

Pingwen Ming

List of Publications by Year in descending order

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111
papers

3,051
citations

136950

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189892

50
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111
all docs

111
docs citations

111
times ranked

1991
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | AC impedance characteristics of a 2kW PEM fuel cell stack under different operating conditions and load changes. <i>International Journal of Hydrogen Energy</i> , 2007, 32, 4358-4364. | 7.1 | 136 |
| 2 | 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 |
| 3 | Analysis of PEMFC freeze degradation at $\sim 20^{\circ}\text{C}$ after gas purging. <i>Journal of Power Sources</i> , 2006, 162, 513-520. | 7.8 | 121 |
| 4 | The effect of ambient contamination on PEMFC performance. <i>Journal of Power Sources</i> , 2007, 166, 172-176. | 7.8 | 120 |
| 5 | 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 |
| 6 | The degradation study of Nafion/PTFE composite membrane in PEM fuel cell under accelerated stress tests. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 14381-14390. | 7.1 | 103 |
| 7 | Experimental Determination of Electro-Osmotic Drag Coefficient in Nafion Membrane for Fuel Cells. <i>Journal of the Electrochemical Society</i> , 2006, 153, A1443. | 2.9 | 93 |
| 8 | The Controllable Design of Catalyst Inks to Enhance PEMFC Performance: A Review. <i>Electrochemical Energy Reviews</i> , 2021, 4, 67-100. | 25.5 | 79 |
| 9 | 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 |
| 10 | Preparation and properties of thin epoxy/compressed expanded graphite composite bipolar plates for proton exchange membrane fuel cells. <i>Journal of Power Sources</i> , 2010, 195, 794-800. | 7.8 | 69 |
| 11 | A two-fluid model for two-phase flow in PEMFCs. <i>Journal of Power Sources</i> , 2007, 163, 864-873. | 7.8 | 68 |
| 12 | Performance of PEMFC stack using expanded graphite bipolar plates. <i>Journal of Power Sources</i> , 2006, 160, 252-257. | 7.8 | 66 |
| 13 | The study on transient characteristic of proton exchange membrane fuel cell stack during dynamic loading. <i>Journal of Power Sources</i> , 2007, 163, 966-970. | 7.8 | 64 |
| 14 | Review of hydrogen crossover through the polymer electrolyte membrane. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 22040-22061. | 7.1 | 60 |
| 15 | The voltage characteristics of proton exchange membrane fuel cell (PEMFC) under steady and transient states. <i>Journal of Power Sources</i> , 2008, 179, 292-296. | 7.8 | 59 |
| 16 | A fractal model for predicting permeability and liquid water relative permeability in the gas diffusion layer (GDL) of PEMFCs. <i>Journal of Power Sources</i> , 2007, 163, 846-852. | 7.8 | 53 |
| 17 | Ag-polytetrafluoroethylene composite coating on stainless steel as bipolar plate of proton exchange membrane fuel cell. <i>Journal of Power Sources</i> , 2008, 182, 580-584. | 7.8 | 52 |
| 18 | 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 |

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|----|---|------|-----------|
| 19 | Catalytic hydrogen/oxygen reaction assisted the proton exchange membrane fuel cell (PEMFC) startup at subzero temperature. <i>Journal of Power Sources</i> , 2008, 177, 137-141. | 7.8 | 47 |
| 20 | Preparation and characterization of a modified montmorillonite/sulfonated polyphenylether sulfone/PTFE composite membrane. <i>International Journal of Hydrogen Energy</i> , 2011, 36, 2177-2183. | 7.1 | 46 |
| 21 | 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 |
| 22 | The influence of hydrogen sulfide on proton exchange membrane fuel cell anodes. <i>Journal of Power Sources</i> , 2007, 164, 272-277. | 7.8 | 44 |
| 23 | Hydrogen sulfide poisoning and recovery of PEMFC Pt-anodes. <i>Journal of Power Sources</i> , 2007, 165, 814-818. | 7.8 | 44 |
| 24 | Single-Crystalline Cathodes for Advanced Li-Ion Batteries: Progress and Challenges. <i>Small</i> , 2022, 18, e2107048. | 10.0 | 43 |
| 25 | 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 |
| 26 | Performance degradation and process engineering of the 10kW proton exchange membrane fuel cell stack. <i>Energy</i> , 2021, 219, 119623. | 8.8 | 41 |
| 27 | 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 |
| 28 | 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 |
| 29 | The preparation technique optimization of epoxy/compressed expanded graphite composite bipolar plates for proton exchange membrane fuel cells. <i>Journal of Power Sources</i> , 2010, 195, 5312-5319. | 7.8 | 37 |
| 30 | Influence of Membrane Thickness on Membrane Degradation and Platinum Agglomeration under Long-term Open Circuit Voltage Conditions. <i>Electrochimica Acta</i> , 2015, 153, 254-262. | 5.2 | 35 |
| 31 | 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 |
| 32 | Conductivity of aromatic-based proton exchange membranes at subzero temperatures. <i>Journal of Power Sources</i> , 2008, 180, 232-237. | 7.8 | 32 |
| 33 | 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 |
| 34 | Comparative Study of PEM Fuel Cell Storage at ~20°C after Gas Purging. <i>Electrochemical and Solid-State Letters</i> , 2007, 10, B11. | 2.2 | 31 |
| 35 | The electrical resistance of flexible graphite as flowfield plate in proton exchange membrane fuel cells. <i>Carbon</i> , 2008, 46, 19-23. | 10.3 | 30 |
| 36 | The critical pressure drop for the purge process in the anode of a fuel cell. <i>Journal of Power Sources</i> , 2009, 188, 163-169. | 7.8 | 30 |

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 37 | Research progress of heat transfer inside proton exchange membrane fuel cells. <i>Journal of Power Sources</i> , 2021, 492, 229613. | 7.8 | 30 |
| 38 | 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 |
| 39 | Durability degradation mechanism and consistency analysis for proton exchange membrane fuel cell stack. <i>Applied Energy</i> , 2022, 314, 119020. | 10.1 | 29 |
| 40 | 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 |
| 41 | A 75-kW methanol reforming fuel cell system. <i>Journal of Power Sources</i> , 2006, 162, 1265-1269. | 7.8 | 25 |
| 42 | 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 |
| 43 | Preparation, Performance and Challenges of Catalyst Layer for Proton Exchange Membrane Fuel Cell. <i>Membranes</i> , 2021, 11, 879. | 3.0 | 25 |
| 44 | 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 |
| 45 | High-Performance Zinc-Air Batteries Based on Bifunctional Hierarchically Porous Nitrogen-Doped Carbon. <i>Small</i> , 2022, 18, e2105928. | 10.0 | 23 |
| 46 | The Oxidation Resistance of Tungsten Carbide as Catalyst Support for Proton Exchange Membrane Fuel Cells. <i>Chinese Journal of Catalysis</i> , 2007, 28, 109-111. | 14.0 | 22 |
| 47 | 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 |
| 48 | 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 |
| 49 | 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 |
| 50 | 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 |
| 51 | Failure behavior of gas diffusion layer in proton exchange membrane fuel cells. <i>Journal of Power Sources</i> , 2021, 515, 230655. | 7.8 | 18 |
| 52 | Effects of Freeze/Thaw Cycles and Gas Purging Method on Polymer Electrolyte Membrane Fuel Cells. <i>Chinese Journal of Chemical Engineering</i> , 2006, 14, 802-805. | 3.5 | 17 |
| 53 | Analysis of carbon-supported platinum through potential cycling and potential-static holding. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 13725-13737. | 7.1 | 17 |
| 54 | 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 |

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|----|--|-----|-----------|
| 55 | 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 |
| 56 | 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 |
| 57 | 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 |
| 58 | 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 |
| 59 | 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 |
| 60 | Modifying Carbon Supports of Catalyst for the Oxygen Reduction Reaction in Vehicle PEMFCs. <i>Automotive Innovation</i> , 2021, 4, 119-130. | 5.1 | 15 |
| 61 | 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 |
| 62 | 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 |
| 63 | 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 |
| 64 | 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 |
| 65 | 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 |
| 66 | 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 |
| 67 | 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 |
| 68 | 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 |
| 69 | Properties and morphology of Nafion/polytetrafluoroethylene composite membrane fabricated by a solution-spray process. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 8400-8408. | 7.1 | 13 |
| 70 | 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 |
| 71 | Dynamic Test and Real-time Control Platform of Anode Recirculation for PEM Fuel Cell Systems. <i>Journal of Fuel Cell Science and Technology</i> , 2006, 3, 333-345. | 0.8 | 11 |
| 72 | Flow distribution in parallel-channel plate for proton exchange membrane fuel cells. <i>Journal of Power Sources</i> , 2008, 185, 1009-1014. | 7.8 | 11 |

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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 | Investigation of the thermal responses under gas channel and land inside proton exchange membrane fuel cell with assembly pressure. Applied Energy, 2022, 308, 118377. | 10.1 | 11 |
| 75 | Topology optimization design for the lightweight endplate of proton exchange membrane fuel cell stack clamped with bolts. International Journal of Hydrogen Energy, 2022, 47, 9680-9689. | 7.1 | 11 |
| 76 | A Comparative Study of Equivalent Circuit Models for Electro-Chemical Impedance Spectroscopy Analysis of Proton Exchange Membrane Fuel Cells. Energies, 2022, 15, 386. | 3.1 | 11 |
| 77 | Effect of rheological properties of catalyst slurry on the structure of catalyst layer in PEMFC. International Journal of Hydrogen Energy, 2022, 47, 8956-8964. | 7.1 | 11 |
| 78 | A novel proton exchange membrane fuel cell anode for enhancing CO tolerance. Journal of Power Sources, 2007, 174, 164-169. | 7.8 | 10 |
| 79 | Intermittent microwave synthesis of nanostructured Pt/TiN-graphene with high catalytic activity for methanol oxidation. International Journal of Hydrogen Energy, 2014, 39, 16036-16042. | 7.1 | 10 |
| 80 | 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. International Journal of Thermal Sciences, 2022, 179, 107628. | 4.9 | 10 |
| 81 | Droplets dynamics theory and micro-flow field experiments of improving self-humidifying feature and maximum power density in fuel cells. Chemical Engineering Journal, 2022, 429, 131974. | 12.7 | 9 |
| 82 | 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 |
| 83 | Control of Cluster Structures in Catalyst Inks by a Dispersion Medium. ACS Omega, 2021, 6, 32960-32969. | 3.5 | 8 |
| 84 | Effect of PTFE and liquid water on the thermal characteristics of compressed gas diffusion backing of PEM fuel cell. ETransportation, 2022, 12, 100162. | 14.8 | 8 |
| 85 | Power evolution of fuel cell stack driven by anode gas diffusion layer degradation. Applied Energy, 2022, 313, 118858. | 10.1 | 8 |
| 86 | Simulation on cathode catalyst layer in proton exchange membrane fuel cell: Sensitivity of design parameters to cell performance and oxygen distribution. International Journal of Hydrogen Energy, 2022, 47, 24452-24463. | 7.1 | 8 |
| 87 | The Characteristics of a PEM Fuel Cell Engine with 40 kW Vehicle Stacks. Fuel Cells, 2004, 4, 101-104. | 2.4 | 7 |
| 88 | Voltammetric and galvanostatic methods for measuring hydrogen crossover in fuel cell. IScience, 2022, 25, 103576. | 4.1 | 6 |
| 89 | Degradation analysis of the core components of metal plate proton exchange membrane fuel cell stack under dynamic load cycles. International Journal of Hydrogen Energy, 2022, 47, 7432-7442. | 7.1 | 6 |
| 90 | A new insight into the effects of agglomerate parameters on internal dynamics of proton exchange membrane fuel cell by an advanced impedance dimension model. Energy, 2022, 253, 124202. | 8.8 | 5 |

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|-----|--|------|-----------|
| 91 | 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 |
| 92 | The synergetic effect of air pollutants and metal ions on performance of a proton exchange membrane fuel cell stack. <i>International Journal of Energy Research</i> , 2021, 45, 7974-7986. | 4.5 | 4 |
| 93 | 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 |
| 94 | 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 |
| 95 | The conductive network optimization of composite graphite plates and its morphological analysis. <i>Chemical Engineering Journal</i> , 2022, 446, 136652. | 12.7 | 4 |
| 96 | 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 |
| 97 | 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 |
| 98 | Numerical simulation of three-dimensional gas/liquid two-phase flow in a proton exchange membrane fuel cell. <i>Frontiers of Energy and Power Engineering in China</i> , 2007, 1, 305-310. | 0.4 | 2 |
| 99 | 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 |
| 100 | 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 |
| 101 | Graphite-Filled Composite Bipolar Plates for Fuel Cells: Material, Structure, and Performance. <i>Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica</i> , 2020, . | 4.9 | 2 |
| 102 | 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 |
| 103 | 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 |
| 104 | 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 |
| 105 | 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 |
| 106 | A multi-optimization model for the design of hydrogen supply chains. <i>E3S Web of Conferences</i> , 2020, 194, 02028. | 0.5 | 1 |
| 107 | Investigation on Vehicular PEMFC Power Modules. <i>ECS Transactions</i> , 2007, 5, 283-289. | 0.5 | 0 |
| 108 | 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 |

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|-----|---|-----|-----------|
| 109 | The Effects of Testing Conditions on Corrosion Behaviours of SS316L for Bipolar Plate of Proton Exchange Membrane Fuel Cell. ECS Transactions, 2021, 104, 257-267. | 0.5 | 0 |
| 110 | Mechanical analysis and optimal design of on-board fuel cell system steel frame structure under impact and vibration load. , 2020, , . | | 0 |
| 111 | Simple numerical simulation of catalyst inks dispersion in proton exchange membrane fuel cell by the lattice Boltzmann method. Physics of Fluids, 2021, 33, 115116. | 4.0 | 0 |