

Alireza Khaligh

List of Publications by Year in descending order

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117
papers

7,472
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87401

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119
times ranked

5938
citing authors

#	ARTICLE	IF	CITATIONS
1	DAB Converter for EV Onboard Chargers Using Bare-Die SiC MOSFETs and Leakage-Integrated Planar Transformer. IEEE Transactions on Transportation Electrification, 2022, 8, 209-224.	5.3	40
2	Comparison of CCM- and CRM-Based Boost Parallel Active Power Decoupler for PV Microinverter. IEEE Transactions on Power Electronics, 2022, 37, 9889-9906.	5.4	12
3	Characterization of a Bare-Die SiC-Based, Wirebond-Less, Integrated Half-Bridge With Multi-Functional Bus-Bars. IEEE Transactions on Transportation Electrification, 2022, 8, 3946-3959.	5.3	0
4	A comprehensive design approach for a three-winding planar transformer. IET Power Electronics, 2022, 15, 717-727.	1.5	3
5	Improved Frequency-Domain Steady-State Modeling of the Dual-Active-Bridge Converter Considering Finite ZVS Transition Time Effects. IEEE Transactions on Power Electronics, 2021, 36, 7880-7891.	5.4	5
6	Steady-State Modeling of a Dual-Active Bridge AC-DC Converter Considering Circuit Nonidealities and Intracycle Transient Effects. IEEE Transactions on Power Electronics, 2021, 36, 11276-11287.	5.4	10
7	Planar Transformer With Asymmetric Integrated Leakage Inductance Using Horizontal Air Gap. IEEE Transactions on Power Electronics, 2021, 36, 14014-14028.	5.4	24
8	Optimisation of power electronics for regulated transformer rectifier units. IET Power Electronics, 2020, 13, 1002-1012.	1.5	6
9	A Bare-die SiC-based Isolated Bidirectional DC-DC Converter for Electric Vehicle On-board Chargers. , 2020, , .		11
10	Electro-Thermal Co-Design of a Cooling System-Integrated High-Frequency Transformer. , 2020, , .		7
11	Modelling and control of a triple-active-bridge converter. IET Power Electronics, 2020, 13, 961-969.	1.5	26
12	Modelling and optimisation of a dual-control MHz-level CLLC converter with minimised power losses in battery charging applications. IET Power Electronics, 2020, 13, 1575-1582.	1.5	6
13	Design Optimization for Weighted Conduction Loss Minimization in a Dual-Active-Bridge-Based PV Microinverter. , 2020, , .		10
14	CCM vs. CRM Design Optimization of a Boost-derived Parallel Active Power Decoupler for Microinverter Applications. , 2020, , .		3
15	A Comparative Study of Failure-Tolerant Three-phase RTRUs for More Electric Aircrafts. , 2019, , .		6
16	Global Trends in High-Power On-Board Chargers for Electric Vehicles. IEEE Transactions on Vehicular Technology, 2019, 68, 3306-3324.	3.9	336
17	Sliding Mode Control Scheme for a CLLC Resonant Converter. IEEE Transactions on Power Electronics, 2019, 34, 12274-12284.	5.4	35
18	High-power-density high-efficiency LLC converter with an adjustable-leakage-inductance planar transformer for data centers. IET Power Electronics, 2019, 12, 303-310.	1.5	18

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19	Design and Optimization of a Solar Power Conversion System for Space Applications. IEEE Transactions on Industry Applications, 2019, 55, 2310-2319.	3.3	23
20	Extended Harmonics Based Phase Tracking for Synchronous Rectification in CLLC Converters. IEEE Transactions on Industrial Electronics, 2019, 66, 6592-6603.	5.2	60
21	Design of a 1-MHz High-Efficiency High-Power-Density Bidirectional GaN-Based CLLC Converter for Electric Vehicles. IEEE Transactions on Vehicular Technology, 2019, 68, 213-223.	3.9	96
22	Advanced Packaging and Thermal Management of High-Power DC-DC Converters. , 2019, , .		10
23	Modeling and Optimization of an Integrated Transformer for Electric Vehicle On-Board Charger Applications. IEEE Transactions on Transportation Electrification, 2018, 4, 355-363.	5.3	47
24	Bi-Directional CLLC Converter With Synchronous Rectification for Plug-In Electric Vehicles. IEEE Transactions on Industry Applications, 2018, 54, 998-1005.	3.3	123
25	Minimum inrush start-up control of a single-phase interleaved totem-pole PFC rectifier. , 2018, , .		9
26	A Two-Stage Three-Phase Integrated Charger for Electric Vehicles With Dual Cascaded Control Strategy. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2018, 6, 898-909.	3.7	34
27	Notice of Removal: A Comparative Study Between PI and Type-II Compensators for H-Bridge PFC Converter. IEEE Transactions on Industry Applications, 2018, 54, 1128-1135.	3.3	11
28	A Comprehensive Design and Optimization of the DM EMI Filter in a Boost PFC Converter. IEEE Transactions on Industry Applications, 2018, 54, 2023-2031.	3.3	34
29	Variable DC-Link Control Loop Design for an Integrated Two-Stage AC/DC Converter. IEEE Transactions on Transportation Electrification, 2018, 4, 99-107.	5.3	30
30	An Integrated Dual-Output Isolated Converter for Plug-in Electric Vehicles. IEEE Transactions on Vehicular Technology, 2018, 67, 966-976.	3.9	68
31	Response to Discussion on "A Comparative Study Between PI and Type-II Compensators for H-Bridge PFC Converter" IEEE Transactions on Industry Applications, 2018, 54, 4010-4010.	3.3	3
32	Maximum Efficiency Tracking of an Integrated Two-Stage AC-DC Converter Using Variable DC-Link Voltage. IEEE Transactions on Industrial Electronics, 2018, 65, 8408-8421.	5.2	23
33	A High Step-Down Isolated Three-Phase AC-DC Converter. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2018, 6, 129-139.	3.7	35
34	A Three-Phase Integrated Onboard Charger for Plug-In Electric Vehicles. IEEE Transactions on Power Electronics, 2018, 33, 4716-4725.	5.4	101
35	A High Step-Down Dual Output Nonisolated DC/DC Converter With Decoupled Control. IEEE Transactions on Industry Applications, 2018, 54, 722-731.	3.3	31
36	Intermediate DC-Link Capacitor Reduction in a Two-Stage Cascaded AC/DC Converter for More Electric Aircrafts. IEEE Transactions on Vehicular Technology, 2018, 67, 935-947.	3.9	24

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37	Secondary Active Rectifier Control Scheme for a Wireless Power Transfer System with Double-Sided LCC Compensation Topology. , 2018, , .		24
38	Extended Harmonic Analysis of Wireless Charging Systems. , 2018, , .		1
39	Single-Phase Charging Operation of a Three-Phase Integrated Onboard Charger for Electric Vehicles. , 2018, , .		15
40	Management and storage of energy converted via a pyroelectric heat engine. Applied Energy, 2018, 230, 1326-1331.	5.1	13
41	Combining inverse and conventional pyroelectricity in antiferroelectric thin films for energy conversion. Journal of Materials Chemistry C, 2018, 6, 9828-9834.	2.7	12
42	Sliding Mode Control of Single-Phase Interleaved Totem-Pole PFC for Electric Vehicle Onboard Chargers. IEEE Transactions on Vehicular Technology, 2018, 67, 8100-8109.	3.9	44
43	Notice of Removal: Reduced-State-Observer-Based Feedback Control System Design of a Two-Stage AC-DC Converter. IEEE Transactions on Industrial Electronics, 2017, 64, 6371-6382.	5.2	11
44	A Single-Phase Integrated Onboard Battery Charger Using Propulsion System for Plug-in Electric Vehicles. IEEE Transactions on Vehicular Technology, 2017, 66, 10899-10910.	3.9	120
45	Dynamic Strategy for Efficiency Estimation in a CCM-Operated Front-End PFC Converter for Electric Vehicle Onboard Charger. IEEE Transactions on Transportation Electrification, 2017, 3, 545-553.	5.3	22
46	An Integrated Control Strategy for a Fast Start-Up and Wide Range Input Frequency Operation of a Three-Phase Boost-Type PFC Converter for More Electric Aircraft. IEEE Transactions on Vehicular Technology, 2017, 66, 10841-10852.	3.9	16
47	A PSFB-Based Integrated PEV Onboard Charger With Extended ZVS Range and Zero Duty Cycle Loss. IEEE Transactions on Industry Applications, 2017, 53, 585-595.	3.3	49
48	A SiC-Based High-Efficiency Isolated Onboard PEV Charger With Ultrawide DC-Link Voltage Range. IEEE Transactions on Industry Applications, 2017, 53, 501-511.	3.3	100
49	Input Voltage Sensorless Duty Compensation Control for a Three-Phase Boost PFC Converter. IEEE Transactions on Industry Applications, 2017, 53, 1527-1537.	3.3	41
50	Comprehensive Analyses and Comparison of 1 kW Isolated DC-DC Converters for Bidirectional EV Charging Systems. IEEE Transactions on Transportation Electrification, 2017, 3, 147-156.	5.3	319
51	A Comprehensive Design Approach to an EMI Filter for a 6-kW Three-Phase Boost Power Factor Correction Rectifier in Avionics Vehicular Systems. IEEE Transactions on Vehicular Technology, 2017, 66, 2942-2951.	3.9	33
52	A Discontinuous Conduction Mode Single-Stage Step-Up Rectifier for Low-Voltage Energy Harvesting Applications. IEEE Transactions on Power Electronics, 2017, 32, 6161-6169.	5.4	27
53	Variable-Switching-Frequency State-Feedback Control of a Phase-Shifted Full-Bridge DC/DC Converter. IEEE Transactions on Power Electronics, 2017, 32, 6523-6531.	5.4	46
54	Control of a Three-Phase Boost PFC Converter Using a Single DC-Link Voltage Sensor. IEEE Transactions on Power Electronics, 2017, 32, 6481-6492.	5.4	50

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55	3.3kW CLLC converter with synchronous rectification for plug-in electric vehicles. , 2017, , .		16
56	Notice of Removal: A comparative study between PI and type-II compensators for H-bridge PFC converter. , 2017, , .		2
57	Design of 1 kW bidirectional half-bridge CLLC converter for electric vehicle charging systems. , 2016, , .		11
58	Interleaved SEPIC Power Factor Preregulator Using Coupled Inductors In Discontinuous Conduction Mode With Wide Output Voltage. IEEE Transactions on Industry Applications, 2016, 52, 3461-3471.	3.3	60
59	Predictive control of a battery/ultracapacitor hybrid energy storage system in electric vehicles. , 2016, , .		13
60	Design and Real-Time Controller Implementation for a Battery-Ultracapacitor Hybrid Energy Storage System. IEEE Transactions on Industrial Informatics, 2016, 12, 1910-1918.	7.2	112
61	Bidirectional Resonant DC-DC Step-Up Converters for Driving High-Voltage Actuators in Mobile Microrobots. IEEE Transactions on Power Electronics, 2016, 31, 340-352.	5.4	21
62	A Multiinput Bridgeless Resonant AC-DC Converter for Electromagnetic Energy Harvesting. IEEE Transactions on Power Electronics, 2016, 31, 2254-2263.	5.4	26
63	Guest Editorial Special Section on Networked Energy Systems: Architectures, Communication, and Management. IEEE Transactions on Industrial Informatics, 2016, 12, 1896-1899.	7.2	3
64	A supervisory controller for a hybrid energy storage system with two propulsion machines in electric vehicles. , 2015, , .		3
65	Power Split Control Strategy for an EV Powertrain With Two Propulsion Machines. IEEE Transactions on Transportation Electrification, 2015, 1, 382-390.	5.3	28
66	A Zero-Voltage-Transition Bidirectional DC/DC Converter. IEEE Transactions on Industrial Electronics, 2015, 62, 3152-3162.	5.2	79
67	Interleaved SEPIC PFC converter using coupled inductors in PEV battery charging applications. , 2015, , .		17
68	An energy management strategy for an EV with two propulsion machines and a hybrid energy storage system. , 2015, , .		12
69	A Supervisory Energy Management Control Strategy in a Battery/Ultracapacitor Hybrid Energy Storage System. IEEE Transactions on Transportation Electrification, 2015, 1, 223-231.	5.3	322
70	Comparative study of three-phase buck, boost and buck-boost rectifier topologies for regulated transformer rectifier units. , 2015, , .		17
71	Comparative Analysis of Bidirectional Three-Level DC-DC Converter for Automotive Applications. IEEE Transactions on Industrial Electronics, 2015, 62, 3305-3315.	5.2	138
72	Optimization of Sizing and Battery Cycle Life in Battery/Ultracapacitor Hybrid Energy Storage Systems for Electric Vehicle Applications. IEEE Transactions on Industrial Informatics, 2014, 10, 2112-2121.	7.2	322

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73	A Charge-Nonlinear-Carrier-Controlled Reduced-Part Single-Stage Integrated Power Electronics Interface for Automotive Applications. IEEE Transactions on Vehicular Technology, 2014, 63, 1091-1103.	3.9	46
74	Design and Analysis of a Full-Bridge LLC-Based PEV Charger Optimized for Wide Battery Voltage Range. IEEE Transactions on Vehicular Technology, 2014, 63, 1603-1613.	3.9	216
75	A novel approach to design EV battery chargers using SEPIC PFC stage and optimal operating point tracking technique for LLC converter. , 2014, , .		41
76	Generalized Technique of Compensating Low-Frequency Component of Load Current With a Parallel Bidirectional DC/DC Converter. IEEE Transactions on Power Electronics, 2014, 29, 5892-5904.	5.4	51
77	Optimal power split and sizing of hybrid energy storage system for electric vehicles. , 2014, , .		15
78	Design of a phase-shifted ZVS full-bridge front-end DC/DC converter for fuel cell inverter applications. , 2014, , .		2
79	A Supervisory Power-Splitting Approach for a New Ultracapacitor-Battery Vehicle Deploying Two Propulsion Machines. IEEE Transactions on Industrial Informatics, 2014, 10, 1960-1971.	7.2	131
80	Maximum Efficiency Point Tracking Technique for LLC -Based PEV Chargers Through Variable DC Link Control. IEEE Transactions on Industrial Electronics, 2014, 61, 6041-6049.	5.2	155
81	An Ultracompact Dual-Stage Converter for Driving Electrostatic Actuators in Mobile Microrobots. IEEE Transactions on Power Electronics, 2014, 29, 2991-3000.	5.4	23
82	Miniaturized Bridgeless High-Frequency Resonant AC-DC Step-Up/Step-Down Converters. IEEE Transactions on Power Electronics, 2014, 29, 6518-6533.	5.4	9
83	A Permanent-Magnet Linear Motion Driven Kinetic Energy Harvester. IEEE Transactions on Industrial Electronics, 2013, 60, 5737-5746.	5.2	41
84	Transportation Electrification: Conductive charging of electrified vehicles. IEEE Electrification Magazine, 2013, 1, 46-58.	1.8	27
85	Comprehensive topological analyses of isolated resonant converters in PEV battery charging applications. , 2013, , .		45
86	A low-power and high-gain converter for driving dielectric elastomer actuators. , 2013, , .		8
87	Wavelet-transform based energy and power decoupling strategy for a novel ultracapacitor-battery hybrid power-split gear powertrain. , 2013, , .		13
88	A Bridgeless Boost Rectifier for Low-Voltage Energy Harvesting Applications. IEEE Transactions on Power Electronics, 2013, 28, 5206-5214.	5.4	94
89	Design considerations for a level-2 on-board PEV charger based on interleaved boost PFC and LLC resonant converters. , 2013, , .		25
90	A Compact and Integrated Multifunctional Power Electronic Interface for Plug-in Electric Vehicles. IEEE Transactions on Power Electronics, 2013, 28, 5690-5701.	5.4	89

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91	2013 IEEE Transportation Electrification Conference and Expo [Newsfeed]. IEEE Electrification Magazine, 2013, 1, 68-68.	1.8	0
92	Special Section on Sustainable Transportation Systems. IEEE Transactions on Vehicular Technology, 2012, 61, 3362-3364.	3.9	6
93	Reducing detent force while harvesting energy from center of gravity: an 11-poles, 12-slots Generator Design. , 2012, , .		11
94	A predictive trip-based method for state of charge maintenance in series PHEVs to boost cold weather efficiency. , 2012, , .		1
95	Impact of plug-in hybrid electric vehicle charging on a distribution network in a Smart Grid environment. , 2012, , .		41
96	A flat linear generator with axial magnetized permanent magnets with reduced accelerative force for backpack energy harvesting. , 2012, , .		8
97	Cost effective solutions to level 3 on-board battery chargers. , 2012, , .		11
98	A Bidirectional High-Power-Quality Grid Interface With a Novel Bidirectional Noninverted Buckâ€“Boost Converter for PHEVs. IEEE Transactions on Vehicular Technology, 2012, 61, 2018-2032.	3.9	103
99	Bidirectional hybrid Battery/Ultracapacitor Energy Storage Systems for next generation MVDC shipboard power systems. , 2011, , .		17
100	A single stage integrated bidirectional AC/DC and DC/DC converter for plug-in hybrid electric vehicles. , 2011, , .		36
101	Comprehensive analysis of high quality power converters for level 3 off-board chargers. , 2011, , .		86
102	Battery, Ultracapacitor, Fuel Cell, and Hybrid Energy Storage Systems for Electric, Hybrid Electric, Fuel Cell, and Plug-In Hybrid Electric Vehicles: State of the Art. IEEE Transactions on Vehicular Technology, 2010, 59, 2806-2814.	3.9	1,365
103	Influence of Battery/Ultracapacitor Energy-Storage Sizing on Battery Lifetime in a Fuel Cell Hybrid Electric Vehicle. IEEE Transactions on Vehicular Technology, 2009, 58, 3882-3891.	3.9	331
104	Special Section on Vehicular Energy-Storage Systems. IEEE Transactions on Vehicular Technology, 2009, 58, 3879-3881.	3.9	4
105	Digital Combination of Buck and Boost Converters to Control a Positive Buckâ€“Boost Converter and Improve the Output Transients. IEEE Transactions on Power Electronics, 2009, 24, 1267-1279.	5.4	102
106	Reduced-Order Modeling of High-Fidelity Magnetic Equivalent Circuits. IEEE Transactions on Power Electronics, 2009, 24, 2847-2855.	5.4	19
107	A Compensation Technique for Smooth Transitions in a Noninverting Buckâ€“Boost Converter. IEEE Transactions on Power Electronics, 2009, 24, 1002-1015.	5.4	141
108	A Multiple-Input DCâ€“DC Converter Topology. IEEE Transactions on Power Electronics, 2009, 24, 862-868.	5.4	245

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109	Dead-Time Distortion in Generalized Selective Harmonic Control. IEEE Transactions on Power Electronics, 2008, 23, 1511-1517.	5.4	42
110	Modified Pulse-Adjustment Technique to Control DC/DC Converters Driving Variable Constant-Power Loads. IEEE Transactions on Industrial Electronics, 2008, 55, 1133-1146.	5.2	94
111	Power Transformers Internal Insulation Design Improvements Using Electric Field Analysis Through Finite-Element Methods. IEEE Transactions on Magnetics, 2008, 44, 273-278.	1.2	35
112	Realization of Parasitics in Stability of DC-DC Converters Loaded by Constant Power Loads in Advanced Multiconverter Automotive Systems. IEEE Transactions on Industrial Electronics, 2008, 55, 2295-2305.	5.2	89
113	Suitability of the pulse adjustment technique to control single DC/DC choppers feeding vehicular constant power loads in parallel with conventional loads. International Journal of Electric and Hybrid Vehicles, 2007, 1, 20.	0.2	6
114	Digital Control of an Isolated Active Hybrid Fuel Cell/Li-Ion Battery Power Supply. IEEE Transactions on Vehicular Technology, 2007, 56, 3709-3721.	3.9	66
115	Negative Impedance Stabilizing Pulse Adjustment Control Technique for DC/DC Converters Operating in Discontinuous Conduction Mode and Driving Constant Power Loads. IEEE Transactions on Vehicular Technology, 2007, 56, 2005-2016.	3.9	55
116	Averaged-Switch Modeling of Fourth-Order PWM DC-DC Converters Considering Conduction Losses in Discontinuous Mode. IEEE Transactions on Power Electronics, 2007, 22, 2410-2415.	5.4	18
117	Stabilizing Control of DC/DC Buck Converters with Constant Power Loads in Continuous Conduction and Discontinuous Conduction Modes Using Digital Power Alignment Technique. Journal of Electrical Engineering and Technology, 2006, 1, 63-72.	1.2	14