Themis Prodromakis

List of Publications by Year
in descending order

211 papers	5,906 citations	117625 34 h-index	85541 71 g-index
216 all docs	216 docs citations	216 times ranked	5787 citing authors

#	Article	IF	Citations
1	Integration of nanoscale memristor synapses in neuromorphic computing architectures. Nanotechnology, 2013, 24, 384010.	2.6	469
2	A Versatile Memristor Model With Nonlinear Dopant Kinetics. IEEE Transactions on Electron Devices, 2011, 58, 3099-3105.	3.0	463
3	STDP and STDP variations with memristors for spiking neuromorphic learning systems. Frontiers in Neuroscience, 2013, 7, 2.	2.8	368
4	Two centuries of memristors. Nature Materials, 2012, 11, 478-481.	27.5	334
5	Unsupervised learning in probabilistic neural networks with multi-state metal-oxide memristive synapses. Nature Communications, 2016, 7, 12611.	12.8	266
6	Multibit memory operation of metal-oxide bi-layer memristors. Scientific Reports, 2017, 7, 17532.	3.3	228
7	Engineering the Maxwellâ€“Wagner polarization effect. Applied Surface Science, 2009, 255, 6989-6994.	6.1	191
8	The effect of microgrooved culture substrates on calcium cycling of cardiac myocytes derived from human induced pluripotent stem cells. Biomaterials, 2013, 34, 2399-2411.	11.4	154
9	Analog Memristive Synapse in Spiking Networks Implementing Unsupervised Learning. Frontiers in Neuroscience, 2016, 10, 482.	2.8	142
10	Real-time encoding and compression of neuronal spikes by metal-oxide memristors. Nature Communications, 2016, 7, 12805.	12.8	141
11	Standards for the Characterization of Endurance in Resistive Switching Devices. ACS Nano, 2021, 15, 17214-17231.	14.6	128
12	Emulating short-term synaptic dynamics with memristive devices. Scientific Reports, 2016, 6, 18639.	3.3	104
13	Memory Impedance in TiO2 based Metal-Insulator-Metal Devices. Scientific Reports, 2014, 4, 4522.	3.3	97
14	Challenges hindering memristive neuromorphic hardware from going mainstream. Nature Communications, 2018, 9, 5267.	12.8	75
15	A <inline-formula> <tex-math notation="LaTeX">$mu $ </tex-math></inline-formula>-Controller-Based System for Interfacing Selectorless RRAM Crossbar Arrays. IEEE Transactions on Electron Devices, 2015, 62, 2190-2196.	3.0	73
16	A Data-Driven Verilog-A ReRAM Model. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2018, 37, 3151-3162.	2.7	73
17	Investigation of the Switching Mechanism in TiO₂-Based RRAM: A Two-Dimensional EDX Approach. ACS Applied Materials & Interfaces, 2016, 8, 19605-19611.	8.0	69
18	An Extended CMOS ISFET Model Incorporating the Physical Design Geometry and the Effects on Performance and Offset Variation. IEEE Transactions on Electron Devices, 2011, 58, 4414-4422.	3.0	63

#	Article	IF	Citations
19	A review on memristive devices and applications. , 2010, , .		62
20	Memristive synapses connect brain and silicon spiking neurons. Scientific Reports, 2020, 10, 2590.	3.3	59
21	Poly(N-isopropylacrylamide) based thin microgel films for use in cell culture applications. Scientific Reports, 2020, 10, 6126.	3.3	59
22	A Proposal for Hybrid Memristor-CMOS Spiking Neuromorphic Learning Systems. IEEE Circuits and Systems Magazine, 2013, 13, 74-88.	2.3	56
23	Oxygen plasma induced hydrophilicity of Parylene-C thin films. Applied Surface Science, 2012, 261, 43-51.	6.1	54
24	Resistive switching of oxygen enhanced TiO2 thin-film devices. Applied Physics Letters, 2013, 102, .	3.3	54
25	A Memristor SPICE Model Accounting for Volatile Characteristics of Practical ReRAM. IEEE Electron Device Letters, 2014, 35, 135-137.	3.9	51
26	Experimental study of gradual/abrupt dynamics of HfO2-based memristive devices. Applied Physics Letters, 2016, 109, .	3.3	49
27	Role and Optimization of the Active Oxide Layer in TiO₂â€Based RRAM. Advanced Functional Materials, 2016, 26, 507-513.	14.9	49
28	A CMOS-Based ISFET Chemical Imager With Auto-Calibration Capability. IEEE Sensors Journal, 2011, 11, 3253-3260.	4.7	45
29	High precision analogue memristor state tuning. Electronics Letters, 2012, 48, 1105-1107.	1.0	45
30	Amperometric IFN-Î³ immunosensors with commercially fabricated PCB sensing electrodes. Biosensors and Bioelectronics, 2016, 86, 805-810.	10.1	41
31	Low-power electronic technologies for harsh radiation environments. Nature Electronics, 2021, 4, 243-253.	26.0	39
32	Biomimetic model of the outer plexiform layer by incorporating memristive devices. Physical Review E, 2012, 85, 041918.	2.1	38
33	Surface and Electrical Characterization of Ag/AgCl Pseudo-Reference Electrodes Manufactured with Commercially Available PCB Technologies. Sensors, 2015, 15, 18102-18113.	3.8	38
34	Seamlessly fused digital-analogue reconfigurable computing using memristors. Nature Communications, 2018, 9, 2170.	12.8	38
35	Transformation of digital to analog switching in TaOx-based memristor device for neuromorphic applications. Applied Physics Letters, 2021, 118, .	3.3	37
36	Switching mechanisms in microscale memristors. Electronics Letters, 2010, 46, 63.	1.0	36

#	Article	IF	Citations
37	Selective hydrophilic modification of Parylene C films: a new approach to cell micro-patterning for synthetic biology applications. Biofabrication, 2014, 6, 025004.	7.1	36
38	Implementation of a spike-based perceptron learning rule using TiO2â^'x memristors. Frontiers in Neuroscience, 2015, 9, 357.	2.8	35
39	A Novel Microfluidic Point-of-Care Biosensor System on Printed Circuit Board for Cytokine Detection. Sensors, 2018, 18, 4011.	3.8	35
40	Pulse-induced resistive and capacitive switching in TiO2 thin film devices. Applied Physics Letters, 2013, 103, .	3.3	34
41	Conductive Atomic Force Microscopy Investigation of Switching Thresholds in Titanium Dioxide Thin Films. Journal of Physical Chemistry C, 2015, 119, 11958-11964.	3.1	34
42	Conduction mechanisms at distinct resistive levels of Pt/TiO2-x/Pt memristors. Applied Physics Letters, 2018, 113, .	3.3	33
43	The dual role of Parylene C in chemical sensing: Acting as an encapsulant and as a sensing membrane for pH monitoring applications. Sensors and Actuators B: Chemical, 2013, 186, 1-8.	7.8	32
44	X-ray Absorption Spectroscopy Study of TiO_{2â€“x} Thin Films for Memory Applications. Journal of Physical Chemistry C, 2015, 119, 4362-4370.	3.1	32
45	HfO2-based memristors for neuromorphic applications. , 2016, , .		32
46	High Density Crossbar Arrays with Sub- 15â€‰nm Single Cells via Liftoff Process Only. Scientific Reports, 2016, 6, 32614.	3.3	32
47	Practical Implementation of Memristor-Based Threshold Logic Gates. IEEE Transactions on Circuits and Systems I: Regular Papers, 2019, 66, 3041-3051.	5.4	32
48	Memristive devices as parameter setting elements in programmable gain amplifiers. Applied Physics Letters, 2012, 101, 243502.	3.3	31
49	Reviewâ€”Progress in Electrolytes for Rechargeable Aluminium Batteries. Journal of the Electrochemical Society, 2021, 168, 056509.	2.9	31
50	A Memristor SPICE Model Accounting for Synaptic Activity Dependence. PLoS ONE, 2015, 10, e0120506.	2.5	30
51	Coexistence of memory resistance and memory capacitance in TiO2 solid-state devices. Nanoscale Research Letters, 2014, 9, 552.	5.7	29
52	Effects of Ar and O₂ Plasma Etching on Parylene C: Topography versus Surface Chemistry and the Impact on Cell Viability. Plasma Processes and Polymers, 2016, 13, 324-333.	3.0	29
53	An RRAM Biasing Parameter Optimizer. IEEE Transactions on Electron Devices, 2015, 62, 3685-3691.	3.0	27
54	Spatially resolved TiOx phases in switched RRAM devices using soft X-ray spectromicroscopy. Scientific Reports, 2016, 6, 21525.	3.3	27

#	Article	IF	Citations
55	Engineering the switching dynamics of TiOx-based RRAM with Al doping. Journal of Applied Physics, 2016, 120, .	2.5	26
56	Origin of the OFF state variability in ReRAM cells. Journal Physics D: Applied Physics, 2014, 47, 145102.	2.8	25
57	An Assay System for Point-of-Care Diagnosis of Tuberculosis using Commercially Manufactured PCB Technology. Scientific Reports, 2017, 7, 685.	3.3	25
58	Microfluidic evaporator for on-chip sample concentration. Lab on A Chip, 2012, 12, 4049.	6.0	24
59	Parylene C-Based Flexible Electronics for pH Monitoring Applications. Sensors, 2014, 14, 11629-11639.	3.8	24
60	Practical Determination of Individual Element Resistive States in Selectorless RRAM Arrays. IEEE Transactions on Circuits and Systems I: Regular Papers, 2016, 63, 827-835.	5.4	24
61	Functional Connectivity of Organic Neuromorphic Devices by Global Voltage Oscillations. Advanced Intelligent Systems, 2019, 1, 1900013.	6.1	24
62	Advances in Organic and Perovskite Photovoltaics Enabling a Greener Internet of Things. Advanced Functional Materials, 2022, 32, .	14.9	24
63	Impact of ultra-thin Al2O3â€“y layers on TiO2â€“x ReRAM switching characteristics. Journal of Applied Physics, 2017, 121, .	2.5	23
64	Exploiting CMOS Technology to Enhance the Performance of ISFET Sensors. IEEE Electron Device Letters, 2010, 31, 1053-1055.	3.9	22
65	Electrical characteristics of interfacial barriers at metalâ€”TiO₂ contacts. Journal Physics D: Applied Physics, 2018, 51, 425101.	2.8	22
66	A Low-Cost Disposable Chemical Sensing Platform Based on Discrete Components. IEEE Electron Device Letters, 2011, 32, 417-419.	3.9	21
67	Biorealistic cardiac cell culture platforms with integrated monitoring of extracellular action potentials. Scientific Reports, 2015, 5, 11067.	3.3	20
68	Biocompatible encapsulation of CMOS based chemical sensors. , 2009, , .		19
69	A Cell Classifier for RRAM Process Development. IEEE Transactions on Circuits and Systems II: Express Briefs, 2015, 62, 676-680.	3.0	19
70	An amorphous titanium dioxide metal insulator metal selector device for resistive random access memory crossbar arrays with tunable voltage margin. Applied Physics Letters, 2016, 108, .	3.3	19
71	Sub 100 nW Volatile Nano-Metal-Oxide Memristor as Synaptic-Like Encoder of Neuronal Spikes. IEEE Transactions on Biomedical Circuits and Systems, 2018, 12, 351-359.	4.0	19
72	An Electrical Characterisation Methodology for Benchmarking Memristive Device Technologies. Scientific Reports, 2019, 9, 19412.	3.3	19

#	Article	IF	Citations
73	Resistive switching of Pt/TiO_x/Pt devices fabricated on flexible Parylene-C substrates. Nanotechnology, 2017, 28, 025303.	2.6	18
74	High-performance PCB-based capillary pumps for affordable point-of-care diagnostics. Microfluidics and Nanofluidics, 2017, 21, 103.	2.2	18
75	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.	5.4	16
76	Long-lasting FR-4 surface hydrophilisation towards commercial PCB passive microfluidics. Applied Surface Science, 2016, 368, 69-75.	6.1	16
77	Magnetic stimulation in the microscale: the development of a 6 Ã— 6 array of micro-coils for stimulation of excitable cells in vitro. Biomedical Physics and Engineering Express, 2018, 4, 025016.	1.2	16
78	Fabrication and electrical characteristics of memristors with TiO<inf>2</inf>/TiO<inf>2+x</inf> active layers. , 2010, , .		15
79	Gradual set dynamics in HfO₂-based memristor driven by sub-threshold voltage pulses. , 2015, , .		15
80	Practical micro/nano fabrication implementations of memristive devices. , 2010, , .		14
81	A novel design approach for developing chemical sensing platforms using inexpensive technologies. , 2011, , .		14
82	A Memristive Switching Uncertainty Model. IEEE Transactions on Electron Devices, 2019, 66, 2946-2953.	3.0	14
83	Live demonstration: A versatile, low-cost platform for testing large ReRAM cross-bar arrays. , 2014, , .		13
84	Stochastic switching of TiO2-based memristive devices with identical initial memory states. Nanoscale Research Letters, 2014, 9, 293.	5.7	13
85	Computing Shortest Paths in 2D and 3D Memristive Networks. , 2014, , 537-552.		13
86	Cost-effective fabrication of nanoscale electrode memristors with reproducible electrical response. Micro and Nano Letters, 2010, 5, 91.	1.3	12
87	On the origin of resistive switching volatility in Ni/TiO2/Ni stacks. Journal of Applied Physics, 2016, 120, .	2.5	12
88	Parylene C topographic micropattern as a template for patterning PDMS and Polyacrylamide hydrogel. Scientific Reports, 2017, 7, 5764.	3.3	12
89	Effect of patterned polyacrylamide hydrogel on morphology and orientation of cultured NRVMs. Scientific Reports, 2018, 8, 11991.	3.3	12
90	Batch encapsulation technique for CMOS based chemical sensors. , 2008, , .		11

#	Article	IF	Citations
91	Assessment of Parylene C Thin Films for Heart Valve Tissue Engineering. Tissue Engineering - Part A, 2015, 21, 2504-2514.	3.1	11
92	X-ray spectromicroscopy investigation of soft and hard breakdown in RRAM devices. Nanotechnology, 2016, 27, 345705.	2.6	11
93	Surface Chemistry and Microtopography of Parylene C Films Control the Morphology and Microtubule Density of Cardiac Myocytes. Tissue Engineering - Part C: Methods, 2016, 22, 464-472.	2.1	10
94	Computationally efficient concentrationâ€based model for accurate evaluation of T â€junction inlet staggered herringbone micromixers. Micro and Nano Letters, 2016, 11, 236-239.	1.3	10
95	A TiO2 ReRAM parameter extraction method. , 2017, , .		10
96	Surface Acoustic Wave Resonators for Wireless Sensor Network Applications in the 433.92 MHz ISM Band. Sensors, 2020, 20, 4294.	3.8	10
97	Design Flow for Hybrid CMOS/Memristor Systemsâ€”Part I: Modeling and Verification Steps. IEEE Transactions on Circuits and Systems I: Regular Papers, 2021, 68, 4862-4875.	5.4	9
98	A CMOS-based lab-on-chip array for the combined magnetic stimulation and opto-chemical sensing of neural tissue. , 2010, , .		8
99	The Lab-on-PCB framework for affordable, electronic-based point-of-care diagnostics: From design to manufacturing. , 2016, , .		8
100	Interface Asymmetry Induced by Symmetric Electrodes on Metalâ€“Al:TiO$_{x}$â€“Metal Structures. IEEE Nanotechnology Magazine, 2018, 17, 867-872.	2.0	8
101	Bidirectional Volatile Signatures of Metalâ€“Oxide Memristorsâ€”Part I: Characterization. IEEE Transactions on Electron Devices, 2020, 67, 5158-5165.	3.0	8
102	Applications of solid-state memristors in tunable filters. , 2014, , .		7
103	Design considerations for a CMOS Lab-on-Chip microheater array to facilitate the in vitro thermal stimulation of neurons. , 2014, , .		7
104	Limitations and precision requirements for read-out of passive, linear, selectorless RRAM arrays. , 2015, , .		7
105	High-sensitivity memristor-based threshold detection. , 2018, , .		7
106	Negative effect of cations out-diffusion and auto-doping on switching mechanisms of transparent memristor devices employing ZnO/ITO heterostructure. Applied Physics Letters, 2021, 118, .	3.3	7
107	Electron Transporting Perylene Diimide-Based Random Terpolymers with Variable Co-Monomer Feed Ratio: A Route to All-Polymer-Based Photodiodes. Macromolecules, 2022, 55, 672-683.	4.8	7
108	Towards a microstrip antenna on synthetic high-dielectric constant substrates. , 0, , .		6

#	Article	IF	Citations
109	Effect of mobile ionic-charge on CMOS based ion-sensitive field-effect transistors (ISFETs). , 2009, , .		6
110	A PCB-based electronic ELISA system for rapid, portable infectious disease diagnosis. , 2016, , .		6
111	A TiO2-based volatile threshold switching selector device with 107 non linearity and sub 100 pA Off current. , 2016, , .		6
112	Live demonstration: A TiO2 ReRAM parameter extraction method. , 2017, , .		6
113	Spike sorting using non-volatile metal-oxide memristors. Faraday Discussions, 2019, 213, 511-520.	3.2	6
114	An electrical characterisation methodology for identifying the switching mechanism in TiO2 memristive stacks. Scientific Reports, 2019, 9, 8168.	3.3	6
115	Monitoring PSA levels as chemical state-variables in metal-oxide memristors. Scientific Reports, 2020, 10, 15281.	3.3	6
116	Formation and Stability of Smooth Thin Films with Soft Microgels Made of Poly(N-Isopropylacrylamide) and Poly(Acrylic Acid). Polymers, 2020, 12, 2638.	4.5	6
117	Bidirectional Volatile Signatures of Metal-Oxide Memristorsâ€”Part II: Modeling. IEEE Transactions on Electron Devices, 2020, 67, 5166-5173.	3.0	6
118	Computing Image and Motion with 3-D Memristive Grids. , 2014, , 553-583.		6
119	TWO CENTURIES OF MEMRISTORS. , 2013, , 508-517.		5
120	Temporal processing with volatile memristors. , 2013, , .		5
121	Impact of active areas on electrical characteristics of TiO<inf>2</inf> based solid-state memristors. , 2015, , .		5
122	Volatility Characterization for RRAM Devices. IEEE Electron Device Letters, 2017, 38, 28-31.	3.9	5
123	Electrochemical metallization ReRAMs (ECM) - Experiments and modelling: general discussion. Faraday Discussions, 2019, 213, 115-150.	3.2	5
124	An FPGA Based System for Interfacing with Crossbar Arrays. , 2020, , .		5
125	Frequency Response of Metal-Oxide Memristors. IEEE Transactions on Electron Devices, 2021, 68, 3636-3642.	3.0	5
126	Tissue Engineering Techniques in Cardiac Repair and Disease Modelling. Current Pharmaceutical Design, 2014, 20, 2048-2056.	1.9	5

#	Article	IF	Citations
127	Technology agnostic frequency characterization methodology for memristors. Scientific Reports, 2021, 11, 20599.	3.3	5
128	Conduction channel configuration controlled digital and analogÂresponse in TiO₂-based inorganic memristive artificial synapses. APL Materials, 2021, 9, 121103.	5.1	5
129	NeuroPack: An Algorithm-Level Python-Based Simulator for Memristor-Empowered Neuro-Inspired Computing. Frontiers in Nanotechnology, 2022, 4, .	4.8	5
130	Palimpsest memories stored in memristive synapses. Science Advances, 2022, 8, .	10.3	5
131	Distributed Filter Design on Silicon CMOS. , 0, , .		4
132	A Miniaturized Delay Line based on Slow-Wave Substrates. , 2007, , .		4
133	Application of Maxwellâ€“Wagner polarization in delay lines. Microelectronics Journal, 2010, 41, 17-24.	2.0	4
134	Live demonstration: A CMOS-based lab-on-chip array for combined magnetic manipulation and opto-chemical sensing. , 2011, , .		4
135	Metal Oxide-enabled Reconfigurable Memristive Threshold Logic Gates. , 2018, , .		4
136	Modular Pressure and Flow Rate-Balanced Microfluidic Serial Dilution Networks for Miniaturised Point-of-Care Diagnostic Platforms. Sensors, 2019, 19, 911.	3.8	4
137	UV induced resistive switching in hybrid polymer metal oxide memristors. Scientific Reports, 2020, 10, 21130.	3.3	4
138	Analysing and measuring the performance of memristive integrating amplifiers. International Journal of Circuit Theory and Applications, 2021, 49, 3507-3525.	2.0	4
139	Compact Modeling of the Switching Dynamics and Temperature Dependencies in TiOâ,“-Based Memristorsâ€”Part I: Behavioral Model. IEEE Transactions on Electron Devices, 2021, 68, 4877-4884.	3.0	4
140	Low-power supralinear photocurrent generation via excited state fusion in single-component nanostructured organic photodetectors. Journal of Materials Chemistry C, 2022, 10, 7575-7585.	5.5	4
141	An Adiabatic Capacitive Artificial Neuron With RRAM-Based Threshold Detection for Energy-Efficient Neuromorphic Computing. IEEE Transactions on Circuits and Systems I: Regular Papers, 2022, 69, 3512-3525.	5.4	4
142	Micro-scale lowpass filters based on the Maxwell-Wagner phenomenon. , 2007, , .		3
143	Microstrip stepped impedance lowpass filters based on the maxwell-wagner polarization mechanism. , 2008, , .		3
144	Resistive switching characteristics of indiumâ€tinâ€oxide thin film devices. Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 1194-1199.	1.8	3

#	Article	IF	Citations
145	A planar micro-magnetic platform for stimulation of neural cells in vitro. , 2016, , .		3
146	Towards a memristor-based spike-sorting platform. , 2016, , .		3
147	Correlated resistive/capacitive state variability in solid TiO2 based memory devices. Applied Physics A: Materials Science and Processing, 2017, 123, 1.	2.3	3
148	A memristor-CMOS hybrid architecture concept for on-line template matching. , 2017, , .		3
149	An Embedded Environmental Control Micro-chamber System for RRAM Memristor Characterisation. , 2018, , .		3
150	Thermal Effects on Initial Volatile Response and Relaxation Dynamics of Resistive RAM Devices. IEEE Electron Device Letters, 2022, 43, 386-389.	3.9	3
151	Low-cost implementations of pH monitoring platforms. , 2011, , .		2
152	Structured Culture Scaffolds Improve the Calcium Handling Properties of Cardiomyocytes Differentiated from Induced Pluripotent Stem Cells. Biophysical Journal, 2012, 102, 103a.	0.5	2
153	Towards a high-precision, embedded system for versatile sensitive biosensing measurements. , 2015, , .		2
154	Live demonstration: Characterization of RRAM crossbar arrays at a click of a button. , 2016, , .		2
155	Towards a smartphone-aided electronic ELISA for real-time electrochemical monitoring. , 2017, , .		2
156	A Sub-30 mpH Resolution Thin Film Transistor-Based Nanoribbon Biosensing Platform. Sensors, 2017, 17, 2000.	3.8	2
157	Processing big-data with Memristive Technologies: Splitting the Hyperplane Efficiently. , 2018, , .		2
158	Benchmarking Analogue Performance of Emerging Random Access Memory Technologies. , 2018, , .		2
159	Synaptic and neuromorphic functions: general discussion. Faraday Discussions, 2019, 213, 553-578.	3.2	2
160	Valence change ReRAMs (VCM) - Experiments and modelling: general discussion. Faraday Discussions, 2019, 213, 259-286.	3.2	2
161	Microstructured hybrid scaffolds for aligning neonatal rat ventricular myocytes. Materials Science and Engineering C, 2019, 103, 109783.	7.3	2
162	Impact of Line Edge Roughness on ReRAM Uniformity and Scaling. Materials, 2019, 12, 3972.	2.9	2

#	Article	IF	Citations
163	A RRAM-Based Associative Memory Cell. , 2021, , .		2
164	Practical demonstration of a RRAM memory fuse. International Journal of Circuit Theory and Applications, 2021, 49, 2363-2372.	2.0	2
165	Compact Modeling of the Switching Dynamics and Temperature Dependencies in TiOâ„ Memristorsâ€”Part II: Physics-Based Model. IEEE Transactions on Electron Devices, 2021, 68, 4885-4890.	3.0	2
166	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.	5.4	2
167	Conductive Polymers As Hybrid Battery-Capacitor Electrode Materials. ECS Meeting Abstracts, 2020, MA2020-02, 336-336.	0.0	2
168	Formation of a ternary oxide barrier layer and its role in switching characteristic of ZnO-based conductive bridge random access memory devices. APL Materials, 2022, 10, 031103.	5.1	2
169	Cellular neural networks with memristive cell devices. , 2010, , .		1
170	A Biomimetic Model of the Outer Plexiform Layer by Incorporating Memristive Devices. Nature Precedings, 2011, , .	0.1	1
171	Qualitative SPICE modeling accounting for volatile dynamics of TiO<inf>2</inf> memristors. , 2014, , .		1
172	Memristors as synapse emulators in the context of event-based computation. , 2014, , .		1
173	Practical operation considerations for memristive integrating sensors. , 2016, , .		1
174	A dual switched-capacitor integrator architecture for versatile, real-time amperometric biosensing. , 2017, , .		1
175	Electrothermal deterioration factors in gold planar inductors designed for microscale bio-applications. Microelectronic Engineering, 2018, 197, 61-66.	2.4	1
176	An Analogue-Domain, Switch-Capacitor-Based Arithmetic-Logic Unit. , 2019, , .		1
177	A semi-holographic hyperdimensional representation system for hardware-friendly cognitive computing. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2020, 378, 20190162.	3.4	1
178	Live Demonstration: Electroforming of TiO_{2â€“x} Memristor Devices using High Speed Pulses. , 2020, , .		1
179	An Adiabatic Regenerative Capacitive Artificial Neuron. , 2021, , .		1
180	Practical Approach to Induce Analog Switching Behavior in Memristive Devices: Digital-to-Analog Transformation. , 0, , .		1

#	Article	IF	Citations
181	Computing Image and Motion with 3-D Memristive Grids. , 2019, , 1177-1210.		1
182	Surface texturing for Maxwellâ€“Wagner polarisation engineering. Micro and Nano Letters, 2009, 4, 5-8.	1.3	0
183	Application of gold nanodots for Maxwellâ€“Wagner loss reduction. Micro and Nano Letters, 2009, 4, 80-83.	1.3	0
184	Interfacial polarisation on gallium arsenide membranes. Micro and Nano Letters, 2010, 5, 178.	1.3	0
185	An Experimental Technique for Characterizing Slow-Wave Characteristics of MIS-Like Transmission Lines Using Aqueous Dielectrics. IEEE Transactions on Microwave Theory and Techniques, 2010, 58, 985-993.	4.6	0
186	A bulk-driven ISFET-based chemical mixer. , 2010, , .		0
187	Free-standing parylene C thin films as flexible pH sensing membranes. , 2013, , .		0
188	Sensing H+ with conventional neural probes. Applied Physics Letters, 2013, 102, 223506.	3.3	0
189	P396Improved calcium cycling is associated with microtubule reorganisation in anisotropic cardiomyocyte cultures. Cardiovascular Research, 2014, 103, S73.1-S73.	3.8	0
190	A lab-on-chip approach for monitoring the electrochemical activity of biorealistic cell cultures. , 2014, , .		0
191	Origin of stochastic resistive switching in devices with phenomenologically identical initial states. , 2014, , .		0
192	Guest Editorial Solid-state Memristive Devices and Systems. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2015, 5, 121-122.	3.6	0
193	An ultra-low voltage RRAM read-out technique employing dithering principles. , 2016, , .		0
194	EU COST action IC1401 â€" Pushing the frontiers of memristive devices to systems. , 2016, , .		0
195	Introducing the nanoworld. Nature Nanotechnology, 2017, 12, 832-832.	31.5	0
196	Mitigating noise effects in volatile nano-metal oxide neural detector. , 2017, , .		0
197	Live demonstration: MNET: A visually rich memristor crossbar simulator. , 2017, , .		0
198	Live Demonstration: Benchmarking Analogue Performance of Emerging Random Access Memory Technologies. , 2018, , .		0

#	Article	IF	Citations
199	Live Demonstration: An Embedded Environmental Control Micro-chamber System for RRAM Memristor Characterisation. , 2018, , .		0
200	A Digital In-Analogue Out Logic Gate Based on Metal-Oxide Memristor Devices. , 2019, , .		0
201	A Reconfigurable CMOS-Memristor Active Inductor. , 2020, , .		0
202	Hierarchical AI - from neurons to psychology. , 2020, , .		0
203	Memristor-Enabled Reconfigurable Integrated Circuits. , 2020, , .		0
204	ZrOX insertion layer enhanced switching and synaptic performances of TiOX-based memristive devices. IOP Conference Series: Materials Science and Engineering, 2021, 1034, 012142.	0.6	0
205	Band tailoring by annealing and current conduction of Co-doped ZnO transparent resistive switching memory. IOP Conference Series: Materials Science and Engineering, 2021, 1034, 012140.	0.6	0
206	Conduction mechanism of Co-doped ZnO transparent memristive devices. IOP Conference Series: Materials Science and Engineering, 2021, 1034, 012139.	0.6	0
207	Accounting for Memristor I-V Non-Linearity in Low Power Memristive Amplifiers. , 2021, , .		0
208	Computing Shortest Paths in 2D and 3D Memristive Networks. , 2019, , 1161-1176.		0
209	Aluminium Electrodeposition in Emimcl-AlCl3 ionogels for Improved Aluminium Batteries. ECS Meeting Abstracts, 2020, MA2020-02, 461-461.	0.0	0
210	Selectively biased tri-terminal vertically-integrated memristor configuration. Scientific Reports, 2022, 12, .	3.3	0
211	Measured behaviour of a memristorâ€based tuneable instrumentation amplifier. Electronics Letters, 0, , .	1.0	0