

Zongwei Wang

List of Publications by Year in descending order

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49
papers

1,296
citations

471061

17
h-index

476904

29
g-index

49
all docs

49
docs citations

49
times ranked

1439
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, .	3.3	6
2	Implementation of Neuronal Intrinsic Plasticity by Oscillatory Device in Spiking Neural Network. IEEE Transactions on Electron Devices, 2022, 69, 1830-1834.	1.6	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.	1.6	1
4	Investigation of Read Voltage Impact on Foundry BEOL RRAM for Core Integration. , 2022, , .		1
5	Homogeneous 3D Vertical Integration of Parylene- Based Organic Flexible Resistive Memory on Standard CMOS Platform. Advanced Electronic Materials, 2021, 7, 2000864.	2.6	20
6	Tunable Stochastic Oscillator Based on Hybrid VO ₂ /TaO ₂ Device for Compressed Sensing. IEEE Electron Device Letters, 2021, 42, 102-105.	2.2	14
7	Emulation of biphasic plasticity in retinal electrical synapses for light-adaptive pattern pre-processing. Nanoscale, 2021, 13, 3483-3492.	2.8	16
8	Improvement of RRAM Uniformity and Analog Characteristics Through Localized Metal Doping. , 2021, , .		2
9	Non-Linear Resistive Switching Characteristics in HFO ₂ -Based RRAM with Low-Dimensional Material Engineered Interface. , 2021, , .		1
10	A RRAM based Max-Pooling Scheme for Convolutional Neural Network. , 2021, , .		5
11	Investigation of Non-Linear Selection Effect on RRAM based Neuromorphic Computing Array with Passive Selective Element. , 2021, , .		0
12	Nonlinear Weight Quantification for Mitigating Read Disturb Effect on Multilevel RRAM-Based Neural Network. , 2021, , .		1
13	Emulation of Synaptic Scaling Based on MoS ₂ Neuristor for Self-Adaptative Neuromorphic Computing. Advanced Electronic Materials, 2021, 7, 2001104.	2.6	3
14	A TaOx-Based RRAM with Improved Uniformity and Excellent Analog Characteristics by Local Dopant Engineering. Electronics (Switzerland), 2021, 10, 2451.	1.8	9
15	Lattice: An ADC/DAC-less ReRAM-based Processing-In-Memory Architecture for Accelerating Deep Convolution Neural Networks. , 2020, , .		21
16	Adaptive Random Number Generator Based on RRAM Intrinsic Fluctuation for Reinforcement Learning. , 2020, , .		2
17	Rotational Pattern Recognition by Spiking Correlated Neural Network Based on Dual-Gated MoS ₂ Neuristor. Advanced Intelligent Systems, 2020, 2, 2000102.	3.3	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.	1.6	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.	2.2	34
20	Memory materials and devices: From concept to application. InformaÅnÅ-MateriÅly, 2020, 2, 261-290.	8.5	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.	2.2	17
22	Technology-Array-Algorithm Co-Optimization of RRAM for Storage and Neuromorphic Computing: Device Non-idealities and Thermal Cross-talk. , 2020, , .		11
23	Mobilattice. , 2020, , .		7
24	Artificial Neural Network Based on Doped HfO ₂ Ferroelectric Capacitors With Multilevel Characteristics. IEEE Electron Device Letters, 2019, 40, 1309-1312.	2.2	41
25	Dual-Gated MoS ₂ Neuristor for Neuromorphic Computing. ACS Applied Materials & Interfaces, 2019, 11, 41482-41489.	4.0	78
26	Investigation of NbOx-based volatile switching device with self-rectifying characteristics. Science China Information Sciences, 2019, 62, 1.	2.7	17
27	Enhance the Robustness to Time Dependent Variability of ReRAM-Based Neuromorphic Computing Systems with Regularization and 2R Synapse. , 2019, , .		4
28	Low Power Parylene-Based Memristors with a Graphene Barrier Layer for Flexible Electronics Applications. Advanced Electronic Materials, 2019, 5, 1800852.	2.6	56
29	Thermal effect in ultra-high density 3D vertical and horizontal RRAM array. Physica Scripta, 2019, 94, 045001.	1.2	8
30	Improvement of HfO _x -Based RRAM Device Variation by Inserting ALD TiN Buffer Layer. IEEE Electron Device Letters, 2018, 39, 819-822.	2.2	57
31	Hierarchical Crossbar Design for ReRAM based Write Variation Inhibition on-chip learning. , 2018, , .		0
32	Enhancement of HfO ₂ Based RRAM Performance Through Hexagonal Boron Nitride Interface Layer. , 2018, , .		1
33	Margin Dependence on Array Size for Asymmetric Resistive Memory Cell. , 2018, , .		1
34	Study on High-Resistance State Instability of TaOx-Based RRAM. , 2018, , .		0
35	Artificial Shape Perception Retina Network Based on Tunable Memristive Neurons. Scientific Reports, 2018, 8, 13727.	1.6	30
36	Integration of biocompatible organic resistive memory and photoresistor for wearable image sensing application. Science China Information Sciences, 2018, 61, 1.	2.7	5

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37	Multifunctional Nanoionic Devices Enabling Simultaneous Heterosynaptic Plasticity and Efficient In-Memory Boolean Logic. <i>Advanced Electronic Materials</i> , 2017, 3, 1700032.	2.6	56
38	Modulation of nonlinear resistive switching behavior of a TaO _x -based resistive device through interface engineering. <i>Nanotechnology</i> , 2017, 28, 055204.	1.3	35
39	A neural network circuit with associative learning and forgetting process based on memristor neuromorphic device. , 2017, , .		0
40	Time-dependent variability in RRAM-based analog neuromorphic system for pattern recognition. , 2017, , .		29
41	Flexible Polymer Device Based on Parylene-C with Memory and Temperature Sensing Functionalities. <i>Polymers</i> , 2017, 9, 310.	2.0	15
42	Self-selection effects and modulation of TaO _x resistive switching random access memory with bottom electrode of highly doped Si. <i>Journal of Applied Physics</i> , 2016, 119, 195302.	1.1	17
43	Localized metal doping effect on switching behaviors of TaO _x -based RRAM device. , 2016, , .		11
44	Engineering incremental resistive switching in TaO _x -based memristors for brain-inspired computing. <i>Nanoscale</i> , 2016, 8, 14015-14022.	2.8	271
45	Nonassociative learning implementation by a single memristor-based multi-terminal synaptic device. <i>Nanoscale</i> , 2016, 8, 18897-18904.	2.8	81
46	Novel Vertical 3D Structure of TaO _x -based RRAM with Self-localized Switching Region by Sidewall Electrode Oxidation. <i>Scientific Reports</i> , 2016, 6, 21020.	1.6	72
47	Encapsulation layer design and scalability in encapsulated vertical 3D RRAM. <i>Nanotechnology</i> , 2016, 27, 205202.	1.3	20
48	Influence of selector-introduced compliance current on HfO _x RRAM switching operation. , 2015, , .		2
49	Inorganic-organic hybrid resistive switching memory with high uniformity and multilevel operation. , 2014, , .		0