Xiaoning Zhao

List of Publications by Year
in descending order

64 papers	1,811 citations	257450 24 h-index	276875 41 g-index
65 all docs	65 docs citations	65 times ranked	1870 citing authors

#	Article	IF	Citations
1	Reduced Graphene Oxide Conformally Wrapped Silver Nanowire Networks for Flexible Transparent Heating and Electromagnetic Interference Shielding. ACS Nano, 2020, 14, 8754-8765.	14.6	135
2	Toward a generalized Bienenstock-Cooper-Munro rule for spatiotemporal learning via triplet-STDP in memristive devices. Nature Communications, 2020, 11, 1510.	12.8	124
3	Fe@C nanocapsules with substitutional sulfur heteroatoms in graphitic shells for improving microwave absorption at gigahertz frequencies. Carbon, 2018, 126, 372-381.	10.3	122
4	Memristors with organic–inorganic halide perovskites. InformaÄnÃ-MateriÃ¡ly, 2019, 1, 183-210.	17.3	111
5	Biodegradable Natural Pectin–Based Flexible Multilevel Resistive Switching Memory for Transient Electronics. Small, 2019, 15, e1803970.	10.0	109
6	Nonvolatile/volatile behaviors and quantized conductance observed in resistive switching memory based on amorphous carbon. Carbon, 2015, 91, 38-44.	10.3	90
7	Plasmonic Optoelectronic Memristor Enabling Fully Light–Modulated Synaptic Plasticity for Neuromorphic Vision. Advanced Science, 2022, 9, e2104632.	11.2	81
8	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.	5.5	63
9	Photoassisted Electroforming Method for Reliable Low–Power Organic–Inorganic Perovskite Memristors. Advanced Functional Materials, 2020, 30, 1910151.	14.9	62
10	Transferable and Flexible Artificial Memristive Synapse Based on WO$_x$ Schottky Junction on Arbitrary Substrates. Advanced Electronic Materials, 2018, 4, 1800373.	5.1	58
11	Photocatalytic Reduction of Graphene Oxide–TiO$_2$ Nanocomposites for Improving Resistive–Switching Memory Behaviors. Small, 2018, 14, e1801325.	10.0	58
12	Cycling–Induced Degradation of Organic–Inorganic Perovskite–Based Resistive Switching Memory. Advanced Materials Technologies, 2019, 4, 1800238.	5.8	47
13	Photoreduced nanocomposites of graphene oxide/N-doped carbon dots toward all-carbon memristive synapses. NPG Asia Materials, 2020, 12, .	7.9	47
14	Moisture-powered memristor with interfacial oxygen migration for power-free reading of multiple memory states. Nano Energy, 2020, 71, 104628.	16.0	44
15	Humidity Effect on Resistive Switching Characteristics of the CH$_3$NH$_3$PbI$_3$ Memristor. ACS Applied Materials & Interfaces, 2021, 13, 28555-28563.	8.0	43
16	Ultralight and high-elastic carbon foam with hollow framework for dynamically tunable electromagnetic interference shielding at gigahertz frequency. Carbon, 2019, 153, 330-336.	10.3	42
17	Highly uniform switching of HfO2ˣx based RRAM achieved through Ar plasma treatment for low power and multilevel storage. Applied Surface Science, 2018, 458, 216-221.	6.1	39
18	Oxidized carbon quantum dot–graphene oxide nanocomposites for improving data retention of resistive switching memory. Journal of Materials Chemistry C, 2018, 6, 2026-2033.	5.5	36

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19	Analytical Modeling of Organic–Inorganic $CH_3NH_3PbI_3$ Perovskite Resistive Switching and its Application for Neuromorphic Recognition. Advanced Theory and Simulations, 2018, 1, 1700035.	2.8	35
20	Analog–Digital Hybrid Memristive Devices for Image Pattern Recognition with Tunable Learning Accuracy and Speed. Small Methods, 2019, 3, 1900160.	8.6	31
21	Sp^2 clustering-induced improvement of resistive switching uniformity in Cu/amorphous carbon/Pt electrochemical metallization memory. Journal of Materials Chemistry C, 2017, 5, 5420-5425.	5.5	26
22	Insertion of Nanoscale AgInSbTe Layer between the Ag Electrode and the $CH_3NH_3PbI_3$ Electrolyte Layer Enabling Enhanced Multilevel Memory. ACS Applied Nano Materials, 2019, 2, 307-314.	5.0	26
23	Ultralight Fe@C Nanocapsules/Sponge Composite with Reversibly Tunable Microwave Absorption Performances. Nanotechnology, 2017, 28, 325702.	2.6	25
24	Complementary Resistive Switching Observed in Graphene Oxide-Based Memory Device. IEEE Electron Device Letters, 2018, 39, 488-491.	3.9	25
25	Flexible TiN/Co@Carbon nanofiber mats for high-performance electromagnetic interference shielding and Joule heating applications. Carbon, 2022, 196, 612-620.	10.3	22
26	Reliability Improvement of Amorphous Carbon Based Resistive Switching Memory by Inserting Nanoporous Layer. IEEE Electron Device Letters, 2016, 37, 1430-1433.	3.9	21
27	Nitrogen-induced ultralow power switching in flexible ZnO-based memristor for artificial synaptic learning. Applied Physics Letters, 2021, 118, .	3.3	21
28	Phosphorus vacancy-engineered Ce-doped CoP nanosheets for the electrocatalytic oxidation of 5-hydroxymethylfurfural. Chemical Communications, 2022, 58, 7817-7820.	4.1	19
29	Photo-tunable organic resistive random access memory based on PVP/N-doped carbon dot nanocomposites for encrypted image storage. Journal of Materials Chemistry C, 2020, 8, 14789-14795.	5.5	18
30	Silent Synapse Activation by Plasma–Induced Oxygen Vacancies in TiO_2 Nanowire–Based Memristor. Advanced Electronic Materials, 2020, 6, 2000536.	5.1	17
31	Flexible and transparent memristive synapse based on polyvinylpyrrolidone/N-doped carbon quantum dot nanocomposites for neuromorphic computing. Nanoscale Advances, 2021, 3, 2623-2631.	4.6	17
32	Improved switching reliability achieved in HfOx based RRAM with mountain-like surface-graphited carbon layer. Applied Surface Science, 2018, 440, 107-112.	6.1	16
33	Dual Buffer Layers for Developing Electrochemical Metallization Memory With Low Current and High Endurance. IEEE Electron Device Letters, 2021, 42, 308-311.	3.9	16
34	A new phosphonium-based ionic liquid to synthesize nickel metaphosphate for hydrogen evolution reaction. Nanotechnology, 2020, 31, 505402.	2.6	14
35	Intensity-modulated LED achieved through integrating p-GaN/n-ZnO heterojunction with multilevel RRAM. Applied Physics Letters, 2018, 113, .	3.3	13
36	Zeolite–Based Memristive Synapse with Ultralow Sub–10–fJ Energy Consumption for Neuromorphic Computation. Small, 2021, 17, e2006662.	10.0	13

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37	Graphite Microislands Prepared for Reliability Improvement of Amorphous Carbon Based Resistive Switching Memory. Physica Status Solidi - Rapid Research Letters, 2018, 12, 1800285.	2.4	12
38	The Nature of Lithium–Ion Transport in Low Power Consumption LiFePO$_4$ Resistive Memory with Graphite as Electrode. Physica Status Solidi - Rapid Research Letters, 2018, 12, 1800320.	2.4	11
39	Organic–Inorganic Perovskite Memristors: Photoassisted Electroforming Method for Reliable Low–Power Organic–Inorganic Perovskite Memristors (Adv. Funct. Mater. 17/2020). Advanced Functional Materials, 2020, 30, 2070111.	14.9	11
40	Confining Gold Nanoclusters in Highly Defective Graphitic Layers To Enhance the Methanol Electrooxidation Reaction. ChemCatChem, 2018, 10, 141-147.	3.7	9
41	Resistive switching performance improvement of amorphous carbon-based electrochemical metallization memory via current stressing. Applied Physics Letters, 2019, 115, 073501.	3.3	9
42	Pavlovian conditioning achieved via one-transistor/one-resistor memristive synapse. Applied Physics Letters, 2022, 120, .	3.3	8
43	Voltage-dependent plasticity and image Boolean operations realized in a WO$_x$-based memristive synapse. Journal of Semiconductors, 2021, 42, 014102.	3.7	7
44	Self-Powered Memristive Systems for Storage and Neuromorphic Computing. Frontiers in Neuroscience, 2021, 15, 662457.	2.8	7
45	Flexible Artificial Synapses: Transferable and Flexible Artificial Memristive Synapse Based on WO$_x$ Schottky Junction on Arbitrary Substrates (Adv. Electron. Mater. 12/2018). Advanced Electronic Materials, 2018, 4, 1870056.	5.1	6
46	Memory Devices: Photocatalytic Reduction of Graphene Oxide-TiO2 Nanocomposites for Improving Resistive-Switching Memory Behaviors (Small 29/2018). Small, 2018, 14, 1870136.	10.0	4
47	Transient Electronics: Biodegradable Natural Pectin–Based Flexible Multilevel Resistive Switching Memory for Transient Electronics (Small 4/2019). Small, 2019, 15, 1970025.	10.0	4
48	Reliable restriction of conductive filament in graphene oxide based RRAM devices enabled by a locally graphitized amorphous carbon layer. Japanese Journal of Applied Physics, 2020, 59, 054002.	1.5	4
49	Rapid microwave annealing of CH3NH3PbI3 with controllable crystallization for enhancing the resistive-switching performance. Semiconductor Science and Technology, 2021, 36, 095012.	2.0	4
50	Effect of reset voltage polarity on the resistive switching region of unipolar memory. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 2255-2261.	1.8	3
51	Ultralight and ultraelastic sponge/Al@Al2O3 nanocomposite with tunable electromagnetic properties. Journal of Applied Physics, 2018, 124, .	2.5	3
52	Resistive Switching: Cycling–Induced Degradation of Organic–Inorganic Perovskite–Based Resistive Switching Memory (Adv. Mater. Technol. 1/2019). Advanced Materials Technologies, 2019, 4, 1970004.	5.8	3
53	Neutron irradiation-induced effects on the reliability performance of electrochemical metallization memory devices. Journal of Semiconductors, 2021, 42, 014103.	3.7	3
54	High switching uniformity and 50 fJ/bit energy consumption achieved in amorphous silicon-based memristive device with an AgInSbTe buffer layer. Applied Physics Letters, 2021, 118, 263507.	3.3	3

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55	Thermal-assisted electroforming enables performance improvement by suppressing the overshoot current in amorphous carbon-based electrochemical metallization memory. Applied Physics Letters, 2021, 119, .	3.3	3
56	Photocatalysisâ€‹Induced Nanopores toward Highly Reliable Organic Electrochemical Metallization Memory. Advanced Electronic Materials, 2022, 8, .	5.1	3
57	Analytical modeling of electrochemical metallization memory device with dual-layer structure of Ag/AgInSbTe/amorphous C/Pt. Semiconductor Science and Technology, 2020, 35, 02LT01.	2.0	2
58	Conductance Quantization in $CH_3NH_3PbI_3$ Memristor. IEEE Electron Device Letters, 2022, 43, 1037-1040.	3.9	2
59	The Nature of Lithiumâ€‹ion Transport in Low Power Consumption $LiFePO_4$ Resistive Memory with Graphite as Electrode (Phys. Status Solidi RRL 10/2018). Physica Status Solidi - Rapid Research Letters, 2018, 12, 1870333.	2.4	1
60	Electric-Field-Triggered Electromagnetic Polarizations in the Close-Packed Fe at C Nanocapsules. IEEE Transactions on Magnetics, 2018, 54, 1-5.	2.1	1
61	Multilevel Resistive Switching in Pâ€“N Heterostructure Memory. Journal of Nanoscience and Nanotechnology, 2019, 19, 130-134.	0.9	1
62	Memristive Devices: Analogâ€“Digital Hybrid Memristive Devices for Image Pattern Recognition with Tunable Learning Accuracy and Speed (Small Methods 10/2019). Small Methods, 2019, 3, 1970031.	8.6	0
63	Two-terminal optoelectronic memory device. , 2020, , 75-105.		0
64	Memristive Neural Networks: Zeoliteâ€‹Based Memristive Synapse with Ultralow Subâ€‹10â€‹fJ Energy Consumption for Neuromorphic Computation (Small 13/2021). Small, 2021, 17, 2170057.	10.0	0