A Asenov

List of Publications by Year
in descending order

253 papers	4,938 citations	201674 27 h-index	114465 63 g-index
259 all docs	259 docs citations	259 times ranked	2128 citing authors

#	Article	IF	Citations
1	The Use of Tcad Simulations in Semiconductor Devices Teaching. , 2020, , .		1
2	A Combined First Principles and Kinetic Monte Carlo study of Polyoxometalate based Molecular Memory Devices. , 2020, , .		2
3	RTN and Its Intrinsic Interaction with Statistical Variability Sources in Advanced Nano-Scale Devices: A Simulation Study. , 2020, , 441-466.		1
4	Efficient Coupled-mode space based Non-Equilibrium Greenâ€™s Function Approach for Modeling Quantum Transport and Variability in Vertically Stacked SiNW FETs. , 2019, , .		0
5	Simulation of Statistical NBTI Degradation in 10nm Doped Channel pFinFETs. , 2019, , .		2
6	Thorough Understanding of Retention Time of Z2FET Memory Operation. IEEE Transactions on Electron Devices, 2019, 66, 383-388.	3.0	11
7	Challenges and Progress on Carbon Nanotube Integration for BEOL Interconnects. , 2018, , .		2
8	MS-EMC vs. NEGF: A comparative study accounting for transport quantum corrections. , 2018, , .		9
9	A Carrier Lifetime Sensitivity Probe Based on Transient Capacitance: A novel method to Characterize Lifetime in Z2FET. , 2018, , .		0
10	Process Variability for Devices at and beyond the 7Ânm Node. ECS Journal of Solid State Science and Technology, 2018, 7, P595-P601.	1.8	12
11	Study of the 1D Scattering Mechanisms' Impact on the Mobility in Si Nanowire Transistors. , 2018, , .		6
12	Assessment of gate leakage mechanism utilizing Multi-Subband Ensemble Monte Carlo. , 2017, , .		4
13	Interaction between hot carrier aging and PBTI degradation in nMOSFETs: Characterization, modelling and lifetime prediction. , 2017, , .		13
14	A physics-based investigation of Pt-salt doped carbon nanotubes for local interconnects. , 2017, , .		5
15	Nanowire transistor solutions for 5nm and beyond. , 2016, , .		22
16	3D electro-thermal simulations of bulk FinFETs with statistical variations. , 2015, , .		3
17	Hot carrier aging and its variation under use-bias: Kinetics, prediction, impact on Vdd and SRAM. , 2015, , .		16
18	TCAD-based methodology for reliability assessment of nanoscaled MOSFETs. , 2015, , .		1

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19	Comparison of Si < 100 > and < 110 > crystal orientation nanowire transistor reliability using Poissonâ€“SchrÃ¶dinger and classical simulations. Microelectronics Reliability, 2015, 55, 1307-1312.	1.7	1
20	Unified approach for simulation of statistical reliability in nanoscale CMOS transistors from devices to circuits. , 2015, , .		7
21	Silicon-on-insulator (SOI) fin-on-oxide field effect transistors (FinFETs). , 2014, , 195-211.		2
22	Time-dependent variation: A new defect-based prediction methodology. , 2014, , .		13
23	3D atomistic simulations of bulk, FDSOI and Fin FETs sensitivity to oxide reliability. , 2014, , .		1
24	Electron dynamics in nanoscale transistors by means of Wigner and Boltzmann approaches. Physica A: Statistical Mechanics and Its Applications, 2014, 398, 194-198.	2.6	11
25	Modelling RTN and BTI in nanoscale MOSFETs from device to circuit: A review. Microelectronics Reliability, 2014, 54, 682-697.	1.7	35
26	Understanding variability in complementary metal oxide semiconductor (CMOS) devices manufactured using silicon-on-insulator (SOI) technology. , 2014, , 212-242.		1
27	RTN distribution comparison for bulk, FDSOI and FinFETs devices. Microelectronics Reliability, 2014, 54, 1749-1752.	1.7	7
28	Interplay between statistical reliability and variability: A comprehensive transistor-to-circuit simulation technology. , 2013, , .		16
29	Modelling of reliability of nanoscale MOSFETs within the discrete charge trapping paradigm. , 2013, , .		0
30	Impact of the statistical variability on 15nm III–V and Ge MOSFET based SRAM design. , 2013, , .		1
31	Drain bias impact on statistical variability and reliability in 20 nm bulk CMOS technology. , 2013, , .		1
32	Quantum insights in gate oxide charge-trapping dynamics in nanoscale MOSFETs. , 2013, , .		3
33	Impact of Statistical Variability on FinFET Technology: From Device, Statistical Compact Modelling to Statistical Circuit Simulation. , 2013, , 281-291.		1
34	Monte carlo simulation of the effect of interface roughness in Implant-Free Quantum-Well MOSFETs. , 2013, , .		1
35	Simulation based transistor-SRAM co-design in the presence of statistical variability and reliability. , 2013, , .		18
36	Key issues and techniques for characterizing time-dependent device-to-device variation of SRAM. , 2013, , .		11

#	Article	IF	Citations
37	Analysis of FinFET technology on memories. , 2012, , .		0
38	An advanced statistical compact model strategy for SRAM simulation at reduced V<inf>DD</inf>. , 2012, , .		5
39	FET based nano-pore sensing: a 3D simulation study. Journal of Computational Electronics, 2012, 11, 266-271.	2.5	2
40	Impact of random dopant fluctuations on trap-assisted tunnelling in nanoscale MOSFETs. Microelectronics Reliability, 2012, 52, 1918-1923.	1.7	9
41	Enriched residual free bubbles for semiconductor device simulation. Computational Mechanics, 2012, 50, 119-133.	4.0	6
42	NEGF simulations of a junctionless Si gate-all-around nanowire transistor with discrete dopants. Solid-State Electronics, 2012, 71, 101-105.	1.4	25
43	A mobility model correction for ‘atomistic’ drift-diffusion simulation. , 2011, , .		0
44	NEGF simulations of a junctionless Si gate-all-around nanowire transistor with discrete dopants. , 2011, , .		5
45	Statistical MOSFET current variation due to variation in surface roughness scattering. , 2011, , .		1
46	The effect of compact modelling strategy on SNM and Read Current variability in Modern SRAM. , 2011, , .		4
47	Modelling circuit performance variations due to statistical variability: Monte Carlo static timing analysis. , 2011, , .		7
48	Simulation study of the 20nm gate-length Ge implant-free quantum well p-MOSFET. Microelectronic Engineering, 2011, 88, 362-365.	2.4	3
49	Non-equilibrium Greenâ€™s function analysis of cross section and channel length dependence of phonon scattering and its impact on the performance of Si nanowire field effect transistors. Journal of Applied Physics, 2011, 110, .	2.5	35
50	Statistical aspects of NBTI/PBTI and impact on SRAM yield. , 2011, , .		5
51	Dopants and roughness induced resonances in thin Si nanowire transistors: A self-consistent NEGF-poisson study. Journal of Physics: Conference Series, 2010, 220, 012009.	0.4	6
52	Impact of interface state trap density on the performance characteristics of different IIIâ€“V MOSFET architectures. Microelectronics Reliability, 2010, 50, 360-364.	1.7	27
53	Parameter set and data sampling strategy for accurate yet efficient statistical MOSFET compact model extraction. Solid-State Electronics, 2010, 54, 307-315.	1.4	10
54	Drain current computation in nanoscale nMOSFETs: Comparison of transport models. , 2010, , .		0

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55	Modeling and simulation of transistor and circuit variability and reliability. , 2010, , .		15
56	A novel approach to the statistical generation of non-normal distributed PSP compact model parameters using a nonlinear power method. , 2010, , .		8
57	Monte Carlo analysis of In<inf>0.53</inf>Ga<inf>0.47</inf>as Implant-Free Quantum-Well device performance. , 2010, , .		3
58	Capturing intrinsic parameter fluctuations using the PSP compact model. , 2010, , .		3
59	PBTI/NBTI-Related Variability in TB-SOI and DG MOSFETs. IEEE Electron Device Letters, 2010, 31, 408-410.	3.9	13
60	Compact model extraction from quantum corrected statistical Monte Carlo simulation of random dopant induced drain current variability. , 2010, , .		0
61	Statistical estimation of electrostatic and transport contributions to device parameter variation. , 2010, , .		1
62	Channel length dependence of discrete dopant effects in narrow si nanowire transistors: A full 3D NEGF study. , 2010, , .		0
63	Brownian noise in FET based nano-pore sensing: A 3D simulation study. , 2010, , .		0
64	'ab initio' surface roughness scattering in 3D Monte Carlo transport simulations. , 2010, , .		0
65	Combining process and statistical variability in the evaluation of the effectiveness of corners in digital circuit parametric yield analysis. , 2010, , .		8
66	Monte Carlo simulation study of hole mobility in germanium MOS inversion layers. , 2010, , .		3
67	High-Performance In<inf>0.75</inf>Ga<inf>0.25</inf>As Implant-Free n-type MOSFETs for Low Power Applications. , 2009, , .		0
68	3-D Nonequilibrium Green's Function Simulation of Nonperturbative Scattering From Discrete Dopants in the Source and Drain of a Silicon Nanowire Transistor. IEEE Nanotechnology Magazine, 2009, 8, 603-610.	2.0	27
69	3D Drift-Diffusion Simulation with Quantum-Corrections of Tri-Gate MOSFETs. , 2009, , .		0
70	RC Variability of Short-Range Interconnects. , 2009, , .		20
71	Efficient 3D Drift - Diffusion simulations of Implant Free Heterostructure Devices. , 2009, , .		0
72	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.	0.7	1

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73	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.	2.0	2
74	A comparison of advanced transport models for the computation of the drain current in nanoscale nMOSFETs. Solid-State Electronics, 2009, 53, 1293-1302.	1.4	18
75	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
76	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.	2.4	8
77	Evaluation of statistical variability in 32 and 22nm technology generation LSTP MOSFETs. Solid-State Electronics, 2009, 53, 767-772.	1.4	20
78	Benchmarking the Accuracy of PCA Generated Statistical Compact Model Parameters Against Physical Device Simulation and Directly Extracted Statistical Parameters. , 2009, , .		4
79	A Comparison between a Fully-3D Real-Space Versus Coupled Mode-Space NEGF in the Study of Variability in Gate-All-Around Si Nanowire MOSFET. , 2009, , .		9
80	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.	0.4	2
81	Brownian simulation of charge transport in Î±-Haemolysin. Journal of Computational Electronics, 2008, 7, 28-33.	2.5	5
82	Random dopant related variability in the 30Ânm gate length In0.75Ga0.25As implant free MOSFET. Journal of Computational Electronics, 2008, 7, 159-163.	2.5	4
83	A full 3D non-equilibrium Green functions study of aÂstray charge inÂaÂnanowire MOS transistor. Journal of Computational Electronics, 2008, 7, 359-362.	2.5	3
84	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
85	Benchmarking of Scaled InGaAs Implant-Free NanoMOSFETs. IEEE Transactions on Electron Devices, 2008, 55, 2297-2306.	3.0	39
86	Quantitative Evaluation of Statistical Variability Sources in a 45-nm Technological Node LP N-MOSFET. IEEE Electron Device Letters, 2008, 29, 609-611.	3.9	75
87	3D NEGF simulation of ‘ab initio’ scattering from discrete dopants in the source and drain of a nanowire transistor. , 2008, , .		0
88	Advanced simulation of statistical variability and reliability in nano CMOS transistors. , 2008, , .		28
89	Integrating Security Solutions to Support nanoCMOS Electronics Research. , 2008, , .		3
90	Statistical variations in 32nm thin-body SOI devices and SRAM cells. , 2008, , .		0

#	Article	IF	Citations
91	Evaluation of intrinsic parameter fluctuations on 45, 32 and 22nm technology node LP N-MOSFETs. , 2008, , .		6
92	Simulation of impurities with an attractive potential in fully 3-D real-space Non-Equilibrium Green’s Function quantum transport simulations. , 2008, , .		4
93	Origin of the Asymmetry in the Magnitude of the Statistical Variability of n- and p-Channel Poly-Si Gate Bulk MOSFETs. IEEE Electron Device Letters, 2008, 29, 913-915.	3.9	46
94	Secure, Performance-Oriented Data Management for nanoCMOS Electronics. , 2008, , .		5
95	III-V MOSFETs for Digital Applications with Silicon Co-Integration. , 2008, , .		0
96	1â€…[micro sign]m gate length, In0.75Ga0.25As channel, thin body n-MOSFET on InP substrate with transconductance of 737â€…[micro sign]S/Î¼m. Electronics Letters, 2008, 44, 498.	1.0	25
97	Atomistic mesh generation for the simulation of nanoscale metal-oxide-semiconductor field-effect transistors. Physical Review E, 2008, 77, 056702.	2.1	3
98	Performance variability in wrap-round gate silicon nano-transistors: a 3D self-consistent NEGF study of ballistic flows for atomistically-resolved source and drain. Journal of Physics: Conference Series, 2008, 109, 012026.	0.4	0
99	Impact of High-<I>Î²</I> Gate Stacks on Transport and Variability in Nano-CMOS Devices. Journal of Computational and Theoretical Nanoscience, 2008, 5, 1072-1088.	0.4	14
100	The scalability of 8T-SRAM cells under the influence of intrinsic parameter fluctuations. Solid-State Circuits Conference, 2008 ESSCIRC 2008 34th European, 2007, , .	0.0	5
101	Beyond SiO2 technology: Simulation of the impact of high-Î² dielectrics on mobility. Journal of Non-Crystalline Solids, 2007, 353, 630-634.	3.1	10
102	Statistical Compact Model Parameter Extraction Strategy for Intrinsic Parameter Fluctuation. , 2007, , 301-304.		10
103	The scalability of 8T-SRAM cells under the influence of intrinsic parameter fluctuations. , 2007, , .		0
104	High Mobility III-V MOSFETs For RF and Digital Applications. , 2007, , .		44
105	Combined sources of intrinsic parameter fluctuations in sub-25nm generation UTB-SOI MOSFETs: A statistical simulation study. Solid-State Electronics, 2007, 51, 611-616.	1.4	16
106	Simulation of implant free III-V MOSFETs for high performance low power Nano-CMOS applications. Microelectronic Engineering, 2007, 84, 2398-2403.	2.4	8
107	Monte Carlo simulations of InGaAs nano-MOSFETs. Microelectronic Engineering, 2007, 84, 2150-2153.	2.4	9
108	Monte Carlo simulations of InGaAs nano-MOSFETs. Microelectronic Engineering, 2007, 84, 2358-2361.	2.4	0

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109	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.	2.7	6
110	A Self-Consistent Full 3-D Real-Space NEGF Simulator for Studying Nonperturbative Effects in Nano-MOSFETs. IEEE Transactions on Electron Devices, 2007, 54, 2213-2222.	3.0	130
111	Study of fluctuations in advanced MOSFETs using a 3D finite element parallel simulator. Journal of Computational Electronics, 2007, 5, 311-314.	2.5	4
112	Statistical study of the effect of interface charge fluctuations in HEMTs using a 3D simulator. Journal of Computational Electronics, 2007, 5, 385-388.	2.5	3
113	Introducing energy broadening in semiclassical Monte Carlo simulations. Journal of Computational Electronics, 2007, 5, 419-423.	2.5	2
114	On the impact of high-Î¹ gate stacks on mobility: A Monte Carlo study including coupled SO phonon-plasmon scattering. Journal of Computational Electronics, 2007, 6, 1-5.	2.5	7
115	Developing a full 3D NEGF simulator with random dopant and interface roughness. Journal of Computational Electronics, 2007, 6, 215-218.	2.5	6
116	Continuum vs. particle simulations of model nano-pores. Journal of Computational Electronics, 2007, 6, 367-371.	2.5	1
117	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.	1.4	10
118	CMOS 6-T SRAM cell design subject to â€œatomisticâ€•fluctuations. Solid-State Electronics, 2007, 51, 565-571.	1.4	34
119	Simulation of Nano-CMOS Devices: From Atoms to Architecture. Nanostructure Science and Technology, 2007, , 257-303.	0.1	2
120	â€˜Atomisticâ€™ Mesh Generation for the Simulation of Semiconductor Devices. , 2007, , 97-100.		0
121	Efficient Density Gradient Quantum Corrections for 3D Monte Carlo Simulations. , 2006, , .		1
122	Development of a Full 3D NEGF Nano-CMOS Simulator. , 2006, , .		2
123	Impact of Random Dopant Fluctuation on Bulk CMOS 6-T SRAM Scaling. Solid-State Device Research Conference, 2008 ESSDERC 2008 38th European, 2006, , .	0.0	35
124	Intrinsic parameter fluctuations in conventional MOSFETs until the end of the ITRS: A statistical simulation study. Journal of Physics: Conference Series, 2006, 38, 188-191.	0.4	9
125	The impact of unintentional discrete charges in a nominally undoped channel of a thin body double gate MOSFET: classical to full quantum simulation. Journal of Physics: Conference Series, 2006, 38, 192-195.	0.4	1
126	Current variations in PHEMTS introduced by channel composition fluctuations. Journal of Physics: Conference Series, 2006, 38, 212-215.	0.4	2

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127	Monte Carlo Simulation of Implant Free InGaAs MOSFET. Journal of Physics: Conference Series, 2006, 38, 200-203.	0.4	2
128	A NEGF study of the effect of surface roughness on CMOS nanotransistors. Journal of Physics: Conference Series, 2006, 35, 269-274.	0.4	4
129	Green function study of quantum transport in ultra-small devices with embedded atomistic clusters. Journal of Physics: Conference Series, 2006, 35, 233-246.	0.4	5
130	Monte carlo study of mobility in Si devices with -based oxides. Materials Science in Semiconductor Processing, 2006, 9, 995-999.	4.0	3
131	Sub-25nm UTB SOI SRAM cell under the influence of discrete random dopants. Solid-State Electronics, 2006, 50, 660-667.	1.4	7
132	Atomistic effect of delta doping layer in a 50 nm InP HEMT. Journal of Computational Electronics, 2006, 5, 131-135.	2.5	3
133	Integrating intrinsic parameter fluctuation description into BSIMSOI to forecast sub-15nm UTB SOI based 6T SRAM operation. Solid-State Electronics, 2006, 50, 86-93.	1.4	10
134	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.	3.5	1
135	Impact of Intrinsic Parameter Fluctuations on SRAM Cell Design. , 2006, , .		10
136	Fermi-Dirac Statistics in Monte Carlo Simulations of InGaAs MOSFETs. , 2006, , 281-285.		0
137	Impact of intrinsic parameter fluctuations in decanano MOSFETs on yield and functionality of SRAM cells. Solid-State Electronics, 2005, 49, 740-746.	1.4	79
138	Impact of scattering in â€˜atomisticâ€™ device simulations. Solid-State Electronics, 2005, 49, 733-739.	1.4	15
139	Efficient three-dimensional parallel simulations of PHEMTs. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2005, 18, 327-340.	1.9	11
140	Tracking the Propagation of Individual Ions Through Ion Channels with Nano-MOSFETs. Journal of Computational Electronics, 2005, 4, 185-188.	2.5	0
141	The Impact Of Soft-Optical Phonon Scattering Due To High-Î¤ Dielectrics On The Performance Of Sub-100nm Conventional And Strained Si n-MOSFETs. AIP Conference Proceedings, 2005, , .	0.4	0
142	Intrinsic fluctuations induced by a high-Î¤ gate dielectric in sub-100 nm Si MOSFETs. AIP Conference Proceedings, 2005, , .	0.4	8
143	Intrinsic parameter fluctuations in MOSFETs due to structural non-uniformity of high-/spl kappa/ gate stack materials. , 2005, , .		10
144	A study of the effect of the interface roughness on a DG-MOSFET using a full 2D NEGF technique. , 2005, , .		11

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145	Impact of high-/spl kappa/ dielectric HfO/sub 2/ on the mobility and device performance of sub-100-nm nMOSFETs. IEEE Transactions on Device and Materials Reliability, 2005, 5, 103-108.	2.0	9
146	Impact of Single Charge Trapping in Nano-MOSFETsâ€"Electrostatics Versus Transport Effects. IEEE Nanotechnology Magazine, 2005, 4, 339-344.	2.0	28
147	Monte Carlo simulations of IIIâ€"V MOSFETs. Semiconductor Science and Technology, 2004, 19, S202-S205.	2.0	18
148	Simulations of Sub-100 nm Strained Si MOSFETs with High-Î¹ Gate Stacks. Journal of Computational Electronics, 2004, 3, 171-175.	2.5	2
149	Scattering from Body Thickness Fluctuations in Double Gate MOSFETs: An ab initio Monte Carlo Simulation Study. Journal of Computational Electronics, 2004, 3, 341-345.	2.5	3
150	Impact of device geometry and doping strategy on linearity and RF performance in Si/SiGe MODFETs. Microelectronics Reliability, 2004, 44, 1101-1107.	1.7	17
151	The impact of interface roughness scattering and degeneracy in relaxed and strained Si n-channel MOSFETs. Solid-State Electronics, 2004, 48, 1337-1346.	1.4	31
152	Role of multiple delta doping in PHEMTs scaled to sub-100 nm dimensions. Solid-State Electronics, 2004, 48, 1223-1232.	1.4	16
153	Atomistic Simulation of Decanano MOSFETs. Springer Series in Materials Science, 2004, , 111-156.	0.6	0
154	Interface roughness scattering and its impact on electron transport in relaxed and strained Si n-MOSFETs. Semiconductor Science and Technology, 2004, 19, S155-S157.	2.0	7
155	Brownian Ionic Channel Simulation. Journal of Computational Electronics, 2003, 2, 257-262.	2.5	5
156	Simulation Study of High Performance III-V MOSFETs for Digital Applications. Journal of Computational Electronics, 2003, 2, 341-345.	2.5	2
157	Simulations of Scaled Sub-100 nm Strained Si/SiGe p-Channel MOSFETs. Journal of Computational Electronics, 2003, 2, 363-368.	2.5	1
158	3D Parallel Simulations of Fluctuation Effects in pHEMTs. Journal of Computational Electronics, 2003, 2, 369-373.	2.5	5
159	Applicability of Quasi-3D and 3D MOSFET Simulations in the â€˜Atomisticâ€™ Regime. Journal of Computational Electronics, 2003, 2, 423-426.	2.5	2
160	A Methodology for Quantitatively Introducing â€˜Atomisticâ€™ Fluctuations into Compact Device Models for Circuit Analysis. Journal of Computational Electronics, 2003, 2, 427-431.	2.5	5
161	Degeneracy and High Doping Effects in Deep Sub-Micron Relaxed and Strained Si n-MOSFETs. Journal of Computational Electronics, 2003, 2, 475-479.	2.5	7
162	RTS amplitudes in decananometer MOSFETs: 3-D simulation study. IEEE Transactions on Electron Devices, 2003, 50, 839-845.	3.0	358

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163	Intrinsic parameter fluctuations in decananometer mosfets introduced by gate line edge roughness. IEEE Transactions on Electron Devices, 2003, 50, 1254-1260.	3.0	525
164	Simulation of intrinsic parameter fluctuations in decananometer and nanometer-scale MOSFETs. IEEE Transactions on Electron Devices, 2003, 50, 1837-1852.	3.0	479
165	Artificial carrier heating due to the introduction of ab initio Coulomb scattering in Monte Carlo simulations. Superlattices and Microstructures, 2003, 34, 319-326.	3.1	2
166	Quantum corrections in the simulation of decanano MOSFETs. Solid-State Electronics, 2003, 47, 1141-1145.	1.4	43
167	Nonequilibrium and ballistic transport, and backscattering in decanano HEMTs: a Monte Carlo simulation study. Mathematics and Computers in Simulation, 2003, 62, 357-366.	4.4	1
168	Potential fluctuations in metalâ€“oxideâ€“semiconductor field-effect transistors generated by random impurities in the depletion layer. Journal of Applied Physics, 2002, 91, 4326-4334.	2.5	15
169	Tunnelling and Impact Ionization in Scaled Double Doped PHEMTs. , 2002, , .		0
170	Nonequilibrium transport in scaled high electron mobility transistors. Semiconductor Science and Technology, 2002, 17, 579-584.	2.0	8
171	Intrinsic fluctuations in sub 10-nm double-gate MOSFETs introduced by discreteness of charge and matter. IEEE Nanotechnology Magazine, 2002, 1, 195-200.	2.0	88
172	Breakdown of universal mobility curves in sub-100-nm MOSFETs. IEEE Nanotechnology Magazine, 2002, 1, 260-264.	2.0	2
173	Implications of Imperfect Interfaces and Edges in Ultra-small MOSFET Characteristics. Physica Status Solidi (B): Basic Research, 2002, 233, 101-112.	1.5	3
174	Intrinsic threshold voltage fluctuations in decanano MOSFETs due to local oxide thickness variations. IEEE Transactions on Electron Devices, 2002, 49, 112-119.	3.0	162
175	Transconductance, carrier mobility and 1/f noise in Si/Si0.64Ge0.36/Si pMOSFETs. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2002, 89, 444-448.	3.5	4
176	Scaling of pseudomorphic high electron mobility transistors to decanano dimensions. Solid-State Electronics, 2002, 46, 631-638.	1.4	52
177	Generic Particle-Mesh Framework for the Simulation of Ionic Channels. Journal of Computational Electronics, 2002, 1, 405-409.	2.5	3
178	Quantum Corrections in the Monte Carlo Simulations of Scaled PHEMTs with Multiple Delta Doping. Journal of Computational Electronics, 2002, 1, 257-261.	2.5	2
179	Title is missing!. Journal of Computational Electronics, 2002, 1, 289-293.	2.5	11
180	Excessive Over-Relaxation Method for Multigrid Poisson Solvers. Journal of Computational Electronics, 2002, 1, 341-345.	2.5	5

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181	The Use of Quantum Potentials for Confinement and Tunnelling in Semiconductor Devices. Journal of Computational Electronics, 2002, 1, 503-513.	2.5	39
182	Scaling of pHEMTs to Decanano Dimensions. VLSI Design, 2001, 13, 435-439.	0.5	5
183	Quantum Corrections to the â€˜Atomisticâ€™ MOSFET Simulations. VLSI Design, 2001, 13, 15-21.	0.5	5
184	Increase in the random dopant induced threshold fluctuations and lowering in sub-100 nm MOSFETs due to quantum effects: a 3-D density-gradient simulation study. IEEE Transactions on Electron Devices, 2001, 48, 722-729.	3.0	198
185	Multiple delta doping in aggressively scaled PHEMTs. , 2001, , .		2
186	Effective mobilities in pseudomorphic Si/SiGe/Si p-channel metal-oxide-semiconductor field-effect transistors with thin silicon capping layers. Applied Physics Letters, 2001, 78, 1424-1426.	3.3	42
187	Analysis of Statistical Fluctuations due to Line Edge Roughness in sub-0.1Î¼m MOSFETs. , 2001, , 78-81.		21
188	Statistical 3D â€˜atomisticâ€™ simulation of decanano MOSFETs. Superlattices and Microstructures, 2000, 27, 215-227.	3.1	5
189	Effect of single-electron interface trapping in decanano MOSFETs: A 3D atomistic simulation study. Superlattices and Microstructures, 2000, 27, 411-416.	3.1	8
190	Oxide thickness variation induced threshold voltage fluctuations in decanano MOSFETs: a 3D density gradient simulation study. Superlattices and Microstructures, 2000, 28, 507-515.	3.1	21
191	Polysilicon gate enhancement of the random dopant induced threshold voltage fluctuations in sub-100 nm MOSFETs with ultrathin gate oxide. IEEE Transactions on Electron Devices, 2000, 47, 805-812.	3.0	53
192	RF analysis of aggressively scaled pHEMTs. , 2000, , .		3
193	Strain engineered pHEMTs on virtual substrates: a Monte Carlo simulation study. Solid-State Electronics, 1999, 43, 1281-1288.	1.4	10
194	On the design and control of quantum effects in mesoscopic devices. Microelectronic Engineering, 1999, 47, 255-260.	2.4	0
195	Suppression of random dopant-induced threshold voltage fluctuations in sub-0.1-Î¼m MOSFET's with epitaxial and Î´-doped channels. IEEE Transactions on Electron Devices, 1999, 46, 1718-1724.	3.0	150
196	Hierarchical approach to "atomistic" 3-D MOSFET simulation. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 1999, 18, 1558-1565.	2.7	65
197	Complete Monte Carlo RF analysis of "real" short-channel compound FET's. IEEE Transactions on Electron Devices, 1998, 45, 1644-1652.	3.0	52
198	Random dopant induced threshold voltage lowering and fluctuations in sub-0.1 Î¼m MOSFET's: A 3-D "atomistic" simulation study. IEEE Transactions on Electron Devices, 1998, 45, 2505-2513.	3.0	571

#	Article	IF	Citations
199	Gender neutral engineering: an impossible dream? â€•the case of Eastern Europe. International Journal of Science Education, 1998, 20, 783-793.	1.9	4
200	Mesh-based particle simulation of sub-0.1 micron FETs. Semiconductor Science and Technology, 1998, 13, A173-A176.	2.0	3
201	Complete RF Analysis of Compound FETs Based on Transient Monte Carlo Simulation. VLSI Design, 1998, 8, 313-317.	0.5	0
202	Quadrilateral Finite Element Monte Carlo Simulation of Complex Shape Compound FETs. VLSI Design, 1998, 6, 127-130.	0.5	0
203	Monte Carlo Calibrated Drift-Diffusion Simulation of Short Channel HFETs. VLSI Design, 1998, 8, 319-323.	0.5	0
204	RF Performance of Si/SiGe MODFETs: A Simulation Study. VLSI Design, 1998, 8, 325-330.	0.5	0
205	Ab-initio Coulomb Scattering in Atomistic Device Simulation. VLSI Design, 1998, 8, 331-335.	0.5	7
206	Topologically Rectangular Grids in the Parallel Simulation of Semiconductor Devices. VLSI Design, 1998, 6, 91-95.	0.5	4
207	Statistically reliable â€˜Atomisticâ€™ Simulation of Sub 100 nm MOSFETs. , 1998, , 223-226.		5
208	Ultra-linear pseudomorphic HEMTs for wireless communications: A simulation study. , 1997, , .		1
209	Monte Carlo Analysis of Si/SiGe MODFET Performance Potential. Physica Status Solidi (B): Basic Research, 1997, 204, 525-527.	1.5	1
210	Simple approach to include external resistances in the Monte Carlo simulation of MESFETs and HEMTs. IEEE Transactions on Electron Devices, 1996, 43, 2032-2034.	3.0	36
211	Finite element Monte Carlo simulation of recess gate compound FFTs. Solid-State Electronics, 1996, 39, 629-635.	1.4	23
212	Scalable parallel 3D finite element nonlinear poisson solver. Simulation Modelling Practice and Theory, 1996, 4, 155-168.	0.3	8
213	New evidence for velocity overshoot in a 200 nm pseudomorphic HEMT. Microelectronics Journal, 1996, 27, 785-793.	2.0	7
214	Speed-up of scalable iterative linear solvers implemented on an array of transputers. Parallel Computing, 1995, 21, 669-682.	2.1	2
215	Speed-up of scalable iterative linear solvers implemented on an array of transputers. Parallel Computing, 1994, 20, 375-387.	2.1	9
216	Scalable Parallel 3D Finite Element Nonlinear Poisson Solver. , 1994, , 665-672.		1

#	Article	IF	Citations
217	Parallel Simulation of Semiconductor Devices. , 1994, , 683-690.		1
218	Hot-carrier degradation monitoring in LDD n-MOSFETs using drain gated-diode measurements. Microelectronic Engineering, 1991, 15, 445-448.	2.4	13
219	Hot-carrier-induced deep-level defects from gated-diode measurements on MOSFETs. IEEE Electron Device Letters, 1990, 11, 95-97.	3.9	24
220	MOSFETs Under Electrical Stress â€" Degradation, Subthreshold Conduction, and Noise in a Submicron Structure. Springer Series in Solid-state Sciences, 1988, , 253-262.	0.3	2
221	On the nature and energy distribution of defect states caused by hot electrons in Si. Applied Surface Science, 1987, 30, 319-324.	6.1	6
222	Efficient hole transport model in warped bands for use in the simulation of Si/SiGe MOSFETs. , 0, , .		3
223	Parallel semiconductor device simulation: from power to 'atomistic' devices. , 0, , .		2
224	Monte Carlo investigation of optimal device architectures for SiGe FETs. , 0, , .		0
225	Efficient 3D 'atomistic' simulation technique for studying of random dopant induced threshold voltage lowering and fluctuations in decanano MOSFETs. , 0, , .		3
226	Strain engineered In/sub x/Ga/sub 1-x/As channel pHEMTs on virtual substrates: a simulation study. , 0, , .		0
227	RF analysis methodology for Si and SiGe FETs based on transient Monte Carlo simulation. , 0, , .		1
228	Quantum mechanical enhancement of the random dopant induced threshold voltage fluctuations and lowering in sub 0.1 micron MOSFETs. , 0, , .		18
229	Soft sphere model for electron correlation and scattering in the atomistic modelling of semiconductor devices. , 0, , .		0
230	Random telegraph signal amplitudes in sub 100 nm (decanano) MOSFETs: a 3D 'Atomistic' simulation study. , 0, , .		23
231	Performance of aggressively scaled pseudomorphic HEMTs: a monte carlo simulation study. , 0, , .		0
232	Scaling of pHEMTs to decanano dimensions. , 0, , .		1
233	Effect of impact ionization in scaled pHEMTs. , 0, , .		2
234	Quantum corrections to the 'atomistic' MOSFET simulation. , 0, , .		1

#	Article	IF	Citations
235	Effect of oxide interface roughness on the threshold voltage fluctuations in decanano MOSFETs with ultrathin gate oxides. , 0, , .		10
236	Nonequilibrium hole transport in deep sub-micron well-tempered Si p-MOSFETs. , 0, , .		0
237	Gate tunnelling and impact ionisation in sub 100 nm PHEMTs. , 0, , .		1
238	Simulation of direct source-to-drain tunnelling using the density gradient formalism: Non-Equilibrium Greens Function calibration. , 0, , .		14
239	Integrated atomistic process and device simulation of decananometre MOSFETs. , 0, , .		19
240	Breakdown mechanisms limiting the operation of double doped PHEMTs scaled into sub-100 nm dimensions. , 0, , .		0
241	Scaling study of Si/SiGe MODFETs for RF applications. , 0, , .		3
242	High performance III-V MOSFETs: a dream close to reality?. , 0, , .		2
243	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
244	The impact of random doping effects on CMOS SRAM cell. , 0, , .		64
245	Quantum mechanical and transport aspects of resolving discrete charges in nano-CMOS device simulation. , 0, , .		4
246	Monte carlo simulations of sub-100 nm InGaAs MOSFETs for digital applications. , 0, , .		14
247	Impact of point defect location in nanowire silicon MOFSETs. , 0, , .		0
248	Ballistic transport in Si, Ge, and GaAs nanowire MOSFETs. , 0, , .		26
249	Simulation of combined sources of intrinsic parameter fluctuations in a 'real' 35 nm MOSFET. , 0, , .		10
250	Modelling of InP HEMTs with high indium content channels. , 0, , .		8
251	Impact of Random Dopant Induced Fluctuations on Sub-l5nm UTB SOI 6T SRAM Cells. , 0, , .		1
252	Simulating the bio-nano-CMOS interface. , 0, , .		2

#	Article	IF	Citations
253	UTB SOI SRAM cell stability under the influence of intrinsic parameter fluctuation. , 0, , .		6