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	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
2	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
3	Simulations of Statistical Variability in n-Type FinFET, Nanowire, and Nanosheet FETs. IEEE Electron Device Letters, 2021, 42, 1416-1419.	2.2	31
4	Impact of metal grain granularity on three gate-all-around advanced architectures. , 2021, , .		1
5	Channel mobility and contact resistance in scaled ZnO thin-film transistors. Solid-State Electronics, 2020, 172, 107867.	0.8	4
6	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
7	SiC/Al4SiC4-Based Heterostructure Transistors. ACS Applied Electronic Materials, 2020, 2, 3001-3007.	2.0	1
8	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
9	Benchmarking of FinFET, Nanosheet, and Nanowire FET Architectures for Future Technology Nodes. IEEE Access, 2020, 8, 53196-53202.	2.6	63
10	A Parametric Technique for Trap Characterization in AlGaN/GaN HEMTs. IEEE Transactions on Electron Devices, 2020, 67, 1924-1930.	1.6	9
11	A Multi-Method Simulation Toolbox to Study Performance and Variability of Nanowire FETs. Materials, 2019, 12, 2391.	1.3	20
12	Monte Carlo Simulations of Electron Transport Characteristics of Ternary Carbide Al₄SiC₄. ACS Applied Energy Materials, 2019, 2, 715-720.	2.5	2
13	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
14	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
15	Drift-Diffusion Versus Monte Carlo Simulated ON-Current Variability in Nanowire FETs. IEEE Access, 2019, 7, 12790-12797.	2.6	5
16	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
17	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
18	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

#	Article	IF	Citations
19	Modelling of nanoscale multi-gate transistors affected by atomistic interface roughness. Journal of Physics Condensed Matter, 2018, 30, 144006.	0.7	0
20	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
21	Narrowing of band gap at source/drain contact scheme of nanoscale InAsâ€“nMOS. Solid-State Electronics, 2018, 142, 31-35.	0.8	1
22	A Source and Drain Transient Currents Technique for Trap Characterisation in AlGaN/GaN HEMTs. , 2018, , .		1
23	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
24	Strain-Reduction Induced Rise in Channel Temperature at Ohmic Contacts of GaN HEMTs. IEEE Access, 2018, 6, 42721-42728.	2.6	5
25	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
26	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
27	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
28	Operational frequency degradation induced trapping in scaled GaN HEMTs. Microelectronics Reliability, 2017, 71, 35-40.	0.9	9
29	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
30	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
31	Metal Grain Granularity Study on a Gate-All-Around Nanowire FET. IEEE Transactions on Electron Devices, 2017, 64, 5263-5269.	1.6	23
32	Self-heating and polarization effects in AlGaN/AlN/GaN/AlGaN based devices. , 2017, , .		3
33	Role of Self-Heating and Polarization in AlGaN/GaN-Based Heterostructures. IEEE Access, 2017, 5, 20946-20952.	2.6	16
34	Monte Carlo simulations of spin transport in a strained nanoscale InGaAs field effect transistor. Journal of Applied Physics, 2017, 122, .	1.1	3
35	Buffer trapping effects on knee walkout in GaN HEMTs. , 2017, , .		0
36	Changes in the Editorial Board. IEEE Transactions on Electron Devices, 2017, 64, 4372-4373.	1.6	0

#	Article	IF	Citations
37	Study of strained effects in nanoscale GAA nanowire FETs using 3D Monte Carlo simulations. , 2017, , .		0
38	Scaling and traps induced degradation of cutoff frequency in GaN HEMT. , 2016, , .		0
39	The effect of self-heating and electrical stress induced polarization in AlGaN/GaN heterojunction based devices. , 2016, , .		0
40	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
41	Scaling/LER study of Si GAA nanowire FET using 3D Finite Element Monte Carlo simulations. , 2016, , .		3
42	Nondestructive Method for Mapping Metal Contact Diffusion in In₂O₃ Thin-Film Transistors. ACS Applied Materials & Interfaces, 2016, 8, 25631-25636.	4.0	10
43	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
44	3D MC simulations of strain, channel orientation, and quantum confinement effects in nanoscale Si SOI FinFETs. , 2016, , .		0
45	Impact of cross-section of 10.4 nm gate length Ino.53Gao.47As FinFETs on metal grain variability. , 2016, , .		0
46	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
47	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
48	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
49	Anisotropic schrodinger equation quantum corrections for 3D Monte Carlo simulations of nanoscale multigate transistors. , 2015, , .		0
50	Multi-subband interface roughness scattering using 2D finite element schodinger equation for monte carlo simulations of multi-gate transistors. , 2015, , .		1
51	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
52	Multi-scale Simulations of Metal-Semiconductor Nanoscale Contacts. Journal of Physics: Conference Series, 2015, 647, 012030.	0.3	2
53	Controlling the Electrical Transport Properties of Nanocontacts to Nanowires. Nano Letters, 2015, 15, 4248-4254.	4.5	34
54	The Current Crowding Effect in ZnO Nanowires with a Metal Contact. Materials Today: Proceedings, 2015, 2, 309-314.	0.9	2

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55	Multi-subband interface roughness scattering using 3D Finite Element Monte Carlo with 2D Schödinger equation for simulations of sub-16nm FinFETs. , 2015, , .		1
56	Energy conserving, self-force free Monte Carlo simulations of semiconductor devices on unstructured meshes. Computer Physics Communications, 2015, 189, 31-36.	3.0	3
57	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
58	The role of probe oxide in local surface conductivity measurements. Journal of Applied Physics, 2015, 117, .	1.1	16
59	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
60	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
61	Modelling and optimization of GaN capped HEMTs. , 2014, , .		7
62	Variability characterisation of nanoscale Si and InGaAs FinFETs at subthreshold. , 2014, , .		2
63	Modelling heating effects due to current crowding in ZnO nanowires with end-bonded metal contacts. , 2014, , .		2
64	Multi-scale simulations of metal-semiconductor contacts for nano-MOSFETs. , 2014, , .		0
65	MC/DD study of metal grain induced current variability in a nanoscale InGaAs FinFET. , 2014, , .		2
66	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
67	Statistical study of the influence of LER and MGG in SOI MOSFET. Semiconductor Science and Technology, 2014, 29, 045005.	1.0	16
68	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
69	Self-consistent modelling of tunnelling spectroscopy on IIIâ€“V semiconductors. Applied Surface Science, 2014, 295, 173-179.	3.1	4
70	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
71	3D Finite Element Schrödinger equation corrected Monte Carlo simulations of nanoscale FinFETs. , 2014, , .		0
72	Self-forces in 3D finite element Monte Carlo simulations of a 10.7 nm gate length SOI FinFET. , 2014, , .		1

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73	Scaling of metal gate workfunction variability in nanometer SOI-FinFETs. , 2014, , .		2
74	Influence of device geometry on electrical characteristics of a 10.7 nm SOI-FinFET. , 2014, , .		3
75	GaN technology for power RF applications: Present reliability roadblocks and future trends. , 2014, , .		0
76	3D Monte Carlo study of scaled SOI FinFETs using 2D Schrödinger quantum corrections. , 2014, , .		1
77	Modeling of 2DEG and 2DHG in i-GaN capped AlGaN/AlN/GaN HEMTs. , 2014, , .		7
78	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
79	Study of statistical variability in nanoscale transistors introduced by LER, RDF and MGG. , 2013, , .		3
80	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
81	3D Finite Element Monte Carlo Simulations of Multigate Nanoscale Transistors. IEEE Transactions on Electron Devices, 2013, 60, 1561-1567.	1.6	40
82	Multi-Scale Simulation of Transport via a Mo/n+-GaAs Schottky Contact. Materials Research Society Symposia Proceedings, 2013, 1553, 1.	0.1	1
83	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
84	Exchange-correlation effects in ballistic and dissipative transport in GAA Si nanowire transistors. , 2012, , .		0
85	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
86	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
87	Monte Carlo simulations of inverse channel versus implant free In<inf>0.3</inf>Ga<inf>0.7</inf>As MOSFETs. , 2012, , .		0
88	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
89	TCAD modelling of current dispersion in a 0.25 µm gate length GaN HEMT. , 2012, , .		1
90	Monte Carlo simulations of mobility in doped GaAs using self-consistent Fermiâ€“Dirac statistics. Semiconductor Science and Technology, 2012, 27, 039501.	1.0	3

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91	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
92	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
93	Impact of phonon scattering in a Si GAA nanowire FET with a single donor in the channel. , 2011, , .		0
94	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
95	Design and analysis of the As implant-free quantum-well device structure. Microelectronic Engineering, 2011, 88, 358-361.	1.1	11
96	Numerical analysis of the new Implant-Free Quantum-Well CMOS: DualLogic approach. Solid-State Electronics, 2011, 63, 14-18.	0.8	4
97	Monte Carlo simulations of mobility in doped GaAs using self-consistent Fermiâ€“Dirac statistics. Semiconductor Science and Technology, 2011, 26, 055007.	1.0	20
98	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
99	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
100	Channel scaling in Si and In<inf>0.3</inf>Ga<inf>0.7</inf>As bulk MOSFETs: A Monte Carlo study. , 2010, , .		0
101	Monte Carlo analysis of In<inf>0.53</inf>Ga<inf>0.47</inf>as Implant-Free Quantum-Well device performance. , 2010, , .		3
102	Electron velocity decline in Si nanoscales MOSFETs with the shortening of gate length. Journal of Physics: Conference Series, 2010, 242, 012011.	0.3	0
103	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
104	High-Performance In<inf>0.75</inf>Ga<inf>0.25</inf>As Implant-Free n-type MOSFETs for Low Power Applications. , 2009, , .		0
105	3D Parallel Finite Element Monte Carlo Simulator With Quantum Corrections Using Density Gradient Approach. , 2009, , .		0
106	3D Drift-Diffusion Simulation with Quantum-Corrections of Tri-Gate MOSFETs. , 2009, , .		0
107	Efficient 3D Drift - Diffusion simulations of Implant Free Heterostructure Devices. , 2009, , .		0
108	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

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109	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
110	Effects of Self-Heating on Performance Degradation in AlGaN/GaN-Based Devices. IEEE Transactions on Electron Devices, 2009, 56, 2178-2185.	1.6	45
111	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
112	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
113	Mesh Generation for the "Atomistic" Simulation of Variability in InGaAs Implant-Free NanoMOSFETs. , 2009, , .		0
114	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
115	Review of Current Status of III-V MOSFETs. ECS Transactions, 2009, 19, 275-286.	0.3	20
116	The characterization of the hole transport in Sb based strained quantum wells. Journal of Physics: Conference Series, 2009, 193, 012128.	0.3	1
117	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
118	NEGF simulations of the effect of strain on scaled double gate nanoMOSFETs. Journal of Computational Electronics, 2008, 7, 288-292.	1.3	10
119	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
120	Tetrahedral elements in self-consistent parallel 3D Monte Carlo simulations of MOSFETs. Journal of Computational Electronics, 2008, 7, 201-204.	1.3	6
121	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
122	Benchmarking of Scaled InGaAs Implant-Free NanoMOSFETs. IEEE Transactions on Electron Devices, 2008, 55, 2297-2306.	1.6	39
123	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
124	III-V MOSFETs for Digital Applications with Silicon Co-Integration. , 2008, , .		0
125	3D Monte Carlo simulation of Tri-Gate MOSFETs using tetrahedral finite elements. , 2008, , .		1
126	Atomistic mesh generation for the simulation of nanoscale metal-oxide-semiconductor field-effect transistors. Physical Review E, 2008, 77, 056702.	0.8	3

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127	GaAs MOSFETs - a viable single supply III-V RF technology solution?. , 2008, , .		0
128	Development of a 3D Parallel Finite Element Monte Carlo Simulator for Nano-MOSFETs. Lecture Notes in Computer Science, 2008, , 115-122.	1.0	2
129	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
130	Implementation of a quantum corrections in a 3D parallel drift-diffusion simulator. , 2007, , .		2
131	Analysis of the impact of intrinsic parameter fluctuations in a 50 nm InP HEMT. , 2007, , .		0
132	Mesh Generation for "Atomistic" Simulation of Nanometre Scale MOSFETs. , 2007, , .		0
133	High Mobility III-V MOSFETs For RF and Digital Applications. , 2007, , .		44
134	Simulation of implant free III-V MOSFETs for high performance low power Nano-CMOS applications. Microelectronic Engineering, 2007, 84, 2398-2403.	1.1	8
135	Monte Carlo simulations of InGaAs nano-MOSFETs. Microelectronic Engineering, 2007, 84, 2150-2153.	1.1	9
136	Monte Carlo simulations of InGaAs nano-MOSFETs. Microelectronic Engineering, 2007, 84, 2358-2361.	1.1	0
137	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
138	Study of fluctuations in advanced MOSFETs using a 3D finite element parallel simulator. Journal of Computational Electronics, 2007, 5, 311-314.	1.3	4
139	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
140	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
141	â€˜Atomisticâ€™ Mesh Generation for the Simulation of Semiconductor Devices. , 2007, , 97-100.		0
142	Current variations in PHEMTS introduced by channel composition fluctuations. Journal of Physics: Conference Series, 2006, 38, 212-215.	0.3	2
143	Monte Carlo Simulation of Implant Free InGaAs MOSFET. Journal of Physics: Conference Series, 2006, 38, 200-203.	0.3	2
144	Atomistic effect of delta doping layer in a 50 nm InP HEMT. Journal of Computational Electronics, 2006, 5, 131-135.	1.3	3

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145	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
146	Fermi-Dirac Statistics in Monte Carlo Simulations of InGaAs MOSFETs. , 2006, , 281-285.		0
147	Efficient three-dimensional parallel simulations of PHEMTs. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2005, 18, 327-340.	1.2	11
148	Intrinsic fluctuations induced by a high-Î¤ gate dielectric in sub-100 nm Si MOSFETs. AIP Conference Proceedings, 2005, , .	0.3	8
149	Monte Carlo simulations of IIIâ€“V MOSFETs. Semiconductor Science and Technology, 2004, 19, S202-S205.	1.0	18
150	Role of multiple delta doping in PHEMTs scaled to sub-100 nm dimensions. Solid-State Electronics, 2004, 48, 1223-1232.	0.8	16
151	Simulation Study of High Performance III-V MOSFETs for Digital Applications. Journal of Computational Electronics, 2003, 2, 341-345.	1.3	2
152	3D Parallel Simulations of Fluctuation Effects in pHEMTs. Journal of Computational Electronics, 2003, 2, 369-373.	1.3	5
153	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
154	Tunnelling and Impact Ionization in Scaled Double Doped PHEMTs. , 2002, , .		0
155	Nonequilibrium transport in scaled high electron mobility transistors. Semiconductor Science and Technology, 2002, 17, 579-584.	1.0	8
156	Scaling of pseudomorphic high electron mobility transistors to decanano dimensions. Solid-State Electronics, 2002, 46, 631-638.	0.8	52
157	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
158	Scaling of pHEMTs to Decanano Dimensions. VLSI Design, 2001, 13, 435-439.	0.5	5
159	Multiple delta doping in aggressively scaled PHEMTs. , 2001, , .		2
160	Electron transport process in quantum cascade intersubband semiconductor lasers. Journal of Applied Physics, 2001, 89, 2001-2005.	1.1	14
161	RF analysis of aggressively scaled pHEMTs. , 2000, , .		3
162	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

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163	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
164	Influence of stress concentrators on the fatigue and fracture characteristics of steels and welded joints. Materials Science, 1998, 34, 696-700.	0.3	1
165	Phonon Confinement and Electron Capture Time in Quantum Well. Acta Physica Polonica A, 1997, 92, 805-808.	0.2	0
166	Electron capture in quantum wells via scattering by electrons, holes, and optical phonons. Physical Review B, 1996, 54, 17730-17737.	1.1	20
167	Electron capture in GaAs quantum wells via electronâ€electron and optic phonon scattering. Applied Physics Letters, 1996, 68, 117-119.	1.5	11
168	Boltzmann kinetic equation with correction term for intracollisional field effect. Semiconductor Science and Technology, 1992, 7, 1446-1452.	1.0	1
169	An improved method of calculating critical crack opening. Strength of Materials, 1975, 7, 1318-1323.	0.2	2
170	Performance of aggressively scaled pseudomorphic HEMTs: a monte carlo simulation study. , 0, , .		0
171	Effect of impact ionization in scaled pHEMTs. , 0, , .		2
172	Gate tunnelling and impact ionisation in sub 100 nm PHEMTs. , 0, , .		1
173	Breakdown mechanisms limiting the operation of double doped PHEMTs scaled into sub-100 nm dimensions. , 0, , .		0
174	High performance III-V MOSFETs: a dream close to reality?. , 0, , .		2
175	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
176	Monte carlo simulations of sub-100 nm InGaAs MOSFETs for digital applications. , 0, , .		14
177	Ballistic transport in Si, Ge, and GaAs nanowire MOSFETs. , 0, , .		26
178	Modelling of InP HEMTs with high indium content channels. , 0, , .		8