

Yee-Chia Yeo

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

302
papers

6,060
citations

41
h-index

64
g-index

370
ext. papers

6,767
ext. citations

3.1
avg, IF

5.55
L-index

#	Paper	IF	Citations
302	A Ladder Transmission Line Model for the Extraction of Ultralow Specific Contact Resistivity Part I: Theoretical Design and Simulation Study. <i>IEEE Transactions on Electron Devices</i> , 2020 , 67, 2682-2689	2.9	1
301	A Ladder Transmission Line Model for the Extraction of Ultralow Specific Contact Resistivity Part II: Experimental Verification. <i>IEEE Transactions on Electron Devices</i> , 2020 , 67, 2690-2696	2.9	1
300	Design and Experimental Demonstration of Integrated Over-Current Protection Circuit for GaN DCDC Converters. <i>IEEE Journal of Emerging and Selected Topics in Power Electronics</i> , 2020 , 8, 4270-4278	5.6	4
299	All-GaN Power Integration: Devices to Functional Subcircuits and Converter ICs. <i>IEEE Journal of Emerging and Selected Topics in Power Electronics</i> , 2020 , 8, 31-41	5.6	13
298	Elimination of the Parasitic Metal Resistance in Transmission Line Model for Extraction of Ultralow Specific Contact Resistivity. <i>IEEE Transactions on Electron Devices</i> , 2019 , 66, 3086-3092	2.9	7
297	Development of GaN Power IC Platform and All GaN DC-DC Buck Converter IC 2019 ,		5
296	High-speed photo detection at two-micron-wavelength: technology enablement by GeSn/Ge multiple-quantum-well photodiode on 300 mm Si substrate. <i>Optics Express</i> , 2019 , 27, 5798-5813	3.3	48
295	Integrating GeSn photodiode on a 200 mm Ge-on-insulator photonics platform with Ge CMOS devices for advanced OEIC operating at 2 μ m band. <i>Optics Express</i> , 2019 , 27, 26924-26939	3.3	18
294	Enhanced Photo Response at Two-micron-wavelength Using GeSn/Ge Multiple-Quantum-Well Waveguide 2019 ,		1
293	Strain relaxation of germanium-tin (GeSn) fins. <i>AIP Advances</i> , 2018 , 8, 025111	1.5	5
292	Nanoscale metal-InGaAs contacts with ultra-low specific contact resistivity: Improved interfacial quality and extraction methodology. <i>Journal of Applied Physics</i> , 2018 , 123, 024508	2.5	10
291	High-performance GeSn photodetector and fin field-effect transistor (FinFET) on an advanced GeSn-on-insulator platform. <i>Optics Express</i> , 2018 , 26, 10305-10314	3.3	16
290	GeSn lateral p-i-n photodetector on insulating substrate. <i>Optics Express</i> , 2018 , 26, 17312-17321	3.3	25
289	Germanium-Tin (GeSn) P-Channel Fin Field-Effect Transistor Fabricated on a Novel GeSn-on-Insulator Substrate. <i>IEEE Transactions on Electron Devices</i> , 2018 , 65, 3754-3761	2.9	19
288	High Speed (f_{3dB} above 10 GHz) Photo Detection at Two-micron-wavelength Realized by GeSn/Ge Multiple-quantum-well Photodiode on a 300 mm Si Substrate 2018 ,		1
287	Sub- $10^9 \Omega \cdot \text{cm}^2$ Specific Contact Resistivity (Down to $4.4 \times 10^{10} \Omega \cdot \text{cm}^2$) for Metal Contact on Ga and Sn Surface-Segregated GeSn Film. <i>IEEE Transactions on Electron Devices</i> , 2018 , 65, 5275-5281	2.9	11
286	An Improved Methodology for Accurate Extraction of Ultra-Low Specific Contact Resistivity of Alloyed Contacts Using Nanoscale Transmission Line Method. <i>IEEE Electron Device Letters</i> , 2018 , 39, 803-806	4.4	5

285	Monolithic Integration of InAs Quantum-Well n-MOSFETs and Ultrathin Body Ge p-MOSFETs on a Si Substrate. <i>IEEE Transactions on Electron Devices</i> , 2017 , 64, 353-360	2.9	8
284	Nanoscale FETs Simulation Based on Full-Complex-Band Structure and Self-Consistently Solved Atomic Potential. <i>IEEE Transactions on Electron Devices</i> , 2017 , 64, 58-65	2.9	5
283	Enabling low power and high speed OEICs: First monolithic integration of InGaAs n-FETs and lasers on Si substrate 2017 ,		1
282	Record low specific contact resistivity ($1.2 \times 10^{-9} \Omega \text{cm}^2$) for P-type semiconductors: Incorporation of Sn into Ge and in-Situ Ga doping 2017 ,		2
281	Digital Etch Technique for Forming Ultra-Scaled Germanium-Tin (Ge Sn) Fin Structure. <i>Scientific Reports</i> , 2017 , 7, 1835	4.9	10
280	The first GeSn FinFET on a novel GeSnOI substrate achieving lowest S of 79 mV/decade and record high Gm, int of 807 B/Hz for GeSn P-FETs 2017 ,		15
279	Ultra-low specific contact resistivity ($1.4 \times 10^{-9} \Omega \text{cm}^2$) for metal contacts on in-situ Ga-doped Ge _{0.95} Sn _{0.05} film. <i>Journal of Applied Physics</i> , 2017 , 122, 224503	2.5	19
278	Kinetics of plasma oxidation of germanium-tin (GeSn). <i>Applied Surface Science</i> , 2017 , 425, 95-99	6.7	1
277	Au-Free AlGaIn/GaN MIS-HEMTs With Embedded Current Sensing Structure for Power Switching Applications. <i>IEEE Transactions on Electron Devices</i> , 2017 , 64, 3515-3518	2.9	14
276	Design of power integrated circuits in full AlGaIn/GaN MIS-HEMT configuration for power conversion. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2017 , 214, 1600562	1.6	9
275	Thermal stability of germanium-tin (GeSn) fins. <i>Applied Physics Letters</i> , 2017 , 111, 252103	3.4	6
274	Two-micron-wavelength germanium-tin photodiodes with low dark current and gigahertz bandwidth. <i>Optics Express</i> , 2017 , 25, 15818-15827	3.3	60
273	Floating-base germanium-tin heterojunction phototransistor for high-efficiency photodetection in short-wave infrared range. <i>Optics Express</i> , 2017 , 25, 18502-18507	3.3	38
272	Germanium-tin multiple quantum well on silicon avalanche photodiode for photodetection at two micron wavelength. <i>Semiconductor Science and Technology</i> , 2016 , 31, 095001	1.8	21
271	Germanium-Tin heterojunction phototransistor: Towards high-efficiency low-power photodetection in short-wave infrared range 2016 ,		3
270	Heteroepitaxial growth of In _{0.30} Ga _{0.70} As high-electron mobility transistor on 200 mm silicon substrate using metamorphic graded buffer. <i>AIP Advances</i> , 2016 , 6, 085106	1.5	9
269	Realistic Trap Configuration Scheme With Fabrication Processes in Consideration for the Simulations of AlGaIn/GaN MIS-HEMT Devices. <i>IEEE Journal of Emerging and Selected Topics in Power Electronics</i> , 2016 , 4, 720-729	5.6	8
268	Single Crystalline Germanium-Lead Formed by Laser-Induced Epitaxy. <i>ECS Journal of Solid State Science and Technology</i> , 2016 , 5, P353-P360	2	6

267	Gate-All-Around In _{0.53} Ga _{0.47} As Junctionless Nanowire FET With Tapered Source/Drain Structure. <i>IEEE Transactions on Electron Devices</i> , 2016 , 63, 1027-1033	2.9	9
266	Ultimate Performance Projection of Ultrathin Body Transistor Based on Group IV, III-V, and 2-D-Materials. <i>IEEE Transactions on Electron Devices</i> , 2016 , 63, 773-780	2.9	13
265	Growth and characterization of highly tensile strained Ge _{1-x} Sn _x formed on relaxed In _y Ga _{1-y} P buffer layers. <i>Journal of Applied Physics</i> , 2016 , 119, 125303	2.5	3
264	Germanium-Tin interdiffusion in strained Ge/GeSn multiple-quantum-well structure. <i>Journal Physics D: Applied Physics</i> , 2016 , 49, 225102	3	6
263	Near-bandgap optical properties of pseudomorphic GeSn alloys grown by molecular beam epitaxy. <i>Journal of Applied Physics</i> , 2016 , 120, 063104	2.5	8
262	GeSn-on-insulator substrate formed by direct wafer bonding. <i>Applied Physics Letters</i> , 2016 , 109, 022106	3.4	25
261	Ge _{0.83} Sn _{0.17} p-channel metal-oxide-semiconductor field-effect transistors: Impact of sulfur passivation on gate stack quality. <i>Journal of Applied Physics</i> , 2016 , 119, 024502	2.5	29
260	In-situ gallium-doping for forming p+ germanium-tin and application in germanium-tin p-i-n photodetector. <i>Journal of Applied Physics</i> , 2016 , 119, 155704	2.5	24
259	Effect of Body Thickness on the Electrical Performance of Ballistic n-Channel GaSb Double-Gate Ultrathin-Body Transistor. <i>IEEE Transactions on Electron Devices</i> , 2015 , 62, 788-794	2.9	8
258	Suppression of dark current in germanium-tin on silicon p-i-n photodiode by a silicon surface passivation technique. <i>Optics Express</i> , 2015 , 23, 18611-9	3.3	46
257	Germanium n-Channel Planar FET and FinFET: Gate-Stack and Contact Optimization. <i>IEEE Transactions on Electron Devices</i> , 2015 , 62, 3567-3574	2.9	12
256	Probing the carrier concentration profiles in phosphorus-implanted germanium using infrared spectroscopic ellipsometry. <i>Journal of Applied Physics</i> , 2015 , 117, 073103	2.5	
255	Influence of hydrogen surface passivation on Sn segregation, aggregation, and distribution in GeSn/Ge(001) materials. <i>Journal of Applied Physics</i> , 2015 , 117, 205302	2.5	10
254	Self-assembly of tin wires via phase transformation of heteroepitaxial germanium-tin on germanium substrate. <i>Journal of Applied Physics</i> , 2015 , 117, 225304	2.5	13
253	Critical thickness for strain relaxation of Ge _{1-x} Sn _x (x=0.17) grown by molecular beam epitaxy on Ge(001). <i>Applied Physics Letters</i> , 2015 , 106, 232106	3.4	54
252	Mid-infrared to ultraviolet optical properties of InSb grown on GaAs by molecular beam epitaxy. <i>Journal of Applied Physics</i> , 2015 , 117, 223106	2.5	4
251	Germanium-Tin on Si Avalanche Photodiode: Device Design and Technology Demonstration. <i>IEEE Transactions on Electron Devices</i> , 2015 , 62, 128-135	2.9	42
250	Avalanche photodiode featuring Germanium-tin multiple quantum wells on silicon: Extending photodetection to wavelengths of 2 and beyond 2015 ,		3

249	Post-growth annealing of germanium-tin alloys using pulsed excimer laser. <i>Journal of Applied Physics</i> , 2015 , 118, 025701	2.5	8
248	Etching of germanium-tin using ammonia peroxide mixture. <i>Journal of Applied Physics</i> , 2015 , 118, 245303.5	3.5	4
247	Parametrized dielectric functions of amorphous GeSn alloys. <i>Journal of Applied Physics</i> , 2015 , 118, 123102.5	2.5	1
246	Germanium-based transistors for future high performance and low power logic applications 2015 ,		17
245	An Expandable ZnS/SiO_2 Liner Stressor for N-Channel FinFETs. <i>IEEE Transactions on Electron Devices</i> , 2014 , 61, 1963-1971	2.9	
244	Ballistic Transport Performance of Silicene and Germanene Transistors. <i>IEEE Transactions on Electron Devices</i> , 2014 , 61, 1590-1598	2.9	44
243	Migration enhanced epitaxy of InGaP on offcut Ge (001) using solid-source molecular beam epitaxy 2014 ,		1
242	Plasma Doping of InGaAs at Elevated Substrate Temperature for Reduced Sheet Resistance and Defect Formation. <i>IEEE Transactions on Electron Devices</i> , 2014 , 61, 3159-3165	2.9	1
241	Tin surface segregation, desorption, and island formation during post-growth annealing of strained epitaxial $\text{Ge}_{1-x}\text{Sn}_x$ layer on Ge(001) substrate. <i>Applied Surface Science</i> , 2014 , 321, 240-244	6.7	39
240	Toward Conformal Damage-Free Doping With Abrupt Ultrashallow Junction: Formation of Si Monolayers and Laser Anneal as a Novel Doping Technique for InGaAs nMOSFETs. <i>IEEE Transactions on Electron Devices</i> , 2014 , 61, 1039-1046	2.9	26
239	GeTe Liner Stressor Featuring Phase-Change- Induced Volume Contraction for Strain Engineering of Sub-50-nm p-Channel FinFETs: Simulation and Electrical Characterization. <i>IEEE Transactions on Electron Devices</i> , 2014 , 61, 2647-2655	2.9	1
238	P2S5/(NH4)2Sx-Based Sulfur Monolayer Doping for Source/Drain Extensions in n-Channel InGaAs FETs. <i>IEEE Transactions on Electron Devices</i> , 2014 , 61, 2767-2773	2.9	4
237	Compositional dependence of optical critical point parameters in pseudomorphic GeSn alloys. <i>Journal of Applied Physics</i> , 2014 , 116, 053520	2.5	23
236	Above-bandgap optical properties of biaxially strained GeSn alloys grown by molecular beam epitaxy. <i>Applied Physics Letters</i> , 2014 , 104, 022111	3.4	31
235	InAlP-Capped (100) Ge nFETs with 1.06 nm EOT: Achieving record high peak mobility and first integration on 300 mm Si substrate 2014 ,		1
234	Chlorine- and Fluorine-based dry etching of Germanium-Tin 2014 ,		1
233	Formation of vertically stacked germanium-tin ($\text{Ge}_{1-x}\text{Sn}_x$) nanowires using a selective dry etch technique 2014 ,		2
232	Cold Silicon Preamorphization Implant and Presilicide Sulfur Implant for Advanced Nickel Silicide Contacts. <i>IEEE Transactions on Electron Devices</i> , 2014 , 61, 3499-3506	2.9	2

231	Towards simultaneous achievement of carrier activation and crystallinity in Ge and GeSn with heated phosphorus ion implantation: An optical study. <i>Applied Physics Letters</i> , 2014 , 105, 122108	3.4	11
230	Infrared spectroscopic ellipsometry study of sulfur-doped In _{0.53} Ga _{0.47} As ultra-shallow junctions. <i>Applied Physics Letters</i> , 2014 , 104, 232102	3.4	4
229	Band alignment of HfO ₂ /Al _{0.25} Ga _{0.75} N determined by x-ray photoelectron spectroscopy: Effect of SiH ₄ surface treatment. <i>Applied Physics Letters</i> , 2014 , 104, 091605	3.4	12
228	Self-Aligned and Non-Self-Aligned Contact Metallization in InGaAs Metal-Oxide-Semiconductor Field-Effect Transistors: A Simulation Study. <i>IEEE Transactions on Electron Devices</i> , 2014 , 61, 734-741	2.9	3
227	Silicon Surface Passivation Technology for Germanium-Tin P-Channel MOSFETs: Suppression of Germanium and Tin Segregation for Mobility Enhancement. <i>ECS Journal of Solid State Science and Technology</i> , 2014 , 3, Q162-Q168	2	11
226	New materials for post-Si computing: Ge and GeSn devices. <i>MRS Bulletin</i> , 2014 , 39, 678-686	3.2	42
225	Investigation of PdInGaAs for the formation of self-aligned source/drain contacts in InGaAs metal-oxide-semiconductor field-effect transistors. <i>Solid-State Electronics</i> , 2013 , 85, 36-42	1.7	8
224	Strained germanium in (GeSn) p-channel metal-oxide-semiconductor field-effect-transistors (p-MOSFETs) with ammonium sulfide passivation. <i>Solid-State Electronics</i> , 2013 , 83, 66-70	1.7	26
223	High performance Ge CMOS with novel InAlP-passivated channels for future sub-10 nm technology node applications 2013 ,		9
222	Phase Change Liner Stressor for Strain Engineering of P-Channel FinFETs. <i>IEEE Transactions on Electron Devices</i> , 2013 , 60, 2703-2711	2.9	2
221	Near ballistic sub-7 nm Junctionless FET featuring 1 nm extremely-thin channel and raised S/D structure 2013 ,		6
220	Novel technique comprising silane treatment and laser anneal for abrupt ultra-shallow junction formation for InGaAs n-MOSFETs 2013 ,		3
219	Lattice strain analysis of silicon fin field-effect transistor structures wrapped by Ge ₂ Sb ₂ Te ₅ liner stressor. <i>Journal of Applied Physics</i> , 2013 , 113, 073708	2.5	7
218	Ultimate performance projection of ballistic III-V ultra-thin-body MOSFET 2013 ,		1
217	Germanium in (GeSn) p-Channel MOSFETs Fabricated on (100) and (111) Surface Orientations With Sub-400 Å Si ₂ H ₆ Passivation. <i>IEEE Electron Device Letters</i> , 2013 , 34, 339-341	4.4	87
216	Technology options for reducing contact resistances in nanoscale metal-oxide-semiconductor field-effect transistors 2013 ,		2
215	In _{0.53} Ga _{0.47} As FinFETs with self-aligned molybdenum contacts and HfO ₂ /Al ₂ O ₃ gate dielectric. <i>Solid-State Electronics</i> , 2013 , 84, 83-89	1.7	7
214	Contact Resistance Reduction for Strained N-MOSFETs With Silicon-Carbon Source/Drain Utilizing Aluminum Ion Implant and Aluminum Profile Engineering. <i>IEEE Transactions on Electron Devices</i> , 2013 , 60, 1310-1317	2.9	15

213	Sub-400 °C Si ₂ H ₆ Passivation, HfO ₂ Gate Dielectric, and Single TaN Metal Gate: A Common Gate Stack Technology for In _{0.7} Ga _{0.3} As and Ge _{1-x} Sn _x CMOS. <i>IEEE Transactions on Electron Devices</i> , 2013 , 60, 1640-1648	2.9	23
212	Germanium Multiple-Gate Field-Effect Transistor With In Situ Boron-Doped Raised Source/Drain. <i>IEEE Transactions on Electron Devices</i> , 2013 , 60, 2135-2141	2.9	7
211	Strain engineering of ultra-thin silicon-on-insulator structures using through-buried-oxide ion implantation and crystallization. <i>Solid-State Electronics</i> , 2013 , 83, 37-41	1.7	3
210	$\text{Ni}(\text{Ge}_{1-x}\text{Sn}_x)$ Ohmic Contact Formation on N-Type $\text{Ge}_{1-x}\text{Sn}_x$ Using Selenium or Sulfur Implant and Segregation. <i>IEEE Transactions on Electron Devices</i> , 2013 , 60, 746-752	2.9	20
209	Relaxed and Strained Patterned Germanium-Tin Structures: A Raman Scattering Study. <i>ECS Journal of Solid State Science and Technology</i> , 2013 , 2, P138-P145	2	51
208	Crystal structure and epitaxial relationship of Ni ₄ InGaAs ₂ films formed on InGaAs by annealing. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2013 , 31, 012202	1.3	18
207	Germanium-tin n-channel tunneling field-effect transistor: Device physics and simulation study. <i>Journal of Applied Physics</i> , 2013 , 113, 194507	2.5	39
206	Tunneling field-effect transistor with Ge/In _{0.53} Ga _{0.47} As heterostructure as tunneling junction. <i>Journal of Applied Physics</i> , 2013 , 113, 094502	2.5	22
205	(110)-oriented germanium-tin (Ge _{0.97} Sn _{0.03}) P-channel MOSFETs 2013 ,		2
204	Physical model for gallium arsenide growth on germanium fins with different orientations formed on 10° offcut germanium-on-insulator substrate. <i>Journal of Applied Physics</i> , 2013 , 113, 044301	2.5	
203	Germanium ^{III} in P-Channel Tunneling Field-Effect Transistor: Device Design and Technology Demonstration. <i>IEEE Transactions on Electron Devices</i> , 2013 , 60, 4048-4056	2.9	47
202	Gate Stack Reliability of MOSFETs With High-Mobility Channel Materials: Bias Temperature Instability. <i>IEEE Transactions on Device and Materials Reliability</i> , 2013 , 13, 524-533	1.6	16
201	Band alignment study of lattice-matched InAlP and Ge using x-ray photoelectron spectroscopy. <i>Applied Physics Letters</i> , 2013 , 103, 031604	3.4	8
200	Ge _{0.97} Sn _{0.03} p-channel metal-oxide-semiconductor field-effect transistors: Impact of Si surface passivation layer thickness and post metal annealing. <i>Journal of Applied Physics</i> , 2013 , 114, 044510	2.5	38
199	Asymmetrically strained high performance Germanium gate-all-around nanowire p-FETs featuring 3.5 nm wire width and contractible phase change liner stressor (Ge ₂ Sb ₂ Te ₅) 2013 ,		2
198	Dopant Segregation and Nickel Stanogermanide Contact Formation on $\text{p}^+\text{Ge}_{0.947}\text{Sn}_{0.053}$ Source/Drain. <i>IEEE Electron Device Letters</i> , 2012 , 33, 634-636	4.4	31
197	Contact Technology for Strained nFinFETs With Silicon ^{III} Carbon Source/Drain Stressors Featuring Sulfur Implant and Segregation. <i>IEEE Transactions on Electron Devices</i> , 2012 , 59, 1046-1055	2.9	12
196	A Self-Aligned Ni-InGaAs Contact Technology for InGaAs Channel n-MOSFETs. <i>Journal of the Electrochemical Society</i> , 2012 , 159, H511-H515	3.9	27

195	Selenium Segregation for Effective Schottky Barrier Height Reduction in NiGe/n ⁺ Ge Contacts. <i>IEEE Electron Device Letters</i> , 2012 , 33, 773-775	4.4	33
194	(NH ₄) ₂ S Passivation for High Mobility Germanium-Tin (GeSn) p-MOSFETs 2012 ,		1
193	High performance μ gate Ge FinFET featuring low temperature Si ₂ H ₆ passivation and implantless Schottky-barrier NiGe metallic Source/Drain 2012 ,		2
192	Germanium μ in n^+p Junction Formed Using Phosphorus Ion Implant and 400 $^{\circ}C$ Rapid Thermal Anneal. <i>IEEE Electron Device Letters</i> , 2012 , 33, 1529-1531	4.4	14
191	Towards direct band-to-band tunneling in P-channel tunneling field effect transistor (TFET): Technology enablement by Germanium-tin (GeSn) 2012 ,		33
190	Metal stanogermanide contacts with enhanced thermal stability for high mobility germanium-tin field-effect transistor 2012 ,		1
189	PBTI characteristics of N-channel tunneling field effect transistor with HfO ₂ gate dielectric: New insights and physical model 2012 ,		1
188	CoInGaAs as a novel self-aligned metallic source/drain material for implant-less In _{0.53} Ga _{0.47} As n-MOSFETs. <i>Solid-State Electronics</i> , 2012 , 78, 62-67	1.7	9
187	Study of interfaces between phase-change material Ge ₂ Sb ₂ Te ₅ and prevalent complementary metal-oxide semiconductor materials by XPS. <i>Surface and Interface Analysis</i> , 2012 , 44, 1013-1017	1.5	4
186	Simulation of tunneling field-effect transistors with extended source structures. <i>Journal of Applied Physics</i> , 2012 , 111, 114514	2.5	13
185	Silicon-Carbon Source and Drain Stressors: Carbon Profile Design by Ion Implantation. <i>Journal of the Electrochemical Society</i> , 2012 , 159, H425-H432	3.9	1
184	In _{0.53} Ga _{0.47} As N-Channel MetalOxideSemiconductor Field-Effect Transistors with Shallow Metallic Source and Drain Extensions and Offset n^+ Doped Regions for Leakage Suppression. <i>Japanese Journal of Applied Physics</i> , 2012 , 51, 02BF03	1.4	2
183	Device Physics and Design of a L-Shaped Germanium Source Tunneling Transistor. <i>Japanese Journal of Applied Physics</i> , 2012 , 51, 02BC04	1.4	10
182	Ge/NiInGaAs Solid-State Reaction for Contact Resistance Reduction on n^+ In _{0.53} Ga _{0.47} As. <i>Japanese Journal of Applied Physics</i> , 2012 , 51, 02BF06	1.4	2
181	Electronic band structure and effective mass parameters of Ge _{1-x} Sn _x alloys. <i>Journal of Applied Physics</i> , 2012 , 112, 103715	2.5	159
180	Modulation of effective Schottky barrier height of nickel silicide on silicon using pre-silicide ammonium sulfide treatment. <i>Journal of Applied Physics</i> , 2012 , 111, 073705	2.5	10
179	Fermi-level depinning at the metal-germanium interface by the formation of epitaxial nickel digermanide NiGe ₂ using pulsed laser anneal. <i>Applied Physics Letters</i> , 2012 , 101, 172103	3.4	13
178	High-Performance Germanium Ω -Gate MuGFET With Schottky-Barrier Nickel Germanide Source/Drain and Low-Temperature Disilane-Passivated Gate Stack. <i>IEEE Electron Device Letters</i> , 2012 , 33, 1336-1338	4.4	19

177	2012,		21
176	A new liner stressor (GeTe) featuring stress enhancement due to very large phase-change induced volume contraction for p-channel FinFETs 2012,		2
175	Phase-Change Random Access Memory With Multilevel Resistances Implemented Using a Dual Phase-Change Material Stack. <i>IEEE Transactions on Electron Devices</i> , 2012 , 59, 2910-2916	2.9	6
174	Multiple-Gate In _{0.53} Ga _{0.47} As Channel n-MOSFETs with Self-Aligned Ni-InGaAs Contacts. <i>ECS Journal of Solid State Science and Technology</i> , 2012 , 1, P82-P85	2	16
173	Device Physics and Design of a L-Shaped Germanium Source Tunneling Transistor. <i>Japanese Journal of Applied Physics</i> , 2012 , 51, 02BC04	1.4	8
172	Ge/NiInGaAs Solid-State Reaction for Contact Resistance Reduction on n-In _{0.53} Ga _{0.47} As. <i>Japanese Journal of Applied Physics</i> , 2012 , 51, 02BF06	1.4	1
171	Bias temperature instability (BTI) characteristics of graphene Field-Effect Transistors 2011,		6
170	Silicon-based tunneling field-effect transistor with elevated germanium source formed on (110) silicon substrate. <i>Applied Physics Letters</i> , 2011 , 98, 153502	3.4	48
169	Modeling the Negative Quadratic VCC of SiO_2 in MIM Capacitor. <i>IEEE Electron Device Letters</i> , 2011 , 32, 1671-1673	4.4	10
168	Contact-Resistance Reduction for Strained n-FinFETs With Silicon/Carbon Source/Drain and Platinum-Based Silicide Contacts Featuring Tellurium Implantation and Segregation. <i>IEEE Transactions on Electron Devices</i> , 2011 , 58, 3852-3862	2.9	14
167	In _{0.7} Ga _{0.3} As channel n-MOSFETs with a novel self-aligned Ni-InGaAs contact formed using a salicide-like metallization process 2011,		1
166	Impact of a Germanium and Carbon Preamorphization Implant on the Electrical Characteristics of NiSi/Si Contacts With a Presilicide Sulfur Implant. <i>IEEE Electron Device Letters</i> , 2011 , 32, 1734-1736	4.4	5
165	High-mobility germanium-tin (GeSn) P-channel MOSFETs featuring metallic source/drain and sub-370 °C process modules 2011,		27
164	Pd-InGaAs as a new self-aligned contact material on InGaAs 2011,		1
163	Self-aligned contact metallization technology for III-V metal-oxide-semiconductor field effect transistors. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2011 , 29, 032209	1.3	9
162	New Tellurium implant and segregation for contact resistance reduction and single metallic silicide technology for independent contact resistance optimization in n- and p-FinFETs 2011,		1
161	Source/Drain Engineering for In _{0.7} Ga _{0.3} As N-Channel Metal Oxide Semiconductor Field-Effect Transistors: Raised Source/Drain with In situ Doping for Series Resistance Reduction. <i>Japanese Journal of Applied Physics</i> , 2011 , 50, 04DF01	1.4	6
160	III-V Multiple-Gate Field-Effect Transistors With High-Mobility $\text{In}_{0.7}\text{Ga}_{0.3}\text{As}$ Channel and Epi-Controlled Retrograde-Doped Fin. <i>IEEE Electron Device Letters</i> , 2011 , 32, 146-148	4.4	55

159	Electrostatics of Ultimately Thin-Body Tunneling FET Using Graphene Nanoribbon. <i>IEEE Electron Device Letters</i> , 2011 , 32, 431-433	4.4	7
158	A new robust non-local algorithm for band-to-band tunneling simulation and its application to Tunnel-FET. <i>Solid-State Electronics</i> , 2011 , 57, 23-30	1.7	31
157	Source Engineering for Tunnel Field-Effect Transistor: Elevated Source with Vertical Silicon/Germanium/Germanium Heterostructure. <i>Japanese Journal of Applied Physics</i> , 2011 , 50, 04DJ07	1.4	12
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10	Direct tunneling leakage current and scalability of alternative gate dielectrics. <i>Applied Physics Letters</i> , 2002 , 81, 2091-2093	3.4	162
9	Metal-dielectric band alignment and its implications for metal gate complementary metal-oxide-semiconductor technology. <i>Journal of Applied Physics</i> , 2002 , 92, 7266-7271	2.5	362
8	Effects of high- κ gate dielectric materials on metal and silicon gate workfunctions. <i>IEEE Electron Device Letters</i> , 2002 , 23, 342-344	4.4	140
7	Intrinsic reliability projections for a thin JVD silicon nitride gate dielectric in P-MOSFET. <i>IEEE Transactions on Device and Materials Reliability</i> , 2001 , 1, 4-8	1.6	6
6	Dual-metal gate CMOS technology with ultrathin silicon nitride gate dielectric. <i>IEEE Electron Device Letters</i> , 2001 , 22, 227-229	4.4	83
5	Hot-carrier reliability comparison for pMOSFETs with ultrathin silicon-nitride and silicon-oxide gate dielectrics. <i>IEEE Transactions on Device and Materials Reliability</i> , 2001 , 1, 158-162	1.6	3
4	Enhancement of memory window in short channel non-volatile memory devices using double layer tungsten nanocrystals		20
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