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	Recommended Methods to Study Resistive Switching Devices. Advanced Electronic Materials, 2019, 5, 1800143.	5.1	452
2	Memristive technologies for data storage, computation, encryption, and radio-frequency communication. Science, 2022, 376, .	12.6	220
3	Electron transport in strained Si inversion layers grown on SiGe-on-insulator substrates. Journal of Applied Physics, 2002, 92, 288-295.	2.5	141
4	Standards for the Characterization of Endurance in Resistive Switching Devices. ACS Nano, 2021, 15, 17214-17231.	14.6	128
5	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
6	Stochastic resonance in a metal-oxide memristive device. Chaos, Solitons and Fractals, 2021, 144, 110723.	5.1	101
7	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
8	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
9	Acoustic phonon confinement in silicon nanolayers: Effect on electron mobility. Journal of Applied Physics, 2006, 100, 013701.	2.5	73
10	Advanced Data Encryption â€‹using 2D Materials. Advanced Materials, 2021, 33, e2100185.	21.0	67
11	Simulation of thermal reset transitions in resistive switching memories including quantum effects. Journal of Applied Physics, 2014, 115, .	2.5	61
12	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
13	An in-depth simulation study of thermal reset transitions in resistive switching memories. Journal of Applied Physics, 2013, 114, .	2.5	58
14	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
15	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
16	Modeling effects of electron-velocity overshoot in a MOSFET. IEEE Transactions on Electron Devices, 1997, 44, 841-846.	3.0	53
17	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
18	Role of surface-roughness scattering in double gate silicon-on-insulator inversion layers. Journal of Applied Physics, 2001, 89, 1764.	2.5	48

#	Article	IF	Citations
19	Electron mobility in extremely thin single-gate silicon-on-insulator inversion layers. Journal of Applied Physics, 1999, 86, 6269-6275.	2.5	46
20	$${ SIM}^2{ RRAM}$$ 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
21	A SPICE Compact Model for Unipolar RRAM Reset Process Analysis. IEEE Transactions on Electron Devices, 2015, 62, 955-962.	3.0	44
22	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
23	Monte Carlo simulation of remote-Coulomb-scattering-limited mobility in metalâ€“oxideâ€“semiconductor transistors. Applied Physics Letters, 2003, 82, 3251-3253.	3.3	41
24	An in-depth study of thermal effects in reset transitions in HfO2 based RRAMs. Solid-State Electronics, 2015, 111, 47-51.	1.4	41
25	On the Thermal Models for Resistive Random Access Memory Circuit Simulation. Nanomaterials, 2021, 11, 1261.	4.1	39
26	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
27	Semiempirical Modeling of Reset Transitions in Unipolar Resistive-Switching based Memristors. Radioengineering, 2015, 24, 420-424.	0.6	37
28	Time series statistical analysis: A powerful tool to evaluate the variability of resistive switching memories. Journal of Applied Physics, 2019, 125, .	2.5	37
29	The dependence of the electron mobility on the longitudinal electric field in MOSFETs. Semiconductor Science and Technology, 1997, 12, 321-330.	2.0	34
30	Scattering of electrons in silicon inversion layers by remote surface roughness. Journal of Applied Physics, 2003, 94, 392-399.	2.5	34
31	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
32	Coulomb scattering in strainedâ€silicon inversion layers on Si1â^'xGex substrates. Applied Physics Letters, 1996, 69, 797-799.	3.3	31
33	A comprehensive analysis on progressive reset transitions in RRAMs. Journal Physics D: Applied Physics, 2014, 47, 205102.	2.8	31
34	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
35	Phonon-limited electron mobility in ultrathin silicon-on-insulator inversion layers. Journal of Applied Physics, 1998, 83, 4802-4806.	2.5	29
36	A physically based model for resistive memories including a detailed temperature and variability description. Microelectronic Engineering, 2017, 178, 26-29.	2.4	29

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37	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
38	Memristor variability and stochastic physical properties modeling from a multivariate time series approach. Chaos, Solitons and Fractals, 2021, 143, 110461.	5.1	29
39	An analytical model for square GAA MOSFETs including quantum effects. Solid-State Electronics, 2010, 54, 1463-1469.	1.4	28
40	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
41	Toward Reliable Compact Modeling of Multilevel 1T-1R RRAM Devices for Neuromorphic Systems. Electronics (Switzerland), 2021, 10, 645.	3.1	28
42	An analytical compact model for Schottky-barrier double gate MOSFETs. Solid-State Electronics, 2011, 64, 78-84.	1.4	27
43	Phase-type distributions for studying variability in resistive memories. Journal of Computational and Applied Mathematics, 2019, 345, 23-32.	2.0	26
44	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
45	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
46	Coulomb scattering model for ultrathin silicon-on-insulator inversion layers. Applied Physics Letters, 2002, 80, 3835-3837.	3.3	23
47	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
48	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
49	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
50	Multivariate analysis and extraction of parameters in resistive RAMs using the Quantum Point Contact model. Journal of Applied Physics, 2018, 123, .	2.5	22
51	In Situ Observation of Lowâ€Power Nanoâ€Synaptic Response in Graphene Oxide Using Conductive Atomic Force Microscopy. Small, 2021, 17, e2101100.	10.0	22
52	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
53	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
54	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

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55	Study of Quantized Hardware Deep Neural Networks Based on Resistive Switching Devices, Conventional versus Convolutional Approaches. Electronics (Switzerland), 2021, 10, 346.	3.1	21
56	DC self-heating effects modelling in SOI and bulk FinFETs. Microelectronics Journal, 2015, 46, 320-326.	2.0	20
57	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
58	Experimental evaluation of the dynamic route map in the reset transition of memristive ReRAMs. Chaos, Solitons and Fractals, 2020, 139, 110288.	5.1	20
59	Strained-Si on Si/sub 1-x/ mosfet mobility model. IEEE Transactions on Electron Devices, 2003, 50, 1408-1411.	3.0	18
60	Hole transport in DGSOI devices: Orientation and silicon thickness effects. Solid-State Electronics, 2010, 54, 191-195.	1.4	18
61	On the Numerical Modeling of Terahertz Photoconductive Antennas. Journal of Infrared, Millimeter, and Terahertz Waves, 2014, 35, 432-444.	2.2	17
62	Unipolar resistive switching behavior in Al₂O₃/HfO₂ multilayer dielectric stacks: fabrication, characterization and simulation. Nanotechnology, 2020, 31, 135202.	2.6	16
63	Temperature of Conductive Nanofilaments in Hexagonal Boron Nitride Based Memristors Showing Threshold Resistive Switching. Advanced Electronic Materials, 2022, 8, 2100580.	5.1	16
64	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
65	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
66	Optimization of Multi-Level Operation in RRAM Arrays for In-Memory Computing. Electronics (Switzerland), 2021, 10, 1084.	3.1	15
67	Variability estimation in resistive switching devices, a numerical and kinetic Monte Carlo perspective. Microelectronic Engineering, 2022, 257, 111736.	2.4	15
68	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
69	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
70	Double gate silicon on insulator transistors. A Monte Carlo study. Solid-State Electronics, 2004, 48, 937-945.	1.4	13
71	In-depth analysis and modelling of self-heating effects in nanometric DGMOSFETs. Solid-State Electronics, 2013, 79, 179-184.	1.4	13
72	An analytical energy model for the reset transition in unipolar resistive-switching RAMs. , 2016, , .		13

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73	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
74	Effect of polysilicon depletion charge on electron mobility in ultrathin oxide MOSFETs. Semiconductor Science and Technology, 2003, 18, 927-937.	2.0	12
75	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
76	An Inversion-Charge Analytical Model for Square Gate-All-Around MOSFETs. IEEE Transactions on Electron Devices, 2011, 58, 2854-2861.	3.0	12
77	A Verilog-AMS photodiode model including lateral effects. Microelectronics Journal, 2012, 43, 980-984.	2.0	12
78	Exploring ReRAM-based memristors in the charge-flux domain, a modeling approach. , 2015, , .		12
79	A physically based circuit model to account for variability in memristors with resistive switching operation. , 2016, , .		12
80	Simulation of RRAM memory circuits, a Verilog-A compact modeling approach. , 2016, , .		12
81	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
82	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
83	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
84	Current transient response and role of the internal resistance in HfOx-based memristors. Applied Physics Letters, 2020, 117, 262902.	3.3	12
85	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
86	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
87	Neural network based analysis of random telegraph noise in resistive random access memories. Semiconductor Science and Technology, 2020, 35, 025021.	2.0	10
88	Electron transport properties of quantized silicon carbide inversion layers. Journal of Electronic Materials, 1997, 26, 203-207.	2.2	9
89	Monte Carlo simulation of electron mobility in silicon-on-insulator structures. Solid-State Electronics, 2002, 46, 1715-1721.	1.4	9
90	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

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91	Compact drain-current model for reproducing advanced transport models in nanoscale double-gate MOSFETs. Semiconductor Science and Technology, 2011, 26, 095015.	2.0	9
92	Analytical modelling of size effects on the lateral photoresponse of CMOS photodiodes. Solid-State Electronics, 2012, 73, 15-20.	1.4	9
93	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
94	A Complex Model via Phase-Type Distributions to Study Random Telegraph Noise in Resistive Memories. Mathematics, 2021, 9, 390.	2.2	9
95	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
96	Electron velocity saturation in quantized silicon carbide inversion layers. Applied Physics Letters, 1996, 69, 2219-2221.	3.3	8
97	Electron transport in ultrathin double-gate SOI devices. Microelectronic Engineering, 2001, 59, 423-427.	2.4	8
98	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
99	Closed-Form and Explicit Analytical Model for Crosstalk in CMOS Photodiodes. IEEE Transactions on Electron Devices, 2013, 60, 3459-3464.	3.0	8
100	Influence of magnetic field on the operation of TiN/Ti/HfO2/W resistive memories. Microelectronic Engineering, 2019, 215, 110983.	2.4	8
101	Stochastic modeling of Random Access Memories reset transitions. Mathematics and Computers in Simulation, 2019, 159, 197-209.	4.4	8
102	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
103	Memristors with Initial Lowâ€Resistive State for Efficient Neuromorphic Systems. Advanced Intelligent Systems, 2022, 4, .	6.1	8
104	Electron transport in silicon-on-insulator devices. Solid-State Electronics, 2001, 45, 613-620.	1.4	7
105	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
106	Pseudo-Boltzmann model for modeling the junctionless transistors. Solid-State Electronics, 2014, 95, 19-22.	1.4	7
107	Revivals of electron currents and topological-band insulator transitions in 2D gapped Dirac materials. Europhysics Letters, 2016, 115, 20008.	2.0	7
108	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

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109	A new technique to analyze RTN signals in resistive memories. Microelectronic Engineering, 2019, 215, 110994.	2.4	7
110	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
111	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
112	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
113	Monte Carlo simulation of nanoelectronic devices. Journal of Computational Electronics, 2009, 8, 174-191.	2.5	6
114	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
115	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
116	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
117	Understanding the improved performance of strained channel MOSFETs. Semiconductor Science and Technology, 1997, 12, 1603-1608.	2.0	5
118	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
119	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
120	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
121	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
122	Remote surface roughness scattering in ultrathin-oxide MOSFETs. , 0, , .		5
123	An analytical mobility model for square Gate-All-Around MOSFETs. Solid-State Electronics, 2013, 90, 18-22.	1.4	5
124	Experimental characterization of peripheral photocurrent in CMOS photodiodes down to 65 nm technology. Semiconductor Science and Technology, 2013, 28, 045011.	2.0	5
125	Analytical Model for Crosstalk in p-n_{well} Photodiodes. IEEE Transactions on Electron Devices, 2015, 62, 580-586.	3.0	5
126	Behavioral modeling of multilevel HfO₂-based memristors for neuromorphic circuit simulation. , 2020, , .		5

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127	Study of RTN signals in resistive switching devices based on neural networks. Solid-State Electronics, 2021, 183, 108034.	1.4	5
128	Influence of variability on the performance of HfO2 memristor-based convolutional neural networks. Solid-State Electronics, 2021, 185, 108064.	1.4	5
129	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
130	SPICE modeling of RRAM thermal reset transitions for circuit simulation purposes. , 2017, , .		4
131	Polynomial pattern finding in scattered data. Journal of Computational and Applied Mathematics, 2017, 318, 107-116.	2.0	4
132	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
133	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
134	An in-depth simulation study of Coulomb mobility in ultra-thin-body SOI MOSFETs. Semiconductor Science and Technology, 2010, 25, 055002.	2.0	3
135	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
136	A Kinetic Monte Carlo Simulator to Characterize Resistive Switching and Charge Conduction in Ni/HfO<inf>2</inf>/Si RRAMs. , 2018, , .		3
137	Impact of Intrinsic Series Resistance on the Reversible Dielectric Breakdown Kinetics in HfO₂ Memristors. , 2020, , .		3
138	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
139	Multilevel memristor based matrix-vector multiplication: influence of the discretization method. , 2021, , .		3
140	One Cut-Point Phase-Type Distributions in Reliability. An Application to Resistive Random Access Memories. Mathematics, 2021, 9, 2734.	2.2	3
141	Comprehensive study on unipolar RRAM charge conduction and stochastic features: a simulation approach. Journal Physics D: Applied Physics, 2022, 55, 155104.	2.8	3
142	Influence of the doping profile on electron mobility in a MOSFET. IEEE Transactions on Electron Devices, 1996, 43, 2023-2025.	3.0	2
143	Evidence of the lateral collection significance in small CMOS photodiodes. , 2012, , .		2
144	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

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145	Transient SPICE simulation of Ni/HfO<inf>2</inf>/Si-n+ resistive memories. , 2016, , .		2
146	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
147	Synaptic devices based on HfO2 memristors. , 2021, , 383-426.		2
148	Time series modeling of the cycle-to-cycle variability in h-BN based memristors. , 2021, , .		2
149	A physically based SPICE model for RRAMs including RTN. , 2020, , .		2
150	Quasi-Static Electrical Model for Magnetoresistive Current Sensors. Renewable Energy and Power Quality Journal, 2010, 1, 731-734.	0.2	2
151	An Analysis on the Architecture and the Size of Quantized Hardware Neural Networks Based on Memristors. Electronics (Switzerland), 2021, 10, 3141.	3.1	2
152	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
153	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
154	A Î²-SiC MOSFET Monte Carlo Simulator Including Inversion Layer Quantization. VLSI Design, 1998, 8, 257-260.	0.5	1
155	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
156	A new remote Coulomb scattering model for ultrathin oxide MOSFETs. , 2003, , .		1
157	A In-depth Simulation Study of CMOS Inverters Based on the Novel Surrounding Gate Transistors. , 2008, , .		1
158	Analytical drain current model reproducing advanced transport models in nanoscale double-gate (DG) MOSFETs. , 2011, , .		1
159	An advanced drain current model for DGMOSFETs including self-heating effects. , 2012, , .		1
160	CMOS photodiode model and HDL implementation. , 2013, , .		1
161	SPICE simulation of RRAM circuits. A compact modeling perspective. , 2017, , .		1
162	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

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163	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
164	Monte Carlo Simulation of a Submicron MOSFET Including Inversion Layer Quantization. VLSI Design, 1998, 6, 287-290.	0.5	1
165	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
166	Simulation of serial RRAM cell based on a Verilog-A compact model. , 2021, , .		1
167	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
168	Double gate silicon-on-insulator transistors: n/sup +/-n/sup +/ gate versus n/sup +/-p/sup +/ gate configuration. , 0, , .		0
169	Electron transport in silicon inversion slabs of nanometric thickness. , 2005, , .		0
170	Monte Carlo simulation of velocity modulation transistors. , 0, , .		0
171	Confined acoustic phonons in ultrathin SOI layers. Journal of Computational Electronics, 2006, 5, 199-203.	2.5	0
172	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
173	A new inversion charge centroid model for surrounding gate transistors with HfO<inf>2</inf> as gate insulator. , 2009, , .		0
174	A physically based model to describe resistive switching in different RRAM technologies. , 2017, , .		0
175	Reversible dielectric breakdown in h-BN stacks: a statistical study of the switching voltages. , 2020, , .		0
176	Influence of the magnetic field on dielectric breakdown in memristors based on h-BN stacks. , 2020, , .		0
177	Fabrication, characterization and modeling of TiN/Ti/HfO2/W memristors: programming based on an external capacitor discharge. , 2021, , .		0
178	Analysis of the Characteristic Current Fluctuations in the High Resistance State of HfO2-based Memristors. , 2021, , .		0
179	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
180	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