Shinichi Takagi

List of Publications by Year
in descending order

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259 papers	7,935 citations	87888 38 h-index	66911 78 g-index
259 all docs	259 docs citations	259 times ranked	4310 citing authors

#	Article	IF	Citations
1	On the universality of inversion layer mobility in Si MOSFET's: Part I-effects of substrate impurity concentration. IEEE Transactions on Electron Devices, 1994, 41, 2357-2362.	3.0	1,308
2	Carrier-Transport-Enhanced Channel CMOS for Improved Power Consumption and Performance. IEEE Transactions on Electron Devices, 2008, 55, 21-39.	3.0	324
3	Evidence of low interface trap density in GeO2âˆ•Ge metal-oxide-semiconductor structures fabricated by thermal oxidation. Applied Physics Letters, 2008, 93, .	3.3	299
4	Fabrication of strained Si on an ultrathin SiGe-on-insulator virtual substrate with a high-Ge fraction. Applied Physics Letters, 2001, 79, 1798-1800.	3.3	288
5	Experimental study on carrier transport mechanism in ultrathin-body SOI nand p-MOSFETs with SOI thickness less than 5 nm. , 0, , .		194
6	High-Mobility Ge p- and n-MOSFETs With 0.7-nm EOT Using $hbox{HfO}_{2}/hbox{Al}_{2}hbox{O}_{3}/hbox{GeO}_{x}/hbox{Ge}$ Gate Stacks Fabricated by Plasma Postoxidation. IEEE Transactions on Electron Devices, 2013, 60, 927-934.	3.0	193
7	High-Mobility Ge pMOSFET With 1-nm EOT $hbox{Al}_{2} hbox{O}_{3}/hbox{GeO}_{x}/hbox{Ge}$ Gate Stack Fabricated by Plasma Post Oxidation. IEEE Transactions on Electron Devices, 2012, 59, 335-341.	3.0	168
8	Efficient low-loss InGaAsP/Si hybrid MOS optical modulator. Nature Photonics, 2017, 11, 486-490.	31.4	166
9	1-nm-capacitance-equivalent-thickness HfO2/Al2O3/InGaAs metal-oxide-semiconductor structure with low interface trap density and low gate leakage current density. Applied Physics Letters, 2012, 100, .	3.3	146
10	Al 2 O 3 / GeO x / Ge gate stacks with low interface trap density fabricated by electron cyclotron resonance plasma postoxidation. Applied Physics Letters, 2011, 98, .	3.3	143
11	Dark current reduction of Ge photodetector by GeO_2 surface passivation and gas-phase doping. Optics Express, 2012, 20, 8718.	3.4	138
12	Quantitative understanding of inversion-layer capacitance in Si MOSFET's. IEEE Transactions on Electron Devices, 1995, 42, 2125-2130.	3.0	137
13	Device structures and carrier transport properties of advanced CMOS using high mobility channels. Solid-State Electronics, 2007, 51, 526-536.	1.4	136
14	High mobility Ge-on-insulator p-channel MOSFETs using Pt germanide Schottky source/drain. IEEE Electron Device Letters, 2005, 26, 102-104.	3.9	125
15	Gate dielectric formation and MIS interface characterization on Ge. Microelectronic Engineering, 2007, 84, 2314-2319.	2.4	101
16	Surface orientation dependence of interface properties of GeO2/Ge metal-oxide-semiconductor structures fabricated by thermal oxidation. Journal of Applied Physics, 2009, 106, .	2.5	98
17	Ge metal-insulator-semiconductor structures with Ge3N4 dielectrics by direct nitridation of Ge substrates. Applied Physics Letters, 2004, 85, 3181-3183.	3.3	89
18	High-Performance $hbox{GeO}_{2}/hbox{Ge}$ nMOSFETs With Source/Drain Junctions Formed by Gas-Phase Doping. IEEE Electron Device Letters, 2010, 31, 1092-1094.	3.9	86

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19	Role of germanium nitride interfacial layers in HfO2/germanium nitride/germanium metal-insulator-semiconductor structures. Applied Physics Letters, 2007, 90, 072911.	3.3	80
20	Novel Ge waveguide platform on Ge-on-insulator wafer for mid-infrared photonic integrated circuits. Optics Express, 2016, 24, 11855.	3.4	78
21	Thin Body IIIâ€“V-Semiconductor-on-Insulator Metalâ€“Oxideâ€“Semiconductor Field-Effect Transistors on Si Fabricated Using Direct Wafer Bonding. Applied Physics Express, 2009, 2, 124501.	2.4	77
22	High-mobility strained SiGe-on-insulator pMOSFETs with Ge-rich surface channels fabricated by local condensation technique. IEEE Electron Device Letters, 2005, 26, 243-245.	3.9	73
23	IIIâ€“V/Ge channel MOS device technologies in nano CMOS era. Japanese Journal of Applied Physics, 2015, 54, 06FA01.	1.5	69
24	Improved Ferroelectric/Semiconductor Interface Properties in Hf_{0.5}Zr_{0.5}O₂ Ferroelectric FETs by Low-Temperature Annealing. IEEE Electron Device Letters, 2020, 41, 1588-1591.	3.9	65
25	III-V-semiconductor-on-insulator n-channel metal-insulator-semiconductor field-effect transistors with buried Al2O3 layers and sulfur passivation: Reduction in carrier scattering at the bottom interface. Applied Physics Letters, 2010, 96, 142106.	3.3	64
26	High mobility CMOS technologies using IIIâ€“V/Ge channels on Si platform. Solid-State Electronics, 2013, 88, 2-8.	1.4	64
27	Direct Observation of Interface Charge Behaviors in FeFET by Quasi-Static Split C-V and Hall Techniques: Revealing FeFET Operation. , 2019, , .		64
28	Pure germanium nitride formation by atomic nitrogen radicals for application to Ge metal-insulator-semiconductor structures. Journal of Applied Physics, 2006, 100, 014101.	2.5	63
29	Sub-10-nm Extremely Thin Body InGaAs-on-Insulator MOSFETs on Si Wafers With Ultrathin $hbox{Al}_{2}hbox{O}_{3}$ Buried Oxide Layers. IEEE Electron Device Letters, 2011, 32, 1218-1220.	3.9	60
30	High Performance Tri-Gate Extremely Thin-Body InAs-On-Insulator MOSFETs With High Short Channel Effect Immunity and <inline-formula> <tex-math notation="TeX">$V_{m th}$ </tex-math></inline-formula> Tunability. IEEE Transactions on Electron Devices, 2014, 61, 1354-1360.	3.0	57
31	Self-Aligned Metal Source/Drain In_xGa_{1-x}As n-Metalâ€“Oxideâ€“Semiconductor Field-Effect Transistors Using Niâ€“InGaAs Alloy. Applied Physics Express, 2011, 4, 024201.	2.4	53
32	High responsivity in MoS2 phototransistors based on charge trapping HfO2 dielectrics. Communications Materials, 2020, 1, .	6.9	51
33	New materials for post-Si computing: Ge and GeSn devices. MRS Bulletin, 2014, 39, 678-686.	3.5	50
34	High Electron Mobility Metalâ€“Insulatorâ€“Semiconductor Field-Effect Transistors Fabricated on (111)-Oriented InGaAs Channels. Applied Physics Express, 2009, 2, 121101.	2.4	49
35	Impact of GeOx interfacial layer thickness on Al2O3/Ge MOS interface properties. Microelectronic Engineering, 2011, 88, 1533-1536.	2.4	49
36	Formation of IIIâ€“V-on-insulator structures on Si by direct wafer bonding. Semiconductor Science and Technology, 2013, 28, 094009.	2.0	47

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37	Strain-induced enhancement of plasma dispersion effect and free-carrier absorption in SiGe optical modulators. Scientific Reports, 2014, 4, 4683.	3.3	45
38	High Ion/Ioff and low subthreshold slope planar-type InGaAs tunnel field effect transistors with Zn-diffused source junctions. Journal of Applied Physics, 2015, 118, .	2.5	44
39	Impact of thermal annealing on Ge-on-Insulator substrate fabricated by wafer bonding. Materials Science in Semiconductor Processing, 2016, 42, 259-263.	4.0	44
40	Evaluation of polarization characteristics in metal/ferroelectric/semiconductor capacitors and ferroelectric field-effect transistors. Applied Physics Letters, 2020, 116, .	3.3	44
41	1-nm-thick EOT high mobility Ge n- and p-MOSFETs with ultrathin GeO<inf>x</inf>/Ge MOS interfaces fabricated by plasma post oxidation. , 2011, , .		41
42	Reduction in interface state density of Al2O3/InGaAs metal-oxide-semiconductor interfaces by InGaAs surface nitridation. Journal of Applied Physics, 2012, 112, 073702.	2.5	41
43	III-V/Ge MOS device technologies for low power integrated systems. Solid-State Electronics, 2016, 125, 82-102.	1.4	41
44	Sub-60-nm Extremely Thin Body ${m In}_{x}{m Ga}_{1-x}{m As}$-On-Insulator MOSFETs on Si With Ni-InGaAs Metal S/D and MOS Interface Buffer Engineering and Its Scalability. IEEE Transactions on Electron Devices, 2013, 60, 2512-2517.	3.0	40
45	Strain Engineering of Plasma Dispersion Effect for SiGe Optical Modulators. IEEE Journal of Quantum Electronics, 2012, 48, 8-16.	1.9	39
46	InGaAsP Photonic Wire Based Ultrasmall Arrayed Waveguide Grating Multiplexer on Si Wafer. Applied Physics Express, 2009, 2, 122201.	2.4	38
47	Impact of atomic layer deposition temperature on HfO2/InGaAs metal-oxide-semiconductor interface properties. Journal of Applied Physics, 2012, 112, .	2.5	38
48	High-Performance InAs-On-Insulator n-MOSFETs With Ni-InGaAs S/D Realized by Contact Resistance Reduction Technology. IEEE Transactions on Electron Devices, 2013, 60, 3342-3350.	3.0	38
49	Ge/Si Heterojunction Tunnel Field-Effect Transistors and Their Post Metallization Annealing Effect. IEEE Transactions on Electron Devices, 2015, 62, 9-15.	3.0	37
50	Impact of Plasma Postoxidation Temperature on the Electrical Properties of ${m Al}_{2}{m O}_{3}/{m GeO}_{x}/{m Ge}$ pMOSFETs and nMOSFETs. IEEE Transactions on Electron Devices, 2014, 61, 416-422.	3.0	34
51	Extremely-thin-body InGaAs-on-insulator MOSFETs on Si fabricated by direct wafer bonding. , 2010, , .		33
52	Suppression of ALD-Induced Degradation of Ge MOS Interface Properties by Low Power Plasma Nitridation of GeO2. Journal of the Electrochemical Society, 2011, 158, G178.	2.9	30
53	Ge gate stacks based on Ge oxide interfacial layers and the impact on MOS device properties. Microelectronic Engineering, 2013, 109, 389-395.	2.4	30
54	Impact of InGaAs surface nitridation on interface properties of InGaAs metal-oxide-semiconductor capacitors using electron cyclotron resonance plasma sputtering SiO2. Applied Physics Letters, 2010, 97, 132102.	3.3	29

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55	Examination of Additive Mobility Enhancements for Uniaxial Stress Combined with Biaxially Strained Si, Biaxially Strained SiGe and Ge Channel MOSFETs. , 2007, , .		28
56	Epitaxial lateral overgrowth of InGaAs on SiO₂ from (111) Si micro channel areas. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 2733-2735.	0.8	28
57	Dislocation-Free InGaAs on Si(111) Using Micro-Channel Selective-Area Metalorganic Vapor Phase Epitaxy. Applied Physics Express, 2009, 2, 011101.	2.4	28
58	A Novel Characterization Scheme of $hbox{Si/SiO}_{2}$ Interface Roughness for Surface Roughness Scattering-Limited Mobilities of Electrons and Holes in Unstrained- and Strained-Si MOSFETs. IEEE Transactions on Electron Devices, 2010, 57, 2057-2066.	3.0	28
59	High Performance Extremely Thin Body InGaAs-on-Insulator Metalâ€“Oxideâ€“Semiconductor Field-Effect Transistors on Si Substrates with Niâ€“InGaAs Metal Source/Drain. Applied Physics Express, 2011, 4, 114201.	2.4	28
60	Experimental Study on Electron Mobility in In_xGa_{1-x}As-on-Insulator Metal-Oxide-Semiconductor Field-Effect Transistors With In Content Modulation and MOS Interface Buffer Engineering. IEEE Nanotechnology Magazine, 2013, 12, 621-628.	2.0	28
61	Suppression of dark current in GeO_x-passivated germanium metal-semiconductor-metal photodetector by plasma post-oxidation. Optics Express, 2015, 23, 16967.	3.4	28
62	Impact of Fermi level pinning inside conduction band on electron mobility in InGaAs metal-oxide-semiconductor field-effect transistors. Applied Physics Letters, 2013, 103, .	3.3	27
63	Evaluation of the valence band discontinuity of Si/Si/sub 1-x/Ge/sub x//Si heterostructures by application of admittance spectroscopy to MOS capacitors. IEEE Transactions on Electron Devices, 1998, 45, 494-501.	3.0	26
64	IIIâ€“V/Ge High Mobility Channel Integration of InGaAs n-Channel and Ge p-Channel Metalâ€“Oxideâ€“Semiconductor Field-Effect Transistors with Self-Aligned Ni-Based Metal Source/Drain Using Direct Wafer Bonding. Applied Physics Express, 2012, 5, 076501.	2.4	26
65	Electron Mobility Enhancement of Extremely Thin Body In$_{0.7}$Ga$_{0.3}$As-on-Insulator Metalâ€“Oxideâ€“Semiconductor Field-Effect Transistors on Si Substrates by Metalâ€“Oxideâ€“Semiconductor Interface Buffer Layers. Applied Physics Express, 2012, 5, 014201.	2.4	26
66	Direct wafer bonding technology for large-scale InGaAs-on-insulator transistors. Applied Physics Letters, 2014, 105, .	3.3	26
67	Experimental study on carrier transport properties in extremely-thin body Ge-on-insulator (GOI) p-MOSFETs with GOI thickness down to 2 nm. , 2015, , .		26
68	Highly strained-SiGe-on-insulator p-channel metal-oxide-semiconductor field-effective transistors fabricated by applying Ge condensation technique to strained-Si-on-insulator substrates. Applied Physics Letters, 2011, 99, .	3.3	25
69	Impact of Fermi Level Pinning Due to Interface Traps Inside the Conduction Band on the Inversion-Layer Mobility in $hbox{In}_{x}hbox{Ga}_{1 - x}hbox{As}$ Metalâ€“Oxideâ€“Semiconductor Field Effect Transistors. IEEE Transactions on Device and Materials Reliability, 2013, 13, 456-462.	2.0	25
70	Effects of ZrO₂/Al₂O₃ Gate-Stack on the Performance of Planar-Type InGaAs TFET. IEEE Transactions on Electron Devices, 2019, 66, 1862-1867.	3.0	25
71	Enhancement technologies and physical understanding of electron mobility in III–V n-MOSFETs with strain and MOS interface buffer engineering. , 2011, , .		24
72	Planar-type In0.53Ga0.47As channel band-to-band tunneling metal-oxide-semiconductor field-effect transistors. Journal of Applied Physics, 2011, 110, .	2.5	24

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73	Impact of Channel Orientation on Electrical Properties of Ge p- and n-MOSFETs With 1-nm EOT Al₂O₃/GeO_x/Ge Gate-Stacks Fabricated by Plasma Postoxidation. IEEE Transactions on Electron Devices, 2014, 61, 3668-3675.	3.0	24
74	Effect of Ga content on crystal shape in micro-channel selective-area MOVPE of InGaAs on Si. Journal of Crystal Growth, 2008, 310, 4768-4771.	1.5	23
75	On Surface Roughness Scattering-Limited Mobilities of Electrons and Holes in Biaxially Tensile-Strained Si MOSFETs. IEEE Electron Device Letters, 2009, 30, 987-989.	3.9	23
76	Impact of Fermi level pinning inside conduction band on electron mobility of In<inf>x</inf>Ga<inf>1−x</inf>As MOSFETs and mobility enhancement by pinning modulation. , 2011, , .		23
77	Strained In0.53Ga0.47As metal-oxide-semiconductor field-effect transistors with epitaxial based biaxial strain. Applied Physics Letters, 2012, 100, 193510.	3.3	23
78	Atomic layer-by-layer oxidation of Ge (100) and (111) surfaces by plasma post oxidation of Al2O3/Ge structures. Applied Physics Letters, 2013, 102, .	3.3	22
79	Self-aligned Ni-GaSb source/drain junctions for GaSb p-channel metal-oxide-semiconductor field-effect transistors. Applied Physics Letters, 2014, 104, 093509.	3.3	22
80	Slow Trap Properties and Generation in Al₂O₃/GeO_x/Ge MOS Interfaces Formed by Plasma Oxidation Process. ACS Applied Electronic Materials, 2019, 1, 311-317.	4.3	22
81	Self-aligned metal source/drain InP n-metal-oxide-semiconductor field-effect transistors using Niâ€“InP metallic alloy. Applied Physics Letters, 2011, 98, 243501.	3.3	21
82	Tunnel field-effect transistors with germanium/strained-silicon hetero-junctions for low power applications. Thin Solid Films, 2014, 557, 298-301.	1.8	21
83	Impact of interfacial InAs layers on Al2O3/GaSb metal-oxide-semiconductor interface properties. Applied Physics Letters, 2015, 106, .	3.3	21
84	Interface-Controlled Self-Align Source/Drain Ge p-Channel Metalâ€“Oxideâ€“Semiconductor Field-Effect Transistors Fabricated Using Thermally Oxidized GeO₂Interfacial Layers. Japanese Journal of Applied Physics, 2011, 50, 010109.	1.5	21
85	Physical origins of mobility enhancement of Ge p-channel metal-insulator-semiconductor field effect transistors with Si passivation layers. Journal of Applied Physics, 2010, 108, 104511.	2.5	20
86	Ultrathin Body InGaAs-on-Insulator Metalâ€“Oxideâ€“Semiconductor Field-Effect Transistors with InP Passivation Layers on Si Substrates Fabricated by Direct Wafer Bonding. Applied Physics Express, 2011, 4, 054202.	2.4	20
87	Reduction in Interface Trap Density of Al₂O₃/SiGe Gate Stack by Electron Cyclotron Resonance Plasma Post-nitridation. Applied Physics Express, 2013, 6, 051302.	2.4	20
88	Analysis and Comparison of L-Valley Transport in GaAs, GaSb, and Ge Ultrathin-Body Ballistic nMOSFETs. IEEE Transactions on Electron Devices, 2013, 60, 4213-4218.	3.0	19
89	Impact of plasma post-nitridation on HfO2/Al2O3/SiGe gate stacks toward EOT scaling. Microelectronic Engineering, 2013, 109, 266-269.	2.4	19
90	High Electron Mobility Ge n-Channel Metalâ€“Insulatorâ€“Semiconductor Field-Effect Transistors Fabricated by the Gate-Last Process with the Solid Source Diffusion Technique. Applied Physics Express, 2010, 3, 061301.	2.4	18

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91	Front-gate InGaAs-on-Insulator metal-insulator-semiconductor field-effect transistors. Applied Physics Letters, 2010, 97, 253502.	3.3	18
92	Initial Processes of Atomic Layer Deposition of Al2O3 on InGaAs: Interface Formation Mechanisms and Impact on Metal-Insulator-Semiconductor Device Performance. Materials, 2012, 5, 404-414.	2.9	18
93	Sb-Doped S/D Ultrathin Body Ge-On Insulator nMOSFET Fabricated by Improved Ge Condensation Process. IEEE Transactions on Electron Devices, 2014, 61, 3379-3385.	3.0	18
94	Fabrication and MOS interface properties of ALD AlYO3/GeO /Ge gate stacks with plasma post oxidation. Microelectronic Engineering, 2015, 147, 244-248.	2.4	18
95	Radiological characteristics of MRI-based VIP polymer gel under carbon beam irradiation. Radiation Physics and Chemistry, 2015, 107, 7-11.	2.8	18
96	High mobility Ge pMOSFETs with 0.7 nm ultrathin EOT using HfO<inf>2</inf>/Al<inf>2</inf>O<inf>3</inf>/GeO<inf>x</inf>/Ge gate stacks fabricated by plasma post oxidation. , 2012, , .		17
97	Impact of plasma post oxidation temperature on interface trap density and roughness at GeOx/Ge interfaces. Microelectronic Engineering, 2013, 109, 97-100.	2.4	17
98	Impact of process temperature on GaSb metal-oxide-semiconductor interface properties fabricated by ex-situ process. Applied Physics Letters, 2014, 104, 262901.	3.3	17
99	Impact of La2O3 interfacial layers on InGaAs metal-oxide-semiconductor interface properties in Al2O3/La2O3/InGaAs gate stacks deposited by atomic-layer-deposition. Journal of Applied Physics, 2015, 118, .	2.5	17
100	Ultrathin body GaSb-on-insulator p-channel metal-oxide-semiconductor field-effect transistors on Si fabricated by direct wafer bonding. Applied Physics Letters, 2015, 106, 073503.	3.3	17
101	Reduction of MOS Interface Defects in TiN/Yâ„¢Oâ„ƒ/Siâ„€.â„‡â„ˆGeâ„€.â„¢â„¢ Structures by Trimethylaluminum Treatment. IEEE Transactions on Electron Devices, 2020, 67, 4067-4072.	3.0	17
102	High performance sub-20-nm-channel-length extremely-thin body InAs-on-insulator tri-gate MOSFETs with high short channel effect immunity and V<inf>th</inf> tunability. , 2013, , .		16
103	Biaxially strained extremely-thin body In0.53Ga0.47As-on-insulator metal-oxide-semiconductor field-effect transistors on Si substrate and physical understanding on their electron mobility. Journal of Applied Physics, 2013, 114, 164512.	2.5	16
104	Surface Leakage Reduction in MSM InGaAs Photodetector on IIIâ€“V CMOS Photonics Platform. IEEE Photonics Technology Letters, 2015, 27, 1569-1572.	2.5	16
105	Impact of back interface passivation on electrical properties of ultrathin-body Germanium-on-insulator (GeOI) MOSFETs. Microelectronic Engineering, 2015, 147, 196-200.	2.4	16
106	Properties of slow traps of ALD Al2O3/GeOx/Ge nMOSFETs with plasma post oxidation. Applied Physics Letters, 2016, 109, .	3.3	16
107	Energy-Efficient Reliable HZO FeFET Computation-in-Memory with Local Multiply & Global Accumulate Array for Source-Follower & Charge-Sharing Voltage Sensing. , 2021, , .		16
108	Interface-Controlled Self-Align Source/Drain Ge p-Channel Metalâ€“Oxideâ€“Semiconductor Field-Effect Transistors Fabricated Using Thermally Oxidized GeO2Interfacial Layers. Japanese Journal of Applied Physics, 2011, 50, 010109.	1.5	15

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109	Numerical Analysis of Carrier-Depletion Strained SiGe Optical Modulators With Vertical p-n Junction. IEEE Journal of Quantum Electronics, 2015, 51, 1-7.	1.9	15
110	Characterization of ultrathin-body Germanium-on-insulator (GeOI) structures and MOSFETs on flipped Smart-Cutâ„¢ GeOI substrates. Solid-State Electronics, 2016, 115, 120-125.	1.4	15
111	Improvement of SiGe MOS interface properties with a wide range of Ge contents by using TiN/Y₂O₃ gate stacks with TMA nassivation. , 2019, , .		15
112	Impact of SiGe layer thickness in starting substrates on strained Ge-on-insulator pMOSFETs fabricated by Ge condensation method. Applied Physics Letters, 2019, 114, .	3.3	15
113	p-Channel TFET Operation of Bilayer Structures With Type-II Heterotunneling Junction of Oxide- and Group-IV Semiconductors. IEEE Transactions on Electron Devices, 2020, 67, 1880-1886.	3.0	15
114	High-quality germanium dioxide thin films with low interface state density using a direct neutral beam oxidation process. Applied Physics Letters, 2012, 100, 213108.	3.3	14
115	Tunneling MOSFET technologies using III-V/Ge materials. , 2016, , .		14
116	Bilayer tunneling field effect transistor with oxide-semiconductor and group-IV semiconductor hetero junction: Simulation analysis of electrical characteristics. AIP Advances, 2019, 9, 055001.	1.3	14
117	Comprehensive Understanding of Coulomb Scattering Mobility in Biaxially Strained-Si pMOSFETs. IEEE Transactions on Electron Devices, 2009, 56, 1152-1156.	3.0	13
118	III-V/Ge CMOS technologies on Si platform. , 2010, , .		13
119	Effects of HfO₂/Al₂O₃ gate stacks on electrical performance of planar In _x Ga_{1â^’} _x As tunneling field-effect transistors. Applied Physics Express, 2017, 10, 084201.	2.4	13
120	Impact of Atomic Layer Deposition High k Films on Slow Trap Density in Ge MOS Interfaces With GeO_x Interfacial Layers Formed by Plasma Pre-Oxidation. IEEE Journal of the Electron Devices Society, 2018, 6, 950-955.	2.1	13
121	A Novel Gate-Normal Tunneling Field-Effect Transistor With Dual-Metal Gate. IEEE Journal of the Electron Devices Society, 2018, 6, 1070-1076.	2.1	13
122	Operation of (111) Ge-on-Insulator n-Channel MOSFET Fabricated by Smart-Cut Technology. IEEE Electron Device Letters, 2020, 41, 985-988.	3.9	13
123	Initial growth of InAs on P-terminated Si(111) surfaces to promote uniform lateral growth of InGaAs micro-discs on patterned Si. Journal of Crystal Growth, 2010, 312, 1348-1352.	1.5	12
124	In0.53Ga0.47As metal-oxide-semiconductor field-effect transistors with self-aligned metal source/drain using Co-InGaAs alloys. Applied Physics Letters, 2012, 100, .	3.3	12
125	Experimental study on vertical scaling of InAs-on-insulator metal-oxide-semiconductor field-effect transistors. Applied Physics Letters, 2014, 104, .	3.3	12
126	Quantitative evaluation of slow traps near Ge MOS interfaces by using time response of MOS capacitance. Japanese Journal of Applied Physics, 2015, 54, 04DA02.	1.5	12

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127	Analysis of interface trap density of plasma post-nitrided Al2O3/SiGe MOS interface with high Ge content using high-temperature conductance method. Journal of Applied Physics, 2016, 120, 125707.	2.5	12
128	Design and properties of planar-type tunnel FETs using In0.53Ga0.47As/InxGa1-xAs/In0.53Ga0.47As quantum well. Journal of Applied Physics, 2017, 122, .	2.5	12
129	Influence of impurity concentration in Ge sources on electrical properties of Ge/Si hetero-junction tunneling field-effect transistors. Applied Physics Letters, 2018, 113, 062103.	3.3	12
130	Tunable Grating Coupler by Thermal Actuation and Thermo-Optic Effect. IEEE Photonics Technology Letters, 2018, 30, 1503-1506.	2.5	12
131	ZnO/Si and ZnO/Ge bilayer tunneling field effect transistors: Experimental characterization of electrical properties. Journal of Applied Physics, 2019, 125, .	2.5	12
132	Gas Phase Doping of Arsenic into (100), (110), and (111) Germanium Substrates Using a Metalâ€“Organic Source. Japanese Journal of Applied Physics, 2011, 50, 010105.	1.5	11
133	Effects of buffered HF cleaning on metalâ€“oxideâ€“semiconductor interface properties of Al2O3/InAs/GaSb structures. Applied Physics Express, 2015, 8, 061203.	2.4	11
134	Impact of Postdeposition Annealing Ambient on the Mobility of Ge nMOSFETs With 1-nm EOT Al₂O₃/GeO_x/Ge Gate-Stacks. IEEE Transactions on Electron Devices, 2016, 63, 558-564.	3.0	11
135	Design and characterization of Ge passive waveguide components on Ge-on-insulator wafer for mid-infrared photonics. Japanese Journal of Applied Physics, 2018, 57, 042202.	1.5	11
136	TiN/Al2O3/ZnO gate stack engineering for top-gate thin film transistors by combination of post oxidation and annealing. Applied Physics Letters, 2018, 112, .	3.3	11
137	Numerical analyses of optical loss and modulation bandwidth of an InP organic hybrid optical modulator. Optics Express, 2020, 28, 29730.	3.4	11
138	A floating gate negative capacitance MoS₂ phototransistor with high photosensitivity. Nanoscale, 2022, 14, 2013-2022.	5.6	11
139	Verification of influence of tail states and interface states on sub-threshold swing of Si n-channel MOSFETs over a temperature range of 4â€“300 K. Japanese Journal of Applied Physics, 2022, 61, SC1032.	1.5	11
140	Comprehensive understanding of surface roughness and Coulomb scattering mobility in biaxially-strained Si MOSFETs. , 2008, , .		10
141	Interfacial Control and Electrical Properties of Ge MOS structures. ECS Transactions, 2009, 19, 67-85.	0.5	10
142	Sub-60 nm deeply-scaled channel length extremely-thin body In<inf>x</inf>Ga<inf>1−x</inf>As-on-insulator MOSFETs on Si with Ni-InGaAs metal S/D and MOS interface buffer engineering. , 2012, , .		10
143	Proposal and demonstration of oxide-semiconductor/(Si, SiGe, Ge) bilayer tunneling field effect transistor with type-II energy band alignment. , 2017, , .		10
144	Ge p-channel tunneling FETs with steep phosphorus profile source junctions. Japanese Journal of Applied Physics, 2018, 57, 04FD10.	1.5	10

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145	Metalâ€“oxideâ€“semiconductor interface properties of TiN/Y2O3/Si0.62Ge0.38 gate stacks with high temperature post-metallization annealing. Journal of Applied Physics, 2020, 127, .	2.5	10
146	Antiferroelectric properties of ZrO2 ultra-thin films prepared by atomic layer deposition. Applied Physics Letters, 2021, 118, .	3.3	10
147	High-efficiency Ge thermo-optic phase shifter on Ge-on-insulator platform. Optics Express, 2019, 27, 6451.	3.4	10
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