

Kyung Min Kim

List of Publications by Year in descending order

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76
papers

6,810
citations

94433

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82547

72
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78
all docs

78
docs citations

78
times ranked

5668
citing authors

#	ARTICLE	IF	CITATIONS
1	Situating emotionality within socialization in study abroad contexts: The Student's perspective. System, 2022, 106, 102758.	3.4	2
2	Demonstration of Neuromodulation-Inspired Stashing System for Energy-Efficient Learning of Spiking Neural Network using a Self-Rectifying Memristor Array. Advanced Functional Materials, 2022, 32, .	14.9	12
3	Ternary Logic with Stateful Neural Networks Using a Bilayered TaO _x -Based Memristor Exhibiting Ternary States. Advanced Science, 2022, 9, e2104107.	11.2	13
4	Synaptic transistors with human brain-like energy consumption via double oxide semiconductor engineering for neuromorphic electronics. Journal of Materials Chemistry C, 2021, 9, 10243-10253.	5.5	21
5	Memristive Stateful Logic for Edge Boolean Computers. Advanced Intelligent Systems, 2021, 3, 2000278.	6.1	25
6	Self-clocking fast and variation tolerant true random number generator based on a stochastic mott memristor. Nature Communications, 2021, 12, 2906.	12.8	46
7	Chemical synthesis of Nd ₂ Fe ₁₄ B/Fe-Co nanocomposite with high magnetic energy product. RSC Advances, 2021, 11, 32376-32382.	3.6	5
8	A Stateful Logic Family Based on a New Logic Primitive Circuit Composed of Two Antiparallel Bipolar Memristors. Advanced Intelligent Systems, 2020, 2, 1900082.	6.1	36
9	Is More Expressive for Meaningful Literacy Instruction Through Sijo Poetry. TESOL Quarterly, 2020, 54, 281-309.	2.9	19
10	A Universal Error Correction Method for Memristive Stateful Logic Devices for Practical Near-Memory Computing. Advanced Intelligent Systems, 2020, 2, 2000081.	6.1	10
11	High-Performance Phase-Pure SnS Photocathodes for Photoelectrochemical Water Splitting Obtained via Molecular Ink-Derived Seed-Assisted Growth of Nanoplates. ACS Applied Materials & Interfaces, 2020, 12, 15155-15166.	8.0	36
12	Stateful In-Memory Logic System and Its Practical Implementation in a TaO _x -Based Bipolar-Type Memristive Crossbar Array. Advanced Intelligent Systems, 2020, 2, 1900156.	6.1	24
13	Parallel Operation of Self-Limited Analog Programming for Fast Array-Level Weight Programming and Update. Advanced Intelligent Systems, 2020, 2, 2000014.	6.1	3
14	A Family of Stateful Memristor Gates for Complete Cascading Logic. IEEE Transactions on Circuits and Systems I: Regular Papers, 2019, 66, 4348-4355.	5.4	58
15	Neuromorphic Computing: Designed Memristor Circuit for Self-Limited Analog Switching and its Application to a Memristive Neural Network (Adv. Electron. Mater. 6/2019). Advanced Electronic Materials, 2019, 5, 1970032.	5.1	0
16	Designed Memristor Circuit for Self-Limited Analog Switching and its Application to a Memristive Neural Network. Advanced Electronic Materials, 2019, 5, 1800740.	5.1	14
17	Time-Efficient Stateful Dual-Bit Memristor Logic. Physica Status Solidi - Rapid Research Letters, 2019, 13, 1900033.	2.4	17
18	Defect-Engineered Electroforming-Free Analog HfO _x Memristor and Its Application to the Neural Network. ACS Applied Materials & Interfaces, 2019, 11, 47063-47072.	8.0	33

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19	Single-Cell Stateful Logic Using a Dual-Bit Memristor. <i>Physica Status Solidi - Rapid Research Letters</i> , 2019, 13, 1800629.	2.4	23
20	An artificial nociceptor based on a diffusive memristor. <i>Nature Communications</i> , 2018, 9, 417.	12.8	295
21	Nociceptive Memristor. <i>Advanced Materials</i> , 2018, 30, 1704320.	21.0	116
22	Academic socialization of doctoral students through feedback networks: a qualitative understanding of the graduate feedback landscape. <i>Teaching in Higher Education</i> , 2018, 23, 963-980.	2.6	18
23	A poetic inquiry into learning English as an additional language: Korean learners'™ perceptions through sijo, Korean poetry. <i>Language Awareness</i> , 2018, 27, 295-311.	1.3	7
24	Fully Functional Logic-In-Memory Operations Based on a Reconfigurable Finite-State Machine Using a Single Memristor. <i>Advanced Electronic Materials</i> , 2018, 4, 1800189.	5.1	33
25	Four-Bits-Per-Cell Operation in an HfO ₂ -Based Resistive Switching Device. <i>Small</i> , 2017, 13, 1701781.	10.0	37
26	Voltage divider effect for the improvement of variability and endurance of TaOx memristor. <i>Scientific Reports</i> , 2016, 6, 20085.	3.3	93
27	Trilayer Tunnel Selectors for Memristor Memory Cells. <i>Advanced Materials</i> , 2016, 28, 356-362.	21.0	96
28	Enhancement of coercivity in sintered Nd-Fe-B magnets by grain-boundary diffusion of electrodeposited Cu-Nd Alloys. <i>Metals and Materials International</i> , 2016, 22, 340-344.	3.4	21
29	Low-Power, Self-Rectifying, and Forming-Free Memristor with an Asymmetric Programming Voltage for a High-Density Crossbar Application. <i>Nano Letters</i> , 2016, 16, 6724-6732.	9.1	171
30	A study of the transition between the non-polar and bipolar resistance switching mechanisms in the TiN/TiO ₂ /Al memory. <i>Nanoscale</i> , 2016, 8, 16455-16466.	5.6	22
31	Memristors for Energy-Efficient New Computing Paradigms. <i>Advanced Electronic Materials</i> , 2016, 2, 1600090.	5.1	272
32	Thickness effect of ultra-thin Ta ₂ O ₅ resistance switching layer in 28 nm-diameter memory cell. <i>Scientific Reports</i> , 2015, 5, 15965.	3.3	51
33	Pt/Ta ₂ O ₅ /HfO ₂ /Ti Resistive Switching Memory Competing with Multilevel NAND Flash. <i>Advanced Materials</i> , 2015, 27, 3811-3816.	21.0	152
34	Thickness-dependent electroforming behavior of ultra-thin Ta ₂ O ₅ resistance switching layer. <i>Physica Status Solidi - Rapid Research Letters</i> , 2015, 9, 362-365.	2.4	19
35	Dual Conical Conducting Filament Model in Resistance Switching TiO ₂ Thin Films. <i>Scientific Reports</i> , 2015, 5, 7844.	3.3	46
36	Self-Limited Switching in Ta ₂ O ₅ /TaO _x Memristors Exhibiting Uniform Multilevel Changes in Resistance. <i>Advanced Functional Materials</i> , 2015, 25, 1527-1534.	14.9	111

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37	Low Variability Resistor Memristor Circuit Masking the Actual Memristor States. <i>Advanced Electronic Materials</i> , 2015, 1, 1500095.	5.1	34
38	Spectroscopic investigation of the hole states in Ni-deficient NiO films. <i>Journal of Materials Chemistry C</i> , 2013, 1, 4334.	5.5	40
39	Titanium dioxide thin films for next-generation memory devices. <i>Journal of Materials Research</i> , 2013, 28, 313-325.	2.6	67
40	Multi-level switching of triple-layered TaOx RRAM with excellent reliability for storage class memory. , 2012, , .		119
41	Electronic bipolar resistance switching in an anti-serially connected Pt/TiO ₂ /Pt structure for improved reliability. <i>Nanotechnology</i> , 2012, 23, 035201.	2.6	37
42	Modeling for multilevel switching in oxide-based bipolar resistive memory. <i>Nanotechnology</i> , 2012, 23, 225702.	2.6	52
43	Memristive tri-stable resistive switching at ruptured conducting filaments of a Pt/TiO ₂ /Pt cell. <i>Nanotechnology</i> , 2012, 23, 185202.	2.6	69
44	Resistive Switching in TiO_2 Thin Films Using the Semiconducting In-Ga-Zn-O Electrode. <i>IEEE Electron Device Letters</i> , 2012, 33, 582-584.	3.9	10
45	Electrically Benign Ru Wet Etching Method for Fabricating Ru-TiO ₂ -Ru Capacitor. <i>Journal of the Electrochemical Society</i> , 2011, 158, G47.	2.9	2
46	Nanofilamentary resistive switching in binary oxide system; a review on the present status and outlook. <i>Nanotechnology</i> , 2011, 22, 254002.	2.6	530
47	A detailed understanding of the electronic bipolar resistance switching behavior in Pt/TiO ₂ /Pt structure. <i>Nanotechnology</i> , 2011, 22, 254010.	2.6	162
48	Surface redox induced bipolar switching of transition metal oxide films examined by scanning probe microscopy. <i>Applied Physics A: Materials Science and Processing</i> , 2011, 102, 827-834.	2.3	21
49	Collective Motion of Conducting Filaments in Pt-type TiO ₂ /p-type NiO/Pt Stacked Resistance Switching Memory. <i>Advanced Functional Materials</i> , 2011, 21, 1587-1592.	14.9	80
50	Improved endurance of resistive switching TiO ₂ thin film by hourglass shaped MagnAl filaments. <i>Applied Physics Letters</i> , 2011, 98, .	3.3	65
51	Bias polarity dependent local electrical conduction in resistive switching TiO ₂ thin films. <i>Physica Status Solidi - Rapid Research Letters</i> , 2010, 4, 112-114.	2.4	14
52	Atomic structure of conducting nanofilaments in TiO ₂ resistive switching memory. <i>Nature Nanotechnology</i> , 2010, 5, 148-153.	31.5	1,866
53	Influence of the Interconnection Line Resistance and Performance of a Resistive Cross Bar Array Memory. <i>Journal of the Electrochemical Society</i> , 2010, 157, G211.	2.9	27
54	Publisher's Note: Electrically Benign Dry-Etching Method for Rutile TiO ₂ Thin-Film Capacitors with Ru Electrodes [<i>Electrochem. Solid-State Lett.</i> , 13, G1 (2010)]. <i>Electrochemical and Solid-State Letters</i> , 2010, 13, S1.	2.2	0

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55	Phase change memory cell using Ge ₂ Sb ₂ Te ₅ and softly broken-down TiO ₂ films for multilevel operation. Applied Physics Letters, 2010, 97, 132107.	3.3	17
56	Identification of the controlling parameter for the set-state resistance of a TiO ₂ resistive switching cell. Applied Physics Letters, 2010, 96, 112904.	3.3	43
57	Scanning probe based observation of bipolar resistive switching NiO films. Applied Physics Letters, 2010, 97, .	3.3	26
58	A theoretical model for Schottky diodes for excluding the sneak current in cross bar array resistive memory. Nanotechnology, 2010, 21, 385202.	2.6	43
59	Study on the electrical conduction mechanism of bipolar resistive switching TiO ₂ thin films using impedance spectroscopy. Applied Physics Letters, 2010, 96, .	3.3	76
60	Role of Ru nano-dots embedded in TiO ₂ thin films for improving the resistive switching behavior. Applied Physics Letters, 2010, 97, .	3.3	49
61	Understanding structure-property relationship of resistive switching oxide thin films using a conical filament model. Applied Physics Letters, 2010, 97, .	3.3	26
62	Electrically Benign Dry-Etching Method for Rutile TiO ₂ Thin-Film Capacitors with Ru Electrodes. Electrochemical and Solid-State Letters, 2010, 13, G1.	2.2	6
63	Electrically configurable electroforming and bipolar resistive switching in Pt/TiO ₂ /Pt structures. Nanotechnology, 2010, 21, 305203.	2.6	117
64	A Pt/TiO ₂ /Ti Schottky-type selection diode for alleviating the sneak current in resistance switching memory arrays. Nanotechnology, 2010, 21, 195201.	2.6	129
65	Methods of Set Switching for Improving the Uniformity of Filament Formation in the TiO ₂ Thin Film. Electrochemical and Solid-State Letters, 2010, 13, G51.	2.2	8
66	Switching Power Reduction in Phase Change Memory Cell Using CVD Ge ₂ Sb ₂ Te ₅ and Ultrathin TiO ₂ Films. Journal of the Electrochemical Society, 2009, 156, H59.	2.9	26
67	Filamentary Resistive Switching Localized at Cathode Interface in NiO Thin Films. Journal of the Electrochemical Society, 2009, 156, G213.	2.9	49
68	The conical shape filament growth model in unipolar resistance switching of TiO ₂ thin film. Applied Physics Letters, 2009, 94, .	3.3	138
69	(In, Sn) ₂ O ₃ ·TiO ₂ ·Pt Schottky-type diode switch for the TiO ₂ resistive switching memory array. Applied Physics Letters, 2008, 92, .	3.3	77
70	Combined Atomic Layer and Chemical Vapor Deposition, and Selective Growth of Ge ₂ Sb ₂ Te ₅ Films on TiN/W Contact Plug. Chemistry of Materials, 2007, 19, 4387-4389.	6.7	55
71	Anode-interface localized filamentary mechanism in resistive switching of TiO ₂ thin films. Applied Physics Letters, 2007, 91, .	3.3	384
72	Localized switching mechanism in resistive switching of atomic-layer-deposited TiO ₂ thin films. Applied Physics Letters, 2007, 90, 242906.	3.3	208

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73	Study on the resistive switching time of TiO ₂ thin films. Applied Physics Letters, 2006, 89, 012906.	3.3	103
74	Influence of carrier injection on resistive switching of TiO ₂ thin films with Pt electrodes. Applied Physics Letters, 2006, 89, 162912.	3.3	66
75	Multimode Synaptic Operation of a HfAlO _x -Based Memristor as a Metaplastic Device for Neuromorphic Applications. ACS Applied Electronic Materials, 0, , .	4.3	3
76	Evolutionary Learning of Binary Neural Network Using a TaO _x Memristor via Stochastic Stateful Logic. Advanced Intelligent Systems, 0, , 2200058.	6.1	3