Jordi Sue

List of Publications by Citations

272 papers	5,301 citations	38 h-index	63 g-index
300 ext. papers	6,100 ext. citations	2.8 avg, IF	5.51 L-index

#	Paper	IF	Citations
272	Recommended Methods to Study Resistive Switching Devices. *Advanced Electronic Materials*, **2019**, 5, 1800143	6.4	297
271	On the breakdown statistics of very thin SiO2 films. *Thin Solid Films*, **1990**, 185, 347-362	2.2	211
270	Continuous analytic I-V model for surrounding-gate MOSFETs. *IEEE Electron Device Letters*, **2004**, 25, 571-573	4.4	206
269	New physics-based analytic approach to the thin-oxide breakdown statistics. *IEEE Electron Device Letters*, **2001**, 22, 296-298	4.4	206
268	Quantum-size effects in hafnium-oxide resistive switching. *Applied Physics Letters*, **2013**, 102, 183505	3.4	139
267	Voltage and power-controlled regimes in the progressive unipolar RESET transition of HfO₂-based RRAM. *Scientific Reports*, **2013**, 3, 2929	4.9	118
266	A Model for the Set Statistics of RRAM Inspired in the Percolation Model of Oxide Breakdown. *IEEE Electron Device Letters*, **2013**, 34, 999-1001	4.4	111
265	Modeling of nanoscale gate-all-around MOSFETs. *IEEE Electron Device Letters*, **2004**, 25, 314-316	4.4	106
264	Power-law voltage acceleration: A key element for ultra-thin gate oxide reliability. *Microelectronics Reliability*, **2005**, 45, 1809-1834	1.2	104
263	Experimental evidence of T/sub BD/ power-law for voltage dependence of oxide breakdown in ultrathin gate oxides. *IEEE Transactions on Electron Devices*, **2002**, 49, 2244-2253	2.9	96
262	. *IEEE Transactions on Electron Devices*, **1992**, 39, 1732-1739	2.9	90
261	Electron transport through broken down ultra-thin SiO2 layers in MOS devices. *Microelectronics Reliability*, **2004**, 44, 1-23	1.2	89
260	Soft breakdown conduction in ultrathin (3-5 nm) gate dielectrics. *IEEE Transactions on Electron Devices*, **2000**, 47, 82-89	2.9	89
259	Cycle-to-Cycle Intrinsic RESET Statistics in ${\rm HfO}_{2}$-Based Unipolar RRAM Devices. *IEEE Electron Device Letters*, **2013**, 34, 623-625	4.4	88
258	Exploratory observations of post-breakdown conduction in polycrystalline-silicon and metal-gated thin-oxide metal-oxide-semiconductor capacitors. *Journal of Applied Physics*, **1993**, 73, 205-215	2.5	84
257	Analysis and modeling of resistive switching statistics. *Journal of Applied Physics*, **2012**, 111, 074508	2.5	83
256	Self-consistent solution of the Poisson and Schrödinger equations in accumulated semiconductor-insulator interfaces. *Journal of Applied Physics*, **1991**, 70, 337-345	2.5	76

255	Interplay of voltage and temperature acceleration of oxide breakdown for ultra-thin gate oxides. *Solid-State Electronics*, **2002**, 46, 1787-1798	1.7	72
254	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	2.9	70
253	Conductance Quantization in Resistive Random Access Memory. *Nanoscale Research Letters*, **2015**, 10, 420	5	65
252	Transport properties of oxygen vacancy filaments in metal/crystalline or amorphous HfO2/metal structures. *Physical Review B*, **2012**, 86,	3.3	63
251	Reset Statistics of NiO-Based Resistive Switching Memories. *IEEE Electron Device Letters*, **2011**, 32, 1570-1572	4.4	60
250	A function-fit model for the soft breakdown failure mode. *IEEE Electron Device Letters*, **1999**, 20, 265-267	4.4	58
249	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	56
248	Are soft breakdown and hard breakdown of ultrathin gate oxides actually different failure mechanisms?. *IEEE Electron Device Letters*, **2000**, 21, 167-169	4.4	54
247	Simulation of thermal reset transitions in resistive switching memories including quantum effects. *Journal of Applied Physics*, **2014**, 115, 214504	2.5	52
246	An in-depth simulation study of thermal reset transitions in resistive switching memories. *Journal of Applied Physics*, **2013**, 114, 144505	2.5	51
245	Statistics of successive breakdown events in gate oxides. *IEEE Electron Device Letters*, **2003**, 24, 272-274	4.4	51
244	Hydrogen-release mechanisms in the breakdown of thin SiO2 films. *Physical Review Letters*, **2004**, 92, 087601	7.4	49
243	Soft breakdown fluctuation events in ultrathin SiO2 layers. *Applied Physics Letters*, **1998**, 73, 490-492	3.4	48
242	Implications of the noncrossing property of Bohm trajectories in one-dimensional tunneling configurations. *Physical Review A*, **1996**, 54, 2594-2604	2.6	47
241	Multi-scale quantum point contact model for filamentary conduction in resistive random access memories devices. *Journal of Applied Physics*, **2014**, 115, 244507	2.5	45
240	Engineering of the chemical reactivity of the Ti/HfO₂ interface for RRAM: experiment and theory. *ACS Applied Materials & Interfaces*, **2014**, 6, 5056-60	9.5	43
239	Impact of Intercell and Intracell Variability on Forming and Switching Parameters in RRAM Arrays. *IEEE Transactions on Electron Devices*, **2015**, 62, 2502-2509	2.9	42
238	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,	3.3	42

237	The Quantum Point-Contact Memristor. *IEEE Electron Device Letters*, **2012**, 33, 1474-1476	4.4	41
236	Set statistics in conductive bridge random access memory device with Cu/HfO2/Pt structure. *Applied Physics Letters*, **2014**, 105, 193501	3.4	39
235	Nonlinear conductance quantization effects in CeOx/SiO2-based resistive switching devices. *Applied Physics Letters*, **2012**, 101, 012910	3.4	39
234	({ SIM}^2{ RRAM}): a physical model for RRAM devices simulation. *Journal of Computational Electronics*, **2017**, 16, 1095-1120	1.8	37
233	A new compact model for bipolar RRAMs based on truncated-cone conductive filaments? Verilog-A approach. *Semiconductor Science and Technology*, **2016**, 31, 115013	1.8	37
232	Modeling the breakdown spots in silicon dioxide films as point contacts. *Applied Physics Letters*, **1999**, 75, 959-961	3.4	36
231	Degradation and Breakdown of Gate Oxides in VLSI Devices. *Physica Status Solidi A*, **1989**, 111, 675-685		36
230	Standards for the Characterization of Endurance in Resistive Switching Devices. *ACS Nano*, **2021**,	16.7	36
229	An in-depth study of thermal effects in reset transitions in HfO2 based RRAMs. *Solid-State Electronics*, **2015**, 111, 47-51	1.7	35
228	Modeling transport in ultrathin Si nanowires: charged versus neutral impurities. *Nano Letters*, **2008**, 8, 2825-8	11.5	31
227	Improving resistance uniformity and endurance of resistive switching memory by accurately controlling the stress time of pulse program operation. *Applied Physics Letters*, **2015**, 106, 092103	3.4	30
226	Analytical Cell-Based Model for the Breakdown Statistics of Multilayer Insulator Stacks. *IEEE Electron Device Letters*, **2009**, 30, 1359-1361	4.4	29
225	Statistics of competing post-breakdown failure modes in ultrathin MOS devices. *IEEE Transactions on Electron Devices*, **2006**, 53, 224-234	2.9	29
224	Successive oxide breakdown statistics: correlation effects, reliability methodologies, and their limits. *IEEE Transactions on Electron Devices*, **2004**, 51, 1584-1592	2.9	29
223	A comprehensive analysis on progressive reset transitions in RRAMs. *Journal Physics D: Applied Physics*, **2014**, 47, 205102	3	28
222	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	2.9	28
221	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	26
220	. *IEEE Electron Device Letters*, **1991**, 12, 620-622	4.4	26

201	Monitoring the degradation that causes the breakdown of ultrathin (. *IEEE Electron Device Letters*, **2000**, 21, 251-253	4.4	17
200	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	2.9	16
199	Equivalent circuit modeling of the bistable conduction characteristics in electroformed thin dielectric films. *Microelectronics Reliability*, **2015**, 55, 1-14	1.2	16
198	Initial leakage current related to extrinsic breakdown in HfO2/Al2O3 nanolaminate ALD dielectrics. *Microelectronic Engineering*, **2011**, 88, 1380-1383	2.5	16
197	The effects of device dimensions on the post-breakdown characteristics of ultrathin gate oxides. *IEEE Electron Device Letters*, **2005**, 26, 401-403	4.4	16
196	Breakdown of thin gate silicon dioxide films—A review. *Microelectronics Reliability*, **1996**, 36, 871-905	1.2	16
195	Nondestructive multiple breakdown events in very thin SiO2 films. *Applied Physics Letters*, **1989**, 55, 128-130	3.4	16
194	Modeling the breakdown and breakdown statistics of ultra-thin SiO2 gate oxides. *Microelectronic Engineering*, **2001**, 59, 149-153	2.5	15
193	Post-radiation-induced soft breakdown conduction properties as a function of temperature. *Applied Physics Letters*, **2001**, 79, 1336-1338	3.4	15
192	A novel approach to quantum point contact for post soft breakdown conduction		15
191	Analysis and simulation of the multiple resistive switching modes occurring in HfOx-based resistive random access memories using memdiodes. *Journal of Applied Physics*, **2019**, 125, 234503	2.5	14
190	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, 154501	2.5	14
189	Investigation on the Conductive Filament Growth Dynamics in Resistive Switching Memory via a Universal Monte Carlo Simulator. *Scientific Reports*, **2017**, 7, 11204	4.9	14
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185	. *IEEE Transactions on Electron Devices*, **1993**, 40, 1662-1668	2.9	14
184	On the Thermal Models for Resistive Random Access Memory Circuit Simulation. *Nanomaterials*, **2021**, 11,	5.4	14

183	Statistical characteristics of reset switching in Cu/HfO2/Pt resistive switching memory. *Nanoscale Research Letters*, **2014**, 9, 2500	5	13
182	Multi-channel conduction in redox-based resistive switch modelled using quantum point contact theory. *Applied Physics Letters*, **2013**, 103, 222904	3.4	13
181	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**,		13
180			13
179	Mesoscopic approach to the soft breakdown failure mode in ultrathin SiO2 films. *Applied Physics Letters*, **2001**, 78, 225-227	3.4	13
178	Engineering Oxygen Migration for Homogeneous Volume Resistive Switching in 3-Terminal Devices. *Advanced Electronic Materials*, **2019**, 5, 1800629	6.4	12
177	Temperature and polarity dependence of the switching behavior of Ni/HfO2-based RRAM devices. *Microelectronic Engineering*, **2015**, 147, 75-78	2.5	12
176	Characterization of HfO2-based devices with indication of second order memristor effects. *Microelectronic Engineering*, **2018**, 195, 101-106	2.5	12
175	Electrochemical Tuning of Metal Insulator Transition and Nonvolatile Resistive Switching in Superconducting Films. *ACS Applied Materials & Interfaces*, **2018**, 10, 30522-30531	9.5	12
174	Threshold Switching and Conductance Quantization in Al/HfO2/Si(p) Structures. *Japanese Journal of Applied Physics*, **2013**, 52, 04CD06	1.4	12
173	Statistics of soft and hard breakdown in thin SiO2 gate oxides. *Microelectronics Reliability*, **2003**, 43, 1185-1192	1.1	12
172	BREAKDOWN MODES AND BREAKDOWN STATISTICS OF ULTRATHIN SiO2 GATE OXIDES. *International Journal of High Speed Electronics and Systems*, **2001**, 11, 789-848	0.5	12
171	High frequency components of current fluctuations in semiconductor tunneling barriers. *Applied Physics Letters*, **2002**, 80, 4048-4050	3.4	12
170	Bohm trajectories for the Monte Carlo simulation of quantum-based devices. *Applied Physics Letters*, **1998**, 72, 806-808	3.4	12
169	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	4.4	11
168	Generalized hydrogen release-reaction model for the breakdown of modern gate dielectrics. *Journal of Applied Physics*, **2013**, 114, 014103	2.5	11
167	A physics-based deconstruction of the percolation model of oxide breakdown. *Microelectronic Engineering*, **2007**, 84, 1917-1920	2.5	11
166	A comprehensive investigation of gate oxide breakdown of P+Poly/PFETs under inversion mode		11

165	Modeling the conduction characteristics of broken down gate oxides in MOS structures. *Microelectronics Reliability*, **2000**, 40, 1599-1603	1.2	11
164	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	2.9	11
163	On the dissipation of energy by hot electrons in SiO2. *Journal Physics D: Applied Physics*, **1990**, 23, 1576-1581	3	11
162	Switching Voltage and Time Statistics of Filamentary Conductive Paths in HfO2-Based ReRAM Devices. *IEEE Electron Device Letters*, **2018**, 39, 656-659	4.4	10
161	Modeling the breakdown statistics of Al2O3/HfO2 nanolaminates grown by atomic-layer-deposition. *Solid-State Electronics*, **2012**, 71, 48-52	1.7	10
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158	On Voltage Acceleration Models of Time to Breakdown—Part I: Experimental and Analysis Methodologies. *IEEE Transactions on Electron Devices*, **2009**,	2.9	10
157	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	10
156	Quantum Monte Carlo simulation of resonant tunneling diodes based on the Wigner distribution function formalism. *Applied Physics Letters*, **1998**, 73, 3539-3541	3.4	10
155	Interplay of voltage and temperature acceleration of oxide breakdown for ultra-thin oxides. *Microelectronic Engineering*, **2001**, 59, 25-31	2.5	10
154	Polarity-dependent oxide breakdown of NFET devices for ultra-thin gate oxide		10
153	Switching events in the soft breakdown I-V characteristic of ultra-thin SiO2 layers. *Microelectronics Reliability*, **1999**, 39, 161-164	1.2	10
152	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	1.7	10
151	Reversible dielectric breakdown of thin gate oxides in MOS devices. *Microelectronics Reliability*, **1993**, 33, 1031-1039	1.2	10
150	On the SiOx transition layer in abrupt Si-SiO2 chemical interface in MOS structures. *Surface Science*, **1989**, 208, 463-472	1.8	10
149	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	2.9	9
148	Successive breakdown events and their relation with soft and hard breakdown modes. *IEEE Electron Device Letters*, **2003**, 24, 692-694	4.4	9

147	Comment on "Quantum wave packet dynamics with trajectories". *Physical Review Letters*, **2000**, 85, 894	7.4	9
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145	Towards the Monte Carlo simulation of resonant tunnelling diodes using time-dependent wavepackets and Bohm trajectories. *Semiconductor Science and Technology*, **1999**, 14, 532-542	1.8	9
144	Characterization of the metal-SiO2-Si interface roughness by electrical methods. *Surface Science*, **1987**, 189-190, 346-352	1.8	9
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142	Effect of the voltage ramp rate on the set and reset voltages of ReRAM devices. *Microelectronic Engineering*, **2017**, 178, 61-65	2.5	8
141	Three-state resistive switching in HfO2-based RRAM. *Solid-State Electronics*, **2014**, 98, 38-44	1.7	8
140	Explicit model for the gate tunneling current in double-gate MOSFETs. *Solid-State Electronics*, **2012**, 68, 93-97	1.7	8
139	A compact analytic model for the breakdown distribution of gate stack dielectrics **2010**,		8
138	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	8
137	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	1.8	8
136	A simple drain current model for Schottky-barrier carbon nanotube field effect transistors. *Nanotechnology*, **2007**, 18, 419001	3.4	8
135	Ordered arrays of quantum wires through hole patterning: ab initio and empirical electronic structure calculations. *Applied Physics Letters*, **2007**, 90, 083118	3.4	8
134	Switching behavior of the soft breakdown conduction characteristic in ultra-thin (**1998**,		8
133	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	2.5	8
132	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	4.4	8
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130	Analysis on the Filament Structure Evolution in Reset Transition of Cu/HfO2/Pt RRAM Device. *Nanoscale Research Letters*, **2016**, 11, 269	5	8

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128	Quantum point contact model of filamentary conduction in resistive switching memories **2012**,		7
127	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	1.3	7
126	Post soft breakdown conduction in SiO/sub 2/ gate oxides		7
125	Analytic modeling of leakage current through multiple breakdown paths in SiO/sub 2/ films		7
124	Effects of spacer layers on the Wigner function simulation of resonant tunneling diodes. *Journal of Applied Physics*, **1998**, 83, 8057-8061	2.5	7
123	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	2.6	7
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121	Modeling of the switching I-V characteristics in ultrathin (5 nm) atomic layer deposited HfO2 films using the logistic hysteron. *Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics*, **2015**, 33, 01A102	1.3	6
120	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	2.9	6
119	Explicit quantum potential and charge model for double-gate MOSFETs. *Solid-State Electronics*, **2010**, 54, 530-535	1.7	6
118	Statistical and voltage scaling properties of post-breakdown for ultra-thin-oxide PFETs in inversion mode **2006**,		6
117	Temperature-dependent transition to progressive breakdown in thin silicon dioxide based gate dielectrics. *Applied Physics Letters*, **2005**, 86, 193502	3.4	6
116	Stationary modeling of two-dimensional states in resonant tunneling devices. *Journal of Applied Physics*, **1995**, 78, 2135-2137	2.5	6
115	A cell-based clustering model for the reset statistics in RRAM. *Applied Physics Letters*, **2017**, 110, 123503	3.4	5
114	SPICE model for the current-voltage characteristic of resistive switching devices including the snapback effect. *Microelectronic Engineering*, **2019**, 215, 110998	2.5	5
113	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
112	Identification of the generation/rupture mechanism of filamentary conductive paths in ReRAM devices using oxide failure analysis. *Microelectronics Reliability*, **2017**, 76-77, 178-183	1.2	5

111	A thorough investigation of the progressive reset dynamics in HfO2-based resistive switching structures. *Applied Physics Letters*, **2015**, 107, 113507	3.4	5
110	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	5
109	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	5
108	On Voltage Acceleration Models of Time to Breakdown—Part II: Experimental Results and Voltage Dependence of Weibull Slope in the FN Regime. *IEEE Transactions on Electron Devices*, **2009**,	2.9	5
107	A drain current model for Schottky-barrier CNT-FETs. *Journal of Computational Electronics*, **2007**, 5, 361-364		5
106	Limits of the successive breakdown statistics to assess chip reliability. *Microelectronic Engineering*, **2004**, 72, 39-44	2.5	5
105	Breakdown and anti-breakdown events in high-field stressed ultrathin gate oxides. *Solid-State Electronics*, **2001**, 45, 1327-1332	1.7	5
104	Weibull slopes, critical defect density, and the validity of stress-induced-leakage current (SILC) measurements		5
103	Relation between defect generation, stress induced leakage current and soft breakdown in thin (. *Microelectronics Reliability*, **2000**, 40, 707-710	1.2	5
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98	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	1.7	5
97	Spatial analysis of failure sites in large area MIM capacitors using wavelets. *Microelectronic Engineering*, **2017**, 178, 10-16	2.5	4
96	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	4
95	**2017**,		4
94	On the properties of conducting filament in ReRAM **2014**,		4

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92	Recent advances in dielectric breakdown of modern gate dielectrics **2013**,		4
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90	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	1.2	4
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88	Relation between degradation and breakdown of thin SiO2 films under AC stress conditions. *Microelectronic Engineering*, **1995**, 28, 321-324	2.5	4
87	High field dynamic stress of thin SiO2 films. *Microelectronics Reliability*, **1995**, 35, 539-553	1.2	4
86	SPICE Implementation of the Dynamic Memdiode Model for Bipolar Resistive Switching Devices.. *Micromachines*, **2022**, 13,	3.3	4
85	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	1.6	3
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83	Model for the Current Voltage Characteristic of Resistive Switches Based on Recursive Hysteretic Operators. *IEEE Electron Device Letters*, **2015**, 36, 944-946	4.4	3
82	Electrical characterization of multiple leakage current paths in HfO2/Al2O3-based nanolaminates. *Microelectronics Reliability*, **2015**, 55, 1442-1445	1.2	3
81	From dielectric failure to memory function: Learning from oxide breakdown for improved understanding of resistive switching memories **2011**,		3
80	Hydrogen desorption in SiGe films: A diffusion limited process. *Applied Physics Letters*, **1997**, 70, 3287-3289	3.4	3
79	Post-Breakdown Characteristics of Extrinsic Failure Modes for Ultra-Thin Gate Oxides **2006**,		3
78	Impact of stress induced leakage current on power-consumption in ultra-thin gate oxides		3
77	Critical evaluation of hard-breakdown based reliability methodologies for ultrathin gate oxides. *Microelectronic Engineering*, **2004**, 72, 16-23	2.5	3
76	BREAKDOWN MODES AND BREAKDOWN STATISTICS OF ULTRATHIN SiO2 GATE OXIDES. *Selected Topics in Electornics and Systems*, **2002**, 173-232	0	3

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74	Coupling between the Liouville equation and a classical Monte Carlo solver for the simulation of electron transport in resonant tunneling diodes. *Solid-State Electronics*, **1999**, 43, 315-323	1.7	3
73	Gate oxide breakdown statistics in wearout tests of metal-oxide-semiconductor structures. *Microelectronics Journal*, **1989**, 20, 27-39	1.8	3
72	SPICE simulation of memristive circuits based on memdiodes with sigmoidal threshold functions. *International Journal of Circuit Theory and Applications*, **2018**, 46, 39-49	2	2
71	Detection of inhibitory effects in the generation of breakdown spots in HfO2-based MIM devices. *Microelectronic Engineering*, **2019**, 215, 111023	2.5	2
70	Direct observation of the generation of breakdown spots in MIM structures under constant voltage stress. *Microelectronics Reliability*, **2013**, 53, 1257-1260	1.2	2
69	SPICE model for the ramp rate effect in the reset characteristic of memristive devices **2017**,		2
68	From post-breakdown conduction to resistive switching effect in thin dielectric films **2012**,		2
67	Explicit model for direct tunneling current in double-gate MOSFETs through a dielectric stack. *Solid-State Electronics*, **2012**, 76, 19-24	1.7	2
66	Relating Extrinsic Breakdown Statistics to the Initial Current Leakage Distribution in Gate Oxides. *ECS Transactions*, **2010**, 27, 243-248	1	2
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