

Firman M Simanjuntak

List of Publications by Year in descending order

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Version: 2024-02-01

50
papers

1,246
citations

279798

23
h-index

377865

34
g-index

50
all docs

50
docs citations

50
times ranked

905
citing authors

#	ARTICLE	IF	CITATIONS
1	Status and Prospects of ZnO-Based Resistive Switching Memory Devices. <i>Nanoscale Research Letters</i> , 2016, 11, 368.	5.7	188
2	Improving linearity by introducing Al in HfO ₂ as a memristor synapse device. <i>Nanotechnology</i> , 2019, 30, 445205.	2.6	86
3	Impacts of Co doping on ZnO transparent switching memory device characteristics. <i>Applied Physics Letters</i> , 2016, 108, .	3.3	70
4	Enhancing the memory window of AZO/ZnO/ITO transparent resistive switching devices by modulating the oxygen vacancy concentration of the top electrode. <i>Journal of Materials Science</i> , 2015, 50, 6961-6969.	3.7	55
5	Enhanced switching uniformity in AZO/ZnO _{1-x} /ITO transparent resistive memory devices by bipolar double forming. <i>Applied Physics Letters</i> , 2015, 107, .	3.3	52
6	Enhanced Synaptic Linearity in ZnO-Based Invisible Memristive Synapse by Introducing Double Pulsing Scheme. <i>IEEE Transactions on Electron Devices</i> , 2019, 66, 4722-4726.	3.0	49
7	ZnO ₂ /ZnO bilayer switching film for making fully transparent analog memristor devices. <i>APL Materials</i> , 2019, 7, .	5.1	44
8	Low-power electronic technologies for harsh radiation environments. <i>Nature Electronics</i> , 2021, 4, 243-253.	26.0	39
9	Transformation of digital to analog switching in TaO _x -based memristor device for neuromorphic applications. <i>Applied Physics Letters</i> , 2021, 118, .	3.3	37
10	Neutral oxygen irradiation enhanced forming-less ZnO-based transparent analog memristor devices for neuromorphic computing applications. <i>Nanotechnology</i> , 2020, 31, 26LT01.	2.6	36
11	Film-Nanostructure-Controlled Inerasable-to-Erasable Switching Transition in ZnO-Based Transparent Memristor Devices: Sputtering-Pressure Dependency. <i>ACS Applied Electronic Materials</i> , 2019, 1, 2184-2189.	4.3	32
12	Temperature induced complementary switching in titanium oxide resistive random access memory. <i>AIP Advances</i> , 2016, 6, 075314.	1.3	31
13	Resistive switching behavior of Ga doped ZnO-nanorods film conductive bridge random access memory. <i>Thin Solid Films</i> , 2018, 660, 828-833.	1.8	31
14	Neutral Oxygen Beam Treated ZnO-Based Resistive Switching Memory Device. <i>ACS Applied Electronic Materials</i> , 2019, 1, 18-24.	4.3	31
15	Role of nanorods insertion layer in ZnO-based electrochemical metallization memory cell. <i>Semiconductor Science and Technology</i> , 2017, 32, 124003.	2.0	30
16	Fast, Highly Flexible, and Transparent TaO _x -Based Environmentally Robust Memristors for Wearable and Aerospace Applications. <i>ACS Applied Electronic Materials</i> , 2020, 2, 3131-3140.	4.3	30
17	Synthesis of Fe ₃ O ₄ /Ag nanohybrid ferrofluids and their applications as antimicrobial and antifibrotic agents. <i>Heliyon</i> , 2020, 6, e05813.	3.2	30
18	One bipolar transistor selector - One resistive random access memory device for cross bar memory array. <i>AIP Advances</i> , 2017, 7, .	1.3	29

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19	Peroxide induced volatile and non-volatile switching behavior in ZnO-based electrochemical metallization memory cell. <i>Nanotechnology</i> , 2017, 28, 38LT02.	2.6	28
20	Switching Failure Mechanism in Zinc Peroxide-Based Programmable Metallization Cell. <i>Nanoscale Research Letters</i> , 2018, 13, 327.	5.7	26
21	The impact of TiW barrier layer thickness dependent transition from electro-chemical metallization memory to valence change memory in ZrO ₂ -based resistive switching random access memory devices. <i>Thin Solid Films</i> , 2018, 660, 777-781.	1.8	25
22	Influence of rf sputter power on ZnO film characteristics for transparent memristor devices. <i>AIP Advances</i> , 2019, 9, .	1.3	25
23	Effect of barrier layer on switching polarity of ZrO ₂ -based conducting-bridge random access memory. <i>Applied Physics Letters</i> , 2017, 111, .	3.3	25
24	Controlled resistive switching characteristics of ZrO ₂ -based electrochemical metallization memory devices by modifying the thickness of the metal barrier layer. <i>Japanese Journal of Applied Physics</i> , 2018, 57, 04FE10.	1.5	23
25	Role of precursors mixing sequence on the properties of CoMn ₂ O ₄ cathode materials and their application in pseudocapacitor. <i>Scientific Reports</i> , 2019, 9, 16852.	3.3	20
26	Sensing performance of gas sensors fabricated from controllably grown ZnO-based nanorods on seed layers. <i>Journal of Materials Science</i> , 2020, 55, 8850-8860.	3.7	19
27	Crafting the multiferroic BiFeO ₃ -CoFe ₂ O ₄ nanocomposite for next-generation devices: A review. <i>Materials and Manufacturing Processes</i> , 2021, 36, 1579-1596.	4.7	19
28	Resistive Switching Characteristics of Hydrogen Peroxide Surface Oxidized ZnO-Based Transparent Resistive Memory Devices. <i>ECS Transactions</i> , 2017, 77, 155-160.	0.5	18
29	Suboxide interface induced digital-to-analog switching transformation in all Ti-based memristor devices. <i>Applied Physics Letters</i> , 2020, 117, .	3.3	18
30	Corrosion Inhibition of Honeycomb Waste Extracts for 304 Stainless Steel in Sulfuric Acid Solution. <i>Materials</i> , 2019, 12, 2120.	2.9	16
31	Barrier Layer Induced Switching Stability in Ga:ZnO Nanorods Based Electrochemical Metallization Memory. <i>IEEE Nanotechnology Magazine</i> , 2020, 19, 764-768.	2.0	15
32	Flexible Ta ₂ O ₅ /WO ₃ -Based Memristor Synapse for Wearable and Neuromorphic Applications. <i>IEEE Electron Device Letters</i> , 2022, 43, 9-12.	3.9	14
33	Effects of pillar size modulation on the magneto-structural coupling in self-assembled BiFeO ₃ â€“CoFe ₂ O ₄ heteroepitaxy. <i>CrystEngComm</i> , 2020, 22, 435-440.	2.6	12
34	Structural and electrical properties analysis of InAlGaN/GaN heterostructures grown at elevated temperatures by MOCVD. <i>Journal of Crystal Growth</i> , 2018, 501, 7-12.	1.5	8
35	Negative effect of cations out-diffusion and auto-doping on switching mechanisms of transparent memristor devices employing ZnO/ITO heterostructure. <i>Applied Physics Letters</i> , 2021, 118, .	3.3	7
36	Negative Effects of Annealed Seed Layer on the Performance of ZnO-Nanorods Based Nitric Oxide Gas Sensor. <i>Sensors</i> , 2022, 22, 390.	3.8	5

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37	Conduction channel configuration controlled digital and analog response in TiO ₂ -based inorganic memristive artificial synapses. <i>APL Materials</i> , 2021, 9, 121103.	5.1	5
38	Switching and synaptic characteristics of AZO/ZnO/ITO valence change memory device. <i>IOP Conference Series: Materials Science and Engineering</i> , 2019, 494, 012027.	0.6	4
39	Stress Corrosion Cracking Threshold for Dissimilar Capacitive Discharge Welding Joint with Varied Surface Geometry. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 2180.	2.5	3
40	Effects of Surface Polarity on the Structure and Magnetic Properties of Epitaxial γ -YMnO ₃ Thin Films Grown on MgO Substrates. <i>ACS Applied Electronic Materials</i> , 2022, 4, 1603-1610.	4.3	3
41	Evaluating gallium-doped ZnO top electrode thickness for achieving a good switch-ability in ZnO ₂ /ZnO bilayer transparent valence change memory. <i>Journal of Electroceramics</i> , 2021, 46, 14-19.	2.0	2
42	Formation of a ternary oxide barrier layer and its role in switching characteristic of ZnO-based conductive bridge random access memory devices. <i>APL Materials</i> , 2022, 10, 031103.	5.1	2
43	Transparent ZnO resistive switching memory fabricated by neutral oxygen beam treatment. <i>Japanese Journal of Applied Physics</i> , 0, , .	1.5	2
44	Synthesis and Electrochemical Performance of γ -Fe ₂ O ₃ Nano Ellipse as Anode for Lithium-Ion Batteries. <i>Asian Journal of Chemistry</i> , 2019, 31, 487-492.	0.3	1
45	Practical Approach to Induce Analog Switching Behavior in Memristive Devices: Digital-to-Analog Transformation. , 0, , .		1
46	Electrospinning Processing and Microstructural Characterization of Ce _{0.78} Gd _{0.2} Sr _{0.02} O ₂ Fiber for a Composite Anode. <i>Advanced Materials Research</i> , 2011, 287-290, 2489-2493.	0.3	0
47	ZrOX insertion layer enhanced switching and synaptic performances of TiOX-based memristive devices. <i>IOP Conference Series: Materials Science and Engineering</i> , 2021, 1034, 012142.	0.6	0
48	Band tailoring by annealing and current conduction of Co-doped ZnO transparent resistive switching memory. <i>IOP Conference Series: Materials Science and Engineering</i> , 2021, 1034, 012140.	0.6	0
49	Conduction mechanism of Co-doped ZnO transparent memristive devices. <i>IOP Conference Series: Materials Science and Engineering</i> , 2021, 1034, 012139.	0.6	0
50	Resistive Switching Characteristics of Hydrogen Peroxide Surface Oxidized ZnO-Based Transparent Resistive Memory Devices. <i>ECS Meeting Abstracts</i> , 2017, , .	0.0	0