Gun Hwan Kim

List of Publications by Year
in descending order

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48 papers	3,559 citations	331670 21 h-index	197818 49 g-index
50 all docs	50 docs citations	50 times ranked	3937 citing authors

#	Article	IF	Citations
1	Effect of residual impurities on polarization switching kinetics in atomic-layer-deposited ferroelectric Hf0.5Zr0.5O2 thin films. Acta Materialia, 2022, 222, 117405.	7.9	15
2	Strategic allocation of two-dimensional van der Waals semiconductor as an oxygen reservoir for boosting resistive switching reliability. Applied Surface Science, 2022, 577, 151936.	6.1	2
3	Material and Structural Engineering of Ovonic Threshold Switch for Highly Reliable Performance. Advanced Electronic Materials, 2022, 8, .	5.1	5
4	Dotâ€Product Operation in Crossbar Array Using a Selfâ€Rectifying Resistive Device. Advanced Materials Interfaces, 2022, 9, .	3.7	5
5	Atomic layer deposition of a ruthenium thin film using a precursor with enhanced reactivity. Journal of Materials Chemistry C, 2021, 9, 3820-3825.	5.5	11
6	Self-rectifying resistive memory in passive crossbar arrays. Nature Communications, 2021, 12, 2968.	12.8	53
7	Role of an Interfacial Layer in Ta 2 O 5 â€Based Resistive Switching Devices for Improved Endurance and Reliable Multibit Operation. Physica Status Solidi - Rapid Research Letters, 2020, 14, 1900646.	2.4	5
8	Highly Linear and Symmetric Weight Modification in HfO₂â€Based Memristive Devices for Highâ€Precision Weight Entries. Advanced Electronic Materials, 2020, 6, 2000434.	5.1	16
9	Ti-doped alumina based reliable resistive switching in sub- Î¼ A regime. Applied Physics Letters, 2020, 116, .	3.3	3
10	Fully â€œErase-freeâ€•Multi-Bit Operation in HfO₂-Based Resistive Switching Device. ACS Applied Materials & Interfaces, 2019, 11, 8234-8241.	8.0	13
11	Positive effects of a Schottky-type diode on unidirectional resistive switching devices. Applied Physics Letters, 2019, 115, .	3.3	8
12	Postâ€Annealing Effect on Resistive Switching Performance of a Ta/Mn₂O₃/Pt/Ti Stacked Device. Physica Status Solidi - Rapid Research Letters, 2018, 12, 1800031.	2.4	10
13	Optimized Method for Lowâ€Energy and Highly Reliable Multibit Operation in a HfO₂â€Based Resistive Switching Device. Advanced Electronic Materials, 2018, 4, 1800261.	5.1	12
14	Growth behavior of Bi₂Te₃and Sb₂Te₃thin films on graphene substrate grown by plasma-enhanced chemical vapor deposition. Physica Status Solidi - Rapid Research Letters, 2017, 11, 1600369.	2.4	11
15	Improvement of thermoelectric properties of Bi₂Te₃ and Sb₂Te₃ films grown on graphene substrate. Physica Status Solidi - Rapid Research Letters, 2017, 11, 1700029.	2.4	14
16	Doubleâ€Layerâ€Stacked One Diodeâ€One Resistive Switching Memory Crossbar Array with an Extremely High Rectification Ratio of 10⁹. Advanced Electronic Materials, 2017, 3, 1700152.	5.1	42
17	Fourâ€Bitsâ€Perâ€Cell Operation in an HfO₂â€Based Resistive Switching Device. Small, 2017, 13, 1701781.	10.0	37
18	Nextâ€Generation Memory: Doubleâ€Layerâ€Stacked One Diodeâ€One Resistive Switching Memory Crossbar Array with an Extremely High Rectification Ratio of 10⁹ (Adv. Electron. Mater. 7/2017). Advanced Electronic Materials, 2017, 3, .	5.1	1

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19	Direct evidence on Ta-Metal Phases Igniting Resistive Switching in TaOx Thin Film. Scientific Reports, 2015, 5, 14053.	3.3	25
20	An analysis of â€œnon-latticeâ€•oxygen concentration effect on electrical endurance characteristic in resistive switching MnOx thin film. Applied Physics Letters, 2015, 106, .	3.3	23
21	A Review of Threeâ€Dimensional Resistive Switching Crossâ€Bar Array Memories from the Integration and Materials Property Points of View. Advanced Functional Materials, 2014, 24, 5316-5339.	14.9	319
22	32 Ã— 32 Crossbar Array Resistive Memory Composed of a Stacked Schottky Diode and Unipolar Resistive Memory. Advanced Functional Materials, 2013, 23, 1440-1449.	14.9	152
23	Resistive Memory: 32 Ã— 32 Crossbar Array Resistive Memory Composed of a Stacked Schottky Diode and Unipolar Resistive Memory (Adv. Funct. Mater. 11/2013). Advanced Functional Materials, 2013, 23, 1350-1350.	14.9	2
24	Schottky diode with excellent performance for large integration density of crossbar resistive memory. Applied Physics Letters, 2012, 100, .	3.3	32
25	Threshold switching in Si-As-Te thin film for the selector device of crossbar resistive memory. Applied Physics Letters, 2012, 100, .	3.3	44
26	Concurrent presence of unipolar and bipolar resistive switching phenomena in pnictogen oxide Sb2O5 films. Journal of Applied Physics, 2012, 112, .	2.5	4
27	Optimization of Chemical Structure of Schottky-Type Selection Diode for Crossbar Resistive Memory. ACS Applied Materials & Interfaces, 2012, 4, 5338-5345.	8.0	9
28	Unipolar resistive switching characteristics of pnictogen oxide films: Case study of Sb2O5. Journal of Applied Physics, 2012, 112, 104105.	2.5	8
29	Resistive Switching in $hbox{TiO}_{2}$ Thin Films Using the Semiconducting In-Ga-Zn-O Electrode. IEEE Electron Device Letters, 2012, 33, 582-584.	3.9	10
30	A detailed understanding of the electronic bipolar resistance switching behavior in Pt/TiO₂/Pt structure. Nanotechnology, 2011, 22, 254010.	2.6	162
31	Surface redox induced bipolar switching of transition metal oxide films examined by scanning probe microscopy. Applied Physics A: Materials Science and Processing, 2011, 102, 827-834.	2.3	21
32	Collective Motion of Conducting Filaments in Pt/nâ€Type TiO₂/pâ€Type NiO/Pt Stacked Resistance Switching Memory. Advanced Functional Materials, 2011, 21, 1587-1592.	14.9	80
33	Tristate Memory Using Ferroelectric-Insulator-Semiconductor Heterojunctions for 50% Increased Data Storage. Advanced Functional Materials, 2011, 21, 4305-4313.	14.9	19
34	Polarization switching and discharging behaviors in serially connected ferroelectric Pt/Pb(Zr,Ti)O3/Pt and paraelectric capacitors. Journal of Applied Physics, 2011, 109, 114113.	2.5	6
35	Improved endurance of resistive switching TiO2 thin film by hourglass shaped MagnÃ©li filaments. Applied Physics Letters, 2011, 98, .	3.3	65
36	Bias polarity dependent local electrical conduction in resistive switching TiO₂ thin films. Physica Status Solidi - Rapid Research Letters, 2010, 4, 112-114.	2.4	14

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37	Atomic structure of conducting nanofilaments in TiO2 resistive switching memory. Nature Nanotechnology, 2010, 5, 148-153.	31.5	1,866
38	Identification of the controlling parameter for the set-state resistance of a TiO2 resistive switching cell. Applied Physics Letters, 2010, 96, 112904.	3.3	43
39	Polarization reversal behavior in the Pt/Pb(Zr,Ti)O3/Pt and Pt/Al2O3/Pb(Zr,Ti)O3/Pt capacitors for different reversal directions. Applied Physics Letters, 2010, 96, 212902.	3.3	17
40	Scanning probe based observation of bipolar resistive switching NiO films. Applied Physics Letters, 2010, 97, .	3.3	26
41	A theoretical model for Schottky diodes for excluding the sneak current in cross bar array resistive memory. Nanotechnology, 2010, 21, 385202.	2.6	43
42	Study on the electrical conduction mechanism of bipolar resistive switching TiO2 thin films using impedance spectroscopy. Applied Physics Letters, 2010, 96, .	3.3	76
43	Role of Ru nano-dots embedded in TiO2 thin films for improving the resistive switching behavior. Applied Physics Letters, 2010, 97, .	3.3	49
44	Understanding structure-property relationship of resistive switching oxide thin films using a conical filament model. Applied Physics Letters, 2010, 97, .	3.3	26
45	The reason for the increased threshold switching voltage of SiO2 doped Ge2Sb2Te5 thin films for phase change random access memory. Applied Physics Letters, 2009, 95, 112110.	3.3	16
46	An analysis of imprinted hysteresis loops for a ferroelectric Pb(Zr,Ti)O3 thin film capacitor using the switching transient current measurements. Journal of Applied Physics, 2009, 105, 044106.	2.5	7
47	Filamentary Resistive Switching Localized at Cathode Interface in NiO Thin Films. Journal of the Electrochemical Society, 2009, 156, G213.	2.9	49
48	(In , Sn) 2 O 3 âˆ• Ti O 2 âˆ• Pt Schottky-type diode switch for the TiO2 resistive switching memory array. Applied Physics Letters, 2008, 92, .	3.3	77