

# Writam Banerjee

## List of Publications by Year in Descending Order

**Source:** <https://exaly.com/author-pdf/13332/writam-banerjee-publications-by-year.pdf>

**Version:** 2024-04-27

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

53  
papers

1,798  
citations

27  
h-index

41  
g-index

55  
ext. papers

2,114  
ext. citations

5.9  
avg, IF

5.6  
L-index

#	Paper	IF	Citations
53	Prospect and challenges of analog switching for neuromorphic hardware. <i>Applied Physics Letters</i> , <b>2022</b> , 120, 060501	3.4	7
52	Hafnium Oxide (HfO <sub>2</sub> ) - A Multifunctional Oxide: A Review on the Prospect and Challenges of Hafnium Oxide in Resistive Switching and Ferroelectric Memories.. <i>Small</i> , <b>2022</b> , e2107575	11	9
51	Ionic Sieving Through One-Atom-Thick 2D Material Enables Analog Nonvolatile Memory for Neuromorphic Computing. <i>Small</i> , <b>2021</b> , 17, e2103543	11	11
50	Deep Insight into Steep-Slope Threshold Switching with Record Selectivity (>4 <sup>10</sup> ) Controlled by Metal-Ion Movement through Vacancy-Induced-Percolation Path: Quantum-Level Control of Hybrid-Filament. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2104054	15.6	17
49	Improved Threshold Switching and Endurance Characteristics Using Controlled Atomic-Scale Switching in a 0.5 nm Thick Stoichiometric HfO <sub>2</sub> Layer. <i>Advanced Electronic Materials</i> , <b>2021</b> , 7, 2000869	6.4	8
48	An Efficient Approach Based on Tuned Nanoionics to Maximize Memory Characteristics in Ag-Based Devices. <i>Advanced Electronic Materials</i> , <b>2021</b> , 7, 2100022	6.4	11
47	Surface Diffusion and Epitaxial Self-Planarization for Wafer-Scale Single-Grain Metal Chalcogenide Thin Films. <i>Advanced Materials</i> , <b>2021</b> , 33, e2102252	24	4
46	In Quest of Nonfilamentary Switching: A Synergistic Approach of Dual Nanostructure Engineering to Improve the Variability and Reliability of Resistive Random-Access-Memory Devices. <i>Advanced Electronic Materials</i> , <b>2020</b> , 6, 2000209	6.4	28
45	Challenges and Applications of Emerging Nonvolatile Memory Devices. <i>Electronics (Switzerland)</i> , <b>2020</b> , 9, 1029	2.6	80
44	Engineering of defects in resistive random access memory devices. <i>Journal of Applied Physics</i> , <b>2020</b> , 127, 051101	2.5	32
43	Evolution of 0.7 conductance anomaly in electric field driven ferromagnetic CuO junction based resistive random access memory devices. <i>Applied Physics Letters</i> , <b>2020</b> , 116, 053502	3.4	3
42	<b>2020</b> ,		4
41	Understanding of Selector-Less 1S1R Type Cu-Based CBRAM Devices by Controlling Sub-Quantum Filament. <i>Advanced Electronic Materials</i> , <b>2020</b> , 6, 2000488	6.4	18
40	Various Threshold Switching Devices for Integrate and Fire Neuron Applications. <i>Advanced Electronic Materials</i> , <b>2019</b> , 5, 1800866	6.4	59
39	A physical model for dual gate a-InGaZnO thin film transistors based on multiple trapping and release mechanism. <i>Microelectronics Journal</i> , <b>2019</b> , 86, 1-6	1.8	1
38	Transformation of threshold volatile switching to quantum point contact originated nonvolatile switching in graphene interface controlled memory devices. <i>Nanoscale Advances</i> , <b>2019</b> , 1, 3753-3760	5.1	26
37	Quantized Conduction Device with 6-Bit Storage Based on Electrically Controllable Break Junctions. <i>Advanced Electronic Materials</i> , <b>2019</b> , 5, 1900744	6.4	43

36	Near ideal synaptic functionalities in Li ion synaptic transistor using LiPOSe electrolyte with high ionic conductivity. <i>Scientific Reports</i> , <b>2019</b> , 9, 18883	4.9	36
35	Investigation of Retention Behavior of TiOx/Al2O3 Resistive Memory and Its Failure Mechanism Based on Meyer-Neldel Rule. <i>IEEE Transactions on Electron Devices</i> , <b>2018</b> , 65, 957-962	2.9	8
34	Full imitation of synaptic metaplasticity based on memristor devices. <i>Nanoscale</i> , <b>2018</b> , 10, 5875-5881	7.7	75
33	Design of CMOS Compatible, High-Speed, Highly-Stable Complementary Switching with Multilevel Operation in 3D Vertically Stacked Novel HfO2/Al2O3/TiOx (HAT) RRAM. <i>Advanced Electronic Materials</i> , <b>2018</b> , 4, 1700561	6.4	45
32	Origin of negative resistance in anion migration controlled resistive memory. <i>Applied Physics Letters</i> , <b>2018</b> , 112, 133108	3.4	5
31	Improvement of durability and switching speed by incorporating nanocrystals in the HFOx based resistive random access memory devices. <i>Applied Physics Letters</i> , <b>2018</b> , 113, 023105	3.4	44
30	Electric field modified Arrhenius description of charge transport in amorphous oxide semiconductor thin film transistors. <i>Physical Review B</i> , <b>2018</b> , 98,	3.3	16
29	Confining Cation Injection to Enhance CBRAM Performance by Nanopore Graphene Layer. <i>Small</i> , <b>2017</b> , 13, 1603948	11	113
28	Crystal that remembers: several ways to utilize nanocrystals in resistive switching memory. <i>Journal Physics D: Applied Physics</i> , <b>2017</b> , 50, 303002	3	31
27	Complementary Switching in 3D Resistive Memory Array. <i>Advanced Electronic Materials</i> , <b>2017</b> , 3, 1700287.4	6.4	28
26	Variability Improvement of TiO /AlO Bilayer Nonvolatile Resistive Switching Devices by Interfacial Band Engineering with an Ultrathin AlO Dielectric Material. <i>ACS Omega</i> , <b>2017</b> , 2, 6888-6895	3.9	34
25	Electronic imitation of behavioral and psychological synaptic activities using TiO/AlO-based memristor devices. <i>Nanoscale</i> , <b>2017</b> , 9, 14442-14450	7.7	76
24	Intrinsic anionic rearrangement by extrinsic control: transition of RS and CRS in thermally elevated TiN/HfO/Pt RRAM. <i>Nanoscale</i> , <b>2017</b> , 9, 18908-18917	7.7	30
23	Super non-linear RRAM with ultra-low power for 3D vertical nano-crossbar arrays. <i>Nanoscale</i> , <b>2016</b> , 8, 15629-36	7.7	72
22	Eliminating Negative-SET Behavior by Suppressing Nanofilament Overgrowth in Cation-Based Memory. <i>Advanced Materials</i> , <b>2016</b> , 28, 10623-10629	24	161
21	Physical model of Seebeck coefficient under surface dipole effect in organic thin-film transistors. <i>Organic Electronics</i> , <b>2016</b> , 29, 27-32	3.5	16
20	Memory Devices: Eliminating Negative-SET Behavior by Suppressing Nanofilament Overgrowth in Cation-Based Memory (Adv. Mater. 48/2016). <i>Advanced Materials</i> , <b>2016</b> , 28, 10809-10809	24	6
19	Occurrence of Resistive Switching and Threshold Switching in Atomic Layer Deposited Ultrathin (2 nm) Aluminium Oxide Crossbar Resistive Random Access Memory. <i>IEEE Electron Device Letters</i> , <b>2015</b> , 36, 333-335	4.4	36

18	Charge carrier hopping transport based on Marcus theory and variable-range hopping theory in organic semiconductors. <i>Journal of Applied Physics</i> , <b>2015</b> , 118, 045701	2.5	30
17	Atomic View of Filament Growth in Electrochemical Memristive Elements. <i>Scientific Reports</i> , <b>2015</b> , 5, 13311	4.9	65
16	Compact model for organic thin-film transistor with Gaussian density of states. <i>AIP Advances</i> , <b>2015</b> , 5, 047123	1.5	8
15	Carrier-transport-path-induced switching parameter fluctuation in oxide-based resistive switching memory. <i>Materials Research Express</i> , <b>2015</b> , 2, 046304	1.7	9
14	<b>2015</b> ,		30
13	Cu BEOL compatible selector with high selectivity (>10 <sup>7</sup> ), extremely low off-current (~pA) and high endurance (>10 <sup>10</sup> ) <b>2015</b> ,		31
12	Evolution of conductive filament and its impact on reliability issues in oxide-electrolyte based resistive random access memory. <i>Scientific Reports</i> , <b>2015</b> , 5, 7764	4.9	99
11	Multilevel unipolar resistive switching with negative differential resistance effect in Ag/SiO <sub>2</sub> /Pt device. <i>Journal of Applied Physics</i> , <b>2014</b> , 116, 154509	2.5	34
10	A unified physical model of Seebeck coefficient in amorphous oxide semiconductor thin-film transistors. <i>Journal of Applied Physics</i> , <b>2014</b> , 116, 104502	2.5	12
9	Transparent and flexible resistive switching memory devices with a very high ON/OFF ratio using gold nanoparticles embedded in a silk protein matrix. <i>Nanotechnology</i> , <b>2013</b> , 24, 345202	3.4	96
8	Impact of electrically formed interfacial layer and improved memory characteristics of IrO <sub>x</sub> /high- $\kappa$ /W structures containing AlO <sub>x</sub> , GdO <sub>x</sub> , HfO <sub>x</sub> , and TaO <sub>x</sub> switching materials. <i>Nanoscale Research Letters</i> , <b>2013</b> , 8, 379	5	21
7	Nanocrystals for silicon-based light-emitting and memory devices. <i>Journal Physics D: Applied Physics</i> , <b>2013</b> , 46, 153001	3	79
6	Formation polarity dependent improved resistive switching memory characteristics using nanoscale (1.3 nm) core-shell IrO <sub>x</sub> nano-dots. <i>Nanoscale Research Letters</i> , <b>2012</b> , 7, 194	5	36
5	Excellent Uniformity and Multilevel Operation in Formation-Free Low Power Resistive Switching Memory Using IrO <sub>x</sub> /AlO <sub>x</sub> /W Cross-Point. <i>Japanese Journal of Applied Physics</i> , <b>2012</b> , 51, 04DD10 <sup>14</sup>	1.4	4
4	Excellent Uniformity and Multilevel Operation in Formation-Free Low Power Resistive Switching Memory Using IrO <sub>x</sub> /AlO <sub>x</sub> /W Cross-Point. <i>Japanese Journal of Applied Physics</i> , <b>2012</b> , 51, 04DD10	1.4	14
3	High- $\kappa$ Al <sub>2</sub> O <sub>3</sub> /WO <sub>x</sub> Bilayer Dielectrics for Low-Power Resistive Switching Memory Applications. <i>Japanese Journal of Applied Physics</i> , <b>2011</b> , 50, 10PH01	1.4	20
2	High- $\kappa$ Al <sub>2</sub> O <sub>3</sub> /WO <sub>x</sub> Bilayer Dielectrics for Low-Power Resistive Switching Memory Applications. <i>Japanese Journal of Applied Physics</i> , <b>2011</b> , 50, 10PH01	1.4	10
1	Application of Resistive Random Access Memory in Hardware Security: A Review. <i>Advanced Electronic Materials</i> , 2100536	6.4	7

