

Enrique A Miranda

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235
papers

3,814
citations

30
h-index

53
g-index

275
ext. papers

4,422
ext. citations

2.9
avg, IF

5.37
L-index

#	Paper	IF	Citations
235	Recommended Methods to Study Resistive Switching Devices. <i>Advanced Electronic Materials</i> , 2019 , 5, 1800143	6.4	297
234	. <i>IEEE Transactions on Electron Devices</i> , 2011 , 58, 3124-3131	2.9	167
233	Coexistence of Grain-Boundaries-Assisted Bipolar and Threshold Resistive Switching in Multilayer Hexagonal Boron Nitride. <i>Advanced Functional Materials</i> , 2017 , 27, 1604811	15.6	149
232	Model for the Resistive Switching Effect in HfO_2 MIM Structures Based on the Transmission Properties of Narrow Constrictions. <i>IEEE Electron Device Letters</i> , 2010 , 31, 609-611	4.4	142
231	Quantum-size effects in hafnium-oxide resistive switching. <i>Applied Physics Letters</i> , 2013 , 102, 183505	3.4	139
230	Resistive switching in hafnium dioxide layers: Local phenomenon at grain boundaries. <i>Applied Physics Letters</i> , 2012 , 101, 193502	3.4	132
229	Voltage and power-controlled regimes in the progressive unipolar RESET transition of HfO ₂ -based RRAM. <i>Scientific Reports</i> , 2013 , 3, 2929	4.9	118
228	A Model for the Set Statistics of RRAM Inspired in the Percolation Model of Oxide Breakdown. <i>IEEE Electron Device Letters</i> , 2013 , 34, 999-1001	4.4	111
227	Silicon Oxide (SiO ₂): A Promising Material for Resistance Switching?. <i>Advanced Materials</i> , 2018 , 30, e1801187	18.7	105
226	. <i>IEEE Transactions on Electron Devices</i> , 2010 , 57, 2405-2409	2.9	92
225	Electron transport through broken down ultra-thin SiO ₂ layers in MOS devices. <i>Microelectronics Reliability</i> , 2004 , 44, 1-23	1.2	89
224	Soft breakdown conduction in ultrathin (3-5 nm) gate dielectrics. <i>IEEE Transactions on Electron Devices</i> , 2000 , 47, 82-89	2.9	89
223	Cycle-to-Cycle Intrinsic RESET Statistics in HfO_2 -Based Unipolar RRAM Devices. <i>IEEE Electron Device Letters</i> , 2013 , 34, 623-625	4.4	88
222	A function-fit model for the soft breakdown failure mode. <i>IEEE Electron Device Letters</i> , 1999 , 20, 265-267	4.4	58
221	Are soft breakdown and hard breakdown of ultrathin gate oxides actually different failure mechanisms?. <i>IEEE Electron Device Letters</i> , 2000 , 21, 167-169	4.4	54
220	Simulation of thermal reset transitions in resistive switching memories including quantum effects. <i>Journal of Applied Physics</i> , 2014 , 115, 214504	2.5	52
219	Soft breakdown fluctuation events in ultrathin SiO ₂ layers. <i>Applied Physics Letters</i> , 1998 , 73, 490-492	3.4	48

218	Multi-scale quantum point contact model for filamentary conduction in resistive random access memories devices. <i>Journal of Applied Physics</i> , 2014 , 115, 244507	2.5	45
217	Impact of Intercell and Intracell Variability on Forming and Switching Parameters in RRAM Arrays. <i>IEEE Transactions on Electron Devices</i> , 2015 , 62, 2502-2509	2.9	42
216	A simple drain current model for Schottky-barrier carbon nanotube field effect transistors. <i>Nanotechnology</i> , 2007 , 18, 025201	3.4	42
215	The Quantum Point-Contact Memristor. <i>IEEE Electron Device Letters</i> , 2012 , 33, 1474-1476	4.4	41
214	Set statistics in conductive bridge random access memory device with Cu/HfO ₂ /Pt structure. <i>Applied Physics Letters</i> , 2014 , 105, 193501	3.4	39
213	Nonlinear conductance quantization effects in CeO _x /SiO ₂ -based resistive switching devices. <i>Applied Physics Letters</i> , 2012 , 101, 012910	3.4	39
212	($\{SIM\}^2\{RRAM\}$): a physical model for RRAM devices simulation. <i>Journal of Computational Electronics</i> , 2017 , 16, 1095-1120	1.8	37
211	Electrical characterization and modeling of pulse-based forming techniques in RRAM arrays. <i>Solid-State Electronics</i> , 2016 , 115, 17-25	1.7	37
210	Modeling the breakdown spots in silicon dioxide films as point contacts. <i>Applied Physics Letters</i> , 1999 , 75, 959-961	3.4	36
209	Standards for the Characterization of Endurance in Resistive Switching Devices. <i>ACS Nano</i> , 2021 ,	16.7	36
208	Model for multi-filamentary conduction in graphene/hexagonal-boron-nitride/graphene based resistive switching devices. <i>2D Materials</i> , 2017 , 4, 025099	5.9	33
207	On the role of Ti adlayers for resistive switching in HfO ₂ -based metal-insulator-metal structures: Top versus bottom electrode integration. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2011 , 29, 01AD02	1.3	33
206	n-Monotone exact functionals. <i>Journal of Mathematical Analysis and Applications</i> , 2008 , 347, 143-156	1.1	32
205	Compact Model for the Major and Minor Hysteretic \square Loops in Nonlinear Memristive Devices. <i>IEEE Nanotechnology Magazine</i> , 2015 , 14, 787-789	2.6	29
204	A comprehensive analysis on progressive reset transitions in RRAMs. <i>Journal Physics D: Applied Physics</i> , 2014 , 47, 205102	3	28
203	Atomic layer deposited (TiO ₂) _x (Al ₂ O ₃) _{1-x} /In _{0.53} Ga _{0.47} As gate stacks for III-V based metal-oxide-semiconductor field-effect transistor applications. <i>Applied Physics Letters</i> , 2012 , 100, 062903	3.4	27
202	Point contact conduction at the oxide breakdown of MOS devices		24
201	Model for the voltage and temperature dependence of the soft breakdown current in ultrathin gate oxides. <i>Journal of Applied Physics</i> , 2005 , 97, 014104	2.5	24

200	Voltage-Driven Hysteresis Model for Resistive Switching: SPICE Modeling and Circuit Applications. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , 2017 , 36, 2044-2051	2.5	23
199	Resistive switching in CeO ₂ /La _{0.8} Sr _{0.2} MnO ₃ bilayer for non-volatile memory applications. <i>Microelectronic Engineering</i> , 2015 , 147, 37-40	2.5	23
198	Detection and fitting of the soft breakdown failure mode in MOS structures. <i>Solid-State Electronics</i> , 1999 , 43, 1801-1805	1.7	21
197	Impact of the precursor chemistry and process conditions on the cell-to-cell variability in 1T-1R based HfO RRAM devices. <i>Scientific Reports</i> , 2018 , 8, 11160	4.9	20
196	Relationship among Current Fluctuations during Forming, Cell-To-Cell Variability and Reliability in RRAM Arrays 2015 ,		18
195	Volume Resistive Switching in metallic perovskite oxides driven by the Metal-Insulator Transition. <i>Journal of Electroceramics</i> , 2017 , 39, 185-196	1.5	18
194	Multilevel recording in Bi-deficient Pt/BFO/SRO heterostructures based on ferroelectric resistive switching targeting high-density information storage in nonvolatile memories. <i>Applied Physics Letters</i> , 2013 , 103, 263502	3.4	18
193	Failure physics of ultra-thin SiO ₂ gate oxides near their scaling limit. <i>Semiconductor Science and Technology</i> , 2000 , 15, 445-454	1.8	18
192	Soft Breakdown in Ultrathin SiO ₂ Layers: the Conduction Problem from a New Point of View. <i>Japanese Journal of Applied Physics</i> , 1999 , 38, 2223-2226	1.4	18
191	Effects of Ti incorporation on the interface properties and band alignment of HfTaOx thin films on sulfur passivated GaAs. <i>Applied Physics Letters</i> , 2011 , 98, 022901	3.4	17
190	Effects of high-field electrical stress on the conduction properties of ultrathin La ₂ O ₃ films. <i>Applied Physics Letters</i> , 2005 , 86, 232104	3.4	17
189	Monitoring the degradation that causes the breakdown of ultrathin (. <i>IEEE Electron Device Letters</i> , 2000 , 21, 251-253	4.4	17
188	Multivariate analysis and extraction of parameters in resistive RAMs using the Quantum Point Contact model. <i>Journal of Applied Physics</i> , 2018 , 123, 014501	2.5	16
187	Resistive Switching with Self-Rectifying Tunability and Influence of the Oxide Layer Thickness in Ni/HfO ₂ /n ⁺ -Si RRAM Devices. <i>IEEE Transactions on Electron Devices</i> , 2017 , 64, 3159-3166	2.9	16
186	Equivalent circuit modeling of the bistable conduction characteristics in electroformed thin dielectric films. <i>Microelectronics Reliability</i> , 2015 , 55, 1-14	1.2	16
185	Initial leakage current related to extrinsic breakdown in HfO ₂ /Al ₂ O ₃ nanolaminate ALD dielectrics. <i>Microelectronic Engineering</i> , 2011 , 88, 1380-1383	2.5	16
184	Statistical model for radiation-induced wear-out of ultra-thin gate oxides after exposure to heavy ion irradiation. <i>IEEE Transactions on Nuclear Science</i> , 2003 , 50, 2167-2175	1.7	16
183	Formation and Characterization of Filamentary Current Paths in HfO ₂ -Based Resistive Switching Structures. <i>IEEE Electron Device Letters</i> , 2012 , 33, 1057-1059	4.4	15

182	Post-radiation-induced soft breakdown conduction properties as a function of temperature. <i>Applied Physics Letters</i> , 2001 , 79, 1336-1338	3.4	15
181	Analysis and simulation of the multiple resistive switching modes occurring in HfO _x -based resistive random access memories using memdiodes. <i>Journal of Applied Physics</i> , 2019 , 125, 234503	2.5	14
180	. <i>IEEE Electron Device Letters</i> , 2014 , 35, 390-392	4.4	14
179	Investigation on the Conductive Filament Growth Dynamics in Resistive Switching Memory via a Universal Monte Carlo Simulator. <i>Scientific Reports</i> , 2017 , 7, 11204	4.9	14
178	A physical compact DC drain current model for long-channel undoped ultra-thin body (UTB) SOI and asymmetric double-gate (DG) MOSFETs with independent gate operation. <i>Solid-State Electronics</i> , 2011 , 57, 61-66	1.7	14
177	On the Thermal Models for Resistive Random Access Memory Circuit Simulation. <i>Nanomaterials</i> , 2021 , 11,	5.4	14
176	(Invited) Elucidating the Origin of Resistive Switching in Ultrathin Hafnium Oxides through High Spatial Resolution Tools. <i>ECS Transactions</i> , 2014 , 64, 19-28	1	13
175	Statistical characteristics of reset switching in Cu/HfO ₂ /Pt resistive switching memory. <i>Nanoscale Research Letters</i> , 2014 , 9, 2500	5	13
174	Multi-channel conduction in redox-based resistive switch modelled using quantum point contact theory. <i>Applied Physics Letters</i> , 2013 , 103, 222904	3.4	13
173	Effects of the electrical stress on the conduction characteristics of metal gate/MgO/InP stacks. <i>Microelectronics Reliability</i> , 2009 , 49, 1052-1055	1.2	13
172	Degradation of high-K LAO ₃ gate dielectrics using progressive electrical stress. <i>Microelectronics Reliability</i> , 2005 , 45, 1365-1369	1.2	13
171	Mesosopic approach to the soft breakdown failure mode in ultrathin SiO ₂ films. <i>Applied Physics Letters</i> , 2001 , 78, 225-227	3.4	13
170	Temperature and polarity dependence of the switching behavior of Ni/HfO ₂ -based RRAM devices. <i>Microelectronic Engineering</i> , 2015 , 147, 75-78	2.5	12
169	Characterization of HfO ₂ -based devices with indication of second order memristor effects. <i>Microelectronic Engineering</i> , 2018 , 195, 101-106	2.5	12
168	Study From Cryogenic to High Temperatures of the High- and Low-Resistance-State Currents of ReRAM Ni ₂ HfO ₂ Bi Capacitors. <i>IEEE Transactions on Electron Devices</i> , 2016 , 63, 1877-1883	2.9	12
167	DC and low-frequency noise behavior of the conductive filament in bipolar HfO ₂ -based resistive random access memory. <i>Microelectronic Engineering</i> , 2013 , 107, 1-5	2.5	12
166	Threshold Switching and Conductance Quantization in Al/HfO ₂ /Si(p) Structures. <i>Japanese Journal of Applied Physics</i> , 2013 , 52, 04CD06	1.4	12
165	BREAKDOWN MODES AND BREAKDOWN STATISTICS OF ULTRATHIN SiO ₂ GATE OXIDES. <i>International Journal of High Speed Electronics and Systems</i> , 2001 , 11, 789-848	0.5	12

164	Study of the admittance hysteresis cycles in TiN/Ti/HfO ₂ /W-based RRAM devices. <i>Microelectronic Engineering</i> , 2017 , 178, 30-33	2.5	11
163	A Physical Model for the Statistics of the Set Switching Time of Resistive RAM Measured With the Width-Adjusting Pulse Operation Method. <i>IEEE Electron Device Letters</i> , 2015 , 36, 1303-1306	4.4	11
162	Analytic expression for the Fowler-Nordheim V^2 characteristic including the series resistance effect. <i>Solid-State Electronics</i> , 2011 , 61, 93-95	1.7	11
161	Analysis of the degradation and breakdown of thin SiO ₂ /sub 2/ films under static and dynamic tests using a two-step stress procedure. <i>IEEE Transactions on Electron Devices</i> , 2000 , 47, 2138-2145	2.9	11
160	Comparative study of the breakdown transients of thin Al ₂ O ₃ and HfO ₂ films in MIM structures and their connection with the thermal properties of materials. <i>Journal of Applied Physics</i> , 2017 , 121, 094102	2.5	10
159	Switching Voltage and Time Statistics of Filamentary Conductive Paths in HfO ₂ -Based ReRAM Devices. <i>IEEE Electron Device Letters</i> , 2018 , 39, 656-659	4.4	10
158	Coherent choice functions, desirability and indifference. <i>Fuzzy Sets and Systems</i> , 2018 , 341, 1-36	3.7	10
157	Modeling the breakdown statistics of Al ₂ O ₃ /HfO ₂ nanolaminates grown by atomic-layer-deposition. <i>Solid-State Electronics</i> , 2012 , 71, 48-52	1.7	10
156	Modeling of hysteretic Schottky diode-like conduction in Pt/BiFeO ₃ /SrRuO ₃ switches. <i>Applied Physics Letters</i> , 2014 , 105, 082904	3.4	10
155	Gate stack insulator breakdown when the interface layer thickness is scaled toward zero. <i>Applied Physics Letters</i> , 2010 , 97, 213503	3.4	10
154	A strong analogy between the dielectric breakdown of high-K gate stacks and the progressive breakdown of ultrathin oxides. <i>Journal of Applied Physics</i> , 2011 , 109, 124115	2.5	10
153	Method for extracting series resistance in MOS devices using Fowler-Nordheim plot. <i>Electronics Letters</i> , 2004 , 40, 1153	1.1	10
152	Switching events in the soft breakdown I^2 characteristic of ultra-thin SiO ₂ layers. <i>Microelectronics Reliability</i> , 1999 , 39, 161-164	1.2	10
151	Modeling of Short-Term Synaptic Plasticity Effects in ZnO Nanowire-Based Memristors Using a Potentiation-Depression Rate Balance Equation. <i>IEEE Nanotechnology Magazine</i> , 2020 , 19, 609-612	2.6	10
150	Analysis and control of the intermediate memory states of RRAM devices by means of admittance parameters. <i>Journal of Applied Physics</i> , 2018 , 124, 152101	2.5	10
149	Experimental study of the series resistance effect and its impact on the compact modeling of the conduction characteristics of HfO ₂ -based resistive switching memories. <i>Journal of Applied Physics</i> , 2021 , 130, 054503	2.5	10
148	Study on the Connection Between the Set Transient in RRAMs and the Progressive Breakdown of Thin Oxides. <i>IEEE Transactions on Electron Devices</i> , 2019 , 66, 3349-3355	2.9	9
147	Experimental Observation of Negative Susceptance in HfO ₂ -Based RRAM Devices. <i>IEEE Electron Device Letters</i> , 2017 , 38, 1216-1219	4.4	9

146	Equivalent Circuit Model for the Gate Leakage Current in Broken Down $\text{HfO}_2/\text{TaN/TiN}$ Gate Stacks. <i>IEEE Electron Device Letters</i> , 2008 , 29, 1353-1355	4.4	9
145	Modeling of the I_V characteristics of high-field stressed MOS structures using a Fowler-Nordheim-type tunneling expression. <i>Microelectronics Reliability</i> , 2002 , 42, 935-941	1.2	9
144	Lexicographic choice functions. <i>International Journal of Approximate Reasoning</i> , 2018 , 92, 97-119	3.6	9
143	Tailoring the Switching Dynamics in Yttrium Oxide-Based RRAM Devices by Oxygen Engineering: From Digital to Multi-Level Quantization toward Analog Switching. <i>Advanced Electronic Materials</i> , 2020 , 6, 2000439	6.4	9
142	. <i>IEEE Access</i> , 2020 , 8, 202174-202193	3.5	9
141	Effect of the voltage ramp rate on the set and reset voltages of ReRAM devices. <i>Microelectronic Engineering</i> , 2017 , 178, 61-65	2.5	8
140	Three-state resistive switching in HfO_2 -based RRAM. <i>Solid-State Electronics</i> , 2014 , 98, 38-44	1.7	8
139	An extension of the Curie-von Schweidler law for the leakage current decay in MIS structures including progressive breakdown. <i>Microelectronics Reliability</i> , 2011 , 51, 1535-1539	1.2	8
138	Degradation dynamics and breakdown of MgO gate oxides. <i>Microelectronic Engineering</i> , 2009 , 86, 1715-1717	1.7	8
137	Degradation analysis and characterization of multifilamentary conduction patterns in high-field stressed atomic-layer-deposited $\text{TiO}_2/\text{Al}_2\text{O}_3$ nanolaminates on GaAs. <i>Journal of Applied Physics</i> , 2012 , 112, 064113	2.5	8
136	A simple drain current model for Schottky-barrier carbon nanotube field effect transistors. <i>Nanotechnology</i> , 2007 , 18, 419001	3.4	8
135	Tunneling in sub-5 nm La_2O_3 films deposited by E-beam evaporation. <i>Journal of Non-Crystalline Solids</i> , 2006 , 352, 92-97	3.9	8
134	Degradation dynamics of ultrathin gate oxides subjected to electrical stress. <i>IEEE Electron Device Letters</i> , 2003 , 24, 604-606	4.4	8
133	Switching behavior of the soft breakdown conduction characteristic in ultra-thin (1998 ,		8
132	A common framework for soft and hard breakdown in ultrathin oxides based on the theory of point contact conduction. <i>Microelectronic Engineering</i> , 1999 , 48, 171-174	2.5	8
131	A new approach to analyze the degradation and breakdown of thin SiO_2 films under static and dynamic electrical stress. <i>IEEE Electron Device Letters</i> , 1999 , 20, 317-319	4.4	8
130	Analysis on the Filament Structure Evolution in Reset Transition of $\text{Cu}/\text{HfO}_2/\text{Pt}$ RRAM Device. <i>Nanoscale Research Letters</i> , 2016 , 11, 269	5	8
129	Compact Modeling of Complementary Resistive Switching Devices Using Memdiodes. <i>IEEE Transactions on Electron Devices</i> , 2019 , 66, 2831-2836	2.9	7

128	Quantum Point Contact Conduction 2016 , 197-224		7
127	Multiple Diode-Like Conduction in Resistive Switching SiO _x -Based MIM Devices. <i>IEEE Nanotechnology Magazine</i> , 2015 , 14, 15-17	2.6	7
126	Quantum point contact model of filamentary conduction in resistive switching memories 2012 ,		7
125	Nonhomogeneous spatial distribution of filamentary leakage current paths in circular area Pt/HfO ₂ /Pt capacitors. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2013 , 31, 01A107	1.3	7
124	Electrical characterization of the soft breakdown failure mode in MgO layers. <i>Applied Physics Letters</i> , 2009 , 95, 012901	3.4	7
123	Mesoscopic approach to progressive breakdown in ultrathin SiO ₂ layers. <i>Applied Physics Letters</i> , 2007 , 91, 053502	3.4	7
122	Analytic model for the post-breakdown conductance of sub-5-nm SiO ₂ /sub 2/ gate oxides. <i>IEEE Electron Device Letters</i> , 2005 , 26, 673-675	4.4	7
121	Post soft breakdown conduction in SiO ₂ /sub 2/ gate oxides		7
120	Analytic modeling of leakage current through multiple breakdown paths in SiO ₂ /sub 2/ films		7
119	Memristive State Equation for Bipolar Resistive Switching Devices Based on a Dynamic Balance Model and Its Equivalent Circuit Representation. <i>IEEE Nanotechnology Magazine</i> , 2020 , 19, 837-840	2.6	7
118	Modeling of the multilevel conduction characteristics and fatigue profile of Ag/La _{1/3} Ca _{2/3} MnO ₃ /Pt structures using a compact memristive approach. <i>Journal of Applied Physics</i> , 2017 , 121, 205302	2.5	6
117	Compact Modeling of the I-V Characteristics of ZnO Nanowires Including Nonlinear Series Resistance Effects. <i>IEEE Nanotechnology Magazine</i> , 2020 , 19, 297-300	2.6	6
116	Experimental Observation and Mitigation of Dielectric Screening in Hexagonal Boron Nitride Based Resistive Switching Devices. <i>Crystal Research and Technology</i> , 2018 , 53, 1800006	1.3	6
115	Modeling of the switching I-V characteristics in ultrathin (5 nm) atomic layer deposited HfO ₂ films using the logistic hysteron. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2015 , 33, 01A102	1.3	6
114	Analysis of the breakdown spots spatial distribution in large area MOS structures 2010 ,		6
113	An effective-field approach for the Fowler-Nordheim tunneling current through a metal-oxide-semiconductor charged barrier. <i>Journal of Applied Physics</i> , 1997 , 82, 1262-1265	2.5	6
112	SPICE model for the current-voltage characteristic of resistive switching devices including the snapback effect. <i>Microelectronic Engineering</i> , 2019 , 215, 110998	2.5	5
111	Device variability tolerance of a RRAM-based self-organizing neuromorphic system 2018 ,		5

110	Assessing the spatial correlation and conduction state of breakdown spot patterns in Pt/HfO ₂ /Pt structures using transient infrared thermography. <i>Journal of Applied Physics</i> , 2014 , 115, 174502	2.5	5
109	Identification of the generation/rupture mechanism of filamentary conductive paths in ReRAM devices using oxide failure analysis. <i>Microelectronics Reliability</i> , 2017 , 76-77, 178-183	1.2	5
108	A thorough investigation of the progressive reset dynamics in HfO ₂ -based resistive switching structures. <i>Applied Physics Letters</i> , 2015 , 107, 113507	3.4	5
107	Analysis of the breakdown spot spatial distribution in Pt/HfO ₂ /Pt capacitors using nearest neighbor statistics. <i>Journal of Applied Physics</i> , 2013 , 114, 154112	2.5	5
106	Soft breakdown in MgO dielectric layers 2009 ,		5
105	Porosity enhancement by the utilization of screening patterns in electro-perforated paper webs. <i>Journal of Electrostatics</i> , 2010 , 68, 196-199	1.7	5
104	A drain current model for Schottky-barrier CNT-FETs. <i>Journal of Computational Electronics</i> , 2007 , 5, 361-364		5
103	Breakdown and anti-breakdown events in high-field stressed ultrathin gate oxides. <i>Solid-State Electronics</i> , 2001 , 45, 1327-1332	1.7	5
102	Relation between defect generation, stress induced leakage current and soft breakdown in thin (. <i>Microelectronics Reliability</i> , 2000 , 40, 707-710	1.2	5
101	Conduction properties of breakdown paths in ultrathin gate oxides. <i>Microelectronics Reliability</i> , 2000 , 40, 687-690	1.2	5
100	Minimization of the Line Resistance Impact on Memdiode-Based Simulations of Multilayer Perceptron Arrays Applied to Pattern Recognition. <i>Journal of Low Power Electronics and Applications</i> , 2021 , 11, 9	1.7	5
99	Simulation of Cycle-to-Cycle Instabilities in SiO _x -Based ReRAM Devices Using a Self-Correlated Process With Long-Term Variation. <i>IEEE Electron Device Letters</i> , 2018 , 1-1	4.4	5
98	Spatial analysis of failure sites in large area MIM capacitors using wavelets. <i>Microelectronic Engineering</i> , 2017 , 178, 10-16	2.5	4
97	Exploratory study and application of the angular wavelet analysis for assessing the spatial distribution of breakdown spots in Pt/HfO ₂ /Pt structures. <i>Journal of Applied Physics</i> , 2017 , 122, 215304	2.5	4
96	2017 ,		4
95	On the properties of conducting filament in ReRAM 2014 ,		4
94	Failure Analysis of MIM and MIS Structures Using Point-to-Event Distance and Angular Probability Distributions. <i>IEEE Transactions on Device and Materials Reliability</i> , 2014 , 14, 1080-1090	1.6	4
93	Soft breakdown in irradiated high- γ -nanolaminates. <i>Microelectronic Engineering</i> , 2011 , 88, 1425-1427	2.5	4

92	Mesoscopic nature of the electron transport in electroformed metal-insulator-metal switches. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2011 , 29, 01AD05	1-3	4
91	Stress Conditions to Study the Reliability Characteristics of High-k Nanolaminates. <i>ECS Transactions</i> , 2012 , 49, 161-168	1	4
90	Electron transport through electrically induced nanoconstrictions in HfSiON gate stacks. <i>Applied Physics Letters</i> , 2008 , 92, 253505	3-4	4
89	Stochastic modeling of progressive breakdown in ultrathin SiO ₂ films. <i>Applied Physics Letters</i> , 2003 , 83, 5014-5016	3-4	4
88	Two-step stress methodology for monitoring the gate oxide degradation in MOS devices. <i>Solid-State Electronics</i> , 2001 , 45, 1317-1325	1-7	4
87	SPICE modeling of cycle-to-cycle variability in RRAM devices. <i>Solid-State Electronics</i> , 2021 , 185, 108040	1-7	4
86	SPICE Implementation of the Dynamic Memdiode Model for Bipolar Resistive Switching Devices.. <i>Micromachines</i> , 2022 , 13,	3-3	4
85	Quantum conductance in memristive devices: fundamentals, developments, and applications.. <i>Advanced Materials</i> , 2022 , e2201248	24	4
84	Assessing the Correlation Between Location and Size of Catastrophic Breakdown Events in High-K MIM Capacitors. <i>IEEE Transactions on Device and Materials Reliability</i> , 2019 , 19, 452-460	1-6	3
83	Breakdown time statistics of successive failure events in constant voltage-stressed Al ₂ O ₃ /HfO ₂ nanolaminates. <i>Microelectronic Engineering</i> , 2015 , 147, 85-88	2-5	3
82	Model for the Current-Voltage Characteristic of Resistive Switches Based on Recursive Hysteretic Operators. <i>IEEE Electron Device Letters</i> , 2015 , 36, 944-946	4-4	3
81	Threading dislocations in III-V semiconductors: Analysis of electrical conduction 2015 ,		3
80	Electrical characterization of multiple leakage current paths in HfO ₂ /Al ₂ O ₃ -based nanolaminates. <i>Microelectronics Reliability</i> , 2015 , 55, 1442-1445	1-2	3
79	Modeling of the temperature effects in filamentary-type resistive switching memories using quantum point-contact theory. <i>Journal Physics D: Applied Physics</i> , 2020 , 53, 295106	3	3
78	Modeling of the Tunneling Current in MOS Devices After Proton Irradiation Using a Nonlinear Series Resistance Correction. <i>IEEE Transactions on Nuclear Science</i> , 2011 , 58, 770-775	1-7	3
77	From dielectric failure to memory function: Learning from oxide breakdown for improved understanding of resistive switching memories 2011 ,		3
76	Effects of the Semiconductor Substrate Material on the Post-breakdown Current of MgO Dielectric Layers. <i>ECS Transactions</i> , 2009 , 25, 79-86	1	3
75	Consistent model for the voltage and temperature dependence of the soft breakdown conduction mechanism in ultrathin gate oxides. <i>Microelectronic Engineering</i> , 2004 , 72, 136-139	2-5	3

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