

Krishna C Saraswat

List of Publications by Year in descending order

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258
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259
all docs

259
docs citations

259
times ranked

10090
citing authors

#	ARTICLE	IF	CITATIONS
1	Direct measurement of nanoscale filamentary hot spots in resistive memory devices. Science Advances, 2022, 8, eabk1514.	10.3	20
2	High-Efficiency WSe ₂ Photovoltaic Devices with Electron-Selective Contacts. ACS Nano, 2022, 16, 8827-8836.	14.6	22
3	Strong Reduction in Ge Film Reflectivity by an Overlay of 3 nm Si Nanoparticles: Implications for Photovoltaics. ACS Applied Nano Materials, 2021, 4, 4602-4614.	5.0	10
4	High-Performance p-n Junction Transition Metal Dichalcogenide Photovoltaic Cells Enabled by MoO ₃ Doping and Passivation. Nano Letters, 2021, 21, 3443-3450.	9.1	35
5	Toward Low-Temperature Solid-Source Synthesis of Monolayer MoS ₂ . ACS Applied Materials & Interfaces, 2021, 13, 41866-41874.	8.0	21
6	High-specific-power flexible transition metal dichalcogenide solar cells. Nature Communications, 2021, 12, 7034.	12.8	84
7	Doped WS ₂ transistors with large on-off ratio and high on-current. , 2020, , .		4
8	(Invited) Differential Hall Effect Metrology (DHEM) Sub-Nm Profiling and Its Application to Dopant Activation in n-Type Ge. ECS Transactions, 2020, 97, 75-80.	0.5	2
9	Free-standing 2.7 μ m thick ultrathin crystalline silicon solar cell with efficiency above 12.0%. Nano Energy, 2020, 70, 104466.	16.0	31
10	Infrared Detectable MoS ₂ Phototransistor and Its Application to Artificial Multilevel Optic-Neural Synapse. ACS Nano, 2019, 13, 10294-10300.	14.6	96
11	Silicon-Compatible Fabrication of Inverse Woodpile Photonic Crystals with a Complete Band Gap. ACS Photonics, 2019, 6, 368-373.	6.6	5
12	On the limit of defect doping in transition metal oxides. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2019, 37, .	2.1	8
13	Device and materials requirements for neuromorphic computing. Journal Physics D: Applied Physics, 2019, 52, 113001.	2.8	105
14	Towards high Voc, thin film, homojunction WS ₂ solar cells for energy harvesting applications. , 2019, , .		4
15	Room temperature lasing unraveled by a strong resonance between gain and parasitic absorption in uniaxially strained germanium. Physical Review B, 2018, 97, .	3.2	20
16	Carrier-selective interlayer materials for silicon solar cell contacts. Journal of Applied Physics, 2018, 123, .	2.5	20
17	Investigation of Nickel Oxide as Carrier-selective Interlayer for Silicon Solar Cell Contacts. , 2018, , .		1
18	Limitation of Optical Enhancement in Ultra-thin Solar Cells Imposed by Contact Selectivity. Scientific Reports, 2018, 8, 8863.	3.3	9

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19	Investigation of the Changes in Electronic Properties of Nickel Oxide (NiO) Due to UV/Ozone Treatment. ACS Applied Materials & Interfaces, 2017, 9, 17201-17207.	8.0	76
20	Passivation of multiple-quantum-well Ge _{0.97} Sn _{0.03} /Ge p-i-n photodetectors. Applied Physics Letters, 2017, 110, .	3.3	24
21	Cubic-phase zirconia nano-island growth using atomic layer deposition and application in low-power charge-trapping nonvolatile-memory devices. Nanotechnology, 2017, 28, 445201.	2.6	17
22	Contact Selectivity Engineering in a 2 μ m Thick Ultrathin c-Si Solar Cell Using Transition-Metal Oxides Achieving an Efficiency of 10.8%. ACS Applied Materials & Interfaces, 2017, 9, 41863-41870.	8.0	25
23	Analysis of Atomistic Dopant Variation and Fermi Level Depinning in Nanoscale Contacts. IEEE Transactions on Electron Devices, 2017, 64, 3768-3774.	3.0	15
24	Three-dimensional integration of nanotechnologies for computing and data storage on a single chip. Nature, 2017, 547, 74-78.	27.8	577
25	Low-threshold optically pumped lasing in highly strained germanium nanowires. Nature Communications, 2017, 8, 1845.	12.8	131
26	Nanoislands-Based Charge Trapping Memory: A Scalability Study. IEEE Nanotechnology Magazine, 2017, 16, 1143-1146.	2.0	10
27	Ultra-Thin Crystalline Silicon Solar Cells with Nickel Oxide Interlayer as Hole-selective Contact. , 2017, , .		1
28	Theoretical Modeling for the Interaction of Tin Alloying With N-Type Doping and Tensile Strain for GeSn Lasers. IEEE Electron Device Letters, 2016, 37, 1307-1310.	3.9	18
29	Optimization of selective contacts in Si heterojunction photovoltaic cells considering Fermi level pinning and interface passivation. , 2016, , .		2
30	Improved Contacts to MoS ₂ Transistors by Ultra-High Vacuum Metal Deposition. Nano Letters, 2016, 16, 3824-3830.	9.1	394
31	Silicon compatible optical interconnects. , 2016, , .		0
32	Si Heterojunction Solar Cells: A Simulation Study of the Design Issues. IEEE Transactions on Electron Devices, 2016, 63, 4788-4795.	3.0	29
33	Remarkable interplay between strain and parasitic absorption unravelling the best route for Si-compatible Germanium laser at room temperature. , 2016, , .		0
34	Anomalous threshold reduction from ~ 100 mW/cm ² to ~ 10 mW/cm ² by uniaxial strain for a low-threshold Ge laser. Optics Communications, 2016, 379, 32-35.	2.1	3
35	Direct Bandgap Light Emission from Strained Germanium Nanowires Coupled with High-Q Nanophotonic Cavities. Nano Letters, 2016, 16, 2168-2173.	9.1	72
36	56 Gb/s Germanium Waveguide Electro-Absorption Modulator. Journal of Lightwave Technology, 2016, 34, 419-424.	4.6	127

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37	Impact of minority carrier lifetime on the performance of strained germanium light sources. Optics Communications, 2016, 364, 233-237.	2.1	23
38	Ge microdisk with lithographically-tunable strain using CMOS-compatible process. Optics Express, 2015, 23, 33249.	3.4	12
39	Nickel oxide carrier selective contacts for silicon solar cells. , 2015, , .		11
40	Thermal modeling of metal oxides for highly scaled nanoscale RRAM. , 2015, , .		4
41	Lateral overgrowth of germanium for monolithic integration of germanium-on-insulator on silicon. Journal of Crystal Growth, 2015, 416, 21-27.	1.5	18
42	Reduction of Surface Roughness in Epitaxially Grown Germanium by Controlled Thermal Oxidation. IEEE Electron Device Letters, 2015, 36, 297-299.	3.9	8
43	Bandgap-customizable germanium using lithographically determined biaxial tensile strain for silicon-compatible optoelectronics. Optics Express, 2015, 23, 16740.	3.4	28
44	Monolithic integration of germanium-on-insulator p-i-n photodetector on silicon. Optics Express, 2015, 23, 15816.	3.4	30
45	Surface Passivation of Germanium Using SF ₆ Plasma to Reduce Source/Drain Contact Resistance in Germanium n-FET. IEEE Electron Device Letters, 2015, 36, 745-747.	3.9	23
46	Strained Ge nanowire with high-Q optical cavity for Ge laser applications. , 2015, , .		0
47	Strained Ge Light Emitter with Ge on Dual Insulators for Improved Thermal Conduction and Optical Insulation. IEIE Transactions on Smart Processing and Computing, 2015, 4, 318-323.	0.4	0
48	The Efficacy of Metal-Interfacial Layer-Semiconductor Source/Drain Structure on Sub-10-nm n-Type Ge FinFET Performances. IEEE Electron Device Letters, 2014, 35, 1185-1187.	3.9	19
49	Specific Contact Resistivity Reduction Through Ar Plasma-Treated TiO ₂ Interfacial Layer to Metal/Ge Contact. IEEE Electron Device Letters, 2014, 35, 1076-1078.	3.9	34
50	Observation of improved minority carrier lifetimes in high-quality Ge-on-insulator using time-resolved photoluminescence. Optics Letters, 2014, 39, 6205.	3.3	34
51	Metal/insulator/semiconductor carrier selective contacts for photovoltaic cells. , 2014, , .		25
52	Study of Carrier Statistics in Uniaxially Strained Ge for a Low-Threshold Ge Laser. IEEE Journal of Selected Topics in Quantum Electronics, 2014, 20, 16-22.	2.9	31
53	Schottky barrier height reduction for holes by Fermi level depinning using metal/nickel oxide/silicon contacts. Applied Physics Letters, 2014, 105, .	3.3	74
54	New materials for post-Si computing: Ge and GeSn devices. MRS Bulletin, 2014, 39, 678-686.	3.5	50

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55	Monolithic 3D integration of logic and memory: Carbon nanotube FETs, resistive RAM, and silicon FETs. , 2014, , .		105
56	7-nm FinFET CMOS Design Enabled by Stress Engineering Using Si, Ge, and Sn. IEEE Transactions on Electron Devices, 2014, 61, 1222-1230.	3.0	79
57	Analytical Study of Interfacial Layer Doping Effect on Contact Resistivity in Metal-Interfacial Layer-Ge Structure. IEEE Electron Device Letters, 2014, 35, 705-707.	3.9	22
58	How far can we push Si CMOS and what are the alternatives for future ULSI. , 2014, , .		0
59	Extended Hückel theory for quantum transport in magnetic tunnel junctions. , 2014, , .		1
60	Direct bandgap germanium-on-silicon inferred from 57% â€©100â€© uniaxial tensile strain [Invited]. Photonics Research, 2014, 2, A8.	7.0	139
61	Demonstration of a Ge/GeSn/Ge Quantum-Well Microdisk Resonator on Silicon: Enabling High-Quality Ge(Sn) Materials for Micro- and Nanophotonics. Nano Letters, 2014, 14, 37-43.	9.1	94
62	Highly Selective Dry Etching of Germanium over Germaniumâ€™Tin (Ge_{1â€™}Sn): A Novel Route for Ge_{1â€™}Sn Nanostructure Fabrication. Nano Letters, 2013, 13, 3783-3790.	9.1	83
63	Experimental and theoretical investigation of phosphorus in-situ doping of germanium epitaxial layers. Current Applied Physics, 2013, 13, 1060-1063.	2.4	11
64	A group IV solution for 7 nm FinFET CMOS: Stress engineering using Si, Ge and Sn. , 2013, , .		12
65	Material characterization of high Sn-content, compressively-strained GeSn epitaxial films after rapid thermal processing. Journal of Crystal Growth, 2013, 365, 29-34.	1.5	72
66	Effects of point defect healing on phosphorus implanted germanium n+/p junction and its thermal stability. Journal of Applied Physics, 2013, 114, .	2.5	4
67	Approaches for a viable Germanium laser: Tensile strain, GeSn alloys, and n-type doping. , 2013, , .		4
68	Limits of specific contact resistivity to Si, Ge and III-V semiconductors using interfacial layers. , 2013, , .		9
69	Antimonide-Based Heterostructure p-Channel MOSFETs With Ni-Alloy Source/Drain. IEEE Electron Device Letters, 2013, 34, 1367-1369.	3.9	29
70	Electrical Characterization of GaP-Silicon Interface for Memory and Transistor Applications. IEEE Transactions on Electron Devices, 2013, 60, 2238-2245.	3.0	3
71	Strain-Induced Pseudoheterostructure Nanowires Confining Carriers at Room Temperature with Nanoscale-Tunable Band Profiles. Nano Letters, 2013, 13, 3118-3123.	9.1	107
72	Effects of oxidant dosing on GaSb (100) prior to atomic layer deposition and high-performance antimonide-based P-channel MOSFETs with Ni-alloy S/D. , 2013, , .		2

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73	Atomic layer deposition of Al ₂ O ₃ on germanium-tin (GeSn) and impact of wet chemical surface pre-treatment. Applied Physics Letters, 2013, 103, .	3.3	19
74	Theoretical Analysis of GeSn Alloys as a Gain Medium for a Si-Compatible Laser. IEEE Journal of Selected Topics in Quantum Electronics, 2013, 19, 1502706-1502706.	2.9	77
75	Hole Mobility Enhancement in Compressively Strained $\{m \text{ Ge}\}_{0.93}\{m \text{ Sn}\}_{0.07}$ pMOSFETs. IEEE Electron Device Letters, 2013, 34, 831-833.	3.9	68
76	Achieving direct band gap in germanium through integration of Sn alloying and external strain. Journal of Applied Physics, 2013, 113, .	2.5	351
77	Fluorine passivation of vacancy defects in bulk germanium for Ge metal-oxide-semiconductor field-effect transistor application. Applied Physics Letters, 2012, 101, 072104.	3.3	41
78	Metal-Insulator-Semiconductor Contacts on Ge: Physics and Applications. , 2012, , .		4
79	Amelioration of interface state response using band engineering in III-V quantum well metal-oxide-semiconductor field-effect transistors. Applied Physics Letters, 2012, 100, .	3.3	9
80	Demonstration of Electroluminescence from Strained Ge Membrane LED. , 2012, , .		1
81	Low-Contact-Resistivity Nickel Germanide Contacts on n+Ge with Phosphorus/Antimony Co-Doping and Schottky Barrier Height Lowering. , 2012, , .		16
82	Simulation for efficient Germanium VCSEL for optical interconnects. , 2012, , .		0
83	The Effect of Fixed Charge in Tunnel-Barrier Contacts for Fermi-Level Depinning in Germanium. IEEE Electron Device Letters, 2012, 33, 761-763.	3.9	11
84	Characteristics of metal-induced crystallization/dopant activation and its application to junction diodes on single-crystalline silicon. Journal Physics D: Applied Physics, 2012, 45, 245104.	2.8	1
85	Characterization of Geometric Leakage Current of $\text{hbox}\{\text{GeO}\}_{2}$ Isolation and Effect of Forming Gas Annealing in Germanium p-n Junctions. IEEE Electron Device Letters, 2012, 33, 1520-1522.	3.9	0
86	Performance Improvement of One-Transistor DRAM by Band Engineering. IEEE Electron Device Letters, 2012, 33, 29-31.	3.9	16
87	Roadmap to an Efficient Germanium-on-Silicon Laser: Strain vs. n-Type Doping. IEEE Photonics Journal, 2012, 4, 2002-2009.	2.0	90
88	Enhancement of Phosphorus Dopant Activation and Diffusion Suppression by Fluorine Co-Implant in Epitaxially Grown Germanium. , 2012, , .		2
89	Reduction in Specific Contact Resistivity to $\text{hbox}\{n\}^{\{+\}}$ Ge Using $\text{hbox}\{\text{TiO}\}_{2}$ Interfacial Layer. IEEE Electron Device Letters, 2012, 33, 1541-1543.	3.9	51
90	Enhancing hole mobility in III-V semiconductors. Journal of Applied Physics, 2012, 111, .	2.5	37

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91	Electroluminescence from strained germanium membranes and implications for an efficient Si-compatible laser. Applied Physics Letters, 2012, 100, .	3.3	79
92	Selective-Area High-Quality Germanium Growth for Monolithic Integrated Optoelectronics. IEEE Electron Device Letters, 2012, 33, 579-581.	3.9	18
93	Novel Germanium n-MOSFETs With Raised Source/Drain on Selectively Grown Ge on Si for Monolithic Integration. IEEE Electron Device Letters, 2011, 32, 446-448.	3.9	12
94	N-Channel Germanium MOSFET Fabricated Below 360 μm by Cobalt-Induced Dopant Activation for Monolithic Three-Dimensional-ICs. IEEE Electron Device Letters, 2011, 32, 234-236.	3.9	22
95	Complex Band Structures: From Parabolic to Elliptic Approximation. IEEE Electron Device Letters, 2011, 32, 1296-1298.	3.9	24
96	GeSn technology: Extending the Ge electronics roadmap. , 2011, , .		84
97	Heterostructure design and demonstration of InGaSb channel III-V CMOS transistors. , 2011, , .		4
98	Impact of fixed charge on metal-insulator-semiconductor barrier height reduction. Applied Physics Letters, 2011, 99, .	3.3	54
99	Experimental demonstration of In _{0.53} Ga _{0.47} As field effect transistors with scalable nonalloyed source/drain contacts. Applied Physics Letters, 2011, 98, .	3.3	13
100	Schottky barrier height reduction for metal/n-GaSb contact by inserting TiO ₂ interfacial layer with low tunneling resistance. Applied Physics Letters, 2011, 98, .	3.3	34
101	Novel contact structures for high mobility channel materials. MRS Bulletin, 2011, 36, 112-120.	3.5	8
102	Strained germanium thin film membrane on silicon substrate for optoelectronics. Optics Express, 2011, 19, 25866.	3.4	114
103	Effect of interfacial oxide on Ge MOSCAP and N-MOSFET characteristics. Microelectronic Engineering, 2011, 88, 3428-3431.	2.4	8
104	The Effect of Donor/Acceptor Nature of Interface Traps on Ge MOSFET Characteristics. IEEE Transactions on Electron Devices, 2011, 58, 1015-1022.	3.0	57
105	Optimization of Germanium (Ge) n^+p and p^+n Junction Diodes and Sub 380 μm Ge CMOS Technology for Monolithic Three-Dimensional Integration. IEEE Transactions on Electron Devices, 2011, 58, 2394-2400.	3.0	7
106	Thermionic Field Emission Explanation for Nonlinear Richardson Plots. IEEE Transactions on Electron Devices, 2011, 58, 2423-2429.	3.0	32
107	Optimization of the $\text{Al}_2\text{O}_3/\text{GaSb}$ Interface and a High-Mobility GaSb pMOSFET. IEEE Transactions on Electron Devices, 2011, 58, 3407-3415.	3.0	89
108	Electric Field Effects in Semiconductor Spin Transport—A Transfer Matrix Formalism. IEEE Transactions on Magnetics, 2011, 47, 2746-2749.	2.1	2

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109	Study of Shubnikovâ€ˆde Haas oscillations and measurement of hole effective mass in compressively strained InXGa1âˆ’XSb quantum wells. Solid-State Electronics, 2011, 62, 138-141.	1.4	3
110	Increase in current density for metal contacts to n-germanium by inserting TiO2 interfacial layer to reduce Schottky barrier height. Applied Physics Letters, 2011, 98, .	3.3	110
111	Tight-binding study of ΓL bandstructure engineering for ballistic III–V nMOSFETs. , 2011, , .		1
112	Metal/III–V effective barrier height tuning using ALD high-κ dipoles. , 2011, , .		3
113	Device quality Sb-based compound semiconductor surface: A comparative study of chemical cleaning. Journal of Applied Physics, 2011, 109, .	2.5	45
114	InxGa1-xSb channel p-metal-oxide-semiconductor field effect transistors: Effect of strain and heterostructure design. Journal of Applied Physics, 2011, 110, 014503.	2.5	37
115	Metal/III-V effective barrier height tuning using atomic layer deposition of high-Îº/high-Îº bilayer interfaces. Applied Physics Letters, 2011, 99, 092107.	3.3	36
116	Inelastic electron tunneling study of crystallization effects and defect energies in hafnium oxide gate dielectrics. Applied Physics Letters, 2011, 98, .	3.3	9
117	Cavity-enhanced direct band electroluminescence near 1550 nm from germanium microdisk resonator diode on silicon. Applied Physics Letters, 2011, 98, 211101.	3.3	26
118	Conductivity mismatch and voltage dependence of magnetoresistance in a semiconductor spin injection device. Journal of Applied Physics, 2010, 107, .	2.5	14
119	Investigation of Capacitorless Double-Gate Single-Transistor DRAM: With and Without Quantum Well. IEEE Transactions on Electron Devices, 2010, 57, 608-613.	3.0	13
120	Uniaxial Stress Engineering for High-Performance Ge NMOSFETs. IEEE Transactions on Electron Devices, 2010, 57, 1037-1046.	3.0	29
121	Low Temperature Germanium Growth on Silicon Oxide Using Boron Seed Layer and In Situ Dopant Activation. Journal of the Electrochemical Society, 2010, 157, H371.	2.9	19
122	Metal/III-V Schottky barrier height tuning for the design of nonalloyed III-V field-effect transistor source/drain contacts. Journal of Applied Physics, 2010, 107, .	2.5	75
123	Study of piezoresistance under uniaxial stress for technologically relevant III-V semiconductors using wafer bending experiments. Applied Physics Letters, 2010, 96, 242110.	3.3	17
124	Border traps in Al2O3/In0.53Ga0.47As (100) gate stacks and their passivation by hydrogen anneals. Applied Physics Letters, 2010, 96, .	3.3	172
125	The influence of Fermi level pinning/depinning on the Schottky barrier height and contact resistance in Ge/CoFeB and Ge/MgO/CoFeB structures. Applied Physics Letters, 2010, 96, 052514.	3.3	49
126	Novel SiGe Source/Drain for Reduced Parasitic Resistance in Ge NMOS. ECS Transactions, 2010, 33, 871-876.	0.5	5

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127	High quality single-crystal germanium-on-insulator on bulk Si substrates based on multistep lateral over-growth with hydrogen annealing. Applied Physics Letters, 2010, 97, .	3.3	25
128	Novel Capacitorless Single-Transistor Charge-Trap DRAM (1T 1C1D) Utilizing Electrons. IEEE Electron Device Letters, 2010, 31, 405-407.	3.9	4
129	Physical vs. Virtual Express Topologies with Low-Swing Links for Future Many-Core NoCs. , 2010, , .		16
130	Specific Contact Resistivity of Tunnel Barrier Contacts Used for Fermi Level Depinning. IEEE Electron Device Letters, 2010, 31, 1077-1079.	3.9	83
131	3-D ICs: Motivation, performance analysis, technology and applications. , 2010, , .		11
132	Optimal design of III-V heterostructure MOSFETs. , 2010, , .		3
133	Characteristics of surface states and charge neutrality level in Ge. Applied Physics Letters, 2009, 95, .	3.3	38
134	High performance n-MOSFETs with novel source/drain on selectively grown Ge on Si for monolithic integration. , 2009, , .		3
135	Metal-induced dopant (boron and phosphorus) activation process in amorphous germanium for monolithic three-dimensional integration. Journal of Applied Physics, 2009, 106, .	2.5	18
136	Effect of uniaxial-strain on Ge p-i-n photodiodes integrated on Si. Applied Physics Letters, 2009, 95, .	3.3	13
137	Radical oxidation of germanium for interface gate dielectric GeO ₂ formation in metal-insulator-semiconductor gate stack. Journal of Applied Physics, 2009, 106, .	2.5	80
138	Ge (100) and (111) N- and P-FETs With High Mobility and Low- σ_{T} Mobility Characterization. IEEE Transactions on Electron Devices, 2009, 56, 648-655.	3.0	98
139	Compact Performance Models and Comparisons for Gigascale On-Chip Global Interconnect Technologies. IEEE Transactions on Electron Devices, 2009, 56, 1787-1798.	3.0	38
140	Interface studies of ALD-grown metal oxide insulators on Ge and III-V semiconductors (Invited Paper). Microelectronic Engineering, 2009, 86, 1536-1539.	2.4	24
141	High efficiency monolithic photodetectors for integrated optoelectronics in the near infrared. , 2009, , .		2
142	Fermi level depinning in metal/Ge Schottky junction for metal source/drain Ge metal-oxide-semiconductor field-effect-transistor application. Journal of Applied Physics, 2009, 105, .	2.5	165
143	Room temperature 16 μ m electroluminescence from Ge light emitting diode on Si substrate. Optics Express, 2009, 17, 10019.	3.4	165
144	Atomically abrupt and unpinned Al ₂ O ₃ /In _{0.53} Ga _{0.47} As interfaces: Experiment and simulation. Journal of Applied Physics, 2009, 106, .	2.5	81

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145	Characteristics of the Capacitorless Double Gate Quantum Well Single Transistor DRAM. , 2009, , .		2
146	Fermi level depinning for the design of III–V FET source/drain contacts. , 2009, , .		4
147	High-Efficiency p-i-n Photodetectors on Selective-Area-Grown Ge for Monolithic Integration. IEEE Electron Device Letters, 2009, 30, 1161-1163.	3.9	46
148	Germanium In Situ Doped Epitaxial Growth on Si for High-Performance n^+p -Junction Diode. IEEE Electron Device Letters, 2009, 30, 1002-1004.	3.9	41
149	Hole Mobility and Its Enhancement with Strain for Technologically Relevant III-V Semiconductors. , 2009, , .		12
150	p-Channel Ge MOSFET by Selectively Heteroepitaxially Grown Ge on Si. IEEE Electron Device Letters, 2009, 30, 675-677.	3.9	50
151	Investigation of ballistic current in scaled Floating-gate NAND FLASH and a solution. , 2009, , .		16
152	A Modulator Design Methodology Minimizing Power Dissipation in a Quantum Well Modulator-Based Optical Interconnect. Journal of Lightwave Technology, 2009, , .	4.6	0
153	Performance Comparisons Between Cu/Low- κ , Carbon-Nanotube, and Optics for Future On-Chip Interconnects. IEEE Electron Device Letters, 2008, 29, 122-124.	3.9	28
154	Nanometre-scale germanium photodetector enhanced by a near-infrared dipole antenna. Nature Photonics, 2008, 2, 226-229.	31.4	606
155	On the Correct Extraction of Interface Trap Density of MOS Devices With High-Mobility Semiconductor Substrates. IEEE Transactions on Electron Devices, 2008, 55, 547-556.	3.0	339
156	A Low-Power, Highly Scalable, Vertical Double-Gate MOSFET Using Novel Processes. IEEE Transactions on Electron Devices, 2008, 55, 632-639.	3.0	15
157	Experimental characterization of single-walled carbon nanotube film-Si Schottky contacts using metal-semiconductor-metal structures. Applied Physics Letters, 2008, 92, 243116.	3.3	53
158	A Nanoscale Vertical Double-Gate Single-Transistor Capacitorless DRAM. IEEE Electron Device Letters, 2008, 29, 615-617.	3.9	44
159	High mobility Ge and III–V materials and novel device structures for high performance nanoscale MOSFETS. , 2008, , .		4
160	Theoretical evaluation of performance in biaxially-strained GaAs and $In_{0.75}Ga_{0.25}As$ NMOS DGFETs. , 2008, , .		0
161	A Highly Scalable Capacitorless Double Gate Quantum Well Single Transistor DRAM: 1T-QW DRAM. IEEE Electron Device Letters, 2008, 29, 1405-1407.	3.9	22
162	Fermi-Level Depinning of GaAs for Ohmic Contacts. , 2008, , .		3

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163	Low temperature (≤ 380°C) and high performance Ge CMOS technology with novel source/drain by metal-induced dopants activation and high-k/metal gate stack for monolithic 3D integration. , 2008, , .		36
164	Ge-Interface Engineering With Ozone Oxidation for Low Interface-State Density. IEEE Electron Device Letters, 2008, 29, 328-330.	3.9	172
165	Mobility modeling of strained germanium (s-Ge) quantum well (QW) heterostructure pMOSFETs. , 2008, , .		0
166	Fermi-level depinning in metal/Ge Schottky junction and its application to metal source/drain Ge NMOSFET. , 2008, , .		29
167	Chemical Bonding, Interfaces, and Defects in Hafnium Oxide–Germanium Oxynitride Gate Stacks on Ge(100). Journal of the Electrochemical Society, 2008, 155, G304.	2.9	44
168	Atomic Layer Deposition of Hafnium Oxide on Ge and GaAs Substrates: Precursors and Surface Preparation. Journal of the Electrochemical Society, 2008, 155, H937.	2.9	35
169	Low temperature boron and phosphorus activation in amorphous germanium using Ni- and Co-induced crystallization and its application for three-dimensional integrated circuits. Applied Physics Letters, 2008, 93, .	3.3	8
170	Operational Voltage Reduction of Flash Memory Using High- κ Composite Tunnel Barriers. IEEE Electron Device Letters, 2008, 29, 252-254.	3.9	14
171	Metal-semiconductor-metal photodetectors based on single-walled carbon nanotube film–GaAs Schottky contacts. Journal of Applied Physics, 2008, 103, 114315.	2.5	37
172	Performance Evaluation of III-V Double-Gate n-MOSFETs. , 2008, , .		4
173	High performance germanium N+–P and P+–N junction diodes formed at low Temperature ($\hat{\approx}$ 1/2380ÀC) using metal-induced dopant activation. Applied Physics Letters, 2008, 93, .	3.3	29
174	Self-nucleation free and dimension dependent metal-induced lateral crystallization of amorphous germanium for single crystalline germanium growth on insulating substrate. Journal of Applied Physics, 2008, 104, 064501.	2.5	29
175	Novel Si-based CMOS Optoelectronic Switching Device Operating in the Near Infrared. , 2007, , .		0
176	A very low temperature single crystal germanium growth process on insulating substrate using Ni-induced lateral crystallization for three-dimensional integrated circuits. Applied Physics Letters, 2007, 91, 143107.	3.3	60
177	High temperature phase transformation of tantalum nitride films deposited by plasma enhanced atomic layer deposition for gate electrode applications. Applied Physics Letters, 2007, 90, 102101.	3.3	30
178	Highly Scalable Vertical Double Gate NOR Flash Memory. , 2007, , .		6
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