

Amir Sajjad Bahman

List of Publications by Year in descending order

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789
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#	ARTICLE	IF	CITATIONS
1	Improved Temperature Monitoring and Protection Method of Three-Level NPC Application Based on Half-Bridge IGBT Modules. IEEE Access, 2022, 10, 35605-35619.	4.2	4
2	An Online Identification Method of Thermal Dissipation State for Forced Air-Cooled System of Power Converters. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2022, 10, 7677-7690.	5.4	2
3	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, 2021, 9, 4248-4259.	5.4	20
4	Active Power Cycling Test Bench for SiC Power MOSFETs Principles, Design, and Implementation. IEEE Transactions on Power Electronics, 2021, 36, 2661-2675.	7.9	33
5	Power electronic converter reliability and prognosis review focusing on power switch module failures. Journal of Power Electronics, 2021, 21, 865-880.	1.5	24
6	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.	5.4	9
7	An Extended Multilayer Thermal Model for Multichip IGBT Modules Considering Thermal Aging. IEEE Access, 2021, 9, 84217-84230.	4.2	13
8	A Review on IGBT Module Failure Modes and Lifetime Testing. IEEE Access, 2021, 9, 9643-9663.	4.2	74
9	Effect of Current Distortion and Unbalanced Loads on Semiconductors Reliability. IEEE Access, 2021, 9, 162660-162670.	4.2	1
10	Compact Sandwiched Press-Pack SiC Power Module With Low Stray Inductance and Balanced Thermal Stress. IEEE Transactions on Power Electronics, 2020, 35, 2237-2241.	7.9	24
11	Frozen Leg Operation of a Three-Phase Dual Active Bridge Converter. IEEE Transactions on Power Electronics, 2019, 34, 4239-4248.	7.9	17
12	A Methodology for Rapid Estimation of Junction Temperature of Power Semiconductors Considering Mission Profiles. , 2019, , .		0
13	Reliability Analysis of a 3-leg 4-wire Inverter under Unbalanced Loads and Harmonic Injection. , 2019, , .		4
14	Impact of device aging in the compact electro-thermal modeling of SiC power MOSFETs. Microelectronics Reliability, 2019, 100-101, 113336.	1.7	15
15	Wear-out evolution analysis of multiple-bond-wires power modules based on thermo-electro-mechanical FEM simulation. Microelectronics Reliability, 2019, 100-101, 113472.	1.7	4
16	Reliability analysis of sintered Cu joints under power cycle condition. , 2019, , .		0
17	Lifetime Estimation and Failure Risk Analysis in a Power Stage Used in Wind-Fuel Cell Hybrid Energy Systems. Electronics (Switzerland), 2019, 8, 1412.	3.1	18
18	Loss and Thermal Analysis of a 100 kW Converter Module Mounted on a Cold-Plate for Fast Charging Applications. , 2019, , .		1

#	ARTICLE	IF	CITATIONS
19	Finite Element Modeling of IGBT Modules to Explore the Correlation between Electric Parameters and Damage in Bond Wires. , 2019, , .		9
20	Enhancement of Thermo-mechanical Behavior of IGBT Modules through Engineered Threshold Voltages. , 2019, , .		2
21	Fuzzy-Logic-Based Mean Time to Failure (MTTF) Analysis of Interleaved Dc-Dc Converters Equipped with Redundant-Switch Configuration. Applied Sciences (Switzerland), 2019, 9, 88.	2.5	15
22	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.	7.9	54
23	A Busbar Integrated SiC-based Converter with Embedded Heat-pipes. , 2019, , .		1
24	A Lumped Thermal Model Including Thermal Coupling and Thermal Boundary Conditions for High-Power IGBT Modules. IEEE Transactions on Power Electronics, 2018, 33, 2518-2530.	7.9	172
25	Non-uniform Temperature Distribution Implications on Thermal Analysis Accuracy of Si IGBTs and SiC MOSFETs. , 2018, , .		3
26	Thermal modeling of wire-bonded power modules considering non-uniform temperature and electric current interactions. Microelectronics Reliability, 2018, 88-90, 1135-1140.	1.7	15
27	Failure mechanism analysis of fuses subjected to manufacturing and operational thermal stresses. Microelectronics Reliability, 2018, 88-90, 304-308.	1.7	2
28	Frozen leg operation of a three-phase dual active bridge DC/DC converter at light loads. , 2018, , .		1
29	Computer-aided engineering simulations. , 2018, , 199-223.		4
30	Modeling of Short-Circuit-Related Thermal Stress in Aged IGBT Modules. IEEE Transactions on Industry Applications, 2017, 53, 4788-4795.	4.9	28
31	Fuse modeling for reliability study of power electronic circuits. , 2017, , .		5
32	A fast electro-thermal co-simulation modeling approach for SiC power MOSFETs. , 2017, , .		18
33	Reliability-oriented environmental thermal stress analysis of fuses in power electronics. Microelectronics Reliability, 2017, 76-77, 25-30.	1.7	9
34	Compact electro-thermal modeling of a SiC MOSFET power module under short-circuit conditions. , 2017, , .		7
35	Prediction of short-circuit-related thermal stress in aged IGBT modules. , 2016, , .		3
36	General 3D lumped thermal model with various boundary conditions for high power IGBT modules. , 2016, , .		15

#	ARTICLE	IF	CITATIONS
37	Mission-profile-based stress analysis of bond-wires in SiC power modules. <i>Microelectronics Reliability</i> , 2016, 64, 419-424.	1.7	27
38	Optimization tool for direct water cooling system of high power IGBT modules. , 2016, , .		18
39	Electrical parasitics and thermal modeling for optimized layout design of high power SiC modules. , 2016, , .		16
40	A 3-D-Lumped Thermal Network Model for Long-Term Load Profiles Analysis in High-Power IGBT Modules. <i>IEEE Journal of Emerging and Selected Topics in Power Electronics</i> , 2016, 4, 1050-1063.	5.4	131
41	Complete Loss and Thermal Model of Power Semiconductors Including Device Rating Information. <i>IEEE Transactions on Power Electronics</i> , 2015, 30, 2556-2569.	7.9	154
42	Evaluation of current stresses in nine-switch energy conversion systems. <i>IET Power Electronics</i> , 2014, 7, 2877-2886.	2.1	14
43	Loss comparison of different nine-switch and twelve-switch energy conversion systems. , 2014, , .		2
44	Comparison between 9-level hybrid asymmetric and conventional multi-level inverters for medium voltage application. , 2013, , .		6