Samuel Simon Araya

List of Publications by Year
in descending order

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41 papers	1,333 citations	361296 20 h-index	345118 36 g-index
42 all docs	42 docs citations	42 times ranked	1197 citing authors

#	Article	IF	Citations
1	A comprehensive review of PBI-based high temperature PEM fuel cells. International Journal of Hydrogen Energy, 2016, 41, 21310-21344.	3.8	320
2	A Review of The Methanol Economy: The Fuel Cell Route. Energies, 2020, 13, 596.	1.6	123
3	Influence of the operation mode on PEM water electrolysis degradation. International Journal of Hydrogen Energy, 2019, 44, 29889-29898.	3.8	88
4	Modeling and experimental validation of water mass balance in a PEM fuel cell stack. International Journal of Hydrogen Energy, 2016, 41, 3079-3092.	3.8	64
5	Modelling and Experimental Analysis of a Polymer Electrolyte Membrane Water Electrolysis Cell at Different Operating Temperatures. Energies, 2018, 11, 3273.	1.6	56
6	Model-supported characterization of a PEM water electrolysis cell for the effect of compression. Electrochimica Acta, 2018, 263, 228-236.	2.6	54
7	Impact of iron and hydrogen peroxide on membrane degradation for polymer electrolyte membrane water electrolysis: Computational and experimental investigation on fluoride emission. Journal of Power Sources, 2019, 420, 54-62.	4.0	48
8	Fault detection and isolation of high temperature proton exchange membrane fuel cell stack under the influence of degradation. Journal of Power Sources, 2017, 359, 37-47.	4.0	44
9	Performance and endurance of a high temperature PEM fuel cell operated on methanol reformate. International Journal of Hydrogen Energy, 2014, 39, 18343-18350.	3.8	42
10	Investigating the effects of methanol-water vapor mixture on a PBI-based high temperature PEM fuel cell. International Journal of Hydrogen Energy, 2012, 37, 18231-18242.	3.8	41
11	Experimental Characterization of the Poisoning Effects of Methanol-Based Reformate Impurities on a PBI-Based High Temperature PEM Fuel Cell. Energies, 2012, 5, 4251-4267.	1.6	40
12	Experimental study to distinguish the effects of methanol slip and water vapour on a high temperature PEM fuel cell at different operating conditions. Applied Energy, 2017, 192, 422-436.	5.1	35
13	Long-term contamination effect of iron ions on cell performance degradation of proton exchange membrane water electrolyser. Journal of Power Sources, 2019, 434, 226755.	4.0	35
14	Fault Characterization of a Proton Exchange Membrane Fuel Cell Stack. Energies, 2019, 12, 152.	1.6	31
15	An EIS alternative for impedance measurement of a high temperature PEM fuel cell stack based on current pulse injection. International Journal of Hydrogen Energy, 2017, 42, 15851-15860.	3.8	28
16	Comparative study of the break in process of post doped and solâ€“gel high temperature proton exchange membrane fuel cells. International Journal of Hydrogen Energy, 2014, 39, 14959-14968.	3.8	24
17	Impedance characterization of high temperature proton exchange membrane fuel cell stack under the influence of carbon monoxide and methanol vapor. International Journal of Hydrogen Energy, 2017, 42, 21901-21912.	3.8	24
18	Modeling and Design of a Multi-Tubular Packed-Bed Reactor for Methanol Steam Reforming over a Cu/ZnO/Al2O3 Catalyst. Energies, 2020, 13, 610.	1.6	24

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19	The effect of Fe3+ contamination in feed water on proton exchange membrane electrolyzer performance. International Journal of Hydrogen Energy, 2019, 44, 12952-12957.	3.8	22
20	Performance Degradation Tests of Phosphoric Acid Doped Polybenzimidazole Membrane Based High Temperature Polymer Electrolyte Membrane Fuel Cells. Journal of Fuel Cell Science and Technology, 2015, 12, .	0.8	21
21	Identification of critical parameters for PEMFC stack performance characterization and control strategies for reliable and comparable stack benchmarking. International Journal of Hydrogen Energy, 2016, 41, 21415-21426.	3.8	18
22	The effects of cationic impurities on the performance of proton exchange membrane water electrolyzer. Journal of Power Sources, 2020, 473, 228617.	4.0	17
23	Electrothermally balanced operation of solid oxide electrolysis cells. Journal of Power Sources, 2022, 523, 231040.	4.0	16
24	New load cycling strategy for enhanced durability of high temperature proton exchange membrane fuel cell. International Journal of Hydrogen Energy, 2017, 42, 27230-27240.	3.8	14
25	The role of effectiveness factor on the modeling of methanol steam reforming over CuO/ZnO/Al2O3 catalyst in a multi-tubular reactor. International Journal of Hydrogen Energy, 2022, 47, 8700-8715.	3.8	14
26	Hydrogen mass transport resistance changes in a high temperature polymer membrane fuel cell as a function of current density and acid doping. Electrochimica Acta, 2019, 317, 521-527.	2.6	12
27	Electrochemical Impedance Spectroscopy (EIS) Characterization of Reformate-operated High Temperature PEM Fuel Cell Stack. International Journal of Power and Energy Research, 2017, 1, .	0.4	12
28	Investigating different break-in procedures for reformed methanol high temperature proton exchange membrane fuel cells. International Journal of Hydrogen Energy, 2018, 43, 14691-14700.	3.8	11
29	Investigating low and high load cycling tests as accelerated stress tests for proton exchange membrane water electrolysis. Electrochimica Acta, 2021, 370, 137748.	2.6	11
30	Comparison between 1D and 2D numerical models of a multi-tubular packed-bed reactor for methanol steam reforming. International Journal of Hydrogen Energy, 2022, 47, 22704-22719.	3.8	11
31	Effects of Impurities on Pre-Doped and Post-Doped Membranes for High Temperature PEM Fuel Cell Stacks. Energies, 2021, 14, 2994.	1.6	9
32	Parametric Sensitivity Testsâ€"European Polymer Electrolyte Membrane Fuel Cell Stack Test Procedures. Journal of Fuel Cell Science and Technology, 2014, 11, .	0.8	6
33	System Design and Modeling of a High Temperature PEM Fuel Cell Operated with Ammonia as a Fuel. Energies, 2020, 13, 4689.	1.6	5
34	Model-Supported Analysis of Degradation Phenomena of a PEM Water Electrolysis Cell under Dynamic Operation. ECS Transactions, 2018, 85, 37-45.	0.3	4
35	Modeling a Hybrid Reformed Methanol Fuel Cellâ€"Battery System for Telecom Backup Applications. Energies, 2022, 15, 3218.	1.6	3
36	EIS Characterization of the Poisoning Effects of CO and CO2 on a PBI Based HT-PEM Fuel Cell. , 2010, , .		2

#	Article	IF	Citations
37	Vapor Delivery Systems for the Study of the Effects of Reformate Gas Impurities in HT-PEM Fuel Cells. Journal of Fuel Cell Science and Technology, 2012, 9, .	0.8	2
38	Parametric Sensitivity Tests â€" European PEM Fuel Cell Stack Test Procedures. , 2014, , .		1
39	Performance Degradation Tests of Phosphoric Acid Doped PBI Membrane Based High Temperature PEM Fuel Cells. , 2014, , .		1
40	Vapor Delivery Systems for the Study of the Effects of Reformate Gas Impurities in HT-PEM Fuel Cells. , 2011, , .		0
41	Electrochemical Impedance Parameter Extraction for Online Control of Reformed Methanol High Temperature PEM Fuel Cells. Lecture Notes in Electrical Engineering, 2020, , 395-403.	0.3	0