

# Nan Du

## List of Publications by Year in descending order

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33  
papers

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687363

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times ranked

814  
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#	ARTICLE	IF	CITATIONS
1	Exploiting Memristive BiFeO <sub>3</sub> Bilayer Structures for Compact Sequential Logics. <i>Advanced Functional Materials</i> , 2014, 24, 3357-3365.	14.9	116
2	Bipolar Electric-Field Enhanced Trapping and Detrapping of Mobile Donors in BiFeO <sub>3</sub> Memristors. <i>ACS Applied Materials &amp; Interfaces</i> , 2014, 6, 19758-19765.	8.0	84
3	Single pairing spike-timing dependent plasticity in BiFeO <sub>3</sub> memristors with a time window of 25 ms to 125 $\mu$ s. <i>Frontiers in Neuroscience</i> , 2015, 9, 227.	2.8	54
4	Practical guide for validated memristance measurements. <i>Review of Scientific Instruments</i> , 2013, 84, 023903.	1.3	43
5	Field-Driven Hopping Transport of Oxygen Vacancies in Memristive Oxide Switches with Interface-Mediated Resistive Switching. <i>Physical Review Applied</i> , 2018, 10, .	3.8	34
6	Nonvolatile Multilevel Resistive Switching in $\text{Ar}^+$ Irradiated $\text{BiFeO}_3$ Thin Films. <i>IEEE Electron Device Letters</i> , 2013, 34, 54-56.	3.9	30
7	Engineering interface-type resistive switching in BiFeO <sub>3</sub> thin film switches by Ti implantation of bottom electrodes. <i>Scientific Reports</i> , 2015, 5, 18623.	3.3	29
8	Low-power emerging memristive designs towards secure hardware systems for applications in internet of things. <i>Nano Materials Science</i> , 2021, 3, 186-204.	8.8	22
9	An Energy-efficient, BiFeO <sub>3</sub> -Coated Capacitive Switch with Integrated Memory and Demodulation Functions. <i>Advanced Electronic Materials</i> , 2016, 2, 1500352.	5.1	19
10	Synaptic Plasticity in Memristive Artificial Synapses and Their Robustness Against Noisy Inputs. <i>Frontiers in Neuroscience</i> , 2021, 15, 660894.	2.8	17
11	Improved retention of nonvolatile bipolar BiFeO <sub>3</sub> resistive memories validated by memristance measurements. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2013, 10, 636-639.	0.8	16
12	Ferroelectric and flexible barrier resistive switching of epitaxial BiFeO <sub>3</sub> films studied by temperature-dependent current and capacitance spectroscopy. <i>Journal of Materials Science: Materials in Electronics</i> , 2016, 27, 7927-7932.	2.2	16
13	Ar <sup>+</sup> ions irradiation induced memristive behavior and neuromorphic computing in monolithic LiNbO <sub>3</sub> thin films. <i>Applied Surface Science</i> , 2019, 484, 751-758.	6.1	16
14	Novel implementation of memristive systems for data encryption and obfuscation. <i>Journal of Applied Physics</i> , 2014, 115, .	2.5	11
15	Transport properties of Ar <sup>+</sup> irradiated resistive switching BiFeO <sub>3</sub> thin films. <i>Applied Surface Science</i> , 2015, 336, 354-358.	6.1	11
16	Plasma-Induced Nonvolatile Resistive Switching with Extremely Low SET Voltage in TiO <sub>x</sub> F <sub>y</sub> with AgF Nanoparticles. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 32956-32962.	8.0	9
17	Electroforming-free resistive switching in yttrium manganite thin films by cationic substitution. <i>Journal of Applied Physics</i> , 2019, 126, .	2.5	9
18	Resistive switching in unstructured, polycrystalline BiFeO <sub>3</sub> thin films with downscaled electrodes. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2014, 211, 2563-2568.	1.8	8

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19	Electroforming-free resistive switching in polycrystalline YMnO <sub>3</sub> thin films. Journal of Applied Physics, 2018, 124, .	2.5	5
20	P-N Junction-Based Si Biochips with Ring Electrodes for Novel Biosensing Applications. Biosensors, 2019, 9, 120.	4.7	5
21	Second Harmonic Generation Exploiting Ultra-Stable Resistive Switching Devices for Secure Hardware Systems. IEEE Nanotechnology Magazine, 2022, 21, 71-80.	2.0	5
22	Resistive switching in thin multiferroic films. , 2013, , .		4
23	Disturbing-Free Determination of Yeast Concentration in DI Water and in Glucose Using Impedance Biochips. Biosensors, 2020, 10, 7.	4.7	4
24	Charged domains in ferroelectric, polycrystalline yttrium manganite thin films resolved with scanning electron microscopy. Nanotechnology, 2020, 31, 31LT01.	2.6	4
25	Electroforming-free Memristors for Hardware Security Primitives. , 2019, , .		3
26	Electroforming-free BiFeO <sub>3</sub> switches for neuromorphic computing: Spike-timing dependent plasticity (STDP) and cycle-number dependent plasticity (CNDP). , 2019, , .		3
27	Nano Security: From Nano-Electronics to Secure Systems. , 2021, , .		3
28	Towards Reliable In-Memory Computing:From Emerging Devices to Post-von-Neumann Architectures. , 2021, , .		3
29	Towards Bacteria Counting in DI Water of Several Microliters or Growing Suspension Using Impedance Biochips. Biosensors, 2020, 10, 82.	4.7	2
30	Detecting Bacterial Cell Viability in Few $\mu$ L Solutions from Impedance Measurements on Silicon-Based Biochips. International Journal of Molecular Sciences, 2021, 22, 3541.	4.1	1
31	Capacitive Switching: An Energy-Efficient, BiFeO <sub>3</sub> -Coated Capacitive Switch with Integrated Memory and Demodulation Functions (Adv. Electron. Mater. 3/2016). Advanced Electronic Materials, 2016, 2, .	5.1	0
32	BiFeO <sub>3</sub> memristor-based encryption of medical data. , 2016, , .		0
33	Multi-level switching in TiO <sub>x</sub> F <sub>y</sub> film with nanoparticles. Journal Physics D: Applied Physics, 2017, 50, 385106.	2.8	0