

Cai Yimao

List of Publications by Year in descending order

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times ranked

1886
citing authors

#	ARTICLE	IF	CITATIONS
1	In Materia Neuron Spiking Plasticity for Sequential Event Processing Based on Dual-Mode Memristor. Advanced Intelligent Systems, 2022, 4, .	6.1	6
2	Implementation of Neuronal Intrinsic Plasticity by Oscillatory Device in Spiking Neural Network. IEEE Transactions on Electron Devices, 2022, 69, 1830-1834.	3.0	7
3	A New Insight and Modeling of Pulse-to-Pulse Variability in Analog Resistive Memory for On-Chip Training. IEEE Transactions on Electron Devices, 2022, 69, 3100-3104.	3.0	1
4	Investigation of Read Voltage Impact on Foundry BEOL RRAM for Core Integration. , 2022, , .		1
5	Nonlinear Weight Quantification for Mitigating Stress Induced Disturb Effect on Multilevel RRAM-Based Neural Network Accelerator. IEEE Journal of the Electron Devices Society, 2021, , 1-1.	2.1	1
6	Tunable Stochastic Oscillator Based on Hybrid VO ₂ /TaO ₂ Device for Compressed Sensing. IEEE Electron Device Letters, 2021, 42, 102-105.	3.9	14
7	Emulation of biphasic plasticity in retinal electrical synapses for light-adaptive pattern pre-processing. Nanoscale, 2021, 13, 3483-3492.	5.6	16
8	Improvement of RRAM Uniformity and Analog Characteristics Through Localized Metal Doping. , 2021, , .		2
9	A RRAM based Max-Pooling Scheme for Convolutional Neural Network. , 2021, , .		5
10	Investigation of Non-Linear Selection Effect on RRAM based Neuromorphic Computing Array with Passive Selective Element. , 2021, , .		0
11	Emulation of Synaptic Scaling Based on MoS ₂ Neuristor for Self-Adaptative Neuromorphic Computing. Advanced Electronic Materials, 2021, 7, 2001104.	5.1	3
12	A TaOx-Based RRAM with Improved Uniformity and Excellent Analog Characteristics by Local Dopant Engineering. Electronics (Switzerland), 2021, 10, 2451.	3.1	9
13	Optimization Schemes for In-Memory Linear Regression Circuit With Memristor Arrays. IEEE Transactions on Circuits and Systems I: Regular Papers, 2021, 68, 4900-4909.	5.4	6
14	In-memory computing with emerging nonvolatile memory devices. Science China Information Sciences, 2021, 64, 1.	4.3	31
15	Lattice: An ADC/DAC-less ReRAM-based Processing-In-Memory Architecture for Accelerating Deep Convolution Neural Networks. , 2020, , .		21
16	Exploring the Impact of Random Telegraph Noise-Induced Accuracy Loss on Resistive RAM-Based Deep Neural Network. IEEE Transactions on Electron Devices, 2020, 67, 3335-3340.	3.0	15
17	Rotational Pattern Recognition by Spiking Correlated Neural Network Based on Dual-Gated MoS ₂ Neuristor. Advanced Intelligent Systems, 2020, 2, 2000102.	6.1	7
18	Self-Activation Neural Network Based on Self-Selective Memory Device With Rectified Multilevel States. IEEE Transactions on Electron Devices, 2020, 67, 4166-4171.	3.0	23

#	ARTICLE	IF	CITATIONS
19	Self-Selective Resistive Device With Hybrid Switching Mode for Passive Crossbar Memory Application. IEEE Electron Device Letters, 2020, 41, 1009-1012.	3.9	34
20	Memory materials and devices: From concept to application. InformaÅnÅ-MateriÅly, 2020, 2, 261-290.	17.3	181
21	Early-Stage Fluctuation in Low-Power Analog Resistive Memory: Impacts on Neural Network and Mitigation Approach. IEEE Electron Device Letters, 2020, 41, 940-943.	3.9	17
22	Technology-Array-Algorithm Co-Optimization of RRAM for Storage and Neuromorphic Computing: Device Non-idealities and Thermal Cross-talk. , 2020, , .		11
23	A Memristor-Based In-Memory Computing Network for Hamming Code Error Correction. IEEE Electron Device Letters, 2019, 40, 1080-1083.	3.9	17
24	Artificial Neural Network Based on Doped HfO ₂ Ferroelectric Capacitors With Multilevel Characteristics. IEEE Electron Device Letters, 2019, 40, 1309-1312.	3.9	41
25	Dual-Gated MoS ₂ Neuristor for Neuromorphic Computing. ACS Applied Materials & Interfaces, 2019, 11, 41482-41489.	8.0	78
26	Investigation of NbOx-based volatile switching device with self-rectifying characteristics. Science China Information Sciences, 2019, 62, 1.	4.3	17
27	Low Power Parylene-Based Memristors with a Graphene Barrier Layer for Flexible Electronics Applications. Advanced Electronic Materials, 2019, 5, 1800852.	5.1	56
28	Ion Gated Synaptic Transistors Based on 2D van der Waals Crystals with Tunable Diffusive Dynamics. Advanced Materials, 2018, 30, e1800195.	21.0	368
29	Improvement of HfO _x -Based RRAM Device Variation by Inserting ALD TiN Buffer Layer. IEEE Electron Device Letters, 2018, 39, 819-822.	3.9	57
30	Enhancement of HfO ₂ Based RRAM Performance Through Hexagonal Boron Nitride Interface Layer. , 2018, , .		1
31	Bipolar to unipolar mode transition and imitation of metaplasticity in oxide based memristors with enhanced ionic conductivity. Journal of Applied Physics, 2018, 124, .	2.5	19
32	Artificial Shape Perception Retina Network Based on Tunable Memristive Neurons. Scientific Reports, 2018, 8, 13727.	3.3	30
33	Multifunctional Nanoionic Devices Enabling Simultaneous Heterosynaptic Plasticity and Efficient In-Memory Boolean Logic. Advanced Electronic Materials, 2017, 3, 1700032.	5.1	56
34	Modulation of nonlinear resistive switching behavior of a TaO _x -based resistive device through interface engineering. Nanotechnology, 2017, 28, 055204.	2.6	35
35	Microscopic origin of read current noise in TaOx-based resistive switching memory by ultra-low temperature measurement. Applied Physics Letters, 2016, 108, .	3.3	8
36	Localized metal doping effect on switching behaviors of TaO _x -based RRAM device. , 2016, , .		11

#	ARTICLE	IF	CITATIONS
37	Engineering incremental resistive switching in TaO _x -based memristors for brain-inspired computing. <i>Nanoscale</i> , 2016, 8, 14015-14022.	5.6	271
38	Nonassociative learning implementation by a single memristor-based multi-terminal synaptic device. <i>Nanoscale</i> , 2016, 8, 18897-18904.	5.6	81
39	Encapsulation layer design and scalability in encapsulated vertical 3D RRAM. <i>Nanotechnology</i> , 2016, 27, 205202.	2.6	20