Seyoung Kim

List of Publications by Year in Descending Order

32 papers	10,907 citations	17 h-index	39 g-index
39 ext. papers	11,931 ext. citations	6.7 avg, IF	5.44 L-index

#	Paper	IF	Citations
32	Impact of Asymmetric Weight Update on Neural Network Training With Tiki-Taka Algorithm.. *Frontiers in Neuroscience*, **2021**, 15, 767953	5.1	2
31	Excellent Pattern Recognition Accuracy of Neural Networks Using Hybrid Synapses and Complementary Training. *IEEE Electron Device Letters*, **2021**, 42, 609-612	4.4	4
30	Impact of Operating Temperature on Pattern Recognition Accuracy of Resistive Array-Based Hardware Neural Networks. *IEEE Electron Device Letters*, **2021**, 42, 763-766	4.4	3
29	Improvement of Synaptic Properties in Oxygen-Based Synaptic Transistors Due to the Accelerated Ion Migration in Sub-Stoichiometric Channels. *Advanced Electronic Materials*, **2021**, 7, 2100219	6.4	9
28	Elucidating Ionic Programming Dynamics of Metal-Oxide Electrochemical Memory for Neuromorphic Computing. *Advanced Electronic Materials*, **2021**, 7, 2100185	6.4	6
27	Neural Network Training Acceleration With RRAM-Based Hybrid Synapses. *Frontiers in Neuroscience*, **2021**, 15, 690418	5.1	1
26	Impact of electrolyte density on synaptic characteristics of oxygen-based ionic synaptic transistor. *Applied Physics Letters*, **2021**, 119, 103503	3.4	10
25	Alloying conducting channels for reliable neuromorphic computing. *Nature Nanotechnology*, **2020**, 15, 574-579	28.7	74
24	Hardware and Software Co-optimization for the Initialization Failure of the ReRAM-based Cross-bar Array. *ACM Journal on Emerging Technologies in Computing Systems*, **2020**, 16, 1-19	1.7	0
23	Improved Pattern Recognition Accuracy of Hardware Neural Network: Deactivating Short Failed Synapse Device by Adopting Ovonic Threshold Switching (OTS)-Based Fuse Device. *IEEE Electron Device Letters*, **2020**, 41, 1436-1439	4.4	5
22	Pr0.7Ca0.3MnO3-Based Three-Terminal Synapse for Neuromorphic Computing. *IEEE Electron Device Letters*, **2020**, 41, 1500-1503	4.4	9
21	Reliability Challenges with Materials for Analog Computing **2019**,		6
20	Metal-oxide based, CMOS-compatible ECRAM for Deep Learning Accelerator **2019**,		23
19	ECRAM as Scalable Synaptic Cell for High-Speed, Low-Power Neuromorphic Computing **2018**,		60
18	Neuromorphic computing using non-volatile memory. *Advances in Physics: X*, **2017**, 2, 89-124	5.1	424
17	Unveiling the carrier transport mechanism in epitaxial graphene for forming wafer-scale, single-domain graphene. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, 4082-4086	11.5	23
16	Analog CMOS-based resistive processing unit for deep neural network training **2017**,		19

15	Mechanical properties of C/SiC composite materials fabricated by the SiCr alloy melt-infiltration method. *Journal of Composite Materials*, **2015**, 49, 3057-3066	2.7	3
14	Temperature-dependent studies of the electrical properties and the conduction mechanism of HfOx-based RRAM **2014**,		2
13	Direct measurement of the Fermi energy in graphene using a double-layer heterostructure. *Physical Review Letters*, **2012**, 108, 116404	7.4	65
12	Coulomb drag and magnetotransport in graphene double layers. *Solid State Communications*, **2012**, 152, 1283-1288	1.6	46
11	Quantum Hall effect in Bernal stacked and twisted bilayer graphene grown on Cu by chemical vapor deposition. *Physical Review B*, **2012**, 85,	3.3	40
10	Gate capacitance scaling and graphene field-effect transistors with ultra-thin top-gate dielectrics **2011**,		3
9	Low-frequency acoustic phonon temperature distribution in electrically biased graphene. *Nano Letters*, **2011**, 11, 85-90	11.5	57
8	Magnetotransport properties of quasi-free-standing epitaxial graphene bilayer on SiC: evidence for Bernal stacking. *Nano Letters*, **2011**, 11, 3624-8	11.5	34
7	Spin-polarized to valley-polarized transition in graphene bilayers at 0 in high magnetic fields. *Physical Review Letters*, **2011**, 107, 016803	7.4	44
6	Coulomb drag of massless fermions in graphene. *Physical Review B*, **2011**, 83,	3.3	145
5	Dielectric thickness dependence of carrier mobility in graphene with HfO2 top dielectric. *Applied Physics Letters*, **2010**, 97, 123105	3.4	91
4	Graphene for CMOS and Beyond CMOS Applications. *Proceedings of the IEEE*, **2010**, 98, 2032-2046	14.3	57
3	Large-area synthesis of high-quality and uniform graphene films on copper foils. *Science*, **2009**, 324, 1312-4	33.3	8900
2	Realization of a high mobility dual-gated graphene field-effect transistor with Al2O3 dielectric. *Applied Physics Letters*, **2009**, 94, 062107	3.4	737
1	Experimental measurement of ungated channel region conductance in a multi-terminal, metal oxide-based ECRAM. *Semiconductor Science and Technology*,	1.8	2