The role of hydrogen and fuel cells in the global energy

Energy and Environmental Science
12, 463-491
DOI: 10.1039/c8ee01157e

Citation Report

#	Article	IF	Citations
1	H2 refueling assessment of composite storage tank for fuel cell vehicle. International Journal of Hydrogen Energy, 2019, 44, 23699-23707.	3.8	22
2	Recent advances, unsolved deficiencies, and future perspectives of hydrogen fuel cells in transportation and portable sectors. International Journal of Energy Research, 2019, 43, 8931-8955.	2.2	87
3	Research advances towards large-scale solar hydrogen production from water. EnergyChem, 2019, 1, 100014.	10.1	130
4	Solar-driven chemistry: towards new catalytic solutions for a sustainable world. Rendiconti Lincei, 2019, 30, 443-452.	1.0	25
5	Performance characteristics of a passive direct formate fuel cell. International Journal of Energy Research, 2019, 43, 7433.	2.2	11
6	Cost Competitiveness of Electrolytic Hydrogen. Joule, 2019, 3, 2425-2443.	11.7	141
7	Molybdenum-Doped Porous Cobalt Phosphide Nanosheets for Efficient Alkaline Hydrogen Evolution. ACS Applied Energy Materials, 2019, 2, 6302-6310.	2.5	22
8	Nanocellulose-based materials as components of polymer electrolyte fuel cells. Journal of Materials Chemistry A, 2019, 7, 20045-20074.	5.2	85
9	Experimental and optimization studies of hydrogen production by steam methane reforming over lanthanum strontium cobalt ferrite supported Ni catalyst. International Journal of Energy Research, 2019, 43, 8118.	2.2	12
10	Recent Advances in Design of Gold-Based Catalysts for H2 Clean-Up Reactions. Frontiers in Chemistry, 2019, 7, 517.	1.8	27
11	Assessment of the economic potential: CO -free hydrogen production from renewables via ammonia decomposition for small-sized H2 refueling stations. Renewable and Sustainable Energy Reviews, 2019, 113, 109262.	8.2	49
12	Energy System Modelling of Carbon-Neutral Hydrogen as an Enabler of Sectoral Integration within a Decarbonization Pathway. Energies, 2019, 12, 2551.	1.6	30
13	Thermodynamic Insights for Electrochemical Hydrogen Compression with Proton-Conducting Membranes. Membranes, 2019, 9, 77.	1.4	18
14	Multi-site and multi-period optimization model for strategic planning of a renewable hydrogen energy network from biomass waste and energy crops. Energy, 2019, 185, 527-540.	4.5	40
15	Trimetallic Ptâ€“Pdâ€“Ni octahedral nanocages with subnanometer thick-wall towards high oxygen reduction reaction. Nano Energy, 2019, 64, 103890.	8.2	34
16	Insight into the excellent catalytic activity of (CoMo)S2/graphene for hydrogen evolution reaction. Applied Catalysis B: Environmental, 2019, 258, 118012.	10.8	44
17	Formic acid, a biomass-derived source of energy and hydrogen for biomass upgrading. Energy and Environmental Science, 2019, 12, 2646-2664.	15.6	193
18	ZIF 67 Based Highly Active Electrocatalysts as Oxygen Electrodes in Water Electrolyzer. ACS Applied Energy Materials, 2019, 2, 5568-5576.	2.5	35

#	Article	IF	Citations
19	3D cross-linked BiOI decorated ZnO/CdS nanorod arrays: A cost-effective hydrogen evolution photoanode with high photoelectrocatalytic activity. International Journal of Hydrogen Energy, 2019, 44, 21865-21872.	3.8	51
20	An Overview of the State of Art of Fuel Cells in Electric Vehicles. , 2019, , .		3
21	Implementation of artificial neural network model for continuous hydrogen production using confectionery wastewater. Journal of Environmental Management, 2019, 252, 109684.	3.8	26
22	A graphite sheet modified with reduced graphene oxide-hyper-branched gold nanostructure as a highly efficient electrocatalyst for hydrogen evolution reaction. International Journal of Hydrogen Energy, 2019, 44, 29922-29932.	3.8	9
23	Biohydrogen production from acidic and alkaline hydrolysates of paddy straw using locally isolated facultative bacteria through dark fermentation. Biomass Conversion and Biorefinery, 2021, 11, 1263-1272.	2.9	25
24	Catalytic deoxygenation of oleic acid over a Ni-CeZrO2 catalyst. Fuel, 2019, 258, 116179.	3.4	18
25	Developing Photosensitizer-Cobaloxime Hybrids for Solar-Driven H₂ Production in Aqueous Aerobic Conditions. Journal of Visualized Experiments, 2019, , .	0.2	2
26	Investigation of compressed hydrogen refueling process of 60â€‰L type IV tank used in fuel cell vehicles. Energy Storage, 2019, 1, e91.	2.3	9
27	Mapping innovation and diffusion of hydrogen fuel cell technologies: Evidence from the UK's hydrogen fuel cell technological innovation system, 1954â€“2012. International Journal of Hydrogen Energy, 2019, 44, 29805-29848.	3.8	25
28	A Diuranyl(VI) Complex and Its Application in Electrocatalytic and Photocatalytic Hydrogen Evolution from Neutral Aqueous Medium. Inorganic Chemistry, 2019, 58, 14410-14419.	1.9	16
29	Hydrogen fuel quality from two main production processes: Steam methane reforming and proton exchange membrane water electrolysis. Journal of Power Sources, 2019, 444, 227170.	4.0	30
30	Introduction of hydrogen fuel cell vehicles: prospects and challenges for Malaysiaâ€™s transition to a low-carbon economy. Environmental Science and Pollution Research, 2019, 26, 31062-31076.	2.7	29
31	Economic Viability and Environmental Efficiency Analysis of Hydrogen Production Processes for the Decarbonization of Energy Systems. Processes, 2019, 7, 494.	1.3	44
32	The effect of carbon quantum dots on the electrocatalytic hydrogen evolution reaction of manganeseâ€“nickel phosphide nanosheets. Journal of Materials Chemistry A, 2019, 7, 21488-21495.	5.2	46
33	Enhanced Pt surface activation: A strategy for catalyst application. International Journal of Hydrogen Energy, 2019, 44, 30532-30542.	3.8	2
34	Solid-state facilitated transport of carbon monoxide through mixed matrix membranes. Journal of Membrane Science, 2019, 592, 117373.	4.1	13
35	Multi-bidder First Price Auction with Beliefs. Studies in Microeconomics, 2019, 7, 140-160.	0.4	0
36	Electrocatalytic Ammonia Oxidation Mediated by a Polypyridyl Iron Catalyst. ACS Catalysis, 2019, 9, 10101-10108.	5.5	72

#	Article	IF	Citations
37	Pore-rich iron-nitrogen-doped carbon nanofoam as an efficient catalyst towards the oxygen reduction reaction. International Journal of Hydrogen Energy, 2019, 44, 26285-26295.	3.8	11
38	Evidencing enhanced oxygen and hydrogen evolution reactions using Inâ€“Znâ€“Co ternary transition metal oxide nanostructures: A novel bifunctional electrocatalyst. International Journal of Hydrogen Energy, 2019, 44, 23081-23090.	3.8	20
39	Palladium Supported on Porous Chitosanâ€“Graphene Oxide Aerogels as Highly Efficient Catalysts for Hydrogen Generation from Formate. Molecules, 2019, 24, 3290.	1.7	19
40	Grid-connected hydrogen production via large-scale water electrolysis. Energy Conversion and Management, 2019, 200, 112108.	4.4	153
41	Fuel cell hybrid powertrains for use in Southern Italian railways. International Journal of Hydrogen Energy, 2019, 44, 27930-27946.	3.8	40
42	Recent Advances in Electrochemical Hydrogen Production from Water Assisted by Alternative Oxidation Reactions. ChemElectroChem, 2019, 6, 3214-3226.	1.7	187
43	Weaknesses and drivers for power-to-X diffusion in Europe. Insights from technological innovation system analysis. International Journal of Hydrogen Energy, 2019, 44, 17411-17430.	3.8	38
44	Quaternary CZTS nanoparticle decorated CeO₂ as a noble metal free pâ€“n heterojunction photocatalyst for efficient hydrogen evolution. Catalysis Science and Technology, 2019, 9, 3686-3696.	2.1	31
45	A new perspective on global renewable energy systems: why trade in energy carriers matters. Energy and Environmental Science, 2019, 12, 2022-2029.	15.6	81
46	Electrodeposition at Highly Negative Potentials of an Ironâ€Cobalt Oxide Catalyst for Use in Electrochemical Water Splitting. ChemPhysChem, 2019, 20, 3112-3119.	1.0	16
47	Operation of solid oxide fuel cells with alternative hydrogen carriers. International Journal of Hydrogen Energy, 2019, 44, 18382-18392.	3.8	58
48	Controllable fabrication of uniform ruthenium phosphide nanocrystals for the hydrogen evolution reaction. Chemical Communications, 2019, 55, 7828-7831.	2.2	47
49	Pd Nanoparticles/F, N Codoping Graphene Composites for Oxygen Reduction and Zinc-Air Batteries. ACS Sustainable Chemistry and Engineering, 0, , .	3.2	6
50	Nanostructured Materials and Interfaces for Advanced Ionic Electronic Conducting Oxides. Advanced Materials Interfaces, 2019, 6, 1900462.	1.9	39
51	Current status of automotive fuel cells for sustainable transport. Current Opinion in Electrochemistry, 2019, 16, 90-95.	2.5	269
52	Redox active nitrogen-containing conjugated porous polymer: An organic heterogeneous electrocatalysts for oxygen reduction reaction. Dyes and Pigments, 2019, 170, 107557.	2.0	2
53	A fluorescent conjugated polymer photocatalyst based on Knoevenagel polycondensation for hydrogen production. New Journal of Chemistry, 2019, 43, 7093-7098.	1.4	14
54	Flexible sector coupling with hydrogen: A climate-friendly fuel supply for road transport. International Journal of Hydrogen Energy, 2019, 44, 12918-12930.	3.8	60

#	Article	IF	Citations
55	Review of transportation hydrogen infrastructure performance and reliability. International Journal of Hydrogen Energy, 2019, 44, 12010-12023.	3.8	115
56	Comprehensive investigation on hydrogen and fuel cell technology in the aviation and aerospace sectors. Renewable and Sustainable Energy Reviews, 2019, 106, 31-40.	8.2	325
57	Manganese Complexes: Hydrogen Generation and Oxidation. European Journal of Inorganic Chemistry, 2019, 2019, 5041-5051.	1.0	13
58	Hydrogen evolution using CdWO4 modified by BiFeO3 in the presence of potassium iodide; a combination of photocatalytic and non-photocatalytic water splitting. International Journal of Hydrogen Energy, 2019, 44, 25717-25729.	3.8	31
59	An in-plane Co₉S₈@MoS₂ heterostructure for the hydrogen evolution reaction in alkaline media. Nanoscale, 2019, 11, 21479-21486.	2.8	42
60	Estimating future costs of power-to-gas â€“ a component-based approach for technological learning. International Journal of Hydrogen Energy, 2019, 44, 30789-30805.	3.8	51
61	The role of storage technologies throughout the decarbonisation of the sector-coupled European energy system. Energy Conversion and Management, 2019, 201, 111977.	4.4	138
62	Functional Poly(p-xylylene)s via Chemical Reduction of Poly(p-phenylenevinylene)s. Macromolecules, 2019, 52, 9799-9803.	2.2	4
63	Challenges and opportunities for using formate to store, transport, and use hydrogen. Journal of Energy Chemistry, 2020, 41, 216-224.	7.1	65
64	Active block copolymer layer on carboxyl-functionalized PET film for hydrogen separation. International Journal of Hydrogen Energy, 2020, 45, 18676-18684.	3.8	9
65	New non-fluoridated hybrid proton exchange membranes based on commercial precursors. International Journal of Hydrogen Energy, 2020, 45, 18716-18730.	3.8	4
66	Recent advances in membrane technologies for hydrogen purification. International Journal of Hydrogen Energy, 2020, 45, 7313-7338.	3.8	202
67	Non-enzymatic direct glucose fuel cells (DGFC): A novel principle towards autonomous electrochemical biosensors. International Journal of Hydrogen Energy, 2020, 45, 29749-29762.	3.8	16
68	Effect of non-condensable gas on the performance of steam-water ejector in a trigeneration system for hydrogen production: An experimental and numerical study. International Journal of Hydrogen Energy, 2020, 45, 20266-20281.	3.8	8
69	Biohydrogen production from waste materials: benefits and challenges. International Journal of Environmental Science and Technology, 2020, 17, 559-576.	1.8	41
70	Efficient biohydrogen and bioelectricity production from xylose by microbial fuel cell with newly isolated yeast of Cystobasidium slooffiae. International Journal of Energy Research, 2020, 44, 325-333.	2.2	31
71	Visible light response and heterostructure of composite CdS@ZnSâ€“ZnO to enhance its photocatalytic activity. Journal of Alloys and Compounds, 2020, 813, 152190.	2.8	50
72	Sensing hydrogen transitions in homes through social practices: Cooking, heating, and the decomposition of demand. International Journal of Hydrogen Energy, 2020, 45, 3870-3882.	3.8	27

#	Article	IF	Citations
73	A review and comparative evaluation of thermochemical water splitting cycles for hydrogen production. Energy Conversion and Management, 2020, 205, 112182.	4.4	356
74	Pyrolysis of hydrothermal liquefaction algal biochar for hydrogen production in a membrane reactor. Fuel, 2020, 265, 116935.	3.4	35
75	Noncovalent Integration of a Bioinspired Ni Catalyst to Graphene Acid for Reversible Electrocatalytic Hydrogen Oxidation. ACS Applied Materials & Interfaces, 2020, 12, 5805-5811.	4.0	28
76	Photoelectrochemical water-splitting over a surface modified p-type Cr₂O₃ photocathode. Dalton Transactions, 2020, 49, 659-666.	1.6	23
77	Karst landform-featured monolithic electrode for water electrolysis in neutral media. Energy and Environmental Science, 2020, 13, 174-182.	15.6	109
78	A C@TiO₂ yolkâ€“shell heterostructure for synchronous photothermalâ€“photocatalytic degradation of organic pollutants. Journal of Materials Chemistry C, 2020, 8, 1025-1040.	2.7	71
79	Recapitulation on latent heat hybrid buildings. International Journal of Energy Research, 2020, 44, 1370-1407.	2.2	16
80	Manganese Catalyzed Acceptorless Dehydrogenative Coupling Reactions. ChemCatChem, 2020, 12, 1891-1902.	1.8	71
81	Experimental and DFT Studies of Au Deposition Over WO3/g-C3N4 Z-Scheme Heterojunction. Nano-Micro Letters, 2020, 12, 7.	14.4	57
82	Three-dimensional bimetal TMO supported carbon based electrocatalyst developed via dry synthesis for hydrogen and oxygen evolution. Applied Surface Science, 2020, 505, 144642.	3.1	47
83	The one-pot synthesis of CuNi nanoparticles with a Ni-rich surface for the electrocatalytic methanol oxidation reaction. Dalton Transactions, 2020, 49, 1646-1651.	1.6	39
84	Recent progress in TiO2-based photocatalysts for hydrogen evolution reaction: A review. Arabian Journal of Chemistry, 2020, 13, 3653-3671.	2.3	120
85	Fuel Cell Electric Vehicle as a Power Plant: Techno-Economic Scenario Analysis of a Renewable Integrated Transportation and Energy System for Smart Cities in Two Climates. Applied Sciences (Switzerland), 2020, 10, 143.	1.3	16
86	Methanol Oxidation Using Ternary Ordered Intermetallic Electrocatalysts: A DEMS Study. ACS Catalysis, 2020, 10, 770-776.	5.5	45
87	Co-Ni based hybrid transition metal oxide nanostructures for cost-effective bi-functional electrocatalytic oxygen and hydrogen evolution reactions. International Journal of Hydrogen Energy, 2020, 45, 391-400.	3.8	33
88	Essential Nutrients for Improving the Direct Processing of Raw Lignocellulosic Substrates Through the Dark Fermentation Process. Bioenergy Research, 2020, 13, 349-357.	2.2	9
89	Rapid synthesis of highly active Pt/C catalysts with various metal loadings from single batch platinum colloid. Journal of Energy Chemistry, 2020, 47, 138-145.	7.1	20
90	A systematic approach for matching simulated and experimental polarization curves for a PEM fuel cell. International Journal of Hydrogen Energy, 2020, 45, 2206-2223.	3.8	42

#	Article	IF	Citations
91	CaXH ₃ (X = Mn, Fe, Co) perovskiteâ€type hydrides for hydrogen storage applications. International Journal of Energy Research, 2020, 44, 2345-2354.	2.2	46
92	A General Route to Prepare Lowâ€Rutheniumâ€Content Bimetallic Electrocatalysts for pHâ€Universal Hydrogen Evolution Reaction by Using Carbon Quantum Dots. Angewandte Chemie, 2020, 132, 1735-1743.	1.6	40
93	Development of a high-energy-density portable/mobile hydrogen energy storage system incorporating an electrolyzer, a metal hydride and a fuel cell. Applied Energy, 2020, 259, 114175.	5.1	62
94	Boosting electrochemical stability of ultralow-Pt nanoparticle with Matryoshka-like structure in polymer electrolyte membrane fuel cells. Applied Catalysis B: Environmental, 2020, 268, 118450.	10.8	9
95	Integrating Rh Species with NiFe-Layered Double Hydroxide for Overall Water Splitting. Nano Letters, 2020, 20, 136-144.	4.5	129
96	Electric vehicles. , 2020, , 145-163.		7
97	Experimental reactivity descriptors of M-N-C catalysts for the oxygen reduction reaction. Electrochimica Acta, 2020, 332, 135340.	2.6	42
98	A General Route to Prepare Lowâ€Rutheniumâ€Content Bimetallic Electrocatalysts for pHâ€Universal Hydrogen Evolution Reaction by Using Carbon Quantum Dots. Angewandte Chemie - International Edition, 2020, 59, 1718-1726.	7.2	452
99	Hydrogen as an energy vector to optimize the energy exploitation of a self-consumption solar photovoltaic facility in a dwelling house. Energy Reports, 2020, 6, 155-166.	2.5	7
100	Biomass activated carbon-decorated spherical Î²-Ni(OH)2 nanoparticles for enhanced hydrogen production from sulphide wastewater. Journal of Water Process Engineering, 2020, 38, 101669.	2.6	16
101	Electrochemical Synthesis of a Multipurpose Ptâ^'Ni Catalyst for Renewable Energyâ€Related Electrocatalytic Reactions. ChemElectroChem, 2020, 7, 4369-4377.	1.7	9
102	Enhanced photocatalytic hydrogen evolution using green carbon quantum dots modified 1-D CdS nanowires under visible light irradiation. Solar Energy, 2020, 208, 966-977.	2.9	41
103	Theoretical Calculation of Hydrogen Generation and Delivery via Photocatalytic Water Splitting in Boronâ€“Carbonâ€“Nitride Nanotube/Metal Cluster Hybrid. ACS Applied Materials & Interfaces, 2020, 12, 48684-48690.	4.0	6
104	Influence of Gaseous Hydrogen Addition on Initiation of Rotating Detonation in Liquid Fuelâ€“Air Mixtures. Energies, 2020, 13, 5101.	1.6	19
105	Highly Stable Ptâ€Based Ternary Systems for Oxygen Reduction Reaction in Acidic Electrolytes. Advanced Energy Materials, 2020, 10, 2002049.	10.2	62
106	Is the H2 economy realizable in the foreseeable future? Part III: H2 usage technologies, applications, and challenges and opportunities. International Journal of Hydrogen Energy, 2020, 45, 28217-28239.	3.8	139
107	Oxygen reduction reaction on nanostructured Pt-based electrocatalysts: A review. International Journal of Hydrogen Energy, 2020, 45, 31775-31797.	3.8	127
108	Application of ion beam technology in (photo)electrocatalytic materials for renewable energy. Applied Physics Reviews, 2020, 7, .	5.5	31

#	Article	IF	Citations
109	Synthesizing Clean Transportation Fuels from CO₂ Will at Least Quintuple the Demand for Non-carbogenic Electricity in the United States. Energy & Fuels, 2020, 34, 15433-15442.	2.5	9
110	ZIF-L-Co@carbon fiber paper composite derived Co/Co3O4@C electrocatalyst for ORR in alkali/acidic media and overall seawater splitting. International Journal of Hydrogen Energy, 2020, 45, 33028-33036.	3.8	40
111	Strategies to accelerate the production and diffusion of fuel cell electric vehicles: Experiences from California. Energy Reports, 2020, 6, 2503-2519.	2.5	53
112	Hydrogen Generation upon Nanocatalyzed Hydrolysis of Hydrogen-Rich Boron Derivatives: Recent Developments. Accounts of Chemical Research, 2020, 53, 2483-2493.	7.6	122
113	Fuel Cell Characteristic Curve Approximation Using the BÃ©zier Curve Technique. Sustainability, 2020, 12, 8127.	1.6	6
114	A numerical study on the effects of constant volume combustion phase on performance and emissions characteristics of a diesel-hydrogen dual-fuel engine. International Journal of Hydrogen Energy, 2020, 45, 32598-32618.	3.8	20
115	Polybenzimidazole-Based High-Temperature Polymer Electrolyte Membrane Fuel Cells: New Insights and Recent Progress. Electrochemical Energy Reviews, 2020, 3, 793-845.	13.1	92
116	Flexible grid-based electrolysis hydrogen production for fuel cell vehicles reduces costs and greenhouse gas emissions. Applied Energy, 2020, 278, 115651.	5.1	74
117	Simple and Low-Cost Synthesis of Ba-Doped CuO Thin Films for Highly Efficient Solar Generation of Hydrogen. Journal of Physical Chemistry C, 2020, 124, 22347-22356.	1.5	33
118	Clean production and utilisation of hydrogen in molten salts. RSC Advances, 2020, 10, 36020-36030.	1.7	14
119	Insights into Nitrogenase Bioelectrocatalysis for Green Ammonia Production. ChemSusChem, 2020, 13, 4856-4865.	3.6	28
120	Pyridyl-Anchored Type BODIPY Sensitizer-TiO2 Photocatalyst for Enhanced Visible Light-Driven Photocatalytic Hydrogen Production. Catalysts, 2020, 10, 535.	1.6	10
121	Crosslinked polymer electrolytes of high pyridine contents for HT-PEM fuel cells. International Journal of Hydrogen Energy, 2020, 45, 35053-35063.	3.8	17
122	Thermally rearranged polybenzoxazole copolymers incorporating TrÃ¶ger's base for high flux gas separation membranes. Journal of Membrane Science, 2020, 612, 118437.	4.1	42
123	In Situ Spatial Charge Separation of an Ir@TiO₂ Multiphase Photosystem toward Highly Efficient Photocatalytic Performance of Hydrogen Production. Journal of Physical Chemistry C, 2020, 124, 16961-16974.	1.5	22
124	Energizing Fuel Cells with an Electrically Rechargeable Liquid Fuel. Cell Reports Physical Science, 2020, 1, 100102.	2.8	18
125	1D Titanium Dioxide: Achievements in Chemical Sensing. Materials, 2020, 13, 2974.	1.3	33
126	Optimising fuel supply chains within planetary boundaries: A case study of hydrogen for road transport in the UK. Applied Energy, 2020, 276, 115486.	5.1	21

#	Article	IF	Citations
127	On the challenge of large energy storage by electrochemical devices. Electrochimica Acta, 2020, 354, 136771.	2.6	62
128	Hybrid surface passivation of PbS/CdS quantum dots for efficient photoelectrochemical hydrogen generation. Applied Surface Science, 2020, 530, 147252.	3.1	20
129	Cobalt-Doped ZnO Nanorods Coated with Nanoscale Metalâ€“Organic Framework Shells for Water-Splitting Photoanodes. ACS Applied Nano Materials, 2020, 3, 7781-7788.	2.4	29
130	Reaction mechanism for hydrogen production using the Pd4 cluster and formic acid by DFT. Chemical Physics Letters, 2020, 755, 137794.	1.2	7
131	Sustainability Analyses for Hydrogen Fuel Cell Electric Vehicles. , 0, , .		0
132	Hydrogen Fuel Cell Vehicle Development in China: An Industry Chain Perspective. Energy Technology, 2020, 8, 2000179.	1.8	65
133	Electrofabrication of the Ternary NiCuFe Alloy Nanoparticles/ERGO Nanocomposite: Effective Electrooxidation of the Glucose and Glycerol in Alkaline Media. ChemistrySelect, 2020, 5, 7990-8001.	0.7	7
134	Capacity Design and Cost Analysis of Converged Renewable Energy Resources by Considering Base Load Conditions in Residential and Industrial Areas. Applied Sciences (Switzerland), 2020, 10, 7822.	1.3	0
135	Pathway to Complete Energy Sector Decarbonization with Available Iridium Resources using Ultralow Loaded Water Electrolyzers. ACS Applied Materials & Interfaces, 2020, 12, 52701-52712.	4.0	52
136	Polymers producing hydrogen. Nature Chemistry, 2020, 12, 1093-1095.	6.6	6
137	Piperidinium-Functionalized Poly(Vinylbenzyl Chloride) Cross-linked by Polybenzimidazole as an Anion Exchange Membrane with a Continuous Ionic Transport Pathway. Industrial & Engineering Chemistry Research, 2020, 59, 21077-21087.	1.8	18
138	Analysis of an electrochemical compressor stack. International Journal of Hydrogen Energy, 2020, 45, 31452-31465.	3.8	12
139	Nonprecious Bimetallic Ironâ€“Molybdenum Sulfide Electrocatalysts for the Hydrogen Evolution Reaction in Proton Exchange Membrane Electrolyzers. ACS Catalysis, 2020, 10, 14336-14348.	5.5	50
140	Synthesis of Metal Nanostructures Using Supercritical Carbon Dioxide: A Green and Upscalable Process. Small, 2020, 16, e2001972.	5.2	23
141	Fossil Capitalismâ€™s Lock-ins: The Natural Gas-Hydrogen Nexus. Capitalism, Nature, Socialism, 2021, 32, 91-110.	0.9	12
142	Cobaltâ€Molybdenum Bimetal Phosphides Encapsulated in Carbon as Efficient and Durable Electrocatalyst for Hydrogen Evolution. ChemistrySelect, 2020, 5, 14312-14319.	0.7	12
143	Hydrogen Production from Methane Cracking in Dielectric Barrier Discharge Catalytic Plasma Reactor Using a Nanocatalyst. Energies, 2020, 13, 5921.	1.6	14
144	Techno-Economic Analysis of Grid-Connected PV and Fuel Cell Hybrid System Using Different PV Tracking Techniques. Applied Sciences (Switzerland), 2020, 10, 8515.	1.3	21

#	Article	IF	Citations
145	Analysis of the Safety of Using Hydrocarbon Fuels and Hydrogen in Automobiles. Russian Journal of Applied Chemistry, 2020, 93, 1604-1614.	0.1	4
146	Improving the Fuel Economy and Battery Lifespan in Fuel Cell/Renewable Hybrid Power Systems Using the Power-Following Control of the Fueling Regulators. Applied Sciences (Switzerland), 2020, 10, 8310.	1.3	5
147	Sensitivity Analysis Based on the Defined Load Threshold for a new Fuel Economy Strategy used in Fuel Cell Vehicles. , 2020, , .		0
148	Implementation of Cooperative Designs in Polarized Transition Metal Systemsâ€"Significance for Bond Activation and Catalysis. ACS Catalysis, 2020, 10, 14024-14055.	5.5	57
149	Ultrahigh voltage and energy density aluminumâ€air battery based on aqueous alkalineâ€acid hybrid electrolyte. International Journal of Energy Research, 2020, 44, 10652-10661.	2.2	15
150	Hydrogen adsorption on Li decorated graphyne-like carbon nanosheet: A density functional theory study. International Journal of Hydrogen Energy, 2020, 45, 24938-24946.	3.8	23
151	Prospects of Fuel Cell Combined Heat and Power Systems. Energies, 2020, 13, 4104.	1.6	79
152	Electron density modulation of a metallic GeSb monolayer by pnictogen doping for excellent hydrogen evolution. Physical Chemistry Chemical Physics, 2020, 22, 19823-19836.	1.3	9
153	Sub 10 nm CoO nanoparticle-decorated graphitic carbon nitride for solar hydrogen generationviaefficient charge separation. Nanoscale Advances, 2020, 2, 4473-4481.	2.2	4
154	Revising the dark fermentative H2 research and development scenario â€“ An overview of the recent advances and emerging technological approaches. Biomass and Bioenergy, 2020, 140, 105673.	2.9	22
155	Benefits of a Diversified Energy Mix for Islanded Systems. Frontiers in Energy Research, 2020, 8, .	1.2	8
156	Novel Polymeric Composite TPPS/s-PEEK Membranes for Low Relative Humidity PEFC. Polymers, 2020, 12, 1431.	2.0	4
157	Electrodeposition of Mesoporous Ni-Rich Ni-Pt Films for Highly Efficient Methanol Oxidation. Nanomaterials, 2020, 10, 1435.	1.9	15
158	Hydrogen Sensor: Detecting Far-Field Scattering of Nano-Blocks (Mg, Ag, and Pd). Sensors, 2020, 20, 3831.	2.1	3
159	Hydrogen and Hydrogen-Containing Molecules on Metal Surfaces. Springer Series in Surface Sciences, 2020, , .	0.3	5
160	Microbial hydrogen production: fundamentals to application. , 2020, , 343-365.		21
161	Theoretical analysis of design of filament wound type 3 composite cylinder for the storage of compressed hydrogen gas. International Journal of Hydrogen Energy, 2020, 45, 25386-25397.	3.8	37
162	Bioprocesses of hydrogen production by cyanobacteria cells and possible ways to increase their productivity. Renewable and Sustainable Energy Reviews, 2020, 133, 110054.	8.2	52

#	Article	IF	Citations
163	Anisotropic Electron Transport Limits Performance of Bi₂WO₆ Photoanodes. Journal of Physical Chemistry C, 2020, 124, 18859-18867.	1.5	9
165	Efficient hydrogen production by low-temperature steam reforming of propane using catalysts with very small amounts of Pt loaded on NiMn2O4 particles. International Journal of Hydrogen Energy, 2020, 45, 20904-20921.	3.8	16
166	Ab initio study of Pr1-xSrxCrO3-Î´ cubic perovskites: Solid oxide fuel cells applications. Journal of Solid State Chemistry, 2020, 290, 121581.	1.4	5
167	Challenges towards large-scale fuel cell production: Results of an expert assessment study. International Journal of Hydrogen Energy, 2020, 45, 29288-29296.	3.8	25
168	Temperature and hydrogen flow rate controls of diesel autothermal reformer for 3.6ÂkW PEM fuel cell system with autoignition delay time analysis. International Journal of Hydrogen Energy, 2020, 45, 29345-29355.	3.8	16
169	Efficient Hydrolysis of Ammonia Borane for Hydrogen Evolution Catalyzed by Plasmonic Ag@Pd Coreâ€“Shell Nanocubes. ACS Sustainable Chemistry and Engineering, 2020, 8, 12366-12377.	3.2	121
170	Bio-inspired construction of melanin-like polydopamine-coated CeO₂ as a high-performance visible-light-driven photocatalyst for hydrogen production. New Journal of Chemistry, 2020, 44, 15223-15234.	1.4	13
171	Controlling Photocatalytic Activity by Selfâ€Assembly â€“ Tuning Perylene Bisimide Photocatalysts for the Hydrogen Evolution Reaction. Advanced Energy Materials, 2020, 10, 2002469.	10.2	33
172	Effects of water transport on deuterium isotope separation during polymer electrolyte membrane water electrolysis. International Journal of Hydrogen Energy, 2020, 45, 31389-31395.	3.8	18
173	Enhanced Selective Hydrogen Permeation through Graphdiyne Membrane: A Theoretical Study. Membranes, 2020, 10, 286.	1.4	11
174	Development of a low purity aluminum alloy (Al6082) anodization process and its application as a platinum-based catalyst in catalytic hydrogen combustion. Surface and Coatings Technology, 2020, 404, 126483.	2.2	20
175	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.	5.5	33
176	CO₂â€Assisted Fabrication of Defectâ€Engineered Carbon Nitride for Enhanced Electrocatalytic Hydrogen Evolution. Chemistry - an Asian Journal, 2020, 15, 4113-4117.	1.7	11
177	Vibrations problems in the range extender developed for an electric light commercial vehicle. AIP Conference Proceedings, 2020, , .	0.3	1
178	Fabrication of Conjugated Porous Polymer Catalysts for Oxygen Reduction Reactions: A Bottom-Up Approach. Catalysts, 2020, 10, 1224.	1.6	1
179	Dual application of Ti-catalyzed Li-RHC composite for H2 purification and CO methanation. International Journal of Hydrogen Energy, 2020, 45, 19493-19504.	3.8	3
180	Hf₂B₂Ir₅: A Self-Optimizing Catalyst for the Oxygen Evolution Reaction. ACS Applied Energy Materials, 2020, 3, 11042-11052.	2.5	13
181	Firstâ€principle investigation of <scp>XSrH₃</scp> (X = K and Rb) perovskiteâ€type hydrides for hydrogen storage. International Journal of Quantum Chemistry, 2020, 120, e26419.	1.0	36

#	Article	IF	Citations
182	One-pot synthesis of MoS2(1â^'x)Se2x on N-doped reduced graphene oxide: tailoring chemical and structural properties for photoenhanced hydrogen evolution reaction. Nanoscale Advances, 2020, 2, 4830-4840.	2.2	3
183	Direct Urea Fuel Cells: Recent Progress and Critical Challenges of Urea Oxidation Electrocatalysis. Advanced Energy and Sustainability Research, 2020, 1, 2000015.	2.8	45
184	Influence of Hydrophobicity and Porosity of the Gas Diffusion Layer on Mass Transport Losses in PEM Fuel Cells: A Simulation Study Supported by Experiments. Energy & Fuels, 2020, 34, 13010-13022.	2.5	20
185	Electric and hydrogen rail: Potential contribution to net zero in the UK. Transportation Research, Part D: Transport and Environment, 2020, 87, 102523.	3.2	34
186	Nickel clusters on TiO₂(110): thermal chemistry and photocatalytic hydrogen evolution of methanol. Catalysis Science and Technology, 2020, 10, 7630-7639.	2.1	7
187	Artificial Intelligence Assisted Dynamic Control of Environmental Emissions From Hybrid Energy Process Plants (HEPP). Frontiers in Energy Research, 2020, 8, .	1.2	3
188	Biomimetic Catalysts Based on Au@ZnOâ€“Graphene Composites for the Generation of Hydrogen by Water Splitting. Biomimetics, 2020, 5, 39.	1.5	10
189	Implementation of Bismuth Chalcogenides as an Efficient Anode: A Journey from Conventional Liquid Electrolyte to an All-Solid-State Li-Ion Battery. Molecules, 2020, 25, 3733.	1.7	22
190	Green Hydrogen as a Future Multi-disciplinary Research at Kathmandu University. Journal of Physics: Conference Series, 2020, 1608, 012020.	0.3	9
191	Metalâ€“Molybdenum Sulfide Nanosheet Arrays Prepared by Anion Exchange as Catalysts for Hydrogen Evolution. Energy Technology, 2020, 8, 2000595.	1.8	2
192	Hydrogen Technologies for Mobility and Stationary Applications: Hydrogen Production, Storage and Infrastructure Development. , 2020, , .		6
193	Copper Telluride Nanosheet/Cu Foil Electrode: Facile Ionic Liquid-Assisted Synthesis and Efficient Oxygen Evolution Performance. Journal of Physical Chemistry C, 2020, 124, 22117-22126.	1.5	15
194	Analysis of the Existing Barriers for the Market Development of Power to Hydrogen (P2H) in Italy. Energies, 2020, 13, 4835.	1.6	18
195	Illustrating the Role of Quaternary-N of BINOL Covalent Triazine-Based Frameworks in Oxygen Reduction and Hydrogen Evolution Reactions. ACS Applied Materials & Interfaces, 2020, 12, 44689-44699.	4.0	37
196	Preparation and characterization of polyvinylchloride membrane embedded with Cu nanoparticles for electrochemical oxidation in direct methanol fuel cell. Transactions of Nonferrous Metals Society of China, 2020, 30, 2207-2216.	1.7	5
197	Tailoring Morphology and Electronic Structure of Cobalt Iron Oxide Nanowires for Electrochemical Oxygen Evolution Reaction. ACS Applied Energy Materials, 2020, 3, 8583-8594.	2.5	51
198	A non-traditional biomass-derived N, P, and S ternary self-doped 3D multichannel carbon ORR electrocatalyst. New Journal of Chemistry, 2020, 44, 14604-14614.	1.4	38
199	Fabrication of CdS Frameâ€inâ€Cage Particles for Efficient Photocatalytic Hydrogen Generation under Visibleâ€Light Irradiation. Advanced Materials, 2020, 32, e2004561.	11.1	102

#	Article	IF	Citations
200	Review of Fuel Cell Technologies and Applications for Sustainable Microgrid Systems. Inventions, 2020, 5, 42.	1.3	89
201	Fast and Facile Synthesis of Pt Nanoparticles Supported on Ketjen Black by Solution Plasma Sputtering as Bifunctional HER/ORR Catalysts. Journal of Composites Science, 2020, 4, 121.	1.4	9
202	Valuation and cost reduction of behind-the-meter hydrogen production in Hawaii. MRS Energy & Sustainability, 2020, 7, 1.	1.3	4
203	Construction of heterojunction and homojunction to improve the photocatalytic performance of ZnO quantum dots sensitization three-dimensional ordered hollow sphere ZrO2â€“TiO2 arrays. International Journal of Hydrogen Energy, 2020, 45, 31812-31824.	3.8	12
204	Conducting Polymer-Based Nanohybrids for Fuel Cell Application. Polymers, 2020, 12, 2993.	2.0	40
205	Highly Energetic and Stable Gadolinium/Bismuth Molybdate with a Fast Reactive Species, Redox Mechanism of Aqueous Electrolyte. ACS Applied Energy Materials, 2020, 3, 12385-12399.	2.5	21
206	Increasing the rate of the hydrogen evolution reaction in neutral water with protic buffer electrolytes. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 32947-32953.	3.3	16
207	Identifying and Tuning the In Situ Oxygen-Rich Surface of Molybdenum Nitride Electrocatalysts for Oxygen Reduction. ACS Applied Energy Materials, 2020, 3, 12433-12446.	2.5	17
208	Hydrogen Recovery from Waste Gas Streams to Feed (High-Temperature PEM) Fuel Cells: Environmental Performance under a Life-Cycle Thinking Approach. Applied Sciences (Switzerland), 2020, 10, 7461.	1.3	13
209	Catalytic Electrochemical Water Splitting Using Boron Doped Diamond (BDD) Electrodes as a Promising Energy Resource and Storage Solution. Energies, 2020, 13, 5265.	1.6	3
210	An Electrocatalytically Active Nanoflake-Like Co₉S₈-CoSe₂ Heterostructure for Overall Water Splitting. ACS Applied Nano Materials, 2020, 3, 11326-11334.	2.4	60
211	An electrochemical neutralization energy-assisted membrane-less microfluidic reactor for water electrolysis. Sustainable Energy and Fuels, 2020, 4, 6234-6244.	2.5	19
212	Activating Iron Based Materials for Overall Electrochemical Water Splitting via the Incorporation of Noble Metals. Chemistry - an Asian Journal, 2020, 15, 4339-4346.	1.7	8
213	Performance of the load-following control switched to the air and hydrogen regulators of the fuel cell system. , 2020, , .		1
214	Unexpected Propagation of Ultra-Lean Hydrogen Flames in Narrow Gaps. Physical Review Letters, 2020, 124, 174501.	2.9	25
215	The Potential of Overlayers on Tin-based Perovskites for Water Splitting. Journal of Physical Chemistry Letters, 2020, 11, 4124-4130.	2.1	4
216	Evolution of Environmental Engineering: Challenges and Solutions. Journal of Environmental Engineering, ASCE, 2020, 146, 02520001.	0.7	2
217	Protonic Ceramic Electrochemical Cell for Efficient Separation of Hydrogen. ACS Applied Materials & Interfaces, 2020, 12, 25809-25817.	4.0	14

#	Article	IF	Citations
218	Assessment of contact-induced damage mechanisms in thick-walled composite cylinders. Journal of Reinforced Plastics and Composites, 2020, 39, 679-699.	1.6	10
219	Controlling Fuel Crossover in Open Electrochemical Cells by Tuning the Water Nanochannel for Power Generation. ACS Sustainable Chemistry and Engineering, 2020, 8, 8613-8623.	3.2	6
220	Engineering nanostructured spinel ferrites by co-substitution for total water electrolysis by preferential exposure of metal cations on the surface. Sustainable Energy and Fuels, 2020, 4, 3915-3925.	2.5	5
221	Nanostructured Carbon-Nitrogen-Sulfur-Nickel Networks Derived From Polyaniline as Bifunctional Catalysts for Water Splitting. Frontiers in Chemistry, 2020, 8, 385.	1.8	13
222	Advancement of Segmented Cell Technology in Low Temperature Hydrogen Technologies. Energies, 2020, 13, 2301.	1.6	10
223	Boosting the bifunctional oxygen electrocatalytic performance of atomically dispersed Fe site via atomic Ni neighboring. Applied Catalysis B: Environmental, 2020, 274, 119091.	10.8	130
224	Creating active interfaces as a strategy to improve electrochemical water splitting reactions. JPhys Energy, 2020, 2, 041001.	2.3	10
225	Activation strategies of water-splitting electrocatalysts. Journal of Materials Chemistry A, 2020, 8, 10096-10129.	5.2	67
226	Algorithm developed for dynamic quantification of coal consumption for and emission from rural winter heating. Science of the Total Environment, 2020, 737, 139762.	3.9	9
227	100% renewable fueled mine. Energy, 2020, 205, 117964.	4.5	7
229	Energy descent as a post-carbon transition scenario: How â€˜knowledge humilityâ€™ reshapes energy futures for post-normal times. Futures, 2020, 122, 102565.	1.4	26
230	Mathematical modeling and simulation of hydrogen-fueled solid oxide fuel cell system for micro-grid applications - Effect of failure and degradation on transient performance. Energy, 2020, 202, 117752.	4.5	10
231	A multi-objective optimization of the integrated copper-chlorine cycle for hydrogen production. Computers and Chemical Engineering, 2020, 140, 106889.	2.0	18
232	Overcoming barriers to developing and diffusing fuel-cell vehicles: Governance strategies and experiences in Japan. Energy Policy, 2020, 142, 111533.	4.2	49
233	Flexible and lightweight Ti3C2Tx MXene@Pd colloidal nanoclusters paper film as novel H2 sensor. Journal of Hazardous Materials, 2020, 399, 123054.	6.5	76
234	Minimizing CO₂ emissions with renewable energy: a comparative study of emerging technologies in the steel industry. Energy and Environmental Science, 2020, 13, 1923-1932.	15.6	66
236	Syntheses of Ptâ€Ni Hollow Nanoalloy for Hydrogen Generation from Catalytic Hydrolysis of Ammonia Borane. ChemCatChem, 2020, 12, 4257-4261.	1.8	16
237	Salinity induced acidogenic fermentation of food waste regulates biohydrogen production and volatile fatty acids profile. Fuel, 2020, 276, 117794.	3.4	30

#	Article	IF	Citations
238	Silica based hybrid organic-inorganic materials for PEMFC application. International Journal of Hydrogen Energy, 2020, 45, 16698-16707.	3.8	4
239	Competition and selectivity during parallel evolution of bromine, chlorine and oxygen on IrOx electrodes. Journal of Catalysis, 2020, 389, 99-110.	3.1	21
240	Co/multi-walled carbon nanotubes as highly efficient catalytic nanoreactor for hydrogen production from formic acid. International Journal of Hydrogen Energy, 2020, 45, 19420-19430.	3.8	21
241	Application of the training of density functional theory potentials within machine learning to adsorptions and reactionÂpaths on Platinum surfaces. Materials Chemistry and Physics, 2020, 253, 123407.	2.0	5
242	Covalency competition dominates the water oxidation structureâ€“activity relationship on spinel oxides. Nature Catalysis, 2020, 3, 554-563.	16.1	284
243	A numerical study of unintended hydrogen release in a hydrogen refueling station. International Journal of Hydrogen Energy, 2020, 45, 20142-20152.	3.8	28
244	A continuous hydrogen absorption/desorption model for metal hydride reactor coupled with PCM as heat management and its application in the fuel cell power system. International Journal of Hydrogen Energy, 2020, 45, 28087-28099.	3.8	37
245	Facile fabrication of activated NiFe bimetallic NPs anchored N-doped CNTs arrays as reliable self-standing electrocatalyst for HER and OER. Journal of Solid State Chemistry, 2020, 289, 121498.	1.4	15
246	Realâ€Time Impedance Analysis for the Onâ€Road Monitoring of Automotive Fuel Cells. ChemElectroChem, 2020, 7, 2784-2791.	1.7	8
247	Relationship between hydrogen binding energy and activity for hydrogen evolution reaction by palladium supported on sulfur-doped ordered mesoporous carbon. Journal of Industrial and Engineering Chemistry, 2020, 89, 361-367.	2.9	11
248	Is the H2 economy realizable in the foreseeable future? Part II: H2 storage, transportation, and distribution. International Journal of Hydrogen Energy, 2020, 45, 20693-20708.	3.8	129
249	Metagenomics Meets Electrochemistry: Utilizing the Huge Catalytic Potential From the Uncultured Microbial Majority for Energy-Storage. Frontiers in Bioengineering and Biotechnology, 2020, 8, 567.	2.0	6
250	Flexible piezoelectric nanogenerators based on a CdS nanowall for self-powered sensors. Nanotechnology, 2020, 31, 385401.	1.3	28
251	Temperature Effects in Polymer Electrolyte Membrane Fuel Cells. ChemElectroChem, 2020, 7, 3545-3568.	1.7	34
252	Thermal management of a new integrated copper-chlorine cycle for hydrogen production. Energy Conversion and Management, 2020, 212, 112629.	4.4	22
253	Improving the Antioxidation Capability of the Ni Catalyst by Carbon Shell Coating for Alkaline Hydrogen Oxidation Reaction. ACS Applied Materials & Interfaces, 2020, 12, 31575-31581.	4.0	44
254	The thermocapillary effect on gas bubbles growing on electrodes of different sizes. Electrochimica Acta, 2020, 353, 136461.	2.6	28
255	Carbon dioxide capture in biochar produced from pine sawdust and paper mill sludge: Effect of porous structure and surface chemistry. Science of the Total Environment, 2020, 739, 139845.	3.9	91

#	Article	IF	Citations
256	Towards a generic understanding of oxygen evolution reaction kinetics in polymer electrolyte water electrolysis. Energy and Environmental Science, 2020, 13, 2153-2166.	15.6	90
257	Recent progress on layered double hydroxide (LDH) derived metal-based catalysts for CO2 conversion to valuable chemicals. Catalysis Today, 2020, 356, 490-513.	2.2	98
258	Impact of climate change on the cost-optimal mix of decentralised heat pump and gas boiler technologies in Europe. Energy Policy, 2020, 140, 111386.	4.2	30
259	Assessment of the potential for underground hydrogen storage in bedded salt formation. International Journal of Hydrogen Energy, 2020, 45, 19479-19492.	3.8	114
260	Urchin-like Co0.8-Mn0.2-P/CC nanowires array: a high-performance and cost-effective hydrogen evolution electrocatalyst. International Journal of Hydrogen Energy, 2020, 45, 18976-18984.	3.8	10
261	Highly dispersed ultrafine shell-like nano-Pt with efficient hydrogen evolution via metal boron organic polymers. Journal of Materials Chemistry A, 2020, 8, 7171-7176.	5.2	38
262	Recent Advances in Synthesis and Utilization of Ultraâ€low Loading of Precious Metalâ€based Catalysts for Fuel Cells. ChemCatChem, 2020, 12, 3434-3446.	1.8	34
263	Facile galvanic replacement method for porous Pd@Pt nanoparticles as an efficient HER electrocatalyst. International Journal of Hydrogen Energy, 2020, 45, 11127-11137.	3.8	31
264	Synthesis and characterisation of platinumâ€“cobaltâ€“manganese ternary alloy catalysts supported on carbon nanofibers: An alternative catalyst for hydrogen evolution reaction. International Journal of Hydrogen Energy, 2020, 45, 26217-26225.	3.8	13
265	Green hydrogen from anion exchange membrane water electrolysis: a review of recent developments in critical materials and operating conditions. Sustainable Energy and Fuels, 2020, 4, 2114-2133.	2.5	367
266	Boosting electrochemical water oxidation: the merits of heterostructured electrocatalysts. Journal of Materials Chemistry A, 2020, 8, 6393-6405.	5.2	63
267	Fault Diagnostics in PEMFC Stacks by Evaluation of Local Performance and Cell Impedance Analysis. Fuel Cells, 2020, 20, 403-412.	1.5	19
268	On-demand production of hydrogen by reacting porous silicon nanowires with water. Nano Research, 2020, 13, 1459-1464.	5.8	14
269	Insights from the Physicochemical and Electrochemical Screening of the Potentiality of the Chemically Synthesized Polyaniline. Journal of the Electrochemical Society, 2020, 167, 066503.	1.3	23
270	Thermodynamically consistent reduced dimensionality electrochemical model for proton exchange membrane fuel cell performance modelling and control. Journal of Power Sources, 2020, 454, 227930.	4.0	24
271	Thermally rearranged polymer membranes containing highly rigid biphenyl ortho-hydroxyl diamine for hydrogen separation. Journal of Membrane Science, 2020, 604, 118053.	4.1	33
272	A Multiscale Energy Systems Engineering Approach for Renewable Power Generation and Storage Optimization. Industrial & Engineering Chemistry Research, 2020, 59, 7706-7721.	1.8	37
273	Thermal and light irradiation effects on the electrocatalytic performance of hemoglobin modified Co₃O₄-g-C₃N₄ nanomaterials for the oxygen evolution reaction. Nanoscale, 2020, 12, 8477-8484.	2.8	14

#	Article	IF	Citations
274	The Improved Photoelectrochemical Performance of WO 3 /BiVO 4 Heterojunction Thinâ€Film Photoanodes via Thermal Treatment. Energy Technology, 2020, 8, 2000147.	1.8	10
275	Recent Advances in Self-Supported Layered Double Hydroxides for Oxygen Evolution Reaction. Research, 2020, 2020, 3976278.	2.8	57
276	Photoelectrochemical solar fuels from carbon dioxide, water and sunlight. Catalysis Science and Technology, 2020, 10, 1967-1974.	2.1	28
277	Cuâ€“Ni Bimetal Integrated TiO₂ Thin Film for Enhanced Solar Hydrogen Generation. Solar Rrl, 2020, 4, 1900557.	3.1	30
278	Power-to-hydrogen as seasonal energy storage: an uncertainty analysis for optimal design of low-carbon multi-energy systems. Applied Energy, 2020, 274, 115197.	5.1	114
279	Nickel-Based Hybrid Material for Electrochemical Oxygen Redox Reactions in an Alkaline Medium. ACS Applied Energy Materials, 2020, 3, 6408-6415.	2.5	6
280	The new oil? The geopolitics and international governance of hydrogen. Energy Research and Social Science, 2020, 70, 101667.	3.0	122
281	A comprehensive review on water management strategies and developments in anion exchange membrane fuel cells. International Journal of Hydrogen Energy, 2020, 45, 19642-19663.	3.8	51
282	Unitized Regenerative Alkaline Microfluidic Cell Based on Platinum Group Metal-Free Electrode Materials. ACS Applied Energy Materials, 2020, 3, 7397-7403.	2.5	11
283	Laser Induced Anchoring of Nickel Oxide Nanoparticles on Polymeric Graphitic Carbon Nitride Sheets Using Pulsed Laser Ablation for Efficient Water Splitting under Visible Light. Nanomaterials, 2020, 10, 1098.	1.9	26
284	Analysis of Hybrid PV-Fuel Cell System for Load Power Flow Control. , 2020, , .		0
285	On the potential of â€œPhotovoltaics + Electric vehiclesâ€•for deep decarbonization of Kyotoâ€™s power systems: Techno-economic-social considerations. Applied Energy, 2020, 275, 115419.	5.1	68
286	Ultrafine Ru nanoclusters anchored on cucurbit[6]uril/rGO for efficient hydrogen evolution in a broad pH range. Chemical Communications, 2020, 56, 9392-9395.	2.2	9
287	Heterostructure of 3D sea-grape-like MoS2/graphene on carbon cloth for enhanced water splitting. Applied Surface Science, 2020, 529, 147089.	3.1	9
288	Tunable aggregation of short-side-chain perfluorinated sulfonic acid ionomers for the catalyst layer in polymer electrolyte membrane fuel cells. International Journal of Hydrogen Energy, 2020, 45, 19891-19899.	3.8	11
289	Electrospun CNF Supported Ceramics as Electrochemical Catalysts for Water Splitting and Fuel Cell: A Review. Polymers, 2020, 12, 238.	2.0	35
291	Green hydrogen characterisation initiatives: Definitions, standards, guarantees of origin, and challenges. Energy Policy, 2020, 138, 111300.	4.2	157
292	Intrinsic Effect of Carbon Supports on the Activity and Stability of Precious Metal Based Catalysts for Electrocatalytic Alcohol Oxidation in Fuel Cells: A Review. ChemSusChem, 2020, 13, 2484-2502.	3.6	52

#	Article	IF	Citations
293	Capacity optimization of grid connected solar/fuel cell energy system using hybrid ABC-PSO algorithm. International Journal of Hydrogen Energy, 2020, 45, 10070-10088.	3.8	104
294	Metalâ€Rich Chalcogenides for Electrocatalytic Hydrogen Evolution: Activity of Electrodes and Bulk Materials. ChemElectroChem, 2020, 7, 1514-1527.	1.7	55
295	Microdroplet photofuel cells to harvest high-density energy and dye degradation. Nanoscale Advances, 2020, 2, 1613-1624.	2.2	4
296	The impact of intelligent cyber-physical systems on the decarbonization of energy. Energy and Environmental Science, 2020, 13, 744-771.	15.6	104
297	Hydrogen energy currency: Beyond state-of-the-art transition metal oxides for oxygen electrocatalysis. Current Opinion in Electrochemistry, 2020, 21, 55-61.	2.5	13
298	Storage of renewable energy in fuels and chemicals through electrochemical reforming of bioalcohols. Current Opinion in Electrochemistry, 2020, 21, 140-145.	2.5	28
299	Solid-State NaBH4 Composites as Hydrogen Generation Material: Effect of Thermal Treatment of a Catalyst Precursor on the Hydrogen Generation Rate. Catalysts, 2020, 10, 201.	1.6	14
300	General Approach for the Synthesis of Nitrogen-Doped Carbon Encapsulated Mo and W Phosphide Nanostructures for Electrocatalytic Hydrogen Evolution. ACS Applied Energy Materials, 2020, 3, 2811-2820.	2.5	22
301	Engineering a solid-state metalloprotein hydrogen evolution catalyst. Scientific Reports, 2020, 10, 3774.	1.6	4
302	Unraveling the cohesive and interfacial adhesive strengths of electrodes for automotive fuel cells. Journal of Power Sources, 2020, 455, 227928.	4.0	5
303	Designing Tailored Gas Diffusion Layers with Pore Size Gradients via Electrospinning for Polymer Electrolyte Membrane Fuel Cells. ACS Applied Energy Materials, 2020, 3, 2695-2707.	2.5	31
304	Powerâ€toâ€X: Between Electricity Storage, eâ€Production, and Demand Side Management. Chemie-Ingenieur-Technik, 2020, 92, 74-84.	0.4	39
305	Fabrication of Heterostructured Fe₂TiO₅â€“TiO₂ Nanocages with Enhanced Photoelectrochemical Performance for Solar Energy Conversion. Angewandte Chemie, 2020, 132, 8205-8209.	1.6	42
306	Challenges towards hydrogen economy in China. International Journal of Hydrogen Energy, 2020, 45, 34326-34345.	3.8	133
307	Technical potential of salt caverns for hydrogen storage in Europe. International Journal of Hydrogen Energy, 2020, 45, 6793-6805.	3.8	262
308	Hybrid niobium and titanium nitride nanotube arrays implanted with nanosized amorphous rheniumâ€“nickel: An advanced catalyst electrode for hydrogen evolution reactions. International Journal of Hydrogen Energy, 2020, 45, 6461-6475.	3.8	18
309	3D architecture double perovskite NdBa0.5Sr0.5Co1.5Fe0.5O5+Î´ embedded hollow-net Co3O4 bifunctional electrocatalysts coupled with N-doped CNT and reduced graphene oxide for oxygen electrode reactions. Journal of Alloys and Compounds, 2020, 823, 153782.	2.8	13
310	Reversible interconversion between methanol-diamine and diamide for hydrogen storage based on manganese catalyzed (de)hydrogenation. Nature Communications, 2020, 11, 591.	5.8	75

#	Article	IF	Citations
311	Toward a hydrogen society: Hydrogen and smart grid integration. International Journal of Hydrogen Energy, 2020, 45, 20164-20175.	3.8	84
312	Effect of TiO2 + Nb2O5 + TiH2 Catalysts on Hydrogen Storage Properties of Magnesium Hydride. MRS Advances, 2020, 5, 1059-1069.	0.5	0
313	NiSâ€Decorated ZnO/ZnS Nanorod Heterostructures for Enhanced Photocatalytic Hydrogen Production: Insight into the Role of NiS. Solar Rrl, 2020, 4, 1900568.	3.1	35
314	How to finance for establishing hydrogen refueling stations in China? An analysis based on Fuzzy AHP and PROMETHEE. International Journal of Hydrogen Energy, 2020, 45, 34354-34370.	3.8	37
315	Intelligent Nanoarchitectonics for Selfâ€Assembling Systems. Advanced Intelligent Systems, 2020, 2, 1900157.	3.3	14
316	Copper Complexes of CF₃-Substituted Corroles for Affecting Redox Potentials and Electrocatalysis. ACS Applied Energy Materials, 2020, 3, 2828-2836.	2.5	29
317	Fabrication of Heterostructured Fe₂TiO₅â€“TiO₂ Nanocages with Enhanced Photoelectrochemical Performance for Solar Energy Conversion. Angewandte Chemie - International Edition, 2020, 59, 8128-8132.	7.2	58
318	Co@CoAlâ€Layered Double Hydroxide/Nitrogenâ€Doped Graphene Composite Catalyst for Alâ^'H₂Oâ€Based Batteries: Simultaneous Hydrogen Production and Electricity Generation. ChemElectroChem, 2020, 7, 2582-2591.	1.7	11
319	Enhanced corrosion tolerance and highly durable ORR activity by low Pt electrocatalyst on unique pore structured CNF in PEM fuel cell. Electrochimica Acta, 2020, 348, 136346.	2.6	40
320	A robust and highly active hydrogen evolution catalyst based on Ru nanocrystals supported on vertically oriented Cu nanoplates. Journal of Materials Chemistry A, 2020, 8, 10787-10795.	5.2	13
321	Heat Decarbonisation Modelling Approaches in the UK: An Energy System Architecture Perspective. Energies, 2020, 13, 1869.	1.6	17
322	Holistic approach to chemical degradation of Nafion membranes in fuel cells: modelling and predictions. Physical Chemistry Chemical Physics, 2020, 22, 5647-5666.	1.3	42
323	Synthesis of carbon-doped SnO2 nanostructures for visible-light-driven photocatalytic hydrogen production from water splitting. International Journal of Hydrogen Energy, 2020, 45, 32789-32796.	3.8	61
324	Solar-driven production of hydrogen and acetaldehyde from ethanol on Ni-Cu bimetallic catalysts with solar-to-fuels conversion efficiency up to 3.8 %. Applied Catalysis B: Environmental, 2020, 272, 118965.	10.8	42
325	Unique advantages of 2D inorganic nanosheets in exploring high-performance electrocatalysts: Synthesis, application, and perspective. Coordination Chemistry Reviews, 2020, 415, 213280.	9.5	70
326	Co nanoparticles coupling induced high catalytic activity of nitrogen doped carbon towards hydrogen evolution reaction in acidic/alkaline solutions. Electrochimica Acta, 2020, 342, 136076.	2.6	14
327	Hydrogen generation from splitting water with Alâ€“Bi(OH)3 composite promoted by NaCl. International Journal of Hydrogen Energy, 2020, 45, 13139-13148.	3.8	31
328	Highly efficient white-LED-light-driven photocatalytic hydrogen production using highly crystalline ZnFe2O4/MoS2 nanocomposites. International Journal of Hydrogen Energy, 2020, 45, 32756-32769.	3.8	34

#	Article	IF	Citations
329	Prospective carbon footprint comparison of hydrogen options. Science of the Total Environment, 2020, 728, 138212.	3.9	34
330	Facile synthesis of nanoparticle-stacked tungsten-doped nickel iron layered double hydroxide nanosheets for boosting oxygen evolution reaction. Journal of Materials Chemistry A, 2020, 8, 8096-8103.	5.2	73
331	Will Hydrogen Be Able to Become the Fuel of the Future?. Thermal Engineering (English Translation of) Tj ETQq0 0 0 rgBT /Overlock 10 T	0.4	11
332	Constructing Core-Shell Co@N-Rich Carbon Additives Toward Enhanced Hydrogen Storage Performance of Magnesium Hydride. Frontiers in Chemistry, 2020, 8, 223.	1.8	12
333	Influence of Structural Modification of Microâ€Porous Layer and Catalyst Layer on Performance and Water Management of PEM Fuel Cells: Hydrophobicity and Porosity. Fuel Cells, 2020, 20, 469-476.	1.5	14
334	Chemical looping steam reforming of methane over Ce-doped perovskites. Chemical Engineering Science, 2020, 223, 115707.	1.9	41
335	Atomically dispersed metalâ€“nitrogenâ€“carbon catalysts for fuel cells: advances in catalyst design, electrode performance, and durability improvement. Chemical Society Reviews, 2020, 49, 3484-3524.	18.7	453
336	Platinum and Palladium Monolayer Electrocatalysts for Formic Acid Oxidation. Topics in Catalysis, 2020, 63, 742-749.	1.3	17
337	Search for the shortest intermetallic Tl---Tl contacts: Synthesis and characterization of Thallium(I) coordination polymers with several mono- and bis-cyanoximes. Inorganica Chimica Acta, 2020, 508, 119597.	1.2	2
338	Multifunctional dumbbell-shaped ZnO based temperature-dependent UV photodetection and selective H2 gas detection. International Journal of Hydrogen Energy, 2020, 45, 15011-15025.	3.8	32
339	A hierarchical SnS@ZnIn₂S₄ marigold flower-like 2D nano-heterostructure as an efficient photocatalyst for sunlight-driven hydrogen generation. Nanoscale Advances, 2020, 2, 2577-2586.	2.2	22
340	Is the H2 economy realizable in the foreseeable future? Part I: H2 production methods. International Journal of Hydrogen Energy, 2020, 45, 13777-13788.	3.8	186
341	Competition and Interhalogen Formation During Parallel Electrocatalytic Oxidation of Bromide and Chloride on Pt. Journal of the Electrochemical Society, 2020, 167, 046505.	1.3	10
342	Prospects and impediments for hydrogen and fuel cell vehicles in the transport sector. International Journal of Hydrogen Energy, 2021, 46, 10049-10058.	3.8	207
343	Electroreduction of oxygen on cobalt phthalocyanine-modified carbide-derived carbon/carbon nanotube composite catalysts. Journal of Solid State Electrochemistry, 2021, 25, 57-71.	1.2	37
344	New modified Nafion-bisphosphonic acid composite membranes for enhanced proton conductivity and PEMFC performance. International Journal of Hydrogen Energy, 2021, 46, 17562-17571.	3.8	29
345	Synthesis and electrochemical study of coinage metal nanodendrites for hydrogen evolution reaction. International Journal of Hydrogen Energy, 2021, 46, 2007-2017.	3.8	6
346	A Living Bioticâ€“Abiotic Composite that can Switch Function Between Current Generation and Electrochemical Energy Storage. Advanced Functional Materials, 2021, 31, 2007351.	7.8	20

#	Article	IF	Citations
347	Renewable hydrogen production by dark-fermentation: Current status, challenges and perspectives. Bioresource Technology, 2021, 321, 124354.	4.8	135
348	Silicon Fuel: A hydrogen storage material. International Journal of Hydrogen Energy, 2021, 46, 1627-1633.	3.8	3
349	Amine axial ligand-coordinated cobalt phthalocyanine-based catalyst for flow-type membraneless hydrogen peroxide fuel cell or enzymatic biofuel cell. Journal of Energy Chemistry, 2021, 58, 463-471.	7.1	16
350	Fabrication and characterization of gallium nitride thin film deposited on a sapphire substrate for photoelectrochemical water splitting applications. Optik, 2021, 226, 165410.	1.4	6
351	State-of-the-art review of morphological advancements in graphitic carbon nitride (g-CN) for sustainable hydrogen production. Renewable and Sustainable Energy Reviews, 2021, 135, 110235.	8.2	114
352	Techno-economic assessment of various hydrogen production methods â€“ A review. Bioresource Technology, 2021, 319, 124175.	4.8	249
353	Fuel cell application in the automotive industry and future perspective. Energy, 2021, 214, 118955.	4.5	377
354	Converting coals into carbon-based pH-universal oxygen reduction catalysts for fuel cells. Fuel, 2021, 285, 119163.	3.4	15
355	Heterogeneous Bimetallic Phosphide Ni₂Pâ€Fe₂P as an Efficient Bifunctional Catalyst for Water/Seawater Splitting. Advanced Functional Materials, 2021, 31, .	7.8	385
356	Interface engineering of heterostructured electrocatalysts towards efficient alkaline hydrogen electrocatalysis. Science Bulletin, 2021, 66, 85-96.	4.3	127
357	Hydrogen production via water-gas shift reaction over gold supported on Ni-based layered double hydroxides. International Journal of Hydrogen Energy, 2021, 46, 458-473.	3.8	14
358	Direct growth of highly organized, 2D ultra-thin nano-accordion Ni-MOF@NiS2@C core-shell for high performance energy storage device. Chemical Engineering Journal, 2021, 406, 126810.	6.6	45
359	The state of the field: from inception to commercialization of metalâ€“organic frameworks. Faraday Discussions, 2021, 225, 9-69.	1.6	70
360	Mesoporous carbon aerogel with tunable porosity as the catalyst support for enhanced proton-exchange membrane fuel cell performance. Materials Today Energy, 2021, 19, 100560.	2.5	17
361	Hydrogen Storage in Carbon and Oxygen Coâ€Doped Porous Boron Nitrides. Advanced Functional Materials, 2021, 31, 2007381.	7.8	50
362	Predictive functional profiling of microbial communities in fermentative hydrogen production system using PICRUSt. International Journal of Hydrogen Energy, 2021, 46, 3716-3725.	3.8	49
363	Renewable fuels for long-term energy storage. , 2021, , 109-138.		0
364	Solar hydrogen production from seawater splitting using mixed-valence titanium phosphite photocatalyst. Journal of Environmental Chemical Engineering, 2021, 9, 104826.	3.3	9

#	Article	IF	Citations
365	Stabilizing nanocrystalline Cu2O with ZnO/rGO: Engineered photoelectrodes enables efficient water splitting. Ceramics International, 2021, 47, 7558-7570.	2.3	9
366	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
367	Greenwashed energy transitions: Are US cities accounting for the life cycle greenhouse gas emissions of energy resources in climate action plans?. Energy and Climate Change, 2021, 2, 100020.	2.2	5
368	Facile synthesis of agglomerated Agâ€“Pd bimetallic dendrites with performance for hydrogen generation from formic acid. International Journal of Hydrogen Energy, 2021, 46, 6395-6403.	3.8	15
369	An ultralight-weight polymer electrolyte fuel cell based on woven carbon fiber-resin reinforced bipolar plate. Journal of Power Sources, 2021, 484, 229291.	4.0	22
370	Auto-programmed synthesis of metallic aerogels: Core-shell Cu@Fe@Ni aerogels for efficient oxygen evolution reaction. Nano Energy, 2021, 81, 105644.	8.2	50
371	Expected impacts on greenhouse gas and air pollutant emissions due to a possible transition towards a hydrogen economy in German road transport. International Journal of Hydrogen Energy, 2021, 46, 5875-5890.	3.8	42
372	Improvement of TiO2 nanotubes for photoelectrochemical water splitting: Review. International Journal of Hydrogen Energy, 2021, 46, 4998-5024.	3.8	120
373	Numerical study on the influence of controllable flow ratio on combustion characteristics of a controllable central slotted bluff body and cavity combined micro combustor. International Journal of Hydrogen Energy, 2021, 46, 6901-6914.	3.8	38
374	Recent advances and future perspectives of carbon materials for fuel cell. Renewable and Sustainable Energy Reviews, 2021, 138, 110535.	8.2	57
375	Seawater electrocatalysis: activity and selectivity. Journal of Materials Chemistry A, 2021, 9, 74-86.	5.2	111
376	Efficient Co@Co3O4 core-shell catalysts for photocatalytic water oxidation and its behaviors in two different photocatalytic systems. Journal of Energy Chemistry, 2021, 57, 83-91.	7.1	4
377	Stronger together: Multi-annual variability of hydrogen production supported by wind power in Sweden. Applied Energy, 2021, 282, 116082.	5.1	25
378	Insights into electrochemical hydrogen compressor operating parameters and membrane electrode assembly degradation mechanisms. Journal of Power Sources, 2021, 484, 229249.	4.0	18
379	The status of hydrogen technologies in the UK: A multi-disciplinary review. Sustainable Energy Technologies and Assessments, 2021, 43, 100901.	1.7	29
380	Effect of phosphoric acid-doped polybenzimidazole membranes on the performance of H+-ion concentration cell. International Journal of Hydrogen Energy, 2021, 46, 4354-4364.	3.8	5
381	Recent developments in hydrogen fuel cells: Strengths and weaknesses. , 2021, , 431-456.		6
382	Single-step synthesis of silicon carbide anchored graphitic carbon nitride nanocomposite photo-catalyst for efficient photoelectrochemical water splitting under visible-light irradiation. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2021, 611, 125886.	2.3	22

#	Article	IF	Citations
383	Life cycle assessment of fuel cell systems for light duty vehicles, current state-of-the-art and future impacts. Journal of Cleaner Production, 2021, 280, 125086.	4.6	41
384	The prospects of brewery waste application in biohydrogen production by photofermentation of Rhodobacter sphaeroides. International Journal of Hydrogen Energy, 2021, 46, 289-296.	3.8	14
385	Efficient hydrogen production from ammonia borane hydrolysis catalyzed by TiO2-supported RuCo catalysts. International Journal of Hydrogen Energy, 2021, 46, 3964-3973.	3.8	33
386	In-situ and in-operando analysis of voltage losses using sense wires for proton exchange membrane water electrolyzers. Journal of Power Sources, 2021, 481, 229012.	4.0	29
387	Customersâ€™ purchase intention for hydrogen vehicle and industrial agglomeration: Evidence from Jiangsu Province, China. International Journal of Hydrogen Energy, 2021, 46, 18011-18019.	3.8	13
388	Easy preparation of multifunctional ternary PdNiP/C catalysts toward enhanced small organic molecule electro-oxidation and hydrogen evolution reactions. Journal of Energy Chemistry, 2021, 58, 256-263.	7.1	31
389	Exergy transfer and degeneration in thermochemical cycle reactions for hydrogen production: Novel exergy- and energy level-based methods. Energy, 2021, 219, 119531.	4.5	6
390	Advancing green energy solution with the impetus of COVID-19 pandemic. Journal of Energy Chemistry, 2021, 59, 688-705.	7.1	63
391	Effect of reducing gas on the hydrogen production by thermo-oxidation of water over 1%Rh/Ce0.6Zr0.4O2. Research on Chemical Intermediates, 2021, 47, 649-661.	1.3	1
392	Controlled synthesis of hierarchical hollow CoLDH nanocages electrocatalysts for oxygen evolution reaction. Chemical Physics, 2021, 541, 111011.	0.9	4
393	Recent progress on visible active nanostructured energy materials for water split generated hydrogen. Journal of Nanostructure in Chemistry, 2021, 11, 69-92.	5.3	7
394	Steam reforming of liquefied petroleum gas using catalysts supported on ceria-silica. International Journal of Hydrogen Energy, 2021, 46, 1801-1814.	3.8	10
395	Uncovering the true cost of hydrogen production routes using life cycle monetisation. Applied Energy, 2021, 281, 115958.	5.1	167
396	Technical barriers for harnessing the green hydrogen: A power system perspective. Renewable Energy, 2021, 163, 1580-1587.	4.3	44
397	Metal nitride nanosheets enable highly efficient electrochemical oxidation of ammonia. Nano Energy, 2021, 80, 105528.	8.2	28
398	Effect of Hydrogen Gas on Ferromagnetic Resonance Properties of Niâ€“Coâ€“Pd Ternary Alloy Films. IEEE Transactions on Magnetics, 2021, 57, 1-5.	1.2	4
399	Recent progresses in photocatalytic hydrogen production: design and construction of Niâ€based cocatalysts. International Journal of Energy Research, 2021, 45, 1480-1495.	2.2	54
400	Boron/oxygen-codoped graphitic carbon nitride nanomesh for efficient photocatalytic hydrogen evolution. Chemical Engineering Journal, 2021, 407, 127114.	6.6	54

#	Article	IF	Citations
401	Supramolecular Nanosheet evolution into BC₃N matrix improves the hydrogen evolution reaction activity in the pH universality of highly dispersed Pt nanoparticles. Journal of Materials Chemistry A, 2021, 9, 16427-16435.	5.2	23
402	PEMWE with Internal Real-Time Microscopic Monitoring Function. Membranes, 2021, 11, 92.	1.4	1
403	Distinctive MoS₂-MoP nanosheet structures anchored on N-doped porous carbon support as a catalyst to enhance the electrochemical hydrogen production. New Journal of Chemistry, 2021, 45, 14042-14049.	1.4	4
404	Optimising air quality co-benefits in a hydrogen economy: a case for hydrogen-specific standards for NO_x emissions. Environmental Science Atmospheres, 2021, 1, 201-207.	0.9	30
405	Heteroatom-Doped Carbon Materials as Support for Anode Electrocatalysts for Direct Formic Acid Fuel Cells. International Journal of Electrochemical Science, 2021, 16, 150926.	0.5	9
406	Microbial Degradation for the Production of Value-Added Compounds: Biohydrogen from Dark Fermentation and Microbial Electrolysis Cells. Environmental and Microbial Biotechnology, 2021, , 219-250.	0.4	1
407	Expeditious synthesis of aromatic-free piperidinium-functionalized polyethylene as alkaline anion exchange membranes. Chemical Science, 2021, 12, 3898-3910.	3.7	47
408	Neutron scattering studies of materials for hydrogen storage. , 2021, , .		6
409	Tuning the Selective Adsorption Site of Biomass on Co₃O₄ by Ir Single Atoms for Electrosynthesis. Advanced Materials, 2021, 33, e2007056.	11.1	217
410	Solid oxide proton conductors beyond perovskites. Journal of Materials Chemistry A, 2021, 9, 18836-18856.	5.2	33
411	Harnessing electrochemical pH gradient for direct air capture with hydrogen and oxygen by-products in a calcium-based loop. Sustainable Energy and Fuels, 2021, 5, 4355-4367.	2.5	11
412	Partial inhibition of borohydride hydrolysis using porous activated carbon as an effective method to improve the electrocatalytic activity of the DBFC anode. Sustainable Energy and Fuels, 2021, 5, 4401-4413.	2.5	13
413	Efficient solar light-driven hydrogen generation using an Sn₃O₄ nanoflake/graphene nanoheterostructure. RSC Advances, 2021, 11, 29877-29886.	1.7	7
414	Alkaline Anion Exchange Membrane (AEM) Water Electrolysersâ€"Current/Future Perspectives in Electrolysers for Hydrogen. , 2022, , 473-504.		2
415	Steam Reforming of Methanol for Hydrogen Production: A Critical Analysis of Catalysis, Processes, and Scope. Industrial & Engineering Chemistry Research, 2021, 60, 89-113.	1.8	151
416	Polypyridyl Co complex-based water reduction catalysts: why replace a pyridine group with isoquinoline rather than quinoline?. Dalton Transactions, 2021, 50, 2042-2049.	1.6	8
417	Perspective on intermetallics towards efficient electrocatalytic water-splitting. Chemical Science, 2021, 12, 8603-8631.	3.7	74
418	Control of hydrogen release during borohydride electrooxidation with porous carbon materials. RSC Advances, 2021, 11, 15639-15655.	1.7	9

#	Article	IF	Citations
419	Palladiumâ€“Copper Bimetallic Nanoparticles Loaded on Carbon Black for Oxygen Reduction and Zincâ€“Air Batteries. ACS Applied Nano Materials, 2021, 4, 1478-1484.	2.4	12
420	Structure and electrochemical activity of nickel aluminium fluoride nanosheets during urea electro-oxidation in an alkaline solution. RSC Advances, 2021, 11, 3190-3201.	1.7	3
421	Engendering Unprecedented Activation of Oxygen Evolution via Rational Pinning of Ni Oxidation State in Prototypical Perovskite: Close Juxtaposition of Synthetic Approach and Theoretical Conception. ACS Catalysis, 2021, 11, 985-997.	5.5	9
422	Electronic effects on polypyridyl Co complex-based water reduction catalysts. RSC Advances, 2021, 11, 24359-24365.	1.7	2
423	Singleâ€Step and Sustainable Fabrication of Ni(OH)₂/Ni Foam Water Splitting Catalysts via Electric Field Assisted Pulsed Laser Ablation in Liquid. ChemElectroChem, 2021, 8, 209-217.	1.7	13
424	Morphology and Structure Controls of Single-Atom Feâ€“Nâ€“C Catalysts Synthesized Using FePc Powders as the Precursor. Processes, 2021, 9, 109.	1.3	2
425	Influence of sulfur amount in Ni-incorporated ZnIn₂(O,S)₄ on phase formation and the visible light photocatalytic hydrogen evolution reaction. New Journal of Chemistry, 2021, 45, 10959-10970.	1.4	6
426	Nanotechnology for Electrical Energy Systems. , 2021, , 1679-1701.		0
427	Dynamics of single hydrogen bubbles at Pt microelectrodes in microgravity. Physical Chemistry Chemical Physics, 2021, 23, 11818-11830.	1.3	20
428	Efficiency enhancement in a stoichiometrically stable CdS/TiO2 nanotube heterostructure electrode for sunlight-driven hydrogen generation. New Journal of Chemistry, 2021, 45, 12838-12847.	1.4	1
429	Recent advances in metalâ€“organic framework-based photocatalysts for hydrogen production. Sustainable Energy and Fuels, 2021, 5, 1597-1618.	2.5	39
430	Controlled synthesis of ultrasmall RuP2 particles on N,P-codoped carbon as superior pH-wide electrocatalyst for hydrogen evolution. Rare Metals, 2021, 40, 1040-1047.	3.6	59
431	Carbon-polymer hybrid-supported nanomaterials for alcohol fuel cells. , 2021, , 371-387.		2
432	Potentials of Hydrogen Technologies for Sustainable Factory Systems. Procedia CIRP, 2021, 98, 583-588.	1.0	9
434	Three-dimensional tellurium and nitrogen Co-doped mesoporous carbons for high performance supercapacitors. RSC Advances, 2021, 11, 8628-8635.	1.7	10
435	Energy Generation: Sources, Challenges, and Solutions. Encyclopedia of the UN Sustainable Development Goals, 2021, , 402-412.	0.0	0
436	Photocatalytic hydrogen production of porphyrin nanostructures: spheres vs. fibrils, a case study. Chemical Communications, 2021, 57, 4055-4058.	2.2	27
437	Completely Solar-Driven Photoelectrochemical Water Splitting Using a Neat Polythiophene Film. Cell Reports Physical Science, 2021, 2, 100306.	2.8	10

#	Article	IF	Citations
438	Nanomaterials for Water Splitting: A Greener Approach to Generate Hydrogen. , 2021, , 1201-1220.		2
439	Current and Future Perspectives on Hydrogen and Fuelcells for Its Potential Application in Portable; Stationary and Transportation Sectors. , 2021, , .		1
440	Solar-driven valorisation of glycerol on BiVO₄ photoanodes: effect of co-catalyst and reaction media on reaction selectivity. Journal of Materials Chemistry A, 2021, 9, 6252-6260.	5.2	34
441	The environmental performance of a fossil-free ship propulsion system with onboard carbon capture â€“ a life cycle assessment of the HyMethShip concept. Sustainable Energy and Fuels, 2021, 5, 2753-2770.	2.5	24
442	Life-cycle greenhouse gas emissions and net energy assessment of large-scale hydrogen production via electrolysis and solar PV. Energy and Environmental Science, 2021, 14, 5113-5131.	15.6	65
443	Biomass-derived functional carbon nanomaterials for the development of futuristic energy devices. , 2021, , 317-341.		1
444	Natural DNA-assisted RuP₂ on highly graphitic N,P-codoped carbon for pH-wide hydrogen evolution. Chemical Communications, 2021, 57, 7284-7287.	2.2	15
445	Energy Conversion and Storage: The Value of Reversible Power-to-Gas Systems. SSRN Electronic Journal, 0, , .	0.4	0
446	Electrocatalytic oxidation of water using self-assembled copper(<scp>ii</scp>) tetraaza macrocyclic complexes on a 4-(pyridine-4â€²-amido)benzene grafted gold electrode. New Journal of Chemistry, 2021, 45, 8676-8682.	1.4	3
447	Electrofuels from excess renewable electricity at high variable renewable shares: cost, greenhouse gas abatement, carbon use and competition. Sustainable Energy and Fuels, 2021, 5, 828-843.	2.5	23
448	Graphene-Based Dual-Metal Sites for Oxygen Reduction Reaction: A Theoretical Study. Journal of Physical Chemistry C, 2021, 125, 2334-2344.	1.5	32
449	Enhanced PEMFC durability with graphitized carbon black cathode catalyst supports under accelerated stress testing. RSC Advances, 2021, 11, 19417-19425.	1.7	11
450	Active Load Management of Hydrogen Refuelling Stations for Increasing the Grid Integration of Renewable Generation. IEEE Access, 2021, 9, 101681-101694.	2.6	10
451	Applications of nuclear science and radioisotopes technology in power generation, hydrogen economy, and transport. , 2021, , 69-109.		0
452	Characterization of the Inclusion of Polymer Membrane for Application as Electrolyte in Direct Methanol Fuel Cell System. Environmental Science and Engineering, 2021, , 1733-1737.	0.1	0
453	A review on non-edible oil as a potential feedstock for biodiesel: physicochemical properties and production technologies. RSC Advances, 2021, 11, 25018-25037.	1.7	104
454	Elucidating the Influence of Electric Fields toward CO2 Activation on YSZ (111). Catalysts, 2021, 11, 271.	1.6	5
455	A numerical study on the active reaction thickness of nickel catalyst layers used in a low-pressure steam methane reforming process. International Journal of Hydrogen Energy, 2021, 46, 7712-7721.	3.8	11

#	Article	IF	Citations
456	Photocatalytic hydrogen evolution from biomass conversion. Nano Convergence, 2021, 8, 6.	6.3	75
457	Toward predictive permeabilities: Experimental measurements and multiscale simulation of methanol transport in Nafion. Journal of Polymer Science, 2021, 59, 594-613.	2.0	6
458	Comparative life cycle sustainability assessment of renewable and conventional hydrogen. Science of the Total Environment, 2021, 756, 144132.	3.9	43
459	A novel exergy-based assessment on a multi-production plant of power, heat and hydrogen: integration of solid oxide fuel cell, solid oxide electrolyzer cell and Rankine steam cycle. International Journal of Low-Carbon Technologies, 2021, 16, 798-813.	1.2	7
460	Drivers and Barriers to the Adoption of Fuel Cell Passenger Vehicles and Buses in Germany. Energies, 2021, 14, 833.	1.6	40
461	Highly dispersed cobalt metaphosphate nanoparticles embedded in tri-doped carbon as a pH-Wide electrocatalyst for hydrogen evolution. International Journal of Hydrogen Energy, 2021, 46, 6513-6521.	3.8	8
462	Hydrogen fuel and fuel cell technology for cleaner future: a review. Environmental Science and Pollution Research, 2021, 28, 15607-15626.	2.7	192
463	Ammonia and borane activation by Tantalum Carbide cluster anion Ta2C4â¯: A theoretical approach. International Journal of Hydrogen Energy, 2021, 46, 8401-8410.	3.8	5
464	Graph analysis of proton conduction pathways in scandium-doped barium zirconate. Journal of Chemical Physics, 2021, 154, 074711.	1.2	4
465	Surface Physicochemical Modification of Kenaf Adsorbent for Hydrogen Adsorption Study. IOP Conference Series: Materials Science and Engineering, 2021, 1051, 012058.	0.3	0
466	Study on the long-term discharge and redox stability of symmetric flat-tube solid oxide fuel cells. International Journal of Hydrogen Energy, 2021, 46, 9741-9748.	3.8	11
468	Mapping geological hydrogen storage capacity and regional heating demands: An applied UK case study. Applied Energy, 2021, 283, 116348.	5.1	89
469	Multifunctional Noble Metal Phosphide Electrocatalysts for Organic Molecule Electro-Oxidation. ACS Applied Energy Materials, 2021, 4, 1593-1600.	2.5	12
470	Highly Efficient Catalytic Two-Electron Two-Proton Reduction of Dioxygen to Hydrogen Peroxide with a Cobalt Corrole Complex. ACS Catalysis, 2021, 11, 3073-3083.	5.5	41
471	SolarEV City concept: building the next urban power and mobility systems. Environmental Research Letters, 2021, 16, 024042.	2.2	17
472	A Durable Metalloporphyrin 2Dâ€Polymer for Photocatalytic Hydrogen and Oxygen Evolution from River and Sea Waters. ChemCatChem, 2021, 13, 1717-1721.	1.8	9
473	Mutually Enhanced Catalytic Activity of Doped Cobalt in Porous MoS2 for Hydrogen Evolution Reaction. Nano, 2021, 16, 2150027.	0.5	4
474	A Review of Inorganic Photoelectrode Developments and Reactor Scaleâ€Up Challenges for Solar Hydrogen Production. Advanced Energy Materials, 2021, 11, 2003286.	10.2	51

#	Article	IF	Citations
475	Catalytic transformation of ethanol to methane and butene over NiO NPs supported over mesoporous SBA-15. Molecular Catalysis, 2021, 502, 111381.	1.0	6
476	Design of HHO generators as producers of water fuel (HHO generator product analysis based on) Tj ETQq1 1 0.784314 rgBT /Overloc 012034.	0.3	2
477	Facile and scalable ambient pressure chemical vapor deposition-assisted synthesis of layered silver selenide (Î²-Ag2Se) on Ag foil as a possible oxygen reduction catalyst in alkaline medium. Electrochimica Acta, 2021, 370, 137709.	2.6	16
478	Singleâ€Atom Catalysts: A Sustainable Pathway for the Advanced Catalytic Applications. Small, 2021, 17, e2006473.	5.2	135
479	Temperature Effect on the Topotatic Synthesis of Spinel MnCoO Nanoparticles for Efficient Oxygen Reduction Electrocatalyst. Bulletin of the Korean Chemical Society, 2021, 42, 786-791.	1.0	4
480	Acoustic time-of-flight imaging of polymer electrolyte membrane water electrolysers to probe internal structure and flow characteristics. International Journal of Hydrogen Energy, 2021, 46, 11523-11535.	3.8	5
481	Well-Defined Fluorinated Copolymers: Current Status and Future Perspectives. Accounts of Materials Research, 2021, 2, 242-251.	5.9	31
482	An insight into potential early adopters of hydrogen fuel-cell vehicles in Japan. International Journal of Hydrogen Energy, 2021, 46, 10589-10607.	3.8	45
483	Recent advancement in consolidation of MOFs as absorbents for hydrogen storage. International Journal of Energy Research, 2021, 45, 12481-12499.	2.2	32
484	Nanoporous Silver Telluride for Active Hydrogen Evolution. ACS Nano, 2021, 15, 6540-6550.	7.3	10
485	Numerical optimization of evaporative cooling in artificial gas diffusion layers. Applied Thermal Engineering, 2021, 186, 116460.	3.0	8
486	Electrochemically Decorated Iridium Electrodes with WS_{3â^'}_x Toward Improved Oxygen Evolution Electrocatalyst Stability in Acidic Electrolytes. Advanced Sustainable Systems, 2021, 5, 2000284.	2.7	8
487	Enhanced Lightâ€Driven Hydrogen Production by Selfâ€Photosensitized Biohybrid Systems. Angewandte Chemie - International Edition, 2021, 60, 9055-9062.	7.2	61
488	Review on mechanisms and recovery procedures for reversible performance losses in polymer electrolyte membrane fuel cells. Journal of Power Sources, 2021, 488, 229375.	4.0	34
489	The initiation and progression of damage in composite overwrapped pressure vessels subjected to contact loads. Journal of Reinforced Plastics and Composites, 2021, 40, 594-605.	1.6	8
490	Nonâ€Platinum Group Metal Electrocatalysts toward Efficient Hydrogen Oxidation Reaction. Advanced Functional Materials, 2021, 31, 2010633.	7.8	54
491	Synthesis of Cobalt Oxide on FTO by Hydrothermal Method for Photoelectrochemical Water Splitting Application. Applied Sciences (Switzerland), 2021, 11, 3031.	1.3	13
492	Fuel cell electric vehicles and hydrogen balancing 100 percent renewable and integrated national transportation and energy systems. Energy Conversion and Management: X, 2021, 9, 100077.	0.9	16

#	Article	IF	Citations
493	Mechanism of the platinum nanoparticles formation under conditions of nonstationary electrolysis. Mendeleev Communications, 2021, 31, 224-226.	0.6	2
494	Increased Revenue with High Value-Added Products from Cashew Apple (Anacardium occidentale) Tj ETQq1 1 0.784314 rgBT /Overlock	2.6	16
495	Covalent Organic Frameworks for Efficient Energy Electrocatalysis: Rational Design and Progress. Advanced Energy and Sustainability Research, 2021, 2, 2000090.	2.8	29
496	Evaluating the effect of membrane-ionomer combinations and supporting electrolytes on the performance of cobalt nanoparticle anodes in anion exchange membrane electrolyzers. Journal of Power Sources, 2021, 488, 229433.	4.0	20
497	A First-Principles Study of Hydrogen Desorption from High Entropy Alloy TiZrVMoNb Hydride Surface. Metals, 2021, 11, 553.	1.0	4
498	PEMFC application through coal gasification along with cost-benefit analysis: A case study for South Africa. Energy Exploration and Exploitation, 2021, 39, 1551-1587.	1.1	5
499	Adsorption for efficient low carbon hydrogen production: part 1â€"adsorption equilibrium and breakthrough studies for H2/CO2/CH4 on zeolite 13X. Adsorption, 2021, 27, 541-558.	1.4	23
500	Insight into the influence of doped oxygen on active sites of molybdenum sulfide materials in hydrogen evolution reaction. International Journal of Hydrogen Energy, 2021, 46, 11721-11730.	3.8	5
501	South Koreaâ€™s hydrogen economy program as a case of weak ecological modernization. Asia Europe Journal, 2021, 19, 209-226.	0.7	8
502	The design space for long-duration energy storage in decarbonized power systems. Nature Energy, 2021, 6, 506-516.	19.8	236
503	Design of Nanoalloyed Catalysts for Hydrogen Production Processes. Nanobiotechnology Reports, 2021, 16, 195-201.	0.2	2
504	Enhanced Lightâ€Driven Hydrogen Production by Selfâ€Photosensitized Biohybrid Systems. Angewandte Chemie, 2021, 133, 9137-9144.	1.6	6
505	Electrocatalytic Efficiency of the Oxidation of Ethylene Glycol, Glycerol, and Glucose under Oscillatory Regime. Energy & Fuels, 2021, 35, 6202-6209.	2.5	16
506	Waste paper derived Co, N co-doped carbon as an efficient electrocatalyst for hydrogen evolution. Reaction Kinetics, Mechanisms and Catalysis, 2021, 132, 1137-1150.	0.8	3
507	Synthesis of vinyl polymers substituted with 2-propanol and acetone and investigation of their reversible hydrogen storage capabilities. Polymer Journal, 2021, 53, 799-804.	1.3	8
508	Performance degradation and process engineering of the 10ÂkW proton exchange membrane fuel cell stack. Energy, 2021, 219, 119623.	4.5	41
509	Sensing advancement towards safety assessment of hydrogen fuel cell vehicles. Journal of Power Sources, 2021, 489, 229450.	4.0	80
510	Transitioning to clean energy transportation services: Life-cycle cost analysis for vehicle fleets. Applied Energy, 2021, 285, 116408.	5.1	28

#	Article	IF	Citations
511	An Overview on Pt₃X Electrocatalysts for Oxygen Reduction Reaction. Chemistry - an Asian Journal, 2021, 16, 1184-1197.	1.7	7
512	Rod-shaped Î±-MnO2 electrocatalysts with high Mn3+ content for oxygen reduction reaction and Zn-air battery. Journal of Alloys and Compounds, 2021, 860, 158427.	2.8	17
513	Density functional theory study of the sulfur/oxygen doped CoN4-graphene electrocatalyst for oxygen reduction reaction. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2021, 615, 126219.	2.3	15
514	Potential of hydrogen replacement in natural-gas-powered fuel cells in Busan, South Korea based on the 2050 clean energy Master Plan of Busan Metropolitan City. Energy, 2021, 221, 119783.	4.5	19
515	Decarbonization in Shipping Industry: A Review of Research, Technology Development, and Innovation Proposals. Journal of Marine Science and Engineering, 2021, 9, 415.	1.2	116
516	Recent developments on methanol as liquid organic hydrogen carrier in transfer hydrogenation reactions. Coordination Chemistry Reviews, 2021, 433, 213728.	9.5	57
517	Redox-Mediated Water Splitting for Decoupled H₂ Production. , 2021, 3, 641-651.		57
518	Fermentation of Biodegradable Organic Waste by the Family Thermotogaceae. Resources, 2021, 10, 34.	1.6	13
519	Energy System Modelling Challenges for Synthetic Fuels. Johnson Matthey Technology Review, 2021, 65, 263-274.	0.5	2
520	Experimental Procedures & First Results of an Innovative Solid Oxide Fuel Cell Test Rig: Parametric Analysis and Stability Test. Energies, 2021, 14, 2038.	1.6	8
521	Modification of Ruddlesden-Popper-type Nd2-xNi0.75Cu0.2M0.05O4Â±Î´ by the Nd-site cationic deficiency and doping with Sc, Ga or In: Crystal structure, oxygen content, transport properties and oxygen permeability. Journal of Solid State Chemistry, 2021, 296, 121982.	1.4	4
522	Sustainability footprints of a renewable carbon transition for the petrochemical sector within planetary boundaries. One Earth, 2021, 4, 565-583.	3.6	87
523	Understanding the role of soft linkers in designing hepatzine-based polymeric frameworks as heterogeneous (photo)catalyst. Journal of Colloid and Interface Science, 2021, 588, 138-146.	5.0	7
524	Thermally-assisted milling and hydrogenolysis for synthesizing ultrafine MgH₂ with destabilized thermodynamics. Nanotechnology, 2021, 32, 285402.	1.3	8
525	Electrolyzer and Catalysts Design from Carbon Dioxide to Carbon Monoxide Electrochemical Reduction. Electrochemical Energy Reviews, 2021, 4, 680-717.	13.1	26
526	Optimization of cathode microporous layer materials for proton exchange membrane fuel cell. International Journal of Hydrogen Energy, 2021, 46, 14674-14686.	3.8	15
527	Scenarios for the integration of renewable gases into the German natural gas market â€“ A simulation-based optimisation approach. Renewable and Sustainable Energy Reviews, 2021, 139, 110696.	8.2	18
528	Metalâ€Organic Frameworks Nanocomposites with Different Dimensionalities for Energy Conversion and Storage. Advanced Energy Materials, 2022, 12, 2100346.	10.2	86

#	Article	IF	Citations
529	Mesoporous Rh nanoparticles as efficient electrocatalysts for hydrogen evolution reaction. Journal of Industrial and Engineering Chemistry, 2021, 96, 371-375.	2.9	15
530	Dehydrogenation of Formic Acid in Liquid Phase over Pd Nanoparticles Supported on Reduced Graphene Oxide Sheets. Catalysis Surveys From Asia, 2021, 25, 324-333.	1.0	30
531	On the limitations in assessing stability of oxygen evolution catalysts using aqueous model electrochemical cells. Nature Communications, 2021, 12, 2231.	5.8	100
532	The Deltah Lab, a New Multidisciplinary European Facility to Support the H2 Distribution & Storage Economy. Applied Sciences (Switzerland), 2021, 11, 3272.	1.3	3
533	Global modeling of hydrogen using GFDL-AM4.1: Sensitivity of soil removal and radiative forcing. International Journal of Hydrogen Energy, 2021, 46, 13446-13460.	3.8	20
534	Thermo-economic analysis of Phosphoric Acid Fuel-Cell (PAFC) integrated with Organic Ranking Cycle (ORC). Energy, 2021, 220, 119744.	4.5	30
535	A comparative study of odorants for gas escape detection of natural gas and hydrogen. International Journal of Hydrogen Energy, 2021, 46, 14881-14893.	3.8	18
536	Transition Metal/Metal Oxide Interface (Niâ€“Moâ€“O/Ni₄Mo) Stabilized on N-Doped Carbon Paper for Enhanced Hydrogen Evolution Reaction in Alkaline Conditions. Industrial & Engineering Chemistry Research, 2021, 60, 5145-5150.	1.8	19
537	Understanding the Role of Rare Earths in Zeolite Y on the Removal of Sulfur from Hydrocarbon Fuels. Journal of Physical Chemistry C, 2021, 125, 9107-9118.	1.5	7
538	A Monte Carlo simulation study of hydrogen adsorption in slit-shaped pores. Microporous and Mesoporous Materials, 2021, 317, 110970.	2.2	16
539	Surface Engineering of 2D Carbon Nitride with Cobalt Sulfide Cocatalyst for Enhanced Photocatalytic Hydrogen Evolution. Physica Status Solidi (A) Applications and Materials Science, 2021, 218, 2100012.	0.8	6
540	Functionalization and Characterization of Silicon Nanowires for Sensing Applications: A Review. Nanomaterials, 2021, 11, 999.	1.9	25
541	A Study on a Combined DMFC-Lithium Battery Hybrid System for a Forklift. Journal of the Korean Society of Manufacturing Process Engineers, 2021, 20, 57-65.	0.1	0
542	Controlling Radical Intermediates in Photocatalytic Conversion of Low-Carbon-Number Alcohols. ACS Sustainable Chemistry and Engineering, 2021, 9, 6188-6202.	3.2	18
543	A Generalized Method for Highâ€Speed Fluorination of Metal Oxides by Spark Plasma Sintering Yields Ta₃O₇F and TaO₂F with High Photocatalytic Activity for Oxygen Evolution from Water. Advanced Materials, 2021, 33, e2007434.	11.1	24
544	Introducing a novel technique for measuring hydrogen crossover in membrane-based electrochemical cells. International Journal of Hydrogen Energy, 2021, 46, 15161-15167.	3.8	17
545	Be2+ and Mg2+-decorated sulflower: Potential systems for molecular hydrogen storage. International Journal of Hydrogen Energy, 2021, 46, 17827-17839.	3.8	4
546	Transition Metal-Based 2D Layered Double Hydroxide Nanosheets: Design Strategies and Applications in Oxygen Evolution Reaction. Nanomaterials, 2021, 11, 1388.	1.9	24

#	Article	IF	Citations
547	Identification of the Active Sites of NiCo₂O₄and the Support Effect with Carbon Nanotubes for Oxygen Reduction Catalysis. Langmuir, 2021, 37, 6330-6336.	1.6	21
548	Reductive Formylation of Nitroarenes using HCOOH over Bimetallic Câ^'N Framework Derived from the Integration of MOF and COF. ChemCatChem, 2021, 13, 3174-3183.	1.8	22
549	A review on recent advances in hydrogen energy, fuel cell, biofuel and fuel refining via ultrasound process intensification. Ultrasonics Sonochemistry, 2021, 73, 105536.	3.8	59
550	Review of the Decomposition of Ammonia to Generate Hydrogen. Industrial & Engineering Chemistry Research, 2021, 60, 18560-18611.	1.8	159
551	Screening of commercial catalysts for steam reforming of olive mill wastewater. Renewable Energy, 2021, 169, 765-779.	4.3	16
552	Modifying Carbon Supports of Catalyst for the Oxygen Reduction Reaction in Vehicle PEMFCs. Automotive Innovation, 2021, 4, 119-130.	3.1	15
553	Food Waste: A Promising Source of Sustainable Biohydrogen Fuel. Trends in Biotechnology, 2021, 39, 1274-1288.	4.9	36
554	Ru-supported lanthania-ceria composite as an efficient catalyst for COx-free H2 production from ammonia decomposition. Applied Catalysis B: Environmental, 2021, 285, 119831.	10.8	54
555	Friction and wear of PTFE composites with different filler in high purity hydrogen gas. Tribology International, 2021, 157, 106884.	3.0	33
556	Long-distance renewable hydrogen transmission via cables and pipelines. International Journal of Hydrogen Energy, 2021, 46, 18699-18718.	3.8	53
557	Enhancement of Steel Sandwich Sheet Adhesion Using Mechanical Interlocking Structures Formed by Electrochemical Etching. Langmuir, 2021, 37, 6702-6710.	1.6	5
558	Effect of Counteranions in Electrocatalytic Hydrogen Generation Promoted by Bis(phosphinopyridyl) Ni(II) Complexes. Inorganic Chemistry, 2021, 60, 7670-7679.	1.9	5
559	A review on the recent developments of ruthenium and nickel catalysts for COx-free H2 generation by ammonia decomposition. Korean Journal of Chemical Engineering, 2021, 38, 1087-1103.	1.2	46
560	Electrochemical behavior of the flower shaped CoMn2O4 spinel structure assembled for effective HER from water splitting. Electrochimica Acta, 2021, 379, 138168.	2.6	26
561	A Bifunctional 2D Interlayered Î²â€Cu₂V₂O₇/Zn₂V₂O₆ (CZVO) Heterojunction for Solarâ€Driven Nonsacrificial Dye Degradation and Water Oxidation. Energy Technology, 2021, 9, 2100034.	1.8	27
562	Electrocatalytic fuel cell desalination for continuous energy and freshwater generation. Cell Reports Physical Science, 2021, 2, 100416.	2.8	12
563	Effect of Î´-ferrite on susceptibility to hydrogen embrittlement of 304 austenitic stainless steel in high-pressure hydrogen atmosphere. Anti-Corrosion Methods and Materials, 2021, 68, 202-208.	0.6	1
564	In-situ transformational mycelium-like metal phosphides-encapsulated carbon nanotubes coating on the stainless steel mesh as robust self-supporting electrocatalyst for water splitting. Applied Surface Science, 2021, 549, 149227.	3.1	7

#	Article	IF	Citations
565	Ammonia as an energy vector: Current and future prospects for low-carbon fuel applications in internal combustion engines. Journal of Cleaner Production, 2021, 296, 126562.	4.6	194
566	Effects of ratio variation in substrate and micro porous layer penetration on polymer exchange membrane fuel cell performance. International Journal of Hydrogen Energy, 2021, 46, 18615-18629.	3.8	22
567	Exploring the Synthesis, Band Edge Insights, and Photoelectrochemical Water Splitting Properties of Lead Vanadates. ACS Applied Materials & Interfaces, 2021, 13, 25906-25917.	4.0	12
568	Stabilisation wedges: measuring progress towards transforming the global energy and land use systems. Environmental Research Letters, 2021, 16, 064011.	2.2	6
569	Enhanced catalytic activity of Ru through N modification toward alkaline hydrogen electrocatalysis. Chinese Chemical Letters, 2022, 33, 1065-1069.	4.8	31
570	One-Step synthesis of PtFe/CeO2 catalyst for the Co-Preferential oxidation reaction at low temperatures. International Journal of Hydrogen Energy, 2021, 46, 17751-17762.	3.8	14
571	Critical hydrogen concentration of hydrogen-natural gas blends in clathrate hydrates for blue hydrogen storage. Renewable and Sustainable Energy Reviews, 2021, 141, 110789.	8.2	35
572	Boron-modified cobalt iron layered double hydroxides for high efficiency seawater oxidation. Nano Energy, 2021, 83, 105838.	8.2	132
573	Electrochemical Anodic Formation of VO2 Nanotubes and Hydrogen Sorption Property. Journal of Electrochemical Science and Technology, 2021, 12, 212-216.	0.9	3
574	Synthesis of Sulfonated Poly(Arylene Ether Sulfone)s Containing Aliphatic Moieties for Effective Membrane Electrode Assembly Fabrication by Low-Temperature Decal Transfer Methods. Polymers, 2021, 13, 1713.	2.0	5
575	Surface/Nearâ€Surface Structure of Highly Active and Durable Ptâ€Based Catalysts for Oxygen Reduction Reaction: A Review. Advanced Energy and Sustainability Research, 2021, 2, 2100025.	2.8	4
577	Two-dimensional vanadium carbide for simultaneously tailoring the hydrogen sorption thermodynamics and kinetics of magnesium hydride. Journal of Magnesium and Alloys, 2022, 10, 1051-1065.	5.5	55
578	Electrical and gas networks coupling through hydrogen blending under increasing distributed photovoltaic generation. Applied Energy, 2021, 290, 116764.	5.1	39
579	Autothermal Reforming of Low-Sulfur Commercial Diesel Fuel Using Dual Catalyst Configuration of Rh/CeO₂ and Rh/Al₂O₃ for Hydrogen-Rich Syngas Production. Industrial & Engineering Chemistry Research, 2021, 60, 7775-7787.	1.8	5
580	Proton conductivity and performance in fuel cells of grafted membranes based on polymethylpentene with radiation-grafted crosslinked sulfonated polystyrene. International Journal of Hydrogen Energy, 2021, 46, 16999-17006.	3.8	9
581	A New Hydrogen Sensor Fault Diagnosis Method Based on Transfer Learning With LeNet-5. Frontiers in Neurorobotics, 2021, 15, 664135.	1.6	13
582	Are Pakistani construction professionals truly happy? A benchmarking approach. Ain Shams Engineering Journal, 2021, 12, 3579-3591.	3.5	7
583	Advanced Applications of Fuel Cells during the COVID-19 Pandemic. International Journal of Chemical Engineering, 2021, 2021, 1-9.	1.4	11

#	Article	IF	Citations
584	Japan and the UK: Emission predictions of electric and hydrogen trains to 2050. Transportation Research Interdisciplinary Perspectives, 2021, 10, 100344.	1.6	14
585	Self-Assembly of Porphyrin Dipeptide Conjugates toward Hydrogen Production. ACS Sustainable Chemistry and Engineering, 2021, 9, 7781-7791.	3.2	18
586	Green hydrogen-based pathways and alternatives: Towards the renewable energy transition in South America's regions â€“ Part A. International Journal of Hydrogen Energy, 2021, 46, 22247-22255.	3.8	33
587	CHARACTERIZING THE HYDROGEN TRANSPORT PROPERTIES OF RUBBERY POLYMERS BY GRAVIMETRIC ANALYSIS. Rubber Chemistry and Technology, 2021, , .	0.6	0
588	One-step fabrication of heterostructured CoNi-LDH@NiCo alloy for effective alkaline hydrogen evolution. International Journal of Hydrogen Energy, 2021, 46, 22789-22798.	3.8	18
589	Cost Dynamics of Clean Energy Technologies. Schmalenbachs Zeitschrift Fur Betriebswirtschaftliche Forschung, 2021, 73, 179-206.	0.5	16
590	Magnetic Co-Pd/C Nanocomposites for Hydrogen Evolution upon the Hydrolytic Dehydrogenation of NH₃BH₃, NaBH₄, and Me₂NHBH₃. ACS Applied Nano Materials, 2021, 4, 7479-7485.	2.4	32
591	Pore Modification and Phosphorus Doping Effect on Phosphoric Acid-Activated Fe-N-C for Alkaline Oxygen Reduction Reaction. Nanomaterials, 2021, 11, 1519.	1.9	3
592	Liquid water transport and mechanical performance of electrospun gas diffusion layers. International Journal of Green Energy, 2022, 19, 210-218.	2.1	14
593	The dispersed SiO2 microspheres supported Ru catalyst with enhanced activity for ammonia decomposition. International Journal of Hydrogen Energy, 2021, 46, 20815-20824.	3.8	21
594	A framework for assessing economics of blue hydrogen production from steam methane reforming using carbon capture storage & utilisation. International Journal of Hydrogen Energy, 2021, 46, 22685-22706.	3.8	110
595	Intrinsic effects of thickness, surface chemistry and electroactive area on nanostructured MoS2 electrodes with superior stability for hydrogen evolution. Electrochimica Acta, 2021, 382, 138257.	2.6	9
596	Ensemble-boosting effect of Ru-Cu alloy on catalytic activity towards hydrogen evolution in ammonia borane hydrolysis. Applied Catalysis B: Environmental, 2021, 287, 119960.	10.8	82
597	Sol-gel/hydrothermal two-step synthesis strategy for promoting Ag speciesâ€“modified TiO2-based composite activity towardÂH2 evolution under solar light. Materials Today Energy, 2021, 20, 100648.	2.5	7
598	A review on cobalt phosphate-based materials as emerging catalysts for water splitting. Ceramics International, 2021, 47, 16385-16401.	2.3	40
599	Solar hydrogen from North Africa to Europe through greenstream: A simulation-based analysis of blending scenarios and production plant sizing. International Journal of Hydrogen Energy, 2021, 46, 22618-22637.	3.8	21
600	Simulation study for 3D dynamic characteristics of voltage losses in PEM fuel cell. Cumhuriyet Science Journal, 2021, 42, 358-363.	0.1	0
601	Hydrogen energy: development prospects and materials. Russian Chemical Reviews, 2021, 90, 627-643.	2.5	115

#	Article	IF	Citations
602	Low emission vehicle integration: Will National Grid electricity generation mix meet UK net zero?. Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy, 2022, 236, 159-175.	0.8	11
603	A Review of Heavy-Duty Vehicle Powertrain Technologies: Diesel Engine Vehicles, Battery Electric Vehicles, and Hydrogen Fuel Cell Electric Vehicles. Clean Technologies, 2021, 3, 474-489.	1.9	114
604	Novel anion exchange membrane with poly ionic liquid-confined hypercrosslinked polymer for enhanced anion conduction and stability. International Journal of Hydrogen Energy, 2021, 46, 21590-21599.	3.8	11
605	Understanding New Zealandâ€™s wind resources as a route to 100% renewable electricity. Renewable Energy, 2021, 170, 449-461.	4.3	18
606	Uniformly Dispersed Ru Nanoparticles Constructed by In Situ Confined Polymerization of Ionic Liquids for the Electrocatalytic Hydrogen Evolution Reaction. Small Methods, 2021, 5, e2100505.	4.6	23
607	Comprehensive Investigation of Solar-Based Hydrogen and Electricity Production in Iran. International Journal of Photoenergy, 2021, 2021, 1-14.	1.4	36
608	Technoeconomic analysis for hydrogen and carbon Co-Production via catalytic pyrolysis of methane. International Journal of Hydrogen Energy, 2021, 46, 20338-20358.	3.8	40
609	Techno-economic and life cycle greenhouse gas emissions assessment of liquefied natural gas supply chain in China. Energy, 2021, 224, 120049.	4.5	13
610	An alkaline fuel cell/direct contact membrane distillation hybrid system for cogenerating electricity and freshwater. Energy, 2021, 225, 120303.	4.5	25
611	Life cycle assessment of renewable hydrogen for fuel cell passenger vehicles in California. Sustainable Energy Technologies and Assessments, 2021, 45, 101188.	1.7	16
612	Designing optimal integrated electricity supply configurations for renewable hydrogen generation in Australia. IScience, 2021, 24, 102539.	1.9	28
613	Hydrogen Environmental Benefits Depend on the Way of Production: An Overview of the Main Processes Production and Challenges by 2050. Advanced Energy and Sustainability Research, 2021, 2, 2100093.	2.8	22
614	Ballâ€Milling Effect on Biomassâ€Derived Nanocarbon Catalysts for the Oxygen Reduction Reaction. ChemistrySelect, 2021, 6, 6019-6028.	0.7	10
615	Surface Sulfur Vacancy Engineering of Metal Sulfides Promoted Desorption of Hydrogen Atoms for Enhanced Electrocatalytic Hydrogen Evolution. Journal of Physical Chemistry C, 2021, 125, 12707-12712.	1.5	21
616	In-situ transformation obtained defect-rich porous hollow CuO@CoZn-LDH nanoarrays as self-supported electrode for highly efficient overall water splitting. Chemical Engineering Journal, 2021, 414, 128809.	6.6	64
617	Green hydrogen potentials from surplus hydro energy in Nepal. International Journal of Hydrogen Energy, 2021, 46, 22256-22267.	3.8	61
618	The origin of the high electrochemical activity of pseudo-amorphous iridium oxides. Nature Communications, 2021, 12, 3935.	5.8	56
619	Toward alkaline-stable anion exchange membranes in fuel cells: cycloaliphatic quaternary ammonium-based anion conductors. Electrochemical Energy Reviews, 2022, 5, 348-400.	13.1	62

#	Article	IF	Citations
620	Integrating heteromixtured Cu2O/CuO photocathode interface through a hydrogen treatment for photoelectrochemical hydrogen evolution reaction. Applied Surface Science, 2021, 551, 149375.	3.1	20
621	Risk Assessment Method Combining Independent Protection Layers (IPL) of Layer of Protection Analysis (LOPA) and RISKCURVES Software: Case Study of Hydrogen Refueling Stations in Urban Areas. Energies, 2021, 14, 4043.	1.6	13
622	An overview on the development of <scp>nanofiberâ€based</scp> as polymer electrolyte membrane and electrocatalyst in fuel cell application. International Journal of Energy Research, 2021, 45, 18441-18472.	2.2	21
623	Ceiling temperature assessment of a reduced scale tunnel in the event of two hydrogen jet fires. Safety in Extreme Environments, 2021, 3, 133-142.	1.8	6
624	Graphene nickel copper nanocomposite (Gr@NiCu NCs) as a binder free electrode for high energy density supercapacitor and antimicrobial application. Journal of Materiomics, 2021, 7, 815-827.	2.8	15
625	Simulation of a Natural Gas Steam Reforming Plant for Hydrogen Production Optimization. Chemical Engineering and Technology, 2021, 44, 1651-1659.	0.9	10
626	Transforming Zn(O,S) from UV to visible-light-driven catalyst with improved hydrogen production rate: Effect of indium and heterojunction. Journal of Alloys and Compounds, 2021, 869, 159316.	2.8	9
627	High-surface-area organic matrix tris(aza)pentacene supported platinum nanostructures as selective electrocatalyst for hydrogen oxidation/evolution reaction and suppressive for oxygen reduction reaction. International Journal of Hydrogen Energy, 2021, 46, 25039-25049.	3.8	4
628	An Integral Method for Natural Convection of Van Der Waals Gases over a Vertical Plate. Energies, 2021, 14, 4537.	1.6	6
629	The Role of Computer Remote Monitoring Technology for Nursing Care in Elderly Breast Cancer Complications. Journal of Healthcare Engineering, 2021, 2021, 1-9.	1.1	1
630	Highly Stable NiCoZn Ternary Mixed-Metal-Oxide Nanorods as a Low-Cost, Non-Noble Electrocatalyst for Methanol Electro-Oxidation in Alkaline Medium. Energy & Fuels, 2021, 35, 12507-12515.	2.5	21
631	Synthesis of ionic polybenzimidazoles with broad ion exchange capacity range for anion exchange membrane fuel cell application. Journal of Polymer Science, 2021, 59, 2069-2081.	2.0	8
632	Microbial electrohydrogenesis cell and dark fermentation integrated system enhances biohydrogen production from lignocellulosic agricultural wastes: Substrate pretreatment towards optimization. Renewable and Sustainable Energy Reviews, 2021, 145, 111078.	8.2	49
633	Oxidative Conversion of Glucose to Formic Acid as a Renewable Hydrogen Source Using an Abundant Solid Base Catalyst. ChemistryOpen, 2021, 10, 954-959.	0.9	7
634	Progresses in Analytical Design of Distribution Grids and Energy Storage. Energies, 2021, 14, 4270.	1.6	3
635	Ionic liquid-impregnated covalent organic framework/silk nanofibril composite membrane for efficient proton conduction. Chemical Engineering Journal, 2021, 415, 129021.	6.6	48
636	Molecular Control of Carbonâ€Based Oxygen Reduction Electrocatalysts through Metal Macrocyclic Complexes Functionalization. Advanced Energy Materials, 2021, 11, 2100866.	10.2	60
637	Surface phosphorization of nickel oxalate nanosheets to stabilize ultrathin nickel cyclotetraphosphate nanosheets for efficient hydrogen generation. Materials Research Bulletin, 2021, 139, 111275.	2.7	3

#	Article	IF	Citations
638	Hydrogen for Maritime Applicationâ€"Quality of Hydrogen Generated Onboard Ship by Electrolysis of Purified Seawater. Processes, 2021, 9, 1252.	1.3	9
639	Volumetric analysis technique for analyzing the transport properties of hydrogen gas in cylindrical-shaped rubbery polymers. Polymer Testing, 2021, 99, 107147.	2.3	17
640	The Key Techno-Economic and Manufacturing Drivers for Reducing the Cost of Power-to-Gas and a Hydrogen-Enabled Energy System. Hydrogen, 2021, 2, 273-300.	1.7	29
641	Improvement of Hydrogen Oxidation Reaction in Anion Exchange Membrane Fuel Cells with Ruthenium-based Nanoparticle Catalysts. Journal of the Japan Petroleum Institute, 2021, 64, 166-171.	0.4	2
642	Phase- and Surface Composition-Dependent Electrochemical Stability of Ir-Ru Nanoparticles during Oxygen Evolution Reaction. ACS Catalysis, 2021, 11, 9300-9316.	5.5	79
643	Designing the next generation of proton-exchange membrane fuel cells. Nature, 2021, 595, 361-369.	13.7	1,012
644	Synergistic Electrocatalytic Hydrogen Evolution in Ni/NiS Nanoparticles Wrapped in Multi-Heteroatom-Doped Reduced Graphene Oxide Nanosheets. ACS Applied Materials & Interfaces, 2021, 13, 34043-34052.	4.0	33
645	Imaging Heterogeneous Electrocatalyst Stability and Decoupling Degradation Mechanisms in Operating Hydrogen Fuel Cells. ACS Energy Letters, 2021, 6, 2742-2749.	8.8	26
646	The role of hydrogen in the transition from a petroleum economy to a low-carbon society. International Journal of Hydrogen Energy, 2021, 46, 23125-23138.	3.8	89
647	Rational construction of hierarchical Ni(OH)2â€"NiS in-plane edge hybrid nanosheet structures on the carbon cloth as a robust catalyst for electro-oxidation of urea. Journal of Alloys and Compounds, 2021, 870, 159486.	2.8	17
648	Optimal supply chains and power sector benefits of green hydrogen. Scientific Reports, 2021, 11, 14191.	1.6	49
649	Fe₃O₄/ZrO₂ Composite as a Robust Chemical Looping Oxygen Carrier: A Kinetics Study on the Reduction Process. ACS Applied Energy Materials, 2021, 4, 7091-7100.	2.5	11
650	Targeting Global Environmental Challenges by the Means of Novel Multimodal Transport: Concept of Operations. , 2021, , .		4
651	Experimental and theoretical investigation of the control and balance of active sites on oxygen plasma-functionalized MoSe2 nanosheets for efficient hydrogen evolution reaction. Applied Catalysis B: Environmental, 2021, 288, 119983.	10.8	40
652	Advantageous metal-atom-escape towards super-hydrophilic interfaces assembly for efficient overall water splitting. Journal of Power Sources, 2021, 499, 229941.	4.0	75
653	Reutilizing Methane Reforming Spent Catalysts as Efficient Overall Water-Splitting Electrocatalysts. ACS Omega, 2021, 6, 21316-21326.	1.6	16
654	<scp> (La,Sr)(Ti,Fe)O _{3â^' Î´} </scp> perovskite with inâ€situ constructed <scp> FeNi ₃ </scp> nanoparticles as fuel electrode for reversible solid oxide cell. International Journal of Energy Research, 2021, 45, 21264-21273.	2.2	11
655	Modifying Ionic Membranes with Carbon Dots Enables Direct Production of High-Purity Hydrogen through Water Electrolysis. ACS Applied Materials & Interfaces, 2021, 13, 39304-39310.	4.0	6

#	Article	IF	Citations
656	Au Coated Printed Circuit Board Current Collectors Using a Pulse Electroplating Method for Fuel Cell Applications. Energies, 2021, 14, 4960.	1.6	2
657	Applying Endogenous Learning Models in Energy System Optimization. Energies, 2021, 14, 4819.	1.6	10
658	Technology or behaviour? Balanced disruption in the race to net zero emissions. Energy Research and Social Science, 2021, 78, 102124.	3.0	26
659	Synthesis of 1,3-diketones from esters via liberation of hydrogen. Chem Catalysis, 2021, 1, 681-690.	2.9	25
660	Structures and properties of polymers in ion exchange membranes for hydrogen generation by water electrolysis. Polymers for Advanced Technologies, 2021, 32, 4598-4615.	1.6	12
661	Ultra-high gas barrier composites with aligned graphene flakes and polyethylene molecules for high-pressure gas storage tanks. Journal of Energy Storage, 2021, 40, 102692.	3.9	12
662	Strategies to improve viability of a circular carbon bioeconomy-A techno-economic review of microbial electrosynthesis and gas fermentation. Water Research, 2021, 201, 117306.	5.3	43
663	A hybrid perspective on energy transition pathways: Is hydrogen the key for Norway?. Energy Research and Social Science, 2021, 78, 102116.	3.0	31
664	Comprehensive Review on Fuel Cell Technology for Stationary Applications as Sustainable and Efficient Poly-Generation Energy Systems. Energies, 2021, 14, 4963.	1.6	95
665	From NiMoO₄ to Î³-NiOOH: Detecting the Active Catalyst Phase by Time Resolved in Situ and Operando Raman Spectroscopy. ACS Nano, 2021, 15, 13504-13515.	7.3	93
666	Ultralow Ru Incorporated Amorphous Cobaltâ€Based Oxides for Highâ€Currentâ€Density Overall Water Splitting in Alkaline and Seawater Media. Small, 2021, 17, e2102777.	5.2	144
667	Role of Fe Species of Ni-Based Catalysts for Efficient Low-Temperature Ethanol Steam Reforming. Jacs Au, 2021, 1, 1459-1470.	3.6	29
668	Promising Isotope Effect in Pd77Ag23 for Hydrogen Separation. ChemEngineering, 2021, 5, 51.	1.0	2
669	First approaches for hydrogen production by the depolarized electrolysis of SO2 using phosphoric acid doped polybenzimidazole membranes. International Journal of Hydrogen Energy, 2021, 46, 29763-29773.	3.8	8
670	Recent Developments in Microbial Electrolysis Cell-Based Biohydrogen Production Utilizing Wastewater as a Feedstock. Sustainability, 2021, 13, 8796.	1.6	53
671	Spatial Confinement of Electron-Rich Ni Nanoparticles for Efficient Ammonia Decomposition to Hydrogen Production. ACS Catalysis, 2021, 11, 10345-10350.	5.5	49
672	Engineering Catalyst Layers for Nextâ€Generation Polymer Electrolyte Fuel Cells: A Review of Design, Materials, and Methods. Advanced Energy Materials, 2021, 11, 2101025.	10.2	85
673	Optimal hydrogen production in a wind-dominated zero-emission energy system. Advances in Applied Energy, 2021, 3, 100032.	6.6	36

#	Article	IF	Citations
674	Efficiency and energetic analysis of the production of gaseous green fuels from the compressed steam and supercritical water gasification of waste lube oils. Journal of Supercritical Fluids, 2021, 174, 105267.	1.6	1
675	Mathematical Modeling of Preferential CO Oxidation Reactions under Advectionâ€“Diffusion Conditions in a 3D-Printed Reactive Monolith. Industrial & Engineering Chemistry Research, 0, , .	1.8	0
676	Evaluating the use of unassimilated bioâ€anode with different exposed surface areas for bioenergy production using solarâ€powered microbial electrolysis cell. International Journal of Energy Research, 2021, 45, 20143-20155.	2.2	8
677	Single-atom nickel anchored on surface of molybdenum disulfide for efficient hydrogen evolution. Journal of Electroanalytical Chemistry, 2021, 894, 115359.	1.9	9
678	Co/MoS2 nanocomposite catalyzed H2 evolution upon dimethylamine-borane hydrolysis and in situ tandem reaction. Inorganic Chemistry Communication, 2021, 130, 108691.	1.8	12
679	Addressing a basic issue. Nature Energy, 2021, 6, 779-780.	19.8	8
680	Demonstration of a single-stage metal hydride hydrogen compressor composed of BCC V40TiCr alloy. International Journal of Hydrogen Energy, 2021, 46, 28180-28190.	3.8	11
681	Nickel phthalocyanine@graphene oxide/TiO2 as an efficient degradation catalyst of formic acid toward hydrogen production. Scientific Reports, 2021, 11, 16148.	1.6	29
682	Facile fabrication of bimetallic Fe2Pâ€“Ni2P heterostructure for boosted oxygen evolution. Journal of Materials Science: Materials in Electronics, 2021, 32, 23420-23428.	1.1	2
683	A comparison of two hydrogen storages in a fossil-free direct reduced iron process. International Journal of Hydrogen Energy, 2021, 46, 28657-28674.	3.8	13
684	Effect of cerium on yttrium-doped barium zirconate with a ZnO sintering aid: Grain and grain boundary protonic conduction. Ceramics International, 2021, 47, 32720-32726.	2.3	11
685	<scp>Iridiumâ€cobalt</scp> alloy nanotubes as a bifunctional electrocatalyst for <scp>pHâ€universal</scp> overall water splitting. Bulletin of the Korean Chemical Society, 2021, 42, 1524-1533.	1.0	11
686	Gas drying using [EMIM][MeSO3] supported on silica gel in fixed-bed - study on process behavior, mass transport and modeling. Chemical Engineering Journal, 2022, 430, 132129.	6.6	3
687	Proton-Conducting Cobalt(II) 3D MOFs Incorporating Bis(imidazole) and Polycarboxylate Linkages: Framework Topology and Interpenetration. Crystal Growth and Design, 2021, 21, 5594-5602.	1.4	6
688	The role of hydrogenâ€based power systems in the energy transition of the residential sector. Journal of Chemical Technology and Biotechnology, 2022, 97, 561-574.	1.6	16
689	Pressing Process for the Production of Thin Graphite Compound Bipolar Plates for High-Performance Applications. Lecture Notes in Production Engineering, 2022, , 103-111.	0.3	0
690	Combined dynamic operation of PEM fuel cell and continuous dehydrogenation of perhydro-dibenzyltoluene. International Journal of Hydrogen Energy, 2021, 46, 35662-35677.	3.8	23
691	Nickel nanoparticles derived from the direct thermal reduction of Ni-containing Caâ€“Al layered double hydroxides for hydrogen generation via ammonia decomposition. International Journal of Hydrogen Energy, 2021, 46, 38351-38362.	3.8	4

#	Article	IF	Citations
692	Influence of mixing time during glycineâ€“nitrate process on the structural properties and reducibility of a dual-phase Niâ€“Cuâ€“Mn spinel catalyst. Ceramics International, 2021, 47, 34712-34720.	2.3	2
693	Synthesis, Structure, and Ammonia Oxidation Catalytic Activity of Ru-NH₃ Complexes Containing Multidentate Polypyridyl Ligands. Inorganic Chemistry, 2021, 60, 13929-13940.	1.9	18
694	Photocatalysis: Introduction, Mechanism, and Effective Parameters. Green Chemistry and Sustainable Technology, 2022, , 3-31.	0.4	1
695	Li-decorated B2O as potential candidates for hydrogen storage: A DFT simulations study. International Journal of Hydrogen Energy, 2021, 46, 33486-33495.	3.8	35
696	Evaluation of the feasibility of ethanol and gasoline in solid oxide fuel cell vehicles in Brazil. International Journal of Hydrogen Energy, 2021, 46, 36381-36397.	3.8	12
697	A Review of Hydrogen as a Fuel in Internal Combustion Engines. Energies, 2021, 14, 6209.	1.6	68
698	Covalentâ€Organic Frameworks (COFs) as Proton Conductors. Advanced Energy Materials, 2021, 11, 2102300.	10.2	106
699	Prudent Practices in exâ€…situ Durability Analysis Using Cyclic Voltammetry for Platinumâ€based Electrocatalysts. Chemistry - an Asian Journal, 2021, 16, 3311-3325.	1.7	6
700	Scalable Sacrificial Templating to Increase Porosity and Platinum Utilisation in Graphene-Based Polymer Electrolyte Fuel Cell Electrodes. Nanomaterials, 2021, 11, 2530.	1.9	3
701	Rare-earth mediated dihydrogen activation and catalytic hydrogenation. Journal of Rare Earths, 2021, 39, 1017-1023.	2.5	11
702	PdZn alloys decorated 3D hierarchical porous carbon networks for highly efficient and stable hydrogen production from aldehyde solution. International Journal of Hydrogen Energy, 2021, 46, 33429-33437.	3.8	6
703	Accelerating Hydrogen Evolution by Anodic Electrosynthesis of Valueâ€Added Chemicals in Water over Nonâ€Precious Metal Electrocatalysts. ChemPlusChem, 2021, 86, 1307-1315.	1.3	15
704	Analysis of Biohydrogen Production Potential from Organic Wastes Generated in Korea. Daehan Hwan'gyeong Gonghag Hoeji, 2021, 43, 591-600.	0.4	2
705	Facile oneâ€step synthesis of Ru doped NiCoP nanoparticles as highly efficient electrocatalysts for oxygen evolution reaction. Chemistry - an Asian Journal, 2021, 16, 3630-3635.	1.7	5
706	Electronic modification in graphdiyne for future electrocatalytic applications. 2D Materials, 2021, 8, 044009.	2.0	6
707	An Overview of the Classification, Production and Utilization of Biofuels for Internal Combustion Engine Applications. Energies, 2021, 14, 5687.	1.6	54
708	Asymmetric cell design for decoupled hydrogen and oxygen evolution paired with V(II)/V(III) redox mediator. Catalysis Today, 2022, 403, 67-73.	2.2	3
709	Utilizing 2D materials to enhance H2 generation efficiency via photocatalytic reforming industrial and solid waste. Environmental Research, 2021, 200, 111239.	3.7	9

#	Article	IF	Citations
710	Research and Development Investment and Collaboration Framework for the Hydrogen Economy in South Korea. Sustainability, 2021, 13, 10686.	1.6	14
711	Understanding attitudes of hydrogen fuel-cell vehicle adopters in Japan. International Journal of Hydrogen Energy, 2021, 46, 30698-30717.	3.8	36
712	Energy storage integration towards achieving grid decarbonization: A bibliometric analysis and future directions. Journal of Energy Storage, 2021, 41, 102855.	3.9	28
713	A review on ammonia, ammonia-hydrogen and ammonia-methane fuels. Renewable and Sustainable Energy Reviews, 2021, 147, 111254.	8.2	343
714	Heterojunction engineering at ternary Cu2S/Ta2O5/CdS nanocomposite for enhanced visible light-driven photocatalytic hydrogen evolution. Materials Today Energy, 2021, 21, 100779.	2.5	8
715	Water availability and water usage solutions for electrolysis in hydrogen production. Journal of Cleaner Production, 2021, 315, 128124.	4.6	49
716	Doped and reactive silicon thin film anodes for lithium ion batteries: A review. Journal of Power Sources, 2021, 506, 230194.	4.0	40
717	Review of electric vehicle energy storage and management system: Standards, issues, and challenges. Journal of Energy Storage, 2021, 41, 102940.	3.9	136
718	Optimization of hybrid energy systems and adaptive energy management for hybrid electric vehicles. Energy Conversion and Management, 2021, 243, 114357.	4.4	29
719	Catalytic decontamination of organic/inorganic pollutants in water and green H2 generation using nanoporous SnS2 micro-flower structured film. Journal of Hazardous Materials, 2021, 417, 126105.	6.5	48
720	Parametric Study for Thermal and Catalytic Methane Pyrolysis for Hydrogen Production: Techno-Economic and Scenario Analysis. Energies, 2021, 14, 6102.	1.6	10
721	On-Line EIS Measurement for High-Power Fuel Cell Systems Using Simulink Real-Time. Energies, 2021, 14, 6133.	1.6	4
722	Thermodynamics, Energy Dissipation, and Figures of Merit of Energy Storage Systemsâ€"A Critical Review. Energies, 2021, 14, 6121.	1.6	11
723	Methanol electroreforming coupled to green hydrogen production over bifunctional NiIr-based metal-organic framework nanosheet arrays. Applied Catalysis B: Environmental, 2022, 300, 120753.	10.8	81
724	Tunable metal-oxide interaction with balanced Ni0/Ni2+ sites of Ni Mg1â˜'O for ethanol steam reforming. Applied Catalysis B: Environmental, 2021, 293, 120178.	10.8	37
725	Thorough economic and carbon footprint analysis of overall hydrogen supply for different hydrogen carriers from overseas production to inland distribution. Journal of Cleaner Production, 2021, 316, 128326.	4.6	21
726	Influence of the dispersion state of ionomer on the dispersion of catalyst ink and the construction of catalyst layer. International Journal of Hydrogen Energy, 2021, 46, 33300-33313.	3.8	16
727	Co-catalyst free SrTiO3 nano-cube for efficient photocatalytic hydrogen production. Journal of Materials Science, 2021, 56, 18976-18988.	1.7	9

#	Article	IF	Citations
728	Functionalized TiO2 mediated organic-inorganic composite membranes based on quaternized poly(arylene ether ketone) with enhanced ionic conductivity and alkaline stability for alkaline fuel cells. Journal of Membrane Science, 2021, 634, 119435.	4.1	31
729	WS2â€“WCâ€“WO3 nano-hollow spheres as an efficient and durable catalyst for hydrogen evolution reaction. Nano Convergence, 2021, 8, 28.	6.3	19
730	Metalâ€“Organic Frameworksâ€Derived Selfâ€Supported Carbonâ€Based Composites for Electrocatalytic Water Splitting. Chemistry - A European Journal, 2021, 27, 15866-15888.	1.7	35
731	Thin-film growth and application prospects of metallic delafossites. Materials Today Advances, 2021, 11, 100146.	2.5	15
732	Reliability assessment of island multiâ€energy microgrids. Energy Conversion and Economics, 2021, 2, 169-182.	1.9	5
733	A review of technologies and applications on versatile energy storage systems. Renewable and Sustainable Energy Reviews, 2021, 148, 111263.	8.2	192
734	Magnetic-field induced sustainable electrochemical energy harvesting and storage devices: Recent progress, opportunities, and future perspectives. Nano Energy, 2021, 87, 106119.	8.2	29
735	Facile synthesis of amorphous nickel iron borate grown on carbon paper as stable electrode materials for promoted electrocatalytic urea oxidation. Catalysis Today, 2022, 397-399, 197-205.	2.2	8
736	Autothermal recirculating reactor (ARR) with Cu-BN composite as a stable reactor material for sustainable hydrogen release from ammonia. Journal of Power Sources, 2021, 506, 230081.	4.0	10
737	Durable and efficient photoelectrochemical water splitting using TiO2 and 3Câ€“SiC single crystals in a tandem structure. Solar Energy Materials and Solar Cells, 2021, 230, 111260.	3.0	5
738	Tailoring active sites of iron-nitrogen-carbon catalysts for oxygen reduction in alkaline environment: Effect of nitrogen-based organic precursor and pyrolysis atmosphere. Electrochimica Acta, 2021, 391, 138899.	2.6	14
739	Techno-enviro-economic analyses of hydrogen supply chains with an ASEAN case study. International Journal of Hydrogen Energy, 2021, 46, 32914-32928.	3.8	34
740	Energy Re-Shift for an Urbanizing World. Energies, 2021, 14, 5516.	1.6	44
741	High-Performance Nanostructured MoS₂ Electrodes with Spontaneous Ultralow Gold Loading for Hydrogen Evolution. Journal of Physical Chemistry C, 2021, 125, 20940-20951.	1.5	9
742	Carrier-Gas Induced Changes in the Structural, Stoichiometric and Photocatalytic Characteristics of Gallium Oxide Nanostructures. Journal of Nanoscience and Nanotechnology, 2021, 21, 5266-5274.	0.9	9
743	The flexible programming of thermodynamic cycles: Application of supercritical carbon dioxide Brayton cycles. Energy Conversion and Management, 2021, 245, 114624.	4.4	4
744	Industrial decarbonization via hydrogen: A critical and systematic review of developments, socio-technical systems and policy options. Energy Research and Social Science, 2021, 80, 102208.	3.0	171
745	Surface restructuring of hematite photoanodes through ultrathin NiFeOx Catalyst: Amplified charge collection for solar water splitting and pollutant degradation. Chemical Engineering Journal, 2021, 422, 130137.	6.6	31

#	Article	IF	Citations
746	Photothermochemical Nanoassembly of 3D Porous Graphene and Palladium Nanoparticles for High-Performance Hydrogen Detection. ACS Applied Materials & Interfaces, 2021, 13, 49128-49136.	4.0	6
747	Why we need battery swapping technology. Energy Policy, 2021, 157, 112481.	4.2	26
748	Ruthenium single atoms implanted continuous MoS2-Mo2C heterostructure for high-performance and stable water splitting. Nano Energy, 2021, 88, 106277.	8.2	68
749	Comparative energetic studies on liquid organic hydrogen carrier: A net energy analysis. Renewable and Sustainable Energy Reviews, 2021, 150, 111447.	8.2	30
750	Optimized H2 fueling station arrangement model based on total cost of ownership (TCO) of fuel cell electric vehicle (FCEV). International Journal of Hydrogen Energy, 2021, 46, 34116-34127.	3.8	13
751	Co, Fe-ions intercalated Ni(OH)2 network-like nanosheet arrays as highly efficient non-noble catalyst for electro-oxidation of urea. International Journal of Hydrogen Energy, 2021, 46, 34318-34332.	3.8	15
752	Impact of voltage degradation in water electrolyzers on sustainability of synthetic natural gas production: Energy, economic, and environmental analysis. Energy Conversion and Management, 2021, 245, 114516.	4.4	6
753	On-site hydrogen production using heavy naphtha by maximizing the hydrogen output of a membrane reactor system. Journal of Power Sources, 2021, 508, 230332.	4.0	7
754	Transition metal dissolution control in Pt-alloy catalyst layers for low Pt-loaded PEMFCs for improving mass transfer. International Journal of Heat and Mass Transfer, 2021, 178, 121615.	2.5	12
755	MOFâ€“derived hollow porous ZnFe2O4/AgCl/Ag/C nanotubes with magneticâ€“dielectric synergy as highâ€“performance photocatalysts for hydrogen evolution reaction. Chemical Engineering Journal, 2021, 422, 130140.	6.6	21
756	Rational design of core-shell-structured CoP @FeOOH for efficient seawater electrolysis. Applied Catalysis B: Environmental, 2021, 294, 120256.	10.8	141
757	Hydrogen economy and sustainable development goals: Review and policy insights. Current Opinion in Green and Sustainable Chemistry, 2021, 31, 100506.	3.2	118
758	Recent progress in CoP-based materials for electrochemical water splitting. International Journal of Hydrogen Energy, 2021, 46, 34194-34215.	3.8	38
759	Biohydrogen: A life cycle assessment and comparison with alternative low-carbon production routes in UK. Journal of Cleaner Production, 2021, 319, 128886.	4.6	22
760	Energy storage onboard zero-emission two-wheelers: Challenges and technical solutions. Sustainable Energy Technologies and Assessments, 2021, 47, 101435.	1.7	14
761	Development and application of fuel cells in the automobile industry. Journal of Energy Storage, 2021, 42, 103124.	3.9	91
762	Coke resistant catalyst for hydrogen production in a versatile, multi-fuel, reformer. Journal of Catalysis, 2021, 402, 177-193.	3.1	6
763	Non-noble metal (Ni, Cu)-carbon composite derived from porous organic polymers for high-performance seawater electrolysis. Environmental Pollution, 2021, 289, 117861.	3.7	9

#	Article	IF	Citations
764	A framework to evaluate how European Transmission System Operators approach innovation. Energy Policy, 2021, 158, 112555.	4.2	5
765	Recent progress of transition metal carbides/nitrides for electrocatalytic water splitting. Journal of Alloys and Compounds, 2021, 883, 160833.	2.8	126
766	Strategic policy targets and the contribution of hydrogen in a 100% renewable European power system. Energy Reports, 2021, 7, 4595-4608.	2.5	27
767	Numerical and experimental analysis of jet release and jet flame length for qualitative risk analysis at hydrogen refueling station. Chemical Engineering Research and Design, 2021, 155, 145-154.	2.7	41
768	Crosslinked polybenzimidazole by [2+3] Huisgen cycloaddition for proton exchange membrane. Polymer Testing, 2021, 103, 107353.	2.3	2
769	Performance improvement potential of harnessing LNG regasification for hydrogen liquefaction process: Energy and exergy perspectives. Applied Energy, 2021, 301, 117471.	5.1	33
770	Fe doped Mo/Te nanorods with improved stability for oxygen evolution reaction. Chemical Engineering Journal, 2021, 423, 130168.	6.6	41
771	Ag3PO4-Bi2WO6-TiO2 as a high performance electrocatalyst for oxygen evolution reaction. Applied Surface Science, 2021, 566, 150681.	3.1	15
772	Recent trends in upgrading the performance of yeast as electrode biocatalyst in microbial fuel cells. Chemosphere, 2021, 284, 131383.	4.2	29
773	Engineering ionomer homogeneously distributed onto the fuel cell electrode with superbly retrieved activity towards oxygen reduction reaction. Applied Catalysis B: Environmental, 2021, 298, 120609.	10.8	9
774	Alternative fuels for decarbonisation of road transport sector in India: Options, present status, opportunities, and challenges. Fuel, 2021, 305, 121583.	3.4	61
775	Economic and environmental analysis of hydrogen production when complementing renewable energy generation with grid electricity. Applied Energy, 2021, 304, 117739.	5.1	39
776	Phosphorus doped nickel-molybdenum aerogel for efficient overall water splitting. Applied Catalysis B: Environmental, 2021, 298, 120494.	10.8	105
777	Hydrogen and syngas production from methane-acetylene rich combustion in inert porous media burner. Results in Engineering, 2021, 12, 100287.	2.2	9
778	Hydrogen-rich gas production via steam gasification of food waste over basic oxides (MgO/CaO/SrO) promoted-Ni/Al2O3 catalysts. Chemosphere, 2022, 287, 132224.	4.2	18
779	Ultraviolet/ozone treatment for boosting OER activity of MOF nanoneedle arrays. Chemical Engineering Journal, 2022, 427, 131498.	6.6	26
780	The Ni/Ni3S2 nanocomposite derived from Ni-ZIF with superior energy storage performance as cathodes for asymmetric supercapacitor and rechargeable aqueous zinc ion battery. Journal of Alloys and Compounds, 2022, 891, 161935.	2.8	20
781	Combining proton and anion exchange membrane fuel cells for enhancing the overall performance and self-humidification. Chemical Engineering Journal, 2022, 428, 131969.	6.6	15

#	Article	IF	Citations
782	Excellent photocatalytic performances of Co3O4â€“AC nanocomposites for H2 production via wastewater splitting. Chemosphere, 2022, 286, 131823.	4.2	20
783	Investigation of the Pressure Dependent Hydrogen Solubility in a Martensitic Stainless Steel Using a Thermal Agile Tubular Autoclave and Thermal Desorption Spectroscopy. Metals, 2021, 11, 231.	1.0	0
784	Performance and durability of anion exchange membrane water electrolyzers using down-selected polymer electrolytes. Journal of Materials Chemistry A, 2021, 9, 22670-22683.	5.2	34
785	Cost and low-carbon competitiveness of electrolytic hydrogen in China. Energy and Environmental Science, 2021, 14, 4868-4881.	15.6	34
786	A NiS co-catalyst decorated Zn₃In₂S₆/g-C₃N₄ type-II ball-flower-like nanosphere heterojunction for efficient photocatalytic hydrogen production. Dalton Transactions, 2021, 50, 11249-11258.	1.6	24
787	An Energy Consumption Approach to Estimate Air Emission Reductions in Container Shipping. Energies, 2021, 14, 278.	1.6	30
788	Degradation Characteristics of Electrospun Gas Diffusion Layers with Custom Pore Structures for Polymer Electrolyte Membrane Fuel Cells. ACS Applied Materials & Interfaces, 2021, 13, 2414-2427.	4.0	8
789	Improving the performance stability of direct seawater electrolysis: from catalyst design to electrode engineering. Nanoscale, 2021, 13, 15177-15187.	2.8	48
790	Process modelling and life cycle assessment coupled with experimental work to shape the future sustainable production of chemicals and fuels. Reaction Chemistry and Engineering, 2021, 6, 1179-1194.	1.9	34
791	Battery cost forecasting: a review of methods and results with an outlook to 2050. Energy and Environmental Science, 2021, 14, 4712-4739.	15.6	189
793	Technoeconomic analysis of metalâ€“organic frameworks for bulk hydrogen transportation. Energy and Environmental Science, 2021, 14, 1083-1094.	15.6	18
794	The role of hydrogen in heavy transport to operate within planetary boundaries. Sustainable Energy and Fuels, 2021, 5, 4637-4649.	2.5	18
795	A Proposal for the Transformation of Fossil Fuel Energy Economies to Hydrogen Economies Through Social Entrepreneurship. Advances in Business Strategy and Competitive Advantage Book Series, 2021, , 48-70.	0.2	3
796	Hydrogen Production From Waste and Renewable Resources. Advances in Computer and Electrical Engineering Book Series, 2021, , 22-46.	0.2	4
797	Boosting the hydrogen evolution reaction activity of Ru in alkaline and neutral media by accelerating water dissociation. RSC Advances, 2021, 11, 6107-6113.	1.7	13
798	Surface enrichment of iridium on IrCo alloys for boosting hydrogen production. Journal of Materials Chemistry A, 2021, 9, 16898-16905.	5.2	65
799	Operando X-ray Absorption Spectroscopic Study on the Influence of Specific Adsorption of the Sulfo Group in the Perfluorosulfonic Acid Ionomer on the Oxygen Reduction Reaction Activity of the Pt/C Catalyst. ACS Applied Energy Materials, 2021, 4, 1143-1149.	2.5	15
800	Recent progress in emerging metal and covalent organic frameworks for electrochemical and functional capacitors. Journal of Materials Chemistry A, 2021, 9, 8832-8869.	5.2	37

#	Article	IF	Citations
801	Enhanced urea oxidization electrocatalysis on spinel cobalt oxide nanowires via on-site electrochemical defect engineering. Materials Chemistry Frontiers, 2021, 5, 3717-3724.	3.2	16
802	Polymers for Electrolyte Membrane Fuel Cells. , 2021, , .		0
803	Fuel Cell Electric Vehiclesâ€"A Brief Review of Current Topologies and Energy Management Strategies. Energies, 2021, 14, 252.	1.6	141
804	Tuning polyoxometalate composites with carbonaceous materials towards oxygen bifunctional activity. Journal of Materials Chemistry A, 2021, 9, 9228-9237.	5.2	21
805	Efficient hydrogen production by saline water electrolysis at high current densities without the interfering chlorine evolution. Journal of Materials Chemistry A, 2021, 9, 22248-22253.	5.2	35
806	Tuning the electronic structure of Ag-Pd alloys to enhance performance for alkaline oxygen reduction. Nature Communications, 2021, 12, 620.	5.8	107
807	Al₂Pt for Oxygen Evolution in Water Splitting: A Strategy for Creating Multifunctionality in Electrocatalysis. Angewandte Chemie - International Edition, 2020, 59, 16770-16776.	7.2	15
808	The Role of Energy Storage and Carbon Capture in Electricity Markets. , 2020, , 1-37.		1
809	Waiting Time Estimation of Hydrogen-Fuel Vehicles with YOLO Real-Time Object Detection. Lecture Notes in Electrical Engineering, 2020, , 229-237.	0.3	3
810	Modulating electron structure of hollow MoS2 nanoarchitectures with oxygen doping for electrochemical hydrogen evolution. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020, 601, 124950.	2.3	8
811	A numerical study of hydrogen leakage and diffusion in a hydrogen refueling station. International Journal of Hydrogen Energy, 2020, 45, 14428-14439.	3.8	65
812	Decarbonising energy: The developing international activity in hydrogen technologies and fuel cells. Journal of Energy Chemistry, 2020, 51, 405-415.	7.1	199
813	High-performance alkaline water electrolysis using Aemionâ„¢ anion exchange membranes. Journal of Power Sources, 2020, 451, 227814.	4.0	138
814	Structural design of gas diffusion layer for proton exchange membrane fuel cell at varying humidification. Journal of Power Sources, 2020, 467, 228355.	4.0	32
815	Methanol Steam Reforming over ZnPt/MoC Catalysts: Effects of Hydrogen Treatment. Industrial & Engineering Chemistry Research, 2020, 59, 18756-18770.	1.8	12
816	Experimental Insights into the Coupling of Methane Combustion and Steam Reforming in a Catalytic Plate Reactor in Transient Mode. Industrial & Engineering Chemistry Research, 2021, 60, 196-209.	1.8	15
817	Ruthenium Complex-Incorporated Two-Dimensional Metalâ€"Organic Frameworks for Cocatalyst-Free Photocatalytic Proton Reduction from Water. Inorganic Chemistry, 2020, 59, 2379-2386.	1.9	24
818	Enhanced Electrocatalytic Activities of In Situ Produced Pd/S/N-Doped Carbon in Oxygen Reduction and Hydrogen Evolution Reactions. ACS Applied Energy Materials, 2021, 4, 575-585.	2.5	20

#	Article	IF	Citations
819	Investigating the effects of pyridine and poly(4-vinylpyridine) on CO2 reduction electrocatalysis at gold electrodes using in situ surface-enhanced Raman spectroelectrochemistry. Physical Chemistry Chemical Physics, 2020, 22, 12766-12771.	1.3	5
820	A review: Energy storage system and balancing circuits for electric vehicle application. IET Power Electronics, 2021, 14, 1-13.	1.5	68
821	Hydrogen Storage Using Liquid Organic Carriers. Russian Journal of Applied Chemistry, 2020, 93, 1815-1830.	0.1	28
822	Low-carbon GeoEnergy resource options in the Midland Valley of Scotland, UK. Scottish Journal of Geology, 2019, 55, 93-106.	0.1	4
823	High Performance FeNC and Mn-oxide/FeNC Layers for AEMFC Cathodes. Journal of the Electrochemical Society, 2020, 167, 134505.	1.3	49
824	Hydrogen technologies for energy storage: A perspective. MRS Energy & Sustainability, 2020, 7, 1.	1.3	14
825	Reversible Fuel Cells: An Economic Analysis. SSRN Electronic Journal, 0, , .	0.4	1
826	Economic Comparison of Electric Fuels Produced at Excellent Locations for Renewable Energies: A Scenario for 2035. SSRN Electronic Journal, 0, , .	0.4	18
827	Green Synthetic Fuels: Renewable Routes for the Conversion of Non-Fossil Feedstocks into Gaseous Fuels and Their End Uses. Energies, 2020, 13, 420.	1.6	54
828	Transformational Technologies Reshaping Transportation - An Academia Perspective. , 0, , .		12
829	Microbial electrolysis cells for electromethanogenesis: Materials, configurations and operations. Environmental Engineering Research, 2022, 27, 200484-0.	1.5	57
830	Electrocatalytic hydrogenation of furfural paired with photoelectrochemical oxidation of water and furfural in batch and flow cells. Reaction Chemistry and Engineering, 2021, 6, 2342-2353.	1.9	11
831	Sm3+ rare-earth doping in non-noble metal oxide â€“WO3 grown on carbon cloth fibre as a bifunctional electrocatalyst for high-performance water electrolysis. Sustainable Energy and Fuels, 0, , .	2.5	7
832	Future Perspective on Hydrogen and Fuel Cells. , 2021, , .		0
833	Membrane Technologies for Decarbonization. Membranes and Membrane Technologies, 2021, 3, 255-273.	0.6	32
834	Advances in catalytic hydrogen combustion research: Catalysts, mechanism, kinetics, and reactor designs. International Journal of Hydrogen Energy, 2021, 46, 40073-40104.	3.8	24
836	NiFe-layered double hydroxideÂarrays for oxygen evolution reaction in fresh water and seawater. Materials Today Energy, 2021, 22, 100883.	2.5	26
837	Innovations to decarbonize materials industries. Nature Reviews Materials, 2022, 7, 275-294.	23.3	57

#	Article	IF	Citations
838	Synergistic Electrocatalysts for Alkaline Hydrogen Oxidation and Evolution Reactions. Advanced Functional Materials, 2022, 32, 2107479.	7.8	66
839	Catalysts for Oxygen Reduction Reaction in the Polymer Electrolyte Membrane Fuel Cells: A Brief Review. Electrochem, 2021, 2, 590-603.	1.7	3
840	Activating Carbon Nitride by BP@Ni for the Enhanced Photocatalytic Hydrogen Evolution and Selective Benzyl Alcohol Oxidation. ACS Applied Materials & Interfaces, 2021, 13, 50988-50995.	4.0	14
841	Prospects of Integrated Photovoltaic-Fuel Cell Systems in a Hydrogen Economy: A Comprehensive Review. Energies, 2021, 14, 6827.	1.6	10
843	Poly(arylene piperidine) Anion Exchange Membranes with Tunable N-Alicyclic Quaternary Ammonium Side Chains. ACS Applied Energy Materials, 2021, 4, 11652-11665.	2.5	27
844	3Dâ€Zipped Interface: In Situ Covalentâ€Locking for High Performance of Anion Exchange Membrane Fuel Cells. Advanced Science, 2021, 8, e2102637.	5.6	21
845	Hot spot identification in PEM fuel cell and its purging strategies. Chemical Papers, 2022, 76, 1199-1211.	1.0	3
846	An Investigation into the Volumetric Flow Rate Requirement of Hydrogen Transportation in Existing Natural Gas Pipelines and Its Safety Implications. Gases, 2021, 1, 156-179.	1.0	14
847	Dark Fermentation Process Response to the Use of Undiluted Tequila Vinasse without Nutrient Supplementation. Sustainability, 2021, 13, 11034.	1.6	4
848	Rational Design of Carbon-Supported Platinumâ€“Gadolinium Nanoalloys for Oxygen Reduction Reaction. ACS Catalysis, 2021, 11, 13519-13529.	5.5	21
849	Theoretical Insights into the NH₃Decomposition Mechanism on the Cu- and Pt- Embedded Graphene Surfaces: A DFT Approach. ECS Journal of Solid State Science and Technology, 2021, 10, 101008.	0.9	11
850	Tailoring Competitive Adsorption Sites by Oxygenâ€Vacancy on Cobalt Oxides to Enhance the Electrooxidation of Biomass. Advanced Materials, 2022, 34, e2107185.	11.1	162
851	Revealing the effect of electrocatalytic performance boost during hydrogen evolution reaction on free-standing SWCNT film electrode. Scientific Reports, 2021, 11, 19981.	1.6	12
852	Titanium Dioxide Nanomaterials for Renewable Energy Applications. Engineering Materials, 2022, , 73-96.	0.3	1
853	Electrochemical stability and degradation of commercial Rh/C catalyst in acidic media. Electrochimica Acta, 2021, 400, 139435.	2.6	5
854	Progress in the production of hydrogen energy from food waste: A bibliometric analysis. International Journal of Hydrogen Energy, 2022, 47, 26326-26354.	3.8	33
855	DFT Probe into the Mechanism of Formic Acid Dehydrogenation Catalyzed by Cp*Co, Cp*Rh, and Cp*Ir Catalysts with 4,4â€²-Amino-/Alkylamino-Functionalized 2,2â€²-Bipyridine Ligands. Journal of Physical Chemistry A, 2021, 125, 9478-9488.	1.1	7
856	Electrospun Composite Proton-Exchange and Anion-Exchange Membranes for Fuel Cells. Energies, 2021, 14, 6709.	1.6	18

#	Article	IF	Citations
857	Quantifying available energy and anthropogenic energy use in the Mississippi River Basin. Infrastructure Asset Management, 2021, 8, 280-303.	1.2	0
858	Neutron vibrational spectroscopic evidence for short Hâ˜™â˜™H contacts in the RNiInH1.4; 1.6 (R = Ce, La) metal hydride. Journal of Alloys and Compounds, 2022, 894, 162381.	2.8	5
859	Integration and economic viability of fueling the future with green hydrogen: An integration of its determinants from renewable economics. International Journal of Hydrogen Energy, 2021, 46, 38145-38162.	3.8	77
860	Challenges and prospects of renewable hydrogen-based strategies for full decarbonization of stationary power applications. Renewable and Sustainable Energy Reviews, 2021, 152, 111628.	8.2	100
861	Review on COx-free hydrogen from methane cracking: Catalysts, solar energy integration and applications. Energy Conversion and Management: X, 2021, 12, 100117.	0.9	4
862	Nanotechnology for Electrical Energy Systems. , 2020, , 1-24.		0
863	Performance of cylindrical and planar mesoÂscale combustor with double narrow slit flame holder for micropower generator. Eastern-European Journal of Enterprise Technologies, 2020, 2, 35-43.	0.3	0
864	Production of Hydrogen from Coke Oven Gas in JSW Group. New Trends in Production Engineering, 2020, 3, 9-20.	0.3	1
866	An analysis of overlapping terms to define articles key words. International Journal for Innovation Education and Research, 2020, 8, 275-287.	0.0	2
867	The State and Development Prospects of the Global Hydrogen Energy Sector. Russian Journal of General Chemistry, 2021, 91, 1912-1928.	0.3	7
868	Conductive One-Dimensional Coordination Polymers with Tunable Selectivity for the Oxygen Reduction Reaction. ACS Applied Materials & Interfaces, 2021, 13, 52960-52966.	4.0	10
869	Zero-Emission Vehicles Penetration into the ASEAN Market: Challenges and Perspective. Lecture Notes in Civil Engineering, 2022, , 1733-1742.	0.3	3
870	Co Nanoparticle-Encapsulated Nitrogen-Doped Carbon Nanotubes as an Efficient and Robust Catalyst for Electro-Oxidation of Hydrazine. Nanomaterials, 2021, 11, 2857.	1.9	3
871	Enhancement of Catalytic Activity and Stability of La0.6Ca0.4Fe0.7Ni0.3O2.9 Perovskite with ppm Concentration of Fe in the Electrolyte for the Oxygen Evolution Reaction. Materials, 2021, 14, 6403.	1.3	0
872	High temperatureâ€induced myoglobinâ€mimic catalytic structure having high axial ligand content for oneâ€compartment hydrogen peroxide fuel cells. International Journal of Energy Research, 2022, 46, 4142-4155.	2.2	8
873	Comparative Techno-Economic and Life Cycle Analysis of Water Oxidation and Hydrogen Oxidation at the Anode in a CO₂ Electrolysis to Ethylene System. ACS Sustainable Chemistry and Engineering, 2021, 9, 14678-14689.	3.2	9
874	Efficiency improvement of a fuel cell cogeneration plant linked with district heating: Construction of a water condensation latent heat recovery system and analysis of real operational data. Applied Thermal Engineering, 2022, 201, 117754.	3.0	6
875	Plasma-induced alloying as a green technology for synthesizing ternary nanoparticles with an early transition metal. Nano Today, 2021, 41, 101316.	6.2	11

#	Article	IF	Citations
876	Integration of a Wigner effect-based energy storage system with an advanced nuclear reactor. Nuclear Engineering and Design, 2021, 385, 111521.	0.8	3
877	Uma anÃ¡lise bibliomÃ©trica da literatura aplicada a transferÃªnciade tecnologia em cÃ©lulas a combustÃvel. Research, Society and Development, 2020, 9, e22391211021.	0.0	2
878	The Development of the Smart Gas Distribution: General Trends and the Latvian Context. Latvian Journal of Physics and Technical Sciences, 2020, 57, 23-39.	0.4	3
879	Review of Research Trend in Fuel Cell: Analysis on Fuel-Cell-Related Technologies in Electrode, Electrolyte, Separator Plate, Stack, System, Balance of Plant, and Diagnosis Areas. Transactions of the Korean Hydrogen and New Energy Society, 2020, 31, 530-545.	0.1	5
880	Effect of Temperature on Oxygen Reduction Reaction Kinetics for Pd Coreâ€“Pt Shell Catalyst with Different Core Size. ACS Applied Energy Materials, 2021, 4, 810-818.	2.5	6
881	Progress and challenges on the thermal management of electrochemical energy conversion and storage technologies: Fuel cells, electrolysers, and supercapacitors. Progress in Energy and Combustion Science, 2022, 88, 100966.	15.8	108
882	In situ construction of 1D CdS/2D Nb2CTx MXene Schottky heterojunction for enhanced photocatalytic hydrogen production activity. Applied Surface Science, 2022, 573, 151491.	3.1	39
883	Two volumetric techniques for determining the transport properties of hydrogen gas in polymer. Materials Chemistry and Physics, 2022, 276, 125364.	2.0	7
884	Impact of the number of surface-attached tungsten diselenide layers on cadmium sulfide nanorods on the charge transfer and photocatalytic hydrogen evolution rate. Journal of Colloid and Interface Science, 2022, 608, 903-911.	5.0	9
885	Structurally engineered vitamin B12 on graphene as a bioinspired metalâ€“Nâ€“C-based electrocatalyst for effective overall water splitting in alkaline media. Applied Surface Science, 2022, 575, 151729.	3.1	9
886	Copper phthalocyanine@graphene oxide as a cocatalyst of TiO2 in hydrogen generation. Journal of Physics and Chemistry of Solids, 2022, 161, 110434.	1.9	18
887	Hydrogen and Fuel Cells in Transport Road, Rail, Air, and Sea. , 2020, , .		2
888	Catalytic Technologies for Clean Hydrogen Production. RSC Energy and Environment Series, 2020, , 116-149.	0.2	0
889	A Comparative Study of Dynamic Load Response of High Temperature PEM Fuel Cells. Environmental and Climate Technologies, 2020, 24, 529-544.	0.5	2
890	Energy Generation: Sources, Challenges and Solutions. Encyclopedia of the UN Sustainable Development Goals, 2020, , 1-10.	0.0	0
891	Nanomaterials for Water Splitting: A Greener Approach to Generate Hydrogen. , 2020, , 1-20.		0
892	Catalysis with MNPs on N-Doped Carbon. Molecular Catalysis, 2020, , 199-219.	1.3	0
893	Review of the Current Status of the Hydrogen Economy. Springer Series in Surface Sciences, 2020, , 119-147.	0.3	4

#	Article	IF	Citations
894	Cost-Effcient Transition to Clean Energy Transportation Services. SSRN Electronic Journal, 0, , .	0.4	0
895	Photocatalytic Chemoselective Transfer Hydrogenation of Quinolines to Tetrahydroquinolines on Hierarchical NiO/In₂O₃â€“CdS Microspheres. ACS Catalysis, 2021, 11, 13408-13415.	5.5	20
896	Engineering interfacial charge transfer channel for efficient photocatalytic H2 evolution: The interplay of CoPx and Ca2+ dopant. Applied Catalysis B: Environmental, 2022, 303, 120887.	10.8	25
897	Influence of Ionomer Content in the Catalytic Layer of MEAs Based on AquivionÂ® Ionomer. Polymers, 2021, 13, 3832.	2.0	5
898	Synthesis of strontium chromate-nitrogen and sulfur co-doped graphene and its potential for electrochemical hydrogen storage. International Journal of Hydrogen Energy, 2022, 47, 1026-1035.	3.8	6
899	Hydrogen Storage in Bilayer Hexagonal Boron Nitride: A First-Principles Study. ACS Omega, 2021, 6, 30362-30370.	1.6	16
900	Role of Metal Ion Sites in Bivalent Cobalt Phosphorus Oxygen Systems toward Efficient Oxygen Evolution Reaction. Journal of Physical Chemistry C, 0, , .	1.5	8
901	Research and economic perspectives on an integrated biorefinery approach for the simultaneous production of polyhydroxyalkanoates and biohydrogen. International Journal of Biological Macromolecules, 2021, 193, 1937-1937.	3.6	3
902	Electro-oxidation of ethanol in acid medium using carbon- supported PtRh nanoparticles with (100) preferential orientation. International Journal of Electrochemical Science, 0, , ArticleID:211253.	0.5	0
903	Modelling and multi-objective optimization for simulation of hydrogen production using a photosynthetic consortium. International Journal of Chemical Reactor Engineering, 2020, 18, .	0.6	3
904	Al 2 Pt fÃ¼r die Sauerstoffentwicklungsreaktion bei der Wasserspaltung: eine Strategie zur Erzeugung von MultifunktionalitÃt in der Elektrokatalyse. Angewandte Chemie, 2020, 132, 16913.	1.6	0
905	Methanol-Based Economy: A Way Forward to Hydrogen. Green Energy and Technology, 2021, , 563-585.	0.4	1
906	Sector Coupling: Concepts, Potentials and Barriers. , 2020, , .		11
907	Performance Analysis and Economic Feasibility of Fuel Cell Vehicles: A Perspective Review. , 0, , .		1
909	Perspective of the role of hydrogen in the 21st century energy transition. Energy Conversion and Management, 2022, 251, 114898.	4.4	257
910	Proton exchange membrane fuel cells: fundamentals, advanced technologies, and practical applications. , 2022, , 1-24.		8
911	Facilitating the acidic oxygen reduction of Feâ€“Nâ€“C catalysts by fluorine-doping. Materials Horizons, 2022, 9, 417-424.	6.4	39
912	Cold start investigation of fuel cell vehicles with coolant preheating strategy. Applied Thermal Engineering, 2022, 201, 117816.	3.0	35

#	Article	IF	Citations
913	Functional role of single-atom catalysts in electrocatalytic hydrogen evolution: Current developments and future challenges. Coordination Chemistry Reviews, 2022, 452, 214289.	9.5	54
914	Retrofitting towards a greener marine shipping future: Reassembling ship fuels and liquefied natural gas in Norway. Energy Research and Social Science, 2022, 86, 102423.	3.0	19
915	An Overview of Electric Motors for Electric Vehicles. , 2021, , .		18
916	Propulsion System of Electric Vehicles: Review. , 2021, , .		4
917	A Real-time Operational Cost Minimization Strategy for Energy Management of Fuel Cell Electric Vehicles. , 2021, , .		1
918	Comparison of Renewable Energy Sources in â€˜Newâ€™ EU Member States in the Context of National Energy Transformations. Energies, 2021, 14, 7963.	1.6	9
919	Graphene oxide wrapped Mix-valent cobalt phosphate hollow nanotubes as oxygen evolution catalyst with low overpotential. Journal of Colloid and Interface Science, 2022, 610, 592-600.	5.0	6
920	Constructing lateral sulfur-gradient Sb2(SxSe1-x)3 heterostructures for Sb2Se3 nanorod photocathodes with enhanced photoelectrochemical properties. Electrochimica Acta, 2022, 403, 139610.	2.6	14
921	The influence of A-site deficiency on the electrochemical properties of (Ba0.95La0.05)1-xFeO3-Î´ as an intermediate temperature solid oxide fuel cell cathode. International Journal of Hydrogen Energy, 2022, 47, 1229-1240.	3.8	21
922	Deoxygenation of non-edible fatty acid for green diesel production: Effect of metal loading amount over Ni/MgOâ€“Al2O3 on the catalytic performance and reaction pathway. Fuel, 2022, 311, 122488.	3.4	19
923	Impact of declining renewable energy costs on electrification in low-emission scenarios. Nature Energy, 2022, 7, 32-42.	19.8	196
924	Defect chemistry and proton uptake of La2-xSrxNiO4Â±Î´ and La2-xBaxNiO4Â±Î´ Ruddlesden-Popper phases. Journal of Solid State Chemistry, 2022, 306, 122731.	1.4	9
925	Study of the Metalâ€“Support Interaction and Electronic Effect Induced by Calcination Temperature Regulation and Their Effect on the Catalytic Performance of Glycerol Steam Reforming for Hydrogen Production. Nanomaterials, 2021, 11, 3149.	1.9	11
926	Performance benchmarking of power-to-gas plants using Composite Indicators. International Journal of Hydrogen Energy, 2021, , .	3.8	7
927	Ammonium polyphosphate induced bimetallic phosphides nanoparticles coated with porous N-doped carbon for efficiently electrochemical hydrogen evolution. Chemical Engineering Journal, 2022, 431, 133696.	6.6	11
928	Selected Aspects of Sustainable Mobility Reveals Implementable Approaches and Conceivable Actions. Sustainability, 2021, 13, 12918.	1.6	21
930	New Insights on the Nickel State Deposited by Hydrazine Wet-Chemical Synthesis Route in the Ni/BCY15 Proton-Conducting SOFC Anode. Nanomaterials, 2021, 11, 3224.	1.9	2
931	Control of Cluster Structures in Catalyst Inks by a Dispersion Medium. ACS Omega, 2021, 6, 32960-32969.	1.6	8

#	Article	IF	Citations
932	Critical aspects in the development of anodes for use in seawater electrolysis. International Journal of Hydrogen Energy, 2022, 47, 3532-3549.	3.8	30
933	Hydrogen-Based Energy Storage Systems for Large-Scale Data Center Applications. Sustainability, 2021, 13, 12654.	1.6	2
934	Effect of iridium oxide as an additive on catalysts with different Pt contents in cell reversal conditions of polymer electrolyte membrane fuel cells. International Journal of Hydrogen Energy, 2022, 47, 1863-1873.	3.8	8
935	Electric Mobility in Portugal: Current Situation and Forecasts for Fuel Cell Vehicles. Energies, 2021, 14, 7945.	1.6	18
936	Assessment study of a four-step copper-chlorine cycle modified with flash vaporization process for hydrogen production. International Journal of Hydrogen Energy, 2022, 47, 2164-2177.	3.8	5
937	Techno-Economic Analysis of the Hybrid Solar PV/H/Fuel Cell Based Supply Scheme for Green Mobile Communication. Sustainability, 2021, 13, 12508.	1.6	9
938	Plasma steam methane reforming (PSMR) using a microwave torch for commercial-scale distributed hydrogen production. International Journal of Hydrogen Energy, 2022, 47, 2874-2884.	3.8	21
939	Atomically Dispersed Selenium Sites on Nitrogenâ€Doped Carbon for Efficient Electrocatalytic Oxygen Reduction. Angewandte Chemie, 2022, 134, .	1.6	14
940	A green hydrogen credit framework for international green hydrogen trading towards a carbon neutral future. International Journal of Hydrogen Energy, 2022, 47, 728-734.	3.8	68
941	Design and Fabrication of Nano-Structured Materials for Fuel Cell Application. Environmental Chemistry for A Sustainable World, 2022, , 63-80.	0.3	2
942	Carbonâ€Supported Bimetallic Rutheniumâ€Iridium Catalysts for Selective and Stable Hydrodebromination of Dibromomethane. ChemCatChem, 0, , .	1.8	5
943	A non-noble, low cost, multicomponent electrocatalyst based on nickel oxide decorated AC nanosheets and PPy nanowires for the direct methanol oxidation reaction. International Journal of Hydrogen Energy, 2022, 47, 3099-3107.	3.8	23
944	Atomically Dispersed Selenium Sites on Nitrogenâ€Doped Carbon for Efficient Electrocatalytic Oxygen Reduction. Angewandte Chemie - International Edition, 2022, 61, .	7.2	80
945	Dynamic Modeling of a Proton-Exchange Membrane Fuel Cell Using a Gaussian Approach. Membranes, 2021, 11, 953.	1.4	2
946	Data-driven design and controllable synthesis of Pt/carbon electrocatalysts for H2 evolution. IScience, 2021, 24, 103430.	1.9	8
947	A method to evaluate hydrogen donation ability of hydrogen-storage solvent in hydrogenation process by radical-precursor compounds. Fuel, 2022, 314, 122741.	3.4	4
948	Safety analysis of leakage in a nuclear hydrogen production system. International Journal of Hydrogen Energy, 2022, 47, 4916-4931.	3.8	26
949	A review on converting plastic wastes into clean hydrogen via gasification for better sustainability. International Journal of Energy Research, 2022, 46, 4001-4032.	2.2	24

#	Article	IF	Citations
950	Large-scale synthetic Mo@(2H-1T)-MoSe2 monolithic electrode for efficient hydrogen evolution in all pH scale ranges and seawater. Applied Catalysis B: Environmental, 2022, 304, 120993.	10.8	54
951	The determination of the HOR/HER reaction mechanism from experimental kinetic data. Physical Chemistry Chemical Physics, 2021, 23, 27150-27158.	1.3	53
952	Conversion of cyclic xylose into xylitol on Ru, Pt, Pd, Ni, and Rh catalysts: a density functional theory study. Physical Chemistry Chemical Physics, 2021, 23, 26195-26208.	1.3	9
953	Metal- and Nonmetal-Incorporated Vitamin B ₁₂ on Graphene as a Bioderived Electrocatalyst for High-Performance Oxygen Reduction Reaction in Acidic Media. SSRN Electronic Journal, 0, , .	0.4	0
954	Carbon Value Assessment of Hydrogen Energy Connected to the Power Grid. IEEE Transactions on Industry Applications, 2022, 58, 2803-2811.	3.3	3
956	Statistical and Stochastic Feasibility Studies of Potential Liquid Organic Hydrogen Carriers in a Membrane Reactor for Simultaneous Hydrogen Storage and Production: Techcnial, Economic, and Environmental Aspects. SSRN Electronic Journal, 0, , .	0.4	0
957	Boosting the ORR performance of Fe-N/C catalyst via increasing the density and modifying the electronic structure of Fe-NX active sites. Electrochimica Acta, 2022, 403, 139604.	2.6	24
958	Optogenetic approaches in biotechnology and biomaterials. Trends in Biotechnology, 2022, 40, 858-874.	4.9	10
959	Advances on materials design and manufacture technology of plastic liner of type â…£ hydrogen storage vessel. International Journal of Hydrogen Energy, 2022, 47, 8382-8408.	3.8	29
960	A review on nanofiber reinforced aerogels for energy storage and conversion applications. Journal of Energy Storage, 2022, 46, 103927.	3.9	39
961	Use of Ni-containing catalysts for synthetic olive mill wastewater steam reforming. Renewable Energy, 2022, 185, 1329-1342.	4.3	7
962	Polythiophene-titanium oxide (PTH-TiO2) nanocomposite: As an electron transfer enhancer for biofuel cell anode construction. Journal of Power Sources, 2022, 520, 230867.	4.0	14
963	Prospective life cycle assessment of hydrogen production by waste photoreforming. Journal of Cleaner Production, 2022, 336, 130430.	4.6	23
964	Directional regulating dynamic equilibrium to continuously update electrocatalytic interface for oxygen evolution reaction. Chemical Engineering Journal, 2022, 431, 134040.	6.6	90
965	Challenges of integrating hydrogen energy storage systems into nearly zero-energy ports. Energy, 2022, 241, 122878.	4.5	32
966	Optimization of renewable energy for buildings with energy storages and 15-minute power balance. Energy, 2022, 243, 123046.	4.5	20
967	Saturated hydrogen regulated ti coordination of metallic tih2/ti electrode via in-situ electrochemical hydrogenation for enhanced hydrogen evolution reaction. Nano Energy, 2022, 93, 106892.	8.2	13
968	High purity, self-sustained, pressurized hydrogen production from ammonia in a catalytic membrane reactor. Chemical Engineering Journal, 2022, 431, 134310.	6.6	36

#	Article	IF	Citations
969	Recent engineering advances in nanocatalysts for NH3-to-H2 conversion technologies. Nano Energy, 2022, 94, 106929.	8.2	15
970	Graphene-like ultrathin bismuth selenide nanosheets as highly stable anode material for sodium-ion battery. Journal of Alloys and Compounds, 2022, 901, 163572.	2.8	24
971	Theory-guided design of Pd/C nanocomposite for H2 sensing at room-temperature. Applied Surface Science, 2022, 581, 152367.	3.1	6
972	Sustainable use of spilled turbinable energy in Ecuador: Three different energy storage systems. Renewable and Sustainable Energy Reviews, 2022, 156, 112005.	8.2	11
973	Metal-organic frameworks derived RuP2 with yolk-shell structure and efficient performance for hydrogen evolution reaction in both acidic and alkaline media. Applied Catalysis B: Environmental, 2022, 305, 121043.	10.8	37
974	Knowledge recombination for emerging technological innovations: The case of green shipping. Technovation, 2022, 114, 102454.	4.2	7
975	A review on underground hydrogen storage: Insight into geological sites, influencing factors and future outlook. Energy Reports, 2022, 8, 461-499.	2.5	207
976	Influence of Single and Double-Atom Metal Doping on the Electrocatalytic Hydrogen Evolution Activity of 2D-MoS2 Surface. , 2020, , .		0
977	Research on the Market Diffusion of Fuel Cell Vehicles in China Based on the Generalized Bass Model. IEEE Transactions on Industry Applications, 2022, 58, 2950-2960.	3.3	10
978	Challenges of Fuel Cell Technologies for the Needs of the Energy Transition to a Zero-carbon Technology. Å½urnal inÅ¾enernih Nauk, 2021, 8, .	0.4	1
979	Room Temperature Hydrogen Sensing Based on Tapered Optical Fiber Coated with Polyaniline (PANI). , 2021, 5, .		2
980	Polyaniline coating enables electronic structure engineering in Fe3O4 to promote alkaline oxygen evolution reaction. Nanotechnology, 2022, 33, 155402.	1.3	1
981	A multi-model method to assess the value of power-to-gas using excess renewable. International Journal of Hydrogen Energy, 2022, 47, 9103-9114.	3.8	11
982	Hydrogen-powered vehicles for autonomous ride-hailing fleets. International Journal of Hydrogen Energy, 2022, 47, 9422-9427.	3.8	6
983	Conductive Heat Transfer in Partially Saturated Gas Diffusion Layers with Evaporative Cooling. Journal of the Electrochemical Society, 0, , .	1.3	0
984	Multiâ€sectoral flexibility measures to facilitate wind and solar power integration. IET Renewable Power Generation, 0, , .	1.7	3
985	Si-based polymer-derived ceramics for energy conversion and storage. Journal of Advanced Ceramics, 2022, 11, 197-246.	8.9	55
987	Improved Oxygen Redox Activity by High-Valent Fe and Co³⁺ Sites in the Perovskite LaNi_{1â€“x}Fe_{0.5x}Co_{0.5x}O₃. ACS Applied Energy Materials, 2022, 5, 343-354.	2.5	18

#	Article	IF	Citations
988	Use of Hydrogen as Fuel: A Trend of the 21st Century. Energies, 2022, 15, 311.	1.6	49
989	Catalyst development for viability of electrochemical hydrogen purifier and compressor (EHPC) technology. International Journal of Hydrogen Energy, 2022, 47, 19619-19632.	3.8	4
990	Revisiting catalytic performance of supported metal dimers for oxygen reduction reaction via magnetic coupling from first principles. , 2022, 1, 100031.		31
991	Integrated system based on ammonia alkaline fuel cell with heat recovery for multigeneration. International Journal of Green Energy, 2023, 20, 1228-1235.	2.1	2
992	Perspective on the hydrogen economy as a pathway to reach net-zero CO₂emissions in Europe. Energy and Environmental Science, 2022, 15, 1034-1077.	15.6	132
993	Prediction of Pressure-Composition-Temperature Curves of AB ₂-Type Hydrogen Storage Alloys by Machine Learning. SSRN Electronic Journal, 0, , .	0.4	0
994	Characterization of a Dynamic Y₂Ir₂O₇ Catalyst during the Oxygen Evolution Reaction in Acid. Journal of Physical Chemistry C, 2022, 126, 1751-1760.	1.5	17
995	Long-Term Hydrogen Storageâ€"A Case Study Exploring Pathways and Investments. Energies, 2022, 15, 869.	1.6	4
996	Deep learning for the automation of particle analysis in catalyst layers for polymer electrolyte fuel cells. Nanoscale, 2021, 14, 10-18.	2.8	14
997	Recent advances in heterostructured cathodic electrocatalysts for non-aqueous Liâ€"O₂batteries. Chemical Science, 2022, 13, 2841-2856.	3.7	20
998	Fabrication of platinum-doped WS2 hollow spheres catalyst for high-efficient hydrogen evolution reaction. Journal of Applied Electrochemistry, 2022, 52, 499-507.	1.5	2
999	Au Nanoparticle Modification Induces Charge-Transfer Channels to Enhance the Electrocatalytic Hydrogen Evolution Reaction of InSe Nanosheets. ACS Applied Materials & Interfaces, 2022, 14, 2908-2917.	4.0	14
1001	Potential Deployment and Integration of Liquid Organic Hydrogen Carrier Technology within Different Industries. Johnson Matthey Technology Review, 2022, 66, 259-270.	0.5	4
1002	A Nickel Coated Copper Substrate as a Hydrogen Evolution Catalyst. Catalysts, 2022, 12, 58.	1.6	4
1003	Waste-to-hydrogen technologies: A critical review of techno-economic and socio-environmental sustainability. International Journal of Hydrogen Energy, 2022, 47, 5842-5870.	3.8	44
1004	In-situ growth of hierarchical CuO@Cu3P heterostructures with transferable active centers on copper foam substrates as bifunctional electrocatalysts for overall water splitting in alkaline media. International Journal of Hydrogen Energy, 2022, 47, 9593-9605.	3.8	12
1005	Pd (II) decorated conductive two-dimensional chromium-pyrazine metal-organic framework for rapid detection of hydrogen. International Journal of Hydrogen Energy, 2022, 47, 9477-9483.	3.8	7
1007	Suppressing Platinum Electrocatalyst Degradation via a High-Surface-Area Organic Matrix Support. ACS Omega, 2022, 7, 3540-3548.	1.6	6

#	Article	IF	Citations
1008	Life cycle assessment of hydrogen-powered city buses in the High V.LO-City project: integrating vehicle operation and refuelling infrastructure. SN Applied Sciences, 2022, 4, 1.	1.5	8
1009	SnO₂-supported single metal atoms: a bifunctional catalyst for the electrochemical synthesis of H₂O₂. Journal of Materials Chemistry A, 2022, 10, 6115-6121.	5.2	14
1010	Recent advances of energy storage technologies for grid: A comprehensive review. Energy Storage, 2022, 4, .	2.3	26
1011	Graphitic carbon nitride for fuel cells. , 2022, , 341-366.		1
1012	Pressure management in smart gas networks for increasing hydrogen blending. E3S Web of Conferences, 2022, 334, 03003.	0.2	1
1013	Ionic liquid modified fct-PtCo/C@ILs as high activity and durability electrocatalyst for oxygen reduction reaction. International Journal of Hydrogen Energy, 2022, 47, 6312-6322.	3.8	10
1014	Trends in dark biohydrogen production strategy and linkages with transition towards low carbon economy: An outlook, cost-effectiveness, bottlenecks and future scope. International Journal of Hydrogen Energy, 2022, 47, 15309-15332.	3.8	26
1015	Highly Sensitive H2 Sensors Based on Co3O4/PEI-CNTs at Room Temperature. Journal of Nanomaterials, 2022, 2022, 1-8.	1.5	0
1016	Dumbbell-Shaped Ternary Transition-Metal (Cu, Ni, Co) Phosphate Bundles: A Promising Catalyst for the Oxygen Evolution Reaction. ACS Applied Materials & Interfaces, 2022, 14, 6570-6581.	4.0	24
1017	High performance gas diffusion layers with added deterministic structures. Energy and Environmental Science, 2022, 15, 1293-1306.	15.6	12
1018	Effect of rheological properties of catalyst slurry on the structure of catalyst layer in PEMFC. International Journal of Hydrogen Energy, 2022, 47, 8956-8964.	3.8	11
1019	Diversity of Options to Reach Carbon-Neutrality Across the Entire European Energy System. SSRN Electronic Journal, 0, , .	0.4	0
1020	Lithium-ion batteries under pulsed current operation to stabilize future grids. Cell Reports Physical Science, 2022, 3, 100708.	2.8	19
1021	Enhanced electrocatalytic activity of in situ carbon encapsulated molybdenum phosphide derived from a hybrid POM for the HER over a wide pH range. Sustainable Energy and Fuels, 2022, 6, 289-298.	2.5	4
1022	Strategies for Electrochemically Sustainable H₂ Production in Acid. Advanced Science, 2022, 9, e2104916.	5.6	15
1023	Spherical Ni₃S₂/Feâ€NiP_x Magic Cube with Ultrahigh Water/Seawater Oxidation Efficiency. Advanced Science, 2022, 9, e2104846.	5.6	120
1024	Technological innovation vs. tightening raw material markets: falling battery costs put at risk. Energy Advances, 2022, 1, 136-145.	1.4	21
1025	Catalytic hydrolysis of NaBH4 over titanate nanotube supported Co for hydrogen production. International Journal of Hydrogen Energy, 2022, 47, 5260-5268.	3.8	39

#	Article	IF	Citations
1026	Laser-Induced Generation of Hydrogen in Water by Using Graphene Target. Molecules, 2022, 27, 718.	1.7	5
1027	Galvanostatically Deposited PtNi Thinâ€Films as Electrocatalysts for the Hydrogen Evolution Reaction. ChemistryOpen, 2022, 11, e202100241.	0.9	1
1028	Functionalized Carbon Nanotubes Supported 3D Zinc/Cobalt Oxide as an Efficient Electrocatalyst for Oxygen Evolution Reaction. Journal of the Electrochemical Society, 2022, 169, 026518.	1.3	4
1029	Recent insights on iron based nanostructured electrocatalyst and current status of proton exchange membrane fuel cell for sustainable transport. Journal of Energy Chemistry, 2022, 69, 466-489.	7.1	27
1030	Development of cobalt catalyst supported on MgOâ€“Ln2O3 (Ln = La, Nd, Eu) mixed oxide systems for ammonia synthesis. International Journal of Hydrogen Energy, 2022, 47, 6666-6678.	3.8	16
1031	Comparative analysis on similarities and differences of hydrogen energy development in the World's top 4 largest economies: A novel framework. International Journal of Hydrogen Energy, 2022, 47, 9485-9503.	3.8	85
1032	Hydrogen sorption and desorption properties in rubbery polymer. Materials Chemistry and Physics, 2022, 279, 125745.	2.0	1
1033	The status and prospects of hydrogen and fuel cell technology in the Philippines. Energy Policy, 2022, 162, 112781.	4.2	9
1034	Estimating NOx emissions of useful two-fuel blends from literature data. Fuel, 2022, 316, 123213.	3.4	8
1035	Elevated-temperature bio-ethanol-assisted water electrolysis for efficient hydrogen production. Chemical Engineering Journal, 2022, 434, 134699.	6.6	21
1036	Lanthanide-containing clusters for catalytic water splitting and CO2 conversion. Coordination Chemistry Reviews, 2022, 457, 214419.	9.5	41
1037	Hydrogen and electricity co-generation from hydrazine-assisted water electrolysis on hierarchical porous heteroatoms-doped CoCu catalysts. Applied Catalysis B: Environmental, 2022, 306, 121132.	10.8	23
1038	Cold start-up study of methanol reformer based on chemical-looping combustion. Fuel, 2022, 317, 122850.	3.4	5
1039	Transition metal and nitrogen-doped mesoporous carbons as cathode catalysts for anion-exchange membrane fuel cells. Applied Catalysis B: Environmental, 2022, 306, 121113.	10.8	42
1040	A Miniaturized Planar Solid Oxide Fuel Cell Based on Stainless Steel Microfluidic Channels. , 2022, , .		0
1041	Layered FeCoNi double hydroxides with tailored surface electronic configurations induced by oxygen and unsaturated metal vacancies for boosting the overall water splitting process. Nanoscale, 2022, 14, 4156-4169.	2.8	10
1042	Boosting sluggish photocatalytic hydrogen evolution through piezo-stimulated polarization: a critical review. Materials Horizons, 2022, 9, 1332-1355.	6.4	31
1043	Towards health-aware energy management strategies in fuel cell hybrid electric vehicles: A review. International Journal of Hydrogen Energy, 2022, 47, 10021-10043.	3.8	53

#	Article	IF	Citations
1044	A three-chamber electrochemical cell facilitated biogas upgrading and high-purity oxygen production. Journal of Applied Electrochemistry, 0, , 1.	1.5	0
1045	How Green Are the National Hydrogen Strategies?. Sustainability, 2022, 14, 1930.	1.6	43
1046	RuP Nanoparticles Supported on N, O Codoped Porous Hollow Carbon for Efficient Hydrogen Oxidation Reaction. Advanced Materials Interfaces, 2022, 9, .	1.9	7
1047	Application of Advanced Vibrational Spectroscopy in Revealing Critical Chemical Processes and Phenomena of Electrochemical Energy Storage and Conversion. ACS Applied Materials & Interfaces, 2022, 14, 23033-23055.	4.0	12
1048	Bibliometric analysis of the research on hydrogen economy: An analysis of current findings and roadmap ahead. International Journal of Hydrogen Energy, 2022, 47, 10803-10824.	3.8	71
1049	Glycerol electroâ€reforming in alkaline electrolysis cells for the simultaneous production of valueâ€added chemicals and pure hydrogen â€“ Miniâ€review. Electrochemical Science Advances, 2023, 3, .	1.2	5
1050	Partially oxidized ruthenium aerogel as highly active bifunctional electrocatalyst for overall water splitting in both alkaline and acidic media. Applied Catalysis B: Environmental, 2022, 307, 121199.	10.8	45
1051	Hydrogen and syngas production through dynamic chemical looping reforming-decomposition of methane. International Journal of Hydrogen Energy, 2022, 47, 9835-9852.	3.8	7
1052	Lignin-Supported Heterogeneous Photocatalyst for the Direct Generation of H₂O₂ from Seawater. Journal of the American Chemical Society, 2022, 144, 2603-2613.	6.6	80
1053	Interfacial Electron Transfer Strategy to Improve the Hydrogen Evolution Catalysis of CrP Heterostructure. Small, 2022, 18, e2106139.	5.2	9
1054	Boosting oxygen reduction reaction with Fe and Se dual-atom sites supported by nitrogen-doped porous carbon. Applied Catalysis B: Environmental, 2022, 308, 121206.	10.8	82
1055	Recent Progress Using Solid-State Materials for Hydrogen Storage: A Short Review. Processes, 2022, 10, 304.	1.3	58
1056	Deep learningâ€based optimization of a microfluidic membraneless fuel cell for maximum power density via data-driven three-dimensional multiphysics simulation. Bioresource Technology, 2022, 348, 126794.	4.8	19
1057	Cesium-decorated reduced graphene oxide for photocatalytic hydrogen generation. Materials Letters, 2022, 314, 131864.	1.3	3
1058	Hydrogen as Maritime Transportation Fuel: A Pathway for Decarbonization. Energy, Environment, and Sustainability, 2022, , 67-110.	0.6	9
1059	Sustainable hydrogen production: Technological advancements and economic analysis. International Journal of Hydrogen Energy, 2022, 47, 37227-37255.	3.8	70
1060	Assessment of Fuel Cellsâ€™ State of Health by Low-Frequency Noise Measurements. Energies, 2021, 14, 8340.	1.6	4
1061	Evaluation of the Impact of Green Hydrogen Blending Scenarios in the Italian Gas Network: Optimal Design and Dynamic Simulation of Operation Strategies. SSRN Electronic Journal, 0, , .	0.4	1

#	Article	IF	Citations
1062	Synthesis of diketopyrrolopyrrole and anthraquinone-based polymers of Dâ€“A1â€“Dâ€“A2 architecture by direct arylation polycondensation and designing inorganic/organic nano-heterostructured photoanodes for visible light water splitting. Sustainable Energy and Fuels, 2022, 6, 2343-2357.	2.5	7
1063	Oligomeric chain extender-derived anion conducting membrane materials with poly(p-phenylene)-based architecture for fuel cells and water electrolyzers. Journal of Materials Chemistry A, 2022, 10, 9693-9706.	5.2	22
1064	Chemical etching induced microporous nickel backbones decorated with metallic Fe@hydroxide nanocatalysts: an efficient and sustainable OER anode toward industrial alkaline water-splitting. Journal of Materials Chemistry A, 2022, 10, 8989-9000.	5.2	92
1065	Nanoporous Ni/Nio Catalyst for Efficient Hydrogen Evolution Reaction Prepared by Partial Electro-Oxidation after Dealloying. SSRN Electronic Journal, 0, , .	0.4	0
1066	Trains. Green Energy and Technology, 2022, , 51-58.	0.4	1
1067	Pt- and Pd-modified transition metal nitride catalysts for the hydrogen evolution reaction. Physical Chemistry Chemical Physics, 2022, 24, 12149-12157.	1.3	9
1068	Perovskites for protonic ceramic fuel cells: a review. Energy and Environmental Science, 2022, 15, 2200-2232.	15.6	87
1070	Engineering metalâ€“metal oxide surfaces for high-performance oxygen reduction on Agâ€“Mn electrocatalysts. Energy and Environmental Science, 2022, 15, 1611-1629.	15.6	22
1071	Design and Simulation of Hydrogen Filling Station for Fuel Cell Electric Vehicle Charging Applications. Lecture Notes in Electrical Engineering, 2022, , 381-396.	0.3	1
1073	Rationally Designed Ni2p/Ws2/Co9s8@C Multi-Interfacial Electrocatalyst for Efficient Overall Water Splitting. SSRN Electronic Journal, 0, , .	0.4	0
1074	What's Blocking Fuel-Cell Electric Vehicle Diffusion?ÂEvidence from Germany, Japan and California. SSRN Electronic Journal, 0, , .	0.4	0
1075	Fuel cells recycling. , 2022, , 361-373.		2
1076	Highly efficient catalysts of ruthenium clusters on Fe₃O₄/MWCNTs for the hydrogen evolution reaction. New Journal of Chemistry, 0, , .	1.4	5
1078	Structureâ€“property correlation in oxide-ion and proton conductors for clean energy applications: recent experimental and computational advancements. Journal of Materials Chemistry A, 2022, 10, 5082-5110.	5.2	23
1079	A tetra Co(<scp>ii</scp>/<scp>iii</scp>) complex with an open cubane Co₄O₄ core and square-pyramidal Co(<scp>ii</scp>) and octahedral Co(<scp>iii</scp>) centres: bifunctional electrocatalytic activity towards water splitting at neutral pH. Dalton Transactions, 2022, 51, 4510-4521.	1.6	9
1080	Role of energy technologies in response to climate change. Materials Today: Proceedings, 2022, 62, 63-69.	0.9	13
1081	Evaluating the Validity of a Hydrogen Mapping Method Based on Laser-induced Breakdown Spectroscopy. E-Journal of Surface Science and Nanotechnology, 2022, 20, 7-12.	0.1	1
1082	Exploring the Feasibility of Geological Storage of Hydrogen in Indian Porous Media: Challenges, Opportunities and the Way Ahead. , 2022, , .		3

#	Article	IF	Citations
1083	Nanoengineered, Mo-Doped, Ni₃S₂ Electrocatalyst with Increased Niâ€“S Coordination for Oxygen Evolution in Alkaline Seawater. Energy & Fuels, 2022, 36, 2910-2917.	2.5	24
1084	Synthesis and Electrochemical Activity of Carbon-Supported Trimetallic Ir95-xPd5Ptx Nanoparticles as Bifunctional Catalysts for Oxygen Evolution/Reduction Reactions. Electrocatalysis, 2022, 13, 328-337.	1.5	1
1085	Kinetics of Nanoparticles Nucleation/Growth and Control of the Pt/C Catalysts Microstructure and Activity. IOP Conference Series: Earth and Environmental Science, 2022, 987, 012022.	0.2	0
1086	Hydrogen Evolution Linked to Selective Oxidation of Glycerol over CoMoO₄â€”A Theoretically Predicted Catalyst. Advanced Energy Materials, 2022, 12, .	10.2	37
1087	An Unveiled Electrocatalysis Essence of NiCo Hydroxides through in Situ Raman Spectroscopy for Urea Oxidation. Energy Technology, 2022, 10, .	1.8	16
1088	Numerical Simulation of an on-Grid Natural Gas PEMFC - Solar Photovoltaic Micro CHP Unit: Analysis of the Energy, Economic and Environmental Impacts for Residential and Industrial Applications. Technology and Economics of Smart Grids and Sustainable Energy, 2022, 7, 1.	1.8	5
1089	Dual-Force Zone Nonequilibrium Molecular Dynamics Simulations on Nanoporous Metalâ€“Organic Framework Membranes for Separation of H₂/CH₄ Mixtures. ACS Applied Nano Materials, 2022, 5, 4048-4061.	2.4	9
1090	Investigations on the ORR Catalytic Performance Attenuation of a 1D Fe Single-Atom Catalyst during the Discharge Process. Journal of Physical Chemistry C, 2022, 126, 4826-4835.	1.5	5
1091	Recent trends in MXene/Metal chalcogenides for electro-/photocatalytic hydrogen evolution reactions. International Journal of Hydrogen Energy, 2022, 47, 41711-41732.	3.8	21
1092	Superior Dehydrogenation Performance of Î±â€²AlH₃ Catalyzed by Li₃N: Realizing 8.0Âwt.% Capacity at 100 Â°C. Small, 2022, 18, e2107983.	5.2	6
1093	Accurate Predictions of the Effect of Hydrogen Composition on the Thermodynamics and Transport Properties of Natural Gas. Industrial & Engineering Chemistry Research, 2022, 61, 6214-6234.	1.8	7
1094	6,6â€²-Di-(2â€³-thiophenol)-2,2â€²-bipyridine. MolBank, 2022, 2022, M1355.	0.2	1
1095	Resonant neutron reflectometry for hydrogen detection. Nature Communications, 2022, 13, 1486.	5.8	5
1096	Green hydrogen storage and delivery: Utilizing highly active homogeneous and heterogeneous catalysts for formic acid dehydrogenation. International Journal of Hydrogen Energy, 2022, 47, 11694-11724.	3.8	34
1097	Covalent Networking of a Conjugatedâ€Polymer Photocatalyst to Promote Exciton Diffusion in the Aqueous Phase for Efficient Hydrogen Production. Small Methods, 2022, 6, e2200010.	4.6	4
1098	Surface modification of TiO2 by adding V2O5 nanocatalytic system for hydrogen generation. Chemical Engineering Research and Design, 2022, 182, 114-119.	2.7	16
1100	Aldehyde replacement advances efficient hydrogen production in electrolyser. , 2022, , 100001.		0
1101	Graphene based electrodes for hydrogen fuel cells: A comprehensive review. International Journal of Hydrogen Energy, 2022, 47, 41848-41877.	3.8	12

#	Article	IF	Citations
1102	Constructing partially amorphous borate doped iron-nickel nitrate hydroxide nanoarrays by rapid microwave activation for oxygen evolution. Applied Surface Science, 2022, 592, 153245.	3.1	6
1103	Theory of Charge Transport in the Illuminated Semiconductor/Liquid Junctions. , 0, , .		1
1104	Mitigation of Edge and Surface States Effects in Twoâ€Đimensional WS₂ for Photocatalytic H₂ Generation. ChemSusChem, 2022, 15, .	3.6	3
1105	Enhanced hydrogen fuel production using synergistic combination of solar radiation and TiO2 photocatalyst coupled with Burkholderia cepacia lipase. International Journal of Hydrogen Energy, 2022, 47, 14483-14492.	3.8	7
1106	An efficient multi-agent negotiation algorithm for multi-period photovoltaic array reconfiguration with a hydrogen energy storage system. Energy Conversion and Management, 2022, 256, 115376.	4.4	19
1107	Nanomaterials enhancing the solid-state storage and decomposition of ammonia. Nanotechnology, 2022, 33, 222001.	1.3	4
1108	A completely precious metalâ€“free alkaline fuel cell with enhanced performance using a carbon-coated nickel anode. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2119883119.	3.3	54
1109	From biogas-to hydrogen â€“ Based integrated urban water, energy and waste solids system - Quest towards decarbonization. International Journal of Hydrogen Energy, 2022, 47, 10508-10530.	3.8	7
1110	A review on Chemical Looping Water Splitting (CLWS) as a potential alternative to Steam Methane Reforming (SMR) for hydrogen production. Journal of Physics: Conference Series, 2022, 2208, 012015.	0.3	4
1111	Synthesis, Characterization, and Hydrogen Evolution Activity of Metallo-meso-(4-fluoro-2,6-dimethylphenyl)porphyrin Derivatives. ACS Omega, 2022, 7, 8988-8994.	1.6	8
1112	<scp> Bi ₂ S ₃ </scp> can do it all: Sensitizer, counter electrode, and supercapacitor for symmetric solar cell assisted <scp>photoâ€supercapacitor</scp>. International Journal of Energy Research, 2022, 46, 11065-11078.	2.2	13
1113	Exploration of waste-generated nanocomposites as energy-driven systems for various methods of hydrogen production; A review. International Journal of Hydrogen Energy, 2022, 47, 16398-16423.	3.8	5
1114	Heterolytic Dissociation of H₂ in Heterogeneous Catalysis. ACS Catalysis, 2022, 12, 4707-4723.	5.5	80
1115	Pt nanowires as electrocatalysts for proton-exchange membrane fuel cells applications: A review. Journal of Electroanalytical Chemistry, 2022, 910, 116185.	1.9	3
1116	Impact of energy production mix on alternative fuel vehicle adoption in Korea. Transportation Research, Part D: Transport and Environment, 2022, 105, 103219.	3.2	7
1117	Facile preparation of polybenzimidazole membrane crosslinked with three-dimensional polyaniline for high-temperature proton exchange membrane. Journal of Power Sources, 2022, 528, 231218.	4.0	25
1118	N-doped carbon coated Ti3C2 MXene as a high-efficiency catalyst for improving hydrogen storage kinetics and stability of NaAlH4. Renewable Energy, 2022, 188, 778-787.	4.3	19
1119	Polypyrrole and Polythiophene Modified Carbon Nanotubeâ€Based Cathode Catalysts for Anion Exchange Membrane Fuel Cell. ChemElectroChem, 2022, 9, .	1.7	9

#	Article	IF	Citations
1120	Hydrogen storage and release characteristics of polycyclic aromatic by-products for LOHC systems. Applied Catalysis A: General, 2022, 636, 118583.	2.2	11
1121	Numerical modeling towards the safety assessment of multiple hydrogen fires in confined areas. Chemical Engineering Research and Design, 2022, 160, 594-609.	2.7	25
1122	Reviewâ€"Single-Atom Catalysts as Promising Candidates for Electrochemical Applications. Journal of the Electrochemical Society, 2022, 169, 046504.	1.3	12
1123	Reversible cycling performance of a flat-tube solid oxide cell for seawater electrolysis. Energy Conversion and Management, 2022, 258, 115543.	4.4	7
1124	Thermal management system for liquid-cooling PEMFC stack: From primary configuration to system control strategy. ETransportation, 2022, 12, 100165.	6.8	38
1125	Role of hydrogen-based energy carriers as an alternative option to reduce residual emissions associated with mid-century decarbonization goals. Applied Energy, 2022, 313, 118803.	5.1	58
1126	Enhancement of hydrogen evolution reaction kinetics in alkaline media by fast galvanic displacement of nickel with rhodium â€“ From smooth surfaces to electrodeposited nickel foams. Electrochimica Acta, 2022, 414, 140214.	2.6	10
1127	Structurally modulated and functionalized carbon nanotubes as potential filler for Nafion matrix toward improved power output and durability in proton exchange membrane fuel cells operating at reduced relative humidity. Journal of Membrane Science, 2022, 649, 120393.	4.1	46
1128	Investigating emerging hydrogen technology topics and comparing national level technological focus: Patent analysis using a structural topic model. Applied Energy, 2022, 313, 118898.	5.1	23
1129	WS2/p-Si-based photocathodes with high activity originated from the unique vertical geometry of the 2D WS2 nanoplatelets. FlatChem, 2022, 33, 100361.	2.8	4
1130	H2-powered aviation at airports â€“ Design and economics of LH2 refueling systems. Energy Conversion and Management: X, 2022, 14, 100206.	0.9	4
1131	Controllable synthesis of Co/Ni basic carbonate composite via regulating Co/Ni ratio with super rate performance for asymmetric solid-state supercapacitor. Journal of Alloys and Compounds, 2022, 906, 164270.	2.8	7
1132	Transition metal oxy/hydroxides functionalized flexible halloysite nanotubes for hydrogen evolution reaction. Journal of Colloid and Interface Science, 2022, 618, 518-528.	5.0	11
1133	Electronic modulation of iridium-molybdenum oxides with a low crystallinity for high-efficiency acidic oxygen evolution reaction. Chemical Engineering Journal, 2022, 440, 135851.	6.6	23
1134	Amorphization activated RhPb nanflowers for energy-saving hydrogen production by hydrazine-assisted water electrolysis. Chemical Engineering Journal, 2022, 440, 135848.	6.6	21
1135	A commentary of green hydrogen in MIT Technology Review 2021. Fundamental Research, 2021, 1, 848-850.	1.6	6
1136	Improving the Durability and Performance of Sulfonated Poly(arylene ether)s by Introducing 9,10-Dihydro-9-oxa-10-phosphaphenanthrene 10-oxide Structure for Fuel Cell Application. ACS Omega, 2021, 6, 35315-35324.	1.6	4
1137	Carbon Nanotube Based Metalâ€"Organic Framework Hybrids From Fundamentals Toward Applications. Small, 2022, 18, e2104628.	5.2	33

#	Article	IF	Citations
1138	PALADYUM TEMELLÄ° HÄ°DROJEN PEROKSÄ°T YAKIT HÃœCRELERÄ°. Konya Journal of Engineering Sciences, 0, , 17-28.	0.2	0
1139	A Sustainable Process to Produce Manganese and Its Alloys through Hydrogen and Aluminothermic Reduction. Processes, 2022, 10, 27.	1.3	9
1140	Materials for electrification of everything: Moving toward sustainability. MRS Bulletin, 2021, 46, 1130-1138.	1.7	5
1141	Microwave hydrothermal synthesis of WO3(H2O)0.333/CdS nanocomposites for efficient visible-light photocatalytic hydrogen evolution. Frontiers of Materials Science, 2021, 15, 589-600.	1.1	3
1142	Cost-Effectiveness Assessment of the Scale of Hydrogen Production by Various Methods. Russian Journal of General Chemistry, 2021, 91, 2743-2757.	0.3	3
1143	A Critical Assessment on Functional Attributes and Degradation Mechanism of Membrane Electrode Assembly Components in Direct Methanol Fuel Cells. Sustainability, 2021, 13, 13938.	1.6	10
1144	Molten carbonate fuel cells: a technological perspective and review. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 0, , 1-15.	1.2	5
1145	Hydrogen generation from methane on FeN3 and FeN4 embedded graphene surface using DFT method with Grimme-D3 dispersion correction. Sakarya University Journal of Science, 0, , .	0.3	0
1146	How Does a Microfluidic Platform Tune the Morphological Properties of Polybenzimidazole Nanoparticles?. Journal of Physical Chemistry B, 2022, 126, 308-326.	1.2	5
1147	Prediction of the monthly cost of energy usage by PEMFC at housing in North Sumatra Province, Indonesia. IOP Conference Series: Earth and Environmental Science, 2021, 927, 012035.	0.2	0
1148	Hydrogen liquefaction: a review of the fundamental physics, engineering practice and future opportunities. Energy and Environmental Science, 2022, 15, 2690-2731.	15.6	106
1149	Transition metal doped MoS2 nanosheets for electrocatalytic hydrogen evolution reaction. International Journal of Hydrogen Energy, 2022, 47, 37256-37263.	3.8	24
1150	The Effectiveness of Membrane Materials in Green Alternative Energy and Environmental Technologies. , 0, 2022, 1-21.		1
1151	Tetraphenolphthalein Cobalt(II) Phthalocyanine Polymer Modified with Multiwalled Carbon Nanotubes as an Efficient Catalyst for the Oxygen Reduction Reaction. ACS Omega, 2022, 7, 14291-14304.	1.6	15
1152	Seal contact performance analysis of soft seals on high-pressure hydrogen charge valves. Journal of Zhejiang University: Science A, 2022, 23, 247-256.	1.3	4
1153	Modulation of Moâ€“Feâ€“C Sites Over Mesoscale Diffusionâ€Enhanced Hollow Subâ€Micro Reactors Toward Boosted Electrochemical Water Oxidation. Advanced Functional Materials, 2022, 32, .	7.8	26
1154	Peat as a carbon source for non-platinum group metal oxygen electrocatalysts and AEMFC cathodes. International Journal of Hydrogen Energy, 2022, 47, 16908-16920.	3.8	9
1155	An Alkaline-Acid Glycerol Electrochemical Reformer for Simultaneous Production of Hydrogen and Electricity. Nanomaterials, 2022, 12, 1315.	1.9	3

#	Article	IF	Citations
1156	Air Foams for Mobility Control and Subsurface Storage of Hydrogen in Porous Media: An Experimental Study. Energy & Fuels, 2022, 36, 5036-5046.	2.5	14
1157	Numerical Heat Transfer and Fluid Flow: A Review of Contributions to the Special Issue. Energies, 2022, 15, 2922.	1.6	1
1158	Anion-Exchange Membrane Water Electrolyzers. Chemical Reviews, 2022, 122, 11830-11895.	23.0	177
1159	Reversible Power-to-Gas systems for energy conversion and storage. Nature Communications, 2022, 13, 2010.	5.8	39
1160	Energy-related approach for reduction of CO2 emissions: A critical strategy on the port-to-ship pathway. Journal of Cleaner Production, 2022, 355, 131772.	4.6	109
1161	A freeze-thaw molten salt battery for seasonal storage. Cell Reports Physical Science, 2022, 3, 100821.	2.8	5
1162	Copper-Palladium Core-Shell Bifunctional Nanoelectrocatalyst for Ethanol Oxidation and Hydrogen Evolution Reactions. Journal of the Electrochemical Society, 2022, 169, 056501.	1.3	2
1163	Life cycle assessment shows that retrofitting coal-fired power plants with fuel cells will substantially reduce greenhouse gas emissions. One Earth, 2022, 5, 392-402.	3.6	17
1164	Hydrogen Production and Its Applications to Mobility. Annual Review of Chemical and Biomolecular Engineering, 2022, 13, 501-528.	3.3	7
1165	Hierarchical nanoassembly of Ni/MoS2@Ni12P5/ZnP2 achieved by a plasma assisted phosphorization with highly improved electrocatalytic activity for overall water splitting. Electrochimica Acta, 2022, 419, 140392.	2.6	13
1166	Mg/seawater batteries driven self-powered direct seawater electrolysis systems for hydrogen production. Nano Energy, 2022, 98, 107295.	8.2	34
1167	Nanoporous Ni/NiO catalyst for efficient hydrogen evolution reaction prepared by partial electro-oxidation after dealloying. Journal of Alloys and Compounds, 2022, 911, 165061.	2.8	16
1168	Selective transfer hydrogenation coupling of nitroaromatics to azoxy/azo compounds by electron-enriched single Ni-N4 sites on mesoporous N-doped carbon. Chemical Engineering Journal, 2022, 443, 136416.	6.6	10
1169	Experimental investigations of effects of cycle time on NOx emission in a hydrogen fueled multi-cylinder automotive spark ignition engine. Sustainable Energy Technologies and Assessments, 2022, 52, 102203.	1.7	2
1170	Transition towards carbon-neutral districts based on storage techniques and spatiotemporal energy sharing with electrification and hydrogenation. Renewable and Sustainable Energy Reviews, 2022, 162, 112444.	8.2	61
1172	Single-step hydrogen production from NH ₃ , CH ₄ , and biogas in stacked proton ceramic reactors. Science, 2022, 376, 390-393.	6.0	56
1173	Iron and Nickel Phthalocyanine-Modified Nanocarbon Materials as Cathode Catalysts for Anion-Exchange Membrane Fuel Cells and Zinc-Air Batteries. SSRN Electronic Journal, 0, , .	0.4	0
1175	Effect of feed impurities on catalytic performance of CuFe₂O₄/Î²-SiC for SO₃ decomposition in the sulfurâ€“iodine cycle. Catalysis Science and Technology, 2022, 12, 4066-4073.	2.1	1

#	Article	IF	Citations
1176	Anaerobic self-assembly of a regenerable bacteria-quantum dot hybrid for solar hydrogen production. Nanoscale, 2022, 14, 8409-8417.	2.8	15
1177	0D/2D CoN/g-C₃N₄ Composites: Structure and Photocatalytic Performance for Hydrogen Production. Wuji Cailiao Xuebao/Journal of Inorganic Materials, 2022, 37, 1001.	0.6	1
1178	Modelled Refuelling Infrastructure Requirements for Green Hydrogen Road Fuel. SSRN Electronic Journal, 0, , .	0.4	0
1179	Iron and Nickel Phthalocyanine-Modified Nanocarbon Materials as Cathode Catalysts for Anion-Exchange Membrane Fuel Cells and Zinc-Air Batteries. SSRN Electronic Journal, 0, , .	0.4	0
1181	Mechanochemical Synthesis of Heterophase Molybdenum Carbides for All-Ph Hydrogen Evolution Reactions. SSRN Electronic Journal, 0, , .	0.4	0
1182	Accelerating hydrazine-assisted hydrogen production kinetics with Mn dopant modulated CoS₂ nanowire arrays. Inorganic Chemistry Frontiers, 2022, 9, 3047-3058.	3.0	53
1183	The Impact of Energy Commodity Prices on Selected Clean Energy Metal Prices. Energies, 2022, 15, 3051.	1.6	3
1184	Facile synthesis of zeolitic imidazolate frameworkâ€67/vanadiumâ€doped nickel hydroxide as active electrocatalyst for oxygen evolution reaction. International Journal of Energy Research, 0, , .	2.2	1
1185	Assessment of the Potential for Hydrogen Production from Bottom Fixed Offshore Wind in Uruguay. , 2022, , .		1
1186	Hydrogen Evolution Performances of Different Z-Scheme Configurations Composed of Ta₃N₅ and WO₃ on a Nanohoneycomb Substrate. ACS Applied Energy Materials, 2022, 5, 5947-5953.	2.5	1
1187	Low-temperature gasoline fuel cell based on phosphotungstic acid: a proof-of-concept. , 2022, , .		0
1188	Electrodeposition of self-supported NiMo amorphous coating as an efficient and stable catalyst for hydrogen evolution reaction. Rare Metals, 2022, 41, 2624-2632.	3.6	29
1189	Recent Advances in Bimetallic Catalysts for Hydrogen Production from Ammonia. Chemical Record, 2022, 22, e202200030.	2.9	19
1190	MWCNT Aided Cobalt Antimony Sulfide Electrocatalyst for Dye-Sensitized Solar Cells and Supercapacitors: Designing Integrated Photo-Powered Energy System. Journal of the Electrochemical Society, 2022, 169, 056518.	1.3	11
1191	Disentangling Electronic and Geometric Effects in Electrocatalysis through Substitution in Isostructural Intermetallic Compounds. Journal of the American Chemical Society, 2022, 144, 8379-8388.	6.6	10
1192	A Review of the Impact of Hydrogen Integration in Natural Gas Distribution Networks and Electric Smart Grids. Energies, 2022, 15, 3160.	1.6	9
1193	Supported Pt Enabled Proton-Driven NAD(P)⁺ Regeneration for Biocatalytic Oxidation. ACS Applied Materials & Interfaces, 2022, 14, 20943-20952.	4.0	4
1194	Transition metal tellurides as emerging catalysts for electrochemical water splitting. Current Opinion in Electrochemistry, 2022, 34, 101031.	2.5	12

#	Article	IF	Citations
1195	Rationally designed Ni2P/WS2/Co9S8@C multi-interfacial electrocatalyst for efficient overall water splitting. Chemical Engineering Journal, 2022, 446, 136961.	6.6	22
1196	Protection and confinement effect of carbon on Co/CoxOy nano-catalyst for efficient NaBH4 hydrolysis. International Journal of Hydrogen Energy, 2022, 47, 20185-20193.	3.8	5
1197	Photoactive semiconducting metal oxides: Hydrogen gas sensing mechanisms. International Journal of Hydrogen Energy, 2022, 47, 18208-18227.	3.8	12
1198	Nano-control synthesis the porous network of NiCoP and F doped NiCo2Al-LDHs@ZnFeAl-LDHs nanosheets as superior catalyst for efficient overall water splitting. Journal of Industrial and Engineering Chemistry, 2022, , .	2.9	4
1199	MoSe2 regulates Ce-doped NiFe layered double hydroxide for efficient oxygen evolution reaction: The increase of active sites. International Journal of Hydrogen Energy, 2022, 47, 18688-18699.	3.8	11
1200	Enhancing the Photon Absorption and Charge Carrier Dynamics of BaSnO₃ Photoanodes via Intrinsic and Extrinsic Defects. Chemistry of Materials, 2022, 34, 4320-4335.	3.2	8
1201	[2.2]â€•and [3.3]Paracyclophane as bridging units in organic dyads for visibleâ€lightâ€driven dyeâ€sensitized hydrogen production. Chemistry - A European Journal, 2022, , .	1.7	2
1202	Clean hydrogen for mobility â€“ Quo vadis?. International Journal of Hydrogen Energy, 2022, 47, 20632-20661.	3.8	37
1203	Simulation of proton exchange membrane electrolyzer: Influence of bubble covering. International Journal of Hydrogen Energy, 2022, 47, 20027-20039.	3.8	17
1204	Transition of heavyâ€duty trucks from diesel to hydrogen fuel cells: Opportunities, challenges, and recommendations. International Journal of Energy Research, 2022, 46, 11718-11729.	2.2	13
1205	Caustic aqueous phase electrochemical reforming (CAPER) of ethanol for process intensified compressed hydrogen production. Applied Catalysis A: General, 2022, 641, 118647.	2.2	3
1206	Dual-anions engineering of bimetallic oxides as highly active electrocatalyst for boosted overall water splitting. Journal of Colloid and Interface Science, 2022, 623, 467-475.	5.0	26
1207	Recent Advances on Hydrogen Evolution and Oxygen Evolution Catalysts for Direct Seawater Splitting. Coatings, 2022, 12, 659.	1.2	14
1208	Quantifying the impacts of heat decarbonisation pathways on the future electricity and gas demand. Energy, 2022, 254, 124229.	4.5	9
1209	Investigation of the correlation effects of catalyst loading and ionomer content in an anode electrode on the performance of polymer electrode membrane water electrolysis. International Journal of Hydrogen Energy, 2022, 47, 18229-18239.	3.8	8
1210	From the geopolitics of oil and gas to the geopolitics of the energy transition: Is there a role for European supermajors?. Energy Research and Social Science, 2022, 88, 102634.	3.0	36
1211	Selective electrooxidation of primary amines over a Ni/Co metal-organic framework derived electrode enabling effective hydrogen production in the membrane-free electrolyzer. Journal of Power Sources, 2022, 535, 231461.	4.0	23
1212	Sustainable management of municipal solid waste through waste-to-energy technologies. Bioresource Technology, 2022, 355, 127247.	4.8	60

#	Article	IF	Citations
1213	Towards underground hydrogen storage: A review of barriers. Renewable and Sustainable Energy Reviews, 2022, 162, 112451.	8.2	119
1214	Ionomer immobilized onto nitrogen-doped carbon black as efficient and durable electrode binder and electrolyte for polymer electrolyte fuel cells. Electrochimica Acta, 2022, 421, 140427.	2.6	1
1215	Evaluation of the impact of green hydrogen blending scenarios in the Italian gas network: Optimal design and dynamic simulation of operation strategies. Renewable and Sustainable Energy Transition, 2022, 2, 100022.	1.4	9
1216	Metal- and non-metal-incorporated vitamin B12 on graphene as a bio-derived electrocatalyst for the high-performance oxygen reduction reaction in acidic media. Journal of Alloys and Compounds, 2022, 912, 165118.	2.8	4
1217	Norbornane derived N-doped sp2 carbon framework as an efficient electrocatalyst for oxygen reduction reaction and hydrogen evolution reaction. Fuel, 2022, 323, 124420.	3.4	5
1218	Synergy of nitrogen vacancies and intercalation of carbon species for enhancing sunlight photocatalytic hydrogen production of carbon nitride. Applied Catalysis B: Environmental, 2022, 314, 121497.	10.8	37
1219	Scope and prospect of transition metal-based cocatalysts for visible light-driven photocatalytic hydrogen evolution with graphitic carbon nitride. Coordination Chemistry Reviews, 2022, 465, 214516.	9.5	34
1220	Boosting electrocatalytic hydrogen evolution over the wide pH range for CoP3 nanowire arrays via Ni doping. Journal of Alloys and Compounds, 2022, 915, 165440.	2.8	4
1221	Research on the Performance Comparison of Two Fuel Cell Electric Vehicles with Typical Energy Management Strategies. World Electric Vehicle Journal, 2022, 13, 89.	1.6	1
1222	Covalent triazine framework encapsulated Pd nanoclusters for efficient hydrogen production via ammonia borane hydrolysis. Journal of Catalysis, 2022, 411, 72-83.	3.1	27
1223	Improved platinumâ€nickel nanoparticles with dopamineâ€derived carbon shells for proton exchange membrane fuel cells. International Journal of Energy Research, 0, , .	2.2	1
1224	Wet-air co-electrolysis in high-temperature solid oxide electrolysis cell for production of ammonia feedstock. International Journal of Hydrogen Energy, 2022, 47, 18577-18586.	3.8	3
1225	Au nanoparticles loaded Ta2O5@nanohoneycomb structure for visible-light-driven photocatalytic hydrogen evolution. Applied Surface Science, 2022, 599, 153620.	3.1	5
1226	Water electrolysis: from textbook knowledge to the latest scientific strategies and industrial developments. Chemical Society Reviews, 2022, 51, 4583-4762.	18.7	453
1227	Low-temperature water electrolysis: fundamentals, progress, and new strategies. Materials Advances, 2022, 3, 5598-5644.	2.6	50
1228	Chemical fabrication, structural characterization and photocatalytic water splitting application of Sr-doped SnO₂ nanoparticles. Nanotechnology, 2022, 33, 355706.	1.3	15
1229	Twoâ€Dimensional Materials and their Heteroâ€Superlattices for Photocatalytic Hydrogen Evolution Reaction. ChemNanoMat, 2022, 8, .	1.5	3
1230	Organic redox polymers as electrochemical energy materials. Green Chemistry, 2022, 24, 4650-4679.	4.6	18

#	Article	IF	Citations
1231	Electrochemical H2 Production using Polypyrazole based Zinc(II) Complex in Alkaline Medium. Asian Journal of Chemistry, 2022, 34, 1366-1372.	0.1	0
1232	rGO functionalized (Ni,Fe)-OH for an efficient trifunctional catalyst in low-cost hydrogen generation via urea decomposition as a proxy anodic reaction. Dalton Transactions, 2022, 51, 8994-9006.	1.6	33
1233	Efficient and controlled H₂ release from sodium formate. Inorganic Chemistry Frontiers, 2022, 9, 3514-3521.	3.0	10
1234	Designing independent water transport channels to improve water flooding in ultra-thin nanoporous film cathodes for PEMFCs. International Journal of Hydrogen Energy, 2022, 47, 21261-21272.	3.8	15
1235	Technical and Economic Analysis of Fuel Cells for Forklift Applications. ACS Omega, 2022, 7, 18267-18275.	1.6	7
1236	Alcohol-assisted hydrodeoxygenation as a sustainable and cost-effective pathway for biomass derivatives upgrading. Journal of Energy Chemistry, 2022, 73, 133-159.	7.1	28
1237	Existing tools, user needs and required model adjustments for energy demand modelling of a carbon-neutral Europe. Energy Research and Social Science, 2022, 90, 102662.	3.0	12
1238	The potential role of olive groves to deliver carbon dioxide removal in a carbon-neutral Europe: Opportunities and challenges. Renewable and Sustainable Energy Reviews, 2022, 165, 112609.	8.2	13
1239	Modulating the electronic structures of layer-expanded MoS2 nanoreactor via cobalt doping and carbon intercalation for enhanced electrocatalytic hydrogen evolution. Chemical Engineering Journal, 2022, 446, 137080.	6.6	22
1240	Powering Aquaculture Operations at Sea: Can Hydrogen Be a Sustainable Solution?. SSRN Electronic Journal, 0, , .	0.4	2
1241	Highly Durable Poly(Arylene Piperidinium) Composite Membranes Modified with Polyhedral Oligomeric Silsesquioxane for Fuel Cell and Water Electrolysis Application. SSRN Electronic Journal, 0, , .	0.4	0
1242	Unveiling the mechanistic landscape of formic acid dehydrogenation catalyzed by Cpâ^—M(III) catalysts (M) Tj ETQq1 1 0.784314 rgB Journal of Hydrogen Energy, 2022, 47, 21736-21744.	3.8	1
1243	Analysis of effects of the hydrogen supply chain on the Korean energy system. International Journal of Hydrogen Energy, 2022, 47, 21908-21922.	3.8	9
1244	Recent Progress in Graphene-Based Electrocatalysts for Hydrogen Evolution Reaction. Nanomaterials, 2022, 12, 1806.	1.9	12
1245	Hydrogen production via sodium borohydride hydrolysis catalyzed by cobalt ferrite anchored nitrogen-and sulfur co-doped graphene hybrid nanocatalyst: Artificial neural network modeling approach. Chemical Engineering Research and Design, 2022, 183, 557-566.	2.7	53
1246	Passive Small Direct Alcohol Fuel Cells for Low-Power Portable Applications: Assessment Based on Innovative Increments since 2018. Energies, 2022, 15, 3787.	1.6	7
1247	Hydrogen Economy Assessment & Resource Tool (HEART): A python-based tool for ASEAN H2 roadmap study. International Journal of Hydrogen Energy, 2022, 47, 21897-21907.	3.8	6
1248	Analysis of lignins using ³¹P benchtop NMR spectroscopy: quantitative assessment of substructures and comparison to high-field NMR. Canadian Journal of Chemistry, 2022, 100, 799-808.	0.6	5

#	Article	IF	Citations
1249	Multi-model assessment of heat decarbonisation options in the UK using electricity and hydrogen. Renewable Energy, 2022, 194, 1261-1276.	4.3	14
1250	Ultra-pure hydrogen production via ammonia decomposition in a catalytic membrane reactor. International Journal of Hydrogen Energy, 2022, 47, 21220-21230.	3.8	29
1251	Optimal conditions for maximized H2 yield from a new green algal strain Chlorella sp. KLSc61. Journal of Applied Phycology, 2022, 34, 1909-1919.	1.5	2
1252	Does the thermal conductivity of gas diffusion layer matter in polymer electrolyte fuel cells?. Journal of Power Sources, 2022, 540, 231539.	4.0	7
1253	Synergetic effect induced/tuned bimetallic nanoparticles (Pt-Ni) anchored graphene as a catalyst for oxygen reduction reaction and scalable SS-314L serpentine flow field proton exchange membrane fuel cells (PEMFCs). Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2022, 282, 115780.	1.7	4
1254	Exploring critical parameters of electrode fabrication in polymer electrolyte membrane fuel cells. Journal of Power Sources, 2022, 540, 231638.	4.0	3
1255	Review on the preparation of electrolyte thin films based on cerate-zirconate oxides for electrochemical analysis of anode-supported proton ceramic fuel cells. Journal of Alloys and Compounds, 2022, 918, 165434.	2.8	23
1256	NiCu alloys anchored defect-rich NiFe layered double-hydroxides as efficient electrocatalysts for overall water splitting. Chemical Engineering Journal, 2022, 446, 137226.	6.6	43
1257	Facile Route for Synthesizing Ws2/W2c Nano Hollow Flowers and Their Application for Hydrogen Evolution Reaction. SSRN Electronic Journal, 0, , .	0.4	0
1258	Bifunctional atomically dispersed ruthenium electrocatalysts for efficient bipolar membrane water electrolysis. Inorganic Chemistry Frontiers, 2022, 9, 4142-4150.	3.0	11
1259	Oxygen reduction reaction in hydrogen fuel cells. , 2022, , 277-303.		0
1260	Self-supported and defect-rich CoP nanowire arrays with abundant catalytic sites as a highly efficient bifunctional electrocatalyst for water splitting. New Journal of Chemistry, 2022, 46, 13117-13121.	1.4	1
1261	Introduction to various sustainable energy storage technologies. , 2022, , 33-57.		0
1262	Oxygen reduction reaction by metal complexes containing non-macrocyclic ligands. , 2022, , 125-172.		1
1263	Rapidly reconstructing the active surface of cobalt-based perovskites for alkaline seawater splitting. Nanoscale, 2022, 14, 10118-10124.	2.8	5
1264	Do We Really Need a Seasonal Energy Storage? Results for Photovoltaic Technology in an Unfavourable Scenario. SSRN Electronic Journal, 0, , .	0.4	0
1265	Enhancing distribution system resiliency using grid-forming fuel cell inverter. , 2022, , .		2
1266	Recent Advances in Perovskite Catalysts for Efficient Overall Water Splitting. Catalysts, 2022, 12, 601.	1.6	17

#	Article	IF	Citations
1267	æ°¢æ°”ä¼æ„Ÿå™¨çš„è¿›å±•ä¸Žå±•æœ›. Chinese Science Bulletin, 2022, , .	0.4	2
1268	Hydrogen Energy as Future of Sustainable Mobility. Frontiers in Energy Research, 0, 10, .	1.2	35
1269	Free-standing and binder-free porous monolithic electrodes prepared via solâ€“gel processes. Journal of Sol-Gel Science and Technology, 2022, 103, 637-679.	1.1	5
1270	Palladium Membrane with High Density of Large-Angle Grain Boundaries to Promote Hydrogen Diffusivity. Membranes, 2022, 12, 617.	1.4	0
1271	Formation and Detection of High-Pressure Oxygen in Closed Pores of La_{0.6}Sr_{0.4}CoO_{3â^Î´} Solid Oxide Electrolysis Anodes. ACS Applied Energy Materials, 0, , .	2.5	3
1272	Solid oxide cells with cermet of silver and gadolinium-doped-ceria symmetrical electrodes for high-performance power generation and water electrolysis. International Journal of Hydrogen Energy, 2022, 47, 25090-25103.	3.8	8
1273	Statistical and stochastic feasibility studies of potential liquid organic hydrogen carriers in a membrane reactor for simultaneous hydrogen storage and production: Technical, economic, and environmental aspects. Renewable Energy, 2022, 195, 1393-1411.	4.3	4
1274	Study of transportation prospects and safety regulations of hydrogen in Indian context: A green fuel for greener future. Materials Today: Proceedings, 2022, 65, 3382-3387.	0.9	5
1275	Diversity of options to eliminate fossil fuels and reach carbon neutrality across the entire European energy system. Joule, 2022, 6, 1253-1276.	11.7	51
1276	Platinumâ€Rare Earth Alloy Electrocatalysts for the Oxygen Reduction Reaction: A Brief Overview. ChemCatChem, 2022, 14, .	1.8	13
1277	Dinitrosyl iron complexes (<scp>DNICs</scp>) acting as catalyst for photocatalytic hydrogen evolution reaction (<scp>HER</scp>). Journal of the Chinese Chemical Society, 2022, 69, 1406-1418.	0.8	3
1278	Highâ€Alkaline Waterâ€Splitting Activity of Mesoporous 3D Heterostructures: An Amorphousâ€Shell@Crystallineâ€Core Nanoâ€Assembly of Coâ€Niâ€Phosphate Ultrathinâ€Nanosheets and Vâ€Doped Cobaltâ€Nitride Nanowires. Advanced Science, 2022, 9, .	9.5	41
1279	Towards a 100% hydrogen domestic gas network: Regulatory and commercial barriers to the first demonstrator project in the United Kingdom. International Journal of Hydrogen Energy, 2022, 47, 23071-23083.	3.8	19
1280	Recent Advances in Anode Electrocatalysts for Direct Formic Acid Fuel Cells â€“ Part I â€“ Fundamentals and Pd Based Catalysts. Chemical Record, 2022, 22, .	2.9	10
1281	Gram-Scale Synthesis of Carbon-Supported Sub-5 nm PtNi Nanocrystals for Efficient Oxygen Reduction. Metals, 2022, 12, 1078.	1.0	2
1282	Promising material for large-scale H2 storage and efficient H2-CO2 separation. Separation and Purification Technology, 2022, 298, 121542.	3.9	7
1283	Methodsâ€”A Practical Approach to the Reversible Hydrogen Electrode Scale. Journal of the Electrochemical Society, 2022, 169, 066505.	1.3	11
1284	Impact of Hydrothermally Prepared Support on the Catalytic Properties of CuCe Oxide for Preferential CO Oxidation Reaction. Catalysts, 2022, 12, 674.	1.6	5

#	Article	IF	Citations
1285	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.	3.8	8
1286	Controllable synthesis of a self-assembled ultralow Ru, Ni-doped Fe2O3 lily as a bifunctional electrocatalyst for large-current-density alkaline seawater electrolysis. Chinese Journal of Catalysis, 2022, 43, 2202-2211.	6.9	39
1287	Single-step insertion of M-Nx moieties in commercial carbon for sustainable bifunctional electrocatalysis: Mapping insertion capacity, mass loss, and carbon reconstruction. Carbon, 2022, 196, 1001-1011.	5.4	8
1288	Effect of the carbon support on MoS2 hybrid nanostructures prepared by an impinging jet reactor for hydrogen evolution reaction catalysis. Journal of Environmental Chemical Engineering, 2022, 10, 108038.	3.3	20
1289	AgNPs@Fe-N-C oxygen reduction catalysts for anion exchange membrane fuel cells. Nano Energy, 2022, 100, 107466.	8.2	31
1290	Cycle life prediction of NiCo2O4//activated carbon asymmetric supercapacitors. Journal of Energy Storage, 2022, 53, 105035.	3.9	6
1291	A â€˜justâ€™ hydrogen economy: A normative energy justice assessment of the hydrogen economy. Renewable and Sustainable Energy Reviews, 2022, 167, 112648.	8.2	47
1292	Synergistically coupling of Ni3Mo3C/Mo2C/Ti3C2Tx MXene/N-doped carbon electrocatalyst towards enhanced hydrogen evolution activity. Journal of Alloys and Compounds, 2022, 920, 165826.	2.8	16
1293	Highly stable and efficient Pt single-atom catalyst for reversible proton-conducting solid oxide cells. Applied Catalysis B: Environmental, 2022, 316, 121627.	10.8	16
1294	Nitro-oxidized carboxylated cellulose nanofiber based nanopapers and their PEM fuel cell performance. Sustainable Energy and Fuels, 2022, 6, 3669-3680.	2.5	11
1295	High Performance Nanocomposite Proton Exchange Membranes Based on the Nanohybrids Formed by Chemically Bonding Phosphotungstic Acid with Covalent Organic Frameworks. SSRN Electronic Journal, 0, , .	0.4	0
1296	Plasmonic Au nanoparticle sandwiched CuBi₂O₄/Sb₂S₃photocathode with multi-mediated electron transfer for efficient solar water splitting. Sustainable Energy and Fuels, 2022, 6, 3961-3974.	2.5	15
1297	Electrocatalytic Oxidation of Hydrazine by Flexible Self-Supported Cobalt Phosphide Nanocrystals. SSRN Electronic Journal, 0, , .	0.4	0
1299	Implementation of heteroatom-doped nanomaterial/coreâ€“shell nanostructure based electrocatalysts for fuel cells and metal-ion/air/sulfur batteries. Materials Advances, 2022, 3, 6096-6124.	2.6	8
1300	Synchrotron radiation based X-ray techniques for analysis of cathodes in Li rechargeable batteries. RSC Advances, 2022, 12, 20360-20378.	1.7	5
1301	Proton-conducting metalâ€“organic frameworks with linkers containing anthracenyl and sulfonate groups. CrystEngComm, 2022, 24, 5450-5459.	1.3	3
1302	Hotspots on Action: Near-infrared Light Mediated Photo Electrochemical Oxygen Evolution on High Index Facet Plasmonic Gold Nano Architectures.. Nanoscale, 0, , .	2.8	3
1303	Role of Î±-MoC(100) in Methanol Steam Reforming: A Mechanistic Study of DFT. Chinese Journal of Chemical Physics, 0, , .	0.6	1

#	Article	IF	Citations
1304	Alcohol Diffusion in Alkali-Metal-Doped Polymeric Membranes for Using in Alkaline Direct Alcohol Fuel Cells. Membranes, 2022, 12, 666.	1.4	3
1305	Rechargeable Silicon Redox Batteries. Advanced Energy Materials, 2022, 12, .	10.2	3
1306	Phosphatizing engineering of heterostructured Rh2P/Rh nanoparticles on doped graphene for efficient hydrogen evolution in alkaline and acidic media. International Journal of Hydrogen Energy, 2022, 47, 24669-24679.	3.8	6
1307	A self-supported heterogeneous bimetallic phosphide array electrode enables efficient hydrogen evolution from saline water splitting. Nano Research, 2023, 16, 3658-3664.	5.8	17
1308	Enhanced photocatalytic activity in water splitting for hydrogen generation by using TiO2 coated carbon fiber with high reusability. International Journal of Hydrogen Energy, 2022, 47, 41621-41630.	3.8	10
1309	Cellulose Nanocrystals Crosslinked with Sulfosuccinic Acid as Sustainable Proton Exchange Membranes for Electrochemical Energy Applications. Membranes, 2022, 12, 658.	1.4	5
1310	Bandgap control of p-n heterojunction of Cuâ€“Cu2O @ ZnO with modified reduced graphene oxide nanocomposites for photocatalytic hydrogen evolution. International Journal of Hydrogen Energy, 2022, 47, 23249-23263.	3.8	13
1311	THEORETICAL STUDY OF THE EFFECT OF rGO/GO COMPOSITE COMPOSITION ON THE HYDROGEN FUEL CELL CHARACTERISTICS. Journal of Structural Chemistry, 2022, 63, 951-955.	0.3	0
1312	Future of Hydrogen as an Alternative Fuel for Next-Generation Industrial Applications; Challenges and Expected Opportunities. Energies, 2022, 15, 4741.	1.6	56
1313	Research and development of hydrogen carrier based solutions for hydrogen compression and storage. Progress in Energy, 2022, 4, 042005.	4.6	14
1314	Ultrafast self-heating synthesis of robust heterogeneous nanocarbides for high current density hydrogen evolution reaction. Nature Communications, 2022, 13, .	5.8	62
1315	Prediction of Pressure-Composition-Temperature Curves of AB2-Type Hydrogen Storage Alloys by Machine Learning. Metals and Materials International, 2023, 29, 861-869.	1.8	3
1316	In-situ generate robust Feâ€“Ni derived nano-catalyst featuring surface reconstruction for enhanced oxygen evolution reaction. International Journal of Hydrogen Energy, 2022, 47, 28303-28312.	3.8	13
1317	Evaluation of inhibitory compounds produced by bacteria isolated from a hydrogen-producing bioreactor during the self-fermentation of wheat straw. Journal of Applied Microbiology, 2022, 133, 1989-2001.	1.4	3
1318	A Review on Industrial Perspectives and Challenges on Material, Manufacturing, Design and Development of Compressed Hydrogen Storage Tanks for the Transportation Sector. Energies, 2022, 15, 5152.	1.6	28
1319	Low-carbon transition in smart city with sustainable airport energy ecosystems and hydrogen-based renewable-grid-storage-flexibility. , 2022, 1, 100001.		53
1320	Business Model Development for a High-Temperature (Co-)Electrolyser System. Fuels, 2022, 3, 392-407.	1.3	0
1321	New proton conductive membranes of indazole- and condensed pyrazolebisphosphonic acid-Nafion membranes for PEMFC. Renewable Energy, 2022, 196, 1187-1196.	4.3	9

#	Article	IF	Citations
1322	Improved hydrogen storage characteristics of magnesium hydride using dual auto catalysts (MgF2+CsH). International Journal of Hydrogen Energy, 2022, 47, 27049-27058.	3.8	8
1323	LiBH4â€“VCl3 and LiAlH4â€“VCl3 mixtures prepared in soft milling conditions for hydrogen release at low temperature. International Journal of Hydrogen Energy, 2022, 47, 28046-28060.	3.8	3
1324	Mechanochemical Synthesis of Phosphonate-Based Proton Conducting Metalâ€“Organic Frameworks. Inorganic Chemistry, 2022, 61, 10801-10809.	1.9	10
1325	Development of efficient hydrogen refueling station by process optimization and control. International Journal of Hydrogen Energy, 2022, 47, 23721-23730.	3.8	23
1326	Intercalation optimized hexagonal boron nitride nanosheets for high efficiency hydrogen storage. Applied Surface Science, 2022, 604, 154118.	3.1	5
1327	Stable Co/N-Doped Carbon Nanotubes as Catalysts for Oxygen Reduction. ACS Applied Nano Materials, 2022, 5, 10026-10035.	2.4	8
1328	The rational design of gCN/a-WOx/Pt heterostructured nanophotocatalysts for boosting the hydrogen generation from the hydrolysis of ammonia borane under visible light. International Journal of Hydrogen Energy, 2022, , .	3.8	3
1329	Bimetallic polyoxometalate derived Co/WN composite as electrocatalyst for high-efficiency hydrogen evolution. International Journal of Hydrogen Energy, 2022, 47, 27452-27459.	3.8	8
1330	Effect of Hydrothermal Method Temperature on the Spherical Flowerlike Nanostructures NiCo(OH)4-NiO. Nanomaterials, 2022, 12, 2276.	1.9	3
1331	Amperometric Hydrogen Sensor Based on Solid Polymer Electrolyte and Titanium Foam Electrode. ACS Omega, 2022, 7, 24895-24902.	1.6	2
1332	Unfolding essence of nanoscience for improved water splitting hydrogen generation in the light of newly emergent nanocatalysts. International Journal of Hydrogen Energy, 2022, 47, 26915-26955.	3.8	16
1333	Electroreduction of oxygen on iron- and cobalt-containing nitrogen-doped carbon catalysts prepared from the rapeseed press cake. Journal of Electroanalytical Chemistry, 2022, 920, 116599.	1.9	4
1334	Strategic transport fleet analysis of heavy goods vehicle technology for net-zero targets. Energy Policy, 2022, 168, 112988.	4.2	8
1335	Vacuum pressure swing adsorption for producing fuel cell grade hydrogen from IGCC. Energy, 2022, 257, 124715.	4.5	10
1336	Hydrogen fuel cell heavy-duty trucks: Review of main research topics. International Journal of Hydrogen Energy, 2022, 47, 29505-29525.	3.8	60
1337	A-site double-lanthanide-doped La1â^'xPrxBaCo2O5+Î´ cathode materials for intermediate-temperature solid oxide fuel cells. Journal of Materials Science, 2022, 57, 14398-14412.	1.7	6
1338	Performance of a fuel cellâ€based proton battery with varied designs of microâ€flow channel for enhanced hydrogen storage. Environmental Progress and Sustainable Energy, 0, , .	1.3	0
1339	Recycling of platinum group metals from energy storage devices: a techno-economical business plan analysis. Open Research Europe, 0, 2, 92.	2.0	0

#	Article	IF	Citations
1340	Safe Ventilation Methods against Leaks in Hydrogen Fuel Cell Rooms in Homes. Energies, 2022, 15, 5434.	1.6	7
1341	Size-Dependent Electrocatalytic Water Oxidation Activity for a Series of Atomically Precise Nickel-Thiolate Clusters. Inorganic Chemistry, 2023, 62, 1875-1884.	1.9	6
1342	Copolymers of Pyridine-bridged polybenzimidazole for the use in high temperature PEM fuel cell. European Polymer Journal, 2022, 177, 111445.	2.6	13
1343	Solid-state mechanochemical synthesis of Rh/Al2O3 catalysts for effective hydrolysis of ammonia borane. Molecular Catalysis, 2022, 528, 112518.	1.0	2
1344	A Green Hydrogen Energy System: Optimal control strategies for integrated hydrogen storage and power generation with wind energy. Renewable and Sustainable Energy Reviews, 2022, 168, 112744.	8.2	80
1345	Metal oxyhydroxide nanosheet-assisted fabrication of ultrathin carbon molecular sieve membrane for hydrogen separation. Journal of Materials Chemistry A, 2022, 10, 18095-18102.	5.2	4
1346	Planetary Boundaries Assessment of Flue Gas Valorization into Ammonia and Methane. Computer Aided Chemical Engineering, 2022, , 799-804.	0.3	0
1347	[FeFe]-Hydrogenases: Structure, Mechanism, and Metallocluster Biosynthesis. , 2022, , .		0
1348	Prospects for Using Hydrogen in Various Branches of the World Economy as One of the Directions of Its Decarbonization. Russian Journal of Applied Chemistry, 2022, 95, 309-340.	0.1	0
1349	Nanostructures and catalytic atoms engineering of telluriumâ€based materials and their roles in electrochemical energy conversion. SmartMat, 2023, 4, .	6.4	9
1350	Exergy Return on Exergy Investment and CO₂ Intensity of the Underground Biomethanation Process. ACS Sustainable Chemistry and Engineering, 2022, 10, 10318-10326.	3.2	5
1351	Sustainable oxygen evolution electrocatalysis in aqueous 1â€‰M H2SO4 with earth abundant nanostructured Co3O4. Nature Communications, 2022, 13, .	5.8	55
1352	Approaching C1 Reaction Mechanisms Using Combined Operando and Transient Analysis: A Case Study on Cu/CeO₂ Catalysts during the LT-Waterâ€“Gas Shift Reaction. ACS Catalysis, 2022, 12, 9503-9514.	5.5	5
1353	Hydrogen Refueling Stations and Carbon Emission Reduction of Coastal Expressways: A Deployment Model and Multi-Scenario Analysis. Journal of Marine Science and Engineering, 2022, 10, 992.	1.2	14
1354	The second life of coffee can be even more energizing: Circularity of materials for bio-based electrochemical energy storage devices. MRS Energy & Sustainability, 2022, 9, 443-460.	1.3	1
1355	Evaluation of performance degradation of high temperature proton exchange membrane fuel cells using a simple start-stop testing protocol. , 2022, , .		0
1356	P-doped CoCu aerogel as a bifunctional electrocatalyst for efficient overall water splitting. Electrochimica Acta, 2022, 430, 141075.	2.6	7
1357	Dual Matrix Influence on Ni(II) Rich Hybrid Catalyst for Electrochemical Methanol Oxidation Reaction. ChemNanoMat, 0, , .	1.5	3

#	Article	IF	Citations
1358	Overview of hydrogen economy in Australia. Wiley Interdisciplinary Reviews: Energy and Environment, 2023, 12, .	1.9	19
1359	A Unique Approach for the Development of Hybrid Membranes by Incorporating Functionalized Nanosilica into Crosslinked sPVA/TEOS for Fuel Cell Applications. ACS Applied Energy Materials, 2022, 5, 9823-9829.	2.5	2
1360	Selective Sulfuration of Two-Dimensional Nonlayered MoO₂ Nanosheets for High-Current-Density Hydrogen Evolution. ACS Applied Energy Materials, 2022, 5, 10483-10489.	2.5	4
1361	Barrier identification, analysis and solutions of hydrogen energy storage application in multiple power scenarios based on improved DEMATAL-ISM approach. International Journal of Hydrogen Energy, 2022, 47, 30329-30346.	3.8	8
1362	Strategies for Modulating the Catalytic Activity and Selectivity of Manganese Antimonates for the Oxygen Reduction Reaction. ACS Catalysis, 2022, 12, 10826-10840.	5.5	4
1363	Application of Pt loaded graphite felt in SO2-depolarized electrolyzer. International Journal of Hydrogen Energy, 2022, 47, 31575-31586.	3.8	1
1364	Impact of Accelerated Stress Tests on the Cathodic Catalytic Layer in a Proton Exchange Membrane (PEM) Fuel Cell Studied by Identical Location Scanning Electron Microscopy. ACS Applied Energy Materials, 2022, 5, 11200-11212.	2.5	13
1365	Integration of plasmonic AgPd alloy nanoparticles with single-layer graphitic carbon nitride as Mott-Schottky junction toward photo-promoted H2 evolution. Scientific Reports, 2022, 12, .	1.6	17
1366	Strong and Flexible High-Performance Anion Exchange Membranes with Long-Distance Interconnected Ion Transport Channels for Alkaline Fuel Cells. ACS Applied Materials & Interfaces, 2022, 14, 38132-38143.	4.0	11
1367	Study on hydrogen dispersion in confined space with complex air supply and exhaust system. International Journal of Hydrogen Energy, 2022, 47, 29131-29147.	3.8	11
1368	Production of Propanediols through In Situ Glycerol Hydrogenolysis via Aqueous Phase Reforming: A Review. Catalysts, 2022, 12, 945.	1.6	4
1369	One Bifunctional Electrocatalyst Derived from Nickel MOF for Urea Oxidation Reaction and Hydrogen Evolution Reaction. Energy & Fuels, 2022, 36, 10346-10353.	2.5	11
1370	Understanding the discontinuance trend of hydrogen fuel cell vehicles in Japan. International Journal of Hydrogen Energy, 2022, 47, 31949-31963.	3.8	11
1371	Electrical coupling of individual electrocatalytic oscillators. Chaos, 2022, 32, 083139.	1.0	1
1372	Recent Research Advances in Rutheniumâ€Based Electrocatalysts for Water Electrolysis Across the pHâ€Universal Conditions. Energy Technology, 2022, 10, .	1.8	3
1373	Hydrogen production through renewable and non-renewable energy processes and their impact on climate change. International Journal of Hydrogen Energy, 2022, 47, 33112-33134.	3.8	172
1374	Boosting cation desorption, anion adsorption and surface redox reaction kinetics of Co3O4 by oxygen vacancy. Inorganic Chemistry Communication, 2022, 143, 109821.	1.8	1
1375	Highly durable poly(arylene piperidinium) composite membranes modified with polyhedral oligomeric silsesquioxane for fuel cell and water electrolysis application. Journal of Membrane Science, 2022, 660, 120903.	4.1	11

#	Article	IF	Citations
1376	Technical, economic and environmental analysis of a hybrid CHP system with a 5ÂkW PEMFC, photovoltaic panels and batteries in the Brazilian scenario. Energy Conversion and Management, 2022, 269, 116042.	4.4	10
1377	Green hydrogen production via photo-reforming of bio-renewable resources. Renewable and Sustainable Energy Reviews, 2022, 167, 112827.	8.2	19
1378	Segmented tomographic evaluation of structural degradation of carbon support in proton exchange membrane fuel cells. Journal of Energy Chemistry, 2022, 74, 359-367.	7.1	6
1379	Hydrogen storage in saline aquifers: Opportunities and challenges. Renewable and Sustainable Energy Reviews, 2022, 168, 112846.	8.2	40
1380	Effects of interfacial contact under different operating conditions in proton exchange membrane water electrolysis. Electrochimica Acta, 2022, 429, 140942.	2.6	18
1381	Interface modulation induced by the 1T Co-WS2 shell nanosheet layer at the metallic NiTe2/Ni coreâ€“nanoskeleton: Glib electrode-kinetics for HER, OER, and ORR. Nano Energy, 2022, 102, 107712.	8.2	36
1382	Synthesis of Mo-doped NiFe-phosphate hollow bird-nest architecture for efficient and stable seawater electrolysis. Applied Surface Science, 2022, 604, 154588.	3.1	6
1383	Multifunctional polymer coating cooperated with Î³-Fe2O3 for boosting photoelectrochemical water oxidation. Applied Catalysis B: Environmental, 2022, 318, 121869.	10.8	11
1384	A first-order estimation of underground hydrogen storage potential in Indian sedimentary basins. Geological Society Special Publication, 2023, 528, .	0.8	3
1385	Application of Solid Polymer Water Electrolysis to Hydrogen Isotopes Separation. Denki Kagaku, 2022, 90, 261-264.	0.0	0
1386	Synthesis of Ag@TiO2/NiFe2O4 ternary nanostructures and evaluation of their photocatalytic activities. Journal of Materials Science: Materials in Electronics, 2022, 33, 23153-23173.	1.1	2
1387	Battery electric vehicles and fuel cell electric vehicles, an analysis of alternative powertrains as a mean to decarbonise the transport sector. Sustainable Energy Technologies and Assessments, 2022, 53, 102624.	1.7	9
1388	Electrocatalysis and activity descriptors with metal phthalocyanines for energy conversion reactions. Journal of Electroanalytical Chemistry, 2022, 922, 116799.	1.9	6
1389	Engineering GaN nanowire photoanode interfaces for efficient and stable photoelectrochemical water splitting. Materials Today Physics, 2022, 28, 100846.	2.9	11
1390	Multiple effects of non-uniform channel width along the cathode flow direction based on a single PEM fuel cell: An experimental investigation. Journal of Power Sources, 2022, 549, 232080.	4.0	10
1391	Mechanically robust and highly conductive semi-interpenetrating network anion exchange membranes for fuel cell applications. Journal of Power Sources, 2022, 548, 232097.	4.0	11
1392	Dark fermentation as an environmentally sustainable WIN-WIN solution for bioenergy production. Journal of Cleaner Production, 2022, 374, 134026.	4.6	8
1393	Enhanced chemical durability of polymer electrolyte membrane fuel cells by crown ether grafted carbon nanotube. Journal of Alloys and Compounds, 2022, 928, 167227.	2.8	4

#	Article	IF	Citations
1394	Layered barium cobaltite structure materials containing perovskite and CdI2-based layers for reversible solid oxide cells with exceptionally high performance. Chemical Engineering Journal, 2023, 451, 138954.	6.6	14
1395	Coupling of ruthenium with hybrid metal nitrides heterostructure as bifunctional electrocatalyst for water electrolysis. Journal of Colloid and Interface Science, 2023, 629, 155-164.	5.0	9
1396	Optimal control of renewable biohydrogen production: A switched system approach*. IFAC-PapersOnLine, 2022, 55, 292-297.	0.5	1
1397	Impact of fuel cells on hydrogen energy pathways in a sustainable energy economy. Sustainable Energy and Fuels, 2022, 6, 4008-4023.	2.5	7
1398	Decarbonisation of heavy-duty diesel engines using hydrogen fuel: a review of the potential impact on NO_x emissions. Environmental Science Atmospheres, 2022, 2, 852-866.	0.9	5
1399	Crafting Fast and Efficient H ₂ Evolution Electrocatalysts With Tactical Inclusion of Nucleobases. SSRN Electronic Journal, 0, , .	0.4	0
1400	Fuel-cell (hydrogen) electric hybrid vehicles. , 2022, , 681-710.		0
1401	Benefits of a Hydrogen Network in Europe. SSRN Electronic Journal, 0, , .	0.4	5
1402	Fuel cells systems for sustainable ships. , 2022, , 81-121.		1
1403	Hydrogen generation via ammonia decomposition on highly efficient and stable Ru-free catalysts: approaching complete conversion at 450 Â°C. Energy and Environmental Science, 2022, 15, 4190-4200.	15.6	29
1404	A Planar Nickelaspiropentane Complex with Magnesium-Based Metalloligands: Synthesis, Structure, and Synergistic Dihydrogen Activation. Journal of the American Chemical Society, 2022, 144, 16647-16655.	6.6	10
1405	CFD Analysis of Different Methane/Hydrogen Blends in a CI Engine Operating in Dual Fuel Mode. , 0, , .		2
1406	Effect of CuO Loading on the Photocatalytic Activity of SrTiO3 for Hydrogen Evolution. Inorganics, 2022, 10, 130.	1.2	9
1407	PS-b-P4VP block copolymer micelles as a soft template to grow openly porous nickel films for alkaline hydrogen evolution. Catalysis Today, 2023, 423, 113916.	2.2	0
1408	Rational design of perovskite ferrites as high-performance proton-conducting fuel cell cathodes. Nature Catalysis, 2022, 5, 777-787.	16.1	73
1409	Tuning Metalâ€“Dihydrogen Interaction in Metalâ€“Organic Frameworks for Hydrogen Storage. Journal of Physical Chemistry Letters, 2022, 13, 9129-9133.	2.1	5
1410	Electrocatalytic oxygen reduction activity of AgCoCu oxides on reduced graphene oxide in alkaline media. Beilstein Journal of Nanotechnology, 0, 13, 1020-1029.	1.5	2
1411	Bifunctional Activity of PVP Kâ€30 Assisted Cobalt Molybdate for Electrocatalytic Water Splitting**. ChemistrySelect, 2022, 7, .	0.7	2

#	Article	IF	Citations
1412	High order sliding mode based drift algorithm for a commercial PEM fuel cell system. IET Renewable Power Generation, 2023, 17, 260-270.	1.7	1
1413	MXene, silicene and germanene: preparation and energy storage applications. Materials Today Energy, 2022, 30, 101144.	2.5	10
1414	Membranes Based on Polyvinylidene Fluoride and Radiation-Grafted Sulfonated Polystyrene and Their Performance in Proton-Exchange Membrane Fuel Cells. Polymers, 2022, 14, 3833.	2.0	4
1415	The impact of hydrogen addition to natural gas on flame stability. International Journal of Hydrogen Energy, 2022, , .	3.8	4
1416	Lattice Oxygen-Induced d-Band Shifting for Enhanced Hydrogen Oxidation Reaction on Nickel. ACS Catalysis, 2022, 12, 11830-11837.	5.5	19
1417	Room-Temperature Oxygen Transport in Nanothin Bi_xO_ySe_z Enables Precision Modulation of 2D Materials. ACS Nano, 2022, 16, 13969-13981.	7.3	1
1418	Dinuclear Cobalt Complexes for Homogeneous Water Oxidation: Tuning Rate and Overpotential through the Nonâ€Innocent Ligand. ChemSusChem, 2022, 15, .	3.6	3
1419	Recent Advances in Anode Electrocatalysts for Direct Formic Acid Fuel Cellâ€Iâ€Platinumâ€Based Catalysts. Chemical Record, 2022, 22, .	2.9	8
1421	Effects of microporous layer penetration ratio and substrate carbonization temperature on the performance of proton exchange membrane fuel cells. Journal of Mechanical Science and Technology, 2022, 36, 4825-4838.	0.7	3
1422	Poly(phenylene oxide)-Based Anion Exchange Membranes Having Linear Cross-Linkers or Star Cross-Linkers. ACS Applied Energy Materials, 2022, 5, 11613-11623.	2.5	12
1423	In-Depth Energy and Irreversibility Analysis in the Solar Driven Two-Step Thermochemical Water Splitting Cycle for Hydrogen Production. Journal of Thermal Science, 2023, 32, 1-16.	0.9	3
1424	Alternatives to Water Photooxidation for Photoelectrochemical Solar Energy Conversion and Green H₂ Production. Advanced Energy Materials, 2022, 12, .	10.2	39
1425	Solvent-free dehydration, cyclization, and hydrogenation of linalool with a dual heterogeneous catalyst system to generate a high-performance sustainable aviation fuel. Communications Chemistry, 2022, 5, .	2.0	3
1426	Evaluation of steam supply performance: Steamer vs. bubbler. Frontiers in Energy Research, 0, 10, .	1.2	1
1427	Elemental chalcogens acting as metal-free electrocatalysts for effective alkaline and acidic hydrogen evolution reaction. Catalysis Today, 2023, 423, 113917.	2.2	2
1428	A Review on MXene Synthesis, Stability, and Photocatalytic Applications. ACS Nano, 2022, 16, 13370-13429.	7.3	142
1429	Enhancing Bifunctional Electrocatalytic Activities of La_{0.5}Sr_{0.5}Co_{0.2}Fe_{0.8}O₃ in Reversible Single-Component Cells. Industrial & Engineering Chemistry Research, 2022, 61, 13795-13804.	1.8	4
1430	A systematic review of the techno-economic assessment of various hydrogen production methods of power generation. Frontiers in Sustainability, 0, 3, .	1.3	3

#	Article	IF	Citations
1431	Iron and Nickel Phthalocyanineâ€Modified Nanocarbon Materials as Cathode Catalysts for Anionâ€Exchange Membrane Fuel Cells and Zincâ€Air Batteries**. ChemElectroChem, 2022, 9, .	1.7	23
1432	Enhanced colorimetric detection of hydrogen using PdO-decorated ZnO covered with a metal-organic framework membrane. International Journal of Hydrogen Energy, 2022, 47, 39687-39699.	3.8	6
1433	Roadblocks to fuel-cell electric vehicle diffusion: Evidence from Germany, Japan and California. Transportation Research, Part D: Transport and Environment, 2022, 112, 103458.	3.2	7
1434	Status and challenges of applications and industry chain technologies of hydrogen in the context of carbon neutrality. Journal of Cleaner Production, 2022, 376, 134347.	4.6	35
1435	Assessment of hydrogen-based long term electrical energy storage in residential energy systems. Smart Energy, 2022, 8, 100088.	2.6	10
1436	The role of hydrogen and fuel cell technology in providing security for the UK energy system. Energy Policy, 2022, 171, 113286.	4.2	20
1437	The role of hydrogen in German residential buildings. Energy and Buildings, 2022, 276, 112480.	3.1	5
1438	Performance and stability of ether-free high temperature proton exchange membranes with tunable pendent imidazolium groups. Journal of Materials Chemistry A, 2022, 10, 25295-25306.	5.2	11
1439	The investigation of Mo3Sb7 and Mo3Sb7-xTex as electrocatalysts for the hydrogen evolution reaction. Results in Chemistry, 2022, 4, 100587.	0.9	0
1440	Unravelling faradaic electrochemical efficiencies over Fe/Co spinel metal oxides using surface spectroscopy and microscopy techniques. Nanoscale, 2022, 14, 15928-15941.	2.8	6
1441	Design of Intelligent BoP and Tubular Cell-based Flexible Hydrogen Fuel Cell System. , 2022, , .		0
1442	Silicon nanostructures for solid-state hydrogen storage: A review. International Journal of Hydrogen Energy, 2023, 48, 1401-1439.	3.8	27
1443	Emerging Copper-Based Semiconducting Materials for Photocathodic Applications in Solar Driven Water Splitting. Catalysts, 2022, 12, 1198.	1.6	11
1444	Production of Biohydrogen from Organ-Containing Waste for Use in Fuel Cells. Energies, 2022, 15, 8019.	1.6	3
1445	Photocatalytic Hydrogen Production from Glycerol Aqueous Solutions as Sustainable Feedstocks Using Zr-Based UiO-66 Materials under Simulated Sunlight Irradiation. Nanomaterials, 2022, 12, 3808.	1.9	8
1446	Solarâ€Driven Reversible Hydrogen Storage. Advanced Materials, 2023, 35, .	11.1	23
1447	Proton-Exchange Membrane Fuel Cell Balance of Plant and Performance Simulation for Vehicle Applications. Energies, 2022, 15, 8110.	1.6	3
1448	An overview of underground energy-related product storage and sequestration. Geological Society Special Publication, 2023, 528, 15-35.	0.8	5

#	Article	IF	Citations
1449	Design of a Hydrogen Production System Considering Energy Consumption, Water Consumption, CO2 Emissions and Cost. Energies, 2022, 15, 7938.	1.6	3
1450	Recent Developments of Atomically Dispersed Metal Electrocatalysts for Oxygen Reduction Reaction^{â€}. Chinese Journal of Chemistry, 2023, 41, 581-598.	2.6	6
1451	Quantum chemical simulation of hydrogen adsorption in pores: A study by DFT, SAPT0 and IGM methods. IzvestiÃ¢ Vuzov: PrikladnaÃ¢ HimiÃ¢ I BiotehnologiÃ¢, 2022, 12, 363-372.	0.1	1
1452	Machine learning for a sustainable energy future. Nature Reviews Materials, 2023, 8, 202-215.	23.3	76
1453	Hydrogen-brine mixture PVT data for reservoir simulation of hydrogen storage in deep saline aquifers. International Journal of Hydrogen Energy, 2023, 48, 696-708.	3.8	8
1454	A Review on Hydrogen-Based Hybrid Microgrid System: Topologies for Hydrogen Energy Storage, Integration, and Energy Management with Solar and Wind Energy. Energies, 2022, 15, 7979.	1.6	30
1455	Aging effect on the structure formation of active sites in single-atomic catalysts and their electrochemical properties for oxygen reduction reaction. Journal of Industrial and Engineering Chemistry, 2023, 117, 434-441.	2.9	4
1456	Low Temperature Thermal and Solar Heating Carbonâ€Free Hydrogen Production from Ammonia Using Nickel Single Atom Catalysts. Advanced Energy Materials, 2022, 12, .	10.2	17
1457	Recent Advances and Prospects in Design of Hydrogen Permeation Barrier Materials for Energy Applicationsâ€”A Review. Molecules, 2022, 27, 6528.	1.7	12
1458	On the Suitability of NOx-Storage-Catalysts for Hydrogen Internal Combustion Engines and a Radio Frequency-Based NOx Loading Monitoring. Topics in Catalysis, 0, , .	1.3	0
1459	Activity-Based Screening of Metagenomic Fosmid Libraries for Hydrogen-Uptake Enzymes. Methods in Molecular Biology, 2023, , 91-101.	0.4	0
1460	Effects of surface morphology changes on FTIR-ATR spectroscopy with compacted Sodium Alanate (NaAlH4) during cycling. International Journal of Hydrogen Energy, 2023, 48, 709-722.	3.8	1
1461	Enhanced Pd/aâ€WO₃/VO₂ Hydrogen Gas Sensor Based on VO₂ Phase Transition Layer. Small Methods, 2022, 6, .	4.6	5
1463	Facile synthesis, characterization of alumina supported nickel oxide and cobalt oxide nano composites and determination of their hydrogen enhancement potential. Materials Today: Proceedings, 2022, , .	0.9	0
1464	Size effects of zeolitic imidazolate framework 67 polyhedrons as Co-catalyst of W-doped BiVO4 electrodes for photoelectrochemically catalytic water oxidation. International Journal of Hydrogen Energy, 2022, 47, 40961-40971.	3.8	11
1465	Ship Energy Efficiency and Maritime Sector Initiatives to Reduce Carbon Emissions. Energies, 2022, 15, 7910.	1.6	14
1466	Hydrogen Production in Catalytic Membrane Reactors Based on Porous Ceramic Converters. Processes, 2022, 10, 2060.	1.3	6
1467	A comparative analysis of biogas and hydrogen, and the impact of the certificates and blockchain new paradigms. International Journal of Hydrogen Energy, 2022, 47, 39303-39318.	3.8	11

#	Article	IF	Citations
1468	Optimized electroless deposition of NiCoP electrocalysts for enhanced water splitting. Catalysis Today, 2023, 423, 113929.	2.2	3
1469	Active clusters ensemble effect of bimetallic RuCo alloys for efficient hydrogen production from ammonia borane. Applied Surface Science, 2023, 610, 155459.	3.1	7
1470	In Situ Growth of Self-Supporting MOFs-Derived Ni2P on Hierarchical Doped Carbon for Efficient Overall Water Splitting. Catalysts, 2022, 12, 1319.	1.6	5
1471	Solar Hydrogen Fuel Generation from Wastewaterâ€"Beyond Photoelectrochemical Water Splitting: A Perspective. Energies, 2022, 15, 7399.	1.6	19
1472	Extinction strain rates of premixed ammonia/hydrogen/nitrogen-air counterflow flames. Proceedings of the Combustion Institute, 2023, 39, 2027-2035.	2.4	10
1473	A Comparative Assessment of Thermodynamic and Exergoeconomic Performances of Three Thermochemical Water-Splitting Cycles of Chlorine Family for Hydrogen Production. Energy Conversion and Management, 2022, 271, 116313.	4.4	15
1474	The future of hydrogen: Challenges on production, storage and applications. Energy Conversion and Management, 2022, 272, 116326.	4.4	150
1475	Understanding the difference in bulk modulus between Y-doped SrCeO3 and Y-doped SrZrO3 by ultrasonic transmission method and density functional theory. Materialia, 2022, 26, 101616.	1.3	0
1476	Carbon nitride anchored NiO nanoparticles as robust catalyst for electrochemical oxygen evolution reaction. Journal of Alloys and Compounds, 2023, 935, 167842.	2.8	7
1477	Developing hydrogen refueling stations: An evolutionary game approach and the case of China. Energy Economics, 2022, 115, 106390.	5.6	11
1478	Recent updates in biohydrogen production strategies and lifeâ€“cycle assessment for sustainable future. Bioresource Technology, 2022, 366, 128159.	4.8	23
1479	Recent update on gasification and pyrolysis processes of lignocellulosic and algal biomass for hydrogen production. Fuel, 2023, 332, 126169.	3.4	37
1480	A review on S-scheme and dual S-scheme heterojunctions for photocatalytic hydrogen evolution, water detoxification and CO2 reduction. Fuel, 2023, 333, 126267.	3.4	65
1481	Emerging trends of pseudobrookite Fe2TiO5 photocatalyst: A versatile material for solar water splitting systems. Journal of Alloys and Compounds, 2023, 933, 167710.	2.8	9
1482	Refuelling infrastructure requirements for renewable hydrogen road fuel through the energy transition. Energy Policy, 2023, 172, 113300.	4.2	7
1483	High performance nanocomposite proton exchange membranes based on the nanohybrids formed by chemically bonding phosphotungstic acid with covalent organic frameworks. Journal of Power Sources, 2023, 554, 232332.	4.0	15
1484	Towards carbon neutral chemicals production: Opportunities for combining fermentation with electrochemical processes. Current Opinion in Electrochemistry, 2023, 37, 101177.	2.5	4
1485	Polyether Block Amide as Host Matrix for Nanocomposite Membranes Applied to Different Sensitive Fields. Membranes, 2022, 12, 1096.	1.4	8

#	Article	IF	Citations
1486	Recent trends in photoelectrochemical water splitting: the role of cocatalysts. NPG Asia Materials, 2022, 14, .	3.8	52
1487	Cobalt Complexes as Efficient Cooperative Catalysts for Transfer Hydrogenation. European Journal of Organic Chemistry, 2022, 2022, .	1.2	2
1488	On the feasibility of direct hydrogen utilisation in a fossil-free Europe. International Journal of Hydrogen Energy, 2023, 48, 2877-2891.	3.8	18
1489	Chalcogenic heterostructure supported on carbon nanostructure for electrochemical water dissociation. International Journal of Hydrogen Energy, 2023, 48, 37725-37731.	3.8	3
1490	Bubble size distribution and electrode coverage at porous nickel electrodes in a novel 3-electrode flow-through cell. International Journal of Hydrogen Energy, 2023, 48, 2892-2905.	3.8	5
1491	One-step electrochemical synthesis and optimization of Sb-Co-P alloy anode for sodium ion battery. Electrochimica Acta, 2023, 438, 141529.	2.6	7
1492	Green hydrogen partnerships with the <scp>G</scp>lobal <scp>S</scp>outh. Advancing an energy justice perspective on â€œtomorrow's oilâ€• Sustainable Development, 2023, 31, 1038-1053.	6.9	13
1493	Effect of Titanium Dioxide Support for Cobalt Nanoparticle Catalysts for Hydrogen Generation from Sodium Borohydride Hydrolysis. Catalysis Letters, 2023, 153, 3136-3147.	1.4	6
1494	Minimum tube diameters for detonation propagation in CH<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" id="d1e1480" altimg="si203.svg"><mml:msub><mml:mrow /><mml:mrow><mml:mn>4</mml:mn></mml:mrow></mml:msub></mml:math>/H<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" id="d1e1488" altimg="si204.svg"><mml:msub><mml:mrow /><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:m	1.7	0
1495	Battery and hydrogen-based electric vehicle adoption: A survey of Australian consumers perspective. Case Studies on Transport Policy, 2022, 10, 2451-2463.	1.1	12
1496	Palladium/Graphene Oxide Nanocomposite for Hydrogen Gas Sensing Applications Based on Tapered Optical Fiber. Materials, 2022, 15, 8167.	1.3	5
1497	An overview: Current progress on hydrogen fuel cell vehicles. International Journal of Hydrogen Energy, 2023, 48, 4371-4388.	3.8	144
1498	Real-time monitoring of induced strain during multi-stage ad-/desorption of methane on coal. Geomechanics and Geophysics for Geo-Energy and Geo-Resources, 2022, 8, .	1.3	0
1499	Novel short-term national strategies to promote the use of renewable hydrogen in road transport: A life cycle assessment of passenger car fleets partially fuelled with hydrogen. Science of the Total Environment, 2023, 859, 160325.	3.9	5
1500	Improved trifunctional electrocatalytic performance of integrated Co3O4 spinel oxide morphologies with abundant oxygen vacancies for oxygen reduction and water-splitting reactions. Journal of Alloys and Compounds, 2023, 935, 168079.	2.8	11
1501	Tuning synthesis parameters and support composition for high-performing and durable core-shell Ptâ€“Ni carbon nitride electrocatalysts for the oxygen reduction reaction. Journal of Power Sources, 2023, 555, 232390.	4.0	1
1502	Cost Dynamics of Clean Energy Technologies. SSRN Electronic Journal, 0, , .	0.4	0
1503	Current Status and Future Development in Fuel Cells: An Industrial Perspective. , 2022, , 1-26.		1

#	Article	IF	Citations
1504	Advances in Power-to-Gas Technologies: Cost and Conversion Efficiency. SSRN Electronic Journal, 0, , .	0.4	0
1505	Scalable production of reduced graphene oxide via biowaste valorisation: an efficient oxygen reduction reaction towards metal-free electrocatalysis. New Journal of Chemistry, 2023, 47, 1360-1370.	1.4	3
1506	Energy-saving hydrogen production by water splitting coupling urea decomposition and oxidation reactions. Journal of Materials Chemistry A, 2022, 11, 259-267.	5.2	12
1507	Low-cost hydrogen in the future European electricity system â€“ Enabled by flexibility in time and space. Applied Energy, 2023, 330, 120315.	5.1	6
1508	Active-site engineering in dealloyed nanoporous catalysts for electrocatalytic water splitting. Journal of Materials Chemistry A, 2023, 11, 495-511.	5.2	18
1509	A global energy system perspective on hydrogen Trade: A framework for the market color and the size analysis. Applied Energy, 2023, 330, 120267.	5.1	18
1510	Cold start degradation of proton exchange membrane fuel cell: Dynamic and mechanism. Chemical Engineering Journal, 2023, 455, 140823.	6.6	5
1511	Mechanism of formic acid dehydrogenation catalysed by Cp*Co(III) and Cp*Rh(III) complexes with N,Nâ€™-bidentate imidazoline-based ligands: A DFT exploration. Molecular Catalysis, 2023, 535, 112860.	1.0	0
1512	Highly efficient and durable H2-etched Ni@C for alkaline polymer electrolyte fuel cells application. Journal of Power Sources, 2023, 556, 232439.	4.0	6
1513	Synergistic effect of Pd-Co3O4 nanoparticles supported on coffee-derived sulfur, nitrogen-codoped hierarchical porous carbon for efficient methanolysis of NaBH4. Journal of Alloys and Compounds, 2023, 938, 168548.	2.8	12
1514	A swarm based double Q-learning for optimal PV array reconfiguration with a coordinated control of hydrogen energy storage system. Energy, 2023, 266, 126483.	4.5	8
1515	Hydrogen production, storage and transport for renewable energy and chemicals: An environmental footprint assessment. Renewable and Sustainable Energy Reviews, 2023, 173, 113113.	8.2	79
1516	Covalent organic framework-derived CoRu nanoalloy doped macroâ€“microporous carbon for efficient electrocatalysis. Journal of Materials Chemistry A, 2022, 10, 25272-25278.	5.2	5
1517	Development of Mn-Mo-X-Y-Z-O based electrocatalytic materials for making hydrogen fuel from saline water. Materials Today: Proceedings, 2023, 80, 918-924.	0.9	0
1518	Incorporation of oxidized zeolitic imidazolate framework 67 as effective Co-catalyst on W-doped BiVO4 for catalyzing photoelectrochemical water oxidation. International Journal of Hydrogen Energy, 2023, 48, 5152-5165.	3.8	12
1519	Recent progress in electrochemical synthesis of carbon-free hydrogen carrier ammonia and ammonia fuel cells: A review. Materials Reports Energy, 2022, 2, 100163.	1.7	0
1520	1Tâ€™ Re_xMo_{1â^’}_xS₂â€“2H MoS₂ Lateral Heterojunction for Enhanced Hydrogen Evolution Reaction Performance. Advanced Functional Materials, 2023, 33, .	7.8	12
1521	Sustainable Production of Layered Bismuth Oxyhalides for Photocatalytic H₂ Production. ACS Sustainable Chemistry and Engineering, 2022, 10, 15622-15641.	3.2	6

#	Article	IF	Citations
1522	Pt-Based Oxygen Reduction Reaction Catalysts in Proton Exchange Membrane Fuel Cells: Controllable Preparation and Structural Design of Catalytic Layer. Nanomaterials, 2022, 12, 4173.	1.9	12
1523	Hydrogen-powered aviation in Germany: A macroeconomic perspective and methodological approach of fuel supply chain integration into an economy-wide dataset. International Journal of Hydrogen Energy, 2023, 48, 5347-5376.	3.8	9
1524	Advanced energy materials: Current trends and challenges in electro- and photo-catalysts for H2O splitting. Journal of Industrial and Engineering Chemistry, 2023, 119, 90-111.	2.9	8
1525	Hydrogen-Fuel Cell Hybrid Powertrain: Conceptual Layouts and Current Applications. Machines, 2022, 10, 1121.	1.2	11
1526	High-entropy approach to double perovskite cathode materials for solid oxide fuel cells: Is multicomponent occupancy in (La,Pr,Nd,Sm,Gd)BaCo2O5+Î´ affecting physicochemical and electrocatalytic properties?. Frontiers in Energy Research, 0, 10, .	1.2	6
1527	Enhancement of efficiency and power output of hydrogen fuelled proton exchange membrane (PEM) fuel cell using oxygen enriched air. International Journal of Hydrogen Energy, 2023, 48, 6067-6075.	3.8	8
1528	Electrochemical Performance of Pr_{0.4}Sr_{0.5}Co_xFe_{0.9â€“x}Mo_{0.1}O_{3â^'Î´} Oxides in a Reversible SOFC/SOEC System. Energy & Fuels, 2022, 36, 15165-15176.	2.9	4
1529	A review of technical and regulatory limits for hydrogen blending in natural gas pipelines. International Journal of Hydrogen Energy, 2023, 48, 5595-5617.	3.8	54
1530	Study on the Performance of Variable Density Multilayer Insulation in Liquid Hydrogen Temperature Region. Energies, 2022, 15, 9267.	1.6	1
1531	Synergistic Combination of Fermi Level Equilibrium and Plasmonic Effect for Formic Acid Dehydrogenation. ChemSusChem, 2023, 16, .	3.6	4
1532	Theoretical analysis of green hydrogen from hydropower: A case study of the Northwest Columbia River system. International Journal of Hydrogen Energy, 2023, 48, 7993-8001.	3.8	4
1533	Impacts of Surface Modification of Pt-Sensing Electrodes with Au on Hydrogen-Sensing Properties and Mechanism of Diode-Type Gas Sensors Based on Anodized Titania. ACS Sensors, 2023, 8, 61-70.	4.0	2
1534	Green hydrogen powering sustainable festivals: Public perceptions of generators, production and ownership. International Journal of Hydrogen Energy, 2023, 48, 8370-8385.	3.8	10
1535	Remarkably Low Oxygen Evolution Reaction Overpotentials using Two-Dimensional Ternary Vanadium Compounds. Applied Surface Science, 2023, 614, 156236.	3.1	2
1536	Scalable Photovoltaicâ€Electrochemical Cells for Hydrogen Production from Water â€•Recent Advances. ChemElectroChem, 2022, 9, .	1.7	4
1537	Investigation of the influence of Pt/C percentage and humidity on the voltage decay rate of proton exchange membrane fuel cell. Fuel Cells, 0, , .	1.5	1
1538	Noble Metal-Free Electrocatalysts: Materials for Energy Applications. ACS Symposium Series, 0, , 73-94.	0.5	0
1539	Design of ammonia oxidation electrocatalysts for efficient direct ammonia fuel cells. EnergyChem, 2023, 5, 100093.	10.1	6

#	Article	IF	Citations
1540	The Role of Hydrogen Adsorption Site Diversity in Catalysis on Transition-Metal Phosphide Surfaces. ACS Catalysis, 2023, 13, 287-295.	5.5	11
1541	Identifying the fundamental drives behind the 10-year evolution of northern China's rural household energy and emission: Implications for 2030 and beyond. Science of the Total Environment, 2023, 865, 161053.	3.9	3
1542	Enhanced Stability and Narrowed Dâ€Band Gap of Ceâ€Doped Co₃O₄for Rechargeable Aqueous Znâ€Air Battery. Advanced Functional Materials, 2023, 33, .	7.8	25
1543	Progress in nanomaterials fabrication and their prospects in artificial intelligence towards solid oxide fuel cells: A review. International Journal of Hydrogen Energy, 2024, 52, 216-247.	3.8	7
1544	Environmental sustainability assessment of large-scale hydrogen production using prospective life cycle analysis. International Journal of Hydrogen Energy, 2023, 48, 8310-8327.	3.8	21
1545	Ab Initio Study of High-Capacity Hydrogen Storage in Lithium-Shrouded Honeycomb Borophene Oxide Nanosheet. Journal of Physical Chemistry C, 2022, 126, 20762-20772.	1.5	2
1546	Impact of severe plastic deformation on kinetics and thermodynamics of hydrogen storage in magnesium and its alloys. Journal of Materials Science and Technology, 2023, 146, 221-239.	5.6	37
1547	Structural characteristics of metal (Ni, Cu) doped cobalt phosphide catalysts and mechanism of catalytic hydrogen evolution of <scp>NH₃BH₃</scp>. International Journal of Quantum Chemistry, 2023, 123, .	1.0	1
1548	Innovative Insight into O₂/N₂ Permeation Behavior through an Ionomer Film in Cathode Catalyst Layers of Polymer Electrolyte Membrane Fuel Cells. Journal of Physical Chemistry Letters, 2022, 13, 11444-11453.	2.1	5
1549	Pristine Metalâ€“Organic Frameworks and their Composites for Renewable Hydrogen Energy Applications. Advanced Functional Materials, 2023, 33, .	7.8	18
1550	Adsorbents development for hydrogen cleanup from ammonia decomposition in a catalytic membrane reactor. Chemical Engineering Journal, 2023, 455, 140762.	6.6	3
1551	Role of Electrode Thickness in NiFe Nanogranular Films for Oxygen Evolution Reaction. Journal of Physical Chemistry C, 2022, 126, 21759-21770.	1.5	3
1552	Ni-BZCYYb HYDROGEN SEPARATION MEMBRANE FOR THE INTEGRATION OF HYDROGEN PRODUCTION AND HYDROGEN SEPARATION BY ETHANOL REFORMING. Ceramics - Silikaty, 2022, , 0-0.	0.2	0
1553	A Robust Controller of a Reactor Electromicrobial System Based on a Structured Fractional Transformation for Renewable Energy. Fractal and Fractional, 2022, 6, 736.	1.6	7
1554	Low carbon development based on microbial fuel cells as electrical generation and wastewater treatment unit. Renewable Energy Focus, 2023, 44, 132-138.	2.2	9
1555	High specific surface area niobium-doped tin oxide nanoparticles produced in spray flames as catalyst supports in polymer electrolyte fuel cells. Journal of Nanoparticle Research, 2023, 25, .	0.8	5
1556	Decarbonizing Singapore via local production of H2 from natural gas. International Journal of Hydrogen Energy, 2023, 48, 8743-8755.	3.8	4
1557	Power management and system optimization for high efficiency self-powered electrolytic hydrogen and formic acid production. Nano Energy, 2023, 107, 108124.	8.2	9

#	Article	IF	Citations
1558	Parametric Study of Autoigniting Hydrogenâ€“Methane Jets in Direct-Injection Engine Conditions. Energy & Fuels, 2023, 37, 644-656.	2.5	2
1559	Prospects for the Implementation of Underground Hydrogen Storage in the EU. Energies, 2022, 15, 9535.	1.6	9
1560	A review on best practices using hydrogen fuel-cell electric vehicles in public transport. IOP Conference Series: Earth and Environmental Science, 2022, 1123, 012055.	0.2	1
1561	The fuel cell electric vehicles: The highlight review. International Journal of Hydrogen Energy, 2023, 48, 9401-9425.	3.8	63
1562	High-Field EPR Investigation and Detailed Modeling of the Magnetoanisotropy Tensor of an Unusual Mixed-Valent MnIV2MnIII2MnII Cluster. Applied Magnetic Resonance, 0, , .	0.6	0
1563	Tailoring of 1T Phase-Domain MoS₂ Active Sites with Bridging S₂^{2â€“}/Apical S^{2â€“} Phase-Selective Precursor Modulation for Enriched HER Kinetics. Inorganic Chemistry, 2023, 62, 841-852.	1.9	5
1564	Review on Chitosan and Two-Dimensional MoS₂-Based Proton Exchange Membrane for Fuel Cell Application: Advances and Perspectives. Energy & Fuels, 2023, 37, 1699-1730.	2.5	8
1565	In Situ Synthesis of Nanorod Arrays of Nickelâ€“Molybdenum Nitrides as Stable Electrocatalysts for Hydrogen Evolution Reactions. ACS Applied Nano Materials, 2023, 6, 1050-1058.	2.4	9
1566	A Historical Analysis of Hydrogen Economy Research, Development, and Expectations, 1972 to 2020. Environments - MDPI, 2023, 10, 11.	1.5	9
1567	Advancing Electrode Properties through Functionalization for Solid Oxide Cells Application: A Review. Chemistry - an Asian Journal, 2023, 18, .	1.7	3
1568	Carbon-quantum-dots-involved Fe/Co/Ni phosphide open nanotubes for high effective seawater electrocatalytic decomposition. Applied Catalysis B: Environmental, 2023, 326, 122403.	10.8	16
1569	Epitaxial growth of 1D GaN-based heterostructures on various substrates for photonic and energy applications. Nanoscale Advances, 2023, 5, 1023-1042.	2.2	7
1570	Electrode Integration of Synthetic Hydrogenase as Bioinspired and Noble Metal-Free Cathodes for Hydrogen Evolution. ACS Catalysis, 2023, 13, 1246-1256.	5.5	3
1571	Solar Hydrogen. Advanced Energy Materials, 2023, 13, .	10.2	34
1572	Superfunctional Materials by Ultra-Severe Plastic Deformation. Materials, 2023, 16, 587.	1.3	6
1573	Catalytic Steam Reforming of Ethanol to Produce Hydrogen: Modern and Efficient Catalyst Modification Strategies. ChemistrySelect, 2023, 8, .	0.7	3
1574	Graphite-epoxy composites for bipolar plates: The gas permeability issue. International Journal of Hydrogen Energy, 2023, 48, 20935-20944.	3.8	4
1575	Graphene-Based Derivatives Heterostructured Catalytic Systems for Sustainable Hydrogen Energy via Overall Water Splitting. Catalysts, 2023, 13, 109.	1.6	11

#	Article	IF	Citations
1576	Strong precious metalâ€“metal oxide interaction for oxygen reduction reaction: A strategy for efficient catalyst design. SusMat, 2023, 3, 2-20.	7.8	17
1577	One year operation of an anion exchange membrane water electrolyzer utilizing Aemion+Â® membrane: Minimal degradation, low H2 crossover and high efficiency. Journal of Power Sources Advances, 2023, 19, 100109.	2.6	21
1578	Highly active and stable copper ferrite supported on Î²â€“SiC foam for decomposition of SO3 in the Sulfurâ€“Iodine cycle for H2 production. International Journal of Hydrogen Energy, 2023, 48, 13068-13080.	3.8	2
1579	Surface atomic structures of nickel plating films reacted with methane at high temperature. Surface and Interface Analysis, 0, , .	0.8	0
1580	Nutrient recovery and pollutant removal during renewable fuel production: opportunities and challenges. Trends in Biotechnology, 2023, 41, 323-330.	4.9	1
1581	Towards net-zero compatible hydrogen from steam reformation â€“ Techno-economic analysis of process design options. International Journal of Hydrogen Energy, 2023, 48, 14591-14607.	3.8	5
1582	Improving the hydrothermal stability and hydrogen selectivity of Ni-Cu based catalysts for the aqueous-phase reforming of methanol. International Journal of Hydrogen Energy, 2023, 48, 12699-12711.	3.8	3
1583	Single atomic ruthenium in WO3 boosted hydrogen evolution stability at Ampere-level current density in whole pH range. Chemical Engineering Journal, 2023, 458, 141414.	6.6	12
1584	Metallic Metastable Hybrid 1Tâ€²/1T Phase Triggered Co,Pï£¿SnS₂ Nanosheets for High Efficiency Trifunctional Electrocatalyst. Small, 2023, 19, .	5.2	15
1585	Blasingame decline theory for hydrogen storage capacity estimation in shale gas reservoirs. International Journal of Hydrogen Energy, 2023, 48, 13189-13201.	3.8	3
1586	Challenges and Strategies of Anion Exchange Membranes in Hydrogenâ€electricity Energy Conversion Devices. Chemistry - A European Journal, 2023, 29, .	1.7	11
1587	Nanocrystalline cellulose membranes functionalized with imidazole and doped with trifluoroacetic acid: Thermal properties, proton conductivity, and studies of molecular dynamics. Solid State Ionics, 2023, 390, 116116.	1.3	0
1588	Integrated solar-driven hydrogen generation by pyrolysis and electrolysis coupled with carbon capture and Rankine cycle. Energy Conversion and Management, 2023, 277, 116641.	4.4	6
1589	LSCF perovskite oxide in situ grown on reduced graphene oxide as high-performance bifunctional catalyst for zinc-air battery. Diamond and Related Materials, 2023, 132, 109668.	1.8	3
1590	Polyisatin derived ion-solvating blend membranes for alkaline water electrolysis. Journal of Membrane Science, 2023, 669, 121331.	4.1	7
1591	Carbon-free green hydrogen production process with induction heating-based ammonia decomposition reactor. Chemical Engineering Journal, 2023, 457, 141203.	6.6	21
1592	Alkaline hydrogen oxidation reaction on Ni-based electrocatalysts: From mechanistic study to material development. Coordination Chemistry Reviews, 2023, 478, 214980.	9.5	10
1593	Low-frequency vibration induced piezoelectric boost to photocatalytic hydrogen evolution through 2D-2D-stacked MoS2-carbon nitride. Applied Surface Science, 2023, 614, 156147.	3.1	6

#	Article	IF	Citations
1594	Adaptive learning-driven high-throughput synthesis of oxygen reduction reaction Feâ€“Nâ€“C electrocatalysts. Journal of Power Sources, 2023, 559, 232583.	4.0	4
1595	Evaluating the sustainability of the hydrogen economy using multi-criteria decision-making analysis in Korea. Renewable Energy, 2023, 204, 485-492.	4.3	12
1596	Techno-economic analysis of different shades of renewable and non-renewable energy-based hydrogen for fuel cell electric vehicles. Renewable and Sustainable Energy Reviews, 2023, 174, 113153.	8.2	47
1597	Nickel-iron catalyst for decomposition of methane to hydrogen and filamentous carbon: Effect of calcination and reaction temperatures. AEJ - Alexandria Engineering Journal, 2023, 67, 129-141.	3.4	10
1598	Operando spectroscopies capturing surface reconstruction and interfacial electronic regulation by FeOOH@Fe2O3@Ni(OH)2 heterostructures for robust oxygen evolution reaction. Journal of Colloid and Interface Science, 2023, 636, 501-511.	5.0	11
1599	Hydrogen storage in depleted gas reservoirs: A comprehensive review. Fuel, 2023, 337, 127032.	3.4	52
1600	2D/2D BiOIO3/g-C3N4 S-scheme hybrid heterojunction with face-to-face interfacial contact for effective photocatalytic H2 production and norfloxacin degradation. Journal of Materials Science and Technology, 2023, 148, 19-30.	5.6	22
1601	Alternative vehicular fuels for environmental decarbonization: A critical review of challenges in using electricity, hydrogen, and biofuels as a sustainable vehicular fuel. Chemical Engineering Journal Advances, 2023, 14, 100442.	2.4	33
1602	Fuel Cell Systems for Maritime: A Review of Research Development, Commercial Products, Applications, and Perspectives. Processes, 2023, 11, 97.	1.3	24
1603	A Proposal for the Transformation of Fossil Fuel Energy Economies to Hydrogen Economies Through Social Entrepreneurship. , 2022, , 316-334.		1
1604	South Korea's national pursuit for fuel cell electric vehicle development: The role of government R&D programs over 30 years (1989â€“2021). International Journal of Hydrogen Energy, 2023, 48, 9540-9550.	3.8	5
1605	An Analysis of the Potential of Hydrogen Energy Technology on Demand Side Based on a Carbon Tax: A Case Study in Japan. Energies, 2023, 16, 342.	1.6	1
1606	Activity of Patents in Fuel Cells and Hydrogen Production in the Context of Passenger Car Fleet in the V4 Countries. Studies in Logic, Grammar and Rhetoric, 2022, 67, 475-497.	0.2	0
1607	Modern Technologies of Hydrogen Production. Processes, 2023, 11, 56.	1.3	17
1608	Hydrogen economy for sustainable development in GCC countries: A SWOT analysis considering current situation, challenges, and prospects. International Journal of Hydrogen Energy, 2023, 48, 10315-10344.	3.8	40
1609	Triple Interface Optimization of Ruâ€based Electrocatalyst with Enhanced Activity and Stability for Hydrogen Evolution Reaction. Advanced Functional Materials, 2023, 33, .	7.8	22
1610	A Brief Review of Hydrogen Production Methods and Their Challenges. Energies, 2023, 16, 1141.	1.6	35
1611	Bimetallic Niâ€“Co selenide heterostructure aerogel for highly efficient overall water splitting. Materials Chemistry Frontiers, 2023, 7, 1365-1373.	3.2	11

#	Article	IF	Citations
1612	Advances in high-voltage supercapacitors for energy storage systems: materials and electrolyte tailoring to implementation. Nanoscale Advances, 2023, 5, 615-626.	2.2	32
1613	Bimetallic ZIF-Based PtCuCo/NC Electrocatalyst Pt Supported with an N-Doped Porous Carbon for Oxygen Reduction Reaction in PEM Fuel Cells. ACS Applied Energy Materials, 2023, 6, 1575-1584.	2.5	5
1614	High-consistency proton exchange membrane fuel cells enabled by oxygen-electron mixed-pathway electrodes via digitalization design. Science Bulletin, 2023, 68, 266-275.	4.3	10
1615	Decoupled alkaline water electrolysis by a K_{0.5}MnO₂-Ti mediator via K-ion insertion/extraction. Chemical Communications, 2023, 59, 2138-2141.	2.2	2
1616	Direct Quinone Fuel Cells. Journal of the American Chemical Society, 2023, 145, 2653-2660.	6.6	20
1617	Closed-Pore Formation in Oxygen Electrodes for Solid Oxide Electrolysis Cells Investigated by Impedance Spectroscopy. ACS Applied Materials & Interfaces, 2023, 15, 8076-8092.	4.0	1
1618	Multistage interfacial engineering of 3D carbonaceous Ni2P nanospheres/nanoflowers derived from Ni-BTC metalâ€“organic frameworks for overall water splitting. Journal of Colloid and Interface Science, 2023, 638, 582-594.	5.0	9
1619	Business Operation Optimization of Electricity Hydrogen Integrated Station Based on Multi-agent Game Analysis. , 2022, , .		0
1620	Ultrafine Pt nanoparticles anchored on coreâ€“shell structured zeoliteâ€“carbon for efficient catalysis of hydrogen generation. RSC Advances, 2023, 13, 7673-7681.	1.7	2
1621	Green pepper-derived hierarchical porous carbon for supercapacitors with high performance. Materials Advances, 2023, 4, 2192-2200.	2.6	2
1622	Absolute environmental sustainability assessment of renewable dimethyl ether fuelled heavy-duty trucks. Sustainable Energy and Fuels, 2023, 7, 1930-1941.	2.5	2
1623	Hydrogen Sustainability for Short Term Storage of Wind Farm Electricity. Lecture Notes in Mechanical Engineering, 2023, , 261-268.	0.3	0
1624	Environmental constrained medium-term energy planning: The case study of an Italian university campus as a multi-carrier local energy community. Energy Conversion and Management, 2023, 278, 116701.	4.4	8
1625	Green Hydrogen as a Potential Solution for Reducing Carbon Emissions: A Review. Journal of Energy Research and Reviews, 2023, 13, 1-10.	0.0	0
1626	Electrocatalysts based on MoS₂ and WS₂ for hydrogen evolution reaction: An overview. , 2023, 2, .		17
1627	New Insights into Cu/Cu₂O/CuO Nanocomposite Heterojunction Facilitating Photocatalytic Generation of Green Fuel and Detoxification of Organic Pollutants. Journal of Physical Chemistry C, 2023, 127, 7095-7106.	1.5	10
1628	Facile electrodeposition synthesis and super performance of nano-porous Ni-Fe-Cu-Co-W high entropy alloy electrocatalyst. Surface and Coatings Technology, 2023, 459, 129407.	2.2	12
1629	Manipulating active sites on carbon nanotube materials for highly efficient hydrogen storage. Applied Surface Science, 2023, 619, 156740.	3.1	6

#	Article	IF	Citations
1630	Hollow Spherical Pd/CdS/NiS with Carrier Spatial Separation for Photocatalytic Hydrogen Generation. Nanomaterials, 2023, 13, 1326.	1.9	1
1631	Investigation of an electrode reversal method and degradation recovery mechanisms of PEM fuel cell. Electrochimica Acta, 2023, 449, 142181.	2.6	3
1632	Investigations on the mechanical behavior of composite pipes considering process-induced residual stress. Engineering Fracture Mechanics, 2023, 284, 109122.	2.0	1
1633	Exploring the recent advancements in metal-organic framework-based photocatalysts for hydrogen production. Materials Today Sustainability, 2023, 22, 100337.	1.9	2
1634	Small-size MOF derived highly active low-platinum catalysts for oxygen reduction reactions. Journal of Solid State Chemistry, 2023, 322, 123899.	1.4	3
1635	Do we really need a seasonal energy storage? Results for photovoltaic technology in an unfavourable scenario. Renewable Energy Focus, 2023, 45, 141-149.	2.2	4
1636	Robust TiO2/CuS@TiO2 composites loaded on Ti mesh with outstanding stability and photothermal effects for the enhanced photo-degradation of organic pollutions in a flowing device. Applied Surface Science, 2023, 623, 157006.	3.1	4
1637	CoPx co-catalyst decorated CdS hollow nanocubes as efficient photocatalysts for hydrogen production under visible light irradiation. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2023, 666, 131368.	2.3	2
1638	Seasonal hydrogen storage for residential on- and off-grid solar photovoltaics prosumer applications: Revolutionary solution or niche market for the energy transition until 2050?. Applied Energy, 2023, 340, 121009.	5.1	10
1639	Ultrafine sulfurâ€“doped carbon nanoparticles enhanced the transmembrane bioelectricity of Clostridium butyricum for biohydrogen production. Nano Energy, 2023, 110, 108382.	8.2	4
1640	Structure evolution and durability of Metal-Nitrogen-Carbon (MÂ=ÂCo, Ru, Rh, Pd, Ir) based oxygen evolution reaction electrocatalyst: A theoretical study. Journal of Colloid and Interface Science, 2023, 640, 170-178.	5.0	11
1641	Photoreforming of Waste Polymers for Sustainable Hydrogen Fuel and Chemicals Feedstock: Waste to Energy. Chemical Reviews, 2023, 123, 4443-4509.	23.0	47
1642	Policy design for green hydrogen. Renewable and Sustainable Energy Reviews, 2023, 178, 113216.	8.2	10
1643	A review of solar hybrid photovoltaic-thermal (PV-T) collectors and systems. Progress in Energy and Combustion Science, 2023, 97, 101072.	15.8	42
1644	Hydrogen-Based Dense Energy Carriers in Energy Transition Solutions. , 2022, , 1-21.		0
1645	In-situ estimation of water transfer parameters in a proton exchange membrane fuel cell. Journal of Power Sources, 2023, 560, 232719.	4.0	1
1646	Multi-technique characterization of spray coated and roll-to-roll coated gas diffusion fuel cell electrodes. Journal of Power Sources, 2023, 560, 232670.	4.0	1
1647	A novel integrated hydrogen and natural gas liquefaction process utilizing a modified double mixed refrigerant process pre-cooling system. Applied Thermal Engineering, 2023, 224, 120085.	3.0	4

#	Article	IF	Citations
1648	Influence of liquid water accumulation on the impedance of a PEM fuel cell operating in dead end mode: Physical modeling and experimental validation. Electrochimica Acta, 2023, 443, 141940.	2.6	4
1649	Hydrogenase-based electrode for hydrogen sensing in a fermentation bioreactor. Biosensors and Bioelectronics, 2023, 225, 115106.	5.3	3
1650	Probing the activity and stability of MoO₂ surface nanorod arrays for hydrogen evolution in an anion exchange membrane multi-cell water electrolysis stack. Journal of Materials Chemistry A, 2023, 11, 5789-5800.	5.2	5
1651	Study on internal dynamic response during cold start of proton exchange membrane fuel cell with parallel and serpentine flow fields. Journal of Power Sources, 2023, 561, 232609.	4.0	4
1652	Fe/N/S Co-doped Porous Carbon from the Co-processing Residue of Coal and Heavy Oil for an Efficient Oxygen Reduction Reaction. Industrial & Engineering Chemistry Research, 2023, 62, 2536-2547.	1.8	2
1653	Atomically precise electrocatalysts for oxygen reduction reaction. CheM, 2023, 9, 280-342.	5.8	36
1654	The development of techno-economic assessment models for hydrogen production via photocatalytic water splitting. Energy Conversion and Management, 2023, 279, 116750.	4.4	6
1655	In Situ Detection of Iron in Oxidation States â‰¥ IV in Cobaltâ€Iron Oxyhydroxide Reconstructed during Oxygen Evolution Reaction. Advanced Energy Materials, 2023, 13, .	10.2	16
1656	Dielectric behavior and phase transition of La2Mo2O9 films synthesized by spray pyrolysis technique. Journal of Materials Science: Materials in Electronics, 2023, 34, .	1.1	1
1660	A novel multi-filament winding technique for type III composite pressure vessel: From CFRP cross-undulation concept to structural performance validation. International Journal of Hydrogen Energy, 2023, 48, 17237-17250.	3.8	6
1661	Measurement of hydrogen dispersion in rock cores using benchtop NMR. International Journal of Hydrogen Energy, 2023, 48, 17251-17260.	3.8	2
1662	Cost Efficiency Analysis of H2 Production from Formic Acid by Molecular Catalysts. Energies, 2023, 16, 1723.	1.6	6
1663	Development of fuelling protocols for gaseous hydrogen vehicles: a key component for efficient and safe hydrogen mobility infrastructures. Clean Energy, 2023, 7, 23-29.	1.5	0
1665	Cobalt nickel boride as electrocatalyst for the oxidation of alcohols in alkaline media. JPhys Energy, 2023, 5, 024005.	2.3	4
1666	Simultaneous characterizations of segmented electrochemical characteristics and temperature distribution in the hythane-fueled direct internal reforming solid oxide fuel cell. Chemical Engineering Journal, 2023, 460, 141822.	6.6	1
1667	Hierarchically Macroâ€“Microporous Covalent Organic Frameworks for Efficient Proton Conduction. Advanced Functional Materials, 2023, 33, .	7.8	19
1668	Optimal design of a coupled photovoltaicâ€“electrolysis-battery system for hydrogen generation. Sustainable Energy and Fuels, 2023, 7, 1395-1414.	2.5	1
1669	Nanoscale-mixed ZnNiCu hydroxide composite catalyst for improved photocatalytic hydrogen evolution. International Journal of Hydrogen Energy, 2023, 48, 18657-18669.	3.8	0

#	Article	IF	Citations
1670	Ambient Electrosynthesis toward Singleâ€Atom Sites for Electrocatalytic Green Hydrogen Cycling. Advanced Materials, 2023, 35, .	11.1	26
1671	Bioplastic production in terms of life cycle assessment: A state-of-the-art review. Environmental Science and Ecotechnology, 2023, 15, 100254.	6.7	41
1672	Stability of Catalytic Centres in Lightâ€Driven Hydrogen Evolution by Diâ€•and Oligonuclear Photocatalysts. Chemistry - A European Journal, 2023, 29, .	1.7	3
1673	All-pH Hydrogen Evolution by Heterophase Molybdenum Carbides Prepared via Mechanochemical Synthesis. ACS Sustainable Chemistry and Engineering, 2023, 11, 3585-3593.	3.2	9
1674	Boosting the output of hydrocapacitors by structure modification. Materials Today Chemistry, 2023, 29, 101405.	1.7	1
1675	Effect of membrane deposition methods on the performance of membrane electrode assemblies. Fuel Cells, 2023, 23, 161-169.	1.5	3
1676	Optimization on Composition and Structure of Catalyst Layer for High-Temperature Polymer Electrolyte Membrane Fuel Cells. Journal of Electrochemical Energy Conversion and Storage, 2023, 20, .	1.1	2
1677	Ti3AlCN MAX for tailoring MgH2 hydrogen storage material: from performance to mechanism. Rare Metals, 2023, 42, 1923-1934.	3.6	30
1678	Application of nanocomposites in fuel cell. , 2023, , 129-147.		1
1679	Facile Solid-State Synthesis of Supported PtNi and PtCo Bimetallic Nanoparticles for the Oxygen Reduction Reaction. Chemistry of Materials, 2023, 35, 2006-2015.	3.2	5
1680	Electrocatalysis of the hydrogen oxidation reaction on a platinum-decorated nanoporous gold surface studied by scanning electrochemical microscopy. Journal of Electroanalytical Chemistry, 2023, 934, 117294.	1.9	3
1681	Preparation of Cu/Sn-Organic Nano-Composite Catalysts for Potential Use in Hydrogen Evolution Reaction and Electrochemical Characterization. Nanomaterials, 2023, 13, 911.	1.9	2
1682	Evaluation and analysis of leading position in hydrogen fuel cell vehicle innovation network and the influential factors: a case of patent citations in China. Environmental Science and Pollution Research, 2023, 30, 53339-53354.	2.7	2
1683	Porous Ironâ€Nitrogenâ€Carbon Electrocatalysts for Anion Exchange Membrane Fuel Cells (AEMFC). ChemElectroChem, 2023, 10, .	1.7	3
1684	Recent Advances on Transitionâ€Metalâ€Based Layered Double Hydroxides Nanosheets for Electrocatalytic Energy Conversion. Advanced Science, 2023, 10, .	5.6	30
1685	Life cycle assessment of earth-abundant photocatalysts for enhanced photocatalytic hydrogen production. International Journal of Hydrogen Energy, 2023, 48, 20077-20095.	3.8	2
1686	Enhancing the activity and stability of Cu₂O nanorods via coupling with a NaNbO₃/SnS₂ heterostructure for photoelectrochemical water-splitting. New Journal of Chemistry, 2023, 47, 6294-6304.	1.4	1
1687	Hybrid solar-driven hydrogen generation by sorption enhancedâ€“chemical looping and hydrocarbon reforming coupled with carbon capture and Rankine cycle. International Journal of Hydrogen Energy, 2023, 48, 19936-19952.	3.8	5

#	Article	IF	Citations
1688	Ensemble Effect of Ruthenium Single-Atom and Nanoparticle Catalysts for Efficient Hydrogen Evolution in Neutral Media. ACS Applied Materials & Interfaces, 0, , .	4.0	0
1689	Effects of functional groups in iron porphyrin on the mechanism and activity of oxygen reduction reaction. RSC Advances, 2023, 13, 8523-8534.	1.7	2
1690	Doping and Structure-Promoted Destabilization of NaBH₄ Nanocubes for Hydrogen Storage. ACS Applied Nano Materials, 2023, 6, 4178-4189.	2.4	4
1691	Development of High-Performance Polymer Electrolyte Membranes through the Application of Quantum Dot Coatings to Nafion Membranes. ACS Applied Materials & Interfaces, 2023, 15, 15616-15624.	4.0	4
1692	Roomâ€Temperature Hydrogen Sensor with High Sensitivity and Selectivity using Chemically Immobilized Monolayer Singleâ€Walled Carbon Nanotubes. Advanced Functional Materials, 2023, 33, .	7.8	13
1693	A 3D printed alveolus-inspired flow field for direct methanol fuel cells with enhanced performance and durability. Journal of Materials Chemistry A, 2023, 11, 8845-8857.	5.2	3
1694	Ternary compound heterojunction from isomerism h-CdS/c-CdSe exhibits boosting photoelectrochemical and hydrogen evolution reaction properties. International Journal of Hydrogen Energy, 2023, 48, 20324-20337.	3.8	10
1695	Activityâ€“Stability Trends of the Sb-SnO₂@RuO_x Heterostructure toward Acidic Water Oxidation. ACS Applied Materials & Interfaces, 2023, 15, 15332-15343.	4.0	3
1696	Potential global warming impact of 1ÂkW polymer electrolyte membrane fuel cell system for residential buildings on operation phase. Energy for Sustainable Development, 2023, 73, 376-386.	2.0	3
1697	Synergistic Utilization of a CeO₂-Anchored Bifunctionalized Metalâ€“Organic Framework in a Polymer Nanocomposite toward Achieving High Power Density and Durability of PEMFC. ACS Sustainable Chemistry and Engineering, 2023, 11, 5270-5283.	3.2	14
1698	EMI and IEMI Impacts on the Radio Communication Network of Electrified Railway Systems: A Critical Review. IEEE Transactions on Vehicular Technology, 2023, 72, 10409-10424.	3.9	1
1699	NiMo-MOF-Derived Carbon-Armored Ni₄Mo Alloy of an Interwoven Nanosheet Structure as an Outstanding pH-Universal Catalyst for Hydrogen Evolution Reaction at High Current Densities. ACS Applied Materials & Interfaces, 2023, 15, 20130-20140.	4.0	11
1700	Optimization of metal-supported solid oxide electrolysis cells with infiltrated catalysts. International Journal of Hydrogen Energy, 2023, 48, 21578-21585.	3.8	4
1701	High Purity Hydrogen Separation with HT-PBI Based Electrochemical Pump Operation at 120 Â°C. Journal of the Electrochemical Society, 2023, 170, 034510.	1.3	1
1702	Amorphous Oxysulfide Reconstructed from Spinel NiCo₂S₄ for Efficient Water Oxidation. Small, 2023, 19, .	5.2	5
1703	Graphited carbon black curled nanoribbons simultaneously boosted stability and electrocatalytic activity of 1T-MoS2/MoO3 toward hydrogen evolution. Journal of Alloys and Compounds, 2023, 949, 169831.	2.8	6
1704	Phase Segregation in Cu_{0.5}Ni_{0.5} Alloy Boosting Ureaâ€Assisted Hydrogen Production in Alkaline Media. Small, 2023, 19, .	5.2	7
1705	Ultrafine Ru nanoparticles anchored on coreâ€“shell structured zeolite-carbon for efficient catalysis of hydrogen generation. Rare Metals, 2023, 42, 2324-2334.	3.6	3

#	Article	IF	Citations
1706	Anion Intercalation into Graphite Drives Surface Wetting. Journal of the American Chemical Society, 2023, 145, 8007-8020.	6.6	9
1707	Ultraâ€Fast Inâ€‰Situ Reconstructed Nickel (Oxy)Hydroxide Nanoparticle Crosslinked Structure for Superâ€Efficient Alkaline Water Electrolysis by Sacrificing Template Strategy. Small Structures, 2023, 4, .	6.9	5
1708	Decoupling the Contributions of Different Instability Mechanisms to the PEMFC Performance Decay of Non-noble Metal O₂-Reduction Catalysts. Journal of the American Chemical Society, 2023, 145, 7845-7858.	6.6	7
1709	Coal to Biomass Transition as the Path to Sustainable Energy Production: A Hypothetical Case Scenario with the Conversion of Pego Power Plant (Portugal). Applied Sciences (Switzerland), 2023, 13, 4349.	1.3	2
1710	Scope of Hydrogen-Based Vehicles in India: A Review. I-manager S Journal on Power Systems Engineering, 2022, 10, 33.	0.1	0
1711	Overcoming the Electrode Challenges of High-Temperature Proton Exchange Membrane Fuel Cells. Electrochemical Energy Reviews, 2023, 6, .	13.1	19
1712	Effects of Electrostatic Force and Network Structure on the Stability of Proton-Exchange Membrane Fuel Cell Catalyst Ink. ACS Applied Materials & Interfaces, 2023, 15, 19459-19469.	4.0	3
1713	Global Hydrogen and Synfuel Exchanges in an Emission-Free Energy System. Energies, 2023, 16, 3277.	1.6	5
1714	Bifunctional and regenerable molecular electrode for water electrolysis at neutral pH. Journal of Materials Chemistry A, 2023, 11, 13331-13340.	5.2	4
1715	A review of renewable hydrogen hybrid energy systems towards a sustainable energy value chain. Sustainable Energy and Fuels, 2023, 7, 2042-2062.	2.5	8
1716	Durable corrosion-resistant coating based in graphene oxide for cost-effective fuel cells components. IScience, 2023, 26, 106569.	1.9	1
1717	Simulation and optimization of an innovative thermochemical water splitting cycle for the production of green hydrogen. International Journal of Hydrogen Energy, 2023, 48, 25263-25273.	3.8	5
1718	Biological Hydrogen Production from Biowaste Using Dark Fermentation, Storage and Transportation. Energies, 2023, 16, 3321.	1.6	2
1719	Nanostructuring of Mg-Based Hydrogen Storage Materials: Recent Advances for Promoting Key Applications. Nano-Micro Letters, 2023, 15, .	14.4	29
1720	Optimization of the hydrogen production process coupled with membrane separation and steam reforming from coke oven gas using the response surface methodology. International Journal of Hydrogen Energy, 2023, 48, 26238-26250.	3.8	3
1721	Optimizing electronic structure of NiFe LDH with Mn-doping and Fe0.64Ni0.36 alloy for alkaline water oxidation under industrial current density. Nano Research, 2023, 16, 8953-8960.	5.8	2
1722	One-Step Polyol Method for Well-Dispersed and Heavy-Loaded Ir and Ru Catalysts in Hydrazine Decomposition. New Journal of Chemistry, 0, , .	1.4	0
1723	Electrochemical Performance of Chemically Integrated N-Doped Carbon Dots/Bi₂MoO₆ Nanocomposites for Symmetric Supercapacitors. Energy & Fuels, 2023, 37, 6841-6853.	2.5	3

#	Article	IF	Citations
1724	Enhanced photocatalytic performance of hollow spherical CdS QDs@ZrO2â€“TiO2 composites with double Z-scheme heterostructures. International Journal of Hydrogen Energy, 2023, 48, 27582-27598.	3.8	4
1725	Storage of atomic hydrogen in multilayer graphene. International Journal of Hydrogen Energy, 2023, 48, 27944-27959.	3.8	3
1726	Advances and prospects of biodegradable polymer nanocomposites for fuel cell applications. , 2023, , 599-637.		0
1727	Decarbonizing the cement and concrete industry: A systematic review of socio-technical systems, technological innovations, and policy options. Renewable and Sustainable Energy Reviews, 2023, 180, 113291.	8.2	31
1728	Iron and cobalt phthalocyanine embedded electrospun carbon nanofiber-based catalysts for anion exchange membrane fuel cell cathode. Journal of Catalysis, 2023, 422, 117-130.	3.1	12
1729	A Recyclable Standalone Microporous Layer with Interpenetrating Network for Sustainable Fuel Cells. Advanced Materials, 2023, 35, .	11.1	1
1735	Recent Developments in MOFs Materials for the Photocatalytic H2 Production by Water Splitting. Green Chemistry and Sustainable Technology, 2023, , 439-448.	0.4	0
1747	Development of a Sustainability Strategy for Fuel Cells Using Life Cycle Analysis and Expert Interviews. Lecture Notes in Mechanical Engineering, 2023, , 892-900.	0.3	0
1761	Comparison ofÂRenewable Large-Scale Energy Storage Power Plants Based onÂTechnical andÂEconomic Parameters. , 2023, , 235-266.		0
1782	Graphene-based Smart Energy Materials for Fuel and Solar Cell Applications. , 2023, , 136-167.		0
1809	Superprotonic Conductivity in Metalâ€“Organic Frameworks by Charged-Layer-Mediated Proton Conduction. ACS Energy Letters, 2023, 8, 3095-3101.	8.8	5
1813	Heterojunction Engineering for Electrocatalytic Applications. ACS Applied Energy Materials, 2023, 6, 7737-7784.	2.5	5
1814	A review of energy storage applications of lead-free BaTiO3-based dielectric ceramic capacitors. Energy, Ecology and Environment, 2023, 8, 401-419.	1.9	5
1844	Impact of the Crystallinity of Covalent Organic Frameworks on Photocatalytic Hydrogen Evolution. Crystal Growth and Design, 2023, 23, 4701-4719.	1.4	7
1862	Advances in Fuel Cell Technologies for Hydrogen Production. Impact of Meat Consumption on Health and Environmental Sustainability, 2023, , 111-133.	0.4	0
1868	The design of alternative anodic reactions paired with electrochemical CO₂ reduction. Green Chemistry, 2023, 25, 5320-5337.	4.6	5
1876	2D transition metal-based phospho-chalcogenides and their applications in photocatalytic and electrocatalytic hydrogen evolution reactions. Journal of Materials Chemistry A, 2023, 11, 16933-16962.	5.2	9
1887	Advances and Perspectives of H₂ Production from NH₃ Decomposition in Membrane Reactors. Energy & Fuels, 2023, 37, 10775-10798.	2.5	1

#	Article	IF	Citations
1901	Techno-enviro-economic analysis of H2 economy in China from H2 production to utilization. Computer Aided Chemical Engineering, 2023, , 2959-2964.	0.3	0
1906	The sustainable energy development in Southern Italy through green hydrogen: a cost analysis. , 2023, , .		0
1908	Hydrogen utilization in transportation systems. , 2023, , 283-329.		0
1909	Hydrogen-Based Dense Energy Carriers in Energy Transition Solutions. , 2023, , 2987-3007.		0
1912	Hydrogen economy and transition to hydrogen energy. , 2023, , 331-346.		0
1916	Hydrogen Energy and Sustainable Development. , 2023, , .		0
1933	Total cost of ownership analysis of fuel cell electric vehicles in India. , 2024, , 379-400.		0
1934	Hydrogen economy and international hydrogen strategies. , 2024, , 3-38.		0
1950	A chemist's guide to photoelectrode development for water splitting â€“ the importance of molecular precursor design. , 2023, 1, 832-873.		2
1951	The current status of hydrogen energy: an overview. RSC Advances, 2023, 13, 28262-28287.	1.7	4
1992	Hydrogen Applications. , 2023, , 653-727.		0
2030	Electrochemical hydrogen production: sustainable hydrogen economy. Green Chemistry, 2023, 25, 9543-9573.	4.6	3
2078	The Strategy and Future of Biotechnology in Protecting the Global Environment. , 0, , .		0
2084	Economic and Environmental Feasibility Study of Fossil Fuel, Electric and Hydrogen Fuel Cell Vehicles in Perspective of Bangladesh. , 2023, , .		0
2106	Development of photoelectrochemical water splitting photoanode: bibliometric analysis and artificial intelligence advancement. Clean Technologies and Environmental Policy, 0, , .	2.1	0
2117	Application of Hydrogen as a Fuel in Domestic Appliances. , 2023, , .		0
2120	Fuel cells â€“ Proton-exchange membrane fuel cell | PEMFC: History, introduction, overview, applications, market. , 2023, , .		0
2136	A comprehensive review on the application of semiconducting materials in the degradation of effluents and water splitting. Environmental Science and Pollution Research, 0, , .	2.7	0

#	Article	IF	Citations
2158	Investigation of Two-Phase Flow Interfaces in Gas Flow Channels of Proton Exchange Membrane Fuel Cells with Various Channel Parameters. Springer Proceedings in Physics, 2024, , 281-289.	0.1	0
2171	Highly purified hydrogen production from ammonia for proton exchange membrane fuel cell. , 2024, , 95-132.		0
2180	Hydrogen Production from Liquid Hydrogen Carriers. Green Energy and Technology, 2024, , 213-229.	0.4	0
2205	Electrochemical synthesis of ammonia. , 2024, , 63-88.		0
2236	Fundamentals of Reaction, Kinetics and Mechanism of Methanol Production. , 2024, , .		0