Xiong Peng

List of Publications by Year
in descending order

#	Article	IF	Citations
1	Beyond catalysis and membranes: visualizing and solving the challenge of electrode water accumulation and flooding in AEMFCs. Energy and Environmental Science, 2018, 11, 551-558.	30.8	229
2	Radiation-grafted anion-exchange membranes: the switch from low- to high-density polyethylene leads to remarkably enhanced fuel cell performance. Energy and Environmental Science, 2019, 12, 1575-1579.	30.8	223
3	Composite Poly(norbornene) Anion Conducting Membranes for Achieving Durability, Water Management and High Power (3.4ÂW/cm²) in Hydrogen/Oxygen Alkaline Fuel Cells. Journal of the Electrochemical Society, 2019, 166, F637-F644.	2.9	172
4	The Importance of Water Transport in High Conductivity and High-Power Alkaline Fuel Cells. Journal of the Electrochemical Society, 2020, 167, 054501.	2.9	132
5	High Performance Anion Exchange Membrane Fuel Cells Enabled by Fluoropoly(olefin) Membranes. Advanced Functional Materials, 2019, 29, 1902059.	14.9	128
6	Nitrogenâ€doped Carbonâ€"CoO_{<i>x</i>} Nanohybrids: A Precious Metal Free Cathode that Exceeds 1.0â€…Wâ€‰cm^{âˆ'2} Peak Power and 100â€…h Life in Anionâ€Exchange Membrane Fuel Cells. Angewandte Chemie - International Edition, 2019, 58, 1046-1051.	13.8	117
7	Using operando techniques to understand and design high performance and stable alkaline membrane fuel cells. Nature Communications, 2020, 11, 3561.	12.8	113
8	Preferentially Oriented Ag Nanocrystals with Extremely High Activity and Faradaic Efficiency for CO₂ Electrochemical Reduction to CO. ACS Applied Materials & Interfaces, 2018, 10, 1734-1742.	8.0	105
9	Poly(olefin)-Based Anion Exchange Membranes Prepared Using Zieglerâ€"Natta Polymerization. Macromolecules, 2019, 52, 4030-4041.	4.8	92
10	Rational Synthesis of Metallo-Cations Toward Redox- and Alkaline-Stable Metallo-Polyelectrolytes. Journal of the American Chemical Society, 2020, 142, 1083-1089.	13.7	91
11	Quantifying and elucidating the effect of CO₂ on the thermodynamics, kinetics and charge transport of AEMFCs. Energy and Environmental Science, 2019, 12, 2806-2819.	30.8	74
12	A low temperature unitized regenerative fuel cell realizing 60% round trip efficiency and 10â€‰000 cycles of durability for energy storage applications. Energy and Environmental Science, 2020, 13, 2096-2105.	30.8	57
13	High-Performing PGM-Free AEMFC Cathodes from Carbon-Supported Cobalt Ferrite Nanoparticles. Catalysts, 2019, 9, 264.	3.5	53
14	Pathway to Complete Energy Sector Decarbonization with Available Iridium Resources using Ultralow Loaded Water Electrolyzers. ACS Applied Materials & Interfaces, 2020, 12, 52701-52712.	8.0	52
15	High Performance FeNC and Mn-oxide/FeNC Layers for AEMFC Cathodes. Journal of the Electrochemical Society, 2020, 167, 134505.	2.9	49
16	Strategies for Reducing the PGM Loading in High Power AEMFC Anodes. Journal of the Electrochemical Society, 2018, 165, F710-F717.	2.9	48
17	Hierarchical electrode design of highly efficient and stable unitized regenerative fuel cells (URFCs) for long-term energy storage. Energy and Environmental Science, 2020, 13, 4872-4881.	30.8	43
18	Insights into Interfacial and Bulk Transport Phenomena Affecting Proton Exchange Membrane Water Electrolyzer Performance at Ultraâ€Low Iridium Loadings. Advanced Science, 2021, 8, e2102950.	11.2	41

#	ARTICLE	IF	CITATIONS
19	Nanoporous Iridium Nanosheets for Polymer Electrolyte Membrane Electrolysis. Advanced Energy Materials, 2021, 11, 2101438.	19.5	40
20	Highly active and durable Pd-Cu catalysts for oxygen reduction in alkaline exchange membrane fuel cells. Frontiers in Energy, 2017, 11, 299-309.	2.3	37
21	Low-Temperature Lithium Plating/Corrosion Hazard in Lithium-Ion Batteries: Electrode Rippling, Variable States of Charge, and Thermal and Nonthermal Runaway. ACS Applied Energy Materials, 2020, 3, 3653-3664.	5.1	37
22	Supported Oxygen Evolution Catalysts by Design: Toward Lower Precious Metal Loading and Improved Conductivity in Proton Exchange Membrane Water Electrolyzers. ACS Catalysis, 2020, 10, 13125-13135.	11.2	33
23	Nitrogenâ€doped Carbonâ€"CoO_{<i>x</i>} Nanohybrids: A Precious Metal Free Cathode that Exceeds 1.0â€…Wâ€‰cm^{â^'2} Peak Power and 100â€…h Life in Anionâ€Exchange Membrane Fuel Cells. Angewandte Chemie, 2019, 131, 1058-1063.	2.0	32
24	Using nanoconfinement to inhibit the degradation pathways of conversion-metal oxide anodes for highly stable fast-charging Li-ion batteries. Journal of Materials Chemistry A, 2020, 8, 2712-2727.	10.3	32
25	Influence of Supporting Electrolyte on Hydroxide Exchange Membrane Water Electrolysis Performance: Anolyte. Journal of the Electrochemical Society, 2021, 168, 084512.	2.9	28
26	Understanding how single-atom site density drives the performance and durability of PGM-free Feâ€"Nâ€"C cathodes in anion exchange membrane fuel cells. Materials Today Advances, 2021, 12, 100179.	5.2	18
27	Influence of Supporting Electrolyte on Hydroxide Exchange Membrane Water Electrolysis Performance: Catholyte. Journal of the Electrochemical Society, 2022, 169, 024510.	2.9	15
28	Improved Capacity Retention of Metal Oxide Anodes in Liâ€Ion Batteries: Increasing Intraparticle Electronic Conductivity through Na Inclusion in Mn 3 O 4. ChemElectroChem, 2018, 5, 2059-2063.	3.4	8
29	Performance and Durability of Proton Exchange Membrane Vapor-Fed Unitized Regenerative Fuel Cells. Journal of the Electrochemical Society, 2022, 169, 054514.	2.9	6