

Alireza Khaligh

List of Publications by Year in descending order

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117
papers

7,472
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76322

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119
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119
docs citations

119
times ranked

5272
citing authors

#	ARTICLE	IF	CITATIONS
1	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.	6.3	1,365
2	Global Trends in High-Power On-Board Chargers for Electric Vehicles. IEEE Transactions on Vehicular Technology, 2019, 68, 3306-3324.	6.3	336
3	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.	6.3	331
4	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.	11.3	322
5	A Supervisory Energy Management Control Strategy in a Battery/Ultracapacitor Hybrid Energy Storage System. IEEE Transactions on Transportation Electrification, 2015, 1, 223-231.	7.8	322
6	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.	7.8	319
7	A Multiple-Input DC-DC Converter Topology. IEEE Transactions on Power Electronics, 2009, 24, 862-868.	7.9	245
8	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.	6.3	216
9	Maximum Efficiency Point Tracking Technique for Δ -Based PEV Chargers Through Variable DC Link Control. IEEE Transactions on Industrial Electronics, 2014, 61, 6041-6049.	7.9	155
10	A Compensation Technique for Smooth Transitions in a Noninverting Buck-Boost Converter. IEEE Transactions on Power Electronics, 2009, 24, 1002-1015.	7.9	141
11	Comparative Analysis of Bidirectional Three-Level DC-DC Converter for Automotive Applications. IEEE Transactions on Industrial Electronics, 2015, 62, 3305-3315.	7.9	138
12	A Supervisory Power-Splitting Approach for a New Ultracapacitor-Battery Vehicle Deploying Two Propulsion Machines. IEEE Transactions on Industrial Informatics, 2014, 10, 1960-1971.	11.3	131
13	Bi-Directional CLLC Converter With Synchronous Rectification for Plug-In Electric Vehicles. IEEE Transactions on Industry Applications, 2018, 54, 998-1005.	4.9	123
14	A Single-Phase Integrated Onboard Battery Charger Using Propulsion System for Plug-in Electric Vehicles. IEEE Transactions on Vehicular Technology, 2017, 66, 10899-10910.	6.3	120
15	Design and Real-Time Controller Implementation for a Battery-Ultracapacitor Hybrid Energy Storage System. IEEE Transactions on Industrial Informatics, 2016, 12, 1910-1918.	11.3	112
16	A Bidirectional High-Power-Quality Grid Interface With a Novel Bidirectional Noninverted Buck-Boost Converter for PHEVs. IEEE Transactions on Vehicular Technology, 2012, 61, 2018-2032.	6.3	103
17	Digital Combination of Buck and Boost Converters to Control a Positive Buck-Boost Converter and Improve the Output Transients. IEEE Transactions on Power Electronics, 2009, 24, 1267-1279.	7.9	102
18	A Three-Phase Integrated Onboard Charger for Plug-In Electric Vehicles. IEEE Transactions on Power Electronics, 2018, 33, 4716-4725.	7.9	101

#	ARTICLE	IF	CITATIONS
19	A SiC-Based High-Efficiency Isolated Onboard PEV Charger With Ultrawide DC-Link Voltage Range. IEEE Transactions on Industry Applications, 2017, 53, 501-511.	4.9	100
20	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.	6.3	96
21	Modified Pulse-Adjustment Technique to Control DC/DC Converters Driving Variable Constant-Power Loads. IEEE Transactions on Industrial Electronics, 2008, 55, 1133-1146.	7.9	94
22	A Bridgeless Boost Rectifier for Low-Voltage Energy Harvesting Applications. IEEE Transactions on Power Electronics, 2013, 28, 5206-5214.	7.9	94
23	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.	7.9	89
24	A Compact and Integrated Multifunctional Power Electronic Interface for Plug-in Electric Vehicles. IEEE Transactions on Power Electronics, 2013, 28, 5690-5701.	7.9	89
25	Comprehensive analysis of high quality power converters for level 3 off-board chargers. , 2011, , .		86
26	A Zero-Voltage-Transition Bidirectional DC/DC Converter. IEEE Transactions on Industrial Electronics, 2015, 62, 3152-3162.	7.9	79
27	An Integrated Dual-Output Isolated Converter for Plug-in Electric Vehicles. IEEE Transactions on Vehicular Technology, 2018, 67, 966-976.	6.3	68
28	Digital Control of an Isolated Active Hybrid Fuel Cell/Li-Ion Battery Power Supply. IEEE Transactions on Vehicular Technology, 2007, 56, 3709-3721.	6.3	66
29	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.	4.9	60
30	Extended Harmonics Based Phase Tracking for Synchronous Rectification in CLLC Converters. IEEE Transactions on Industrial Electronics, 2019, 66, 6592-6603.	7.9	60
31	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.	6.3	55
32	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.	7.9	51
33	Control of a Three-Phase Boost PFC Converter Using a Single DC-Link Voltage Sensor. IEEE Transactions on Power Electronics, 2017, 32, 6481-6492.	7.9	50
34	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.	4.9	49
35	Modeling and Optimization of an Integrated Transformer for Electric Vehicle On-Board Charger Applications. IEEE Transactions on Transportation Electrification, 2018, 4, 355-363.	7.8	47
36	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.	6.3	46

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37	Variable-Switching-Frequency State-Feedback Control of a Phase-Shifted Full-Bridge DC/DC Converter. IEEE Transactions on Power Electronics, 2017, 32, 6523-6531.	7.9	46
38	Comprehensive topological analyses of isolated resonant converters in PEV battery charging applications. , 2013, , .		45
39	Sliding Mode Control of Single-Phase Interleaved Totem-Pole PFC for Electric Vehicle Onboard Chargers. IEEE Transactions on Vehicular Technology, 2018, 67, 8100-8109.	6.3	44
40	Dead-Time Distortion in Generalized Selective Harmonic Control. IEEE Transactions on Power Electronics, 2008, 23, 1511-1517.	7.9	42
41	Impact of plug-in hybrid electric vehicle charging on a distribution network in a Smart Grid environment. , 2012, , .		41
42	A Permanent-Magnet Linear Motion Driven Kinetic Energy Harvester. IEEE Transactions on Industrial Electronics, 2013, 60, 5737-5746.	7.9	41
43	A novel approach to design EV battery chargers using SEPIC PFC stage and optimal operating point tracking technique for LLC converter. , 2014, , .		41
44	Input Voltage Sensorless Duty Compensation Control for a Three-Phase Boost PFC Converter. IEEE Transactions on Industry Applications, 2017, 53, 1527-1537.	4.9	41
45	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.	7.8	40
46	A single stage integrated bidirectional AC/DC and DC/DC converter for plug-in hybrid electric vehicles. , 2011, , .		36
47	Power Transformers Internal Insulation Design Improvements Using Electric Field Analysis Through Finite-Element Methods. IEEE Transactions on Magnetics, 2008, 44, 273-278.	2.1	35
48	A High Step-Down Isolated Three-Phase AC-DC Converter. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2018, 6, 129-139.	5.4	35
49	Sliding Mode Control Scheme for a CLLC Resonant Converter. IEEE Transactions on Power Electronics, 2019, 34, 12274-12284.	7.9	35
50	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.	5.4	34
51	A Comprehensive Design and Optimization of the DM EMI Filter in a Boost PFC Converter. IEEE Transactions on Industry Applications, 2018, 54, 2023-2031.	4.9	34
52	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.	6.3	33
53	A High Step-Down Dual Output Nonisolated DC/DC Converter With Decoupled Control. IEEE Transactions on Industry Applications, 2018, 54, 722-731.	4.9	31
54	Variable DC-Link Control Loop Design for an Integrated Two-Stage AC/DC Converter. IEEE Transactions on Transportation Electrification, 2018, 4, 99-107.	7.8	30

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55	Power Split Control Strategy for an EV Powertrain With Two Propulsion Machines. IEEE Transactions on Transportation Electrification, 2015, 1, 382-390.	7.8	28
56	Transportation Electrification: Conductive charging of electrified vehicles. IEEE Electrification Magazine, 2013, 1, 46-58.	1.8	27
57	A Discontinuous Conduction Mode Single-Stage Step-Up Rectifier for Low-Voltage Energy Harvesting Applications. IEEE Transactions on Power Electronics, 2017, 32, 6161-6169.	7.9	27
58	A Multiinput Bridgeless Resonant AC-DC Converter for Electromagnetic Energy Harvesting. IEEE Transactions on Power Electronics, 2016, 31, 2254-2263.	7.9	26
59	Modelling and control of a triple-active-bridge converter. IET Power Electronics, 2020, 13, 961-969.	2.1	26
60	Design considerations for a level-2 on-board PEV charger based on interleaved boost PFC and LLC resonant converters. , 2013, , .		25
61	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.	6.3	24
62	Secondary Active Rectifier Control Scheme for a Wireless Power Transfer System with Double-Sided LCC Compensation Topology. , 2018, , .		24
63	Planar Transformer With Asymmetric Integrated Leakage Inductance Using Horizontal Air Gap. IEEE Transactions on Power Electronics, 2021, 36, 14014-14028.	7.9	24
64	An Ultracompact Dual-Stage Converter for Driving Electrostatic Actuators in Mobile Microrobots. IEEE Transactions on Power Electronics, 2014, 29, 2991-3000.	7.9	23
65	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.	7.9	23
66	Design and Optimization of a Solar Power Conversion System for Space Applications. IEEE Transactions on Industry Applications, 2019, 55, 2310-2319.	4.9	23
67	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.	7.8	22
68	Bidirectional Resonant DC-DC Step-Up Converters for Driving High-Voltage Actuators in Mobile Microrobots. IEEE Transactions on Power Electronics, 2016, 31, 340-352.	7.9	21
69	Reduced-Order Modeling of High-Fidelity Magnetic Equivalent Circuits. IEEE Transactions on Power Electronics, 2009, 24, 2847-2855.	7.9	19
70	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.	7.9	18
71	High-power-density high-efficiency LLC converter with an adjustable-leakage-inductance planar transformer for data centers. IET Power Electronics, 2019, 12, 303-310.	2.1	18
72	Bidirectional hybrid Battery/Ultracapacitor Energy Storage Systems for next generation MVDC shipboard power systems. , 2011, , .		17

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73	Interleaved SEPIC PFC converter using coupled inductors in PEV battery charging applications. , 2015, , .		17
74	Comparative study of three-phase buck, boost and buck-boost rectifier topologies for regulated transformer rectifier units. , 2015, , .		17
75	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.	6.3	16
76	3.3kW CLLC converter with synchronous rectification for plug-in electric vehicles. , 2017, , .		16
77	Optimal power split and sizing of hybrid energy storage system for electric vehicles. , 2014, , .		15
78	Single-Phase Charging Operation of a Three-Phase Integrated Onboard Charger for Electric Vehicles. , 2018, , .		15
79	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.	2.0	14
80	Wavelet-transform based energy and power decoupling strategy for a novel ultracapacitor-battery hybrid power-split gear powertrain. , 2013, , .		13
81	Predictive control of a battery/ultracapacitor hybrid energy storage system in electric vehicles. , 2016, , .		13
82	Management and storage of energy converted via a pyroelectric heat engine. Applied Energy, 2018, 230, 1326-1331.	10.1	13
83	An energy management strategy for an EV with two propulsion machines and a hybrid energy storage system. , 2015, , .		12
84	Combining inverse and conventional pyroelectricity in antiferroelectric thin films for energy conversion. Journal of Materials Chemistry C, 2018, 6, 9828-9834.	5.5	12
85	Comparison of CCM- and CRM-Based Boost Parallel Active Power Decoupler for PV Microinverter. IEEE Transactions on Power Electronics, 2022, 37, 9889-9906.	7.9	12
86	Reducing detent force while harvesting energy from center of gravity: an 11-poles, 12-slots Generator Design. , 2012, , .		11
87	Cost effective solutions to level 3 on-board battery chargers. , 2012, , .		11
88	Design of 1 kW bidirectional half-bridge CLLC converter for electric vehicle charging systems. , 2016, , .		11
89	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.	7.9	11
90	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.	4.9	11

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91	A Bare-die SiC-based Isolated Bidirectional DC-DC Converter for Electric Vehicle On-board Chargers. , 2020, , .		11
92	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.	7.9	10
93	Advanced Packaging and Thermal Management of High-Power DC-DC Converters. , 2019, , .		10
94	Design Optimization for Weighted Conduction Loss Minimization in a Dual-Active-Bridge-Based PV Microinverter. , 2020, , .		10
95	Miniaturized Bridgeless High-Frequency Resonant AC-DC Step-Up/Step-Down Converters. IEEE Transactions on Power Electronics, 2014, 29, 6518-6533.	7.9	9
96	Minimum inrush start-up control of a single-phase interleaved totem-pole PFC rectifier. , 2018, , .		9
97	A flat linear generator with axial magnetized permanent magnets with reduced accelerative force for backpack energy harvesting. , 2012, , .		8
98	A low-power and high-gain converter for driving dielectric elastomer actuators. , 2013, , .		8
99	Electro-Thermal Co-Design of a Cooling System-Integrated High-Frequency Transformer. , 2020, , .		7
100	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.	0.3	6
101	Special Section on Sustainable Transportation Systems. IEEE Transactions on Vehicular Technology, 2012, 61, 3362-3364.	6.3	6
102	A Comparative Study of Failure-Tolerant Three-phase RTRUs for More Electric Aircrafts. , 2019, , .		6
103	Optimisation of power electronics for regulated transformer rectifier units. IET Power Electronics, 2020, 13, 1002-1012.	2.1	6
104	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.	2.1	6
105	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.	7.9	5
106	Special Section on Vehicular Energy-Storage Systems. IEEE Transactions on Vehicular Technology, 2009, 58, 3879-3881.	6.3	4
107	A supervisory controller for a hybrid energy storage system with two propulsion machines in electric vehicles. , 2015, , .		3
108	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.	4.9	3

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109	Guest Editorial Special Section on Networked Energy Systems: Architectures, Communication, and Management. IEEE Transactions on Industrial Informatics, 2016, 12, 1896-1899.	11.3	3
110	CCM vs. CRM Design Optimization of a Boost-derived Parallel Active Power Decoupler for Microinverter Applications. , 2020, , .		3
111	A comprehensive design approach for a three-winding planar transformer. IET Power Electronics, 2022, 15, 717-727.	2.1	3
112	Design of a phase-shifted ZVS full-bridge front-end DC/DC converter for fuel cell inverter applications. , 2014, , .		2
113	Notice of Removal: A comparative study between PI and type-II compensators for H-bridge PFC converter. , 2017, , .		2
114	A predictive trip-based method for state of charge maintenance in series PHEVs to boost cold weather efficiency. , 2012, , .		1
115	Extended Harmonic Analysis of Wireless Charging Systems. , 2018, , .		1
116	2013 IEEE Transportation Electrification Conference and Expo [Newsfeed]. IEEE Electrification Magazine, 2013, 1, 68-68.	1.8	0
117	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.	7.8	0