Xinjun Liu

List of Publications by Year
in descending order

84 papers	1,987 citations	236925 25 h-index	289244 40 g-index
85 all docs	85 docs citations	85 times ranked	2021 citing authors

#	Article	IF	Citations
1	Van der Pol oscillator based on NbO2 volatile memristor: A simulation analysis. Journal of Applied Physics, 2022, 131, 054501.	2.5	3
2	Modulation of magnetoresistance and field sensitivity of Coâ€"ZnO nanocomposite film by microstructure controlling. Journal Physics D: Applied Physics, 2021, 54, 365003.	2.8	1
3	NbO₂ Memristive Neurons for Burstâ€Based Perceptron. Advanced Intelligent Systems, 2020, 2, 2000066.	6.1	18
4	Schottky-Barrier-Induced Asymmetry in the Negative-Differential-Resistance Response of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mi>Nb</mml:mi><mml:mo>/</mml:mo><mml:msub><mml:mrow><mml:mi>Nb</mml:mi><mml:mi mathvariant="normal">O</mml:mi></mml:mrow><mml:mi>x</mml:mi></mml:msub></mml:math> / <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mi>Pt</mml:mi></mml:math> Cross-Point Devices. Physical Review Applied, 20	3.8	12
5	Spiking dynamic behaviors of NbO2 memristive neurons: A model study. Journal of Applied Physics, 2020, 127, .	2.5	11
6	Collective dynamics of capacitively coupled oscillators based on NbO2 memristors. Journal of Applied Physics, 2019, 126, 125112.	2.5	9
7	Origin of Currentâ€Controlled Negative Differential Resistance Modes and the Emergence of Composite Characteristics with High Complexity. Advanced Functional Materials, 2019, 29, 1905060.	14.9	45
8	Current Localization and Redistribution as the Basis of Discontinuous Current Controlled Negative Differential Resistance in NbO<i>_x</i>. Advanced Functional Materials, 2019, 29, 1906731.	14.9	39
9	Photoassisted Electric Field Modulation of Multiple Nonvolatile Resistance States in Highly Strained Epitaxial BiFeO₃ Heterostructures. Advanced Electronic Materials, 2018, 4, 1800171.	5.1	14
10	Anatomy of filamentary threshold switching in amorphous niobium oxide. Nanotechnology, 2018, 29, 375705.	2.6	36
11	Coupling dynamics of Nb/Nb₂O₅relaxation oscillators. Nanotechnology, 2017, 28, 125201.	2.6	28
12	Temperature dependent frequency tuning of NbOx relaxation oscillators. Applied Physics Letters, 2017, 111, .	3.3	24
13	Threshold switching and electrical self-oscillation in niobium oxide films. Journal of Applied Physics, 2016, 120, .	2.5	67
14	Self-assembly of an NbO2 interlayer and configurable resistive switching in Pt/Nb/HfO2/Pt structures. Applied Physics Letters, 2015, 107, .	3.3	21
15	Threshold current reduction for the metalâ€"insulator transition in NbO_{2â^'<i>x</i>}-selector devices: the effect of ReRAM integration. Journal Physics D: Applied Physics, 2015, 48, 195105.	2.8	74
16	Effect of Electrode Roughness on Electroforming in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>HfO</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></m Defect-Induced Moderation of Electric-Field Enhancement. Physical Review Applied, 2015, 4, .	3.8	38
17	High-endurance megahertz electrical self-oscillation in Ti/NbO<i>x</i> bilayer structures. Applied Physics Letters, 2015, 106, .	3.3	44
18	Resistive switching behavior in HfO<inf>2</inf> with Nb as an oxygen exchange layer. , 2014, , .		4

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19	Temperature dependence of threshold switching in NbO<inf>x</inf> thin films. , 2014, , .		10
20	Finite element modeling of resistive switching in Nb<inf>2</inf>O<inf>5</inf>-based memory device. , 2014, , .		4
21	Reduced Threshold Current in NbO₂ Selector by Engineering Device Structure. IEEE Electron Device Letters, 2014, 35, 1055-1057.	3.9	54
22	The use of electron Rutherford backscattering to characterize novel electronic materials as illustrated by a case study of sputter-deposited NbO x films. Nuclear Instruments & Methods in Physics Research B, 2014, 340, 58-62.	1.4	15
23	Effect of Microstructure on Dielectric Breakdown in Amorphous HfO2 Films. Microscopy and Microanalysis, 2014, 20, 1984-1985.	0.4	3
24	Engineering electrodeposited ZnO films and their memristive switching performance. Physical Chemistry Chemical Physics, 2013, 15, 10376.	2.8	52
25	Complementary Resistive Switching in Niobium Oxide-Based Resistive Memory Devices. IEEE Electron Device Letters, 2013, 34, 235-237.	3.9	50
26	Ultrathin (<10nm) Nb<inf>2</inf>O<inf>5</inf>/NbO<inf>2</inf> hybrid memory with both memory and selector characteristics for high density 3D vertically stackable RRAM applications. , 2012, , .		39
27	Improvement of Resistive Switching Uniformity by Introducing a Thin NbOx Interface Layer. ECS Solid State Letters, 2012, 1, Q35-Q38.	1.4	18
28	Effect of defect content on the unipolar resistive switching characteristics of ZnO thin film memory devices. Solid State Communications, 2012, 152, 1630-1634.	1.9	21
29	Ferroelectricity-induced resistive switching in Pb(Zr0.52Ti0.48)O3/Pr0.7Ca0.3MnO3/Nb-doped SrTiO3 epitaxial heterostructure. Applied Physics Letters, 2012, 100, .	3.3	29
30	Co-Occurrence of Threshold Switching and Memory Switching in $hbox{Pt}/hbox{NbO}_{x}/hbox{Pt}$ Cells for Crosspoint Memory Applications. IEEE Electron Device Letters, 2012, 33, 236-238.	3.9	73
31	Highly uniform and reliable resistance switching properties in bilayer WO_{<i>x</i>}/NbO_{<i>x</i>} RRAM devices. Physica Status Solidi (A) Applications and Materials Science, 2012, 209, 1179-1183.	1.8	37
32	Low-Power and Controllable Memory Window in Pt/Pr_{0.7}Ca_{0.3}MnO₃/Yttria-Stabilized Zirconia/W Resistive Random-Access Memory Devices. Journal of Nanoscience and Nanotechnology, 2012, 12, 3252-3255.	0.9	2
33	Reversible resistance switching properties in Ti-doped polycrystalline Ta2O5 thin films. Applied Physics A: Materials Science and Processing, 2012, 108, 177-183.	2.3	6
34	Unipolar resistance switching and abnormal reset behaviors in Pt/CuO/Pt and Cu/CuO/Pt structures. Solid-State Electronics, 2012, 73, 11-14.	1.4	12
35	Self-Selective Characteristics of Nanoscale $ hbox{VO}_{x}$ Devices for High-Density ReRAM Applications. IEEE Electron Device Letters, 2012, 33, 718-720.	3.9	57
36	Thermally-assisted Ti/Pr<inf>0.7</inf>Ca<inf>0.3</inf>MnO<inf>3</inf> ReRAM with excellent switching speed and retention characteristics. , 2011, , .		5

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37	Diode-less bilayer oxide (WO_{<i>x</i>}â€“NbO_{<i>x</i>}) device for cross-point resistive memory applications. Nanotechnology, 2011, 22, 475702.	2.6	81
38	Improved Resistive Switching Properties of Solution-Processed TiO_xFilm by Incorporating Atomic Layer Deposited TiO₂layer. Japanese Journal of Applied Physics, 2011, 50, 046504.	1.5	7
39	All-ZnO-based transparent resistance random access memory device fully fabricated at room temperature. Journal Physics D: Applied Physics, 2011, 44, 255104.	2.8	65
40	The unification of filament and interfacial resistive switching mechanisms for titanium dioxide based memory devices. Journal of Applied Physics, 2011, 109, 104504.	2.5	16
41	Improved resistive switching properties in Pt/Pr0.7Ca0.3MnO3/Y2O3-stabilized ZrO2/W via-hole structures. Current Applied Physics, 2011, 11, e58-e61.	2.4	20
42	Bipolar resistance switching in the Pt/WOx/W nonvolatile memory devices. Current Applied Physics, 2011, 11, e62-e65.	2.4	17
43	Highly asymmetric bipolar resistive switching in solution-processed Pt/TiO2/W devices for cross-point application. Current Applied Physics, 2011, 11, S102-S106.	2.4	23
44	Coexistence of filamentary and homogeneous resistive switching in graded WO<i>_x</i> thin films. Physica Status Solidi - Rapid Research Letters, 2011, 5, 89-91.	2.4	32
45	Memristive switching behavior in Pr_{0.7}Ca_{0.3}MnO₃ by incorporating an oxygenâ€deficient layer. Physica Status Solidi - Rapid Research Letters, 2011, 5, 409-411.	2.4	19
46	Parallel memristive filaments model applicable to bipolar and filamentary resistive switching. Applied Physics Letters, 2011, 99, .	3.3	20
47	Structural properties and resistive switching behaviour in MgxZn1â^’xO alloy films grown by pulsed laser deposition. Journal Physics D: Applied Physics, 2011, 44, 015302.	2.8	5
48	Ferroelectric Polarization Effect on Al-Nb Codoped Pb(Zr0.52Ti0.48)O3/Pr0.7Ca0.3MnO3 Heterostructure Resistive Memory. Electrochemical and Solid-State Letters, 2011, 14, H225.	2.2	8
49	Realization of Rectifying and Resistive Switching Behaviors of TiO2 Nanorod Arrays for Nonvolatile Memory. Electrochemical and Solid-State Letters, 2011, 14, H422.	2.2	28
50	Characterization of Resistive Switching States in W/Pr$_{0.7}$Ca$_{0.3}$MnO$_{3}$ for a Submicron ($phi 250$ nm) Via-Hole Structure. Japanese Journal of Applied Physics, 2011, 50, 105802.	1.5	5
51	Resistive switching characteristics and mechanism of thermally grown WOx thin films. Journal of Applied Physics, 2011, 110, .	2.5	65
52	Filament-Type Resistive Switching in Homogeneous Bi-Layer Pr[sub 0.7]Ca[sub 0.3]MnO[sub 3] Thin Film Memory Devices. Electrochemical and Solid-State Letters, 2011, 14, H9.	2.2	12
53	Resistive Switching Mechanism of a Pr0.7Ca0.3MnO3-based Memory Device and Assessment of Its Suitability for Nano-scale Applications. Journal of the Korean Physical Society, 2011, 59, 497-500.	0.7	11
54	Characterization of Resistive Switching States in W/Pr0.7Ca0.3MnO3for a Submicron (Ï†250 nm) Via-Hole Structure. Japanese Journal of Applied Physics, 2011, 50, 105802.	1.5	3

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55	Asymmetric bipolar resistive switching in solution-processed Pt/TiO₂/W devices. Journal Physics D: Applied Physics, 2010, 43, 495104.	2.8	35
56	Improved resistive switching properties in stacked structures. Solid State Communications, 2010, 150, 137-141.	1.9	15
57	Low programming voltage resistive switching in reactive metal/polycrystalline Pr0.7Ca0.3MnO3 devices. Solid State Communications, 2010, 150, 2231-2235.	1.9	36
58	Interfacial resistive switching properties in Ti/La_{0.7}Ca_{0.3}MnO₃/Pt sandwich structures. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 1204-1209.	1.8	15
59	Improved Resistive Switching Properties of Solution Processed TiO[sub 2] Thin Films. Electrochemical and Solid-State Letters, 2010, 13, H443.	2.2	8
60	Improving the Oxygen Permeability of Ba_{0.5}Sr_{0.5}Co_{0.8}Fe_{0.2}O_{3-Î´} Membranes by Laser Ablation. Wuji Cailiao Xuebao/Journal of Inorganic Materials, 2010, 25, 221-224.	1.3	0
61	The polarity origin of the bipolar resistance switching behaviors in metal/La0.7Ca0.3MnO3/Pt junctions. Applied Physics Letters, 2009, 95, .	3.3	46
62	The Effect of Oxygen Annealing on the Resistance Switching Properties of the La_{0.7}Ca_{0.3}MnO₃ Films. Advanced Materials Research, 2009, 66, 127-130.	0.3	0
63	Stable bipolar resistance switching behaviour induced by a soft breakdown process at the Al/La_{0.7}Ca_{0.3}MnO₃interface. Journal Physics D: Applied Physics, 2009, 42, 175408.	2.8	22
64	Multiform Resistance Switching Effects in the Al/La[sub 0.7]Ca[sub 0.3]MnO[sub 3]/Pt Structure. Electrochemical and Solid-State Letters, 2009, 12, H281.	2.2	11
65	Bipolar resistive switching properties of microcrystalline TiO2 thin films deposited by pulsed laser deposition. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2009, 157, 36-39.	3.5	15
66	Electric-field-induced resistance behavior inÂAg/Pr1â^'x Ca x MnO3/Pt (x=0,0.3,1.0) heterostructures. Applied Physics A: Materials Science and Processing, 2009, 96, 643-653.	2.3	2
67	Resistance-switching properties of La0.67Ca0.33MnO3 thin films with Agâ€"Al alloy top electrodes. Applied Physics A: Materials Science and Processing, 2009, 97, 85-90.	2.3	11
68	Effects of the compliance current on the resistive switching behavior of TiO2 thin films. Applied Physics A: Materials Science and Processing, 2009, 97, 883-887.	2.3	58
69	Structural characteristics and resistive switching properties of thermally prepared TiO2 thin films. Journal of Alloys and Compounds, 2009, 486, 458-461.	5.5	19
70	Forming-free colossal resistive switching effect in rare-earth-oxide Gd2O3 films for memristor applications. Journal of Applied Physics, 2009, 106, .	2.5	126
71	The in-plane magnetic anisotropy of RF-sputtered FeNiN thin films. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 350-356.	1.8	3
72	Reversible change in magnetic moment and specific heat of La_{0.9}Ca_{0.1}MnO₃at different resistance states. Journal Physics D: Applied Physics, 2008, 41, 115001.	2.8	5

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73	Improvement of resistive switching property in a noncrystalline and low-resistance La0.7Ca0.3MnO3thin film by using an Agâ€"Al alloy electrode. Journal Physics D: Applied Physics, 2008, 41, 215409.	2.8	15
74	The effect of Fe doping on structural, magnetic and electrical transport properties of CaMn1â^'xFexO3Â(x=0â€"0.35). Solid State Communications, 2007, 142, 525-530.	1.9	18
75	Charge ordering characteristics in Y0.5Ca0.5MnO3 manganite. Physics Letters, Section A: General, Atomic and Solid State Physics, 2007, 370, 512-516.	2.1	3
76	Magnetic, electrical transport and electron spin resonance studies of Fe-doped manganite LaMn0.7Fe0.3O3+Î´. Journal of Magnetism and Magnetic Materials, 2007, 313, 354-360.	2.3	25
77	Magnetic, electrical transport and electron spin resonance studies of ferromagnetic insulating manganites Nd0.85Na0.15MnO3. Journal of Magnetism and Magnetic Materials, 2006, 305, 352-356.	2.3	1
78	Bulk Sn1â^'xMnxO2 magnetic semiconductors without room-temperature ferromagnetism. Solid State Communications, 2006, 138, 175-178.	1.9	25
79	Magnetic and electronic properties of charge ordered Nd0.8Na0.2MnO3. Journal of Magnetism and Magnetic Materials, 2004, 284, 133-139.	2.3	18
80	Magnetic, electrical transport and electron spin resonance studies of charge-ordered Nd0.75Na0.25MnO3. Physica B: Condensed Matter, 2004, 348, 146-150.	2.7	14
81	Magnetic properties of the charge ordered Nd0.75Na0.25MnO3. Solid State Communications, 2004, 130, 563-566.	1.9	14
82	Competition between the charge ordered and ferromagnetic states in (La,Nd)0.75Na0.25MnO3 manganites. Physics Letters, Section A: General, Atomic and Solid State Physics, 2004, 325, 430-434.	2.1	9
83	Fabrication and Resistance-Switching Behaviors of NiO Thin Films by Thermal Oxidation of Evaporated Ni Films. Advanced Materials Research, 0, 66, 131-134.	0.3	1
84	Understanding composite negative differential resistance in niobium oxide memristors. Journal Physics D: Applied Physics, 0, , .	2.8	5