

Jong-Ho Lee

List of Publications by Year in descending order

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215
papers

3,771
citations

159358

30
h-index

197535

49
g-index

216
all docs

216
docs citations

216
times ranked

2706
citing authors

#	ARTICLE	IF	CITATIONS
1	Bias-stress-induced stretched-exponential time dependence of threshold voltage shift in InGaZnO thin film transistors. Applied Physics Letters, 2008, 93, .	1.5	481
2	FET-type gas sensors: A review. Sensors and Actuators B: Chemical, 2021, 330, 129240.	4.0	108
3	Comparative study of electrical instabilities in top-gate InGaZnO thin film transistors with Al ₂ O ₃ and Al ₂ O ₃ /SiN _x gate dielectrics. Applied Physics Letters, 2009, 94, .	1.5	97
4	Highly selective ZnO gas sensor based on MOSFET having a horizontal floating-gate. Sensors and Actuators B: Chemical, 2016, 232, 653-659.	4.0	68
5	Silicon-Based Floating-Body Synaptic Transistor With Frequency-Dependent Short- and Long-Term Memories. IEEE Electron Device Letters, 2016, 37, 249-252.	2.2	67
6	Spiking Neural Network Using Synaptic Transistors and Neuron Circuits for Pattern Recognition With Noisy Images. IEEE Electron Device Letters, 2018, 39, 630-633.	2.2	64
7	Emerging memory technologies for neuromorphic computing. Nanotechnology, 2019, 30, 032001.	1.3	62
8	Three-Dimensional nand Flash Architecture Design Based on Single-Crystalline STacked ARray. IEEE Transactions on Electron Devices, 2012, 59, 35-45.	1.6	61
9	Accurate analysis of conduction and resistive-switching mechanisms in double-layered resistive-switching memory devices. Applied Physics Letters, 2012, 101, .	1.5	57
10	Demonstration of Unsupervised Learning With Spike-Timing-Dependent Plasticity Using a TFT-Type NOR Flash Memory Array. IEEE Transactions on Electron Devices, 2018, 65, 1774-1780.	1.6	54
11	Comprehensive analysis of retention characteristics in 3-D NAND flash memory cells with tube-type poly-Si channel structure. , 2015, , .		51
12	SO ₂ gas sensing characteristics of FET- and resistor-type gas sensors having WO ₃ as sensing material. Solid-State Electronics, 2020, 165, 107747.	0.8	50
13	Characteristics of the full CMOS SRAM cell using body-tied TG MOSFETs (bulk FinFETs). IEEE Transactions on Electron Devices, 2006, 53, 481-487.	1.6	49
14	High-Density and Near-Linear Synaptic Device Based on a Reconfigurable Gated Schottky Diode. IEEE Electron Device Letters, 2017, 38, 1153-1156.	2.2	49
15	Gas sensing materials roadmap. Journal of Physics Condensed Matter, 2021, 33, 303001.	0.7	49
16	Adaptive learning rule for hardware-based deep neural networks using electronic synapse devices. Neural Computing and Applications, 2019, 31, 8101-8116.	3.2	47
17	Low-Frequency Noise in Amorphous Indium-Gallium-Zinc-Oxide Thin-Film Transistors. IEEE Electron Device Letters, 2009, 30, 505-507.	2.2	45
18	Low frequency noise characteristics of resistor- and Si MOSFET-type gas sensors fabricated on the same Si wafer with In ₂ O ₃ sensing layer. Sensors and Actuators B: Chemical, 2020, 318, 128087.	4.0	45

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19	Comparative Study of the Low-Frequency-Noise Behaviors in a-IGZO Thin-Film Transistors With Al_2O_3 and $\text{Al}_2\text{O}_3/\text{SiN}_x$ Gate Dielectrics. IEEE Electron Device Letters, 2009, 30, 828-830.	2.2	41
20	Observation of physisorption in a high-performance FET-type oxygen gas sensor operating at room temperature. Nanoscale, 2018, 10, 18019-18027.	2.8	41
21	A low-power embedded poly-Si micro-heater for gas sensor platform based on a FET transducer and its application for NO ₂ sensing. Sensors and Actuators B: Chemical, 2021, 334, 129642.	4.0	41
22	Gas sensing characteristics of the FET-type gas sensor having inkjet-printed WS ₂ sensing layer. Solid-State Electronics, 2019, 153, 27-32.	0.8	39
23	Modeling of V_{th} Shift in nand Flash-Memory Cell Device Considering Crosstalk and Short-Channel Effects. IEEE Transactions on Electron Devices, 2008, 55, 1020-1026.	1.6	38
24	Conduction and Low-Frequency Noise Analysis in $\text{Al}/\alpha\text{-TiO}_x/\text{Al}$ Bipolar Switching Resistance Random Access Memory Devices. IEEE Electron Device Letters, 2010, 31, 603-605.	2.2	37
25	3-D Stacked Synapse Array Based on Charge-Trap Flash Memory for Implementation of Deep Neural Networks. IEEE Transactions on Electron Devices, 2019, 66, 420-427.	1.6	37
26	Comparison of the characteristics of semiconductor gas sensors with different transducers fabricated on the same substrate. Sensors and Actuators B: Chemical, 2021, 335, 129661.	4.0	36
27	Improved CO gas detection of Si MOSFET gas sensor with catalytic Pt decoration and pre-bias effect. Sensors and Actuators B: Chemical, 2019, 300, 127040.	4.0	35
28	Neuromorphic Computing Using NAND Flash Memory Architecture With Pulse Width Modulation Scheme. Frontiers in Neuroscience, 2020, 14, 571292.	1.4	34
29	Gas-Sensing Characteristics of Exfoliated WSe ₂ Field-Effect Transistors. Journal of Nanoscience and Nanotechnology, 2017, 17, 3151-3154.	0.9	33
30	High-Density and Highly-Reliable Binary Neural Networks Using NAND Flash Memory Cells as Synaptic Devices. , 2019, , .		32
31	On-Chip Training Spiking Neural Networks Using Approximated Backpropagation With Analog Synaptic Devices. Frontiers in Neuroscience, 2020, 14, 423.	1.4	32
32	AND Flash Array Based on Charge Trap Flash for Implementation of Convolutional Neural Networks. IEEE Electron Device Letters, 2020, 41, 1653-1656.	2.2	32
33	Adaptive Weight Quantization Method for Nonlinear Synaptic Devices. IEEE Transactions on Electron Devices, 2019, 66, 395-401.	1.6	31
34	Proposition of deposition and bias conditions for optimal signal-to-noise-ratio in resistor- and FET-type gas sensors. Nanoscale, 2020, 12, 19768-19775.	2.8	31
35	Investigation of Electrical Characteristic Behavior Induced by Channel-Release Process in Stacked Nanosheet Gate-All-Around MOSFETs. IEEE Transactions on Electron Devices, 2020, 67, 2648-2652.	1.6	31
36	Operation Scheme of Multi-Layer Neural Networks Using NAND Flash Memory as High-Density Synaptic Devices. IEEE Journal of the Electron Devices Society, 2019, 7, 1085-1093.	1.2	29

#	ARTICLE	IF	CITATIONS
37	Temperature Dependence of Substrate and Drainâ€“Currents in Bulk FinFETs. IEEE Transactions on Electron Devices, 2007, 54, 1259-1264.	1.6	28
38	Effects of High-Pressure Annealing on the Low-Frequency Noise Characteristics in Ferroelectric FET. IEEE Electron Device Letters, 2022, 43, 13-16.	2.2	28
39	Implementation of Short-Term Plasticity and Long-Term Potentiation in a Synapse Using Si-Based Type of Charge-Trap Memory. IEEE Transactions on Electron Devices, 2015, 62, 569-573.	1.6	27
40	Fabrication and Characterization of a Thin-Body Poly-Si 1T DRAM With Charge-Trap Effect. IEEE Electron Device Letters, 2019, 40, 566-569.	2.2	27
41	Reconfigurable Field-Effect Transistor as a Synaptic Device for XNOR Binary Neural Network. IEEE Electron Device Letters, 2019, 40, 624-627.	2.2	26
42	Improved signal-to-noise-ratio of FET-type gas sensors using body bias control and embedded micro-heater. Sensors and Actuators B: Chemical, 2021, 329, 129166.	4.0	26
43	Ferroelectric-Gate Field-Effect Transistor Memory With Recessed Channel. IEEE Electron Device Letters, 2020, 41, 1201-1204.	2.2	25
44	An anomalous device degradation of SOI narrow width devices caused by STI edge influence. IEEE Transactions on Electron Devices, 2002, 49, 605-612.	1.6	24
45	Single-Crystalline Si Stacked ARray (STAR) NAND Flash Memory. IEEE Transactions on Electron Devices, 2011, 58, 1006-1014.	1.6	24
46	Effects of Localized Body Doping on Switching Characteristics of Tunnel FET Inverters With Vertical Structures. IEEE Transactions on Electron Devices, 2017, 64, 1799-1805.	1.6	24
47	A Split-Gate Positive Feedback Device With an Integrate-and-Fire Capability for a High-Density Low-Power Neuron Circuit. Frontiers in Neuroscience, 2018, 12, 704.	1.4	24
48	1/f-Noise in AlGaIn/GaN Nanowire Omega-FinFETs. IEEE Electron Device Letters, 2017, 38, 252-254.	2.2	23
49	An FET-type gas sensor with a sodium ion conducting solid electrolyte for CO2 detection. Sensors and Actuators B: Chemical, 2018, 259, 1058-1065.	4.0	23
50	Design and Optimization of Triple-k Spacer Structure in Two-Stack Nanosheet FET From OFF-State Leakage Perspective. IEEE Transactions on Electron Devices, 2020, 67, 1317-1322.	1.6	23
51	Si-Based FET-Type Synaptic Device With Short-Term and Long-Term Plasticity Using High- κ Gate-Stack. IEEE Transactions on Electron Devices, 2019, 66, 917-923.	1.6	22
52	Highly Selective and Low-Power Carbon Monoxide Gas Sensor Based on the Chain Reaction of Oxygen and Carbon Monoxide to WO_3 . ACS Applied Materials & Interfaces, 2022, 14, 17950-17958.	4.0	22
53	The $\text{HfO}_2/\text{SiO}_2$ Noise and Random Telegraph Noise Characteristics in Floating-Gate NAND Flash Memories. IEEE Transactions on Electron Devices, 2009, 56, 1624-1630.	1.6	21
54	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. IEEE Electron Device Letters, 2017, 38, 111-114.	2.2	21

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55	Investigation of Sidewall High-k Interfacial Layer Effect in Gate-All-Around Structure. IEEE Transactions on Electron Devices, 2020, 67, 1859-1863.	1.6	20
56	Efficient fusion of spiking neural networks and FET-type gas sensors for a fast and reliable artificial olfactory system. Sensors and Actuators B: Chemical, 2021, 345, 130419.	4.0	20
57	Effects of IGZO film thickness on H ₂ S gas sensing performance: Response, excessive recovery, low-frequency noise, and signal-to-noise ratio. Sensors and Actuators B: Chemical, 2021, 344, 130148.	4.0	20
58	Comprehensive and accurate analysis of the working principle in ferroelectric tunnel junctions using low-frequency noise spectroscopy. Nanoscale, 2022, 14, 2177-2185.	2.8	20
59	Threshold-Voltage Modeling of Body-Tied FinFETs (Bulk FinFETs). IEEE Transactions on Electron Devices, 2007, 54, 537-545.	1.6	19
60	3-D Synapse Array Architecture Based on Charge-Trap Flash Memory for Neuromorphic Application. Electronics (Switzerland), 2020, 9, 57.	1.8	19
61	Capacitor-Based Synaptic Devices for Hardware Spiking Neural Networks. IEEE Electron Device Letters, 2022, 43, 549-552.	2.2	19
62	Diode-Type NAND Flash Memory Cell String Having Super-Steep Switching Slope Based on Positive Feedback. IEEE Transactions on Electron Devices, 2016, 63, 1533-1538.	1.6	18
63	Neuromorphic Technology Based on Charge Storage Memory Devices. , 2018, , .		18
64	Effect of charge storage engineering on the NO ₂ gas sensing properties of a WO ₃ FET-type gas sensor with a horizontal floating-gate. Nanoscale, 2021, 13, 9009-9017.	2.8	18
65	Effect of Program Error in Memristive Neural Network With Weight Quantization. IEEE Transactions on Electron Devices, 2022, 69, 3151-3157.	1.6	18
66	Formulas of 1/f noise in Schottky barrier diodes under reverse bias. Solid-State Electronics, 2012, 69, 85-88.	0.8	17
67	Highly scalable saddle MOSFET for high-density and high-performance DRAM. IEEE Electron Device Letters, 2005, 26, 690-692.	2.2	16
68	Vertically Stacked Gate-All-Around Structured Tunneling-Based Ternary-CMOS. IEEE Transactions on Electron Devices, 2020, 67, 3889-3893.	1.6	16
69	3-D AND-Type Flash Memory Architecture With High- ϵ_r Gate Dielectric for High-Density Synaptic Devices. IEEE Transactions on Electron Devices, 2021, 68, 3801-3806.	1.6	16
70	Effect of a pre-bias on the adsorption and desorption of oxidizing gases in FET-type sensor. Sensors and Actuators B: Chemical, 2017, 245, 122-128.	4.0	15
71	Highly Reliable Inference System of Neural Networks Using Gated Schottky Diodes. IEEE Journal of the Electron Devices Society, 2019, 7, 522-528.	1.2	15
72	Low-power and reliable gas sensing system based on recurrent neural networks. Sensors and Actuators B: Chemical, 2021, 340, 129258.	4.0	15

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73	A Highly Sensitive FET-Type Humidity Sensor with Inkjet-Printed Pt-In ₂ O ₃ Nanoparticles at Room Temperature. <i>Nanoscale Research Letters</i> , 2020, 15, 198.	3.1	15
74	Ferroelectricity of pure HfO _x in metal-ferroelectric-insulator-semiconductor stacks and its memory application. <i>Applied Surface Science</i> , 2022, 573, 151566.	3.1	15
75	Fully integrated FET-type gas sensor with optimized signal-to-noise ratio for H ₂ S gas detection. <i>Sensors and Actuators B: Chemical</i> , 2022, 367, 132052.	4.0	15
76	Analysis on Program Disturbance in Channel-Stacked NAND Flash Memory With Layer Selection by Multilevel Operation. <i>IEEE Transactions on Electron Devices</i> , 2016, 63, 1041-1046.	1.6	14
77	Space Program Scheme for 3-D NAND Flash Memory Specialized for the TLC Design. , 2018, , .		14
78	Optimization of post-deposition annealing temperature for improved signal-to-noise ratio in In ₂ O ₃ gas sensor. <i>Semiconductor Science and Technology</i> , 2021, 36, 075007.	1.0	14
79	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> , 2022, 43, 442-445.	2.2	14
80	A novel bipolar imaging device-basic (base stored imager in cmos process). <i>IEEE Transactions on Electron Devices</i> , 2003, 50, 2189-2195.	1.6	13
81	Synaptic Devices Based on 3-D AND Flash Memory Architecture for Neuromorphic Computing. , 2019, , .		13
82	Unsupervised online learning of temporal information in spiking neural network using thin-film transistor-type NOR flash memory devices. <i>Nanotechnology</i> , 2019, 30, 435206.	1.3	13
83	Characterization of a Capacitorless DRAM Cell for Cryogenic Memory Applications. <i>IEEE Electron Device Letters</i> , 2019, 40, 1614-1617.	2.2	13
84	Surface Ge-rich p-type SiGe channel tunnel field-effect transistor fabricated by local condensation technique. <i>Solid-State Electronics</i> , 2020, 164, 107701.	0.8	13
85	Effects of Process-Induced Defects on Polarization Switching in Ferroelectric Tunneling Junction Memory. <i>IEEE Electron Device Letters</i> , 2021, 42, 323-326.	2.2	13
86	Highly stable Si MOSFET-type humidity sensor with ink-jet printed graphene quantum dots sensing layer. <i>Sensors and Actuators B: Chemical</i> , 2021, 343, 130134.	4.0	13
87	Si adatom diffusion on Si (100) surface in selective epitaxial growth of Si. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2003, 21, 2388.	1.6	12
88	Implementation of homeostasis functionality in neuron circuit using double-gate device for spiking neural network. <i>Solid-State Electronics</i> , 2020, 165, 107741.	0.8	12
89	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> , 2020, 8, 114330-114339.	2.6	12
90	Low-Power and High-Density Neuron Device for Simultaneous Processing of Excitatory and Inhibitory Signals in Neuromorphic Systems. <i>IEEE Access</i> , 2020, 8, 202639-202647.	2.6	12

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91	Analysis on Reverse Drain-Induced Barrier Lowering and Negative Differential Resistance of Ferroelectric-Gate Field-Effect Transistor Memory. IEEE Electron Device Letters, 2020, 41, 1197-1200.	2.2	12
92	Hardware-based spiking neural network architecture using simplified backpropagation algorithm and homeostasis functionality. Neurocomputing, 2021, 428, 153-165.	3.5	12
93	Optimization of channel structure and bias condition for signal-to-noise ratio improvement in Si-based FET-type gas sensor with horizontal floating-gate. Sensors and Actuators B: Chemical, 2022, 357, 131398.	4.0	12
94	Investigation of Low-Frequency Noise Characteristics of Ferroelectric Tunnel Junction: From Conduction Mechanism and Scaling Perspectives. IEEE Electron Device Letters, 2022, 43, 958-961.	2.2	12
95	Novel Double-Gate 1T-DRAM Cell Using Nonvolatile Memory Functionality for High-Performance and Highly Scalable Embedded DRAMs. IEEE Transactions on Electron Devices, 2010, 57, 614-619.	1.6	11
96	Efficient precise weight tuning protocol considering variation of the synaptic devices and target accuracy. Neurocomputing, 2020, 378, 189-196.	3.5	11
97	Negative Capacitance Effect on MOS Structure: Influence of Electric Field Variation. IEEE Nanotechnology Magazine, 2020, 19, 168-171.	1.1	11
98	Impacts of Program/Erase Cycling on the Low-Frequency Noise Characteristics of Reconfigurable Gated Schottky Diodes. IEEE Electron Device Letters, 2021, 42, 863-866.	2.2	11
99	Interlayer engineering for enhanced ferroelectric tunnel junction operations in HfO ₂ -based metal-ferroelectric-insulator-semiconductor stack. Nanotechnology, 2021, 32, 495203.	1.3	11
100	Core-Shell Dual-Gate Nanowire Memory as a Synaptic Device for Neuromorphic Application. IEEE Journal of the Electron Devices Society, 2021, 9, 1282-1289.	1.2	11
101	Investigation of Device Performance for Fin Angle Optimization in FinFET and Gate-All-Around FETs for 3 nm-Node and Beyond. IEEE Transactions on Electron Devices, 2022, 69, 2088-2093.	1.6	11
102	Synergistic improvement of sensing performance in ferroelectric transistor gas sensors using remnant polarization. Materials Horizons, 2022, 9, 1623-1630.	6.4	11
103	Design optimization of FET-type gas sensor considering device characteristics, sensitivity, power, noise, and SNR. Sensors and Actuators B: Chemical, 2022, 369, 132257.	4.0	11
104	Gate Workfunction Engineering in Bulk FinFETs for Sub-50-nm DRAM Cell Transistors. IEEE Electron Device Letters, 2007, 28, 148-150.	2.2	10
105	Electrochemical Properties of Sol-Gel Prepared Li ₂ Zr _x Ti _{1-x} (PO ₄) ₃ Electrodes for Lithium Secondary Batteries. Journal of the Electrochemical Society, 2011, 158, A396.	1.3	10
106	1/f Noise Characteristics of AlGaIn/GaN FinFETs with and without TMAH surface treatment. Microelectronic Engineering, 2015, 147, 134-136.	1.1	10
107	High-Density Reconfigurable Devices With Programmable Bottom-Gate Array. IEEE Electron Device Letters, 2017, 38, 564-567.	2.2	10
108	Pulse Biasing Scheme for the Fast Recovery of FET-Type Gas Sensors for Reducing Gases. IEEE Electron Device Letters, 2017, 38, 971-974.	2.2	10

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109	A Si FET-type Gas Sensor with Pulse-driven Localized Micro-heater for Low Power Consumption. , 2018, , ,		10
110	Hardware-based Neural Networks using a Gated Schottky Diode as a Synapse Device. , 2018, , ,		10
111	A new sensing mechanism of Si FET-based gas sensor using pre-bias. Sensors and Actuators B: Chemical, 2020, 302, 127147.	4.0	10
112	Investigation of Low-Frequency Noise Characteristics in Gated Schottky Diodes. IEEE Electron Device Letters, 2021, 42, 442-445.	2.2	10
113	Branched Polyethylenimine-Based Field Effect Transistor for Low Humidity Detection at Room Temperature. IEEE Sensors Journal, 2022, 22, 90-98.	2.4	10
114	Channel-stacked NAND flash memory with layer selection by multi-level operation (LSM). , 2013, , ,		9
115	Highly improved response and recovery characteristics of Si FET-type gas sensor using pre-bias. , 2016, , ,		9
116	A Spiking Neural Network with a Global Self-Controller for Unsupervised Learning Based on Spike-Timing-Dependent Plasticity Using Flash Memory Synaptic Devices. , 2019, , ,		9
117	Investigation on Ambipolar Current Suppression Using a Stacked Gate in an L-shaped Tunnel Field-Effect Transistor. Micromachines, 2019, 10, 753.	1.4	9
118	Field Effect Transistor-Type Devices Using High- κ Gate Insulator Stacks for Neuromorphic Applications. ACS Applied Electronic Materials, 2020, 2, 323-328.	2.0	9
119	Physical Unclonable Functions Using Ferroelectric Tunnel Junctions. IEEE Electron Device Letters, 2021, 42, 816-819.	2.2	9
120	SiO ₂ Fin-Based Flash Synaptic Cells in AND Array Architecture for Binary Neural Networks. IEEE Electron Device Letters, 2022, 43, 142-145.	2.2	9
121	Comparison of Low-Frequency Noise in Channel and Gate-Induced Drain Leakage Currents of High- κ nFETs. IEEE Electron Device Letters, 2010, 31, 1086-1088.	2.2	8
122	Analysis on New Read Disturbance Induced by Hot Carrier Injections in 3-D Channel-Stacked NAND Flash Memory. IEEE Transactions on Electron Devices, 2019, 66, 3326-3330.	1.6	8
123	Double-Gated Ferroelectric-Gate Field-Effect-Transistor for Processing in Memory. IEEE Electron Device Letters, 2021, 42, 1607-1610.	2.2	8
124	Comprehensive TCAD-Based Validation of Interface Trap-Assisted Ferroelectric Polarization in Ferroelectric-Gate Field-Effect Transistor Memory. IEEE Transactions on Electron Devices, 2022, 69, 1048-1053.	1.6	8
125	Neuron Circuits for Low-Power Spiking Neural Networks Using Time-To-First-Spike Encoding. IEEE Access, 2022, 10, 24444-24455.	2.6	8
126	Effects of Postdeposition Annealing Ambience on NO ₂ Gas Sensing Performance in Si-Based FET-Type Gas Sensor. IEEE Transactions on Electron Devices, 2022, 69, 2604-2610.	1.6	8

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127	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 & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2004, 22, 275.	1.6	7
128	Extraction of Substrate Resistance in Bulk FinFETs Through RF Modeling. <i>IEEE Microwave and Wireless Components Letters</i> , 2007, 17, 358-360.	2.0	7
129	Arch NAND Flash Memory Array With Improved Virtual Source/Drain Performance. <i>IEEE Electron Device Letters</i> , 2010, 31, 1374-1376.	2.2	7
130	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> , 2019, 19, 6050-6054.	0.9	7
131	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> , 2020, 8, 976-980.	1.2	7
132	Hardware-Based Spiking Neural Network Using a TFT-Type AND Flash Memory Array Architecture Based on Direct Feedback Alignment. <i>IEEE Access</i> , 2021, 9, 73121-73132.	2.6	7
133	Novel Method Enabling Forward and Backward Propagations in NAND Flash Memory for On-Chip Learning. <i>IEEE Transactions on Electron Devices</i> , 2021, 68, 3365-3370.	1.6	7
134	Effect of Lateral Charge Diffusion on Retention Characteristics of 3D NAND Flash Cells. <i>IEEE Electron Device Letters</i> , 2021, 42, 1148-1151.	2.2	7
135	Analysis of Cr/Au contact reliability in embedded poly-Si micro-heater for FET-type gas sensor. <i>Sensors and Actuators B: Chemical</i> , 2022, 360, 131673.	4.0	7
136	Highly Efficient Self-Curing Method in MOSFET Using Parasitic Bipolar Junction Transistor. <i>IEEE Electron Device Letters</i> , 2022, 43, 1001-1004.	2.2	7
137	Characterization issues of gate geometry in multifinger structure for RF-SOI MOSFETs. <i>IEEE Electron Device Letters</i> , 2002, 23, 288-290.	2.2	6
138	Study on Time Constants of Random Telegraph Noise in Gate Leakage Current Through Hot-Carrier Stress Test. <i>IEEE Electron Device Letters</i> , 2010, 31, 1029-1031.	2.2	6
139	Analysis on temperature dependent current mechanism of tunnel field-effect transistors. <i>Japanese Journal of Applied Physics</i> , 2016, 55, 06GG03.	0.8	6
140	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> , 2017, 38, 959-962.	2.2	6
141	Effect of Nitrogen Content in Tunneling Dielectric on Cell Properties of 3-D NAND Flash Cells. <i>IEEE Electron Device Letters</i> , 2019, 40, 702-705.	2.2	6
142	Low-Power Binary Neuron Circuit With Adjustable Threshold for Binary Neural Networks Using NAND Flash Memory. <i>IEEE Access</i> , 2020, 8, 153334-153340.	2.6	6
143	A novel physical unclonable function (PUF) using 16Å^2 – 16Å^2 pure-HfO ₂ ferroelectric tunnel junction array for security applications. <i>Nanotechnology</i> , 2021, 32, 485202.	1.3	6
144	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> , 2012, 51, 100206.	0.8	6

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145	Effects of Electrode Structure on H ₂ S Sensing and Low-Frequency Noise Characteristics in In ₂ O ₃ -Based Resistor-Type Gas Sensors. IEEE Sensors Journal, 2022, 22, 6311-6320.	2.4	6
146	Extraction of Substrate Resistance in Multifinger Bulk FinFETs Using Shorted Source/Drain Configuration. IEEE Transactions on Electron Devices, 2007, 54, 2269-2275.	1.6	5
147	Effect of Low Temperature Annealing on ITO-on-Si Schottky Junction. IEEE Electron Device Letters, 2017, 38, 426-429.	2.2	5
148	Novel Boosting Scheme Using Asymmetric Pass Voltage for Reducing Program Disturbance in 3-Dimensional NAND Flash Memory. IEEE Journal of the Electron Devices Society, 2018, 6, 286-290.	1.2	5
149	Synaptic device using a floating fin-body MOSFET with memory functionality for neural network. Solid-State Electronics, 2019, 156, 23-27.	0.8	5
150	Vertical Inner Gate Transistors for 4F ² DRAM Cell. IEEE Transactions on Electron Devices, 2020, 67, 944-948.	1.6	5
151	Spiking Neural Networks With Time-to-First-Spike Coding Using TFT-Type Synaptic Device Model. IEEE Access, 2021, 9, 78098-78107.	2.6	5
152	Improvement of Resistive Switching Characteristics of Titanium Oxide Based Nanowedge RRAM Through Nickel Silicidation. IEEE Transactions on Electron Devices, 2021, 68, 438-442.	1.6	5
153	Suppression of reverse drain induced barrier lowering in negative capacitance FDSOI field effect transistor using oxide charge trapping layer. Semiconductor Science and Technology, 2020, 35, 125003.	1.0	5
154	Impact of interlayer insulator formation methods on HfOx ferroelectricity in the metal-ferroelectric-insulator-semiconductor stack. Applied Physics Letters, 2022, 120, .	1.5	5
155	Mobility and Effective Electric Field in Nonplanar Channel MOSFETs. IEEE Nanotechnology Magazine, 2009, 8, 106-110.	1.1	4
156	High-Density Three-Dimensional Stacked nand Flash With Common Gate Structure and Shield Layer. IEEE Transactions on Electron Devices, 2011, 58, 4212-4218.	1.6	4
157	GIDL Characteristics in Gated-Diode Memory String and Its Application to Current-Steering Digital-to-Analog Conversion. IEEE Transactions on Electron Devices, 2015, 62, 3272-3277.	1.6	4
158	Accurate extraction of WSe2 FETs parameters by using pulsed I-V method at various temperatures. Nano Convergence, 2016, 3, 31.	6.3	4
159	Layer Selection by Multi-Level Permutation in 3-D Stacked NAND Flash Memory. IEEE Electron Device Letters, 2016, 37, 866-869.	2.2	4
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