

Juan Balda

List of Publications by Year in descending order

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59
papers

921
citations

933447

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h-index

940533

16
g-index

59
all docs

59
docs citations

59
times ranked

836
citing authors

#	ARTICLE	IF	CITATIONS
1	Power Conversion With SiC Devices at Extremely High Ambient Temperatures. IEEE Transactions on Power Electronics, 2007, 22, 1321-1329.	7.9	260
2	Assessing the Impact of SiC MOSFETs on Converter Interfaces for Distributed Energy Resources. IEEE Transactions on Power Electronics, 2009, 24, 260-270.	7.9	63
3	A Three-Level Full-Bridge Zero-Voltage Zero-Current Switching Converter With a Simplified Switching Scheme. IEEE Transactions on Power Electronics, 2009, 24, 329-338.	7.9	44
4	Investigation of low-voltage solid-state DC breaker configurations for DC microgrid applications. , 2016, , .		34
5	An evaluation of selected solid-state transformer topologies for electric distribution systems. , 2015, , .		29
6	A 150-kW 99% Efficient All-Silicon-Carbide Triple-Active-Bridge Converter for Solar-Plus-Storage Systems. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2022, 10, 3496-3510.	5.4	29
7	A New SST Topology Comprising Boost Three-Level AC/DC Converters for Applications in Electric Power Distribution Systems. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2017, 5, 735-746.	5.4	28
8	Optimal battery chemistry, capacity selection, charge/discharge schedule, and lifetime of energy storage under time-of-use pricing. , 2011, , .		23
9	Realization of a Modular Indirect Matrix Converter System Using Normally Off SiC JFETs. IEEE Transactions on Power Electronics, 2014, 29, 2574-2583.	7.9	23
10	Modular multilevel converter with high-frequency transformers for interfacing hybrid DC and AC microgrid systems. , 2014, , .		20
11	A Comparison of Silicon and Silicon Carbide MOSFET Switching Characteristics. , 2007, , .		19
12	Smart grid applications of selected energy storage technologies. , 2012, , .		19
13	A Variable Inductor Based <i>LCL</i> Filter for Large-Scale Microgrid Application. IEEE Transactions on Power Electronics, 2018, 33, 7338-7348.	7.9	19
14	Loss comparison of selected core magnetic materials operating at medium and high frequencies and different excitation voltages. , 2014, , .		18
15	Short-circuit protection for low-voltage DC microgrids based on solid-state circuit breakers. , 2016, , .		18
16	The effects of flooding attacks on time-critical communications in the smart grid. , 2015, , .		16
17	High voltage, high power density bi-directional multi-level converters utilizing silicon and silicon carbide (SiC) switches. IEEE Applied Power Electronics Conference and Exposition, 2008, , .	0.0	14
18	A 4 kV Silicon Carbide solid-state fault current limiter. , 2012, , .		13

#	ARTICLE	IF	CITATIONS
19	Design Trade-Offs for Medium- and High-Frequency Transformers for Isolated Power Converters in Distribution System Applications. , 2018, , .		13
20	Guidelines for developing power stage layouts using normally-off SiC JFETs based on parasitic analysis. , 2013, , .		12
21	Passive Integration Using FMLF Technique for Integrated Boost Resonant Converters. IEEE Transactions on Industrial Electronics, 2020, 67, 3756-3766.	7.9	12
22	A Modular Switching Position With Voltage-Balancing and Self-Powering for Series Device Connection. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 3501-3516.	5.4	11
23	A comparison of isolated DC-DC converters for microinverter applications. , 2013, , .		10
24	A 13.8-kV 4.75-MVA microgrid laboratory test bed. , 2015, , .		10
25	150-kW Three-Port Custom-Core Transformer Design Methodology. , 2020, , .		10
26	Analysis, modeling and control of an interleaved isolated boost series resonant converter for microinverter applications. , 2016, , .		9
27	Realization of high-current variable AC filter inductors using silicon iron powder magnetic core. , 2017, , .		9
28	A Three-Level Isolated AC-DC PFC Power Converter Topology With a Reduced Number of Switches. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 1052-1063.	5.4	9
29	The impact of high-voltage and fast-switching devices on modular multilevel converters. , 2013, , .		8
30	A silicon carbide fault current limiter for distribution systems. , 2014, , .		8
31	Initial development of a solid-state fault current limiter for naval power systems protection. , 2009, , .		7
32	A scaled-down microgrid laboratory testbed. , 2015, , .		7
33	Passive integration using FMLF technique for integrated boost resonant converters. , 2016, , .		7
34	New power electronic interface combining DC transmission, a medium-frequency bus and an AC-AC converter to integrate deep-sea facilities with the AC grid. , 2014, , .		6
35	Realization of a SiC module-based indirect matrix converter with minimum parasitic inductances. , 2014, , .		6
36	Resonance propagation modeling and analysis of AC filters in a large-scale microgrid. , 2016, , .		6

#	ARTICLE	IF	CITATIONS
37	Ultracapacitor application and controller design in 400 V DC-powered green data centers. , 2016, , .		6
38	Correcting current imbalances in three-phase four-wire distribution systems. , 2016, , .		6
39	Modeling and Stability Analysis of Grid-Connected Inverters with Different LCL Filter Parameters. , 2018, , .		6
40	An 800-V High-Density Traction Inverter’s Electro-Thermal Characterization and Low-Inductance PCB Bussing Design. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2022, 10, 3013-3023.	5.4	6
41	Resonance propagation of ac filters in a large-scale microgrid. , 2015, , .		5
42	A High-Efficiency Isolated PFC AC-DC Topology With Reduced Number of Semiconductor Devices. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2022, 10, 3631-3642.	5.4	5
43	Implementation of a three-phase multilevel boosting inverter using switched-capacitor converter cells. , 2010, , .		4
44	A Hybrid Snubber for Voltage-Balancing and Self-Powering of Series-Connected Devices. , 2019, , .		4
45	Adaptive Boundary Control Using Natural Switching Surfaces for Flyback Converters Operating in the Boundary Conduction Mode with Parameter Uncertainties. IEEE Transactions on Power Electronics, 2019, 34, 8118-8137.	7.9	4
46	A Current-Fed Dual-Half-Bridge-Based Composite Converter With Improved Light-Load Efficiency Through a Multi-Variable Optimization. IEEE Transactions on Transportation Electrification, 2022, 8, 3008-3020.	7.8	4
47	Placement of distributed energy storage via multidimensional scaling and clustering. , 2014, , .		3
48	Topology, cost and efficiency comparisons of a 2 MW DC supply using interleaved DC-DC converter. , 2014, , .		3
49	Current Compensators for Unbalanced Electric Distribution Systems. , 2018, , .		3
50	Stability Analysis of Multiple Grid-Connected Inverters Using Different Feedback Currents. , 2018, , .		3
51	Construction and Testing of a 13.8 kV, 750 kVA 3-Phase Current Compensator Using Modular Switching Positions. , 2021, , .		3
52	Variable-Frequency Controlled Interleaved Boost Converter. , 2020, , .		2
53	Assessing the Impact of SiC MOSFETs on Converter Interfaces for Distributed Energy Resources. Conference Record - IAS Annual Meeting (IEEE Industry Applications Society), 2007, , .	0.0	1
54	A comparison of selected silicon and silicon-carbide switching devices for PV microinverter applications. , 2013, , .		1

#	ARTICLE	IF	CITATIONS
55	750-kW interleaved buck converter dc supply control implementation in a low-cost FPGA. , 2015, , .		1
56	Design of medium-frequency transformers with silicon steel for mobile power substations. , 2017, , .		1
57	A Frequency-Modulated Space Vector Pulse-Width Modulation for Ripple Current Control of Permanent-Magnet Motor Drives. , 2018, , .		1
58	A Three-Level Full-Bridge Zero-Voltage Zero-Current Switching Converter With a Simplified Switching Scheme. , 2007, , .		0
59	Analysis of a Grid-Connected Shoot-Through Current Immune Three-Phase Converter Topology under Unbalanced Loading Conditions. , 2018, , .		0