Jordi SuÃ±e

List of Publications by Year
in descending order

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	Recommended Methods to Study Resistive Switching Devices. Advanced Electronic Materials, 2019, 5, 1800143.	5.1	452
2	Continuous Analytic Iâ€“V Model for Surrounding-Gate MOSFETs. IEEE Electron Device Letters, 2004, 25, 571-573.	3.9	254
3	New physics-based analytic approach to the thin-oxide breakdown statistics. IEEE Electron Device Letters, 2001, 22, 296-298.	3.9	249
4	On the breakdown statistics of very thin SiO2 films. Thin Solid Films, 1990, 185, 347-362.	1.8	238
5	Quantum-size effects in hafnium-oxide resistive switching. Applied Physics Letters, 2013, 102, 183505.	3.3	151
6	Modeling of Nanoscale Gate-All-Around MOSFETs. IEEE Electron Device Letters, 2004, 25, 314-316.	3.9	136
7	Voltage and Power-Controlled Regimes in the Progressive Unipolar RESET Transition of HfO2-Based RRAM. Scientific Reports, 2013, 3, 2929.	3.3	135
8	Power-law voltage acceleration: A key element for ultra-thin gate oxide reliability. Microelectronics Reliability, 2005, 45, 1809-1834.	1.7	131
9	Experimental evidence of T/sub BD/ power-law for voltage dependence of oxide breakdown. IEEE Transactions on Electron Devices, 2002, 49, 2244-2253.	3.0	128
10	Standards for the Characterization of Endurance in Resistive Switching Devices. ACS Nano, 2021, 15, 17214-17231.	14.6	128
11	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
12	Electron transport through broken down ultra-thin SiO2 layers in MOS devices. Microelectronics Reliability, 2004, 44, 1-23.	1.7	108
13	Quantum-mechanical modeling of accumulation layers in MOS structure. IEEE Transactions on Electron Devices, 1992, 39, 1732-1739.	3.0	103
14	Soft breakdown conduction in ultrathin (3-5 nm) gate dielectrics. IEEE Transactions on Electron Devices, 2000, 47, 82-89.	3.0	103
15	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
16	Interplay of voltage and temperature acceleration of oxide breakdown for ultra-thin gate oxides. Solid-State Electronics, 2002, 46, 1787-1798.	1.4	99
17	Analysis and modeling of resistive switching statistics. Journal of Applied Physics, 2012, 111, .	2.5	97
18	Exploratory observations of postâ€breakdown conduction in polycrystallineâ€silicon and metalâ€gated thinâ€oxide metalâ€oxideâ€semiconductor capacitors. Journal of Applied Physics, 1993, 73, 205-215.	2.5	95

#	Article	IF	Citations
19	On the weibull shape factor of intrinsic breakdown of dielectric films and its accurate experimental determination-part II: experimental results and the effects of stress conditions. IEEE Transactions on Electron Devices, 2002, 49, 2141-2150.	3.0	87
20	Selfâ€consistent solution of the Poisson and SchrÃ¶dinger equations in accumulated semiconductorâ€insulator interfaces. Journal of Applied Physics, 1991, 70, 337-345.	2.5	82
21	Conductance Quantization in Resistive Random Access Memory. Nanoscale Research Letters, 2015, 10, 420.	5.7	81
22	Unified compact model for the ballistic quantum wire and quantum well metal-oxide-semiconductor field-effect-transistor. Journal of Applied Physics, 2003, 94, 1061-1068.	2.5	77
23	A function-fit model for the soft breakdown failure mode. IEEE Electron Device Letters, 1999, 20, 265-267.	3.9	76
24	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
25	Statistics of successive breakdown events in gate oxides. IEEE Electron Device Letters, 2003, 24, 272-274.	3.9	69
26	Hydrogen-Release Mechanisms in the Breakdown of ThinSiO2Films. Physical Review Letters, 2004, 92, 087601.	7.8	68
27	Reset Statistics of NiO-Based Resistive Switching Memories. IEEE Electron Device Letters, 2011, 32, 1570-1572.	3.9	68
28	Are soft breakdown and hard breakdown of ultrathin gate oxides actually different failure mechanisms?. IEEE Electron Device Letters, 2000, 21, 167-169.	3.9	65
29	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
30	Simulation of thermal reset transitions in resistive switching memories including quantum effects. Journal of Applied Physics, 2014, 115, .	2.5	61
31	Soft breakdown fluctuation events in ultrathin SiO2 layers. Applied Physics Letters, 1998, 73, 490-492.	3.3	60
32	An in-depth simulation study of thermal reset transitions in resistive switching memories. Journal of Applied Physics, 2013, 114, .	2.5	58
33	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
34	Multi-scale quantum point contact model for filamentary conduction in resistive random access memories devices. Journal of Applied Physics, 2014, 115, .	2.5	54
35	Implications of the noncrossing property of Bohm trajectories in one-dimensional tunneling configurations. Physical Review A, 1996, 54, 2594-2604.	2.5	53
36	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

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37	The Quantum Point-Contact Memristor. IEEE Electron Device Letters, 2012, 33, 1474-1476.	3.9	46
38	$${ SIM}^2{ RRAM}$$ 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
39	Degradation and Breakdown of Gate Oxides in VLSI Devices. Physica Status Solidi A, 1989, 111, 675-685.	1.7	44
40	Nonlinear conductance quantization effects in CeOx/SiO2-based resistive switching devices. Applied Physics Letters, 2012, 101, .	3.3	43
41	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
42	Set statistics in conductive bridge random access memory device with Cu/HfO2/Pt structure. Applied Physics Letters, 2014, 105, .	3.3	42
43	Modeling the breakdown spots in silicon dioxide films as point contacts. Applied Physics Letters, 1999, 75, 959-961.	3.3	41
44	Analytical Cell-Based Model for the Breakdown Statistics of Multilayer Insulator Stacks. IEEE Electron Device Letters, 2009, 30, 1359-1361.	3.9	41
45	An in-depth study of thermal effects in reset transitions in HfO2 based RRAMs. Solid-State Electronics, 2015, 111, 47-51.	1.4	41
46	Point contact conduction at the oxide breakdown of MOS devices. , 0, , .		40
47	On the Thermal Models for Resistive Random Access Memory Circuit Simulation. Nanomaterials, 2021, 11, 1261.	4.1	39
48	Successive Oxide Breakdown Statistics: Correlation Effects, Reliability Methodologies, and Their Limits. IEEE Transactions on Electron Devices, 2004, 51, 1584-1592.	3.0	37
49	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
50	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
51	Analytic modeling of leakage current through multiple breakdown paths in SiO/sub 2/ films. , 0, , .		34
52	Statistics of competing post-breakdown failure modes in ultrathin MOS devices. IEEE Transactions on Electron Devices, 2006, 53, 224-234.	3.0	34
53	Modeling Transport in Ultrathin Si Nanowires: Charged versus Neutral Impurities. Nano Letters, 2008, 8, 2825-2828.	9.1	34
54	Trapped charge distributions in thin (10 nm) SiO/sub 2/ films subjected to static and dynamic stresses. IEEE Transactions on Electron Devices, 1998, 45, 881-888.	3.0	33

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55	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
56	Determination of the Si-SiO/sub 2/ barrier height from the Fowler-Nordheim plot. IEEE Electron Device Letters, 1991, 12, 620-622.	3.9	31
57	A comprehensive analysis on progressive reset transitions in RRAMs. Journal Physics D: Applied Physics, 2014, 47, 205102.	2.8	31
58	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
59	Resistive switching in CeO2/La0.8Sr0.2MnO3 bilayer for non-volatile memory applications. Microelectronic Engineering, 2015, 147, 37-40.	2.4	30
60	New insights in polarity-dependent oxide breakdown for ultrathin gate oxide. IEEE Electron Device Letters, 2002, 23, 494-496.	3.9	29
61	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
62	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
63	Memristors for Neuromorphic Circuits and Artificial Intelligence Applications. Materials, 2020, 13, 938.	2.9	29
64	Advanced electrical-level modeling of EEPROM cells. IEEE Transactions on Electron Devices, 1993, 40, 951-957.	3.0	27
65	Degradation and breakdown of thin silicon dioxide films under dynamic electrical stress. IEEE Transactions on Electron Devices, 1996, 43, 2215-2226.	3.0	27
66	Statistics of successive breakdown events for ultra-thin gate oxides. , 0, , .		27
67	Critical reliability challenges in scaling SiO2-based dielectric to its limit. Microelectronics Reliability, 2003, 43, 1175-1184.	1.7	26
68	Volume Resistive Switching in metallic perovskite oxides driven by the Metal-Insulator Transition. Journal of Electroceramics, 2017, 39, 185-196.	2.0	26
69	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
70	Understanding soft and hard breakdown statistics, prevalence ratios and energy dissipation during breakdown runaway. , 0, , .		25
71	Detection and fitting of the soft breakdown failure mode in MOS structures. Solid-State Electronics, 1999, 43, 1801-1805.	1.4	24
72	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

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73	Temperature dependence of Fowler-Nordheim injection from accumulated n-type silicon into silicon dioxide. IEEE Transactions on Electron Devices, 1993, 40, 1017-1019.	3.0	23
74	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
75	Equivalent circuit modeling of the bistable conduction characteristics in electroformed thin dielectric films. Microelectronics Reliability, 2015, 55, 1-14.	1.7	21
76	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
77	Nondestructive multiple breakdown events in very thin SiO2films. Applied Physics Letters, 1989, 55, 128-130.	3.3	20
78	Soft Breakdown in Ultrathin SiO2Layers: the Conduction Problem from a New Point of View. Japanese Journal of Applied Physics, 1999, 38, 2223-2226.	1.5	20
79	Monitoring the degradation that causes the breakdown of ultrathin (<5 nm) SiO₂ gate oxides. IEEE Electron Device Letters, 2000, 21, 251-253.	3.9	20
80	Failure physics of ultra-thin SiO2gate oxides near their scaling limit. Semiconductor Science and Technology, 2000, 15, 445-454.	2.0	20
81	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
82	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
83	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
84	SPICE Implementation of the Dynamic Memdiode Model for Bipolar Resistive Switching Devices. Micromachines, 2022, 13, 330.	2.9	20
85	Breakdown of thin gate silicon dioxide filmsâ€"A review. Microelectronics Reliability, 1996, 36, 871-905.	1.7	19
86	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
87	Multi-channel conduction in redox-based resistive switch modelled using quantum point contact theory. Applied Physics Letters, 2013, 103, .	3.3	19
88	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
89	Post soft breakdown conduction in SiO/sub 2/ gate oxides. , 0, , .		18
90	Approach to study the noise properties in nanoscale electronic devices. Applied Physics Letters, 2001, 79, 1703-1705.	3.3	18

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91	On the progressive breakdown statistical distribution and its voltage acceleration. , 2007, , .		18
92	On Voltage Acceleration Models of Time to Breakdownâ€"Part I: Experimental and Analysis Methodologies. IEEE Transactions on Electron Devices, 2009, , .	3.0	18
93	Characterization of HfO 2 -based devices with indication of second order memristor effects. Microelectronic Engineering, 2018, 195, 101-106.	2.4	18
94	Engineering Oxygen Migration for Homogeneous Volume Resistive Switching in 3â€Terminal Devices. Advanced Electronic Materials, 2019, 5, 1800629.	5.1	18
95	Characterization of SiO/sub 2/ dielectric breakdown for reliability simulation. IEEE Transactions on Electron Devices, 1993, 40, 1662-1668.	3.0	17
96	A novel approach to quantum point contact for post soft breakdown conduction. , 0, , .		17
97	Mesoscopic approach to the soft breakdown failure mode in ultrathin SiO2 films. Applied Physics Letters, 2001, 78, 225-227.	3.3	17
98	Post-radiation-induced soft breakdown conduction properties as a function of temperature. Applied Physics Letters, 2001, 79, 1336-1338.	3.3	17
99	Polarity-dependent oxide breakdown of NFET devices for ultra-thin gate oxide. , 0, , .		17
100	Successive breakdown events and their relation with soft and hard breakdown modes. IEEE Electron Device Letters, 2003, 24, 692-694.	3.9	17
101	Initial leakage current related to extrinsic breakdown in HfO2/Al2O3 nanolaminate ALD dielectrics. Microelectronic Engineering, 2011, 88, 1380-1383.	2.4	17
102	Generalized hydrogen release-reaction model for the breakdown of modern gate dielectrics. Journal of Applied Physics, 2013, 114, .	2.5	17
103	Electrochemical Tuning of Metal Insulator Transition and Nonvolatile Resistive Switching in Superconducting Films. ACS Applied Materials & Interfaces, 2018, 10, 30522-30531.	8.0	17
104	Oscillatory bohm trajectories in resonant tunneling structures. Solid State Communications, 1996, 99, 123-128.	1.9	16
105	Bohm trajectories for the Monte Carlo simulation of quantum-based devices. Applied Physics Letters, 1998, 72, 806-808.	3.3	16
106	Modeling the breakdown and breakdown statistics of ultra-thin SiO2 gate oxides. Microelectronic Engineering, 2001, 59, 149-153.	2.4	16
107	Statistical characteristics of reset switching in Cu/HfO2/Pt resistive switching memory. Nanoscale Research Letters, 2014, 9, 2500.	5.7	16
108	Modeling the conduction characteristics of broken down gate oxides in MOS structures. Microelectronics Reliability, 2000, 40, 1599-1603.	1.7	15

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109	High frequency components of current fluctuations in semiconductor tunneling barriers. Applied Physics Letters, 2002, 80, 4048-4050.	3.3	15
110	Statistics of soft and hard breakdown in thin SiO2 gate oxides. Microelectronics Reliability, 2003, 43, 1185-1192.	1.7	15
111	Critical assessment of soft breakdown stability time and the implementation of new post-breakdown methodology for ultra-thin gate oxides [MOSFET]. , 0, , .		15
112	Modeling the breakdown statistics of Al2O3/HfO2 nanolaminates grown by atomic-layer-deposition. Solid-State Electronics, 2012, 71, 48-52.	1.4	15
113	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
114	Effect of the voltage ramp rate on the set and reset voltages of ReRAM devices. Microelectronic Engineering, 2017, 178, 61-65.	2.4	15
115	Quantum Monte Carlo simulation of resonant tunneling diodes based on the Wigner distribution function formalism. Applied Physics Letters, 1998, 73, 3539-3541.	3.3	14
116	Switching behavior of the soft breakdown conduction characteristic in ultra-thin (<5 nm) oxide MOS capacitors. , 1998, , .		14
117	Quantitative two-step hydrogen model of SiO2 gate oxide breakdown. Solid-State Electronics, 2002, 46, 1825-1837.	1.4	14
118	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
119	Threshold Switching and Conductance Quantization in Al/HfO₂/Si(p) Structures. Japanese Journal of Applied Physics, 2013, 52, 04CD06.	1.5	14
120	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
121	On the dissipation of energy by hot electrons in SiO2. Journal Physics D: Applied Physics, 1990, 23, 1576-1581.	2.8	13
122	Analysis of the degradation and breakdown of thin SiO/sub 2/ films under static and dynamic tests using a two-step stress procedure. IEEE Transactions on Electron Devices, 2000, 47, 2138-2145.	3.0	13
123	BREAKDOWN MODES AND BREAKDOWN STATISTICS OF ULTRATHIN SiO2 GATE OXIDES. International Journal of High Speed Electronics and Systems, 2001, 11, 789-848.	0.7	13
124	A comprehensive investigation of gate oxide breakdown of P+Poly/PFETs under inversion mode. , 0, , .		13
125	A physics-based deconstruction of the percolation model of oxide breakdown. Microelectronic Engineering, 2007, 84, 1917-1920.	2.4	13
126	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

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127	Modeling of hysteretic Schottky diode-like conduction in Pt/BiFeO3/SrRuO3 switches. Applied Physics Letters, 2014, 105, .	3.3	13
128	Temperature and polarity dependence of the switching behavior of Ni/HfO2-based RRAM devices. Microelectronic Engineering, 2015, 147, 75-78.	2.4	13
129	Analysis on the Filament Structure Evolution in Reset Transition of Cu/HfO2/Pt RRAM Device. Nanoscale Research Letters, 2016, 11, 269.	5.7	13
130	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
131	Towards the Monte Carlo simulation of resonant tunnelling diodes using time-dependent wavepackets and Bohm trajectories. Semiconductor Science and Technology, 1999, 14, 532-542.	2.0	12
132	Interplay of voltage and temperature acceleration of oxide breakdown for ultra-thin oxides. Microelectronic Engineering, 2001, 59, 25-31.	2.4	12
133	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
134	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
135	Transient simulation of the ERASE cycle of floating gate EEPROMs. , 0, , .		11
136	Reversible dielectric breakdown of thin gate oxides in MOS devices. Microelectronics Reliability, 1993, 33, 1031-1039.	1.7	11
137	Effects of spacer layers on the Wigner function simulation of resonant tunneling diodes. Journal of Applied Physics, 1998, 83, 8057-8061.	2.5	11
138	Switching events in the soft breakdown Iâ€"t characteristic of ultra-thin SiO2 layers. Microelectronics Reliability, 1999, 39, 161-164.	1.7	11
139	A new approach to analyze the degradation and breakdown of thin SiO2 films under static and dynamic electrical stress. IEEE Electron Device Letters, 1999, 20, 317-319.	3.9	11
140	Gate stack insulator breakdown when the interface layer thickness is scaled toward zero. Applied Physics Letters, 2010, 97, .	3.3	11
141	A compact analytic model for the breakdown distribution of gate stack dielectrics. , 2010, , .		11
142	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
143	On the SiOx transition layer in abrupt Si-SiO2 chemical interface in MOS structures. Surface Science, 1989, 208, 463-472.	1.9	10
144	Comparison between the relaxation time approximation and the Boltzmann collision operator for simulation of dissipative electron transport in resonant tunnelling diodes. Solid-State Electronics, 1996, 39, 1795-1804.	1.4	10

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145	Relation between defect generation, stress induced leakage current and soft breakdown in thin (<5) Tj ETQq1 1 0.784314 rgBT /Overlo	1.7	10
146	Quantum point contact model of filamentary conduction in resistive switching memories. , 2012, , .		10
147	Three-state resistive switching in HfO2-based RRAM. Solid-State Electronics, 2014, 98, 38-44.	1.4	10
148	Characterization of the metal-SiO2-Si interface roughness by electrical methods. Surface Science, 1987, 189-190, 346-352.	1.9	9
149	A common framework for soft and hard breakdown in ultrathin oxides based on the theory of point contact conduction. Microelectronic Engineering, 1999, 48, 171-174.	2.4	9
150	Comment on â€œQuantum Wave Packet Dynamics with Trajectoriesâ€• Physical Review Letters, 2000, 85, 894-894.	7.8	9
151	A simple drain current model for Schottky-barrier carbon nanotube field effect transistors. Nanotechnology, 2007, 18, 419001.	2.6	9
152	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
153	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
154	Explicit model for the gate tunneling current in double-gate MOSFETs. Solid-State Electronics, 2012, 68, 93-97.	1.4	9
155	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
156	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
157	A cell-based clustering model for the reset statistics in RRAM. Applied Physics Letters, 2017, 110, .	3.3	9
158	Weibull slopes, critical defect density, and the validity of stress-induced-leakage current (SILC) measurements. , 0, , .		8
159	Ordered arrays of quantum wires through hole patterning: ab initio and empirical electronic structure calculations. Applied Physics Letters, 2007, 90, 083118.	3.3	8
160	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
161	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
162	The statistical distribution of breakdown from multiple breakdown events in one sample. Journal Physics D: Applied Physics, 1991, 24, 407-414.	2.8	7

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163	Stationary modeling of twoâ€dimensional states in resonant tunneling devices. Journal of Applied Physics, 1995, 78, 2135-2137.	2.5	7
164	Hydrogen desorption in SiGe films: A diffusion limited process. Applied Physics Letters, 1997, 70, 3287-3289.	3.3	7
165	Conduction properties of breakdown paths in ultrathin gate oxides. Microelectronics Reliability, 2000, 40, 687-690.	1.7	7
166	Limits of the successive breakdown statistics to assess chip reliability. Microelectronic Engineering, 2004, 72, 39-44.	2.4	7
167	Statistical and voltage scaling properties of post-breakdown for ultra-thin-oxide PFETs in inversion mode. , 2006, , .		7
168	Explicit quantum potential and charge model for double-gate MOSFETs. Solid-State Electronics, 2010, 54, 530-535.	1.4	7
169	Multiple Diode-Like Conduction in Resistive Switching SiO<italic>_x</italic>-Based MIM Devices. IEEE Nanotechnology Magazine, 2015, 14, 15-17.	2.0	7
170	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
171	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
172	Relation between degradation and breakdown of thin SiO2 films under AC stress conditions. Microelectronic Engineering, 1995, 28, 321-324.	2.4	6
173	Breakdown and anti-breakdown events in high-field stressed ultrathin gate oxides. Solid-State Electronics, 2001, 45, 1327-1332.	1.4	6
174	Temperature-dependent transition to progressive breakdown in thin silicon dioxide based gate dielectrics. Applied Physics Letters, 2005, 86, 193502.	3.3	6
175	A drain current model for Schottky-barrier CNT-FETs. Journal of Computational Electronics, 2007, 5, 361-364.	2.5	6
176	Failure-current based oxide reliability assessment methodology. , 2008, , .		6
177	Post-breakdown statistics and acceleration characteristics in high-K dielectric stacks. , 2011, , .		6
178	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
179	A thorough investigation of the progressive reset dynamics in HfO2-based resistive switching structures. Applied Physics Letters, 2015, 107, 113507.	3.3	6
180	Equivalent circuit model for the electron transport in 2D resistive switching material systems. , 2017, , .		6

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181	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
182	SPICE model for the current-voltage characteristic of resistive switching devices including the snapback effect. Microelectronic Engineering, 2019, 215, 110998.	2.4	6
183	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
184	After-breakdown conduction through ultrathin SiO2 films in metal/insulator/semiconductor structures. Thin Solid Films, 1991, 196, 11-27.	1.8	5
185	Quantum effects in accumulated MOS thin dielectric structures. Microelectronics Journal, 1994, 25, 523-531.	2.0	5
186	Analysis of the evolution of the trapped charge distributions in 10nm SiO2 films during DC and bipolar dynamic stress. Microelectronics Reliability, 1997, 37, 1517-1520.	1.7	5
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