

# 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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all docs

327  
docs citations

327  
times ranked

5466  
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	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
3	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
4	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
5	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
6	Robust Stability Assessment of Single-Phase Inverter With Multiparameter Distributions. IEEE Transactions on Power Electronics, 2022, 37, 6062-6073.	7.9	6
7	An On-Line Calibration Method for TSEP-Based Junction Temperature Estimation. IEEE Transactions on Industrial Electronics, 2022, 69, 13616-13624.	7.9	7
8	EMI Filter Robustness in Three-Level Active Neutral-Point-Clamped Inverter. IEEE Transactions on Power Electronics, 2022, 37, 4641-4657.	7.9	2
9	Reliability Improvement of Voltage Regulator Modules by a Virtual Series Voltage Source. IEEE Transactions on Industrial Electronics, 2022, 69, 12641-12652.	7.9	2
10	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
11	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
12	Physics-informed Machine Learning for Parameter Estimation of DC-DC Converter. , 2022, , .		0
13	An Off-line Parameter Estimation Method for High-order DC-link Filter. , 2022, , .		1
14	Parameter Estimation of Power Electronic Converters With Physics-Informed Machine Learning. IEEE Transactions on Power Electronics, 2022, 37, 11567-11578.	7.9	19
15	A Stress Emulation Method for Concurrent Testing of AC and DC Capacitors. , 2022, , .		1
16	An Adaptive Active Inductor for the AC Filter of Grid-connected Drive. , 2022, , .		2
17	Junction Temperature Estimation for IGBT Modules Through Knee Voltage. , 2022, , .		1
18	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

#	ARTICLE	IF	CITATIONS
19	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
20	An Improved $di/dt$ -RCD Detection for Short-Circuit Protection of SiC mosfet. IEEE Transactions on Power Electronics, 2021, 36, 12-17.	7.9	23
21	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
22	A Converter-Level on-State Voltage Measurement Method for Power Semiconductor Devices. IEEE Transactions on Power Electronics, 2021, 36, 1220-1224.	7.9	20
23	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
24	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
25	Reliability of Power Electronic Systems for EV/HEV Applications. Proceedings of the IEEE, 2021, 109, 1060-1076.	21.3	80
26	An Overview of Artificial Intelligence Applications for Power Electronics. IEEE Transactions on Power Electronics, 2021, 36, 4633-4658.	7.9	354
27	Analytical Modeling and Design of Capacitor Bank Considering Thermal Coupling Effect. IEEE Transactions on Power Electronics, 2021, 36, 2629-2640.	7.9	5
28	An Overview of Condition Monitoring Techniques for Capacitors in DC-Link Applications. IEEE Transactions on Power Electronics, 2021, 36, 3692-3716.	7.9	111
29	Parasitics of Orthocyclic Windings in Inductors and Transformers. IEEE Transactions on Power Electronics, 2021, 36, 1994-2008.	7.9	9
30	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
31	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
32	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
33	Power converters and control of LEDs. , 2021, , 645-688.		1
34	Differential Mode Noise Estimation and Filter Design for Interleaved Boost Power Factor Correction Converters. Applied Sciences (Switzerland), 2021, 11, 2716.	2.5	3
35	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
36	Bridgeless PFC Topology Simplification and Design for Performance Benchmarking. IEEE Transactions on Power Electronics, 2021, 36, 5398-5414.	7.9	31

#	ARTICLE	IF	CITATIONS
37	Robustness Assessment of the EMI Filter in a Three-Level Inverter. , 2021, , .		1
38	Mission Profile Based Reliability Analysis of A Bridgeless Boost PFC. , 2021, , .		1
39	Lifetime Prediction of the Film Capacitor based on Early Degradation Information. , 2021, , .		1
40	Intelligent Transition Control between Grid-Connected and Standalone Modes of Three-Phase Grid-Integrated Distributed Generation Systems. Energies, 2021, 14, 3979.	3.1	6
41	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
42	Adequacy Evaluation of an Islanded Microgrid. Electronics (Switzerland), 2021, 10, 2344.	3.1	1
43	A Simplified On-State Voltage Measurement Circuit for Power Semiconductor Devices. IEEE Transactions on Power Electronics, 2021, 36, 10993-10997.	7.9	21
44	Safe Operating Area of DC-Link Film Capacitors. IEEE Transactions on Power Electronics, 2021, 36, 11014-11018.	7.9	12
45	A granular modeling method for non-uniform panel degradation based on $I^2t$ characterization and electroluminescence imaging. Solar Energy, 2021, 227, 162-178.	6.1	1
46	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
47	Design and Benchmark of Passive and Active Inductors for a 7.5 kW Motor Drive. , 2021, , .		1
48	On the Explainability of Black Box Data-Driven Controllers for Power Electronic Converters. , 2021, , .		11
49	Condition Monitoring for Capacitors in Modular Multilevel Converter based on High-frequency Transient Analysis. , 2021, , .		1
50	A Comparative Study on Converter-Level On-State Voltage Measurement Circuits for Power Semiconductor Devices. , 2021, , .		1
51	“Plug-and-Play” Tiny AI-Empowered Output Filter Parameter Extraction Framework with Single RNN Cell for Digital Power. , 2021, , .		0
52	An Overview of Capacitive DC-Links-Topology Derivation and Scalability Analysis. IEEE Transactions on Power Electronics, 2020, 35, 1805-1829.	7.9	83
53	Thermal Modeling and Design Optimization of PCB Vias and Pads. IEEE Transactions on Power Electronics, 2020, 35, 882-900.	7.9	45
54	A Thermal Modeling Method Considering Ambient Temperature Dynamics. IEEE Transactions on Power Electronics, 2020, 35, 6-9.	7.9	23

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55	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
56	Diagnostic module for series-connected photovoltaic panels. Solar Energy, 2020, 196, 243-259.	6.1	3
57	A Cost-Constrained Active Capacitor for a Single-Phase Inverter. IEEE Transactions on Power Electronics, 2020, 35, 6746-6760.	7.9	11
58	Simplified Power Loss Model for Aluminum Electrolytic Capacitors in Single-Phase Inverters. IEEE Transactions on Power Electronics, 2020, 35, 4452-4456.	7.9	5
59	A Reference Submodule Based Capacitor Condition Monitoring Method for Modular Multilevel Converters. IEEE Transactions on Power Electronics, 2020, 35, 6691-6696.	7.9	25
60	A System Engineering Approach Using FMEA and Bayesian Network for Risk Analysis—A Case Study. Sustainability, 2020, 12, 77.	3.2	31
61	Validation of Thermal Stress Modeling in PV Inverters under Mission Profile Operation. , 2020, , .		0
62	Review on reliability of supercapacitors in energy storage applications. Applied Energy, 2020, 278, 115436.	10.1	156
63	Reduced-Order Thermal Modeling for Photovoltaic Inverters Considering Mission Profile Dynamics. IEEE Open Journal of Power Electronics, 2020, 1, 407-419.	5.7	10
64	A Mission-Profile-Based Tool for the Reliability Evaluation of Power Semiconductor Devices in Hybrid Electric Vehicles. , 2020, , .		7
65	Long-Term Climate Impact On IGBT Lifetime. , 2020, , .		2
66	Analytical Modeling of 9-150 kHz EMI in Three-Phase Active Rectifiers. , 2020, , .		1
67	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
68	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
69	Practical Submodule Capacitor Sizing for Modular Multilevel Converter Considering Grid Faults. Applied Sciences (Switzerland), 2020, 10, 3550.	2.5	4
70	Artificial Intelligence-Aided Thermal Model Considering Cross-Coupling Effects. IEEE Transactions on Power Electronics, 2020, 35, 9998-10002.	7.9	29
71	The Faraday Shields Loss of Transformers. IEEE Transactions on Power Electronics, 2020, 35, 12194-12206.	7.9	12
72	Duty Cycle based Condition Monitoring of MOSFETs in Digitally-Controlled DC-DC Converters. , 2020, , .		2

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73	Degradation Analysis of Planar Magnetics. , 2020, , .		6
74	Model-Based Design and Optimization of Hybrid DC-Link Capacitor Banks. IEEE Transactions on Power Electronics, 2020, 35, 8910-8925.	7.9	26
75	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
76	Mission Profile-Based System-Level Reliability Prediction Method for Modular Multilevel Converters. IEEE Transactions on Power Electronics, 2020, 35, 6916-6930.	7.9	50
77	Single-Phase Bridgeless PFC Topology Derivation and Performance Benchmarking. IEEE Transactions on Power Electronics, 2020, 35, 9238-9250.	7.9	43
78	System-Level Thermal Modeling of a Modular Multilevel Converter. , 2020, , .		4
79	An Approximation Model of AC Resistance for Inductor and Transformer Windings with Partial Layers. IEJ Journal of Industry Applications, 2020, 9, 549-556.	1.1	0
80	Differential Model EMI Filter Analysis for Interleaved Boost PFC Converters Considering Optimal Phase Shifting. , 2020, , .		5
81	Uneven Inter-turn Voltage Distribution among Windings of Medium-voltage Medium/High-frequency Transformers. , 2020, , .		2
82	Impact of Mission Profile Dynamics on Accuracy of Thermal Stress Modeling in PV Inverters. , 2020, , .		2
83	Loss Analysis of SiC-based Three-Level Active Neutral-Point-Clamped Inverters under Different Modulation Schemes. , 2020, , .		4
84	Thermal Modeling of an Electrolytic Capacitor Bank. , 2020, , .		4
85	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
86	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
87	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
88	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
89	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
90	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

#	ARTICLE	IF	CITATIONS
91	A Minimum Viable Mission Profile Emulator for IGBT Modules in Modular Multilevel Converters. , 2019, , .		1
92	Simplified Multi-time Scale Thermal Model Considering Thermal Coupling in IGBT Modules. , 2019, , .		16
93	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
94	Condition Monitoring Method for Submodule Capacitor in Modular Multilevel Converter. , 2019, , .		3
95	Performance Evaluation of a Two-terminal Active Inductor in the DC-link Filter of a Three-phase Diode Bridge Rectifier. , 2019, , .		2
96	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
97	Degradation modeling for reliability estimation of DC film capacitors subject to humidity acceleration. Microelectronics Reliability, 2019, 100-101, 113401.	1.7	12
98	Benchmarking of capacitor power loss calculation methods for wear-out failure prediction in PV inverters. Microelectronics Reliability, 2019, 100-101, 113491.	1.7	5
99	Benchmark of DC-link LC Filters based on Passive Inductor and Two-terminal Active Inductor. , 2019, , .		2
100	On the Stability of Power Electronics-Dominated Systems: Challenges and Potential Solutions. IEEE Transactions on Industry Applications, 2019, 55, 7657-7670.	4.9	109
101	Reliability Analysis of Power Electronic-based Power Systems. , 2019, , .		1
102	Mission-Profile-Based System-Level Reliability Analysis in DC Microgrids. IEEE Transactions on Industry Applications, 2019, 55, 5055-5067.	4.9	51
103	Reliability Assessment of Hybrid Capacitor Bank Using Electrolytic- and Film-Capacitors in Three-Level Neutral-Point-Clamped Inverters. , 2019, , .		11
104	Mission Profile-based Accelerated Testing of DC-link Capacitors in Photovoltaic Inverters. , 2019, , .		6
105	First Observations in Degradation Testing of Planar Magnetics. , 2019, , .		7
106	Condition Monitoring for Submodule Capacitors in Modular Multilevel Converters. IEEE Transactions on Power Electronics, 2019, 34, 10403-10407.	7.9	38
107	Cost-Volume-Reliability Pareto Optimization of a Photovoltaic Microinverter. , 2019, , .		8
108	Sensitivity Analysis of Inductive Power Transfer Systems With Voltage-Fed Compensation Topologies. IEEE Transactions on Vehicular Technology, 2019, 68, 4502-4513.	6.3	38

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109	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
110	An Improved Stray Capacitance Model for Inductors. IEEE Transactions on Power Electronics, 2019, 34, 11153-11170.	7.9	61
111	A Viable Mission Profile Emulator for Power Modules in Modular Multilevel Converters. IEEE Transactions on Power Electronics, 2019, 34, 11580-11593.	7.9	17
112	Thermal Modelling of Planar Transformers Considering Internal Power Loss Distribution. , 2019, , .		3
113	Analytical Modeling of 9-150 kHz EMI in Single-Phase PFC Converter. , 2019, , .		7
114	Lifetime Investigation of DC-link Capacitors in Multiple Slim Drives System. , 2019, , .		0
115	Electro-Thermal Modeling and Design of High-Current Pulse Power Supply for Electrically Assisted Manufacturing. IEEE Access, 2019, 7, 160377-160384.	4.2	1
116	Design and Benchmark of Capacitive DC Links for the Hold-up Time Application. , 2019, , .		1
117	A Modified PBC Controller Using Dynamic Damping Injection for LCL-Filtered Grid-Tied Inverter with Zero Steady State Error. , 2019, , .		1
118	Reliability Study of Input Side Capacitors in Impedance-Source PV Microconverters. , 2019, , .		4
119	Impact of the Circulating Current Control on Transient Submodule Voltage Stresses for Grid-Tied Modular Multilevel Converters During Grid Faults. , 2019, , .		1
120	Two-Dimensional Thermal Modeling and Parametric Optimization of Printed Circuit Board Vias. , 2019, , .		4
121	Loss and Thermal Modeling of Metal Oxide Varistors (MOV) Under Standard Current Surge Mission Profile. , 2019, , .		0
122	Analysis of solar panel's lumped equivalent circuit parameters using LASSO. , 2019, , .		2
123	System-Level Power Loss Evaluation of Modular Multilevel Converters. , 2019, , .		4
124	Application of Digital Twin Concept in Condition Monitoring for DC-DC Converter. , 2019, , .		24
125	Reliability Evaluation of DC-link Capacitors in Multi-drive Systems. , 2019, , .		3
126	Multi-objective Design of LC Filter for High-efficiency, High-power-density and High-performance Buck Converter. , 2019, , .		6



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127	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
128	On the Practical Design of a Two-Terminal Active Capacitor. IEEE Transactions on Power Electronics, 2019, 34, 10006-10020.	7.9	23
129	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
130	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
131	Mission Profile Based Adaptive Carrier Frequency Control for Modular Multilevel Converters for Medium Voltage Applications. , 2019, , .		0
132	Thermal Stress Model of Transversal Forced Air-Cooled Capacitor Banks for MW Power Converters. , 2019, , .		0
133	EMI Modeling of Three-Level Active Neutral-Point-Clamped SiC Inverter Under Different Modulation Schemes. , 2019, , .		4
134	Reliability of DC-link Capacitors in Two-Stage Micro-Inverters Under Different PV Module Sizes. , 2019, , .		2
135	Parameters Identification of Buck Converter Based on Dynamic Characteristics. , 2019, , .		3
136	Switching Characterization of SiC MOSFETs in Three-Level Active Neutral-Point-Clamped Inverter Application. , 2019, , .		5
137	Precise Inductor Current Ripple Distribution of Three-Level Active Neutral-Point-Clamped Inverter. , 2019, , .		1
138	A Bridgeless Buck-flyback PFC Converter with High PF and Dead Angles Eliminated. , 2019, , .		3
139	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
140	An analytical turn-on power loss model for 650-V GaN eHEMTs. , 2018, , .		7
141	Lifetime benchmarking of two DC-link passive filtering configurations in adjustable speed drives. , 2018, , .		11
142	Reliability evaluation of an impedance-source PV microconverter. , 2018, , .		3
143	Protection Scheme for Modular Multilevel Converters Under Diode Open-Circuit Faults. IEEE Transactions on Power Electronics, 2018, 33, 2866-2877.	7.9	32
144	A Bidirectional Resonant DC-DC Converter Suitable for Wide Voltage Gain Range. IEEE Transactions on Power Electronics, 2018, 33, 2957-2975.	7.9	63

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145	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
146	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
147	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
148	Impact of Long-Term Mission Profile Sampling Rate on the Reliability Evaluation of Power Electronics in Photovoltaic Applications. , 2018, , .		9
149	A Temperature-dependent Thermal Model of Silicon Carbide MOSFET Module for Long-term Reliability Assessment. , 2018, , .		8
150	A Condition Monitoring Method for Three Phase Inverter Based on System-Level Signal. , 2018, , .		4
151	Simplified Estimation of the Junction Temperature Fluctuation at the Output Frequency for IGBT Modules in Modular Multilevel Converters. , 2018, , .		2
152	Balanced Conduction Loss Distribution among SMs in Modular Multilevel Converters. , 2018, , .		11
153	Efficiency Enhancement of Bridgeless Buck-Boost PFC Converter with Unity PF and DC Split to Reduce Voltage Stresses. , 2018, , .		12
154	Mission Profile Based Power Converter Reliability Analysis in a DC Power Electronic Based Power System. , 2018, , .		14
155	Submodule Level Power Loss Balancing Control for Modular Multilevel Converters. , 2018, , .		11
156	Reliability Evaluation and Optimization of Capacitor Bank. , 2018, , .		4
157	Series Resonant DC-DC Converter With Dual-Mode Rectifier for PV Microinverters. , 2018, , .		2
158	Impact of the Thermal-Interface-Material Thickness on IGBT Module Reliability in the Modular Multilevel Converter. , 2018, , .		3
159	Impact of Space Vector Modulation Strategies on the Reliability of Impedance-Source Inverters. , 2018, , .		1
160	Reactive Power Impacts on LCL Filter Capacitor Lifetime and Reliability in DFIG Grid-Connected Inverter. , 2018, , .		3
161	Thermal Coupling and Network Modeling for Planar Transformers. , 2018, , .		8
162	Single-stage Bridgeless Buck-boost PFC Converter with DC Split for Low Power LED applications. , 2018, , .		4

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163	Thermal Modeling and Sizing of PCB Copper Pads. , 2018, , .		1
164	Uncertainties in the Lifetime Prediction of IGBTs for a Motor Drive Application. , 2018, , .		3
165	Influence of DC Link Capacitance on Power Efficiency of Single-Phase Inverter. , 2018, , .		1
166	Modeling and Optimization of Displacement Windings for Transformers in Dual Active Bridge Converters. , 2018, , .		4
167	On Power Electronized Power Systems: Challenges and Solutions. , 2018, , .		10
168	Thermal resistance modelling and design optimization of PCB vias. Microelectronics Reliability, 2018, 88-90, 1118-1123.	1.7	7
169	An analytical circuit based nonlinear thermal model for capacitor banks. Microelectronics Reliability, 2018, 88-90, 524-527.	1.7	12
170	Two-thermal-states model predictive control for IGBT in three-phase inverter. Microelectronics Reliability, 2018, 88-90, 1098-1102.	1.7	2
171	Thermal stress reduction of quasi-Z source inverter drive by model predictive control. Microelectronics Reliability, 2018, 88-90, 1247-1250.	1.7	4
172	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
173	System-level reliability enhancement of DC/DC stage in a single-phase PV inverter. Microelectronics Reliability, 2018, 88-90, 1030-1035.	1.7	18
174	A DC-link Capacitor Voltage Oscillation Reduction Method for a Modular Multilevel Cascade Converter with Single Delta Bridge Cells (MMCC-SDBC). , 2018, , .		4
175	Transient Voltage Stress Modeling for Submodules of Modular Multilevel Converters under Grid Voltage Sags. , 2018, , .		2
176	The Impact of Topology and Mission Profile on the Reliability of Boost-type Converters in PV Applications. , 2018, , .		29
177	Design for reliability and robustness tool platform for power electronic systems “ Study case on motor drive applications. , 2018, , .		18
178	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
179	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
180	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

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181	Design for Reliability of Power Electronic Systems. , 2018, , 1423-1440.		38
182	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
183	Winding design of series AC inductor for dual active bridge converters. , 2018, , .		5
184	A Two-Terminal Active Capacitor. IEEE Transactions on Power Electronics, 2017, 32, 5893-5896.	7.9	67
185	Energy Saving and Efficient Energy Use By Power Electronic Systems. Lecture Notes in Energy, 2017, , 1-14.	0.3	5
186	An AC resistance optimization method applicable for inductor and transformer windings with full layers and partial layers. , 2017, , .		7
187	Reliability assessment of single-phase grid-connected PV microinverters considering mission profile and uncertainties. , 2017, , .		3
188	A voltage doubler circuit to extend the soft-switching range of dual active bridge converters. , 2017, , .		2
189	A fixed-frequency bidirectional resonant DC-DC converter suitable for wide voltage range. , 2017, , .		4
190	A reconfigurable series resonant DC-DC converter for wide-input and wide-output voltages. , 2017, , .		15
191	A Lifetime Prediction Method for LEDs Considering Real Mission Profiles. IEEE Transactions on Power Electronics, 2017, 32, 8718-8727.	7.9	28
192	Reliability-oriented design of a cost-effective active capacitor. , 2017, , .		3
193	Reactive power compensation capability of a STATCOM based on two types of Modular Multilevel Cascade Converters for offshore wind application. , 2017, , .		6
194	Degradation effect on reliability evaluation of aluminum electrolytic capacitor in backup power converter. , 2017, , .		13
195	Artificial Neural Network based DC-link capacitance estimation in a diode-bridge front-end inverter system. , 2017, , .		30
196	Precharge strategies for isolated modular DC-DC converters under two different start-up conditions. , 2017, , .		2
197	Reliability oriented design of a grid-connected photovoltaic microinverter. , 2017, , .		8
198	A voltage control method for an active capacitive DC-link module with series-connected circuit. , 2017, , .		6

#	ARTICLE	IF	CITATIONS
199	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
200	A new soft-switched high step-up DC-DC converter with dual coupled inductors. , 2017, , .		4
201	The impact of mission profile models on the predicted lifetime of IGBT modules in the modular multilevel converter. , 2017, , .		14
202	An analytical essential switching loss estimation method for modular multilevel converters with nearest level modulation. , 2017, , .		5
203	Practical considerations of the start-up procedure for an active capacitor. , 2017, , .		1
204	A method for hotspot temperature estimation of aluminum electrolytic capacitors. , 2017, , .		8
205	Lifetime prediction of LED lighting systems considering thermal coupling between LED sources and drivers. , 2017, , .		3
206	A single position loop control strategy for high-speed voice coil motor based on active disturbance rejection control. , 2017, , .		4
207	The impact of grid unbalances on the reliability of DC-link capacitors in a motor drive. , 2017, , .		24
208	Low voltage ride through performance of a STATCOM based on modular multilevel cascade converters for offshore wind application. , 2017, , .		1
209	Impedance characteristics modeling of a two-terminal active capacitor. , 2017, , .		5
210	Analysis of indirect rotor field oriented control-based induction machine performance under inaccurate field-oriented condition. , 2017, , .		5
211	Capacitance estimation algorithm based on DC-link voltage harmonics using artificial neural network in three-phase motor drive systems. , 2017, , .		32
212	A switched-capacitor based high conversion ratio converter for renewable energy applications: Principle and generation. , 2017, , .		2
213	Design for reliability in renewable energy systems. , 2017, , .		8
214	An active capacitor with self-power and internal feedback control signals. , 2017, , .		4
215	A reliability-oriented component sizing procedure for cost benchmarking of capacitive DC-links. , 2017, , .		1
216	Impact of lifetime model selections on the reliability prediction of IGBT modules in modular multilevel converters. , 2017, , .		44

#	ARTICLE	IF	CITATIONS
217	Reliability evaluation of a single-phase H-bridge inverter with integrated active power decoupling. , 2016, , .		3
218	Approaching repetitive short circuit tests on MW-scale power modules by means of an automatic testing setup. , 2016, , .		0
219	Reliability assessment of fuel cell system - A framework for quantitative approach. , 2016, , .		1
220	Analytical model for LLC resonant converter with variable duty-cycle control. , 2016, , .		9
221	System-level reliability assessment of power stage in fuel cell application. , 2016, , .		15
222	A generic topology derivation method for single-phase converters with active capacitive DC-links. , 2016, , .		6
223	Lifetime estimation of electrolytic capacitors in a fuel cell power converter at various confidence levels. , 2016, , .		14
224	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
225	Lifetime estimation of DC-link capacitors in a single-phase converter with an integrated active power decoupling module. , 2016, , .		4
226	A component-reduced Zero-Voltage Switching three-level DC-DC converter. , 2016, , .		0
227	A new ZVS-PWM current-fed full-bridge converter with full soft-switching load range. , 2016, , .		3
228	A lifetime prediction method for LEDs considering mission profiles. , 2016, , .		6
229	Benchmarking of constant power generation strategies for single-phase grid-connected Photovoltaic systems. , 2016, , .		18
230	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
231	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
232	Power loss analysis and comparison of DC and AC side decoupling module in a H-bridge inverter. , 2016, , .		1
233	A Review of the Condition Monitoring of Capacitors in Power Electronic Converters. IEEE Transactions on Industry Applications, 2016, 52, 4976-4989.	4.9	182
234	Real mission profile based lifetime estimation of fuel-cell power converter. , 2016, , .		7

#	ARTICLE	IF	CITATIONS
235	Capacitance estimation for dc-link capacitors in a back-to-back converter based on Artificial Neural Network algorithm. , 2016, , .		20
236	Mission profile based sizing of IGBT chip area for PV inverter applications. , 2016, , .		13
237	Cost assessment of three power decoupling methods in a single-phase power converter with a reliability-oriented design procedure. , 2016, , .		10
238	Power control flexibilities for grid-connected multi-functional photovoltaic inverters. IET Renewable Power Generation, 2016, 10, 504-513.	3.1	150
239	Waveform control method for mitigating harmonics of inverter systems with nonlinear load. , 2015, , .		5
240	A comprehensive investigation on the short circuit performance of MW-level IGBT power modules. , 2015, , .		3
241	Reliability Assessment of Transformerless PV Inverters considering Mission Profiles. International Journal of Photoenergy, 2015, 2015, 1-10.	2.5	9
242	Introducing state-trajectory control for the synchronous interleaved boost converter. , 2015, , .		4
243	A humidity-dependent lifetime derating factor for DC film capacitors. , 2015, , .		27
244	A review of the condition monitoring of capacitors in power electronic converters. , 2015, , .		9
245	Reliability-oriented design of LC filter in buck DC-DC converter. , 2015, , .		3
246	Comprehensive investigation on current imbalance among parallel chips inside MW-scale IGBT power modules. , 2015, , .		25
247	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
248	The feasibility study on thermal loading control of wind power converters with a flexible switching frequency. , 2015, , .		8
249	Degradation testing and failure analysis of DC film capacitors under high humidity conditions. Microelectronics Reliability, 2015, 55, 2007-2011.	1.7	41
250	Prediction of bond wire fatigue of IGBTs in a PV inverter under long-term operation. , 2015, , .		10
251	Instantaneous thermal modeling of the DC-link capacitor in PhotoVoltaic systems. , 2015, , .		26
252	Harmonics mitigation of dead time effects in PWM converters using a repetitive controller. , 2015, , .		28

#	ARTICLE	IF	CITATIONS
253	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
254	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
255	Condition monitoring for DC-link capacitors based on artificial neural network algorithm. , 2015, , .		42
256	Electro-thermal modeling of high power IGBT module short-circuits with experimental validation. , 2015, , .		11
257	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
258	Frequency Adaptive Selective Harmonic Control for Grid-Connected Inverters. IEEE Transactions on Power Electronics, 2015, 30, 3912-3924.	7.9	142
259	Reliability of Power Electronic Converter Systems. , 2015, , .		66
260	Reliability of DC-link capacitors in power electronic converters. , 2015, , 59-82.		1
261	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
262	Sizing of the series dynamic breaking resistor in a doubly fed induction generator wind turbine. , 2014, , .		3
263	Fast and Accurate Icepak-PSpice Co-Simulation of IGBTs under Short-Circuit with an Advanced PSpice Model. , 2014, , .		3
264	Investigation into the control methods to reduce the DC-link capacitor ripple current in a back-to-back converter. , 2014, , .		24
265	Improved reliability of single-phase PV inverters by limiting the maximum feed-in power. , 2014, , .		15
266	Wide-band gap devices in PV systems - opportunities and challenges. , 2014, , .		19
267	Investigation on the short-circuit behavior of an aged IGBT module through a 6 kA/1.1 kV non-destructive testing equipment. , 2014, , .		7
268	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
269	The impact of gate-driver parameters variation and device degradation in the PV-inverter lifetime. , 2014, , .		21
270	A temperature-dependent thermal model of IGBT modules suitable for circuit-level simulations. , 2014, , .		15



#	ARTICLE	IF	CITATIONS
271	Mission profile translation to capacitor stresses in grid-connected photovoltaic systems. , 2014, , .		16
272	Design for Reliability of Power Electronics in Renewable Energy Systems. Green Energy and Technology, 2014, , 295-338.	0.6	6
273	Improving the Effectiveness of Testing Pervasive Software via Context Diversity. ACM Transactions on Autonomous and Adaptive Systems, 2014, 9, 1-28.	0.8	19
274	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
275	Low-Voltage Ride-Through of Single-Phase Transformerless Photovoltaic Inverters. IEEE Transactions on Industry Applications, 2014, 50, 1942-1952.	4.9	288
276	Reduction of DC-link capacitor in case of cascade multilevel converters by means of reactive power control. , 2014, , .		14
277	Constant power generation of photovoltaic systems considering the distributed grid capacity. , 2014, , .		67
278	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
279	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
280	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
281	Reactive Power Injection Strategies for Single-Phase Photovoltaic Systems Considering Grid Requirements. IEEE Transactions on Industry Applications, 2014, 50, 4065-4076.	4.9	207
282	Reduced junction temperature control during low-voltage ride-through for single-phase photovoltaic inverters. IET Power Electronics, 2014, 7, 2050-2059.	2.1	24
283	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
284	A Hybrid Power Control Concept for PV Inverters With Reduced Thermal Loading. IEEE Transactions on Power Electronics, 2014, 29, 6271-6275.	7.9	152
285	Reactive power injection strategies for single-phase photovoltaic systems considering grid requirements. , 2014, , .		21
286	Toward Reliable Power Electronics: Challenges, Design Tools, and Opportunities. IEEE Industrial Electronics Magazine, 2013, 7, 17-26.	2.6	668
287	Reliability-oriented design and analysis of input capacitors in single-phase transformer-less photovoltaic inverters. , 2013, , .		26
288	A reliability-oriented design method for power electronic converters. , 2013, , .		28

#	ARTICLE	IF	CITATIONS
289	Comprehensive evaluation on efficiency and thermal loading of associated Si and SiC based PV inverter applications. , 2013, , .		19
290	A novel electro-thermal model for wide bandgap semiconductor based devices. , 2013, , .		28
291	Mission profile based multi-disciplinary analysis of power modules in single-phase transformerless photovoltaic inverters. , 2013, , .		53
292	Catastrophic failure and fault-tolerant design of IGBT power electronic converters - an overview. , 2013, , .		145
293	Real field mission profile oriented design of a SiC-based PV-inverter application. , 2013, , .		9
294	Energy storage system by means of improved thermal performance of a 3 MW grid side wind power converter. , 2013, , .		5
295	Low voltage ride-through of single-phase transformerless photovoltaic inverters. , 2013, , .		9
296	Overview of catastrophic failures of freewheeling diodes in power electronic circuits. Microelectronics Reliability, 2013, 53, 1788-1792.	1.7	30
297	A hybrid damping method for LLCL-filter based grid-tied inverter with a digital filter and an RC parallel passive damper. , 2013, , .		7
298	Reliability of capacitors for DC-link applications &#x2014; An overview. , 2013, , .		27
299	Suggested grid code modifications to ensure wide-scale adoption of photovoltaic energy in distributed power generation systems. , 2013, , .		62
300	Design for reliability in power electronics in renewable energy systems &#x2013; status and future. , 2013, , .		28
301	Stability analysis and dynamic response of a DC-link module with a series voltage compensator. , 2013, , .		9
302	Long Lifetime DC-link Voltage Stabilization Module for Smart Grid Application. , 2012, , .		3
303	Hold-up time analysis of a dc-link module with a series voltage compensator. , 2012, , .		8
304	A novel concept to reduce the DC-link capacitor in PFC front-end power conversion systems. , 2012, , .		17
305	Design for reliability of power electronic systems. , 2012, , .		210
306	A New Concept of High-Voltage DCâ€“DC Conversion Using Asymmetric Voltage Distribution on the Switch Pairs and Hybrid ZVSâ€“ZCS Scheme. IEEE Transactions on Power Electronics, 2012, 27, 2242-2259.	7.9	21

#	ARTICLE	IF	CITATIONS
307	Study of a new technique to reduce the dc-link capacitor in a power electronic system by using a series voltage compensator. , 2011, , .		12
308	Analysis and optimized design of a new DC-DC converter with asymmetrical voltage distribution for stepping down 1500 V to 48 V. , 2011, , .		0
309	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
310	A new concept of high input voltage to low load voltage (1500 V $\rightarrow$ 48V) DC-DC conversion with hybrid ZVS-ZCS and asymmetrical voltage distribution. , 2010, , .		0
311	Study on the azimuth bearing scheme of a large Alt-azimuth telescope. Proceedings of SPIE, 2010, , .	0.8	1
312	A Uniform Nonlinear Control Method for DC-DC Converters with Fast Transient Response. HKIE Transactions, 2010, 17, 31-39.	0.1	0
313	Analysis and optimized design of an efficient high-voltage converter with high output capacity. , 2010, , .		0
314	Correlating Context-Awareness and Mutation Analysis for Pervasive Computing Systems. , 2010, , .		5
315	Predictive control of buck converter using nonlinear output capacitor current programming. , 2010, , .		3
316	A class of single-step high-voltage DC-DC converters with low voltage stress and high output current capacity. , 2009, , .		5
317	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
318	Modeling and Analysis of a Current-Fed ZCS Full-Bridge DC/DC Converter with Adaptive Soft-Switching Energy. , 2009, , .		9
319	Weaving Context Sensitivity into Test Suite Construction. , 2009, , .		12
320	A unified derivation of second-order switching surface for boundary control of DC-DC converters. , 2009, , .		9
321	A High-Voltage ZVZCS DC-DC Converter With Low Voltage Stress. IEEE Transactions on Power Electronics, 2008, 23, 2630-2647.	7.9	33
322	A ZCS full-bridge PWM converter with self-adaptable soft-switching snubber energy. Power Electronics Specialist Conference (PESC), IEEE, 2008, , .	0.0	7