

Suyoun Lee

List of Publications by Year in descending order

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50
papers

919
citations

430874

18
h-index

501196

28
g-index

50
all docs

50
docs citations

50
times ranked

1234
citing authors

#	ARTICLE	IF	CITATIONS
1	Three-Terminal Ovonic Threshold Switch (3T-OTS) with Tunable Threshold Voltage for Versatile Artificial Sensory Neurons. <i>Nano Letters</i> , 2022, 22, 733-739.	9.1	10
2	SPICE Study of STDP Characteristics in a Drift and Diffusive Memristor-Based Synapse for Neuromorphic Computing. <i>IEEE Access</i> , 2022, 10, 6381-6392.	4.2	1
3	Emulating the short-term plasticity of a biological synapse with a ruthenium complex-based organic mixed ionic-electronic conductor. <i>Materials Advances</i> , 2022, 3, 2827-2837.	5.4	6
4	An Artificial Tactile Neuron Enabling Spiking Representation of Stiffness and Disease Diagnosis. <i>Advanced Materials</i> , 2022, 34, e2201608.	21.0	20
5	Reconfigurable heterogeneous integration using stackable chips with embedded artificial intelligence. <i>Nature Electronics</i> , 2022, 5, 386-393.	26.0	57
6	Cluster-type analogue memristor by engineering redox dynamics for high-performance neuromorphic computing. <i>Nature Communications</i> , 2022, 13, .	12.8	26
7	A Comparison Study on Multilayered Barrier Oxide Structure in Charge Trap Flash for Synaptic Operation. <i>Crystals</i> , 2021, 11, 70.	2.2	5
8	Modulating Curie Temperature and Magnetic Anisotropy in Nanoscale-Layered Cr ₂ Te ₃ Films: Implications for Room-Temperature Spintronics. <i>ACS Applied Nano Materials</i> , 2021, 4, 4810-4819.	5.0	25
9	Tailoring topological Hall effect in SrRuO ₃ /SrTiO ₃ superlattices. <i>Acta Materialia</i> , 2021, 216, 117153.	7.9	9
10	Field-like spin-orbit torque induced by bulk Rashba channels in GeTe/NiFe bilayers. <i>NPG Asia Materials</i> , 2021, 13, .	7.9	7
11	Improved polaronic transport under a strong Mott-Hubbard interaction in Cu-substituted NiO. <i>Inorganic Chemistry Frontiers</i> , 2020, 7, 853-858.	6.0	6
12	Large Temperature-Independent Magnetoresistance without Gating Operation in Monolayer Graphene. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 53134-53140.	8.0	1
13	A 2D material-based floating gate device with linear synaptic weight update. <i>Nanoscale</i> , 2020, 12, 24503-24509.	5.6	34
14	Enhanced analog synaptic behavior of SiN _x /a-Si bilayer memristors through Ge implantation. <i>NPG Asia Materials</i> , 2020, 12, .	7.9	16
15	Simple Artificial Neuron Using an Ovonic Threshold Switch Featuring Spike-Frequency Adaptation and Chaotic Activity. <i>Physical Review Applied</i> , 2020, 13, .	3.8	19
16	Reversible switching mode change in Ta ₂ O ₅ -based resistive switching memory (ReRAM). <i>Scientific Reports</i> , 2020, 10, 11247.	3.3	20
17	Phase Instability amid Dimensional Crossover in Artificial Oxide Crystal. <i>Physical Review Letters</i> , 2020, 124, 026401.	7.8	32
18	Correlation between Ru-O hybridization and the oxygen evolution reaction in ruthenate epitaxial thin films. <i>Sustainable Energy and Fuels</i> , 2019, 3, 2867-2872.	4.9	7

#	ARTICLE	IF	CITATIONS
19	Composition-dependent topological-insulator properties of epitaxial $(\text{Bi}_{1-x}\text{Sb}_x)_2(\text{Te}_{1-x}\text{Se}_x)_3$ thin films. <i>Journal of Alloys and Compounds</i> , 2019, 800, 81-87.	5.5	3
20	Dimensional Crossover Transport Induced by Substitutional Atomic Doping in $\text{SnSe}_{2-x}\text{S}_x$. <i>Advanced Electronic Materials</i> , 2018, 4, 1700563.	5.1	18
21	Effect of Nb concentration on the spin-orbit coupling strength in Nb-doped SrTiO_3 epitaxial thin films. <i>Scientific Reports</i> , 2018, 8, 5739.	3.3	3
22	Enhanced electrocatalytic activity via phase transitions in strongly correlated SrRuO_3 thin films. <i>Energy and Environmental Science</i> , 2017, 10, 924-930.	30.8	82
23	Tuning electromagnetic properties of SrRuO_3 epitaxial thin films via atomic control of cation vacancies. <i>Scientific Reports</i> , 2017, 7, 11583.	3.3	36
24	Suppression of bulk conductivity and large phase relaxation length in topological insulator Bi_2Te_3 epitaxial thin films grown by Metal-Organic Chemical Vapor Deposition (MOCVD). <i>Journal of Alloys and Compounds</i> , 2017, 723, 942-947.	5.5	5
25	A study on the interface between an amorphous chalcogenide and the electrode: Effect of the electrode on the characteristics of the Ovonic Threshold Switch (OTS). <i>Journal of Alloys and Compounds</i> , 2017, 691, 880-883.	5.5	13
26	Large linear magnetoresistance in heavily-doped Nb: SrTiO_3 epitaxial thin films. <i>Scientific Reports</i> , 2016, 6, 34295.	3.3	12
27	Resonant tunnelling in a quantum oxide superlattice. <i>Nature Communications</i> , 2015, 6, 7424.	12.8	44
28	A new simple method for point contact Andreev reflection (PCAR) using a self-aligned atomic filament in transition-metal oxides. <i>Nanoscale</i> , 2015, 7, 8531-8535.	5.6	5
29	High mobility, large linear magnetoresistance, and quantum transport phenomena in Bi_2Te_3 films grown by metallo-organic chemical vapor deposition (MOCVD). <i>Nanoscale</i> , 2015, 7, 17359-17365.	5.6	7
30	Anomalous reduction of the switching voltage of Bi-doped $\text{Ge}_{0.5}\text{Se}_{0.5}$ ovonic threshold switching devices. <i>Applied Physics Letters</i> , 2014, 104, 153503.	3.3	21
31	Nanosecond switching in GeSe phase change memory films by atomic force microscopy. <i>Applied Physics Letters</i> , 2014, 104, .	3.3	29
32	Optical properties of amorphous $\text{Ge}_{1-x}\text{Se}_x$ and $\text{Ge}_{1-x}\text{As}_x\text{Se}_y$ thin films – optical gap bowing and phonon modes. <i>Journal of the Korean Physical Society</i> , 2014, 64, 1726-1736.	0.7	1
33	Transparent conducting oxides: A Ti -doped superlattice approach. <i>Scientific Reports</i> , 2014, 4, 6021.	3.3	11
34	The effect of doping Sb on the electronic structure and the device characteristics of Ovonic Threshold Switches based on Ge-Se. <i>Scientific Reports</i> , 2014, 4, 7099.	3.3	46
35	Effect of density of localized states on the ovonic threshold switching characteristics of the amorphous GeSe films. <i>Applied Physics Letters</i> , 2013, 103, .	3.3	28
36	Threshold resistive and capacitive switching behavior in binary amorphous GeSe . <i>Journal of Applied Physics</i> , 2012, 111, 102807.	2.5	33

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37	Fractionally $\hat{\Gamma}$ -Doped Oxide Superlattices for Higher Carrier Mobilities. Nano Letters, 2012, 12, 4590-4594.	9.1	36
38	Fast and scalable memory characteristics of Ge-doped SbTe phase change materials. Physica Status Solidi (B): Basic Research, 2012, 249, 1985-1991.	1.5	17
39	Numerical study on passive crossbar arrays employing threshold switches as cell-selection-devices. Electronic Materials Letters, 2012, 8, 169-174.	2.2	3
40	Dc current transport behavior in amorphous GeSe films. Applied Physics A: Materials Science and Processing, 2011, 102, 1027-1032.	2.3	6
41	A study on the temperature dependence of the threshold switching characteristics of Ge ₂ Sb ₂ Te ₅ . Applied Physics Letters, 2010, 96, .	3.3	24
42	Improved stability of a phase change memory device using Ge-doped SbTe at varying ambient temperature. Applied Physics Letters, 2010, 96, 133510.	3.3	16
43	A study on the temperature dependence of characteristics of phase change memory devices. Applied Physics Letters, 2009, 95, 093504.	3.3	6
44	Investigation on the role of nitrogen in crystallization of Sb-rich phase change materials. Applied Physics Letters, 2009, 95, .	3.3	14
45	Analysis and improvement of interfacial adhesion of growth-dominant Ge-doped SbTe phase change materials. Applied Physics Letters, 2009, 94, .	3.3	7
46	A Study on the Failure Mechanism of a Phase-Change Memory in Write/Erase Cycling. IEEE Electron Device Letters, 2009, 30, 448-450.	3.9	38
47	Bias polarity dependence of a phase change memory with a Ge-doped SbTe: A method for multilevel programing. Applied Physics Letters, 2008, 92, 243507.	3.3	28
48	A Novel Programming Method to Refresh a Long-Cycled Phase Change Memory Cell. , 2008, , .		5
49	Microstructural and optical analysis of superresolution phenomena due to Ge ₂ Sb ₂ Te ₅ thin films at blue light regime. Applied Physics Letters, 2008, 93, 221108.	3.3	7
50	Measurement of the superconducting gap of MgB ₂ by point contact spectroscopy. Physica C: Superconductivity and Its Applications, 2002, 377, 202-207.	1.2	14