

Li Qiang Zhu

List of Publications by Year in descending order

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58
papers

3,050
citations

218677

26
h-index

155660

55
g-index

61
all docs

61
docs citations

61
times ranked

2194
citing authors

#	ARTICLE	IF	CITATIONS
1	Artificial synapse network on inorganic proton conductor for neuromorphic systems. <i>Nature Communications</i> , 2014, 5, 3158.	12.8	655
2	Freestanding Artificial Synapses Based on Laterally Proton-Coupled Transistors on Chitosan Membranes. <i>Advanced Materials</i> , 2015, 27, 5599-5604.	21.0	352
3	Proton-Conducting Graphene Oxide-Coupled Neuron Transistors for Brain-Inspired Cognitive Systems. <i>Advanced Materials</i> , 2016, 28, 3557-3563.	21.0	226
4	Flexible Metal Oxide/Graphene Oxide Hybrid Neuromorphic Transistors on Flexible Conducting Graphene Substrates. <i>Advanced Materials</i> , 2016, 28, 5878-5885.	21.0	144
5	Restickable Oxide Neuromorphic Transistors with Spike-Timing-Dependent Plasticity and Pavlovian Associative Learning Activities. <i>Advanced Functional Materials</i> , 2018, 28, 1804025.	14.9	139
6	Chitosan-Based Polysaccharide-Gated Flexible Indium Tin Oxide Synaptic Transistor with Learning Abilities. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 16881-16886.	8.0	120
7	Role of Oxygen Vacancies at the $\text{TiO}_2/\text{HfO}_2$ Interface in Flexible Oxide-Based Resistive Switching Memory. <i>Advanced Electronic Materials</i> , 2019, 5, 1800833.	5.1	105
8	Short-Term Synaptic Plasticity Regulation in Solution-Gated Indium-Gallium-Zinc-Oxide Electric-Double-Layer Transistors. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 9762-9768.	8.0	81
9	Self-assembled dual in-plane gate thin-film transistors gated by nanogranular SiO_2 proton conductors for logic applications. <i>Nanoscale</i> , 2013, 5, 1980.	5.6	73
10	Memory and learning behaviors mimicked in nanogranular SiO_2 -based proton conductor gated oxide-based synaptic transistors. <i>Nanoscale</i> , 2013, 5, 10194.	5.6	72
11	Flexible Sensory Platform Based on Oxide-based Neuromorphic Transistors. <i>Scientific Reports</i> , 2015, 5, 18082.	3.3	70
12	Flexible Proton-Gated Oxide Synaptic Transistors on Si Membrane. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 21770-21775.	8.0	55
13	Artificial Tactile Perceptual Neuron with Nociceptive and Pressure Decoding Abilities. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 26258-26266.	8.0	55
14	Oxide-based Synaptic Transistors Gated by Sol-Gel Silica Electrolytes. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 3050-3055.	8.0	52
15	Dendrite Integration Mimicked on Starch-Based Electrolyte-Gated Oxide Dendrite Transistors. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 40008-40013.	8.0	49
16	Proton conducting sodium alginate electrolyte laterally coupled low-voltage oxide-based transistors. <i>Applied Physics Letters</i> , 2014, 104, 133504.	3.3	46
17	Activity Dependent Synaptic Plasticity Mimicked on Indium-Tin-Oxide Electric-Double-Layer Transistor. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 37064-37069.	8.0	46
18	Oxide Neuromorphic Transistors Gated by Polyvinyl Alcohol Solid Electrolytes with Ultralow Power Consumption. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 28352-28358.	8.0	46

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19	Bilayered Oxide-Based Cognitive Memristor with Brain-Inspired Learning Activities. <i>Advanced Electronic Materials</i> , 2019, 5, 1900439.	5.1	43
20	Laterally Coupled Dual-Gate Oxide-Based Transistors on Sodium Alginate Electrolytes. <i>IEEE Electron Device Letters</i> , 2014, 35, 1257-1259.	3.9	42
21	Hodgkin-Huxley Artificial Synaptic Membrane Based on Protonic/Electronic Hybrid Neuromorphic Transistors. <i>Advanced Biology</i> , 2018, 2, 1700198.	3.0	41
22	Threshold-Tunable, Spike-Rate-Dependent Plasticity Originating from Interfacial Proton Gating for Pattern Learning and Memory. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 7833-7839.	8.0	41
23	Atomic layer deposited Al ₂ O ₃ films for anti-reflectance and surface passivation applications. <i>Applied Surface Science</i> , 2014, 288, 430-434.	6.1	34
24	Multi-gate synergic modulation in laterally coupled synaptic transistors. <i>Applied Physics Letters</i> , 2015, 107, .	3.3	32
25	Flexible Poly(Vinyl Alcohol)-Graphene Oxide Hybrid Nanocomposite Based Cognitive Memristor with Pavlovian-Conditioned Reflex Activities. <i>Advanced Electronic Materials</i> , 2020, 6, 1901402.	5.1	31
26	Bio-polysaccharide electrolyte gated photoelectric synergic coupled oxide neuromorphic transistor with Pavlovian activities. <i>Journal of Materials Chemistry C</i> , 2020, 8, 2780-2789.	5.5	30
27	Biodegradable oxide synaptic transistors gated by a biopolymer electrolyte. <i>Journal of Materials Chemistry C</i> , 2016, 4, 7744-7750.	5.5	27
28	Mixed protonic and electronic conductors hybrid oxide synaptic transistors. <i>Journal of Applied Physics</i> , 2017, 121, .	2.5	26
29	Starch-based biopolymer electrolyte gated oxide synaptic transistors. <i>Organic Electronics</i> , 2018, 61, 312-317.	2.6	24
30	Transient Characteristics for Proton Gating in Laterally Coupled Indium-Zinc-Oxide Transistors. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 6205-6210.	8.0	23
31	Humidity-Dependent Synaptic Plasticity for Proton Gated Oxide Synaptic Transistor. <i>IEEE Electron Device Letters</i> , 2017, 38, 1248-1251.	3.9	23
32	Low-voltage protonic/photonic synergic coupled oxide phototransistor. <i>Organic Electronics</i> , 2019, 71, 31-35.	2.6	21
33	Synaptic metaplasticity of protonic/electronic coupled oxide neuromorphic transistor. <i>Organic Electronics</i> , 2019, 74, 304-308.	2.6	19
34	Ionotronic Neuromorphic Devices for Bionic Neural Network Applications. <i>Physica Status Solidi - Rapid Research Letters</i> , 2019, 13, .	2.4	16
35	Electrolyte Gated Oxide Pseudodiode for Inhibitory Synapse Applications. <i>Advanced Electronic Materials</i> , 2018, 4, 1800371.	5.1	14
36	Dual Function of Antireflectance and Surface Passivation of Atomic-Layer-Deposited Al_2O_3 Films. <i>IEEE Electron Device Letters</i> , 2012, 33, 1753-1755.	3.9	13

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37	Global modulatory heterosynaptic mechanisms in bio-polymer electrolyte gated oxide neuron transistors. <i>Journal Physics D: Applied Physics</i> , 2020, 53, 435105.	2.8	12
38	Mimicking Neurotransmitter Activity and Realizing Algebraic Arithmetic on Flexible Protein-Gated Oxide Neuromorphic Transistors. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 7784-7791.	8.0	12
39	Paired-pulse facilitation achieved in protonic/electronic hybrid indium gallium zinc oxide synaptic transistors. <i>AIP Advances</i> , 2015, 5, .	1.3	11
40	Brain-inspired biodegradable pectin based proton conductor gated electronic synapse. <i>Organic Electronics</i> , 2020, 82, 105782.	2.6	11
41	Proton gated oxide neuromorphic transistors with bionic vision enhancement and information decoding. <i>Journal of Materials Chemistry C</i> , 2022, 10, 7241-7250.	5.5	11
42	Laser directly written junctionless in-plane-gate neuron thin film transistors with AND logic function. <i>Applied Physics Letters</i> , 2013, 102, .	3.3	10
43	Albumen based protein gated bioinspired neuromorphic transistors with learning abilities. <i>Organic Electronics</i> , 2020, 87, 105961.	2.6	10
44	Proton induced multilevel storage capability in self-assembled indium-zinc-oxide thin-film transistors. <i>Applied Physics Letters</i> , 2013, 103, 113503.	3.3	9
45	Organic/inorganic hybrid low-voltage flexible oxide transistor gated with biodegradable electrolyte. <i>Organic Electronics</i> , 2018, 56, 82-88.	2.6	9
46	Aqueous solution processed mesoporous silica-gated photo-perception neuromorphic transistor. <i>Journal of Materials Science</i> , 2021, 56, 4316-4327.	3.7	8
47	Chitosan-Based Electrolyte Gated Low Voltage Oxide Transistor With a Coplanar Modulatory Terminal. <i>IEEE Electron Device Letters</i> , 2017, 38, 322-325.	3.9	8
48	Activity dependent post-tetanic potentiation of starch-based biopolymer electrolyte gated oxide synaptic transistors. <i>Journal Physics D: Applied Physics</i> , 2018, 51, 495401.	2.8	7
49	Flexible oxide neuromorphic transistors with synaptic learning functions. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 405101.	2.8	7
50	Poly (vinyl alcohol)/graphene oxide hybrid electrolyte gated oxide neuron transistors for multifunctional logic applications. <i>Journal Physics D: Applied Physics</i> , 2020, 53, 115106.	2.8	7
51	Flexible Nanocellulose Gated Pseudo-Diode for Neuromorphic Electronic Applications. <i>IEEE Electron Device Letters</i> , 2022, 43, 737-740.	3.9	5
52	Highly sensitive flexible tactile perceptual interactive platform with functions of Braille code recognition. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 375102.	2.8	4
53	2022 roadmap on neuromorphic devices and applications research in China. <i>Neuromorphic Computing and Engineering</i> , 2022, 2, 042501.	5.9	4
54	Proton gated oxide electric-double-layer transistors for full-swing low voltage inverter applications. <i>RSC Advances</i> , 2016, 6, 1053-1057.	3.6	3

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55	Indium-zinc-oxide electric-double-layer thin-film transistors for artificial synapse applications. , 2014, , .		1
56	Pseudo-diode based on protonic/electronic hybrid oxide transistor. Journal of Applied Physics, 2018, 123, 025304.	2.5	1
57	Ionic synergetically coupled electrolyte-gated transistors for neuromorphic engineering applications. , 2020, , 145-177.		1
58	Laser patterned junctionless neuron thin-films transistor arrays. , 2013, , .		0