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	Effective Mobility Enhancement Through Asymmetric Strain Channels on Extremely Thin Body (100) GOI pMOSFETs. IEEE Transactions on Electron Devices, 2022, 69, 25-30.	3.0	6
2	A floating gate negative capacitance MoS₂ phototransistor with high photosensitivity. Nanoscale, 2022, 14, 2013-2022.	5.6	11
3	Optimum Channel Design of Extremely-Thin-Body nMOSFETs Utilizing Anisotropic Valleyâ€"Robust to Surface Roughness Scattering. IEEE Transactions on Electron Devices, 2022, 69, 2115-2121.	3.0	5
4	Introduction of high tensile strain into Ge-on-Insulator structures by oxidation and annealing at high temperature. Japanese Journal of Applied Physics, 2022, 61, SC1027.	1.5	0
5	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
6	Numerical analysis of optical phase modulator operating at 2 Î¼m wavelength using graphene/IIIâ€"V hybrid metal-oxide-semiconductor capacitor. Japanese Journal of Applied Physics, 2022, 61, SC1031.	1.5	1
7	Edge Retraining of FeFET LM-GA CiM for Write Variation & Reliability Error Compensation. , 2022, , .		3
8	Electrical Properties of Ultra-Thin Body (111) Ge-On-Insulator n-Channel MOSFETs Fabricated by Smart-Cut Process. IEEE Journal of the Electron Devices Society, 2021, 9, 612-617.	2.1	3
9	Impacts of Equivalent Oxide Thickness Scaling of TiN/Yâ„Oâ‚ƒ Gate Stacks With Trimethylaluminum Treatment on SiGe MOS Interface Properties. IEEE Electron Device Letters, 2021, 42, 966-969.	3.9	5
10	Silicon Photonics Using Heterogeneous Integration for Society 5.0. Vacuum and Surface Science, 2021, 64, 68-73.	0.1	0
11	Advanced CMOS technologies for ultra-low power logic and AI applications. , 2021, , .		2
12	Proposal and Experimental Demonstration of Ultrathin-Body (111) InAs-On-Insulator nMOSFETs With L Valley Conduction. IEEE Transactions on Electron Devices, 2021, 68, 2003-2009.	3.0	7
13	7â€5: Invited Paper: Bilayer Tunneling Field Effect Transistors using Oxide Semiconductor/Groupâ€IV Semiconductor Heteroâ€structures. Digest of Technical Papers SID International Symposium, 2021, 52, 73-76.	0.3	0
14	Antiferroelectric properties of ZrO2 ultra-thin films prepared by atomic layer deposition. Applied Physics Letters, 2021, 118, .	3.3	10
15	Energy-Efficient Reliable HZO FeFET Computation-in-Memory with Local Multiply & Global Accumulate Array for Source-Follower & Charge-Sharing Voltage Sensing. , 2021, , .		16
16	Re-examination of effects of ALD high-k materials on defect reduction in SiGe metalâ€"oxideâ€"semiconductor interfaces. AIP Advances, 2021, 11, .	1.3	2
17	Evaluation of interface traps inside the conduction band of InAs-on-insulator nMOSFET by self-consistent Hall-QSCV method. Applied Physics Letters, 2021, 119, .	3.3	2
18	Germanium Mid-infrared Integrated Photonics on GeOI Platform. , 2021, , .		0

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19	Ge Ring Modulator Based on Carrier-injection Phaser Shifter Operating at Two Micrometer Band. , 2021, , .		1
20	Low-loss Ge waveguide at the 2-Âµm band on an n-type Ge-on-insulator wafer. Optical Materials Express, 2021, 11, 4097.	3.0	9
21	Optimum Design of Channel Material and Surface Orientation for Extremely-Thin-Body nMOSFETs under New Modeling of Surface Roughness Scattering. , 2021, , .		3
22	Tunable Germanium-on-Insulator Band-Stop Optical Filter Using Thermo-Optic Effect. IEEE Photonics Journal, 2020, 12, 1-7.	2.0	4
23	Influence of layer transfer and thermal annealing on the properties of InAs-On-Insulator films. Journal of Applied Physics, 2020, 128, .	2.5	4
24	Impact of Switching Voltage on Complementary Steep-Slope Tunnel Field Effect Transistor Circuits. IEEE Transactions on Electron Devices, 2020, 67, 3876-3882.	3.0	1
25	Corrections to â€œOperation of (111) Ge-on-Insulator n-channel MOSFET Fabricated by Smart-Cut Technologyâ€•[Jul 20 985-988]. IEEE Electron Device Letters, 2020, 41, 1266-1266.	3.9	1
26	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
27	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
28	High responsivity in MoS2 phototransistors based on charge trapping HfO2 dielectrics. Communications Materials, 2020, 1, .	6.9	51
29	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
30	Efficient Mid-Infrared Germanium Variable Optical Attenuator Fabricated by Spin-on-Glass Doping. Journal of Lightwave Technology, 2020, 38, 4808-4816.	4.6	6
31	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
32	Evaluation of polarization characteristics in metal/ferroelectric/semiconductor capacitors and ferroelectric field-effect transistors. Applied Physics Letters, 2020, 116, .	3.3	44
33	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
34	Improvement in Electrical Characteristics of ZnSnO/Si Bilayer TFET by W/Alâ„Oâ„ƒ Gate Stack. IEEE Journal of the Electron Devices Society, 2020, 8, 341-345.	2.1	4
35	Requirements of epitaxially grown InGaAs channel layers for tunnel field-effect transistors. Journal of Applied Physics, 2020, 127, 225702.	2.5	1
36	Diffusion properties of n-type dopants diffused from spin on glass into Ge. Journal of Applied Physics, 2020, 128, 015707.	2.5	0

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37	Effects of hydrogen ion implantation dose on physical and electrical properties of Ge-on-insulator layers fabricated by the smart-cut process. AIP Advances, 2020, 10, .	1.3	7
38	Numerical analyses of optical loss and modulation bandwidth of an InP organic hybrid optical modulator. Optics Express, 2020, 28, 29730.	3.4	11
39	Accurate evaluation of specific contact resistivity between InAs/Niâ€“InAs alloy using a multi-sidewall transmission line method. Japanese Journal of Applied Physics, 2020, 59, SGGA08.	1.5	5
40	Source engineering for bilayer tunnel field-effect transistor with hetero tunnel junction: thickness and impurity concentration. Applied Physics Express, 2020, 13, 074004.	2.4	7
41	Subband Engineering by Combination of Channel Thickness Scaling and (111) Surface Orientation in InAs-On-Insulator nMOSFETs. , 2020, , .		3
42	SPICE simulation of 32-kHz crystal-oscillator operation based on Si tunnel FET. IEICE Electronics Express, 2020, 17, 20200025-20200025.	0.8	1
43	Advanced MOS Device Technology for Low Power Logic LSI. , 2019, , .		0
44	Material design of oxide-semiconductor/group-IV-semiconductor bilayer tunneling field effect transistors. , 2019, , .		1
45	Fabrication and Electrical Characteristics of ZnSnO/Si Bilayer Tunneling Filed-Effect Transistors. IEEE Journal of the Electron Devices Society, 2019, 7, 1201-1208.	2.1	7
46	Improvement of SiGe MOS interface properties with a wide range of Ge contents by using TiN/Y₂O₃ gate stacks with TMA nassivation. , 2019, , .		15
47	Improvement of p-type GaAs0.51Sb0.49 metal-oxide-semiconductor interface properties by using ultrathin In0.53Ga0.47As interfacial layers. Journal of Applied Physics, 2019, 125, 214504.	2.5	0
48	Improvement of material quality of (100) and (111) Ge-on-insulator substrates fabricated by smart-cut technology. , 2019, , .		1
49	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
50	Impact of metal gate electrodes on electrical properties of Y2O3/Si0.78Ge0.22 gate stacks. Microelectronic Engineering, 2019, 214, 87-92.	2.4	8
51	ZnO/Si and ZnO/Ge bilayer tunneling field effect transistors: Experimental characterization of electrical properties. Journal of Applied Physics, 2019, 125, .	2.5	12
52	InGaSb-on-insulator p-channel metal-oxide-semiconductor field-effect transistors on Si fabricated by direct wafer bonding. Journal of Applied Physics, 2019, 125, .	2.5	6
53	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
54	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

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55	Fabrication of thin body InAs-on-insulator structures by Smart Cut method with H⁺ implantation at room temperature. Japanese Journal of Applied Physics, 2019, 58, SBBA03.	1.5	9
56	Drive current enhancement of Si MOSFETs by using anti-ferroelectric gate insulators. Japanese Journal of Applied Physics, 2019, 58, SBBA15.	1.5	5
57	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
58	Direct Observation of Interface Charge Behaviors in FeFET by Quasi-Static Split C-V and Hall Techniques: Revealing FeFET Operation. , 2019, , .		64
59	Strain and surface orientation engineering in extremely-thin body Ge and SiGe-on-insulator MOSFETs fabricated by Ge condensation. , 2019, , .		6
60	Coupled-Resonator-Induced-Transparency on Germanium-on-Insulator Mid-Infrared Platform. , 2019, , .		0
61	Re-examination of effects of sulfur treatment on Al2O3/InGaAs metal-oxide-semiconductor interface properties. Journal of Applied Physics, 2019, 126, .	2.5	6
62	Performance enhancement of p-GaAs0.51Sb0.49/In0.53Ga0.47As hetero-junction vertical tunneling field-effect transistors with abrupt source impurity profile. Journal of Applied Physics, 2019, 126, .	2.5	8
63	High-efficiency Ge thermo-optic phase shifter on Ge-on-insulator platform. Optics Express, 2019, 27, 6451.	3.4	10
64	Mid-infrared tunable Vernier filter on a germanium-on-insulator photonic platform. Optics Letters, 2019, 44, 2779.	3.3	9
65	Group IV/oxide semiconductor bi-layer tunneling FET. , 2019, , .		0
66	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
67	Pretreatment Effects on High-k/In_xGa_{1â€“x}As MOS Interface Properties and Their Physical Model. IEEE Journal of the Electron Devices Society, 2018, 6, 487-493.	2.1	7
68	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
69	Low-loss graphene-based optical phase modulator operating at mid-infrared wavelength. Japanese Journal of Applied Physics, 2018, 57, 04FH06.	1.5	8
70	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
71	Ge p-channel tunneling FETs with steep phosphorus profile source junctions. Japanese Journal of Applied Physics, 2018, 57, 04FD10.	1.5	10
72	Ge-on-Insulator Platform for Mid-Infrared Integrated Photonics. , 2018, , .		0

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73	Characterization and understanding of slow traps in GeOx-based n-Ge MOS interfaces. , 2018, , .		5
74	Si Hybrid MOS Optical Phase Shifter for Switching and Computing. , 2018, , .		0
75	Semiconductor-insulator-semiconductor (SIS) structures for high-performance optical modulation. , 2018, , .		0
76	Hole mobility enhancement in extremely-thin-body strained GOI and SGOI pMOSFETs by improved Ge condensation method. , 2018, , .		9
77	III-V/Si Hybrid MOS Optical Phase Modulator for Si Photonic Integrated Circuits. , 2018, , .		0
78	Low-Power Ge Thermo-Optic Phase Shifter on Ge-on-Insulator Platform. , 2018, , .		0
79	Investigation of Electrical Characteristics of Vertical Junction Si n-Type Tunnel FET. IEEE Transactions on Electron Devices, 2018, 65, 5511-5517.	3.0	8
80	MOS Device Technology using Alternative Channel Materials for Low Power Logic LSI. , 2018, , .		0
81	Performance enhancement of Ge-on-Insulator tunneling FETs with source junctions formed by low-energy BF2 ion implantation. Japanese Journal of Applied Physics, 2018, 57, 04FD15.	1.5	3
82	Relationship between interface state generation and substrate hole current in InGaAs metal-oxide-semiconductor (MOS) interfaces. Journal of Applied Physics, 2018, 123, 234502.	2.5	0
83	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
84	Tunable Grating Coupler by Thermal Actuation and Thermo-Optic Effect. IEEE Photonics Technology Letters, 2018, 30, 1503-1506.	2.5	12
85	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
86	Reduction of slow trap density of Al2O3/GeOx/n-Ge MOS interfaces by inserting ultrathin Y2O3 interfacial layers. Microelectronic Engineering, 2017, 178, 132-136.	2.4	7
87	Modulation of sub-threshold properties of InGaAs MOSFETs by La2O3 gate dielectrics. AIP Advances, 2017, 7, 095215.	1.3	6
88	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
89	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
90	Efficient low-loss InGaAsP/Si hybrid MOS optical modulator. Nature Photonics, 2017, 11, 486-490.	31.4	166

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91	IIIâ€“V-based low power CMOS devices on Si platform. , 2017, , .		2
92	High performance 4.5-nm-thick compressively-strained Ge-on-insulator pMOSFETs fabricated by Ge condensation with optimized temperature control. , 2017, , .		8
93	IIIâ€“V/Ge MOSFETs and TFETs for ultra-low power logic LSIs. , 2017, , .		2
94	Near-infrared and mid-infrared integrated photonics based on Ge-on-insulator platform. , 2017, , .		1
95	III-V/Ge-based tunneling MOSFET. , 2017, , .		0
96	Effects of ge-source impurity concentration on electrical characteristics of Ge/Si hetero-junction tunneling FETs. , 2017, , .		0
97	Ultra-low power MOSFET and tunneling FET technologies using III-V and Ge. , 2017, , .		0
98	Proposal and demonstration of oxide-semiconductor/(Si, SiGe, Ge) bilayer tunneling field effect transistor with type-II energy band alignment. , 2017, , .		10
99	Influence of interface traps inside the conduction band on the capacitanceâ€“voltage characteristics of InGaAs metalâ€“oxideâ€“semiconductor capacitors. Applied Physics Express, 2016, 9, 111202.	2.4	5
100	InGaAsP variable optical attenuator with lateral P-I-N junction formed by Ni-InGaAsP and Zn diffusion on III-V on insulator wafer. MRS Advances, 2016, 1, 3295-3300.	0.9	5
101	InAs/GaSb-on-insulator single channel complementary metal-oxide-semiconductor transistors on Si structure. Applied Physics Letters, 2016, 109, 213505.	3.3	7
102	Properties of slow traps of ALD Al2O3/GeOx/Ge nMOSFETs with plasma post oxidation. Applied Physics Letters, 2016, 109, .	3.3	16
103	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
104	Impact of surface orientation on (100), (111)A, and (111)B InGaAs surfaces with In content of 0.53 and 0.70 and on their Al2O3/InGaAs metal-oxide-semiconductor interface properties. Applied Physics Letters, 2016, 109, 182111.	3.3	7
105	Impact of La<inf>2</inf>O<inf>3</inf>/InGaAs MOS interface on InGaAs MOSFET performance and its application to InGaAs negative capacitance FET. , 2016, , .		2
106	Tunneling MOSFET technologies using III-V/Ge materials. , 2016, , .		14
107	III-V/Ge MOS device technologies for low power integrated systems. Solid-State Electronics, 2016, 125, 82-102.	1.4	41
108	Novel Ge waveguide platform on Ge-on-insulator wafer for mid-infrared photonic integrated circuits. Optics Express, 2016, 24, 11855.	3.4	78

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109	Effects of additional oxidation after Ge condensation on electrical properties of germanium-on-insulator p-channel MOSFETs. Solid-State Electronics, 2016, 117, 77-87.	1.4	7
110	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
111	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
112	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
113	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
114	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
115	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
116	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
117	IIIâ€“V/Ge channel MOS device technologies in nano CMOS era. Japanese Journal of Applied Physics, 2015, 54, 06FA01.	1.5	69
118	Surface Leakage Reduction in MSM InGaAs Photodetector on IIIâ€“V CMOS Photonics Platform. IEEE Photonics Technology Letters, 2015, 27, 1569-1572.	2.5	16
119	Effectiveness of Surface Potential Fluctuation for Representing Inversion-Layer Mobility Limited by Coulomb Scattering in MOFETs. IEEE Electron Device Letters, 2015, 36, 1183-1185.	3.9	0
120	IIIâ€“V/Ge MOSFETs and tunneling FETs on Si platform for low power logic applications. , 2015, , .		4
121	Advanced nano CMOS using Ge/IIIâ€“V semiconductors for low power logic LSIs. , 2015, , .		1
122	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
123	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
124	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
125	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
126	Impact of interfacial InAs layers on Al2O3/GaSb metal-oxide-semiconductor interface properties. Applied Physics Letters, 2015, 106, .	3.3	21

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127	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
128	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
129	Ge/III-V MOS device technologies for low power integrated systems. , 2015, , .		7
130	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
131	Radiological characteristics of MRI-based VIP polymer gel under carbon beam irradiation. Radiation Physics and Chemistry, 2015, 107, 7-11.	2.8	18
132	Simulation of carrier-depletion strained SiGe optical modulators with vertical p-n junction. , 2014, , .		0
133	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
134	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
135	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
136	Operation of the GaSb p-channel metal-oxide-semiconductor field-effect transistors fabricated on (111)A surfaces. Applied Physics Letters, 2014, 105, .	3.3	8
137	Experimental study on vertical scaling of InAs-on-insulator metal-oxide-semiconductor field-effect transistors. Applied Physics Letters, 2014, 104, .	3.3	12
138	Low temperature Al_2O_3 surface passivation for carrier-injection SiGe optical modulator. Optics Express, 2014, 22, 7458.	3.4	8
139	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
140	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
141	Physical understanding of electron mobility in asymmetrically strained InGaAs-on-insulator metal-oxide-semiconductor field-effect transistors fabricated by lateral strain relaxation. Applied Physics Letters, 2014, 104, 113509.	3.3	4
142	Direct wafer bonding technology for large-scale InGaAs-on-insulator transistors. Applied Physics Letters, 2014, 105, .	3.3	26
143	New materials for post-Si computing: Ge and GeSn devices. MRS Bulletin, 2014, 39, 678-686.	3.5	50
144	Strain-Modulated L-Valley Ballistic-Transport in (111) GaAs Ultrathin-Body nMOSFETs. IEEE Transactions on Electron Devices, 2014, 61, 1335-1340.	3.0	6

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145	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
146	Multi-bandgap III-V on insulator wafer fabricated by quantum well intermixing for III-V CMOS photonics platform. , 2014, , .		1
147	Surface orientation depdendence of electro-optic effects in InGaAsP for lateral PIN-junction InGaAsP photonic-wire modulators. , 2014, , .		0
148	Tunnel field-effect transistors with germanium/strained-silicon hetero-junctions for low power applications. Thin Solid Films, 2014, 557, 298-301.	1.8	21
149	Strain-induced enhancement of plasma dispersion effect and free-carrier absorption in SiGe optical modulators. Scientific Reports, 2014, 4, 4683.	3.3	45
150	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
151	High mobility CMOS technologies using IIIâ€“V/Ge channels on Si platform. Solid-State Electronics, 2013, 88, 2-8.	1.4	64
152	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
153	Impact of plasma post-nitridation on HfO2/Al2O3/SiGe gate stacks toward EOT scaling. Microelectronic Engineering, 2013, 109, 266-269.	2.4	19
154	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
155	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
156	MOS interface engineering for high-mobility Ge CMOS. , 2013, , .		1
157	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
158	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
159	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
160	Low temperature surface passivation for carrier injection type SiGe optical modulator. , 2013, , .		0
161	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
162	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

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163	Impact of Al<inf>2</inf>O<inf>3</inf> ALD temperature on Al<inf>2</inf>O<inf>3</inf>/GaSb metal-oxide-semiconductor interface properties. , 2013, , .		1
164	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
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