Haijiang Wang

List of Publications by Year
in descending order

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42 papers	4,236 citations	257450 24 h-index	265206 42 g-index
43 all docs	43 docs citations	43 times ranked	4716 citing authors

#	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.	5.1	7
2	Elucidating the Correlation between ORR Polarization Curves and Kinetics at Metalâ€“Electrolyte Interfaces. ACS Applied Materials & Interfaces, 2022, 14, 13891-13903.	8.0	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.	7.8	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.	16.4	23
5	A hybrid fuel cell system integrated with methanol steam reformer and methanation reactor. International Journal of Hydrogen Energy, 2021, 46, 2565-2576.	7.1	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.	4.9	12
7	Insights into electrochemical hydrogen compressor operating parameters and membrane electrode assembly degradation mechanisms. Journal of Power Sources, 2021, 484, 229249.	7.8	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.	4.9	14
9	Benchmarking Phases of Ruthenium Dichalcogenides for Electrocatalysis of Hydrogen Evolution: Theoretical and Experimental Insights. Small, 2021, 17, e2007333.	10.0	35
10	Air and H2 feed systems optimization for open-cathode proton exchange membrane fuel cells. International Journal of Hydrogen Energy, 2021, 46, 11940-11951.	7.1	19
11	Performance and thermal optimization of different length-width ratio for air-cooled open-cathode fuel cell. Renewable Energy, 2021, 178, 1250-1260.	8.9	22
12	Effects of bolt torque and gasket geometric parameters on open-cathode polymer electrolyte fuel cells. Applied Energy, 2021, 303, 117632.	10.1	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.	20.2	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.	8.0	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.	7.8	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.	4.4	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.	14.8	95
18	Simulation of the Dynamic Characteristics of a PEMFC System in Fluctuating Operating Conditions. Energies, 2020, 13, 3596.	3.1	0

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19	Electrochemical Compression Technologies for High-Pressure Hydrogen: Current Status, Challenges and Perspective. Electrochemical Energy Reviews, 2020, 3, 690-729.	25.5	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. ACS Sustainable Chemistry and Engineering, 2020, 8, 9803-9812.	6.7	37
21	A Spectroscopic Study of Electrochemical Nitrogen and Nitrate Reduction on Rhodium Surfaces. Angewandte Chemie - International Edition, 2020, 59, 10479-10483.	13.8	135
22	A Spectroscopic Study of Electrochemical Nitrogen and Nitrate Reduction on Rhodium Surfaces. Angewandte Chemie, 2020, 132, 10565-10569.	2.0	104
23	Optimal design of cathode flow channel for air-cooled PEMFC with open cathode. International Journal of Hydrogen Energy, 2020, 45, 17771-17781.	7.1	49
24	Electrochemical Synthesis of Ammonia from Nitrogen Under Mild Conditions: Current Status and Challenges. Electrochemical Energy Reviews, 2020, 3, 239-270.	25.5	67
25	Thermodynamic performance analysis of the influence of multi-factor coupling on the methanol steam reforming reaction. International Journal of Hydrogen Energy, 2020, 45, 7015-7024.	7.1	30
26	An effective strategy to tune the oxygen vacancy of pyrochlore oxides for electrochemical energy storage and conversion systems. Chemical Engineering Journal, 2020, 395, 124428.	12.7	23
27	Investigation of three system shut-down strategies alongside optimization suggestion for proton exchange membrane fuel cells via in-situ measurements. International Journal of Green Energy, 2020, 17, 157-170.	3.8	1
28	An experimental study on pressure distribution and performance of end-plate with different optimization parameters for air-cooled open-cathode LT-PEMFC. International Journal of Hydrogen Energy, 2020, 45, 17902-17915.	7.1	17
29	Highly active and durable catalyst for hydrogen generation by the NaBH4 hydrolysis reaction: CoWB/NF nanodendrite with an acicular array structure. Journal of Alloys and Compounds, 2020, 836, 155429.	5.5	32
30	Iron-facilitated dynamic active-site generation on spinel CoAl2O4 with self-termination of surface reconstruction for water oxidation. Nature Catalysis, 2019, 2, 763-772.	34.4	678
31	NaCl template-directed approach to ultrathin lamellar molybdenum phosphide-carbon hybrids for efficient hydrogen production. Journal of Power Sources, 2019, 438, 227048.	7.8	20
32	Mo modulation effect on the hydrogen binding energy of hexagonal-close-packed Ru for hydrogen evolution. Journal of Materials Chemistry A, 2019, 7, 2780-2786.	10.3	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. ACS Applied Materials & Interfaces, 2019, 11, 25123-25132.	8.0	37
34	Electrochemical Nitrogen Reduction Reaction on Ruthenium. ACS Energy Letters, 2019, 4, 1336-1341.	17.4	187
35	Highly active and stable ruthenate pyrochlore for enhanced oxygen evolution reaction in acidic medium electrolysis. Applied Catalysis B: Environmental, 2019, 244, 494-501.	20.2	109
36	Chromium Oxynitride Electrocatalysts for Electrochemical Synthesis of Ammonia Under Ambient Conditions. Small Methods, 2019, 3, 1800324.	8.6	41

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37	A review of proton exchange membrane water electrolysis on degradation mechanisms and mitigation strategies. Journal of Power Sources, 2017, 366, 33-55.	7.8	355
38	Current mapping of a proton exchange membrane fuel cell with a segmented current collector during the gas starvation and shutdown processes. International Journal of Hydrogen Energy, 2012, 37, 15288-15300.	7.1	54
39	Degradation of a PEM fuel cell stack with NafionÂ® membranes of different thicknesses. Part II: Ex situ diagnosis. Journal of Power Sources, 2012, 205, 324-334.	7.8	74
40	A review of polymer electrolyte membrane fuel cell durability test protocols. Journal of Power Sources, 2011, 196, 9107-9116.	7.8	277
41	An air-cooled proton exchange membrane fuel cell with combined oxidant and coolant flow. Journal of Power Sources, 2009, 188, 199-204.	7.8	83
42	A review of PEM fuel cell durability: Degradation mechanisms and mitigation strategies. Journal of Power Sources, 2008, 184, 104-119.	7.8	1,263