

Pingwen Ming

List of Publications by Year in descending order

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111
papers

3,051
citations

136950

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docs citations

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times ranked

1991
citing authors

#	ARTICLE	IF	CITATIONS
1	Droplets dynamics theory and micro-flow field experiments of improving self-humidifying feature and maximum power density in fuel cells. <i>Chemical Engineering Journal</i> , 2022, 429, 131974.	12.7	9
2	Experimental study of the influence of dynamic load cycle and operating parameters on the durability of PEMFC. <i>Energy</i> , 2022, 239, 122356.	8.8	48
3	Study on the thermal transient of cathode catalyst layer in proton exchange membrane fuel cell under dynamic loading with a two-dimensional model. <i>Chemical Engineering Journal</i> , 2022, 433, 133667.	12.7	4
4	Compressive stress and its impact on the gas diffusion layer: A review. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 3994-4009.	7.1	15
5	Investigation of the thermal responses under gas channel and land inside proton exchange membrane fuel cell with assembly pressure. <i>Applied Energy</i> , 2022, 308, 118377.	10.1	11
6	Understanding dynamic behavior of proton exchange membrane fuel cell in the view of internal dynamics based on impedance. <i>Chemical Engineering Journal</i> , 2022, 431, 134035.	12.7	45
7	Topology optimization design for the lightweight endplate of proton exchange membrane fuel cell stack clamped with bolts. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 9680-9689.	7.1	11
8	A Comparative Study of Equivalent Circuit Models for Electro-Chemical Impedance Spectroscopy Analysis of Proton Exchange Membrane Fuel Cells. <i>Energies</i> , 2022, 15, 386.	3.1	11
9	Voltammetric and galvanostatic methods for measuring hydrogen crossover in fuel cell. <i>IScience</i> , 2022, 25, 103576.	4.1	6
10	Effect of Microstructural Damage on the Thermomechanical Properties of Electrodes in Proton Exchange Membrane Fuel Cells. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 2918-2929.	8.0	2
11	Effect of rheological properties of catalyst slurry on the structure of catalyst layer in PEMFC. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 8956-8964.	7.1	11
12	Degradation analysis of the core components of metal plate proton exchange membrane fuel cell stack under dynamic load cycles. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 7432-7442.	7.1	6
13	Moving impingement heat transfer in a three-dimensional rarefied hydrogen gas jet based on the direct simulation Monte Carlo method coupled with the finite difference method. <i>International Journal of Heat and Mass Transfer</i> , 2022, 188, 122586.	4.8	2
14	Effect of PTFE and liquid water on the thermal characteristics of compressed gas diffusion backing of PEM fuel cell. <i>ETransportation</i> , 2022, 12, 100162.	14.8	8
15	A Review of the Transition Region of Membrane Electrode Assembly of Proton Exchange Membrane Fuel Cells: Design, Degradation, and Mitigation. <i>Membranes</i> , 2022, 12, 306.	3.0	14
16	The Effects of Testing Conditions on Corrosion Behaviours of SS316L for Bipolar Plate of PEMFC. <i>Journal of the Electrochemical Society</i> , 2022, 169, 034513.	2.9	2
17	A High-Durability Graphitic Black Pearl Supported Pt Catalyst for a Proton Exchange Membrane Fuel Cell Stack. <i>Membranes</i> , 2022, 12, 301.	3.0	3
18	Single-Crystalline Cathodes for Advanced Li-Ion Batteries: Progress and Challenges. <i>Small</i> , 2022, 18, e2107048.	10.0	43

#	ARTICLE	IF	CITATIONS
19	Power evolution of fuel cell stack driven by anode gas diffusion layer degradation. <i>Applied Energy</i> , 2022, 313, 118858.	10.1	8
20	Durability degradation mechanism and consistency analysis for proton exchange membrane fuel cell stack. <i>Applied Energy</i> , 2022, 314, 119020.	10.1	29
21	High-Performance Zinc-Air Batteries Based on Bifunctional Hierarchically Porous Nitrogen-Doped Carbon. <i>Small</i> , 2022, 18, e2105928.	10.0	23
22	A new insight into the effects of agglomerate parameters on internal dynamics of proton exchange membrane fuel cell by an advanced impedance dimension model. <i>Energy</i> , 2022, 253, 124202.	8.8	5
23	Effects of micropore characteristics in the metal skeleton on heat and mass transfer in an open foam structure for thermal management in the hydrogen UAV. <i>International Journal of Thermal Sciences</i> , 2022, 179, 107628.	4.9	10
24	The conductive network optimization of composite graphite plates and its morphological analysis. <i>Chemical Engineering Journal</i> , 2022, 446, 136652.	12.7	4
25	Influence of Degassing Treatment on the Ink Properties and Performance of Proton Exchange Membrane Fuel Cells. <i>Membranes</i> , 2022, 12, 541.	3.0	2
26	An enhanced thin-film resistance temperature detector and its application for catalyst layer surface temperature measurement inside PEMFC. <i>ETransportation</i> , 2022, 13, 100178.	14.8	5
27	Effect of ionomer content on cathode catalyst layer for PEMFC via molecular dynamics simulations and experiments. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 23335-23347.	7.1	16
28	Simulation on cathode catalyst layer in proton exchange membrane fuel cell: Sensitivity of design parameters to cell performance and oxygen distribution. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 24452-24463.	7.1	8
29	Effect of mesoporous carbon on oxygen reduction reaction activity as cathode catalyst support for proton exchange membrane fuel cell. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 28074-28085.	7.1	14
30	Investigation of the reversible performance degradation mechanism of the PEMFC stack during long-term durability test. <i>Energy</i> , 2022, 258, 124747.	8.8	19
31	The Controllable Design of Catalyst Inks to Enhance PEMFC Performance: A Review. <i>Electrochemical Energy Reviews</i> , 2021, 4, 67-100.	25.5	79
32	The synergetic effect of air pollutants and metal ions on performance of a 5 kW proton-exchange membrane fuel cell stack. <i>International Journal of Energy Research</i> , 2021, 45, 7974-7986.	4.5	4
33	Understanding the functions and modifications of interfaces in membrane electrode assemblies of proton exchange membrane fuel cells. <i>Journal of Materials Chemistry A</i> , 2021, 9, 15111-15139.	10.3	34
34	Mechanism and Model for Optimizing Polytetrafluoroethylene Distribution to Improve the Electrical and Thermal Conductivity of Treated Carbon Fiber Paper in Fuel Cells. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 14207-14220.	8.0	14
35	Numerical analysis of static and dynamic heat transfer behaviors inside proton exchange membrane fuel cell. <i>Journal of Power Sources</i> , 2021, 488, 229419.	7.8	21
36	Enhanced mass transfer and proton conduction of cathode catalyst layer for proton exchange membrane fuel cell through filling polyhedral oligomeric silsesquioxane. <i>Journal of Power Sources</i> , 2021, 487, 229413.	7.8	14

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37	Performance degradation and process engineering of the 10ÂkW proton exchange membrane fuel cell stack. <i>Energy</i> , 2021, 219, 119623.	8.8	41
38	A novel approach based on semi-empirical model for degradation prediction of fuel cells. <i>Journal of Power Sources</i> , 2021, 488, 229435.	7.8	40
39	Optimization of cathode microporous layer materials for proton exchange membrane fuel cell. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 14674-14686.	7.1	15
40	Research progress of heat transfer inside proton exchange membrane fuel cells. <i>Journal of Power Sources</i> , 2021, 492, 229613.	7.8	30
41	Graph theory model and mechanism analysis of carbon fiber paper conductivity in fuel cell based on physical structure. <i>Journal of Power Sources</i> , 2021, 491, 229546.	7.8	16
42	Modifying Carbon Supports of Catalyst for the Oxygen Reduction Reaction in Vehicle PEMFCs. <i>Automotive Innovation</i> , 2021, 4, 119-130.	5.1	15
43	A fuzzy extend state observer-based cascade decoupling controller of air supply for vehicular fuel cell system. <i>Energy Conversion and Management</i> , 2021, 236, 114080.	9.2	25
44	Modeling Water and Thermal Transients Inside Proton Exchange Membrane for Vehicle Application Fuel Cells. <i>ECS Transactions</i> , 2021, 102, 73-85.	0.5	2
45	Review of hydrogen crossover through the polymer electrolyte membrane. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 22040-22061.	7.1	60
46	Effect of Dispersion Solvents and Ionomers on the Rheology of Catalyst Inks and Catalyst Layer Structure for Proton Exchange Membrane Fuel Cells. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 27119-27128.	8.0	16
47	Improvement of Corrosion Resistance and Electrical Conductivity of Stainless Steel 316L Bipolar Plate by Pickling and Passivation. <i>World Electric Vehicle Journal</i> , 2021, 12, 101.	3.0	2
48	Online impedance spectrum measurement of fuel cells based on Morlet wavelet transform. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 24339-24352.	7.1	14
49	Internal polarization process revelation of electrochemical impedance spectroscopy of proton exchange membrane fuel cell by an impedance dimension model and distribution of relaxation times. <i>Chemical Engineering Journal</i> , 2021, 418, 129358.	12.7	32
50	The influences of gas diffusion layer material models and parameters on mechanical analysis of proton exchange membrane fuel cell. <i>Fuel Cells</i> , 2021, 21, 373-389.	2.4	3
51	Controlling the microscopic morphology and permeability of catalyst layers in proton exchange membrane fuel cells by adjusting catalyst ink agglomerates. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 32215-32225.	7.1	15
52	Influence of the dispersion state of ionomer on the dispersion of catalyst ink and the construction of catalyst layer. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 33300-33313.	7.1	16
53	The Effects of Anode Serpentine Flow Field Structure and Humidity on Performance of PEMFCs. <i>ECS Transactions</i> , 2021, 104, 295-305.	0.5	0
54	The Effects of Testing Conditions on Corrosion Behaviours of SS316L for Bipolar Plate of Proton Exchange Membrane Fuel Cell. <i>ECS Transactions</i> , 2021, 104, 257-267.	0.5	0

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55	Multiscale study on the mechanical behaviour of catalyst layer under tensile and humidity cyclic loading. <i>Composite Structures</i> , 2021, 276, 114571.	5.8	4
56	Quantitative analysis of internal polarization dynamics for polymer electrolyte membrane fuel cell by distribution of relaxation times of impedance. <i>Applied Energy</i> , 2021, 303, 117640.	10.1	41
57	A fault diagnosis model for proton exchange membrane fuel cell based on impedance identification with differential evolution algorithm. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 38795-38808.	7.1	12
58	A comparative study of corrosion resistance evaluation of bipolar plate materials for proton exchange membrane fuel cell. <i>ETransportation</i> , 2021, 10, 100139.	14.8	20
59	Failure behavior of gas diffusion layer in proton exchange membrane fuel cells. <i>Journal of Power Sources</i> , 2021, 515, 230655.	7.8	18
60	Synthesis of Anti-poisoning Spinel Mn ²⁺ Co ²⁺ C as Cathode Catalysts for Low-Temperature Anion Exchange Membrane Direct Ammonia Fuel Cells. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 53945-53954.	8.0	14
61	Preparation, Performance and Challenges of Catalyst Layer for Proton Exchange Membrane Fuel Cell. <i>Membranes</i> , 2021, 11, 879.	3.0	25
62	Control of Cluster Structures in Catalyst Inks by a Dispersion Medium. <i>ACS Omega</i> , 2021, 6, 32960-32969.	3.5	8
63	Simple numerical simulation of catalyst inks dispersion in proton exchange membrane fuel cell by the lattice Boltzmann method. <i>Physics of Fluids</i> , 2021, 33, 115116.	4.0	0
64	Thermal Management for Hydrogen Charging and Discharging in a Screened Metal-Organic Framework Particle Tank. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 61838-61848.	8.0	21
65	Surface Modification of Li-Rich Mn-Based Layered Oxide Cathodes: Challenges, Materials, Methods, and Characterization. <i>Advanced Energy Materials</i> , 2020, 10, 2002506.	19.5	108
66	Highly active and durable carbon support Pt-rare earth catalyst for proton exchange membrane fuel cell. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 27291-27298.	7.1	15
67	Model-based observers for internal states estimation and control of proton exchange membrane fuel cell system: A review. <i>Journal of Power Sources</i> , 2020, 468, 228376.	7.8	73
68	Efficient synthesis of Pt-Co nanowires as cathode catalysts for proton exchange membrane fuel cells. <i>RSC Advances</i> , 2020, 10, 6287-6296.	3.6	26
69	Preparation of a Graphitized-Carbon-Supported PtNi Octahedral Catalyst and Application in a Proton-Exchange Membrane Fuel Cell. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 7047-7056.	8.0	23
70	Highly efficient, cell reversal resistant PEMFC based on PtNi/C octahedral and OER composite catalyst. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 8930-8940.	7.1	29
71	A novel model-based internal state observer of a fuel cell system for electric vehicles using improved Kalman filter approach. <i>Applied Energy</i> , 2020, 268, 115009.	10.1	42
72	Stainless steel bipolar plates for proton exchange membrane fuel cells: Materials, flow channel design and forming processes. <i>Journal of Power Sources</i> , 2020, 451, 227783.	7.8	123

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73	Accelerated Test of Silicone Rubbers Exposing to PEMFC environment. Progress in Natural Science: Materials International, 2020, 30, 882-889.	4.4	11
74	A multi-optimization model for the design of hydrogen supply chains. E3S Web of Conferences, 2020, 194, 02028.	0.5	1
75	Mechanical analysis and optimal design of on-board fuel cell system steel frame structure under impact and vibration load. , 2020, , .		0
76	Graphite-Filled Composite Bipolar Plates for Fuel Cells: Material, Structure, and Performance. Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica, 2020, .	4.9	2
77	Influence of Membrane Thickness on Membrane Degradation and Platinum Agglomeration under Long-term Open Circuit Voltage Conditions. Electrochimica Acta, 2015, 153, 254-262.	5.2	35
78	Analysis of carbon-supported platinum through potential cycling and potential-static holding. International Journal of Hydrogen Energy, 2014, 39, 13725-13737.	7.1	17
79	The degradation study of Nafion/PTFE composite membrane in PEM fuel cell under accelerated stress tests. International Journal of Hydrogen Energy, 2014, 39, 14381-14390.	7.1	103
80	Intermittent microwave synthesis of nanostructured Pt/TiNâ€“graphene with high catalytic activity for methanol oxidation. International Journal of Hydrogen Energy, 2014, 39, 16036-16042.	7.1	10
81	Properties and morphology of Nafion/polytetrafluoroethylene composite membrane fabricated by a solution-spray process. International Journal of Hydrogen Energy, 2013, 38, 8400-8408.	7.1	13
82	Preparation and characterization of a modified montmorillonite/sulfonated polyphenylether sulfone/PTFE composite membrane. International Journal of Hydrogen Energy, 2011, 36, 2177-2183.	7.1	46
83	Preparation and properties of thin epoxy/compressed expanded graphite composite bipolar plates for proton exchange membrane fuel cells. Journal of Power Sources, 2010, 195, 794-800.	7.8	69
84	The preparation technique optimization of epoxy/compressed expanded graphite composite bipolar plates for proton exchange membrane fuel cells. Journal of Power Sources, 2010, 195, 5312-5319.	7.8	37
85	The critical pressure drop for the purge process in the anode of a fuel cell. Journal of Power Sources, 2009, 188, 163-169.	7.8	30
86	Catalytic hydrogen/oxygen reaction assisted the proton exchange membrane fuel cell (PEMFC) startup at subzero temperature. Journal of Power Sources, 2008, 177, 137-141.	7.8	47
87	The voltage characteristics of proton exchange membrane fuel cell (PEMFC) under steady and transient states. Journal of Power Sources, 2008, 179, 292-296.	7.8	59
88	Conductivity of aromatic-based proton exchange membranes at subzero temperatures. Journal of Power Sources, 2008, 180, 232-237.	7.8	32
89	Agâ€“polytetrafluoroethylene composite coating on stainless steel as bipolar plate of proton exchange membrane fuel cell. Journal of Power Sources, 2008, 182, 580-584.	7.8	52
90	Flow distribution in parallel-channel plate for proton exchange membrane fuel cells. Journal of Power Sources, 2008, 185, 1009-1014.	7.8	11

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91	The electrical resistance of flexible graphite as flowfield plate in proton exchange membrane fuel cells. Carbon, 2008, 46, 19-23.	10.3	30
92	Comparative Study of PEM Fuel Cell Storage at $\sim 20^{\circ}\text{C}$ after Gas Purging. Electrochemical and Solid-State Letters, 2007, 10, B11.	2.2	31
93	Investigation on Vehicular PEMFC Power Modules. ECS Transactions, 2007, 5, 283-289.	0.5	0
94	AC impedance characteristics of a 2kW PEM fuel cell stack under different operating conditions and load changes. International Journal of Hydrogen Energy, 2007, 32, 4358-4364.	7.1	136
95	A fractal model for predicting permeability and liquid water relative permeability in the gas diffusion layer (GDL) of PEMFCs. Journal of Power Sources, 2007, 163, 846-852.	7.8	53
96	A two-fluid model for two-phase flow in PEMFCs. Journal of Power Sources, 2007, 163, 864-873.	7.8	68
97	The influence of hydrogen sulfide on proton exchange membrane fuel cell anodes. Journal of Power Sources, 2007, 164, 272-277.	7.8	44
98	The study on transient characteristic of proton exchange membrane fuel cell stack during dynamic loading. Journal of Power Sources, 2007, 163, 966-970.	7.8	64
99	Hydrogen sulfide poisoning and recovery of PEMFC Pt-anodes. Journal of Power Sources, 2007, 165, 814-818.	7.8	44
100	A novel proton exchange membrane fuel cell anode for enhancing CO tolerance. Journal of Power Sources, 2007, 174, 164-169.	7.8	10
101	The Oxidation Resistance of Tungsten Carbide as Catalyst Support for Proton Exchange Membrane Fuel Cells. Chinese Journal of Catalysis, 2007, 28, 109-111.	14.0	22
102	Numerical simulation of three-dimensional gas/liquid two-phase flow in a proton exchange membrane fuel cell. Frontiers of Energy and Power Engineering in China, 2007, 1, 305-310.	0.4	2
103	The effect of ambient contamination on PEMFC performance. Journal of Power Sources, 2007, 166, 172-176.	7.8	120
104	Experimental Determination of Electro-Osmotic Drag Coefficient in Nafion Membrane for Fuel Cells. Journal of the Electrochemical Society, 2006, 153, A1443.	2.9	93
105	A study on the start-up and performance of a kW-class molten carbonate fuel cell (MCFC) stack. Electrochimica Acta, 2006, 51, 5698-5702.	5.2	8
106	Performance of PEMFC stack using expanded graphite bipolar plates. Journal of Power Sources, 2006, 160, 252-257.	7.8	66
107	Analysis of PEMFC freeze degradation at $\sim 20^{\circ}\text{C}$ after gas purging. Journal of Power Sources, 2006, 162, 513-520.	7.8	121
108	A 75-kW methanol reforming fuel cell system. Journal of Power Sources, 2006, 162, 1265-1269.	7.8	25

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109	Effects of Freeze/Thaw Cycles and Gas Purging Method on Polymer Electrolyte Membrane Fuel Cells. Chinese Journal of Chemical Engineering, 2006, 14, 802-805.	3.5	17
110	Dynamic Test and Real-time Control Platform of Anode Recirculation for PEM Fuel Cell Systems. Journal of Fuel Cell Science and Technology, 2006, 3, 333-345.	0.8	11
111	The Characteristics of a PEM Fuel Cell Engine with 40 kW Vehicle Stacks. Fuel Cells, 2004, 4, 101-104.	2.4	7