Juan Bautista Roldan Aranda

List of Publications by Year
in descending order

180 papers	3,814 citations	147801 31 h-index	161849 54 g-index
180 all docs	180 docs citations	180 times ranked	2169 citing authors

#	Article	IF	Citations
1	Temperature of Conductive Nanofilaments in Hexagonal Boron Nitride Based Memristors Showing Threshold Resistive Switching. Advanced Electronic Materials, 2022, 8, 2100580.	5.1	16
2	Comprehensive study on unipolar RRAM charge conduction and stochastic features: a simulation approach. Journal Physics D: Applied Physics, 2022, 55, 155104.	2.8	3
3	Variability estimation in resistive switching devices, a numerical and kinetic Monte Carlo perspective. Microelectronic Engineering, 2022, 257, 111736.	2.4	15
4	Memristors with Initial Lowâ€Resistive State for Efficient Neuromorphic Systems. Advanced Intelligent Systems, 2022, 4, .	6.1	8
5	Study of TiN/Ti/HfO2/W resistive switching devices: characterization and modeling of the set and reset transitions using an external capacitor discharge. Solid-State Electronics, 2022, , 108385.	1.4	0
6	Memristive technologies for data storage, computation, encryption, and radio-frequency communication. Science, 2022, 376, .	12.6	220
7	An experimental and simulation study of the role of thermal effects on variability in TiN/Ti/HfO2/W resistive switching nonlinear devices. Chaos, Solitons and Fractals, 2022, 160, 112247.	5.1	7
8	BCC-Grid versus SC-Grid in the modeling of a sheet of graphene as a surface boundary condition in the context of ADE-FDTD. Mathematics and Computers in Simulation, 2021, 186, 52-61.	4.4	3
9	Linear-Phase-Type probability modelling of functional PCA with applications to resistive memories. Mathematics and Computers in Simulation, 2021, 186, 71-79.	4.4	7
10	Homogeneity problem for basis expansion of functional data with applications to resistive memories. Mathematics and Computers in Simulation, 2021, 186, 41-51.	4.4	8
11	Synaptic devices based on HfO2 memristors. , 2021, , 383-426.		2
12	Advanced temperature dependent statistical analysis of forming voltage distributions for three different HfO2-based RRAM technologies. Solid-State Electronics, 2021, 176, 107961.	1.4	4
13	A Complex Model via Phase-Type Distributions to Study Random Telegraph Noise in Resistive Memories. Mathematics, 2021, 9, 390.	2.2	9
14	Study of Quantized Hardware Deep Neural Networks Based on Resistive Switching Devices, Conventional versus Convolutional Approaches. Electronics (Switzerland), 2021, 10, 346.	3.1	21
15	Memristor variability and stochastic physical properties modeling from a multivariate time series approach. Chaos, Solitons and Fractals, 2021, 143, 110461.	5.1	29
16	Stochastic resonance in a metal-oxide memristive device. Chaos, Solitons and Fractals, 2021, 144, 110723.	5.1	101
17	Toward Reliable Compact Modeling of Multilevel 1T-1R RRAM Devices for Neuromorphic Systems. Electronics (Switzerland), 2021, 10, 645.	3.1	28
18	Time series modeling of the cycle-to-cycle variability in h-BN based memristors. , 2021, , .		2

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19	Optimization of Multi-Level Operation in RRAM Arrays for In-Memory Computing. Electronics (Switzerland), 2021, 10, 1084.	3.1	15
20	Study of RTN signals in resistive switching devices based on neural networks. Solid-State Electronics, 2021, 183, 108034.	1.4	5
21	On the Thermal Models for Resistive Random Access Memory Circuit Simulation. Nanomaterials, 2021, 11, 1261.	4.1	39
22	Advanced Data Encryption â€‹using 2D Materials. Advanced Materials, 2021, 33, e2100185.	21.0	67
23	Fabrication, characterization and modeling of TiN/Ti/HfO2/W memristors: programming based on an external capacitor discharge. , 2021, , .		0
24	In Situ Observation of Lowâ€Power Nanoâ€Synaptic Response in Graphene Oxide Using Conductive Atomic Force Microscopy. Small, 2021, 17, e2101100.	10.0	22
25	Analysis of the Characteristic Current Fluctuations in the High Resistance State of HfO2-based Memristors. , 2021, , .		0
26	Multilevel memristor based matrix-vector multiplication: influence of the discretization method. , 2021, , .		3
27	Experimental study of the series resistance effect and its impact on the compact modeling of the conduction characteristics of HfO2-based resistive switching memories. Journal of Applied Physics, 2021, 130, .	2.5	22
28	Non-Uniform Spline Quasi-Interpolation to Extract the Series Resistance in Resistive Switching Memristors for Compact Modeling Purposes. Mathematics, 2021, 9, 2159.	2.2	9
29	Influence of variability on the performance of HfO2 memristor-based convolutional neural networks. Solid-State Electronics, 2021, 185, 108064.	1.4	5
30	One Cut-Point Phase-Type Distributions in Reliability. An Application to Resistive Random Access Memories. Mathematics, 2021, 9, 2734.	2.2	3
31	Standards for the Characterization of Endurance in Resistive Switching Devices. ACS Nano, 2021, 15, 17214-17231.	14.6	128
32	Simulation of serial RRAM cell based on a Verilog-A compact model. , 2021, , .		1
33	An Analysis on the Architecture and the Size of Quantized Hardware Neural Networks Based on Memristors. Electronics (Switzerland), 2021, 10, 3141.	3.1	2
34	Neural network based analysis of random telegraph noise in resistive random access memories. Semiconductor Science and Technology, 2020, 35, 025021.	2.0	10
35	Unipolar resistive switching behavior in Al₂O₃/HfO₂ multilayer dielectric stacks: fabrication, characterization and simulation. Nanotechnology, 2020, 31, 135202.	2.6	16
36	Reversible dielectric breakdown in h-BN stacks: a statistical study of the switching voltages. , 2020, , .		0

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37	Behavioral modeling of multilevel HfO₂-based memristors for neuromorphic circuit simulation. , 2020, , .		5
38	Experimental evaluation of the dynamic route map in the reset transition of memristive ReRAMs. Chaos, Solitons and Fractals, 2020, 139, 110288.	5.1	20
39	Numerical Study of Graphene Heat Spreaders for a THz Quantum Diode Based on a G-MGIM Junction. International Journal of Thermophysics, 2020, 41, 1.	2.1	1
40	Modeling of the temperature effects in filamentary-type resistive switching memories using quantum point-contact theory. Journal Physics D: Applied Physics, 2020, 53, 295106.	2.8	6
41	Resistive switching in HfO₂ based valence change memories, a comprehensive 3D kinetic Monte Carlo approach. Journal Physics D: Applied Physics, 2020, 53, 225106.	2.8	56
42	Influence of the magnetic field on dielectric breakdown in memristors based on h-BN stacks. , 2020, , .		0
43	Impact of Intrinsic Series Resistance on the Reversible Dielectric Breakdown Kinetics in HfO₂ Memristors. , 2020, , .		3
44	Current transient response and role of the internal resistance in HfOx-based memristors. Applied Physics Letters, 2020, 117, 262902.	3.3	12
45	Kinetic Monte Carlo analysis of data retention in Al:HfO₂-based resistive random access memories. Semiconductor Science and Technology, 2020, 35, 115012.	2.0	23
46	A physically based SPICE model for RRAMs including RTN. , 2020, , .		2
47	Phase-type distributions for studying variability in resistive memories. Journal of Computational and Applied Mathematics, 2019, 345, 23-32.	2.0	26
48	A new technique to analyze RTN signals in resistive memories. Microelectronic Engineering, 2019, 215, 110994.	2.4	7
49	Thermal study of multilayer resistive random access memories based on HfO2 and Al2O3 oxides. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2019, 37, 012204.	1.2	12
50	Influence of magnetic field on the operation of TiN/Ti/HfO2/W resistive memories. Microelectronic Engineering, 2019, 215, 110983.	2.4	8
51	Time series statistical analysis: A powerful tool to evaluate the variability of resistive switching memories. Journal of Applied Physics, 2019, 125, .	2.5	37
52	Analysis of the statistics of device-to-device and cycle-to-cycle variability in TiN/Ti/Al:HfO2/TiN RRAMs. Microelectronic Engineering, 2019, 214, 104-109.	2.4	61
53	Analysis of resistive switching processes in TiN/Ti/HfO2/W devices to mimic electronic synapses in neuromorphic circuits. Solid-State Electronics, 2019, 157, 25-33.	1.4	20
54	Resistive Switching and Charge Transport in Laser-Fabricated Graphene Oxide Memristors: A Time Series and Quantum Point Contact Modeling Approach. Materials, 2019, 12, 3734.	2.9	11

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55	New method to analyze random telegraph signals in resistive random access memories. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2019, 37, .	1.2	12
56	Estimation of the reset voltage in resistive RAMs using the chargeâ€“flux domain and a numerical method based on quasi-interpolation and discrete orthogonal polynomials. Mathematics and Computers in Simulation, 2019, 164, 120-130.	4.4	4
57	Stochastic modeling of Random Access Memories reset transitions. Mathematics and Computers in Simulation, 2019, 159, 197-209.	4.4	8
58	Recommended Methods to Study Resistive Switching Devices. Advanced Electronic Materials, 2019, 5, 1800143.	5.1	452
59	A spline quasi-interpolation based method to obtain the reset voltage in Resistive RAMs in the charge-flux domain. Journal of Computational and Applied Mathematics, 2019, 354, 326-333.	2.0	7
60	An in-depth description of bipolar resistive switching in Cu/HfOx/Pt devices, a 3D kinetic Monte Carlo simulation approach. Journal of Applied Physics, 2018, 123, .	2.5	21
61	Multivariate analysis and extraction of parameters in resistive RAMs using the Quantum Point Contact model. Journal of Applied Physics, 2018, 123, .	2.5	22
62	Exploring resistive switchingâ€based memristors in the chargeâ€“flux domain: A modeling approach. International Journal of Circuit Theory and Applications, 2018, 46, 29-38.	2.0	29
63	A Kinetic Monte Carlo Simulator to Characterize Resistive Switching and Charge Conduction in Ni/HfO<inf>2</inf>/Si RRAMs. , 2018, , .		3
64	Analysis of conductive filament density in resistive random access memories: a 3D kinetic Monte Carlo approach. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2018, 36, .	1.2	7
65	Effects of the extension of conductive filaments, a simulation approach. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2017, 35, 01A105.	1.2	2
66	In-depth study of the physics behind resistive switching in TiN/Ti/HfO2/W structures. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2017, 35, .	1.2	38
67	SPICE modeling of RRAM thermal reset transitions for circuit simulation purposes. , 2017, , .		4
68	A physically based model for resistive memories including a detailed temperature and variability description. Microelectronic Engineering, 2017, 178, 26-29.	2.4	29
69	SPICE simulation of RRAM circuits. A compact modeling perspective. , 2017, , .		1
70	A 3D kinetic Monte Carlo simulation study of resistive switching processes in Ni/HfO₂/Si-n⁺-based RRAMs. Journal Physics D: Applied Physics, 2017, 50, 335103.	2.8	52
71	A physically based model to describe resistive switching in different RRAM technologies. , 2017, , .		0
72	Polynomial pattern finding in scattered data. Journal of Computational and Applied Mathematics, 2017, 318, 107-116.	2.0	4

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73	$${ SIM}^2{ RRAM}$$ S I M 2 R R A M : a physical model for RRAM devices simulation. Journal of Computational Electronics, 2017, 16, 1095-1120.	2.5	45
74	Resistive Switching with Self-Rectifying Tunability and Influence of the Oxide Layer Thickness in Ni/HfO2/n+-Si RRAM Devices. IEEE Transactions on Electron Devices, 2017, 64, 3159-3166.	3.0	24
75	A physically based circuit model to account for variability in memristors with resistive switching operation. , 2016, , .		12
76	Transient SPICE simulation of Ni/HfO<inf>2</inf>/Si-n+ resistive memories. , 2016, , .		2
77	Simulation of RRAM memory circuits, a Verilog-A compact modeling approach. , 2016, , .		12
78	Implementation of Open Boundary Problems in Photo-Conductive Antennas by Using Convolutional Perfectly Matched Layers. IEEE Transactions on Antennas and Propagation, 2016, 64, 4919-4922.	5.1	15
79	Revivals of electron currents and topological-band insulator transitions in 2D gapped Dirac materials. Europhysics Letters, 2016, 115, 20008.	2.0	7
80	A new compact model for bipolar RRAMs based on truncated-cone conductive filamentsâ€"a Verilog-A approach. Semiconductor Science and Technology, 2016, 31, 115013.	2.0	43
81	An analytical energy model for the reset transition in unipolar resistive-switching RAMs. , 2016, , .		13
82	A new parameter to characterize the charge transport regime in Ni/HfO 2 /Si-n + -based RRAMs. Solid-State Electronics, 2016, 118, 56-60.	1.4	28
83	A Review of CMOS Photodiode Modeling and the Role of the Lateral Photoresponse. IEEE Transactions on Electron Devices, 2016, 63, 16-25.	3.0	12
84	Semiempirical Modeling of Reset Transitions in Unipolar Resistive-Switching based Memristors. Radioengineering, 2015, 24, 420-424.	0.6	37
85	Analytical Model for Crosstalk in p-n_{well} Photodiodes. IEEE Transactions on Electron Devices, 2015, 62, 580-586.	3.0	5
86	Exploring ReRAM-based memristors in the charge-flux domain, a modeling approach. , 2015, , .		12
87	An in-depth study on WENO-based techniques to improve parameter extraction procedures in MOSFET transistors. Mathematics and Computers in Simulation, 2015, 118, 248-257.	4.4	14
88	DC self-heating effects modelling in SOI and bulk FinFETs. Microelectronics Journal, 2015, 46, 320-326.	2.0	20
89	An in-depth study of thermal effects in reset transitions in HfO2 based RRAMs. Solid-State Electronics, 2015, 111, 47-51.	1.4	41
90	A SPICE Compact Model for Unipolar RRAM Reset Process Analysis. IEEE Transactions on Electron Devices, 2015, 62, 955-962.	3.0	44

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91	Time-domain numerical modeling of terahertz receivers based on photoconductive antennas. Journal of the Optical Society of America B: Optical Physics, 2015, 32, 2034.	2.1	9
92	A new explicit and analytical model for square Gate-All-Around MOSFETs with rounded corners. Solid-State Electronics, 2015, 111, 180-187.	1.4	6
93	An in-depth noise model for giant magnetoresistance current sensors for circuit design and complementary metalâ€“oxideâ€“semiconductor integration. Journal of Applied Physics, 2014, 115, .	2.5	3
94	Pseudo-Boltzmann model for modeling the junctionless transistors. Solid-State Electronics, 2014, 95, 19-22.	1.4	7
95	A comprehensive characterization of the threshold voltage extraction in MOSFETs transistors based on smoothing splines. Mathematics and Computers in Simulation, 2014, 102, 1-10.	4.4	11
96	On the Numerical Modeling of Terahertz Photoconductive Antennas. Journal of Infrared, Millimeter, and Terahertz Waves, 2014, 35, 432-444.	2.2	17
97	A comprehensive analysis on progressive reset transitions in RRAMs. Journal Physics D: Applied Physics, 2014, 47, 205102.	2.8	31
98	Simulation of thermal reset transitions in resistive switching memories including quantum effects. Journal of Applied Physics, 2014, 115, .	2.5	61
99	Zitterbewegung in monolayer silicene in a magnetic field. Physics Letters, Section A: General, Atomic and Solid State Physics, 2014, 378, 2582-2585.	2.1	15
100	An analytical mobility model for square Gate-All-Around MOSFETs. Solid-State Electronics, 2013, 90, 18-22.	1.4	5
101	Closed-Form and Explicit Analytical Model for Crosstalk in CMOS Photodiodes. IEEE Transactions on Electron Devices, 2013, 60, 3459-3464.	3.0	8
102	An in-depth Monte Carlo study of low-field mobility in ultra-thin body DGMOSFETs for modeling purposes. Solid-State Electronics, 2013, 79, 92-97.	1.4	2
103	In-depth analysis and modelling of self-heating effects in nanometric DGMOSFETs. Solid-State Electronics, 2013, 79, 179-184.	1.4	13
104	CMOS photodiode model and HDL implementation. , 2013, , .		1
105	Experimental characterization of peripheral photocurrent in CMOS photodiodes down to 65 nm technology. Semiconductor Science and Technology, 2013, 28, 045011.	2.0	5
106	An in-depth simulation study of thermal reset transitions in resistive switching memories. Journal of Applied Physics, 2013, 114, .	2.5	58
107	An advanced drain current model for DGMOSFETs including self-heating effects. , 2012, , .		1
108	Evidence of the lateral collection significance in small CMOS photodiodes. , 2012, , .		2

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109	A Verilog-AMS photodiode model including lateral effects. Microelectronics Journal, 2012, 43, 980-984.	2.0	12
110	Inversion charge modeling in n-type and p-type Double-Gate MOSFETs including quantum effects: The role of crystallographic orientation. Solid-State Electronics, 2012, 67, 30-37.	1.4	7
111	Analytical modelling of size effects on the lateral photoresponse of CMOS photodiodes. Solid-State Electronics, 2012, 73, 15-20.	1.4	9
112	Analytical drain current model reproducing advanced transport models in nanoscale double-gate (DG) MOSFETs. , 2011, , .		1
113	An analytical compact model for Schottky-barrier double gate MOSFETs. Solid-State Electronics, 2011, 64, 78-84.	1.4	27
114	An Inversion-Charge Analytical Model for Square Gate-All-Around MOSFETs. IEEE Transactions on Electron Devices, 2011, 58, 2854-2861.	3.0	12
115	In-Depth Study of Quantum Effects in SOI DGMOSFETs for Different Crystallographic Orientations. IEEE Transactions on Electron Devices, 2011, 58, 4438-4441.	3.0	6
116	A DC behavioral electrical model for quasi-linear spin-valve devices including thermal effects for circuit simulation. Microelectronics Journal, 2011, 42, 365-370.	2.0	9
117	Compact drain-current model for reproducing advanced transport models in nanoscale double-gate MOSFETs. Semiconductor Science and Technology, 2011, 26, 095015.	2.0	9
118	Hole transport in DGSOI devices: Orientation and silicon thickness effects. Solid-State Electronics, 2010, 54, 191-195.	1.4	18
119	An analytical model for square GAA MOSFETs including quantum effects. Solid-State Electronics, 2010, 54, 1463-1469.	1.4	28
120	An Analytical Iâ€“ V Model for Surrounding-Gate Transistors That Includes Quantum and Velocity Overshoot Effects. IEEE Transactions on Electron Devices, 2010, 57, 2925-2933.	3.0	30
121	Analytical compact modeling of GMR based current sensors: Application to power measurement at the IC level. Solid-State Electronics, 2010, 54, 1606-1612.	1.4	24
122	An in-depth simulation study of Coulomb mobility in ultra-thin-body SOI MOSFETs. Semiconductor Science and Technology, 2010, 25, 055002.	2.0	3
123	Quasi-Static Electrical Model for Magnetoresistive Current Sensors. Renewable Energy and Power Quality Journal, 2010, 1, 731-734.	0.2	2
124	A new inversion charge centroid model for surrounding gate transistors with HfO<inf>2</inf> as gate insulator. , 2009, , .		0
125	Monte Carlo simulation of nanoelectronic devices. Journal of Computational Electronics, 2009, 8, 174-191.	2.5	6
126	Modeling the Centroid and the Inversion Charge in Cylindrical Surrounding Gate MOSFETs, Including Quantum Effects. IEEE Transactions on Electron Devices, 2008, 55, 411-416.	3.0	76

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127	A In-depth Simulation Study of CMOS Inverters Based on the Novel Surrounding Gate Transistors. , 2008, , .		1
128	An electron mobility model for ultra-thin gate-oxide MOSFETs including the contribution of remote scattering mechanisms. Semiconductor Science and Technology, 2007, 22, 348-353.	2.0	8
129	Modeling of Inversion Layer Centroid and Polysilicon Depletion Effects on Ultrathin-Gate-Oxide MOSFET Behavior: The Influence of Crystallographic Orientation. IEEE Transactions on Electron Devices, 2007, 54, 723-732.	3.0	21
130	Confined acoustic phonons in ultrathin SOI layers. Journal of Computational Electronics, 2006, 5, 199-203.	2.5	0
131	Characterization of electron transport at high fields in silicon-on-insulator devices: a Monte Carlo study. Semiconductor Science and Technology, 2006, 21, 81-86.	2.0	0
132	Acoustic phonon confinement in silicon nanolayers: Effect on electron mobility. Journal of Applied Physics, 2006, 100, 013701.	2.5	73
133	Electron transport in silicon inversion slabs of nanometric thickness. , 2005, , .		0
134	Double gate silicon on insulator transistors. A Monte Carlo study. Solid-State Electronics, 2004, 48, 937-945.	1.4	13
135	Simulation and modelling of transport properties in strained-Si and strained-Si/SiGe-on-insulator MOSFETs. Solid-State Electronics, 2004, 48, 1347-1355.	1.4	12
136	Strained-Si on Si/sub 1-x/ mosfet mobility model. IEEE Transactions on Electron Devices, 2003, 50, 1408-1411.	3.0	18
137	A new remote Coulomb scattering model for ultrathin oxide MOSFETs. , 2003, , .		1
138	Monte Carlo simulation of remote-Coulomb-scattering-limited mobility in metalâ€“oxideâ€“semiconductor transistors. Applied Physics Letters, 2003, 82, 3251-3253.	3.3	41
139	Scattering of electrons in silicon inversion layers by remote surface roughness. Journal of Applied Physics, 2003, 94, 392-399.	2.5	34
140	Electron mobility in double gate silicon on insulator transistors: Symmetric-gate versus asymmetric-gate configuration. Journal of Applied Physics, 2003, 94, 5732-5741.	2.5	32
141	Effect of polysilicon depletion charge on electron mobility in ultrathin oxide MOSFETs. Semiconductor Science and Technology, 2003, 18, 927-937.	2.0	12
142	Coulomb scattering model for ultrathin silicon-on-insulator inversion layers. Applied Physics Letters, 2002, 80, 3835-3837.	3.3	23
143	Strained-Si/SiGe-on-insulator inversion layers: The role of strained-Si layer thickness on electron mobility. Applied Physics Letters, 2002, 80, 4160-4162.	3.3	5
144	Electron transport in strained Si inversion layers grown on SiGe-on-insulator substrates. Journal of Applied Physics, 2002, 92, 288-295.	2.5	141

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145	Monte Carlo simulation of electron mobility in silicon-on-insulator structures. Solid-State Electronics, 2002, 46, 1715-1721.	1.4	9
146	Electron transport in ultrathin double-gate SOI devices. Microelectronic Engineering, 2001, 59, 423-427.	2.4	8
147	Electron transport in silicon-on-insulator devices. Solid-State Electronics, 2001, 45, 613-620.	1.4	7
148	Improving strained-Si on Si/sub 1-x/Ge/sub x/ deep submicron MOSFETs performance by means of a stepped doping profile. IEEE Transactions on Electron Devices, 2001, 48, 1878-1884.	3.0	5
149	Strained-Si on Si/sub 1-x/Ge/sub x/ MOSFET inversion layer centroid modeling. IEEE Transactions on Electron Devices, 2001, 48, 2447-2449.	3.0	12
150	Role of surface-roughness scattering in double gate silicon-on-insulator inversion layers. Journal of Applied Physics, 2001, 89, 1764.	2.5	48
151	Deep submicrometer SOI MOSFET drain current model including series resistance, self-heating and velocity overshoot effects. IEEE Electron Device Letters, 2000, 21, 239-241.	3.9	14
152	Surface roughness at the Siâ€“SiO2 interfaces in fully depleted silicon-on-insulator inversion layers. Journal of Applied Physics, 1999, 86, 6854-6863.	2.5	106
153	A computational study of the strained-Si MOSFET: a possible alternative for the next century electronics industry. Computer Physics Communications, 1999, 121-122, 547-549.	7.5	1
154	Electron mobility in extremely thin single-gate silicon-on-insulator inversion layers. Journal of Applied Physics, 1999, 86, 6269-6275.	2.5	46
155	An analytical model for the electron velocity overshoot effects in strained-Si on Si/sub x/Ge/sub 1-x/ MOSFETs. IEEE Transactions on Electron Devices, 1998, 45, 993-995.	3.0	4
156	Monte Carlo simulation of electron transport properties in extremely thin SOI MOSFET's. IEEE Transactions on Electron Devices, 1998, 45, 1122-1126.	3.0	74
157	A model for the drain current of deep submicrometer MOSFETs including electron-velocity overshoot. IEEE Transactions on Electron Devices, 1998, 45, 2249-2251.	3.0	22
158	Two-dimensional drift-diffusion simulation of superficial strained-Si/Si[sub 1â^'x]Ge[sub x] channel metal-oxide-semiconductor field-effect transistors. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1998, 16, 1538.	1.6	0
159	Electron mobility in quantized Î²-SiC inversion layers. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1998, 16, 1631.	1.6	1
160	Phonon-limited electron mobility in ultrathin silicon-on-insulator inversion layers. Journal of Applied Physics, 1998, 83, 4802-4806.	2.5	29
161	A Î²-SiC MOSFET Monte Carlo Simulator Including Inversion Layer Quantization. VLSI Design, 1998, 8, 257-260.	0.5	1
162	Monte Carlo Simulation of a Submicron MOSFET Including Inversion Layer Quantization. VLSI Design, 1998, 6, 287-290.	0.5	1

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163	Low temperature mobility improvement in high-mobility strained-Si/Si_{1-x}Ge_x multilayer MOSFETs. European Physical Journal Special Topics, 1998, 08, Pr3-57-Pr3-60.	0.2	1
164	Understanding the improved performance of strained channel MOSFETs. Semiconductor Science and Technology, 1997, 12, 1603-1608.	2.0	5
165	A Monte Carlo study on electron mobility in quantized cubic silicon carbide inversion layers. Journal of Applied Physics, 1997, 81, 6857-6865.	2.5	5
166	A detailed simulation study of the performance of -silicon carbide MOSFETs and a comparison with their silicon counterparts. Semiconductor Science and Technology, 1997, 12, 655-661.	2.0	1
167	The dependence of the electron mobility on the longitudinal electric field in MOSFETs. Semiconductor Science and Technology, 1997, 12, 321-330.	2.0	34
168	Modeling effects of electron-velocity overshoot in a MOSFET. IEEE Transactions on Electron Devices, 1997, 44, 841-846.	3.0	53
169	Study of the effects of a stepped doping profile in short-channel MOSFETs. IEEE Transactions on Electron Devices, 1997, 44, 1425-1431.	3.0	22
170	A closed-loop evaluation and validation of a method for determining the dependence of the electron mobility on the longitudinal-electric field in MOSFETs. IEEE Transactions on Electron Devices, 1997, 44, 1447-1453.	3.0	5
171	Electron transport properties of quantized silicon carbide inversion layers. Journal of Electronic Materials, 1997, 26, 203-207.	2.2	9
172	Influence of the doping profile on electron mobility in a MOSFET. IEEE Transactions on Electron Devices, 1996, 43, 2023-2025.	3.0	2
173	A Monte Carlo study on the electronâ€transport properties of highâ€performance strainedâ€Si on relaxed Si1â^'xGexchannel MOSFETs. Journal of Applied Physics, 1996, 80, 5121-5128.	2.5	54
174	Electron velocity saturation in quantized silicon carbide inversion layers. Applied Physics Letters, 1996, 69, 2219-2221.	3.3	8
175	Coulomb scattering in strainedâ€silicon inversion layers on Si1â^'xGex substrates. Applied Physics Letters, 1996, 69, 797-799.	3.3	31
176	Strained Si/SiGe Heterostructures at Low Temperatures. A Monte Carlo Study. European Physical Journal Special Topics, 1996, 06, C3-87-C3-92.	0.2	1
177	Low-Temperature Modelling of Electron-Velocity-Overshoot Effects on 70-250 nm Gate-Length MOSFETs. European Physical Journal Special Topics, 1996, 06, C3-13-C3-18.	0.2	0
178	Remote surface roughness scattering in ultrathin-oxide MOSFETs. , 0, , .		5
179	Double gate silicon-on-insulator transistors: n/sup +/-n/sup +/ gate versus n/sup +/-p/sup +/ gate configuration. , 0, , .		0
180	Monte Carlo simulation of velocity modulation transistors. , 0, , .		0