

Hiroshi Ito

List of Publications by Year in descending order

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62
papers

1,889
citations

257101

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253896

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g-index

62
all docs

62
docs citations

62
times ranked

1502
citing authors

#	ARTICLE	IF	CITATIONS
1	Properties of Nafion membranes under PEM water electrolysis conditions. International Journal of Hydrogen Energy, 2011, 36, 10527-10540.	3.8	246
2	Experimental study on porous current collectors of PEM electrolyzers. International Journal of Hydrogen Energy, 2012, 37, 7418-7428.	3.8	135
3	Influence of pore structural properties of current collectors on the performance of proton exchange membrane electrolyzer. Electrochimica Acta, 2013, 100, 242-248.	2.6	125
4	Influence of properties of gas diffusion layers on the performance of polymer electrolyte-based unitized reversible fuel cells. International Journal of Hydrogen Energy, 2011, 36, 1740-1753.	3.8	121
5	Effect of flow regime of circulating water on a proton exchange membrane electrolyzer. International Journal of Hydrogen Energy, 2010, 35, 9550-9560.	3.8	116
6	Effect of titanium powder loading in gas diffusion layer of a polymer electrolyte unitized reversible fuel cell. Journal of Power Sources, 2012, 202, 108-113.	4.0	67
7	Experimental investigation of electrolytic solution for anion exchange membrane water electrolysis. International Journal of Hydrogen Energy, 2018, 43, 17030-17039.	3.8	67
8	Incentives and legal barriers for power-to-hydrogen pathways: An international snapshot. International Journal of Hydrogen Energy, 2019, 44, 11394-11401.	3.8	58
9	Application of a self-supporting microporous layer to gas diffusion layers of proton exchange membrane fuel cells. Journal of Power Sources, 2017, 342, 393-404.	4.0	55
10	Cross-permeation and consumption of hydrogen during proton exchange membrane electrolysis. International Journal of Hydrogen Energy, 2016, 41, 20439-20446.	3.8	54
11	Efficiency of unitized reversible fuel cell systems. International Journal of Hydrogen Energy, 2016, 41, 5803-5815.	3.8	48
12	Effect of through-plane distribution of polytetrafluoroethylene in carbon paper on in-plane gas permeability. Journal of Power Sources, 2014, 248, 822-830.	4.0	44
13	Pressurized operation of anion exchange membrane water electrolysis. Electrochimica Acta, 2019, 297, 188-196.	2.6	43
14	Experimental study of hydrogen storage with reaction heat recovery using metal hydride in a totalized hydrogen energy utilization system. International Journal of Hydrogen Energy, 2011, 36, 11767-11776.	3.8	41
15	Study on control method of the stand-alone direct-coupling photovoltaic water electrolyzer. International Journal of Hydrogen Energy, 2012, 37, 4819-4828.	3.8	41
16	Effect of through-plane polytetrafluoroethylene distribution in gas diffusion layers on performance of proton exchange membrane fuel cells. Journal of Power Sources, 2016, 306, 289-299.	4.0	39
17	Investigations on electrode configurations for anion exchange membrane electrolysis. Journal of Applied Electrochemistry, 2018, 48, 305-316.	1.5	37
18	Economic and environmental assessment of phosphoric acid fuel cell-based combined heat and power system for an apartment complex. International Journal of Hydrogen Energy, 2017, 42, 15449-15463.	3.8	36

#	ARTICLE	IF	CITATIONS
19	Densities of Eutectic Mixtures of Molten Alkali Chlorides below 673 K. Journal of Chemical & Engineering Data, 2001, 46, 1203-1205.	1.0	32
20	Gas Purge for Switching from Electrolysis to Fuel Cell Operation in Polymer Electrolyte Unitized Reversible Fuel Cells. Journal of the Electrochemical Society, 2010, 157, B1072.	1.3	32
21	Numerical simulation of the hydrogen storage with reaction heat recovery using metal hydride in the totalized hydrogen energy utilization system. International Journal of Hydrogen Energy, 2011, 36, 10845-10854.	3.8	31
22	Research and development of a laboratory scale Totalized Hydrogen Energy Utilization System. International Journal of Hydrogen Energy, 2016, 41, 1224-1236.	3.8	27
23	Study on a metal hydride tank to support energy storage for renewable energy. Journal of Alloys and Compounds, 2013, 580, S418-S422.	2.8	26
24	Economic and environmental assessment of residential micro combined heat and power system application in Japan. International Journal of Hydrogen Energy, 2016, 41, 15111-15123.	3.8	26
25	Effect of through-plane polytetrafluoroethylene distribution in a gas diffusion layer on a polymer electrolyte unitized reversible fuel cell. International Journal of Hydrogen Energy, 2015, 40, 16556-16565.	3.8	24
26	Metal hydride bed system model for renewable source driven Regenerative Fuel Cell. Journal of Alloys and Compounds, 2013, 580, S406-S409.	2.8	22
27	Experimental study on laboratory scale Totalized Hydrogen Energy Utilization System using wind power data. International Journal of Hydrogen Energy, 2017, 42, 13827-13838.	3.8	21
28	Small-scale hydrogen liquefaction with a two-stage Gifford-McMahon cycle refrigerator. International Journal of Hydrogen Energy, 2010, 35, 9088-9094.	3.8	20
29	Experimental Study on a Metal Hydride Tank for the Totalized Hydrogen Energy Utilization System. Energy Procedia, 2012, 29, 463-468.	1.8	19
30	Effect of PTFE contents in the Gas Diffusion Layers of Polymer Electrolyte-based Unitized Reversible Fuel Cells. Journal of International Council on Electrical Engineering, 2012, 2, 171-177.	0.4	18
31	Experimental study on a laboratory scale Totalized Hydrogen Energy Utilization System for solar photovoltaic application. Applied Energy, 2016, 177, 309-322.	5.1	17
32	Electrode Behavior of Hydride Ion in Molten Alkali Chlorides. Journal of the Electrochemical Society, 2002, 149, E273.	1.3	16
33	Influence of Different Gas Diffusion Layers on the Water Management of Polymer Electrolyte Unitized Reversible Fuel Cell. ECS Transactions, 2010, 33, 945-954.	0.3	15
34	Research and development for a metal hydride tank with double coil type heat exchanger below 1.0 MPa (G) operation. International Journal of Hydrogen Energy, 2015, 40, 2663-2672.	3.8	15
35	Electrode Behavior of Hydrogen Reduction in LiCl-KCl Melt. Voltammetric Analysis. Journal of the Electrochemical Society, 2000, 147, 289.	1.3	13
36	Electrode Behavior of Hydrogen Reduction in LiCl-KCl Melt. AC Impedance Analysis. Journal of the Electrochemical Society, 2001, 148, E148.	1.3	11

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37	Numerical simulation of cyclic voltammetry for reversible systems with complex stoichiometry. Russian Journal of Electrochemistry, 2011, 47, 1006-1015.	0.3	11
38	Visualization of the phase change behavior of sodium acetate trihydrate for latent heat storage. Applied Thermal Engineering, 2015, 91, 547-555.	3.0	11
39	Effect of catalyst distribution and structural properties of anode porous transport electrodes on the performance of anion exchange membrane water electrolysis. International Journal of Hydrogen Energy, 2021, 46, 37757-37767.	3.8	11
40	Study on absorption/desorption characteristics of a metal hydride tank for boil-off gas from liquid hydrogen. International Journal of Hydrogen Energy, 2012, 37, 5056-5062.	3.8	10
41	Effect of Titanium Powder Loading in Microporous Layer on a Polymer Electrolyte Unitized Reversible Fuel Cell. ECS Transactions, 2011, 41, 469-477.	0.3	9
42	Effect of Through-Plane Polytetrafluoroethylene Distribution in a Gas Diffusion Layer on a Polymer Electrolyte Unitized Reversible Fuel Cell. ECS Transactions, 2013, 58, 1059-1068.	0.3	9
43	Durability Investigation of a PEM-type Unitized Reversible Cell. ECS Transactions, 2009, 25, 1271-1278.	0.3	8
44	Measurement of Net Water Drag Coefficients in Polymer Electrolyte Fuel Cells under Cathode-Dry Conditions. Journal of the Electrochemical Society, 2019, 166, F1117-F1127.	1.3	8
45	Communication“Deuterium Isotope Separation by Solid Polymer Electrolyte Water Electrolysis. Journal of the Electrochemical Society, 2019, 166, F566-F568.	1.3	8
46	The Development of the Totalized Hydrogen Energy Utilization System for Commercial Buildings. Journal of International Council on Electrical Engineering, 2011, 1, 194-199.	0.4	7
47	Effect of water stoichiometry on deuterium isotope separation by anion exchange membrane water electrolysis. International Journal of Hydrogen Energy, 2021, 46, 33689-33695.	3.8	6
48	Electrode Kinetics of Hydrogen Reduction in Molten Alkali Chlorides. Journal of the Electrochemical Society, 2003, 150, E244.	1.3	5
49	Li/H ₂ cells with molten alkali chlorides electrolyte. Journal of Applied Electrochemistry, 2005, 35, 507-512.	1.5	5
50	Corrosion Behavior of SUS 304L Steel in pH 13 NaOH Solution. Electrochemistry, 2020, 88, 468-474.	0.6	5
51	Net Water Drag Coefficient during High Temperature Operation of Polymer Electrolyte Fuel Cells. Journal of the Electrochemical Society, 2021, 168, 124505.	1.3	5
52	Chlor“alkali electrolysis. , 2022, , 281-304.		4
53	Direct Formation of Metal Layer on Anion Exchange Membrane Using Electroless Deposition Process. Electrochemistry, 2021, 89, 192-196.	0.6	3
54	Gas Purge for Switching of Polymer Electrolyte Unitized Reversible Fuel Cell. ECS Transactions, 2009, 25, 1979-1990.	0.3	2

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55	Effect of the Metal Hydride Tank Structure on the Reaction Heat Recovery for the Totalized Hydrogen Energy Utilization System. Journal of International Council on Electrical Engineering, 2013, 3, 103-109.	0.4	1
56	A Novel Lightweight Polymer Electrolyte Fuel Cell Stack for Robot Systems. ECS Transactions, 2013, 50, 805-815.	0.3	1
57	Effect of through-Plane Polytetrafluoroethylene Distribution in a Gas Diffusion Layer. ECS Transactions, 2014, 64, 501-508.	0.3	1
58	Anion Exchange Membrane Water Electrolysis. Denki Kagaku, 2021, 89, 247-251.	0.0	1
59	Study on the Characteristics of Metal Hydride Tanks in Totalized Hydrogen Energy Management System With Renewable Energy. , 2007, , 645.		0
60	Design Concept and the Performance of a Metal Hydride Hydrogen Storage Tank in Totalized Hydrogen Energy Utilization System. , 2011, , .		0
61	Numerical simulation of voltammetry focusing on the effect of initial concentration of products in reversible systems with complex stoichiometry. Russian Journal of Electrochemistry, 2012, 48, 887-894.	0.3	0
62	Totalized Hydrogen Energy Utilization System. , 2018, , 385-406.		0