Jordi SuÃ±e

List of Publications by Year
in descending order

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295 papers	6,871 citations	71102 41 h-index	85541 71 g-index
300 all docs	300 docs citations	300 times ranked	3584 citing authors

#	ARTICLE	IF	CITATIONS
1	Volume Resistive Switching in Metallic Perovskite Oxides Driven by the Metal-Insulator Transition. Kluwer International Series in Electronic Materials: Science and Technology, 2022, , 289-310.	0.5	0
2	SPICE Implementation of the Dynamic Memdiode Model for Bipolar Resistive Switching Devices. Micromachines, 2022, 13, 330.	2.9	20
3	SPICE Model for Complementary Resistive Switching Devices Based on Anti-Serially Connected Quasi-Static Memdiodes. Solid-State Electronics, 2022, , 108312.	1.4	0
4	Minimization of the Line Resistance Impact on Memdiode-Based Simulations of Multilayer Perceptron Arrays Applied to Pattern Recognition. Journal of Low Power Electronics and Applications, 2021, 11, 9.	2.0	11
5	A New Perspective Towards the Understanding of the Frequency-Dependent Behavior of Memristive Devices. IEEE Electron Device Letters, 2021, 42, 565-568.	3.9	13
6	On the Thermal Models for Resistive Random Access Memory Circuit Simulation. Nanomaterials, 2021, 11, 1261.	4.1	39
7	SPICE Simulation of RRAM-Based Cross-Point Arrays Using the Dynamic Memdiode Model. Frontiers in Physics, 2021, 9, .	2.1	5
8	A simple, robust, and accurate compact model for a wide variety of complementary resistive switching devices. Solid-State Electronics, 2021, 185, 108083.	1.4	2
9	Tunability Properties and Compact Modeling of HfOâ‚‚-Based Complementary Resistive Switches Using a Three-Terminal Subcircuit. IEEE Transactions on Electron Devices, 2021, , 1-8.	3.0	3
10	Assessment and Improvement of the Pattern Recognition Performance of Memdiode-Based Cross-Point Arrays with Randomly Distributed Stuck-at-Faults. Electronics (Switzerland), 2021, 10, 2427.	3.1	3
11	Application of artificial neural networks to the identification of weak electrical regions in large area MIM structures. Microelectronics Reliability, 2021, , 114312.	1.7	0
12	Standards for the Characterization of Endurance in Resistive Switching Devices. ACS Nano, 2021, 15, 17214-17231.	14.6	128
13	Failure Analysis of Large Area Pt/HfO2/Pt Capacitors Using Multilayer Perceptrons. , 2021, , .		0
14	Application of the Quasi-Static Memdiode Model in Cross-Point Arrays for Large Dataset Pattern Recognition. IEEE Access, 2020, 8, 202174-202193.	4.2	19
15	Memristive State Equation for Bipolar Resistive Switching Devices Based on a Dynamic Balance Model and Its Equivalent Circuit Representation. IEEE Nanotechnology Magazine, 2020, 19, 837-840.	2.0	14
16	Memristors for Neuromorphic Circuits and Artificial Intelligence Applications. Materials, 2020, 13, 938.	2.9	29
17	Multi-Terminal Transistor-Like Devices Based on Strongly Correlated Metallic Oxides for Neuromorphic Applications. Materials, 2020, 13, 281.	2.9	3
18	Impact of the forming and cycling processes on the electrical and physical degradation characteristics of HfO2-based resistive switching devices. Thin Solid Films, 2020, 706, 138027.	1.8	2

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19	Application of the Clustering Model to Time-Correlated Oxide Breakdown Events in Multilevel Antifuse Memory Cells. IEEE Electron Device Letters, 2020, 41, 1770-1773.	3.9	6
20	Analysis of the successive breakdown statistics of multilayer Al2O3/HfO2 gate stacks using the time-dependent clustering model. Microelectronics Reliability, 2020, 114, 113748.	1.7	3
21	Study on the Connection Between the Set Transient in RRAMs and the Progressive Breakdown of Thin Oxides. IEEE Transactions on Electron Devices, 2019, 66, 3349-3355.	3.0	12
22	On the Application of a Diffusive Memristor Compact Model to Neuromorphic Circuits. Materials, 2019, 12, 2260.	2.9	3
23	Detection of inhibitory effects in the generation of breakdown spots in HfO2-based MIM devices. Microelectronic Engineering, 2019, 215, 111023.	2.4	3
24	Simple method for monitoring the switching activity in memristive cross-point arrays with line resistance effects. Microelectronics Reliability, 2019, 100-101, 113327.	1.7	1
25	SPICE model for the current-voltage characteristic of resistive switching devices including the snapback effect. Microelectronic Engineering, 2019, 215, 110998.	2.4	6
26	Analysis and simulation of the multiple resistive switching modes occurring in HfO<i>x</i>-based resistive random access memories using memdiodes. Journal of Applied Physics, 2019, 125, .	2.5	26
27	Assessing the Correlation Between Location and Size of Catastrophic Breakdown Events in High-K MIM Capacitors. IEEE Transactions on Device and Materials Reliability, 2019, 19, 452-460.	2.0	4
28	Engineering Oxygen Migration for Homogeneous Volume Resistive Switching in 3â€Terminal Devices. Advanced Electronic Materials, 2019, 5, 1800629.	5.1	18
29	An improved analytical model for the statistics of SET emergence point in HfO2 memristive device. AIP Advances, 2019, 9, 025118.	1.3	1
30	Recommended Methods to Study Resistive Switching Devices. Advanced Electronic Materials, 2019, 5, 1800143.	5.1	452
31	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
32	Switching Voltage and Time Statistics of Filamentary Conductive Paths in HfO₂-Based ReRAM Devices. IEEE Electron Device Letters, 2018, 39, 656-659.	3.9	20
33	Characterization of HfO 2 -based devices with indication of second order memristor effects. Microelectronic Engineering, 2018, 195, 101-106.	2.4	18
34	SPICE simulation of memristive circuits based on memdiodes with sigmoidal threshold functions. International Journal of Circuit Theory and Applications, 2018, 46, 39-49.	2.0	6
35	A new method for estimating the conductive filament temperature in OxRAM devices based on escape rate theory. Microelectronics Reliability, 2018, 88-90, 142-146.	1.7	4
36	Characterization of the Failure Site Distribution in MIM Devices Using Zoomed Wavelet Analysis. Journal of Electronic Materials, 2018, 47, 5033-5038.	2.2	3

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37	Electrochemical Tuning of Metal Insulator Transition and Nonvolatile Resistive Switching in Superconducting Films. ACS Applied Materials & Interfaces, 2018, 10, 30522-30531.	8.0	17
38	Spatial analysis of failure sites in large area MIM capacitors using wavelets. Microelectronic Engineering, 2017, 178, 10-16.	2.4	4
39	Effect of the voltage ramp rate on the set and reset voltages of ReRAM devices. Microelectronic Engineering, 2017, 178, 61-65.	2.4	15
40	SPICE simulation of 1T1R structures based on a logistic hysteresis operator. , 2017, , .		4
41	Modeling of the multilevel conduction characteristics and fatigue profile of Ag/La1/3Ca2/3MnO3/Pt structures using a compact memristive approach. Journal of Applied Physics, 2017, 121, .	2.5	9
42	A cell-based clustering model for the reset statistics in RRAM. Applied Physics Letters, 2017, 110, .	3.3	9
43	Function-fit model for the rate of conducting filament generation in constant voltage-stressed multilayer oxide stacks. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2017, 35, 01A108.	1.2	1
44	Voltage-Driven Hysteresis Model for Resistive Switching: SPICE Modeling and Circuit Applications. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2017, 36, 2044-2051.	2.7	31
45	$${ SIM}^2{ RRAM}$$ 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
46	Investigation on the Conductive Filament Growth Dynamics in Resistive Switching Memory via a Universal Monte Carlo Simulator. Scientific Reports, 2017, 7, 11204.	3.3	20
47	Volume Resistive Switching in metallic perovskite oxides driven by the Metal-Insulator Transition. Journal of Electroceramics, 2017, 39, 185-196.	2.0	26
48	Identification of the generation/rupture mechanism of filamentary conductive paths in ReRAM devices using oxide failure analysis. Microelectronics Reliability, 2017, 76-77, 178-183.	1.7	7
49	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
50	Exploratory study and application of the angular wavelet analysis for assessing the spatial distribution of breakdown spots in Pt/HfO2/Pt structures. Journal of Applied Physics, 2017, 122, 215304.	2.5	7
51	SPICE model for the ramp rate effect in the reset characteristic of memristive devices. , 2017, , .		3
52	Statistical analysis of â€œTail Bitsâ€•phenomena with defect clustering in RESET switching process of RRAM devices. , 2017, , .		1
53	Equivalent circuit model for the electron transport in 2D resistive switching material systems. , 2017, , .		6
54	The statistics of set time of oxide-based resistive switching memory. , 2016, , .		0

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55	Analysis on the Filament Structure Evolution in Reset Transition of Cu/HfO2/Pt RRAM Device. Nanoscale Research Letters, 2016, 11, 269.	5.7	13
56	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
57	Modeling of the major and minor I-V loops in La0.3Ca_{0.7}MnO₃films using asymmetric logistic hysterons. , 2015, , .		0
58	Modeling of the switching I-V characteristics in ultrathin (5â€‰nm) atomic layer deposited HfO2 films using the logistic hysteron. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2015, 33, 01A102.	1.2	6
59	A thorough investigation of the progressive reset dynamics in HfO2-based resistive switching structures. Applied Physics Letters, 2015, 107, 113507.	3.3	6
60	Modeling of the I-V and I-t characteristics of multiferroic BiFeO<inf>3</inf> layers. , 2015, , .		0
61	Modeling of the conduction characteristics of voltage-driven bipolar RRAMs including turning point effects. , 2015, , .		1
62	Impact of Intercell and Intracell Variability on Forming and Switching Parameters in RRAM Arrays. IEEE Transactions on Electron Devices, 2015, 62, 2502-2509.	3.0	52
63	Conductance Quantization in Resistive Random Access Memory. Nanoscale Research Letters, 2015, 10, 420.	5.7	81
64	Equivalent circuit modeling of the bistable conduction characteristics in electroformed thin dielectric films. Microelectronics Reliability, 2015, 55, 1-14.	1.7	21
65	Multiple Diode-Like Conduction in Resistive Switching SiO<italic>_x</italic>-Based MIM Devices. IEEE Nanotechnology Magazine, 2015, 14, 15-17.	2.0	7
66	An in-depth study of thermal effects in reset transitions in HfO2 based RRAMs. Solid-State Electronics, 2015, 111, 47-51.	1.4	41
67	Resistive switching in CeO2/La0.8Sr0.2MnO3 bilayer for non-volatile memory applications. Microelectronic Engineering, 2015, 147, 37-40.	2.4	30
68	Breakdown time statistics of successive failure events in constant voltage-stressed Al2O3/HfO2 nanolaminates. Microelectronic Engineering, 2015, 147, 85-88.	2.4	3
69	Temperature and polarity dependence of the switching behavior of Ni/HfO2-based RRAM devices. Microelectronic Engineering, 2015, 147, 75-78.	2.4	13
70	Improving resistance uniformity and endurance of resistive switching memory by accurately controlling the stress time of pulse program operation. Applied Physics Letters, 2015, 106, .	3.3	35
71	Model for the Currentâ€"Voltage Characteristic of Resistive Switches Based on Recursive Hysteretic Operators. IEEE Electron Device Letters, 2015, 36, 944-946.	3.9	4
72	Electrical characterization of multiple leakage current paths in HfO2/Al2O3-based nanolaminates. Microelectronics Reliability, 2015, 55, 1442-1445.	1.7	3

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73	A Physical Model for the Statistics of the Set Switching Time of Resistive RAM Measured With the Width-Adjusting Pulse Operation Method. IEEE Electron Device Letters, 2015, 36, 1303-1306.	3.9	15
74	Set statistics in conductive bridge random access memory device with Cu/HfO2/Pt structure. Applied Physics Letters, 2014, 105, .	3.3	42
75	On the properties of conducting filament in ReRAM. , 2014, , .		4
76	Failure Analysis of MIM and MIS Structures Using Point-to-Event Distance and Angular Probability Distributions. IEEE Transactions on Device and Materials Reliability, 2014, 14, 1080-1090.	2.0	5
77	Modeling of hysteretic Schottky diode-like conduction in Pt/BiFeO3/SrRuO3 switches. Applied Physics Letters, 2014, 105, .	3.3	13
78	Statistical characteristics of reset switching in Cu/HfO2/Pt resistive switching memory. Nanoscale Research Letters, 2014, 9, 2500.	5.7	16
79	Three-state resistive switching in HfO2-based RRAM. Solid-State Electronics, 2014, 98, 38-44.	1.4	10
80	Engineering of the Chemical Reactivity of the Ti/HfO₂ Interface for RRAM: Experiment and Theory.. ACS Applied Materials & Interfaces, 2014, 6, 5056-5060.	8.0	55
81	A comprehensive analysis on progressive reset transitions in RRAMs. Journal Physics D: Applied Physics, 2014, 47, 205102.	2.8	31
82	Equivalent circuit model for the switching conduction characteristics of TiO<inf>2</inf>-based MIM structures. , 2014, , .		1
83	Simulation of thermal reset transitions in resistive switching memories including quantum effects. Journal of Applied Physics, 2014, 115, .	2.5	61
84	Multi-scale quantum point contact model for filamentary conduction in resistive random access memories devices. Journal of Applied Physics, 2014, 115, .	2.5	54
85	Single-parameter model for the post-breakdown conduction characteristics of HoTiOx-based MIM capacitors. Microelectronics Reliability, 2014, 54, 1707-1711.	1.7	0
86	Assessing the spatial correlation and conduction state of breakdown spot patterns in Pt/HfO2/Pt structures using transient infrared thermography. Journal of Applied Physics, 2014, 115, 174502.	2.5	5
87	Investigation on the RESET switching mechanism of bipolar Cu/HfO₂/Pt RRAM devices with a statistical methodology. Journal Physics D: Applied Physics, 2013, 46, 245107.	2.8	29
88	Direct observation of the generation of breakdown spots in MIM structures under constant voltage stress. Microelectronics Reliability, 2013, 53, 1257-1260.	1.7	3
89	Experimental evidence for a quantum wire state in HfO<inf>2</inf>-based VCM-RRAM. , 2013, , .		1
90	Modeling of the post-breakdown I<inf>G</inf>-V<inf>G</inf>-V<inf>D</inf> characteristics of La<inf>2</inf>O<inf>3</inf>-based MOS transistors. , 2013, , .		0

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91	Exploring the field-effect control of breakdown paths in lateral W/HfO<inf>2</inf>/W structures. , 2013, , .		0
92	Compact analytical models for the SET and RESET switching statistics of RRAM inspired in the cell-based percolation model of gate dielectric breakdown. , 2013, , .		5
93	Statistical approach to the RESET switching of the HfO<inf>2</inf>-based solid electrolyte memory. , 2013, , .		0
94	Field-effect control of breakdown paths in HfO2 based MIM structures. Microelectronics Reliability, 2013, 53, 1346-1350.	1.7	1
95	Modeling of the output characteristics of advanced n-MOSFETs after a severe gate-to-channel dielectric breakdown. Microelectronic Engineering, 2013, 109, 322-325.	2.4	1
96	Analysis and Simulation of the Postbreakdown $I-V$ Characteristics of n-MOS Transistors in the Linear Response Regime. IEEE Electron Device Letters, 2013, 34, 798-800.	3.9	3
97	Effect of an ultrathin SiO2 interfacial layer on the hysteretic currentâ€“voltage characteristics of CeOx-based metalâ€“insulatorâ€“metal structures. Thin Solid Films, 2013, 533, 38-42.	1.8	1
98	Voltage and Power-Controlled Regimes in the Progressive Unipolar RESET Transition of HfO2-Based RRAM. Scientific Reports, 2013, 3, 2929.	3.3	135
99	Nonhomogeneous spatial distribution of filamentary leakage current paths in circular area Pt/HfO2/Pt capacitors. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2013, 31, 01A107.	1.2	9
100	Multi-channel conduction in redox-based resistive switch modelled using quantum point contact theory. Applied Physics Letters, 2013, 103, .	3.3	19
101	Threshold Switching and Conductance Quantization in Al/HfO₂/Si(p) Structures. Japanese Journal of Applied Physics, 2013, 52, 04CD06.	1.5	14
102	Cycle-to-Cycle Intrinsic RESET Statistics in ${m HfO}_{2}$-Based Unipolar RRAM Devices. IEEE Electron Device Letters, 2013, 34, 623-625.	3.9	101
103	A Model for the Set Statistics of RRAM Inspired in the Percolation Model of Oxide Breakdown. IEEE Electron Device Letters, 2013, 34, 999-1001.	3.9	122
104	Quantum-size effects in hafnium-oxide resistive switching. Applied Physics Letters, 2013, 102, 183505.	3.3	151
105	Multilevel recording in Bi-deficient Pt/BFO/SRO heterostructures based on ferroelectric resistive switching targeting high-density information storage in nonvolatile memories. Applied Physics Letters, 2013, 103, .	3.3	20
106	Recent advances in dielectric breakdown of modern gate dielectrics. , 2013, , .		5
107	Analysis of the breakdown spot spatial distribution in Pt/HfO2/Pt capacitors using nearest neighbor statistics. Journal of Applied Physics, 2013, 114, 154112.	2.5	8
108	Generalized hydrogen release-reaction model for the breakdown of modern gate dielectrics. Journal of Applied Physics, 2013, 114, .	2.5	17

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109	An in-depth simulation study of thermal reset transitions in resistive switching memories. Journal of Applied Physics, 2013, 114, .	2.5	58
110	Transport properties of oxygen vacancy filaments in metal/crystalline or amorphous HfO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>/metal structures. Physical Review B, 2012, 86, .	3.2	70
111	Degradation analysis and characterization of multifilamentary conduction patterns in high-field stressed atomic-layer-deposited TiO2/Al2O3 nanolaminates on GaAs. Journal of Applied Physics, 2012, 112, 064113.	2.5	12
112	Analysis and modeling of resistive switching statistics. Journal of Applied Physics, 2012, 111, .	2.5	97
113	Generalized successive failure methodology for non-weibull distributions and its applications to SiO<inf>2</inf> or high-k/SiO<inf>2</inf> bilayer dielectrics and extrinsic failure mode. , 2012, , .		1
114	Electrical evidence of atomic-size effects in the conduction filament of RRAM. , 2012, , .		0
115	The Quantum Point-Contact Memristor. IEEE Electron Device Letters, 2012, 33, 1474-1476.	3.9	46
116	Temperature dependence of TDDB voltage acceleration in high-κ/ SiO<inf>2</inf> bilayers and SiO<inf>2</inf> gate dielectrics. , 2012, , .		1
117	From post-breakdown conduction to resistive switching effect in thin dielectric films. , 2012, , .		3
118	Electron transport in CeO<inf>x</inf>-based resistive switching devices. , 2012, , .		0
119	Accurate Calculation of Gate Tunneling Current in Double-Gate and Single-Gate SOI MOSFETs Through Gate Dielectric Stacks. IEEE Transactions on Electron Devices, 2012, 59, 2589-2596.	3.0	9
120	Spatial statistics for micro/nanoelectronics and materials science. , 2012, , .		1
121	Study of the spatial distribution of breakdown spots in MOS devices in case of important edge effect anomalies. , 2012, , .		1
122	Explicit model for direct tunneling current in double-gate MOSFETs through a dielectric stack. Solid-State Electronics, 2012, 76, 19-24.	1.4	2
123	Analysis and modeling of the gate leakage current in advanced nMOSFET devices with severe gate-to-drain dielectric breakdown. Microelectronics Reliability, 2012, 52, 1909-1912.	1.7	2
124	Nonlinear conductance quantization effects in CeOx/SiO2-based resistive switching devices. Applied Physics Letters, 2012, 101, .	3.3	43
125	Quantum point contact model of filamentary conduction in resistive switching memories. , 2012, , .		10
126	Modeling the breakdown statistics of Al2O3/HfO2 nanolaminates grown by atomic-layer-deposition. Solid-State Electronics, 2012, 71, 48-52.	1.4	15

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127	Explicit model for the gate tunneling current in double-gate MOSFETs. Solid-State Electronics, 2012, 68, 93-97.	1.4	9
128	Degradation and breakdown characteristics of Al/HfYOx/GaAs capacitors. Thin Solid Films, 2012, 520, 2956-2959.	1.8	1
129	Toy model for the progressive breakdown dynamics of ultrathin gate dielectrics. , 2011, , .		0
130	From dielectric failure to memory function: Learning from oxide breakdown for improved understanding of resistive switching memories. , 2011, , .		4
131	Reset Statistics of NiO-Based Resistive Switching Memories. IEEE Electron Device Letters, 2011, 32, 1570-1572.	3.9	68
132	Post-breakdown statistics and acceleration characteristics in high-K dielectric stacks. , 2011, , .		6
133	Initial leakage current related to extrinsic breakdown in HfO2/Al2O3 nanolaminate ALD dielectrics. Microelectronic Engineering, 2011, 88, 1380-1383.	2.4	17
134	Modeling the breakdown statistics of Al<inf>2</inf>O<inf>3</inf>/HfO<inf>2</inf> nanolaminates grown by atomic-layer-deposition. , 2011, , .		1
135	Cell-based models for the switching statistics of RRAM. , 2011, , .		2
136	A strong analogy between the dielectric breakdown of high-K gate stacks and the progressive breakdown of ultrathin oxides. Journal of Applied Physics, 2011, 109, 124115.	2.5	14
137	Progressive breakdown dynamics and entropy production in ultrathin SiO2 gate oxides. Applied Physics Letters, 2011, 98, .	3.3	3
138	Pattern transfer optimization for the fabrication of arrays of silicon nanowires. Microelectronic Engineering, 2010, 87, 1479-1482.	2.4	1
139	Explicit quantum potential and charge model for double-gate MOSFETs. Solid-State Electronics, 2010, 54, 530-535.	1.4	7
140	Relating Extrinsic Breakdown Statistics to the Initial Current Leakage Distribution in Gate Oxides. ECS Transactions, 2010, 27, 243-248.	0.5	2
141	High-K dielectric stack percolation breakdown statistics. , 2010, , .		2
142	Many-particle transport in the channel of quantum wire double-gate field-effect transistors with charged atomistic impurities. Journal of Applied Physics, 2010, 108, 043706.	2.5	8
143	Gate stack insulator breakdown when the interface layer thickness is scaled toward zero. Applied Physics Letters, 2010, 97, .	3.3	11
144	Modeling the breakdown statistics of gate dielectric stacks including percolation and progressive breakdown. , 2010, , .		4

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145	A compact analytic model for the breakdown distribution of gate stack dielectrics. , 2010, , .		11
146	Breakdown Statistics of Gate Dielectric Stacks. ECS Transactions, 2010, 27, 249-254.	0.5	0
147	Time-dependent boundary conditions with lead-sample Coulomb correlations: Application to classical and quantum nanoscale electron device simulators. Physical Review B, 2010, 82, .	3.2	32
148	Many-particle Hamiltonian for open systems with full Coulomb interaction: Application to classical and quantum time-dependent simulations of nanoscale electron devices. Physical Review B, 2009, 79, .	3.2	62
149	Towards a viable TDDB reliability assessment methodology: From breakdown physics to circuit failure. , 2009, , .		0
150	On Voltage Acceleration Models of Time to Breakdownâ€"Part I: Experimental and Analysis Methodologies. IEEE Transactions on Electron Devices, 2009, , .	3.0	18
151	On Voltage Acceleration Models of Time to Breakdownâ€"Part II: Experimental Results and Voltage Dependence of Weibull Slope in the FN Regime. IEEE Transactions on Electron Devices, 2009, , .	3.0	9
152	Analytical Cell-Based Model for the Breakdown Statistics of Multilayer Insulator Stacks. IEEE Electron Device Letters, 2009, 30, 1359-1361.	3.9	41
153	Comprehensive physics-based breakdown model for reliability assessment of oxides with thickness ranging from 1 nm up to 12 nm. Reliability Physics Symposium, 2009 IEEE International, 2009, , .	0.0	23
154	A viable and comprehensive TDDB assessment methodology for investigation of SRAM V<inf>min</inf> failure. , 2009, , .		4
155	Monte Carlo simulations of nanometric devices beyond theÂâ€œmean-fieldâ€•approximation. Journal of Computational Electronics, 2008, 7, 197-200.	2.5	1
156	Boundary conditions with Pauli exclusion and charge neutrality: application to the Monte Carlo simulation of ballistic nanoscale devices. Journal of Computational Electronics, 2008, 7, 213-216.	2.5	13
157	A Compact Model for Oxide Breakdown Failure Distribution in Ultrathin Oxides Showing Progressive Breakdown. IEEE Electron Device Letters, 2008, 29, 949-951.	3.9	29
158	Failure-current based oxide reliability assessment methodology. , 2008, , .		6
159	Modeling Transport in Ultrathin Si Nanowires: Charged versus Neutral Impurities. Nano Letters, 2008, 8, 2825-2828.	9.1	34
160	Spin-dependent injection model for Monte Carlo device simulation. Journal of Applied Physics, 2008, 104, .	2.5	2
161	High-frequency behavior of the Dattaâ€"Das spin transistor. Applied Physics Letters, 2008, 93, 193502.	3.3	0
162	A simple drain current model for Schottky-barrier carbon nanotube field effect transistors. Nanotechnology, 2007, 18, 419001.	2.6	9

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163	Ordered arrays of quantum wires through hole patterning: ab initio and empirical electronic structure calculations. Applied Physics Letters, 2007, 90, 083118.	3.3	8
164	Physics-Based Percolation Model of Oxide Breakdown. ECS Transactions, 2007, 8, 177-183.	0.5	0
165	On the progressive breakdown statistical distribution and its voltage acceleration. , 2007, , .		18
166	A physics-based deconstruction of the percolation model of oxide breakdown. Microelectronic Engineering, 2007, 84, 1917-1920.	2.4	13
167	A drain current model for Schottky-barrier CNT-FETs. Journal of Computational Electronics, 2007, 5, 361-364.	2.5	6
168	Eigenstate fitting in the k Â· p method. Journal of Computational Electronics, 2007, 6, 195-198.	2.5	1
169	Statistical and voltage scaling properties of post-breakdown for ultra-thin-oxide PFETs in inversion mode. , 2006, , .		7
170	Post-Breakdown Characteristics of Extrinsic Failure Modes for Ultra-Thin Gate Oxides. , 2006, , .		5
171	Statistics of competing post-breakdown failure modes in ultrathin MOS devices. IEEE Transactions on Electron Devices, 2006, 53, 224-234.	3.0	34
172	Comment on â€œNew Currentâ€“Voltage Model for Surrounding-Gate Metal Oxide Semiconductor Field-Effect Transistorsâ€. Japanese Journal of Applied Physics, 2006, 45, 6057-6057.	1.5	1
173	Power-law voltage acceleration: A key element for ultra-thin gate oxide reliability. Microelectronics Reliability, 2005, 45, 1809-1834.	1.7	131
174	Temperature-dependent transition to progressive breakdown in thin silicon dioxide based gate dielectrics. Applied Physics Letters, 2005, 86, 193502.	3.3	6
175	The effects of device dimensions on the post-breakdown characteristics of ultrathin gate oxides. IEEE Electron Device Letters, 2005, 26, 401-403.	3.9	19
176	Simulation of the time-dependent breakdown characteristics of heavy-ion irradiated gate oxides using a mean-reverting Poisson-Gaussian process. IEEE Transactions on Nuclear Science, 2005, 52, 1462-1467.	2.0	2
177	Compact Model of the Nanoscale Gate-All-Around MOSFET. , 2005, , 321-326.		1
178	Analog performance of the nanoscale double-gate metal-oxide-semiconductor field-effect-transistor near the ultimate scaling limits. Journal of Applied Physics, 2004, 96, 5271-5276.	2.5	35
179	Modeling of Nanoscale Gate-All-Around MOSFETs. IEEE Electron Device Letters, 2004, 25, 314-316.	3.9	136
180	Successive Oxide Breakdown Statistics: Correlation Effects, Reliability Methodologies, and Their Limits. IEEE Transactions on Electron Devices, 2004, 51, 1584-1592.	3.0	37

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181	Electron transport through broken down ultra-thin SiO2 layers in MOS devices. Microelectronics Reliability, 2004, 44, 1-23.	1.7	108
182	Critical evaluation of hard-breakdown based reliability methodologies for ultrathin gate oxides. Microelectronic Engineering, 2004, 72, 16-23.	2.4	4
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