Karol Kalna

List of Publications by Year
in descending order

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178	1,621	361296	395590
papers	citations	20	33
		h-index	g-index

179	179	179	1034
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	FinFET Versus Gate-All-Around Nanowire FET: Performance, Scaling, and Variability. IEEE Journal of the Electron Devices Society, 2018, 6, 332-340.	1.2	151
2	Benchmarking of FinFET, Nanosheet, and Nanowire FET Architectures for Future Technology Nodes. IEEE Access, 2020, 8, 53196-53202.	2.6	63
3	Implementation of the Density Gradient Quantum Corrections for 3-D Simulations of Multigate Nanoscaled Transistors. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2011, 30, 841-851.	1.9	59
4	Scaling of pseudomorphic high electron mobility transistors to decanano dimensions. Solid-State Electronics, 2002, 46, 631-638.	0.8	52
5	Effects of Self-Heating on Performance Degradation in AlGaN/GaN-Based Devices. IEEE Transactions on Electron Devices, 2009, 56, 2178-2185.	1.6	45
6	High Mobility III-V MOSFETs For RF and Digital Applications. , 2007, , .		44
7	Random Dopant, Line-Edge Roughness, and Gate Workfunction Variability in a Nano InGaAs FinFET. IEEE Transactions on Electron Devices, 2014, 61, 466-472.	1.6	42
8	3D Finite Element Monte Carlo Simulations of Multigate Nanoscale Transistors. IEEE Transactions on Electron Devices, 2013, 60, 1561-1567.	1.6	40
9	Benchmarking of Scaled InGaAs Implant-Free NanoMOSFETs. IEEE Transactions on Electron Devices, 2008, 55, 2297-2306.	1.6	39
10	Quantum Corrections Based on the 2-D SchrÃ¶dinger Equation for 3-D Finite Element Monte Carlo Simulations of Nanoscaled FinFETs. IEEE Transactions on Electron Devices, 2014, 61, 423-429.	1.6	35
11	Comparison of Fin-Edge Roughness and Metal Grain Work Function Variability in InGaAs and Si FinFETs. IEEE Transactions on Electron Devices, 2016, 63, 1209-1216.	1.6	35
12	Controlling the Electrical Transport Properties of Nanocontacts to Nanowires. Nano Letters, 2015, 15, 4248-4254.	4.5	34
13	Drift-diffusion and hydrodynamic modeling of current collapse in GaN HEMTs for RF power application. Semiconductor Science and Technology, 2014, 29, 025007.	1.0	33
14	Simulations of Statistical Variability in n-Type FinFET, Nanowire, and Nanosheet FETs. IEEE Electron Device Letters, 2021, 42, 1416-1419.	2.2	31
15	Impact of Gate Edge Roughness Variability on FinFET and Gate-All-Around Nanowire FET. IEEE Electron Device Letters, 2019, 40, 510-513.	2.2	28
16	Impact of interface state trap density on the performance characteristics of different IIIâ€“V MOSFET architectures. Microelectronics Reliability, 2010, 50, 360-364.	0.9	27
17	Scaling/LER study of Si GAA nanowire FET using 3D finite element Monte Carlo simulations. Solid-State Electronics, 2017, 128, 17-24.	0.8	27
18	Ballistic transport in Si, Ge, and GaAs nanowire MOSFETs. , 0, , .		26

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19	Impact of Body-Thickness-Dependent Band Structure on Scaling of Double-Gate MOSFETs: A DFT/NEGF Study. IEEE Nanotechnology Magazine, 2009, 8, 159-166.	1.1	26
20	Metal Grain Granularity Study on a Gate-All-Around Nanowire FET. IEEE Transactions on Electron Devices, 2017, 64, 5263-5269.	1.6	23
21	Reduction of the self-forces in Monte Carlo simulations of semiconductor devices on unstructured meshes. Computer Physics Communications, 2010, 181, 24-34.	3.0	21
22	Study of Metal-Gate Work-Function Variation Using Voronoi Cells: Comparison of Rayleigh and Gamma Distributions. IEEE Transactions on Electron Devices, 2016, 63, 2625-2628.	1.6	21
23	Electron capture in quantum wells via scattering by electrons, holes, and optical phonons. Physical Review B, 1996, 54, 17730-17737.	1.1	20
24	Review of Current Status of III-V MOSFETs. ECS Transactions, 2009, 19, 275-286.	0.3	20
25	Monte Carlo simulations of mobility in doped GaAs using self-consistent Fermiâ€“Dirac statistics. Semiconductor Science and Technology, 2011, 26, 055007.	1.0	20
26	A Multi-Method Simulation Toolbox to Study Performance and Variability of Nanowire FETs. Materials, 2019, 12, 2391.	1.3	20
27	3-D Finite Element Monte Carlo Simulations of Scaled Si SOI FinFET With Different Cross Sections. IEEE Nanotechnology Magazine, 2015, 14, 93-100.	1.1	19
28	Monte Carlo simulations of IIIâ€“V MOSFETs. Semiconductor Science and Technology, 2004, 19, S202-S205.	1.0	18
29	Monte Carlo Simulations of High-Performance Implant Free In$_{0.3}$Ga$_{0.7}$As Nano-MOSFETs for Low-Power CMOS Applications. IEEE Nanotechnology Magazine, 2007, 6, 106-112.	1.1	18
30	Monte Carlo Study of Ultimate Channel Scaling in Si and In$_{m 0.3}$Ga$_{m 0.7}$As Bulk MOSFETs. IEEE Nanotechnology Magazine, 2011, 10, 1424-1432.	1.1	18
31	Role of multiple delta doping in PHEMTs scaled to sub-100 nm dimensions. Solid-State Electronics, 2004, 48, 1223-1232.	0.8	16
32	Statistical study of the influence of LER and MGG in SOI MOSFET. Semiconductor Science and Technology, 2014, 29, 045005.	1.0	16
33	The role of probe oxide in local surface conductivity measurements. Journal of Applied Physics, 2015, 117, .	1.1	16
34	Anisotropic Quantum Corrections for 3-D Finite-Element Monte Carlo Simulations of Nanoscale Multigate Transistors. IEEE Transactions on Electron Devices, 2016, 63, 933-939.	1.6	16
35	Role of Self-Heating and Polarization in AlGaN/GaN-Based Heterostructures. IEEE Access, 2017, 5, 20946-20952.	2.6	16
36	Impact of Cross-Sectional Shape on 10-nm Gate Length InGaAs FinFET Performance and Variability. IEEE Transactions on Electron Devices, 2018, 65, 456-462.	1.6	16

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37	Design and simulation of a novel 1400 Vâ€“4000 V enhancement mode buried gate GaN HEMT for power applications. Semiconductor Science and Technology, 2014, 29, 115020.	1.0	15
38	Electron transport process in quantum cascade intersubband semiconductor lasers. Journal of Applied Physics, 2001, 89, 2001-2005.	1.1	14
39	Monte carlo simulations of sub-100 nm InGaAs MOSFETs for digital applications. , 0, , .		14
40	Three-dimensional simulations of random dopant and metal-gate workfunction variability in an In_{0.53}Ga_{0.47}As GAA MOSFET. IEEE Electron Device Letters, 2013, 34, 205-207.	2.2	14
41	Carrier capture into a GaAs quantum well with a separate confinement region: comment on quantum and classical aspects. Semiconductor Science and Technology, 1999, 14, 790-796.	1.0	12
42	Electron capture in GaAs quantum wells via electronâ€“electron and optic phonon scattering. Applied Physics Letters, 1996, 68, 117-119.	1.5	11
43	Efficient three-dimensional parallel simulations of PHEMTs. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2005, 18, 327-340.	1.2	11
44	Design and analysis of the As implant-free quantum-well device structure. Microelectronic Engineering, 2011, 88, 358-361.	1.1	11
45	Fluctuation Sensitivity Map: A Novel Technique to Characterise and Predict Device Behaviour Under Metal Grain Work-Function Variability Effects. IEEE Transactions on Electron Devices, 2017, 64, 1695-1701.	1.6	11
46	Impact of intrinsic parameter fluctuations on the performance of HEMTs studied with a 3D parallel drift-diffusion simulator. Solid-State Electronics, 2007, 51, 481-488.	0.8	10
47	NEGF simulations of the effect of strain on scaled double gate nanoMOSFETs. Journal of Computational Electronics, 2008, 7, 288-292.	1.3	10
48	Nondestructive Method for Mapping Metal Contact Diffusion in In₂O₃ Thin-Film Transistors. ACS Applied Materials & Interfaces, 2016, 8, 25631-25636.	4.0	10
49	Monte Carlo simulations of InGaAs nano-MOSFETs. Microelectronic Engineering, 2007, 84, 2150-2153.	1.1	9
50	3D â€˜atomisticâ€™ simulations of dopant induced variability in nanoscale implant free In0.75Ga0.25As MOSFETs. Solid-State Electronics, 2012, 69, 43-49.	0.8	9
51	Operational frequency degradation induced trapping in scaled GaN HEMTs. Microelectronics Reliability, 2017, 71, 35-40.	0.9	9
52	A Parametric Technique for Trap Characterization in AlGaN/GaN HEMTs. IEEE Transactions on Electron Devices, 2020, 67, 1924-1930.	1.6	9
53	Nonequilibrium transport in scaled high electron mobility transistors. Semiconductor Science and Technology, 2002, 17, 579-584.	1.0	8
54	Intrinsic fluctuations induced by a high-Î¤ gate dielectric in sub-100 nm Si MOSFETs. AIP Conference Proceedings, 2005, , .	0.3	8

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55	Modelling of InP HEMTs with high indium content channels. , 0, , .		8
56	Simulation of implant free III-V MOSFETs for high performance low power Nano-CMOS applications. Microelectronic Engineering, 2007, 84, 2398-2403.	1.1	8
57	Effect of interface state trap density on the characteristics of n-type, enhancement-mode, implant-free In0.3Ga0.7As MOSFETs. Microelectronic Engineering, 2009, 86, 1564-1567.	1.1	8
58	Multi-scale simulations of a Mo/n⁺â€“GaAs Schottky contact for nano-scale IIIâ€“V MOSFETs. Semiconductor Science and Technology, 2014, 29, 054003.	1.0	8
59	Simulation study of scaled In_{0.53}Ga_{0.47}As and Si FinFETs for sub-16 nm technology nodes. Semiconductor Science and Technology, 2016, 31, 075005.	1.0	8
60	Buffer Trap Related Knee Walkout and the Effects of Self-Heating in AlGaN/GaN HEMTs. ECS Journal of Solid State Science and Technology, 2017, 6, S3005-S3009.	0.9	8
61	Spatial Sensitivity of Silicon GAA Nanowire FETs Under Line Edge Roughness Variations. IEEE Journal of the Electron Devices Society, 2018, 6, 601-610.	1.2	8
62	Impact of interface traps/defects and selfâ€heating on the degradation of performance of a 4Hâ€SiC VDMOSFET. IET Power Electronics, 2019, 12, 2731-2740.	1.5	8
63	Simulation Study of Performance for a 20-nm Gate Length In$_{f 0.53}$Ga$_{f 0.47}$As Implant Free Quantum Well MOSFET. IEEE Nanotechnology Magazine, 2012, 11, 808-817.	1.1	7
64	Modelling and optimization of GaN capped HEMTs. , 2014, , .		7
65	Modeling of 2DEG and 2DHG in i-GaN capped AlGaN/AlN/GaN HEMTs. , 2014, , .		7
66	A study of the interface roughness effect in Si nanowires using a full 3D NEGF approach. Physica E: Low-Dimensional Systems and Nanostructures, 2007, 37, 168-172.	1.3	6
67	Tetrahedral elements in self-consistent parallel 3D Monte Carlo simulations of MOSFETs. Journal of Computational Electronics, 2008, 7, 201-204.	1.3	6
68	Scaling of pHEMTs to Decanano Dimensions. VLSI Design, 2001, 13, 435-439.	0.5	5
69	3D Parallel Simulations of Fluctuation Effects in pHEMTs. Journal of Computational Electronics, 2003, 2, 369-373.	1.3	5
70	Device and Circuit Performance of the Future Hybrid IIIâ€“V and Ge-Based CMOS Technology. IEEE Transactions on Electron Devices, 2016, 63, 3893-3899.	1.6	5
71	Optimisation of lateral super-junction multi-gate MOSFET for high drive current and low specific on-resistance in sub-100â€V applications. Microelectronics Journal, 2018, 81, 94-100.	1.1	5
72	Strain-Reduction Induced Rise in Channel Temperature at Ohmic Contacts of GaN HEMTs. IEEE Access, 2018, 6, 42721-42728.	2.6	5

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73	Drift-Diffusion Versus Monte Carlo Simulated ON-Current Variability in Nanowire FETs. IEEE Access, 2019, 7, 12790-12797.	2.6	5
74	Self-consistent analysis of carrier-transport and carrier-capture dynamics in quantum cascade intersubband semiconductor lasers. IEEE Transactions on Microwave Theory and Techniques, 2000, 48, 639-644.	2.9	4
75	Study of fluctuations in advanced MOSFETs using a 3D finite element parallel simulator. Journal of Computational Electronics, 2007, 5, 311-314.	1.3	4
76	Random dopant related variability in the 30Ânm gate length In0.75Ga0.25As implant free MOSFET. Journal of Computational Electronics, 2008, 7, 159-163.	1.3	4
77	Comments on â€œHigh Performance Inversion-Type Enhancement-Mode InGaAs MOSFET With Maximum Drain Current Exceeding 1 A/mmâ€• IEEE Electron Device Letters, 2008, 29, 1085-1086.	2.2	4
78	Numerical analysis of the new Implant-Free Quantum-Well CMOS: DualLogic approach. Solid-State Electronics, 2011, 63, 14-18.	0.8	4
79	Self-consistent modelling of tunnelling spectroscopy on IIIâ€“V semiconductors. Applied Surface Science, 2014, 295, 173-179.	3.1	4
80	Low Source/Drain Contact Resistance for AlGaN/GaN HEMTs with High Al Concentration and Si-HP [111] Substrate. ECS Journal of Solid State Science and Technology, 2017, 6, S3040-S3043.	0.9	4
81	Channel mobility and contact resistance in scaled ZnO thin-film transistors. Solid-State Electronics, 2020, 172, 107867.	0.8	4
82	RF analysis of aggressively scaled pHEMTs. , 2000, , .		3
83	Atomistic effect of delta doping layer in a 50 nm InP HEMT. Journal of Computational Electronics, 2006, 5, 131-135.	1.3	3
84	Statistical study of the effect of interface charge fluctuations in HEMTs using a 3D simulator. Journal of Computational Electronics, 2007, 5, 385-388.	1.3	3
85	Atomistic mesh generation for the simulation of nanoscale metal-oxide-semiconductor field-effect transistors. Physical Review E, 2008, 77, 056702.	0.8	3
86	Monte Carlo analysis of In<inf>0.53</inf>Ga<inf>0.47</inf>as Implant-Free Quantum-Well device performance. , 2010, , .		3
87	Monte Carlo simulations of mobility in doped GaAs using self-consistent Fermiâ€“Dirac statistics. Semiconductor Science and Technology, 2012, 27, 039501.	1.0	3
88	Study of statistical variability in nanoscale transistors introduced by LER, RDF and MGG. , 2013, , .		3
89	Influence of device geometry on electrical characteristics of a 10.7 nm SOI-FinFET. , 2014, , .		3
90	Energy conserving, self-force free Monte Carlo simulations of semiconductor devices on unstructured meshes. Computer Physics Communications, 2015, 189, 31-36.	3.0	3

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91	Scaling/LER study of Si GAA nanowire FET using 3D Finite Element Monte Carlo simulations. , 2016, , .		3
92	Self-heating and polarization effects in AlGaN/AlN/GaN/AlGaN based devices. , 2017, , .		3
93	Monte Carlo simulations of spin transport in a strained nanoscale InGaAs field effect transistor. Journal of Applied Physics, 2017, 122, .	1.1	3
94	Analysis of electron transport in the nano-scaled Si, SOI and III-V MOSFETs: Si/SiO2 interface charges and quantum mechanical effects. IOP Conference Series: Materials Science and Engineering, 2019, 504, 012021.	0.3	3
95	The role of SiN/GaN cap interface charge and GaN cap layer to achieve enhancement mode GaN MIS-HEMT operation. Microelectronics Reliability, 2020, 115, 113965.	0.9	3
96	An improved method of calculating critical crack opening. Strength of Materials, 1975, 7, 1318-1323.	0.2	2
97	Effect of impact ionization in scaled pHEMTs. , 0, , .		2
98	Multiple delta doping in aggressively scaled PHEMTs. , 2001, , .		2
99	High performance III-V MOSFETs: a dream close to reality?. , 0, , .		2
100	Quantum Corrections in the Monte Carlo Simulations of Scaled PHEMTs with Multiple Delta Doping. Journal of Computational Electronics, 2002, 1, 257-261.	1.3	2
101	Simulation Study of High Performance III-V MOSFETs for Digital Applications. Journal of Computational Electronics, 2003, 2, 341-345.	1.3	2
102	Self-aligned 0.12 Î¼m T-gate In/sub .53/Ga/sub .47/As/In/sub .52/Al/sub .48/As HEMT technology utilising a non-annealed ohmic contact strategy. , 0, , .		2
103	Current variations in PHEMTS introduced by channel composition fluctuations. Journal of Physics: Conference Series, 2006, 38, 212-215.	0.3	2
104	Monte Carlo Simulation of Implant Free InGaAs MOSFET. Journal of Physics: Conference Series, 2006, 38, 200-203.	0.3	2
105	Implementation of a quantum corrections in a 3D parallel drift-diffusion simulator. , 2007, , .		2
106	Impact of intrinsic parameter fluctuations on the performance of In_{0.75}Ga_{0.25}As implant free MOSFETs. Semiconductor Science and Technology, 2009, 24, 055011.	1.0	2
107	Impact of the field induced polarization space-charge on the characteristics of AlGaN/GaN HEMT: Self-consistent simulation study. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, S1007-S1011.	0.8	2
108	Effect of interface state trap density on the performance of scaled surface channel In_{0.3}Ga_{0.7}As MOSFETs. Journal of Physics: Conference Series, 2009, 193, 012122.	0.3	2

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109	Variability characterisation of nanoscale Si and InGaAs FinFETs at subthreshold. , 2014, , .		2
110	Modelling heating effects due to current crowding in ZnO nanowires with end-bonded metal contacts. , 2014, , .		2
111	MC/DD study of metal grain induced current variability in a nanoscale InGaAs FinFET. , 2014, , .		2
112	Scaling of metal gate workfunction variability in nanometer SOI-FinFETs. , 2014, , .		2
113	Multi-scale Simulations of Metal-Semiconductor Nanoscale Contacts. Journal of Physics: Conference Series, 2015, 647, 012030.	0.3	2
114	The Current Crowding Effect in ZnO Nanowires with a Metal Contact. Materials Today: Proceedings, 2015, 2, 309-314.	0.9	2
115	Monte Carlo Simulations of Electron Transport Characteristics of Ternary Carbide Al₄SiC₄. ACS Applied Energy Materials, 2019, 2, 715-720.	2.5	2
116	Development of a 3D Parallel Finite Element Monte Carlo Simulator for Nano-MOSFETs. Lecture Notes in Computer Science, 2008, , 115-122.	1.0	2
117	Multilevel 3-D Device Simulation Approach Applied to Deeply Scaled Nanowire Field Effect Transistors. IEEE Transactions on Electron Devices, 2022, 69, 5276-5282.	1.6	2
118	Boltzmann kinetic equation with correction term for intracollisional field effect. Semiconductor Science and Technology, 1992, 7, 1446-1452.	1.0	1
119	Influence of stress concentrators on the fatigue and fracture characteristics of steels and welded joints. Materials Science, 1998, 34, 696-700.	0.3	1
120	Gate tunnelling and impact ionisation in sub 100 nm PHEMTs. , 0, , .		1
121	Nonequilibrium and ballistic transport, and backscattering in decanano HEMTs: a Monte Carlo simulation study. Mathematics and Computers in Simulation, 2003, 62, 357-366.	2.4	1
122	Monte Carlo simulations of -doping placement in sub-100â€‰nm implant free InGaAs MOSFETs. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2006, 135, 285-288.	1.7	1
123	Impact of strain on scaling of Double Gate nanoMOSFETs using NEGF approach. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 47-51.	0.8	1
124	3D Monte Carlo simulation of Tri-Gate MOSFETs using tetrahedral finite elements. , 2008, , .		1
125	MONTE CARLO SIMULATIONS OF In0.75Ga0.25As MOSFETs AT 0.5 V SUPPLY VOLTAGE FOR HIGH-PERFORMANCE CMOS. International Journal of High Speed Electronics and Systems, 2009, 19, 93-100.	0.3	1
126	The characterization of the hole transport in Sb based strained quantum wells. Journal of Physics: Conference Series, 2009, 193, 012128.	0.3	1

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127	Comparison of Properties and Experience with the Use of Thermomechanical and Normalized Rolled Steels for the Building of Apollo Bridge on Danube in Bratislava. Procedia Engineering, 2012, 40, 481-486.	1.2	1
128	Simulation of current collapse in the 0.25 µm gate Length Al<inf>0.28</inf>Ga<inf>0.72</inf>N/GaN HEMT. , 2012, , .		1
129	TCAD modelling of current dispersion in a 0.25 µm gate length GaN HEMT. , 2012, , .		1
130	Multi-Scale Simulation of Transport via a Mo/n+-GaAs Schottky Contact. Materials Research Society Symposia Proceedings, 2013, 1553, 1.	0.1	1
131	Self-forces in 3D finite element Monte Carlo simulations of a 10.7 nm gate length SOI FinFET. , 2014, , .		1
132	3D Monte Carlo study of scaled SOI FinFETs using 2D Schrödinger quantum corrections. , 2014, , .		1
133	Multi-subband interface roughness scattering using 2D finite element schodinger equation for monte carlo simulations of multi-gate transistors. , 2015, , .		1
134	The effect of interface roughness scattering on Si SOI FinFET with Ando's and extended Prange and Nee model. Journal of Physics: Conference Series, 2015, 647, 012065.	0.3	1
135	Multi-subband interface roughness scattering using 3D Finite Element Monte Carlo with 2D Schödinger equation for simulations of sub-16nm FinFETs. , 2015, , .		1
136	Narrowing of band gap at source/drain contact scheme of nanoscale InAsâ€“nMOS. Solid-State Electronics, 2018, 142, 31-35.	0.8	1
137	A Source and Drain Transient Currents Technique for Trap Characterisation in AlGaN/GaN HEMTs. , 2018, , .		1
138	Scaling and optimisation of lateral super-junction multi-gate MOSFET for high drive current and low specific on-resistance in subâ€“50â€V applications. Microelectronics Reliability, 2019, 99, 213-221.	0.9	1
139	SiC/Al4SiC4-Based Heterostructure Transistors. ACS Applied Electronic Materials, 2020, 2, 3001-3007.	2.0	1
140	Variability Characterisation of Nanoscale Si and InGaAs Fin Field-Effect-Transistors at Subthreshold. Journal of Low Power Electronics, 2015, 11, 256-262.	0.6	1
141	Impact of metal grain granularity on three gate-all-around advanced architectures. , 2021, , .		1
142	Performance of aggressively scaled pseudomorphic HEMTs: a monte carlo simulation study. , 0, , .		0
143	Tunnelling and Impact Ionization in Scaled Double Doped PHEMTs. , 2002, , .		0
144	Breakdown mechanisms limiting the operation of double doped PHEMTs scaled into sub-100 nm dimensions. , 0, , .		0

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145	Analysis of the impact of intrinsic parameter fluctuations in a 50 nm InP HEMT. , 2007, , .		0
146	Mesh Generation for "Atomistic" Simulation of Nanometre Scale MOSFETs. , 2007, , .		0
147	Monte Carlo simulations of InGaAs nano-MOSFETs. Microelectronic Engineering, 2007, 84, 2358-2361.	1.1	0
148	III-V MOSFETs for Digital Applications with Silicon Co-Integration. , 2008, , .		0
149	GaAs MOSFETs - a viable single supply III-V RF technology solution?. , 2008, , .		0
150	High-Performance In<inf>0.75</inf>Ga<inf>0.25</inf>As Implant-Free n-type MOSFETs for Low Power Applications. , 2009, , .		0
151	3D Parallel Finite Element Monte Carlo Simulator With Quantum Corrections Using Density Gradient Approach. , 2009, , .		0
152	3D Drift-Diffusion Simulation with Quantum-Corrections of Tri-Gate MOSFETs. , 2009, , .		0
153	Efficient 3D Drift - Diffusion simulations of Implant Free Heterostructure Devices. , 2009, , .		0
154	Mesh Generation for the "Atomistic" Simulation of Variability in InGaAs Implant-Free NanoMOSFETs. , 2009, , .		0
155	Channel scaling in Si and In<inf>0.3</inf>Ga<inf>0.7</inf>As bulk MOSFETs: A Monte Carlo study. , 2010, , .		0
156	Electron velocity decline in Si nanoscales MOSFETs with the shortening of gate length. Journal of Physics: Conference Series, 2010, 242, 012011.	0.3	0
157	Monte Carlo simulations of channel scaling to ultimate limit in Si and In<inf>0.3</inf>Ga<inf>0.7</inf>As bulk MOSFETs. , 2010, , .		0
158	Impact of phonon scattering in a Si GAA nanowire FET with a single donor in the channel. , 2011, , .		0
159	Exchange-correlation effects in ballistic and dissipative transport in GAA Si nanowire transistors. , 2012, , .		0
160	Monte Carlo simulations of inverse channel versus implant free In<inf>0.3</inf>Ga<inf>0.7</inf>As MOSFETs. , 2012, , .		0
161	The Effect of Temperature in a thin Si Nanowire Transistor, with a Single Donor in the Channel, using Dissipative Physics. Materials Research Society Symposia Proceedings, 2013, 1550, 1.	0.1	0
162	Multi-scale simulations of metal-semiconductor contacts for nano-MOSFETs. , 2014, , .		0

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163	3D Finite Element Schrödinger equation corrected Monte Carlo simulations of nanoscale FinFETs. , 2014, , .		0
164	GaN technology for power RF applications: Present reliability roadblocks and future trends. , 2014, , .		0
165	Anisotropic schrodinger equation quantum corrections for 3D Monte Carlo simulations of nanoscale multigate transistors. , 2015, , .		0
166	Scaling and traps induced degradation of cutoff frequency in GaN HEMT. , 2016, , .		0
167	The effect of self-heating and electrical stress induced polarization in AlGaN/GaN heterojunction based devices. , 2016, , .		0
168	3D MC simulations of strain, channel orientation, and quantum confinement effects in nanoscale Si SOI FinFETs. , 2016, , .		0
169	Impact of cross-section of 10.4 nm gate length Ino.53Gao.47As FinFETs on metal grain variability. , 2016, , .		0
170	Buffer trapping effects on knee walkout in GaN HEMTs. , 2017, , .		0
171	Changes in the Editorial Board. IEEE Transactions on Electron Devices, 2017, 64, 4372-4373.	1.6	0
172	Study of strained effects in nanoscale GAA nanowire FETs using 3D Monte Carlo simulations. , 2017, , .		0
173	Modelling of nanoscale multi-gate transistors affected by atomistic interface roughness. Journal of Physics Condensed Matter, 2018, 30, 144006.	0.7	0
174	Analysis of Potential and Electron Density Behaviour in Extremely Scaled Si and InGaAs MOSFETs Applying Monte Carlo Simulations. Journal of Physics: Conference Series, 2020, 1637, 012007.	0.3	0
175	Phonon Confinement and Electron Capture Time in Quantum Well. Acta Physica Polonica A, 1997, 92, 805-808.	0.2	0
176	â€˜Atomisticâ€™ Mesh Generation for the Simulation of Semiconductor Devices. , 2007, , 97-100.		0
177	Fermi-Dirac Statistics in Monte Carlo Simulations of InGaAs MOSFETs. , 2006, , 281-285.		0
178	Monte Carlo simulations of spin transport in nanoscale In0.7Ga0.3As transistors: temperature and size effects. Semiconductor Science and Technology, 2022, 37, 075009.	1.0	0