Francesco Iannuzzo

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

191	2,134	22	35
papers	citations	h-index	g-index

230	2,787	2.7	5.45
ext. papers	ext. citations	avg, IF	L-index

#	Paper	IF	Citations
191	Separation and Validation of Bond-Wire and Solder Layer Failure Modes in IGBT Modules. *IEEE Transactions on Industry Applications*, **2022**, 1-1	4.3	0
190	Online Junction Temperature and Current Simultaneous Extraction for SiC MOSFETs With Electroluminescence Effect. *IEEE Transactions on Power Electronics*, **2022**, 37, 21-25	7.2	4
189	A Fully Coupled Model of Multi-Chip Press-Pack IGBT for Thermo-Mechanical Stress Distribution Prediction. *IEEE Transactions on Industry Applications*, **2022**, 1-1	4.3	1
188	Improved Temperature Monitoring and Protection Method of Three-Level NPC Application Based on Half-Bridge IGBT Modules. *IEEE Access*, **2022**, 10, 35605-35619	3.5	1
187	Effect of Current Distortion and Unbalanced Loads on Semiconductors Reliability. *IEEE Access*, **2021**, 9, 162660-162670	3.5	1
186	Discontinuous Modulation for Improved Thermal Balance of Three-Level 1500-V Photovoltaic Inverters under Low-Voltage Ride-Through **2021**,		3
185	Voltage Balancing of Series IGBTs in Short-Circuit Conditions. *IEEE Transactions on Power Electronics*, **2021**, 1-1	7.2	0
184	Self-Sustained Turn-OFF Oscillation of Cascode GaN HEMTs: Occurrence Mechanism, Instability Analysis, and Oscillation Suppression. *IEEE Transactions on Power Electronics*, **2021**, 1-1	7.2	2
183	PV mission profile simplification method for power devices subjected to arid climates. *Microelectronics Reliability*, **2021**, 126, 114328	1.2	0
182	Two Decades of Condition Monitoring Methods for Power Devices. *Electronics (Switzerland)*, **2021**, 10, 683	2.6	6
181	Lifetime Evaluation of Three-Level Inverters for 1500-V Photovoltaic Systems. *IEEE Journal of Emerging and Selected Topics in Power Electronics*, **2021**, 9, 4285-4298	5.6	8
180	Intrusiveness of Power Device Condition Monitoring Methods: Introducing Figures of Merit for Condition Monitoring. *IEEE Industrial Electronics Magazine*, **2021**, 2-11	6.2	3
179	Switching Stability Analysis of Paralleled RC-IGBTs With Snapback Effect. *IEEE Transactions on Electron Devices*, **2021**, 68, 3429-3434	2.9	1
178	Thermal Modeling of Large Electrolytic Capacitors Using FEM and Considering the Internal Geometry. *IEEE Journal of Emerging and Selected Topics in Power Electronics*, **2021**, 9, 6315-6328	5.6	1
177	Study of moisture transport in silicone gel for IGBT modules. *Microelectronics Reliability*, **2020**, 114, 113773	1.2	0
176	Effect of short-circuit degradation on the remaining useful lifetime of SiC MOSFETs and its failure analysis. *Microelectronics Reliability*, **2020**, 114, 113784	1.2	2
175	Parameters sensitivity analysis of silicon carbide buck converters to extract features for condition monitoring. *Microelectronics Reliability*, **2020**, 114, 113910	1.2	0

174	Ensuring a Reliable Operation of Two-Level IGBT-Based Power Converters: A Review of Monitoring and Fault-Tolerant Approaches. *IEEE Access*, **2020**, 8, 89988-90022	3.5	16
173	Lifetime Analysis of Metallized Polypropylene Capacitors in Modular Multilevel Converter Based on Finite Element Method. *IEEE Journal of Emerging and Selected Topics in Power Electronics*, **2020**, 1-1	5.6	6
172	Thermal Mapping of Power Semiconductors in H-Bridge Circuit. *Applied Sciences (Switzerland)*, **2020**, 10, 4340	2.6	4
171	Cost-Effective Prognostics of IGBT Bond Wires With Consideration of Temperature Swing. *IEEE Transactions on Power Electronics*, **2020**, 35, 6773-6784	7.2	6
170	Elastic Half-Space Theory-Based Distributed-Press-Pack Packaging Technology for Power Module With Balanced Thermal Stress. *IEEE Journal of Emerging and Selected Topics in Power Electronics*, **2020**, 1-1	5.6	
169	Fault Investigation in Cascaded H-Bridge Multilevel Inverter through Fast Fourier Transform and Artificial Neural Network Approach. *Energies*, **2020**, 13, 1299	3.1	4
168	Separation of Bond-Wire and Solder Layer Failure Modes in IGBT Power Modules **2020**,		1
167	Discontinuous PWM for Online Condition Monitoring of SiC Power Modules. *IEEE Journal of Emerging and Selected Topics in Power Electronics*, **2020**, 8, 323-330	5.6	8
166	Impact of Repetitive Short-Circuit Tests on the Normal Operation of SiC MOSFETs Considering Case Temperature Influence. *IEEE Journal of Emerging and Selected Topics in Power Electronics*, **2020**, 8, 195-205	5.6	14
165	FEM-aided damage model calibration method for experimental results. *Microelectronics Reliability*, **2020**, 114, 113915	1.2	
164	A non-invasive SiC MOSFET Junction temperature estimation method based on the transient light Emission from the intrinsic body diode. *Microelectronics Reliability*, **2020**, 114, 113845	1.2	3
163	Role of Threshold Voltage Shift in Highly Accelerated Power Cycling Tests for SiC MOSFET Modules. *IEEE Journal of Emerging and Selected Topics in Power Electronics*, **2020**, 8, 1657-1667	5.6	23
162	Study of Current Density Influence on Bond Wire Degradation Rate in SiC MOSFET Modules. *IEEE Journal of Emerging and Selected Topics in Power Electronics*, **2020**, 8, 1622-1632	5.6	12
161	Compact Sandwiched Press-Pack SiC Power Module With Low Stray Inductance and Balanced Thermal Stress. *IEEE Transactions on Power Electronics*, **2020**, 35, 2237-2241	7.2	11
160	A New Lumped-Charge Modeling Method for Power Semiconductor Devices. *IEEE Transactions on Power Electronics*, **2020**, 35, 3989-3996	7.2	10
159	Comparative study of wire bond degradation under power and mechanical accelerated tests. *Journal of Materials Science: Materials in Electronics*, **2019**, 30, 17040-17045	2.1	3
158	Implications of short-circuit events on power cycling of 1.2-kV/20-A SiC MOSFET power modules. *Microelectronics Reliability*, **2019**, 100-101, 113373	1.2	3
157	Reliability analysis of sintered Cu joints for SiC power devices under thermal shock condition. *Microelectronics Reliability*, **2019**, 100-101, 113456	1.2	4

156	SiC MOSFET vs SiC/Si Cascode short circuit robustness benchmark. *Microelectronics Reliability*, **2019**, 100-101, 113429	1.2	5
155	Wear-out evolution analysis of multiple-bond-wires power modules based on thermo-electro-mechanical FEM simulation. *Microelectronics Reliability*, **2019**, 100-101, 113472	1.2	3
154	Impact of the Case Temperature on the Reliability of SiC MOSFETs Under Repetitive Short Circuit Tests **2019**,		5
153	A 3D Thermal Network Model for Monitoring Imbalanced Thermal Distribution of Press-Pack IGBT Modules in MMC-HVDC Applications. *Energies*, **2019**, 12, 1319	3.1	10
152	Implications of Ageing Through Power Cycling on the Short-Circuit Robustness of 1.2-kV SiC mosfets. *IEEE Transactions on Power Electronics*, **2019**, 34, 11182-11190	7.2	8
151	The Temperature Dependence of the Flatband Voltage in High-Power IGBTs. *IEEE Transactions on Industrial Electronics*, **2019**, 66, 5581-5584	8.9	15
150	. *IEEE Transactions on Industry Applications*, **2019**, 55, 6184-6192	4.3	23
149	Modeling of IGBT With High Bipolar Gain for Mitigating Gate Voltage Oscillations During Short Circuit. *IEEE Journal of Emerging and Selected Topics in Power Electronics*, **2019**, 7, 1584-1592	5.6	1
148	Impact of Solder Degradation on VCE of IGBT Module: Experiments and Modeling. *IEEE Journal of Emerging and Selected Topics in Power Electronics*, **2019**, 1-1	5.6	12
147	Reliability Analysis of a 3-leg 4-wire Inverter under Unbalanced Loads and Harmonic Injection **2019**,		2
146	Evaluating IGBT temperature evolution during short circuit operations using a TSEP-based method. *Microelectronics Reliability*, **2019**, 100-101, 113423	1.2	1
145	Impact of device aging in the compact electro-thermal modeling of SiC power MOSFETs. *Microelectronics Reliability*, **2019**, 100-101, 113336	1.2	6
144	Thermal Performance Evaluation of 1500-VDC Photovoltaic Inverters Under Constant Power Generation Operation **2019**,		3
143	Finite Element Modeling of IGBT Modules to Explore the Correlation between Electric Parameters and Damage in Bond Wires **2019**,		3
142	Enhancement of Thermo-mechanical Behavior of IGBT Modules through Engineered Threshold Voltages **2019**,		1
141	Mission-Profile-Based Lifetime Prediction for a SiC mosfet Power Module Using a Multi-Step Condition-Mapping Simulation Strategy. *IEEE Transactions on Power Electronics*, **2019**, 34, 9698-9708	7.2	28
140	A Lumped-Charge Approach Based Physical SPICE-Model for High Power Soft-Punch Through IGBT. *IEEE Journal of Emerging and Selected Topics in Power Electronics*, **2019**, 7, 62-70	5.6	17
139	Improving the Short-Circuit Reliability in IGBTs: How to Mitigate Oscillations. *IEEE Transactions on Power Electronics*, **2018**, 33, 5603-5612	7.2	11

138	Investigation and Classification of Short-Circuit Failure Modes Based on Three-Dimensional Safe Operating Area for High-Power IGBT Modules. *IEEE Transactions on Power Electronics*, **2018**, 33, 1075-1086	7.2	30
137	A temperature dependent lumped-charge model for trench FS-IGBT **2018**,		4
136	Lock-in Thermography Failure Detection on Multilayer Ceramic Capacitors After Flex Cracking and TemperatureHumidityBias Stress. *IEEE Journal of Emerging and Selected Topics in Power Electronics*, **2018**, 6, 2254-2261	5.6	4
135	Computer-aided engineering simulations **2018**, 199-223		2
134	. *IEEE Transactions on Industry Applications*, **2018**, 54, 1592-1601	4.3	25
133	Enabling Junction Temperature Estimation via Collector-Side Thermo-Sensitive Electrical Parameters Through Emitter Stray Inductance in High-Power IGBT Modules. *IEEE Transactions on Industrial Electronics*, **2018**, 65, 4724-4738	8.9	30
132	Investigating SiC MOSFET body diode's light emission as temperature-sensitive electrical parameter. *Microelectronics Reliability*, **2018**, 88-90, 627-630	1.2	10
131	Fast Electro-thermal Simulation Strategy for SiC MOSFETs Based on Power Loss Mapping **2018**,		3
130	Investigation on the degradation indicators of short-circuit tests in 1.2 kV SiC MOSFET power modules. *Microelectronics Reliability*, **2018**, 88-90, 661-665	1.2	6
129	Effect of short-circuit stress on the degradation of the SiO2 dielectric in SiC power MOSFETs. *Microelectronics Reliability*, **2018**, 88-90, 577-583	1.2	25
128	Online Condition Monitoring of Bond Wire Degradation in Inverter Operation **2018**,		5
127	Non-uniform Temperature Distribution Implications on Thermal Analysis Accuracy of Si IGBTs and SiC MOSFETs **2018**,		1
126	Simple and effective open switch fault diagnosis of single-phase PWM rectifier. *Microelectronics Reliability*, **2018**, 88-90, 423-427	1.2	4
125	Thermal modeling of wire-bonded power modules considering non-uniform temperature and electric current interactions. *Microelectronics Reliability*, **2018**, 88-90, 1135-1140	1.2	9
124	Power cycling test of transfer molded IGBT modules by advanced power cycler under different junction temperature swings. *Microelectronics Reliability*, **2018**, 88-90, 788-794	1.2	2
123	On-line solder layer degradation measurement for SiC-MOSFET modules under accelerated power cycling condition. *Microelectronics Reliability*, **2018**, 88-90, 563-567	1.2	14
122	Failure mechanism analysis of fuses subjected to manufacturing and operational thermal stresses. *Microelectronics Reliability*, **2018**, 88-90, 304-308	1.2	2
121	Smart SiC MOSFET accelerated lifetime testing. *Microelectronics Reliability*, **2018**, 88-90, 43-47	1.2	5

120	Investigation of acoustic emission as a non-invasive method for detection of power semiconductor aging. *Microelectronics Reliability*, **2018**, 88-90, 545-549	1.2	11
119	Failure Analysis of a Degraded 1.2 kV SiC MOSFET after Short Circuit at High Temperature **2018**,		5
118	IR Camera Validation of IGBT Junction Temperature Measurement via Peak Gate Current. *IEEE Transactions on Power Electronics*, **2017**, 32, 3099-3111	7.2	46
117	. *IEEE Transactions on Industry Applications*, **2017**, 53, 4788-4795	4.3	20
116	A fast electro-thermal co-simulation modeling approach for SiC power MOSFETs **2017**,		10
115	Separation test method for investigation of current density effects on bond wires of SiC power MOSFET modules **2017**,		10
114	Aging precursors and degradation effects of SiC-MOSFET modules under highly accelerated power cycling conditions **2017**,		20
113	Uneven temperature effect evaluation in high-power IGBT inverter legs and relative test platform design. *Microelectronics Reliability*, **2017**, 76-77, 123-130	1.2	4
112	Advanced power cycler with intelligent monitoring strategy of IGBT module under test. *Microelectronics Reliability*, **2017**, 76-77, 522-526	1.2	8
111	Die degradation effect on aging rate in accelerated cycling tests of SiC power MOSFET modules. *Microelectronics Reliability*, **2017**, 76-77, 415-419	1.2	14
110	Wire bond degradation under thermo- and pure mechanical loading. *Microelectronics Reliability*, **2017**, 76-77, 373-377	1.2	7
109	Capacitive effects in IGBTs limiting their reliability under short circuit. *Microelectronics Reliability*, **2017**, 76-77, 485-489	1.2	2
108	Short-circuit ruggedness assessment of a 1.2 kV/180 A SiC MOSFET power module **2017**,		9
107	A survey of SiC power MOSFETs short-circuit robustness and failure mode analysis. *Microelectronics Reliability*, **2017**, 76-77, 272-276	1.2	41
106	Reliability-oriented environmental thermal stress analysis of fuses in power electronics. *Microelectronics Reliability*, **2017**, 76-77, 25-30	1.2	6
105	Analytical and Experimental Investigation on A Dynamic Thermo-Sensitive Electrical Parameter With Maximum dI_{C}/dt During Turn-off for High Power Trench Gate/Field-Stop IGBT Modules. *IEEE Transactions on Power Electronics*, **2017**, 32, 6394-6404	7.2	26
104	. *IEEE Transactions on Industry Applications*, **2017**, 53, 2880-2887	4.3	56
103	Active thermal control by controlled shoot-through of power devices **2017**,		5

102	Comparative assessment of 3.3kV/400A SiC MOSFET and Si IGBT power modules **2017**,		5
101	Role of parasitic capacitances in power MOSFET turn-on switching speed limits: A SiC case study **2017**,		12
100	Development of PSpice modeling platform for 10 kV/100 A SiC MOSFET power module **2017**,		1
99	Compact electro-thermal modeling of a SiC MOSFET power module under short-circuit conditions **2017**,		5
98	Thermal stress mitigation by Active Thermal Control: Architectures, models and specific hardware **2017**,		10
97	Active thermal control for reliability improvement of MOS-gated power devices **2017**,		3
96	Elimination of bus voltage impact on temperature sensitive electrical parameter during turn-on transition for junction temperature estimation of high-power IGBT modules **2017**,		4
95	Impact of bending speed and setup on flex cracks in multilayer ceramic capacitors **2017**,		1
94	TCAD analysis of short-circuit oscillations in IGBTs **2017**,		2
93	Simultaneous On-State Voltage and Bond-Wire Resistance Monitoring of Silicon Carbide MOSFETs. *Energies*, **2017**, 10, 384	3.1	20
92	Effects of uneven temperature of IGBT and diode on switching characteristics of bridge legs in MW-level power converters **2016**,		2
91	Estimation method for turn-off collector voltage of IGBTs using emitter-auxiliary inductor **2016**,		2
90	A 3-D-Lumped Thermal Network Model for Long-Term Load Profiles Analysis in High-Power IGBT Modules. *IEEE Journal of Emerging and Selected Topics in Power Electronics*, **2016**, 4, 1050-1063	5.6	89
89	Modern IGBT gate driving methods for enhancing reliability of high-power converters An overview. *Microelectronics Reliability*, **2016**, 58, 141-150	1.2	15
88	IGBT Junction Temperature Measurement via Peak Gate Current. *IEEE Transactions on Power Electronics*, **2016**, 31, 3784-3793	7.2	73
87	Ultra-low inductance design for a GaN HEMT based 3L-ANPC inverter **2016**,		3
86	Loss distribution analysis of three-level active neutral-point-clamped (3L-ANPC) converter with different PWM strategies **2016**,		11
85	PSpice modeling platform for SiC power MOSFET modules with extensive experimental validation **2016**,		9

84	Development of Simulink-based SiC MOSFET modeling platform for series connected devices **2016**,		4
83	Prediction of short-circuit-related thermal stress in aged IGBT modules **2016**,		3
82	Reliability assessment of SiC power MOSFETs from the end user's perspective **2016**,		2
81	New layout concepts in MW-scale IGBT modules for higher robustness during normal and abnormal operations **2016**,		4
80	. *IEEE Journal of Emerging and Selected Topics in Power Electronics*, **2016**, 4, 956-969	5.6	19
79	A Temperature-Dependent Thermal Model of IGBT Modules Suitable for Circuit-Level Simulations. *IEEE Transactions on Industry Applications*, **2016**, 52, 3306-3314	4.3	50
78	Power cycling test and failure analysis of molded Intelligent Power IGBT Module under different temperature swing durations. *Microelectronics Reliability*, **2016**, 64, 403-408	1.2	30
77	Active gate driving method for reliability improvement of IGBTs via junction temperature swing reduction **2016**,		18
76	Mission-profile-based stress analysis of bond-wires in SiC power modules. *Microelectronics Reliability*, **2016**, 64, 419-424	1.2	17
75	Comparison of thermal runaway limits under different test conditions based on a 4.5kV IGBT. *Microelectronics Reliability*, **2016**, 64, 524-529	1.2	0
74	Analysis of Heavy Ion Irradiation Induced Thermal Damage in SiC Schottky Diodes. *IEEE Transactions on Nuclear Science*, **2015**, 62, 202-209	1.7	31
73	Junction temperature estimation method for a 600 V, 30A IGBT module during converter operation. *Microelectronics Reliability*, **2015**, 55, 2022-2026	1.2	35
72	Robustness of MW-Level IGBT modules against gate oscillations under short circuit events. *Microelectronics Reliability*, **2015**, 55, 1950-1955	1.2	14
71	Study on Oscillations During Short Circuit of MW-Scale IGBT Power Modules by Means of a 6-kA/1.1-kV Nondestructive Testing System. *IEEE Journal of Emerging and Selected Topics in Power Electronics*, **2015**, 3, 756-765	5.6	9
70	Experimental study of Single Event Effects induced by heavy ion irradiation in enhancement mode GaN power HEMT. *Microelectronics Reliability*, **2015**, 55, 1496-1500	1.2	15
69	Electro-thermal modeling of high power IGBT module short-circuits with experimental validation **2015**,		9
68	Reliability Oriented Design Tool For the New Generation of Grid Connected PV-Inverters. *IEEE Transactions on Power Electronics*, **2015**, 30, 2635-2644	7.2	106
67	A comprehensive investigation on the short circuit performance of MW-level IGBT power modules **2015**,		2

#	Publication	IF	Citations
66	Online junction temperature measurement using peak gate current **2015**,		12
65	Comprehensive investigation on current imbalance among parallel chips inside MW-scale IGBT power modules **2015**,		14
64	Experimental evaluation of IGBT junction temperature measurement via peak gate current **2015**,		8
63	Mechanoluminescence of nylon under high velocity impact. *Journal of Physics: Conference Series*, **2014**, 500, 182005	0.3	1
62	Round busbar concept for 30 nH, 1.7 kV, 10 kA IGBT non-destructive short-circuit tester **2014**,		6
61	Instabilities in Silicon Power Devices: A Review of Failure Mechanisms in Modern Power Devices. *IEEE Industrial Electronics Magazine*, **2014**, 8, 28-39	6.2	20
60	Online junction temperature measurement via internal gate resistance during turn-on **2014**,		24
59	Turn-off instabilities in large area IGBTs. *Microelectronics Reliability*, **2014**, 54, 1927-1934	1.2	
58	Thermal damage in SiC Schottky diodes induced by SE heavy ions. *Microelectronics Reliability*, **2014**, 54, 2200-2206	1.2	18
57	Developments on DC/DC converters for the LHC experiment upgrades. *Journal of Instrumentation*, **2014**, 9, C02017-C02017	1	13
56	Fast and Accurate Icepak-PSpice Co-Simulation of IGBTs under Short-Circuit with an Advanced PSpice Model **2014**,		2
55	Investigation on the short-circuit behavior of an aged IGBT module through a 6 kA/1.1 kV non-destructive testing equipment **2014**,		4
54	An Icepak-PSpice co-simulation method to study the impact of bond wires fatigue on the current and temperature distribution of IGBT modules under short-circuit **2014**,		9
53	The impact of gate-driver parameters variation and device degradation in the PV-inverter lifetime **2014**,		12
52	A temperature-dependent thermal model of IGBT modules suitable for circuit-level simulations **2014**,		8
51	Thermal instability during short circuit of normally-off AlGaN/GaN HFETs. *Microelectronics Reliability*, **2013**, 53, 1481-1485	1.2	17
50	Single-Event Effects in Power MOSFETs During Heavy Ion Irradiations Performed After Gamma-Ray Degradation. *IEEE Transactions on Nuclear Science*, **2013**, 60, 3793-3801	1.7	3
49	Catastrophic failure and fault-tolerant design of IGBT power electronic converters - an overview **2013**,		92

48	Scattering parameter approach applied to the stability analysis of power IGBTs in short circuit. *Microelectronics Reliability*, **2013**, 53, 1707-1712	1.2	2
47	A time-resolved IBICC experiment using the IEEM of the SIRAD facility. *Nuclear Instruments & Methods in Physics Research B*, **2012**, 273, 234-236	1.2	3
46	Reliability oriented design of power supplies for high energy physics applications. *Microelectronics Reliability*, **2012**, 52, 2465-2470	1.2	11
45	Unclamped repetitive stress on 1200 V normally-off SiC JFETs. *Microelectronics Reliability*, **2012**, 52, 2420-2425	1.2	5
44	Behavior of power MOSFETs during heavy ions irradiation performed after □-rays exposure. *Microelectronics Reliability*, **2012**, 52, 2363-2367	1.2	0
43	Power converters for future LHC experiments. *Journal of Instrumentation*, **2012**, 7, C03012-C03012	1	12
42	Power supply distribution system for calorimeters at the LHC beyond the nominal luminosity. *Journal of Instrumentation*, **2011**, 6, P06005-P06005	1	11
41	A new test methodology for an exhaustive study of single-event-effects on power MOSFETs. *Microelectronics Reliability*, **2011**, 51, 1995-1998	1.2	3
40	Operation of SiC normally-off JFET at the edges of its safe operating area. *Microelectronics Reliability*, **2011**, 51, 1767-1772	1.2	12
39	Effects of back-side He irradiation on MOS-GTO performances **2011**,		1
38	High-Voltage, High-Performance Switch Using Series-Connected IGBTs. *IEEE Transactions on Power Electronics*, **2010**, 25, 2450-2459	7.2	65
37	Experimental study and numerical investigation on the formation of single event gate damages induced on medium voltage power MOSFET. *Microelectronics Reliability*, **2010**, 50, 1842-1847	1.2	13
36	IGBT RBSOA non-destructive testing methods: Analysis and discussion. *Microelectronics Reliability*, **2010**, 50, 1731-1737	1.2	12
35	Instable mechanisms during unclamped operation of high power IGBT modules. *Microelectronics Reliability*, **2009**, 49, 1363-1369	1.2	9
34	Experimental study about gate oxide damages in patterned MOS capacitor irradiated with heavy ions. *Microelectronics Reliability*, **2009**, 49, 1033-1037	1.2	2
33	The role of the charge generated during heavy ion irradiation in the gate damage of medium voltage power MOSFET **2009**,		3
32	Heavy-Ion Induced Single Event Gate Damage in Medium Voltage Power MOSFETs. *IEEE Transactions on Nuclear Science*, **2009**, 56, 3573-3581	1.7	13
31	High voltage, high performance switch using series connected IGBTs. *Power Electronics Specialist Conference (PESC), IEEE*, **2008**,		7

30	Race-Control Algorithm for the Full-Bridge PRCP Converter Using Cost-Effective FPGAs. *IEEE Transactions on Industrial Electronics*, **2008**, 55, 1519-1526	8.9	5
29	Experimental analysis of energy consumption by MobileDDR memory for mobile applications **2008**,		1
28	A 3-D simulation study about Single Event Gate damage in medium voltage power MOSFET **2008**,		4
27	Experimental evidence of "latent gate oxide damages" in medium voltage power MOSFET as a result of heavy ions exposure. *Microelectronics Reliability*, **2008**, 48, 1306-1309	1.2	7
26	High performance, FPGA-based test apparatus for unclamped inductive switching of IGBTs. *Microelectronics Reliability*, **2008**, 48, 1449-1452	1.2	2
25	IGBT modules robustness during turn-off commutation. *Microelectronics Reliability*, **2008**, 48, 1435-1439	1.2	9
24	Experimental characterisation of high efficiency resonant gate driver circuit **2007**,		2
23	The robustness of series-connected high power IGBT modules. *Microelectronics Reliability*, **2007**, 47, 1746-1750	1.2	4
22	Experimental study of power MOSFET's gate damage in radiation environment. *Microelectronics Reliability*, **2006**, 46, 1854-1857	1.2	6
21	Investigation of MOSFET failure in soft-switching conditions. *Microelectronics Reliability*, **2006**, 46, 1790-1794	1.2	3
20	The high frequency behaviour of high voltage and current IGBT modules. *Microelectronics Reliability* , **2006**, 46, 1848-1853	1.2	2
19	Experimental and 3D Simulation Study on the Role of the Parasitic BJT Activation in SEB/SEGR of Power MOSFET. *European Conference on Radiation and Its Effects on Components and Systems, Proceedings of the*, **2005**,		6
18	EMI analysis in high power converters for traction application **2005**,		6
17	Series connection of high power IGBT modules for traction applications **2005**,		22
16	Non-destructive Testing Technique for MOSFET's Characterisation during Soft-Switching ZVS Operations. *Microelectronics Reliability*, **2005**, 45, 1738-1741	1.2	3
15	Experimental and Numerical investigation about SEB/SEGR of Power MOSFET. *Microelectronics Reliability*, **2005**, 45, 1711-1716	1.2	21
14	Analysis and optimisation through innovative driving strategy of high power IGBT performances/EMI reduction trade-off for converter systems in railway applications. *Microelectronics Reliability*, **2004**, 44, 1443-1448	1.2	8
13	Physical CAD model for high-voltage IGBTs based on lumped-charge approach. *IEEE Transactions on Power Electronics*, **2004**, 19, 885-893	7.2	38

12	MAGFET based current sensing for power integrated circuit. *Microelectronics Reliability*, **2003**, 43, 577-583	1.2	17
11	Experimental study of charge generation mechanisms in power MOSFETs due to energetic particle impact. *Microelectronics Reliability*, **2003**, 43, 549-555	1.2	3
10	The Reliability of New Generation Power MOSFETs in Radiation Environment. *Microelectronics Reliability*, **2002**, 42, 1629-1634	1.2	3
9	Non-destructive high temperature characterisation of high-voltage IGBTs. *Microelectronics Reliability*, **2002**, 42, 1635-1640	1.2	12
8	Measurement of the BJT activation current during the reverse recovery of power MOSFET's drain-source diode. *IEEE Transactions on Electron Devices*, **2001**, 48, 391-393	2.9	5
7	Non-destructive tester for single event burnout of power diodes. *Microelectronics Reliability*, **2001**, 41, 1725-1729	1.2	5
6	A lumped-charge model for gate turn-off thyristors suitable for circuit simulation. *Microelectronics Journal*, **1999**, 30, 543-550	1.8	7
5	Experimental and numerical investigation on MOSFET's failure during reverse recovery of its internal diode. *IEEE Transactions on Electron Devices*, **1999**, 46, 1268-1273	2.9	17
4	EMI Characterisation of high power IGBT modules for Traction Application		11
3	Characterisation of high-voltage IGBT modules at high temperature and high currents		1
2	Lumped charge PSPICE model for high-voltage IGBTs		7
1	Effects of heavy ion impact on power diodes		1