Marian K Kazimierczuk

List of Publications by Year
in descending order

152	3,083	172207	233125
papers	citations	29 h-index	45 g-index

165	165	165	2153
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Analysis of PWM Z-Source DC-DC Converter in CCM for Steady State. IEEE Transactions on Circuits and Systems I: Regular Papers, 2012, 59, 854-863.	3.5	152
2	Analytical Optimization of Solidâ€“Round-Wire Windings. IEEE Transactions on Industrial Electronics, 2013, 60, 1033-1041.	5.2	121
3	Small-Signal Modeling of Open-Loop PWM Z-Source Converter by Circuit-Averaging Technique. IEEE Transactions on Power Electronics, 2013, 28, 1286-1296.	5.4	120
4	Voltage-Loop Power-Stage Transfer Functions With MOSFET Delay for Boost PWM Converter Operating in CCM. IEEE Transactions on Industrial Electronics, 2007, 54, 347-353.	5.2	102
5	Frequency-Dependent Resistance of Litz-Wire Square Solenoid Coils and Quality Factor Optimization for Wireless Power Transfer. IEEE Transactions on Industrial Electronics, 2016, 63, 2825-2837.	5.2	100
6	Averaged Small-Signal Model of PWM DC-DC Converters in CCM Including Switching Power Loss. IEEE Transactions on Circuits and Systems II: Express Briefs, 2019, 66, 262-266.	2.2	80
7	Zero-Voltage Switching Operation of Transformer Class-E Inverter at Any Coupling Coefficient. IEEE Transactions on Industrial Electronics, 2019, 66, 1809-1819.	5.2	61
8	Winding Resistance and Power Loss of Inductors With Litz and Solid-Round Wires. IEEE Transactions on Industry Applications, 2018, 54, 3548-3557.	3.3	60
9	Design of AC resonant inductors using area product method. , 2009, , .		59
10	Self-Capacitance of Coupled Toroidal Inductors for EMI Filters. IEEE Transactions on Electromagnetic Compatibility, 2015, 57, 216-223.	1.4	58
11	Analysis and Design of Choke Inductors for Switched-Mode Power Inverters. IEEE Transactions on Industrial Electronics, 2018, 65, 2234-2244.	5.2	57
12	Analysis and Design of Loosely Inductive Coupled Wireless Power Transfer System Based on Class-<formula formulatype="inline"><tex Notation="TeX">${m E}^{2}$</tex></formula> DC-DC Converter for Efficiency Enhancement. IEEE Transactions on Circuits and Systems I: Regular Papers, 2015, 62, 2781-2791.	3.5	53
13	Analysis and Design of Class-E Power Amplifier With MOSFET Parasitic Linear and Nonlinear Capacitances at Any Duty Ratio. IEEE Transactions on Power Electronics, 2013, 28, 5222-5232.	5.4	49
14	A-Source Impedance Network. IEEE Transactions on Power Electronics, 2016, , 1-1.	5.4	48
15	Self-Capacitance of Single-Layer Inductors With Separation Between Conductor Turns. IEEE Transactions on Electromagnetic Compatibility, 2017, 59, 1642-1645.	1.4	46
16	Off-Nominal Operation of Class-E Amplifier at Any Duty Ratio. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 2007, 54, 1389-1397.	0.1	42
17	Waveform Equations, Output Power, and Power Conversion Efficiency for Class-E Inverter Outside Nominal Operation. IEEE Transactions on Industrial Electronics, 2014, 61, 1799-1810.	5.2	42
18	Isolated Two-Transistor Zeta Converter With Reduced Transistor Voltage Stress. IEEE Transactions on Circuits and Systems II: Express Briefs, 2011, 58, 41-45.	2.2	41

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19	Steinmetz Equation for Gapped Magnetic Cores. IEEE Magnetics Letters, 2016, 7, 1-4.	0.6	41
20	MLMVNNN for Parameter Fault Detection in PWM DCâ€“DC Converters and Its Applications for Buck and Boost DCâ€“DC Converters. IEEE Transactions on Instrumentation and Measurement, 2019, 68, 439-449.	2.4	41
21	Comparison of Wide- and High-Frequency Duty-Ratio-to-Inductor-Current Transfer Functions of DCâ€“DC PWM Buck Converter in CCM. IEEE Transactions on Industrial Electronics, 2012, 59, 641-643.	5.2	40
22	Modeling and Control of Inductive Power Transfer System Supplied by Multiphase Phase-Controlled Inverter. IEEE Transactions on Power Electronics, 2019, 34, 9303-9315.	5.4	40
23	Analysis of Class DE Amplifier With Nonlinear Shunt Capacitances at Any Grading Coefficient for High $displaystyle Q$ and 25 $displaystyle $ % Duty Ratio. IEEE Transactions on Power Electronics, 2010, 25, 924-932.	5.4	38
24	Modular Parallel Multi-Inverter System for High-Power Inductive Power Transfer. IEEE Transactions on Power Electronics, 2019, 34, 9422-9434.	5.4	37
25	Steady-State Analysis of Isolated Class-E^2 Converter Outside Nominal Operation. IEEE Transactions on Industrial Electronics, 2017, 64, 3227-3238.	5.2	34
26	Maximum Operating Frequency of Class-E Amplifier at Any Duty Ratio. IEEE Transactions on Circuits and Systems II: Express Briefs, 2008, 55, 768-770.	2.2	32
27	Analytical winding size optimisation for different conductor shapes using AmpÃ¨re's Law. IET Power Electronics, 2013, 6, 1058-1068.	1.5	32
28	Magnetising inductance of multipleâ€output flyback dcâ€“dc convertor for discontinuousâ€conduction mode. IET Power Electronics, 2017, 10, 451-461.	1.5	32
29	A Single-Stage LED Driver Based on ZCDS Class-E Current-Driven Rectifier as a PFC for Street-Lighting Applications. IEEE Transactions on Power Electronics, 2018, 33, 8710-8727.	5.4	32
30	Generalized Design Considerations and Analysis of Class-E Amplifier for Sinusoidal and Square Input Voltage Waveforms. IEEE Transactions on Industrial Electronics, 2015, 62, 211-220.	5.2	31
31	Analytical optimisation of solidâ€roundâ€wire windings conducting dc and ac nonâ€sinusoidal periodic currents. IET Power Electronics, 2013, 6, 1462-1474.	1.5	29
32	Control-Oriented Modeling of Wireless Power Transfer Systems With Phase-Shift Control. IEEE Transactions on Power Electronics, 2020, 35, 2119-2134.	5.4	29
33	Performance Study of Class-E Power Amplifier With a Shunt Inductor at Subnominal Condition. IEEE Transactions on Power Electronics, 2013, 28, 3834-3844.	5.4	27
34	Analysis and Design of Class-${m E}_{m M}$ Power Amplifier. IEEE Transactions on Circuits and Systems I: Regular Papers, 2014, 61, 976-986.	3.5	27
35	Low-Voltage Electronic Ballast Based on Class E Oscillator. IEEE Transactions on Power Electronics, 2007, 22, 863-870.	5.4	26
36	Twoâ€switch flyback PWM DCâ€DC converter in continuousâ€conduction mode. International Journal of Circuit Theory and Applications, 2011, 39, 1145-1160.	1.3	26

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37	Phase Control and Power Optimization of LLC Converter. , 2019, , .		26
38	Small-signal modeling of PWM dual-SEPIC dc-dc converter by circuit averaging technique. , 2016, , .		25
39	Design of Class E Power Amplifier with New Structure and Flat Top Switch Voltage Waveform. IEEE Transactions on Power Electronics, 2018, 33, 2571-2579.	5.4	25
40	Frequency Optimization for Inductive Power Transfer Based on AC Resistance Evaluation in Litz-Wire Coil. IEEE Transactions on Power Electronics, 2019, 34, 2355-2363.	5.4	25
41	Modeling and Analysis of Class-E Amplifier With a Shunt Inductor at Sub-Nominal Operation for Any Duty Ratio. IEEE Transactions on Circuits and Systems I: Regular Papers, 2014, 61, 987-1000.	3.5	24
42	Comparison of DCM operated PWM DC-DC converter modelling methods including the effects of parasitic components on duty ratio constraint. , 2015, , .		24
43	Practical Issues and Characterization of a Photovoltaic/Thermal Linear Focus <inline-formula> <tex-math notation="LaTeX">$20imes $ </tex-math> </inline-formula> Solar Concentrator. IEEE Transactions on Instrumentation and Measurement, 2016, 65, 2464-2475.	2.4	24
44	Effects of parasitic components on diode duty cycle and small-signal model of PWM DC-DC buck converter in DCM. , 2015, , .		23
45	CLOSED-LOOP CHARACTERISTICS OF VOLTAGE-MODE-CONTROLLED PWM BOOST DC-DC CONVERTER WITH AN INTEGRAL-LEAD CONTROLLER. Journal of Circuits, Systems and Computers, 1994, 04, 429-458.	1.0	22
46	Twoâ€switch flyback PWM DCâ€“DC converter in discontinuousâ€conduction mode. International Journal of Circuit Theory and Applications, 2011, 39, 849-864.	1.3	22
47	Control-to-output and duty ratio-to-inductor current transfer functions of peak current-mode controlled dc-dc PWM buck converter in CCM. , 2010, , .		22
48	Steady-state analysis of PWM quadratic buck converter in CCM. , 2013, , .		22
49	Small-signal modeling of the PWM boost DC-DC converter at boundary-conduction mode by circuit averaging technique. , 2015, , .		22
50	A Class-E Power Amplifier Design Considering MOSFET Nonlinear Drain-to-Source and Nonlinear Gate-to-Drain Capacitances at Any Grading Coefficient. IEEE Transactions on Power Electronics, 2016, 31, 7770-7779.	5.4	22
51	Continuous Class-F Power Amplifier Using Quasi-Elliptic Low-Pass Filtering Matching Network. IEEE Transactions on Circuits and Systems II: Express Briefs, 2020, 67, 2407-2411.	2.2	22
52	Analysis and Design of Class DE Amplifier With Nonlinear Shunt Capacitances. IEEE Transactions on Circuits and Systems I: Regular Papers, 2009, 56, 2362-2371.	3.5	21
53	Probabilistic evaluation of power converters as support in their design. IET Power Electronics, 2020, 13, 4542-4550.	1.5	21
54	Analytical winding foil thickness optimisation of inductors conducting harmonic currents. IET Power Electronics, 2013, 6, 963-973.	1.5	20

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55	Power losses and efficiency analysis of the quadratic buck converter in CCM. , 2014, , .		20
56	Steady-State and Small-Signal Analysis of A-Source Converter. IEEE Transactions on Power Electronics, 2018, 33, 7118-7131.	5.4	20
57	Simplified Nonlinear Voltage-Mode Control of PWM DC-DC Buck Converter. IEEE Transactions on Energy Conversion, 2021, 36, 431-440.	3.7	20
58	Small-signal modeling of PWM Z-source converter by circuit-averaging technique. , 2011, , .		19
59	Design of class-E ZVS inverter with loosely-coupled transformer at fixed coupling coefficient. , 2016, , .		19
60	An Analytical Correction to Dowell's Equation for Inductor and Transformer Winding Losses Using Cylindrical Coordinates. IEEE Transactions on Power Electronics, 2019, 34, 10425-10432.	5.4	19
61	Data-Driven Modeling of Wireless Power Transfer Systems With Multiple Transmitters. IEEE Transactions on Power Electronics, 2020, 35, 11363-11379.	5.4	19
62	Open-loop small-signal transfer functions of the quadratic buck PWM DC-DC converter in CCM. , 2014, , .		18
63	Analysis, Design, and Implementation of the Class-E ZVS Power Amplifier With MOSFET Nonlinear Drain-to-Source Parasitic Capacitance at any Grading Coefficient. IEEE Transactions on Power Electronics, 2014, 29, 4989-4999.	5.4	18
64	Class-D Zero-Current-Switching Rectifier as Power-Factor Corrector for Lighting Applications. IEEE Transactions on Power Electronics, 2014, 29, 4938-4948.	5.4	17
65	Analysis and design of full-bridge Class-DE inverter at fixed duty cycle. , 2016, , .		17
66	Sensitivity of effective relative permeability for gapped magnetic cores with fringing effect. IET Circuits, Devices and Systems, 2017, 11, 209-215.	0.9	17
67	Subnominal Operation of Class-E Nonlinear Shunt Capacitance Power Amplifier at Any Duty Ratio and Grading Coefficient. IEEE Transactions on Industrial Electronics, 2018, 65, 7878-7887.	5.2	17
68	Margins of stability of inner-current loop of peak current-mode controlled PWM dc-dc converters. , 2009, , .		16
69	Derivation of network functions for PWM DC-DC Buck converter in DCM including effects of parasitic components on diode duty-cycle. , 2015, , .		16
70	Analysis and design of class E power amplifier considering MOSFET parasitic input and output capacitances. IET Circuits, Devices and Systems, 2016, 10, 433-440.	0.9	16
71	Steady-State Analysis and Design of Class-D ZVS Inverter at Any Duty Ratio. IEEE Transactions on Power Electronics, 2016, 31, 394-405.	5.4	16
72	Nonlinear Modeling and Voltage-Mode Control of DC-DC Boost Converter for CCM. , 2018, , .		16

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73	Multi-Inverter Phase-Shifted Control for IPT With Overlapped Transmitters. IEEE Transactions on Power Electronics, 2021, 36, 8799-8811.	5.4	16
74	Integrated Class DE Synchronized DC-DC Converter for On-Chip Power Supplies. , 0, , .		14
75	Inverter using loosely coupled inductors for wireless power transfer. , 2012, , .		14
76	Coupled-Inductor Bidirectional DC-DC Converter for EV Charging Applications with Wide Voltage Conversion Ratio and Low Parts Count. , 2019, , .		14
77	Power conversion efficiency of class-E power amplifier outside nominal operation. , 2011, , .		13
78	Wired/Wireless Hybrid Charging System for Electrical Vehicles With Minimum Rated Power Requirement for DC Module. IEEE Transactions on Vehicular Technology, 2020, 69, 10889-10898.	3.9	13
79	Analysis of Class-DE Amplifier With Linear and Nonlinear Shunt Capacitances at 25% Duty Ratio. IEEE Transactions on Circuits and Systems I: Regular Papers, 2010, 57, 2334-2342.	3.5	12
80	Two-switch flyback-forward PWM DC-DC converter with reduced switch voltage stress. , 2010, , .		12
81	Power efficiency calculation of class E amplifier with nonlinear shunt capacitance. , 2010, , .		12
82	Audio-susceptibility of the inner-loop of peak current-mode controlled PWM DC-DC buck converter in CCM. , 2012, , .		12
83	Implementation of a DC-Side Class-DE Low-<formula formulatype="inline"><tex Notation="TeX">$m{dupsilon/ dt}$</tex> </formula> Rectifier as a PFC for Electronic Ballast Application. IEEE Transactions on Power Electronics, 2014, 29, 5486-5497.	5.4	12
84	Steady-state analysis of series resonant converter using extended describing function method. , 2012, , .		11
85	REVERSE RECOVERY OF POWER pn JUNCTION DIODES. Journal of Circuits, Systems and Computers, 1995, 05, 589-606.	1.0	10
86	Push-Pull Class-${m E}_{m M}$ Power Amplifier for Low Harmonic-Contents and High Output-Power Applications. IEEE Transactions on Circuits and Systems I: Regular Papers, 2012, 59, 2137-2146.	3.5	10
87	Open-loop small-signal modeling of cuk DC-DC converter in CCM by circuit-averaging technique. , 2018, , .		10
88	High-Frequency Single-Switch ZVS Gate Driver Based on a Class $Phi _2$ Resonant Inverter. IEEE Transactions on Industrial Electronics, 2020, 67, 4527-4535.	5.2	10
89	Output Characteristics of Class E Amplifier With Nonlinear Shunt Capacitance Versus Supply Voltage. , 2007, , .		9
90	Effect of MOSFET gate-to-drain parasitic capacitance on class-E power amplifier. , 2010, , .		9

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91	Resonant gate-drive circuit with reduced switching loss. , 2018, , .		9
92	EXPERIMENTAL RESULTS FOR THE SMALL-SIGNAL STUDY OF THE PWM BOOST DCâ€“DC CONVERTER WITH AN INTEGRAL-LEAD CONTROLLER. Journal of Circuits, Systems and Computers, 1995, 05, 747-755.	1.0	8
93	Active-clamp ZVS two-switch flyback converter. , 2011, , .		8
94	Synthesis of LC Sinusoidal Oscillators. International Journal of Electrical Engineering and Education, 2012, 49, 26-41.	0.4	8
95	DC analysis and design of a PWM buck converter operated as a dynamic power supply. International Journal of Circuit Theory and Applications, 2017, 45, 681-706.	1.3	8
96	Analysis and Study of the Duty Ratio Effects on the Class-E_M Power Amplifier Including MOSFET Nonlinear Gate-to-Drain and Drain-to-Source Capacitances. IEEE Transactions on Power Electronics, 2018, 33, 10550-10562.	5.4	8
97	PWM-based proportional-integral sliding-mode current control of DC-DC boost converter. , 2018, , .		8
98	Steady-state analysis of PWM tapped-inductor buck DC-DC converter in CCM. , 2018, , .		8
99	A Current-Source Sinusoidal Gate Driver for High-Frequency Applications. , 2018, , .		8
100	Analysis of dynamic frequency response of class E amplifier. , 2009, , .		7
101	Computer-aided design for class-E switching circuits taking into account optimized inductor designs. , 2010, , .		7
102	Analytical design procedure for resonant inductively coupled wireless power transfer system with class-E² DC-DC converter. , 2014, , .		7
103	Fault detection of resonant inverters for wireless power transmission using MLMVNN. , 2016, , .		7
104	Design procedure for wireless power transfer system with inductive coupling-coil optimizations using PSO. , 2016, , .		7
105	MLMVNN for parameter fault detection in PWM DC-DC converters and its applications for buck DC-DC converter. , 2016, , .		7
106	Control Strategies for Class-E Resonant Inverter with Wide Load Variation. , 2018, , .		7
107	Small-Signal Modeling of Open-Loop PWM Tapped-Inductor Buck DCâ€“DC Converter in CCM. IEEE Transactions on Industrial Electronics, 2021, 68, 5765-5775.	5.2	7
108	Slope compensation and relative stability of peak current-mode controlled PWM dc-dc converters in CCM. , 2013, , .		6

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109	Output impedance of peak current-mode controlled PWM DC-DC converters with only inner loop closed in CCM. , 2014, , .		6
110	Outside Nominal Operation Analysis and Design Considerations of Inverse-Class-E Power Amplifier. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2018, 6, 165-174.	3.7	6
111	Duty Cycle and Input-to-Output Voltage Transfer Functions of Tapped-Inductor Buck DC-DC Converter. , 2018, , .		6
112	Nonlinear modeling and PWM-based sliding-mode control of DC-DC buck converter for CCM. , 2018, , .		6
113	OPEN- AND CLOSED-LOOP DC AND SMALL-SIGNAL CHARACTERISTICS OF PWM BUCK-BOOST CONVERTER FOR CCM. Journal of Circuits, Systems and Computers, 1995, 05, 261-303.	1.0	5
114	Novel Design Procedure for Class-${m E}_{m M}$ Power Amplifiers. IEEE Transactions on Microwave Theory and Techniques, 2010, , .	2.9	5
115	Small-signal analysis of PWM boost converter in CCM with complex impedance load. , 2015, , .		5
116	Small-signal analysis of closed-loop PWM boost converter in CCM with complex impedance load. , 2016, , .		5
117	Nonlinear Exact Analysis and Solution of Power Stage of DC-DC PWM Boost Converter. , 2019, , .		5
118	Application of Power Source Element in Power Factor Correction. , 2005, , .		4
119	Design of Class-E<inf>M</inf> power amplifier taking into account auxiliary circuit. , 2008, , .		4
120	Maximum drain efficiency class F<inf>3</inf> RF power amplifier. , 2011, , .		4
121	Multilevel DC-AC converters for renewable power generation plants: Comparison, simulation, and experimental tests. , 2015, , .		4
122	A-source impedance network. , 2016, , .		4
123	High switching frequency performance of E-GaN FETs and silicon MOSFETs. , 2017, , .		4
124	Design of zero-voltage-ripple buck dc-dc converter. , 2017, , .		4
125	Nonlinear Modelling and Control of PWM DC-DC Buck-Boost Converter for CCM. , 2018, , .		4
126	Reliability analysis and electrical characterization of a Class-E resonant inverter. , 2018, , .		4

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127	Design and characterisation of singleâ€layer solenoid airâ€core inductors. IET Circuits, Devices and Systems, 2019, 13, 211-218.	0.9	4
128	A novel design methodology for extended continuous class-F power amplifiers in wireless applications. Wireless Networks, 2021, 27, 3947-3968.	2.0	4
129	Control-to-output transfer function including feed-forward gains of peak current-mode controlled PWM DC-DC converters in CCM. , 2013, , .		3
130	Two-phase buck DC-AC converter as dynamic power supply for amplitude-modulated Class-DE Power Amplifier. , 2015, , .		3
131	Audio-susceptibility of inner loop of true-average current-mode controlled buck dc-dc converter. , 2017, , .		3
132	High-Frequency Single-Switch ZVS Inverter for Driving Capacitive Loads. , 2018, , .		3
133	Performance of SiC Schottky diodes. Midwest Symposium on Circuits and Systems, 2007, , .	1.0	2
134	Fault detection in Class-E²resonant converters. , 2017, , .		2
135	Analysis, design, and performance evaluation of zeroâ€voltageâ€ripple buck dcâ€“dc converter. IET Power Electronics, 2019, 12, 994-1001.	1.5	2
136	Design of classâ€E M amplifier with consideration of parasitic nonâ€linear capacitances and onâ€state resistance. IET Power Electronics, 2020, 13, 3065-3071.	1.5	2
137	SINGLE-LOOP CURRENT-MODE CONTROL OF A PWM BOOST DC-TO-DC CONVERTER WITH A NON-SYMMETRIC PHASE CONTROLLER. Journal of Circuits, Systems and Computers, 1995, 05, 699-734.	1.0	1
138	ZVS operating frequency versus duty ratio of class E amplifier with nonlinear shunt capacitance. , 2008, , .		1
139	Buck DC-AC converter using gallium-nitride FETs for amplitude-modulated class-E RF power amplifiers. , 2015, , .		1
140	Transfer Functions of Wireless Power Transfer Systems with Series and Series-Parallel Compensation Schemes. , 2019, , .		1
141	Analysis of Class-DE PA Using MOSFET Devices With Non-Equally Grading Coefficient. IEEE Transactions on Circuits and Systems I: Regular Papers, 2019, 66, 2794-2802.	3.5	1
142	DYNAMIC PERFORMANCE OF MCTs UNDER INDUCTIVE LOAD CONDITIONS. Journal of Circuits, Systems and Computers, 1994, 04, 471-485.	1.0	0
143	CMOS PWM CONTROL CIRCUIT WITH PROGRAMMABLE DEAD TIME. Journal of Circuits, Systems and Computers, 1995, 05, 429-441.	1.0	0
144	EXPERIMENTAL STATIC AND DYNAMIC CHARACTERISTICS OF MOS-CONTROLLED THYRISTORS FOR RESISTIVE LOADS. Journal of Circuits, Systems and Computers, 1995, 05, 393-410.	1.0	0

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145	STATIC CHARACTERISTICS OF MOS-CONTROLLED THYRISTORS â€" ANALYSIS, SIMULATION, AND EXPERIMENTAL RESULTS. Journal of Circuits, Systems and Computers, 1995, 05, 65-80.	1.0	0
146	Push-pull zero-voltage switching resonant DC-DC converter based on half bridge class-DE rectifier. , 2013, , .		0
147	Inductor design for PWM buck converter operated as dynamic supply or amplitude modulator for RF transmitters. , 2013, , .		0
148	Three-coil wireless power transfer system using class E²resonant DC-DC converter. , 2015, , .		0
149	Semiconductor losses of PWM buck DC-AC converter operated as dynamic power supply. , 2017, , .		0
150	Average Current-Mode Control of PWM A-Source Converter. , 2018, , .		0
151	Analysis of Multiple-EV Wireless Power Transfer System Using a Single Transmitter Coil. , 2019, , .		0
152	Steady-State Analysis of Class-E Shunt Inductor Inverter Outside ZCS and ZDCS Conditions. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2019, 9, 1587-1594.	1.4	0