

Christian Uhrenfeldt

List of Publications by Year in descending order

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1,000
citations

687363

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h-index

610901

24
g-index

45
all docs

45
docs citations

45
times ranked

1000
citing authors

#	ARTICLE	IF	CITATIONS
1	Influences of Device and Circuit Mismatches on Paralleling Silicon Carbide MOSFETs. IEEE Transactions on Power Electronics, 2016, 31, 621-634.	7.9	204
2	A Fast-Switching Integrated Full-Bridge Power Module Based on GaN eHEMT Devices. IEEE Transactions on Power Electronics, 2019, 34, 2494-2504.	7.9	61
3	Short-Circuit Degradation of 10-kV 10-A SiC MOSFET. IEEE Transactions on Power Electronics, 2017, 32, 9342-9354.	7.9	59
4	Aluminum nanoparticles for plasmon-improved coupling of light into silicon. Nanotechnology, 2012, 23, 085202.	2.6	48
5	Power cycling test and failure analysis of molded Intelligent Power IGBT Module under different temperature swing durations. Microelectronics Reliability, 2016, 64, 403-408.	1.7	48
6	Impact of Power Module Parasitic Capacitances on Medium-Voltage SiC MOSFETs Switching Transients. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2020, 8, 298-310.	5.4	48
7	Physics-Based Modeling of Parasitic Capacitance in Medium-Voltage Filter Inductors. IEEE Transactions on Power Electronics, 2021, 36, 829-843.	7.9	37
8	Self-assembled Al nanoparticles on Si and fused silica, and their application for Si solar cells. Nanotechnology, 2013, 24, 275606.	2.6	36
9	Gate driver with high common mode rejection and self turn-on mitigation for a 10 kV SiC MOSFET enabled MV converter. , 2017, , .		36
10	Broadband photocurrent enhancement and light-trapping in thin film Si solar cells with periodic Al nanoparticle arrays on the front. Optics Express, 2015, 23, A525.	3.4	33
11	Near-infrared-ultraviolet absorption cross sections for Ge nanocrystals in SiO ₂ thin films: Effects of shape and layer structure. Journal of Applied Physics, 2011, 109, .	2.5	31
12	Conduction, reverse conduction and switching characteristics of GaN E-HEMT. , 2015, , .		29
13	Modeling of Short-Circuit-Related Thermal Stress in Aged IGBT Modules. IEEE Transactions on Industry Applications, 2017, 53, 4788-4795.	4.9	28
14	Overview of Digital Design and Finite-Element Analysis in Modern Power Electronic Packaging. IEEE Transactions on Power Electronics, 2020, 35, 10892-10905.	7.9	28
15	Reduction of parasitic capacitance in 10 kV SiC MOSFET power modules using 3D FEM. , 2017, , .		26
16	Common mode current mitigation for medium voltage half bridge SiC modules. , 2017, , .		22
17	Failure mechanism analysis of a discrete 650V enhancement mode GaN-on-Si power device with reverse conduction accelerated power cycling test. , 2017, , .		17
18	Switching current imbalance mitigation in power modules with parallel connected SiC MOSFETs. , 2017, , .		16

#	ARTICLE	IF	CITATIONS
19	Demonstration of a 10 kV SiC MOSFET based Medium Voltage Power Stack. , 2020, , .		15
20	Parasitic Capacitance Modeling of Inductors Without Using the Floating Voltage Potential of Core. IEEE Transactions on Industrial Electronics, 2022, 69, 3214-3222.	7.9	14
21	Design of low impedance busbar for 10 kV, 100A 4H-SiC MOSFET short-circuit tester using axial capacitors. , 2015, , .		12
22	Vce as early indicator of IGBT module failure mode. , 2017, , .		12
23	Power cycling test of a 650 V discrete GaN-on-Si power device with a laminated packaging embedding technology. , 2017, , .		11
24	Modeling and Design of a 1.2 pF Common-Mode Capacitance Transformer for Powering MV SiC MOSFETs Gate Drivers. , 2019, , .		11
25	Loss Prediction of Medium Voltage Power Modules: Trade-offs between Accuracy and Complexity. , 2019, , .		11
26	Optical transmission through two-dimensional arrays of Sn nanoparticles. Physical Review B, 2011, 84, .	3.2	10
27	Evaluation of <i>in situ</i> Thermomechanical Stress "Strain in Power Modules Using Laser Displacement Sensors. IEEE Transactions on Power Electronics, 2021, 36, 9411-9418.	7.9	10
28	Thermal Characteristics and Simulation of an Integrated GaN eHEMT Power Module. , 2019, , .		9
29	Development of a current source resonant inverter for high current MHz induction heating. IET Power Electronics, 2022, 15, 1-10.	2.1	9
30	Interaction between Au nanoparticles and Er ³⁺ ions in a TiO ₂ matrix: Up-conversion of infrared light. Energy Procedia, 2011, 10, 111-116.	1.8	8
31	Plasmonic Properties of Sn Nanoparticles in Ordered and Disordered Arrangements. Plasmonics, 2013, 8, 153-158.	3.4	7
32	Tuning Plasmon Resonances for Light Coupling into Silicon: a "Rule of Thumb" for Experimental Design. Plasmonics, 2013, 8, 79-84.	3.4	7
33	How Can a Cutting-Edge Gallium Nitride High-Electron-Mobility Transistor Encounter Catastrophic Failure Within the Acceptable Temperature Range?. IEEE Transactions on Power Electronics, 2020, 35, 6711-6718.	7.9	7
34	High-frequency resonant operation of an integrated medium-voltage SiC MOSFET power module. IET Power Electronics, 2020, 13, 475-482.	2.1	7
35	10kV SiC MOSFET split output power module. , 2015, , .		6
36	Mitigation measures of the electric field in the medium-voltage power module: Effect of voltage types and recommendations for designers. High Voltage, 2021, 6, 836-849.	4.7	6

#	ARTICLE	IF	CITATIONS
37	Behavioral Modeling of Ground Current in Filter Inductors of Medium-Voltage SiC-MOSFET-Based Converters. , 2020, , .		4
38	Performance evaluation of lithium-ion batteries (LiFePO ₄ cathode) from novel perspectives using a new figure of merit, temperature distribution analysis, and cell package analysis. Journal of Energy Storage, 2021, 44, 103413.	8.1	4
39	Prediction of short-circuit-related thermal stress in aged IGBT modules. , 2016, , .		3
40	Performance assessment of commercial gallium nitride-on-silicon discrete power devices with figure of merit. , 2016, , .		3
41	Challenges and opportunities in the utilization of WBG devices for efficient MHz power generation. , 2019, , .		3
42	Statistical Method of Estimating Semiconductor Switching Transition Time Enabling Condition Monitoring of Megawatt Converters. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 3654-3665.	4.7	3
43	Modulation limit of bootstrap power supply circuits: case study of a three level T-type converter. , 2019, , .		1
44	The 24th Nordic Semiconductor Meeting. Physica Scripta, 2012, 2012, 010101.	2.5	0
45	Development of a class D resonant power converter for radio frequency heating. , 2016, , .		0