

# Huai Wang

## List of Publications by Year in descending order

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322  
papers

10,403  
citations

71102

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46799

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g-index

327  
all docs

327  
docs citations

327  
times ranked

5466  
citing authors

#	ARTICLE	IF	CITATIONS
1	Reliability of Capacitors for DC-Link Applications in Power Electronic Converters—An Overview. IEEE Transactions on Industry Applications, 2014, 50, 3569-3578.	4.9	999
2	Transitioning to Physics-of-Failure as a Reliability Driver in Power Electronics. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2014, 2, 97-114.	5.4	681
3	Toward Reliable Power Electronics: Challenges, Design Tools, and Opportunities. IEEE Industrial Electronics Magazine, 2013, 7, 17-26.	2.6	668
4	An Overview of Artificial Intelligence Applications for Power Electronics. IEEE Transactions on Power Electronics, 2021, 36, 4633-4658.	7.9	354
5	Low-Voltage Ride-Through of Single-Phase Transformerless Photovoltaic Inverters. IEEE Transactions on Industry Applications, 2014, 50, 1942-1952.	4.9	288
6	Wide-Scale Adoption of Photovoltaic Energy: Grid Code Modifications Are Explored in the Distribution Grid. IEEE Industry Applications Magazine, 2015, 21, 21-31.	0.4	220
7	Design for reliability of power electronic systems. , 2012, , .		210
8	Reactive Power Injection Strategies for Single-Phase Photovoltaic Systems Considering Grid Requirements. IEEE Transactions on Industry Applications, 2014, 50, 4065-4076.	4.9	207
9	A Robust Passive Damping Method for LLCL-Filter-Based Grid-Tied Inverters to Minimize the Effect of Grid Harmonic Voltages. IEEE Transactions on Power Electronics, 2014, 29, 3279-3289.	7.9	201
10	Use of a Series Voltage Compensator for Reduction of the DC-Link Capacitance in a Capacitor-Supported System. IEEE Transactions on Power Electronics, 2014, 29, 1163-1175.	7.9	189
11	A Review of the Condition Monitoring of Capacitors in Power Electronic Converters. IEEE Transactions on Industry Applications, 2016, 52, 4976-4989.	4.9	182
12	Reliability Oriented Design Tool For the New Generation of Grid Connected PV-Inverters. IEEE Transactions on Power Electronics, 2015, 30, 2635-2644.	7.9	157
13	Review on reliability of supercapacitors in energy storage applications. Applied Energy, 2020, 278, 115436.	10.1	156
14	A Hybrid Power Control Concept for PV Inverters With Reduced Thermal Loading. IEEE Transactions on Power Electronics, 2014, 29, 6271-6275.	7.9	152
15	Power control flexibilities for grid-connected multi-functional photovoltaic inverters. IET Renewable Power Generation, 2016, 10, 504-513.	3.1	150
16	Catastrophic failure and fault-tolerant design of IGBT power electronic converters - an overview. , 2013, , .		145
17	Mission Profile Based System-Level Reliability Analysis of DC/DC Converters for a Backup Power Application. IEEE Transactions on Power Electronics, 2018, 33, 8030-8039.	7.9	144
18	Frequency Adaptive Selective Harmonic Control for Grid-Connected Inverters. IEEE Transactions on Power Electronics, 2015, 30, 3912-3924.	7.9	142

#	ARTICLE	IF	CITATIONS
19	New Approaches to Reliability Assessment: Using physics-of-failure for prediction and design in power electronics systems. IEEE Power Electronics Magazine, 2016, 3, 28-41.	0.7	132
20	Prediction of Bond Wire Fatigue of IGBTs in a PV Inverter under a Long-Term Operation. IEEE Transactions on Power Electronics, 2015, , 1-1.	7.9	128
21	A Digital Twin Based Estimation Method for Health Indicators of DC-DC Converters. IEEE Transactions on Power Electronics, 2021, 36, 2105-2118.	7.9	121
22	Lifetime Estimation of DC-Link Capacitors in Adjustable Speed Drives Under Grid Voltage Unbalances. IEEE Transactions on Power Electronics, 2019, 34, 4064-4078.	7.9	118
23	An Overview of Condition Monitoring Techniques for Capacitors in DC-Link Applications. IEEE Transactions on Power Electronics, 2021, 36, 3692-3716.	7.9	111
24	On the Stability of Power Electronics-Dominated Systems: Challenges and Potential Solutions. IEEE Transactions on Industry Applications, 2019, 55, 7657-7670.	4.9	109
25	Benchmarking of Constant Power Generation Strategies for Single-Phase Grid-Connected Photovoltaic Systems. IEEE Transactions on Industry Applications, 2018, 54, 447-457.	4.9	96
26	A Temperature-Dependent Thermal Model of IGBT Modules Suitable for Circuit-Level Simulations. IEEE Transactions on Industry Applications, 2016, 52, 3306-3314.	4.9	85
27	Simplified Thermal Modeling for IGBT Modules With Periodic Power Loss Profiles in Modular Multilevel Converters. IEEE Transactions on Industrial Electronics, 2019, 66, 2323-2332.	7.9	85
28	An Overview of Capacitive DC-Links-Topology Derivation and Scalability Analysis. IEEE Transactions on Power Electronics, 2020, 35, 1805-1829.	7.9	83
29	Reliability of Power Electronic Systems for EV/HEV Applications. Proceedings of the IEEE, 2021, 109, 1060-1076.	21.3	80
30	A ZCS Current-Fed Full-Bridge PWM Converter With Self-Adaptable Soft-Switching Snubber Energy. IEEE Transactions on Power Electronics, 2009, 24, 1977-1991.	7.9	75
31	Analysis and Mitigation of Dead-Time Harmonics in the Single-Phase Full-Bridge PWM Converter With Repetitive Controllers. IEEE Transactions on Industry Applications, 2018, 54, 5343-5354.	4.9	72
32	A Dual Active Bridge Converter With an Extended High-Efficiency Range by DC Blocking Capacitor Voltage Control. IEEE Transactions on Power Electronics, 2018, 33, 5949-5966.	7.9	71
33	Constant power generation of photovoltaic systems considering the distributed grid capacity. , 2014, , .		67
34	A Two-Terminal Active Capacitor. IEEE Transactions on Power Electronics, 2017, 32, 5893-5896.	7.9	67
35	Wear-Out Failure Analysis of an Impedance-Source PV Microinverter Based on System-Level Electrothermal Modeling. IEEE Transactions on Industrial Electronics, 2019, 66, 3914-3927.	7.9	67
36	Reliability of Power Electronic Converter Systems. , 2015, , .		66

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37	A Bidirectional Resonant DC-DC Converter Suitable for Wide Voltage Gain Range. IEEE Transactions on Power Electronics, 2018, 33, 2957-2975.	7.9	63
38	Suggested grid code modifications to ensure wide-scale adoption of photovoltaic energy in distributed power generation systems. , 2013, , .		62
39	An Improved Stray Capacitance Model for Inductors. IEEE Transactions on Power Electronics, 2019, 34, 11153-11170.	7.9	61
40	A 1-MHz Series Resonant DC-DC Converter With a Dual-Mode Rectifier for PV Microinverters. IEEE Transactions on Power Electronics, 2019, 34, 6544-6564.	7.9	56
41	Power Electronics Reliability: State of the Art and Outlook. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 6476-6493.	5.4	55
42	Mission profile based multi-disciplinary analysis of power modules in single-phase transformerless photovoltaic inverters. , 2013, , .		53
43	Mission-Profile-Based System-Level Reliability Analysis in DC Microgrids. IEEE Transactions on Industry Applications, 2019, 55, 5055-5067.	4.9	51
44	Mission Profile-Based System-Level Reliability Prediction Method for Modular Multilevel Converters. IEEE Transactions on Power Electronics, 2020, 35, 6916-6930.	7.9	50
45	A Structure-Reconfigurable Series Resonant DC-DC Converter With Wide-Input and Configurable-Output Voltages. IEEE Transactions on Industry Applications, 2019, 55, 1752-1764.	4.9	49
46	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
47	Thermal Modeling and Design Optimization of PCB Vias and Pads. IEEE Transactions on Power Electronics, 2020, 35, 882-900.	7.9	45
48	Enabling Data-Driven Condition Monitoring of Power Electronic Systems With Artificial Intelligence: Concepts, Tools, and Developments. IEEE Power Electronics Magazine, 2021, 8, 18-27.	0.7	44
49	Impact of lifetime model selections on the reliability prediction of IGBT modules in modular multilevel converters. , 2017, , .		44
50	Single-Phase Bridgeless PFC Topology Derivation and Performance Benchmarking. IEEE Transactions on Power Electronics, 2020, 35, 9238-9250.	7.9	43
51	Condition monitoring for DC-link capacitors based on artificial neural network algorithm. , 2015, , .		42
52	Degradation testing and failure analysis of DC film capacitors under high humidity conditions. Microelectronics Reliability, 2015, 55, 2007-2011.	1.7	41
53	Real Field Mission Profile Oriented Design of a SiC-Based PV-Inverter Application. IEEE Transactions on Industry Applications, 2014, 50, 4082-4089.	4.9	40
54	Design for Reliability of Power Electronic Systems. , 2018, , 1423-1440.		38

#	ARTICLE	IF	CITATIONS
55	Asymmetrical Reactive Power Capability of Modular Multilevel Cascade Converter Based STATCOMs for Offshore Wind Farm. IEEE Transactions on Power Electronics, 2019, 34, 5147-5164.	7.9	38
56	Condition Monitoring for Submodule Capacitors in Modular Multilevel Converters. IEEE Transactions on Power Electronics, 2019, 34, 10403-10407.	7.9	38
57	Sensitivity Analysis of Inductive Power Transfer Systems With Voltage-Fed Compensation Topologies. IEEE Transactions on Vehicular Technology, 2019, 68, 4502-4513.	6.3	38
58	Reliability-Oriented Optimization of the LC Filter in a Buck DC-DC Converter. IEEE Transactions on Power Electronics, 2017, 32, 6323-6337.	7.9	35
59	A Composite Failure Precursor for Condition Monitoring and Remaining Useful Life Prediction of Discrete Power Devices. IEEE Transactions on Industrial Informatics, 2021, 17, 688-698.	11.3	35
60	A High-Voltage ZVZCS DC-DC Converter With Low Voltage Stress. IEEE Transactions on Power Electronics, 2008, 23, 2630-2647.	7.9	33
61	Capacitor Condition Monitoring Based on the DC-Side Start-Up of Modular Multilevel Converters. IEEE Transactions on Power Electronics, 2020, 35, 5589-5593.	7.9	33
62	Capacitance estimation algorithm based on DC-link voltage harmonics using artificial neural network in three-phase motor drive systems. , 2017, , .		32
63	Protection Scheme for Modular Multilevel Converters Under Diode Open-Circuit Faults. IEEE Transactions on Power Electronics, 2018, 33, 2866-2877.	7.9	32
64	A System Engineering Approach Using FMEA and Bayesian Network for Risk Analysis—A Case Study. Sustainability, 2020, 12, 77.	3.2	31
65	Bridgeless PFC Topology Simplification and Design for Performance Benchmarking. IEEE Transactions on Power Electronics, 2021, 36, 5398-5414.	7.9	31
66	Overview of catastrophic failures of freewheeling diodes in power electronic circuits. Microelectronics Reliability, 2013, 53, 1788-1792.	1.7	30
67	Artificial Neural Network based DC-link capacitance estimation in a diode-bridge front-end inverter system. , 2017, , .		30
68	The Impact of Topology and Mission Profile on the Reliability of Boost-type Converters in PV Applications. , 2018, , .		29
69	Artificial Intelligence-Aided Thermal Model Considering Cross-Coupling Effects. IEEE Transactions on Power Electronics, 2020, 35, 9998-10002.	7.9	29
70	A reliability-oriented design method for power electronic converters. , 2013, , .		28
71	A novel electro-thermal model for wide bandgap semiconductor based devices. , 2013, , .		28
72	Design for reliability in power electronics in renewable energy systems &#x2013; status and future. , 2013, , .		28

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73	Harmonics mitigation of dead time effects in PWM converters using a repetitive controller. , 2015, , .		28
74	A Lifetime Prediction Method for LEDs Considering Real Mission Profiles. IEEE Transactions on Power Electronics, 2017, 32, 8718-8727.	7.9	28
75	A Novel Type-2 Fuzzy Logic for Improved Risk Analysis of Proton Exchange Membrane Fuel Cells in Marine Power Systems Application. Energies, 2018, 11, 721.	3.1	28
76	Reliability of capacitors for DC-link applications &#x2014; An overview. , 2013, , .		27
77	A humidity-dependent lifetime derating factor for DC film capacitors. , 2015, , .		27
78	Reliability-oriented design and analysis of input capacitors in single-phase transformer-less photovoltaic inverters. , 2013, , .		26
79	Instantaneous thermal modeling of the DC-link capacitor in PhotoVoltaic systems. , 2015, , .		26
80	Modeling framework of voltage-source converters based on equivalence with synchronous generator. Journal of Modern Power Systems and Clean Energy, 2018, 6, 1291-1305.	5.4	26
81	Model-Based Design and Optimization of Hybrid DC-Link Capacitor Banks. IEEE Transactions on Power Electronics, 2020, 35, 8910-8925.	7.9	26
82	Comprehensive investigation on current imbalance among parallel chips inside MW-scale IGBT power modules. , 2015, , .		25
83	A Reference Submodule Based Capacitor Condition Monitoring Method for Modular Multilevel Converters. IEEE Transactions on Power Electronics, 2020, 35, 6691-6696.	7.9	25
84	A Class of High-Input Low-Output Voltage Single-Step Converters with Low Voltage Stress on the Primary-Side Switches and High Output Current Capacity. IEEE Transactions on Power Electronics, 2011, 26, 1659-1672.	7.9	24
85	Investigation into the control methods to reduce the DC-link capacitor ripple current in a back-to-back converter. , 2014, , .		24
86	Reduced junction temperature control during low-voltage ride-through for single-phase photovoltaic inverters. IET Power Electronics, 2014, 7, 2050-2059.	2.1	24
87	The impact of grid unbalances on the reliability of DC-link capacitors in a motor drive. , 2017, , .		24
88	Application of Digital Twin Concept in Condition Monitoring for DC-DC Converter. , 2019, , .		24
89	A Review on Electrothermal Modeling of Supercapacitors for Energy Storage Applications. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2019, 7, 1677-1690.	5.4	23
90	On the Practical Design of a Two-Terminal Active Capacitor. IEEE Transactions on Power Electronics, 2019, 34, 10006-10020.	7.9	23

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91	A Thermal Modeling Method Considering Ambient Temperature Dynamics. IEEE Transactions on Power Electronics, 2020, 35, 6-9.	7.9	23
92	An Improved $\frac{di}{dt}$ -RCD Detection for Short-Circuit Protection of SiC mosfet. IEEE Transactions on Power Electronics, 2021, 36, 12-17.	7.9	23
93	Impact of Modulation Strategies on the Reliability and Harmonics of Impedance-Source Inverters. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2020, 8, 3968-3981.	5.4	22
94	Thermal Characterization of Silicon Carbide MOSFET Module Suitable for High-Temperature Computationally Efficient Thermal-Profile Prediction. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 3947-3958.	5.4	22
95	A New Concept of High-Voltage DC-DC Conversion Using Asymmetric Voltage Distribution on the Switch Pairs and Hybrid ZVS-ZCS Scheme. IEEE Transactions on Power Electronics, 2012, 27, 2242-2259.	7.9	21
96	The impact of gate-driver parameters variation and device degradation in the PV-inverter lifetime. , 2014, , .		21
97	Reactive power injection strategies for single-phase photovoltaic systems considering grid requirements. , 2014, , .		21
98	A Simplified On-State Voltage Measurement Circuit for Power Semiconductor Devices. IEEE Transactions on Power Electronics, 2021, 36, 10993-10997.	7.9	21
99	Capacitance estimation for dc-link capacitors in a back-to-back converter based on Artificial Neural Network algorithm. , 2016, , .		20
100	Lifetime Prediction of DC-Link Capacitors in Multiple Drives System Based on Simplified Analytical Modeling. IEEE Transactions on Power Electronics, 2021, 36, 844-860.	7.9	20
101	A Converter-Level on-State Voltage Measurement Method for Power Semiconductor Devices. IEEE Transactions on Power Electronics, 2021, 36, 1220-1224.	7.9	20
102	Comprehensive evaluation on efficiency and thermal loading of associated Si and SiC based PV inverter applications. , 2013, , .		19
103	Wide-band gap devices in PV systems - opportunities and challenges. , 2014, , .		19
104	Improving the Effectiveness of Testing Pervasive Software via Context Diversity. ACM Transactions on Autonomous and Adaptive Systems, 2014, 9, 1-28.	0.8	19
105	Parameter Estimation of Power Electronic Converters With Physics-Informed Machine Learning. IEEE Transactions on Power Electronics, 2022, 37, 11567-11578.	7.9	19
106	Benchmarking of constant power generation strategies for single-phase grid-connected Photovoltaic systems. , 2016, , .		18
107	System-level reliability enhancement of DC/DC stage in a single-phase PV inverter. Microelectronics Reliability, 2018, 88-90, 1030-1035.	1.7	18
108	Design for reliability and robustness tool platform for power electronic systems " Study case on motor drive applications. , 2018, , .		18

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109	A DC-Link Capacitor Voltage Ripple Reduction Method for a Modular Multilevel Cascade Converter With Single Delta Bridge Cells. IEEE Transactions on Industry Applications, 2019, 55, 6115-6126.	4.9	18
110	A novel concept to reduce the DC-link capacitor in PFC front-end power conversion systems. , 2012, , .		17
111	A design tool to study the impact of mission-profile on the reliability of SiC-based PV-inverter devices. Microelectronics Reliability, 2014, 54, 1655-1660.	1.7	17
112	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.	5.4	17
113	A Two-Terminal Active Inductor With Minimum Apparent Power for the Auxiliary Circuit. IEEE Transactions on Power Electronics, 2019, 34, 1013-1016.	7.9	17
114	A Viable Mission Profile Emulator for Power Modules in Modular Multilevel Converters. IEEE Transactions on Power Electronics, 2019, 34, 11580-11593.	7.9	17
115	Mission profile translation to capacitor stresses in grid-connected photovoltaic systems. , 2014, , .		16
116	Simplified Multi-time Scale Thermal Model Considering Thermal Coupling in IGBT Modules. , 2019, , .		16
117	Improved reliability of single-phase PV inverters by limiting the maximum feed-in power. , 2014, , .		15
118	A temperature-dependent thermal model of IGBT modules suitable for circuit-level simulations. , 2014, , .		15
119	System-level reliability assessment of power stage in fuel cell application. , 2016, , .		15
120	A reconfigurable series resonant DC-DC converter for wide-input and wide-output voltages. , 2017, , .		15
121	Health State Estimation and Remaining Useful Life Prediction of Power Devices Subject to Noisy and Aperiodic Condition Monitoring. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-16.	4.7	15
122	Reduction of DC-link capacitor in case of cascade multilevel converters by means of reactive power control. , 2014, , .		14
123	Lifetime estimation of electrolytic capacitors in a fuel cell power converter at various confidence levels. , 2016, , .		14
124	The impact of mission profile models on the predicted lifetime of IGBT modules in the modular multilevel converter. , 2017, , .		14
125	Mission Profile Based Power Converter Reliability Analysis in a DC Power Electronic Based Power System. , 2018, , .		14
126	A Simplification Method for Power Device Thermal Modeling With Quantitative Error Analysis. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2019, 7, 1649-1658.	5.4	14



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127	Reactive Power Impacts on LCL Filter Capacitor Lifetime in Grid-Connected Inverter. IEEE Open Journal of Power Electronics, 2020, 1, 139-148.	5.7	14
128	Design for Accelerated Testing of DC-Link Capacitors in Photovoltaic Inverters Based on Mission Profiles. IEEE Transactions on Industry Applications, 2021, 57, 741-753.	4.9	14
129	High Power Factor Bridgeless Integrated Buck-Type PFC Converter With Wide Output Voltage Range. IEEE Transactions on Power Electronics, 2022, 37, 12577-12590.	7.9	14
130	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, , .		13
131	Mission profile based sizing of IGBT chip area for PV inverter applications. , 2016, , .		13
132	Degradation effect on reliability evaluation of aluminum electrolytic capacitor in backup power converter. , 2017, , .		13
133	System-Level Lifetime Prediction for LED Lighting Applications Considering Thermal Coupling Between LED Sources and Drivers. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2018, 6, 1860-1870.	5.4	13
134	Computational-Efficient Thermal Estimation for IGBT Modules Under Periodic Power Loss Profiles in Modular Multilevel Converters. IEEE Transactions on Industry Applications, 2019, 55, 4984-4992.	4.9	13
135	Weaving Context Sensitivity into Test Suite Construction. , 2009, , .		12
136	Study of a new technique to reduce the dc-link capacitor in a power electronic system by using a series voltage compensator. , 2011, , .		12
137	Efficiency Enhancement of Bridgeless Buck-Boost PFC Converter with Unity PF and DC Split to Reduce Voltage Stresses. , 2018, , .		12
138	An analytical circuit based nonlinear thermal model for capacitor banks. Microelectronics Reliability, 2018, 88-90, 524-527.	1.7	12
139	Degradation modeling for reliability estimation of DC film capacitors subject to humidity acceleration. Microelectronics Reliability, 2019, 100-101, 113401.	1.7	12
140	The Faraday Shields Loss of Transformers. IEEE Transactions on Power Electronics, 2020, 35, 12194-12206.	7.9	12
141	Safe Operating Area of DC-Link Film Capacitors. IEEE Transactions on Power Electronics, 2021, 36, 11014-11018.	7.9	12
142	Electro-thermal modeling of high power IGBT module short-circuits with experimental validation. , 2015, , .		11
143	Lifetime benchmarking of two DC-link passive filtering configurations in adjustable speed drives. , 2018, , .		11
144	Balanced Conduction Loss Distribution among SMs in Modular Multilevel Converters. , 2018, , .		11

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145	Submodule Level Power Loss Balancing Control for Modular Multilevel Converters. , 2018, , .		11
146	Reliability Assessment of Hybrid Capacitor Bank Using Electrolytic- and Film-Capacitors in Three-Level Neutral-Point-Clamped Inverters. , 2019, , .		11
147	A Cost-Constrained Active Capacitor for a Single-Phase Inverter. IEEE Transactions on Power Electronics, 2020, 35, 6746-6760.	7.9	11
148	On the Explainability of Black Box Data-Driven Controllers for Power Electronic Converters. , 2021, , .		11
149	Prediction of bond wire fatigue of IGBTs in a PV inverter under long-term operation. , 2015, , .		10
150	Cost assessment of three power decoupling methods in a single-phase power converter with a reliability-oriented design procedure. , 2016, , .		10
151	On Power Electronized Power Systems: Challenges and Solutions. , 2018, , .		10
152	Reduced-Order Thermal Modeling for Photovoltaic Inverters Considering Mission Profile Dynamics. IEEE Open Journal of Power Electronics, 2020, 1, 407-419.	5.7	10
153	Stand-Alone Operation of Distributed Generation Systems With Improved Harmonic Elimination Scheme. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 6924-6934.	5.4	10
154	A Self-Power Method for a Converter-Level on-State Voltage Measurement Concept. IEEE Transactions on Power Electronics, 2021, 36, 8743-8751.	7.9	10
155	Modeling and Analysis of a Current-Fed ZCS Full-Bridge DC/DC Converter with Adaptive Soft-Switching Energy. , 2009, , .		9
156	A unified derivation of second-order switching surface for boundary control of DC-DC converters. , 2009, , .		9
157	Real field mission profile oriented design of a SiC-based PV-inverter application. , 2013, , .		9
158	Low voltage ride-through of single-phase transformerless photovoltaic inverters. , 2013, , .		9
159	Stability analysis and dynamic response of a DC-link module with a series voltage compensator. , 2013, , .		9
160	Reliability Assessment of Transformerless PV Inverters considering Mission Profiles. International Journal of Photoenergy, 2015, 2015, 1-10.	2.5	9
161	A review of the condition monitoring of capacitors in power electronic converters. , 2015, , .		9
162	Analytical model for LLC resonant converter with variable duty-cycle control. , 2016, , .		9

#	ARTICLE	IF	CITATIONS
163	Impact of Long-Term Mission Profile Sampling Rate on the Reliability Evaluation of Power Electronics in Photovoltaic Applications. , 2018, , .		9
164	Parasitics of Orthocyclic Windings in Inductors and Transformers. IEEE Transactions on Power Electronics, 2021, 36, 1994-2008.	7.9	9
165	Hold-up time analysis of a dc-link module with a series voltage compensator. , 2012, , .		8
166	The feasibility study on thermal loading control of wind power converters with a flexible switching frequency. , 2015, , .		8
167	Reliability oriented design of a grid-connected photovoltaic microinverter. , 2017, , .		8
168	A method for hotspot temperature estimation of aluminum electrolytic capacitors. , 2017, , .		8
169	Design for reliability in renewable energy systems. , 2017, , .		8
170	A Temperature-dependent Thermal Model of Silicon Carbide MOSFET Module for Long-term Reliability Assessment. , 2018, , .		8
171	Thermal Coupling and Network Modeling for Planar Transformers. , 2018, , .		8
172	Cost-Volume-Reliability Pareto Optimization of a Photovoltaic Microinverter. , 2019, , .		8
173	Dissipation Factor as a Degradation Indicator for Electrolytic Capacitors. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2023, 11, 1035-1044.	5.4	8
174	A ZCS full-bridge PWM converter with self-adaptable soft-switching snubber energy. Power Electronics Specialist Conference (PESC), IEEE, 2008, , .	0.0	7
175	A hybrid damping method for LLCL-filter based grid-tied inverter with a digital filter and an RC parallel passive damper. , 2013, , .		7
176	Investigation on the short-circuit behavior of an aged IGBT module through a 6 kA/1.1 kV non-destructive testing equipment. , 2014, , .		7
177	Real mission profile based lifetime estimation of fuel-cell power converter. , 2016, , .		7
178	An AC resistance optimization method applicable for inductor and transformer windings with full layers and partial layers. , 2017, , .		7
179	An analytical turn-on power loss model for 650-V GaN eHEMTs. , 2018, , .		7
180	Thermal resistance modelling and design optimization of PCB vias. Microelectronics Reliability, 2018, 88-90, 1118-1123.	1.7	7

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181	First Observations in Degradation Testing of Planar Magnetics. , 2019, , .		7
182	Analytical Modeling of 9-150 kHz EMI in Single-Phase PFC Converter. , 2019, , .		7
183	A Mission-Profile-Based Tool for the Reliability Evaluation of Power Semiconductor Devices in Hybrid Electric Vehicles. , 2020, , .		7
184	Wear-out failure of an IGBT module in motor drives due to uneven thermal impedance of power semiconductor devices. Microelectronics Reliability, 2020, 114, 113800.	1.7	7
185	A Voltage-Based Multiple Fault Diagnosis Approach for Cascaded H-Bridge Multilevel Converters. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2022, 10, 5092-5106.	5.4	7
186	A Robust Testing Method for DC and AC Capacitors With Minimum Required Power Supply. IEEE Transactions on Power Electronics, 2022, 37, 4942-4946.	7.9	7
187	An On-Line Calibration Method for TSEP-Based Junction Temperature Estimation. IEEE Transactions on Industrial Electronics, 2022, 69, 13616-13624.	7.9	7
188	A Mixed Conduction Mode-Controlled Bridgeless Boost PFC Converter and Its Mission Profile-Based Reliability Analysis. IEEE Transactions on Power Electronics, 2022, 37, 9674-9686.	7.9	7
189	Design for Reliability of Power Electronics in Renewable Energy Systems. Green Energy and Technology, 2014, , 295-338.	0.6	6
190	A generic topology derivation method for single-phase converters with active capacitive DC-links. , 2016, , .		6
191	A lifetime prediction method for LEDs considering mission profiles. , 2016, , .		6
192	Reactive power compensation capability of a STATCOM based on two types of Modular Multilevel Cascade Converters for offshore wind application. , 2017, , .		6
193	A voltage control method for an active capacitive DC-link module with series-connected circuit. , 2017, , .		6
194	Mission Profile-based Accelerated Testing of DC-link Capacitors in Photovoltaic Inverters. , 2019, , .		6
195	Multi-objective Design of LC Filter for High-efficiency, High-power-density and High-performance Buck Converter. , 2019, , .		6
196	Degradation Analysis of Planar Magnetics. , 2020, , .		6
197	Intelligent Transition Control between Grid-Connected and Standalone Modes of Three-Phase Grid-Integrated Distributed Generation Systems. Energies, 2021, 14, 3979.	3.1	6
198	Robust Stability Assessment of Single-Phase Inverter With Multiparameter Distributions. IEEE Transactions on Power Electronics, 2022, 37, 6062-6073.	7.9	6

#	ARTICLE	IF	CITATIONS
199	A class of single-step high-voltage DC-DC converters with low voltage stress and high output current capacity. , 2009, , .		5
200	Correlating Context-Awareness and Mutation Analysis for Pervasive Computing Systems. , 2010, , .		5
201	Energy storage system by means of improved thermal performance of a 3 MW grid side wind power converter. , 2013, , .		5
202	Waveform control method for mitigating harmonics of inverter systems with nonlinear load. , 2015, , .		5
203	Energy Saving and Efficient Energy Use By Power Electronic Systems. Lecture Notes in Energy, 2017, , 1-14.	0.3	5
204	An analytical essential switching loss estimation method for modular multilevel converters with nearest level modulation. , 2017, , .		5
205	Impedance characteristics modeling of a two-terminal active capacitor. , 2017, , .		5
206	Analysis of indirect rotor field oriented control-based induction machine performance under inaccurate field-oriented condition. , 2017, , .		5
207	Winding design of series AC inductor for dual active bridge converters. , 2018, , .		5
208	Benchmarking of capacitor power loss calculation methods for wear-out failure prediction in PV inverters. Microelectronics Reliability, 2019, 100-101, 113491.	1.7	5
209	Simplified Power Loss Model for Aluminum Electrolytic Capacitors in Single-Phase Inverters. IEEE Transactions on Power Electronics, 2020, 35, 4452-4456.	7.9	5
210	Analytical Modeling and Design of Capacitor Bank Considering Thermal Coupling Effect. IEEE Transactions on Power Electronics, 2021, 36, 2629-2640.	7.9	5
211	Investigation of Switching Oscillations for Silicon Carbide MOSFETs in Three-Level Active Neutral-Point-Clamped Inverters. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 4839-4853.	5.4	5
212	Differential Mode Noise Prediction and Analysis in Single-Phase Boost PFC for the New Frequency Range of 9â€“150 kHz. IEEE Journal of Emerging and Selected Topics in Industrial Electronics, 2022, 3, 177-187.	3.9	5
213	Switching Characterization of SiC MOSFETs in Three-Level Active Neutral-Point-Clamped Inverter Application. , 2019, , .		5
214	Differential Model EMI Filter Analysis for Interleaved Boost PFC Converters Considering Optimal Phase Shifting. , 2020, , .		5
215	Introducing state-trajectory control for the synchronous interleaved boost converter. , 2015, , .		4
216	Lifetime estimation of DC-link capacitors in a single-phase converter with an integrated active power decoupling module. , 2016, , .		4

#	ARTICLE	IF	CITATIONS
217	A fixed-frequency bidirectional resonant DC-DC converter suitable for wide voltage range. , 2017, , .		4
218	A new soft-switched high step-up DC-DC converter with dual coupled inductors. , 2017, , .		4
219	A single position loop control strategy for high-speed voice coil motor based on active disturbance rejection control. , 2017, , .		4
220	An active capacitor with self-power and internal feedback control signals. , 2017, , .		4
221	A Condition Monitoring Method for Three Phase Inverter Based on System-Level Signal. , 2018, , .		4
222	Reliability Evaluation and Optimization of Capacitor Bank. , 2018, , .		4
223	Single-stage Bridgeless Buck-boost PFC Converter with DC Split for Low Power LED applications. , 2018, , .		4
224	Modeling and Optimization of Displacement Windings for Transformers in Dual Active Bridge Converters. , 2018, , .		4
225	Thermal stress reduction of quasi-Z source inverter drive by model predictive control. Microelectronics Reliability, 2018, 88-90, 1247-1250.	1.7	4
226	A DC-link Capacitor Voltage Oscillation Reduction Method for a Modular Multilevel Cascade Converter with Single Delta Bridge Cells (MMCC-SDBC). , 2018, , .		4
227	Reliability Study of Input Side Capacitors in Impedance-Source PV Microconverters. , 2019, , .		4
228	Two-Dimensional Thermal Modeling and Parametric Optimization of Printed Circuit Board Vias. , 2019, , .		4
229	System-Level Power Loss Evaluation of Modular Multilevel Converters. , 2019, , .		4
230	Practical Submodule Capacitor Sizing for Modular Multilevel Converter Considering Grid Faults. Applied Sciences (Switzerland), 2020, 10, 3550.	2.5	4
231	EMI Modeling of Three-Level Active Neutral-Point-Clamped SiC Inverter Under Different Modulation Schemes. , 2019, , .		4
232	System-Level Thermal Modeling of a Modular Multilevel Converter. , 2020, , .		4
233	Loss Analysis of SiC-based Three-Level Active Neutral-Point-Clamped Inverters under Different Modulation Schemes. , 2020, , .		4
234	Thermal Modeling of an Electrolytic Capacitor Bank. , 2020, , .		4

#	ARTICLE	IF	CITATIONS
235	Predictive control of buck converter using nonlinear output capacitor current programming. , 2010, , .		3
236	Long Lifetime DC-link Voltage Stabilization Module for Smart Grid Application. , 2012, , .		3
237	Sizing of the series dynamic breaking resistor in a doubly fed induction generator wind turbine. , 2014, , .		3
238	Fast and Accurate Icepak-PSpice Co-Simulation of IGBTs under Short-Circuit with an Advanced PSpice Model. , 2014, , .		3
239	A comprehensive investigation on the short circuit performance of MW-level IGBT power modules. , 2015, , .		3
240	Reliability-oriented design of LC filter in buck DC-DC converter. , 2015, , .		3
241	Reliability evaluation of a single-phase H-bridge inverter with integrated active power decoupling. , 2016, , .		3
242	A new ZVS-PWM current-fed full-bridge converter with full soft-switching load range. , 2016, , .		3
243	Reliability assessment of single-phase grid-connected PV microinverters considering mission profile and uncertainties. , 2017, , .		3
244	Reliability-oriented design of a cost-effective active capacitor. , 2017, , .		3
245	Lifetime prediction of LED lighting systems considering thermal coupling between LED sources and drivers. , 2017, , .		3
246	Reliability evaluation of an impedance-source PV microconverter. , 2018, , .		3
247	Impact of the Thermal-Interface-Material Thickness on IGBT Module Reliability in the Modular Multilevel Converter. , 2018, , .		3
248	Reactive Power Impacts on LCL Filter Capacitor Lifetime and Reliability in DFIG Grid-Connected Inverter. , 2018, , .		3
249	Uncertainties in the Lifetime Prediction of IGBTs for a Motor Drive Application. , 2018, , .		3
250	Condition Monitoring Method for Submodule Capacitor in Modular Multilevel Converter. , 2019, , .		3
251	Thermal Modelling of Planar Transformers Considering Internal Power Loss Distribution. , 2019, , .		3
252	Reliability Evaluation of DC-link Capacitors in Multi-drive Systems. , 2019, , .		3

#	ARTICLE	IF	CITATIONS
253	Diagnostic module for series-connected photovoltaic panels. Solar Energy, 2020, 196, 243-259.	6.1	3
254	Differential Mode Noise Estimation and Filter Design for Interleaved Boost Power Factor Correction Converters. Applied Sciences (Switzerland), 2021, 11, 2716.	2.5	3
255	Parameters Identification of Buck Converter Based on Dynamic Characteristics. , 2019, , .		3
256	A Bridgeless Buck-flyback PFC Converter with High PF and Dead Angles Eliminated. , 2019, , .		3
257	Parasitic Effect Compensation Method for IGBT ON-State Voltage Measurement in Traction Inverter Application. IEEE Transactions on Power Electronics, 2022, 37, 4937-4941.	7.9	3
258	A voltage doubler circuit to extend the soft-switching range of dual active bridge converters. , 2017, , .		2
259	Precharge strategies for isolated modular DC-DC converters under two different start-up conditions. , 2017, , .		2
260	A switched-capacitor based high conversion ratio converter for renewable energy applications: Principle and generation. , 2017, , .		2
261	Simplified Estimation of the Junction Temperature Fluctuation at the Output Frequency for IGBT Modules in Modular Multilevel Converters. , 2018, , .		2
262	Series Resonant DC-DC Converter With Dual-Mode Rectifier for PV Microinverters. , 2018, , .		2
263	Two-thermal-states model predictive control for IGBT in three-phase inverter. Microelectronics Reliability, 2018, 88-90, 1098-1102.	1.7	2
264	Fundamental frequency region-based thermal control of power electronics modules in high power motor drive. Microelectronics Reliability, 2018, 88-90, 1242-1246.	1.7	2
265	Transient Voltage Stress Modeling for Submodules of Modular Multilevel Converters under Grid Voltage Sags. , 2018, , .		2
266	From chip to inverter: Electro-thermal modeling and design for paralleled power devices in high power application. Microelectronics Reliability, 2018, 87, 271-277.	1.7	2
267	Performance Evaluation of a Two-terminal Active Inductor in the DC-link Filter of a Three-phase Diode Bridge Rectifier. , 2019, , .		2
268	Benchmark of DC-link LC Filters based on Passive Inductor and Two-terminal Active Inductor. , 2019, , .		2
269	Analysis of solar panel's lumped equivalent circuit parameters using LASSO. , 2019, , .		2
270	Long-Term Climate Impact On IGBT Lifetime. , 2020, , .		2



#	ARTICLE	IF	CITATIONS
271	Duty Cycle based Condition Monitoring of MOSFETs in Digitally-Controlled DC-DC Converters. , 2020, , .		2
272	Reliability of DC-link Capacitors in Two-Stage Micro-Inverters Under Different PV Module Sizes. , 2019, , .		2
273	EMI Filter Robustness in Three-Level Active Neutral-Point-Clamped Inverter. IEEE Transactions on Power Electronics, 2022, 37, 4641-4657.	7.9	2
274	Uneven Inter-turn Voltage Distribution among Windings of Medium-voltage Medium/High-frequency Transformers. , 2020, , .		2
275	Impact of Mission Profile Dynamics on Accuracy of Thermal Stress Modeling in PV Inverters. , 2020, , .		2
276	Reliability Improvement of Voltage Regulator Modules by a Virtual Series Voltage Source. IEEE Transactions on Industrial Electronics, 2022, 69, 12641-12652.	7.9	2
277	An Adaptive Active Inductor for the AC Filter of Grid-connected Drive. , 2022, , .		2
278	Study on the azimuth bearing scheme of a large Alt-azimuth telescope. Proceedings of SPIE, 2010, , .	0.8	1
279	Reliability assessment of fuel cell system - A framework for quantitative approach. , 2016, , .		1
280	Power loss analysis and comparison of DC and AC side decoupling module in a H-bridge inverter. , 2016, , .		1
281	Practical considerations of the start-up procedure for an active capacitor. , 2017, , .		1
282	Low voltage ride through performance of a STATCOM based on modular multilevel cascade converters for offshore wind application. , 2017, , .		1
283	A reliability-oriented component sizing procedure for cost benchmarking of capacitive DC-links. , 2017, , .		1
284	Impact of Space Vector Modulation Strategies on the Reliability of Impedance-Source Inverters. , 2018, , .		1
285	Thermal Modeling and Sizing of PCB Copper Pads. , 2018, , .		1
286	Influence of DC Link Capacitance on Power Efficiency of Single-Phase Inverter. , 2018, , .		1
287	A Minimum Viable Mission Profile Emulator for IGBT Modules in Modular Multilevel Converters. , 2019, , .		1
288	Reliability Analysis of Power Electronic-based Power Systems. , 2019, , .		1

#	ARTICLE	IF	CITATIONS
289	Guest Editorial Joint Special Section on Power Conversion & Control in Photovoltaic Power Plants. IEEE Transactions on Energy Conversion, 2019, 34, 159-160.	5.2	1
290	Electro-Thermal Modeling and Design of High-Current Pulse Power Supply for Electrically Assisted Manufacturing. IEEE Access, 2019, 7, 160377-160384.	4.2	1
291	Design and Benchmark of Capacitive DC Links for the Hold-up Time Application. , 2019, , .		1
292	A Modified PBC Controller Using Dynamic Damping Injection for LCL-Filtered Grid-Tied Inverter with Zero Steady State Error. , 2019, , .		1
293	Impact of the Circulating Current Control on Transient Submodule Voltage Stresses for Grid-Tied Modular Multilevel Converters During Grid Faults. , 2019, , .		1
294	Analytical Modeling of 9-150 kHz EMI in Three-Phase Active Rectifiers. , 2020, , .		1
295	Power converters and control of LEDs. , 2021, , 645-688.		1
296	Robustness Assessment of the EMI Filter in a Three-Level Inverter. , 2021, , .		1
297	Mission Profile Based Reliability Analysis of A Bridgeless Boost PFC. , 2021, , .		1
298	Lifetime Prediction of the Film Capacitor based on Early Degradation Information. , 2021, , .		1
299	Adequacy Evaluation of an Islanded Microgrid. Electronics (Switzerland), 2021, 10, 2344.	3.1	1
300	A granular modeling method for non-uniform panel degradation based on $I\text{-}V$ characterization and electroluminescence imaging. Solar Energy, 2021, 227, 162-178.	6.1	1
301	Precise Inductor Current Ripple Distribution of Three-Level Active Neutral-Point-Clamped Inverter. , 2019, , .		1
302	Design and Benchmark of Passive and Active Inductors for a 7.5 kW Motor Drive. , 2021, , .		1
303	Condition Monitoring for Capacitors in Modular Multilevel Converter based on High-frequency Transient Analysis. , 2021, , .		1
304	A Comparative Study on Converter-Level On-State Voltage Measurement Circuits for Power Semiconductor Devices. , 2021, , .		1
305	Reliability of DC-link capacitors in power electronic converters. , 2015, , 59-82.		1
306	An Off-line Parameter Estimation Method for High-order DC-link Filter. , 2022, , .		1

#	ARTICLE	IF	CITATIONS
307	A Stress Emulation Method for Concurrent Testing of AC and DC Capacitors. , 2022, , .		1
308	Junction Temperature Estimation for IGBT Modules Through Knee Voltage. , 2022, , .		1
309	A new concept of high input voltage to low load voltage (1500 V â€“ 48V) DC-DC conversion with hybrid ZVS-ZCS and asymmetrical voltage distribution. , 2010, , .		0
310	A Uniform Nonlinear Control Method for DC-DC Converters with Fast Transient Response. HKIE Transactions, 2010, 17, 31-39.	0.1	0
311	Analysis and optimized design of an efficient high-voltage converter with high output capacity. , 2010, , .		0
312	Analysis and optimized design of a new DC-DC converter with asymmetrical voltage distribution for stepping down 1500 V to 48 V. , 2011, , .		0
313	Approaching repetitive short circuit tests on MW-scale power modules by means of an automatic testing setup. , 2016, , .		0
314	A component-reduced Zero-Voltage Switching three-level DC-DC converter. , 2016, , .		0
315	Lifetime Investigation of DC-link Capacitors in Multiple Slim Drives System. , 2019, , .		0
316	Loss and Thermal Modeling of Metal Oxide Varistors (MOV) Under Standard Current Surge Mission Profile. , 2019, , .		0
317	Validation of Thermal Stress Modeling in PV Inverters under Mission Profile Operation. , 2020, , .		0
318	Mission Profile Based Adaptive Carrier Frequency Control for Modular Multilevel Converters for Medium Voltage Applications. , 2019, , .		0
319	Thermal Stress Model of Transversal Forced Air-Cooled Capacitor Banks for MW Power Converters. , 2019, , .		0
320	An Approximation Model of AC Resistance for Inductor and Transformer Windings with Partial Layers. IEEJ Journal of Industry Applications, 2020, 9, 549-556.	1.1	0
321	â€œPlug-and-Playâ€ Tiny AI-Empowered Output Filter Parameter Extraction Framework with Single RNN Cell for Digital Power. , 2021, , .		0
322	Physics-informed Machine Learning for Parameter Estimation of DC-DC Converter. , 2022, , .		0