

Haijiang Wang

List of Publications by Year in descending order

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| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | IrO _x Supported onto Niobium-Doped Titanium Dioxide as an Anode Reversal Tolerant Electrocatalyst for Proton Exchange Membrane Fuel Cells. ACS Applied Energy Materials, 2022, 5, 3259-3268. | 2.5 | 7 |
| 2 | Elucidating the Correlation between ORR Polarization Curves and Kinetics at Metal-Electrolyte Interfaces. ACS Applied Materials & Interfaces, 2022, 14, 13891-13903. | 4.0 | 18 |
| 3 | Performance and design optimization of different numbers and bolt torque for air-cooled open-cathode proton exchange membrane fuel cells. Journal of Power Sources, 2022, 530, 231322. | 4.0 | 13 |
| 4 | Recent advances in heat and water management of forced-convection open-cathode proton exchange membrane fuel cells. Renewable and Sustainable Energy Reviews, 2022, 165, 112558. | 8.2 | 23 |
| 5 | A hybrid fuel cell system integrated with methanol steam reformer and methanation reactor. International Journal of Hydrogen Energy, 2021, 46, 2565-2576. | 3.8 | 16 |
| 6 | Pt atoms on doped carbon nanosheets with ultrahigh N content as a superior bifunctional catalyst for hydrogen evolution/oxidation. Sustainable Energy and Fuels, 2021, 5, 532-539. | 2.5 | 12 |
| 7 | Insights into electrochemical hydrogen compressor operating parameters and membrane electrode assembly degradation mechanisms. Journal of Power Sources, 2021, 484, 229249. | 4.0 | 18 |
| 8 | A self-humidifying proton exchange membrane embedded with phosphonic acid-functionalized mesoporous silica nanoparticles that has excellent dispersion and water retention. Sustainable Energy and Fuels, 2021, 5, 230-245. | 2.5 | 14 |
| 9 | Benchmarking Phases of Ruthenium Dichalcogenides for Electrocatalysis of Hydrogen Evolution: Theoretical and Experimental Insights. Small, 2021, 17, e2007333. | 5.2 | 35 |
| 10 | Air and H ₂ feed systems optimization for open-cathode proton exchange membrane fuel cells. International Journal of Hydrogen Energy, 2021, 46, 11940-11951. | 3.8 | 19 |
| 11 | Performance and thermal optimization of different length-width ratio for air-cooled open-cathode fuel cell. Renewable Energy, 2021, 178, 1250-1260. | 4.3 | 22 |
| 12 | Effects of bolt torque and gasket geometric parameters on open-cathode polymer electrolyte fuel cells. Applied Energy, 2021, 303, 117632. | 5.1 | 13 |
| 13 | Oxygen vacancy engineering of yttrium ruthenate pyrochlores as an efficient oxygen catalyst for both proton exchange membrane water electrolyzers and rechargeable zinc-air batteries. Applied Catalysis B: Environmental, 2020, 260, 118176. | 10.8 | 50 |
| 14 | Influence of Surface Oxygen Vacancies and Ruthenium Valence State on the Catalysis of Pyrochlore Oxides. ACS Applied Materials & Interfaces, 2020, 12, 4520-4530. | 4.0 | 53 |
| 15 | Study of relative humidity on durability of the reversal tolerant proton exchange membrane fuel cell anode using a segmented cell. Journal of Power Sources, 2020, 449, 227542. | 4.0 | 24 |
| 16 | Performance improvement for air-cooled open-cathode proton exchange membrane fuel cell with different design parameters of the gas diffusion layer. Progress in Natural Science: Materials International, 2020, 30, 825-831. | 1.8 | 21 |
| 17 | Research progress of catalyst layer and interlayer interface structures in membrane electrode assembly (MEA) for proton exchange membrane fuel cell (PEMFC) system. ETransportation, 2020, 5, 100075. | 6.8 | 95 |
| 18 | Simulation of the Dynamic Characteristics of a PEMFC System in Fluctuating Operating Conditions. Energies, 2020, 13, 3596. | 1.6 | 0 |

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 19 | Electrochemical Compression Technologies for High-Pressure Hydrogen: Current Status, Challenges and Perspective. <i>Electrochemical Energy Reviews</i> , 2020, 3, 690-729. | 13.1 | 56 |
| 20 | A Novel Approach to Fabricate Membrane Electrode Assembly by Directly Coating the Nafion Ionomer on Catalyst Layers for Proton-Exchange Membrane Fuel Cells. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 9803-9812. | 3.2 | 37 |
| 21 | A Spectroscopic Study of Electrochemical Nitrogen and Nitrate Reduction on Rhodium Surfaces. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 10479-10483. | 7.2 | 135 |
| 22 | A Spectroscopic Study of Electrochemical Nitrogen and Nitrate Reduction on Rhodium Surfaces. <i>Angewandte Chemie</i> , 2020, 132, 10565-10569. | 1.6 | 104 |
| 23 | Optimal design of cathode flow channel for air-cooled PEMFC with open cathode. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 17771-17781. | 3.8 | 49 |
| 24 | Electrochemical Synthesis of Ammonia from Nitrogen Under Mild Conditions: Current Status and Challenges. <i>Electrochemical Energy Reviews</i> , 2020, 3, 239-270. | 13.1 | 67 |
| 25 | Thermodynamic performance analysis of the influence of multi-factor coupling on the methanol steam reforming reaction. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 7015-7024. | 3.8 | 30 |
| 26 | An effective strategy to tune the oxygen vacancy of pyrochlore oxides for electrochemical energy storage and conversion systems. <i>Chemical Engineering Journal</i> , 2020, 395, 124428. | 6.6 | 23 |
| 27 | Investigation of three system shut-down strategies alongside optimization suggestion for proton exchange membrane fuel cells via in-situ measurements. <i>International Journal of Green Energy</i> , 2020, 17, 157-170. | 2.1 | 1 |
| 28 | An experimental study on pressure distribution and performance of end-plate with different optimization parameters for air-cooled open-cathode LT-PEMFC. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 17902-17915. | 3.8 | 17 |
| 29 | Highly active and durable catalyst for hydrogen generation by the NaBH ₄ hydrolysis reaction: CoWB/NF nanodendrite with an acicular array structure. <i>Journal of Alloys and Compounds</i> , 2020, 836, 155429. | 2.8 | 32 |
| 30 | Iron-facilitated dynamic active-site generation on spinel CoAl ₂ O ₄ with self-termination of surface reconstruction for water oxidation. <i>Nature Catalysis</i> , 2019, 2, 763-772. | 16.1 | 678 |
| 31 | NaCl template-directed approach to ultrathin lamellar molybdenum phosphide-carbon hybrids for efficient hydrogen production. <i>Journal of Power Sources</i> , 2019, 438, 227048. | 4.0 | 20 |
| 32 | Mo modulation effect on the hydrogen binding energy of hexagonal-close-packed Ru for hydrogen evolution. <i>Journal of Materials Chemistry A</i> , 2019, 7, 2780-2786. | 5.2 | 53 |
| 33 | Tungsten Carbide Encapsulated in Grape-Like N-Doped Carbon Nanospheres: One-Step Facile Synthesis for Low-Cost and Highly Active Electrocatalysts in Proton Exchange Membrane Water Electrolyzers. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 25123-25132. | 4.0 | 37 |
| 34 | Electrochemical Nitrogen Reduction Reaction on Ruthenium. <i>ACS Energy Letters</i> , 2019, 4, 1336-1341. | 8.8 | 187 |
| 35 | Highly active and stable ruthenate pyrochlore for enhanced oxygen evolution reaction in acidic medium electrolysis. <i>Applied Catalysis B: Environmental</i> , 2019, 244, 494-501. | 10.8 | 109 |
| 36 | Chromium Oxynitride Electrocatalysts for Electrochemical Synthesis of Ammonia Under Ambient Conditions. <i>Small Methods</i> , 2019, 3, 1800324. | 4.6 | 41 |

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|----|---|-----|-----------|
| 37 | A review of proton exchange membrane water electrolysis on degradation mechanisms and mitigation strategies. <i>Journal of Power Sources</i> , 2017, 366, 33-55. | 4.0 | 355 |
| 38 | Current mapping of a proton exchange membrane fuel cell with a segmented current collector during the gas starvation and shutdown processes. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 15288-15300. | 3.8 | 54 |
| 39 | Degradation of a PEM fuel cell stack with Nafion® membranes of different thicknesses. Part II: Ex situ diagnosis. <i>Journal of Power Sources</i> , 2012, 205, 324-334. | 4.0 | 74 |
| 40 | A review of polymer electrolyte membrane fuel cell durability test protocols. <i>Journal of Power Sources</i> , 2011, 196, 9107-9116. | 4.0 | 277 |
| 41 | An air-cooled proton exchange membrane fuel cell with combined oxidant and coolant flow. <i>Journal of Power Sources</i> , 2009, 188, 199-204. | 4.0 | 83 |
| 42 | A review of PEM fuel cell durability: Degradation mechanisms and mitigation strategies. <i>Journal of Power Sources</i> , 2008, 184, 104-119. | 4.0 | 1,263 |