Erika Covi

List of Publications by Year
in descending order

33 papers	776 citations	623188 14 h-index	887659 17 g-index
33 all docs	33 docs citations	33 times ranked	837 citing authors

#	ARTICLE	IF	CITATIONS
1	Analog Memristive Synapse in Spiking Networks Implementing Unsupervised Learning. Frontiers in Neuroscience, 2016, 10, 482.	1.4	142
2	Adaptive Extreme Edge Computing for Wearable Devices. Frontiers in Neuroscience, 2021, 15, 611300.	1.4	67
3	Evidence of soft bound behaviour in analogue memristive devices for neuromorphic computing. Scientific Reports, 2018, 8, 7178.	1.6	54
4	Synaptic potentiation and depression in Al:HfO2-based memristor. Microelectronic Engineering, 2015, 147, 41-44.	1.1	53
5	Experimental study of gradual/abrupt dynamics of HfO2-based memristive devices. Applied Physics Letters, 2016, 109, .	1.5	49
6	Volatile Resistive Switching Memory Based on Ag Ion Drift/Diffusion Part I: Numerical Modeling. IEEE Transactions on Electron Devices, 2019, 66, 3795-3801.	1.6	45
7	Neuromorphic Motion Detection and Orientation Selectivity by Volatile Resistive Switching Memories. Advanced Intelligent Systems, 2021, 3, 2000224.	3.3	45
8	Ferroelectric-based synapses and neurons for neuromorphic computing. Neuromorphic Computing and Engineering, 2022, 2, 012002.	2.8	36
9	Volatile Resistive Switching Memory Based on Ag Ion Drift/Diffusion—Part II: Compact Modeling. IEEE Transactions on Electron Devices, 2019, 66, 3802-3808.	1.6	34
10	Extended memory lifetime in spiking neural networks employing memristive synapses with nonlinear conductance dynamics. Nanotechnology, 2019, 30, 015102.	1.3	33
11	HfO2-based memristors for neuromorphic applications. , 2016, , .		32
12	Switching Dynamics of Ag-Based Filamentary Volatile Resistive Switching Devices—Part I: Experimental Characterization. IEEE Transactions on Electron Devices, 2021, 68, 4335-4341.	1.6	28
13	Spike-driven threshold-based learning with memristive synapses and neuromorphic silicon neurons. Journal Physics D: Applied Physics, 2018, 51, 344003.	1.3	23
14	Switching Dynamics of Ag-Based Filamentary Volatile Resistive Switching Devices—Part II: Mechanism and Modeling. IEEE Transactions on Electron Devices, 2021, 68, 4342-4349.	1.6	22
15	Stimulated Ionic Telegraph Noise in Filamentary Memristive Devices. Scientific Reports, 2019, 9, 6310.	1.6	20
16	Physics-based modeling of volatile resistive switching memory (RRAM) for crosspoint selector and neuromorphic computing. , 2018, , .		16
17	Gradual set dynamics in HfO$_2$-based memristor driven by sub-threshold voltage pulses. , 2015, , .		15
18	(Invited) Analog HfO2-RRAM Switches for Neural Networks. ECS Transactions, 2017, 75, 85-94.	0.3	15

#	Article	IF	Citations
19	A Volatile RRAM Synapse for Neuromorphic Computing. , 2019, , .		10
20	Ferroelectric Tunneling Junctions for Edge Computing. , 2021, , .		8
21	Modeling of switching speed and retention time in volatile resistive switching memory by ionic drift and diffusion. , 2019, , .		6
22	A SiOx RRAM-Based Hardware with Spike Frequency Adaptation for Power-Saving Continual Learning in Convolutional Neural Networks. , 2020, , .		5
23	Compact model for phase change memory cells. , 2014, , .		3
24	On-Wafer Analog Pulse Generator for Fast Characterization and Parametric Test of Resistive Switching Memories. IEEE Transactions on Semiconductor Manufacturing, 2014, 27, 134-150.	1.4	3
25	Optimal programming with voltage-controlled temperature profile to reduce SET state distribution dispersion in PCM. , 2014, , .		3
26	Challenges and Perspectives for Energy-efficient Brain-inspired Edge Computing Applications (Invited) Tj ETQq0 0 0 rgBT /Overlock 10 Tf		3
27	On-wafer integrated system for fast characterization and parametric test of new-generation Non Volatile Memories. , 2013, , .		2
28	Automatic trimming procedure to enhance the accuracy of on-chip analog pulse generators. , 2013, , .		1
29	High-swing buffer for programmable resistive memories. , 2013, , .		1
30	Temperature study of high-drive capability buffer for phase change memories. , 2014, , .		1
31	Combining Accuracy and Plasticity in Convolutional Neural Networks Based on Resistive Memory Arrays for Autonomous Learning. IEEE Journal on Exploratory Solid-State Computational Devices and Circuits, 2021, 7, 132-140.	1.1	1
32	High-drive capability buffer for highly variable resistive loads. , 2012, , .		0
33	A circuit for linearly decreasing temperature SET programming of PCM based on Ge-rich GST. , 2015, , .		0