

# Jong-Ho Lee

## List of Publications by Citations

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196  
papers

2,336  
citations

22  
h-index

40  
g-index

216  
ext. papers

3,010  
ext. citations

3.9  
avg, IF

5.26  
L-index

#	Paper	IF	Citations
196	Bias-stress-induced stretched-exponential time dependence of threshold voltage shift in InGaZnO thin film transistors. <i>Applied Physics Letters</i> , <b>2008</b> , 93, 093504	3.4	423
195	Comparative study of electrical instabilities in top-gate InGaZnO thin film transistors with Al <sub>2</sub> O <sub>3</sub> and Al <sub>2</sub> O <sub>3</sub> /SiN <sub>x</sub> gate dielectrics. <i>Applied Physics Letters</i> , <b>2009</b> , 94, 222112	3.4	90
194	Silicon-Based Floating-Body Synaptic Transistor With Frequency-Dependent Short- and Long-Term Memories. <i>IEEE Electron Device Letters</i> , <b>2016</b> , 37, 249-252	4.4	52
193	. <i>IEEE Transactions on Electron Devices</i> , <b>2012</b> , 59, 35-45	2.9	50
192	Accurate analysis of conduction and resistive-switching mechanisms in double-layered resistive-switching memory devices. <i>Applied Physics Letters</i> , <b>2012</b> , 101, 103506	3.4	50
191	Highly selective ZnO gas sensor based on MOSFET having a horizontal floating-gate. <i>Sensors and Actuators B: Chemical</i> , <b>2016</b> , 232, 653-659	8.5	49
190	Spiking Neural Network Using Synaptic Transistors and Neuron Circuits for Pattern Recognition With Noisy Images. <i>IEEE Electron Device Letters</i> , <b>2018</b> , 39, 630-633	4.4	42
189	Low-Frequency Noise in Amorphous Indium-Gallium-Zinc-Oxide Thin-Film Transistors. <i>IEEE Electron Device Letters</i> , <b>2009</b> , 30, 505-507	4.4	41
188	Demonstration of Unsupervised Learning With Spike-Timing-Dependent Plasticity Using a TFT-Type NOR Flash Memory Array. <i>IEEE Transactions on Electron Devices</i> , <b>2018</b> , 65, 1774-1780	2.9	40
187	Comprehensive analysis of retention characteristics in 3-D NAND flash memory cells with tube-type poly-Si channel structure <b>2015</b> ,		40
186	Emerging memory technologies for neuromorphic computing. <i>Nanotechnology</i> , <b>2019</b> , 30, 032001	3.4	40
185	High-Density and Near-Linear Synaptic Device Based on a Reconfigurable Gated Schottky Diode. <i>IEEE Electron Device Letters</i> , <b>2017</b> , 38, 1153-1156	4.4	38
184	Comparative Study of the Low-Frequency-Noise Behaviors in a-IGZO Thin-Film Transistors With $\text{Al}_2\text{O}_3$ and $\text{Al}_2\text{O}_3/\text{SiN}_x$ Gate Dielectrics. <i>IEEE Electron Device Letters</i> , <b>2009</b> , 30, 828-830	4.4	36
183	Characteristics of the full CMOS SRAM cell using body-tied TG MOSFETs (bulk FinFETs). <i>IEEE Transactions on Electron Devices</i> , <b>2006</b> , 53, 481-487	2.9	36
182	Conduction and Low-Frequency Noise Analysis in $\text{Al}/\text{TiO}_x/\text{Al}$ Bipolar Switching Resistance Random Access Memory Devices. <i>IEEE Electron Device Letters</i> , <b>2010</b> , 31, 603-605	4.4	32
181	Adaptive learning rule for hardware-based deep neural networks using electronic synapse devices. <i>Neural Computing and Applications</i> , <b>2019</b> , 31, 8101-8116	4.8	29
180	Modeling of $V_{\text{th}}$ Shift in nand Flash-Memory Cell Device Considering Crosstalk and Short-Channel Effects. <i>IEEE Transactions on Electron Devices</i> , <b>2008</b> , 55, 1020-1026	2.9	29

179	FET-type gas sensors: A review. <i>Sensors and Actuators B: Chemical</i> , <b>2021</b> , 330, 129240	8.5	29
178	Observation of physisorption in a high-performance FET-type oxygen gas sensor operating at room temperature. <i>Nanoscale</i> , <b>2018</b> , 10, 18019-18027	7.7	28
177	SO <sub>2</sub> gas sensing characteristics of FET- and resistor-type gas sensors having WO <sub>3</sub> as sensing material. <i>Solid-State Electronics</i> , <b>2020</b> , 165, 107747	1.7	25
176	Low frequency noise characteristics of resistor- and Si MOSFET-type gas sensors fabricated on the same Si wafer with In <sub>2</sub> O <sub>3</sub> sensing layer. <i>Sensors and Actuators B: Chemical</i> , <b>2020</b> , 318, 128087	8.5	25
175	Gas-Sensing Characteristics of Exfoliated WSe <sub>2</sub> Field-Effect Transistors. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2017</b> , 17, 3151-3154	1.3	24
174	An anomalous device degradation of SOI narrow width devices caused by STI edge influence. <i>IEEE Transactions on Electron Devices</i> , <b>2002</b> , 49, 605-612	2.9	22
173	Gas sensing characteristics of the FET-type gas sensor having inkjet-printed WS <sub>2</sub> sensing layer. <i>Solid-State Electronics</i> , <b>2019</b> , 153, 27-32	1.7	22
172	3-D Stacked Synapse Array Based on Charge-Trap Flash Memory for Implementation of Deep Neural Networks. <i>IEEE Transactions on Electron Devices</i> , <b>2019</b> , 66, 420-427	2.9	22
171	Implementation of Short-Term Plasticity and Long-Term Potentiation in a Synapse Using Si-Based Type of Charge-Trap Memory. <i>IEEE Transactions on Electron Devices</i> , <b>2015</b> , 62, 569-573	2.9	21
170	Single-Crystalline Si Stacked ARray (STAR) NAND Flash Memory. <i>IEEE Transactions on Electron Devices</i> , <b>2011</b> , 58, 1006-1014	2.9	21
169	Effects of Localized Body Doping on Switching Characteristics of Tunnel FET Inverters With Vertical Structures. <i>IEEE Transactions on Electron Devices</i> , <b>2017</b> , 64, 1799-1805	2.9	20
168	Temperature Dependence of Substrate and Drain Currents in Bulk FinFETs. <i>IEEE Transactions on Electron Devices</i> , <b>2007</b> , 54, 1259-1264	2.9	20
167	On-Chip Training Spiking Neural Networks Using Approximated Backpropagation With Analog Synaptic Devices. <i>Frontiers in Neuroscience</i> , <b>2020</b> , 14, 423	5.1	20
166	High-Density and Highly-Reliable Binary Neural Networks Using NAND Flash Memory Cells as Synaptic Devices <b>2019</b> ,		20
165	Proposition of deposition and bias conditions for optimal signal-to-noise-ratio in resistor- and FET-type gas sensors. <i>Nanoscale</i> , <b>2020</b> , 12, 19768-19775	7.7	19
164	A 650 V Super-Junction MOSFET With Novel Hexagonal Structure for Superior Static Performance and High BV Resilience to Charge Imbalance: A TCAD Simulation Study. <i>IEEE Electron Device Letters</i> , <b>2017</b> , 38, 111-114	4.4	18
163	Improved CO gas detection of Si MOSFET gas sensor with catalytic Pt decoration and pre-bias effect. <i>Sensors and Actuators B: Chemical</i> , <b>2019</b> , 300, 127040	8.5	18
162	The 1/f Noise and Random Telegraph Noise Characteristics in Floating-Gate nand Flash Memories. <i>IEEE Transactions on Electron Devices</i> , <b>2009</b> , 56, 1624-1630	2.9	18

161	AND Flash Array Based on Charge Trap Flash for Implementation of Convolutional Neural Networks. <i>IEEE Electron Device Letters</i> , <b>2020</b> , 41, 1653-1656	4.4	18
160	Adaptive Weight Quantization Method for Nonlinear Synaptic Devices. <i>IEEE Transactions on Electron Devices</i> , <b>2019</b> , 66, 395-401	2.9	18
159	1/f-Noise in AlGaIn/GaN Nanowire Omega-FinFETs. <i>IEEE Electron Device Letters</i> , <b>2017</b> , 38, 252-254	4.4	17
158	A low-power embedded poly-Si micro-heater for gas sensor platform based on a FET transducer and its application for NO <sub>2</sub> sensing. <i>Sensors and Actuators B: Chemical</i> , <b>2021</b> , 334, 129642	8.5	17
157	Operation Scheme of Multi-Layer Neural Networks Using NAND Flash Memory as High-Density Synaptic Devices. <i>IEEE Journal of the Electron Devices Society</i> , <b>2019</b> , 7, 1085-1093	2.3	16
156	An FET-type gas sensor with a sodium ion conducting solid electrolyte for CO <sub>2</sub> detection. <i>Sensors and Actuators B: Chemical</i> , <b>2018</b> , 259, 1058-1065	8.5	16
155	Neuromorphic Computing Using NAND Flash Memory Architecture With Pulse Width Modulation Scheme. <i>Frontiers in Neuroscience</i> , <b>2020</b> , 14, 571292	5.1	16
154	Fabrication and Characterization of a Thin-Body Poly-Si 1T DRAM With Charge-Trap Effect. <i>IEEE Electron Device Letters</i> , <b>2019</b> , 40, 566-569	4.4	15
153	Investigation of Electrical Characteristic Behavior Induced by Channel-Release Process in Stacked Nanosheet Gate-All-Around MOSFETs. <i>IEEE Transactions on Electron Devices</i> , <b>2020</b> , 67, 2648-2652	2.9	15
152	Gas sensing materials roadmap. <i>Journal of Physics Condensed Matter</i> , <b>2021</b> , 33,	1.8	15
151	Threshold-Voltage Modeling of Body-Tied FinFETs (Bulk FinFETs). <i>IEEE Transactions on Electron Devices</i> , <b>2007</b> , 54, 537-545	2.9	14
150	Ferroelectric-Gate Field-Effect Transistor Memory With Recessed Channel. <i>IEEE Electron Device Letters</i> , <b>2020</b> , 41, 1201-1204	4.4	13
149	Highly scalable saddle MOSFET for high-density and high-performance DRAM. <i>IEEE Electron Device Letters</i> , <b>2005</b> , 26, 690-692	4.4	13
148	3-D Synapse Array Architecture Based on Charge-Trap Flash Memory for Neuromorphic Application. <i>Electronics (Switzerland)</i> , <b>2020</b> , 9, 57	2.6	13
147	Reconfigurable Field-Effect Transistor as a Synaptic Device for XNOR Binary Neural Network. <i>IEEE Electron Device Letters</i> , <b>2019</b> , 40, 624-627	4.4	13
146	Improved signal-to-noise-ratio of FET-type gas sensors using body bias control and embedded micro-heater. <i>Sensors and Actuators B: Chemical</i> , <b>2021</b> , 329, 129166	8.5	13
145	Formulas of 1/f noise in Schottky barrier diodes under reverse bias. <i>Solid-State Electronics</i> , <b>2012</b> , 69, 85-88	4.7	12
144	Effect of a pre-bias on the adsorption and desorption of oxidizing gases in FET-type sensor. <i>Sensors and Actuators B: Chemical</i> , <b>2017</b> , 245, 122-128	8.5	11

143	Analysis on Program Disturbance in Channel-Stacked NAND Flash Memory With Layer Selection by Multilevel Operation. <i>IEEE Transactions on Electron Devices</i> , <b>2016</b> , 63, 1041-1046	2.9	11
142	Surface Ge-rich p-type SiGe channel tunnel field-effect transistor fabricated by local condensation technique. <i>Solid-State Electronics</i> , <b>2020</b> , 164, 107701	1.7	11
141	Comparison of the characteristics of semiconductor gas sensors with different transducers fabricated on the same substrate. <i>Sensors and Actuators B: Chemical</i> , <b>2021</b> , 335, 129661	8.5	10
140	A Split-Gate Positive Feedback Device With an Integrate-and-Fire Capability for a High-Density Low-Power Neuron Circuit. <i>Frontiers in Neuroscience</i> , <b>2018</b> , 12, 704	5.1	10
139	Si-Based FET-Type Synaptic Device With Short-Term and Long-Term Plasticity Using High- $\kappa$ Gate-Stack. <i>IEEE Transactions on Electron Devices</i> , <b>2019</b> , 66, 917-923	2.9	9
138	Highly Reliable Inference System of Neural Networks Using Gated Schottky Diodes. <i>IEEE Journal of the Electron Devices Society</i> , <b>2019</b> , 7, 522-528	2.3	9
137	1/f Noise Characteristics of AlGaIn/GaN FinFETs with and without TMAH surface treatment. <i>Microelectronic Engineering</i> , <b>2015</b> , 147, 134-136	2.5	9
136	Design and Optimization of Triple-k Spacer Structure in Two-Stack Nanosheet FET From OFF-State Leakage Perspective. <i>IEEE Transactions on Electron Devices</i> , <b>2020</b> , 67, 1317-1322	2.9	9
135	. <i>IEEE Transactions on Electron Devices</i> , <b>2016</b> , 63, 1533-1538	2.9	9
134	Hardware-based Neural Networks using a Gated Schottky Diode as a Synapse Device <b>2018</b> ,		9
133	Si adatom diffusion on Si (100) surface in selective epitaxial growth of Si. <i>Journal of Vacuum Science &amp; Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , <b>2003</b> , 21, 2388		9
132	Effects of High-Pressure Annealing on the Low-Frequency Noise Characteristics in Ferroelectric FET. <i>IEEE Electron Device Letters</i> , <b>2022</b> , 43, 13-16	4.4	9
131	Effects of Process-Induced Defects on Polarization Switching in Ferroelectric Tunneling Junction Memory. <i>IEEE Electron Device Letters</i> , <b>2021</b> , 42, 323-326	4.4	9
130	High-Density Reconfigurable Devices With Programmable Bottom-Gate Array. <i>IEEE Electron Device Letters</i> , <b>2017</b> , 38, 564-567	4.4	8
129	Pulse Biasing Scheme for the Fast Recovery of FET-Type Gas Sensors for Reducing Gases. <i>IEEE Electron Device Letters</i> , <b>2017</b> , 38, 971-974	4.4	8
128	Unsupervised online learning of temporal information in spiking neural network using thin-film transistor-type NOR flash memory devices. <i>Nanotechnology</i> , <b>2019</b> , 30, 435206	3.4	8
127	Comparison of Low-Frequency Noise in Channel and Gate-Induced Drain Leakage Currents of High- $\kappa$ nFETs. <i>IEEE Electron Device Letters</i> , <b>2010</b> , 31, 1086-1088	4.4	8
126	Electrochemical Properties of Sol-Gel Prepared $\text{Li}_2\text{Zr}_x\text{Ti}_{1-x}(\text{PO}_4)_3$ Electrodes for Lithium Secondary Batteries. <i>Journal of the Electrochemical Society</i> , <b>2011</b> , 158, A396	3.9	8

125	Gate Workfunction Engineering in Bulk FinFETs for Sub-50-nm DRAM Cell Transistors. <i>IEEE Electron Device Letters</i> , <b>2007</b> , 28, 148-150	4.4	8
124	Optimization of post-deposition annealing temperature for improved signal-to-noise ratio in In <sub>2</sub> O <sub>3</sub> gas sensor. <i>Semiconductor Science and Technology</i> , <b>2021</b> , 36, 075007	1.8	8
123	Effect of charge storage engineering on the NO gas sensing properties of a WO FET-type gas sensor with a horizontal floating-gate. <i>Nanoscale</i> , <b>2021</b> , 13, 9009-9017	7.7	8
122	Space Program Scheme for 3-D NAND Flash Memory Specialized for the TLC Design <b>2018</b> ,		8
121	Investigation of Sidewall High-k Interfacial Layer Effect in Gate-All-Around Structure. <i>IEEE Transactions on Electron Devices</i> , <b>2020</b> , 67, 1859-1863	2.9	7
120	Synaptic Devices Based on 3-D AND Flash Memory Architecture for Neuromorphic Computing <b>2019</b> ,		7
119	Unsupervised Online Learning With Multiple Postsynaptic Neurons Based on Spike-Timing-Dependent Plasticity Using a Thin-Film Transistor-Type NOR Flash Memory Array. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2019</b> , 19, 6050-6054	1.3	7
118	Channel-stacked NAND flash memory with layer selection by multi-level operation (LSM) <b>2013</b> ,		7
117	Isotropic/anisotropic growth behavior and faceting morphology of Si epitaxial layer selectively grown by cold wall ultrahigh vacuum chemical vapor deposition. <i>Journal of Vacuum Science &amp; Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , <b>2004</b> , 22, 275		7
116	A novel bipolar imaging device - BASIC (BAsed stored imager in CMOS Process). <i>IEEE Transactions on Electron Devices</i> , <b>2003</b> , 50, 2189-2195	2.9	7
115	A Highly Sensitive FET-Type Humidity Sensor with Inkjet-Printed Pt-InO Nanoparticles at Room Temperature. <i>Nanoscale Research Letters</i> , <b>2020</b> , 15, 198	5	7
114	Implementation of homeostasis functionality in neuron circuit using double-gate device for spiking neural network. <i>Solid-State Electronics</i> , <b>2020</b> , 165, 107741	1.7	7
113	Low-power and reliable gas sensing system based on recurrent neural networks. <i>Sensors and Actuators B: Chemical</i> , <b>2021</b> , 340, 129258	8.5	7
112	Neuromorphic Technology Based on Charge Storage Memory Devices <b>2018</b> ,		7
111	Analysis on Reverse Drain-Induced Barrier Lowering and Negative Differential Resistance of Ferroelectric-Gate Field-Effect Transistor Memory. <i>IEEE Electron Device Letters</i> , <b>2020</b> , 41, 1197-1200	4.4	6
110	Negative Capacitance Effect on MOS Structure: Influence of Electric Field Variation. <i>IEEE Nanotechnology Magazine</i> , <b>2020</b> , 19, 168-171	2.6	6
109	Arch NAND Flash Memory Array With Improved Virtual Source/Drain Performance. <i>IEEE Electron Device Letters</i> , <b>2010</b> , 31, 1374-1376	4.4	6
108	Novel Double-Gate 1T-DRAM Cell Using Nonvolatile Memory Functionality for High-Performance and Highly Scalable Embedded DRAMs. <i>IEEE Transactions on Electron Devices</i> , <b>2010</b> , 57, 614-619	2.9	6

107	Characterization issues of gate geometry in multifinger structure for RF-SOI MOSFETs. <i>IEEE Electron Device Letters</i> , <b>2002</b> , 23, 288-290	4.4	6
106	Comprehensive and accurate analysis of the working principle in ferroelectric tunnel junctions using low-frequency noise spectroscopy.. <i>Nanoscale</i> , <b>2022</b> ,	7.7	6
105	Investigation of the Low-Frequency Noise Behavior and Its Correlation with the Subgap Density of States and Bias-Induced Instabilities in Amorphous InGaZnO Thin-Film Transistors with Various Oxygen Flow Rates. <i>Japanese Journal of Applied Physics</i> , <b>2012</b> , 51, 100206	1.4	6
104	Efficient precise weight tuning protocol considering variation of the synaptic devices and target accuracy. <i>Neurocomputing</i> , <b>2020</b> , 378, 189-196	5.4	6
103	NAND Flash Based Novel Synaptic Architecture for Highly Robust and High-Density Quantized Neural Networks With Binary Neuron Activation of (1, 0). <i>IEEE Access</i> , <b>2020</b> , 8, 114330-114339	3.5	6
102	. <i>IEEE Access</i> , <b>2020</b> , 8, 202639-202647	3.5	6
101	Impacts of Program/Erase Cycling on the Low-Frequency Noise Characteristics of Reconfigurable Gated Schottky Diodes. <i>IEEE Electron Device Letters</i> , <b>2021</b> , 42, 863-866	4.4	6
100	Analysis on temperature dependent current mechanism of tunnel field-effect transistors. <i>Japanese Journal of Applied Physics</i> , <b>2016</b> , 55, 06GG03	1.4	6
99	Highly improved response and recovery characteristics of Si FET-type gas sensor using pre-bias <b>2016</b> ,		6
98	Effects of IGZO film thickness on H2S gas sensing performance: Response, excessive recovery, low-frequency noise, and signal-to-noise ratio. <i>Sensors and Actuators B: Chemical</i> , <b>2021</b> , 344, 130148	8.5	6
97	Effect of Low Temperature Annealing on ITO-on-Si Schottky Junction. <i>IEEE Electron Device Letters</i> , <b>2017</b> , 38, 426-429	4.4	5
96	A Spiking Neural Network with a Global Self-Controller for Unsupervised Learning Based on Spike-Timing-Dependent Plasticity Using Flash Memory Synaptic Devices <b>2019</b> ,		5
95	Characterization of a Capacitorless DRAM Cell for Cryogenic Memory Applications. <i>IEEE Electron Device Letters</i> , <b>2019</b> , 40, 1614-1617	4.4	5
94	Effect of Nitrogen Content in Tunneling Dielectric on Cell Properties of 3-D NAND Flash Cells. <i>IEEE Electron Device Letters</i> , <b>2019</b> , 40, 702-705	4.4	5
93	A Wide Detection Range Mercury Ion Sensor Using Si MOSFET Having Single-Walled Carbon Nanotubes as a Sensing Layer. <i>IEEE Electron Device Letters</i> , <b>2017</b> , 38, 959-962	4.4	5
92	Study on Time Constants of Random Telegraph Noise in Gate Leakage Current Through Hot-Carrier Stress Test. <i>IEEE Electron Device Letters</i> , <b>2010</b> , 31, 1029-1031	4.4	5
91	Extraction of Substrate Resistance in Bulk FinFETs Through RF Modeling. <i>IEEE Microwave and Wireless Components Letters</i> , <b>2007</b> , 17, 358-360	2.6	5
90	Optimization of channel structure and bias condition for signal-to-noise ratio improvement in Si-based FET-type gas sensor with horizontal floating-gate. <i>Sensors and Actuators B: Chemical</i> , <b>2022</b> , 357, 131398	8.5	5



89	Ferroelectricity of pure HfOx in metal-ferroelectric-insulator-semiconductor stacks and its memory application. <i>Applied Surface Science</i> , <b>2022</b> , 573, 151566	6.7	5
88	Vertically Stacked Gate-All-Around Structured Tunneling-Based Ternary-CMOS. <i>IEEE Transactions on Electron Devices</i> , <b>2020</b> , 67, 3889-3893	2.9	5
87	A Si FET-type Gas Sensor with Pulse-driven Localized Micro-heater for Low Power Consumption <b>2018</b> ,		5
86	Near-Linear Potentiation Mechanism of Gated Schottky Diode as a Synaptic Device. <i>IEEE Journal of the Electron Devices Society</i> , <b>2019</b> , 7, 335-343	2.3	4
85	GIDL Characteristics in Gated-Diode Memory String and Its Application to Current-Steering Digital-to-Analog Conversion. <i>IEEE Transactions on Electron Devices</i> , <b>2015</b> , 62, 3272-3277	2.9	4
84	Accurate extraction of WSe2 FETs parameters by using pulsed I-V method at various temperatures. <i>Nano Convergence</i> , <b>2016</b> , 3, 31	9.2	4
83	High-Density Three-Dimensional Stacked nand Flash With Common Gate Structure and Shield Layer. <i>IEEE Transactions on Electron Devices</i> , <b>2011</b> , 58, 4212-4218	2.9	4
82	SiO2 Fin-Based Flash Synaptic Cells in AND Array Architecture for Binary Neural Networks. <i>IEEE Electron Device Letters</i> , <b>2022</b> , 43, 142-145	4.4	4
81	Field Effect Transistor-Type Devices Using High- $\kappa$ Gate Insulator Stacks for Neuromorphic Applications. <i>ACS Applied Electronic Materials</i> , <b>2020</b> , 2, 323-328	4	4
80	Investigation of Low-Frequency Noise Characteristics in Gated Schottky Diodes. <i>IEEE Electron Device Letters</i> , <b>2021</b> , 42, 442-445	4.4	4
79	Physical Unclonable Functions Using Ferroelectric Tunnel Junctions. <i>IEEE Electron Device Letters</i> , <b>2021</b> , 42, 816-819	4.4	4
78	Hardware-Based Spiking Neural Network Using a TFT-Type AND Flash Memory Array Architecture Based on Direct Feedback Alignment. <i>IEEE Access</i> , <b>2021</b> , 9, 73121-73132	3.5	4
77	Interlayer engineering for enhanced ferroelectric tunnel junction operations in HfO-based metal-ferroelectric-insulator-semiconductor stack. <i>Nanotechnology</i> , <b>2021</b> , 32,	3.4	4
76	Efficient fusion of spiking neural networks and FET-type gas sensors for a fast and reliable artificial olfactory system. <i>Sensors and Actuators B: Chemical</i> , <b>2021</b> , 345, 130419	8.5	4
75	Investigation of Low-Frequency Noise Characteristics of Ferroelectric Tunnel Junction: from Conduction Mechanism and Scaling Perspectives. <i>IEEE Electron Device Letters</i> , <b>2022</b> , 1-1	4.4	4
74	Synaptic device using a floating fin-body MOSFET with memory functionality for neural network. <i>Solid-State Electronics</i> , <b>2019</b> , 156, 23-27	1.7	3
73	Vertical Inner Gate Transistors for 4F2 DRAM Cell. <i>IEEE Transactions on Electron Devices</i> , <b>2020</b> , 67, 944-948	4.8	3
72	Novel Boosting Scheme Using Asymmetric Pass Voltage for Reducing Program Disturbance in 3-Dimensional NAND Flash Memory. <i>IEEE Journal of the Electron Devices Society</i> , <b>2018</b> , 1-1	2.3	3



71	Investigation of silicide-induced-dopant-activation for steep tunnel junction in tunnel field effect transistor (TFET). <i>Solid-State Electronics</i> , <b>2018</b> , 140, 41-45	1.7	3
70	Layer Selection by Multi-Level Permutation in 3-D Stacked NAND Flash Memory. <i>IEEE Electron Device Letters</i> , <b>2016</b> , 37, 866-869	4.4	3
69	A Novel Analysis of $\{L\}_{\text{gd}}$ Dependent-1/ $\{f\}$ Noise in In <sub>0.08</sub> Al <sub>0.92</sub> N/GaN. <i>IEEE Electron Device Letters</i> , <b>2018</b> , 39, 1552-1555	4.4	3
68	Analysis on New Read Disturbance Induced by Hot Carrier Injections in 3-D Channel-Stacked NAND Flash Memory. <i>IEEE Transactions on Electron Devices</i> , <b>2019</b> , 66, 3326-3330	2.9	3
67	. <i>IEEE Transactions on Electron Devices</i> , <b>2015</b> , 62, 2738-2744	2.9	3
66	Effects of Channel Length Scaling on the Signal-to-Noise Ratio in FET-Type Gas sensor with Horizontal Floating-Gate. <i>IEEE Electron Device Letters</i> , <b>2022</b> , 1-1	4.4	3
65	Capacitor-Based Synaptic Devices for Hardware Spiking Neural Networks. <i>IEEE Electron Device Letters</i> , <b>2022</b> , 1-1	4.4	3
64	Implementation of Synaptic Device Using Various High- Gate Dielectric Stacks. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2020</b> , 20, 4292-4297	1.3	3
63	Suppression of reverse drain induced barrier lowering in negative capacitance FDSOI field effect transistor using oxide charge trapping layer. <i>Semiconductor Science and Technology</i> , <b>2020</b> , 35, 125003	1.8	3
62	Low-Power Binary Neuron Circuit With Adjustable Threshold for Binary Neural Networks Using NAND Flash Memory. <i>IEEE Access</i> , <b>2020</b> , 8, 153334-153340	3.5	3
61	Investigation on Ambipolar Current Suppression Using a Stacked Gate in an L-shaped Tunnel Field-Effect Transistor. <i>Micromachines</i> , <b>2019</b> , 10,	3.3	3
60	A new sensing mechanism of Si FET-based gas sensor using pre-bias. <i>Sensors and Actuators B: Chemical</i> , <b>2020</b> , 302, 127147	8.5	3
59	3-D AND-Type Flash Memory Architecture With High- Gate Dielectric for High-Density Synaptic Devices. <i>IEEE Transactions on Electron Devices</i> , <b>2021</b> , 68, 3801-3806	2.9	3
58	Effects of Postdeposition Annealing Ambience on NO <sub>2</sub> Gas Sensing Performance in Si-Based FET-Type Gas Sensor. <i>IEEE Transactions on Electron Devices</i> , <b>2022</b> , 1-7	2.9	3
57	Analysis of Clockwise and Counter-Clockwise Hysteresis Characteristics in 3-D NAND Flash Memory Cells. <i>IEEE Electron Device Letters</i> , <b>2017</b> , 38, 867-870	4.4	2
56	Investigation of Neural Networks Using Synapse Arrays Based on Gated Schottky Diodes <b>2019</b> ,		2
55	Effect of Word-Line Bias on Linearity of Multi-Level Conductance Steps for Multi-Layer Neural Networks Based on NAND Flash Cells. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2020</b> , 20, 4138-4142	1.3	2
54	Design Consideration of Diode-Type NAND Flash Memory Cell String Having Super-Steep Switching Slope. <i>IEEE Journal of the Electron Devices Society</i> , <b>2016</b> , 4, 328-334	2.3	2

53	Design Consideration of Bulk FinFETs Devices With $n^+$ Gate and $p^+$ Gate for Sub-50-nm DRAM Cell Transistors. <i>IEEE Nanotechnology Magazine</i> , <b>2008</b> , 7, 427-433	2.6	2
52	Extraction of Substrate Resistance in Multifinger Bulk FinFETs Using Shorted Source/Drain Configuration. <i>IEEE Transactions on Electron Devices</i> , <b>2007</b> , 54, 2269-2275	2.9	2
51	CMOS-Compatible Low-Power Gated Diode Synaptic Device for Hardware-Based Neural Network. <i>IEEE Transactions on Electron Devices</i> , <b>2021</b> , 1-6	2.9	2
50	A Novel High Schottky Barrier Based Bilateral Gate and Assistant Gate Controlled Bidirectional Tunnel Field Effect Transistor. <i>IEEE Journal of the Electron Devices Society</i> , <b>2020</b> , 8, 976-980	2.3	2
49	3D AND-Type Stacked Array for Neuromorphic Systems. <i>Micromachines</i> , <b>2020</b> , 11,	3.3	2
48	Novel Program Method of String Select Transistors for Layer Selection in Channel-Stacked NAND Flash Memory. <i>IEEE Transactions on Electron Devices</i> , <b>2016</b> , 63, 3521-3526	2.9	2
47	Hardware-based spiking neural network architecture using simplified backpropagation algorithm and homeostasis functionality. <i>Neurocomputing</i> , <b>2021</b> , 428, 153-165	5.4	2
46	Spiking Neural Networks With Time-to-First-Spike Coding Using TFT-Type Synaptic Device Model. <i>IEEE Access</i> , <b>2021</b> , 9, 78098-78107	3.5	2
45	A novel physical unclonable function (PUF) using 16 $\times$ 6 pure-HfOferroelectric tunnel junction array for security applications. <i>Nanotechnology</i> , <b>2021</b> , 32,	3.4	2
44	Vertically-Stacked Si <sub>0.2</sub> Ge <sub>0.8</sub> Nanosheet Tunnel FET With 70 mV/Dec Average Subthreshold Swing. <i>IEEE Electron Device Letters</i> , <b>2021</b> , 1-1	4.4	2
43	Effect of Program Error in Memristive Neural Network With Weight Quantization. <i>IEEE Transactions on Electron Devices</i> , <b>2022</b> , 1-7	2.9	2
42	Fully integrated FET-type gas sensor with optimized signal-to-noise ratio for H <sub>2</sub> S gas detection. <i>Sensors and Actuators B: Chemical</i> , <b>2022</b> , 367, 132052	8.5	2
41	A Gate-Induced Drain-Leakage Current Model for Fully Depleted Double-Gate MOSFETs. <i>IEEE Transactions on Electron Devices</i> , <b>2008</b> , 55, 2800-2804	2.9	1
40	High pressure deuterium annealing effect on nano- scale CMOS devices with different channel width <b>2006</b> ,		1
39	Fin width variation effects on program disturbance characteristics in a NAND type bulk fin SONOS flash memory <b>2007</b> ,		1
38	N+shallow junction formation using plasma doping and rapid thermal annealing <b>2007</b> ,		1
37	Impact Ionization Rate of the Bulk FinFETs with Fin Width and Bias Conditions		1
36	Impact of interlayer insulator formation methods on HfO <sub>x</sub> ferroelectricity in the metal/ferroelectric/insulator/semiconductor stack. <i>Applied Physics Letters</i> , <b>2022</b> , 120, 012901	3.4	1

35	Variation-tolerant Capacitive Array for Binarized Neural Network. <i>IEEE Electron Device Letters</i> , <b>2022</b> , 1-1	4.4	1
34	Branched Polyethylenimine Based Field Effect Transistor for Low Humidity Detection at Room Temperature. <i>IEEE Sensors Journal</i> , <b>2021</b> , 1-1	4	1
33	Initial synaptic weight distribution for fast learning speed and high recognition rate in STDP-based spiking neural network. <i>Solid-State Electronics</i> , <b>2020</b> , 165, 107742	1.7	1
32	Pruning for Hardware-Based Deep Spiking Neural Networks Using Gated Schottky Diode as Synaptic Devices. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2020</b> , 20, 6603-6608	1.3	1
31	Novel Method Enabling Forward and Backward Propagations in NAND Flash Memory for On-Chip Learning. <i>IEEE Transactions on Electron Devices</i> , <b>2021</b> , 68, 3365-3370	2.9	1
30	Review of candidate devices for neuromorphic applications <b>2019</b> ,		1
29	On-chip trainable hardware-based deep Q-networks approximating a backpropagation algorithm. <i>Neural Computing and Applications</i> , <b>2021</b> , 33, 9391-9402	4.8	1
28	Highly stable Si MOSFET-type humidity sensor with ink-jet printed graphene quantum dots sensing layer. <i>Sensors and Actuators B: Chemical</i> , <b>2021</b> , 343, 130134	8.5	1
27	Improvement of Resistive Switching Characteristics of Titanium Oxide Based Nanowedge RRAM Through Nickel Silicidation. <i>IEEE Transactions on Electron Devices</i> , <b>2021</b> , 68, 438-442	2.9	1
26	Core-Shell Dual-Gate Nanowire Memory as a Synaptic Device for Neuromorphic Application. <i>IEEE Journal of the Electron Devices Society</i> , <b>2021</b> , 1-1	2.3	1
25	Effects of Electrode Structure on H <sub>2</sub> S Sensing and Low-Frequency Noise Characteristics in In <sub>2</sub> O <sub>3</sub> -Based Resistor-Type Gas Sensors. <i>IEEE Sensors Journal</i> , <b>2022</b> , 22, 6311-6320	4	1
24	Investigation of Device Performance for Fin Angle Optimization in FinFET and Gate-All-Around FETs for 3 nm-Node and Beyond. <i>IEEE Transactions on Electron Devices</i> , <b>2022</b> , 69, 2088-2093	2.9	1
23	Analysis of Cr/Au contact reliability in embedded poly-Si micro-heater for FET-type gas sensor. <i>Sensors and Actuators B: Chemical</i> , <b>2022</b> , 360, 131673	8.5	1
22	Highly Efficient Self-Curing Method in MOSFET Using Parasitic Bipolar Junction Transistor. <i>IEEE Electron Device Letters</i> , <b>2022</b> , 1-1	4.4	1
21	Mobility and Effective Electric Field in Nonplanar Channel MOSFETs. <i>IEEE Nanotechnology Magazine</i> , <b>2009</b> , 8, 106-110	2.6	0
20	Comprehensive TCAD-Based Validation of Interface Trap-Assisted Ferroelectric Polarization in Ferroelectric-Gate Field-Effect Transistor Memory. <i>IEEE Transactions on Electron Devices</i> , <b>2022</b> , 1-6	2.9	0
19	Neuron Circuits for Low-Power Spiking Neural Networks Using Time-To-First-Spike Encoding. <i>IEEE Access</i> , <b>2022</b> , 1-1	3.5	0
18	Ferroelectric-Metal Field-Effect Transistor with Recessed Channel for 1T-DRAM Application. <i>IEEE Journal of the Electron Devices Society</i> , <b>2021</b> , 1-1	2.3	0

17	Double-Gated Ferroelectric-Gate Field-Effect-Transistor for Processing in Memory. <i>IEEE Electron Device Letters</i> , <b>2021</b> , 1-1	4.4	○
16	Response Comparison of Resistor- and Si FET-Type Gas Sensors on the Same Substrate. <i>IEEE Transactions on Electron Devices</i> , <b>2021</b> , 68, 3552-3557	2.9	○
15	Direct Gradient Calculation: Simple and Variation-Tolerant On-Chip Training Method for Neural Networks. <i>Advanced Intelligent Systems</i> , <b>2021</b> , 3, 2100064	6	○
14	Effect of Lateral Charge Diffusion on Retention Characteristics of 3D NAND Flash Cells. <i>IEEE Electron Device Letters</i> , <b>2021</b> , 42, 1148-1151	4.4	○
13	Gate-First Negative Capacitance Field-Effect Transistor With Self-Aligned Nickel-Silicide Source and Drain. <i>IEEE Transactions on Electron Devices</i> , <b>2021</b> , 68, 4754-4757	2.9	○
12	Method to Eliminate Gate and Drain Bias Stresses in Transfer Curves of WSe <sub>2</sub> Field Effect Transistors with Single Channel Pulsed I <sub>V</sub> Measurement. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2017</b> , 17, 3382-3385	1.3	
11	$\frac{n^+}{p^+}$ Gate Bulk FinFETs With Locally Separated Channel Structure for Sub-50-nm DRAM Cell Transistors. <i>IEEE Electron Device Letters</i> , <b>2007</b> , 28, 1126-1128	4.4	
10	Utilization of Unsigned Inputs for NAND Flash-Based Parallel and High-Density Synaptic Architecture in Binary Neural Networks. <i>IEEE Journal of the Electron Devices Society</i> , <b>2021</b> , 1-1	2.3	
9	Double-Gated Asymmetric Floating-Gate-Based Synaptic Device for Effective Performance Enhancement Through Online Learning. <i>IEEE Access</i> , <b>2020</b> , 8, 217735-217743	3.5	
8	Variability of DRAM Peripheral Transistor at Liquid Nitrogen Temperature. <i>IEEE Transactions on Electron Devices</i> , <b>2021</b> , 68, 1627-1632	2.9	
7	Integrate-and-Fire Neuron Circuit With Synaptic Off-Current Blocking Operation. <i>IEEE Access</i> , <b>2021</b> , 9, 127841-127851	3.5	
6	Suppression of Statistical Variability in Stacked Nanosheet Using Floating Fin Structure. <i>IEEE Electron Device Letters</i> , <b>2021</b> , 1-1	4.4	
5	Hardware-Based Spiking Neural Networks Using Capacitor-Less Positive Feedback Neuron Devices. <i>IEEE Transactions on Electron Devices</i> , <b>2021</b> , 68, 4766-4772	2.9	
4	On-Chip Trainable Spiking Neural Networks Using Time-To-First-Spike Encoding. <i>IEEE Access</i> , <b>2022</b> , 10, 31263-31272	3.5	
3	Novel Dual Liner Process for Side-Shielded Forksheet Device With Superior Design Margin. <i>IEEE Transactions on Electron Devices</i> , <b>2022</b> , 1-4	2.9	
2	Damage-induced ferroelectricity in HfO <sub>x</sub> -based thin film. <i>IEEE Electron Device Letters</i> , <b>2022</b> , 1-1	4.4	
1	Analog synaptic devices applied to spiking neural networks for reinforcement learning applications. <i>Semiconductor Science and Technology</i> , <b>2022</b> , 37, 075002	1.8	