

# Xiaoning Zhao

## List of Publications by Year in descending order

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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	Pavlovian conditioning achieved via one-transistor/one-resistor memristive synapse. Applied Physics Letters, 2022, 120, .	3.3	8
2	Plasmonic Optoelectronic Memristor Enabling Fully Light-Modulated Synaptic Plasticity for Neuromorphic Vision. Advanced Science, 2022, 9, e2104632.	11.2	81
3	Flexible TiN/Co@Carbon nanofiber mats for high-performance electromagnetic interference shielding and Joule heating applications. Carbon, 2022, 196, 612-620.	10.3	22
4	Conductance Quantization in $\text{CH}_3\text{NH}_3\text{PbI}_3$ Memristor. IEEE Electron Device Letters, 2022, 43, 1037-1040.	3.9	2
5	Photocatalysis-Induced Nanopores toward Highly Reliable Organic Electrochemical Metallization Memory. Advanced Electronic Materials, 2022, 8, .	5.1	3
6	Phosphorus vacancy-engineered Ce-doped CoP nanosheets for the electrocatalytic oxidation of 5-hydroxymethylfurfural. Chemical Communications, 2022, 58, 7817-7820.	4.1	19
7	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
8	Voltage-dependent plasticity and image Boolean operations realized in a $\text{WO}_x$ -based memristive synapse. Journal of Semiconductors, 2021, 42, 014102.	3.7	7
9	Neutron irradiation-induced effects on the reliability performance of electrochemical metallization memory devices. Journal of Semiconductors, 2021, 42, 014103.	3.7	3
10	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
11	Self-Powered Memristive Systems for Storage and Neuromorphic Computing. Frontiers in Neuroscience, 2021, 15, 662457.	2.8	7
12	Nitrogen-induced ultralow power switching in flexible ZnO-based memristor for artificial synaptic learning. Applied Physics Letters, 2021, 118, .	3.3	21
13	Zeolite-Based Memristive Synapse with Ultralow Sub-fJ Energy Consumption for Neuromorphic Computation. Small, 2021, 17, e2006662.	10.0	13
14	Memristive Neural Networks: Zeolite-Based Memristive Synapse with Ultralow Sub-fJ Energy Consumption for Neuromorphic Computation (Small 13/2021). Small, 2021, 17, 2170057.	10.0	0
15	Humidity Effect on Resistive Switching Characteristics of the $\text{CH}_3\text{NH}_3\text{PbI}_3$ Memristor. ACS Applied Materials & Interfaces, 2021, 13, 28555-28563.	8.0	43
16	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
17	Rapid microwave annealing of $\text{CH}_3\text{NH}_3\text{PbI}_3$ with controllable crystallization for enhancing the resistive-switching performance. Semiconductor Science and Technology, 2021, 36, 095012.	2.0	4
18	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

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19	Analytical modeling of electrochemical metallization memory device with dual-layer structure of Ag/AgInSbTe/amorphous C/Pt. <i>Semiconductor Science and Technology</i> , 2020, 35, 02LT01.	2.0	2
20	Photoreduced nanocomposites of graphene oxide/N-doped carbon dots toward all-carbon memristive synapses. <i>NPG Asia Materials</i> , 2020, 12, .	7.9	47
21	Silent Synapse Activation by Plasma-Induced Oxygen Vacancies in TiO <sub>2</sub> Nanowire-Based Memristor. <i>Advanced Electronic Materials</i> , 2020, 6, 2000536.	5.1	17
22	Photo-tunable organic resistive random access memory based on PVP/N-doped carbon dot nanocomposites for encrypted image storage. <i>Journal of Materials Chemistry C</i> , 2020, 8, 14789-14795.	5.5	18
23	Reduced Graphene Oxide Conformally Wrapped Silver Nanowire Networks for Flexible Transparent Heating and Electromagnetic Interference Shielding. <i>ACS Nano</i> , 2020, 14, 8754-8765.	14.6	135
24	Reliable restriction of conductive filament in graphene oxide based RRAM devices enabled by a locally graphitized amorphous carbon layer. <i>Japanese Journal of Applied Physics</i> , 2020, 59, 054002.	1.5	4
25	Toward a generalized Bienenstock-Cooper-Munro rule for spatiotemporal learning via triplet-STDP in memristive devices. <i>Nature Communications</i> , 2020, 11, 1510.	12.8	124
26	Photoassisted Electroforming Method for Reliable Low-Power Organic-Inorganic Perovskite Memristors. <i>Advanced Functional Materials</i> , 2020, 30, 1910151.	14.9	62
27	Two-terminal optoelectronic memory device. , 2020, , 75-105.		0
28	Moisture-powered memristor with interfacial oxygen migration for power-free reading of multiple memory states. <i>Nano Energy</i> , 2020, 71, 104628.	16.0	44
29	Organic-Inorganic Perovskite Memristors: Photoassisted Electroforming Method for Reliable Low-Power Organic-Inorganic Perovskite Memristors ( <i>Adv. Funct. Mater.</i> 17/2020). <i>Advanced Functional Materials</i> , 2020, 30, 2070111.	14.9	11
30	A new phosphonium-based ionic liquid to synthesize nickel metaphosphate for hydrogen evolution reaction. <i>Nanotechnology</i> , 2020, 31, 505402.	2.6	14
31	Resistive switching performance improvement of amorphous carbon-based electrochemical metallization memory via current stressing. <i>Applied Physics Letters</i> , 2019, 115, 073501.	3.3	9
32	Memristive Devices: Analog-Digital Hybrid Memristive Devices for Image Pattern Recognition with Tunable Learning Accuracy and Speed ( <i>Small Methods</i> 10/2019). <i>Small Methods</i> , 2019, 3, 1970031.	8.6	0
33	Transient Electronics: Biodegradable Natural Pectin-Based Flexible Multilevel Resistive Switching Memory for Transient Electronics ( <i>Small</i> 4/2019). <i>Small</i> , 2019, 15, 1970025.	10.0	4
34	Memristors with organic-inorganic halide perovskites. <i>Informa-Materials</i> , 2019, 1, 183-210.	17.3	111
35	Ultralight and high-elastic carbon foam with hollow framework for dynamically tunable electromagnetic interference shielding at gigahertz frequency. <i>Carbon</i> , 2019, 153, 330-336.	10.3	42
36	Analog-Digital Hybrid Memristive Devices for Image Pattern Recognition with Tunable Learning Accuracy and Speed. <i>Small Methods</i> , 2019, 3, 1900160.	8.6	31

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37	Insertion of Nanoscale AgInSbTe Layer between the Ag Electrode and the CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Electrolyte Layer Enabling Enhanced Multilevel Memory. ACS Applied Nano Materials, 2019, 2, 307-314.	5.0	26
38	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
39	Cycling-Induced Degradation of Organic-Inorganic Perovskite-Based Resistive Switching Memory. Advanced Materials Technologies, 2019, 4, 1800238.	5.8	47
40	Multilevel Resistive Switching in N Heterostructure Memory. Journal of Nanoscience and Nanotechnology, 2019, 19, 130-134.	0.9	1
41	Biodegradable Natural Pectin-Based Flexible Multilevel Resistive Switching Memory for Transient Electronics. Small, 2019, 15, e1803970.	10.0	109
42	Complementary Resistive Switching Observed in Graphene Oxide-Based Memory Device. IEEE Electron Device Letters, 2018, 39, 488-491.	3.9	25
43	Analytical Modeling of Organic-Inorganic CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Resistive Switching and its Application for Neuromorphic Recognition. Advanced Theory and Simulations, 2018, 1, 1700035.	2.8	35
44	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
45	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
46	Confining Gold Nanoclusters in Highly Defective Graphitic Layers To Enhance the Methanol Electrooxidation Reaction. ChemCatChem, 2018, 10, 141-147.	3.7	9
47	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
48	Intensity-modulated LED achieved through integrating p-GaN/n-ZnO heterojunction with multilevel RRAM. Applied Physics Letters, 2018, 113, .	3.3	13
49	Flexible Artificial Synapses: Transferable and Flexible Artificial Memristive Synapse Based on WO <sub>x</sub> Schottky Junction on Arbitrary Substrates (Adv. Electron. Mater. 12/2018). Advanced Electronic Materials, 2018, 4, 1870056.	5.1	6
50	Transferable and Flexible Artificial Memristive Synapse Based on WO <sub>x</sub> Schottky Junction on Arbitrary Substrates. Advanced Electronic Materials, 2018, 4, 1800373.	5.1	58
51	The Nature of Lithium-Ion Transport in Low Power Consumption LiFePO <sub>4</sub> Resistive Memory with Graphite as Electrode (Phys. Status Solidi RRL 10/2018). Physica Status Solidi - Rapid Research Letters, 2018, 12, 1870333.	2.4	1
52	Memory Devices: Photocatalytic Reduction of Graphene Oxide-TiO <sub>2</sub> Nanocomposites for Improving Resistive-Switching Memory Behaviors (Small 29/2018). Small, 2018, 14, 1870136.	10.0	4
53	Reversible alternation between bipolar and unipolar resistive switching in Ag/MoS <sub>2</sub> /Au structure for multilevel flexible memory. Journal of Materials Chemistry C, 2018, 6, 7195-7200.	5.5	63
54	Photocatalytic Reduction of Graphene Oxide-TiO <sub>2</sub> Nanocomposites for Improving Resistive-Switching Memory Behaviors. Small, 2018, 14, e1801325.	10.0	58

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55	Electric-Field-Triggered Electromagnetic Polarizations in the Close-Packed Fe at C Nanocapsules. IEEE Transactions on Magnetics, 2018, 54, 1-5.	2.1	1
56	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
57	Highly uniform switching of HfO <sub>2</sub> based RRAM achieved through Ar plasma treatment for low power and multilevel storage. Applied Surface Science, 2018, 458, 216-221.	6.1	39
58	Ultralight and ultraelastic sponge/Al@Al <sub>2</sub> O <sub>3</sub> nanocomposite with tunable electromagnetic properties. Journal of Applied Physics, 2018, 124, .	2.5	3
59	The Nature of Lithium Ion Transport in Low Power Consumption LiFePO <sub>4</sub> Resistive Memory with Graphite as Electrode. Physica Status Solidi - Rapid Research Letters, 2018, 12, 1800320.	2.4	11
60	Sp <sup>2</sup> 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
61	Ultralight Fe@C Nanocapsules/Sponge Composite with Reversibly Tunable Microwave Absorption Performances. Nanotechnology, 2017, 28, 325702.	2.6	25
62	Reliability Improvement of Amorphous Carbon Based Resistive Switching Memory by Inserting Nanoporous Layer. IEEE Electron Device Letters, 2016, 37, 1430-1433.	3.9	21
63	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
64	Nonvolatile/volatile behaviors and quantized conductance observed in resistive switching memory based on amorphous carbon. Carbon, 2015, 91, 38-44.	10.3	90