

Christian Uhrenfeldt

List of Publications by Year in descending order

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45
papers

1,000
citations

687363

13
h-index

610901

24
g-index

45
all docs

45
docs citations

45
times ranked

1000
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	Development of a current source resonant inverter for high current MHz induction heating. IET Power Electronics, 2022, 15, 1-10.	2.1	9
3	Physics-Based Modeling of Parasitic Capacitance in Medium-Voltage Filter Inductors. IEEE Transactions on Power Electronics, 2021, 36, 829-843.	7.9	37
4	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
5	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
6	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
7	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
8	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
9	Behavioral Modeling of Ground Current in Filter Inductors of Medium-Voltage SiC-MOSFET-Based Converters. , 2020, , .		4
10	Demonstration of a 10 kV SiC MOSFET based Medium Voltage Power Stack. , 2020, , .		15
11	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
12	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
13	High-frequency resonant operation of an integrated medium-voltage SiC MOSFET power module. IET Power Electronics, 2020, 13, 475-482.	2.1	7
14	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
15	Modeling and Design of a 1.2 pF Common-Mode Capacitance Transformer for Powering MV SiC MOSFETs Gate Drivers. , 2019, , .		11
16	Challenges and opportunities in the utilization of WBG devices for efficient MHz power generation. , 2019, , .		3
17	Thermal Characteristics and Simulation of an Integrated GaN eHEMT Power Module. , 2019, , .		9
18	Loss Prediction of Medium Voltage Power Modules: Trade-offs between Accuracy and Complexity. , 2019, , .		11

#	ARTICLE	IF	CITATIONS
19	Modulation limit of bootstrap power supply circuits: case study of a three level T-type converter. , 2019, , .		1
20	Short-Circuit Degradation of 10-kV 10-A SiC MOSFET. IEEE Transactions on Power Electronics, 2017, 32, 9342-9354.	7.9	59
21	Modeling of Short-Circuit-Related Thermal Stress in Aged IGBT Modules. IEEE Transactions on Industry Applications, 2017, 53, 4788-4795.	4.9	28
22	Failure mechanism analysis of a discrete 650V enhancement mode GaN-on-Si power device with reverse conduction accelerated power cycling test. , 2017, , .		17
23	Vce as early indicator of IGBT module failure mode. , 2017, , .		12
24	Reduction of parasitic capacitance in 10 kV SiC MOSFET power modules using 3D FEM. , 2017, , .		26
25	Gate driver with high common mode rejection and self turn-on mitigation for a 10 kV SiC MOSFET enabled MV converter. , 2017, , .		36
26	Switching current imbalance mitigation in power modules with parallel connected SiC MOSFETs. , 2017, , .		16
27	Power cycling test of a 650 V discrete GaN-on-Si power device with a laminated packaging embedding technology. , 2017, , .		11
28	Common mode current mitigation for medium voltage half bridge SiC modules. , 2017, , .		22
29	Prediction of short-circuit-related thermal stress in aged IGBT modules. , 2016, , .		3
30	Performance assessment of commercial gallium nitride-on-silicon discrete power devices with figure of merit. , 2016, , .		3
31	Development of a class D resonant power converter for radio frequency heating. , 2016, , .		0
32	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
33	Influences of Device and Circuit Mismatches on Paralleling Silicon Carbide MOSFETs. IEEE Transactions on Power Electronics, 2016, 31, 621-634.	7.9	204
34	Conduction, reverse conduction and switching characteristics of GaN E-HEMT. , 2015, , .		29
35	10kV SiC MOSFET split output power module. , 2015, , .		6
36	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

#	ARTICLE	IF	CITATIONS
37	Design of low impedance busbar for 10 kV, 100A 4H-SiC MOSFET short-circuit tester using axial capacitors. , 2015, , .		12
38	Plasmonic Properties of I^2 -Sn Nanoparticles in Ordered and Disordered Arrangements. Plasmonics, 2013, 8, 153-158.	3.4	7
39	Tuning Plasmon Resonances for Light Coupling into Silicon: a "Rule of Thumb" for Experimental Design. Plasmonics, 2013, 8, 79-84.	3.4	7
40	Self-assembled Al nanoparticles on Si and fused silica, and their application for Si solar cells. Nanotechnology, 2013, 24, 275606.	2.6	36
41	The 24th Nordic Semiconductor Meeting. Physica Scripta, 2012, 2012, 010101.	2.5	0
42	Aluminum nanoparticles for plasmon-improved coupling of light into silicon. Nanotechnology, 2012, 23, 085202.	2.6	48
43	Optical transmission through two-dimensional arrays of I^2 -Sn nanoparticles. Physical Review B, 2011, 84, .	3.2	10
44	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
45	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