

Yabin Sun

List of Publications by Year in descending order

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Version: 2024-02-01

59
papers

567
citations

933447

10
h-index

713466

21
g-index

61
all docs

61
docs citations

61
times ranked

202
citing authors

#	ARTICLE	IF	CITATIONS
1	Vertical MoS2 transistors with sub-1-nm gate lengths. Nature, 2022, 603, 259-264.	27.8	251
2	A Vertical Combo Spacer to Optimize Electrothermal Characteristics of 7-nm Nanosheet Gate-All-Around Transistor. IEEE Transactions on Electron Devices, 2020, 67, 2249-2254.	3.0	29
3	Impact of Geometry, Doping, Temperature, and Boundary Conductivity on Thermal Characteristics of 14-nm Bulk and SOI FinFETs. IEEE Transactions on Device and Materials Reliability, 2020, 20, 119-127.	2.0	26
4	Vertically Stacked Nanosheets Tree-Type Reconfigurable Transistor With Improved ON-Current. IEEE Transactions on Electron Devices, 2022, 69, 370-374.	3.0	16
5	Irradiation effects of 25MeV silicon ions on SiGe heterojunction bipolar transistors. Nuclear Instruments & Methods in Physics Research B, 2013, 312, 77-83.	1.4	15
6	Impact of Process Fluctuations on Reconfigurable Silicon Nanowire Transistor. IEEE Transactions on Electron Devices, 2021, 68, 885-891.	3.0	13
7	Novel tri-independent-gate FinFET for multi-current modes control. Superlattices and Microstructures, 2017, 109, 374-381.	3.1	12
8	Novel Reconfigurable Field-Effect Transistor With Asymmetric Spacer Engineering at Drain Side. IEEE Transactions on Electron Devices, 2020, 67, 751-757.	3.0	12
9	Evaluation of lattice dynamics, infrared optical properties and visible emissions of hexagonal GeO ₂ films prepared by liquid phase deposition. Journal of Materials Chemistry C, 2017, 5, 12792-12799.	5.5	11
10	Electronic Assessment of Novel Arch-Shaped Asymmetrical Reconfigurable Field-Effect Transistor. IEEE Transactions on Electron Devices, 2020, 67, 1894-1901.	3.0	11
11	Impact of Process Variation on Nanosheet Gate-All-Around Complementary FET (CFET). IEEE Transactions on Electron Devices, 2022, 69, 4029-4036.	3.0	11
12	An Improved Small-Signal Model for SiGe HBT Under OFF-State, Derived From Distributed Network and Corresponding Model Parameter Extraction. IEEE Transactions on Microwave Theory and Techniques, 2015, 63, 3131-3141.	4.6	10
13	Linear and Resolution Adjusted On-Chip Aging Detection of NBTI Degradation. IEEE Transactions on Device and Materials Reliability, 2018, 18, 383-390.	2.0	10
14	Investigation of total ionizing dose effects in 4H-SiC power MOSFET under gamma ray radiation. Radiation Physics and Chemistry, 2022, 197, 110219.	2.8	10
15	Bias dependence of ionizing radiation damage in SiGe HBTs at different dose rates. Physica B: Condensed Matter, 2014, 434, 95-100.	2.7	8
16	Experimental study of bias dependence of pulsed laser-induced single-event transient in SiGe HBT. Microelectronics Reliability, 2016, 65, 41-46.	1.7	8
17	Analytical Parameter Extraction for Small-Signal Equivalent Circuit of 3D FinFET Into Sub-THz Range. IEEE Access, 2018, 6, 19752-19761.	4.2	8
18	Investigation of total dose effects in SiGe HBTs under different exposure conditions. Radiation Physics and Chemistry, 2018, 151, 84-89.	2.8	7

#	ARTICLE	IF	CITATIONS
19	Analysis of gate-induced drain leakage in gate-all-around nanowire transistors. Journal of Computational Electronics, 2020, 19, 1463-1470.	2.5	7
20	Investigation of process variation in vertically stacked gate-all-around nanowire transistor and SRAM circuit. Semiconductor Science and Technology, 0, , .	2.0	7
21	Investigation of bias dependence on enhanced low dose rate sensitivity in SiGe HBTs for space application. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2014, 738, 82-86.	1.6	5
22	A new physical insight of RESURF effects based on gradual charge appointment concept for bulk silicon lateral power devices. Superlattices and Microstructures, 2016, 92, 111-123.	3.1	5
23	Analysis of Metal Work-Function Modulation Effect in Reconfigurable Field-Effect Transistor. IEEE Transactions on Electron Devices, 2020, 67, 3745-3752.	3.0	5
24	Thermal Coupling Among Channels and Its DC Modeling in Sub-7-nm Vertically Stacked Nanosheet Gate-All-Around Transistor. IEEE Transactions on Electron Devices, 2021, 68, 6563-6570.	3.0	5
25	Design Technology Co-Optimization for 3 nm Gate-All-Around Nanosheet FETs. , 2020, , .		5
26	Impact of Process Fluctuations on RF Small-Signal Parameter of Gate-All-Around Nanosheet Transistor Beyond 3 nm Node. IEEE Transactions on Electron Devices, 2022, 69, 31-38.	3.0	5
27	Impact of bias conditions on performance degradation in SiGe HBTs irradiated by 10MeV Br ion. Microelectronics Reliability, 2014, 54, 2728-2734.	1.7	4
28	Degradation differences in the forward and reverse current gain of 25MeV Si ion irradiated SiGe HBT. Physica B: Condensed Matter, 2014, 449, 186-192.	2.7	4
29	Direct analytical parameter extraction for SiGe HBTs T-topology small-signal equivalent circuit. Superlattices and Microstructures, 2016, 94, 223-230.	3.1	4
30	Analytical long-term NBTI recovery model with slowing diffusivity and locking effect of hydrogen considered. Microelectronics Reliability, 2017, 75, 20-26.	1.7	4
31	Degradation and annealing characteristics of NPN SiGe HBT exposed to heavy ions irradiation. Radiation Physics and Chemistry, 2019, 165, 108433.	2.8	4
32	Design Optimization of Nanotube Tunnel Field-Effect Transistor with Bias-Induced Electron-Hole Bilayer. Silicon, 2022, 14, 9071-9082.	3.3	4
33	Highly flexible SRAM cells based on novel tri-independent-gate FinFET. Superlattices and Microstructures, 2017, 110, 330-338.	3.1	3
34	Analytical Layout Dependent NBTI Degradation Modeling Based on Non-Uniformly Distributed Interface Traps. IEEE Transactions on Device and Materials Reliability, 2018, 18, 397-403.	2.0	3
35	Characterizing and modeling current gain degradation in bipolar transistor exposed to heavy ion radiation. Materials Science in Semiconductor Processing, 2021, 121, 105336.	4.0	3
36	Evaluation of Single-Event-Transient Effects in Reconfigurable Field Effect Transistor Beyond 3 nm Technology Node. IEEE Transactions on Electron Devices, 2021, 68, 6001-6006.	3.0	3

#	ARTICLE	IF	CITATIONS
37	Novel analytical parameter extraction for SiGe HBTs based on the rational function fitting. Superlattices and Microstructures, 2015, 80, 11-19.	3.1	2
38	Analytical gate fringe capacitance model for nanoscale MOSFET with layout dependent effect and process variations. Journal Physics D: Applied Physics, 2018, 51, 275104.	2.8	2
39	Distributed Small-Signal Equivalent Circuit Model and Parameter Extraction for SiGe HBT. IEEE Access, 2019, 7, 5865-5873.	4.2	2
40	Analysis of single-event effects in selected BOX-based FDSOI transistor and inverter. Radiation Physics and Chemistry, 2021, 186, 109526.	2.8	2
41	Novel method to determine base resistance in SiGe HBT HICUM based on rational function fitting. , 2014, , .		1
42	Novel extraction of emitter resistance of SiGe HBTs from forward-Gummel measurements. , 2014, , .		1
43	In-suit investigation of DC characteristics degradation in SiGe HBT included by halogen lamp irradiation. Superlattices and Microstructures, 2016, 98, 62-69.	3.1	1
44	Gate-to-source/drain fringing capacitance model with process variation of MOSFET in 40nm generation. , 2016, , .		1
45	Physical mechanism of performance adjustment in selective buried oxide n-MOSFETs. Science China Information Sciences, 2019, 62, 1.	4.3	1
46	Performance Evaluation of Negative Capacitance Reconfigurable Field Effect Transistor for Sub 10 nm Integration. , 2021, , .		1
47	Evaluation of total-ionizing-dose effects on reconfigurable field effect transistors and SRAM circuits. Semiconductor Science and Technology, 2021, 36, 085011.	2.0	1
48	Electro-thermal Investigation on SOI Accumulation Mode Tri-gate LDMOS. , 2021, , .		1
49	Co-Optimization Between Static and Switching Characteristics of LDMOS With p-Type Trapezoidal Gate Embedded in Drift Region. IEEE Transactions on Electron Devices, 2022, 69, 4102-4108.	3.0	1
50	Sub-THz Small-Signal Equivalent Circuit Model and Parameter Extraction for 3 nm Gate-All-Around Nanosheet Transistor. Processes, 2022, 10, 1198.	2.8	1
51	Ultra-Low On-Resistance TG-LDMOS With Three Separated Gates and High-k Dielectric Comparable to DG-LDMOS. , 2022, , .		1
52	The reliability of SiGe HBT under swift heavy ion irradiation. , 2013, , .		0
53	Novel method to determine base resistance in sige HBT from smallâ€signal <i>S</i>â€™parameters measurement. Microwave and Optical Technology Letters, 2017, 59, 555-560.	1.4	0
54	Enhanced logic gates and SRAM based on reconfigurable field-effect transistor with asymmetric spacer engineering. Semiconductor Science and Technology, 2021, 36, 115002.	2.0	0

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55	Single Event Transients in SiGe HBT. Springer Theses, 2018, , 93-116.	0.1	0
56	Parameter Extraction of SiGe HBTs. Springer Theses, 2018, , 133-163.	0.1	0
57	Small-Signal Equivalent Circuit for SiGe HBT Based on Distributed Network. Springer Theses, 2018, , 117-132.	0.1	0
58	Displacement Effects in SiGe HBT. Springer Theses, 2018, , 57-92.	0.1	0
59	Improved MEOL and BEOL Parasitic-Aware Design Technology Co-Optimization for 3 nm Gate-All-Around Nanosheet Transistor. IEEE Transactions on Electron Devices, 2022, 69, 462-468.	3.0	0