate Computing Using Multiple-Access Single-Charge Associative Memory. <i>IEEE Transactions on Emerging Topics in Computing</i> , 2018, 6, 305-316.	3.2	42
679	Effect of AlN layer on the resistive switching properties of TiO ₂ based ReRAM memory devices. <i>Current Applied Physics</i> , 2018, 18, 102-106.	1.1	11
680	Electrode effect regulated resistance switching and selector characteristics in Nb doped SrTiO ₃ single crystal for potential cross-point memory applications. <i>Journal of Alloys and Compounds</i> , 2018, 730, 516-520.	2.8	12

#	ARTICLE	IF	CITATIONS
681	On-Demand Reconfiguration of Nanomaterials: When Electronics Meets Ionics. <i>Advanced Materials</i> , 2018, 30, 1702770.	11.1	152
682	Memristive Logic-In-Memory Integrated Circuits for Energy-Efficient Flexible Electronics. <i>Advanced Functional Materials</i> , 2018, 28, 1704725.	7.8	57
683	Temporary formation of highly conducting domain walls for non-destructive read-out of ferroelectric domain-wall resistance switching memories. <i>Nature Materials</i> , 2018, 17, 49-56.	13.3	188
684	Voltage controlled Bi-mode resistive switching effects in MnO ₂ -based devices. <i>Journal Physics D: Applied Physics</i> , 2018, 51, 025304.	1.3	1
685	Analysis of the row grounding technique in a memristor-based crossbar array. <i>International Journal of Circuit Theory and Applications</i> , 2018, 46, 122-137.	1.3	22
686	Reliable ReRAM-based Logic Operations for Computing in Memory. , 2018, , .		4
687	Thermally Stable Te-based Binary OTS Device for Selector Application. , 2018, , .		4
688	Coding Assisted Adaptive Thresholding for Sneak-Path Mitigation in Resistive Memories. , 2018, , .		6
689	Solution-processed silver sulphide nanocrystal film for resistive switching memories. <i>Journal of Materials Chemistry C</i> , 2018, 6, 13128-13135.	2.7	13
690	Dual Functions of V/SiO _x /AlO _y /p++Si Device as Selector and Memory. <i>Nanoscale Research Letters</i> , 2018, 13, 252.	3.1	14
691	Chemical Vapor-Deposited Vanadium Pentoxide Nanosheets with Highly Stable and Low Switching Voltages for Effective Selector Devices. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 42875-42881.	4.0	9
692	Impact of variations of threshold voltage and hold voltage of threshold switching selectors in 1S1R crossbar array. <i>Chinese Physics B</i> , 2018, 27, 118502.	0.7	5
693	Two-parameter multi-state memory device based on memristance and memcapacitance characteristics. <i>Applied Physics Express</i> , 2018, 11, 114103.	1.1	8
694	MAMI: Majority and Multi-Input Logic on Memristive Crossbar Array. , 2018, , .		2
695	Complementary Resistive Switch Sensing. , 2018, , .		3
696	A self-rectifying TaO _y /nanoporous TaO _x memristor synaptic array for learning and energy-efficient neuromorphic systems. <i>NPG Asia Materials</i> , 2018, 10, 1097-1106.	3.8	92
697	Aliens. , 2018, , .		7
698	Resistance-switching properties of Bi-doped SrTiO_3 films for non-volatile memory applications with different device structures. <i>Bulletin of Materials Science</i> , 2018, 41, 1.	0.8	3

#	ARTICLE	IF	CITATIONS
699	The Atomic Layer Deposition Technique for the Fabrication of Memristive Devices: Impact of the Precursor on Pre-deposited Stack Materials. , 0, , .		1
700	Design of a Simple Readout Circuit for Resistive Switching Memristors Based on CMOS Inverters. , 2018, , .		3
701	Memristive behavior of field-driven domain-wall motion in a width-modulated structure with multiple Hall crosses. Journal of Applied Physics, 2018, 124, 193902.	1.1	1
702	Ag:SiO _x /N _y -Based Bilayer ReRAM Structure with Self-Limiting Bidirectional Threshold Switching Characteristics for Cross-Point Array Application. ACS Applied Materials & Interfaces, 2018, 10, 33768-33772.	4.0	21
703	Oxide Based Memristors: Fabrication, Mechanism, and Application. , 2018, , .		3
704	Physical Issues and Applications of Resistive Switching Phenomena. Journal of the Korean Physical Society, 2018, 73, 852-857.	0.3	0
705	Hafnium oxide and tantalum oxide based resistive switching structures for realization of minimum and maximum functions. Journal of Applied Physics, 2018, 124, .	1.1	8
706	Tailoring the switching performance of resistive switching SrTiO ₃ devices by SrO interface engineering. Solid State Ionics, 2018, 325, 247-250.	1.3	13
707	Rectifying resistance-switching behaviour of Ag/SBTO/STMO/ p^+p -Si heterostructure films. Bulletin of Materials Science, 2018, 41, 1.	0.8	0
708	Conductance fluctuation in NiO-based resistive switching memory. Journal of Applied Physics, 2018, 124, .	1.1	14
709	A hardware Markov chain algorithm realized in a single device for machine learning. Nature Communications, 2018, 9, 4305.	5.8	44
710	Tetrahedral amorphous carbon resistive memories with graphene-based electrodes. 2D Materials, 2018, 5, 045028.	2.0	9
711	Oxygen-deficient strontium titanate based stretchable resistive memories. Applied Materials Today, 2018, 13, 126-134.	2.3	17
712	Resistive switching device with highly asymmetric current-voltage characteristics: a solution to backward sneak current in passive crossbar arrays. Nanotechnology, 2018, 29, 455201.	1.3	15
714	Interactive Classification Using Spectrograms and Audio Glyphs. , 2018, , .		0
715	Implementation and Evaluation of Lightweight Ciphers in MQTT Environment. , 2018, , .		7
716	Development of GUI for Detection of Glaucoma using FCM and SVM. , 2018, , .		0
717	Ground Vehicles Cooperative Route Planning for Survivability Improvement. , 2018, , .		0

#	ARTICLE	IF	CITATIONS
718	Automation Control of Thermal Conductivity Measurement Process Based on LabVIEW. , 2018, , .		0
719	Ocular Artifact Detection in EEG using Wavelet Analysis. , 2018, , .		0
720	Stability of a class of neutral stochastic functional differential equations with Markovian switching. IET Control Theory and Applications, 2018, 12, 2043-2054.	1.2	13
721	Notice of Removal: A Reconfigurable Non-Blocking Multicast Permutation Network. , 2018, , .		0
724	The Visual Positioning Method of Substation Robot Busbars fittings. , 2018, , .		0
725	The blocking effect of surface dislocations on oxygen tracer diffusion in SrTiO ₃ . Physical Chemistry Chemical Physics, 2018, 20, 15455-15463.	1.3	21
726	Reversible alternation between bipolar and unipolar resistive switching in Ag/MoS ₂ /Au structure for multilevel flexible memory. Journal of Materials Chemistry C, 2018, 6, 7195-7200.	2.7	63
727	Physically Transient Threshold Switching Device Based on Magnesium Oxide for Security Application. Small, 2018, 14, e1800945.	5.2	44
728	Forming-free resistive switching characteristics of manganese oxide and cerium oxide bilayers with crossbar array structure. Japanese Journal of Applied Physics, 2018, 57, 086501.	0.8	2
729	Effect of AlN layer on the bipolar resistive switching behavior in TiN thin film based ReRAM device for non-volatile memory application. AIP Conference Proceedings, 2018, , .	0.3	0
730	Improvement of two-step write scheme in complementary resistive switch array. IET Circuits, Devices and Systems, 2018, 12, 50-54.	0.9	1
731	Enhancing the Matrix Addressing of Flexible Sensory Arrays by a Highly Nonlinear Threshold Switch. Advanced Materials, 2018, 30, e1802516.	11.1	70
732	Boolean and Sequential Logic in a One-Memristor-One-Resistor (1M1R) Structure for In-Memory Computing. Advanced Electronic Materials, 2018, 4, 1800229.	2.6	17
733	Fault tolerant adaptive write schemes for improving endurance and reliability of memristor memories. AEU - International Journal of Electronics and Communications, 2018, 94, 392-406.	1.7	12
734	Scalable in-memory mapping of Boolean functions in memristive crossbar array using simulated annealing. Journal of Systems Architecture, 2018, 89, 49-59.	2.5	17
735	Kogge-Stone Adder Realization using 1S1R Resistive Switching Crossbar Arrays. ACM Journal on Emerging Technologies in Computing Systems, 2018, 14, 1-14.	1.8	6
736	Postdeposition annealing on VO ₂ films for resistive random-access memory selection devices. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2018, 36, 051501.	0.9	2
737	Effect of Graphene/TiO ₂ (001) Interface on Threshold Voltage and Nonlinearity. Nano, 2018, 13, 1830004.	0.5	7

#	ARTICLE	IF	CITATIONS
738	Optimized Near-Zero Quantization Method for Flexible Memristor Based Neural Network. IEEE Access, 2018, 6, 29320-29331.	2.6	7
739	Nonvolatile Memories Based on Graphene-Based Nanomaterials. , 2018, , 41-69.		0
740	Inducing tunable switching behavior in a single memristor. Applied Materials Today, 2018, 11, 280-290.	2.3	21
741	High-Yield Passive Si Photodiode Array Towards Optical Neural Recording. IEEE Electron Device Letters, 2018, 39, 524-527.	2.2	5
742	Resistive random-access memory based on ratioed memristors. Nature Electronics, 2018, 1, 466-472.	13.1	72
743	Review of Recently Progress on Neural Electronics and Memcomputing Applications in Intrinsic SiOx-Based Resistive Switching Memory. , 2018, , .		2
744	Insights to the influences of electroforming process on resistive switching types in Pt/InGaZnO/W memory device. Ceramics International, 2018, 44, S88-S92.	2.3	4
745	Electromagnetic Functionalization of Wideâ€Bandgap Dielectric Oxides by Boron Interstitial Doping. Advanced Materials, 2018, 30, e1802025.	11.1	5
746	Electrochemical Tuning of Metal Insulator Transition and Nonvolatile Resistive Switching in Superconducting Films. ACS Applied Materials & Interfaces, 2018, 10, 30522-30531.	4.0	17
747	Investigating unipolar switching in Niobium oxide resistive switches: Correlating quantized conductance and mechanism. AIP Advances, 2018, 8, 085014.	0.6	13
748	Redox-based memristive metal-oxide devices. , 2018, , 489-522.		5
749	A Câ€Te-based binary OTS device exhibiting excellent performance and high thermal stability for selector application. Nanotechnology, 2018, 29, 345202.	1.3	36
750	M²/CA: Modular Memristive Crossbar Arrays. , 2018, , .		8
751	Novel Computing Method for Short Programming Time and Low Energy Consumption in HfO₂ Based RRAM Arrays. IEEE Journal of the Electron Devices Society, 2018, 6, 696-702.	1.2	10
752	Hybrid Selector With Excellent Selectivity and Fast Switching Speed for X-Point Memory Array. IEEE Electron Device Letters, 2018, 39, 1171-1174.	2.2	13
753	Requirements and Challenges for Modelling Redox-based Memristive Devices. , 2018, , .		10
754	Performance of HfOx- and TaOx-based Resistive Switching Structures for Realization of Minimum and Maximum Functions. MRS Advances, 2018, 3, 3427-3432.	0.5	2
755	A neuromorphic systems approach to in-memory computing with non-ideal memristive devices: from mitigation to exploitation. Faraday Discussions, 2019, 213, 487-510.	1.6	61

#	ARTICLE	IF	CITATIONS
756	Simultaneous implementation of resistive switching and rectifying effects in a metal-organic framework with switched hydrogen bond pathway. <i>Science Advances</i> , 2019, 5, eaaw4515.	4.7	90
757	Effects of Mg Doping Concentration on Resistive Switching Behavior and Properties of SrTi _{1-x} Mg _x O ₃ Films. <i>Journal Wuhan University of Technology, Materials Science Edition</i> , 2019, 34, 888-892.	0.4	1
758	A ZnO-based resistive device for RRAM application. , 2019, , .		0
759	Self-selective van der Waals heterostructures for large scale memory array. <i>Nature Communications</i> , 2019, 10, 3161.	5.8	139
760	A NiOx based threshold switching selector for RRAM crossbar array application. , 2019, , .		1
761	Control of the set and reset voltage polarity in anti-series and anti-parallel resistive switching structures. <i>Microelectronic Engineering</i> , 2019, 216, 111083.	1.1	3
762	Indium Diffusion Behavior and Application in HfO ₂ -Based Conductive Bridge Random Access Memory. <i>Physica Status Solidi - Rapid Research Letters</i> , 2019, 13, 1900285.	1.2	4
763	Mechanism of memristive switching in OxRAM. , 2019, , 137-170.		7
764	Low-Energy-Consumption Three-Valued Memory Device Inspired by Solid-State Batteries. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 45150-45154.	4.0	5
765	Non-Polar and Complementary Resistive Switching Characteristics in Graphene Oxide devices with Gold Nanoparticles: Diverse Approach for Device Fabrication. <i>Scientific Reports</i> , 2019, 9, 15103.	1.6	28
766	Ferroelectric Tunnel Junctions: Modulations on the Potential Barrier. <i>Advanced Materials</i> , 2020, 32, e1904123.	11.1	179
767	Inducing alternating nanoscale rectification in a dielectric material for bidirectional-trigger artificial synapses. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2019, 37, .	0.6	4
768	Realization of Self-Compliance Resistive Switching Memory via Tailoring Interfacial Oxygen. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 41490-41496.	4.0	14
769	Sklansky tree adder realization in 1S1R resistive switching memory architecture. <i>European Physical Journal: Special Topics</i> , 2019, 228, 2269-2285.	1.2	15
770	High-performance and self-rectifying resistive random access memory based on SnO ₂ nanorod array: ZnO nanoparticle structure. <i>Applied Physics Express</i> , 2019, 12, 121002.	1.1	6
771	Current-Mode Memristor Crossbars for Neuromorphic Computing. , 2019, , .		2
772	Bipolar resistive switching with self-rectifying behaviors in p-type AgCr _{1-x} Mg _x O ₂ thin films. <i>Journal of Applied Physics</i> , 2019, 126, 085702.	1.1	5
773	Asymmetry Switching Behavior of the Binary Memristor. <i>IETE Journal of Research</i> , 2019, , 1-9.	1.8	0

#	ARTICLE	IF	CITATIONS
774	Compensating Circuit to Reduce the Impact of Wire Resistance in a Memristor Crossbar-Based Perceptron Neural Network. <i>Micromachines</i> , 2019, 10, 671.	1.4	9
775	Interfacial redox processes in memristive devices based on valence change and electrochemical metallization. <i>Faraday Discussions</i> , 2019, 213, 41-52.	1.6	18
776	Highly reliable multilevel resistive switching in a nanoparticulated In ₂ O ₃ thin-film memristive device. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 175306.	1.3	23
777	Nonvolatile Memories Based on Graphene and Related 2D Materials. <i>Advanced Materials</i> , 2019, 31, e1806663.	11.1	230
778	Compact Modeling of Complementary Switching in Oxide-Based ReRAM Devices. <i>IEEE Transactions on Electron Devices</i> , 2019, 66, 1268-1275.	1.6	39
779	Tailored nanoplateau and nanochannel structures using solution-processed rutile TiO ₂ thin films for complementary and bipolar switching characteristics. <i>Nanoscale</i> , 2019, 11, 13815-13823.	2.8	30
780	An electrical characterisation methodology for identifying the switching mechanism in TiO ₂ memristive stacks. <i>Scientific Reports</i> , 2019, 9, 8168.	1.6	6
781	Adaptive programming in multi-level cell ReRAM. <i>Microelectronics Journal</i> , 2019, 90, 169-180.	1.1	11
782	Analysis and simulation of the multiple resistive switching modes occurring in HfO _x -based resistive random access memories using memdiodes. <i>Journal of Applied Physics</i> , 2019, 125, .	1.1	26
783	Giant Electroresistance in Ferroionic Tunnel Junctions. <i>IScience</i> , 2019, 16, 368-377.	1.9	51
784	On Learning With Nonlinear Memristor-Based Neural Network and its Replication. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2019, 66, 3906-3916.	3.5	10
785	Memristive devices based on emerging two-dimensional materials beyond graphene. <i>Nanoscale</i> , 2019, 11, 12413-12435.	2.8	87
786	Stochastic Memory Devices for Security and Computing. <i>Advanced Electronic Materials</i> , 2019, 5, 1900198.	2.6	87
787	VAIL: A Victim-Aware Cache Policy to improve NVM Lifetime for hybrid memory system. <i>Parallel Computing</i> , 2019, 87, 70-76.	1.3	4
788	Compliance current and film thickness influence upon multi-level threshold resistive switching of amorphous BaTiO ₃ (am-BTO) films in Ag/am-BTO/Ag cross point structures. <i>Thin Solid Films</i> , 2019, 685, 59-65.	0.8	9
789	Memristors with organic-inorganic halide perovskites. <i>Informa-Materially</i> , 2019, 1, 183-210.	8.5	111
790	Self-erasable titanium oxide resistive memory devices. <i>Journal of Industrial and Engineering Chemistry</i> , 2019, 78, 338-343.	2.9	6
791	Controllable Seebeck Coefficients of a Metal-Diffused Aluminum Oxide Layer via Conducting Filament Density and Energy Filtering. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 23303-23312.	4.0	8

#	ARTICLE	IF	CITATIONS
792	Impact of Grain Sizes on Programmable Memory Characteristics in Two-Dimensional Organic-Inorganic Hybrid Perovskite Memory. ACS Applied Materials & Interfaces, 2019, 11, 20225-20231.	4.0	30
793	Compact Modeling of Complementary Resistive Switching Devices Using Memdiodes. IEEE Transactions on Electron Devices, 2019, 66, 2831-2836.	1.6	11
794	Nanoscale resistive switching memory devices: a review. Nanotechnology, 2019, 30, 352003.	1.3	151
795	All Nonmetal Resistive Random Access Memory. Scientific Reports, 2019, 9, 6144.	1.6	24
796	3D Stackable and Scalable Binary Ovonic Threshold Switch Devices with Excellent Thermal Stability and Low Leakage Current for High-Density Cross-Point Memory Applications. Advanced Electronic Materials, 2019, 5, 1900196.	2.6	27
797	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
798	Improvement of NbO _x -based threshold switching devices by implementing multilayer stacks. Semiconductor Science and Technology, 2019, 34, 075005.	1.0	12
799	Memristive Synapses for Brain-Inspired Computing. Advanced Materials Technologies, 2019, 4, 1800544.	3.0	72
800	Tunable thermal conductivity in aluminum oxide resistive based switching structures by conducting filament diffusion. Journal of Alloys and Compounds, 2019, 790, 992-1000.	2.8	7
801	Memristive Devices and Networks for Brain-Inspired Computing. Physica Status Solidi - Rapid Research Letters, 2019, 13, 1900029.	1.2	66
802	Atomic Layer-Deposited HfAlO _x -Based RRAM with Low Operating Voltage for Computing In-Memory Applications. Nanoscale Research Letters, 2019, 14, 51.	3.1	14
803	High-Performance Solution-Processed Organo-Metal Halide Perovskite Unipolar Resistive Memory Devices in a Cross-Bar Array Structure. Advanced Materials, 2019, 31, e1804841.	11.1	100
804	A Threshold Switching Selector Based on Highly Ordered Ag Nanodots for X-Point Memory Applications. Advanced Science, 2019, 6, 1900024.	5.6	91
805	One Bipolar Selector-One Resistor for Flexible Crossbar Memory Applications. IEEE Transactions on Electron Devices, 2019, 66, 1296-1301.	1.6	29
806	Resistive switching behavior and mechanism in flexible TiO ₂ @Cf memristor crossbars. Ceramics International, 2019, 45, 10182-10186.	2.3	15
807	Complementary Resistive Switching Using Metal-Ferroelectric-Metal Tunnel Junctions. Small, 2019, 15, e1805042.	5.2	12
808	Introduction to new memory paradigms: memristive phenomena and neuromorphic applications. Faraday Discussions, 2019, 213, 11-27.	1.6	35
809	Controlling Resistive Switching by Using an Optimized MoS ₂ Interfacial Layer and the Role of Top Electrodes on Ascorbic Acid Sensing in TaO _x -Based RRAM. Langmuir, 2019, 35, 3897-3906.	1.6	36

#	ARTICLE	IF	CITATIONS
810	CBRAM devices with a water casted solid polymer electrolyte for flexible electronic applications. , 2019, , .		2
811	ISSRE 2019 Organizing Committee. , 2019, , .		0
813	Experimental Study of a Glazed Bi-Fluid (Water/Air) Solar Thermal Collector for Building Integration. , 2019, , .		3
814	Q-MRAS based Speed Sensorless Vector Controlled Synchronous Reluctance Motor Drive. , 2019, , .		4
815	Criteria for evaluating the technical universities of the world using Forbes rating. , 2019, , .		0
816	A Lagrangean relaxation heuristic for a two-stage capacitated facility location problem with depot size selection. , 2019, , .		0
817	State of health of lithium ion battery estimation based on charging process. , 2019, , .		2
818	Plasmonic Band-pass/stop Filters Based on Metal-Insulator-Metal Slit Waveguides. , 2019, , .		0
819	A simple tri-layer metamaterial absorber for large area fabrication. , 2019, , .		0
820	Driver Design for High Frequency Servomotor of Soft Magnetic Composite Material. , 2019, , .		0
821	Light-Weighted Duplicated Packet Reduction for LoRa Relay Network in the Industrial Environment. , 2019, , .		0
822	Student's Choice of Learning Medium Does Not Affect Performance But Study Regularity Does. , 2019, , .		0
823	Study on the Impact of differential protection for Transformer in Power Systems With Renewable Energy. , 2019, , .		0
824	Resistive Switching in Single Core-Shell Nanoparticles*. , 2019, , .		0
825	Characterization and Robustness Evaluation of 3.3 kV/40 mA, SiC DMOSFETs. , 2019, , .		5
826	Breast Cancer Detection & Tumor Localization Using Four Flexible Microstrip Patch Antennas. , 2019, , .		6
827	DBNet: A New Generalized Structure Efficient for Classification. , 2019, , .		2
828	k-Space Decomposition Based Range Points Migration Method for Millimeter Wave Radar. , 2019, , .		4

#	ARTICLE	IF	CITATIONS
829	Low-Complexity Coherent Iterative Receiver for SCMA-Based LEO Satellite Communications. , 2019, , .		4
830	Analysis on Construction and Development of Hubei Electricity Sale Market. , 2019, , .		0
831	Relationship between Dominant Triple Helix Model and Type of Intermediary Organizations. , 2019, , .		1
832	On-line Diagnosis and Location of High Voltage Cable Sheath Fault Based on Sheath Current. , 2019, , .		0
833	An 8-element Multi-band MIMO Antenna with High Isolation for 5G Smartphone Application. , 2019, , .		2
834	Analysis of Vector Tracking Loop Algorithm Combine ISL & GNSS Signal for High orbit spacecraft Positioning. , 2019, , .		0
835	Decentral Load Control for Grid Stabilization. , 2019, , .		2
836	Performance Modelling of V2V based Collective Perceptions in Connected and Autonomous Vehicles. , 2019, , .		6
837	Modeling, Simulation and Measurement of On-chip Interconnects with Extremely Thin Si Substrate for Flexible Electronics. , 2019, , .		1
838	Hardware Trojan Detection Techniques Using Side-Channel Analysis. , 2019, , .		3
839	Effects of Bi Irradiation for the MBE Growth of GaSb on Ge(111) Vicinal Substrates. , 2019, , .		0
840	Failure Analysis of QFP Package Interconnection structure under Random Vibration and Temperature. , 2019, , .		0
841	Investigation and classification of cyber-crimes through IDS and SVM algorithm. , 2019, , .		12
843	The Application of Reinforcement Learning in Amazons. , 2019, , .		2
844	From the EIC: Intelligent Resource-Constrained Sensor Nodes. IEEE Design and Test, 2019, 36, 4-4.	1.1	0
845	Locality Sensitive Hashing for ECG-based Subject Identification. , 2019, , .		2
846	Research on the Transformer Area Recognition Method Based on Improved K-Means Clustering Algorithm. , 2019, , .		5
847	Development and Student Perceptions of Think-Pair-Share Activities in a Senior-Level Linear Control Systems Course. , 2019, , .		1

#	ARTICLE	IF	CITATIONS
848	Eddy Current Scanning Image Denoising Method Based on Principal Component Analysis and Manifold Learning. , 2019, , .		0
849	Circuit Detection in Web and Social Network Graphs. , 2019, , .		2
850	Transmission Electron Microscopy Study of UV-ozone Cleaned Silicon Surfaces for Application in High Efficiency Photovoltaics. , 2019, , .		0
851	3D-Printed Multi-Beam Planar Dual-reflector Antenna for 5G Millimeter-Wave Applications. , 2019, , .		0
852	A Scalable Correlation Clustering strategy in Location Privacy for Wireless Sensor Networks against a Universal Adversary. , 2019, , .		1
853	Using data mining techniques to extract key factors in Mobile live streaming. , 2019, , .		2
854	Resource Allocation Mechanisms for the Portfolio of Projects with Concave Utility Functions. , 2019, , .		0
855	Modeling and Evaluation of IoT Worm with Lifespan and Secondary Infectivity by Agent-Oriented Petri Net PN2. , 2019, , .		2
856	An Experimental Investigation on Shaft Resistance of Cast In-Situ Bored Piles in Intact Rock. , 2019, , .		1
857	An audit of self affiliation instruments in multi agent system. , 2019, , .		0
859	First Order Plus Frequency Dependent Delay Modeling: New Perspective or Mathematical Curiosity?. , 2019, , .		1
860	Modeling the Effects of Motorway Traffic Control on Driving Behavior in a Microscopic Traffic Simulation. , 2019, , .		0
861	Ambient Sound with Signed Distance Fields and Gradient Fields. , 2019, , .		1
862	Travel Time Prediction using Machine Learning and Weather Impact on Traffic Conditions. , 2019, , .		10
863	Validity of circuit-based models for air-core helical windings at high-frequency regimes. IET Generation, Transmission and Distribution, 2019, 13, 1709-1717.	1.4	1
864	Closed-loop Performance and Analysis of a Real Time Non-linear Bioreactor Process. , 2019, , .		0
866	Model Reference Adaptive Control and Neural Network Based Control of Altitude of Unmanned Aerial Vehicles. , 2019, , .		5
867	Unsupervised Anomaly Detection in Time Series Using LSTM-Based Autoencoders. , 2019, , .		67

#	ARTICLE	IF	CITATIONS
868	First Step to Human-Steering System Modelling and Control-Stretch Reflex Characteristic of Driver's Upper Limb Muscles. , 2019, , .		0
869	The lasting effects of 1Hz repetitive transcranial magnetic stimulation on resting state EEG in healthy subjects. , 2019, 2019, 5918-5922.		2
870	Hybrid III-Nitride Tunnel Junctions for Low Excess Voltage Blue LEDs and UVC LEDs. , 2019, , .		2
871	Laser Cooling of Atoms with an Optical Frequency Comb. , 2019, , .		0
872	A Compact EBG for High Isolation Between Two Very Closeby Wire-Antennas for RFID Tags. , 2019, , .		0
873	Spatiotemporal Pattern of AQI in Shandong, China Using the Empirical Orthogonal Function Analysis. , 2019, , .		1
874	Control strategy for suppression of circulating current using high-frequency voltage compensation in asynchronous carriers for modular and scalable inverter systems. IET Power Electronics, 2019, 12, 3668-3674.	1.5	9
875	A Genetic-Frog Leaping Algorithm for Large Dataset Document Clustering. , 2019, , .		1
876	SlimYOLOv3: Narrower, Faster and Better for Real-Time UAV Applications. , 2019, , .		143
877	Data Quality Evaluation of Chinese Wind Profile Radar Network in 2018. , 2019, , .		2
878	Graphene Based Tunnel Field Effect Transistor for RF Applications. , 2019, , .		4
879	Applying Ad Hoc Technology in Inner City Communication. , 2019, , .		5
880	S-Transform-Based Electroencephalography Seizure Detection and Prediction. , 2019, , .		0
881	Hopping Control of a Pneumatic Single-Legged Robot using Sliding Mode Control. , 2019, , .		4
882	On Influencing Factors in Human Activity Recognition Using Wireless Networks. , 2019, , .		0
883	Volenti non fit injuria: Ransomware and its Victims. , 2019, , .		5
884	VulnerCheck: A Content-Agnostic Detector for Online Hatred-Vulnerable Videos. , 2019, , .		7
885	TextEdge: Multi-oriented Scene Text Detection via Region Segmentation and Edge Classification. , 2019, , .		4

#	ARTICLE	IF	CITATIONS
886	Asynchronous Control Method of Parallel IGCT Components in Hybrid DC Circuit Breakers. , 2019, , .		1
887	Sensitivity Analysis of Silicon Nanowire ISFET Sensor with LaF3 membrane. , 2019, , .		0
888	Intelligent Succulent Plant Management System Based on Wireless Network. , 2019, , .		1
889	Big Federal Data Centers Implementing FAIR Data Principles: ARM Data Center Example. , 2019, , .		7
890	OGC Standardization: From Early Ideas to Adopted Standards. , 2019, , .		1
891	Magnetostatic Simulation in a Novel Magnetorheological Elastomer Based Loudspeaker Surround. , 2019, , .		0
892	A Design for High Performance of a Half-Wave Rectified Variable Field Flux Motor. , 2019, , .		8
893	A New Semantic Descriptor for Data Association in Semantic SLAM. , 2019, , .		0
894	An Energy-Efficient Mixed-Signal Parallel Multiply-Accumulate (MAC) Engine Based on Stochastic Computing. , 2019, , .		1
895	An Adaptive Wordpiece Language Model for Learning Chinese Word Embeddings. , 2019, , .		2
896	PA3D: Pose-Action 3D Machine for Video Recognition. , 2019, , .		46
897	A Bidirectional Brain Computer Interface with 64-Channel Recording, Resonant Stimulation and Artifact Suppression in Standard 65nm CMOS. , 2019, , .		3
898	The Application of the Internet of Things Technology in Apple Production. , 2019, , .		1
899	High Phosphorus-doped Seed Layer in Microcrystalline Silicon Oxide Front Contact Layers for Silicon Heterojunction Solar Cells. , 2019, , .		2
900	Driver Posture Detection Method in Motorcycle Simulator. , 2019, , .		1
901	Impact of Social Media on Socialization of University Students (A Study on East West Universityâ€™s) Tj ETQq1 1 0.784314 JgBT /Over		
902	Performance analysis of three phase integrated generation of SOFC (solid oxide fuel cell), PV (photovoltaic), with IC MPPT (maximum power point tracking) Controller. , 2019, , .		5
903	Moving Object Detection by Patch Dividing through Low-Rank Framework. , 2019, , .		0

#	ARTICLE	IF	CITATIONS
904	Evaluation of Wireless Body Area Network Utilizing Super Orthogonal Convolutional Code. , 2019, , .		0
905	Attitude Control of Quadrotor UAV Based on LADRC Method. , 2019, , .		6
906	Demand Side Management- Literature Review and Performance Comparison. , 2019, , .		6
907	Designing and Building Disposition- EL Application by Applying AES-256 and RSA-2048. , 2019, , .		0
908	Research on 3D Variable Design of Corrugated Box Based on SolidWorks. , 2019, , .		0
909	Development of Nonmechanical Zoom Lens System using Liquid Crystal. , 2019, , .		3
910	Wireless Real Time Suspicious Activity Detection using Smart Glass. , 2019, , .		0
911	A New Split Pitch Square Shape Metamaterial Absorber for X band Application. , 2019, , .		3
912	Influence of Battery Voltage Level on Regenerative Braking Capability and Overall Efficiency of Electric Vehicles. , 2019, , .		0
913	Geographical Origin Identification for Tetrastigma Hemsleyanum Based on High Performance Liquid Chromatographic Fingerprint. , 2019, , .		5
914	3D Semicircular Flash Memory Cell: Novel Split-Gate Technology to Boost Bit Density. , 2019, , .		18
915	Smag Regularized Dual-Channel Algorithm for the Retrieval of Soil Moisture and Vegetation Optical Depth. , 2019, , .		2
916	On the Modeling of Multistable Memory States Using Memristor. , 2019, , .		0
917	Cellular Device Detection in Restricted Premises. , 2019, , .		0
918	Low Cost Autonomous Amphibious Bird Chasing Robot. , 2019, , .		1
919	Large-Signal Characterization of Power FinFETs Based on X-Parameter Model. , 2019, , .		0
920	A high performance electroformed single-crystallite VO ₂ threshold switch. Nanoscale, 2019, 11, 22070-22078.	2.8	26
921	From Behavioral Design of Memristive Circuits and Systems to Physical Implementations. IEEE Circuits and Systems Magazine, 2019, 19, 6-18.	2.6	22

#	ARTICLE	IF	CITATIONS
922	Bio-Memristor Based on Peptide and Peptide Composite with Gold Nanoparticles. EPJ Web of Conferences, 2019, 224, 03003.	0.1	4
923	A Parasitic Resistance-Adapted Programming Scheme for Memristor Crossbar-Based Neuromorphic Computing Systems. Materials, 2019, 12, 4097.	1.3	4
924	Overhead Requirements for Stateful Memristor Logic. IEEE Transactions on Circuits and Systems I: Regular Papers, 2019, 66, 263-273.	3.5	20
925	Three-terminal memtransistors based on two-dimensional layered gallium selenide nanosheets for potential low-power electronics applications. Nano Energy, 2019, 57, 566-573.	8.2	100
926	Resistive switching device with highly-asymmetric current-voltage characteristics: its error analysis and new design parameter. Semiconductor Science and Technology, 2019, 34, 025007.	1.0	3
927	Ultrafast Multilevel Switching in Au/YIG/n-Si RRAM. Advanced Electronic Materials, 2019, 5, 1800418.	2.6	18
928	Low power, ultrafast synaptic plasticity in 1R-ferroelectric tunnel memristive structure for spiking neural networks. AEU - International Journal of Electronics and Communications, 2019, 100, 56-65.	1.7	24
929	Recent Advances in Memory Devices with Hybrid Materials. Advanced Electronic Materials, 2019, 5, 1800519.	2.6	92
930	An Offset Readout Current Sensing Scheme for One-Resistor RRAM-Based Cross-Point Array. IEEE Electron Device Letters, 2019, 40, 208-211.	2.2	19
931	Interconversion Between Bipolar and Complementary Behavior in Nanoscale Resistive Switching Devices. IEEE Transactions on Electron Devices, 2019, 66, 619-624.	1.6	16
932	STDP-Based Pruning of Connections and Weight Quantization in Spiking Neural Networks for Energy-Efficient Recognition. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2019, 38, 668-677.	1.9	65
933	A Semiparallel Full-Adder in IMPLY Logic. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2020, 28, 297-301.	2.1	41
934	Making reversible transformation from electronic to ionic resistive switching possible by applied electric field in an asymmetrical Al/TiO ₂ /FTO nanostructure. Applied Surface Science, 2020, 502, 144124.	3.1	23
935	A Low Power Reconfigurable Memory Architecture for Complementary Resistive Switches. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2020, 39, 1806-1819.	1.9	6
936	Introducing pinMOS Memory: A Novel, Nonvolatile Organic Memory Device. Advanced Functional Materials, 2020, 30, 1907119.	7.8	15
937	Constructing a high-performance quasi-solid-state asymmetric supercapacitor: Na _x MnO ₂ @CNT/WPU-PAAK-Na ₂ SO ₄ /AC-CNT. Electrochimica Acta, 2020, 334, 135576.	2.6	13
938	Resistive switching characteristic of Ce _{0.9} Y _{0.1} O ₂ /TiO ₂ bi-layer structure by photochemical metal-organic deposition. Springer Series in Emerging Cultural Perspectives in Work, Organizational, and Personnel Studies, 2020, 57, 73-79.	1.5	3
939	Nonpolar Resistive Switching of Multilayer hBN-Based Memories. Advanced Electronic Materials, 2020, 6, 1900979.	2.6	42

#	ARTICLE	IF	CITATIONS
940	Kinetic Monte Carlo Simulation of Interface-Controlled Hafnia-Based Resistive Memory. IEEE Transactions on Electron Devices, 2020, 67, 118-124.	1.6	11
941	Recent Progress in Artificial Synapses Based on Two-Dimensional van der Waals Materials for Brain-Inspired Computing. ACS Applied Electronic Materials, 2020, 2, 371-388.	2.0	110
942	Crossbar-Constrained Technology Mapping for ReRAM Based In-Memory Computing. IEEE Transactions on Computers, 2020, 69, 734-748.	2.4	11
943	Threshold Voltage Drift in Te-Based Ovonic Threshold Switch Devices Under Various Operation Conditions. IEEE Electron Device Letters, 2020, 41, 191-194.	2.2	23
944	Design of a Controllable Redox-Diffusive Threshold Switching Memristor. Advanced Electronic Materials, 2020, 6, 2000695.	2.6	43
945	Artificial synaptic characteristics of TiO ₂ /HfO ₂ memristor with self-rectifying switching for brain-inspired computing. Chaos, Solitons and Fractals, 2020, 140, 110236.	2.5	40
946	Solution to alleviate the impact of line resistance on the crossbar array. IET Circuits, Devices and Systems, 2020, 14, 498-504.	0.9	2
947	Present status of the functional advanced micro-, nano-printings – a mini review. Materials Today Chemistry, 2020, 17, 100328.	1.7	21
948	Applications of p-n homojunction ZnO nanowires to one-diode one-memristor RRAM arrays. Scripta Materialia, 2020, 187, 439-444.	2.6	19
950	Interconversion of complementary resistive switching from graphene oxide based bipolar multilevel resistive switching device. Applied Physics Letters, 2020, 117, .	1.5	19
951	TReMo: A Model for Ternary ReRAM-Based Memories with Adjustable Write-Verification Capabilities. , 2020, , .		3
952	Voltage Amplitude-Controlled Synaptic Plasticity from Complementary Resistive Switching in Alloying HfO _x with AlO _x -Based RRAM. Metals, 2020, 10, 1410.	1.0	24
953	Sneak Path Characterization in Memristor Crossbar Circuits. International Journal of Electronics, 2021, 108, 1255-1272.	0.9	8
954	Multilevel Programming and Light-Assisted Resistive Switching in a Halide-Tunable All-Inorganic Perovskite Cube for Flexible Memory Devices. ACS Applied Electronic Materials, 2020, 2, 3667-3677.	2.0	38
955	In-Memory Binary Vector-Matrix Multiplication Based on Complementary Resistive Switches. Advanced Intelligent Systems, 2020, 2, 2000134.	3.3	9
956	Analysis of the Impact of Wire Resistance on Nano-scale Memristor Crossbar Array Implementing Perceptron Neural Network. IOP Conference Series: Materials Science and Engineering, 2020, 894, 012002.	0.3	0
958	Additive manufacturing and characterization of AgI and AgI-Al ₂ O ₃ composite electrolytes for resistive switching devices. Journal of Applied Physics, 2020, 128, 035103.	1.1	2
959	Dual-Gated MoS ₂ Memtransistor Crossbar Array. Advanced Functional Materials, 2020, 30, 2003683.	7.8	73

#	ARTICLE	IF	CITATIONS
960	Enhancing Threshold Switching Characteristics and Stability of Vanadium Oxide-Based Selector With Vanadium Electrode. IEEE Transactions on Electron Devices, 2020, 67, 5059-5062.	1.6	7
961	Symmetric Linear Rise and Fall of Conductance in a Trilayer Stack Engineered ReRAM-Based Synapse. ACS Applied Electronic Materials, 2020, 2, 3263-3269.	2.0	6
962	Switching Characteristics and Mechanism Using Al ₂ O ₃ Interfacial Layer in Al/Cu/GdOx/Al ₂ O ₃ /TiN Memristor. Electronics (Switzerland), 2020, 9, 1466.	1.8	9
963	Complementary Resistive Switching and Synaptic-Like Memory Behavior in an Epitaxial SrFeO _{2.5} Thin Film through Oriented Oxygen-Vacancy Channels. ACS Applied Materials & Interfaces, 2020, 12, 41740-41748.	4.0	36
964	Space Debris Detection Using Feature Learning of Candidate Regions in Optical Image Sequences. IEEE Access, 2020, 8, 150864-150877.	2.6	21
965	Nonlinear Characteristics of Complementary Resistive Switching in HfAlOx-Based Memristor for High-Density Cross-Point Array Structure. Coatings, 2020, 10, 765.	1.2	16
966	A New Approach to the Fabrication of Memristive Neuromorphic Devices: Compositionally Graded Films. Materials, 2020, 13, 3680.	1.3	2
967	Analyzing Fault Tolerance Behaviour in Memristor-based Crossbar for Neuromorphic Applications. , 2020, , .		6
968	Fabrication of non-volatile resistive switching memory based on Graphene oxide and PEDOT:PSS mixture. , 2020, , .		0
969	Printable and Flexible Planar Silver Electrodes-Based Resistive Switching Sensory Array. Frontiers in Sensors, 2020, 1, .	1.7	3
970	Improved Pulse-Controlled Conductance Adjustment in Trilayer Resistors by Suppressing Current Overshoot. Nanomaterials, 2020, 10, 2462.	1.9	4
971	A Novel Stateful Logic Device and Circuit for In-Memory Parity Programming in Crossbar Memory. Advanced Electronic Materials, 2020, 6, 2000672.	2.6	6
972	Self-Rectifying Resistive Switching and Short-Term Memory Characteristics in Pt/HfO ₂ /TaOx/TiN Artificial Synaptic Device. Nanomaterials, 2020, 10, 2159.	1.9	49
973	Memory technology“a primer for material scientists. Reports on Progress in Physics, 2020, 83, 086501.	8.1	64
974	Enhanced Resistive Switching Effect in Ag Nanoparticles Embedded in Graphene Oxide Thin Film. Journal of Electronic Materials, 2020, 49, 4872-4881.	1.0	6
975	Improvement in Threshold Switching Performance Using Al ₂ O ₃ Interfacial Layer in Ag/Al ₂ O ₃ /SiO ₂ /W Cross-Point Platform. IEEE Electron Device Letters, 2020, 41, 924-927.	2.2	12
976	Recent advances in organic-based materials for resistive memory applications. Informa-Materials, 2020, 2, 995-1033.	8.5	125
977	Device and Circuit Architectures for In-Memory Computing. Advanced Intelligent Systems, 2020, 2, 2000040.	3.3	100

#	ARTICLE	IF	CITATIONS
978	Ferroelectric domain wall memory with embedded selector realized in LiNbO ₃ single crystals integrated on Si wafers. <i>Nature Materials</i> , 2020, 19, 1188-1194.	13.3	92
979	Understanding of the Abrupt Resistive Transition in Different Types of Threshold Switching Devices From Materials Perspective. <i>IEEE Transactions on Electron Devices</i> , 2020, 67, 2878-2883.	1.6	14
980	1 New class of graphene-based devices for the next generation of nonvolatile memories. , 2020, , 1-16.		0
981	Smart phase-change memory devices for energy conservation. <i>Materials Today: Proceedings</i> , 2020, 28, 1858-1864.	0.9	0
982	The memristive system behavior of a diac. <i>Journal of Computational Electronics</i> , 2020, 19, 1344-1355.	1.3	1
983	An Experimental Proof that Resistanceâ€Switching Memory Cells are not Memristors. <i>Advanced Electronic Materials</i> , 2020, 6, 2000010.	2.6	20
984	Protonic solid-state electrochemical synapse for physical neural networks. <i>Nature Communications</i> , 2020, 11, 3134.	5.8	82
985	A comprehensive study of enhanced characteristics with localized transition in interface-type vanadium-based devices. <i>Materials Today Physics</i> , 2020, 13, 100201.	2.9	8
986	A Multimodal Target-Source Classifier With Attention Branches to Understand Ambiguous Instructions for Fetching Daily Objects. <i>IEEE Robotics and Automation Letters</i> , 2020, 5, 532-539.	3.3	10
987	Implementing an Electric Utility Microgrid: Lessons learned. <i>IEEE Electrification Magazine</i> , 2020, 8, 24-36.	1.8	4
988	An Ensemble Technique for Better Decisions Based on Data Streams and its Application to Data Privacy. <i>IEEE Transactions on Knowledge and Data Engineering</i> , 2020, , 1-1.	4.0	1
989	Performance Comparison of Probabilistically Shaped QAM Formats and Hybrid Shaped APSK Formats With Coded Modulation. <i>Journal of Lightwave Technology</i> , 2020, 38, 3280-3288.	2.7	8
990	Cooperative and Energy-Efficient Strategies in Emergency Navigation Using Edge Computing. <i>IEEE Access</i> , 2020, 8, 54441-54455.	2.6	14
991	Limit-Cycle-Based Mutant Multiobjective Pigeon-Inspired Optimization. <i>IEEE Transactions on Evolutionary Computation</i> , 2020, 24, 948-959.	7.5	27
992	Assistive mobile robot for industrial and academic applications. , 2020, , .		1
993	Design and Implementation of Reconfigurable Asynchronous Pipelines. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , 2020, 28, 1527-1539.	2.1	6
994	Surgical Suture Thread Detection and 3-D Reconstruction Using a Model-Free Approach in a Calibrated Stereo Visual System. <i>IEEE/ASME Transactions on Mechatronics</i> , 2020, 25, 792-803.	3.7	14
995	Phase Drift Compensating RF Link for Femtosecond Synchronization of E-XFEL. <i>IEEE Transactions on Nuclear Science</i> , 2020, 67, 2136-2142.	1.2	6

#	ARTICLE	IF	CITATIONS
996	Service Placement and Request Routing in MEC Networks With Storage, Computation, and Communication Constraints. IEEE/ACM Transactions on Networking, 2020, 28, 1047-1060.	2.6	79
997	Multiobjective UAV Path Planning for Emergency Information Collection and Transmission. IEEE Internet of Things Journal, 2020, 7, 6993-7009.	5.5	58
998	Genetic Programming for Evolving a Front of Interpretable Models for Data Visualization. IEEE Transactions on Cybernetics, 2021, 51, 5468-5482.	6.2	26
999	A Management Scheme of Multi-Level Retention-Time Queues for Improving the Endurance of Flash-Memory Storage Devices. IEEE Transactions on Computers, 2020, 69, 549-562.	2.4	4
1000	Optimal Byzantine Attacker Identification Based on Game Theory in Network Coding Enabled Wireless Ad Hoc Networks. IEEE Transactions on Information Forensics and Security, 2020, 15, 2570-2583.	4.5	7
1001	Image Compression and Encryption Scheme Based on Compressive Sensing and Fourier Transform. IEEE Access, 2020, 8, 40838-40849.	2.6	23
1002	Al _{0.65} Ga _{0.35} N/Al _{0.4} Ga _{0.6} N Micro-Channel Heterojunction Field Effect Transistors With Current Density Over 900 mA/mm. IEEE Electron Device Letters, 2020, 41, 677-680.	2.2	19
1003	Memristor-based in-memory logic and its application in image processing. , 2020, , 175-194.		0
1004	Resistive switching memories. , 2020, , 17-61.		5
1005	Reversible switching mode change in Ta2O5-based resistive switching memory (ReRAM). Scientific Reports, 2020, 10, 11247.	1.6	20
1006	Metasurface-Enabled Antiparallel Dual-Beam Rectangular-Waveguide Antenna. IEEE Antennas and Wireless Propagation Letters, 2020, 19, 641-645.	2.4	3
1007	Gated Recurrent Fusion to Learn Driving Behavior from Temporal Multimodal Data. IEEE Robotics and Automation Letters, 2020, 5, 1287-1294.	3.3	15
1008	Guest Editorsâ€™ Introduction: Embedded Intelligence in the Internet-of-Things. IEEE Design and Test, 2020, 37, 5-6.	1.1	1
1009	Neuromorphic nanoelectronic materials. Nature Nanotechnology, 2020, 15, 517-528.	15.6	464
1010	Performance Degradation of Nanofilament Switching Due to Joule Heat Dissipation. Electronics (Switzerland), 2020, 9, 127.	1.8	6
1011	The evolution of resistive switching behaviors dependent on interface transition layers in Cu/Al/FTO nanostructure. Journal of Alloys and Compounds, 2020, 827, 154270.	2.8	8
1012	Relationship-Embedded Representation Learning for Grounding Referring Expressions. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2021, 43, 2765-2779.	9.7	33
1013	Learning Deep Gradient Descent Optimization for Image Deconvolution. IEEE Transactions on Neural Networks and Learning Systems, 2020, 31, 5468-5482.	7.2	57

#	ARTICLE	IF	CITATIONS
1014	Physically Transient Resistive Memory With Programmable Switching Behaviors in MgO-Mo Based Devices. IEEE Electron Device Letters, 2020, 41, 553-556.	2.2	4
1015	On Feasibility of Autonomous Frequency-Support Provision from Offshore HVDC Grids. IEEE Transactions on Power Delivery, 2020, , 1-1.	2.9	10
1016	Resistive switching studies in VO2 thin films. Scientific Reports, 2020, 10, 3293.	1.6	29
1017	Hybrid Precoded Spatial Modulation (hPSM) for mmWave Massive MIMO Systems Over Frequency-Selective Channels. IEEE Wireless Communications Letters, 2020, 9, 839-842.	3.2	6
1018	Asymmetrical Triangular Current Mode (ATCM) for Bidirectional High Step Ratio Modular Multilevel Dc-Dc Converter. IEEE Transactions on Power Electronics, 2020, 35, 6906-6915.	5.4	11
1019	Resistive switching materials for information processing. Nature Reviews Materials, 2020, 5, 173-195.	23.3	668
1020	Simultaneous protonation/deprotonation mechanism in polyaniline-based devices as complementary resistive switches. Organic Electronics, 2020, 79, 105628.	1.4	10
1021	Memory materials and devices: From concept to application. Informa Mater, 2020, 2, 261-290.	8.5	181
1022	A Memristive Multiplier Using Semi-Serial IMPLY-Based Adder. IEEE Transactions on Circuits and Systems I: Regular Papers, 2020, 67, 1495-1506.	3.5	31
1023	Threshold switching of non-stoichiometric CuO nanowire for selector application. Applied Physics Letters, 2020, 116, .	1.5	22
1024	Analyze Informant-Based Questionnaire for The Early Diagnosis of Senile Dementia Using Deep Learning. IEEE Journal of Translational Engineering in Health and Medicine, 2020, 8, 1-6.	2.2	17
1025	Reliability of Atmosphere Pressure-Plasma Enhanced Chemical Vapor Deposition Deposited Indium Gallium Zinc Oxide Resistive Random Access Memory Device with Microwave Annealing. Journal of Nanoscience and Nanotechnology, 2020, 20, 4057-4060.	0.9	1
1026	Multi-Terminal Transistor-Like Devices Based on Strongly Correlated Metallic Oxides for Neuromorphic Applications. Materials, 2020, 13, 281.	1.3	3
1027	Hierarchical AI - from neurons to psychology. , 2020, , .		0
1028	Three-Dimensional Geometric Descent Guidance With Impact Angle Constraint. IEEE Access, 2020, 8, 64932-64948.	2.6	1
1029	Concise elucidation on faults management in wireless sensor networks (wsn). , 2020, , .		1
1030	Insights and Optimizations on IR-drop Induced Sneak-Path for RRAM Crossbar-based Convolutions. , 2020, , .		7
1031	Question Answering Model Based on Graph Knowledge and Entity Recognition. , 2020, , .		0

#	ARTICLE	IF	CITATIONS
1032	Design and Analysis of Secure Emerging Crypto-Hardware Using HyperFET Devices. IEEE Transactions on Emerging Topics in Computing, 2021, 9, 787-796.	3.2	4
1033	Assessing Active Learning Strategies to Improve the Quality Control of the Soybean Seed Vigor. IEEE Transactions on Industrial Electronics, 2021, 68, 1675-1683.	5.2	6
1034	Diode-like rectification characteristics of BiFeO ₃ -based /Zn ₁ -Ni Fe ₂ O ₄ bilayered films for application of ferroelectric field effect transistors. Journal of Alloys and Compounds, 2021, 851, 156818.	2.8	4
1035	Long-term and short-term plasticity of Ta ₂ O ₅ /HfO ₂ memristor for hardware neuromorphic application. Journal of Alloys and Compounds, 2021, 850, 156675.	2.8	57
1036	Recent advances in resistive random access memory based on lead halide perovskite. Information Materials, 2021, 3, 293-315.	8.5	70
1037	The Future of Memristors: Materials Engineering and Neural Networks. Advanced Functional Materials, 2021, 31, 2006773.	7.8	187
1038	Improving photovoltaic effect of inorganic perovskite by resistive switching using various electrode materials. Journal of Alloys and Compounds, 2021, 859, 157767.	2.8	0
1039	Neuromorphic Low-Power Inference on Memristive Crossbars With On-Chip Offset Calibration. IEEE Access, 2021, 9, 38043-38061.	2.6	11
1040	Resistive Random Access Memory Device Physics and Array Architectures. , 2021, , 319-343.		1
1041	Surface-Bound Domain Penetration and Large Wall Current. Advanced Electronic Materials, 2021, 7, 2000720.	2.6	8
1042	Enhancement of ovonic threshold switching characteristics using nanometer-scale virtual electrode formed within ultrathin hafnium dioxide interlayer. Applied Physics Letters, 2021, 118, .	1.5	3
1043	Enhancing Reliability of Studies on Single Filament Memristive Switching via an Unconventional cAFM Approach. Nanomaterials, 2021, 11, 265.	1.9	7
1044	Plausible Physical Mechanisms for Unusual Volatile/Non-Volatile Resistive Switching in HfO ₂ -Based Stacks. Condensed Matter, 2021, 6, 7.	0.8	0
1045	A Battery-Like Self-Selecting Biomemristor from Earth-Abundant Natural Biomaterials. ACS Applied Bio Materials, 2021, 4, 1976-1985.	2.3	30
1046	Ultralow switching voltage and power consumption of GeS ₂ thin film resistive switching memory. Journal of Advanced Dielectrics, 2021, 11, 2150004.	1.5	12
1047	Effect of doping on the GR/MoS ₂ /GR selector: first-principle calculations. Nanotechnology, 2021, 32, 195204.	1.3	2
1048	Phase Change Random Access Memory for Neuro-Inspired Computing. Advanced Electronic Materials, 2021, 7, 2001241.	2.6	29
1049	Gradually Tunable Conductance in TiO ₂ /Al ₂ O ₃ Bilayer Resistors for Synaptic Device. Metals, 2021, 11, 440.	1.0	18

#	ARTICLE	IF	CITATIONS
1050	PAni-based complementary resistive switches: the effects of Ag on physical properties and switching mechanism. Applied Physics A: Materials Science and Processing, 2021, 127, 1.	1.1	3
1051	Amorphous Metal Oxide Bilayers to Avoid Sneak-Path Currents for High-Density Resistive Memory Arrays. Advanced Intelligent Systems, 2021, 3, 2000222.	3.3	4
1052	Synaptic Device With High Rectification Ratio Resistive Switching and Its Impact on Spiking Neural Network. IEEE Transactions on Electron Devices, 2021, 68, 1610-1615.	1.6	3
1053	Role of noise in spiking dynamics of diffusive memristor driven by heating-cooling cycles. Chaos, Solitons and Fractals, 2021, 145, 110803.	2.5	12
1054	Convertible Volatile and non-Volatile Resistive Switching in a Self-Rectifying Pt/TiOx/Ti Memristor. , 2021, , .		3
1055	Investigation of Non-Linear Selection Effect on RRAM based Neuromorphic Computing Array with Passive Selective Element. , 2021, , .		0
1056	Hf1-xZrxO2based bipolar selector with high uniformity and high selectivity for large-scale integration of memristor crossbars. , 2021, , .		0
1057	Research on Pt/NiO_x/WO₃:Ti/W Multijunction Memristors with Synaptic Learning and Memory Functions. Journal of Physical Chemistry Letters, 2021, 12, 3600-3606.	2.1	17
1058	Memristive Stateful Logic for Edge Boolean Computers. Advanced Intelligent Systems, 2021, 3, 2000278.	3.3	25
1059	Resistive switching memory for high density storage and computing*. Chinese Physics B, 2021, 30, 058702.	0.7	9
1060	Hybrid oxide brain-inspired neuromorphic devices for hardware implementation of artificial intelligence. Science and Technology of Advanced Materials, 2021, 22, 326-344.	2.8	14
1061	A True Random Number Generator Based on Ionic Liquid Modulated Memristors. ACS Applied Electronic Materials, 2021, 3, 2380-2388.	2.0	17
1062	SIXOR: Single-Cycle In-Memristor XOR. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2021, 29, 925-935.	2.1	17
1063	Ultrahigh Uniformity and Stability in NbO_x-Based Selector for 3-D Memory by Using Ru Electrode. IEEE Transactions on Electron Devices, 2021, 68, 2255-2259.	1.6	9
1064	Spike-dependent plasticity modulation in TiO2-based synaptic device. Journal of Materials Science: Materials in Electronics, 2021, 32, 13051-13061.	1.1	10
1065	Current Rectification, Resistive Switching, and Stable NDR Effect in BaTiO₃/CeO₂ Heterostructure Devices. Advanced Electronic Materials, 2021, 7, 2001237.	2.6	19
1066	Practical demonstration of a RRAM memory fuse. International Journal of Circuit Theory and Applications, 2021, 49, 2363-2372.	1.3	2
1067	Artificial Synapses Based on Ferroelectric Schottky Barrier Field-Effect Transistors for Neuromorphic Applications. ACS Applied Materials & Interfaces, 2021, 13, 32005-32012.	4.0	43

#	ARTICLE	IF	CITATIONS
1068	Low-power emerging memristive designs towards secure hardware systems for applications in internet of things. Nano Materials Science, 2021, 3, 186-204.	3.9	22
1069	Voltage-Tunable Ultra-Steep Slope Atomic Switch with Selectivity over 10^{10} . Small, 2021, 17, e2100401.	5.2	3
1070	Sustained complementary resistive switching capability deployed by structure-modulated electric field confinement of core-shell nanowires in a simple polymer composite. Applied Materials Today, 2021, 23, 101038.	2.3	3
1071	Gradual conductance modulation of Ti/WO _x /Pt memristor with self-rectification for a neuromorphic system. Applied Physics Letters, 2021, 119, .	1.5	15
1072	Memristive Crossbar Arrays for Storage and Computing Applications. Advanced Intelligent Systems, 2021, 3, 2100017.	3.3	80
1073	Polarity Reversal Effect of a Memristor From the Circuit Point of View and Insights Into the Memristor Fuse. Frontiers in Communications and Networks, 2021, 2, .	1.9	2
1074	Complementary switching in single Nb ₃ O ₇ (OH) nanowires. APL Materials, 2021, 9, 071105.	2.2	2
1076	Memristor Based on Inorganic and Organic Two-Dimensional Materials: Mechanisms, Performance, and Synaptic Applications. ACS Applied Materials & Interfaces, 2021, 13, 32606-32623.	4.0	86
1077	Recent Progress in Selector and Self-Rectifying Devices for Resistive Random-Access Memory Application. Physica Status Solidi - Rapid Research Letters, 2021, 15, 2100199.	1.2	26
1078	Ion Beam-Mediated Defect Engineering in TiO _x Thin Films for Controlled Resistive Switching Property and Application. ACS Applied Electronic Materials, 2021, 3, 3804-3814.	2.0	12
1079	Induced Complementary Resistive Switching in Forming-Free TiO _x /TiO ₂ /TiO _x Memristors. ACS Applied Materials & Interfaces, 2021, 13, 43022-43029.	4.0	14
1080	Deterministic mechanisms of spiking in diffusive memristors. Chaos, Solitons and Fractals, 2021, 149, 110997.	2.5	10
1081	Modeling current and voltage peaks generation in complementary resistive switching devices. Solid-State Electronics, 2021, 183, 108122.	0.8	0
1082	Comprehensive Model of Electron Conduction in Oxide-Based Memristive Devices. ACS Applied Electronic Materials, 2021, 3, 3674-3692.	2.0	48
1083	Tailoring the Interfacial Band Offset by the Molecular Dipole Orientation for a Molecular Heterojunction Selector. Advanced Science, 2021, 8, e2101390.	5.6	9
1084	Recent advances on crystalline materials-based flexible memristors for data storage and neuromorphic applications. Science China Materials, 2022, 65, 2110-2127.	3.5	45
1085	Low threshold voltage, highly stable electroforming-free threshold switching characteristics in VO _x films-based device. Ceramics International, 2021, 47, 27479-27486.	2.3	4
1086	Controlled Majority-Inverter Graph Logic With Highly Nonlinear, Self-Rectifying Memristor. IEEE Transactions on Electron Devices, 2021, 68, 4897-4902.	1.6	12

#	ARTICLE	IF	CITATIONS
1087	A simple, robust, and accurate compact model for a wide variety of complementary resistive switching devices. <i>Solid-State Electronics</i> , 2021, 185, 108083.	0.8	2
1088	Highly uniform resistive switching properties of NiFe ₂ O ₄ films by embedding well-ordered pyramid-shaped Pt/Au nanostructures. <i>Journal of Alloys and Compounds</i> , 2022, 890, 161814.	2.8	6
1089	Bipolar and Complementary Resistive Switching Characteristics and Neuromorphic System Simulation in a Pt/ZnO/TiN Synaptic Device. <i>Nanomaterials</i> , 2021, 11, 315.	1.9	26
1090	Towards engineering in memristors for emerging memory and neuromorphic computing: A review. <i>Journal of Semiconductors</i> , 2021, 42, 013101.	2.0	56
1091	Hardware Implementation of Neuromorphic Computing Using Large-Scale Memristor Crossbar Arrays. <i>Advanced Intelligent Systems</i> , 2021, 3, 2000137.	3.3	96
1092	Fourth Fundamental Circuit Element: SPICE Modeling and Simulation. , 2014, , 105-162.		15
1093	Redox-Based Memristive Devices. , 2014, , 223-251.		3
1094	Cellular Nonlinear Networks with Memristor Synapses. , 2014, , 267-291.		7
1095	Memristive in Situ Computing. , 2014, , 413-428.		2
1096	Modeling Memristor-Based Circuit Networks on Crossbar Architectures. , 2014, , 505-535.		3
1097	Memristors and Memristive Devices for Neuromorphic Computing. , 2014, , 129-149.		8
1098	Bio-inspired Neural Networks. , 2014, , 151-172.		1
1099	In-Memory Data Compression Using ReRAMs. , 2017, , 275-291.		3
1100	Modeling Memristor-Based Circuit Networks on Crossbar Architectures. , 2019, , 973-1004.		3
1101	Lithography-Free Miniaturization of Resistive Nonvolatile Memory Devices to the 100 nm Scale by Glancing Angle Deposition. <i>Nano Letters</i> , 2017, 17, 1149-1153.	4.5	11
1102	Differential Work-Function Enabled Bifunctional Switching in Strontium Titanate Flexible Resistive Memories. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 7326-7333.	4.0	9
1103	Observation of conducting filament growth in nanoscale resistive memories. , 0, .		1
1104	Analogue signal and image processing with large memristor crossbars. <i>Nature Electronics</i> , 2018, 1, 52-59.	13.1	879

#	ARTICLE	IF	CITATIONS
1105	Origin of Hysteresis in Perovskite Solar Cells. , 2020, , 1-1-1-42.		19
1106	Application of phase-change materials in memory taxonomy. Science and Technology of Advanced Materials, 2017, 18, 406-429.	2.8	29
1107	Pushing the detection of cation nonstoichiometry to the limit. Physical Review Materials, 2019, 3, .	0.9	13
1108	In-place Repair for Resistive Memories Utilizing Complementary Resistive Switches. , 2016, , .		1
1109	Memristancy Effects in Solid-State Heterostructures. Metallofizika I Noveishie Tekhnologii, 2016, 38, 995-1008.	0.2	3
1110	Design and Analysis of Low Power Hybrid Memristor-CMOS Based Distinct Binary Logic Nonvolatile SRAM Cell. Circuits and Systems, 2016, 07, 119-127.	0.1	8
1111	A Comparative Study of Majority/Minority Logic Circuit Synthesis Methods for Post-CMOS Nanotechnologies. Engineering, 2017, 09, 890-915.	0.4	5
1112	Dynamic Reference Scheme with Improved Read Voltage Margin for Compensating Cell-position and Background-pattern Dependencies in Pure Memristor Array. Journal of Semiconductor Technology and Science, 2015, 15, 685-694.	0.1	7
1113	Improved Resistive Switching Characteristics of NiO Resistance Random-Access Memory Using Post-Plasma-Oxidation Process. Japanese Journal of Applied Physics, 2011, 50, 04DD13.	0.8	2
1114	Flexible One Diode-One Resistor Crossbar Resistive-Switching Memory. Japanese Journal of Applied Physics, 2012, 51, 04DD09.	0.8	28
1115	Tunability Properties and Compact Modeling of HfO ₂ -Based Complementary Resistive Switches Using a Three-Terminal Subcircuit. IEEE Transactions on Electron Devices, 2021, , 1-8.	1.6	3
1116	Oxide-based resistive switching-based devices: fabrication, influence parameters and applications. Journal of Materials Chemistry C, 2021, 9, 15755-15788.	2.7	38
1117	Timing Selector: Using Transient Switching Dynamics to Solve the Sneak Path Issue of Crossbar Arrays. Small Science, 2022, 2, 2100072.	5.8	18
1118	SiO ₂ -Based Conductive-Bridging Random Access Memory. Kluwer International Series in Electronic Materials: Science and Technology, 2022, , 147-186.	0.3	0
1119	Single-Crystalline SrTiO ₃ as Memristive Model System: From Materials Science to Neurological and Psychological Functions. Kluwer International Series in Electronic Materials: Science and Technology, 2022, , 333-354.	0.3	0
1120	Complementary resistive switching in core-shell nanowires. Journal of Applied Physics, 2021, 130, 155104.	1.1	0
1121	Resistive Switching Characteristics of ZnO-Based RRAM on Silicon Substrate. Metals, 2021, 11, 1572.	1.0	7
1122	Areal and Structural Effects on Oxide-Based Resistive Random Access Memory Cell for Improving Resistive Switching Characteristics. Japanese Journal of Applied Physics, 2012, 51, 04DD14.	0.8	2

#	ARTICLE	IF	CITATIONS
1123	Resistive Switching Models by Ion Migration in Metal Oxides. Nanostructure Science and Technology, 2013, , 169-202.	0.1	0
1127	Design Challenges and Considerations for Nanomedical Computation. , 2013, , 303-336.		0
1128	Memory Effects in Multi-terminal Solid State Devices and Their Applications. , 2014, , 429-472.		0
1129	Dynamic Response of Multiple Interconnected Memristors. Emergence, Complexity and Computation, 2016, , 29-59.	0.2	0
1130	Operating Characteristics of Amorphous GeSe-based Resistive Random Access Memory at Metal-Insulator-Silicon Structure. Journal of the Korean Institute of Electrical and Electronic Material Engineers, 2016, 29, 400-403.	0.0	0
1132	Memristor in a Nutshell. , 2017, , 159-180.		0
1133	ZnO-rGO Composite Thin Film Resistive Switching Device: Emulating Biological Synapse Behavior. Lecture Notes in Electrical Engineering, 2018, , 117-123.	0.3	3
1134	Cellular Nonlinear Networks with Memristor Synapses. , 2019, , 637-660.		0
1135	Memory Effects in Multi-terminal Solid State Devices and Their Applications. , 2019, , 1021-1064.		0
1136	Bio-inspired Neural Networks. , 2019, , 595-617.		0
1137	Memristive In Situ Computing. , 2019, , 1005-1020.		1
1138	ANN Circuit Application of Complementary Resistive Switches. Balkan Journal of Electrical and Computer Engineering, 0, , 34-43.	0.4	1
1139	Behavior of Multiple Memristor Circuits. , 2019, , 913-940.		0
1140	Memristors and Memristive Devices for Neuromorphic Computing. , 2019, , 369-389.		2
1141	If It's Pinched It's a Memristor. , 2019, , 15-88.		1
1143	The synthesis method of logic circuits based on the iMemComp gates. The Integration VLSI Journal, 2020, 74, 115-126.	1.3	2
1144	Artificial Synapse Based on a 2D-SnO ₂ Memtransistor with Dynamically Tunable Analog Switching for Neuromorphic Computing. ACS Applied Materials & Interfaces, 2021, 13, 52822-52832.	4.0	47
1145	Grain boundary effect on the resistive switching characteristics of SrTi _{1-x} FexO ₃ directly patterned via photochemical organic-metal deposition. Applied Surface Science, 2022, 575, 151754.	3.1	6

#	ARTICLE	IF	CITATIONS
1146	Design Flow for Hybrid CMOS/Memristor Systemsâ€”Part II: Circuit Schematics and Layout. IEEE Transactions on Circuits and Systems I: Regular Papers, 2021, 68, 4876-4888.	3.5	2
1147	Reconfigurable nonvolatile boolean logic with one-transistor-two-memristor for in-memory computing. Semiconductor Science and Technology, 0, , .	1.0	1
1148	In-memory computing with emerging nonvolatile memory devices. Science China Information Sciences, 2021, 64, 1.	2.7	31
1149	Memristively programmable transistors. Nanotechnology, 2022, 33, 045203.	1.3	1
1150	Memristive applications of metal oxide nanofibers. , 2022, , 247-275.		1
1151	Abnormal resistive switching in electrodeposited Prussian White thin films. Journal of Alloys and Compounds, 2022, 896, 162971.	2.8	2
1152	Memcapacitor based Minimum and Maximum Gate Design. , 2021, , .		0
1153	Mixed Ionicâ€”Electronic Charge Transport in Layered Blackâ€”Phosphorus for Lowâ€”Power Memory. Advanced Functional Materials, 2022, 32, 2107068.	7.8	16
1154	Die Area Recovery to Record a Resistive Memory in a Memristive Crossbar Array. AEU - International Journal of Electronics and Communications, 2021, 144, 154058.	1.7	0
1155	Sodiumâ€”Doped Titania Selfâ€”Rectifying Memristors for Crossbar Array Neuromorphic Architectures. Advanced Materials, 2022, 34, e2106913.	11.1	28
1156	Switching characteristic of fabricated nonvolatile bipolar resistive switching memory (ReRAM) using PEDOT: PSS/GO. Solid-State Electronics, 2022, 188, 108208.	0.8	11
1157	Recent Advances in Halide Perovskite-Based Nonvolatile Resistive Random-Access Memory. Journal of Electronic Materials, 2022, 51, 434-446.	1.0	5
1158	Enhanced Switching Characteristics of an Ovonic Threshold Switching Device With an Ultra-Thin MgO Interfacial Layer. IEEE Electron Device Letters, 2022, 43, 220-223.	2.2	9
1159	Nonvolatile Ferroelectricâ€”Domainâ€”Wall Memory Embedded in a Complex Topological Domain Structure. Advanced Materials, 2022, 34, e2107711.	11.1	32
1160	Electrical Characteristics of Magnesium Doped a-IGZO RRAM: Chemical Vapor Deposition using Enhanced Atmospheric Pressure-Plasma. , 2020, , .		1
1161	Sensing with Memristive Complementary Resistive Switch: Modelling and Simulations. , 2020, , .		1
1162	Low-voltage operation of high-density ferroelectric domain wall memory. , 2020, , .		1
1163	4-Terminal Ferroelectric Schottky Barrier Field Effect Transistors as Artificial Synapses. , 2021, , .		2

#	ARTICLE	IF	CITATIONS
1164	Controlling the Grain Size of Dionâ€“Jacobson-Phase Two-Dimensional Layered Perovskite for Memory Application. ACS Applied Materials & Interfaces, 2022, 14, 4371-4377.	4.0	15
1165	Manipulation of current rectification in van der Waals ferroionic CuiN ₂ S ₆ . Nature Communications, 2022, 13, 574.	5.8	60
1166	The fourth fundamental circuit element: principle and applications. Journal Physics D: Applied Physics, 0, , .	1.3	1
1167	Facile Achievement of Complementary Resistive Switching in Block Copolymer Micelleâ€“Based Resistive Memories. Macromolecular Rapid Communications, 2022, 43, e2100686.	2.0	2
1168	Neuron Circuits for Low-Power Spiking Neural Networks Using Time-To-First-Spike Encoding. IEEE Access, 2022, 10, 24444-24455.	2.6	8
1169	Volatile and Nonvolatile Memristive Devices for Neuromorphic Computing. Advanced Electronic Materials, 2022, 8, .	2.6	94
1170	Coexistence of non-volatile and volatile characteristics of the Pt/TaOx/TiN device. Results in Physics, 2022, 34, 105307.	2.0	5
1172	Neuromorphic applications using MOx-based memristors. , 2022, , 465-508.		1
1173	Excellent Hzo Ferroelectric Thin Films on Flexible Pet Substrate. SSRN Electronic Journal, 0, , .	0.4	0
1174	XBarNet: Computationally Efficient Memristor Crossbar Model Using Convolutional Autoencoder. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2022, 41, 5489-5500.	1.9	1
1175	The Co-Improvement of Selectivity and Uniformity on NbOâ€“-Based Selector by Al-Doping. IEEE Electron Device Letters, 2022, 43, 870-873.	2.2	8
1176	Modeling and design of a Mott selector for a ReRAM-based non-volatile memory cell inâ€“a crossbar architecture. Journal of Computational Electronics, 2022, 21, 535-549.	1.3	3
1177	Bioâ€“Inspired 3D Artificial Neuromorphic Circuits. Advanced Functional Materials, 2022, 32, .	7.8	45
1178	SPICE Implementation of the Dynamic Memdiode Model for Bipolar Resistive Switching Devices. Micromachines, 2022, 13, 330.	1.4	20
1179	Quad-Level Cell Switching with Excellent Reliability in TiN/AlOx:Ti/TaOx/TiN Memory Device. Materials, 2022, 15, 2402.	1.3	1
1180	Resistive switching properties for fluorine doped titania fabricated using atomic layer deposition. APL Materials, 2022, 10, .	2.2	9
1181	Multifunctional Bipolar and Complementary Resistive Switching in HOIP Memristors by the Control of Compliance Current. ACS Applied Electronic Materials, 2022, 4, 1039-1046.	2.0	6
1182	Constructing van der Waals heterostructures by dry-transfer assembly for novel optoelectronic device. Nanotechnology, 2022, 33, 465601.	1.3	7

#	ARTICLE	IF	CITATIONS
1183	Ferroelectric-gated ReS ₂ field-effect transistors for nonvolatile memory. Nano Research, 2022, 15, 5443-5449.	5.8	5
1184	Temperature-Frequency Study of Germanium Selenide Memristors with a Self-Directed Current-Conducting Channel. Russian Microelectronics, 2022, 51, 59-67.	0.1	1
1185	Switching-behavior improvement in HfO ₂ /ZnO bilayer memory devices by tailoring of interfacial and microstructural characteristics. Nanotechnology, 2022, 33, 255703.	1.3	5
1186	CoMIC: Complementary Memristor based in-memory computing in 3D architecture. Journal of Systems Architecture, 2022, 126, 102480.	2.5	3
1187	Recent progress of perovskite devices fabricated using thermal evaporation method: Perspective and outlook. Materials Today Advances, 2022, 14, 100232.	2.5	28
1189	Advancing in-memory Arithmetic Based on CMOS-integrable Memristive Crossbar Structures. , 2021, 1, 80-89.		0
1190	TReMo+: Modeling Ternary and Binary ReRAM-Based Memories With Flexible Write-Verification Mechanisms. Frontiers in Nanotechnology, 2021, 3, .	2.4	2
1191	Four-Terminal Ferroelectric Schottky Barrier Field Effect Transistors as Artificial Synapses for Neuromorphic Applications. IEEE Journal of the Electron Devices Society, 2022, 10, 569-574.	1.2	2
1192	SPICE Model for Complementary Resistive Switching Devices Based on Anti-Serially Connected Quasi-Static Memdiodes. Solid-State Electronics, 2022, , 108312.	0.8	0
1194	Nonvolatile Plasmonics Based on Optically Reprogrammable Phase Change Materials. IEEE Photonics Journal, 2022, 14, 1-8.	1.0	6
1195	Methods of controlling operation modes in Pt/TaO _x /Ta ₂ O ₅ /Pt resistive switching cells. Japanese Journal of Applied Physics, 2022, 61, SM1006.	0.8	1
1196	Reliable resistive switching and synaptic plasticity in Ar ⁺ -irradiated single-crystalline LiNbO ₃ memristor. Applied Surface Science, 2022, 596, 153653.	3.1	15
1197	Material and Structural Engineering of Ovonic Threshold Switch for Highly Reliable Performance. Advanced Electronic Materials, 2022, 8, .	2.6	5
1198	Water-soluble polyethylene-oxide polymer based memristive devices. Microelectronic Engineering, 2022, 260, 111806.	1.1	3
1199	Analogue In-Memory Computing with Resistive Switching Memories. , 2022, , 61-86.		2
1200	Dynamic evolution process from bipolar to complementary resistive switching in non-inert electrode RRAM. Applied Physics Letters, 2022, 120, .	1.5	5
1201	Improvement of forming-free threshold switching reliability of CeO ₂ -based selector device by controlling volatile filament formation behaviors. APL Materials, 2022, 10, .	2.2	9
1202	Low power memristive gas sensor architectures with improved sensing accuracy. Journal of Computational Electronics, 2022, 21, 1005-1016.	1.3	1

#	ARTICLE	IF	CITATIONS
1203	A complementary resistive switching neuron. <i>Nanotechnology</i> , 2022, 33, 355201.	1.3	6
1204	Electroforming-free threshold switching of NbO _x -based selector devices by controlling conducting phases in the NbO _x layer for the application to crossbar array architectures. <i>RSC Advances</i> , 2022, 12, 18547-18558.	1.7	3
1205	Excellent HZO ferroelectric thin films on flexible PET substrate. <i>Journal of Alloys and Compounds</i> , 2022, 919, 165872.	2.8	8
1206	Computing with nonvolatile memories for artificial intelligence. , 2022, , 305-334.		4
1207	Resistive switching in metal oxides for various applications. , 2022, , 273-299.		1
1208	In-depth understanding of physical mechanism of the gradual switching in AlO _x Ny-based RRAM as memory and synapse device. <i>Applied Physics Letters</i> , 2022, 120, .	1.5	3
1209	Tunable Volatile to Non-Volatile Resistive Switching in PbZrO ₃ Antiferroelectric Thin Film for Neuromorphic Computing. <i>Advanced Materials Interfaces</i> , 2022, 9, .	1.9	5
1210	Improved threshold switching characteristics of vanadium oxide/oxynitride-based multilayer selector in a cross-point array. <i>Journal of Alloys and Compounds</i> , 2022, 922, 166192.	2.8	7
1211	Beyond CMOS. , 2021, , .		2
1212	Nanoionic memristive phenomena in metal oxides: the valence change mechanism. <i>Advances in Physics</i> , 2021, 70, 155-349.	35.9	60
1213	Complementary Resistive Switching Behavior in Tetraindolyl Derivative-Based Memory Devices. <i>Langmuir</i> , 2022, 38, 9229-9238.	1.6	4
1214	Influence of non-inert electrode thickness on the performance of complementary resistive switching in AlO _x Ny-based RRAM. <i>Applied Physics Letters</i> , 2022, 121, .	1.5	5
1215	An FPGA-based system for generalised electron devices testing. <i>Scientific Reports</i> , 2022, 12, .	1.6	5
1216	Advances of Various Heterogeneous Structure Types in Molecular Junction Systems and Their Charge Transport Properties. <i>Advanced Science</i> , 2022, 9, .	5.6	6
1217	Simulation of Low Power Self-Selective Memristive Neural Networks for in situ Digital and Analogue Artificial Neural Network Applications. <i>IEEE Nanotechnology Magazine</i> , 2022, 21, 505-513.	1.1	8
1218	Mechanism Analysis and Highly Scaled Aluminum Nitride-Based Self-Rectifying Memristors. <i>Advanced Electronic Materials</i> , 0, , 2200702.	2.6	0
1219	Memristive Switching and Density-Functional Theory Calculations in Double Nitride Insulating Layers. <i>Micromachines</i> , 2022, 13, 1498.	1.4	0
1220	Review on data-centric brain-inspired computing paradigms exploiting emerging memory devices. <i>Frontiers in Electronic Materials</i> , 0, 2, .	1.6	0

#	ARTICLE	IF	CITATIONS
1221	Study on sneak path effect in self-rectifying crossbar arrays based on emerging memristive devices. <i>Frontiers in Electronic Materials</i> , 0, 2, .	1.6	1
1222	Thermal stable and low current complementary resistive switch with limited Cu source in amorphous carbon. <i>Applied Physics Letters</i> , 2022, 121, 183502.	1.5	1
1223	Nano-intrinsic security primitives with redox-based resistive memory. <i>Frontiers in Communications and Networks</i> , 0, 3, .	1.9	0
1224	Impact of Surface Roughness and Material Properties of Inert Electrodes on the Threshold Voltages and Their Distributions of ReRAM Memory Cells. <i>ECS Journal of Solid State Science and Technology</i> , 2022, 11, 104007.	0.9	2
1225	Electronegative metal dopants improve switching variability in Al_2O_3 resistive switching devices. <i>Physical Review Materials</i> , 2022, 6, .	0.9	4
1226	Synergistic Approach of Interfacial Layer Engineering and READ-Voltage Optimization in HfO_2 -Based FeFETs for In-Memory-Computing Applications. <i>ACS Applied Electronic Materials</i> , 2022, 4, 5292-5300.	2.0	12
1227	Existence of bipolar resistive switching with self-rectifying behavior in a p-CuCrO ₂ /n-Si heterostructure. <i>Thin Solid Films</i> , 2022, 762, 139542.	0.8	3
1228	Drift Speed Adaptive Memristor SPICE Model Implementation and Applications in Logic Circuits. , 2022, , .		0
1229	On Side-Channel Analysis of Memristive Cryptographic Circuits. <i>IEEE Transactions on Information Forensics and Security</i> , 2023, 18, 463-476.	4.5	2
1230	Uncertainty Quantification of Signal Integrity Analysis for Neuromorphic Chips. , 2022, 1, 160-169.		3
1231	Performance-based comparative study of existing and emerging non-volatile memories: a review. <i>Journal of Optics (India)</i> , 2023, 52, 2395-2409.	0.8	2
1232	A review of memristor: material and structure design, device performance, applications and prospects. <i>Science and Technology of Advanced Materials</i> , 2023, 24, .	2.8	24
1233	Investigation of lithium (Li) doping on the resistive switching property of p-Li:NiO/n- Ga_2O_3 thin-film based heterojunction devices. <i>Applied Physics Letters</i> , 2023, 122, 023501.	1.5	3
1234	Tunable electrical field-induced metal-insulator phase separation in LiCoO ₂ synaptic transistor operating in post-percolation region. <i>Nano Energy</i> , 2023, 108, 108199.	8.2	2
1235	Unlocking Sneak Path Analysis in Memristor Based Logic Design Styles. , 2022, , .		0
1236	A High Efficiency Memristor Array Simulation Model for Memristive Neuromorphic Chip Design. , 2022, , .		0
1237	Heterosynaptic Plasticity and Neuromorphic Boolean Logic Enabled by Ferroelectric Polarization Modulated Schottky Diodes. <i>Advanced Electronic Materials</i> , 0, , 2201155.	2.6	2
1238	Recent progress in bio-voltage memristors working with ultralow voltage of biological amplitude. <i>Nanoscale</i> , 2023, 15, 4669-4681.	2.8	2

#	ARTICLE	IF	CITATIONS
1239	Highly Reliable Threshold Switching Characteristics of Surface-Modulated Diffusive Memristors Immune to Atmospheric Changes. ACS Applied Materials & Interfaces, 2023, 15, 5495-5503.	4.0	3
1240	Improved Capacitive Memory in Glancing Angle Electron-Beam Synthesized Isotropic Bilayer n-TiO ₂ /In ₂ O ₃ Nanowires Array. IEEE Nanotechnology Magazine, 2023, 22, 70-75.	1.1	3
1241	A Self-Rectifying Synaptic Memristor Array with Ultrahigh Weight Potentiation Linearity for a Self-Organizing-Map Neural Network. Nano Letters, 2023, 23, 3107-3115.	4.5	12
1242	Multilevel resistive switching with negative differential resistance in Al/NiO/ZnFe ₂ O ₄ /ITO ReRAM device. Physica B: Condensed Matter, 2023, 654, 414742.	1.3	9
1243	Analysis of the Electrical ReRAM Device Degradation Induced by Thermal Cross-Talk. Advanced Electronic Materials, 2023, 9, .	2.6	3
1244	Laser printed microelectronics. Nature Communications, 2023, 14, .	5.8	14
1245	Spatio-Temporal Correlations in Memristive Crossbar Arrays due to Thermal Effects. Advanced Functional Materials, 2023, 33, .	7.8	1
1246	Highly Reliable Ovonic Threshold Switch with TiN/GeTe/TiN Structure. Materials, 2023, 16, 2066.	1.3	3
1247	Controllable Coexistence of Threshold and Non-volatile Crosspoint Memory for Highly Linear Synaptic Device Applications. Journal Physics D: Applied Physics, 0, , .	1.3	0
1248	Oxide Based Memristors: Fabrication, Mechanism, and Application. , 2018, , 581-596.		0
1249	Advantageous properties of halide perovskite quantum dots towards energy-efficient sustainable applications. Green Energy and Environment, 2023, , .	4.7	4
1250	Complementary Resistive Switching in ZnO/Al ₂ O ₃ Bi-Layer Devices. IEEE Nanotechnology Magazine, 2023, 22, 206-213.	1.1	1
1253	Resistive switching behavior in nonmagnetic oxides. , 2023, , 625-668.		0
1255	Eliminating Capacitive Sneak Paths in Associative Capacitive Networks based on Complementary Resistive Switches for In-Memory Computing. , 2023, , .		0
1256	RAELLA: Reforming the Arithmetic for Efficient, Low-Resolution, and Low-Loss Analog PIM: No Retraining Required!. , 2023, , .		2
1262	Piezotronic Logic Circuits and Memories. Microtechnology and MEMS, 2023, , 161-188.	0.2	0
1270	Porous crystalline materials for memories and neuromorphic computing systems. Chemical Society Reviews, 2023, 52, 7071-7136.	18.7	14
1273	Organic Resistive Memories for Neuromorphic Electronics. , 2023, , 60-120.		0

#	ARTICLE	IF	CITATIONS
1275	Thermal Reliability Issues in ReRAM Memory Arrays. , 0, , .		0
1277	Memory Technology: Development, Fundamentals, and Future Trends. , 2023, , 1-36.		0
1278	Indiumâ€“Galliumâ€“Zinc Oxide (IGZO)-based ReRAM: Material Overview, Latest Development and Technology Perspective. , 2023, , 270-289.		1
1283	Side-channel Attacks on Memristive Circuits Under External Disturbances. , 2023, , .		0
1287	Nanoscale memristive devices: Threats and solutions. , 2024, , 137-163.		0