

Junming Zhang

List of Publications by Year in descending order

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161
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2836
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#	ARTICLE	IF	CITATIONS
1	Short-Circuit and Over-Current Fault Detection for SiC MOSFET Modules Based on Tunnel Magnetoresistance With Predictive Capabilities. IEEE Transactions on Power Electronics, 2022, 37, 3719-3723.	5.4	5
2	A Voltage Balancing Method for Series-Connected Power Devices Based on Active Clamping in Voltage Source Converters. IEEE Transactions on Power Electronics, 2022, 37, 10620-10632.	5.4	7
3	The Impact of the Hexagonal and Circular Cell Designs on the Characteristics and Ruggedness for 4H-SiC MPS Diodes. IEEE Transactions on Electron Devices, 2022, 69, 1226-1232.	1.6	2
4	Stability Enhancement via Controller Optimization and Impedance Shaping for Dual Active Bridge-Based Energy Storage Systems. IEEE Transactions on Industrial Electronics, 2021, 68, 5863-5874.	5.2	35
5	A Voltage Balancing Method for Series-Connected Power Devices in an LLC Resonant Converter. IEEE Transactions on Power Electronics, 2021, 36, 3628-3632.	5.4	15
6	A Novel Trapezoidal Wave Control Method for a Single-Phase Grid-Tied T-Type Inverter. IEEE Transactions on Power Electronics, 2021, 36, 4711-4722.	5.4	9
7	Steady-State and Transient DC Magnetic Flux Bias Suppression Methods for a Dual Active Bridge Converter. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 744-753.	3.7	29
8	Power Decoupling Control for Single-Stage On-Board Chargers. , 2021, , .		4
9	An Active Gate Driver for Dynamic Current Sharing of Paralleled SiC MOSFETs. , 2021, , .		8
10	High Frequency PCB Trace Current Measurement in Power Converters Based on Tunnel Magnetoresistance. , 2021, , .		1
11	Analysis on Static Current Sharing of N-Paralleled Silicon Carbide MOSFETs. , 2021, , .		4
12	Series-Connected Power Devices in a CLLC Resonant Converter for DC Transformer Applications. , 2021, , .		1
13	A Modular Multilevel Resonant DC-DC Converter. IEEE Transactions on Power Electronics, 2020, 35, 7921-7932.	5.4	44
14	Differential Power Processing Architecture With Virtual Port Connected in Series and MPPT in Submodule Level. IEEE Access, 2020, 8, 137897-137909.	2.6	5
15	Degradation of 4H-SiC MOSFET body diode under repetitive surge current stress. , 2020, , .		6
16	Tunnel Magnetoresistance-Based Short-Circuit and Over-Current Protection for IGBT Module. IEEE Transactions on Power Electronics, 2020, 35, 10930-10944.	5.4	38
17	Modeling and Analysis of v _{gs} Characteristics for Upper-Side and Lower-Side Switches at Turn-on Transients for a 1200V/200A Full-SiC Power Module. Micromachines, 2020, 11, 5.	1.4	4
18	Design of a High-Voltage-Insulation and High-Efficiency Medium Frequency Transformer. , 2020, , .		2

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19	Bidirectional Modular Multilevel Resonant DC-DC Converter for Medium Voltage Power Conversion. , 2020, , .		6
20	A High-Efficiency Single-Phase T-Type BCM Microinverter. IEEE Transactions on Power Electronics, 2019, 34, 984-995.	5.4	36
21	Circulating Current and ZVS-on of a Dual Active Bridge DC-DC Converter: A Review. IEEE Access, 2019, 7, 50561-50572.	2.6	107
22	A Three-Port <i>LLC</i> Resonant DC/DC Converter. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2019, 7, 2513-2524.	3.7	21
23	A Resonant DC-DC Converter with Modular Rectifier for High Voltage Gain and Wide Output Voltage Range Applications. , 2019, , .		8
24	Differential Power Processing Architecture with Virtual Port in Series and MPPT in Submodule Level. , 2019, , .		2
25	An IPOS LLC Converter with Current Sharing Capability. , 2019, , .		2
26	An Analog-based, Duty Cycle Modulation Method to Remove the DC Bias in the Transformer for a Dual Active Bridge Converter. , 2019, , .		2
27	Optimal Phase-Shift Control to Minimize Reactive Power for a Dual Active Bridge DC-DC Converter. IEEE Transactions on Power Electronics, 2019, 34, 10193-10205.	5.4	116
28	Crosstalk Analysis and Suppression for a Closed-Loop Active IGBT Gate Driver. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2019, 7, 1931-1940.	3.7	17
29	Active-Clamp ZVZCS Resonant Forward DC Transformer (DCX) With Load-Adaptive ON-Time Control. IEEE Transactions on Power Electronics, 2018, 33, 10490-10500.	5.4	7
30	A self-bias supply scheme for the control circuit in power converter. , 2018, , .		0
31	A Capacitor Voltage Balancing Method for a Modular Multilevel DC Transformer for DC Distribution System. IEEE Transactions on Power Electronics, 2018, 33, 3002-3011.	5.4	58
32	A Variable Off-Time Control Method for a Single-Phase DCM Microinverter. IEEE Transactions on Power Electronics, 2018, 33, 7229-7239.	5.4	10
33	Application of Tunnel Magnetoresistance to Health Monitoring of Modular Multilevel Converter Submodules. , 2018, , .		8
34	A Wide Output LLC Converter Based on Full Bridge and Half Bridge Topology Morphing Method Using Trajectory Transition. , 2018, , .		8
35	A Phase Shift Control of Minimal Circulating Current and ZVS Turn-On for DAB Converter. , 2018, , .		2
36	Constant Burst Frequency Control for LLC Converters with Trajectory Control. , 2018, , .		6

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37	A Family of DC Transformer (DCX) Topologies Based on New ZVZCS Cells With DC Resonant Capacitance. IEEE Transactions on Power Electronics, 2017, 32, 2822-2834.	5.4	35
38	A High-Efficiency Quasi-Two-Stage LED Driver With Multichannel Outputs. IEEE Transactions on Industrial Electronics, 2017, 64, 5875-5882.	5.2	18
39	Current-Feed Single-Switch Forward Resonant DC Transformer (DCX) With Secondary Diode-Clamping. IEEE Transactions on Industrial Electronics, 2017, 64, 7790-7799.	5.2	20
40	A novel fixed off-time control method for single-phase micro-inverter without sensing inductor current. , 2017, , .		3
41	Active Current Source IGBT Gate Drive With Closed-Loop di/dt and dv/dt Control. IEEE Transactions on Power Electronics, 2017, 32, 3787-3796.	5.4	72
42	A Family of Single-Phase Hybrid Step-Down PFC Converters. IEEE Transactions on Power Electronics, 2017, 32, 5271-5281.	5.4	52
43	A Three-Phase Modular Multilevel DC-DC Converter for Power Electronic Transformer Applications. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2017, 5, 140-150.	3.7	71
44	An Improved Variable On-Time Control Strategy for a CRM Flyback PFC Converter. IEEE Transactions on Power Electronics, 2017, 32, 915-919.	5.4	57
45	A capacitor voltage balancing method for a three phase modular multilevel DC-DC converter. , 2017, , .		6
46	Phase leading input current compensation for CRM boost PFC converter. , 2016, , .		1
47	A single phase T-type inverter operating in boundary conduction mode. , 2016, , .		13
48	Evaluation of reverse recovery characteristic of silicon carbide metal-oxide-semiconductor field-effect transistor intrinsic diode. IET Power Electronics, 2016, 9, 969-976.	1.5	28
49	A Bidirectional Three-Level <i>LLC</i> Resonant Converter With PWAM Control. IEEE Transactions on Power Electronics, 2016, 31, 2213-2225.	5.4	90
50	An Isolated Bidirectional Modular Multilevel DC/DC Converter for Power Electronic Transformer Applications. Journal of Power Electronics, 2016, 16, 861-871.	0.9	6
51	Seamless Transfer of Single-Phase Utility Interactive Inverters with a Synchronized Output Regulation Strategy. Journal of Power Electronics, 2016, 16, 1821-1832.	0.9	4
52	A synchronized output regulation strategy for seamless transfer of single-phase utility interactive inverters. , 2015, , .		1
53	A simple current balancing method for multi-output flyback LED driver. , 2015, , .		0
54	Impact of common source inductance on switching loss of SiC MOSFET. , 2015, , .		12

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55	Three phase modular multilevel DC/DC converter for power electronic transformer application. , 2015, , .		4
56	High efficiency hybrid current balancing method for multi-channel LED drive. , 2015, , .		6
57	Interleaved Phase-Shift Full-Bridge Converter With Transformer Winding Series-Parallel Autoregulated (SPAR) Current Doubler Rectifier. IEEE Transactions on Power Electronics, 2015, 30, 4864-4873.	5.4	30
58	Modular multilevel power electronic transformer. , 2015, , .		8
59	Voltage balancing strategy discussion on modular multilevel DC/DC converter. , 2015, , .		1
60	A Bidirectional LLC Resonant Converter With Automatic Forward and Backward Mode Transition. IEEE Transactions on Power Electronics, 2015, 30, 757-770.	5.4	204
61	Analysis and Design Considerations of LLC Resonant Multioutput DC/DC LED Driver With Charge Balancing and Exchanging of Secondary Series Resonant Capacitors. IEEE Transactions on Power Electronics, 2015, 30, 780-789.	5.4	53
62	High efficiency quasi-two-stage converter with current balancing for multi-channel LED drive based on AC bus. , 2014, , .		1
63	A novel ZVS and ZCS three-port LLC resonant converter for renewable energy systems. , 2014, , .		16
64	Analysis on reverse recovery characteristic of SiC MOSFET intrinsic diode. , 2014, , .		23
65	Analysis of stray inductance's influence on SiC MOSFET switching performance. , 2014, , .		18
66	Analysis and design considerations of two-stage AC-DC LED driver without electrolytic capacitor. , 2014, , .		14
67	A family of single-phase hybrid step-down PFC converters. , 2014, , .		1
68	Power electronic transformer for dc power distribution network. , 2014, , .		9
69	Resonant power electronic transformer for power grid. , 2014, , .		1
70	Series-Parallel Autoregulated Charge-Balancing Rectifier for Multioutput Light-Emitting Diode Driver. IEEE Transactions on Industrial Electronics, 2014, 61, 1262-1268.	5.2	44
71	A voltage controlled current source gate drive method for IGBT devices. , 2014, , .		7
72	Soft-switching Z-source inverters with coupled inductor. , 2014, , .		5

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73	New methods to reduce circulating energy in dual active bridge converter. , 2013, , .		3
74	A high efficiency bridgeless flyback PFC converter for adapter application. , 2013, , .		14
75	New control strategy for bidirectional LLC resonant converter in energy storage systems. , 2013, , .		8
76	High-efficiency quasi-two-stage converter with current sharing for multi-channel LED driver. , 2013, , .		5
77	Evaluation of primary side control schemes for flyback converter with constant current output. , 2013, , .		11
78	An Improved Repetitive Control Scheme for Grid-Connected Inverter With Frequency-Adaptive Capability. IEEE Transactions on Industrial Electronics, 2013, 60, 814-823.	5.2	216
79	Design Considerations for Dual-Output Quasi-Resonant Flyback LED Driver With Current-Sharing Transformer. IEEE Transactions on Power Electronics, 2013, 28, 4820-4830.	5.4	66
80	Low conduction loss and low device stress three-level power factor correction rectifier. IET Power Electronics, 2013, 6, 478-487.	1.5	6
81	Hybrid passive current sharing method for multi-channel SRC LED driver. , 2013, , .		3
82	Stability Criterion for Cascaded System With Constant Power Load. IEEE Transactions on Power Electronics, 2013, 28, 1843-1851.	5.4	211
83	An optimal peak current mode control scheme for critical conduction mode (CRM) Buck PFC converter. , 2013, , .		3
84	Primary side feedforward control for TRIAC dimmable light emitting diode driver with Constant Power. IET Power Electronics, 2013, 6, 572-580.	1.5	12
85	PWAM control of bidirectional LLC resonant converter. , 2013, , .		2
86	A soft-switching post-regulator for multi-outputs dual forward DC/DC converter with tight output voltage regulation. IET Power Electronics, 2013, 6, 1069-1077.	1.5	25
87	Primary Side Constant Power Control Scheme for LED Drivers Compatible with TRIAC Dimmers. Journal of Power Electronics, 2013, 13, 609-618.	0.9	14
88	Gate drive investigations of IGBT modules with SiC-Schottky freewheeling diodes. , 2013, , .		10
89	Bidirectional LLC resonant converter for energy storage applications. , 2013, , .		33
90	Research on fast transient and ± 1 harmonics suppressing repetitive control scheme for three-phase grid-connected inverters. IET Power Electronics, 2013, 6, 601-610.	1.5	51

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91	A primary side control Scheme for Triac dimmable LED driver based on indirect output current sensing. , 2012, , .		4
92	Research on fast transient and 6n±1 harmonics compensating repetitive control scheme for three-phase systems. , 2012, , .		1
93	An improved control scheme for buck PFC converter for high efficiency adapter application. , 2012, , .		18
94	A Hybrid Driving Scheme for Full-Bridge Synchronous Rectifier in LLC Resonant Converter. IEEE Transactions on Power Electronics, 2012, 27, 4549-4561.	5.4	49
95	A low cost low power Flyback converter with a simple transformer. , 2012, , .		9
96	A primary side feedforward control scheme for low power LED driver compatible with Triac dimmer. , 2012, , .		15
97	A Primary-Side Control Scheme for High-Power-Factor LED Driver With TRIAC Dimming Capability. IEEE Transactions on Power Electronics, 2012, 27, 4619-4629.	5.4	101
98	Variable On-Time (VOT)-Controlled Critical Conduction Mode Buck PFC Converter for High-Input AC/DC HB-LED Lighting Applications. IEEE Transactions on Power Electronics, 2012, 27, 4530-4539.	5.4	98
99	A Current-Driving Synchronous Rectifier for an LLC Resonant Converter With Voltage-Doubler Rectifier Structure. IEEE Transactions on Power Electronics, 2012, 27, 1894-1904.	5.4	74
100	Optimal design methodology for the current-sharing transformer in a quasi-resonant (QR) flyback LED driver. , 2012, , .		4
101	A Capacitor-Isolated LED Driver With Inherent Current Balance Capability. IEEE Transactions on Industrial Electronics, 2012, 59, 1708-1716.	5.2	99
102	Simplified 2-D Analytical Model for Winding Loss Analysis of Flyback Transformers. Journal of Power Electronics, 2012, 12, 960-973.	0.9	3
103	Simple large-signal model based on gyrator for system level analysis. , 2011, , .		1
104	Large signal stability analysis based on gyrator model with constant power load. , 2011, , .		8
105	Study on a transformerless Hybrid Active Power Filter with high compensation precision and dynamic performance. , 2011, , .		1
106	Characterizing noise source and coupling path in Flyback converter for common-mode noise prediction. , 2011, , .		23
107	A Precise Passive Current Balancing Method for Multioutput LED Drivers. IEEE Transactions on Power Electronics, 2011, 26, 2149-2159.	5.4	89
108	Research on key application issues of smart synchronous rectifier driver IC in LLC resonant converter. , 2011, , .		4

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109	A family of capacitive current balancing methods for multi-output LED drivers. , 2011, , .		13
110	A novel current driving scheme for LLC resonant converter with Synchronized voltage-doubler rectifier. , 2011, , .		20
111	A hybrid driving scheme for full-bridge synchronous rectified LLC resonant DC/DC converter. , 2011, , .		3
112	A novel high efficiency and low-cost current balancing method for multi-LED driver. , 2011, , .		18
113	High frequency modeling for CM noise coupling path of transformer based on transmission line theory. , 2011, , .		0
114	Totem-Pole Boost Bridgeless PFC Rectifier With Simple Zero-Current Detection and Full-Range ZVS Operating at the Boundary of DCM/CCM. IEEE Transactions on Power Electronics, 2011, 26, 427-435.	5.4	200
115	Design Considerations of Soft-Switched Buck PFC Converter With Constant On-Time (COT) Control. IEEE Transactions on Power Electronics, 2011, 26, 3144-3152.	5.4	79
116	Optimum design consideration and implementation of a parallel hybrid active power filter integrated into a three-phase capacitive diode rectifier. , 2011, , .		1
117	Variable on-time controlled ZVS buck PFC converter for HB-LED application. , 2011, , .		9
118	A Simple Two-Channel LED Driver With Automatic Precise Current Sharing. IEEE Transactions on Industrial Electronics, 2011, 58, 4783-4788.	5.2	105
119	An Adaptive Blanking Time Control Scheme for an Audible Noise-Free Quasi-Resonant Flyback Converter. IEEE Transactions on Power Electronics, 2011, 26, 2735-2742.	5.4	26
120	A primary side controlled WLED driver compatible with Triac dimmer. , 2011, , .		20
121	A New Current-Driven Synchronous Rectifier for Series-Parallel Resonant (\$LLC\$) DC-DC Converter. IEEE Transactions on Industrial Electronics, 2011, 58, 289-297.	5.2	97
122	A repetitive-based controller for a hybrid filter with high quality grid current waveform. , 2011, , .		0
123	Performance comparison between buck and boost CRM PFC converter. , 2010, , .		39
124	Design considerations of a high efficiency ZVS buck AC-DC converter with constant on-time control. , 2010, , .		2
125	A novel variable frequency soft switching method for Flyback converter with synchronous rectifier. , 2010, , .		4
126	High-frequency DC link grid-connected power conversion with Improved Active Clamp. , 2010, , .		2

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127	Single inductor three-level boost bridgeless PFC rectifier with nature voltage clamp. , 2010, , .		8
128	An improved winding loss analytical model of Flyback transformer. , 2010, , .		3
129	A High Efficiency Flyback Converter With New Active Clamp Technique. IEEE Transactions on Power Electronics, 2010, 25, 1775-1785.	5.4	159
130	A high efficiency Flyback converter with new active clamp technique. , 2010, , .		6
131	The design and research of the Hybrid Active Power Filters. , 2010, , .		1
132	LLC resonant DC/DC converter with current-driven synchronized voltage-doubler rectifier. , 2009, , .		18
133	A New Interleaved Active-Clamp Forward Converter with Parallel Input and Series-Parallel Output. , 2009, , .		17
134	Research on a Novel Three-Phase Single-Stage Boost DCM PFC Topology and the Dead Zone of its Input Current. , 2009, , .		7
135	Analysis and Derivations for a Family ZVS Converter Based on a New Active Clamp ZVS Cell. IEEE Transactions on Industrial Electronics, 2008, 55, 773-781.	5.2	88
136	New Hybrid Driving Scheme for SRs to Improve the Efficiency of Active Clamped Forward Converter. IEEE Applied Power Electronics Conference and Exposition, 2007, , .	0.0	3
137	ZVZCS Full Bridge Dc-Dc Converter with Reduced Circulating Loss and Filter Requirement. Conference Record - IAS Annual Meeting (IEEE Industry Applications Society), 2007, , .	0.0	1
138	IC Image Segmentation Using Eigenvalue Clustering. , 2007, , .		3
139	ZVZCS Full Bridge Dc-Dc Converter with Reduced Circulating Loss and Filter Requirement. Conference Record - IAS Annual Meeting (IEEE Industry Applications Society), 2007, , .	0.0	7
140	Analysis and Optimization of LLC Resonant Converter With a Novel Over-Current Protection Circuit. IEEE Transactions on Power Electronics, 2007, 22, 435-443.	5.4	192
141	Detailed losses Analysis of High-Frequency Planar Power Transformer. , 2007, , .		6
142	Soft Switched Full Bridge DC-DC Converter With Reduced Circulating Loss and Filter Requirement. IEEE Transactions on Power Electronics, 2007, 22, 1949-1955.	5.4	62
143	An Improved Current-Driven Method for Synchronous Flyback AC/DC Converters. , 2006, , .		13
144	The Design Consideration Comparisons of Two Clamping Modes Over Current Protection for LLC Converter. , 2006, , .		12

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145	Extra Wide Input Voltage Range and High Efficiency DC-DC Converter Using Hybrid Modulation. Conference Record - IAS Annual Meeting (IEEE Industry Applications Society), 2006, , .	0.0	16
146	Analysis and Design for a New ZVS DC DC Converter With Active Clamping. IEEE Transactions on Power Electronics, 2006, 21, 1572-1579.	5.4	23
147	A novel zero-current-transition full bridge DC/DC converter. IEEE Transactions on Power Electronics, 2006, 21, 354-360.	5.4	54
148	A General Method for Two-Level Bridge Type DC/DC Converter to Three-Level DC/DC Converter. , 2006, , .		2
149	New ZCT-PWM Cell for DC-DC Converters with Reduced Current Stress and Conduction Loss. , 2005, , .		4
150	A family of non-isolated ZVS DC-DC converter based on a new active clamp cell. , 2005, , .		6
151	A Novel ZVS DC/DC Converter for High Power Applications. IEEE Transactions on Power Electronics, 2004, 19, 420-429.	5.4	100
152	A novel fully soft switched (zero voltage on and zero current off) boost converter with reduced conduction loss. , 0, , .		0
153	An improved high efficiency full bridge ZVS DC-DC converter with overall load range soft switching. , 0, , .		6
154	A new ZVZCS full bridge converter with an auxiliary center tapped rectifier. , 0, , .		0
155	A novel phase shift controlled ZVZCS full bridge DC-DC converter: analysis and design considerations. , 0, , .		6
156	A new zero voltage switching boost dc-dc converter with active clamping. , 0, , .		6
157	Analysis and Design of N paralleled DC/DC Modules with Current-Sharing Control. , 0, , .		5
158	A Novel Zero-Current-Transition Three-Level DC/DC Converter. , 0, , .		6
159	High Efficiency Phase-shift Controlled Hybrid Full Bridge DC Bus Converter. , 0, , .		10
160	Control-Loop Design for Three-loop Voltage Regulators With Adaptive Voltage Position Control. , 0, , .		4
161	High Efficiency PFC Converter with Clamp-mode Soft Switching. , 0, , .		0