Joonas Koponen

List of Publications by Year
in descending order

19	492	759055 12	1199470 12
papers	citations	h-index	g-index

19	19	19	462
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Power-to-X technology using renewable electricity and carbon dioxide from ambient air: SOLETAIR proof-of-concept and improved process concept. Journal of CO2 Utilization, 2018, 28, 235-246.	3.3	99
2	Control and energy efficiency of PEM water electrolyzers in renewable energy systems. International Journal of Hydrogen Energy, 2017, 42, 29648-29660.	3.8	68
3	Effect of Converter Topology on the Specific Energy Consumption of Alkaline Water Electrolyzers. IEEE Transactions on Power Electronics, 2019, 34, 6171-6182.	5.4	65
4	PEM water electrolyzer model for a power-hardware-in-loop simulator. International Journal of Hydrogen Energy, 2017, 42, 10775-10784.	3.8	52
5	Capturing CO2 from air: Technical performance and process control improvement. Journal of CO2 Utilization, 2019, 30, 232-239.	3.3	50
6	Power quality and reactive power of water electrolyzers supplied with thyristor converters. Journal of Power Sources, 2020, 459, 228075.	4.0	26
7	Effect of power quality on the design of proton exchange membrane water electrolysis systems. Applied Energy, 2020, 279, 115791.	5.1	22
8	Power quality estimation of water electrolyzers based on current and voltage measurements. Journal of Power Sources, 2020, 450, 227603.	4.0	19
9	Comparison of thyristor and insulated-gate bipolar transistor -based power supply topologies in industrial water electrolysis applications. Journal of Power Sources, 2021, 491, 229443.	4.0	19
10	Simulation methodology for an off-grid solarâ€“batteryâ€“water electrolyzer plant: Simultaneous optimization of component capacities and system control. Applied Energy, 2022, 307, 118157.	5.1	18
11	Energy efficiency optimizing speed control method for reservoir pumping applications. Energy Efficiency, 2015, 8, 117-128.	1.3	16
12	Design and implementation of a power-hardware-in-loop simulator for water electrolysis emulation. Renewable Energy, 2018, 119, 106-115.	4.3	13
13	Specific energy consumption of PEM water electrolysers in atmospheric and pressurised conditions. , 2016, , .		7
14	On- and off-grid laboratory test setup for hydrogen production with solar energy in nordic conditions. , 2015, , .		6
15	Optimization strategies of PEM electrolyser as part of solar PV system. , 2016, , .		6
16	Hardware-in-loop emulator for water electrolysers. , 2016, , .		3
17	Implementing a power source to study the effect of power quality on the PEM water electrolyzer stack. , 2019, , .		2
18	Effect of power quality on PEM fuel cells and water electrolyzers: A literature review with Watson Discovery. , 2019, , .		1

#	Article	IF	Citations
19	Considering the power quality in the fower-hardware-In-loop simulation of the water electrolyzers. , 2017, , .		0