

Suyoun Lee

List of Publications by Year in descending order

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times ranked

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citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	Reconfigurable heterogeneous integration using stackable chips with embedded artificial intelligence. <i>Nature Electronics</i> , 2022, 5, 386-393.	26.0	57
3	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
4	Resonant tunnelling in a quantum oxide superlattice. <i>Nature Communications</i> , 2015, 6, 7424.	12.8	44
5	A Study on the Failure Mechanism of a Phase-Change Memory in Write/Erase Cycling. <i>IEEE Electron Device Letters</i> , 2009, 30, 448-450.	3.9	38
6	Fractionally $\hat{\Gamma}$ -Doped Oxide Superlattices for Higher Carrier Mobilities. <i>Nano Letters</i> , 2012, 12, 4590-4594.	9.1	36
7	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
8	A 2D material-based floating gate device with linear synaptic weight update. <i>Nanoscale</i> , 2020, 12, 24503-24509.	5.6	34
9	Threshold resistive and capacitive switching behavior in binary amorphous GeSe. <i>Journal of Applied Physics</i> , 2012, 111, 102807.	2.5	33
10	Phase Instability amid Dimensional Crossover in Artificial Oxide Crystal. <i>Physical Review Letters</i> , 2020, 124, 026401.	7.8	32
11	Nanosecond switching in GeSe phase change memory films by atomic force microscopy. <i>Applied Physics Letters</i> , 2014, 104, .	3.3	29
12	Bias polarity dependence of a phase change memory with a Ge-doped SbTe: A method for multilevel programming. <i>Applied Physics Letters</i> , 2008, 92, 243507.	3.3	28
13	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
14	Cluster-type analogue memristor by engineering redox dynamics for high-performance neuromorphic computing. <i>Nature Communications</i> , 2022, 13, .	12.8	26
15	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
16	A study on the temperature dependence of the threshold switching characteristics of Ge ₂ Sb ₂ Te ₅ . <i>Applied Physics Letters</i> , 2010, 96, .	3.3	24
17	Anomalous reduction of the switching voltage of Bi-doped Ge _{0.5} Se _{0.5} ovonic threshold switching devices. <i>Applied Physics Letters</i> , 2014, 104, 153503.	3.3	21
18	Reversible switching mode change in Ta ₂ O ₅ -based resistive switching memory (ReRAM). <i>Scientific Reports</i> , 2020, 10, 11247.	3.3	20

#	ARTICLE	IF	CITATIONS
19	An Artificial Tactile Neuron Enabling Spiking Representation of Stiffness and Disease Diagnosis. <i>Advanced Materials</i> , 2022, 34, e2201608.	21.0	20
20	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
21	Dimensional Crossover Transport Induced by Substitutional Atomic Doping in SnSe ₂ . <i>Advanced Electronic Materials</i> , 2018, 4, 1700563.	5.1	18
22	Fast and scalable memory characteristics of Ge-doped SbTe phase change materials. <i>Physica Status Solidi (B): Basic Research</i> , 2012, 249, 1985-1991.	1.5	17
23	Improved stability of a phase change memory device using Ge-doped SbTe at varying ambient temperature. <i>Applied Physics Letters</i> , 2010, 96, 133510.	3.3	16
24	Enhanced analog synaptic behavior of SiNx/a-Si bilayer memristors through Ge implantation. <i>NPG Asia Materials</i> , 2020, 12, .	7.9	16
25	Measurement of the superconducting gap of MgB ₂ by point contact spectroscopy. <i>Physica C: Superconductivity and Its Applications</i> , 2002, 377, 202-207.	1.2	14
26	Investigation on the role of nitrogen in crystallization of Sb-rich phase change materials. <i>Applied Physics Letters</i> , 2009, 95, .	3.3	14
27	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
28	Large linear magnetoresistance in heavily-doped Nb:SrTiO ₃ epitaxial thin films. <i>Scientific Reports</i> , 2016, 6, 34295.	3.3	12
29	Transparent conducting oxides: A $\hat{\Gamma}$ -doped superlattice approach. <i>Scientific Reports</i> , 2014, 4, 6021.	3.3	11
30	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
31	Tailoring topological Hall effect in SrRuO ₃ /SrTiO ₃ superlattices. <i>Acta Materialia</i> , 2021, 216, 117153.	7.9	9
32	Microstructural and optical analysis of superresolution phenomena due to Ge ₂ Sb ₂ Te ₅ thin films at blue light regime. <i>Applied Physics Letters</i> , 2008, 93, 221108.	3.3	7
33	Analysis and improvement of interfacial adhesion of growth-dominant Ge-doped SbTe phase change materials. <i>Applied Physics Letters</i> , 2009, 94, .	3.3	7
34	High mobility, large linear magnetoresistance, and quantum transport phenomena in Bi ₂ Te ₃ films grown by metallo-organic chemical vapor deposition (MOCVD). <i>Nanoscale</i> , 2015, 7, 17359-17365.	5.6	7
35	Correlation between Ru ⁴⁺ 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
36	Field-like spin-orbit torque induced by bulk Rashba channels in GeTe/NiFe bilayers. <i>NPG Asia Materials</i> , 2021, 13, .	7.9	7

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37	A study on the temperature dependence of characteristics of phase change memory devices. Applied Physics Letters, 2009, 95, 093504.	3.3	6
38	Dc current transport behavior in amorphous GeSe films. Applied Physics A: Materials Science and Processing, 2011, 102, 1027-1032.	2.3	6
39	Improved polaronic transport under a strong Mott-Hubbard interaction in Cu-substituted NiO. Inorganic Chemistry Frontiers, 2020, 7, 853-858.	6.0	6
40	Emulating the short-term plasticity of a biological synapse with a ruthenium complex-based organic mixed ionic-electronic conductor. Materials Advances, 2022, 3, 2827-2837.	5.4	6
41	A Novel Programming Method to Refresh a Long-Cycled Phase Change Memory Cell. , 2008, , .		5
42	A new simple method for point contact Andreev reflection (PCAR) using a self-aligned atomic filament in transition-metal oxides. Nanoscale, 2015, 7, 8531-8535.	5.6	5
43	Suppression of bulk conductivity and large phase relaxation length in topological insulator Bi ₂ Te ₃ epitaxial thin films grown by Metal-Organic Chemical Vapor Deposition (MOCVD). Journal of Alloys and Compounds, 2017, 723, 942-947.	5.5	5
44	A Comparison Study on Multilayered Barrier Oxide Structure in Charge Trap Flash for Synaptic Operation. Crystals, 2021, 11, 70.	2.2	5
45	Numerical study on passive crossbar arrays employing threshold switches as cell-selection-devices. Electronic Materials Letters, 2012, 8, 169-174.	2.2	3
46	Effect of Nb concentration on the spin-orbit coupling strength in Nb-doped SrTiO ₃ epitaxial thin films. Scientific Reports, 2018, 8, 5739.	3.3	3
47	Composition-dependent topological-insulator properties of epitaxial (Bi _{1-x} Sb _x) ₂ (Te _{1-y} Se _y) ₃ thin films. Journal of Alloys and Compounds, 2019, 800, 81-87.	5.5	3
48	Optical properties of amorphous Ge _{1-x} Se _x and Ge _{1-x} As _y Se _x thin films optical gap bowing and phonon modes. Journal of the Korean Physical Society, 2014, 64, 1726-1736.	0.7	1
49	Large Temperature-Independent Magnetoresistance without Gating Operation in Monolayer Graphene. ACS Applied Materials & Interfaces, 2020, 12, 53134-53140.	8.0	1
50	SPICE Study of STDP Characteristics in a Drift and Diffusive Memristor-Based Synapse for Neuromorphic Computing. IEEE Access, 2022, 10, 6381-6392.	4.2	1