Zian Qin

List of Publications by Year
in descending order

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88	2,059	331259 21	301761 39
papers	citations	h-index	g-index

90	90	90	1717
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	An Improved Second-Order Generalized Integrator Based Quadrature Signal Generator. IEEE Transactions on Power Electronics, 2016, 31, 8068-8073.	5.4	213
2	Grid Impact of Electric Vehicle Fast Charging Stations: Trends, Standards, Issues and Mitigation Measures - An Overview. IEEE Open Journal of Power Electronics, 2021, 2, 56-74.	4.0	175
3	A Dual Voltage Control Strategy for Single-Phase PWM Converters With Power Decoupling Function. IEEE Transactions on Power Electronics, 2015, 30, 7060-7071.	5.4	128
4	Lifetime Estimation of MMC for Offshore Wind Power HVDC Application. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2016, 4, 504-511.	3.7	107
5	Techno-Economical Model Based Optimal Sizing of PV-Battery Systems for Microgrids. IEEE Transactions on Sustainable Energy, 2020, 11, 1657-1668.	5.9	104
6	Benchmark of AC and DC Active Power Decoupling Circuits for Second-Order Harmonic Mitigation in Kilowatt-Scale Single-Phase Inverters. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2016, 4, 15-25.	3.7	102
7	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.	5.4	71
8	Estimating battery lifetimes in Solar Home System design using a practical modelling methodology. Applied Energy, 2018, 228, 1629-1639.	5.1	69
9	A Bidirectional Resonant DCâ€“DC Converter Suitable for Wide Voltage Gain Range. IEEE Transactions on Power Electronics, 2018, 33, 2957-2975.	5.4	63
10	An Improved Stray Capacitance Model for Inductors. IEEE Transactions on Power Electronics, 2019, 34, 11153-11170.	5.4	61
11	A Structure-Reconfigurable Series Resonant DCâ€“DC Converter With Wide-Input and Configurable-Output Voltages. IEEE Transactions on Industry Applications, 2019, 55, 1752-1764.	3.3	49
12	Zero Voltage Switching Criteria of Triple Active Bridge Converter. IEEE Transactions on Power Electronics, 2021, 36, 5425-5439.	5.4	48
13	An Overview on Medium Voltage Grid Integration of Ultra-Fast Charging Stations: Current Status and Future Trends. IEEE Open Journal of the Industrial Electronics Society, 2022, 3, 420-447.	4.8	48
14	Wind turbine drivetrains: state-of-the-art technologies and future development trends. Wind Energy Science, 2022, 7, 387-411.	1.2	44
15	Application Criteria for Nine-Switch Power Conversion Systems with Improved Thermal Performance. IEEE Transactions on Power Electronics, 2015, 30, 4608-4620.	5.4	43
16	A Multiactive Bridge Converter With Inherently Decoupled Power Flows. IEEE Transactions on Power Electronics, 2021, 36, 2231-2245.	5.4	43
17	Data-Driven Fault Diagnosis of Lithium-Ion Battery Overdischarge in Electric Vehicles. IEEE Transactions on Power Electronics, 2022, 37, 4575-4588.	5.4	43
18	Exploring the boundaries of Solar Home Systems (SHS) for off-grid electrification: Optimal SHS sizing for the multi-tier framework for household electricity access. Applied Energy, 2019, 240, 907-917.	5.1	40

#	Article	IF	Citations
19	Stochastic load profile construction for the multi-tier framework for household electricity access using off-grid DC appliances. Energy Efficiency, 2020, 13, 197-215.	1.3	35
20	An Online Data-Driven Fault Diagnosis and Thermal Runaway Early Warning for Electric Vehicle Batteries. IEEE Transactions on Power Electronics, 2022, 37, 12636-12646.	5.4	29
21	Investigation into the control methods to reduce the DC-link capacitor ripple current in a back-to-back converter. , 2014, , .		24
22	Constructing Accurate Equivalent Electrical Circuit Models of Lithium Iron Phosphate and Leadâ€“Acid Battery Cells for Solar Home System Applications. Energies, 2018, 11, 2305.	1.6	24
23	Modelling and analysis of the transformer current resonance in dual active bridge converters. , 2017, , .		21
24	Quantifying the Benefits of a Solar Home System-Based DC Microgrid for Rural Electrification. Energies, 2019, 12, 938.	1.6	20
25	A Rotating Speed Controller Design Method for Power Leveling by Means of Inertia Energy in Wind Power Systems. IEEE Transactions on Energy Conversion, 2015, 30, 1052-1060.	3.7	19
26	Transformer Current Ringing in Dual Active Bridge Converters. IEEE Transactions on Industrial Electronics, 2021, 68, 12130-12140.	5.2	19
27	Stability Region Exploring of Shunt Active Power Filters Based on Output Admittance Modeling. IEEE Transactions on Industrial Electronics, 2021, 68, 11696-11706.	5.2	19
28	A new second-order generalized integrator based quadrature signal generator with enhanced performance. , 2016, , .		18
29	Decoupling Control of Multiactive Bridge Converters Using Linear Active Disturbance Rejection. IEEE Transactions on Industrial Electronics, 2021, 68, 10688-10698.	5.2	17
30	A dual voltage control strategy for single-phase PWM converters with power decoupling function. , 2014, , .		16
31	Partially Rated Power Flow Control Converter Modeling for Low-Voltage DC Grids. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2020, 8, 2430-2444.	3.7	16
32	Modulation Schemes With Enhanced Switch Thermal Distribution for Single-Phase ACâ€“DCâ€“AC Reduced-Switch Converters. IEEE Transactions on Power Electronics, 2016, 31, 3302-3313.	5.4	15
33	A reconfigurable series resonant DC-DC converter for wide-input and wide-output voltages. , 2017, , .		15
34	A Digitally Controlled Three-Phase Cycloconverter Type High Frequency AC Link Inverter Using Space Vector Modulation. Journal of Power Electronics, 2011, 11, 28-36.	0.9	15
35	Evaluation of current stresses in nineâ€switch energy conversion systems. IET Power Electronics, 2014, 7, 2877-2886.	1.5	14
36	DQ reference frame modeling and control of single-phase active power decoupling circuits. , 2015, , .		13

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37	Benchmark of AC and DC active power decoupling circuits for second-order harmonic mitigation in kW-scale single-phase inverters. , 2015, , .		13
38	A transformerless single-phase symmetrical Z-source HERIC inverter with reduced leakage currents for PV systems. , 2018, , .		12
39	The Long Road to Universal Electrification: A Critical Look at Present Pathways and Challenges. Energies, 2020, 13, 508.	1.6	12
40	Impedance Modelling for Three-Phase Inverters with Double Synchronous Reference Frame Current Controller in the Presence of Imbalance. IEEE Transactions on Power Electronics, 2021, , 1-1.	5.4	12
41	Design of a Power Flow Control Converter for Bipolar Meshed LVDC Distribution Grids. , 2018, , .		11
42	Suitable Submodule Switch Rating for Medium Voltage Modular Multilevel Converter Design. , 2018, , .		10
43	On the Protection of the Power Flow Control Converter in Meshed Low Voltage DC Networks. , 2018, , .		10
44	Modelling, Analysis and Mitigation of the Transformer Current Ringing in Dual Active Bridge Converters. , 2018, , .		9
45	Evaluation of switch currents in nine-switch energy conversion systems. , 2013, , .		8
46	The feasibility study on thermal loading control of wind power converters with a flexible switching frequency. , 2015, , .		8
47	A partially rated DC-DC converter for power flow control in meshed LVDC distribution grids. , 2018, , .		8
48	Continuous Full Order Model of Triple Active Bridge Converter. , 2019, , .		8
49	Python supervised co-simulation for a day-long harmonic evaluation of EV charging. Chinese Journal of Electrical Engineering, 2021, 7, 15-24.	2.3	8
50	Power loss benchmark of nine-switch converters in three-phase online-UPS application. , 2014, , .		7
51	An analytical turn-on power loss model for 650-V GaN eHEMTs. , 2018, , .		7
52	Design criteria of solidâ€state circuit breaker for lowâ€voltage microgrids. IET Power Electronics, 2021, 14, 1284-1299.	1.5	7
53	On the Importance of Tracking the Negative-Sequence Phase-Angle in Three-Phase Inverters with Double Synchronous Reference Frame Current Control. , 2020, , .		7
54	A three-phase boost-type grid-connected inverter based on synchronous reference frame control. , 2012, , .		6

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55	Low-Voltage dc System Building Blocks: Integrated Power Flow Control and Short Circuit Protection. IEEE Industrial Electronics Magazine, 2023, 17, 6-20.	2.3	6
56	Parallel-connected three-phase inverters for railway auxiliary power supply without sensing output currents. , 2012, , .		5
57	Energy storage system by means of improved thermal performance of a 3 MW grid side wind power converter. , 2013, , .		5
58	A modeling methodology to evaluate the impact of temperature on Solar Home Systems for rural electrification. , 2018, , .		5
59	Modeling and Control of DC-DC Converters. , 2018, , 69-92.		5
60	Winding design of series AC inductor for dual active bridge converters. , 2018, , .		5
61	Output Impedance Modelling and Sensitivity Study of Grid-Feeding Inverters with Dual Current Control. , 2019, , .		5
62	Power Flow Decoupling Controller for Triple Active Bridge Based on Fourier Decomposition of Transformer Currents. , 2020, , .		5
63	Coordination Control of Power Flow Controller and Hybrid DC Circuit Breaker in MVDC Distribution Networks. Journal of Modern Power Systems and Clean Energy, 2021, 9, 1257-1268.	3.3	5
64	Modular Multilevel Converter Performance with Dynamic MVDC Distribution Link Voltage Rating. , 2018, , .		4
65	Modeling and Optimization of Displacement Windings for Transformers in Dual Active Bridge Converters. , 2018, , .		4
66	Design, modelling and evaluation of a GaN based motor drive for a solar car. , 2019, , .		4
67	Unbalanced Voltage/Power Control in Bipolar DC Distribution Grids Using Power Flow Controller. , 2020, , .		4
68	Guidelines for Stability Analysis of the DDSRF-PLL Using LTI and LTP Modelling in the Presence of Imbalance. IEEE Open Journal of the Industrial Electronics Society, 2022, 3, 339-352.	4.8	4
69	Reliability-oriented energy storage sizing in wind power systems. , 2014, , .		3
70	Modulation Schemes for Single-Phase B6 Converters With Two Asymmetrical Terminal Voltages. IEEE Transactions on Industrial Electronics, 2016, 63, 49-59.	5.2	3
71	A family of cost-effective magnetically-coupled impedance source inverters. , 2017, , .		3
72	Introduction to the Analysis of Harmonics and Resonances in Large Offshore Wind Power Plants. , 2018, , .		3

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73	Modelling of Output Admittance Coupling Between Shunt Active Power Filters and Non-linear Loads. , 2019, , .		3
74	Multi-timescale Modeling of Fast Charging Stations for Power Quality Analysis. , 2021, , .		3
75	Loss comparison of different nine-switch and twelve-switch energy conversion systems. , 2014, , .		2
76	A voltage doubler circuit to extend the soft-switching range of dual active bridge converters. , 2017, , .		2
77	Comparison of Battery Technologies for DC Microgrids with Integrated PV. , 2019, , .		2
78	Modular Multilevel Photovoltaic Interfaced Converter with Low Voltage Energy Integration for DC Systems. , 2019, , .		1
79	Fault Protection and Coordinated Controls of Power Flow Controller in a Flexible DC Grid. , 2021, , .		1
80	Comparison of Optimized Chargepads for Wireless EV Charging Application. , 2019, , .		1
81	Power Disequilibrium Suppression in Bipolar DC Distribution Grids by Using a Series-Parallel Power Flow Controller. IEEE Transactions on Power Delivery, 2023, 38, 117-132.	2.9	1
82	Thermal analysis of multi-MW two-level generator side converters with reduced common-mode-voltage modulation methods for wind turbines. , 2013, , .		0
83	Generation of random wind speed profiles for evaluation of stress in WT power converters. , 2013, , .		0
84	Modulation schemes with enhanced switch thermal distribution for single-phase AC-DC-AC reduced-switch converters. , 2015, , .		0
85	Line-to-line voltage based modulation scheme for single-phase reduced switch ac-dc-ac converters to achieve improved performance. , 2015, , .		0
86	A component-reduced Zero-Voltage Switching three-level DC-DC converter. , 2016, , .		0
87	Analysis of magnetically-coupled impedance source three-phase four-switch inverters. , 2017, , .		0
88	Modular Multilevel DC Cascaded Converter with Battery Electrical Storage Integration. , 2019, , .		0