

# Genquan Han

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/67203/publications.pdf>

Version: 2024-02-01

152  
papers

2,873  
citations

186209

28  
h-index

243529

44  
g-index

153  
all docs

153  
docs citations

153  
times ranked

2378  
citing authors

#	ARTICLE	IF	CITATIONS
1	Electronic band structure and effective mass parameters of Ge <sub>1-x</sub> Sn <sub>x</sub> alloys. Journal of Applied Physics, 2012, 112, .	1.1	194
2	Negative Differential Resistance in Negative Capacitance FETs. IEEE Electron Device Letters, 2018, 39, 622-625.	2.2	98
3	Germanium&#x2013;Tin (GeSn) p-Channel MOSFETs Fabricated on (100) and (111) Surface Orientations With Sub-400 &#x2013;Notation="TeX"&#x27E9;\$^{circ}hbox{C} hbox{Si}_{2}hbox{H}_{6}\$&#x27E9; &#x27E9;/formula&#x27E9; Passivation. IEEE Electron Device Letters, 2013, 34, 339-341.	2.2	94
4	(AlGa) <sub>2</sub> O <sub>3</sub> solar-blind photodetectors on sapphire with wider bandgap and improved responsivity. Optical Materials Express, 2017, 7, 1240.	1.6	80
5	Ferroelectric Negative Capacitance GeSn PFETs With Sub-20 mV/decade Subthreshold Swing. IEEE Electron Device Letters, 2017, 38, 1157-1160.	2.2	71
6	A van der Waals Synaptic Transistor Based on Ferroelectric Hf<sub>0.5</sub>Zr<sub>0.5</sub>O<sub>2</sub> and 2D Tungsten Disulfide. Advanced Electronic Materials, 2020, 6, 2000057.	2.6	68
7	Comparison Study of &#x27E9;&#x27E9;\$\eta\$ &#x27E9;/tex-math&#x27E9;Ga<sub>2</sub>O<sub>3</sub> Photodetectors on Bulk Substrate and Sapphire. IEEE Transactions on Electron Devices, 2016, 63, 3578-3583.	1.6	63
8	Relaxed and Strained Patterned Germanium-Tin Structures: A Raman Scattering Study. ECS Journal of Solid State Science and Technology, 2013, 2, P138-P145.	0.9	62
9	Silicon-based tunneling field-effect transistor with elevated germanium source formed on (110) silicon substrate. Applied Physics Letters, 2011, 98, 153502.	1.5	58
10	Ferroelectric HfZrO<sub>2</sub> &#x27E9;&#x27E9; Ge and GeSn PMOSFETs with Sub-60 mV/decade subthreshold swing, negligible hysteresis, and improved I<sub>on</sub>/I<sub>off</sub>. , 2016, , .		57
11	Theoretical Investigation of Performance Enhancement in GeSn/SiGeSn Type-II Staggered Heterojunction Tunneling FET. IEEE Transactions on Electron Devices, 2016, 63, 303-310.	1.6	54
12	Germanium&#x2013;Tin P-Channel Tunneling Field-Effect Transistor: Device Design and Technology Demonstration. IEEE Transactions on Electron Devices, 2013, 60, 4048-4056.	1.6	52
13	Comparison Study of Î <sup>2</sup> -Ga <sub>2</sub> O <sub>3</sub> Photodetectors Grown on Sapphire at Different Oxygen Pressures. IEEE Photonics Journal, 2017, 9, 1-8.	1.0	52
14	Hysteresis Reduction in Negative Capacitance Ge PFETs Enabled by Modulating Ferroelectric Properties in HfZrO<sub>2</sub> <i>x</i>. IEEE Journal of the Electron Devices Society, 2018, 6, 41-48.	1.2	51
15	Design of GeSn-Based Heterojunction-Enhanced N-Channel Tunneling FET With Improved Subthreshold Swing and ON-State Current. IEEE Transactions on Electron Devices, 2015, 62, 1262-1268.	1.6	47
16	Ge <sub>0.97</sub> Sn <sub>0.03</sub> p-channel metal-oxide-semiconductor field-effect transistors: Impact of Si surface passivation layer thickness and post metal annealing. Journal of Applied Physics, 2013, 114, 044510.	1.1	43
17	Towards direct band-to-band tunneling in P-channel tunneling field effect transistor (TFET): Technology enablement by Germanium-tin (GeSn). , 2012, , .		42
18	Germanium-tin n-channel tunneling field-effect transistor: Device physics and simulation study. Journal of Applied Physics, 2013, 113, .	1.1	42

#	ARTICLE	IF	CITATIONS
19	First Demonstration of Waferscale Heterogeneous Integration of Ga <sub>2</sub> O <sub>3</sub> MOSFETs on SiC and Si Substrates by Ion-Cutting Process. , 2019, , .		42
20	Negative Capacitance Ge PFETs for Performance Improvement: Impact of Thickness of HfZrO <sub>2</sub> . IEEE Transactions on Electron Devices, 2018, 65, 1217-1222.	1.6	40
21	High-mobility germanium-tin (GeSn) P-channel MOSFETs featuring metallic source/drain and sub-370 &#x00B0;C process modules. , 2011, , .		39
22	Frequency dependence of performance in Ge negative capacitance PFETs achieving sub-30 mV/decade swing and 110 mV hysteresis at MHz. , 2017, , .		38
23	ZrO <sub>2</sub> Ferroelectric FET for Non-volatile Memory Application. IEEE Electron Device Letters, 2019, 40, 1419-1422.	2.2	38
24	Comparative Study of Negative Capacitance Ge pFETs With HfZrO <sub>2</sub> Partially and Fully Covering Gate Region. IEEE Transactions on Electron Devices, 2017, 64, 4838-4843.	1.6	36
25	Dopant Segregation and Nickel Stano-germanide Contact Formation on $\text{hbox}\{p\}^{\{+\}}\text{hbox}\{\text{Ge}\}_{\{0.947\}}\text{hbox}\{\text{Sn}\}_{\{0.053\}}$ Source/Drain. IEEE Electron Device Letters, 2012, 33, 634-636.	2.2	35
26	$\hat{1}^2$ -Ga <sub>2</sub> O <sub>3</sub> MOSFETs on the Si substrate fabricated by the ion-cutting process. Science China: Physics, Mechanics and Astronomy, 2020, 63, 1.	2.0	34
27	Localized plasmon resonances for black phosphorus bowtie nanoantennas at terahertz frequencies. Optics Express, 2018, 26, 27683.	1.7	33
28	HfO <sub>2</sub> -ZrO <sub>2</sub> Superlattice Ferroelectric Capacitor With Improved Endurance Performance and Higher Fatigue Recovery Capability. IEEE Electron Device Letters, 2022, 43, 216-219.	2.2	33
29	Strained GeSn p-Channel Metalâ€“Oxideâ€“Semiconductor Field-Effect Transistors With <i>In Situ</i> Si <sub>2</sub> H <sub>6</sub> Surface Passivation: Impact of Sn Composition. IEEE Transactions on Electron Devices, 2014, 61, 3639-3645.	1.6	32
30	Low Voltage Operating 2D MoS <sub>2</sub> Ferroelectric Memory Transistor with Hf <sub>1-x</sub> Zr <sub>x</sub> O <sub>2</sub> Gate Structure. Nanoscale Research Letters, 2020, 15, 157.	3.1	31
31	Strained germaniumâ€“tin (GeSn) p-channel metal-oxide-semiconductor field-effect-transistors (p-MOSFETs) with ammonium sulfide passivation. Solid-State Electronics, 2013, 83, 66-70.	0.8	30
32	Correlation of Gate Capacitance with Drive Current and Transconductance in Negative Capacitance Ge PFETs. IEEE Electron Device Letters, 2017, 38, 1500-1503.	2.2	30
33	Incomplete Dipoles Flipping Produced Near Hysteresis-Free Negative Capacitance Transistors. IEEE Electron Device Letters, 2019, 40, 329-332.	2.2	30
34	GeSn Quantum Well P-Channel Tunneling FETs Fabricated on Si(001) and (111) with Improved Subthreshold Swing. IEEE Electron Device Letters, 2016, , 1-1.	2.2	29
35	$\text{hbox}\{\text{Ni}\}(\text{hbox}\{\text{Ge}\}_{\{1-x\}}\text{hbox}\{\text{Sn}\}_{\{x\}})$ Ohmic Contact Formation on N-Type $\text{hbox}\{\text{Ge}\}_{\{1-x\}}\text{hbox}\{\text{Sn}\}_{\{x\}}$ Using Selenium or Sulfur Implant and Segregation. IEEE Transactions on Electron Devices, 2013, 60, 746-752.	1.6	26
36	Experimental Validation of Depolarization Field Produced Voltage Gains in Negative Capacitance Field-Effect Transistors. IEEE Transactions on Electron Devices, 2019, 66, 4419-4424.	1.6	26

#	ARTICLE	IF	CITATIONS
37	Effect of polyelectrolyte interlayer on efficiency and stability of p-i-n perovskite solar cells. Solar Energy, 2016, 139, 190-198.	2.9	25
38	Nonideality of Negative Capacitance Ge Field-Effect Transistors Without Internal Metal Gate. IEEE Electron Device Letters, 2018, 39, 614-617.	2.2	25
39	A Novel Negative Capacitance Tunnel FET With Improved Subthreshold Swing and Nearly Non-Hysteresis Through Hybrid Modulation. IEEE Electron Device Letters, 2019, 40, 989-992.	2.2	25
40	Strained germanium-tin (GeSn) N-channel MOSFETs featuring low temperature N+/P junction formation and GeSnO <sub>2</sub> interfacial layer. , 2012, , .		23
41	Sub-400 Å°C Si <sub>2</sub> H <sub>6</sub> Passivation, HfO <sub>2</sub> Gate Dielectric, and Single TaN Metal Gate: A Common Gate Stack Technology for In <sub>0.7</sub> Ga <sub>0.3</sub> As and Ge <sub>1-x</sub> Sn <sub>x</sub> CMOS. IEEE Transactions on Electron Devices, 2013, 60, 1640-1648.	1.6	23
42	Tunneling field-effect transistor with Ge/In <sub>0.53</sub> Ga <sub>0.47</sub> As heterostructure as tunneling junction. Journal of Applied Physics, 2013, 113, .	1.1	23
43	Dynamical manipulation of a dual-polarization plasmon-induced transparency employing an anisotropic graphene-black phosphorus heterostructure. Optics Express, 2021, 29, 29690.	1.7	23
44	Ferroelectric-like Behavior Originating from Oxygen Vacancy Dipoles in Amorphous Film for Non-volatile Memory. Nanoscale Research Letters, 2020, 15, 134.	3.1	22
45	Thermally Stable Multi-Phase Nickel-Platinum Stanogermanide Contacts for Germanium-Tin Channel MOSFETs. Electrochemical and Solid-State Letters, 2012, 15, H179.	2.2	21
46	Performance improvement in novel germanium-tin/germanium heterojunction-enhanced p-channel tunneling field-effect transistor. Superlattices and Microstructures, 2015, 83, 401-410.	1.4	21
47	Memory Behavior of an Al <sub>2</sub> O <sub>3</sub> Gate Dielectric Non-Volatile Field-Effect Transistor. IEEE Electron Device Letters, 2020, 41, 1340-1343.	2.2	21
48	Effects of Post Annealing on Electrical Performance of Polycrystalline Ga <sub>2</sub> O <sub>3</sub> Photodetector on Sapphire. Nanoscale Research Letters, 2020, 15, 100.	3.1	21
49	High-Performance Germanium $\Omega$ -Gate MuGFET With Schottky-Barrier Nickel Germanide Source/Drain and Low-Temperature Disilane-Passivated Gate Stack. IEEE Electron Device Letters, 2012, 33, 1336-1338.	2.2	20
50	Effects of the Variation of $V_{GS}$ Sweep Range on the Performance of Negative Capacitance FETs. IEEE Electron Device Letters, 2018, 39, 618-621.	2.2	20
51	Nanocrystal-Embedded-Insulator (NEI) Ferroelectric Field-Effect Transistor Featuring Low Operating Voltages and Improved Synaptic Behavior. IEEE Electron Device Letters, 2019, 40, 1933-1936.	2.2	20
52	ZrO <sub>2</sub> Ferroelectric Field-Effect Transistors Enabled by the Switchable Oxygen Vacancy Dipoles. Nanoscale Research Letters, 2020, 15, 120.	3.1	20
53	Efficient thermal dissipation in wafer-scale heterogeneous integration of single-crystalline $\hat{1}^2$ -Ga <sub>2</sub> O <sub>3</sub> thin film on SiC. Fundamental Research, 2021, 1, 691-696.	1.6	20
54	Proposal of Ferroelectric Based Electrostatic Doping for Nanoscale Devices. IEEE Electron Device Letters, 2021, 42, 605-608.	2.2	19

#	ARTICLE	IF	CITATIONS
55	Theoretical investigation of tensile strained GeSn waveguide with Si <sub>3</sub> N <sub>4</sub> liner stressor for mid-infrared detector and modulator applications. <i>Optics Express</i> , 2015, 23, 7924.	1.7	18
56	High-Mobility Ge pMOSFETs With Crystalline ZrO <sub>2</sub> Dielectric. <i>IEEE Electron Device Letters</i> , 2019, 40, 371-374.	2.2	18
57	Germanium <sup>+</sup> Tin <sup>-</sup> Junction Formed Using Phosphorus Ion Implant and 400 °C Rapid Thermal Anneal. <i>IEEE Electron Device Letters</i> , 2012, 33, 1529-1531.	2.2	17
58	Germanium Multiple-Gate Field-Effect Transistors Formed on Germanium-on-Insulator Substrate. <i>IEEE Transactions on Electron Devices</i> , 2013, 60, 1852-1860.	1.6	17
59	Channel Properties of Ga <sub>0.5</sub> O <sub>0.5</sub> -on-SiC MOSFETs. <i>IEEE Transactions on Electron Devices</i> , 2021, 68, 1185-1189.	1.6	17
60	Improved Performance in GeSn/SiGeSn TFET by Hetero-Line Architecture With Staggered Tunneling Junction. <i>IEEE Transactions on Electron Devices</i> , 2019, 66, 1985-1989.	1.6	16
61	Non-Volatile Field-Effect Transistors Enabled by Oxygen Vacancy-Related Dipoles for Memory and Synapse Applications. <i>IEEE Transactions on Electron Devices</i> , 2020, 67, 3632-3636.	1.6	16
62	Simulation of tunneling field-effect transistors with extended source structures. <i>Journal of Applied Physics</i> , 2012, 111, 114514.	1.1	15
63	InN/InGaN complementary heterojunction-enhanced tunneling field-effect transistor with enhanced subthreshold swing and tunneling current. <i>Superlattices and Microstructures</i> , 2016, 93, 144-152.	1.4	15
64	Nanostructured multiple-layer black phosphorus photodetector based on localized surface plasmon resonance. <i>Optical Materials Express</i> , 2019, 9, 739.	1.6	15
65	Demonstration of <sup>12</sup> -Ga <sub>0.5</sub> O <sub>0.5</sub> Superjunction-Equivalent MOSFETs. <i>IEEE Transactions on Electron Devices</i> , 2022, 69, 2203-2209.	1.6	15
66	Recessed-Gate Ga <sub>0.5</sub> O <sub>0.5</sub> -on-SiC MOSFETs Demonstrating a Stable Power Figure of Merit of 100 mW/cm <sup>2</sup> Up to 200 °C. <i>IEEE Transactions on Electron Devices</i> , 2022, 69, 1945-1949.	1.6	15
67	Revised Analysis of Design Options and Minimum Subthreshold Swing in Piezoelectric FinFETs. <i>IEEE Electron Device Letters</i> , 2018, 39, 444-447.	2.2	14
68	Nanocrystal-Embedded-Insulator Ferroelectric Negative Capacitance FETs with Sub-kT/q Swing. <i>IEEE Electron Device Letters</i> , 2018, , 1-1.	2.2	14
69	Active tuning of the hybridization effects of mid-infrared surface plasmon resonance in a black phosphorus sheet array and a metal grating slit. <i>Optical Materials Express</i> , 2020, 10, 14.	1.6	14
70	Effects of Temperature on the Performance of Hf <sub>0.5</sub> Zr <sub>0.5</sub> -Based Negative Capacitance FETs. <i>IEEE Electron Device Letters</i> , 2020, 41, 1625-1628.	2.2	13
71	Ge pMOSFETs with GeOx Passivation Formed by Ozone and Plasma Post Oxidation. <i>Nanoscale Research Letters</i> , 2019, 14, 126.	3.1	12
72	Ferroelectric-Like Behavior in TaN/High-κ/Si System Based on Amorphous Oxide. <i>Advanced Electronic Materials</i> , 2021, 7, 2100414.	2.6	12

#	ARTICLE	IF	CITATIONS
73	Analog Synapses Based on Nonvolatile FETs With Amorphous ZrO <sub>2</sub> Dielectric for Spiking Neural Network Applications. IEEE Transactions on Electron Devices, 2022, 69, 1028-1033.	1.6	12
74	Thermodynamics of Ion-Cutting of $\hat{\Gamma}^2$ -Ga <sub>2</sub> O <sub>3</sub> and Wafer-Scale Heterogeneous Integration of a $\hat{\Gamma}^2$ -Ga <sub>2</sub> O <sub>3</sub> Thin Film onto a Highly Thermal Conductive SiC Substrate. ACS Applied Electronic Materials, 2022, 4, 494-502.	2.0	12
75	Undoped Ge <sub>0.92</sub> Sn <sub>0.08</sub> quantum well PMOSFETs on (001), (011) and (111) substrates with in situ Si <sub>2</sub> H <sub>6</sub> passivation: High hole mobility and dependence of performance on orientation. , 2014, , .		11
76	Enhancement of TFET performance using dopant profile-steepening implant and source dopant concentration engineering at tunneling junction. , 2010, , .		10
77	Investigation of performance enhancement in InAs/InGaAs heterojunction-enhanced N-channel tunneling field-effect transistor. Superlattices and Microstructures, 2015, 88, 90-98.	1.4	10
78	Investigation of GaAsBi/GaAsN Type-II Staggered Heterojunction TFETs with the Analytical Model. IEEE Transactions on Electron Devices, 2017, 64, 1541-1547.	1.6	10
79	Study of novel junctionless Ge n-Tunneling Field-Effect Transistors with lightly doped drain (LDD) region. Superlattices and Microstructures, 2017, 102, 7-16.	1.4	10
80	Germanium Negative Capacitance Field Effect Transistors: Impacts of Zr Composition in Hf <sub>1-x</sub> Zr <sub>x</sub> O <sub>2</sub> . Nanoscale Research Letters, 2019, 14, 125.	3.1	10
81	Small SiGe quantum dots obtained by excimer laser annealing. Journal of Crystal Growth, 2008, 310, 3746-3751.	0.7	9
82	Simulation investigation of tensile strained GeSn fin photodetector with Si <sub>3</sub> N <sub>4</sub> liner stressor for extension of absorption wavelength. Optics Express, 2015, 23, 739.	1.7	9
83	Low Temperature Aqueous Solution-Processed ZnO and Polyethylenimine Ethoxylated Cathode Buffer Bilayer for High Performance Flexible Inverted Organic Solar Cells. Energies, 2017, 10, 494.	1.6	9
84	Analytical Calculation of Influence of Ferroelectric Properties on Electrical Characteristics Negative Capacitance Germanium FETs. IEEE Journal of the Electron Devices Society, 2018, 6, 233-239.	1.2	9
85	Reduced Contact Resistance Between Metal and n-Ge by Insertion of ZnO with Argon Plasma Treatment. Nanoscale Research Letters, 2018, 13, 237.	3.1	9
86	Comparative Study of Negative Capacitance Field-Effect Transistors with Different MOS Capacitances. Nanoscale Research Letters, 2019, 14, 171.	3.1	9
87	Nanocrystal-Embedded-Insulator (NEI) Ferroelectric FETs for Negative Capacitance Device and Non-Volatile Memory Applications. Nanoscale Research Letters, 2019, 14, 115.	3.1	9
88	Analytical Model for the Channel Maximum Temperature in Ga <sub>2</sub> O <sub>3</sub> MOSFETs. Nanoscale Research Letters, 2021, 16, 29.	3.1	9
89	Temperature-dependent characteristics of Schottky barrier diode on heterogeneous $\hat{\Gamma}^2$ -Ga <sub>2</sub> O <sub>3</sub> -( $\bar{A}$ 201\$)-Al <sub>2</sub> O <sub>3</sub> -Si Substrate. Journal Physics D: Applied Physics, 2021, 54, 034004.	1.3	9
90	An n-type SiGe/Ge QC structure utilizing the deep Ge quantum well for electron at the $\hat{\Gamma}^c$ point. Semiconductor Science and Technology, 2007, 22, 769-773.	1.0	8

#	ARTICLE	IF	CITATIONS
91	Performance Enhancement in Uniaxially Strained Germanium $\epsilon$ Tin FinTFET: Fin Direction Dependence. IEEE Transactions on Electron Devices, 2017, 64, 2804-2811.	1.6	8
92	Theoretical investigation of GaAsBi/GaAsN tunneling field-effect transistors with type-II staggered tunneling junction. Superlattices and Microstructures, 2017, 106, 139-146.	1.4	8
93	Photonic Associative Learning Neural Network Based on VCSELs and STDP. Journal of Lightwave Technology, 2020, 38, 4691-4698.	2.7	8
94	Strained Germanium $\epsilon$ Tin (GeSn) P-Channel Metal-Oxide-Semiconductor Field-Effect Transistors Featuring High Effective Hole Mobility. International Journal of Thermophysics, 2015, 36, 980-986.	1.0	7
95	Theoretical calculation of performance enhancement in lattice-matched SiGeSn/GeSn p-channel tunneling field-effect transistor with type-II staggered tunneling junction. Japanese Journal of Applied Physics, 2016, 55, 04ED13.	0.8	7
96	Engineering rainbow trapping and releasing in ultrathin THz plasmonic graded metallic grating strip with thermo-optic material. Optics Express, 2017, 25, 1278.	1.7	7
97	Absorption Enhancement for Black Phosphorus Active Layer Based on Plasmonic Nanocavity. IEEE Photonics Journal, 2018, 10, 1-10.	1.0	7
98	Rainbow trapping and releasing in InSb graded subwavelength grooves by thermal tuning at the terahertz range. Optical Materials Express, 2018, 8, 2954.	1.6	7
99	The band structure change of Hf <sub>0.5</sub> Zr <sub>0.5</sub> O <sub>2</sub> /Ge system upon post deposition annealing. Applied Surface Science, 2019, 488, 778-782.	3.1	7
100	Simulation investigation of strained black phosphorus photodetector for middle infrared range. Optics Express, 2017, 25, 24705.	1.7	6
101	Theoretical study of strained black phosphorus photodetector integrated with silicon waveguide. Superlattices and Microstructures, 2018, 122, 501-509.	1.4	6
102	High mobility Ge pMOSFETs with amorphous Si passivation: impact of surface orientation. Nanoscale Research Letters, 2019, 14, 15.	3.1	6
103	Nanoelectromechanical Switches by Controlled Switchable Cracking. IEEE Electron Device Letters, 2019, 40, 1209-1212.	2.2	6
104	High Mobility Ge pMOSFETs with ZrO <sub>2</sub> Dielectric: Impacts of Post Annealing. Nanoscale Research Letters, 2019, 14, 202.	3.1	6
105	Band alignments at Hf <sub>1-x</sub> Zr <sub>x</sub> O <sub>2</sub> /Si and Hf <sub>0.52</sub> Zr <sub>0.48</sub> O <sub>2</sub> /Si <sub>0.55</sub> Ge <sub>0.45</sub> interfaces. Superlattices and Microstructures, 2019, 130, 519-527.	1.4	6
106	Amorphous ZrO <sub>2</sub> Tunnel Junction Memristor With a Tunneling Electroresistance Ratio Above 400. IEEE Electron Device Letters, 2021, 42, 696-699.	2.2	6
107	Synaptic Behaviors in Ferroelectric-Like Field-Effect Transistors with Ultrathin Amorphous HfO <sub>2</sub> Film. Nanoscale Research Letters, 2022, 17, 17.	3.1	6
108	Towards high performance Ge $\epsilon$ Sn $\epsilon$ and In $\epsilon$ Ga $\epsilon$ As CMOS: A novel common gate stack featuring sub-400 $\epsilon$ C Si $\epsilon$ H $\epsilon$ passivation, single TaN metal gate, and sub-1.3 nm EOT. , 2012, , .		5

#	ARTICLE	IF	CITATIONS
109	PBTI characteristics of N-channel tunneling field effect transistor with HfO <sub>2</sub> gate dielectric: New insights and physical model. , 2012, , .		5
110	ZrOx Negative Capacitance Field-Effect Transistor with Sub-60 Subthreshold Swing Behavior. Nanoscale Research Letters, 2021, 16, 21.	3.1	5
111	Ge N-Channel MOSFETs with ZrO <sub>2</sub> Dielectric Achieving Improved Mobility. Nanoscale Research Letters, 2021, 16, 125.	3.1	5
112	Energy-efficient non-volatile ferroelectric based electrostatic doping multilevel optical readout memory. Optics Express, 2022, 30, 13572.	1.7	5
113	Experimental investigation of the contact resistance of Graphene/MoS <sub>2</sub> interface treated with O <sub>2</sub> plasma. Superlattices and Microstructures, 2018, 114, 421-427.	1.4	4
114	Buffer-Free GeSn with High Relaxation Degree Grown on Si(001) Substrate for Photodetection. IEEE Photonics Journal, 2018, 10, 1-9.	1.0	4
115	Ferroelectric-Like Non-Volatile FET With Amorphous Gate Insulator for Supervised Learning Applications. IEEE Journal of the Electron Devices Society, 2021, 9, 1145-1150.	1.2	4
116	n-Type Ge <sup>+</sup> SiGe Quantum Cascade Structure Utilizing Quantum Wells for Electrons in the $\Gamma$ and $\Gamma$ Valleys. IEEE Photonics Technology Letters, 2008, 20, 419-421.	1.3	3
117	Mobility enhancement in undoped Ge <sub>0.92</sub> Sn <sub>0.08</sub> quantum well p-channel metal-oxide-semiconductor field-effect transistor fabricated on (111)-oriented substrate. Semiconductor Science and Technology, 2014, 29, 115027.	1.0	3
118	Strained Germanium Quantum Well PMOSFETs on SOI with Mobility Enhancement by External Uniaxial Stress. Nanoscale Research Letters, 2017, 12, 120.	3.1	3
119	Performance enhancement in uniaxially tensile stressed GeSn n-channel fin tunneling field-effect transistor: Impact of stress direction. Japanese Journal of Applied Physics, 2017, 56, 04CD07.	0.8	3
120	Design and theoretical calculation of novel GeSn fully-depleted n-tunneling FET with quantum confinement model for suppression on GIDL effect. Superlattices and Microstructures, 2018, 118, 266-274.	1.4	3
121	Theoretical Investigation of Tensile-Strained GeSn/SiGeSn Multiple Quantum Well Laser Wrapped in Si <sub>3</sub> N <sub>4</sub> Liner Stressor. IEEE Photonics Journal, 2018, 10, 1-9.	1.0	3
122	Improving metal/n-Ge ohmic contact by inserting TiO <sub>2</sub> deposited by PEALD. Micro and Nano Letters, 2018, 13, 801-803.	0.6	3
123	All-Optical Synapse With Directional Coupler Structure Based on Phase Change Material. IEEE Photonics Journal, 2021, 13, 1-6.	1.0	3
124	The role of surface pretreatment by low temperature O <sub>2</sub> gas annealing for $\text{In}^2\text{-Ga}_2\text{O}_3$ Schottky barrier diodes. Applied Physics Letters, 2022, 120, .	1.5	3
125	A new Ge <sub>2</sub> Sb <sub>2</sub> Te <sub>5</sub> (GST) liner stressor featuring stress enhancement due to amorphous-crystalline phase change for sub-20 nm p-channel FinFETs. , 2011, , .		2
126	High performance $\text{Si}_2\text{H}_6$ -gate Ge FinFET featuring low temperature $\text{Si}_2\text{H}_6$ passivation and implantless Schottky-barrier NiGe metallic Source/Drain. , 2012, , .		2



#	ARTICLE	IF	CITATIONS
127	Metal stanogermanide contacts with enhanced thermal stability for high mobility germanium-tin field-effect transistor. , 2012, , .		2
128	(110)-oriented germanium-tin ( $\text{Ge}_{0.97}\text{Sn}_{0.03}$ ) P-channel MOSFETs. , 2013, , .		2
129	Tensile-Strained Mid-Infrared GeSn Detectors Wrapped in Si <sub>3</sub> N <sub>4</sub> Liner Stressor: Theoretical Investigation of Impact of Device Architectures. IEEE Photonics Journal, 2015, 7, 1-8.	1.0	2
130	Study of drain induced barrier lowering (DIBL) effect and subthreshold characteristics of fully-depleted Ge NMOS with P-substrate. Superlattices and Microstructures, 2016, 100, 1230-1237.	1.4	2
131	High mobility germanium-on-insulator p-channel FinFETs. Science China Information Sciences, 2021, 64, 1.	2.7	2
132	Rabi splitting obtained in a monolayer BP-plasmonic heterostructure at room temperature. Optical Materials Express, 2020, 10, 2159.	1.6	2
133	Effect of thickness scaling on the switching dynamics of ferroelectric HfO <sub>2</sub> /ZrO <sub>2</sub> capacitors. Ceramics International, 2022, 48, 28489-28495.	2.3	2
134	(NH <sub>4</sub> ) <sub>2</sub> S Passivation for High Mobility Germanium-Tin (GeSn) p-MOSFETs. , 2012, , .		1
135	Germanium Tin Tunneling Field Effect Transistor for Sub-0.4 V Operation. ECS Transactions, 2013, 50, 979-986.	0.3	1
136	Strained $\text{Ge}_{0.96}\text{Sn}_{0.04}$ P-channel MOSFETs with in situ low temperature Si <sub>2</sub> H <sub>6</sub> surface passivation. , 2014, , .		1
137	Study of novel fully-depleted Ge-on-Insulator n-channel MOSFET with field plate structure for improvement in GIDL and on/off characteristics. Superlattices and Microstructures, 2017, 112, 644-653.	1.4	1
138	Non-Volatile FETs with Amorphous (Al <sub>2</sub> O <sub>3</sub> , HfO <sub>2</sub> , ZrO <sub>2</sub> , etc.) Gate Insulators. , 2021, , .		1
139	Channel Mobility Properties of $\hat{\Gamma}^2$ -Ga <sub>2</sub> O <sub>3</sub> MOSFETs on Si Substrate Fabricated by Ion-cutting Process. , 2021, , .		1
140	Theoretical Study of Negative Capacitance FinFET With Quasi-Antiferroelectric Material. IEEE Transactions on Electron Devices, 2021, 68, 3074-3079.	1.6	1
141	Exploration of switching characteristics of 4H-SiC floating junction Schottky barrier diodes with stronger blocking voltage capability. Journal of Power Electronics, 2021, 21, 1567-1573.	0.9	1
142	BF <sub>2</sub> <sup>+</sup> ion implantation and dopant activation in strained Germanium-tin ( $\text{Ge}_{1-x}\text{Sn}_x$ ) epitaxial layer. , 2012, , .		0
143	Germanium-Tin (GeSn) N-channel MOSFETs with low temperature silicon surface passivation. , 2013, , .		0
144	Gain-assisted propagation of surface plasmons in nanodisk resonator. , 2015, , .		0

#	ARTICLE	IF	CITATIONS
145	Relaxed Ge <sub>0.97</sub> Sn <sub>0.03</sub> P-channel tunneling FETs with high drive current fabricated on Si and further improvement enabled by uniaxial tensile strain. , 2015, , .		0
146	Rainbow Trapping in Highly Doped Silicon Graded Grating Strip at the Terahertz Range. IEEE Photonics Journal, 2018, 10, 1-9.	1.0	0
147	Light-Matter Interaction in Black Phosphorus Coupled to a Si Photonic Crystal at Near Infrared Band. IEEE Photonics Journal, 2019, 11, 1-10.	1.0	0
148	Study of the role of air exposure time to interface oxide on HCl treated InAs (100) before atomic layer deposition of Al <sub>2</sub> O <sub>3</sub> . Vacuum, 2021, 193, 110555.	1.6	0
149	Negative capacitance transistors with sub-kT/q swing. , 2019, , .		0
150	Impact of post metallization annealing (PMA) on the electrical properties of Ge nMOSFETs with ZrO <sub>2</sub> dielectric. Solid-State Electronics, 2022, 190, 108240.	0.8	0
151	Unraveling the Mechanism of Remote Scavenging Effect at the InP/Al <sub>2</sub> O <sub>3</sub> Interface Induced by Titanium Layer. Advanced Materials Interfaces, 2022, 9, 2101238.	1.9	0
152	Reconfigurable Ferroelectric Electrostatic Doped Negative Capacitance Nanosheet Field-Effect Transistors with Enhanced I <sub>ON</sub> /I <sub>OFF</sub> and Scaled V <sub>DD</sub> <math>\leq 0.45\text{ V}</math>. , 2022, , .		0